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# **The Impact of the High Technology Business Investment Tax Credit on Hawaii's Economy for Calendar Year 2008**

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**Department of Taxation  
State of Hawaii  
December 2009**

**Web Site: [www.hawaii.gov/tax](http://www.hawaii.gov/tax)**

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## **I. EXECUTIVE SUMMARY**

On June 21, 2007, House Bill 1631 was signed into law as Act 206 (the "Act"). The purpose of the Act is to measure the effectiveness of the high technology business investment tax credit (investment credit) established by Act 178 of 1999, as amended by Act 221 of 2001 and Act 215 of 2004.

Act 206 requires a qualified high technology business (QHTB) that accepts an investment for which a State investment credit may be claimed, to complete and file an annual electronic survey prepared by the Department of Taxation (Department). The survey must be filed on or before June 30 of each year for the five years following the year of the investment.

The Act also requires the Department to take two actions with the data obtained from this survey. First, the Department is required to compile the information in the survey, tax returns, and related documents and submit that information for review to the Legislature. This was completed on September 1, 2009. Second, the Act asks the Department to study the effectiveness of the investment credit and to issue a report on its findings. This report responds to this requirement.

The Act applied to QHTBs who received investments after June 30, 2007. It required these QHTBs to report on investments received between calendar year 2000 and 2008. A total of 203 QHTBs filed the survey this year, including 23 firms that filed after the reporting deadline and were not included in the compilation submitted to the Legislature on September 1, 2009.

This December 2009 report analyzes the following four questions: 1) what is the size of the investment made in QHTBs since the passage of Act 178 in 1999; 2) how much in State tax credits was granted to attract this investment; 3) what type of jobs and how many jobs were created as a result of these investments; and 4) are these investments creating viable companies with the ability to contribute on an on-going basis to the economic diversification of the State.

The findings for these key questions include:

1. Total Investment. The 203 QHTBs that filed reported receiving a total of \$1.369 billion in cash investments between calendar year 2000 and 2008.
2. Tax Credit Costs. The cumulative cost of State tax credits through 2008 is estimated to be \$775.9 million for investments made in QHTBs. However, the total possible additional credits that could be claimed by investors in these companies is \$593.0 million. The State remains obligated to honor these tax credit claims, thus reducing the State's potential revenues over at least the next four years.
3. Number and Types of Jobs. The 203 QHTBs reported creating 1,619 jobs, of which 1,450 were full-time positions. These firms also employed a total of 242 temporary workers and 2,840 independent contractors.
4. Viability of the Companies. The 203 QHTBs reported that their expenses were considerably higher than their revenues (\$378.2 million in expenses; \$207.7 million in revenues). Fifty-seven firms have been in business for six years or more. Only 59 companies had revenues greater than expenses in 2008. The majority of these QHTB companies did not pay corporate income taxes in Hawaii and reported paying only \$2.1 million in GET taxes to Hawaii in 2008.

It should be noted that the analysis contained in this report does not reflect the effects of Act 178 of 2009 which did not take effect until May 1, 2009. That Act established an 80% tax credit cap on entities claiming a 221 tax credit on their tax returns, disallowed certain tax credit carryover provisions for investments made on or after May 1, 2009 through December 31, 2010, and limited the credits to a 1 to 1 ratio for investments made after May 1st. The fiscal and programmatic impacts of Act 178 will start to occur in the data that is collected next year.

## **II. LEGISLATIVE HISTORY**

In 1999 the Hawaii State Legislature passed Act 178 that encouraged Hawaii taxpayers to invest in high technology companies by granting a credit against taxes owed the State. Act 178 limited the amount of the tax credit to 10% of the investment, with a maximum allowable credit of \$500,000 per year.

Act 178 also encouraged taxpayers to invest in research activities by establishing a separate "research activities" tax credit. The research might be conducted by a high technology company or a non-technology firm engaged in a research project. The amount of the credit was limited to 2.5% of the expenses incurred by the firm to actually conduct new research over and above the research the company was already doing (called a base amount). The research credit was nonrefundable and could only be utilized against tax liability; any excess was carried forward until exhausted.

