
Review of the Insurance Rate Increase Request by **AIG Hawaii, Inc.**

A Report to the
Governor
and the
Legislature of
the State of
Hawaii

Conducted by
KPMG Peat Marwick

Submitted by

THE AUDITOR
STATE OF HAWAII

Report No. 92-13
October 1992

Foreword

The Hawaii State Legislature requested the State Auditor to conduct an independent review of the 44 percent automobile insurance rate increase granted to AIG Hawaii, Inc. in April 1991. The purpose of the review was to determine whether the increase was warranted and justifiable.

We secured professional and technical expertise for the review from the Casualty Actuarial Practice of KPMG Peat Marwick. The consultant conducted the research, fieldwork, and analysis for the review and prepared a draft report. Our office participated in preparing the final report.

We join KPMG Peat Marwick in expressing our appreciation for the excellent cooperation and assistance extended by officials and staff of the Insurance Division of the Department of Commerce and Consumer Affairs.

Marion M. Higa
State Auditor

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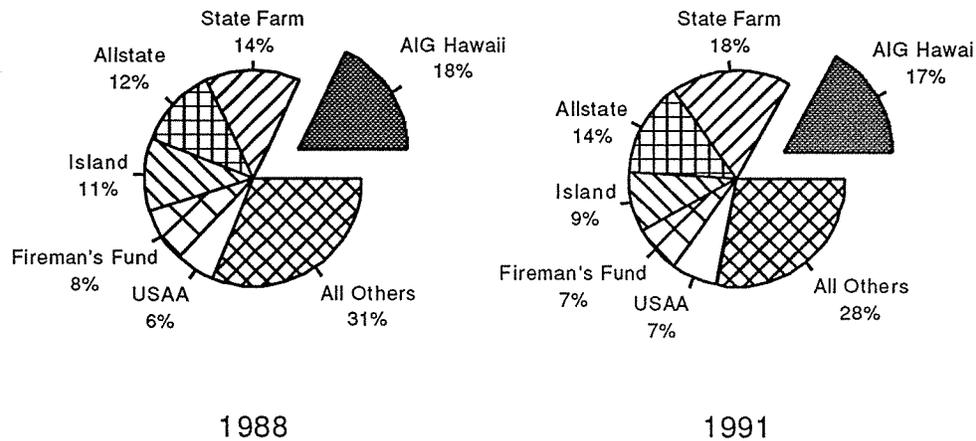
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Chapter 1

Introduction

AIG Hawaii Insurance Company (AIG Hawaii or the company), a member of the American International Group (AIG), was established in 1987 and began doing business in Hawaii in 1988. Since then, AIG Hawaii has become one of the top six insurers of private passenger motor vehicles in Hawaii, based on the number of vehicles insured. Figure 1.1 shows AIG Hawaii's relative market share for 1988 and 1991.

Figure 1.1
Private Passenger Automobile Insurance
Market Share by Insurer



Source: Insurance Division Annual Rate Comparisons Published in 1988 and 1991.

AIG Hawaii obtained its initial insurance accounts through a related insurance agency, Hawaii Insurance Consultants, Inc. (HIC). Prior to AIG Hawaii's incorporation, HIC had written automobile insurance accounts through another AIG-owned insurance company. Once AIG Hawaii was formed, HIC re-enrolled its automobile insurance accounts with AIG Hawaii and has continued to offer this kind of insurance through AIG Hawaii. AIG Hawaii's total automobile insurance accounts, which include accounts written through HIC, its own branch office, and its network of independent agents, has made the company the state's second largest property and casualty underwriter.

In January 1991, AIG Hawaii submitted a request to the Insurance Division of the State Department of Commerce and Consumer Affairs for an aggregate statewide increase of 44 percent for its private passenger motor vehicle insurance policies issued on or after April 1, 1991. The division granted the request after review by its Rate and Policy Analysis Branch and its consulting actuary.

In November 1991, Insurance Commissioner Robin Campaniano resigned and shortly thereafter accepted a position as president of AIG Hawaii. Upon his acceptance of the position with AIG Hawaii, newspaper editorials questioned the possibility of a connection between AIG Hawaii's rate increase and his appointment as the company's president. Legislators also expressed concern about Campaniano's potential conflict-of-interest and public perceptions of unethical behavior on his part.

To assure the public that AIG Hawaii had not received preferential treatment, the Legislature requested the State Auditor to review AIG Hawaii's rate filing, to identify the procedures used by the Insurance Division in reviewing the request, and to determine if the division used appropriate industry standards for granting the rate increase. The purpose of this review is to determine if the rate increase approved for AIG Hawaii was warranted and justifiable.

Objectives of the Review

1. To identify and evaluate the standards and procedures established by the State Insurance Division for granting rate increases to motor vehicle insurance companies.
2. To determine if the rate increase granted to AIG Hawaii complied with the division's standards and procedures.
3. To determine if the rate increase granted to AIG Hawaii was warranted based on the company's financial status, losses, expenses, reserves, and other relevant factors.
4. To compare the motor vehicle insurance rates of AIG Hawaii (both before and after the 44 percent rate increase) with those of other major motor vehicle insurance companies and with industry standards and trends.

Scope of the Review

We reviewed AIG Hawaii's 1990 and 1991 rate filings, which included its April 1991 rate request. We also reviewed annual statements, insurance expense exhibits, and special Hawaii motor vehicle insurance

experience reports for the years 1988, 1989, 1990, and 1991. In addition, we compared AIG Hawaii's rate filings with the 1990 and 1991 rate filings of State Farm Mutual Automobile Insurance Company, Allstate Insurance Company, Hawaiian Underwriters Insurance Company, and Island Insurance Company.

Method of Review

We reviewed Hawaii insurance rating laws and documents from the Insurance Division. In addition, we interviewed key individuals in the Rate and Policy Analysis Branch of the Insurance Division. Those interviewed included the Chief of the Rate and Policy Analysis Branch (chief analyst) and the Insurance Division's consulting actuary. The division does not have an actuary on its staff so it contracts for the services of an actuary.

We also reviewed Hawaii's statutes on property and casualty insurance rates and rate filings in general (Chapter 431, Article 14), and on motor vehicle insurance rates and rate filings in particular (Chapter 431, Article 10C). This furnished the background for evaluating the Insurance Division's enforcement of statutory, actuarial, and industry standards.

We examined key documents of the Hawaii Insurance Rating Bureau, State Farm Mutual Automobile Insurance Company, Allstate Insurance Company, Island Insurance Company, and Hawaiian Underwriters Insurance Company. We reviewed their 1990 and 1991 motor vehicle insurance rate filings, 1990 annual financial statements and insurance expense exhibits, and the special Hawaii motor vehicle insurance experience reports.

Furthermore, we reviewed copies of all AIG Hawaii-related materials, and other related documents and summaries of motor vehicle insurance rates and rate filing activity prepared by the Insurance Division. (A complete list of the documents we reviewed is included as Appendix A.)

We prepared estimates of AIG Hawaii's profit or loss from underwriting private passenger motor vehicle insurance from its inception in 1988 through December 31, 1991. We also prepared our own actuarial analyses to evaluate the AIG Hawaii's April 1991 rate request.

