



2030 Blueprint Hawaii

A More Economically Competitive Hawaii

Prepared by Economic Leadership for Chamber of Commerce Hawaii

2030 Blueprint Hawaii

The past two decades have brought rapid change and a host of economic headwinds for Hawaii. The financial crisis and great recession of 2007-2009, the global COVID pandemic, and the Maui wildfires have each brought additional challenges for the state's economy. Today the state's post-pandemic job recovery is the slowest in the nation. Outmigration and "brain drain" remain major concerns. The cost of living and the cost of doing business are among the highest in the country. Emerging trends in the tourism, defense, and agriculture sectors are creating opportunities, but also threats.

Over the past 20 years there has been a consistent call for a more diversified economy, pathways for young residents to better train for local jobs, more affordable housing, and increased local wealth-building.

When local stakeholders were recently asked, they described the Hawaii economy as "stagnant, fragile, and struggling." The leadership of the Chamber of Commerce Hawaii believes that

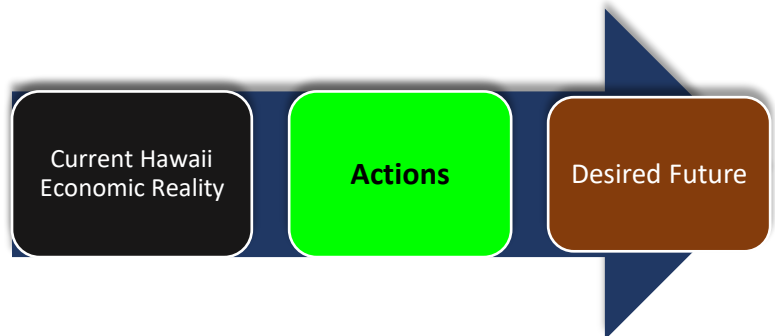


continued economic stagnation is not inevitable and that the state's business climate, workforce, and entrepreneurial ecosystems can be improved. Their goal is to make Hawaii more competitive, while protecting the environment and culture that Hawaii residents cherish.

The Chamber of Commerce Hawaii engaged the national firm, Economic Leadership, to explore the challenges and opportunities for the state. The firm has worked with many state chambers of commerce over the past decade to create strategic action agendas to improve economic competitiveness. Hawaii has a unique culture and economy, but the fundamentals of economic competitiveness are common for all places. Locally, our team worked with Hawaii firm Karey Kapoi LLC, self-described bridge-builders between business, community, and government. Karey

Kapoi and her team engaged stakeholders across the state to understand their thoughts and concerns related to Hawaii’s economy and provided that feedback as a foundation to Economic Leadership.

Creating a strategy to advance a more competitive Hawaii begins with an honest assessment of the state’s current economic reality. Where does Hawaii stand and where is the state’s economy headed? Next, what do Hawaii stakeholders want for the state in the coming decades and



what can be realistically achieved? The final step is to identify and then implement specific actions to enable Hawaii’s economy to better support business needs, create opportunities for local citizens, and protect the things that are important to the state’s quality of life.

Over the years there have been many reports, plans, and efforts to improve Hawaii’s economy, with mixed success. The robust and well done 2023 Comprehensive Economic Development Strategy (CEDS) provides an economic vision: *“Our unique island state innovates and diversifies to ensure shared economic prosperity and navigate toward an equitable, resilient, and sustainable future.”*

“Our unique island state innovates and diversifies to ensure shared economic prosperity and navigate toward an equitable, resilient, and sustainable future.”

The six CEDS goals are to:

2023 CEDS Economic Vision

- Strengthen economic industry clusters.
- Cultivate and grow emerging sectors.
- Develop workforce and human capital.
- Support a strong business climate and entrepreneurial ecosystem.
- Build and update economic foundations.
- Build a resilient economy.

These building blocks form the foundation of other states’ strategies and echo goals common in many previous Hawaii reports. Other recent reports used common language and also emphasized sustainability, clean energy, the ongoing relationship with the military, tourism management, and cultural prioritization.

An impactful strategy cannot just be about detailing all the things we want, or that need doing. It is about making difficult choices that include tradeoffs, identifying resources and responsibilities, and taking specific actions that will achieve results. In our experience, successful strategic action agendas are future-focused, realistic, actionable, appropriately

resourced, measurable, and regularly updated. They require local champions, the collaboration of many groups, and patient, sustained commitment.

To determine Hawaii's **current competitive conditions**, we began by answering the following questions:

- What are the state's economic trends over time and areas of economic inertia?
- How competitive is the state today, compared to peers?
- What industries drive Hawaii's economy in 2023 and how are those industries changing?
- What industries are emerging as currently or potentially critical to the future of the state?

Next, we engaged with Hawaii residents to understand the **desired future**:

- What does the business community need to succeed in Hawaii?
- What is realistic and achievable?
- What can be done to ensure that Hawaii residents share in any success?
- Where does opportunity lie and how are those sectors evolving?

Last, what **actions** are needed to improve Hawaii's competitiveness that will lead to desired outcomes:

- What are potential specific actions that are proven, impactful, realistic, fundable, and timely?
- How do we measure success?
- How do we maintain momentum?



The Hawaii Economy: Current Competitive Position

We live in a business world where decisions are increasingly made using data analytics.

Rankings for states and larger metros are commonplace and are often an initial filter for comparing potential investment locations. Many of these comparisons contribute to a negative perception of Hawaii as a place for business. Recent examples of Hawaii rankings can be seen in the box on the right.

Recent Hawaii Rankings

▪ CNBC Best States for Business	47 th
▪ Chief Executive Best & Worst States for Business	43 rd
▪ CNBC Cost of Doing Business	50 th
▪ US News Infrastructure Rankings	37 th
▪ State & Local Taxes per Capita	6 th Highest
▪ Percent of Households Cost Burdened by Rent or Mortgage	2 nd Highest
▪ Tax Foundation Business Tax Climate	42 nd

In some evaluations Hawaii fares better, with US News ranking Hawaii 31st best overall. US News scores Hawaii as the #1 state for Health Care and Natural Environment, but 48th for the Economy and 45th for Economic Opportunity. Economic Leadership conducts multifactor analysis and rankings for other clients. In the most recent state rankings for manufacturing Hawaii ranked 48th overall but placed 30th for business climate. In our analysis of the most competitive metros among the 100 most populous, Honolulu ranked near the bottom with high business costs, low workforce availability, and low rankings for quality of life due to high housing and childcare costs, high property crime rates, high poverty rates and significant outmigration.

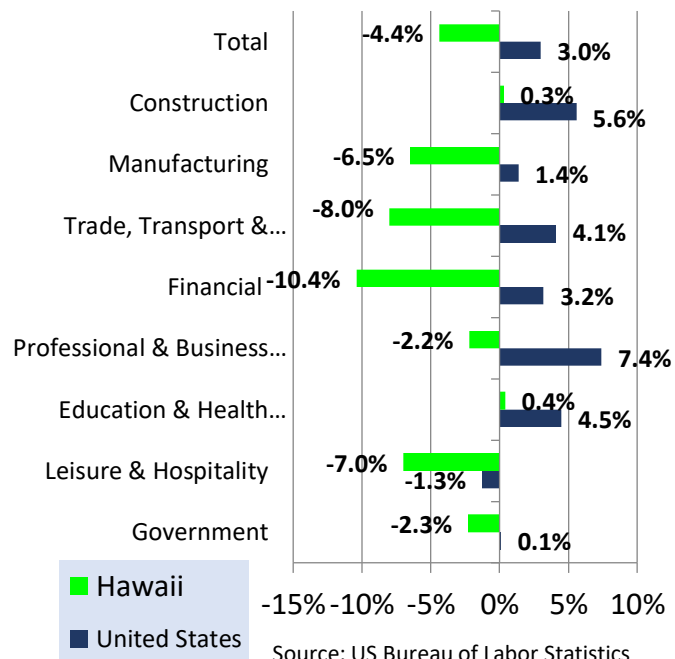
According to the annual Area Development survey of CEOs and site selection consultants, the availability of workforce remains the top competitive issue for businesses evaluating where to make investments and add jobs.

The COVID pandemic dramatically disrupted the global economy, and

Area Development Top Site Selection Issues 2023

Availability of Skilled Labor & Costs
 Energy Availability & Costs
 Proximity to Major Markets
 State and Local Incentives
 Highway Accessibility
 Proximity to Suppliers
 Availability of Land
 Expedited/Fast-tracked Permitting

Nonfarm Employment Change by Sector
 February 2020 - October 2023

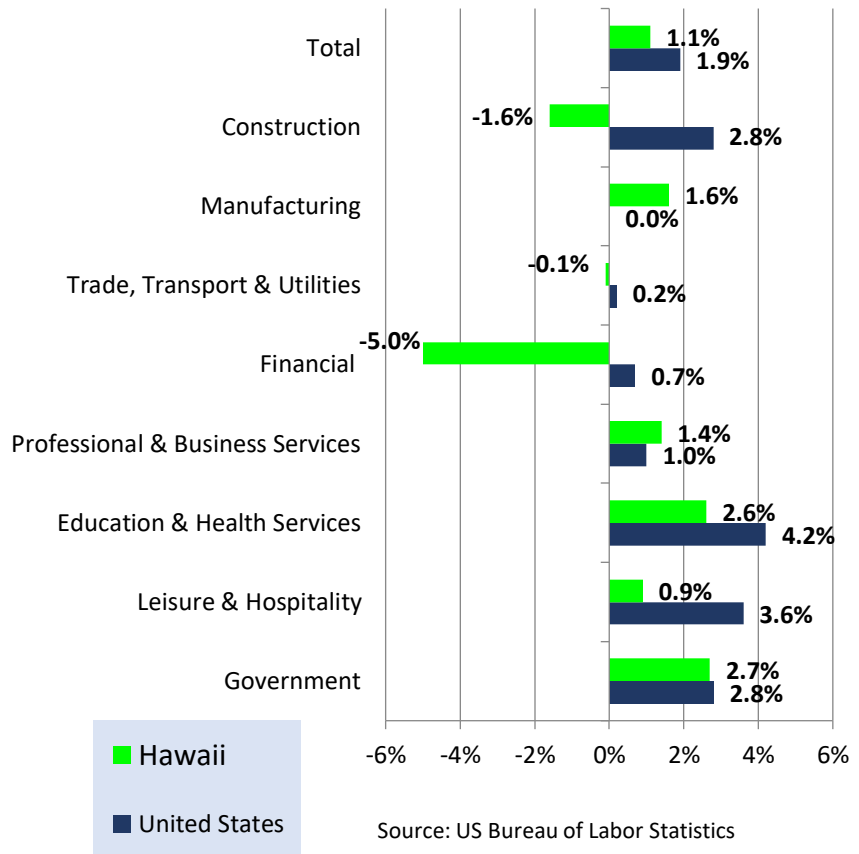


Hawaii shared in the pain and the challenges. Over the past 44 months the nation's economy has healed, and job growth has been surprisingly brisk, prompting the Federal Reserve to raise interest rates eleven times to slow job growth and fight inflation. Hawaii has lagged behind national employment growth in every sector and today remains further below its pre-pandemic job level – 4.4 percent – than any other state.

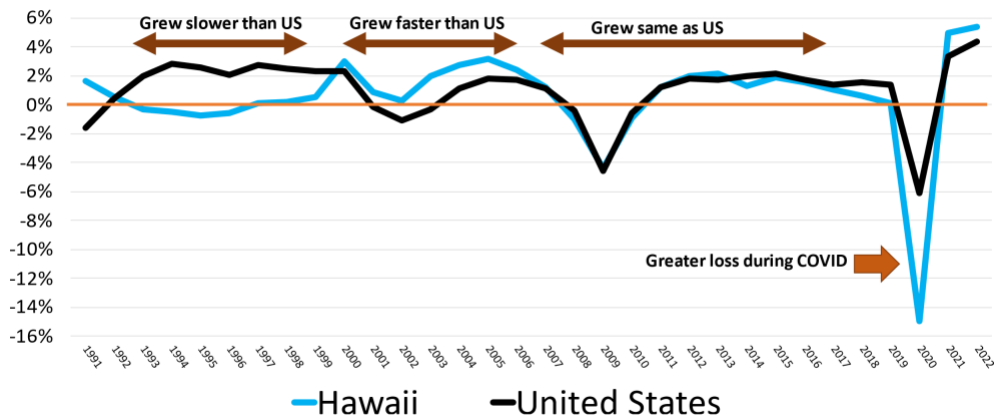
The past 12 months show some overall job gains in Hawaii with Government, Leisure and Hospitality, Manufacturing, and Education and Health rebounding. During the same period Hawaii has seen statewide job reductions in the Construction and Financial Services sectors and significantly slower growth than the U.S. average in some other sectors.

Over the past 30 years Hawaii has experienced periods where job growth was higher than the national average and periods with slower growth. The most recent slowdown predated the COVID outbreak in March of 2020.

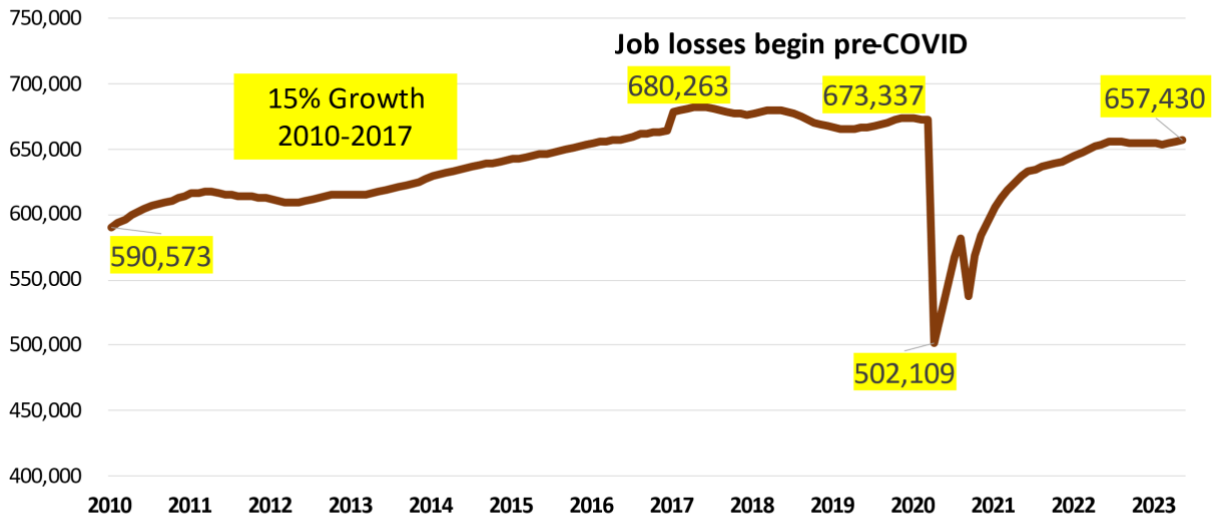
Nonfarm Employment Change by Sector October 2022 - October 2023



Hawaii Annual % Jobs Change 1990-2022



Hawaii Nonfarm Employment 2010-2023

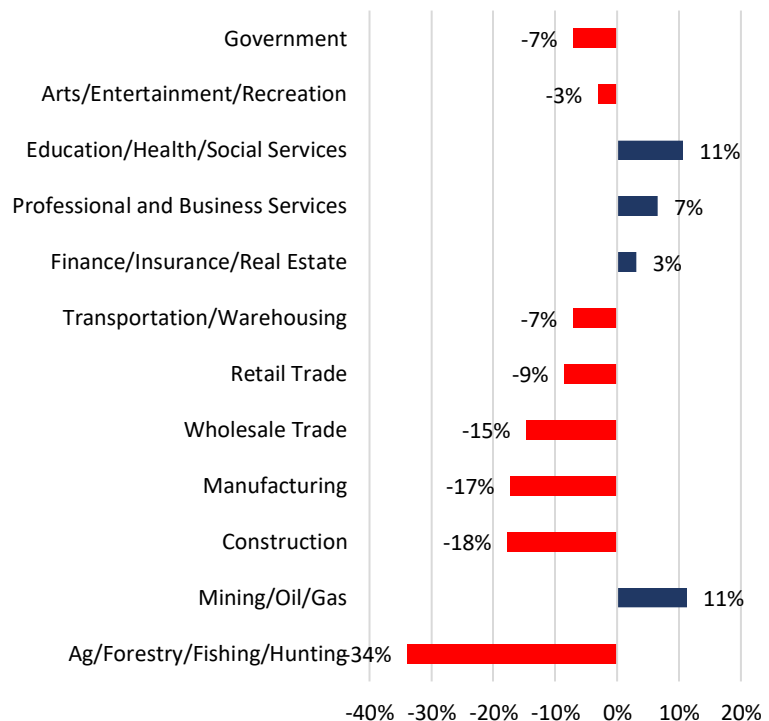


Source: US Bureau of Labor Statistics

Another way to view recent changes in the state economy is by looking at change in the state's gross domestic product (GDP) by sector over five years, from 2017 through 2022. As the adjacent chart shows, GDP in many sectors is significantly smaller than five years ago. Overall, Hawaii's GDP today is roughly the size it was in 2015. Some modest growth is expected over the next five years.

Population growth has been slow in recent years but is projected to grow at a faster rate between now and 2027. Hawaii's overall population has aged recently, with a higher percentage of the labor force nearing retirement age, and lower than average population age 25 to 39.

Hawaii % Change in Sector GDP 2017-2022



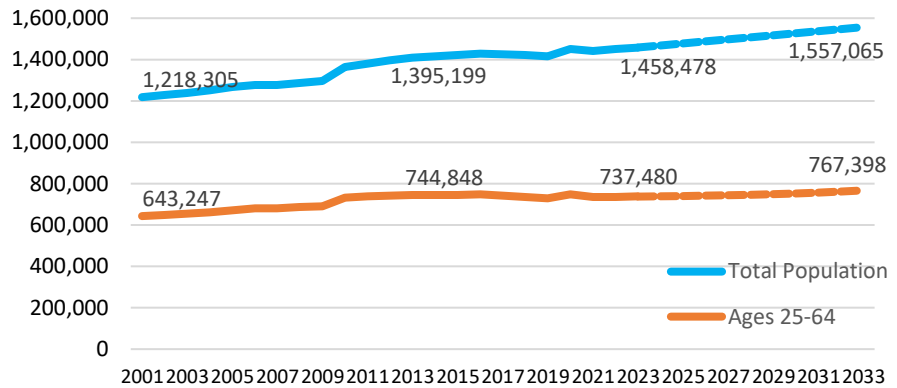
The number of people of working age (25-64) has declined over the last decade. Outmigration has played a role. The leading states for Hawaii residents moving to the continent include Nevada, Arizona, California, and Washington.

Labor force participation rates in the state are below the national average and have been declining.

Nationally, the lack of available workers – especially with in-demand skills – has been labeled a crisis and the *Throttle on American Growth* in a report by the National Association of State Chambers of Commerce.

