

The Evolution of the HI Growth Initiative

FEBRUARY 23, 2016

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1. INTRODUCTION

Supporting innovation as an engine of economic growth is an essential component of the state's overall economic strategy. The Hawaii Department of Business, Economic Development and Tourism and its attached agencies, the Hawaii Strategic Development Corporation (HSDC), the High Technology Development Corporation (HTDC), and the Natural Energy Laboratory of Hawaii Authority (NELHA) are responsible for advancing innovation-oriented projects that improve the living standards of Hawaii residents by generating opportunities for high-wage job creation.

Encouraging innovation and entrepreneurship is at the core of this effort, a fact that lawmakers formally recognized through Act 133 SLH 2014. The HI Growth Initiative is a State equity investment program designed to catalyze the development of an innovation ecosystem. The HI Growth Initiative currently provides \$20 million in investment capital focusing on three primary areas: entrepreneur development, research commercialization, and the mobilization of startup investment capital.

The purpose of this report is to document the evolution of funding, spending and jobs created by HSDC's HI Growth Initiative since its inception in 2011. We gathered this information through surveys of accelerators and businesses supported by the HI Growth Initiative, as well as quarterly financial reports when primary information was not available.

This research was funded in part by a grant from the Hawaii Strategic Development Corporation.

2. BACKGROUND

The mission of HSDC—established by the State of Hawaii in 1990—is to spark economic growth by bolstering private startup investments with state funds. In 2011, HSDC competed for and was awarded \$13 million from the U.S. Department of Treasury's State Small Business Credit Initiative (SSBCI). The funds—to be paid out in three installments over a 3-year period—were used to re-launch HSDC's investment program. Rather than investing directly into promising businesses, HSDC invests in venture capital funds, which subsequently invest in Hawaii-based companies. HSDC leverages public funds with private capital by requiring a minimum 1:1 match from private funding. This approach has led to an allocation of private capital in excess of 150% of HSDC's funding. HSDC's support focuses on technology companies as they can compete worldwide through digital platforms, while taking advantage of Hawaii's location and high quality of life, which attracts highly skilled, knowledge-based workers in the innovation sector.

In his 2016 State of the State Address to the Hawaii Legislature, Governor David Ige called for the state to invest \$30 million over six years to support Hawaii's innovation economy. He said, "For those who haven't noticed, innovation, fueled by technology, is driving the global economy at breakneck speed. We simply must create an economic environment that enables Hawaii's entrepreneurs to turn ideas into products and services, so that we can compete in today's global economy...We also need to support accelerator and venture fund activities to give talented entrepreneurs the means to create new products and services."

HSDC implemented the HI Growth Initiative to help promote the innovation sector, which makes up about 7% of the total jobs in Hawaii (Hawaii Business Roundtable 2014). From virtually nothing four years ago, Hawaii's innovation ecosystem today includes six startup accelerators (three of which have received national recognition from the U.S. Small Business Administration and one ranked in the top 20 nationally); six Hawaii-based venture capital funds; coworking spaces; business incubators; commercialization programs and a full calendar of events and programming geared toward developing entrepreneurs. A 2015 report by the Kauffman Foundation ranked Hawaii 12th in the nation for startup growth, just below New York and above California.

HSDC leveraged Federal, State, County and private resources to execute the HI Growth program. Federal funds from SSBCI provided \$13 million to pursue a comprehensive 'fund of funds' investment program, the State Legislature provided \$8 million over two years to pursue a venture accelerator initiative and support HSDC's 'fund of funds' investment program, and the County of Hawaii partnered with HSDC to support an accelerator program on Hawaii Island. HSDC's investments are matched at each stage of deployment by private capital. This report will help quantify this leverage and document the evolution of funding, spending, and job creation since HI Growth launched in 2011.

3. ACCELERATORS AND ECONOMIC GROWTH

Accelerators are a relatively new concept, created to spur economic development. The first

program of its kind, Y Combinator, was started in Silicon Valley in 2005. Accelerators serve many purposes: they are mentoring programs led by experienced entrepreneurs; they are meeting places for the innovation community, with many events and opportunities to promote their business; they are a source of funding, providing Venture Capital (VC) to startups. While the accelerator programs are designed to get new startups up and running, they also serve to create a support system meant to last beyond the initial program.

Accelerator programs generally last about three months, culminating in a 'demo day', where graduates of the program pitch their idea to an audience of interested investors. They offer ancillary services such as workspace, seed capital, extensive educational programs, mentorship, and create networking opportunities with peers, mentors, and potential investors. Essentially, accelerators act as a bundling of services, lowering the costs of services for entrepreneurs and investors, which may otherwise be prohibitively costly. By screening startup applicants, gathering them in one location for a fixed amount of time, and hosting demo days with multiple venture startup presentations, accelerators significantly reduce costs associated with searching for new investment for investors. Meanwhile, they attract this broad network of peers, mentors, and investors, and provide resources to startup companies at a crucial stage in their development. Investors can act as mentors, working closely with the startups, supplying feedback, identifying customer bases, and aiding with product development. One key measure of success in analyzing startups is a company's ability to 'exit' - either by being acquired by another

company, or going public. The relatively short time span of the programs creates a result-driven, intensive agenda, with businesses quickly realizing if they will exit or fail. The faster a company realizes it needs to pivot and reassess, the more able it is to avoid larger losses.