In 2001 Act 221 amended the 1999 law and allowed taxpayers to claim 100% of their investment in a high technology firm, permitting the taxpayers to claim 35% of the amount in the first year, 25% in the second year, 20% in the third year, and 10% in the fourth and fifth tax years after their initial investment. This bill revised the maximum allowable credit to \$700,000 in the first year, with declining amounts in the subsequent four years.

Act 221 also changed the research activities tax credit by deleting the reference to a base amount of research the company was already doing and allowed expenses in any research being done in the State of Hawaii to qualify for the research tax credit. Significantly, the research

credit was refundable.<sup>1</sup> The amount of research tax credit that can be claimed each year was equal to 20% of the company's research expenditures.

In 2004 the original statute was further amended by Act 215 to place a cap on the ratio of credits a taxpayer could claim for a high technology tax investment. If a taxpayer was claiming \$1.50 in credits for \$1.00 invested in a technology firm, then the tax claim would likely not be reviewed by the Department of Taxation. If the taxpayer claimed a higher amount (such as \$2.00 in credits for each \$1 invested), this Act stated that those investments would be subject to review by the Department of Taxation.

Act 215 also changed the research activities tax credit by limiting it to only qualified high technology businesses, effective July 1, 2004.

In 2009 the Legislature further amended Act 178 and Act 221 by limiting the fiscal impacts of the credits for the period between May 1, 2009 and December 31, 2010 when Act 221 is scheduled to expire. Act 178 of 2009 limited the use of the investment tax credit to 80% of the tax liability of the filer for taxable years beginning on January 1, 2009 and ending December 31, 2010. The Act also disallowed certain tax credit carryover provisions for investments made between May 1, 2009 and the date Act 221 expires. Finally, this newest legislation limited the credits to no more than a 1 to 1 ratio for investments made after May 1, 2009.

This report was prepared pursuant to Act 206, Session Laws of Hawaii (SLH) 2007. The purpose of this Act is to measure the effectiveness of Act 178/221 high technology business investment tax credits, as amended, by requiring:

*"(1) Qualified high technology businesses receiving an investment for which a credit may be*

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<sup>1</sup> Pursuant to Act 297, Session Laws of Hawaii (SLH) 2000, the research credit was made refundable. A refundable credit is paid to a taxpayer even if the taxpayer has no tax liability, or is first offset against tax liability with any excess refunded to the taxpayer. However, Act 297 only allowed a refundable credit of 2.5% of the qualifying Hawaii research expenses over and above the research the company was already doing (i.e., base period).

*claimed under Section 235-110.9, Hawaii Revised Statutes, to submit investment, employment, job creation, wage, revenue, expense, and other information to the department of taxation;*

- (2) The department of taxation to annually report this information in aggregate form to the legislature; and*
- (3) The department of taxation to use the information to study the effectiveness of the tax credit and report the department's findings to the legislature.”*

In September 2009 the Department of Taxation reported on (1) the amounts invested in the qualified high technology businesses (QHTBs), (2) the number of QHTBs in each industry sector, (3) the salaries/wages the QHTBs paid to their employees, and (4) the activities the QHTBs performed.<sup>2</sup> The study conducted for this report utilized data from the September 2009 report, data from 23 companies who filed after the reporting deadline, and aggregate tax return data available to the Department of Taxation.