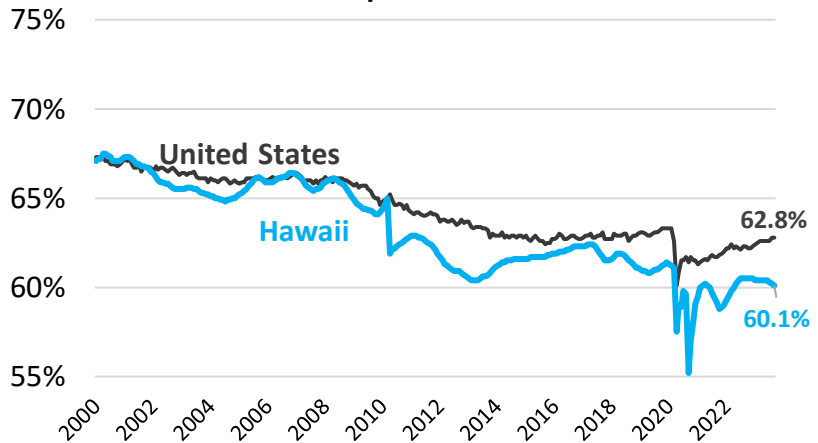
Taxes are always a factor in investment decisions and often affect the movement of individuals. Most recent reports show both companies and individuals are more likely to move to a lower tax location. Hawaii taxes, when compared to other states, have become increasingly less competitive over the past decade.

Hawaii Population Growth 2001 - Projected 2033



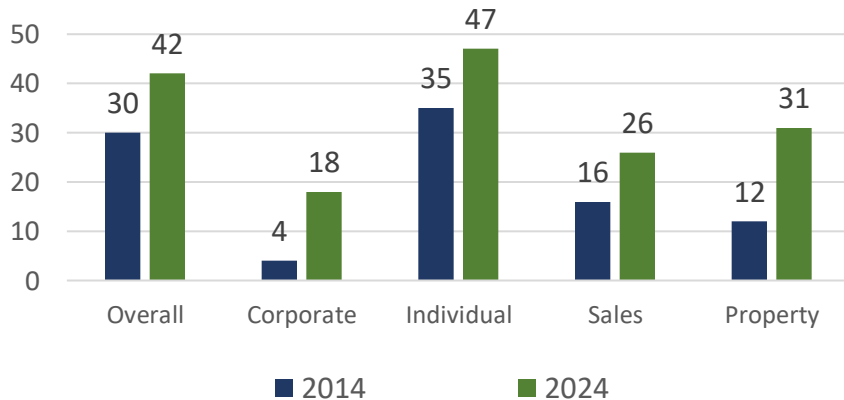
Source: Lightcast 2023.3

Hawaii & U.S. Labor Force Participation Rate 2000 - Sept 2023



Source: US Bureau of Labor Statistics

State Tax Ranking



Source: Tax Foundation Annual Rankings from 2014 and recently released 2024

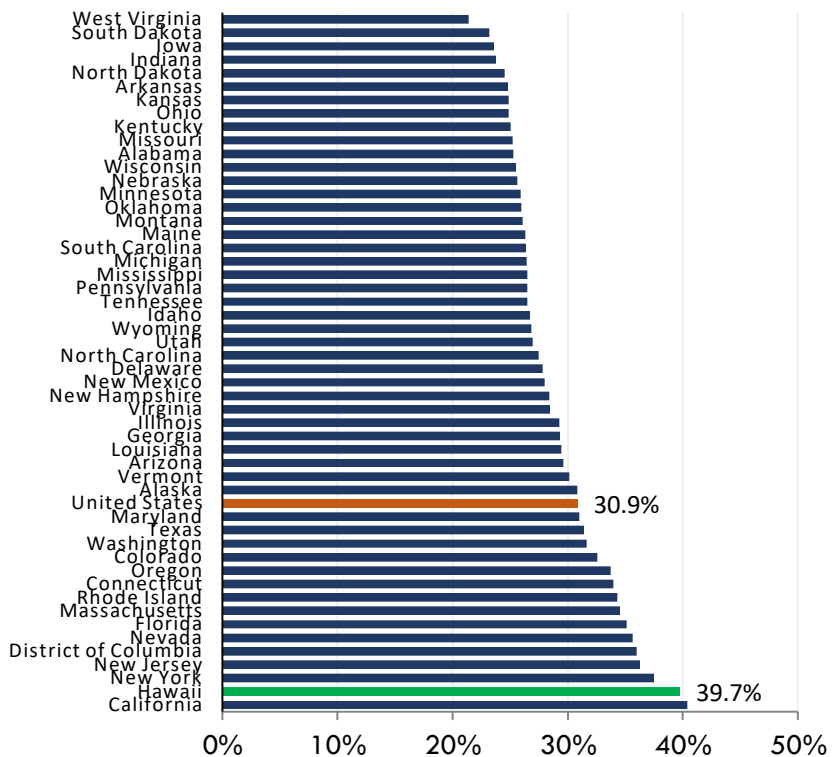
Housing and Childcare Supply and Affordability

With the importance of talent attraction and retention across America, housing affordability and availability has risen as a competitiveness factor. In the 2023 *Talent Wars* report from DCI, affordability, housing costs and housing availability were listed as the top three most

important factors for a person deciding where to move. In Hawaii, it is no exaggeration to say that there is a housing crisis. Housing concerns include overall supply, new product development, and affordability. Hawaii's housing affordability is a competitive weakness.

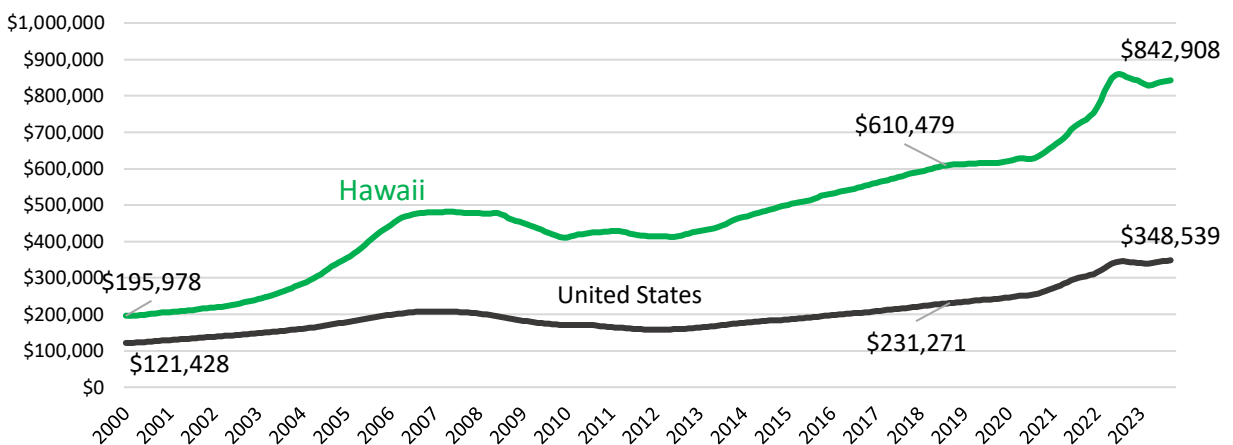
Hawaii's home prices were expensive before the pandemic and have risen an additional 38 percent over the past five years, forcing more Hawaii residents to be cost-burdened by rent or a mortgage, or to relocate to another state with greater affordability.

Percent of Household that are Cost-Burdened by Rent or Mortgage, 2021



Source: EL calculations based on US Census Bureau (2022)

Typical Home Values 2000-2023



Source: Zillow 2023

Childcare affordability and availability can also be a factor for location or a deterrent to work. When compared to median household incomes in the state, childcare for one infant can account for about 18 percent of annual income for a married couple household and 46 percent for a single parent household in Hawaii.

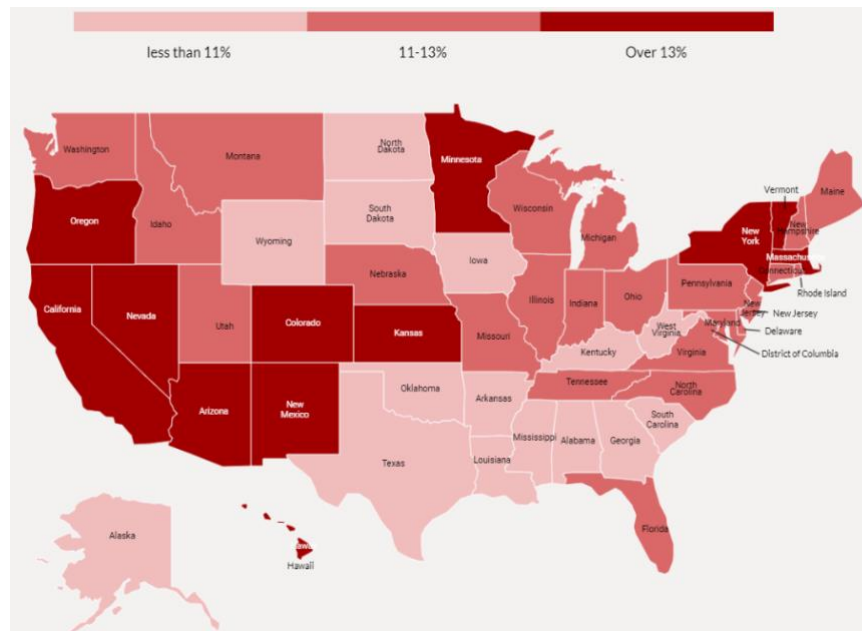
In a 2022 study, the annual costs for one infant exceeded \$18,000 positioning Hawaii among the highest cost as a percentage of median household income.

Estimated Cost of Full-Time Center-Based Childcare, 2021

State	Infant	Toddler	4-Year Old	Before/After School
Hawaii	\$18,044	\$14,888	\$11,058	\$4,521

Source: Childcare Aware of America (2022)

**Infant Center-Based
Childcare Cost as a
Percentage of Median
Household Income,
2021**



Housing and childcare cost concerns are not just a Hawaii issue. All across the country, governments and business groups are trying to impact these supply-demand-cost relationships. In a place as desirable as Hawaii, unless a consistent supply of new housing is delivered annually to match demand, prices will continue to rise.

Entrepreneurship in Hawaii

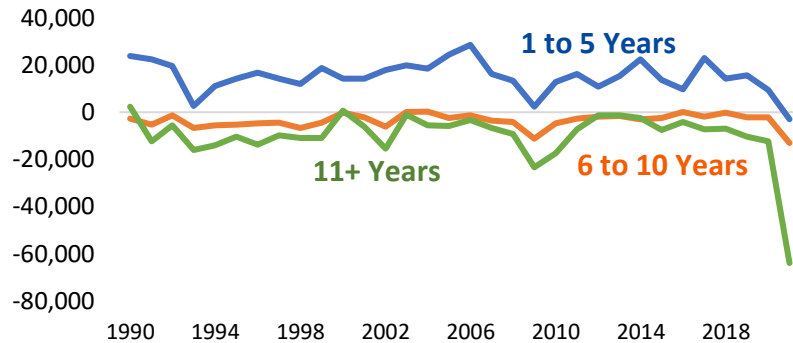
The importance of small businesses, and especially new businesses, to any economy is well documented. According to the U.S. Census Bureau most net job creation comes from companies less than five years old.

Since the beginning of the pandemic, new business formations have been setting records across the United States. Business failures and layoffs, stimulus checks and (for some people) reflections about their future have contributed to the surge in entrepreneurship.

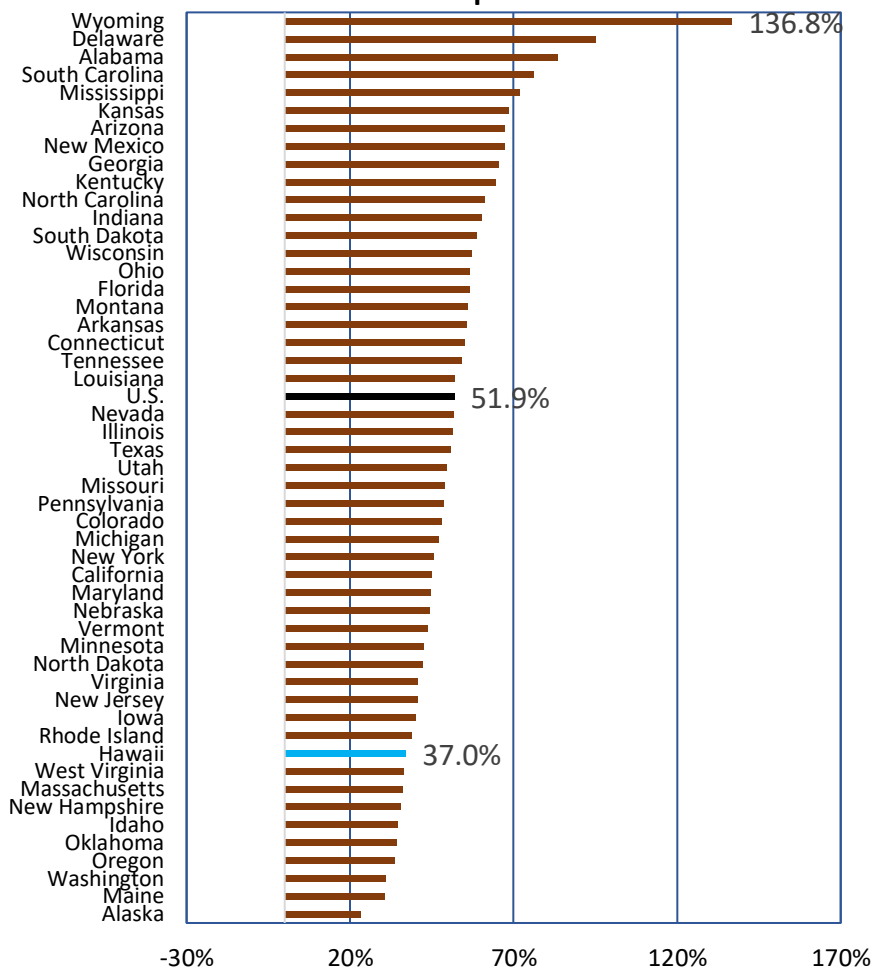
New business formations have grown by 37 percent in Hawaii since the beginning of 2020, but that rate is well below the national average and among the bottom ten nationally.

In the latest comprehensive entrepreneurial study from the Kauffman Foundation, the early survival rate for startups in Hawaii is the lowest in the country.

Net Job Creation in Hawaii by Establishment Age, 1990-2021

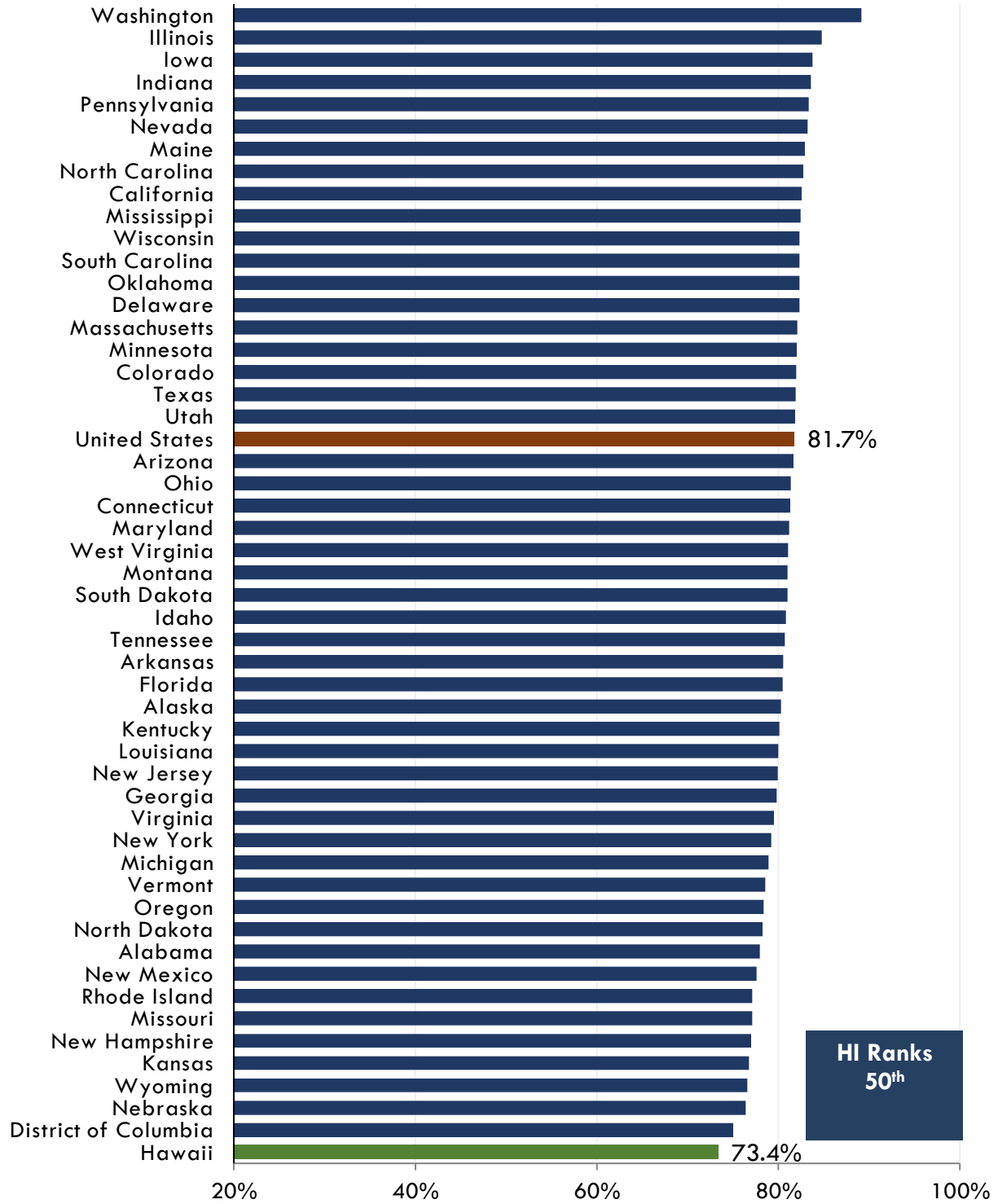


US Business Formations Jan 2020-Sept 2023



Source: U.S. Census Bureau

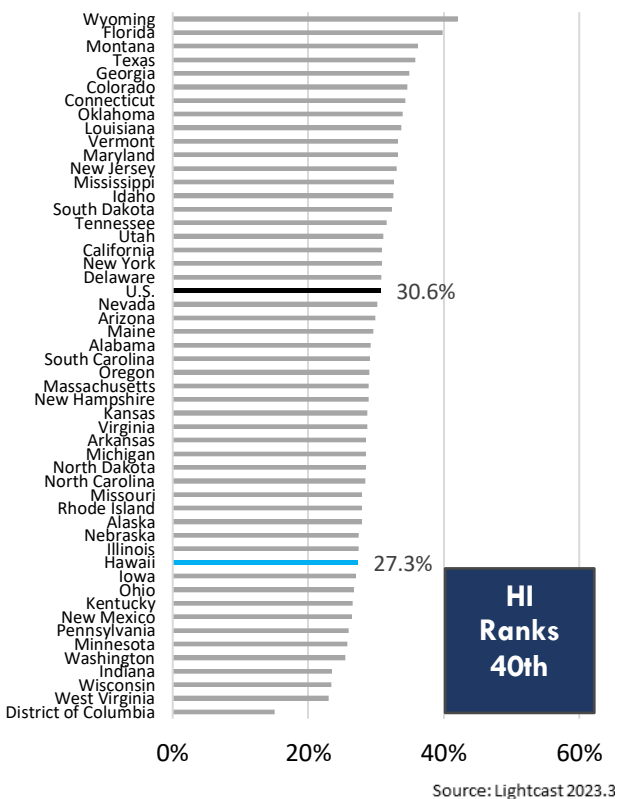
Startup Early Survival Rate by State, 2021



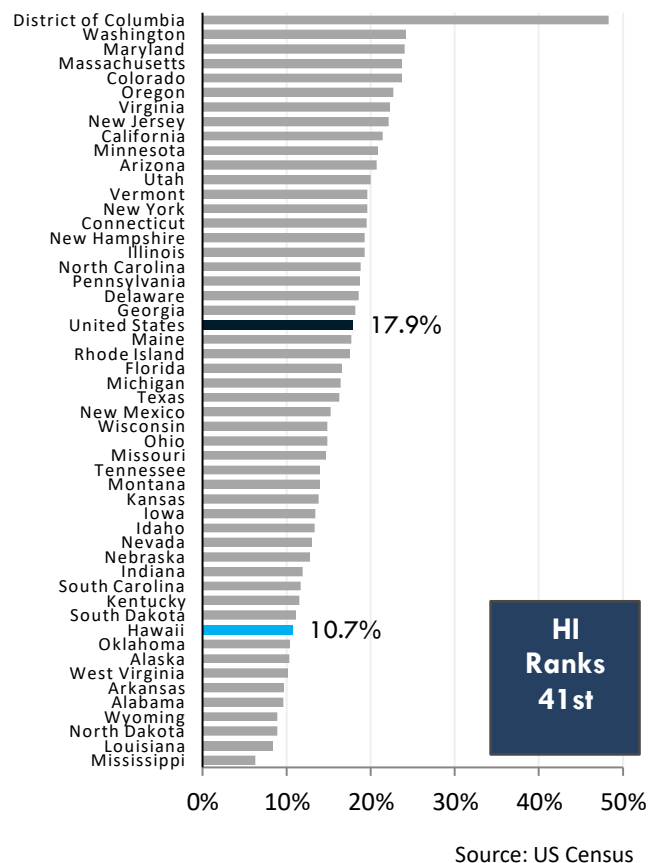
Self-employment in Hawaii has consistently been lower than the United States as a whole. In 2022, Hawaii ranked 40th for the percentage of self-employed.

