

Small State, Giant Tax Credits: Hawaii's Leap into High Technology Development

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Abstract

In 2001, the State of Hawaii established a 100 percent tax credit to promote investment in several targeted high technology industries. We chronicle the evolution of Hawaii's high technology tax credits, describe their provisions, and catalog a host of problems associated with determining whether or not the tax credits have achieved results desired by lawmakers. We conclude that it was a mistake to initiate a generous tax credit program without adequate monitoring by public agencies or disclosure of how public funds are being used by recipients of tax credits.

Keywords: tax credit, Hawaii, Act 221, qualified high technology business

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I. Introduction

Over the past 25 years, U.S. states have increasingly used tax incentives to stimulate investment in various industries with tax credits being the most prevalent (Eberts, 2005, p. 92). By 2008, 18 states had established tax credits to stimulate angel investment, venture capital investment, or investment in high technology industries, with at least nine states establishing rates between 30 and 100 percent (Loritz, 2008).

Targeted incentives have become a favorite weapon among the states in the competition for economic development. Studies have found that job creation is the most sought after goal of policymakers (Eberts, 2005, p. 88). While academics criticize targeted incentives for violating “every principle of sound tax policy and good government” (Brunori, 2001, p. 32), they continue to proliferate. They are viewed as a quicker and politically expedient way to create jobs when lawmakers perceive that low overall tax rates or better quality public services are insufficient to produce the desired outcome. Brunori (2001, p. 32) opines that they are “inevitable” as they are “driven by state sovereignty, a changing economy, and the political pressure to create jobs.”

Hawaii’s entry into the interstate competition for economic development goes back to at least the 1980s. It was motivated by the search for economic diversification. Surveys in the late 1980s found that Hawaii’s residents felt that the State was already too dependent on the tourist industry (Mak, 1993: 251). The State chose to foster the growth of high technology industries because they usually pay high wages and are environmentally clean.

To pursue high tech development in Hawaii, the State created the High Technology Development Corporation, the Hawaii Information Network Corporation, the

Office of Space Industries, the Hawaii Innovation Development Program, the Hawaii Strategic Development Corporation, the Research and Development Industry Promotion Program, etc. (Darby and Jussawalla, 1993). Despite these efforts, Darby and Jussawalla (1993, p. 44) observed that by the early 1990s “the state has yet to attract one sizeable company. In fact, Hawaii is losing, not gaining, high tech jobs.” New companies start up in Hawaii, and when they become successful, they relocate to the U.S. mainland (Kay, 2002).¹

Beginning in the late 1990s, the State of Hawaii initiated a major policy change by offering investment tax credits for investment in selected high technology industries. In 1999 the Hawaii state government created a non-refundable tax credit (SLH 1999 Act 178) equal to 10% of the investment value that investors in Qualified High Technology Businesses (QHTBs) could claim.² For a business to qualify as a QHTB, it had to conduct 100% of its activities in IRC 41(d) qualified research or it had to derive 100% of its revenue from products or services developed from such qualified research. Moreover, all of these activities had to take place within the State of Hawaii. In its committee report recommending the bill, the Hawaii State Senate Ways and Means Committee argued that changes in communication and information technology and the global economy provided a strong rationale for the credits.

Your Committee strongly believes in the necessity of this measure. In the past, Hawaii's economy was at a disadvantage because of its isolation from mainland businesses and other international ventures. Currently, with the advances of telecommunications, information technology, and the explosive growth of the Internet, geographic isolation is no longer a factor, as commerce and businesses are becoming increasingly global. Hawaii must foster the growth of high technology industries in the State in order to take full advantage of the

¹ Prominent examples include AdTech, Verifone, Pihana Pacific, and Digital Island.

² A non-refundable credit may be claimed in a year if there is a pre-credit tax liability for that year.

global economy. It is only through the development of a strong high technology sector that Hawaii can diversify its tourism-dependent economy and grow and prosper in the twenty-first century.

Very few claims were made under SLH 1999 Act 178's strict rules: just 23 claims for a total of \$162,208 in 1999. In 2000 (SLH 2000 Act 297) and in 2001 (SLH 2001 Act 221) the Legislature enacted new legislation to broaden the scope of coverage and increase the flexibility and the generosity of the tax credit program. To broaden the appeal of the credits, an exception to existing state tax law was added to make the credits transferable using methods similar to the federal Low Income Housing Tax Credit (LIHTC). SLH 2001 Act 221 (hereafter referred to as Act 221) dramatically increased the generosity of the investment tax credit by raising it to 100 percent (non-refundable) claimed by the recipient over five years.³ Upon its enactment, Hawaii had the nation's most generous business investment tax credit program (CDVCA, 2004). A few states offered tax credit rates of 50 or 60 percent; most others were much less generous. A subsequent law—SLH 2004 Act 215 – put limits on the amount of credits investors could transfer to and from other investors, but the investment tax credit program largely remained the same until 2009. In the absence of a cap on the total amount that can be claimed by investors, annual claims for Act 221/Act 215 credits currently exceed \$140 million. Through fiscal year (FY) 2009, Hawaii's high technology business investment tax credits have already cost the State an estimated \$657.5 million in foregone tax revenues.⁴ Act 221 was set to expire at the end of 2010.

³ Credits claimed tomorrow rather than today should be discounted. If we discount the stream of credits—35% in year one, 25% in year two, 20% in year three, and 10% in years 4 and 5, their discounted value is 93.7% of the investment at a 5% discount rate and 88.1% at a 10% rate.

⁴ See DOTAX (2008b), Table 2 and also p.6. Of that amount, \$301.1 million were cumulative claims between 1999 and 2006; \$136.0 million for tax year 2007; and \$220.4 million is an estimate of the carryover for investments made before 2008.

