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TAX REVIEW COMMISSION
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IS HAWAII'S TAX SYSTEM ADEQUATE?

By James Mak
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Tax Review Commission Staff

Introduction

The purpose of this paper is to examine the revenue adequacy of Hawaii's tax system. The adequacy issue focuses on two questions: (1) Does the current tax system generate enough revenues to meet State Government expenditure requirements?; and (2) If it does, does it generate too much revenues?

The study considers only the revenue adequacy of the State General Fund (GF). The adequacy of county finances will be addressed by the U.S. Advisory Commission on Intergovernmental Relations (ACIR) in a separate report. A separate study is also being conducted to examine the adequacy of the state special funds.

General Fund Revenues

The GF revenues consist of tax and non-tax revenues, with tax revenues exceeding non-tax revenues by a sizeable margin. In no year since FY1977 has GF tax revenues comprised less than 89% of total GF revenues. Table 1 presents the composition of GF revenues for FY1988. Note that the general excise (GET) and individual income taxes comprised 73.7% of total GF revenues and nearly 83% of total GF tax revenues.

Constitutional Spending Limitation

Article VII, Section 9 of the 1978 Hawaii State Constitution imposed a ceiling on State government expenditures by limiting the growth of GF appropriations, excluding federal funds received, to the estimated growth of the State's economy.[1] Act 277, which implemented the constitutional requirement defined the rate of growth of the State's economy as the rate of increase in total state personal income averaged over the preceding three calendar years. The Hawaii Constitution permits the Legislature to exceed the spending limit by a two-thirds majority vote of each house of the State Legislature; however, the Legislature must "set forth the dollar amount and the rate by which the ceiling will be exceeded and the reasons therefor."

Each year's expenditure ceiling is based not on the prior year's GF appropriations, but on the prior year's ceiling. In its 1982 study of the expenditure ceiling, the Legislative Auditor noted the logic and consistency of this approach.[2]

Thus, if the Legislature does not appropriate up to the ceiling for a particular year, it would not, in a

1. Legislative Auditor, Study of the State of Hawaii's Expenditure Ceiling, Report No. 82-5 (March, 1982), p. 1. The same Article also requires that the aggregate expenditures of the judicial and legislative branches, when added to the proposed general fund expenditures, shall not exceed the general fund expenditure ceiling established by the legislature.

2. Ibid., p. 15.

TABLE 1. GENERAL FUND REVENUES: FY 1988

	Amount ($ Millions)	% of Total GF Revenues
Tax Revenues:	$1,849.5	89.1%
General Excise	905.5	43.6
Individual Income	625.6	30.1
Corporate Income	66.0	3.2
Public Service Co.	63.6	3.1
Insurance Premiums	38.0	1.8
Tobacco & Licenses	21.3	1.0
Liquor & Permits	38.2	1.8
Banks & Financial Corps.	12.0	0.6
Inheritance & Estate	7.3	0.4
Transient Accommodations	67.3	3.2
Miscellaneous	4.7	0.2
Non-Tax Revenues:	$227.1	10.9%
Charges for Current Svs.	94.6	4.6
Revenues from Use of Money	59.3	2.9
Repayment of Loans & Adv.	41.4	2.0
Judiciary Br. Revenues	15.5	0.7
Fines & Forfeitures	0.4	0.0
Federal	8.7	0.4
Revenues from Agencies	2.2	0.1
Licenses	3.9	0.2
Other Revenues	1.1	0.1
Total Tax & Non-Tax Rev:	$2,076.6	100.0%

Source: Letter from Council on Revenues Chair J. Ming Chew to Governor John Waihee dated June 1, 1989

sense, be penalized, since the next year's ceiling would reflect a growth factor over the present ceiling, not the appropriations. On the other hand, if the Legislature makes appropriations in excess of the ceiling, it suffers the penalty of having to confine appropriations to the ceiling-to-ceiling growth unless it is willing to again exceed the ceiling.

Table 2 compares actual expenditure ceilings vs. GF appropriations for fiscal years (ending) 1979 to FY1988 with estimates for FY1989 to FY1991. Since Act 277 was passed too late to affect FY1981, only in FY1990 did appropriations exceed the expenditure ceiling. In other years, appropriations were below the ceilings. The unwillingness of the state government to spend all the funds it was permitted to spend, can be explained by fiscal conservatism during much of the 1980s in response to declining rates of growth of revenues in the early 1980s combined with uncertainties regarding the prospects for the economy and the continuation of federal funds in an environment of mounting federal budget deficits. As a result of the state's fiscal restraint, GF expenditures exceeded GF revenues in only three years between FY 1980 and FY1988 (see Table 3); and during this entire period, the state government accumulated a GF budget surplus of $404 million. By contrast, had the state government chosen to spend up to the expenditure ceilings, it would have amassed an accumulated deficit in excess of $219 million during the same years.[3]

The need to impose fiscal restraint on state government expenditures during the 1980s is not evidence of a fundamental inadequacy of the state tax system, as Hawaii's tax system is highly volatile in the short-run. Table 3 shows that between FY1979 and FY1988, annual growth of GF revenues varied from -1.1% to +17.7%. A better way to evaluate the structural adequacy of Hawaii's state tax system is to look at the long-run relationship between its revenues and expenditures.

What assumption should we make about the long-run growth of GF expenditures? The simplest assumption is that in the long run, GF appropriations will rise to the levels of the expenditure ceilings. This would probably impart an upward bias to the revenue requirements, since appropriations during the 1980s have generally been below the expenditure ceilings. Thus, given that Hawaii's Constitution requires that the rate of growth of state government spending cannot exceed the rate of growth of

TABLE 2. COMPARISON OF GF APPROPRIATIONS AND EXPENDITURE CEILINGS ($ in millions)

Fiscal Year	Expenditure Ceiling	General Fund Appropriations	Appropriations as % of Ceiling
1978-79		$ 918.6	-
1979-80	$1,004.9	1,001.8	99.7%
1980-81	1,109.5	1,177.9	106.2
1981-82	1,256.2	1,252.5	99.7
1982-83	1,421.0	1,396.7	98.3
1983-84	1,567.2	1,426.6	91.0
1984-85	1,691.2	1,499.2	88.6
1985-86	1,831.4	1,646.3	89.9
1986-87	1,881.0	1,732.3	92.1
1987-88	2,035.1	2,009.8	98.8
1988-89*	2,169.5	2,165.5	99.8
1989-90*	2,344.2	2,707.9	115.5
1990-91*	2,535.2	2,475.4	97.6

*Estimated

Source: Letter from Budget Director Yukio Takemoto to Tax Review Commission dated May 26, 1989

TABLE 3. GENERAL FUND REVENUES AND EXPENDITURES ($ in millions)

Fiscal Year	General Fund Revenues	Percent Change	General Fund Expenditure	Percent Change
1979-80	$ 1,084.9	15.1	$ 972.1	10.7
1980-81	1,198.7	10.1	1,146.0	17.9
1981-82	1,185.8	-1.1	1,207.5	5.4
1982-83	1,252.5	5.6	1,333.0	10.4
1983-84	1,354.6	8.2	1,379.0	3.5
1984-85	1,475.5	8.9	1,451.1	5.2
1985-86	1,605.3	8.8	1,597.8	10.1
1986-87	1,889.8	17.7	1,687.7	5.6
1987-88	2,075.7	9.8	1,944.3	15.2

Source: Budget and Finance

3. The expenditures were calculated by multiplying the expenditure ceilings by .967, the ratio of actual expenditures to appropriations during FY1979 - FY1988.

Hawaii's personal income, the state tax system is adequate if GF tax and non-tax revenues grow at approximately the same rate as state personal income.[4]

Growth of Tax and Non-Tax Revenues: How Fast Must Taxes Grow?

GF non-tax revenues are highly volatile. Between FY1974-FY1987 nontax revenues grew at an average annual rate of 5.2%; since FY1977, they have grown at an average annual rate of 12.3%. However, the Department of Budget and Finance (B&F) forecasts no growth in non-tax revenues between FY1990 and FY1995.[5] This means that tax revenues must grow faster than the growth of personal income. Assuming no growth in non-tax revenues, and also assuming that we begin with a balanced budget with non-tax revenues comprising approximately 10% of total GF revenues[6], it would require GF tax collections to grow approximately 10% faster than the growth rate of personal income for the tax system to generate enough revenues to meet projected expenditure appropriations. In other words, the overall elasticity of the GF taxes must be close to 1.1.

(Income) Elasticity of General Fund Taxes

The elasticity of a particular tax measures the revenue responsiveness of that tax to a change in total personal income (other things held constant). It is measured as the percentage increase (or decrease) in tax revenues generated as a result of a 1% increase (or decrease) in nominal total personal income. If the elasticity (coefficient) is 1, then a 5% (say) increase (or decrease) in personal income would lead to a 5% increase (or decrease) in tax revenues.

An elastic tax has an elasticity coefficient greater than one, meaning that tax revenues will increase or decrease at a faster rate than the rate of change of state personal income. An elastic tax is a highly volatile tax since revenues tend to rise rapidly during an economic boom but fall rapidly during a bust.

An inelastic tax is one that has an elasticity coefficient less than one. The advantage of an inelastic tax is its stability since it is subject to less fluctuations than the state's economy. On the other hand, revenues would also grow at a slower pace than the overall growth in the state's economy, thus requiring periodic rate increases to keep pace with growing expenditure appropriations.

We computed the elasticities for each of twelve individual state taxes and the overall elasticities for the GF and total taxes by regressing the logarithm of their respective adjusted tax collection data for the calendar years 1974 to 1988 against the logarithm of nominal state personal income for the same years. Actual tax collection data were adjusted to include income tax rebates given to individual taxpayers since FY1982 as well as the contested liquor and insurance taxes held in escrow. This was necessary for us to evaluate the tax revenue-generating potential of the current tax system.

Table 4 presents the computed elasticities using data from calendar years 1973 to 1988. It shows that the GET, personal income, insurance premium, motor vehicle, and conveyance taxes are elastic. On the other hand, the fuel, public service company, corporate income, liquor, tobacco, banks and inheritance and estate taxes are inelastic. Overall, the GF taxes are fairly elastic with an overall elasticity value of 1.09. This means that in the long run GF tax revenues can be expected to rise by 1.09% whenever personal income rises by 1%. Our elasticity estimate for the GF taxes is close to the 1.1 elasticity estimate derived by Dr. Ward Mardfin in his study for the 1984 Tax Review Commission.

TABLE 4. TAX ELASTICITIES

Tax	Elasticity
General Fund	1.09
General Excise	1.07
Personal Income	1.14
Fuel	0.73
Public Service Company	0.99
Corporate Income	0.86
Insurance	1.36
Liquor	0.95
Tobacco	0.83
Motor Vehicle	1.18
Banks	0.66
Inheritance & Estate	0.82
Conveyance	1.14
All Other	0.27
Total Tax	1.09

Source: Computed from data supplied by the Department of Taxation and the Department of Business and Economic Development

We conclude from these results that over the long run, the current tax system will most likely be able to generate more than enough revenues to meet the normal growth of GF

4. This is only approximate. If current revenues exceed current expenditures and both grow at the same rate, the absolute difference between these two numbers (i.e. the surplus) will grow.

5. The estimates are as follows: FY1989 - $259 million; FY1990 - $223 million; FY1991 - $215 million; FY1992 - $216 million; FY1993 - $215 million; FY1994 - $213 million; and FY1995 - $214 million. (Data from B&F, General Fund Multi-Year Revenues From Sources Other Than Taxes, Fiscal Years 1988 - 1995), September 10, 1989.

6. In FY 1989, non-tax revenues were nearly 11% of total GF revenues.

expenditures.

Cyclical Fluctuations in General Fund Taxes

The elasticity estimates shown in Table 4 are long run estimates. There are, however, substantial year-to-year variations in the revenue response of each tax to fluctuations in personal income. These are shown in Appendix, Table A-1. Table 5 displays the short-run (i.e. annual) "elasticities" for the (adjusted) GF tax revenues. These were calculated by dividing the year-to-year percentage change in adjusted GF tax collections by the annual percentage change in the state personal income. Note that the "elasticities" range from a high of 1.97 in 1975 to a low of .37 in 1982. During the economic recessions of the early 1980s, GF tax collections grew much slower than the growth of personal income in Hawaii resulting in falling elasticities. Since then, GF tax collections, except for 1985, have generally grown much faster than personal income. Not surprisingly, during the early 1980s, the state government incurred budget deficits despite conservative spending policies; but since the mid-1980s, the state government has been accumulating annual surpluses. The budget surpluses have been augmented by the imposition of a transient accommodations tax (TAT) beginning in January, 1987 which has generated an additional $124 million for the state general fund during 1987 and 1988.

TABLE 5. SHORT-RUN GENERAL FUND "ELASTICITIES"

Calendar Year	"Elasticity"
1974	.95
1975	1.97
1976	.82
1977	.91
1978	.99
1979	1.58
1980	1.05
1981	.81
1982	.37
1983	.41
1984	1.55
1985	.99
1986	1.44
1987	1.60 (2.02)
1988	1.37 (1.44)
Average	1.12 (1.15)

Source: Computed from data supplied by the Department of Taxation and the Department of Business and Economic Development. The values in ( ) include the transient accommodation tax.

The failure of tax receipts and expenditures to move together has, at times, posed difficult budgetary problems for the State. Lagging tax collections have frequently induced the State to impose unanticipated last-minute budgetary cuts on government programs, producing disruptive consequences on the programs and the public.

It is important to emphasize again that the existence of periodic revenue short-falls is insufficient evidence to indicate that there is a structural inadequacy in Hawaii's tax system. The occasional short-run imbalance between revenue collections and expenditure requirements can be alleviated by establishing a budget stabilization fund, as long as revenues and expenditures are balanced in the long run. Our long-run elasticity estimate for the GF tax collections (1.09) suggests that over time, Hawaii's tax system is more likely to produce budget surpluses than deficits.

Fiscal Prospects For The 1990s

In his presentation to the Tax Review Commission (June 6, 1989), Budget Director Yukio Takemoto submitted a GF Financial Plan (B&F Plan) for FY1988 to FY1995 which is summarized in Table 6. According to the B&F Plan, the accumulated surplus for the General Fund is projected to grow to $1.8 billion by FY1995. The revenue projections in Table 6 were prepared by the Council on Revenues, an independent body appointed by the Governor and the Legislature to forecast collections for the State. The expenditure estimates were prepared by B&F. Budget Director Takemoto observed in his presentation that the expenditure estimates beyond fiscal year 1991 are underestimated because they have not included future pay raises, off-budget items, as well as unforeseen expenditures by the Legislature and the Judiciary.

Indeed, an examination of the B&F Financial Plan shows that between FY1991 and FY1992, GF expenditures are projected to grow at only .2%, and thereafter to grow annually at 4.8% through FY1995. These growth rates are significantly below the likely growth of the expenditure ceilings. A more reasonable assumption about the future growth of GF expenditures is that expenditures will rise to the levels of the expenditure ceilings.

We estimated the expenditure ceilings for the fiscal years 1992-1995 using forecasts of nominal personal income prepared by the Department of Business and Economic Development.[7] For FY1992-FY1995, we assumed that each year's GF appropriations will be equal to the estimated ceilings, and that expenditures will be equal to 96.7% of appropriations--the average of the actual ratios of expenditures to appropriations during FY1979-FY1988.

Table 7 presents the re-estimated B&F Financial Plan. A comparison

7. State of Hawaii, Department of Business and Economic Development, Quarterly Statistical and Economic Report, 4th Quarter, 1988. DBED's personal income forecasts are as follows: 1989 - 8.8%; 1990 - 8.0%; 1991 - 7.0%; 1992 - 6.8%; 1993 - 6.8%.

TABLE 6. DEPARTMENT OF BUDGET & FINANCE FINANCIAL PLAN ($ in millions)

Fiscal Year	General Fund Revenues	General Fund Expenditures	Difference	Accumulated Surplus/Deficit
1988	$ 2,088.3	$ 1,956.8	$ 131.5	$ 470.6
1989	2,379.9	2,272.2	107.7	578.3
1990	2,285.6	2,722.6	(437.0)	141.3
1991	2,607.8	2,497.5	111.3	251.6
1992	2,792.7	2,502.3	290.4	542.0
1993	2,980.0	2,623.0	357.0	899.1
1994	3,169.5	2,749.4	420.4	1,319.4
1995	3,375.5	2,882.2	493.3	1,812.7

Source: Presentation by Yukio Takemoto, Director, Department of Budget and Finance to The Tax Review Commission, June 9, 1989

TABLE 7. REVISED GENERAL FUND FINANCIAL PLAN ($ in millions)

Fiscal Year	General Fund Revenues	General Fund Expenditures	Difference	Accumulated Surplus/Deficit
1988	$ 2,088.3	$ 1,956.8	$ 131.5	$ 470.6
1989	2,379.9	2,272.2	107.7	578.3
1990	2,285.6	2,618.5*	(332.9)	245.4
1991	2,607.8	2,393.7**	214.1	459.5
1992	2,792.7	2,659.9	132.8	592.3
1993	2,980.0	2,870.1	109.9	702.2
1994	3,169.5	3,079.6	89.9	792.1
1995	3,375.5	3,292.1	83.4	875.5

Source: Budget and Finance and Tax Review Commission

Notes: * = 1989–90 appropriation of $2,707.9x .967 (see Table 2)
** = 1990–91 appropriation of $2,475.4 x .967 (see Table 2)

of Tables 6 and 7 shows that the B&F's estimated accumulated budget surplus of $1.8 billion in FY 1995 falls to $875.5 million.[8] In Table 7, we also used the Council on Revenues revenue projections even though, historically, its forecasts have consistently been conservative. The combination of a high expenditure assumption and conservative revenue estimates means that the actual budget surpluses will likely be larger than those displayed in Table 7.

8. The FY 1991 appropriation falls short of the ceiling. If the appropriation were allowed to rise to the ceiling, the surplus in that year would fall to $156.3 million and the accumulated surplus would be revised as follows:

Year	Surplus
1990	$ 245.5
1991	401.7
1992	534.5
1993	644.4
1994	734.3
1995	817.7

TABLE A1
Short Term "Elasticities"

Year	Bank Franchise	Conveyance	Fuel	Tobacco	Public Service Company	GET	GET License Fees
1973	1.505	-0403	-0289	0.576	1.452	1.013	0.693
1974	-4868	-2565	3.160	0.711	3.747	1.731	0.927
1975	7.296	2.452	1.888	0.803	0.838	0.741	0.884
1976	3.351	3.092	0.668	0.837	0.396	1.236	1.312
1977	1.909	3.624	0.488	0.663	0.270	0.989	0.294
1978	1.986	3.701	0.112	0.879	0.681	1.542	0.475
1979	0.761	-0374	0.864	0.521	0.973	0.943	0.531
1980	-6787	-3265	-0318	0.740	3.260	1.210	1.265
1981	-12403	-0991	0.160	1.016	4.519	-0018	-3878
1982	-33728	0.920	0.078	3.406	0.596	0.731	1.543
1983	-42376	2.557	0.911	-0328	-2277	1.507	1.229
1984	1.489	0.039	1.537	-0422	0.555	0.806	0.199
1985	7.754	7.762	1.877	1.269	2.121	1.375	0.464
1986	22.647	2.352	1.310	-1148	-1722	1.368	0.794
1987	-4457	3.430	1.317	2.891	0.758	1.199	0.107

Year	Corporate Income	Motor Vehicle Weight	Inheritance & Estate	Adjusted Insurance	Adjusted Liquor	Adjusted Personal Income	All Others
1973	2.139	0.000	3.631	0.287	0.713	0.693	0.287
1974	10.703	0.000	-2804	0.456	1.744	0.678	0.456
1975	-3332	0.000	3.011	14.137	1.301	0.915	14.137
1976	-1898	0.000	2.358	-4065	1.554	1.269	-4065
1977	1.041	0.000	1.268	1.069	0.731	1.113	1.069
1978	3.873	0.989	-2533	1.712	1.561	1.616	1.712
1979	1.176	0.213	2.961	1.647	0.730	1.227	1.647
1980	-0096	5.173	2.352	0.610	1.048	0.547	0.610
1981	-3280	-3943	1.534	1.123	2.124	1.187	1.123
1982	-2014	0.896	0.961	0.693	-0311	0.067	-0099
1983	7.168	-0154	6.531	2.132	-0473	1.674	0.759
1984	1.591	2.833	-1704	1.447	2.015	1.273	0.962
1985	0.670	7.497	-0702	4.009	1.427	1.210	2.927
1986	5.323	0.577	-2577	1.880	0.485	2.012	0.521
1987	-0668	0.499	0.670	0.497	0.068	1.982	-0235

TABLE A2
General Fund Taxes and Total Taxes

YEAR	TOTAL TAX	ADJUSTED TOTAL TAXES	GENERAL FUND TAXES	ADJUSTED GENERAL FUND TAXES
1973	474,358,992	474,358,992	443,574,314	443,574,314
1974	545,351,688	545,351,688	505,881,869	505,881,869
1975	622,633,582	622,633,582	585,701,075	585,701,075
1976	668,281,580	668,281,580	625,563,279	625,563,279
1977	716,756,655	716,756,655	671,728,676	671,728,676
1978	803,986,947	803,986,947	749,213,707	749,213,707
1979	946,735,023	951,253,602	890,433,999	894,952,578
1980	1,071,310,061	1,087,314,709	1,008,749,790	1,024,754,438
1981	1,143,668,553	1,160,299,668	1,070,895,331	1,087,526,446
1982	1,089,954,823	1,191,360,897	1,011,464,956	1,112,871,030
1983	1,188,310,680	1,236,225,418	1,109,875,672	1,157,790,410
1984	1,321,719,013	1,343,639,210	1,240,352,594	1,262,272,791
1985	1,413,698,813	1,438,420,262	1,325,791,469	1,350,512,918
1986	1,588,627,084	1,592,994,978	1,486,486,849	1,490,854,743
1987	1,842,104,726	1,858,207,317	1,731,227,659	1,747,330,250
1988	2,071,671,066	2,091,412,448	1,949,103,113	1;968,844,495

Source: Department of Taxation

TABLE A3
INSURANCE, LIQUOR, AND PERSONAL INCOME TAX REVENUES

YEAR	INSURANCE TAX		LIQUOR TAX		PERSONAL INCOME TAX	
	INSURANCE	ADJUSTED INSURANCE	LIQUOR	ADJUSTED LIQUOR	PERSONAL INCOME	ADJUSTED PERSONAL INCOME
1973	9,147,862	9,147,862	10,987,017	10,987,017	144,846,799	144,846,799
1974	9,535,779	9,535,779	12,145,508	12,145,508	159,705,572	159,705,572
1975	9,883,954	9,883,954	13,843,270	13,843,270	178,922,205	178,922,205
1976	21,477,387	21,477,387	15,337,699	15,337,699	192,505,701	192,505,701
1977	14,409,729	14,409,729	17,267,774	17,267,774	212,283,875	212,283,875
1978	16,189,404	16,189,404	18,726,232	18,726,232	239,593,399	239,593,399
1979	19,594,727	19,594,727	17,799,011	22,317,590	287,161,886	287,161,886
1980	24,055,472	24,055,472	8,564,853	24,569,501	335,850,042	335,850,042
1981	25,157,630	25,157,630	9,871,535	26,502,650	349,643,106	349,643,106
1982	26,898,715	26,898,715	7,022,158	29,971,732	296,757,799	375,214,299
1983	26,638,515	28,715,620	2,831,807	29,064,940	358,072,471	377,676,971
1984	27,821,037	32,295,558	11,574,465	28,260,141	413,885,554	414,645,554
1985	29,709,020	35,546,987	14,137,915	32,221,397	450,559,351	451,359,351
1986	35,968,433	45,891,452	41,914,085	35,558,960	490,186,703	490,986,703
1987	37,562,720	53,273,697	37,444,027	37,035,641	574,727,456	575,527,456
1988	36,785,530	55,733,524	37,277,550	7,270,938	680,789,995	681,589,995

Source: Department of Taxation

DISTRIBUTION OF STATE AND LOCAL TAX BURDEN BY INCOME CLASS

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DISTRIBUTION OF STATE AND LOCAL TAX BURDEN BY INCOME CLASS

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INTRODUCTION

The State of Hawaii and its counties in 1988 collected $2,546 million in total tax revenues. This represents about 12% of the state's gross product, 14% of total personal income and 17.5% of the disposable personal income. Furthermore, the tax collections since 1970 have increased faster than the increase in state's gross product, total personal income and much faster than per capital personal income when these are measured in both nominal and constant dollars (Table 1).

Since 1985 the general fund revenues have exceeded general fund expenditures each year and by 1989 the surplus accumulated by the State was estimated at $578.3 million. These surpluses have a number of undesirable consequences. First, they encourage wasteful government spending at the expense of more highly valued private consumption, thus, reducing aggregate economic welfare. The surpluses also adversely affect economic growth by absorbing funds potentially available for private investment. Second, at same the time that the State is accumulating large surpluses the counties are complaining of their revenue shortfalls and are looking for new revenue sources. Increases in local taxes would further reenforce the negative effects on aggregate economic welfare and economic growth.

Third, Hawaii's tax structure has remained essentially the same it was some 20 years ago. The distribution of tax collections by type of tax for 1970 and 1988 are shown in Table 2. The general excise tax remains the most important tax and accounts for about the same percentage of the total. Similarly, personal income and property taxes, the next two largest revenue producers, account for roughly the same percentage of total tax collections. Thus, although there were changes in tax laws since 1970 they were not significant enough to change the basic structure of Hawaii's taxes.

In short, this appears to be an opportune time to reexamine Hawaii's tax structure, and, if warranted to propose changes. This is indeed the charge given to the Second Tax Review Commission which is being asked to submit its recommendations to the next legislative session. This study, one of the several studies, was conducted to assist the Tax Review Commission in its assessment of Hawaii's tax structure and preparation of its recommendations.

One of the factors to be considered in arriving at the recommendations about the tax structure is the distribution of tax burden by income class of the households. This is the purpose of this study. More specifically, it is to estimate the distribution of "burden" or "incidence" of Hawaii's state and local taxes among its residents grouped according to their income class. The "tax burden" is a term widely used to mean the economic cost imposed on people by government to finance its operations. It is measured by the

TABLE 1. GROWTH OF TAX COLLECTIONS AND HAWAII'S ECONOMY CALENDAR YEARS 1970 AND 1988

	Tax Collections ($thousands)	State Product ($millions)	Total Personal Income ($millions)	Per Capita Personal Income ($)
1970 (at 1970 prices)	457,750	4,414.0	3,772.0	4,944.0
1970 (at 1988 prices)	1,204,860	11,618.2	9,928.4	13,013.3
1988 (at 1988 prices)	2,545,681	21,587.4	18,466.0	14,534.0
	Increase (percent)			
Nominal dollars	456.2	389.1	389.6	194.0
Annual Growth rate	10.0	9.2	9.2	6.2
Constant dollars	111.3	85.8	86.0	11.7
Annual Growth Rate	4.2	3.5	3.5	0.6

NOTE: Deflator is Hawaii GSP Implicit Price Deflator. Index values for 1970 and 1988 are respectively 47.3 and 124.5, where 1982 = 100.

SOURCES: Tax collections data from Table 2 below. Price index from State of Hawaii, Department of Business and Economic Development, Hawaii Gross State Product Accounts: 1958-1985;Summary Estimates: 1986, 1987, 1988, (June 1989), Table 1-A.

TABLE 2. HAWAII STATE & COUNTY TAX COLLECTIONS - CALENDAR YEARS 1970 AND 1988 [1]

	1970 ($1000)	1988 ($1000)	Increase ($1000)	Increase %	Percent of Total Tax Collections 1970	Percent of Total Tax Collections 1988
State Taxes [2]						
Personal Income	112,010	680,790	568,780	507.8	24.5	26.7
Corporate Income,		63,094				
Banks, Other Financial Corp	15,408	9,848	57,531	373.4	3.4	0.4
Inheritance & Estate	2,560	6,243	3,683	143.9	0.6	0.2
Conveyance	442	4,682	4,240	959.3	0.1	0.2
General Excise & Use	172,469	966,320	793,851	460.3	37.7	38.0
(incl exc Lic & Fees)	26,769	126,910	100,141	374.1	5.8	5.0
Fuel [3]	13,847	64,412	50,565	365.2	3.0	2.5
Public Service Companies	8,102	37,271	29,169	360.0	1.8	1.5
Liquor Permits	6,232	23,716	17,484	280.6	1.4	0.9
Tobacco & Licenses	6,098	55,734	49,636	814.0	1.3	2.2
Insurance Premiums	NA	70,700	NA		0.0	2.8
Transient Accom Fees & Taxes [4]	NA	19,133	NA		0.0	0.8
Motor Vehicle (Wgt Tax & Reg)	NA	20	NA		0.0	0.0
All Others						
SUB TOTAL	363,937	2,128,869	1,764,932	485.0	79.5	83.6
County Taxes						
Real Property [5]	80,723	365,536	284,813	352.8	17.6	14.4
Motor Vehicle Weight	10,071	22,043	11,972	118.9	2.2	0.9
Utility Franchise	2,048	19,067	17,019	831.0	0.4	0.7
Liquor Licenses & Fees	971	1,884	913	94.1	0.2	0.1
Licenses, Permits & Other	NA	8,282	NA		0.0	0.3
SUB TOTAL	93,813	416,812	322,999	344.3	20.5	16.4
TOTAL	457,750	2,545,681	2,087,931	456.1	100.0	100.0

SOURCES: Data for 1970: Ebel & Kamins (1974), p. 30. 1988 data prepared for the Tax Review Commission by Department of Taxation, Tax Research and Planning Unit, "Calendar Year Summary 01-18-89." County data supplied by Kauai, Maui, Hawaii and Honolulu Counties for the Tax Review Commission.

1. Details may not add due to rounding. Amounts shown include payments into escrow accounts for state taxes on insurance premiums ($18,947,994 in 1988) and state liquor licenses and fees (-$6,612in 1988.)

2. Does not include Employment Security Contributions, which were $56,973,485 in 1988.

3. Includes $38,258,865 in County fuel taxes.

4. Effective January 1, 1987.

5. Real property tax administration transferred from state to counties as of July 1, 1981.

reduction in disposable income caused by the collection of taxes.

Conceptual Framework

This study examines what is known in the public finance literature as the "specific" incidence of taxes. Under this approach, the tax burden is calculated by computing by income class of Hawaii residents the ratio taxes paid to income received (i.e., the average tax rate). If, as one moves up the income scale, the percentage of that income which goes to pay taxes increases the tax structure (or a particular tax) is called "progressive," if the percentage decreases the tax structure (or a particular tax) is called "regressive."

Since the tax burden is measured by a ratio of taxes paid to income there are conceptual issues associated with both, the nominator and the denominator of the ratio, which need to be made clear and various assumptions made need to be specified. First, in general, a "tax" is defined as a payment required by government for which there is no direct *quid-pro-quo* to the taxpayers

consequent to paying the tax. In contrast, if there is a clear one-to-one relationship between payment for and the benefit received, that payment is more appropriately classified as a sale or user fee, which is a non-tax receipt. Examples include motorist payments for use of a parking stall, a golfer's greens fee at a municipal golf course, and airline landing fees made for the use of a public airport. User fees were excluded from consideration although it is acknowledged that in the case of some taxes there is a question whether a particular tax is a tax or a user fee (e.g., motor fuel tax).

Second, some of the taxes imposed by Hawaii governments are not borne by the residents. These are the taxes borne by visitors and other nonresidents or they are passed on to the federal government through deduction of state and local taxes in determining federal income tax liability. The latter is known as the "federal offset." These taxes are said to be "exported" and are excluded from the nominator of the ratio since they do not constitute the burden on residents (i.e., they do not reduce personal income of the residents). The estimates of total tax collections exported and the proportions of taxes exported are shown in Tables 3 and 4, respectively . According to these estimates in 1988 twenty-five percent of all Hawaii taxes were exported and an additional 7% was passed on to the federal government.

It is axiomatic in public finance that ultimately all taxes are paid by individuals, either in their roles as consumers of goods and services, or as suppliers of the economic factors of production, or as owners of business firms. However, those who pay taxes and those who "really" bear them may not be the same people. In other words, those who bear the legal obligation to pay the tax may be able to "shift" this obligation to others. More specifically, tax shifting occurs when the business or individual from whom the government collects the tax revenue is able to modify its economic actions so that some other individuals bear the ultimate burden of the tax.

Tax shifting has been a subject of prolonged controversy among economists. While now the there is

TABLE 3. FEDERAL OFFSET AND TAX EXPORTING: ($ in thousands)

Tax	Collection	Federal Tax Offset	Tax Shifted/Exported To [1]				Tax Borne by Hawaii Residents	
			Tourists	Others	Owners	Total	As Consumers	As Income Recipients
State Taxes								
1. Individual Income	680,790	109,471					571,319	
2. Corporate Income, Banks, Financial Corps	72,940	7,566	10,426	8,089	8,281	26,796	26,910	11,666
3. Inheritance & Estate	6,243							6,243
4. Conveyance	4,682				234	234		4,448
5. General Excise	966,320	17,821	208,086	56,051	36,671	300,808	606,204	41,487
6. Fuel	126,910		28,555	12,374		40,929	85,981	
7. Public Service Cos.	64,412		8,052	8,502		16,554	47,858	
8. Liquor Permits	37,271		14,908			14,908	22,363	
9. Tobacco & Licenses	23,716		4,553			4,553	19,163	
10. Insurance Premiums	55,734		3,596			3,596	52,138	
11. Transient Accommodations	70,700		68,579			68,579	2,121	
12. Motor Vehicle (Wgt & Reg)	19,133		829			829	18,304	
13. All Others	20						20	
TOTAL STATE	2,128,871	134,858	347,584	85,016	45,186	477,786	1,452,381	63,844
County Taxes								
14. Real Property	365,536	47,385	27,595	14,803	70,979	113,377	145,874	58,900
15. Motor Vehicle Weight	22,043		955			955	21,088	
16. Utility Franchise	19,067		2,383	2,517		4,900	14,167	
17. Liquor License & Fees	1,884		754			754	1,130	
18. Licenses, Permits, Other	8,282		784			784	7,498	
TOTAL COUNTY	416,812	47,385	32,471	17,320	70,979	120,770	189,757	58,900
TOTAL	2,545,683	182,243	380,055	102,336	116,165	598,556	1,642,138	122,744

1. Assumptions and sources given in the appendix, Table A-1.

TABLE 4. FEDERAL OFFSET AND TAX EXPORTING: (Percent of Tax Collection)

Tax	Collection	Federal Tax Offset	Tax Shifted/Exported To: Tourists	Others	Owners	Total	Tax Borne by Hawaii Residents: As Consumers	As Income Recipients
State Taxes								
1. Individual Income	680,790	16.06					100.00	
2. Corporate Income, Banks, Financial Corps	72,940	10.37	15.95	12.37	12.67	40.99	41.16	17.85
3. Inheritance & Estate	6,243							100.00
4. Conveyance	4,682				5.00	5.00		95.00
5. General Excise	966,320	1.84	21.94	5.91	3.87	31.71	63.91	4.37
6. Fuel	126,910		22.50	9.75		32.25	67.75	
7. Public Service Cos.	64,412		12.50	13.20		25.70	74.30	
8. Liquor Permits	37,271		40.00			40.00	60.00	
9. Tobacco & Licenses	23,716		19.20			19.20	80.80	
10. Insurance Premiums	55,734		6.45			6.45	93.55	
11. Transient Accommodations	70,700		97.00			97.00	3.00	
12. Motor Vehicle (Wgt & Reg)	19,133		4.33			4.33	95.67	
13. All Others	20						100.00	
TOTAL STATE	2,128,871	6.33	17.43	4.26	2.27	23.96	72.84	3.20
County Taxes								
14. Real Property	365,536	12.96	8.67	4.65	22.31	35.64	45.85	18.51
15. Motor Vehicle Weight	22,043		4.33			4.33	95.67	
16. Utility Franchise	19,067		12.50	13.20		25.70	74.30	
17. Liquor License & Fees	1,884		40.02			40.02	59.98	
18. Licenses, Permits, Other	8,282		9.47			9.47	90.53	
TOTAL COUNTY	416,812	11.37	8.79	4.69	19.21	32.69	51.37	15.94
TOTAL	2,545,683	7.16	16.08	4.33	4.92	25.33	69.48	5.19

Note: Federal tax offset figures are percentages of tax collection; all others are percentages of tax collection less federal tax offset.

a general agreement with respect to shifting of some taxes, the issue of shifting of other taxes (e.g., corporate income taxes) has not been resolved. However, in case of Hawaii the estimates of the distribution of tax burden by income class are not very sensitive to the different shifting assumptions.

The shifting as well as exporting assumptions used in this study are listed in the Appendix Table A-1. These assumptions provide the bases for allocation of the proportion of taxes paid between residents as consumers or residents as income recipients. The results are also shown in Tables 3 and 4.

As the next step, the amount of each tax paid by residents has to be allocated to different income classes. Thus, for each tax an "allocator" is selected which is deemed most appropriate for the particular tax considered. For example, for general excise tax the most appropriate allocator is consumption expenditures since all purchases are subject to this tax. The listing of allocators used in this study is provided in the Appendix Table A-1.

There are a number of issues involving the denominator (i.e., household income) of the ratio as well. Income in the tax burden studies is used as a measure of the ability to pay taxes. It is generally agreed that for this purpose the least acceptable definition of income is the adjusted gross income (AGI) because it does not include income not subject to taxes but which nevertheless is available to pay taxes. Most of the tax burden studies, therefore, use a broader concept of income.

In this study we start with a distribution of tax returns by "expanded" income provided by The Policy Economics Group of KPMG Peat Marwick. The "expanded" income includes all types of income that have to be listed in the federal tax return even if that type of income is tax exempt. The components of "expanded" income are listed in Table 5.

In order to obtain "total" or "broad" income additional types of money and non-money income that do not have to be listed on the federal tax return

were added to the "expanded" income. The types of income added are shown in Table 6. Since only totals were available, these incomes were distributed to income classes using a number of allocators. These allocators are also listed in Table 6. Table A-3 shows the various income distributions.

Unreported or illegal income is particularly difficult to handle. Kephart (1984) estimated that in 1981 it totaled $1,160.3 million and was equal to about 10% of personal income.[1] Kephart believes that this is a very conservative estimate and there is some evidence to support her belief. According to one estimate the harvest value of Hawaii's marijuana crop in 1987 alone was $1.33 billion.[2] Furthermore, it has been estimated that this income is growing faster than personal income. However, even if it grew at the same rate as personal income in 1988 it should have totaled

TABLE 5. TYPES OF INCOMES INCLUDED IN "EXPANDED INCOME"

Wages
Taxable Interest
Alimony
Business Income (positive portion only)
Gross Capital Gains (positive and negative)
Supplemental Gains (positive and negative)
Reported Pensions
Farm Rent (positive portion)
Other Rent (positive portion)
Royalties (positive portion)
Partnership Income and Losses (positive portion)
Estate or Trust Income (positive portion)
Sub-SCorporation Income (positive portion)
Farm Income (positive portion)
Gross Unemployment Income
Gross Social Security Income
Other Income (positive portion)
Imputed Tax Exempt Interest

Source: KPMG Peat Marwick, Policy Economics Group.

1. Unreported or illegal income estimates for 1981 by type are shown in the appendix Table A-2.

2. Estimate by Drug Enforcement Administration and National Organization for the Reform of Marijuana Laws, cited in The State of Hawaii Data Book, 1988, Table 122.

TABLE 6. TYPES OF INCOME ADDED TO OBTAIN "TOTAL" INCOME

Type of Income	Amount	Basis for Allocation to Income Classes
Unreported or Illegal Income	$1,938.8 (1)	See text
Other Labor Income	1,349.8 (2)	CES (3) "Other Income"
Imputed Interest Income	712.2	CES, "Interest, dividends, rental income, other"
Income Maintenance	152.4	CES, "Public Assistance"
Medical Payments	470.1	CES, "Public Assistance"
Value of Food Stamps	75.3	CES, "Public Assistance"
Imputed Rent of Owner-Occupied Housing	81.4	CES, "Interest, Dividends, Rental Income, Other"
Veterans Benefits	63.7	CES, "Unemployment and Workers Compensation, Veterans Benefits
Workmens' Compensation	16.5	CES, "Unemployment and Workers' Compensation, Veterans' Benefits
TOTAL	$4,465.4	

Sources: (1) Kephart (1984). 1981 estimate increased in proportion to total personal income.

(2) Department of Commerce, Bureau of Economic Analysis, Regional Economic Measurement Division, unpublished detail for Hawaii personal income, 1989.

(3) CES is Consumer Expenditure Survey, Table 30, "Region of Residence and Income Before Taxes, West: 1986-87," U.S. Department of Commerce, Bureau of Labor Statistics, (diskette) June 1989.

some 1.9 billion which is about 10.5% of personal income. Thus, without question, unreported or illegal income is a relatively large sum.

Because of its magnitude, the choice of allocator to apportion unreported and illegal income to household income classes is very important. However, there are no self-evident, appropriate allocators. One alternative is simply to ignore unreported or illegal income. Its size, however, suggests that the mere omission of this income may create a large bias in the tax burden estimates. Therefore, we have prepared two sets of estimates: one with and one without the unreported and illegal income.

For the second set of estimates we have assumed that unreported and illegal incomes grew at the same rates as personal income and that all components of this income grew at the same rate. The following allocators were used for income hidden to avoid taxes:

• Under & unreported income of legal wage earners	Wages
• Under & unreported income of legal self-employed income	Self-employment
• Other under & unreported income	Dividend income

A triangle distribution with a maximum in the lowest income class was used to distribute illegal income. The reason for use of this distribution is that classification into income classes is by legal income. Thus, individuals would be assigned to a lower income class than their total income actually is. For example, a person with $100,000 income all of which was illegal would be assigned to the lowest income class. While the selection of this allocator is admittedly arbitrary it allows us to test the sensitivity of results to omission of unreported or illegal income.

TABLE 7. TAXES PAID BY INCOME CLASS ($ in thousands)

Expanded Income Class ($000s)	Total	Personal Income	Corporate Income	General Excise & Use	Real Property	Others
< 5	$109,166	($10,318)	$3,130	$65,060	$17,567	$33,727
5 < 10	138,091	10,872	3,826	67,876	21,284	34,233
10 < 15	164,422	34,159	4,060	70,546	20,264	35,393
15 < 20	126,926	26,349	3,159	54,692	15,229	27,496
20 < 30	271,542	79,465	6,349	105,548	31,939	48,241
30 < 50	401,114	161,163	6,480	137,783	35,157	60,530
50 < 100	403,770	172,733	10,016	122,954	54,652	43,414
100 < 200	86,371	52,001	1,265	18,891	7,058	7,155
200 +	63,475	44,889	291	4,340	1,621	12,335

TABLE 8. TAXES PAID BY INCOME CLASS (AS PERCENT OF INCOME) (WITHOUT ILLEGAL & UNREPORTED INCOME)

Expanded Income Class ($000s)	Total	Personal Income	Corporate Income	General Excise & Use	Real Property	Others
< 5	12.8	-12	0.4	7.6	2.1	3.9
5 < 10	15.5	1.2	0.4	7.6	2.4	3.9
10 < 15	14.1	2.9	0.3	6.1	1.7	3.0
15 < 20	11.7	2.4	0.3	5.0	1.4	2.5
20 < 30	11.3	3.3	0.3	4.4	1.3	2.0
30 < 50	9.9	4.0	0.2	3.4	0.9	1.5
50 < 100	8.3	3.5	0.2	2.5	1.1	0.9
100 < 200	5.6	3.4	0.1	1.2	0.5	0.5
200 +	4.7	3.4	0.0	0.3	0.1	0.9
TOTAL	9.7	3.1	0.2	3.6	1.1	1.7

The Results

Tables 7 and 8 present estimates of the distribution of total state and local taxes paid by Hawaii residents classified by income class. The distributions are in dollars and as a percentage of income, respectively, with unreported and illegal income excluded. The overall tax structure is mildly regressive, i.e., taxes paid as a proportion of income decrease with income.

This conclusion is hardly surprising since the overall regressivity of the tax structure is the product of characteristics of individual taxes weighted by their importance in the total tax structure. In the Hawaii case, with the single exception of personal income tax which is mildly progressive, all major taxes are regressive. Furthermore, the general excise and use tax, which is the most regressive of all major taxes, accounts for nearly 40% of tax collections.

As shown in Table 9 the results are similar if unreported or illegal income is included. Thus, the conclusions are not sensitive to omission of this income.

TABLE 9. TAXES PAID BY INCOME CLASS AS PERCENT OF INCOME (Includes Illegal and Unreported Income)

Expanded Income Class ($000s)	Total	Personal Income	Corporate Income	General Excise & Use	Real Property	Others
< 5	10.2	-10	0.3	6.1	1.6	3.2
5 < 10	12.1	1.0	0.3	6.0	1.9	3.0
10 < 15	11.7	2.4	0.3	5.0	1.4	2.5
15 < 20	9.9	2.0	0.2	4.2	1.2	2.1
20 < 30	10.2	3.0	0.2	4.0	1.2	1.8
30 < 50	9.1	3.7	0.1	3.1	0.8	1.4
50 < 100	7.7	3.3	0.2	2.4	1.0	0.8
100 < 200	5.4	3.2	0.1	1.2	0.4	0.4
200 +	4.7	3.3	0.0	0.3	0.1	0.9
TOTAL	8.8	2.8	0.2	3.2	1.0	1.5

Comparison to Results of Other Studies

This is the fourth comprehensive study of Hawaii's tax burden. Hoffman (1967) was the first study to analyze the tax burdens by income class for the year 1960 under a variety of alternative assumptions. However, this study did not attempt to determine which set of assumptions was the most plausible. It, therefore, cannot serve as a benchmark study.

Hoffman's study was followed by Ebel and Kamins (1975) which examined the burden of tax structure as it existed in 1970. They found that the tax structure was regressive, i.e., the taxes accounted for a larger percentage of income for lower income classes than for higher income classes. The average tax rate varied from 15.85% for households with total income of "less than $3,000" to 11.26% for households with the total income "more than $25,000."

The third study to investigate the burden of Hawaii's taxes is Phares (1984). It estimated the distribution of tax burden in 1980 and it found that Hawaii's tax structure was regressive over a broad range of income classes. The average tax rate varied from 24.094% for the "below $3,900" income class, reached the lowest point, i.e., 6.886%, for the $39,000-49,999, then was slightly progressive reaching 14.955% for the "over $100,000" income class.

The frequency distributions of household incomes in the various studies are quite different. Ebel and Kamins study classified households into eight income classes with "more than 25,000" as an open-ended top class. In the Phares study households are classified into 16 income classes with "over $100,000" as an open-ended top class. In this study households were classified into nine income classes with "over $200,000" as an open-ended top class. It is difficult, therefore, to compare the results of this study to those obtained in the previous studies.

One way to compare the results of these studies is to construct Lorenz curves by plotting the cumulative distribution of households by income on the horizontal axis and the cumulative distribution of households by taxes paid on the vertical axis. If the tax structure is proportional the plotted line will be a diagonal line, starting at the origin. If it is regressive the curve will lie above the proportional line and if it is progressive it will lie below the proportional line.

Figure 1 compares the Lorenz curves based on distributions for 1970 obtained by Ebel and Kamins (1975) to the distributions for 1987 obtained in this study. The comparison suggests that the overall regressivity of Hawaii's tax structure since 1970 has increased. Unfortunately, Phares (1984) fails to provide the distribution of income by households in 1980. Therefore, it is not possible to construct a Lorenz curve for 1980.

A summary measure of tax regressivity/progressivity is the Suits Index, denoted by S, which is derived from the same data as the Lorenz curves.[3] Values of this index fall in the range from -1.0 to +1.0. A value of S = -1 indicates the extreme regressivity, with all taxes being paid by the lowest income group. A value of S = +1 denotes the extreme progressivity, with all taxes paid by the highest class. Proportional taxes will have S = 0. Table 10 shows the values of the Suits indices for 1970 and 1987. They confirm the previous conclusions that regressivity of Hawaii's tax structure has increased somewhat since 1970.

A recently published tax burden study conducted by the Tax Foundation (1989) provides the tax burden estimates for all U.S. state/local taxes. These estimates indicate that state/local taxes are mildly regressive.

In Figure 2 Lorenz curves are used to compare the distribution of Hawaii tax burden estimates obtained in this study to the state/local tax burden estimates of the Tax Foundation study. The curves show that Hawaii taxes are slightly more regressive than those of the state/local taxes

3. For further discussion of Suits Index see Suits (1977).

estimated in the Tax Foundation study, except perhaps at the lowest income levels. The Suits indices reported in Table 10 confirm this conclusion.

TABLE 10. SUITS INDICES OF REGRESSIVITY[1]

1. Total Income, 1988, with out illegal income	-0.16
2. Total Income, 1988, with illegal income	-0.12
3. 1970 Broad Income[2]	-0.04
4. 1986 U.S. State & Local[3]	-0.08

1. Suits (1977). Let y_i denote the percent of income earned by taxpayers in the i^{th} income class or lower, so that $y_n = 100\%$, and let t_i denote the corresponding taxes accounted for by persons in the i^{th} class or lower. The Suits index is

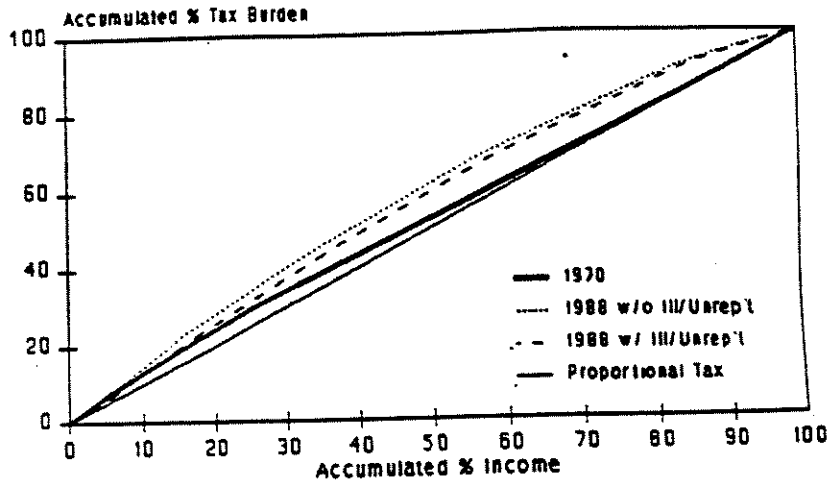
$$\sum_{i=2}^{n} \frac{(t_i + t_{i-1})}{2} (y_i - y_{i-1})$$

2. Computed from Ebel & Kamins (1974) Tables 1, 2 and 4.

3. Computed from Tax Foundation (1989).

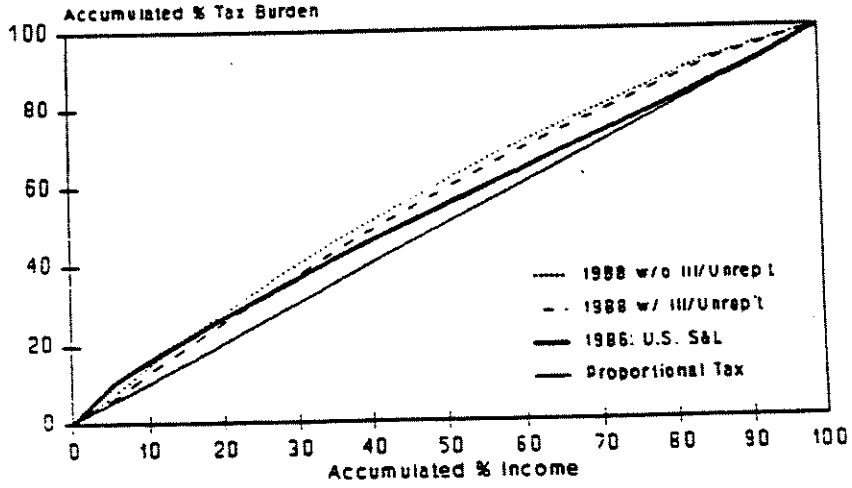
Comparisons with regressivity estimates obtained in other studies, however, are fraught with difficulty. The differences are relatively small and may be due to differences in definition of income and/or assumptions used. The safest conclusion one can draw is that Hawaii's tax structure is mildly regressive and that there has been no significant change in regressivity since 1970.

Fig. 1--Hawaii Tax Distribution Lorenz Curves



Sources: Ebel & Kamins (1974); Tables 7 and A-3

Fig. 2--Hawaii, U.S. State & Local Distribution of Tax Burden



Source: Tables 7, A-3; Tax Foundation (1989).

ACKNOWLEDGEMENTS

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Tax Foundation of Hawaii, *Government in Hawaii 1988,* Honolulu, HI., 1989, Table 14, p. 21.

TABLE A-1

Incidence Assumptions and Allocator Series
Hawaii Taxes, 1987

Tax	Shifting-Incidence Assumption: Amount Exported	Non-Exported Portion Allocated to Residents According to:
State Taxes		
Individual Income	No shifting; 16.1% exported to non-residents	Calculated from KPMG Peat-Marwick[1] results, by J. Harrington
Corporate Income	41% exported (Billings[2])	Portion borne as consumers: CES[3] "Total Expenditures;" borne as income recipients: CES "Interest, dividends, rental income, other property income"
Inheritance & Estate	No shifting from residents; all borne as income recipients	Borne entirely by $200,000+ income class. (Ebel & Kamins)
Conveyance	5% to non-resident owners of capital (Ebel & Kamins)	To highest income class
General Excise & Use	22% exported to tourists; 6% to others; 4% to non-resident owners (Billings; Leung & Bowen[4])	Portion borne as consumers: CES "Total Expenditures;" borne as income recipients, CES "Interest, Dividends, rental income, other property income,"
Fuel	To consumers: 32.25% exported (Billings)	CES "Gasoline & Motor Oil"
Public Service Companies	To consumers: 25.7% exported (Billings)	CES "Utilities", less "natural gas" and "fuel oil"
Liquor Permits	To consumers: 40% to tourists (Leung & Bowen)	CES "Alcoholic Beverages"
Tobacco & Licenses	To consumers: 19.2% exported (Leung & Bowen)	CES "Tobacco & smoking supplies"
Insurance Premiums	To consumers: 6.5% exported to tourists (Data Book[5])	CES "Life insurance"
Transient Accommodations	To consumers: 97% exported (Hawaii Hotel Association; Fujii, Khaled & Mak[6])	CES "Other lodging"
Motor Vehicle Weight, Registration	To consumers: 4.33% exported (Data Book)	CES "Vehicle rental, licenses, other"

All others	None exported	CES "Total Expenditures"
County Taxes		
Real Property	13.0% federal offset; 35.6% exported. Resident portion borne 45.85% by consumers, 18.51% as income recipients (Billings)	CES "Property Taxes"
Motor Vehicle Weight	To consumers: 4.33% exported (Data Book)	CES "Vehicle rental, licenses, other"
Utility Franchise	25.7% exported; resident portion all to consumers (Billings)	See state "Public Utility Co." above
Liquor licenses & fees	To consumers: 40% exported to tourists (Leung & Bowen)	CES "Alcoholic beverages"
Licenses, permits & other	To consumers: 9.5% exported (Data Book)	CES "Vehicle rental, licenses, & other"

1. KPMG Peat-Marwick, (1989).
2. Billings, R. B., (1984).
3. CES refers to Consumer Expenditure Survey (U.S. Department of Commerce), 1986-87 data.
4. Leung, P. and R. A. Bowen, (1988).
5. State of Hawaii, (1988).
6. Fujii, Khaled and Mak, (1988).

TABLE A-2

Unreported or Illegal Income, Hawaii, 1981

		(Total Dollars in millions)
Income hidden to avoid taxes		**569.1**
▸Under & unreported income of legal wage earners	147.4	
▸Under & unreported income of legal self-employed	316.8	
▸Unreported dividend earnings	17.0	
▸Unreported interest earnings	52.3	
▸Unreported rents & royalties	22.6	
▸Unreported estate & trust income	1.7	
▸Unreported corporate income	11.3	
Unreported income earned by avoiding cigarette, alcohol & sales taxes		**2.3**
Unreported income of illegal alien workers		**6.7**
Income from illegal transfers		**56.0**
▸Income to thieves & fences handling stolen goods	22.5	
▸Fraud arson	5.9	
▸Other fraud--bankruptcy,check, consumer, credit card, insurance, securities	19.2	
▸Counterfeiting	.0	
▸Embezzlement	3.5	
▸Bribery	4.9	
Income from production & distribution of illegal goods		**445.6**
▸Drugs	440.2	
a. Heroin	25.9	
b. Cocaine	47.1	
c. Marijuana	361.6	
d. Other drugs	5.4	
▸Smuggling of goods other than drugs	1.2	
▸Pornography	4.2	
Income from production & distribution of illegal services		**58.0**
▸Takeout from illegal gambling-- sports books, horse books, numbers, sports cards, illegal casinos	38.5	
▸Loan sharking	1.1	
▸Prostitution	18.4	
Other illegal income--hijacking, forgery, protection and extortion, pirating of records & taxes		**22.6**
TOTAL		**1,160.3**

Source: Kephart (1984)

TABLE A-3

Alternative Measures of Income

Expanded Income Class ($000s)	Number Returns [1] (000)	Adjusted Gross Income ($mil)	Expanded Income [2] ($mil)	Total Income w/o Illegal or Unreported [3] ($mil)	Total Income w/ Illegal or Unreported [4] ($mil)
< 5	113.1	240.9	178.6	854.2	1,068.0
5 < 10	81.5	608.7	465.6	888.9	1,139.5
10 < 15	63.9	756.6	896.9	1,163.2	1,410.1
15 < 20	45.8	690.6	887.6	1,084.9	1,288.2
20 < 30	73.1	1,722.3	2,040.2	2,399.0	2,653.7
30 < 50	73.7	2,662.8	3,608.9	4,053.2	3,800.4
50 < 100	44.9	2,727.8	4,421.8	4,884.0	5,829.8
100 < 200	7.4	895.8	1,467.3	1,543.5	1,608.6
200 +	1.7	697.5	1,319.3	1,336.8	1,348.2
	505.1	11,003.0	15,286.2	18,207.6	20,146.4

1. KPMG Peat-Marwick, 1989.

2. See Table 5.

3. See Table 6.

4. See Table 6 and text.

BUDGET STABILIZATION FUNDS

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INTRODUCTION

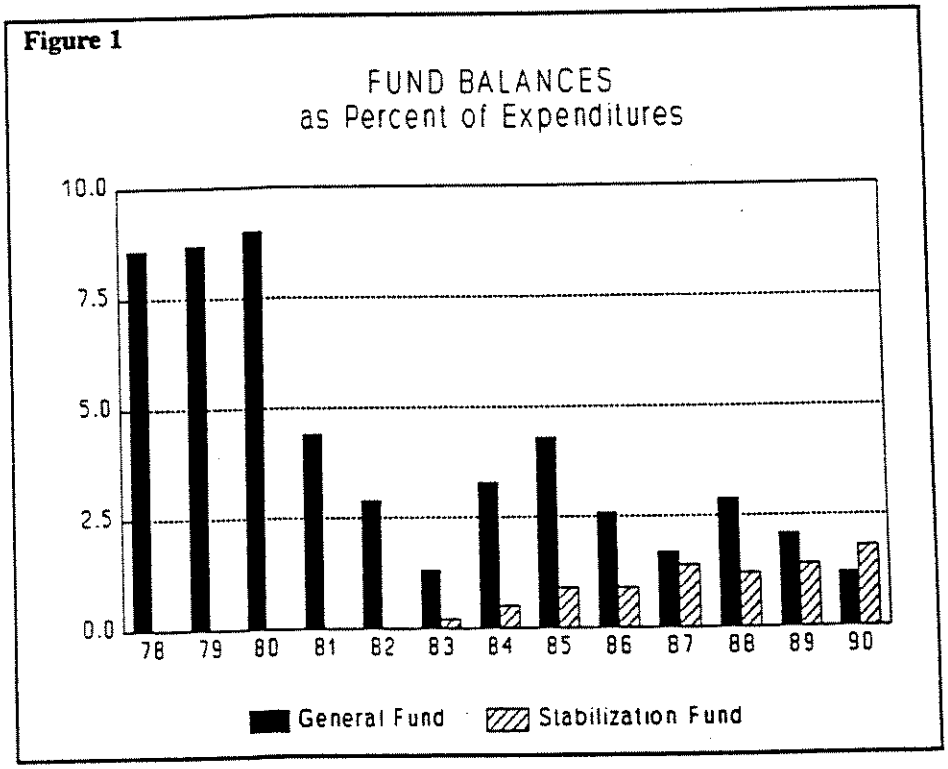
A continuing concern for budget authorities is the maintenance of fiscal stability in expenditure and revenue. Within the past ten years, a number of states have adopted new fiscal devices designed to counteract the destabilizing influences of economic fluctuations and uncertainties of the changing federal role.[1] For many states, the adoption was fueled by fiscal stress resulting from the depletion of state budgets and tax limitations of the Tax Revolt of the late 1970's. In Hawaii, budget authorities responded to the declines in revenue growth with fiscal restraint on the expenditure side.

More recently, fiscal stability in Hawaii has depended, by default, on a tax structure highly responsive to economic growth and the maintenance of large general fund balances. An issue of major concern arising from this default is the efficiency of resource allocation. If the current tax structure and the revenue surpluses which it generates correctly reflects the collective valuation of the levels and stability of publicly provided goods, relative to the level of private goods, then the structure is efficient. However, if tax costs do not reflect the relative value of public goods and fiscal stability, then there are efficiency gains to a change in the tax structure.

Tax policy options under current evaluation include alterations in the tax structure which will essentially reduce its income responsiveness. The relevant implication of this reduction is that the accumulation of revenues will occur more slowly, with a consequent decline in growth of the traditional fiscal cushion. The potential adoption of these tax policy changes thus provides a compelling reason for examining alternative fiscal institutions designed to promote fiscal stability.

This paper provides a basis for evaluating budget stabilization funds and other fiscal stabilization instruments. Budget stabilization funds are intended to accumulate tax revenues during periods of strong revenue growth for expenditure use during periods of weak or declining revenue growth. These funds are not necessarily intended to cover all revenue shortfalls, however. Sustained budgetary problems may indicate a need to reevaluate the priority of expenditures and the structure of taxes. Nevertheless, thirty eight states[2] have adopted the use of budget stabilization or other special reserve funds, and states have increasingly shifted away from dependence on general fund balances to dependence on budget stabilization fund balances for a cushion against revenue shortfalls (Figure 1).

Figure 1



1. Gold(1984), "Contingency Measures and Fiscal Limitations: The Real World Significance of Some Recent State Budget Innovations," National Conference of State Legislatures.

2. From Table 1. State Budget Stabilization Funds: 1989, Fiscal Affairs Program, National Conference of State Legislatures, presented at annual meeting, August 1989.

Defining Stability and Institutional Options[3]

Fiscal stability is the product of stability on the expenditure side and stability on the revenue side. Given the public sector decision to provide particular goods and services, expenditure stability provides for the efficient (minimum cost) flow of these goods and services. Erratic starts and stops in program spending can be counter-productive in terms of program start up costs and rational budgeting by program administrators.

On the revenue side, stability in the tax structure provides businesses and individuals with a greater ability to plan than would be the case if elements in the tax structure were subject to constant change. Revenue fluctuations, however, are a concomitant feature of tax structure stability, especially when the tax structure is responsive to underlying changes in the economy. A policy of expenditure and tax structure stability will then result in periods of budget surplus and budget deficit.

There are four general options available to budget authorities for dealing with the cyclicality of tax revenues relative to expenditures:

1. Implicit stabilization funds accumulate excess revenues in the general fund.[4]

2. Explicit stabilization funds accumulate excess revenues in a special budget stabilization fund.

3. Predetermined tax/expenditure contingency plans identify the expenditure cuts or tax increases which are automatically triggered by specific revenue shortfall conditions.

4. Reactive tax/expenditure alterations basically adjust expenditures to conform to new revenue estimates or adjust tax rates to support given expenditures. This option is an extreme case of option 3.

The use of predetermined contingency plans and reactive changes in tax structure or expenditure plans may match revenues to expenditures in the short run but violate structural stability on either the expenditure side or the tax side. Indeed, these options tend to be procyclical, exacerbating economic fluctuations by increasing the fiscal drag of taxes or decreasing the injection of government spending during economic downturns.

Given the criteria of fiscal stability, the choice then devolves onto a comparison of the form of accumulation: implicit or explicit. The underlying issue in this choice is the delegation of authority to the public body and the accompanying level of discretionary power.

At one extreme, housing the stabilization function in the general fund balance provides full flexibility to authorities in determining the size of the cushion and the timing of flows. Flows into the fund are automatic, the result of revenue inflows generated by the tax structure. Flows out of the fund are appropriated, subject to the sole limitation of the constitutional general fund expenditure ceiling in Hawaii's case. The size of the cushion is residually determined by expenditure decisions.

However, using the general fund as an implicit stabilization fund allows budget authorities to avoid making explicit decisions concerning the size of the fiscal cushion and the allocation of the balance. Because general fund balances also perform a timing function to provide for the minor differences in flows of expenditures and revenues, the absence of a collective definition of the appropriate amount for the stabilization function creates a situation in which the function sizes are ill-defined. Indeed, the recognition of the existence of excess funds is also avoided, calling into question the efficiency of the public-private allocation of resources.

3. The basis for this discussion derives from Pollock and Suyderhoud (1986).

4. An implicit assumption behind using the general fund as the repository for the implicit stabilization monies is the selection of a tax structure appropriate to the given expenditure program.

TABLE 1. HAWAII STATE GENERAL FUND REVENUES, EXPENDITURES, ACCUMULATED SURPLUS ($ in millions)

FY	Revenues	Expenditure	Surplus/ Deficit	as Pct of Expenditure	Accumulated Surplus/ Deficit	as Pct of Expenditure
1980	1,084.9	972.1	112.8	11.6%	179.0	18.4%
1981	1,198.7	1,146.0	52.7	4.6%	231.7	20.2%
1982	1,185.8	1,207.5	(21.7)	-1.8%	210.0	17.4%
1983	1,252.5	1,333.0	(80.5)	-6.0%	129.5	9.7%
1984	1,354.6	1,379.0	(24.4)	-1.8%	105.1	7.6%
1985	1,475.5	1,451.1	24.4	1.7%	129.5	8.9%
1986	1,605.3	1,597.8	7.5	0.5%	137.0	8.6%
1987	1,889.8	1,687.7	202.1	12.0%	339.1	20.1%
1988	2,075.7	1,944.3	131.4	6.8%	470.5	24.2%
						15.0% Avg

Source: Budget and Finance

In FY 1988 Hawaii's general fund balance was 24 percent of expenditures, a level much higher than the commonly recommended 3-5 percent (Table 1). It was also higher than the combined average proportion of general fund and budget stabilization fund balances for all states (Table 2). Over a longer time period, the general fund 1980-1988 average balance of 15 percent was still higher than the balance for most other states. This large balance is the result of the accumulation of revenues resulting from a tax structure strongly responsive to economic growth. In addition, state legislators have demonstrated a reluctance for refunding excesses of general fund balances above the constitutionally defined 5 percent level,[5] indicating a preference for using budget surpluses as a hedge against revenue shortfalls or, perhaps, as a contingency fund for expanding the scope of publicly provided goods or services.

There are other problems associated with the use of the general fund balance as a stabilization fund. Stabilization funds are generally characterized by sometimes high fund levels, a condition which might not be tolerated by taxpayers when there is no clear definition of the target fund size. In addition, the maintenance of expenditure stability, despite high balances, requires budgetary discipline. An explicit stabilization fund is thought to avoid these political problems, with the formulation of such a fund signaling and confirming

TABLE 2. GENERAL FUNDS AND STABILIZATION FUNDS AS A PERCENT OF EXPENDITURES 1988

States with Annual Budgets	Stabilization Fund	General Fund	Combined
Alabama	0.8%	5.5%	6.3%
Alaska	0.0	9.9	9.9
Arizona	0.0	0.2	0.2
California	0.0	0.5	0.5
Colorado	0.0	4.7	4.7
Connecticut	6.4	-2.3	4.1
Delaware	4.9	9.6	14.5
Georgia	3.0	2.5	5.5
Idaho	0.0	2.6	2.6
Illinois	0.0	2.1	2.1
Iowa	0.0	2.6	2.6
Kansas	0.0	16.0	16.0
Louisiana	0.0	-13.3	-13.3
Maryland	1.3	8.4	9.7
Massachusetts	1.5	0.5	2.0
Michigan	5.7	0.3	6.0
Mississippi	1.2	5.4	6.6
Missouri	0.0	2.7	2.7
New Jersey	2.4	7.5	9.9
New Mexico	9.8	0.0	9.8
New York	0.0	0.2	0.2
Oklahoma	3.4	5.1	8.5
Pennsylvania	0.8	0.9	1.7
Rhode Island	2.2	9.1	11.4
South Carolina	3.1	4.5	7.6
South Dakota	0.0	10.5	10.5
Tennessee	2.4	2.1	4.5
Utah	3.1	6.2	9.3
West Virginia	0.0	2.5	2.5
States with Biennial Budgets	**Stabilization Fund**	**General Fund**	**Combined**
Arkansas	0.0%	0.0%	0.0%
Florida	1.3	2.7	4.0
Hawaii	**0.0**	**24.0**	**24.0**
Indiana	5.8	6.4	12.1
Kentucky	0.0	1.0	1.0
Maine	2.0	11.2	13.2
Minnesota	4.6	10.2	14.8
Montana	0.0	10.6	10.6
Nebraska	2.0	19.9	21.9
Nevada	6.8	11.2	18.0
New Hampshire	4.9	2.4	7.3
North Carolina	0.0	6.8	6.8
North Dakota	0.0	9.7	9.7
Ohio	2.9	3.0	5.8
Oregon	0.0	4.8	4.8
Texas	0.0	1.0	1.0
Vermont	1.6	14.6	16.2
Virginia	0.0	5.3	5.3
Washington	0.0	3.8	3.8
Wisconsin	0.0	3.7	3.7
Wyoming	15.8	20.6	36.3
TOTAL	2.9	2.1	1.2

Source: M. Howard, "Fiscal Survey of the States," National Governors' Association and National Association of State Budget Officers, 1989.

5. In 1978 the State adopted a constitutional revision requiring a general tax credit when the general fund surplus exceeds 5 percent of general fund revenues realized in each of two consecutive years. This situation has occurred in every year since 1980. The Legislature refunded $100 (1981), $25 (1982), and $125 (1989) per exemption; in all other years, refunds amounted to $1 per exemption.

a conscious effort to promote fiscal stability.

However, the establishment of a formal stabilization fund creates a statutory institution which is, by nature, less flexible than the informal or implicit stabilization fund. The very design of such funds in terms of the size and the timing, volume and nature of flows can create a continuum of discretionary authority, ranging from the very flexible to the very restrictive. The variety of designs is evident from a survey of budget stabilization funds completed in 1983[6] and updated in 1989.[7]

States use three general approaches for determining stabilization fund sizes and flows (Table 3):

1. Annual legislative appropriation of revenues to the fund is flexible in terms of discretionary authority and direct in terms of stabilization fund inflow decisions. The method essentially allows the legislature latitude in annually deciding the amounts to be held and placed in the stabilization fund. A consequent characteristic is that the legislature must make explicit decisions with respect to fund inflows. Most states using this approach do not have statutory fund goals.

2. Statutory specification of all surplus revenues until the fund reaches a cap, determined as a percentage of revenues or appropriations, is also flexible in terms of discretionary authority, but is less direct than the first option. Stabilization fund inflows, as the balance of revenues over expenditures, are determined residually instead of explicitly; legislative flexibility is preserved in terms of expenditure decisions. States which have adopted this approach typically specify a statutory cap, essentially defining a long range target for the fund.

3. Statutory specification of revenues above some threshold, determined by the growth rate of an economic indicator, such as real personal income, provides little flexibility from the legislative perspective. This approach uses a formula or rule which automatically grows the fund as the underlying economy grows. Because the growth of the fund is tied to economic variables, this method does not necessarily define a fund size. It is commonly coupled with a fund outflow rule related to the same economic indicator.

For either of the first two approaches, a stabilization fund size should be determined, regardless of whether the size is specified in statute. The determination of a fund size for the third option may not be required if flows into and out of the fund are automatic; but are desirable if the automatic inflows and outflows become decoupled. The size then provides a measure by which budget authorities can judge the adequacy of fund flows. This fund size is also better specified as a proportion of expenditures, despite the problems that can arise with this technical measure.[8] The alternative use of absolute amounts can result in decreasing fund responsiveness to budgetary conditions over time.

The determination of a target size for the stabilization fund, however, involves an economic choice dependent on the relative valuation of public sector fiscal stability and alternative uses of fund monies: increases in the fund size come at the expense of other uses. The latter may include increasing private sector disposable income through tax refunds. The benchmark recommendation regarding the size of a budget stabilization fund, either implicit or explicit, is 5 percent of expenditures. For those states which have specifically opted to declare a stabilization cap, the fund caps range from 2 percent to 10 percent of expenditures. However, the actual proportion varies considerably, with most states maintaining less than 5 percent in 1988 (Table 2).

Clearly, a major factor affecting the choice of fund size is the relative volatility of revenue flows. The maximum historical revenue shortfall expressed as a percent of expenditures represents a rough measure of fund size. For Hawaii over the period from FY 1980 to FY 1988, this maximum is 6 percent. Another measure is the maximum revenue shortfall from a long run trend line. Over the same period, this maximum shortfall for Hawaii amounts to $103 million,[9] representing 7.5 percent of expenditures for the corresponding year. These proportions might be doubled to provide coverage in two consecutive years of revenue shortfall. In addition, the probability of revenue shortfall of any given size might be estimated and used to compute an average expected revenue shortfall.[10]

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6. Gold (1983), "Preparing for the Next Recession: Rainy Day Funds and Other Tools for States," National Conference of State Legislatures.

7. From Table 1. State Budget Stabilization Funds: 1989, Fiscal Affairs Program, National Conference of State Legislatures, presented at annual meeting, August 1989.

8. This measure essentially assumes stability in expenditure. This assumption is violated when capital expenditures are made and recorded in a "lumpy" fashion.

9. Revenues over the period 1980-1988 were regressed against time to yield a trend line. Deviations of actual revenues from expected revenues provide a rough measure of annual variations from the trend.

10. Supel and Litterman (1983).

TABLE 3. STATES WITH BUDGET STABILIZATION FUNDS

State	Determination of Inflows and Fund Size	Procedures for Fund Expenditure	Stabil.[3] Fund Size FY 1988
Alabama[2]	Statutory-based automatic transfer	Declaration of need by governor or 2/3 of legislature	.8
Alaska[1]	Appropriation	Appropriation by special legislative session	0
California[2]	Year-end surplus or appropriation	Automatic expenditure or executive emergency order	0
Colorado[1]	Reserve in GFund at least 4% revenues	Appropriation	0
Connecticut[1]	Year end surplus up to 5% net GFund appropriations	Automatic expenditure	6.4
Delaware[2]	Automatic deposit from unencumbered funds to maximum 5% of following years estimate	Appropriation (3/5 majority)	4.9
Florida[2]	Year-end surplus up to 10% GFund revenues	Appropriation	1.3
Georgia[1]	Year-end surplus up to 3% prior years revenues	Automatic expenditure	3.0
Idaho[2]	2% of year-end surplus by appropriation (5% cap)	Appropriation	0
Indiana[1]	(Annual growth rate-2%)x GFund revenues up to 7% GFund revenues	Transfer if annual growth rate < 2%	5.8
Iowa[2]	Year-end surplus	Appropriation	0
Kentucky[1]	Appropriation	Appropriation/legislative contingency plan	0
Maine[2]	Automatic transfer of year-end unappropriated revenue, not to exceed 50% of amount by which collections exceeded projections ($25 million fund cap)	Appropriation	2.0
Maryland[2]	Appropriation	Transfer by governor if unemployment rate greater than 6.5% and 1% greater than 12 months earlier	1.3
Massachusetts[2]	Year-end surplus up to 5% current revenues	Appropriation	1.5
Michigan[1]	(Annual growth rate-2%)x GFund revenues	Depends on adjusted annual growth rate personal income	5.7
Minnesota[1]	Appropriation	Appropriation by Commissioner of Finance with approval by Governor & consultation with Legislative Advisory Commission	4.6
Mississippi[2]	Automatic transfer of 25% of surplus, not to exceed 5% of previous year's GFund revenues	(Executive) Fiscal Management Board	1.2
Missouri[2]	Appropriation	Appropriation	0
Nebraska[2]	Transfer from GFund when necessary; maintained at $32 million	Executive direction	2.0

TABLE 3. STATES WITH BUDGET STABILIZATION FUNDS (CONTINUED)

State	Determination of Inflows and Fund Size	Procedures for Fund Expenditure	Stabil.[3] Fund Size FY 1988
New Hampshire[2]	Audited year-end surplus	Fiscal Committee, Governor, Council approval; remaining balance in excess of 5% of GFund return to GFund surplus account	4.9
New Jersey[2]	50% excess of collections at end of prior FY	Findings that use of fund preferable over tax increase or emergency declared by Governor	2.4
New Mexico[1]	Appropriation	Appropriation	9.8
New York[1]	Year-end surplus up to 2% expenditures	Appropriation	0
North Dakota[2]	Surplus in excess of $40 million	Governor may transfer at lease 5% of estimate made by assembly	0
Ohio[1]	(Annual growth rate-1.4%)x GFund revenues	Transfer if adjusted growth <0%	2.9
Oklahoma[2]	Automatic transfer of excess of revenue projections; 10% cap of GFund	2/3 appropriation	3.4
Pennsylvania[2]	Appropriation	Appropriation	.8
Rhode Island[2]	40% of lottery revenue	Automatic expenditure	2.2
South Carolina[2]	Appropriation, 4% cap of prior year's revenues	Budget & Control Board	3.1
Tennessee[2]	Appropriation	Appropriation	2.4
Texas[2]	Transfer 1/2 of unencumbered GFund balance + portion of oil & natural gas production tax collections	2/3 legislative approval	0
Utah[2]	GFund surplus up to 3%	Appropriation	3.1
Vermont[2]	Undesignated GFund surplus up to 2%	State treasurer	1.6
Virginia[2]	Appropriation	Governor	0
Washington[1]	(Annual growth rate-3%)x GFund revenues each biennium; 8% cap	Appropriation	0
Wisconsin[2]	Appropriation	Appropriation	0
Wyoming[1]	Appropriations plus lapses	Appropriation	15.8

Note: GFund represents General Fund.

Sources: 1/ S. Gold, "Preparing for the Next Recession: Rainy Day Funds and other Tools for States," National Conference of State Legislatures, 1983.

2/ Table 1 from "State Budget Stabilization Funds 1989", Fiscal Affairs Program, National Conference of State Legislatures, 1989.

3/ M. Howard, "Fiscal Survey of the States," National Governor's Association and National Association of State Budget Officers, 1989.

Ultimately, though, the optimal fund size can only be the result of value judgement and stabilization fund experience.

State experience with procedures for the outflow of monies from budget stabilization funds are more varied (Table 3):

1. Automatic flows back to the general fund, when a general fund deficit occurs, is the most direct with respect to the management of general fund finances, but bypasses an explicit decision to draw down the stabilization fund. The expenditure results of this method are identical to what occurs when the general fund is used as an implicit budget stabilization fund.

2. Legislative appropriation of monies back to the general fund is less direct in terms of general fund management, but does require the explicit decision to drawn down the stabilization fund, in contrast to the automatic flow option. In some cases this might require a special legislative session.[11]

3. Automatic flows back to the general fund, conditional on growth in real personal income falling below some floor, provides no legislative discretion regarding the flow of monies out of the stabilization fund to the general fund. Used in conjunction with an automatic rule for flows into the stabilization fund, and conditioned on the same economic indicator, this rule would automatically deplete the stabilization fund to supplement revenue flows into the general fund which have decelerated with slowdowns in the economy.

4. Other alternatives include: an advisory consultation process between the governor and the legislative appropriations committee; explicit annual contingency plans for the use of fund monies. These alternatives appear in the stabilization plans of only two states.

Gold (1984), writing for the National Council of State Legislatures, suggests that automatic rules are less appropriate for the disbursal of monies out of a stabilization fund than it might be for placing monies into the fund. In particular, there is need for budget authorities to take explicit action regarding the drawdown of stabilization funds. The major implication of this recommendation is that stabilization funds should only be accessed through legislative appropriation.

A study by Pollock and Suyderhoud (1986), using Indiana fiscal data, supports this position to some degree. Their findings on the stability effects of a real personal income trigger suggest that the selection of proper design parameters is no easy task. A mistaken selection of parameters can cause stabilization funds to fall short of the goal of fiscal stability and actually cause destabilizing effects. Because high/low growth rates do not necessarily coincide with the peaks/troughs in revenue cycles, growth rate indicators can mistime shifts into and out of the stabilization fund. In the Indiana case, the trigger did not capture the necessary information on the timing lags between real personal income growth and tax revenue levels.[12]

General experience with budget stabilization funds in other states have produced mildly positive results. In a 1989 survey of state fiscal officers conducted by the NCSL, 30 percent of the respondents indicated the fund was effective as a stabilization device, while 20 percent of the respondents indicated the fund did not perform its function well. For other states, the fund was either too recent to judge or there had never been a need to draw on the fund. Eight states with budget stabilization funds did not respond to the survey.[13]

There are a number of considerations relevant to the design of a budget stabilization fund for Hawaii. First, general fund expenditure levels in Hawaii cannot exceed a ceiling determined by the rate of growth of personal income.[14] The existence of this spending ceiling has special implications for the accounting treatment and the method by which monies flow into and out of the stabilization fund. Many states limit spending by requiring that revenue flows balance expenditure flows. Consequently, those states which have stabilization funds record money flows into the stabilization fund as general fund expenditures, so that recorded expenditures match revenues in the year of receipt. Outflows of stabilization fund monies do not count as expenditures in the year of use, so that expenditures technically still match revenues.

For Hawaii, consistency with the constitutional spending limit requires that flows at either the time of entry

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11. This is the case for Alaska.

12. A 1989 NCSL survey of budget stabilization funds indicates that Indiana has never had to draw on its stabilization fund.

13. From Table 2a. Effectiveness of Budget Stabilization Funds, Fiscal Affairs Program, National Conference of State Legislatures, presented at annual meeting August 1989.

14. The expenditure ceiling for a given year is calculated by applying the rate of growth of personal income, averaged over the prior three years, to the ceiling from the previous year. The initial ceiling, established at the time of the constitutional amendment in 1978, was the level of general fund appropriations in FY 1979. The ceiling series is also periodically recalculated to reflect later adjustments to th rate of growth of personal income fo particular years.

or time of exit from the fund be counted as general fund expenditures. Of the two alternatives, recording expenditures at the time of actual outflow from the stabilization fund represents a more accurate recognition of use. Moreover, flows into the stabilization fund would be a simple transfer for the purpose of building the fund. This avoids the otherwise necessary tradeoff between current expenditures and the stabilization of future expenditures that the ceiling constraint would impose.

The method by which the spending ceiling is determined has additional implications for the method by which the stabilization fund should receive inflows. Because the spending ceiling is designed to grow with the rate of growth of personal income, the ceiling reflects one of the elements in the fiscal equation: increases in personal income will increase the demand for public services which will, in turn, require larger expenditures.[15] Increases in personal income will also increase tax revenues, with tax revenues responding more than proportionately to growth in personal income. This suggests two methods by which inflows to stabilization fund in Hawaii might be signalled: 1) when the rate of growth of tax revenues exceeds the rate of growth of personal income; 2) when the rate of growth of personal income exceeds some predetermined level, for example, a long run real rate of growth. Another method commonly used by states is the allocation of some proportion of the year end surplus. There is some evidence suggesting that automatic types of fund inflows lead to stronger stabilization funds, but the results are not definitive. Although an automatic type of inflow would promote accountability regarding the disposition of budget surpluses, the use of a simple guideline would permit flexibility while recognizing the need for some kind of decision regarding flows into the fund.

Hawaii's fiscal experience covering the period from FY 1980 through FY 1988, which included a steep recession and prolonged expansion, shows that if appropriations had occurred at the spending ceiling, the state would have amassed an accumulated deficit of $219 million.[16] This experience suggests that more work is needed for the determination of a guideline governing the inflow of monies to stabilization funds.

Outflows from the stabilization fund may require explicit appropriations or may occur automatically. Given the use of stabilization fund monies for general fund purposes, flows out of the fund might occur in a manner similar to that in which expenditures are made out of the general fund. In particular, these fund outflows should be accomplished by appropriation. This represents legislative choice and is consistent with general recommendations concerning how stabilization funds are spent.

Another consideration, related to the constitutional tax refund provision, is the manner in which stabilization fund balances should be treated, relative to the general fund balance. Combining the fund balances for the purpose of the 5 percent threshold would be too limiting with regard to the size of the stabilization fund. If a stabilization fund cap is determined, and the fund is at its full size, then additional revenues would remain in the general fund and legislators would have the current option regarding the size of tax refund. If the fund is not at full size, then legislators would have the additional choice of applying any general fund surpluses toward the stabilization fund.

Interest earnings of the fund may be retained in the fund or returned to the general fund. According to the 1989 NCSL survey, thirteen states add interest earnings of the stabilization fund back into the fund; seventeen states return the interest earnings to the general fund.

Additional concerns center on the use of stabilization fund monies. A budget stabilization fund may be designed for limited use, explicitly stating those functions for which fund monies may be used (health, safety and general welfare), or those functions for which fund monies may not be used (legislative expenses and salary adjustments for appointed officials). However, use limitations should allow for flexibility in interpretation, and a proliferation of restrictions must be viewed cautiously. A budget stabilization fund program with too many restrictions can so constrain budget authority actions that the stabilization function cannot be performed. The proper choice of fund design is somewhere between the extremes.

Conclusion

No state can isolate itself from the impact of economic fluctuations on revenue stability. However, efforts toward fiscal stability are enhanced by a specific determination of how this stability might be achieved. An

15. This assumes that public services are normal goods as opposed to inferior goods.

16. See Hawaii State Tax Review Commission 1989, Staff Paper, "Is Hawaii's Tax System Adequate?". One possible reason for this potential deficit might be that the original spending ceiling was set too high. Another consideration is that the period from FY 1980 through FY 1989 did not cover a sufficient number of years.

examination of some fiscal alternatives yields the following results:

o Stabilization funds, whether implicit in the general fund or explicit in a budget stabilization fund, are more consistent with fiscal stability than contingency or reactive measures.

o The institution of an explicit budget stabilization fund promotes accountability in decision making with regard to the size of the stabilization function. The optimal fund size is variable, but consistency with the State Constitution indicates a level of at least 5 percent. Experience may indicate a larger size.

o The institution of an explicit budget stabilization fund creates another formal institution in the budget structure but may represent the necessary tradeoff for changes in the tax structure.

o If the State opts for an explicit stabilization fund, appropriations from the fund appear to be better than the use of automatic rules. Excessive restrictions here can be counter productive for the stabilization function.

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SPECIAL FUNDS

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Introduction

The 1989 State of Hawaii legislative session witnessed the creation of a number of new special funds. This proliferation of special funds raises two important issues: whether they are beneficial from a public finance perspective; whether their use represents circumvention of the general fund spending limit. The rationale for special funds holds that beneficiaries of particular public services should be responsible for funding these services. The establishment of such funds, however, creates budgetary inflexibility, and suggests the tradeoff underlying the first issue. The funneling of general fund revenues into special funds serving particular government functions, on the other hand, raises the possibility of circumvention of constitutional intent, raising considerable debate over the use of special funds. The intent of this paper is to discuss the conceptual and practical issues in this debate.

Defining special funds and special funding

In a very broad sense, special funds are accounts outside the general fund, generally created to receive and disburse monies for enterprise-like programs, for capital improvements, for monies held in trust, and for federal aid designated for specific programs. From an accounting point of view, the flow of monies is more directly traced if monies are not co-mingled with other sources of funds. Hence, federal aid for specific programs is placed into special funds; unemployment insurance contributions are placed into a trust fund; bond revenues intended for capital expenditures are placed into bond funds where they can be distinguished from operating revenues.

In Hawaii, the use of special funds, measured in terms of the proportion of own-source receipts, has remained fairly stable since the early 1980's (Table 1). The Department of Accounting and General Services classifies these special funds into six general categories:

1) **special revenue funds** (highways, special land development, farm loan revolving fund, school food services, others);

2) **debt service funds** (general, airports, harbors, parking, University of Hawaii, Hawaii Housing Authority);

3) **capital project funds;**

4) **enterprise funds** (airports, harbors, Housing Finance and Development Corporation, Hawaii Housing Authority, state hospitals);

5) **University of Hawaii funds;**

6) **trust and agency funds.**

The largest program areas covered by these funds include airports, welfare, housing, higher education, highways, hospitals and lower education (Table 2). The primary sources of funding include user fees and tax charges, federal grants, contributions, revolving funds and appropriations. Two new additions to this group include: the educational facilities improvement fund, funded by a $90 million per year earmarking of general excise tax revenues, and the water pollution control revolving fund, funded by a $50 million appropriation for FY 1990.

A particular feature of many special funds is their user specific source of financing. When user fees and taxes that substitute for charges provide revenue for the fund, special fund financing establishes a link between revenues, based on a benefits-received principle, and the provision of services. Under the benefit principle, equity is enhanced because the charges levied on users of the service reflect the benefits received by those users. These user fees also perform a rationing function for government

TABLE 1. RECEIPTS OF HAWAII GENERAL AND SPECIAL FUNDS ($ in millions)

Year	All Receipts General		All Receipts Special		Own Source Receipts* General		Own Source Receipts* Special	
1987	1,835.0	64.2%	1,023.7	35.8%	1,824.1	74.3%	631.1	25.7%
1986	1,565.0	60.9%	1,006.7	39.1%	1,554.7	71.4%	623.0	28.6%
1982	1,148.3	59.5%	782.8	40.5%	1,137.9	72.9%	422.5	27.1%
1980	1,049.8	62.0%	642.9	38.0%	1,042.0	79.0%	276.2	21.0%
1975	799.4	79.8%	202.7	20.2%	606.5	81.3%	139.2	18.7%
1970	454.2	80.6%	109.2	19.4%	355.1	83.8%	68.9	16.3%
1960	110.4	67.7%	52.6	32.3%	92.5	77.0%	27.7	23.0%

*Excludes Federal grants in aid

Source: Tax Foundation of Hawaii

TABLE 2. RECEIPTS AND EXPENDITURES OF SPECIAL FUNDS*, BY PROGRAM AREA ($ in millions)

Government Function	Receipts	Expenditures	Surplus/ Deficit	Balance 6/30/88
General Government	7.62	5.93	1.69	5.90
Public Safety	29.15	27.36	-2.16	7.43
Highways	130.36	122.12	11.03	66.15
Conservation of Natural Resources	7.90	11.66	-3.76	15.69
Health	20.66	22.16	1.73	6.29
Hospitals	98.47	97.13	-1.89	20.49
Welfare	170.10	179.35	-13.85	16.15
Lower Education	80.77	81.54	-0.77	7.59
Higher Education	126.36	123.58	2.78	40.63
Other Education	0.00	4.80	0.00	0.01
Culture/Recreation	11.36	9.43	1.87	10.86
Urban Redevelopment and Housing	6.44	3.84	-0.01	17.19
Economic Development and Assistance	33.63	27.63	12.02	37.41
Airports	279.11	248.23	29.27	155.18
Water Transport and Terminals	47.63	47.54	-0.46	29.52
Hawaii Housing Authority	170.70	140.00	30.70	73.91
Miscellaneous	14.52	14.57	-0.05	24.05
Trust Funds	100.92	52.61	48.31	270.18
Total Special Funds	1335.70	1219.48	116.45	804.63

*Note: Before reclassification for financial statement purposes

Source: Department of Accounting and General Services

goods and services, analogous to private sector pricing for market goods and services. Efficiency in the allocation of resources is enhanced to the extent that the charges accurately reflect the cost of providing the functional service. The most common example of special funding is the use of fuel taxes, motor vehicle registrations and weight taxes as tax charges against the use of streets and roads.

Realization of the benefit principle, however, requires the existence of certain conditions. First, beneficiaries should be clearly identifiable; otherwise, users cannot be identified and assessed a fee.[1] Second, revenues should reflect the cost of providing the service. If costs exceed revenues, then the tax price is too low or the service is over-provided. If revenues exceed costs, then the tax price is too high or benefits are under-provided. In either case, the amount of the public service provided will be at odds with the efficient allocation of resources. Finally, administration and compliance with the tax should be simple. Unfortunately, a simple tax may not necessarily satisfy the first two conditions.

Very frequently, the benefit principle is difficult or even inappropriate to apply. In all of these cases, general funding, or the sourcing of revenues from more broadly based taxes, may be appropriate. This is particularly the case for pure public goods. Pure public goods provide benefits which are indivisible and from which individuals cannot be excluded. Once the public good is in place, use of the good does not impose any variable costs. Hence, it is not reasonable to assess a specific charge for use of the good. Because users cannot be excluded from the benefits of the good, it is also not feasible to assess a specific charge. There are very few instances of pure public goods, but public safety and public health provide good examples.

Strict interpretation of the benefit principle is also inappropriate in the case of publicly provided goods with positive external benefits. A good may be publicly provided when there are positive external benefits which accrue to other individuals who are not direct parties to the service provision. Education is an example of such a publicly provided program. While the benefits of education clearly accrue to the individual, there are positive spillover effects for a community in which the population is educated.

Finally, a case for general funding can also be made when the full or partial assessment of user fees is deemed too regressive. The assessment of beneficiary charges in the case of income redistribution programs, such as welfare and housing assistance, for example, is contradictory to the intent of such programs. The existence of transactions costs also mitigate against the full use of user based fees or taxes.

Earmarking Tax Revenues for Special Funds

A controversial issue in the discussion of special funds is the earmarking of revenue sources. Earmarking is the practice of reserving revenues from specific sources on a continuing basis and dedicating these revenues for specific

1. Even so, fees or charges may not fully reflect the value of the public service to the user. In this case, as with the market pricing of private goods and services, consumer surplus exists.

purposes. This contrasts the practice of combining revenues in a general fund for allocation and appropriation through a budgeting process. In some states earmarked taxes are constitutionally defined, but in Hawaii all of the earmarked revenues are established by statute, amendable by the normal legislative process.

Nationally, the use of earmarking is widespread and increasing. A 1984 survey completed by the National Conference of State Legislatures (NCSL) indicates recent increases in the numbers and types of earmarking provisions. Although the proportion of total tax revenues represented by earmarked taxes demonstrates a declining trend, the proliferation of the many small earmarked taxes appears to be signalling a shift in the popularity of these taxes. It has been suggested that federal government deficits and the declining federal role has shifted emphasis from the efficiency and equity criteria of taxation to the adequacy criteria and political acceptability. In particular, taxpayers may be more willing to pay an earmarked tax, because they have an explicit idea of the function that it will serve.[2] It has also been suggested that many of the locally earmarked taxes represent attempts to circumvent expenditure restrictions arising from property tax growth limitations.

The volume of earmarking reported by the survey is probably underestimated, because the NCSL adopts the fairly restrictive Census Bureau definition of a tax for the purposes of the survey. In particular, a tax is defined as a compulsory payment for the support of government, while a fee is a payment involving some choice in the use of a public service. User fees and proceeds from lotteries, for example, are omitted from earmarked revenues. Taxes shared with local governments are also omitted, although taxes earmarked for local governments are included.

Although Hawaii has a large number of special funds, there are only a few for which specific tax and operating revenues are earmarked. According to the 1984 NCSL survey, Hawaii dedicates less than 5 percent of total tax revenues, making the state among those with the least amount of earmarked taxes (Table 3). Using the NCSL tax definition, Table 4 illustrates the extent of earmarked tax revenues for FY 1987 and the relatively limited distribution of earmarked tax revenues.

The largest special revenue fund receiving these earmarked taxes is the State Highway Fund (Table 5). Revenues into this fund include the earmarked fuel, weight, registration, and general excise tax collections on the sale of fuel, as well as federal grants and other revenues. The largest enterprise fund receiving earmarked taxes and operating revenues is the State Airport Fund. Revenues include the earmarked aviation fuel tax, concession fees, rentals and landing fees. County fuel taxes and weight taxes are the only earmarked taxes at the local level.[3]

The Educational Facilities Improvement Fund, enacted in 1989, is the largest special fund receiving earmarked general revenue tax collections from general excise tax receipts. The Highway Fund also receives earmarked general excise tax revenues from the sale of motor fuel.

Evaluation of Earmarked Special Funds

The earmarking debate pivots on a fundamental tradeoff between the efficiency and equity gains from the direct pricing of public services through earmarking and the flexibility of policy makers' ability to balance the benefits of various government programs. Under the "benefits received" principle, earmarking serves both equity and efficiency in the allocation of resources. Because program beneficiaries finance the program in accordance with the level of benefit received and the cost of providing that level of benefit, the optimum allocation of resources can be realized with the simultaneous determination of expenditure and tax revenues. Users of the service signal their demand for the service with willingness to pay the tax price necessary to fund a particular level of service. Moreover, allowing taxpayers to "unbundle" public services and purchase them individually with user fees represents an efficiency gain over the "bundling" of public services, when transactions costs are low and when the composition of the "bundle" does not otherwise reflect the median taxpayer's choice.[4]

Earmarking is sometimes supported on other grounds. For one, earmarking can provide continuity for specific projects and might be justified in connection with infrastructure projects. Bond floats, for example, may be less expensive if there is an assured revenue stream for debt service payments. Earmarking might also induce the public to support new

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2. Rivlin, A., "The Continuing Search for a Popular Tax," American Economic Review, Vol. 72, No. 2, May 1989, pp. 113-117.

3. Rates for the various counties in 1987 were: City and County of Honolulu, $.075 per gal (highway), $.05/.075 per gal (nonhighway); Maui County, $.08 per gal (highway), $.05/.08 per gal (nonhighway); Hawaii County, $.05 per gal (highway), $.03/.05 per gal (nonhighway); Kauai County, $.04 per gal (highway), $.03/.04 per gal (nonhighway).

4. J. Buchanan, "The Economics of Earmarked Taxes," Journal of Political Economy, Vol. 71 No. 5, October 1963, pp. 457-469.

TABLE 3. PROPORTION OF TAX REVENUES EARMARKED BY STATE, FISCAL YEARS 1954, 1963, 1979, AND 1984

State	1954	1963	1979	1984	State	1954	1963	1979	1984
Alabama	89	87	88	89	Montana	61	53	55	60
Alaska	N/A	6	1	2	Nevada	55	35	34	52
Arizona	47	51	31	29	Nebraska	55	53	41	29
Arkansas	41	36	21	18	New Hampshire	53	54	31	24
California	42	28	12	13	New Jersey	7	2	25	39
Colorado	75	51	17	25	New Mexico	80	31	36	44
Connecticut	26	23	0	1	New York	13	10	0	6
Delaware	0	3	0	5	North Carolina	38	30	20	8
Florida	40	39	28	28	North Dakota	73	43	29	21
Georgia	29	22	11	9	Ohio	48	48	21	18
Hawaii	N/A	7	5	5	Oklahoma	62	59	N/A	43
Idaho	51	44	38	32	Oregon	47	36	23	19
Illinois	39	43	14	18	Pennsylvania	41	63	15	15
Indiana	49	39	43	33	Rhode Island	6	4	0	1
Iowa	51	44	19	13	South Carolina	69	62	56	55
Kansas	77	66	29	25	South Dakota	59	54	33	32
Kentucky	46	29	N/A	16	Tennessee	72	77	60	26
Louisiana	85	87	5	4	Texas	81	66	54	20
Maine	46	39	19	20	Utah	74	62	52	48
Maryland	47	40	34	24	Vermont	42	39	23	23
Massachusetts	56	54	41	40	Virginia	39	32	27	24
Michigan	67	57	38	39	Washington	35	30	29	26
Minnesota	73	74	12	13	West Virginia	57	39	21	21
Mississippi	40	37	N/A	30	Wisconsin	63	61	N/A	12
Missouri	57	40	20	29	Wyoming	61	64	54	69
					U.S. Average	**51%**	**41%**	**23%**	**21%**

Note: N/A – Not available

Source: 1954 and 1963, Tax Foundation, Earmarked State Taxes; 1979, Montana, Office of the Legislative Fiscal Analyst, memo (March 19, 1980); NCSL survey conducted in 1985 and 1986

TABLE 4. HAWAII'S STATE EARMARKED TAXES

Type of Tax	Tax Rate ($)	Collections Distribution FY 1987 ($ millions)	
Gasoline	0.11	40.857	Highway special fund
Other highway	0.07/0.11		Highway special fund
Other nonhighway	0.01		Highway special fund
Aviation fuel	0.01	6.286	Airport special fund
Small boat fuel	0.16 to 0.19	0.037	Small boat special fund
Weight		10.609	Highway special fund
Motor vehicle registration		6.930	Highway special fund
General excise	4% of gasoline sales	12.231	Highway special fund
Total		76.950	
Total Tax Collections		1776.430	
Total Earmarked Collections		76.950	
Proportion of Earmarked to total		4.33%	

Source: Tax Foundation of Hawaii, Government in Hawaii, Tables 13, 15, 48, 50

taxes. However, this is reasonable only to the extent that there is an established link between the tax cost and the expenditure benefit. Otherwise, there is no fiscal logic to this argument, and the only benefit would be one of fiscal expediency.

The primary criticism of earmarking is that it interferes with the ability of elected officials to shift budget priorities in the face of changing fiscal conditions. Earmarking creates rigidity in the revenue-expenditure structure by removing some governmental activities from periodic review and control. This rigidity fails to accommodate changes in spending priorities and preferences over time. This can create inefficiency in the

TABLE 5. SPECIAL REVENUE FUNDS, FY 1988 ($ in millions)

	Highways	Special Land Development	Farm Revolving Fund	School Food Services	Other Special Revenue Funds	Total
Tax Revenues						
General Excise Tax-Highways	14.328					14.328
Liquid Fuel Tax:						0
Highways	42.031					42.031
Boating					.782	.782
Vehicle Registration Fee Tax	7.271					7.271
State Vehicle Weight Tax	11.088					11.088
Income Tax Designation for Election Campaign					.462	.462
Total Taxes	74.718				1.244	75.962
Non-Tax Revenues						
Interest and Investment Income	.913	.192			10.006	11.111
Charges for Current Service	.333	.048		10.654	37.263	48.297
Intergovernmental	49.105			17.215	288.808	355.128
Rentals	.002	1.309			4.613	5.923
Fines, Forfeitures and Penalties	.305				1.314	1.618
Licenses and Fees	.087				.729	.817
Revenues from Private Sources					.467	.467
Other	4.815	.004	1.942	.003	8.563	15.327
Total Non-Taxes	55.559	1.552	1.942	27.872	351.764	438.688
Operating Transfers from General Fund					3.013	3.013
TOTAL REVENUES AND OTHER FINANCING SOURCES	130.277	1.552	1.942	27.872	356.020	517.663
Expenditures						
General Government					5.928	5.928
Public Safety					25.563	25.563
Highways	75.730				.747	76.478
Conservation Natural Resources		.595	8.592		2.473	11.660
Health					18.593	18.593
Welfare					189.092	189.092
Lower Education				29.081	52.432	81.513
Other Education					4.800	4.800
Culture and Recreation					9.207	9.207
Urban Redevelopment and Housing					3.839	3.839
Economic Development and Assistance					24.945	24.945
Other					14.370	14.370
Total Expenditures	75.730	.595	8.592	29.081	351.989	465.987
Other Financing Uses						
Operating Transfers to:						
Capital Projects Fund	42.670					42.670
Enterprise Funds					.043	.043
TOTAL EXPENDITURES AND OTHER FINANCING USES	118.400				352.032	508.700

Source: Department of Accounting and General Services, Combining Statement of Revenues, Expenditures, Changes in Unreserved-Undesignated Fund Balance Special Revenue Funds

allocation of resources, giving excess revenues to some functions while others are undersupported. Earmarking statutes also tend to remain in force even after the need for which they were established no longer exists.

Gold, Erickson, and Kissell (1987), in a white paper written for the NCSL, however, suggest that this misallocation is not always a clear result of earmarking. For example, earmarking tends to have more of an effect on the final allocation of resources when the magnitude of the revenue earmarked, relative to program expenditure, is large. If spending on the program exceeds the amount earmarked, there is no guarantee that earmarking will increase spending for the program at all. They suggest that the earmarking of revenues may then only be a political device, a "shell game," fooling citizens into believing that spending for the function will increase when it may not. Another, more generous, interpretation is that earmarking does not significantly affect resource allocation from what it might otherwise have been.

Earmarking, however, has no sound fiscal basis when there is little or no relationship between the sources of earmarked revenues and how the revenue is spent. In this case, the public body is worse off: the flexibility of budget authorities is reduced and there are no efficiency gains from benefit based funding. Instead, earmarking fails the benefits test and represents a temporary solution at best. An example of such earmarking practices include the earmarking of liquor and tobacco taxes for local governments (11 states from tobacco taxes and 20 states from liquor taxes), education (5 states), and debt service or state buildings (6 states). Indeed, the chairman of the Washington state House Ways and Means Committee summarized the dilemma involved in that state's decision to earmark cigarette taxes for water pollution cleanup:

> I'm troubled philosophically by saying you use the easiest tax if there is no correlation between where it is coming from and where it is going. But the need for funds--and the benefits to be derived--are persuasive enough that you do what is necessary to come up with the money.[5]

Earmarking also reduces efficiency when the incidence of the earmarked taxes is the same as the incidence of more general, broad-based taxes. If the individuals who bear the burden of the earmarked tax are the same individuals who bear the burden of a general tax, then the special fund structure does not induce a greater conformity to the benefit principle. Instead, creation of a special fund only reduces budgetary flexibility.

Earmarking provides no particular guarantee that the revenue sources will be sufficient to support the program. As in the situation above, where earmarking fails the benefits test, there is no way to equitably or efficiently price the service being produced. Revenues may be more productive than necessary, with the excess prevented from flowing to other uses. On the other hand, revenues may be insufficient to cover the cost of program services, forcing dwindling expenditures or piece-meal realignment of earmarking. Even when earmarking passes the benefits test, in terms of assessing beneficiaries for benefits received, inadequate tax pricing can result in fund deficiencies. This is especially the case when earmarked tax revenues grow at a rate slower than inflation, perhaps because of declining or sluggish demand. The motor fuel tax is a prime example: it is the largest source of earmarked road money while it is one of the slowest growing taxes levied by the states.

In practice, there may be divergence from the theoretical soundness of the benefits principle and relative use of earmarked user-based revenues, because of regressivity, transactions cost and "spillover" considerations. This does not necessarily mean that the earmarking to special funds is inappropriate. However, this does force the case for earmarking to be made on the basis that a logical and strong relationship can be established between the payment of a tax and the delivery of services. This also suggests that any construct which does not contribute to equity or efficiency reduces the case for special funds.

Hawaii's Special Funds

The practice of earmarking tax and operating revenues is not as extensive in Hawaii as it is in other states. Moreover, in almost all of the special funds where earmarking exists, the benefits test is satisfied in part, because beneficiaries of the public service contribute to the cost of providing that service. Hence, users of highways and streets pay motor fuel taxes, weight taxes and registration fees which contribute to the maintenance of roadways; users of airports pay aviation fuel taxes, concession fees, and landing fees which contribute to the airport operation and capital improvement; users of harbors and small boat marinas pay wharfage fees, docking fees and fuel taxes which contribute to the operation and improvement of

5. S. Gold, B. Erickson, & M. Kissell, "Earmarking Taxes," National Conference of State Legislatures, 1987, p. 26.

these maritime ports.

However, the other half of the benefits argument for the use of earmarking to special funds requires that tax prices or user charges fully reflect the cost of providing the service, no more and no less. This suggests that maximum gains from the tradeoff between the efficiency of special funding and budget authority flexibility are achieved when the special fund not only assesses users on the basis of benefits, but also when the special fund neither builds up deficits nor accumulates surpluses.

Since 1981 the state highway special fund has required the infusion of general fund revenues, in the form of general excise tax collections on the sale of motor fuel, to prevent insolvency of the fund.[6] According to the 1988 Report of the Highway Revenue Task Force, revenue growth from the traditional user-based sources has failed to keep up with expenditure growth. Supply constraints imposed by the oil producing countries during the 1970's have generated long run shifts toward lighter, more fuel efficient vehicles. These shifts have negatively impacted weight tax and gallonage based fuel tax revenues, and resulted in increasing divergence between the tax price assessed for the use of roadways and the cost of maintaining and improving those roadways. The report also indicates that general excise taxes on gasoline sales, varying from $12 to $14 million a year over the planning period, are insufficient to cover operating costs of the highway special fund. Thus, given the level of highway expenditures, the fund has a fundamental revenue problem.

The task force, however, recommended a number of revenue increasing changes in existing tax and user fee rates which would bring revenues more in line with expenditures.[7] The federal government has also sponsored considerable research to find a fair method for attributing highway costs to various types of vehicles. This suggests that a highway special fund can generate sufficient earmarked revenues to meet the efficiency characteristic of a special fund.

The case can also be made that some amount of general funding for the highway function is reasonable because of the positive externalities a good highway system confers upon everyone using goods for which transportation is an intermediate product. While this would tend to dilute the relationship between the tax price paid by direct users and the benefits they receive, the impact of general funding on equity and efficiency is minimized if its use is appropriate to the level of general benefit. For the Hawaii highway special fund, general excise tax revenues from the sale of gasoline is estimated to amount to somewhere between 17 and 18 percent of total own-source revenues over the period from FY 1988-89 through FY 1994-1995. This would require approximately a 20 percent general benefit interpretation. However, if these particular revenues can be interpreted as user related revenues, then 100 percent of revenues would represent charges for use.

This suggests that the highway special fund can operate, on balance, in accordance with the benefits principle.

In contrast to the highway special fund, the airport special fund presents a case where tax charges and operating revenues are significantly larger than operating expenditures. In 1987 additions to retained earnings were $37 million; in 1988 additions were $68 million.[8] Much of the level and growth in net operating income can be attributed to the strong performance of operating revenues from concession fees. Indeed, the 1988 award of concession rights for in-bond (duty free) merchandise will guarantee the airport special fund a stream of revenue totaling $1.15 billion through 1993.

Evaluation of the airport special fund is less direct, because the largest proportion of revenues are received from a for-profit business off the airport premises. To determine whether there are efficiency gains to an airport special fund structure, several questions have to be asked: 1) who are the beneficiaries of airport services; 2) do the beneficiaries pay for the use of airport services in accordance with the benefits they receive; 3) does the earmarking of revenues result in a different fee incidence than what might otherwise occur with a more general tax? Direct beneficiaries of airport services include both travelers and airlines. However, given the nature of the concession revenues, it is a particular group of travelers who bear a more than proportionate share of the concession fees. Indeed, the size of concession fees in overall revenue suggests that a large portion of the cost of providing airport services is exported to those foreign travelers who buy merchandise

6. Act 159, SLH 1981 first transferred revenues generated from the sale of gasoline to the highway special fund. This transfer has been extended several times. Current authorization for the transfer of general excise tax revenues expires June 30, 1991.

7. These include raising the gallon tax by 5 cents, doubling registration fees to $20, rescheduling the weight tax over a larger number of weight categories and raising the high weight cap, and retaining the earmarking of general excise taxes on the sale of gasoline.

8. Department of Transportation, Airports Division, Statements of Revenues, Expense and Changes in Retained Earnings, 1987, 1988.

at the duty-free locations. Other airport users receive a subsidy and may not pay in accordance with the benefits they have received. However, the earmarking of such revenues does result in a differential fee incidence than for a more general type of tax and, given the desirability of tax-exporting, a special fund structure is justifiable.

The airport concession fees not only subsidize the share of operating costs that might be borne by other airport users; the concession fees also subsidize capital costs of the airport.[9] Concession fee revenues can be used for cash CIP and can be used for debt service payments. Airlines, in particular, benefit indirectly from this use of concession revenues, because they are guarantors of airport debt.

A legitimate economic question is whether <u>all</u> concession fees properly belong in the airport special fund. A case can be made for allocating a portion of the fees to the general fund on two grounds: 1) Fees derived from the operation of an off-premise duty free shop result from sales which can be attributed to factors of production other than airport services alone. Foreign visitors to Hawaii, for example, are attracted by the bundle of vacation characteristics represented by a Hawaiian vacation. Their purchase of duty-free goods from the off airport location is thus only incidental to their use of airport services. 2) Fees derived from concessions in general also have an element of monopoly rent resulting from the nature of concession awards. To the extent that concession fees reflect user benefits and the cost of providing those benefits, that amount properly belongs in the airport fund. To the extent that concession fees exceed these benefits, the excess may more properly belong in the general fund. Indeed, airport projects might be undertaken which might not otherwise have been selected in open competition with other general fund projects.

There are federal limitations on the use of concession fees in this manner, however. Section 511(a-12) of the Airport and Airway Improvement Act of 1982 states that

> "all revenues generated by the airport, if it is a public airport, and any local taxes on aviation fuel...will be expended for the capital or operating costs of the airport, the local airport system, or other local facilities which are owned or operated by the owner or operation of the airport and directly and substantially related to the actual air transportation of passengers or property;"

This provides considerable constraint on the disposition of airport concession fees: violation would result in the loss of federal grants for airport use. Enabling federal legislation, which will allow the use of off-premise concession revenues for other than airport operation and improvement, is under current consideration.[10] In its present form, the proposed legislation provides only for transportation uses of these off-premise concession revenues.

An attempt to use airport concession fees in an alternative manner underlies the 1989 legislative creation of a transportation use special fund. The new law enables the director of the department of transportation to transfer funds in excess of 150 percent of the annual requirements of the highway, airport, or harbor special fund from those funds into the transportation use special fund, provided there is consistency with federal law. The Hawaii law would essentially allow the transfer of funds among the three special funds with the rationale of creating greater flexibility in the management of transportation revenues. The creation of the transportation special fund and its intended use, however, represents a cross subsidy of one special fund by another. This is no different than the use of general funds for provision of the service, because the use of funds in this way breaks the relationship between the beneficiary of the transportation service and payment for that service. Consequently, there are no efficiency gains from establishing this special fund and surplus revenues, if any, might be returned to the general fund for general fund redistribution. This would not preclude redistribution to any of the transportation special funds.

The 1989 Legislature also established an educational facilities improvement special fund, for public education capital improvement projects. A unique feature of this fund is the annual earmarking of $90 million in general excise tax revenues to be deposited directly in the special fund, bypassing the general fund and bypassing recordation as a general excise tax receipt. The use of general funds for a general function is appropriate, but the earmarking removes the amount from annual legislative review. The Legislature retains the power to authorize funds for specific projects, but has no ability to redirect the funds to other government functions. Moreover, the imposition of the special fund structure decreases budgetary flexibility. Perhaps, more significantly,

9. Capital needs of the Airports Division are estimated to be at $800 million over the period 1989-1991, for which $750 million in revenue bonds were authorized during the 1989 legislative session.

10. H.R. 838, 101st Congress, 1st Session.

the construction of the fund allows circumvention of the constitutional general fund spending limit. While the earmarking of $630 million, plus accrued interest, over the seven year period, may be the result of an explicit choice to improve the quality of education in Hawaii, the creation of a special fund which earmarks general revenues establishes a precedent that bears watching.

Conclusions

- The use of special funds and the earmarking of taxes are not as extensive in Hawaii as they are in many other states.

- Special funds which receive earmarked tax revenues that are user related generally satisfy the benefit principle and the special fund structure is appropriate.

- Special funds result in efficiency losses when their source of earmarked taxes bear no direct relation to the use of those taxes.

- Special funds with earmarked general revenue taxes provide an avenue for the circumvention of the constitutional spending limit.

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AN ANALYSIS OF THE HAWAII INDIVIDUAL INCOME TAX:
Recent Trends and Projections

Prepared for:

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AN ANALYSIS OF THE HAWAII INDIVIDUAL INCOME TAX: Recent Trends and Projections

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The Tax Reform Act of 1986 was one of the most sweeping revisions in the history of income taxation in the United States. At the federal level, it has been portrayed as accomplishing three major tax policy goals: expansion of the tax base, tax system simplification through a reduction in tax brackets, and a reduction in tax rates. Federal projections suggest that this was accomplished while maintaining "revenue neutrality" – that is, the federal tax was fundamentally reshaped without changing the bottom line amount of revenue it produces.

This clearly was not the case at the state level. To greater or lesser degrees, most state individual and corporate income taxes are affected by Federal law, and while they impose their own tax rates, states conforming in whole or part to the federal law have generally experienced at least some revenue impact as a result of federal reform without passing any additional tax legislation of their own. This impact--typically in the form of a revenue gain--is largely a by-product of the changes made in the income tax base. For states like Hawaii, whose law has been in relatively close conformity to federal statutes, the impact of federal reform has been a significant increase in tax liability.

The likely impact of federal reforms on state taxes has been well understood virtually since the federal legislation began to take shape, but states have had a difficult time defining its precise dimensions. The impact of the federal reforms are immense and encompass both direct revenue effects--positive and negative --and so-called "behavioral responses" as taxpayers react to changes in the tax code.

One of the clearest examples of this latter phenomenon is the pattern of capital gains realizations by investors. The 1986 law generally taxes capital gains--income realized from the sale of assets above their original purchase price--at lower tax rates, but it also eliminates provisions in the old law which excluded 60 percent of gains on long-term investments from taxation. Thus, the revenue impact of the change involved a tax increase for taxpayers from the elimination of the capital gains exclusion and a partly offsetting reduction because of lower tax rates.

But the effects of the law change did not end there. Also having an effect were changes in taxpayer behavior resulting from elimination of the gains exclusion. Initially, there was a surge in capital gains realizations the year prior to the Act taking effect as taxpayers sought to avoid the effects of base broadening. Following on the heels of this acceleration, there was a sharp drop in capital gains realizations in the first year of tax reform. Tax reform is also believed to have had an effect on how long taxpayers are willing to hold on to certain investments, producing a long-term behavioral effect in addition to the short-term acceleration.

Given complexities like these, many states have wrestled with the dual problems of what tax reform means for them and how they should respond to its implications. In this regard, Hawaii is similar to other states. There was an early recognition that the State, because it is relatively closely tied to federal law, would reap a sizable reform "windfall." In 1987 and again in 1989, however, the State took steps to return this windfall to the taxpayers and made other changes which reduced overall state tax liability.

Thus, since the Tax Reform Act took effect in 1986, there have been two sets of legislative forces operating on the Hawaii individual income tax. First, there are the effects of federal base broadening, which produced a sizable increase in tax liabilities over and above what the Hawaii tax would have produced in the absence of reform. Second, there are the provisions enacted by the State in response to the federal changes, the bulk of which were designed at least in part to distribute the gains from the federal changes back to Hawaii taxpayers.

How large is the windfall from the federal changes? What effect has the state response had, both in reducing the windfall and in promoting the traditional tax policy goals of fairness, simplicity and stability within the Hawaii state tax system? In a period when tax law is in flux at the state and federal levels and there is some degree of uncertainty in the economic outlook, these are extraordinarily difficult questions for a state to have to confront, and many states have faced the dilemna of how tax policy should be reshaped in light of the impact of federal tax reforms.

In this regard, the Hawaii Tax Review Commission sought the assistance of the Policy Economics Group of KPMG Peat Marwick to provide an outside analysis of the impact of tax reform and its short and long-term implications for the Hawaii individual income tax. The Policy Economics Group has worked with more than a dozen states in

analyzing the impact of federal reforms and state responses, using large-scale computer models based onstate taxpayer information to analyze the impact of various state and federal changes. This approach allows one of the best pictures available of the complex interactions created by the Tax Reform Act.

The Hawaii Individual Income Tax

The State of Hawaii has kept its individual income tax in close conformity with the Federal income tax. This serves to minimize taxpayer confusion and superflous record keeping. The personal exemption amount is $1,040, and the standard deduction is $1,500 for single and $1,900 for married returns. There are eight tax brackets, with tax rates ranging from two percent to ten percent. The State also employs a variety of credits used to provide relief to low-income taxpayers and return general fund surplus to the taxpayers.

The conformity, however, is not total. Among the differences in the tax base are the exclusion of Social Security benefits, most pension income, interest on U.S. savings bonds, and $500 of military reserve and national guard pay. On the other hand, the State taxes interest on revenue bonds issued by other states and has never allowed the deduction for two-earner married couples. All itemized deductions allowed for Federal tax purposes are also allowed for state tax purposes, and certain political contributions are deductible in Hawaii as well.

The exemption amounts for taxpayers, dependents and elderly conformed to the Federal amount through 1985 when they were first indexed to inflation. Since then, the state exemption has remained at its 1985 level. The standard deduction has always been lower than the Federal amount, although it has been raised twice since 1986. This has resulted in an unusually high number of itemizers. Prior to 1987, the tax rate schedule had twelve brackets and a top rate of eleven percent. Since the Tax Reform Act of 1986, the number of brackets has been reduced to eight and the top rate has been reduced to ten percent. Furthermore, the rates in each bracket were reduced starting in 1989. In order to conform with the Federal treatment of capital gains in AGI, the 60% exclusion was repealed in 1987 but was replaced with a maximum tax on capital gains of 7.25 percent.

Hawaii also has a variety of tax credits that are generally designed to do three things:

- to provide tax relief to low-income individuals;
- to offset the sales tax on certain "necessities" (e.g., food and medical care); and
- to return surplus revenues to the taxpayers.

Low-income relief is provided through an excise tax credit and a renter's credit. The former is designed to counteract the regressive nature of the sales tax by allowing a credit to low income taxpayers that phases down to zero as income increases. The renter's credit is designed to offset the general excise tax passed on to low-income renters by landlords and has been available in a flat amount to renters whose incomes fall below a certain threshold. In the case of both credits, the threshold for eligibility was recently raised from $20,000 to $30,000 of AGI. Another credit, this one for child care expenses, is available to taxpayers of all income classes, but is more generous to those under the $30,000 threshold.

Because Hawaii's general excise tax base is relatively broad, there has been significant interest in either narrowing the base by exempting food, drugs, and medical services or providing relief through the income tax system without regard to income. The State has chosen, at least temporarily, the latter course. In 1987, a food tax credit of $45 per exemption was enacted. This credit is scheduled to remain in effect only through 1990. In 1989, the State enacted a medical services excise tax credit. This credit covers four percent of medical expenses up to a maximum of $200, with a higher maximum for elderly and blind. This credit is scheduled to remain in effect only through 1991.

In 1978, the State enacted a constitutional provision requiring a refund of general fund surpluses whenever the fund balance exceeds five percent of revenues over two consecutive fiscal years. This has occurred several times in recent years. In such cases, the State has chosen to accomplish this through a general tax credit of at least one dollar per exemption. The only times this credit has exceeded one dollar have been in 1981 ($100), 1982 ($25), and 1989 ($125).

The Estimating Process

The basic tool used by the Policy Economics Group to estimate the liability impact of a change in income tax law is a microsimulation model. This model operates on a data base containing approximately 4,000 Federal tax returns filed from Hawaii in 1985. The data base has been enhanced to represent the population of Hawaii state income taxpayers in each of the years from 1987 through 1994. The methods used to accomplish these enhancements are described in Appendix A.

The microsimulation model enables the analyst to compare two different tax laws by reading one return at a time, simulating the filling out of that return under the two different laws and weighting the results so that the

4,000 records accurately reflect the entire taxpaying population of the state. The analysis yields a comparison of the liabilities produced by the two plans, the distribution of those liabilities among income classes, and the number of taxpayers paying higher taxes under each of the two plans. The structure of the analysis undertaken in this report was to begin with the Hawaii tax as it was before the enactment of the Tax Reform Act of 1986, then to add one provision of the Act at a time to the base law, followed by each provision of the state's response to the Act. For example, the first provision of the Act analyzed was the full taxation of unemployment benefits, and the second was the repeal of the dividend exclusion. Thus in the second analysis, both laws being simulated would fully tax unemployment benefits, but only the second would disallow the dividend exclusion.

Once a liability estimate has been obtained for a provision, the timing of the revenue impact of the provision must be estimated. The liability associated with each provision is divided among fiscal years based on the form of payment that will most likely be used by taxpayers to conform to the new law.[1] Rate changes, for example, are usually built into withholding tables making the change in revenue from rate changes almost simultaneous with the change in liability. Because fiscal years begin in July of the previous year, the calendar year liabilities associated with rate changes are split equally between the current fiscal year and the following fiscal year. Capital gains, on the other hand, are not subject to withholding but are usually paid at the time the return is filed. This occurs in the following calendar year, and therefore 100 percent of the revenue is attributed to the following fiscal year.

A key to this entire process is the economic forecast used in extrapolating a 1985 data base to later years. If the forecast of income is too high or too low, then the base law liability estimate will likewise be too high or too low. The population estimates are also important because of the prominence of credits that are allowed on a per exemption basis. The forecast of the inflation rate also plays an important role in the extrapolation, and its role becomes much more critical when indexing of brackets and/or exemptions is considered as a policy option.

The economic forecast used in this analysis was the December 1988 forecast by the Department of Business and Economic Development, Hawaii Econometric Modeling Project. Because 1994 was not included in this forecast, the growth from 1992 to 1993 was projected forward another year to derive 1994 estimates. The population forecast used was the November 1988 forecast by the Department of Business and Economic Development, Research and Economic Analysis Division. This forecast covered only years divisible by five; the population in the intervening years was interpolated by the staff of the Policy Economics Group. The major features of the two forecasts are shown in Table 1.

The Impact of Federal Law Changes

At the time the Tax Reform Act was enacted, the Hawaii individual income tax law was relatively closely linked to federal statutes in many of its key provisions. Table 2 summarizes the major provisions of the Tax Reform Act that have had an impact on the Hawaii tax liabilities.

By comparing the tax estimates for various provisions under the old (pre-reform) laws with the effects after tax reform changes are included, it is possible to get accurate estimates of the tax liability effects of various tax reform provisions for tax years 1986 through 1994. (This same process is also used to analyze the changes in state law discussed later.) Table 3 shows a summary of this information by major provisions for 1986 through 1994.

It is important to underscore that these data are for calendar year liabilities--the amounts that taxpayers would be expected to pay as they have tax withheld from their paychecks or file their tax returns. (Later, we will discuss how these liabilities filter through the tax system to form fiscal year receipts--the money the State actually receives during its July through June fiscal year.)

As Table 3 shows, the total impact of the federal reforms on Hawaii law is an increase in liabilities, ranging from $16 million in 1986 to $154 million in 1994. This is, in effect, the windfall from federal tax reform. For calendar 1988, for which taxpayers have only recently filed tax returns, the increase in liability from the federal changes is estimated to be about $85 million.

The largest impact of the federal reforms changes is the treatment of capital gains for tax purposes. The new law eliminates the previous exclusion of 60 percent of long-term gains from taxation. As noted earlier, this is also one of the most complex sets of interactions, since it involves both a broadening of the base and a set of taxpayer behavioral reactions to the loss of the exclusion.

It is this latter effect that produces the estimated gain in 1986, before the tax law took effect. There was an

1. It is important to note that the estimates of tax liability in this analysis closely follow and are projected from actual state income tax data contained in the publication, Hawaii Income Patterns. These data differ somewhat from the liabilities produced using tax recei data.

acceleration of gains in that year as taxpayers rushed to realize gains at the lower effective tax rate under the old law. This was a clear by-product of the tax reform provisions but was in advance of actual changes in the law. However, the response resulted in fewer capital gains realizations in subsequent years as the exclusion was eliminated, thus reducing taxable gains. Furthermore, other gains were "locked-in" as asset holders declined to realize their gains in anticipation that the rate may drop again in the future. On the other hand, these affects were offset by higher liabilities generated by the broadened capital gains tax base. Thus, the net effect is a series of small increases in gains over the forecast period.

Another important federal change that netted the State additional tax liability was the limits placed on non-business interest deductions. Under the old law, taxpayers were allowed an itemized deduction for consumer interest, home mortgage interest and for certain investment interest. Under the 1986 law, only the home mortgage deduction was retained intact. The interest deduction for consumer loans was phased out over several years and substantial changes were also made in the taxation of investment interest expense.

A third major factor increasing liabilities for the State was the repeal of the sales tax deduction. Because of the broad base of Hawaii's general excise tax, the pre-reform Federal sales tax deduction tables allowed higher deductions for Hawaii residents than those of all but a handful of other states. Thus, the repeal of this deduction produced a disproportionate windfall for Hawaii.

Distributional Effects of Federal Tax Reform

By conforming to Federal tax reform on issues relating to the definition of income and allowable deductions, Hawaii shifted the tax burden more towards the higher income classes. The only Federal conformity provisions that serve to reduce the tax burden on anyone are the depreciation provision before 1989, and the full taxation of capital gains among relatively low income taxpayers. Unlike higher income taxpayers, these taxpayers did not receive a substantial reduction in regular tax rates in 1987 to offset the loss of the 60 percent exclusion for capital gains. As a result, the value of the gains they choose not to realize more than offsets the higher taxes on the gains they do realize. Thus, their tax is lower than it would have been with the 60 percent exclusion in place.

The vast majority of capital asset holders, however, have experienced a tax increase as a result of the elimination of the exclusion. This increase, as well as the increases associated with most of the remaining provisions, affect the higher income classes disproportionately. Many of the provisions affect only taxpayers who itemize their deductions. These taxpayers usually have higher incomes than nonitemizers. The limitations on IRA deductions, furthermore, are applied only to higher income taxpayers. Other provisions, such as passive loss limitations and full taxation of capital gains, affect higher income taxpayers disproportionately because they hold most of the capital assets and tax shelters. In fact, of the liability increase experienced by taxpayers with incomes over $200,000, over 80 percent is attributable to the capital gains provisions. The effect of the passive loss limitations also are concentrated at the highest end of the income scale.

The effect of most other provisions is concentrated in the $20,000 to $100,000 range. Only the taxation of unemployment benefits and the disallowance of an exemption for taxpayers declared as dependents on another return affect primarily lower income taxpayers (who, in the case of dependent taxpayers, may actually belong to higher income families).

Fiscal Year Impact of Federal Changes

A final step that needs to be taken to understand the impact of the federal reform changes on the State's fiscal situation is to convert the calendar year liability figures discussed above into fiscal year receipts. Hawaii follows a July-June fiscal year, so many of the receipts generated by calendar year liabilities will not show up in state revenue receipts until the following fiscal year because of differences in the timing of the calendar and fiscal years. The conversion from calendar year liabilities to fiscal year receipts is accomplished using allocation methods developed by the Policy Economics Group and the U.S. Treasury Department.

The net effect of these conversions for fiscal years 1987 through 1994 is summarized in Table 4. Again, the table shows the major provisions having an impact on the Hawaii individual income tax and also aggregates the individual provisions into four groupings of deduction changes, base broadeners, capital gains effects and all other changes.

Although the timing differences between calendar year liabilities and fiscal year receipts are readily apparent, the pattern of effects is still clearly recognizable, with most of the impact coming from the capital gains provisions, the non-business interest provisions, and repeal of the sales tax deduction. As the table shows, had the State not made counter-balancing changes in its law, the federal law

changes would have produced gains in state income ranging from almost $20 million in 1987 to $144 million in 1994.

The important fact, however, is that the State did take actions to return this "windfall" to the taxpayers of Hawaii. The next section looks at the State's response and how it affected the gains stemming from the Federal law changes.

State Legislature Changes in the Post-Reform Period

Table 5 summarizes the changes made by the State of Hawaii since the enactment of Federal tax reform. These changes can be divided into two groups: those which were temporary in effect, and those which made permanent changes in the state income tax law.

Probably the most significant of these in terms of its ultimate revenue impact and its contribution to fundamentally changing the state income tax structure was the reduction in the rate schedule, with the top marginal rate falling from eleven to ten percent. Two other major changes were the increase in the standard deduction and the establishment of a 7.25 percent limit on capital gains taxes. These three changes were direct responses to Federal tax reform and from 1989 on will successfully return more than 85 percent of the federal reform windfall to the taxpayers of Hawaii.

Table 6 shows the liability changes associated with the state response to Federal tax reform for the years 1986 through 1994. Because of the temporary provisions, the total response does not show a particular pattern, but does increase from a loss of $80 million in 1987 to $140 million in 1994 with a peak loss of $247 million in 1989.

The increase in the standard deduction left if far lower than the new Federal standard deduction, but did provide significant relief to the lower income classes. In fact this provision alone more than offset the higher liabilities associated with the windfall for the income classes below $15,000. The maximum tax on capital gains, on the other hand, was designed to compensate for the loss of the capital gains exclusions and naturally benefitted the higher income classes. This provision provided no relief at all to taxpayers with incomes less than $20,000 even though some of these taxpayers had lost the 60 percent exclusion. The rate cut was applied across the board and provided relief for virtually all taxpayers with positive liabilities. The distributional pattern of this relief, however, was not related to the pattern of liability increases associated with the windfall from Federal tax reform. The effect of the rate costs was to redistribute the windfall received from higher income taxpayers to lower income classes.

Other permanent changes were to expand eligibility for the excise tax credit as well as the amount of the credit, to increase the amount of the child care credit, and to expand eligibility for the renter's credit. All were targeted to provide relief to lower income taxpayers and seem to have been enacted without the windfall from Federal tax reform in mind. All have relatively minor revenue effects.

In fiscal 1988, the State ended the fiscal year with a large General Fund surplus for the second straight year, in large part because of the unexpectedly high growth in the income tax--even above the estimated windfall levels. The $125 exemption credit in effect during 1989 is a constitutionally mandated credit designed to return this surplus to the taxpayers. The result is an apparent "state response" that is out of proportion with the federal windfall. This credit, however, was not designed to return the federal windfall to the taxpayers--the rate and standard deduction changes discussed above serve that purpose. It is the surplus that arose in spite of the rate cuts that this credit is designed to address. Because we cannot project the surplus beyond the current year, this analysis assumes that the exemption credit will revert to a value of $1 per exemption in 1990.

The other two temporary measures that the State has enacted are designed to offset the excise taxes on food and medical services. These are policy choices made by the State to address the regressivity of the general excise tax. Like the $125 credit, they are not true responses to Federal tax reform, as evidenced by their temporary nature. The food tax credit expires after 1990, and the medical services credit expires after 1991, despite the continued increase in the value of the windfall.

The food tax credit is functionally identical to the exemption credit--it differs only in purpose. The medical services credit, on the other hand, has a direct tie to actual consumption. Neither is restricted to lower income taxpayers, but because they are refundable credits they benefit lower income classes more than if they were itemized deductions.

Table 7 converts the calendar year liabilities associated with the State's legislative changes to fiscal year receipts. Again, the pattern is somewhat similar with growing overall losses as a result of the State's legislative changes through the 1994 forecast period.

Combined Federal and State Effects

With an understanding of the impact of the Federal reforms and th State's recent legislative changes, it

is useful to combine the two effects to see where the State stands with regard to dealing with the impact of Federal tax reform. This is done in Table 8 for calendar year liabilities and in Table 9 for fiscal year receipts.

In the first two years after tax reform as shown in Table 8, the State's permanent law changes failed to completely offset the windfall. The food tax credit, however, more than offset the remaining windfall in both years. The permanent changes enacted in 1989 succeeded in offsetting the windfall. Over time, however, the windfall grows faster than the State's legislative changes erode it. Ironically, this is directly related to the State's efforts to direct its tax law revisions to lower income taxpayers. Provisions such as increasing the standard deduction and expanding the excise tax credit affect only lower income taxpayers. As incomes increase over time, however, the taxpayers originally benefitting from these provisions become ineligible for the excise tax credit and begin to itemize their deductions. Thus, unless the amounts of the standard deduction or the excise tax credit threshold are increased over time (e.g., through indexing), the amount that can be returned to the taxpayers through these mechanisms cannot grow.

Federal tax reform, on the other hand, had a greater impact on itemizers and other high income taxpayers. Thus, as incomes grow over time, more taxpayers itemize their deductions, invest in IRAs and engage in other economic activity that is affected by the Tax Reform Act. As a result, the windfall increases steadily over time, while the State's changes lag somewhat. Unless the state undertakes additional changes, it will find itself benefitting from the windfall again within a few years.

If we look at 1992, the first year in which the permanent provisions enacted in 1989 fail to return the entire windfall to the taxpayers as reflected in Table 8, we still find that an overwhelming majority of taxpayers experience a net decrease in their state taxes as a result of Federal and State changes since 1986. There are winners and losers in each income class, but the winners are concentrated in the lower income classes and the losers are concentrated among the upper income classes. Table 10 summarizes the winners and losers by income class.

Policy Options

The Hawaii Tax Review Commission has committed itself to recommending a tax system that meets the general criteria of "adequacy, equity, efficiency, simplicity, and revenue stability". There are several actions the State could take that would improve the individual income tax system in terms of these criteria. This section will discuss these possible policy changes as well as the characteristics of those already made since 1987.

With regard to conforming to Federal law changes, the salient evaluation criterion is simplicity. Every departure from Federal law involves more complexity in preparing the State return. Thus, conformity clearly enhances the simplicity of the system.

To the extent that the Tax Reform Act of 1986 enhanced economic efficiency, the State's conforming also enhanced efficiency. Occasionally, states will try to enhance economic efficiency by enacting provisions independently to Federal law. Efficiency, however, is less subject to influence from the state level than from the federal level because of the difference in rates. Unless the departure from federal law is dramatic, states' individual income taxes have relatively little impact on economic efficiency. For this reason, the Policy Economics Group does not recommend any changes in Hawaii law that would depart from the conformity principle.

In fact, in the case of the standard deduction, the state has not conformed to Federal law and has thereby created unnecessary complexity. The relatively low standard deduction has forced many taxpayers to itemize their deductions even when they used the Federal standard deduction. By conforming to the Federal standard deduction amount, Hawaii would further simplify its system and, for reasons discussed below, would enhance the system's revenue stability.

The 7.25 percent maximum tax on capital gains is designed to provide some relief to taxpayers who lost the 60 percent exclusion under tax reform. As discussed above, however, this is unlikely to have much impact on capital gains realizations. Furthermore, this form of relief is available only to taxpayers in the highest tax brackets, whereas the 60 percent exclusion was available to all taxpayers. Finally, the provision adds to the complexity of the tax return. For these reasons, the Policy Economics Group recommends that the maximum tax rate on capital gains be lifted, with the understanding that the top general tax rate will be further reduced.

The array of credits raises a variety of issues. The sheer number of different credits, each with its own eligibility criterion, increases the complexity of the system. Furthermore, because of the temporary nature of some of these credits, revenue stability is compromised. The credits do have the advantage of providing significant relief for low income taxpayers, particularly because they are

refundable. The Policy Economics Group believes, however, that some consolidation of the credits could achieve greater simplicity and revenue stability without burdening lower income taxpayers.

Of the different credit structures, the renter's credit presents a particular problem with regard to efficiency. Taxpayers with incomes under $30,000 are eligible for the full credit, but a taxpayer with an income of $30,001 is not eligible for any credit. The marginal tax rate on that one additional dollar of income is therefore 5,000 percent and more depending on the number of exemptions. Such a rate is certain to distort the economic decisions of a taxpayer approaching the $30,000 income level. The excise tax credit, on the other hand, phases out gradually as income increases. This is more complicated, but avoids the distortions inherent in the structure of the renter's credit.

The magnitude of all these credits combined with the steepness of the tax brackets produces some unusual effects. A married couple with one child that rents their home and does not itemize deductions can have an adjusted gross income of $17,957 and still have no tax liability. Their next dollar of income, however, would be taxable at a rate of eight percent. In fact in 1989, the progressivity of the first three brackets applies strictly to refunds, not to taxes paid. While not as dramatic as the notch associated with the renter's credit, the jump from a zero percent marginal rate to an eight percent marginal rate could produce some distortions. Table 11 demonstrates how the credits affect the tax liabilities of two taxpayers; these taxpayers are identical except that taxpayer B has one hundred dollars more income. This phenomenon could be avoided by reducing the steepness of the rate schedule. In the case of Hawaii, simply eliminating some of the lower tax brackets from the schedule and widening the remaining brackets would accomplish this.

APPENDIX A: CONSTRUCTION OF A HAWAII INDIVIDUAL INCOME TAX DATA BASE

I. Characteristics of the Data Base

In its analysis, the Policy Economics Group begins with the 1985 Individual Tax Model "Supersample" File prepared by the Internal Revenue Service. The Supersample is generated on a state-by-state basis so that a single state can be modeled and statistically valid results obtained. This study utilizes only those records from Hawaii. Each record on the supersample contains 200 fields, each of which can be placed in one of the following five categories:

1) Information taken directly from Federal Income Tax forms (i.e., the vast majority of fields, including sources of income, deductions, and numbers of exemptions);

2) Information calculated or inferred by the IRS (from 1) (e.g., regular tax when the taxpayer used income averaging);

3) Information that has been "blurred" by averaging values over three similar returns with the same blurred value assigned to all three (e.g., real estate taxes, alimony paid and alimony received);

4) Zeros where information has been suppressed to preserve confidentiality (e.g., "other" income or loss and miscellaneous itemized deductions); and

5) Statistical weights by which the other information must be multiplied in order to obtain the total for all returns represented by that record.

In addition to suppressing specific fields on each record to preserve confidentiality, the IRS has deleted all returns of taxpayers with Federal Adjusted Gross Incomes (AGI) over $200,000 and some with negative AGI. The method of regenerating records to represent these returns is discussed in Section II.

The returns on this data base represent only those taxpayers who filed a Federal return from a Hawaii address. Some of these people do not file Hawaii state returns. Furthermore, nonresidents and outmigrant part-year residents who file Hawaii returns are not included in the sample. The method of converting the sample from one representing the Federal taxpaying population to one representing the State's taxpaying population is discussed in Section III.

The Federal income tax form does not record all of the information required to complete a Hawaii state tax return. For example, pensions and annuities are reported together without any way of distinguishing between them. Furthermore, some important Federal information has been omitted to preserve confidentiality. This makes it necessary to impute additional data items to the file to accurately simulate the Hawaii state income tax. These imputations are discussed in Section IV.

Finally, because the data represent the year 1985, they are of little use in projecting either liability or receipts in later years. The Policy Economics Group has proprietary software that extrapolates microdata to later years. This procedure is discussed in Section V.

II. The Regeneration of High Income Returns

Instead of providing microdata on high income taxpayers, the IRS provided tabulations of the aggregate dollar values of each variable on the data base for those returns that were omitted. Also included was a count of the number of returns with nonzero values in each field. This information was sufficient to generate synthetic records containing all the useful information on a sample record such that each synthetic record was internally consistent, and the totals over all records (sample and synthetic) for each field were reached within a narrow margin of error.

For each field on the data base, a potential population was identified, and the probability that a return in that population would have a nonzero value was calculated. For example, for wages and salaries, the potential population was the entire set of high income returns, but for the two-earner deduction, the potential population was married returns only. Returns were randomly selected from the potential population of each field to receive a nonzero value. Another random number was then used to assign that value. In most cases, this value was uniformly distributed around the mean as calculated from the aggregate data.

This procedure alone, if applied to every field on the data base, would produce totals matching the published totals very closely. It would not, however, produce internally consistent records, nor would it necessarily generate records with very high or negative incomes in every case. To accomplish this, components of AGI were imputed in two parts: items that always represent income (e.g., wages, interest, pensions, etc.), and items that always or sometimes represent a loss (e.g., business income, sales of capital assets, supplemental income, and all adjustments to income). Partial "income only" records were then matched with partial "income and loss" records such that all records had an

AGI either negative or over $200,000. It was also necessary to shuffle some wages and Schedule E losses among records to eliminate some stray records in the middle income range and insure that the proper number of records with negative AGI was obtained.

Fields that are calculated by the taxpayer were calculated in this procedure also. Thus, total medical expenses was imputed, but the amount deducted was calculated based on that imputation and the taxpayer's AGI. Other calculated fields include taxable income, regular tax liability and the child care credit. This preserved the internal consistency of each record. In spite of these steps to preserve internal consistency, no adjustments other than those described above were required to reach the desired totals of any field used in calculating Hawaii income tax.

Although these records are internally consistent and produce correct totals for each field, they do not produce a correct income distribution within the class over $200,000. Normally, the only statistical limitation on the presentation of simulation results by income class is that a minimum number of records must be contained in each class. In the case of these synthetic records, however, the income class over $200,000 must always be presented as a unit. If simulation results were printed for returns with an AGI over $1,000,000, no statistically valid conclusions could be drawn from them regardless of the number of returns meeting that criteria.

III. Conversion from Federal to State Filing Population

Data published in Hawaii Income Patterns showed the distribution of nonresidents by income class. Returns were randomly drawn from each income class to be duplicated as nonresidents. The original record was preserved intact, and the duplicate record was calibrated in order to reach the income and deduction totals published for nonresidents in Hawaii Income Patterns.

At the same time, returns were randomly selected to be deleted from the Hawaii state sample. The percentage to be deleted from each income class was determined by generating a distribution of Federal returns by Hawaii AGI class using the PEG microsimulation model, comparing this distribution to that published in Hawaii Income Patterns, and dividing the excess Federal returns in each class by the total Federal returns in that class. These returns were not literally deleted from the data base, but were flagged so that they would not be tabulated with the other returns in the state income tax portion of the model.

No new records were generated to represent residents who filed no Federal return, but filed a Hawaii state return solely to claim refundable credits. This was handled in the extrapolation process and is discussed in Section V.

IV. Imputation of Additional Variables

The following variables were either added to the data base or are imputed during the course of each simulation: depreciation, tax-exempt interest, annuities, royalties, Sub-S corporation gains and losses, "other" gains and losses, miscellaneous itemized deductions, and rent paid. In addition, several flags were placed on each record to indicate such things as partnership industry, limited partnership status, pension coverage, participation in the renter's credit and participation in other refundable credits.

Most of the information to impute these items was obtained from the following sources:

1) Department of Treasury, IRS, Statistics of Income publications,

2) Hawaii Department of Taxation publications and unpublished documents,

3) An earlier generation Hawaii data base produced by the Policy Economics Group for other projects.

The imputations for "other" income and loss and miscellaneous itemized deductions required no additional data. They were simply calculated as residuals from available fields on the data base with the understanding that their values would be slightly distorted by the "blurring" of some of the variables in the equation.

Variables imputed using Federal publications include royalties, Sub-S corporation income and loss, depreciation, partnership industry, and limited partnership flags. Royalties have been combined with rental income on the supersample, and Sub-S corporation gains and losses have been combined with partnership gains and losses. The royalty share of rents and royalties in the U.S. by income class, as well as the Sub-S share of partnership and Sub-S income by income class can be found in the 1985 Statistics of Income. These percentages were used to randomly select records to which to give royalties and Sub-S gains or losses, and to determine the assigned split between the combined variables.

The distribution of partnerships by industry and the split of gains and losses between limited and general partnerships can be found in "Partnership Returns, 1985", SOI Bulletin, Summer 1987. Depreciation deductions can be found in this article and the accompanying "Sole

Proprietorship Returns, 1985" in the same issue.

Variables that were imputed based on information from the Hawaii Department of Taxation include annuities, the flag for participation in the renter's credit, and the flag for participation in other refundable credits. In the case of annuities, the number of returns reporting annuities and the amount was reported for 1985, so the appropriate number of returns with Federally taxable pensions was randomly selected and given annuities in the amount necessary to reach the reported total.

The two participation flags were generated based on 1987 reported values, as the model consistently overestimated the value of these credits. The hypothesis is that some people do not claim these credits even though they are eligible. With the renter's credit, nonparticipants were randomly selected from among renters, while for the remaining credits, nonparticipants were selected from among all taxpayers by income class.

Tax-exempt interest, rent paid and the pension coverage flag were imputed from data on an older Hawaii data base that had more extensive imputations. Tax-exempt interest was imputed to that data base using information in the 1983 Survey of Consumer Finances. Rent paid was imputed based on information in the 1983 Consumer Expenditure Survey. The pension coverage flag was imputed based on information in the 1984 Current Population Survey.

V. Extrapolation to Later Years

The extrapolation is a two stage procedure in which each field on the data base containing a dollar value is increased by a factor representing per capita growth, and the statistical weights of each record are adjusted to ensure that a selected series of target aggregate values is reached. The per capita growth factors and aggregate targets used are based on the economic forecast provided by the Hawaii Tax Review Commission to the Policy Economics Group. For example, an aggregate target for total wages was derived by statistically comparing wages in personal income with wages in AGI over the period 1975 through 1986. The statistical relationship was assumed to hold for the future and therefore was applied to the forecast of wages in personal income in each future year to obtain a target value for wages in AGI for each future year. When the forecast of wages is combined with the forecast of employment, the average per capita growth in wages between the base year and the extrapolation year can be estimated. This factor is then used to increase the value of wages on each record to represent the value in the extrapolation year.

The procedure employs a nonlinear optimization algorithm to ensure that all targets are reached in such a manner as to minimize the weight changes involved. Thus, the data bases for each year will look as similar as possible given the necessary changes. Were no attempt made to minimize weight changes, nontargeted items could look radically different from one year to the next. Selection of targets can help correct any deficiencies in the base year data. For example, Hawaii has a unusually large number of returns in the lowest positive income class because of the refundable credits claimed by individuals with no liability. The Federal data does not match the state data in this regard making the original income distribution somewhat skewed. By setting the value of AGI in each income class as a target, however, the extrapolation gives higher weights to returns in the lowest positive income class and lower weights to returns in other classes to make up for the deficiency in the original data base.

The following targets were used in extrapolating the Hawaii data base:

- Hawaii Adjusted Gross Income by income class
- Wages and Salaries
- Interest and Dividends
- Number of Returns with Dividends
- Capital Gains
- Gross Unemployment Compensation
- Partnership, Rental and Estate Losses
- IRA contributions
- Hawaii AGI of nonresidents
- Number of Single Returns
- Number of Married Returns
- Number of Head of Household Returns
- Number of Aged and Blind Exemptions
- Number of Itemizers
- Number of Nonresidents.

Not all variables have a unique per capita growth factor associated with it. The procedure uses sixteen unique per capita growth factors and each variable is adjusted by the most appropriate factor. Some variables are adjusted by a weighted average of two or more of these twenty factors. Other variables, such as sales tax deductions, state and local income tax deduction and state and local income tax refunds are recalculated based on actual tax tables rather than adjusted by a per capita growth factor. Still others, such as IRA contributions, are not adjusted at all because of statutory limitations. The per capita growth factors used are the following:

- Wages and salaries
- Interest and dividends
- Farm income and loss
- Nonfarm business income and loss
- Pension income
- Rent and royalty income

- Schedule E losses
- Unemployment compensation
- Capital Gains
- Social Security benefits
- Tax-exempt interest
- Other income
- Medical expenses
- Real estate taxes
- Mortgage interest
- Consumer interest.

APPENDIX B

**EFFECTS OF FEDERAL TAX REFORM
AND STATE LEGISLATIVE CHANGES ON
HAWAII INDIVIDUAL INCOME TAX LIABILITY
CALENDAR YEARS: 1987-1994**

TABLE 1
ECONOMIC ASSUMPTIONS,
STATE OF HAWAII
CALENDAR YEARS: 1986-1994

	1986	1987	1988	1989	1990	1991	1992	1993	1994
Personal Income (Billions of Dollars)	15.6	17.0	18.5	20.1	21.7	23.2	24.8	26.5	28.3
% Change	7.3%	8.5%	8.8%	8.8%	8.0%	7.0%	6.8%	6.8%	6.8%
Total Employment (Thousands of Persons)	486.9	509.0	524.2	538.3	551.7	564.7	577.0	589.2	601.7
% Change	2.9%	4.5%	3.0%	2.7%	2.5%	2.3%	2.2%	2.1%	2.1%
Total Population (Thousands of Persons)	1,067.0	1,085.0	1,102.0	1,119.0	1,137.0	1,152.0	1,168.0	1,184.0	1,201.0
% Change	1.7%	1.6%	1.5%	1.6%	1.3%	1.3%	1.4%	1.4%	1.4%
Honolulu-CPI (1967=100)	301.2	316.6	335.6	355.7	373.5	392.1	411.8	432.3	453.8
% Change	2.4%	5.1%	6.0%	6.0%	5.0%	5.0%	5.0%	5.0%	5.0%

Sources: Department of Business and Economic Development, Hawaii Econometric Project, December 1988; Department of Business and Economic Development, Research and Economic Analysis Division, November 1988.

TABLE 2
MAJOR CHANGES IN FEDERAL TAX LAW AFFECTING HAWAII INDIVIDUAL INCOME TAX REVENUES

Provisions	Description
Taxation of unemployment	The Tax Reform Act includes all compensation benefitsunemployment compensation in AGI.
Dividend income exclusion	Under prior law, the first $100 of dividends received by an individual or the first $200 for a couple filing jointly is not included in AGI. The Tax Reform Act repeals this provision.
Restrict IRA deduction	IRAs are limited primarily to taxpayers not participating in an employer-sponsored retirement plan and other filers under certain limited income provisions (phased-outas income rises). IRA earnings continue tax deferred.
Depreciation provisions	Previous law used the Accelerated Cost Recovery System (ACRS). Now, the ACRS classes have been redefined and the depreciation schedules changed.
Passive loss provisions	The reforms allow a maximum of $25,000 in real estate losses to be used to offset other income. Losses from other passive activities will not be allowed to offset income from other sources. Passive losses may be used to offset passive income.
Employee business and moving	Under the Tax Reform Act, employee expense deductionsbusiness expenses will be grouped with miscellaneous itemized deductions as a "below the line" itemized deduction, subject to a floor of two percent of AGI. The moving expense deduction is moved below the line but is not subject to a floor provisions.
Non-businessinterest deduction	Prior law allowed an itemized deduction for consumer interest, home mortgage interest, and for certain investment interest. Home mortgage interest remains deductible in most instances, but the interest deduction for consumer loans is phased out beginning in 1987. Deductions for investment interest expense cannot exceed investment income.
Deduction for sales tax paid	The prior deduction for state and local sales taxes paid is eliminated. Deduction for medical expenses paidThe medical expense deduction floor is increased to 7.5% percent of adjusted gross income.
Capital gains	Under prior law, 60 percent of an individual taxpayer's net long-term capital gains is excluded from taxable income. Under the revised law, all short-and long-termcapital gains are included in AGI without exclusion. For 1987 only, an alternative 28 percent tax on capital gains was provided in conjunction with the provisional rate structure of that year.
Charitable giving	No provision of the Tax Reform Act of 1986 affects the deduction for charitable giving. However, charitable giving is indirectly affected by tax reform. Lower rates leave more discretionary income, but also raise the price of giving, resulting in a net reduction in charitable contributions.

Source: KPMG Peat Marwick, Policy Economics Group.

Note: Does not include provisions of the Federal Tax Reform Act to which the State did not couple.

TABLE 3.
CHANGES IN HAWAII INDIVIDUAL INCOME TAX LIABILITIES
AS A RESULT OF FEDERAL TAX LAW CHANGES
CALENDAR YEARS: 1986 - 1994
(MILLIONS OF DOLLARS)

	1986	1987	1988	1989	1990	1991	1992	1993	1994
PROVISIONS									
Employee Business Expense and Moving Expense	$0.0	8.8	9.6	10.4	11.1	11.7	12.3	12.9	13.5
Interest Expense	$0.0	8.9	17.1	24.3	28.2	33.9	36.1	38.7	41.4
Sales Taxes Paid	$0.0	12.3	13.1	13.5	14.2	14.8	15.4	16.0	16.8
Medical Expenses	$0.0	2.2	3.1	3.6	4.1	4.6	5.2	5.9	6.7
Subtotal: Deduction Changes	$0.0	32.2	42.9	51.8	57.6	65.0	69.0	73.5	78.4
Full Taxation of Unemployment Compensation	$0.0	1.2	1.2	1.5	1.8	1.9	1.9	1.9	1.9
Full Taxation of Dividends	$0.0	0.9	1.0	1.1	1.0	1.1	1.1	1.1	1.1
Restrict IRA Deduction	$0.0	9.8	10.6	11.4	12.1	12.7	13.3	13.8	14.4
Depreciation Provisions	$0.0	-11	-02	1.1	2.3	3.5	3.5	3.5	3.5
Limit Passive Losses	$0.0	3.9	5.9	6.8	6.4	6.0	5.7	5.5	5.2
Full Taxation of Capital Gains	$16.0	22.9	19.7	21.8	25.7	30.4	36.1	39.5	43.7
Subtotal: Base Broadeners	$16.0	37.6	38.2	43.7	49.3	55.6	61.6	65.3	69.8
Personal Exemption	$0.0	1.9	1.9	2.1	2.2	2.4	2.5	2.5	2.6
Charitable Giving	$0.0	1.0	1.9	2.1	2.3	2.4	2.6	2.8	3.0
Subtotal: Other Changes	$0.0	2.9	3.8	4.2	4.5	4.8	5.1	5.3	5.6
TOTAL: ALL CHANGES	$16.0	72.7	84.9	99.7	111.4	125.4	135.7	144.1	153.8

Source: KPMG Peat Marwick, Policy Economics Group

TABLE 4
CHANGES IN HAWAII INDIVIDUAL INCOME TAX LIABILITIES
AS A RESULT OF STATE TAX LAW CHANGES
FISCAL YEARS: 1987 - 1994
(MILLIONS OF DOLLARS)

	1987	1988	1989	1990	1991	1992	1993	1994
PROVISIONS								
Employee Business Expense and Moving Expense	$1.3	8.9	9.7	10.5	11.2	11.8	12.4	13.0
Interest Expense	$0.3	9.2	17.4	24.4	28.4	34.0	36.2	38.8
Sales Taxes Paid	$0.5	12.3	13.1	13.5	14.2	14.8	15.4	16.0
Medical Expenses	$0.1	2.2	3.1	3.6	4.1	4.6	5.2	5.9
Subtotal Deduction Changes	$2.2	32.7	43.3	52.1	57.9	65.2	69.2	73.8
Full Taxation of Unemployment Compensation	$0.5	1.2	0.7	2.3	1.8	1.9	1.9	1.9
Full Taxation of Dividends	$0.0	0.9	1.0	1.1	1.0	1.1	1.1	1.1
Restrict IRA Deduction	$0.0	9.8	10.6	11.4	12.1	12.7	13.3	13.8
Depreciation Provisions	$-02	-10	0.0	1.3	2.5	3.5	3.5	3.5
Limit Passive Losses	$0.6	4.2	6.0	6.7	6.3	6.0	5.7	5.5
Full Taxation of Capital Gains	$16.0	22.9	19.7	21.8	25.7	30.4	36.1	39.5
Subtotal Base Broadeners	$17.0	38.0	38.0	44.6	49.5	55.6	61.6	65.3
Personal Exemption	$0.6	1.9	1.3	2.8	2.3	2.4	2.5	2.5
Charitable Giving	$0.0	1.0	1.9	2.1	2.3	2.4	2.6	2.8
Subtotal: Other Changes	$0.6	2.9	3.2	4.9	4.6	4.8	5.1	5.3
TOTAL: ALL CHANGES	$19.8	73.7	84.5	101.6	112.0	125.6	135.9	144.3

Source: KPMG Peat Marwick, Policy Economics Group

TABLE 5
MAJOR CHANGES IN STATE LAW AFFECTING
HAWAII STATE INDIVIDUAL INCOME TAX LIABILITIES

Provision	Description
Standard Deduction	In 1987, the ZBA was converted to a standard deduction and increased by $200 for single and $700 for joint returns. It was increased by an additional $500 for single and $200 for joint returns in 1989.
Rates and Brackets	In 1987, the number of tax brackets was reduced from twelve to eight and the top rate was reduced from eleven percent to ten percent. In 1988, the bottom bracket was widened. In 1989 it was widened further and the rates in six of the eight brackets were reduced.
Maximum Tax on Capital Gains	In 1987, Hawaii conformed to Federal law by disallowing the 60% long-term gains exclusion, but established a top marginal rate of 7.25% on capital gains.
Exemption Credits	In 1989 only, an exemption credit of $125 was allowed. In all other years, a $1 exemption credit was allowed.
Food Tax Credit	In 1987, a food tax credit of $45 was allowed. The credit is structurally identical to the exemption credits, and is scheduled to expire after 1990.
Excise Tax Credit	In 1988, the excise tax credit was increased to amounts in the range of $10-55 per exemption, and eligibility was expanded to include taxpayers with incomes up to $30,000.
Child Care Credit	In 1989, the range of child care credit rates was increased to 15-25% of qualified expenses to take effect in 1990.
Medical Services	In 1989, a credit for medical services was allowed of 4% of qualified Excise Tax Credit expenses up to a maximum of $200. This credit is scheduled to expire after 1991.
Renter's Credit	In 1989, eligibility for the renter's credit was expanded to include taxpayers with income up to $30,000.