During the pandemic, remote work became more important in many places. Places with beaches, mountains and other amenities typically associated with vacation communities attracted workers fleeing large urban areas and newly able to work from anywhere. Hawaii did not attract the relocation of many remote workers and the makeup of the local economy – with many jobs not easily conducted remotely – resulted in lower percentages of remote workers.

Self-Employed Workers by State 2022



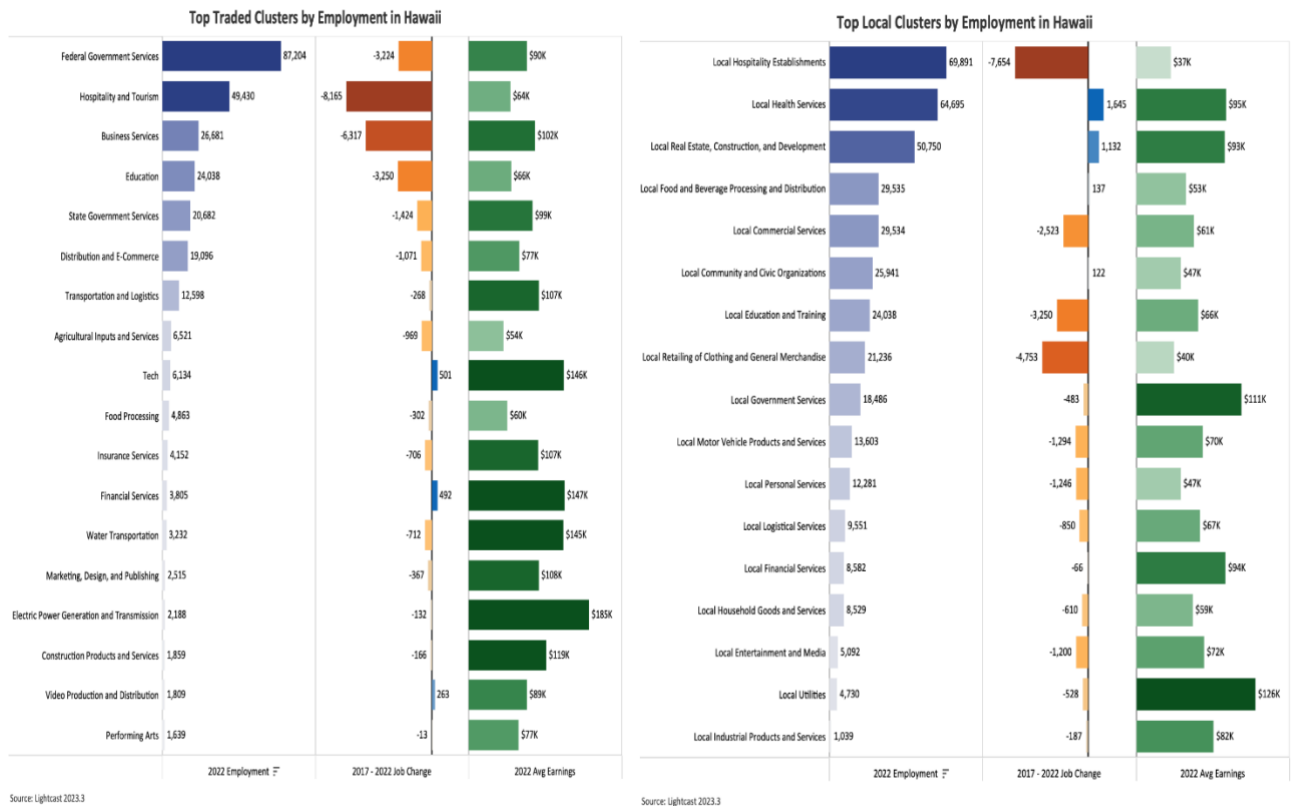
Remote Workers by State 2021



The Industries Driving the Hawaii Economy

Traded or exporting clusters are groupings of industries that serve markets outside of a state (domestically and/or internationally) and are the engines of state economies. Clusters are strengthened by companies and organizations that support the industry through suppliers, specialized infrastructure, training assets, and machinery. Traded clusters typically account for less than 40 percent of a state’s overall employment but are usually responsible for 50 percent or more of its income and innovation. Traded clusters also generate the local incomes that allow for **local clusters** like health care, retail, real estate, and local service providers to thrive.

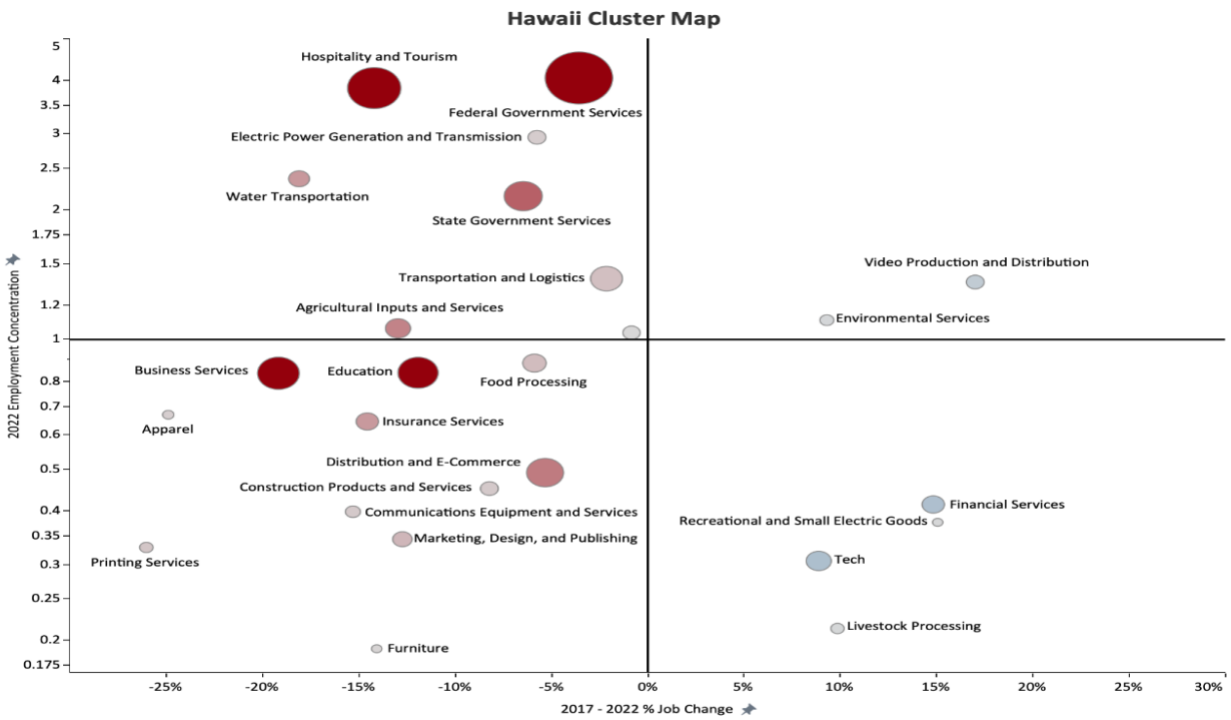
As the charts below show, the past five years have been difficult for most of the industries important to the state’s economy. Large job contractions in Federal Government Services, Hospitality and Tourism, Business Services, and Education have rippled through the local clusters including Local Hospitality, Commercial Services, and Local Retail.



A cluster map shows the relative importance and recent performance of each traded cluster. For Hawaii, the concentration and recent employment growth of traded clusters determine their impact. Location quotients (LQs) are the measure of employment concentration. LQs are the level of a cluster’s employment in the region compared to national employment levels. An LQ above 1.0 demonstrates a higher concentration than what would be expected based on national levels. This helps reveal what clusters are strongest in Hawaii and generate money

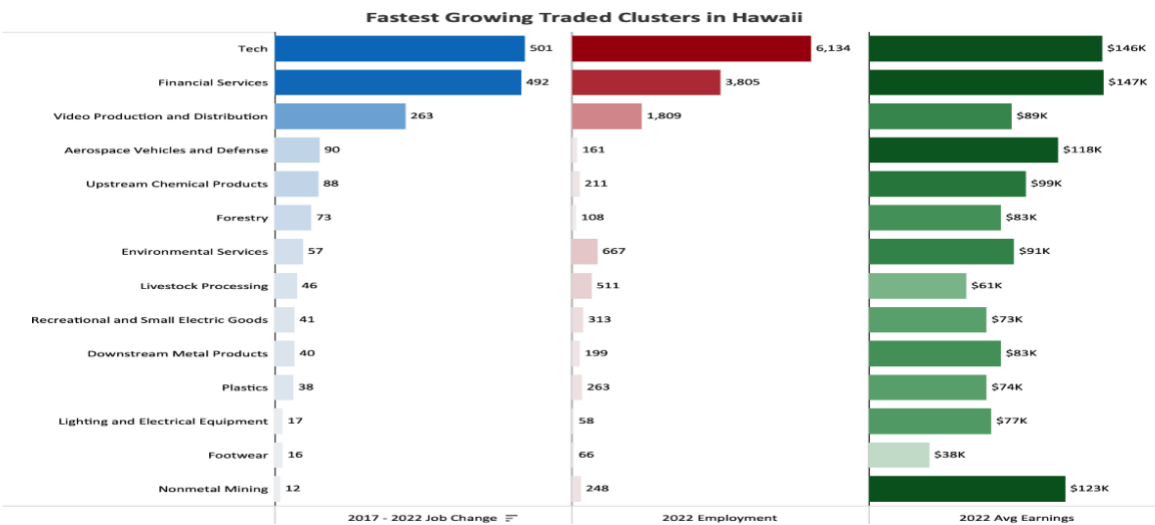
from outside of the state through exported goods or services. LQs when mapped alongside employment growth can show which clusters are thriving or declining. The most recent five-year period includes the pandemic and reflects contraction in the Hospitality & Tourism and Federal Government Services sectors. There have been some bright spots. The Tech, Financial Services, Video Production and Environmental Services clusters surged over the same period, adding over 1,300 jobs that averaged between \$90,000 and \$150,000 in annual earnings.

Hawaii Traded Cluster Map



Source: Lightcast 2023.3

Hawaii Traded Clusters: Fastest Growth 2017-2022



Source: Lightcast 2023.3

Stakeholder Input

Karey Kapoi LLC conducted interviews and focus groups with a variety of stakeholders across the state.

When they asked about the state of the current economy, common themes emerged:

- The Hawaii economy is described as stagnant, fragile, and struggling to find a rhythm after the COVID-19 pandemic.
- Many businesses, particularly small businesses, are facing challenges in workforce availability and recovery from the pandemic's impacts.
- There is a heavy reliance on the tourism industry, which is vulnerable to external forces.



Stakeholders identified the following specific challenges for businesses:

- Workforce shortages are a common issue across various industries, aggravated by the pandemic's lifestyle changes and by childcare concerns.
- The tourism-focused economy faces workforce challenges and vulnerability during times of crisis.

Barriers to business growth were identified:

- Starting a business is described as challenging due to factors like high costs of living, a lack of venture capital, regulatory barriers, and difficulty in finding qualified employees.
- Lack of online tools to expedite permitting and licensing to improve government paperwork efficiencies.

Industry diversification was a common recommendation for improvement:

- Stakeholders highlight the need to diversify the economy beyond tourism & hospitality.
- Suggestions include promoting technology, agriculture, sustainability, STEM education, and fostering partnerships with other industries.

When asked what economic success would mean, stakeholders had a clear vision:

- Greater economic success would involve economic diversification, improved workforce development, better affordable housing options, and reduced out-migration.
- A successful economy should support local businesses, promote sustainability, and offer opportunities for a wide range of industries.

The importance of community and culture was also emphasized:

- Some stakeholders emphasize the importance of involving the community and celebrating successes to create a positive business environment.
- Cultural preservation and local values are seen as assets for economic development.

Finally, during the process the Maui fires occurred, prompting a discussion about recovery and rebuilding after disasters.

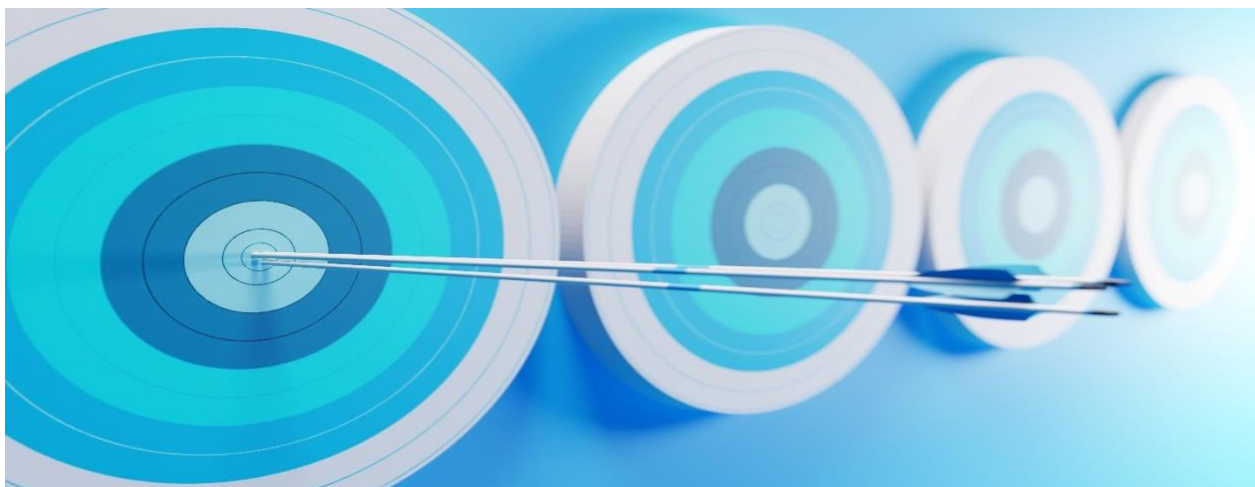
- After events like the Maui fires, recovery should focus on community support, keeping residents in the area, and fostering collaboration between different sectors.

Overall, there is consensus on the need to **reduce Hawaii's reliance on tourism, promote economic diversification, invest in education and technology, and ensure that economic growth benefits the local community**. The challenges of workforce availability, the high cost of living, and a narrow economic base require careful planning and collaboration among government, businesses, and communities to foster sustainable economic development.

Areas for Focus and Opportunities for Growth

Rankings, economic performance, and stakeholders agree that Hawaii's economy and economic competitiveness need to improve.

- ❖ To increase Hawaii's general competitiveness, workforce quantity and quality (skills) need to grow, the business climate (especially tax and regulatory burdens) needs to improve, and the cost of doing business and cost of living need to moderate.
- ❖ To grow and diversify the economy, industry concentrations where growth is occurring, or could occur, need additional resources and a targeted public policy agenda to provide support.
- ❖ To ensure that economic growth benefits the local community, enhanced workforce development starting in middle school with high school and college private sector work experience, and focused support for a robust entrepreneurial ecosystem need to be top priorities.



Industry Trends

Looking at recent history is important, but competitiveness is future focused. Looking forward, anticipating what is next, is critical to prepare for threats and for taking advantage of opportunities. Much of Hawaii's economic fortunes in the next decades will be determined by the relative health and growth of a few traded clusters.

Travel and Tourism

After 2021 and 2022 saw a robust rebound in travel and tourism spending, momentum in 2023 is slowing for some travel trends while still moving toward pre-pandemic levels. In June 2023, the U.S. Travel Association (USTA) characterized U.S. domestic leisure travel as “normalizing,” domestic business travel as “more tempered” than previously forecast, and international inbound activity as strengthening, especially from certain countries such as Canada and Brazil.

The USTA's forecasts show domestic trips for this year equaling the number from 2019, with steady growth predicted over the next three years. International arrivals, while growing rapidly, are not expected to exceed 2019 levels until 2025. In terms of inflation-adjusted travel spending, 2023 leisure dollars are likely to surpass 2019 while business spending will continue to fall below pre-COVID numbers throughout the forecast period ending in 2026. International leisure tourism spending is estimated to be at 70 percent of 2019 levels this year and is not forecast to surpass 2019 spending until 2026.

At the end of August 2023, a USTA update highlighted these national trends:

- Overseas arrivals were improving, though still 22 percent below 2019 levels;
- Air travel demand in July was up 12 percent year-over-year;
- Hotel demand in July was flat year-over-year;
- Total travel spending through July increased by 4.1 percent year-to-date.

Certain tourism trends stand out, and some are almost certainly impacting Hawaii. A positive one is that the consumer emphasis on experiences like travel and vacations (compared with purchasing goods) is viewed as a “sticky” preference likely to continue.^{iv} One forecast has global travel and tourism GDP growth more than doubling the overall economic growth rate from 2022 to 2032, at an annual rate of 5.8 percent versus 2.7 percent.