During the 2009 regular session, the State Legislature responded to a deep decline in expected state revenues by passing SLH 2009 Act 178 (effective July 1, 2009) to reduce the generosity of Act 221. Despite objections from the venture capital and business communities, Hawaii Governor Linda Lingle allowed SLH 2009 Act 178 to become law without her signature because “the fiscal implications of this legislation outweigh the concerns.”⁵

This paper chronicles the evolution of Hawaii’s high technology tax credits, describes their provisions and the ensuing problems in attempting to ascertain whether or not they have achieved the results desired by lawmakers who passed them, and offers lessons that other states can use when designing their own business investment tax credit programs.

II. Evolution of Hawaii’s High-Technology Tax Credit Programs

SLH 1999 Act 178 and SLH 2000 Act 297

SLH 1999 Act 178 allowed taxpayers to claim a 10% investment tax credit of up to \$500,000 per investment in qualified businesses for use against their income tax liability. The tax credits could also be used by banks, insurance companies, and other firms to pay for the financial institution franchise tax and insurance premium tax.⁶ While non-refundable, the credits could be carried forward indefinitely; the taxpayer could apply unused credits in any subsequent year until they were all exhausted.

⁵ Governor’s Message No. 849, July 16, 2009 *available at* http://capitol.hawaii.gov/session2009/bills/GM849_.PDF

⁶ SLH 1999 Act 178 created HRS 241-4.8 (allows the tax credits to be used for the franchise tax) and HRS 431:7-209 (allows them to be used for the insurance premium tax). The credits may also be used for corporate income taxes.

Therefore, while the credits were non-refundable, they were never lost if the taxpayer had some tax liability in the future.⁷

Initially, the requirements for claiming the 10% non-refundable tax credit were very strict: the definition of a qualifying high technology business (QHTB) was one that conducted 100% of its business in qualified research in Hawaii, or received 100% of its gross income from products or services made and provided in Hawaii resulting from qualified research.⁸ Moreover, the act included a list of explicitly excluded industries that could not qualify for the credits.

Requirements for the investment tax credit were lowered the next year with SLH 2000 Act 297 in hopes of attracting more activity. Act 297 reduced the levels to 50% of total business activities in Hawaii with 75% in qualified research (75% of 50%, or 37.5% of all business activities of the firm). Alternately, the firm could qualify if 75% of its gross income was due to products and services using the results of its qualified research activities. Performing arts was removed from the excluded industries list so television and movie producers could claim the credit. Biotechnology, which was not mentioned in SLH 1999 Act 178, became eligible. “Liberal construction” language was included for the first time. When combined with the absence of a precise list of what activities qualified, it meant anything that could plausibly be argued to qualify had to be accepted.⁹

⁷ Of course, putting off the use of the credits into the future reduces their present discounted value.

⁸ Hawaii Revised Statutes Chapter 235-7.3 at first defined qualified research as “the same as in section 41(d) of the Internal Revenue Code,” which is used to define research qualifying for the Federal research tax credit.

⁹ “Liberal construction ... expands the meaning of the statute to embrace cases which are clearly within the spirit or reason of the law, or within the evil which it was designed to remedy, provided such an interpretation is not inconsistent with the language used. It resolves all reasonable doubts in favor of the applicability of the statute to the particular case.” Lile et al. (1914), p. 343. The spirit of Act 297 was interpreted to be an effort to expand the range of businesses that qualified for the program. Thus, whenever

Finally, a special exception was put in place that allowed the tax credits to be freely allocated among investing partners without regard to the share of each partner's interest in a partnership. This exception made it possible to effectively sell tax credits through carefully structured partnerships and was intended to attract out-of-state investors who could not otherwise benefit from the Hawaii State income tax credits. The changes in 2000 made the credits more generous, easier to obtain, and much more flexible in how they could be used to attract investment.

The 2000 changes in the tax credits still did not generate the desired amount of investment. According to former state tax director Ray Kamikawa, "their adoption did not generate interest in Hawaii's tech businesses by national/international investment firms."¹⁰ Almost four times as many claims (i.e. tax credits actually used to lessen Hawaii income taxes due) were made under Act 297's terms in 2000, but the 103 claims were worth only \$393,633 of tax credits (Table 1).

there was doubt whether a particular business qualified or not, DOTAX had to rule in favor of the applying QHTB.

¹⁰ Senate Committee on Economic Development and Technology and House Committee on Economic Revitalization, Business, and Military Affairs Joint Info Briefing on Act 221 on January 20, 2009, briefing summary available online at: http://www.capitol.hawaii.gov/Site1/Senate/Comm/CommDocs/INFO_TESTIMONY_EDT-EBM_01-20-09_Info_Briefing_Summary.pdf

Table 1: QHTB Investment Tax Credits Claimed for Tax Years 1999-2007

| Tax Year | Total Claims | Total Credits Actually Used |
|----------|--------------|-----------------------------|
| 1999 | 23 | \$162,208 |
| 2000 | 103 | \$393,633 |
| 2001 | 268 | \$9,579,923 |
| 2002 | 493 | \$26,185,181 |
| 2003 | 652 | \$38,870,301 |
| 2004 | 1,040 | \$50,543,285 |
| 2005 | 1,216 | \$69,827,709 |
| 2006 | 1,842 | \$105,407,136 |
| 2007 | 2,235 | \$140,139,109 |
| Totals | 7,872 | \$441,108,485 |

Source: DOTAX, September 2009, Table 2.

SLH 2001 Act 221

SLH 2001 Act 221 further clarified and expanded the state's high technology incentives. Act 221 increased the credit limit from \$500,000 up to \$2,000,000 per investment spread over five years as follows: 35% in the first year, and 25%, 20%, 10%, and 10% respectively in the next four years. Like the earlier Acts, the credits could still be carried forward indefinitely until exhausted. All specific exclusions of industries from the definition of QHTBs were stricken from the statute. Moreover, sensors and optics, ocean sciences, astronomy, and non-fossil fuel energy-related technology industries were added to the explicit list of qualified research fields. Act 221 reiterated the policy of liberal construction from 2000's Act 297, meaning essentially any activity in any of these explicitly named fields was considered "qualified research" even if it had no actual research component. In sum, the credits were made easier to claim for a wider range of investments and, more importantly, were expanded tremendously in value.