TABLE 6
CHANGES IN HAWAII INDIVIDUAL INCOME TAX LIABILITIES
AS A RESULT OF STATE TAX LAW CHANGES
CALENDAR YEARS: 1986 - 1994
(MILLIONS OF DOLLARS)

	1986	1987	1988	1989	1990	1991	1992	1993	1994
PROVISIONS:									
Increase standard deduction	$0.0	-43	-42	-100	-103	-106	-106	-106	-108
Widen brackets and lower top rate	$0.0	-290	-385	-696	-748	-794	-841	-887	-938
Maximum tax on capital gains	$0.0	-119	-128	-143	-167	-196	-228	-248	-274
Expand excise tax credit	$0.0	0.0	-41	-43	-42	-42	-42	-42	-41
Increase child care credit	$0.0	0.0	0.0	-33	-34	-36	-37	-37	-38
Expand renter's credit	$0.0	0.0	0.0	-02	-03	-04	-05	-05	-05
Subtotal: Permanent changes	$0.0	-452	-596	-1017	-1097	-1178	-1259	-1325	-1404
Food tax credit	$0.0	-351	-360	-366	-372	0.0	0.0	0.0	0.0
General credit to reduce surplus	$0.0	0.0	0.0	-1010	0.0	0.0	0.0	0.0	0.0
Medical services excise tax credit	$0.0	0.0	0.0	-73	-78	-83	0.0	0.0	0.0
Subtotal: Temporary changes	$0.0	-351	-360	-1449	-450	-83	0.0	0.0	0.0
TOTAL: ALL CHANGES	$0.0	-803	-956	-2466	-1547	-1261	-1259	-1325	-1404

Source: KPMG Peat Marwick, Policy Economics Group

TABLE 7
CHANGES IN HAWAII INDIVIDUAL INCOME TAX LIABILITIES
AS A RESULT OF STATE TAX LAW CHANGES
FISCAL YEARS: 1987 - 1994
(MILLIONS OF DOLLARS)

	1987	1988	1989	1990	1991	1992	1993	1994
PROVISIONS:								
Increase standard deduction	$-19	-43	-23	-146	-104	-106	-106	-107
Widen brackets and lower top rate	$-111	-326	-269	-951	-766	-812	-859	-907
Maximum tax on capital gains	$0.0	-119	-128	-143	-167	-196	-228	-248
Expand excise tax credit	$0.0	0.0	-41	-43	-42	-42	-42	-42
Increase child care credit	$0.0	0.0	0.0	-33	-34	-36	-37	-37
Expand renter's credit	$0.0	0.0	0.0	-02	-03	-04	-05	-05
Subtotal: Permanent changes	$-130	-488	-461	-1318	-1116	-1196	-1277	-1346
Food tax credit	$0.0	-351	-360	-366	-372	0.0	0.0	0.0
General credit to reduce surplus	$0.0	0.0	0.0	-1010	0.0	0.0	0.0	0.0
Medical services excise tax credit	$0.0	0.0	0.0	-73	-78	-83	0.0	0.0
Subtotal: Temporary changes	$0.0	-351	-360	-1449	-450	-83	0.0	0.0
TOTAL: ALL CHANGES	$-130	-839	-821	-2767	-1566	-1279	-1277	-1346

Source: KPMG Peat Marwick, Policy Economics Group

TABLE 8
COMBINED EFFECTS OF FEDERAL TAX REFORM AND STATE RESPONSE ON HAWAII INDIVIDUAL INCOME TAX LIABILITIES AS A RESULT OF STATE TAX LAW CHANGES
CALENDAR YEARS: 1986 - 1994
(MILLIONS OF DOLLARS)

	1986	1987	1988	1989	1990	1991	1992	1993	1994
Federal Tax Reform	$16.0	72.7	84.9	99.7	111.4	125.4	135.7	144.1	153.8
State Response	$0.0	-452	-596	-1017	-1097	-1178	-1259	-1325	-1404
Permanent Effects	$16.0	27.5	25.3	-20	1.7	7.6	9.8	11.6	13.3
Temporary Provisions	$0.0	-351	-360	-1449	-450	-83	0.0	0.0	0.0
TOTAL EFFECTS	$16.0	-76	-107	-1469	-433	-07	9.8	11.6	13.3

Source: KPMG Peat Marwick, Policy Economics Group

TABLE 9
COMBINED EFFECTS OF FEDERAL TAX REFORM AND STATE RESPONSE ON HAWAII INDIVIDUAL INCOME TAX LIABILITIES AS A RESULT OF STATE TAX LAW CHANGES FISCAL YEARS: 1987 - 1994 (MILLIONS OF DOLLARS)

	1987	1988	1989	1990	1991	1992	1993	1994
Federal Tax Reform	$ 19.8	73.7	84.5	101.6	112.0	125.6	135.9	144.3
State Response	$-130	-488	-461	-1318	-1116	-1196	-1277	-1346
Permanent Effects	$ 6.8	24.9	38.4	-302	0.4	6.0	8.2	9.7
Temporary Provisions	$ 0.0	-351	-360	-1449	-450	-8.3	0.0	0.0
TOTAL EFFECTS	$ 6.8	-102	2.4	-1751	-446	-23	8.2	9.7

Source: KPMG Peat Marwick, Policy Economics Group

TABLE 10
INCREASES AND DECREASES IN HAWAII INDIVIDUAL INCOME TAX LIABILITY AS A RESULT OF FEDERAL TAX REFORM AND THE STATE RESPONSE
CALENDAR YEAR: 1992

	Returns with Decreases in Tax Liability				Returns With Increases in Tax Liability			
Income Classes:	Total Number (000's)	Average Decrease (Millions$)	Average Decrease (Dollars)	Percent of All Returns In Each Class (%)	Total Number (000's)	Average Increase (Millions$)	Average Increase (Dollars)	Percent of All Returns In Each Class (%)
Less than $5,000	100.9	$-3.4	$- 33.7	80.3%	13.9	$ 0.3	$ 21.6	11.1%
$ 5,000 to 9,999	81.0	-7.6	- 93.8	89.8	9.0	0.9	100.0	10.0
$ 10,000 to 14,999	60.1	-7.3	- 121.5	86.4	8.1	0.8	98.8	11.6
$ 15,000 to 19,999	45.4	-4.9	- 107.9	83.9	8.1	0.8	98.8	15.0
$ 20,000 to 29,999	56.8	-5.0	- 88.0	70.0	22.1	2.6	117.6	27.2
$ 30,000 to 49,999	35.6	-2.7	- 75.8	44.3	44.0	9.9	225.0	54.7
$ 50,000 to 99,999	12.9	-2.2	- 170.5	28.8	31.2	11.2	359.0	69.6
$100,000 to 199,999	1.3	-0.6	- 461.5	20.6	5.0	6.2	1,240.0	79.4
$200,000 and over	0.2	-0.4	-2,2222	10.0	1.6	11.2	7,000.0	88.9
TOTAL	394.2	-341	-865	71.1	143.0	43.9	307.0	25.8

Source: KPMG Peat Marwick, Policy Economics Group

TABLE 11.
COMPARISON OF TWO TAXPAYERS ILLUSTRATING BOTTOM POSITIVE MARGINAL TAX RATE OF 8%
(DOLLARS)

		Taxpayer A	Taxpayer B
Adjusted Gross Income		17,957.0	18,057.0
-Exemptions	3 x 1,040.0	3,120.0	3,120.0
-Standard Deduction	1 x 1,900.0	1,900.0	1,900.0
= Taxable Income		12,937.0	13,037.0
Regular Tax		705.0	713.0
-Excise Tax Credit	3 x 15.0	45.0	45.0
-Renter's Credit	3 x 50.0	150.0	150.0
-Food Tax Credit	3 x 45.0	135.0	135.0
-General Tax Credit	3 x 125.0	375.0	375.0
= Total Tax Liability		0.0	8.0

STATE TAX LIABILITY FOR STATE

Plan X: 1986 FEDERAL LAW
1986 HAWAII LAW

Plan Y: 1987 FEDERAL LAW
1986 HAWAII LAW WITH WINDFALL

Income Classifier: PRE-TAX REFORM STATE AGI
Level of Income: 1987

Filing Status: ALL
Coverage: FEDERAL FILERS ONLY

INCOME CLASS (DOLLARS)	NUMBER OF RETURNS		TAXABLE RETURNS		ADJUSTED GROSS INCOME			TAXABLE INCOME		
	SAMPLE (UNITS)	AGGREGATE (000'S)	PLAN X (000'S)	PLAN Y (000'S)	PLAN X ($ MIL)	PLAN Y ($ MIL)	CHANGE ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)	CHANGE ($ MIL)
******** < 5000	486	142.9	27.0	33.2	204.7	228.7	24.0	113.3	143.6	30.4
5000 < 10000	243	74.1	61.6	63.0	538.9	553.7	14.8	383.4	412.5	29.1
10000 < 15000	204	63.0	60.0	60.9	769.1	781.0	11.8	587.4	613.4	26.0
15000 < 20000	163	36.0	35.0	35.1	626.0	637.4	11.3	469.1	491.6	22.6
20000 < 30000	334	61.7	61.0	61.2	1503.7	1540.6	36.9	1083.1	1169.2	86.0
30000 < 50000	458	71.7	71.3	71.5	2794.5	2871.3	76.8	1927.8	2109.9	182.1
50000 < 100000	808	37.0	36.9	36.9	2378.3	2496.1	117.8	1666.5	1860.0	193.4
100000 < 200000	524	4.7	4.7	4.7	619.8	684.7	64.9	434.2	518.1	83.9
200000 <********	688	.7	.7	.7	420.0	499.7	79.6	339.4	429.5	90.1
TOTALS	3908	492.0	358.3	367.2	9855.1	10293.2	438.0	7004.2	7747.7	743.6

INCOME CLASS (DOLLARS)	ITEMIZED RETURNS		DEDUCTIONS		EXEMPTIONS		STATE TAX CREDITS		MINTAX	
	PLAN X (000'S)	PLAN Y (000'S)	PLAN X ($ MIL)	PLAN Y ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)
******** < 5000	9.4	7.3	35.9	33.1	242.4	218.5	10.1	10.0	.0	.0
5000 < 10000	17.0	13.3	44.2	37.5	124.5	112.9	4.0	3.9	.0	.0
10000 < 15000	48.7	25.9	62.2	47.4	123.3	122.2	2.5	2.5	.0	.0
15000 < 20000	33.7	25.7	73.1	59.4	87.4	87.4	1.6	1.6	.0	.0
20000 < 30000	61.7	59.2	260.1	209.7	164.5	164.5	1.9	1.9	.0	.0
30000 < 50000	71.7	71.4	645.7	539.1	222.6	222.6	3.1	3.1	.0	.0
50000 < 100000	37.0	37.0	587.8	511.6	125.1	125.0	2.4	2.4	.0	.0
100000 < 200000	4.7	4.7	176.1	156.8	16.2	16.2	.5	.5	.0	.0
200000 <********	.7	.7	78.0	67.5	2.7	2.7	.0	.0	.0	.0
TOTALS	284.7	245.2	1963.1	1662.0	1108.7	1071.8	26.1	26.0	.0	.0

INCOME CLASS (DOLLARS)	TAX (POSITIVE PORTION)			OUTLAYS (NEGATIVE PORTION)			TAX (NET OF OUTLAYS)		
	PLAN X ($ MIL)	PLAN Y ($ MIL)	CHANGE ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)	CHANGE ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)	CHANGE ($ MIL)
******** < 5000	1.4	2.6	1.2	-9.0	-8.9	.1	-7.6	-6.3	1.3
5000 < 10000	15.6	17.7	2.1	-1.1	-1.0	.1	14.5	16.7	2.2
10000 < 15000	33.0	35.0	2.0	-.1	-.1	.0	32.9	35.0	2.1
15000 < 20000	29.5	31.5	2.0	.0	.0	.0	29.5	31.5	2.0
20000 < 30000	75.0	82.9	7.9	.0	.0	.0	75.0	82.9	7.9
30000 < 50000	147.2	165.1	17.9	.0	.0	.0	147.2	165.1	17.9
50000 < 100000	141.2	161.6	20.4	.0	.0	.0	141.2	161.6	20.4
100000 < 200000	42.1	51.3	9.2	.0	.0	.0	42.1	51.3	9.2
200000 <********	36.6	46.5	9.9	.0	.0	.0	36.6	46.5	9.9
TOTALS	521.6	594.2	72.6	-10.2	-9.9	.2	511.4	584.3	72.8

Policy Economics Group Personal Income Tax Model

STATE TAX LIABILITY FOR STATE

Plan X: 1986 FEDERAL LAW
1986 HAWAII LAW

Plan Y: 1987 FEDERAL LAW
1986 HAWAII LAW WITH WINDFALL

Income Classifier: PRE-TAX REFORM STATE AGI
Level of Income: 1987

Filing Status: ALL
Coverage: FEDERAL FILERS ONLY

INCOME CLASS (DOLLARS)	NUMBER OF RETURNS		TAXABLE RETURNS		ADJUSTED GROSS INCOME			TAXABLE INCOME		
	SAMPLE (UNITS)	AGGREGATE (000'S)	PLAN X (000'S)	PLAN Y (000'S)	PLAN X ($ MIL)	PLAN Y ($ MIL)	CHANGE ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)	CHANGE ($ MIL)
******** < 5000	486	142.9	27.0	33.2	204.7	228.7	24.0	113.3	143.6	30.4
5000 < 10000	243	74.1	61.6	63.0	538.9	553.7	14.8	383.4	412.5	29.1
10000 < 15000	204	63.0	60.0	60.9	769.1	781.0	11.8	587.4	613.4	26.0
15000 < 20000	163	36.0	35.0	35.1	626.0	637.4	11.3	469.1	491.6	22.6
20000 < 30000	334	61.7	61.0	61.2	1503.7	1540.6	36.9	1083.1	1169.2	86.0
30000 < 50000	458	71.7	71.3	71.5	2794.5	2871.3	76.8	1927.8	2109.9	182.1
50000 < 100000	808	37.0	36.9	36.9	2378.3	2496.1	117.8	1666.5	1860.0	193.4
100000 < 200000	524	4.7	4.7	4.7	619.8	684.7	64.9	434.2	518.1	83.9
200000 <*******	688	.7	.7	.7	420.0	499.7	79.6	339.4	429.5	90.1
TOTALS	3908	492.0	358.3	367.2	9855.1	10293.2	438.0	7004.2	7747.7	743.6

INCOME CLASS (DOLLARS)	ITEMIZED RETURNS		DEDUCTIONS		EXEMPTIONS		STATE TAX CREDITS		MINTAX	
	PLAN X (000'S)	PLAN Y (000'S)	PLAN X ($ MIL)	PLAN Y ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MI
******** < 5000	9.4	7.3	35.9	33.1	242.4	218.5	10.1	10.0	.0	.0
5000 < 10000	17.0	13.3	44.2	37.5	124.5	112.9	4.0	3.9	.0	.0
10000 < 15000	48.7	25.9	62.2	47.4	123.3	122.2	2.5	2.5	.0	.0
15000 < 20000	33.7	25.7	73.1	59.4	87.4	87.4	1.6	1.6	.0	.0
20000 < 30000	61.7	59.2	260.1	209.7	164.5	164.5	1.9	1.9	.0	.0
30000 < 50000	71.7	71.4	645.7	539.1	222.6	222.6	3.1	3.1	.0	.0
50000 < 100000	37.0	37.0	587.8	511.6	125.1	125.0	2.4	2.4	.0	.0
100000 < 200000	4.7	4.7	176.1	156.8	16.2	16.2	.5	.5	.0	.0
200000 <*******	.7	.7	78.0	67.5	2.7	2.7	.0	.0	.0	.0
TOTALS	284.7	245.2	1963.1	1662.0	1108.7	1071.8	26.1	26.0	.0	.0

INCOME CLASS (DOLLARS)	TAX (POSITIVE PORTION)			OUTLAYS (NEGATIVE PORTION)			TAX (NET OF OUTLAYS)		
	PLAN X ($ MIL)	PLAN Y ($ MIL)	CHANGE ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)	CHANGE ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)	CHANGE ($ MIL)
******** < 5000	1.4	2.6	1.2	-9.0	-8.9	.1	-7.6	-6.3	1.3
5000 < 10000	15.6	17.7	2.1	-1.1	-1.0	.1	14.5	16.7	2.2
10000 < 15000	33.0	35.0	2.0	-.1	-.1	.0	32.9	35.0	2.1
15000 < 20000	29.5	31.5	2.0	.0	.0	.0	29.5	31.5	2.0
20000 < 30000	75.0	82.9	7.9	.0	.0	.0	75.0	82.9	7.9
30000 < 50000	147.2	165.1	17.9	.0	.0	.0	147.2	165.1	17.9
50000 < 100000	141.2	161.6	20.4	.0	.0	.0	141.2	161.6	20.4
100000 < 200000	42.1	51.3	9.2	.0	.0	.0	42.1	51.3	9.2
200000 <*******	36.6	46.5	9.9	.0	.0	.0	36.6	46.5	9.9
TOTALS	521.6	594.2	72.6	-10.2	-9.9	.2	511.4	584.3	72.8

87wf

STATE TAX LIABILITY FOR STATE

Plan X: 1986 FEDERAL LAW
1986 HAWAII LAW

Plan Y: 1988 FEDERAL LAW
1986 HAWAII LAW WITH WINDFALL

Income Classifier: PRE-TAX REFORM STATE AGI
Level of Income: 1988

Filing Status: ALL
Coverage: FEDERAL FILERS ONLY

INCOME CLASS (DOLLARS)	NUMBER OF RETURNS		TAXABLE RETURNS		ADJUSTED GROSS INCOME			TAXABLE INCOME		
	SAMPLE (UNITS)	AGGREGATE (000'S)	PLAN X (000'S)	PLAN Y (000'S)	PLAN X ($ MIL)	PLAN Y ($ MIL)	CHANGE ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)	CHANGE ($ MIL)
******** < 5000	504	143.1	25.1	29.8	189.1	207.5	18.4	102.9	130.6	27.7
5000 < 10000	222	73.6	59.3	60.0	532.6	543.5	10.9	368.1	395.8	27.7
10000 < 15000	195	65.5	62.0	63.1	796.2	806.4	10.2	605.6	633.2	27.7
15000 < 20000	166	37.3	35.8	36.3	650.4	659.4	9.1	484.5	510.6	26.0
20000 < 30000	300	61.8	60.9	61.4	1499.7	1519.3	19.6	1073.3	1158.3	85.0
30000 < 50000	463	72.6	71.5	72.1	2765.9	2820.5	54.6	1887.6	2076.5	188.9
50000 < 100000	842	43.5	43.4	43.4	2797.9	2905.2	107.3	1920.4	2148.9	228.5
100000 < 200000	521	6.4	6.3	6.3	830.6	910.1	79.5	567.3	686.1	118.8
200000 <********	695	1.2	1.2	1.2	518.8	631.3	112.5	394.4	527.0	132.6
TOTALS	3908	505.0	365.5	373.6	10581.1	11003.1	422.0	7404.1	8267.0	862.9

INCOME CLASS (DOLLARS)	ITEMIZED RETURNS		DEDUCTIONS		EXEMPTIONS		STATE TAX CREDITS		MINTAX	
	PLAN X (000'S)	PLAN Y (000'S)	PLAN X ($ MIL)	PLAN Y ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)
******** < 5000	14.1	10.6	53.9	49.2	251.6	228.8	10.2	10.1	.0	.0
5000 < 10000	19.5	13.1	59.3	48.4	125.1	113.5	4.2	4.2	.0	.0
10000 < 15000	54.3	27.0	77.0	58.4	119.8	117.5	2.3	2.3	.0	.0
15000 < 20000	33.9	26.8	84.7	64.6	88.4	88.4	1.4	1.4	.0	.0
20000 < 30000	61.6	58.4	262.8	195.7	168.2	168.2	1.9	2.0	.0	.0
30000 < 50000	72.6	72.6	663.7	525.8	218.9	218.8	3.0	3.0	.0	.0
50000 < 100000	43.5	43.5	731.9	608.2	149.1	149.1	2.9	2.9	.0	.0
100000 < 200000	6.4	6.4	247.8	208.2	22.1	22.1	.5	.5	.0	.0
200000 <********	1.2	1.2	120.0	99.8	4.5	4.5	.1	.1	.0	.0
TOTALS	307.0	259.5	2301.0	1858.3	1147.7	1110.9	26.4	26.5	.0	.0

INCOME CLASS (DOLLARS)	TAX (POSITIVE PORTION)			OUTLAYS (NEGATIVE PORTION)			TAX (NET OF OUTLAYS)		
	PLAN X ($ MIL)	PLAN Y ($ MIL)	CHANGE ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)	CHANGE ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)	CHANGE ($ MIL)
******** < 5000	1.2	2.4	1.1	-9.2	-9.1	.1	-8.0	-6.7	1.2
5000 < 10000	15.1	17.1	2.0	-1.4	-1.4	.1	13.7	15.7	2.1
10000 < 15000	34.7	36.8	2.1	-.1	-.1	.0	34.6	36.7	2.1
15000 < 20000	31.2	33.5	2.3	.0	.0	.0	31.1	33.4	2.3
20000 < 30000	74.6	82.1	7.6	.0	.0	.0	74.6	82.1	7.6
30000 < 50000	144.5	162.9	18.4	.0	.0	.0	144.5	162.9	18.4
50000 < 100000	161.9	185.7	23.8	.0	.0	.0	161.9	185.7	23.8
100000 < 200000	54.9	67.9	13.0	.0	.0	.0	54.9	67.9	13.0
200000 <********	42.2	56.8	14.6	.0	.0	.0	42.2	56.8	14.6
TOTALS	560.2	645.0	84.9	-10.7	-10.5	.2	549.5	634.5	85.1

88wf

STATE TAX LIABILITY FOR STATE

Plan X: 1986 FEDERAL LAW
1986 HAWAII LAW

Plan Y: 1989 FEDERAL LAW
1986 HAWAII LAW WITH WINDFALL

Income Classifier: PRE-TAX REFORM STATE AGI
Level of Income: 1989

Filing Status: ALL
Coverage: FEDERAL FILERS ONLY

INCOME CLASS (DOLLARS)	NUMBER OF RETURNS		TAXABLE RETURNS		ADJUSTED GROSS INCOME			TAXABLE INCOME		
	SAMPLE (UNITS)	AGGREGATE (000'S)	PLAN X (000'S)	PLAN Y (000'S)	PLAN X ($ MIL)	PLAN Y ($ MIL)	CHANGE ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)	CHANGE ($ MIL)
******** < 5000	476	142.6	23.8	28.4	183.2	202.0	18.8	99.6	126.9	27.4
5000 < 10000	219	75.8	61.1	61.6	541.0	555.8	14.8	376.4	409.4	33.0
10000 < 15000	189	65.7	61.4	61.8	800.3	807.6	7.3	600.2	633.3	33.1
15000 < 20000	160	39.3	37.8	38.4	682.3	689.5	7.3	510.2	537.5	27.4
20000 < 30000	297	63.1	61.8	62.2	1534.5	1552.7	18.2	1100.0	1194.8	94.8
30000 < 50000	443	74.6	73.0	74.1	2865.3	2910.8	45.5	1943.6	2151.7	208.1
50000 < 100000	853	48.9	48.7	48.8	3155.8	3267.8	111.9	2124.1	2391.2	267.0
100000 < 200000	546	7.7	7.7	7.7	992.5	1090.0	97.4	670.4	823.1	152.8
200000 <********	725	1.2	1.2	1.2	588.4	727.9	139.5	437.4	601.7	164.2
TOTALS	3908	519.0	376.5	384.3	11343.4	11804.1	460.8	7861.9	8869.7	1007.8

INCOME CLASS (DOLLARS)	ITEMIZED RETURNS		DEDUCTIONS		EXEMPTIONS		STATE TAX CREDITS		MINTAX	
	PLAN X (000'S)	PLAN Y (000'S)	PLAN X ($ MIL)	PLAN Y ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)
******** < 5000	15.3	10.7	61.8	51.8	253.8	231.5	10.3	10.3	.0	.0
5000 < 10000	20.3	13.1	65.4	53.0	125.3	112.6	4.2	4.2	.0	.0
10000 < 15000	54.3	26.7	91.1	64.0	119.3	115.6	2.3	2.4	.0	.0
15000 < 20000	37.6	27.1	83.7	59.6	95.3	95.3	1.3	1.2	.0	.0
20000 < 30000	63.1	59.3	282.3	204.0	161.8	161.8	2.1	2.1	.0	.0
30000 < 50000	74.6	74.6	704.5	536.2	223.8	223.7	2.6	2.7	.0	.0
50000 < 100000	48.9	48.9	870.5	712.2	165.3	165.3	3.5	3.5	.0	.0
100000 < 200000	7.7	7.7	301.8	246.2	26.2	26.2	.6	.6	.0	.0
200000 <********	1.2	1.2	146.8	122.1	4.2	4.2	.1	.1	.0	.0
TOTALS	323.0	269.3	2607.9	2049.0	1175.1	1136.3	27.0	27.0	.0	.0

INCOME CLASS (DOLLARS)	TAX (POSITIVE PORTION)			OUTLAYS (NEGATIVE PORTION)			TAX (NET OF OUTLAYS)		
	PLAN X ($ MIL)	PLAN Y ($ MIL)	CHANGE ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)	CHANGE ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)	CHANGE ($ MIL)
******** < 5000	1.0	2.1	1.0	-9.3	-9.2	.1	-8.3	-7.1	1.2
5000 < 10000	15.5	17.9	2.4	-1.5	-1.4	.1	14.1	16.5	2.5
10000 < 15000	34.7	37.2	2.5	-.2	-.2	.0	34.5	37.1	2.5
15000 < 20000	33.0	35.4	2.4	.0	.0	.0	33.0	35.3	2.4
20000 < 30000	77.1	85.7	8.6	.0	.0	.0	77.1	85.7	8.6
30000 < 50000	150.1	170.2	20.1	.0	.0	.0	150.1	170.2	20.1
50000 < 100000	178.5	206.2	27.7	.0	.0	.0	178.5	206.2	27.7
100000 < 200000	64.8	81.5	16.7	.0	.0	.0	64.8	81.5	16.7
200000 <********	46.9	65.0	18.1	.0	.0	.0	46.9	65.0	18.1
TOTALS	601.7	701.2	99.5	-11.0	-10.8	.2	590.7	690.4	99.7

89wf

STATE TAX LIABILITY FOR STATE

Plan X: 1986 FEDERAL LAW
1986 HAWAII LAW

Plan Y: 1990 FEDERAL LAW
1986 HAWAII LAW WITH WINDFALL

Income Classifier: PRE-TAX REFORM STATE AGI
Level of Income: 1990

Filing Status: ALL
Coverage: FEDERAL FILERS ONLY

INCOME CLASS (DOLLARS)	NUMBER OF RETURNS		TAXABLE RETURNS		ADJUSTED GROSS INCOME			TAXABLE INCOME		
	SAMPLE (UNITS)	AGGREGATE (000'S)	PLAN X (000'S)	PLAN Y (000'S)	PLAN X ($ MIL)	PLAN Y ($ MIL)	CHANGE ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)	CHANGE ($ MIL)
******** < 5000	463	141.0	24.1	28.4	178.3	197.9	19.6	100.1	127.1	26.9
5000 < 10000	210	76.5	61.8	61.9	548.1	566.2	18.1	378.4	415.2	36.8
10000 < 15000	187	65.3	60.8	61.5	800.3	809.3	8.9	599.0	635.4	36.4
15000 < 20000	145	41.6	40.0	40.7	716.0	723.1	7.1	537.0	567.0	30.0
20000 < 30000	296	64.3	63.1	63.6	1561.1	1581.4	20.3	1143.3	1236.9	93.6
30000 < 50000	433	76.8	75.5	76.6	2958.6	3013.2	54.6	2037.1	2266.6	229.5
50000 < 100000	851	53.9	53.4	53.5	3484.0	3603.2	119.2	2345.1	2646.1	301.0
100000 < 200000	567	9.3	9.2	9.3	1154.3	1260.5	106.2	802.7	969.2	166.4
200000 <********	756	1.5	1.5	1.5	658.6	827.0	168.4	481.4	680.5	199.2
TOTALS	3908	530.0	389.6	396.9	12059.4	12581.9	522.4	8424.0	9543.9	1119.9

INCOME CLASS (DOLLARS)	ITEMIZED RETURNS		DEDUCTIONS		EXEMPTIONS		STATE TAX CREDITS		MINTAX	
	PLAN X (000'S)	PLAN Y (000'S)	PLAN X ($ MIL)	PLAN Y ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)
******** < 5000	15.2	9.9	64.3	54.4	252.9	231.1	10.2	10.2	.0	.0
5000 < 10000	23.0	13.8	71.4	57.6	126.1	113.2	4.1	4.1	.0	.0
10000 < 15000	55.0	26.1	96.6	67.9	116.9	112.3	2.5	2.5	.0	.0
15000 < 20000	39.1	28.6	87.4	61.6	97.3	97.3	1.4	1.4	.0	.0
20000 < 30000	64.3	60.0	266.4	189.2	163.1	163.1	1.8	1.8	.0	.0
30000 < 50000	76.8	76.8	700.0	521.4	225.9	225.9	2.8	2.8	.0	.0
50000 < 100000	53.9	53.9	962.8	776.6	181.4	181.2	3.7	3.8	.0	.0
100000 < 200000	9.3	9.3	324.4	263.8	31.8	31.8	.7	.7	.0	.0
200000 <********	1.5	1.5	172.2	141.4	5.1	5.1	.1	.1	.0	.0
TOTALS	338.0	279.9	2745.4	2134.0	1200.4	1161.0	27.3	27.4	.0	.0

INCOME CLASS (DOLLARS)	TAX (POSITIVE PORTION)			OUTLAYS (NEGATIVE PORTION)			TAX (NET OF OUTLAYS)		
	PLAN X ($ MIL)	PLAN Y ($ MIL)	CHANGE ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)	CHANGE ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)	CHANGE ($ MIL)
******** < 5000	1.2	2.2	1.1	-9.3	-9.2	.1	-8.1	-6.9	1.2
5000 < 10000	15.8	18.3	2.6	-1.4	-1.3	.1	14.3	17.0	2.7
10000 < 15000	34.7	37.5	2.8	-.2	-.2	.0	34.5	37.3	2.8
15000 < 20000	34.8	37.4	2.6	.0	.0	.0	34.8	37.4	2.6
20000 < 30000	81.4	90.0	8.6	.0	.0	.0	81.4	90.0	8.6
30000 < 50000	158.2	180.5	22.3	.0	.0	.0	158.2	180.5	22.3
50000 < 100000	197.9	229.1	31.2	.0	.0	.0	197.9	229.1	31.2
100000 < 200000	77.4	95.6	18.2	.0	.0	.0	77.4	95.6	18.2
200000 <********	51.4	73.3	21.9	.0	.0	.0	51.4	73.3	21.9
TOTALS	652.7	763.9	111.2	-11.0	-10.7	.3	641.8	753.2	111.4

90wf

STATE TAX LIABILITY FOR STATE

Plan X: 1986 FEDERAL LAW
1986 HAWAII LAW

Plan Y: 1991 FEDERAL LAW
1986 HAWAII LAW WITH WINDFALL

Income Classifier: PRE-TAX REFORM STATE AGI
Level of Income: 1991

Filing Status: ALL
Coverage: FEDERAL FILERS ONLY

INCOME CLASS (DOLLARS)	NUMBER OF RETURNS		TAXABLE RETURNS		ADJUSTED GROSS INCOME			TAXABLE INCOME		
	SAMPLE (UNITS)	AGGREGATE (000'S)	PLAN X (000'S)	PLAN Y (000'S)	PLAN X ($ MIL)	PLAN Y ($ MIL)	CHANGE ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)	CHANGE ($ MIL)
******** < 5000	449	142.4	23.7	28.1	174.2	196.5	22.3	103.1	130.3	27.2
5000 < 10000	199	77.1	60.7	61.8	554.8	571.9	17.1	379.6	415.1	35.5
10000 < 15000	179	65.1	60.3	61.2	799.5	811.6	12.1	596.4	639.0	42.6
15000 < 20000	151	43.3	42.2	42.8	749.0	756.4	7.5	568.5	603.7	35.2
20000 < 30000	282	64.5	63.2	63.7	1584.5	1603.1	18.7	1162.2	1258.2	96.0
30000 < 50000	419	79.2	77.7	78.7	3047.0	3106.2	59.2	2119.1	2363.3	244.2
50000 < 100000	853	58.6	58.2	58.3	3784.0	3906.6	122.6	2545.6	2886.6	340.9
100000 < 200000	589	10.8	10.8	10.8	1313.0	1431.2	118.1	898.9	1087.0	188.2
200000 <********	787	1.9	1.9	1.9	728.7	934.6	205.9	523.0	765.8	242.8
TOTALS	3908	543.0	398.6	407.2	12734.7	13318.1	583.4	8896.3	10149.0	1252.7

INCOME CLASS (DOLLARS)	ITEMIZED RETURNS		DEDUCTIONS		EXEMPTIONS		STATE TAX CREDITS		MINTAX	
	PLAN X (000'S)	PLAN Y (000'S)	PLAN X ($ MIL)	PLAN Y ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)
******** < 5000	16.2	8.7	54.3	45.6	256.0	234.7	10.4	10.3	.0	.0
5000 < 10000	23.6	13.2	93.4	77.3	127.8	115.0	4.2	4.1	.0	.0
10000 < 15000	55.0	25.3	95.7	65.6	119.1	112.2	2.4	2.5	.0	.0
15000 < 20000	42.1	30.1	88.2	59.4	95.1	95.1	1.3	1.3	.0	.0
20000 < 30000	64.5	59.4	276.3	192.6	162.7	162.7	1.8	1.8	.0	.0
30000 < 50000	79.2	79.2	705.1	515.3	228.4	228.4	2.9	2.9	.0	.0
50000 < 100000	58.6	58.6	1049.7	827.1	193.6	193.5	3.8	3.9	.0	.0
100000 < 200000	10.8	10.8	380.8	310.2	37.8	37.8	.9	.9	.0	.0
200000 <********	1.9	1.9	199.5	162.7	6.2	6.2	.1	.1	.0	.0
TOTALS	352.0	287.2	2942.9	2255.8	1226.7	1185.5	27.9	27.9	.0	.0

INCOME CLASS (DOLLARS)	TAX (POSITIVE PORTION)			OUTLAYS (NEGATIVE PORTION)			TAX (NET OF OUTLAYS)		
	PLAN X ($ MIL)	PLAN Y ($ MIL)	CHANGE ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)	CHANGE ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)	CHANGE ($ MIL)
******** < 5000	1.3	2.4	1.1	-9.4	-9.3	.1	-8.1	-6.9	1.2
5000 < 10000	15.9	18.3	2.4	-1.4	-1.3	.1	14.4	17.0	2.5
10000 < 15000	34.5	37.8	3.3	-.2	-.2	.0	34.3	37.6	3.3
15000 < 20000	37.0	40.1	3.1	.0	.0	.0	37.0	40.1	3.1
20000 < 30000	83.6	92.3	8.8	.0	.0	.0	83.6	92.3	8.8
30000 < 50000	165.9	189.8	23.9	.0	.0	.0	165.9	189.8	23.9
50000 < 100000	215.1	250.5	35.4	.0	.0	.0	215.1	250.5	35.4
100000 < 200000	86.0	106.6	20.6	.0	.0	.0	86.0	106.6	20.6
200000 <********	55.7	82.4	26.7	.0	.0	.0	55.7	82.4	26.7
TOTALS	695.1	820.2	125.1	-11.1	-10.8	.3	683.9	809.4	125.4

91wf

STATE TAX LIABILITY FOR STATE

Plan X: 1986 FEDERAL LAW
1986 HAWAII LAW

Plan Y: 1992 FEDERAL LAW
1986 HAWAII LAW WITH WINDFALL

Income Classifier: PRE-TAX REFORM STATE AGI
Level of Income: 1992

Filing Status: ALL
Coverage: FEDERAL FILERS ONLY

INCOME CLASS	NUMBER OF RETURNS		TAXABLE RETURNS		ADJUSTED GROSS INCOME			TAXABLE INCOME		
(DOLLARS)	SAMPLE (UNITS)	AGGREGATE (000'S)	PLAN X (000'S)	PLAN Y (000'S)	PLAN X ($ MIL)	PLAN Y ($ MIL)	CHANGE ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)	CHANGE ($ MIL)
******** < 5000	439	141.8	23.9	28.0	169.5	194.2	24.6	104.2	133.2	29.1
5000 < 10000	189	77.5	59.0	61.1	559.9	574.5	14.6	371.1	405.2	34.1
10000 < 15000	178	64.7	60.8	61.6	795.6	806.7	11.2	600.0	643.6	43.6
15000 < 20000	145	45.1	43.8	44.3	781.9	789.9	8.0	600.1	637.4	37.2
20000 < 30000	264	65.5	64.1	64.4	1604.3	1626.9	22.5	1183.2	1282.0	98.9
30000 < 50000	424	81.9	80.3	81.2	3132.4	3194.2	61.8	2178.0	2426.7	248.7
50000 < 100000	841	63.2	62.8	62.9	4091.2	4216.3	125.0	2762.5	3125.1	362.6
100000 < 200000	614	12.2	12.2	12.2	1488.9	1625.5	136.5	1017.7	1232.5	214.8
200000 <********	814	2.1	2.1	2.1	807.0	1042.8	235.8	575.5	853.9	278.4
TOTALS	3908	554.0	409.0	417.9	13430.8	14070.9	640.0	9392.3	10739.7	1347.4

INCOME CLASS	ITEMIZED RETURNS		DEDUCTIONS		EXEMPTIONS		STATE TAX CREDITS		MINTAX	
(DOLLARS)	PLAN X (000'S)	PLAN Y (000'S)	PLAN X ($ MIL)	PLAN Y ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)
******** < 5000	16.8	9.4	57.5	56.8	256.3	235.4	10.4	10.3	.0	.0
5000 < 10000	25.2	15.8	119.9	95.8	131.6	119.5	4.4	4.4	.0	.0
10000 < 15000	55.2	24.4	91.0	61.6	115.1	106.4	2.2	2.2	.0	.0
15000 < 20000	44.0	34.0	92.4	61.5	92.7	92.7	1.4	1.4	.0	.0
20000 < 30000	65.5	60.1	272.9	191.1	162.1	162.1	1.7	1.7	.0	.0
30000 < 50000	81.9	81.9	734.6	540.8	233.1	233.1	2.9	3.0	.0	.0
50000 < 100000	63.2	63.2	1124.6	882.2	209.4	209.3	3.9	4.0	.0	.0
100000 < 200000	12.2	12.2	432.9	354.1	42.8	42.8	1.0	1.0	.0	.0
200000 <********	2.1	2.1	224.6	181.9	6.9	6.9	.2	.2	.0	.0
TOTALS	366.0	303.1	3150.2	2425.8	1250.0	1208.2	28.0	28.1	.0	.0

INCOME CLASS	TAX (POSITIVE PORTION)			OUTLAYS (NEGATIVE PORTION)			TAX (NET OF OUTLAYS)		
(DOLLARS)	PLAN X ($ MIL)	PLAN Y ($ MIL)	CHANGE ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)	CHANGE ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)	CHANGE ($ MIL)
******** < 5000	1.7	2.8	1.1	-9.4	-9.3	.2	-7.8	-6.5	1.3
5000 < 10000	15.4	17.7	2.2	-1.6	-1.5	.1	13.8	16.2	2.3
10000 < 15000	35.2	38.7	3.5	-.2	-.2	.0	35.0	38.5	3.5
15000 < 20000	39.6	42.8	3.3	.0	.0	.0	39.6	42.8	3.3
20000 < 30000	85.8	94.9	9.1	.0	.0	.0	85.8	94.9	9.1
30000 < 50000	170.8	195.2	24.4	.0	.0	.0	170.8	195.2	24.4
50000 < 100000	233.8	271.6	37.8	.0	.0	.0	233.8	271.6	37.8
100000 < 200000	97.4	120.9	23.4	.0	.0	.0	97.4	120.9	23.4
200000 <********	61.2	91.9	30.6	.0	.0	.0	61.2	91.9	30.6
TOTALS	740.9	876.3	135.4	-11.2	-10.9	.3	729.7	865.4	135.7

92wf

STATE TAX LIABILITY FOR STATE

Plan X: 1986 FEDERAL LAW
1986 HAWAII LAW

Plan Y: 1993 FEDERAL LAW
1986 HAWAII LAW WITH WINDFALL

Income Classifier: PRE-TAX REFORM STATE AGI
Level of Income: 1993

Filing Status: ALL
Coverage: FEDERAL FILERS ONLY

INCOME CLASS (DOLLARS)	NUMBER OF RETURNS		TAXABLE RETURNS		ADJUSTED GROSS INCOME			TAXABLE INCOME		
	SAMPLE (UNITS)	AGGREGATE (000'S)	PLAN X (000'S)	PLAN Y (000'S)	PLAN X ($ MIL)	PLAN Y ($ MIL)	CHANGE ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)	CHANGE ($ MIL)
******** < 5000	426	140.7	22.8	27.0	164.6	188.5	23.9	105.6	135.3	29.7
5000 < 10000	181	78.2	58.3	59.5	564.2	578.6	14.4	368.5	402.1	33.6
10000 < 15000	180	64.0	60.1	61.1	790.4	802.3	11.9	599.9	644.1	44.2
15000 < 20000	138	46.7	45.0	45.6	813.9	822.1	8.1	627.2	667.0	39.8
20000 < 30000	251	66.2	64.4	65.2	1623.9	1645.5	21.6	1197.6	1295.4	97.7
30000 < 50000	413	85.0	82.8	84.0	3216.7	3275.7	59.0	2240.7	2494.5	253.8
50000 < 100000	850	68.1	67.7	67.8	4403.0	4533.5	130.5	2972.9	3360.0	387.1
100000 < 200000	619	13.7	13.7	13.7	1681.0	1822.8	141.7	1151.5	1380.6	229.1
200000 <********	850	2.4	2.4	2.4	893.9	1158.6	264.7	633.8	946.5	312.7
TOTALS	3908	565.0	417.2	426.2	14151.6	14827.6	676.0	9897.7	11325.4	1427.7

INCOME CLASS (DOLLARS)	ITEMIZED RETURNS		DEDUCTIONS		EXEMPTIONS		STATE TAX CREDITS		MINTAX	
	PLAN X (000'S)	PLAN Y (000'S)	PLAN X ($ MIL)	PLAN Y ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)
******** < 5000	17.2	9.6	59.3	58.8	254.5	234.0	10.3	10.3	.0	.0
5000 < 10000	26.3	17.9	126.7	102.4	135.9	124.0	4.4	4.4	.0	.0
10000 < 15000	55.9	23.9	92.7	64.4	110.6	100.9	2.2	2.2	.0	.0
15000 < 20000	46.3	37.7	95.0	61.3	95.6	95.6	1.4	1.4	.0	.0
20000 < 30000	66.2	60.0	276.3	194.5	164.7	164.7	1.6	1.7	.0	.0
30000 < 50000	85.0	85.0	757.6	555.7	232.0	232.0	2.9	3.0	.0	.0
50000 < 100000	68.1	68.1	1214.0	952.0	222.4	222.3	3.9	3.9	.0	.0
100000 < 200000	13.7	13.7	485.7	397.7	48.4	48.4	1.2	1.2	.0	.0
200000 <********	2.4	2.4	252.1	204.1	8.0	8.0	.2	.2	.0	.0
TOTALS	381.0	318.3	3359.3	2590.9	1272.3	1230.0	28.2	28.3	.0	.0

INCOME CLASS (DOLLARS)	TAX (POSITIVE PORTION)			OUTLAYS (NEGATIVE PORTION)			TAX (NET OF OUTLAYS)		
	PLAN X ($ MIL)	PLAN Y ($ MIL)	CHANGE ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)	CHANGE ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)	CHANGE ($ MIL)
******** < 5000	1.8	3.1	1.3	-9.3	-9.2	.2	-7.5	-6.1	1.4
5000 < 10000	15.2	17.5	2.2	-1.6	-1.5	.1	13.6	16.0	2.3
10000 < 15000	35.4	38.9	3.5	-.2	-.2	.0	35.2	38.7	3.5
15000 < 20000	41.9	45.2	3.4	.0	.0	.0	41.8	45.2	3.4
20000 < 30000	87.0	96.0	9.0	.0	.0	.0	87.0	96.0	9.0
30000 < 50000	176.3	201.0	24.7	.0	.0	.0	176.3	201.0	24.7
50000 < 100000	252.8	293.2	40.4	.0	.0	.0	252.8	293.2	40.4
100000 < 200000	110.1	135.1	25.0	.0	.0	.0	110.1	135.1	25.0
200000 <********	67.3	101.7	34.4	.0	.0	.0	67.3	101.7	34.4
TOTALS	787.9	931.7	143.9	-11.2	-10.9	.3	776.7	920.8	144.2

93wf

STATE TAX LIABILITY FOR STATE

Plan X: 1986 FEDERAL LAW
1986 HAWAII LAW

Plan Y: 1994 FEDERAL LAW
1986 HAWAII LAW WITH WINDFALL

Income Classifier: PRE-TAX REFORM STATE AGI
Level of Income: 1994

Filing Status: ALL
Coverage: FEDERAL FILERS ONLY

INCOME CLASS (DOLLARS)	NUMBER OF RETURNS		TAXABLE RETURNS		ADJUSTED GROSS INCOME			TAXABLE INCOME		
	SAMPLE (UNITS)	AGGREGATE (000'S)	PLAN X (000'S)	PLAN Y (000'S)	PLAN X ($ MIL)	PLAN Y ($ MIL)	CHANGE ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)	CHANGE ($ MIL)
******** < 5000	415	139.5	22.4	27.0	159.3	181.4	22.0	105.9	134.7	28.8
5000 < 10000	179	77.8	59.2	60.1	568.0	582.4	14.5	366.8	399.5	32.6
10000 < 15000	167	63.3	59.5	60.5	784.7	795.4	10.7	599.7	645.7	46.0
15000 < 20000	137	48.9	47.1	47.7	844.6	852.4	7.8	650.2	691.4	41.2
20000 < 30000	234	68.0	65.9	66.7	1645.0	1670.0	25.0	1222.3	1315.1	92.7
30000 < 50000	416	88.0	85.9	87.0	3301.3	3357.7	56.4	2318.4	2576.1	257.7
50000 < 100000	842	72.6	72.1	72.3	4724.9	4863.9	139.0	3179.8	3600.8	421.0
100000 < 200000	636	15.4	15.3	15.3	1894.0	2043.9	149.9	1294.8	1540.9	246.1
200000 <********	882	2.6	2.6	2.6	992.2	1287.0	294.9	701.6	1051.3	349.7
TOTALS	3908	576.0	430.0	439.2	14913.9	15634.2	720.3	10439.6	11955.5	1515.9

INCOME CLASS (DOLLARS)	ITEMIZED RETURNS		DEDUCTIONS		EXEMPTIONS		STATE TAX CREDITS		MINTAX	
	PLAN X (000'S)	PLAN Y (000'S)	PLAN X ($ MIL)	PLAN Y ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)
******** < 5000	18.4	8.8	61.8	59.4	254.6	234.7	10.4	10.3	.0	.0
5000 < 10000	27.4	19.4	137.1	112.9	136.8	124.7	4.3	4.3	.0	.0
10000 < 15000	54.8	22.8	89.3	60.0	107.8	97.3	2.1	2.0	.0	.0
15000 < 20000	48.8	41.2	108.1	71.2	92.2	92.2	1.7	1.7	.0	.0
20000 < 30000	68.0	62.5	267.5	194.8	170.4	170.4	1.4	1.4	.0	.0
30000 < 50000	88.0	88.0	761.9	552.2	236.1	236.1	3.0	3.0	.0	.0
50000 < 100000	72.6	72.6	1318.2	1029.4	234.8	234.7	4.0	4.0	.0	.0
100000 < 200000	15.4	15.4	550.4	452.7	54.4	54.4	1.3	1.4	.0	.0
200000 <********	2.6	2.6	281.7	226.9	8.8	8.8	.2	.2	.0	.0
TOTALS	396.0	333.2	3576.0	2759.3	1295.9	1253.3	28.4	28.4	.0	.0

INCOME CLASS (DOLLARS)	TAX (POSITIVE PORTION)			OUTLAYS (NEGATIVE PORTION)			TAX (NET OF OUTLAYS)		
	PLAN X ($ MIL)	PLAN Y ($ MIL)	CHANGE ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)	CHANGE ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)	CHANGE ($ MIL)
******** < 5000	1.9	3.2	1.2	-9.4	-9.3	.1	-7.5	-6.1	1.4
5000 < 10000	15.1	17.2	2.2	-1.5	-1.4	.1	13.6	15.9	2.3
10000 < 15000	35.8	39.5	3.7	-.2	-.1	.0	35.6	39.3	3.7
15000 < 20000	43.3	46.8	3.5	.0	.0	.0	43.3	46.8	3.6
20000 < 30000	89.0	97.5	8.5	.0	.0	.0	89.0	97.5	8.5
30000 < 50000	182.9	208.0	25.0	.0	.0	.0	182.9	208.0	25.0
50000 < 100000	271.7	315.6	44.0	.0	.0	.0	271.7	315.6	44.0
100000 < 200000	123.9	150.7	26.8	.0	.0	.0	123.9	150.7	26.8
200000 <********	74.5	113.0	38.5	.0	.0	.0	74.5	113.0	38.5
TOTALS	838.1	991.6	153.5	-11.1	-10.8	.3	827.0	980.8	153.8

94wf

STATE TAX LIABILITY FOR STATE

Plan X: 1987 FEDERAL LAW
1986 HAWAII LAW WITH WINDFALL

Plan Y: 1987 FEDERAL LAW
1987 HAWAII LAW

Income Classifier: PRE-TAX REFORM STATE AGI
Level of Income: 1987

Filing Status: ALL
Coverage: FEDERAL FILERS ONLY

INCOME CLASS (DOLLARS)	NUMBER OF RETURNS		TAXABLE RETURNS		ADJUSTED GROSS INCOME			TAXABLE INCOME		
	SAMPLE (UNITS)	AGGREGATE (000'S)	PLAN X (000'S)	PLAN Y (000'S)	PLAN X ($ MIL)	PLAN Y ($ MIL)	CHANGE ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)	CHANGE ($ MIL)
******** < 5000	486	142.9	33.2	24.6	228.7	228.7	.0	143.6	76.5	-67.1
5000 < 10000	243	74.1	63.0	53.7	553.7	553.7	.0	412.5	334.6	-77.8
10000 < 15000	204	63.0	60.9	57.7	781.0	781.0	.0	613.4	542.4	-71.0
15000 < 20000	163	36.0	35.1	34.4	637.4	637.4	.0	491.6	451.8	-39.8
20000 < 30000	334	61.7	61.2	60.7	1540.6	1540.6	.0	1169.2	1108.4	-60.7
30000 < 50000	458	71.7	71.5	71.5	2871.3	2871.3	.0	2109.9	2041.9	-67.9
50000 < 100000	808	37.0	36.9	36.9	2496.1	2496.1	.0	1860.0	1823.8	-36.2
100000 < 200000	524	4.7	4.7	4.7	684.7	684.7	.0	518.1	513.5	-4.5
200000 <********	688	.7	.7	.7	499.7	499.7	.0	429.5	428.8	-.7
TOTALS	3908	492.0	367.2	344.9	10293.2	10293.2	.0	7747.7	7321.8	-425.9

INCOME CLASS (DOLLARS)	ITEMIZED RETURNS		DEDUCTIONS		EXEMPTIONS		STATE TAX CREDITS		MINTAX	
	PLAN X (000'S)	PLAN Y (000'S)	PLAN X ($ MIL)	PLAN Y ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)
******** < 5000	7.3	7.0	33.1	190.0	218.5	218.5	10.0	17.6	.0	.0
5000 < 10000	13.3	9.8	37.5	119.0	112.9	112.9	3.9	8.0	.0	.0
10000 < 15000	25.9	15.2	47.4	119.1	122.2	122.2	2.5	7.3	.0	.0
15000 < 20000	25.7	21.2	59.4	99.7	87.4	87.4	1.6	5.0	.0	.0
20000 < 30000	59.2	49.4	209.7	270.9	164.5	164.5	1.9	6.6	.0	.0
30000 < 50000	71.4	71.0	539.1	607.1	222.6	222.6	3.1	9.5	.0	.0
50000 < 100000	37.0	37.0	511.6	547.8	125.0	125.0	2.4	6.0	.0	.0
100000 < 200000	4.7	4.7	156.8	161.4	16.2	16.2	.5	.9	.0	.0
200000 <********	.7	.7	67.5	68.2	2.7	2.7	.0	.1	.0	.0
TOTALS	245.2	216.0	1662.0	2183.1	1071.8	1071.8	26.0	61.0	.0	.0

INCOME CLASS (DOLLARS)	TAX (POSITIVE PORTION)			OUTLAYS (NEGATIVE PORTION)			TAX (NET OF OUTLAYS)		
	PLAN X ($ MIL)	PLAN Y ($ MIL)	CHANGE ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)	CHANGE ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)	CHANGE ($ MIL)
******** < 5000	2.6	1.8	-.8	-8.9	-16.4	-7.5	-6.3	-14.6	-8.3
5000 < 10000	17.7	13.0	-4.7	-1.0	-2.9	-1.9	16.7	10.2	-6.6
10000 < 15000	35.0	27.3	-7.7	-.1	-.6	-.5	35.0	26.7	-8.2
15000 < 20000	31.5	25.9	-5.5	.0	-.2	-.2	31.5	25.8	-5.7
20000 < 30000	82.9	73.6	-9.3	.0	.0	.0	82.9	73.5	-9.4
30000 < 50000	165.1	151.0	-14.1	.0	.0	.0	165.1	151.0	-14.1
50000 < 100000	161.6	148.6	-13.0	.0	.0	.0	161.6	148.6	-13.0
100000 < 200000	51.3	45.0	-6.3	.0	.0	.0	51.3	45.0	-6.3
200000 <********	46.5	37.8	-8.8	.0	.0	.0	46.5	37.8	-8.8
TOTALS	594.2	524.0	-70.2	-9.9	-20.1	-10.1	584.3	503.9	-80.3

87sr

STATE TAX LIABILITY FOR STATE

Plan X: 1988 FEDERAL LAW
1986 HAWAII LAW WITH WINDFALL

Plan Y: 1988 FEDERAL LAW
1988 HAWAII LAW

Income Classifier: PRE-TAX REFORM STATE AGI
Level of Income: 1988

Filing Status: ALL
Coverage: FEDERAL FILERS ONLY

INCOME CLASS (DOLLARS)	NUMBER OF RETURNS		TAXABLE RETURNS		ADJUSTED GROSS INCOME			TAXABLE INCOME		
	SAMPLE (UNITS)	AGGREGATE (000'S)	PLAN X (000'S)	PLAN Y (000'S)	PLAN X ($ MIL)	PLAN Y ($ MIL)	CHANGE ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)	CHANGE ($ MIL)
******** < 5000	504	143.1	29.8	21.8	207.5	207.5	.0	130.6	70.5	-60.1
5000 < 10000	222	73.6	60.0	50.0	543.5	543.5	.0	395.8	319.3	-76.6
10000 < 15000	195	65.5	63.1	58.4	806.4	806.4	.0	633.2	561.2	-72.1
15000 < 20000	166	37.3	36.3	35.2	659.4	659.4	.0	510.6	470.0	-40.6
20000 < 30000	300	61.8	61.4	60.3	1519.3	1519.3	.0	1158.3	1097.4	-60.9
30000 < 50000	463	72.6	72.1	72.0	2820.5	2820.5	.0	2076.5	2008.5	-68.0
50000 < 100000	842	43.5	43.4	43.4	2905.2	2905.2	.0	2148.9	2106.2	-42.7
100000 < 200000	521	6.4	6.3	6.3	910.1	910.1	.0	686.1	679.9	-6.2
200000 <*******	695	1.2	1.2	1.2	631.3	631.3	.0	527.0	525.9	-1.1
TOTALS	3908	505.0	373.6	348.7	11003.1	11003.1	.0	8267.0	7838.7	-428.3

INCOME CLASS (DOLLARS)	ITEMIZED RETURNS		DEDUCTIONS		EXEMPTIONS		STATE TAX CREDITS		MINTAX	
	PLAN X (000'S)	PLAN Y (000'S)	PLAN X ($ MIL)	PLAN Y ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)
******** < 5000	10.6	9.7	49.2	205.6	228.8	228.8	10.1	19.2	.0	.0
5000 < 10000	13.1	11.0	48.4	129.9	113.5	113.5	4.2	9.3	.0	.0
10000 < 15000	27.0	15.5	58.4	131.5	117.5	117.5	2.3	7.5	.0	.0
15000 < 20000	26.8	21.5	64.6	106.0	88.4	88.4	1.4	5.3	.0	.0
20000 < 30000	58.4	49.9	195.7	257.0	168.2	168.2	2.0	7.5	.0	.0
30000 < 50000	72.6	72.1	525.8	593.8	218.8	218.8	3.0	9.2	.0	.0
50000 < 100000	43.5	43.5	608.2	651.0	149.1	149.1	2.9	7.3	.0	.0
100000 < 200000	6.4	6.4	208.2	214.4	22.1	22.1	.5	1.0	.0	.0
200000 <*******	1.2	1.2	99.8	101.0	4.5	4.5	.1	.2	.0	.0
TOTALS	259.5	230.7	1858.3	2390.4	1110.9	1110.9	26.5	66.5	.0	.0

INCOME CLASS (DOLLARS)	TAX (POSITIVE PORTION)			OUTLAYS (NEGATIVE PORTION)			TAX (NET OF OUTLAYS)		
	PLAN X ($ MIL)	PLAN Y ($ MIL)	CHANGE ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)	CHANGE ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)	CHANGE ($ MIL)
******** < 5000	2.4	1.5	-.9	-9.1	-18.1	-9.1	-6.7	-16.6	-9.9
5000 < 10000	17.1	11.7	-5.4	-1.4	-4.1	-2.8	15.7	7.6	-8.1
10000 < 15000	36.8	28.0	-8.8	-.1	-.7	-.6	36.7	27.2	-9.4
15000 < 20000	33.5	26.8	-6.6	.0	-.2	-.2	33.4	26.6	-6.8
20000 < 30000	82.1	71.1	-11.1	.0	-.1	-.1	82.1	71.0	-11.1
30000 < 50000	162.9	147.8	-15.1	.0	.0	.0	162.9	147.7	-15.2
50000 < 100000	185.7	170.2	-15.5	.0	.0	.0	185.7	170.2	-15.5
100000 < 200000	67.9	59.7	-8.2	.0	.0	.0	67.9	59.7	-8.2
200000 <*******	56.8	45.4	-11.4	.0	.0	.0	56.8	45.4	-11.4
TOTALS	645.0	562.2	-82.8	-10.5	-23.3	-12.8	634.5	538.9	-95.6

88sr

STATE TAX LIABILITY FOR STATE

Plan X: 1989 FEDERAL LAW
1986 HAWAII LAW WITH WINDFALL

Plan Y: 1989 FEDERAL LAW
1989 HAWAII LAW

Income Classifier: PRE-TAX REFORM STATE AGI
Level of Income: 1989

Filing Status: ALL
Coverage: FEDERAL FILERS ONLY

INCOME CLASS (DOLLARS)	NUMBER OF RETURNS		TAXABLE RETURNS		ADJUSTED GROSS INCOME			TAXABLE INCOME		
	SAMPLE (UNITS)	AGGREGATE (000'S)	PLAN X (000'S)	PLAN Y (000'S)	PLAN X ($ MIL)	PLAN Y ($ MIL)	CHANGE ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)	CHANGE ($ MIL)
******** < 5000	476	142.6	28.4	17.2	202.0	202.0	.0	126.9	48.5	-78.4
5000 < 10000	219	75.8	61.6	30.7	555.8	555.8	.0	409.4	304.7	-104.7
10000 < 15000	189	65.7	61.8	44.4	807.6	807.6	.0	633.3	541.8	-91.5
15000 < 20000	160	39.3	38.4	27.6	689.5	689.5	.0	537.5	485.9	-51.6
20000 < 30000	297	63.1	62.2	56.5	1552.7	1552.7	.0	1194.8	1128.9	-65.9
30000 < 50000	443	74.6	74.1	70.7	2910.8	2910.8	.0	2151.7	2082.1	-69.6
50000 < 100000	853	48.9	48.8	48.5	3267.8	3267.8	.0	2391.2	2343.3	-47.9
100000 < 200000	546	7.7	7.7	7.7	1090.0	1090.0	.0	823.1	815.7	-7.5
200000 <********	725	1.2	1.2	1.2	727.9	727.9	.0	601.7	600.5	-1.2
TOTALS	3908	519.0	384.3	304.6	11804.1	11804.1	.0	8869.7	8351.4	-518.3

INCOME CLASS (DOLLARS)	ITEMIZED RETURNS		DEDUCTIONS		EXEMPTIONS		STATE TAX CREDITS		MINTAX	
	PLAN X (000'S)	PLAN Y (000'S)	PLAN X ($ MIL)	PLAN Y ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)
******** < 5000	10.7	8.8	51.8	259.8	231.5	231.5	10.3	41.6	.0	.0
5000 < 10000	13.1	9.2	53.0	163.5	112.6	112.6	4.2	21.3	.0	.0
10000 < 15000	26.7	11.5	64.0	157.1	115.6	115.6	2.4	20.4	.0	.0
15000 < 20000	27.1	10.8	59.6	112.0	95.3	95.3	1.2	16.3	.0	.0
20000 < 30000	59.3	43.4	204.0	270.6	161.8	161.8	2.1	22.1	.0	.0
30000 < 50000	74.6	73.4	536.2	606.0	223.7	223.7	2.7	29.8	.0	.0
50000 < 100000	48.9	48.9	712.2	760.1	165.3	165.3	3.5	23.9	.0	.0
100000 < 200000	7.7	7.7	246.2	253.7	26.2	26.2	.6	3.7	.0	.0
200000 <********	1.2	1.2	122.1	123.2	4.2	4.2	.1	.5	.0	.0
TOTALS	269.3	214.8	2049.0	2706.0	1136.3	1136.3	27.0	179.6	.0	.0

INCOME CLASS (DOLLARS)	TAX (POSITIVE PORTION)			OUTLAYS (NEGATIVE PORTION)			TAX (NET OF OUTLAYS)		
	PLAN X ($ MIL)	PLAN Y ($ MIL)	CHANGE ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)	CHANGE ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)	CHANGE ($ MIL)
******** < 5000	2.1	.9	-1.1	-9.2	-41.1	-31.9	-7.1	-40.1	-33.0
5000 < 10000	17.9	6.1	-11.8	-1.4	-13.3	-11.9	16.5	-7.2	-23.7
10000 < 15000	37.2	17.7	-19.5	-.2	-7.0	-6.8	37.1	10.8	-26.3
15000 < 20000	35.4	17.2	-18.1	.0	-3.0	-3.0	35.3	14.2	-21.1
20000 < 30000	85.7	57.9	-27.7	.0	-2.8	-2.8	85.7	55.1	-30.6
30000 < 50000	170.2	127.4	-42.9	.0	-1.5	-1.5	170.2	125.9	-44.4
50000 < 100000	206.2	166.4	-39.8	.0	-.1	-.1	206.2	166.3	-39.9
100000 < 200000	81.5	67.8	-13.7	.0	.0	.0	81.5	67.8	-13.7
200000 <********	65.0	51.0	-13.9	.0	.0	.0	65.0	51.0	-13.9
TOTALS	701.2	512.5	-188.7	-10.8	-68.8	-58.0	690.4	443.7	-246.7

89sr

STATE TAX LIABILITY FOR STATE

Plan X: 1990 FEDERAL LAW
1986 HAWAII LAW WITH WINDFALL

Plan Y: 1990 FEDERAL LAW
1990 HAWAII LAW

Income Classifier: PRE-TAX REFORM STATE AGI
Level of Income: 1990

Filing Status: ALL
Coverage: FEDERAL FILERS ONLY

INCOME CLASS (DOLLARS)	NUMBER OF RETURNS		TAXABLE RETURNS		ADJUSTED GROSS INCOME			TAXABLE INCOME		
	SAMPLE (UNITS)	AGGREGATE (000'S)	PLAN X (000'S)	PLAN Y (000'S)	PLAN X ($ MIL)	PLAN Y ($ MIL)	CHANGE ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)	CHANGE ($ MIL)
******** < 5000	463	141.0	28.4	17.4	197.9	197.9	.0	127.1	49.3	-77.7
5000 < 10000	210	76.5	61.9	44.8	566.2	566.2	.0	415.2	309.9	-105.3
10000 < 15000	187	65.3	61.5	54.7	809.3	809.3	.0	635.4	544.5	-90.9
15000 < 20000	145	41.6	40.7	38.8	723.1	723.1	.0	567.0	511.7	-55.3
20000 < 30000	296	64.3	63.6	62.2	1581.4	1581.4	.0	1236.9	1168.9	-68.0
30000 < 50000	433	76.8	76.6	75.2	3013.2	3013.2	.0	2266.6	2195.0	-71.6
50000 < 100000	851	53.9	53.5	53.5	3603.2	3603.2	.0	2646.1	2593.6	-52.5
100000 < 200000	567	9.3	9.3	9.3	1260.5	1260.5	.0	969.2	960.1	-9.0
200000 <********	756	1.5	1.5	1.5	827.0	827.0	.0	680.5	679.1	-1.5
TOTALS	3908	530.0	396.9	357.3	12581.9	12581.9	.0	9543.9	9012.1	-531.8

INCOME CLASS (DOLLARS)	ITEMIZED RETURNS		DEDUCTIONS		EXEMPTIONS		STATE TAX CREDITS		MINTAX	
	PLAN X (000'S)	PLAN Y (000'S)	PLAN X ($ MIL)	PLAN Y ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)
******** < 5000	9.9	9.1	54.4	260.0	231.1	231.1	10.2	19.6	.0	.0
5000 < 10000	13.8	10.5	57.6	168.2	113.2	113.2	4.1	10.4	.0	.0
10000 < 15000	26.1	11.0	67.9	160.6	112.3	112.3	2.5	8.3	.0	.0
15000 < 20000	28.6	9.2	61.6	117.5	97.3	97.3	1.4	6.3	.0	.0
20000 < 30000	60.0	41.4	189.2	257.9	163.1	163.1	1.8	8.9	.0	.0
30000 < 50000	76.8	74.3	521.4	593.0	225.9	225.9	2.8	12.4	.0	.0
50000 < 100000	53.9	53.9	776.6	829.2	181.2	181.2	3.8	11.9	.0	.0
100000 < 200000	9.3	9.3	263.8	272.9	31.8	31.8	.7	2.1	.0	.0
200000 <********	1.5	1.5	141.4	142.8	5.1	5.1	.1	.3	.0	.0
TOTALS	279.9	220.1	2134.0	2802.1	1161.0	1161.0	27.4	80.2	.0	.0

INCOME CLASS (DOLLARS)	TAX (POSITIVE PORTION)			OUTLAYS (NEGATIVE PORTION)			TAX (NET OF OUTLAYS)		
	PLAN X ($ MIL)	PLAN Y ($ MIL)	CHANGE ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)	CHANGE ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)	CHANGE ($ MIL)
******** < 5000	2.2	1.1	-1.2	-9.2	-19.1	-10.0	-6.9	-18.1	-11.1
5000 < 10000	18.3	9.7	-8.6	-1.3	-5.6	-4.3	17.0	4.1	-12.9
10000 < 15000	37.5	25.1	-12.4	-.2	-1.9	-1.7	37.3	23.3	-14.0
15000 < 20000	37.4	26.3	-11.0	.0	-.4	-.3	37.4	26.0	-11.4
20000 < 30000	90.0	72.2	-17.8	.0	-.2	-.2	90.0	72.0	-18.0
30000 < 50000	180.5	152.7	-27.7	.0	-.3	-.3	180.5	152.4	-28.1
50000 < 100000	229.1	199.3	-29.7	.0	.0	.0	229.1	199.3	-29.7
100000 < 200000	95.6	81.9	-13.7	.0	.0	.0	95.6	81.9	-13.7
200000 <********	73.3	57.5	-15.8	.0	.0	.0	73.3	57.5	-15.8
TOTALS	763.9	625.9	-138.0	-10.7	-27.5	-16.8	753.2	598.4	-154.8

90sr

STATE TAX LIABILITY FOR STATE

Plan X: 1991 FEDERAL LAW
1986 HAWAII LAW WITH WINDFALL

Plan Y: 1991 FEDERAL LAW
1991 HAWAII LAW

Income Classifier: PRE-TAX REFORM STATE AGI
Level of Income: 1991

Filing Status: ALL
Coverage: FEDERAL FILERS ONLY

INCOME CLASS (DOLLARS)	NUMBER OF RETURNS		TAXABLE RETURNS		ADJUSTED GROSS INCOME			TAXABLE INCOME		
	SAMPLE (UNITS)	AGGREGATE (000'S)	PLAN X (000'S)	PLAN Y (000'S)	PLAN X ($ MIL)	PLAN Y ($ MIL)	CHANGE ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)	CHANGE ($ MIL)
******** < 5000	449	142.4	28.1	19.6	196.5	196.5	.0	130.3	51.2	-79.1
5000 < 10000	199	77.1	61.8	52.6	571.9	571.9	.0	415.1	309.1	-105.9
10000 < 15000	179	65.1	61.2	58.6	811.6	811.6	.0	639.0	549.2	-89.8
15000 < 20000	151	43.3	42.8	41.9	756.4	756.4	.0	603.7	546.1	-57.6
20000 < 30000	282	64.5	63.7	63.4	1603.1	1603.1	.0	1258.2	1189.0	-69.2
30000 < 50000	419	79.2	78.7	78.1	3106.2	3106.2	.0	2363.3	2290.2	-73.1
50000 < 100000	853	58.6	58.3	58.3	3906.6	3906.6	.0	2886.6	2829.6	-57.0
100000 < 200000	589	10.8	10.8	10.8	1431.2	1431.2	.0	1087.0	1076.5	-10.5
200000 <********	787	1.9	1.9	1.9	934.6	934.6	.0	765.8	764.0	-1.8
TOTALS	3908	543.0	407.2	385.1	13318.1	13318.1	.0	10149.0	9604.9	-544.1

INCOME CLASS (DOLLARS)	ITEMIZED RETURNS		DEDUCTIONS		EXEMPTIONS		STATE TAX CREDITS		MINTAX	
	PLAN X (000'S)	PLAN Y (000'S)	PLAN X ($ MIL)	PLAN Y ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)
******** < 5000	8.7	8.4	45.6	254.0	234.7	234.7	10.3	11.9	.0	.0
5000 < 10000	13.2	10.0	77.3	189.4	115.0	115.0	4.1	6.5	.0	.0
10000 < 15000	25.3	11.5	65.6	157.7	112.2	112.2	2.5	4.1	.0	.0
15000 < 20000	30.1	9.8	59.4	117.4	95.1	95.1	1.3	2.5	.0	.0
20000 < 30000	59.4	38.8	192.6	262.6	162.7	162.7	1.8	4.5	.0	.0
30000 < 50000	79.2	76.1	515.3	588.7	228.4	228.4	2.9	6.1	.0	.0
50000 < 100000	58.6	58.6	827.1	884.2	193.5	193.5	3.9	7.1	.0	.0
100000 < 200000	10.8	10.8	310.2	320.8	37.8	37.8	.9	1.5	.0	.0
200000 <********	1.9	1.9	162.7	164.4	6.2	6.2	.1	.2	.0	.0
TOTALS	287.2	225.9	2255.8	2939.2	1185.5	1185.5	27.9	44.3	.0	.0

INCOME CLASS (DOLLARS)	TAX (POSITIVE PORTION)			OUTLAYS (NEGATIVE PORTION)			TAX (NET OF OUTLAYS)		
	PLAN X ($ MIL)	PLAN Y ($ MIL)	CHANGE ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)	CHANGE ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)	CHANGE ($ MIL)
******** < 5000	2.4	1.3	-1.1	-9.3	-11.4	-2.1	-6.9	-10.1	-3.2
5000 < 10000	18.3	11.4	-6.9	-1.3	-3.5	-2.2	17.0	7.9	-9.1
10000 < 15000	37.8	28.7	-9.1	-.2	-.9	-.7	37.6	27.8	-9.8
15000 < 20000	40.1	32.2	-7.9	.0	-.1	-.1	40.1	32.0	-8.0
20000 < 30000	92.3	78.5	-13.8	.0	.0	.0	92.3	78.5	-13.8
30000 < 50000	189.8	167.6	-22.2	.0	-.2	-.2	189.8	167.4	-22.4
50000 < 100000	250.5	223.5	-26.9	.0	.0	.0	250.5	223.5	-27.0
100000 < 200000	106.6	92.4	-14.2	.0	.0	.0	106.6	92.4	-14.2
200000 <********	82.4	63.8	-18.6	.0	.0	.0	82.4	63.8	-18.6
TOTALS	820.2	699.5	-120.7	-10.8	-16.2	-5.4	809.4	683.3	-126.0

91sr

STATE TAX LIABILITY FOR STATE

Plan X: 1992 FEDERAL LAW
1986 HAWAII LAW WITH WINDFALL

Plan Y: 1992 FEDERAL LAW
1992 HAWAII LAW

Income Classifier: PRE-TAX REFORM STATE AGI
Level of Income: 1992

Filing Status: ALL
Coverage: FEDERAL FILERS ONLY

INCOME CLASS (DOLLARS)	NUMBER OF RETURNS		TAXABLE RETURNS		ADJUSTED GROSS INCOME			TAXABLE INCOME		
	SAMPLE (UNITS)	AGGREGATE (000'S)	PLAN X (000'S)	PLAN Y (000'S)	PLAN X ($ MIL)	PLAN Y ($ MIL)	CHANGE ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)	CHANGE ($ MIL)
******** < 5000	439	141.8	28.0	19.9	194.2	194.2	.0	133.2	54.3	-78.9
5000 < 10000	189	77.5	61.1	51.4	574.5	574.5	.0	405.2	302.1	-103.1
10000 < 15000	178	64.7	61.6	59.7	806.7	806.7	.0	643.6	555.0	-88.6
15000 < 20000	145	45.1	44.3	43.9	789.9	789.9	.0	637.4	578.3	-59.1
20000 < 30000	264	65.5	64.4	64.3	1626.9	1626.9	.0	1282.0	1212.2	-69.8
30000 < 50000	424	81.9	81.2	80.9	3194.2	3194.2	.0	2426.7	2351.4	-75.3
50000 < 100000	841	63.2	62.9	62.9	4216.3	4216.3	.0	3125.1	3063.6	-61.5
100000 < 200000	614	12.2	12.2	12.2	1625.5	1625.5	.0	1232.5	1220.6	-11.9
200000 <********	814	2.1	2.1	2.1	1042.8	1042.8	.0	853.9	852.0	-2.0
TOTALS	3908	554.0	417.9	397.3	14070.9	14070.9	.0	10739.7	10189.5	-550.2

INCOME CLASS (DOLLARS)	ITEMIZED RETURNS		DEDUCTIONS		EXEMPTIONS		STATE TAX CREDITS		MINTAX	
	PLAN X (000'S)	PLAN Y (000'S)	PLAN X ($ MIL)	PLAN Y ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)
******** < 5000	9.4	8.5	56.8	264.1	235.4	235.4	10.3	11.5	.0	.0
5000 < 10000	15.8	12.2	95.8	207.1	119.5	119.5	4.4	5.6	.0	.0
10000 < 15000	24.4	11.1	61.6	152.5	106.4	106.4	2.2	3.1	.0	.0
15000 < 20000	34.0	9.8	61.5	121.0	92.7	92.7	1.4	2.1	.0	.0
20000 < 30000	60.1	39.8	191.1	261.8	162.1	162.1	1.7	3.6	.0	.0
30000 < 50000	81.9	78.1	540.8	616.7	233.1	233.1	3.0	3.9	.0	.0
50000 < 100000	63.2	63.2	882.2	943.8	209.3	209.3	4.0	5.0	.0	.0
100000 < 200000	12.2	12.2	354.1	366.0	42.8	42.8	1.0	1.2	.0	.0
200000 <********	2.1	2.1	181.9	183.9	6.9	6.9	.2	.2	.0	.0
TOTALS	303.1	237.0	2425.8	3116.8	1208.2	1208.2	28.1	36.4	.0	.0

INCOME CLASS (DOLLARS)	TAX (POSITIVE PORTION)			OUTLAYS (NEGATIVE PORTION)			TAX (NET OF OUTLAYS)		
	PLAN X ($ MIL)	PLAN Y ($ MIL)	CHANGE ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)	CHANGE ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)	CHANGE ($ MIL)
******** < 5000	2.8	1.6	-1.2	-9.3	-11.0	-1.8	-6.5	-9.5	-3.0
5000 < 10000	17.7	11.0	-6.7	-1.5	-2.6	-1.1	16.2	8.4	-7.8
10000 < 15000	38.7	29.8	-8.9	-.2	-.3	-.2	38.5	29.4	-9.1
15000 < 20000	42.8	34.9	-7.9	.0	.0	.0	42.8	34.9	-7.9
20000 < 30000	94.9	81.7	-13.2	.0	.0	.0	94.9	81.7	-13.2
30000 < 50000	195.2	174.1	-21.1	.0	.0	.0	195.2	174.1	-21.1
50000 < 100000	271.6	244.8	-26.8	.0	.0	.0	271.6	244.8	-26.8
100000 < 200000	120.9	104.9	-15.9	.0	.0	.0	120.9	104.9	-15.9
200000 <********	91.9	70.8	-21.1	.0	.0	.0	91.9	70.8	-21.1
TOTALS	876.3	753.6	-122.7	-10.9	-14.0	-3.1	865.4	739.6	-125.8

92sr

STATE TAX LIABILITY FOR STATE

Plan X: 1993 FEDERAL LAW
1986 HAWAII LAW WITH WINDFALL

Plan Y: 1993 FEDERAL LAW
1993 HAWAII LAW

Income Classifier: PRE-TAX REFORM STATE AGI
Level of Income: 1993

Filing Status: ALL
Coverage: FEDERAL FILERS ONLY

INCOME CLASS (DOLLARS)	NUMBER OF RETURNS		TAXABLE RETURNS		ADJUSTED GROSS INCOME			TAXABLE INCOME		
	SAMPLE (UNITS)	AGGREGATE (000'S)	PLAN X (000'S)	PLAN Y (000'S)	PLAN X ($ MIL)	PLAN Y ($ MIL)	CHANGE ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)	CHANGE ($ MIL)
******** < 5000	426	140.7	27.0	20.2	188.5	188.5	.0	135.3	57.3	-78.0
5000 < 10000	181	78.2	59.5	51.4	578.6	578.6	.0	402.1	298.6	-103.5
10000 < 15000	180	64.0	61.1	59.0	802.3	802.3	.0	644.1	556.4	-87.8
15000 < 20000	138	46.7	45.6	45.4	822.1	822.1	.0	667.0	607.0	-60.0
20000 < 30000	251	66.2	65.2	65.1	1645.5	1645.5	.0	1295.4	1224.3	-71.1
30000 < 50000	413	85.0	84.0	83.7	3275.7	3275.7	.0	2494.5	2417.0	-77.5
50000 < 100000	850	68.1	67.8	67.8	4533.5	4533.5	.0	3360.0	3294.2	-65.8
100000 < 200000	619	13.7	13.7	13.7	1822.8	1822.8	.0	1380.6	1367.2	-13.4
200000 <********	850	2.4	2.4	2.4	1158.6	1158.6	.0	946.5	944.2	-2.3
TOTALS	3908	565.0	426.2	408.6	14827.6	14827.6	.0	11325.4	10766.1	-559.3

INCOME CLASS (DOLLARS)	ITEMIZED RETURNS		DEDUCTIONS		EXEMPTIONS		STATE TAX CREDITS		MINTAX	
	PLAN X (000'S)	PLAN Y (000'S)	PLAN X ($ MIL)	PLAN Y ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)
******** < 5000	9.6	8.1	58.8	264.6	234.0	234.0	10.3	11.5	.0	.0
5000 < 10000	17.9	13.0	102.4	214.6	124.0	124.0	4.4	5.6	.0	.0
10000 < 15000	23.9	11.0	64.4	154.5	100.9	100.9	2.2	3.2	.0	.0
15000 < 20000	37.7	8.3	61.3	121.7	95.6	95.6	1.4	2.3	.0	.0
20000 < 30000	60.0	41.5	194.5	266.5	164.7	164.7	1.7	3.6	.0	.0
30000 < 50000	85.0	82.4	555.7	633.8	232.0	232.0	3.0	3.9	.0	.0
50000 < 100000	68.1	68.1	952.0	1017.8	222.3	222.3	3.9	5.0	.0	.0
100000 < 200000	13.7	13.7	397.7	411.1	48.4	48.4	1.2	1.5	.0	.0
200000 <********	2.4	2.4	204.1	206.4	8.0	8.0	.2	.2	.0	.0
TOTALS	318.3	248.5	2590.9	3291.0	1230.0	1230.0	28.3	36.6	.0	.0

INCOME CLASS (DOLLARS)	TAX (POSITIVE PORTION)			OUTLAYS (NEGATIVE PORTION)			TAX (NET OF OUTLAYS)		
	PLAN X ($ MIL)	PLAN Y ($ MIL)	CHANGE ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)	CHANGE ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)	CHANGE ($ MIL)
******** < 5000	3.1	1.8	-1.3	-9.2	-10.9	-1.7	-6.1	-9.1	-3.0
5000 < 10000	17.5	11.0	-6.5	-1.5	-2.7	-1.2	16.0	8.3	-7.7
10000 < 15000	38.9	29.9	-9.0	-.2	-.3	-.2	38.7	29.6	-9.2
15000 < 20000	45.2	37.1	-8.2	.0	.0	.0	45.2	37.0	-8.2
20000 < 30000	96.0	82.7	-13.3	.0	.0	.0	96.0	82.7	-13.3
30000 < 50000	201.0	179.6	-21.4	.0	.0	.0	201.0	179.6	-21.4
50000 < 100000	293.2	264.4	-28.8	.0	.0	.0	293.2	264.4	-28.8
100000 < 200000	135.1	117.7	-17.5	.0	.0	.0	135.1	117.7	-17.5
200000 <********	101.7	78.2	-23.5	.0	.0	.0	101.7	78.2	-23.5
TOTALS	931.7	802.3	-129.5	-10.9	-14.0	-3.1	920.8	788.3	-132.6

93sr

STATE TAX LIABILITY FOR STATE

Plan X: 1994 FEDERAL LAW
1986 HAWAII LAW WITH WINDFALL

Plan Y: 1994 FEDERAL LAW
1994 HAWAII LAW

Income Classifier: PRE-TAX REFORM STATE AGI
Level of Income: 1994

Filing Status: ALL
Coverage: FEDERAL FILERS ONLY

INCOME CLASS (DOLLARS)	NUMBER OF RETURNS		TAXABLE RETURNS		ADJUSTED GROSS INCOME			TAXABLE INCOME		
	SAMPLE (UNITS)	AGGREGATE (000'S)	PLAN X (000'S)	PLAN Y (000'S)	PLAN X ($ MIL)	PLAN Y ($ MIL)	CHANGE ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)	CHANGE ($ MIL)
******** < 5000	415	139.5	27.0	20.7	181.4	181.4	.0	134.7	57.4	-77.3
5000 < 10000	179	77.8	60.1	51.5	582.4	582.4	.0	399.5	297.5	-102.0
10000 < 15000	167	63.3	60.5	58.4	795.4	795.4	.0	645.7	559.0	-86.7
15000 < 20000	137	48.9	47.7	47.7	852.4	852.4	.0	691.4	629.8	-61.6
20000 < 30000	234	68.0	66.7	66.6	1670.0	1670.0	.0	1315.1	1241.4	-73.7
30000 < 50000	416	88.0	87.0	86.8	3357.7	3357.7	.0	2576.1	2495.8	-80.3
50000 < 100000	842	72.6	72.3	72.3	4863.9	4863.9	.0	3600.8	3531.0	-69.8
100000 < 200000	636	15.4	15.3	15.3	2043.9	2043.9	.0	1540.9	1525.9	-15.1
200000 <********	882	2.6	2.6	2.6	1287.0	1287.0	.0	1051.3	1048.9	-2.5
TOTALS	3908	576.0	439.2	421.8	15634.2	15634.2	.0	11955.5	11386.7	-568.8

INCOME CLASS (DOLLARS)	ITEMIZED RETURNS		DEDUCTIONS		EXEMPTIONS		STATE TAX CREDITS		MINTAX	
	PLAN X (000'S)	PLAN Y (000'S)	PLAN X ($ MIL)	PLAN Y ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)
******** < 5000	8.8	7.4	59.4	263.9	234.7	234.7	10.3	11.6	.0	.0
5000 < 10000	19.4	15.0	112.9	223.9	124.7	124.7	4.3	5.4	.0	.0
10000 < 15000	22.8	10.4	60.0	148.9	97.3	97.3	2.0	2.9	.0	.0
15000 < 20000	41.2	10.1	71.2	133.4	92.2	92.2	1.7	2.7	.0	.0
20000 < 30000	62.5	40.2	194.8	269.5	170.4	170.4	1.4	3.2	.0	.0
30000 < 50000	88.0	84.4	552.2	632.9	236.1	236.1	3.0	4.0	.0	.0
50000 < 100000	72.6	72.6	1029.4	1099.3	234.7	234.7	4.0	5.1	.0	.0
100000 < 200000	15.4	15.4	452.7	467.8	54.4	54.4	1.4	1.6	.0	.0
200000 <********	2.6	2.6	226.9	229.3	8.8	8.8	.2	.2	.0	.0
TOTALS	333.2	258.0	2759.3	3468.9	1253.3	1253.3	28.4	36.8	.0	.0

INCOME CLASS (DOLLARS)	TAX (POSITIVE PORTION)			OUTLAYS (NEGATIVE PORTION)			TAX (NET OF OUTLAYS)		
	PLAN X ($ MIL)	PLAN Y ($ MIL)	CHANGE ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)	CHANGE ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)	CHANGE ($ MIL)
******** < 5000	3.2	1.9	-1.3	-9.3	-11.0	-1.8	-6.1	-9.1	-3.0
5000 < 10000	17.2	10.7	-6.5	-1.4	-2.5	-1.1	15.9	8.2	-7.6
10000 < 15000	39.5	30.6	-8.9	-.1	-.3	-.2	39.3	30.3	-9.1
15000 < 20000	46.8	38.3	-8.6	.0	.0	.0	46.8	38.2	-8.6
20000 < 30000	97.5	84.2	-13.3	.0	.0	.0	97.5	84.2	-13.3
30000 < 50000	208.0	185.7	-22.3	.0	.0	.0	208.0	185.7	-22.3
50000 < 100000	315.6	284.7	-30.9	.0	.0	.0	315.6	284.7	-30.9
100000 < 200000	150.7	131.4	-19.3	.0	.0	.0	150.7	131.4	-19.3
200000 <********	113.0	86.7	-26.3	.0	.0	.0	113.0	86.7	-26.3
TOTALS	991.6	854.2	-137.4	-10.8	-13.9	-3.1	980.8	840.3	-140.4

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STATE TAX LIABILITY FOR STATE

Plan X: 1986 FEDERAL LAW
1986 MAINE LAW

Plan Y: 1986 FEDERAL LAW
1986 MAINE LAW

Income Classifier: PRE-TAX REFORM STATE AGI
Level of Income: 1985

Filing Status: ALL
Coverage: FEDERAL FILERS ONLY

INCOME CLASS (DOLLARS)	NUMBER OF RETURNS		TAXABLE RETURNS		ADJUSTED GROSS INCOME			TAXABLE INCOME		
	SAMPLE (UNITS)	AGGREGATE (000'S)	PLAN X (000'S)	PLAN Y (000'S)	PLAN X ($ MIL)	PLAN Y ($ MIL)	CHANGE ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)	CHANGE ($ MIL)
******** < 0	222	5.4	.0	.0	-212.0	-212.0	.0	.0	.0	.0
0 < 10000	585	184.5	81.5	81.5	844.6	844.6	.0	526.8	526.8	.0
10000 < 15000	198	58.6	55.9	55.9	724.6	724.6	.0	548.3	548.3	.0
15000 < 20000	175	46.5	44.9	44.9	805.6	805.6	.0	586.6	586.6	.0
20000 < 30000	327	58.9	58.0	58.0	1430.5	1430.5	.0	1020.3	1020.3	.0
30000 < 50000	527	61.8	61.3	61.3	2351.4	2351.4	.0	1596.1	1596.1	.0
50000 < 100000	812	26.2	26.1	26.1	1680.0	1680.0	.0	1163.0	1163.0	.0
100000 < 200000	416	2.3	2.3	2.3	300.3	300.3	.0	207.0	207.0	.0
200000 <********	646	.7	.7	.7	325.9	325.9	.0	249.1	249.1	.0
TOTALS	3908	444.8	330.7	330.7	8250.9	8250.9	.0	5897.3	5897.3	.0

INCOME CLASS (DOLLARS)	ITEMIZED RETURNS		DEDUCTIONS		EXEMPTIONS		STATE TAX CREDITS		MINTAX	
	PLAN X (000'S)	PLAN Y (000'S)	PLAN X ($ MIL)	PLAN Y ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)
******** < 0	.0	.0	.0	.0	11.8	11.8	.2	.2	.0	.0
0 < 10000	32.7	32.7	99.8	99.8	314.2	314.2	15.4	15.4	.0	.0
10000 < 15000	43.3	43.3	57.6	57.6	121.2	121.2	4.0	4.0	.0	.0
15000 < 20000	42.5	42.5	103.2	103.2	120.2	120.2	3.0	3.0	.0	.0
20000 < 30000	58.6	58.6	253.5	253.5	160.3	160.3	1.9	1.9	.0	.0
30000 < 50000	61.8	61.8	556.1	556.1	201.1	201.1	3.0	3.0	.0	.0
50000 < 100000	26.2	26.2	427.5	427.5	92.4	92.4	1.8	1.8	.0	.0
100000 < 200000	2.3	2.3	88.4	88.4	8.2	8.2	.2	.2	.0	.0
200000 <********	.7	.7	74.5	74.5	2.3	2.3	.0	.0	.0	.0
TOTALS	268.1	268.1	1660.6	1660.6	1031.8	1031.8	29.5	29.5	.0	.0

INCOME CLASS (DOLLARS)	TAX (POSITIVE PORTION)			OUTLAYS (NEGATIVE PORTION)			TAX (NET OF OUTLAYS)		
	PLAN X ($ MIL)	PLAN Y ($ MIL)	CHANGE ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)	CHANGE ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)	CHANGE ($ MIL)
******** < 0	.2	.2	.0	-.2	-.2	.0	.0	.0	.0
0 < 10000	15.4	15.4	.0	-8.2	-8.2	.0	7.2	7.2	.0
10000 < 15000	28.8	28.8	.0	-.1	-.1	.0	28.7	28.7	.0
15000 < 20000	35.5	35.5	.0	.0	.0	.0	35.5	35.5	.0
20000 < 30000	69.9	69.9	.0	.0	.0	.0	69.9	69.9	.0
30000 < 50000	119.1	119.1	.0	.0	.0	.0	119.1	119.1	.0
50000 < 100000	98.1	98.1	.0	.0	.0	.0	98.1	98.1	.0
100000 < 200000	20.0	20.0	.0	.0	.0	.0	20.0	20.0	.0
200000 <********	26.8	26.8	.0	.0	.0	.0	26.8	26.8	.0
TOTALS	413.8	413.8	.0	-8.5	-8.5	.0	405.4	405.4	.0

STATE TAX LIABILITY FOR STATE

Plan X: 1986 FEDERAL LAW
1986 HAWAII LAW

Plan Y: 1986 FEDERAL LAW w/CG ACCEL
1986 HAWAII LAW w/CG ACCEL

Income Classifier: PRE-TAX REFORM STATE AGI
Level of Income: 1986

Filing Status: ALL
Coverage: FEDERAL FILERS ONLY

INCOME CLASS (DOLLARS)	NUMBER OF RETURNS		TAXABLE RETURNS		ADJUSTED GROSS INCOME			TAXABLE INCOME		
	SAMPLE (UNITS)	AGGREGATE (000'S)	PLAN X (000'S)	PLAN Y (000'S)	PLAN X ($ MIL)	PLAN Y ($ MIL)	CHANGE ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)	CHANGE ($ MIL)
******** < 0	195	4.9	.0	.0	-62.9	-61.5	1.3	.0	.0	.0
0 < 10000	564	185.8	85.3	85.7	710.2	713.8	3.5	442.3	444.5	2.1
10000 < 15000	198	62.4	59.7	59.7	765.7	768.1	2.4	576.6	578.5	1.9
15000 < 20000	165	39.9	37.0	37.0	682.3	685.8	3.5	494.8	497.9	3.1
20000 < 30000	332	57.4	55.9	56.1	1391.0	1407.7	16.8	969.8	987.2	17.3
30000 < 50000	491	63.0	62.1	62.4	2424.4	2445.6	21.2	1636.3	1657.5	21.2
50000 < 100000	783	29.3	29.2	29.3	1855.7	1885.0	29.3	1261.5	1290.5	29.0
100000 < 200000	482	2.6	2.6	2.6	320.3	343.6	23.3	215.1	238.3	23.2
200000 <********	698	.7	.7	.7	378.8	437.1	58.4	285.6	343.6	58.0
TOTALS	3908	446.0	332.6	333.6	8465.5	8625.3	159.8	5882.1	6037.9	155.8

INCOME CLASS (DOLLARS)	ITEMIZED RETURNS		DEDUCTIONS		EXEMPTIONS		STATE TAX CREDITS		MINTAX	
	PLAN X (000'S)	PLAN Y (000'S)	PLAN X ($ MIL)	PLAN Y ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)
******** < 0	.0	.0	.0	.0	10.7	10.7	.1	.1	.0	.0
0 < 10000	19.9	19.9	63.3	64.1	312.5	312.5	14.2	14.1	.0	.0
10000 < 15000	38.9	38.9	53.9	53.8	139.3	139.3	4.9	4.9	.0	.0
15000 < 20000	33.6	33.6	91.6	91.6	103.8	103.8	2.8	2.8	.0	.0
20000 < 30000	56.6	56.6	264.1	263.5	159.5	159.5	2.8	2.8	.0	.0
30000 < 50000	63.0	63.0	590.8	590.6	199.9	199.9	4.7	4.8	.0	.0
50000 < 100000	29.3	29.3	493.3	493.4	102.7	102.7	3.0	3.0	.0	.0
100000 < 200000	2.6	2.6	98.5	98.4	9.3	9.3	.3	.3	.0	.0
200000 <********	.7	.7	90.8	91.2	2.4	2.4	.2	.2	.0	.0
TOTALS	244.7	244.8	1746.3	1746.6	1040.0	1040.0	33.2	33.1	.0	.0

INCOME CLASS (DOLLARS)	TAX (POSITIVE PORTION)			OUTLAYS (NEGATIVE PORTION)			TAX (NET OF OUTLAYS)		
	PLAN X ($ MIL)	PLAN Y ($ MIL)	CHANGE ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)	CHANGE ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)	CHANGE ($ MIL)
******** < 0	.0	.0	.0	-.1	-.1	.0	-.1	-.1	.0
0 < 10000	12.9	12.9	.0	-8.1	-8.0	.1	4.7	4.8	.1
10000 < 15000	28.9	29.1	.1	-.1	-.1	.0	28.8	28.9	.2
15000 < 20000	29.4	29.6	.2	.0	.0	.0	29.4	29.6	.2
20000 < 30000	65.7	67.1	1.5	.0	.0	.0	65.7	67.1	1.5
30000 < 50000	122.0	124.1	2.1	.0	.0	.0	122.0	124.1	2.1
50000 < 100000	104.8	107.8	3.0	.0	.0	.0	104.8	107.8	3.0
100000 < 200000	20.6	23.1	2.5	.0	.0	.0	20.6	23.1	2.5
200000 <********	30.6	37.0	6.4	.0	.0	.0	30.6	37.0	6.4
TOTALS	414.8	430.6	15.8	-8.4	-8.3	.1	406.3	422.3	16.0

STATE TAX LIABILITY FOR STATE

Plan X: 1986 FEDERAL LAW
1986 HAWAII LAW

Plan Y: 1987 FEDERAL LAW
1987 HAWAII LAW

Income Classifier: EXPANDED INCOME
Level of Income: 1987

Filing Status: ALL
Coverage: FEDERAL FILERS ONLY

INCOME CLASS (DOLLARS)	NUMBER OF RETURNS		TAXABLE RETURNS		ADJUSTED GROSS INCOME			TAXABLE INCOME		
	SAMPLE (UNITS)	AGGREGATE (000'S)	PLAN X (000'S)	PLAN Y (000'S)	PLAN X ($ MIL)	PLAN Y ($ MIL)	CHANGE ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)	CHANGE ($ MIL)
******** < 5000	228	105.1	24.8	22.3	193.8	195.7	1.8	102.3	64.4	-37.9
5000 < 10000	204	71.2	54.4	48.4	446.3	455.3	9.0	333.2	288.1	-45.1
10000 < 15000	191	68.2	59.6	57.0	727.0	738.2	11.2	574.2	526.0	-48.1
15000 < 20000	140	37.6	30.9	29.3	537.4	543.6	6.3	397.5	375.6	-22.0
20000 < 30000	322	69.2	56.7	56.3	1335.2	1350.8	15.6	969.2	961.7	-7.5
30000 < 50000	412	78.9	71.9	71.6	2594.2	2643.2	49.0	1799.9	1876.2	76.3
50000 < 100000	875	51.6	50.0	50.1	2745.4	2870.2	124.8	1882.5	2043.1	160.6
100000 < 200000	601	8.1	7.9	8.0	767.3	842.5	75.1	545.4	632.5	87.1
200000 <********	935	2.1	2.0	2.0	508.5	653.7	145.2	400.0	554.2	154.2
TOTALS	3908	492.0	358.3	344.9	9855.1	10293.2	438.0	7004.2	7321.8	317.7

INCOME CLASS (DOLLARS)	ITEMIZED RETURNS		DEDUCTIONS		EXEMPTIONS		STATE TAX CREDITS		MINTAX	
	PLAN X (000'S)	PLAN Y (000'S)	PLAN X ($ MIL)	PLAN Y ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)
******** < 5000	1.4	1.4	3.2	108.3	134.6	111.2	5.1	9.6	.0	.0
5000 < 10000	9.4	5.7	22.7	101.1	114.0	102.4	4.0	7.7	.0	.0
10000 < 15000	43.8	12.3	38.5	106.5	129.8	128.1	3.5	8.3	.0	.0
15000 < 20000	30.9	18.3	60.7	90.7	92.0	92.0	2.3	5.8	.0	.0
20000 < 30000	62.2	45.4	211.3	245.1	192.3	192.3	3.7	9.4	.0	.0
30000 < 50000	75.8	71.8	575.8	549.6	246.2	246.2	3.7	10.9	.0	.0
50000 < 100000	51.2	51.2	711.0	671.1	167.1	166.9	2.9	7.6	.0	.0
100000 < 200000	8.0	7.9	209.6	195.4	26.0	26.0	.7	1.3	.0	.0
200000 <********	2.0	2.0	130.3	115.3	6.8	6.8	.2	.4	.0	.0
TOTALS	284.7	216.0	1963.1	2183.1	1108.7	1071.8	26.1	61.0	.0	.0

INCOME CLASS (DOLLARS)	TAX (POSITIVE PORTION)			OUTLAYS (NEGATIVE PORTION)			TAX (NET OF OUTLAYS)		
	PLAN X ($ MIL)	PLAN Y ($ MIL)	CHANGE ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)	CHANGE ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)	CHANGE ($ MIL)
******** < 5000	1.0	1.2	.2	-4.2	-8.6	-4.5	-3.1	-7.4	-4.3
5000 < 10000	13.7	11.3	-2.5	-1.6	-3.4	-1.9	12.2	7.8	-4.3
10000 < 15000	32.3	26.9	-5.5	-1.1	-2.0	-.9	31.2	24.9	-6.3
15000 < 20000	24.4	21.1	-3.4	-.8	-1.5	-.7	23.6	19.5	-4.1
20000 < 30000	66.3	62.8	-3.5	-1.7	-2.9	-1.1	64.6	59.9	-4.7
30000 < 50000	136.2	136.8	.6	-.8	-1.5	-.7	135.5	135.3	-.2
50000 < 100000	154.8	163.0	8.1	-.1	-.2	-.1	154.8	162.8	8.1
100000 < 200000	50.9	54.3	3.5	.0	.0	.0	50.9	54.3	3.4
200000 <********	41.8	46.7	4.9	.0	.0	.0	41.8	46.7	4.9
TOTALS	521.6	524.0	2.4	-10.2	-20.1	-9.9	511.4	503.9	-7.5

STATE TAX LIABILITY FOR STATE

Plan X: 1986 FEDERAL LAW
1986 HAWAII LAW

Plan Y: 1988 FEDERAL LAW
1988 HAWAII LAW

Income Classifier: EXPANDED INCOME
Level of Income: 1988

Filing Status: ALL
Coverage: FEDERAL FILERS ONLY

INCOME CLASS (DOLLARS)	NUMBER OF RETURNS		TAXABLE RETURNS		ADJUSTED GROSS INCOME			TAXABLE INCOME		
	SAMPLE (UNITS)	AGGREGATE (000'S)	PLAN X (000'S)	PLAN Y (000'S)	PLAN X ($ MIL)	PLAN Y ($ MIL)	CHANGE ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)	CHANGE ($ MIL)
******** < 5000	251	113.1	32.0	27.1	237.3	240.9	3.6	133.5	92.2	-41.3
5000 < 10000	218	81.5	64.2	57.7	597.8	608.7	10.9	457.6	405.6	-52.1
10000 < 15000	190	63.9	55.0	51.4	747.0	756.6	9.6	580.7	543.1	-37.5
15000 < 20000	155	45.8	33.1	32.3	686.7	690.6	3.9	492.0	480.0	-12.0
20000 < 30000	346	73.1	62.9	62.2	1705.2	1722.3	17.1	1234.5	1250.6	16.0
30000 < 50000	406	73.7	66.4	66.4	2616.1	2662.8	46.7	1752.8	1865.5	112.7
50000 < 100000	873	44.9	42.9	42.9	2622.4	2727.8	105.4	1770.7	1943.1	172.4
100000 < 200000	599	7.4	7.2	7.2	824.5	895.8	71.4	564.6	667.5	102.9
200000 <********	870	1.7	1.6	1.7	544.1	697.5	153.4	417.6	591.2	173.6
TOTALS	3908	505.0	365.5	348.7	10581.1	11003.1	422.0	7404.1	7838.7	434.6

INCOME CLASS (DOLLARS)	ITEMIZED RETURNS		DEDUCTIONS		EXEMPTIONS		STATE TAX CREDITS		MINTAX	
	PLAN X (000'S)	PLAN Y (000'S)	PLAN X ($ MIL)	PLAN Y ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)
******** < 5000	3.7	2.8	8.1	121.1	147.8	122.9	5.4	11.0	.0	.0
5000 < 10000	23.5	8.5	37.3	124.6	136.0	125.5	4.5	10.0	.0	.0
10000 < 15000	46.8	15.8	58.5	114.3	126.2	125.0	3.1	8.6	.0	.0
15000 < 20000	39.7	26.3	109.2	131.0	120.3	120.3	3.0	7.7	.0	.0
20000 < 30000	68.3	55.8	310.7	318.1	202.2	202.2	3.4	10.0	.0	.0
30000 < 50000	71.6	68.1	660.7	591.6	235.2	235.1	3.6	10.8	.0	.0
50000 < 100000	44.3	44.5	721.5	650.1	149.3	149.3	2.6	6.8	.0	.0
100000 < 200000	7.3	7.3	247.6	214.3	25.1	25.1	.6	1.3	.0	.0
200000 <********	1.7	1.7	147.5	125.3	5.5	5.5	.1	.3	.0	.0
TOTALS	307.0	230.7	2301.0	2390.4	1147.7	1110.9	26.4	66.5	.0	.0

INCOME CLASS (DOLLARS)	TAX (POSITIVE PORTION)			OUTLAYS (NEGATIVE PORTION)			TAX (NET OF OUTLAYS)		
	PLAN X ($ MIL)	PLAN Y ($ MIL)	CHANGE ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)	CHANGE ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)	CHANGE ($ MIL)
******** < 5000	2.2	1.8	-.3	-4.1	-9.5	-5.4	-2.0	-7.7	-5.7
5000 < 10000	22.0	17.3	-4.6	-1.9	-4.4	-2.4	20.0	13.0	-7.1
10000 < 15000	34.2	28.1	-6.2	-1.1	-2.1	-1.1	33.2	25.9	-7.3
15000 < 20000	31.8	28.1	-3.7	-1.4	-2.8	-1.4	30.5	25.4	-5.1
20000 < 30000	89.5	85.6	-3.9	-1.4	-2.7	-1.3	88.1	82.9	-5.2
30000 < 50000	133.2	135.7	2.5	-.7	-1.5	-.8	132.5	134.2	1.7
50000 < 100000	149.3	157.6	8.3	-.1	-.3	-.2	149.2	157.3	8.1
100000 < 200000	53.8	58.0	4.2	.0	.0	.0	53.8	57.9	4.2
200000 <********	44.2	50.0	5.8	.0	.0	.0	44.2	50.0	5.8
TOTALS	560.2	562.2	2.0	-10.7	-23.3	-12.6	549.5	538.9	-10.6

STATE TAX LIABILITY FOR STATE

Plan X: 1986 FEDERAL LAW
1986 HAWAII LAW

Plan Y: 1989 FEDERAL LAW
1989 HAWAII LAW

Income Classifier: EXPANDED INCOME
Level of Income: 1989

Filing Status: ALL
Coverage: FEDERAL FILERS ONLY

INCOME CLASS (DOLLARS)	NUMBER OF RETURNS		TAXABLE RETURNS		ADJUSTED GROSS INCOME			TAXABLE INCOME		
	SAMPLE (UNITS)	AGGREGATE (000'S)	PLAN X (000'S)	PLAN Y (000'S)	PLAN X ($ MIL)	PLAN Y ($ MIL)	CHANGE ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)	CHANGE ($ MIL)
******** < 5000	251	119.5	38.3	21.4	274.4	279.3	4.9	161.9	92.1	-69.8
5000 < 10000	218	83.0	65.2	43.1	643.4	657.5	14.1	495.5	419.0	-76.5
10000 < 15000	190	64.7	55.6	40.1	800.2	810.7	10.5	620.7	573.5	-47.1
15000 < 20000	155	48.7	36.2	28.1	775.4	778.9	3.5	557.5	547.2	-10.3
20000 < 30000	346	73.9	63.0	58.1	1781.0	1796.6	15.7	1267.7	1297.9	30.2
30000 < 50000	406	75.8	67.3	63.3	2844.3	2893.0	48.7	1879.5	2023.7	144.3
50000 < 100000	873	44.3	42.0	41.5	2729.9	2833.4	103.5	1813.0	2005.3	192.3
100000 < 200000	599	7.4	7.3	7.2	878.2	959.9	81.7	594.2	718.1	123.8
200000 <*******	870	1.7	1.7	1.7	616.7	794.8	178.1	472.0	674.6	202.6
TOTALS	3908	519.0	376.5	304.6	11343.4	11804.1	460.8	7861.9	8351.4	489.4

INCOME CLASS (DOLLARS)	ITEMIZED RETURNS		DEDUCTIONS		EXEMPTIONS		STATE TAX CREDITS		MINTAX	
	PLAN X (000'S)	PLAN Y (000'S)	PLAN X ($ MIL)	PLAN Y ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)
******** < 5000	4.3	3.0	10.0	177.1	156.0	129.3	5.7	25.9	.0	.0
5000 < 10000	28.9	6.2	43.7	161.3	139.7	129.1	4.5	23.9	.0	.0
10000 < 15000	50.2	9.2	70.0	138.8	128.8	127.5	3.1	22.9	.0	.0
15000 < 20000	43.1	21.7	131.7	151.9	125.0	125.0	3.0	20.3	.0	.0
20000 < 30000	70.0	52.7	356.3	349.2	205.9	205.9	3.5	28.8	.0	.0
30000 < 50000	73.7	69.4	763.3	662.2	242.0	241.9	3.9	33.8	.0	.0
50000 < 100000	43.7	43.6	793.3	697.2	146.9	146.9	2.6	19.7	.0	.0
100000 < 200000	7.4	7.3	271.1	227.3	25.2	25.2	.7	3.4	.0	
200000 <*******	1.7	1.7	168.6	141.0	5.6	5.6	.1	.7	.0	.
TOTALS	323.0	214.8	2607.8	2706.0	1175.1	1136.3	27.0	179.6	.0	

INCOME CLASS (DOLLARS)	TAX (POSITIVE PORTION)			OUTLAYS (NEGATIVE PORTION)			TAX (NET OF OUTLAYS)		
	PLAN X ($ MIL)	PLAN Y ($ MIL)	CHANGE ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)	CHANGE ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)	CHANGE ($ MIL)
******** < 5000	3.0	1.4	-1.6	-4.2	-24.6	-20.4	-1.2	-23.2	-22.0
5000 < 10000	24.8	10.7	-14.1	-1.9	-12.7	-10.7	22.9	-2.0	-24.9
10000 < 15000	37.6	19.7	-17.9	-1.1	-8.2	-7.1	36.6	11.5	-25.0
15000 < 20000	37.1	24.6	-12.5	-1.4	-8.9	-7.5	35.7	15.7	-20.0
20000 < 30000	92.2	70.9	-21.3	-1.5	-7.8	-6.3	90.7	63.1	-27.6
30000 < 50000	145.0	123.3	-21.7	-.8	-5.3	-4.5	144.2	118.0	-26.2
50000 < 100000	154.8	146.2	-8.6	-.1	-1.3	-1.2	154.6	144.9	-9.8
100000 < 200000	57.0	59.3	2.2	.0	-.1	-.1	57.0	59.2	2.1
200000 <*******	50.1	56.5	6.4	.0	.0	.0	50.1	56.5	6.4
TOTALS	601.7	512.5	-89.2	-11.0	-68.8	-57.8	590.7	443.7	-146.9

STATE TAX LIABILITY FOR STATE

Plan X: 1986 FEDERAL LAW
1986 HAWAII LAW

Plan Y: 1990 FEDERAL LAW
1990 HAWAII LAW

Income Classifier: EXPANDED INCOME
Level of Income: 1990

Filing Status: ALL
Coverage: FEDERAL FILERS ONLY

INCOME CLASS (DOLLARS)	NUMBER OF RETURNS		TAXABLE RETURNS		ADJUSTED GROSS INCOME			TAXABLE INCOME		
	SAMPLE (UNITS)	AGGREGATE (000'S)	PLAN X (000'S)	PLAN Y (000'S)	PLAN X ($ MIL)	PLAN Y ($ MIL)	CHANGE ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)	CHANGE ($ MIL)
******** < 5000	196	97.3	22.5	16.6	174.3	175.4	1.1	90.2	40.8	-49.4
5000 < 10000	175	67.1	52.8	37.5	415.1	428.9	13.8	308.7	244.2	-64.4
10000 < 15000	177	70.7	57.6	53.0	718.4	733.5	15.1	568.7	518.1	-50.6
15000 < 20000	137	46.6	40.5	37.1	669.1	676.0	6.9	508.7	476.9	-31.8
20000 < 30000	276	73.8	56.7	54.8	1373.7	1384.4	10.7	997.1	1000.4	3.3
30000 < 50000	428	89.2	78.7	77.7	2813.4	2845.1	31.7	1935.0	2040.8	105.8
50000 < 100000	879	68.5	64.4	64.2	3705.8	3822.6	116.8	2443.9	2703.6	259.7
100000 < 200000	631	13.3	13.1	13.1	1319.1	1402.2	83.2	920.4	1052.2	131.8
200000 <********	1009	3.4	3.3	3.3	870.7	1113.8	243.1	651.3	935.1	283.8
TOTALS	3908	530.0	389.6	357.3	12059.4	12581.9	522.4	8424.0	9012.1	588.2

INCOME CLASS (DOLLARS)	ITEMIZED RETURNS		DEDUCTIONS		EXEMPTIONS		STATE TAX CREDITS		MINTAX	
	PLAN X (000'S)	PLAN Y (000'S)	PLAN X ($ MIL)	PLAN Y ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)
******** < 5000	2.3	1.9	6.0	141.0	124.7	103.3	4.7	9.4	.0	.0
5000 < 10000	11.7	4.5	26.0	124.4	105.5	93.5	3.4	8.1	.0	.0
10000 < 15000	47.4	6.6	56.6	141.5	123.3	117.6	3.7	9.3	.0	.0
15000 < 20000	38.7	7.8	72.2	114.7	105.2	105.2	2.2	7.7	.0	.0
20000 < 30000	67.7	40.3	246.2	264.4	196.7	196.7	4.3	12.8	.0	.0
30000 < 50000	85.9	75.6	657.9	581.2	267.5	267.5	3.5	15.0	.0	.0
50000 < 100000	67.8	66.7	1071.4	921.1	221.3	221.1	4.2	14.3	.0	.0
100000 < 200000	13.1	13.2	367.1	315.9	45.0	45.0	.9	2.7	.0	.0
200000 <********	3.3	3.3	241.8	197.8	11.2	11.2	.3	.8	.0	.0
TOTALS	338.0	220.1	2745.4	2802.1	1200.4	1161.0	27.3	80.2	.0	.0

INCOME CLASS (DOLLARS)	TAX (POSITIVE PORTION)			OUTLAYS (NEGATIVE PORTION)			TAX (NET OF OUTLAYS)		
	PLAN X ($ MIL)	PLAN Y ($ MIL)	CHANGE ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)	CHANGE ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)	CHANGE ($ MIL)
******** < 5000	.8	.6	-.2	-3.8	-9.0	-5.2	-3.0	-8.4	-5.3
5000 < 10000	12.8	7.2	-5.6	-1.2	-4.2	-3.0	11.6	3.0	-8.6
10000 < 15000	33.0	24.6	-8.4	-1.5	-3.6	-2.0	31.5	21.0	-10.4
15000 < 20000	32.3	24.1	-8.2	-.8	-2.0	-1.3	31.5	22.0	-9.5
20000 < 30000	70.3	61.0	-9.3	-2.4	-4.9	-2.5	67.9	56.1	-11.7
30000 < 50000	147.1	138.2	-8.9	-.9	-2.7	-1.8	146.2	135.5	-10.7
50000 < 100000	201.6	202.8	1.2	-.2	-1.0	-.7	201.4	201.9	.5
100000 < 200000	86.6	89.4	2.8	.0	-.1	.0	86.6	89.3	2.8
200000 <********	68.2	77.9	9.7	.0	.0	.0	68.2	77.9	9.7
TOTALS	652.7	625.9	-26.8	-11.0	-27.5	-16.5	641.8	598.4	-43.3

STATE TAX LIABILITY FOR STATE

Plan X: 1986 FEDERAL LAW
1986 HAWAII LAW

Plan Y: 1991 FEDERAL LAW
1991 HAWAII LAW

Income Classifier: EXPANDED INCOME
Level of Income: 1991

Filing Status: ALL
Coverage: FEDERAL FILERS ONLY

INCOME CLASS (DOLLARS)	NUMBER OF RETURNS		TAXABLE RETURNS		ADJUSTED GROSS INCOME			TAXABLE INCOME		
	SAMPLE (UNITS)	AGGREGATE (000'S)	PLAN X (000'S)	PLAN Y (000'S)	PLAN X ($ MIL)	PLAN Y ($ MIL)	CHANGE ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)	CHANGE ($ MIL)
******** < 5000	251	124.6	43.2	35.1	313.4	320.3	6.9	193.2	117.2	-75.9
5000 < 10000	218	88.3	70.1	66.8	743.7	763.5	19.8	577.5	503.5	-74.0
10000 < 15000	190	67.1	57.7	55.2	907.4	918.9	11.4	707.9	668.3	-39.7
15000 < 20000	155	52.1	39.5	39.1	899.4	905.6	6.3	656.5	652.2	-4.4
20000 < 30000	346	78.7	66.9	66.9	2057.5	2077.9	20.4	1472.9	1528.0	55.1
30000 < 50000	406	78.8	69.9	70.0	3232.2	3299.7	67.4	2151.6	2353.9	202.3
50000 < 100000	873	45.3	43.2	43.8	3105.9	3228.7	122.8	2078.2	2320.9	242.7
100000 < 200000	599	6.5	6.4	6.4	832.0	927.1	95.1	574.1	713.3	139.2
200000 <********	870	1.8	1.7	1.7	643.1	876.4	233.2	484.4	747.6	263.2
TOTALS	3908	543.0	398.6	385.1	12734.7	13318.1	583.4	8896.3	9604.9	708.5

INCOME CLASS (DOLLARS)	ITEMIZED RETURNS		DEDUCTIONS		EXEMPTIONS		STATE TAX CREDITS		MINTAX	
	PLAN X (000'S)	PLAN Y (000'S)	PLAN X ($ MIL)	PLAN Y ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)
******** < 5000	5.6	3.4	12.9	186.9	163.7	135.8	5.9	6.8	.0	.0
5000 < 10000	41.0	7.6	63.5	184.3	148.9	137.0	4.6	6.2	.0	.0
10000 < 15000	53.9	9.9	86.2	148.5	133.9	132.6	3.1	4.9	.0	.0
15000 < 20000	47.1	22.8	152.3	166.2	132.7	132.7	2.9	5.1	.0	.0
20000 < 30000	74.6	57.4	421.2	391.5	219.1	219.1	3.8	6.9	.0	.0
30000 < 50000	77.0	72.0	873.4	733.7	250.9	250.8	4.1	7.9	.0	.0
50000 < 100000	44.7	44.6	901.0	773.9	150.1	150.1	2.7	5.2	.0	.0
100000 < 200000	6.4	6.4	246.4	200.8	21.7	21.7	.6	1.0	.0	.0
200000 <********	1.8	1.8	186.0	153.4	5.7	5.7	.2	.2	.0	.0
TOTALS	352.0	225.9	2942.9	2939.2	1226.7	1185.5	27.9	44.3	.0	.0

INCOME CLASS (DOLLARS)	TAX (POSITIVE PORTION)			OUTLAYS (NEGATIVE PORTION)			TAX (NET OF OUTLAYS)		
	PLAN X ($ MIL)	PLAN Y ($ MIL)	CHANGE ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)	CHANGE ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)	CHANGE ($ MIL)
******** < 5000	4.2	2.6	-1.6	-4.2	-5.5	-1.4	.0	-3.0	-3.0
5000 < 10000	30.4	24.2	-6.2	-1.9	-3.0	-1.1	28.5	21.2	-7.3
10000 < 15000	44.9	38.5	-6.3	-1.1	-1.6	-.5	43.7	36.9	-6.8
15000 < 20000	45.3	41.1	-4.2	-1.4	-2.0	-.6	43.9	39.1	-4.8
20000 < 30000	110.2	106.6	-3.6	-1.6	-2.2	-.7	108.6	104.4	-4.2
30000 < 50000	170.6	174.7	4.2	-.9	-1.5	-.7	169.7	173.2	3.5
50000 < 100000	182.1	189.5	7.4	-.1	-.3	-.2	182.0	189.2	7.2
100000 < 200000	55.9	61.0	5.1	.0	.0	.0	55.9	61.0	5.1
200000 <********	51.5	61.2	9.7	.0	.0	.0	51.5	61.2	9.7
TOTALS	695.1	699.5	4.5	-11.1	-16.2	-5.1	683.9	683.3	-.6

STATE TAX LIABILITY FOR STATE

Plan X: 1986 FEDERAL LAW
1986 HAWAII LAW

Plan Y: 1992 FEDERAL LAW
1992 HAWAII LAW

Income Classifier: EXPANDED INCOME
Level of Income: 1992

Filing Status: ALL
Coverage: FEDERAL FILERS ONLY

INCOME CLASS (DOLLARS)	NUMBER OF RETURNS		TAXABLE RETURNS		ADJUSTED GROSS INCOME			TAXABLE INCOME		
	SAMPLE (UNITS)	AGGREGATE (000'S)	PLAN X (000'S)	PLAN Y (000'S)	PLAN X ($ MIL)	PLAN Y ($ MIL)	CHANGE ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)	CHANGE ($ MIL)
******** < 5000	251	125.6	45.7	36.8	329.0	336.3	7.3	205.9	128.0	-77.9
5000 < 10000	218	90.2	71.6	69.4	787.5	807.9	20.4	612.7	541.1	-71.6
10000 < 15000	190	69.6	59.9	59.0	984.8	996.7	12.0	768.7	732.3	-36.4
15000 < 20000	155	54.1	40.7	40.1	961.3	968.7	7.5	701.6	701.1	-.5
20000 < 30000	346	81.2	69.2	68.9	2197.1	2220.6	23.5	1573.7	1638.0	64.3
30000 < 50000	406	80.4	71.1	71.8	3422.2	3499.2	77.0	2278.4	2501.4	223.0
50000 < 100000	873	44.8	42.8	43.3	3217.3	3342.8	125.4	2150.1	2402.1	252.0
100000 < 200000	599	6.3	6.2	6.3	853.3	959.0	105.7	590.4	741.4	151.0
200000 <********	870	1.8	1.7	1.7	678.4	939.7	261.3	510.8	804.2	293.3
TOTALS	3908	554.0	409.0	397.3	13430.8	14070.9	640.0	9392.3	10189.5	797.2

INCOME CLASS (DOLLARS)	ITEMIZED RETURNS		DEDUCTIONS		EXEMPTIONS		STATE TAX CREDITS		MINTAX	
	PLAN X (000'S)	PLAN Y (000'S)	PLAN X ($ MIL)	PLAN Y ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)
******** < 5000	6.4	3.9	16.4	191.2	165.3	137.7	6.0	6.8	.0	.0
5000 < 10000	44.5	8.7	74.6	194.6	150.5	137.7	4.5	5.6	.0	.0
10000 < 15000	57.9	11.4	100.3	159.8	137.9	136.6	3.1	4.4	.0	.0
15000 < 20000	49.0	25.6	172.4	180.4	137.6	137.6	3.0	4.7	.0	.0
20000 < 30000	77.1	61.3	460.3	427.6	225.1	225.1	3.9	5.3	.0	.0
30000 < 50000	78.8	73.6	933.6	782.7	258.1	258.0	4.2	5.4	.0	.0
50000 < 100000	44.2	44.4	943.6	812.4	148.7	148.7	2.7	3.5	.0	.0
100000 < 200000	6.3	6.3	252.1	205.2	21.0	21.0	.6	.7	.0	.0
200000 <********	1.8	1.8	197.0	162.8	5.7	5.7	.2	.2	.0	.0
TOTALS	366.0	237.0	3150.2	3116.8	1250.0	1208.2	28.0	36.4	.0	.0

INCOME CLASS (DOLLARS)	TAX (POSITIVE PORTION)			OUTLAYS (NEGATIVE PORTION)			TAX (NET OF OUTLAYS)		
	PLAN X ($ MIL)	PLAN Y ($ MIL)	CHANGE ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)	CHANGE ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)	CHANGE ($ MIL)
******** < 5000	4.7	2.9	-1.8	-4.1	-5.3	-1.2	.6	-2.4	-3.1
5000 < 10000	33.2	27.0	-6.2	-1.9	-2.4	-.6	31.3	24.6	-6.7
10000 < 15000	49.8	43.5	-6.3	-1.1	-1.3	-.2	48.7	42.3	-6.5
15000 < 20000	49.1	45.3	-3.8	-1.5	-1.8	-.3	47.6	43.5	-4.1
20000 < 30000	119.2	117.1	-2.1	-1.6	-1.9	-.3	117.5	115.2	-2.4
30000 < 50000	182.3	189.7	7.4	-.9	-1.1	-.2	181.4	188.6	7.2
50000 < 100000	190.3	199.3	9.1	-.1	-.1	.0	190.2	199.2	9.1
100000 < 200000	57.9	63.5	5.6	.0	.0	.0	57.9	63.5	5.6
200000 <********	54.5	65.2	10.8	.0	.0	.0	54.5	65.2	10.8
TOTALS	740.9	753.6	12.7	-11.2	-14.0	-2.8	729.7	739.6	9.9

STATE TAX LIABILITY FOR STATE

Plan X: 1986 FEDERAL LAW
1986 HAWAII LAW

Plan Y: 1993 FEDERAL LAW
1993 HAWAII LAW

Income Classifier: EXPANDED INCOME
Level of Income: 1993

Filing Status: ALL
Coverage: FEDERAL FILERS ONLY

INCOME CLASS (DOLLARS)	NUMBER OF RETURNS		TAXABLE RETURNS		ADJUSTED GROSS INCOME			TAXABLE INCOME		
	SAMPLE (UNITS)	AGGREGATE (000'S)	PLAN X (000'S)	PLAN Y (000'S)	PLAN X ($ MIL)	PLAN Y ($ MIL)	CHANGE ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)	CHANGE ($ MIL)
******** < 5000	251	128.5	47.5	40.1	354.5	362.8	8.3	225.8	143.8	-81.9
5000 < 10000	218	90.7	71.3	68.9	815.0	835.5	20.5	634.0	564.0	-70.1
10000 < 15000	190	72.5	62.5	62.7	1076.2	1087.8	11.7	841.3	807.8	-33.5
15000 < 20000	155	54.7	41.4	41.2	1011.6	1019.8	8.2	736.8	740.3	3.4
20000 < 30000	346	84.2	72.0	71.9	2370.2	2396.7	26.5	1701.8	1776.4	74.6
30000 < 50000	406	81.9	72.4	73.1	3605.1	3686.6	81.5	2393.3	2635.4	242.2
50000 < 100000	873	44.3	41.9	42.7	3314.8	3444.9	130.1	2211.8	2474.8	263.0
100000 < 200000	599	6.4	6.3	6.4	904.0	1018.8	114.8	624.3	787.3	163.0
200000 <********	870	1.8	1.7	1.7	700.3	974.8	274.5	528.6	836.2	307.7
TOTALS	3908	565.0	417.2	408.6	14151.6	14827.6	676.0	9897.7	10766.1	868.4

INCOME CLASS (DOLLARS)	ITEMIZED RETURNS		DEDUCTIONS		EXEMPTIONS		STATE TAX CREDITS		MINTAX	
	PLAN X (000'S)	PLAN Y (000'S)	PLAN X ($ MIL)	PLAN Y ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)
******** < 5000	7.2	4.0	18.0	197.1	170.9	142.7	6.1	6.9	.0	.0
5000 < 10000	49.2	9.4	83.1	201.9	151.4	138.6	4.5	5.7	.0	.0
10000 < 15000	63.2	12.5	113.9	170.2	144.3	143.1	3.1	4.4	.0	.0
15000 < 20000	49.6	28.6	187.8	192.2	139.3	139.3	3.0	4.7	.0	.0
20000 < 30000	80.0	66.9	503.9	464.4	229.8	229.8	3.9	5.3	.0	.0
30000 < 50000	80.2	75.1	997.6	832.5	262.6	262.4	4.1	5.3	.0	.0
50000 < 100000	43.6	43.9	982.9	845.1	147.1	147.1	2.7	3.4	.0	.0
100000 < 200000	6.4	6.4	269.0	219.2	21.1	21.1	.6	.7	.0	.0
200000 <********	1.7	1.7	203.1	168.3	5.7	5.7	.2	.2	.0	.0
TOTALS	381.0	248.5	3359.3	3291.0	1272.3	1230.0	28.2	36.6	.0	.0

INCOME CLASS (DOLLARS)	TAX (POSITIVE PORTION)			OUTLAYS (NEGATIVE PORTION)			TAX (NET OF OUTLAYS)		
	PLAN X ($ MIL)	PLAN Y ($ MIL)	CHANGE ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)	CHANGE ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)	CHANGE ($ MIL)
******** < 5000	5.5	3.4	-2.1	-4.1	-5.3	-1.2	1.4	-1.9	-3.3
5000 < 10000	34.9	28.6	-6.3	-1.8	-2.5	-.6	33.0	26.1	-6.9
10000 < 15000	55.7	49.2	-6.5	-1.1	-1.3	-.2	54.6	47.9	-6.6
15000 < 20000	52.2	48.6	-3.6	-1.5	-1.8	-.3	50.7	46.8	-4.0
20000 < 30000	130.6	128.8	-1.8	-1.7	-1.9	-.3	129.0	126.9	-2.1
30000 < 50000	193.5	201.8	8.3	-.9	-1.0	-.2	192.7	200.8	8.1
50000 < 100000	197.5	206.9	9.4	-.1	-.1	.0	197.4	206.8	9.4
100000 < 200000	61.5	67.3	5.9	.0	.0	.0	61.5	67.3	5.9
200000 <********	56.4	67.6	11.1	.0	.0	.0	56.4	67.6	11.1
TOTALS	787.9	802.3	14.4	-11.2	-14.0	-2.8	776.7	788.3	11.6

STATE TAX LIABILITY FOR STATE

Plan X: 1986 FEDERAL LAW
1986 HAWAII LAW

Plan Y: 1994 FEDERAL LAW
1994 HAWAII LAW

Income Classifier: EXPANDED INCOME
Level of Income: 1994

Filing Status: ALL
Coverage: FEDERAL FILERS ONLY

INCOME CLASS (DOLLARS)	NUMBER OF RETURNS		TAXABLE RETURNS		ADJUSTED GROSS INCOME			TAXABLE INCOME		
	SAMPLE (UNITS)	AGGREGATE (000'S)	PLAN X (000'S)	PLAN Y (000'S)	PLAN X ($ MIL)	PLAN Y ($ MIL)	CHANGE ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)	CHANGE ($ MIL)
******** < 5000	251	129.7	50.1	43.7	372.4	381.2	8.8	241.1	157.0	-84.1
5000 < 10000	218	92.7	73.4	71.2	869.5	890.6	21.1	679.1	610.0	-69.0
10000 < 15000	190	77.3	67.4	67.1	1199.4	1211.6	12.2	939.3	908.1	-31.2
15000 < 20000	155	55.4	42.6	41.9	1069.7	1078.9	9.2	781.0	788.1	7.1
20000 < 30000	346	85.5	73.0	72.8	2474.2	2502.5	28.2	1778.4	1859.4	81.0
30000 < 50000	406	82.8	73.4	74.3	3770.5	3856.5	86.0	2492.1	2753.4	261.3
50000 < 100000	873	44.5	42.1	42.9	3483.2	3619.4	136.2	2324.2	2601.2	277.0
100000 < 200000	599	6.2	6.2	6.2	921.6	1040.0	118.4	636.1	805.2	169.1
200000 <********	870	1.8	1.7	1.8	753.4	1053.5	300.1	568.3	904.2	335.9
TOTALS	3908	576.0	430.0	421.8	14913.9	15634.2	720.3	10439.6	11386.7	947.1

INCOME CLASS (DOLLARS)	ITEMIZED RETURNS		DEDUCTIONS		EXEMPTIONS		STATE TAX CREDITS		MINTAX	
	PLAN X (000'S)	PLAN Y (000'S)	PLAN X ($ MIL)	PLAN Y ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)
******** < 5000	8.9	4.4	20.0	200.5	172.8	144.4	6.2	7.0	.0	.0
5000 < 10000	54.1	10.1	89.2	208.0	155.0	142.0	4.5	5.8	.0	.0
10000 < 15000	68.7	16.4	132.7	187.4	153.9	152.8	3.1	4.6	.0	.0
15000 < 20000	50.4	31.0	201.1	202.8	141.5	141.5	3.0	4.6	.0	.0
20000 < 30000	81.1	68.2	533.1	488.8	232.9	232.9	4.0	5.3	.0	.0
30000 < 50000	81.1	75.9	1065.8	883.6	264.9	264.8	4.1	5.3	.0	.0
50000 < 100000	43.8	44.1	1039.8	893.2	148.5	148.5	2.7	3.5	.0	.0
100000 < 200000	6.2	6.2	275.4	223.3	20.7	20.7	.6	.7	.0	.0
200000 <********	1.8	1.8	218.8	181.4	5.7	5.7	.2	.2	.0	.0
TOTALS	396.0	258.0	3576.0	3468.9	1295.9	1253.3	28.4	36.8	.0	.0

INCOME CLASS (DOLLARS)	TAX (POSITIVE PORTION)			OUTLAYS (NEGATIVE PORTION)			TAX (NET OF OUTLAYS)		
	PLAN X ($ MIL)	PLAN Y ($ MIL)	CHANGE ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)	CHANGE ($ MIL)	PLAN X ($ MIL)	PLAN Y ($ MIL)	CHANGE ($ MIL)
******** < 5000	6.2	3.9	-2.3	-4.0	-5.3	-1.2	2.2	-1.4	-3.6
5000 < 10000	38.2	31.7	-6.5	-1.8	-2.5	-.6	36.4	29.3	-7.1
10000 < 15000	63.3	56.5	-6.8	-1.2	-1.3	-.2	62.1	55.2	-7.0
15000 < 20000	56.0	52.5	-3.5	-1.4	-1.7	-.3	54.6	50.8	-3.8
20000 < 30000	137.9	136.2	-1.7	-1.7	-2.0	-.3	136.2	134.2	-1.9
30000 < 50000	203.4	212.8	9.4	-.9	-1.1	-.2	202.6	211.8	9.2
50000 < 100000	209.3	219.0	9.7	-.1	-.1	.0	209.2	218.9	9.7
100000 < 200000	62.9	68.8	5.9	.0	.0	.0	62.9	68.8	5.9
200000 <********	60.8	72.7	11.9	.0	.0	.0	60.8	72.7	11.9
TOTALS	838.1	854.2	16.1	-11.1	-13.9	-2.8	827.0	840.3	13.3

DISTRIBUTION OF STATE TAX CHANGE AND NUMBER OF RETURNS AFFECTED FOR STATE

Plan X: 1986 FEDERAL LAW
1986 HAWAII LAW
Income Classifier: PRE-TAX REFORM STATE AGI
Level of Income: 1987

Plan Y: 1987 FEDERAL LAW
1986 HAWAII LAW WITH WINDFALL
Filing Status: ALL
Coverage: FEDERAL FILERS ONLY

INCOME CLASS (DOLLARS)	PRESENTLY TAXABLE RETURNS MADE NONTAXABLE		PRESENTLY NONTAXABLE RETURNS MADE TAXABLE		RETURNS WITH A CHANGE IN TAX LIABILITY				RETURNS WHIC CHANGED THEIR TYPE OF DEDUCTION	
					TAX DECREASES		TAX INCREASES			
	NUMBER OF RETURNS (UNITS)	AMOUNT OF TAX DECREASE ($ MIL)	NUMBER OF RETURNS (UNITS)	AMOUNT OF TAX INCREASE ($ MIL)	NUMBER OF RETURNS (UNITS)	AMOUNT OF TAX DECREASE ($ MIL)	NUMBER OF RETURNS (UNITS)	AMOUNT OF TAX INCREASE ($ MIL)	NUMBER OF RETURNS (UNITS)	AMOUNT OF TAX CHANGE ($ MIL)
******* < 5000	0.	.000	0.	.000	0.	.000	1523.	.069	2376.	.000
5000 < 10000	0.	.000	1493.	.074	468.	-.005	12952.	.681	3829.	.084
10000 < 15000	0.	.000	851.	.053	1462.	-.003	46758.	1.971	23084.	.365
15000 < 20000	0.	.000	114.	.014	292.	-.003	32726.	1.902	8236.	.222
20000 < 30000	0.	.000	181.	.017	684.	-.008	60523.	7.871	2581.	.062
30000 < 50000	0.	.000	186.	.099	45.	-.001	71419.	17.859	387.	.114
50000 < 100000	0.	.000	0.	.000	4.	-.001	36885.	20.381	0.	.000
100000 < 200000	0.	.000	0.	.000	67.	-.001	4648.	9.210	0.	.000
200000 <********	0.	.000	0.	.000	3.	.000	744.	9.912	0.	.000
ITEMIZED	0.	.000	2825.	.256	3027.	-.022	268178.	69.856	40493.	.847
******* < 5000	0.	.000	6206.	.289	15104.	-.006	24975.	1.281	332.	.032
5000 < 10000	0.	.000	0.	.000	17541.	-.016	16939.	1.567	111.	.005
10000 < 15000	0.	.000	0.	.000	4038.	-.010	2052.	.101	294.	.010
15000 < 20000	0.	.000	0.	.000	509.	-.001	298.	.077	298.	.077
20000 < 30000	0.	.000	0.	.000	0.	.000	0.	.000	0.	.000
30000 < 50000	0.	.000	0.	.000	0.	.000	0.	.000	0.	.000
50000 < 100000	0.	.000	0.	.000	0.	.000	0.	.000	0.	[illegible]
100000 < 200000	0.	.000	0.	.000	0.	.000	0.	.000	0.	
200000 <********	0.	.000	0.	.000	0.	.000	0.	.000	0.	
STANDARD	0.	.000	6206.	.289	37191.	-.032	44264.	3.026	1034.	[illegible]
******* < 5000	0.	.000	6206.	.289	15104.	-.006	26498.	1.349	2708.	.032
5000 < 10000	0.	.000	1493.	.074	18009.	-.021	29891.	2.248	3940.	.088
10000 < 15000	0.	.000	851.	.053	5500.	-.013	48810.	2.073	23378.	.375
15000 < 20000	0.	.000	114.	.014	801.	-.004	33023.	1.979	8534.	.300
20000 < 30000	0.	.000	181.	.017	684.	-.008	60523.	7.871	2581.	.062
30000 < 50000	0.	.000	186.	.099	45.	-.001	71419.	17.859	387.	.114
50000 < 100000	0.	.000	0.	.000	4.	-.001	36885.	20.381	0.	.000
100000 < 200000	0.	.000	0.	.000	67.	-.001	4648.	9.210	0.	.000
200000 <********	0.	.000	0.	.000	3.	.000	744.	9.912	0.	.000
TOTAL	0.	.000	9031.	.545	40218.	-.054	312442.	72.882	41527.	.971

7wf

DISTRIBUTION OF STATE TAX CHANGE AND NUMBER OF RETURNS AFFECTED FOR STATE

Plan X: 1986 FEDERAL LAW
1986 HAWAII LAW
Income Classifier: PRE-TAX REFORM STATE AGI
Level of Income: 1988

Plan Y: 1988 FEDERAL LAW
1986 HAWAII LAW WITH WINDFALL
Filing Status: ALL
Coverage: FEDERAL FILERS ONLY

INCOME CLASS (DOLLARS)	PRESENTLY TAXABLE RETURNS MADE NONTAXABLE		PRESENTLY NONTAXABLE RETURNS MADE TAXABLE		RETURNS WITH A CHANGE IN TAX LIABILITY				RETURNS WHICH CHANGED THEIR TYPE OF DEDUCTION	
					TAX DECREASES		TAX INCREASES			
	NUMBER OF RETURNS (UNITS)	AMOUNT OF TAX DECREASE ($ MIL)	NUMBER OF RETURNS (UNITS)	AMOUNT OF TAX INCREASE ($ MIL)	NUMBER OF RETURNS (UNITS)	AMOUNT OF TAX DECREASE ($ MIL)	NUMBER OF RETURNS (UNITS)	AMOUNT OF TAX INCREASE ($ MIL)	NUMBER OF RETURNS (UNITS)	AMOUNT OF TAX CHANGE ($ MIL)
******** < 5000	0.	.000	0.	.000	0.	.000	2686.	.082	4173.	.001
5000 < 10000	0.	.000	653.	.066	517.	-.032	13470.	.772	6736.	.275
10000 < 15000	50.	-.004	1168.	.073	686.	-.027	52741.	2.061	27249.	.639
15000 < 20000	0.	.000	473.	.122	3.	.000	33013.	2.302	7464.	.192
20000 < 30000	0.	.000	451.	.045	556.	-.036	60572.	7.587	3449.	.062
30000 < 50000	0.	.000	626.	.142	30.	-.004	72095.	18.386	0.	.000
50000 < 100000	0.	.000	61.	.041	0.	.000	43424.	23.801	0.	.000
100000 < 200000	0.	.000	3.	.014	0.	.000	6341.	13.015	0.	.000
200000 <********	0.	.000	0.	.000	0.	.000	1165.	14.585	0.	.000
ITEMIZED	50.	-.004	3435.	.502	1792.	-.100	285508.	82.592	49071.	1.169
******** < 5000	177.	-.007	5440.	.251	13331.	-.012	22068.	1.168	594.	.004
5000 < 10000	0.	.000	0.	.000	16673.	-.017	14454.	1.333	327.	.021
10000 < 15000	0.	.000	0.	.000	3456.	-.008	1561.	.100	0.	.000
15000 < 20000	0.	.000	0.	.000	452.	-.005	307.	.008	419.	.003
000 < 30000	0.	.000	0.	.000	0.	.000	235.	.008	235.	.008
00 < 50000	0.	.000	0.	.000	0.	.000	0.	.000	0.	.000
000 < 100000	0.	.000	0.	.000	0.	.000	0.	.000	0.	.000
00000 < 200000	0.	.000	0.	.000	0.	.000	0.	.000	0.	.000
200000 <********	0.	.000	0.	.000	0.	.000	0.	.000	0.	.000
STANDARD	177.	-.007	5440.	.251	33911.	-.042	38626.	2.617	1575.	.037
******** < 5000	177.	-.007	5440.	.251	13331.	-.012	24753.	1.250	4767.	.006
5000 < 10000	0.	.000	653.	.066	17190.	-.049	27925.	2.105	7064.	.297
10000 < 15000	50.	-.004	1168.	.073	4142.	-.035	54303.	2.161	27249.	.639
15000 < 20000	0.	.000	473.	.122	455.	-.006	33320.	2.310	7882.	.195
20000 < 30000	0.	.000	451.	.045	556.	-.036	60807.	7.595	3684.	.070
30000 < 50000	0.	.000	626.	.142	30.	-.004	72095.	18.386	0.	.000
50000 < 100000	0.	.000	61.	.041	0.	.000	43424.	23.801	0.	.000
100000 < 200000	0.	.000	3.	.014	0.	.000	6341.	13.015	0.	.000
200000 <********	0.	.000	0.	.000	0.	.000	1165.	14.585	0.	.000
TOTAL	227.	-.011	8875.	.754	35703.	-.141	324133.	85.209	50646.	1.206

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DISTRIBUTION OF STATE TAX CHANGE AND NUMBER OF RETURNS AFFECTED FOR STATE

Plan X: 1986 FEDERAL LAW
1986 HAWAII LAW
Income Classifier: PRE-TAX REFORM STATE AGI
Level of Income: 1989

Plan Y: 1989 FEDERAL LAW
1986 HAWAII LAW WITH WINDFALL
Filing Status: ALL
Coverage: FEDERAL FILERS ONLY

INCOME CLASS (DOLLARS)	PRESENTLY TAXABLE RETURNS MADE NONTAXABLE		PRESENTLY NONTAXABLE RETURNS MADE TAXABLE		RETURNS WITH A CHANGE IN TAX LIABILITY				RETURNS WHICH CHANGED THEIR TYPE OF DEDUCTION	
					TAX DECREASES		TAX INCREASES			
	NUMBER OF RETURNS (UNITS)	AMOUNT OF TAX DECREASE ($ MIL)	NUMBER OF RETURNS (UNITS)	AMOUNT OF TAX INCREASE ($ MIL)	NUMBER OF RETURNS (UNITS)	AMOUNT OF TAX DECREASE ($ MIL)	NUMBER OF RETURNS (UNITS)	AMOUNT OF TAX INCREASE ($ MIL)	NUMBER OF RETURNS (UNITS)	AMOUNT OF TAX CHANGE ($ MIL)
*** < 5000	0.	.000	0.	.000	0.	.000	2492.	.094	5091.	.000
000 < 10000	0.	.000	591.	.066	383.	-.036	13577.	.886	7597.	.353
000 < 15000	277.	-.099	605.	.044	855.	-.107	52372.	2.535	27585.	.931
000 < 20000	0.	.000	649.	.040	75.	-.007	36668.	2.424	10592.	.355
000 < 30000	0.	.000	439.	.158	940.	-.092	61292.	8.669	3801.	.164
000 < 50000	0.	.000	1121.	.205	29.	-.006	74117.	20.135	0.	.000
000 < 100000	0.	.000	97.	.102	0.	.000	48807.	27.684	0.	.000
000 < 200000	0.	.000	9.	.001	0.	.000	7707.	16.715	0.	.000
000 <********	0.	.000	0.	.000	0.	.000	1233.	18.062	1.	.018
ITEMIZED	277.	-.099	3512.	.615	2282.	-.248	298265.	97.205	54666.	1.822
*** < 5000	129.	-.005	4752.	.288	14240.	-.012	21270.	1.095	529.	.004
000 < 10000	0.	.000	0.	.000	16179.	-.046	16624.	1.652	325.	.021
000 < 15000	0.	.000	0.	.000	3347.	-.007	2197.	.106	0.	.000
000 < 20000	0.	.000	0.	.000	475.	-.027	30.	.000	116.	-.026
000 < 30000	0.	.000	0.	.000	0.	.000	0.	.000	0.	.000
000 < 50000	0.	.000	0.	.000	0.	.000	0.	.000	0.	.000
000 < 100000	0.	.000	0.	.000	0.	.000	0.	.000	0.	.00
000 < 200000	0.	.000	0.	.000	0.	.000	0.	.000	0.	.00
000 <********	0.	.000	0.	.000	0.	.000	0.	.000	0.	.000
STANDARD	129.	-.005	4752.	.288	34242.	-.092	40120.	2.854	970.	-.002
*** < 5000	129.	-.005	4752.	.288	14240.	-.012	23761.	1.189	5620.	.004
000 < 10000	0.	.000	591.	.066	16563.	-.082	30201.	2.538	7922.	.374
000 < 15000	277.	-.099	605.	.044	4202.	-.114	54569.	2.641	27585.	.931
000 < 20000	0.	.000	649.	.040	550.	-.034	36698.	2.425	10707.	.329
000 < 30000	0.	.000	439.	.158	940.	-.092	61292.	8.669	3801.	.164
000 < 50000	0.	.000	1121.	.205	29.	-.006	74117.	20.135	0.	.000
000 < 100000	0.	.000	97.	.102	0.	.000	48807.	27.684	0.	.000
000 < 200000	0.	.000	9.	.001	0.	.000	7707.	16.715	0.	.000
000 <********	0.	.000	0.	.000	0.	.000	1233.	18.062	1.	.018
TOTAL	407.	-.104	8264.	.903	36524.	-.340	338385.	100.059	55636.	1.820

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DISTRIBUTION OF STATE TAX CHANGE AND NUMBER OF RETURNS AFFECTED FOR STATE

Plan X: 1986 FEDERAL LAW
1986 HAWAII LAW
Income Classifier: PRE-TAX REFORM STATE AGI
Level of Income: 1990

Plan Y: 1990 FEDERAL LAW
1986 HAWAII LAW WITH WINDFALL
Filing Status: ALL
Coverage: FEDERAL FILERS ONLY

INCOME CLASS (DOLLARS)	PRESENTLY TAXABLE RETURNS MADE NONTAXABLE		PRESENTLY NONTAXABLE RETURNS MADE TAXABLE		RETURNS WITH A CHANGE IN TAX LIABILITY				RETURNS WHICH CHANGED THEIR TYPE OF DEDUCTION	
					TAX DECREASES		TAX INCREASES			
	NUMBER OF RETURNS (UNITS)	AMOUNT OF TAX DECREASE ($ MIL)	NUMBER OF RETURNS (UNITS)	AMOUNT OF TAX INCREASE ($ MIL)	NUMBER OF RETURNS (UNITS)	AMOUNT OF TAX DECREASE ($ MIL)	NUMBER OF RETURNS (UNITS)	AMOUNT OF TAX INCREASE ($ MIL)	NUMBER OF RETURNS (UNITS)	AMOUNT OF TAX CHANGE ($ MIL)
******** < 5000	0.	.000	0.	.000	0.	.000	2144.	.075	5925.	.000
5000 < 10000	1.	.000	482.	.078	822.	-.042	17056.	1.077	9442.	.450
10000 < 15000	219.	-.064	917.	.081	1081.	-.066	51963.	2.659	28915.	.982
15000 < 20000	0.	.000	649.	.033	165.	-.035	38225.	2.605	10502.	.399
20000 < 30000	0.	.000	502.	.059	822.	-.056	62747.	8.631	4279.	.188
30000 < 50000	0.	.000	1065.	.309	0.	.000	76558.	22.296	0.	.000
50000 < 100000	29.	-.002	76.	.114	64.	-.005	53457.	31.214	0.	.000
100000 < 200000	0.	.000	28.	.023	0.	.000	9269.	18.240	0.	.000
200000 <********	0.	.000	0.	.000	0.	.000	1520.	21.907	1.	.013
ITEMIZED	248.	-.066	3720.	.697	2954.	-.203	312939.	108.705	59064.	2.031
******** < 5000	483.	-.010	4409.	.302	14582.	-.019	20881.	1.127	662.	.001
5000 < 10000	367.	-.007	0.	.000	15510.	-.052	16685.	1.672	327.	.023
10000 < 15000	0.	.000	0.	.000	1872.	-.004	3828.	.209	0.	.000
15000 < 20000	0.	.000	0.	.000	852.	-.003	371.	.001	0.	.000
20000 < 30000	0.	.000	0.	.000	0.	.000	0.	.000	0.	.000
00 < 50000	0.	.000	0.	.000	0.	.000	0.	.000	0.	.000
0 < 100000	0.	.000	0.	.000	0.	.000	0.	.000	0.	.000
00 < 200000	0.	.000	0.	.000	0.	.000	0.	.000	0.	.000
200000 <********	0.	.000	0.	.000	0.	.000	0.	.000	0.	.000
STANDARD	850.	-.017	4409.	.302	32816.	-.078	41765.	3.009	989.	.024
******** < 5000	483.	-.010	4409.	.302	14582.	-.019	23025.	1.202	6586.	.001
5000 < 10000	368.	-.008	482.	.078	16331.	-.094	33741.	2.749	9770.	.473
10000 < 15000	219.	-.064	917.	.081	2952.	-.070	55791.	2.868	28915.	.982
15000 < 20000	0.	.000	649.	.033	1017.	-.038	38596.	2.606	10502.	.399
20000 < 30000	0.	.000	502.	.059	822.	-.056	62747.	8.631	4279.	.188
30000 < 50000	0.	.000	1065.	.309	0.	.000	76558.	22.296	0.	.000
50000 < 100000	29.	-.002	76.	.114	64.	-.005	53457.	31.214	0.	.000
100000 < 200000	0.	.000	28.	.023	0.	.000	9269.	18.240	0.	.000
200000 <********	0.	.000	0.	.000	0.	.000	1520.	21.907	1.	.013
TOTAL	1098.	-.083	8128.	.999	35769.	-.282	354704.	111.713	60054.	2.055

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DISTRIBUTION OF STATE TAX CHANGE AND NUMBER OF RETURNS AFFECTED FOR STATE

Plan X: 1986 FEDERAL LAW
1986 HAWAII LAW
Income Classifier: PRE-TAX REFORM STATE AGI
Level of Income: 1991

Plan Y: 1991 FEDERAL LAW
1986 HAWAII LAW WITH WINDFALL
Filing Status: ALL
Coverage: FEDERAL FILERS ONLY

INCOME CLASS (DOLLARS)	PRESENTLY TAXABLE RETURNS MADE NONTAXABLE		PRESENTLY NONTAXABLE RETURNS MADE TAXABLE		RETURNS WITH A CHANGE IN TAX LIABILITY				RETURNS WHICH CHANGED THEIR TYPE OF DEDUCTION	
					TAX DECREASES		TAX INCREASES			
	NUMBER OF RETURNS (UNITS)	AMOUNT OF TAX DECREASE ($ MIL)	NUMBER OF RETURNS (UNITS)	AMOUNT OF TAX INCREASE ($ MIL)	NUMBER OF RETURNS (UNITS)	AMOUNT OF TAX DECREASE ($ MIL)	NUMBER OF RETURNS (UNITS)	AMOUNT OF TAX INCREASE ($ MIL)	NUMBER OF RETURNS (UNITS)	AMOUNT OF TAX CHANGE ($ MIL)
******** < 5000	0.	.000	0.	.000	0.	.000	2194.	.072	8184.	.000
5000 < 10000	0.	.000	1088.	.092	1141.	-.003	16866.	.814	10668.	.460
10000 < 15000	209.	-.069	1089.	.174	839.	-.170	51940.	3.257	30129.	1.155
15000 < 20000	0.	.000	609.	.038	522.	-.042	41326.	3.139	12029.	.600
20000 < 30000	0.	.000	458.	.064	1157.	-.033	62880.	8.806	5162.	.247
30000 < 50000	0.	.000	1030.	.356	0.	.000	78714.	23.861	0.	.000
50000 < 100000	28.	-.004	106.	.189	28.	-.004	58297.	35.411	0.	.000
100000 < 200000	0.	.000	20.	.027	0.	.000	10812.	20.578	0.	.000
200000 <********	0.	.000	0.	.000	0.	.000	1861.	26.705	2.	.028
ITEMIZED	237.	-.073	4400.	.939	3687.	-.252	324890.	122.642	66174.	2.491
******** < 5000	272.	-.029	4649.	.333	14040.	-.036	20486.	1.152	699.	.000
5000 < 10000	79.	-.005	143.	.001	14257.	-.036	17836.	1.745	242.	.011
10000 < 15000	0.	.000	0.	.000	1616.	-.004	3739.	.228	434.	.024
15000 < 20000	0.	.000	0.	.000	528.	-.002	0.	.000	0.	.000
20000 < 30000	0.	.000	0.	.000	0.	.000	0.	.000	0.	.000
30000 < 50000	0.	.000	0.	.000	0.	.000	0.	.000	0.	.000
50000 < 100000	0.	.000	0.	.000	0.	.000	0.	.000	0.	
100000 < 200000	0.	.000	0.	.000	0.	.000	0.	.000	0.	
200000 <********	0.	.000	0.	.000	0.	.000	0.	.000	0.	
STANDARD	351.	-.033	4792.	.333	30441.	-.078	42060.	3.125	1375.	.036
******** < 5000	272.	-.029	4649.	.333	14040.	-.036	22680.	1.224	8883.	.001
5000 < 10000	79.	-.005	1231.	.093	15398.	-.040	34701.	2.559	10910.	.472
10000 < 15000	209.	-.069	1089.	.174	2456.	-.174	55679.	3.485	30564.	1.179
15000 < 20000	0.	.000	609.	.038	1049.	-.044	41326.	3.139	12029.	.600
20000 < 30000	0.	.000	458.	.064	1157.	-.033	62880.	8.806	5162.	.247
30000 < 50000	0.	.000	1030.	.356	0.	.000	78714.	23.861	0.	.000
50000 < 100000	28.	-.004	106.	.189	28.	-.004	58297.	35.411	0.	.000
100000 < 200000	0.	.000	20.	.027	0.	.000	10812.	20.578	0.	.000
200000 <********	0.	.000	0.	.000	0.	.000	1861.	26.705	2.	.028
TOTAL	588.	-.107	9192.	1.273	34128.	-.330	366950.	125.767	67549.	2.527

91wf

DISTRIBUTION OF STATE TAX CHANGE AND NUMBER OF RETURNS AFFECTED FOR STATE

Plan X: 1986 FEDERAL LAW
1986 HAWAII LAW
Income Classifier: PRE-TAX REFORM STATE AGI
Level of Income: 1992

Plan Y: 1992 FEDERAL LAW
1986 HAWAII LAW WITH WINDFALL
Filing Status: ALL
Coverage: FEDERAL FILERS ONLY

INCOME CLASS (DOLLARS)	PRESENTLY TAXABLE RETURNS MADE NONTAXABLE		PRESENTLY NONTAXABLE RETURNS MADE TAXABLE		RETURNS WITH A CHANGE IN TAX LIABILITY				RETURNS WHICH CHANGED THEIR TYPE OF DEDUCTION	
					TAX DECREASES		TAX INCREASES			
	NUMBER OF RETURNS (UNITS)	AMOUNT OF TAX DECREASE ($ MIL)	NUMBER OF RETURNS (UNITS)	AMOUNT OF TAX INCREASE ($ MIL)	NUMBER OF RETURNS (UNITS)	AMOUNT OF TAX DECREASE ($ MIL)	NUMBER OF RETURNS (UNITS)	AMOUNT OF TAX INCREASE ($ MIL)	NUMBER OF RETURNS (UNITS)	AMOUNT OF TAX CHANGE ($ MIL)
******** < 5000	0.	.000	0.	.000	0.	.000	2748.	.088	8332.	.001
5000 < 10000	0.	.000	1589.	.131	2272.	-.044	16059.	.769	9496.	.467
10000 < 15000	0.	.000	797.	.120	443.	-.171	52631.	3.470	31174.	1.489
15000 < 20000	0.	.000	510.	.023	52.	-.004	43248.	3.273	9973.	.541
20000 < 30000	0.	.000	334.	.067	0.	.000	64445.	9.074	5400.	.248
30000 < 50000	0.	.000	957.	.294	58.	-.023	81167.	24.401	0.	.000
50000 < 100000	27.	-.007	98.	.148	27.	-.007	62891.	37.783	0.	.000
100000 < 200000	0.	.000	38.	.172	0.	.000	12199.	23.444	0.	.000
200000 <********	0.	.000	0.	.000	0.	.000	2075.	30.627	1.	.025
ITEMIZED	27.	-.007	4322.	.955	2852.	-.248	337464.	132.927	64376.	2.771
******** < 5000	0.	.000	4113.	.392	13891.	-.008	19739.	1.240	956.	.002
5000 < 10000	0.	.000	531.	.033	13810.	-.077	17696.	1.676	130.	.008
10000 < 15000	0.	.000	0.	.000	1841.	-.011	2895.	.200	415.	.028
15000 < 20000	0.	.000	0.	.000	470.	-.002	0.	.000	0.	.000
20000 < 30000	0.	.000	0.	.000	0.	.000	0.	.000	0.	.000
000 < 50000	0.	.000	0.	.000	0.	.000	0.	.000	0.	.000
000 < 100000	0.	.000	0.	.000	0.	.000	0.	.000	0.	.000
000 < 200000	0.	.000	0.	.000	0.	.000	0.	.000	0.	.000
00000 <********	0.	.000	0.	.000	0.	.000	0.	.000	0.	.000
STANDARD	0.	.000	4644.	.426	30012.	-.098	40330.	3.116	1501.	.038
******** < 5000	0.	.000	4113.	.392	13891.	-.008	22487.	1.329	9288.	.003
5000 < 10000	0.	.000	2120.	.164	16082.	-.120	33755.	2.445	9626.	.476
10000 < 15000	0.	.000	797.	.120	2284.	-.182	55526.	3.669	31589.	1.516
15000 < 20000	0.	.000	510.	.023	522.	-.006	43248.	3.273	9973.	.541
20000 < 30000	0.	.000	334.	.067	0.	.000	64445.	9.074	5400.	.248
30000 < 50000	0.	.000	957.	.294	58.	-.023	81167.	24.401	0.	.000
50000 < 100000	27.	-.007	98.	.148	27.	-.007	62891.	37.783	0.	.000
100000 < 200000	0.	.000	38.	.172	0.	.000	12199.	23.444	0.	.000
200000 <********	0.	.000	0.	.000	0.	.000	2075.	30.627	1.	.025
TOTAL	27.	-.007	8966.	1.381	32864.	-.346	377794.	136.043	65877.	2.809

92wf

DISTRIBUTION OF STATE TAX CHANGE AND NUMBER OF RETURNS AFFECTED FOR STATE

Plan X: 1986 FEDERAL LAW
1986 HAWAII LAW
Income Classifier: PRE-TAX REFORM STATE AGI
Level of Income: 1993

Plan Y: 1993 FEDERAL LAW
1986 HAWAII LAW WITH WINDFALL
Filing Status: ALL
Coverage: FEDERAL FILERS ONLY

INCOME CLASS (DOLLARS)	PRESENTLY TAXABLE RETURNS MADE NONTAXABLE		PRESENTLY NONTAXABLE RETURNS MADE TAXABLE		RETURNS WITH A CHANGE IN TAX LIABILITY				RETURNS CHANGED THEIR TYPE OF DEDUCTION	
					TAX DECREASES		TAX INCREASES			
	NUMBER OF RETURNS (UNITS)	AMOUNT OF TAX DECREASE ($ MIL)	NUMBER OF RETURNS (UNITS)	AMOUNT OF TAX INCREASE ($ MIL)	NUMBER OF RETURNS (UNITS)	AMOUNT OF TAX DECREASE ($ MIL)	NUMBER OF RETURNS (UNITS)	AMOUNT OF TAX INCREASE ($ MIL)	NUMBER OF RETURNS (UNITS)	AMOUNT OF TAX CHANGE ($ MIL)
******* < 5000	0.	.000	2.	.005	0.	.000	2484.	.090	8649.	.000
5000 < 10000	0.	.000	711.	.023	1820.	-.040	16386.	1.054	8390.	.784
10000 < 15000	0.	.000	983.	.140	709.	-.144	53032.	3.569	32353.	1.596
15000 < 20000	0.	.000	605.	.117	615.	-.006	44931.	3.390	8521.	.307
20000 < 30000	0.	.000	782.	.105	0.	.000	65191.	8.991	6204.	.500
30000 < 50000	0.	.000	1117.	.323	0.	.000	83961.	24.667	0.	.000
50000 < 100000	0.	.000	90.	.124	81.	-.054	67674.	40.448	0.	.000
100000 < 200000	0.	.000	33.	.056	0.	.000	13702.	25.023	0.	.000
200000 <********	0.	.000	0.	.000	0.	.000	2359.	34.387	1.	.024
ITEMIZED	0.	.000	4324.	.893	3224.	-.245	349718.	141.619	64118.	3.211
******* < 5000	0.	.000	4158.	.534	13410.	-.008	18546.	1.362	1013.	.000
5000 < 10000	0.	.000	519.	.032	13251.	-.084	18065.	1.401	0.	.000
10000 < 15000	0.	.000	0.	.000	1757.	-.014	1579.	.124	369.	.018
15000 < 20000	0.	.000	0.	.000	57.	.000	0.	.000	0.	.000
20000 < 30000	0.	.000	0.	.000	0.	.000	0.	.000	0.	.000
30000 < 50000	0.	.000	0.	.000	0.	.000	0.	.000	0.	.000
50000 < 100000	0.	.000	0.	.000	0.	.000	0.	.000	0.	[illegible]
100000 < 200000	0.	.000	0.	.000	0.	.000	0.	.000	0.	[illegible]
200000 <********	0.	.000	0.	.000	0.	.000	0.	.000	0.	[illegible]
STANDARD	0.	.000	4678.	.566	28474.	-.106	38190.	2.887	1382.	.016
******* < 5000	0.	.000	4160.	.539	13410.	-.008	21030.	1.452	9662.	.000
5000 < 10000	0.	.000	1230.	.055	15070.	-.124	34450.	2.455	8390.	.784
10000 < 15000	0.	.000	983.	.140	2465.	-.159	54611.	3.693	32722.	1.615
15000 < 20000	0.	.000	605.	.117	671.	-.006	44931.	3.390	8521.	.307
20000 < 30000	0.	.000	782.	.105	0.	.000	65191.	8.991	6204.	.500
30000 < 50000	0.	.000	1117.	.323	0.	.000	83961.	24.667	0.	.000
50000 < 100000	0.	.000	90.	.124	81.	-.054	67674.	40.448	0.	.000
100000 < 200000	0.	.000	33.	.056	0.	.000	13702.	25.023	0.	.000
200000 <********	0.	.000	0.	.000	0.	.000	2359.	34.387	1.	.024
TOTAL	0.	.000	9002.	1.459	31698.	-.351	387908.	144.506	65501.	3.230

93wf

DISTRIBUTION OF STATE TAX CHANGE AND NUMBER OF RETURNS AFFECTED FOR STATE

Plan X: 1986 FEDERAL LAW
1986 HAWAII LAW
Income Classifier: PRE-TAX REFORM STATE AGI
Level of Income: 1994

Plan Y: 1994 FEDERAL LAW
1986 HAWAII LAW WITH WINDFALL
Filing Status: ALL
Coverage: FEDERAL FILERS ONLY

INCOME CLASS (DOLLARS)	PRESENTLY TAXABLE RETURNS MADE NONTAXABLE		PRESENTLY NONTAXABLE RETURNS MADE TAXABLE		RETURNS WITH A CHANGE IN TAX LIABILITY				RETURNS WHICH CHANGED THEIR TYPE OF DEDUCTION	
					TAX DECREASES		TAX INCREASES			
	NUMBER OF RETURNS (UNITS)	AMOUNT OF TAX DECREASE ($ MIL)	NUMBER OF RETURNS (UNITS)	AMOUNT OF TAX INCREASE ($ MIL)	NUMBER OF RETURNS (UNITS)	AMOUNT OF TAX DECREASE ($ MIL)	NUMBER OF RETURNS (UNITS)	AMOUNT OF TAX INCREASE ($ MIL)	NUMBER OF RETURNS (UNITS)	AMOUNT OF TAX CHANGE ($ MIL)
******** < 5000	0.	.000	0.	.000	0.	.000	3974.	.049	10580.	.002
5000 < 10000	0.	.000	719.	.025	1339.	-.059	17393.	.936	8067.	.541
10000 < 15000	0.	.000	990.	.154	262.	-.116	52795.	3.755	32395.	1.802
15000 < 20000	0.	.000	572.	.141	351.	-.070	47267.	3.620	7621.	.290
20000 < 30000	0.	.000	768.	.087	0.	.000	66695.	8.548	5536.	.345
30000 < 50000	0.	.000	1104.	.328	0.	.000	87033.	25.040	0.	.000
50000 < 100000	0.	.000	173.	.185	80.	-.066	72196.	44.040	0.	.000
100000 < 200000	0.	.000	76.	.118	0.	.000	15348.	26.812	0.	.000
200000 <********	0.	.000	0.	.000	0.	.000	2570.	38.464	1.	.024
ITEMIZED	0.	.000	4402.	1.038	2032.	-.311	365270.	151.265	64201.	3.003
******** < 5000	0.	.000	4883.	.579	12405.	-.007	18329.	1.350	979.	.021
5000 < 10000	0.	.000	0.	.000	13946.	-.070	17441.	1.450	0.	.000
10000 < 15000	0.	.000	0.	.000	1776.	-.012	2124.	.112	375.	.018
15000 < 20000	0.	.000	0.	.000	70.	.000	0.	.000	0.	.000
000 < 30000	0.	.000	0.	.000	0.	.000	0.	.000	0.	.000
00 < 50000	0.	.000	0.	.000	0.	.000	0.	.000	0.	.000
00 < 100000	0.	.000	0.	.000	0.	.000	0.	.000	0.	.000
00000 < 200000	0.	.000	0.	.000	0.	.000	0.	.000	0.	.000
200000 <********	0.	.000	0.	.000	0.	.000	0.	.000	0.	.000
STANDARD	0.	.000	4883.	.579	28196.	-.090	37894.	2.912	1354.	.038
******** < 5000	0.	.000	4883.	.579	12405.	-.007	22303.	1.400	11559.	.023
5000 < 10000	0.	.000	719.	.025	15285.	-.130	34834.	2.387	8067.	.541
10000 < 15000	0.	.000	990.	.154	2037.	-.128	54919.	3.867	32771.	1.819
15000 < 20000	0.	.000	572.	.141	421.	-.070	47267.	3.620	7621.	.290
20000 < 30000	0.	.000	768.	.087	0.	.000	66695.	8.548	5536.	.345
30000 < 50000	0.	.000	1104.	.328	0.	.000	87033.	25.040	0.	.000
50000 < 100000	0.	.000	173.	.185	80.	-.066	72196.	44.040	0.	.000
100000 < 200000	0.	.000	76.	.118	0.	.000	15348.	26.812	0.	.000
200000 <********	0.	.000	0.	.000	0.	.000	2570.	38.464	1.	.024
TOTAL	0.	.000	9285.	1.617	30229.	-.400	403164.	154.178	65555.	3.042

94wf

DISTRIBUTION OF STATE TAX CHANGE AND NUMBER OF RETURNS AFFECTED FOR STATE

Plan X: 1987 FEDERAL LAW
1986 HAWAII LAW WITH WINDFALL
Income Classifier: PRE-TAX REFORM STATE AGI
Level of Income: 1987

Plan Y: 1987 FEDERAL LAW
1987 HAWAII LAW
Filing Status: ALL
Coverage: FEDERAL FILERS ONLY

INCOME CLASS (DOLLARS)	PRESENTLY TAXABLE RETURNS MADE NONTAXABLE		PRESENTLY NONTAXABLE RETURNS MADE TAXABLE		RETURNS WITH A CHANGE IN TAX LIABILITY				RETURNS WHIL CHANGED THEIR TYPE OF DEDUCTION	
					TAX DECREASES		TAX INCREASES			
	NUMBER OF RETURNS (UNITS)	AMOUNT OF TAX DECREASE ($ MIL)	NUMBER OF RETURNS (UNITS)	AMOUNT OF TAX INCREASE ($ MIL)	NUMBER OF RETURNS (UNITS)	AMOUNT OF TAX DECREASE ($ MIL)	NUMBER OF RETURNS (UNITS)	AMOUNT OF TAX INCREASE ($ MIL)	NUMBER OF RETURNS (UNITS)	AMOUNT OF TAX CHANGE ($ MIL)
******** < 5000	0.	.000	0.	.000	7328.	-.617	0.	.000	339.	-.031
5000 < 10000	2029.	-.198	0.	.000	13253.	-1.100	0.	.000	3468.	-.301
10000 < 15000	1471.	-.236	0.	.000	25944.	-2.925	0.	.000	10761.	-1.336
15000 < 20000	386.	-.099	0.	.000	25580.	-3.167	0.	.000	4508.	-.718
20000 < 30000	525.	-.138	0.	.000	58778.	-8.813	0.	.000	9730.	-1.803
30000 < 50000	0.	.000	0.	.000	71079.	-13.996	0.	.000	405.	-.049
50000 < 100000	0.	.000	0.	.000	36912.	-13.002	0.	.000	0.	.000
100000 < 200000	0.	.000	0.	.000	4740.	-6.279	0.	.000	0.	.000
200000 <********	0.	.000	0.	.000	747.	-8.754	0.	.000	0.	.000
ITEMIZED	4411.	-.672	0.	.000	244361.	-58.653	0.	.000	29211.	-4.237
******** < 5000	9715.	-.649	0.	.000	127803.	-7.757	4309.	.030	0.	.000
5000 < 10000	7540.	-1.007	0.	.000	60255.	-5.479	637.	.004	0.	.000
10000 < 15000	1726.	-.391	0.	.000	37059.	-5.313	0.	.000	0.	.000
15000 < 20000	343.	-.110	0.	.000	10326.	-2.536	0.	.000	0.	.000
20000 < 30000	0.	.000	0.	.000	2581.	-.567	0.	.000	0.	.000
30000 < 50000	0.	.000	0.	.000	387.	-.066	0.	.000	0.	.000
50000 < 100000	0.	.000	0.	.000	0.	.000	0.	.000	0.	.000
100000 < 200000	0.	.000	0.	.000	0.	.000	0.	.000	0.	.000
200000 <********	0.	.000	0.	.000	0.	.000	0.	.000	0.	.000
STANDARD	19324.	-2.157	0.	.000	238410.	-21.720	4947.	.034	0.	.000
******** < 5000	9715.	-.649	0.	.000	135131.	-8.374	4309.	.030	339.	-.031
5000 < 10000	9570.	-1.205	0.	.000	73507.	-6.579	637.	.004	3468.	-.301
10000 < 15000	3196.	-.627	0.	.000	63003.	-8.239	0.	.000	10761.	-1.336
15000 < 20000	729.	-.210	0.	.000	35906.	-5.704	0.	.000	4508.	-.718
20000 < 30000	525.	-.138	0.	.000	61359.	-9.381	0.	.000	9730.	-1.803
30000 < 50000	0.	.000	0.	.000	71466.	-14.062	0.	.000	405.	-.049
50000 < 100000	0.	.000	0.	.000	36912.	-13.002	0.	.000	0.	.000
100000 < 200000	0.	.000	0.	.000	4740.	-6.279	0.	.000	0.	.000
200000 <********	0.	.000	0.	.000	747.	-8.754	0.	.000	0.	.000
TOTAL	23735.	-2.828	0.	.000	482772.	-80.373	4947.	.034	29211.	-4.237

87sr

DISTRIBUTION OF STATE TAX CHANGE AND NUMBER OF RETURNS AFFECTED FOR STATE

Plan X: 1988 FEDERAL LAW
1986 HAWAII LAW WITH WINDFALL
Income Classifier: PRE-TAX REFORM STATE AGI
Level of Income: 1988

Plan Y: 1988 FEDERAL LAW
1988 HAWAII LAW
Filing Status: ALL
Coverage: FEDERAL FILERS ONLY

INCOME CLASS (DOLLARS)	PRESENTLY TAXABLE RETURNS MADE NONTAXABLE		PRESENTLY NONTAXABLE RETURNS MADE TAXABLE		RETURNS WITH A CHANGE IN TAX LIABILITY				RETURNS WHICH CHANGED THEIR TYPE OF DEDUCTION	
					TAX DECREASES		TAX INCREASES			
	NUMBER OF RETURNS (UNITS)	AMOUNT OF TAX DECREASE ($ MIL)	NUMBER OF RETURNS (UNITS)	AMOUNT OF TAX INCREASE ($ MIL)	NUMBER OF RETURNS (UNITS)	AMOUNT OF TAX DECREASE ($ MIL)	NUMBER OF RETURNS (UNITS)	AMOUNT OF TAX INCREASE ($ MIL)	NUMBER OF RETURNS (UNITS)	AMOUNT OF TAX CHANGE ($ MIL)
******** < 5000	305.	-.026	0.	.000	10554.	-1.046	0.	.000	815.	-.083
5000 < 10000	1005.	-.115	0.	.000	13090.	-1.394	0.	.000	2117.	-.314
10000 < 15000	2617.	-.463	0.	.000	26912.	-3.301	0.	.000	11534.	-1.552
15000 < 20000	935.	-.162	0.	.000	26816.	-3.819	0.	.000	5301.	-.875
20000 < 30000	1016.	-.192	0.	.000	58142.	-10.085	0.	.000	8495.	-1.958
30000 < 50000	125.	-.007	0.	.000	72340.	-15.167	0.	.000	524.	-.133
50000 < 100000	0.	.000	0.	.000	43486.	-15.475	0.	.000	0.	.000
100000 < 200000	0.	.000	0.	.000	6367.	-8.167	0.	.000	0.	.000
200000 <********	0.	.000	0.	.000	1165.	-11.382	0.	.000	0.	.000
ITEMIZED	6002.	-.964	0.	.000	258872.	-69.836	0.	.000	28786.	-4.914
******** < 5000	6921.	-.564	0.	.000	125021.	-8.888	4025.	.018	0.	.000
5000 < 10000	8955.	-1.463	0.	.000	60537.	-6.725	0.	.000	0.	.000
10000 < 15000	2076.	-.532	0.	.000	38474.	-6.134	0.	.000	0.	.000
15000 < 20000	311.	-.133	0.	.000	10521.	-3.026	0.	.000	0.	.000
0000 < 30000	0.	.000	0.	.000	3449.	-1.036	0.	.000	0.	.000
000 < 50000	0.	.000	0.	.000	0.	.000	0.	.000	0.	.000
000 < 100000	0.	.000	0.	.000	0.	.000	0.	.000	0.	.000
00000 < 200000	0.	.000	0.	.000	0.	.000	0.	.000	0.	.000
200000 <********	0.	.000	0.	.000	0.	.000	0.	.000	0.	.000
STANDARD	18264.	-2.692	0.	.000	238001.	-25.810	4025.	.018	0.	.000
******** < 5000	7226.	-.590	0.	.000	135575.	-9.935	4025.	.018	815.	-.083
5000 < 10000	9960.	-1.578	0.	.000	73627.	-8.119	0.	.000	2117.	-.314
10000 < 15000	4693.	-.995	0.	.000	65386.	-9.436	0.	.000	11534.	-1.552
15000 < 20000	1246.	-.295	0.	.000	37337.	-6.845	0.	.000	5301.	-.875
20000 < 30000	1016.	-.192	0.	.000	61591.	-11.121	0.	.000	8495.	-1.958
30000 < 50000	125.	-.007	0.	.000	72340.	-15.167	0.	.000	524.	-.133
50000 < 100000	0.	.000	0.	.000	43486.	-15.475	0.	.000	0.	.000
100000 < 200000	0.	.000	0.	.000	6367.	-8.167	0.	.000	0.	.000
200000 <********	0.	.000	0.	.000	1165.	-11.382	0.	.000	0.	.000
TOTAL	24266.	-3.657	0.	.000	496874.	-95.646	4025.	.018	28786.	-4.914

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DISTRIBUTION OF STATE TAX CHANGE AND NUMBER OF RETURNS AFFECTED FOR STATE

Plan X: 1989 FEDERAL LAW
1986 HAWAII LAW WITH WINDFALL
Income Classifier: PRE-TAX REFORM STATE AGI
Level of Income: 1989

Plan Y: 1989 FEDERAL LAW
1989 HAWAII LAW
Filing Status: ALL
Coverage: FEDERAL FILERS ONLY

INCOME CLASS (DOLLARS)	PRESENTLY TAXABLE RETURNS MADE NONTAXABLE		PRESENTLY NONTAXABLE RETURNS MADE TAXABLE		RETURNS WITH A CHANGE IN TAX LIABILITY				RETURNS WHI CHANGED THEIR TYPE OF DEDUCTION	
					TAX DECREASES		TAX INCREASES			
	NUMBER OF RETURNS (UNITS)	AMOUNT OF TAX DECREASE ($ MIL)	NUMBER OF RETURNS (UNITS)	AMOUNT OF TAX INCREASE ($ MIL)	NUMBER OF RETURNS (UNITS)	AMOUNT OF TAX DECREASE ($ MIL)	NUMBER OF RETURNS (UNITS)	AMOUNT OF TAX INCREASE ($ MIL)	NUMBER OF RETURNS (UNITS)	AMOUNT OF TAX CHANGE ($ MIL)
******** < 5000	688.	-.165	0.	.000	10711.	-3.822	0.	.000	1946.	-.478
5000 < 10000	2120.	-.823	0.	.000	13065.	-5.133	0.	.000	3873.	-1.073
10000 < 15000	4975.	-2.666	0.	.000	26564.	-9.746	0.	.000	15212.	-5.164
15000 < 20000	5156.	-3.656	0.	.000	27081.	-12.073	0.	.000	16331.	-6.682
20000 < 30000	4496.	-4.695	0.	.000	58646.	-27.537	0.	.000	15897.	-9.445
30000 < 50000	3397.	-3.626	0.	.000	74319.	-44.380	0.	.000	1237.	-.786
50000 < 100000	321.	-.347	0.	.000	48866.	-39.891	0.	.000	0.	.000
100000 < 200000	17.	-.012	0.	.000	7729.	-13.716	0.	.000	0.	.000
200000 <********	0.	.000	0.	.000	1231.	-13.917	0.	.000	0.	.000
ITEMIZED	21169.	-15.990	0.	.000	268213.	-170.215	0.	.000	54496.	-23.628
******** < 5000	10547.	-2.405	0.	.000	126069.	-29.197	2341.	.012	0.	.000
5000 < 10000	28776.	-9.535	0.	.000	62761.	-18.605	0.	.000	0.	.000
10000 < 15000	12420.	-7.794	0.	.000	38981.	-16.544	0.	.000	0.	.000
15000 < 20000	5607.	-4.932	0.	.000	12226.	-9.056	0.	.000	0.	.000
20000 < 30000	1236.	-1.623	0.	.000	3801.	-3.037	0.	.000	0.	.000
30000 < 50000	0.	.000	0.	.000	0.	.000	0.	.000	0.	.000
50000 < 100000	0.	.000	0.	.000	0.	.000	0.	.000	0.	
100000 < 200000	0.	.000	0.	.000	0.	.000	0.	.000	0.	
200000 <********	0.	.000	0.	.000	1.	-.009	0.	.000	0.	
STANDARD	58586.	-26.288	0.	.000	243840.	-76.448	2341.	.012	0.	.000
******** < 5000	11234.	-2.570	0.	.000	136780.	-33.019	2341.	.012	1946.	-.478
5000 < 10000	30896.	-10.358	0.	.000	75827.	-23.738	0.	.000	3873.	-1.073
10000 < 15000	17396.	-10.460	0.	.000	65544.	-26.290	0.	.000	15212.	-5.164
15000 < 20000	10763.	-8.587	0.	.000	39307.	-21.129	0.	.000	16331.	-6.682
20000 < 30000	5731.	-6.318	0.	.000	62447.	-30.574	0.	.000	15897.	-9.445
30000 < 50000	3397.	-3.626	0.	.000	74319.	-44.380	0.	.000	1237.	-.786
50000 < 100000	321.	-.347	0.	.000	48866.	-39.891	0.	.000	0.	.000
100000 < 200000	17.	-.012	0.	.000	7729.	-13.716	0.	.000	0.	.000
200000 <********	0.	.000	0.	.000	1233.	-13.926	0.	.000	0.	.000
TOTAL	79755.	-42.278	0.	.000	512054.	-246.663	2341.	.012	54496.	-23.628

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DISTRIBUTION OF STATE TAX CHANGE AND NUMBER OF RETURNS AFFECTED FOR STATE

Plan X: 1990 FEDERAL LAW
1986 HAWAII LAW WITH WINDFALL
Income Classifier: PRE-TAX REFORM STATE AGI
Level of Income: 1990

Plan Y: 1990 FEDERAL LAW
1990 HAWAII LAW
Filing Status: ALL
Coverage: FEDERAL FILERS ONLY

INCOME CLASS (DOLLARS)	PRESENTLY TAXABLE RETURNS MADE NONTAXABLE		PRESENTLY NONTAXABLE RETURNS MADE TAXABLE		RETURNS WITH A CHANGE IN TAX LIABILITY				RETURNS CHANGED THEIR TYPE OF DEDUCTION	
					TAX DECREASES		TAX INCREASES			
	NUMBER OF RETURNS (UNITS)	AMOUNT OF TAX DECREASE ($ MIL)	NUMBER OF RETURNS (UNITS)	AMOUNT OF TAX INCREASE ($ MIL)	NUMBER OF RETURNS (UNITS)	AMOUNT OF TAX DECREASE ($ MIL)	NUMBER OF RETURNS (UNITS)	AMOUNT OF TAX INCREASE ($ MIL)	NUMBER OF RETURNS (UNITS)	AMOUNT OF TAX CHANGE ($ MIL)
******** < 5000	386.	-.042	0.	.000	9934.	-1.352	0.	.000	832.	-.080
5000 < 10000	1010.	-.283	0.	.000	13846.	-2.768	0.	.000	3385.	-.460
10000 < 15000	2389.	-.546	0.	.000	26128.	-5.108	0.	.000	15162.	-2.977
15000 < 20000	1286.	-.408	0.	.000	28453.	-6.854	0.	.000	19362.	-4.812
20000 < 30000	1072.	-.403	0.	.000	59499.	-16.160	0.	.000	18573.	-5.935
30000 < 50000	1358.	-.676	0.	.000	76728.	-28.051	0.	.000	2467.	-.928
50000 < 100000	0.	.000	0.	.000	53551.	-29.739	0.	.000	0.	.000
100000 < 200000	6.	-.003	0.	.000	9286.	-13.709	0.	.000	0.	.000
200000 <********	0.	.000	0.	.000	1519.	-15.811	0.	.000	0.	.000
ITEMIZED	7507.	-2.361	0.	.000	278946.	-119.551	0.	.000	59780.	-15.192
******** < 5000	10267.	-1.069	0.	.000	125161.	-9.788	2332.	.012	0.	.000
5000 < 10000	15753.	-2.751	0.	.000	62616.	-10.116	0.	.000	0.	.000
10000 < 15000	4451.	-1.330	0.	.000	39153.	-8.913	0.	.000	0.	.000
15000 < 20000	789.	-.420	0.	.000	13011.	-4.538	0.	.000	0.	.000
1000 < 30000	340.	-.266	0.	.000	4279.	-1.852	0.	.000	0.	.000
)00 < 50000	0.	.000	0.	.000	0.	.000	0.	.000	0.	.000
.00 < 100000	0.	.000	0.	.000	0.	.000	0.	.000	0.	.000
00000 < 200000	0.	.000	0.	.000	0.	.000	0.	.000	0.	.000
200000 <********	0.	.000	0.	.000	1.	-.006	0.	.000	0.	.000
STANDARD	31600.	-5.836	0.	.000	244220.	-35.212	2332.	.012	0.	.000
******** < 5000	10653.	-1.111	0.	.000	135095.	-11.140	2332.	.012	832.	-.080
5000 < 10000	16764.	-3.034	0.	.000	76462.	-12.884	0.	.000	3385.	-.460
10000 < 15000	6840.	-1.876	0.	.000	65281.	-14.021	0.	.000	15162.	-2.977
15000 < 20000	2075.	-.828	0.	.000	41464.	-11.392	0.	.000	19362.	-4.812
20000 < 30000	1412.	-.669	0.	.000	63778.	-18.012	0.	.000	18573.	-5.935
30000 < 50000	1358.	-.676	0.	.000	76728.	-28.051	0.	.000	2467.	-.928
50000 < 100000	0.	.000	0.	.000	53551.	-29.739	0.	.000	0.	.000
100000 < 200000	6.	-.003	0.	.000	9286.	-13.709	0.	.000	0.	.000
200000 <********	0.	.000	0.	.000	1520.	-15.816	0.	.000	0.	.000
TOTAL	39107.	-8.197	0.	.000	523166.	-154.763	2332.	.012	59780.	-15.192