A more problematic development is that few countries allowed U.S. tourists in 2022, but now almost all are. As a JP Morgan analyst noted, “most international markets were closed to Americans last summer, which caused significant domestic substitution.” There is now more competition for the tourist dollars. American travel to several nations in western Europe is absolutely booming.

Outbound travel from China is slowly but steadily increasing, and this could “bolster growth globally with a concentrated impact” in the Asia Pacific region. According to a report by Mastercard, Chinese outbound tourism spending in the Honolulu market for March 2023 was 27 percent higher than in March 2019.



Other big-picture trends that will shape the global and U.S. travel and tourism sector in the coming years:

- The industry faces a “prolonged and widespread labor shortage,” with a COVID-related “exodus of tourism staff, particularly from customer-facing roles,” and “no sign that the industry will be able to bring all these people back.” Labor shortages are likely to constrain the sector’s growth and will translate into “operational, reputational, and financial difficulties.” To combat chronic shortages, operators will need to make working conditions more attractive for landing and retaining talent.
- Another way to address worker shortages will be to adopt new technologies that speed transactions and – like chatbots paired with hotel concierges – enhance the customer experience.
- Online and automated bookings will continue to boom. Online travel bookings were estimated at \$432 billion in 2020, projected to grow to \$833 billion by 2025.
- Growing awareness of the need to address climate change, and awareness of tourism’s damage to fragile destinations will make sustainability an increasingly important consideration.

- “Bleisure” travel that blurs the line between business and leisure trips is rapidly gaining in popularity, with 89 percent of people planning to add some personal vacation time to business travel.
- Travel planners will increasingly cater to the rising class of remote workers with flexible schedules, who may wish to travel individually or in small groups with personalized itineraries.
- There is the continued popularity of “transformational” trips that focus on health and well-being – everything from yoga and meditation retreats and Outward Bound adventures to cooking holidays.

The State of Travel and Tourism in Hawaii

Travel and tourism is the state’s largest industry. Visitor arrivals, total days, and expenditures continue their post-pandemic recovery in Hawaii, but at a slower pace in 2023 and with further slowing predicted through 2026. According to the Hawaii Department of Business, Economic Development & Tourism, visitor expenditures could rise by 7.2 percent this year, by 4.5 percent in 2024, and by 3.3 percent and 3.0 percent in 2025 and 2026. Of course, the Lahaina wildfire will impact numbers for the current year, as the area contains over 800 businesses employing about 7,000 people. Overall, the state agency predicts that it will be 2026 before visitor arrivals rise to pre-COVID levels.

After a strong start to 2023, conditions in Hawaii appeared to weaken in the spring and summer months. For example, RevPAR (revenue per available room) for April was lower than in April 2022 or April 2019. In May, a Hawaii travel publication predicted “significant softening in demand ahead this summer.” There are a number of concerning factors – both short-term and longer-term – for travel and tourism in Hawaii, including:

- Uncertain demand from Asia, especially China and Japan. Chinese outbound international travel has been improving steadily but the nation’s economic outlook is murky. Meanwhile, travel from Japan has been very slow to recover, with 2022 visitation to Hawaii still more than 80 percent below 2019 numbers.
- Increased competition for the U.S. domestic traveler. In 2022 there were “a lot of high-income leisure travelers who couldn’t go anywhere else.” Now, other destinations are open, with Europe being “the clear winner” and other Pacific islands gaining traffic.
- Hawaii is increasingly viewed as expensive even compared with travel to Europe. Hawaii’s hotel rates are at an all-time high and car rentals are expensive as well. Industry observers suggest that prospective visitors are getting “sticker shock” when looking at these prices and warn that “the perception that Hawaii is now only for the elite high-spender needs to shift.”

Defense and Military

The U.S. Department of Defense (DoD) budget climbed to an estimated \$797 billion in fiscal year 2023. According to DoD's five-year Future Years Defense Program, and as analyzed by the Congressional Budget Office, the DoD budget could increase by 1.5 percent in 2024 and then gradually decline by less than three percent through 2027. The Congressional Budget Office states that the parts of the budget dedicated to daily operations, infrastructure maintenance, and acquisition of new weapons would be virtually unchanged through 2027.

Over a longer term, from 2027 through 2037, the Future Years Defense Program report suggests that the U.S. defense budget could increase by nine percent over the ten-year period, adjusted for inflation. Nearly 80 percent of the increase would be for military personnel, operations, and maintenance costs.



Of particular importance to small and mid-sized defense contractors is the portion of the DoD budget known as Research, Development, Test, and Evaluation (RDT&E). Allocations to this innovation-focused area doubled from 2016 to 2023, but an increase of closer to three percent is likely in fiscal year 2024.

Analysts at PwC pegged the global defense and aerospace industry as a \$741 billion sector in 2022 and predicted that 2023 would see “high single-digit growth” globally for the defense subsector.

As in so many other manufacturing industries, production constraints caused by labor shortages and supply chain disruptions could curtail potential growth. A U.S. defense industry publication echoed the labor issues, with 82 percent of companies surveyed saying it was somewhat or very difficult to find STEM-educated workers and 64 percent saying it was somewhat or very difficult to hire skilled laborers. The same report complained about the cumbersome regulations that accompany working with the U.S. Department of Defense, asserting that small and medium-sized companies have particular difficulty navigating DoD hurdles.

The following trends will impact the defense industry, now and in the coming years:

- Talent Shortages – the defense industry workforce is aging, while automation and adoption of digital technologies is spurring the need for more advanced engineering, math, data science, and digital skills. To attract and retain talent in a very competitive market for STEM workers, companies should strive to develop “a culture of innovation and building digital skills.”
- Supply Chain – there will likely be a continuing shift from global to regional sourcing. Defense firms are also trying to create better visibility deep into their supply chains to improve supply control and coordination and to better manage third-party risk.
- Sustainability – defense is “one of the most challenging industries to decarbonize,” but is adopting advanced manufacturing technologies to reduce emissions at manufacturing facilities and for products. Products will increasingly use electric, hybrid, and hydrogen propulsion as well as sustainable aviation fuels.
- Maritime 4.0 – improved efficiency for the design and manufacture of ships through the use of artificial intelligence, machine learning, and digital twinning.
- Autonomous Vessels – unmanned surface and subsurface vessels are predicted to make up one-third of the total U.S. Navy fleet in the next 20 years.
- Space – defense applications in space are expected to grow at an annual rate of over 12 percent, becoming a \$32 billion subsector by 2029.
- Additive Manufacturing – increasing use of 3D printing for replacement parts and components, shortening wait times for repairs.
- Cybersecurity – already a huge concern for defense companies, the increasing use of digital technologies in all phases of the business creates more vulnerability for cyber attacks.

Military and Defense Economic Impacts in Hawaii

Defense is Hawaii’s second-largest industry sector, and its contribution as a percentage of state GDP is second only to Virginia’s. Hawaii receives an estimated \$8 billion in annual defense spending, two-thirds of that through payroll. Hawaii hosts nearly 42,000 active-duty personnel, the eighth highest total in the nation.

In order to both support the existing defense sector in the state and to prepare for potential declines in the U.S. military budget, the Hawaii Defense Alliance was created through Chamber of Commerce Hawaii’s Military Affairs Council in 2021. The Hawaii Defense Alliance aims to

increase business opportunities for local defense-related companies and to improve the industry sector's resilience. It strives to accomplish this through work in four areas:

1. Small Business Support
2. Workforce Development
3. Business Ecosystem Development
4. Market Development & Resiliency

A promising defense subsector for businesses of all sizes in Hawaii is the area of information technology including cybersecurity, data science, data analytics and military intelligence.

Agriculture and Food Processing

Agriculture

As of August 2023, the USDA forecast net farm income in America to be \$141.3 billion for the current calendar year. This would be a 23 percent drop from the record numbers of 2022, but still more than 20 percent above the long-term average from 2002-2022. Total crop receipts are expected to drop four percent (led by corn and soybean income), and animals and animal products by 4.6 percent.

Based on 2022 data from the USDA, Hawaii's 7,300 farms (covering 1.1 million acres) produced \$171 million in net income. Total net farm income in the state peaked at \$337 million in 2011



and has declined by 49 percent since then. Almost all of Hawaii’s agricultural products are of a specialty nature, with miscellaneous crops and products accounting for 66 percent of the state’s cash receipts. The large majority of those in the “miscellaneous” category are seed crops, particularly corn. Coffee represents about ten percent of cash receipts, followed by cattle (8.6 percent), flowers (7.6 percent), and macadamia nuts (5.3 percent).

Key Trends for the Second Half of 2023 and Beyond

- **Farm Regulations** – with the existing U.S. Farm Bill expiring September 30, passage of a new one might be difficult as the farm bill budget could exceed one trillion dollars for the first time. About 80 percent of the budget would be for the SNAP program, and there may be a push to impose more work requirements for recipients. Also of note is the Supreme Court’s affirmation of California Proposition 12, which bans the sale of pork, veal, and eggs from farms that don’t meet animal raising production standards. The ruling could open the door for other state laws that affect interstate commerce.
- **Falling Prices and Higher Production Costs** – costs such as labor and interest rate expenses are expected to impact profits as commodity prices fall from the high levels of 2022. Early estimates for 2024 are that production input costs will remain elevated in the United States.
- **Diversification and Risk Management** – more farmers are diversifying their crop mix to reduce the risk of over-reliance on one or two crops. Other risk-reduction tactics include a) adding irrigation systems where rain is unreliable; b) using machines and hired labor to plant and harvest at peak periods; c) purchasing larger storage systems; and d) greater use of futures and options contracts to hedge against price volatility.
- **Climate Change and El Nino** – Climate change is producing more of “feast or famine” production cycles. Natural disasters (from drought to hurricanes to wildfires and floods) led to production shortages and high prices in 2022, but ample rainfall in the western U.S. could cause surging supplies and falling prices this year. Global food prices reached a two-year low in May 2023. The return of El Nino in the U.S. could further impact markets for grains and oilseeds.
- **Precision Agriculture** – Despite the costs and training needs, more farmers are adopting a mix of technologies to monitor and adjust tactics for segments of their land in real time. Using precise monitoring allows farmers to reduce usage of inputs and lessen their risks (by, for example, detecting plant diseases earlier).

Longer term, the OECD-FAO Agricultural Outlook for 2023 through 2032 predicts a global annual increase of 1.3 percent in global food consumption in calories. This is a slower pace than the previous decade, due to a projected slowdown in world population and per capita income growth. The OECD report also estimates a 1.3 percent annual gain in livestock and fish production, resulting from increased per animal productivity. It projects a rapid intensification in the production of livestock in low- and middle-income countries.

AgTech Trends

The U.S. AgTech or “smart agriculture” market was valued at \$18 billion in 2021 and is projected to grow to \$43 billion by 2030. Startup Genome ranks AgTech and New Food as the fastest-growing startup subsectors, with funding deals increasing by 128 percent over the last five years.

Among the AgTech trends that are likely to increase in importance during 2023:

- **Data-Driven Decision Making** – technology can produce useful farm data on everything from soil moisture and temperature to nutrient levels and plant health. Drones, GPS, AI, and infrared photography help farmers to use only as much water, fertilizer, and pest control as needed and where needed. Big Data can help pinpoint new market opportunities.
- **Indoor Farming** – known as controlled environment agriculture (CEA) and often incorporating “vertical farming” in vertically stacked layers. This trend is bringing food production to controlled, indoor environments and promises quicker, fresher food delivery to customers in urban areas.
- **Sustainability** – “Regenerative agriculture” aims to minimize the use of chemicals and synthetic fertilizers while restoring farmland to status as carbon sinks rather than greenhouse gas emitters.
- **Biotechnology** – expanding the use genomic editing to reduce crop disease and product flaws.

Food and Beverage Processing

Robust growth is projected to continue in the U.S. food and beverage processing cluster. Some of the many consumer trends gaining steam are a) plant-based diets including plant-based seafood; b) increased use of honey and other natural sweeteners; c) mushroom-derived products; and d) healthy beverages. For food and beverage processing companies, these will be important trends in 2024 and beyond:

- **Sustainability** – the use of less packaging and lighter, naturally-derived packaging materials; reusable lids; upcycling of would-be processing waste.
- **Cost Controls** – a focus on costs to address consumers’ inflation concerns; tighter supply chains that are efficient, effective, and timely.
- **Automation** – to improve quality control, traceability, and food safety.
- **Use of Renewable Energy** in the manufacturing process.
- **Reduced Food Waste.**

Business and Financial Services

The professional and business services industry in the U.S. employs about 10 million people. The greatest number of these are in the computer systems design subsector. According to the Bureau of Labor Statistics, average earnings for all employees in the sector are \$40 per hour. This sector represents a \$64 billion market in America. The U.S. also enjoys a trade surplus of over \$100 billion from exporting these services (including legal, accounting, management consulting, R&D, engineering and architectural services.)



Trends in the U.S. Business Services Sector

Even though IDC expects a slowdown in software spending in the U.S., it still projects the size of the U.S. market to grow by more than five percent annually for the next three years.

- Digitalization of data is creating huge needs for extensive data analysis to better serve clients. As one observer puts it, “Data is the new gold.”
- Increased outsourcing of business management tasks is creating more opportunities for firms in business and financial services.
- There appears to be no easing of the talent wars to obtain and keep productive employees. Business and professional service firms are making work arrangements more flexible (including “gig” contract work and hybrid arrangements) to attract top talent.
- The impacts of the COVID-19 pandemic increased demand for facilities management services. Facility managers must devise solutions that improve worker health, safety, and wellbeing, also balancing the need to create more flexible spaces that encourage employee interaction and incorporate hybrid work schedules.

- All these business opportunities put pressure on labor supply and, with wages rising, on labor costs. For 2023, industry observers think that labor costs and worker productivity could be the number one sector issue. Companies with a big field service component – like facilities management, commercial cleaning, security, or waste management – will need to embrace technology to keep labor costs down.
- In this labor-intensive field, automation will increasingly be adopted to improve productivity and reduce hiring pressures. AI and machine learning will facilitate data analysis tasks. AI resources like chatbots and natural language processing (NLP) will play growing roles in areas like advertising and customer service.

Top U.S. metro areas with heavy concentrations of consulting firms include New York, San Francisco, Boston, Los Angeles, Chicago, Houston, Denver, Atlanta, and Seattle. Washington DC ranks high for legal services, while the San Jose area is a leading location for engineering services. Many of these metros have experienced recent outmigration due at least in part to high costs.

Financial Services

Fintech Hubs in the United States

Consultants from JLL discussed existing and emerging fintech hubs in a 2023 report. They wrote that the U.S. dominates fintech investment funding, landing 40 percent of all deals globally. With 78 percent of U.S. consumers preferring to manage their finances online, fintech growth is expected to continue. JLL reports that the sector is currently concentrated around specific large metros hubs, but that the sector is decentralizing. Of course, talent recruiting opportunities are among the key location considerations.



Top Metros for Finance Workers

An analysis (updated in late 2022) by LinkedIn and Zillow ranked the best U.S. cities for finance workers. It looked at factors including after-tax financial

occupation income, income tax rates, rent and home prices, job openings, and hiring rate. Among 30 large metros the leading cities were Charlotte, Dallas/Fort Worth, Phoenix, and Boston.

Metros with a high cost of living compensated for that disadvantage by offering a wide range of jobs in the sector and having a large number of annual job openings.

Water Transportation

The global water transport market (movement of freight and people) is expected to remain healthy, with an annual growth rate of 4.8 percent to 2027. This comes despite fears of significant losses in 2024 for the container shipping subsector, due to a flood of new ship capacity and new contracts being signed at lower rates.

Companies involved with ship building and maintenance for the U.S. Navy can expect reasonably good business prospects in the coming years. Recent Chief of Naval Operations Mike Gilday focused on the readiness of the existing fleet through improved maintenance, but also got more new ships from Congress. His tenure saw substantial spending increases in operations and maintenance, ship building, and weapons procurement.



Ship builders and maintenance firms are likely to feel pressure from higher rates of inflation, as shipyards often operate under fixed-price contracts. Cost issues could curtail new vessel orders. Another major area of concern is finding and keeping skilled labor. Ship builders are trying a wide variety of tactics, with one even providing an onsite Chick-fil-A restaurant.

Recreational boat builders experienced near-record demand in 2021, with sales then falling by double digits in 2022 but still at the pre-pandemic levels of 2015-2019. Predictions for this year called for recreational sales to be similar to 2022. The longer-term outlook is for continued growth despite higher interest rates and a shift to buying experiences rather than goods. Reasons for this include technological advancements for boat operators and the rising popularity of electric motors.

Key industry trends include:

- Sustainability – a great emphasis on reduced emissions by vessels as well as in the manufacturing process. This “green transition” focuses especially on clean (zero emission) or cleaner propulsion technologies.
- Cybersecurity – with water freight carriers being frequent targets of ransomware and other cybercrimes.
- Efficiency – the wise use of fleets as well as the efficiency of individual vessels.

Tech Sector

The technology sector is nearly a \$2 trillion industry in America, employing 9.4 million people. The sector has been on a roller coaster the past three years as COVID initially resulted in a surge in hiring and tech spending growth, a trend that moderated through much of 2022 and 2023. Similar to the U.S. economy overall, outlooks for the tech sector in the coming years were relatively cautious, with analysts expecting a more “sober” 2023 for the industry. This appears to be the case, at least in terms of employment, with 248,700 tech company layoffs in the U.S. tallied as of early November 2023.

Many of these have come from the biggest names in the sector.

Still, few think the high-flying sector will experience more than a brief pause. One analyst projected a 2.4 percent increase in global spending on enterprise technology in 2023



as firms continue to invest in digital transformation. Others note that the national and global economies are at a tipping point for broad adoption of technologies like artificial intelligence (AI), cloud and edge computing, 5G and 6G cellular, and low Earth orbit satellites. AI applications are rapidly being deployed in an incredibly broad range of uses, from healthcare to education and finance.

Despite the large number of announced layoffs through the first ten months of this year, CompTIA still projects 3.0 percent net job growth in the industry in 2023. CompTIA's report lists these as the fastest-growing occupations within tech:

- Data Scientists and Data Analysts
- Cybersecurity Analysts and Engineers
- Web Designers
- Software Developers and Engineers.

Through the rapid change in the tech industry two areas have shown promise in Hawaii. Between 2017 and 2022 Environmental Technology jobs grew by 5.6 percent and Life Science jobs grew by 14.4 percent. More recently, through the pandemic years, the I.T. subsector (hardware, software, and communications) has grown by over 11 percent, with an additional 11 percent growth in the subsector expected over the next five years.

Building Wealth Through Small Business Development and Entrepreneurship

Although not a cluster, smaller businesses across all parts of the economy are critically important and offer growth and wealth building opportunities for Hawaii.



Like much of the business world, smaller U.S. businesses in the fall of 2023 are positive about their company's status – revenues, cash flow, hiring needs – while pessimistic about national and global economic conditions. The third quarter Small Business Index from MetLife and the U.S. Chamber of Commerce hit a post-pandemic high of 69.2. This index has recovered

dramatically from a low of 39.5 in the second quarter of 2020, though still slightly below the last pre-pandemic reading of 71.7. Fifty-nine percent of small business owners expect their revenues to increase over the next year, and 51 percent plan to add staff. At the same time, however, half of small business owners think we are already in a recession or are about to enter one.