Hawaii's tax incentive program after the enactment of Act 221 was notably different from most other state tax credit programs in three ways: (1) no other state came

close to offering a 100% tax credit; (2) there was no cap on the overall dollar amounts of tax credits issued each year; and (3) it retained the allocation flexibility exception for partnerships implemented in 2000. The increase in the generosity of Act 221 produced a large increase in the number and value of claims (Table 1).

Concerns over the effectiveness of Act 221 in attracting the desired types of investment were raised following public disclosure that Universal Studios' *Blue Crush* movie production (which completed its filming in Hawaii in four months between December 2001 and March 2002) collected over \$15 million in Act 221 tax credits. That meant that the equivalent of 40% of the \$35.7 million in tax credits for those years went to the making of a single movie that was a "one-shot project with little vested interest in the state."¹¹

SLH 2004 Act 215

Concerns were also raised over the manner in which some firms were allocating tax credits among investors. Critics questioned whether some investments were being made primarily for tax purposes—i.e. to minimize tax liabilities—and not because the companies had good prospects to prosper as going concerns.¹² In testimony before the Legislature in 2004, the director of the Hawaii State Department of Taxation opined that

¹¹ See Bolante (2003) and Hao (2004a). The Warner Brothers film *The Big Bounce* also benefitted from Act 221 credits before one shot movie projects were disqualified. The combined amount of Act 221 credits for both movies was between \$30 and \$36 million. DOTAX began actively auditing and denying such one shot movie projects for Act 221 credits in 2003. See for example, DOTAX news release from march 17, 2003 on Tax Information Release 2003-01 available at <http://www6.hawaii.gov/tax/media/03mr0317.htm>: "Act 221 reportedly has been used by certain investors and advisors in ways that are inconsistent with legislative intent or that do not satisfy basic common law requirements. For example, the credit reportedly has been claimed for investments in one-shot movie deals that do not contribute to Hawaii's economy on an ongoing basis."

¹² "If you do something, and you're not really after the investment, you're after just the tax credits and you get, for example, more than a 2-to-1 write-off, ... then we have concerns about those credits." Kurt Kawafuchi, Deputy Director of the Hawaii State Dept. of Taxation, quoted in Trifonovitch (2003).

at least 20 percent of all claims for Act 221 tax credits potentially violated criminal or civil laws (Hao, 2004c). There was growing sentiment among State lawmakers to restructure Act 221. Investments facing the closest scrutiny were those employing the allocation exception established by Act 297 in 2000. Act 297 removed all restrictions on the allocation of credits between partners in an investment partnership; this provision drew some of the heaviest criticism from the public when it was learned that investors now could receive a much greater share of the tax credits than their share of ownership in a company. In most investment tax credit programs, an investor in a partnership may only receive a portion of the credits in proportion to his or her ownership stake in the partnership, e.g. someone owning 50% of the equity can normally only take 50% of the credits.

Hawaii's program was exempted from this standard Internal Revenue Code rule in 2000, making it possible for a marginal investor to claim many "multiples" of their actual interest in the company (e.g. a 10% equity owner could be assigned 30% of the credits received by a partnership for a 3-to-1 multiple). While at first glance it may seem unusual for investors to agree to give up tax credits to another partner, a simple example at the end of this section illustrates how this could be advantageous to all parties in the deal. Reports of 4-to-1 and even 10-to-1 multiples contributed to public skepticism of the business purpose of some of these deals.¹³

Lawmakers attempted to address this criticism by enacting SLH 2004 Act 215 in 2004. Act 215 tried to limit the share of total credits that could be allocated to an

¹³ See David Butts, Interview, "Leadership Corner: Barry Weinman," *Honolulu Advertiser*, June 30, 2003, at D2 (interviewing Barry Weinman, managing director and cofounder of Allegis Capital). "In Hawai'i, there are deals where you can invest \$1 and get \$10 back. There is no cap. The cap should be at least at 200 percent and maybe less." See also Trifonovitch (2003), which cites two instances of deals involving 4 to 1 multiples.

investing partner to two times that partner's equity share (a "2-to-1" multiple) in the company. It did not mean that the ratio could not exceed 2. The guidance issued to investors by DOTAX was that if credits were allocated in a ratio of 2 to 1 or less (e.g. if a partner received credits that were, say, 1.25 times his share of equity investment), the investor would not be required to substantiate "economic substance and business purpose"; he would be required if the ratio were more than 2 to 1. This so-called "Safe Harbor" rule was passed in hopes of encouraging investors to stay within the 2 to 1 ratio and discouraging investments made primarily for their potential tax benefits. Finally, Act 215 struck down the "liberal construction" language from the program. The Governor's office contended that it "was too open ended in interpreting what kind of activity could be eligible for the high technology tax credit."¹⁴

SLH 2009 Act 178

Economic recession and a huge projected State budget deficit triggered significant changes in 2009 to Act 221. In May 2009, Hawaii enacted SLH 2009 Act 178 which addressed a number of concerns about the State's high technology tax credit program. One concern was that some investors had completely eliminated their state tax liability via their claims of Act 221 credits. SLH 2009 Act 178 sets a maximum total value of credits claimed by any one taxpayer for all new investments each year at 80% of the taxpayer's total tax liability in that year. While this does not reduce the statutory tax credit rate of 100%, it may reduce the effective tax credit rate for some investors to less than 100%. Under the new law, credits claimed for new investments made anytime after

¹⁴ "Governor Lingle Signs Bill to Tighten High Technology Tax Credits; Encourage Capital Investments," July 13, 2004 News Release *available at* http://hawaii.gov/gov/news/releases/2004/News_Item.2006-01-19.4302

May 1, 2009 in excess of the amount actually used by the taxpayer in that year cannot be carried forward for future use and are instead forfeited.¹⁵ Another major provision of SLH 2009 Act 178 supersedes the 2-to-1 guidance in Act 297 by discontinuing the partnership allocation exception entirely. Investors can no longer claim a greater percentage of the tax credits than their share of the total investment in a company. Thus, SLH 2009 Act 178 completely disallows multiples for new investments, restoring tax credit allocation to a maximum of 1.0 times what the taxpayer actually invested. Table 2 summarizes the principal features of Hawaii high technology tax credit legislation since 1999.