DISTRIBUTION OF STATE TAX CHANGE AND NUMBER OF RETURNS AFFECTED FOR STATE

Plan X: 1991 FEDERAL LAW
1986 HAWAII LAW WITH WINDFALL
Income Classifier: PRE-TAX REFORM STATE AGI
Level of Income: 1991

Plan Y: 1991 FEDERAL LAW
1991 HAWAII LAW
Filing Status: ALL
Coverage: FEDERAL FILERS ONLY

INCOME CLASS (DOLLARS)	PRESENTLY TAXABLE RETURNS MADE NONTAXABLE		PRESENTLY NONTAXABLE RETURNS MADE TAXABLE		RETURNS WITH A CHANGE IN TAX LIABILITY				RETURNS WHIC. CHANGED THEIR TYPE OF DEDUCTION	
					TAX DECREASES		TAX INCREASES			
	NUMBER OF RETURNS (UNITS)	AMOUNT OF TAX DECREASE ($ MIL)	NUMBER OF RETURNS (UNITS)	AMOUNT OF TAX INCREASE ($ MIL)	NUMBER OF RETURNS (UNITS)	AMOUNT OF TAX DECREASE ($ MIL)	NUMBER OF RETURNS (UNITS)	AMOUNT OF TAX INCREASE ($ MIL)	NUMBER OF RETURNS (UNITS)	AMOUNT OF TAX CHANGE ($ MIL)
******* < 5000	367.	-.024	0.	.000	7313.	-.391	0.	.000	367.	-.024
5000 < 10000	1218.	-.243	0.	.000	13011.	-1.799	0.	.000	3168.	-.232
10000 < 15000	126.	-.030	0.	.000	25275.	-3.324	0.	.000	13794.	-1.914
15000 < 20000	894.	-.152	0.	.000	30097.	-5.148	0.	.000	20286.	-3.729
20000 < 30000	233.	-.028	0.	.000	58879.	-12.471	0.	.000	20546.	-5.023
30000 < 50000	609.	-.208	0.	.000	78881.	-22.377	0.	.000	3104.	-.863
50000 < 100000	0.	.000	0.	.000	58325.	-26.951	0.	.000	45.	-.021
100000 < 200000	4.	-.002	0.	.000	10812.	-14.186	0.	.000	3.	-.004
200000 <********	0.	.000	0.	.000	1859.	-18.555	0.	.000	0.	.000
ITEMIZED	3451.	-.687	0.	.000	284452.	-105.203	0.	.000	61314.	-11.811
******** < 5000	9048.	-.521	0.	.000	118204.	-2.838	3358.	.013	0.	.000
5000 < 10000	8031.	-.836	0.	.000	63922.	-7.276	0.	.000	0.	.000
10000 < 15000	2462.	-.509	0.	.000	39836.	-6.474	0.	.000	0.	.000
15000 < 20000	0.	.000	0.	.000	13204.	-2.885	0.	.000	0.	.000
20000 < 30000	0.	.000	0.	.000	5162.	-1.375	0.	.000	0.	.000
30000 < 50000	0.	.000	0.	.000	0.	.000	0.	.000	0.	
50000 < 100000	0.	.000	0.	.000	0.	.000	0.	.000	0.	
100000 < 200000	0.	.000	0.	.000	0.	.000	0.	.000	0.	
200000 <********	0.	.000	0.	.000	2.	-.009	0.	.000	0.	.000
STANDARD	19541.	-1.866	0.	.000	240329.	-20.857	3358.	.013		
******** < 5000	9414.	-.545	0.	.000	125517.	-3.229	3358.	.013	367.	-.024
5000 < 10000	9249.	-1.080	0.	.000	76933.	-9.075	0.	.000	3168.	-.232
10000 < 15000	2589.	-.539	0.	.000	65111.	-9.798	0.	.000	13794.	-1.914
15000 < 20000	894.	-.152	0.	.000	43301.	-8.033	0.	.000	20286.	-3.729
20000 < 30000	233.	-.028	0.	.000	64041.	-13.847	0.	.000	20546.	-5.023
30000 < 50000	609.	-.208	0.	.000	78881.	-22.377	0.	.000	3104.	-.863
50000 < 100000	0.	.000	0.	.000	58325.	-26.951	0.	.000	45.	-.021
100000 < 200000	4.	-.002	0.	.000	10812.	-14.186	0.	.000	3.	-.004
200000 <********	0.	.000	0.	.000	1861.	-18.565	0.	.000	0.	.000
TOTAL	22992.	-2.553	0.	.000	524782.	-126.060	3358.	.013	61314.	-11.811

DISTRIBUTION OF STATE TAX CHANGE AND NUMBER OF RETURNS AFFECTED FOR STATE

Plan X: 1992 FEDERAL LAW
1986 HAWAII LAW WITH WINDFALL
Income Classifier: PRE-TAX REFORM STATE AGI
Level of Income: 1992

Plan Y: 1992 FEDERAL LAW
1992 HAWAII LAW
Filing Status: ALL
Coverage: FEDERAL FILERS ONLY

INCOME CLASS (DOLLARS)	PRESENTLY TAXABLE RETURNS MADE NONTAXABLE		PRESENTLY NONTAXABLE RETURNS MADE TAXABLE		RETURNS WITH A CHANGE IN TAX LIABILITY				RETURNS WHICH CHANGED THEIR TYPE OF DEDUCTION	
					TAX DECREASES		TAX INCREASES			
	NUMBER OF RETURNS (UNITS)	AMOUNT OF TAX DECREASE ($ MIL)	NUMBER OF RETURNS (UNITS)	AMOUNT OF TAX INCREASE ($ MIL)	NUMBER OF RETURNS (UNITS)	AMOUNT OF TAX DECREASE ($ MIL)	NUMBER OF RETURNS (UNITS)	AMOUNT OF TAX INCREASE ($ MIL)	NUMBER OF RETURNS (UNITS)	AMOUNT OF TAX CHANGE ($ MIL)
******** < 5000	382.	-.026	0.	.000	7736.	-.152	0.	.000	927.	-.036
5000 < 10000	1031.	-.082	0.	.000	15659.	-.658	0.	.000	3586.	-.286
10000 < 15000	443.	-.047	0.	.000	24411.	-2.612	0.	.000	13299.	-1.872
15000 < 20000	391.	-.019	0.	.000	34000.	-5.426	0.	.000	24161.	-4.419
20000 < 30000	122.	-.004	0.	.000	59554.	-11.778	0.	.000	20278.	-4.987
30000 < 50000	341.	-.004	0.	.000	81224.	-21.056	0.	.000	3858.	-1.012
50000 < 100000	0.	.000	0.	.000	62891.	-26.810	0.	.000	0.	.000
100000 < 200000	0.	.000	0.	.000	12199.	-15.932	0.	.000	3.	-.003
200000 <********	0.	.000	0.	.000	2074.	-21.059	0.	.000	0.	.000
ITEMIZED	2709.	-.182	0.	.000	299748.	-105.484	0.	.000	66111.	-12.616
******** < 5000	9042.	-.505	0.	.000	116765.	-2.856	3417.	.013	0.	.000
5000 < 10000	8671.	-.946	0.	.000	61657.	-7.101	0.	.000	0.	.000
10000 < 15000	1445.	-.234	0.	.000	40335.	-6.480	0.	.000	0.	.000
15000 < 20000	0.	.000	0.	.000	11112.	-2.484	0.	.000	0.	.000
20000 < 30000	0.	.000	0.	.000	5400.	-1.386	0.	.000	0.	.000
30000 < 50000	0.	.000	0.	.000	0.	.000	0.	.000	0.	.000
50000 < 100000	0.	.000	0.	.000	0.	.000	0.	.000	0.	.000
100000 < 200000	0.	.000	0.	.000	0.	.000	0.	.000	0.	.000
200000 <********	0.	.000	0.	.000	1.	-.008	0.	.000	0.	.000
STANDARD	19158.	-1.685	0.	.000	235271.	-20.316	3417.	.013	0.	.000
******** < 5000	9423.	-.531	0.	.000	124502.	-3.008	3417.	.013	927.	-.036
5000 < 10000	9702.	-1.028	0.	.000	77316.	-7.758	0.	.000	3586.	-.286
10000 < 15000	1888.	-.281	0.	.000	64746.	-9.092	0.	.000	13299.	-1.872
15000 < 20000	391.	-.019	0.	.000	45112.	-7.911	0.	.000	24161.	-4.419
20000 < 30000	122.	-.004	0.	.000	64954.	-13.165	0.	.000	20278.	-4.987
30000 < 50000	341.	-.004	0.	.000	81224.	-21.056	0.	.000	3858.	-1.012
50000 < 100000	0.	.000	0.	.000	62891.	-26.810	0.	.000	0.	.000
100000 < 200000	0.	.000	0.	.000	12199.	-15.932	0.	.000	3.	-.003
200000 <********	0.	.000	0.	.000	2075.	-21.068	0.	.000	0.	.000
TOTAL	21867.	-1.868	0.	.000	535019.	-125.799	3417.	.013	66111.	-12.616

DISTRIBUTION OF STATE TAX CHANGE AND NUMBER OF RETURNS AFFECTED FOR STATE

Plan X: 1993 FEDERAL LAW
1986 HAWAII LAW WITH WINDFALL
Income Classifier: PRE-TAX REFORM STATE AGI
Level of Income: 1993

Plan Y: 1993 FEDERAL LAW
1993 HAWAII LAW
Filing Status: ALL
Coverage: FEDERAL FILERS ONLY

INCOME CLASS (DOLLARS)	PRESENTLY TAXABLE RETURNS MADE NONTAXABLE		PRESENTLY NONTAXABLE RETURNS MADE TAXABLE		RETURNS WITH A CHANGE IN TAX LIABILITY				RETURNS WHICH CHANGED THEIR TYPE OF DEDUCTION	
					TAX DECREASES		TAX INCREASES			
	NUMBER OF RETURNS (UNITS)	AMOUNT OF TAX DECREASE ($ MIL)	NUMBER OF RETURNS (UNITS)	AMOUNT OF TAX INCREASE ($ MIL)	NUMBER OF RETURNS (UNITS)	AMOUNT OF TAX DECREASE ($ MIL)	NUMBER OF RETURNS (UNITS)	AMOUNT OF TAX INCREASE ($ MIL)	NUMBER OF RETURNS (UNITS)	AMOUNT OF TAX CHANGE ($ MIL)
******** < 5000	383.	-.026	0.	.000	7837.	-.163	0.	.000	1420.	-.054
5000 < 10000	1055.	-.077	0.	.000	17922.	-.832	0.	.000	4878.	-.470
10000 < 15000	0.	.000	0.	.000	23688.	-2.617	0.	.000	12929.	-1.868
15000 < 20000	167.	-.008	0.	.000	37745.	-6.154	0.	.000	29421.	-5.323
20000 < 30000	121.	-.004	0.	.000	59500.	-11.660	0.	.000	18577.	-4.655
30000 < 50000	236.	-.009	0.	.000	83961.	-21.423	0.	.000	2521.	-.635
50000 < 100000	0.	.000	0.	.000	67755.	-28.844	0.	.000	0.	.000
100000 < 200000	0.	.000	0.	.000	13702.	-17.474	0.	.000	0.	.000
200000 <********	0.	.000	0.	.000	2357.	-23.486	0.	.000	0.	.000
ITEMIZED	1962.	-.125	0.	.000	314467.	-112.653	0.	.000	69745.	-13.004
******** < 5000	8318.	-.475	949.	.001	115295.	-2.883	3454.	.013	0.	.000
5000 < 10000	7046.	-.768	0.	.000	60268.	-6.851	0.	.000	0.	.000
10000 < 15000	2067.	-.385	0.	.000	40151.	-6.539	0.	.000	0.	.000
15000 < 20000	0.	.000	0.	.000	8940.	-2.051	0.	.000	0.	.000
20000 < 30000	0.	.000	0.	.000	6204.	-1.610	0.	.000	0.	.000
30000 < 50000	0.	.000	0.	.000	0.	.000	0.	.000	0.	.000
50000 < 100000	0.	.000	0.	.000	0.	.000	0.	.000	0.	
100000 < 200000	0.	.000	0.	.000	0.	.000	0.	.000	0.	
200000 <********	0.	.000	0.	.000	1.	-.008	0.	.000	0.	.
STANDARD	17432.	-1.629	949.	.001	230859.	-19.942	3454.	.013	0.	.000
******** < 5000	8701.	-.502	949.	.001	123132.	-3.046	3454.	.013	1420.	-.054
5000 < 10000	8101.	-.845	0.	.000	78190.	-7.683	0.	.000	4878.	-.470
10000 < 15000	2067.	-.385	0.	.000	63839.	-9.156	0.	.000	12929.	-1.868
15000 < 20000	167.	-.008	0.	.000	46685.	-8.205	0.	.000	29421.	-5.323
20000 < 30000	121.	-.004	0.	.000	65704.	-13.270	0.	.000	18577.	-4.655
30000 < 50000	236.	-.009	0.	.000	83961.	-21.423	0.	.000	2521.	-.635
50000 < 100000	0.	.000	0.	.000	67755.	-28.844	0.	.000	0.	.000
100000 < 200000	0.	.000	0.	.000	13702.	-17.474	0.	.000	0.	.000
200000 <********	0.	.000	0.	.000	2359.	-23.494	0.	.000	0.	.000
TOTAL	19394.	-1.753	949.	.001	545326.	-132.595	3454.	.013	69745.	-13.004

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DISTRIBUTION OF STATE TAX CHANGE AND NUMBER OF RETURNS AFFECTED FOR STATE

Plan X: 1994 FEDERAL LAW
1986 HAWAII LAW WITH WINDFALL
Income Classifier: PRE-TAX REFORM STATE AGI
Level of Income: 1994

Plan Y: 1994 FEDERAL LAW
1994 HAWAII LAW
Filing Status: ALL
Coverage: FEDERAL FILERS ONLY

INCOME CLASS (DOLLARS)	PRESENTLY TAXABLE RETURNS MADE NONTAXABLE		PRESENTLY NONTAXABLE RETURNS MADE TAXABLE		RETURNS WITH A CHANGE IN TAX LIABILITY				RETURNS CHANGED THEIR TYPE OF DEDUCTION	
					TAX DECREASES		TAX INCREASES			
	NUMBER OF RETURNS (UNITS)	AMOUNT OF TAX DECREASE ($ MIL)	NUMBER OF RETURNS (UNITS)	AMOUNT OF TAX INCREASE ($ MIL)	NUMBER OF RETURNS (UNITS)	AMOUNT OF TAX DECREASE ($ MIL)	NUMBER OF RETURNS (UNITS)	AMOUNT OF TAX INCREASE ($ MIL)	NUMBER OF RETURNS (UNITS)	AMOUNT OF TAX CHANGE ($ MIL)
******** < 5000	0.	.000	0.	.000	7192.	-.152	0.	.000	1382.	-.054
5000 < 10000	1093.	-.081	0.	.000	19131.	-.931	0.	.000	4366.	-.437
10000 < 15000	0.	.000	0.	.000	22586.	-2.536	0.	.000	12368.	-1.799
15000 < 20000	0.	.000	0.	.000	41183.	-6.806	0.	.000	31133.	-5.814
20000 < 30000	122.	-.003	0.	.000	61949.	-12.059	0.	.000	22285.	-5.452
30000 < 50000	235.	-.004	0.	.000	87033.	-22.315	0.	.000	3586.	-.982
50000 < 100000	0.	.000	0.	.000	72277.	-30.916	0.	.000	0.	.000
100000 < 200000	0.	.000	0.	.000	15348.	-19.272	0.	.000	0.	.000
200000 <********	0.	.000	0.	.000	2568.	-26.297	0.	.000	0.	.000
ITEMIZED	1450.	-.088	0.	.000	329266.	-121.283	0.	.000	75119.	-14.540
******** < 5000	6355.	-.353	971.	.002	114759.	-2.901	3506.	.012	0.	.000
5000 < 10000	7309.	-.778	0.	.000	58432.	-6.680	0.	.000	0.	.000
10000 < 15000	2113.	-.445	0.	.000	40493.	-6.538	0.	.000	0.	.000
15000 < 20000	0.	.000	0.	.000	7691.	-1.767	0.	.000	0.	.000
00 < 30000	0.	.000	0.	.000	5536.	-1.272	0.	.000	0.	.000
00 < 50000	0.	.000	0.	.000	0.	.000	0.	.000	0.	.000
00 < 100000	0.	.000	0.	.000	0.	.000	0.	.000	0.	.000
00000 < 200000	0.	.000	0.	.000	0.	.000	0.	.000	0.	.000
200000 <********	0.	.000	0.	.000	1.	-.008	0.	.000	0.	.000
STANDARD	15777.	-1.576	971.	.002	226912.	-19.167	3506.	.012	0.	.000
******** < 5000	6355.	-.353	971.	.002	121951.	-3.053	3506.	.012	1382.	-.054
5000 < 10000	8402.	-.859	0.	.000	77562.	-7.611	0.	.000	4366.	-.437
10000 < 15000	2113.	-.445	0.	.000	63078.	-9.074	0.	.000	12368.	-1.799
15000 < 20000	0.	.000	0.	.000	48874.	-8.572	0.	.000	31133.	-5.814
20000 < 30000	122.	-.003	0.	.000	67485.	-13.331	0.	.000	22285.	-5.452
30000 < 50000	235.	-.004	0.	.000	87033.	-22.315	0.	.000	3586.	-.982
50000 < 100000	0.	.000	0.	.000	72277.	-30.916	0.	.000	0.	.000
100000 < 200000	0.	.000	0.	.000	15348.	-19.272	0.	.000	0.	.000
200000 <********	0.	.000	0.	.000	2570.	-26.305	0.	.000	0.	.000
TOTAL	17227.	-1.665	971.	.002	556178.	-140.450	3506.	.012	75119.	-14.540

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DISTRIBUTION OF STATE TAX CHANGE AND NUMBER OF RETURNS AFFECTED FOR STATE

Plan X: 1986 FEDERAL LAW
1986 HAWAII LAW
Income Classifier: PRE-TAX REFORM STATE AGI
Level of Income: 1986

Plan Y: 1986 FEDERAL LAW w/CG ACCEL
1986 HAWAII LAW w/CG ACCEL
Filing Status: ALL
Coverage: FEDERAL FILERS ONLY

INCOME CLASS (DOLLARS)	PRESENTLY TAXABLE RETURNS MADE NONTAXABLE		PRESENTLY NONTAXABLE RETURNS MADE TAXABLE		RETURNS WITH A CHANGE IN TAX LIABILITY				RETURNS WHIC CHANGED THEIR TYPE OF DEDUCTION	
					TAX DECREASES		TAX INCREASES			
	NUMBER OF RETURNS (UNITS)	AMOUNT OF TAX DECREASE ($ MIL)	NUMBER OF RETURNS (UNITS)	AMOUNT OF TAX INCREASE ($ MIL)	NUMBER OF RETURNS (UNITS)	AMOUNT OF TAX DECREASE ($ MIL)	NUMBER OF RETURNS (UNITS)	AMOUNT OF TAX INCREASE ($ MIL)	NUMBER OF RETURNS (UNITS)	AMOUNT OF TAX CHANGE ($ MIL)
******** < 0	0.	.000	0.	.000	0.	.000	0.	.000	0.	.000
0 < 10000	0.	.000	0.	.000	267.	-.004	873.	.006	0.	.000
10000 < 15000	0.	.000	88.	.030	263.	-.003	2382.	.160	0.	.000
15000 < 20000	0.	.000	3.	.002	319.	-.020	3340.	.142	0.	.000
20000 < 30000	0.	.000	176.	.006	753.	-.007	6691.	1.453	0.	.000
30000 < 50000	0.	.000	362.	.073	705.	-.005	12571.	2.092	0.	.000
50000 < 100000	0.	.000	45.	.011	999.	-.024	8746.	3.004	0.	.000
100000 < 200000	0.	.000	13.	.042	100.	-.002	1671.	2.537	0.	.000
200000 <********	0.	.000	0.	.000	0.	.000	639.	6.374	0.	.000
ITEMIZED	0.	.000	687.	.163	3406.	-.065	36914.	15.767	0.	.000
******** < 0	0.	.000	0.	.000	3.	.000	0.	.000	0.	.000
0 < 10000	0.	.000	318.	.037	0.	.000	5029.	.114	65.	.000
10000 < 15000	0.	.000	0.	.000	0.	.000	1759.	.004	0.	.000
15000 < 20000	0.	.000	8.	.006	0.	.000	241.	.117	0.	.000
20000 < 30000	0.	.000	0.	.000	0.	.000	5.	.007	0.	.000
30000 < 50000	0.	.000	1.	.004	0.	.000	1.	.004	0.	.000
50000 < 100000	0.	.000	3.	.013	0.	.000	3.	.013	3.	[illegible]
100000 < 200000	0.	.000	0.	.000	0.	.000	0.	.000	0.	[illegible]
200000 <********	0.	.000	0.	.000	0.	.000	0.	.000	0.	[illegible]
STANDARD	0.	.000	330.	.060	3.	.000	7038.	.260	68.	.013
******** < 0	0.	.000	0.	.000	3.	.000	0.	.000	0.	.000
0 < 10000	0.	.000	318.	.037	267.	-.004	5902.	.119	65.	.000
10000 < 15000	0.	.000	88.	.030	263.	-.003	4141.	.164	0.	.000
15000 < 20000	0.	.000	11.	.008	319.	-.020	3581.	.259	0.	.000
20000 < 30000	0.	.000	176.	.006	753.	-.007	6696.	1.459	0.	.000
30000 < 50000	0.	.000	363.	.077	705.	-.005	12573.	2.096	0.	.000
50000 < 100000	0.	.000	48.	.024	999.	-.024	8749.	3.018	3.	.013
100000 < 200000	0.	.000	13.	.042	100.	-.002	1671.	2.537	0.	.000
200000 <********	0.	.000	0.	.000	0.	.000	639.	6.374	0.	.000
TOTAL	0.	.000	1017.	.223	3408.	-.066	43952.	16.027	68.	.013

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DISTRIBUTION OF STATE TAX CHANGE AND NUMBER OF RETURNS AFFECTED FOR STATE

Plan X: 1986 FEDERAL LAW
1986 HAWAII LAW
Income Classifier: EXPANDED INCOME
Level of Income: 1987

Plan Y: 1987 FEDERAL LAW
1987 HAWAII LAW
Filing Status: ALL
Coverage: FEDERAL FILERS ONLY

INCOME CLASS (DOLLARS)	PRESENTLY TAXABLE RETURNS MADE NONTAXABLE		PRESENTLY NONTAXABLE RETURNS MADE TAXABLE		RETURNS WITH A CHANGE IN TAX LIABILITY				RETURNS WHICH CHANGED THEIR TYPE OF DEDUCTION	
					TAX DECREASES		TAX INCREASES			
	NUMBER OF RETURNS (UNITS)	AMOUNT OF TAX DECREASE ($ MIL)	NUMBER OF RETURNS (UNITS)	AMOUNT OF TAX INCREASE ($ MIL)	NUMBER OF RETURNS (UNITS)	AMOUNT OF TAX DECREASE ($ MIL)	NUMBER OF RETURNS (UNITS)	AMOUNT OF TAX INCREASE ($ MIL)	NUMBER OF RETURNS (UNITS)	AMOUNT OF TAX CHANGE ($ MIL)
******** < 5000	0.	.000	0.	.000	717.	-.070	640.	.031	0.	.000
5000 < 10000	0.	.000	0.	.000	6733.	-.418	2648.	.182	3663.	-.153
10000 < 15000	1058.	-.102	104.	.005	42132.	-3.635	1715.	.174	31742.	-3.042
15000 < 20000	618.	-.146	0.	.000	28842.	-3.289	2061.	.093	12927.	-2.151
20000 < 30000	347.	-.083	0.	.000	47098.	-4.701	14718.	.751	16913.	-2.277
30000 < 50000	512.	-.076	167.	.053	41530.	-4.410	34248.	4.495	4042.	-.214
50000 < 100000	37.	-.004	0.	.000	15839.	-1.420	35025.	9.459	193.	.064
100000 < 200000	0.	.000	19.	.021	2292.	-.771	5693.	4.179	104.	.219
200000 <********	0.	.000	6.	.013	324.	-.880	1708.	5.741	9.	.090
ITEMIZED	2572.	-.410	297.	.092	185505.	-19.595	98457.	25.105	69593.	-7.465
******** < 5000	8380.	-.563	4780.	.074	81950.	-4.780	18424.	.557	0.	.000
5000 < 10000	5880.	-.737	0.	.000	51148.	-4.727	10708.	.628	0.	.000
10000 < 15000	1998.	-.422	0.	.000	21580.	-3.213	2729.	.342	164.	-.015
15000 < 20000	951.	-.130	0.	.000	6329.	-.957	376.	.052	294.	-.028
?0000 < 30000	91.	-.013	0.	.000	6704.	-.730	334.	.005	188.	.004
)00 < 50000	0.	.000	0.	.000	2936.	-.286	161.	.038	109.	.032
)00 < 100000	0.	.000	80.	.064	331.	-.051	80.	.064	161.	.007
.00000 < 200000	0.	.000	8.	.025	64.	-.005	15.	.038	0.	.000
200000 <********	0.	.000	2.	.009	29.	-.005	2.	.009	7.	.001
STANDARD	17299.	-1.864	4870.	.172	171071.	-14.756	32828.	1.735	923.	.002
******** < 5000	8380.	-.563	4780.	.074	82666.	-4.851	19064.	.588	0.	.000
5000 < 10000	5880.	-.737	0.	.000	57881.	-5.145	13356.	.810	3663.	-.153
10000 < 15000	3056.	-.523	104.	.005	63712.	-6.849	4443.	.515	31907.	-3.057
15000 < 20000	1569.	-.275	0.	.000	35171.	-4.245	2437.	.145	13220.	-2.179
20000 < 30000	437.	-.096	0.	.000	53802.	-5.431	15052.	.756	17101.	-2.272
30000 < 50000	512.	-.076	167.	.053	44465.	-4.697	34409.	4.533	4151.	-.182
50000 < 100000	37.	-.004	80.	.064	16170.	-1.471	35105.	9.523	353.	.070
100000 < 200000	0.	.000	27.	.046	2355.	-.775	5708.	4.217	104.	.219
200000 <********	0.	.000	8.	.022	353.	-.886	1710.	5.750	16.	.091
TOTAL	19871.	-2.274	5167.	.264	356576.	-34.351	131285.	26.840	70516.	-7.463

DISTRIBUTION OF STATE TAX CHANGE AND NUMBER OF RETURNS AFFECTED FOR STATE

Plan X: 1986 FEDERAL LAW
1986 HAWAII LAW
Income Classifier: EXPANDED INCOME
Level of Income: 1988

Plan Y: 1988 FEDERAL LAW
1988 HAWAII LAW
Filing Status: ALL
Coverage: FEDERAL FILERS ONLY

INCOME CLASS (DOLLARS)	PRESENTLY TAXABLE RETURNS MADE NONTAXABLE		PRESENTLY NONTAXABLE RETURNS MADE TAXABLE		RETURNS WITH A CHANGE IN TAX LIABILITY				RETURNS WHICH CHANGED THEIR TYPE OF DEDUCTION	
					TAX DECREASES		TAX INCREASES			
	NUMBER OF RETURNS (UNITS)	AMOUNT OF TAX DECREASE ($ MIL)	NUMBER OF RETURNS (UNITS)	AMOUNT OF TAX INCREASE ($ MIL)	NUMBER OF RETURNS (UNITS)	AMOUNT OF TAX DECREASE ($ MIL)	NUMBER OF RETURNS (UNITS)	AMOUNT OF TAX INCREASE ($ MIL)	NUMBER OF RETURNS (UNITS)	AMOUNT OF TAX CHANGE ($ MIL)
******* < 5000	648.	-.049	0.	.000	2584.	-.218	1141.	.044	948.	-.074
5000 < 10000	787.	-.120	0.	.000	19148.	-1.805	4366.	.223	14986.	-1.254
10000 < 15000	2355.	-.321	184.	.010	43718.	-4.855	3125.	.310	31338.	-3.877
15000 < 20000	680.	-.102	0.	.000	35632.	-4.568	3952.	.290	13767.	-2.831
20000 < 30000	440.	-.066	0.	.000	51720.	-5.782	16428.	1.153	12869.	-2.087
30000 < 50000	685.	-.090	419.	.081	36147.	-3.670	35280.	5.633	3529.	-.371
50000 < 100000	228.	-.030	182.	.101	11367.	-1.330	32824.	9.482	93.	.000
100000 < 200000	50.	-.006	31.	.020	2121.	-.599	5119.	4.733	0.	.000
200000 <********	0.	.000	27.	.045	258.	-.898	1412.	6.665	0.	.000
ITEMIZED	5873.	-.784	842.	.257	202695.	-23.725	103648.	28.533	77529.	-10.495
******* < 5000	7902.	-.655	5010.	.066	86520.	-6.068	19376.	.551	0.	.000
5000 < 10000	5683.	-1.051	0.	.000	49325.	-5.971	8686.	.490	0.	.000
10000 < 15000	1521.	-.394	0.	.000	15833.	-2.870	1185.	.159	305.	-.027
15000 < 20000	190.	-.044	0.	.000	6073.	-.823	0.	.000	307.	-.045
20000 < 30000	262.	-.047	0.	.000	4707.	-.578	31.	.005	347.	-.041
30000 < 50000	0.	.000	5.	.007	2069.	-.258	5.	.007	0.	.000
50000 < 100000	33.	-.007	0.	.000	579.	-.100	4.	.002	283.	-.[illegible]
100000 < 200000	35.	-.006	19.	.055	80.	-.013	19.	.055	0.	.[illegible]
200000 <********	0.	.000	4.	.018	24.	-.005	14.	.048	6.	.[illegible]
STANDARD	15626.	-2.204	5038.	.146	165210.	-16.686	29320.	1.317	1247.	-.159
******* < 5000	8549.	-.704	5010.	.066	89104.	-6.286	20517.	.595	948.	-.074
5000 < 10000	6470.	-1.171	0.	.000	68473.	-7.777	13053.	.713	14986.	-1.254
10000 < 15000	3876.	-.715	184.	.010	59551.	-7.724	4310.	.470	31643.	-3.904
15000 < 20000	870.	-.146	0.	.000	41704.	-5.391	3952.	.290	14074.	-2.876
20000 < 30000	702.	-.113	0.	.000	56428.	-6.360	16458.	1.157	13216.	-2.129
30000 < 50000	685.	-.090	424.	.088	38216.	-3.928	35285.	5.641	3529.	-.371
50000 < 100000	261.	-.037	182.	.101	11946.	-1.430	32828.	9.483	375.	-.046
100000 < 200000	86.	-.013	50.	.075	2201.	-.611	5138.	4.788	0.	.000
200000 <********	0.	.000	31.	.063	283.	-.903	1426.	6.713	6.	.000
TOTAL	21499.	-2.989	5881.	.403	367905.	-40.411	132968.	29.849	78777.	-10.655

DISTRIBUTION OF STATE TAX CHANGE AND NUMBER OF RETURNS AFFECTED FOR STATE

Plan X: 1986 FEDERAL LAW
1986 HAWAII LAW
Income Classifier: EXPANDED INCOME
Level of Income: 1989

Plan Y: 1989 FEDERAL LAW
1989 HAWAII LAW
Filing Status: ALL
Coverage: FEDERAL FILERS ONLY

INCOME CLASS (DOLLARS)	PRESENTLY TAXABLE RETURNS MADE NONTAXABLE		PRESENTLY NONTAXABLE RETURNS MADE TAXABLE		RETURNS WITH A CHANGE IN TAX LIABILITY				RETURNS CHANGED THEIR TYPE OF DEDUCTION	
					TAX DECREASES		TAX INCREASES			
	NUMBER OF RETURNS (UNITS)	AMOUNT OF TAX DECREASE ($ MIL)	NUMBER OF RETURNS (UNITS)	AMOUNT OF TAX INCREASE ($ MIL)	NUMBER OF RETURNS (UNITS)	AMOUNT OF TAX DECREASE ($ MIL)	NUMBER OF RETURNS (UNITS)	AMOUNT OF TAX INCREASE ($ MIL)	NUMBER OF RETURNS (UNITS)	AMOUNT OF TAX CHANGE ($ MIL)
******** < 5000	1271.	-.316	0.	.000	3054.	-.978	1225.	.037	1271.	-.316
5000 < 10000	1949.	-.796	0.	.000	27002.	-7.692	1939.	.067	22723.	-5.405
10000 < 15000	9218.	-5.564	181.	.005	48714.	-18.716	1460.	.177	41019.	-15.641
15000 < 20000	7550.	-6.603	0.	.000	40510.	-17.866	2480.	.140	21463.	-10.878
20000 < 30000	4492.	-3.525	0.	.000	63833.	-26.443	5672.	.487	17457.	-8.557
30000 < 50000	4307.	-2.331	303.	.151	61391.	-27.548	12086.	2.193	4227.	-1.646
50000 < 100000	532.	-.327	103.	.006	30801.	-13.285	12813.	3.836	311.	-.112
100000 < 200000	99.	-.069	21.	.036	3631.	-1.924	3712.	4.012	53.	-.053
200000 <********	0.	.000	21.	.027	311.	-1.182	1393.	7.540	6.	.033
ITEMIZED	29417.	-19.532	629.	.225	279247.	-115.634	42779.	18.488	108531.	-42.573
******** < 5000	18625.	-4.772	3043.	.040	99390.	-21.275	11538.	.215	0.	.000
5000 < 10000	20136.	-8.173	0.	.000	53221.	-17.288	828.	.033	0.	.000
10000 < 15000	6445.	-4.247	0.	.000	14168.	-6.550	364.	.064	0.	.000
15000 < 20000	494.	-.371	0.	.000	5605.	-2.226	0.	.000	0.	.000
20000 < 30000	401.	-.254	0.	.000	3797.	-1.668	61.	.001	116.	-.122
30000 < 50000	0.	.000	0.	.000	2098.	-.843	4.	.009	0.	.000
50000 < 100000	70.	-.051	0.	.000	539.	-.332	0.	.000	222.	-.147
100000 < 200000	0.	.000	14.	.048	46.	-.030	22.	.079	0.	.000
200000 <********	0.	.000	3.	.037	24.	-.014	4.	.037	1.	.000
STANDARD	46170.	-17.868	3060.	.125	178888.	-50.225	12822.	.440	339.	-.269
******** < 5000	19896.	-5.087	3043.	.040	102444.	-22.253	12763.	.253	1271.	-.316
5000 < 10000	22085.	-8.970	0.	.000	80223.	-24.980	2767.	.100	22723.	-5.405
10000 < 15000	15662.	-9.811	181.	.005	62882.	-25.265	1824.	.241	41019.	-15.641
15000 < 20000	8043.	-6.974	0.	.000	46116.	-20.092	2480.	.140	21463.	-10.878
20000 < 30000	4892.	-3.780	0.	.000	67630.	-28.111	5733.	.488	17573.	-8.679
30000 < 50000	4307.	-2.331	303.	.151	63490.	-28.391	12090.	2.202	4227.	-1.646
50000 < 100000	601.	-.378	103.	.006	31340.	-13.617	12813.	3.836	533.	-.258
100000 < 200000	100.	-.070	35.	.084	3676.	-1.955	3734.	4.092	53.	-.053
200000 <********	0.	.000	24.	.064	335.	-1.196	1397.	7.577	7.	.034
TOTAL	75587.	-37.400	3690.	.350	458135.	-165.860	55601.	18.928	108870.	-42.842

DISTRIBUTION OF STATE TAX CHANGE AND NUMBER OF RETURNS AFFECTED FOR STATE

Plan X: 1986 FEDERAL LAW
1986 HAWAII LAW
Income Classifier: EXPANDED INCOME
Level of Income: 1990

Plan Y: 1990 FEDERAL LAW
1990 HAWAII LAW
Filing Status: ALL
Coverage: FEDERAL FILERS ONLY

INCOME CLASS (DOLLARS)	PRESENTLY TAXABLE RETURNS MADE NONTAXABLE		PRESENTLY NONTAXABLE RETURNS MADE TAXABLE		RETURNS WITH A CHANGE IN TAX LIABILITY				RETURNS WHIC CHANGED THEIR TYPE OF DEDUCTION	
					TAX DECREASES		TAX INCREASES			
	NUMBER OF RETURNS (UNITS)	AMOUNT OF TAX DECREASE ($ MIL)	NUMBER OF RETURNS (UNITS)	AMOUNT OF TAX INCREASE ($ MIL)	NUMBER OF RETURNS (UNITS)	AMOUNT OF TAX DECREASE ($ MIL)	NUMBER OF RETURNS (UNITS)	AMOUNT OF TAX INCREASE ($ MIL)	NUMBER OF RETURNS (UNITS)	AMOUNT OF TAX CHANGE ($ MIL)
******** < 5000	386.	-.040	0.	.000	1396.	-.167	933.	.030	386.	-.040
5000 < 10000	1986.	-.339	0.	.000	10135.	-1.369	1541.	.051	7136.	-.604
10000 < 15000	1340.	-.375	178.	.006	43509.	-7.442	3924.	.308	41104.	-6.520
15000 < 20000	2220.	-.588	0.	.000	38204.	-7.890	525.	.050	30945.	-6.751
20000 < 30000	1582.	-.699	120.	.001	61156.	-11.297	6088.	.349	27344.	-6.622
30000 < 50000	1238.	-.381	213.	.101	68759.	-12.480	16931.	2.149	10234.	-2.142
50000 < 100000	442.	-.099	237.	.041	37105.	-7.138	30339.	7.728	1355.	-.141
100000 < 200000	43.	-.013	101.	.046	6568.	-1.992	6570.	4.716	12.	.039
200000 <********	1.	.000	22.	.051	479.	-.992	2836.	10.676	6.	.138
ITEMIZED	9239.	-2.533	871.	.246	267310.	-50.766	69687.	26.057	118522.	-22.643
******** < 5000	8558.	-.874	3024.	.032	80091.	-5.357	10622.	.156	0.	.000
5000 < 10000	12997.	-2.233	0.	.000	53112.	-7.443	2321.	.181	0.	.000
10000 < 15000	3428.	-.883	0.	.000	21270.	-3.561	2012.	.263	318.	-.029
15000 < 20000	1261.	-.286	0.	.000	7636.	-1.629	225.	.001	0.	.000
20000 < 30000	478.	-.116	0.	.000	6144.	-.783	0.	.000	0.	.000
30000 < 50000	0.	.000	0.	.000	3299.	-.387	59.	.008	0.	.000
50000 < 100000	37.	-.009	3.	.000	644.	-.103	3.	.000	240.	
100000 < 200000	0.	.000	21.	.072	174.	-.035	30.	.082	106.	
200000 <********	0.	.000	2.	.021	62.	-.023	3.	.021	1.	
STANDARD	26759.	-4.402	3050.	.124	172431.	-19.322	15275.	.712	666.	-.080
******** < 5000	8944.	-.915	3024.	.032	81487.	-5.524	11555.	.186	386.	-.040
5000 < 10000	14984.	-2.572	0.	.000	63247.	-8.813	3861.	.232	7136.	-.604
10000 < 15000	4768.	-1.259	178.	.006	64779.	-11.003	5936.	.571	41422.	-6.549
15000 < 20000	3481.	-.874	0.	.000	45840.	-9.518	750.	.051	30945.	-6.751
20000 < 30000	2059.	-.815	120.	.001	67300.	-12.080	6088.	.349	27344.	-6.622
30000 < 50000	1238.	-.381	213.	.101	72058.	-12.867	16990.	2.157	10234.	-2.142
50000 < 100000	479.	-.108	239.	.041	37749.	-7.241	30341.	7.729	1595.	-.167
100000 < 200000	43.	-.013	122.	.118	6742.	-2.027	6600.	4.798	118.	.013
200000 <********	1.	.000	25.	.072	541.	-1.015	2839.	10.697	7.	.138
TOTAL	35998.	-6.936	3921.	.371	439742.	-70.088	84962.	26.769	119188.	-22.723

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1991 HAWAII LAW
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Coverage: FEDERAL FILERS ONLY

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					TAX DECREASES		TAX INCREASES			
	NUMBER OF RETURNS (UNITS)	AMOUNT OF TAX DECREASE ($ MIL)	NUMBER OF RETURNS (UNITS)	AMOUNT OF TAX INCREASE ($ MIL)	NUMBER OF RETURNS (UNITS)	AMOUNT OF TAX DECREASE ($ MIL)	NUMBER OF RETURNS (UNITS)	AMOUNT OF TAX INCREASE ($ MIL)	NUMBER OF RETURNS (UNITS)	AMOUNT OF TAX CHANGE ($ MIL)
**** < 5000	1001.	-.080	0.	.000	3857.	-.316	1602.	.053	2168.	-.153
5000 < 10000	777.	-.106	213.	.006	37037.	-3.776	3953.	.228	33342.	-3.037
0000 < 15000	2067.	-.457	173.	.005	48266.	-6.565	5359.	.512	44315.	-5.759
5000 < 20000	0.	.000	499.	.042	40257.	-5.129	6379.	.487	24318.	-3.781
0000 < 30000	209.	-.087	240.	.044	56911.	-5.764	16451.	1.656	17163.	-2.101
0000 < 50000	28.	-.010	207.	.150	41041.	-4.165	35732.	7.716	5319.	-.265
0000 < 100000	0.	.000	609.	.185	15484.	-2.599	29055.	9.809	283.	.048
0000 < 200000	0.	.000	24.	.037	1590.	-.643	4815.	5.695	11.	.050
0000 <********	0.	.000	8.	.052	183.	-.430	1563.	10.149	2.	.019
ITEMIZED	4082.	-.740	1974.	.522	244626.	-29.386	104909.	36.305	126922.	-14.980
**** < 5000	11178.	-.805	3170.	.058	95675.	-2.990	12994.	.259	0.	.000
5000 < 10000	3245.	-.431	490.	.088	44288.	-4.246	2817.	.508	0.	.000
0000 < 15000	585.	-.086	0.	.000	10709.	-.952	1347.	.161	328.	.000
5000 < 20000	957.	-.091	120.	.022	4847.	-.172	120.	.022	0.	.000
0000 < 30000	31.	-.001	0.	.000	3227.	-.151	59.	.009	0.	.000
0000 < 50000	0.	.000	0.	.000	1208.	-.025	0.	.000	264.	-.004
100000	120.	-.009	52.	.042	476.	-.035	84.	.046	217.	-.002
200000	0.	.000	0.	.000	14.	-.001	8.	.026	0.	.000
<********	0.	.000	3.	.013	22.	-.002	3.	.013	1.	.000
STANDARD	16116.	-1.422	3836.	.223	160465.	-8.575	17433.	1.046	810.	-.006
**** < 5000	12178.	-.885	3170.	.058	99532.	-3.306	14596.	.312	2168.	-.153
5000 < 10000	4022.	-.537	703.	.094	81324.	-8.021	6770.	.736	33342.	-3.037
0000 < 15000	2653.	-.543	173.	.005	58975.	-7.517	6706.	.673	44643.	-5.759
5000 < 20000	957.	-.091	620.	.064	45105.	-5.302	6499.	.509	24318.	-3.781
0000 < 30000	240.	-.088	240.	.044	60138.	-5.915	16510.	1.666	17163.	-2.101
0000 < 50000	28.	-.010	207.	.150	42249.	-4.190	35732.	7.716	5583.	-.269
0000 < 100000	120.	-.009	661.	.227	15959.	-2.634	29139.	9.855	500.	.045
0000 < 200000	0.	.000	24.	.037	1604.	-.645	4823.	5.722	11.	.050
0000 <********	0.	.000	12.	.065	205.	-.432	1566.	10.162	3.	.019
TOTAL	20198.	-2.162	5810.	.745	405091.	-37.961	122343.	37.350	127732.	-14.986

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					TAX DECREASES		TAX INCREASES			
	NUMBER OF RETURNS (UNITS)	AMOUNT OF TAX DECREASE ($ MIL)	NUMBER OF RETURNS (UNITS)	AMOUNT OF TAX INCREASE ($ MIL)	NUMBER OF RETURNS (UNITS)	AMOUNT OF TAX DECREASE ($ MIL)	NUMBER OF RETURNS (UNITS)	AMOUNT OF TAX INCREASE ($ MIL)	NUMBER OF RETURNS (UNITS)	AMOUNT OF TAX CHANGE ($ MIL)
******** < 5000	1127.	-.091	0.	.000	4577.	-.200	1723.	.056	2491.	-.178
5000 < 10000	482.	-.073	568.	.053	38416.	-3.504	6131.	.335	35890.	-3.290
10000 < 15000	1116.	-.207	167.	.004	50427.	-6.490	7180.	.675	46812.	-5.977
15000 < 20000	0.	.000	288.	.018	40503.	-4.654	7896.	.684	23379.	-3.598
20000 < 30000	444.	-.116	115.	.046	53469.	-4.842	22104.	2.608	16030.	-1.882
30000 < 50000	27.	-.007	762.	.195	34646.	-2.671	43907.	9.853	5295.	-.258
50000 < 100000	0.	.000	493.	.186	12481.	-2.167	31195.	11.222	72.	.008
100000 < 200000	0.	.000	33.	.028	1311.	-.585	4967.	6.216	3.	.013
200000 <********	0.	.000	11.	.106	159.	-.374	1586.	11.136	1.	.017
ITEMIZED	3197.	-.494	2438.	.636	235989.	-25.488	126689.	42.786	129973.	-15.145
******** < 5000	11548.	-.815	2485.	.065	96353.	-3.182	12136.	.268	0.	.000
5000 < 10000	2765.	-.408	483.	.097	42581.	-4.114	2851.	.549	0.	.000
10000 < 15000	0.	.000	0.	.000	9689.	-.781	915.	.139	336.	.000
15000 < 20000	1014.	-.121	211.	.066	4862.	-.215	211.	.066	0.	.000
20000 < 30000	0.	.000	0.	.000	3290.	-.119	0.	.000	267.	-.004
30000 < 50000	0.	.000	0.	.000	992.	-.023	88.	.005	67.	.000
50000 < 100000	48.	-.005	12.	.015	437.	-.022	44.	.017	316.	
100000 < 200000	0.	.000	11.	.006	15.	-.001	11.	.006	0.	
200000 <********	0.	.000	4.	.023	24.	-.002	4.	.023	2.	
STANDARD	15375.	-1.349	3207.	.271	158242.	-8.459	16261.	1.072	988.	-.003
******** < 5000	12675.	-.906	2485.	.065	100930.	-3.383	13859.	.324	2491.	-.178
5000 < 10000	3247.	-.481	1051.	.150	80997.	-7.618	8983.	.884	35890.	-3.290
10000 < 15000	1116.	-.207	167.	.004	60117.	-7.271	8096.	.815	47148.	-5.977
15000 < 20000	1014.	-.121	499.	.084	45364.	-4.869	8107.	.750	23379.	-3.598
20000 < 30000	444.	-.116	115.	.046	56759.	-4.961	22104.	2.608	16297.	-1.886
30000 < 50000	27.	-.007	762.	.195	35637.	-2.694	43995.	9.859	5362.	-.258
50000 < 100000	48.	-.005	505.	.201	12918.	-2.189	31239.	11.239	388.	.007
100000 < 200000	0.	.000	44.	.034	1326.	-.586	4978.	6.222	3.	.013
200000 <********	0.	.000	15.	.129	183.	-.377	1590.	11.159	3.	.018
TOTAL	18572.	-1.843	5644.	.907	394231.	-33.947	142951.	43.858	130961.	-15.148

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					TAX DECREASES		TAX INCREASES			
	NUMBER OF RETURNS (UNITS)	AMOUNT OF TAX DECREASE ($ MIL)	NUMBER OF RETURNS (UNITS)	AMOUNT OF TAX INCREASE ($ MIL)	NUMBER OF RETURNS (UNITS)	AMOUNT OF TAX DECREASE ($ MIL)	NUMBER OF RETURNS (UNITS)	AMOUNT OF TAX INCREASE ($ MIL)	NUMBER OF RETURNS (UNITS)	AMOUNT OF TAX CHANGE ($ MIL)
******** < 5000	383.	-.025	0.	.000	5313.	-.218	1727.	.085	3199.	-.195
5000 < 10000	1182.	-.175	605.	.055	42958.	-3.882	6231.	.382	39792.	-3.636
10000 < 15000	0.	.000	153.	.002	54769.	-7.048	8081.	.867	50992.	-6.241
15000 < 20000	344.	-.025	683.	.012	40066.	-4.582	8878.	.744	20949.	-3.273
20000 < 30000	273.	-.032	113.	.049	54094.	-4.926	24398.	2.922	13428.	-1.508
30000 < 50000	0.	.000	662.	.196	33427.	-2.663	46255.	10.761	5085.	-.254
50000 < 100000	0.	.000	838.	.253	11999.	-2.248	31076.	11.669	49.	-.009
100000 < 200000	0.	.000	29.	.016	1374.	-.625	4997.	6.484	0.	.000
200000 <********	0.	.000	7.	.025	148.	-.368	1575.	11.409	1.	.016
ITEMIZED	2182.	-.257	3089.	.608	244149.	-26.559	133219.	45.321	133494.	-15.101
******** < 5000	11429.	-.838	3454.	.039	98366.	-3.450	12003.	.246	0.	.000
5000 < 10000	2307.	-.396	481.	.107	38887.	-3.909	2466.	.517	0.	.000
10000 < 15000	0.	.000	0.	.000	8005.	-.463	145.	.002	348.	.000
15000 < 20000	834.	-.088	266.	.116	4872.	-.230	266.	.116	0.	.000
20000 < 30000	0.	.000	0.	.000	3368.	-.117	0.	.000	283.	-.004
30000 < 50000	0.	.000	67.	.014	1083.	-.025	67.	.014	74.	.000
50000 < 100000	59.	-.005	5.	.009	498.	-.025	13.	.025	308.	-.003
100000 < 200000	0.	.000	0.	.000	16.	-.001	6.	.004	0.	.000
200000 <********	0.	.000	8.	.108	28.	-.002	8.	.108	1.	.000
STANDARD	14630.	-1.327	4280.	.394	155123.	-8.222	14975.	1.032	1013.	-.007
******** < 5000	11812.	-.863	3454.	.039	103680.	-3.668	13730.	.331	3199.	-.195
5000 < 10000	3490.	-.571	1085.	.162	81846.	-7.792	8697.	.899	39792.	-3.636
10000 < 15000	0.	.000	153.	.002	62774.	-7.511	8227.	.868	51341.	-6.241
15000 < 20000	1178.	-.113	949.	.129	44938.	-4.812	9144.	.861	20949.	-3.273
20000 < 30000	273.	-.032	113.	.049	57463.	-5.043	24398.	2.922	13710.	-1.512
30000 < 50000	0.	.000	729.	.210	34510.	-2.688	46322.	10.775	5159.	-.254
50000 < 100000	59.	-.005	843.	.262	12497.	-2.273	31090.	11.693	356.	-.012
100000 < 200000	0.	.000	29.	.016	1390.	-.626	5003.	6.488	0.	.000
200000 <********	0.	.000	15.	.133	176.	-.370	1583.	11.517	2.	.016
TOTAL	16812.	-1.584	7369.	1.003	399272.	-34.781	148193.	46.354	134508.	-15.108

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					TAX DECREASES		TAX INCREASES			
	NUMBER OF RETURNS (UNITS)	AMOUNT OF TAX DECREASE ($ MIL)	NUMBER OF RETURNS (UNITS)	AMOUNT OF TAX INCREASE ($ MIL)	NUMBER OF RETURNS (UNITS)	AMOUNT OF TAX DECREASE ($ MIL)	NUMBER OF RETURNS (UNITS)	AMOUNT OF TAX INCREASE ($ MIL)	NUMBER OF RETURNS (UNITS)	AMOUNT OF TAX CHANGE ($ MIL)
******** < 5000	0.	.000	0.	.000	6552.	-.305	2173.	.102	4483.	-.285
5000 < 10000	1212.	-.195	613.	.055	47515.	-4.423	6577.	.405	44023.	-4.142
10000 < 15000	458.	-.014	155.	.001	60061.	-7.565	8185.	.966	52610.	-6.418
15000 < 20000	328.	-.010	662.	.012	39702.	-4.579	10034.	.844	19336.	-3.003
20000 < 30000	277.	-.033	109.	.051	55548.	-5.046	24070.	3.228	13225.	-1.475
30000 < 50000	0.	.000	916.	.251	32537.	-2.585	48006.	11.800	5193.	-.232
50000 < 100000	0.	.000	841.	.323	12593.	-2.386	30707.	12.089	63.	.019
100000 < 200000	0.	.000	28.	.027	1349.	-.671	4860.	6.556	5.	.003
200000 <********	0.	.000	2.	.006	145.	-.377	1604.	12.265	7.	.099
ITEMIZED	2276.	-.253	3326.	.727	256002.	-27.938	136215.	48.255	138945.	-15.434
******** < 5000	8749.	-.679	3506.	.043	99026.	-3.611	10872.	.253	0.	.000
5000 < 10000	2142.	-.386	478.	.116	36073.	-3.645	2467.	.546	0.	.000
10000 < 15000	0.	.000	0.	.000	7385.	-.389	0.	.000	356.	.000
15000 < 20000	1326.	-.106	270.	.155	4771.	-.178	270.	.155	0.	.000
20000 < 30000	0.	.000	0.	.000	3535.	-.123	0.	.000	294.	-.004
30000 < 50000	0.	.000	0.	.000	1179.	-.027	64.	.018	0.	.000
50000 < 100000	73.	-.005	11.	.029	570.	-.028	11.	.029	328.	
100000 < 200000	0.	.000	1.	.000	16.	-.001	1.	.000	0.	
200000 <********	0.	.000	2.	.024	31.	-.003	2.	.024	1.	
STANDARD	12291.	-1.177	4270.	.368	152586.	-8.004	13688.	1.026	979.	.007
******** < 5000	8749.	-.679	3506.	.043	105578.	-3.915	13045.	.355	4483.	-.285
5000 < 10000	3355.	-.581	1091.	.171	83589.	-8.068	9043.	.951	44023.	-4.142
10000 < 15000	458.	-.014	155.	.001	67447.	-7.953	8185.	.966	52966.	-6.418
15000 < 20000	1654.	-.117	932.	.168	44473.	-4.757	10304.	1.000	19336.	-3.003
20000 < 30000	277.	-.033	109.	.051	59082.	-5.170	24070.	3.228	13518.	-1.479
30000 < 50000	0.	.000	916.	.251	33715.	-2.612	48070.	11.818	5193.	-.232
50000 < 100000	73.	-.005	852.	.351	13163.	-2.414	30718.	12.118	391.	.016
100000 < 200000	0.	.000	30.	.027	1364.	-.672	4861.	6.557	5.	.003
200000 <********	0.	.000	4.	.031	176.	-.380	1606.	12.289	8.	.113
TOTAL	14567.	-1.430	7596.	1.095	408587.	-35.942	149903.	49.281	139924.	-15.428

DEFINING THE GENERAL EXCISE TAX BASE: EXEMPTIONS AND PYRAMIDING

Report Prepared for the
State of Hawaii

Tax Review Commission

William F. Fox
Professor of Economics
The University of Tennessee, Knoxville

September 1, 1989

DEFINING THE GENERAL EXCISE TAX BASE: EXEMPTIONS AND PYRAMIDING

By William F. Fox

Professor of Economics, The University of Tennessee, Knoxville

INTRODUCTION

The major characteristics of a tax structure are reflected in the base to be taxed and the rates to be applied. The numerous goals for taxation are best achieved by establishing the base in a consistent, understandable fashion and then selecting the rates which raise the desired revenues. Thus, the focus of tax policy generally is on defining the appropriate base.

This paper is an evaluation of two key issues of defining the Hawaii General Excise Tax (GET) base, the granting of tax exemptions and the extent of tax pyramiding. These are important topics for analysis because they raise the most questions and the greatest controversy for the GET. Still, it is recognized that the report's focus is narrow and there are many other important aspects of the GET which are not addressed here because they were part of a comprehensive analysis during the last Tax Review Commission.

The General Excise Tax structure has been a good starting point for developing a tax base which best meets the characteristics of a good tax, and Hawaii has made much progress over the years in modifying the base through legislation. Positive examples of reform are the use tax and treatment of tangible good exports. Hawaii's choice of this productive tax structure has positioned it very well relative to most other states because much of the fine tuning has been narrowing rather than broadening of the base. Other states are more often in the position of seeking politically difficult base broadening legislation. Nonetheless, there remain certain areas where exemptions should be granted or eliminated.

The best time for long range planning is during a good fiscal climate and the time is right for Hawaii to continue improving on a sound tax structure. The key is to define the tax base in a comprehensive, conceptually sound fashion and only to allow exemptions which are consistent with the definition. The state should guard against chipping away at the base through piecemeal exemptions--a temptation in all states but a real risk in a fiscally sound state.

The next section is devoted to defining the GET in an economically rational fashion, to summarizing state sales tax structures, and to listing the goals of the tax structure. The following section examines the problems which arise with tax pyramiding and the extent to which the Hawaii GET pyramids. The next section is a discussion of reasons for allowing exemptions from the tax base and an evaluation of several specific exemptions. Finally, there is a brief summary and a listing of the policy options for consideration by the Tax Review Commission.

UNDERSTANDING THE GET

A tax can be imposed on any base which is constitutional. However, the goals of taxation, only can be achieved through development of a conceptually satisfying base. This section describes a way to conceptualize the GET so that decisions can be made regarding appropriate exemptions and acceptable pyramiding of the tax. Since the intent of a tax is not clearly specified in legislation and evolves over time the approach here is to conceptualize the intended base by relying on legal definitions of the tax, current practice, trends in restructuring the base, and economic theory.

Section 237-13 of the Hawaii code says that "There is hereby levied and shall be assessed and collected annually privilege taxes against persons on account of their business and other activities in the State measured by the application of rates against values of products, gross proceeds of sales, or gross income, whichever is specified" (Commerce Clearing House, p. 9307). This plus the remainder of Section 237-13 indicate the tax is legally a privilege tax against all manufacturers, sellers of tangible personal property, contractors, theaters, sales representatives, service businesses, insurance solicitors and agents, professionals, and other businesses. The same statute indicates that some privileges are taxed at 4.0 percent and others at 0.5 percent.[1] Despite the coverage of all businesses within a single type of tax and a single statute, for the reasons to be given below, it would appear that the GET is best defined as two taxes: a retail sales tax levied at 4.0 percent and a privilege tax levied at 0.5 percent.

The GET generally is levied at 4.0 percent on gross revenues of retail sellers of tangible personal property, contractors, providers of entertainment, sales representatives, service businesses, professionals, and other businesses. The tax is levied at 0.5 percent on manufacturers and wholesalers. The differential rate is

1. Insurance solicitors and agents are taxed at a 0.15 percent rate on their commissio rather than their gross sales.

not levied by general class of firm, but by type of activity. For example, a manufacturer who both sells to retailers and sells at retail pays the different rate on each.

One reason the GET can be categorized as two taxes is the decision to levy widely different rates on manufacturing and wholesaling transactions versus final (retail) consumption transactions. Another reason is that tax theory can be relied on to define the retail part but not the manufacturing and wholesaling part of the GET.

The Sales Tax Base

The base taxed at a 4.0 percent rate is similar to a very broad based (comprehensive) retail sales tax, which is levied on all sales of good and services to final consumers. Therefore, this part of the GET will be evaluated as a sales tax.

There are several reasons why the GET can be classified as a sales tax even though it is imposed as a privilege tax on vendors. First, this legal distinction tells little of the legislative intent or the economic effects of the GET, and these are most important for defining the tax. The economic effects in terms of whose income ultimately is reduced through payment of the tax and the tax's effects on the product's price and consumption level are the same regardless of whether the tax is legally incident on the seller's receipts or the buyer's purchase. As a result legal incidence cannot be used to measure intent. Further, Hawaii is not unique in creating its sales tax in this manner. There are 13 states including Hawaii which levy their sales tax on the privilege of engaging in business as a vendor (Due and Mikesell, p. 24). Another 15 states and the District of Columbia levy their tax as a hybrid between a tax on vendors and on consumers. Only 17 states have a legally specified consumer levy.

Second, exemption of goods produced for export to the mainland or other countries is evidence that the intent is to impose a tax on the final purchases of goods in Hawaii. This is reinforced by the enactment of a use tax on goods purchased outside the state. The net effect is to exempt goods produced in Hawaii and consumed outside the state (unless purchased by a tourist in the state) and to tax goods produced outside the state and consumed in the state. Though the legal basis remains unchanged, these characteristics of the GET shift the incidence from a tax on the privilege of selling or producing in Hawaii to a tax on consumption of final goods.[2]

Finally, the Legislature has demonstrated its belief that the GET is ultimately paid by consumers. This is seen in the granting of credits against the individual income tax for general excise tax payments which are implicit in the price of food and medical care. Thus, the current legislative intent appears to be to use the vendor as a mechanism to tax consumers.

No assertion is made that Hawaiian policymakers began with a grand scheme to create a retail sales tax through design of the GET. Legislation may have been enacted to levy a use tax or to exempt exports for reasons which were not specifically related to developing a sales tax. Nonetheless, the result of numerous tax structure changes has been a sales tax like structure.[3] Also, the argument should not be interpreted to mean that the current set of goods and services in the GET base accords perfectly with a retail sales tax. Hawaii's tax structure, like that of other states, has elements which are inconsistent with the logic on which the overall tax structure now rests. In fact, one goal of this paper is to identify places where adjustments may be appropriate. In some cases, changes may be desirable to bring current practice in accord with the conceptualized tax base, but in others the administrative costs, compliance costs, or equity implications may mean it is better to accept some differences between theory and practice.

Privilege Tax Base

The tax at 0.5 percent can be seen as a levy on the privilege of transacting business with purchasers who are not final consumers. A similar business privilege tax is imposed in Washington, but the like tax in West Virginia was replaced in 1987. Indiana began phasing out its gross receipts tax several years earlier. Such taxes have no logical basis in the theory of taxation and are likely to violate many goals for a tax structure, like the desire to minimize the effects on decisions by people and businesses.

Hawaii's low rate privilege part of the GET is unlikely to create serious distortions in behavior, though higher rates could cause greater problems. But the low rate also results in little revenue. The 4.0 percent GET collected $827.8 million in 1988 compared with only $45.5 million from the 0.5 percent tax, even though the 0.5 percent tax had a base which was 44 percent as large (Department of Taxation, p. 14). Further, the existence of multiple rates requires

2. The tax on services remains substantially a tax on production rather than consumption. This will be discussed further below.

3. Interestingly, Bock, Brilliant and Gerding (p.182) claim it is not a sales tax and Arthur D. Little (p.1) argues it is. The different views likely result because the former is taking a legal perspective and the latter an economic perspective on the tax.

many decisions on what is taxable at 4.0 versus 0.5 percent.[4] These decisions must even be made within individual firms.

The State should consider eliminating the 0.5 percent rate and exempting transactions taxed at this rate. The revenues represent only 2.2 percent of Department of Taxation collections. Also, compliance and administration problems and pyramiding would be lessened with full exemption, pointing further to its appropriateness. The changes in West Virginia and Indiana are recent precedents for similar tax restructuring. It should be noted that some transactions currently taxed at 0.5 percent could be taxed at 4.0 percent. For example, the sale of stationary by one manufacturer to another manufacturer would be taxed at 0.5 percent under present legislation, but likely would be taxed at 4.0 percent if no privilege rate were in force. Therefore, the revenue consequences of eliminating the 0.5 percent rate could be smaller than it would appear.

This report focuses on the sales tax component of the GET and the lower rate privilege tax is treated as a levy on firms which are exempted from the retail sales tax part of the structure. The major reasons are the revenues from the sales tax part are dominant and a logically consistent sales tax structure can be defined. Unless otherwise indicated the reader should think of the GET levied at 4.0 percent in the following discussion. A brief review of sales taxes in the U.S. is given prior to defining the tax base.

Sales Taxes in the U.S.

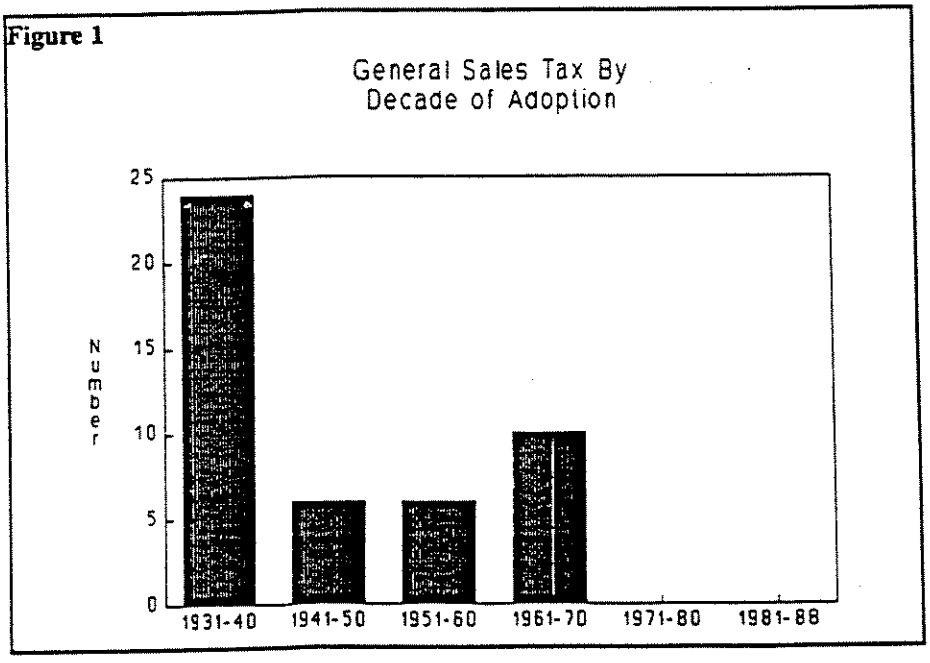
The GET can be likened to retail sales taxes imposed by a total of 45 states plus the District of Columbia, though comparison with any specific state is very difficult because the states differ widely in rates and base definitions.

Hawaii's tax, introduced in 1935, was one of 24 state sales taxes begun during the 1930's (see Figure 1). The GET was a replacement for the business excise tax, which had been imposed in 1932. This suggests that the original intent was to tax businesses, but it could have been to use businesses as an administratively convenient means to tax people. Several other states also had business occupations taxes as forerunners to their sales tax. The old business excise tax was closer in form to a value added tax than to the existing GET and the change was made because of poor revenue performance from the business excise tax (Arthur D. Little). The GET, chosen because of its revenue generating capacity, was an immediate success on this basis.

Despite the introduction of exemptions and other tax structure changes over the years, the GET is regarded as having one of the broadest bases used by any state because of the extensive taxation of services and rentals (Due and Mikesell, p. 90). The breadth can be measured by comparing the GET base with personal income. Hawaii's base is 129.2 percent of personal income (Table 1), meaning the tax is levied on a base which is 29.2 percent above all income received by Hawaiians. No other state even has a base equal to personal income, as the next highest state is New Mexico with the base equal to 87.2 percent of its income. A base broader than personal income can occur because as the tax pyramids the same items are taxed more than once and because tourists pay much of the tax.

Another evidence of breadth is that GET collections were 5.2 percent of personal income in 1987, dramatically higher than the average state's 2.3 percent (Table 1). Washington, with 4.9 percent, is the only state with a close percentage and Mississippi and New Mexico are the only other states raising at least 4.0 percent of income

Figure 1



4. The privilege tax rate complicates decisions by allowing 4.0, 0.5, and 0 (exemption) percent rates, while most states only have the sales tax and 0 rate.

TABLE 1. SELECTED STATE SALES TAX CHARACTERISTICS, 1987

	General Sales & Gross Receipts Tax Rate Aug. 1988	General Sales & Gross Receipts Collections As a Percent of Total Tax Revenue	General Sales & Gross Receipts Collections As a Percent of Personal Income	General Sales & Gross Receipts Collections Per Capita	General Sales & Gross Receipts Base as a Percent of Personal Income
Alabama	4	27.4	1.9	216.45	48.1
Alaska	0				
Arizona	5	44.6	3.5	457.01	69.2
Arkansas	4	37.9	2.7	299.68	68.1
California	4.75	30.6	2.4	395.28	50.5
Colorado	3	28.1	1.4	218.04	48.1
Connecticut	7.5	41.8	2.9	567.74	38.9
Delaware	0				
District of Columbia	6	19.8	3.1	609.88	52.1
Florida	6	55.6	3.2	455.65	64.1
Georgia	3	32.7	2.1	279.54	70.6
Hawaii	4	48.2	5.2	753.48	129.2
Idaho	5	35.9	2.6	298.49	53.0
Illinois	5	32.3	1.9	294.02	37.8
Indiana	5	47.2	3.1	407.17	62.3
Iowa	4	31.0	2.2	291.50	54.3
Kansas	4	34.9	2.0	293.55	50.4
Kentucky	5	25.3	2.1	239.35	42.6
Louisiana	4	34.5	2.4	266.69	59.0
Maine	5	34.1	2.9	370.18	58.6
Maryland	5	25.0	1.7	287.20	34.6
Massachusetts	5	22.1	1.8	318.94	36.1
Michigan	4	28.7	2.1	307.45	52.3
Minnesota	6	26.5	2.3	345.88	38.7
Mississippi	6	52.2	4.0	386.82	66.4
Missouri	4.225	41.2	2.3	318.25	55.0
Montana	0				
Nebraska	4	32.5	1.8	245.01	50.8
Nevada	5.75	49.4	3.7	549.15	64.7
New Hampshire	0				
New Jersey	6	30.7	2.1	379.53	34.2
New Mexico	4.75	44.4	4.1	466.38	87.2
New York	4	20.7	1.7	285.99	41.9
North Carolina	3	23.4	1.8	227.04	61.6
North Dakota	5.5	33.8	2.3	288.36	57.2
Ohio	5	34.8	2.3	313.70	45.2
Oklahoma	4	23.0	1.5	187.58	46.5
Oregon	0				
Pennsylvania	6	31.4	2.1	299.00	35.1
Rhode Island	6	33.4	2.5	355.79	41.1
South Carolina	5	40.6	3.6	396.05	71.1
South Dakota	4	49.3	2.5	289.82	61.4
Tennessee	5.5	55.3	3.5	410.78	62.9
Texas	6	41.0	2.0	274.07	49.6
Utah	5.094	38.9	3.1	332.86	66.6
Vermont	4	20.3	1.5	199.73	37.9
Virginia	3.5	20.0	1.2	186.77	41.2
Washington	6.5	58.2	4.9	723.75	75.4
West Virginia	6	43.2	3.9	416.66	77.9
Wisconsin	5	29.1	2.5	343.65	49.6
Wyoming	3	23.9	2.3	307.51	77.5
All States		32.2	2.3	329.49	48.9

Source: U.S. Bureau of the Census, State Government Tax Collections in 1987, Series GF-87-1, U.S. Government Printing Office, 1988 and Commerce Clearing House, State Tax Guide.

in sales tax revenues.

The broad base permits Hawaii to collect 48.2 percent of its tax revenues from the GET as the average state only raises 32.2 percent with a sales tax (Table 1). Six states led by Washington, generate a greater percent of revenues from their sales tax. Also, Hawaii raises greater general sales and gross receipts tax revenues per capita than any other state. Hawaii's $753.48 in 1987 per capita revenues was slightly above second place Washington's and well above the average state's $329.49 (Table 1).

Hawaii's 4.0 percent rate is lower than 29 states. The modal rate (the one used by more states than any other rate) is between 4.0 and 5.0 percent, and the median rate (the one with as many rates above it as below it) is 5.0 percent (Table 1).

Note that the GET can be interpreted as a tax at a 4.16 percent rate on the retail price because many firms include the legislated 4.0 percent rate in the total price stated to a consumer, though the tax is levied on gross proceeds of firms. For example, if a person purchases a $1.00 item and the firm explicitly includes the GET in the bill, the total charge is $1.04. The firm's tax liability is calculated on the $1.04, and not the $1.00, so the firm's tax liability is $0.0416. Compared with the purchase value of $1.00 the tax is 4.16 percent.

Firms will often include a rate higher than $.04 per $1.00 in the charge imposed on consumers to ensure that the entire tax liability is stipulated in the total purchase price. In the example above the firm could list a price of $1.0416. However, the tax is then calculated as 4.0 percent of $1.0416 (not $1.04) so the firm still has understated the tax liability slightly.[5] The result has been some firms have stated a tax rate above their actual liability and consumers are confronted with numerous rates leading to considerable confusion.

Goals in Defining the Tax Base

Decisions on the best tax structure for a state involve weighing the relative importance of several goals and making the appropriate tradeoffs. The goals for the tax system likely include:

1. The tax structure must raise the necessary revenues. In fact, this is the reason why almost all taxation occurs.[6] A tax system which is perfect on all other grounds, yet does not raise the needed revenues, will almost surely be a failure. The appropriate amount of revenues will vary between states based on the demand for publicly provided services and other factors.

2. The tax structure should be equitable. Equity is measured in terms of horizontal equity, which means people with the same income (capacity to pay taxes) have the same tax liability, and vertical equity, which means people with a greater income (taxpaying capacity) have a greater tax liability. Definitions of vertical equity will probably vary across states.[7] An important point is that vertical equity only needs to be established for the overall tax system; there is no requirement that any individual tax be equitable.

3. The tax structure should be efficient. An efficient structure has minimal effects on the decisions of business firms and individuals because economic wellbeing is lessened when decisions are distorted. Where the tax system distorts decisions it should be in ways which encourage economic development or achieve other public policy goals.

4. The tax system should be low cost for public sector administration and for private sector compliance. Resources devoted to administration are not available for delivering the desired public services and compliance costs reduce the wellbeing of taxpayers.

5. Taxes should be exported to nonresidents of Hawaii. The wellbeing of Hawaiians will be increased if the tax burden can be transferred to nonresidents.

6. The tax system should be well accepted by residents and businesses. This means it must be constitutional and publicly supportable.

These six goals often will conflict. For example, the factors which make a tax good for administration often make it bad for compliance. Characteristics which enhance equity often harm economic development or economic efficiency, and so on. Thus, the best tax system is likely to vary according to the views of the person making the decision and according to sentiments in the state.

Defining the General Excise Tax Base

This section defines the components of a conceptually sound sales tax in the context of the goals described above. The common approach to

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5. The rate at which the entire tax is included in the purchase price is appropriately 4.1667 percent.

6. Taxes are occasionally imposed for some other purpose such as regulating pollution.

7. The additional amount paid by higher income people depends on whether tax liabilities are intended as regressive, proportional, or progressive.

theoretical development of tax structures considers only three goals: raising sufficient tax revenues, having taxes with minimal influence on economic decisions, and achieving horizontal equity. For any desired level of revenues, the best way to avoid having decisions distorted by taxation is to define the tax base very broadly so people cannot avoid the tax by purchasing untaxed items. Also, the tax rate should be constant on all commodities or at least close substitutes should have the same rates.[8] Practically, this can only be accomplished by using a single rate on all final consumption so that the tax does not pyramid. These same characteristics are consistent with horizontal equity because they mean people with the same consumption expenditures pay the same tax.

The goals of taxation not considered in the theoretical analyses usually are taken into account as necessary deviations from the optimum. For example, imputed rents are legitimately part of the base but are not included because of commonly held views that they should be nontaxable and because of the administrative and compliance problems of including them.

In this section we seek to practically define taxable final consumption in a manner which allows all consumption to be taxed and minimizes pyramiding. In the discussion it is recognized that sales taxes as used in the U.S. generally have developed as hybrids. They are consumption taxes levied on purchases by final consumers but they also are levies on many intermediate business and government purchases.

Household Consumption

All household purchases are final consumption and the revenues from them are appropriately the target of sales taxation. This should include all purchases of both goods and services. The consumption value should be taxed, whether the good is to be used over many years (such as a house) or to be used up immediately. A pure consumption tax would have in its base the value of consumption for which payments are made and which is received in kind.

Both the sales by private firms and the sales by government belong in a consumption base.[9] That sales by businesses would be taxed is obvious, but taxation of government sales requires careful consideration. For this analysis it is best to think of governments as public producers, much as business firms are private producers. Also, it is useful to divide government goods into those financed through their sales and those financed with tax revenues. Parks and recreational facilities, bus transportation, water and other services are often substantially financed with user prices. The price or user fee is a measure of the value in consumption even if the good is partly tax financed. However, it may be undesirable to levy the tax on a service which has a price, but which is mostly financed with tax revenues. Applying the tax on the sale of government services to households is appropriate as the tax is conceptually being levied on consumption (even if legally on the seller), and whether it is privately or publicly provided is immaterial. The selling government agency is merely collecting the tax for remittance to the taxing authority; the consumer is the intended taxpayer. This concept is broadly accepted for many government sales of commodities, such as when a state university sells a soft drink, but has been infrequently applied to government sales of services.

Economic efficiency and horizontal equity will not be attained unless the tax is imposed on government sales. When these sales are not taxable, households which choose to consume large amounts of publicly provided services, such as households using bus transportation rather than driving a car or using a public golf course rather than a private facility, will pay lower taxes on their consumption compared with those which purchase more goods from the private sector. A disadvantage of levying the tax on government sales is that it could provide a small incentive for counties to use tax rather than fee revenues to finance services.

No sales tax should be levied on tax financed government services. In this case there is no sale of service which represents consumption and payment of the tax is uncorrelated with receipt of the government service. Thus neither economic efficiency nor horizontal equity would be improved with a tax.

Government and Business Consumption

Governments and businesses not only sell to consumers but they are purchasers of goods and services. Their purchases of intermediate goods should be exempt from the base since they are not final consumption.[10]

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8. Optimal tax theory has led to the conclusion that under certain assumptions about the demand for goods, the tax rate on each commodity should vary inversely with the elasticity of demand. This means higher tax rates should be imposed on those commodities where quantity demanded responds very little to price changes. In practice, different rates are seldom used except for a limited group of goods such as gasoline, cigarettes, and alcohol.

9. The federal government cannot be required to collect tax on its sales.

10. Business and government investment purchases are usually considered as final purchases but generally would not be in the base. If the hope is to tax the state's entire gross product or to use the sales tax as a rough proxy for government services delivered to the businesses an argument can be made to tax these final purchases.

Failure to exempt intermediate purchases, or to tax them at a low rate as in Hawaii, causes the sales tax to become a turnover tax which pyramids into higher product prices. The implications of a turnover tax are discussed below in the pyramiding section.

As a practical matter, all business and government purchases are not exempt from state sales taxes because of the administrative difficulties of exempting certain purchases and the large revenue loss of their exemption. This is an area where goals of tax policy other than horizontal equity and economic efficiency are allowed to determine the tax structure. Estimates are that between one-fifth and one-third of state tax collections across the U.S. are from business purchases.

Nationwide, consumption plus government services sold to consumers equal 72.3 percent of gross product. Thus, that part of Hawaii's base taxed at 4 percent should be an approximately equal percentage of GSP if the tax truly reflects a consumption base, but the base is 95 percent of GSP.[11] Therefore, assuming all consumption is taxed, between 20 and 25 percent (95-72.3 ÷ 72.3) of the current tax base is sales to governments and businesses. These taxes will be reflected in higher prices or higher government charges and the result will be distortions in economic efficiency and horizontal equity.

Decisions on which business purchases to exempt and which to tax must be based on the degree of pyramiding which Hawaii is willing to accept. The rules which have been developed can allow an understandable tax, but inclusion of business purchases in the base cannot be justified using tax theory. Most states use a component parts rule to make these decisions. Purchases which become part of the buyer's final product are exempted and other business purchases are taxed with a component parts rule. In practice, careful decisions must be made on how to apply this rule and these may vary by state. An example of its application is that purchase of cloth by an apparel factory would be exempt but purchase of a desk by the same firm would be taxable.

Hawaii allows transactions by manufacturers and wholesalers to be taxed at 0.5 percent, unless the sale is considered to be at retail. Sales by service firms are taxed at the 4.0 percent rate. Purchases of capital equipment are often exempt, as only about 11 states fully tax them (Due and Mikesell, p. 56). Hawaii collects the tax on such purchases but then allows a 4 percent credit against the income tax.

Some have argued that services should be exempt from sales taxes because many are sold substantially to business. Therefore, their taxation increases the propensity for the sales tax to deviate from a consumption tax. However, the sales tax becomes a levy on the purchase of tangible goods not a tax on consumption if services are omitted from the base. Rather than omit services from the base the better solution appears to be including services and using a liberal rule for defining which services are a component part and accordingly are not taxed.

As described above, the principle for Hawaii's collection of the tax on sales to governments is as weak as for collection of the tax on sales to business. Administrative and revenue justifications rather than conceptual grounds must be used to support this revenue. Administrative convenience suggests that government purchases should be taxed under the same guidelines as business purchases. Only eight states including Hawaii, Arizona, and California impose the tax on these purchases (Due and Mikesell, p. 80). Nonetheless, states often permit exemption from the sales tax for purchases by their own agencies and their local governments.

Sales to the federal government constitutionally are exempt in states where the tax is on the consumer. States with tax structures like the GET can collect the tax because it is legally on the vendor. Any state can collect the tax due on sales to federal contractors operating with a fixed price contract. Arizona and South Carolina are the only states to tax all sales, though New Mexico and Hawaii tax sales of services to the federal government.

In sum, tax theory would indicate the optimal base for a consumption tax levied on sales would have the following characteristics. First, it would include all sales to households, whether the vendor is a private firm or a public agency and whether produced in Hawaii or imported from another state or country. These sales would be taxed whether they represent the purchase of tangible goods or of services. Second, it would exempt all intermediate and final sales to governments or businesses. However, though this cannot be justified with tax theory, the base often is broadened to include many business and government purchases because of the administrative convenience and the revenue consequences. A rule is necessary to exempt those purchases which most clearly lead to excessive pyramiding. The component parts

11. This is for the base taxed at 4.0 percent. The base taxed at 0.5 percent is 40 percent of GSP, so in total Hawaii's GET base equals 135 percent of GSP.

rule is used in Hawaii and most states.

It should be noted that a retail sales tax is a cumbersome means to create a pure consumption tax because vendors sell to different levels in the production chain and many decisions must be made on what is taxable. Using a retail sales tax necessitates a pragmatic approach to taxation, which balances economic efficiency with administration and compliance. If the goal is to levy a pure consumption tax, this is probably achieved more effectively through a value added tax or a direct tax on people's consumption (defined as their income minus savings). However, a state level value added tax usually is considered to be a production tax rather than a sales tax because rebates would not be permitted on exports and the tax would not be levied on imports.

TAX PYRAMIDING

Tax pyramiding occurs when a tax is imposed on a good at more than one stage of the production process so that the total tax incorporated in the final price is greater than the legislated rate.[12] The degree to which it occurs depends on the number of different levels in the production process at which transactions are taxed and the rate at which each transaction is taxed (See Tax Review Commission). For example, suppose a manufacturer produces a good and wants to receive $100.00 after tax from its wholesaler.[13] Assuming this transaction was taxable at 4.0 percent the wholesaler would pay $104.00, including the $4.00 tax. If the wholesaler's markup is 25 percent, his sales price to the retailer would be $104.00 plus $26.00, or $130.00. Assuming this transaction is taxable at 4.0 percent the retailer would pay $135.20, including $5.20 in additional tax. If the retailer's markup is 10 percent, his sales price to the consumer would be $148.72 plus tax. The tax on this transaction at 4.0 percent would be $5.95, so the total sale price would be $154.67. However, the price already includes a $4.00 tax at the manufacturer level and a $5.20 tax at the wholesaler level, so the total tax is $15.15 ($5.95+$5.20+$4.00), compared with the $5.50 which would have been levied on the good at 4.0 percent.[14] The pyramided tax is 10.2 percent of the before tax selling price to the consumer ($15.15/$148.72). Note that the final price includes $2.02 in markup on the taxes, which means that with markup pricing the tax on consumers is greater than the revenues received by the government.

Pyramiding allows greater revenues to be raised from a given legislated tax rate. This is not a serious problem if the state is raising the appropriate amount of revenues. Simply, the legislated tax rate is lower than the effective rate, a relationship which may be desirable from a political perspective.

The concern with pyramiding is that it happens unevenly, based on the number of transactions and the rate on each one, so the effective tax rate varies across commodities. These indiscriminate differences in effective tax rates violate two goals for the tax system. First, two families with the same income can pay very different taxes depending on what they choose to buy. This violates the concept of horizontal equity. Second, economic efficiency is distorted as the taxes change relative prices.[15]

People and business firms may respond to pyramiding in several ways. The incentive for business firms is to vertically integrate.[16] This means a firm may begin to perform its own wholesaling function or to produce many of its intermediate products in order to avoid taxes below the retail level. As a result, small businesses may be harmed because their products are less in demand and firms may perform functions which could be done much more efficiently by someone else. There also may be a greater tendency to illegally evade taxes as the effective rates rise.

Second, people will have a tendency to buy less of the heavily taxed goods. This harms producers and sellers of these commodities and makes consumers worse off because their decisions are distorted. This loss in wellbeing because of distorted prices is called excess burden. Further, taxes imposed below the retail level are reflected in the costs of producing in

12. Pyramiding is defined here to include both cascading of the tax, where the tax is levied at different stages of production, and levying the tax on tax payments which are incorporated in the price at different levels of the production process.

13. This analysis assumes that the tax will be totally shifted forward to the purchaser through higher product prices. Instead, taxes could be shifted in part or in total to the seller through lower profits or to workers or landowners through lower wages or rents.

14. The price would have been $137.50 if the wholesaler and the retailer used the markup percentages assumed in the text and there was no tax below the retailer level. The 4.0 percent tax on $137.50 is $5.50. The $15.15 in taxes is 11.0 percent of this price.

15. Any tax levied on business purchases may be incorporated in higher product prices whether imposed on goods purchased for resale or on other business purchases such as desks and equipment. All have the effect of raising business costs.

16. Billings (1984) shows evidence which implies that firms are more vertically integrated in Hawaii than in the rest of the U.S. However, since they also tended to be more vertically integrated before introduction of the GET, this fails to demonstrate that integration has been worsened by the GET.

the state and this can cause goods produced for export to the mainland or other countries to be less competitive. The overall economic development of Hawaii can be diminished.

A weakness of sales taxes is their tendency to pyramid. Again, pyramiding can be lessened by replacing the sales based tax with a value added tax or a consumable income tax (defined as income minus savings). Replacement of the sales tax with one of these is an extreme step and has many other consequences to consider. Alternatively, while using a sales tax, certain transactions can be exempted or transactions below the retail level can be taxed at lower rates to limit the extent of pyramiding. Hawaii does both of these. Nonetheless, within a GET type structure, actions to reduce pyramiding often will entail greater administration or compliance burdens and the administrative and revenue effects of avoiding all pyramiding are probably insurmountable. As a result, like other states, Hawaii probably seeks an acceptable level of pyramiding rather than trying to eliminate it entirely.

Evidence of GET Pyramiding

The GET will pyramid because the base is so broad that essentially all business purchases are taxed, whether at retail or intermediate stages. However, pyramiding is lessened because many intermediate transactions are taxed at the lower 0.5 percent rate. Also, the Hawaii economy is not so complex that the many intermediate stages will result in extensive pyramiding. On the other hand, the economy may be less complex at least partly because the GET has encouraged vertical integration. No effort has been made in this study to determine the extent to which this has occurred.

Research indicates that pyramiding across broad consumption groups is much less than many may anticipate. Results derived by Leung and Bowen are reported in Table 2 where the first line is the legislated tax rate (except for the federal government), the second line is the indirect tax from pyramiding, and the third is the total tax. For example, they concluded that the effective tax rate on personal consumption expenditures, including the tax at every stage of the production process, was 5.3 percent rather than the legislated 4.0 percent GET rate.

This represents only about one-half as much unexpected pyramiding from taxes on multiple stages as the 5.3 percent versus 4.0 percent comparison suggests. To see this assume that every commodity is manufactured by someone other than the retailer. Then, the effective tax rate on the before tax price is 4.69 percent, including the levy on the manufacturing and retail transactions.[17] Thus, pyramiding above the manufacturing privilege rate and the retail sales tax rate is only 0.61 percent (5.3 percent minus 4.69 percent).

The data evidence there are a limited number of intermediate steps in the production of most goods and services and many intermediate transactions are taxed at the low privilege rate. Billings (1984) examined several specific industries and found examples, such as business services and entrepreneurial high technology industries, which were each less complex than counterpart industries in the U.S. as a whole. This finding is consistent with the small degree of pyramiding.

Pyramiding of tourist expenditures (5.4 percent) is slightly more than for consumption expenditures. The major reasons are that tourists purchase relatively more services and short-term accommodations where pyramiding may be greater.

Finally, pyramiding of the tax on exports relative to the initial 0.5 percent tax was even greater than the tax on consumers or tourists, since 1.0 percent in pyramiding at other levels of the production process was added to the 0.5 percent tax rate. Exports were exempted from the 0.5 percent levy effective January 1, 1988, but much of the pyramiding portion of the burden still can be expected to occur.

There is also a technical reason why the degree of pyramiding may be lower than it would appear from Table

TABLE 2. TAX PYRAMIDING OF THE GROSS EXCISE TAX BY FINAL DEMAND CATEGORY (By percent)[a]

Tax Category	Consumption Expenditures	Tourist Expenditures	Exports	Federal Government Expenditures
Direct Taxes	4.0	4.0	0.5	0.3
Indirect Taxes	1.3	1.4	1.0	0.3
Total Taxes	5.3	5.4	1.5	0.6

a. Taken from Leung and Bowen, p. 56.

17. This is the rate which is implicit in the price if both the manufacturer and retailer markup the price to fully reflect the tax, though this ignores a markup percentage by the retailer. The manufacturer will use a levy of 0.5025 percent and the retailer must add a rate of 4.16667 percent.

2. The calculations reported in Table 2 assume that the GET is fully forward shifted to consumers. Less extreme assumptions used by Leung and Bowen evidenced that the degree of exporting may lead to taxes of 5.0 percent on consumers (versus 5.3 in the Table) and 4.8 percent on tourists (versus 5.4 percent).

Two issues provide insight into whether the degree of pyramiding measured by Leung and Bowen is a problem. First, the discussion above indicated that the problem with pyramiding is when it leads to widely different effective tax rates. Their findings suggest that the average level of pyramiding is small, but the result is for the average of broad classes of goods. Their background work examines pyramiding for more narrowly defined commodity groups. For example, funeral and burial services and hotels are found to have much higher pyramided taxes than clothing and furniture. Still, these commodity groups are relatively broad, and only serve to demonstrate the potential problem. The key point is that the effective tax on certain goods and services may be much higher than for others, even if pyramiding is low on average.

The second issue is consideration of whether pyramiding implicit in the existing structure is desirable. High tax rates are most efficient when levied on goods where consumption responds very little to higher prices. Also, high tax rates are appropriate if the tax can be exported to residents of the mainland or other countries. Results in the Leung and Bowen paper are not sufficiently detailed to permit a clear evaluation of the desirability of the structure but several general conclusions can be reached. The slightly higher pyramiding in tourist expenditures probably is desirable because it means more of the tax has been exported. In their background paper, they determined that pyramiding leads tourists to pay 25 percent of general excise taxes though this group accounts for only 17 percent of final sales. Thus, Hawaii has been able to shift a considerable proportion of the tax burden to tourists without explicitly imposing higher rates on them. Nonetheless, explicit taxes on tourist expenditures (such as on hotels and entertainment) are a much better means if the intent is to tax tourists, because relying on pyramiding causes other distortions such as encouraging vertical integration.

Relatively high pyramiding of the tax on exported goods, on the other hand, is probably undesirable since these goods often will be in competition with those produced on the mainland or elsewhere. High taxes can raise the cost of Hawaiian made goods and reduce the amount sold, though determining the degree to which this is a problem requires consideration of how the entire tax structure, and not the GET alone, affects export costs.

This section has indicated that generalities may be made regarding pyramiding, but the significant problems can only be understood by focusing on individual commodities, the way they are produced, and how their intermediate transactions are taxed. Discussions with taxpayers consistently result in rentals and services being highlighted as the specific areas where pyramiding may be unacceptably high. Each of these will be addressed below. The tax is unlikely to pyramid into very high rates on most tangible goods because of imposition of the 0.5 percent rate on many transactions below the retail level and because of credits against the income tax for machinery purchases. Therefore, these are not considered here. Further discussion of related examples is in the section on exemptions.

Rentals of Real Property and Improvements

A tax imposed on the rental of real property and its improvements has great potential to pyramid because every sublease or sandwich rental and the final lease are taxed at the 4.0 percent rate. To understand the potential for pyramiding, consider a property which is leased and subsequently subleased two times. Further, assume the original lease was for $1.00 and the sublessors markup the lease 10 percent each time. The total cost to the final user is approximately $1.26, including about $0.05 in tax if only the final transaction is taxed. The cost would be $1.37, including about $0.16 in tax if each transaction is taxed at 4.0 percent.[18] Thus, the tax burden is more than three times greater because of subleasing. Tax pyramiding is even greater than evidenced here because the GET is imposed on a rental value which includes payment for improvements on the land, much of which have already been taxed under the GET, and the property tax.

Because of frequent subleasing in Hawaii and imposition of the full 4.0 percent rate on each transaction, pyramiding potentially places a higher tax on rentals than on most other transactions. This can be justified if a tax on rentals is a particularly effective means to export the tax. However, there is no reason to presume that taxes on rentals other than condominiums or hotel rooms

18. The analysis assumes that the tax is forward shifted to the consumer and each lessor includes 4.1667 percent tax in the lease payment.

leads to any greater ability to export than taxes on many other commodities. Again, if the goal is to tax tourist rentals, this can be done more effectively with a tax levied directly on them, as was recently enacted, rather than relying on pyramiding to cause a high tax rate.

Also, high effective tax rates on rentals can be justified if the amount of property and improvements is relatively unaffected by their price (they are price inelastic) because economists argue that a high tax on goods with an inelastic demand is more economically efficient than the reverse. The amount of rental land may be relatively unaffected by the price because it is substantially determined by the available land in Hawaii. The owner's only alternative is to withdraw the land from the rental market. However, improvements on the land are much more likely to be discouraged by a high tax, so there is no reason to presume the tax is economically efficient.

Thus, tax pyramiding on rentals of real property and its improvements may be inefficient and is a cumbersome method for exporting the tax. Further, it is expected to encourage tax evasion, and is possibly of sufficient magnitude to harm the overall integrity of the tax system. Next, it can discourage subleasing activity. Finally, pyramiding can be inequitable since renters are subject to different tax burdens depending on the number of subleases, though differential taxes because of unusually extensive pyramiding may be borne by land owners.[19] Perhaps causing greater inequities is that property rentals are subject to the tax but homeownership is not.

There are two alternative solutions for these problems, and it may be appropriate to integrate them. The first is to exempt many rentals of real property and improvements. Consider a tax on the consumption value of long term apartment rentals and homes. The rental value of a home is consumption and as such should be included in the tax base, but this also is true of the imputed consumption value of home ownership. Equity and efficiency are promoted by ensuring that close substitutes are treated evenly for taxation. Since the current system taxes only the rental property, the tax base either should be broadened to include owned property or narrowed to exclude rental property.

Levying the GET on the sale of owner occupied housing is approximately equivalent to taxing the annual consumption value of owner occupied property and would be administratively feasible,[20] but broadening the base in this manner would be politically difficult. Also, it would be possible to avoid the tax by selling property through stock transfers or some other sale of intangible property. This suggests that both home ownership and home (and apartment) rental should be excluded from the base.

The rental of transient apartments, condominiums, and hotel rooms should remain in the base, with the major reason being to tax tourists. A disadvantage of exempting longer term housing leases is that it would increase the administrative costs of identifying these short term arrangements.

Business rental property is not consumption and should be exempt or taxed at a 0.5 percent privilege rate. Failure to do so treats firms very differently based on whether they own or lease their property. Again, the exception is hotel rentals and other tourist accommodations which should remain in the base to enhance tax exporting.

The second solution is to reduce pyramiding by modifying the treatment of all leases below the final consumer. The options for this include taxing all leases except to the final consumer at the 0.5 percent privilege rate, granting an exemption for all leases except to the final consumer, or allowing a credit for the same property. The latter, which can be likened to the current treatment of contractors and subcontractors, would appear to be the most administratively feasible alternative. This is comparable to the credit method used for value added taxes.

Thus, the preferred proposal is to exempt long-term rentals of housing, and business real property and to tax the final rental on short-term real property. All rentals of tangible personal property would remain taxable unless allowed a production exemption. The major disadvantage is the revenue loss. The total tax on rentals other than hotels equalled $87.6 million, or 9.5 percent of 1988 tax revenues. Much of this is not real property and would remain in the base, but a sizeable revenue loss would need to be absorbed.

Business Services

The potential for pyramiding of the tax on certain business services also is high. Currently, no production exemptions are granted for tangible goods which are component parts of a service, so these purchases are taxed at 4.0 percent. Generally other states also allow production exemptions only

19. Overall, the tax on land may be borne substantially by the owners, but the tax on improvements may allow greater shifting to renters.

20. A tax on the sale of property only is approximately equivalent because there would be no levy on payments for property taxes and maintenance, though a tax on rental value includes them in the base.

for tangible goods production (Depaul and Thomas, p. 298). In those states the reason is frequently that the services are not directly taxed, and this is a means of collecting tax on a portion of the service's value without any pyramiding. Since services are taxed in Hawaii the tax on tangible goods components will pyramid. Further, the tax can pyramid as one service is a component part of another because the 4.0 percent rate will apply unless the service provider qualifies as an intermediary, and these are defined very narrowly.

Services provided to final consumers should be included in the GET base, but pyramiding of the tax should be reduced to avoid problems similar to those described above for rentals. Thus, intermediate services should be examined for ones which become a component part, and where possible should be exempted or taxed at the 0.5 percent rate rather than the 4.0 percent rate. Further, the sale of tangible goods by manufacturers, wholesalers, and others to a service provider also should be taxed at the 0.5 percent privilege rate if it is a component of the final service. Exemption of services and a less restrictive rule for measuring component parts is considered below in the sections on intermediate transactions and exports.

EXEMPTIONS

The GET base has been narrowed from the revenues of all vendors operating in Hawaii to a sales tax structure through granting of exemptions and use of the 0.5 percent rate. This section examines whether the existing set of exemptions combined with use of the 0.5 percent rate are consistent with a consumption structure and the component parts rule for the GET. Transactions taxed at the 0.5 percent privilege tax rate are viewed as exempt from the sales tax structure.

Hawaii currently grants exemptions both by type of vendor and by type of transaction. Fifteen "persons" are exempt from the GET under Section 237-23 of the code. Examples include banks, hospitals, and nonprofit shippers associations. In addition, the revenues from 48 transactions are not taxable under Section 237-24, Sections 237-25 through 237-29.6 and selected other places (Bock, Brilliant, and Gerding, pp. 209-211). These include salaries and wages rendered by an employee for an employer, revenues received for purchases with food stamps, and sales of drugs and prosthetic devices. Other enumerated exemptions include certain sales to the federal government, proceeds from the sale of alcohol fuels, revenues from the design, construction, or lease of low income housing, and technical services for the production and sale of computer software for delivery outside the state.

The Department of Taxation's approach to administration is to draw clear, consistent but narrow guidelines and to enforce them strictly. Legislated exemptions are treated in this manner. Thus, any appropriate exemptions must be clearly spelled out. Nonetheless, these exemptions should be the minimum set which fits the general excise tax's intent.

Necessity of Exemptions

Exemptions usually are permitted for one of several reasons. States often exempt business purchases to avoid pyramiding and to make their sales tax more consistent with a consumption base. Thus, these exemptions are consistent with tax theory. In Hawaii, these production exemptions often are permitted through imposition of the 0.5 percent rate on the transactions. The problems with pyramiding when production type exemptions are not allowed have been discussed at length above.

Certain consumption expenditures are exempted even though this will violate horizontal equity and economic efficiency. Several different justifications are used. Some consumption expenditures often are exempted to partially offset the perceived regressive nature of sales taxes. Food and low income housing are common examples across the states. Exemptions for health care frequently are granted because some feel to do otherwise would be to tax misfortune. Activities which are socially desirable, such as charitable functions, may be exempted to encourage them by lowering their cost. Consumption of gasoline, tobacco products, and alcoholic beverages sometimes is exempt because these commodities are subject to special excise taxes. Finally, exemptions may be allowed because the administrative costs of taxing the consumption are too great. Casual sales and imputed consumption values (such as imputed rents) are examples.

The following is an evaluation of several specific types of exemptions which have been granted or considered for exemption in Hawaii. The analysis will permit consideration of whether the justifications for exemptions are merited.

Food and Medical Exemptions

Food and many medical services are taxed under the GET. However, at least 41 states, including Hawaii, exempt prescription drugs and 26, excluding Hawaii, exempt food (Due and Mikesell, pp. 66-68). This is out of the 45 states plus the District of Columbia which levy the tax. Across the U.S. physicians and dentists often are taxed as final consumers on their purchases, but their sales are generally exempt, so there is no tax on the

TABLE 3. ILLUSTRATIVE INCOME-VARIABLE CREDIT SYSTEM FOR THE GET

Gross Income Class	General Excise Tax Per Dependent (Dollars)	Credit Per Dependent (Dollars)	Effective Tax Rate[a] Before Credit[b] (Percent)	Effective Tax Rate After Credit (Percent)
Less than $5,000	$199	$200	c	c
$5,000–$9,999	176	110	4.84	1.79
$10,000–$14,999	206	110	4.04	1.86
$15,000–$19,999	231	100	3.30	1.86
$20,000–$29,999	245	80	2.83	1.90
$30,000–$39,999	241	45	2.35	1.90
$40,000 or more	325	0	1.93	1.93

a. Effective tax rates are calculated relative to average gross income for consuming units in the income class.
b. Does not include any credits against the personal income tax.
c. Current income is a poor measure of purchasing power in this income bracket so no percentages are reported.

Source: Bradford Case, Private Correspondence, August 25, 1989.

service they render. These services are taxed in Hawaii, a subject which raises many concerns.

The major reason for exemption of food and medical purchases is to reduce regressiveness of the sales tax. Brad Case undertook analysis of the GET's regressiveness and found that people in the $5,000 to $9,999 income bracket pay 4.84 percent of their income in GET while people with incomes above $40,000 only pay 1.93 percent in GET (see Table 3). Taxation of food consumed at home along with medicines and medical supplies, tobacco and smoking supplies and health insurance are the most regressive components of the base.

There are several grounds on which to question the validity of exemption as a means to improve equity. First, sales based taxes may not be as regressive as has been suggested. Sales taxes have been measured as regressive using comparisons of people's current income with their current expenditures. However, much of the reason is that people's consumption expenditures peak at different times in their life from their income. Sales taxes appear much less regressive when compared with people's lifetime income.[21]

Second, even accepting the tax is regressive, there is no reason to achieve the vertical tax equity desired in Hawaii by causing each tax to have the degree of progressiveness which is sought for the entire tax system. The best approach to accomplishing vertical equity, however defined, is by adjusting a tax which is directly imposed on individuals, such as the individual income tax, not by allowing exemptions from an indirect tax such as the GET. Thus, the income tax can be structured to offset any undesired equity effects of the GET.

There are several large advantages to using the income tax to achieve equity goals. First, it permits a broader GET base which allows easier administration and compliance because decisions are minimized on what is taxable. Second, the broader based GET permits greater revenues to be collected from nonresidents, since both residents and nonresidents receive the same benefits from GET exemptions but the income tax is paid mostly by residents. Finally, the income tax allows better targeting of tax relief to low income individuals, because both low and high income individuals benefit from exemptions, but income tax benefits can be directed to those individuals who are the target for assistance.[22] The major disadvantage of using the income tax is that people must file a return to receive benefits.

Equity can be enhanced with the income tax by making rates more steeply progressive so lower income people pay relatively less income tax than higher income people or by granting tax credits, as Hawaii permits for food and medical care. Each of these approaches has advantages relative to the other. For example, using tax rates to achieve equity is easier for people to comply with and using credits permits the assistance to be targeted more effectively to the individual. Further, people with no taxable income receive no tax assistance from restructured rates, but they do from a refundable income tax credit.

Equity of the entire system probably is best achieved with low administration and compliance costs by allowing a single, refundable, low income credit. This method keeps the base broad for both the GET and the

21. This was demonstrated for gasoline and alcohol in Poterba, though tobacco taxes remained regressive even when lifetime income was taken into account.

22. Those with higher income often receive greater tax savings from exemptions than do those with lower income. This is true even when consumption is regressive, because regressive is defined as a percent of income and not relative to the total tax liability. For example, the DC Department of Revenue estimated that a family of four in Honolulu with an income of $20,000 would pay $475 a year in sales taxes and a family with $100,000 would pay $1087. Thus, exemption of all sales would save the high income family more money.

income tax and allows relatively low rates on each to raise a given amount of revenues. The dollar amount of credit could be based loosely on the general excise taxes paid by individuals or families with poverty level income, if this is either politically desirable or a necessary gauge for determining the appropriate credit amount. However, this approach would not directly link the credit to general excise taxes paid by (or contained implicitly in the purchases of) any specific individual or household. The credit could be based on the number of household members to provide some link to the family situation. The cost of credits could be minimized by phasing it out for households with income above some level.

Using a methodology developed for Nevada, Case (forthcoming) developed an example of broad use of credits. The example develops the refundable tax credit which would be necessary to cause the GET to be approximately proportional in incidence.[23] The credits must vary with income in order to yield the proportional system, but examples of a flat credit per dependent also can be developed. Tax credits ranging from $200 per exemption for the lowest income households to 0 for the highest income households would be necessary (see Table 3) and these credits would cost about $56.9 million in total. This significant cost in lost revenues would be substantially offset by elimination of other credits such as for food and medical care. The food credit cost $35.1 million in foregone revenues in 1987 and the medical services credit is expected to cost about $15.0 million in revenues.[24] Thus, if the credits in Table 3 replaced these existing credits, about $5.8 million in revenue would be lost.

Widespread use of specific credits to offset the GET imposed on food, medical care and other consumption categories can make compliance with the income tax more cumbersome. Efforts to link the credit directly to the implied GET payments, as with the medical expense credit, increase compliance costs even more. In general, such credits are unnecessary since the goal is to make the overall tax system vertically equitable, not to make each tax equitable, and a refundable low income credit can overcome the need for credits on individual items.

Exemption for medical services is often allowed because to do otherwise is to tax misfortune. However, for many people these expenditures are not the result of severe misfortune and are substantially under their control. In these cases there is probably no need to allow a specific medical credit and a low income credit would be an effective means to achieve equity. Still, there are extreme individual circumstances where expenditures are necessitated by misfortune. In these cases credits should be designed to give assistance to those most in need. For example, a credit equal to the GET incorporated in a medical bill could be allowed only for people who are able to itemize medical expenses on their federal income tax return.[25] This means a credit would be allowed for medical expenses above 7.5 percent of adjusted gross income. This would be relatively low cost to administer, would cost little revenues, and would target the needy group.

Such a credit works opposite of the one recently enacted by the State. The recommendation given here would be to provide credits to those with catastrophic needs and to give no credit for the person with average medical needs. The $200 ceiling ($400 in certain circumstance) in the current system precludes helping those with catastrophic needs and focuses the credit on the average person. The result is a large reduction in tax revenues. Further the requirement of keeping records significantly increases compliance and administration efforts. Finally, little improvement in equity will result from the credit.

Sale of Services to Businesses

A pure consumption tax would exempt all transactions between businesses, or tax them at a low privilege tax rate. Instead, they are taxed at the 4.0 percent rate following Hawaii's component parts rule unless the product passes a physical ingredients test.

The very broad GET base combined with the legislated approach to taxing services means that many services which are not for final consumption are taxed at 4.0 percent and the tax will be pyramided into final prices.[26] Recent legislation to exempt transactions between firms with a common paymaster helped alleviate one of the most blatant problems by defining the transactions to be between related companies. Also, services provided by an intermediary and computer software produced for a customer outside the state are permitted special consideration for tax purposes. Still, there are other transactions which should be exempted (or taxed at 0.5

23. Note that this analysis only focuses on the GET levied on final purchases and does not consider effects of tax pyramiding.

24. Testimony by the Department of Taxation on H.B. 1917 relating to income taxation, March 14, 1989.

25. The credit should be given to anyone eligible to itemize their medical expense, regardless of whether they decide to itemize on their individual income tax return.

percent). Either the component parts rule can be changed to allow a resale exemption for these transactions or in some cases they might be considered as a more broadly defined intermediary services.

The best examples of additional exemptions for consideration are services which are subcontracted or sold between closely related companies. The current trend towards smaller businesses and contracting of services means that the GET is being imposed on many activities which formerly would have been provided in house. For example, employment services, which are one of the nation's most rapidly growing industries, are taxed at the 4.0 percent rate on the entire value of their transactions. On the other hand, no tax is due on the direct transaction between an employee and employer, creating a distortion in the taxation of close substitutes. Services of employment agency could be treated as intermediary service or given a resale exemption, though the commission for providing the service could remain taxable.

Additional examples exist of transactions where the GET can distort the way business is conducted. Transactions between hardware or food stores and buying groups, which are created to purchase on their behalf, are likely to be fully taxable. Similarly, transactions between nonprofit or other firms and consolidated secretariats, which often are developed to provide office support for them, are taxable. A consistent means of exempting these intermediate transactions from the GET must be identified. Further, Tax Review Commissions, policymakers, and the Department of Taxation need to regularly review changing business practices to find situations where imposition of the tax on intermediate services can pyramid and can distort business practices by encouraging vertical integration.

It is probably necessary to develop new legislation for these and other service transactions which should be exempted. The physical test used for tangible goods under the component parts rule is too narrow for services unless considerable pyramiding and vertical integration is to be encouraged. One approach would be to develop a direct use rule for services, in the same manner that the component parts rule is used for tangible goods. The direct use rule is more liberal in allowing exemptions than is the component parts rule because the former only requires that a purchase be used directly in production rather than requiring that it actually become part of the product to receive an exemption. As an example, this could mean that purchased engineering work for product design is exempt but accounting and legal services for the company are taxable. There would be a significant revenue loss associated with the direct use rule because it would shift services to where they are taxed using a more favorable rule than goods. Morgan (1964) indicated that at the extreme, a direct use rule could mean business services account for only one-third as much revenues as under a component parts rule. Nonetheless, the revenue consequences may not be severe since construction services already are treated favorably and many services are purchased by consumers rather than businesses. A more narrow approach could be to exempt any service which is purchased solely for resale to a single client, though this would not necessarily provide the needed exemption for purchases from employment agencies.

Exports - Services

Tangible goods are taxed on a consumption basis under current legislation. That is, goods which are both produced and consumed (or purchased) in Hawaii are taxed, goods which are produced and exported are exempt, and imported goods are taxed under the use tax. On the other hand, services are taxed on a production basis. Those produced in Hawaii are taxed and those produced outside Hawaii are not taxed under the GET, regardless of where consumed.[27] Ease of administration may have prompted the decision to adopt this structure because domestic service producers are easier to identify than those domiciled in other states or countries.

The tax structure has the effect of placing domestic service producers at a disadvantage both in and out of Hawaii because in both places they pay a tax not paid by other firms. The large distances from Hawaii to other states may lessen the significance of this issue by making it more difficult to provide interstate services, but careful consideration should be given to adopting a consumption basis for services. This would allow those Hawaiian service firms which operate on an interstate basis, or which compete with interstate firms to have a level playing field. This could be accomplished by taxing services provided to consumers in Hawaii under the GET if the provider has nexus, and if not, under the use tax. Services produced for export would be exempt. Florida's now defunct rules on taxing interstate services could serve as guidelines for Hawaiian rules.

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26. Section 237-13(6) allows few services the 0.5 percent rate, but tangible goods are treated much less restrictively in Section 237-13(1-2).

27. Computer software is exempt if produced for export.

Jim Francis, Director of Research in the Florida Department of Revenue, advises against overly complex rules to level the playing field, based on Florida's aggressive attempt.[28] Instead, he would balance the desire for even taxation with the compliance problems. The major objections to using a consumption basis for taxing services in Florida arose from multistate corporations' complaints about compliance problems associated with transactions between related companies. Instate firms generally benefit from the level playing field and do not suffer the compliance problems. These same problems for multistate firms and advantages for instate firms probably would arise in Hawaii.

The state will gain revenues from taxing services on a consumption basis if Hawaii is a net importer of services and will lose revenues if the state is a net exporter, though the actual effects also will depend on the Department of Taxation's ability to administer the tax. In Florida data were developed on the expected effects of taxing services on a consumption basis. The estimate was that 12.1 percent of taxable services would be exempted as an export (sales to a firm without nexus in Florida).[29] Based on this percentage, Hawaii would have lost $14.9 million in 1988 from exemption of service exports.[30] Florida expected to replace 45.4 percent of these revenues with use tax collections. Similar statistics for Hawaii would mean a net loss of $8.1 million.[31]

Financial Institutions

Only insurance companies and banks are described in this section, but consideration should be given to taxing other financial services as well.

Insurance Companies

Insurance companies are exempt from the GET under Section 237-23(4) and also are exempt from the corporate income tax. Both exemptions are given for firms subject to the premium tax but it is difficult to justify both exemptions on this basis. The strongest argument, particularly for life companies, is that the premium tax is in lieu of the corporate income tax, which would suggest that a blanket exemption from the GET is unwarranted.

The GET should not be levied on the entire insurance premium since much of it is a form of savings rather than consumption. Still, the use of insurance services by individuals is consumption and could be taxed as such. That portion of insurance sales which represent business purchases may be taxable under either a direct use or component parts rule, but a production exemption may be appropriate in certain cases. The potential GET base, which would equal the value of services provided by insurance companies, could be measured as the difference between the premium paid and the actuarial value of the potential liability of the firm. However, this may create an administrative problem because it relies on measurement of actuarial values. An alternative would be assessing the tax against underwriting and other nonactuarial expenses plus profits for insurance firms.

One potential concern with levying the GET on insurance firms is that it could result in retaliation against Hawaii domiciled insurance companies for their operations in other states. This is not an issue today since no Hawaii domiciled insurance firms engage in significant insurance sales outside the state, but it could be more important at some future point.

Perhaps the most troubling exemption from the base is for non insurance divisions of insurance firms. Regardless of the decision on whether to tax insurance services, there appears to be no justification for this practice and business activities which do not represent the provision of insurance should be fully taxed under the GET statutes. A similar point can be made about the favorable 0.15 percent rate for insurance commissions. This transaction should be taxed at the 4.0 percent sales tax rate.

Higher taxes on insurance firm services and insurance commissions will lead to increased insurance rates as much of the tax is shifted to consumers. The increase should be much less than 4.0 percent since the tax would not be levied on the part of premiums which pays for claims. Further, the revenues which are generated can be used to lower the GET rate.

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28. Telephone conversation, June 22, 1989.

29. This was calculated here as the exemption for such sales divided by the exemption plus tax revenues from taxation of all services. See Sales Tax Exemption Study Commission, p.25.

30. This is based strictly on general excise taxes collected from the services category. Services probably are categorized in other places as well, so this is a lower bound on these revenue consequences.

31. $8.1 million may overestimate the loss because interstate services are probably a smaller part of the Hawaii economy, but it may underestimate the loss because some services may be in other classifications in the Department of Taxation's data. Hawaii is a net importer of services since the total value of business and transportation service imports was $920.2 million in 1985 and the total value of exports was $760.7 million (Department of Business and Economic Development, pp. 158-161). Thus, the state's revenue loss may be modest.

Banks

Exemption of services provided by banks also can be questioned. The value of their services is consumption and fits in the framework for the tax structure. The services they provide include the privilege of writing checks, trust account financial advice, and use of safety deposit boxes. Interest paid by banks to individual depositors is income, not consumption, and should not be taxed through the GET. A precedent exists for taxing banking services under the sales tax since Iowa taxes bank service charges and New Mexico taxes safety deposit box rentals.

Measurement of the potential GET base for bank services is complicated by the provision of in kind services such as no charge checking. Rather than seeking to estimate the consumption value directly, the base for banks can be measured simply as noninterest expenses plus profits. The non interest expenses of all 22 commercial and industrial banks in Hawaii were $367.6 million and their profit was $7.1 million in 1986. This combined base would have yielded $15.0 million if taxed at 4.0 percent. Some of this may be exempt as a sale for resale.

Again, the most disturbing exemption is for nonbanking divisions of banks. There is no justification for permitting them an exemption. Any banking exemptions should be for specifically identified transactions rather than blanket exemptions for the organization.

Not for Profit Organizations

Numerous not for profit organizations are exempt including fraternal benefit societies, civic leagues, and corporations established for charitable or educational purposes. The exemptions are permitted under Section 237-23(5-8) and in other places. Such exemptions cannot be justified simply because of the not for profit status since the tax is not imposed on profits and is intended to be passed to the consumer. Instead, these exemptions can be justified as a means to promote the particular activity on humanitarian grounds or as a quid pro quo for services which the public sector otherwise would need to deliver.

The justifications imply that exemptions of not for profit organizations should be granted only in circumstances where the State finds the activity sufficiently meritorious. However, the broad exemption of these entities places decisions on the amount of tax expenditures (given through the exemptions) and the specific services to be offered in the hands of the provider rather than the public sector. Direct state financing may be a better alternative in some cases because it requires a specific decision regarding the charitable activity's merit.

If exemption is permitted it should be allowed only for the organization providing the desired service and should not be allowed for subsidiaries of the exempt organization. The sale of goods or services by these subsidiaries should be taxable. Charitable contributions should not be taxable since no consumption value is received in return. The Department of Taxation generally interprets exemptions narrowly, which is consistent with the desired approach. Second, the exemption can be as legitimate for profit making entities as for the not for profits if the intent is to support the provision of a service. Hospitals may be an example, and the exemption could be extended to for profit hospitals if the goal is to encourage provision health care.

The availability of exemptions for the many not for profit organizations should be carefully evaluated. The Legislature should ensure the purposes for which they are permitted remain worthy of public support. A law which sunsets all exemptions at regular intervals can be effective for ensuring reconsideration of their worth. Further, the Legislature should determine whether it is more effective to encourage meritorious activities by providing direct financial support or by using tax expenditures through exemption from the GET. A likely conclusion is that some activities should remain exempt but others could be taxable and given subsidies where desirable.

Government Sales and Purchases

Government sales should be taxed in a manner similar to private producers of goods and services. That is, the tax should be collected where the State or counties are providing a good or service for which a price must be paid in order to receive it. As described above, this follows since the intent is to tax consumers and not producers. No tax should be added to the delivery of tax financed services because there is no price which represents the consumption value of the good or service.

Governments should be treated as producers on their purchases and should be given production exemptions for their component parts. A direct use rule for services would likely lower their base significantly since they are extensive users of services. Treating governments in these ways with respect to the GET will be consistent with equity and efficiency and will minimize administration and compliance costs.

Taxation of direct federal sales is constitutionally prohibited. Contractors operating on behalf of the federal government should be treated no differently from other private firms for tax purposes.

Public Utility Companies

Public utilities are exempt from the GET and are taxed under a special levy which is to account for both the GET and the property tax. The rate appears to be roughly consistent with taxes which these firms would otherwise pay. Subsidiaries of public utility firms pay the GET. A primary benefit of the approach is it eliminates the need to value public utility property for tax purposes.

This may change if counties impose the property tax on such companies beginning November 7, 1989. If the property tax is imposed it would be appropriate to consider eliminating the public service company tax and imposing the GET on utilities so their tax burden is similar to other firms. Further, eliminating special taxes and bringing all producers under the GET generally is preferable since it will enhance administration, equity, and economic efficiency. This would permit the playing field to remain level between utility companies and their competitors.

SUMMARY AND POLICY OPTIONS

The State of Hawaii has an excellent window of opportunity for fine tuning the General Excise Tax base to make it more consistent with the goals of taxation. The GET's broad base permits many, though not all, of the decisions to be ones of narrowing rather than expanding the base. This is politically much easier. Further, the state's strong fiscal climate makes affording the revenue consequences of base narrowing more feasible.

The GET is currently structured as two taxes, a sales tax levied at 4.0 percent and a privilege tax mostly on nonretail tangible goods sales, at 0.5 percent. The very broad sales base needs some adjustments to bring it in line with a conceptually sound tax structure. This would be all consumption by individuals, including both goods and services and irrespective of the vendor. Also, following current practice among the states, this base would be expanded to include sales to businesses which do not become a component part of their final product. No conceptual basis exists for the base taxed at 0.5 percent.

The state should guard very carefully against permitting gradual erosion of the sales tax portion of the base through the granting of unwarranted exemptions. The best way to protect the base is by agreeing to a definition of the tax structure and allowing additional exemptions only when they are consistent with a narrow interpretation of the intended tax structure.

Several changes in the tax structure should be examined as ways to bring it in line with a consistent definition. The following is a list of policy options which the Tax Review Commission can consider.

1. Eliminate the privilege tax component of the base by exempting all goods currently taxed at 0.5 percent. This would yield a tax structure which is easier for compliance and administration and which allows less pyramiding. The base taxed at 0.5 percent generates only 5.2 percent of GET revenues, though it is 30.6 percent of the base, so the revenue consequences are modest. Further, some transactions would become taxable at 4.0 percent under the component parts rule, so probably less than 5.0 percent of GET revenues would be lost.

2. Remove long term real property rentals by businesses and residents from the base. This would lead to more even treatment of real property ownership and rentals, since only the latter is currently taxable. A more limited option would be to allow the final lessor a credit for general excise taxes paid by sub-lessors. Short-term rentals of real property (such as hotel rooms) and rentals of tangible personal property should remain in the base.

3. Avoid granting exemptions from the General Excise Tax as a means to enhance vertical equity. Instead, set the GET base as near to consumption plus sales which do not become component parts as is feasible and use the individual income tax as the main tax tool for vertical equity. This minimizes administration and compliance problems, enhances the ability to export taxes, and increases the revenue potential of the entire tax system since it permits tax assistance to be targeted to low income Hawaiians.

4. Replace individual income tax credits designed to offset specific elements of the GET with a single low income refundable credit. The credit could be per family or per individual, and could be phased out above some income level. This would reduce the revenue losses of improving equity, thereby permitting lower tax rates to generate desired tax revenues. More importantly, administration and compliance efforts would be reduced.

5. Replace the medical expense credit on the Hawaii income tax return with a credit which has a floor. For example, a credit could be allowed only for individuals able to itemize medical expenses on their federal income tax return. The main advantage is that assistance is targeted to those individuals who

have the greatest medical expense burdens. Also, it probably would lower the revenue losses from the credit.

6. Significantly broaden the set of tax exempt services sold by one business to another. Exempting services under a direct use rule is one means. Further, current business practices could be reviewed regularly to identify unintended taxation of transactions between firms. These actions will reduce the degree of pyramiding and limit the incentives for vertical integration. There will be revenue losses associated with treating services in these ways.

7. Tax the import and export of services in a manner which allows a level playing field for all service providers. The level playing field would be achieved by moving the taxation of services from a production basis (taxing services produced in Hawaii) to a consumption basis (taxing services used in Hawaii). Such a move would enhance economic efficiency, and encourage economic development but it would increase administration and compliance costs. There could be a modest increase or decrease in revenues. These tradeoffs should be carefully evaluated in deciding whether the change is worthwhile.

8. Add the services provided by banks, savings and loans, and insurance companies to the GET base. Any remaining exemptions should be for selected transactions and nonfinancial divisions should be taxed on the basis of the goods or services they provide. These base expansions will raise revenues (allow a lower rate for a given amount of revenues) and improve horizontal equity and economic efficiency.

9. Limit exemption of not-for-profit organizations to specific activities which are sufficiently meritorious to deserve public support, rather than allow blanket exemptions. Consideration could be given to granting exemptions equally to for profit and not-for-profit entities in cases where the intent of exemption is to encourage a meritorious activity. Direct funding of certain meritorious activities may be considered as an option to allowing tax expenditures through exemption. Leave charitable contributions untaxed.

10. Tax state and local government direct sales of goods and services and treat their purchases in the same manner as purchases by private sector producers. This will enhance collections and improve equity.

11. Eliminate the public utility tax and bring public utility companies under the GET and local property tax. This simplifies the tax system and may improve horizontal equity and economic efficiency.

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THE ORIGIN OF HAWAII'S GENERAL EXCISE TAX

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INTRODUCTION

The General Excise Tax (GET) has been a major component of Hawaii's tax system for the past fifty years. This paper is intended to provide an understanding on the evolution of the GET and its impact on Hawaii's tax structure. Further discussion and analysis of the GET will be addressed in another report, "Defining the General Excise Tax Base: Exemptions and Pyramiding" by Dr. William Fox.[1]

Background

Hawaii's GET law was adopted in May, 1935 to address the fiscal crisis of the territorial government during that time period. Prior to the GET law, the territorial government relied primarily on the real and personal property tax to meet governmental needs. In 1932 when revenues fell short of the estimates made by the 1931 legislature, a special session was convened to address the shortfall. In addition to various amendments made to the existing tax structure, a "business excise tax", which was a tax on the privilege of doing business in Hawaii, was enacted.

Business Excise Tax

The business excise tax, a combination of a gross profit and gross income tax, was 2% of the sum of the operating costs and the net taxable income of any firm doing business within the Territory, less any net losses which may have been incurred by the firm attributable to doing business within the Territory. Operating costs included in the tax base were comprised of federal and territorial taxes and license fees paid; salaries, wages and other compensations paid; depreciation and amortization on property used in the business; marketing and agency costs; the costs of crops grown by the taxpayer; and all other ordinary and necessary expenses incurred in doing business within the Territory. Not included were interest; rents; the purchase price of merchandise purchased and sold by the business; and materials used in its production processes. The rationale of the business excise tax was to tax the value added in production or distribution by each firm, or the portion of gross income received by the business which was attributable to its activities. Economists today would consider the business excise tax a value added tax.

In 1934, confronted with a budget deficit of over $5,000,000 at the end of the 1935-37 biennium and a deep concern for a tax system which would assure sufficient revenues to meet governmental needs and at the same time spread the burden of taxation equitably among taxpayers, Governor Joseph Poindexter appointed a thirteen member advisory committee on taxation. The Committee was charged to:

1) Review the history of Hawaii's tax system since its inception;

2) Analyze the fundamental changes which had been made to the tax system since 1929 and the reasons therefor;

3) Determine the cause for community discontent with the existing tax laws;

4) Develop fundamental principles upon which an equitable and adequate tax system might be based; and

5) Develop, for the Governor, a taxation program based upon such fundamental principles.

Report of the Governor's Advisory Committee on Taxation[2]

In its review of the territorial tax structure and the cause for community discontent with the tax laws, the Committee found the business excise tax and the personal property tax to be unsatisfactory and causing the most discontent with the community. The business excise tax was found to be unfair to businesses which produced within the territory in comparisons to competitive businesses whose products were produced outside of the Territory, and to businesses who did not operate on borrowed capital and/or rented property; while the personal property tax was found to be difficult to administer, inequitable in its operation, and it was doubtful whether it was a satisfactory measure of ability to pay.

The Committee also reviewed various tax laws which were enacted by other states during 1932 and 1933 which were meant to address the revenue shortfall situation similar to what Hawaii experienced during that time period in which the business excise tax law was adopted. Twenty-eight states enacted a sales tax or gross income tax, in one form or another, to raise revenues to meet governmental spending. The

1. William Fox, Defining the General Excise Tax Base: Exemptions and Pyramiding" August, 1989.

2. Governor's Advisory Committee on Taxation, Report of the Governor's Advison Committee on Taxation, 1935.

Committee, hoping to find a tax based on some tried form of taxation where various points of law had been passed upon by the courts; where points of constitutionality had been definitely decided; where administrative rules and regulations had been laid down and effective; where the taxes had proven to be reasonably equitable and where the amount of revenues raised had equalled the estimates, found that the gross income tax would satisfactorily meet its requirements.

During its deliberations on developing fundamental principles upon which ability to pay taxes may be determined with a reasonable degree of accuracy and which might properly be used as a guiding factor in recommending revisions to Hawaii's tax system, the Committee found:

"It appears then that the present, past and future income producing ability of the various groups should be the controlling factor in determining group ability to pay taxes. These groups should be divided not only as to kinds and classes of taxpayers, but also, broadly, on the basis of their ability to pass on to others the taxes assessed against them. In following out such a principle those groups which can pass their taxes on to others might properly be required to pay taxes in one form, while those without ability to pass this burden might properly be required to pay taxes on an entirely different basis. Having determined group ability to pay taxes, and compared one group with another, the problem then is to determine the kinds of taxes which will most equitably distribute the burden among the taxpayers within the various groups.

In the determination of a broad, general taxation policy this Committee has considered the subject from three viewpoints, each of which is of tremendous importance to the attainment of a satisfactory solution:

1. Whether the tax basis should be broadened and taxation made more visible and direct.

2. If it is determined that taxation should be more visible and direct and the tax basis broadened, what type of taxes should be imposed to accomplish this result?

3. The specific kind or kinds of tax which will most satisfactorily accomplish this result, taking into consideration:

   (a) The equity of the tax applied in comparison and in connection with other existing taxes;

   (b) The estimated revenues to be derived by the application of the various rates;

   (c) The administrative problems of collection; and

   (d) The cost of collection."

Based on the Committee's findings and its taxation policy, the Committee proceeded to recommend to the governor a tax reform program which would:

1. Repeal the bank excise tax law and replace it with a tax on the value of the shares in the hands of the shareholders, collectible through the banks;

2. Amend the income tax laws to eliminate the exemption of dividends;

3. Repeal the personal property tax; and

4. Replace the business excise tax with a "broader based" gross income tax.

This tax program, submitted to the legislature as the "administration's tax reform program" (and later adopted, as amended), would "balance the budget and also effect a fairer and more equitable distribution of the tax burden."[3]

General Excise Tax

The gross income tax, now more commonly referred to as the general excise tax, "is a cumulative tax, not merely applied to the value added at each stage of production and distribution as under the business excise, but at each stage taxing again the values added at all earlier stages."[4]

As a "broad base" tax, the business activities subject to the GET included:

producing, wholesaling, and certain manufacturing	.25%
professional services	.50%
printing and publishing	1.00%
retailing, sugar processing and canning, services other than strictly professional, contracting, theatres, amusements, and radio broadcasting, interest and discounts, commissions, rentals, and all other incomes	1.25%

At the close of the 1935-37 biennium, the GET surpassed its initial estimate by 25.06%, unlike the

3. Journal of the Senate, Territory of Hawaii, Regular Session of 1935, p.95 - February 26, 1935 Governor's address to a Joint Session of the Legislature.

4. Robert M. Kamins, Y. S. Leong, Hawaii's General Excise Tax (Hawaii: Legislative Reference Bureau), p.6.

business excise tax, which produced only about 1/2 of the $4,000,000 it was estimated to generate. The GET generated over $6.4 million, even after the rate was lowered by the Governor (a holdover provision from the business excise tax would allow the rate to be reduced by the treasurer with the approval of the governor, or increased no more than 0.25%, according to the treasury needs). The revenues generated during this biennium erased a deficit, reinstated a previous salary cut, allowed for automatic salary increases, and still netted a surplus of over a million dollars. The GET collections accounted for 20.25% of the total tax collections for the 1935-37 biennium.[5]

The 1935 tax reform program was not only successful in generating the revenues needed to balance the territorial budget, but it also redistributed the tax burden among businesses and consumers. The business excise tax primarily focused on taxing businesses in Hawaii, whereas the GET reached out to all persons engaged in any and all activities for financial gain and economic benefit, including the consumer.

Revisions to the Rate Structure

Since its inception, the GET rate structure has undergone five major revisions:

1) In 1945 the rates on final production and sale were increased from 1.25% to 1.50%, the provision to adjust the general excise tax rate depending on the treasury needs was repealed, and a compensating tax law was enacted to impose a tax on sales of tangible personal property to local businesses by representatives of non-licensed firms who were not located within the Territory (and who would otherwise not be subject to the GET).

2) In 1947 the rates in all categories were increased to 2.50%.

5. William Borthwick, Hawaii's Gross Income Tax, Its Adoption, Scope of the Law, Accomplishments, Reaction of Taxing Officials, 1940, p.10.

TABLE 1. GENERAL EXCISE, CONSUMPTION, COMPENSATING AND USE TAX RATES (in percentages, up to July 1, 1989)

Category	1935–39	1939–45	1945–47	1947–57	1957–61	1961–62	1962–65	1965–78	1978–86
Retailing	1.25*	1.25*	1.50	2.50	3.50	3.50	3.50	4.00	4.00
Services, retail	1.25*	1.25*	1.50	2.50	3.50	3.50	3.50	4.00	4.00
Services, intermediate	1.25*	1.25*	1.50	2.50 (a)	0.75	0.50	0.50	0.50	0.50
Contracting	1.25*	1.25*	1.50	2.50	3.50	3.50	3.50	4.00	4.00
Rentals	1.25*	1.25*	1.50	2.50	3.50	3.50	3.50	4.00	4.00
Interest	1.25*	1.25*	1.50	2.50	3.50	3.50	3.50	4.00	4.00
Commissions, general	1.25*	1.25*	1.50	2.50	3.50	3.50	3.50	4.00	4.00
Commissions, insurance	1.25*	1.25*	1.50	2.50	3.50	1.50 (b)	1.50	2.00	0.15
Theater, amusements, radio	1.25*	1.25*	1.50	2.50	3.50	3.50	3.50	4.00	4.00
Printing and publishing	1.00	1.25*	1.50	2.50	3.50	3.50	3.50	4.00	4.00
Professions	0.50	1.25*	1.50	2.50	3.50	3.50	3.50	4.00	4.00
Airlines (c)	—	—	—	2.50	3.50	3.50	3.50	4.00	4.00
Sugar and pineapple production	1.25*	1.25*	1.50	2.50	2.50	2.00	1.50–0.50 (d)	0.50	0.50
Other agricultural production	0.25	0.25	0.25	1.50	1.00	0.50	0.50	0.50	0.50
Other manufacturing	0.25	0.25	0.25	1.50	1.00	0.50	0.50	0.50	0.50
Wholesaling	0.25	0.25	0.25	1.00	0.75	0.50	0.50	0.50	0.50
Blind vendors	1.25*	1.25*	1.50	1.00	1.00	0.50	0.50	0.50	0.50
All others	1.25*	1.25*	1.50	2.50	3.50	3.50	3.50	4.00	4.00
Consumption/Use (e)	1.25	1.25	1.50	2.50	3.50	3.50	3.50	4.00	4.00
Compensating (f)	—	—	1.50	1.00	0.75	0.50	0.50	—	—
Telecommunications (g)	—	—	—	—	—	—	—	—	—

Note: Underlining indicates rate change
* Could be reduced by treasurer with approval of governor, or increased no more than 0.25%, according to treasury needs.
(a) Reduced to 1.00% in June 1951 with respect to certain services.
(b) Effective July 1, 1960.
(c) Taxed under public utilities tax until January 1, 1954.
(d) To be reduced to 1.00% on July 1, 1963, to 0.50% on July 1, 1964.
(e) Replaced the consumption and compensating tax law with a use tax law in 1965.
(f) Rates shown are in lieu of wholesale rate. In some cases rate equal to that on retailing applies.
(g) Enacted in 1986, apportioned percentage of gross income, formula to be determined by the Dept. of Taxation.

Source: Hawaii's General Excise Tax, p.9; Session Laws of Hawaii, various years.

3) In 1957 the rates on final production and sale were increased to generate more revenue; and the rates for manufacturing, producing, wholesaling and compensating were lowered to reduce pyramiding.

4) In 1960 the rates on various categories were reduced to provide tax relief to all taxpayers; specifically, rates on sugar and pineapple production were reduced to enable these industries to effectively compete with similar producers in other areas, the tax rate for producing was lowered to aid and promote the expansion of this industry, and the rates on wholesaling and intermediary services and the compensating tax were reduced to the minimum tax rate in which any industry should pay so long as the GET structure is in existence.[6]

5) In 1965 the rates on final production and sale were increased to raise sufficient additional revenues to implement the "New Hawaii" program; the compensating and consumption tax laws were repealed and a "comprehensive use tax law which covers all transactions and situations presently taxable under the consumption and compensating taxes, as well as taxing the value of goods purchased directly from non-licensed sellers and brought into the State for resale" was enacted.[7]

In 1986 telecommunications was recognized by the legislature as a "new industry in this state",[8] and therefore should be included in the GET base. Act 324, Session Laws of Hawaii 1986[9] imposed a tax on an apportioned percentage of the gross income of businesses selling interstate or foreign common carrier telecommunications services in the State.

Impact of GET on Hawaii's Tax Structure

Over the years the GET has become an integral part of Hawaii's tax collections. As shown in Table 2, the GET collections as a percentage of total tax collections has grown from 19% in the 1930's, to almost 40% in the 1980's.

TABLE 2. GET COLLECTIONS AS A PERCENTAGE OF TOTAL TAX COLLECTIONS

Year	% of total collections
1930's	19%
1940's	28%
1950's	41%
1960's	38%
1970's	36%
1980's	39%

Source: Computations based upon Historical Statistics of Hawaii; Government in Hawaii, various years

Not only is the GET an excellent source of revenues, but it also distributes some of the tax burden between businesses and consumers. A general analysis by Robert Kamins in 1963 shows the proportion of GET revenues derived from retail sales and from the consumption/use tax, considered to be borne by consumers, to the proportion borne by businesses - from production, manufacturing, and wholesaling, as well as intermediary services, interest and commissions.[10] Table 3 compares Kamins analysis for fiscal year 1957 with statistical data for fiscal year 1989 to show approximately what percentage of tax collections is borne by whom. (An analysis of tax burden will be discussed in detail in "Distribution of State and Local Tax Burden by Income Class" by Drs. Walter Miklius and James Moncur.[11])

Summary

The GET has evolved from a component of a tax reform program enacted to address a budget deficit to become a major component of Hawaii's entire tax structure. As long as the GET continues to generate the amount of revenues it has been generating for the past 35 years, Hawaii's state government will continue to rely on the GET for most of its governmental needs.

6. Journal of the House of Representatives, State of Hawaii, Regular Session of 1060, pp. 339-340 - Standing Committee Report No. 203 on S.B. No. 24.

7. Journal of the Senate, State of Hawaii, Regular Session of 1965, p. 814 - Conference Committee Report No. 6 on S.B. No. 656.

8. Journal of the House of Representatives, State of Hawaii, Regular Session of 1986, p. 945 - Conference Committee Report No. 60-86, on H.B. No. 1764-86.

9. Session Laws of Hawaii 1986, pp. 681-687.

10. Robert Kamins, Hawaii's General Excise Tax, 1963.

11. Walter Miklius and James Moncur, Distribution of State and Local Tax Burden By Income Class, September, 1989.

TABLE 3. ESTIMATED DISTRIBUTION OF GENERAL EXCISE TAX COLLECTIONS BETWEEN CONSUMERS AND BUSINESSES - FISCAL YEARS 1957 AND 1989

% of collections derived from:	1957	1989
1. Consumers		
Retail sales of goods	42%	45%
Retail sales of services	8%	14%
Consumption/Use tax	2%	2%
Subtotal	52%	61%
2. Consumers & Business Enterprises		
Rentals	6%	16%
Contracting	8%	11%
Subtotal	14%	27%
3. Business Enterprises		
Pineapple & Sugar	14%	****
Producing	2%	****
Manufacturing	4%	****
Wholesaling	7%	3%
Compensating	1%	----
Interest & Commission	3%	3%
Other	4%	5%
Subtotal	34%	12%
Total	100%	100%

**** less than 1 per cent
---- repealed in 1965

Source: Kamins, Hawaii's General Excise Tax, p. 14
Computations based upon data from the State Department of Taxation

STATE TAXATION OF BANKS: ISSUES AND OPTIONS

A Study Prepared for the
Advisory Commission on Intergovernmental Relations

by Sandra B. McCray

May 1989

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PREFACE

In 1819, the U.S. Supreme Court first announced its doctrine of federal tax immunity. In McCulloch v. Maryland, the Court held unconstitutional a Maryland stamp tax levied on the Bank of the United States. Unless specifically authorized by Congress, such state taxes were deemed to violate the necessary and proper and the supremacy clauses of the U.S. Constitution. Thus the stage was set for Congressional domination of state taxation of national banks. Because states were loathe to tax their state-chartered banks more strictly than they did national banks, the McCulloch decision affected state taxation of state banks, too.

In 1864, Congress first exercised its power to dictate the methods by which states could tax banks by passing the National Currency Act, which limited the rate of the state tax imposed on national bank shares to either (1) the rate assessed upon "other moneyed capital" in the hands of individual citizens of such state, or (2) the rate imposed upon the shares of any state-chartered bank. From 1864 to 1976, Congress passed new legislation and amended prior statutes in an attempt to design an orderly and fair system of bank taxation. All such attempts ended in failure, however, as banks, states, and courts interpreted the specific statutory language in inconsistent and conflicting ways. In 1976, recognizing that further amendments would not bring order or clarity to state bank taxation, Congress removed all prior conditions and limitations on state taxation of national banks and passed legislation requiring only that states tax national banks in the same manner as they tax their state banks.

States are just now beginning to amend their bank tax laws to take advantage of the removal of prior Congressional restrictions. In 1985, New York became the first state to undertake a major overhaul of its state bank tax. Minnesota and Indiana followed in 1987 and 1989 respectively. Other states have initiated reform on a smaller scale by amending their apportionment formulas through regulation. Because state activity in this area is new and still spotty, it is too early to draw conclusions regarding the effects of these state initiatives.

Yet, developments taking place in state legislatures and in the banking business make increased state activity in this area inevitable. For example, most state legislatures have relaxed or removed prior restraints on interstate banking, and regional reciprocal banking is now widespread. The new interstate banking environment is inconsistent with state bank tax laws that are based upon the outdated premise that each bank is doing business in, and is taxed by, only one state. Such state taxes may create unconstitutional multiple taxation in an interstate environment. Legislatively created barriers between banking and commerce are also falling. Many states now allow their state-chartered banks to engage in insurance, securities and real estate activities. Likewise, non-bank commercial institutions are engaging in banking and bank-like activities. The blurring of the lines between banking and commerce raises questions of tax parity among competing entities. State taxes that apply only to a narrowly defined "bank" may no longer be appropriate.

Scope of the Report

The purpose of this ACIR report is to identify the key issues involved in state taxation of interstate banking and to describe and evaluate state bank tax options. The report identifies many of the problems with existing methods of pure source-based net income taxation, but it does not purport to offer solutions to those problems. Although the report anticipates some of the issues that may arise if states choose an alternative dual system of income taxation, it does not purport to answer all of the questions that may surface. The history of state taxation of multistate businesses provides ample proof of the proposition that it is difficult to formulate definitive solutions to the problems inherent in state taxation of multistate businesses. Instead, states tend to experiment with their tax systems, solving problems as they arise, just as they do with their other regulatory and legal systems. This experimentation is, of

course, a strength of our federal system in which states act as laboratories for innovation.

INTRODUCTION

The Birth of the Federal Tax Immunity Doctrine

In 1819, the U.S. Supreme Court in McCulloch v. Maryland[1] first announced its doctrine of federal tax immunity.[2] The case involved the constitutionality of a Maryland law that imposed a tax on bank notes issued by any bank or branch which was not chartered by Maryland. Maryland state-chartered banks were not subject to the same tax or a similar tax. When branches of the Second Bank of the U.S. refused to comply with Maryland's tax statute, the state brought suit to recover the tax and penalties. In a sweeping opinion in which Chief Justice John Marshall uttered his famous statement that the "power to tax involves the power to destroy,"[3] the Court held unconstitutional almost all state taxes levied on a federal governmental instrumentality, such as the national bank.[4] The necessary and proper clause[5] and the supremacy clause[6] formed the constitutional bases for the Court's holding.

In 1829, the Court applied its federal tax-immunity doctrine to strike down a property tax imposed by the City of Charleston, South Carolina on stock issued by the Bank of the U.S. and held by a private individual.[7] Like the Maryland law in McCulloch, the Charleston ordinance exempted from the tax all stock issued by the state of South Carolina. According to the Court, the tax violated the borrowing clause of the Constitution[8] because it was "a tax on the power to borrow money on the credit of the U.S. ...."[9]

These two decisions set the stage for complete Congressional domination of state taxation of national banks and federal obligations that continues today: states cannot tax either national banks or federal obligations without the permission of Congress. The effect of Congressional restrictions on state taxation of the income from federal obligations has been much less dramatic, however, than that of federal restrictions on state taxation of national banks.

Federal constraints on state taxation of the income from federal obligations have remained virtually unchanged since the latter half of the 19th century.[10] Today, state taxation of such income is limited by federal statutory law, which provides:

> All stocks, bonds, Treasury notes, and other obligations of the United States, shall be exempt from taxation by or under State or municipal or local authority. This exemption extends to every form of taxation that would require that either the obligations or the interest thereon, or both, be considered, directly or indirectly, in the computation of the tax, except nondiscriminatory franchise or other non-property taxes in lieu thereof imposed on corporations.[11]

In contrast, Congressional restrictions on state taxation of national banks have changed considerably over the century and a half following the McCulloch decision.

The Evolution of State Taxation of National Banks

The history of Congressional limits on state taxation of national banks is long and tortured. In 1864 Congress passed the National Currency Act,[12] which codified the McCulloch decision by limiting state taxation of national banks to bank real estate and shares[13] --- the two options left open by the McCulloch decision.[14] Section 41 of the Act specifically granted the state in which a national bank was located the right to tax the shares of stock in such bank. The actual tax was levied on the individual or corporate shareholder, but most states assessed and collected the tax from the bank. Assessment at the source facilitated collection of the tax. If, for example, the shareholder was a nonresident, the bank could be used as an agent of the stockholder to collect the tax. The bank then reimbursed itself from the dividends or other income distributed to the stockholder.[15] Section 41 also limited the rate of the state tax imposed on national bank shares to the lower of (1) the rate assessed upon "other moneyed capital" in the hands of individual citizens of such state, or (2) the rate imposed upon the shares in any state-chartered bank.[16]

Although Congress could dictate the conditions under which states could tax national banks, it could not control how states and the judiciary interpreted those conditions. For example, the limitation on the rate of bank share taxation to one no greater than the rate assessed on "other moneyed capital"[17] generated decades of litigation. The purpose of this restriction was to prevent states from discriminating against national banks by favoring their competitors.[18] The statute did not specify, however, how states should calculate a nondiscriminatory rate, and states adopted various methods. Moreover, because the Supreme Court had previously held that the rate of taxation includes the entire process of valuation and assessment,[19] national banks accused states of setting discriminatory rates when states applied different rules of valuation as well as when they used different percentages in computing the taxes on fixed valuations.

The high Court was called upon numerous times to determine which inequalities would constitute discrimination in violation of the National Currency Act. Time and again, the Court scrutinized mind-numbing differences in state assessments and valuation of investments in order to determine whether national banks had been treated in a discriminatory manner. For example, in 1874, the Court considered whether a state that had assessed bank shares at market value and bonds and mortgages at par or nominal value had thereby discriminated against national banks.[20] On other occasions, the Court found that the following state practices did not discriminate against national banks: (a) denying shareholders the right to deduct from the value of their national bank shares the amount of their capital invested in real property situated outside the state,[21] (b) exempting from state taxation deposits in savings banks or funds of charitable institutions, provided that the exemption was for reasons of public policy,[22] and (c) allowing holders of "credits" in unincorporated banks to deduct their debts from their taxable credits, while denying the same right to shareholders of national banks.[23] Conversely, the Court found that many state practices did discriminate against national banks, including: (a) exempting from property taxation the income from loans and securities of real estate firms, partnerships and corporations while subjecting national banks to property taxation,[24] and (b) taxing the investments of individuals in bonds and notes at a lower rate than that imposed on national bank shares.[25]

Although plentiful, litigation over state tax rates on national banks constituted only a small fraction of the litigation generated by Section 41 of the National Currency Act. Most of the litigation involved the meaning of the phrase "other moneyed capital." In its interpretations of this phrase, the high Court frequently used the legal method of exclusion and inclusion. For example, in separate holdings the Court found that investments in the following entities were excluded from the disputed phrase: trust and insurance companies;[26] manufacturing, mining and railroads;[27] and telephone companies.[28] States were free, therefore, to set their rates on those entities without regard to their rates on national banks. In another line of reasoning, the Court also began to develop an affirmative definition of "other moneyed capital." Unfortunately, the Court's affirmative definitions of the phrase often conflicted with its holdings in the assessment cases. For example, in Hepburn v. The School Directors,[29] the Court found that securities (both stocks and bonds) might be considered "other moneyed capital," while in Mercantile Bank v. New York,[30] the Court upheld a state tax on national bank shares that was higher than the state's tax on the stock of railroads and certain corporations.[31]

Later, the Court began to focus its interpretation of "other moneyed capital" more narrowly. In this phase of its interpretation of Section 41, the Court found that "the true test of the distinction [between investments that come within the meaning of the disputed phrase and those that do not] ... can only be found in the nature of the business in which the corporation is engaged."[32] This new interpretation led to another round of litigation in which the Court described the business of banking and compared that business with various other businesses in which individuals and banks might invest to determine whether such investments constituted "other moneyed capital." Again, a rash of conflicting opinions followed, causing litigants and scholars to charge the Court with gross inconsistency.[33]

Finally, in 1923, Congress amended the law in an attempt to bring some order into the chaos that had been created by years of litigation and inconsistent judicial decisions. Under the new law, now referred to as section 5219, a state could choose any one of three methods (in addition to a real estate tax) to tax a national bank: (1) a bank shares tax; (2) a tax on the dividends received by the owners or holders of the bank's stock; or (3) a net income tax.[34] In 1926, a fourth option was added: a state could choose a franchise or excise tax according to or measured by the entire net income of the national bank.[35] This latter option enabled states to include interest on federal obligations (otherwise exempt from state taxes) in the tax base. Because the income from governmental obligations represents a large fraction of the income of commercial banks, the addition of this method of taxation conferred a significant revenue benefit upon states.[36]

These amendments, too, contained several conditions. For example, if a state chose the income or franchise tax option, the law directed it to set the rates of the income and franchise taxes on national banks no higher than its rate on other financial corporations or mercantile, manufacturing and business corporations. States that chose the dividend option were instructed to tax dividends from general business also. States that selected a bank shares tax were still required to assess such shares at a rate no higher than the rate on "other moneyed capital." To clarify the meaning of that phrase, Congress instructed states to tax shares of national banks

> at a rate [no greater] than is assessed upon other moneyed

> capital in the hands of individual citizens of such State coming into competition with the business of national banks; Provided, that Bonds, notes or other evidences of indebtedness in the hands of individual citizens not employed or engaged in the banking or investment business and representing merely personal investments not made in competition with such business, shall not be deemed moneyed capital ....[37]

Far from solving the problem of state taxation of national banks, these amendments with their numerous conditions set the stage for yet more litigation and conflicting interpretations. The law did not indicate, for example, how states that adopted the income or franchise tax option should compare the tax rates on general business corporations with those on national banks in order to meet the mandate of non-discriminatory treatment. That omission left states free to choose their own techniques of comparison. Some states chose to compare effective tax burdens rather than nominal tax rates. By comparing effective tax rates, states sought to overcome the inequity created by the Congressional prohibition against levying sales and personal property taxes on national banks, two taxes regularly assessed against general business corporations. In order to equalize the effect of taxes on the two kinds of entities, states combined the net income, personal property and sales taxes paid by general business corporations and calculated a composite rate, which was then contrasted with the nominal tax rate on national banks. During the period from 1926-1969, national banks frequently litigated the question of how states should calculate the effective tax rate on general business corporations. Also during this period, litigation of the phrase "other moneyed capital" continued, despite the Congressional attempt at clarification.[38]

In the mid-1950s, a new issue arose -- state taxation of the interstate activity of state banks. Although banks did not maintain offices outside of their domiciliary state, they frequently did make loans to residents of other states by sending personnel there or by using the services of correspondent banks located in other states. Unlike the situation with state taxation of national banks, which was limited by Congress to taxation of domiciliary banks, states were free to tax the interstate activities of state banks so long as such taxation was consistent with the due process and commerce clauses.

In 1959, after a long history of interpreting the commerce and due process clauses to ban state taxation of the interstate activities of corporations, the Supreme Court changed its interpretation and upheld state taxation of nondomiciliary corporations that do business with their residents. In Northwestern States Portland Cement Co. v. Minn.,[39] the high Court validated a state net income tax on a nondomiciliary (general business) corporation which had an office in the taxing state. In another case -- Brown-Forman Distillers Corp. v. Collector of Revenue[40] -- the high Court declined to overturn a decision of the Louisiana supreme court upholding the state's tax on a nondomiciliary corporation whose contacts with Louisiana consisted solely of personnel soliciting orders there.

The effect of these decisions was limited, however, by immediate Congressional action. In 1959, Congress passed P.L. 86-272,[41] which prohibited states from taxing foreign corporations whose only activity within the taxing state was the solicitation of orders by the seller or its representative. Because P.L. 86-272 covered only the solicitation of orders for tangible personal property, the activities of financial institutions were not subject to its prohibitions.

As a result of the above Supreme Court decisions and the earlier Congressional restrictions against state taxation of nondomiciliary national banks, states were free to tax nondomiciliary state banks but not out-of-state national banks. Some states took advantage of their expanded taxing power to tax nondomiciliary state banks, creating an inequity between state and national banks. Over time, therefore, the Congressional restrictions on state taxation of national banks, originally intended to prevent state discrimination against national banks, had created a tax scheme that favored national banks.

Congressional Resolution of the Problem

In the early 1960s several bills were introduced in Congress to correct the imbalance that federal law had created between state and national banks. All failed to pass. In 1968, however, the Supreme Court unknowingly dealt the final blow to the Congressional statutory scheme by carrying that scheme to its logical absurdity.[42] In First Agricultural National Bank v. State Tax Commission,[43] the Court struck down a state sales tax levied on a national bank's purchase of tangible personal property for its own use. Three justices dissented with language that moved Congress to act: "[t]he Constitution of its own force does not prohibit [a state] from applying its uniform sales and use taxes to, among other things, [a bank's] wastebaskets."[44]

In 1969, Congress repealed prior restrictions on state taxation of

national banks, bringing to an end more than a century of Congressional tax preferences granted to national banks.[45] According to the new law: "a national bank shall be treated as a bank organized and existing under the laws of the State or other jurisdiction within which its principal office is located."[46] Thus, the only remaining restriction on state taxation of national banks was that such taxes must not discriminate against national banks. Congress delayed the effective date of the new law to January 1, 1973 in order to provide time for a study and report by the Federal Reserve Board on how state taxes on out-of-state national banks would affect the economic efficiency of the banking system and the mobility of capital.

In 1973, Congress, still uneasy about prospective state taxation of out-of-state depositories, extended its prior moratorium on state taxation of national banks. From 1973 to 1976 the new moratorium, set forth in P.L. 93-100, prohibited states from imposing any tax measured by income or receipts or any other "doing business" taxes on federally insured out-of-state depositories. In that same law, Congress directed the ACIR to undertake a "study of all pertinent matters relating to the application of State 'doing business' taxes on out-of-state commercial banks, mutual savings banks and savings and loan associations." The ACIR study was to include recommendations for legislation that would provide equitable state taxation of those entities.[47]

The 1975 study accomplished this and more. Nearly two years in the making and over 1,000 pages long, the 1975 ACIR study examined in depth the depository business, multistate taxation of general business corporations, the question of federal legislation, and alternative approaches to state taxation of depositories. The study concluded with five basic policy choices, framed in terms of alternative recommendations for the Commission to consider. Briefly, the choices were:

A. No Federal statutory limitations on State and local taxation of out-of-State depositories (beyond existing statutory requirements for like treatment of federally-chartered and State-chartered depositories).

B. A Federal statute prescribing negative guidelines; i.e., specifying jurisdictional tests and division-of-base rules that may not be used by the States as a basis for taxing out-of-State depositories.

C. A Federal statute prescribing positive guidelines which bind the States in their taxation of out-of-State depositories; i.e., affirmatively prescribing certain jurisdictional standards and division-of-base rules to which States must conform if they tax out-of-State depositories.

D. A Federal statute permitting only the State of domicile (the State of the principal or home office) to tax depositories, and prohibiting net income or other "doing business" taxes upon out-of-State depositories.

E. A Federal statute to compel standardization by substituting a federally-collected, State-shared surcharge on depository institutions for State income or other "doing business" taxes on depositories, or allowing a credit for qualified State taxes against the Federal tax.

The Commission recommended a policy of negative federal guidelines. Impressed by the precedent of P.L. 86-272, which set negative jurisdictional thresholds for state taxation of interstate businesses, the Commission favored a similar, but higher, tax jurisdiction threshold for banks as well as a Congressional "declaration of policy" as to the appropriate division of the taxable base.[48] According to the Commission's recommendations, a state would have jurisdiction to tax out-of-state depositories only if they had a "substantial physical presence" within the taxing state, such as a regular office location, the regular presence of employees or agents, or the ownership or use of tangible property, including property involved in lease-financing operations.

Other recommendations included: (a) "no congressional action which would require States to adopt a standardized definition of taxable income in the taxation of out-of-state financial depositories"; (b) amendment of federal law "to authorize States to include, in the measure of otherwise valid direct net income taxes, income realized by financial depositories from Federal Government obligations"; (c) federal safeguards against discriminatory taxation; (d) federal legislation requiring a domiciliary state which taxes the entire income of the depository to allow the depository a credit for taxes paid to nondomiciliary states; and (e) a reservation of power to the states to resolve any disagreements between them and taxpayers.

Congress failed to act, however, and in 1976, the language as originally drafted in the 1969 statute became law. Thus, today the only restriction on state taxation of national banks is that such taxes must not discriminate against national banks.

Summary and Comment

In 1819, the U.S. Supreme Court held in McCulloch v. Maryland that a Maryland stamp tax levied on the Bank of the United States was unconstitutional. The McCulloch decision set the stage for Congressional domination of state

taxation of national banks and federal obligations that continues today. States cannot tax either national banks or federal obligations without statutory permission from Congress.

Congress began exercising its control over state taxation of national banks with the passage of the National Currency Act in 1864. The Act codified the McCulloch holding by permitting states to tax the real property and shares of national banks, the two methods left open to states in the McCulloch decision. One section of the Act limited state taxes on national bank shares to a rate no greater than the rate assessed on "other moneyed capital." This first Congressional foray into the business of regulating state taxation of national banks through specific statutory directives and limitations signaled the beginning of over a century of litigation involving a bewildering array of differences in state calculations of their rates of taxation and interpretations of the phrase "other moneyed capital."

By 1969 Congress had recognized that neither further amendments, which merely led to a new round of litigation, nor judicial mediation, which produced a large body of inconsistent and conflicting opinions, could bring order or clarity to state taxation of national banks. Moreover, the federal restrictions, which were originally intended to prevent state discrimination against national banks, had over time created a tax scheme that favored national banks. Finally, in 1976 Congress revised the law and removed all prior conditions and limitations on state taxation of national banks and passed legislation requiring only that states tax national banks in the same manner as they tax their state-chartered banks.

The history of Congressional restrictions on state taxation of national banks contains valuable lessons for proponents of federal intervention in state taxing powers.

First, Congressional intervention in state taxation, which is effected through specific statutory limitations and/or directives, is subject to differing interpretations by the states. Years of litigation are unlikely to bring either order or clarity to state tax systems. Judicial opinions are, by their nature, piece-meal and narrow. Issues that are suitable for judicial resolution involve questions of whether a state has reasonably interpreted a given law or whether a certain state or federal statute violates the U.S. Constitution. The judiciary does not have the power to analyze and revamp entire state tax systems. As the Supreme Court itself has recognized on numerous occasions, spasmodic and unrelated instances of litigation cannot afford an adequate basis upon which to create consistent rules in the area of state taxation.[49]

Second, laws that contain specific directives and limitations often have unintended consequences brought about by changing judicial interpretations and by new business practices. In an area of law like tax jurisdiction, which must respond to technological advances,[50] and in a business like banking, which is currently highly innovative, such unintended consequences are inevitable.

THE ISSUES

Goals and Objectives for Tax Policy

The 1975 ACIR study identified eight goals and objectives as guides for national policy regulating state taxation of multistate business generally. Those goals remain valid today:

1. Preservation of the autonomy of the states;

2. Simplification of the tax system;

3. Standardization or uniformity of taxes on multistate business;

4. Reduction of compliance burdens and enforcement costs;

5. Provision of certainty and regularity for taxpayers and administrators;

6. Promotion of competitive equality or neutrality between domestic and out-of-state firms;

7. Avoidance of discrimination among different lines of business (fairness);

8. Avoidance of trade barriers.

Like the situation with state regulation of banks and bank holding companies,[51] the public policy objectives for state taxation of banks and bank-like entities are sometimes complementary and at other times contradictory. For example, the goal of preserving the autonomy of the states may conflict with the objective of creating a uniform and simple tax system. As noted in an earlier ACIR report:

> Differences in the tax structures of States and subdivisions have long been viewed as wasteful by many critics -- and certainly by spokesmen for multistate taxpayers. Taxpayers' compliance problems and State administration of the taxes are more complicated than they would be if taxes were uniform. Also these differences hinder the free exchange of trade and commerce across jurisdictional lines. Elimination or reduction of local diversities is seen as promoting simplicity in the entire tax system, an objective long sought by taxpayers and legislators in all the States, as well as on the national level.

On the other side, interstate differences arise from the distinctive policies and needs of the individual State or local communities -- from the special needs of agricultural or mining communities compared with those where economic activities are primarily manufacturing, mercantile, or service-oriented; from the differing needs and taxpaying capacities (or customs) of States that are predominantly urban or rural; from the differences between market States and producing States, or between border States and interior States; and from the differing political philosophies of voters and their elected representatives in States with a conservative tradition and those with a recent populist or frontier outlook. The special characteristics of tax laws and administration in each State are a product of the efforts of policy makers and legislators to reflect the particular heritage of that State. Special adjustments and differing tax forms are provided to accommodate and preserve local interests. The price of simplification may in fact include a sacrifice of some of the special essence of each State. For those who value regional distinctions, these diversities are the core and justification of our federal system. They may view pressures for homogeneity and simplicity in State tax systems as threats to all the other valued differences.

Others argue that some proposals for simplification, such as general acceptance of a standard formula apportionment for the entire net income of each taxpayer, could result in inequitable or inappropriate division of the tax base among States.[52]

Because the different objectives of a sound tax policy are frequently contradictory, one cannot design a single tax system that will satisfy all of the goals. Implementation of any bank income tax will require compromise and trade-offs among goals.

Environmental Considerations

Any new state bank tax should be evaluated not only by reference to the nine tax policy objectives, but also within the context of the changes taking place in the business of banking. The interstate banking environment today is vastly different than it was in 1975, the date of the prior ACIR report. The most important changes involve interstate branch banking, the growth of sophisticated bank technology, the expansion of bank products and services, and the advent of loan securitization.

Interstate Branch Banking

Proof of the proposition that changes in the bank regulatory laws of one state can influence the regulatory policy of all states is found in interstate branch banking laws. In 1982, Massachusetts was the first state to pass a regional reciprocal interstate banking law.[53] Other states soon followed with their own reciprocity laws.

Today, most state legislatures have relaxed or removed prior restraints on interstate banking. Forty-six states allow some form of interstate banking. Twenty-six states have passed laws permitting regional or regional reciprocal interstate banking (nine of these state laws contain a nationwide trigger, that is, a date by which the state will allow nationwide interstate banking), and twenty states allow nationwide interstate banking.[54] The vast majority of states that allow interstate banking do so through the bank holding company mechanism (i.e., they enact laws permitting out-of-state banks to enter only after their parent bank holding company applies for and receives permission to establish a subsidiary or to merge with a bank in the host state). Entry through a bank holding company gives a state maximum control over the new bank. One state, Massachusetts, allows direct branch banking. A legislative grant of entry through direct branching prevents the host state from exercising control over the branch, even if it is a state bank branch because the chartering state remains the primary regulator and supervisor of the branch. Some commentators believe that the future viability of the dual banking system requires that states allow interstate banking only through the holding company mechanism.[55]

Because most state laws no longer prohibit out-of-state bank holding companies from operating subsidiary banks across the nation, and because banks solicit loans through loan production offices located in several states, it is difficult today to pinpoint the "source" of a loan for purposes of state apportionment formulas. The U.S. Congress noted the problem of finding the actual "source" of bank loans during the debates on the 1986 Tax Reform Act. According to Congress, "the lending of money is an activity that can often be located in any convenient jurisdiction, simply by incorporating an entity in that jurisdiction and booking loans through that entity, even if the source of the funds, the use of the funds, and substantial activities connected with the loans are located elsewhere."[56]

Technological Developments: Branchless Banking

The judicial branch, too, has contributed to the expansion of interstate banking. A recent U.S. Circuit Court of Appeals opinion, which interpreted the federal banking laws, paved the way for banks and bank-like entities to engage in de facto interstate branch banking. By interpreting the terms "branch" and

"bank" narrowly, the opinion limited state authority to regulate interstate branch banking. For example, in Independent Bankers Ass'n. v. Marine Midland Bank,[57] the Second Circuit Court of Appeals held that a bank that effects loan and deposit transactions with its customers electronically through a shared use automatic teller machine (ATM) does not thereby engage in branch banking. According to the court, federal law does not deem an ATM to be a "branch" of a bank if the bank is a mere user, as opposed to an owner, of the machine.

This decision allows banks and bank-like entities to circumvent the remaining state regulatory restrictions on interstate branch banking by delivering their services through electronic devices located across the nation in a form of "branchless banking." Today, it is legally and technologically possible for banks to enable their customers to make a deposit in an out-of-state bank through an in-state shared-use ATM without thereby engaging in branch banking.

Several banks currently operate nationwide through branchless banks. For example, in January, 1986, the New England Federal Savings Bank of Wellesley, Massachusetts, opened for business.[58] The bank has no walk-in place of business. Customers of the New England Federal Savings Bank make their deposits by mail, by telephone, or via automatic teller machines. Within the first six months of operation, the bank had 422 depositors hailing from most of the fifty states. The bank is a full-service bank that makes home mortgage loans and commercial real estate loans; provides MasterCard, Visa and American Express card services; and offers individual retirement accounts and Keogh accounts. Many other banks engage in some form of branchless banking. For example, of the 30,000 depositors of Colonial National Bank of Wilmington, Delaware, only 10,000 come from Wilmington walk-in trade.[59] The remaining 20,000 depositors live in all fifty states and do business by telephone, mail, and nationwide automatic teller machines, and use debit and credit cards and checks. Also, Chemical Bank of New York offers a branchless banking service called "Premium Banking" to residents of Connecticut.[60] The service works as follows: (1) Connecticut customers call a New York toll-free number staffed seven days a week by Chemical Bank personnel; (2) customers receive instant access to credit lines; and (3) customers who need cash immediately can make withdrawals at any automatic teller machine linked to the New York Cash Exchange.

The effect of these developments is significant. The advent of electronic banking has rendered obsolete state jurisdiction rules based upon physical presence and has greatly increased the mobility of bank assets and deposits, making it difficult to locate such assets and deposits in one state.

Expansion of Bank Products and Services

Another important change in the banking environment involves the definition of the business of banking. Today, the prior barriers between banking and commerce are falling. Three new products and services are of particular interest to banks: securities, insurance, and real estate. Both state and national banks have pushed for new powers in these areas, arguing that allowing them to offer these products and services will benefit everyone: consumers, who will enjoy reduced prices as a result of the increased competition; businesses, which will enjoy improved access to capital markets; state and local governments, which will likely pay lower interest rates on issues of municipal revenue bonds; banks, which will become more efficient and profitable through diversification and economies of scope; and the FDIC, which will face less exposure as banks become stronger.

In many states, banks have successfully convinced legislators of the merit of expanding bank powers. Currently, twenty-five states allow their state-chartered banks to engage in some securities activities,[61] seventeen states now allow banks to underwrite insurance and/or act as an insurance agent or broker,[62] and twenty-six states permit state banks to invest in and develop real estate and/or act as a real estate broker.[63] In addition to their contention that the expanded powers will benefit consumers, businesses, and state governments, banks argue that the new powers are necessary to create a level playing field between banks and the growing number of non-bank entities that are free to engage in banking services. As evidence of the lack of a level playing field, banks cite the increasing competition that they face from unregulated entities, such as retailers that issue credit cards, securities firms that attract deposits by offering cash management accounts, and automobile manufacturers that provide financing for new cars.

Given this blurring of the lines between bank and nonbank financial institutions, state tax laws that are based upon a traditional regulatory definition of a bank may no longer be appropriate.

Loan Securitization

A corollary to the expansion of bank securities powers is the increased securitization of bank assets. This phenomenon is changing the entire nature of the banking business. Traditionally, commercial banks and

S&Ls solicited deposits in order to make loans that were held in their portfolios until they were paid off. Recently, however, banks have begun making loans that are subsequently pooled and packaged for sale as securities in the financial markets to institutional (bank and nonbank) and individual investors. The packaging and distribution of securitized loans is usually done by investment banks or large money-center banks. Because securitization offers significant benefits to the lending bank (i.e., allowing it to remove the loans from its books, thereby reducing capital requirements and improving liquidity), loan securitization is likely to continue.[64]

Potentially, banks can securitize and sell all classes of loans.[65] Typical securitized loans today include mortgage loans, credit card loans, car loans, and boat loans.[66] It is easy to see that a securitized loan does not have a traditional "home" for purposes of state taxation; it can be sold to another bank, insurance company, pension fund or individual investor anywhere across the nation.

The advent of securitized loans creates a profound dilemma for states that apportion the income of their domiciliary banks. When a loan is securitized, the unity between the originator of the loan and the recipient of the interest income from the loan is severed. The dissolution of this relationship creates conditions for potentially widespread tax avoidance. Assume for example, that Bank A, which is domiciled in State A, has packaged and sold some of its secured loans to an out-of-state investor. After the sale, State A will lose jurisdiction over the interest income from the loans, even though they are secured by property located in State A.

Suppose, now, that Bank B, which is domiciled in State B, purchases the securitized loans from Bank A. State B will apply its apportionment formula to determine how much of the interest income from the securitized loans it can tax.[67] Typically, state apportionment formulas attribute the interest income from loans to the state in which the loan originated (i.e., where the loan solicitation, negotiation, and/or administration occurred)[68] or to the state in which the property securing the loan is located.[69] If either of these rules is used to apportion the interest income from the securitized loans held by Bank B in State B, none of the interest income from those instruments will be attributed to State B because Bank B (1) was not involved in the solicitation, negotiation or administration of the underlying loans, and (2) none of the property securing the underlying loans is located in State B. Thus, the interest income from the securitized loans will be apportioned out of State B, even though no other state has jurisdiction to tax that income.

Alternatively, State B might apportion the interest income from the securitized loans according to special rules for income from securities.[70] In this case, some of the income may be attributed to State B. Nevertheless, much of the income would again be attributed out of state, and may thereby escape taxation by any state.

This dilemma cannot be fully solved through the use of an apportionment formula, although some commentators have suggested a partial solution in the form of a throwback rule. The rule would allow the domiciliary state to throwback and tax the receipts from securities not taxed by any other state. As currently construed by the courts, however, the throwback rule does not allow the domiciliary state to reach either the property or payroll associated with those receipts.[71] Alternatively, the dilemma can be fully solved through the use of the dual system, which is discussed in greater detail below.

Summary and Comment

It is not possible yet to describe all the contours of the "best" bank tax. In addition to the conflicts among the goals of a good tax policy, two other factors contribute to the difficulty of formulating a single bank tax system at this time. First, states have only recently begun to amend their bank tax laws to take advantage of the lifting of prior Congressional restraints on state taxation of banks; therefore, one cannot measure the relative effectiveness of the different new state bank taxes. Second, the business of banking is changing rapidly, requiring states to maintain a flexible approach to bank taxation. The bank tax that is appropriate during this evolutionary period may not be suitable once the contours of the business of banking become settled. For these reasons, this report will focus on alternative tax systems, evaluating each against the above goals and the changing nature of the business of banking.

THE OPTIONS

According to a recent survey conducted by the Advisory Commission on Intergovernmental Relations, a majority of states use some form of a net income tax for banks (i.e. either a franchise tax measured by net income or a direct net income tax).[72] Because of the prevalence of net income taxation, this report will focus on that method of taxation.