Additionally, we reviewed annual comparisons of representative rates as published by the Insurance Division from 1988 through 1991 and the division's preliminary rate comparisons for 1992 for the counties of Oahu, Maui, Kauai, and Hawaii. (The information from these published studies is summarized for the five years and presented in Appendix B.)

Our work was performed from May 1992 through August 1992 in accordance with generally accepted government auditing standards.

Chapter 2

Insurance Rates and the Rate Review Procedures of the Insurance Division

This chapter discusses ratemaking or how insurance rates are developed, including a discussion of actuarial principles affecting ratemaking and the impact of Hawaii's motor vehicle insurance rating laws on the ratemaking process. It also describes the Insurance Division's procedures for reviewing automobile insurance rate request filings.

Summary of Findings

1. The standards and procedures established and used by the Insurance Division for granting rate increases to motor vehicle insurance companies comply with Hawaii's insurance rating laws, with generally accepted actuarial principles of ratemaking, and with recognized industry standards.
2. The division's standards and procedures are fair and thorough but not formally documented.

Motor Vehicle Insurance Ratemaking

To understand rate calculations and the Insurance Division's review process, it is useful to review certain concepts for developing insurance rates, commonly referred to as ratemaking. Ratemaking is guided by actuarial principles and state laws. (A good starting point is the Casualty Actuarial Society's Statement of Principles Regarding Property and Casualty Insurance Ratemaking, included as Appendix C).

Actuarial principles

The four basic principles of property and casualty ratemaking that apply to motor vehicle insurance are that it be actuarially sound, reasonable, adequate, and fair.

1. A rate is an estimate of the expected value of future costs. An actuarially sound rate is prospective in nature; it is not designed to make up for past losses.
2. A rate provides for all costs associated with the transfer of risk. A rate should cover all costs, including a reasonable profit. This principle is necessary for the insurance system to be financially sound. The insurer is not guaranteed a profit but has the expectation of and a provision for a profit in the rate.

3. A rate provides for the costs associated with an individual risk transfer. There should not be cross subsidies. Each measurable and credible risk, or class of risks, should pay the expected value of its future costs.
4. A rate is reasonable and not excessive, inadequate, or unfairly discriminatory if it is an actuarially sound estimate of the expected value of all future costs associated with an individual risk transfer. This final principle relates to the fairness of rates. If rates are based upon principles 1, 2, and 3, then they are actuarially sound and comply with the four criteria typically applied by casualty actuaries. Note that fair discrimination (for example, different rates for different classes of business) is required for rates to be actuarially sound. In Hawaii, as in several other states, certain forms of actuarially sound discrimination are prohibited by law. Chapter 431, Article 10C, Section 207 states:

No insurer shall base any standard or rating plan, in whole or in part, directly or indirectly, upon a person's race, creed, ethnic extraction, age, sex, length of driving experience, credit bureau rating, marital status, or physical handicap.

Thus, while there may be actuarially sound reasons for different rates based upon such factors as age and length of driving experience, using these factors to develop different rates is prohibited by law.

Insurance rating laws

Hawaii's insurance rating laws are contained in Chapter 431, Insurance Code, Article 14, Rate Regulation (generally applies to all property and casualty insurance); and Chapter 431, Insurance Code, Article 10C, Motor Vehicle Insurance, Part II, Rates and Administration (adapts and expands Article 14 to deal specifically with motor vehicle insurance).

Hawaii had a "file and use" form of rate regulation when the AIG rate increase request was filed. Under this form of regulation an insurer must file a request for rate increase with the Insurance Commissioner before the increase can be implemented. The Insurance Commissioner did not have to approve a rate increase request for it to be executed; rather, the rate increase would be implemented unless the Insurance Commissioner specifically objected to the request because of noncompliance. The presumption of compliance with insurance statutes is with the insurer, but the insurer must present sufficient information with its filing to enable the Insurance Division to determine compliance.

Act 124, Session Laws of Hawaii 1992 amended the insurance code to require "prior approval" of automobile insurance rate changes. Under prior approval, the insurer must still present sufficient information with

its filing for the Insurance Division to determine that the rates comply with the statutes. However, the division must approve the change before it can be implemented. Under “prior approval,” anyone affected by a rate change can request an administrative hearing.

In both “file and use” and “prior approval,” the insurer must file changes to its rules and rates before the rate change can be implemented. Thus, the Insurance Division can prevent an insurer from implementing rate changes (though subject to administrative and court review).

Statutory ground rules

Hawaii’s motor vehicle insurance rating laws also established certain ground rules for rate filings and rate review during the period of the AIG rate increase request. The ground rules stated that each licensed insurer shall establish its own rate schedule, file new rates before they can be implemented, and meet certain timelines in filing its materials. The insurer must also submit sufficient information to the Insurance Commissioner to demonstrate compliance with the statutes. Thereafter, the filing is allowed unless the Commissioner objects.

Consistency with actuarial principles

In addition, the statutes provide for consistency with actuarial principles and set out many of the standards upon which the Insurance Division bases its review of rate filings. The statutes say that:

1. “Rates shall not be excessive, inadequate, or unfairly discriminatory;” Chapter 431:10C-202(a1).
2. “Due consideration shall be given to:
 - (A) Past and prospective loss experience in this State, catastrophe hazards, if any, ...;
 - (B) Reasonable margin for profit from and contingencies in the administration of motor vehicle insurance sold;
 - (C) Past and prospective expenses in the sale and administration of motor vehicle insurance;
 - (D) Investment income from reserves, unearned insurance premiums, and other unearned proceeds ..., and all other factors deemed relevant ...,” Chapter 431:10C-202(a).

Insurance Division Review Procedures Are in Compliance but Not Formally Documented

The Insurance Division's standards and procedures are consistent with Hawaii's insurance laws, the Casualty Actuarial Society's principles of ratemaking (except as constrained by statute), and established industry standards.

Under the "file and use" law, all filings were logged in and generally reviewed within the thirty day statutory period.

The Insurance Division required insurers to submit private passenger motor vehicle rate filings that had all the required information in a format that simplified the division's review process. When a filing was incomplete or unclear, the division requested additional information.

On occasion, the division compiled unpublished benchmarks for all key steps in the rate calculation process, including loss development, frequency and severity trends, expense levels, and investment income. The calculations of premiums at current rates were checked for reasonableness using the timing and amounts of previous rate changes.

Further, as a reasonableness check, the division compared average loss costs under a proposed filing with those filed by the Hawaii Insurance Rating Bureau and other insurers. The bureau is an actuarial organization that makes filings on behalf of some of its members using the combined loss experience of many insurers representing a majority of the market in the State.

The Insurance Division's consulting actuary reviewed all rate filings referred by the division including:

- filings made by rating bureaus, such as the Hawaii Insurance Rating Bureau, that affect a large number of insurers;
- filings of insurers with large populations of insureds; and
- filings requesting large rate increases.

The consulting actuary is experienced and qualified in reviewing private passenger motor vehicle insurance rate filings. The actuary is an Associate of the Casualty Actuarial Society, a Member of the American Academy of Actuaries, and a Fellow of the Conference of Consulting Actuaries. He is also the division director and chief casualty actuary for the South Carolina Department of Insurance.

Our review determined that the standards and procedures used by the Insurance Division to evaluate rate filings are reasonable, fair, and

thorough. We note however that the division has not formally documented these procedures.