### **III. BACKGROUND ON THE HIGH TECHNOLOGY BUSINESS INVESTMENT TAX CREDIT AND THE RESEARCH ACTIVITIES TAX CREDIT**

The investment credit is a nonrefundable credit claimed by persons investing in QHTBs who owe Hawaii State taxes in one of three categories: Hawaii income taxes (§235-110.9, HRS), Hawaii franchise taxes (§241-4.8, HRS), and Hawaii insurance premiums taxes (§431.7-209, HRS). In its present form, investors may claim 100% of their qualifying cash investments, up to a maximum of \$2 million per QHTB. The tax credits can be claimed over a five year period. The credit is computed as a percentage of the cash investment made: 35% in the year the investment is made, 25% in the second year, 20% in the third year, and 10% in both

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<sup>2</sup> See the report *Descriptive Statistics on the Operations of Qualified High Technology Businesses From 2002 Through 2008*, Department of Taxation, State of Hawaii, September 2009.

the fourth and fifth years. Because it is a nonrefundable credit, the amount of the allowable credit used cannot exceed the taxpayer's tax liability for that year. However, any excess unused credit may be carried forward to future years until it is used in its entirety, unless the investment was made on or after May 1, 2009.

The research activities tax credit is a refundable credit. Refundable means the amount of the allowable credit used can exceed the amount of taxes owed by the QHTB for that year. As stated earlier, the credit equals 20% of the QHTB's qualified research expenditures in Hawaii.

In enacting these two tax credit programs, the Legislature stated that the primary purpose of the legislation was to "encourage the continued growth and development of high technology businesses and associate industries" in Hawaii.

#### **IV. DATA SOURCES**

Each year qualified high technology businesses are required to file Department of Taxation Form N-317, "Statement by Qualified High Technology Business." The QHTBs are asked to provide data for the previous calendar year. The deadline to file is June 30th of each year. QHTBs began filing the N-317 form for calendar year 2002 operations. The form was significantly improved for the calendar year 2007 reporting period to include more detail on the operations of high technology firms qualifying for tax credit investments. The form was slightly amended for the calendar year 2008 reporting period to capture data on general excise taxes paid by QHTBs.

As shown in Table 1, a total of 371 QHTBs have filed Form N-317 since the form was introduced for the 2002 reporting period. Of these, 48% specified that their qualifying activity was computer software development, 16.3% specified performing arts activities, 15.2% specified multiple activities, 8.7% stated they were involved in biotechnology activities, and 5.9% were involved in non-fossil fuel energy-related technology activities.

**Table 1. Cash Investment Received by 203 QHTBs, by Year (2008 Filers)**

Activity	Number of QHTBs Filing N-317		Cash Investment	
	2002 - 2008	2008	2000 - 2008	2008
Research as in IRC Sec. 41(d)	26	15	\$101,803,777	\$15,360,136
Biotechnology	30	18	\$104,119,360	\$17,606,665
Computer Software	110	45	\$164,605,597	\$31,771,352
Non-fossil Fuel Energy	28	20	\$119,150,944	\$50,234,044
Performing Arts	86	50	\$528,562,032	\$111,806,886
Multiple Activities & Others	91	55	\$350,613,843	\$38,911,911
<b>TOTAL</b>	<b>371</b>	<b>203</b>	<b>\$1,368,855,553</b>	<b>\$265,690,994</b>

## **V. INVESTMENT IN HAWAII**

The 203 qualified high technology businesses who filed the 2008 N-317 form this year reported receiving nearly \$1.4 billion in cash investments from calendar years 2000 through 2008. Almost \$266 million in investments occurred in 2008 alone.

QHTBs involved in performing arts received 38.6% of the total funds invested over the nine year period covered in the Table 1 data, a cumulative total of \$528.6 million. Performing arts entities have received the lion's share of Act 221 investments since 2004, in part because the ability to recoup one's investment in these types of activities occurs over a shorter period of time. QHTBs reporting that they were involved in multiple high technology activities received 25.6% of the investments (\$350.6 million). Computer software firms received investments totaling \$164.6 million, or 12.0% of the total. Companies engaged in biotechnology received \$104.1 million, 9.0% of the total. Companies engaged in IRC Section 41(d) research received \$101,803,777, or 7.4% of the total. Non-fossil fuel energy-related technology firms have shown the most dramatic growth in investments in recent years and received \$119.2 million or 8.7% of the total during the nine year period.