Tax Base

The starting point for most state corporate net income tax measures is the federal taxable income base.[73] Federal law prohibits states from including the income from federal obligations in the net income tax base unless they comply with the

requirements of 31 U.S.C. sec. 3124. According to that statute, a state tax on the income from federal obligations must meet two tests: (1) it must be a nondiscriminatory tax, and (2) it must be a franchise or other nonproperty tax. In Memphis Bank & Trust,[74] the U.S. Supreme Court invalidated as discriminatory a Tennessee franchise tax that included interest received on federal obligations but excluded interest earned on the obligations of Tennessee and its political subdivisions.[75]

According to Memphis Bank & Trust, a state can use a franchise tax measured by net income and include in such tax base the income from federal obligations if and only if the state taxes its own obligations (and those of its political subdivisions) as well as federal obligations.[76] Currently, 25 states include the value of, or income from, federal obligations in their bank tax base.[77]

Because federal obligations comprise a large percentage of the income of a financial institution, the failure to use a franchise tax will result in a significant tax break for banks. To create neutrality and fairness across industries, then, a comparable income exemption should be granted to nonfinancial entities.

Synopsis of Alternative Methods of Income Taxation

Four models of corporate income taxation exist: (1) pure residence-based taxation, (2) pure source-based taxation with separate accounting, (3) pure source-based taxation with formulary apportionment, and (4) a dual system consisting of residence-based taxation coupled with a credit for domiciliary entities and source-based taxation for nondomiciliaries.

A pure residence-based income tax applies only to domiciliary banks and operates on the entire income of the domiciliary bank without regard to the source of that income. Thus, all banks domiciled in the taxing state--state banks that received their charter there and national and foreign banks that are incorporated there--pay tax on their total taxable income base regardless of where the income is earned; and all nondomiciliary banks--state banks chartered out-of-state and national and foreign banks incorporated in another state or country--pay no tax at all even if they have earned income from activities within the host state.

A pure source-based tax attempts to measure the amount of income of a multistate entity that is earned within a given taxing state. For this purpose, a state uses either separate accounting or formulary apportionment. Pure source-based taxation with formulary apportionment is the method of taxation used by nearly all of the states for their general business corporations.

A state that uses a dual system levies its tax, in the first instance, on the entire net income of its domestic banks. Then, it allows those banks a tax credit for taxes paid to other states. The amount of the credit is limited to the amount that would have been paid under the domiciliary state's tax. Out-of-state or nondomiciliary banks are taxed according to source principles; that is, the host state uses an apportionment formula to measure what fraction of the income of an out-of-state bank is earned within the host state.

Pure Residence-Based Tax

Until very recently, most states taxed banks using residence-based tax principles, a system of taxation not used with other businesses.

A pure residence-based tax system meets many of the objectives of a good tax. It is simple, provides certainty and regularity for taxpayers and administrators, has minimal compliance burdens and enforcement costs, and avoids trade barriers. In addition, when freely chosen by states, it preserves their autonomy. One can fault a residence-based tax, however, for failing to promote competitive equality between domestic and out-of-state firms, with discriminating among different lines of business, and with creating the potential for multiple taxation.

The lack of competitive equality between in-state and out-of-state banks, which occurs with the use of a pure residence-based tax, comes from the differences in state tax rates and bases. For example, assume that two banks, Bank A and Bank B, are doing business in State Y. Bank A is domiciled in State Y, which has a 9 percent tax rate; and Bank B is domiciled in State Z, which has a 7 percent tax rate. Bank A, domiciled in State Y, will pay an income tax at a 9 percent rate to State Y regardless of where it earned that income. Bank B, domiciled in State Z, but doing business in State Y in competition with Bank A will pay a tax at a 7 percent rate to State Z, its domiciliary state. The use of a pure residence-based tax in this situation will have the effect of encouraging Bank B to do business in State Y where it has a tax advantage over State Y domiciliary banks. State Y, however, has two reasons to complain about this situation. First, State Y fails to collect any tax revenue from Bank B, although Bank B does business there. Second, State Y's domiciliary banks are placed at a tax rate disadvantage vis-a-vis the banks from State Z because State Z banks compete with State Y banks for business but pay a lower tax rate.

In practice, a pure residence-based tax also discriminates against different lines of business within a state. Nearly every state uses source principles to tax its multistate general business corporations. Source-based

taxation requires general business corporations to apportion their income among the states in which they do business. Unlike the situation with residence-based taxation, a state applies its source-based tax to both in-state and out-of-state firms so that each will pay tax at the same rate and base on the fraction of income earned within the taxing state. Thus, competing in-state and out-of-state general business corporations are not subject to different tax bases and rates as are domiciliary and nondomiciliary banks in the example above.

Unless adopted by every state, a pure residence-based tax also creates a problem for banks that do business in more than one state. Suppose that a bank does business in several states and one of those states, using source principles with an apportionment formula, taxes the income it earns there. Then, the bank may become subject to multiple taxation. Consider, for example, the following situation:

> States Y and Z have the same income tax rate and base. State Y taxes its domestic banks on their entire income, regardless of where it is earned. Bank A is domiciled in State Y. Bank A does 70 percent of its business in State Y and 30 percent in State Z; it conducts its activities in State Z solely by mail and electronic means. State Z uses source-based taxation to tax foreign banks transacting business there, whether or not the bank has a physical presence within the state.[78] Bank A will pay tax to its domiciliary state on 100 percent of its income and tax to State Z on 30 percent of its income. Thus, 130 percent of its income will be subject to tax.

This problem, negligible today, will become more acute as prior restraints on interstate banking continue to dissolve, as the technology for delivering bank services electronically becomes more sophisticated, and as states amend their bank tax laws to reflect these changes. The constitutionality of a pure residence-based tax is doubtful when used in such an interstate environment.[79]

Pure Source-Based Tax: Separate Accounting

In theory a pure source-based tax system permits states to divide the tax base of a multistate corporation among the states in which such corporation conducts its business activities in a manner that approximates the corporation's level of business activity in each state. One way in which a state can use a pure source-based tax to accomplish this goal is through the use of separate accounting.

When used to assign income of a multistate business to a given state for tax purposes, the separate accounting method deems the in-state operations of a corporate branch or subsidiary as a taxable entity unconnected to its out-of-state parent. The income of the branch or subsidiary is isolated as if the entire business operations were conducted in the taxing state.[80] The U.S. Supreme Court recognized the limitations of this method very early. If, for example, a multistate manufacturing business is a vertically or horizontally integrated group of entities, its operations are not conducted in any single state separately. Instead, the income of the business is earned "by a series of multistate transactions beginning with manufacturing profit in one State and ending with sales profit in other States."[81] Such was in fact the finding of the high Court in the case of Underwood Typewriter Co. v. Chamberlain.[82]

Two methods of separate accounting exist to isolate the net income of a multistate business in a given state. A state can either

> (1) ascertain the actual cost of manufacturing and add a reasonable profit, determined by reference to such standards as the profit made by other corporations and the opinions of businessmen. The manufactured goods are then deemed to have been sold by the manufacturing department to the selling department at the price indicated. Specific costs of each department are computed, and overhead, administrative, and other general expenses are charged to the various departments.

or

> (2) Ascertain the price at which the articles manufactured may be purchased from other manufacturers in the categories and quantities desire. Utilize this figure as the cost of goods, and otherwise proceed as indicated in (1) above.[83]

Commentators have criticized separate accounting as "fearfully expensive," "impracticable,"[84] "arbitrary" and "uncertain."[85] Few states use the method today, and at least one state that purports to do so allows a multistate business to isolate its in-state income by means of applying formulary apportionment.[86]

Pure source-based taxation with separate accounting scores low in the criteria of simplicity and reduction of compliance burdens and enforcement.

Pure Source-Based Tax: Formulary Apportionment

Another way to use pure source-based taxation to accomplish the goal of dividing the tax base of a multistate corporation is through formulary apportionment. This method employs an apportionment formula that is designed to measure the fraction of a

multijurisdictional taxpayer's income that should be attributed to a given state. The formula does this by comparing the taxpayer's in-state income-producing activities with its activities everywhere. Therefore, the particular formula chosen must reflect how and where the taxpayer earns its income: the factors represent how the taxpayer generates its income, and the "situs rules" govern where the income is earned.

As a general rule, an apportionment formula should comply with two principles: (1) the factors should bear a reasonable relationship to the income being apportioned, and (2) the situs rules should represent the location of the activities or property of the taxpayer by reference to the benefits and protections that the taxing state offers to the taxpayer's property and/or activities.[87] To date, neither federal statutory law nor judicial decisions impose any particular formula or situs rules on states.[88] Thus, states are free to adopt any apportionment formula and situs rules they choose, as long as the formula and rules comply with the above general fairness rules. The freedom to choose among apportionment formulas allows states autonomy in administering state taxes on multistate corporations. Each state can adopt its statutes, rules and policies without regard to whether another state applies different rules. Conflicts among state statutes, rules, and policies are deemed irrelevant to the taxing state, which administers its laws as if it were the sole taxing state.

If the freedom in their choice of apportionment formulas maximizes the autonomy of states, it greatly increases the compliance burden for multistate corporations, which must comply with a wide variety of formulas and situs rules. With the use of pure source-based taxation and formulary apportionment, states have made scant progress toward the much-touted goal of uniformity.

The problems with formulary apportionment can be illustrated by briefly reviewing the long history of state uses of formulas to apportion the income of multistate general business corporations. Today, there is little disagreement among the states as to the appropriate factors for a manufacturing firm. Most states use the so-called Massachusetts formula, an equally weighted three-factor formula consisting of property (plant, machinery, etc.), payroll (employees), and receipts (from the sales of goods produced by the plant, machinery and employees). Thus, most states have agreed that the fraction of income of a manufacturing company that should be attributed to a given state can be measured by the following formula:

$$\frac{1}{3} \times \left[\frac{\text{payroll in state}}{\text{payroll in all states}} + \frac{\text{tangible prop. in state}}{\text{tangible prop. in all states}} + \frac{\text{sales in state}}{\text{sales in all states}} \right]$$

Forty-five out of the forty-six states (including the District of Columbia) that levy corporate taxes measured by net income have adopted the above three-factor formula.[89] In 1957, the above three-factor formula--consisting of property, payroll and sales, and detailed situs rules--was codified in the Uniform Division for Tax Purposes Act (UDITPA).[90] Currently, twenty-three states use some version of the UDITPA formula.[91] Yet, because many of the states that use the either the Massachusetts formula (with or without adopting UDITPA) have modified the formula, little uniformity exists among the states.[92] According to Jerome Hellerstein, a leading scholar in the area of state taxation, states disagree as to (1) what items should be included in the property, payroll and receipts factors, (2) how to value the items that are included,[93] (3) the relative weights assigned to each of the factors, and (4) the definition of terms used in the formula, For example, state laws differ as to the propriety of including the following elements in the property factor: rented property, inventory in transit between the taxing state and other states, mobile property, and property under construction. State laws also differ on the proper manner in which to value property that is included in the property factor: some states use fair market value, others use book cost less accrued depreciation, and still others employ undepreciated original or book cost.[94] Similar conflicts in state rules occur in connection with the payroll and receipts factors.[95]

Although the original formula gave identical weight to each of the three factors, twelve states have modified the relative weight given to the three factors.[96] States modify the relative weights given to the factors in their apportionment formulas in order to accomplish two goals: to increase the amount of net income assigned to the state and/or to favor domiciliary corporations. Typically, states modify the evenly-weighted formula by "double-weighing" the sales factor. A double-weighted sales factor accords to that factor twice as much value as it does to either of the other two factors.[97] The effect of double-weighing the sales factor is to favor domiciliary multistate corporations, which commonly have more property and payroll than sales in their home state, over out-of-state corporations, which commonly have more sales than property and payroll in the host state.[98]

Also, there is no uniformity among state situs rules.[99] The diversity among state situs rules has an effect similar to double-weighing the sales factor, rendering the "standard" three-factor formula even less authoritative. The situs rules control which elements shall go into the numerator of the three-factor formula, thereby increasing or decreasing the amount of income attributed to a given state. The choice carries, therefore, important revenue considerations for states. Many states will seek to increase their tax revenue by adopting situs rules designed specifically for that purpose. For example, although forty of the forty-five states that use a sales or receipts factor use a "destination" situs rule by which sales or receipts are attributed to the numerator of the state to which merchandise or property is shipped or delivered, state laws do not necessarily agree as to the meaning of "delivered" and "shipped."[100] Also, some states use a "throwback rule" to change the situs of their receipts factor from a destination rule to an "origin" rule (i.e., the state from which the merchandise is shipped) if the state of destination does not tax the corporation.[101] In sum, after over a half century of experience with apportionment of the income of general business corporations, there is still little uniformity among state situs rules.

There is reason to believe that state laws for the apportionment of bank income may differ even more than they do with respect to the income of manufacturing and merchandising corporations.[102] Banks and other financial institutions earn income primarily from intangible property which, unlike real or tangible personal property, has no natural physical location. For this reason, the U.S. Supreme Court has interpreted the due process clause of the U.S. Constitution to require a situs rule based upon the relationship between the intangible property and the taxing state, rather than upon the physical presence of the intangible property within a state. According to the Court, the required relationship is found at the domiciliary state of the creditor, the domiciliary state of the debtor, or the state in which the intangible debt has a business situs.[103] Because the due process clause does not prohibit double taxation,[104] that clause does not prevent all three states from including income from intangibles and the intangibles themselves in the numerators of their receipts and property factors.

The differences in state apportionment formulas and situs rules can increase the total tax burden of a multistate corporation, including banks. Consider the following example:

> Assume that State X is the domiciliary state of Bank A. Bank A does business in States X, Y and Z. The tax rate of all three states is 7%. According to the situs rules of State X, Bank A has earned 80% of its income there. States Y and Z apportion 20% and 10% to themselves. Bank A pays State X $56,000 ($1,000,000 x 80% = $800,000 x 7% = $56,000); State Y $14,000 ($200,000 x 7% = $14,000); State Z $7000 ($100,000 x 7% = $7000). Bank A would pay tax on 110% of its income for a total tax of $77,000.

The high Court has upheld differing state apportionment formulas, reasoning that a particular formula need produce only a rough approximation of the income of a multistate corporation that is attributable to a given state.[105] Therefore, the overlapping taxation that is caused by conflicting formulas and situs rules is not likely to be deemed unconstitutional.[106]

States that use pure source-based taxation have difficulty formulating situs rules that are fair (i.e., neutral between in-state and out-of-state businesses) and uniform because there is an irreconcilable conflict between the taxation of domiciliary and nondomiciliary banks. In an interstate environment, the home state of a domiciliary bank is also the host state of a nondomiciliary bank. States cannot, with one set of situs rules, reconcile the conflict created by this dual role. The situs rules that will attribute the most income from domiciliary banks to the home state will also attribute the least income from nondomiciliary banks to the host state, as the following example illustrates.

> Bank A is domiciled in State Y and makes loans in States Y and Z. Bank B is domiciled in State Z and also makes loans in States Z and Y. Assume that State Y has situs rules that allow it to include in the numerator of its receipts factor all interest and fee income from loans if the loans are made by a bank domiciled in State Y. This situs rule will have the effect of attributing all of the receipts from loans made by Bank A (and other domiciliary banks) to State Y. The rule will also have the effect of attributing none of the income of nondomiciliary Bank B to State Y, although Bank B makes loans there. A similar conflict arises if State Y has a situs rule that directs all banks doing business there to include in the numerator of their receipts factor all interest and fee income from loans if such loans are made to residents of State Y. This rule will increase significantly the

amount of the income of Bank B (and other nondomiciliary banks) attributed to State Y, but it will also decrease the amount of income of Bank A (and other domiciliary banks) that is attributed to State Y.[107]

This problem is particularly troublesome when an apportionment formula is used in connection with branchless banks. For example, suppose that a branchless bank operates in a state that uses a formula that includes a payroll, real and tangible personal property factor and receipts factors.[108] Because a branchless bank has, by definition, no payroll or (real or tangible personal) property in its market states, the numerators of those two factors in the market states will be zero, thus significantly reducing the amount of income attributed there, potentially giving it an unfair advantage over home state banks that must operate with a physical presence in the state.

The market state/home state dilemma also decreases the possibility for states to agree upon a uniform apportionment formula. For example, a state that is the domicile of many large banks (money center state) can increase its revenue by choosing situs rules that attribute most of the income and assets to the home state. Conversely, a state that is the home of relatively small banks may be better able to increase its revenue by choosing situs rules that attribute bank income and assets to the market state. The implementation of a voluntary uniform apportionment formula would require states to agree not to use apportionment formulas to: (1) seek to increase their revenue, (2) favor domiciliary corporations, or (3) engage in interstate tax competition.

In addition to the problems created by the use of an apportionment formula for both domiciliary and nondomiciliary banks, the use of pure source-based taxation with formulary apportionment in connection with securitized loans creates the potential for widespread tax avoidance, as described previously.

Finally, the use of pure source-based taxation with formulary apportionment has a discriminatory effect against community-based banks. With a pure source-based system, multistate banks have a significant state tax advantage over local, community banks. In the present environment, large multistate banks have the option to move their assets and profits to jurisdictions that have a low tax rate or no tax at all, thereby reducing considerably their overall tax burden. Smaller, community-based banks cannot take advantage of such mobility in order to obtain tax breaks. In short, a pure source-based tax with formulary apportionment scores low on several tax policy goals, including: simplification of tax systems,[109] reduction of compliance burdens, exportability (a tax policy goal commonly used by the states), fairness, provision of certainty and regularity for taxpayers, and uniformity of taxes on multistate businesses.

Despite its low score in some of the elements of a good tax, a pure source-based tax ranks high in one area--that of avoiding discrimination among different lines of business. The reason for this is simple: nearly every state has already adopted pure source-based taxation with formulary apportionment for their general business corporations. Yet, significant differences between general business corporations and banks and bank-like entities may dictate different treatment for the taxation of financial institutions. For example, the drafters of UDITPA exempted financial institutions from the Act, recognizing that financial institutions require different rules.[110] Manufacturing and mercantile corporations produce and/or market a tangible product that is both visible and allocable to one state. Banks, on the other hand, deal in intangibles that are neither visible nor assignable to only one state, and unlike the physical assets of general business corporations, bank assets are very mobile. Under a pure source-based tax system, a domiciliary bank can shift its assets and/or profits to a branch in a state that has a low tax rate or no tax, thereby escaping its home state tax. With a residence-based tax system, however, the bank has no incentive to do so because its home state retains taxing jurisdiction over all of its assets/profits. Because a pure source-based tax is the most easily manipulated of the alternative methods of taxation, the use of that system with banks and bank-like entities, which can readily move assets among jurisdictions, may have adverse revenue consequences for states. For these reasons, neutrality in the methods of taxing corporations that do business in a significantly different manner may be neither possible nor desirable. Substantial neutrality--neutrality in both rate and base--is of course possible.

Dual System: Residence-Based and Source-Based Tax

The dual system rests on a different theoretical base than does the pure source-based tax. On the one hand, pure source-based taxation permits states to adopt and administer their tax laws without regard to the differing and/or conflicting laws of other states. On the other hand, the dual system of residence and source taxation requires states to recognize the interaction of tax systems in the growing interstate and international environment.

The United States international tax system is a dual system that uses both residence and source principles of taxation. The U.S., using residence principles of taxation, taxes the worldwide net income of its domestic multinational corporations. The problem of multiple taxation described earlier is solved by allowing domestic multinational corporations a credit for the net income taxes they have paid to the foreign countries in which they do business. The amount of the credit is limited: foreign income taxes can be credited only to the extent of the U.S. tax allocable to the taxpayer's "foreign source" income. Expressed as a fraction, the maximum allowable credit is:

$$\text{U.S. income tax (on world-wide income, before credit)} \times \frac{\text{foreign source taxable income}}{\text{U.S. consolidated income}}$$

The effect of the foreign tax credit limitation is that U.S. multinational corporations pay taxes on their foreign source income at the higher of the foreign tax rate or the U.S. rate. Foreign multinationals that do business in the U.S. are taxed only on the income earned there.

States can use such a dual tax system, too. In fact, at least 42 states do so with their personal income taxes.[111] Alabama does so with its general business corporations,[112] and Rhode Island and Indiana do so with their bank taxes.[113] The dual tax system appears to be consistent with the directives of the due process and commerce clauses.[114]

The domestic bank component of the dual system consists of a residence-based tax coupled with a credit. The residence-based tax with a credit meets many of the same objectives of a good tax as does a pure residence-based tax. Although not as simple as a pure residence-based tax, it is still relatively easy to administer. First, a domiciliary state taxes its domestic banks on their entire income, regardless of where it is earned. Domiciliary banks that are subject to this residence-based tax include (1) state banks that are licensed under the law of the taxing state, (2) foreign banks[115] that are operating in the taxing state under a state license, (3) national banks that have designated the taxing state as their principal place of business in their charter, and (4) foreign banks that are operating in the taxing state under a federal license as a "federal branch" or a "federal agency."[116] Then, the domiciliary state grants such banks a credit for income taxes paid to other states.[117] There are only two circumstances under which a domiciliary state will grant a credit: (1) for activities conducted by a branch of a domiciliary bank, which is located out of state and taxed by the state in which it is doing business; and (2) for branchless banking activities, which are conducted by a domiciliary bank out of state and are taxed by the state in which the activities are conducted.[118]

States will not face the administrative and compliance burdens that exist in the U.S. residence-based tax system which is used in the taxation of international income.[119] Unlike the wide variety of tax bases used by foreign countries, nearly every state that imposes a corporate income tax uses a net income base that broadly conforms to the measure of the federal income tax.[120] Therefore, a state could define a creditable tax as a net income tax, a franchise tax measured by net income, or a tax in lieu of a net income tax (i.e., an alternative minimum tax).

States can bypass yet another difficulty in the application of the U.S. tax on multinational corporations--the calculation of the foreign tax credit limitation. As noted, the U.S. limit is expressed by the formula, the numerator of which is the multinational corporations's "foreign source" taxable income and the denominator of which is that entity's worldwide taxable income. The Internal Revenue Code ("Code") requires that foreign source income be defined by U.S. tax law rather than by foreign law. To calculate its foreign tax credit limit therefore, a U.S. multinational must first "re-source" its foreign income according to the extremely complex source rules in sections 861-864 of the Code. These source rules are necessary in the international arena because no constitutional limits exist to prevent foreign countries from overreaching in their definitions of foreign source income. Within the national arena, however, the due process and commerce clauses limit state definitions of the source of income. Moreover, nearly every state excludes "foreign source" income (i.e., income deemed by the Internal Revenue Code to be earned in a foreign country) from their taxes. Thus, states have no need for complex source rules; they can simply limit the amount of their credit by reference to their own rate. The use of effective state tax rates rather than nominal rates will remove any distortions caused by the differences in state net income tax bases.

Unlike the pure residence-based tax, a residence-based tax coupled with a credit does not suffer from the defect of multiple taxation. A simple example will illustrate this proposition.

> Assume that Bank A, domiciled in State X, does business in and is taxed by three states: X, Y and Z.

Assume further that Bank A has $1,000,000 of net income for fiscal year 1 and that all three states would calculate the corporations income in the same manner. All three states have a 7 percent tax rate. Bank A earned income in all three states. State Y determined that 20 percent of the income was earned there and apportioned $200,000 to itself. State Z determined that 10 percent of the income was earned there and apportioned $100,000 to itself. State X assesses its tax on the entire net income of Bank A but gives a credit for the taxes the corporation pays to States Y and Z. Given these rules, Bank A would pay a $14,000 income tax to State Y ($200,000 x 7% = $14,000); a $7000 income tax to State Z ($100,000 x 7% = $7000); and a $49,000 income tax to State X ($1,000,000 x 7% = $70,000 - $21,000 tax credit = $49,000). Thus, Bank A pays tax on 100 percent of its income, and its total tax liability is $70,000.

Also, unlike the pure residence-based tax, the residence-based tax with a credit does not create competitive inequality between in-state and out-of-state banks. Out-of-state or nondomiciliary banks pay taxes to the host state on that fraction of the income that they earn in their host state at the same rate as domiciliary banks.[121] Host state laws govern the composition of the tax base and the rate of the tax. The host state also controls the elements of the apportionment formula.

Because most states use pure source-based taxation with formulary apportionment for general business corporations, the use of residence-based taxation with a credit for taxes paid to other states can create some tax disparity between banks and general business corporations. On the one hand, the total tax burden on Corporation A will be the same under formulary apportionment and a system of tax credits as long as State A has a tax rate which is equal to that of all other states taxing the corporation, as the following example illustrates:

> Assume that Bank A, domiciled in State X, does business in and is taxed by three states: X, Y and Z. Assume further that Bank A has $1,000,000 of net income for fiscal year 1 and that all three states use formulary apportionment to determine the tax liability of Bank A. According to the states' formulas, 70 percent of the company's income is attributable to its activities in State X, 20 percent to those in State Y and 10 percent to those in State Z. If all three states had the same 7 percent tax rate, Bank A would pay $49,000 income tax to State X (70% x $1,000,000 = $700,000 x 7% = $49,000); $14,000 tax to State Y (20% x $1,000,000 = $200,000 x 7% = $14,000); and $7000 tax to State Z (10% x $1,000,000 = $100,000 x 7% = $7000). Thus, Bank A pays tax on 100 percent of its income and its total tax liability is $70,000, which is the same tax liability that the bank would have under a residence-based tax coupled with a credit.[122]

On the other hand, Bank A's aggregate tax burden will be greater if the domiciliary state uses a credit system and a tax rate that is higher than that of the host states that tax the bank, as the following example shows:

> State X, the domiciliary state, has a tax rate of 9%, State Y's rate is 8% and State Z's rate is 7%. State X taxes the entire net income ($1,000,000) of Bank A, and States Y and Z tax 20% and 10% respectively. Bank A's aggregate tax burden is $90,000. It pays State X $73,000 ($1,000,000 x 9% = $90,000 - $23,000 = $67,000); State Y $16,000 ($200,000 x 8% = $16,000); State Z $7000 ($100,000 x 7% = $7000). In effect, the bank has paid tax on $1,000,000 at the rate of 9 percent.[123]

Compare the result under formulary apportionment with the same 9%, 8%, 7% tax rates:

> Bank A's aggregate tax burden would have been $86,000 rather than $90,000. It would have paid $63,000 to State A ($700,000 x 9% = $63,000); $16,000 to State Y; and $7000 to State Z.
> (This example assumes, however, that the situs rules of the three states are identical. If, as was described in the preceding section, the situs rules of the three states differ, overlapping taxation will exist under formulary apportionment, increasing the corporation's overall tax burden).

The residence-based tax with a credit need not, however, create tax disparity among competitive lines of business. For example, as described below, some states have adopted a broad definition of a "bank" in order to subject all competing entities to the same tax.

The residence-based tax with a credit also scores high in creating neutrality and fairness among small, community-based banks and large multistate banks in that small community banks and large multistate banks are taxed under the same rules. With a pure source-based system, multistate banks have a significant state tax advantage over local,

alternatives will satisfy all eight policy goals. A pure residence-based tax receives the highest marks of the three for simplicity, low compliance and enforcement burdens, certainty, and avoidance of trade barriers. Yet, a pure residence-based tax has several flaws, including: discrimination between different lines of business, the failure to promote competitive equality between in-state and out-of-state banks, and the potential for multiple taxation. The latter two flaws are particularly serious in light of the increased interstate banking activity originating from legislative and judicial actions and technological progress.

A dual system consisting of a residence-based tax with a credit for domiciliary banks and a source-based tax for nondomiciliary banks scores high in the elements of neutrality, fairness, simplicity and exportability. Under the dual system, small community banks and large multistate banks are taxed under the same rules. The use of the dual system would also solve two serious problems that cannot be remedied under a pure source-based tax system. First, because the dual system requires the use of an apportionment formula only for nondomiciliary banks, no home state/host state dilemma exists. Instead, a state can adopt a formula that is specifically tailored to apportion the income of nondomiciliary banks. Second, the use of the dual system prevents the tax avoidance created by the increasing securitization of bank loans. Under the dual system, a domiciliary state would levy its tax on the entire interest income received by a domestic bank from the securitized loans. The goal of creating a uniform apportionment formula should be attainable under a dual system. Conversely, the dual system suffers from political handicaps.

Viewed from a national perspective, the pure source-based tax ranks low in the criteria of simplicity, uniformity, provision of certainty and regularity for taxpayers, and reduction of compliance burdens. The use of pure source-based taxation with formulary apportionment in an interstate environment causes several problems for states. Because of the home state/host state conflict in situs rules, pure source-based taxation with formulary apportionment scores low in exportability and competitive equality between domiciliary and out-of-state banks. This problem is particularly acute in the case of branchless banks. Also, the use of pure source-based taxation with formulary apportionment in connection with securitized loans creates the potential for widespread tax avoidance, also decreasing the fairness of the tax. Finally, the use of pure source-based taxation with formulary apportionment has a discriminatory effect against community-based banks. With a pure source-based system, multistate banks have a significant state tax advantage over local, community banks. In the present environment, large multistate banks have the option to move their assets and profits to jurisdictions that have a low tax rate or no tax at all, thereby reducing considerably their overall tax burden. Smaller, community-based banks cannot take advantage of such tax breaks. Conversely, because most states today use formulary apportionment, that method ranks high on the avoidance of discrimination between banks and general (nonfinancial) businesses.

ADMINISTRATIVE AND POLICY CONSIDERATIONS

Source-Based Taxes: Alternative Apportionment Formulas

States that adopt a pure source-based tax must select among several possible factors and situs rules. Many states will also alter the respective weights that they assign to the factors chosen in order to increase their revenue and/or favor their domiciliary corporations.

The purpose of an apportionment formula is to measure what fraction of the income-producing activity of a multijurisdictional taxpayer takes place within a given state. Therefore, the particular factors chosen should reflect in general how the taxpayer generates its income. The situs rules then spread the income of the corporate taxpayer among the states having jurisdiction to tax it. Within general fairness guidelines, states have wide latitude in the selection of apportionment formulas.[125]

Banks earn income by soliciting deposits, which in turn permits them to create loans and investments (intangible property), which generate interest and fee income. Banks also earn a significant amount of income from dealings in intangibles other than loans (i.e., securities and money market instruments) and by providing a variety of services. Thus, in the case of bank income, payroll receipts, intangible property and deposits are all potential factors. No existing federal laws or judicial decisions require states to choose any one or any combination of these potential factors. No empirical evidence yet exists that suggests that any one of the potential factors is better than any other factor or that any combination will produce a better result when used for both domiciliary and market states.

Moreover, any uniform apportionment formula would require significant compromises; that is, states would have to agree not to use apportionment formulas to (1) seek to maximize their revenue, (2) favor domiciliary corporations, or (3) engage in interstate tax competition, an event that appears unlikely given the experience with state formulas for multistate general business corporations. Although presently it is not feasible to describe the best formula for banks, it is possible to evaluate the formulas now in use.

UDITPA Formula

The UDITPA formula contains a property factor (real and tangible personal property), a sales factor and a payroll factor. Given the importance of intangibles as an income-producing item for banks, the failure of the UDITPA to include intangible property in its property factor makes that formula unsuitable for bank income; in fact, the Act specifically exempts financial institutions. While the omission of intangible property may not rise to the level of a constitutional flaw, it significantly changes how the income of a bank is spread among the states in which it transacts business. For example, the situs of real and tangible personal property is attributed to the state in which the property is physically located. In most cases, such property will be found in the domiciliary state of a financial institution. Consequently, an apportionment formula that uses only real and tangible property will benefit only the domiciliary state. If, as is true in the case of the UDITPA, the formula also contains a payroll factor the balance will be tipped even further in favor of the domiciliary state because most employees will be located there, too.

Moreover, the use of the UDITPA formula may have a discriminatory effect. Real and tangible personal property (such as machinery and equipment) are likely to comprise a large percentage of the assets of a general business (nonfinancial) corporation, while intangible property will represent a small fraction of its assets. This situation is reversed in the case of a financial institution. Typically, financial institutions have very little real and tangible personal property, whereas intangible property, such as loans and securities, constitute their entire business. Thus, use of the UDITPA formula in connection with financial institutions results in the exclusion of most of their property from the formula, whereas the application of the same formula to general business corporations does not result in a similar exclusion.

Despite these flaws, approximately 11 states use the three-factor UDITPA formula.[126] Typically, these states have not attempted to design a formula that is tailored for banks but have simply borrowed the UDITPA formula. A few states include intangible property in the property factor of their apportionment formula.[127] Unlike the situation with real property or tangible personal property, the legal situs of intangible property can exist in more than one state:[128] namely, the domicile of the creditor, the domicile of the debtor, and/or the state in which the intangible has a business situs.[129] The inclusion of intangible property in the property factor coupled with a situs rule based on the residence of the debtor would benefit market states.

New State Apportionment Formulas

Recognizing the defects of the UDITPA formula, some states have adopted new formulas specifically tailored to banking. The new laws of New York and Minnesota represent two different approaches to the problem of apportioning the income of multijurisdictional banks.

The New York Law

In 1985, New York completely revised its bank tax to make it similar to the state's tax on general business corporations. Like general business corporations, New York uses a pure source-based tax for banking corporations. The factors chosen by New York to apportion the income of banking corporations are receipts, deposits, and payroll. The numerator of the payroll factor is 80 percent of in-state wages, salaries and other personal services compensation.[130] The receipts and deposits factors are double-weighted.

The receipts factor consists of the ratio of receipts earned within New York to receipts earned everywhere. It includes all income from loans, financing leases, rents; service charges, fees and income from bank, credit, travel and entertainment cards; net gains from trading and investment activities; fees from the issuance of letters of credit and traveler's checks; and all income from government bonds, although a portion of such income is excluded from the tax base.

The regulation contains separate "situs" rules for each receipt. The rules have a strong domiciliary state bias. Consider, for example, the following receipts' situs rules.

(1) The situs of income from loans (other than credit card loans) is in New York if the loan is "located in New York."[131] A loan is deemed located in New York if the greater portion of income-producing activity relating to the loan (i.e., the solicitation, investigation, negotiation, approval and administration) takes place in New York. The definitions of these terms make it clear that in most cases all of the income-

producing activity will be deemed to take place in the state in which the lending bank is located.[132]

(2) The situs of income from bank, credit, travel, entertainment and other card operations is the state of domicile of the credit card holder.[133]

(3) The situs of receipts for services performed by the taxpayer's employees regularly connected with or working out of a New York office is New York if such services are performed within New York.

The deposits and payroll factors also exhibit a domiciliary state bias. The deposits factor is the ratio of the average value of deposits maintained at branches within New York to the average value of all deposits maintained at branches within and outside of New York.[134] Deposits made by an out-of-state individual or business are deemed to exist in the state in which the deposit is maintained. The payroll factor is the ratio of 80 percent of in-state wages, salaries and other personal services compensation to total wages, salaries and other personal services compensation.

The Minnesota Law

Minnesota revised its bank income tax law in 1987 and 1988. The factors selected by Minnesota--payroll, property and receipts--are similar to those in the UDITPA formula. The similarity between the two formulas ends there, however. Two differences are particularly important. First, the Minnesota formula includes intangible property in the property factor, as well as tangible property and real property.[135] Second, under the Minnesota law, the three factors are not weighted evenly. Instead, the formula apportions income to Minnesota by comparing 70 percent of the receipts in state to receipts in all states, 15 percent of the property in state to property in all states, and 15 percent of the payroll in state to payroll in all states.[136]

The Minnesota situs rules, which have a distinctly market state flavor, differ significantly from the New York rules, as the following examples illustrate:

1. Receipts from Loans.
   The situs of income and other receipts from loans secured by real estate or tangible property is in Minnesota if such property is located in the state.
   The situs of income and other receipts from unsecured commercial loans is in Minnesota if the proceeds of the loan are to be applied in the state.[137]
   The situs of income and other receipts from unsecured consumer loans is in Minnesota if the borrower is a resident of Minnesota.[138]

2. The situs of income and other receipts from credit card and travel and entertainment cards is in Minnesota if the card charges and fees are regularly billed there.[139]

3. The situs of receipts from the performance of services is in Minnesota if the benefits of the services are consumed in the state, regardless of where the services are performed.[140]

The state's situs rules for the property factor track those of the receipts factor.[141] Payroll is attributed to Minnesota if an employee is (a) employed within the state, (b) actually working within the state, or (c) accountable to an office within the state.[142]

Summary and Comment

To date, two states--New York and Minnesota--have completely revamped their state bank tax laws using pure source-based principles. Each of these states has chosen very different situs rules. The differences reflect the states' perception of their status as a home state or a host state. For example, New York, which is a money center state, has chosen situs rules that locate most bank receipts and deposits in New York. The New York receipts and deposits factors are double-weighted. Minnesota, which deems itself to be primarily a host state, has selected situs rules that have a market state bias: receipts and intangible property are located in the state of the borrower. According to the Minnesota situs rules, receipts are weighted more heavily than either property or payroll.

Although these differences in state apportionment formulas do not appear to raise a federal constitutional question,[143] they do cause overlapping taxation. As more states pass new bank tax laws, the lack of uniformity will produce more tax overlap and greater administrative burdens for banks operating across state lines.

Definition of Taxable Entities: What is a Bank?

Until recently, most states defined a "bank" in harmony with the regulatory definition of a bank. Consequently, a "bank" was defined as an entity regulated by the state's Department of Banking. Many states that used this definition taxed banks differently than they taxed other depositories, such as savings and loan institutions. Now, however, states are beginning to enlarge their narrow definition of a bank in order to create tax parity among like institutions. The

use of a definition of the taxable entity that includes all or most competing institutions will go a long way toward creating a neutral and fair tax system. State experiments in this area range from an expanded regulatory definition of a "banking corporation" to an open-ended definition of a "financial institution." The laws of New York, Michigan, and California illustrate the possibilities.

The New York Definition

The New York law applies to every "banking corporation" that is exercising its franchise or is doing business in New York. In general, a "banking corporation" is defined as:

> (a) any corporation that is organized under the laws of New York, any other state, or country (U.S. or foreign) and that is doing a banking business, or
>
> (b) any corporation the stock of which is 65 percent or more owned or controlled by a bank, thrift or bank holding company and that is engaged in a business that can be lawfully conducted by a commercial bank or is engaged in a business that is so closely related to banking or managing or controlling or managing banks as to be a proper incident thereto.

Essentially, then, a banking corporation is one which is either doing a banking business or is a subsidiary of a bank, thrift or bank holding company. The law defines a "banking business" as the business that a traditional bank is authorized to do and the business that any other corporation can do which is substantially similar to the business of a traditional bank.

The law makes the task of revenue authorities and taxpayers easier because it clearly defines which entities are subject to the tax. This is done by regulations which give specific examples of the kinds of entities that are banks, thrifts or bank holding companies and then by referencing the federal regulations that specifically list the subsidiaries of bank holding companies which are banking corporations under (b) above.

The Michigan Definition

Michigan defines a "financial organization" for the purpose of its single business tax as a "bank, industrial bank, trust company, savings and loan association, bank holding company ... credit union ... and any other association, joint stock company, or corporation at least 90% of whose assets consist of intangible personal property and at least 90% or whose gross receipts income consists of dividends or interest or other charges resulting from the use of money or credit."[144] According to Michigan tax officials, many nonbank institutions that compete with banks for automobile, mortgage and other loans come within this definition.[145] Other entities that some commentators deem to be competitors of banks, such as securities brokerage and investment firms and insurance companies, are excluded from the Michigan financial organization tax.[146]

By focusing on the unique aspects of banks and financial institutions (i.e., institutions whose assets consist primarily of intangible property and whose income is generated through the use of money and credit), the Michigan statute creates a significant degree of tax parity among competing entities.

The California Definition

California's financial institutions law contains a very broad definition of a taxable entity. The law provides for the apportionment of the income of banks and "financial institutions." Case law defines a financial institution as an entity that deals in "moneyed capital" in substantial competition with national banks. By administrative policy, the California Franchise Tax Board applies a "more than 50% of gross income" test. Thus, a financial institution is an entity that receives more than 50 percent of its gross income from the use of its capital in substantial competition with other moneyed capital. Thus, entities engaged in consumer financing, including automobile financing, come within the definition of a financial institution.[147] Although California has not issued regulations implementing the vague case law, the state has published legal rulings that give examples of the kinds of entities that will be deemed financial institutions.

Use of the Unitary Business Principle

States developed the unitary business principle to counter the problem of tax avoidance through interstate profit shifting by general business corporations.[148] Because they deal in intangibles, banks can shift assets and profits among taxing jurisdictions much more easily than general business corporations. According to the unitary business principle, the apportionable tax base of multistate Corporation A that is doing business within State X includes the combined income of all members of Corporation A's unitary group, which consists of the parent and any of its controlled (i.e., related by more than 50% common ownership) subsidiaries that are engaged with it in a "functionally integrated" enterprise.[149] The amount of the combined unitary base that is attributable to Corporation A's activities in State X is determined by

multiplying the base by the state's apportionment formula. The numerators of the factors will include the property, payroll and receipts of Corporation A, while the denominator of the formula must include the gross receipts, property, payroll, etc. of the entire unitary group,

Corporate taxpayers have criticized the states' use of the unitary business principle, claiming that a clear and economically valid definition of a unitary business is lacking. The U.S. Supreme Court has stated that "the prerequisite to a constitutionally acceptable finding of unitary business is a flow of value, not flow of goods."[150] Taxpayers assert that because the unitary method is based upon such a nebulous and indefinite concept, states can and do use the method to require the combination of affiliates that are engaged in entirely unrelated businesses, thereby causing distortions in their tax liability.

Fortunately, the question of unrelated businesses seldom arises with banks and bank-like entities.[151] Federal law prohibits banks and bank holding companies from controlling any subsidiaries that are not engaged in activities "incidental to the business of banking" in the case of national banks[152] or "closely related to banking or managing or controlling banks" in the case of bank holding companies.[153] Hence, no bank or bank holding company subsidiary can engage in a business unrelated to that of banking, thus removing the major impediment to the use of the unitary business principle.

An important application of the unitary business principle in connection with state taxation of banks is the protection of the integrity of a state's franchise tax. As noted, many states have adopted a franchise tax measured by net income for banks because that tax provides the only method by which states can include the income from federal securities in a bank's tax base. Yet, because not every state has a franchise tax and because bank assets are very mobile, the franchise tax is easily avoided through "tax planning" techniques, such as the following:

> Assume that Bank X is a domiciliary bank of State A. State A has a franchise tax and taxes federal securities. Bank X can avoid the tax on federal obligations by transferring its federal securities to Subsidiary Y located in State B, a state that does not have a bank franchise tax and cannot, therefore, tax the income from such securities.

The use of the unitary business principle would allow State A to combine the income of Subsidiary Y with that of Bank A for purposes of its state tax.

The unitary business principle is compatible with both the pure source-based and dual tax systems. A residence-based tax can easily be translated into the source-based tax that is necessary for combined reporting. A residence-based tax can be represented by an apportionment formula that attributes 100 percent of the factors (i.e., gross receipts, intangible property, etc.) to the domiciliary state. Once the residence-based tax is transformed into a source-based apportionment formula, the factors of all of the members of the unitary group can be combined to determine what fraction of the combined apportionable income base is attributable to the taxing state. The actual tax is then calculated by applying the rate to the base and subtracting the credit. As described earlier, the use of a single-factor receipts formula will, in most cases, attribute the most income to the taxing state.

Jurisdiction Rules

As noted, banks can and do conduct business in many states without having a physical location there. Many banks regularly make loans and solicit deposits by mail, telephone or electronic means. As electronic communications systems become more sophisticated, interstate branchless banking will increase. Such an environment renders jurisdiction rules based upon a physical presence obsolete.

Branchless banking can create tax avoidance and tax discrimination between in-state and out-of-state banks. Consider, for example, the following common situation. Company A is a credit card subsidiary of a full-service bank. Its only brick-and-mortar place of business is in State A. Company A solicits its credit card customers solely by mail in all fifty states. Through these mail-order operations, Company A makes loans to consumers in every state, earning interest and fee income from their residents.

Even if we assume that one of these states, State B, has a source component, it normally will not tax Company A on the interest and fee income it receives from residents of State B because Company A, which is domiciled in State A, does not have a brick-and-mortar presence there. Even with the use of the unitary business principle, State B will not be able to tax its apportioned share of the interest and fee income from Company A's credit card subsidiary unless Company A has a taxable affiliate located in State B. The domiciliary banks in State B, on the other hand, may also issue credit cards to residents of State B. Unlike Company A, State B's domiciliary banks will pay taxes on the interest

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and fee income to State B.[154]

In spite of the fact that branchless banking may result in tax avoidance and discrimination against domiciliary banks, most states still have tax jurisdiction rules that prevent them from taxing out-of-state banks that regularly solicit business from their residents by mail, telephone or electronic means. It is unlikely that the U.S. Constitution will be interpreted to prevent states from adopting broader income tax jurisdiction rules for nondomiciliary banks that make loans to their residents.[155] As the U.S. Supreme Court has noted in upholding a state's exercise of judicial jurisdiction over an out-of-state defendant who had no office or other physical presence in the state asserting jurisdiction, "it is an inescapable fact of modern commercial life that a substantial amount of business is transacted solely by mail and wire communications across state lines, thus obviating the need for physical presence within a state in which business is conducted."[156] One state, Minnesota, has broadened its tax jurisdiction rules by statute. Similar legislation is pending in Massachusetts. According to the ACIR survey, 11 other states do so by administrative policy.

The New York Jurisdiction Rules

According to the New York rules, foreign banking corporations "doing business" in New York apportion their income according to a three-factor formula. A banking corporation is deemed to be "doing business" in New York if engages in any of the following activities within the state: (1) operates a branch, (2) operates a loan production office, (3) operates a representative office, or (4) operates a bona fide office.[157]

The Minnesota Jurisdiction Rules

Minnesota's tax jurisdiction rules are broader than the New York rules. Activities that create jurisdiction to tax in Minnesota include both the traditional "doing business" test, which is based upon the taxpayer's physical presence within the state and a "regular solicitation" standard, which does not rely on an in-state physical presence. For example, according to the Minnesota law, a financial institution is subject to tax if it "conducts a trade or business which ... regularly solicits business from within [the] state ...." Solicitation includes:

> 1. Distribution by mail or otherwise of catalogs, periodicals, advertising flyers, or other written solicitations or business to customers in [Minnesota];
>
> 2. Display of advertisements on billboards or other outdoor advertising in [Minnesota];
>
> 3. Advertising in Minnesota newspapers;
>
> 4. Advertising on Minnesota radio or television ....[158]

A financial institution is deemed to have "regularly" solicited business from within the state if it "conducts activities with twenty or more persons within [Minnesota] during any tax period, or the sum of its assets and deposits attributable to Minnesota sources equals or exceeds $5,000,000."[159]

Reporting Requirements

Broad jurisdiction rules allow a state to tax an out-of-state branchless bank, but they do not provide a mechanism for identifying which entities are taxable. Assuming that it is possible for a state to detect the existence of a branchless bank, it still cannot tax such an entity unless the activities of the branchless bank have met the constitutionally required threshold. An attempt to assert tax jurisdiction over a branchless bank without some proof of the extent of its activities within the taxing state would inevitably lead to protracted litigation over the constitutionality of the tax. The issue may have to be litigated again with each separate branchless bank because the nature and extent of the activities of each such entity may vary.

To overcome this problem, some states have turned to reporting statutes. Typically, such statutes require all foreign corporations that have not received a license to do business in the state or that have not filed a tax return for the year in question to file a Notice of Business Activities. Because a reporting statute does not in itself subject the foreign corporation to tax, the use of a reporting statute solves the problem of case-by-case litigation over the taxability of each branchless bank.[160]

Minnesota has such a statute. According to the Minnesota statute, every corporation that during the calendar year obtained any business from within Minnesota must file a Notice of Business Activities Report with the state's tax commissioner unless,

> (1) it is a financial institution that conducts activities with less than 20 persons within Minnesota during the tax year and the sum of its assets and deposits attributable to Minnesota sources is less than $5,000,000;
>
> (2) it is engaged solely in secondary market activity in Minnesota as defined by Minnesota law;[161]
>
> (3) it has a certificate of authority to do business in Minnesota;

(4) it has timely filed a Minnesota corporate franchise tax return; or (5) the corporation is tax-exempt.[162]

Under this law, a corporation must file the notice even if it does not have a physical presence in Minnesota.

Because the Minnesota reporting statute is based upon a similar statute in New Jersey, the recent litigation over the penalty provisions in the New Jersey statute may affect the Minnesota law. According to both statutes, the failure to file the required business activities report results in certain penalties, including the loss of access to the state's courts. Section 13A:13-20(b) of the New Jersey statute provides that:

> The failure of a foreign corporation to file a timely report shall prevent the use of the courts in this State for all contracts executed and all causes of action that arose at any time prior to the end of the last accounting period for which the corporation failed to file a timely report.[163]

The validity of this section is in doubt. Recently the New Jersey Supreme Court reviewed First Family Mortg. Corp. v. Durham,[164] a case that presented a challenge to the New Jersey reporting statute. First Family Mortgage Corporation, a Florida corporation that was not authorized to do business in New Jersey, acquired 54 mortgages on New Jersey homes. Although it came squarely within the terms of the New Jersey law, First Family failed to file an activities report. When Linda Durham, the owner of one of the homes mortgaged, defaulted on her mortgage payments, First Family initiated a foreclosure action in a New Jersey court. Durham moved to dismiss the case on grounds that First Family did not comply with the reporting statute. First Family challenged the reporting statute claiming that by prohibiting access to the state's courts, the statute violated the commerce clause of the U.S. Constitution.

Although the New Jersey Supreme Court upheld the state's reporting statute in general, it found that the above section violated the commerce clause because it did not give the offending corporation the right to regain access to the courts by filing the required report and paying any taxes, interest or penalties due. In order to preserve the constitutionality of the statute, therefore, the New Jersey Supreme Court interpreted section 14A:13-20(b) as being subject to the general "cure" provisions in section 14A:13-20(c)(1)-(2). The latter section allows a court to excuse the failure to file if:

> (1) the failure to file a timely report was done in ignorance of the requirement to file, such ignorance was reasonable in all circumstances; and
>
> (2) all taxes, interest and civil penalties due the State for all periods have been paid, or provided for by adequate security or bond approved by the director, before the suit may proceed.

The Minnesota law (which has not been challenged) does not contain an "ignorance" requirement; that is, a taxpayer can regain access to the courts simply by filing and paying any taxes, penalties and interest due.

Conclusion

The 1819 decision of the Supreme Court in McCulloch v. Maryland set the stage for Congressional domination of state taxation of national banks and federal obligations that continues today. States cannot tax either national banks or federal obligations without statutory permission from Congress.

Congress began exercising its control over state taxation of national banks with the passage of the National Currency Act in 1864. The Act codified the McCulloch holding by permitting states to tax the real property and shares of national banks. One section of the Act limited state taxes on national bank shares to a rate no greater than the rate assessed on "other moneyed capital." This first Congressional foray into the business of regulating state taxation of national banks through specific statutory directives and limitations signaled the beginning of over a century of litigation involving mind-numbing differences in state calculations of their rates of taxation and interpretations of the phrase "other moneyed capital."

By 1969 Congress had recognized that neither further amendments, which merely led to a new round of litigation, nor judicial mediation, which produced a large body of inconsistent and conflicting opinions, could bring order or clarity to state taxation of national banks. In a final revision of the law, Congress removed all prior conditions and limitations on state taxation of national banks and passed legislation that directed states to tax national banks in the same manner as they tax their state banks. The new law became effective in 1976.

Given the long history of Congressional control over the methods by which a state could tax national banks, it is not surprising that most states have not yet revised their laws to reflect either the changes in federal law or the changes in the business of banking. For example, some states still tax their domestic

banks using pure residence-based taxation even though that system fails to promote competitive equality between in-state and out-of-state banks and creates the potential for multiple taxation. Approximately 32 states apportion the income of multistate banks. About 11 of those states apportion the income of in-state and out-of-state banks using the UDITPA three-factor formula, which was designed for manufacturing companies. By failing to take account of intangible property, such as loans and government securities, the UDITPA formula misallocates income among the states when used for banks. There is no commonality among the apportionment rules in the remaining 21 states. Also, most states still use jurisdiction rules based upon a physical presence, although such rules appear obsolete in an era in which loans are made and deposits solicited interstate by mail, telephone and other electronic means.

It is not possible yet to describe all the contours of the "best" bank tax. States have only recently begun to amend their bank tax laws to take advantage of the lifting of prior Congressional restraints on state taxation of banks; therefore, one cannot measure the relative effectiveness of the different new state bank taxes. The three states that have recently revamped their laws--Minnesota, New York and Indiana--have adopted very different approaches to the taxation of bank income. Both Minnesota and New York choose pure source-based taxation. Yet, Minnesota has broad jurisdiction rules and an apportionment formula with a market state bias, while New York requires an office location in the state in order to establish tax jurisdiction and has adopted an apportionment formula with a domiciliary state bias. Indiana adopted the dual system of taxation, whereby domestic banks are taxed using a residence-based tax with a credit and out-of-state banks are taxed by means of a single factor receipts formula. Several other states are in the process of amending their bank tax laws, and eventually every state that has a pure residence-based tax may have to amend its law in order to eliminate multiple taxation.

States are still searching for a system that will satisfy the criteria of a good tax and interstate uniformity. At least in the case of general business corporations, the goal of uniformity has proved elusive. In order to settle upon a uniform apportionment formula with a pure source-based tax, states will have to make significant compromises. Specifically, states would have to agree not to use apportionment formulas to (1) seek to maximize their revenue, (2) favor domiciliary corporations, or (3) engage in interstate tax competition.

A promising possibility that meets many of the criteria of a good tax is the dual tax system, whereby domiciliary banks are taxed on their entire income, with a credit for taxes paid to other states, while nondomiciliary banks are taxed according to source principles.

Although it is not yet clear what the best bank tax will be, it is imperative to monitor and evaluate the new bank taxes as they are adopted by the states. Such efforts will help states to identify the most effective method for taxing banks, and thereby promote uniformity among state bank taxes.

ENDNOTES

1. 17 U.S.(4 Wheat.) 315 (1819).

2. An excellent and detailed discussion of the federal immunity doctrine can be found in Paul J. Hartman, Federal Limitations on State and Local Taxation, 219-379 (The Lawyers Co-operative Publishing Company, New York, 1981).

3. 17 U.S. at 429.

4. A national bank is a bank which holds a federal rather than a state charter. A national bank is a governmental instrumentality because it is created by Congress.

5. US Const. Art.I, sec.28, cl.8. According to the McCulloch Court, since a national bank would facilitate the exercise of the fiscal powers expressly delegated to the national government, Congress could properly conclude that a national bank was necessary to carry out those powers.

6. US Const. Art VI, sec. 2. Because a national bank was necessary and proper, the decision of Congress to incorporate such banks was part of the supreme law of the land.

7. Weston v. Charleston, 27 U.S. 448 (1829).

8. US Const. Art I, sec.8, cl. 27.

9. Weston, 27 U.S. 469.

10. In 1862, Congress codified the prohibitions of the Weston decision in an Act that provided that "All stocks, bonds and other securities of the United States held by individuals, corporations, or associations ... shall be exempt from taxation by or under State authority." This per se prohibition was rendered ineffective, however, by two later decisions of the Supreme Court that upheld bank shares taxes, measured by the value of all bank assets including federal obligations (Home Ins. Co. v. New York, 134 U.S. 594, (1890)) and franchise taxes measured by the entire net income of corporations, including the income from federal obligations (Society for Sav. v. Coite, 73 U.S. 594 (1867)).

11. 31 U.S.C. sec. 3124 (a). This restriction has led many states to adopt a franchise tax measured by net income instead of a direct net income tax for banks. With a franchise tax, a state can include the income from federal obligations in the tax base. This is an important advantage because the income from federal and state securities comprises a significant fraction of the income of banks.

12. 13 Stat. 112. Earlier Congress had passed the Currency Act of 1862 which exempted from state taxation "all stocks, bonds, and other securities of the United States held by individuals, corporations or associations within the United States." 12 Stat. 346.

13. 13 Stat. 112.

14. McCulloch, 17 U.S. at 435.

15. John B. Woosley, State Taxation of Banks, (1935), reproduced in Board of Governors of the Federal Reserve System, 92nd Cong., 1st Sess., Report of a Study Under Public Law 91-156, State and Local Taxation of Banks, Before the Senate Comm. on Banking, Housing, and Urban Affairs (Comm. Print 1971).

16. Section 41 also permitted a state to tax the real estate of national banks to the same extent that it taxed other real estate.

17. The second limitation was dropped in a 1868 amendment to the Act. 15 Stat.34.

18. John B. Woosley, State Taxation of Banks, (1935), reproduced in Board of Governors of the Federal Reserve System, 92nd Cong., 1st Sess., Report of a Study Under Public Law 91-156, State and Local Taxation of Banks, Before the Senate Comm. on Banking, Housing, and Urban Affairs (Comm. Print 1971).

19. People v. Weaver, 100 U.S. 539 (1879).

20. Hepburn v. The School Directors, 90 U.S. (23 Wall.) 480 (1874). The Court found no discrimination in this practice. Typically these suits were brought by national banks although the actual tax was levied on the shareholder.

21. Commercial Bank v. Chambers, 182 U.S. 556 (1901).

22. Aberdeen Bank v. Chehalis County, 166 U.S. 440 (1897); Mercantile Bank v. New York, 121 U.S. 138 (1887); Davenport Bank v. Davenport Board of Equalization, 123 U.S. 83 (1887); Bank of redemption v. Boston, 125 U.S. 60 (1888).

23. First National Bank of Wellington v. Chapman, 173 U.S. 205 (1899).

24. First National Bank of Hartford v. City of Hartford, 237 U.S. 548 (1927);

25. National Bank of Richmond v. City of Richmond, 256 U.S. 635 (1921).

26. People v. Commissioners, 71 U.S. (4 Wall.) 244 (1866); Mercantile Bank v. New York, 121 U.S. 138 (1887); Bank of Redemption v. Boston, 125 U.S. 60 (1888); Aberdeen Bank v. Chehalis County, 166 U.S. 440 (1897).

27. Mercantile Bank v. New York, 121 U.S. 60 (1888); Talbot v. Silver Bow County, 139 U.S. 438 (1891).

28. Bank of Redemption v. Boston, 125 U.S. 60 (1888).

29. 90 U.S. at 484 (1874).

30. 121 U.S. 138 (1887).

31. John B. Woosley, State Taxation of Banks, (1935), reproduced in Board of Governors of the Federal Reserve System, 92nd Cong., 1st Sess., Report of a Study Under Public Law 91-156, State and Local Taxation of Banks, Before the Senate Comm. on Banking, Housing, and Urban Affairs, 241 (Comm. Print 1971).

32. Mercantile Bank v. New York, 121 U.S. 138, 154 (1887).

33. Woosley, supra, note 14 at 239.

34. 42 Stat. 1499.

35. 44 Stat. 223.

36. See text at note 11, supra, for statutory limitations on state taxation of federal obligations.

37. 44 Stat. 223.

38. John B. Woosley, State Taxation of Banks, (1935), reproduced in Board of Governors of the Federal Reserve System, 92nd Cong., 1st Sess., Report of a Study Under Public Law 91-156, State and Local Taxation of Banks, Before the Senate Comm. on Banking, Housing, and Urban Affairs, 288 et.seq. (Comm. Print 1971).

39. 358 U.S. 450 (1959).

40. 101 So.2d 70 (1958), appeal dism'd and cert. denied, 359 U.S. 28 (1959).

41. 15 U.S.C. sec. 381 (1959).

42. See, Jerome R. Hellerstein, 30 TAX L. REV. 155,156 (1975)

43. 392 U.S. 339 (1968).

44. 392 U.S. at 348.

45. See Hartman, supra note 2 at 376.

46. 12 U.S.C. sec. 548 (1982).

47. Advisory Commission on Intergovernmental Relations, 94th Cong., 1st Sess., Report of a Study under Public Law 93-100, State and Local "Doing Business" Taxes on Out-of-State Financial Depositories, Before the Senate Comm. on Banking, Housing, and Urban Affairs (Comm. Print 1975), p. v.

48. Advisory Commission on Intergovernmental Relations, 94th Cong., 1st Sess., Report of a Study under Public Law 93-100, State and Local "Doing Business" Taxes on Out-of-State Financial Depositories, Before the Senate Comm. on Banking, Housing, and Urban Affairs (Comm. Print 1975), 48-49.

49. Cf., Northwestern States Portland Cement Co. v. Minn, 358 U.S. 450, 476; McCarroll v. Dixie Greyhound Lines, Inc., 309 U.S. 176, 188-189 (1940).

50. See, e.g. Burger King v. Rudzewicz, 471 U.S. 462 (1985). In upholding jurisdiction over an out-of-state defendant who had no office or other physical presence in the state asserting jurisdiction, the high Court noted that "it is an inescapable fact of modern commercial life that a substantial amount of business is transacted solely by mail and wire communications across state lines, thus obviating the need for physical presence within a state in which business is conducted."

51. See, Advisory Commission on Intergovernmental Relations, State Regulation of Banks in an Era of Deregulation, 1988.

52. Advisory Commission on Intergovernmental Relations, 94th Cong., 1st Sess., Report of a Study Under Public Law 93-100, State and Local "Doing Business" Taxes on Out-of-State Financial Depositories, Before the Senate Comm. on Banking, Housing, and Urban Affairs (Comm. Print 1975), at 374-375.

53. The Massachusetts law provided that an out-of-state bank holding company with its principal place of business in one of five New England states (Connecticut, Maine, New Hampshire, Rhode Island, and Vermont), which is not directly or indirectly controlled by another corporation with its principal place of business located outside of New England, may establish or acquire a Massachusetts-based bank or bank holding company, provided that the other New England State accords equivalent reciprocal privileges to Massachusetts banking organizations. Mass. Gen. Laws Ann., ch. 167A, sec.2.

54. See, Conference of State Bank Supervisors, State of the State Banking System, (1989). For a complete description of state regulation of interstate banking, see, Advisory Commission on Intergovernmental Relations, State Regulation of Banks in an Era of Deregulation, 1988.

55. See, e.g. Douglas H. Ginsburg, "Interstate Banking", 9 HOFSTRA L. REV. 1133, (1981).

56. H. Rep't. No. 99-426, 99th Congress, 1st Session 393 (1986).

57. 757 F.2d 453 (2nd Cir., 1985); cert. denied, 106 S.Ct. 2926 (1986).

58. "New England Bank Without Walls Depends on US Mail to Bring Deposits Offering Investors Higher Rates". American Banker, p. 24, June 23, 1986.

59. "TSO Welcomes Long-Distance/Nationwide Customers With System That Could Make Walk-in Banking Passe", American Banker, backpage, Aug. 4, 1986.

60. "Chemical Enters Connecticut Consumer Market with Phone and Mail Premium Banking Service", American Banker, p. 23, December 17, 1985.

61. See, Conference of State Bank Supervisors, State of the State Banking System, 1989.

62. Id.

63. Id.

64. According to regulatory accounting practices only loans that are sold without recourse can be removed from the institution's balance sheet. Once the loans are sold without recourse, banks have no legal or contractual obligation to buy back the assets. Nevertheless, some regulators maintain that loan securitization is not risk-free. For example, one official at the Office of the Comptroller of the Currency has warned that "cultural forces morally obligate banks to buy back sour assets... you honor what the market perceives to be your commitment, and that is to back up the assets you sell." "Regulator Cites Risks of Asset Securitization", American Banker, March 30, 1989, pg. 3.

65. See, e.g. "Securitization: What Will They Package Next" American Banker, January 7, 1987, pg. 1; "Securitization May Soon Extend to Commercial Loans", American Banker, December 16, 1987, pg. 16.

66. Id.

67. Unless the state considers the securitized loans non-business income, an unlikely event.

68. See, 1985 N.Y. Tax Law, sec. 1454; 20 NYCRR 19-6.2 (d) (1)-(5).

69. See, Minn. Stat. Ann. sec. 290.191, subd.6.

70. For example, see N.Y. Tax Law 1454 (a)(2)(E); and Minn. Stat. Ann. 290.191, subd.7.

71. The suggestion was made by William Fox, Professor of Economics at the University of Tennessee. A state can also attempt to allocate to itself all of the income received by its domiciliary banks from securities, similar to the treatment of nonbusiness income in UDITPA. Because the income from securitized loans is surely business income, however, it may not be possible for a domiciliary state using source-based taxation with formulary apportionment to allocate the income from securities to itself.

72. John Kincaid and Sandra B. McCray, "State Bank Taxation and the Rise of Interstate Banking: A Survey of States", ACIR Staff Report, Intergovernmental Perspective, Fall, 1988. Seven states reported that they use a bank shares tax, 4 levy a gross receipts tax, and 6 impose another type of tax on banks.

73. Jerome R. Hellerstein, State Taxation, 266 et.seq. (Warren, Gorham, & Lamont, Boston & New York, 1983).

74. Memphis Bank & Trust Company, 103 S.Ct. 692 (1983).

75. Paul J. Hartman, Federal Limitations on State and Local Taxation, Cum. Supp. 237 (The Lawyers Co-operative Publishing Company, New York, 1981).

76. For a discussion of state franchise taxes on banks, see Sandra B. McCray, "State Taxation of Interstate Banking", 21 GA. L. REV. 283 (1986). A state that imposes a franchise tax measured by net worth can also include the value of federal obligations in the computation of net worth. Werner Machine Co. v. Director of Taxation, 350 U.S. 492 (1956).

77. John Kincaid and Sandra B. McCray, "State Bank Taxation and the Rise of Interstate Banking: A Survey of States", ACIR Staff Report, Intergovernmental Perspective, Fall, 1988.

78. See, e.g. 1988 Minn. Statutes 290.01. Such a tax jurisdiction rule should be constitutional. See, e.g. Sandra B. McCray, "State Taxation of Interstate Banking", 21 GA L. Rev. 283 (1986).

79. See, Sandra B. McCray, "Constitutional Issues in State Apportionment of Income: Financial Institutions", 51 ALB. L. REV. 895 (1987). If State A taxes its domiciliary Bank A on 100 percent of its net income and State B taxes Bank A on its income from loans made to residents of State B, multiple taxation will result. In such a case, it is likely that the residence-based tax of State A will fall. See, Mobil Oil Corp. v. Commissioner of Taxes, 445 U.S. 425 (1980).

80. Paul J. Hartman, Federal Limitations on State and Local Taxation, 522 (The Lawyers Co-operative Publishing Company, New York, 1981).

81. Paul J. Hartman, Federal Limitations on State and Local Taxation, 522 (The Lawyers Co-operative Publishing Company, New York, 1981). See, Underwood Typewriter Co. v. Chamberlain, 254 U.S. 120.

82. 254 U.S. 113 (1920).

83. Jerome R. Hellerstein, State Taxation, 323 (Warren, Gorham & Lamont, Boston, New York 1983).

84. Id. at 325

85. Paul J. Hartman, Federal Limitations on State and Local Taxation, 523 (The Lawyers Co-operative Publishing Company, New York, 1981)

86. In its response to the ACIR survey, Alabama reported that it allows banks to use the UDITPA apportionment formula to calculate their separate tax liability within the states.

87. See generally Wisconsin v. J.C. Penney Co., 311 U.S. 435 (1940).

88. "States have wide latitude in the selection of apportionment formulas ...." Moorman Mfg. Co. v. Bair, 437 U.S. 267, 274 (1978)

89. Jerome R. Hellerstein, State Taxation, 495 (Warren, Gorham, & Lamont, Boston & New York, 1983).

90. 7A U.L.A. 331 (1957).

91. See, Jerome R. Hellerstein, State Taxation, 496-498 (Warren, Gorham, & Lamont, Boston & New York, 1983) for charts listing jurisdictions that have adopted UDITPA.

92. Id., at 495-536.

93. Id., at 572-600.

94. Id., at 577.

95. Id., at 578-600.

96. Those states are: Connecticut, Florida, Illinois, Kentucky, Massachusetts, New York, Ohio, West Virginia, Wisconsin, Minnesota, Nebraska, and North Carolina.

97. The resulting formula looks as follows:

$$\frac{1}{4}\left(\frac{\text{payroll in state}}{\text{payroll in all states}} + \frac{\text{tangible prop. in state}}{\text{tangible prop. in all states}} + 2\times\frac{\text{sales in state}}{\text{sales in all states}}\right)$$

98. The following examples illustrate the effects of double-weighing the sales factor.

Situation 1. Effect of a Double-Weighted Sales Factor on Domiciliary Corporations.
Assume that 60 percent of a taxpayer's property, 60 percent of its payroll, and 25 percent of its sales were in State X. If State X weighted each of those factors evenly, then, the average of those three factors would be 145 percent / 3 or 48.33 percent. With an evenly-weighted formula, 48.33 percent of the taxpayer's apportionable income would be attributed to State X for corporate income tax purposes. Now suppose that State X modifies its formula to double-weight the sales factor. The effect would be to reduce the percentage of income attributed to State X to 42.5 percent [(.60 + .60 + 2x .25) / 4 = .425 = 42.5%)]. The bias in favor of domiciliary corporations with a double-weighted sales factor is even greater if the taxpayer has a greater portion of its property and payroll in the state and still makes a major portion of its sales to out-of-state buyers. Suppose that the mix is 90 percent property, 90 percent payroll, and 15 percent sales in-state. The evenly-weighted formula will attribute 65 percent of the taxpayer's income to State X [(.90 + .90 + .15) / 3 = 65%)]. The same mix will produce a percentage of only 52.5 percent under the double-weighted sales factor formula [(.90 + .90 + 2x .15) / 4 = 52.5%)].

Situation 2. The Effect of a Double-Weighted Sales Factor on Out-of-State Corporations.
Assume that the out-of-state taxpayer has only 5 percent of its property and 5 percent of its payroll within State X but makes 20 percent of its sales into State X. The evenly-weighted three-factor formula attribute 10 percent of the taxpayer's income to State X [(.05 + .05 + .20) / 3 = 10%)]. The double-weighted sales factor will increase that percentage to 12.5 percent [(.05 + .05 + 2x .20) / 4 = 12.5)].

The examples are based on those given by Eugene Corrigan of the Multistate Tax Commission in the Multistate Tax Review, Vol.2, p.9, June, 1987. For a thorough discussion of the effects of the double-weighted receipts factor, see Pomp, "Reforming a State Corporate Income Tax," 51 ALB. L. REV. 383, 570 (1987).

99. See generally, Jerome R. Hellerstein, State Taxation, 582-600 (Warren, Gorham, & Lamont, Boston & New York, 1983).

100. Id. at 583-588.

101. Id., at 588-594. Other differences state rules, too numerous to list here, appear in Hellerstein, Tables 9-2 through 9-5, 618-629.

102. According to Hellerstein, "the selection of the situs to which to attribute intangible property is fraught with exceptional complications." Jerome R. Hellerstein, State Taxation, 573 (Warren, Gorham, & Lamont, Boston & New York, 1983).

103. In fact, the Court has recognized three different places at which the situs of a debt might be fixed: the domicile of the owner (creditor) (State Tax on Foreign Held Bonds, 15 Wall. 300 (1872); Kirtland v. Hotchkiss, 100 U.S. 491 (1879), the domicile of the debtor (Blackstone v. Miller, 188 U.S. 189 (1903) (ovrld. Farmer's Loan Co. v. Minn.,280 U.S. 204 (1929)); and, the state in which the debt has a business situs, i.e. where the debt originated in the course of business transacted in a state (New Orleans v. Stempel, 175 U.S. 309 (1899), Bristol v. Washington County, 177 U.S. 133 (1900), Metropolitan Life Ins. Co. v. New Orleans, 205 U.S. 395 (1907)). According to the Court, each of those states offered the taxpayer the benefits and protections of its laws. See generally, Sandra B. McCray, "State Taxation of Interstate Banking", 21 GA. L. Rev. 283. As pointed out by Paul Hartman, Professor Emeritus at Vanderbilt University Law School, it is somewhat anomalous to speak of the "situs" of intangibles. Citing State Tax Comm'n v. Aldrich, 316 U.S. 174, 178, Hartman notes that the "situs" of intangibles is just a judicially approved taxable "relationship" between persons, natural or corporate. Correspondence from Paul Hartman, August 4, 1988.

104. Curry v. McCanless, 307 U.S. 357 (1939). Of course, the commerce clause does prohibit multiple taxation.

105. Moorman Mfg. Co. v. Bair, 437 U.S. 267, 273 (1978).

106. See, Sandra B. McCray, "Constitutional Issues in State Apportionment of the Income of Multistate Businesses: Financial Institutions", 51 ALB.L.REV. 895 (1987).

107. Both states have a legitimate claim to include the interest and fee income from the loan in the numerator. Both states have the necessary nexus to do so. See, supra, note 103.

108. This is the UDITPA formula, which is used by approximately 11 states to apportion the income of banks; see, text at note 125 infra.

109. Viewed from a nationwide perspective, formulary apportionment is far from simple. See text at notes 86-100.

110. 7A U.L.A. sec.2, at 340 (1957).

111. Commerce Clearing House, All States State Tax Guide, 1523. Seven states are not represented in the CCH Tables.

112. Alabama Code, sec. 40-18-21

113. The Rhode Island law allows domestic banks a deduction, but not a credit, for taxes paid to other states. Rhode Island G.L., secs. 44-14-11 and 44-14-13. The tax was recently upheld by the Rhode Island Supreme Court in Commercial Credit Consumer Services v. Norberg, 518 A2d 1336 (R.I. 1986). Indiana H.B. 1625 was passed by the Indiana legislature in the 1989 legislative session and signed by the Governor on May ****, 1989.

114. The due process clause does not preclude the state of domicile from taxing the entire income of its citizens, Lawrence v. State Tax Comm'n, 286 U.S. 276 (1932); New York ex rel. Cohn v. Graves, 300 U.S. 308 (1937). Nor does the due process clause prevent the state of domicile from taxing the entire income of its domestic corporations. Matson Navigation Co. V. State Bd. of Equalization, 297 U.S. 441 (1936); Cream of Wheat v. County of Grand Forks, 253 U.S. 325 (1920); G. Altman & F. Keesling, Allocation of Income in State Taxation 31 (2d ed. 1950). Recently the high Court has indicated that a tax credit will satisfy the "fair apportionment" requirement of the

Commerce Clause. See, Tyler Pipe Indus. v. Washington Dept of Revenue, 107 S. Ct. 2810,2819-21; D.H. Holmes Co.Ltd v. McNamara, 108 S. Ct. 1619 (1988). And see, Sandra B. McCray, "Constitutional Issues in State Apportionment of Income", 51 ALB. L. REV. 895 (1987).

115. For the definition of a "foreign bank" see 12 U.S.C. 3101 (7), (8).

116. See, 12 U.S.C. 3103 et.seq.

117. The credit system is more complex for those states that tax the worldwide income of their domiciliary banks. In such a case, a state would allow its domiciliary banks a prorated share of the foreign tax credit calculated under the federal rules. The federal foreign tax credit would be prorated among the states in which the bank did business.

118. If the domiciliary bank is part of a bank holding company that operates in several states through separately-chartered subsidiaries, each such subsidiary is by definition a domiciliary bank of the state which it has designated as its principal place of business.

119. Many commentators have noted the complexity of U.S. system; particularly the calculation of the foreign tax credit and the application of the source rules. For example, the Internal Revenue Code ("Code") gives a tax credit only for "net income taxes" paid to foreign countries. This provision has proved difficult to administer. Many foreign countries levy "taxes" that bear little resemblance to the U.S. net income tax, and the Internal Revenue Code does not permit multinationals to claim a credit against such charges. For this reason the Internal Revenue Code contains intricate rules that control which foreign charges are creditable.

120. Jerome R. Hellerstein, State Taxation, 266 et.seq. (Warren, Gorham, & Lamont, Boston & New York, 1983).

121. The due process clause of the U.S. constitution prevents a state from levying a residence-based tax, even with a credit, on nondomiciliary corporations. Consequently, a state must devise an apportionment formula for out-of-state banks.

122. Given the same facts, Bank A would pay a total tax of $70,000 under formulary apportionment, calculated as follows: $49,000 to State X ($1,000,000 x 70% = $700,000 x 7% = $49,000), $14,000 tax to State Y (20% x $1,000,000 = $200,000 x 7% = $14,000); and $7000 tax to State Z (10% x $1,000,000 = $100,000 x 7% = $7000). The total tax burden on Bank A will also be the same under the dual system and formulary apportionment if its domiciliary state has a tax rate which is less than that of all other states taxing the bank.

123. Because the disparity is inherent in the differing rate structures, not in the tax credit system itself, the system is not constitutionally infirm. A state tax system that is internally consistent as is the dual system is not unconstitutional simply because the tax scheme of another state increases the aggregate tax burden on a multistate corporation. Armco, Inc. v. Hardesty, 467 U.S. 638, 644-45 (1984); Mobil Oil Corp. v. Comm'r of Taxes, 445 U.S. 425 (1980); Sandra B. McCray, "Constitutional Issues in State Apportionment of Income: Financial Institutions", 51 ALB. L. REV. 895 (1987).

124. The following calculation illustrates this proposition.

Define R, P, and B as the total receipts, payroll, and apportionable base, respectively, of the entire corporation, and R_b and P_b as the receipts and payroll of the branch in Indiana. If a single-factor formula is employed, the taxable income attributable to Indiana is given by the formula $T_1 = [R_b/R]B$. If instead Indiana employs a two-factor formula, the taxable income attributable to Indiana is given by the formula

$$T_2 = [1/2][R_b/R + P_b/P]B.$$

It will be advantageous for the market state to use the two-factor formula only if $T_2/T_1 > 1$, or $[1/2][R_b/R + P_b/P][R/R_b] > 1$. A little algebra shows that this equation is tantamount to the equation $R_b/P_b < R/P$.

125. Moorman Mfg. Co. v. Bair, 437 U.S. 267.

126. John Kincaid and Sandra B. McCray, "State Bank Taxation and the Rise of Interstate Banking: A Survey of States", ACIR Staff Report, Intergovernmental Perspective, Fall, 1988.

127. New York, California and Minnesota are three such states.

128. Such property is also easily moved from state to state or even outside the United States. The Congress recently grappled with this problem in the Tax Reform Act of 1986. According to the House Committee report, "the lending of money is an activity that can often be located in any convenient jurisdiction, simply by incorporating an entity in that jurisdiction and booking loans through that entity, even if the source of the funds, the use of the funds, and substantial activities connected with the loans are located elsewhere". See, H. Rept. No. 99-426, 99th Congress, 1st Session 393 (1986).

129. See note 103, supra.

130. The numerator of the payroll factor was limited to 80 percent to encourage banks to maintain a large employee base in New York. See, Kaltenborn, Is New York's Bank Tax Ready for the 1990's? 4 J. STATE TAX. 225 (1985).

131. 1985 N.Y. Tax Law, sec. 1454; 20 NYCRR 19-6.2(a).

132. Consider, for example, the following definitions of the terms "solicitation", "investigation", "negotiation" and "administration." According to the regulation "active solicitation" occurs when an employee of the banking corporation initiates the contact with the customer. Such activity is located at the office where the bank's employee is regularly connected, regardless of where the services of such employee were actually performed. "Passive solicitation" occurs when the customer initiates the contact with the taxpayer. If the customer's initial contact was not at an office of the taxpayer, the office where the passive solicitation is deemed to occur is determined by the facts in each case. "Investigation" is located at the office where the taxpayer's employees are regularly connected, regardless of where the services of such employee were actually performed. "Negotiation" and "approval" are located according to the rule for investigation above. "Administration" is located at the office that oversees the activity of bookkeeping, collecting the payments, corresponding with the customer, and proceeding against the borrower if it is in default. 20 NYCRR 19-6.2 (d) (1) - (5).

133. 1985 N.Y. Tax Law, sec. 1454; 20 NYCRR 19-6.6.

134. 1985 N.Y. Tax Law, sec. 1454; 20 NYCRR 19-7.8.

135. Minn. Stat. Ann. sec. 290.191, subd.3.

136. Id.

137. Minn.Stat.Ann. sec. 290.191, subd.6.

138. Id.

139. Id.

140. Id.

141. Minn.Stat.Ann. 290.191, subd.11.

142. Minn.Stat.Ann. sec. 290.191, subd.12.

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143. Moorman Mfg. Co. v. Bair, 437 U.S. 267; and see, Sandra B. McCray, "Constitutional Issues in State Apportionment of Income: Financial Institutions", 51 ALB. L. REV. 895 (1987).

144. Michigan Stat. Ann. 7.558 (10).

145. Phone conversation with Fred Lynch, Administrator, Michigan Single Business Tax, August 16, 1988.

146. Id.

147. Phone conversation with Benjamin Miller, Counsel for Multistate Tax Affairs, California Franchise Tax Board, September 7, 1988.

148. Because the law treats parent corporations and their subsidiaries as isolated entities, a group of related corporations doing business across state lines can practice tax avoidance through interstate profit shifting. Consider, for example, the following situation. Corporation A, a manufacturing company, is located in and doing business in State A, a state with a high state income tax rate. Corporation A has a wholly owned subsidiary, Corporation B, which is located in State B, a state that does not have an income tax. Company A manufactures widgets and company B assembles and sells the widgets throughout the United States, but not in State A. The two companies are clearly integrated economically. In such a situation, it is relatively easy for Company A to avoid State A's income tax by arranging to have the bulk of the profits from the sale of the widgets fall in State B. Company A merely charges Company B an artificially low price for the widgets, so that it receives little income in State A. Company B then sells the widgets at their normal retail price and receives all of the profits in State B, which has no income tax.

149. Corporation A may file a combined report in State X. After eliminating intercorporate transactions (because the transactions between Corporation A and the members of its unitary group cannot produce a real economic profit or loss, income is recognized for tax purposes only when the entire process of production and sale is completed; i.e. upon the ultimate sale to third parties), the total gross receipts and total deductions for the entire economic enterprise are itemized and netted to produce the apportionable base. This base is then apportioned among the jurisdictions in which the unitary group conducts its activities according to a formula that measures the contribution of such activities in each state to the profit of the whole.

150. Container Corp. of America v. Franchise Tax Board, 463 U.S. 159, 178 (1983).

151. California, a pure source-based income tax state, has however recently begun dealing with the application of the unitary business principle to unitary enterprises that are engaged in both general businesses and financial businesses. The first case to be litigated in California involved Sears (a general business under California law) and Sears Roebuck Acceptance Corporation (a financial business under California law). The Franchise Tax Board is in the process of drafting regulations that would require "preapportionment" of the income of such a combined group in order to separate the general business income from the financial income. The separation is necessary because the formula used for general business corporations is different than that used for financial institutions. Phone conversation with Ben Miller, supra, note 134.

152. 12 U.S.C. 24 (1984).

153. 12 U.S.C. 1843(a) (1982).

154. It is true that State A could assess its tax on the income received by it from Company A's credit card activities. It is unlikely to do so, however, since one of the reasons for setting up credit card subsidiaries is to take advantage of low tax or no tax jurisdictions (originally, the primary reason for setting up credit card subsidiaries was to escape state usury ceilings).

155. See, McCray, "State Taxation of Interstate Banking", 21 GA. L. REV. 283 (1986).

156. Burger King v. Rudzewicz, 471 U.S. 462, 476 (1985).

157. 1985 N.Y. Tax Law, sec. 1451 (a), sec. 1462 (f).

158. Minn. Stat. Ann. sec. 290.015. In addition to the 4 items listed, "solicitation" includes advertising in publications with their circulation primarily in Minnesota; advertising in regional or Minnesota editions of national publications; advertising in national publications sold over the counter or by subscription in Minnesota; direct telephone or other electronic solicitation in Minnesota.

159. Id.

160. See First Family Mortg. v. Durham, 528 A2d 1288 (1987).

161. Minn. stat. sec. 290.015, subd. 3(b).

162. See, Minn. stat. sec. 290.371.

163. N.J.S.A. 14A:13-20(b). Another section of the statute has language which permits the offending corporation to cure the defect and regain access to the state's courts. N.J.S.A. 14A: 13-20(a) provides that "No foreign corporation carrying on any activity or owning or maintaining any property in this State which has not obtained a certificate of authority to do business in this State and disclaims liability for the corporation income tax shall maintain any action or proceeding in any State or Federal court in New Jersey, until such corporation shall have filed a timely notice of business activities report." (emphasis supplied). The Minnesota statute contains similar provisions.

164. 528 A.2d 1288 (1987).

HAWAII BANK TAXATION

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Tax Review Commission Staff

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INTRODUCTION

This paper is intended to provide an understanding of the development of bank taxation[1] in Hawaii and a basis for reviewing the Hawaii Franchise Tax. It includes some comments on the treatment of banks under Hawaii General Excise Tax (G.E.T.) laws - a necessary adjunct to a discussion of bank taxation in Hawaii.

Reason for looking at Bank Taxation

One reason for looking at bank taxation is that things have changed. Banking and taxation are different from the way they were thirty years ago when the Franchise Tax was adopted or ten years ago when the legislature last considered bank taxes. Aspects of change include: competition, incremental tax policy, positioning, and federal law.

Competition - Banks (along with insurance companies and utilities) have traditionally been taxed differently from other businesses, partly because they are regulated and partly because of the uniqueness of their products or services. Today's climate is one of less regulation, and innovations - spurred by changing technology - have tended to blur the distinctions that might have once marked the uniqueness of banking products and services.

Incremental Tax Policy - Tax policy is incremental, which is good when it fosters stability and forestalls disruptive change. At some point, however, a stagnant policy or an accumulation of incremental changes can undermine the system. On those occasions when thought was given to reevaluating Hawaii's bank tax policy, there has generally been a reluctance to proceed without further analysis.[2]

Hawaii's taxes underwent a major restructuring in 1957 and again in 1965. The Franchise Tax was adopted as part of the 1957 restructuring but, other than a rate increase, had no part in the 1965 revisions. Instead, the Department of Taxation was instructed to conduct an intensive study and evaluation of the Franchise Tax and report its findings and recommendations to the 1966 Session.[3] There is no indication that such a report was submitted in 1966 or to any later Session (although the Department has periodically looked at parts of bank taxation). It is now almost twenty five years later.

Positioning - It's axiomatic that a tax review should look not only at current circumstances but also to future needs. It is also evident that interstate banking is here in fact if not yet in law. With the likelihood that interstate banking will become more prevalent, thought should be given to positioning the tax system to accommodate it.

Federal Law - Two federal laws influence state bank taxation, but their relative importance has changed over the years:

1. Section 5219[4] on State Taxation of National Banks - States can tax national banks only by permission of the federal government. Section 5219 once dominated state bank tax policy with its tight restrictions on the taxation of national banks. A 1969 amendment, fully effective in 1976, substantially relaxed the restrictions and required only that a national bank be taxed as a state bank of its domiciliary state. As a result, the underlying assumption regarding national banks and the design of most state bank taxes, including the Hawaii Franchise Tax, no longer applies.

2. Section 3701[5] on State Taxation of Interest from Federal Obligations - Obligations of the federal government are exempt from taxation by a state or political subdivision. The exemption extends to every form of taxation that would require that either the obligations or the interest thereon, or both, be considered, directly or indirectly, in the computation of the tax, except nondiscriminatory franchise or other non-property taxes in lieu thereof imposed on corporations. This is now the more influential federal law; it encourages states to adopt or retain a franchise tax as their bank tax.

Any review of bank taxation should be mindful of the environment in which banks conduct business, because much of what drives state bank taxation involves questions of equity: what is the competition, and whose

1. The terms "bank" and "bank taxation" will be used throughout, although the Hawaii "bank tax" (i.e., Franchise Tax) applies as well to savings and loans and other institutions.

2. See, for example: Standing Committee Report 279, Senate Journal, 1965; Senate Bill 1455, 1975; S.B. 1313, 1977; House Bill 736, 1979; Senate Resolution 354, S.D. 1, 1979.

3. S.C.R. 279, Senate Journal, 1965.

4. Sec. 5219, (12 U.S.C. 548).

5. Sec. 3701, (31 U.S.C. 3124).

interests need to be balanced?

Bank taxation does invoke the myriad concerns that attend taxation in general, but it can be viewed within a manageable framework without a loss of perspective or substance. In this paper, the framework is that state bank taxation has largely been, and will continue to be, driven by a need to identify who competes with banks and how to treat the competitors equitably. Regulation plays a role, but it is a diminishing one.

Competition

Within the Banking Industry

1. National Banks vs. State Banks
For most of its history, the United States has fostered the development of national banks by limiting the ability of states to adopt tax policies that might have placed national banks at a competitive disadvantage vis-à-vis state-chartered banks.

The limitations on taxing national banks had the effect of dictating state tax policy and sustaining a federal domination of bank taxes for a century and a half, the residual effects of which are only now being dealt with by the states.

2. Domiciled vs. Non-Domiciled
In more recent years, the issue has been less a matter of national banks vs. state banks and more a matter of competition among banks across state borders: charter has yielded to domicile as the measure of competition among banks for state tax purposes.

Between Banking and other Industries

There is an increasing competition between banks and other businesses, with a concomitant blurring of the distinction between banking and non-banking activities - a blurring that is intensified by deregulation, changing technology, and innovation.

Hawaii Issues

The Hawaii Franchise Tax remains pretty much as it was when originally enacted in 1957 and covers all banks doing business within the state - domestic, national, or foreign - as well as savings and loans and other financial institutions. In addition to the general bank tax questions above, two issues pertaining to Hawaii warrant attention:

1. Deduction for Federal Income Tax - From the outset the Hawaii Franchise Tax law has included the allowance of a deduction for federal income taxes. Whether or not there was ever a justification for the deduction, it bears rethinking.

2. General Excise Tax - The high rate for the Franchise Tax (currently 11.7%) was intended, after taking into account the inclusion of interest on government obligations and the deduction of federal income taxes, to approximate the effects of the combined rates for the general excise and corporate income taxes that generally apply to other businesses. It was initially set up that way in order to satisfy federal requirements for the taxation of national banks,[6] which at the time appeared to prohibit state excise taxes on national banks.

Since the federal restrictions that led to the structure of the Franchise Tax were lifted in 1976, there is no longer an underlying justification for maintaining that structure.

Some past analyses suggest that banks pay more taxes under the Franchise Tax than they would under the combined G.E.T. and corporate income tax. Other commentators suggest that banks would pay more the other way around. That type of focus (on whether taxes would be higher or lower) obscures the issue, which is whether or not banks and their competitors should be treated equally with respect to the activities that they share in common.

The G.E.T. applies to most businesses, but not to banks. An equitable tax system should provide either: (a) an even-handed application of or exemption from the G.E.T. where there is competition between banks and other businesses, or (b) a sound rationale for the differences.[7]

Summary

States cannot tax either national banks or federal obligations without the permission of the federal government. Those limitations have controlled the way in which states tax banks. The depth and direction of that control has changed over the years, but federal influence over state bank taxation continues today. Whereas the influence was once with respect to the taxation of national banks, it now stems from the treatment of interest on government obligations.

Bank taxation is further circumscribed by other inter-jurisdictional limitations in an age of interstate and international banking. States must somehow be able to measure and tax the economic activity within their borders and enforce their assessments.

Besides the problems of jurisdiction there is the blurring of boundaries between banking and commerce and

6. Subcommittee on Taxation, Report of the Subcommittee on Taxation. Hawaii: Economic Planning and Coordination Authority, 1957.

7. Interest income earned by banks, for example, may warrant special treatment.

the difficulties in identifying exactly what distinguishes banking activities from non-banking activities.

Given that and the peculiarities of the Franchise Tax and general excise tax, a look at Hawaii bank taxation should take into account the following:

1. The federal law governing national banks no longer provides the underlying assumption that originally justified the **structure** of the Franchise Tax (e.g. a rate that approximates the combined G.E.T. and corporate rate).

2. The federal law governing federal interest still justifies the Hawaii Franchise Tax as a **type** of bank tax to have (i.e, a franchise tax rather than an income tax).

3. Interstate (and international) banking will require an ability to measure and assess economic activity equitably and efficiently. There is no consensus on how to measure interstate activity, and the ability to enforce assessments is limited. Despite those limitations, the bank tax system should be positioned to accommodate the increasing demands that will be made on it.

4. Inter-industry competition poses questions of equity to the extent that similar economic activities are subject to differing taxing schemes.

5. The consensus of policy experts is that state tax systems generally should not allow a deduction for federal income taxes.

EVOLUTION OF HAWAII BANK TAXATION

The Federal Role

State (Territorial) taxation of national banks appears to have been a settled matter for much of the history of Hawaii taxes prior to 1927. The United States government had early on staked out a claim of federal tax immunity, which extended to state taxation of national (federally chartered) banks. Through a combination of court cases and legislation, the federal government limited the ability of states to tax national banks, declaring in effect that states could tax national banks only to the extent that it chose to allow. Because states were reluctant to subject their state-chartered banks to more onerous taxes than they could impose on national banks, federal law dominated state bank taxation for over a century and a half (from 1819 to 1976).

The Supreme Court initially set out a doctrine of federal immunity in McCulloch[8] in 1819 and reaffirmed it Weston[9] in 1829, both cases involving the constitutionality of state taxes imposed in some fashion on national banks.

Congress codified the McCulloch decision with the National Currency Act of 1864, which outlined a scheme that granted the states a choice of taxing national banks upon either: (1) the rate of tax assessed upon "other moneyed capital" in the hands of citizens in the state, or (2) the rate imposed on the shares of any state-chartered bank.[10]

Congress relaxed its grip between 1923 and 1926 by amending the law so that states could tax national banks under any of 4 different methods: (1) bank shares, (2) a dividends tax, (3) a tax on net income, or (4) according to or measured by net income. That has been the genesis of most state bank tax laws.

Congress essentially removed all restrictions with a 1969 amendment that required only that a national bank be treated the same as a bank that is chartered within its domiciliary state. Senate Report 91-530, U. S. Senate (1969), in discussing the background of the 1969 amendments to Section 5219, states that while there might have at one time been a justification for giving national banks privileges and immunities that were denied state banks, under the theory that national banks are peculiarly an instrumentality of the federal government, the Senate Committee was in agreement that there was no longer any justification for Congress continuing to grant national banks immunities from state taxation that were not afforded to state banks.[11] The prior language of section 5219 was entirely eliminated and amended to read:

> For purposes of any tax law enacted under authority of the United States or any State, a national bank shall be treated as a bank organized and existing under the laws of the State or other jurisdiction within which its principal office is located.

The amendment's effective date was initially deferred until 1973 and then again until 1976. It has been the law since then.

Hawaii Bank Taxes before the Franchise Tax

There was no separate Hawaii bank tax until 1932, and there is no indication that Hawaii took any steps

8. McCulloch v. Maryland, 17 U.S. 315 (1819).

9. Weston v. Charleston, 27 U.S. 448 (1829).

10. Leading to much litigation over (1) definitions and (2) rate computations.

11. The Committee refrained from addressing the question of whether national banks remain, in substance, such an instrumentality of the federal government, and as such, hold a unique and distinct position from that of other institutions.

o tax or exempt national banks prior to 1927. State banks appear to have been subject to the income tax.

In 1927, Hawaii responded to amendments to federal law by amending its own net income tax law to add national banks to the list of corporations subject to income tax,[12] figuring that:

> *Inasmuch as Congress has enacted legislation to the effect the national banking associations may be subject to local income taxes there would seem to be no good reason why national banks organized and doing business in the Territory should not be subject to our local income tax laws along with other banking institutions of the Territory.*[13]

Hawaii enacted the Hawaii Bank Act of 1931, which provided that banks were not taxed in respect of their property, real or personal, under any other law, to a greater extent than competing national banks in the territory.

In 1932, with the passage of the Banking Excise Tax, assessed at 10% of net income, Hawaii enacted its first tax directed specifically at banks.

In 1935, the Banking Excise Tax was changed to a flat dollar amount of $50,000 to be apportioned among the banks.

In 1947, the flat dollar Bank Excise Tax was increased from $50,000 to $125,000.

In 1951, it was again increased from $125,000 to $175,000. (See Exhibit A)

The Franchise Tax was introduced during a Special Session of the Legislature in 1957 and brought banks, savings and loans, and other financial institutions together for the first time under a single tax apart from the income tax. Section 241-2(a) of the current law is identical in relevant part to the corresponding section of the 1957 law and reads:

> **Sec. 241-2 Imposition of tax on national banking associations; construction; exemption from other taxes, except real property tax**-(a) Every national banking association located in the State shall annually, as of January 1, pay a franchise tax <u>according to, or measured by, its net income</u>, to be computed as provided in section 241-4, at the rate there prescribed. The State is hereby adopting <u>method number (4)</u>, authorized by section 5219, Revised Statutes of the United States, as amended (12 U.S.C. 548), or other similar law.[14] [emphasis added]

Of the 4 methods for taxing national banks after 1926:

1. a bank shares tax,
2. a dividends tax,
3. a tax on net income, or
4. according to or measured by net income,

the second was of little use as most states adopted one of the three other methods. In adopting the Franchise Tax, Hawaii completed the cycle of having used all three of the other methods at one time or another. A net income "method (3)" tax for Hawaii was initially the corporate net income tax, which extended as well to banks. Its successor method (3) tax was the 1932 Bank Excise Tax on net income, applied solely to banks.

A bank shares "method (1)" tax was introduced with the 1935 Bank Excise Tax[15] and continued through the subsequent increases that preceded the Franchise Tax.

Exhibit B shows the number and types of financial institutions in

EXHIBIT A. HAWAII BANK TAXES

Year of Enactment	Type of Tax
1901	Income Tax
1927	National banks subject to income tax
1932	Bank Excise Tax at 10% of net income
1935	Bank Excise Tax at flat $ 50,000
1947	Bank Excise Tax increased to $125,000
1951	Bank Excise Tax increased to $175,000
1957	Franchise Tax at 10% of entire net income
1965	Franchise Tax rate increased to 11.7%

12. Act 211, Laws 1927.

13. S.C.R. 569, <u>House Journal</u>, 1927.

14. The reference to "method number (4)" has not been meaningful since section 5219 was amended in 1976.

15. Act 131, Laws 1935, "An Act to provide for the taxation of the Capital Stock of Banks.

Hawaii as identified by the Hawaii State Department of Commerce and Consumer Affairs, Division of Financial Institutions, records, and reported by DBED in the 1988 State of Hawaii Data Book. It does not necessarily correspond with the Franchise Tax payers, but it does give an indication of the composition of financial institutions in Hawaii.

EXHIBIT B. NUMBER AND TYPES OF FINANCIAL INSTITUTIONS

Year	Banks	S & L	Trust Companies	Industrial Loan
1980	9	8	4	71
1981	9	9	4	76
1982	10	8	4	78
1983	10	8	4	72
1984	10	8	4	77
1985	10	8	4	66
1986	10	8	3	66
1987	10	7	3	64
Type of Charter:				
1987				
Federal	3	5	-	-
State	7	2	3	64

Source: Department of Business and Economic Development, The State of Hawaii Data Book, 1988

STRUCTURE OF THE HAWAII FRANCHISE TAX

Who Is Subject To The Tax?

Section 241-2, which imposes the tax on national banks located in the State, has not changed in substance since enactment, but Section 241-3, which imposes the tax on persons other than national banks, has added to its listing of taxable persons since enactment. The development of the tax can be seen in part by the way the 241-3 section heading has been amended to read over the years, beginning with the original language in 1957 and incorporating each addition (as indicated by the underscoring):

1957 **Sec.[127-3] Imposition of tax on other banks, building and loan associations, and financial corporations.**

1965 **Sec.[127-3] Imposition of tax on other banks, building and loan associations, industrial loan companies, and financial corporations.**

1976 Sec. 241-3 Imposition of tax on other banks, building and loan associations, industrial loan companies, financial corporations, and small business investment companies.

1982 **Sec. 241-3 Imposition of tax on other banks, building and loan associations, industrial loan companies, financial corporations, small business investment companies, and development companies.**

The definitions under section 241-1 have been amended accordingly with each of the above amendments. In addition, the definition of "banks" was amended in 1987 to include a reference to a new chapter that was added to the Hawaii Revised Statutes in 1987 relating to foreign banks.

> "Banks" means and includes any national banking association, any bank organized under the laws of the State, any foreign bank doing business in the State under the authority of Chapter 405D, and any other corporation doing a banking business within the State under the authority of Chapters 403 and 405.

Measure and Rate of Tax

The section 241-4 measure of tax is virtually unchanged from the original scheme set out in 1957. The rate has increased from 10% to 11.7%. Most of the changes to Section 241-4 have been to update the references to the Internal Revenue Code or to other chapters of the Hawaii Revised Statutes. The substantive changes to date:

1965 Increased the tax rate from its original 10% to 11.7%.

1975 Added subsection 241-10 regarding gains and losses on bonds.

1987 Incorporated the Hawaii capital goods credit.

Otherwise, the scheme is as it has always been, which is basically as follows:

Start with income that would normally be reported by a regular corporation under the income tax. Make the following adjustments under section 241-4(b):

(b)(1) - Add the interest income from government obligations;

(3) - Exclude out-of State income;

(5) - Allow deductions connected with income that is required to be included under the Franchise Tax, and disallow deductions connected with income that is excluded under the Franchise Tax. For this purpose, the income tax rules for the disallowance of interest deductions related to exempt bonds are not applicable;

(6) - Deduct one half of such capital gain as, under the Code, is entitled to alternative tax treatment;

(7) - Take a deduction for worthless debts that have been charged off, or in the discretion of the Department of Taxation a reasonable addition to a reserve; provided that the department may allow a partial charge-off;

(8) - deduct federal income taxes on in-State income; and

(10) - Treat gains and losses on securities in accordance with Code section 582(c) (as ordinary income items).

There are also administrative differences between the Franchise Tax and the corporate income tax. To begin with, the Franchise Tax is technically paid for the current year but based upon the income for the preceding year. In other words, a calendar year corporation under the income tax would pay 1989 taxes based on 1989 income and file its 1989 return on April 20, 1990. Under the same circumstances, a Franchise Taxpayer would be paying its 1990 taxes rather than its 1989 taxes. There is no practical difference except in the initial and final years of the Franchise payer, in which case adjustments must be made according to rules that have been set out.

In addition, there are rules under Subsections 241-4(b)(2), (4), and (9), which were not listed among the immediately preceding adjustments:

(b)(2) - Provides that certain parts of State conformity to Internal Revenue Code provisions relative to prior State law that apply to the income tax are not applicable to the Franchise Tax.

(4) - Provides that the rules under the income tax for allocating income to Hawaii and non-Hawaii sources do not apply for the Franchise Tax and instead provides its own source rules. It states that the income to be excluded under (b)(3) shall be determined by an allocation and separate accounting. It disallows losses from property owned outside the State and from other sources outside the State. Finally, it provides that reserves are to allocated to the state based upon a ratio of Hawaii gross income to total gross income (as defined).

(9) - Relates to insurance companies.

Finally, there is a section 241-3.5 on the treatment of the income of an international banking facility that is not relevant to this paper.

ORIGIN OF THE FRANCHISE TAX

1957 Special Session

The Franchise Tax was adopted during a 1957 Special Session of the legislature that produced a major restructuring of Hawaii's taxes including, besides the Franchise Tax: the elimination of the Compensation and Dividends tax in favor of a comprehensive personal income tax, substantial conformity with the Internal Revenue Code, the introduction of differential rates on insurance premiums for domestic and foreign insurers, the elimination of the dollar ceiling on property taxes, and reductions in income tax rates.

That effort largely reflected the adoption of recommendations that were made by a panel that had reviewed the tax system during the preceding nine months and reported its findings in January 1957.

EXHIBIT C. HAWAII FRANCHISE TAX COLLECTIONS - FISCAL YEARS 1980 - 1989

Fiscal Year	(000's) Franchise Tax Collections	Percent of Total Taxes
1980	$ 7,386	0.62%
1981	5,790	0.56
1982	3,888	0.39
1983	(2,441)	-
1984	5,471	0.05
1985	3,881	0.30
1986	4,934	0.35
1987	15,276	0.85
1988	12,036	0.59
1989	15,761	0.69

Source: Tax Foundation of Hawaii, Government In Hawaii, various years; Department of Taxation, Revenue Trends - June 1989

Report of the Subcommittee on Taxation

A Subcommittee on Taxation was established by the Territorial Economic Planning and Coordination Authority in response to a request by Governor Samuel Wilder King for a study of the tax laws of Hawaii. The five member Committee was chaired by Kim Ak Ching, and Earl W. Fase was the Vice Chairman. The Foreword to its report stated that "The Committee's primary responsibility was to recommend changes which would increase realizations of the territorial general fund by some $30,000,000 in the next biennium."

Chapter 11 of the Committee's report outlines the bank tax and explains the reasons for its recommendation to amend the existing bank excise tax law to:

1. Tax banks other than national banking associations by a franchise tax that included a combination of taxes whose rates were to be identical to the general excise and corporate income tax rates paid by other taxpayers.

2. Tax national banks by a franchise tax of 15% of net income comparable to corporate taxable income, with the addition, however, of interest on government obligations.

In explaining the reason for recommending change, the report states:

> The present system is unsatisfactory for several reasons. The existing fixed rate of $175,000 annually ignores the economic and business factors upon which all businesses are taxed. While the fraction of the total tax allocated to each bank is based on a formula cited previously, it is obvious that the practice of annually collecting a fixed amount of taxes from this source permits no dependable relationship between any economic factors and the tax burden of any single bank or that of all banks. With revenues set by law, unchanging in periods of prosperity and depression, the tax may get out of line with other competing moneyed capital.[16]

It noted that the excise tax in 1953 was divided among the four banks, but in 1954, when a new bank was chartered, the same fixed amount was divided among five banks. It also noted that the bank share method had certain inherent weaknesses and quoted a report by a 1951 California committee that stated, "banks whose taxable reserves are included in capital funds suffer a disadvantage tax wise as compared with banks whose reserves are not included. Under the share tax method banks may be forced to choose between an improved capital position and keeping its tax bill at a lower level."[17]

Deduction for Federal Income Taxes

At the same time that it was recommending the introduction of a tax that included a deduction for federal income taxes, the Committee also recommended that the personal and corporate income taxes eliminate their deductions for federal income taxes:

> *The advantage to Territory of not allowing the deduction of federal income taxes is that the revenue base for territorial taxation would thereby be made less dependent upon the rates, exemptions, and other features of the federal tax laws, which may change from year to year. Moreover, if a territorial tax is imposed upon income after deduction of federal and territorial income tax, the tax base is lowered and its rates must be higher to raise a given amount of revenue than those required when deduction of income taxes is not allowed. Furthermore, under the present law federal income taxes are deductible even though the income involved is not taxed by Hawaii. Reference is made to such items as capital gains and interest on federal bonds.*[18] and

> *The advantages of not allowing the deduction of the federal income tax, also discussed in the preceding section with respect to the personal net income tax, may be illustrated here. Under the present law, which provides for the deduction of federal income tax, the revenue base for territorial income taxation is directly dependent upon the provisions of the Internal Revenue Code which are amended by Congress with some frequency...*[19]

Finally, a comparison of the recommended corporate income tax without the deduction to the recommended franchise tax with the deduction:

> *The 15% rate to be applied to the net income of the national bank (including interest on government securities) as a measure of its franchise tax has been established to comply with the National Banking Act which provides for the taxation of national banks by a franchise measured by net income. According to the experience of the past five years, this rate will not result in a heavier total tax burden net income*

16. Subcommittee on Taxation, p. 54.

17. ibid., p. 55.

18. ibid., p. 30.

19. ibid., p.39.

and general excise (including net income and general excise taxes) upon the national bank than upon other financial corporations, assuming a 3% gross income tax and a 5% net income tax after disallowing the federal tax deduction.[20]

Nowhere in the report or in the legislative history of the 1957 Special Session is there any suggestion of why the rationale for eliminating the deduction for federal income taxes under the personal and corporate income taxes did not extend to the franchise tax.

Comparing the Report with the Actual Law

Apparently, much happened between the report and the actual law. The law, for example, did not treat national banks differently from other banks as recommended. Instead, it not only placed all banks under the same franchise tax system but included building and loan associations and financial corporations as well. In addition, the law included most of the adjustments that were pointed out earlier in this paper, whereas the Committee report mentioned only the addition of federal interest income and the deduction for federal income taxes.

The rates that were enacted for the corporate income tax and general excise tax were 5.5% and 3.5%, respectively - close to the recommended rates. The actual franchise tax rate, on the other hand, was 10% as opposed to the recommended rate of 15%. The assumed relationships between the rates for corporate payers and the rate for franchise payers differed greatly, therefore, from what the report had anticipated.

A 1959 study of the 1957 law noted in a discussion of net income taxes that much of the debate centered around the issue of allowing federal income taxes to be deducted or of eliminating the deduction and mentioned some of the opposing arguments. There was no reference, however, to the deduction for federal income taxes under the Franchise Tax or to the apparently inconsistent application of the arguments.[21]

GENERAL EXCISE TAX CONSIDERATIONS

National Banks as Instrumentalities of the United States

Banks have been exempt from the general excise tax since the G.E.T. was enacted in 1935. They were also exempt from the business excise that had preceded it in 1932, again since enactment. There is no indication in the legislative history of either tax why the exemption was granted. It appears that there was a presumption that national banks were instrumentalities of the federal government and, therefore, immune from state tax.

Support for that explanation is found in a 1935 Opinion of the Attorney General[22] which, although not on point (it concerned a military post), had a lengthy discussion of the G.E.T. and the Constitutional and Organic Act restrictions on the ability of the state or territories to tax instrumentalities of the United States. That Opinion preceded a Hawaii case[23] which contained a similar discussion on the same matter. The U.S. Senate Banking Committee discussed that presumption in its explanation of the reason for the 1969 amendments to section 5219 regarding national banks, although it refrained from guessing whether or not national banks remained, in substance, such an instrumentality of the federal government.[24]

Hawaii did venture a challenge, of sorts, to the presumption in 1968 when it extended the G.E.T. to sales of tangible property to national banks.[25] That challenge was reconsidered after a couple of court cases[26] led to the conclusion that the 1968 law could not be applied to national banks.[27]

The issue changed with the 1969 amendments to section 5219 that became fully effective in 1976. The matter of "instrumentality" became moot as the federal government granted the states the right to tax national banks in the same manner as state banks. Hawaii amended its general excise tax law to reinstate the extension of the G.E.T. to sales to national banks.[28]

Interest on Government Obligations

It should be remembered that there are two federal laws to be taken into account. The first, regarding national banks, was just discussed. The other is the section 3701 restriction on state taxation of interest on federal

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20. ibid., p. 56.

21. R. M. Kamins et. al., Some Effects of Hawaii's 1957 Tax Law. Hawaii: University of Hawaii Press, 1959.

22. Opinions of the Attorney General, Opinion 1629, 12/28/35.

23. Brodhead v. Borthwick, 37 H 314.

24. See page 9.

25. Act 7, Laws 1968.

26. First Agricultural National Bank of Berkshire County v. State Tax Commissioner, 392 U.S. 339 (1968) and First National Bank of Homestead, Florida v. Dickson, 291 F. Supp 855, rehearing denied in 89 S. Ct. 988.

27. See T.I.R. 16-68, 10/9/68 and T.I.R. 25-70, 4/8/70.

28. Act 4, Laws 1971.

obligations. It appears that the latter restriction should extend to the application of the general excise tax since it is not a nondiscriminatory franchise tax or other non-property tax in lieu thereof.

If there is a restriction on applying the G.E.T. to interest on federal obligations, thought would have to be given to the treatment of state obligations as well. Even if there is no similar restriction with respect to state obligations, there could be a question of whether, from a policy perspective, there would be an inclination to place state obligations at a disadvantage to federal obligations by imposing a tax on one and not the other.

Other Bank Interest Income

There doesn't appear to be any restriction on extending the G.E.T. to other bank interest income. There would again, however, be some policy considerations involved.

Although interstate banking is a reality, the ability of states to measure and capture the economic activity within their borders is not. It appears that it will be some time before the state-of-the-art will enable states to develop enforceable bank tax laws to reach that activity. Until that happens, it is possible that the extension of the G.E.T. to other bank interest income would have the effect of placing domestic banks at a competitive disadvantage relative to mainland or foreign banks.

Even if there were a satisfactory way of taxing interstate activity, there could still be a policy decision to exempt interest income if there were some concern about the effect that a G.E.T. might have on the cost of capital or the capital inflows that might be desired.

Bank Leasing Activities

Some commentators have suggested that the extension of the G.E.T. to existing leasing contracts might cause the banks to be in violation of banking rules. If that is the case, such an extension of the G.E.T. might warrant a "cut off" or "grandfathering" of existing contracts.

The limitations on taxing interstate activities should not pose the same problems as with interest income because there will generally be sufficient nexus for the State to assess and enforce a tax.

Other Income

There hasn't been much discussion of other bank income because the focus has been on interest and leasing. Interstate taxing limitations should not place domestic banks at a disadvantage relative to other banks if there is some movement to the type of proposal that has been recommended by Fox[29] regarding the assessment of a use tax on purchasers of out-of-state services.

If, on the other hand, Fox's recommendation is not adopted, there could be a policy argument for exempting other income to the extent that taxing it would place domestic banks at a competitive disadvantage. What would prevent that same argument from being made for all service providers and not just for banks?

The Department of Taxation

The Department of Taxation has generally been opposed to the exemption of banks from the G.E.T. In 1979, The Senate requested in Senate Resolution 354, S.D. 1, 1979 that the Department study whether unrelated banking activities should be subject to the G.E.T. The Department conducted a survey of Franchise Taxpayers and submitted a report dated October 16, 1979. It recommended that section 237-23 be amended to limit the exemption by taxing unrelated banking activities, which were set out as including leasing personalty and realty, providing courier service outside the internal operations, and operating hotels and other unrelated businesses.

No action was taken during the 1980 Session which had received that report, although there were bills that had been carried over from the 1979 Session. One such proposal was S.B. 365 which was a short-form bill that merely stated its intent to make more equitable the taxation of banks and other financial institutions. Another bill was H.B. 736 which provided that banks would be subject to the G.E.T. on their unrelated activity. Testimony on that bill had suggested that there would be problems of definition with that type of provision.

Arthur D. Little Study

A 1968 study of the G.E.T. by Arthur D. Little Inc.[30] included a discussion of the bank exemption from the tax along with a rough attempt to compare the bank tax burden with that of other taxpayers and recommended that nothing be done until a detailed study of bank taxation had been made. That recommendation has often been cited as a reason for doing nothing. What is overlooked is that the Little study viewed bank leasing activity as somewhat advantaged and recommended that an occupancy tax

29. William F. Fox, Defining the General Excise Tax Base: Exemptions and Pyramiding, A report prepared for the Hawaii Tax Review Commission, 1989.

30. Arthur D. Little, Inc. Hawaii's General Excise Tax: Prospects, Problems, and Prescriptions. Report to State of Hawaii Department of Taxation, November, 1968.

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might better align the position of taxpayers - a recommendation that has never been seriously considered. As it reaches into its third decade of influencing Hawaii tax policy, it may be time to stop using the Little recommendation as a reason for doing nothing.

CONCLUSION

Hawaii faces problems just as other states do in adapting bank tax policies to changing circumstances. The issues in Hawaii are significantly different, however, because of the Hawaii general excise tax. Any change to the taxation of banks in Hawaii will probably require a set of compensating adjustments because of the interplay between rates, the G.E.T. and the deduction for federal income taxes.

An appropriate gauge of the efficacy of bank taxation is the effect it has on banks relative to their competition:

- Where banks compete with other banks they should be treated equally. The issues today are primarily those of interstate banking.

- Where banks and non-banks compete they should be treated equally. The issues there are primarily with respect to the Hawaii general excise tax.

- Where banks are unique and do not compete with non-banks, there is a basis for having a differing treatment under the general excise tax to recognize that uniqueness *if such a difference in treatment can be justified for legal or policy reasons*.

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INTERGOVERNMENTAL FISCAL RELATIONS IN HAWAII

Prepared for

Tax Review Commission
State of Hawaii

by

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I. INTRODUCTION AND EXECUTIVE SUMMARY

This report presents the results of a study of the fiscal relationships between the State government and the counties in Hawaii. The fundamental issue addressed by the report is the need for and desirability of revising State policy to improve the fiscal situations of the county governments. The immediacy of the issue is apparent in the arguments of county officials that consideration be given to the interests of the county governments in decisions on the disposition of the structural surplus in the State budget.

If change in State policy relating to the counties is determined to be desirable, a range of policy options is available. The options include increasing State grants-in-aid, shifting revenue-raising authority from the State to the counties, and realigning--to the advantage of the counties responsibilities for providing public services. All these options would have the effect of reducing the structural surplus in the State budget.

Analysis of proposals for fundamental change in the fiscal relations between a state and its local governments must pay careful heed to the overall structure of fiscal responsibilities and authority in the state. This structure constitutes the context within which the need for and desirability of basic changes in the system must be appraised. An analysis of state-local fiscal relations must also be sensitive to the historical origins and evolution of the fiscal structure of the state. Finally, it is essential that such an analysis be firmly grounded in understanding of the major characteristics and recent experience of, and outlook for, the economy and population of the State.

Overview of the Report

In light of these considerations, Chapter II of this report traces the history of Hawaii's State-local system, with particular emphasis on certain themes that may be relevant to current policy debates. Chapter III reviews the recent performance of the economy of the State and the near-term outlook and some important trends in the demography of Hawaii, with special attention to the distribution of economic activity and the population among the four counties.

The fourth chapter sets forth a conceptual framework for the analysis of the allocation of service responsibilities and revenue-raising authority between the State government and the counties. The chapter also discusses the meaning of balance in a state's fiscal system and its importance to the fundamental goals of state and local government finance. The methods of "representative" revenue and expenditure analysis that are used to evaluate fiscal balance in Hawaii are described.

Chapter V presents the results of the analysis of fiscal balance, which comprehends many of the basic issues involved in the evaluation of the need for adjustments in the policies of the State government relating to the finances of the counties.

The primary source of revenues for the counties in Hawaii is the property tax. The First Tax Review Commission concluded in 1984 that the potential of this tax was not being exploited by the counties, and that a case could not, therefore, be made for significant modification of then-prevailing State policy regarding the counties. In the meantime, in Hawaii--as virtually everywhere in the nation--the property tax continues to be a sensitive issue with the voters. Chapter VI focuses on the property tax, its role in the fiscal systems of the counties, how the burden of the tax in Hawaii compares with that in other states, the quality of administration, and the design of relief for taxpayers deemed to be excessively burdened by the tax.

Chapter VII discusses development fees and exactions, potential sources of revenues for the counties that are not being extensively relied upon to finance the public costs of economic growth.

The final chapter presents the results of analysis of an extensive range of policy options for improving the State-local fiscal system of Hawaii.

Caveats and Credits

The study whose results are presented in this report was conducted under a contract between the Tax Review Commission, State of Hawaii, and the U.S. Advisory Commission on Intergovernmental Relations (ACIR). The report is not an official publication of the ACIR. The views expressed are the authors' alone, and the policy recommendations--expressed or implied--do not necessarily reflect policy positions approved by the members of the ACIR.

The authors' gratitude extends to so many persons in Hawaii that our

thanks cannot begin to be expressed here to all who deserve them. Without question, however, the study could not have been completed without the enthusiastic cooperation of Lowell L. Kalapa, Executive Director of the Tax Foundation of Hawaii, and his staff, whose knowledge of the intricacies of government finance in Hawaii never failed to serve us well. James P. Harrington of the Tax Review Commission was always patient and gracious in his efforts to imbue the East Coast haoles with the aloha spirit, and to ensure that their needs (possibly even, on occasion, unreasonable demands)--whether for research assistance or personal accommodation--were speedily attended to.

Although much of the study benefited from the joint contributions of several of the authors, the principal authors of specific chapters are: II--John Kincaid, Executive Director, ACIR; III--James Mak, Professor of Economics, University of Hawaii; V--Carol E. Cohen, Analyst, ACIR; VI--Michael E. Bell, Principal Research Scientist, Institute for Policy Studies, The Johns Hopkins University; and VII--Bradford Case, Instructor in Economics, College of William and Mary (the only native of Hawaii in the group). The principal author of the remaining chapters is Robert W. Rafuse, Jr., Visiting Senior Fellow, ACIR, director of the project and editor of the report.

Summary of Results

The remainder of this chapter summarizes the findings of the study and the authors' interpretations of their significance and possible implications for the policies of the State of Hawaii and the four county governments. Such a summary cannot communicate the reasoning underlying the interpretations and derivations of the policy implications, nor can it indicate the nature and reliability of the evidence on which the analysis and interpretations are based. The reader is encouraged to refer to chapters II-VIII of the report for these details on specific issues.

II. Seven Lessons from the History of Hawaii's Fiscal System

The review of the evolution of Hawaii's State-local system in Chapter II suggests a number of conclusions. First, simplicity of structure has not produced simplicity in or consensus on the division of functional responsibilities and revenue-raising authority between the State government and the counties. Instead, there has been considerable pulling and tugging between the State and the counties and, therefore, continual tinkering with the system.

Second, the constitutional and political goals of ensuring that the State government has sufficient authority to deal with "statewide concerns" have not been resolved definitively. There has been continuing debate over what constitute areas of "statewide" concern.

Third, the State Constitution provides neither sufficient detail on State-local arrangements nor sufficient local home rule to ensure stability in those arrangements. Instead, the legislature and, secondarily, the governor and supreme court have considerable discretion to tinker with the State-local system, particularly with county powers, and to intervene directly in local affairs.

Fourth, increases in governing authority for the counties have been obtained more often through constitutional revision than through the legislative process, even though local self-government has never been an especially prominent issue in any constitutional convention.

Fifth, the legislative process has generally produced increasing centralization of functional responsibilities in the State since 1959. This is not especially surprising because State centralization tends to give more power to members of local delegations in the legislature, and those members tend to be direct competitors with elected county officials for the attention of local constituents. Moreover, given the structure of the legislature, the chair of a committee who represents a single neighborhood in a single county can sometimes block or expedite legislation serving or disserving the statewide interests of all counties.

Sixth, practically every body established since statehood to study the allocation of functional responsibilities and revenue-raising authority has, to a greater or lesser degree, recommended increased local self-government. This outcome, too, is not entirely surprising because most of these bodies have been largely independent of State and local political institutions.

This finding points to a larger general conclusion. Nearly every statewide body, whether it be a constitutional convention or special commission, that has examined the State-local system and that has not been directly beholden to the State legislature, governor, or judiciary has recommended increased responsibilities and revenue-raising authority for the counties, even while not abandoning statewide concerns, and sometimes recommending as well that the State assume responsibility for certain functions performed by the counties.

III. The Economic and Demographic Environment

The economy of Hawaii grew more rapidly in the 1970's than in the 1980's, facilitated by more rapid

growth of employment and labor force during the earlier period. Hawaii's population also grew more rapidly in the 1970's than in the 1980's. Most of the growth during the 1970's was due to in-migration. During the 1980's, most of the rise has been attributable to natural growth. Per capita real income has risen more rapidly in the 1980's than in the previous decade because the population has been growing more slowly.

Throughout the 1970's and 1980's, Hawaii's labor force grew more rapidly than its population, partly because of a rise in the labor-force-participation rate and partly because the percentage of the population that was of working age increased. Employment grew more slowly than the labor force in the 1970's, but faster during the 1980's. As a result, the unemployment rate increased in the 1970's and declined during the 1980's.

Hawaii's economy continues to shift toward the production of services rather than goods. This shift largely reflects the rapid growth of tourism and the stagnation of agriculture and manufacturing since statehood.

The Neighbor Island economies, populations, labor force, and employment all grew faster than Oahu's throughout the 1970's and 1980's, with Maui leading all the counties.

Hawaii's economy today appears to be at the peak of a business cycle. Business activity soared more than 13 percent during 1988, and the rise continued in 1989. The State's unemployment rate in September 1989 is below 3 percent, the lowest in the U.S. The current boom is mainly the result of sustained growth in tourism and construction. The total number of visitors rose nearly 6 percent in 1988, with the rise in travel from Asia and the Pacific (primarily Japan) far outpacing that from the U.S. and Canada. Tourist spending is estimated by the Hawaii Visitors Bureau to have risen 39 percent in 1988, to more than $9 billion.

The outlook for the State's economy is for a slowing in the rates of population and economic growth during the 1990's, primarily because of an anticipated decline in the rate of increase in tourist spending. Continuing the trend of the past two decades, the Neighbor Islands are expected outpace Oahu. Kauai's economy is expected to experience the most rapid growth. Maui should see the fastest rise in residents, and Hawaii the most rapid increase in the tourist population.

IV. Conceptual Issues: Service Responsibilities, Revenue-Raising Authority, and Fiscal Balance

The fiscal and policy analyses in this report are grounded in a number of important theoretical perspectives and concepts. The most important of these are explored in Chapter IV.

Basic Policy Objectives

Three basic objectives underlie most discussions of policy relating to the structure and operation of state-local fiscal systems. The objectives are efficiency, equity, and accountability.

Efficiency. An economy is operating efficiently when its level of activity is at or near its potential, and governments have a variety of essential roles to play in making this possible. Some of the most important of these roles are discussed later in this section. A special obligation of governments is to manage their activities to ensure that policies are designed so that objectives are pursued at minimum cost.

Equity. The concept of equity has several dimensions relevant to this report. The dimension of most direct relevance concerns the fiscal capacities of local governments. Equity in this sense is customarily defined as a situation in which all localities are able to provide reasonably adequate levels of public services with tax rates that do not exceed reasonable levels.

Although of less central consequence in the analysis of State-county fiscal relations, equity in the treatment of individuals by governments is an important consideration in a number of contexts. The established view from this perspective is that policies should be horizontally equitable (treat people in equal circumstances equally) and vertically equitable (treat people in different circumstances "appropriately"). Translation of these concepts into operational objectives or principles requires a definition of the "circumstances" that are considered relevant. Once an index of relevant circumstances is identified, the concept of horizontal equity is operational.

An operational concept of vertical equity also requires specification of how those in different circumstances should be treated. In the evaluation of tax policies, for example, a broad concept of income is commonly accepted as the index of circumstances. How those with unequal incomes should be treated then becomes a matter of value judgment. Some believe that the tax liability of a person with a high income should be a larger proportion of that income than of the income of a low-income person ("progressivity"). Others believe that tax burdens should be the same proportion of income for all ("proportionality"), or that relative burdens should decline as income rises ("regressivity").

The benefit principle calls for those who benefit from a public service to pay the cost of its production in proportion to their shares of the benefits. In other words, the benefit

principle defines the index of circumstances as the benefits received from a public service, and specifies proportionality as the standard of vertical equity.

Accountability. In a democratic system, government decision-making and the administration of public programs should be structured in ways that make it possible for the voters to hold specific officials responsible for their actions. Among the institutional arrangements that are especially effective in promoting accountability is a requirement that the government that provides a public service be responsible for raising the revenue to pay for it.

Key Issues in the Division of Service Responsibilities

In a market economy, such as that of the United States, decisions about the allocation of resources are made by individual consumers and investors. In an economy of this type, governments have important roles to play when markets fail. Among the most important of these roles are the provision of goods and services for which people would be willing to pay but that are not be available in the market, and ensuring that benefits and costs external to market transactions (often referred to as "spillovers," or "externalities") are taken into account in private decisions. It is also important that governments minimize their unintended effects on economic behavior, as when tax and other policies modify relative prices.

Conceptual considerations offer a powerful rationale for structuring decision-making and the financing and delivery of public services on a decentralized basis to the maximum possible extent. A corollary of decentralization is the principle of autonomy, which calls for restraint by state governments in their dealings with local jurisdictions.

In general, the essence of the allocation of functional responsibilities among governments lies in an effort to assign each to the jurisdiction whose borders most closely correspond to the range of benefits from a service. The benefits from street sweeping, for example, are limited to the immediate vicinity, while the benefits from the preservation of Diamond Head are enjoyed by every resident of (and visitor to) Hawaii. Even the most conscientious effort to assign responsibilities in accord with this logic, however, will leave cases where some of the benefits or costs of a service will spill over the boundaries of the government providing the service.

The importance of this in the case of local governments is that these spillovers, or externalities, will be ignored by local decision-makers. As a consequence, they will produce less of the service than would be appropriate if the demands of all beneficiaries were taken into account, thereby reducing the overall efficiency of the economy. The state government can ensure that the right amount of the service is produced by subsidizing the financing of the service to the extent of the external benefits.

In the special case of benefits that are received by visitors to a locality (an especially important case for Hawaii, where visitors are major beneficiaries of many local services) the state may be able to ensure that the right amount of a service is produced by making taxing authority available to the locality that enables it to collect from visitors an appropriate share of the cost of the service.

When action by a local government creates external costs, the responsibility of the state is to ensure that those costs are paid by the locality. (See the discussion of the external costs of development in Chapter VII.)

Most analysts agree that programs whose major objectives relate to the distribution of income and wealth--public welfare, for example--should be the responsibility of the federal government, with possible involvement of state governments in adapting broad national policies to the specific conditions of individual states. Local governments, however, should confine their agendas to the provision of services that do not have strong elements of income redistribution, and finance those services to the maximum possible extent in accordance with the benefit principle. The simple logic of this is that local tax bases and service populations tend to be too mobile to permit the differences between taxes paid and benefits received that are the essence of redistributive policies to be sustained if they reach significant magnitudes.

In addition to spillovers, the existence of substantial fiscal disparities among local governments is also an important rationale for action by a state government. This is the heart of the issue of horizontal fiscal balance, discussed below.

The Assignment of Revenue-Raising Authority

The division between levels of government of the authority to raise revenues from various sources is an issue to which less attention has been given than the allocation of service responsibilities. Nonetheless, a number of important considerations deserve mention.

The first is the accountability principle: the government that provides a public service should be responsible for raising the revenues to pay for it. An important implication of this principle is sufficiency. Those responsible for public budgets at all levels of government should have a range of revenue sources available to

them with potential yields at reasonable rates commensurate with their responsibilities.

The overall efficiency of the economy is impaired when the fiscal system is not "neutral," that is, when tax (and service) differentials among jurisdictions influence the decisions of individuals and businesses about where to locate, or induce people to incur substantial costs in efforts to avoid taxes. Differentials could be avoided by imposing a uniform tax structure throughout the state, but this would be inconsistent with the existence of autonomous local governments. Autonomy without independent authority to raise revenues is a contradiction in terms.

This being the case, the approach most consistent with economic efficiency is for localities to tax bases with low mobility. The base with the lowest mobility is real property (land, of course, has no mobility) so it is not surprising that the property tax is universally viewed as the most appropriate tax for local governments. User charges are also well suited to local governments because--by linking payments to benefits actually received--they do not create an incentive for people to modify their economic behavior.

Consumption taxes are usually regarded as appropriate for state governments but not localities because of the so-called border problem--the ease of avoiding the tax by visiting a neighboring jurisdiction with a lower tax rate or no tax at all. In Hawaii, the border problem is less of a obstacle to county reliance on consumption taxes than it is for local governments on the mainland, where shopping in a lower-tax jurisdiction may be a 10-minute drive rather than an $84 roundtrip flight.

Income taxes are generally viewed as appropriate only for the federal government and the states because of the high potential mobility of the base. Most local income taxes are limited to "earned" income earned in the jurisdiction. Two states authorize selected localities to tax broader income bases. One state (Maryland) authorizes its counties to levy a supplement to the State's income tax, but the arrangement is flawed by a requirement that the counties enact the supplement, which makes questionable its classification as a local tax.

Administrative costs are also an important consideration in the assignment of revenue-raising authority. Although they differ significantly for some taxes, the advent of the microcomputer has significantly reduced the differences.

Finally, a word on tax exporting is appropriate. The exportability of a tax--that is, the potential for getting nonresidents to pay--rarely appears in the public finance literature on lists of the desirable attributes of taxes. The reason is the importance of accountability and the benefit principle. When nonresidents benefit from local services, as in the case of visitors in Hawaii, exporting is appropriate to the extent of the benefits realized by the nonresidents. Beyond that, however, exporting is undesirable because it results in misrepresentation of the true costs of public services. If the voters think that services are cheaper than they actually cost, they are likely to demand that more of the services be produced than is in the interests of the overall economy.

The Balanced State Fiscal System

Fiscal balance, in its various dimensions, is a concept of fundamental importance to the analysis of any state-local fiscal system. Fiscal balance is a precondition of the economic neutrality of the system. Unless fiscal disparities are fully capitalized in property values, an unlikely prospect, they provide purely fiscal incentives for people and businesses to move from one locality to another (or not to move when economic considerations call for it). The result is a less efficient economy and lower incomes for state residents than might otherwise have been achieved.

A balanced fiscal system is also important to avoid serious inequities among residents of different areas of a state. Such inequities come about when the tax burdens on residents with similar incomes living in different localities differ for comparable levels of services.

The central issue in evaluating fiscal balance is the relationship between revenue-raising ability and the cost of the expenditure responsibilities of the governments in a state. There are three important dimensions of fiscal balance: vertical, horizontal, and long-run. The first two are essentially static, that is, they relate to the circumstances of a fiscal system at a particular time. The third dimension is dynamic--it relates to the performance of a fiscal system over the years. Estimates relating to long-run fiscal balance are not presented in this report; they are available in other reports prepared for the Tax Review Commission.

A state's fiscal system is vertically balanced when the costs of the expenditure responsibilities assumed by the state government, on the one hand, and local governments as a group, on the other, are roughly commensurate with the potential productivity at reasonable rates of the revenue sources available to each level of government.

The fiscal system of a state is horizontally balanced when the fiscal capacity of each local government is adequate to enable it to provide some specified levels of the services for which it is responsible without excessive tax rates. Fiscal capacity is

defined as the potential ability of a local government to raise revenues from its own sources (and with appropriate allowance for revenue received from other governments) relative to the costs of its service responsibilities.

In this report, the revenue-raising abilities of the counties in Hawaii are measured by estimates of the yield of the "representative" revenue system (the average of the systems actually used by the counties). The costs of the counties' service responsibilities are measured by estimates of "representative" expenditures--the cost to each county of providing the statewide average level of the public services actually provided by the counties in the State.

A state's fiscal system is in long-run balance if two basic fiscal flows grow at roughly similar rates for every government in the system. The flows are (1) the receipts generated by a government's existing revenue structure without increases in rates or adoptions of new sources plus receipts from other governments, and (2) the expenditures to which the government is committed by existing law. If--as in the case of the State budget in Hawaii--the yield of the existing revenue system is projected to exceed the costs of the State's current expenditure obligations, a structural surplus is said to exist.

V. Is Hawaii's State-Local Fiscal System Balanced?

This section summarizes the results of the analysis of the vertical and horizontal balance of Hawaii's State-local fiscal system.

Vertical Balance

Vertical balance is addressed by comparing State and county general revenues and expenditures with national averages, in per capita terms and as a percentage of personal income. The issue is whether the magnitudes of these variables in Hawaii can be regarded as "reasonable," in relation to comparable magnitudes elsewhere in the nation. On both measures, the total revenues of the State government are about 40 percent above average, while State expenditures are slightly more than 30 percent above the national average. County revenues and expenditures, on the other hand, are only about 40 percent of the average for all local governments in the country.

To a large degree, these deviations from national averages reflect the State's direct provision of elementary and secondary education and other services that are provided by local governments (often with substantial state financial assistance) elsewhere. The deviations also indicate that, to the extent vertical imbalance exists in Hawaii's fiscal system, it is at the State level, where current revenues are extremely high relative to national averages.

This finding of vertical imbalance is not inconsistent with the existing structural surplus in the budget of the State government, which is a function of the relationship between the State's revenue and expenditure systems. The structural surplus does, however, offer the State some opportunities to reduce its revenues to levels more in line with those of other states that would not be available if the budget were in structural deficit--as is that of the federal government.

Horizontal Balance

The analysis of horizontal balance finds moderate imbalance among the counties. The disparities in fiscal capacity (revenue-raising ability less expenditure needs) range from a net surplus of $142 per capita in Maui to a net deficit of $48 per capita in Hawaii. The magnitude of the imbalance is relatively small from the perspective of State policy, however. In FY 1987, it would have cost roughly $16 million in additional State aid to ensure every county a fiscal capacity equal to the State average (calculated without the additional assistance).

The counties of Maui and Kauai have excesses of representative revenues over representative expenditures of $12.8 million and $4.6 million, respectively. In other words, the two counties have the ability to finance service levels substantially above average (19 percent above in Maui and 14 percent in Kauai) with average tax levels, or average service levels with much-below-average taxes. In fact, both counties have chosen the latter option. (Maui is in such a strong fiscal position that it could provide average service levels with no State aid whatsoever.)

The counties of Hawaii and Honolulu, on the other hand, have representative revenue shortfalls of $4.2 million and $5.5 million. Hawaii's budget deficit would be 7 percent of its expenditures if it were to provide average service levels with average taxes. In other words, an average level of fiscal effort would only raise enough revenue to finance services equal to 93 percent of the statewide average. In FY 1987, the County of Hawaii had average taxes but expenditures somewhat below the statewide average.

Although larger than Hawaii's in dollar terms, Honolulu's estimated revenue shortfall is less than 1 percent of its budget, implying that it has the ability to provide roughly average service levels with roughly average levels of taxes.

A number of strategies are available to the State to reduce the horizontal imbalance in county finances. These policy options are considered in detail in Chapter VIII.

Net Incidence of the State Budget

The analysis also develops estimates of the net incidence to county residents--benefits from taxes paid and services received--from the State government. For this analysis, actual State expenditures are apportioned among the counties on the basis of where the benefits of the spending are received, and actual State revenues are apportioned by county of origin. Residents of the Big Island are the most advantaged, receiving $670 per capita more in benefits from State spending than they pay in taxes and other revenues to the State.

Residents of Kauai and Maui also receive net benefits of $552 per capita and $108 per capita, respectively. Only Honolulu residents pay more ($114 per capita) to the State than they receive in services.

The unequal net incidence of actual State policy is not horizontal imbalance to the extent the counties have different taxpaying capabilities and needs for State services.

VI. The Property Tax in Hawaii

The base of the property tax in Hawaii is the market value of land and improvements. There is considerable diversity in the relative size, rate of growth, and composition of the property tax base among the counties.

The prices of improved residential properties have not increased any more rapidly than those of other types of properties in the past six years. Residential properties maintained their share of gross value in three counties and actually declined as a share of gross value in Honolulu. Geographical, market, and institutional factors contributed to the rapid increase in land values between 1988 and 1990, and should continue to put upward pressure on those values in the future. Overall, the base of the property tax in Hawaii appears to be exceptionally responsive to economic growth.

The Property Tax in State-Local Revenue Systems

The property tax declined in importance as a source of revenue for state and local governments nationwide from 38 percent of own-source general revenues in 1962 to 21 percent in 1987. In Hawaii, however, the tax contributed about the same share of all State-local general revenues at the end of the period as at the beginning--a little less than 13 percent.

The property tax is the exclusive province of the counties in Hawaii. Nationally, school districts account for the largest share of property tax collections in most states. The counties are substantially more dependent on the property tax than general-purpose governments nationally, primarily because Hawaii's counties rely on user charges, fees, and miscellaneous revenues much less intensively.

Per capita property tax collections have risen in Hawaii, both in nominal and real terms, but the burdens per capita and per $1,000 of personal income are smaller than the national averages and those in all western states but New Mexico.

Effective tax rates (taxes relative to market value) in Hawaii are less than half the national average, and they declined more between 1966 and 1986 than rates nationally. After adjusting for differences in housing prices and per capita income, property tax burdens are lower in Honolulu than in a sample of comparison cities.

The overall incidence of the property tax in Hawaii is primarily on the owners of capital (including homes) in the form of lower rates of return than would be expected in the absence of the tax. The portion of the tax that is shifted to renters probably is smaller than commonly believed in the past. The exact extent of the shifting depends on market conditions, which change over time.

The cornerstone of equitable and efficient administration of the property tax is the assessment of all properties as close as possible to 100 percent of market value. Assessment-sales ratios indicate that the mean ratio of assessment to sales price in 1987 is 98 percent in Honolulu, 90 percent in Kauai, 88 percent in Hawaii, and 85 percent in Maui. The variability of the ratios is smallest in Honolulu, followed by Kauai, Maui, and Hawaii. A major reason for the lack of uniformity appears to be the limitation on the use of sales-price information that results from the requirement that assessors use the cost approach to valuing improvements.

Property Tax Relief

Although the effective rates of property taxes are almost everywhere very low relative to those of other taxes, the base is almost always very large relative to household income. This means that the tax can be exceptionally burdensome to persons whose current incomes are significantly lower than the average for those living in a residence of a given value. The consequence is often a decision by a community that some relief from the full burden of the property tax is a necessary and appropriate element of an equitable tax.

The design of property tax relief that achieves the designated equity objective at minimum cost in foregone revenue is a key element of tax policy. Unfortunately, relief measures rarely win prizes for good program design. For example, programs that provide relief to all homeowners, all persons over a certain age, or all with some degree of handicap are extremely inefficient. Such approaches benefit everyone in the designated class, without regard to the relationship

between their current incomes and their property tax liabilities.

Once the decision is made to confine relief to people whose property tax burdens are exceptionally high relative to their current incomes, the most attractive options are circuit breakers and tax-deferral arrangements. Given the enormous revenue loss inherent in the existing system of homeowner and other types of exemptions, the counties in Hawaii could easily afford a generous program of targeted relief if all other exemptions for individuals were abolished.

Nonetheless, it is generally considered to be bad practice for local governments to be responsible for major programs whose chief objective is some form of redistribution of income. Consequently, it might well make sense for the State, in consultation with the counties, to develop a circuit-breaker program that would achieve comparable treatment of all disadvantaged property-tax payers, including renters, regardless of their county of residence. In view of the additional revenues the counties would realize from the elimination of current exemptions for individuals, it would not necessarily be a bad idea for the State to ask the counties to contribute to the financing of the program.

A deferral program rather than a circuit breaker is the indicated relief mechanism when an individual who might qualify for relief on grounds of current income nevertheless has large assets but is unable to borrow against those assets to finance property tax payments without paying an unreasonable interest rate. In such circumstances, the local government can borrow the necessary amount, effectively lending the proceeds to the taxpayer to pay the tax, with the property as security for the loan. The amount of the loan, including interest on the deferred tax at the rate the local government paid for the funds, becomes payable when the property is sold or transferred to heirs.

VII. Development Fees and Exactions

Housing and other forms of property development typically generate costs that must be borne by the members of the surrounding community. When development increases traffic congestion, for example, costs are incurred by all those whose travel times are lengthened. When and if the congestion is alleviated by construction of new highways or expansion of the capacity of the existing transportation network, the costs of travel delays are replaced by the construction costs.

Development fees and exactions are methods by which these costs--the public, or external, costs of private development--can be charged to the developers responsible. Because they force developers to pay the public as well as the private costs their activities entail, properly designed development fees or exactions can help to ensure that development occurs only when its benefits to the entire community exceed its costs. As with the private costs, the costs of the fees and exactions are presumably passed on by the developers to those who buy the developed property.

The discussion of these policies in Chapter VII focuses on three issues. The first is the economic framework within which fees and exactions should be applied. Like many other tools of public finance, fees and exactions can be misused--if they are relied upon as a pure revenue-raising device, for example. If they are misused, the community will fail to gain the benefits that could be generated by a properly designed development fee or exaction.

The second issue is the framework within which the legal aspects of fees and exactions are to be evaluated. Although many issues have not yet been resolved definitively, federal and state courts have established a set of tests that can be used to evaluate the legality of a particular system of development fees and exactions.

The third issue is the way the counties in Hawaii might actually implement a program of development fees and exactions. Mainland governments have experienced problems applying these measures. For example, traffic congestion and other costs of private development often are widely diffused, covering many communities--even several counties. Thus it might be substantially easier for the county governments in Hawaii to implement development fees and exactions because fewer of the external costs of development are likely to spill to the other counties, given their insular character.

The specific impacts of development fees on different types of development would depend on several decisions the county governments would have to make in implementing a program. Particularly important are whether fees are established "up-front" or are negotiated between county governments and developers, and when during the development process the fees are applied.

The discussion of implementation pays particular attention to the impacts these decisions would have on the extent of activity in each county as well as on the mix of property development--for example, tourist-oriented versus resident-oriented development, or high-income versus low-income residential development. It is important to understand these effects clearly before implementing a system of development fees and exactions in order to promote high-quality development throughout the State.

VIII. Analysis of Policy Options

The options for improving the State-local fiscal system of Hawaii considered in Chapter VIII include virtually all those advanced by public figures, organizations, and the media in Hawaii in the past few years. Nine general categories of options are considered.

Criteria for the Evaluation

Six major standards are applied in the policy analysis.

Equity. As discussed earlier, the concept of equity comprehends two important criteria for the analysis undertaken in this chapter. The first relates to the fiscal capacities of localities: all local governments should be able to provide reasonably adequate levels of the public services for which they are responsible with reasonably comparable tax rates. The second equity concept is the benefit principle: those who benefit from a public service should pay the cost of its production.

Economic efficiency. This standard also has two relevant dimensions. The first calls for governments to perform their essential functions in the market economy by attending to basic infrastructure needs and providing necessary public service, by maintaining a level playing-field for the private sector, and by interfering as little as possible with relative prices in the market. The second dimension is that governments should strive to achieve their policy objectives by methods that involve minimum costs, the most conventional sense of the concept of efficiency.

Contribution to fiscal balance. The important imbalances in Hawaii's fiscal system are identified in Chapter V. This standard relates to the effectiveness with which policy options contribute to the mitigation or elimination of those fiscal imbalances.

Accountability. Two general principles are important here. The first is that the responsibility for providing a public service should be clearly vested in one level of government. The second is that the government that provides a public service should be responsible for raising the revenues to pay for it.

Simplicity. Simplicity is important to maximize the chances that the voters will understand what is going on and be able to hold elected officials accountable for their actions. It is also important in order to minimize the costs to the economy of administering and complying with the law.

Fiscal neutrality. State fiscal assistance to the counties should be provided in a form that minimizes its influence on county decision—except when the assistance is intended to influence specific decisions.

Proposals Involving Realignments of Service Responsibilities

The special geography of Hawaii is a key factor in the alignment of responsibilities between the two levels of government. The correspondence of each of the counties with one or more islands widely separated from the others means that spillovers of benefits and costs from public services provided by county governments are likely to be much less important in Hawaii than in any other state.

Notwithstanding the long history of centralization in Hawaii, growing interest in the potential of decentralization, in the interests of more responsive and accountable government, is readily apparent. Five areas with potential for responsibility realignment are considered.

Parks and recreation. This is a function to which considerable attention has been given by intergovernmental panels in recent years. The potential here for realignments of responsibilities between the State and the counties is substantial, and numerous proposals currently on the table deserve serious consideration. This report does not attempt to comment on the merits of specific proposals.

Highways. There are, uniquely in Hawaii, no "inter-county" highways in whose construction, maintenance, and finance a role for the State government might be found. Nonetheless, in substantial measure because of ill-advised national policies, the State long ago assumed direct responsibilities for the construction and maintenance of specific highway segments in all four counties.

Logic and public-finance theory argue strongly for the State to turn over its direct involvement in this function to the counties, subject only to the possible loss of federal funds. Any statewide interests in such basic highways as the circumferential routes could be maintained by an appropriately designed matching-grant program.

Short of such a definitive sorting-out of responsibilities, the proposals of the 1977 Commission on Organization of Government make second-best sense. To achieve the level of operational efficiency possible in this function, the counties should assume responsibility for maintaining all highways in the State, with contractual arrangements with the State for reimbursement for all directly attributable costs incurred in maintenance of the current State highways.

Housing. The counties have been increasingly active in the housing field,

and direct overlapping of State and county responsibilities is significant. Because housing programs today tend to be, above all else, vehicles for redistributing income by subsidizing the housing of low-income households, most authorities agree that this is a function for which the State should assume controlling responsibility, to the extent the federal government does not do so. The counties should be involved only insofar as their key roles in land-use planning are at stake.

Statewide collective bargaining. Hawaii is the only state with statewide collective bargaining for all public employees. The arrangement tends to undermine accountability in county government and to promote inefficiency. Devolution of collective bargaining to the counties would do much to mitigate these problems. It would certainly be an important element of any strategy of decentralization in the public sector in the interests of more responsive, accountable, and efficient government.

Property tax relief. The logic of minimizing the responsibility of local governments for policies intended to redistribute income argues for substitution of some form of credit against the State income tax for the homestead exemption as a measure for providing relief from property tax burdens that are excessive for low-income persons. Given the inefficiency of homestead exemptions, the counties could easily compensate the State for the revenue loss.

Shifts in Revenue-Raising Authority

The primary rationale for shifting revenue-raising authority between the State and the counties in Hawaii would be to improve the vertical balance of the State's fiscal system. The analysis of the system's vertical balance in Chapter V indicates that the property tax is significantly underutilized, while income and sales taxes are relied upon to a substantially higher degree than the average for the other states in the nation. These findings suggest that any shifts in taxing authority in Hawaii ought to be in the direction of increased reliance on the property tax and reduced reliance on income and sales taxes.

Nonetheless, a case for additional revenue-raising authority for the counties can be made on two grounds. The first is to achieve better alignment of revenue sources and service responsibilities in cases where the services provided lend themselves to being financed by user charges or taxes conforming with the benefit principle.

The second ground is a two-fold argument. The counties have demonstrated their fiscal responsibility by their performance during the past decade. The availability of a wider range of fiscal options would strengthen their autonomy and improve their capacity to assume responsibility for functions currently the responsibility of the State government in the context of a general strategy of decentralization in the fiscal system of Hawaii.

The alternative to additional taxing authority for the counties is an unconditional State grant. The key difference between the two approaches is that taxing authority is more likely to promote accountability in county fiscal behavior. Authorizing (but not requiring) the counties to levy a new tax--or a tax formerly used by the State--is consistent with the second principle of accountability. As a county finance director observed in a presentation to the Tax Review Commission, ". . . those who spend tax dollars should be responsible for raising those funds."

The taxing authority must be a genuine option if it is to promote accountability. If a county has no choice in the matter, the tax is really a State tax, and the proceeds "shared" with the counties are really grants-in-aid. The problem with grants is, of course, the second principle of accountability, because the counties would be spending funds raised by the State government.

A consideration favoring taxing authority, from the perspective of the counties, is the reliability of the revenue. Taxing authority appears less likely to be revoked than a grant is to be reduced or eliminated.

Alcohol and Tobacco Excises. The widely discussed proposal in January 1989 to transfer the State's taxes on alcohol and tobacco to the counties would not have been a true transfer because the State would have continued to administer the taxes and the proceeds would have been distributed among the counties by a formula. It was a proposal for a new grant program.

Administration of the tobacco and alcohol excises by the counties would be expensive, to business as well the counties, and prospects for evasion would almost certainly be higher than with State administration. The State could administer the taxes for the counties, and different rates would probably not be a serious complication. It is hard to see a rationale for transferring administration of these taxes to the counties.

Transient Accommodations Tax. The TAT is another matter entirely. The case for turning this tax over to the counties rests on the proposition that its incidence is, more than any other revenue source in Hawaii's fiscal system, on the visitor. If the benefit principle is to be accorded high priority in tax policy, the TAT is especially well suited for financing public services from which visitors are beneficiaries.

The key question, therefore, is what are those services and are they predominantly the responsibility of the State or the counties? The answer is that approximately 53 percent of all outlays for services from which visitors directly benefit are made by the counties. Those services account for 64 percent of all county expenditures. By comparison, the major services for which the State is responsible provide nearly all their benefits to residents of Hawaii. Services directly benefiting visitors amount to less than 14 percent of State spending.

An additional consideration is the close relationship of the TAT to the property tax, the cornerstone of county revenue systems. Essentially, the TAT is a direct substitute for the property tax on hotels. Moreover, the information generated in the administration of the TAT would be of real value in estimating the market value of such properties. It would make real sense to vest responsibility for both taxes in the counties.

Finally, it is clear that the TAT is not a central element of the State government's continued solvency. The loss of revenue from transfer of the TAT to the counties would clearly have to be weighed against other uses of the funds, but the argument for turning the tax over to the counties is strong.

If the TAT were transferred to the counties, it would make sense to consider exempting transient accommodations from the general excise tax in the interest of simplifying the tax structure and eliminating the unseemliness of multiple taxes on visitors' hotel bills. Unlike most other types of exemptions from the GET, the distinctiveness of accommodations--their big-ticket nature and sale by distinct business enterprises--means that exemption from the GET would not be costly from an administrative perspective. The key issues would be whether the State could afford the revenue loss and whether the counties could demonstrate that their costs for services provided to visitors justify the additional revenue-raising authority.

Motor Fuels Taxes. Taxes on motor fuels are the best examples of benefit taxes in Hawaii's fiscal system. The problem is that, as discussed earlier, the extent and nature of the State government's involvement in highways in Hawaii is highly questionable. On balance, shifts in motor fuels taxes from the State to the counties should be contingent on balancing realignments of responsibilities for road mileage.

Fines and Forfeitures. Since 1965, when the State assumed full responsibility for the court system of Hawaii, all proceeds from penalties imposed by the courts--including those levied pursuant to county ordinances--have been deposited in the State Treasury. Considering the costs of court operations that the counties are spared by the State's assumption of this function, the unavailability of this revenue seems a small price to pay. Should revival of a county court system be determined to be a desirable element of a general decentralization strategy, however, it would naturally make sense for the proceeds of fines and forfeitures resulting from the actions of county courts to vest in the counties.

A more limited variation on this proposal would transfer to the counties responsibility for administration of proceedings relating to parking and non-moving traffic violations, with the proceeds retained by the counties. This proposal probably makes sense on cost-effectiveness grounds. Surely, County administrative proceedings would be less costly than the courts for minor offenses of these types. Whether the counties would come out ahead from a financial perspective is debatable, however.

Realty Conveyance Tax. The yield of this State tax is very small. According to the State Department of Taxation, the purpose of the tax is to acquire information on the selling prices of real estate. Now that the counties have full responsibility for the property tax, the logic of transferring this tax to the counties appears to be unassailable.

County Supplements to State Taxes

A supplement is a specified increment to a State tax rate, enacted at the option of a local government. The revenue is collected by the State and paid to the locality electing to levy the supplement. The equivalents of supplements exist in Hawaii in the State's collection of the counties' taxes on motor fuels, and the counties' collection of the State's motor vehicle weight tax and registration fees along with their own weight taxes. The essence of a supplement is administrative efficiency.

General Excise Tax. A county supplement to the GET is on the wish lists of many county officials, who mistakenly cite as precedent the arrangement that prevailed from 1947 until 1965. During that period, a portion of the yield of the GET and public service company taxes was earmarked for distribution to the counties on the basis of what is commonly described as having been the origin of the collections. The arrangement was tax sharing rather than a true supplement, however, because the counties had no say in the rate of the tax and the earmarked revenues were distributed on the basis of a formula rather than origin.

Since a supplement is really a State-administered local tax, proposals

for a county supplement to the GET must be considered with a view to the appropriateness of the tax as a source of county revenue. The case must be judged weak on several grounds. First, the cost of administration of the GET--to private firms as well as the State--would be significantly increased if it were necessary to apportion all gross revenues among the counties. Second, the GET is quite regressive, while the apparent incidence of the benefits of most services provided by the counties is proportional. This incidence mismatch makes the GET a poor candidate for a benefit tax for the counties. Yet another argument is that a county supplement to the GET would be unlikely to be identified by the taxpayers as a county tax. This would subvert accountability.

Transient Accommodations Tax. The alternative to transfer of the TAT to the counties would be to authorize the counties to enact a supplement to the State tax. This would make sense if efficient administration of the TAT by the counties were deemed impracticable, or if the State's need for revenue made foregoing the entire proceeds of the tax too risky a proposition. Neither of these possibilities seems to track reality.

Individual Income Tax. The experience in other states suggests that a local supplement to a state income tax is the least expensive of all types of supplements from an administrative perspective. It would also be easier to identify the counties in the minds of taxpayers with the responsibility for the supplement than it would be for the GET. However, the incidence of the individual income tax in Hawaii appears to be mildly progressive over most of the income scale. Since the benefits from county services are roughly proportional, the incidence mismatch for the income tax makes it ill-suited for the benefit-finance purposes of the counties.

New Taxing Authority for the Counties

Three proposals for new county taxing authority have received significant attention in recent years. The first is for a tax on retail sales of tobacco products and alcoholic beverages. Taxes on alcoholic beverages and permits for their sale are second only to the TAT in the proportions paid by visitors, and taxes on tobacco products are also paid significantly by visitors. The sale of these products--alcoholic beverages, in particular--is already the subject of special attention by county authorities from a regulatory perspective, and there is little ambiguity about the location of retail sales. On balance, the authority to tax retail sales of these products might be a reasonable companion to the TAT if additional taxing authority to finance the counties' role in providing services for the visitor industry were deemed desirable.

Authorization for the collection of tolls on selected roads has been sought by some county officials for several years, and in 1989 the legislature approved experimentation in this area. Further consideration of this option should await the results of the counties' exercise of this new authority.

The third proposal is for authority to levy an "anti-speculation" tax as a supplement to the State individual and corporation income taxes on "excess" gains on the sale of real estate held for less than, say, three years. The conceptual problems with a tax of this type are confounding, the rationale illusory, and the administrative problems are imposing. All in all, the practicability of this proposal is open to serious question.

State Payments to the Counties

Payments by the states to local governments take many different forms, but all such assistance is directed to one or the other of two basic objectives. One is to induce the localities to spend more for a particular public service than they would have in the absence of the aid. The other is to improve the horizontal balance of the state's fiscal system. This objective is often referred to as reduction of fiscal disparities or, more simply, as "equalization."

The objective of the assistance dictates the nature of the conditions on which the funds are available. Aid intended to induce higher spending on a particular function must have restrictions on the use of the funds if it is to have the desired effect. Aid whose purpose is to reduce fiscal disparities, however, should be the equivalent of revenue from a local government's own sources, that is, it should be unconditional ("no-strings"), or "general" fiscal assistance.

Unconditional Grants to Establish Horizontal Balance

The objective of general fiscal assistance can be described as closing the gap between (1) the cost to a county of providing the statewide average (representative) levels of the public services for which the counties are responsible, and (2) the revenues the county could raise if its revenue system were as productive as the average (representative) system of all the counties in the State.

Given the estimates of these gaps developed in Chapter V, which include the actual distribution of the $42 million of State aid to the counties in FY 1987, the additional cost to eliminate the revenue shortfalls of the counties of Honolulu and Hawaii would be roughly $16 million. The following tabulation shows the percentage distribution among the counties of the $58 million of State aid that would result if the necessary "gap-closing" assistance were added

	Total	Honolulu	Maui	Hawaii	Kauai
Fiscal Balance in FY87	100.0%	43.7%	17.5%	29.1%	9.6%
Actual Grants FY87	100.0	37.2	24.3	25.1	13.3
Actual Grants FY89	100.0	42.6	16.5	23.8	17.1
Option A	100.0	43.6	18.3	20.7	17.4
Option B	100.0	50.0	17.5	18.5	14.0
Option C	100.0	46.5	23.0	16.3	14.2
Option D	100.0	69.1	9.9	14.9	6.1

Option A is the 1984 proposal by the City and County of Honolulu for a State revenue-sharing program.

Option B is the formula proposed in 1987 by the Hawaii State Association of Counties.

Option C is the allocation implicit in the Governor's 1989 proposal for allocating tobacco and liquor tax collections and a $20-million TAT appropriation.

Option D is the allocation yielded by the formula used by the federal Revenue Sharing Program in 1986, its final year.

to the base amount. It also shows the distributions associated with a variety of other proposals for State aid programs, including the actual distributions of State grants in fiscal years 1987 and 1989.

Categorical Matching Grants. A matching grant is explicitly designed not to be neutral, that is, it is intended to provide an incentive for the recipient government to spend more than it otherwise would on the aided service. Such a grant can be the most efficient way for the State government to assert a statewide interest in a higher level of a county service than the counties would provide without the assistance.

Hawaii's fiscal system is distinguished by the absence of State categorical grants, overall a desirable situation in the interests of simplicity and accountability. The one area where a carefully crafted categorical grant program might make a great deal of sense would be, as mentioned above, in rationalizing the highway function.

Shared Taxes. A shared tax, as noted earlier, is really a grant-in-aid financed by earmarking a portion of the proceeds of a designated tax.

Payments in Lieu of Taxes on State Real Property. The distribution of State property among the counties is quite disparate, as this display of 1987 information shows:

	State Property	% of Total Assessed Values
Total	100.0%	9.5
Honolulu	43.7%	10.8
Maui	17.5%	3.6
Hawaii	29.1%	8.6
Kauai	9.6%	3.8

The burden of the revenue loss from the tax-exempt status of State property is precisely three times larger in Honolulu than in Maui. This is such a large disparity that consideration should be given to the possibility of a State program of in-lieu payments in the interests of equity and intergovernmental comity.

Other Types of State Payments. Payments to reimburse the counties for the cost of services they provide in connection with a State program (and vice versa) are important to good relations between governments. Arrangements for such payments must be worked out on a case-by-case basis, a process that appears to be under way in continuing discussions between the State and the counties on realignments of responsibilities for parks and recreation programs.

The Constitutional requirement for the State to share in the cost of State mandates on the counties raises issues that are beyond the scope of the present study. A major State mandate expired on November 7, 1989--the obligation of the counties to maintain the homestead exemption in their property taxes.

The Counties and the General Excise Tax

County officials have long objected to the lack of reciprocity in the taxability of their purchases under the GET, given the State's requirement that its real property be exempt from county taxation. Although the theoretical rationale for taxing the counties under the GET is weak, the administrative cost (to the private sector as well as the Department of Taxation) of exempting county purchases would be high, and the revenue loss to the State would be large. Unfortunately, estimates of these costs do not appear to be available.

If it were determined that the counties should be relieved of the burden of the GET, it would make more sense to arrange for periodic reimbursement of the estimated amount of the tax paid by each county than to exempt individual county purchases. The result for the counties could be the same in either case, but the administrative cost of exemption would be far higher.

Use of County Motor Fuel Tax Revenues for Non-Highway Transportation Projects

Uncompromising opposition to any diversion of revenue from highway users to non-highway purposes once was an article of faith to organizations like the American Automobile

Association. In recent years, however, that opposition has softened when the funds are used for such purposes as mass transit, which can benefit highway users as much or more than equivalent outlays for more roads. It seems reasonable to permit the counties to spend a portion of the yield of their motor fuel taxes on non-highway projects as long as those uses can reasonably be viewed as generating indirect benefits for the purchasers of motor fuels.

Reliance by the Counties on User Fees and Charges

The counties in Hawaii derive a slightly smaller proportion of their own general revenues from user fees and charges than do all local governments in the nation. By comparison with the experience of local governments in the states in the far west, however, Hawaii's counties are seriously out of step. Localities in those five states rely on current charges for a share of their own general revenues that is 39 percent above the national average.

Another way of expressing these results is by calculating the additional revenue Hawaii's counties would have collected in FY 1987 if their reliance on charges had matched that of local governments in other states (assuming all other own revenues at their actual levels in that year). Had the counties relied on current charges for the same proportion of their own revenues as all the other states in the far west, they would have collected an additional $31 million.

II. DEVELOPMENT AND BASIC PARAMETERS OF HAWAII'S STATE-LOCAL SYSTEM

The allocation of functional responsibilities and revenue--raising authority between a state and its local governments is one of the most important issues to be determined by the people of any state in our federal union. Once the people have determined the limits to be placed on the powers of their state through their constitution, they must then decide, among other things, on the organization of local government and the powers to be exercised by their local governments. Given that every state has organized local governments, the United States is not so much a union of 50 states as it is a union of 50 state-local systems. Furthermore, some units of local government--New York City being a prime example--are larger than some states.

A. Outline of the State-Local System

It is generally recognized that two basic features of Hawaii's state-local system are unique in comparison with the nation's 49 other states. One is that government in Hawaii is highly centralized, with State authority dominant. The second is that Hawaii essentially has only one kind of local government--county government.

Except for 15 soil conservation districts, there are no overlapping jurisdictions within or between Hawaii's four counties. In a statement that neatly summarizes the underlying good-government rationale for centralization and local consolidation in Hawaii, an official State publication notes that

> *Hawaii does not have incorporated or unincorporated cities, towns, villages, or such entities as transit, port, or water districts within the basic county units as in other states. Thus, division of functions between the State and its political subdivisions is easily discerned.*[1]

The last sentence, however, does not flow logically from the preceding one because simplicity of structure does not necessarily mean that there is a concomitant simplicity of functional assignments, or that citizens necessarily understand the division of functions between the State and the counties. Nor is it self-evident that the existence of several types of local government would make it more difficult for citizens to distinguish between state and local responsibilities, although citizens might have more difficulty discerning which local government performs which functions. Nevertheless, the idea of simplicity of structure appears to be a value in Hawaiian political culture.

The counties do have neighborhood boards (for example, 36 boards on Oahu) elected by local residents. However, these boards are not formal governments. Primarily, these boards perform advisory functions for county government. In addition, the counties operate satellite city halls to serve local areas.

The centralization of government in Hawaii is a function of two features of the State's Constitution: (1) the State is responsible for a number of functions (education in particular) that are carried out by local governments in most states, and (2) local governments have less revenue-raising authority than they do in most states. Consequently, counties are limited in their ability to initiate new functions.

1. State "Local" Functions

In addition to all of the functions customarily performed by a U.S. state, the State government in Hawaii performs many that are assigned entirely or substantially to local governments by other states. These "local" functions include virtually all aspects of K-12 public education, as well as public libraries; public welfare; public health and hospitals; public housing (also performed by counties); water development and pollution control (shared with counties); circuit, district, and family courts; a land court; jails and other detention centers; airports; harbors; beach parks; historic preservation; cable television; public broadcasting; a sports stadium; and collective bargaining covering State and county employees. However, one function performed by the State government in the other 49 states but not by the State of Hawaii is policing. There are no state police in the Aloha State.

One State function, which is not purely or customarily local, per se, but which is extensive and affects local discretion to a much greater degree than in other states, is land-use control. Essentially, in enacting the Hawaii Land Use Law (Act 187, SLH 1961), the State established the first system of statewide land zoning in the country. The impact of this law on county governments was strengthened in 1978 by the Hawaii State Plan (Act 100).

2. County Functions

County government in Hawaii has sole or principal responsibility for a variety of property and infrastructure-related functions, including fire and police protection, civil defense (as delegated by the State), water distribution and sewerage, refuse collection and disposal, low-and moderate-income housing, roads and streets, street lighting, parks and recreation (including swimming pools, golf courses, soccer fields, and

1. Legislative Reference Bureau, State of Hawaii, Guide to Government in Hawaii (1989), p. 125.

baseball diamonds), mass transit, urban redevelopment, and some other public works.

County governments also perform a variety of administrative and human services, including election administration, motor vehicle registration, issuance of drivers' and business licenses, industrial safety programs, liquor control, prosecution of traffic and criminal charges, music bands, arts and cultural programs, manpower training, child care, eldercare and other senior-citizen services, and school-crossing guards (Honolulu).

3. Revenue-Raising Authority

The bases of own-source revenue available to the State of Hawaii are:

Revenue Source	Percent of FY 1987 State Own-Source Revenues[2]
General Excise	33.1%
Individual Income	21.9
Earnings	15.3
Liquor	5.2
Interest	4.2
Unemployment Compensation	3.1
Public Service Companies	2.5
Corporate Income	2.5
Fuel (county portion subtracted)	1.9
Insurance	1.4
Transient Accommodations	1.0
Rents, Royalties, Land	1.0
Tobacco	.8
Motor Vehicle Weight	.7
Banks and Other Financial Corporations	.6
Fines and Forfeitures	.5
Other Agencies	.5
Licenses, Permits and Other	.2
Inheritance and Estate	.2
Conveyance	.1
Specific Excises	.1
Miscellaneous	3.0

2. Tax Foundation of Hawaii, Government in Hawaii, 1988 (1988), tables 12 and 13.

The following 10 revenue sources are available to the counties:

Revenue Source	Percent of FY 1987 County Own-Source Revenues[3]
Real Property	64.2%
Departmental Earnings	14.0
Liquid Fuel	4.7
Motor Vehicle Weight (State portion subtracted)	3.4
Utility Franchise	2.9
Licenses, Permits, and Other	2.0
Liquor Licenses and Fees	.7
Parking Meter Fees	.5
Fines, Forfeitures, and Penalties	.1
Miscellaneous	7.6

3. Ibid, pp. 20 and 21.

The Counties also are authorized to engage in tax-increment financing, but have not exercised that authority.

The revenues actually received by the State government from the above sources in FY 1987 were $2,470,421,000 (82 percent of total State and county own-source revenues). The counties received $539,493,000 (18 percent of total State and county own-source revenues).

4. Intergovernmental Tax Arrangements

Pursuant to Act 155 (SLH 1965) and Act 114 (SLH 1973), the State has distributed portions of the general excise tax yield to the counties. This tax-sharing arrangement dates back to Act 111 (SLH 1947), which provided for Honolulu to receive 55 percent of the amount distributed; Hawaii, 20 percent; Maui, 15 percent; and Kauai, 10 percent. Pursuant to Act 345 (SLH 1986), the state has distributed grants-in-aid from the transient accommodations tax, enacted in 1986 (Act 340), to the counties for "infrastructureand/ortourism-related activities." The State distributed $12 million of the proceeds to the counties in FY 1987. The amount was increased to $20 million in FY 1989.

The liquid fuel tax is collected by the State, which retains the proceeds from its own rates and then distributes to each county the yield of the added rate set by that county. The motor-vehicle weight tax is collected by the counties, which retain the proceeds from their own rates for their highway funds and transfer to the State the proceeds derived from the added rate set by the State.

5. Intergovernmental Tax Comity

Three features of the Hawaii State-local tax system have adverse effects on county revenues: (1) real property owned by the State is exempt

from county taxation, (2) goods and services purchased by the counties are not exempt from the general excise tax, and (3) county public service enterprises are not exempt from the corporate income tax.

6. Revenue Protections and Constraints for Counties

A Constitutional protection for the counties is Article VIII, Section 5, which requires the State to share the cost to counties of any State mandates requiring counties to implement new programs or increase service levels. There is, however, debate over the proper state share. Two constraints on the counties having significant revenue consequences are (1) statewide collective bargaining for State and county employees and (2) countywide land-use determinations by the State.

In summary, the relatively high level of government centralization in Hawaii is reflected in the allocation of both functional and fiscal authority between the State and the four counties. Although this arrangement is at variance with that of most other states, it is rooted in the history of the State and reinforced by reform ideas about good government.

B. Origins of Local Self-Government

Most Americans take for granted the existence of local government, particularly the kind of locally elected self-government found in the United States. However, constitutional and statutory provisions for relatively autonomous local self-governance have been the exception rather than the rule. The most common rule has been to give the central government substantial, sometimes total, authority over local communities. Only today is the logic of centralization being widely questioned nearly everywhere in the world.

Local self-government in the United States is, in part, an outgrowth of necessity. Settlers on much of the frontier had little choice but to organize local governments. From a practical perspective, and sometimes a legal standpoint, local self-government often preceded territorial or state government. Even after state governments were organized, local governments remained for many years more important for citizens than state government. In turn, the organization of state governments preceded the formation of the federal union. Thus, the American union has, for the most part, been built from the bottom up rather than from the top down.

Local self-government in the U.S. also owes its origins to reactions against the centralizations of power that had occurred and were still occurring in Europe when the earliest settlers were landing on North American shores. This reaction was most notable in New England, where local self-governance through town meetings became the symbol and substance of freedom and democracy. By and large, it has been the appeal of the New England tradition that has provided the main cultural underpinnings for the maintenance of local self-government in the United States.

There have, of course, been regional variations. In much of the South, for example, there has been a greater tendency to concentrate authority in the state, to set limits on local government through the state constitution and the state legislature, and to make counties the major unit of local government. In parts of the West, too, county government is the primary unit of local government. Thus, while the basic idea of local self-government is deeply embedded in American political culture, each of the nation's 50 state-local systems has unique characteristics shaped by history, politics, tradition, culture, and circumstances.

C. State-Local Modernization

State-local systems have been significantly reshaped in this century by the reform idea of "modernization"--an idea that has worked both for and against local self-government. The idea has worked against local self-government insofar as efforts to modernize state governments have generally emphasized, among other things, the concentration of power in state government so as to enable the state to become more effective, assume responsibility for more functions, raise more revenue to perform those functions and also aid local governments, and manage and coordinate many governmental activities throughout the state. Among the leading outcomes of state modernization are four-year gubernatorial terms, annual legislative sessions, reduced numbers of elected executive officials, and revenue diversification--all of which reforms were intended to increase the fiscal and managerial capabilities of state government.

The historic campaign to modernize state government was paralleled by a campaign to modernize the U.S. government. This campaign also sought to expand the scope and increase the fiscal and managerial capabilities of government, in this case, the U.S. government. The successes of this campaign have in turn produced many new limits and rules on state governments as well as local governments throughout the union.

Thus, one result of the modernization of state governments and the federal government is that local governments have been increasingly subject to constraints and

mandates promulgated by both of these now more powerful governments, even though it can be argued that many mandates, especially unfunded mandates, imposed on local governments represent an abdication of state or federal responsibility. This "double whammy" from the state and federal governments has now become a matter of considerable concern to many local elected officials.