Table 2: Summary of QHTB Investment Tax Credit Program

| Year | Credit Rate | Credit Transferability* | New Investment Claim Cap** | New Credit Carry Forward |
|----------------|-------------|-------------------------|----------------------------|--------------------------|
| 1999 (Act 178) | 10% | 1.0 to 1 | None | Yes |
| 2000 (Act 297) | 10% | No Maximum | None | Yes |
| 2001 (Act 221) | 100% | No Maximum | None | Yes |
| 2004 (Act 215) | 100% | 2.0 to 1 | None | Yes |
| 2009 (Act 178) | 100% | 1.0 to 1 | 80% of Tax Bill | No |

* This indicates the largest multiple of their actual investment that a taxpayer could claim in credits without triggering automatic review by DOTAX of the claim.

** This is the limit on how much credits can be claimed each year for new investments after May 2009.

A Simple Example of the Benefit to Investors of Various Tax Credit Allocation Schemes:

Harold and Calvin

Consider a simple example that demonstrates the effects of the 2000, 2001, 2004, and 2009 changes to Hawaii’s high-tech tax credit program. Harold is a Hawaii resident

¹⁵ See Department of Taxation Announcement No. 2009-23, August 3, 2009, *available at* <http://www6.hawaii.gov/tax/announce/ann09-23.pdf>. State Tax Director Kurt Kawafuchi very specifically indicated that any credits already earned and issued to a taxpayer are not subject to these new rules and could be carried forward indefinitely. This includes newly issued credits for investments made prior to May 1, 2009. This grandfathering also applies to the partnership allocation exception for new credits issued for old investments.

with high enough adjusted gross income to be subject to the Alternative Minimum Tax.¹⁶ Calvin is a California resident with no Hawaii tax obligations. Suppose these two investors each decide to invest \$50,000 in a company that meets the 1999 qualified high technology business (QHTB) requirements because it conducts 100% of its activities in IRC 41(d) qualified research in Hawaii.

Under SLH 1999 Act 178, both investors would be eligible to receive 10% of their investments in the form of non-refundable tax credits that could be carried forward but not traded. Harold would receive \$5,000 worth of these credits and could use them to satisfy his Hawaii income tax obligations. Calvin would also be eligible to receive \$5,000 worth of tax credits, but cannot use them against his non-existent Hawaii income tax liability; thus, Calvin's accrued tax credits are of no value to him.

Under SLH 2000 Act 297, Harold and Calvin can now negotiate an agreement to effectively sell all of Calvin's Act 221 tax credits to Harold in exchange for Harold's equity in the QHTB. Since allocation of the credits to investors under Act 297 no longer needs to correspond to the partners' ownership stakes in the QHTB and only Harold has any use for the credits, the partners could agree to allocate all \$10,000 of the 10% Act 178/297 credits to Harold. In exchange, Harold could agree to sell \$10,000 worth of his (\$50,000) partnership interest in the QHTB to Calvin for \$3,000. This creates a \$7,000

¹⁶ The Alternative Minimum Tax is relevant in our example because some taxpayers are able to deduct their state income taxes from federal income tax obligations. The foregone federal deductions due to lower state taxes paid could lower the net present discounted value of Act 221 credits. Supporters of Act 221 have acknowledged in written testimony that "high net worth individuals who are subject to the Alternative Minimum Tax may not be eligible to deduct their state tax from federal and state taxable income in the first instance," eliminating this effect in our example. See Attachment 13, Minutes of the 21st Meeting of the Tax Review Commission on October 25, 2005, *available at* http://www.state.hi.us/tax/trc/mins2007/2006trc10-25_min-attach-1-18.pdf.

capital loss for Harold,¹⁷ and Calvin ends up with \$60,000 worth of partnership interest for a total cash outlay of \$53,000. Our Hawaii resident Harold now has \$10,000 in Hawaii tax credits plus he still retains a \$40,000 ownership stake in the company. He also has a modest capital loss available to cancel out capital gains on other investments for Federal tax purposes.

Note that the size of the potential deal that can be negotiated to the mutual benefit of Harold and Calvin is limited by the relatively small amount of credits generated. Harold's total benefit was worth about \$50,000 plus some capital losses, obtained at a cost of \$47,000 (he was paid \$3,000 by Calvin as a side payment). That is a small return for a lot of sophisticated partnership planning and negotiating, so the failure of Act 297's changes to spur investment activity is unsurprising.

While investors may not have been interested in going through complex contracts and deals for small gains under Act 178/297 rules, the combination of Act 221's dramatic increase in generosity and Act 297's allocation exception made very large returns possible. Under Act 221, the \$50,000 investments by Calvin and Harold would create \$100,000 (100%) in tax credits rather than the earlier \$10,000 (10%) amount. Taking advantage of the Act 297 partnership allocation exception, Calvin and Harold could negotiate a deal transferring all \$100,000 in tax credits to Harold.

To remain eligible to receive all of the credits, Harold would only need to retain a small token stake in the partnership. A possible deal could send \$40,000 of Harold's partnership interest to Calvin for \$10,000 in cash. The end result of this hypothetical deal for both partners is much more lucrative than before: Calvin gets \$90,000 worth of

¹⁷ The basis of the investment is the original cost of the investment. The tax credits are not considered part of the value of the partnership, so the allocated tax credits do not count when determining if the sale produced a capital gain or loss.

partnership interest for \$60,000; Harold receives \$100,000 in tax credits over five years, a \$30,000 capital loss, and \$10,000 worth of partnership interest for a net cash outlay of \$40,000 (for a 2.5-to-1 “multiple” of tax credits).