Other current data points among small businesses include:

- A continuing emphasis on workforce challenges. Sixty-one percent of owners tried to hire in September 2023, with 43 percent reporting having openings they were unable to fill. The second figure is nearly twice the long-term average of 23 percent. A staggering 93 percent of owners said they attracted few or no applicants for available jobs.
- To attract and retain workers, 36 percent of firms raised compensation in August and 23 percent plan on doing so over the next three months. Other priorities to retain employees include maintaining a family-like atmosphere and emphasizing direct connections between the owner and staff members.
- Just 13 percent of owners believe the economy will improve over the next year. Inflation's impact on costs (particularly wages) is the top concern of small company owners for the seventh consecutive quarter. Another concern is the impact of interest rates and a tighter lending atmosphere on capital needs.

New Business Starts in America

Applications to start a new business spiked during the COVID shutdown (2020 and early 2021). They have eased off somewhat but still remain substantially elevated over pre-pandemic levels. As of mid-2023, applications in those sectors likely to hire employees were 36 percent higher than the same figure in mid-2019. The strongest growth is found in healthcare, retail, arts and entertainment, and accommodation and food services. Applications are declining in real estate, manufacturing, transportation and warehousing. If current trends continue, 2023 will be the second highest ever for new business applications in the U.S., trailing only 2021.

Small Business Challenges and Trends for 2023 and Beyond

- **Workers and the Workplace** – many small businesses report difficulty balancing their desire for staff to return to the office with the hybrid and remote work situations to which employees have become accustomed. Small company financial managers say that it is harder to measure productivity, set performance evaluation standards, and deal with security concerns with more hybrid and remote workers. Teamwork and collaboration levels are additional concerns.

In order to attract and retain talented people, small business owners try to tailor work schedules and benefits. Flexible schedules, tracks for growth within the company, and mentoring programs can appeal to staff members without adding great costs.

- **Dealing with Inflation** – small company owners are assuming that inflation will persist, and thus are focused on greater efficiency and cost savings. This can include everything from automating financial management and cash flow, trying to rein in rising insurance costs, lowering shipping costs, and increasing energy efficiency for buildings and vehicle fleets.
- **Building Customer Relationships** – customers increasingly value honest and upfront communication, through social media and other avenues. Small firms are urged to be “clear and proactive” when communicating challenges such as the impact of inflation on their prices.



2030 Blueprint Hawaii

Strategic Action Agenda Recommendations

A blueprint is a plan for action. The 2030 Blueprint Hawaii lays out a set of actions to improve the state's economic competitiveness, diversify the economy, and build greater local wealth. To achieve those objectives a sustained, collaborative effort will be needed. These 17 actions are the first steps.

To Improve Overall Economic Competitiveness

(1) **Reduce the state tax burden.** Hawaii ranks in the bottom ten in the U.S. for the state business tax climate and has one of the highest top marginal individual income tax rates in America.

(2) **Promote state-level regulatory review and reform,** with a goal of moving Hawaii into the top 20 nationally for business friendliness. Make it easier and less expensive to start and operate a business. Urge the state to hire a third-party evaluator to recommend ways to streamline business regulations.

(3) **Expand the housing supply.** Use a variety of tactics – state and federal funds for government and non-profit housing development programs, and incentives (such as reimbursement for infrastructure improvements) for the private sector to develop new housing. Conduct a review of zoning regulations and push for changes that encourage more supply with a wider array of types and price ranges.



To Improve the Quantity and Skills of the Available Workforce

(4) **Reduce Outmigration of Young Residents.** Encourage the “rooting” of young people by providing high school and college students with more work experience opportunities. Use the Chamber’s sector partnerships and other members to rally support for increased state funding of apprenticeships and internships, or the adoption of a tax incentive to encourage businesses to participate in apprenticeship programs. Although Hawaii has a strong apprenticeship program, it is among the minority of states that do not provide a business apprenticeship tax incentive. Also strive to increase internships and apprenticeships in growing fields including technology and healthcare.

(5) **Expand STEM Education** – Hawaii should continue to emphasize the importance of STEM learning for all young people, in areas such as computer science. Hawaii has taken the important step of requiring all public schools to offer computer science classes.

However, it could strengthen computer science learning in other ways, such as improving teacher professional development in this discipline and consider adding computer science as a high school graduation requirement.

To Diversify the Economy

(6) Support Growth in the Tech Sector. Increase coordination between the chamber’s I.T. Sector Partnership and the Hawaii Technology Development Corporation. Focus on facilitating the expansion of tech subsectors showing employment growth in Hawaii – including environmental technology, life sciences, and I.T. – and those subsectors that provide tech services to support U.S. military operations (cybersecurity, data analytics, military intelligence.)

Target Support for Growth in Key Existing Industries:

(7) Tourism – support the growth of local tourism efforts in regions around Hawaii via an initiative such as the State of Washington’s Rural Tourism Support Program that helps to build sustainable destination development strategies. *See best practices appendix for details.*

(8) Defense – increase the sharing of knowledge and information among Hawaii defense contractors through an online resource similar to the Georgia Defense Exchange. *See best practices appendix for details.*

(9) Agriculture and Food Products – particularly the value-added processing of local food products. Consider the adoption of programs to promote the development of new valued added products (like Minnesota’s AGRI grant program) and support the expansion of small home-based businesses (like Baltimore’s Home-Run Accelerator). *See best practices appendix for details.*

(10) Water Transport – promote the growth of both recreational boatbuilders and U.S. military ship maintenance firms. Consider the example of North Carolina’s support for the expansion of a homegrown recreational boatbuilder. *See best practices appendix for details.*

(11) Encourage and assist the University of Hawaii to pursue public and private grants to provide support to industry networks and be a strong engine for industry innovation.

To Build Greater Local Wealth

(12) Commit to an improved entrepreneurial ecosystem, developed with a coalition of partner organizations.

(13) Expand entrepreneurial training content in public school CTE classes.

Entrepreneurship support is often designed and executed at the community level. As part of local and regional economic development strategic plans, they typically concentrate on industry sectors that the local community can support – those with talent, resources, champions, and cultural alignment. There are, however, roles for state-level partners to support these ecosystems. The Chamber of Commerce Hawaii can partner with the Small Business

Development Center to provide critical support to communities and regions throughout the state to understand and lead entrepreneurial ecosystems that will drive the state's economy. These include:

Leadership:

- Champion entrepreneurship as a key economic development driver for the state's economy.
- Create an Entrepreneurship Advisory Council comprised of all key regions of Hawaii to direct and assist the development of local entrepreneurial ecosystems.

Research:

- Provide critical business and industry data and analysis that helps inform and direct local ecosystem development. This includes current and projected workforce/talent demand; venture capital/investor availability; regulatory impediments and opportunities.

Education and Training:

- Provide regional education and training to assist in determining opportunities for entrepreneurial ecosystem development and/or expansion.
 - The focus of the training would include an overview of the ecosystem development process and desired outcomes.
 - The audience for the training would include chambers of commerce, economic development corporations, local elected officials and existing entrepreneurial organizations.

Connections:

- Connect entrepreneurial organizations and individual entrepreneurs with proven national resources such as the Kauffman Foundation's FastTrac and 1 Million Cups programs.
- Improve awareness among Chamber members of the University of Hawaii's Office of Innovation & Commercialization, which focuses on innovative technologies and support for entrepreneurs.

Advocacy:

- Develop a comprehensive statewide legislative advocacy strategy to support entrepreneurial ecosystem development through:
 - Greater opportunities for investor support
 - Creation of new funding for entrepreneurial program support.
 - Provide assistance to local chamber advocacy initiatives that support entrepreneurial ecosystem development.

Funding:

- Utilize the Chamber's Foundation to create a mechanism to support public and philanthropic funding for entrepreneurial ecosystem development throughout Hawaii.

To Ensure That This Plan is Implemented and Delivers Results

(14) Build a Collective Impact Model with a Leadership Council to Initiate Action

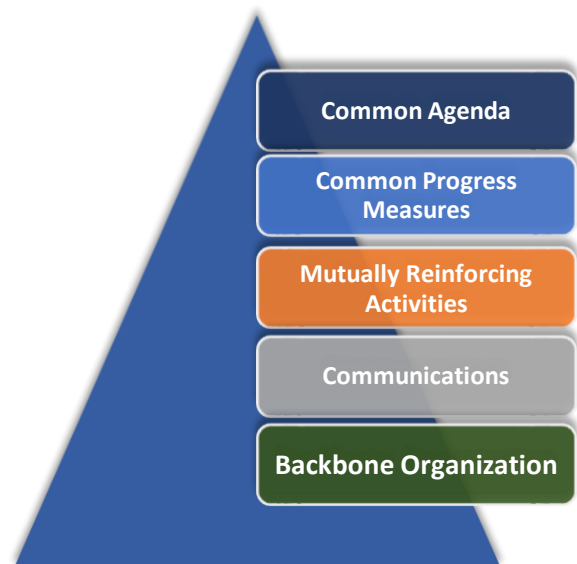
Many states and communities are paralyzed by the complexity of the problems and the countless opportunities to make a difference. In our experience a structured approach works best. Without a clear structure for implementation plans often sit with limited action and even less results. We often recommend the Collective Impact Model. The model is widely used, and research has verified that it works. For a state like Hawaii, it can allow public and private organizations to work together more efficiently.

Collective Impact Model

“Collective impact” describes an intentional way of working together and sharing information for the purpose of solving a complex problem.

Five principles reinforce the collaboration.

- ❖ **Common Agenda** - Keeps all partners moving toward common goals. This analysis and list of recommendations can be the basis for a set of shared goals for businesses and organizations that want to work together to improve the state’s competitiveness.
- ❖ **Common Progress Measurements** - These are measures that have an impact on the common outcomes.
- ❖ **Mutually Reinforcing Activities** - Each partner’s expertise is leveraged to achieve common goals. Partners do what they do best and have the resources to do, but they coordinate activities and work together on issues where collaboration is needed.
- ❖ **Communication** builds transparency, trust, and collaboration, but it also keeps community leaders and citizens informed and engaged.
- ❖ **Backbone Organization** - It takes collaborative capacity to maintain the effort. The backbone group is the designated process glue and grease and herds all the other organizations to maintain the focus. Someone must “wake up every morning with the common agenda as a priority.” This role can be filled by the Chamber of Commerce Hawaii Board of Directors, but we believe a broader group of leaders from various public, private, and civic organizations, specifically charged with implementing these actions could create broader acceptance and more resources. Staff resources will be needed but should not be extensive.



(15) Establish a Dashboard or Scorecard to Monitor and Report Progress

State chambers with a high-quality online dashboard or scorecard include the Colorado Chamber of Commerce and the Florida Chamber of Commerce.

(16) Establish an Annual State of Hawaii Event

Gather business, community, and political leaders from around the state annually to review the state’s competitiveness in critical economic and quality of life factors.

(17) Hold an Annual Meeting or Retreat of engaged leaders to review, update, and adjust this plan as needed and to develop a strategic action agenda for participating partners. Leverage the work of the existing Economic Development and Innovation committee of the Chamber.

Final Thoughts and Next Steps

Hawaii’s competitive challenges are clear, as are stakeholder desires for a future Hawaii residents’ economy that balances economic, environmental, and cultural priorities and also creates more opportunity and wealth for Hawaii residents. Hawaii is a unique place, but business decisions everywhere are driven by workforce availability and skills, business climate and cost, and infrastructure. This report and strategic action agenda recommends 17 specific actions that can improve the state’s competitiveness, but only if implemented, and only if there is a collaborative, coordinated and sustained effort by the state’s private and public leaders.

Once this plan is adopted, organizing for action will be critical. The Chamber of Commerce Hawaii needs to reach out to other public, private and higher education leaders and engage them in the process of implementation. Using the Collective Impact model step one is to build leadership. Second is the development of a first-year action agenda that identifies resources and responsibilities. The agenda should include a list of needed legislation and a plan to work with public leaders and also a strategy for connecting existing private sector committees and groups that can take the lead on various aspects of the recommendations.

Alignment of existing resources and a persistent focus on collaboration and execution is often the difference between a plan that sits on a shelf and a plan that yields results.

This report was researched and written by the team from Economic Leadership LLC including Greg Payne, Skylar Casey, Casey Steinbacher, Kat Saunders, and Ted Abernathy in 2023 and early 2024.



The stakeholder engagement in Hawaii was completed by the team from Karey Kapoi LLC.



Appendices

Best Practices across the United States

Tourism and Travel Best Practices

Tourism rebounded in very strong fashion in New York State, with 2022 setting all-time records for the number of visitors, direct spending, and total economic impact. The governor's office assigns at least some credit to the state's \$450 million "Bring Back Tourism, Bring Back Jobs" recovery package launched in late 2021. It also focused on attracting new events, renovating the Lake Placid Olympic Center for the 2023 Winter World University Games. Finally, New York developed specialty marketing campaigns under the well-known I LOVE NY slogan, such as an I LOVE NY Black travel initiative and efforts centered around the state's heritage in baseball and hip-hop.

To develop long-term, sustainable plans for tourism destinations in the State of Washington to benefit both visitors and residents, the state's tourism office created the Rural Tourism Support Program (RTSP) in 2021. This program selects one region in Washington per year and assists it with building a sustainable destination development strategy. Key aspects of RTSP include a local stakeholder team creating a ten-year vision for how the destination should evolve. The focus may be on tourism growth, or it could be on dispersing visitors across a wider area to mitigate negative impacts on communities and sensitive environmental areas. The six-to-eight-month effort features the creation of a Destination Leadership Team and a list of community values that the team will commit to uphold. After the program period, regions can apply for state and other funding to implement priority projects.

Defense and Military Best Practices

Two states with high-quality online resources for existing and potential new defense contractors are North Carolina and Georgia. North Carolina has the nation's third largest active-duty military and ranks 19th in defense contract spending. The **North Carolina Defense Contractor Resource Directory** is particularly helpful for small companies interested in doing business with the Department of Defense. It contains a general guide for getting started, and resources in specialized topics like workforce development and cybersecurity. Georgia ranks 12th in DoD spending. The **Georgia Defense Exchange** is an online tool for existing and hopeful contractors to research contract opportunities, announce their presence, connect and collaborate with one another. The online directory includes detailed company profiles and contract histories.

Best Practices in Business Services

Professional and Business Services is one of the State of Michigan's seven targeted industry sectors. The Michigan Economic Development Corporation website features podcast links with leaders in professional, corporate, and financial services in Michigan from organizations like AECOM, JPMorgan Chase, Goldman Sachs, and the Midwest Regional U.S. Patent & Trademark Office. It also has case studies describing why service firms chose to locate or expand in Michigan.

The growing Oklahoma City metro region has long focused on making the kind of quality-of-life improvements that attract young professionals to work in sectors like business services. Since 1993 voters have approved four rounds of penny sales taxes dedicated to Metropolitan Area Projects, now known simply as MAPS. The four MAPS programs – with two rounds of projects still ongoing – are

expected to raise nearly \$2.8 billion for a tremendous range of projects. Improvements include a new baseball stadium and NBA arena, canal, downtown library, trolley, streetcar, and other transit enhancements, and numerous parks and trails. Funds have also been used for youth centers and to combat homelessness. The second round was dedicated as MAPS for Kids, including improvements to every public school in the city. While this type of legislation would be challenging for Hawaii, alternative funding sources for quality-of-life improvements could be explored and prioritized.

Delaware's business law system – centered around its Court of Chancery – has helped it become a national hub for corporate and legal services. The Court of Chancery relies on judges rather than juries, usually providing more a predictable legal environment for the business community.

Best Practices in Financial Services

Delaware transformed the state's economy starting with the Financial Center Development Act in 1981. This act welcomed interstate banking into Delaware, simplified regulations around credit banking and created an attractive bank tax structure. This brought around 35 credit card banks into the state and an estimated 40,000 jobs, with this subsector becoming “the goose that laid golden egg after golden egg” for Delaware. Delaware has the nation's largest share of fintech employment as a percentage of all jobs, and claims to lead the United States in fintech innovation (patents) on a per capita basis.

Best Practices in Agriculture

A number of states have ramped up their support for agricultural research at public universities. This includes the University of California, Davis developing a sustainable agriculture research hub. The Resnick Center for Agricultural Innovation at UC Davis will focus on five themes: 1) identifying innovative solutions for agricultural byproducts; 2) maximizing water and energy efficiencies; 3) developing next-generation technologies; 4) making crops more resilient and sustainable in the face of climate change; and 5) expanding access to nutritious food. The Resnick Center received a \$50 million grant.

There is also a new AgTech Innovation Hub at Ohio State University, co-sponsored by Nationwide Mutual Insurance. OSU's AgTech Innovation Hub is focused on “applied research, technology transfer, the exchange of knowledge and experience, and transdisciplinary innovation in support of agricultural technology.” Mitigating climate risk is another goal. The Hub's first round of funding for research projects was announced in June 2023.

Since 2009, Minnesota has provided significant state funding to promote innovation in agriculture through the Agricultural Growth, Research, and Innovation Program, or AGRI. In 2022 a total of \$15.8 million in grants was awarded via AGRI to agricultural businesses, farmers, and schools in 13 topic areas. AGRI is funded at \$18 million in 2023.

Food and Beverage Processing Best Practices

The Home-Run Accelerator operated by Made in Baltimore is an intensive, five-month program for existing small businesses that make a physical product and are currently operating from their home, to prepare them to expand into a commercial production space. Each 12-person cohort (with a strong emphasis on women and people of color) receives training on issues such as hiring their first employees, signing a commercial lease, and sourcing raw materials. They are also paired with a Peer Mentor who has successfully scaled up from their home into a commercial production space. Those who complete the program each receive \$5,000 to \$10,000 to support their expansion.

Recent site selection research lists these as the most important factors when locating a new food manufacturing facility:

- labor availability, costs, and stability;
- transportation options;
- predictable government regulations;
- shovel-ready sites; and
- the availability, capacity, and cost of utilities – water, sewer, electricity, and natural gas.

Best Practices in Ship Building and Boat Building

In the Tidewater region of Virginia, Hampton Roads Marine Skilled Trades began in 2012 after a study showed a critical need for entry-level marine tradesmen for ship building and repair. The region's community colleges and Newport News Shipbuilding developed a Marine Skills Trades Training Collaborative which delivered four new, short-term courses. Following 80 to 120 hours of intensive training, 363 previously unskilled area workers were placed in jobs, and the turnover rate for new hires was reduced by 70 percent. The curriculum, program, and materials were later provided to the Virginia Ship Repair Association for its members' use. The Hampton Roads Marine Skilled Trades program won a National Council for Workforce Education Exemplary Program award in 2015.

This training is now operated as Marine Trade Training (MTT) by the Virginia Ship Repair Association in conjunction with three community colleges. Course offerings include welding, sheet metal, pipe fitting, and marine electrical. Student costs vary from \$0 to \$250. More than 2,600 individuals have completed the program over the last five years, with a job placement rate of 90 percent. A Tidewater Community College official says, "Students didn't realize this training could lead to a higher socioeconomic status for them. We're transforming lives through this program."