However, the idea of modernization sometimes works in favor of local self-government. To the extent that local government has been modernized, then to that extent local government can make a more credible case for greater autonomy and self-government. Indeed, coincident with the rise of the idea of state modernization was the rise of another reform idea: municipal home rule, which was soon followed by the idea of county home rule. Home rule first gained currency during an era when state legislatures were often known more for their corruption than for their competency, and when legislatures were repeatedly interfering in the daily affairs of local governments in highly politicized ways. Now that virtually all state governments have experienced considerable modernization, the case for local self-government has to be made, and often can be made, on such grounds as equity, efficiency, administrative capacity, political accountability, and responsiveness to the diverse tastes of the voters for public services.

D. Issues in Allocating Responsibilities

Debate over the allocation of fiscal authority and functional responsibility in state-local systems, therefore, needs to take into account the following kinds of considerations.[4]

-- Accountability: matching the authority to make decisions with the responsibility to carry out decisions.

-- Capacity: matching the responsibility to carry out decisions with the ability to do so.

-- Choice: increasing choices of government services and community lifestyles for all citizens.

-- Citizen participation: expanding opportunities for citizen participation and increasing the possibility that any one person's vote will make a difference.

-- Competence: diffusing governmental competence by creating opportunities for responsible public service throughout the state-local system.

-- Cooperation: ensuring sufficient communication and shared decision-making to promote state-local cooperation and coordination.

-- Diffusion of power: ensuring sufficient checks and balances in the state-local system to prevent abuses of power.

-- Diversity: ensuring sufficient jurisdictional diversity to prevent system wide failure and to satisfy the pluralism of public needs and preferences.

-- Economies of scale: achieving efficiency in the production of public services by recognizing that economies begin and end at different sizes of government for different services.

-- Efficiency: producing public services at minimum cost.

-- Equity: matching public burdens with public benefits consistent with the need to apportion some burdens according to the ability-to-pay principle.

-- Experimentation: creating opportunities for innovation that minimize damage to the state-local system in the event of failure but allow for diffusion in the event of success.

-- Externalities: ensuring that externalities, which impose costs or confer benefits on nonresidents of a jurisdiction providing a public service are taken into account in decisions on service provision.

-- Flexibility: ensuring sufficient flexibility to allow the state-local system to adapt to change and respond to problems.

-- Responsiveness: maximizing the potential for all governments in the state-local system to be responsive to individual and collective public needs.

Unfortunately, the principles contained in the above guidelines cannot be institutionalized without making tradeoffs. For example, certain inefficiencies may be tolerated for the sake of citizen participation or governmental responsiveness. Consequently, decisions about the allocation of functional responsibilities and fiscal authority in state-local systems cannot be made on the basis of empirical analyses alone. It is important to ask at the same time what values are to be maximized and what goals are to be achieved in the

4. These issues are discussed in detail in Chapter IV.

organization of any particular state-local system. Such decisions are ultimately political, in the best sense of that word.

The growing interest in state-local relations across the country suggests that the modernization of state and local governments may have reached a new juncture, one that requires a reexamination of the organization of state-local systems. For one, it is evident that the modernization of state governments has had, in addition to many benefits, a number of unintended consequences for local governments, including service confusion and inefficiencies, bureaucratic red tape, revenue uncertainty, unfunded mandates, and restricted discretion.

Second, it is evident that neither state government nor the federal government can be fully responsive to local needs in a highly diverse society. Third, local governments in the coming decades will have to be more self-reliant, in part because of declining federal aid and, in some cases, declining state aid.

Fourth, it is evident that the modernization of local governments has generally increased their actual and potential capacity to respond to local needs. Fifth, it is becoming evident that the organization of state-local systems need not be viewed as a zero-sum game wherein every increase in the authority of one government entails an equivalent loss of authority by another government. Instead of speaking, therefore, of the modernization of state and local governments as though they are actual or potential competitors for scarce resources, it is more appropriate to speak of the modernization of state-local systems as one in which the various governments perform different but complementary functions.

In this respect, the State of Hawaii can be said to be a step ahead of many states as well as a bit out of step with most. It is ahead in the sense that Hawaii has long had a highly integrated state-local system in which the state has had a substantial and continuous involvement in county affairs. It is out of step in the sense that the tradition of local self-government is weak, resulting in a system in which state authority is favored over local. This state-local arrangement is the result of a set of historical circumstances that are largely unique to Hawaii, although that arrangement is not necessarily best suited for Hawaii in every instance.

E. Development of Hawaii's State-Local Fiscal System

At first blush, one might expect local governments to be rather strong in Hawaii. Why? Because there is only one kind of local government, the county; there are only four counties; and each is an island (or more) unto itself. Yet, it is precisely all three of these characteristics of the Hawaiian polity that, among other factors, have been used as arguments for governmental centralization in the State.

The development of government in Hawaii has been rather unique in comparison to the development of government in the other 49 states in the American union. Government development in Hawaii has followed less of a mainland North American pattern and more of a European pattern of conquest in which a powerful center brings peripheral jurisdictions under its control. Also, as in the formation of many European nation-states, the unification of the jurisdictions that now constitute the State of Hawaii was accomplished forcibly by a powerful monarch. Thus, government in Hawaii has been built more from the top down than from the bottom up.

The seven major islands that make up Hawaii were long governed by local chiefs who conducted raids on each other's territories and engaged in periodic warfare. The arrival of Europeans in 1778, however, introduced new military technology, political ideas, and economic factors. Shortly thereafter, Kamehameha I, making adroit use of his leadership skills, military prowess, and the new technology, was able to unite the principal Hawaiian islands under his kingship by the early 1800's. Kamehameha brought rival local leaders into his court where he could subdue them and dispatched his own administrative overseers to neighbor islands. Thus, he established a highly centralized regime.

Kamehameha's son, Kauikeaouli (Kamehameha III), introduced some decentralization into the regime by allowing school committees and road supervisors to be elected locally and by extending limited lawmaking authority to local jurisdictions. However, this modest degree of decentralization did not last long. Ironically, as Hawaii developed from monarchy to constitutional monarchy, to provisional government, and to a republic, government was progressively re-centralized.

It is quite likely that centralization was generally reinforced in the 19th century by the growing presence of missionaries and large landowners, and by the continuous presence of foreign warships.

Unlike most of the mainland states that were settled predominantly by groups of Christians who ordinarily organized their own local congregations and local governments in tandem, Hawaii was subject to massive missionary activity in which the organization of local congregations first required acts of religious

conversion. Furthermore, missionaries competed with each other for congregants. In so doing, the missionaries often sought the protection and blessing of the central government in order to advance their work.

Generally, missionary activity in the 19th century was characterized by paternalism in which, among other things, the idea of local self-government or democracy was not, for the most part, held to be within the capacity of the "natives." In addition, unlike most of the congregations founded on the frontiers of the mainland states, the missionaries and their congregations often felt highly dependent upon their home boards. Thus, it is plausible to suggest that, on the whole, missionary activity did little to promote decentralization and local self-government in Hawaii.

Another striking aspect of Hawaiian history was the continuous presence of foreign warships, especially American, British, and French warships, during the nineteenth century. The use of troops from these ships or threat of their use were constant factors in Hawaiian government and politics. The captains of these ships were interested in having an effective central government friendly to their nation's interest; they did not want to cope with overly independent governments on each of the islands.

The owners of enormous tracts of land (or "plantations") probably reinforced centralization in three respects. For one, large landowners ordinarily have little interest in promoting the development of strong institutions of local democracy because such institutions may turn against them.

Second, although such landowners do not necessarily desire a strong central government, in Hawaii they more or less had to capture the central government in order to protect and promote their interests during the latter half of the 19th century. The ability to control or significantly influence the central government was especially important in order to regulate commerce, promote labor immigration, control discontented local residents, and move Hawaii toward admission into the United States.

Third, large landowners are tempted to be a law unto themselves and to use local government mechanisms in their area as puppets to protect themselves against encroachment by the central government when they are unable to control that government directly. This behavior often elicits a counterreaction from the central government, which seeks to extend its control further over such local "bosses." This dynamic appears to have been especially prevalent after World War II, as the democratization of politics in the State produced a certain public desire to strengthen territorial and then State government as a countervailing public force against oligarchic private power.

Indirectly, large landowners contributed to centralization in still another respect--namely, by provoking the organization of strong statewide labor unions. The presence of large numbers of plantation workers as well as many waterfront workers provided fertile grounds for union organizing. As unions grew in numbers and strength, they too had an interest in influencing the territorial government and in securing favorable legislation, such as the Hawaii Employment Relations Act of 1945 and the recognition of collective bargaining in the Constitution of 1950. Indeed, despite great odds, union organizing in Hawaii was quite successful.

Finally, of course, centralization served as its own reinforcement. That is, in the absence of strong and autonomous local governments in Hawaii, most organized public and private interests had relatively few incentives to focus on local government, except to some extent in Honolulu, as opposed to very considerable incentives to focus attention on the central government.

1. The Creation of Local Government

Having no formal local governments when Hawaii was about to become a territory of the United States, the Organic Act approved by the Congress in 1900 provided

> *That the legislature may create counties and town and city municipalities within the Territory of Hawaii and provide for the government thereof, and all officials thereof shall be appointed or elected, as the case may be, in such manner as shall be provided by the governor and legislature of the Territory. (Section 56)*

At first, the territorial legislature did not exercise this discretionary authority to create local governments. After members of a Congressional committee visited Hawaii in 1902 and encouraged the territorial government to establish local governments, however, the legislature passed Act 39 in 1905, which provided for five counties: Oahu, Hawaii, Maui, Kauai, and Kalawao. The latter "county," the settlement for persons with Hansen's disease in Kalaupapa, was placed under the authority of the Territorial Board of Health and was provided with one county officer, a sheriff to be elected locally.

There are two notable features of Act 39. First, the legislature created only county governments. Provision was made for only very limited and

clearly subordinate sub-county government. That is, each of the four main counties was divided into districts: Oahu into six districts, Hawaii into nine, Maui into five, and Kauai into five. Within each district, residents were permitted to elect a deputy sheriff and deputy assessor and tax collector. In 1907, however, the legislature created a combined city-county government in Honolulu-Oahu and provided for a full-time salaried mayor. The new consolidated government began operating in 1909.

Second, Act 39 and subsequent amendments placed county governments in a kind of "in-between" position, almost a "no man's land" between traditional county government and traditional municipal government. The counties were not simply administrative arms of the State (then territory) because they were expected to perform certain functions customarily associated with municipalities, and to do so without any expectation that communities within the counties would incorporate as municipalities in order to assume responsibility for traditional municipal functions within their respective jurisdictions.

At the same time, the counties were not expected to be full-fledged municipal governments. They were "almost, but not quite" municipal bodies, which ordinarily have charters authorizing them to perform a wide range of police, fire, health, education, welfare, infrastructure, cultural, recreation, planning, and public works functions, and also to set charges for public services and to levy one or more kinds of local taxes to finance the costs of the functions.

The Hawaiian system appears to have been something of a compromise between centralization and decentralization. Lacking a tradition of strong local government within a unified regime, the legislature created a hybrid system of local governance that, also lacking in settled tradition, has led to what is now almost a century of experimentation and of pulling and tugging between State and local officials over the allocation of functional responsibilities and revenue-raising authority. Although virtually every state has experienced such pulling and tugging, the situation in Hawaii has been more acute in many respects because the counties are so constitutionally and fiscally dependent on the State and because the State performs many functions that are generally regarded as local responsibilities on the mainland.

Furthermore, Hawaii became a territory of the United States at a time when many reformers decried the divisive effects of boss rule and ward politics on good government and the general public interest. Particularistic interests were seen as subverting the common good of citizens. No doubt such concerns were exacerbated in Hawaii, an island territory literally made up of islands. Given the history of the islands and the geographic uniqueness of the territory, the potential for centrifugal particularism was seen as being especially strong in Hawaii. The concern was that this potential might be given added force by the creation of strong local governments capable of promoting particular island and/or economic interests over the interests of the territory as a whole.

Another factor that played a role in the decision to create only county governments was the small geographic size, small population size, and rural character of most of the islands. Quite simply, there seemed to be no pressing need to create sub-county local governments. A case for other local governments might have been made on Oahu, but the legislature elected to follow the then current reform idea of city-county consolidation. Furthermore, it is not clear that large land-owners would have had an interest in strong sub-county governments because such governments might have partially empowered their laborers and other local residents to counteract "plantation paternalism."

2. Expanding County Functions

The initial responsibilities of the counties under Act 39 of 1905 were water supply and sewerage, services that the counties could finance by user charges; electric power generation and public lighting; fire and police protection; and the construction and maintenance of streets, roads, highways, bridges, trails, and alleys, subject to approval by the territorial Superintendent of Public Works. County inspection of building construction and county provision of trash and garbage disposal followed shortly thereafter. Subsequent amendments to the 1905 act gave the counties responsibilities for building and maintaining court houses, detention homes, jails, hospitals, and schools.

At the same time, the territory and the counties shared certain functions insofar as the territory exercised supervision over county road construction and maintenance, counties possessed limited revenue-raising authority (for example, user charges), county officers enforced territorial health regulations, county police enforced territorial law, and county officials exercised limited regulatory authority over business. After the sensationalized Massie rape and murder cases of 1931-32, however, the territorial governor assumed administrative control of the county police and liquor commissions while requiring the counties to continue to

finance these services.

Essentially, all other public functions continued to belong to the territorial government, including agriculture, much of education, fish and game conservation, health (including Kalawao), public service entities (including housing, harbors, and airports), and public welfare. In 1932, moreover, the territorial government assumed responsibility for all roads constructed with federal-aid money.

3. The 1950 State Constitution

The Constitution of 1950, which subsequently became, with minor revision, the first constitution of the State of Hawaii, was by all accounts a reform constitution par excellence. The document conformed to the rules of brevity, streamlined government, and managerial efficiency laid out shortly thereafter in the National Municipal League's Model State Constitution and already adopted in varying degrees by other states, such as New Jersey in 1947. Proponents of statehood deemed it important to their cause to have a proposed constitution incorporating the latest thinking about good government.

Seeing that their own responsibilities had been expanded in various ways since 1905, and recognizing the now longstanding reform idea of home rule, the counties sought more recognition and self-government through the proposed constitution. To some extent, the counties were successful. The 1950 Constitution, unlike the Organic Act of 1900, made it mandatory for the legislature to create county governments:

> *The legislature shall create counties, and may create other political subdivisions within the State, and provide for the government thereof. Each political subdivision shall have and exercise such powers as shall be conferred under general laws. (Article VII, Section 1)*

Although this provision did not explicitly lock Oahu, Hawaii, Kauai, and Maui into the constitution, implicitly it did so. Interestingly, in a deviation from the prevailing model state constitutions, this provision continued to leave the creation of other forms of local government (for example, municipalities) up to the discretion of the legislature.

The counties also obtained a small measure of home rule:

> *Each political subdivision shall have power to frame and adopt a charter for its own self-government within such limits and under such procedures as may be prescribed by law. (Article VII, Section 2)*

This provision was generally seen as a victory for local home rule although, in fact, it was more circumscribed than provisions of model state constitutions, which advocated more extensive home rule. Furthermore, charters had to be approved by the legislature.

In addition, Article VII went on to say, in Section 3:

> *The taxing power shall be reserved to the State except so much therefore as may be delegated by the legislature to the political subdivisions, and the legislature shall have the power to apportion state revenues among the several political subdivisions.*

The Constitutional Convention rejected a provision that would have granted fairly broad taxing powers to the counties.

For a reform constitution at the time, there is one curious omission: provisions for citizen initiative, referendum, and recall. Such provisions have been discussed from time to time in Hawaii, but they have not been enacted, even though such provisions are found in the reform constitutions of most of the western states. In a highly centralized state, one might expect such provisions to have been included in the constitution as a check-and-balance mechanism for the general citizenry against state government power. The absence of such provisions further enhances the power of state political institutions--the legislature, executive branch, and courts--over state life, including local government. However, there is one mitigating provision in the Constitution: the state must put to the people at least once every nine years the question of whether there should be a constitutional convention.

4. Early Statehood Legislation

In 1959, the City and County of Honolulu became the first of the locally approved charter governments to go into effect. The other three counties followed suit after the 1963 legislature authorized them to adopt their own charters. Prior to 1959, however, Act 150 (SLH 1957) had mandated the preparation of a General Plan for the territory of Hawaii and asserted the territorial government's supremacy over capital improvement programs so as to enable the territorial government to implement territory-wide development policy. This act paved the way for state involvement in county public works projects, an involvement that was deepened when the state established a system of grants-in-aid through Act 155 (SLH 1965).

According to the 1977 Hawaii Commission on Organization of

Government,

> *The first major legislation affecting State-County relations after Statehood actually decreased county home-rule. Equal pay for equal work was decreed as a civil service principle and enacted into law that required all governments to pay uniform salaries to employees performing similar work without regard to local resources and preferences.*

The Commission went on to say that

> *Another major decrease in county autonomy was the passage in 1961 of the State Land Use Law empowering the State government to determine the basic land use boundaries in each county: agriculture, conservation, urban and later rural.*

In 1963, however, the State repealed its statutory ceilings on real property tax rates, thus giving counties authority to set their own rates. The State ceiling had posed problems for the counties, in part because the bond market had classified the counties' general obligation bonds as "limited tax bonds," thus increasing interest rates that had to be paid. The State's pre-1963 effort to hold down real property taxes, therefore, was not necessarily cost effective for county taxpayers.

Since 1947, the State had shared 1 percent of the general excise tax yield on a presumably origin basis with the counties. In 1962, the State altered that program to provide for the following:

> *The county's share of the general excise tax shall be determined as follows: the total of the distributions so made to the counties from the collections of general excise tax, consumption tax and compensating tax shall be in an amount determined by crediting to the counties (in the aggregate irrespective of where the collections are made), 1.125 per cent of the tax base of all collections of these taxes which have been made at the rate of three and one-half per cent or more, excepting only taxes from public utilities. . . . [Sec. 129-9, Revised Laws of Hawaii 1955 (1963 Supplement)]*

In 1965, however, the State enacted an overall tax reform law (Act 155) that repealed the above formula for sharing receipts from the general excise tax with the counties. In its place, Act 155 established a grant-in-aid program for the counties. The program had three components:

1. As a group, the counties received from the State general fund each year an amount equal to 0.505 percent of the tax base attained for the fiscal year ending in the previous calendar year. This tax base included all collections of the general excise tax, use tax, and public service company tax that were made at the rate of 3.5 percent or more, except taxes collected from public utilities.

2. Each county was guaranteed $1 million of the above amount.

3. Of the remaining amount, each county received a grant based on its relative fiscal capacity and relative fiscal need. However, 25 percent of each county's allotment was distributed only upon the approval by the governor of a county plan or program that, in the governor's view, served to raise, improve, or maintain a justifiable level of county services.

In 1965, the State transferred control of the police and liquor commissions back to the counties. In that same year, Hawaii established a State highway system (Act 159, SLH 1965) in order to meet Federal Highway Act requirements. In 1966, the legislature reaffirmed the counties' responsibility for maintaining their own roads. In 1965, the State had also passed a major enactment (Act 97) to transfer functions from the counties to the State. Section 1 states:

> *The purpose of the Act is to fix responsibility for certain functions, which are of statewide concern, in the state government. These functions which are hereby declared to be state functions are as follows: (1) the planning, construction, improvement and maintenance of public school facilities and grounds and the transportation of school children; (2) the burial of indigents; (3) the planning, construction, improvement, maintenance and operation of public hospitals and other public health and medical facilities; (4) the rendering of medical treatment and hospitalization services to state and county pensioners; and (5) the administration and operation of district courts.*

The State, however, deferred the transfer of responsibility for public school facilities and grounds, transportation of school children, and public hospitals. Subsequently, Act 203 (SLH 1967) provided for the transfer of public school facilities and grounds as well as transportation of school children, while also providing for the counties to "operate and maintain public hospitals and other public health and medical facilities" on behalf of the State and with State

funding. The act provided for the establishment of a County Hospital Advisory Council in each county. With Act 265 (SLH 1969), however, the State completed the transfer of hospitals and public health facilities, except that counties having 200,000 or more residents (Honolulu) were directed to provide first aid and ambulance services, and all counties were required to provide medical care to their jail inmates and to provide for medical investigations by police.

Act 203 of 1967 had also permitted the State to "appropriate funds to facilitate the training programs of the several junior police organizations" and allowed the governor to enter into contracts with the counties for the repair and maintenance of State highways and for the repair, maintenance, and operation of state parks and historical sites. The governor was given authority to transfer some or all of these latter highway and parks functions to the counties subject to approval by the next subsequent legislature.

It should be noted that prior to this flurry of state-county legislation in the 1960's, the legislature had commissioned a study of State-local relations in 1961. The study was conducted by the Public Administration Service of Chicago, which submitted a report in 1962 and a draft local government law in 1963. Generally, this study emphasized the need for greater local self-government and an end to State "paternalism." The study set forth four basic principles for determining the allocation of functions between the State and its local governments.

1. The allocation of functions between the State and local units of government should be related realistically to the nature of the functions and the relative financial capacities to support them. Respective responsibilities for public services should be clearly defined.

2. With a division of functional responsibilities established that is realistically related to financial and operating requirements, local governments should be granted maximum discretion to carry out their responsibilities within the general limits of statutory safeguards on the misuse of authority.

3. The organizational and administrative structure of local government should be designed for the effective, economic, and responsible performance of local services. Such is normally characterized by a division of executive and legislative functions and the centering of responsibility for administration in a single individual.

4. The support of local community services should be provided to the fullest extent practicable from local sources. Residents of a community who receive services should be able to relate the kinds and levels of services provided or expected to what they pay for local government.

The transfer of school construction and district courts to the State, which was enacted in 1965, had been two of the many recommendations contained in the above study. In turn, pursuant to this 1961 study, counties regained administrative control over police and liquor commissions, and the neighbor island counties were given more authority to plan and implement capital improvement programs.

Obviously, the years immediately following statehood were ones of considerable State-county reorganization activity. Generally, however, functions flowed from the counties to the State. The counties complained that the State provided little or no reimbursement when these transfers affected local revenue sources, and that the State often left the counties responsible for outstanding financial obligations acquired in support of those functions. These changes in State and local responsibilities were largely a function of the fact that the first Constitution of statehood had left it up to the legislature to decide most of the important questions of local government, particularly county powers, revenues, and responsibilities.

5. The Constitutional Amendments of 1968

The Constitutional Convention of 1968 was seen by many proponents of local government as an opportunity to increase local self-government by securing for the counties a constitutional grant of "residual power." The state's association of counties proposed the following amendment to the Constitution:

> *"Each political subdivision shall have all powers of government, including the power to tax, not denied by this Constitution or by general law."*

This proposal, however, never reached the floor of the convention.

Although sections 1, 3, 4, and 5 of Article VII of the Constitution were not altered in 1968, counties did gain a measure of increased stature through amendments to Section 2. Essentially, counties were given the authority to frame and adopt a charter without obtaining approval of the charter by a legislative body. In addition, the amended section provided that

Charter provisions with respect to a political subdivision's executive, legislative and administrative structure and organization shall be superior to statutory provisions, subject to the authority of the legislature to enact general laws allocating and reallocating powers and functions.

This latter provision was a response to a State Supreme Court ruling in Fasi v. City and County of Honolulu, 50 Hawaii 277, 439 P.2d 206 (1968). In this case, the court held that a county charter adopted in accordance with the Constitution was merely a statutory charter and, therefore, subject to control by the legislature.

6. Developments in the 1970's

Adjustments in State-county relations and responsibilities continued unabated in the 1970's. In 1970, the State required each county to develop and adopt a general plan. The State also initiated a housing development program for low and moderate income households. In 1971, the counties were authorized to adopt ordinances allowing them to assess improvement costs against buildings and land based on assessed valuation for the real property tax. In 1973, the State amended Act 155 (SLH 1965) through Act 114 so as to freeze grant-in-aid amounts to the counties at FY 1972 levels (totaling $18.2 million). This action was a response to congressional enactment of General Revenue Sharing, which provided federal funds to local governments and to States on the condition that they reduce their grants to local governments below FY 1972 levels. The State did, however, increase its grant-in-aid amounts once for Hawaii, Kauai, and Maui, but during 1977 only. Not until 1987, after the expiration of the federal Revenue Sharing Program, did the State provide increased amounts again.

A major piece of legislation enacted in 1974 (Act 179) permitted an increase in county authority and responsibility. This legislation, which was a response to an apparent housing shortage, authorized counties to develop low-income housing. Thus, low-income housing became a State and county responsibility, with the counties intended to play a supplementary role to that of the State. At the same time, the State was given the power to build housing projects that could be exempted from county zoning and construction rules.

On other fronts, the State established a commission in 1974 to administer environmental-impact-statement requirements for the State and the counties. In 1975, the State sought to improve State-county administrative relations with respect to local conformity with the State policy plan and the development of a statewide transportation system. The State also sought to improve coordination with Honolulu on transportation planning.

In 1976, the legislature enacted the "Florida Plan," which authorized the State each year to certify each county's real property tax base and the tax rate for each class of real property for the next year that would yield the same amount of revenue as was collected from the class during the previous year. These certified rates were to remain in effect for the new year unless changed by the county council.

Pursuant to the provisions of Act 148 (SLH 1975), the State established in 1977 a 12-member Commission on Organization of Government. The Commission's mandate included an examination of overlapping State and county responsibilities. To facilitate this analysis, the Commission formulated the following guidelines for allocating functions between the State and its local governments.

1. Consider history, tradition, and current community values.

2. Eliminate duplication of functions between State and local governments unless justifiable reasons exist for its continuance.

3. Where degree of responsiveness in service is of greater value than uniformity of service, allocate that function to local government.

4. Where uniformity of service is of greater value than degree of responsiveness, allocate that function to State government.

5. Group together related functions to the extent that effective service is promoted.

6. In allocating functions between State and local governments, take into account federal constraints.

7. Present allocation of financial resources shall not be a constraint on realignment of functions; however, to the extent that functions are realigned, allocate adequate resources.

8. Give consideration to the concept that certain functions can be performed more effectively by private or quasi-public institutions.

9. Consider that certain functions fall in the category of joint participation by the local and State governments.[5]

5. Commission on Organization of Government, Report to the Ninth State Legislature, State of Hawaii (1977), pp. 23 and 24.

The Commission made a number of recommendations regarding the allocation of functions. Major recommendations included (1) county responsibility for administering rent supplement programs, developing housing for both sale and rental, inspecting housing, and enforcing housing regulations; (2) State-county pooling of maintenance services; (3) transferring road maintenance to the counties after formulation of a mutually agreeable funding plan and timetable; (4) shared State-county jurisdiction in conservation-zoned areas similar to shared jurisdiction for agricultural lands; (5) county responsibility for issuing building permits; and (6) county responsibility for local parks and active recreational and sports parks coupled with State responsibility for parks "prone to statewide or island-wide use," scenic historical parks, and conservation-oriented parks.

On fiscal matters, the Commission recommended that (1) a percentage of the general excise tax revenue be distributed to the counties on the basis of population; (2) a grants-in-aid fund be established for the neighbor islands to be financed by general revenues; and (3) counties be given the fuel tax, except for aviation fuel, and that the motor-vehicle weight tax be shifted to the State for the Highway Fund.

7. The Constitutional Amendments of 1978

In 1977, the counties once again approached constitutional revision with some hope of gaining greater autonomy, or at least discretionary power. Again, the counties were partly successful. For one, the Constitution was amended to provide

> *. . . that all functions, powers and duties relating to the taxation of real property shall be exercised exclusively by the counties, with the exception of the county of Kalawao. (Article VIII, Section 3)*

However, the counties failed to achieve another fiscal goal, namely, authority to levy a general excise tax.

Furthermore, with respect to the property tax, the Constitution stipulated that, for 11 years following ratification,

> *. . . the policies and methods of assessing real property taxes shall be uniform throughout the state and shall be established by agreement of a majority of the political subdivisions. Each political subdivision shall enact such uniform policies and methods of assessment by ordinance before the effective date of this amendment, and in the event the political subdivisions fail to enact such ordinances, the uniform policies and methods of assessment shall be established by general law. Any amendments to the uniform policies and methods of assessment established by the political subdivisions may only be made by agreement of a majority of the political subdivisions and enactment thereof by ordinance in each political subdivision.*

> *Real property tax exemptions and dedications of land for specific use for assessment of its value in such use as provided by law and in effect upon ratification of the amendment of Section 3 of Article VIII shall be enacted by ordinance and shall not be eliminated or diminished for a period of eleven years following such ratification; provided that increases in such exemptions, or the additions of new and further exemptions or dedications of lands, may be established or granted only by agreement of a majority of the political subdivisions, and such increases or additions shall be enacted by ordinance in each political subdivision.*

The 1978 revision of the Constitution also gave the counties a measure of fiscal protection.

> *If any new program or increase in the level of service under an existing program shall be mandated to any of the political subdivisions by the legislature, it shall provide that the State share in the cost. (Article VIII, Section 5)*

Interestingly, however, a major reason for inserting this mandate protection for counties in the Constitution was to prevent the State from circumventing the new general fund expenditure ceiling (Article VII, Section 9) by shifting State functions to the counties or by requiring the counties to initiate new programs.

Thus, the provision is a double-edge sword for the counties. It protects them from being assigned responsibilities that might strain or outstrip their resources, but it also inhibits a devolution of functions that might enhance local self-government. Further, this provision belies a certain lack of principle on the part of State government with respect to its treatment of the tradition and values of centralization in Hawaii. Evidently, delegates to the Constitutional Convention believed that State officials could not be relied upon to allocate functions entirely upon such non-political principles as simplicity, accountability, efficiency, and equity. Faced with the expenditure ceiling, State officials might suddenly become

friends of mandated decentralization. This belief in the possibility of politics prevailing over principle is reinforced by the insertion of another provision in the Constitution, one requiring the establishment of a tax review commission every five years (Article VII, Section 3).

In any event, with respect to mandate reimbursement, the drafters of the amendment expressed their intent that

> *. . . the state provide funding for the full cost of the new program or an increase in scope, represented by increased costs, in an existing program in the first year of the program and for a reasonable share of such cost in future years for as long a period as the new program or increase in scope shall be prescribed by law. (Standing Committee Report No. 66)*

The principal problem with this language is the difficulty of defining "reasonable."

Finally, in a listing of 10 public health and welfare functions in Article IX of the Constitution, counties were given a measure of authority in one area--population growth.

> *The State and its political subdivisions, as provided by general law, shall plan and manage the growth of the population to protect and preserve the public health and welfare; except that each political subdivision, as provided by general law, may plan and manage the growth of its population in a more restrictive manner than the State. (Article IX, Section 6)*

Generally, what happened in 1978 is what happens in many states. A constitution initially admired for its brevity accumulates more detail as the state faces new problems and challenges, and as the voters discover loopholes in the standing document.

Other 1978 actions affecting county functions included a State Planning law (Act 100, SLH 1978), which set forth state-wide goals for the environment, the economy, and the physical, economic, and social well-being of Hawaii's residents. All State programs and all general and developmental plans of each county were to be brought into conformity with the State plan by January 1982.

Act 100 is truly grandiose in its aspirations, reflecting a combination of good-government and managerial principles linked to the environmental and human-potential movements that swept the country during the 1970's. Based on three values--individual and family self-sufficiency, social and economic mobility, and community or social well-being--the act lays out three overall goals for the State:

> *1. A strong viable economy, characterized by stability, diversity, and growth, that enables the fulfillment of the needs and expectations of Hawaii's present and future generations.*
>
> *2. A desired physical environment, characterized by beauty, cleanliness, quiet, stable natural systems, and uniqueness, that enhances the mental and physical well-being of the people.*
>
> *3. Physical, social, and economic well being, for individuals and families in Hawaii, that nourishes a sense of community responsibility, of caring and of participation in community life (Section 4).*

Following thereafter are 26 sections listing some 195 specific State goals. Act 100 then establishes a statewide policy council with broad review powers and responsibility for recommending to the legislature ways to implement the objectives of the law.

Another notable action, Act 148 (SLH 1978), authorized the State Department of Health to contract with the counties to deliver emergency ambulance services. In addition, the Executive Office of Aging was authorized to conclude contracts with the counties to provide services to senior citizens.

8. Post-1978 Developments

The 1978 Constitutional Convention met during the year in which, on a nationwide basis, federal aid to state and local governments reached an historic high point. Since then, federal aid for purposes other than payments to individuals has declined substantially, especially for local governments. Rising interest rates and inflation during the late 1970's and then the recession of 1981-83 induced fiscal stress for most states and local governments, a stress exacerbated for jurisdictions that experienced taxpayer revolts during the 1978-81 period.

Since 1983, however, sustained economic growth has produced major fiscal benefits for many states, including Hawaii. In addition, foreign investment and foreign tourism have become significant factors in the economies of a number of states, of which Hawaii is one.

Hawaii reached a milestone of sorts in 1986 when its civilian population crossed the 1 million threshold. Another significant change since the late 1970's has been the accelerated economic growth and development of the neighbor islands. Although the State continues to have a single, dominant metropole (Honolulu) and substantially rural, lesser developed

peripheries, development has been spreading throughout the State. This trend is likely to continue as U.S. and foreign migrants and visitors seek out living spaces and vacation areas that are removed from the hustle and bustle of city life, and as economic growth itself provides counties with resources for further development.

Although such changes have many benefits, they also pose many problems, especially for counties that must cope with increased demands for property-related protections, infrastructure improvement, and human services. Furthermore, even though the State of Hawaii provides most basic human services, the counties are also under pressure to deliver more human services not only because of growth but also because citizens today appear to expect government to provide an ever-wider range of services. The counties, therefore, have been showing more interest in providing human services, with Maui even going so far as to establish a Department of Human Concerns.

The rapid growth and changing expectations in Hawaii have resulted in continued pulling and tugging between the State and its counties over the allocation of fiscal and functional powers and responsibilities. In 1981, for example, the Department of Parks and Recreation of the City and County of Honolulu and the Parks Division of the State Department of Land and National Resources examined county and State parks jurisdiction. A proposal was developed and approved by the legislature (Act 38, SLH 1984) to transfer certain county and State parks from one jurisdiction to another. The exchange has not yet occurred, in part because the administration that assumed office in Honolulu in 1985 deferred the exchange in order to conduct further reviews of the proposal.

In 1985, the State established (Act 98) an Advisory Committee to Study Overlapping State and County Functions. No major changes in State or local powers and responsibilities had been implemented as a result of the 1977 Organization of Government study. In October 1986, the 14-member Advisory Committee made the following recommendations:

1. Counties should be granted additional taxing authority.

2. The State should phase out its grants-in-aid to the counties.

3. Phase III of the State Highway System plan should be completed.

4. The State should transfer to the counties responsibility for collecting fines for parking and uncontested and non-moving violations that do not involve or require a court appearance, and allow counties to retain such revenue.

5. The transfer of parks provided for in Act 38 (SLH 1984) should be completed and similar transfer agreements should be negotiated with each of the neighbor islands.

6. The State should "execute contracts with the counties for lifeguard services at State beaches and beach parks, to ensure equitable financial reimbursement to the counties and the quality of the services being provided."

7. The Hawaii Housing Authority and each county housing agency should merge their applicant lists into a single list of each jurisdiction.

8. The "counties should stop expanding their role in Human Services and begin to consolidate their existing human services programs when appropriate."

9. The legislature should provide for a continued review and evaluation of overlapping functions.[6]

The Advisory Committee was not able to reach a consensus on an increased tax rate for aviation fuel or on matters pertaining to the State water code, sewage treatment regulation, land-use planning, or the role of the Ombudsman. The Committee also reported that it was not able to address

> *. . . the transfer from the counties to the State of the functions of automobile Driving Instructor licensing, the automobile driving school, and motor vehicle and driver licensing. Other issues relating to sanitation, environmental protection, public safety, recreation, social services, economic planning and development, and fiscal relations were not evaluated. . . .*[7]

A further review of the allocation of State and county functions and fiscal powers were undertaken by the Governor's Task Force on State-County Relations, which issued the following summary of its recommendations in November 1987:

1. Transfer of parks:

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6. Report to the President of the Senate and the Speaker of the House of Representatives, Thirteenth State Legislature (October 30, 1986.)

7. Ibid., p. 11.

a. Transfer of "active" State parks to the Counties, and "passive" or cultural type parks from the Counties to the State.

b. Transfer of lands from the State to the counties should be under Governor's Executive Order for the specified purpose of park activities If there is a transfer of County owned park lands to the State, then a land exchange should be considered.

2. Transfer of the following Department of Health functions to the Counties:

a. Municipal air conditioning/ventilation permits.

b. Community noise rules-permit review and inspections (Oahu only, other counties have no established ordinances to date).

c. Private sewage treatment plant operations approval and inspections.

d. Individual wastewater systems (e.g., cesspools) - plan review and inspections.

e. Housing plan reviews for Kauai County only.

3. The State implementing Phase 3 and 4, completing the Highways transfer program (from County to the State).

4. The use of grants-in-aid to the Counties in lieu of additional County taxing authority.

5. Includes as part of the overall grants-in-aid to the Counties the sharing of the revenues collected from non-adjudicated traffic and parking fines.

6. The continuation of this Task Force to address other State-County issues.[8]

A year earlier, through Act 345 (SLH 1986), the State did provide for more revenue aid to the counties by establishing a grant-in-aid program for "infrastructure and/or tourism-related activities" funded by the State's transient accommodations tax that was also enacted in 1986 (Act 340). This is a tax that many county officials believe should be levied entirely or substantially by the counties (see the discussion of this issue in Chapter VIII).

The expiration of the federal Revenue Sharing Program in 1986 eliminated a significant source of revenue for the counties. The State responded by increasing aid to the counties. In 1989, however, the State repealed its grant-in-aid formula established in Act 114 (SLH 1973), creating concern among many county officials that the amounts of grants in the future will be both highly unpredictable and politically driven by the "mood of the day." Prior to the 1987 session of the legislature, the Hawaii State Association of Counties proposed a statutory grant formula to increase State aid to counties and to distribute the aid on a basis derived from a measure of county service needs and county contributions to the State's revenues.

In 1989, the legislature considered, but did not enact, legislation to transfer liquor and tobacco tax revenues to the counties, allow the counties to build county highways and charge tolls on those highways, and implement the transfer of certain parks between the State and the counties.

Given that the State treasury had a surplus of $470 million in FY 1989, given the absence of a statutory grant formula, and given the continuing local pressures on county revenues, county officials in Hawaii have increased their efforts to secure a new deal in State-local relations and in the allocation of fiscal authority in particular. With regard to revenues, the counties have been focusing primarily on three State-local arrangements that have especially strong revenue consequences for them: (1) State grants-in-aid, (2) local taxing authority, and (3) land-use control. The State tends to prefer grants-in-aid and continued State land-use powers. The counties would prefer more local land-use control (some county officials speak even of abolishing the State Land Use Commission). There appears to be some movement among county officials away from a preference for grants-in-aid toward a desire for increased local taxing authority.

November 7, 1989, marked the expiration of the uniformity clause in the State Constitution with respect to real property tax administration by the counties. The new authority allows each county to be more flexible, and perhaps more creative, in adapting its real property tax system to local needs and preferences. However, a prominent concern of county officials is that the property tax base is too narrow and constrained to serve as an adequate mainstay of county revenues.

F. Conclusions of History

What conclusions can be drawn from this brief history of Hawaii's

8. Report of the Governor's Task Force on State-County Relations (November 1987), p. 4.

State-local system?

For one, simplicity of structure has not produced simplicity in or consensus on the allocation and operation of State and local functional responsibilities and revenue-raising authority. Instead, there has been considerable pulling and tugging between the State and the counties and, therefore, continual tinkering with the State-local system.

Second, the constitutional and political goals of giving the State sufficient authority and fiscal capacity to address "statewide concerns" have not been addressed satisfactorily. There has been considerable debate over what constitute areas of "statewide" concern.

Third, the State Constitution does not provide sufficient detail on State-local arrangements or sufficient local home rule to ensure greater stability in those arrangements. Instead, the legislature and, secondarily, the governor and supreme court have considerable discretion to tinker with the State-local system, particularly with county powers, and to intervene directly in local affairs.

Fourth, increases in local self-government for the counties have been obtained more often through the constitutional revision process than through the legislative process, even though local self-government has never been an especially prominent issue in any constitutional convention.

Fifth, the legislative process has generally produced a greater centralization of functional responsibilities in the State since 1959. This is not especially surprising because State centralization tends to give more power to members of local delegations in the legislature, and these members tend to become direct competitors with county elected officials for the attention of local constituents. Furthermore, given the structure of the legislature, the chairperson of a committee who represents a single neighborhood in a single county can sometimes block or expedite legislation serving or disserving the countywide interests of all counties.

Sixth, practically every body established or commissioned since statehood to study the allocation of functional responsibilities and fiscal authority in Hawaii has, to a greater or lesser degree, recommended increased local self-government. This outcome, too, is not entirely surprising because most of these bodies have been largely independent of State and local political institutions.

This conclusion points to a larger general conclusion. Nearly every statewide body, whether it be a constitutional convention or State-local study entity, that has examined the State-local system and that has not been directly beholden to the State legislature, governor, or judiciary has recommended forms of increased functional and/or fiscal authority for Hawaii's counties, even while not abandoning statewide concerns and sometimes recommending as well that the State assume responsibility for certain functions performed by the counties.

G. Salient Issues in the State-Local System

A number of particularly salient issues on the State-local agenda call for movement toward resolution.

1. Philosophy of Centralization

A tradition of centralization appears to be deeply rooted in Hawaii. This tradition is a consequence of early history reinforced later by ideas of good government and State modernization; by a perceived need for a strong central government capable of regulating oligarchic interests within the State, where land ownership is concentrated in comparatively few hands; by perceptions of a need to protect a small, island State from being overrun by external forces (from missionaries to large corporations, U.S. military personnel, immigrants, tourists, and foreign investors); and, more recently, to protect the fragile ecology and scarce resources of the islands. Key elements of the philosophy of centralization were expressed in a report on education from the 1950 Constitutional Convention:

> *Statewide control over the public school system of Hawaii, under a single board of education, has met with widespread approval. Centrally controlled public education in Hawaii (under Kingdom, Republic and Territory) has contributed greatly to the development of Hawaii as a democratic American community. Under centralized control a greater degree of equalization of education opportunity exists than in any of the 48 states of the Union.*

All of these matters are bases for valid arguments for a strong State government, but not necessarily for the extensive centralization found in the State. The substantial restraints placed on local discretionary authority seem to be at odds with the State's goal of promoting "citizen freedom, self-reliance, self-determination, social and civic responsibility and goals achievement" (Act 100, SLH 1978). The local arenas in which citizens have the greatest opportunity for direct personal involvement in public affairs, especially in a State where local governments are literally islands, are the arenas in which citizens have the least power to make a difference in public policy. Further, except for

residents of Oahu, a citizen cannot walk, drive, hitchhike, or take a bus to the State capitol; instead, he or she must raise the airfare or hire a boat to do so.

There are also anomalies in the system of centralization. For example, why have a centralized school system but no State police force? Recently, there has been discussion of allowing more local control over education, but not necessarily over other functions that ought to be coordinated with education. The State and the counties each operate housing programs. The constant pulling and tugging over State and county functional assignments, local taxing power, and grant-in-aid programs during Hawaii's 30 years of statehood would seem to be at odds with the State's emphasis on long-range planning, policy integration, and coordination of State and county activities--all of which require consistency and predictability in institutional structures and powers.

2. Politics of Centralization

As a practical matter, centralization is driven in part by the fact that 75 percent of the State's population lives on Oahu. The more that power is vested in the counties, the more the mayor and council of Honolulu exercise authority on behalf of the vast majority of the citizens of Hawaii. In effect, the State government and the City and County of Honolulu are potentially rival centers of power, and the real "opposition party" in Hawaii is often the government of Honolulu. Nevertheless, the substantially different public policy challenges faced by the four general-purpose counties suggest a need for greater home rule.

Part of the problem is that, in a comparatively small state (in terms of population) with a two-tier government, the legislature is strongly tempted to involve itself in local affairs, to function as a superordinate county council. A case might be made for such extensive power on the grounds that the legislature, as a statewide body having many more members than a county council, is more representative and better able to attend to the statewide common good; yet, the legislature meets for 60 days each year. Consequently, a considerable amount of day-to-day decision-making authority must be exercised by the governor and by non-elected State officials. When they cannot make decisions, efficiency may be sacrificed by the need to wait for the next legislative session. Meanwhile, county councils meet regularly throughout the year and interact frequently with citizens. The elected county officials believe, therefore, that they should have more resources with which to respond directly to local public needs and concerns.

3. County Fiscal Pressures

Fiscal pressures on the counties are arising principally from five sources: tourism, development, scarce urban land, environmental mandates, and public expectations. There is now widespread recognition of the impacts of tourism and development on Hawaii; however, it is equally evident that there is no statewide consensus on how to manage tourism and development and on which governments should play which fiscal and functional roles in these areas. With only 3.8 percent of the State's land being designated as urban, moreover, the principal facilities needed for contemporary economic development must compete for space within very confined areas.

With respect to environmental protection, the counties are experiencing intensified fiscal pressures from the twin forces of federal and State mandates and of tourism and development. The latter place ever more pressure on the natural environment and, thereby, intensify the need for mandate enforcement. Counties are particularly responsible for functions subject to often expensive environmental mandates covering sewerage, wastewater, solid waste, and air quality. Mass transit is another county function affected by many mandates. Meeting mandated requirements will require more fiscal resources.

Public expectations have to be added as another source of fiscal pressure. Although public expectations of government performance, especially local government performance, have increased nationwide, in Hawaii there is a heightened sense of public sensitivity about the quality of life. More than in many states, Hawaii is a way of life and a state of mind. Furthermore, given that Hawaii is an island state, there is an acute awareness of limited resources. County officials often experience the greatest pressures from public expectations because, more often than not, citizens are apt to define quality-of-life issues primarily in terms of their neighborhood and community, their part of the island, and their island as a whole. Indeed, it is evident that each island has its own sense of identity.

4. The Land Use Commission

With 48 percent of Hawaii's land designated as agricultural, 48 percent in conservation, and 4 percent designated as urban, the availability of urban land for development is a matter of considerable contention. Controversy over land use has intensified in recent years, not only because of tourism and development, but also because new land use boundaries will be drawn in 1990. By and large, county officials feel

constrained by the limited availability of urban land, and some county officials have advocated abolition of the State Land Use Commission.

Land-use issues cut to the heart of life in Hawaii; consequently, they will always be inflammatory. The underlying issue is whether land-use decisions should be made by government or the market. The prevailing sentiment in the State appears to be that Hawaii is uniquely unsuited for significant marketplace allocations of land uses--a judgment largely shared by county officials. If the Land Use Commission were abolished, counties would no doubt impose firm land use controls of their own.

Given that abolition of the Land Use Commission is virtually unthinkable, the key issue, then, is an intergovernmental one. How can the State and the counties improve communication, cooperation, and coordination? At present, State-county land-use relations are strained, and the decision-making process is not a joint one in which all parties, especially elected county officials, can concur in the outcomes. The State tends to view conflict resolution as having its rational managers hold the line against excitable county politicians and parochial interests bent on damaging the land. Elected county officials tend to view the Commission as being high-handed, overly interventionist, and insensitive to the costs that land use controls impose on housing, on economic development, and on the principal source of county tax revenue, namely, the real property tax.

In the long run, the economic costs of land-use controls imposed in order to maintain a desireable quality of life, a quality that is defined very strongly as preservation of the natural environment, will be high. Hence, there is an urgent need to mesh statewide goals with diverse county goals by forging an effective intergovernmental mechanism for joint decision-making. Such a mechanism could also address more effectively the appropriate balance between governmental and market allocations of land uses.

5. Vertical Coordination/Horizontal Fragmentation

Statewide planning and policymaking are ordinarily intended to promote statewide efficiency and coordination in providing public services and protecting public values. Such coordination and efficiency are prominent themes in the Hawaii Constitution, Act 100 (SLH 1978), and other acts and policy pronouncements. What is often overlooked in the statewide policymaking process, however, is that policy can be well coordinated from the perspective of the State but uncoordinated in its impact on localities. In other words, vertical coordination of State policy can introduce horizontal fragmentation within a county or smaller community.

A major complaint of the counties, for example, is that the State feels free to exempt itself from county ordinances in order to promote land use developments of its own choosing regardless of whether those developments are in harmony with county plans or existing land uses and public services. Such interventions defeat the purpose of having a simple two-tier system of government, and they produce a patchwork of land use governance within counties that undermines the goal of having a system that allows citizens to discern easily the division of functions between the State and the counties.

While the State has a legitimate interest in preventing horizontal coordination (or fragmentation) from introducing vertical fragmentation, so long as counties are expected to perform certain discretionary functions and to exercise responsibility for certain significant and costly public services, the counties have a legitimate interest in preventing vertical coordination from introducing horizontal fragmentation. Again, the core problem is of intergovernmental relations, and, in this case, one of developing provisions for concurrent consent.

6. Statewide Collective Bargaining

A low-key issue on the State-local fiscal agenda is statewide collective bargaining for public employees. The elected county officials believe that they are at a disadvantage in the bargaining process and that they are more or less compelled to accept the outcome. Additional problems arise when collective bargaining agreements are reached after counties have acted on their budgets. However, statewide collective bargaining does not appear to be a major issue for elected county officials, nor do they believe that the process produces a maldistribution of public-service expertise among the counties. The principal concern expressed by elected county officials is difficulty in recruiting sufficient professional employees generally.

7. State Funding vs. Own-Source Revenue

Until recently, county officials tended to request more grant-in-aid funds or revenue sharing from the State in order to augment their resources. Now there appears to be more county interest in obtaining more local taxing authority.

The principal advantages of State funding for county officials are that it allows them (1) to avoid the pain of raising taxes or charges, and (2) to displace responsibility for service

shortfalls onto the State. The principal disadvantages of State funding for county officials are (1) that State funding adds political uncertainties to the economic uncertainties of revenue prediction, and (2) that State funding is ordinarily accompanied by conditions and regulations. A combination of State funding and restricted county taxing authority places considerable pressure on particular local own-source revenue bases. The results are likely to be regressive taxes or charges, and a requirement that local officials negotiate the twin political currents of local voter preferences and State official preferences with respect to revenue needs.

Debate over county revenue needs and authority involves a host of issues; however, three key points deserve consideration.

Competition. Many elected county officials believe that the State restricts county taxing authority out of fear of tax competition, especially from Honolulu. Whether that fear exists is impossible to answer. Nevertheless, the difficulty of obtaining additional county taxing-authority gives rise to the perception. A general or residual grant of taxing authority to the counties probably would induce State-county competition for revenue. The question to be addressed, however, is whether such competition is a problem. In a democratic society, tax decisions, like other public decisions, should conform as closely as possible to citizen preferences. If one or another government succeeds in raising more revenue because it is better able to satisfy public preferences, then the system is fulfilling its democratic objectives.

County Need. The questions most frequently asked, however, are: Do counties really need more revenue? Why can they not function on the revenue sources now made available to them? In the final analysis, though, these questions are irrelevant. The threshold question is: Who should decide whether the counties need more revenue, the State legislature or the residents of each county? Furthermore, the question of county revenue needs cannot be answered on purely empirical grounds because "need" is a matter of public judgment.

One cannot measure need by current services because some or all counties may believe that they need, or would prefer, to provide services above or below current service levels. Consequently, providing counties with general or residual taxing authority would allow each county public greater room in which to make decisions about whether county government needs more revenue and how the local tax system should be structured to deliver that revenue. The State's superior legal position would continue to guarantee its ability to check local abuses and to perform functions and redistribute resources in ways that would promote equity between counties and between persons.

County Capacity. A third point is whether the counties, especially the neighbor islands, have the administrative capacity to handle additional functional responsibilities and general taxing authority. Unfortunately, this is something of a chicken-or-egg question. Underdevelopment and State restrictions on local authority inhibit the development of governmental competence. As a result, the more rural, lesser-developed counties have less in-house competence to handle additional responsibility and authority adequately. Should thought be given to devolving more responsibility and taxing authority to the counties, however, devolution could be phased in over a number of years and the State could provide technical assistance to help counties adjust to greater local self-government.

8. Sorting Out vs. Intergovernmental Relations

Finally, one is struck in reviewing state-local relations in Hawaii by the extraordinary emphasis placed over the years on sorting out functional responsibilities and dividing up tax bases between the state and the counties. At the same time, very little attention has been devoted to the actual processes of State-county relations, particularly institutional arrangements for joint decision-making and the quality of human relations in the relatively simple intergovernmental structure. Yet, no matter how well goals are formulated, functions are allocated, and revenue authority is divided according to rational criteria, successful governance requires institutional arrangements that allow for joint decision-making and processes of policymaking that encourage cooperation, partnership, and the aloha spirit in intergovernmental relations.

III. ECONOMIC AND DEMOGRAPHIC ENVIRONMENT

This chapter reviews recent trends in Hawaii's economy and population, and summarizes current views on the outlook for the 1990's. The discussion is intended to spell out the basic dimensions of the economy and society within which the State-county fiscal system operates, and to provide perspective for the consideration in Chapter VIII of the options for change in that system.

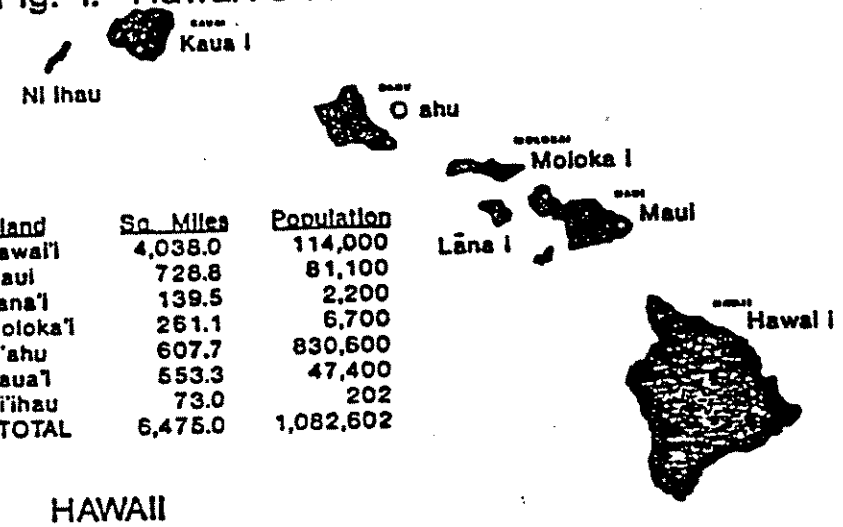
A. Hawaii: A Unique State

Hawaii is the only island state in the U.S. The closest state to Hawaii on the U.S. west coast--California--is nearly 2,400 miles away. Hawaii is actually a chain of 130 islands spread over 1,500 miles in the Pacific Ocean. The total area of the islands is about 6,500 square miles. Only the states of Delaware, Connecticut, and Rhode Island are smaller than Hawaii.

Only seven of the islands are inhabited (Figure 1). These populated islands extend from Kauai in the north to the island of Hawaii lying to the southeast. The island of Hawaii --also known as the Big Island--is geographically larger than all the other islands combined. However, Oahu--known as the Gathering Place--is the most populous island, with more than 800,000 residents in 1987--more than three-fourths of the State's 1,083,000 resident population.

The islands are divided into four counties. The City and County of Honolulu encompasses the entire island of Oahu and the northwestern islands of the Hawaiian chain. Hawaii County covers the entire island of Hawaii. Maui County comprises the islands of Maui, Molokai, and Lanai. The County of Kauai includes the islands of Kauai and Niihau. The counties of Hawaii, Kauai, and Maui are often collectively called the Neighbor Islands.

Fig. 1: Hawai'i's Area and Population: 1987



Island	Sq. Miles	Population
Hawai'i	4,038.0	114,000
Maui	728.8	81,100
Lana'i	139.5	2,200
Moloka'i	261.1	6,700
O'ahu	607.7	830,600
Kaua'i	553.3	47,400
Ni'ihau	73.0	202
TOTAL	6,475.0	1,082,602

HAWAII

Source: State of Hawaii, *Data Book*, 1988:2; University of Hawaii, *Atlas of Hawaii*, 1983:218.

Because of Hawaii's strategic location in the middle of the Pacific Ocean, the State hosts a large military community. The Commander-in-Chief of the Pacific (CINCPAC) is located in Hawaii, as are major headquarters representing each service--the Army, the Navy, and the Air Force. Of the 1,083,000 people living in the State in 1987, over 58,000 were active-duty military personnel, and 65,000 were their dependents. Hence, the military services account for over 11 percent of the State's resident population.[1]

The State's population is ethnically diverse. High rates of interracial marriage combined with varying rates of in-migration from many different countries since the mid-19th century have produced a multiethnic and multicultural society where no ethnic group enjoys a numerical majority. In 1986, Caucasians were the largest racial group in Hawaii but comprised only 23.4 percent of the total population, followed closely by Japanese (23.0 percent) and Hawaiians (including part-Hawaiians) (20.7 percent). Other ethnic groups include Filipinos (11.3 percent), Chinese (4.8 percent), Black (2.3 percent), Korean (1.3 percent), mixed (non-Hawaiian) (11.3 percent), and other (including such other groups as Pacific Islanders and S.E. Asians) (2.0 percent).[2]

In evaluating the need for government services, Hawaii's State and county governments must also consider the needs of the millions of tourists who visit Hawaii each year. In 1987, nearly 5.8 million tourists stayed at least one night or longer.[3]

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1. Department of Business and Economic Development, State of Hawaii, Quarterly Statistical & Economic Report, 1st Quarter, 1989 (1989), p. 49 (hereafter cited as 1st Quarter Report).

2. Department of Business and Economic Development, State of Hawaii, The State of Hawaii Data Book 1988: A Statistical Abstract (November 1988), p. 40 (hereafter cited as 1988 Data Book).

3. Hawaii Visitors Bureau, 1988 Annual Research Report (1989), p. 3.

Their average daily count in the state was 134,300.[4] Including them, but subtracting the number of residents who were temporarily out of the State, yields a de facto population count of 1,201,000.[5] Thus, on an average day in 1987, 1 out of every 9 persons in Hawaii was a tourist. The de facto populations of the counties in 1987 were: 893,100 in Honolulu, 123,100 in Hawaii, 62,500 in Kauai, and 122,400 in Maui.[6]

B. Recent Trends in Hawaii's Economy

This section reviews recent trends in the economy of Hawaii, beginning with the overall level of economic activity. The gross state product is considered first, followed by an analysis of personal income, an alternative measure of overall activity. Recent experience in the labor market is then examined. The industrial structure of the State is compared with that of the entire nation. The section concludes with a discussion of trends in the population and labor force of Hawaii since statehood.

1. Gross State Product

The most comprehensive measure of the size of a state's economy is its gross state product (GSP), which is the dollar value of total (final) output or total income of the economy during a given year. Hawaii's Department of Business and Economic Development (DBED) has computed annual estimates of the State's GSP for the years 1958 through 1987.[7] For 1987, Hawaii's GSP is estimated to be $19.8 billion, or nearly $18,300 per resident. In inflation-adjusted (1982) dollars, Hawaii's 1987 GSP is $16.5 billion, or $15,258 per resident.

Figure 2 displays Hawaii's GSP in current and inflation-adjusted dollars since 1970. Current-dollar GSP grew at an average annual rate of 10.8 percent between 1970 and 1980, compared with 7.1 percent between 1980 and 1987. In inflation adjusted dollars, the State's GSP grew at rates of 4.2 percent between 1970 and 1980 and 2.7 percent between 1980 and 1987. Thus Hawaii's economy grew faster during the 1970's than in the 1980's.

Between 1970 and 1980, Hawaii's economy grew faster than the entire U.S. economy, but its rate of growth lagged that of the entire U.S. between 1980 and 1985. Since then, Hawaii's growth rate has accelerated, exceeding 4 percent per year, roughly 1 percentage point per year faster than the U.S. economy.

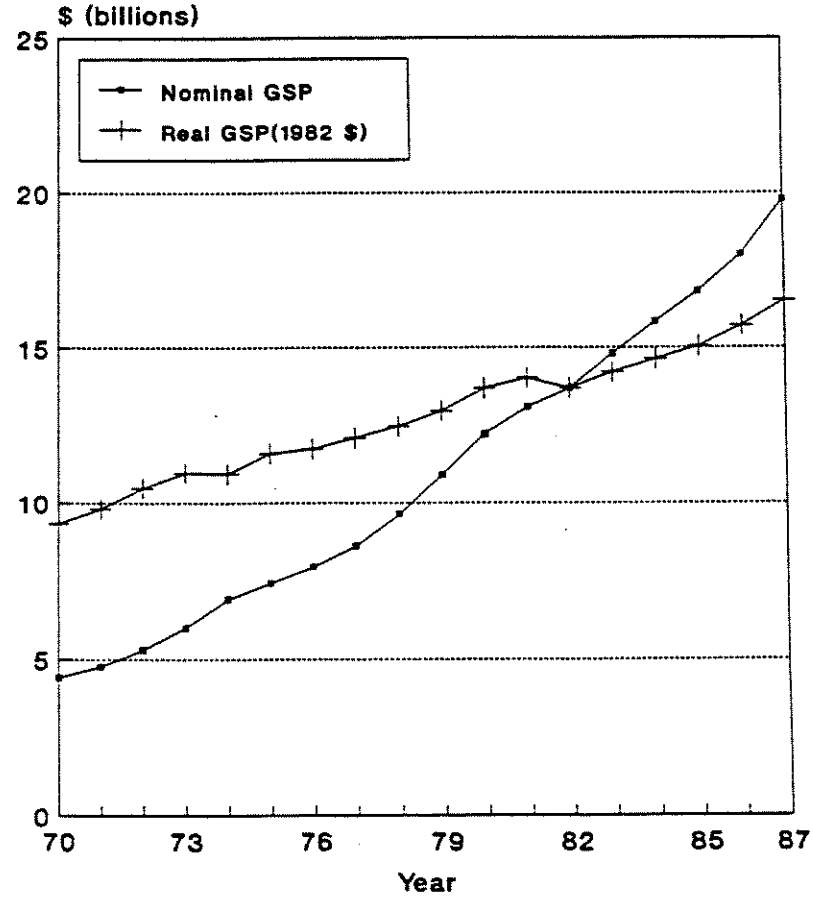
4. 1988 Data Book, p. 14.

5. Ibid., p. 14.

6. Ibid., p. 17.

7. Department of Business and Economic Development, State of Hawaii, Hawaii Gross State Product Accounts: 1958-1985 (1988).

Figure 2
Nominal and Real GSP



Source: DBED

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There has been considerable debate in recent years concerning the relationship between cyclical changes in the U.S. and Hawaii's economy. A recent analysis by the Bank of Hawaii argues that "there was a lengthy lag of GSP behind GNP during the early years of statehood"[8] but that, since 1978, one of the most profound changes in the economy appears to be a distinct shift in timing of the State's business cycle and its move to a closer link with the national pattern of economic cycles.[9] The Bank notes as evidence that

> *. . . the national downturn of 1980 is mirrored by a similar change in the state's economy. Then, the national recovery in 1981 was concurrent with that of Hawaii. The national downturn the next year was experienced immediately in the islands.*
>
> *The downturns were simultaneous as were the subsequent recoveries of 1983.*[10]

Indeed, if Hawaii's business cycle appears to be in closer synchronization with fluctuations in the U.S. economy today, there is little reason to believe that the magnitudes of change will be the same. Hawaii's economy is heavily influenced by economic forces elsewhere, particularly in Japan, which has substantial interests in the State through tourism and direct investments.

2. Personal Income

An alternative measure of a state's economic performance is the total personal income received by its households and individuals. Personal income includes (1) earned income, such as wages and salaries; (2) unearned income, such as dividends, interest, and rents; and (3) transfer payments, including Social Security, unemployment compensation, and welfare payments.

Not all income received in a state is received by individuals and households. The most important is after-tax corporate profits not paid out as dividends. Thus, personal income is smaller than GSP. In 1987, the total personal income of Hawaii was $17.0 billion (in current dollars) compared with $19.8 billion for GSP.[11] Between 1970 and 1987, total personal income as a percentage of GSP has fluctuated within a narrow range between 83 percent and 87 percent.

There are several reasons why personal income may be more useful than GSP as a measure of Hawaii's economic performance.

-- It is available on a timely basis. The U.S. Department of Commerce publishes monthly, quarterly, and annual estimates of personal income for every state with a lag of only a few months.

-- Annual personal income estimates are available for each of Hawaii's counties. No comparable estimates of GSP are available for the counties.

-- Personal income moves closely with GSP, hence it is a good proxy for changes in the overall performance of the economy.

-- Hawaii's Constitution limits growth in the general fund spending of the State government to the historical rate of growth of the State's personal income.

In 1988, total personal income in Hawaii was $18.5 billion, or $16,898 for every resident.[12] Hawaii's per capita personal income was 3 percent higher than that of the entire U.S.

Figure 3 displays the nominal (current dollar) and real (1982-84 = 100) personal income of Hawaii between 1970 and 1988. Nominal personal income in Hawaii grew at an average annual rate of 10.6 percent between 1970 and 1980 and 7.6 percent between 1980 and 1988. Adjusted for inflation, total personal income grew at an average annual rate of 3.2 percent between 1970 and 1980 and 2.6 percent between 1980 and 1988. As with GSP, personal income grew faster before 1980 than after.

County personal income data are currently available only through 1987. Total personal income in each of the four counties is shown in Table III.1. The City and County of Honolulu accounted for 80 percent of total personal income in the State; the Neighbor Island counties for the remaining 20 percent. However, the Neighbor Island economies have grown much faster than Oahu's economy during most of the period since 1970 (see Table III.2). Maui has seen the fastest growth, followed by Hawaii, Kauai, and Honolulu. As a result, the Neighbor Islands' share of the State's total personal income has risen from 15 percent in 1970 to almost 20 percent in 1987.

3. Jobs and Employment

Jobs and employment growth are both closely related to the growth of the economy. A job is a position in which a person is employed. An employed person is one who is

8. Bank of Hawaii, Business Trends (March/April 1984), p. 2.

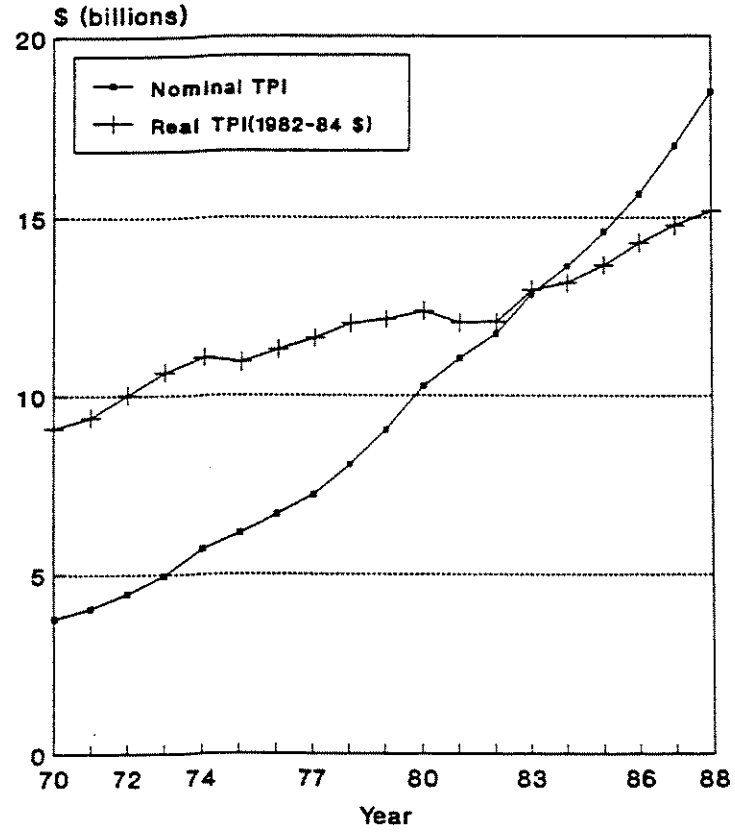
9. Ibid., p. 1.

10. Ibid., p. 2.

11. 1st Quarter Report, 1989, p. 22.

12. Ibid., p. 23.

Figure 3
Nominal and Real TPI



Source: DBED

TABLE III.1 PERSONAL INCOME IN HAWAII, BY COUNTY, 1987 (total amounts in millions)

	Total	Per Capita
State	$16,970	$15,677
Honolulu	13,632	16,412
Hawaii	1,425	12,455
Kauai	622	13,085
Maui	1,290	14,352

Source: Survey of Current Business (April 1989), p. 47.

working (full or part time) in one or more jobs. Hence the number of jobs must equal or exceed the number of employed persons.

In 1988, there were 523,500 jobs in Hawaii and 500,000 employed persons.[13] Thus each employed person held an average of 1.05 jobs. Over the years, multiple job-holding has declined. In 1970, the ratio of jobs to employment was 1.08; in 1980, it was 1.07. The secular decline in multiple job-holding has meant that employment has grown at a faster rate than jobs.

Figure 4 displays jobs and employment growth in Hawaii between 1970 and 1988. Between 1970 and 1980, the total number of jobs grew at an average annual rate of nearly 3.1 percent, while total civilian employment grew 3.2 percent per annum. Between 1980 and 1988, total jobs grew at an average annual rate of nearly 2 percent, while total employment grew at a rate of 2.3 percent. Reflecting the slower growth of Hawaii's economy, jobs and employment grew at a slower pace in the 1980's than during the 1970's. For the entire period between 1970 and 1988, a 1 percent rise in Hawaii's real GSP is associated with a 0.76 percent increase in the number of jobs, or 0.87 percent growth in employment.[14]

The distributions of jobs and employment by county in 1987 are displayed in Table III.3. Since 1970, as Table III.4 indicates, both jobs and employment have grown faster on the Neighbor Islands than on Oahu, with

13. Ibid., pp. 27-9.

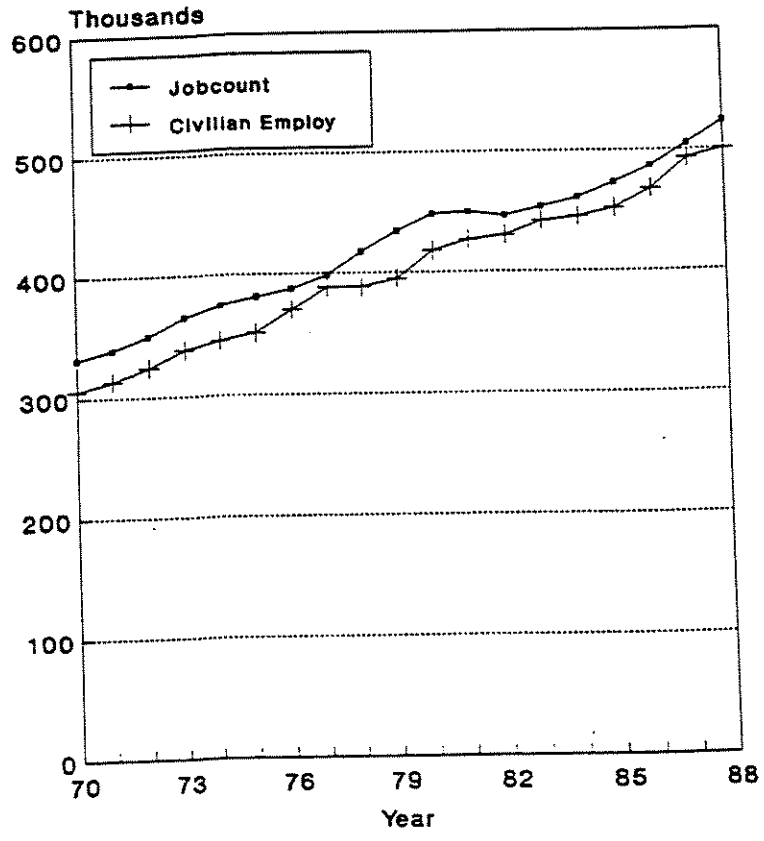
14. The estimates are derived by regressing (OLS) the log of jobs and the log of employment on the log of real GSP. Serial correlation is corrected using Cochrane-Orcutt procedures.

TABLE III.2 AVERAGE ANNUAL RATES OF GROWTH IN REAL PERSONAL INCOME IN HAWAII, BY COUNTY, 1970–87

Period	State	County			
		Honolulu	Hawaii	Kauai	Maui
1970–80	3.1%	2.6%	5.6%	4.4%	6.2%
1980–87	2.6	1.6	1.1	1.8	3.1
1970–87	2.8	2.2	3.7	3.3	4.9

Source: Department of Business and Economic Development, State of Hawaii.

Figure 4
Jobcount & Civilian Employ.



Source: DBED

Maui experiencing the largest gains. As a result, the Neighbor Islands' shares of jobs grew from 19 percent of total jobs in 1970 to 22 percent in 1987; their share of total employment grew from 19 percent of the State's total in 1970 to 25 percent of the total in 1987. Except for Kauai, employment and jobs in the counties grew faster during the 1970's than during the 1980's. Overall, trends in jobs and employment in the State and the counties since 1970 have mirrored the trends in output and income, with generally slower growth for all four variables in the 1980's compared with the 1970's.

Even though Hawaii's economy grew much faster during the 1970's than it has since 1980, personal income per capita grew more slowly during the 1970's (averaging 1.0 percent per year) than it has in the 1980's (averaging 1.1 percent per year) as a result of the much faster population during the 1970's (2.3 percent per year) than during the 1980's (1.6 percent per year).[15]

4. Economic Structure

The recent publication by the U.S. Department of Commerce, Bureau of Economic Analysis (BEA), of estimates of gross state product by industry for selected years makes it possible, for the first time, to examine long-term changes in the structure of Hawaii's economy by comparing changes in the composition of (final) output or value-added (that is, income) across industries.[16] Until its publication, the only data available for such structural analysis were job and employment data. However, differential labor productivity among

15. 1988 Data Book, p. 14.

16. Ibid., p. 213.

TABLE III.3 JOBS AND EMPLOYMENT IN HAWAII, BY COUNTY, 1987

	State	County			
		Honolulu	Hawaii	Kauai	Maui
Jobs	508,850	394,850	43,300	21,200	42,500
Employment	493,000	368,700	50,750	23,850	49,650

Source: Department of Business and Economic Development, State of Hawaii.

TABLE III.4 AVERAGE ANNUAL RATES OF GROWTH IN JOBS AND EMPLOYMENT IN HAWAII, BY COUNTY, 1970–87

Period	State	County			
		Honolulu	Hawaii	Kauai	Maui
			Jobs		
1970–80	3.1%	2.9%	3.0%	3.9%	5.2%
1980–87	1.7	1.4	2.7	3.1	4.2
1970–87	2.5	2.3	2.9	3.6	4.8
			Employment		
1970–80	3.2%	2.8%	3.8%	4.0%	6.1%
1980–87	2.2	2.2	3.8	3.8	5.2
1970–87	2.9	2.4	3.8	3.7	5.7

Source: Department of Business and Economic Development, State of Hawaii.

TABLE III.5 PERCENTAGE DISTRIBUTIONS OF GSP AND EMPLOYMENT IN HAWAII, BY INDUSTRY, 1986

Industry	GSP Share	Employment Share
Total	100.0%	100.0%
Agriculture & Mining	2.4	2.3
Construction	6.1	3.7
Manufacturing	5.2	4.3
Services	62.8	60.0
Government	23.6	29.7
Federal Civilian	6.1	6.7
Federal Military	9.6	11.5
State & Local	7.9	11.5

Note: The employment data do not include self-employed, family workers, and workers involved in labor disputes.

Source: Survey of Current Business (May 1988), p. 45.

industries poses serious problems in using job and employment data to make comparisons of the relative economic performance of different industries.

Table III.5 compares the industry shares of GSP and employment, revealing substantial differences between the two. The data in Table III.5 show that the federal, State, and local governments account for a much larger share of employment in Hawaii (nearly 30 percent) than their contribution to total production and income in the State (less than 24 percent). By contrast, construction accounts for a much larger share of total output than its share in employment. The service industries are transportation, communication and public utilities; financial, insurance, and real estate services; wholesale and retail trade; and other (including hotel) services.

The new GSP data by industry show that Hawaii is largely a service-producing rather than goods-producing economy. The goods-producing industries include agriculture, mining, construction, and manufacturing. Government is a public service-producing sector. In 1986, the goods industries produced 13.7 percent, the service industries produced 62.8 percent, and all governments produced 23.6 percent of the State's GSP.

The U.S. as a whole is also a service-oriented economy, although less so than Hawaii (see Table III.6). The share of total output attributable to service industries is not too different between Hawaii and the U.S. (63 vs. 59 percent). But if the outputs of the government sector and the service industries are combined, non goods-producing industries account for over 85 non goods-producing industries account for over 85 percent of Hawaii's GSP, but only 71 percent

TABLE III.6 PERCENTAGE DISTRIBUTIONS OF GROSS PRODUCT BY INDUSTRY, U.S. AND HAWAII, 1986

Industry	Hawaii	United States
Total	100.0%	100.0%
Agriculture	2.4	2.2
Mining	0.0	2.3
Construction	6.1	4.7
Manufacturing	5.2	19.2
Services	62.8	59.4
Government	23.6	11.7
Federal Civilian	6.1	2.4
Federal Military	9.6	1.4
State & Local	17.9	7.9

Source: Survey of Current Business (May 1988), pp. 38 and 45.

TABLE III.7 INFLATION-ADJUSTED OUTPUT BY INDUSTRY, 1972-86 (millions of 1982-84 dollars)

Industry	1972	1977	1982	1986
Agricultural Sales	$ 521	$ 524	$ 522	$ 516
Mfg. Value-Added	919	1,265	1,152	1,073
Construction Put in Place	1,261	1,320	1,550	1,759
Military Spending	1,669	1,750	1,742	1,632
Tourist Spending	1,883	2,971	3,807	5,027

Sources: Department of Business and Economic Development, State of Hawaii, and Bank of Hawaii.

of the U.S. GDP. The much larger share of final output attributable to government in Hawaii is explained by the relatively larger economic contribution of the federal government to Hawaii's economy through its military and nonmilitary expenditures than to the entire U.S. economy. On the other hand, mining and (especially) manufacturing are much more important in the U.S. as a whole than in Hawaii.

Since the 1970's (indeed, since 1963, the first year for which comparable data are available), Hawaii's economy has become increasingly concentrated in service production. This is largely explained by the growth of the visitor industry, combined with the stagnation of agriculture and manufacturing.

Table III.7 presents inflation-adjusted sales/output data for agriculture, manufacturing, construction, military, and visitor industries in Hawaii for selected years between 1972 and 1986. Even though four of the series are sales rather than value-added data, they are probably more reliable than the Bureau of Economic Analysis estimates of real GSP by industry.

Table III.7 shows that agriculture, manufacturing, and defense spending have declined in recent years. In sum, Hawaii's economy has been driven largely by the growth of the visitor industry and by the resurgence of construction in the 1980's. In 1987, visitors spent approximately $5.5 billion and, directly and indirectly, accounted for $4.5 billion in household income, 213,300 full-time-equivalent jobs, and $831 million in state and county taxes.[17] In relative terms, tourism generated over 26 percent of total personal income, over 40 percent of total jobs, and nearly 40 percent of State and county tax revenues in Hawaii in 1987.

Tourism is growing faster on the Neighbor Islands than on Oahu. In 1970, tourist spending on the Neighbor Islands represented less than 26 percent of total tourist spending in Hawaii. The Neighbor Islands' share had grown to 27 percent of this total by 1980, and to more than one-third by 1987. In fact, these percentages are underestimates, since the spending of eastbound (mostly Japanese) tourists has been allocated entirely to Honolulu due to the lack of information on Japanese travel to the Neighbor Islands.[18]

Hotel rooms, instead of visitor spending, can be used as the measure of relative growth. The Neighbor Island share of transient accommodations was 31 percent in 1970, 37 percent in 1980, and 45 percent in 1987. Both measures indicate that tourism has been growing faster on the Neighbor Islands than on Oahu.

Table III.8 shows that, among the Neighbor Islands, Maui has seen the most rapid pace of tourism growth, followed by Kauai, and Hawaii. Only the Big Island's tourist industry grew more slowly than the State average.

The value of construction completions also rose faster on the

17. Ibid., p. 211.

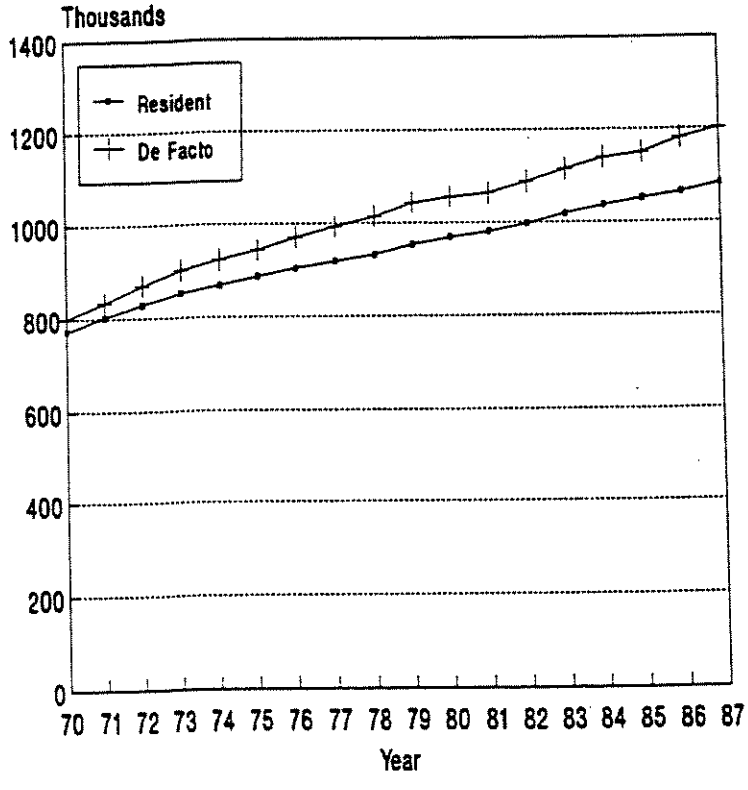
18. 1st Quarter Report, 1989, p. 28.

TABLE III.8 AVERAGE ANNUAL RATES OF GROWTH IN REAL TOURIST SPENDING IN HAWAII, BY COUNTY, 1970–87

Period	State	County			
		Honolulu	Hawaii	Kauai	Maui
1970–80	9.2%	9.0%	5.8%	7.7%	13.9%
1980–87	7.5	6.0	5.7	12.0	12.5
1970–87	8.5	7.8	5.7	9.5	13.3

Source: Department of Business and Economic Development, State of Hawaii.

Figure 5
Population of Hawaii



Source: DBED

Neighbor Islands than on Oahu. In 1970, the value of construction put in place on the Neighbor Islands accounted for 8 percent of the statewide total. In 1987, their share had risen to 13 percent. Construction grew faster on all the Neighbor Islands than on Oahu during the 1970-87 period. With both tourism and construction growing faster on the Neighbor Islands, it is not surprising that their economies are growing faster than Oahu's. Maui is leading the way, followed by Kauai and Hawaii counties.

5. Population and Labor Force

Compared with the entire U.S., Hawaii has a fast-growing population. While the U.S. population grew at an annual rate of 1.09 percent during the 1970's, and 1.03 percent, 1980-87, Hawaii's population grew at an annual rate of 2.28 percent during the 1970's, but the rate dropped to 1.66 percent during the 1980's through 1987.[19] Figure 5 displays the growth of resident and de facto (including tourists and excluding residents temporarily absent from the State) population in Hawaii between 1970 and 1987.

The rapid population growth in Hawaii was significantly boosted by sizeable in-migration, especially during the 1970's. Between 1970 and 1980, the population of the State grew by 195,000. Natural increase (births minus deaths) accounted for roughly 69 percent of the total rise, while net in-migration accounted for the other 31 percent. In the entire U.S., natural increase accounted for 76 percent of the growth; net migration for 24 percent.

19. U.S. Bureau of the Census, Statistical Abstract of the United States: 1989 (January 1989), p. 18.

Between 1980 and 1987, however, Hawaii's population grew by 118,000, of which natural increase accounted for 81 percent and net in-migration accounted for 19 percent, a major drop in the contribution of in-migration, apparently attributable to a large decline in the number of military dependents in the States.[20] In the U.S. as a whole, 1980-87, in-migration accounted for 29 percent of the population increase, a higher share than in the 1970's. The slowing in economic growth in the 1980's may have induced slower population migration into Hawaii and hence slower overall population growth during the 1980's.

There are differences among the counties. Between 1980 and 1987, civilian population (excluding the military and military dependents) grew 66,100 on Oahu, with net in-migration accounting for 19,300 (or less than 30 percent) of the total increase. The opposite was true for the Neighbor Island counties, where net migration exceeded natural population growth.

During the years 1980-87, Hawaii County's population grew by 22,400, of which net migration accounted for 13,300, 60 percent of the total. Kauai's population grew by 8,500, of which net migration accounted for 4,700, 55 percent of the total. Maui's population grew by 18,900, of which net migration accounted for 11,200, approximately 60 percent of the total.

Because the tourist population grew faster than the resident population, Hawaii's de facto population also grew faster than the resident population. Between 1970 and 1980, the de facto population grew at an average annual rate of 2.8 percent; between 1980 and 1987, the average annual growth rate was 1.9 percent.[21] It is important to note that, while the population increase was larger (in absolute numbers) on Oahu than in the Neighbor Island counties, the annual rates of growth were much larger in the Neighbor Islands than on Oahu (see Table III.9).

TABLE III.9 AVERAGE ANNUAL RATES OF GROWTH IN THE POPULATION OF HAWAII, BY COUNTY, 1970–87

Period	Honolulu	Hawaii	Kauai	Maui
	De Facto Population			
1970–80	2.4%	4.1%	3.7%	5.6%
1980–87	1.2	3.1	4.3	5.1
1970–87	1.9	3.7	4.0	5.5
	Resident Population			
1970–80	1.9%	3.8%	2.8%	4.4%
1980–87	1.2	3.0	2.8	3.3
1970–87	1.6	3.5	2.8	4.0

Source: 1988 Data Book, pp. 16 and 17.

TABLE III.10 CIVILIAN LABOR FORCE PARTICIPATION RATES AND WORKING AGE POPULATION IN HAWAII, 1970–87

	1970	1980	1987
Civilian Labor Force Participation Rate	62.4%	64.0%	67.4%
Percentage of Population over 16	68.0	74.9	76.5

Sources: Department of Business and Economic Development, State of Hawaii.

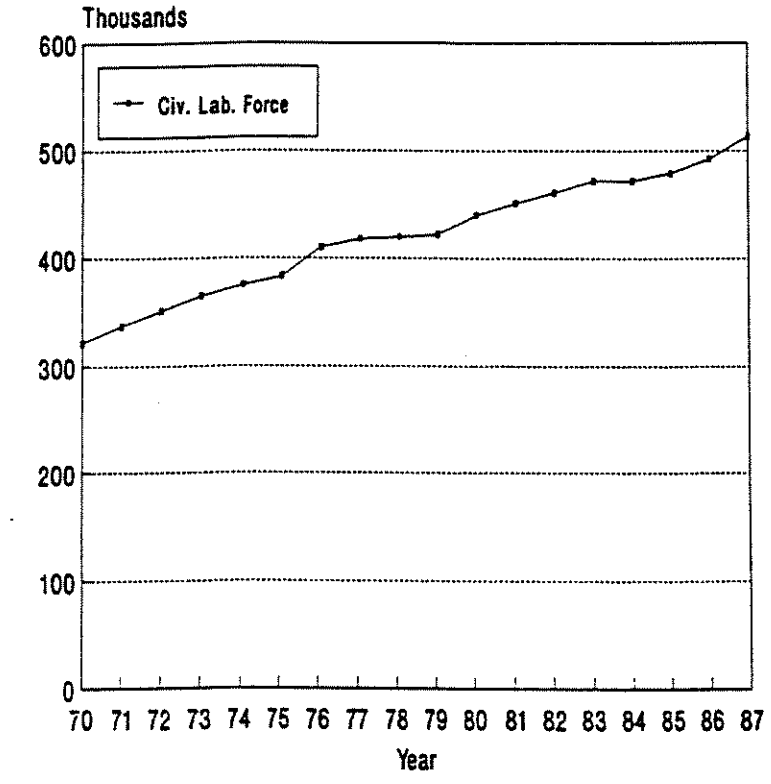
Figure 6 displays the growth of Hawaii's civilian labor force between 1970 and 1987. The civilian labor force grew even faster than the resident population. Between 1970 and 1980, the civilian labor force in Hawaii grew at an average annual rate of 3.2 percent. Between 1980 and 1987, it grew at an annual rate of 2.0 percent. The faster growth rates of the civilian labor force can partly be explained by the rise in the overall labor force participation rate (LFPR) in Hawaii and partly by the increase in the share of Hawaii's resident population in the working age group (that is, 16 and over) (see Table III.10).

As with Hawaii's population, the

20. Ibid., p. 21; and 1988 Data Book, p. 55. The 1970-80 estimates are complicated by an "error of closure" in the Census data amounting to 10 percent of the total population increase in Hawaii and 21 percent of the total for the entire U.S. In the estimates of the shares of population change accounted for by natural increase and migration reported in the text, the errors of closure are apportioned proportionately between the two sources of change.

21. 1988 Data Book, p. 17.

Figure 6
Civilian Labor Force



Source: DBED

TABLE III.11 AVERAGE ANNUAL RATES OF GROWTH IN THE CIVILIAN LABOR FORCE IN HAWAII, BY COUNTY, 1970-87

		County			
Period	State	Honolulu	Hawaii	Kauai	Maui
1970-80	3.2%	2.7%	4.4%	3.7%	6.1%
1980-87	2.3	1.8	3.0	3.6	4.8
1970-87	2.8	2.3	3.8	3.6	5.6

Source: Department of Labor and Industrial Relations, State of Hawaii, Labor Force Data Book (April 1989), Tables 1-8; Department of Business and Economic Development, State of Hawaii, Statistical & Economic Report: 1st Quarter 1989 (1989), p.27.

labor force grew faster on the Neighbor Islands than on Oahu (Table III.11) with Maui leading all counties. During the 1970's the labor force grew faster than employment, while the opposite has been true during the 1980's. As a result, the State's unemployment rate increased during the 1970's but decreased during the 1980's. By 1988, Hawaii's unemployment rate had dropped to 3.2 percent, compared with 5.5 percent for the entire U.S.

Unemployment rates varied by county with Honolulu enjoying the lowest unemployment rate (2.8 percent) followed by Maui (3.3 percent), Kauai (3.7 percent), and Hawaii County (4.9 percent).[22]

6. Summary

This review of economic trends in Hawaii reveals that the State's economy grew much faster during the 1970's than during the 1980's, facilitated by more rapid growth of employment and labor force during the 1970's.

Hawaii's population also grew more rapidly in the 1970's than in the 1980's. Most of the growth during the 1970's was due to in-migration. During the 1980's, most of the rise has been attributable to natural growth. Despite the faster economic growth in the 1970's, per capita real income grew faster in the 1980's, when population growth was much slower.

Because the tourist population grew faster than the resident population, Hawaii's de facto population grew faster than its resident population during the entire period, 1970-87.

Throughout the 1970's and 1980's, Hawaii's labor force grew faster than its population, partly due to the rise in the labor-force-participation rate

22. 1st Quarter Report, 1989, p. 28.

and partly due to the increase in the percentage of the total population of working age.

Employment grew more slowly than the labor force in the 1970's but faster during the 1980's. As a result, the unemployment rate increased during the 1970's and declined during the 1980's.

Hawaii's economy continues to shift toward the production of services rather than goods. This shift largely reflects the rapid growth of tourism and the stagnation of agriculture and manufacturing in the 1970's and 1980's.

The Neighbor Island economies, populations, labor force, and employment all grew faster than Oahu's throughout the 1970's and 1980's, with Maui leading all counties.

C. *The Current Economic Situation*

Hawaii's economy appears to be at the peak of a business cycle. Business activity measured by total taxable business transactions increased more than 13 percent during 1988.[23] Even though the inflation rate (CPI-U) was 5.9 percent, real business taxable transactions grew faster during 1988 (7.1 percent) than in any year since 1980. Construction led the growth with an increase over 1987 of more than 26 percent. Other major categories exhibiting substantial gains include services (17 percent) and wholesaling (14 percent). The State's unemployment rate has fallen below 3 percent and is, currently (September 1989), the lowest in the U.S.

The increase in overall business activity in Hawaii is mainly the result of sustained growth in tourism and construction. Tourist travel to Hawaii grew 5.8 percent in 1988, with visitors from Asia and the Pacific (primarily Japan) outpacing the growth of westbound (primarily U.S. and Canadian) visitors–17.4 percent vs. 1.6 percent. Tourist spending in Hawaii, however, is estimated by the Hawaii Visitors Bureau to have risen by 39 percent, to $9.2 billion, in 1988.[24] As noted by DBED in early 1989, Hawaii's robust economic growth

> *... began with a sharp, post-recession recovery in construction in 1985, which was followed by the exchange rate-driven surge in Japanese tourism beginning in 1986. By 1987, the entire economy was feeling the stimulating impact of growth in these two sectors of the economy.*[25]

TABLE III.12 ECONOMIC AND DEMOGRAPHIC FORECASTS, STATE OF HAWAII AND INDIVIDUAL COUNTIES, 1990–95

	Average Annual Rate of Growth	
	1985–90	1990–95
State		
Resident Population	1.6%	1.5%
Visitors Present	5.4	3.3
De Facto Population	2.0	1.7
Real GSP	3.9	3.4
Real Personal Income	3.4	3.0
Real Per Capita Personal Income	1.9	1.6
Civilian Labor Force	2.8	1.9
Total Jobs	2.5	1.7
Honolulu		
Resident Population	1.2	1.1
Visitors Present	4.7	1.9
De Facto Population	1.6	1.2
Real Personal Income	3.2	2.7
Real Per Capita Personal Income	1.9	1.6
Hawaii		
Resident Population	2.7	1.1
Visitors Present	7.4	1.9
De Facto Population	3.0	1.2
Real Personal Income	4.6	2.7
Real Per Capita Personal Income	1.9	1.6
Civilian Jobs	3.7	3.2
Kauai		
Resident Population	3.5	2.5
Visitors Present	7.7	5.1
De Facto Population	4.6	3.2
Real Personal Income	6.5	4.6
Real Per Capita Personal Income	2.8	2.1
Civilian Jobs	4.9	3.4
Maui		
Resident Population	2.5	2.8
Visitors Present	5.6	2.8
De Facto Population	3.4	3.0
Real Personal Income	4.6	4.4
Real Per Capita Personal Income	2.3	1.6
Civilian Jobs	3.7	3.2

Source: Population and Economic Projections.

23. 1st Quarter Report, 1989, p. 33.

24. Hawaii Visitors Bureau, 1988 Annual Research Report, p. 3.

25. 4th Quarter Report, 1988, p. 5.

D. The Outlook for Hawaii's Economy in the 1990's

The Department of Business and Economic Development recently prepared intermediate and long-range forecasts for Hawaii's economy. They are summarized below.

1. Intermediate Outlook.

The DBED's intermediate forecasts of Hawaii's economy for period 1989-93 are based on its Hawaii Econometric Model, which draws on local economic data and forecasts of the U.S. economy.[26]

The fundamental premise of the forecast is that the U.S. economy will grow modestly throughout the period. The nation's GNP is assumed to grow at 2.5 percent per year after 1990, after a dip in 1990. Nominal interest rates are expected to rise in 1989 and fall thereafter, stabilizing at a higher rate (9.5 percent) than during the late 1980's. The local (Honolulu) inflation rate is expected to peak in 1989 at 6 percent and then to fall to a long-run rate of 5.0 percent. Visitor arrivals are expected to slow from the anticipated 5 percent growth in 1989 to a long-run pace of 3.5 percent by 1991.

Under these assumptions, Hawaii's economy is expected to grow more slowly in the early 1990's than during the late 1980's. Nominal personal income is expected to rise by an annual average rate of 7.5 percent between 1988 and 1993, compared with 8.2 percent during 1985-88. Real personal income is expected to grow at an annual average rate of 2.2 percent, 1988-1993, compared with a rate of 3.6 percent between 1985 and 1988.

DBED's forecast model does not produce separate forecasts for the individual counties. However, the Neighbor Island counties are expected to outperform Honolulu (see long-term forecasts, below).

2. Forecasts of Long-Term Economic and Demographic Change

In November 1988, DBED published its revised long-term quinquennial economic and population forecasts for Hawaii for the years 1990-2010.[27] The DBED long-term forecasting model (the Hawaii State Population and Economic Projection and Simulation Model) is an interindustry econometric model linked to a demographic model that generates economic and population projections for the State and the individual counties. The major forecasts are shown in Table III.12.

Hawaii is a tourism-driven economy. The State model forecasts slower rates of economic and population growth during the 1990's, primarily due to the anticipated slowdown in the growth of (real) tourist spending from 7.6 percent per year between 1985 and 1990 to 3.8 percent per year between 1990 and 1995. Continuing the trend of the past two decades, the Neighbor Island counties are expected to grow faster than Oahu. Among the Neighbor Island counties, Kauai's economy is expected to experience the most rapid growth. Maui will have the most rapid growth in resident population. However, Hawaii County is expected to see the fastest growth in the tourist population, so it will have the most rapid gain in de facto population.

E. Fiscal Implications of Economic and Demographic Changes

The economic and demographic changes described in the preceding sections will be the driving forces that will influence changes in expenditures and revenues for the State and county governments in the first half of the 1990's.

For the State government, slower overall economic growth implies that general-fund tax revenues will be growing at a slower pace during the 1990's compared with the robust years of the late 1980's. Nonetheless, because the general-fund tax revenues are highly income elastic, while State general-fund expenditures are limited by Hawaii's Constitution to grow no faster than the growth rate of the State's personal income, the accumulated general-fund surplus is

26. Ibid., pp. 8-13.

27. The Department of Business and Economic Development, State of Hawaii, Population and Economic Projections for the State of Hawaii: to 2010 M-K (November 1988) (hereafter cited as Population and Economic Projections).

TABLE III.13 INCOME ELASTICITIES OF COUNTY REVENUES IN HAWAII

	Honolulu	Hawaii	Kauai	Maui
Property Tax Base (at 100% market value)	1.45	1.51	1.64	1.45
Property Tax Revenues	1.09	1.26	1.26	1.30
Total Tax Revenues	1.06	1.15	1.29	1.26
Total Operating Revenues	.73	.81	.93	.85

Source: Computed by regressing the log of revenue against the log of personal income in each county, 1978-87. Revenue data are from the Tax Foundation of Hawaii, Government in Hawaii, 1980, 1982, 1985, 1988; personal income data by county are from the Department of business and Economic Development, State of Hawaii.

expected to increase to nearly $900 million by fiscal year 1995 under present tax laws.[28] The continued shift of population and tourists to the Neighbor Islands, away from Oahu, will undoubtedly have a significant impact on the distribution of State expenditures among the counties.

It is likely that the fiscal impacts on the county governments will be greater than those on the State government. On the expenditure side, Chapter VIII demonstrates that tourism growth imposes a greater financial burden on the counties than on the State government. The burdens on the Neighbor Islands will be especially large since tourism development will require costly social infrastructure investments to accommodate the rapidly growing resident and tourist populations.

On the revenue side, rapid economic growth has significantly expanded the property-tax-dominated revenue base of the Neighbor Island county governments. This will no doubt continue. In the past 10 years, county tax revenues have grown considerably faster than personal income, but total operating revenues, which include non-tax revenues--such as fees, fines, departmental earnings, Federal and State grants-in-aid--have not.

Table III.13 shows that the property tax base is very responsive to changes in county personal income. Between 1978 and 1987, total property valuations (for tax purposes) increased by 1.45 - 1.64 percent for every 1 percent rise in county personal income. Because county governments have elected to reduce property tax rates, actual collections have not grown as fast as property valuations. Despite rate cuts, collections have risen as a percentage of total personal income in all four counties.

Total (including property and nonproperty) county tax collections have grown more slowly than property tax collections, although they have grown faster than county personal incomes. Most importantly, county operating revenues have failed to keep up with the growth of the county economies. As a result, county government officials feel severely challenged to seek new revenue sources to finance growing demands for public services. In the following chapters, these fiscal issues are examined in detail along with policy options to resolve them.

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28. Hawaii Tax Review Commission, Is Hawaii's Tax System Adequate? Staff Report (August 1989).

IV. CONCEPTUAL ISSUES IN THE DIVISION OF SERVICE RESPONSIBILITIES AND REVENUE-RAISING AUTHORITY BETWEEN STATE AND LOCAL GOVERNMENTS

This chapter considers five matters with important implications for the analysis of the fiscal system of Hawaii and of policy options for improving fiscal relations between the State government and the counties. The discussion begins with a review of the major policy objectives involved in the design of a state-local fiscal system. The second section of the chapter addresses the key issues in deciding on the division of the responsibilities for providing public services between the state and local governments.

The third section reviews the basic considerations bearing on the the assignment of revenue-raising authority to the state and to local governments. The fourth section discusses the concept of fiscal balance and its three dimensions: vertical, horizontal, and long run. The chapter concludes with an exploration of the possible roles of state government aid to local governments.

A. Policy Objectives

Three basic objectives underlie most discussions of policy relating to the structure and operation of state-local fiscal systems. They are efficiency, equity, and accountability. These objectives are discussed briefly here. They are explored from a slightly different perspective at the beginning of Chapter VIII.

1. Efficiency

In the present context, efficiency as a policy objective can be understood to have two general senses. The first relates to the overall level of economic activity. This objective is achieved when economic activity is at or near the maximum level possible at a given time. Achievement of this goal requires a variety of actions by government when the market fails to provide goods and services for which people would be willing to pay, and when private activities give rise to benefits and costs that are not taken into account by the market. An additional consideration is the importance of minimizing the extent to which tax policy reduces the efficiency of the economy, given the other objectives of such policy. The various roles of government in the promotion of an efficient economy are explored in some detail below.

The second sense of efficiency relevant here concerns the obligation of those responsible for the management of the activities of governments to ensure that specific policy objectives are achieved at minimum possible cost.

2. Equity

The most important meaning of equity for purposes of this report's analysis of State-county fiscal relations relates to the treatment of different geographical areas in the provision and financing of public services. Most authorities in public finance agree that state governments have an obligation to ensure that the fiscal capacities of all their localities are adequate to enable them to provide reasonable levels of the public services for which they are responsible with reasonable tax rates.

Although of less central consequence in the analysis of State-county relations, equity in the treatment of individuals by governments is an important consideration in a number of contexts. The established view from this perspective is that policies should be horizontally equitable (treat people in equal relevant circumstances equally) and vertically equitable (treat people in different circumstances "appropriately"). Translation of these concepts into operational objectives or principles requires a definition of the "circumstances" that are considered relevant. Once an index of relevant circumstances is identified, the concept of horizontal equity is operational.

An operational concept of vertical equity also requires specification of how those in different circumstances should be treated. In the evaluation of tax policies, for example, a broad concept of income is commonly accepted as the index of circumstances. How those with unequal incomes should be treated then becomes a matter of value judgment. Some believe that the tax liability of a person with a high income should be a larger proportion of that income than of the income of a low-income person ("progressivity"). Others believe that tax burdens should be the same proportion of income for all ("proportionality"), or that relative burdens should decline as income rises ("regressivity").

A specific concept that encompasses both horizontal and vertical standards is the benefit principle, which calls for those who benefit from a public service to pay the cost of its production in proportion to their shares of the benefits. In other words, the benefit principle defines the index of relevant circumstances as the benefits received from a public service, and specifies proportionality as the standard of vertical equity.

The benefit principle has special relevance to the design of policy at the state and local level. As discussed below, a major role of state and local governments is provision of goods and services that cannot be provided by the market. In performing this role (other than in the case of services specifically intended to redistribute income), application of the benefit principle is clearly indicated.

3. Accountability

A democratic system has little prospect of enduring if those responsible for the formulation and implementation of government policy are not accountable to the voters for their actions. Abundant information about the actions of government and the specific individuals responsible is clearly of great importance. Regard for the importance of simplicity in public policies in the interests of facilitating public understanding and compliance is also an important dimension of accountability. Specific institutional arrangements can promote accountability, such as a requirement that, in general, the government that provides a public service should be responsible for raising the revenue to pay for it.

B. Key Issues in the Division of Service Responsibilities[1]

Consideration of the division of service responsibilities between state and local governments is greatly facilitated by a clear understanding of the basic roles of government in a predominantly market economy such as that of the United States. Hence this section begins with a brief review of the insights into the appropriate roles of government that are provided by what can reasonably be called the generally accepted theory of public finance.

Practical experience and economic theory demonstrate that, in general, the productivity of the economy and the welfare of individuals are most likely to be maximized when decisions about the production and consumption of goods and services are made in the marketplace. The intervention of government in such an economy can only be justified when the market can be shown to be incapable of dealing effectively with a situation.

While failures of the market are necessary conditions for government action, they are not, in themselves, also sufficient conditions. Before government action is appropriate, there must be a reasonable prospect that it will improve on the performance of the market at reasonable cost.

1. The Basic Functions of Government

In light of these considerations, beyond defining and ensuring conformance with the rules of the game for the market, government action is necessary only (1) to ensure that the overall economy performs at high levels of employment with reasonable price stability; (2) to provide or to subsidize the provision of goods and services that people are willing to pay for but that are not provided in sufficient amounts by the private sector; and (3) to ensure an equitable distribution of income and wealth among individuals and households. A corollary of this third role of government is to ensure an equitable distribution of fiscal capacity among the states (in the case of the national government) or local jurisdictions (in the case of the states).

Economic Stabilization. Responsibility for the stability of the overall economy must rest exclusively with the national government, given its monopoly of control of the money supply and unique ability to influence the overall level of economic activity. No state or local government can seriously consider an effort to influence the entire U.S. economy, nor should it contemplate an attempt to influence the general level of economic activity within its own jurisdiction.

The obvious reason is that the benefit-cost ratio of an effort by a state or local government to influence the overall level of activity in its economy would be unacceptably low. The costs of such an effort would be born largely by local taxpayers, while most of the benefits would be realized by outsiders. This is not to say that careful attention by states and local governments to their "competitiveness" in national--even international--markets is not entirely appropriate, indeed, essential.[2]

The Distribution of Income and Wealth. Market economies have demonstrated their superiority to all others as arrangements for generating income and wealth. There is no guarantee, however, that a market economy will produce a distribution of income and wealth that most Americans would deem acceptable.

Troublesome distributional outcomes result from the operation of a market economy for a number of reasons. Some persons are unable because of poor health, mental incapacity, or family circumstances to compete effectively in the labor market. The operation of the market requires that some individuals accumulate resources beyond those required for current consumption to devote to productive investments. This process can result in concentrations of wealth that have long been regarded by Americans as incompatible with the long-run stability of a democratic system.

Economic growth, which generates rising living standards for most Americans, has inevitable costs in the

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1. This section draws upon the second chapter of Office of State and Local Finance, Department of the Treasury, Federal-State-Local Fiscal Relations: Report to the President and the Congress (1985), hereafter referred to as the Treasury Report.

2. Competitiveness, in this connection, refers to such matters as the quality of public education in a state or locality and the availability and condition of the public infrastructure for which those governments are responsible.

short run. Labor and capital are rarely able to shift instantaneously and costlessly from declining to growing industries. The role of government in facilitating such reallocations of resources, and in ameliorating burdens on individuals adversely affected, is a perennially contentious matter.

The result of these and many other considerations is that distributional issues are an enduring feature of the political debates of nations with market economies. There are, of course, serious disagreements about the appropriate extent and nature of the role of government in redistributing income. At a minimum, however, there is near-universal agreement that government should provide a basic "social safety net." The policy objective is to ensure that no Americans go without minimum levels of food, shelter, clothing, and medical services when they are unable to provide for themselves. Decisions on these issues of vertical equity are, as noted earlier, inherently value judgments. Beyond pointing out the possible desirability of government action, and calling attention to the potential consequences of redistributive policies for market incentives, rigorous analysis has little guidance to offer.

Most analysts tend to agree, however, that programs whose major objectives relate to the distribution of income and wealth–public welfare, for example--should be the responsibility of the federal government, with the possible involvement of state governments in adapting broad national policies to the specific conditions of individual states. Local governments, however, should confine their agendas to the provision of services that do not have strong elements of income redistribution, and finance those services to the maximum possible extent in accordance with the benefit principle. The simple logic of this is that local tax bases and service populations tend to be too mobile to permit the differences between taxes paid and benefits received that are the essence of redistributive policies to be sustained if they reach significant magnitudes.

Allocation of Resources. Certain goods and services for which people would be willing to pay cannot be provided by the private sector. Obvious examples are national defense and the control of communicable diseases. The basic reason why these services cannot be provided by the private sector is important to understand because it has serious implications for the role of government in the allocation of resources in a market economy.

The essential attribute of goods and services whose supply can be left to the private sector is that they are marketable. That is, an individual can consume or benefit from them only if he or she pays the market price. Candy bars and movies benefit only those who consume them, and the individual who is unwilling to pay the market price can easily be excluded from their consumption.

All Americans benefit from outlays for national defense, however, and none could be denied those benefits for failure to pay. Involvement in the provision of services characterized by the inapplicability of the principle of exclusion is clearly, therefore, a necessary function of the public sector.

Naturally, the world is more complicated than simply deciding whether a good or service is "private" or "public." The production and consumption of some goods and services that can be privately produced and sold in the marketplace generate benefits or costs that are important to people who are not parties to the market transaction.

For example, the primary beneficiary of education is the student, and those benefits can be denied to an individual who is unwilling to pay. However, more is at stake in education than the benefits received directly by students. It is widely believed that society as a whole benefits from educational attainment. Without collective action through government to support education, less would be provided than most people believe would be desirable and would be willing to pay for.

Such circumstances justify a role for government in the provision or financing of services with significant "external" benefits. The objective of government action in such cases is to ensure that the total amount produced reflects the demand of the indirect (external) as well as the direct beneficiaries of the services.

Similarly, the production of some goods and services gives rise to costs to society that the market does not require private producers to pay. In the absence of intervention by the government to ensure that such external costs are included in private production costs, the market prices of the goods and services will be artificially low. As a result, excessive quantities will be produced and consumed.

2. Predisposition Toward Decentralization

Conceptual considerations offer a powerful rationale for structuring decision-making and the financing and delivery of public services on a decentralized basis to the maximum

possible extent.[3] This predisposition toward decentralization is rooted in considerations of efficiency, accountability, manageability, and equity. These considerations lead to a general principle of autonomy that calls for restraint by state governments in their intrusions into the affairs of local jurisdictions.

As noted earlier, the welfare of consumers in a market economy, given the distribution of income, is maximized because each is free to allocate his or her income in whatever manner produces the most satisfaction. In the cases of the services that must be provided by government, however, a high degree of uniformity is inescapable. The inconvenient reality, however, is that people's preferences for public goods are little more uniform than their preferences for private goods. Some assign high priority to security, for example, and are willing to pay high taxes to put a police officer on every corner. Others place a high value on education, and are willing to foot the bill for low pupil-teacher ratios and high-tech instructional equipment.

A centralized or unitary system of government has little or no capacity to respond to such differences in preferences. A decentralized system, on the other hand, can accomodate these differences by offering a range of choices in the level and mix of public services.

In a decentralized system, individuals and firms are free to locate in the jurisdiction that provides the package of public services that most closely accords with their preferences. Once located, of course, a democratic system offers residents the opportunity to influence the decisions in their community and state.

Such a system also generates competitive pressures on governments to develop innovative, more-efficient ways of delivering services. Decentralization also lessens the likelihood that a government will get too far out of line with its neighbors. Individuals and firms are free to pack up and leave when their preferences are no longer satisfied. This potential for "voting with one's feet" promotes a closer match between public goods and private preferences. All in all, decentralization can be viewed as the governmental analog of the marketplace. Economic efficiency requires effective mechanisms to discipline the producers of goods and services. In the marketplace, producers are disciplined by the choices of consumers. Accountability in the public sector is maintained through the political process.

Decentralization significantly enhances the effectiveness of the political process. In a decentralized system, choices about expenditures are closely linked to costs. If the people who benefit from a public service have to bear the full cost of that service, they are likely to be sensitive to whether output levels are appropriate and whether the services are produced efficiently. Decentralization also facilitates more accurate identification of the public official responsible for a particular service, thereby promoting more effective electoral discipline.

Effective management demands decentralization. Corporate experience suggests that centralized bureaucracies responsible for large-scale activities are simply unmanageable due to an inability of central decision-making authorities to process information. Corporate structures are almost always characterized by functional or geographic decentralization in order to make effective management possible. If decentralization is a necessity for the effective management of major corporations, it is an absolute imperative for the conduct of governmental activities for a nation as large and complex as the United States.

Equity considerations cut two ways in a decentralized system. On the one hand, differences in fiscal capacities among local governments result in differences in the "tax prices" of public services. This issue is discussed later; here it need only be noted that, to some, this is an inequitable situation.

At the same time, if it is important that the costs of government services be borne to the maximum possible extent by those who enjoy the benefits (the "benefit principle"), decentralization can improve the prospects of this result. The smaller the governmental unit, the easier it tends to be to tailor a revenue system to satisfy the benefit principle.

If the full advantages of decentralization are to be realized, the principle of autonomy must receive strong recognition and support. In essence, this principle is that the autonomy of local governments should only be constrained by the state when their activities have significantly adverse consequences for other units.

Since local governments are, legally, creatures of the states, the principle of autonomy cannot appropriately be applied as rigorously to state-local relations as it can to relations between the federal government and the states. Nonetheless, the full benefits of

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3. This view is shared by the members of the Task Force on State-Local Relations, National Conference of State Legislatures, who put forward the "general principle" of

> . . . keeping responsibility at the lowest level of government unless there is an important reason to do otherwise.

[Recommendations of the Task Force on State-Local Relations (adopted by the NCSL Executive Committee December 4, 1987), p. 9.]

decentralization are only likely to be realized if state governments grant substantial autonomy to their localities, and exercise genuine restrain in their involvement in the decisions of those governments.

3. The Structure of Responsibilities: Spillovers and Fiscal Disparities

While an overwhelming case can be made for a high degree of governmental decentralization, it is also clear that certain activities are most appropriately undertaken by the national government. The most obvious examples are providing for the nation's defense and stabilization of the economy through monetary and fiscal policies. The benefits of such activities extend uniformly throughout the nation. In an intermediate position are the benefits of higher education, which are generally viewed as being statewide. At the other extreme, the benefits of fire services are geographically limited, and are most appropriately the responsibility of local governments.

For many government activities, however, the appropriate roles for state and local governments are not so obvious. The sorting out of responsibilities among levels of government requires careful attention to vertical and horizontal fiscal relationships. Vertical relationships refer to the assignment of expenditure and revenue-raising responsibilities between the levels of government. Horizontal relationships refer to the relative fiscal capacities of local governments.

Spillovers and Vertical Fiscal Relations. In a federal system, state and local governments independently decide on the levels of the public services they provide. Some services, such as street sweeping, benefit only the residents of a community (incidentally, visitors). Other services, however, benefit residents of neighboring jurisdictions, perhaps even of entire regions. The benefits of a jurisdiction's spending on wastewater treatment, for example, extend beyond its borders, though they tend to decrease with distance. Some services whose primary benefits are local may benefit the entire nation; an example is the roads that provide access to a national monument, such as the Arizona Memorial at Pearl Harbor.

A jurisdiction's allocation of resources to a service can only be expected to reflect the benefits realized by its residents. Local officials will, therefore, limit the amount of the service provided to the level at which the benefits to residents of the community equal their costs.[4] If a portion of the benefits (say, of services like traffic control that benefit commuters) spill out to neighboring jurisdictions, it is rarely possible for the service-providing jurisdiction to negotiate with all outside beneficiary jurisdictions for remuneration. In the absence of a mechanism by which nonresidents can compensate the provider for the external benefits, however, the level of service provided is likely to be lower than that for which all potential beneficiaries would be willing to pay.

In such situations, economic theory calls for the state government to finance a portion of the costs incurred by the local governments if the right amount of the service is to be produced. The appropriate proportion for the state to pay is given by the ratio of the benefits realized by nonresidents to the total benefits of the service. The efficient vehicle for the state's policy is a matching grant based on the share of the benefits that spills out of the locality.

Suppose, for example, that 20 percent of the benefits of the police services provided by a city is realized by commuters and visitors from throughout the state. Provision of the optimal level of this service could be ensured by a matching grant under which the state reimburses the city for 20 percent of its total outlays for the services.

The special case of a service whose benefits are realized in substantial measure by visitors has obvious and important relevance in Hawaii. In such cases, a local government may be able to finance an appropriate share of the costs by adopting taxes paid disproportionately by visitors. For example, resort communities commonly rely on occupancy and sales taxes. These taxes effectively shift a significant share of the costs of the services from which tourists benefit to those visitors. In these cases, the external benefits realized by nonresidents essentially are "internalized." As a consequence, the optimal amount of resources is more likely to be allocated to the services, and the involvement of the state government may not be necessary.

A final point deserves mention. Debates on the assignment of functional responsibilities between states and local governments often confuse problems that are statewide and spillovers that are statewide in scope. For example, every community must fill potholes and provide police patrols. These are statewide problems, but they can hardly be viewed as problems requiring the attention of the state government.

Since the benefits of such services essentially accrue exclusively to the residents of each community, there

4. Strictly speaking, informed decisions will be based on the equation of benefits and costs at the margin. To simplify the discussion here, this technicality is abstracted from.

is little justification for state involvement in their financing or provision. State intervention is appropriate only when a service involves benefits (or costs) that are widely dispersed throughout the state. Education and income maintenance are examples of such services.

Fiscal Disparities Among Local Governments. In addition to spillovers, the existence of substantial fiscal disparities among local governments also provides a potential basis for action by a state government. The proposition that the market allocates resources efficiently to maximize consumer welfare rests on the acceptability of the underlying distribution of income and wealth. Correspondingly, the argument that local governments can be counted upon to allocate resources efficiently in the public sector if externalities are appropriately accounted for assumes that the underlying distribution of fiscal capacity among localities is reasonably acceptable.

It is important to note that fiscal disparities among local jurisdictions are, in significant degree, shaped by decisions of state governments. These state decisions include defining the territorial boundaries of localities, assigning service responsibilities, and determining the revenue-raising options available to local governments. This reality underlines the obligation of state governments to ensure that fiscal disparities among localities are limited to reasonable levels.[5] This dimension of the responsibilities of state governments is the principal focus of Section D of this chapter.

C. The Assignment of Revenue-Raising Authority

The division between levels of government in a federal system of the authority to raise revenues from various sources is arguably a question to which less attention has been given by economists and political philosophers than the allocation of responsibility for public services.[6] Nonetheless, a number of important points deserve mention with respect to the division of revenue-raising authority within a state, the focus of this section.

1. The Accountability Principle

In general, the government that provides a public service should be responsible for raising the revenues to pay for it. As a county official commented recently in a communication to the Tax Review Commission,

> *We believe that those who spend tax dollars should be responsible for raising those funds.*[7]

The primary implication of the accountability principle for the assignment of revenue-raising authority can be summed up in the word "sufficiency." That is, those responsible for decisions about public budgets at both levels of government should have a range of revenue sources available to them with sufficient potential at reasonable rates to enable them to finance their service responsibilities. (For purposes of the discussion in this section, it is convenient to assume that every local government in a state has an underlying fiscal capacity that is approximately equivalent.)

2. Economic Efficiency

The primary concern in tax assignment, from the perspective of the overall efficiency of the economy, is the avoidance of tax differentials among jurisdictions that seriously affect the decisions of individuals and business about where to locate, or that induce people to incur substantial costs in an effort to avoid taxes. (Costs incurred to avoid taxes are essentially dead-weight losses to the economy as a whole, as are the costs incurred by taxpayers in compliance.[8])

Tax differentials could be avoided, and compliance costs minimized, by imposing a uniform tax structure throughout the state. This approach--however the proceeds might be distributed by the central taxing authority among local governments--would be inconsistent with a decentralized system in which local authorities autonomous within their spheres of responsibility. Autonomy without independent authority to raise revenues is, of course, a contradiction in terms.

Since uniformity is out of the

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5. See, for example, the recommendation of the NCSL Task Force on State-Local Relations that

> States should target assistance to jurisdictions with the lowest fiscal capacity, attempting to equalize resources to some extent among rich and poor communities.

[Op. cit., p. 10.]

6. But see the excellent conference proceedings edited by Charles E. McLure, Jr., Tax Assignment in Federal Countries (Centre for Research on Federal Financial Relations, The Australian National University, Canberra, in association with The International Seminar in Public Economics, 1983).

7. Barry T. Mizuno (Director of Finance, County of Hawaii) "Presentation to the Tax Review Commission" (June 23, 1989), p. 5.

8. Note, for example, the finding cited in a resolution approved at the 43rd International Fiscal Association Congress in Rio de Janeiro in September 1989 that

> The private sector-compliance cost component of tax operating costs, consisting both of the costs to taxpayers and third parties, is invariably significantly higher than the public sector-administrative costs component.

[Tax Notes, Vol. 44 (September 25, 1989), p. 1468.

question, the approach that makes the most sense from the perspective of economic efficiency is to authorize localities to tax bases with low mobility among jurisdictions. The tax base with the lowest mobility is real property--the land component of real property is, of course, perfectly immobile. It follows, as experience abundantly teaches, that the real property tax is the consummately appropriate tax for local governments.

User charges are also well suited to local governments because they are by definition designed to collect only sufficient revenue to finance the services for which they are levied. Hence the charge is presumably recognized as being a fair analog of a market price by those paying it and, as a consequence, the incentive for economic activity to move to avoid the charge is small.

The case of taxes on consumption is an interesting one for Hawaii. The conventional view on the assignment of these taxes is that

> *. . . destination-type consumption taxes are inappropriate at the local level but become suitable for the middle level of government [the states, in the U.S.], where the region is large enough to exclude 'shopping abroad'.*[9]

In Hawaii, it goes without saying, the "border problem" with sales taxes is considerably less serious than it is on the mainland, where "shopping abroad" may be a 10-minute drive rather than an $84 roundtrip flight. Clearly, county use of consumption taxes would be much less likely to have undesirable consequences for the efficiency of the economy of Hawaii than would be the case for any other state.

The remaining major tax base is income--individual and corporate. From the perspective of minimizing the impacts of taxes on the efficiency of the economy, most economists favor the integrated taxation of individual and corporate income. The objective of integration, in essence, is to eliminate the double taxation of dividend income without permitting corporate retained earnings to escape taxation. A strong case can be made that an integrated income tax is a feasible proposition only for the national government. If an integrated federal tax ever became a reality, and the prospects may be more favorable today than in the past, an integrated state income tax could probably be constructed on the federal base. The effort could involve a major sacrifice of state fiscal autonomy, and a significant reallocation of revenue among the states.10

Absent integration, the damage to economic efficiency can be minimized by limiting any effort to impose general taxes on individual and corporate income to state governments. Such taxes should rely on federal income definitions, to minimize compliance costs. Rate structures should be flat or only mildly graduated in order to reduce the likelihood of the taxes having significant effects on the location decisions of businesses and individuals. An additional consideration arguing for the states to stick to flat or mildly graduated rate structures is that the sensitivity of yields to economic developments increases directly with the degree of graduation.

3. Taxpayer Equity

No major issues relating to taxpayer equity appear to be involved in the division of revenue-raising authority between state and local governments, unless considerations discussed elsewhere in this section are disregarded.

4. Administrative Costs

Some taxes clearly can be administered at lesser cost per dollar of revenue raised by a state than by a local government, though this generalization may well be less true in the age of the mini/micro computer than it was a generation ago. This consideration is of minor importance in the division of revenue-raising authority because of the availability of such devices as local supplements to state taxes. Experience in recent decades throughout the U.S. demonstrates that these devices can provide access by localities to taxes that would be too expensive to administer by themselves.

5. A Note on Tax Exporting

The potential of a revenue source as a device for shifting tax burdens to nonresidents of a jurisdiction is an understandably attractive consideration for the typical politician. It is a potential that appears to enjoy particular prominence in discussions of tax policy in Hawaii. However, exportability, per se, is rarely mentioned in the public finance literature as a desirable attribute of a revenue source in the commonly agreed-upon normative principles of taxation and tax assignment. The reasons for this deserve brief review at this point.

In general, the quest for exportable revenue sources is little more than a manifestation of the eminently human temptation to try to get others to pay

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9. Richard A. Musgrave, "Who Should Tax, Where, and What?" in McLure, op. cit., p. 12.

10. See Charles E. McLure, Jr., "Integration of the State Income Taxes: Economic and Administrative Factors," National Tax Journal, Vol. 34 (March 1981), pp. 75-94.

the costs of goods and services whose benefits are enjoyed by one's constituents (or oneself). In this sense, the search for exportability is about on a par with the grant-chasing that engaged so much of the attention of state and local officials in Washington during most of the 1960's and 1970's.

The two are similar because, although residents can be expected to pay some portion of the burden of the exportable tax, the share in the best of circumstances will be small. Similarly, the portion of a federal grant financed by the residents of a state or locality benefiting from a grant program when the distribution of payments is carefully crafted to the advantage of one's constituents is also small.[11] The essential problem with all forms of beggaring one's neighbor is that it misrepresents the true cost of public services to the resident-voters of a state or local jurisdiction. If the voters think that services are cheaper than they actually cost, they are likely to demand that more of the services be produced than is in the interests of the overall economy.

Exportability is not always to be deplored. As noted earlier, nonresidents, or visitors, may be major beneficiaries from certain services provided by a local or state government. In such cases, the interests of an efficient allocation of resources to those public services can be furthered by the use of taxes that--by virtue of their exportability--make it possible to collect an appropriate share of the costs of those services from the nonresident beneficiaries.

In sum, on the matter of the desirability of exportability, the observation by Musgrave nearly three decades ago is worth quoting:

> *In the absence of a matching spillover of benefits, state taxes which are exported constitute an anarchic element in a system of fiscal federalism.*[12]

D. The Balanced State Fiscal System

This section outlines the basic conceptual considerations involved in the approach used in this report to analyze the fiscal system of Hawaii. The discussion begins with the reasons why fiscal balance is important in a state fiscal system. The three dimensions of fiscal balance are then defined and their significance and implications explored.

1. Why Is Fiscal Balance Important?

Balance in a state's fiscal system is likely to be a precondition for the economic neutrality of the system. It is possible that the fiscal disparities associated with an imbalanced system will be capitalized in property values. The effect of this is that one-time, windfall gains or losses are experienced by the owners of property in a locality at the time the disparities come into being, but with essentially no long-term impacts on economic activity.[13] Full capitalization of disparities seems unlikely, however, especially in light of the imperfect information normally available about such matters.

In the more likely event that the differences are not capitalized, purely fiscal incentives are created for individuals and businesses to move from one locality to another. (Such fiscal incentives may also discourage individuals and firms from relocating when market factors call for it.) Such relocations (or non-relocations) of economic activity prompted by factors other than real economic considerations tend to impair the efficiency of a state's economy. The inevitable result is lower incomes for state residents than might otherwise be achieved.

Balance is also a desirable attribute of a state-local fiscal system in order to prevent serious inequities among the residents of different areas of the state. Such inequities come about when residents with similar incomes have to pay significantly different taxes to finance comparable levels of public services in different localities.

2. The Three Dimensions of Fiscal Balance

The three dimensions of fiscal balance are vertical, horizontal, and long-run. The first two are essentially static, that is, they relate to the circumstances of a fiscal system at a particular time. The third dimension is dynamic--it relates to the performance of a fiscal system over a period of years.

Vertical Balance. The fiscal system of a state is vertically balanced when the costs of the expenditure responsibilities assigned to the state government, on the one hand, and to local governments as a group, on the other, are roughly commensurate with the potential productivity at reasonable rates of the revenue sources available to each level of

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11. The fact, sometimes lost sight of, that the residents of the jurisdiction that receives a federal grant also pay federal taxes, and hence effectively pay for a portion of the cost of the grant, is taken into account in Chapter V in estimating the incidence among the counties in Hawaii of federal grants-in-aid.

12. Richard A. Musgrave, "Approaches to A Fiscal Theory of Political Federalism," in Public Finances: Needs, Sources, and Utilization, A Conference of the Universities-National Bureau Committee for Economic Research (Princeton University Press, 1961), pp. 114 and 115.

13. See the discussion of capitalization in Chapter VI.

government.[14]

The concept of vertical balance in a state's fiscal system is more elusive than that of horizontal balance, which can be articulated and analyzed by fairly straightforward methods. At the same time, some of the most controversial issues of state-local fiscal relations, in Hawaii as elsewhere in the nation, involve aspects of vertical rather than horizontal balance--in other words, the concept is neither idle academic conjecture nor mere theoretical nicety.

For example, some county officials in Hawaii argue that they are forced to rely too heavily on the property tax because the State does not authorize them to use a sufficient variety of revenue sources to finance their service responsibilities. This is best viewed as an argument that Hawaii's fiscal system is vertically imbalanced.

One approach to the concept is to consider some examples of bad arguments about vertical balance. The original argument made in the mid-1960's for a federal revenue-sharing program, for example, was framed in vertical-balance terms. (Unfortunately, many who purport to speak for state and local officials apparently never understood why the argument was weak, and they continued to wield it to support the Revenue Sharing Program once it was enacted in 1972. In a classic example of the two-edged sword, or turnabout is fair play, in recent years they have faced a situation in which a uniquely fatuous vertical-balance argument--that the federal government "has no revenues to share"--has been used by apologists for the Reagan and Bush administrations to rationalize the retrenchment in federal aid to state and local governments that has occurred in the 1980's.)

The crude argument for revenue sharing was that the federal government had a lock on revenue-raising power while the states and localities were responsible for providing the bulk of the domestic public services enjoyed by Americans. It followed, so the argument went, that the superior revenue-raising power of Washington should be harnessed to support state and local spending. This would be accomplished by "sharing" federal tax revenues with the states and localities by paying them unconditional fiscal assistance.

It is worth noting that this argument for revenue sharing offered little guidance to program designers on the appropriate distribution of payments among states and localities. If anything, it suggested that payments should be widely dispersed--perhaps distributed on an equal per capita basis--rather than "targeted."[15] The need for federal aid implicit in the assertion of vertical imbalance derived from the inherently inferior revenue-raising options of state and local governments as a class rather than from the particular needs of any identifiable subgroup of those governments.

In other words, the argument on the revenue side of the equation rested on the premise that the revenue system of the federal government was inherently superior to those of the states and localities. In its technical form, the argument was articulated in terms of income elasticities.[16] The income elasticity of the federal revenue system was said to be higher than that of the revenue systems of the states and localities. Indeed, the argument went, the federal income elasticity exceeded unity--a 1 percent rise in income would produce an increase in federal tax collections that exceeded 1 percent. A report published by the ACIR at the time suggested that the income elasticity of the federal revenue system in the mid-1960's may have been as high as 1.2, while that of the states was about 0.9.[17]

The diagnosis of vertical imbalance in the U.S. fiscal system was completed by the observation that, during the period from the end of World War II through the early 1960's, the income elasticity of state expenditures was approximately 1.7, while that of federal expenditures was

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14. The concept of vertical balance is drawn from a recent study of intergovernmental fiscal relations in Canada. As the authors of that study use the term,

> Vertical fiscal balance relates to the allocation of revenues, relative to the allocation of expenditure responsibilities, between the second tier of governments (provinces in Canada, states in the United States, cantons in Switzerland, laender in West Germany, etc.) and the federal government.

[Thomas J. Courchene and Kevin Dowd, "Towards a Theory of Equalization Payments," in Thomas J. Courchene, Equalization Payments: Past, Present and Future, Federal-Provincial Relations Series, Special Research Report (Ontario Economic Council, 1984), pp. 81 and 82.]

15. This was, in fact, the distribution method proposed by the "Heller-Pechman" task force in the report it filed with President Johnson right after the 1964 election [Task Force on Intergovernmental Fiscal Cooperation, Strengthening State and Local Government: A Report to the President of the United States (November 11, 1964), p. 23].

16. An income elasticity is a measure of the automatic responsiveness of the yield of a revenue source to a change in the income level of an economy. For example, if the revenue yielded by a tax rises 9 percent when the income of a community increases 10 percent, the income elasticity of the tax is said to be 0.9.

17. John Shannon, Robert W. Rafuse, Jr., and Jacob M. Jaffe, Federal-State Coordination of Personal Income Taxes, Report No. A-27 (Advisory Commission on Intergovernmental Relations, 1965), pp. 45 and 47.

on the order of 1.1 - 1.2. This view went a step further, to observe a real prospect that the income elasticity of federal outlays in the next few years would be on the low side of that range.[18]

The outlook for rapidly rising revenues and slowly growing expenditures raised the prospect of an increasing surplus in the federal budget. If this prospect were to materialize, the resulting "fiscal drag" would undermine prospects for national economic growth. To avert this eventuality, the rising budget surplus would have to be headed off by further cuts in federal taxes along the lines of that in 1964, or--absent willingness of the Congress to appropriate funds for federal spending--by adoption of a program of sharing the excess revenues with the states.

The perception of vertical imbalance between the federal government and the states that prevailed in the mid-1960's was flawed in both its basic elements. On the revenue side, it was certainly true that the income elasticity of the federal revenue system was higher than that of the states and local governments. This was almost entirely a legacy of World War II, however, rather than an inevitable consequence of federal superiority. The war made a highly progressive individual income tax the centerpiece of the nation's tax system and drove the federal rates to levels that made it very difficult for the states to enact such taxes.

Once the Korean War ended, however, federal rates were reduced every few years (except for the temporary Vietnam surtax enacted in 1968) in a long-term process that culminated in the 1986 Tax Reform Act, which slashed rates to their lowest levels since before World War II. As federal rates came down, the states stepped into the breach. That experience conclusively demonstrated that there is nothing about the individual income tax that makes it the exclusive preserve of the federal government.

In fact, as the states moved into the field, two (Maryland and New York) acted to provide access to the bases of their income taxes to their local governments. Other states authorized their localities to tax wages and salaries earned within their jurisdictions--further confirming the irrelevance of most thinking about the unique suitability of certain taxes to particular levels of government. In essence, the experience of the postwar period shows that virtually every source of government revenue is potentially accessible at reasonable administrative cost to every level of government, and that judgments about the inherent superiority of the system of one level or another are groundless.

Empirical confirmation of this observation can be found in trends in the income elasticities of the revenue systems of the federal and state-local governments during the postwar period. The 1965 ACIR report cited earlier, for example, noted that the income elasticity of state revenue systems had been rising steadily since World War II--from a level of roughly 0.83 in 1947 to 0.92 in 1964. In fact, the report projected that the elasticity would rise to 0.99 by 1970 if state revenue systems remained unchanged during that period.[19]

More recent estimates of the average income elasticities of the federal, state, and local revenue systems confirm this trend and indicate that it continued at least through the early 1980's.[20]

	1950	1960	1970	1980	1984
Federal	1.12	1.14	1.15	1.16	1.14
State	.94	.99	1.06	1.11	1.10
Local	.94	.94	.96	.96	.97

There are two general exceptions to the observation that vertical imbalance is a situation that, in the U.S. federal system, can be regarded as self-correcting and of little major consequence in normal (that is, non-major-war) times. The first is the peculiar suitability of the real property tax for local governments--because of the uniquely immobile character of the base, however, not because of administrative considerations.

The second exception results from the fact that local governments derive their revenue-raising authority and service responsibilities from the states. As a result, it is possible for vertical imbalance to exist in the fiscal system of a state in a way that cannot occur between the federal government and the states. In the latter instance, federal restrictions on the taxing powers of the states are limited to the tax-exempt status of federal property and interest payments and to such Constitutional limitations as the prohibition of state discrimination against interstate commerce and the requirement for legal due process. None of these restrictions has

18. Incredible as it may seem today, the political stalemate that plagued the Kennedy Administration had persuaded otherwise clear-headed observers that the torpor of the Eisenhower years had somehow relieved the Congress of serious interest in wooing the electorate with spending programs. Support for this view evaporated in the wake of President Johnson's landslide victory in 1964, and the flood of new programs that ensued under the banner of the "Great Society."

19. Ibid., p. 43.

20. Treasury Report, op. cit., p. 341.

significant consequences for the revenue-raising potentials of state and local governments.

Local jurisdictions generally have only such revenue-raising authority as is assigned to them by their state government, and are at the same time obligated to perform such functions as the state may prescribe. If, for local governments as a group, the two sides of the equation are not commensurate, the state's fiscal system is vertically imbalanced.

A notable example of vertical imbalance was the situation in Massachusetts in 1980. Local governments were assigned major service responsibilities but were authorized to raise revenues exclusively from the property tax, an excise tax on motor vehicles, and user charges and fees. Under this regime, in a State whose voters are disposed to favor relatively high levels of public services, effective property tax rates soared as high as 4 or 5 percent, and collections amounted to 5.5 percent of personal income in the State, the highest ratio in the nation.[21] The result was a widespread perception of major inequities in the treatment of individual taxpayers and arguably weakened prospects for healthy economic growth in the Commonwealth.

The voters of the Bay State took things into their own hands on November 4, 1980, when they resoundingly approved "Proposition 2-1/2," which directed the phase-in of a state-wide ceiling of 2.5 percent on the effective rate of the property tax. This, in turn, forced the State government to enact a number of changes in its intergovernmental fiscal system, including increased grants-in-aid to local governments and authorization for localities to diversify their revenue systems to compensate for part of the revenue lost when their overwhelming dependency on the real property tax was terminated.

A comparison of the major dimensions of the local fiscal system in Massachusetts in FY 1980 with that in FY 1987 suggests the extent of the realignment that occurred. Table IV.1 shows the percentage distribution of the general revenues of all local governments in the State in the two years (abstracting from federal grants, which plunged from 13 to 8 percent of total local general revenues during the period).

Realignment on an even more dramatic scale transpired in California in the wake of the approval of Proposition 13 by that State's voters on June 6, 1978. As in Massachusetts, property tax bills in California had been rising rapidly for several years. By 1978, the burden of the tax as a proportion of personal income, at 5.2 percent, was somewhat lower than that in Massachusetts in 1980. Nonetheless, it was 40 percent higher than the average for all local governments in the U.S. (and 159 percent higher than the ratio in Hawaii) in 1978.[22]

Nine years after "Prop 13," as Table IV.2 indicates, State aid accounted for a substantially larger share of local revenues in California. Relative reliance on the property tax had dropped almost in half. All other own sources accounted for a far larger share of the total. The proportion of local revenues produced by current charges was up by nearly half to 14 percent of the total.

Another apparent diagnosis of vertical imbalance appears in a recent report on the fiscal system of New Jersey, which identifies

> *. . . several very real and significant problems in the state's fiscal system. First, . . . school*

21. U.S. Bureau of the Census, Governmental Finances in 1979-80, GF 80 No. 5 (September 1981), Table 23: Survey of Current Business (August 1984), p. 42.

22. U.S. Bureau of the Census, Governmental Finances in 1977-78, GF 78 No. 5 (February 1980), Table 23: Survey of Current Business (August 1984), p. 42.

TABLE IV.1 SOURCES OF THE REVENUES OF LOCAL GOVERNMENTS IN MASSACHUSETTS, FISCAL YEARS 1980 AND 1987

	FY 1980	FY 1987
Total	100.0%	100.0%
State aid	31.9	41.6
Property tax	56.6	42.4
All other taxes	.4	1.3
Current charges	7.9	10.6
All other own	3.2	4.1

Note: Does not include revenues from the federal government.

Sources: U.S. Bureau of the Census, Governmental Finances in 1979-80, GF 80 No.5 (September 1981), Table 5; and Government Finances in 1986-87, GF-87-5 (November 1988), Table 29.

TABLE IV.2 SOURCES OF THE REVENUES OF LOCAL GOVERNMENTS IN CALIFORNIA, FISCAL YEARS 1978 AND 1987

	FY 1978	FY 1987
Total	100.0%	100.0%
State aid	37.9	45.5
Property tax	40.3	20.9
All other taxes	7.2	9.5
Current charges	9.8	14.3
All other own	4.9	9.9

Note: Does not include revenues from the federal government.

Sources: U.S. Bureau of the Census, Governmental Finances in 1977-78 GF 78 No.5 (February 1980), Table 5; and Government Finances in 1986-87, GF-87-5 (November 1988), Table 29.

districts with smaller tax bases are still taxing more and yet spending less per pupil than districts with larger tax bases. Second, these poor municipalities are facing annual fiscal crises, deteriorating public services and facilities, and ever higher property tax rates.

The two problems are, of course, related. In Robinson v. Cahill, 62 N.J. 473 (1973), the New Jersey Supreme Court declared that a thorough and efficient school system could not be provided as long as "municipal overburden" inhibited poorer school districts from availing themselves fully of the funding power afforded them under the school aid formula.

New Jersey contains some of the nation's richest and poorest jurisdictions. . . .

Even in areas that are not considered distressed, New Jersey's heavy reliance on local government and local taxes encourages ratable chasing and discourages more balanced economic development.[23]

Horizontal Balance. The fiscal system of a state is horizontally balanced when the fiscal capacity of each local government is adequate to enable it to provide some specified levels of the services for which it is responsible without excessive tax rates. Another way of saying the same thing is that horizontal balance exists when disparities in the fiscal capacities of local governments do not exceed some reasonably acceptable levels. For purposes of this discussion, fiscal capacity is defined as the potential ability of a local government to raise revenue from its own sources relative to the costs of its service responsibilities, with appropriate allowance for revenue the locality receives from other governments.

The levels of services that are the reference standard, or the criterion of fiscal need, are a matter of value judgment within a state. In one state, they may be minimally acceptable levels. In another, the specified levels may be the average for all localities in the state, or some fraction of the average. As explained below, however, average--or "representative"--service levels are a convenient benchmark for analytical purposes.

The definition of "excessive" tax rates is also a matter that policymakers in a state must decide. As with service levels, the criteria for tax rates can be expressed in relative or absolute terms--for example, in relation to the average of rates for all localities in the state, or by reference to the tax rates prevailing in neighboring states. Again, it is analytically convenient to take the average or representative level of tax rates as the benchmark for defining reasonable, or not-excessive, tax rates.

The constitutions or statutes of two of the great federal nations of the world include definitions of standards that bear a strong resemblance to the concept of horizontal balance outlined here. The constitution of Canada provides that horizontal balance (as the condition is referred to in this report) exists when

. . . provincial governments have sufficient revenues to provide reasonably comparable levels of public services at reasonably comparable levels of taxation.[24]

In the case of Australia, Section 13(3) of the States (Personal Income Tax Sharing) Amendment Act, 1978, defines horizontal balance as a situation in which each state in the Commonwealth would be able

. . . to provide, without imposing taxes and charges at levels appreciably different from the levels of taxes and charges imposed by the other States, government services at standards not appreciably different from the standards of the government services provided by the other States.[25]

The finances of a particular local government can be said to be in balance when:

$$EN_i = ORRA_i + FA_i + SA_i \quad (1)$$

where

-- EN_i (expenditure need) is the total cost to the ith local government of providing a specified level of public services,

-- $ORRA_i$ (own revenue-raising ability) is the total revenue local government i could raise from its own sources if it implemented a specified revenue system,

-- FA_i is the total amount of federal aid received by the ith local government, and

-- SA_i is the total amount of fiscal assistance received by the ith locality from its state government.

This concept of balance can be distinguished from the actual status of

23. New Jersey State and Local Expenditure and Revenue Policy Commission, Summary Final Report: Creating a Fiscal Balance (July 1988), p. 37.

24. Subsection (2), Section 36 of Part III of the Constitution Act, 1982, quoted by Courchene, op. cit., p. 3.

25. Commonwealth Grants Commission, Report on State Tax Sharing Entitlements, 1981: Main Report (Canberra: Australian Government Publishing Services, 1981), p. 18.

a local government's budget, which is balanced when:

$$AE_i = AOR_i + FA_i + SA_i \quad (2)$$

where

-- AE_i is the total of the actual expenditures by local government i, and

-- AOR_i is the total revenue the local government actually raises from its own sources.

For all local governments in the state as a group,

$$\Sigma EN_i = \Sigma AE_i \quad (3)$$

and

$$\Sigma ORRA_i = \Sigma AE_i \quad (4)$$

To focus attention on the issue of horizontal balance, local governments collectively are assumed to be operating with balanced budgets, that is:

$$\Sigma AE_i = \Sigma AOR_i + \Sigma FA_i + \Sigma SA_i \quad (5)$$

It follows that, for all local governments as a group,

$$\Sigma EN_i = \Sigma ORRA_i + \Sigma FA_i + \Sigma SA_i \quad (6)$$

The "representative" appproach to expenditure need and own revenue-raising ability offers the necessary operational definitions of "specified" levels of need and own revenue.[26] In the simple fiscal structure of Hawaii, the representative-expenditure approach yields estimates of what it would cost each of the four county governments to provide the statewide average (representative) level of each public service for which local authorities in the State are responsible.

That is, the total expenditure need of the ith local government is defined as:

$$EN_i = \bar{w}_a(WL_{ai}) + \bar{w}_b(WL_{bi}) + \ldots + \bar{w}_n(WL_{ni}) \quad (7)$$

where $\bar{w}_a$ is the statewide average (representative) cost per unit of workload of providing service a and WL_{ai} is the workload of local government i for service a.

In an analogous manner, the representative-revenue approach defines the total own revenue-raising ability of the ith local government as

$$ORRA_i = \bar{t}_a B_{ai} + \bar{t}_b B_{bi} + \ldots + \bar{t}_n B_{ni} \quad (8)$$

where $\bar{t}_a$ is the statewide average (representative) rate for tax (or other revenue source) a and B_{ai} is the base of tax a that is accessible to taxation by local government i.

Methods by which workload factors and representative revenue bases can be selected are discussed in detail in the next chapter, which reports the results of an effort to apply the representative approach in an analysis of horizontal balance in Hawaii's State-local fiscal system.[27]

Long-Run Fiscal Balance. A state's fiscal system is balanced in the long run if two basic fiscal flows grow at roughly similar rates for every government in the system. The flows are:

-- The receipts generated by a government's existing revenue structure--that is, without increases in rates or other discretionary actions (often referred to as "built-in" or "automatic" revenue increasesd)--plus receipts from other governments.

-- The expenditures to which the government is committed by existing law (variously referred to as "current-services" or "continuation" costs).[28]

This concept of balance is close to that used by Richard Pollock in his study a decade and a half ago of the fiscal outlook for the State government in Hawaii. The general

26. See Robert W. Rafuse, Jr., Representative Expenditures: Addressing the Neglected Dimension of Fiscal Capacity (Advisory Commission on Intergovernmental Relations, forthcoming in 1989); and Advisory Commission on Intergovernmental Relations, 1986 State Fiscal Capacity and Effort, Report No. M-165 (February 1989). The representative approach is not the only method available for estimating the costs of standardized levels of public services and revenue-raising potential. For a discussion of the options for measurement of revenue-raising ability, see the Treasury Report, op. cit., Chapter VIII. For an alternative method of measuring expenditure needs that relies upon regression analysis to calculate an index of relative service costs in a state, see Katherine L. Bradbury, Helen F. Ladd, Mark Perrault, Andrew Reschovsky, and John Yinger, "State Aid to Offset Fiscal Disparities Across Communities," National Tax Journal, Vol. 37 (June 1984), pp. 151-70. For a more recent discussion of a regression approach, see Helen F. Ladd and John Yinger, America's Ailing Cities: Fiscal Health and the Design of Urban Policy (The Johns Hopkins University Press, 1989), pp. 78-102.

27. In a more complex fiscal system with more than one type of local government--with the jurisdictions of some types possibly overlapping those of others, creating multiple revenue claims on the same local economies, among other analytical problems--the conceptual framework outlined in this section would have to be elaborated considerably.

28. These expenditures are referred to by Pollock as "built-in," that is, "those ... required to preserve the current quality of existing programs in the face of growing workloads and prices." They can be distinguished from outlays he calls "discretionary"--"those operating expenditures associated with the creation or expansion of programs" [Richard Pollock, Long Run Fiscal Balance of the Hawaii State Government (Economic Research Center, University of Hawaii, 1974), p. 151].

conclusion of Pollock's study is that the fiscal system of the State government was likely to be in a condition of "shallow secular fiscal imbalance" during the period through 1985, the time horizon of the analysis, and that "relatively small tax increases" would be sufficient to accomodate the projected rise in "built-in" expenditures.[29]

A decade later, the First Tax Review Commission reached the moderately more optimistic conclusion that

> *... the present tax structure will provide adequate revenues to meet state spending needs over the next five years at current levels of service ... on the assumption that there will be neither a severe recession nor major cutbacks in Federal aid during the period.*[30]

E. Possible Roles of State Aid to Local Governments

The two major possible roles for payments of aid by the State government to the counties follow fairly readily from the discussion of this chapter. It is useful to summarize these and to consider two other possibilities here.

The first potential role for State aid is to provide incentives for efficient fiscal behavior by the governments of the counties in the presence of statewide benefit and cost externalities. As discussed in Section B of this chapter, a public service provided by the counties may generate benefits that are enjoyed by the residents of other counties. Those benefits are not likely to be taken into account in the decision about how much of the service to produce and, as a consequence, too little may be provided.

A matching grant by the State that pays for the portion of the costs of the service that corresponds to the share of the benefits realized by nonresidents of the county at the margin has the potential for bringing about production of the optimum level of the service from the perspective of the entire State.

The second role for State aid to the counties is to ensure that Hawaii's fiscal system is horizontally balanced. The objectives of such assistance are considered in some detail in Section D of this chapter. Here it is only necessary to add that aid paid by the State to eliminate horizontal imbalances among the counties should be in the form of general fiscal assistance, that is, there should be no constraints on the uses made by the counties of the funds--including even reducing county tax rates, should that be the decision of a county's elected officials.

A third possible role for State aid is to persuade local governments to provide minimum levels of aided public services. It might be decided by the Legislature and the Governor, for example, that it would be desirable for certain minimum standards to be maintained for some service for which the counties are responsible. The State's interest in the minimum standards could be exerted through a matching grant program that would provide a financial incentive to the counties to meet the standards.

Finally, State payments to the counties may be justified to reimburse them for costs they incur in administering, or incident to, State programs. As noted in Chapter II, current law in Hawaii requires the State government to reimburse the counties for costs they incur in complying with State mandates. As discussed in Chapter VIII, State payments to the counties to compensate them for costs incurred incident to the roles they play in connection with State programs may be deemed appropriate and in the interests of general comity between the two levels of government.

F. A Note on Expenditure Concepts

In anticipation of the analysis of Hawaii's fiscal system in Chapter V, a brief discussion of some basic accounting concepts is in order. The differences between the concepts applied in Chapter V, which generally follow the structure of the fiscal accounts maintained for the State and the county governments by the Tax Foundation of Hawaii, and those of the U.S. Bureau of the Census and the U.S. Bureau of Economic Analysis are the focus because some readers may be more familiar with the Census and BEA accounts than with those of the Tax Foundation.

In Chapter V, capital outlays are recorded as expenditures by the State and the counties only to the extent they are financed by receipts from a government's own revenue system or grants-in-aid. These may be revenues received during the current reporting period or accumulated balances of such revenues held over from past periods. Capital outlays financed by the proceeds from borrowing are not counted as expenditures.

However, all outlays for debt service--payments of principal as well as interest--are treated as expenditures. Debt service is, essentially, the actual cost to a government of capital spending in the past that was financed by borrowed funds (and hence was not recorded, by the accounting rule specified here, as an expenditure of the government at the time the bond proceeds were

29. Ibid., p. 5.

30. Report to the Thirteenth Legislature, State of Hawaii (December 17, 1984), p. 3.

disbursed). The principal payment is the current-dollar amount of the actual capital outlay and the interest is the price paid to defer the payment. On the revenue side, of course, the proceeds of borrowing are not receipts for purposes of the present analysis.

This treatment of capital outlays and debt service differs from that of the national income accounts and of the U.S. Bureau of the Census. In the accounts of the Governments Division of Census, capital outlays are

> ... *direct expenditure for contract or force account construction of buildings, roads, and other improvements, and for purchase of equipment, land, and existing structures.*[31]

All capital outlays are counted as state and local expenditures at the time the outlays are recorded in the books of reporting governments. Interest paid is treated as an expenditure when the disbursement is recorded by a government. The proceeds from borrowing are not counted as revenue, nor are repayments of principal counted as expenditures.

In the national income accounts, amounts paid by state and local governments to purchase land and existing structures are not counted as expenditures. Purchases of new structures and equipment are recorded as expenditures at the time the construction is put in place or the equipment is delivered. Interest payments are netted against interest earnings, and the net amount of interest paid is counted as a government expenditure. As in the Census accounts, neither the proceeds from borrowing nor repayments of principal appear in the national income accounts.

31. U.S. Bureau of the Census, Government Finances in 1986-87, GF-87-5 (November 1988), p. 113.)

V. ANALYSIS OF BALANCE IN HAWAII'S FISCAL SYSTEM

This chapter presents the results of an analysis of Hawaii's State-local fiscal system. The analysis examines balance in Hawaii's fiscal system from the perspectives of:

- -- vertical balance: whether the costs of expenditure responsibilities are commensurate with the productivity at reasonable rates of the revenue sources available to each level of government;
- -- horizontal balance: whether each county has the ability to provide standard service levels at average tax rates;
- -- the net incidence of the State budget: whether taxes and other revenues collected by the State in a county equal the benefits received in that county from State services; and
- -- the average resident of each county: whether the typical resident in each county is treated similarly by the overall State-local system.

The conceptual bases for these aspects of fiscal balance are discussed in Chapter IV.[1] The analysis of fiscal balance in Hawaii requires a comprehensive review of the fiscal systems of both the county and State governments. This chapter considers each major revenue source and expenditure program of the State and local governments in the overall fiscal system. The estimates are then aggregated to provide the basis for the analysis of fiscal balance.

Table V.1, lines 1-35, shows the actual amounts of the current-operating revenues of the county governments, by source, and current-operating expenditures, by type, in fiscal year 1987. The data used in this chapter, unless otherwise noted, are those compiled by the staff of the Tax Foundation of Hawaii, augmented in certain specific instances by information from the budgets and financial reports of the State and county governments.[2] Table V.2 shows the same information on a per capita basis, and Table V.3 shows the percentage distribution among the counties of each type of revenue and expenditure.

These tables show that the property tax is the largest source of revenues in every county, ranging from $306 per capita in Honolulu, where the tax accounts for 63 percent of the county's own revenues, to $368 per capita in Hawaii, where it accounts for 74 percent of the county's own revenues. The distribution of collections across counties (Table V.3) tends to be roughly proportional to the resident population, except that Honolulu's share is slightly smaller and all of the Neighbor Islands' somewhat larger. Population is a convenient baseline for comparing the distributions of particular revenue and expenditure categories.

Liquor licenses and fees and State aid are received disproportionately by the Neighbor Islands. Federal aid is received disproportionately by Honolulu, which may have something to do with the State's allocation of a disproportionately small amount of State aid to that County. Not every county receives every type of revenue or makes every type of expenditure. Maui and Kauai, for example, have no revenues from parking meters, and only Honolulu (and Hawaii, to a very minor extent) spends for economic development and mass transit.

Lines 36-39 of tables V.1 and V.2 present, on two different bases, the overall fiscal position of each county at the end of FY 1987. All of the counties except Maui have surpluses (after including revenue from the State) equivalent to 1-4 percent of their total expenditure. Maui's deficit is almost 5 percent of its total outlays.[3]

Table V.2, which shows the relative magnitudes of county revenues and expenditures adjusted for differences in population, indicates that, after State revenues, Hawaii has the largest surplus ($22.68). Kauai has the next largest ($14.52), and Honolulu the smallest ($9.00). Maui's per capita deficit is $33.86.

While these tables shed light on the actual policies of the counties and the intergovernmental aid policy of the State in 1987, they tell us little about the fiscal balance among Hawaii's counties and between the counties and the State government. To analyze balance, the accounts must be adjusted to abstract from the differences in the actual policies of the counties. For the analysis of vertical balance, Hawaii's levels of taxation and spending are compared with national averages. For the analysis of horizontal balance, estimates of representative revenues and

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1. The term "fiscal balance" is used differently in this report from the way it has been in the recent debate on balance in a state's revenue system—that is, making use of all major revenue sources in certain proportions.

2. Government in Hawaii, 1988: A Handbook of Financial Statistics (1989).

3. The surpluses and deficits shown in Table V.1 include operating revenues and expenditures only. Thus, they do not necessarily correspond to the reported budget surpluses or deficits of the counties in FY 1987. For example, Maui's financial report for FY 1987 shows an excess of sources over uses of financial resources of $3.6 million in its general and special revenue funds, and an excess of $12.9 million in its combined funds.

TABLE V.1 FINANCES OF THE COUNTY GOVERNMENTS IN HAWAII: ACTUAL REVENUES AND EXPENDITURES, BY COUNTY, FISCAL YEAR 1987 ($ in thousands)

	Total	County			
		Honolulu	Maui	Hawaii	Kauai
	(1)	(2)	(3)	(4)	(5)
Actual Revenues					
1. Total	$680,269	$510,289	$62,460	$73,356	$34,164
Own Revenue					
2. Subtotal	539,493	405,801	51,722	57,119	24,851
3. Real property tax	346,171	254,316	32,573	42,035	17,247
4. Liquid fuel taxes	25,181	18,903	3,102	2,372	804
5. Utility franchise	15,524	11,336	1,777	1,620	791
6. Motor vehicle weight tax	17,799	12,471	2,221	1,829	1,278
7. Liquor licenses & fees	3,688	1,790	935	616	347
8. Parking meter fees	2,699	2,586	—	112	—
9. Other licenses & permits	11,264	8,179	1,391	1,285	409
10. Fines, forfeits & penalties	614	262	337	15	—
11. Departmental earnings	75,678	59,236	8,310	4,526	3,606
12. Miscellaneous	40,875	36,720	1,077	2,709	369
Intergovernmental Revenue					
13. Subtotal	140,776	104,487	10,738	16,238	9,314
14. Revenue from State, Subtotal	42,018	15,636	10,212	10,559	5,610
15. State grants -Act 155	18,173	7,734	2,994	4,328	3,116
16. -TAT grants	12,009	5,172	2,865	2,100	1,872
17. -all other	11,536	2,453	4,333	4,127	622
18. Hawaii Housing Authority	300	277	19	5	—
19. Federal grants-in-aid	98,758	88,851	526	5,678	3,703
Actual Expenditures					
20. Total	$672,564	$502,818	$65,508	$70,764	$33,475
21. General government	72,674	48,661	8,265	9,759	5,989
22. Public safety	164,759	115,022	15,535	25,740	8,462
23. Highways	31,591	19,275	4,800	4,716	2,800
24. Health & sanitation	52,412	43,067	5,026	3,051	1,268
25. Hospitals & institutions	198	—	198	—	—
26. Public welfare	7,512	—	4,353	2,417	742
27. Public schools	551	—	176	254	120
28. Recreation	42,926	30,568	4,163	5,974	2,221
29. Interest	40,951	31,600	2,932	4,983	1,436
30. Bond redemption	22,987	17,665	2,398	1,690	1,233
31. Pension & retirement	51,569	36,837	2,909	8,780	3,043
32. Economic & urban development	19,907	19,907	—	—	—
33. Mass transit	47,837	47,301	—	536	—
34. Miscellaneous	40,755	28,896	4,265	1,823	5,771
35. Cash capital improvements	75,935	64,017	10,487	1,042	389
Actual Net Fiscal Position Without Revenue from the State					
36. Lines 1 - 14 -20	($34,313)	($8,165)	($13,260)	($7,967)	($4,921)
37. Percent of Total Expenditures	(5.1)	(1.6)	(20.2)	(11.3)	(14.7)
Actual Net Fiscal Position Including Revenue from the State					
38. Lines 1 -20	$7,705	$7,471	($3,049)	$2,592	$690
39. Percent of Total Expenditures	1.1	1.5	(4.7)	3.7	2.1

Source: See text.

TABLE V.2 FINANCES OF THE COUNTY GOVERNMENTS IN HAWAII: ACTUAL REVENUES AND EXPENDITURES PER CAPITA, BY COUNTY, FISCAL YEAR 1987

		County			
	Total	Honolulu	Maui	Hawaii	Kauai
	(1)	(2)	(3)	(4)	(5)
Resident Population (7/1/87)	1,082,445	830,600	90,045	114,300	47,500
Actual Revenues					
1. Total	$628.46	$614.36	$693.65	$641.79	$719.25
Own Revenue					
2. Subtotal	496.40	488.56	574.41	499.73	523.18
3. Real property tax	319.81	306.18	361.74	367.76	363.09
4. Liquid fuel taxes	23.26	22.76	34.45	20.75	16.92
5. Utility franchise	14.34	13.65	19.73	14.17	16.64
6. Motor vehicle weight tax	16.44	15.02	24.67	16.00	26.91
7. Liquor licenses & fees	3.41	2.16	10.38	5.39	7.31
8. Parking meter fees	2.49	3.11	—	0.98	—
9. Other licenses & permits	10.41	9.85	15.44	11.25	8.62
10. Fines, forfeits & penalties	0.57	0.32	3.75	0.13	—
11. Departmental earnings	69.91	71.32	92.28	39.60	75.92
12. Miscellaneous	37.76	44.21	11.97	23.70	7.77
Intergovernmental Revenue					
13. Subtotal	130.05	125.80	119.25	142.06	196.08
14. Revenue from State, Subtotal	38.82	18.83	113.41	92.38	118.11
15. State grants -Act 155	16.79	9.31	33.26	37.86	65.61
16. -TAT grants	11.09	6.23	31.82	18.37	39.41
17. -all other	10.66	2.95	48.13	36.11	13.10
18. Hawaii Housing Authority	0.28	0.33	0.21	0.04	—
19. Federal grants-in-aid	91.24	106.97	5.84	49.68	77.96
Actual Expenditures					
20. Total	$621.34	$605.37	$727.51	$619.11	$704.73
21. General government	67.14	58.59	91.79	85.38	126.09
22. Public safety	152.21	138.48	172.53	225.20	178.14
23. Highways	29.19	23.21	53.31	41.26	58.94
24. Health & sanitation	48.42	51.85	55.82	26.69	26.70
25. Hospitals & institutions	0.18	—	2.20	—	—
26. Public welfare	6.94	—	48.35	21.14	15.63
27. Public schools	0.51	—	1.96	2.23	2.54
28. Recreation	39.66	36.80	46.24	52.26	46.75
29. Interest	37.83	38.05	32.56	43.60	30.24
30. Bond redemption	21.24	21.27	26.63	14.79	25.96
31. Pension & retirement	47.64	44.35	32.30	76.81	64.07
32. Economic & urban development	18.39	23.97	—	—	—
33. Mass transit	44.19	56.95	—	4.69	—
34. Miscellaneous	37.65	34.79	47.37	15.95	121.49
35. Cash capital improvements	70.15	77.07	116.47	9.12	8.19
Actual Net Fiscal Position Without Revenue from the State					
36. Lines 1 - 14 -20	($31.70)	($9.83)	($147.26)	($69.70)	($103.59)
Actual Net Fiscal Position Including Revenue from the State					
37. Lines 1 -20	$7.12	$9.00	($33.86)	$22.68	$14.52

Source: Table V.1 and Department of Business and Economic Development, State of Hawaii, Quarterly Statistical & Economic Report.

TABLE V.3 FINANCES OF THE COUNTY GOVERNMENTS IN HAWAII: PERCENTAGE DISTRIBUTIONS OF ACTUAL REVENUES AND EXPENDITURES, BY COUNTY, FISCAL YEAR 1987

	Total	County			
		Honolulu	Maui	Hawaii	Kauai
	(1)	(2)	(3)	(4)	(5)
Resident Population (7/1/87)	100.0%	76.7%	8.3%	10.6%	4.4%
Actual Revenues					
1. Total	100.0	75.0	9.2	10.8	5.0
Own Revenue					
2. Subtotal	100.0	75.2	9.6	10.6	4.6
3. Real property tax	100.0	73.5	9.4	12.1	5.0
4. Liquid fuel taxes	100.0	75.1	12.3	9.4	3.2
5. Utility franchise	100.0	73.0	11.4	10.4	5.1
6. Motor vehicle weight tax	100.0	70.1	12.5	10.3	7.2
7. Liquor licenses & fees	100.0	48.5	25.3	16.7	9.4
8. Parking meter fees	100.0	95.8	—	4.2	—
9. Other licenses & permits	100.0	72.6	12.3	11.4	3.6
10. Fines, forfeits & penalties	100.0	42.7	55.0	2.4	—
11. Departmental earnings	100.0	78.3	11.0	6.0	4.8
12. Miscellaneous	100.0	89.8	2.6	6.6	0.9
Intergovernmental Revenue					
13. Subtotal	100.0	74.2	7.6	11.5	6.6
14. Revenue from State, Subtotal	100.0	37.2	24.3	25.1	13.4
15. State grants - Act 155	100.0	42.6	16.5	23.8	17.1
16. - TAT grants	100.0	43.1	23.9	17.5	15.6
17. - all other	100.0	21.3	37.6	35.8	5.4
18. Hawaii Housing Authority	100.0	92.3	6.2	1.5	—
19. Federal grants-in-aid	100.0	90.0	0.5	5.7	3.7
Actual Expenditures					
20. Total	100.0	74.8	9.7	10.5	5.0
21. General government	100.0	67.0	11.4	13.4	8.2
22. Public safety	100.0	69.8	9.4	15.6	5.1
23. Highways	100.0	61.0	15.2	14.9	8.9
24. Health & sanitation	100.0	82.2	9.6	5.8	2.4
25. Hospitals & institutions	100.0	—	100.0	—	—
26. Public welfare	100.0	—	58.0	32.2	9.9
27. Public schools	100.0	—	32.0	46.2	21.9
28. Recreation	100.0	71.2	9.7	13.9	5.2
29. Interest	100.0	77.2	7.2	12.2	3.5
30. Bond redemption	100.0	76.9	10.4	7.4	5.4
31. Pension & retirement	100.0	71.4	5.6	17.0	5.9
32. Economic & urban development	100.0	100.0	—	—	—
33. Mass transit	100.0	98.9	—	1.1	—
34. Miscellaneous	100.0	70.9	10.5	4.5	14.2
35. Cash capital improvements	100.0	84.3	13.8	1.4	0.5

Source: Tables V.1 and V.2.

expenditures are the bases for comparisons among the counties.

Analysis of Vertical Balance

Hawaii's fiscal system can be said to be vertically balanced if the revenue-raising authority and service responsibilities assigned to each level of government (State and county) are roughly commensurate, without revenue rates or service levels being unusually high or low.

Year-end surpluses or deficits provide a simple measure of vertical balance. In FY 1987, the county governments as a group have an operating surplus of $8 million, and the State a surplus of $78 million. While this would seem to indicate an imbalance of revenues over expenditures at both the State and county levels, it is not possible to draw this conclusion without examining tax and service levels. Also, balanced-budget requirements, by stipulating that revenues meet or exceed expenditures every fiscal year, obscure the relevance of observed budgetary outcomes to an evaluation of vertical balance.

Table V.4 summarizes the finances of Hawaii's State and county governments in FY 1987, per capita and per $1,000 personal income, compared with national averages.[4] This information provides a basis for determining whether Hawaii's revenue or spending levels, either State or local, differ substantially from national averages.

The table indicates that many of the State government's revenue and expenditure levels differ significantly from national averages. In fact, several of the categories differ by 100 percent or more. For example, the State's collections of general sales taxes (the general excise tax) are about 230 percent of the national average, while State spending on the environment and housing is over 260 percent of the average. Outlays for primary and secondary education, of course, differ greatly from the average because this service is delivered and partially financed by local governments elsewhere in the nation. In total, both State revenues and State expenditures are above the national average: State revenues are around 40 percent above, while State expenditures are more than 30 percent above average.

For local revenues and expenditures, however, the picture is the opposite. While also varying from national averages by significant amounts, almost all categories of revenues and expenditures of the counties are below the averages, with the major exceptions of motor vehicle fuel and license taxes and outlays for environment and housing. Total local revenues and total local expenditures are well below national averages, with revenues roughly at 38 percent, and expenditures around 40 percent.

Caution must be used in attributing significance to a comparison of Hawaii's revenue and expenditure levels with those of other states or national averages because state and local governments divide functional responsibilities differently. In Hawaii, in particular, the State performs a number of functions--most notably, elementary and secondary education, but also public welfare and health and hospitals--that, in other states, are to a much greater extent the responsibility of local governments. Thus, it is not surprising that the overall levels of State revenues and expenditures in Hawaii are higher than the national averages, and that local revenues and expenditures are lower.

For the State and local governments combined, Table V.4 shows that Hawaii still deviates substantially from the national average in many categories of revenues and expenditures, although the variations are generally not as extreme as for the State and local governments separately. For example, when both State and local general sales taxes are considered, the ratio of Hawaii's GET collections to the national average drops from 230 percent to 190 percent.

Hawaii's level of spending on primary and secondary education is less than 75 percent of the national average on either a per capita or personal income basis. Overall, both collections and expenditures are higher than the national average, but expenditures are within 5 percent of the national average and revenues are within 7 percent.

State-local fiscal systems also differ because of disparities in revenue bases and expenditure needs. Table V.5 shows Hawaii's State and local expenditures in FY 1987 as percentages of the U.S. average, after adjustment for differences in workloads and input costs among the States.

For example, Hawaii has a smaller workload for primary and secondary education than the average state. Thus, its expenditures rise to 86 percent of the national average when adjusted for workload. Similarly, for the categories of public welfare, health and hospitals, highways, and police and corrections, Hawaii's per capita workloads are smaller than the U.S. average.

Thus, in the categories of public welfare, health and hospitals, and

4. To ensure comparability between revenue and expenditure categories in Hawaii and the nation as a whole, data used in this table are those of the U.S. bureau of Census. The classification system used by Census differs somewhat from the actual accounting systems used by the governments in Hawaii and that of the Tax Foundation of Hawaii used elsewhere in this chapter.

TABLE V.4 FINANCES OF THE STATE AND COUNTY GOVERNMENTS IN HAWAII COMPARED WITH U.S. AVERAGES, PER CAPITA AND AS PERCENTAGES OF PERSONAL INCOME, GENERAL REVENUES AND EXPENDITURES, FISCAL YEAR 1987

	State & Counties		State		Counties	
	Per Capita	Personal Income	Per Capita	Personal Income	Per Capita	Personal Income
	(1)	(2)	(3)	(4)	(5)	(6)
	General Revenues					
Total	107.3%	106.0%	141.4%	139.7%	38.7%	38.2%
Intergovernmental	103.3	102.1	94.4	93.2	24.3	24.0
Federal	103.3	102.1	100.2	99.0	118.4	117.0
State	--	--	--	--	10.9	10.7
Revenue from Own Sources	119.9	118.5	158.9	157.0	31.3	30.9
Property Taxes	64.2	63.4	--	--	66.7	65.9
General Sales Taxes	189.9	187.6	230.8	228.0	--	--
Motor Vehicle Fuel & License Taxes	100.1	98.9	61.5	60.8	969.2	957.2
Income Taxes	131.1	129.4	144.2	142.4	--	--
Other Taxes	89.6	88.5	104.1	102.8	45.3	44.8
Current Charges	103.8	102.5	236.0	233.1	26.1	25.8
Interest Earnings	104.4	103.1	164.8	162.8	41.3	40.8
All Other	31.4	31.0	44.4	43.8	20.6	20.3
	General Expenditures					
Total	105.2	103.9	133.2	131.5	40.7	40.2
Intergovernmental	34.0	33.6	7.0	6.9	--	--
Education	81.4	80.4	299.3	295.6	--	--
Primary & Secondary	73.8	72.9	8,888.7	8,779.2	--	--
Higher	108.9	107.6	129.4	127.8	--	--
Public Welfare	86.7	85.6	111.7	110.4	5.9	5.9
Health & Hospitals	79.2	78.2	161.5	159.5	3.9	3.9
Highways	63.7	62.9	66.9	66.1	58.9	58.1
Police & Corrections	106.2	104.9	135.7	134.1	90.4	89.2
Environment & Housing	154.1	152.2	265.4	262.1	125.7	124.2
Interest on General Debt	141.1	139.4	250.9	247.8	53.3	52.7
Governmental Administration	145.8	144.0	244.5	241.5	84.8	83.7
All Other	61.3	60.6	55.8	55.1	80.5	79.5

Sources: U.S. Bureau of the Census, Government Finances in 1986-87 (November 1988), pp. 46 and 58; and Survey of Current Business (April 1989), pp. 44 and 47.