**VI. COSTS IN STATE TAX CREDITS TO ATTRACT HIGH TECHNOLOGY INVESTMENTS**

**a. Cumulative Costs for Investments Through 2008**

For investments in QHTBs made through 2008, it is estimated that the investment credit will cost the State of Hawaii a cumulative amount of \$775.9 million in lost tax revenues (Table 2). This amount is comprised of: (a) \$438.4 million actually claimed from tax years 1999 through 2007, (b) \$135.0 million in estimated claims for tax year 2008 (this amount is estimated because the deadline to claim the 2008 credit is December 31, 2009), and (c) \$202.5 million in estimated credits to be claimed in 2009 through 2012 since taxpayers may claim these credits over a five year period, or may carry over prior year credits that they did not use because their tax liability was lower than the amount of credits in the taxable year, for investments made prior to May 1, 2009.

**Table 2. Estimated Investment Tax Credit Claimed for Tax Years 1999 - 2008**

Cumulative Investment Tax Credit Claimed, Tax Years 1999 - 2007 1/	\$438,358,694
Estimated Investment Tax Credit Claimed, Tax Year 2008	\$135,000,000
Estimated Investment Credit Claims, Tax Year 2009 2/	\$202,500,000
<b>Total Investment Tax Credit Claimed, Tax Years 1999 - 2009</b>	<b>\$775,858,694</b>

1/ Tax credits claimed for 2007 was revised due to adjustment made to credits claimed by individuals that were disallowed.

2/ This \$202.5 million is an estimate of carryovers and years 2 to 5 credits for investment made prior to 2009. This estimate does not include new investments that may be made in the same companies in calendar year 2009 or in future years while Act 221/215 is still in effect.

**Table 3. High Technology Business Investment Tax Credits Claimed<sup>1</sup> for Tax Years 1999 through 2007**

Year	Total No. of Claims	Total Credit	Individuals	Corporations	Financial Corporations <sup>2</sup>	Insurance Underwriters	Fiduciaries	Exempt Organizations
1999	23	\$162,208	N/A	N/A	N/A	N/A	N/A	N/A
2000	103	393,633	N/A	N/A	N/A	N/A	N/A	N/A
2001	268	9,579,923	\$3,334,260	\$225,205	\$4,209	\$6,013,757	\$2,492	N/A
2002	493	26,185,181	11,191,036	1,710,041	-	13,057,896	226,208	N/A
2003	652	38,870,301	13,360,232	3,855,197	2,100,658	19,391,764	162,450	N/A
2004	1,040	50,543,285	26,858,573	994,571	1,599,658	20,714,206	376,277	N/A
2005	1,216	69,827,709	38,111,997	3,428,405	2,286,892	25,293,046	700,845	\$6,524
2006 <sup>3</sup>	1,842	105,407,136	59,622,619	8,471,761	10,146,111	26,732,870	431,802	1,973
2007 <sup>4</sup>	2,207	137,389,318	79,967,433	9,478,054	15,669,335	29,913,337	2,336,416	24,743
<b>Totals</b>	<b>7,844</b>	<b>\$438,358,694</b>	<b>\$232,446,150</b>	<b>\$28,163,234</b>	<b>\$31,806,863</b>	<b>\$141,116,876</b>	<b>\$4,236,490</b>	<b>\$33,240</b>

Source: Tax Research and Planning Office.

<sup>1</sup> Tax credits actually used (deducted from Hawaii income taxes due).

<sup>2</sup> Financial corporations are defined as corporations that file Form F-1, the Franchise Tax return.

<sup>3</sup> Revised due to late filers.

<sup>4</sup> Revised due to adjustment made to credits claimed by individuals that were disallowed.

## **b. Who Made Investments in QHTBs and Claimed the Investment Credit**

In tax year 2007, the latest year for which complete data is currently available, 2,207 taxpayers claimed investment credits of \$137.4 million (Table 3). More importantly, from 1999 through 2007, \$438.4 million in tax credits have been awarded to support high technology in Hawaii. This is a significant loss of revenue to the State Treasury and demonstrates a high fiscal commitment to this industry sector as a result of laws enacted over the past ten years.