One of the main services provided by accelerators is facilitating VC funding, making VC investment an important indicator of an accelerator's effectiveness. Early stage VC investment is considered a critical element in the entrepreneurial ecosystem, and has been shown to be tightly tied to regional development (Samila and Sorenson 2011). By 1998, venture funding accounted for about 14% of U.S. innovative activity (Kortum and Lerner 2000). Meanwhile, VC investment in the U.S. has increased from \$2.6 billion in 1990, to \$23.3 billion in 2010 (National Venture Capital Association 2011).

Recent estimates of the number of accelerators range from 300 to over 2,000, spanning six continents (Cohen and Hochberg 2014). Accelerators provide capital and other services to startups in return for an equity stake in the budding companies. The accelerators studied by Cohen and Hochberg provided startups with an average stipend of \$22,000 (with a range of \$0 to \$50,000), and took a 5-8% equity stake in the startups in return for their investment and services. On average 41% of accelerator graduates were able to find additional financing of \$350,000 or more within a year of graduation, and as many as 13% of graduates were able to exit via sale or IPO of \$1 million or more.

In a study of 59 accelerators in 38 regions across the U.S. between 2005-2012, Fehder and Hochberg (2014) found that accelerators were

associated with region-wide increases in economic growth, beyond the individual firms participating in the program. The arrival of accelerators led to significant increases in investment, including a 104% increase per annum, in the number of seed and early stage VC deals, 1,830% in the total dollar amount of seed and early stage funding, and a 97% increase in the number of distinct investors in the region. Fehder and Hochberg also found that startups that had graduated from an accelerator program accounted for only 30.4% of the increase in the annual number of seed and early stage financing deals, indicating that there was a region wide increase in investments, experienced by all, not just the accelerated, startups. They concluded that the effect of accelerators goes beyond the individual firms, impacting the entire region positively. The benefits experienced by the accelerated startups spills over to other firms in the area, as attracting VC investors to an area may also increase the exposure of non-accelerated companies. This suggests that the arrival of an accelerator can promote growth in local investment groups, not just by attracting remotely-located investors. "This is consistent with the idea that accelerators may serve as a catalyst for drawing together latent local forces to create an entrepreneurial cluster where it did not exist previously" (Fehder and Hochberg 2014).

4. HI GROWTH ACCELERATOR PROGRAMS

4.1 Blue Startups

Blue Startups was the first venture accelerator launched in Hawaii in 2012, founded by software developer Henk Rogers. As the CEO for The Tetris Company and chairman of Blue Planet Software,

along with a successful record of entrepreneurship, Rogers was identified by HSDC to lead and establish an accelerator program. He provided the facility and a significant portion of the private investment matching necessary to receive HI Growth funds. The initial program received more than 500 applications and accepted and graduated 15 companies in its first year. Companies are accepted bi-annually, and the selected startups are provided with an initial investment of \$25,000 each, with up to \$75,000 in follow-up funding in return for 3-10% equity stakes. The 3-month program then provides companies with entrepreneurial training, personal mentors, and office space for 14 weeks in Honolulu, followed by one week in Silicon Valley. Currently, over 80% of the companies graduated through the accelerator program are still operating.

Blue Startups was cited in Forbes as one of the nation's top 20 accelerators for 2015. With over 100 mentors from Hawaii to Silicon Valley to Asia, the company's goal is to assist startups and turn Hawaii into a thriving technology-based business hub. To achieve this, Blue Startups is focused on supporting technology-based companies with the capability to reach global markets and scale easily. Startups are based on software, mobile and web services, with a broad array of companies in each cohort. These companies are listed by cohort in Table 1.

4.2 GVS Transmedia

GVS Transmedia Accelerator (GVS) was launched in April 2014 on Hawaii Island by David L. Cunningham, a successful filmmaker with feature film and documentary credits in more than 40 countries. Cunningham returned home to Kailua-

Kona and founded GVS with the belief that Hawaii has the potential to be more than just a backdrop for mainland-based media productions. GVS cultivates locally produced creative media franchises and provides direction and guidance to startups with a focus on transmedia (media using multiple platforms and formats using current digital technologies) production. The accelerator program's affiliated seed fund, GTA Development Fund provides up to \$50,000 in seed funding to chosen startups in return for a 10% equity stake. Companies then enter an intensive 6-month program with a tailored curriculum; they receive feedback from mentors, seminars, peer-workshopping, and participate in the cohort market tests and demo day. GVS shows preference to candidates who demonstrate plans to produce products or continue business activities in Hawaii in order to foster creativity and stimulate job growth for Hawaii's creative industries. GVS is led by a group of more than 19 mentors and has been named one of the top 50 most innovative accelerators in the U.S. by the U.S. Small Business Administration. GVS companies are listed in Table 2.

4.3 Investment funds

When a company graduates from an accelerator or reaches the next stage of development, it needs to raise additional funds to keep growing. HSDC helped to create several Hawaii-based investment funds to help companies raise capital to grow and scale here in Hawaii.