It is important that practices and procedures be formally documented. A policy and procedures manual with review procedures and forms to document that the procedures have been followed would ensure consistency in reviewing rate request filings and enhance training of new staff.

Recommendation

The Insurance Division should develop a policy and procedures manual for reviewing rate request filings and for documenting that procedures have been followed.

Chapter 3

AIG Hawaii's Rate Increase Request

This chapter presents the results of our review of the April 1991 rate request filing made by AIG Hawaii. It also presents the results of our review of rate request filings of other insurance companies. We found that the AIG Hawaii rate increase was warranted and that the Insurance Division was consistent in its review procedures.

Summary of Findings

1. The aggregate statewide 44 percent rate increase granted to AIG Hawaii was warranted and the Insurance Division's review complied with (a) the standards and procedures established by the Insurance Division, (b) Hawaii's motor vehicle insurance rating laws, and (c) generally accepted actuarial principles of ratemaking.
2. The Insurance Division's standards and procedures were fairly and consistently applied to all companies whose rate filings we reviewed, including AIG Hawaii's rates which were not out of line with those of other insurers in the state.

The AIG Hawaii Rate Increase was Warranted

AIG Hawaii entered the private passenger motor vehicle insurance market in 1988 with rates near the low end of the market. For example, in the Insurance Division's 1988 Rate Comparison, AIG Hawaii's representative rate on Oahu was \$818 for all coverages. Of the other five largest motor vehicle insurers in Hawaii, only State Farm had a lower rate (\$797), while the other four had rates ranging from \$915 to \$1054. Because of its low rates, AIG Hawaii quickly acquired 18 percent of the Hawaii automobile insurance market and became one of the six largest automobile insurers in Hawaii.

AIG Hawaii reported in its financial statements that its net income for the first two years of operation (1988 and 1989) was a net loss of about \$460,000. Upon review however, it was found that insurance losses for this period aggregated \$20 million. Of this, \$10 million was absorbed by affiliated companies. AIG Hawaii had to increase its loss reserves and its parent company was required to provide additional capital. To improve profitability, it filed for and was granted an 18.4 percent rate increase effective November 1, 1990.

***The November 1990
rate increase was too
low***

AIG Hawaii's November 1990 rate increase was too low for two reasons. First, to project future losses, AIG Hawaii relied on national trend rates to project claims' frequency and claims' costs. However, the national trend rates were not applicable to Hawaii since they were lower than those experienced by the insurance industry as a whole in Hawaii, including AIG Hawaii, during the previous two years.

Second, the request for an 18.4 percent increase was too low based on the trend rates used. Even using the optimistic trend rates, AIG could have requested a larger increase. AIG Hawaii had determined that a rate increase of 30.2 percent was warranted, yet chose to request an increase of only 18.4 percent.

***The December 1989
reserves were too
low***

Shortly after implementing its 18.4 percent rate increase, AIG Hawaii discovered a significant shortage in its loss and loss adjustment expense reserves. It needed \$19.2 million more in reserves than the \$29.1 million on its books as of December 31, 1989. AIG Hawaii made the \$19.2 million reserve adjustment just as it found that actual losses exceeded original estimates.

Facing a serious shortfall in its loss reserves and realizing that its rates were based on unduly optimistic assumptions, AIG Hawaii filed for a 44 percent increase in early 1991. This time the Company abandoned the optimistic trend rate, considered its adverse loss experience, and recognized the continuing higher trends in severity and frequency of claims.

***The rate increase was
reviewed and granted***

The Insurance Division granted the rate increase. We conducted an independent actuarial analysis of the rate request filing and agree with the division's decision. We believe that the rate increase granted to AIG Hawaii was warranted.

The Insurance Division applied consistent standards and procedures to its review of the rate filing, including a comprehensive study by the chief analyst and the consulting actuary. The consulting actuary conducted his analysis of the April 1991 filing and found that:

- AIG Hawaii's private passenger automobile insurance experience in Hawaii was very adverse;
- The trends underlying AIG Hawaii's experience and the experience of the entire motor vehicle insurance industry in Hawaii were very adverse and "...underscored the need for significant rate relief;"
- "The expense calculations and derivation of a permissible loss ratio accurately represent AIG Hawaii's expenses;

- “The investment income calculations and profit and contingency factors considered income from all funds relative to Hawaii’s personal automobile insureds; and
- “...the rates derived from the referenced filing are not excessive, but may still be too low to produce a reasonable return of 14 - 15 percent on equity.”

Based upon its review and the review conducted by its consulting actuary, the Insurance Division granted the rate increase request.

AIG Hawaii’s Rates Are Comparable to Those of Other Major Insurers

AIG Hawaii’s rates have consistently been within the range of rates of the five other leading automobile insurers. In 1988 and 1989, AIG Hawaii’s rates were near the low end of rates charged by major carriers; in 1990, its rates moved to the middle of the range; in 1991, following the approval of the subject filing for a 44 percent rate increase, its rates moved toward the high end of the range.

Figure 3.1 presents representative rates of the six largest insurers for Oahu. Appendix B includes a table and charts of representative rates of the six largest insurers for all counties in Hawaii. This information is compiled annually by the Insurance Division pursuant to law. The rates shown are based upon the following criteria:

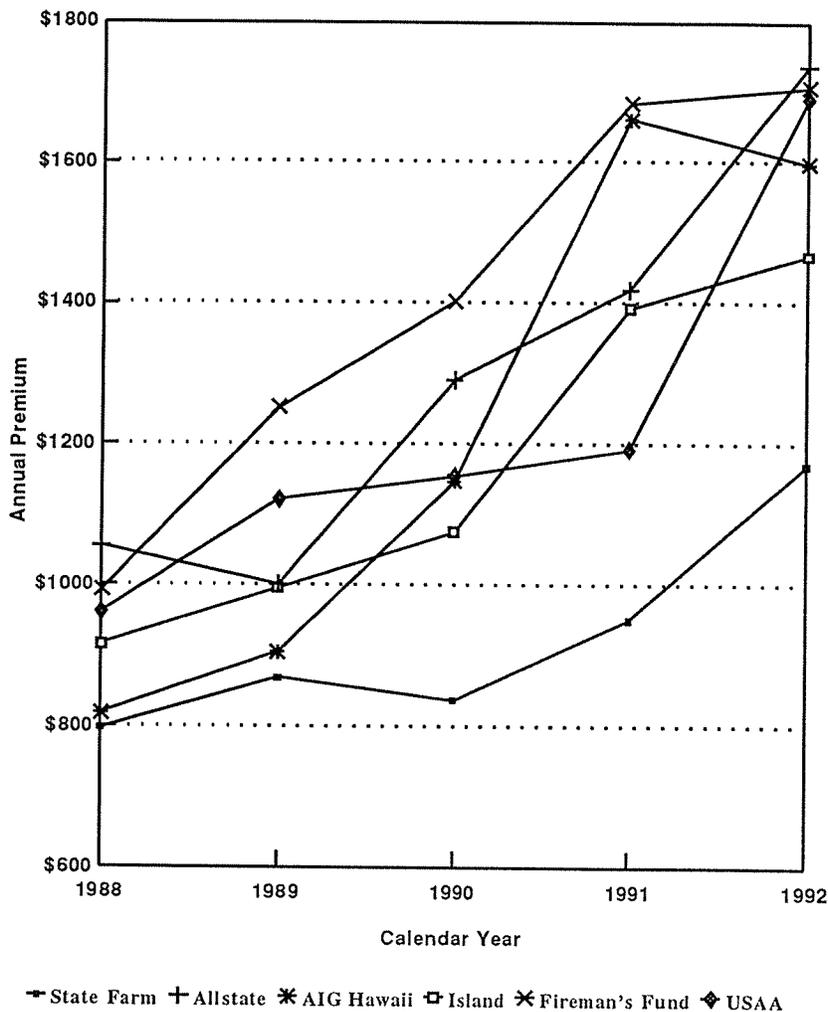
- The rates include all mandatory and optional coverages for a one-year old vehicle.
- The rates reflect deductibles of \$50 for comprehensive and \$250 for collision.
- Each year a different vehicle was selected by the Insurance Division; however, they are all mid-sized vehicles, and the rates should be relatively comparable.