Recreational boat maker Grady-White Boats was founded in Greenville, North Carolina in 1959. By 2018, the well-regarded manufacturer needed additional space to make more and larger boats. To facilitate this, the Economic Development Partnership of North Carolina put together a package with \$500,000 from the state's Rural Economic Development Grant Program, matching funds from the county government, and funds to train workers at the local community college. Grady-White was able to add a 70,000 square foot expansion wing and create 65 new jobs. The company now builds 26 models of boats ranging from 18 to 45 feet and employs about 450 people in the Greenville area.

Best Practices in Entrepreneurship and Small Business Development

States and communities can promote business startups and small business growth by improving the entrepreneurial ecosystem. One way to do this – without reinventing the wheel – is to take advantage of existing resources like those developed by the entrepreneurship-focused Kauffman Foundation.

Community organizations can become an affiliate of Kauffman **FastTrac**, through which assistance can be delivered in person, online, or hybrid, in English or Spanish. FastTrac helps new enterprises with business plans, product development, branding and marketing, financial planning, funding sources, and product launch. Kauffman also organizes the **1 Million Cups** groups in over 120 U.S. communities, with entrepreneurs connecting every Wednesday morning at 9:00 AM to discuss business challenges and solutions. It appears that there is not yet any affiliate of either resource group in Hawaii.

The University of Utah is rated as one of America's leading universities for the creation of new, spin-off companies from the commercialization of university research. The university's Lassonde Entrepreneur Institute aims to develop the next generation of entrepreneurs in Utah, and has received numerous top

ten rankings as one of the nation's best undergraduate entrepreneur programs. The Lassonde Studios building combines residential living for 400 students with a 20,000 square foot innovation studio on the first floor available for all University of Utah students. Lassonde hosts many small business development events, including the annual \$100,000 Utah Entrepreneur Challenge, a business model competition open to every college student in the state.

Additional Thoughts to Build a Strong Entrepreneurial Ecosystem

The term entrepreneurship is used to broadly define the process of creating and owning a business idea, technology, or product. Entrepreneurial ecosystems are the people, resources, and the collaborative interaction between the two that support the entrepreneurial journey and define their ultimate success.

Communities across the country are actively engaged in developing entrepreneurship initiatives as key components of their economic development strategies designed to drive sustainable, robust local economies. Producing meaningful outcomes from these entrepreneurial strategies, however, is critically dependent upon the attention paid to developing and supporting the ecosystem required for entrepreneurs to succeed.

Entrepreneurial ecosystems are both complicated and iterative. They are comprised of actors, influencers and resources that affect success throughout all stages of the entrepreneurial journey. Successful ecosystems manage this complexity by first, clearly identifying the entrepreneurial stages they will choose to support, and second, by prioritizing three critical strategic areas within those stages: The Journey, The Community, and The Connections.

The Entrepreneurial Stages: There are numerous stages of an entrepreneurial ecosystem but for economic development planning purposes, they are typically categorized under three headings: Creating, Developing and Maturing.

- 1. *Creating:*** In the creating stage, the ecosystem work typically begins with a group of dedicated individuals or organizations that are committed and intentional about spending time and resources to support entrepreneurialism. Activities and gatherings drive interest and both institutional and individual resources begin to be sporadically provided. Startup companies emerge as a result and begin to create a level of density, typically in a geographic area specific to the resources. This stage is the journey from aspiration to activation.
- 2. *Developing:*** In the developing stage, the speed of entrepreneurial development is accelerated. The culture of entrepreneurship becomes established, and resources become a priority as the diversity of participants and needs steadily increase. The ecosystem begins to clearly identify the opportunity to leverage all its pieces and players to create greater outcomes and begins to act as an ecosystem. The markers defining success change from the number of startups created, to the size and financial strength of the startups in the ecosystems. This stage is the journey from activation to established.
- 3. *Maturing:*** In the maturing stage, there is now clearly defined roles and responsibilities, and the ecosystem has matured from relying on their ability to leverage possible opportunities to now having a defined set of established and defined growth pathways, and the corresponding resources to support the growth. The ecosystem provides a level of energy and expertise that constantly feeds

prospective entrepreneurs entering the ecosystem and provides models of success as companies continue to grow. This stage is the journey from established to high performing.

The Strategic Priorities: There are several components that are fundamental as the entrepreneurial ecosystems develop evolve. These include Talent, Resources, Champions and a Collaborative Culture. As these components emerge, three strategies have been proven to accelerate their success. These include:

- 1. *Seamless Journey:*** Identifying, mapping, and supporting the journey that entrepreneurs traverse in starting and growing a business is a step most communities miss. It is a critical step however to ensure all the parts of the ecosystem are identified, established and aligned. The quantity and quality of resources required for success are often unique to each stage. In each stage, however, the journey needs to be as seamless and frictionless as possible. Mapping allows for the early identification of misalignment, gaps/barriers, and sticking points in that journey. It proactively provides solutions for the ecosystem before or as entrepreneurs encounter them. Typically, the mapping looks at both availability, access and quality of resources in two areas: Entrepreneur Focused (examples: Space, Talent, Funding, Customer Acquisition, Product Monetization) and Community Focused (examples: Regulatory, Sense of Place, Engagement).
- 2. *Community Builders:*** Successful entrepreneurial ecosystems have an intentional focus on creating and sustaining a collaborative of organizations and individuals that are dedicated to being the *entrepreneurial community builders*. As a collaborative they are focused on providing solutions for the misalignment, gaps/barriers and sticking points identified in the mapping process. They are connectors and influencers that help curate and center the needs of entrepreneurs as key priorities within the ecosystem.
- 3. *Connections:*** As entrepreneurs begin and grow within the ecosystem, their needs mature as well. The singular constant within the ecosystem however remains the dynamic of connections and the networks those connections create. Internally, entrepreneurs find great value and connecting with other entrepreneurs, where their shared mindset of innovation and creativity is nurtured. Externally, entrepreneurs prioritize the meaningful connections and relationships created by the system's community builders. As ecosystems mature, it is the interaction of all of these connections that create the vibrant, robust local economy originally intended.

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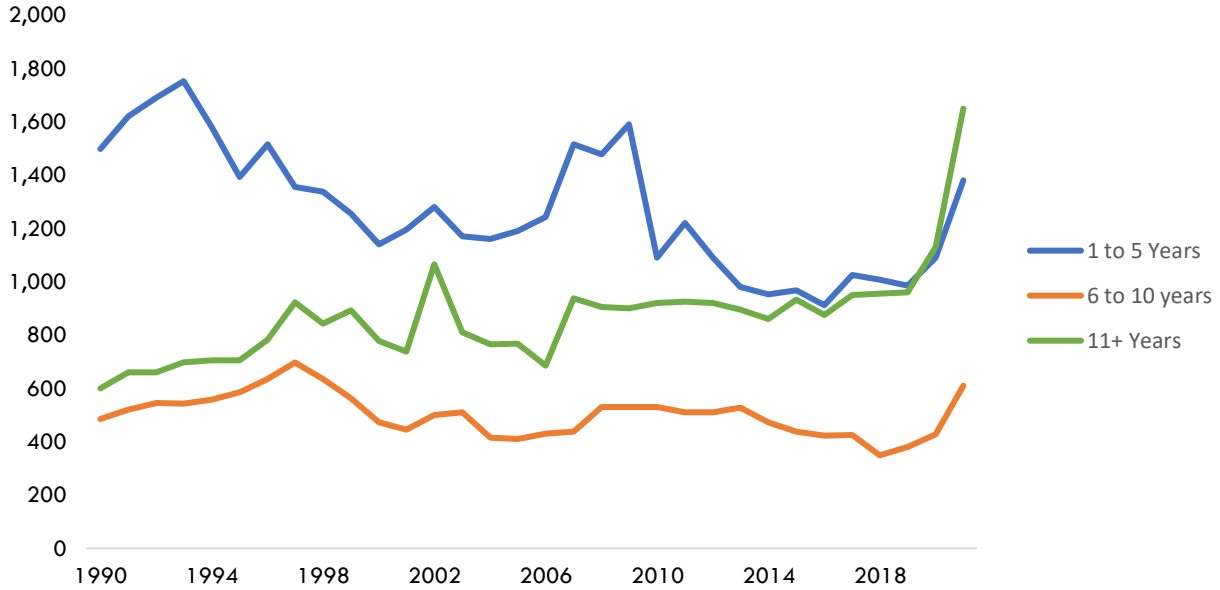
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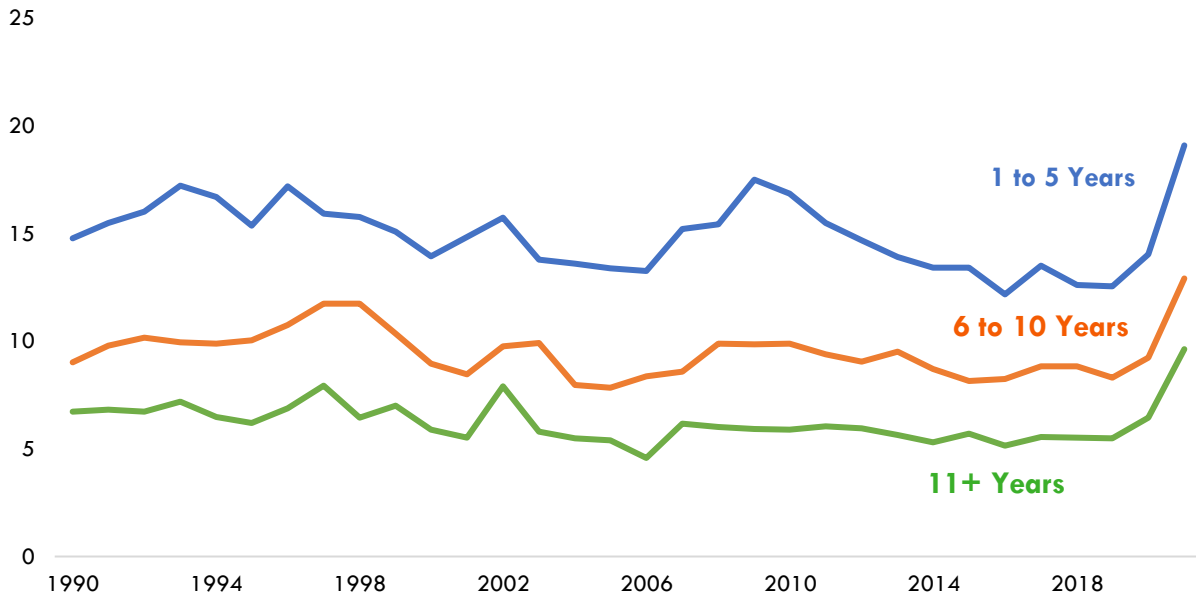
Additional Entrepreneurial Data for Hawaii

Establishment Exits in Hawaii by Establishment Age, 1990-2021



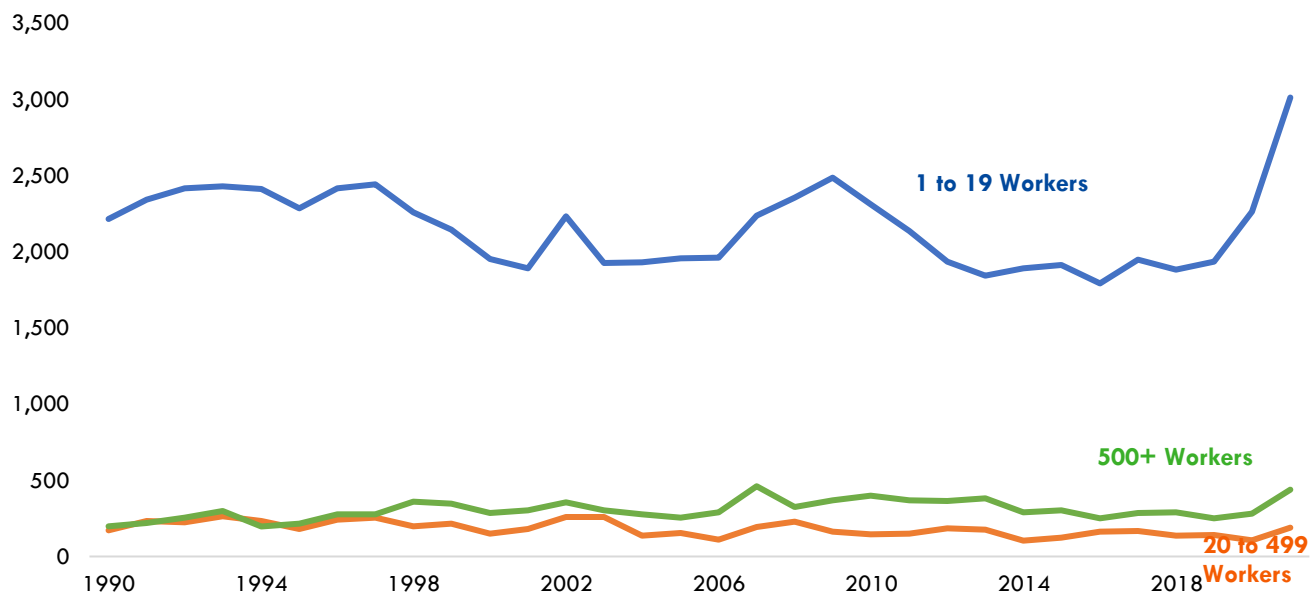
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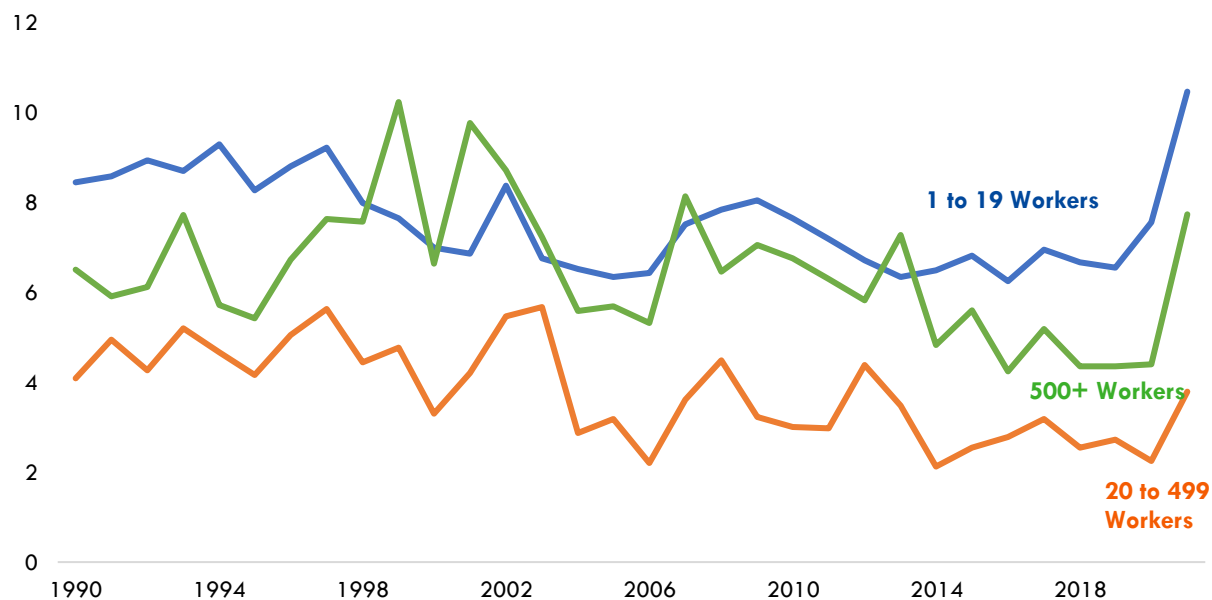
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Establishment Exits in Hawaii by Firm Size 1990-2021



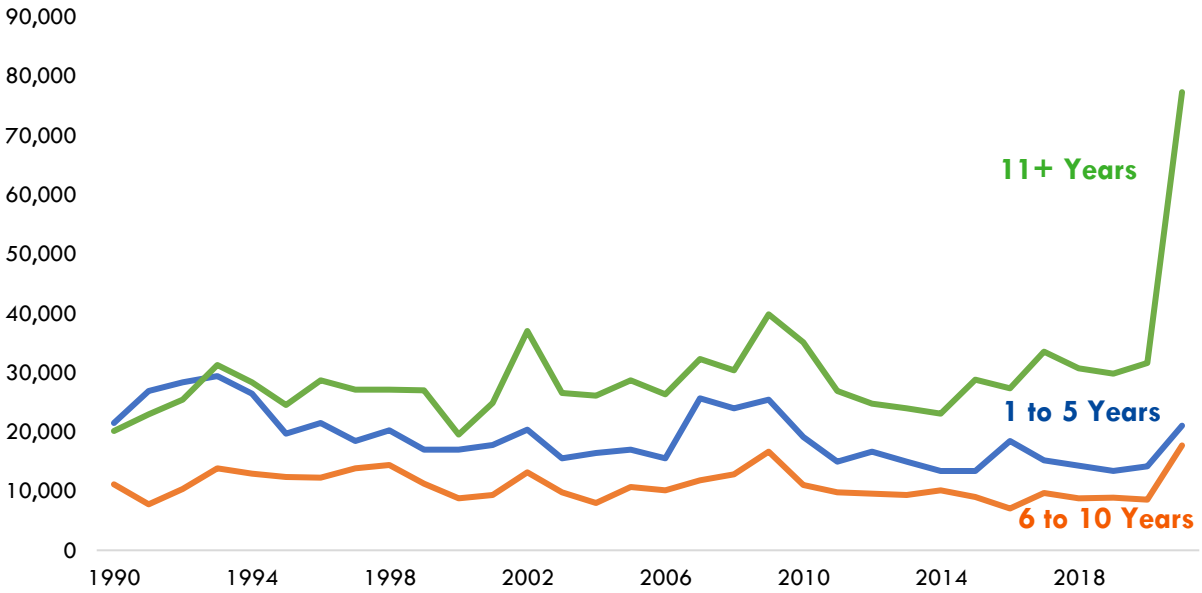
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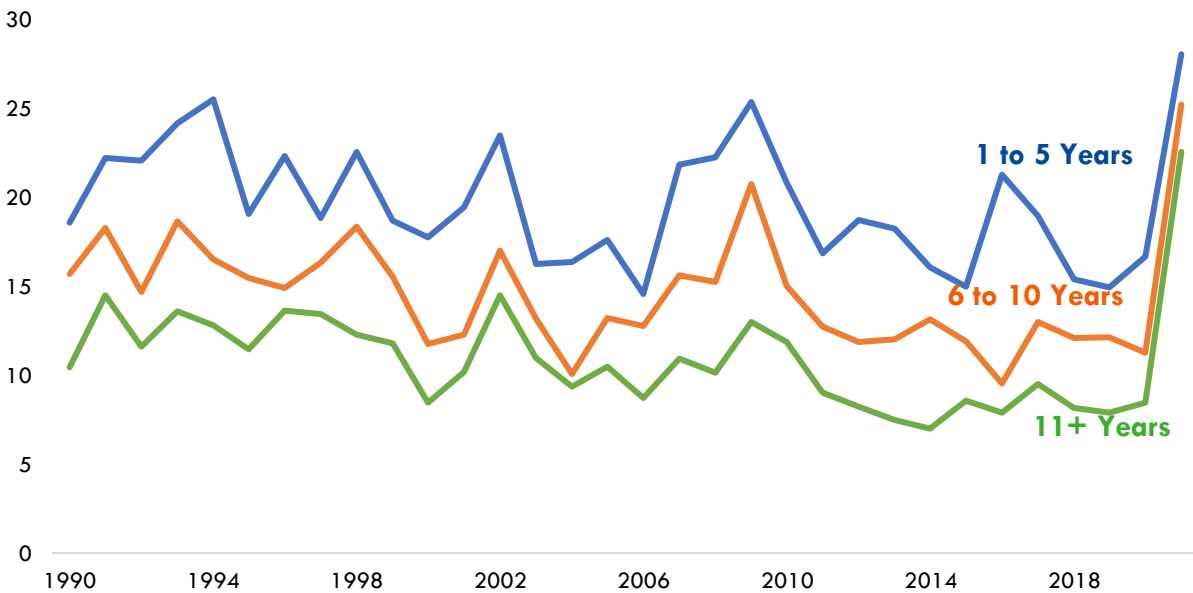
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Job Destruction in Hawaii by Establishment Age, 1990-2021