Under Act 215 (2004), Calvin could not receive tax credits in excess of twice the percentage of his initial investment (the “2-to-1” provision) without inviting tax department scrutiny. If Harold’s equity ownership is 10%, he could not safely be assigned more than 20% of the tax credits. A possible deal could have Harold selling \$25,000 of his \$50,000 equity to Calvin for \$10,000. This would only provide Calvin with \$75,000 in equity at a cost of \$60,000, and Harold would receive \$50,000 in Act 221 credits plus a \$15,000 capital loss. The gains to both investors are not nearly as large as before, but we see how the same type of contracting is still possible under Act 215. Note that in each case \$60,000 worth of capital has been brought in from outside the state (Recall that Calvin is a resident of California).

SLH 2009 Act 178 prohibits such credit exchanges after May 1, 2009, as they become subject again to IRC 704(b)(2). To receive \$50,000 in Act 221 credits, Harold must now buy and retain \$50,000 worth of partnership interest in the company; he only gets back what he spends. The \$50,000 worth of Hawaii tax credits Calvin would be eligible to claim are once again wasted, as they were prior to 2000, because he has no use for them and cannot trade them to anyone else. It is clear that the elimination of this allocation exemption from IRC 704(b)(2) was the main concern by those taking advantage of the more liberal rules under Act 221 and Act 215. Without any means of selling the credits, the Act 221 credits lose all value to potential non-resident investors.¹⁸

¹⁸ Of course, the credits may still be useful for inducing Hawaii taxpayers to invest in high technology firms operating in Hawaii rather in another state or country.

III. Did Hawaii’s Tax Credit Programs Increase Capital Investment in High Technology Industries and Create Jobs?

The most important measures of the effectiveness of the high technology tax credit program are the amount of capital raised and the number of jobs (and their average salaries) created by the QHTBs. In testimony submitted to the Hawaii Tax Review Commission dated October 25, 2006, a coalition of high technology industry groups “agrees that the investment tax credit should be tracked and evaluated on its effectiveness.”¹⁹ The group argues that “the QHTB data collected by the Tax Dept. from tech companies about jobs, expenditures, and investments on Form N-317 is one of, if not the most, important source of data—as it is specifically connected to the incentive.” The testimony concluded that “[a] new system of data collection or additional legislation is not needed.” Our evaluation (below) leads us to conclude that the data collected by the Tax Department on Form N-317 are of limited use in evaluating the effectiveness of the tax credit program.²⁰

Department of Taxation Form N-317

From 1999 to 2006, the most important data on business investment tax credits were attached to state income tax returns and hence could not be provided to the public. Due to the confidential nature of tax returns, very little useful information about who was participating and what the QHTBs were doing was made available; this restriction

¹⁹ Attachment 1, Submitted Testimony to the Tax Review Commission , October 25, 2006 by Lisa Gibson, Ann Chung, Mike Fitzgerald, Bill Spencer, and Rob Robinson, p. 9 *available at* http://www.state.hi.us/tax/trc/mins2007/2006trc10-25_min-attach-1-18.pdf

²⁰ The lack of necessary data to evaluate the effectiveness of tax incentives is not unique to Hawaii (Brunori 2001, p. 41).

applied even to the names of Qualifying High Technology Businesses. The Department of Taxation (DOTAX) released aggregated data on the credits in an irregular fashion, sometimes providing data on a few items of interest but not publishing regularly scheduled standardized reports.

A provision in SLH 2004 Act 215 required DOTAX to collect and maintain data including the names and addresses of taxpayers claiming the high technology tax credits, the amounts and nature of qualifying investments made, and the total amount of tax credits claimed. This legally required DOTAX to continue collecting information that DOTAX had been collecting without Legislative mandate since April 2003 using Form N-317.²¹ It quickly became apparent that this legislative mandate did not help the Legislature or the public gain a better understanding of the effectiveness of the tax credit program. Act 215 merely required DOTAX to keep records of the information that it obtained from N-317 but did not require DOTAX to issue public reports. Consultants employed by the Hawaii Tax Review Commission to evaluate Act 221 emphasized the difficulty they encountered in obtaining “timely and usable taxpayer data necessary to measure the costs and benefits of the Act 221 credit.”²² The Legislature’s frustration with the lack of useful, publicly available information is apparent in the introduction to SLH 2007 Act 206.

The legislature finds that it is difficult to evaluate whether the high technology business investment tax credit, first enacted in Act 178, Session Laws of Hawaii 1999, as amended, has been successful. Although the credit has poured millions of dollars into Hawaii's economy, accurate information with respect to the efficacy of the credit appears lacking. Reports by the department of taxation

²¹ See Department of Taxation, Announcement No. 2003-01, available online at <http://www.state.hi.us/tax/announce/2003ann01.htm>. Form N-317 has been radically revised over the years in response to greater information requirements.

²²Sakai and Bird, (2006)

and the department of business, economic development, and tourism on the effectiveness of the investment and other high technology credits were confusing and inconsistent. All parties agree that a better evaluation is needed.

Consequently, Act 206 effectively made Form N-317 mandatory for all QHTBs, changed it from a tax form to an online survey,²³ required DOTAX to produce an annual report of the survey's findings in aggregate form to be submitted to the Legislature, and charged DOTAX with using the data to study the effectiveness of the tax credit. Section 2(e) of Act 206 specifically named the effectiveness measures sought by the legislature. The first three on the list are: "the amount of investment made into qualified high technology businesses, the number of qualified high technology businesses in each industry sector, (and) jobs created."

Since the passage of Act 206, DOTAX has issued four reports in October 2007, September 2008, December 2008, and September 2009, pursuant to the requirements of Act 206. The October 2007 report examined the operations of the QHTBs from 2002 through 2006 (DOTAX, 2007). The two reports for 2008 are based on responses on Form N-317 from 177 QHTBs for 2007; one provides descriptive statistics on the 177 QHTBs (DOTAX, 2008a), and the other, an assessment of the impact of the tax credit program on Hawaii's economy for calendar year 2007 (DOTAX, 2008b). The latest 2009 report provides descriptive statistics for the 180 QHTBs which filed Form N-317 in 2008.