Of the \$438.4 million that has been claimed in nine years, individual tax filers claimed 53%, corporations including banks claimed 13.7%, and the remaining taxpayers including insurance underwriters and fiduciaries claimed 33.1% in credits.

For the most recent complete calendar year (2007), individual tax filers (2,040 returns) claimed an average of \$39,200 in tax credits during tax year 2007 (see Table 4). However, when this data is broken down by the income level of the taxpayer, over 96% of the total amount of credits claimed was by individuals with adjusted gross incomes of \$200,000 or more (1,321 returns) (see Table 5). The average claim of these higher income filers was \$58,158 per tax return.

**Table 4. Returns Claiming the Investment Credit: 2007**

<b>Type of Returns</b>	<b>Number of Returns</b>	<b>Tax Credits Claims</b>	<b>Average Credits per Return</b>
Individuals <sup>1</sup>	2,040	\$79,967,433	\$39,200
Corporations	60	\$9,478,054	\$157,968
Financial Corporation <sup>2</sup>	5	\$15,669,335	\$3,133,867
Insurance	36	\$29,913,337	\$830,926
Fiduciary	63	\$2,336,416	\$37,086
Exempt	3	\$24,743	\$8,248
<b>Totals</b>	<b>2,207</b>	<b>\$137,389,318</b>	<b>\$62,252</b>

Source: Tax Research and Planning Office.

<sup>1</sup> Revised due to adjustment made to credits claimed by individuals that were disallowed.

<sup>2</sup> Financial corporations are defined as corporations that file Form F-1, the Franchise Tax return.

**Table 5. Individuals Claiming the Investment Credit by Hawaii AGI: 2007**

Adjusted Gross Income		High Tech Investment Credit	
At least	But less than	Number of Returns	Total Credit Claimed
	\$5,000	8	\$485
\$5,000	\$10,000	8	\$787
\$10,000	\$20,000	20	\$8,987
\$20,000	\$30,000	20	\$10,058
\$30,000	\$40,000	20	\$19,132
\$40,000	\$50,000	30	\$50,537
\$50,000	\$60,000	34	\$74,716
\$60,000	\$70,000	40	\$97,639
\$70,000	\$80,000	40	\$110,233
\$80,000	\$90,000	49	\$142,307
\$90,000	\$100,000	36	\$121,709
\$100,000	\$150,000	219	\$1,065,904
\$150,000	\$200,000	195	\$1,439,893
\$200,000		1,321	\$76,825,046
TOTAL		2,040	\$79,967,433

**c. The Research Activities Tax Credit**

Cumulative claims of the research credit totaled \$102.8 million from tax years 2000 through 2008 (Table 6). As stated in the introduction section of this report, the research tax credit is a refundable credit available to qualified high technology businesses that engage in research activities as defined by the Internal Revenue Code in Hawaii. It should be noted that the amount of research credits claimed for tax year 2008 varies between \$14.3 million and \$16.9 million, depending upon whether we aggregate the data on Form N-317 versus Form N-319A. The difference between the \$14.3 million and the \$16.9 million may exist for several reasons. First, QHTBs that claim the research credit and received investments more than five (5) years ago are not penalized for failing to

file the Form N-317. Second, QHTBs that claim the research credit and received investments prior to July 1, 2007 are also not penalized for failing to file the Form N-317. Third, the Form N-319A is based upon estimates in certain cases because of the March 30<sup>th</sup> deadline.

**Table 6. Estimated Research Credit Claims for Tax Years 2000 - 2008**

Cumulative Research Credit Claimed, Tax Years 2000 - 2007	\$88,488,359
Estimated Research Credit Claims, Tax Year 2008 1/	\$14,338,782
<b>Total Research Credit Claims, Tax Years 2000 - 2008</b>	<b>\$102,827,141</b>

1/ Research Credit Claims as reported by 203 QHTBs in the 2008 Form N-317s. Research Credit claims as reported by 114 QHTBs in the 2008 Form N-319As totaled \$16.9 million.