Sizable two-year rate increases were granted

Overall, rate increases for private passenger automobile insurance in Hawaii were high in 1990 and 1991 due to unusually high statewide and industry-wide trends.

The largest private passenger motor vehicle insurers in the state were granted substantial rate increases during 1990 and 1991. See Figure 3.2 for comparisons of increases given in 1990 and 1991 to the six largest insurers. AIG Hawaii’s rate increases were higher than that of other major insurers, but the other insurers also had sizable rate increases during the same period.

Figure 3.1
Comparison of Private Passenger Automobile Insurance Rates—Oahu - 1988 through 1992

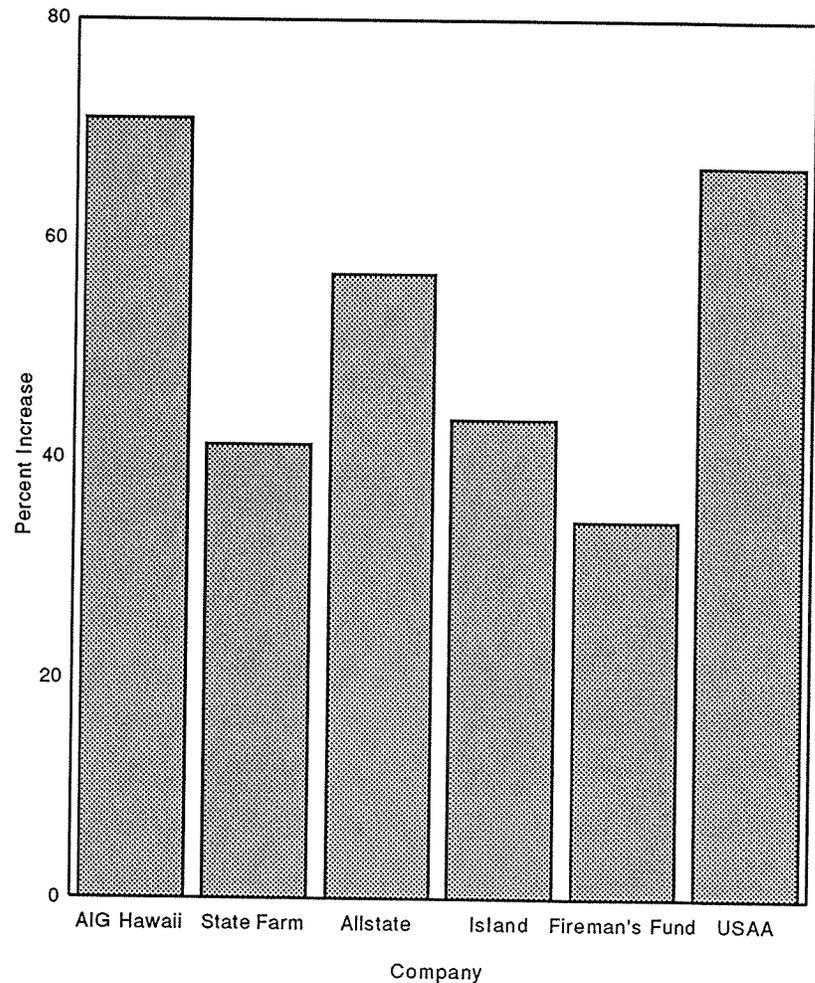


Source: Insurance Division Annual Rate Comparisons Published 1988 through 1992.

The Insurance Division follows consistent practices

We reviewed both 1990 and 1991 rate filings of several other large insurers to determine whether the Insurance Division followed consistent review and approval practices. We found the division's treatment of other private passenger motor vehicle insurers was consistent with its treatment of AIG Hawaii. In all cases, the treatment of the insurers was consistent with standards and procedures established by the Insurance Division.

Figure 3.2
Rate Increases for Hawaii's Major Private Passenger
Automobile Insurers, 1990 and 1991



Source: Insurance Division Rate Increase Requests Granted 1990 and 1991.

We made a detailed review of the documentation contained in each of the insurers' rate filings and found that the division's review procedures were consistently followed. However, we noted that the division had no checklist or other single document to record the review steps taken by its staff. Only various communications and memoranda were found in the files. Further, except for a letter from the consulting actuary on the April 1991 AIG Hawaii rate request, the actuary did not document his review of the other rate filings. We confirmed his review during meetings where his knowledge of each of the filings demonstrated that he had conducted a detailed independent review of each of them.

Recommendations

The department should document its review of rate filings through the use of a checklist or other formal document. The checklist would show date and name of person completing each step of the review. We also recommend that the consulting actuary be required to provide written documentation of his review of rate filings.

Response of the Affected Agency

Comments on Agency Response

We transmitted a draft of this report to the Department of Commerce and Consumer Affairs on October 5, 1992. A copy of the transmittal letter to the department is included as Attachment 1. The department's response is included as Attachment 2.

The department concurs with our findings and is in the process of developing a checklist for the review of insurance rate filings.

ATTACHMENT 1
STATE OF HAWAII
OFFICE OF THE AUDITOR
465 S. King Street, Room 500
Honolulu, Hawaii 96813-2917



MARION M. HIGA
State Auditor

(808) 587-0800
FAX: (808) 587-0830

October 5, 1992

C O P Y

The Honorable Robert A. Alm, Director
Department of Commerce and Consumer Affairs
1010 Richards Street
Honolulu, Hawaii 96813

Dear Mr. Alm:

Enclosed for your information are three copies, numbered 6 to 8 of our draft report, *Review of the Insurance Rate Increase Request by AIG Hawaii, Inc.* We ask that you telephone us by Wednesday, October 7, 1992, on whether you intend to comment on our recommendations. If you wish your comments to be included in the report, please submit them no later than Monday, October 19, 1992.

The Governor and presiding officers of the two houses of the Legislature have also been provided copies of this draft report.

Since this report is not in final form and changes may be made to it, access to the report should be restricted to those assisting you in preparing your response. Public release of the report will be made solely by our office and only after the report is published in its final form.