²³ This is crucial because it means N-317 filings as survey responses no longer have the confidentiality treatment of tax returns.

It is noteworthy that even though filing form N-317 is mandated by State law, with a maximum penalty of \$6,000 for failing to file, there is rampant noncompliance.²⁴ Only 180 out of the universe of 364 QHTBs required to file Form N-317 actually did so for calendar year 2008.²⁵ Moreover, DOTAX has signaled to the QHTBs that it does not intend to pursue all the violators. DOTAX has announced that it plans to pursue only 32 of the violators.²⁶

Aside from the hazards of relying on a self-administered survey, the State's failure to compel all the QHTBs to file N-317 makes it impossible for the public to compare the performance of the QHTBs over time. N-317 is statutorily mandated to be a census of the entire universe of all QHTBs receiving investments; instead DOTAX's reports on the performance of the QHTBs are based only on a subsample of filers for each year. To illustrate the problems this creates, consider the employment information on the QHTBs for 2007 based on 177 filers; for 2008, they were based on 180 filers. The universe of QHTBs when the 2007 data was collected was 333 QHTBs²⁷; for 2008 data the universe included 384 firms. Table 3 compares the number of reported employees for calendar year 2007 by the 177 filers in 2007 and the 180 filers in 2008:

²⁴ See (Hao, 2004b). Prior to the legislative session in 2004 that produced Act 215, DOTAX intended to submit a report on N-317's findings. According to Tax Director Kurt Kawafuchi, the report was delayed "because only about 60 percent of people receiving the tax credit completed forms seeking information on how the credits were used," and "[t]he compliance was modest or mediocre."

²⁵ An unintended consequence of Act 206 was that changing it from a tax form to a survey reduced the penalty for noncompliance. In 2003, DOTAX had considered failure to submit the form to be in violation of Hawaii's tax statutes, which potentially carried very stiff penalties. That was replaced by a modest fine in Act 206.

²⁶ See footnote 1 on p.2, DOTAX (2009).

²⁷ Even this number may be suspect since 333 represents the total number of QHTBs who have filed an N-317 survey at least once; we do not know how many firms have never filed.

Table 3: Number of QHTB Employees in Calendar Year 2007

| | 2007 Filers | 2008 Filers |
|------------------------|-------------|-------------|
| Number of QHTBs Filing | 177 | 180 |
| Full-time Employees | 1,450 | 1,251 |
| Part-time Employees | 154 | 156 |
| Temporary Employees | 641 | 242 |

Sources: DOTAX, September 2009, Tables 5 and 6 and DOTAX, December 2008, Table 8

The respondents in 2008 reported fewer employees in 2007 than the 2007 filers for the same year. There is no way of knowing what the actual number of employees was for all QHTBs in 2007, as we do not know how many of the 177 QHTBs that filed N-317 in 2007 also filed the survey form in 2008.²⁸ We do not know anything about the characteristics of the non-filers. This means that DOTAX's reports for calendar year 2007 and calendar year 2008 are not comparable. State lawmakers were aware of this problem. In a letter sent to DOTAX after a legislative hearing, two lawmakers raised the following concern:

Because the purpose of Act 206, SLH 2006 was to generate accurate information on the usage of Acts 221-215, and to analyze whether Act 221 investments were achieving the purposes for which they had been adopted, we are concerned that the department's December 2008 report draws conclusions regarding all Act 221 beneficiaries based upon data collected from 2007 tax filers (177 tax filers rather than all 333 QHTB filers from earlier years).²⁹

Each of the annual reports issued by DOTAX has summarized information from the firms reporting for that year. Since the filers differ from year to year, it is impossible to track the impact of the tax credit program over time.

²⁸ DOTAX (2009), p. 2 footnote 1 notes that 31 of the 180 QHTBs which filed in 2008 "had never previously filed a Form N-317". It does not mean that the remaining 149 firms had filed in 2007.

²⁹ Official Correspondence from Sen. Carol Fukunaga and Rep. Angus McKelvey to Tax Director Kurt Kawafuchi, "Re: Corrections to Department of Taxation Testimony and to Report entitled 'The Impact of the High Technology Business Investment Tax Credit on Hawaii's Economy for Calendar Year 2007' (December 2008), dated January 27, 2009.

A similar problem arises with data on cash investments received by the QHTBs. For example, the 180 filers in 2008 reported receiving \$291 million in cash investments during 2007; by comparison, the 177 filers in 2007 reported receiving \$307 million in cash investments for the same year.³⁰ There were more filers in 2008 than in 2007 but they reported receiving lower cash investments for the same year. Obviously the two sets of data are not generated by the same firms.

In its September 2009 report, DOTAX acknowledges these problems: “The State of Hawaii hopes that concerned industry officials will encourage their colleagues to file Form N-317 so that more accurate and comprehensive analysis of the industry can be performed.” (DOTAX, 2009, p.2) Architects of Hawaii’s high technology tax credit program attributed its design to the federal Low Income Housing Tax Credit program (LIHTC).³¹ However, the high-tech tax credit program did not incorporate the reporting and tight compliance requirements built into the LIHTC.

³⁰ However, Tax Director Kawafuchi surmised that “the QHTBs that did not file 2007 Form N-317 may only represent about 8% of total investments received by QHTBs through 2007.” Official Correspondence from Tax Director Kurt Kawafuchi to Sen. Carol Fukunaga and Rep. Angus McKelvey, “Re: The Correlation to the Department of Taxation Testimony and to Report Entitled ‘The Impact of the High Technology Business Investment Tax Credit on Hawaii’s Economy for Calendar Year 2007’ (December 2008), dated February 4, 2009, p. 7.