TABLE V.5 ACTUAL DIRECT GENERAL EXPENDITURES OF THE STATE AND COUNTY GOVERNMENTS IN HAWAII AS PERCENTAGES OF REPRESENTATIVE EXPENDITURES ADJUSTED FOR INPUT-COST DIFFERENCES BY FUNCTION, FY1987

Function	Percentage
Total	117.6%
Primary and Secondary Education	86.3
Higher Education	106.5
Public Welfare	106.8
Health & Hospitals	94.7
Highways	86.8
Police and Corrections	123.7
Environment and Housing	155.8
Interest on General Debt	141.1
Governmental Administration	149.0
All Other	165.2

Source: Robert W. Rafuse, Jr., Representative Expenditures: Addressing the Neglected Dimension of Fiscal Capacity (Advisory Commission on Intergovernmental Relations), forthcoming in 1989.

highways where Hawaii is below average in spending on a per capita and personal-income basis, adjusting for workload raises the State closer to the national average (above the average in the case of public welfare). For the function of police and corrections, where Hawaii is spending above average on a per capita and personal income basis, spending by the State's governments is even higher compared with that of other states when adjusted for workload.

To the extent that comparisons with national averages can be vested with significance, a few conclusions about Hawaii's fiscal system are suggested. On the revenue side, the property tax is significantly underused, while general sales and income taxes are overused. On the expenditure side, outlays are substantially higher than national averages for environment and housing, interest on general debt, governmental administration and, to a lesser extent, higher education and police and corrections. When allowance is made for relative needs for each function, expenditures for public welfare also exceed the U.S. average. For the most part, the functions for which expenditures exceed national averages are largely the responsibility of the State government.

Taken together, these findings suggest a basis for a weak finding of vertical imbalance in Hawaii's system to the disadvantage of the State government. This conclusion is based generally on the findings that the State is using its major taxes at well-above-average rates to fund above-average service levels, while the counties have unutilized potential in their major revenue source, the property tax, and service responsibilities considerably below national averages. The existence of a structural surplus in the State budget is not inconsistent with this finding of vertical imbalance; rather, it suggests that there is room to mitigate the vertical imbalance.

The State's strikingly low level of spending for elementary and secondary education by all three measures considered in this section is the major anomaly in this picture. It has been suggested that the absence of a property-tax contribution to the financing of education may have something to do with this low level of fiscal effort.

Analysis of Horizontal Balance

The approach used in this chapter to evaluate horizontal fiscal balance among Hawaii's counties is based on the "representative" revenue and expenditure methods.[5] Together, these methods generate a measure of the fiscal capacity of a government--its potential ability to raise revenues relative to the cost of its public service responsibilities.

Estimates of representative revenues and expenditures for the four county governments abstract from the current policies of any one of those governments. The estimates, instead, reflect the underlying economic and demographic factors that determine revenue-raising ability and expenditure needs in conjunction with the average, or representative, policies of all the counties as a group. Once the fiscal positions of the counties are estimated in this manner, their relative positions can be analyzed to determine the extent of horizontal balance or imbalance among them.

5. On the representative revenue and expenditure methods, see Advisory Commission on Intergovernmental Relations, 1986 State Fiscal Capacity and Effort, Report No. M-165 (February 1989); and Rafuse, op. cit.

The analysis of representative revenues and expenditures is static, providing estimates of fiscal capacity for a particular time period. This analysis considers fiscal year 1987 because it is the most recent year for which actual fiscal data and necessary economic and demographic data are available. Thus, throughout this analysis all references are to fiscal year 1987, unless otherwise noted.

The usual caveats apply when interpreting the significance of the results of a static analysis. The results necessarily relate to a single year within the longer-term economic cycle, they may be distorted by one-time developments in that year, and they do not reflect policy changes since 1987.

The following sections review the methods used to develop the estimates of representative revenues and expenditures. The estimates relate to the relative abilities of the counties to provide statewide average levels of services at average levels of taxation. Estimates are developed for each of the major county revenue sources and expenditure categories. An analysis of the implications of the resulting estimates for horizontal balance follows.

Representative Revenues

For each major revenue source of the counties, the potential, or representative, yield of that source at statewide average effort is estimated for each county. This is accomplished by applying the statewide average effective "rate" to estimates of a uniformly defined "base" in each county. The resulting yield is the amount a county could raise if it were to adopt the average, or representative, revenue policy.[6] In other words, the estimated yields reflect the capacity of each county to raise revenue from that source, assuming the same policy and quality of administration in every county.

The revenue "base" used for this calculation is intended to approximate the distribution among the counties of the statutory base on which the tax or charge is actually levied. However, it abstracts from actual county policy to the extent that elements of that policy--such as exemptions--understate (or overstate) the base that is potentially taxable. The representative base should not match a particular jurisdiction's policy because a government should not be able to influence its measured capacity, for example, by changing its statutory base. In choosing among available indicators of a tax base, the overriding consideration is that the one selected best reflect the relative potential yield of the revenue source across the counties, since the distribution of the tax base among the counties determines their relative abilities to raise that type of revenue.

In general, the variables selected to measure the bases, or relative abilities of the counties to raise revenues from each source, are comprehensive measures of what could be taxed, subject only to the constraints of federal and State policy applicable to all the counties.[7] In most cases, the variable is, or is close to, an actual tax base. For example, the representative base for county liquid fuel taxes is gallons of liquid fuel purchased for highway use.

In a few cases, however, the best indicator is a variable that would not be used as a statutory tax base, but whose distribution nevertheless approximates the relative distribution among the counties of the revenues that could be raised at any given rate. The use of resident population as the base for licenses and permits is an example. Once the base is chosen,

6. The estimated yields abstract from the actual policy and yield of the revenue source in any individual county, though--as the rate is the statewide average for all counties--the yield is influenced indirectly by the policy of each county. Because there are so few counties in Hawaii, this indirect relationship is stronger than it would be in other states.

7. In the Representative Tax System (RTS) from which this approach is derived, the concept of a representative tax base is defined slightly differently. The bases in that system are sometimes chosen to represent the average actual tax policy choices--including major exemptions--of the states and their local governments, rather than comprehensive measures of what could be taxed. Thus, in the RTS, a representative tax base is one that incorporates state or local tax policy prevailing in more than half of the states actually relying on the source, or in states that include more than 50 percent of the population of the jurisdictions using the revenue source.

This definition presents problems in Hawaii, however. If the "50-percent rule" were applied, Honolulu's policy would always be "representative" because its population accounts for over 3/4 of the total population in the state. This would conflict with the principle of abstracting from any one county's actual policies. If "representative" were defined as prevalent, so that a policy in use in a majority (three or more) of the counties defined the base, it would be possible to have a situation where the "representative" policy was different from the actual policy affecting the vast majority of the population. In short, because of the small number of counties and the population distribution in Hawaii, neither of these options is satisfactory.

The definition of a representative base as one that comprehensively measures what could be taxed is consistent with the concept of the RTS. The RTS attempts to measure the relative revenue-raising ability of governments from all potential sources of revenue. What distinguishes the representative approach from other measures of revenue-raising capacity is the identification of separate tax bases and the assignment to them of different weights (determined by the actual revenues derived from each source, which--in turn--determine the average effective rates to be applied to the bases). Using a comprehensive, rather than a narrower, measure of what could be taxed meets all these criteria and has the additional advantage of being simpler to understand and operationalize.

the representative rate is determined by dividing total actual revenues from the source by the total base for all the counties. To the extent that the representative base is broader (or narrower) than the statutory base actually used by the counties, the representative rate will be lower (or higher) than the average actual tax rate.

The estimates of representative revenues are shown in lines 1-19 of Table V.6. The percentage distributions of the representative revenues among the counties are presented in the same line of Table V.7, and the representative estimates are compared with actual revenues in Table V.8. Appendix V-1 describes the major revenue sources used by Hawaii's county governments in 1987 and, for each, identifies the base and source of the data used to calculate the representative yields.

For example, the base used to estimate the potential yield of the property tax in each county is the gross assessed value of land and improvements net of the assessed value of federal and State property. Table V.7 shows the percentage distribution of this tax base and the estimated revenue yield among the counties. For this and most of the other revenue sources, Honolulu's share of the total statewide revenue yield is smaller than its share of resident population. In other words, Honolulu's shares of the tax bases are such that it would collect a smaller amount per resident than would the Neighbor Island counties if all used the same tax rates.

In contrast, Maui and Kauai would collect far larger shares of property tax and other revenues than their respective shares of the total population. Hawaii's shares of the property tax and other revenue bases are slightly higher than its share of resident population.

When the distribution of total revenue is compared with de facto population rather than resident population, the pattern among the counties is the same, but the gaps between revenue shares and population shares are narrowed for all counties except Hawaii. Examples of cases where the distribution of potential yields shows a different pattern are fines, forfeits, and penalties and miscellaneous revenues, for which personal income is the base, and intergovernmental revenues, where actual revenues are used.

Representative Expenditures

The cost to each county of providing the statewide average level of public services for which the counties are responsible under State law or the counties elect, on average as a group, to provide under county law is estimated by the representative expenditure method.[8]

The approach involves identifying a "workload" measure for each major category of expenditures. The measure indicates the approximate scope of the service that must be provided, or the relative "need" for the service, by county. The percentage distribution of the workload measure among the counties for a service is then applied to the statewide total of county expenditures for that function. This produces an estimate of the representative expenditure level, or the cost of providing the statewide average level of the service, in each county.

Three important assumptions underlie the approach. The first is that all four county governments operate at comparable efficiency (that is, that the real resource cost of producing a unit of a given service is the same in all counties). Second, the approach assumes that the unit cost of producing different quantities of the service is constant (that there are no economies or diseconomies of scale in the production of the service). There is little or no evidence in Hawaii to support any other assumptions. If economies of scale do exist, however, the much-larger scale of production in Honolulu means that this approach tends to overestimate the cost of services in Honolulu relative to the other counties.

Finally, the approach assumes that the prices of the goods and services the counties buy do not vary significantly among the islands. Uniformity of input prices is an especially reasonable premise in Hawaii because the major factor used to produce public services--labor--is uniformly priced in all counties as a result of statewide collective bargaining.

The expenditure categories, workload measures, and data used to calculate the estimates of representative expenditures are detailed in Appendix V-2. The estimates, their percentage distributions among the counties, and comparisons with actual expenditures are shown in lines 20-35 of tables V.6, V.7, and V.8.

Many of the workload measures used in the estimation of representative expenditures incorporate the concept of de facto population as the service population. For example, for recreation and health and sanitation, de facto population is the workload measure. For public safety and mass transit, de facto population is combined with other variables in the workload measure.

The workload measures for highways, public schools (bus service),

8. The basic concepts underlying this method are outlined in Chapter IV.

TABLE V.6 FINANCES OF THE COUNTY GOVERNMENTS IN HAWAII: ESTIMATES OF REPRESENTATIVE REVENUES AND EXPENDITURES, BY COUNTY, FISCAL YEAR 1987 ($ in thousands, except per capita)

	Total	County			
		Honolulu	Maui	Hawaii	Kauai
	(1)	(2)	(3)	(4)	(5)
Actual Revenues					
1. Total	$680,269	$489,324	$78,823	$73,895	$38,228
Own Revenue					
2. Subtotal	539,493	384,836	68,086	57,658	28,915
3. Real property tax	346,171	240,900	48,845	37,260	19,167
4. Liquid fuel taxes	25,181	17,473	2,834	3,380	1,494
5. Utility franchise	15,524	11,367	1,708	1,619	830
6. Motor vehicle weight tax	17,799	12,638	2,017	2,131	1,014
7. Liquor licenses & fees	3,688	2,275	577	525	311
8. Parking meter fees	2,699	1,938	302	313	146
9. Other licenses & permits	11,264	8,643	937	1,189	494
10. Fines, forfeits & penalties	614	493	47	52	23
11. Departmental earnings	75,678	56,272	7,712	7,756	3,938
12. Miscellaneous	40,875	32,837	3,107	3,433	1,498
Intergovernmental Revenue					
13. Subtotal	140,776	104,487	10,738	16,238	9,314
14. Revenue from State, Subtotal	42,018	15,636	10,212	10,559	5,610
15. State grants -Act 155	18,173	7,734	2,994	4,328	3,116
16. -TAT grants	12,009	5,172	2,865	2,100	1,872
17. -all other	11,536	2,453	4,333	4,127	622
18. Hawaii Housing Authority	300	277	19	5	—
19. Federal grants-in-aid	98,758	88,851	526	5,678	3,703
Actual Expenditures					
20. Total	$672,564	$493,507	$66,019	$79,383	$33,653
21. General government	72,674	55,765	6,046	7,674	3,189
22. Public safety	164,759	119,812	16,539	20,751	7,657
23. Highways	31,591	20,348	3,857	5,223	2,163
24. Health & sanitation	52,412	38,972	5,341	5,372	2,727
25. Hospitals & institutions	198	152	15	23	8
26. Public welfare	7,512	5,621	614	936	340
27. Public schools	551	51	101	346	53
28. Recreation	42,926	31,918	4,374	4,399	2,234
29. Interest	40,951	30,450	4,173	4,197	2,131
30. Bond redemption	22,987	17,092	2,343	2,356	1,196
31. Pension & retirement	51,569	39,571	4,290	5,445	2,263
32. Economic & urban development	19,907	13,759	1,907	3,213	1,028
33. Mass transit	47,837	32,260	5,291	7,362	2,925
34. Miscellaneous	40,755	31,273	3,390	4,303	1,788
35. Cash capital improvements	75,935	56,463	7,738	7,783	3,951
Representative Fiscal Position Without Revenue from the State					
36. Lines 1 - 14 -20	($34,313)	($19,820)	$2,592	($16,048)	($1,036)
37. Per Capita	($31.70)	($23.86)	$28.79	($140.40)	($21.80)
38. Percent of Total Expenditures	(5.1)	(4.0)	3.9	(20.2)	(3.1)
Representative Fiscal Position With Actual Revenue from the State					
39. Lines 1 -20	$7,705	($4,184)	$12,804	($5,488)	$4,575
40. Per Capita	$7.12	($5.04)	$142.20	($48.02)	$96.31
41. Percent of Total Expenditures	1.1	(0.8)	19.4	(6.9)	13.6

Source: See text.

TABLE V.7 FINANCES OF THE COUNTY GOVERNMENTS IN HAWAII: PERCENTAGE DISTRIBUTIONS OF REPRESENTATIVE REVENUES AND EXPENDITURES, BY COUNTY, FISCAL YEAR 1987

		County			
	Total	Honolulu	Maui	Hawaii	Kauai
	(1)	(2)	(3)	(4)	(5)
Resident Population (7/1/87)	100.0%	76.7%	8.3%	10.6%	4.4%
De Facto Population (1987)	100.0%	74.4%	10.2%	10.2%	5.2%
Actual Revenues					
1. Total	100.0	71.9	11.6	10.9	5.6
Own Revenue					
2. Subtotal	100.0	71.3	12.6	10.7	5.4
3. Real property tax	100.0	69.6	14.1	10.8	5.5
4. Liquid fuel taxes	100.0	69.4	11.3	13.4	5.9
5. Utility franchise	100.0	73.2	11.0	10.4	5.3
6. Motor vehicle weight tax	100.0	71.0	11.3	12.0	5.7
7. Liquor licenses & fees	100.0	61.7	15.6	14.2	8.4
8. Parking meter fees	100.0	71.8	11.2	11.6	5.4
9. Other licenses & permits	100.0	76.7	8.3	10.6	4.4
10. Fines, forfeits & penalties	100.0	80.3	7.6	8.4	3.7
11. Departmental earnings	100.0	74.4	10.2	10.2	5.2
12. Miscellaneous	100.0	80.3	7.6	8.4	3.7
Intergovernmental Revenue					
13. Subtotal	100.0	74.2	7.6	11.5	6.6
14. Revenue from State, Subtotal	100.0	37.2	24.3	25.1	13.4
15. State grants - Act 155	100.0	42.6	16.5	23.8	17.1
16. - TAT grants	100.0	43.1	23.9	17.5	15.6
17. - all other	100.0	21.3	37.6	35.8	5.4
18. Hawaii Housing Authority	100.0	92.3	6.2	1.5	--
19. Federal grants-in-aid	100.0	90.0	0.5	5.7	3.7
Actual Expenditures					
20. Total	100.0	73.4	9.8	11.8	5.0
21. General government	100.0	76.7	8.3	10.6	4.4
22. Public safety	100.0	72.7	10.0	12.6	4.6
23. Highways	100.0	64.4	12.2	16.5	6.8
24. Health & sanitation	100.0	74.4	10.2	10.2	5.2
25. Hospitals & institutions	100.0	76.7	7.6	11.6	4.0
26. Public welfare	100.0	74.8	8.2	12.5	4.5
27. Public schools	100.0	9.3	18.3	62.8	9.6
28. Recreation	100.0	74.4	10.2	10.2	5.2
29. Interest	100.0	74.4	10.2	10.2	5.2
30. Bond redemption	100.0	74.4	10.2	10.2	5.2
31. Pension & retirement	100.0	76.7	8.3	10.6	4.4
32. Economic & urban development	100.0	69.1	9.6	16.1	5.2
33. Mass transit	100.0	67.4	11.1	15.4	6.1
34. Miscellaneous	100.0	76.7	8.3	10.6	4.4
35. Cash capital improvements	100.0	74.4	10.2	10.2	5.2

Source: Tables V.2 and V.6.

TABLE V.8 FINANCES OF THE COUNTY GOVERNMENTS IN HAWAII: ACTUAL REVENUES AND EXPENDITURES AS PERCENTAGES OF REPRESENTATIVE, BY COUNTY, FISCAL YEAR 1987

	Total	County			
		Honolulu	Maui	Hawaii	Kauai
	(1)	(2)	(3)	(4)	(5)
Representative Revenues					
1. Total	100.0%	104.3%	79.2%	99.3%	89.4%
Own Revenue					
2. Subtotal	100.0	105.4	76.0	99.1	85.9
3. Real property tax	100.0	105.6	66.7	112.8	90.0
4. Liquid fuel taxes	100.0	108.2	109.5	70.2	53.8
5. Utility franchise	100.0	99.7	104.0	100.1	95.2
6. Motor vehicle weight tax	100.0	98.7	110.1	85.8	126.1
7. Liquor licenses & fees	100.0	78.7	162.0	117.3	111.6
8. Parking meter fees	100.0	133.5	**	35.9	**
9. Other licenses & permits	100.0	94.6	148.4	108.1	82.9
10. Fines, forfeits & penalties	100.0	53.1	723.0	28.1	**
11. Departmental earnings	100.0	105.3	107.7	58.4	91.6
12. Miscellaneous	100.0	111.8	34.7	78.9	24.6
Intergovernmental Revenue					
13. Subtotal	100.0	100.0	100.0	100.0	100.0
14. Revenue from State, Subtotal	100.0	100.0	100.0	100.0	100.0
15. State grants - Act 155	100.0	100.0	100.0	100.0	100.0
16. - TAT grants	100.0	100.0	100.0	100.0	100.0
17. - all other	100.0	100.0	100.0	100.0	100.0
18. Hawaii Housing Authority	100.0	100.0	100.0	100.0	**
19. Federal grants-in-aid	100.0	100.0	100.0	100.0	100.0
Representative Expenditures					
20. Total	100.0	101.9	99.2	89.1	99.5
21. General government	100.0	87.3	136.7	127.2	187.8
22. Public safety	100.0	96.0	93.9	124.0	110.5
23. Highways	100.0	94.7	124.4	90.3	129.4
24. Health & sanitation	100.0	110.5	94.1	56.8	46.5
25. Hospitals & institutions	100.0	**	1,320.4	**	**
26. Public welfare	100.0	**	708.9	258.1	218.1
27. Public schools	100.0	**	174.3	73.5	227.2
28. Recreation	100.0	95.8	95.2	135.8	99.4
29. Interest	100.0	103.8	70.3	118.7	67.4
30. Bond redemption	100.0	103.4	102.4	71.7	103.1
31. Pension & retirement	100.0	93.1	67.8	161.2	134.5
32. Economic & urban development	100.0	144.7	**	**	**
33. Mass transit	100.0	146.6	**	7.3	**
34. Miscellaneous	100.0	92.4	125.8	42.4	322.8
35. Cash capital improvements	100.0	113.4	135.5	13.4	9.8
Actual Net Fiscal Position as Percentage of Representative Net Fiscal Position Without Revenue from the State					
36. Lines 1 -14 -20	100.0%	41.2%	-511.5%	49.6%	475.1%
Actual Net Fiscal Position as Percentage of Representative Net Fiscal Position With Actual Revenue from the State					
37. Lines 1 -20	100.0%	-178.6%	-23.8%	-47.2%	15.1%

** Actual revenues or expenditures are zero.

Source: Tables V.1 and V.6.

economic and urban development, and mass transit have components relating to service area. Thus the distributions of representative expenditures for these services show significantly different patterns from those for most of the others.

The percentage distributions of total expenditure needs in Table V.7 correspond more closely to the county shares of de facto population than to resident population. Table V.7 shows that, while Honolulu's share of potential revenues is smaller than its share of population, its share of expenditure needs--although larger--is also smaller than its population share. Similarly, the expenditure needs of Maui and Kauai are higher than their respective shares of resident population and closer to their shares of de facto population. Hawaii's expenditure needs exceed its share of both population measures by significant amounts.

Implications of the Estimates for Horizontal Balance

Lines 36-41 of Table V.6 provide the information necessary to analyze the horizontal balance of county finances. According to these estimates, in aggregate the counties would be in a deficit position of $34 million ($32 per capita) if they financed the statewide average level of county services using only county revenue sources and federal intergovernmental revenue (that is, if they received no State aid).

Of the four counties, three would be in deficit in the absence of State aid. The deficits would be $19.8 million ($24 per capita) for Honolulu, $16 million ($140 per capita) for Hawaii, and $1 million ($22 per capita) for Kauai. Maui would enjoy a surplus of $2.6 million ($29 per capita, nearly 4 percent of its representative expenditures).

To put it another way, the public expenditures needed in each county (except Maui) to provide average service levels would exceed the amount of revenue those counties could raise at average tax rates, given their underlying tax bases, need for services, and existing federal aid. Maui, on the other hand, could provide average services with average taxes without any State aid.

Lines 39-41 show that, after State aid, the counties collectively experienced a surplus of $7.7 million, $7 per capita, or 1.1 percent of aggregate county budgets.

The key issue for this analysis is the relative position of the counties after State aid. Honolulu and Hawaii remain in a deficit position, Honolulu by about $4.2 million ($5 per capita, 0.8 percent of total expenditures) and Hawaii by about $5.5 million ($48 per capita, 6.9 percent of its expenditures). In other words, even after the State aid, Honolulu and Hawaii could not provide average levels of service with average taxes.

On the other hand, Maui's surplus, which is $2.6 million before State aid, increases to $12.8 million ($142 per capita), and Kauai goes from a deficit to a surplus of $4.6 million ($96 per capita). Maui and Kauai, in other words, could provide service levels substantially higher than average (19 percent and 14 percent, respectively) with average tax rates, or average levels of services at tax rates comparably below average.

The actual amounts raised and spent by each county are compared with the representative amounts in Table V.8. This table shows that, in fact, Maui and Kauai provide services very close to average with significantly below-average taxes. Hawaii taxes at near-average levels and provides a level of services more than 10 percent below average. Honolulu both taxes and provides services at slightly above-average levels.

Thus the analysis of representative revenues and expenditures indicates that, in terms of county finances before State aid, Hawaii's fiscal system is not horizontally balanced. Lines 36-41 of Table V.6 show that the State aid received by the counties does not eliminate the imbalances. In fact, in the case of Maui the aid is disequalizing--going to a county that could, with its own resources, provide average levels of services and taxes, rather than to the other counties, which could not. Whether these imbalances exceed acceptable levels of imbalance is a matter for State policymakers to decide. Chapter VIII presents options, including better targeting of State aid, for mitigating or eliminating the horizontal imbalance among the counties, should this be determined to be desirable.

Analysis of the Net Incidence of the State Budget

Another way of looking at Hawaii's fiscal system is to consider the distribution among the counties of the net benefits of the State budget. This requires estimates of the incidence among the counties of actual State government revenues and expenditures. To the extent that the taxes and other revenues collected by the State in a county fall short of the benefits received in that county from State services, the county receives net benefits from the State budget.[9]

In the following pages, estimates are developed of the incidence among the counties of State revenues and the distribution of the benefits of State

9. Exporting to non-residents is not accounted for separately in this analysis. Revenues paid and services received by county area are implicitly assumed to cost or benefit, respectively, the residents of the county.

expenditures. The methods used to develop the estimates are presented separately for revenues and expenditures. An analysis of the net incidence of the State budget concludes this section.

Incidence of State Revenues. The analysis measures the incidence--or origin--of each major source of State revenue by county area. The incidence is determined by the distribution of the base of each source among the counties, since State law applies uniformly across the counties. This assumes, of course, that the State administers its revenue system equally across the counties.[10]

Looked at another way, the analysis yields estimates of the amount of revenues that each county could raise if it, rather than (or in conjunction with) the State, used each of the revenue sources. The accuracy of the estimates from this perspective depends on the validity of the assumption that each county could administer the revenue sources at the same (or lower) cost than that incurred by the State under current law. If the counties could not do so, the assumption essentially is that they could meet the condition by contracting with the State to administer the revenue source.

The analysis measures the incidence of each revenue source in one of two ways. Where actual State collections appear to reflect the true incidence of the source by county (as, for example, with the public service companies and transient accommodations taxes), they are used.

In most cases, however, the incidence is estimated by the tax base or a proxy. For the unemployment compensation tax, for example, the actual base--covered payroll--is used. For the corporation income tax, however, a proxy formula is used consisting of three, equally weighted factors: the assessed value of commercial and industrial property, sales, and payroll.[11]

The bases and data used to allocate the incidence of State revenues among the counties are detailed in Appendix V-3. The estimates and percentage distributions of the incidence of State revenues are shown in tables V.9 and V.10.

The distributions of the incidence of the revenue sources take a variety of patterns. For many of the sources--including the individual income, corporate income, unemployment compensation, and general excise taxes--the incidence estimates show Honolulu (and Maui, in some cases) with payments that are disproportionately larger than their shares of the population. The allocation of the bank and financial corporations tax is even more skewed toward Honolulu.

On the other hand, the estimates for the transient accommodations tax and the earnings of public service enterprises (airports and harbors) show Maui with a disproportionately large share of the incidence. The estimates reflect the disproportionate endowment of Big Island with income from rents, royalties, and land.

The State government's interest earnings are not allocated to the counties. The revenue from this source originates not only within the State but also--to an unknown degree--throughout the nation, and even the world. More importantly, the interest payments result from voluntary market transactions, and cannot be regarded as burdening the geographical area where they originate.

Overall, Honolulu's share of State revenues is smaller than its share of the resident population but close to its share of the de facto population. Maui's share of State revenues is higher than its share of resident population but lower than that of its de facto population. The State revenue shares of both Hawaii and Kauai are below those of their

10. The analysis does not attempt to allocate the incidence of the revenue sources to the residents of each county, which would also require estimating the amount of each revenue source that was exported to non-residents. Rather, the purpose of the analysis is to allocate the incidence of the State revenues among the counties in proportion to their relative tax bases, without regard to the final incidence of the revenue sources.

11. Where the State levy is a flat rate, the distribution of the base among the counties is an excellent approximation of the actual revenue incidence, since the State revenue is the base multiplied by the same rate in every county. Most of the State taxes, including the general excise tax and the transient accommodations tax, are flat-rate taxes.

Where the tax is levied at graduated rates, the method abstracts from reality but without serious distortions. The primary graduated revenue source in Hawaii is the individual income tax, which makes up 19 percent of State revenue. The only other graduated revenue source of concern here is the corporation income tax, which accounts for only 2 percent of State revenue.

The variable used to allocate the incidence of the individual income tax is personal income. By using the distribution of total income as the base, the distribution of income among the counties among the State income tax brackets is not taken into account. However, unless the distribution of personal income among the brackets differs significantly among the counties, the assumption of a flat-rate tax should not bias the incidence estimates significantly.

While direct information on the income distribution in each of Hawaii's counties is not available, related evidence suggests that disparities in the income distribution are relatively small. For one, the distribution of the poverty population is roughly proportional to the resident population of each county. Second, the range in average income between counties in Hawaii is the lowest in the country, with the exception of Rhode Island. Therefore, the method of allocating the incidence of State revenues using an implicit flat rate tax should yield reasonably realistic results.

TABLE V.9 FINANCES OF THE STATE GOVERNMENT IN HAWAII: ACTUAL REVENUES, ESTIMATES OF INCIDENCE BY COUNTY OF ORIGIN, FISCAL YEAR 1987 ($ in thousands)

	Total	County			
		Honolulu	Maui	Hawaii	Kauai
	(1)	(2)	(3)	(4)	(5)
100. Total	$2,874,057	$2,143,652	$257,136	$250,304	$120,120
Own Revenue: Taxes					
101. Individual income	542,315	435,667	41,227	45,542	19,879
102. Corporation income	61,517	48,556	6,825	4,050	2,086
103. Unemployment compensation	76,056	61,780	5,995	5,451	2,830
104. General excise	817,937	655,580	75,324	59,727	27,307
Specific Excise Taxes					
105. Public service companies	61,792	50,441	4,810	4,839	1,701
106. Liquid fuel	47,846	34,940	4,906	5,605	2,394
107. Motor vehicle weight	17,820	12,370	2,095	2,311	1,044
108. Liquor -a	130,169	96,790	13,265	13,341	6,773
109. Tobacco	19,060	14,172	1,942	1,953	992
110. Insurance	35,949	28,880	2,733	3,019	1,318
111. Specific excises NEC -b	1,496	1,202	114	126	55
Other Taxes and Licenses					
112. Transient accommodations	23,519	15,498	4,728	1,985	1,308
113. Banks & financial corps.	15,276	13,833	629	553	262
114. Inheritance & estate	5,178	3,721	640	553	265
115. Realty conveyance	3,622	2,482	621	374	145
116. Licenses and fees	3,457	2,599	335	360	164
117. Other taxes NEC -c	719	578	55	60	26
Own Revenue: Other Than Taxes					
118. Fines & forfeitures	12,873	9,572	1,312	1,319	670
119. From other agencies	13,480	10,829	1,025	1,132	494
120. Rents/royalties/land	24,666	5,222	2,670	12,084	4,689
121. Earnings -general depts.	209,960	161,110	17,466	22,171	9,213
122. -auxiliary ents.	30,962	24,873	2,354	2,600	1,135
123. -pub. ser. ents.	137,475	68,904	29,723	21,002	17,846
124. Interest earned	102,849	N/A	N/A	N/A	N/A
125. Miscellaneous	74,428	59,792	5,658	6,250	2,728
Intergovernmental Revenue					
126. Federal grants-in-aid	403,636	324,260	30,685	33,896	14,795

a. $95.622 million in this category is revenue realized that had been held in escrow pending the resolution of Bacchus v. Freitas.

b. The subtotals in column 3 of Table 12 of the Hawaii Tax Foundation's Handbook are used as controls. Accordingly, the revenue on this line is the difference between the subtotal in Table 12 and the sum of the amounts for the specific taxes (lines 105-11)in the class for which data are available anywhere in the Handbook.

c. The revenue on this line is the difference between the subtotal in Table 12 for this class and the amounts for the specific taxes (lines 113-16)in the class for which data are available anywhere in the Handbook.

Source: Tax Foundation of Hawaii, Government in Hawaii, 1988: A Handbook of Financial Statistics (1989), tables 12, 13, and 15; Tax Research & Planning, Department of Taxation, State of Hawaii, "State Tax Collections and Distribution, Year Ending June 30, 1987" (July 23, 1987), unpublished table; and see text.

TABLE V.10 FINANCES OF THE STATE GOVERNMENT IN HAWAII: PERCENTAGE DISTRIBUTIONS OF ESTIMATES OF THE INCIDENCE OF ACTUAL REVENUES BY COUNTY OF ORIGIN, FISCAL YEAR 1987

		County			
	Total	Honolulu	Maui	Hawaii	Kauai
	(1)	(2)	(3)	(4)	(5)
Resident Population (7/1/87)	100.0%	76.7%	8.3%	10.6%	4.4%
De Facto Population (1987)	100.0	74.4	10.2	10.2	5.2
100. Total	100.0	74.6	8.9	8.7	4.2
Own Revenue: Taxes					
101. Individual income	100.0	80.3	7.6	8.4	3.7
102. Corporation income	100.0	78.9	11.1	6.6	3.4
103. Unemployment compensation	100.0	81.2	7.9	7.2	3.7
104. General excise	100.0	80.2	9.2	7.3	3.3
Specific Excise Taxes					
105. Public service companies	100.0	81.6	7.8	7.8	2.8
106. Liquid fuel	100.0	73.0	10.3	11.7	5.0
107. Motor vehicle weight	100.0	69.4	11.8	13.0	5.9
108. Liquor	100.0	74.4	10.2	10.2	5.2
109. Tobacco	100.0	74.4	10.2	10.2	5.2
110. Insurance	100.0	80.3	7.6	8.4	3.7
111. Specific excises NEC	100.0	80.3	7.6	8.4	3.7
Other Taxes and Licenses					
112. Transient accommodations	100.0	65.9	20.1	8.4	5.6
113. Banks & financial corps.	100.0	90.6	4.1	3.6	1.7
114. Inheritance & estate	100.0	71.9	12.4	10.7	5.1
115. Realty conveyance	100.0	68.5	17.1	10.3	4.0
116. Licenses and fees	100.0	75.2	9.7	10.4	4.7
117. Other taxes NEC	100.0	80.4	7.6	8.3	3.6
Own Revenue: Other Than Taxes					
118. Fines & forfeitures	100.0	74.4	10.2	10.2	5.2
119. From other agencies	100.0	80.3	7.6	8.4	3.7
120. Rents/royalties/land	100.0	21.2	10.8	49.0	19.0
121. Earnings -general depts.	100.0	76.7	5.3	10.6	4.4
122. -auxiliary ents.	100.0	80.3	7.6	8.4	3.7
123. -pub. ser. ents.	100.0	50.1	21.6	15.3	13.0
124. Interest earned	100.0	N/A	N/A	N/A	N/A
125. Miscellaneous	100.0	80.3	7.6	8.4	3.7
Intergovernmental Revenue					
126. Federal grants-in-aid	100.0	80.3	7.6	8.4	3.7

Source: Table V.7.

resident and de facto populations.

Incidence of State Expenditures. The estimates are of the distribution among the counties of the benefits of each public service provided by the State. The total dollar value of the benefits from a service is assumed to equal total actual outlays for the service. For each category of expenditures, an "index of benefit" that approximates the distribution among the counties of the total statewide benefits of the service is used to estimate the benefits received by each county from the service.[12]

The methods used to estimate the distribution of the benefits of State expenditures are detailed in Appendix V-4. The distributions are actual expenditures where available (for example, for public education and unemployment compensation payments) or proxy measures (such as poverty population for public welfare and de facto population for recreation). The estimated apportionment of State operating expenditures is shown in Table V.11, and the percentage distributions of the benefits are provided in Table V.12.

The distributions of the benefits from State services tend to be more uniform and more closely related to population shares than the distribution of revenues paid to the State. One exception is higher education, where, because of the location of community colleges and the college-age population, Honolulu receives a larger share of the benefits than its share of the general population. Other exceptions are in spending for airports and harbors (the category of utilities and other enterprises) because of the locations of and traffic at those facilities, and in grants-in-aid to counties, the distribution of which is governed by explicit State policy.

Overall, Honolulu's share of the benefits from State expenditures is slightly less than proportional to its resident and de facto populations; Maui's is higher than its share of resident population but smaller than its share of de facto population. The shares of Hawaii and Kauai are larger than their respective shares of resident population and larger than (Hawaii) or equal to (Kauai) their shares of de facto population.

Analysis of the Net Incidence of State Finances. Lines 148-150 of Table V.11 show the net incidence of State government revenues and expenditures by county. The State's overall surplus of $77.6 million means that, in FY 1987, it collected $72 per capita more in revenues that it spent. Similarly, the positive net incidence of $87 million for Honolulu indicates that the State collected more revenue in that county ($105 per capita) than the value of the services it provided to the county.

On the other hand, the negative net incidences estimated for Maui, Hawaii, and Kauai mean that those counties received services from the State government with higher value than the amounts of revenue collected by the State within their boundaries. Hawaii County was the most advantaged. It received $77 million ($670 per capita) in net benefits, Kauai realized $26 million ($552 per capita) in net benefits, and Maui $10 million ($108 per capita).

While the net incidence of State government finances is not equal among the counties, this is not necessarily an imbalance that should be corrected. Depending on the policy of the State, it may be appropriate to provide a higher level of services to, and take a smaller share of revenues from, a county with relatively higher needs or relatively less taxpaying ability than another. If the State budget is to be balanced, this, of course, also requires that some counties have a negative net incidence (revenues collected exceeding benefits received) to support the redistribution.

Analysis of Balance from the Perspective of the Average Resident of Each County

This section considers the net benefits to the typical resident of each county from both the county and State governments. The analysis assumes that the average resident of a county experiences a net benefit when the per capita value of the governmental services provided by the State and county government exceed the per capita revenues paid to the State and county, and a net cost when revenues paid exceed the value of services rendered.

Balance from the point of view of the resident differs from balance from the point of view of a government because a resident's welfare is increased when the value of the public services he or she enjoys exceeds the price paid in taxes and charges.

From the perspective of a government, on the other hand, an excess of expenditures over revenues is a deficit, which is generally considered poor budgeting practice and is not sustainable over multiple budget periods. Therefore, a negative number represents a government budget deficit, but is a net benefit from the point of view of the average resident.

The net benefit to the average resident of a county in Hawaii in FY

12. As with the allocation of State revenues, the goal of this exercise is to allocate the benefits of State expenditures to county areas, rather than to individuals. Thus, benefits received by visitors are allocated to the county in which those benefits are estimated to have been received.

TABLE V.11 FINANCES OF THE STATE GOVERNMENT IN HAWAII: ACTUAL EXPENDITURES, APPORTIONED AMONG THE COUNTIES IN PROPORTION TO ESTIMATED BENEFITS, FISCAL YEAR 1987 ($ in thousands, except per capita)

		County			
	Total	Honolulu	Maui	Hawaii	Kauai
	(1)	(2)	(3)	(4)	(5)
127. Total	$2,796,506	$2,056,415	$266,895	$326,871	$146,325
128. General government	191,092	146,632	15,896	20,178	8,386
129. Public safety	103,916	77,269	10,590	10,650	5,407
130. Highways	72,270	46,386	8,781	12,068	5,036
131. Natural resources	22,808	16,959	2,324	2,338	1,187
132. Health & sanitation	118,025	87,760	12,028	12,096	6,142
133. Hospitals & institutions	97,677	74,951	8,125	10,314	4,286
134. Public welfare	341,357	261,549	24,484	42,975	12,349
135. Education - higher	314,310	253,697	22,010	25,892	12,711
136. - public education	476,298	345,669	43,861	61,824	24,943
137. - libraries, etc.	24,613	17,593	2,112	3,399	1,509
138. Recreation	15,994	11,893	1,630	1,639	832
139. Utilities & other ents.	161,055	80,722	34,821	24,605	20,907
140. Debt service	275,602	204,929	28,086	28,246	14,341
141. Retirement & pension	133,221	102,225	11,082	14,067	5,846
142. Employees' h/h insurance	640	491	53	68	28
143. Unemployment compensation	53,496	38,334	5,588	7,294	2,281
144. Grants-in-aid to counties	31,373	13,416	6,090	6,682	5,185
145. Urban redevel. & housing	222,340	170,357	15,948	27,992	8,043
146. Miscellaneous	49,297	37,827	4,101	5,205	2,163
147. Cash capital improvements	91,121	67,755	9,286	9,339	4,742
Net Incidence of State Government Finances					
148. Lines 100 -127	$77,551	$87,237	($9,760)	($76,567)	($26,205)
149. Per Capita	$71.64	$105.03	($108.39)	($669.88)	($551.68)
150. Percent of expenditures	2.8	4.2	(3.7)	(23.4)	(17.9)
Net Costs (Benefits) of Combined State-Local Fiscal System: Actuals					
151. Lines V.1/38 + 148	$85,256	$94,708	($12,808)	($73,974)	($25,515)
152. Per Capita	$78.76	$114.02	($142.24)	($647.19)	($537.16)
Net Costs (Benefits) of Combined State-Local Fiscal System: State Actuals; Counties, Statewide Average Services and Tax Rates					
153. Lines V.5/39 + 148	$85,256	$83,053	$3,044	($82,055)	($21,630)
154. Per Capita	$78.76	$99.99	$33.81	($717.89)	($455.37)

Source: Tax Foundation of Hawaii, Government in Hawaii, 1988: A Handbook of Financial Statistics (1989), Table 35.

1987 is calculated by adding the value of actual State and county services provided to a county area in that year and subtracting the value of actual State and county revenues collected from the county area in that year. The results of this calculation are displayed in lines 151 and 152 of Table V.11. Line 152 shows that the average resident of Hawaii County received the largest net benefits from State and county government--$647. The average resident of Kauai received net benefits of $537, and the average Maui resident enjoyed net benefits of $142.

Only Honolulu residents experienced a net burden from their State and local governments. The average resident of Honolulu paid $114 more in taxes and fees than he or she received in benefits in 1987.

As the net benefits received by typical residents of each county in 1987 varied substantially, imbalances from the perspective of the average resident of each county also existed. However, such imbalances may be legitimate if the counties desire different levels of services and taxation in county policy, and have different needs and taxpaying capabilities for State government services. The extent of the differences in the net benefits that is not accounted for by these variables is the matter for policy concern.

The Outlook for Long-Run Fiscal Balance

The long-run balance of a fiscal system depends on whether, in general, revenues and expenditures grow at roughly similar rates for government. Assuming the fiscal system is in balance to begin with, balance will be maintained if the receipts generated by a government's existing revenue structure (without increases in rates or other discretionary actions) plus receipts received from other governments rise in step with the growth in expenditures required to maintain the services provided under existing law. This definition of fiscal balance applies to a government's finances before policy changes in revenue-raising or service provision are considered.

The outlook for fiscal balance in Hawaii depends in large part on the economic and demographic outlook for the State and the individual counties. The potential impacts of these factors on the fiscal system are reviewed in Chapter III of this report. A detailed analysis of the outlook for the State and individual county fiscal systems would be desirable for purposes of the deliberations of the Tax Review Commission, but such an analysis lies beyond the scope, resources, and time available for the present study.[13]

13. Is Hawaii's Tax System Adequate? Staff Report (Tax Review Commission, State of Hawaii, first draft, August 1989).

V-1 APPENDIX: CALCULATION OF COUNTY REPRESENTATIVE REVENUES

Each major tax and other revenue source relied upon by Hawaii's county governments in 1987 is described in this appendix, and the "base" and data used to estimate representative yields are identified. Where a more appropriate base cannot be identified, or data are not available to estimate the distribution of the better base, resident personal income is used. Personal income is a reasonable default because nearly all revenues are ultimately paid out of personal income, and because personal income has a long history as a standard measure of revenue-raising ability.

1. Total Revenue. The estimate of the total representative revenue yield for each county is the sum of the estimates for all of the revenue sources discussed below.

2. Subtotal, Own Revenue. This category is the total of all taxes, fees, and other revenue received by counties from their own sources. It excludes all State and federal intergovernmental revenue.

3. Real Property Tax (50.9 percent of total county revenues). The statutory base of the property tax is the assessed value of land in its highest and best use and improvements, except as provided for in dedications and net of authorized exemptions. The representative base is the gross assessed valuation of land and improvements less the assessed value of property owned by the federal and State governments and the Hawaiian Homes Commission. The data are from Real Property Tax Valuations, Tax Rates, & Exemptions, 1986-87 Tax Year, State of Hawaii, prepared by the Real Property Assessment Division, Property Technical Office, Department of Finance, City and County of Honolulu (July 1986). The gross assessed values, exemptions for government property, and net assessed values after such exemptions are shown in Table V.13.

Ideally, the representative base for this tax would be the market value of all real property in each county potentially taxable under State and federal law. Direct estimates of market values are unavailable, however.

The best available approximation is assessed values. The accuracy of these data as an indicator of the potential property tax bases of the counties depends on the uniformity of assessment practices across the counties. Although current law requires property to be assessed at 100 percent of fair market value, actual practice falls short of this goal. If significant disparities in average assessment-market ratios exist among the counties, the accuracy of assessments as a proxy for the potential property tax base will be distorted accordingly. (See Chapter VI for further discussion of this issue.) The present analysis assumes that assessment practices are reasonably uniform across the counties and that the assessed values are, therefore, reasonably accurate indicators of the relative property tax bases of the counties.

The representative base should exclude the value of property the counties are legally unable to tax, specifically, property exempted by federal or State law. For this reason, the total assessed value of property owned by the federal and State governments is subtracted from gross assessed values in arriving at the potential base. Property exempted

TABLE V.13 ASSESSED VALUES BY COUNTY, 1987 ($ in millions)

	Total	Honolulu	Maui	Hawaii	Kauai
	(1)	(2)	(3)	(4)	(5)
	Amounts				
Gross Assessed Value	$52,814	$38,643	$6,430	$5,197	$2,543
Exemptions:					
Federal Government	2,360	2,322	6	20	13
State Government	6,611	5,825	239	444	104
Hawaiian Homes Commission	55	24	7	21	3
Net Assessed Value	43,789	30,472	6,179	4,713	2,424
	Percent of Gross Assessed Value				
Gross Assessed Value	100.0%	100.0%	100.0%	100.0%	100.0%
Exemptions:					
Federal Government	4.5	6.0	0.1	0.4	0.5
State Government	12.5	15.1	3.7	8.5	4.1
Hawaiian Homes Commission	0.1	0.1	0.1	0.4	0.1
Net Assessed Value	82.9	78.9	96.1	90.7	95.3

Source: City and County of Honolulu, Department of Finance, Real Property Assessment Division, Real Property Tax Valuations, Tax Rates, & Exemptions, 1986-1987Tax Year, State of Hawaii (July 1986).

under the authority of the Hawaiian Homes Commission is also excluded because this exemption is established by federal law.

Property owned by a county government is unlikely to be taxed by that government, as it would be no more than a transfer from one pocket to another, but such taxation is not prohibited by State or federal law. Moreover, the amount of property owned by a county is a direct result of county policy, and a key premise of this analysis is abstraction from county policy. This argues for including property owned by the county governments in the representative base. The importance of including county-owned property in the base is underscored by the substantial variability among the counties in the proportion of gross assessed value represented by such property:

Statewide	Honolulu	Maui	Hawaii	Kauai
2.8%	3.3%	2.1%	1.0%	1.7%

State law also currently provides for numerous exemptions and dedications--of which the largest is the exemption for homeowners--that reduce the property tax base. These exemptions as a percentage of total assessed values vary significantly among the counties:

Statewide	Honolulu	Maui	Hawaii	Kauai
13.4%	14.3%	8.4%	14.1%	10.9%

Since November 7, 1989, the counties have not been required by State law to exempt these properties. Hence this analysis treats these properties as potentially taxable by the counties and includes them in the representative tax base. (Estimates of the revenue that would be forgone by each county if it were to maintain the homeowner and other exemptions, either wholly or partially, appears in Chapter VI of this report.)

4. Liquid Fuel Taxes (3.7 percent of total county revenues). State law distinguishes eight classes of liquid fuel, specifying separate tax rates for each. However, the counties tax only three classes of such fuel: gasoline, diesel fuel purchased for highway use, and liquid petroleum gas purchased for highway use. While tax rates per gallon vary among the counties, they all impose a higher rate on gasoline and diesel fuel than on liquid petroleum gas.

The representative base for this revenue source is the total gallons of liquid fuels purchased for highway use (including gasoline), as reported in Table 504 of The State of Hawaii Data Book, 1988 (Department of Business and Economic Development, State of Hawaii, November 1988), hereafter cited as Hawaii Data Book, 1988. This approach abstracts from the fact that the three types of fuel are taxed at significantly different rates (varying from 3 cents per gallon in Hawaii and Kauai for liquid petroleum gas to 8 cents per gallon in Maui for gasoline and diesel fuel). The assumption of uniform rates would not be acceptable if there were major differences in the mix of sales of the three types of fuel among the counties. In such event, it would be essential to consider the three types separately.

In this case, however, separate analysis of the three types of tax base would make little difference. One consideration is that gasoline makes up 94 percent of the statewide tax base (over 93 percent of the base in every county), and liquid fuel revenues are less than 4 percent of total county revenues. Distributing the other 6 percent of the tax base differently would have little effect on the overall estimates of relative revenue yield. Moreover, the average tax per gallon of diesel oil and liquid petroleum gas is nearly identical to the average tax on gasoline (6.8 cents versus 6.9 cents). It follows that the estimated yield from liquid fuel taxes would be almost identical whether the potential yields of the three types of fuel taxes were estimated separately or in combination.

5. Utility Franchise Tax (2.3 percent of total county revenues). This tax is levied on the gross operating income of electric and gas companies. The representative base is the total revenues of electric and gas utilities, reported in Hawaii Data Book, 1988, tables 498 and 500.

6. Motor Vehicle Weight Tax (2.6 percent of total county revenues). The statutory base of this tax on passenger and commercial vehicles is the weight of the vehicle. The ideal representative base would thus be actual total weight of all vehicles by county. In the absence of direct data on this variable, the available data are used to estimate the total vehicle weight in each county.

The Hawaii Data Book, 1988 reports the total number of taxable vehicles in the State by type (for example, passenger vehicles, buses, and motorcycles) and empty weight (Table 529). This information can be combined with data in Table 527 on vehicle registrations by type and county to arrive at an estimate of the approximate pounds of vehicle weight in each county.

Specifically, for each type of vehicle, the midpoint of each weight range shown in Table 529 and the number of vehicles in each range are used to calculate an average weight for each type of vehicle. (For purposes of this calculation, the average weight for vehicles under 2,000 pounds is

assumed to be 1,500, and the averageweight for vehicles 10,000 pounds and over is assumed to be 11,000.) The average weight for each type of vehicle is then applied to the number of vehicles of that type in each county (from Table 527) to calculate an estimate of the total pounds of vehicles in each county.

7. Liquor Licenses and Fees (0.5 percent of total county revenues). These revenues are derived from businesses licensed to manufacture or sell beverage alcohol. The representative base is the number of annual manufacturing, wholesale, retail, dispenser, and special liquor licenses in force as of July 1989, as reported by each county's Department of Liquor Control or Liquor Commission.

The choice of actual licenses as the representative base does not normalize the effects of the different licensing policies of the counties. Nevertheless, the variable is the best available indicator of the potential base from which revenues can be raised. The U.S. Census Bureau's County Business Patterns series, which publishes a count by SIC code of business establishments in each county, is another possible data source. With the exception of a subcategory of wholesale trade, however, the SIC categories are not useful for the purpose of distinguishing businesses with liquor licenses from those without.

As with liquid fuel taxes, this revenue source is actually made up of a number of bases with different rates. For example, the fees for hotels are higher than those for general dispensers. The representative rate is a weighted average of the actual mix of rates. It would be desirable to subdivide the base into various categories of licenses--for example, manufacturing, retailing, and wholesaling licenses--if the mix of establishments varied significantly among the counties. This does not appear to be the case, so the base is not segmented. In every county, dispenser licenses make up around half of all licenses (the range is from 43 percent in Hawaii to 52 percent in Honolulu). Retail licenses account for 39-46 percent of the total, special licenses (for hotels, cabarets, clubs, and tours and cruises) 7-12 percent, and wholesale and manufacturing licenses less than 4 percent.

8. Parking Meter Fees (0.4 percent of total county revenues). The representative base is the total number of passenger vehicles registered in each county (Hawaii Data Book, 1988, Table 527). Other possible bases are actual revenues and the number of parking meters, but both of these options are heavily influenced by county policy. In order to be neutral with respect to county policy on use of meters and the level of fees, the number of passenger vehicle registrations is used. This base would appear to be closely correlated with the potential for revenue from parking meters because essentially all the revenue would come from passenger vehicles registered in the county, including those owned by rental firms. Given the geography of Hawaii, vehicles registered in one county are not likely to contribute significantly to parking meter revenues in another county.

A consideration in developing this base is whether rental vehicles should be weighted more heavily than non-rental vehicles. Drivers of rental cars may be more likely to visit the kinds of locations where meters would be likely to be installed. If evidence were available verifying this behavior, it would be appropriate to weight them more heavily than other vehicles in the base. No evidence appears to be available on the behavior of operators of rental vehicles in Hawaii, however, so all passenger vehicles are weighted equally.

9. Other Licenses and Permits (1.7 percent of total county revenues). The major components of this category are non-business licenses and permits--including building, street, and related permits, motor vehicle licenses and fees, and animal licenses. Licenses and permits collected from businesses--such as health licenses for food and hotel establishments and police and protective licenses for firearms, fireworks, and tobacco--make up only 1 percent of the revenues in this category. Thus, the variable used as an indicator of the potential base for these licenses and permits is resident population [Quarterly Statistical & Economic Report, 4th Quarter (1988), Research and Economic Analysis Division, Department of Business and Economic Development, State of Hawaii (1989), Table 8-1].

10. Fines, Forfeits, and Penalties (0.1 percent of total county revenues). This category encompasses a variety of minor revenue sources. Roughly half the revenues are penalties and interest due on property tax bills in the County of Maui. The other significant component of this category is Liquor Commission fines in the counties of Honolulu and Maui. Because the makeup of this category is so varied and because the amount of revenues is so small as to have a negligible effect on the overall outcome of the analysis, resident personal income (the default base) is used. The source of the data is Survey of Current Business (April 1989), p. 47.

11. Departmental Earnings (11.1 percent of total county revenues). This category consists of a wide range of revenues earned by various county departments. The revenues are of three general types: service charges, interest earnings, and rents and concessions. The distribution of actual revenue in these classes among the counties is shown in Table V.14.

Because this is a large and diverse category of revenues, it would be possible to use different representative rates and bases for its different elements if one base did not accurately reflect the overall distribution of revenue-raising potential for the category. In this case, however, de facto population is arguably the best variable for almost all the components. It is therefore used as the base for the entire category. The source is Quarterly Statistical & Economic Report, 3rd Quarter (1988), Research and Economic Analysis Division, Department of Business and Economic Development, State of Hawaii (1989), Table 8-2.

The revenue potential of service charges for garbage collection and disposal, sanitation services, and cultural/ recreational admissions is clearly related to the size of the population present at a given time, including visitors. Other service charges, including fees for plan review or motor vehicle safety inspections, may be paid initially by residents or local businesses but ultimately depend on the size of the de facto population and economy.

Interest earnings are assumed to be generated primarily from short-term investments, largely a function of the size of a county's overall budget, which is also related to the size of the de facto population and economy. If interest earnings were predominantly from longer-term investments of accumulated fund balances, it would be important to identify a base reflecting the relative size of those balances. Finally, revenue from rents and concessions is derived from both residents and visitors; hence, de facto population is an appropriate base for this element also.

12. Miscellaneous (6.0 percent of total county revenues). This category includes revenues from a variety of sources, including private contributions, reimbursements from the State for county services, recovery of monies from various operations, and sales of assets. Furthermore, different elements are included in this category for each of the counties, and the proportion of total revenues accounted for varies from 1.1 percent in Kauai to 7.2 percent in Honolulu. Because of the diverse character of the category, the default variable, resident personal income, is used as the base.

13. Subtotal, Intergovernmental Revenue. This category is the total of all State and federal intergovernmental revenue received by the counties.

14. Revenue from State, Subtotal. This category is the total of revenue received from the State government.

15-19. Intergovernmental Revenue (20.7 percent of total county revenues). Intergovernmental revenue from the State consists of grants distributing GET and TAT revenues to the counties and other cash grants for county operating expenditures, as well as some small amounts passed through the Hawaii Housing Authority. The percentage distribution among the counties of the total of these grants in 1987 is:

Statewide	Honolulu	Maui	Hawaii	Kauai
100.0%	37.2%	24.3%	25.1%	13.4%

Intergovernmental revenue from the federal government in 1987 is distributed as follows:

Statewide	Honolulu	Maui	Hawaii	Kauai
100.0%	90.0%	0.5%	5.7%	3.7%

TABLE V.14 DEPARTMENTAL EARNINGS OF COUNTY GOVERNMENTS, BY COUNTY, FY 1987 ($ in thousands)

Type	Total	Honolulu	Maui	Hawaii	Kauai
	(1)	(2)	(3)	(4)	(5)
Total	$75,678	$59,236	$8,310	$4,526	$3,606
Charges for Services					
Garbage Coll. & Disp.	4,094	3,525	569	--	--
Sanitation Services	38,238	31,741	4,700	904	894
Culture/Rec. Fees	3,404	2,305	24	509	567
Other Services	4,411	2,501	748	886	276
Interest Earnings	16,570	11,302	2,149	2,207	912
Rents & Concessions	8,639	7,863	120	20	636
Unallocable	321	--	--	--	321

Source: Tax Foundation of Hawaii, Government in Hawaii, 1988 (1989) and unpublished detail.

No attempt is made to define a representative base for these sources of intergovernmental revenue. Rather, the actual revenues received from the State and the federal government are used because the amounts of these revenues are almost entirely beyond the control of county governments. Since State and federal policies are taken as fixed in the analysis of the representative revenues of the counties, the potential yield from this source is best represented by the actual receipts of the counties.

V-2 APPENDIX: CALCULATION OF COUNTY REPRESENTATIVE EXPENDITURES

This appendix details the expenditure categories and the workload measures used in the calculation of county representative expenditures. The default workload measure is resident population, the standard measure used to compare service needs on which this analysis attempts to improve.

Besides resident population, another population concept commonly used in Hawaii is de facto population, which is intended to measure the number of people actually present in the State or a county at a given time. It is calculated by adding the average daily visitor census to resident population and subtracting the number of absent residents. De facto population is superior to resident population as a workload measure for certain services, such as recreation and sanitation, for which the number of people present at a given time is the primary determinant of the level of services needed.

Another population concept, which might be called "super" population, is total resident population plus visitors (or de facto population without the exclusion of absent residents). "Super" population may be the relevant workload measure for such types of expenditures as natural resource preservation, the benefits of which accrue to residents, whether present in the jurisdiction or not, and visitors.

Table V.15 shows the differences in numbers and percentage distributions of the three population concepts among the counties. Because the percentage distributions of de facto population and "super" population are so similar, it makes little practical difference in Hawaii which of the two measures is used as a workload measure. Thus, the more widely recognized measure, de facto population, is used in the analysis.

TABLE V.15 ANALYSIS OF RESIDENT/VISITOR POPULATION CONCEPTS, 1987

	Total	Honolulu	Maui	Hawaii	Kauai
	(1)	(2)	(3)	(4)	(5)
	Numbers				
"Super" Population	1,216,770	905,260	123,790	124,610	63,110
De Facto Population	1,201,000	893,100	122,400	123,100	62,500
Resident Population	1,082,500	830,600	89,900	114,400	47,600
Residents Absent	15,770	12,160	1,390	1,510	610
Visitor Average	134,270	74,660	33,890	10,210	15,510
	Percentage Distributions				
"Super" Population	100.00%	74.40%	10.17%	10.24%	5.19%
De Facto Population	100.00	74.36	10.19	10.25	5.20
Resident Population	100.00	76.73	8.31	10.57	4.40
Residents Absent	100.00	77.11	8.81	9.58	3.87
Visitor Average	100.00	55.60	25.24	7.60	11.55

Note: "Super" population is resident population plus the average daily visitor census.

De Facto population is resident population minus absent residents plus the average daily visitor census.

Source: Department of Business and Economic Development, The State of Hawaii Data Book, 1988: A Statistical Abstract (November 1988), p. 197; Department of Business and Economic Development, Quarterly Statistical & Economic Report -State of Hawaii (3rd Quarter 1988), p. 50.

20. Total Expenditures. The estimate of total representative expenditures for each county is the sum of the estimates of representative expenditures for the specific categories.

21. General Government (10.8 percent of total county expenditures). This category includes expenditures for general government operations, including the mayor's office and county council, and for staff operations including financial administration, legal services, and planning and zoning. These services are, for the most part, fixed overhead costs related to the size of the government, the benefits of which accrue to the citizenry as a whole. Hence, the workload measure for this category is resident population.

22. Public Safety (24.5 percent of total county expenditures). This category has three major components: police, fire, and other protection. State-wide, police expenditures make up about 58 percent of these outlays, fire 28 percent, and other protection 15 percent, as shown in Table V.16.

TABLE V.16 ACTUAL EXPENDITURES FOR PUBLIC SAFETY OF COUNTY GOVERNMENTS, BY COUNTY, FY 1987 ($ in thousands)

	Total	Honolulu	Maui	Hawaii	Kauai
	(1) Amount	(2)	(3)	(4)	(5)
Total	$164,759	$115,022	$15,535	$25,740	$8,462
Police	94,838	68,153	9,073	13,252	4,361
Fire	45,931	31,325	4,025	7,409	3,173
Other	23,990	15,544	2,438	5,080	928
	Percentage Distributions				
Total	100.0%	100.0%	100.0%	100.0%	100.0%
Police	57.6	59.3	58.4	51.5	51.5
Fire	27.9	27.2	25.9	28.8	37.5
Other	14.6	13.5	15.7	19.7	11.0

Source: Tax Foundation of Hawaii, Government in Hawaii, 1988 (1989), and unpublished detail.

Representative expenditures for public safety are estimated separately for each of these components.

The workload measure for police expenditures is a combination of (1) de facto population, adjusted for density; (2) the number of violent crimes reported; and (3) the male population age 18-24. The variables are equally weighted. These indicators are chosen because each reflects considerations that contribute to the relative need for public safety services.

Density-adjusted de facto population is calculated by multiplying each county's de facto population by the ratio of its de facto population per acre of non-agricultural and non-conservation land to the statewide density, calculated the same way. (Acreage by land-use class is from the Hawaii Data Book, 1988, Table 184.) This variable is included because the need for police services is generally linked to the total number and density of people, including tourists, in the area served. In fact, if tourists disproportionately contribute to the need for spending for public safety--for example, if they are more vulnerable to crime than residents--then they should be weighted more heavily than residents.

Data in Table 118 of the Hawaii Data Book, 1988 on major offenses reported to police per 100,000 population in Oahu and Kauai suggest that visitors in Honolulu are more likely to be victims of crime (both violent crime and property crime) than residents. In Kauai, however, residents are slightly more likely than visitors to experience both types of crime. This mixed evidence is further confounded by the likelihood that visitors are more disposed than residents to report crime. Because no clear evidence is available on this point, no attempt is made to weight visitors more heavily than residents.

The level of violent behavior also determines the need for police services. The number of violent crimes (including murder, forcible rape, robbery, and aggravated assault) is used as an indicator for this factor. Although these data [from Hawaii Criminal Justice Data Center, Department of the Attorney General, State of Hawaii, Crime in Hawaii, 1987 (May 1988), Table 3A] are influenced by actual police practices, reporting procedures, and expenditures for protective services--all elements of policy from which a workload measure should abstract--they are the best data available.

The more serious the crime, the more likely it is to be reported, and reporting for the arguably most serious crime of all--murder--is widely acknowledged to be virtually complete. Thus the number of murders would generally be the best possible indicator of violent crime. Because of the small number of murders in Hawaii (2 in Maui and 0 in Kauai in 1987, for example), however, these data alone are an unreliable indicator of the relative incidence of violent behavior among the counties. Thus the broader, and more statistically stable, measure of violent crimes is employed.

The number of males age 18-24 is a common indicator of an area's potential for a wide range of serious crimes, as well as less serious types of behavior that also require police activity.[1] In 1986, nearly one-third of all those arrested nationally were 18-24 years old, though persons in this age group were less than 12 percent of the total population.[2] Hence this population group is included as an indicator of another dimension of the

1. For example, see Burt Solomon, "Fewer Teenagers Means Fewer Crimes," National Journal, Vol. 18 (March 8, 1986), p.553.

2. U.S. Bureau of the Census, Statistical Abstract of the United States, 1988 (December 1987), pp. 13 and 165.

need for police services.

Representative expenditures for the function of fire prevention and control are distributed on the equally weighted basis of de facto population, de facto population adjusted for density (calculated in the same manner as for police expenditures), and square miles. These variables capture the elements of population, density, and area that relate to the need for fire protection services.

Other protective public safety services include traffic control, liquor control, and civil defense. This subcategory is distributed on the basis of de facto population, since these services benefit visitors as well as residents.

23. Highways (4.7 percent of total county expenditures). Maintenance costs are the principal element of this category of operating expenditures. Other elements, including equipment costs, administrative costs such as planning and design, and construction costs are relatively minor by comparison. The workload measure for this function is the sum of the percentage distributions of: (1) total annual vehicle miles traveled in 1987 (from the Hawaii Data Book, 1988, Table 538) and (2) total miles of county-maintained roads (data provided by the Hawaii State Department of Transportation).

Both of these variables are related to the maintenance expenditures required by the deterioration of highways. Deterioration attributable to traffic is represented here by vehicle miles traveled, and deterioration attributable to time and the weather is approximated by the stock of county highways. It is assumed that virtually all county-maintained roads have only two lanes, so adjustment for variability among the counties in lane mileage is not necessary. The two variables are weighted 0.825 and 0.175, respectively, in rough proportion to their contributions to highway deterioration over time.[3] Since the climate in all the counties is virtually identical, no account need be taken of differential rates of deterioration due to that source.

The workload measure relating to vehicle miles traveled would be improved by an adjustment reflecting the rapid escalation in damage to pavement as vehicle weight increases. The data necessary for this refinement are not currently available.

24. Health and Sanitation (7.8 percent of total county expenditures). The principal activities encompassed by this function are sewerage and solid waste collection and disposal. The workload measure is de facto population, since the need for sewerage and refuse services is related to the total population present, not just to the number of permanent residents.

25. Hospitals and Institutions (0.03 percent of total county expenditures). This category consists entirely of certain social service grants made by the County of Maui. The workload measure is the number of persons in poverty in 1979; the data are from the 1980 Census, the most recent available on the incidence of poverty by county in Hawaii. The percentages of individuals in poverty in each county reported in Table 420 of the Hawaii Data Book, 1988 are multiplied by resident population by county in 1979 (1980 data are used for Kalawao) from Department of Business and Economic Development, State of Hawaii, The Population of Hawaii, 1980-1986, Statistical Report 201 (September 21, 1987) tables 5 and 7, to obtain the number of persons in poverty in 1979 by county.

26. Public Welfare (1.1 percent of total county expenditures). This category includes special services provided to the elderly, as well as other social service programs. The workload measure for this function is the mean of the distributions of the number of persons in poverty in 1979 and the population aged 65 and over.

27. Public Schools (0.1 percent of total county expenditures). Although the State government is responsible for public education, some school busing is provided by the counties and these outlays account for the bulk of this category. The workload measure is public school enrollment, weighted by the inverse of the ratio of enrollment per square mile to the statewide average. This assigns a higher workload to large, less-densely populated counties than to smaller, more-densely populated ones. The workload measure uses actual enrollments rather than school-age population because enrollments are a function of State education policy, and State policy is taken as given in the estimation of county representative expenditures.

28. Recreation (6.4 percent of total county expenditures). This category includes outlays for parks, swimming pools, golf courses, and other recreational facilities and programs. The workload measure is de facto population because these services are used by residents and visitors alike.

29. Interest (6.1 percent of total

3. See Robert W. Rafuse, Jr., Representative Expenditures: Addressing the Neglected Dimension of Fiscal Capacity, draft, Advisory Commission on Intergovernmental Relations (May 18, 1989).

county expenditures). The need for county outlays for interest is determined by the amount of capital borrowing. In order to be neutral with respect to a county's choice of financing capital expenditures with cash or by borrowing, the same workload measure is used for both categories of expenditures. Since the need for capital spending is related to the size of the total daily population and the economy, de facto population is the workload measure.

30. Bond Redemption (3.4 percent of total county expenditures). As in the case of interest expenditures, actual repayments of the principal amounts of county bonds depend on the policies that defined the borrowing that occurred in the past. Thus, in order to ensure policy neutrality, de facto population is the workload measure.

31. Pension and Retirement (7.7 percent of total county expenditures). These expenditures are contributions to the State employee retirement system for county employees. They are determined by the size and compensation of the county government workforce. Because these factors are matters of county policy, they cannot be used as workload measures. Rather, the workload measure is resident population in recognition that--like general government expenditures--pension and retirement outlays are fixed, overhead costs needed to provide governmental services to the county's citizenry.

32. Economic and Urban Development (3.0 percent of total county expenditures). Actual expenditures in this category consist of housing development, job training, community development and redevelopment, and outlays funded by other federal programs, all in the City and County of Honolulu. The measure used to define the relative need for such expenditures among the counties is an equally weighted combination of (1) acres of urban land-use districts, (2) poverty population, and (3) resident population.

Acres of urban land-use districts is used as an indicator of the potential area and urban character of the services in this category. Data on the distribution of this measure are from the Hawaii Data Book, 1988, Table 186. The population in poverty is used because many of the services included in this category are targeted to the poverty population or some fraction or multiple of it. Resident population is a factor because the indirect benefits from such expenditures are also related to total population.

33. Mass Transit (7.1 percent of total county expenditures). This category consists almost entirely of outlays for mass transit by the City and County of Honolulu. The workload measure is the average of the distributions among the counties of (1) acres of urban land-use districts, and (2) de facto population, adjusted for density. The former variable relates to the potential service area for mass transit, and the latter to the potential demand for the service.

34. Miscellaneous (6.1 percent of total county expenditures). This category consists mainly of such general government expenditures as employees' and other insurance, workers' compensation contributions, and provisions for judgments and losses. Since these outlays relate to the fixed overhead costs of government, the workload measure is resident population.

35. Cash Capital Improvements (11.3 percent of total county expenditures). The workload measure for cash capital improvements, as for interest and bond redemption, is de facto population. The same workload measure is used for capital improvements financed by cash as for those financed by borrowing in order to be neutral with respect to a county's choice of financing methods. Since the level of capital expenditures tends to be related to the size of the total daily population and economy, de facto population is the appropriate choice for a workload measure.

V-3 APPENDIX: ESTIMATION OF THE INCIDENCE AMONG THE COUNTIES OF STATE REVENUES

This appendix explains the variables and data used to estimate the incidence of State revenues among the counties. The data on the origins of tax collections by taxation district (county) compiled by the State Department of Taxation are used where these data are judged to reflect the true incidence of a tax by county. For a number of the State taxes, however, the filings and collections recorded by district do not reflect the location of the taxed activity by county. For these taxes, such as the GET and the corporate income tax, other sources must be used. As in the analysis of county revenues, the default base is personal income.

100. Total. The combined incidence of State revenues by county is calculated by summing the incidence estimate for each of the categories below.

101. Individual Income Tax (19.0 percent of total State revenues). This tax is levied on the net incomes of individuals at rates of 2.25-10.0 percent of taxable income. Total resident personal income is used to estimate the incidence of this tax among the counties.

102. Corporation Income Tax (2.2 percent of total State revenues). This is a graduated tax of three brackets levied as a percentage of the net income of corporations. A three-factor formula equally weighing property, sales, and payroll is used to allocate the incidence of this tax among the counties. This approach is similar in concept to that used by many states to allocate corporate income for tax purposes.

Property is measured by the gross assessed values of commercial, industrial, and hotel/resort property in 1987. The data are from Real Property Assessment Division, Department of Finance, City and County of Honolulu, Real Property Tax Valuations, Tax Rates, & Exemptions, 1986-1987 Tax Year, State of Hawaii (July 1986). Sales are as estimated in Bank of Hawaii, Hawaii 1988: Annual Economic Report, and payroll is the total wages of employees covered by the Hawaii Employment Security Law and unemployment compensation for federal employees as reported in the Hawaii Data Book, 1988, Table 375.

103. Unemployment Compensation Tax (2.7 percent of total State revenues). This tax on employers is levied on wages and salaries paid. The tax is allocated to the counties on the basis of total covered payroll, from the Hawaii Data Book, 1988, Table 375.

104. General Excise and Use Tax (28.6 percent of total State revenues). This tax is levied on the gross income, gross receipts, or gross proceeds of nearly all business activities. Gross receipts from some activities--including retailing, business and professional services, contracting, and rentals--are taxed at 4 percent. Gross revenues from other activities--including wholesaling, manufacturing, and sugar processing and producing--are taxed at 0.5 percent. Insurance commissions are taxed at 0.15 percent. Revenue from general excise licenses and fees is also included in this category.

The percentage contributions to total GET revenues in 1987 by the major taxed activities are:[4]

Total	100.0%
Retailing	46.5
Services	14.3
Contracting	9.9
Rentals Other than Hotel	10.2
Hotel Rentals	6.7
Wholesaling	3.0
All Other	9.4

The method used to allocate the proceeds from the GET among the counties is to estimate the incidence of each of the major categories for which data on an appropriate allocator exist, and to allocate the remaining portion by personal income. (Department of Taxation data on GET collections by county are not used because they do not accurately reflect the distribution of taxable activity. For example, businesses owing general excise tax on revenues derived from more than one county file their payments in the Honolulu taxation district, thereby overstating the incidence of the tax in Honolulu and understating it in the other counties.)

GET revenues from retailing (46.5 percent of the total) are allocated to the counties on the basis of 1987 retail sales (Bank of Hawaii estimates). GET services revenues (14.3 percent of the total) are allocated among the counties on the basis of the 1987 receipts of service establishments with payroll and subject to federal income tax [from U.S. Bureau of the Census, 1987 Census of Service Industries, Hawaii (August 1989)]. Hotel rental revenues (6.7 percent) are allocated to the counties in proportion to TAT receipts (Department of Taxation data), and wholesaling revenues (3.0 percent) are allocated on the basis of wholesale trade [U.S. Bureau of the Census, 1987 Census of Wholesale

4. Tax Foundation of Hawaii, Government in Hawaii, 1988 (1989).

Trade, Hawaii (August 1989)]. The remaining 29.5 percent is distributed among the counties on the basis of personal income.

105. Public Service Companies Tax (2.2 percent of total State revenues). This tax is levied on the gross income of public utilities, including passenger transportation firms, motor carriers, common carriers by water, and contract carriers. Because gross proceeds are reported by island, the Department of Taxation data on collections are used.

106. Liquid Fuel Taxes (1.7 percent of total State revenues). As discussed above for county liquid fuel taxes, the State distinguishes eight classes of liquid fuel for taxation purposes. As with the county taxes, each class of liquid fuel is taxed on a gallonage basis. Department of Taxation data on collections by district, based on the location of the distributor, are used.

107. Motor Vehicle Weight Tax (0.6 percent of total State revenues). This tax, like the county motor vehicle weight tax, is levied on passenger and commercial motor vehicles according to the weight of the vehicle. Motor vehicle registration fees are also included in this category. Since this revenue is collected by the counties, Department of Taxation data reflecting the distribution of county receipts are used.

108. Liquor Tax (4.5 percent of total State revenues). The State imposes a tax per wine-gallon of distilled spirits, sparkling wines, still wines, cooler beverages, and beer. Liquor permits are also included in this category. The incidence of these revenues is allocated among the counties by de facto population because both residents and visitors are consumers of alcoholic beverages. $95.6 million of the total is the result of a one-time, lump-sum release of revenues from escrow due to the resolution of a court case, Bacchus v. Freitas. This amount is distributed in the same manner as the base amount; however, the presence of this one-time revenue source in the FY 1987 "snapshot" overstates the relative importance of the liquor tax in State revenues.

109. Tobacco Tax (0.7 percent of total State revenues). This tax is imposed on wholesalers at 40 percent of the wholesale price of all tobacco products. Tobacco licenses are also included in this category. The incidence of these revenues is allocated to the counties by de facto population because both residents and visitors are consumers of tobacco products.

110. Insurance Premiums Tax (1.3 percent of total State revenues). The base of this tax is gross premiums received by insurance companies. Collections of this tax are allocated among the counties on the basis of personal income because income and insurance premiums are closely correlated.

111. Specific Excise Taxes NEC (0.1 percent of total State revenues). The incidence of this residual set of taxes is assigned to the counties by the default variable, personal income.

112. Transient Accommodations Tax (0.8 percent of total State revenues). This tax is levied at the rate of 5 percent on the gross rental proceeds derived from furnishing transient accommodations of less than 180 days. Revenue from transient accommodations fees is also included in this category. Because these revenues are required to be reported by island, Department of Taxation data are used.

113. Banks and Financial Corporations Tax (0.5 percent of total State revenues). This tax is imposed on the net income of banks, building and loan associations, industrial loan companies, and other financial corporations. The distribution of 1987 bank debits (from Bank of Hawaii, Hawaii 1988: Annual Economic Report) is used to allocate the proceeds of this tax to the counties of origin.

114. Estate and Transfer Taxes (0.2 percent of total State revenues). This tax, levied on decedents with federal estate tax liabilities, is based on the transfer of taxable estate. The State tax is equal to the federal credit for estate death taxes.

The incidence of this tax is estimated by the distribution of a proxy base. The statutory base is a function of both private wealth and the propensity to die. The propensity to die is assumed to be constant across the counties. To approximate the distribution of wealth, a formula comprehending 2/3 of total private property value (as measured by total assessed values for 1987, excluding federal, state, county, and Hawaiian Homes Commission property) and 1/3 property income (dividends, interest, and rents for 1987 as reported by the U.S. Bureau of Economic Analysis) is used. Implicit in this formula are the assumptions that real property values are correlated with wealth, but that taxable estate may also be reflected in forms of wealth other than real property. The 1/3 weight given to property income represents other forms of wealth that may contribute to the value of an estate.

115. Realty Conveyance Tax (0.1 percent of total State revenues). The base of this tax on documents transferring ownership or interest in realty is the actual and full consideration paid for the property. Data on the base in each county on which the tax was levied in 1987 are provided by the Department of Taxation. The realty conveyance tax revenue is allocated to the counties in proportion to the 1987 actual tax base.

116. Licenses and Fees (0.1 percent of total State revenues). Roughly three-quarters of these revenues is from business and professional licenses; the remainder is from recreational licenses for such activities as hunting, camping, and fishing. Accordingly, the variables used to allocate these revenues to the counties are the distributions of (1) the number of business establishments in 1986 (the most recent year for which data are available), weighted 75 percent; and (2) 1987 resident population, weighted 25 percent. Data on the number of business establishments are from U.S. Bureau of the Census, County Business Patterns 1986: Hawaii, CBP-86-13 (August 1988).

117. Other Taxes NEC (0.03 percent of total State revenues). This category is a residual for other taxes. Personal income is used to allocate this revenue among the counties.

118. Fines and Forfeitures (0.5 percent of total State revenues). This category consists of fines primarily from motor vehicle violations, and secondarily from other regulatory violations, such as zoning and land-use regulations. De facto population is used to allocate these revenues among the counties, as the size of such revenues is influenced by both residents and visitors.

119. Revenue from Other Agencies (0.5 percent of total State revenues). This category consists primarily of private gifts, grants, and contracts to the University of Hawaii, revenues from private sources, and University of Hawaii endowment income. On the understanding that these revenues are raised mostly from within the State--largely for example, from University of Hawaii alumni--they are allocated to the counties on the basis of personal income.

120. Rents, Royalties, and Land Income (0.9 percent of total State revenues). These revenues are earned on assets held by the State of Hawaii. Actual data on revenues received by the Hawaii State Department of Land and Natural Resources in each county are used for that portion (44 percent) of this category represented by such revenues. The variable used to allocate the remaining revenues is acres of State-owned land in each county (Hawaii Data Book, 1988, Table 188).

121. Earnings--General Departments (7.3 percent of total State revenues). The major elements of this category are charges by State hospitals (40 percent of the total) and other charges for current services (50 percent of the total). Other components of this category include University of Hawaii tuition, fees, and sales, and revenues from the sale of units by the Hawaii Housing Authority.

The incidence of the hospital charges among the counties is estimated by resident population. Since residents are assumed to be the primary users and beneficiaries of State hospital services (see line 133), the incidence of the hospital charges is also assumed to fall on them. According to a Department of Health official, nearly all the hospital revenues received are actually paid through private or public (Medicare or Medicaid) insurance. The ultimate burden of these insurance payments is borne by the residents paying the premiums or taxes to support the public insurance.

Assuming that the demographics of the users of the State hospital system do not vary significantly across counties, resident population best reflects the distribution of the incidence of these charges. The incidence of the other service charges (such as document, registration, public facility, and court fees) in this category is also allocated by resident population, since visitors rarely use the services for which these charges are levied.

122. Earnings--Auxiliary Enterprises (1.1 percent of total State revenues). These revenues of the University of Hawaii include computer service charges, rentals of university facilities and equipment, and bookstore profits. They are allocated to the counties on the basis of personal income.

123. Earnings--Public Service Enterprises (4.8 percent of total State revenues). Approximately 81 percent of this revenue is earned from airports and 19 percent from harbors. Accordingly, the revenue is allocated among the counties 4/5 by the distribution of the number of aircraft operations at the six major airports, and 1/5 by the distribution of short tons of freight traffic at the State's eight commercial harbors. Data on aircraft operations and harbor freight traffic are from the Hawaii Data Book, 1988, tables 550 and 574.

124. Interest Earned (3.6 percent of total State revenues). These

receipts cannot be attributed to the counties because the revenue originates not only within the State, but also throughout the nation, and even the world.

125. Miscellaneous (2.6 percent of total State revenues). This residual category of revenues is allocated to the counties on the basis of the default variable, personal income.

126. Federal Grants-in-Aid (14.1 percent of total State revenues). Although these receipts originate with federal taxpayers throughout the nation and purchasers of federal securities throughout the world, their incidence can be allocated to the counties if it is assumed that the share of federal grants-in-aid received by the State of Hawaii is roughly equivalent to the share of federal taxes paid by Hawaii residents. It then follows that personal income is a reasonable proxy for the incidence of federal taxes by county.

V-4 APPENDIX: ESTIMATION OF THE DISTRIBUTION OF THE BENEFITS FROM STATE EXPENDITURES

This appendix explains the variables and data used to estimate the distribution among the counties of the benefits from actual State expenditures. As in the estimation of county representative expenditures, resident population is the default indicator.

127. Total. The total benefits received in each county from the State services is the sum of the benefits received under each expenditure category below.

128. General Government: Control and Staff (6.8 percent of total State expenditures). General government expenditures include those for the legislature, judiciary, and chief executive, as well as financial administration, personnel management, and legal, building, and other government-wide services. The benefits of these expenditures are apportioned to the counties by resident population. Since general government expenditures benefit the citizenry as a whole, resident population is the best index of benefit for this category.

129. Public Safety: Police, Fire, and Other Protection (3.7 percent of total State expenditures). This category consists largely of expenditures (44 percent) for the State correctional system, but also includes spending for such services as protective inspection and licensing, civil defense, and State police services. The index of benefit used is de facto population, because the services in this category, including corrections, provide the benefits of protection and rehabilitation to visitors as well as residents.

130. Highways (2.6 percent of total State expenditures). The formula used to allocate the benefits of this category of State expenditures among the counties is the same as that used to estimate the need for county highway services (87.5 percent vehicle miles traveled, 17.5 percent miles of road--line 23), except that lane-miles in the State highway system are substituted for miles of county-maintained roads. Data on lane-miles in the State highway system are from the State Department of Transportation.

131. Natural Resources (0.8 percent of total State expenditures). The services provided under this function relate to the State's agricultural, forest, water, and other natural resources. The index used to distribute the benefits of these services to the counties is de facto population. The benefits provided by regulating, preserving, and enhancing the State's natural resources are enjoyed by residents and visitors alike.

132. Health and Sanitation (4.2 percent of total State expenditures). This category encompasses the range of activities performed by the Department of Health, excluding the operation of the State hospitals. Examples of these services are community health and mental health care, prevention and control of communicable diseases, emergency medical services, and environmental monitoring and regulation.

Many of these public health activities have an essential attribute of public goods: their benefits are enjoyed by every individual present in the community. The benefits from, for example, immunizations and sanitation inspections accrue to all who live in or visit the area as a result of the reduced risk of communicable diseases and healthier surroundings. This argues for using an index of benefit that includes visitors as well as residents. Hence de facto population is used to allocate this category of State expenditures among the counties, even though a substantial portion--perhaps as high as 80 percent--of this spending can best be characterized as benefiting only residents of Hawaii.

133. Hospitals and Institutions (3.5 percent of total State expenditures). The State hospital system consists of eight major institutions providing acute care, long-term care, and care for specialized populations such as tuberculosis patients. The State Department of Health advises that these facilities are used by the resident population at large, and are the only hospitals available in some locations. While some hospital services (for example, emergency services) are provided to visitors, the proportion of services they consume is considerably smaller than their representation in the de facto population. Accordingly, resident population is the best indicator for allocating this category of expenditures among the counties.

134. Public Welfare (12.2 percent of total State expenditures). Expenditures in this category include health care payments for the indigent, AFDC payments and administration, and other payments and services assisting the poor. The number of persons in poverty is used to distribute the benefits of this category of State expenditures to the counties.

135. Education--Higher (11.2 percent of total State expenditures). This category includes the University of Hawaii and community colleges.

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The benefits from expenditures for direct support for community colleges (around 12 percent of the total in the category) are allocated among the counties by actual outlays by the location of each college.

Benefits from expenditures for the remainder of the category, consisting of direct support for the University of Hawaii and systemwide overhead, are allocated to the counties in proportion to their populations aged 15-24. These data for 1984 (The Population of Hawaii, 1980-1986, Table 12) are the best available indicator of the college-age population.

Ideally, a weighted sum of the population in the age groups 14-17, 18-24, 25-34, and 35 and older would be used, with weights assigned to each group reflecting the national or statewide proportion of those in the age group enrolled in institutions of higher education. Recent shifts in the age mix of students in higher education institutions toward greater number of older students argue for the broader measure.[5] The data necessary to implement this approach in Hawaii are not available, however.

A population-based variable rather than an enrollment-based variable is used to allocate the benefits from the University of Hawaii expenditures on the rationale that State-provided higher education is available to all State residents, whether or not they elect to use the services. A county's benefits from the availability of State-provided higher education thus relate primarily to the population groups most likely to use these services.

136. Education--Public Education (11.2 percent of total State expenditures). Unlike any other state in the union, in Hawaii elementary and secondary education is the responsibility of the State government. The expenditures for these services are in this category. These expenditures are allocated among the counties on the basis of actual expenditures for personal services, supplies, and equipment. The data are from the Department of Education, State of Hawaii, Financial Report, Department of Education, July 1, 1986-June 30, 1987 (1988). Administration and other overhead costs are allocated in proportion to direct costs.

137. Education--Libraries and Other (0.9 percent of total State expenditures). Approximately 58 percent of this category of expenditures is for libraries; the remainder is for other educational services, such as vocational rehabilitation, consumer education, and Hawaii public broadcasting. The outlays for libraries are allocated among the counties on the basis of the circulation of the libraries in each county (excluding the Hawaii State Library and Library for the Blind and Physically Handicapped). The data are from the Hawaii Data Book, 1988, Table 112. This allocation is based on the premise that the benefits of public libraries accrue largely to those who borrow library materials. The other educational services included in this category benefit the population at large and are therefore allocated to the counties on the basis of resident population.

138. Recreation (0.6 percent of total State expenditures). The same variable, de facto population, is used to distribute the benefits from this category of State services as is used to estimate the need for county recreation services (see line 28).

139. Utilities and Other Enterprises (5.8 percent of total State expenditures). Of these expenditures, 78 percent is for the operation of State airports, and the remaining 22 percent is for the operation of State harbors. The formula used to allocate these expenditures among the counties is the same as that used to calculate the incidence of the State revenues from public service enterprises (line 123)--namely, 4/5 on the basis of the distribution of aircraft operations and 1/5 on the distribution of commercial harbor freight.

140. Debt Service (9.9 percent of total State expenditures). The benefits of State expenditures for debt service are allocated to the counties on the basis of de facto population. This is done (1) to reflect the fact that the capital expenditures for which debt is incurred can vary widely by county from year to year but, over time, are likely to benefit all counties in rough proportion to their de facto population; and (2) to be neutral with respect to the means of financing such capital improvements--whether by cash or by borrowing.

141. Retirement and Pension (4.8 percent of total State expenditures). The benefits of this category of expenditures are akin to the benefits from State general government expenditures: they are fixed costs resulting from the existence of the State government and benefit the citizenry as a whole. Thus they are apportioned to the counties on the basis of resident population.

142. Employees' Health/Hospital Insurance (0.02 percent of total State expenditures). Like retirement and pension expenditures, these outlays are part of the overhead cost of running the State government. The benefits of these expenditures are apportioned

5. Ibid.

to the counties on the basis of resident population.

143. Unemployment Compensation (1.9 percent of total State expenditures). These outlays are compensation paid to private individuals; the benefits can thus be apportioned on the basis of the residence of those individuals. Data on the actual distribution of these payments by county in 1987 are from the Department of Labor and Industrial Relations, State of Hawaii, Unemployment Insurance Fact Book, Hawaii 1988 (March 1988), p. 29.

144. Grants-in-Aid to Counties (1.1 percent of total State expenditures). This category includes only State outlays for Act 155 grants and TAT grants to the counties. Because, presumably, of timing differences, State outlays ($31.4 million) slightly exceed the amounts recorded as county receipts on lines 15 and 16 ($30.2 million). The benefits are distributed among the counties in proportion to the distribution of payments received by the counties from Act 155 and TAT grants.

145. Urban Redevelopment and Housing (8.0 percent of total State expenditures). The benefits of these expenditures, almost entirely for the Hawaii Housing Authority, are allocated among the counties by the number of persons in poverty.

146. Miscellaneous (1.8 percent of total State expenditures). These general-government-type expenditures include outlays for commerce and industry, disability compensation, and judgments, claims, and losses. The benefits are apportioned to the counties on the basis of the default allocator, resident population.

147. Cash Capital Improvements (3.3 percent of total State expenditures). In addition to State capital improvement projects, this category includes State grants to the counties for capital improvement projects. As with debt service, the benefits of State expenditures for cash capital improvements are allocated among the counties by de facto population to abstract from the variation in the distribution by county of the capital expenditures funded out of cash from year to year, and to be neutral with respect to the means of financing such capital improvements. The distribution of de facto population best represents the likely distribution of the benefits from these expenditures over time.

VI. THE ROLE OF PROPERTY TAXES IN HAWAII

On November 7, 1989, the State government turned over all responsibility for the property tax in Hawaii to the individual counties. Each county will have sole discretion over how its property tax will be administered; including what to tax and at what rate it is to be taxed. Such decisions have important implications for the role of the property tax in local finances and the fairness with which the tax is applied.

The first section of this chapter reviews the role of property taxes in Hawaii's State-local fiscal system and compares Hawaii with other states in the Western region. The discussion considers whether the resulting property tax burden in Hawaii is high relative to personal income, property values, and other measures of ability to pay. That section is followed by a discussion of how Hawaii currently provides property tax relief as well as a discussion of other relief mechanisms that counties might consider. A concluding section identifies major policy issues and options that should be explicitly considered by counties as they take full responsibility for the property tax. The Appendix presents a general argument that the property tax should be an important component of any local finance system.

A. The Property Tax Base in Hawaii

In Hawaii, the property tax is a tax on real property--land and improvements. Table VI.1 reports gross valuations by class and county for 1984, 1986, 1988, and 1990.[1] The table also reports data on the growth in gross valuations over this period.

Growth in gross valuations over the 1984-90 period was slowest in Maui (51.0 percent) and Hawaii (51.8 percent) and most rapid in Kauai (64.5 percent) and Honolulu (69.3 percent). However, there was substantial variation in growth rates across property classes within each county. In all counties, the gross value of conservation properties increased between 1984 and 1990 faster than any other class of property. The increase ranged from 391 percent in Kauai to 831 percent in Honolulu.

In Maui, Hawaii, and Kauai, the hotel/motel class of property experienced the second highest rate of growth in gross valuation over the 1984-90 period. The rise was 265 percent in Maui, 148 percent in Hawaii, and 257 percent in Kauai. This class of property increased in value by only 49 percent in Honolulu, making it the slowest growing class of property except for improved residential properties.

Improved residential property grew more slowly than any other class, 1984-90, in Honolulu (47 percent), and was among the slowest in Maui (57 percent) and Hawaii (54 percent). In Maui, only apartments (44 percent) and unimproved residential properties experienced smaller increases in gross valuation than improved residential properties. In Hawaii, apartments (41 percent) and agricultural properties (11 percent) experienced slower growth in valuations than improved residential properties. In Kauai, improved residential properties increased more rapidly (64 percent) than apartments (3 percent), commercial properties (59 percent), and unimproved residential properties (63 percent).

Although the rate of growth in gross value varies by class and county, one important observation stands out--the rate of growth for all classes of property and all counties is higher in the 1988-90 period than in any other period examined.[2] In addition, during the 1988-90 period, in virtually every case, the land component of gross value increased at a faster rate than the improvement component.[3] Because of this rapid increase in land value, the City and County of Honolulu provided additional relief to all owners of improved residential property by reducing the property tax rate on land from $6.56 to $6.09. The tax on land is now lower than it is on improvements--a perverse result for disciples of Henry George, who advocated higher taxes on land.

The recent increases in land values in Hawaii illustrate another unique characteristic of the real estate market in the State--the market is more responsive to economic fluctuations than in most states. The property tax is generally considered to be a relatively stable revenue source. That is, the tax base and the revenue

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1. Gross valuation is the assessor's estimate of market value for properties in each class. No effort is made to adjust these estimates for possible assessor error. However, since the concern here is with the growth in value over time and since assessor error should be consistent over so short a period, the calculated growth rates in Table VI.1 give an accurate perspective of relative growth rates across classes of property.

2. Except for hotel/motel properties in Maui and Kauai, which increased the most between 1986 and 1988, and conservation property in Kauai, which increased the most between 1984 and 1986.

3. Exceptions include unimproved residential land in Honolulu and Maui; hotel/resort land in Maui; improved residential, commercial, and conservation land in Hawaii; and apartment and agricultural land in Kauai. However, these data overstate the value of the land component of individual properties because all improvements are valued by the cost approach and any remaining increase in the value of the property is attributed to land. Thus, the arbitrary manner in which the individual components of a property are valued distorts the relative importance of the land component in the case of improved properties.

TABLE VI.1 GROSS VALUATION BY CLASS OF PROPERTY AND BY COUNTY, SELECTED YEARS AND PERCENTAGE INCREASE FROM YEAR TO YEAR

	Gross Valuation 1990	Gross Valuation 1988	Gross Valuation 1986	Gross Valuation 1984	Change in Gross Value 1988-90	Change in Gross Value 1986-88	Change in Gross Value 1984-86	Change in Gross Value 1984-90
HONOLULU								
Improved Residential	26270789	21840092	20309010	17867144	20.3	7.5	13.7	47.0
Land	17054484	12840092	11710744	10599806	32.8	9.6	10.5	60.9
Improvement	9216305	9505613	8598266	7267338	-3.0	10.6	18.3	26.8
Apartment	10391419	6184541	6115612	5772372	68.0	1.1	5.9	80.0
Land	3432938	1812261	1634639	1577731	89.4	10.9	3.6	117.6
Improvement	6958481	4372280	4480973	4194641	59.1	-2.4	6.8	65.9
Commercial	7576252	5413064	4828129	4011200	40.0	12.1	20.4	88.9
Land	3983496	2430126	1940637	1657507	63.9	25.2	17.1	140.3
Improvement	3592756	2982938	2887492	2353693	20.4	3.3	22.7	52.6
Industrial	6106492	3171225	2870007	2630734	92.6	10.5	9.1	132.1
Land	4722848	2107300	1845531	1703769	124.1	14.2	8.3	177.2
Improvement	1383644	1063925	1024476	926965	30.1	3.9	10.5	49.3
Agricultural	724501	456831	477212	457828	58.6	-4.3	4.2	58.2
Land	531491	321929	355008	342625	65.1	-9.3	3.6	55.1
Improvement	193010	134902	122204	115303	43.1	10.4	6.0	67.4
Conservation	567134	113212	69754	60916	400.9	62.3	14.5	831.0
Land	423996	77154	44596	39954	449.5	73.0	11.6	961.2
Improvement	143138	36058	25158	20962	297.0	43.3	20.0	582.8
Hotel/Resort	2728998	2122084	2021548	1830062	28.6	5.0	10.5	49.1
Land	1003363	604257	518196	452539	66.0	16.6	14.5	121.7
Improvement	1725625	1517827	1503352	1377523	13.7	1.0	9.1	25.3
Unimproved Residential	2288924	693319	857423	828814	230.1	-19.1	3.5	176.2
Land	1449538	529493	641474	639755	173.8	-17.5	0.3	126.6
Improvement	839386	163826	215949	189059	412.4	-24.1	14.2	344.0
Total	56654499	39994368	37548695	33459170	41.7	6.5	12.2	69.3

TABLE VI.1 CONTINUED

	Gross Valuation 1990	Gross Valuation 1988	Gross Valuation 1986	Gross Valuation 1984	Change in Gross Value 1988-90	Change in Gross Value 1986-88	Change in Gross Value 1984-86	Change in Gross Value 1984-90
MAUI								
Improved Residential	2906418	2092329	1825689	1850716	38.9	14.6	-1.4	57.0
Land	1683025	1205177	1066419	1125148	39.6	13.0	-5.2	49.6
Improvement	1223393	887152	759270	725568	37.9	16.8	4.6	68.6
Apartment	1185652	899956	1797103	2118205	31.7	-49.9	-15.2	-44.0
Land	403297	281039	414040	429479	43.5	-32.1	-3.6	-6.1
Improvement	782355	618917	1383063	1688726	26.4	-55.3	-18.1	-53.7
Commercial	677744	457569	341713	335948	48.1	33.9	1.7	101.7
Land	423092	283308	191423	189939	49.3	48.0	0.8	122.8
Improvement	254652	174261	150290	146009	46.1	15.9	2.9	74.4
Industrial	529071	400298	310494	297849	32.2	28.9	4.2	77.6
Land	296127	215071	163552	157963	37.7	31.5	3.5	87.5
Improvement	232944	185227	146942	139886	25.8	26.1	5.0	66.5
Agricultural	1159396	798133	726181	729391	45.3	9.9	-0.4	59.0
Land	720690	487313	471005	495364	47.9	3.5	-4.9	45.5
Improvement	438706	310820	255176	234027	41.1	21.8	9.0	87.5
Conservation	190775	30911	28726	26254	517.2	7.6	9.4	626.7
Land	174429	20598	18672	17311	746.8	10.3	7.9	907.6
Improvement	16346	10313	10054	8943	58.5	2.6	12.4	82.8
Hotel/Resort	2470457	1784936	803266	677613	38.4	122.2	18.5	264.6
Land	582436	464637	293542	270174	25.4	58.3	8.6	115.6
Improvement	1888021	1320299	509724	407439	43.0	159.0	25.1	363.4
Unimproved Residential	280667	171756	182791	191040	63.4	-6.0	-4.3	46.9
Land	254231	163335	174845	179008	55.7	-6.6	-2.3	42.0
Improvement	26436	8421	7946	12032	213.9	6.0	-34.0	119.7
Total	9400180	6635888	6015963	6227016	41.7	10.3	-3.4	51.0

TABLE VI.1 CONTINUED

	Gross Valuation 1990	Gross Valuation 1988	Gross Valuation 1986	Gross Valuation 1984	Change in Gross Value 1988-90	Change in Gross Value 1986-88	Change in Gross Value 1984-86	Change in Gross Value 1984-90
HAWAII								
Improved Residential	2178061	1836384	1633280	1418479	18.6	12.4	15.1	53.5
Land	1010820	894694	828955	739051	13.0	7.9	12.2	36.8
Improvement	1167241	941690	804325	679428	24.0	17.1	18.4	71.8
Apartment	965176	750398	744411	684081	28.6	0.8	8.8	41.1
Land	310481	208398	214936	166310	49.0	-3.0	29.2	86.7
Improvement	654695	542000	529475	517771	20.8	2.4	2.3	26.4
Commercial	473968	404097	353528	305202	17.3	14.3	15.8	55.3
Land	196442	168360	146516	128675	16.7	14.9	13.9	52.7
Improvement	277526	235737	207012	176527	17.7	13.9	17.3	57.2
Industrial	339572	212673	199620	158952	59.7	6.5	25.6	113.6
Land	185658	92280	86241	58331	101.2	7.0	47.8	218.3
Improvement	153914	120393	113379	100621	27.8	6.2	12.7	53.0
Agricultural	1601248	1486428	1509739	1625689	21.2	-1.5	-7.1	10.8
Land	1230405	1014599	1072688	1190056	21.3	-5.4	-9.9	3.4
Improvement	570843	471829	437051	435633	21.0	8.0	0.3	31.0
Conservation	334859	87294	101437	58419	283.6	-13.9	73.6	473.2
Land	294560	81130	80802	53065	263.1	0.4	52.3	455.1
Improvement	40299	6164	20635	5354	553.8	-70.1	285.4	652.7
Hotel/Resort	759650	367843	379068	306815	106.5	-3.0	23.5	147.6
Land	266989	121702	105434	40679	119.4	15.4	159.2	556.3
Improvement	492661	246141	273634	266136	100.2	-10.0	2.8	85.1
Unimproved Residential	330172	211623	207737	173084	56.0	1.9	20.0	90.8
Land	277253	167027	165577	132542	66.0	0.9	24.9	109.2
Improvement	52919	44596	42160	40542	18.7	5.8	4.0	30.5
Total	7182706	5356740	5128820	4730721	34.1	4.4	8.4	51.8

TABLE VI.1 CONTINUED

	Gross Valuation 1990	Gross Valuation 1988	Gross Valuation 1986	Gross Valuation 1984	Change in Gross Value 1988-90	Change in Gross Value 1986-88	Change in Gross Value 1984-86	Change in Gross Value 1984-90
KAUAI								
Improved Residential	1469138	1112767	1016418	898638	32.0	9.5	13.1	63.5
Land	810177	590689	578013	525679	37.2	2.2	10.0	54.1
Improvement	658961	522078	438405	372959	26.2	19.1	17.5	76.7
Apartment	649931	500133	622326	632649	30.0	-19.6	-1.6	2.7
Land	216587	179102	233780	266897	20.9	-23.4	-12.4	-18.8
Improvement	433344	321031	388546	365752	35.0	-17.4	6.2	18.5
Commercial	302524	216998	222949	190675	39.4	-2.7	16.9	58.7
Land	149140	105195	105176	99812	41.8	0.0	5.4	49.4
Improvement	153384	111803	117773	90863	37.2	-5.1	29.6	68.8
Industrial	137070	86537	89320	78698	58.4	-3.1	13.5	74.2
Land	87093	44844	52815	48306	94.2	-15.1	9.3	80.3
Improvement	49977	41693	36505	30392	19.9	14.2	20.1	64.4
Agricultural	318182	221470	209446	153213	43.7	5.7	36.7	107.7
Land	208295	146198	147053	106546	42.5	-0.6	38.0	95.5
Improvement	109887	75272	62393	46667	46.0	20.6	33.7	135.5
Conservation	82612	43786	36346	16831	88.7	20.5	115.9	390.8
Land	75704	38275	32421	15694	97.8	18.1	106.6	382.4
Improvement	6908	5511	3925	1137	25.3	40.4	245.2	507.6
Hotel/Resort	528010	352561	216407	147884	49.8	62.9	46.3	257.0
Land	155247	97705	69069	49142	58.9	41.5	40.5	215.9
Improvement	372763	254856	147338	98742	46.3	73.0	49.2	277.5
Unimproved Residential	201893	133790	124330	123945	50.9	7.6	0.3	62.9
Land	164595	108802	103909	104495	51.3	4.7	-0.6	57.5
Improvement	37298	24988	20421	19450	49.3	22.4	5.0	91.8
Total	3689360	2668042	2537542	2242533	38.3	5.1	13.2	64.5

generated tend to adjust slowly to changing economic circumstances.

In Hawaii, however, property values have tended to increase more rapidly than incomes. For example, estimates presented in Chapter III show long-run income elasticities of the property tax base in Honolulu, Hawaii, Kauai, and Maui to be 1.45, 1.51, 1.64 and 1.45, respectively, over the 1978-87 period. During the same period, the gross income elasticity of property tax revenues is estimated to be 1.09, 1.26, 1.26 and 1.30, respectively.[4]

It is often argued that the soaring land prices are a result of a wave of foreign investment in 1987 and 1988. In fact, there is some evidence that the investment bubble in residential real estate is having a ripple effect through the rest of the real estate market.[5]

It seems likely, however, that supply-side pressures are more important than demand consideration. A recent article by Rose and La Croix, for example, suggests that supply restrictions -- both natural, the consequence of insularity, and institutional, imposed by the State Land Use Commission -- have had the biggest impact on urban land prices in Honolulu.[6]

Permits for new housing units declined dramatically in 1975 and 1981 as a result of severe recessions, and never rebounded. It has been argued that this downturn in housing permits coincided with significant increases in the authority and autonomy of the State Land Use Commission.[7] Regardless of the economic and institutional factors that contributed to the decline in housing permits, growth in the housing stock has not kept pace with increases in population since the late-1970's.

Estimates published by the Bank of Hawaii indicate that per capita housing units (housing stock divided by resident population) increased steadily from 0.25 (1 house for every 4 residents) in 1960 to 0.325 (1 house for every 3 residents) in 1978. Between 1979 and 1985, however, the number of housing units per capita declined every year. This decline suggests that housing congestion is getting worse.[8]

Another measure of congestion in the housing market is the share of the housing inventory that is available for purchase at a given time. In a tight market, fewer houses will be for sale then in a soft market. Estimates published by the Hawaii Real Estate Research and Education Center indicate that in 1989 the inventory of both single-family homes and condominiums fell below the five-month figure for the first time in a decade.[9] The result of this congestion is upward pressure on housing prices. It is interesting to note, however, that the gross value of improved residential real estate did not increase any more rapidly than other classes of property during the 1984-90 period.

In summary:

- There is great diversity in the size, growth and mix of the property tax base among the counties.

- During the past 10 years, the base in every county increased much more rapidly than personal income.

- The prices of improved residential properties have not increased any more rapidly than other properties in the past six years. They maintain their share of gross value in three counties and actually declined as a share of gross value in Honolulu.

- Geographical, market, and institutional factors contributed to rapid increases in land values between 1988 and 1990, and will continue to put upward pressure on those values in the future. Market forces could either ameliorate or exacerbate such pressures in the short run.

While the property tax base in

4. These long-run elasticities are referred to as "gross" because the revenues are not adjusted for changes in tax rates. The elasticities are estimated by regressing the log of the property tax base/revenue against the log of personal income in each county for the 1978-87 period. The results suggest that, over this period, the property tax base in Honolulu increased, on average, 14.5 percent for each 10 percent increase in personal income. The gross income elasticities for property tax revenues are lower than the income elasticity of the tax base because most property tax rates were reduced over this period.

5. See Hawaii Real Estate Research and Education Center, A Study of Foreign Investment in Real Property and Its Impact on the State: A Taxonomy of Possible Options for Legislative Consideration (February 1989), Chapter 4.

6. Louis A. Rose and Sumner J. La Croix, "Urban Land Prices: The Extraordinary Case of Honolulu, Hawaii," Urban Studies, (1989), pp. 1-14.

7. Bank of Hawaii, Construction in Hawaii (1989), pp. 24 and 25.

8. Bank of Hawaii, Business Trends (March/April 1987).

9. The inventory index is calculated by dividing the existing sales inventory of the Multiple Listing Service by the average number of properties sold per month. Generally, a drop in the inventory below five months is considered a sign of upward pressure on the housing market. Hawaii Real Estate Research, op. cit., pp. 4-6.

Hawaii seems to be very responsive to economic growth, the tax is not as significant a source of revenue in Hawaii as in most other states. This is the topic of the next section.

B. The Property Tax in Hawaii's Fiscal System

Nationally, the dominance of the property tax as the most important state and local tax is declining. Between 1962 and 1987, property tax revenues fell steadily from 33 percent of state-local general revenue to 18 percent (Table VI.2). In part, this decline reflects the sharp increase in other general revenues over the period, including federal aid, which rose dramatically from the mid-1960's. However, a similar drop in the relative significance of the property tax is revealed when federal aid is excluded. Property tax collection fell from 38 percent to 21 percent of state and local own-source general revenue between 1962 and 1987 (Table VI.3). Other taxes, user charges, and other non-tax revenue sources grew more rapidly than property taxes.

Hawaii is a major exception to these general trends because the relative importance of the property tax changed erratically over the 25-year period. For example, property taxes in Hawaii provided 10.6 percent of State and local general revenue in 1987 compared with 10.3 percent in 1962, though there was substantial variation over the period. In any case, the reliance on property taxes as a source of general revenue in Hawaii was consistently below that of state and local governments nationally and the governments of the comparison states (with the exception of New Mexico).

Also, in Hawaii there has been no discernible trend in the relative importance of property taxes as a share of state-local own-source revenues over the past 25 years--property taxes accounted for 12.6 percent of state and local own-source revenues in 1987 compared with 12.7 percent in 1962, with substantial fluctuations during the intervening years. Once again, however, the share of own-source revenues raised by the property tax is much smaller in Hawaii than is the case for state and local governments nationally and in the comparison states (with the exception of New Mexico).

The importance of the property tax has declined only in relative terms. The per capita figures in Table VI.4 document the growth in absolute amounts over the same period for which Tables VI.2 and VI.3 show relative declines. In Hawaii, per capita property taxes increased from $40 in 1962 to $320 in 1987, an increase of 697 percent--compared with an increase of 386 percent for per capita property taxes nationally. As

TABLE VI. 2 PROPERTY TAX COLLECTIONS AS PERCENTAGE OF TOTAL STATE AND LOCAL GENERAL REVENUE, SELECTED STATES, SELECTED FISCAL YEARS 1962-87

	1962	1967	1972	1977	1982	1987
	(1)	(2)	(3)	(4)	(5)	(6)
U. S.	32.7%	28.6%	25.6%	21.9%	17.9%	17.7%
Hawaii	**10.3**	**12.8**	**11.8**	**9.5**	**10.9**	**10.6**
Arizona	31.9	28.1	26.1	25.8	18.1	17.7
California	36.2	34.1	31.8	27.7	15.0	15.4
Florida	28.7	26.1	21.3	19.7	19.1	19.1
Nevada	20.3	22.6	20.9	19.5	10.3	12.9
New Mexico	13.7	10.8	10.1	8.7	5.9	5.2
Oregon	30.0	28.9	28.9	24.3	21.7	24.2
Washington	20.5	19.6	22.0	17.9	16.3	16.7

Sources: U.S. Bureau of the Census, 1982 Census of Governments, Vol. 6, Topical Studies, No. 4, Historical Statistics on Governmental Finances and Employment, GC82(6)-4 (January 1985), U.S. Bureau of the Census, Government Finances in 1986-87, GF-87-5 (November 1988), Table 29.

TABLE VI. 3 PROPERTY TAX COLLECTIONS AS PERCENTAGE OF TOTAL STATE AND LOCAL OWN-SOURCE GENERAL REVENUE, SELECTED STATES, SELECTED FISCAL YEARS 1962-87

	1962	1967	1972	1977	1982	1987
	(1)	(2)	(3)	(4)	(5)	(6)
U.S.	37.8%	34.4%	31.5%	28.1%	22.2%	21.2%
Hawaii	**12.7**	**16.7**	**15.2**	**13.4**	**13.7**	**12.6**
Arizona	38.2	35.9	31.5	31.4	21.3	20.4
California	42.1	42.1	39.6	34.8	18.7	18.4
Florida	32.2	30.7	25.1	24.5	23.2	21.9
Nevada	24.9	29.8	25.4	24.0	12.2	15.0
New Mexico	17.6	15.5	14.4	12.0	7.0	6.2
Oregon	36.9	35.9	37.8	32.7	27.3	29.7
Washington	23.8	23.6	27.0	23.0	20.0	20.5

Sources: Same as Table VI.2.

TABLE VI.4 PER CAPITA STATE AND LOCAL PROPERTY TAXES, SELECTED STATES, SELECTED FISCAL YEARS 1962-1987

	1962	1967	1972	1977	1982	1987	Percentage Change 1962-87
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
U.S.	$103	$132	$206	$289	$362	$498	386%
Hawaii	**40**	**82**	**121**	**167**	**264**	**320**	**697**
Arizona	105	146	202	327	333	462	338
California	151	209	329	460	350	495	227
Florida	80	109	145	212	322	453	463
Nevada	89	150	205	285	234	360	305
New Mexico	47	61	85	113	153	153	223
Oregon	110	150	239	359	474	715	552
Washington	78	111	194	255	342	483	520

Sources: Same as Table VI.3, Table 29 in Historical Statistics, 1982, and Table 35 in Government Finances in 1986-87

TABLE VI.5 PER CAPITA STATE AND LOCAL PROPERTY TAXES, SELECTED STATES, 1982 DOLLARS, SELECTED FISCAL YEARS 1962-1987

	1962	1967	1972	1977	1982	1987	Percentage Change 1962-87
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
U.S.	$384	$411	$464	$437	$362	$405	5.4%
Hawaii	**150**	**258**	**274**	**253**	**264**	**260**	**(73.0)**
Arizona	395	456	456	495	333	376	(4.8)
California	567	654	741	695	350	403	(29.0)
Florida	301	341	327	321	322	368	(22.3)
Nevada	333	466	462	432	234	293	(12.2)
New Mexico	177	191	192	171	153	124	(29.9)
Oregon	410	469	538	543	474	582	(41.6)
Washington	292	346	436	385	342	393	(34.6)

Sources: Same as Table VI.4 and Economic Report of the President, 1989, (1989), p. 313.

Note: The GNP price deflator for state and local purchases of goods and services is used to adjust for inflation.

a result, per capita property taxes in Hawaii were 64 percent of the national average in 1987, up from 39 percent in 1962. Per capita property taxes were lower in Hawaii than in all the comparison states and the nation as a whole during the entire period, except for New Mexico from 1967 on and Nevada in 1982.

While Table VI.4 shows that per capita property tax collections increased nationally nearly fourfold over the past 25 years, and sevenfold in Hawaii, such growth is less startling when the data are adjusted to eliminate the effects of inflation. Table VI.5 shows that real per capita property tax burdens increased nationally by only 5 percent from 1962-87.

Hawaii experienced the highest growth in real per capita property taxes from 1962 to 1987--73 percent. In spite of this relatively rapid growth, in 1987 real per capita property taxes were lower in Hawaii than all the comparison states but New Mexico, and they were only 64 percent of the national average of $405.

C. Hawaii's Property Tax in Local Finance

In Hawaii, the counties rely on property taxes for a larger share of their own-source general revenues than do local governments nationally--64 percent compared with 46 percent (Table VI.6). Of the comparison states, local governments in Oregon (62 percent) are the only ones that rely more heavily on the property tax more than local governments nationally.

The importance of the property tax varies among types of local governments. Table VI.6 shows that property tax collections account for 64 percent of the own-source revenues of the counties in Hawaii. Nationwide, counties and cities rely on property taxes for a much smaller share of their own-source revenues than do the counties in Hawaii--43 and 29 percent, respectively.

In the nation as a whole, counties obtain as much own-source revenue from non-property taxes as counties in Hawaii--15 percent and 14 percent, respectively. Cities have more diversified tax systems, with non-property taxes providing 31 percent of their own-source revenues. Nationally, both counties (42 percent) and cities (40 percent) obtain substantially more own-source revenues from user fees, charges, and miscellaneous revenues than do counties in Hawaii (22 percent).

Nationally, and in all of the comparison states, independent school districts derive a larger share of their own-source general revenue from the property tax than does any other type of local government. In Hawaii, of course, the State fully funds education.

In Hawaii, property taxes are collected exclusively by the counties, in contrast to the situation nationally, where counties and cities collect 24 percent and 23 percent of local property taxes, respectively (see Table VI.7). Nationally, school districts collect 43 percent of local property taxes. Of the comparison states, school districts collect a larger share of local property taxes than school districts nationally in Arizona (59 percent), Florida (45 percent), Nevada (50 percent), and Oregon (68 percent).

Reliance on the property tax is higher in other states than it is in Hawaii because its fiscal system is more centralized than the national average and in the comparison states, and the State government in Hawaii does not use the property tax.

In summary:

- Nationally, the importance of the property tax has declined relative to other sources of revenue over the past 25 years, but not in Hawaii.

- Per capita property tax collections have risen in Hawaii, both in nominal and real terms, but Hawaii imposes a smaller per capita property tax than the national average and all comparison states except New Mexico.

- The property tax in Hawaii is the exclusive province of the counties, unlike the situation nationally and in the comparison states, where school districts generally account for the largest share of property tax collections, except for counties in California and New Mexico.

- Counties in Hawaii are much more dependent on the local property tax for own-source revenues than general-purpose governments nationally, primarily because they rely on user charges, fees, and miscellaneous revenues much less than counties and cities nationally.

- The property tax is a much less

TABLE VI.6 SHARE OF TOTAL OWN-SOURCE REVENUE FROM THE PROPERTY TAX, LOCAL GOVERNMENTS BY TYPE, SELECTED STATES, FISCAL YEAR 1986-87

	All Local	Counties	Cities	Townships	Special Districts School	Special Districts Other
	(1)	(2)	(3)	(4)	(5)	(6)
U.S.	45.9%	42.8%	29.4%	73.4%	81.5%	16.2%
Hawaii	**64.4**	**64.4**	--	--	--	--
Arizona	41.4	39.2	12.7	--	81.5	17.6
California	38.3	51.4	19.2	--	77.5	23.0
Florida	39.0	34.9	22.3	--	76.2	16.8
Nevada	30.6	19.3	16.5	--	85.0	19.1
New Mexico	22.4	35.4	8.3	--	56.7	46.1
Oregon	61.9	49.5	41.0	--	86.9	27.2
Washington	32.5	43.7	18.6	--	69.2	18.0

Source: U.S. Bureau of the Census, Government Finances in 1986-87, GF-87-5 (November 1988), Table 29.

TABLE VI.7 SHARE OF PROPERTY TAXES COLLECTED, BY LEVEL OF GOVERNMENT, 1987

	County	Municipal	Schools	Spec Dist	Total
U.S.	23.5	23.3	43.3	3.5	93.6
Arizona	28.3	10.8	58.7	2.1	100.0
California	36.5	19.5	33.6	10.4	100.0
Florida	35.0	15.3	44.9	4.8	100.0
HAWAII	**100.0**	**0.0**	**0.0**	**0.0**	**100.0**
Nevada	36.5	10.7	50.0	2.8	100.0
New Mexico	38.3	22.1	35.0	4.6	100.0
Oregon	9.4	16.1	67.5	6.9	100.0
Washington	29.5	18.5	36.1	15.9	100.0

Source: U.S. Department of Commerce, Bureau of the Census, Government Finances in 1986-87, (Washington D.C.: Government Printing Office, 1988).

important source of State and local revenues in Hawaii than it is nationally and in the comparison states, in part because the fiscal system in Hawaii is so centralized.

D. Is The Property Tax Burden High In Hawaii?

So far, the discussion documents the relatively minor role that property taxes play in Hawaii's fiscal system--both absolutely and relative to the nation as a whole and the comparison states. The discussion, however, has not addressed the question of whether the resulting property tax burden is high relative to the people's ability to pay property tax bills. This section presents evidence relevant to that issue.

Table VI.8 shows one perspective on recent trends by examining property taxes per $1,000 of personal income. In 1987, property taxes in Hawaii amounted to $22 per $1,000 of personal income of the State's residents--64 percent of the national average of $34. Property tax collections in Hawaii have declined steadily from a peak of $27 in 1967--a drop of 20 percent. Nationally, property taxes per $1,000 of personal income fell from $43 in 1962 to $34 in 1987, or 21 percent. All the comparison states had lower property taxes per $1,000 of personal income in 1987 than in 1962, with the exception of Hawaii, Oregon, and Washington. Even in these three states, the 1987 burden was lighter than their peak burden during the 25-year period. In 1987, however, property taxes per $1,000 of personal income were lower in Hawaii than in any comparison state except New Mexico.

In addition to a low property tax per $1,000 of personal income, the burden in Hawaii relative to property values is also low, that is, the State has relatively low effective property tax rates.[10] Data from the Bureau of the Census and the U.S. Advisory Commission on Intergovernmental Relations allow comparisons among the states of effective property tax rates on residential property.

The 1982 Census of Governments reports nominal property tax rates, assessment ratios, and effective property tax rates by state and major subdivision. Based on residential sales for a six-month period in 1981, the Census data indicate that the effective property tax rate for single-family residential property in Honolulu was 0.53 percent of market value. Only six states had lower average effective property tax rates for single-family residential properties (Alabama, Mississippi, Nevada, Oklahoma, West Virginia, and Wyoming).[11]

The low effective tax rate in Hawaii apparent in the Census data is confirmed by estimates of average effective tax rates for existing single-family homes with FHA insured mortgages in 1987.[12] These data indicate that Hawaii's average tax rate was 0.51 percent of market value, well below the national average of 1.15 percent. Only two states had a lower effective property tax rate than Hawaii in 1987 (Alabama and Louisiana).

The same situation has been true over time. According to the FHA mortgage data, in 1966, Hawaii's effective property tax rate was 0.81 percent of market value, again well below the national average, which at the time was 1.70 percent. Only four states had a lower effective property tax rate in 1966 than Hawaii (Alabama, Louisiana, South Carolina, and West Virginia). Between 1966 and 1986, the effective property tax rate fell faster in Hawaii than in the U.S. as a whole. Hawaii's effective rate was 48 percent of the national average in 1966, but only 44 percent

TABLE VI.8 STATE -- LOCAL PROPERTY TAXES PER $1,000 OF PERSONAL INCOME, SELECTED STATES, SELECTED FISCAL YEARS 1962-87

	1962	1967	1972	1977	1982	1987
	(1)	(2)	(3)	(4)	(5)	(6)
U.S.	$43.33	$44.87	$50.02	$45.52	$34.12	$34.35
Hawaii	**17.45**	**27.33**	**26.60**	**24.07**	**23.51**	**21.89**
Arizona	49.49	58.45	54.04	57.30	33.25	35.43
California	52.45	61.62	71.50	65.36	28.75	30.04
Florida	39.14	42.45	38.21	35.39	30.32	31.84
Nevada	28.37	44.09	43.96	41.62	19.15	24.38
New Mexico	25.34	25.61	26.38	21.65	17.58	13.56
Oregon	45.57	52.23	61.56	58.66	47.06	54.19
Washington	31.37	34.84	46.86	38.15	29.70	32.72

Source: Same as Table VI.4 and Table 30 in Historical Statistics.

10. Effective tax rates are nominal, or legal, tax rates multiplied by the actual assessment ratio. For example, if the legislated tax rate is $2.00 per $100 assessed value, and the assessment ratio is 50 percent, the effective tax rate is $1.00 ($2.00 * 0.50). Alternatively, the effective property tax rate can be calculated by dividing the actual property tax payment by the market value of the property.

11. Bureau of the Census, 1982 Census of Governments, Volume 2, Taxable Property Values and Assessment-Sales Price Ratios, GC82(2) (February 1984), Table 22.

12. Advisory Commission on Intergovernmental Relations, Significant Features of Fiscal Federalism, 1989 Edition, Volume I, Report No. M-163, (January 1989), Table 33.

in 1987.

Local property tax burdens, when expressed relative to personal income and property values, might be considered by some to be misleading because the property tax in other states funds local schools, which is not the case in Hawaii. Thus, it might be argued that a more appropriate comparison would be to look at non-school property taxes in relation to personal income and property values for a "fairer" comparison of property tax burdens. Such a comparison is presented in Table VI.9.

The first two columns of the table report property taxes per $1,000 personal income and effective property tax rates for the U.S., Hawaii, and seven comparison states. The third column reports the non-school share of local property tax collections in each of the states. Multiplying the third column by the first two generates columns 4 and 5, which report the non-school share of property taxes per $1,000 personal income and effective tax rates.

Looking only at the non-school share of local property taxes causes Hawaii's property tax burden (per $1,000 personal income) to go from next to lowest to the highest of the comparison states and the U.S. The result is less dramatic when looking at effective tax rates. When focusing only on the non-school share of property taxes, Hawaii still has a relatively low effective property tax rate, although Arizona (0.27 percent) and Nevada (0.35 percent) now report property tax rates significantly below Hawaii's (0.51 percent).

This type of partial analysis is not very useful, and can even be misleading. The important policy issue is whether property taxes are so high in Hawaii that they impact economic decisions by individuals and businesses. In this context, total property tax liabilities are important, not some portion of the property tax, especially a portion that varies from state to state. Comparing total property taxes in Hawaii with non-school taxes in other states, where local governments tend to have more diversified revenue systems than the counties, provides little useful information for policymakers in Hawaii.[13]

A final measure of the relative burdensomeness of the property tax in Hawaii is to compare the tax liability on a specific residence with the income of the household. Unfortunately, data directly linking household income and property tax liabilities for homeowners and renters in Hawaii are not available.

However, estimates of the average property tax burden in Honolulu and six comparison cities are presented in Table VI.10. A major national real estate firm annually publishes a guide comparing home prices across the nation.[14] The first column of Table VI. 10 reports the estimated cost in each of the cities of a single-family dwelling of approximately 2,000 square feet with 3 bedrooms, 2 baths, a family room, and a 2-car garage. The estimated market price for such a home in 1988 ranged from $91,600 in South Bend, Indiana to $266,317 in Fremont, California. The standard house in Honolulu is $252,667. Column 2 reports the estimated property tax on the standard house in each jurisdiction. The owner

TABLE VI.9 LOCAL NON-SCHOOL PROPERTY TAX BURDENS, SELECTED STATES, FISCAL YEAR 1986-87

	Total Property Tax Per $1,000 Personal Income	Effective Property Tax Rate on FHA Mortgages	Non-School Share of Property Tax	Non-School Property Tax: Per $1,000 Personal Income (1)*(3)	Non-School Property Tax: Effective Rate on FHA Mortgages
	(1)	(2)	(3)	(4)	(5)
U.S.	$34.35	1.16%	56.7%	$19.48	.66%
Hawaii	**21.89**	**.51**	**100.0**	**21.89**	**.51**
Arizona	35.43	.68	41.3	14.63	.28
California	30.04	1.06	66.4	19.95	.70
Florida	31.84	.89	55.4	17.64	.49
Nevada	24.38	.61	50.0	12.19	.31
New Mexico	13.56	1.01	65.0	8.81	.66
Oregon	54.19	2.26	32.5	17.61	.73
Washington	32.72	1.10	63.9	20.91	.70

Source: U.S. Bureau of the Census, 1982 Census of Governments, Volume 2, Taxable Property Values and Assessment-Sales Price Ratios, GC82(2) (February 1984), Table 22; Advisory Commission on Intergovernmental Relations, Significant Features of Fiscal Federalism, 1989 Edition, Volume I, Report No. M-163 (January 1989), Table 33.

13. The most comprehensive measure of differential tax burdens would consider all taxes imposed on a family or firm. For example, see Table V.4 for comparison of all taxes in Hawaii with the national average.

14. Coldwell Banker, A Guide For Comparing Home Prices Across the Nation (January 1989). This report lists 173 cities in 50 states and the District of Columbia. Three sample cities in Table VI.10 have estimated values for the standard house comparable with that in Honolulu; three sample cities have property tax liabilities about equal to the property tax on such a house in Honolulu.

TABLE 10. REPRESENTATIVE PROPERTY TAX LIABILITIES FOR STANDARD HOUSE IN HONOLULU AND SIX COMPARISON CITIES

	House Price 1988	Property Tax 1988	Per Capita Income 1987	Effective Tax Rate: House Price	Effective Tax Rate: Per Capita Income
	(1)	(2)	(3)	(4)	(5)
Honolulu, HA	**$252,667**	**$1,068**	**$16,431**	**0.42%**	**6.5%**
Fremont, CA	266,317	3,337	15,290	1.25	21.8
Walnut Creek, CA	251,667	3,102	22,985	1.23	13.5
Morris County, NJ	244,833	4,123	19,946	1.68	20.7
West Palm Beach, FL	125,833	1,081	13,468	.86	8.0
South Bend, IN	91,600	1,070	11,484	1.17	9.3
Louisville, KY	102,000	1,095	10,234	1.08	10.7

Source: Coldwell Banker, A Guide for Comparing Home Prices Across the Nation (January 1989).

in Fremont pays $3,337, while the homeowner in South Bend pays only $1,070. The tax in Honolulu is $1,068. Column 3 shows the per capita income of the cities in 1987.

The final two columns show the property tax liability as a percentage of the house price and of per capita income.[15] The data indicate that, for a standard house, the property tax burden relative to per capita income is 6.5 percent in Honolulu--lower than for any of the other cities. For the cities where the estimated value of the standard house is about the same as it in Honolulu, property taxes are 2 to 3.5 times higher, relative to per capita income, than in Honolulu. Alternatively, in the cities where the property tax liability on the standard house is about the same as in Honolulu, the estimated value of the house is 50 percent or less of the value in Honolulu, and the property tax liability, relative to per capita income, is 30-60 percent higher than in Honolulu.

In summary:

-- Property tax burdens per $1,000 of personal income are lower in Hawaii than the national average and in the comparison states.

-- Effective property tax rates (taxes relative to property value) are lower in Hawaii than they are nationally and in the comparison states, and they declined more between 1966 and 1986 than rates nationally.

-- After adjusting for differences in housing prices and per capita income across jurisdictions, property tax burdens are lower in Hawaii than in the comparison cities examined.

The data examined in this section indicate that property tax burdens in Hawaii are not high in either a relative or an absolute sense. Because these conclusions are based on aggregate data, some individuals in Hawaii may have high property tax liabilities relative to current personal income. In such cases, some form of property tax relief might be appropriate. The major options for providing property tax relief are considered in Section F.

E. Who Pays The Property Tax?

Each year property owners pay local governments an amount equal to their property tax liability. This transfer of funds is the initial impact of the tax. The property owner may be able to shift all or part of the tax to others through changes in the prices of things sold or purchased and through deductions on income taxes. This shifting may be either "forward" to customers or renters or "backward" to suppliers.

The ability of the property owner to shift the tax depends upon both the type of asset taxed and market conditions. In any event, the incidence (ultimate burden) of the property tax is likely to differ from the initial impact, or statutory liability.

The entire tax, whether imposed initially on business or not, ultimately becomes a burden on (that is, reduces the real incomes of) people. The question is whether the burden falls on people in their role as consumers, in their role as suppliers of labor and other resources bought by business, or in their role as the owners of the taxed properties. The general answer is that the burden of the tax falls on

15. Estimates of per capita income in 1985 for each city and county and the growth in per capita income from 1979 to 1985 are available in U.S. Bureau of the Census, Current Population Report, Series P-26, No. 86, Local Population Estimates (1988). Dividing the city's growth rate for the 1979-85 period by its county's reflects the city's relative growth rate. The April 1989 issue of the Survey of Current Business reports 1985 and 1987 per capita income by county. To calculate the estimated 1987 per capita income for each city, the growth rate in county per capita income between 1985 and 1987 is multiplied by the adjusted growth rate of the city relative to the county. The resulting adjusted growth rate is then multiplied by the per capita income of the individual city in 1985 reported by the Census Bureau.

all these activities, with differences in market conditions determining which bears the heaviest burden.

The question of tax incidence is the central issue in tax policy. It is essential to consider whose real incomes are reduced, and by how much, because one purpose of a local tax is to achieve a particular distribution of the cost of public services. For example, many states and local governments have adopted property-tax-relief policies, at least in part on the belief that the tax is quite regressive. However, most economists now believe that the property tax is less regressive than previously thought.

1. Land

The base of the real property tax includes both land and improvements. The potential for shifting the portion of the property tax falling on each component is different. Economists generally agree that a tax on land results in a decrease in the land's value (a capital loss to the land owner) at the time the tax is imposed or increased.

The supply of land is fixed; its supply cannot be reduced by a tax increase. As a result, potential users need bid no more for the land than they did before the imposition of the property tax. Since the owners of the land must pay the tax, the increased tax will lead prospective land buyers to offer less after the increase than before because the higher annual tax payment reduces the net return to land ownership. It turns out that the reduction in the land's value is exactly equal to the increased property tax liability capitalized at the appropriate discount rate. In this case, therefore, the initial impact and final burden coincide and fall on the owners of land at the time of the tax increase. Given capitalization, the level of property taxes on land at the time of purchase does not burden the buyers, who are the future land owners and taxpayers.

2. Improvements

The tax on improvements is more complicated. According to the "traditional view," the property tax on improvements is shifted forward in the form of higher rents. The property tax is viewed as an excise tax on capital improvements or housing consumption, which reduces the rate of return and slows the rate of investment in (reduces the supply of) the taxed good--for example, new structures, rehabilitation, and maintenance.

A tax increase tends, initially, to make the existing stock of structures less valuable, which tends to make future investment less attractive. The resulting supply curtailment causes users to pay higher rents for the restricted capital stock. The restriction on supply continues until rents increase by the amount of the tax. In this way, the property tax on the improvements is shifted forward to the renter.

The renters or users of the improvements, in turn, may be able to shift the tax either forward or backward. The ability of the business to shift the portion of the property tax falling on improvements depends on (1) the market structure of the industry, (2) the availability of substitutes for the product, and (3) the degree of influence the firm has in determining factor input prices.

As opposed to this "traditional view" of property tax incidence, the "new view" starts from the premise that some level of property taxation is common to all real property (land and improvements) in all jurisdictions. The analysis treats this portion of the tax as a uniform general property tax.[16] For this level of tax, the initial and ultimate burdens again coincide and fall on the owners of capital. In this scenario, the amount of capital in the economy is fixed. Therefore, as investors shift resources from real property to other capital investments in response to the diminished after-tax return on real property, the rate of return on all capital falls.

The second dimension of the "new view" of property tax incidence is an analysis of the effects of the portion of the tax that is not universal--that is, a tax applied at different rates for different property types (for example, commercial versus agricultural properties) or in different jurisdictions. It is argued that, in response to these tax differentials, resources shift from high-to-low taxed sectors in an effort to maximize the after-tax rate of return. The standard, new-view analysis, however, assumes a fixed supply of capital in the aggregate. As this capital moves around in response to tax differentials, the net return on all capital is reduced. This approach to tax incidence suggests that a larger portion of the property tax burden falls on the owners of capital than was previously thought.

The differential-tax-rate-feature of the "new view" can also be presented in a spatial context. In this case, the relevant differentials in tax rates are those across geographic areas. That is, the situation is analogous to the case of a property tax levied at different rates in different jurisdictions. The high interregional mobility of capital tends to equalize the after-tax rates of return to capital in ventures of similar risk by reducing supply in high-tax regions and

16. For a discussion see Henry J. Aaron, Who Pays the Property Tax? A New View (Brookings, 1975); and Charles E. McLure, Jr., "The New View of the Property Tax: A Caveat," National Tax Journal, Vol. 30 (March 1977), pp. 69-75.

increasing the supply of capital in low-tax jurisdictions. Thus, taxpayers in areas where the tax rate is relatively high will have to pay high before-tax prices to owners of capital, while the reverse is true in low-tax regions.

Also, because of the high mobility of workers, households, and shoppers within a metropolitan region, it follows that intra-urban property tax differentials will be borne by landowners. That is, the movement of capital (workers, households, and shoppers) out of the high-tax area depresses land values and rents because of the reduced demand. If labor and capital are perfectly mobile, one would expect land rents in the high-tax area to be reduced by the full amount of the tax. Thus, according to the "new view," intra-urban property-tax differentials are borne by landowners in the form of capital losses that arise when the property tax is imposed or increased.[17]

In summary, the "new view" leads to a number of implications that extend those associated with the "traditional view." First, the portion of the property tax common to all property falls on the owners of capital in the form of lower rates of return than would be expected in the obscure of the tax. Second, in addition to their share of the average nationwide property tax burden, owners bear a portion of the above-average tax rate differentials, particularly in urban areas. Conversely, in areas with below-average taxes, property owners tend to benefit from the low taxes and, therefore, are able to absorb some increase in taxes without depressing their returns to investment below national norms. Third, the portion of the property tax that is shifted to consumers is less important than suggested by the "traditional view."

In a paper prepared for the Tax Review Commission, Miklius, Moncur, and Leung estimate the incidence of the major sources of State and local revenues in Hawaii.[18] Using their most comprehensive definition of income, Table VI.11 presents their incidence estimates. The findings indicate that the property tax in Hawaii is regressive at the low and high ends of the income distribution, and is essentially proportional for incomes between $15,000 and $50,000.

These results suggest that the property tax is more regressive than the "new view" on the incidence of the tax suggests. For several reasons, the Miklius, Moncur, and Leung estimates may be biased in a way that tends to make the incidence appear more regressive than it would under an alternative set of assumptions.[19]

First, their estimates of the incidence of the property tax correctly consider only that part of the tax that is borne

17. What really matters is the distribution of the net budgetary affect of the local government. If a property owner pays higher taxes for higher services, property values will not fall just because of the higher taxes. Similarly, if property taxes are low because services provided are limited, property values may still be lower than would otherwise be expected. The net budgetary impact is what influences property values.

18. Walter Miklius, James E. T. Moncur, and PingSun Leung, Distribution of State and Local Tax Burden by Income Class, prepared for the Hawaii Tax Review Commission, State of Hawaii (September 1989).

19. Unfortunately, the authors do not present a detailed discussion of the assumptions underlying their estimates. However, based on a discussion with the authors, it appears their assumptions are more consistent with the traditional view of property-tax incidence. The following evaluation of their estimates is based on that conversation.

TABLE VI.11 TAXES PAID IN HAWAII BY INCOME CLASS AS PERCENTAGE OF INCOME, 1988

Expanded Income (000)	Total	Income		General Excise	Property	Other
		Individual	Corporate			
	(1)	(2)	(3)	(4)	(5)	(6)
AVERAGE	8.63%	2.53%	0.25%	3.30%	1.10%	1.45%
UNDER 5	22.08	(2.51)	0.96	12.58	5.46	5.60
5 TO 10	10.05	0.50	.41	5.35	1.36	2.43
10 TO 15	12.61	1.68	.46	6.09	1.82	2.56
15 TO 20	8.69	1.78	.29	3.86	1.00	1.75
20 TO 30	9.03	2.61	.28	3.69	1.10	1.63
30 TO 50	8.60	2.96	.23	3.06	1.10	1.24
50 TO 100	6.72	3.23	.14	1.90	.72	.76
100 TO 200	5.14	3.32	.08	.99	.37	.38
OVER 200	4.98	3.55	.02	.31	.12	.99

Source: Walter Miklius, James E.T. Moncur, and PingSun Leung, Distribution of State and Local Tax Burden by Income Class, prepared for the Tax Review Commission, State of Hawaii, (September 1989), Table 9.

However, the paper does not explain how the share of property taxes exported is actually estimated. by residents. According to data in their Table 3, residents ultimately pay about 56 percent of the local property tax--the remaining 44 percent is exported to non-residents.

This may be a conservative estimate of the share paid by residents. For example, in 1987, 53 percent of local property taxes paid fell on land. If the tax on land is assumed to be borne by the landowner, then it is exported to the extent that non-residents own land in Hawaii. Six large, private estates own 40 percent of the land area in the State, which probably underestimates their share of gross value. If residents own half of the remaining land, they own a total of 70 percent of the land and thus bear at least 37 percent of the burden of the tax (0.53 * 0.7).

If nonresidents own half of the improvements, which account for 47 percent of property taxes paid, than residents bear another 24 percent of the property tax (0.47 * 0.5). Under these assumptions, residents would pay about 61 percent of the property tax. Thus, it seems reasonable that residents could pay 55-65 percent of the local property tax, putting the Miklius, Moncur, and Leung estimate on the conservative side.

Regardless of the portion of the local property tax borne by residents, Miklius, Moncur, and Leung allocate that burden across income classes in a manner that tends to make the incidence look more regressive than it probably is. For example, to distribute the non-exported share of property taxes among income classes, the authors use estimates of property taxes paid as reported in the Consumer Expenditure Survey for the western region of the U.S.

Since the expenditure survey reports actual expenditures, the property tax numbers presumably reflect the taxes paid by individuals as homeowners. That is, the numbers do not reflect the distribution of taxes falling on rental property or on non-residential properties that are shifted to residents as consumers, suppliers, and owners of capital. According to the "new view" of property tax incidence, it would have been more appropriate to distribute the non-residential share of non-exported property taxes across income classes in proportion to capital income instead of residential property taxes paid.

Finally, given that only 40 percent of the residents of Hawaii are homeowners, compared with 64 percent nationally, relying on the Consumer Expenditure Survey for the western region may substantially overestimate the share of taxes paid by lower income groups in Hawaii. If it is assumed that homeownership in Hawaii is reduced proportionally across all income classes, compared with the entire western region, the distribution of property taxes paid from the consumer expenditure survey would be appropriate for Hawaii. However, this seems an unlikely situation. It is more likely that the share of taxes paid by low income groups is being overestimated.

For these reasons, it seems that the Miklius, Moncur, and Leung estimates of the incidence of the property tax by income class may overestimate the portion paid by low-income groups and underestimate the portion paid by high-income groups. Thus, it seems likely that the actual incidence of the property tax could be proportional through a larger range of income (probably from $5,000 to $100,000), with some regressivity at the extreme ends of the distribution. Such a situation would be more consistent with the "new view" of the incidence of the property tax.

Given the distribution of property tax liabilities across income classes suggested by the above discussion, each county government in Hawaii must decide whether some property tax burdens are either growing too rapidly or are too large relative to current income. The following section discusses aspects of general property tax relief mechanisms used in Hawaii and other states to achieve equity objectives.

F. Property Tax Relief Mechanisms

Property tax relief can be defined broadly to include not only homestead exemptions, circuit breakers, deferrals, and classification, but also various local nonproperty taxes, local nontax revenue sources, and intergovernmental aid programs.[20] Those in the first group are referred to as direct property tax relief; they directly reduce tax bills for individual properties, even though they may not affect the total property tax levies of governments. Approaches in the second group can be viewed as indirect property tax relief because they provide local governments with other revenue sources and, thereby, permit property tax levies to be lower than they might otherwise be. This section focuses on direct property tax relief mechanism currently, and potentially, in use in Hawaii. The brief review of property tax incidence presented above provides an analytical framework for evaluating individual relief mechanisms.

Direct property-tax-relief mechanisms can be divided into two general categories: broad and targeted. Broad relief is consistent with a legal requirement of uniform

20. Steven D. Gold, Property Tax Relief, (Lexington Books, 1979).

effective rates for all properties within the same taxing jurisdiction or class. The classes used for broad direct relief are defined by reference to some aspect of the property--its use, its location, or its value. In short, while global uniformity may be abandoned, the impersonal nature of the tax is preserved.

Targeted relief, by contrast, modifies the traditional nature of property taxation by personalization, that is, by taking into account one or more attributes of the owners (or occupants), such as age, income, disability, or military service. These attributes serve as the targeting variables.

To illustrate, a homestead exemption available to all owner-occupants of residential property is, by this terminology, a broad relief mechanism. Owner-occupancy defines the property-use category rather than any personal attribute of the owner-occupant. A homestead exemption restricted to owner-occupants aged 65 years and over, however, is available to only a portion of the whole class of owner-occupants; such relief is targeted. Regardless of whether the relief mechanism is broad or targeted, such programs tend to discriminate among property types, thereby redistributing the property tax burden among property owners. This reduces the efficiency advantages associated with the property tax serving as a benefit charge.

Two programs that have become quite popular in the past two decades, classification and circuit breakers, exert opposing influences with regard to targeting. Classification, by its nature, is broadly provided; while different property-use classes are treated differently, all within a class are treated uniformly. Circuit breakers, on the other hand, are inherently targeted by income, and two-thirds of these programs are further targeted to the elderly.

1. Classification

The hallmark of classification is different effective tax rates for different property classes. This discussion follows convention and applies the classification label only to programs that entail a "split" property roll.

The classified property tax system in Hawaii has eight separate classes--improved residential, apartments, commercial, industrial, agricultural, conservation, hotel/resort, and unimproved residential. Each class is further divided between land and improvements, thus creating a total of 16 separate classes of real property. In Hawaii's system of classification, differentials in effective tax rates across classes are introduced by applying different tax rates to the estimated value of land and improvements in each class.

More than a third of the states have adopted real property classification in the past 15 years, bringing the total to 22 states and the District of Columbia. The most common approach to establishing effective rate differentials is the application of a uniform nominal rate to differential assessment levels. Only five states introduce differential tax liabilities across classes of property by varying the rate (District of Columbia, Hawaii, Massachusetts, Ohio, and West Virginia).

Either approach can be effective, but some argue that the practice of establishing assessment level differences is inferior because it (1) makes it harder for taxpayers to evaluate the appropriateness of their assessments, (2) increases the potential for abuse of the assessment system and appears to make the assessor part of the tax-setting process, and (3) affects debt limits and other policies tied into assessed value figures.[21]

Other differences among classification systems include the number of classes, the degree of differences among classes, and the constitutional or statutory placement of these details. These are important policy questions to which states have provided very different answers. The number of classes, for example, ranges from 2 to 34, with most states having 5 or fewer. The classified property tax in Hawaii divides properties into 16 classes.

In order to assess the impact of classification, it is important to consider how the classification system affects the distribution of tax liabilities across classes. To make such an evaluation, this section reports information on both tax shares and effective tax rates by class. In order to focus on the impact of the classification system, the analysis proceeds in terms of the estimated full market value for each class, which is published annually in Real Property Tax Valuations, Tax Rates, and Exemptions by the Real Property Assessment Division of the Department of Finance, City and County of Honolulu.

The gross valuation estimates published in this report represent the assessors' estimate of market value. However, assessors can make errors in estimating market values. It might be argued that the gross valuations should be adjusted for such assessment errors through the application of assessment-sales ratios.[22] However, since the focus

21. Advisory Commission On Intergovernmental Relations, The Property Tax: Reform or Relief? A Legislator's Guide, Report No. 2 (1973).

22. In Hawaii, annual assessment-sales ratios are computed for residential properties only.

here is on the effect of the classification system on tax burdens and effective tax rates, and the classification system does not affect assessment quality, such adjustments are not necessary. Accordingly, the following discussion evaluates the impact of classification without adjustment for assessment error.

Table VI.12 shows the share of gross valuation of property by class and county for 1984 and 1990. A couple of interesting observations emerge from the data. First, in Maui, Hawaii, and Kauai, the share of gross value attributable to improved residential property changed very little from 1984 to 1990. In Honolulu, however, the improved residential class accounted for 53 percent of gross value in 1984. By 1990, however, the class accounted for only 46 percent--a decline in relative importance of 13 percent.

While the importance of the apartment class remained relatively constant in Honolulu from 1984 to 1990, it declined in the other three counties. In fact, in Maui and Kauai, the relative importance of apartments fell dramatically from 1984 to 1990, from 34 percent and 28 percent of gross value, respectively, in 1984 to just 13 percent and 18 percent in 1990. Apartments on the neighbor islands, are largely owned by nonresidents, and that market has been soft since the early 1980's.

Agricultural property maintained its relative importance in both Honolulu and Maui from 1984 to 1990. In contrast, agriculture's share of gross value in Hawaii dropped dramatically from 34 percent in 1984 to 25 percent in 1990. Conversely, the share increased somewhat in Kauai, from 7 percent of gross value in 1984 to 9 percent in 1990.

Finally, the share of gross value in the hotel/motel class increased from 1984 to 1990 in Maui, Hawaii, and Kauai, while falling somewhat (from 6 percent to 5 percent) in Honolulu. Maui and Kauai experienced dramatic growth in the relative importance of hotel/motel properties over this period. Their respective shares of gross values increased from 11 percent and 7 percent in 1984 to 26 percent and 14 percent in 1990.

TABLE VI.12 SHARE OF GROSS VALUE BY PROPERTY CLASS AND COUNTY, 1990 AND 1984

	Share of Gross Value, 1990				Share of Gross Value, 1984			
	Oahu	Maui	Hawaii	Kauai	Oahu	Maui	Hawaii	Kauai
Improved Residential	46.4	30.9	30.3	39.8	53.4	29.7	30.0	40.1
Apartment	18.3	12.6	13.4	17.6	17.3	34.0	14.5	28.2
Commercial	13.4	7.2	6.6	8.2	12.0	5.4	6.5	8.5
Industrial	10.8	5.6	4.7	3.7	7.9	4.8	3.4	3.5
Agricultural	1.3	12.3	25.1	8.6	1.4	11.7	34.4	6.8
Conservation	1.0	2.0	4.7	2.2	0.2	0.4	1.2	0.8
Hotel/Resort	4.8	26.3	10.6	14.3	5.5	10.9	6.5	6.6
Unimproved Residential	4.0	3.0	4.6	5.5	2.5	3.1	3.7	5.5
County Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE VI.13 SHARE OF TAXES PAID BY PROPERTY CLASS AND COUNTY, 1990 AND 1984

	Share of Taxes Paid, 1990				Share of Taxes Paid, 1984			
	Oahu	Maui	Hawaii	Kauai	Oahu	Maui	Hawaii	Kauai
Improved Residential	42.6	21.7	25.3	29.8	47.8	26.6	24.4	34.4
Apartment	17.3	11.2	15.5	22.7	17.2	37.1	15.2	31.1
Commercial	17.8	8.4	7.2	9.8	14.8	5.5	6.8	9.7
Industrial	10.2	6.3	4.0	3.7	9.9	4.6	3.7	4.1
Agricultural	1.4	9.6	28.0	9.6	1.6	11.7	38.5	8.0
Conservation	0.5	0.9	2.1	1.8	0.2	0.3	1.4	0.8
Hotel/Resort	9.3	39.9	13.2	18.9	7.2	11.1	6.5	6.7
Unimproved Residential	1.0	1.9	4.7	3.8	1.3	3.0	3.6	5.2
County Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Table VI.13 shows the share of taxes paid by each class of property by county in both 1984 and 1990. If tax liabilities were distributed equitably across property classes, each class would account for the same share of gross value as taxes paid. From an equity perspective, this is what would be expected of a tax on wealth. However, because tax rates vary across

counties and property classes, the data in Table VI.13 identify a number of interesting trends.

In both 1984 and 1990, improved residential properties contributed a smaller share to property tax payments than they did gross value, and the degree of divergence is larger in 1990. For example, improved residential property on Kauai accounted for 40 percent of gross value in 1984, but contributed 34 percent of tax payments. By 1990, this class of property accounts for 40 percent of gross value, but only 30 percent of property tax payments.

Somewhat surprisingly, the story for apartments is mixed. In 1990, apartments contribute less to property tax payments than their share of gross value in Honolulu and Maui. In Hawaii and Kauai, however, their share of tax payments is higher than their share of gross value. For Hawaii and Kauai, this pattern held for 1984 as well, although the difference is larger in 1990 than 1984.

For commercial property, the share of taxes paid is higher in both years and for all counties than the share of gross value, although the differential is never really very large. The story is somewhat different for industrial property. In 1984, industrial property in all counties except Maui contributed slightly more to tax payments than to gross value. However, by 1990, industrial property in Maui contributes some-what more to tax payments than to gross value (6.3 compared with 5.6 percent), but it contributes less to tax payments than to gross value in Honolulu and Hawaii.

Again, the results for agricultural properties are somewhat surprising. In 1984, agricultural properties in Honolulu, Hawaii, and Kauai contributed slightly more to property tax payments than to gross value. This was still the case in these three counties in 1990, although the difference is smaller than it was in 1984. In 1990, agricultural properties in Maui account for 12 percent of gross value, but pay only 10 percent of property taxes.

Finally, the situation for hotel/motel property is what would be anticipated in a tourist-oriented economy. In 1984, this class contributed marginally more to tax payments than to gross values in all counties except Hawaii, where the shares were equal. By 1990, this class of property contributes substantially more to tax payments than to gross value in all four counties. For example, in Maui, hotels/motels account for 26 percent of gross value, but 40 percent of property tax payments, in part because nominal tax rates increased from $4.50 in 1984 to $8.00 in 1990. Thus, a significant portion of these taxes are exported to the foreign owners of the properties and non-resident tourists frequenting these establishments.

The classified property tax system in Hawaii causes tax shares for individual classes of property to diverge from their shares of gross value more in 1990 than in 1984. This shifting of liabilities reflects differential growth rates in gross value, as well as changes in nominal tax rates between 1984 and 1990. Such shifting favors improved residential and conservation property in all counties and apartments in Honolulu and Maui. This favorable treatment comes at the expense of higher tax shares being paid by commercial and hotel/motel properties in all counties. The results for industrial and agricultural properties vary across counties with no specific trend in relative treatment.

Finally, Table VI.14 presents effective tax rates by class for each county for 1984 and 1990. The effective rates reported in this table are calculated by dividing the total tax paid by each class by the gross valuation in that class. In 1990, average effective rates over all classes of property were 0.52 percent in Honolulu, 0.51 percent in Maui, 0.70 percent in Hawaii, and 0.62 percent in Kauai.

Effective tax rates vary from a high of 1.01 percent for hotel/motel properties in Honolulu to 0.14 percent for unimproved residential properties in that county. The ratio of highest to lowest rates across classes is largest in Honolulu (7), while it is only 3.5, 2.7, and 1.9 in Maui, Hawaii, and Kauai, respectively. However, all counties had larger rate differentials in 1990 than in 1984.

Effective tax rates are lowest for conservation and unimproved residential properties in all counties (except unimproved residential properties in Hawaii) and highest for hotel/motel properties in all counties. Effective rates for improved residential properties are generally the lowest after conservation and unimproved residential.[23] Apartment, industrial, and agricultural classes are generally in the middle range of effective rates, although their relative positions vary across the counties. Effective rates in the commercial class are next to the highest, though they still are relatively low compared with effective rates for commercial

23. Effective property tax rates for residential properties ranged from 0.58 percent in Hawaii to 0.36 percent in Maui. Given the tendency for assessors to undervalue properties generally, and since the gross value estimates have not been adjusted for such assessment error, true effective rates on residential properties are even lower.

TABLE VI.14 EFFECTIVE PROPERTY TAX RATES BY PROPERTY CLASS AND COUNTY, 1990 AND 1984

	Effective Property Tax Rates As a Share of Total Gross Value 1990				Effective Property Tax Rates As a Share of Total Gross Value 1984			
	Oahu	Maui	Hawaii	Kauai	Oahu	Maui	Hawaii	Kauai
Improved Residential	0.48	0.36	0.58	0.46	0.57	0.36	0.64	0.57
Apartment	0.49	0.45	0.81	0.8	0.63	0.44	0.82	0.73
Commercial	0.7	0.6	0.76	0.75	0.79	0.42	0.83	0.76
Industrial	0.49	0.58	0.59	0.62	0.8	0.39	0.85	0.78
Agricultural	0.58	0.4	0.78	0.69	0.73	0.41	0.87	0.78
Conservation	0.25	0.22	0.32	0.49	0.63	0.33	0.87	0.73
Hotel/Resort	1.01	0.78	0.87	0.82	0.84	0.42	0.78	0.68
Unimproved Residential	0.14	0.33	0.71	0.43	0.35	0.39	0.78	0.63
County Average	0.52	0.51	0.7	0.62	0.64	0.41	0.78	0.66

properties in other states.[24]

While it is unlikely that the relatively low effective rates for all classes of property in Hawaii would discourage investment in the State, within-class variations among the counties could influence location decisions. For example, the effective property tax rate on hotel/resort properties in 1990 is 30 percent higher in Honolulu than in Maui; the differential was 100 percent in 1984. Such a differential could encourage development on Maui rather than Oahu, other things being equal. In fact, between 1984 and 1990, the share of gross value attributed to this class increased 150 percent on Maui, but it actually declined on Oahu.

Similarly, from 1984 to 1990, Honolulu was the only county to reduce its effective tax rate on apartments (by 22 percent). It was also the only county where apartments' share of gross values increased in spite of a relatively weak market. Hawaii and Honolulu reduced their tax rates on industrial properties the most over the 1984-90 period and experienced the largest increases in the contribution of that class to gross valuation.

The ratios of high to low effective tax rates among classes of property in other states with classified taxes range from 1.1 to as high as 27.5; most states have ratios of less than 3. Once the decision is made to depart from uniformity, however, there is no objective "right" pattern; it is a subjective question of equity. Creation of additional classes seems to be a problem if they are legislatively determined, and additional classes mean a larger number of decisions to contend with and increased administrative effort.

A former tax commissioner of Minnesota, where the classes are established by statute, has characterized the tax differences as depending on political power rather than on economic differences or on matters of equity, as usually conceived.[25] West Virginia's 50-year old, unchanged constitutional system shows, however, that instability is not an inherent feature of classification.[26]

In the context of the theory of the property tax discussed above and in the Appendix, a classified property tax reduces both the equity and efficiency of the tax. The primary vehicle for such distortions is the wedge driven between market values and tax shares that results from classification.

On equity grounds, the property tax is considered to be consistent with one's ability to pay as reflected in the value of accumulated assets. Market value, where established, represents an objective determination of the value of such assets though voluntary market transactions. Thus, property tax rates should apply to bases that are equal to market value. In other words, a dollar's worth of value in any class of property represents the same wealth as it would in any other class.[27] Since the classified property tax in Hawaii causes tax shares to diverge from market shares, inequities

24. In a recent study, effective real property tax rates were calculated for a large general merchandise store in 47 cities in 28 states. Effective real property tax rates ranged from a high of 5.58 percent in St. Paul, Minnesota, to 0.79 percent in Reno, Nevada. Not one of the 47 cities had lower effective tax rates than commercial properties in Hawaii, where effective rates ranged from 0.76 percent in the county of Hawaii to 0.60 percent in Maui. See Alex Wolman, "Business Property Taxes: How Does Minnesota Compare With Other States?" Minnesota Tax Revenue and Policy Review (February 1989), pp. 1-8.

25. Roland F. Hatfield, "Minnesota's Experience with Classification," The Property Tax: Problems and Potentials (Tax Institute of America, 1967), pp. 239-44.

26. John H. Bowman, Issue #4: Property Tax Equity and Efficiency (West Virginia Tax Study Commission, 1984).

27. John H. Bowman, Arizona's Classified Property Tax, submitted to the Arizona Joint Select Committee on State Revenues and Expenditures (July 1989), pp. 36-40.

are built into the property tax. Such inequities may be the result of explicit effort to export the tax to nonresidents.

Differences between market and tax shares also result in increased inefficiencies associated with the tax. As tax and market shares diverge, the advantage of the property tax as a benefits charge to finance local public goods is reduced. For example, residential property occupants who are subsidized through a classified property tax will tend to demand more public goods and services since they pay a disproportionately small share of the cost. Thus, a classified property tax will tend to result in the production of too high a level of local public goods and services.

In addition, differentials in effective tax rates across states or within a state tend to distort economic decisions. To the extent rate differentials across states affect location decisions, Hawaii is likely to be a prime beneficiary, since it has relatively low effective tax rates. However, within-state differentials can distort economic decisions, reducing the overall productivity of the economy. Again, divergence between market values and tax shares tend to aggravate these inefficiencies. Tax differentials that reflect differential levels and quality of service will not distort location decisions since it is the balance between benefits received and taxes paid that affect location decisions.

To avoid, or at least minimize such equity and efficiency distortions, local governments should assess all properties at full market value and apply uniform rates to all properties. Targeted tax relief should be provided in other ways.

2. Circuit-Breaker Programs

Circuit-breaker relief programs, provide favorable effective rates for claimants' property taxes, as does classification, but circuit breakers are more narrowly targeted. Because circuit breakers take many forms, generalization about their details is difficult. What they have in common is that relief is inversely related to income. When property taxes rise to levels that are judged to constitute an "overload" relative to income, the relief program "breaks" the load.

Circuit breakers accept both property ownership and income as indicators of economic well-being (ability to pay taxes), but the decision to provide relief is based on income when income is relatively low. Thus, benefits can be targeted to those considered to be most in need of tax relief.

A 1988 survey identified 33 states with circuit breaker programs, all of which, by definition, are targeted by income. In the 33 states, 24 programs are restricted to the elderly and 8 apply to all homeowners. Overall, 26 programs apply to renters.[28]

Hawaii has two circuit-breaker programs, one administered by the State government and the other by the City and County of Honolulu. The State program applies to all renters. Taxpayers with adjusted gross incomes under $20,000 who pay more than $1,000 in annual rent qualify for a refundable tax credit of $50 per qualified exemption. Taxpayers 65 years of age and over may claim double credits. In 1985, 77,848 renters claimed credits, and the program cost the State government $4.2 million.[29]

In addition, the City and County of Honolulu has a circuit-breaker program for homeowners. It is a threshold-type program, which refunds that portion of the homeowner's property tax payments that exceeds 5 percent of total household income. Household income is defined broadly and includes the income of all members of the household. If total household income exceeds $20,000, the household is not eligible for relief. The maximum refund is $500.

Issues concerning the design of residential circuit-breakers include the definition of income, the type of benefit formula, whether to include renters, whether to include the non-elderly, and whether to impose income and/or benefit ceilings. Flexibility on these matters is a major advantage claimed for the circuit-breaker. The choice is nearly unanimous among circuit-breaker states on only one design feature: virtually all use total money income. Omitting income from any source violates the principle of horizontal equity (treating persons with the same amount of income the same). The omission of some source of income must be defended on grounds other than equity.

The choice between the two fundamental formula types seems to turn upon the question of the major sources of property tax differences within an income group. A sliding scale formula relieves a constant percentage of property tax for all persons in a given income class. For example, a state may provide that those with incomes below $1,000 be relieved of 90 percent of their property taxes (perhaps up to a maximum benefit), those with incomes between $1,000 and $2,000 receive an 80 percent reduction, and so forth.

The threshold approach, on the other hand, defines an acceptable (or threshold) amount of property tax as

28. Advisory Commission on Intergovernmental Relations, Significant Features, 1989, op. cit., Table 34.

29. Ibid., Table 35.

some percentage of income; the dollar amount of this threshold, of course, rises as income rises. Relief is given only if the actual tax bill exceeds the threshold percentage of income.

Turning briefly to other design issues, renters are included in most states' circuit-breakers. This generally is done by defining some percentage of rent as the property tax equivalent. This approach generally rests on the standard view of property tax incidence, which concludes that renters pay the property taxes imposed on the structures in which they live. Full shifting of the tax to renters is considered unlikely under the "new view" of property tax incidence, which holds that property owners are considered likely to bear a significant share of the tax burden. Therefore, the case for including renters in a circuit-breaker program is less clear than it is for owner-occupiers. In fact, since many renters behave as if they do not pay the property tax, thereby undercutting the advantage of the tax as a benefit charge, one might argue that steps should be taken to make the property tax on renters more visible, not less burdensome.

With regard to age eligibility, equity considerations are on the side of including the non-elderly. A program that introduces explicit income criteria for determining benefits need not resort to age as a proxy for need.

Finally, there is the question of whether to impose limits on circuit-breaker benefits. Because expenditures for housing generally do not rise in proportion to income, a threshold formula automatically results in benefits that are inversely related to income. Even with no stated income limit, this approach will tend not to provide significant relief to higher income groups. A sliding-scale formula, by its nature, must set an upper income limit (unless its top bracket is open ended, which would provide relief to all income levels). The questions are what will that limit be? How many income classes will be defined within that ceiling? What the relief percentages for each income class will be? Should limits on benefit amounts be established? The answer to these questions may vary across counties in Hawaii, so each jurisdiction may want to design its program to reflect these differences.

3. Exemption

The property tax is the product of the base (assessed value) and the rate. In some circumstances, the entire value of a property, or class of property, may be excluded from the base; such property is said to enjoy complete or total exemption. For example, in Hawaii all forms of personal property are excluded from the property tax base, that is, they receive a total exemption.

Table VI.15 lists, by county, the total and partial real property exemptions in Hawaii in 1990. Examples of real property that are totally exempt from taxation include that owned by the federal government (valued at $2.4 billion), the State government (valued at $6.1 billion), and county governments (valued at $1.7 billion). Such government property represents 13 percent of gross value statewide; and 16 percent on Honolulu.

In addition to such total exemptions, some property in Hawaii is partially exempt from the property tax. A partial exemption reduces the base by subtracting some amount from assessed or market value. While the exempt amount could be expressed as a percentage of gross value, standard practice is to exempt some dollar amount. This approach results in a larger percentage of the value of lower-valued properties being exempt.

The major program providing partial exemption from the property tax in Hawaii is the homeowner's exemption. For fiscal year 1990, the homeowner's exemption is $20,000 of assessed value. When the value is less than $20,000, the property is totally exempt; where the value is more than $20,000, the amount of $20,000 is exempt, regardless of the homeowner's income.

Taxpayers 60 to 69 years of age are entitled to double the basic exemption; those 70 years of age or over are entitled to 2.5 times the basic exemption. Where property is jointly owned by husband and wife, the multiple exemption is allowed if either spouse qualifies. In order to qualify for the exemption, the property must be owned and occupied as the "principal" residence as of the date of assessment (January 1).

In fiscal year 1990, the homeowner's exemption reduced taxable property rolls in Hawaii by a total of $4.8 billion--about 8.5 percent of the total taxable property. The exemption accounts for 25 percent of the value of all exemptions listed in Table VI.15, and 58 percent of non-governmental exemptions. The exemption provides tax relief to all homeowners based on the value of the residence and age of the owner, without consideration of the ability of the homeowner to pay the tax liability. Thus, the exemption undercuts the property tax as a benefit tax; and the program gets poor marks for targeting relief on those most in need because it provides tax relief to an entire class of property owners, including high-income owners of residential property.

Typically, the cost of a homeowner's, or homestead, exemption is borne locally by the

taxing jurisdiction.[30] If local revenues are maintained at the level they would have been in the absence of the exemption, the tax rate must be set higher to compensate for the smaller base. This causes local taxpayers who do not benefit from the exemption to bear higher taxes than they otherwise would. The cost of the exemption could be shifted to all state taxpayers if the state government were to reimburse the localities for the lost revenue. Alternatively, relief could be targeted on low-income homeowners (or renters), at a lower cost to local governments in foregone revenues, if the current broad exemption were replaced with more targeted relief through a circuit breaker or credit.

4. Credit

Unlike a property tax exemption, which reduces the tax base, a property tax credit is subtracted from the tax bill after the liability has been calculated. Although a credit could be equivalent to any exemption, in practice the credit often is different because it is calculated as a specified percentage of the gross tax liability. This gives the same result as a partial exemption set equal to a percentage of gross value--an approach that, as noted earlier generally is not used.

Another practical, although not inherent, difference is that the cost of a credit, more often than the cost of an exemption, tends to be borne by the state. The fact that, with a credit program, a gross tax amount is calculated before the credit is subtracted may make decision makers more aware of the costs of their decisions and, therefore, more likely to consider them carefully. Alternatively, an exemption makes it easier to ignore the revenue consequences, particularly if only net assessed values are brought forward for consideration in establishing tax rates. Thus, something of a tradeoff is posed for those seeking redistribution: exemptions, more than credits, tend to favor low-valued properties, but exemptions are more likely to be locally financed.

An example of a credit is the Minnesota Homestead Credit program. Under this program, the State pays directly to the local government 54 percent of each homeowner's gross property tax liability, up to a maximum payment per homeowner of $760. The local jurisdiction calculates the homeowner's gross tax liability and then subtracts the State payment before sending the property owner a statement of the net property taxes owed.

The problem with this approach to property tax relief is that it undercuts local accountability by driving a wedge between taxes paid and benefits received. That is, the homeowner who is below the $760 maximum state credit will be buying $1 worth of local services for only $0.46. Thus, the property tax no longer provides reliable price signals to the homeowner or the local government. In fact, Bell and Bowman show that, because of this "price" effect, the Homestead Credit program in Minnesota tends to encourage local governments to spend at higher levels than they would have if the homeowner had to pay the full incremental cost of local services.[31]

5. Freeze

Another approach to direct property tax relief is the freeze. A freeze can apply at any point in the calculation of the property tax--the base (assessed value), the rate, or the tax amount itself. Freezing the tax amount obviously is the most effective way to keep the tax from rising; if only the base or the rate were frozen, changes in the other variable still could serve to increase the tax. A tax freeze may apply only to the aggregate levy. Tax bills for individual parcels may change, in this case, with increases in some bills matched by decreases in others, merely redistributing the tax burden among property owners.

As part of a revenue-diversification option made available to local governments a decade ago, Indiana froze property tax levies in counties adopting a local income tax while freezing rates in the non-adopting counties. California's Proposition 13 includes a partial assessment freeze (maximum annual increase of 2 percent) for properties whose ownership does not change hands.

The major drawback of an assessment freeze is that it builds inequities into the property tax system. For example, two identical houses next door to each other in California receive the same benefits from local expenditures, but may not pay the same property tax. The assessed value of a house in California cannot increase more than 2 percent a year until it is sold, where the market value becomes the new assessment base. Thus, if one of the identical houses sold recently, and the other has not sold since 1975, their assessed values--and hence their property tax liabilities--will vary substantially. Such inequities in the property tax should be avoided.

6. Use-value Assessment

Since the advent of general ad

30. Of the 43 states with some form of homestead exemption or credit in 1988, 17 provided partial or full state reimbursement, Ibid., Table 36.

31. Michael E. Bell and John H. Bowman, "The Effect of Various Intergovernmental Aid Types on Local Own-Source Revenues: The Case of Property Taxes in Minnesota Cities," Public Finance Quarterly, Vol. 15, (July 1987) pp. 282-97.

TABLE VI.15 NUMBER AND AMOUNT OF EXEMPTIONS BY TYPE AND COUNTY FOR THE FISCAL YEAR 1989-90($ in thousands)

Type of exemption	C & C of Honolulu		County of Maui		County of Hawaii		County of Kauai		Statewide	
	Number	Amount	Number	Amount	Number	Amount	Number	Amount	Number	Amount
Federal Government	242	2,241,730	45	19,607	83	87,131	31	14,163	401	2,362,631
State Government	1,936	5,188,174	974	281,042	2,140	548,254	888	130,324	5,938	6,147,794
County Government	1,591	1,365,825	438	131,154	606	122,812	264	49,115	2,899	1,668,906
Hawaiian Homes Commission	291	28,008	193	9,725	278	28,699	123	8,247	885	74,679
Hawaii Housing Authority	305	687,306	94	38,705	31	10,355	16	2,219	446	738,585
Homes - Fee	91,632	2,758,227	13,626	395,681	19,998	580,335	7,435	226,002	132,691	3,960,245
(Basic)	56,033	1,155,569	8,471	168,993	11,637	230,937	4,252	84,781	80,393	1,640,280
(Multiple)	35,599	1,602,658	5,155	226,688	8,361	349,398	3,183	141,221	52,298	2,319,965
Homes - Leasehold	28,512	744,127	873	25,473	1,281	35,122	330	10,815	30,996	815,537
(Basic)	21,662	433,327	526	10,315	830	16,361	164	3,280	23,182	463,283
(Multiple)	6,850	310,800	347	15,158	451	18,761	166	7,535	7,814	352,254
Blind	331	8,076	28	654	75	1,265	19	461	453	10,456
Deaf	74	1,825	6	109	20	380	2	45	102	2,359
Leprosy	4	100	3	49	3	29	2	44	12	222
Totally Disabled	3,346	81,945	369	8,477	1,328	24,218	350	7,847	5,393	122,487
Totally Disabled Veterans	324	54,433	22	2,956	45	3,125	19	1,927	410	62,441
Alternate Energy	1	73	0	0	0	0	0	0	1	73
Cemeteries	48	18,393	7	82	48	1,947	7	485	110	20,907
Churches	787	557,434	209	65,012	270	42,250	132	30,310	1,398	695,006
Civil - Condemnation	85	37,604	0	0	0	0	0	0	85	37,604
Consulates	8	8,539	0	0	1	20	0	0	9	8,559
Co-ops	24	23,815	1	60	1	215	0	0	26	24,090
Credit Unions	20	10,399	8	2,235	5	3,151	6	2,674	39	18,459
Crop Shelters	50	8,834	3	174	1	24	14	616	68	9,648
Forest Reserve	1	176	4	67	7	49	1	771	13	1,063
Government Leases	81	57,225	20	2,123	33	5,031	9	1,024	143	65,403
Hawaiian Homes - 7 Year	298	27,405	62	5,557	95	1,864	17	1,668	472	36,494
Historic Residential Properties	17	6,937	0	0	0	0	3	1,325	20	8,262
Hospitals	59	287,011	12	18,310	0	0	3	5,456	74	310,777
Landscaping, Open-Space	15	7,364	1	10	64	12,816	5	3,984	85	24,174
Low-Moderate Income Housing	281	320,998	2	6,279	24	26,784	5	8,058	312	362,119
Charitable Organizations	325	306,958	93	36,790	147	39,788	41	9,477	606	393,013
Pollution Control Facilities	1	102	0	0	0	0	0	0	1	102
Public Utilities	480	359,234	67	39,631	153	23,020	71	7,963	771	429,848
Roadways & Waterways	2,803	3,120	755	3,319	1,146	218	333	107	5,037	6,764
Schools	97	368,953	7	7,715	33	21,666	3	474	140	398,808
Setbacks	12	6,231	0	0	1	8	0	0	13	6,239
Miscellaneous	9	25,720	19	3,475	29	15,006	5	380	62	44,581
Total	134,090	$15,602,301	17,941	$1,104,471	27,946	$1,635,582	10,134	$525,981	190,111	$18,868,335

Note: Amount includes government parcels at actual value and exemptions on federal lease, if any.