Sincerely,

Marion M. Higa
State Auditor

Enclosures

JOHN WAIHEE
GOVERNOR



ROBERT A. ALM
DIRECTOR

SUSAN DOYLE
DEPUTY DIRECTOR

STATE OF HAWAII
OFFICE OF THE DIRECTOR
DEPARTMENT OF COMMERCE AND CONSUMER AFFAIRS

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October 19, 1992

RECEIVED

Oct 21 11 12 AM '92
OFFICE OF THE AUDITOR
STATE OF HAWAII

The Honorable Marion M. Higa
State Auditor
Office of the Auditor
465 S. King Street, Room 500
Honolulu, HI 96813-2917

Dear Ms. Higa:

Thank you for providing us the opportunity to review the report. We agree with the findings of your report and as recommended, therein, are in the process of developing and implementing a procedural checklist relative to rate filings submitted by insurers.

Very truly yours,

ROBERT A. ALM
Director

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**Description of Materials Requested or Reviewed
Independent Review of AIG Hawaii Insurance Company
Request for 44% Motor Vehicle Insurance Rate Increase**

1. Copy of the AIG Hawaii Insurance Company rate filing for an increase in its motor vehicle insurance rates during January 1991, along with all supporting documentation, all correspondence between the Insurance Division and the company, transcripts of any formal or informal hearings, notes or memoranda of any meetings with company representatives, any evidence submitted to the Insurance Division in support of the filing, and any additional evidence, testimony, documents, or other materials either offered in support of the rate filing or used by the Insurance Division in evaluating or granting the rate increase.
2. Copies of the AIG Hawaii Insurance Company's statutory annual statements, insurance expense exhibits, and special Hawaii motor vehicle insurance experience exhibits as filed with the Hawaii Insurance Commissioner for the years ended December 31, 1988, 1989, 1990, and 1991, and copies of the related loss reserve opinions and reports of statutory audits, if any.
3. Copies of any other motor vehicle insurance rate filings and related materials as described in item 1, above, made by AIG Hawaii Insurance Company during 1990 and 1991.
4. Copies of all motor vehicle insurance rate filings of State Farm Mutual Automobile Insurance Company and Allstate Insurance Company, along with the supporting materials as described in item 1, above, that were filed or approved during 1990 or 1991, including the companies' statutory annual statements, insurance expense exhibits, special Hawaii motor vehicle insurance experience exhibits for the year ended December 31, 1990.
5. Copies of all motor vehicle insurance rate filings of Hawaiian Underwriters Insurance Company and Island Insurance Company, along with supporting materials as described in item 1, above, that were filed or approved during 1990 or 1991, including the companies' statutory annual statements, insurance expense exhibits, and special Hawaii motor vehicle insurance experience exhibits for the year ended December 31, 1990.
6. List of all major motor vehicle insurance rate filings and actions taken upon motor vehicle insurance rate filings during 1990 and 1991, including company or organization name, requested increase separated between automobile liability and physical damage, any amendments to requests, and action taken by the Insurance Division (grant increase as requested, grant increase as modified, grant lower increase, deny, etc.).
7. Copy of the Hawaii insurance laws and regulations governing motor vehicle insurance rates in force during January 1991.
8. Any manuals or other written standards or procedures used by the Insurance Division in evaluating motor vehicle insurance rate filings.
9. Any motor vehicle insurance rate comparisons, rate surveys, or revisions thereto made by or available to the Hawaii Insurance Division from 1988 through 1992.

10. Copies of the manual pages containing rates and/or rating procedures for business written in the State of Hawaii for AIG Hawaii Insurance Company, State Farm Mutual Automobile Insurance Company, Allstate Insurance Company, Hawaiian Underwriters Insurance Company, and Island Insurance Company, and any revisions thereto, reflecting rates that were in force during 1990 and 1991.

**Comparisons of Private Passenger Automobile Insurance Rates
for Major Automobile Insurers
1988 through 1992**

	Oahu - All Coverages					Maui - All Coverages				
	1988	1989	1990	1991	1992	1988	1989	1990	1991	1992
AIG Hawaii	818	904	1,147	1,662	1,599	734	788	933	1,349	1,613
State Farm	797	868	837	950	1,170	743	806	734	842	1,046
Allstate	1,054	1,000	1,293	1,421	1,738	992	946	1,211	1,749	1,632
Island	915	995	1,075	1,394	1,469	848	916	989	1,278	1,365
Fireman's Fund	992	1,253	1,404	1,684	1,708	730	966	1,234	1,534	1,642
USAA	960	1,121	1,154	1,192	1,691	748	883	918	997	1,389
	Kauai - All Coverages					Hawaii - All Coverages				
	1988	1989	1990	1991	1992	1988	1989	1990	1991	1992
AIG Hawaii	598	655	798	1,412	1,303	819	887	1,226	2,533	2,250
State Farm	572	626	611	694	872	684	738	733	839	1,046
Allstate	792	748	985	1,109	1,286	932	890	1,223	1,417	1,742
Island	720	780	836	1,080	1,155	852	923	999	1,289	1,374
Fireman's Fund	760	938	1,136	1,402	1,484	786	938	1,058	1,329	1,454
USAA	697	829	859	950	1,283	741	872	907	1,228	1,682

Source: Hawaii Insurance Division - includes No-fault, Residual Bodily Injury, Property Damage Liability, and Physical Damage (Comprehensive and Collision) Coverages; taken from the Hawaii Insurance Division's Annual Rate Comparisons published in 1988, 1989, 1990, and 1991, and preliminary data for 1992.

Chart 1
Comparison of Private Passenger Automobile Insurance Rates
Oahu - 1988 through 1992