³¹ This has been confirmed by Ray Kamikawa, who was Hawaii State Tax Director until August 2000 and is widely regarded as a key architect of Act 221. See, for example, the Minutes of the 21st Meeting of the Tax Review Commission on October 25, 2005, available online at http://www.state.hi.us/tax/trc/mins2007/2005trc10-25_min.pdf See also, briefing summary of Senate Committee on Economic Development and Technology and House Committee on Economic Revitalization, Business, and Military Affairs Joint Info Briefing on Act 221 on January 20, 2009. The LIHTC, created by the Tax Reform Act of 1986 (P.L.99-514), is an annual 9 percent credit receivable for up to 10-years. Hawaii’s high technology tax credit accelerates the time frame to 5 years and front-loads the credits because it was felt that front-loading was necessary to off-set the higher risk of investing in high technology companies. Most of the investors in Hawaii QHTBs are high income individuals, while most of the investors in the LIHTC are corporations. (Jackson, February 24, 2006; also DOTAX 2008b, Tables 4 and 5, p. 8.) See also O’Sullivan, 2009, p. 362. A study found that in 1996, every dollar of federal subsidy in this low income housing program yielded approximately \$.62 of additional housing.

There are also serious problems with the design of the survey and its implementation. One of the goals of the high technology tax credit program was to attract out-of-state capital to Hawaii. The December 2008 DOTAX report (p. 7) shows that the aggregate amount of cash investment received by the 177 QHTBs in calendar year 2007 totaled \$1.2 billion between 2000 and 2007 for an average of \$6.78 million per QHTB. However, we do not know how much of the qualifying Act 221 investments came from out-of-state investors. Attracting investment capital from out-of-state investors was a major reason for including the allocation exception in SLH 2000 Act 297. Form-317 does not ask respondents to separate Hawaii (own-source) investments from non-Hawaii sourced investments.³² Using a variety of information, including comfort letter rulings and QHTB tax returns, DOTAX estimated (DOTAX, 2008b, p. 5) that about 31 percent of the \$1.2 billion was from out-of-state investors. Unfortunately, the DOTAX estimate cannot be replicated with publicly available data.

The methodology for determining the number of QHTB employees is also flawed. The Department of Taxation (DOTAX, 2008b) reported that among the 177 QHTBs filing N-317 for 2007, there were 1,450 full time jobs, 145 permanent part-time jobs, and 641 temporary jobs in 2007.³³ For temporary and seasonal workers, information was

³² This is the relevant question 3d on Form N-317 2007: "Please list the cash investments received by the QHTB by the quarter in which they were received by the QHTB, beginning with calendar year 2000 and ending with 2007. Please provide the aggregate amount of all investments received in each quarter and provide the total for each calendar year."

³³ DOTAX (2008a), pp. 47 and 75. DOTAX estimated the cost of each high tech job at \$535,000. "The \$535,000 was obtained by dividing the \$1.2 billion invested in 333 QHTBs during 2000-2007 by the 2,245 employees (full-time and part-time) employed by the QHTBs in Hawaii for the 52 consecutive weeks or 12 consecutive months during the weeks that included 12/12/07." Official Correspondence from Tax Director Kurt Kawafuchi to Sen. Carol Fukunaga and Rep. Angus McKelvey, "Re: The Correlation to the Department of Taxation Testimony and to Report Entitled 'The Impact of the High Technology Business Investment Tax Credit on Hawaii's Economy for Calendar Year 2007' (December 2008), dated February 4, 2009. Unfortunately, this analysis mixes data from two noncomparable samples of QHTBs. Thus, the \$535,000 estimated cost per job cannot be considered valid.

solicited on the number of employees and duration of employment for all of 2007. It is curious that DOTAX did not ask the respondents to provide information on the duration and hours of work for full-time and part-time employees.

The numbers of full and permanent part-time employees are based on employee counts during a single week (December 12). Relying on employee counts in a single week can produce potentially misleading results. Consider a surfing movie that began filming in Hawaii on December 1, 2006 with 100 full-time employees and completed filming on March 31, 2007. The film company would be credited with 100 full-time employees for 2006 even though they worked only one month of that year; then for 2007, they would not be counted at all.

Returning to the two questions posed at the beginning of this section: Do we know how much additional capital Hawaii's high technology tax credit program attracted to Hawaii relative to the amount that would have occurred without the nation's most generous tax incentive program? The answer is "No". Do we know how many additional high technology jobs were created by the tax credit program? Again, the answer is "No". Indeed, the only reliable information we have pertaining to the tax credit program is the total value of tax credits claimed (i.e., tax revenue foregone by Hawaii taxpayers) each year (Table 1). There is no reasonable estimate of what the taxpayers of Hawaii gained in return.

What Do We Know About the 93 Confirmed QHTB's

We now turn to the list of 93 QHTBs released in September 2008³⁴ to determine if it can help shed light on the characteristics of the companies that benefited from Act 221. Of primary interest to us was when were these business started, how many employees each company had, and if we could determine its line of business. Since nearly every company on the list is privately held, most have no public filings with the SEC for the public to view. This forced us to consult numerous non-government databases and sources, including ReferenceUSA, Manta.com, and the Hawaii State Business Directory 2009.³⁵ We also performed exhaustive web searches to check if the businesses had a web site or coverage on other web pages or blogs. Finally, we also examined archives for the two major daily print newspapers in the Honolulu metropolitan area as well as the two most prominent non-daily business print publications in Hawaii for information on these 93 identified QHTBs.³⁶ As a last resort, we ran searches in the State of Hawaii's Department of Commerce and Consumer Affairs business registration database to find evidence of a company's existence. All businesses must register with DCCA to do business in Hawaii, and the DCCA online data base even includes inactive

³⁴ The September 2009 report from DOTAX updated the list to include another 23 company names. We did not consider it worthwhile to conduct another exhaustive analysis of this new batch of companies.

³⁵ ReferenceUSA claims to employ 700 database specialists that continuously update and hand check records from 5,000 public sources with phone call verifications. Their database contains entries on more than 14 million businesses nationwide. Manta.com is a free worldwide business database established in 2005 that claims to contain records on more than 60 million businesses. The Hawaii State Business Directory 2009 is published by HSBD Inc. and is in its 28th edition (published since 1967). It claims to contain "more than 49,000 businesses, professionals, organizations, and government agencies within Hawaii."