4.3.1 mbloom

Launched in 2014 on the island of Maui, mbloom was Hawaii's first early stage technology venture capital fund, covering seed to early stage

TABLE 1. BLUE STARTUPS COHORTS

Cohort 1	Flowater	Water bottle refill station aimed at reducing pollution
	Pharmly	Reverse bidding software platform intended to reduce cost of health care
	Surrounds Me	Social media market app for incentivizing crowdsourcing
	Tealet	App connecting tea growers to consumers
	Wicked Loot	Promotes user generated content for mobile games
	Tow Choice	Bidding platform reducing need for inefficient tow truck dispatch center
	Volta	Provides charging stations for electric vehicles
	Minded	App that pairs reminders for special occasions with tailored gift suggestions
Cohort 2	Area Metrics	Providing analytics to brick and mortar businesses
	Gibi	GPS location service for pets
	MeetingSift	Software to boost meeting productivity
	eSee/Rescue	Distributor of U.S. military approved emergency rescue signaling technology
	Xmap	App-based treasure hunt game for real money
Cohort 3	Comprendio	Cloud-based tool aimed at helping instructors identify and address gaps in learner's comprehension
	Cultur	Interactive app connecting users with relevant social events
	Focus Opus	Online service aimed at increasing productivity
	Ingollow	Community based travel app
	Juicies	Mobile device cable and charger merchant using quality recycled materials
	Quic	All-in-one media dashboard
	Vantage Sports	Sports analytics service
	Yuru	Mobile app for crowdsourced advice
Cohort 4	Advlo	Peer-to-peer platform connecting travelers with locals and tour guides
	Affinium	Messaging platform connecting hotels to guests

	InTouch	Wearable technology to allow communication and GPS tracking
	Job Rangers	Recruiting assistant utilizing Big Data
	Lifestyle Rewired	Program aimed at promoting healthy aging for better mental health among 50+ year olds
	Lilikoi	App providing relevant information upon entering a location
	Sagely	Web-based program promoting community-based health and wellness for seniors
	Selly Automotive	Mobile sales platform connecting automotive buyers and sellers
Cohort 5	Benjamin	Mobile app giving users 60 seconds to decide to buy or not buy products
	Candybar	Interactive mobile app connecting customers to relevant businesses
	Huedoku	Color puzzle aimed at increasing creativity and mental health
	Paper Plane	Automatic trip planner powered by AI
	UJoin	Do-it-yourself advocacy platform creating larger access to the public, politicians, political data, and activities
	Vrchive	Virtual reality company aimed at sharing VR content across multiple platforms
Cohort 6	PrimeSpot	Mobile platform based program aimed at increasing an organization's parking efficiency
	Findally	Search engine for users visual and text based questions
	Freshr	Open market for sustainable fisheries to sell and brand themselves
	Ditto	Message board to share frustrations and troubles
	Key Reply	Keyboard based app to streamline responses to customers
	Leet	eSports based platform allowing players to compete for money
	Nest Egg Guru	Financial Planning app promoting saving and spending for retirement
	Quest Organizer	Flight search engine promoting spontaneous stopovers intended to reduce cost of flights
	Smart Yields	Smart tool to monitor and increase farming efficiency and output
	Zefyr	Personal Customer Resource Manager to analyze your email contacts

TABLE 2. GVS COMPANIES

Cohort 1	Hawaii Wild Side	Outdoor adventure TV series based in Hawaii
	Jumping Flea Productions	Motion picture, comic, and album based on the historical figure Ko’olau the Leper
	Hawaii Virtual Vacation	Utilizes modern technology to create a virtual tour of Hawaii
	Kite Kids	Motion picture, comic, and app game about a group of kiteboarders competing in Maui
	Ring of Fire Films	Imax film and app about Hawaii’s volcanoes incorporating historical dramatizations of Hawaii’s past
Cohort 2	Captive	Feature film, graphic novel, video game about a former SAS officer who travels the Pacific in a sailboat and is captured by pirates
	Kona Snow Pictures	Feature films, book about a homeless orphan boy of mixed race and a “Haole” (white) village doctor in 1920’s Hawaii
	Oceanna	TV Series, branded products/merchandise, soundtrack, book, app/ game, DVD, animated children’s TV series about a young girl whose daydreams transform her into an underwater superhero
	Mian Wings	Graphic novel (web based and print), feature film, set in a steampunk world inhabited by robots and a young female pilot searching for her missing father
	Native Pictures	Feature film, clothing line, music album, about a troubled teenage boy connecting to his Hawaiian roots and training in mixed martial arts (MMA)
	Surf Break Hotel	Web/TV series, comedic series about a washed up surf pro who’s the surf instructor at a local Maui hotel
	MockStar Studios	Digital channel, feature film, mobile platform that parodies celebrities, movies, songs, happenings and more

investments. mbloom currently has three locations in Maui, Oahu, and New York, and a three-person team with experience in technology, media, gaming, e-commerce, and healthcare. Their portfolio currently consists of four companies: Fanhandle, a platform connecting celebrities and brands with consumers on a personal level; Ozolio, a live HD webcam streaming brand intended to increase brand awareness by allowing a company to leverage their visual aspects; ReadyCart, an automated e-commerce platform intended to make brands more

easily accessible from sites such as YouTube; and Vantage Sports, a sports analytics platform and alumni of Blue Startup’s accelerator program.

Arben Kryeziu, Managing Director for mbloom, told UHERO that HSDC helped to not only structure their approach to the market, but they also helped during the on-boarding of the mainland LP (limited partnership). The program also helped prepare and establish specific technology events on Maui and Oahu. MaiTai Maui Tech Night allowed mbloom to bring over Silicon Valley business and investment

executives and engage them in mbloom's young endeavor. Kryeziu emphasized that without HSDC funding, mbloom would not exist in its present size and form. HSDC not only enabled the fund to find a co-LP, but also changed the startup landscape and Hawaii's technology credibility in Silicon Valley.