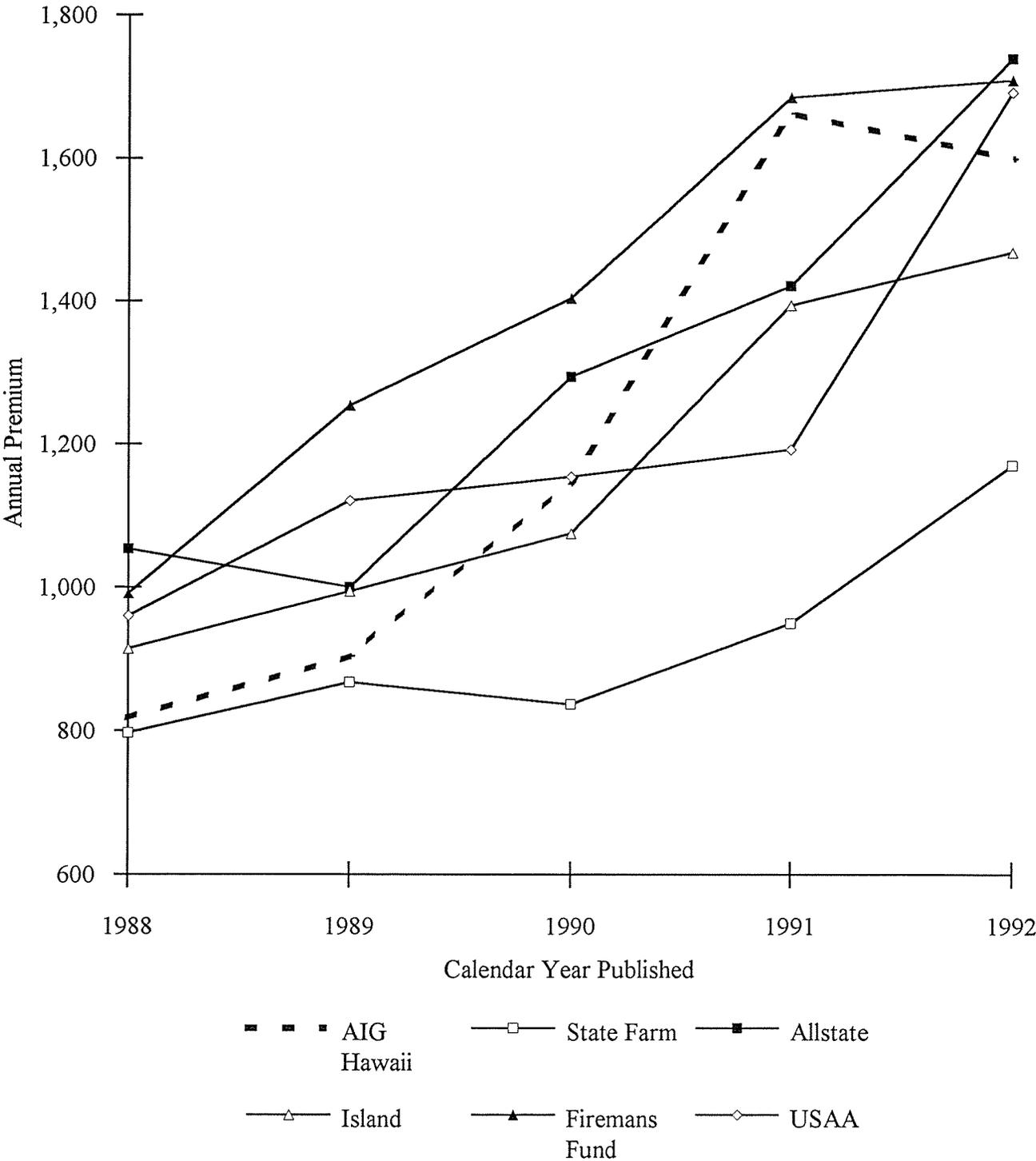


Chart 2
Comparison of Private Passenger Automobile Insurance Rates
Maui - 1988 through 1992

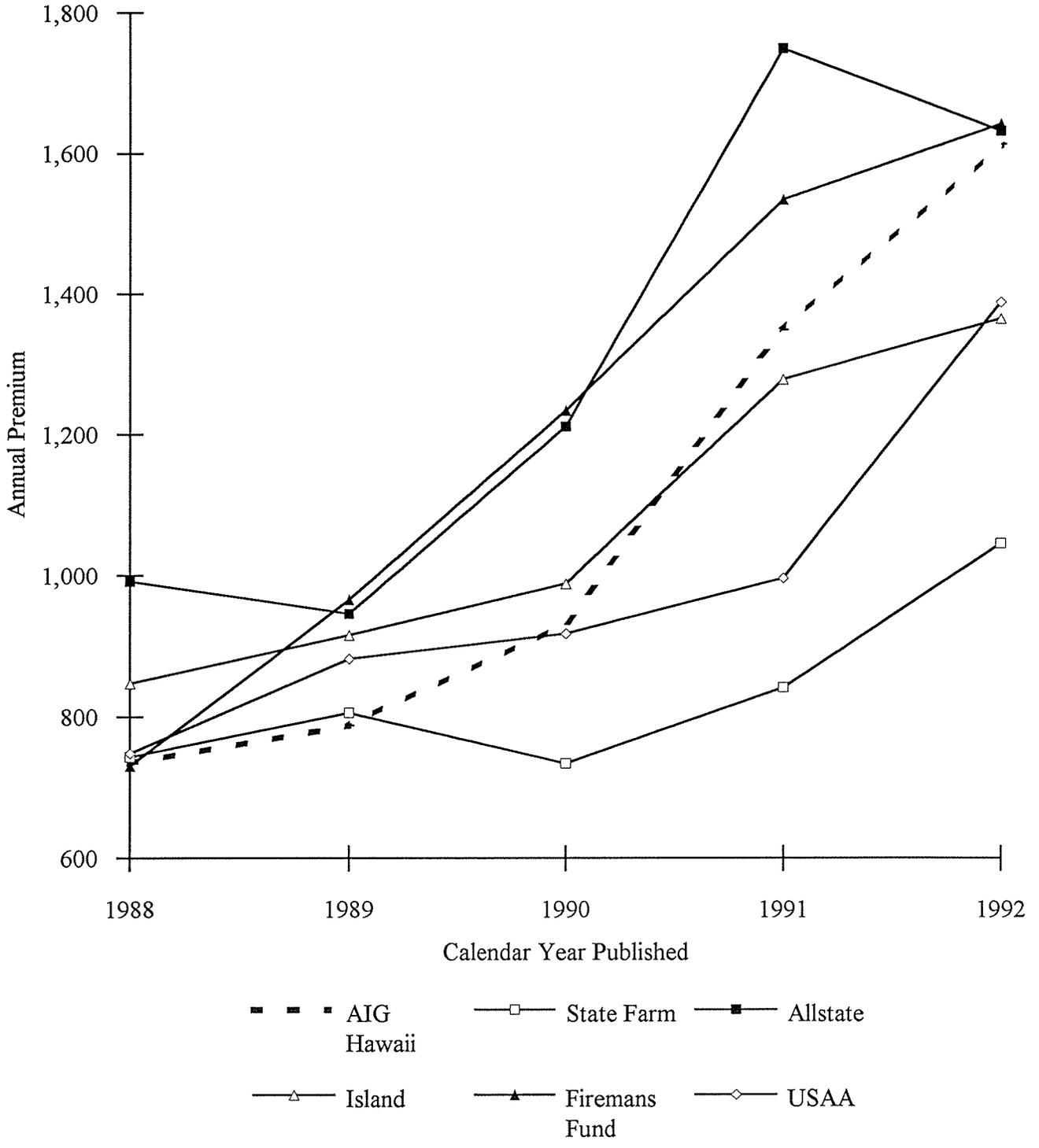


Chart 3
Comparison of Private Passenger Automobile Insurance Rates
Kauai - 1988 through 1992