³⁶ The *Honolulu-Star Bulletin* and *Honolulu Advertiser* are the two longest running daily newspapers in the Honolulu market, and have extensive online archives dating back to the 1990s. The two non-dailies consulted were *Hawaii Business* magazine, which has its monthly issues all available in an online archive, and *Pacific Business News*, which is a weekly business news publication focused on Hawaii and the Asia-Pacific region.

businesses dating back to 1996. Occasionally, using the identities of the company officers, phone numbers, or addresses yielded helpful information. We made no effort to contact those people personally.

From our search, we found almost no information on the amount of tax credits received for investments in each of those 93 companies.³⁷ Without that information we could not assess the effects of the high tech tax credit program. Some companies did not have a website.³⁸ Of the 93 QHTBs, we found sufficient information to estimate employment for 55 companies. We found only 10 firms (10.7% of the 93 QHTBs) with 25 or more employees and 38 firms (40.9%) apparently did not have any employees. Our findings are consistent with DOTAX's report on the September 2008 N-317 data: 8.5% of the employers among the 177 QHTBs filing N-317 in 2007 had at least 25 full time employees in Hawaii in 2007, and 40% had no full time employees.³⁹

The most interesting result from our search that was not noted in the DOTAX reports was our identification of instances of firms creating "drop down subsidiaries."

Drop down subsidiaries, which attracted major public attention in 2004 in Hawaii,

³⁷ Rare instances where companies reveal this amount do exist, but they are very difficult to find and of varying reliability since they do not involve official administrative records. One example of this is H2 Technology's Chief Operating Officer volunteering information that the company's "investment tax credit has already been capped at \$2 million per year which [sic] limits are [sic] availability to raise enough funds and severely hampers our development." Interestingly, H2 is not one of the companies identified on either the 2008 or 2009 lists of QHTBs released by DOTAX. See hearing testimony submitted to the Hawaii Senate Economic Development and Technology committee for February 9, 2009, available at http://capitol.hawaii.gov/session2009/Testimony/SB975_Testimony_EDT_02-09-09.pdf The written testimony from H2 Technologies, Inc. is an E-mail on page 118 of the PDF file.

³⁸ Nineteen of the 93 QHTBs did not have any obvious web presence. While this is not a perfect predictor of business activity levels (one was a confirmed legitimate biotechnology research firm and two were subsidiaries of larger film studios we recognized from other sources), most were companies that had very little information available in other places.

³⁹ Manual search in October 2009 using DCCA's Division of Business Registration online services found 12 of the 93 QHTBs were not in good standing with DCCA. One QHTB could not be located in the DCCA database of business entities authorized to do business in Hawaii. We note that the DCCA registration form provides little else but the company founders' names, home addresses, and phone numbers.

generally involved large companies forming new corporations to house their information technology departments. The large parent company then reassigns (or “drops”) its existing employees and IT capacity to (into) the new subsidiary, and thereafter contracts with the “new” company for IT services. Firms using this strategy are frequently found among insurance companies and banks seeking tax credits to lower their financial institution franchise and insurance premium taxes. Clearly, well-established Hawaii companies receiving credits for relabeling pre-existing subdivisions to appear as “new companies” was not an intended use of Act 221 credits even if the practice is not illegal. Parent companies sometimes explain that those reassigned jobs would have been eliminated and the company would have outsourced the IT services abroad instead. Therefore, while the use of Act 221 credits may not have created new jobs, they may have “saved” existing local jobs. The public has no way of knowing if this is true given the lack of information released by Hawaii banks and insurance companies on their use of Act 221 credits.

IV. Conclusion

Proponents of high technology tax credits in Hawaii have argued that the tax credits were necessary to address imperfections in the Hawaii market for venture capital. To evaluate this claim would require a major research project and is far beyond the scope of this endeavor. For purposes of this project, we have assumed that the Hawaii venture capital market is imperfect and have focused on the structure and impact of Hawaii’s high-tech credits. Four main conclusions emerge from our analysis.

First, a 100 percent tax credit creates numerous problems that would be much less noticeable if the tax credit were smaller. The 100 percent credit attracts high-quality ventures with considerable chance of success but also induces entrance of low-quality ventures with little chance of success. It raises the risk of fraud, both by owners of firms receiving the credits and by DOTAX officials. And it promotes opportunistic manipulation of the law's provisions by businesses whose activities are inconsistent with the purpose of the law.

Second, the architects of the high technology tax credits designed the program around the federal government's LIHTC tax credit program. Because the housing program provides generous credits, it contains numerous safeguards including an elaborate process whereby a state agency and a federal agency (the IRS) check and verify applicant information; there is a public disclosure of all funded projects' details, including the value of credits received and contact information; and there are strict reporting requirements with powerful clawback features to prevent cheating and opportunistic manipulation of the law's provisions. In an effort to expedite high-tech investments, the Hawaii legislation stripped away these high transaction cost safeguards while still providing generous tax credits. In so doing, the balance between expediting business transactions and protecting the public interest was lost. The 100 percent tax credit demands a high level of transparency from both the Hawaii State Government as well as the firms receiving the credits because the potential for abuse rises with the value of the credits.

Third, the Hawaii law's allocation exception initially provided incentives for equity in the tax credit allocation partnership deals to be sold to non-Hawaii investors

while the Hawaii investors retained all tax credits. As control shifted to investors outside of Hawaii, it was not surprising to see firms relocate to other states. This highly subsidized effort might still have made sense for the State of Hawaii if there was a substantial spillover of ideas to other firms more firmly anchored in Hawaii. If not, then prior to 2009 the program may just have been providing highly subsidized incubator services to firms that will ultimately generate jobs for workers in other states.

Finally, established firms typically move because other factors dominate in the competition to retain maturing businesses. These include complementary infrastructure, connections with research universities, access to high-quality public schools, access to pools of qualified labor, proximity to major markets, state and local taxes, and the business environment. A targeted, smaller investment tax credit could well be one ingredient in the correct public policy mix for retaining new innovative businesses, but clearly cannot carry the full policy load.

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