Source: Real Property Tax Valuations, Tax Rates, and Exemptions 1989-90Tax Year, by Real Property Assessment Division, Department of Finance, City and County of Honolulu.

valorem property tax in the mid-nineteenth century, valuation according to highest and best use, rather than actual use, has been the standard. In many cases, current use and highest and best use are the same. As property values rise in transitional areas, properties used for purposes whose value in the market is relatively low tend to experience rising taxes compared with the income generated by those uses. One result can be pressure to provide relief by ignoring highest-and-best-use (market) value and looking only at actual-use value.

The divergence between use value and market value tends to be largest for agricultural land in the rural-urban fringe. Starting with Maryland in 1956, 49 states now provide some sort of actual-use valuation for at least some categories of agricultural land. Some states apply the actual-use-value standard to housing, as well.[32] Section 8-7.1. of the Revised Ordinances of Honolulu stipulates that agricultural lands in Hawaii will be assessed according to actual-use value rather than market value in its highest and best use.

State-mandated dedications fall into this same category. Such dedications require the current landowner to commit to continuing the land in a particular use for some minimum period of time. The dedication entitles the landowner to assessment based on the value of the land in the dedicated use, rather than in its current highest and best use. Such dedications in Hawaii include:

- Agricultural and ranching lands in an agricultural district dedicated to agricultural use for 20 years. Such lands are assessed at 50 percent of actual use value.
- Agricultural land in an urban district is assessed at actual use value.
- A golf course dedicated for 10 years with 5-year notice of intent to change use is assessed at actual use value rather than market value.
- Open spaces in urban districts dedicated for 10 years with a 5-year notice of intent to change land use are totally exempt from taxation.

Such special treatment is designed to cause market value to diverge from assessed value. As a result, neither the benefit nor the ability-to-pay principles of taxation is honored, and private economic decisions are distorted by tax considerations, resulting in a less efficiency economy.

7. Deferral

A deferral program simply delays the time by which the property tax, or a portion of it, has to be paid. Property taxes may impose hardships on those with property wealth that is large relative to current income, even though their property holdings place them on the economic ladder beyond the point at which it might seem desirable to stop any subsidy. The hardship posed by cash-flow fluctuations may be aggravated by an inability to borrow on reasonable terms against the asset value.

When these conditions are met, a state (or local) tax deferral may be appropriate. The deferred portion of the tax amounts to a loan that creates a lien against the property. The loan comes due when the property changes hands, or when other possible conditions (for example, income level) change. If the full amount of the deferred tax, plus interest at the government's borrowing rate, ultimately must be paid, deferral--unlike the other relief forms discussed--does not provide a subsidy.

In addition to agricultural deferral programs, the most recent survey found homeowner deferrals in 12 states.[33] The programs attract only a small fraction of the eligible group, apparently because a loan is less attractive than a subsidy.

G. Conclusions

This chapter examines the role of the property tax in Hawaii's State-local revenue system, resulting property tax burdens, and how the State is currently providing property tax relief. The chapter also lays out the theory underlying the property tax and presents a case why the tax should be an important part of any local finance system.

Property tax burdens are significantly lower in Hawaii than they are nationally and in neighboring states. However, the counties in Hawaii are much more dependent on the tax for own-source revenues than cities and county governments nationally.

In this context, the counties should consider the impact of current arrangements on the equity and efficiency of the property tax, the excessive burden the tax may place on some families and firms, and the overall role of the tax in their fiscal systems.

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32. John H. Bowman and John L. Mikesell, "The Importance of Property Tax Structural Variations for Effective Property Tax Reforms: Barriers Created by Misconceptions", State and Local Government Review, Vol. 12 (September 1980), p. 92.

33. Stephen D. Gold, Property Tax Relief, (D.C. Health, 1978), pp. 3 and 4.

1. Equity and Efficiency

The chapter makes the case that the property tax can be consistent with both the ability-to-pay and the benefit principles of taxation. In order to realize the equity and efficiency advantages of the tax, it is important that all classes of property be assessed at full market value, an objective estimate of an asset's value. Such a base, accurately evaluated, gives an estimate of ability-to-pay across classes if the value of real property owned is judged to be an appropriate index of ability. In addition, the tax is an appropriate mechanism for financing public services whose benefits are distributed in rough correlation with property values.

In order to accomplish these objectives, counties should require their assessors to determine annually the full market value of all properties. In pursuing this task, assessors should use all of the tools they have available to determine value--including sales, income and cost data. Mandated assessment procedures that limit the information assessors can use to determine value should be avoided.[34] Given the importance of foreign ownership in Hawaii, the State should play a role in obtaining income data from non-residents that county assessors can access to determine value through the income approach. As a general rule, however, sales data should be used whenever available.

The performance of Hawaii's assessors in valuing residential properties is somewhat uneven. Because of the higher numbers and frequency of sales of residential properties, it is commonly believed that assessors will value such properties accurately; focusing on residential assessment performance, therefore, should place assessors in a relatively favorable light. However, in Hawaii, only limited use is made of sales data because assessors are required to use the cost approach to value improvements. As a result, since assessors are limited in the type of information they can use in estimating market value, it should not be surprising that assessments are somewhat uneven.

The Property Technical Office of the Real Property Assessment Division of the City and County of Honolulu's Finance Department annually prepares an assessment-sales ratio study for residential properties in each county. In 1987, the overall mean assessment ratios were 87 percent in Honolulu, 85 percent in Maui, 88 percent in Hawaii, and 90 percent in Kauai. Since assessors tend to keep estimated market value below actual market value, and given the limitations imposed on the assessors in Hawaii, these results are better than might be expected.

The report also presents coefficients of dispersion for each county. In 1987, coefficients of dispersion were 12 percent in Honolulu, 17 percent in Maui, 22 percent in Hawaii and 15 percent in Kauai. By national standards, these coefficients are somewhat higher than one would like, but given the constraints imposed on local assessors they are certainly reasonable.[35]

Now that the counties have taken over full responsibility for administering the property tax, for both economic efficiency and equity considerations, the first priority should be to ensure that property is assessed as close to full market value as possible. Improvements in this area can be made by allowing the assessors in Hawaii to use the full range of technical tools available to them to determine market value.

Efforts to provide certain classes of properties with relief from property taxes should not be pursued through the assessment process. If the property tax is to maintain its credibility as a source of revenue, local governments must make a serious effort to assess all properties as close to 100 percent of market value as possible.

Once all real property is valued at market value, a uniform rate should be applied to determine each property's gross tax liability. As discussed above, differential effective property tax rates in an ability-to-pay context, whether due to differential assessments or rates, distort economic decisions--especially among counties in the State.

To avoid such distortions, effective property tax rates should be uniform across property types and jurisdictions. If rates are uniform, economic actors cannot avoid the tax by changing their behavior, so the inefficiencies resulting from differential rates can be reduced. In this setting, decisions will be made on economic, rather than tax, considerations. However, rates can be set at whatever levels are deemed appropriate to the extent that the tax is being used as a benefit-financing tool. Since benefits received from public services are commensurate with taxes paid in this case, differential rates will not have adverse impacts on economic efficiency.

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34. This should include doing away with the requirement that assessors partition a property's value into land and improvement components. The current process is artificial and tends to overstate the value of land. Since it is the interaction of land and improvements that create a parcel's worth, values should be determined on a parcel or individual property basis.

35. Generally, a coefficient of dispersion of 10.0 percent is considered good and a coefficient of 20.0 percent is considered at the upper-bound of the acceptable range.

2. Property Tax Burdens

Even though effective property tax rates are very low in Hawaii, some individual properties may have high tax burdens relative to current income. Counties need to consider when such circumstances warrant relief and what relief mechanisms are most appropriate to accomplish that limited policy objective.

The discussion of the theory of the property tax indicated that property tax burdens may be higher on the owners of capital (including homeowners) than previously thought. Since the ownership of capital tends to be progressively distributed, property tax relief should not be granted to entire classes of property owners. For example, providing property tax relief to all homeowners would include low and high income homeowners. Similarly, relief for elderly homeowners or renters benefits everyone in those classes of beneficiaries, regardless of their ability to pay current property tax liabilities.

If much of the burden of the property tax is borne by owners of capital, and not shifted forward to tenants, the case for providing relief to renters is significantly weakened. Such programs should be reevaluated by the individual counties. Similarly, the counties should seriously reevaluate all total and partial exemptions currently given to various classes or uses of property or to owners of property with various characteristics, such as elderly and disabled persons. This should include reevaluation of all homestead exemptions; exemptions for other land uses, including utility companies, churches, co-ops, credit unions, historic properties, hospitals, and pollution-control facilities; as well as the blind, the deaf, and the disabled. Whenever possible, such general relief programs should be replaced with programs that target property tax relief on those with the greatest need.

In addition to reevaluating individual exemptions, counties should also reevaluate their classified property tax schemes. By definition, a classified property tax creates effective rate differentials which distort private economic decisions. The primary beneficiaries of Hawaii's classification system are residential property owners, as they are for Hawaii's homestead exemption and federal tax rules that allow the deduction of property taxes and mortgage interest. Such broad relief reduces local tax revenues substantially more than would be needed to provide targeted relief to those most in need.

To realize the equity and efficiency advantages of the property tax, relief mechanisms should avoid creating substantial rate differentials between various classes and uses of property. Rather, such relief should be targeted to those whose property tax burdens are high relative to current income. This may or may not include all blind, deaf, and disabled persons owning or renting residences in Hawaii, but the relief should be based on need rather than characteristics of the property owner or the use of the property.

Examples of efficient relief mechanisms include circuit breakers and tax-deferral programs. Given the vast revenue currently foregone by the counties because of the classified property tax and various exemptions, a circuit-breaker program could be financed locally at no increase in cost. This would promote accountability because those making the decisions about the amount of relief would also be responsible for funding it. However, as a general principle, local governments should not be primarily responsible for policies intended to redistribute income. Thus, to accomplish both objectives, the State might play a role in requiring all counties to provide a uniform circuit-breaker program, funded out of local revenues.

3. Property Taxes in a Local Fiscal System

Property taxes are not a major source of revenue in Hawaii's state and local fiscal system. However, the counties rely on property taxes to a much greater extent than cities and counties nationally or in other states in the region. Such a heavy reliance may be warranted because between two-thirds and three-quarters of county expenditures go for goods and services that benefit property owners. Thus, to the extent that the changes recommended above are pursued by the counties, a greater reliance on the property tax may promote efficiency and equity in the finance of local governments in Hawaii vis-a-vis local governments nationally.

While effective property tax rates are sufficiently low in Hawaii that economic activity is probably not significantly affected, some diversification in local revenues may be warranted. For example, cities and counties nationally and in all neighboring states rely more on user fees and charges than the counties in Hawaii. Shifting the financing of some local goods and services from the property tax to user fees may further enhance the overall efficiency and equity of the local fiscal system. Such consideration should be given to goods and services provided by the counties that have private-good characteristics--for example, water supply, sewerage and other sanitary services, and parks. Consideration might be extended to services that primarily benefit tourists.

VI. APPENDIX: THE CASE FOR THE PROPERTY TAX IN A LOCAL REVENUE SYSTEM

The taxpayer revolt of the last decade had the explicit objective of reducing local reliance on the property tax generally and residential property tax burdens specifically. In this context, it is important to consider the appropriate role of the property tax in a local revenue system.[1]

There are two basic reasons that local property taxes are an appropriate, and important, element of a local revenue system: 1) the local property tax scores well against commonly accepted criteria for evaluating any revenue source, and 2) more specifically, the local property tax serves, to some extent, as a benefit tax that enhances the efficiency of local government. Maintaining a link between taxes paid and benefits received promotes efficiency in the provision of local goods and is considered to be a desirable characteristic of a local revenue source. These propositions are discussed briefly below.

The Property Tax As An Element Of A Good Revenue System

Generally, public finance economists agree that a good revenue system would generate a revenue stream that is relatively productive and stable over the business cycle, that revenue sources should be relatively neutral with regard to their impact on economic decisions, that the system be simple and predictable, and that it be equitable. Relative to other potential sources of local tax revenues, a local property tax scores well on all of these criteria. Accordingly, such a tax should be an integral part of any local revenue system.

Revenue Productivity

The property tax is the largest single source of state and local general revenue. It is the only tax that is used by jurisdictions in all 50 states. It produces approximately three-quarters of local tax revenues. Since the tax applies to the value of assets, a relatively low rate can raise a substantial amount of revenue.[2] It is clear that the tax is a productive source of local revenue.

A stable tax typically will generate revenues that change relatively more slowly than income--that is, the tax revenue is income inelastic. Generally, real estate markets reflect long-term asset values, which tend to respond more slowly to annual changes in the level of economic activity than economic flows like sales or income. Also, fluctuations in the property tax base are moderated because few jurisdictions have annual assessment practices that completely capture changes in real estate values. Therefore, the property tax is generally regarded as a relatively stable tax source -- especially when compared to other potential local tax sources like the sales or income tax.

Neutrality

Neutrality in taxation requires that taxes have a minimal unintended influence on private economic decisions. The individual or firm that pays the tax may be able to adjust in ways that shift the ultimate burden of the tax to others. To the extent that economic actors adjust their behavior to avoid the tax, the tax has influenced private economic decisions.

Taxes that are easy to avoid have the most immediate impact on private economic decisions. For example, if a local jurisdiction imposes a sales tax, an individual can avoid the tax by either reducing consumption of the taxed good, or going to a jurisdiction without the tax to purchase the good. Similarly, if a local jurisdiction imposes a personal income tax, individuals can avoid the tax by locating in jurisdictions that do not have the tax. In these situations, people can easily alter their private economic decisions in an effort to avoid the tax, thereby distorting market outcomes from what they otherwise would have been.

Taxes that are difficult to avoid have less of an impact on private economic decisions. For example, the property tax is assessed against the value of real property. In the short-run, real estate is immobile and there is little that owners of such capital can do to avoid the tax. Thus, the tax has little impact on their economic decisions in the short-run, it merely reduces the rate of return to such investments.[3] In this respect, the property tax tends to distort private economic decisions less than other local taxes.

Simplicity

Taxes may cause distortions in the allocation of economic resources if they are complex and difficult to administer. In such a situation, the taxpayer may have to spend substantial

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1. For a related argument see Wallace Oates, A Layman's Guide to the Theory of Local Property Taxes, prepared for the Arizona Joint Select Committee on State Revenues and Expenditures, July 1989.

2. For example, a property tax rate of 2.5 percent ($2.50 per $100 assessed value) would be equivalent to an income tax rate of 25 percent at a capitalization rate of 10 percent, assuming a 100 percent assessment ratio.

3. In the long-run, the part of the tax that falls on land is borne by the landowner and there is nothing that can be done to shift the tax, that is, it has no impact on private economic decisions. The return to improvements is reduced and over time the owner of such capital can shift resources out of improvements into other forms of capital with relatively higher rates of return.

resources to comply with the tax law, and the local jurisdiction may expend substantial resources administering it. For example, for many taxpayers, the personal income tax is a complicated tax that requires significant time and resources to comply with and the taxing jurisdiction allocates significant resources to administer, enforce and audit the tax and taxpayer compliance.

The property tax is primarily a tax on real estate--land and buildings. Tangible and intangible property have been systematically removed from the property tax base over the last several decades, in part because of administrative difficulties. In addition, local governments have well established bureaucracies to administer the property tax. Thus, relative to other potential local tax sources with tax bases that are annual flows that must be monitored and verified, the property tax is easy to administer and involves low compliance costs for the taxpayer.

Equity

The equity, or fairness, concern with the property tax has two dimensions: first, equity across jurisdictions and second, equity across individuals. In the first case, from the perspective of horizontal equity, there is a concern that property tax bases vary across jurisdictions putting some at a disadvantage--jurisdictions with limited property tax bases require higher property tax rates to raise sufficient revenue to provide a minimal level and quality of public goods and services. This concern underlies education finance reform efforts over the last 15 years in response to court cases that said a child should not be deprived of equal educational opportunities because he or she lives in a jurisdiction that is relatively property poor. Available empirical evidence indicates, however, that such fiscal disparities are not reduced by increasing reliance on local nonproperty taxes. In fact, traditional sales and income tax bases tend to have greater disparities across jurisdictions than property taxes. For example, Bowman and Mikesell found that differences in tax bases per capita were larger across jurisdictions in a metropolitan area under a local employment-based income tax and a traditional, point-of-sale, sales tax than under the property tax.

The second concern is with the distribution of the tax burden across income classes. The theory of the property tax and alternative views of the final incidence of the tax are discussed below. The bottom line of that discussion is that economists generally believe that a significant portion of the property tax rests on individuals receiving income from capital, which is typically concentrated in higher income groups. Thus, this portion of the property tax is generally thought to be progressive.

To the extent that the property tax is a tax on housing consumption, it is generally considered to be relatively proportional across income classes. When measured against "permanent income," most studies suggest that housing consumption is a relatively constant fraction of income. Thus, a property tax on housing consumption would be proportional.

Sales taxes (depending on the definition of the base) are generally considered to be relatively regressive--lower-income groups pay a higher share of their income in taxes than do higher-income groups. Local income taxes generally have low fixed rates and tend to be proportional rather than progressive. Again, the property tax scores relatively well on this criterion compared with other potential local tax sources.

In short, based on traditional criteria for evaluating a revenue system, the local property tax emerges as a very defensible source of local revenues. The property tax is especially attractive when compared with other potential sources of local tax revenues. The remainder of this appendix discusses additional advantages of the property tax as a benefit charge that are not available with other potential local tax sources.

Property Taxes as Benefit Charges

The local property tax has many advantages from the perspective of the benefit principle of taxation. First, a majority of public goods and services provided by municipal governments tend to benefit local properties. For example, in 1987 60 percent of total general direct expenditures by cities went for transportation; public safety; sewer and other sanitation; parks, housing, and community development; and general administration. In Hawaii, counties spent 71 percent of their direct general expenditures on these items in 1987.[4] Since these expenditures generally benefit local property owners, the benefit principle of taxation supports financing such expenditures from a local property tax.[5]

According to this logic, the property tax should not be the primary source

4. U.S. Bureau of the Census, Government Finances in 1986-87, GF87 No.5 (November 1988), Table 29.

5. See Richard A. Musgrave and Peggy B. Musgrave, Public Finance in Theory and Practice, Fifth Edition, (New York: McGraw-Hill, 1989), p. 411. This view is probably most relevant for relatively homogeneous jurisdictions in a large metropolitan area. To the extent a city has heterogeneous neighborhoods, with different public service requirements, the linkage between services received and property taxes paid is less clear.

of funding for goods and services that provide benefits that are distributed to residents and non-residents in a manner not related to property ownership in the local jurisdiction. For example, the direct benefits of education are not likely to be distributed across all properties in proportion to property values, but rather according to the number of children in public schools. Thus, property taxes may not be the most appropriate revenue source for financing the direct benefits of education. In fact, since the Serrano case in the mid 1970's, the trend has been to substitute state revenues for local property taxes as a means of funding education. In this instance, Hawaii's State funding of education seems to be ahead of the rest of the nation where school districts still rely primarily on the property tax for own-source revenues.

Second, the property tax is generally a visible tax. Property owners receive tax bills annually and these bills provide a clear indication of the cost to the property owner of local services provided by the government. Thus, each jurisdiction will offer an identifiable bundle of public goods and services with identifiable costs to the property owner.[6]

This argument implicitly assumes that benefits are distributed across properties in proportion to their property tax liabilities. Under the usual standard of tax uniformity, this implies benefits are distributed in proportion to market value. Thus, the property tax on two homes of equal value and in receipt of equal service benefits must, for equity under the benefits principle, be taxed the same.

This is a strong argument for the uniform assessment of all real property. Any assessment or tax nonuniformities tend to depart from the theory underlying the benefits-received case for the property tax, as they cause tax shares to diverge from benefit shares. Such nonuniformities can arise from either extralegal differences in tax treatment (for example, assessment error) or intentional differences resulting from classification, exemptions or other property tax relief mechanisms.

As a household or firm evaluates alternative locations within a metropolitan area, these bundles of public goods and associated property tax liabilities are weighed. In essence, the property tax serves as the "tax price" associated with a specific bundle of public goods and services. The household and firm "shop" for the community that provides the most desirable "package" of goods and services at an acceptable price. This idea of households and firms revealing their preferences for public goods by voting with their feet was first articulated by Charles Tiebout, who argues that

> *Just as the consumer may be visualized as walking to a private market place to buy his goods, the prices of which are set, we place him in the position of walking to a community where the prices (taxes) of community services are set. Both trips take the consumer to market. There is no way in which the consumer can avoid revealing his preferences in a spatial economy. Spatial mobility provides the local public-goods counterpart to the private market's shopping trip.*[7]

This mechanism tends to bring the demand for public services by individuals into balance with the supply provided by local governments. If a jurisdiction is supplying extraordinary levels of public goods and services, and the benefits exceed the cost to the property owner, more people will want to move to that jurisdiction and bid up real estate prices. Conversely, if taxes in a jurisdiction are high relative to the level of services provided, individuals and firms will locate elsewhere, thereby reducing real estate values in such a jurisdiction. In other words, the link between property tax payments and benefits received improves accountability at the local level by encouraging feedback to local officials on the desirability of the bundle of goods, services, and tax price provided.

In a recent evaluation of this argument, Hamilton concluded that the combination of foot and ballot voting does a reasonably good job of putting households on their demand curves for local public services, and of setting the supply of public goods and services equal to the demand. That is, the property tax does serve, to a significant extent, as a benefit tax sending signals to both property owners and local governments. This is supported by empirical research that shows nearly full capitalization of service benefits and prices paid into housing values.[8] As a result, an

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6. The link between taxes paid and benefits received is less clear with other tax sources. For example, one would expect that the benefits from local public goods accruing to local residents are unrelated to the level of taxable purchases those residents make. In addition, even if local public goods were somehow related to taxable purchases, it would be difficult for households considering alternative locations to associate sales taxes paid with the level of benefits received because the sales tax is a less visible tax than the property tax.

7. Charles M. Tiebout, "A Pure Theory of Local Public Expenditures," Journal of Political Economy, Vol. 64 (October 1956), pp. 416-24.

8. Howard S. Bloom, Helen F. Ladd, and John Yinger, "Are Property Taxes Capitalized into House Values?" in George R. Zodrow (editor), Local Provision of Public Services: The Tiebout Model After Twenty-Five Years (Academic Press, 1983), pp. 145-63.

increase in public expenditures financed by an equal increase in property taxes would have no net effect on housing prices, indicating that the supply and demand for services are in balance.[9]

There are three important qualifications to this general conclusion. First, Hamilton points out that the Tiebout approach does not address the manner in which local governments provide a given level of service demanded by residents. There is no mechanism in the system to ensure that local governments provide services in a technically efficient way. Hamilton concludes that "what we have gotten out of our system of local government is a price system without efficiency."[10]

Second, depending on one's view of the incidence of the property tax, it may not provide the desired "price" information implied by the benefit tax approach. For example, if a portion of the burden of the property tax falls on the owners of capital, that burden may be unrelated to benefits received. This suggests that there is a non-benefit portion of the property tax--especially the portion of the property tax that falls on non-residential real estate.[11] In this case, however, the property tax may be interpreted as compensating local governments and their residents for externalities associated with non-residential land uses.[12]

Finally, the property tax may not provide adequate "price" signals to renters. Renters, like homeowners, benefit from the services provided by local governments. Property taxes (the "price" of these public goods and services), however, are assessed against property owners. Therefore, renters receive the benefits of public goods, without the advantage of the direct linkage between benefits received and property taxes paid that exists for homeowners.

Renters fail to receive adequate "price" information for at least two reasons. First, to the extent property taxes are ultimately borne by owners of capital, renters do not pay their share of the cost of local public services. In other words, renters receive benefits, that exceed their contribution to the cost of those services--even if property taxes are raised by the full cost of providing the additional service.

Second, to the extent property taxes are shifted forward in higher rents, renters may not be aware that they are paying higher rents as a "price" for improved services. Again, because of this "fiscal illusion," renters act as if they are getting more public services than they are paying for.

As a result of this breakdown in the linkage between taxes paid and benefits received, renters tend to demand a higher level of public services than similarly situated homeowners. There is extensive empirical evidence that, other things equal, communities with a larger percentage of renters tend to spend more on public services per capita. This finding is supported further by studies on voting behavior, which show that renters are much more likely to vote for bond issues to expand local services and against fiscal limitations than homeowners.[13]

This concern is particularly important in Hawaii because only about 40 percent of the population are homeowners--compared with 63 percent nationally. During periods when the housing market in Hawaii is soft, the owners of capital probably bear the majority of the property tax on rental units. In periods of tight housing markets, however, a larger share of the property tax may be shifted to renters in the form of higher rents. However, since there is no explicit link between taxes paid and benefits received, renters still tend to demand higher service levels than similarly situated homeowners. Thus, from an economic efficiency perspective, the case for providing property tax relief to renters is weak at best. In fact, if the property tax is to serve as a benefit tax that balances resident's demand for services with those supplied by the local jurisdiction, a case could be made that renters should be billed directly for their property tax (as is the case in England).[14]

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9. Bruce W. Hamilton, "A Review: Is the Property Tax a Benefit Tax?" appearing in George R. Zodrow (editor), Local Provision of Public Services: The Tiebout Model After Twenty-Five Years (Academic Press, 1983), pp. 85-107.

10. Ibid., p. 104.

11. See George R. Zodrow and Peter Mieszkowski, "The Incidence of the Property Tax: The Benefit View Versus the New View," Ibid., pp. 109-29.

12. Oates, op. cit.

13. Ibid.

14. Ibid.

VII. DEVELOPMENT FEES AND EXACTIONS: SPECIAL ANALYSIS

A. Development Charges and the Benefit Principle

In the private enterprise system, producers (sellers) and consumers (buyers) transact business by agreeing to a contract under which a specified quantity of a good or service changes hands in return for a specified amount of money. The simple but crucial rule that enables this system to work properly is the benefits-received principle, which states that each person benefiting from a particular transaction should pay according to the value of the benefits received. The seller must give up a product, but participates voluntarily in the transaction because the price offered at least compensates for the cost incurred in producing the good or service. Likewise, the buyer must pay a price, but participates voluntarily in the transaction because the value of the good or service at least compensates for the price paid. The market works because the benefit principle holds in many transactions.

The public sector exists precisely because there are certain instances in which the market does not work properly. For example, many goods and services, such as streets or parks, are "public" in the sense that people who do not pay for them cannot easily be excluded from using them. Others, such as water supply, would be too costly for a consumer to purchase individually but would be reasonable if the cost were shared among a large group of consumers.

In these two instances, the members of the community, acting collectively through the government, purchase streets, parks, and water supply. Other goods and services, such as disposal of wastewater and solid waste, confer a benefit to one buyer only if all others in the community also purchase it. Thus the members of the community, again acting through the government, purchase wastewater and solid waste disposal services for everyone.

In the public sector, the benefit principle holds that public expenditures--that is, the price paid in a transaction by the government on behalf of the community--should be financed by the people in proportion to the shares of the benefits they receive from the expenditures. The benefit principle is distinguished from the ability-to-pay principle, which holds that public expenditures should be financed by the people according to their ability--that is, according to how easily they can bear the burden of public expenditures.

Development fees and exactions constitute an application of the benefit principle to the financing of the public costs associated with property development. Property development, like many other forms of private enterprise, offers the possibility of substantial profits to developers willing to undertake the risks involved.

Property development differs in important ways, however, from many other forms of private enterprise. In few ventures other than in property development do state and local governments have as clear a legal right to regulate business activities. In few other ventures does the risk involved depend so much simply on whether the developer will be able to obtain government approval for the project. In few other ventures does the viability of the project depend so heavily on government investment in public facilities and support services. And in few other ventures can the developer make such a strong and long-lasting impact on the public, creating substantial benefits or imposing substantial costs.

It is precisely because the public, through the government, plays such a large role in property development--by providing public facilities and support services--and because the public stands to be affected so strongly by development activities that the government has such a clear role in regulating and approving development projects. In exercising this regulation, the government seeks to protect the public from the potential costs of development. Development fees and exactions are regulations under which developers are required to compensate existing (and future) residents, through the government, for the public costs imposed by private development: in short, they are a means of applying the benefit principle to private property developers.

Although development fees and exactions have existed in some form for many decades, they have not generally been utilized to compensate existing residents for all of the public costs of private development. In fact, existing residents, through the government, have generally agreed to subsidize new development by providing public services financed by taxes.

Recently, however, there has been a notable increase in the number of local jurisdictions in the U.S. that have imposed development fees or exactions, as well as in the number of public facilities and services that are included in the calculation of fees and exactions. The reason for this is not, apparently, that recent developments impose costs that did not exist before. Rather, the increased use of development fees and exactions appears to result from four factors: first, the unwillingness of residents in many communities to continue subsidizing new development; second, the realization that the costs attributable to private development are higher than previously recognized; third, the recognition that economic

efficiency demands that the public costs of private development be internalized by developers; and fourth, the reluctance of voters to allow revenues to be raised through traditional measures, such as property taxes.

This chapter discusses the implementation of development fees and exactions in Hawaii. The discussion is in four main parts: first, a review of the costs that development imposes on the public; second, an analysis of the economics of development fees and exactions; third, a review of judicial decisions concerning the legal requirements associated with them; and fourth, an exploration of the issues involved in implementing development fees and exactions in Hawaii. A final section raises the question of whether development fees and exactions could provide counties with revenues to finance the costs associated with growth and development, and mentions a few other finance mechanisms that could be explored.

Before proceeding, it is useful to define several terms for the purposes of the discussion. There is perhaps an infinite number of variations on the general principle of development fees and exactions, several of which have been awarded their own terms: impact fees, in-lieu fees, equalization fees, and linkage fees are among them. For the purposes of this chapter, however, only two differentiations are made. First, development "fees" are distinguished from development "taxes" for legal reasons, as described below. Second, development "fees" are distinguished from development "exactions" in that the former involve payment of cash (or money commitments) whereas the latter involve provision of land or facilities in kind (or commitments to provide them). Nevertheless, most of the discussion applies equally to fees and exactions.

There are also several terms for the public facilities or services to be financed by development fees and exactions. One of the most common is "physical infrastructure," which usually includes the tangible property needed for traffic and transportation, water treatment and distribution, wastewater collection and treatment, stormwater drainage, solid waste disposal, and similar services. Another is "social infrastructure," which commonly includes tangible property for parks and recreation areas, open space, schools, and police and fire protection.

Other facilities and services have been or could be proposed for inclusion as physical or social infrastructure--including low- and moderate-income housing, environmental protection, civil defense or emergency preparedness, or historic or aesthetic preservation. In short, the terms used in this chapter are not intended to limit the discussion to those facilities and services that have long been considered components of the infrastructure of the community.

B. The Public Costs of Private Development

The fundamental reason for imposing development fees or exactions is that development can, and typically does, impose costs on the wider public that are not compensated by the developer. These costs, which represent the failure of the private market to apply the benefit principle adequately, are broadly termed externalities because they are real costs but are external to the particular project being developed. While externalities can be positive (lifeguard services for which the community does not compensate the developer) as well as negative (pollution for which the developer does not compensate the community), development fees are concerned primarily with offsetting negative externalities by obtaining compensation.

The public costs or externalities associated with private development can be divided into three groups. The first group includes the service costs that existing residents face directly as users of public infrastructure, which is more heavily used as a result of new development. The second group includes the monetary costs that residents face as the government attempts to relieve direct service costs. The third group includes intangible costs, principally reduced quality of life.

1. Direct Service Costs

The first group of externalities, direct service costs, involves a reduction in the quality of service that current residents enjoy from existing public infrastructure. For example, development that increases the traffic on existing roads and highways reduces the level of service to current residents by increasing time spent commuting, increasing transportation costs, and increasing the probability of accidents. Development that increases the number of structures reduces the fire protection available to existing structures, while development that increases the number of people increases congestion in existing parks and recreation areas.

2. Monetary Costs

The second group of externalities includes monetary costs that current residents pay in attempting to avoid congestion or reduced service levels by raising taxes. Several facets of monetary costs can be considered. For example, if government raises taxes to relieve congestion and restore service levels, then current residents are forced to pay to reduce the costs created by the developer or the tenants of the new development. This

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allows developers or their clients to obtain a "free ride" at the expense of current taxpayers.

It also constitutes intertemporal inequity in that new residents, who finance only part of their own infrastructure costs, bear a lighter financial burden than do long-time residents, who finance all of their own infrastructure costs as well as the remaining portion of those provided for new residents.

Moreover, to the extent that the burden of tax increases is distributed regressively--as is probably true, for example, of county revenue sources such as the property tax--then lower-income current residents pay for the benefits accruing to the developer. This not only violates the benefit principle and intertemporal equity; it also violates the other major tenet of tax policy, the ability-to-pay principle, which holds that public expenditures should be financed by members of the community according to their ability to bear the burden.

Quite apart from the relative distribution of the burden of tax increases between lower- and higher-income residents and between new and long-time residents, restoring infrastructure service standards by increasing taxes may run counter to the political will of the current residents. To the extent that new development imposes a cost that existing residents are unwilling to finance through increased taxes, development may create budget and solvency problems for the community.

Another aspect of monetary costs is the issue of urban sprawl, a pattern of poorly planned and widely spaced low-density development. Because the cost of many infrastructure services--such as water, sewer, and drainage facilities--is sensitive to distance, urban sprawl raises the average cost of providing public services to the community. Moreover, urban sprawl also imposes higher continuing costs for repair and maintenance of infrastructure facilities.

Finally, if government incurs debt rather than raising taxes to finance infrastructure improvements, many of the same problems arise. Existing residents pay part of the debt service costs in the form of higher interest payments, and taxes raised to pay off general obligation bonds may be regressively distributed. Furthermore, to the extent that bond obligations push the community near debt ceilings--whether explicit statutory or constitutional limits or implicit market limits--debt will be unavailable as a source of finance for infrastructure costs that do not arise as a consequence of new development, and communities may be forced near to insolvency.

3. Intangible Costs

The third group of externalities involves intangible costs, such as reductions in the general quality of development and in the aesthetic qualities of the environment. For example, apart from its effect in raising the average cost of infrastructure services, the aesthetic poverty of urban sprawl reduces the attractiveness and quality of development of the community. Although these costs are difficult to quantify, attention must be paid to them especially in communities that, like those in Hawaii, depend to a great extent on maintaining environmental and aesthetic endowments of exceptional value. In fact, the value of existing development--the real property tax base, which is the primary source of county finances--may be reduced by the adverse effects of urban sprawl.

4. The Problem With a Cost-Avoidance Strategy

Although private development can impose substantial costs on the wider public, it does not necessarily follow that the government should avoid these externalities by restricting development; this response might well generate other problems, including unemployment and reduced tax revenues. Similarly, it would not necessarily be wise to avoid the public costs of private development simply by encouraging projects that impose lesser burdens on the public infrastructure.

For example, an essentially self-contained development, such as a full-service resort community with employee housing and services, or even a private residential/commercial complex, might be designed to provide its own services, such as streets, water, wastewater, schools, and fire and police protection, among others. A development of this type imposes little additional burden on public infrastructure services. Nevertheless, it is not clear that such developments would be in the public policy interest of the people of Hawaii, for several reasons.

Even such a self-enclosed development would impose public costs, not only on acknowledged public infrastructure services, such as airport and harbor facilities, but also on intangible public goods such as the quality of the environment. Moreover, it may not be desirable to encourage an internally oriented style of development that isolates resorts, for example, from the general environment of Hawaii in the style of many resort "clubs," or that encloses industrial, commercial, and residential activities in a new generation of "company towns."

It should be clear, then, that to recognize the public costs of private development is not to imply that development should be restricted to projects that impose the least public burden--that is, to projects that have been designed to internalize the

external (public) costs of development. Rather, the State and county governments would do well to encourage the development of those projects that are most desirable to the people of Hawaii, within a regime that compensates the people fully for the public costs that are imposed.

In economic terms, this implies that developers internalize the public or external costs of private development not by making private the provision of infrastructure services, as in a self-enclosed development, but rather by paying the government, as the provider of those services, an amount adequate to offset the costs imposed on existing residents.

C. Economic Analysis of Development Fees and Exactions

The economic analysis of development fees and exactions involves three main questions. The first question concerns the analytical frameworks that can be applied in evaluating fees and exactions. The second concerns incidence, or who bears the ultimate burden of development fees. The third question concerns the effects of fees on the economy of the State.

One caveat must be made: the economic analysis is not restricted to types of development fees that have been upheld under judicial scrutiny. The brief review of legal requirements following this section addresses several development fee provisions that have been declared illegal in some states.

1. Analytical Frameworks

At least three general analytical frameworks can be applied in evaluating fees and exactions. In practice, development fees seem to exhibit aspects of all three frameworks. Even so, it helps to draw clear distinctions in the ways that they are analyzed so that the different economic effects of various fee regimes will be more clear.

As Reimbursement for Costs Imposed. The first and, perhaps, most straightforward way of thinking about fees and exactions borrows heavily from the economics of publicly regulated utilities. That is, they are treated simply as reimbursement of the costs incurred by the government in providing necessary public goods and services. Indeed, in this framework the government as the provider of services charges user fees just as a private utility would charge service fees. The public-utility analogy adheres most closely to the benefit principle of public expenditures, in that developers are called upon to pay the costs that the government actually incurs in providing them a necessary benefit. In short, under this framework developers are required to internalize fully the public costs of private development.

There are three distinct components of fees under the public-utility analogy, not all of which are applicable to each government-provided service. First, the fee includes a central capacity component covering a share of the cost of expanding service capacity, analogous to the electricity generating or telephone switching capacity of a private utility. Second, the fee includes a distribution component covering the cost of bringing service to a new development or a share of the cost of bringing service to the area of the development, analogous to the electricity distribution or telephone hook-up charge. Finally, the fee includes a quantity or demand component covering the cost of the actual amount of the service consumed by the development, analogous to the charge per telephone call or per unit of electricity by a private utility.[1]

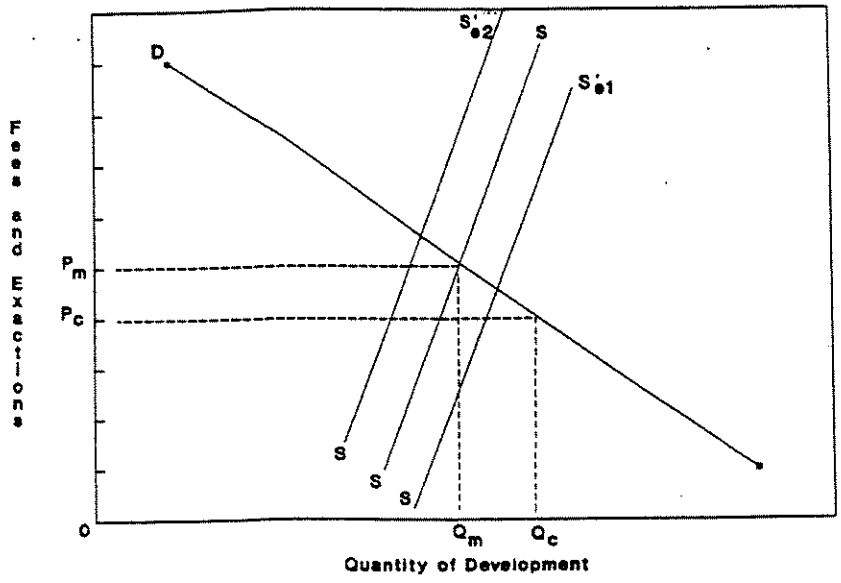
There is a large body of literature on the establishment of prices for public utilities; it should suffice here simply to observe that development fees or exactions established under this framework would be computed in much the same way. Under this analogy, the property developer would proceed only with those projects that would more than compensate the wider community for the costs attributable to the new development. In turn, government approval of projects would be based purely on whether the project would be consistent with other community interests as expressed in zoning and planning documents.

As a Price to Allocate Development Rights. The second way of thinking of development fees is simply as a price charged by the government for the privilege of developing property in the State. In this model the government, representing the desires of the voting public, decides to make a general level of "development rights" available to developers--that is, the government decides to allow a certain amount of development (retaining discretion to allow more or less). Private developers then compete for part or all of those development rights. The development fee or exaction in this private market analogy is simply the price of development rights, and is determined jointly by the supply of development rights (that is, the willingness of the government to approve development) and the demand of developers for the right to develop.

Exhibit VII-1 illustrates this framework with a simple demand-supply diagram. The demand for the right to develop is represented by the

1. As discussed in the section entitled "Legal Requirements of Development Fees and Exactions," development fees can be imposed only to capture capital costs; development fees designed to capture continuing costs have been declared illegal under judicial scrutiny.

Figure VII-1



curve DD, which slopes downward to indicate that, other things, equal, development rights will be in greater demand as development fees are lower. The willingness of the government to approve development is represented by the curve SS, which slopes upward to indicate that the government is willing to allow more development in return for larger revenues in the form of development fees. Alternatively, the supply curve SS could be vertical, indicating that the amount of development that will be approved is not affected at all by the size of development fees. (Indeed, any slope in the supply curve SS represents the willingness of governments to grant developers' requests for rezoning and other discretionary approvals to projects that they determine advance the public interest by providing adequate monetary compensation.)

Three aspects of this model deserve attention. The first point is perhaps unique to Hawaii: since the counties are separated by ocean channels and each county controls all development rights in the area (except those exercised by the State government), each county may behave as a monopoly supplier. If county governments choose to act as profit-maximizing monopolists, then development fees will be higher than they would otherwise be and the amount of development approved will be less than would otherwise be approved if several governments exercised control over parts of a wider area.

In this way Hawaii differs from mainland areas where municipalities compete with each other to attract development in the area. In Figure VII-1, the competitive situation in a mainland area would be represented by the point E_c at which Q_c development would take place and development fees would be P_c per unit of development. If county governments in Hawaii acted as monopolists, the situation would be represented by the point E_m at which only Q_m development would take place and fees would be higher at P_m per unit of development.

The second point is that the supply curve, whether that of a "monopoly" jurisdiction as in Hawaii or of a "competitive" jurisdiction as on the mainland, represents political decisions rather than economic conditions. In a pure economic analysis, the supply curve would represent the actual costs that the community incurs for each quantity of development approved. In that case, the cost curve would indicate the development fees that would be charged under the public-utility analogy.

The actual cost curve might be lower than the political supply curve (SS), such as curve SS'_{e1}, perhaps representing political demands for little or no new development even though the public costs associated with new development are small. The actual cost curve might also be higher than the political supply curve, such as curve SS'_{e2}, perhaps representing political demands for increased development even though residents would have to subsidize development through public spending.

The third point, finally, is that the economic "law of one price" is assumed to hold: the development fee per "unit of development" is determined by the equivalence of the demand for and the supply of development approvals (in Hawaii, the point E_m in Figure VII-1), and every developer who is willing to pay at least that amount in fees or exactions pays exactly that amount (the price P_m). One can imagine an auction for the right to develop in which the lowest bidders are excluded until the price (in terms of development fees) is high enough that no more development is sought than will be accommodated (the quantity Q_m in Figure VII-1), at which point every remaining developer would pay the minimum bid. In this sense one can think of the fee or exaction as an entry fee, giving the

willing developer the right to develop property in Hawaii.

Although the similarities between this analytical framework and the operations of the private market may make it appealing, the private market analogy as applied to development approval does not meet normative standards of public policy. First, governments should never be thought of as analogous to the profit-maximizing enterprises active in private markets. Rather, governments exist for the purpose of providing public goods and services for which the members of the community should pay in accordance with one of the two principles of public finance: benefits received, or ability to pay. Imposing fees according to this analogy fits neither principle.

Second and related, according to the benefit principle governments should never charge users for costs which the members of the community do not actually bear. In this respect development fees or exactions according to the public utility analogy would be defensible, but any greater amount would be untenable since no additional cost would be incurred.

Finally, while governments should never charge developers more than the actual public costs attributable to new private development, neither should they charge any less. Development imposes costs on the members of the community for which they should be fully compensated; inadequate fees and exactions act as subsidies, encouraging new development even where public benefits fail to compensate for the public costs incurred. In short, the private market analogy cannot be used to apply the benefit principle to the property development market.

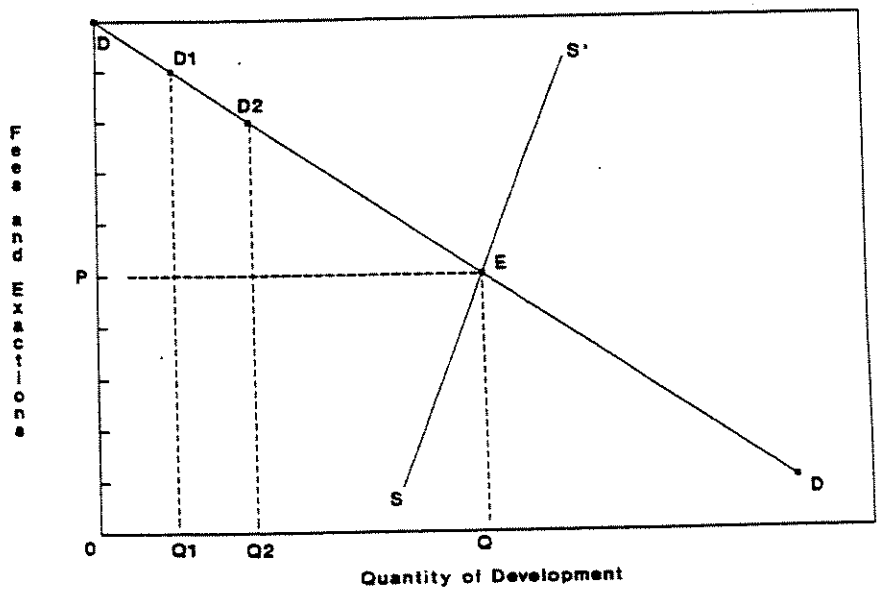
As Competition for Economic Rents. The third way of thinking about fees and exactions, in which the imposition of fees is represented as a competition for economic rents, is more closely related to the private market analogy than to the public utility analogy; it simply describes the situation in which the economic "law of one price" does not hold. Again, the development fee represents a price for the right to develop land in Hawaii rather than a reimbursement for the provision of necessary public services.

Under this framework, however, the government allocates development rights by first identifying those developments that stand to generate the largest profits (economic rents), and then requiring as a condition of approval that the developers pay fees equal to most of the expected profit. Again, one can imagine an auction for the right to develop in which the lowest bidders are excluded until the price (development fees) is high enough that no more development is sought than can be accomodated, but in this case each remaining developer would pay the actual amount bid rather than the minimum successful bid.

Figure VII-2 illustrates the competition for economic rent. This diagram is similar to that illustrating the private market analogy, with the demand for development rights represented by the curve DD' and the supply (the amount of development to be approved) represented by SS'. Under the competition-for-economic-rent framework, however, each developer pays a different fee per unit of development depending on the net return (profit or economic rent) expected on each project.

Under the law of one price, developers whose projects had been granted approval would realize a total profit equal to the triangular area DEP. This is because the total return to each unit of development is represented by the height of the demand curve DD' at each point along the horizontal axis, while the price P represents the price that would have to be paid for each unit of development in the form of a development fee. The rectangular area PEQO represents the total amount accruing to the government

Figure VII-2



in the form of development fees.

In contrast, in the competition-for-economic-rent framework the government could gain up to the whole area DEQO in the form of fees and exactions, leaving developers little or no profit. This is because at least one developer would be willing to pay fees (or bid, in the terms of the auction) up to the amount represented by the demand curve DD' at each unit of development, expecting that profits would at least equal the fee. In Figure VII-2, the developer expecting to earn the highest return would be willing to pay up to the area DD_1Q_1O in fees for the right to Q_1 units of development; the developer expecting the second highest return would be willing to pay up to $D_1D_2Q_2Q_1$ for Q_2-Q_1 units of development; and so on.

In this framework, then, the government (controlling development rights) and developers (seeking approval) in effect compete to determine how much of the expected profit on the project will accrue to the government as development fees.

Although the opportunity for the government to collect the greatest possible revenue may make this appealing, the competition for economic rents violates normative rules of public policy even more severely than does the private market analogy. Again, governments should never act as profit-maximizing enterprises; neither should they charge developers more than the costs actually borne by the members of the community in connection with new development.

2. Incidence of Development Fees and Exactions

The incidence of a development fee or exaction--or of any other fee or tax--involves the question of who ultimately bears the financial burden. Although the statutory responsibility for payment of a fee or tax imposed on a given good or service may rest, for example, with the producer (the developer in the case of fees on development projects), incidence involves to what extent that producer will be able to shift the burden of the fee or tax forward to consumers (buyers or tenants) or backward to the suppliers of goods and services bought as inputs for the final product (land, labor, capital, and building materials and services). The issue of incidence deserves attention not only because fees may be considered more or less desirable depending on what segment of the population bears the burden, but also because many of the other economic effects of a development fee or exaction depend in part on incidence.

The most important factors determining the incidence of a fee or tax on a product are the relative elasticities of demand for and supply of that product with respect to price.[2] Put simply, for any given product the burden of a fee or tax will fall on producers to the extent that the demand elasticity exceeds the supply elasticity, and will fall on consumers to the extent that the supply elasticity exceeds the demand elasticity. Thus the question of incidence proceeds largely to an examination of demand and supply elasticities. Appendix A presents a discussion of demand and supply elasticities in the markets related to property development in Hawaii.

3. Economic Effects of Development Fees and Exactions

The next issue to be addressed is how the imposition of development fees would affect the area's economy. This discussion focuses on concerns of (1) efficiency in resource allocation, (2) property development patterns, and (3) equity in the distribution of financial burdens.

Economic Efficiency. Perhaps the most important economic effect of a fee or exaction would be to improve the allocation of economic resources in the market for property development in Hawaii. This improvement in resource allocation--termed economic efficiency--would only occur, however, if fees were imposed in accordance with the public-utility analogy described above. Fees imposed under either of the other analytical frameworks would not improve efficiency in the allocation of resources.

In the absence of development fees, the market for property development is inefficient because of the external costs imposed on members of the community by the activities of private developers. The failure of governments to impose fees thus acts as a subsidy to development. The result is that too much development will occur in the sense that the community would have been better off if part of the new development had not taken place. Resources are misallocated to development that might better have been used in some other venture.

Pattern of Development. While

2. Elasticity refers to the response of the quantity demanded or supplied to a small change in price. The elasticity of demand for a product with respect to price indicates by what percentage the quantity of the product demanded would fall given a 1 percent increase in the price of the product (and vice versa). Similarly, the elasticity of supply with respect to price indicates by what percentage the quantity supplied would increase given a one percent increase in the price (and vice versa). In a supply-demand diagram, the elasticities are roughly the slopes of the corresponding curves.

development fees will often have an impact on economic efficiency, this impact may not be evident to members of the community. The effects will generally be much more evident, however, in the pattern of development that does occur. There are several ways in which fees affect the pattern of property development, some of which depend to a great extent on how the program is administered.

By Type of Development. In many situations, perhaps the most apparent impact of a development fee program would be on the types of property development that take place. This occurs simply because some types of development impose greater public costs on the wider community. The impact on highways and other traffic-related infrastructure, for example, would be substantially higher for a hotel or other commercial development than for a housing development.[3] Thus the failure to impose development fees to compensate for the traffic-related costs imposed on the public by the developer of commercial space would tend to encourage commercial development relative to housing.

In this situation, the imposition of development fees would reverse the previous pattern of development, tending to discourage the development of commercial space relative to housing. The overall effect of a development fee program on the types of property development that take place would depend on the cumulative infrastructure burdens of each type of development--that is, on the cumulative public costs of private development that the developer is forced to bear.

By Return and Risk Level. Development fees would also tend to have different impacts on developments depending on potential returns and levels of risk. The expected return to any development project is the product of the potential return and the probability of achieving that return.[4] Thus a project offering a relatively low return will generally be undertaken only if that return is fairly certain--that is, if the level of risk associated with the project is low. Conversely, a relatively risky project will generally be undertaken only if the potential return is high enough to justify the risk.

Development fees tend to reduce the expected return to any development project in two ways. First, by increasing development costs directly, they reduce the potential (net) return of the project. Second, if development fees are administered in an ad hoc manner--by negotiation or bargaining--they increase the risk associated with the project. (A further effect of uncertainty is to increase borrowing costs, associated with risk, thereby further reducing the net return of the project.) If, on the other hand, fees are specific and are known to the developer before planning for the project begins, they have no effect on risk (or on borrowing costs).

Because fees increase development costs and may increase risk, they tend to discourage development of projects that offer low potential returns--such as low-income housing, for example. The viability of such projects depends on reduced development costs and risk; thus fees tend to make some of these projects inviable. In contrast, projects that offer high potential returns--such as high-income housing and resort developments--will generally be less strongly affected because the high potential returns leave room for higher costs and risk. Thus the effect of development fees will be to discourage low-return projects relative to high-return, high-risk projects. This effect may appear in Hawaii in the large number of high-income residential and resort projects being developed coupled with the paucity of low-income housing and low-return commercial or agricultural projects.

By Size of Developer. Another effect of fees, closely related to the effect on projects with different returns and risk levels, is on the developers that participate in the market for property development in Hawaii. In short, developers can only take part in risky development projects if their financial resources are adequate to absorb the potential loss without forcing them into insolvency. Because of this, to the extent that uncertainty in the administration of a development fee program increases the risk associated with project development, those developers with less capital will be unable to continue developing while those developers with more capital will be able to participate in the market. This effect may in fact already be apparent in Hawaii as local developers are supplanted by those with outside financial backing.

By Gestation Period. Another effect related to the increased project costs that arise with development fees is on the development of projects with

3. Most jurisdictions use the estimated trip generation rates for different categories of development published by the Institute of Transportation Engineers. Although some of these estimates are based on small samples, the observations for several development types indicate very strongly that traffic generation patterns differ.

4. Actually the expected return to an undertaking as complex as property development is more complex than this simple product, but the simplification serves to illustrate the principle of decision analysis.

different gestation periods--that is, different periods before returns are realized. For example, long gestation periods are characteristic of many agricultural ventures, particularly those that involve processing as well as growing and harvesting. In contrast, many other commercial ventures, especially retail goods and services, may begin yielding returns in a very short time.

In short, the gestation period of a project is a period of uncompensated carrying costs. To the extent that fees and exactions add to the carrying costs of the project either directly or through higher risk, they will tend to have a larger negative impact on projects with longer gestation periods. Thus they will tend to discourage the development of agricultural projects, and others with long gestation periods, relative to projects with relatively short gestation periods.

By Density. One of the most noticeable effects of fees and exactions would be on the pattern of poorly planned and spaced development known as urban sprawl. As noted in the section entitled "Public Costs of Private Development," urban sprawl imposes both monetary costs--the distribution component of the cost of providing public services--and intangible aesthetic costs on the members of the surrounding community. This pattern of development arises because developers do not incur the distribution costs for the infrastructure facilities and services provided to the developments. Thus developers have no incentive to reduce distribution costs by maintaining a higher density of development, or at least by developing properties immediately adjacent to already developed areas.

By forcing developers to internalize the distribution costs associated with their projects, development fees would tend to reverse the process of urban sprawl, encouraging higher density and the development of properties adjacent to areas already developed. This would reduce not only the fees imposed on developers, but also the continuing operating and maintenance costs incurred by the public as a whole.

By Area. Finally, fees would tend to affect the areas in which development occurs. In part this effect simply manifests the discouragement of urban sprawl: as noted, under a fee or exaction regime developers would have a financial incentive to locate projects adjacent to already developed areas. Additionally, however, fees would tend to encourage development in areas where the costs of public infrastructure facilities would be relatively low, and of discouraging development in areas of high infrastructure costs.

The cost of providing public facilities clearly depends in large part on the terrain of the area and on the cost of land in the area. Thus by forcing developers to internalize the public costs associated with their developments, fees and exactions would tend to encourage development in areas where the terrain lends itself to relatively inexpensive provision of public infrastructure facilities and services, or in which land costs are relatively low. Conversely, fees would tend to discourage the development of areas in which terrain and land costs make public facilities relatively expensive.

Equity. In addition to the effects on economic efficiency and the pattern of development, development fees would affect equity--that is, how fairly government costs are distributed among the members of the community. There are two parts to the issue of equity with respect to fees and exactions. The first is inter-temporal equity, the distribution of financial burdens between old and new residents. The second is vertical equity, or the distribution of financial burdens between high-income and low-income residents.

Intertemporal Equity. The first equity consideration is the distribution of burdens between old and new residents of the community. In short, the benefits of new development accrue largely to the new residents who will reside or work in the property developed, while the costs of new development are borne by many or all other members of the community. By forcing developers to internalize all of the costs associated with their projects, fees and exactions distribute the public costs of growth more equitably among old and new residents.

Vertical Equity. The second equity consideration is the distribution of burdens between high-income and low-income residents. The most important point here is that development fees represent an attempt explicitly to apply the benefit principle of public finance--meaning that public infrastructure costs are distributed in accordance with the benefits derived from that infrastructure. A thoroughgoing application of the benefit principle comprehends a definition of vertical equity that some may not find acceptable, namely, that everyone should pay in proportion to benefits received, regardless of income. To the extent that fees are seen simply as a means of forcing developers to internalize the public costs of new development, the issue of vertical equity is virtually irrelevant.

Some may believe that the application of the benefit principle

should be tempered, in the interests of vertical equity, to the degree that the burden of infrastructure finance costs falls more heavily on residents with low incomes than on those more well off. It is clear that many of these costs are essentially uniform per person, without respect to income. In this case, the infrastructure cost would be much more burdensome to low-income residents as a percentage of income than to high-income residents.

Vertical equity questions can also arise where infrastructure costs per person differ between low-income and high-income residents. For example, the costs of providing public schools and recreation areas are likely to be more clearly attributable to family-oriented housing developments than to developments of housing designed for singles or couples. Although this is not strictly a differentiation by income, resort-residential developments in Hawaii tend to be designed for a generally high-income population of singles and couples; conversely, family-oriented housing in Hawaii is more likely to include low-income families.

In short, the burden of infrastructure costs is likely to fall more heavily on low-income than on high-income residents. On the other hand, the discussion of the incidence of development fees and exactions in Appendix A suggests that the costs of fees and exactions are likely to be passed on more easily to purchasers (consumers) of high-income residential developments, because of their lower price elasticity of demand.

D. Legal Requirements of Development Fees and Exactions

The economic analysis of development fees and exactions suggests several ways of designing and implementing a system to promote given public policy goals. However, the judicial history of development fees and exactions indicates that several tests must be met to sustain a development fee program as legal under Hawaii and U.S. Constitutions. Although--after barely 40 years of judicial scrutiny--questions remain to be answered about the permissible scope of development fee and exaction programs, the decisions reached in other states are valuable in suggesting the requirements that such fees and exactions may have to meet to remain valid.

1. Validity of Governmental Purpose

The first requirement that a development fee or exaction program must meet is that the objective of the program--the infrastructure services to be financed--must constitute a permissible governmental purpose. In practical terms, this means that the development fee or exaction must be no more than a regulation of private enterprise; it cannot be designed primarily to pursue redistributive or macroeconomic policy.[5]

The federal and state governments are generally viewed as responsible for distribution and stabilization policy, while county and municipal governments hold primary responsibility for allocation policy. Indeed, the taxing power--a major tool of redistributive and macroeconomic policy--is generally reserved to the state and federal governments unless expressly granted to sub-state governments. In contrast, some of the tools of allocation policy--the police power, including the power to regulate private activities--are included expressly or implicitly in the creation of county or municipal governments.

Unfortunately, government activities often seem to blur the lines between the three objectives. It is evident, for example, from the discussion of the incidence and economic effects of development fees and exactions that they may affect both the distribution of income and the rate of economic expansion, as well as the provision of public goods and services. This is particularly true of public school financing, which is largely the responsibility of local governments on the mainland because it is perceived as an allocation function--the provision of a public good. In Hawaii, education is considered the responsibility of the State government because of its distributive consequences as well as because of the statewide benefits of education and the interest of the populace in promoting uniform standards of educational quality.

Nevertheless, the existence of redistributive and macroeconomic impacts of development fees and exactions do not make them invalid as long as it is clear that the primary purpose is to regulate business activity under the police power.

2. Fee versus Tax

The second requirement is closely related to the first: the development fee must constitute a fee rather than a tax. Generally speaking, taxes may only be imposed by the state or in accordance with state authorizing legislation, while fees may generally be imposed by local governments without state authorization. Taxes are

5. There are generally considered to be three functions of government. The first is the distribution or equity function, by which the state promotes what the population considers an equitable distribution of income or wealth. The second is the stabilization or macroeconomic function, by which the state promotes stable and sustained economic expansion. The third is the allocation function, by which the state provides social goods and services or regulates private provision.

imposed in accordance with the taxing power, which is reserved by the state as the main tool of redistributive and macroeconomic policy unless it has specifically granted taxing authority to counties or municipalities. In contrast, fees are imposed in accordance with the police power, which counties and municipalities exercise in protecting the health, safety, and general welfare of the citizenry.

Because the difference between fees and taxes is not always clear in practice, the courts have generally used proxy indicators to determine whether a given charge constitutes a tax or a fee. The most important proxy is whether the revenues generated by the charge are included in general fund revenues, which may be used for any purpose, or in special funds earmarked for particular purposes. Since the allocation function involves the provision or regulation of specific goods and services, courts tend to identify charges as fees if they are earmarked for uses related to the same activities that were responsible for generating the charges.

Another proxy is whether guidelines direct how the revenues raised by the fees are to be spent. Even if funds are earmarked for particular purposes, fees may be considered taxes if the government retains a great deal of discretion in the use of the funds. This issue was raised in Broward County v. Janis Development Corporation, in which a Florida court found that a development fee amounted to a tax, stating that

> *[t]he fee here is simply an exaction of money to be put in trust for roads. . . . There are no specifics provided in the ordinance as to where and when these monies are to be expended for roads . . . . This fee, therefore, is an exercise of the taxing power.*[6]

3. Benefit to Developer

The third requirement is that the expenditure of the revenue raised by the development fee provide a clear benefit to the developer. This requirement demands, in short, that there be an adequate connection between the fee and the valid government purpose for which it is collected. Because it is often difficult to trace specific connections between the benefits of publicly provided infrastructure and the residents or tenants of a particular new development, courts have applied a fairly common set of proxies to help in determining whether an adequate connection exists between a development fee or exaction and the government purpose to which it is applied. Earmarking and guidelines for expenditure ensure that the fee is related to the purpose as well as that the fee does not constitute an unconstrained tax.

Another proxy used in determining the connection between a development fee and the government purpose for which it was collected is whether the infrastructure improvements to be financed by the fee or exaction are concretely planned in conjunction with the development project, or whether the fees are collected for use "as needs arise." Clearly if fees are payments for necessary public services, the government must intend to provide those services because of and for the proposed development project.

An additional proxy is that the fee be expended on infrastructure facilities and services in the near vicinity of the development. This ensures that the benefits financed by the development fee or exaction accrue fairly closely to the developer. However, it is not clear what constitutes "close enough" for the purposes of this proxy; an area as large as each of the Hawaiian islands could well qualify as the near vicinity, depending in part on the degree of interaction between communities in different parts of each island.

A final proxy used in evaluating the benefit provided to developers in return for development fees and exactions is the timing of expenditures on infrastructure improvements. The sooner expenditures follow collections, the more clearly the developer is seen to have benefited by the development fees. Several development fee programs, in fact, include provisions for repayment of development fees to the developers if they are not expended within a specified period, to ensure that developers will not long be without the infrastructure advantages that the fees were intended to finance.

4. Fair Share of Infrastructure Costs

The fourth requirement, closely related to the third, is that the amount of the fee or the value of the exaction not be larger than what it is fair to demand of the developer. State courts on the mainland have outlined three separate standards by which to determine whether a given development fee or exaction meets this requirement. The standards differ essentially in how closely the infrastructure cost involved must be attributable to the specific development.

The "Reasonable Relation" Test. The first test, commonly called the "reasonable relation" standard, was formulated by the California Supreme Court in Ayres v. City Council of City

6. 311 So.2d 371 (1975) at 375.

of Los Angeles, involving the exaction of land for street improvements as a condition for approval of a subdivision. The court decided that "conditions are lawful which . . . are reasonably required by the subdivision" and that when the exaction

> *. . . is a condition reasonably related to increased traffic and other needs of the proposed subdivision it is . . . not contrary to constitutional concepts.*[7]

This standard, more permissive than those used by courts in other states, allows the government substantial latitude in determining the fair share attributable to a development, and gives the developer the burden of proving the lack of a "reasonable relation" between the project and the fee.

It is interesting to note the analytical framework that is used implicitly by the court in evaluating this exaction. The court neither asks nor considers whether the value of the land exacted by Los Angeles represents appropriate reimbursement for the costs incurred by the City in providing public services to the development, as would be the case under the public-utility analogy. Instead, the court observes,

> *. . . [i]t is the [developer] who is seeking to acquire the advantages of lot subdivision and upon him rests the duty of compliance with reasonable conditions.*[8]

This language recalls the private-market analogy, under which the developer purchases from the government simply the right to develop.

The "Specifically and Uniquely Attributable" Test. Not long after the reasonable-relation test was established, the Illinois Supreme Court in Rosen v. Village of Downer's Grove developed what became known as the "specifically and uniquely attributable" test, a much more restrictive standard to determine the fair share attributable to each development. The court approved the theory that

> *. . . . the developer of a subdivision may be required to assume those costs which are specifically and uniquely attributable to his activity and which would otherwise be cast upon the public,*

but warned that,

> *. . . it does not follow that communities may use this . . . control to solve all of the problems which they can foresee.*[9]

The same court formalized this test later in Pioneer Trust and Savings Bank v. Village of Mount Prospect, stating,

> *If the requirement is within the statutory grant of power to the municipality and if the burden cast upon the subdivider is specifically and uniquely attributable to his activity, then the requirement is permissible; if not, it is forbidden and amounts to a confiscation of private property in contravention of the constitutional prohibitions rather than reasonable regulation under the police power.*[10]

This restrictive test gave the government the burden of proving that a development fee was assessed against public costs that were "specifically and uniquely attributable" to the project.

Again, it is interesting to make note of the analytical framework implicitly used by the court in formulating this test. The comment that "specifically and uniquely attributable" costs not paid by the developer "would otherwise be cast upon the public" indicates that the court used the public-utility framework but permitted the government to recover only the quantity or demand component, and perhaps the distribution component, of the costs of providing public goods and services. Obviously this test places a much more tightly binding restriction on the ability of municipal governments to obtain compensation for the public costs of private development.

The "Rational Nexus" Test. Soon after the "specifically and uniquely attributable" test was formulated, courts in other states began to find it too restrictive. In Jordan v. Village of Menomonee Falls, the Wisconsin Supreme Court quoted in full the standard as enunciated in Pioneer Trust and adopted it with an explicit reservation:

> *We deem this to be an acceptable statement of the yardstick to be applied, provided the words "specifically and uniquely attributable to his activity" are not so restrictively applied as to cast an unreasonable burden of proof upon the municipality which has enacted the ordinance under attack. In most instances it would be impossible for the municipality*

7. 207 P.2d 1 (1949) at 5, 8.

8. Ibid., at 7.

9. 167 N.E.2d 230 (1960) at 233, 234.

10. 176 N.E.2d 799 (1961) at 802.

to prove that the land required to be dedicated for a park or a school site was to meet a need solely attributable to the anticipated influx of people into the community to occupy this particular subdivision. On the other hand, the municipality might well be able to establish that a group of subdivisions approved over a period of several years had been responsible for bringing into the community a considerable number of people making it necessary that the land dedications required of the subdividers be utilized for school, park and recreational purposes for the benefit of such influx. In the absence of contravening evidence this would establish a reasonable basis for finding that the need for the acquisition was occasioned by the activity of the subdivider.

We conclude that a required dedication of land for school park or recreational sites as a condition for approval of the subdivision plat should be upheld as a valid exercise of police power if the evidence reasonably establishes that the municipality will be required to provide more land for schools, parks and playgrounds as a result of approval of the subdivision.[11]

This interpretation locates a compromise between the restrictive Illinois test and the permissive California test. Other language in the Jordan case suggests that the Wisconsin court found a similar compromise between the private-market analogy and the public-utility analogy in evaluating fees:

The municipality by approval of a proposed subdivision plat enables the subdivider to profit financially by selling the subdivision lots as home building sites and thus realizing a greater price than could have been obtained if he had sold his property as unplatted lands. In return for this benefit the municipality may require him to dedicate part of his platted land to meet a demand to which the municipality would not have been put but for the influx of people into the community to occupy the subdivision lots.[12]

The compromise reached by the Wisconsin court was echoed a few years later by the New Jersey Supreme Court, which first applied it as the "rational nexus" test. In Longridge Builders, Inc. v. Planning Board of Township of Princeton, a case involving the exaction of a commitment to pave an off-site road, the court found that

. . . the subdivider could be compelled only to bear that portion of the cost [of off-site improvements] which bears a rational nexus to the needs created by, and benefits conferred upon, the subdivision.[13]

The "rational nexus" test was codified several years later by a Florida court in Wald Corporation v. Metropolitan Dade County, a case involving the exaction of land for a canal. Citing the reasoning of the Wisconsin court, the Florida court established the general framework of the test:

This "rational nexus" approach provides a more feasible basis for testing subdivision dedication requirements than [the "reasonable relation" test or the "specifically and uniquely attributable" test]. It allows the local authorities to implement future-oriented comprehensive planning without according undue deference to legislative judgments. It requires a balancing of the prospective needs of the community and the property rights of the developer. But above all, it treats the business of subdividing as a profit-making enterprise, thus drawing proper distinctions between the individual property-holder and the subdivider. While the former may not ordinarily have his property appropriated without an eminent domain proceeding, the latter may be required to dedicate land where the requirement is part of a valid regulatory scheme.[14]

Like the Wisconsin court, the Florida court seemed to rely implicitly on a combination of the private-market and public-utility analogies. This time, however, it provides a twist on the issue, suggesting that the decision of the court is based on the fact that the development fees and exactions imposed are actually in the interest of the developer:

Unlike one who merely reserves his property for personal use or sale as a single tract, the subdivider profits from the sale of lots within the subdivision to prospective home builders. The local government, in turn, must consider the welfare of the families who will be filling the development. It is eminently reasonable, therefore, to allow the municipality to impose certain conditions upon the developer so that it may provide for the needs of persons who would not

11. 137 N.W.2d 442 (1965) at 447, 448.

12. Ibid. at 448.

13. 245 A.2d 336 (1968) at 337.

14. 338 So.2d 863 (1976) at 868.

otherwise have been a local concern. And in a very real sense, the subdivider profits from the conditions imposed upon him, since the provision of safety and health requirements benefits potential buyers, thus rendering the lots of the subdivision more attractive.[15]

The U.S. Supreme Court. The United States Supreme Court has not yet played a significant role in the judicial scrutiny of development fees. The most important Supreme Court decision on the subject has been in Nollan v. California Coastal Commission, declaring impermissible the exaction of a pedestrian easement across the property of an individual landowner to enhance beach access.

In this case, the Supreme Court declined to approve the "reasonable relation" test applied by the California courts, stating that

> *We can accept, for purposes of discussion, the Commission's proposed test as to how close a "fit" between the condition and the burden is required, because we find that this case does not meet even the most untailored standards.*[16]

Still, the Court withheld judgment on the two other standards as well, merely noting that

> *Our conclusion on this point is consistent with the approach taken by every other court that has considered the question, with the exception of the California state courts.*[17]

Although this leaves undecided which of the three tests should be used, there is general agreement that the "rational nexus" test has become the standard of choice.

Other Considerations in Determining Fair Share. In addition to the proxies already noted for identifying the connection between a development fee or exaction and the benefit or purpose to which it will be applied, two additional proxies are used to ensure that a fee or exaction constitutes the fair share attributable to the projected development.

The first of these proxies is that the value of the fees and exactions collected be less than the projected cost of providing the infrastructure services attributable to the development. Although it seems paradoxical to demand that the value of the fee or exaction be inadequate to provide public services, the interest of the courts in applying this proxy is in ensuring that the fee be not larger than the correct fee--that is, that the government err in favor of the developer. (This legal requirement contrasts sharply with the economic strategy implied in using fees to capture economic rent.)

The second proxy is that the level of service of infrastructure to be financed by development fees or exactions not be superior to current service levels, unless the government has made a commitment to upgrading the service standards of all areas within its jurisdiction. In short, development fees and exactions cannot be used as a vehicle to achieve a general upgrade of public facilities and services. Again, in applying this proxy the courts have sought to ensure that developers be required to pay not more than the cost of infrastructure attributable to projected developments.

E. Implementing Development Fees in Hawaii

The first sections of this chapter have provided a general review of the economic and legal analysis concerning development fees and exactions. This section focuses more closely on the general steps that county governments in Hawaii might approach in actually implementing a large-scale fee structure, with particular attention to conditions in Hawaii.

1. Infrastructure Requirements

The first step in implementing a development fee is to define the future infrastructure requirements of the community, in conjunction with a general plan guiding development. As mentioned in the previous section, among the factors applied in judicial scrutiny of development fees and exactions are that there be a connection between public infrastructure costs and private development and that there be a plan for the expenditure of development fees or for the use and maintenance of land or facilities provided under development exactions. Furthermore, the infrastructure requirements attributable to existing development must be separated from those attributable to new development, since fees can be based only on the latter.

Second, the inventory of infrastructure requirements is necessary to set the level of development fees. If fees are based on the public-utility analogy, then the inventory is used to estimate the central capacity and distribution components of the total cost of providing infrastructure services. If fees and exactions are based on the private-market analogy, then the inventory is used to establish the amount of development that should be

15. Ibid. at 867.

16. 107 S.Ct. 3141 (1987) at 3148.

17. Ibid. at 3149.

approved, based in part on the amount that can be supported by available infrastructure. In both cases, the fees and exactions are set in accordance with planning decisions concerning the areas to be made available for development and the types of development to be allowed.

Along with developing an inventory of infrastructure requirements, the community must identify service standards for each infrastructure system, and determine whether existing services meet those standards. As mentioned, fees cannot be used to increase service levels for existing residents, and must be based on actual service levels unless there is a clear plan to upgrade service levels for existing residents.

2. Relating Infrastructure to Development

The next step is to establish the relationship between new development and the infrastructure improvements that it occasions. There are many possible ways to define "development" for the purpose of imposing development fees, and each definition is likely to affect the ways in which the economic effects of fees and exactions are manifest. In short, defining the relationship between development and infrastructure is a strategic decision that can affect the pattern of development just as much as can the level or timing of fees or exactions.

Moreover, development fees could certainly be separated into components, each related to infrastructure improvements in a different way. In principle, then, any or all of the following means of relating infrastructure requirements to development could be applied together in determining the fee or exaction to be imposed on any given development project.

Resident Population Growth. One way of defining "development" is in terms of the growth in resident population generated by the development. Whereas many infrastructure costs, particularly the distribution component, are incurred on a per-unit basis, resident population would generally provide a good way of attributing central capacity costs.

It is clear that residential developments generate population growth by making housing available to potential immigrants from the mainland or overseas. It is also true that non-residential developments can cause population increases either by offering employment to potential in-migrants or (in the case of hotel and resort developments) simply by introducing visitors to Hawaii. Thus a fee based on attributable increase in resident population could in principle be assessed on non-residential development as well as on housing.

Fees based on increases in resident population would have the effect of increasing the cost per occupant of housing projects. Developers would tend to respond to this by increasing the expected return per occupant of a development, and by reducing the average number of residents per development.

To the extent that the burden of development fees is passed on to consumers in the form of higher housing prices, a fee based on attributable increase in resident population--that is, on occupancy--would be similar in effect to a flat tax per occupant. The burden of the fee would constitute a higher relative burden on residents with lower income than on residents with higher income.

On the other hand, the discussion of demand and supply elasticities in the Appendix suggested that the share of the burden of development fees that is passed on to housing consumers might be higher for high-income residential developments than for those designed for low-income consumers. Thus a per-occupant development fee might be borne more by high-income housing consumers than by low-income housing consumers.

It is often the case that family size is inversely related to income--higher-income families tend to be smaller than lower-income families. To the extent this is true, development fees on the basis of attributable growth in resident population--in effect, on the basis of occupancy per unit--would tend to have the effect of increasing the burden on housing designed for lower-income consumers relative to housing designed for higher-income consumers. That is, a fee on the effective basis of occupancy per unit would tend to reduce the average occupancy per unit, or the average size of families for which residential developments are designed.

On the other hand, growth in residential population attributable to new development may involve smaller families--as might be the case, for example, among older people retiring to Hawaii. In this case, fees based on attributable resident population increases might bear more heavily on developments designed for those consumers, such as resident resorts oriented toward retirees. In short, the overall effect might be to reduce the average occupancy per unit, which would hurt large families relative to small families and might in turn hurt low-income families relative to high-income families. At the same time the effect may be to increase the development of housing designed for existing residents relative to housing designed for new residents, which would help existing residents.

Relating development fees to growth in resident population would have an additional interesting effect. Because the supply of labor on each island is not responsive to increases in wages, in some cases development has entailed ferrying laborers between islands or even importing them from outside the State. If development generated a need to import laborers from outside the State--either for construction or to staff the projects to be developed--then in this case a development fee based on attributable increases in resident population would be higher, reflecting the laborers to be brought into the State.

The development fee would tend to be higher, then, during periods of low unemployment--when scarce labor must be imported--than during periods of high unemployment when local labor is available. Such a fee would tend to have a countercyclical and stabilizing influence on development activity in the state.

Relating infrastructure requirements to attributable growth in resident population, then, would tend to discourage development during periods of low unemployment relative to development during periods of high unemployment. It is less clear what impact it would have on the mix of residential development (between low-end and high-end housing, between retiree and non-retiree housing), but the potential effects deserve careful attention so that development fees do not frustrate other important public policy objectives.

Expansion of Housing Stock. A second way of relating infrastructure to development is in terms of the expansion of the housing stock. As noted, much of the total cost of providing infrastructure service--particularly the distribution component--can be attributed on a per-unit basis more accurately than on a per-resident basis.

The most significant impact of per-unit development fees and exactions is its relative burden on housing units of different values, and hence on housing consumers with different incomes. Obviously a development fee or exaction of a given amount constitutes a higher percentage of the value of a relatively inexpensive house than of an expensive house. To the extent, then, that the burden of fees or exactions falls on the consumer of housing through higher prices, the fee will be more burdensome relative to the gross price of the house to buyers of inexpensive housing. Thus a per-unit development fee or exaction would most likely exacerbate existing problems in the distribution of income--that is, it would force a tradeoff between the goals of economic efficiency and vertical equity.

Imposing a per-unit development fee or exaction would be similar in many ways to imposing fees and exactions on the basis of attributable increases in the resident population, since the increase in the number of housing units is a fairly close approximation of the increase in the resident population. On the other hand, whereas a development fee based on attributable increase in resident population would tend to reduce average occupancy per unit, one based on number of units developed would have the opposite effect, tending to increase average occupancy per unit. If, as suggested, low-income families tend to be larger than high-income families, then this effect would tend to help low-income families by encouraging the development of housing units designed for larger families.

However, per-unit fees might also have the effect of reducing the number of units in a given residential project--that is, of encouraging lower-density development. Since land prices comprise such a high share of total housing costs in Hawaii, this would tend to hurt lower-income housing consumers, who would more easily be able to afford higher-density housing.

Per-unit housing development fees could be differentiated on the basis of housing characteristics adequately related to the costs of required infrastructure improvements. (It should be noted, however, that--unlike classification of properties for property tax purposes--any classification for development fee purposes must be based on differences in the costs of providing public infrastructure facilities and services.) Clearly fees could be determined on the basis of the density of new development, since the distribution component of infrastructure service costs are generally higher for low-density developments than for high-density developments. This would tend to have the effect of encouraging the development of high-density housing relative to low-density housing.

Since low-income residents are more likely to consume high-density housing, development fees or exactions classified on the basis of density would tend to bear more heavily on high-income than on low-income residents, though probably not by enough to offset the vertical equity problem of per-unit fees. Of course, since many resort-residential developments are high-density, relating fees or exactions to the housing stock by density might also bear more heavily on housing developed for existing residents than on such resort-residential projects developed for new residents.

Another means of determining per-unit development fees or exactions is according to the price or value of housing developed. In fact, a few existing development fees and

exactions are based on the value of housing--notably fees for fire protection, since the benefit to each homeowner of fire protection is related to the value of the home to be protected. However, it is less clear how the cost of providing any other infra- structure service could be related to the value or price of housing to be developed. The idea should be kept in mind, however, since relating development fees or exactions to expansion of the housing stock on the basis of price or value would certainly reduce the regressive impact of such fees.

Thus it is possible to relate development fees and exactions to expansion in the housing stock, and to impose fees or exactions at different rates based on characteristics of the housing to be developed. Again, however, the burden of the fees or exactions on housing consumers of different incomes must be evaluated carefully to ensure that the fee or exaction program does not conflict with other public policy objectives.

Increase in Visitor Accommodations. A third way of relating infrastructure to development is in terms of the increase in visitor accommodations generated by the development. Obviously, in a tourism-oriented economy such as that of Hawaii, visitors generate a large share of the costs of public infrastructure systems--with the exceptions of public schools and a few others, depending on how broadly the term "infrastructure" is defined.

Development fees could be imposed on the basis of the visitor capacity of hotel developments. As with a fee related to the attributable increase in resident population, this would tend to have the effect of encouraging the development of resort properties with higher returns per occupant, and with smaller occupancies per unit. Conversely, fees or exactions could be imposed on the basis of the number of hotel rooms to be developed. As with a per-unit fee or exaction on residential development, this would tend to have the effect of encouraging the development of hotel and resort properties with higher returns per unit, and with larger occupancies per unit.

The important question with respect to with these alternatives is whether there is any systematic relationship between the occupancy per unit of hotel and resort developments on the one hand, and the public infrastructure burden (and the public benefits--visitor spending, visitor tax receipts) attributable to the occupants of hotel and resort units.

It is probably true that visitor-attributable public infrastructure burdens are most closely related to the number of visitor occupants--that is, the capacity--of hotel and resort developments. It is also reasonable to expect that occupancy per unit is inversely related to visitor expenditures and other public benefits--that is, that visitors who "double up" to save accommodations costs also spend less on other goods and services purchased in Hawaii. Finally, the discussion of incidence suggests that tenants of high-end hotel and resort developments tend to have lower elasticities of demand with respect to price--that is, that the number of relatively expensive hotel rooms purchased is less sensitive to increases in the price than is the number of inexpensive hotel rooms.

Considering all of these factors together, it appears that a development fee or exaction imposed on the basis of the occupant capacity of hotel and resort developments would more effectively capture the relationship between infrastructure costs and the demand necessitating those costs than would a per-room fee or exaction. Moreover, a per-occupant fee or exaction would have the ancillary effects of reducing the number of visitors per hotel room (reducing the overall burden on public infrastructure services) and of increasing the average expenditures and tax receipts per visitor (increasing the public benefits of hotel and resort development).

Finally, in some cases development fees or exactions could be imposed on the basis of the price or value of hotel and resort developments just as they could on the price or value of residential developments. This is clearly true of fire protection, since the benefit that hotel and resort developers receive from publicly provided fire protection is related to the value of the property so protected. It may also be true, however, of police protection and other safety-related infrastructure services, since the return to developers of hotel and resort properties depends in part on the safety of visitors renting accommodations at those properties.

Commercial and Industrial Development. The fourth way of relating infrastructure to development is on the basis of the amount of commercial or industrial development produced. Many development fees and exactions are assessed on the basis of the square footage of commercial or industrial space developed. Square footage is widely considered to be an adequate proxy for the burden on public infrastructure services imposed by commercial and industrial uses.

By making each square foot more expensive, a per-square-foot fee would generally have the effect of increasing the density of commercial and industrial development. More important, however, it would tend to bear more heavily on commercial or industrial uses that are not able to

change in order to use space more intensively. For example, commercial services might be able to use smaller spaces, whereas agricultural or aquacultural enterprises might require a specified minimum square footage. Thus the effects of a per-square-foot charge must be evaluated with attention to specific types of commercial and industrial development, to ensure that development fees or exactions do not frustrate other public policy objectives.

Another straightforward means of imposing development fees is according to the employment generated by commercial developments. There are two reasons for basing development charges on employment. First, for many commercial and industrial uses employment is just as close a proxy for actual infrastructure requirements as is square footage, since there is often a fairly standard ratio of square feet per employee.

Second, in many cases developments that generate employment would also generate an increase in the resident population near the place of employment, so that infrastructure requirements associated with this employment-generated population increase would be attributable to the new commercial or industrial development on the basis of new employment. In a period of low unemployment, basing development fees or exactions for commercial or industrial developments on employment generated would be similar to basing fees or exactions for residential developments on attributable resident population growth. Moreover, basing fees or exactions on employment generated, like a fee on attributable resident population increase, would tend to have a countercyclical and stabilizing influence in that fees would be higher during periods of low unemployment and lower during periods of high unemployment.

Conclusions. What, then, can be said about the ways in which development-associated infrastructure requirements should be related to development? First of all, there are several valid proxies for the forces that generate actual demand for infrastructure services, and each tends to have different effects on the overall pattern of development. These effects depend in part on who bears the burden of development fees--that is, on incidence--and in part on how properties are classified for the purposes of establishing and assessing fees and exactions.

Second, it is not ordinarily permissible for a county or municipal government to use development fees and exactions--or, indeed, any regulation under the police power--in order to pursue the objectives of distribution or stabilization policy. Nevertheless, development fees or exactions will in many cases have a very real effect on distribution or stabilization, even when they are assessed only on the basis of reasonable proxies for actual infrastructure demands. These ancillary effects would not normally invalidate an otherwise well-designed development fee or exaction program. Still, they should be understood so that a program implemented by the county governments under the police power does not frustrate the objectives of distribution or stabilization policies implemented by the State under the taxing power.

3. Administering Development Fees and Exactions

After determining the appropriate relationship between infrastructure requirements and property development, the county implementing development fees faces several issues in actually administering a development fee or exaction program.

Setting Fees or Exactions. The first consideration in implementing development fees or exactions is the level at which they should be imposed. The above discussion of the economic analysis of development fees and exactions identifies three analytical frameworks, each of which implies a different means of setting fees and exactions.

The history of judicial scrutiny of the issue suggests that a fee or exaction designed to cover the central capacity and distribution components of the costs of public infrastructure services under the public-utility analogy would certainly be considered a valid exercise of the police power. Although no judicial decisions explicitly endorse the other two analytical frameworks, the language of several decisions suggests that a fee or exaction program that combined elements of more than one of the analytical frameworks would not necessarily be considered invalid on that basis.

The public-utility analogy, under which the county would establish fees of a value exactly equal to the cost attributable to new development of required public services, is not necessarily the simplest system even though the general principles of cost attribution are well established.

The most important reason for this is that the sheer number of infrastructure systems that might be encompassed by a development fee would make this approach costly to administer. In addition, although the application of cost attribution principles to water and other physical infrastructure systems is straightforward, cost attribution for

traffic or for schools and other social infrastructure is much more difficult.

Moreover, a development fee based on the public-utility analogy would have to encompass all of the public infrastructure services that would in fact be required as a result of new development--including increased environmental protection or increased construction of housing for consumers of low and moderate incomes. To the extent that a public-utility-oriented fee and exaction system failed to encompass all public services attributable to new development, the resulting fees and exactions would be lower than the actual costs incurred by the public as a result of the new development. In this case the fee or exaction, though nominally calculated in a manner similar to the establishment of the central capacity and distribution components of public utility rates, would in effect act as a subsidy to development--in fact, it might better be seen as a relatively low price for the right to develop, in accordance with the private-market analogy.

The sheer difficulty of encompassing all of the public costs of private development in a development fee program makes the establishment of fees and exactions more a strategic undertaking than is theoretically permitted according to the judicial history of the issue. In short, to the extent that counties wish to discourage development, they can include more services as "infrastructure" in a development fee or exaction program based nominally on a public-utility analogy.

Conversely, to the extent that counties wish to encourage development, they can impose fees that cover the public-utility-oriented costs of only a subset of the public services attributable to new development. In effect, the counties have chosen to encourage development by imposing development fees encompassing only a limited number and scope of services.

Bargaining Versus Predictability. The second issue in administering a development fee and exaction program is to determine to what extent fees and exactions will be explicit and predictable and to what extent they will be based on bargaining and negotiation. In the section entitled "Economic Effects of Development Fees and Exactions" it is noted that bargaining and negotiation increase the uncertainty and risk associated with property development, and that this tends to have two effects.

First, it would create a barrier to entry of firms into the property-development industry, thereby reducing the price elasticity of supply of development. This, in turn, would force developers to assume part of the burden of development fees and exactions rather than passing it on to consumers in the form of higher prices. Second, it would make it more difficult to develop projects offering relatively low returns--such as housing for low-income consumers--since those projects would be feasible only if risk levels were low.

In addition, uncertainty generated by bargaining over development fees works to the detriment of the government. Since governments must engage in long-term budget planning, they would benefit by increasing the predictability of development-related revenues.

On the other hand, to the extent that development fees and exactions were treated as a competition for economic rents between the county and developers, the fees would have to be negotiated. The attractiveness of a competition for economic rents, of course, would be related directly to the expected returns to a particular development project.

These observations indicate that the best approach might be to establish explicit, predictable fees and exactions for projects that offer relatively low returns and hence require low risk levels (such as low-income housing) or for commercial or industrial projects with long gestation periods (such as agricultural or aquacultural ventures).

At the same time, bargaining might be retained for projects that offer relatively high returns and short gestation periods and hence can accommodate high risk levels, such as high-income residential or resort developments. Moreover, the counties could establish an explicit component of development fees and exactions to ensure that the negotiation process would not force them to incur large uncompensated infrastructure obligations in the event that the bargaining position of the counties were weak with respect to that of developers.

Timing of Fees and Exactions. The third issue is to determine timing, or the stage of the development approval process at which fees are to be imposed and collected. As noted above, the incidence of development fees and exactions depends in part on timing. Fees imposed early in the development process are more likely to be borne by landowners, while those imposed late in the process are more likely to be borne by consumers (residents and commercial or industrial tenants).

Moreover, fees and exactions imposed early, like bargaining, act as entry barriers to reduce the supply elasticity of development with respect to price, and increase the carrying costs of development projects so that only projects with relatively high

expected returns will be considered viable.

Because of these ancillary effects, the question of the timing of development fees cannot be separated from public policy decisions regarding who should bear the costs of the fees or exactions and what types of development projects should be encouraged. For example, the effect of timing on low-income housing consumers is ambiguous. On the one hand, later fees and exactions would enable the development of projects with lower returns because the carrying costs would be less. On the other hand, low-income housing consumers would be more likely to bear the burden of fees and exactions imposed later. It appears that, if public policy objectives such as the provision of low-income housing are to be considered, development fees and exactions must be designed to reduce risk and carrying costs while not imposing burdens on consumers.

Cash Fees Versus In-Kind Exactions. A fourth issue goes to the semantic difference between development "fees" and "exactions," which is whether development charges should be imposed on a cash or an in-kind basis. In many mainland jurisdictions, the practice is to impose in-kind exactions but to give the developer the option of making a cash payment equal to the assessed value of the in-kind exaction or to the estimated cost to the government of providing the in-kind exaction.

This practice seems to make little sense, for several reasons. First of all, in-kind exactions are not always in the best interest of the government. For example, the developer of a residential project might choose to pay the cash equivalent of beach access rather than to provide the access in kind; if there is no other access in the near vicinity, however, the government might have to use its powers of eminent domain to obtain beach access from the same developer. In this case, the only effect of the cash-payment option is to delay provision of the public service and to force the government to incur the legal costs associated with eminent-domain proceedings.

Second, many developments will not be large enough to make the provision of in-kind facilities viable. Obviously it is impractical for many small developments to provide in-kind water or sewage treatment plants, parks and schools, or other infrastructure facilities. In fact, for this reason many jurisdictions allow for exactions to be waived for small developments. But the principle underlying development fees and exactions is that new development imposes infrastructure service obligations on the community. If this is true, then new development should be assessed the costs of providing those services regardless of the size of individual developments.

Third, it can be expected that the cost to the government of providing in-kind exactions, or the value of in-kind exactions not provided by the developer, will be estimated incorrectly in many cases. Giving the developer the option of substituting cash payments for in-kind exactions merely ensures that in each case the mistake will be to the financial detriment of the government. In short, the developer will choose to provide in-kind exactions when the cash equivalent is estimated too high, and to substitute cash payments when the cash equivalent is estimated too low.

It would make much more sense for the county to reserve the option of requiring in-kind exactions or of substituting cash fees, especially where the fair share would be less than in-kind facilities of a viable or cost-efficient size. In this case, the county would be able both to ensure the optimal location of infrastructure facilities and to realize cost savings where the cost to the government of providing in-kind exactions exceeded the cost to the developer.

On Site Versus Off Site. A fifth issue is whether in-kind exactions should be provided within or outside the development under review. In many cases, this issue does not arise: for example, water and sewer lines that serve the new development clearly must be on site. On the other hand, many public infrastructure services, such as police and fire protection or low-income housing, where the public infrastructure is defined to include it, can be provided either on site or off site with no appreciable difference in overall service levels.

As with in-kind versus cash exactions, there is no apparent reason why the decision should not be made by the county government whether to impose on-site or off-site exactions. In many cases one of the two might offer cost advantages to the government or the developer, or both; in other cases the decision might be made simply on locational preference.

Exemptions. A sixth issue that arises in connection with any tax or fee concerns whether specific developments or developers should be exempted from the provisions of a development fee or exaction program. For example, many projects developed by government agencies (of federal, state, county, or municipal governments) are exempted from development fees. In other cases, developments by such non-profit entities as private schools, churches, and hospitals are exempted.

The short response to this issue is that no projects should be exempted from development fees. This is

because the fee represents in some manner the cost to the community of that development. The developer, regardless of whether it be private, public, or non-profit, should bear the costs imposed on the community by the development.

Moreover, the development fee acts as a signal to the developer to assist in determining whether the project under review is worth the total costs that will be incurred in developing it. If specific developers or types of projects are exempted, the outcome will be economic inefficiency: too many of the exempt projects will be developed, and the community as a whole will incur the costs imposed by the exempt developer.

Another reason that government or non-profit developments should not be exempted is that, in many cases, they confer benefits to private developers for which the private developers do not bear the costs. For example, private non-profit health facilities might provide benefits to a developer of housing designed for retired consumers, while private non-profit day-care facilities might provide benefits to a developer of commercial or industrial space. In effect, the public subsidies to the non-profit entities may be passed through to the private developer. For such projects to be exempt from development fees would force the wider community to pay for the benefits conferred upon the private developer.

Impacts of Exacted Developments. Related to the issue of exemptions is the question of whether the infrastructure impacts of facilities developed specifically as in-kind exactions should themselves be encompassed by the overall development fee and exaction program. For example, if a housing developer were required to provide a school as a condition for project approval, the school itself would increase traffic on roads in the vicinity. Similarly, low-income housing developed as an in-kind exaction would generate impacts on traffic, water, wastewater, and other public infrastructure systems. In short, should development fees and exactions be limited to "first-order" impacts caused only by the development under review, or should "second-order" impacts of the in-kind exactions themselves be included in calculating development charges?

The answer is that the "second-order" impacts of in-kind exactions should probably be included in assessing fees. In-kind exactions do in fact impose costs on the wider community, and the general principle behind development fees and exactions is that the developer should be forced to internalize these costs. It would be inefficient to excuse the developer from compensating the government for part of the impact of new development simply because the impact is not direct.

However, this answer should be qualified slightly. First, it must be true that the infrastructure facilities that would be financed by cash development fees generate an equivalent second-order impact on infrastructure services. If not, then by requiring in-kind exactions the government would be forcing the developer to generate additional infrastructure impacts than would otherwise be imposed. In other words, by requiring in-kind exactions the government would in effect be imposing fees for infrastructure impacts that were generated not by the development itself but simply by the decision to require in-kind exactions rather than cash payments.

Second, the second-order impact must be defined to include this impact of infrastructure facilities financed by cash development fees. If second-order impacts were a consideration only for in-kind exactions, the government would have a financial incentive to require in-kind exactions rather than cash fees, even where cash fees would otherwise be preferable for efficiency or locational reasons.

Finally, in imposing development fees or exactions to cover second-order impacts, the government must be careful not to assess development fees twice on the same development impact. For example, if a developer were required to pay development fees to cover the costs of providing infrastructure services to low-income housing made necessary by the project under review, then it would be neither equitable nor efficient to impose development fees or exactions on the subsequent developer of the necessary low-income housing. In short, in imposing second-order development fees the government must be careful to avoid "double-counting" development impacts.

Fee Administration Costs. The final issue in implementing a development fee is whether all or a portion of the costs of administering the program itself should be included in the fees. The simple answer is that they should be, since the costs of administering the development fee program are attributable to new development in that they would not have been incurred in the absence of the new development. This reasoning, in fact, is well established in the administrative fees charged to developers filing for variances, conditional use permits, and other development approvals.

4. Relating Administration to Economic Conditions

Just as the relationship defined between development and

infrastructure requirements can have ancillary distributional or stabilizing effects, so too can the way in which a fee or exaction program is administered affect other public policy goals. Applying development fees on the basis of employment generated, for example, would tend to have a countercyclical stabilizing effect even though stabilization policy is not considered the responsibility of county governments. Administration of development fees and exactions can also be related to the general economic conditions in the community in order to enhance the countercyclical benefits of the fee program.

For example, to the extent that carrying costs associated with development fees and exactions could be reduced, it would be more feasible to develop projects with lower returns or longer gestation periods. Thus the county might apply development fees or exactions at a later stage of the development process for projects that are expected to have longer gestation periods or lower returns to the developer but that offer special benefits to the community--such as low-income housing or diversified agriculture or aquaculture ventures.

Moreover, interest charges constitute perhaps the most important component of the carrying costs of development fees and exactions. Thus a county could relate the timing of development fees and exactions to interest rates. Fees and exactions might be imposed at a later stage of the development process when interest rates were comparatively high, and at an earlier stage when interest rates were comparatively low.

This would encourage developments with longer gestation periods or lower returns to the developer. In addition, however, it would act as a stabilizing influence to counteract fluctuations in interest rates, reducing the timing component of carrying charges when the interest component were higher (and vice versa).

The administration of development fees could also be related to changes in unemployment rates more explicitly than merely through the attributable increase in resident population or in employment as discussed earlier. As noted, infrastructure impacts would generally be greater during periods of low unemployment, as additional laborers were imported from other islands or from overseas. Because of this effect, even per-unit or per-square-foot development fees and exactions could be adjusted by, for example, the unemployment rate as a proxy for the impacts attributable to imported labor. Again, development fees adjusted in this way would provide a stabilizing influence, encouraging development during times of high unemployment and discouraging development during times of low unemployment.

F. Filling the Infrastructure Finance Gap

Although development fees and exactions offer several advantages to a community that uses them to finance public expenditures on infrastructure services attributable to new development, even a perfectly designed system of development fees and exactions almost certainly cannot generate revenues adequate to finance all future infrastructure requirements.

There are three reasons for this infrastructure finance gap. The first is simply that, because fees have not been utilized widely in the past, communities face an inventory of existing requirements that cannot be attributed to future new development, as in the Puna district of the Big Island.

Second, the State and federal governments may mandate upgrades in the service standards of existing infrastructure systems, as the State Department of Health did recently with respect to wastewater treatment systems. Finally, development fees cannot close the infrastructure finance gap completely because of the de facto legal requirement that the revenues generated through a development fee or exaction program actually be insufficient to cover completely the cost of providing the required infrastructure facilities and services.

Because of this unavoidable infrastructure finance gap, the State and county governments in Hawaii should consider several options for financing future infrastructure requirements. One of these is the "tax increment financing district" (TIF), which raises no additional funds but diverts property tax revenues to special funds for local requirements. By establishing TIF districts, the county can identify the beneficiaries of specific infrastructure projects, and target to them the cost of the public services provided.

A second option is the use of special assessment districts, which differ from TIF districts in that additional revenues are raised through assessments only on properties within the special district. In this case, the infrastructure can be provided without capital cost to the county as a whole.

A third option is a revolving loan fund, perhaps established by the State, from which the counties could borrow to finance new infrastructure. Of course, counties currently incur debt to finance infrastructure projects. The revolving loan fund would provide a source of low-interest financing that would not have to be tied to the current property tax base.

In addition to exploring the options for financing mechanisms, the State could grant additional taxing authority to the counties, in the form either of their own taxing powers or of count

supplements to State taxes. Clearly many potential legal pitfalls could be avoided if the State government were to grant the counties the power to impose a development tax rather than a fee. The State could also transfer to the counties (or allow the counties to supplement) the portion of the general excise tax that applies specifically to construction, on the ground that, in many cases, property development requires provision of infrastructure facilities up front while the county does not realize a corresponding increase in property tax revenues until perhaps several years later when the development is complete. The general excise tax on construction would provide the counties an up-front revenue source during the lag between expenditures and revenues--in short, it would improve county liquidity during the property development process.

VII.A APPENDIX: ELASTICITIES AND INCIDENCE

As noted in the text, the incidence or ultimate burden of any fee or tax on a product is determined in large part by the relative elasticities of demand for and supply of that product. This Appendix examines the factors influencing demand and supply elasticities in the markets related to property development in Hawaii, and evaluates the burden of development fees or exactions in terms of these local market conditions.

A. Demand Elasticities

The price elasticity of demand for a product is largely a function of how easily consumers can substitute equivalent or nearly equivalent products in response to an increase in the price of the initial product. If there are many substitutes for the product--that is, many ways in which a consumer might just as easily be satisfied--then the demand elasticity for the product will be relatively high. In response to a price increase, consumers simply buy less of the product and more of its substitutes. Conversely, if some attribute of a given product makes it unique, so that it has few or no substitutes, then the demand elasticity for that product will be correspondingly low; consumers will continue to demand it even in the face of a price increase.

The incidence of a development fee or exaction involves the markets for several different products and services, for each of which the demand elasticity may be different. The products and services include the land on which projects are to be developed and the housing or commercial space to be developed as well as the right to develop and the labor, financial capital, and building materials used in construction.

1. Demand for Land

In many mainland areas, the price elasticity of demand for land is probably fairly high since nearby land can easily be substituted for any particular parcel. (Exceptions to this generalization include tightly constrained land areas such as San Francisco and Manhattan, as well as parcels with access to important natural or man-made resources such as mineral deposits or harbor facilities, or lake shores.) In contrast, in Hawaii the price elasticity of the demand for land is probably relatively low in general, since the supply of developable area within the State and within each county is severely constrained, by exceptionally rigorous land-use policies.

Even more important, the demand elasticity for land is probably very low indeed in specific areas with scarce natural characteristics making them uniquely valuable for development. For example, coastline properties with constant weather and attractive beaches (the North Kona-South Kona, Lahaina, and Koloa districts) may be appropriate for resort development; attributes of other properties may make them appropriate for residential, commercial, or industrial uses. On the other hand, properties or areas that are perfectly adequate for development but have no natural attraction (the Ewa-Wahiawa and South Hilo-Puna districts) would be characterized by relatively high demand elasticities reflecting available properties that are close substitutes in most respects.

2. Demand for Residential Developments

Like the demand elasticity for land, that for residential developments tends to be high in areas where close substitutes for a given residential property are available. Again, however, the elasticity of demand tends to be substantially lower for residential developments offering scarce attributes such as access to beaches or attractive architecture. In fact, many developers seek to design their projects to offer scarce amenities in effect to reduce the elasticity of demand for their developments. Not surprisingly, most such residential developments offering scarce amenities are relatively expensive. Thus the price elasticity of demand is likely to be substantially lower for residential developments aimed at high-income housing consumers than for those aimed at low-income consumers.

3. Demand for Hotel Developments

The elasticity of the demand for resort developments, like that for residential developments, depends to a great extent on whether the amenities offered at a particular resort are scarce or widely available. For hotel and resort developments, however, the question of substitutability hinges on the appeal of the other resort destinations that compete with Hawaii for visitors.[1]

The elasticity of demand for particular resort properties may differ depending on the segment of the consumer market for which each project is designed. Again, resorts aimed at wealthy visitors are likely to have a lower elasticity of demand, because of the inclusion of scarce

1. Fujii, Khaled, and Mak [1985] estimate that the elasticity of demand for hotel rooms in Hawaii approximately 1, indicating that a decrease in the number of room-nights rented of 1 percent is associated with a 1 percent increase in the rental price of hotel rooms. This estimate is higher than several previous estimates that had considered Hawaii a relatively unique visitor destination.

amenities, than will those aimed at lower-income visitors. In addition, however, demand elasticities at hotels aimed primarily at pleasure visitors are likely to be higher than at those for business travelers, since business travelers generally do not choose between Hawaii and other visitor destinations and in many cases demand a particular amenity--access to business and commercial districts--for which they face a narrower range of hotels from which to choose.[2]

4. Demand for Commercial Developments

The price elasticity of the demand for space in commercial, retail, or industrial developments depends in large part on whether the prospective tenants perceive the development to have any scarce desirable attributes. The appeal of particular attributes, in turn, depends on the retail, commercial, or industrial activity to take place.

For example, the demand elasticity for a neighborhood retail project might be relatively high reflecting close substitutes in the neighborhood. On the other hand, the demand elasticity for resort retail space, or for commercial space with access to scarce facilities (harbors for transportation or fishing, mountaintops for astronomy), would be comparatively low reflecting the scarcity of close substitutes.

B. Supply Elasticities

The price elasticity of supply of a product reflects in large part the ease with which producers can increase or reduce production in response to price fluctuations. For example, if in response to a price increase new producers can quickly enter the market to increase output and then can as easily leave the market as prices fall, the supply elasticity will be relatively high. Conversely, if it is difficult for producers to increase or decrease output--either by entering or leaving the market or by adjusting production levels--the supply elasticity will be correspondingly low.

1. Supply of Land

Hawaii is the paradigmatic example of pure inelasticity in the aggregate supply of land, since the land area of each county cannot be changed in response to price fluctuations. On the other hand, the supply of land for a particular use--such as agriculture, residential development, or hotel and resort development--does change in response to fluctuations in the return (price) in one use relative to that in other uses. The price elasticity of supply for land in a particular use depends to a great extent on factors such as stringency of land use controls, distribution of land ownership, and natural circumstances and public services that make land developable.

Although the price elasticity of the supply of land for a particular use in Hawaii is not clear, a number of local conditions--relatively concentrated land ownership, locational and topographic amenities of specific parcels, and stringent land use controls--together suggest that it is probably quite inelastic, at least compared with most areas on the mainland.

2. Supply of Property Developments

In general, the property development industry probably has a relatively high price elasticity of supply, largely because flexible labor and mobile, durable capital equipment make it easy for producers to enter or exit the market in response to price fluctuations. On the other hand, the supply elasticity of property development may be substantially lower in Hawaii than in many other areas, primarily because entry of development firms into the market may be significantly more difficult in Hawaii than on the mainland.

The most important barrier to entry of firms into any market is the existence of high start-up costs, which provide cost advantages to established firms over entering firms. In the development industry three conditions impose high start-up costs on prospective developers: (1) high bargaining costs or uncertainty in obtaining development approval, (2) high front-end development fees or exactions, and (3) high land costs or unavailability of land parcels.

Bargaining Costs and Uncertainty. The current practice before all counties and the Land Use Commission of negotiating ad hoc development exactions gives established developers a significant cost advantage over new entrants. A developer with experience before land use regulatory bodies may be able to predict the value of the development exactions that will be imposed as conditions of project approval, but it will generally be much more difficult for new developers to predict this component of project costs.

In turn, the risk associated with development projects is higher for new developers than for established firms. Thus the elasticity of supply for property development depends in part on the extent to which land use regulations, including development exactions, are explicit (or at least predictable according to guidelines) or depend on the uncertain outcome of negotiation. Governments can increase the supply elasticity by

2. Sakai [1985] estimates the demand elasticity for pleasure visitors to Hawaii at almost 0.9, while the demand elasticity for business visitors to Hawaii is estimated at only 0.6.

reducing uncertainty, or decrease the supply elasticity by increasing uncertainty.

Front-End Development Charges. Front-end imposition of development fees or exactions also constitutes a significant barrier to entry of firms into the property development market, even if the cost of the fees and exactions is known with certainty. Since fees and exactions represent a definite and nonrecoverable cost, firms will be unwilling to enter the market for property development if they must pay these costs before they are able to estimate the potential return to a development project. Thus the government can very directly affect the supply elasticity of property development by deciding at what stage in the development approval process to impose development fees and exactions.

Land Costs and Availability. Although high land prices are virtually endemic to Hawaii--because of the tightly constrained land area, the mixed topography, and the scarce environmental attributes of constant weather and exceptional beauty--government policies strongly affect land prices and availability. The most important vehicle of government policy for influencing the price and availability of land is the State Land Use Commission, which controls the amount of land in each county zoned for urban uses and thus available for development. Action by the Hawaii Housing Authority in applying the Land Reform Act can reduce the concentration of land ownership.

3. Incidence

What does the evidence concerning demand and supply elasticities in Hawaii say about who bears the ultimate burden of development fees and exactions? This question is answered by evaluating incidence in terms of the possible combinations of demand and supply elasticities, and identifying markets in Hawaii according to these combinations.

High Demand Elasticity/High Supply elasticity

The first combination to be considered is the situation in which both the elasticity of demand and the elasticity of supply are high. This model probably describes the situation that would exist within a few distinct submarkets in Hawaii--such as the Ewa-Wahiawa and South Hilo-Puna districts--during periods of recession with substantial slack in the construction industry and softness in the visitor industry. Figure VII-3 illustrates this situation, which probably characterizes the markets for land and developments in many parts of the mainland as well. The development fee or exaction is represented as an upward shift in the supply curve from $S_O S'_O$ to $S_F S'_F$ in the market for development projects. (The impact of the exaction would be represented as a downward shift in the demand curve in the market for land, in which case both the price of land and the quantity of land sold for development would decline.)

Under this situation, the burden of a development fee or exaction would be divided fairly equally between developers and consumers--buyers of housing, renters of hotel rooms, or tenants of commercial space--in the form of higher gross prices and rents and lower net returns to the development project. If the fee is expected when the developer purchases land, then the landowner bears part of the developer's share of the fee in the form of lower land prices. At the same time, however, the total quantity of land made available or of property developed would drop substantially.

Low demand elasticity/high supply elasticity

The second situation combines a low elasticity of demand with a high elasticity of supply, and is illustrated

Figure VII-3

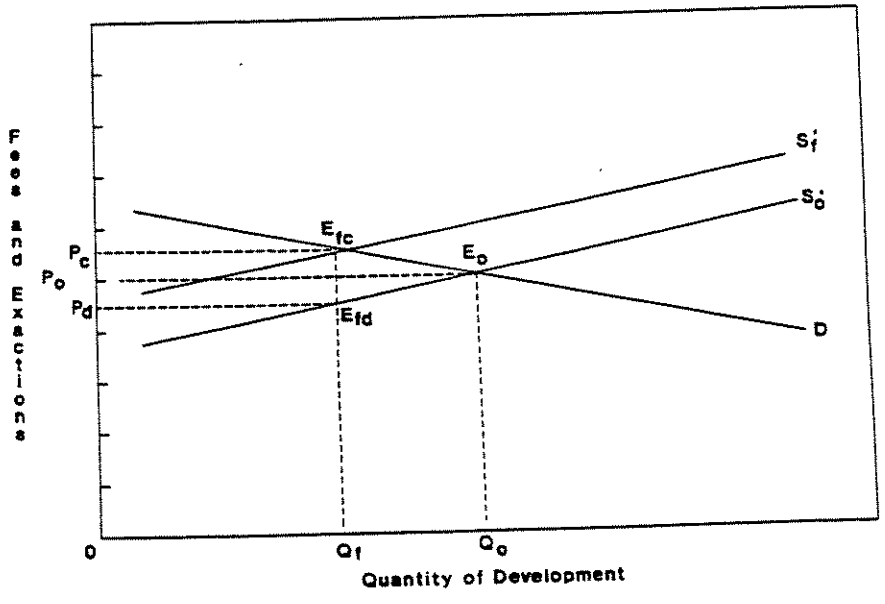
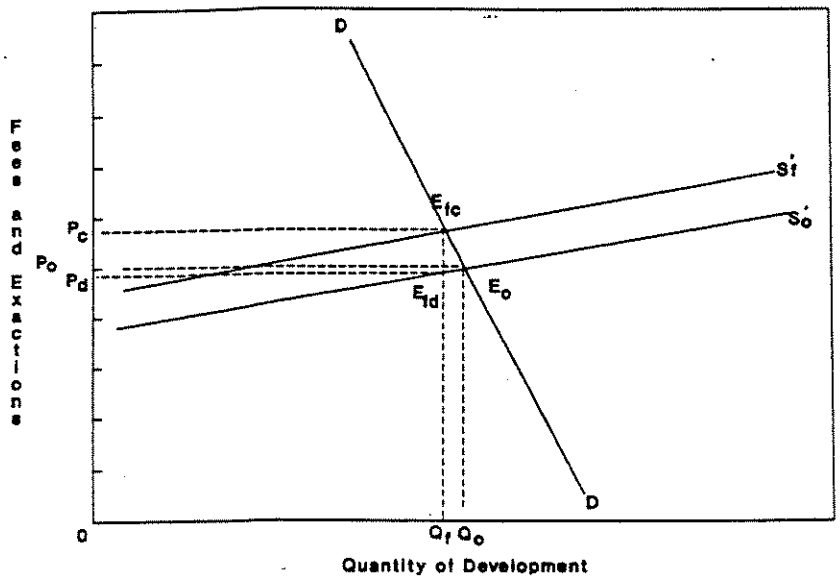


Figure VII-4



in Figure VII-4 where the fee or exaction is again represented as an upward shift in the supply curve. This situation probably does not exist in the market for land, nor in the market for developments that depend in large part on natural attributes--weather, beaches, or access to commercial centers or industrial facilities. On the other hand, the situation probably describes the markets for developments in which the developer can manufacture and install attributes in high demand--such as architectural distinction, exclusivity, or artificial natural attributes. Thus the situation probably describes the residential submarkets in several developments aimed primarily at higher-income buyers, such as Hawaii Kai and Waialae-Kahala on Oahu or Princeville on Kauai, as well as hotel and resort developments featuring man-made attractions.

In this situation, the burden of a development fee or exaction would largely be shifted by the developer to the consumer of housing or hotel rooms. At the same time, there would be a small reduction in the amount of property development as a result of the fee or exaction.

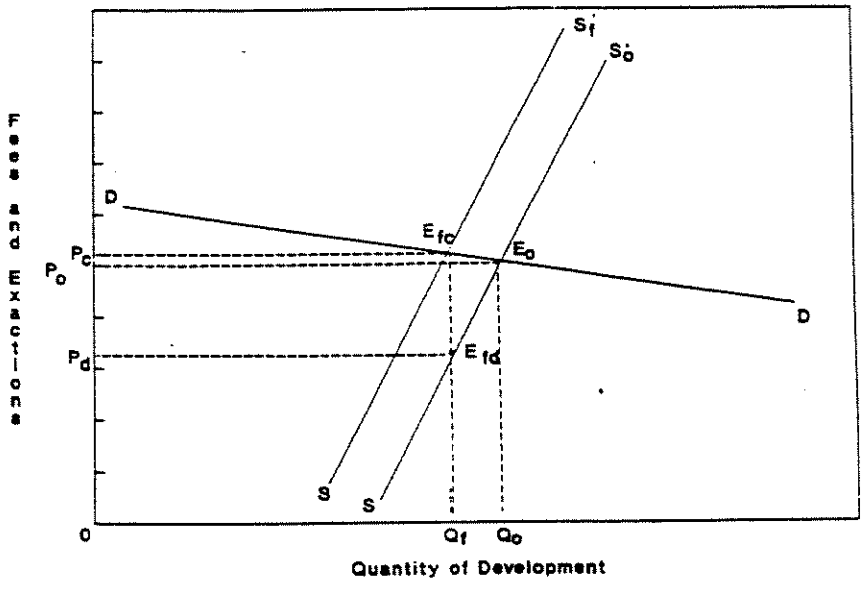
High Demand Elasticity/Low Supply Elasticity

The third combination is a situation of high demand elasticity and low supply elasticity. Though this situation probably does not characterize many markets, it may exist where land use controls limit the supply of land available for development even though that land does not possess the attributes that make it attractive for development. The combination, illustrated in Figure VII-5, may exist in Hawaii in areas such as those surrounding Hanapepe-Waimea on Kauai, Wahiawa on Oahu, Wailuku-Kahului on Maui, and Hilo on the Big Island, in which the government applies land use controls to maintain land in agricultural uses even though there is comparatively little pressure for development of the area.

Low Demand Elasticity/Low Supply Elasticity

The fourth combination describes a situation in which both demand and supply elasticities are low, suggesting most of the recent markets for land and property development in Hawaii. Natural attributes (topography, environmental amenities) and

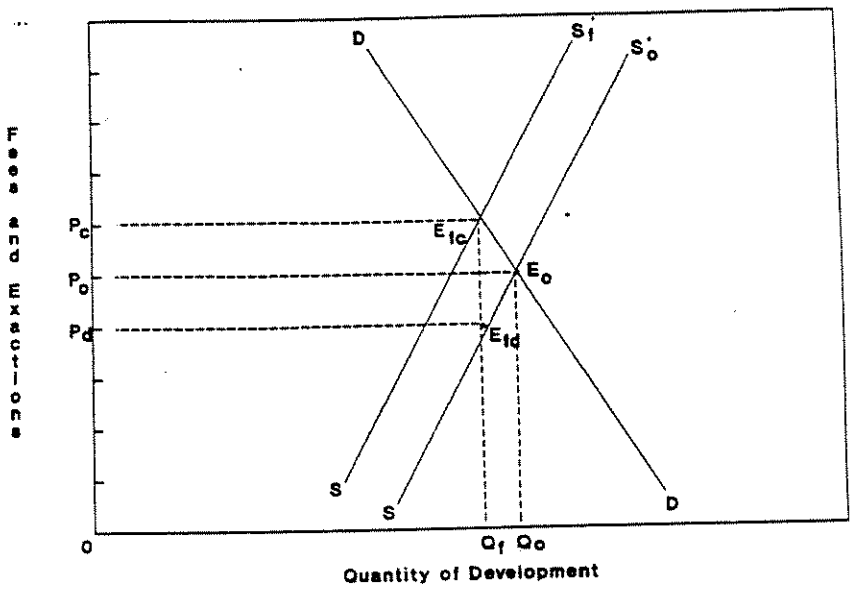
Figure VII-5



government land use controls make the supply of land available for development quite inelastic, while scarce environmental amenities make the demand for land with these amenities similarly inelastic. The same forces operate in the market for property development. Land use controls, high land costs, and concentrated land ownership make the supply of development quite inelastic, while scarce natural or man-made amenities make the demand for developments offering these amenities inelastic as well.

This situation is illustrated in Figure VII-6. The development fee or exaction is once again represented as an upward shift in the supply curve in the market for development projects. The burden of a development fee or exaction in this situation would be shared by landowners, developers, and the ultimate tenants of residential or commercial developments.

Figure VII-6



VIII. ANALYSIS OF POLICY OPTIONS FOR IMPROVING HAWAII'S INTERGOVERNMENTAL FISCAL SYSTEM

This chapter considers an extensive range of options for public policies designed to deal with the imperfections in the fiscal system of Hawaii that have been identified in this report. An effort has been made to include among the options, most of which relate to the policies of the State government, virtually every proposal advanced by public figures, organizations, and the media in the State during the past few years.

Nine general categories of policy options are considered: (1) realignments of service responsibilities between the State government and the counties, (2) shifts in revenue-raising authority between the State and the counties, (3) county supplements to State taxes, (4) new taxing authority for the counties, (5) State payments to the counties, (6) revised treatment of purchases by the counties under the general excise tax, (7) an increased county role in State land-use planning, (8) authorization for the counties to use proceeds of their motor-fuel taxes for non-highway transportation projects, and (9) increased reliance by the counties on user fees and charges.

The discussion begins with a review of the criteria to be employed in the analysis.

A. Criteria for Evaluating the Policy Options

The major criteria used in considering the policy options are equity, economic efficiency, contribution to fiscal balance, accountability, simplicity, and fiscal neutrality.

1. Equity

The concept of equity relevant to the present analysis has two dimensions: equity among geographical areas and equity among individuals. In the first instance, the issue is whether every county has the revenue-raising ability to provide reasonably adequate levels of the public services for which it is responsible at tax rates reasonably comparable with those of the other counties.

In the second instance, the question is whether the average (median) resident of each county enjoys benefits from the public services provided by the State government and the average (representative) level of services provided by the county government that are commensurate with the burden of State taxes he or she bears and with the taxes the resident would pay if the county taxed at statewide average (representative) rates.

Another aspect of equity among individuals flows from the benefit principle of taxation, which calls for those who benefit from a public service to pay the cost of its production. The vehicle for payment is a user fee, when it is feasible to prevent a person from consuming a service if the charge is not paid. When exclusion from benefiting from a service is not practicable, the benefit principle calls for financing by a tax whose incidence corresponds reasonably well with the distribution of the benefits of the service. In public finance theory, the benefit principle is generally regarded as the cornerstone of state and local government finance.

A corollary of this view is that serious efforts to redistribute income and wealth should be the province of the national government. The most important consideration underlying this division of responsibilities is a practical one. Major efforts by state and local governments to redistribute income are likely, in the long run, to be frustrated by migration of individuals and capital. Such migration will be out of a state or locality if tax burdens are perceived to be disproportionate to benefits received, or into a jurisdiction if service benefits are seen as disproportionate to tax obligations. The states are, of course, barred by the U.S. Constitution from interfering with such migration.

2. Economic Efficiency

An efficient economy is one in which the overall level of output approaches the highest the economy is potentially capable of achieving at a given time. Public policy contributes to economic efficiency by constructing and operating such essential infrastructure as streets and roads, available equally to all, by providing such basic public services as police and fire protection, and–in general–by maintaining what has been called a "level playing field" for the various interests in the private sector, including labor, commerce, manufacturing, and consumers.

Efficiency tends to be compromised when state or local government policy seeks to give advantage to one interest or another. Such efforts can sometimes be warranted when the objective is deemed worth the direct budgetary cost as well as the loss in the overall efficiency of the economy. This can be an especially serious problem when the advantage given is not explicitly intended.

Viewed from an operational perspective, efficiency relates to the achievement of a specified goal at minimum cost. Although they are rarely decisive considerations in the analysis of the assignment of responsibilities for public services, operational efficiency issues do arise. For the most part, however, they relate to such nuts-and-bolts decisions as the least-cost way of arranging for the delivery of a particular service, including such options as "privatization" and "contracting out." These issues are often referred to as

matters of cost-effectiveness. They are related to the "waste-fraud-and-abuse" issues addressed by the "Grace Commission" in Washington during the early years of the Reagan Administration. With a few exceptions, these issues involve matters of detail that are beyond the scope of this report.

3. Contribution to Fiscal Balance

The horizontal and vertical imbalances in Hawaii's fiscal system identified in Chapter V are the reference point for this criterion. To the extent possible and relevant, estimates of the distributional implications or potential of the policy options reviewed here are presented. Given these estimates, policymaker is in a position to select, from among the options, the one or the set that most closely approximates the redistribution of fiscal resources between the State and the counties or among the counties that may be necessary to redress the imbalances. The policymaker's preferences among the options may, of course, be influenced by values and concerns not explicitly considered in this chapter.

4. Accountability

An important consideration in the design of public policy is to ensure that the elected officials who enact policy and the bureaucrats who implement it are clearly identified and known to the voters, and that abundant information about their actions is readily available for scrutiny by the public and the media. Two key principles of accountability follow from this view.

The first is that, in general, the responsibility for providing a public service should be clearly vested in one level of government. Failure to honor this principle can result in fragmented authority, passing the buck ("we really didn't want to do it, but the feds/state made us"), and other pernicious strategies for avoiding responsibility for decisions.

The second principle of accountability is that, in general, the government that provides a public service should be responsible for raising the revenues to pay for it. If those who benefit from a service have to bear the full cost of its production, they are more likely to be sensitive to whether the level of the service provided is appropriate and to be concerned about the efficiency with which the service is being produced than if they believe that someone else is footing the bill.

This means, for example, that state grants to local governments should be avoided, in the interest of promoting local accountability, except when, as discussed in Chapter IV, (1) they are necessary to ensure horizontal fiscal balance among localities, or (2) they are needed to induce local governments--in the interest of the state as a whole--to produce a larger quantity of a particular public service than they would in the absence of the state assistance.

5. Simplicity

Simplicity is the handmaiden of accountability. Few things contribute more surely to the undermining of public confidence and interest in government than complexity. Once in a while, policies are unavoidably complex because the problems they address are complicated and none of the solutions is easy. But what might be called the "appeal to complexity" is often resorted to when the reality is that policymakers would really rather the public didn't understand exactly what is going on.

This has long been the name of the game in national tax policy where, for example, the Internal Revenue Code declares majestically that all income "from whatever source derived" will be taxed at what was, until 1986, an imposing range of graduated rates. The framers of the nation's tax policy then proceeded to endow the definition of income with complexity that ultimately produced a distribution of tax burdens that barely resembled the progressivity the public had been led to expect.

When the tax code is so complicated that only a few understand it, is it not visionary to expect the electorate to hold the Congress and the President accountable for their achievements? It is not surprising that one of the three watchwords of the tax reform effort of the 1980's was "simplicity." It is also not terribly surprising that serious debate continues on the question whether the Tax Reform Act of 1986 really simplified the tax code, and whether the tax burden on the wealthy was actually reduced by as much as it appears.

Another reason why simplicity is important is that complexity is costly. It is costly in the bureaucracy that must be in place to interpret the law, to assist those who are confused by it and make mistakes or may not realize they are eligible for benefits, and to bring into compliance those who strive to exploit the complexity to gain unintended advantage. It is costly to the people, who may have to invest inordinate time and attention to understand their obligations or the benefits for which they may be eligible, and who may even have to engage professional assistance to ensure they are treated fairly. Resources devoted to these purposes contribute little or nothing to the real value of economic output, and can be a significant source of inefficiency in the economy.

The answer, of course, is to insist on simplicity--that policies be as straightforward as possible to maximize the chances that the voter will understand what is going on and

be able to hold elected officials accountable for their actions, and so the dead-weight costs to the economy of administering and complying with the law are minimized.

6. Fiscal Neutrality

State fiscal assistance to the counties should be provided in a form that minimizes its influence on county decisions--except when the assistance is intended to influence specific decisions. In such cases, the terms of the assistance should be crafted to have minimal unintended influence.

B. Realignment of Service Responsibilities

The issues involved in the division of the responsibilities for public services between the State government and the counties are explored in detail in Chapter IV of this report. The key considerations identified in that discussion are:

- the desirability of decentralization in order to maximize the responsiveness of public authorities to the diverse interests and needs of the residents of different communities,
- the importance of aligning responsibility for providing a service with the government whose jurisdiction corresponds most closely with the geographical range of the benefits from the service, and
- the role of the State government when locally provided services generate benefits or costs that spill over the boundaries of the local government.

A further consideration is the first principle of accountability, discussed earlier, which emphasizes the importance of assigning responsibility for a service to a single level of government rather than trying to share or divide it between two or more levels. Such sharing of responsibility is sometimes referred to as overlapping or duplicative administration. Sometimes it is referred to as partnership. Whatever it may be called, it is essential to recognize it for what it is--a prescription for compromising accountability.

The special geography of Hawaii--in particular the fact that each county is perfectly contiguous with one or more islands fairly widely separated from the others in the State--is a key factor in the alignment of responsibilities. It means that spillovers of benefits and costs from public services provided by county governments are likely to be far less important in Hawaii than they are in any other state of the Union.

A presumption in favor of decentralization is an important tenet of political philosophy in most of the U.S. The unusual historical evolution of government in Hawaii, however, appears to be responsible for a willingness to accept a degree of centralization that considerably exceeds that found in any other state (see Chapter II). This tradition notwithstanding, growing interest in the potential of decentralization, in the interests of more responsive and accountable government, are readily apparent in public discussions in Hawaii of issues as diverse as land-use planning and elementary education as the 1980's come to a close.[1]

Five areas with potential for realignment of service responsibilities are considered in this section.[2] They are parks and recreation, highways, housing, collective bargaining, and property tax relief.

1. Parks and Recreation

The assignment of responsibilities for parks and recreation is a major focus of the recent report of the Advisory Committee to Study Overlapping State and County Functions.[3] The Committee's basic finding is that the existing division of responsibilities between the State and the counties in this area does not satisfy any reasonable set of criteria and, in fact, is more the product of historical accident and poorly crafted statutes than it is of careful planning.

The Committee's report urges a thorough review of the park and recreation system and of the respective roles of the State and the counties, and the development of a considered set of proposals for "unraveling" the tangled web of territorial and service jurisdictions. In particular, the Committee notes with favor a review conducted in 1981 by the State Parks Division of the Department of Land and Natural

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1. See, for example, the recommendations of the "Berman Report" for reorganizing the governance and management of K-12 education by establishing elected community school boards to control the educational program of the schools in each locality, but leaving finance in the hands of the State government. [Paul Berman, et al., The Hawaii Plan: Educational Excellence for the Pacific Era--Recommendations to the Hawaii Business Roundtable, Summary, R/113-1 (November 1988), pp. 8 and 19.

2. In the interest of conceptual clarity, the discussion in this section abstracts from the issue of vertical fiscal balance between the State and the counties. The assumption is that issues of service responsibilities are decided on their own merits, and that any vertical imbalance that may result from the division of responsibilities is addressed by a shift in revenue-raising authority or by State grants. Vertical imbalance could, of course, be corrected by reassigning service responsibilities.

3. Report to the President of the Senate and the Speaker of the House of Representatives, Thirteenth State Legislature (October 30, 1986), pp. 6-8.

Resources and the Department of Parks and Recreation of the City and County of Honolulu. The report further indicates that this exercise developed a set of "jurisdictional" criteria for assigning responsibilities for parks between the State and the counties, and identified an "initial" list of parks that it recommended be reassigned.

The Committee notes that, for a variety of reasons, the full list of transfers had not yet been implemented at the time its report was filed in 1986. Accordingly, it recommended that the sorting-out of responsibility for parks in Honolulu be concluded as proposed, and that similar reviews be conducted by officials of the State and the other counties using the criteria developed in the course of the 1981 effort.

A year after the Advisory Committee filed its report, a task force appointed by the Governor recommended a similar strategy for rationalizing responsibilities for park facilities in Hawaii. The Task Force recommended that "active" parks be the responsibility of the counties while "passive" or cultural/historical parks be the responsibility of the State. Applying this approach, a list of specific transfers of park facilities between the State and the counties is spelled out in the report of the Task Force, along with detailed estimates of the personnel and budgetary implications of the recommendations.[4]

The approach taken in both these efforts makes a great deal of sense, and clearly deserves full consideration. (The similarities in the recommendations is no coincidence: the report of the Governor's Task Force notes that the Advisory Committee's report was the basis for its discussions.) Time has not permitted a review, for purposes of the present report, of the specific recommendations for the rationalization of park responsibilities in Honolulu, so a discussion of their consistency with the criteria outlined at the beginning of this chapter cannot be ventured here.

2. Highways

An economist undertaking to advise on the division of responsibilities for services between the State and the counties in Hawaii would be hard pressed to identify a more clear-cut example than streets and roads of a function that ought to be assigned to the counties. There are in Hawaii, it goes without saying, no "intercounty" highways in whose construction and maintenance a State role might be found. The rationale for a State role, if there were such highways, would be that vesting the function in the counties would result in less spending than would be desirable from the perspective of the State as a whole. This would happen because the officials of one county would not weigh in their decisions the benefits of the highways that would be realized by residents of all the other counties.

In fact, it appears that the counties were responsible for most streets and roads in Hawaii until the 1960's, though outlays for the function amounted to nearly 11 percent of the total operating expenditures of the Territorial government as long ago as 1949.[5] This share of the budget of the Territory was barely half the proportion of the general expenditures of all state governments in that year accounted for by the highway function.[6]

In 1956, the Congress enacted President Eisenhower's proposal for an Interstate and Defense Highway program, which prescribed the involvement of State governments in highway construction as a prerequisite for eligibility for federal funding. The terms of that aid were so attractive as to be irresistible, and in 1965 a State Highway System was established in Hawaii to satisfy the requirements of the Federal Highway Act.

In the words of the report of the Advisory Committee on Overlapping Functions,

> *The State Highway System was intended to be an integrated network of federal aid highways and state highways, linking major transportation modes, urban areas, recreational sites, and military installations for the safe, efficient, and economical movement of goods and people. Original plans called for a four phase program of road segment exchange between the State and counties in order to form this integrated network. The exchange specified was to be completed by 1973.*[7]

By 1986, however, only two of the four phases of the road-segment exchange had been implemented. Completion of the effort was in abeyance because the designated county segments had not been improved to federal standards. The

4. Report of the Governor's Task Force on State-County Relations (November 1987), pp. 15-24.

5. Robert C. Schmitt, Historical Statistics of Hawaii (The University Press of Hawaii, 1977), p. 641. The responsibility for roads constructed with federal-aid funding assistance was assumed by the Territorial government in 1932, the year the first federal tax on gasoline (1 cent per gallon) was enacted.

6. Although estimates for 1949 are not available, highways accounted for 21 percent of State general expenditures in 1948 and 22 percent in 1950 [U.S. Bureau of the Census, Historical Statistics of the United States, Colonial Times to 1970, Bicentennial Edition (1975), p. 1131].

7. Op. cit. p. 4.

counties apparently had higher-priority uses for their funds. The Advisory Committee recommended that the State complete the third phase of the exchange by accepting the designated county roads and paying the costs of bringing the segments up to federal standards. The Committee did not speak to Phase IV of the plan, which involved the Saddle Road on Big Island.

The report of the Governor's Task Force on State-County Relations indicates that the transfer of Phases III and IV of the State Highway System from the counties to the State was being considered, but that further analysis of the financial feasibility of the move was necessary, and was to be conducted by a Highway Revenue Task Force convened by the Department of Transportation.[8] Information on subsequent developments in the State on these issues is not at hand as this is written.

At the very least, it would seem that, given the ill-conceived incentives of the federal-aid highway program, it would be imprudent for Hawaii to move any further toward devolution of responsibility for highways to the counties than would be possible without foregoing significant amounts of federal assistance.[9]

An additional consideration is the sense in some quarters that some continuing involvement of the State government in highway construction and maintenance is a good idea to ensure the high quality of certain basic roads (the circumferential routes, in particular) on each island in the interests of promoting and facilitating the State's primary industry--tourism.

It strikes an outside observer as strange that State officials would consider it a significant risk that, in the absence of State intervention, the counties would permit deterioration of the highways on which their overwhelmingly most important industry depends. In a situation involving such commonality of interest between the State as a whole and the individual counties, it is a bit surprising to see an institutional arrangement that seems to imply such a lack of mutual confidence.

In any event, however--even conceding a strong statewide interest in the safe and convenient transportation of visitors--it does not follow that a State presence with force-account capability in every county, duplicating the capabilities of the county highway departments, is required. The situation today is as it was described more than a decade ago in the report of the Commission on Organization of Government:

> *The State and Counties presently have crews which are comparably skilled in handling identical types of tasks. The highway responsibilities of the two levels of government are segmented so that different crews occasionally pass each other on the way to assignments. Economies of scale certainly would be evident if there were no need for near-duplicate sets of personnel, equipment and facilities.*[10]

The State interest--if, in fact, there are benefits from the highways on a given island that are not given due consideration by county officials--could probably be sustained more efficiently by simply turning all existing State-maintained highways over to the counties and adopting a matching-grant program that would provide incentives for the counties to be especially attentive to the upgrading and maintenance of roads deemed by the State to be of special importance to all Hawaii. The matching grant would be designed to reduce the cost to the counties of the necessary work on the roads of special, statewide importance to the point where the benefits to county residents per dollar of county funds invested would equal the benefits to county residents per county

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8. Op. cit., p. 31.

9. It must be observed that it is difficult to find much of a rationale for Hawaii's involvement in the federal-aid highway program other than the obvious inequity that would be involved if federal motor-fuel taxes were collected in the Islands and the State were not to share in the allocation of the funds. The premise of the Interstate Highway Program is that the residents of Hawaii should contribute, through the federal taxes on motor fuels, to the costs of the national interstate system, which is financed by federal taxes because the benefits of the system are enjoyed by highway users throughout the nation. However, the benefits of the interstate system realized by people living in Hawaii surely are, by virtue of the remoteness of the State from the mainland, an order of magnitude smaller than those enjoyed by the residents of any other State (with the possible exception of Alaska). The rationale for Hawaii's participation in other federal highway programs is more questionable.

Consistent with the first and second principles of accountability, it is clear that the preferred solution would be (1) to cease collecting federal motor-fuel taxes in Hawaii, with the possible exception of a nominal rate reflecting the extremely modest benefits residents of the State realize from the interstate system but nonetheless symbolic of their willingness to contribute to the financing of a truly national program, and (2) to terminate payments from the Highway Trust Fund to the State.

This would leave the State government and the counties an essentially open field to raise such revenue by their own taxes on motor fuels as they might deem appropriate for the highway (and, possibly, other ground transportation) needs of the State. Beyond ensuring that military installations are appropriately served, it is impossible to imagine a national interest in the highway system of Hawaii that would justify federal involvement in the State.

10. Report to the Ninth State Legislature, State of Hawaii (1977), p. 31.

dollar spent for roads of higher priority to the counties.

An alternative would be an arrangement similar to that recommended by the Commission on Organization of Government, whereby the Counties would assume responsibility for maintenance of all State highways under contracts that would fully compensate them for directly attributable incremental costs.[11] This approach would be more costly to the State than a well-crafted matching-grant program. The grant would only pay to a county the share of the costs of current State highways corresponding to the proportion of the total benefits of the highways realized by non-residents of the county (that is, the benefits that county decision-makers would not otherwise take into account in allocating their highway budgets). This would, of course, be substantially less than the full cost of maintaining the highways.

3. Housing

Under current law, public sector involvement in housing is the overlapping responsibility of the State's Hawaii Housing Authority and the housing agencies of the counties, which are endowed with "virtually the same powers and functions" as the HHA.[12] This structure is thoroughly inconsistent with the first principle of accountability, which calls for a single level of government to be responsible for a function.

The review of housing assistance programs in Hawaii by the Advisory Committee on Overlapping Functions found

> *... no evidence of negative overlap, with the exception of the administration of the federally funded Section 8 Existing Rental Assistance Program.*[13]

Unfortunately, it is not at all clear from the report what the Committee would have considered to be "negative" overlap. The report does not explain why, in the Committee's words, "the existence of two identical programs serving the same target population within the same jurisdiction" is not prima facie evidence of inefficiency. It would seem clear that, from the perspective of efficiency alone, a decision should be reached as to whether the State or the counties will be responsible for this function. The remainder of this section discusses some of the major considerations bearing on this choice.

Some have suggested that the involvement of the counties in this field could be a tar baby, and should be forestalled by State preemption. The basic logic behind this view is that the essential objective of a program intended to subsidize the supply of "affordable" housing is to redistribute income to those eligible for the subsidy. The financing of such a program is most appropriately the responsibility of the national government, for the reasons mentioned in the discussion at the beginning of this chapter of equity as a criterion for evaluation of state-local fiscal policies.

If the federal government is judged by the voters of a state not to be attending adequately to the problem of "affordable" housing, however, the "second-best" approach is for the state government to step into the breach. In the case of Hawaii, State action would be appropriate, according to this view, because its revenue system appears to be significantly less regressive (it may even be mildly progressive) than those of the counties. County involvement in the redistribution of income through a policy designed to increase the availability of "affordable" housing would be inappropriate because the revenue systems of the counties are regressive. This means that the bulk of the revenues that would subsidize the housing costs of a few would be collected from relatively low-income families.

Another perspective is that housing is so closely tied to the planning and zoning functions that are the responsibility of the counties in Hawaii that the counties should have the lead on this function. This view appears to overlook the preeminent role of the State in land-use planning that is exercised by the Land Use Commission. The role of the Commission, and the advisability of a stronger role for the counties in the land-use-planning process, are beyond the scope of this report.

4. Authorization for the Counties to Bargain Collectively with Their Employees Independently of the State

Hawaii is the only state with statewide collective bargaining for all public employees. A major result of that arrangement has been--though it need not have been an inevitable outcome of the process--the payment of uniform wages and salaries to all State and county employees (in each job category) throughout the Islands.

This practice fails to take into account differences in the cost of living among the islands and between rural and urban areas of each county. The apparent reality of these differences, though no solid information exists on their magnitudes, belies the claim that uniform nominal rates of pay throughout the State are

11. Ibid., pp. 31-4.

12. Advisory Committee on Overlapping Functions, op. cit., p. 8.

13. Ibid., p. 9.

a necessary implication of the goal of "equal pay for equal work."

Statewide collective bargaining relieves county officials of accountability for employee compensation. It forces counties with lower costs of living to pay higher wages and salaries than they would probably have to pay in the absence of statewide bargaining to attract employees of quality comparable with those now on the payroll. At the same time, the City and County of Honolulu, with what appears to be the highest cost of living among the Islands, may be paying slightly lower wages and salaries than it would in the absence of statewide uniformity in pay scales. If the overall pay scale for public employees in the State is at about the right level, this almost certainly means that Honolulu has problems recruiting and retaining qualified employees.

Statewide collective bargaining is a legacy of the centralization tradition in Hawaii. If it were decided that a consistent strategy of decentralization would be a promising path for the future of government in the State, devolution of collective bargaining to each of the counties would be desirable in the interest of promoting independent decision-making and the accountability of county officials to their constituents.

5. Substitution of Some Form of Credit for Low-Income Persons Against the State Individual Income Tax for the State-Mandated, County-Financed Homestead Exemption

With the arrival of property tax independence on November 7, 1989, the counties will no longer be required to offer homestead exemptions from their property taxes. The political pressures to continue the exemptions are likely to be formidable, however. This being the case, it is important that county officials and the electorate recognize that a well-designed credit against the State individual income tax would be far more efficient than a homestead exemption as a means of targeting relief from excessive property tax burdens. That is, the revenue-loss cost of a given amount of relief for low-income households would be considerably smaller with a credit than with a homestead exemption.

Substitution of an income tax credit for a property tax exemption need not necessarily imply a shift of the cost from the counties to the State. The counties could easily reimburse the State for the revenue loss. The cost to the counties, given the superior targeting efficiency of the credit, would be less than the revenue loss from the homestead exemption.

Again, however, it is necessary to note that the burdensomeness of the property tax for low-income households can be viewed as element of the problem of "affordable" housing. As a consequence, providing relief from that burden is a policy whose objective is to redistribute income, and county financing of such an effort is highly questionable. At the same time, however, the objective can be viewed as an inherently self-limiting one of preventing the counties' major revenue source from being excessively regressive. This limited objective might well be viewed as an appropriate concern of the counties.

C. Shifts in Revenue-Raising Authority

The primary rationale for shifting revenue-raising authority between the State and the counties in Hawaii would be to improve the vertical balance of the State's fiscal system.[14] The alternative to realignment of revenue-raising authority, at least if the objective is to improve the fiscal resources potentially or actually available to the counties relative to the State, is an unconditional State grant.

The principal difference between the two approaches is that the shift of revenue-raising authority is more likely to promote accountability in the fiscal behavior of the county governments. Authorizing (but not requiring) the counties to levy a new tax--or a tax formerly used by the State--is consistent with the second principle of accountability: that the government that spends public funds should be responsible for raising them.

The taxing authority must present a genuine option to the counties in order to promote accountability. If a county has no choice in the matter, the tax is really a State tax, and the proceeds that are "shared" with the counties are really a grant-in-aid. Clearly, a grant paid by the State to the counties violates the second principle of accountability because the counties would be spending funds raised by the State government.

An additional consideration is that a grant may be a less reliable source of revenue for the counties in the long run. Authority to levy a tax, experience throughout the nation seems to suggest, is less likely to be

14. The discussion in this section assumes that the division of service responsibilities between the State and the counties is determined first, in accordance with the considerations discussed earlier. This being the case, the task of achieving vertical balance falls to adjustments in the division of revenue-raising authority between the State and the counties and to State grants-in aid. Obviously, if this assumption were relaxed, a situation of vertical imbalance to the disadvantage of the counties could also be righted by State assumption of responsibility for some service currently provided by the counties. In the contrary case—vertical imbalance to the advantage of the counties—an option would be to devolve to them some service(s) currently handled by the State.

revoked than a grant is to be reduced or eliminated--as was the federal Revenue Sharing Program in 1986, for example. At the same time, the revenues from most taxes may be somewhat less predictable from year to year than those from a State grant program.

Another rationale for shifting revenue-raising authority would be to achieve a better alignment of sources and service responsibilities, where the services provided pursuant to those responsibilities lend themselves to being financed by charges or taxes conforming with the benefit principle.

An important consideration in evaluating the need for additional revenue sources to be made available to the counties is the results of the analysis of vertical fiscal balance in Chapter V. Although those results are not conclusive, they indicate that the property tax is significantly underutilized in Hawaii (see also the specific discussion of the property tax in Chapter VI) while income and sales taxes are relied upon to a substantially higher degree than the average for the other states in the nation. If anything, these findings suggest that any shifts in taxing authority in Hawaii ought to be in the direction of increased reliance on the property tax and reduced reliance on income and sales taxes.

On balance, it appears that the case for additional revenue-raising authority for the counties must rest on a two-fold argument: (1) that the counties have demonstrated their fiscal responsibility by their performance during the past decade, and (2) that the availability of a wider range of fiscal options would strengthen their autonomy and improve their capacity to assume responsibility for functions currently the responsibility of the State government in the context of a general strategy of decentralization in the fiscal system of Hawaii.

It is interesting to note that the Advisory Committee on Overlapping Functions concluded in 1986 that

> *... alternative methods of generating additional revenues are necessary for the counties in order to prevent the overburdening of the real property taxpayer, and to assure sufficient funding for required services provided by the counties. Your Committee therefore recommends that the counties be granted additional taxing authority, and that the Legislature be requested to fully examine the alternative tax options and their effects in order to determine which taxing options should be granted ... and the maximum rates at which these taxes may be assessed.*[15]

Five sources of State revenues have been identified in recent discussions in Hawaii as possible candidates for transfer to the counties. They are the alcohol and tobacco excises, the transient accommodations tax, the fuel tax levied for highway use, and the proceeds from fines and forfeitures levied pursuant to county laws.

1. Transfer of Alcohol and/or Tobacco Excises from the State to the Counties

A proposal purporting to transfer the State's excise taxes on alcohol and tobacco to the counties was put forward by Governor Waihee in January 1989. In fact, however, the proposal did not contemplate a true transfer of these taxes to the counties, as a transfer of taxing authority is defined in this report. The proposal envisioned continued State administration of the taxes with the proceeds earmarked for distribution among the counties by a formula. An alternative basis for the distribution would have been the ultimate origin of the collections (that is, the distribution among the counties of final retail sales of tobacco products and alcoholic beverages).

As a practical matter, the basis for the distribution--by a formula rather than on an origin basis--is not important in the present context because a true transfer of taxing authority is not involved. In both cases, the State policy would really be a grant-in-aid. As the use of the funds by the counties would not have been restricted in any way, this proposal is more properly viewed as general fiscal assistance. Hence the considerations discussed below in the review of the options for such grants apply to an evaluation of this proposal.

State officials have argued that the alcohol and tobacco taxes should not be transferred because their administration by the counties would be too costly, given the concentration of wholesalers/ distributors in Honolulu. County administration would almost certainly be very expensive, but this is not a conclusive argument against transfer of the taxes to the counties. The State could continue to administer the taxes (appropriately compensated for its costs by the counties) while remitting the proceeds to the counties on the basis of the location of final sales.

It would be important, to promote accountability and to underline that the taxes are the counties' rather than the State's, for the counties to have the authority to set the rates of the taxes at any levels they might individually choose. Rate diversity would complicate administration, to be sure, but not by much. The State would have to develop a procedure for

15. Ibid., p. 4.

determining the distribution of final sales among the counties, and computation of tax liability with different county rates would not significantly complicate the exercise. The complication should not be a concern of the State, however, since its costs would be fully reimbursed.

Such an arrangement would require accommodations in the record keeping of wholesalers/distributors, but they certainly could be expected to know the final destinations of shipments from their warehouses in Honolulu.[16] This approach would be equivalent in most relevant respects to a State tax supplement, and the discussion below of that policy option may provide further insight into the tobacco and alcohol tax issue.

2. Transfer of the Transient Accommodations Tax from the State to the Counties

The State's transient accommodations tax was enacted in 1986--effective on January 1, 1987--after a long debate involving such issues as the need for a convention center in Waikiki. A special excise tax on accommodations occupied for less than 30 days was one of the major recommendations of the First Tax Review Commission in 1984.[17]

The case for transferring the TAT to the counties rests on the proposition that the incidence of the tax is, more than any other revenue source in Hawaii's fiscal system, on the visitor.[18] The best available estimate is that outlays for lodging account for about 32 percent of total visitor expenditures.[19] This suggests that, if the benefit principle is to be accorded high priority in tax policymaking, the TAT is especially well suited as a source of revenue to finance public services from which visitors benefit significantly. The key question, then, is what are those services, and are they predominantly provided by the State or by the counties?

The analysis of the budgets of the State and the counties in Chapter V indicates that approximately 53 percent of all public outlays for services from which visitors to Hawaii directly benefit are made by the counties. These services, and the outlays for each, are summarized in Table VIII.1. Beyond observing that no services of significant budgetary consequence benefit visitors exclusively, it is not possible to estimate what proportion of the benefits from each of these services is enjoyed by visitors. The functions shown in Table VIII.1 account for 64 percent of all county expenditures.

By comparison, the major services for which the State government is responsible, with limited exceptions, provide nearly all their benefits to residents of the State. The most important of these services are elementary, secondary, and higher education, public welfare, hospitals, and urban redevelopment and housing. Services directly benefiting visitors are responsible for less than 14 percent of State expenditures.[20]

An additional factor to be weighed in considering transfer of the TAT to the counties is its close relationship to the property tax, the primary source of county revenues. In an important sense, the TAT is a substitute for a property tax targeted to hotels and other transient accommodations. Further, the information generated by the process of compliance with the TAT should be of real use in estimating the market value of such properties. This being the case, it might well make sense to vest responsibility for both taxes in the counties.

Moreover, the TAT, like the property tax, is peculiarly suited to use and administration by a county

16. In testimony presented to the Committee on Government Operations of the Hawaii Senate in February 1989, spokesmen for wine and beer producers characterized the consequences of transfer of the tax on alcoholic beverages to the counties in terms ranging from "difficult" (Steven M. Nagata, for the Wine Institute) to "disastrous" (Tim Lyons, for the Anheuser-Busch Companies, Inc.).

17. Report of the First Tax Review Commission to the Thirteenth Legislature, State of Hawaii (December 17, 1984), p. 11.

18. Walter Miklius, James E.T. Moncur, and PingSun Leung estimate that 97 percent of the revenue raised by the TAT is paid by tourists [Distribution of State and Local Tax Burden by Income Class, prepared for the Tax Review Commission, State of Hawaii (September 1989), p. 7].

19. Estimate by the Department of Business and Economic Development, State of Hawaii, referenced in Transient Accommodations Tax, Staff Report (Tax Review Commission, State of Hawaii, revised September 6, 1989), p. 5.

20. The State government's outlays for tourism-related activities totaled $8.5 million in FY 1987, of which $7.1 million went to support the marketing program of the Hawaii Visitors Bureau. [Tax Foundation of Hawaii estimate and Department of Business and Economic Development, State of Hawaii, The State of Hawaii Data Book, 1988: A Statistical Abstract (November 1988), Table 224.] These expenditures are almost entirely devoted to promotion of the visitor industry in Hawaii, and such economic benefits as these efforts may produce are shared by the residents of the State and owners of hotels and other facilities who may live elsewhere. It does not seem appropriate to view these outlays as generating significant direct benefits for visitors, in the sense that the concept is being used here.

The total appropriation for the State Tourism Office for FY 1990 is $21.1 million, of which about $17 million appears likely to be allocated to the HVB for its marketing program. The description of the program of the State Tourism Office in the Executive Budget makes it clear that the above characterization of the incidence of the benefits of the State's FY 1987 outlays in this area remains valid [Department of Budget and Finance, State of Hawaii, The Multi-Year Program and Financial Plan and Executive Budget for the Period 1989-1995 (Budget Period: 1989-91), Vol. 1 (November 1988), pp. 503 and 504].

TABLE VIII.1 PUBLIC SERVICES WITH DIRECT BENEFITS FOR VISITORS, FISCAL YEAR 1987

	Service	Expenditures (thousands)
	Total	$813,913
Counties		
	Subtotal	429,025
	Public Safety	164,759
	Highways	31,591
	Health and Sanitation	52,412
	Recreation	42,926
	Mass Transit	47,837
	Capital Improvements	89,500
State		
	Subtotal	384,888
	Public Safety	103,916
	Highways	72,270
	Natural Resources	22,808
	Health and Sanitation/a	23,600
	Recreation	15,994
	Utilities and Other/b	95,000
	Capital Improvements	51,300

Note: Services with direct benefits for visitors are those for which the workload measure identified in Chapter V is or includes de facto population, with several exceptions: (1) highways, where a major variable (vehicle miles traveled) obviously includes miles traveled by visitors as well as residents; (2) outlays for capital improvements are apportioned between services with direct benefits for visitors and others on the basis of the respective proportions of the total non-capital outlays of the counties and the State government represented by outlays directly benefiting visitors; and (3) see the footnotes below.

a. Includes 20 percent of total outlays for this function. Roughly 80 percent of the spending in the category is for such public health programs as community-based mental health services and school health services that can reasonably be considered to benefit only residents of the State.

b. Includes 59 percent of total outlays for this function, approximately the share represented by the proportion of outlays for State airports that is attributable to visitors (airport outlays are 78 percent of the function, and roughly 75 percent of airport outlays can be attributed to visitors).

Source: Chapter V.

because the taxed transaction takes place within the physical boundaries of the government. Then too, the room rate typically comprehends a substantial element of economic (location) rent, which is uniquely amenable to taxation by local authorities.[21] In other words, there is little risk, at remotely competitive tax rates, of migration of the tax base to other jurisdictions.

Finally, an evaluation of the proposal to transfer the TAT to the counties must take into consideration the condition of the finances of the State government. In other words, can the State afford the loss of revenue? It is well known that the existing revenue system of the State government generates significantly more receipts than are required to finance its current expenditure obligations.[22] The amount of the excess revenues considerably exceeds the yield of the TAT. This suggests that the State government's finances would not be disequilibrated if the proceeds of the TAT were no longer available to the State.

Dedication of a portion of the State's budget surplus to finance repeal of the TAT would, of course, have to be weighed against other uses of the surplus. Among these would certainly be reductions in income tax rates and what Fox refers to as "fine tuning" the general excise tax,[23] both modifications of the State government's revenue structure that the analysis in Chapter V of the vertical balance of Hawaii's fiscal system suggests may have substantial merit.

3. Exemption of Transient Accommodations from the General Excise Tax Coupled with Transfer of the TAT to the Counties with Authorization to Set a Uniform Rate of Up to 10 Percent

The total tax on transient

21. The transaction may actually not be quite as simple as this statement suggests because purchases of transient accommodations often occur elsewhere than at the site. The State government is reported to have problems verifying the true outlays by visitors for accommodations in cases where they are parts of tour packages, especially when the transactions occur abroad and when the hotels involved are owned by corporations whose home offices are located elsewhere than in Hawaii. This suggests that State assistance would almost certainly be necessary if the counties were to take over the TAT, but that assistance alone might not be sufficient to ensure high compliance with the tax. A recent analysis suggests that the potential base of the TAT "appears to be twice that reported by the Department of Taxation" (Tax Review Commission staff report, Transient Accommodations Tax, op. cit., p. 3).

22. Is Hawaii's Tax System Adequate? Staff Report (Tax Review Commission, State of Hawaii, first draft, August 1989).

23. William F. Fox, Defining the General Excise Tax Base: Exemptions and Pyramiding, report prepared for the Tax Review Commission, State of Hawaii (September 1989), p. 52.

accommodations under current State law is slightly less than 9.7 percent. This is the partially compounded sum of the State transient accommodations tax, at an effective rate of 5.25 percent, and the general excise tax, at an effective rate of roughly 4.4 percent.[24]

The effect of this proposal would be a complete transfer by the State government of transient accomodations as a tax base to the counties. It is appealing from the perspective of simplification of the tax structure and reducing the unseemly appearance of multiple quotations of taxes on visitors' hotel bills. The major issues are whether the additional revenue loss to the State budget would be judged reasonable in light of competing claims, and whether the counties could sustain the necessary case that their outlays for services benefiting visitors are sufficient to justify the additional tax.

4. Transfer of the State Fuel Tax (Highway Use) to the Counties

The benefit principle clearly underlies the taxes levied by the State and the counties in Hawaii on fuels purchased for highway use. The yields of these taxes are deposited in special highway funds of the State and each of the counties, from which withdrawals may only be made to finance outlays for specified, highway-related purposes. Table VIII.2 provides a concise overview of highway finance by the State and the counties. Caution is necessary in interpreting the information in the table because all outlays for highway-related capital improvements may not be included.

A detailed analysis of this function has not been undertaken for purposes of this report. A specific analysis of the State's highway fund is reported to have been conducted in 1988 by a task force of the executive branch of the State government but a copy of the report of the task force was not available to the authors of the present report. A few observations are prompted by the array of information in Table VIII.2.

First, the taxes paid directly by highway users, together with federal grants, substantially exceed outlays in the State for construction and maintenance of highways. Second,

TABLE VIII.2 HIGHWAY FINANCE IN HAWAII, FISCAL YEAR 1987

	Revenue Type and Expenditures	Amounts (thousands)
Total	Net Revenues/(Deficit)	$ 35,414
	Revenues	139,275
	Expenditures	103,861
Counties	Net Revenues/(Deficit)	11,389
	Revenues, Subtotal	42,980
	Liquid Fuel Taxes	25,181
	Motor Vehicle Weight Taxes	17,799
	Expenditures	31,591
State	Net Revenues/(Deficit)	24,025
	Revenues, Subtotal	96,295
	Liquid Fuel Taxes	39,954
	Motor Vehicle Weight Taxes	17,820
	Federal Grants-in-Aid	38,521
	Expenditures	72,270

Note: The amounts shown for the counties do not correspond to the totals for their "highway" funds, which include significant other revenues (from such sources as the public utility and franchise tax and parking meters) and expenditures (for such purposes as street lighting and subsidies for mass transit). The differences are substantial. For example, the expenditures of the City and County of Honolulu for highways in FY 1987 total $19.3 million, and its revenues from the liquid fuel and vehicle weight taxes are $31.4 million. By contrast, the total revenues and expenditures of Honolulu's Highway Fund in FY 1987 are, respectively, $55.2 million and $51.6 million.

Sources: Tax Foundation of Hawaii, Government in Hawaii, 1988 (1988), tables 15 and 30; City and County of Honolulu, Comprehensive Annual Financial Report, Fiscal Year Ended June 30, 1987 (December 31, 1987), pp. 114 and 122.

24. The TAT is 5 percent of the gross receipts from the rental of accomodations customarily occupied by a transient for fewer than 180 consecutive days. Gross receipts include the TAT, if it is quoted separately on the bill, as well as commissions paid to travel agents, but not the GET if it is quoted separately on the bill. Consider a hotel room whose established rate is $100.00. The TAT, applied first, is $5.26. Computed as a conventional sales tax, the effective rate of the TAT is 5.263 percent. (At its simplest, the calculation can be illustrated by considering that the TAT on gross rental receipts of $100.00 would be $5.00, implying a room rate of $95.00, for an effective tax rate of $5/$95, or 5.263 percent.) The GET on the $100 room is $4.39—4 percent of the gross receipts of the hotel from the room ($109.65). Computed as a sales tax, the effective rate of the GET is 4.39 percent of the quoted room rate, or 4.16 ... 7 percent of the cost of the room including the TAT.

Hawaii is receiving 15-20 percent more in federal grants than the approximate amount its residents are paying in federal taxes on motor fuels.[25]

It appears that the counties are collecting significantly more in taxes from highway users than they are spending on highways. This is not necessarily inconsistent with the benefit principle because the excess collections may be supporting services, such as mass transit, from which highway users are indirect beneficiaries. Given that the counties's revenues from highway users are more than sufficient to cover current outlays for their highway responsibilities, virtually any type of balanced transfer of State fuel taxing power and expenditure responsibilities would be feasible. In view of the earlier discussion of responsibilities for highways in the State, movement in the direction of such a balanced realignment would make a great deal of sense.

5. Transfer to the Counties of the Proceeds from All Fines and Forfeitures Levied Pursuant to County Laws by the (State) Courts

Under current law, since 1965 when the State government assumed full responsibility for the court system of Hawaii, all proceeds from fines and forfeitures imposed by the courts, including those levied pursuant to county ordinances, have been deposited in the State Treasury.

An obvious rationale for retention by the State government of the financial proceeds of actions by the State courts is that such revenues can be regarded as a kind of user charge, a form of benefit financing. The problem with this view is that the objective of the courts is to deliver justice, not to make money. Pursuant to this thought, requirements that a judicial or quasi-judicial agency finance its operating costs by the proceeds of penalties it is responsible for assessing--or permission for such an agency to augment appropriated resources by retaining those proceeds--are generally frowned upon because of the obvious potential for biasing the proceedings. No requirements of these sorts appear to be involved in this situation.

It may be that this arrangement was agreed to by county officials in 1965 as part of the deal that relieved the counties of the expense of operating the district courts. If this was the case, it is not apparent whether anything has changed that would justify rethinking the arrangement. The counties are still free of the costs they would have to bear if the State were to turn back the responsibility of maintaining a judicial system to enforce county ordinances. It is not at all clear that the amounts of the fines and forfeitures potentially involved are commensurate with the operating costs of a revived county court system.

Again it can be observed, however, that a strong decision to move toward decentralization might well make the revival of a county court system desirable. It is doubtful that the decision on such an issue should turn on the net financial benefits or costs that might result for the State or the counties.

6. Transfer of "Responsibility for Collection of Fines for Parking and Uncontested Moving and Non-Moving Violations that Do Not Involve or Require a Court Appearance ... to the Counties, and ... [Deposit of] Such Monies ... into the Appropriate Account of the Respective Counties."[26]

This is a more modest version of option 5, which would have the courts pay to the counties all revenues collected pursuant to county laws. The thought behind option 6 is that collection of fines for the indicated types of offenses could be handled as an administrative procedure by the counties and that the involvement of the State courts is not necessary. It seems very likely that such administrative proceedings would be more cost-effective than the courts for handling these offenses.

Information on the relevant cost savings to the State courts, cost of the administrative proceedings to the counties, and the revenue that might accrue to the counties is not readily available. In any event, as the earlier discussion points out, it is doubtful whether the magnitudes of the costs and revenues involved are the important issues in this instance.

7. Transfer of the Realty Conveyance Tax to the Counties

The yield of this State tax is small--under $4 million in FY 1987. It is imposed at a rate of 0.05 percent of the consideration paid in virtually all transfers of ownership or interest in real estate (land and improvements).

The particular appeal of this option is that the information it generates on the sales prices of realty is extremely important to the equitable administration of the property tax, which is about to become the exclusive responsibility of the counties. The direct connection between the conveyance tax and administration of

25. The State tax on gasoline is $0.11 per gallon; the federal tax is $0.09. This suggests that the federal government should collect motor fuel taxes in Hawaii of roughly 82 percent of State collections ($40 million), or $33 million. However, federal highway grants received in FY 1987 totaled nearly $39 million, 18 percent more than taxes paid.

26. Advisory Committee on Overlapping Functions, op. cit., p. 6.

the property tax is acknowledged in the following observation in the most recent annual report of the State Department of Taxation:

> *The purpose of this law is to acquire selling price data to determine market value which is needed to achieve uniformity in real property tax assessment.*[27]

The logic of transferring this tax to the counties appears to be unassailable.

D. County Supplements to State Taxes

A tax supplement is a specified increment to a State tax rate, enacted at the option of a local government. The revenue yielded by the supplement in a locality electing to enact it is collected by the State and paid to the locality. A modest fee may be withheld to cover the identifiable incremental costs incurred by the State in administering the arrangement. A supplement is distinguished from a shared tax by the fact that the supplement must be enacted by the local government, and may be modified or repealed by that government at its option, just as though it were a tax administered by the locality. A shared tax is enacted by the State, and the arrangement cannot be modified by any local government--the revenue could, presumably, be refused by the locality. Shared taxes are discussed further below.

The supplement (or equivalent arrangement) is an established feature of Hawaii's fiscal system. The State collects the counties' taxes on motor fuels along with its own, apparently handling with negligible difficulty tax rates that are different in every county. The counties, for their part, administer and collect the State's motor vehicle weight tax and registration fees along with their own weight taxes. Until July 1, 1981, the State administered the property tax for the counties, each of which had, since 1965, essentially unlimited authority to set the rate of the tax each year.

The policy options considered are county supplements to the general excise tax, to the transient accomodations tax, and to the individual income tax.

1. County Supplement to the General Excise Tax

This option is dear to the hearts of some county officials, who often cite the arrangement that prevailed from 1947 until 1965, when the first explicit State program of grants-in-aid to the counties was enacted.[28] Under the 1947 arrangement, an amount equivalent to 1.125 percent of the base of the general excise, consumption, and public service company taxes was earmarked for distribution to the counties on the basis of what is commonly described as having been the origin of the collections. Actually, the earmarked amount was distributed by the following, reportedly arbitrary, "formula:"

Total	Honolulu	Maui	Hawaii	Kauai
100%	55%	15%	20%	10%

This was not a county supplement to the State's GET, however; it was a shared tax.

As a county supplement to a State tax is really a State-administered local tax--as was the real property tax in Hawaii until 1981--any proposal for a supplement must be considered with a view to the appropriateness of the tax as a source of local revenue. On balance, it would seem that the GET would not be an appropriate tax for the counties for several reasons.

The first problem is the complexity of identifying the amounts of liability attributable to each county. At the very least, the special recordkeeping that would be required of most businesses (other than retail stores) in order to spread their gross receipts among the counties would be a considerable expense. For analytical purposes, a number of methods are available for estimating the incidence of the GET among the counties (see Chapter V), but none of these methods would probably provide a sufficient presumption of accuracy to qualify as acceptable tax administration. The GET is already one of the most complex revenue-raising mechanisms in use by state and local governments today. Further complicating the matter, and raising the costs of compliance to the private sector, would certainly be questionable.

The second problem with the GET as a source of county revenue is that its apparent incidence among individuals bears little or no relation to the distribution of the benefits of the public services for which the counties are responsible. The available evidence on the incidence of the GET indicate that it is very

27. Annual Report, 1987-1988 (September 15, 1988), p. 23.

28. The extraordinary productivity of the GET probably has as much to do with the appeal of this option to county officials as its technical merits. In FY 1987, for example, the GET (and use tax) yielded the State $818 million from a base of $26,552 million, an average effective rate of 3.08 percent (Department of Taxation, Annual Report, 1987-88, op. cit., p. 14). This suggests that a county supplement equivalent to an additional 1/2 percentage point of average rate (the approximate equivalent of the effective rate dedicated by the State to finance grants to the counties in 1965, when the earmarking of a portion of the yield of the GET to be shared with the counties was terminated) might have yielded, in FY 1987, as much as $266 million.

regressive. That is, the percentage of income taken by this tax is significantly higher for people with low incomes than for people with high incomes. In their study conducted for the Tax Review Commission, for example, Miklius, Moncur, and Leung estimate that the general excise and use tax "is the most regressive of all major taxes."[29]

An analysis of the incidence among individuals at different income levels of the benefits from the services provided by the counties has not been performed in the course of the study discussed in this report. However, given the types of services for which the counties are responsible, it seems likely that the distribution of those benefits (among residents of the State) is more or less proportional to income, or to the value of residential property.[30] If this is the case, the GET is not well suited as a means for the counties to finance, in accordance with the benefit principle, their service responsibilities that cannot be funded by charges and fees paid directly by those who consume them.

Another view is that tax supplements are a bad idea because they invariably cloud accountability. That is, despite the best efforts that might be made to identify as a county tax the increase in the GET that would result if a county were to opt for a supplement, many people would miss the distinction, and would hold the State legislature responsible for the tax increase. The only practical way to avoid this misperception, according to this view, is to insist on clear separation of sources. In other words, transfer the TAT to the counties, if vertical fiscal balance requires that degree of adjustment in the revenue-raising abilities of the counties, but don't muddy the water by authorizing county supplements to the State's principal source of revenues.

2. County Supplement to the Transient Accommodations Tax

Authorization for each county to enact a supplement to the State's transient accomodations tax is the alternative to transfer of the tax to the counties. The chief differences between the two proposals are (1) the State would continue to administer the tax in the case of a supplement, while any county electing to levy the tax would administer it in the latter instance; and (2) the State general fund rather than the counties would receive the revenue from the basic, 5-percent rate. A county would receive the revenue from its supplementary rate applied to all taxable gross receipts attributable to the county.

The appropriateness of the transient accomodations tax as a source of revenue for the counties is considered at length earlier in this chapter. The basic conclusions of that analysis are that (1) the heavy incidence of the TAT on visitors makes it especially well suited as a means of raising revenue to finance services from which visitors disproportionately benefit, and (2) this makes the TAT an excellent candidate for use by the counties in light of their responsibility for the bulk of the services from which visitors benefit.

The basic issues, then, are whether continued reliance on the tax by the State is desirable or necessary and whether continued administration of the tax by the State Department of Taxation would be significantly more efficient than county administration.

The State's need for the revenue produced by the TAT is discussed earlier in this chapter in connection with the proposal to transfer the tax to the counties. The conclusion was that the revenue is significantly smaller than the apparent structural surplus in the State budget, implying that--in the absence of major changes in the rest of the State government's fiscal system--the loss of the revenue from the TAT would not result in serious fiscal problems for the State.

The earlier discussion of a transfer of the TAT to the counties also suggests that--apart from the problem of compliance by foreign-owned establishments--it is likely that administration of the tax could be handled by the counties at a cost that would be little higher than that currently being incurred by the State.

3. County Supplement to the Individual Income Tax

The incidence among individuals in different income groups in Hawaii of the State's individual income tax is characterized by Miklius, Moncur, and Leung as "mildly progressive."[31] For this reason, the tax is not well suited for financing the types of public services for which the counties are chiefly responsible. The most reasonable assumption that can be ventured about the benefits from county services, as noted earlier, is that they are distributed in rough proportion to income, or possibly slightly regressively. From the perspective of the benefit principle, a progressive tax--even one as "mildly"

29. Distribution of the Tax Burden, op. cit., p. 18.

30. The distribution of the benefits of the services for which the State government is responsible, on the other hand, probably is strongly "pro-poor"--the expenditure-side equivalent of "regressive" on the tax side. In other words, the poor benefit much more than the rich from the major programs of the State government: welfare, social services, and elementary and secondary education, in particular.

31. Ibid., p. 16.

progressive as Hawaii's individual income tax appears to be--is not the appropriate vehicle for financing services whose benefits are distributed in a proportional or regressive pattern.

At the same time, the experience elsewhere in the nation suggests that local supplements to state individual income taxes are the least expensive of all types of supplements from an administrative perspective. A flat-rate local supplement would require no more than a single extra line on the State tax return where--in the simplest case--the taxpayer would enter an amount equal to a percentage of the liability he or she has already calculated for the State tax.

The cost to the Department of Taxation of compiling the information by county of residence indicated on the return and remitting the total paid to the counties would be nominal and would, of course, be reimbursed by the counties. An arrangement of this sort would certainly be simpler to administer than the compilation of returns attributing gross receipts in general or from transient accommodations to the counties.

Another advantage a county supplement to the State income tax would have over a supplement to the GET would be that the identity of the elected officials responsible for enacting the tax would be clearer. The line on the State tax return would clearly identify the supplement as a county tax at the time the taxpayer is calculating the liability, leaving little room for confusion about the responsible officials.

E. New Taxing Authority

In recent years, three proposals for new taxing authority for the counties have received attention in Hawaii. They are an authorization for the counties to tax retail sales of tobacco products and alcoholic beverages, to collect tolls on selected roads, and to levy and collect an "anti-speculation" tax. These proposals are considered briefly in this section.

1. Authorization for the Counties to Levy and Collect Taxes on Retail Sales of Tobacco Products and Alcoholic Beverages

By the estimates of Miklius, Moncur, and Leung, taxes on alcoholic beverages and permits for their sale are second only to the TAT in the proportions exported (paid by tourists and other non-residents of Hawaii).[32] Roughly 40 percent of the revenues of the State and the counties from these sources is exported. At the same time, less than 20 percent of tobacco taxes and license fees is estimated to be exported. For the entire class of revenues, however, since liquor revenues account for more than 68 percent, in excess of one-third is exported. This is a higher ratio than for all classes but the TAT and taxes on corporate income, banks, and financial corporations (for which the export ratio is nearly 37 percent).