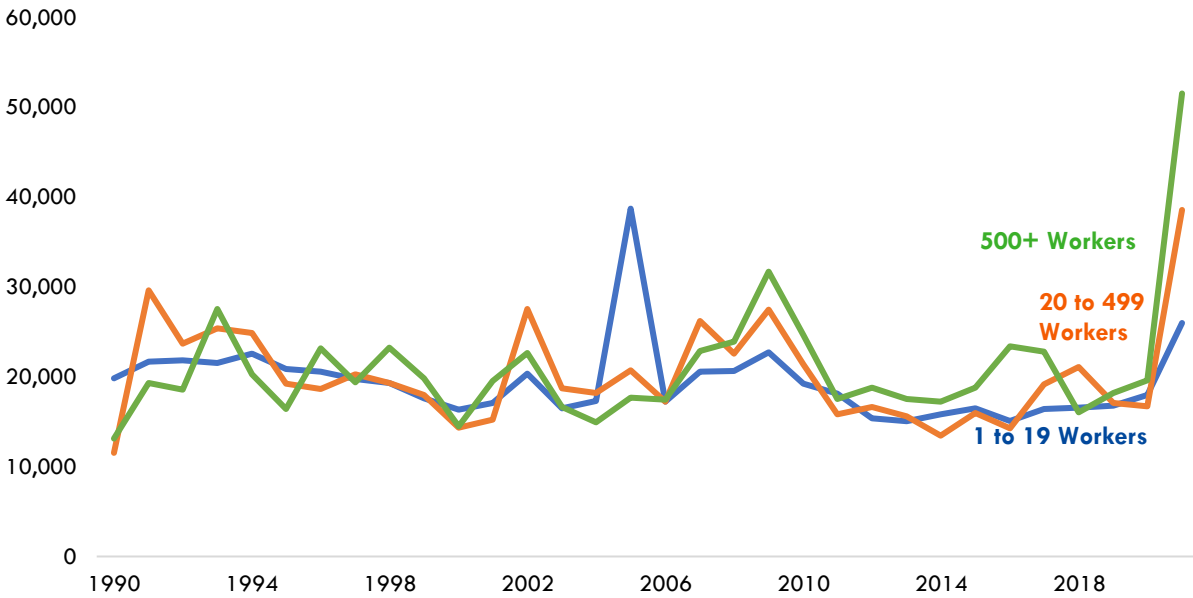
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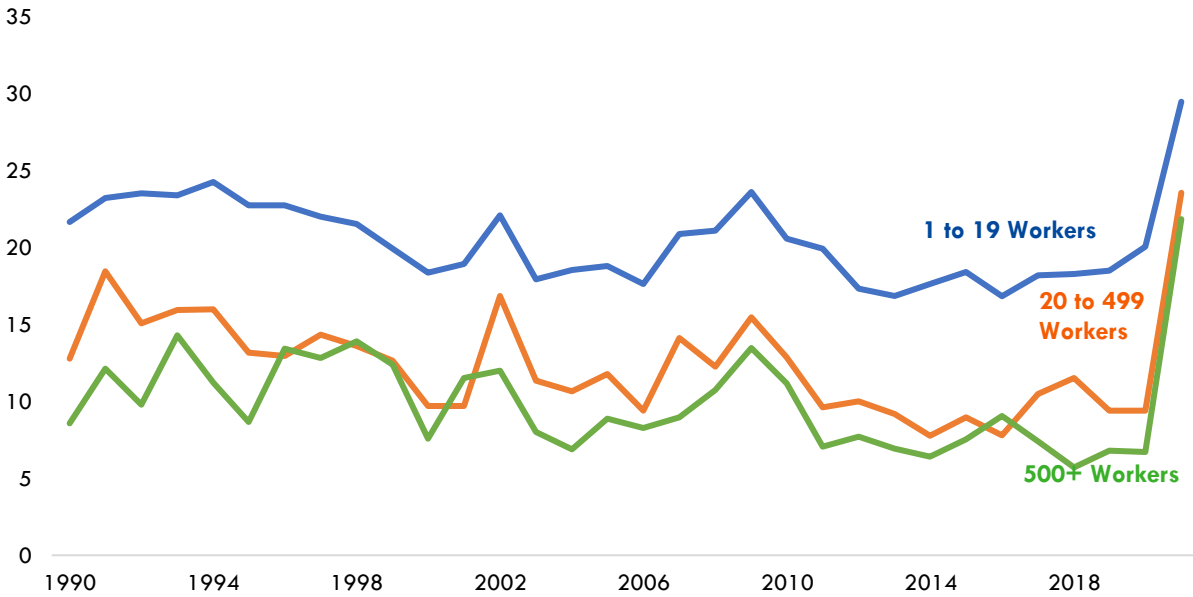
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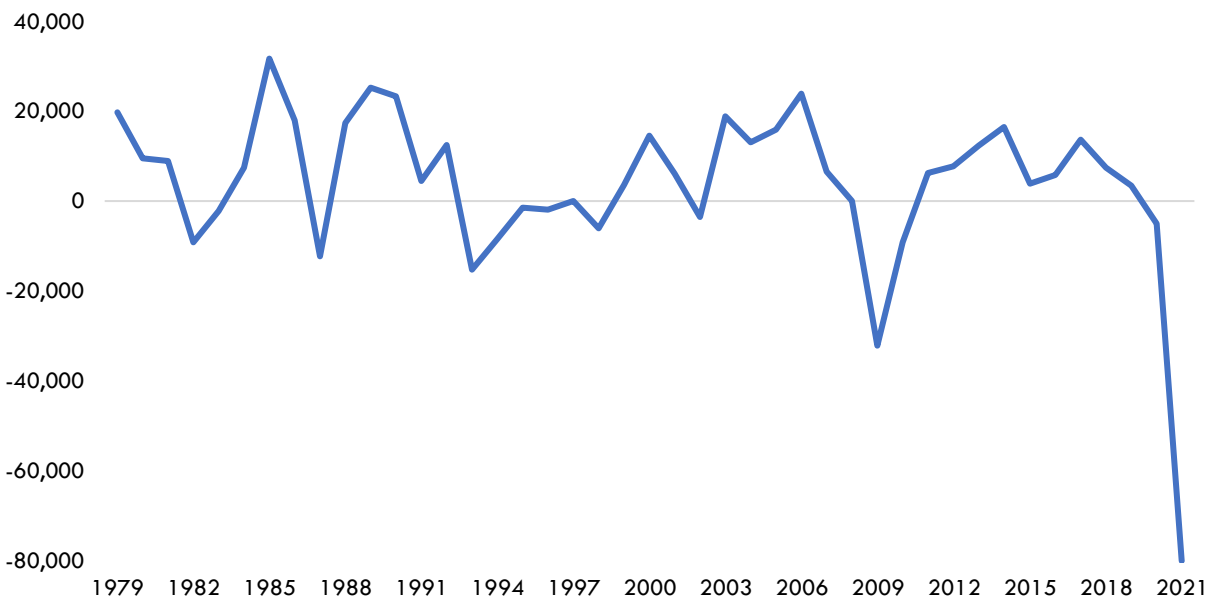
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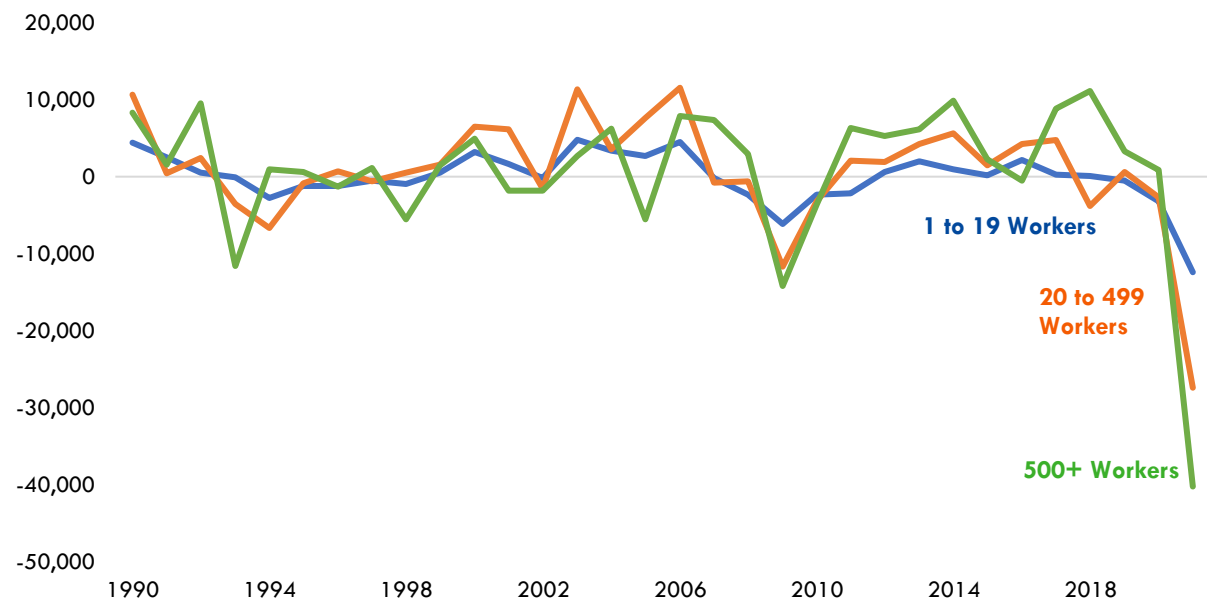
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Net Job Creation in Hawaii, 1979-2021



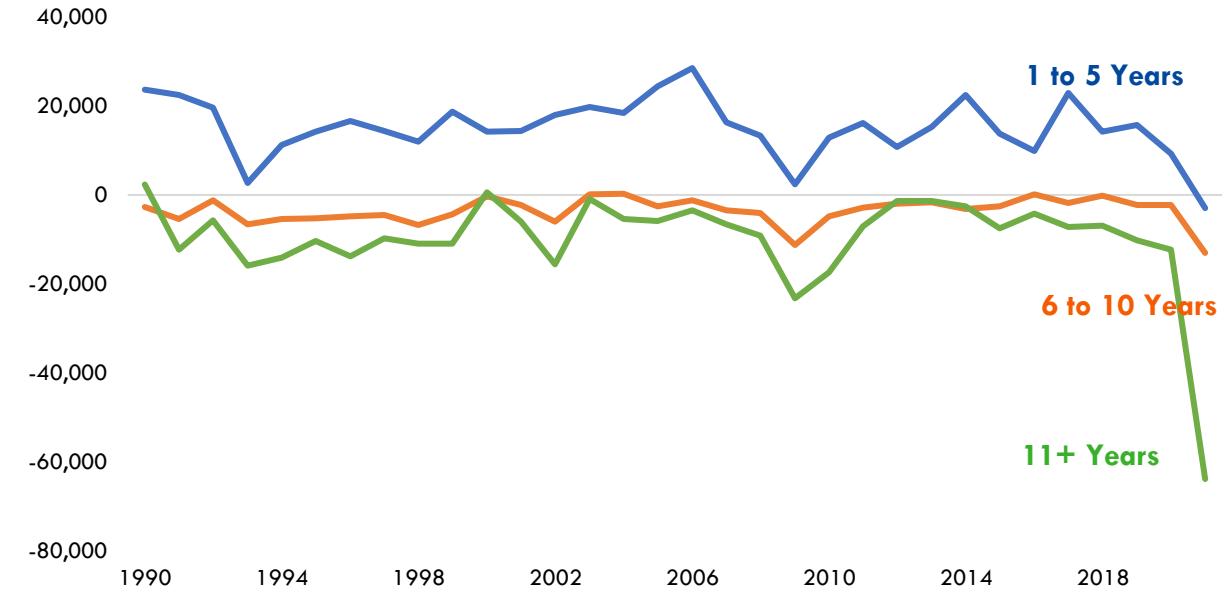
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Net Job Creation in Hawaii by Firm Size, 1990-2021



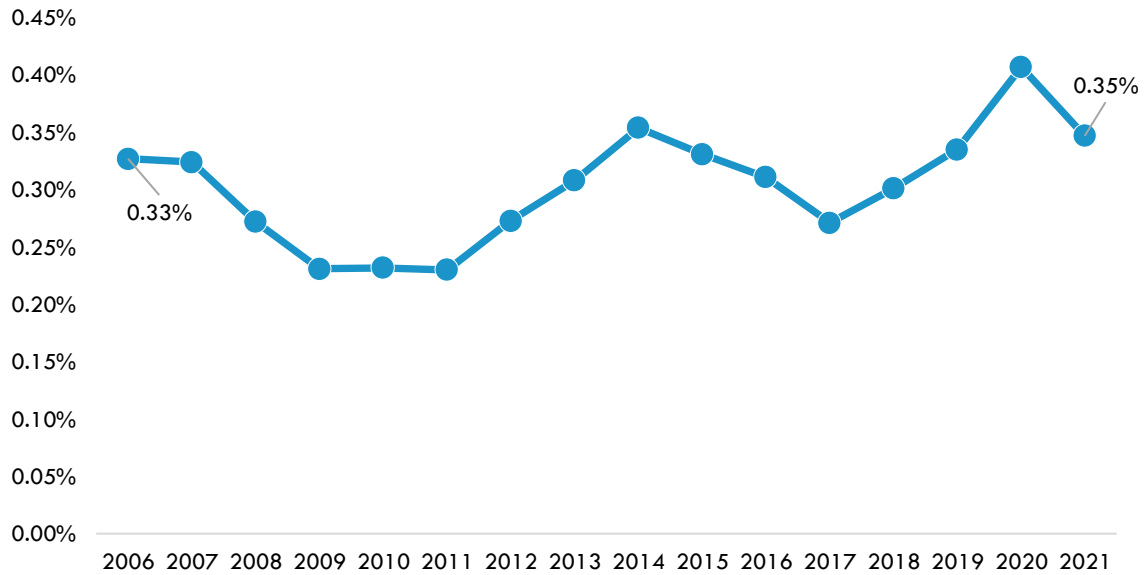
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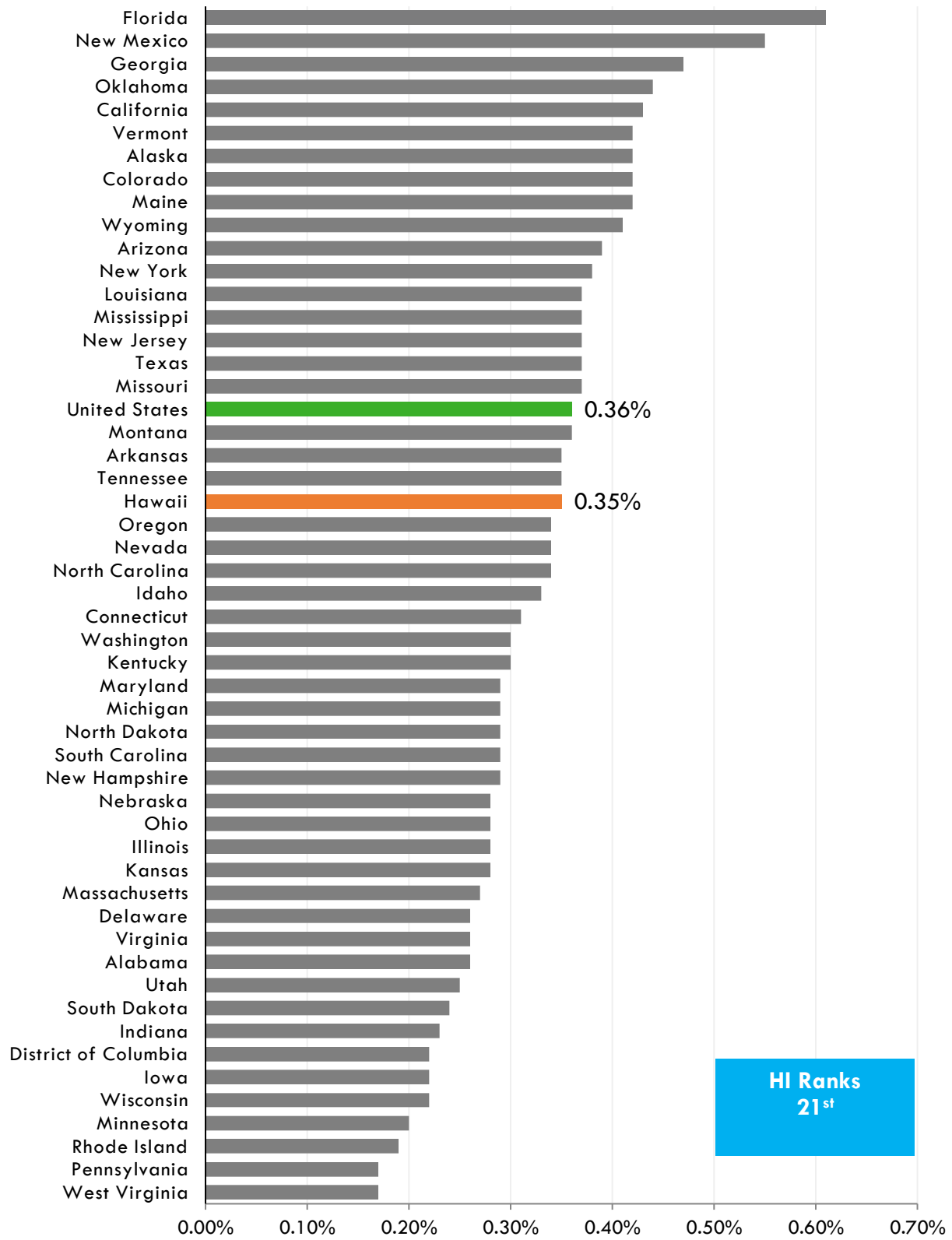
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Hawaii Rate of New Entrepreneurs, 2006-2021