4.3.2 Startup Capital Ventures

Startup Capital Ventures (SCV) is an early stage to Series A venture capital firm based in Menlo Park, Ca, with an office in Honolulu. SCV's initial investments range from \$250,000 to \$1,000,000. SCV currently has an 18-company portfolio with a focus on capital efficient, business-to-business technology firms in fields such as Financial Technology (FinTech), Cloud/SaaS, Security, Healthcare IT, and Internet of Things (IoT). SCV's Managing Director Timothy Dick explains the value of HI Growth Initiative, "HSDC has been a catalyst for startup development by helping fund early stage entrepreneurs through vehicles such as Blue Startups, mBloom, etc. This is the 'farm league' for startups to mature enough to become venture ready. This is already starting to bear fruit with companies like AreaMetrics ripening about two years after graduation from Blue Startups. Other Blue Startups companies such as MeetingSift are getting to venture stage too. This is remarkably quick given the trajectory of startups."

4.3.3 UPSIDE

UPSIDE Fund II is a VC fund managed by the University of Hawaii Foundation in conjunction with the HSDC. The goal of UPSIDE is to invest in research commercialization. For example, UPSIDE invested \$100,000 to help launch Protekai Inc., a company that commercialized intellectual

property developed by Dr. Angel Yanagihara's research laboratory. Other portfolio companies include Ala Wai Pharma, which develops delivery systems for influenza drugs, and Kineticor, a medical imaging company with patent-protected optical imaging technology that makes MRI images razor sharp.

4.4. Ecosystem Investments

Entrepreneur-focused events are an important component of an innovation ecosystem, enabling serendipitous collaboration and networking. A thriving innovation ecosystem needs events that allow entrepreneurs to network and share ideas. The HI Growth Connect and Network program has been a key facilitator of these types of events, which include Startup Weekends, pitch competitions, and demo days. Additionally, HI Growth supports three major venture capital summits focused on three different industries: East Meets West, held in the winter, brings together Asian and Western investors and startups; MaiTai Maui Tech Night, held in the spring, brings Silicon Valley executives and investors to Hawaii; and GVS All Access, held in the fall, brings Hollywood executives to network with Hawaii's film and creative media entrepreneurs.

The objective is to create opportunities for Hawaii entrepreneurs to grow their businesses by exposing them to potential customers, partners and investors on a regular basis. In FY 2015, more than 1,500 people participated in HI Growth-sponsored events. These activities are important to increasing the pipeline of entrepreneurs establishing new businesses and applying for funding from HI Growth's pre-seed and seed stage investment programs. A sample of these events is listed in Table 3.

TABLE 3. ECOSYSTEM INVESTMENTS AND EVENTS

Date	Event	Description
Nov. 14, 2013	Best Practices Symposium	HSDC partnered with HTDC to present Proof of Concept Center model - proof that research commercialization programs spur economic growth and startup success.
Dec. 4, 2013	2013 Startup Paradise VC Summit and Demo Day	Startup Paradise's 4th Annual VC Summit which brought together entrepreneurial community members to host discussions, attend workshops, review case studies, and see pitches from Accelerator companies.
Jan. 7, 2014	Entrepreneurs Foundation: Insight & Advice from Veteran Venture Capitalists	Informal session with three veteran Venture Capitalists who taught startups how to seek venture capital, and spoke of improving Hawaii's entrepreneurial ecosystem
Feb. 7, 2014	Startup Weekend Honolulu	54-hour Startup weekend where companies' pitches were judged, the winner was an app called Green Apple aimed at crowdsourcing money for school supplies.
March 5, 2014	Entrepreneur's Day at the Capitol	Entrepreneurs gathered at the State Capitol to display their businesses and ideas to the Governor, Lieutenant Governor, and members of Legislature.
May 1, 2014	Entrepreneurs Foundation: Pupus & Pitches, Angel Edition	Startups pitch a panel of experienced angel investors in front of a large crowd.
May 10, 2014	Hawaii Island Startup Paradise Demo Day	Seven companies gathered on Big Island to pitch their businesses and compete for a chance at funding and another pitch opportunity at Maui Tech Night.
May 15, 2014	Maui Tech Night 2014	Companies gathered in Maui and competed for the chance to win \$500,000 in funding.
May 16-18, 2014	Startup Weekend Maui	Individuals gathered and received the opportunity to turn startup ideas into actual business models, in a fast paced, 54 hour period.
June 13, 2014	Startup Paradise Demo Day	Thirteen startups gathered and pitched their ideas to a crowd of about 300 investors, policymakers, stakeholders, etc.
June 26, 2014	Entrepreneurs Foundation: Bootstrapping	Panel discussion about how to bootstrap a business and succeed without venture capital.
Nov. 5-7, 2014	East Meets West Digital Life Conference	Investors and entrepreneurs from Asia and the mainland were gathered in Hawaii to network and discuss ideas.