## **VII. JOB CREATION**

### **a. Jobs Reported by QHTBs**

Data from the 203 QHTBs that filed Form N-317 for calendar year 2008 show that these firms paid wages to 1,861 Hawaii workers in calendar year 2008, including full-time, part-time, and temporary workers. Full-time workers earned an average annual wage of \$71,679 and part-time workers earned an average annual wage of \$30,355. The number of full-time jobs remained steady at 1,450 full-time jobs. Part-time jobs decreased from 169 to 154. Temporary jobs substantially declined from 641 to 242. In aggregate, this data reflects a decline from a 2,245 workforce in 2007 to a 1,861 workforce in 2008 (Table 7).

These 203 firms reported spending \$107.9 million to hire 2,840 independent contractors in Hawaii in 2008 (Table 8). This is an increase from the prior year of 2,118 independent contractors used by high technology firms in 2007. The bulk of the contractor payroll occurred in the performing arts sector (60.2%) and it should be noted that this sector expended only \$1.6 million for non-contractor employment in 2008.

**Table 7. Average Wages for QHTB Employees**

Salary Range	Full Time		Part Time		Temporary	
	Jobs	Wages*	Jobs	Wages*	Jobs	Wages
Under \$30,000	111	\$1,665,000	113	\$1,695,000	242	n/a
\$30,000 to \$59,999	523	\$23,535,000	35	\$1,575,000	n/a	n/a
\$60,000 - \$99,999	517	\$41,360,000	17	\$1,360,000	n/a	n/a
\$100,000 and over	299	\$37,375,000	4	\$500,000	n/a	n/a
<b>TOTAL</b>	<b>1,450</b>	<b>\$103,935,000</b>	<b>169</b>	<b>\$5,130,000</b>	<b>242</b>	<b>n/a</b>
<b>AVERAGE WAGE</b>		<b>\$71,679</b>		<b>\$30,355</b>		<b>n/a</b>

**Table 8. Hawaii Payroll Expenses, Research Credits, and Contractors Hired and Expenses (2008 Filers)**

Activity	No. of QHTBs	Payroll	Research Credit Claimed	Independent Contractors Hired	Contractor Expenses
Research as in IRC Sec. 41(d)	15	\$9,387,389	\$2,047,283	88	\$14,889,656
Biotechnology	18	\$12,110,695	\$1,903,408	101	\$3,965,961
Computer Software	45	\$28,653,084	\$1,782,053	172	\$3,767,041
Non-fossil Fuel Energy	20	\$3,339,740	\$391,763	61	\$3,035,525
Performing Arts	50	\$1,632,258	\$0	2,121	\$64,964,588
Multiple Activities & Others	55	\$69,084,086	\$8,214,275	297	\$17,278,161
<b>TOTAL</b>	<b>203</b>	<b>\$124,207,252</b>	<b>\$14,338,782</b>	<b>2,840</b>	<b>\$107,900,932</b>

**b. Estimated Impact of the High Technology Business Investment Tax Credit and the Tax Credit for Research Activities on Technology Employment in Hawaii**

As noted last year, the HISciTech Institute in 2007 issued a report on the number of technology jobs in Hawaii in a report titled "Innovation and Technology in Hawaii: An Economic and Workforce Profile."<sup>3</sup> The HISciTech Report estimated that Hawaii's technology sector employed 31,106 people earning an average annual salary of \$68,935. Of the 31,106 total

<sup>3</sup> The study by HISciTech is available at [http://www.hiscitech.org/\\_data/n\\_0001/resources/live/Innovation+Tech+Hawaii+Report+Sept30.pdf](http://www.hiscitech.org/_data/n_0001/resources/live/Innovation+Tech+Hawaii+Report+Sept30.pdf).

technology positions, the HISciTech Report estimated 23,985 of these jobs were with private sector companies and 7,121 positions were in public sector agencies.