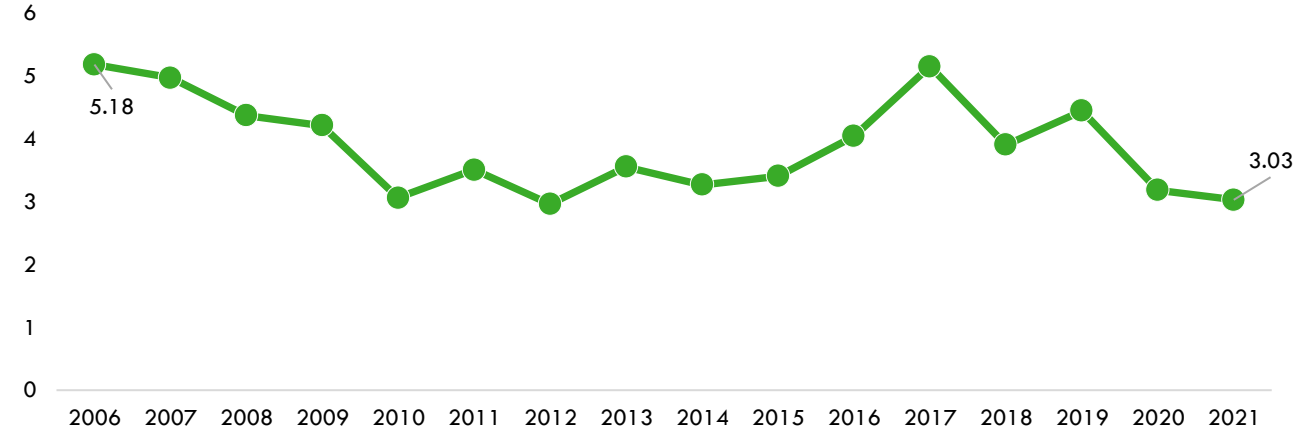


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Rate of New Entrepreneurs by State, 2021

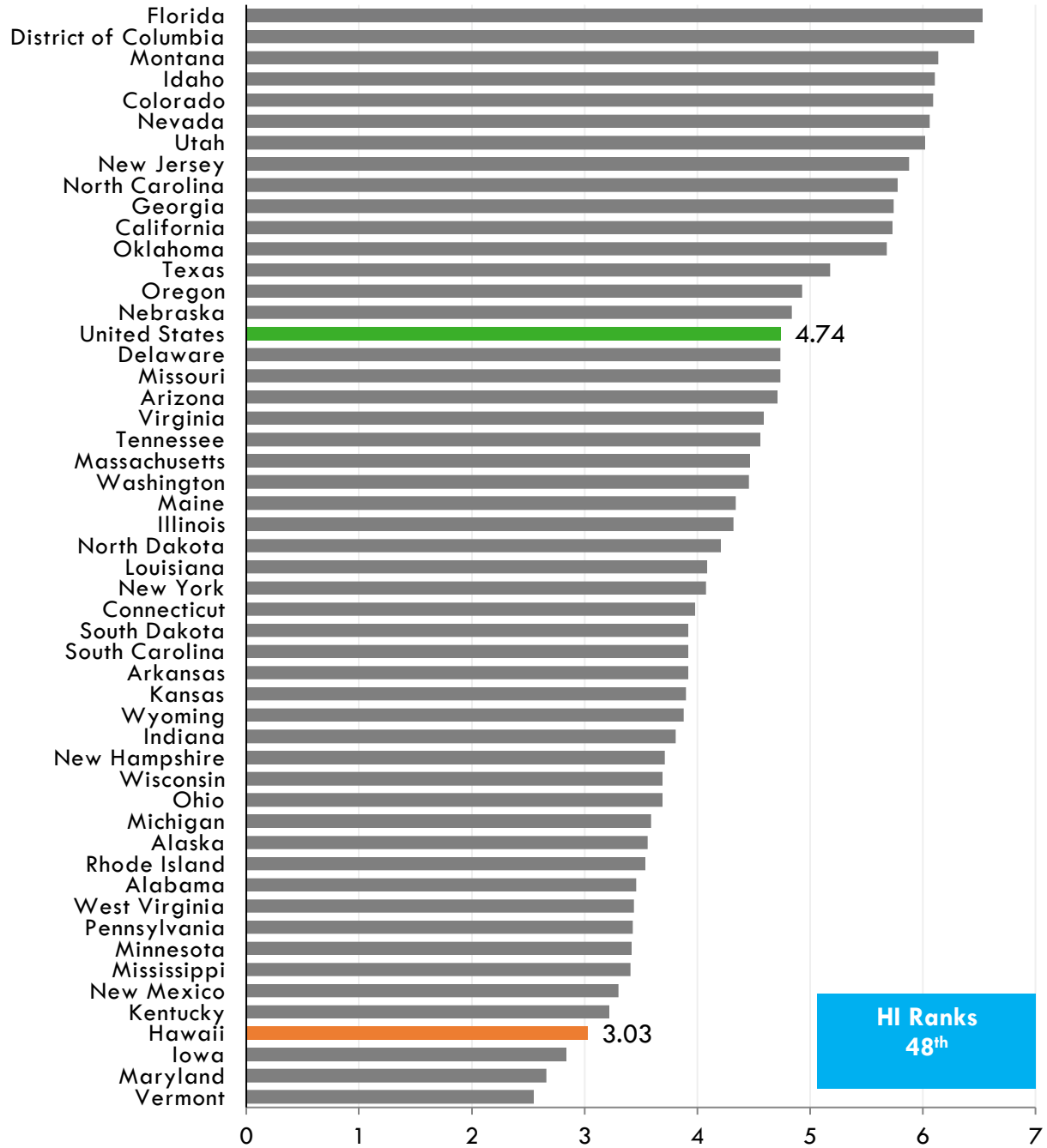


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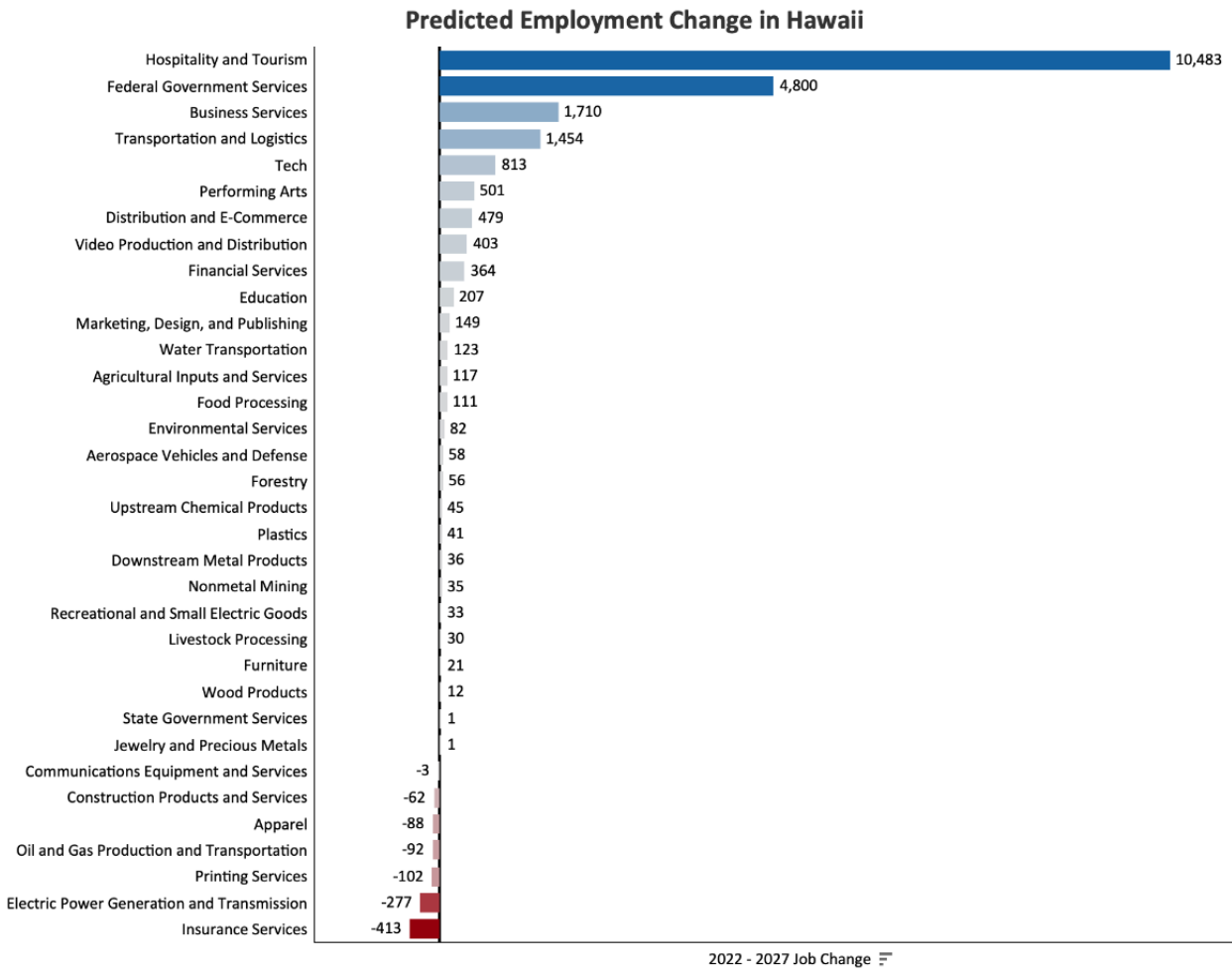


Source: Kauffman Foundation (2022)

Additional Cluster Data for Hawaii

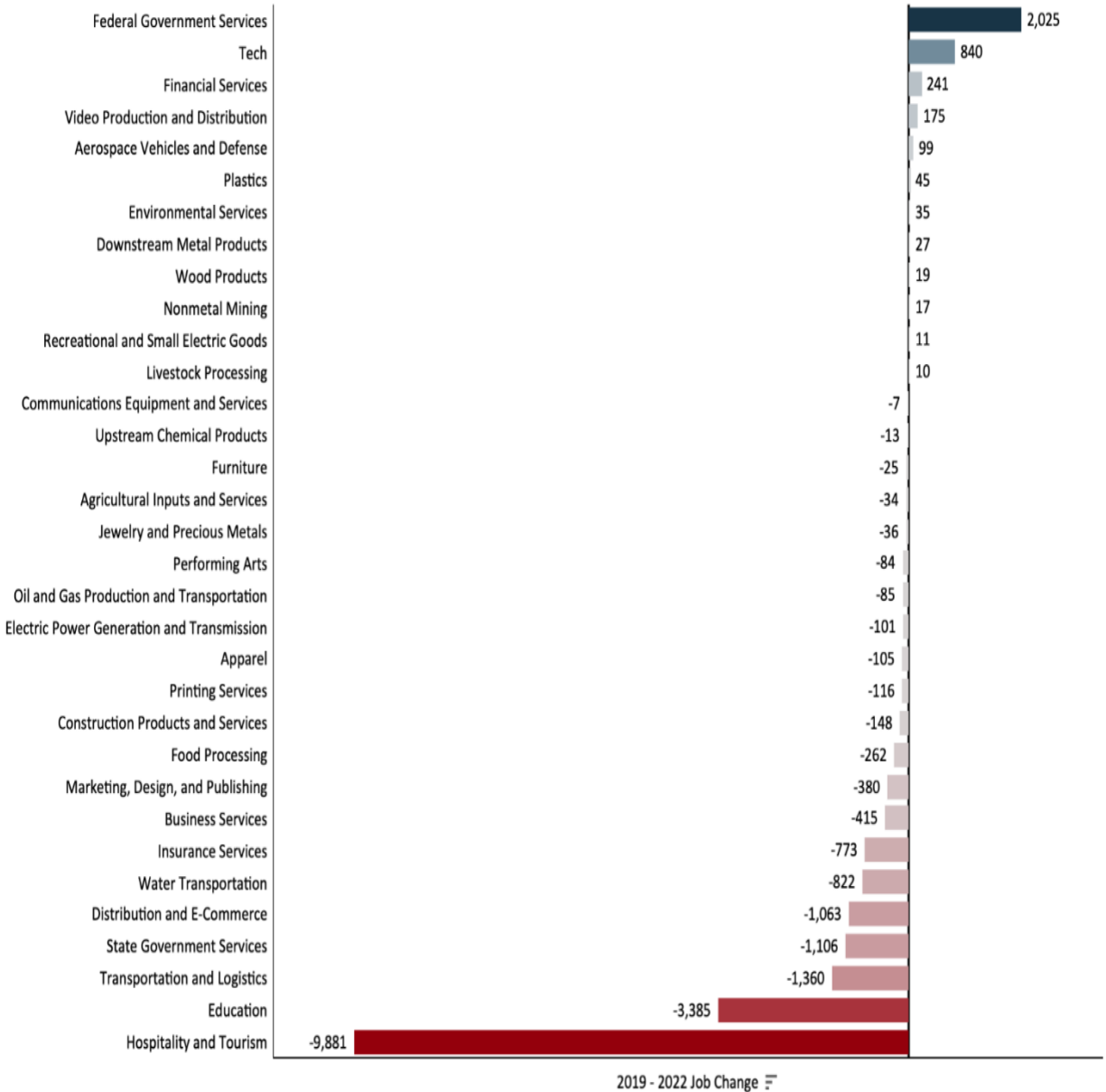
Several clusters are projected to drive future growth in Hawaii, led by Hospitality & Tourism, Federal Government Services and Business Services.

Top Projected Growth Clusters 2022-2027



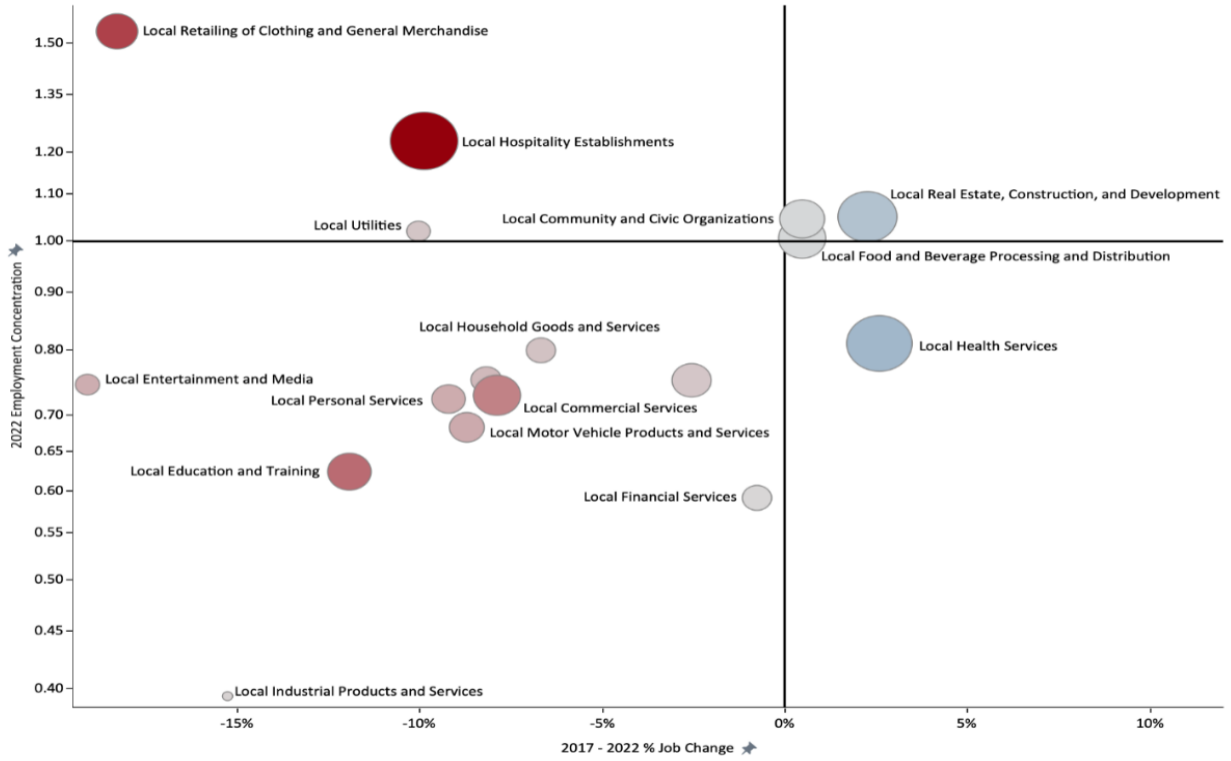
Source: Lightcast 2023.3

Pandemic Employment Impacts in Hawaii



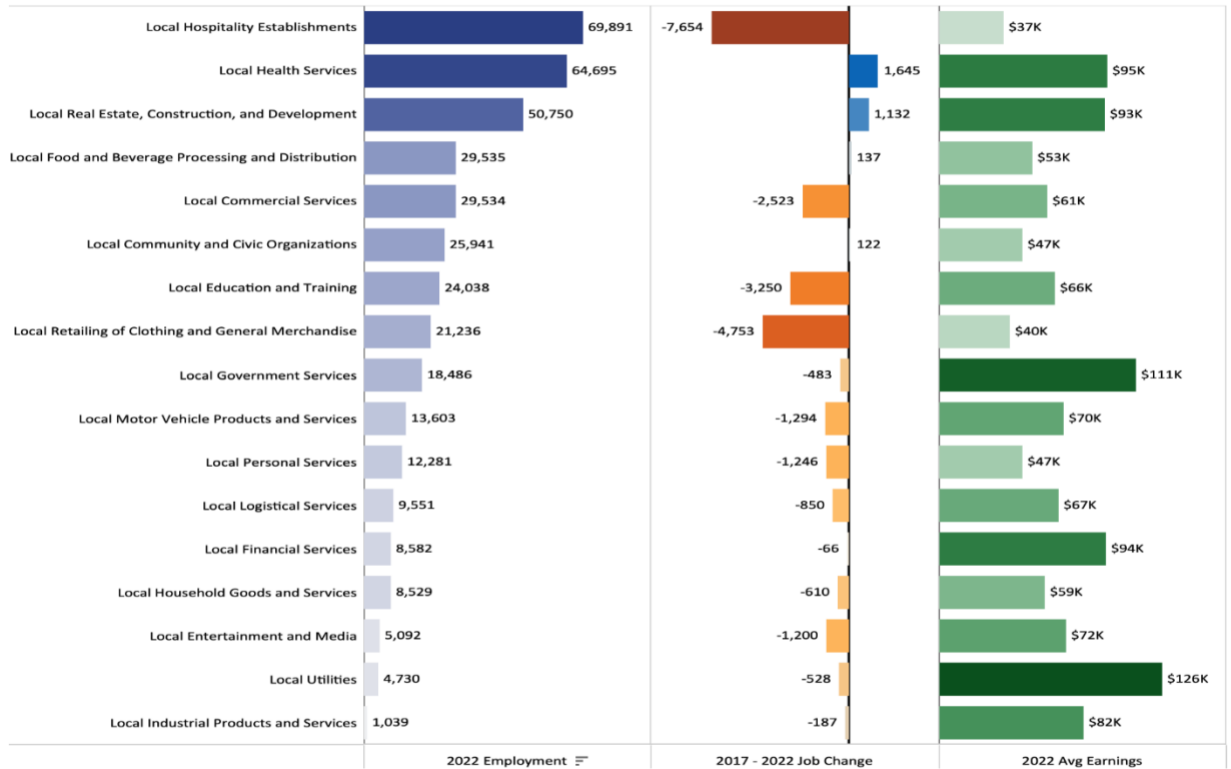
Source: Lightcast 2023.3

Hawaii Local Clusters Map



Source: Lightcast 2023.3

Top Local Clusters by Employment in Hawaii



Source: Lightcast 2023.3