Nov. 14-16, 2014	Startup Weekend Honolulu	Participants gathered for a weekend to plan out business concepts, with the weekend culminating in a pitch competition.
Dec. 4, 2014	Best Practices Symposium: HVCA on Growing Hawaii's Innovation Economy	Over 120 Attendees gathered to learn the importance of innovation in Hawaii's Economy featuring economist Enrico Moretti.
Jan. 16, 2015	4th Startup Paradise Demo Day	Recent graduates from three accelerators - Blue Startups, XLR8UH, and Energy Exceleator gathered to pitch their companies to the community.
Feb. 26, 2015	15th Annual HVCA Entrepreneur & Deal of the Year Awards	Hawaii's Venture Capital Association hosted a gala honoring 'Entrepreneur & Deal of the Year', with many other award winners
Feb. 27, 2015	GVS Transmedia Accelerator's 'The Board Room'	A new group of individuals with an idea got the chance to pitch them for feedback from industry leaders
March 13, 2015	ROC Chinatown Launch Part	A launch party was held for ROC, Real Office Centers, a new and innovative company aimed at providing co-working spaces
May 6, 2015	HonNewTech Pitch Off	Companies entered to compete for a chance to pitch at MaiTai Maui Tech Night 2015
May 13, 2015	MaiTai Maui Tech Night 2015	TerViva, a company aimed at developing sustainable crops on under-productive land was announced the winner of the 3rd annual MaiTai Maui Tech night, a night where startups pitched their ideas and competed for funding and exposure
May 15-17, 2015	Startup Weekend Maui	Nearly 80 participants gathered to create startup pitches in a 54 hour period
May 28, 2015	HVCA Presents 'State of Venture Capital in Hawaii'	Leaders from the Entrepreneurial community gathered to discuss the state of the entrepreneurial ecosystem.
May 29, 2015	Startup Paradise Demo Day Honolulu	19 Companies from 3 Hawaii accelerators pitched their idea to a crowd of over 250 investors and business minded individuals
Sept. 22, 2015	mBloom Open House	mbloom, a Hawaii investment fund hosted a get together at ROC Honolulu to talk story with their advisor Padma Rao, and network

5. SURVEY AND RESULTS

UHERO developed a simple survey of HI Growth affiliated businesses and accelerators to capture data on company budgets and number of full time equivalent employees (FTE) between 2011 and June 2015. The full survey is in the Appendix. HSDC staff distributed the survey in October, 2015 to 66 businesses, and we received response from 47.

We report HI Growth funding allocated, total funding received by the HI Growth companies, and total FTEs for the period since HI Growth's inception in 2011. Table 4 reports the data collected from the 47 survey respondents, while Table 5 includes secondary data sources from companies' financial reports for all 65 businesses. Because survey data was only collected through June 30, 2015, total received from all sources and HI Growth funding were doubled to estimate an annual total. With the exception of 2015, funding and jobs increased every year over the five-year time horizon. For the surveyed sample, we also report total expenditures made in the state of Hawaii, which have been increasing every year and total approximately \$10.8 million. HI Growth funding and total public and private funding are illustrated for the smaller sample of survey data in Figures 1 and 2.

Using the smaller more conservative estimate of \$83.3 million in total funding from the 47 survey responses, we estimate that every \$1 of the State of Hawaii's investments to date in the HI Growth initiative has leveraged an additional \$11.49 of funding for Hawaii-based innovation companies (illustrated in Figure 3).¹

6. CONCLUSIONS AND RECOMMENDATIONS

The Hawaii Strategic Development Corporation (HSDC) is the State's economic development agency with the mandate to catalyze private sector capital to be invested in Hawaii. In 2011, HSDC launched the HI Growth Initiative with a \$13 million grant from the U.S. Department of the Treasury's State Small Business Credit Initiative. The HI Growth equity investment program has successfully catalyzed the development of an innovation ecosystem in a number of ways. Quality companies are starting up in Hawaii. Investors from both public and private sectors are engaged and investing in Hawaii companies. Entrepreneurial programs have been launched across multiple industries (software/tech, clean energy, film/creative media content, value-added agriculture, university research). Gigabit co-working spaces have been launched across the state. New broadband facilities, opened by GVS Connect in the fall of 2015, are increasing media production quality and efficiency with high-speed broadband connectivity. And finally, as documented by this report, HI Growth is leading to at least \$11.49 in private investment for each dollar invested.

In the five years since receiving the federal SSBCI grant, HI Growth has encouraged

¹ *Some of the private investment that matched HI Growth capital may have been invested in Hawaii even without the existence of the HI Growth initiative. State general funds committed amount to approximately \$8 million—\$2 million through the Launch Akamai Venture Accelerator program and \$6 million through the HI Growth Initiative—though to date existing obligations make up approximately \$7.3 million.*