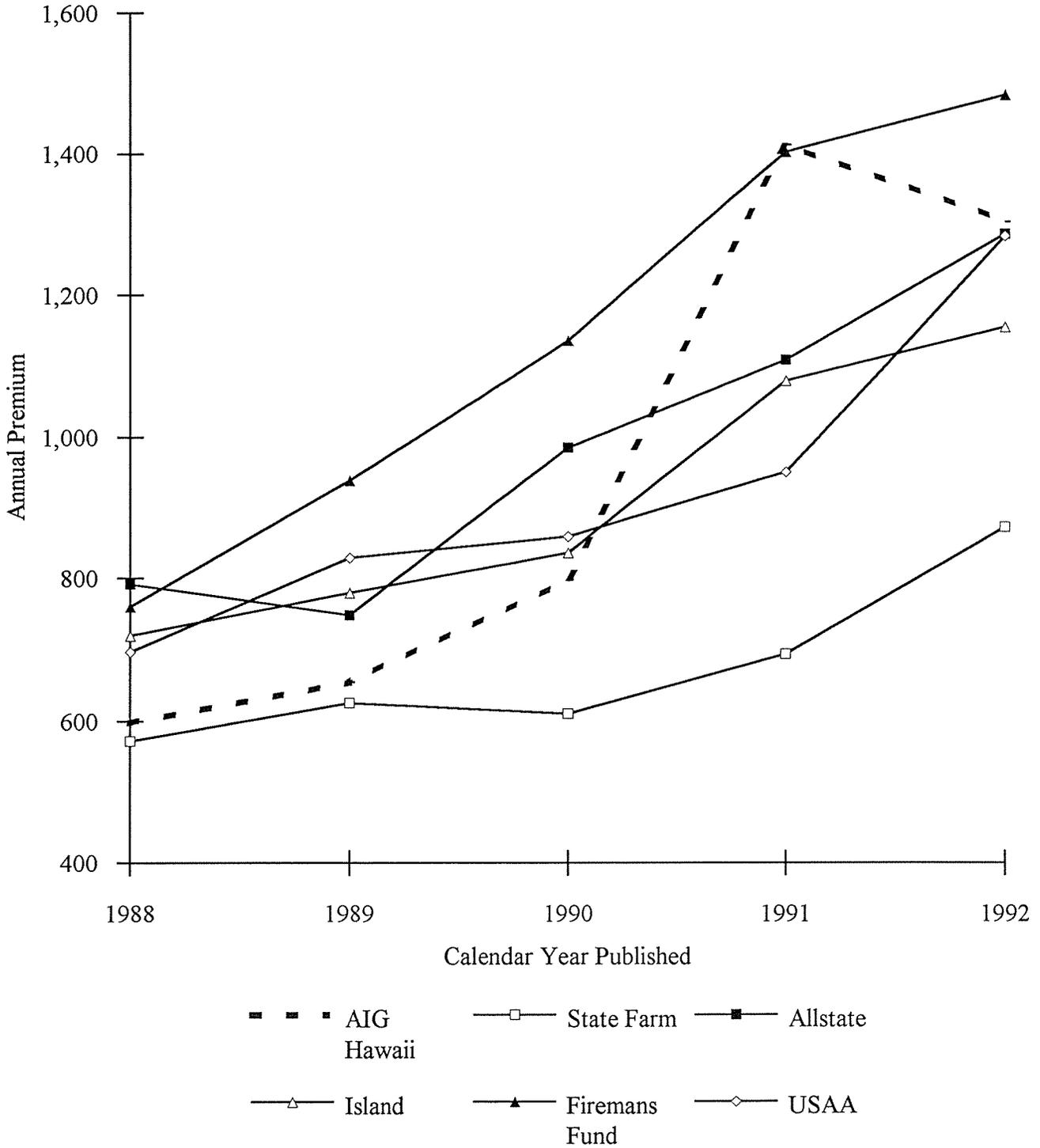
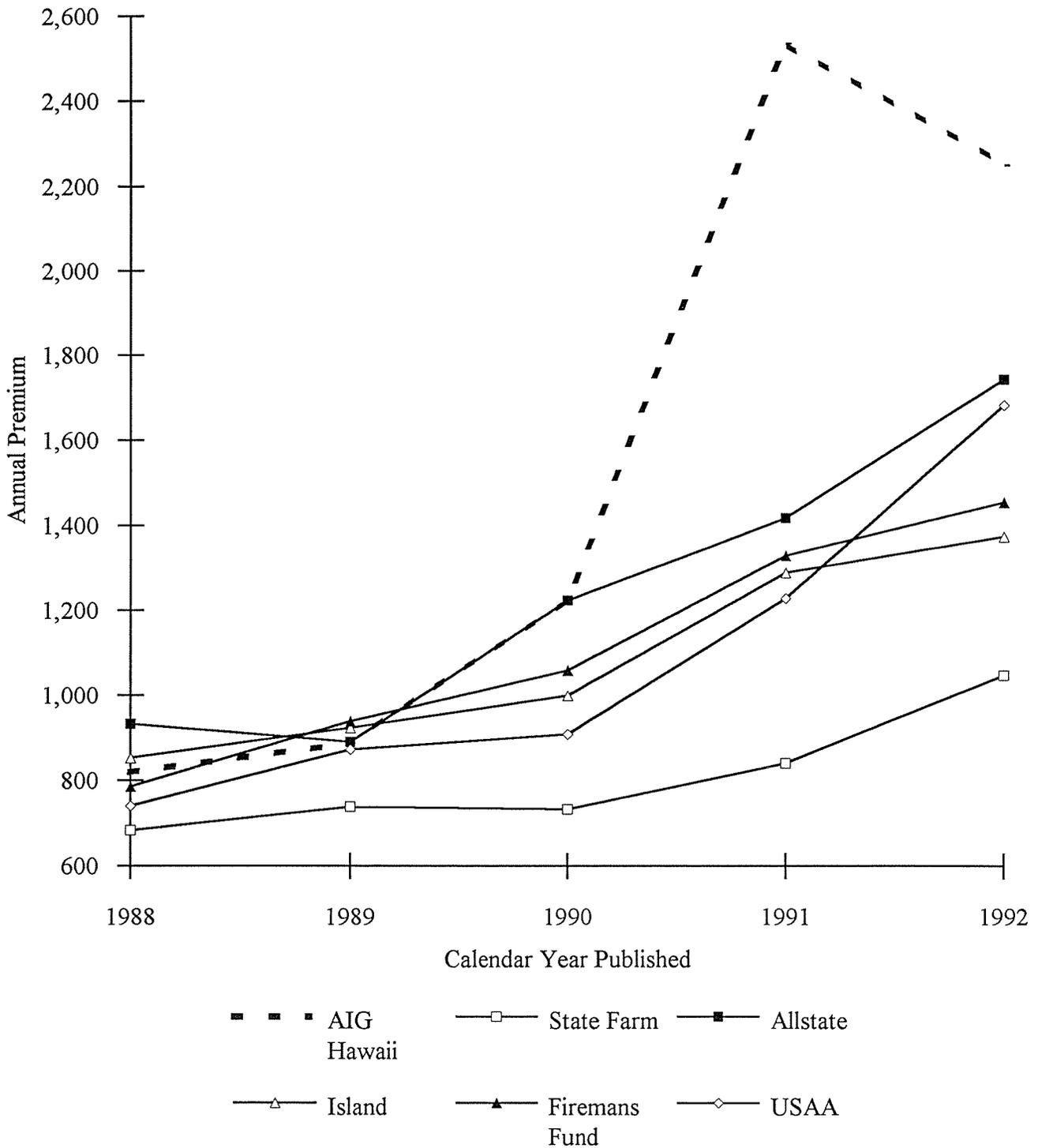


Chart 4
Comparison of Private Passenger Automobile Insurance Rates
Hawaii - 1988 through 1992



STATEMENT OF PRINCIPLES REGARDING PROPERTY AND CASUALTY INSURANCE RATEMAKING

(AS ADOPTED MAY 1988)

The purpose of this Statement is to identify and describe principles applicable to the determination and review of property and casualty insurance rates. The principles in this Statement are limited to that portion of the ratemaking process involving the estimation of costs associated with the transfer of risk. This statement consists of four parts:

I. Definitions

II. Principles

III. Considerations

IV. Conclusion

The principles contained in this Statement provide the foundation for the development of actuarial procedures and standards of practice. It is important that proper actuarial procedures be employed to derive rates that protect the insurance system's financial soundness and promote equity and availability for insurance consumers.