Notably, between 2002 and 2007, the HISciTech Report estimated that the number of technology jobs in Hawaii increased by 3,557 in the private sector and 601 in the public sector, or a total increase of 4,158 positions in technology fields. The HISciTech Report utilized data from Economic Modeling Specialists Inc. (EMSI) that is based upon U. S. Bureau of Economic Analysis (BEA) data. The technology jobs identified by the HISciTech Report covered private, county, State, and civilian federal government positions, jobs in the military, and self-employed individuals, as well as other positions not covered by unemployment insurance (UI), usually certain owners or part-time employees working less than 20 hours per week.

Overlaying the 1,861 jobs reported by the 203 QHTBs with the 3,557 jobs in the HISciTech Report implies that these 203 QHTBs were responsible for 52% of total private sector technology job creation in Hawaii between 2002 and 2008. What is useful to note at this juncture is the employment in high technology companies filing reports in 2008 who received Act 221 credits declined 17% when comparing 2008 employment data to 2007. The high technology sector hired more independent contractors for a net increase of 34% over the 2007 levels.

While it is encouraging to see a net increase in the total number of individuals receiving some form of employment between 2007 and 2008 (4,363 contractors, full, part, and temporary employees in 2007 compared to 4,701 in 2008), these gains were made at a cost of \$137.4 million in tax credits.

#### **VIII. VIABILITY AND SUSTAINABILITY OF QHTBs**

To measure the viability of the QHTBs, the Department reviewed the QHTBs' revenues, expenses, and the length of time a QHTB has been in business.

Qualified high technology companies, in aggregate, are experiencing negative cash flows. In 2008, the worldwide gross revenue of the QHTBs totaled \$207.7 million, which was substantially less than their worldwide total expenses (excluding capital expenditures) of \$378.2 million. It should be noted that losses are not unusual for businesses in the early stages of their development (Table 9).

Of the 203 filers of Form N-317 for calendar year 2008, 110 were engaged in their qualifying activity for more than three years and 57 were engaged in the qualifying activity for more than 5 years (Table 10).

Of the 203 filers in 2008, only 59 had revenues greater than or equal to their expenses during 2008 and only 541 of the total full time jobs reported by QHTB firms were associated with companies that made a profit last year. This is 37% of the reported full time jobs. It should be noted that firms, even those experiencing a negative cash flow, may hold assets of value, such as patents not yet commercialized or copyrights that could be sold or licensed at a future date in or outside Hawaii.

**Table 9. 2008 Hawaii Revenues, Expenses, and Jobs (2008 Filers)**

**A. QHTBs with Worldwide Revenue Greater than or Equal to Worldwide Expenses**

	<b>Number of QHTBs</b>	<b>Hawaii Revenues</b>	<b>Hawaii Expenses</b>	<b>Number of Jobs</b>
Research as in IRC Section 41(d)	3	\$9,101,371	\$4,513,034	12
Biotechnology	1	\$1,699,122	\$278,387	7
Computer Software	13	\$11,833,977	\$8,956,858	68
Non-fossil Fuel Energy	7	\$22,980,926	\$13,686,616	18
Performing Arts	15	\$5,592,294	\$2,411,170	15
Multiple Activities & Others	20	\$77,082,541	\$63,056,574	421
<b>TOTAL</b>	<b>59</b>	<b>\$128,290,231</b>	<b>\$92,902,639</b>	<b>541</b>

**B. QHTBs with Worldwide Revenue Less than Worldwide Expenses**

	<b>Number of QHTBs</b>	<b>Hawaii Revenues</b>	<b>Hawaii Expenses</b>	<b>Number of Jobs</b>
Research as in IRC Section 41(d)	12	\$1,711,116	\$25,943,905	100
Biotechnology	17	\$9,040,946	\$32,994,146	96
Computer Software	32	\$25,512,256	\$49,997,894	314
Non-fossil Fuel Energy	13	\$4,515,484	\$8,630,832	34
Performing Arts	35	\$1,532,168	\$93,669,479	16
Multiple Activities & Others	35	\$37,127,984	\$74,097,555	349
<b>TOTAL</b>	<b>144</b>	<b>\$79,439,954</b>	<b>\$285,333,811</b>	<b>909</b>