**TOTAL PUBLIC & PRIVATE FUNDING
2011-2015
\$83,276,138**

FUNDING PER YEAR

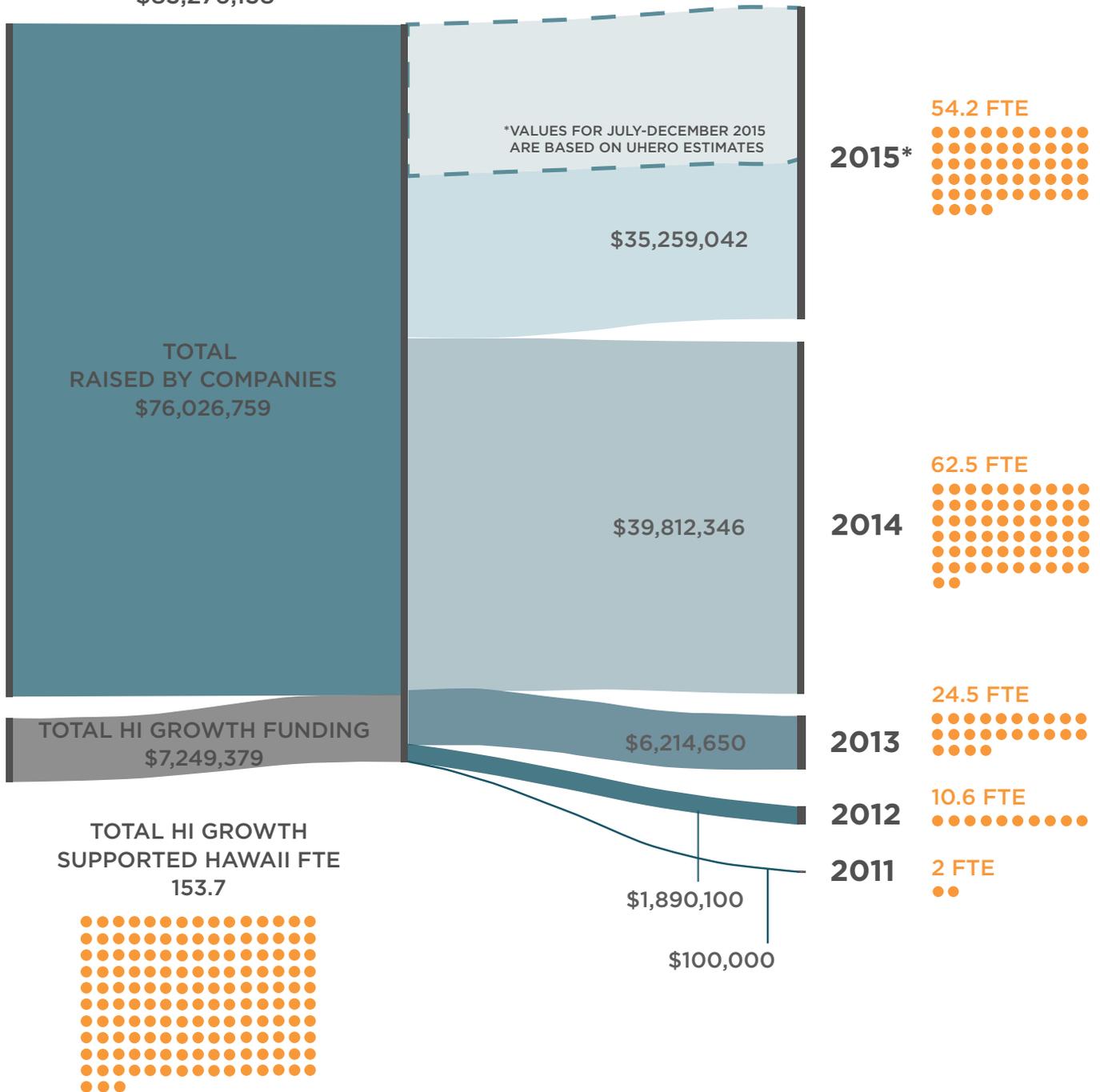


FIGURE 1. HI GROWTH FUNDING, TOTAL RAISED BY COMPANIES, AND JOBS, 2011-2015 (SURVEYS ONLY, N=47)

TABLE 4. HI GROWTH FUNDING, TOTAL FUNDING, AND JOBS, 2011-2015 (SURVEYS ONLY, N=47)

	2011	2012	2013	2014	2015*	Total
Funding received from all sources	\$100,000	\$1,890,100	\$6,214,650	\$39,812,346	\$35,259,042	\$83,276,138
Funding received from HGI	\$50,000	\$520,000	\$528,505	\$3,121,700	\$3,029,174	\$7,249,379
Total Hawaii FTEs	2.0	10.6	24.5	62.5	54.2	153.7
Total expenditures in Hawaii	\$75,000	\$836,978	\$1,413,280	\$3,602,122	\$4,828,624	\$10,756,004

*Survey data stopped at June 30, 2015, so the annual totals are a UHERO estimate

TABLE 5. HI GROWTH FUNDING, TOTAL FUNDING, AND JOBS, (SURVEYS AND FINANCIAL STATEMENTS, N=65)