Although this Statement addresses property and casualty insurance ratemaking, the principles contained in this Statement apply to other risk transfer mechanisms.

I. *Definitions*

Ratemaking is the process of establishing rates used in insurance or other risk transfer mechanisms. This process involves a number of considerations including marketing goals, competition and legal restrictions to the extent they affect the estimation of future costs associated with the transfer of risk. This Statement is limited to principles applicable to the estimation of these costs. Such costs include claims, claim settlement expenses, operational and administrative expenses, and the cost of capital. Summary descriptions of these costs are as follows:

- Incurred losses are the cost of claims insured.
- Allocated loss adjustment expenses are claims settlement costs directly assignable to specific claims.
- Unallocated loss adjustment expenses are all costs associated with the claim settlement function not directly assignable to specific claims.
- Commission and brokerage expenses are compensation to agents and brokers.
- Other acquisition expenses are all costs, except commission and brokerage, associated with the acquisition of business.
- Taxes, licenses and fees are all taxes and miscellaneous fees except federal income taxes.
- Policyholder dividends are a non-guaranteed return of premium charged to operations as an expense.
- General administrative expenses are all other operational and administrative costs.

- The underwriting profit and contingency provisions are the amounts that, when considered with net investment and other income, provide an appropriate total after-tax return.

II. Principles

Ratemaking is prospective because the property and casualty insurance rate must be developed prior to the transfer of risk.

Principle 1: A rate is an estimate of the expected value of future costs.

Ratemaking should provide for all costs so that the insurance system is financially sound.

Principle 2: A rate provides for all costs associated with the transfer of risk.

Ratemaking should provide for the costs of an individual risk transfer so that equity among insureds is maintained. When the experience of an individual risk does not provide a credible basis for estimating these costs, it is appropriate to consider the aggregate experience of similar risks. A rate established from such experience is an estimate of the costs of the risk transfer for each individual in the class.

Principle 3: A rate provides for the costs associated with an individual risk transfer.

Ratemaking produces cost estimates that are actuarially sound if the estimation is based on Principles 1, 2, and 3. Such rates comply with four criteria commonly used by actuaries: reasonable, not excessive, not inadequate and not unfairly discriminatory.

Principle 4: A rate is reasonable and not excessive, inadequate, or unfairly discriminatory if it is an actuarially sound estimate of the expected value of all future costs associated with an individual risk transfer.

III. Considerations

A number of ratemaking methodologies have been established by precedents or common usage within the actuarial profession. Since it is desirable to encourage experimentation and innovation in ratemaking, the actuary need not be completely bound by these precedents. Regardless of the ratemaking methodology utilized, the material assumptions should be documented and available for disclosure. While no ratemaking methodology is appropriate in all cases, a number of considerations commonly apply. Some of these considerations are listed below with summary descriptions. These considerations are intended to provide a foundation for the development of actuarial procedures and standards of practice.

Exposure Unit

The determination of an appropriate unit or premium basis is essential. It is desirable that the exposure unit vary with the hazard and be practical and verifiable.

Data

Historical premium, exposure, loss and expense experience is usually the starting point of ratemaking. This experience is relevant if it provides a basis for developing a reasonable indication of the future. Other relevant data may supplement historical experience. These other data may be external to the company or to the insurance industry and may indicate the general direction of trends in insurance claim costs, claim frequencies, expenses and premiums.

76 **Organization of Data**

77 There are several acceptable methods of organizing data including calendar year, accident
78 year, report year and policy year. Each presents certain advantages and disadvantages; but, if
79 handled properly, each may be used to produce rates. Data availability, clarity, simplicity, and
80 the nature of the insurance coverage affect the choice.

81 **Homogeneity**

82 Ratemaking accuracy often is improved by subdividing experience into groups exhibiting
83 similar characteristics. For a heterogeneous product, consideration should be given to segregat-
84 ing the experience into more homogeneous groupings. Additionally, subdividing or combining
85 the data so as to minimize the distorting effects of operational or procedural changes should be
86 fully explored.

87 **Credibility**

88 Credibility is a measure of the predictive value that the actuary attaches to a particular
89 body of data. Credibility is increased by making groupings more homogeneous or by increasing
90 the size of the group analyzed. A group should be large enough to be statistically reliable. Obtain-
91 ing homogeneous groupings requires refinement and partitioning of the data. There is a point at
92 which partitioning divides data into groups too small to provide credible patterns. Each situation
93 requires balancing homogeneity and the volume of data.

94 **Loss Development**

95 When incurred losses and loss adjustment expenses are estimated, the development of each
96 should be considered. The determination of the expected loss development is subject to the
97 principles set forth in the Casualty Actuarial Society's Statement of Principles Regarding Prop-
98 erty and Casualty Loss and Loss Adjustment Expense Reserves.

99 **Trends**

100 Consideration should be given to past and prospective changes in claim costs, claim fre-
101 quencies, exposures, expenses and premiums.

102 **Catastrophes**

103 Consideration should be given to the impact of catastrophes on the experience and proce-
104 dures should be developed to include an allowance for the catastrophe exposure in the rate.

105 **Policy Provisions**

106 Consideration should be given to the effect of salvage and subrogation, coinsurance, cover-
107 age limits, deductibles, coordination of benefits, second injury fund recoveries and other policy
108 provisions.

109 **Mix of Business**

110 Consideration should be given to distributional changes in deductibles, coverage limita-
111 tions or type of risks that may affect the frequency or severity of claims.

112 **Reinsurance**

113 Consideration should be given to the effect of reinsurance arrangements.

114 **Operational Changes**

115 Consideration should be given to operational changes such as changes in the underwriting
116 process, claim handling, case reserving and marketing practices that affect the continuity of the
117 experience.

118 **Other Influences**

119 The impact of external influences on the expected future experience should be considered.
120 Considerations include the judicial environment, regulatory and legislative changes, guaranty
121 funds, economic variables, and residual market mechanisms including subsidies of residual mar-
122 ket rate deficiencies.

123 **Classification Plans**

124 A properly defined classification plan enables the development of actuarially sound rates.

125 **Individual Risk Rating**

126 When an individual risk's experience is sufficiently credible, the premium for that risk
127 should be modified to reflect the individual experience. Consideration should be given to the
128 impact of individual risk rating plans on the overall experience.

129 **Risk**

130 The rate should include a charge for the risk of random variation from the expected costs.
131 This risk charge should be reflected in the determination of the appropriate total return consis-
132 tent with the cost of capital and, therefore, influences the underwriting profit provision. The rate
133 should also include a charge for any systematic variation of the estimated costs from the expected
134 costs. This charge should be reflected in the determination of the contingency provision.

135 **Investment and Other Income**

136 The contribution of net investment and other income should be considered.

137 **Actuarial Judgment**

138 Informed actuarial judgments can be used effectively in ratemaking. Such judgments may
139 be applied throughout the ratemaking process and should be documented and available for dis-
140 closure.

141 **IV. Conclusion**

142 The actuary, by applying the ratemaking principles in this Statement, will derive an estima-
143 tion of the future costs associated with the transfer of risk. Other business considerations are also
144 a part of ratemaking. By interacting with professionals from various fields including underwrit-
145 ing, marketing, law, claims and finance, the actuary has a key role in the ratemaking process.