**C. ALL QHTBs that Filed in 2008**

	<b>Number of QHTBs</b>	<b>Hawaii Revenues</b>	<b>Hawaii Expenses</b>	<b>Number of Jobs</b>
Research as in IRC Section 41(d)	15	\$10,812,487	\$30,456,939	112
Biotechnology	18	\$10,740,068	\$33,272,533	103
Computer Software	45	\$37,346,233	\$58,954,752	382
Non-fossil Fuel Energy	20	\$27,496,410	\$22,317,448	52
Performing Arts	50	\$7,124,462	\$96,080,649	31
Multiple Activities & Others	55	\$114,210,525	\$137,154,129	770
<b>TOTAL</b>	<b>203</b>	<b>\$207,730,185</b>	<b>\$378,236,450</b>	<b>1,450</b>

**Table 10. Number of QHTBs Performing Qualifying Activities and Duration of Activity (2008 Filers)**

**Number of Years the QHTB Performed the Qualifying Activity**

<b>Activity</b>	<b>0-1 Years</b>	<b>2-3 Years</b>	<b>4-5 Years</b>	<b>6 or more Years</b>	<b>Total</b>
Research as in IRC Sec. 41(d)	0	4	5	6	15
Biotechnology	3	5	3	7	18
Computer Software	5	11	17	12	45
Non-fossil Fuel Energy	4	9	4	3	20
Performing Arts	17	9	15	9	50
Multiple Activities & Others	11	15	9	20	55
<b>TOTAL</b>	<b>40</b>	<b>53</b>	<b>53</b>	<b>57</b>	<b>203</b>

## **IX. CONCLUSION**

To the extent Act 178, as amended by Act 221, is intended as a capital raising tool for Hawaii QHTBs, those filing in 2008 reported raising \$265.7 million in 2008 and a total of \$1.369 billion in cash investments from 2000 to 2008 in more than 400 companies.

Losses in tax revenues to the State of Hawaii for all QHTB investments to date total \$775.9 million in *investment* tax credits claimed and likely to be claimed in future years and \$102.8 million in *research* tax credits. Although there was a global and national recession in 2008, investments in high technology companies continued at a rate surpassing a quarter billion dollars (\$265.7 million). The State continued to experience a significant tax revenue loss of \$135 million.

To the extent Act 178, as amended, is intended to support the creation of higher-paying technology jobs reported, full time employment remained relatively steady at 1,450 jobs compared to the previous year. Part-time and, particularly temporary jobs, however, were reduced. Companies, particularly performing arts companies, shifted to a greater use of independent contractors from 1,240 to 2,121. Even looking at the combined numbers of contractor and direct jobs, the employment impacts of Act 221 remain disappointing. However, it should be noted that actual job data has only been collected for investments on or after July 1, 2007. Also, there is lag between significant investments and possible job creation as a result of that investment.<sup>4</sup>

To the extent Act 178, as amended by Act 221, is intended to create viable high technology companies contributing long-term to the diversity of Hawaii's economy, 57 of the 203 QHTBs have been in business for more than five years and 59 had revenues greater than expenses. This represents a 55% increase in the number of firms showing a positive cash flow compared to a year ago. Future year data will be needed to determine if at least some portion of high technology

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<sup>4</sup> Because a substantial portion of each year's investments are generally made toward the end of a year, there is a lag or delay between estimated credit costs in that year and any jobs created in the following year. For example, investments made at the end of a year may finance jobs in the subsequent year.

businesses in Hawaii remain as sustainable, on-going operations and contribute to the future recovery of our economy.