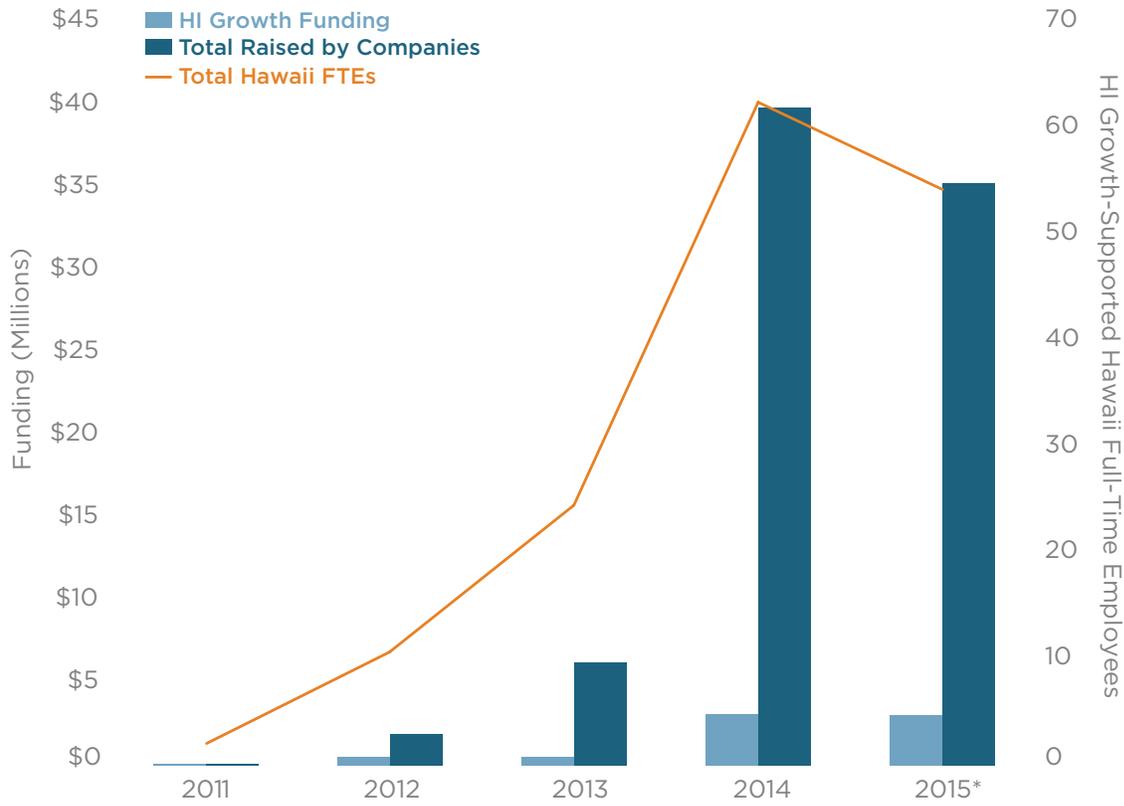
	2011	2012	2013	2014	2015*	Total
Funding received from all sources	\$100,000	\$1,890,100	\$8,883,650	\$47,256,346	\$88,537,042	\$146,667,138
Funding received from HGI	\$50,000	\$520,000	\$1,143,588	\$3,736,783	\$5,099,341	\$10,549,712
Total Hawaii FTEs	2.0	10.6	30.8	68.8	67.5	179.7

*Survey data stopped at June 30, 2015, so the annual totals are a UHERO estimate

entrepreneurial activity and spurred growth among budding companies. After facilitating the creation of Blue Startups and GVS Transmedia, these two accelerator programs graduated over 40 startups. Over \$60 million in funding has been generated, along with over 150 Hawaii-based jobs. The accelerators and their associated companies have spent approximately \$10.8 million in the state of Hawaii. Due in part to the diverse focuses of the accelerators, software, film, clean energy, university research, and value-added agriculture startups have begun to emerge. Some of these startups have already achieved success, and many are attracting investors from both the

public and private sectors. Through nationally and internationally recognized events such as the Startup Weekends, MaiTai Maui Tech Nights, and East Meets West conferences, HI Growth events attracted over 1,500 participants in 2015.

The HI Growth Initiative is facilitating the development of an innovation ecosystem in Hawaii by investing in a broad array of accelerator programs. There are several distinct advantages to this approach that go beyond the recognized economic development benefits of accelerator programs. In particular, the approach has avoided the government picking the winners problem. The accelerators have chosen to work in areas



*Data from July-December 2015 are based on UHERO estimate

FIGURE 2. HI GROWTH FUNDING, TOTAL RAISED BY COMPANIES, AND JOBS, 2011-2015 (SURVEYS ONLY, N=47)