The high export potential of these revenue sources, largely attributable to visitor consumption of alcohol and tobacco, suggests them as a possible alternative to the TAT as a source of revenues for the counties to finance services from which visitors are especially major beneficiaries. At the same time, the relatively insignificant ambiguity associated with the geographical locations of final sales of beverage alcohol and tobacco products make taxes on retail sales of these products relatively convenient for the counties to administer.

These taxes would almost certainly be a poor substitute for the TAT from the perspective of the responsiveness of their yields to economic growth. A staff report prepared for the Tax Review Commission confirms the nationwide experience with these taxes--the income elasticities of alcohol and tobacco taxes are significantly less than 1.0.[33]

Although the elasticities in Hawaii are higher than they are elsewhere in the country, they still are among the lowest in the State's system. Although the TAT has not been in effect long enough for its income elasticity to be estimated rigorously, the evidence to date suggests that it is appreciably higher than 1.0.

It is important to recognize that taxes on alcoholic beverages and tobacco are primarily justified by the social costs associated with their consumption--hence the secular rationale for the common characterization of them as "sin" taxes. In Hawaii, the public services that respond most directly to these social costs--hospitals and institutions--are the virtually exclusive responsibility of the State government. It is true, of course, that alcohol abuse is an important factor in automobile accidents and is associated with disorderly behavior and some types of criminal activity, and the counties have primary responsibility for the public safety function.

On balance, it is difficult to see a compelling rationale for changing the current arrangements for the taxation of alcoholic beverages and tobacco.

2. Authorization for the Counties to Levy and Collect Tolls on Selected Roads

The toll is a device of ancient origin and proven effectiveness in rationing use of a congested road, bridge, or

32. Ibid., p. 8.

33. Is Hawaii's Tax System Adequate? Staff Report (Tax Review Commission, State of Hawaii, draft, August 1989), p. 8.

tunnel and in charging its users to finance the costs of construction and is probably not economical at any but high-traffic locations.

Some county officials have suggested that strategically located toll facilities might be an effective method for taxing day-visitors to the neighbor islands. Such visitors would not be subject to the TAT on those islands, if it were available to the counties, and they would therefore not otherwise be paying the counties their share of the costs of the services from which they benefit. Legislation authorizing experimentation by the counties with tolls was enacted during the 1989 maintenance. The collection of tolls can be an expensive process, however, session of the State Legislature. Hence further consideration of this option should await the results of the county efforts.

3. Authorization for the Counties to Levy and Collect an "Anti-Speculation" Tax--for Example, an Addition to the State Individual and Corporation Income Taxes on Capital Gains (Exceeding "Normal" Appreciation in Property Values in a Locality) Realized from Sale of Real Property Within, Say, Three Years of Purchase[34]

The primary purpose of this tax is described as "fostering stable neighborhoods and controlling growth" rather than additional revenue, per se.[35] In other words, the objective is to discourage speculation in real property by imposing a severe tax penalty on sales involving extraordinary gains within relatively brief periods.

The conceptual problems with a tax of this type can only be described as serious to a degree that makes it difficult to view the proposal as a practical option for implementation by the counties in Hawaii. How, for example, would "normal" appreciation be defined? Presumably, an average appreciation rate would be the reference, but for what period would it be calculated, how would the relevant geographical area be defined, and for what types of property would the average be computed? Would it be calculated separately for land and improvements? How would increases in property values attributable to zoning changes and other actions of public authorities be identified, and would such increases be treated differently from those attributable to development of a property or shifts in demand?

Implementation of an anti-speculation tax also presents a variety of important questions. In principle, there is nothing new, or inherently objectionable, about a local tax that relies on information recorded in State income tax returns for its base, just as most State income taxes rely on information appearing in federal returns. Indeed, such use of information already compiled can be a convenience to the taxpayer, and minimally costly to the agency administering the "parent" tax. In the case of an antispeculation tax structured along the lines of this proposal, however, the necessary information would not be readily available or calculable from information appearing in the Hawaii State (or the federal) income tax return.

It seems clear that property tax assessors would have to be called upon to evaluate the components of appreciation in values, which could prove to be an expensive proposition. Would an owner enjoy a right to appeal a determination of excess appreciation? Finally, would provision be made for exceptions for such cases as military service families who are forced to sell property because they have been reassigned? All in all, the practicability of this proposal seems open to serious question.

F. State Payments to the Counties

Payments by the states to their local governments take many different forms. A key attribute of state aid--as of aid paid to the states and localities by the federal government--is the nature of the conditions placed on the use of the funds by the recipient government. The basic distinction is between assistance that is essentially lacking in conditions (apart from provisions relating to the financial responsibility of the recipient, such as requirements that annual financial statements be independently audited), commonly referred to as "general fiscal assistance" or "revenue sharing," and aid with "strings," such as requirements specifying the purposes for which the funds may be spent.

The rationale for state payments to local governments may also be an important consideration distinguishing among types of aid. To a degree, this rationale has a lot to do with the conditions attached to the payments. For example, payments whose purpose is to induce local governments to spend more for a particular service than they would have in the absence of the state aid, thereby presumably increasing the amount of the service provided, must have restrictions on the use of the funds by the recipient government if they are to have the desired effect on spending for that function.

On the other hand, the objectives of state assistance may be to bring about horizontal fiscal balance, or to compensate local governments for the

34. Letter from Mayor Frank F. Fasi to Renji Goto (November 29, 1988), p. 2.

35. Idem.

property tax revenue foregone because state property is exempt from taxation, or to reimburse localities for services provided in conjunction with programs for the state is responsible. Such assistance is presumably intended to be the equivalent of revenue from the recipient locality's own sources. In other words, the state aid should be free of conditions (other than those intended to ensure the financial responsibility of the entity receiving the aid), or fiscally neutral.

This section considers proposals for six general types of payments by the State to the counties. They are: (1) general fiscal assistance to establish horizontal balance among the counties; (2) payments with conditions, commonly referred to as "categorical" grants, intended to increase county outlays on specific services; (3) shared taxes; (4) payments in lieu of taxes; (5) reimbursement for costs incurred by the counties in connection with services provided in association with the State; and (6) payments to reimburse the counties for costs incurred as a result of State mandates.

1. Unconditional Grants to Establish Horizontal Balance

General fiscal assistance, or a "no-strings" grant-in-aid, is the appropriate vehicle for a State policy whose objective is to establish horizontal fiscal balance among the counties. The absence of conditions is important if the policy is to satisfy the criterion of fiscal neutrality, for the objective of general fiscal assistance is to make resources available to governments with fiscal capacities that fall below some level deemed minimally acceptable by State policymakers. Drawing on terminology that was common to many policy debates in the 1980's, such a policy might be characterized as a "fiscal safety net," or as an arrangement designed to "level the fiscal playing field."

It bears mentioning at the outset that Hawaii is unique among the states in that all of the State government's grants-in-aid to the counties can best be characterized as general fiscal assistance. The payments are made on a quarterly basis with no restrictions on the use to which the funds may be put by the counties.

The analytical approach implemented in Chapter V provides a rigorous basis for defining the objective. In the context of that framework, the objective of a State policy of paying unconditional, or "revenue-sharing," grants to the counties would be to ensure that each county could finance--if it chose to do so--the average (or "representative") level of public services provided by all counties in the State if the county were to adopt a revenue structure that involved the average ("representative") level of tax or fiscal effort put forth by all the counties in the State.

In other words, the objective of the policy would be to close the gap between (1) the total cost to a county of providing the statewide average levels of the public services for which the counties are responsible, and (2) the revenues a county could raise if it adopted a revenue system that mirrored the average for all the counties in the State.

Estimates of the relative cost in FY 1987 to each county of providing statewide average services and of the revenues each county could raise if it had the statewide average revenue system are presented in Chapter V in Table V.5. The bottom-line results of that analysis can be summarized here as a set of "gaps" that sum across all counties to zero (the estimates are in millions).[36]

The fiscal positions, or "gaps," of the counties range from a deficit of $9.8 million for Honolulu to a surplus of more than $12 million for Maui. The total cost to the State of a grant program that would eliminate the negative gaps (deficits) would be $16.2 billion (at FY 1987 budget levels). Note that this cost would be in addition to the $42 billion of State grants to the counties in FY 1987, since the representative revenues shown above include the actual amount each county received in revenue from the State in that year.

An obvious alternative policy would be a restructuring of the then-existing package of State grants to the counties in such a way as to eliminate the deficits without increasing the budgetary commitment of the

36. That is, the analysis abstracts from the fact that the counties, collectively, ran a budget surplus--in the accounts compiled by the Tax Foundation of Hawaii--in that year of $7.705 million, roughly 1.1 percent of total actual expenditures. The surplus is abstracted from by normalizing the estimates of representative expenditures, that is, by setting the total equal to the total actual revenues of the counties and distributing that total by the percentage distribution of the estimates of total representative expenditures in line 20 of Table V.5.

	Total	Honolulu	Maui	Hawaii	Kauai
Representative Revenues	$680.270	$489.324	$78.823	$73.895	$38.228
Representative Expenditures	680.270	499.162	66.775	80.292	34.041
Fiscal Position	0	(9.838)	12.048	(6.397)	4.187
Exhibit: Actual State Grants	42.018	15.636	10.212	10.559	5.610

State--an approach that would seem to be feasible because the sum of the gaps of the four counties is zero. Unfortunately, the exceptionally strong fiscal position of Maui makes this option an arithmetic impossibility. That is, Kauai's surplus is $4.187 million, so its State grants ($5.610 million) could only be reduced by the amount of that surplus. This would leave Kauai with grants of $1.423 million. After reallocating $4.187 million of Kauai's grants to Honolulu and Hawaii, the amount of their combined deficit remaining to be covered would be $12.048 million. But the total amount of State grants to Maui is only $10.212 million. Even if the entire amount of Maui's grants were reallocated to Honolulu and Hawaii, their combined deficit would still be nearly $2 million.

Further speculation about the options for closing the gaps in the fiscal positions of the counties should not be necessary. It is interesting, however, to compare the distributions of payments contemplated by a variety of proposals in recent years for allocations of State funds among the counties. The vehicle for the comparisons is the percentage distributions among the counties. For reference purposes, two such distributions can be set forth at the outset. The first is the actual distribution of State grants in FY 1987, dollar amounts shown above, and the percentage distribution of total State grants that would result under the first policy option discussed above: the $16.2 billion addition to the existing outlays of $42 million.

	Total	Honolulu	Maui	Hawaii	Kauai
Actual FY 1987	100.0%	37.2%	24.3%	25.1%	13.3%
Gap-Close "A"	100.0	43.7	17.5	29.1	9.6

The policy options that have been proposed in recent years include:

a. The actual distribution of State grants-in-aid in FY 1988-89, which resulted in the following allocation among the counties:

Total	Honolulu	Maui	Hawaii	Kauai
100.0%	42.6%	16.5%	23.8%	17.1%

b. The 1984 proposal by the City and County of Honolulu for a State revenue sharing program. The proposed program would pay $2,750,000 to each county plus a total of $7,173,045 allocated in proportion to the allocation of federal Revenue Sharing entitlements--by a formula involving population, tax effort, and per capita income. The total cost of the program to the State would be $18,173,045.[37]

The allocation of funds among the counties contemplated by this proposal would be:

Total	Honolulu	Maui	Hawaii	Kauai
100.0%	43.6%	18.3%	20.7%	17.4%

c. The formula proposed in 1987 by the Hawaii State Association of Counties (HSAC),[38] which would produce this allocation:

Total	Honolulu	Maui	Hawaii	Kauai
100.0%	50.0%	17.5%	18.5%	14.0%

This proposal allocates 11.5 percent of the available funding to each county. The remaining 54 percent of the funding is allocated among the counties by a formula comprised of the percentage distributions of the following variables, weighted as indicated:

Population	50%
General excise tax collections (FY 1986)	20
Square miles of area	6
Miles of roads	6
Defacto population (1985)	6
Miles of sewers	6

These weights sum to 94 percent of the 54 percent balance of the funding. The remaining available funds would be exhausted by rounding the share of each Neighbor Island county up to the next 1/2 percentage point and allocating such balance of the funds as may remain to the City and County of Honolulu in recognition of its "larger needs."

d. The allocation implicit in the Governor's 1989 proposal for allocating tobacco and liquor tax collections and a $20-million TAT appropriation.[39] The allocation would be:

Total	Honolulu	Maui	Hawaii	Kauai
100.0%	46.5%	23.0%	16.3%	14.2%

37. Department of the Budget, City and County of Honolulu, A Review of the Real Property Tax (August 1984), pp. 15 and 16.

38. Memorandum from Damon Key Char & Bocken to the Committee on Inter-Governmental Relations, Hawaii State Association of Counties, "Explanation of How the Formula for Distribution of Grants-in-Aid to the Counties Was Determined" (March 27, 1987).

39. Testimony of Richard F. Kahle, Jr., Director of Taxation, on S.B. 1901 Relating to Counties (February 14, 1989), Exhibit II.

e. The allocation yielded by the formula used by the federal Revenue Sharing Program, which was terminated in 1986. The distribution of funds among the counties in the final allocation for Entitlement Period17 (the last of the Program, for the federal fiscal year ending on September 30, 1986) was:[40]

Total	Honolulu	Maui	Hawaii	Kauai
100.0%	69.1%	9.9%	14.9%	6.1%

The statutory formula that was used to allocate payments under the Revenue Sharing Program during the years 1972-86 has received general acclaim as one of the best ever implemented, from the perspective of the efficiency with which it targeted funds to county areas and individual local governments with the weakest fiscal capacities.

The Revenue Sharing formula for allocating payments among local governments in each State (a somewhat different formula first allocated the available funds among the states and, from 1972 until 1980, one-third of the amount allocated to each state was first paid to the state government) comprehended three variables: per capita Census money income, local tax collections for purposes other than education,[41] and population. Payments were allocated in inverse proportion to per capita income and in direct relation to tax effort, that is, local "adjusted" (non-education) taxes divided by total income.

The formula was a far cry from perfection, however. During the life of the Program, reports by the U.S. General Accounting Office and others criticized the formula for allocating excessive payments to governments that did not really need assistance and for being horizontally inequitable.[42] That is, jurisdictions with comparable per capita incomes and tax efforts were allocated significantly different Revenue Sharing payments per capita.

2. Categorical Matching Grants to Effect the State's Interest in County Services with Statewide Importance

The objective of a matching grant is explicitly not to be fiscally neutral. That is, the purpose of such a grant is to provide a fiscal incentive for the recipient government to spend more for the specific service for which the grant is made available than it would have in the absence of the grant. The rationale for the categorical grant is that it can be the most efficient (least-cost) method by which the State government can assert a statewide interest in the provision of a higher level of a service for which a county is responsible than county officials would elect to provide in the absence of State action.

The highway function appears to the element of Hawaii's fiscal system with the most potential for improvement by the implementation of a carefully crafted categorical grant program. As this issue has been considered earlier in this chapter, no attempt will be made here to repeat that discussion.

3. Shared Taxes

As discussed in an earlier section of this chapter, a shared tax is actually a grant-in-aid financed by earmarking a portion of the proceeds of a designated tax for distribution to local governments in proportion to the origin of the revenues. The revenues distributed in this manner may be designated for use only for a specific function (categorical grant) or they may be made available with no restrictions (general fiscal assistance). In either case, the above discussion of those two types of assistance makes further consideration of shared taxes redundant.

4. Payments in Lieu of Taxes on Real Property Owned by the State

Real property owned by the State in Hawaii is exempt from taxation by the counties. If this property were distributed proportionately among the counties--that is, if the exempt State property were the same proportion of total property values in each county--there would be little cause for

40. Office of Revenue Sharing, U.S. Department of the Treasury, Seventeenth Period Entitlements: Revenue Sharing--October 1, 1985 - September 30, 1986 (August 1986), p. 69.

41. Only general-purpose local governments--a class that did not include special districts, including those responsible for elementary and secondary education--were eligible to receive Revenue Sharing. Although elementary and secondary education in most states is financed and delivered by independent school districts, in a few states the governmental entity responsible for schools is dependent on the general-purpose local government. That is, the education entity relies upon a share of taxes collected by the general-purpose government, and its budget is approved by that local government, whether it be a county, city, or town. As the taxes collected to finance education in these cases are commingled with taxes collected for all other local purposes, the Revenue Sharing Act required that the tax collections of the general-purpose local government be adjusted to subtract the portion attributable to education.

42. See, for example, Office of State and Local Finance, Department of the Treasury, Federal-State-Local Fiscal Relations: Report to the President and the Congress (1985), pp. 183-93; and Jerry C. Fastrup, "Fiscal Equalization and the Design of Federal Grant Allocation Formulas: An Application to General Revenue Sharing," in Robert W. Rafuse, Jr. (editor), Federal-State-Local Fiscal Relations, Technical Papers, Vol. II (Office of State and Local Finance, Department of the Treasury, 1986), pp. 829-54; U.S. General Accounting Office, Changes in Revenue Sharing Formula Would Eliminate Payment Inequities; Improve Targeting Among Local Governments, GGD-80-69 (1980); and U.S. General Accounting Office, Targeting General Fiscal Assistance Reduces Fiscal Disparities, GAO/HRD-86-113 (1986).

concern. In fact, however, the distribution of State property is not uniform among the counties, as the following tabulation indicates.[43]

	State Property	Percent of Total Assess Values
Total	100.0%	9.5%
Honolulu	85.5	10.8
Maui	4.1	3.6
Hawaii	8.3	8.6
Kauai	1.8	3.8

Statewide, the average proportion of total assessed valuations accounted for by State-owned property is just under 10 percent. Among the counties, the range is from 4 percent in Maui to 11 percent in Honolulu. Although this range is not nearly as large as it is in some states, it does represent a significantly differential impact on the counties.

5. Payments to Reimburse the Counties for the Costs of Certain Services They Provide Incident to State Programs--For Example, the Costs of County Lifeguards at State Beaches and Beach Parks[44]

In a state-local fiscal system in which the values of reciprocity, equity, and intergovernmental comity are important, arrangements for one level of government to compensate the other when services are provided incident to a program of that government would, in principle, be given careful consideration. Explicit compensation would not always be necessary or desirable; some other allowance might be appropriate. In any event, these sorts of arrangements must be worked out on a case-by-case basis between the State and the counties, a process that appears to be going forward in the specific instance cited in the above example.

6. Payments to Reimburse the Counties for the Costs of the State-Mandated Homestead Exemption

Article VIII, Section 5, of the Constitution of Hawaii requires the State to share in the cost to the counties of any State mandates directing the counties to implement new programs or to increase service levels. Although the interpretation of the language of this provision continues to be a matter of some controversy, especially with respect to the proper State share, its inapplicability to the homestead provisions seems clear. The provisions do not represent "new" programs or "increased" service levels; in fact the exemptions predate the adoption of the 1978 Constitution.

In any event, the requirement that the counties provide for homestead exemptions in their property taxes expired on November 7, 1989. Thus any connection between the homestead exemptions and the intensely controversial issue of mandates and the obligations of governments promulgating a mandate to the jurisdictions required to comply with it is moot.[45] In fact, the issue is the need for and most efficient mechanism for delivering relief from tax burdens on individual households that are deemed to be excessive. As this issue is discussed in Chapter VI and in Section B of this chapter, further consideration here would be redundant.

G. Treatment Under the General Excise Tax of Purchases by the Counties

County officials complain about what they perceive as a lack of reciprocity in their treatment in State tax law and the way the State is treated in county tax law. For example, as discussed above, the State government owns large amounts of land in Hawaii, all of which is exempt--as a matter of State law--from county property taxes. At the same time, however, purchases by the counties are not exempt from the GET.

In his analysis of the GET base for the Tax Review Commission, William Fox argues that the theoretical rationale for collection of the GET on sales to the counties

> *... is as weak as for collection of the tax on sales to business. [As a consequence,] Administrative and revenue justifications rather than conceptual grounds must be used to support this revenue.*[46]

Fox concludes that the State government and the counties should be taxed the same as private producers of goods and services. This means that two aspects of the operations of Hawaii's governments would be potentially subject to the GET--"sales" of public services and purchases of goods and services by the governments.

Although not at issue in the present context because it appears never to have been proposed before, Fox

43. Real Property Assessment Division, Property Technical Office, Department of Finance, City and County of Honolulu; Real Property Tax Valuations, Tax Rates & Exemptions, 1987 - 1988 Tax Year, State of Hawaii (July 1987), pp. 1-6.

44. Advisory Committee on Overlapping Functions, op. cit., p. 8.

45. For a range of views on the issue of intergovernmental mandates, see Advisory Commission on Intergovernmental Relations, Regulatory Federalism: Policy, Progress, Impact and Reform, Report No. A-95 (1984); Office of State and Local Finance, Fiscal Relations, op. cit., pp. 80-92; and Ray D. Whitman and Roger H. Bezdek, "Federal Reimbursement for Mandates on State and Local Governments," Public Budgeting & Finance, Vol. 9 (Spring 1989), pp. 47-62.

46. Op. cit., p. 19.

argues that the gross receipts of the State and the counties should be taxed at the same rate as those of any other retailer when they arise from the provision of goods or services for which a fee or charge must be paid as a condition of receiving them. Tax-financed services, however, should not be taxed because no price can be observed that denotes their consumption value.

As for the purchases of goods and services by the State and county governments, Fox recommends that the rules governing the taxability of the purchases of private businesses apply to the governments, specifically, that

- *purchases of tangible goods be exempt when they meet the component-parts test, and*
- *purchases of services be subject to a direct-use rule.*[47]

If Fox's recommendations are disregarded, and it were decided that the counties should be relieved of liability for the GET, two major options for accomplishing this objective are available: exemption of county purchases from the tax and periodic reimbursement for the tax paid. The principal considerations bearing on the choice between these options are discussed briefly below.

1. Exemption from the Tax of Purchases by the Counties

Fox makes the case that an effort to exempt all county purchases from the GET would be administratively inconvenient, that is, would be costly to administer both to the State and to private firms. Although he provides no estimates of the magnitude of the administrative cost of exemption, we have no independent basis for questioning his conclusion.

Fox also argues that the revenue loss would be significant. The amount of the revenue loss to the State is, of course, identical to the amount by which the cost of the public services provided by the counties is inflated by the GET. The revenue loss, together with the additional administrative costs, would be the price of relieving the counties of the burden of the GET by exempting their purchases from the tax. Whether the gain would be worth the price is a matter for the legislature and the governor to decide.

2. Periodic Reimbursement by the State to the Counties of the Amount of the Tax Paid on Their Purchases

If it were determined that the interests of intergovernmental comity warrant relieving the counties of the cost of the GET to which they are now subject, it is clear that the most efficient way for the State to achieve the objective would be by periodically reimbursing each county for an estimate of the amount of the tax paid. The administrative cost of an arrangement for reimbursing, perhaps quarterly, the GET paid by the counties could probably be kept to a minimum by relying on a simple method for approximating the amount of the tax paid by each county, rather than by developing an elaborate system involving application for reimbursement with specific documentation of claims.

The simpler the method, of course, the more closely the reimbursement would resemble a grant program, in all likelihood with the generally undesirable feature that it would provide an incentive at the margin for the counties to increase spending. This is by no means an inevitable result, but designers of the reimbursement method should keep in mind the possibility of such an outcome.

H. Authorization for the Counties to Use Proceeds of Their Motor Fuel Taxes for Non-Highway Transportation Projects

This option involves an issue that has been extremely controversial in many states and in debates in the Congress on the Highway Trust Fund. Historically, deposit of the proceeds of taxes on motor fuel and related goods used in highway transportation into a special fund from which withdrawals could only be made to finance the construction and maintenance of highways has been an article of faith to proponents of user finance of the nation's streets and roads. Organizations like the American Automobile Association campaigned indefatigably against any "diversion" of the yields of highway user taxes.

In recent years, however, the possibility that those who purchase gasoline and tires for their vehicles may benefit from public spending for ground transportation other than highways has gained increasing recognition. Resounding verification of this trend came in 1982, when the Federal-Aid Highway Program was reauthorized. The legislation that accomplished this was called the Surface Transportation Assistance Act in acknowledgement of its authorization for the diversion of 1 cent per gallon of the federal tax on motor fuels to a Mass Transit Account in the Highway Trust Fund. Funds from this Account are made available by the Urban Mass Transportation Administration to assist the states in financing a variety of programs relating to mass transit.

In view of these developments, it would not seem especially unreasonable to permit the counties

47. Ibid., p. 50.

the option of allocating highway user taxes to non-highway transportation projects to the extent that those projects can reasonably be regarded as generating indirect benefits to the purchasers of motor fuels.

I. Increased Reliance by the Counties on User Fees and Charges

The potential for additional county revenues from more extensive reliance on user charges and fees for services is difficult to gauge in the abstract.[48] Insight into this potential can be gained, however, by comparing reliance on these types of revenues by the counties in Hawaii with that of local governments elsewhere in the nation.

Table VIII.3 compares the use of charges and fees by the county governments in Hawaii with the practice of local governments in the entire nation, in the other five states of the far west region, and in Florida. The table shows the revenues of all local governments from "current charges" as percentages of local general revenues from all sources and from own sources, that is, excluding funds received from the federal and state governments.[49]

The results indicate that current charges produce precisely the same proportion of local general revenues in Hawaii as in the other five states of the far west, and are a more important source of revenue to the counties in Hawaii than to all local governments in the U.S. Column 4 of Table VIII.3 shows that the counties derive a 22-percent larger proportion of their total general revenues from current charges than all local governments. These results are artifacts, however, of the exceptionally modest dependence of the counties in Hawaii on State aid.[50] Therefore, a much more accurate view of the role

TABLE VIII.3 RELIANCE ON USER FEES AND CHARGES BY LOCAL GOVERNMENTS, SELECTED STATES, FY 1986-87 ($ in millions)

State	Total	General Revenue Own Source		Current Charges as Percentage of	
		Subtotal	Current Charges	Total General Revenue	Own General Revenue
	(1)	(2)	(3)	(4)	(5)
U.S.	$410,347	$254,062	$30,116	7.3%	11.9%
Hawaii	**706**	**538**	**63**	**8.9**	**11.7**
Other Far West					
Subtotal	75,556	40,829	6,716	8.9	16.5
Alaska	2,026	1,186	252	12.4	21.2
California	59,624	31,430	5,032	8.4	16.0
Nevada	1,836	1,060	252	13.7	23.8
Oregon	4,555	3,148	388	8.5	12.3
Washington	7,514	4,005	793	10.5	19.8
Florida	19,970	13,377	1,923	9.6	14.4

Note: In this table, current charges do not include charges for education and hospitals, functions for which the counties in Hawaii have no significant responsibility. In the accounts published by the Tax Foundation, the functions account for 0.1 percent of total county expenditures, and the Census Bureau reports no current charges received by the counties for these functions. Detail may not add to totals because of rounding.

Source: U.S. Bureau of the Census, Government Finances in 1986-87, GF-87-5 (November 1988), Table 29.

48. A useful general discussion of user fees and charges as a source of revenue for local governments is Robert Cline's Local Revenue Diversification: User Charges, Report No. SR-6 (Advisory Commission on Intergovernmental Relations, October 1987).

49. In the accounts of the Census Bureau, current charges are defined as

> Amounts received from the public for performance of specific services benefiting the person charged, and from sales of commodities and services, except liquor store sales. Includes fees, assessments, and other reimbursements for current services, rents and sales derived from commodities or services furnished incident to the performance of particular functions, gross income of commercial activities, and the like.

[U.S. Bureau of the Census, Government Finances in 1986-87, GF-87-5 (November.1988), p. 114.]

50. The counties derive slightly more than 9 percent of their total general revenues from the State government. By comparison, all local governments in the nation receive precisely one-third of their general revenues from their state governments. State aid accounts for more than double the proportion of local revenues in Hawaii in every state but New Hampshire, where the ratio exceeds 12 percent. [Advisory Commission on Intergovernmental Relations, Significant Features of Fiscal Federalism, 1989 Edition, Vol. II, Report No. M-163-II (August 1989), Table 39.] Note that the data on county finances compiled by the Tax Foundation of Hawaii for FY 1987 (see Table V.1) show that State aid accounts for barely more than 6 percent of the total revenues of the counties. The difference from the 50-percent-higher ratio cited at the beginning of this footnote is largely attributable to the inclusion in the Tax Foundation's total of certain county receipts that are classified as utility revenues by the Census Bureau, and hence are excluded from the total of county general revenues.

of current charges in local finance is provided by abstracting from state and federal aid, that is, by focusing on the revenues of local governments from their own sources. The ratios that result when this adjustment is made appear in column 5. In fact, the derive a slightly smaller-than-average proportion of their own general revenues from current charges.

Reliance on current charges by local governments exceeds the national average in all the states of the far west region except Hawaii. As a group, the far-west states other than Hawaii rely on current charges for a 39-percent larger share of their own general revenues than do all local governments in the U.S. In the case of Florida, the state that may be most similar to Hawaii in the importance of the visitor industry, cur- rent charges account for a share of own general revenues that is 21 percent above the national average.

Another way of expressing these results is by calculating how much more revenue Hawaii's county governments would have realized in FY 1987 if their current charges had been at the levels that would have generated the proportions of own revenues achieved by local governments in other states. (The calculation holds all own revenues other than current charges at their actual levels in that year.)

Had the counties in Hawaii relied upon current charges to the same degree as all local governments in the nation (12 percent), they would have collected a statistically insignificant $1 million of additional revenue. Had the counties collected 14 percent of their own revenues from current charges, the ratio for Florida, their revenues would have been $17 million higher. At the ratio for all the states in the far west other than Hawaii (17 percent), the revenue increase would have been $31 million. Had the ratio in Nevada (24 percent) been reached by the counties, the revenue gain would have been more than $85 million.

As a matter more of curiosity than relevance to the fiscal system of Hawaii, the state whose local governments derive the highest proportion of their own revenues from current charges (other than from education and hospitals) is Delaware. Had current charges accounted for as large a share of the own revenues of the counties in Hawaii as they did of local revenues in Delaware (29 percent), the counties' total receipts would have been $131 million larger.

Since it is unlikely that Hawaii's counties have significantly increased their relative reliance on current charges since 1987, and since overall budgets have been growing strongly, these estimates of the additional revenues the counties could raise by more aggressive use of fees and charges can be regarded as understatements of the revenue potential at current budgetary levels.

PUBLIC SERVICE COMPANY TAX

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Tax Review Commission Staff

PUBLIC SERVICE COMPANY TAX

By Debra M. K. Oyadomori

Tax Review Commission Staff

Introduction

Most corporations doing business in the State of Hawaii are subject to the general excise tax, the corporate net income tax, and the real property tax. Public utilities, along with insurance companies, banks and other financial institutions, are taxed, either in whole or in part, under other tax laws. Under Hawaii's present tax structure, public utility companies, motor carriers, and contract carriers are subject to the corporate net income tax and the public service company (PSC) tax, which is a tax on the gross income of a public service company in lieu of the general excise and real property taxes. (Electric light and power companies are also subject to the county public utilities franchise tax.) This paper is intended to provide an understanding on the evolution of the PSC tax.

Background

Prior to the enactment of the public utilities tax in 1932, utilities were taxed under the general property tax law as enterprises for profit, in addition to the franchise tax (electric light and power companies only) and income tax.

The enterprise for profit tax, enacted in 1896, assessed the value of the real and personal property of the tax-paying corporation as under the general property tax law, however, specified certain factors that were to be considered and certain processes to be followed in determining the value of the property of the taxpaying enterprise. The assessment took into consideration the net profits of the corporation, the gross receipts and actual running expenses, the market price of the corporation's stock and all other facts and considerations which reasonably and fairly bear upon the valuation.[1]

Although this tax was enacted to generate additional revenues to meet governmental needs, it also addressed concerns that certain corporations were not paying as much taxes as they should have been, mainly the sugar companies. Some people believed that the more prosperous companies should also be assessed certain intangible values, such as "good will" and "going concern value", items which could only be assessed by using both net income and general property. While the original purpose of this tax was to collect additional taxes from the sugar companies, the statute was written as such to include all businesses whose properties could not be directly assessed on an item basis.

Review of Tax Structure

In 1929 Governor Lawrence Judd appointed a seven-member tax board to "..make an appraisement of all properties subject to taxation,...and an economic study of the proper equitable distribution of the tax burden and of all matters relating to all forms of taxation in the Territory..."[2] The Tax Board of the Territory of Hawaii, which served from May 1929 to January 1933, enlisted Professor Fred Fairchild, a political economist at Yale University and one of the foremost experts in the field of taxation to carry out the economic study.

The Tax System of the Territory of Hawaii

In his report to the Tax Board[3], Fairchild reviewed in great detail the enterprise for profit tax and concluded that this tax imposed an impossible task on the assessor and produced unsatisfactory results as to the operation of the law. For one thing, certain situations would arise in which businesses could either be taxed under the enterprise for profit tax or the general property tax, in which case it would be only natural for the business to file under the tax which would produce the lessor tax. Then for those situations in which a business did fall under the enterprise for profit tax, there were uncertainties as to the determination of the taxable value.

As an alternative to the enterprise for profit tax, Fairchild reviewed the possibility of returning to the general property tax (item basis). He noted that returning to the general property tax would 1) reduce revenue collections because the "intangible values" built into the enterprise for profit tax would be eliminated; and 2) be a backward step for public utilities -- other progressive states were taxing their public utilities by special methods which viewed utilities as a unit rather than as the sum of several items of property.

Fairchild also reviewed and later recommended replacing the enterprise for profit tax with a gross-net tax, which would assure the government a regular revenue and take into account the prosperity of the company. The tax would be in lieu of property taxes on operative property only for

1. Revised Laws of Hawaii 1925, Section 1334, Enterprise for Profit, p. 560.

2. Tax Board of the Territory of Hawaii, Report of the Tax Board of the Territory of Hawaii January 31, 1931, p. iii.

3. Fred R. Fairchild, The Tax System of the Territory of Hawaii, a report for the Tax Board of the Territory of Hawaii, December 20, 1930.

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certain enterprises, namely the sugar, pineapple and public utility businesses; and would be imposed on the gross operating earnings of these enterprises at progressive rates graduated according to the ratio of net earnings to gross earnings of each company and related to the rate of the property tax. Fairchild found this method to be the best solution of the problem of taxing the public utility companies.[4] The rate schedule recommended by Fairchild for the taxing of public utility companies was as follows:

> a. When the property tax rate is 3 per cent, the rate imposed on the gross earnings of any such enterprises shall be 2.50 per cent if the ratio of net earnings to gross earnings is 6.25 per cent or less; for companies whose ratio of net to gross exceeds 6.25 per cent, the rate shall increase continuously from 2.50 per cent in such manner that for every increase of 1 per cent in the ratio of net to gross one-fifth of 1 per cent shall be added to the tax rate.
>
> b. This relationship may be expressed by means of the following formula, in which "X" is the required tax rate and "R" the ratio of net earnings to gross earnings:
>
> X = (1.25 + 20R)%; minimum rate, 2.50%
>
> The rate of the property tax and the rates of the gross-net tax shall be determined for each county, on the basis of the total revenue that is to be raised from such taxes, preserving the above relation between the property tax rate and gross earnings tax rate.

Fairchild's recommendation on the gross-net tax as well as his other recommendations on other tax laws were later adopted by the Tax Board and recommended to the Governor as the new tax code.

Adoption of Public Utilities Tax Law

In 1932 the legislature enacted a public utilities tax law, similar to the one proposed by Fairchild and the Tax Board of the Territory of Hawaii, which would "levy a tax of six per cent on the gross profits of the corporation in lieu of the real and personal property tax."[5] The rate schedule adopted by the legislature was as follows:

> Rate Determined. If the ratio of the net income of the company to its gross income is fifteen per centum or less, the rate of the tax on gross income shall be five per centum, for all companies having net income in excess of fifteen per centum of the gross, the rate of the tax on gross income shall increase continuously in proportion to the increase in ratio of net income to gross, at such rate that for each increase of one per centum in the ratio of net income to gross, there shall be an increase of one-fourth of one per cent in the rate of tax.
>
> The following formula may be used to determine such rate, in which formula the term "R" is the ratio of net income to gross income, and "X" is the required rate of the tax on gross earnings for the utility in question:
>
> X = (1.25 + 25R)%; provided, however, that in no case shall "X" be less than five per centum.[6]

The adoption of the general excise tax law in 1935, which imposed a tax on all persons or entities conducting business within the Territory for the privilege of doing business in Hawaii, enhanced the uniqueness of public utility companies by providing an exemption for public utilities which already pay an annual tax on the gross income of their public utility business under the public utilities tax law.

1963 Amendment

In 1963 the public utilities tax law was amended to 1) classify all public utility, airline, motor carrier, and contract carrier businesses as public service companies and place them under one chapter of the Revised Laws to be known as the "Public Service Company Tax Law" and 2) clarify the nature of the tax as being a property tax measured by gross income. An attorney general's memorandum to the House Public Utilities Committee stated that "the significance of such a characterization is that a property tax imposed on a business engaged in interstate commerce stands a better chance of weathering attacks against constitutionality on the basis of the interstate commerce clause objections than a privilege tax measured by gross income. On the basis of the various cases in this area, it is advisable to clearly state the nature of the tax, since the courts give much

4. At the time of his review, the only state which had adopted this method of taxing utilities was Maine, although other states had shown interest.

5. Senate Journal 1932, Special Committee Report No. 6 of the Senate Committee of the Whole, March 30, 1932, p. 34.

6. Revised Laws of Hawaii 1935, Section 2143, Rate How Determined, pp. 381-382.

consideration to the manner in which the legislature characterizes the tax.[7]

Comparative of PSC Tax[8]

In 1965 a comparative on the tax treatment of the public service company tax conducted by the Department of Taxation showed how public utilities would fair if taxed as other corporations doing business in Hawaii. The results reflected a state tax liability of $2.4 million in excess of what they would have owed had they been taxed as ordinary corporations. (See Table 1)

TABLE 1. COMPARATIVE OF PUBLIC SERVICE COMPANY TAX

Under 1964 Public Utilities Law	Amount of Tax	Total
Public Service Company Tax - 1964 on 1963 income	$ 6,450,103	
Corporate Net Income Tax -1963	1,125,846	
TOTAL		$ 7,575,949
If taxed as other corporations		
Corporate Net Income Tax -1963	$ 1,125,846	
General Excise Tax @ 3½% -1963	3,392,412	
Real Property Tax -1963	698,558	
TOTAL		$ 5,216,816
Excess Paid to State Over Other Corporations		$ 2,359,133

The foregoing does not include $1,294,556 paid by electric light and power companies to the counties.

Source: Hawaii Department of Taxation

PSC Tax Today

The current PSC tax law, Chapter 239 of the Hawaii Revised Statutes, levies upon each public utility a tax rate ranging from 5.885% to 8.2% of its gross income each year from its public utility business; motor carriers and contract carriers are levied a tax of 4% of gross income each year from the motor carrier or contract carrier business. In fiscal year 1989 the PSC tax yielded $64.6 million in tax collections, $53.9 million for utilities and $10.7 million for motor/contract carriers, which were deposited into the state general fund[9]. Although the utility companies feel that the PSC tax is administratively less burdensome and complex to comply with than a combined general excise tax and real property tax, does the current PSC tax serve the purpose for which it was enacted?

First, Fairchild noted that returning to the general property tax would be a backward step for public utilities, since other states were taxing utilities as a unit rather than as the sum of several items of property. A review of the Commerce Clearing House State Tax Guide indicates that the most common method of public utility taxation is on gross earnings or gross receipts and, except for certain states, are in addition to other taxes. Hawaii, along with nine other states, specify that the public utility tax is in lieu of property taxes.[10]

Second, the purpose of utilizing a ratio of the net income of a company to its gross income to determine the tax liability of the public service company was to assure the government regular revenue and take into account the prosperity of the company. The 1965 comparative on the tax treatment of the PSC tax indicates that at that time, the utility companies did pay more taxes under the PSC tax than they would had they been taxed as ordinary corporations.

Third, if the PSC is a tax in lieu of the property tax, is there a potential conflict if the counties impose the property tax on utility companies while the PSC tax is still in effect?

Property Tax Administration

As of November 6, 1989 all powers relating to real property taxation will be granted to the counties, pursuant to Section 6 of the Hawaii State Constitution. The counties have expressed a desire to broaden its property tax base to include the taxation of public utilities. The utility companies have voiced several

7. Department of the Attorney General, Memorandum to the House Public Utilities Committee regarding Attorney General Opinion 63-26, April 23, 1963.

8. Hawaii Department of Taxation, Comparative Tax Treatment of Different Types of Corporations, January, 1965, p. 1.

9. Hawaii Department of Taxation State Tax Collections and Distribution, June, 1989.

10. Commerce Clearing House, Inc., State Tax Guide, All State Statute Summaries by Taxes and States, Utilities, 1988-1989, pp. 8005-8081.

concerns which they feel should be taken into consideration if such a change occurs.[11]

1. The effect such a change would have on all other taxes imposed on utility companies - currently the PSC tax is "in lieu of property and general excise taxes". If the counties do decide to tax public utility company properties and the state continues to impose the PSC tax, utility companies will, in effect, be paying the property tax twice.

2. The complexities of assessing unique public utility property - it would be difficult to identify and value the various real property interests owned by a public utility, such as generators, telephone poles, etc.

3. Centralized administration - currently Honolulu county handles all assessment, collection and other administrative functions for all counties; it would be difficult for the utility companies (who operate throughout the state) if each county independently administered the property tax.

4. Additional costs - broadening the property tax base would require the counties to hire more staff to handle the additional workload produced by the taxation of public utilities, and utility companies would have to retain additional staffing to handle the accounting of property subject to taxation. In addition, since the PSC tax bears a direct relationship to revenues whereas the real property tax fluctuates with real property values regardless of the operating revenue of the public utility, the public utility companies would have to request rate increases more frequently to cover costs which have no direct relationship to the efficiencies of the operation of the public utility.

Lastly, it should be noted that the 1984 Tax Review Commission recommended that public service companies be subject to the general excise tax rather than to the in lieu public service company tax. The Commission found that whatever rationale the public service in lieu tax might have once had has been lost over the years. In addition, no one was able to provide a defense as to the present exemption of utility property from county property taxes.

Conclusion

Hawaii is like most other states in that it applies a special tax on the gross earnings or gross receipts of public service companies, and is not unique in applying its PSC tax in lieu of the property tax. The PSC tax has also been effective in generating tax revenue for the State during the past 57 years and is easy to administer since it has been in place for so many years.

On the other hand, taxing public service companies as ordinary corporations (replacing the PSC tax and the county franchise royalty tax with the general excise and property taxes) would require fewer types of taxes to be administered; generate more tax revenue for the counties, since they would now be acquiring the tax revenue from public utility properties; and provide a level playing field for other competitive businesses.

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11. Tax Review Commission's public hearings in June, 1989 - testimony from the major utility companies.

TRANSIENT ACCOMMODATIONS TAX

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TRANSIENT ACCOMMODATIONS TAX

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Since it was first introduced in New York and Pennsylvania in the late 1940's, special taxes on hotel room (transient accommodation) rentals have become increasingly popular among state and local government officials. It is a popular tax because it falls largely on nonresidents[1] and high income travelers who can afford to pay.[2]

Until 1987, Hawaii did not impose a special tax on hotel room rentals. Hotel operators were required to pay the Hawaii general excise tax (imposed since 1935) on their gross receipts, including receipts from room rentals.

Act 340 passed by the 1986 Hawaii Legislature imposed a 5% transient accommodations tax (TAT) on the gross receipts derived from the furnishing of accommodations to transients for less than 180 days. The 5% TAT is in addition to the 4% general excise tax levied on hotel room rentals. Exemptions were granted to health care facilities, school dormitories, nonprofit corporations, military personnel on permanent duty, government-subsidized low-income renters, full-time students, and complimentary accommodations.[3] The Act went into effect on January 1, 1987.

Despite more than doubling the initial tax burden, Hawaii's combined hotel room tax of nearly 9.5% is not amongst the highest levied in the U.S. A recent (1989) survey, conducted by the Wall Street Journal of the top 50 U.S. cities, found that Honolulu ranks well below the median (see Table 1).

In the first six months of 1987 (i.e. fiscal year 1987), the TAT generated $23.5 million in tax revenues with 8,619 operators registered with the Department of Taxation. In fiscal year 1988, the number of registered operators grew to 10,770 and the TAT generated over $67 million, the third largest source of general fund tax revenues.

Although the TAT's intended purpose was to generate revenues to finance a convention center in Honolulu, the revenues from the TAT were distributed into the State General Fund and not into a special fund. Since the convention center has not (yet) been built, some of the net proceeds from the TAT have been given to the counties and some were used to increase the promotional budgets of the Hawaii Visitors Bureau

1. E. Fujii, M. Khaled, and J. Mak, "The Incidence and Exportability of Hotel Room Taxes: Some Further Estimates," University of Hawaii-Manoa, Dept. of Economics, Working Paper No. 88-9 (February 1988).

2. J.P. Combs and B. Elledge, "Effects of a Room Tax on Resort Hotels/Motels," National Tax Journal, 32 (1979): 201-207.

3. Department of Taxation, Annual Report - 1988, p. 15 and p. 23.

TABLE 1. TRANSIENT ACCOMMODATIONS TAX IN 50 LARGEST U.S. CITIES: 1989

CITY	TOTAL TAX	CITY	TOTAL TAX	CITY	TOTAL TAX
Columbus, OH	15.5%	Atlanta, GA	11.0%	Ft. Lauderdale, FL	9.0%
New York, NY	13.25*	Philadelphia, PA	11.0	Orlando, FL	9.0
Seattle, WA	14.1	Miami, FL	11.0	Pittsburgh, PA	9.0
Houston, TX	14.0	San Francisco, CA	11.0	Portland, OR	9.0
Austin, TX	13.0	Washington, DC	10.0±	Tampa, FL	9.0
Cleveland, OH	13.0	Jacksonville, FL	10.5	West Palm Beach, FL	9.0
Dallas, TX	13.0	Phoenix, AZ	9.25±	Norfolk, VA	8.5
Ft. Worth, TX	13.0	Anaheim, CA	10.0	Charlotte, NC	8.0
New Orleans, LA	11.0*	Cincinnati, OH	10.0	Raleigh-Durham, NC	8.0
San Antonio, TX	13.0	Detroit, MI	10.0	Riverside, Ca	8.0
Knoxville, TN	12.75	Indianapolis, IN	10.0	San Diego, CA	8.0
Chicago, IL	12.4	Oakland, CA	10.0	San Jose, CA	8.0
Los Angeles, CA	12.0	Sacramento, CA	10.0	Las Vegas, NV	7.0
Atlantic City, NJ	12.0	Kansas City, MO	9.73	Reno NV	7.0
Baltimore, MD	12.0	Boston, MA	9.7		
Minneapolis, MN	12.0	St. Louis, MO	9.5		
Denver, CO	11.9	**Honolulu, HI**	**9.43**	*Plus $2	
Nashville, TN	11.75	Daytona Beach, FL	9.0	±Plus $1	

Source: Compiled by the staff of the Wall Street Journal

(HVB), and other tourism-related uses.

The primary concern of this staff report is the large discrepancy between the TAT tax base reported by the Department of Taxation vis-a-vis the staff's estimate of visitor accommodation expenditures using visitor expenditure data prepared by the Hawaii Visitor Bureau[4] and the Department of Business and Economic Development (DBED).[5]

According to the HVB, visitor expenditures in Hawaii for calendar years 1987 and 1988 were $6.6 billion and $9.2 billion respectively.[6] HVB does not break down its spending totals by individual expenditure categories such as lodging, food, etc. DBED, however, has prepared detailed expenditures for the years 1958-1985 (see Table 2).

Table 2 shows that in recent years, lodging's share of total visitor spending has grown from about 29% in the mid-1970's to nearly 32% by 1985. If we used 31.5% as an approximate ratio of tourist accommodation expenditures to total visitor spending, the potential tax base appears to be twice that reported by the Department of Taxation[7] (as shown in Table 3.)

Part of the difference in the expenditure/receipts estimates is probably explained by HVB's over-estimation of eastbound (Japanese) visitor arrivals. HVB is presently reviewing its eastbound visitor arrival estimates and will likely revise its estimates of total visitor expenditures. However, since Japanese visitors account for only 20% of total visitor arrivals (1987) and 31% of total visitor expenditures in Hawaii[8], this cannot be the entire explanation for the discrepancy between the two tax base figures. To identify all the potential sources of the discrepancy will be difficult, particularly in view of the heterogeneity of the tourist industry. Nonetheless, and to the extent possible, we recommend that the state make an effort to determine the sources of difference between the two tax base figures. The economic implications are large -- i.e. either the visitor industry in Hawaii is only half as large as we have been led to believe, or we are not collecting as much taxes as we should, or possibly both.

TABLE 2. VISITOR LODGING EXPENDITURES 1975 - 1985 ($ in millions)

Calendar Year	Total Visitor Expenditures	Lodging Expenditures	Lodging as Percentage Of Total
1975	$ 1,368.4	$ 399.7	29.21%
1976	1,646.8	477.9	29.02
1977	1,860.6	536.7	28.85
1978	2,157.4	643.9	29.85
1979	2,548.6	751.2	29.48
1980	2,901.4	888.2	30.61
1981	3,215.0	979.4	30.46
1982	3,715.0	1,158.6	31.19
1983	3,988.0	1,269.2	31.83
1984	4,600.0	1,463.7	31.82
1985	4,904.0	1,552.5	31.66

Source: DBED, Hawaii Gross State Product Accounts, 1958-1985, p.163

TABLE 3. REPORTED TRANSIENT ACCOMMODATIONS TAX BASE

Calendar Year	Reported TAT Base	Estimated Tourist Spending for Lodging
1987	$1,065 million	$2,079 million
1988	1,414 million	2,898 million

Source: Department of Taxation and Tax Review Commission staff

4. Hawaii Visitors Bureau, 1988 Westbound Visitors to Hawaii, p. 3.

5. Department of Business and Economic Development, Hawaii Gross State Product Accounts, 1958-1985 (March 1988).

6. 1988 Westbound Visitors to Hawaii, p. 3.

7. Also, the reported tax base includes receipts on hotel rentals from Hawaii residents while the estimated tourist spending for lodging does not.

8. State of Hawaii, Data Book, 1988, p. 210.

NONRESIDENT INVESTMENT IN HAWAII

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INTRODUCTION

As a regional economy, Hawaii has historically depended on external investment flows to finance the capitalization of both its commodity based production of sugar and pineapple and its service based production of tourism.[1] This dependence is a direct result of the constraints on the availability of locally generated investment funds, imposed by Hawaii's relatively limited resource base and economic output.[2] Significantly, this situation is likely to persist into the future.

Although few would dispute the role that external investment has played in the growth of the Hawaiian economy, with its accompanying increase in the standard of living for residents, increases in foreign direct investment have greatly increased the level of debate over the economic consequences of foreign investment. The purpose of this paper is to describe the major economic and fiscal impacts of foreign investment, assess the existence of tax problems or issues related to the occurrence of foreign investment, and suggest policy alternatives.

Within this arena, there are two major issues. The first is an equity issue of insuring equal tax treatment, or a "level playing field," for both resident and nonresident investors and businessmen. Although state tax laws cannot discriminate between resident and foreign, or nonresident, investments and activities, the enforcement of nonresident compliance may be more difficult than the enforcement of resident compliance, when the nonresident is also foreign. These difficulties may arise because of distance, absence of sufficient incentives to encourage full reporting by nonresidents, general measurement problems, and the existence of tax avoidance mechanisms. Such enforcement problems can create implicit tax preferences for the nonresident investor or businessman. Examples include the treatment of capital gains from the sale of real estate and gross receipts reporting in the rental market and tour packaging market. This paper will focus on the treatment of capital gains from the sale of real estate, and more broadly, on the taxation of benefits that accrue to nonresident owners of Hawaii real estate.[3]

The second issue deals with use of tax policy to achieve economic goals. Of particular concern is whether foreign acquisitions for speculative purposes exists, whether there are uncompensated costs, or negative externalities, for Hawaii residents, and whether some kind of tax policy change is the appropriate policy measure.

This paper will begin with a background section on foreign investment flows, asset stocks, portfolio distributions, and emerging investor behavior. This will be followed by an analysis of the economic impacts of new capital formation investment and acquisition investment, along with a general discussion of expected fiscal effects. The next section will discuss the equity issues related to current capital gains treatment and will discuss variations of the gains tax and transaction tax alternatives to the gains tax. The final section will discuss speculation and taxes on speculative activity.

FOREIGN INVESTMENT IN HAWAII: A BACKGROUND

Defining Foreign Investment

Because the term "foreign investment" has been used in many different ways, some preliminary definitions will be useful for this discussion. First, foreign investment in the broadest sense includes the acquisition of any domestic asset by a foreign person. These assets include bank deposits, bonds, stocks and real property. In a more narrow sense, foreign investment occurs when a foreign person gains sufficient control over the decisions of a firm. This more narrow definition is termed "foreign direct investment, and the U.S. Department of Commerce uses an arbitrary cutoff point of 10 percent in its classification.[4] In Hawaii, much

1. Estimates of the proportion of total investment funded by external sources vary: Office of State Planning (75%), First Hawaiian Bank (60%). The Office of State Planning (1989) also reports that 57% of the total direct non-real estate investment in 1987 can be attributed to foreign sources. Heller (1973) estimates that 49% of total Japanese investment can be attributed to Japanese capital, with the balance attributed to the U.S. capital market.

2. In 1987, Hawaii GSP was ranked 41 out of the 50 states.

3. See working paper by Mak for discussion of compliance with the transient accommodations tax and the "grossing up" issue. See also the working paper by Fox for discussion of general excise tax assessment on rentals.

4. In particular, a foreign direct investment position exists when a foreign person has direct or indirect ownership of 10 percent or more of the voting securities of an incorporated business, or an equivalent interest in an unincorporated business, or 10 percent or more interest in real property.

of the foreign investment activity has generally taken the form of foreign direct investment.

Second, investment flows represent the annual additions or deletions to asset stocks. Investment positions or stocks, on the other hand, represent the accumulated results of the annual investment flows. While the magnitudes of foreign investment stocks may be of interest in terms of absolute levels, it is the flow of investments which responds to the economic changes which affect their relative rates of return and are therefore of greater interest.

Note that from a national point of view, foreign investment occurs when any foreign person acquires a position in a domestic asset. From a regional point of view, as in the case of Hawaii, an analogous definition of foreign investment implies that foreign investment occurs when any nonresident of the region acquires a position in the region's assets. For the regional economy, then, this is the relevant distinction. While the conceptual distinction is clear, an operational form of the definition is problematic when identification and measurement difficulties are considered. Direct investment, for example, frequently results in income generation for the nonresident owner. For tax purposes, any income, as well as gross receipts, effectively connected with a business located in the state is subject to state taxation. However, corporate transactions and business activities are identified as "foreign" or "domestic," depending on the location of incorporation.[5] This taxonomy can lead to counter-intuitive designations. A corporation based in Hawaii, but incorporated in California, is considered foreign, for example. On the other hand, a Hawaii corporation 10 percent of whose beneficial owners are Japanese, is considered a domestic corporation by the state, but foreign by the U.S. Department of Commerce. Moreover, individuals self-identify their residency through the filing of income tax returns, but there is no similar identification for the filing of gross excise tax payments. Nevertheless, we will continue to use the conceptual definition in discussion. For clarity, "foreign" investment will be used to describe investments by non-U.S. citizens, while investments by persons from other states will be termed "mainland" investment. The combined "foreign" and "mainland" investment will be termed "overseas" or "external" investment. Similar distinctions exist for differentiating related business activity.

Overseas Investment in Hawaii

From an accounting point of view, external investment flows appear in the capital account of a region's balance of payments. Entries in the capital account include direct investment and portfolio investment transactions. The other major account in the balance of payments is the current account. Entries in the current account include payments for transactions in goods and services, as well as transfer payments. Social security and welfare payments are examples of transfer payments.

The capital account is also a residual account. If the current account is balanced, with exports of goods and services equal to imports, no new indebtedness is incurred by residents of either region, and there is no change in the capital account. On the other hand, if the current account is not balanced, say a deficit situation exists, with the region spending more than it receives in export payments, then new indebtedness is incurred by the region for which the deficit exists. The deficit is reflected in the capital account as a net investment inflow of magnitude equal to the amount of the deficit.

Such investment flows conceptually represent a claim by nonresidents on the future production of the economy. The current well being of residents is increased because of the additional goods and services they have at their disposal. However, residents must pay for this increase in current well being by borrowing, in the form of loans or the sale of bonds, or by selling stocks and real property. Note that residents may pay for current consumption by reducing their inventory of assets outside Hawaii. Nonetheless, the asset position of residents is reduced.

An examination of Hawaii's External Account Summary[6] reveals two things. First, the relative importance of service exports, primarily tourism, has increased over time. Second, the occurrence of net investment inflow of external capital has been periodic. These periods occurred in the 1970's and the early 1980's. Hawaii's Net Investment Flows (See Figure 1) illustrate the volume of net investment for the period 1975 to 1985. Positive values represent net outflows of capital and negative values represent net inflows of capital from overseas. Although the External Account Summary has not yet been updated, it seems likely that the current period is also a period of net investment inflow, given the large levels of foreign investment reported for 1986 and 1987.

The series illustrates that Hawaii has generally generated enough income from total exports to cover

5. The State Department of Commerce and Consumer Affairs reports the following breakdown of business corporations, as of June 1989: 6,208 foreign corporations and 39,920 domestic corporations.

6. State Department of Business and Economic Development, Hawaii's Income and Expenditure Accounts, 1958-1985.

Figure 1. Hawaii's Net External Investment
1975-1985

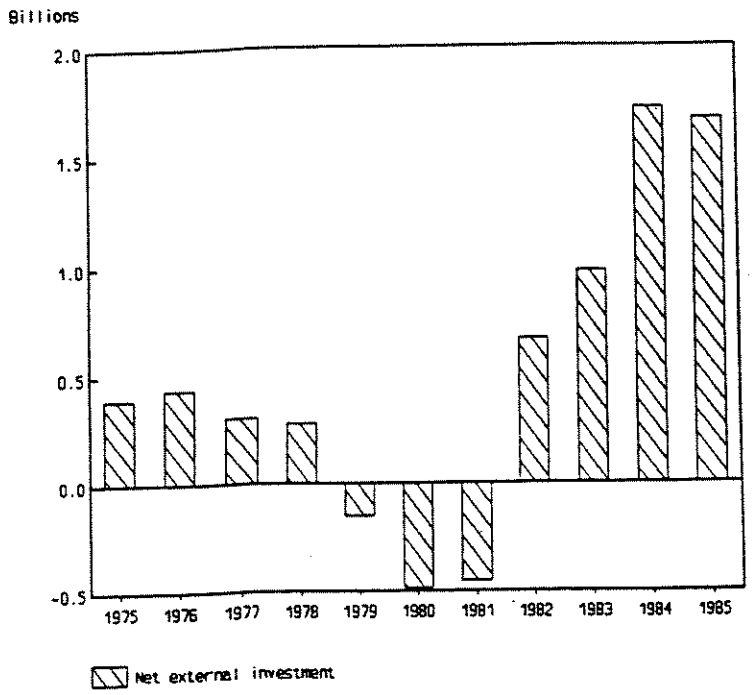


TABLE 1. HAWAII'S INVESTMENT POSITION: SELECTED YEARS, 1960–1985
(millions of current dollars)

Year	Hawaii Assets Overseas	Overseas Assets in Hawaii	Net Asset Position
1960	$ 1170	$ 1123	$ 47
1965	2741	2848	-107
1970	2587	2904	-317
1975	4463	6051	-1588
1976	5836	7313	-1478
1977	7481	9032	-1551
1978	8456	9799	-1342
1979	7859	10187	-2328
1980	7132	9483	-2350
1981	6687	9229	-2542
1982	7904	10433	-2529
1983	10504	13030	-2526
1984	11073	11180	-107
1985	13056	13602	-546

Source: Department of Business and Economic Development, Hawaii's Income and Expenditure Accounts, 1958–1985 provides data on income from overseas investment and payments for investments from overseas. Assets are valued using an asset valuation model A=E/Y, where Y is the average corporate bond yield and E is the income stream. Data for bond yields are extracted from the Economic Report of the President, 1989.

total imports[7] since 1975. For some perspective on the relative size of net investment inflows in the early 1980's, note that the net inflow represented 31 percent of total annual export receipts, and more than 64 percent of merchandise export receipts in 1980.

Table 1 presents estimates[8] of the overseas asset position of Hawaii residents and the overseas investor position in Hawaii assets for selected years. According to these estimates, Hawaii's assets overseas grew from $1.2 billion in 1960 to $13 billion in 1985. Hawaiian assets under overseas investor control increased during the same period from $1.1 billion to $13.6 billion. Moreover, for most of this period, Hawaii was in a net debtor position, sometimes by as much as $2.5 billion. However, a portion of the increase in foreign held assets constitutes an increase in the capital resource base of Hawaii, which enabled the economy and the income of residents to grow more rapidly than might have otherwise occurred.

Reasons for Foreign Direct Investment in Hawaii

Growth in foreign direct investment in the United States and Hawaii can be attributed to several economic conditions. First, the declining value of the dollar encouraged foreign direct investment, because U.S. businesses and real estate became less expensive to acquire, as dollar-denominated selling prices fell in terms of foreign

7. In addition to commodity and service exports, the total export summary includes unilateral transfer payments to Hawaii, while the total import summary includes unilateral transfer payments from Hawaii to nonresidents.

8. No data exists for the asset position of residents overseas and the total asset position of nonresidents in Hawaii. Estimation of these positions uses a methodology similar to Heller (1973).

currency,[9] even though the decline reduced the absolute return on dollar-denominated assets. Second, foreign owned, dollar denominated assets accumulated from continuing trade related surpluses created a large pool of investment funds for foreign investors. Third, in the case of Japan, policies protecting farming interests resulted in inflated real estate prices, as well as limited real estate investment opportunities.[10] The Japanese Ministry of Finance also liberalized the overseas investment constraints it had imposed on Japanese investors. Finally, favorable economic conditions in the U.S. along with the usual attractions of political stability, existing transportation infrastructure, and an educated workforce, continued to attract foreign investment. For Japanese investment in Hawaii, moreover, large numbers of Japanese visitors (20% of arrivals) made hotel development and acquisition attractive. More recent acquisitions of residential and condominium properties also seem to be related to the exposure that increasing Japanese travel to Hawaii brought. Although not as relevant to Hawaii, corporate restructuring also made U.S. company subsidiaries and divisions available for acquisition.

Magnitudes of Foreign Direct Investment in Hawaii

The overwhelming result of research into the magnitudes of both investment flows and positions is that there is no comprehensive data source for foreign direct investment in Hawaii. Separate series are maintained by the U.S. Department of Commerce, the U.S. Department of Agriculture (USDA), and the State of Hawaii Department of Business and Economic Development (DBED).[11] Regular, direct surveys of foreign companies in Hawaii would provide the most accurate information, but are extremely costly. The most recent such study was completed in 1976.[12] The State of Hawaii Department of Commerce and Consumer Affairs also maintains a list of registered foreign and domestic corporations. In addition to data collected by these public agencies, Hawaii-specific data is collected by the accounting firm of Kenneth Leventhal and the Hawaii Visitors Bureau (HVB), a quasi-public agency, and Locations, Inc., a local real estate firm with a research division.[13]

The U.S. Department of Commerce maintains two different series on foreign investment transactions. One series (International Trade Administration) measures foreign direct investment, by state, tabulating data on the number, source and estimated value of transactions. However, it relies heavily on public secondary sources and presents only corporate data. The other series (Bureau of Economic Analysis) represents a compilation of confidential filings based on mandatory reporting requirements with thresholds of $1-5 million. This series contains more comprehensive data for changes in the transaction mix of assets held by foreigners, including bank liabilities, U.S. government securities, other securities, direct investment, including equity inflows, reinvested earnings, and intercompany debt. This series, however, does not report state-by-state data. For 1987, the ITA series estimates foreign direct investment in Hawaii at $402 million, ranked 23 out of the 50 states, the District of Columbia, Guam, Puerto Rico, and the Virgin Islands.

The USDA database is limited to foreign acquisition of agricultural land. The series indicates that 7166 acres in Hawaii were acquired for $9.1 million during 1987.[14]

The International Services Branch of DBED also maintains a foreign direct investment series. Like the ITA series, transaction values are obtained from public sources such as newspapers, magazines and business and trade journals. This listing of foreign direct investment is probably underestimated since small, noncommercial transactions may not

9. Ordway, Miller, and Sklarz (1988) find generally falling average yen-denominated prices for Waikiki condominiums from 1981 through 1986. Joun (1987), on the other hand, found no statistical significance of exchange rates in explaining direct Japanese investment flows in Hawaii. Joun did find that the timing of purchases was significantly related to exchange rate movements.

10. According to the Burns and Meyer report for the National Association of Realtors, the average price of a single family home of 1200 square feet, 45 minutes from the central business district in Tokyo, is $504,000. High capital gains rates also create large disincentives against the realization of gains for owners of Japanese property. For property held less than 5 years, the capital gains rate can amount to 90% for high income individuals. Even if the property is held longer than 5 years, the rate is 20% on the first forty million yen ($320,000 equivalent in 1987) with an high rate of 37.5% on gains in excess of $320,000.

11. The U.S. Department of Agriculture requires reporting on the disposition of agricultural land; the U.S. Department of Commerce requires reporting for direct investment with a 10 percent foreign ownership threshold. The State of Hawaii has no reporting requirements or registration process, other than the registration of corporations, by place of incorporation.

12. Department of Business and Economic Development, Foreign Investment in Hawaii, 1979.

13. The firm collects and analyzes conveyance data on real estate transactions.

14. U.S. Department of Agriculture, Foreign Ownership of U.S. Agricultural Land through December 31, 1987, Table 18.

be reported in these secondary sources. Despite the problems with this series, it is the only extensive time series for foreign direct investment in Hawaii. For 1987, the DBED series estimates foreign direct investment flows at $1.2 billion.[15] Combined with the results of an inventory of real estate transactions based on conveyance data, which includes residential sales, this $1.2 billion has been adjusted upward to $1.9 billion.[16]

Estimates of Japanese investment in the United States, and in Hawaii in particular, are also compiled by the accounting firm of Kenneth Leventhal. In 1987, direct Japanese investment in Hawaii amounted to $3.3 billion, approximately 25% of all direct Japanese investment in the U.S. recorded by that firm.

A simple comparison of the numbers reveals great disparity in the value ascribed to foreign direct investment in Hawaii. Table 2 presents estimated investment flows for the years 1985 to 1988, as recorded by the different agencies. Note that the Leventhal data indicate a significantly higher level of Japanese investment than does the DBED data. In fact, the Leventhal data indicate more Japanese investment than all of the foreign investment reported by DBED. The ITA data, on the other hand, appears to be extremely underreported, relative to both the DBED and Leventhal data. These differences can be attributed to a lack of consistency in recording methods, the use of secondary sources, which can lead to sample selection bias, the aggregation of new capital formation with takeover acquisition, and the recordation of incomplete multiyear investments in the year of announcement.

Alternative measures also exist for the investment positions of foreigners in Hawaii. Cumulative measures put total investment at $4.7 billion (DBED, 1987) and $26.3 billion (Leventhal, 1988) through the end of 1987. Table 3 reports estimates of the gross book value of foreign controlled assets for various years. This measure is smaller than those indicated by the investment data, as book value is conservatively reported. To place these numbers in perspective, it would be useful to determine the proportion of total assets that these foreign controlled assets represent. However, in the absence of data on total assets of all Hawaiian firms, two proxy measures might be used. The first proxy is foreign employment as a proportion of total employment.[17] Using this proxy, foreign controlled assets amount to 7.8 percent of total assets in 1986. The second proxy uses the gross book value reported in Table 3

15. This series has not been updated since 1987.

16. Hawaii Real Estate Center, A Preliminary Statistical Evaluation of Japanese Investment in Hawaii Real Estate: January 1987 to March 1988. This study reports only resale or acquisition transactions, and omits the value of development or construction investment activity.

17. There is no comparable data for total assets of Hawaiian firms. Heller (1973) reports that assets controlled by Japanese business interests amounted to only 3.3 percent of the corporate assets in Hawaii, based on 1970 data, while employment amounted to 1.3 percent of total employment.

TABLE 2. FOREIGN INVESTMENT FLOWS IN HAWAII–VARIOUS SOURCES, SELECTED YEARS

	1985	1986	1987	1988
All Foreign Investment ($ in millions, by source)				
DBED	140	1,131	1,210	n.a.
International Trade Admin.			402	
Japanese Investment ($ in millions, by source)				
DBED	120	1,087	1,012	n.a.
Leventhal	600	1,900	3,300	1,830

Sources: Department of Business and Economic Development, Listing of Foreign Investment in Hawaii, Dec. 1987.

U.S. Department of Commerce, International Trade Administration, Foreign Direct Investment in the United States 1987 Transactions, Dec. 1988.

Kenneth Leventhal & Company, Japanese Investment in U.S. Real Estate: A Study by Kenneth Leventhal and Company, April 1988, February 1989.

TABLE 3. FOREIGN DIRECT INVESTMENT IN HAWAII

(For affiliates of U.S. Business enterprises owned 10 percent or more, by a foreign person)

	1977[a]	1983[b]	1984[b]	1985[b]	1986[b]
Gross Book Value Property, Plant, Equipment ($ in millions)	888	1599	1692	1777	2013
Employment	12661	16251	16548	18680	18851

Source: a) Department of Business and Economic Development (formerly Department of Planning and Economic Development), Foreign Investment in Hawaii, Dec. 1979.

b) U.S. Department of Commerce, Bureau of Economic Analysis, Survey of Current Business, Oct. 1986, May 1987, May 1988.

as a proportion of total assets of Hawaii firms, where assets of domestic corporations are those reported to the Department of Taxation. Using this proxy, foreign controlled assets amount to 11 percent of total assets in 1985. By these measures, the proportion of assets controlled are significantly positive, but not large.

Despite the variety of measures, certain qualitative results are evident. First, of all foreign investors, Japan has the largest investment position in Hawaii (See Table 4). Through 1987, Japanese investments amounted to 80 percent of accumulated investment by all foreign countries. Second, of all investment types, investment in hotel and tourism related properties have dominated in terms of value, despite year to year variation. Indeed, of the roughly 70,000 hotel and condominium units that comprised the visitor plant in 1988, almost 30 percent were owned by Japanese investors.[18]

Third, the level of non-hotel investment is increasing, with some indication of shifts in the composition of foreign direct investment. Both Leventhal (1988) and Burns and Meyer (1988) suggest increasing diversification into residences and office properties,[19] although overall investment by value is still heavily dominated by hotel property investment. For acquisition type investments, these results are supported by the Hawaii Real Estate Center study on Japanese investment in Hawaiian real estate: 75 percent of the transactions and 62 percent of the value of transactions for the period from January 1987 to March 1988 corresponded to the sale of residences, residential land, and condominiums (See Table 5).

Burns and Meyer (1988) suggest that this shift in composition is consistent with a "learning by doing" model of investor behavior. Initially, foreign investors select fully tenanted, high grade, or "signature" properties, which represent low risk investments. Over time, as investors acquire information from experience in the market, they become more like domestic investors, diversifying into different types of real estate as well as investing in secondary locations. In addition, with more information, foreign investors may develop vertically integrated real estate services, venturing into both construction, development, brokerage services and property management.[20]

18. Japanese investors owned 19,276 units out of a total inventory of 69,012 units (Data Book 1988, Tables 697, 718).

19. Mitsui and Hasegawa Komuten each own office buildings in the downtown office market, currently a tight market with 4.6 million square feet of office space. In the Kapiolani (1 million square feet) and the Waikiki (.5 million square feet) office markets, Japanese investors own roughly 24% and 28% of existing inventory (Burns and Meyer, 1988).

20. The report cites Hasegawa Komuten with its realty arm, Haseko Realty, and Mitsui with its brokerage, Rehouse, as examples of this kind of vertical integration.

TABLE 4. FOREIGN INVESTMENTS IN HAWAII, BY TYPE OF INVESTMENT - PRE 1970 TO 1987

	Pre-1970 through 1987		All Countries		
Investment Type	All Countries	Japanese Investments	1985	1986	1987
All Types ($ in thousands)	4,684,423	3,733,197	139,724	1,130,809	1,211,225
Percent of Total					
Hotels	48.2%	57.1%	55.6%	79.1%	56.8%
Condominiums	12.6%	9.5%	4.9%	0.3%	7.5%
Golf Courses	2.3%	2.9%	0.0%	3.6%	0.0%
Agriculture	0.7%	0.0%	0.0%	2.7%	0.1%
Other Real Estate	27.4%	25.2%	35.8%	11.7%	29.5%
Retailing/ Wholesaling	1.4%	1.6%	2.1%	0.2%	0.0%
Restaurants	1.0%	1.2%	0.0%	2.2%	1.0%
Manufacturing	1.0%	0.9%	0.0%	0.2%	2.0%
Banking	0.5%	0.4%	0.0%	0.0%	0.0%
Science & Ed.	1.8%	0.2%	0.0%	0.0%	2.8%
Miscellaneous	3.0%	1.1%	1.6%	0.0%	0.3%

Source: Department of Business and Economic Development, International Services Branch, "A Listing of Foreign Investment in Hawaii," December 1987.

TABLE 5. COMPOSITION OF JAPANESE REAL ESTATE TRANSACTIONS - JANUARY 1987 TO MARCH 1988

Investment Type	% of Value	% of Transactions
Resort Hotel	12.78	8.09
Apartment Hotel	29.86	53.11
Residences/ Residential Land	32.66	21.90
Commercial	14.71	9.89
Industrial	2.24	0.51
Agriculture	4.27	5.00
Conservation	3.09	0.64
Unknown	0.38	0.83

Source: Hawaii Office of State Planning, "Foreign Investment in Hawaii: An Interim Report," Issues in Government, Working Paper Series, February 1989

Data collected by the Department of Business and Economic Development are not disaggregated and inclusive enough to test the hypothesis of increased diversification in composition, but the data do provide some insights into the pattern of investment (See Figures 2,3). First, overall investment levels appear to be cyclical, with hotel investment and condominium investment occurring in spurts. Second, the level of non-hotel investments is increasing. Third, there is year to year differences in the composition of investment, by proportion, but there is no discernable trend.

Indeed, foreign residential investments in 1987 and 1988 may have simply resulted from shifts out of the U.S. stock market. General foreign investment data in the U.S. for 1988 reveal an increase in the rates of foreign direct investment and decreases in the rate of investment in U.S. non-government securities.[21] More recently, data collected by Locations, Inc., suggest that Japanese buying of single family home in the Waialae-Kahala area peaked in the third quarter of 1987, with average monthly transactions through May of 1989 only one third of the 1987 high.[22]

Thus, while existing data is not complete enough to determine the existence of trends in the allocation decision of investors, there is sufficient data to support the hypothesis that foreign investors behave like any other investor as they acquire information about investment markets and opportunities.

Figure 2. Composition of Foreign Real Estate Investment
1979 to 1987

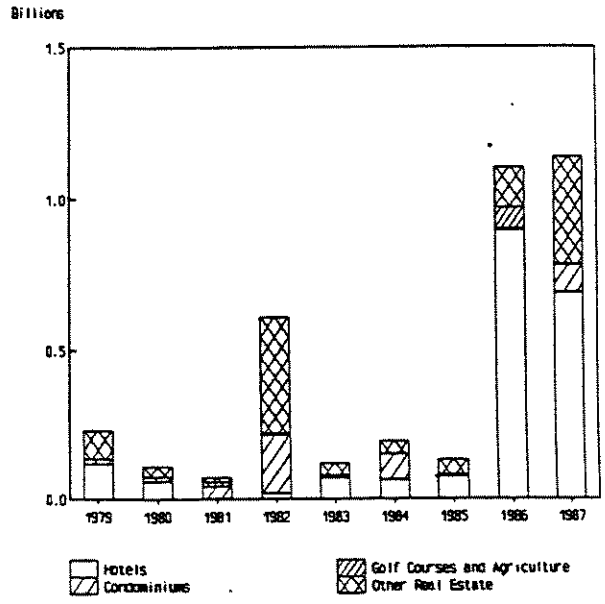
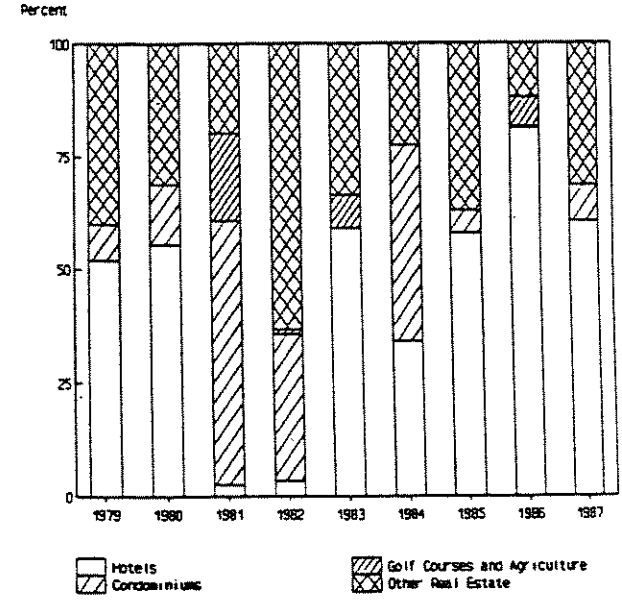


Figure 3. Composition of Foreign Real Estate Investment
1979 to 1987



21. U.S. Department of Commerce, "U.S. International Transactions, Fourth Quarter and Year 1988," Survey of Current Business, March 1989.

22. Locations, Inc., Hawaii Real Estate Indicators, 3rd Quarter, 1989.

THE ECONOMIC AND FISCAL EFFECTS OF FOREIGN INVESTMENT

New Capital Formation

This section focuses on the effects of external investment in the market for investment funds and implications for the state's economy (Heller, 1973). As before, the analysis distinguishes between investment on one hand and capital on the other: investment is a flow measured over some time period; capital is a stock and represents the accumulated effects of previous investment flows. Capital resources, moreover, are the physical plant, equipment, and structures used in the production of goods and services. New investment consequently represents new additions to the capital plant. In contrast, the resale of existing assets simply represents a transfer of ownership with no new capital formation. External investment may take either one of these two forms, with potentially different effects on the welfare of the host region.

In a closed capital market, the level of investment in Hawaii would be determined by the local supply of investment funds, provided through savings, and the demand for investment funds. Suppose now that the state has access to broad capital markets, such as the financial markets of New York or Tokyo. The Hawaii supply and demand for investment funds will have no effect on the interest rates set in these markets, because the volume of Hawaii savings and investment flows is relatively small. In particular, the cost of new investment, whether initiated by a resident or a nonresident, will be the interest rate set in these broader markets. Indeed, these large market interest rates are likely to be lower than the rates which would have prevailed in a closed Hawaiian capital market. This is especially the case when the local pool of investment funds is limited, but demand for investment funds is growing. Because of the lower cost of capital, more investment projects become viable and the quantity of investment increases. The net effect of the infusion of external financial capital, is an increase in the capital resource base of the state.

The increased capital resource base increases the total income that can be derived from this resource base. Some of the income now flows to nonresidents in payment for the use of their investment funds or as a direct return on their capital investment. However, local residents gain, because the gain in the region's income attributable to the new investment is shared between the nonresident owners of capital and resident labor and landowners. Landowners will be better off as new outside firms have to lease or buy land, with a consequent increase in the price of land. This benefit not only accrues to those landowners who actually leased or sold their land, but to all other landowners who can now ask for a higher price or rent on their property. Labor will be better off as the formation of new firms increases the demand for local labor and the going wage rate.[23] There is also some redistribution of income away from resident owners of capital, who now receive a lower rate of return, to resident labor and landowners, who now earn higher wages and rents.[24]

Government revenues should also increase as total income, total sales and property values increase. Indeed, macroeconomic models with Keynesian-type multipliers indicate that for every dollar of investment in Hawaii, resident or nonresident, an additional $.89 of income is generated,[25] as the initial investment dollar generates subsequent rounds of spending in the economy. New income is generated for both residents and nonresidents, and new investment results in a larger tax base. Not only does the income tax base increase, but any sales tax base also increases as higher income levels generate higher levels of retail transactions. To the extent that nonresident business income is taxed, moreover, the state is able to export taxes.[26] For Hawaii, heavy investment in the tourism industry has also yielded tax export

23. In the limit, landholders gain, but labor may make no average gains. The increased demand for labor puts upward pressure on wage rates. However, as wages being to rise, inmigration occurs and labor supply increases, counteracting the upward wage pressures caused by the increased demand. The inmigration of labor also increases the marginal product of capital, leading to another round of capital investment and a new increase in the demand for labor. However, the constraining factor is land. Increases in land prices will lower any real wage gains and inmigration will halt once a new equilibrium is attained.

24. Heller (1973) discusses a case in which the income effect for residents is not predictable. If the nonresident investor introduces a new technology that increases the interest rate elasticity of the marginal product of capital, then there is some gain and some loss with an indeterminate net effect, a priori. However, if the industry is controlled by a discriminating monopolist, then total income is greater than is obtainable under either one of the technologies.

25. First Hawaiian Bank, Economic Indicators, January/February 1987; Ghali, Tourism and Regional Growth, 1977.

26. In 1986, nonresident individual income tax filers accounted for 1.6% of individual taxable income; in 1985, foreign corporations accounted for 30.6% of corporate business receipts and just over one third of all corporate taxable income (Department of Taxation, Hawaii Income Patterns Individuals 1986, Hawaii Income Patterns, Corporations, Proprietorships and Partnerships 1985).

benefits from the retail purchases of tourists. Now, the new investment may require additional government services in the form of infrastructure or protection. Since the amount of the tax imposed on the income, retail transactions and gains in property value generated by the nonresident investment may not be large enough to cover the costs of providing these additional services, the net fiscal effect on the state may be either negative or positive. Generally, though, the case for new external investment is strong.

Acquisition Investment

The existence of net benefits for the case of takeover investment is not as clear. Whether the region is better off or worse off depends upon what the seller does with the proceeds of the sale. Consider each of the following possibilities, where the seller is a resident and the buyer is a nonresident:

1) If the resident reinvests in the local economy, then the results are identical to the case of new external capital investment. The total income of both residents and nonresidents increase and the region enjoys a net benefit.

2) If the resident invests outside the local economy, then the outflow of earnings on the nonresident investment is probably offset by the income stream which the resident receives from the new outside investment. Presumably this income flow is at least as great as the earnings the resident might have received from his former local asset. However, the gain or loss to the region depends on both the riskiness and rate of return of the new outside investment.

3) If the resident uses the funds for consumption inside the local economy, then the outflow of earnings cannot be counterbalanced by the inflow of earnings from outside investment. The increase in consumption will generate additional economic activity, through some multiplier effects. However, current consumption spending occurs at the expense of future consumption, and there will be a net outflow of income to the nonresident investor in the future. In general, the outcome is uncertain, depending on the nature of the consumption and the size of the relative multiplier effects.

4) If the resident uses the funds for consumption outside the local economy, then the welfare effects for the region are clearly negative, although not for the seller of the asset. Earnings on the asset sold to outside interests now accrue to nonresidents, with no offsetting flow of earnings by residents from outside investments. Moreover, in this case, there are no multiplier effects generated by additional consumption within the economy.

5) If the resident hoards the funds, neither investing nor consuming, then the net effect is the same as in case 4. There are no welfare benefits for the region.

If the capital asset is subsequently sold by a nonresident to another nonresident, there are no further economic effects that are relevant to the region as long as there is no difference in the behavior of the nonresident owners.

In conclusion, the region will be better off if new outside investment funds are put into new capital formation in the region. Whether the investment is undertaken by a resident or nonresident is irrelevant. In other cases, however, residents will be no better nor worse off with the transfer of assets. In the case of complete earnings outflow with no offsetting local consumption, regional welfare decreases.

Tax Consequences of Acquisition Investment

An issue of major consequence derives from the effectively different manner in which the income of residents and foreign nonresidents can be taxed. Gains from the disposition of Hawaii real property represent a case in point. Although current income tax law applies equally to both resident and nonresident investors, foreign investors can use tax avoidance mechanisms over which the state has little control. The existence and use of these mechanisms effectively provides preferential treatment for foreign investors. A review of current tax treatment of capital gains reveals the intransigence of the problem.

Gains realized from the sale of Hawaii real estate are treated as income, subject to Hawaii income tax laws. Regardless of whether the seller is a resident or a nonresident, the seller incurs a tax liability to the state. If the seller is a resident of another state, he typically incurs a tax liability there, which is usually offset by a credit for taxes paid to Hawaii. The same tax rules apply if the seller is foreign person. However, compliance with the law can be problematical and the problem compounded further if the buyer is also a foreigner.

At the Federal level, resident aliens[27] are taxed as U.S. taxpayers,

27. Various tests apply; an alien can also elect to be treated as a resident for income tax purposes under certain tax treaties.

with income from all sources subject to U.S. income tax laws. Nonresident aliens are subject to U.S. income tax on income effectively connected with a U.S. trade or business or through a withholding on returns from certain investments.

Although capital gains for nonresident aliens on other assets such as stocks and bonds are generally not subject to U.S. income tax laws, the 1980 Foreign Investment in Real Property Tax Act (FIRPTA) was adopted to tax all gains of nonresident aliens and foreign corporations on the disposition of U.S. real property interests, including interests in real property and interests in U.S. real property holding corporations. FIRPTA treats the gains as if they are effectively connected with a U.S. trade or business. The intent of the act was to remove certain tax loopholes foreign investors could use to avoid the U.S. capital gains tax.

Briefly, these included 1) the use of installment sales with payments occurring in a later year when the investor was not actively engaged in a U.S. business; 2) the use of like-kind exchanges of foreign property for domestic property, which could later be sold with no U.S. tax; 3) the sale of real property coupled with liquidation within the following year; 4) the sale of foreign real property holding company shares not subject to U.S. gains tax; 5) the use of tax treaty elections which provide for treatment as a domestic corporation and tax benefits in the year of election, but which also provide for tax avoidance on gains in a later year when disposition occurs and the election is not made. In addition, the tax codes of nearly all other industrial countries generally recognized and taxed gains realized by U.S. investors on the sale of real property.

FIRPTA clearly establishes a precedent for the taxation of gains from the sale of real property interests held by alien nonresidents. However, enforcement of the law has been difficult. The 1980 version of the law depended on comprehensive reporting requirements, disclosing ownership, through all tiers, back to the ultimate beneficial owners. However, deadlines for compliance had been postponed by the Internal Revenue Service, pending the issuance of regulations as late as 1984.

Instead, the 1984 Tax Reform Act replaced virtually all FIRPTA reporting requirements with withholding.[28] As of 1985, FIRPTA requires the buyer to withhold 10 percent of the gross purchase price and send it to the IRS, unless the seller claims an exception. If the seller is not a foreign person he can eliminate the withholding by furnishing a non-foreign affidavit. If the seller is foreign but 10 percent of the purchase price would exceed the actual tax due on the sale, the seller can obtain a qualifying statement from the IRS reducing or eliminating the withholding. Presumably, if there is no follow up to determine the actual tax due, and if the actual tax exceeds the 10 percent withholding, then the government receives at least the amount of the withholding. If the buyer intends to use the property as a residence and the sale price is $300,000 or less, then the transaction is exempt from withholding.

There are a number of points to make about the relevance of FIRPTA for state taxes on gains from the sale of property by foreigners. First, only the federal government may discriminate between sales involving domestic persons and sales involving foreign persons. Under the Constitution, the right to regulate or restrict commerce with foreign nations and the right to regulate interstate commerce is reserved to the U.S. Congress (Art. 1, Sec. 8-3).

Second, even at the federal level, foreign investors can still avoid or defer the gains tax through the use of foreign real estate holding companies and exchange of like-kind properties within the U.S. Under FIRPTA, the sale of shares in a foreign real property holding company is a tax free transaction for a foreign seller, but a step-up in basis is denied the buyer. In the event the buyer liquidates the corporation, the buyer essentially bears the cost of the tax. Presumably, this arrangement will result in price discounting to reflect the amount of the eventual tax. Note that as long as shares are resold with no liquidation, no tax liability is incurred which might reflect any underlying increase in property value.

Finally, it is worthwhile noting that FIRPTA withholding has resulted in a de facto evolution of the tax into a kind of transaction tax, corresponding to 10 percent of the selling price. This probably reflects tax avoidance behavior and compliance problems and as well as the information difficulties in establishing the occurrence of a taxable transaction.

Implications for the Implementation of the Ability-To-Pay Principle

To discuss the equity implications of the imperfect capture of capital gains taxes, it is useful to analyze the presumption that income should represent the tax basis for economic capacity, or ability-to-pay. Taxing authorities have two options for such a basis: income flows and wealth stocks. To be comprehensive, the

28. The only remaining reporting requirement existed for the first ownership tier of real estate by foreign persons not engaged in U.S. business. It was subsequently eliminated by regulations.

income tax base should include income flows from all sources which represent accretions to wealth. The base should include money income derived from the earnings of labor and capital, as well as the appreciation of assets, regardless of realization.[29] If the income tax base is complete, then taxation of wealth is an additional taxation of economic capacity, because wealth taxes are equivalent to a tax on the capital income derived from wealth.

U.S. and Hawaii income taxes, however, are far from comprehensive, with some forms of capital income excluded from the base. In particular, the exclusion of unrealized capital gains from the base violates the accretion principle, which is concerned with periodic changes in economic capacity. If gains are realized, then a tax liability is incurred, but income is recognized in a "lumpy" fashion. Moreover, the amount of the gain, or accretion, has essentially received an interest free loan in the amount of the tax deferral. Implementation of the accretion principle, however, is probably not feasible because of the immense measurement costs of annually valuing all assets.

Instead, all accrued unrealized gains are taxed at death and only one measurement is required. Thus, the rationale for the estate or inheritance tax is:

> "to correct the income tax and fully implement the accretion view of income by including the receipt of bequests as part of the tax payers income under the income tax."[30]

The estate or inheritance tax represents a "catch up" tax on previous unrealized accretions.

Foreign persons, however, are not subject to any taxes of this type. Of significance for this discussion is the result that the value of accretions, both realized and unrealized, may escape taxation altogether. This is the equity issue for which some alternatives are discussed below.

Alternatives/Supplements to the Gains Tax: Transfer Taxes

The Hawaii Conveyance Tax, for example, is a real estate tax assessed at the time that title to real property is transferred. It is a nominal transaction tax assessed on the value of the property, measured by the amount of the sale, separate from the general property tax and gains tax. Forty states have some type of property transfer tax (See Table 6), with the realty transfer tax the most prevalent.[31]

A conveyance related tax or transfer tax surcharge has the advantage of administrative convenience: the tax assessment mechanism is already in place, and the occasion of the taxable event is identifiable. For this discussion, however, such a tax can be criticized on a number of bases, the most relevant of which is the ability of foreign owners of real property to avoid the transfer tax by holding the property in a corporation, with sale of the shares exempt from any transaction tax.

Other points include:

1) A larger portion of the tax borne by buyers will probably fall on residents. The proportion of the tax effectively exported depends on the relative elasticities of supply and demand for those real properties purchased by nonresidents. Generally, the successful export of this tax requires that nonresident demand be relatively inelastic. However, nonresident demand, especially investment demand for real property, is probably more elastic than resident demand, relative to supply.

2) Like any other transaction tax, a transfer tax is regressive and especially onerous for residential transfers. Because households tend to spend a smaller share of their income on housing as their income increases, the effective burden of such a tax on a low income household is higher than that for a high income household, even accounting for the more frequent household moves of the latter.[32]

3) A transfer tax is one of several costs that must be paid when ownership of property is officially transferred. Regardless of whether the tax liability falls on the buyer or the seller, the tax will increase the price of housing, with relative burdens depending on supply and

29. Income can also be imputed to assets which are traded very infrequently, such as paintings, and to the value of owner occupied homes.

30. Musgrave (1980), p. 497.

31. There are three basic types of property transfer taxes. First, a realty transfer tax is assessed on the purchase price of the property, generally expressed as a percent of the purchase price or a dollar amount per $1,000 of value. In Hawaii, the conveyance tax is $.05 per $100 or .05 percent. Second, a documentation stamp or recordation tax must be paid in order to have proper recordation of property transfer. The tax rate is usually expressed as a dollar amount per $1,000 of value, but is sometimes a nominal amount unrelated to the value. Third, a mortgage tax is assessed on the amount of the mortgage secured to purchase real property, typically falling on the party obtaining the mortgage. A tax on real estate commissions has been identified as a fourth type of property transfer tax. It is different from the others, however, because the tax is only incurred if the services of a real estate agent are used in the transaction.

32. The Price Waterhouse report for the National Association of Realtors (1988) estimates the effective tax rate under a 2 percent transfer tax regime on median house values, by income classes, ranging from 9.8% for the $7,000-$10,000 income class to 2.9% for the $50,000-$75,000 income class.

TABLE 6. REAL ESTATE TRANSFER TAX RATES, 1988 - (Flat amounts of tax expressed in dollars)

State	Realty Transfer Tax	Document Stamp Tax	Mortgage Tax	State	Realty Transfer Tax	Document Stamp Tax	Mortgage Tax
Alabama	--	0.10	0.15	Montana	--	--	--
Alaska	--	--	--	Nebraska	--	0.15	--
Arizona	--	$6.00	--	Nevada	0.11	--	--
Arkansas	0.22	--	--	New Hampshire	0.70	--	--
California	--	0.50	--	New Jersey	0.35	--	--
Colorado	0.01	--	--	New Mexico	--	--	--
Connecticut	0.56	--	--	New York	1.40	--	1.50
Delaware	3.00	$3.00	--	North Carolina	1.10	--	--
Dist. of Columbia	1.00	1.00	--	North Dakota	--	0.25	--
Florida	--	0.55	0.15	Ohio	0.40	$3.50	--
Georgia	--	$2.00	0.30	Oklahoma	0.15	$5.00	0.10
Hawaii*	0.05	--	--	Oregon	0.10	--	--
Idaho	--	--	--	Pennsylvania	5.07	$5.00	--
Illinois	0.55	--	--	Rhode Island	0.22	$6.15	$19.45
Indiana	--	--	--	South Carolina	0.33	--	--
Iowa	0.11	--	--	South Dakota	0.10	$2.00	--
Kansas	--	--	0.25	Tennessee	0.33	--	0.115
Kentucky	0.10	--	--	Texas	--	--	--
Louisiana	--	$300.00	--	Utah	--	--	--
Maine	0.44	$5.00	--	Vermont	0.50	--	--
Maryland	2.00	0.50	--	Virginia	--	0.30	0.20
Massachusetts	2.228	--	--	Washington	1.59	--	--
Michigan	0.15	$4.00	--	West Virginia	0.33	--	--
Minnesota	--	0.33	0.23	Wisconsin	0.30	$2.00	--
Mississippi	--	--	--	Wyoming	--	--	--
Missouri	--	--	--				

* State has a sales tax on commissions

Source: National Association of Realtors, Commerce Clearing House, State Tax Handbook, Advisory Commission on Intergovernmental Relations, Significant Features of Fiscal Federalism, 1988

demand elasticities.

4) Transfer taxes paid by residents cannot be exported, because such taxes are not deductible for Federal income tax purposes.

5) Taxpayer activity undertaken to avoid an onerous transfer tax may result in measurement distortions of property tax bases.[33]

Extension of the existing General Excise Tax to real estate transactions is another tax option for capturing the wealth imbedded in property. The extension of the GET, has the advantage of administrative convenience, although not to the same extent as the Conveyance Tax. Collection mechanisms exist, but primarily rely on self reporting, another compliance problem. The tax might be levied only on the transfer of real property used in the operation of a business and be interpreted as a kind of business privilege tax, possibly taxed at the 0.5 percent rate. In particular, the transfer of commercial, office, or hotel property would be subject to the tax. This tax would also escape the regressivity feature of the property transfer tax. Under this interpretation, however, transfers of leased or rented housing would be subject to the tax, but transfers of personal residences would not. The tax, at the 0.5 percent rate, would also have the effect of giving preferential treatment to business ownership of property compared to business leasing, currently taxed at the 4.0 percent rate. More to the point of the discussion, however, the tax can still be avoided through the transfer of shares in a real property holding corporation.

Tax on Gains from Real Property Transfers

A tax on the gain from real property transfers represents a combination of the transfer and gains

33. Other drawbacks of a real estate transfer tax are concerned with its presumed revenue raising ability. Because the sale of real estate is one of the more volatile types of transactions, revenues raised through real estate transfer taxes tend to be relatively unstable. In Hawaii, the short run income elasticity of conveyance tax revenues has varied from -3.2 to +7.7 in the years from 1973 to 1988.

tax. Such a tax is occasioned by a transfer or transaction, but is a gains tax computed as a percentage of the gain from holding real property. Although the underlying basis for the tax is property, the tax does not occur periodically, in contrast to real property taxes. The tax also contrasts with usual income tax treatment of capital gains because it is assessed at the point of transfer.

The gains tax can have any number of modifying features. The tax can be assessed at a flat rate or at nominally progressive rates, with higher rates applying to larger gains. The tax can also be structured to be graduated with higher rates applying to shorter holding periods. Transfer thresholds can apply in order to screen "small" sales. Various exemptions can exist for the transfer of personal residences and for transfers by governmental bodies or charitable agencies. The scope of the tax can also be broad enough to include the transfer of any controlling interest (50% or more) in any entity that owns real estate.

The purpose of such a gains tax has differed in those states in which it is law. In Vermont and Washington D.C. (1976,1977), the tax was enacted to curb "speculative" activities. In New York state (1983), the tax was enacted to raise revenues. The Arthur D. Little (1968) study on the structure of Hawaii taxes suggested a similar tax, with an extension of the GET to cover capital gains from the sale of real property.

Substantive provisions of the New York State gains tax, for example, include the following:

a) 10 percent tax on the gain realized by the transferor on the transfer of interests in real property within the state;

b) a $1,000,000 selling price threshold;

c) coverage of all transfers of real property, including options coupled with the right of use and occupancy, corporation liquidation, certain leases of length 50 years or more where capital improvements can be made for the benefit of the lessee;

d) coverage of transfers of controlling interests in corporations, or any other entity that owns real estate;

e) provision for aggregation of transfers intended to prevent the transfer of undivided interest for the purpose of falling below the threshold;

f) exemption of the seller's residence, which need not be the principal residence; and exemption of transfers by government bodies and charitable organizations.

Payment is due in full on the date of the transfer, with some provisions for deferral. Pre-transfer audit procedures exist which facilitate computation of the tax prior to the date of transfer, and transfer cannot be recorded without the appropriate tax department notice of tentative assessment. Compliance incentives are also imposed on the buyer, who can become personally liable for the tax under certain conditions. The Tax Commissioner is significantly given very broad interpretive powers to determine whether the structure of any transfer constitutes avoidance or evasion of the tax.

Despite the comprehensive scope of the capital gains transfer tax and the broad powers vested in the taxing authority, certain mechanisms still exist for legal avoidance of the tax. First, foreigners investing in real property may still choose to make their investments through foreign corporations. The state may not have the jurisdiction to impose the tax or the reporting requirements on nonresident aliens owning stock in foreign corporations. Second, avoidance of the tax may be possible through multiple-tier corporate or trust structures. Precedence exists for such legal avoidance when there is a proper business purpose for multiple tier structures.[34]

Wealth Taxes

An important conclusion from the discussion above is that taxes on income flows, under the accretion principle, and taxes on transfers may fail to capture a portion of the underlying economic capacity or surplus when foreign persons are involved. A wealth tax is, then, the remaining alternative.

The taxation of wealth can be rationalized under two principles: the benefit principle and the ability-to-pay principle. The benefit principle argues that public services, such as protection and infrastructure, increase the value of real properties. This points to taxes falling on real property. The ability-to-pay, or economic capacity, principle argues that persons with equal economic capacity should be taxed equally, while persons with different economic capacity should be taxed differently. This points to taxes falling on the net worth of individuals.

A wealth tax based on economic capacity is difficult to fully implement.

34. The $1 million threshold for classification of sales subject to the gains tax has been challenged on the constitutional grounds of "equal protection" under the law. Despite the claims that the threshold amount bears no rational relationship to the amount of the actual gain, New York state courts upheld the tax law.

In theory, it should fall on individuals, it should be assessed against net worth, and it should include all assets, including tangibles and intangibles. Because of the measurement costs, use of the income tax alternative has been the historical result in the U.S.

Nevertheless, wealth taxation based on economic capacity is appropriate when the income tax structure provides only incomplete coverage of capital income, a possibility this paper has indicated. Real property, in this case, is the most visible and easily taxed measure of economic capacity, although exclusive use of real property may be difficult to rationalize from the economic capacity perspective.

Consideration of changes in property tax policy, however, is outside the scope of this paper and discussed elsewhere.[35] It is sufficient to note that any such policy change will require an assessment of the distribution of the tax burden and possible long run effects. It will require difficult choices between shifting tax burdens outside the jurisdiction and the longer term possibility of capital flight. It will require choices between the relative burden borne by owner occupants and renters of residential housing. It will require choices between the relative burden borne by the aged or low income households and all other households.

SPECULATION AND TAXES

Extensive foreign direct investment in residential and hotel properties, and the media and public attention which have accompanied this activity, has raised the question of whether foreign speculation in real property exists and whether such speculation should be discouraged through tax policy initiatives. Because there is no economic reason to evaluate the speculative behavior of foreign investors any differently than the speculative behavior of resident investors,[36] speculative activity itself is the appropriate subject of analysis. Indeed, casual evidence suggests that some foreign investors do speculate, while other foreign investors simply buy and hold for their own use. This paper will review previous analyses of the economic effects of speculation in real property.[37]

Defining speculation

Economists define speculation to be the activity of buying, storing and selling certain commodities for profit. Typically, these commodities include agricultural commodities and foreign exchange, but the application can be extended to real estate. In the latter case, profit takes the form of capital gains. The analysis of speculation in real estate can be more complex than the analysis of speculation in the commodities and foreign exchange, because real estate services can be used while being held for resale. Nevertheless, the purely speculative portion of buying, holding and selling can be separated from other property related activities in which the speculator is engaged, for the purpose of discussion.

Economic functions performed by speculators

A key feature underlying buying and selling decisions is the price risk involved in the timing of transactions. By purchasing and holding property in inventory, pure speculators function as specialists in risk taking. Their activities shift risk away from present owners who wish to liquidate and future owners who prefer to delay purchase. In performing this activity, speculators incur the direct cost of interim financing, maintenance and taxes as well. A direct result of rational speculative behavior is a decrease in the volatility of prices[38] and reduction of risk faced by buyers and sellers in the market.

Speculators can engage in other productive activities associated with the property they have acquired.[39] These include: 1) repair, rehabilitation, or new construction; 2) rental; 3) forecasting, appraisal, and advertising; 4) property assembly; 5) financing. To the extent that speculators engage in these additional activities, they perform services of value to the market and increase economic activity in related industries.

Welfare effects of speculation

Fundamental to the notion of economic exchange is the presumption that two parties will not engage in trade unless the outcome of the trade is mutually beneficial. Thus, direct exchanges involving speculators and other buyers or sellers of property must represent mutually beneficial exchanges with increases in welfare to both. Of course, the measure of

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35. See section on property taxes in ACIR working paper.

36. This assumes that there is otherwise like treatment of both foreign and resident speculative behavior. For the purposes of this paper, the assumption amounts to like tax treatment.

37. Rose (1978), Technical Aspects of the District's Tax System; Rose (1971), Taxation of Land Value Increments Attributable to Rezoning; Morris (1979), An Economic Analysis of Real Estate Speculation.

38. Morris (1979) suggests that uninformed speculative activity may result in increased price volatility, creating a speculative "bubble." However, prices have overshot the stationary equilibrium price, in this case, and can be subject to sharp downward adjustments. This appears to be part of the risk a speculator bears.

39. Rose, 1978, p.301.

welfare gain at the time of transaction is based on incomplete information, while the actual measure of welfare change is dependent on full information and, perhaps, future events. Nevertheless, this presumption and the assumption of perfectly competitive markets result in the allocation of economic resources to their highest valued use.

The major criticisms of speculation, however, are related to "third party" effects, effects on individuals who are not directly involved in the primary transaction. Welfare changes of property owners is one such effect. By increasing demand for properties in the current period, speculative demand causes the general value of property to rise. On the one hand, property owners' wealth increases; on the other hand, tax liabilities increase, holding tax rates and assessment-value ratios constant.

For property owners with limited income flows, the increased tax liability presents a liquidity problem with respect to the wealth locked in the property. If a homeowner is "forced" to sell and the lost value of owning the home is not compensated by the increment in wealth realized by the sale, then the homeowner has a welfare loss. Whether the lost value is in fact not compensated by the gain from the sale, is an empirical measurement problem.[40]

Nonetheless, the potential welfare loss is not caused by speculation. It is caused instead by capital market imperfections for which compensating instruments[41] exist. Property tax options also exist which avoid the potential welfare loss to homeowners. Some options, such as deferred property tax payments, do not change the relative treatment of homeownership with respect to rental. Other options, such as income tax circuit breakers, may give preferential treatment to homeowners. Further study would be needed to determine if this is, indeed, the case.

A related issue is the effect of residential speculation on the "affordability" of housing in Hawaii. Because speculation results in price increases in speculative neighborhoods with some downfiltering in nonspeculative neighborhoods, marginal buyers of residential property may be crowded out of the market. Speculation, however, is but one of many other factors that affect the supply and demand for residential housing, with perhaps greater relative importance. Among these are the limited amount of urban zoned land, the protracted development processes, growing populations and growing income.[42]

Taxes on speculative gains

Generally, taxes on speculative gains are defined in terms of some holding period with increasing exemption of the gains as the holding period increases. Current Hawaii income tax laws provide, to some degree, a tax on speculative gains. This occurs because short term gains, the speculative case, is taxed at an essentially higher rate[43] than long term gains. It is not clear, however, whether the decision to realize short term gains or long term gains is particularly sensitive to the existing rate differentials, given other parameters involved in the decision. Additional exemptions might include gains attributable to rehabilitation or gains on transfers below some threshold level.

The impacts of such a tax are broad. A speculator's tax would reduce speculation and any accompanying productive activity.[44] Reductions in the renovation or rehabilitation activities of speculators could result in a decline in the overall quality of rental housing, as well as a decline in related construction activity. A priori changes in the quantity of rental property are unknown.[45] A reduction in speculative demand would result in immediate decreases in the price of property, with unknown long run effects. The decline in property prices would reduce property owners wealth. Revenue effects are mixed, with gains tax revenues offset by declines in property tax revenues, income tax revenues, and sales tax revenues. The net effect is theoretically indeterminate.

Further study is needed to determine if a special tax on speculation is appropriate. First, such a study must determine if

40. There is no welfare loss if the property is used for business purposes. Any additional property tax adds to production costs, and if market prices are insufficient to cover this new cost, then the business liquidates and resources flow to other uses.

41. Reverse mortgages are an example.

42. Additionally, if speculation does perform its price stabilization function, some marginal buyers of residential property will be able to purchase in the future at prices lower than what they might have been in the absence of speculation, everything else the same.

43. This is true on the assumption that capital gains on the sale of assets largely accrue to individuals in the highest marginal tax bracket.

44. If the tax treats gains and losses asymmetrically, as does the current capital gains tax, then the expected profit of any speculative program is reduced, without any reduction in the downside risk. The relative expected rate of return to investment falls and speculator resources are channelled to other investments. There will be less of all services performed by speculators, as it is unlikely that these activities will be assumed by nonspeculators in the same amounts.

45. Speculators may evict tenants in order to renovate; under an holding exemption scheme, speculators may rent until the statutory holding period has passed.

there is speculation induced welfare loss. Theory suggests that speculation provides valuable services for the economy, but recognizes the possibility of "third party" effects. Second, if speculation does impose a net cost, a speculation tax is appropriate only if welfare and revenue losses are minimized or benefits maximized.

SUMMARY AND CONCLUSIONS

External investment has played a significant role in the growth and development of Hawaii's economy, and it appears that the state will continue to depend on external sources of capital. This creates a difficult problem for tax policy when returns to foreign investors are not taxed the same as returns to resident or domestic nonresident investors. On the one hand, discriminatory taxation is unconstitutional with negative impacts on desirable capital flows; on the other hand, uncaptured capital gains on foreign investment is a violation of the equity principle.

An examination of foreign investment in Hawaii reveals the following points:

o New capital formation has positive net benefits for the state. Policy changes should not act to discourage such investment. Indeed, they should encourage new capital formation.

o Acquisition investment has uncertain effects. The lack of information regarding the disposition of funds received by the seller precludes any kind of judgement. Moreover, the tracking of this disposition is probably unfeasible.

o The nature and composition of foreign direct investment appears to be changing. Foreign investors, with more market information, are diversifying. Registration of foreign ownership of real property would provide information on changes in the flows.

o Income/gains taxes and transfer taxes cannot capture the public sector's share of private increments in economic capacity attributable to real property gains, to the extent that nonresident investors hold property in foreign corporations. Ideally, this loss should be estimated.

o A wealth tax, in the form of a real property tax, is an alternative for taxing economic capacity.

o A speculation tax is premature. Other alternatives for addressing the "third party" effects of speculation exist; all options need examination.

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THE TAX RATE ADJUSTMENT PROVISION OF THE HAWAII LIQUOR TAX LAW

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Introduction

The 1989 State of Hawaii Legislature gave a specific charge to the Tax Review Commission to evaluate the taxation of liquor in the State, with special emphasis on the "escalator" provision of the Liquor Tax Law (HRS 244D as amended by Act 344 SLH 1986). The charge was part of general action on S.B. 1187 which essentially continued the gallonage basis taxation of liquor, while suspending administrative authority to set unit tax rates under the "escalator" clause. The bill provided for a two year period, through June 30, 1991, during which time the liquor tax rate adjustment formula could be reviewed by interested parties. This paper is intended to provide an understanding for the basis of the current liquor tax law and an evaluation of the accompanying "escalator" provision.

The Taxation of Liquor in Hawaii

Liquor is currently taxed at two levels in Hawaii. Unit or gallonage taxes are imposed at the wholesale level, with rates varying according to category of liquor. The General Excise Tax is also levied at intermediary and retail levels at 0.5 percent and 4 percent respectively. Thus, in comparison with other goods, the wholesale level tax represents a surtax on the liquor trade in the state.

Tax rates and tax effort are high, relative to other states. Table 1 provides a comparative picture of liquor tax revenue per capita, liquor revenue as a percent of personal income and liquor revenue as a percent of total revenue. These measures place Hawaii tax effort quite high, ranking second in revenue per capita, third in revenue as percent of personal income and tenth in revenue as a percent of total revenue. Table 2 compares Hawaii with other excise

TABLE 1. REPORTED TAX REVENUE AND TAX EFFORT INDICES BY STATE 1987

State	Percent of Total Revenue	Revenue per Capita	Percent of Personal Income	State	Percent of Total Revenue	Revenue per Capita	Percent of Personal Income
Alabama	3.0	23.83	0.20	Montana	2.3	17.06	0.14
Alaska	1.2	24.00	0.13	Nebraska	1.3	9.66	0.07
Arizona	1.2	12.06	0.09	Nevada	1.2	13.21	0.08
Arkansas	1.3	10.09	0.09	New Hampshire	2.0	10.69	0.07
California	0.4	4.75	0.03	New Jersey	0.6	7.55	0.04
Colorado	0.9	7.04	0.05	New Mexico	1.1	11.67	0.10
Connecticut	0.7	10.24	0.05	New York	0.6	8.77	0.05
Delaware	0.5	7.92	0.05	North Carolina	2.1	20.48	0.15
Florida	4.5	37.08	0.24	North Dakota	0.9	8.30	0.06
Georgia	2.2	18.74	0.13	Ohio	0.7	6.40	0.04
Hawaii	**2.0**	**31.85**	**0.20**	Oklahoma	1.9	15.98	0.12
Idaho	1.2	10.12	0.09	Oregon	0.5	4.11	0.03
Illinois	0.6	5.81	0.04	Pennsylvania	1.2	11.54	0.08
Indiana	0.7	6.26	0.05	Rhode Island	0.7	7.81	0.05
Iowa	0.5	4.62	0.03	South Carolina	3.2	31.12	0.26
Kansas	2.2	18.38	0.12	South Dakota	1.7	9.73	0.08
Kentucky	1.4	13.17	0.11	Tennessee	1.7	12.83	0.10
Louisiana	1.5	11.68	0.10	Texas	2.9	19.43	0.14
Maine	2.6	28.22	0.20	Utah	1.2	9.94	0.09
Maryland	0.5	6.42	0.04	Vermont	2.8	27.00	0.18
Massachusetts	0.9	13.78	0.07	Virginia	1.7	16.14	0.10
Michigan	1.1	11.55	0.08	Washington	1.9	23.25	0.15
Minnesota	0.9	12.81	0.08	West Virginia	0.4	3.90	0.04
Mississippi	1.9	14.13	0.14	Wisconsin	0.7	9.28	0.06
Missouri	0.6	4.92	0.03	Wyoming	0.2	2.65	0.02
				Average	**1.4**	**13.36**	**0.09**

Source: U.S. Bureau of Census, State Tax Collections 1987

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TABLE 2. COMPARATIVE TAX RATES BY LIQUOR CATEGORY

State	Beer	Wine	Distilled Spirits	Other
Alaska	$.35/gal	$ .85/gal	$5.60/gal	
Arizona	.16/gal	.84/gal < 24% .25/8oz > 24%	3.00/gal	
Arkansas	.16/gal < 3.2% .24/gal > 3.2%	.75/gal	2.50/gal	+ $.01/gal beer,$.05/case wine, $.20/case liquors, 10% mixed drinks
California	.04/gal	.01/gal < 14% .02/gal > 14% .30/gal sparkling .02/gal hard cider	2.00/gal < 50% 4.00/gal > 50%	
Colorado	.08/gal	.28/gal	2.28/gal	
Connecticut	.10/gal	.30/gal < 21% .75/gal > 21%	3.00/gal	
Delaware	.06/gal	.40/gal	1.50/gal < 25% 2.25/gal > 25%	
DC	.07/gal	.15/gal < 14% .33/gal > 14% .45/gal sparkling	1.50/gal	6% sales tax packaged liquor 8% sales tax on-premise consumption
Florida	.48/gal	2.25/gal < 17.259% 3.00/gal > 17.259% 3.50/gal sparkling wine	2.25/gal 0.5%-17.259% 6.50/gal 17.259-55.78% 9.53/gal > 55.78%	
Georgia	.045/12 oz .32/gal	1.52/gal 2.54/gal dessert	4.62/gal 3.79/gal .83/gal (local)	City & county tax $.05/12 oz malt beverages $6/container
Hawaii	.50/gal draft .81/gal nondraft	.81/gal "cooler" 1.30/gal still 2.00/gal sparkling	5.20/gal	.5% wholesale tax 4% retail tax
Illinois	.07/gal	.23/gal < 14% .60/gal > 14%	2.00/gal	
Indiana	.115/gal	.47/gal < 21% 2.68/gal > 14%	2.68/gal	
Kansas	.18/gal	.30/gal < 14% .75gal > 14%	2.50/gal	8% in lieu of sales tax 10% on premise tax
Kentucky	.08/gal	.50/gal	1.92/gal	9% wholesale tax $.05/case wholesale tax 5% on premise tax
Louisiana	.32/gal	.11/gal < 14% .23/gal 14 - 24% 1.59/gal > 24%, sparkling	2.50/gal	$.05/gal beer (local)
Maryland	.09/gal	.40/gal	1.50/gal	
Massachusetts	.11/gal	.03/gal 3-6% cider .55/gal 3-6% still .70/gal sparkling	1.10/gal < 15% 4.05/gal > 15%	.5% packaged and on premise tax

TABLE 2 CONTINUED

State	Beer	Wine	Distilled Spirits	Other
Minnesota	.07/gal < 3.2% .15/gal > 3.2%	.30/gal < 14% .95/gal 14-21%	5.03/gal	2.5% + 6% pkged and on-premise sales tax
Missouri	.06/gal	.34/gal	2.00/gal	
Nebraska	.23/gal	.75/gal < 14% 1.35/gal > 14%	3.00/gal	
Nevada	.09/gal	.40/gal < 14% .75/gal 14-22% 2.05/gal > 22%	.40/gal < 14% 2.05/gal > 14/5	5.75% sales tax
New Jersey	.03/gal	.30/gal	2.80/gal	7.3% wholesale tax
New Mexico	.18/gal	.95/gal	3.94/gal	
New York	.055/gal	.12/gal < 17% .66/gal 17-24% .33/gal artificially carbonated	1.00/gal < 24% 4.09/gal > 24%	
North Dakota	.08/gal barrel,keg .16/gal bottled	.50/gal < 17% .60/gal 17-24% 1.00/gal sparkling	2.50/gal	6.5% sales tax
Oklahoma	.40/gal .36/gal < 3.2%	.72/gal < 14% 1.40/gal > 14% 2.08/gal sparkling	5.56/gal	12% mixed beverage tax $1 per bottle/case(beer)
Rhode Island	.06/gal .05/case wholesale	.20/gal native .40/gal still .50/gal sparkling	2.50/gal	6% sales tax
South Carolina	.77/gal	.05/gal < 14% .45/gal 14-21% .90/gal > 21% .18/gal excise	2.72/gal	9% liquor surtax, 3 separate taxes on spirits $1.81/case wholesale tax $0.56/case retail tax $2.99/case retailers tax
South Dakota	.27/gal	.93/gal < 14% 1.45/gal 14-20% 2.07/gal >20%	3.93/gal	2% wholesale tax (except beer)
Tennessee	.125/gal	1.10/gal	4.00/gal	$.15 enforcement tax 15% on-premise tax 17% beer wholesalers tax, less 3% to cover collection
Texas	.19/gal	.204/gal < 14% .408/gal > 14% .516/gal sparkling	2.40/gal .05/serving on planes,trains	.12% mixed beverage tax 6% sales tax
Wisconsin	.06/gal	.25/gal < 14% .45/gal > 14%	3.25/gal	5-5.5% sales tax

Source: Advisory Commission on Intergovernmental Relations, Significant Features of Fiscal Federalism 1989 Edition Volume I, January 1989.

tax states in terms of tax rates per gallon. The gallon rate on beer is four times as large as the national average, while the gallon rates on wine and distilled spirits are twice as large as their respective national averages.

While the overall tax rates are high, exceeding 24 percent at the retail level, the tax base is relatively narrow, as in most other states, producing only 2 percent of general fund revenues (See Table 3). With the exception of 1987 and 1988, this proportion is very stable.

Background of the 1986 Hawaii Liquor Tax Law

In 1986, the Hawaii Liquor Tax Law underwent a major revision (Act 344, SLH 1986), with the establishment of taxation based on gallonage and the repeal of taxation based on 20% of wholesale value. This altered almost fifty years of liquor trade taxation on an ad valorem basis.[1]

A series of events involving a constitutional challenge to the Hawaii Liquor Tax Law led to the 1986 revision. During the years from 1971 to 1981, various State Legislatures had provided liquor tax exemptions for the sale of certain liquor products manufactured within the state. These products included okolehao, fruit wines, and rum. In 1979 a number of liquor wholesalers began paying taxes under protest into an escrow fund, while challenging the tax law for these exemptions. In Bacchus v. Dias, the law was challenged on two grounds: 1) that it violated the U.S. Constitution's commerce clause (Art. 1, Sec. 8), which reserves the right to regulate interstate trade to the federal government; 2) that it violated the import-export clause (Art 1, Sec. 10). In 1984 the U.S. Supreme Court issued a split decision, ruling that the Hawaii law which exempted local manufacturers was indeed discriminatory and therefore void. The Court found a clear basis for adjudication in the commerce clause, but did not comment on the import-export clause. The Court also declined to rule on the disposition of the protested taxes.

These deferrals provided a basis for continued protest payments by liquor wholesalers, which became a major factor in the passage of the 1986 law. Despite a 1984 revision removing the exemptions accorded to locally manufactured liquor products, wholesalers continued to claim that the ad valorem basis for taxation discriminated against imports, because of the inclusion of transportation costs in the wholesale tax base. An opinion issued by the State Attorney General's Office disputed this claim, arguing

1. Rates were initially set at retail levels 6% (1939), 8% (1947); later rates were set at wholesale levels 12% (1949), 16% (1957), 20% (1965), Tax Review Commission Staff Working Paper No. 10, 1984.

TABLE 3. GENERAL FUND TAX REVENUES AND REVENUES FROM LIQUOR AND PERMITS 1973 TO 1988 ($ in millions)

Year	Collections	Escrow	Accumulated Escrow	Total Collections	Liquor Tax Revenues as a Percent of Adjusted General Fund Tax Revenues
1973	11.0			11.0	2.5%
1974	12.1			12.1	2.4%
1975	13.8			13.8	2.4%
1976	15.3			15.3	2.5%
1977	17.3			17.3	2.6%
1978	18.7			18.7	2.5%
1979	17.8	4.5	4.5	22.3	2.5%
1980	8.6	16.0	20.5	24.6	2.4%
1981	9.9	16.6	37.2	26.5	2.4%
1982	7.0	22.9	60.1	30.0	2.7%
1983	2.8	26.2	86.3	29.1	2.5%
1984	11.6	16.7	103.0	28.3	2.2%
1985	14.1	18.1	121.1	32.2	2.4%
1986	41.9	-6.4	114.8	35.6	2.4%
1987	37.4	-0.4	114.3	37.0	2.1%
1988	37.3	-0.0	114.3	37.3	1.9%
					2.4% Average Percentage

Source: Department of Taxation

that all expenses incurred by a distributor become part of the value of the item sold, whether the expenses include labor, overhead and materials used in local production or whether the expenses include the cost of goods imported and transportation.[2] The opinion stated that the ad valorem liquor tax would pass a constitutionality test in court, but noted that wholesalers could continue to tie up protested liquor tax revenues, amounting to $121 million in 1985.[3]

A second major factor in the debate over the shift to gallonage taxation was the prior exemption of military sales from the liquor tax base. At issue was the ease with which sales, ultimately benefiting civilians, made their way onto military exchanges. Estimates of the potential liquor tax capture from "black market" military sales ranged anywhere from $7 to $10 million per year. Because the legal incidence of the proposed gallonage tax fell on the civilian wholesaler, the gallonage tax was generally thought to be constitutionally permissible, making any distinction between military or civilian purchaser irrelevant. On the other hand, to the extent that the legal incidence of the ad valorem tax might be interpreted to fall on the military purchaser, the constitutionality of such a tax would be subject to challenge.

However, the legal incidence issue was essentially moot without the concurrent Congressional "Buy Local" legislation enacted in 1985. This legislation required the military to make all purchases of alcoholic beverages from locally licensed wholesalers. The significance of this legislation is that it provided states with an avenue for the taxation of military liquor sales.

A study by the 1984 Tax Review Commission compared gallonage taxation with ad valorem taxation and identified several points which were of relevance to the 1986 law: 1) the gallonage tax required more detailed record keeping by type of product sold; 2) the ad valorem tax possessed built-in revenue flexibility, while gallonage tax rates could only change with legislative review; 3) the ad valorem tax could distort distribution channels, while the unit tax favored more expensive liquor but did not contribute as much to distortion; 4) the gallonage tax facilitated the goal of taxation according to alcoholic content, while the ad valorem tax could not directly do so;[4] 5) an equal revenue gallonage based tax and ad valorem tax would have identical patterns of incidence.

Because of concern with the revenue neutrality of a shift from ad valorem to gallonage taxation and concern with the complexity of administrative and record keeping requirements under gallonage taxation, the 1986 law provided for three control items: 1) a sunset provision, repealing the law and returning to the pre-1986 statutes, 2) an "escalator" provision, providing the Department of Taxation with the authority to adjust gallonage tax rates, according to a statutory formula, and 3) a gallonage and price reporting provision for the purposes of calculating tax liabilities, triggering the "escalator" provision, and analyzing departmental operation effects and revenue effects.

The 1986 law also established six categories of liquor, each subject to a different gallonage rate. The categories and original rates are:

-Distilled spirits	$5.20/gal
-Sparkling wine	$2.00/gal
-Still wine	$1.30/gal
-Cooler beverages	$0.81/gal
-Nondraft beer	$0.81/gal
-Draft beer	$0.50/gal

The Liquor Tax Rate Adjustment Provision

Hawaii Revised Statutes 244D-4.5 describes the tax rate adjustment mechanism as follows:

> The tax rate for a given liquor category shall be adjusted automatically on January 1 or July 1, as the case may be, if at the end of a fiscal or calendar year the department finds that:
>
> 1) The total gallonage for a given liquor category has not declined over the same twelve month reporting period and the unit price for the category has increased relative to the previous twelve month period; or
>
> 2) The total gallonage for a given liquor category has not declined over the same twelve month reporting period and the unit price for the category has decreased relative to the previous twelve month period;
>
> then the tax rate shall increase, or decrease, in the same percentage as the increase, or decrease, in price;

2. Letter to Mamoru Yamasaki, Chair of Senate Committee on Ways and Means, 2/28/85.

3. It might be noted that subsequent to the passage of Act 344, funds were disbursed out of the liquor escrow account. The first distribution of $22.124 million occurred in FY 1986. The second, larger, distribution occurred in FY 1988 in the amount of $95.622 million to the State General Fund.

4. An alternative bill (S.B. 2323) introduced in 1986 attempted to levy separate gallonage taxes, according to the level of alcoholic content. It appears to have been defeated because of the complexity of administration.

Except that rates shall not fall below the rates established upon the enactment of the law.

Although Senate Committee discussions do not specifically state the intent of this provision, there is evidence that the switch from ad valorem to gallonage taxation was intended to be revenue neutral in the sense that gallonage revenues should mimic ad valorem revenues. Given this presumed intent, the "escalator" contains a curious feature: rate changes can be triggered only when volume rises (or remains constant). In particular, situations of falling volume, in which otherwise taxable revenue might increase because of rising prices, do not trigger the rate adjustment mechanism. A "floor" also prevents tax rates from fully adjusting to falling prices.

Effects of the 1986 Liquor Tax Law

The 1986 Liquor Tax Law required the Department of Taxation to annually review and analyze the gallonage based tax. The Department's findings are summarized below:

1) There have been six rate adjustments, affecting three categories of liquor, since the enactment of Act 344 (Table 4).

2) The initial 1986 unit rates for the sparkling wine, still wine and cooler beverage categories were set considerably below the equivalent 20% of wholesale rate (Table 5).

3) Average prices have generally increased for all categories, except draft beer, but falling gallonage sales of sparkling wine and still wine have prevented the adjustment mechanism from taking effect for these categories, despite increases

TABLE 4. RATE CHANGES UNDER RATE ADJUSTMENT MECHANISM

		Rate Adjustments		
Category of Liquor	Original Rate	1/88	7/88	1/89
Distilled Spirits	5.20		5.42	5.75
Sparkling Wine	2.00			
Still Wine	1.30			
Cooler Beverage	0.81		0.86	
Beer (Nondraft)	0.81	0.85	0.86	0.89
Beer (Draft)	0.50			

Source: Department of Taxation

TABLE 5. DOLLAR VOLUME, WINE GALLONS, AVERAGE PRICE, EFFECTIVE RATES BY VARIOUS PERIODS

	Dollar Volume	Wine Gallons	Avg Price	Statutory Rate Dollars/Gal	Effective Rate % of Price
Distilled Spirits					
4/01/86 to 6/30/86	10,210,145	470,639	21.69	5.20	23.97
FY 7/01/86 to 6/30/87	41,788,350	1,696,820	24.63	5.20	21.11
FY 7/01/87 to 6/30/88	46,632,260	1,785,951	26.11	5.20	19.92
7/01/88 to 9/30/88	10,275,019	369,098	27.84	5.42	19.47
Sparkling Wine					
4/01/86 to 6/30/86	2,208,468	118,153	18.69	2.00	10.70
FY 7/01/86 to 6/30/87	8,325,543	311,298	26.74	2.00	7.48
FY 7/01/87 to 6/30/88	9,376,540	306,821	30.56	2.00	6.54
7/01/88 to 9/30/88	2,074,605	62,751	33.06	2.00	6.05
Still Wine					
4/01/86 to 6/30/86	5,913,394	537,287	11.01	1.30	11.81
FY 7/01/86 to 6/30/87	27,333,939	2,217,012	12.28	1.30	10.59
FY 7/01/87 to 6/30/88	29,772,509	2,215,086	13.44	1.30	9.67
7/01/88 to 9/30/88	7,089,346	528,003	13.43	1.30	9.68
Cooler Beverage					
4/01/86 to 6/30/86	1,201,428	179,828	6.68	0.81	12.13
FY 7/01/86 to 6/30/87	4,406,334	631,033	6.98	0.81	11.60
FY 7/01/87 to 6/30/88	3,872,609	483,418	8.01	0.81	10.11
7/01/88 to 9/30/88	922,917	124,870	7.39	0.81	10.96
Beer (Nondraft)					
4/01/86 to 6/30/86	28,853,947	6,726,498	4.29	0.81	18.88
FY 7/01/86 to 6/30/87	121,966,140	28,408,232	4.29	0.81	18.88
FY 7/01/87 to 6/30/88	128,543,170	29,096,284	4.42	0.81/.85	18.79
7/01/88 to 9/30/88	33,830,804	7,264,037	4.66	0.86	18.47
Beer (Draft)					
4/01/86 to 6/30/86	1,296,055	369,972	3.50	0.50	14.29
FY 7/01/86 to 6/30/87	3,895,758	1,448,850	2.69	0.50	18.59
FY 7/01/87 to 6/30/88	4,345,048	1,626,260	2.67	0.50	18.73
7/01/88 to 9/30/88	1,210,783	408,838	2.96	0.50	16.88

Based on all Taxable Sales

Sources: Table 1, Table 2 Department of Taxation Report to the 1989 Legislature
Table 4 Department of Taxation Report to the 1987 Legislature

Note: 4/01/86 to 6/30/86 data included for comparison purposes only

in the value of sales (Table 5).

4) Tax revenues collected under gallonage taxation and the adjustment mechanism fall short of potential revenues at the 20% rate for the observed quantities and prices (Table 6).

5) Revenues from military sales are below the projected annual $7 to $10 million. Tax liability for military sales in FY 1987 amounted to $3.15 million; the liability in FY 1988 amounted to $3.06 million.

An analysis of the rate adjustment mechanism requires the establishment of a rational basis for assigning gallon rates to the various categories of liquor. Such a basis might be some percentage of price, in the absence of specific information concerning the external costs associated with each liquor category. Note that this does not preclude the adjustment of the basis to reflect information on externalities. Moreover, if the gallon tax could be continuously adjusted with no time lags, the difference between a gallon tax and an ad valorem tax would be purely a difference of form. The gallonage based tax would simply provide tax information on a unit basis, abstracting from any military sales considerations. A practical adoption of the gallon tax, however, introduces rigidities because administrative or legislative tax adjustments can only approximate the continuous changes. Legislative tax adjustments are also subject to political lobbying efforts.

The tax rate adjustment mechanism of the Hawaii Liquor Tax Law provides for administrative adjustments of the gallon rates to reflect changes in the underlying ad valorem rates. However, the adjustment mechanism is not symmetric, and this lack of symmetry has created a situation in which some

TABLE 6. ESTIMATED DIFFERENCES IN COLLECTION FOR GALLON TAX AND AD VALOREM TAX (Calculated by Department of Taxation, by Amount of Tax)

	Gallonage Basis	Ad Valorem @ 20%	Difference	FY1987	FY1988
Distilled Spirits					
FY 7/01/86 to 6/30/87	8,823,464	8,357,670	465,794	465,794	
FY 7/01/87 to 6/30/88	9,286,945	9,326,452	(39,507)		(39,507)
7/01/88 to 9/30/88	2,000,511	2,055,004	(54,493)		
Sparkling Wine					
FY 7/01/86 to 6/30/87	622,596	1,665,109	(1,042,513)	(1,042,513)	
FY 7/01/87 to 6/30/88	613,642	1,875,308	(1,261,666)		(1,261,666)
7/01/88 to 9/30/88	125,502	414,921	(289,419)		
Still Wine					
FY 7/01/86 to 6/30/87	2,882,116	5,466,788	(2,584,672)	(2,584,672)	
FY 7/01/87 to 6/30/88	2,879,612	5,954,502	(3,074,890)		(3,074,890)
7/01/88 to 9/30/88	686,404	1,417,869	(731,465)		
Cooler Beverage					
FY 7/01/86 to 6/30/87	511,137	881,267	(370,130)	(370,130)	
FY 7/01/87 to 6/30/88	394,569	774,522	(382,953)		(382,953)
7/01/88 to 9/30/88	101,145	184,583	(83,439)		
Beer (Nondraft)					
FY 7/01/86 to 6/30/87	23,010,668	24,393,228	(1,382,560)	(1,382,560)	
FY 7/01/87 to 6/30/88	24,129,957	25,708,634	(1,578,677)		(1,578,677)
7/01/88 to 9/30/88	6,247,072	6,766,161	(519,089)		
Beer (Draft)					
FY 7/01/86 to 6/30/87	724,425	779,152	(54,727)	(54,727)	
FY 7/01/87 to 6/30/88	813,130	869,010	(55,880)		(55,880)
7/01/88 to 9/30/88	204,419	242,157	(37,738)		
Based on all Taxable Sales				(4,968,808)	(6,393,573)

Sources: Table 1, Table 2 Department of Taxation Report to the 1989 Legislature
Table 4 Department of Taxation Report to the 1987 Legislature

categories of liquor receive preferential tax treatment. This is both inequitable and inefficient. Table 5 indicates that the wine categories have an effective tax rate which is considerably lower than that of other liquor categories. Falling effective tax rates are a direct result of fixed gallon rates which cannot be adjusted, because the rising volume requirement is not satisfied. The discrepancy in effective rates is also exacerbated by initial wine gallon rates below the equivalent 20% of wholesale rate.

There are indications that the 1986 liquor tax changes have resulted in revenue shortfalls, in comparison to an ad valorem regime. Tax collections in 1987 and 1988 grew at 4.1 and 0.6 percent, respectively, while the historical average from 1976 to 1985 was 8 percent. Collections as a percent of General Fund collections also declined in 1987 and 1988 (See Table 3).

However, it is difficult to assess the exact magnitude of these shortfalls attributable to the change in method of taxation. Table 6 reports Department of Taxation calculations indicating the size of the revenue shortfall for various categories of liquor at the current market quantities and prices. There are potential inaccuracies with such calculations, because they do not take into account the behavioral response of buyers to the different tax regimes.

In particular, the degree to which revenues under an ad valorem situation would exceed revenues under a gallonage tax situation is extremely sensitive to the price elasticity of demand for the product category and the difference between the gallon rate and the ad valorem rate. An appropriate comparison of gallonage taxation and ad valorem taxation cannot use identical gallon quantities and wholesale prices, unless the price elasticity of demand is unitary. Clearly, if the gallon tax is less than the 20% tax, then imposition of the 20% tax would result in falling volumes, because the tax reduces effective demand. If demand is price elastic, then the revenue shortfall is overestimated by the identical volume method. If demand is price inelastic, then the revenue shortfall is underestimated. The existence of a revenue shortfall is also affected by the degree to which the ad valorem rate, measured in dollars, exceeds the gallon rate.

There are no estimates for the price elasticities of demand for any of the liquor categories in Hawaii. Estimates based on a 1972 Canadian study and reported in a 1984 Tax Review Commission working paper suggest that beer is price inelastic (-.6), wine is unit elastic (-1.0), and distilled spirits are price elastic (-1.6).

If these elasticities are indicative, then the expected revenues from wine sales under a 20% ad valorem regime would indeed be identical across all price and quantity combinations. In this case, the projected shortfall can be directly calculated at the observed market price and quantity.

However, if the demand for wine is price elastic, then the a priori effect on revenues are indeterminate, because there are two opposing revenue effects: on one hand, a large difference between the effective rate of taxation and the 20% rate tends to increase the size of the revenue shortfall; on the other hand, the decline in value of sales would tend to decrease the size of the revenue shortfall. For the cases of distilled spirits and beer, which have had an effective tax rate close to the 20% ad valorem rate, the elasticities reported above suggest that actual revenue shortfalls are smaller for distilled spirits and larger for beer than those reported in Table 6.

While the exact revenue effects cannot be pinpointed, the "escalator" provision has clearly resulted in a situation which is at odds with the equity and efficiency principles of taxation. Moreover, to the extent that the price elasticities of demand for the various categories are unitary, the current "escalator" has also contributed to revenue shortfalls.

Some additional comments on the size of military collections are in order. A decline in reported military collections from the estimated collections might be expected for two reasons. First, the imposition of unit taxation, valued at a 20% of wholesale rate, causes the price of liquor purchased on the military reservation to rise by roughly 20 percent. Individuals who would purchase on the reservation regardless of tax differences respond to the price increase with a decrease in quantity of purchase. Tax revenues would fall if demand is price elastic.

Second, and more importantly, the price increase reduces any differential that existed between the military and civilian market. This causes migration of sales back to the civilian market, and these sales would no longer be reported as military sales.

Therefore, a comparison of collections should be performed at the aggregated level. A cursory examination suggests that military collections are in line with population proportions. In FY 1987, military collections represented roughly 8 percent of total collections, while armed forces population represented roughly 6 percent of total population. Indeed, if the estimated tax capture on military sales was estimated at $8 million, then expected tax collections in FY 1987 would have been $41 to $44 million.[5] Actual liabilities in FY 1987 amounted to $36.6 million, suggesting a shortfall of $4.4 to $7.4

million. Much of this shortfall might be explained by the asymmetry of the "escalator."

Policy Alternatives to the Current "Escalator"

If the tax adjustment provision established under Act 344 is abandoned, some consideration of alternatives is required. This section discusses the following alternatives with respect to tax criteria:

1. Retain unit taxation and change the current "escalator" to eliminate asymmetry and continue administrative review.

2. Retain unit taxation and subject rate changes to legislative review.

3. Return to ad valorem taxation.

Efficiency and Equity Considerations. A preliminary discussion of the basis for the taxation of liquor would be useful in the evaluation of policy alternatives. The special taxation of liquor has generally been justified on the basis that liquor consumption imposes external costs on society, costs which are not fully considered in the decision process. Negative externalities are characterized by overconsumption or overproduction of a good which create third party costs. To the degree that the tax incorporates or internalizes this external cost, there are efficiency gains. However, to the extent that the tax exceeds this external cost and becomes confiscatory, there are efficiency losses. In this case, additional taxation becomes truly sumptuary and behavior is altered from what it would have been, even accounting for external costs. In the absence of external costs, the taxation of liquor is difficult to justify, because the demand for liquor is less than perfectly inelastic. Taxes on liquor are also generally characterized as regressive, making up a larger proportion of the budget as household income decreases.[6]

Given the decision to tax liquor, however, ad valorem taxation at a fixed percentage promotes equal treatment of similar products. All categories of liquor are taxed at the same effective rate. This promotes efficiency in consumer choice among liquor products, because relative prices reflect market valuation and are unaffected by the common rate of taxation. Ad valorem taxation at the wholesale level, however, can cause distortions similar to those that occur with pyramiding. Moreover, if rates are sufficiently high, firm profits are eroded, resulting in industry concentration in the hands of fewer and fewer firms.

Gallonage taxation also promotes equal treatment and efficiency, provided the change in unit taxes conform to the equivalent ad valorem taxes. Whether the adjustments are administratively or legislatively determined, however, lags in rate changes will exist and will require either frequent or very large adjustments. In the interim, tax distortions may be larger than necessary. Unit rates also provide price advantages for more expensive "brands" in a given liquor category.

Perhaps of larger concern, however, is the relative impact of ad valorem taxation and gallonage taxation on the "border" problem of military sales. If military sales cannot be taxed under the ad valorem regime, then the military reservation creates a market in which liquor products enjoy preferential tax treatment, relative to the civilian market. This poses a clear problem of unequal treatment for liquor consumption in the state. In this case, a return to ad valorem taxation would come at the expense of equity.

Simplicity and Accountability. Both unit taxation and ad valorem taxation are simple to administer. The unit tax system requires more detailed record keeping by product type, but the Department of Taxation has established a mechanism for collecting the necessary data for rate adjustment. The compliance problem under unit taxation occurs with frequent changes in the unit rate and consequent confusion in the distribution chain regarding the applicable rate.

Administrative rate setting authority, as currently specified, has been challenged as violating the principle of accountability. If, however, fixed percentage taxation complies with the accountability principle and ad valorem rates are accepted as a rational basis for adjustment, then the accountability of administrative changes is a non-issue.

Revenue Responsiveness and Stability. The ad valorem tax avoids some of the inflation induced erosion of revenue that occurs with a unit tax, by automatically increasing with inflation. In Hawaii, the income elasticity of liquor tax revenues under the ad valorem regime is 0.97. This suggests that liquor revenues change almost in direct proportion to the change in personal income. Stability would tend to be an automatic feature with the unit tax, but the gain in

5. Estimated as $33.5 million collections in FY 1986 plus the additional $8 million. The range occurs when 8 percent growth in collections is also assumed.

6. Based on the Bureau of Labor Statistics 1986 Consumer Expenditure Survey, families with income between $5,000 and $9,999 spent 1.8 percent of their income on liquor products, while families with income over $40,000 spent only 0.7 percent of their income.

stability would occur at the expense of revenue responsiveness.

Conclusion

The 1986 Liquor Tax Law represents the State's first attempt to incorporate unit taxation of liquor into the tax structure. A unique feature of this law is the administrative rate adjustment mechanism, or the "escalator" provision. An examination of tax revenue experience under this law suggests the following:

- o The current "escalator" formulation has resulted in the preferential treatment of particular categories of liquor and probable reduction of tax revenues, relative to potential collections under an ad valorem tax regime.

- o Unit taxation with a more symmetric "escalator" would approximate underlying ad valorem rate changes with a lag. Unit taxation with legislative review would institute large lags and the potential for preferential tax treatment.

- o Ad valorem taxation is a direct and efficient basis of taxation.

- o Ad valorem taxation may result in a re-creation of the military "border" problem. Increases in the ad valorem rates would make this problem more acute.

THE COST OF UNEMPLOYMENT INSURANCE AND WORKERS' COMPENSATION PROGRAMS IN HAWAII

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INTRODUCTION

Businesses in Hawaii are concerned about Hawaii's business climate -- i.e. whether or not Hawaii provides a conducive environment in which to do business. One aspect of that environment is the tax climate. Compared to other states, is Hawaii's tax system conducive or a deterrent to business expansion, relocation, or employment creation compared to other states in the U.S.?

How should tax differentials between states affect business locational decisions? Theoretically, it is not the particular level of tax burden that ought to influence business decisions; rather it is the relative tax burden that is important -- i.e. deviations of one state's tax burden from those in other states. Moreover, tax burden differences are important only if they do not reflect differences in the quantity or quality of public services essential to firms. Lastly, tax differences must overwhelm nontax advantages or disadvantages of each potential location for a firm.

Empirical evidence on the importance of tax differentials on the business climate is mixed. In a recent survey article, Netzer[1] concluded that "The flippant answer to the question of what we know about taxes and location is that we know tax differentials matter. We don't know how much they matter."

Empirical evidence on Hawaii's business climate indicate that Hawaii's business tax climate is not particularly disadvantaged relative to other states. An excellent study done for the 1984 Hawaii Tax Review Commission by Dr. James Papke[2] of Purdue University investigated the comparative profitability (including taxes) of a Hawaiian site compared with eight out-of-state locations for firms representing twelve manufacturing types and general business contractors. The manufacturing firms included typically export-oriented and footloose high tech industries. The study found that Hawaii's state and local business tax structure was fairly competitive with other states included in the comparative analysis in terms of the retention and expansion of Hawaiian-domiciled companies in Hawaii.

A more recent study (1988) completed for the State of Nevada by the accounting firm of Price Waterhouse[3], using a similar approach, compared effective business tax rates in Nevada against fourteen other states, including Hawaii. The study compared five industries (plus gaming) with growth potential -- wholesaling, printing, pharmaceuticals, instruments, and electronics. While these are not the ideal business comparisons for Hawaii, nonetheless, the results are interesting. Among the fifteen states, Hawaii had the second lowest (next to Nevada) effective tax burden on pre-tax income at 4.7% compared to the fifteen-state average of 8.0%. Hawaii's overall tax burden was low because of its low property tax burden -- 1.6% of pre-tax income compared to 5.1% for the fifteen-state average.

Studies of business tax climate usually do not include near-taxes such as unemployment insurance and workers' compensation. The principal argument against the inclusion of payroll and other near taxes in business tax studies is the conventional assumption that the incidence of these taxes fall on labor rather than on capital.

Nevertheless, given the frequency of complaints against these taxes - particularly the workers' compensation insurance -- by the business community in Hawaii, the current Tax Review Commission has requested the staff to examine the cost of unemployment insurance (UI) and workers' compensation (WC) on the cost of doing business in Hawaii. The purpose of this report is to provide an analysis of these programs and their impacts on the cost of labor in Hawaii.

UNEMPLOYMENT INSURANCE

The federal-state UI system originated in the 1935 Social Security Act. Its major objective was to provide income security to unemployed workers. This was to be accomplished by accumulating money in a trust fund during favorable economic times in order to provide benefits to unemployed workers during periods of high unemployment. The system was to be entirely financed by a payroll tax on employers. Although it began as a

1. Dick Netzer, "What Should Governors Do When Economists Tell Them That Nothing Works," in The State Role in Economic Development, Special issue of New York Affairs, vol. 9, No. 3, 1986, p. 26.

2. James A. Papke, Business Taxation in Hawaii, A Comparative Analysis with Policy Simulations, A Report to the Tax Review Commission, State of Hawaii (September, 1984).

3. Urban Institute and Price Waterhouse, "II. Economic and Institutional Framework," Fiscal Affairs of State and Local Governments in Nevada, (Washington D.C.: November, 1988

federal program, it was intended that all states would adopt the UI system. Hawaii's state unemployment insurance program began in 1937. Presently, both federal and state governments have responsibility for the unemployment insurance system.

Federal and State Government Roles

The federal government's responsibility is to make sure that state laws meet all the requirements of the Federal Unemployment Tax Act (FUTA). Under FUTA, the federal UI tax is 6.2% of the first $7,000 in wages paid to each employee. Employers are eligible to receive up to 5.4% credit towards the FUTA tax for taxes they pay under state unemployment laws. Not surprisingly, most states, including Hawaii, have set 5.4% as the standard state UI tax rate on employers.

UI programs are administered in each state according to that state's laws. Every state has its own unemployment insurance and compensation program, and administers it with its own employees. Currently, the Hawaii State Unemployment Insurance Division administers Hawaii's UI program. Each state sets its own qualifying requirements for benefits, amounts, and most importantly, the tax structure used to finance its program.[4] While UI laws differ across the states, each state's laws must conform to federal requirements. Failure to comply with federal requirements will cause a state's employers to lose the federal FUTA off-set credit on UI contributions to the state.

Taxable Wage Base

Hawaii's UI system, like those in other states, has placed a limit on the amount of an employer's total covered payroll subject to the UI tax by limiting the amount of each employee's wages (i.e. the taxable wage base) subject to taxation. The taxable wage base varies across states (see Table 1.) In 1987, the taxable wage base for Hawaii was $16,500, and Hawaii ranked second among fifty states and Washington D.C. Due to a healthy UI fund, special legislation reduced the 1988 taxable wage base to $8,700, and Hawaii's ranking fell

4. National Foundation for Unemployment Compensation and Workers' Compensation, Highlights of State Unemployment Compensation Laws: January, 1989 (Washington, D.C.: 1989).

TABLE 1. TAXABLE WAGE BASE AND RANK BY STATE --1987, 1988, 1989

State	January 1989		1988		1987	
Alabama	$ 8,000	21	$ 8,000	25	$ 8,000	22
Alaska	20,900	1	21,100	1	21,500	1
Arizona	7,000	24	7,000	37	7,000	25
Arkansas	7,500	22	7,500	34	7,500	23
California	7,000	24	7,000	37	7,000	25
Colorado	10,000	16	10,000	18	9,000	20
Connecticut	7,100	23	7,100	36	7,100	24
Delaware	8,500	20	8,500	23	8,500	21
District of Columbia	8,000	21	8,000	25	8,000	22
Florida	7,000	24	7,000	37	7,000	25
Georgia	7,500	22	7,500	34	7,500	23
Hawaii	16,500	2	8,700	22	16,500	2
Idaho	16,800	3	16,200	2	16,200	3
Illinois	9,000	19	9,000	21	8,500	21
Indiana	7,000	24	7,000	37	7,000	25
Iowa	11,500	10	11,000	12	12,300	8
Kansas	8,000	21	8,000	25	8,000	22
Kentucky	8,000	21	8,000	25	8,000	22
Louisiana	8,500	20	8,500	23	7,000	25
Maine	7,000	24	7,000	37	7,000	25
Maryland	7,000	24	7,000	37	7,000	25
Massachusetts	7,000	24	9,500	19	7,000	25
Michigan	9,500	17	9,500	19	9,500	18
Minnesota	12,200	9	11,700	11	11,200	12
Mississippi	7,000	24	7,000	37	7,000	25
Missouri	$ 7,000	24	$ 7,000	37	$ 7,500	23
Montana	12,800	7	12,600	7	12,400	7
Nebraska	7,000	24	7,000	37	7,000	25
Nevada	12,600	8	12,100	8	11,700	9
New Hampshire	7,000	24	7,000	37	7,000	25
New Jersey	12,600	7	12,000	9	11,300	11
New Mexico	11,100	12	10,100	14	10,700	14
New York	7,000	24	7,000	37	7,000	25
North Carolina	10,700	13	10,100	17	9,600	17
North Dakota	11,200	11	11,000	12	10,800	13
Ohio	8,000	21	8,000	25	8,000	22
Oklahoma	9,200	18	9,100	20	9,100	19
Oregon	15,000	5	14,000	4	14,000	4
Pennsylvania	8,000	21	8,000	25	8,000	22
Rhode Island	12,800	7	12,000	9	11,400	10
South Carolina	7,000	24	7,000	37	7,000	25
South Dakota	7,000	24	7,000	37	7,000	25
Tennessee	7,000	24	7,000	37	7,000	25
Texas	9,000	19	8,000	25	7,000	25
Utah	13,600	6	13,200	6	7,000	25
Vermont	8,000	21	8,000	25	12,900	6
Virginia	7,000	24	7,000	37	8,000	22
Washington	15,600	4	15,100	3	7,000	25
West Virginia	8,000	21	8,000	25	13,200	5
Wisconsin	10,500	14	10,500	15	10,500	15
Wyoming	10,400	15	10,200	16	10,300	16

Sources: U.S. Department of Labor Employment and Training Administration, UI Data Summary 4th Quarter Calendar Year 1988, pub. May 1989:19 -72

National Foundation for Unemployment Compensation and Workers' Compensation, Highlights of State Unemployment Compensation Laws -January 1987, 1987:30

to twenty-two. The taxable wage base for 1989 is $18,600, and Hawaii again ranks second among the states. In 1987, taxable wages were 68.4% of total wages in Hawaii.

Tax Rates[5]

The federal government requires all states to tax employers on the basis of their experience with unemployment. Thus all states now have an experience rating system. Four different types of experience rating are presently in use. Of these, Hawaii uses the reserve ratio system. The reserve ratio is the earliest formula used and is still the most popular, being used by thirty-one states to compute employer UI contributions. In Hawaii, the standard tax rate for all employers is 5.4%. New employers qualify for a lower rate than the standard rate. In twenty-two states, including Hawaii, these employers can qualify for experience rating and reduced UI rates after one year. Other states have longer waiting periods.

Under the reserve ratio system, an employer's basic tax rate reflects his cumulative experience with unemployment. The state UI trust fund keeps separate accounts of each employer's record -- his payroll amount, his contributions, and the benefits paid out of his cumulative contributions to any of his unemployed workers. Benefits are subtracted from his contributions, and the balance is divided by his payroll, which yields the reserve ratio. The higher the ratio the lower his contribution rate. This formula was designed to ensure that an employer will be granted a lower basic rate if his contributions to the UI fund exceed the benefits that his workers draw out. Since the maximum rate payable by an employer is 5.4% of taxable wages, an employer's reserve ratio can be negative, meaning that he is being subsidized by other employers. At the present time, there are approximately 1,300 employers with negative reserve ratios.

Not all benefits collected by a firm's former employees are charged against the firm's reserve account. Generally, benefits paid out to former employees who are unemployed for reasons beyond the fault of the employer, such as to an employee who was discharged for misconduct, are not charged against the employer's reserve account. Rather, they are charged against the overall trust fund, the Hawaii Unemployment Compensation Fund. To finance these benefit payments, Hawaii also levies a fund solvency rate on employers. Fund solvency refers to the ability of the state UI trust fund to finance unemployment benefits from the accumulated reserves and current employer contributions. For each employer, the combined basic rate determined under the experience rating system and the fund solvency rate cannot exceed 5.4%. With a healthy fund balance of over $300 million, the present fund solvency rate is -.5%. However, employers with negative reserve ratios are not eligible to receive the negative fund solvency rate. I employers who qualify, the combined negative fund solvency rate and their basic rates could mean an effective UI tax rate of 0%. Presently, about 4,900 Hawaii employers out of nearly 25,000 with experience ratings pay no UI taxes.

Effective Cost to Employers

Table 2 displays information on UI tax rates on Hawaii employers between 1970 and 1989. Presently, the estimated average tax rate on taxable wages is 1.2% and the average tax rate on total wages is only .6%. The current low rates are due to the low unemployment rates in the state. During the early and mid-1970s when annual unemployment rates exceeded 6%, UI tax rates were several times the current rate.

There are differences in tax rates across industries and among firms of different sizes. Table 3 shows that rates are highest in the construction industry and lowest in service

5. The Hawaii data in this section were kindly provided by Ms. Dayle Kobashigawa of the Hawaii Unemployment Insurance Statistics Office.

TABLE 2. HAWAII UNEMPLOYMENT INSURANCE RATES --1970 THRU 1989

Year	Average Tax Rate on Taxable Wages	Average Tax Rate on Total Wages	Year	Average Tax Rate on Taxable Wages	Average Tax Rate on Total Wages
1970	1.2%	0.8%	1980	2.1%	1.4%
1971	1.4	1.0	1981	1.8	1.2
1972	1.9	1.3	1982	1.8	1.3
1973	1.8	1.2	1983	2.3	1.6
1974	1.9	1.2	1984	1.9	1.3
1975	2.6	1.7	1985	1.6	1.1
1976	2.9	1.9	1986	1.7	1.2
1977	3.5	2.4	1987	1.7	1.2
1978	3.5	2.4	1988	1.2	0.6
1979	2.8	1.9	1989	1.2 est.	0.6

Sources: State of Hawaii, Annual Unemployment Compensation Fund Report, 1989:13;

U.S. Department of Labor Employment and Training Administration, UI Data Summary 4th Quarter Calendar Year 1988, pub. May 1989

industries. Table 4 shows that large firms pay lower rates than small firms.

How does Hawaii compare with other states? Table 5 shows that for 1988, the effective UI tax rate as a percentage of total wages in Hawaii was .6%. Hawaii ranked thirty-ninth among fifty states and Washington D.C. However, 1988 was a special year when Hawaii's taxable wage base was reduced by nearly 50% from the previous year. Had the effective tax rate been double what it actually was, Hawaii would have ranked twenty out of thirty-seven. Adjusted for differences in the industrial structure of the states' economies, in 1987 Hawaii would have ranked thirtieth in agriculture; forty-second in mining; twenty-third in construction; fortieth in manufacturing; thirtieth in transportation, communications, and utilities; thirty-third in wholesale and retail trade; thirty-first in finance, insurance and real estate; and thirty-third in services.[6]

Conclusion

Our conclusion from the survey of unemployment insurance programs among the fifty states is that Hawaii is not a particularly high cost state. Hawaii's unemployment tax rate ranks below the median among the fifty states. Presently, the effective tax rate is less than 1% of total wages paid; hence it is difficult to imagine that the state's unemployment insurance program is a deterrent to business relocation, expansion, or employment creation in Hawaii.

WORKERS' COMPENSATION

Workers' Compensation (WC) is a

TABLE 3. UNEMPLOYMENT INSURANCE CONTRIBUTION BY INDUSTRY: AS % OF WAGES - HAWAII: 1987 AND 1988

	% of Total Employment		Taxable Wages as % of Total Wages		UI Contributions as ratio of Taxable Wages		UI Contributions as ratio of Total Wages	
Industry	1987	1988	1987	1988	1987	1988	1987	1988
Agriculture	3%	3%	.770	.480	.0207	.0154	.0159	.0074
Construction*	6	6	.601	.370	.0369	.0343	.0222	.0127
Manufacturing	6	6	.695	.432	.0180	.0150	.0125	.0065
TCU**	11	10	.591	.395	.0141	.0116	.0083	.0046
Wholesale	6	6	.631	.392	.0144	.0094	.0090	.0037
Retail	29	29	.812	.594	.0135	.0094	.0110	.0056
FIRE***	10	9	.655	.403	.0128	.0087	.0084	.0035
Services	28	30	.686	.455	.0161	.0112	.0110	.0051
Other	0	0	.719	.566	.0030	.0285	.0216	.0161
Total	100	100	.684	.453	.0169	.0129	.0116	.0059

Sources: State of Hawaii, Annual Unemployment Compensation Fund Financing Report, 1989:20;

State of Hawaii, Finance Report, 1987 (unpublished):Table 17 and Table 18 (courtesy of Dayle Kobashigawa, Research Statistician; and Ken Lee, Unemployment Insurance Research Section, State of Hawaii)

Notes: * includes Mining
** Transportation, Communication, Utilities
*** Finance, Insurance, Real Estate

TABLE 4. UNEMPLOYMENT CONTRIBUTIONS BY SIZE OF FIRM HAWAII: 1987 AND 1988

Size of Firm by Employment	% of Total State Employers		% of Total State Employment		UI Contributions as ratio of Taxable Wages		UI Contributions as ratio of Total Wages	
Size	1987	1988	1987	1988	1987	1988	1987	1988
less than 5	61%	60%	8%	8%	.0210	.0166	.0127	.0071
5 — 9	14	15	7	6	.0193	.0149	.0130	.0067
10 — 49	12	13	11	11	.0192	.0183	.0132	.0066
20 — 49	8	8	15	15	.0196	.0144	.0134	.0066
50 — 99	3	3	12	12	.0191	.0146	.0131	.0068
100 — 249	1	1	15	15	.0165	.0117	.0109	.0051
250 or more	1	1	33	34	.0135	.0105	.0095	.0048
Totals ----	100	100	100	100	.0129	.0169	.0058	.0116

Sources: State of Hawaii, Annual Unemployment Compensation Fund Financing Report, 1989:19;

State of Hawaii, Finance Report, 1987 (unpublished): Table 15 and Table 16 (courtesy Dayle Kobashigawa and Ken Lee, Unemployment Insurance Research Section, State of Hawaii)

6. U.S. Department of Labor, Bureau of Labor Statistics, Office of Employment and Unemployment Statistics, Division of Occupational and Administrative Statistics, release dated February 9, 1989.

TABLE 5. STATES' TAXABLE AND TOTAL WAGES, TAX RATES, AND RANKING -1988

State	Total Wages ($ millions)	Rank	Total Tax Rate	Rank	State	Total Wages ($ millions)	Rank	Total Tax Rate	Rank
Alabama	$ 26,662	25	0.7%	36	Missouri	$ 42,145	15	0.7%	36
Alaska	5,281	47	3.0	1	Montana	4,163	49	1.4	17
Arizona	27,575	23	0.6	39	Nebraska	10,789	35	0.5	45
Arkansas	13,687	32	1.2	20	Nevada	10,289	39	0.9	30
California	285,283	1	0.8	33	New Hampshire	10,376	38	0.3	53
Colorado	28,563	22	0.9	30	New Jersey	87,472	8	1.0	26
Connecticut	41,772	16	0.6	39	New Mexico	8,723	43	1.0	26
Delaware	6,290	45	1.0	26	New York	203,295	2	0.8	33
District of Columbia	12,037	34	0.6	39	North Carolina	52,509	12	0.5	45
Florida	93,716	7	0.4	49	North Dakota	3,644	50	1.8	7
Georgia	54,677	11	0.6	39	Ohio	94,345	6	1.3	18
Hawaii	8,676	44	0.6	39	Oklahoma	19,580	29	1.1	23
Idaho	5,655	46	2.0	4	Oregon	20,831	28	1.9	5
Illinois	111,894	4	1.2	20	Pennsylvania	100,001	5	1.6	13
Indiana	45,555	14	0.5	45	Rhode Island	8,773	41	1.7	9
Iowa	19,062	30	1.5	15	South Carolina	24,081	26	0.8	33
Kansas	18,182	31	1.1	23	South Dakota	3,564	51	0.4	49
Kentucky	23,311	27	1.1	23	Tennessee	36,887	21	0.6	39
Louisiana	26,994	24	1.7	9	Texas	131,210	3	1.3	18
Maine	8,762	42	1.0	26	Utah	10,724	36	0.9	30
Maryland	41,175	17	0.4	49	Vermont	4,418	48	1.5	15
Massachusetts	70,940	10	0.7	36	Virginia	50,958	13	0.4	49
Michigan	85,750	9	1.6	13	Washington	37,027	20	2.2	3
Minnesota	40,847	18	1.2	20	West Virginia	10,724	37	1.7	9
Mississippi	13,504	33	0.5	45	Wisconsin	39,797	19	1.7	9
					Wyoming	3,247	52	1.8	7

Source: U.S. Department of Labor Employment and Training Administration, UI Data Summary 4th Quarter Calendar Year 1988, pub. May 1989:19 -72

means of insuring workers against unanticipated interruptions in income due to work-related injury or illness. In the case of death this program also provides benefits to dependents of workers who are victims of work-related fatalities.

Before the introduction of WC programs, employees had to resort to courts and expensive litigation to seek reparations for loss of income that resulted from work-related injuries. Moreover, if death resulted from such an accident, the dependents of the deceased had no recourse to legal action. The practice of basing liability on negligence was often inadequate, never consistent, and always uncertain. There was a need for WC as a new approach to compensate injured workers and also to protect employers from potential catastrophic losses through litigation.[7]

Presently, each of the fifty states administers its own WC programs and no two programs are exactly alike. In general, each state determines the type of injuries to be covered under WC and the size of the benefits awarded for a particular type of injury. Table 6 presents the major WC provisions by state for 1988.

WC can either be compulsory or elective. Under an elective law, the employer can elect not to provide WC; but if he rejects the act, he loses the common law defenses -- 1) assumption of risk of the employee; 2) negligence of fellow employees; and 3) contributory negligence of the employee. This means that in practically all states WC laws are compulsory, meaning that employers are required to provide workmen's compensation and abide by the provisions of the states' WC laws.

Presently, twenty of the forty-eight compulsory states have State funds. A State Fund is an entity created by a state legislature to provide WC insurance to employers.[8] Fourteen of these State funds are competitive, meaning that the state allows employers the option to choose the State fund, private carrier, or self insurance for fulfilling WC provisions.

7. Informational Conference on Workers' Compensation State Funds -- Outlines, Texts, Materials of Presenters; Ala Moana Hotel, Honolulu, Hawaii. September 2 - 4, 1987. Speaker E.A. Sandberg:pp. 1-2 of transcript.

8. Informational Conference on Workers' Compensation State Funds. September 2-4, 1987. Speaker E.A. Sandberg, transcript:1.

TABLE 6. SUMMARY OF WORKERS' COMPENSATION PROVISIONS BY STATE —1988

State	Type of Law: (C)ompulsory (E)lective	State Funds: Competitive or Exclusive	Private Carrier ok	Self Insurance ok
Alabama	C		yes	yes
Alaska	C		yes	yes
Arizona	C	Competitive	yes	yes
Arkansas	C		yes	yes
California	C	Competitive	yes	yes
Colorado	C	Competitive	yes	yes
Connecticut	C		yes	yes
Delaware	C		yes	yes
District of Columbia	C		yes	yes
Florida	C	yes	yes	
Georgia	C		yes	yes
Hawaii	C	Competitive	yes	yes
Idaho	C	Competitive	yes	yes
Illinois	C		yes	yes
Indiana	C		yes	yes
Iowa	C		yes	yes
Kansas	C		yes	yes
Kentucky	C		yes	yes
Louisiana	C		yes	yes
Maine	C		yes	yes
Maryland	C	Competitive	yes	yes
Massachusetts	C		yes	yes
Michigan	C	Competitive	yes	yes
Minnesota	C	Competitive	yes	yes
Mississippi	C		yes	yes
Missouri	C		yes	yes
Montana	C	Competitive	yes	yes
Nebraska	C		yes	yes
Nevada	C	Exclusive	no	yes
New Hampshire	C		yes	yes
New Jersey	E		yes	yes
New Mexico	C		yes	yes
New York	C	Competitive	yes	yes
North Carolina	C		yes	yes
North Dakota	C	Exclusive	no	no
Ohio	C	Exclusive	no	yes
Oklahoma	C	Competitive	yes	yes
Oregon	C	Competitive	yes	yes
Pennsylvania	C	Competitive	yes	yes
Rhode Island	C		yes	yes
South Carolina	E		yes	yes
South Dakota	C		yes	yes
Tennessee	C		yes	yes
Texas	E		yes	no
Utah	C	Competitive	yes	yes
Vermont	C		yes	yes
Virginia	C		yes	yes
Washington	C	Exclusive	no	yes
West Virginia	C	Exclusive	no	yes
Wisconsin	C		yes	yes
Wyoming	C	Exclusive	no	no

Source: U.S. Chamber of Commerce, 1988 Analysis of Workers' Compensation Laws, 1988:3–4; 42–43

Hawaii's Worker's Compensation Program was first initiated by the Territorial Government in 1915. Since 1915, Hawaii's WC law has been subject to several legislative amendments and in 1963 it was completely revised and enacted as Chapter 386, Hawaii Revised Statutes.[9] In 1985 Chapter 386A of the Hawaii Revised Statutes established a Workers' Compensation State (Insurance) Fund. The Fund will become operational when the legislature provides loans to get the fund started.

Premium Rates

As with UI insurance, WC premiums are paid by employers. Fremium rates for WC insurance are computed scientifically. Accident "experience" of employers is used in a similar way as unemployment "experience" in determining premium rates, with one major exception.

Accident experience throughout American business is collected by an agency recognized by all insurance carriers and state fund administrators in the U.S. This agency -- the National Council on Compensation Insurance -- operates in most states. It grew out of a 1915 conference which agreed that rate making for compensation insurance could not be handled by each state separately. The states that maintain independent agencies cooperate with the Council in making rates. The Councils's manual rates generally are a basis for compensation rates charged by stock and mutual companies.

Member companies of the Council report experience incurred under WC policies. This experience serves as a basis for WC insurance. Where statutes provide for rate regulation by a state supervising authority, revised compensation rates and supporting data are filed annually with it; often, public hearings are held before rates are revised. The supervising authority must approve the rates carriers charge. All states now provide for rate regulation by state authority.

Interstate Variations in Employers' Costs

One way to compare how Hawaii ranks relative to other states in terms of the WC costs it imposes on employers is to look at the ratio of the earned premium paid by employers to total payroll in the state. This ratio is called the averaged earned rate. Data from the National Council on Compensation Insurance (Table 7) show the average earned rate ranged from a low of 1.33% in Indiana to a high of 5.92 in Alaska. Hawaii's ratio is 3.92, meaning that WC premiums in Hawaii represent roughly 4% of total payrolls. Hawaii ranks seven among the thirty-seven states for which data are available. Compared to other states, Hawaii's WC insurance is relatively costly.

There are numerous reasons why it is hazardous to use the numbers in Table 7 to compare WC costs across the states. There are many factors which determine the overall average earned rate and these vary across the states. These factors include the following:[10]

- The benefit levels of WC laws will vary among states.
- Not only can the administration of the law in each jurisdiction be organized differently (an industrial commission operation vs. a court operation) but also the attitudes of the administrators themselves may be different. For instance, one state may have a very liberal administrative body, whereas another has a very conservative one.
- The economic structure of the states might be quite different.
- Wage levels vary by state and the average wage will affect the weekly benefit paid to an injured worker. Thus, it will have an impact on the average cost per case in a jurisdiction.
- Payment of dividends by insurance carriers to policy holders.
- Individual carrier rate deviations which are permitted in some states.

Of course, it is not possible to adjust the average earned premium to account for all of the possible factors that would affect the earned rate; hence the data in Table 7 should be interpreted with caution.

In June, 1989, Grant Thornton published its tenth annual manufacturing climate study.[11] States were ranked according to twenty-one factors weighted by the factors' importance to manufacturers. For the first time, Hawaii and Alaska were included in the study.

In the survey of manufacturing concerns, WC insurance ranked fourth in importance after wage levels, availability of skilled workforce, and the unionization of the work force. Among the fifty states, Hawaii's WC

9. Informational Conference on Workers' Compensation State Funds. September 2-4, 1987. Speaker Orlando Watanabe, p. 1 of transcript of presentation.

10. Kathleen B. Sansone, Vice President Hawaii Insurance Rating Bureau, Inc. P.O. Box 4500. Honolulu, Hawaii 96812-4500.

11. Grant Thornton Accounts and Management Consultants, 10th Annual Grant Thornton Manufacturing Climates Study - June 1989, 1989: pp. 85-93; 181; 190-193.

TABLE 7. VARIATIONS IN EMPLOYERS' COST OF WORKERS' COMPENSATION - APRIL, 1989*

State**	Policy Period (1)	(1) & (2) (rounded) in $ Billions: Standard Earned Payroll (2)	Average Earned Rate (2)/(1) Premium (3)	x's 100	Rank (4)
Alabama	1985-86	$12.482	$ 0.382	3.06	17
Alaska	1985-86	3.656	.217	5.92	1
Arizona	1985-86	14.487	.493	3.41	13
Arkansas	1985-86	6.865	.220	3.20	16
Colorado	1985-86	19.477	.751	3.85	8
Connecticut	1985-86	20.955	.678	3.24	15
Delaware	1983-84	2.368	.066	2.77	20
Dist.Columbia	1985-86	6.700	.115	1.72	34
Florida	1984-85	37.716	1.565	4.15	6
Georgia	1985	28.490	.992	3.48	10
Hawaii	**1984-85**	**4.160**	**.163**	**3.92**	**7**
Idaho	1985-86	3.648	.126	3.47	11
Illinois	1985-86	55.109	1.420	2.58	21
Indiana	1984-85	26.349	.351	1.33	37
Iowa	1985-86	11.491	.241	2.10	27
Kansas	1985	12.079	.251	2.08	28
Maine	1985-86	4.588	.253	5.51	2
Massachusetts	1983-84	35.403	.765	2.16	26
Mississippi	1985	8.029	.231	2.88	19
Missouri	1985	24.451	.467	1.91	30
Montana	1985-86	2.952	.123	4.17	5
Nebraska	1985-86	6.949	.118	1.69	35
New Hampshire	1985-86	5.936	.203	3.42	12
New Jersey	1983	41.643	.752	1.81	31
New Mexico	1985	4.593	.220	4.80	3
North Carolina*	1985	26.514	.374	1.41	36
Oklahoma	1985-86	11.160	.375	3.36	14
Pennsylvania	1983-84	51.032	1.497	2.93	18
Rhode Island	1985	4.817	.170	3.53	9
South Carolina	1985	11.301	.289	2.56	22
South Dakota	1985	2.350	.057	2.44	24
Tennessee	1985	19.471	.433	2.23	25
Texas	1985	88.080	4.066	4.62	4
Utah	1985-86	6.373	.114	1.80	33
Vermont	1985-86	3.043	.061	2.02	29
Virginia	1985-86	25.826	.466	1.80	32
Wisconsin	1985	24.520	.615	2.51	23

Note: There are 37 states contained in this exhibit from #1, Highest to # 37, Lowest

*Based on implemented 1/1/88 rate level change +15.9%

**California, Minnesota, and New York figures are not available

Source: National Council on Compensation Insurance courtesy of Kathleen B. Sansone, Vice President, Hawaii Insurance Rating Bureau

insurance levels for 1988 had a factor value of 1.449 compared to the national factor value of 1.0. The factor value represents the ratio of a state's weighted average WC rate per $100 of payroll to the national average of $3.73. Rates were weighted according to a national distribution of manufacturing payrolls. The rates account for the effects of experience rating, premium discounts, dividend plans, and schedule ratings. Thus, for 1988, WC insurance levels were nearly 45% higher in Hawaii relative to the national average.

However, Hawaii's factor value was lowest among the western states:

EXHIBIT A

State	Factor Value
Alaska	1.581
California	1.792
Hawaii	1.449
Oregon	1.519
Washington	NA
Western Region	1.507

Conclusion

Our survey of workmen's compensation programs among the states finds that Hawaii's WC program is relatively costly. In 1989, Hawaii's average earned rate of 3.92% of total payrolls ranks seventh among thirty-seven states for which data are available. Among manufacturing establishments, WC insurance rates were nearly 45% higher in Hawaii relative to the national average in 1988, although it was the lowest among the western states.