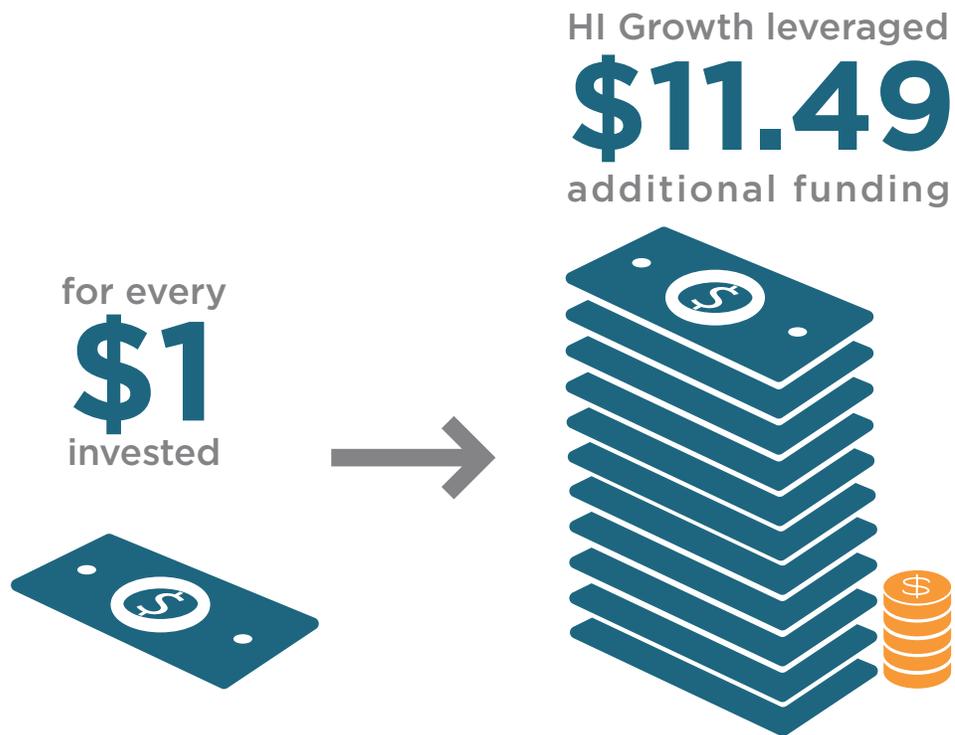


FIGURE 3. TOTAL FUNDING LEVERAGED FROM HI GROWTH DISTRIBUTED FUNDS (TO DATE)

where Hawaii has existing strengths—energy, media, healthcare, and university research to name a few—rather than attempting to invent entirely new areas of business activity. And the focus of many of the accelerators on technology solutions leverages Honolulu’s existing strength in the computer services cluster. Moreover, the accelerators are investing their private capital and making investment decisions with real skin in the game. Finally, the rapid growth in Hawaii based accelerators may finally provide the necessary

impetus to draw attention to entrepreneurship in the state, leading to further growth in venture capital, one of the necessary ingredients in a vibrant innovation ecosystem.

To better track and understand progress of the HI Growth Initiative, we recommend improved data collection about funding, local spending, and Hawaii-based FTEs. Participating companies could be required to contribute detailed information on a quarterly or annual basis to better track the success of the HI Growth program.

REFERENCES

Cohen and Hochberg, 2014. Accelerating Startups: The Seed Accelerator Phenomenon. Working Paper, <http://www.seedrankings.com/pdf/seed-accelerator-phenomenon.pdf>, accessed January 13, 2016.

Fehder and Hochberg, 2014. Accelerators and the Regional Supply of Venture Capital Investment. Working Paper, <http://www.seedrankings.com/pdf/accelerators-and-regional-supply-of-vc-investment.pdf>, accessed January 13, 2016.

Gilani, Aziz, and Kelly Quann, 2011. 2011 Seed Accelerator Rankings. Seed Accelerator Rankings Project Report.

“Governor Ige Delivers State of the State” 26 Jan 2015. <http://governor.hawaii.gov/featured/governor-david-ige-delivers-state-of-the-state/>, accessed January 13, 2016.

Hawaii Business Roundtable. 2014. Hawaii Innovation Assets Report, https://www.hawaii.edu/innovation/wp-content/uploads/2015/06/HIAR_r11_lores.pdf accessed January 14, 2016.

Kortum S. and J. Lerner. 2000. Assessing the Impact of Venture Capital on Innovation. *RAND Journal of Economics* 31(4): 674-692.

National Venture Capital Association, 2011. Venture Impact: The Economic Importance of Venture-Backed Companies to the U.S. Economy, http://henshawnigeria.com/FolderBase/8.%20NVCA_venture_impact_5th_ed%20-%20USA.pdf accessed January 13, 2016.

Samila, Sampsa, and Olav Sorenson, 2011. Venture capital, entrepreneurship, and economic growth. *The Review of Economics and Statistics* 93:1.

Solomon, Brian. “The Best Startup Accelerators of 2015” *Forbes*. *Forbes*, 17 March 2015. “<http://www.forbes.com/sites/briansolomon/2015/03/17/the-best-startup-accelerators-of-2015-powering-a-tech-boom/>”

Appendix: Survey

1. How is your company involved with the HI Growth Initiative?

Received start-up funds via an accelerator

Which accelerator? _____

Blue Startups or GVS Transmedia Accelerator

Investment funds

Which investment fund? _____

mbloom, Startup Capital Ventures, UPSIDE

Ecosystem investments through HI Growth Connect and Network

Check all that apply:

startup community events

pitch competitions

demo days

Name of company that received HI Growth investment? _____

2. In the table below, please provide your annual budget for every year since receiving HI Growth funding. Approximately how much (or what percentage) was spent in Hawaii? Also indicate how many FTE positions your company employed in Hawaii, and how much in salaries your company paid each year since receiving HI Growth funding.

Regardless of the current status of your company, please provide numbers for the time periods that your company was in operation:

- The definition of FTE is someone who works 2,080 hours in a calendar year.
- To calculate FTE equivalents, take hours devoted to the project or event and divide by 2,080. For example, if you work 20 hours a week for one year, you've worked a total of 1,040 hours: 1,040/2,080 is 0.5 FTE. If you spent 50 hours working an event, then the FTE is 50/2,080 or 0.2 FTE.
- Count only paid positions, except for company founders. Founders should be counted regardless of whether they drew a salary.

	2011	2012	2013	2014	2015 (through 6/30/15)
Funding received from all sources (total amount should include private + Hi Growth + other sources)					
Funding received from Hi Growth					
Total expenditures in Hawaii					
Total salaries paid in Hawaii					
Total Hawaii FTEs					

3. If your company is no longer in operation, have you joined another Hawaii venture?

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