



**Senate Ways and Means Committee
and
Senate Energy, Economic Development and
Tourism Committee
May 21, 2020**

Research and Economic Analysis Division

Hawaii GDP and Employment by Industry in the Past 50 Years

Dr. Eugene Tian
Chief State Economist

Hawaii Industry Share of GDP: 1969 and 1989 (%)

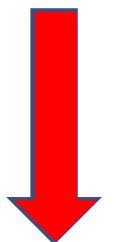
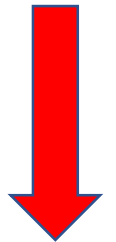
Industry (by SIC code)	1969	1989
Federal government	19.8	13.5
Finance, insurance, and real estate	16.4	23.9
Transportation and public utilities	10.4	9.6
Retail trade	9.1	11.0
Construction	8.2	5.9
State and local	7.7	7.7
Manufacturing	6.3	4.2
Wholesale trade	6.1	3.9
Agriculture, forestry, and fishing	3.1	1.6
Hotels and other lodging places	3.1	4.7
Health services	2.4	4.2
Business services	1.4	2.6
Other services	6.0	7.3



Source: U.S. Bureau of Economic Analysis

Hawaii Industry Share of GDP: 1999 and 2019 (%)

Industry (by NAICS code)	1999	2019
Real estate and rental and leasing	17.4	20.3
Federal government	11.2	10.6
State and local government	10.3	9.0
Hospitality	11.0	10.2
Trade	11.7	9.5
Health care and social assistance	6.0	6.8
Construction	4.3	5.7
Transportation and warehousing	5.2	5.5
Professional, scientific, and technical services	3.7	4.0
Finance and insurance	3.6	3.6
Information	2.8	2.2
Utilities	2.2	2.1
Manufacturing	2.0	1.9
Agriculture, forestry, fishing and hunting	0.9	0.5
Other services	8.0	8.1



Source: U.S. Bureau of Economic Analysis

Hawaii's Economy is More Concentrated Than the U.S. (2019)

Industry group	% of GDP in HI	% of GDP in U.S.
Top 5 sectors in Hawaii	62.2	41.8
Real estate and rental and leasing	20.3	13.4
Government	19.7	12.3
Accommodations and food services	9.1	3.1
Health care and social assistance	6.8	7.6
Retail trade	6.4	5.5
Top 5 sectors in U.S.	49.5	51.9
Real estate and rental and leasing	20.3	13.4
Government	19.7	12.3
Manufacturing	1.9	11.0
Professional, scientific, and technical services	4.0	7.7
Finance and insurance	3.6	7.6

Source: U.S. Bureau of Economic Analysis

Industry contributions to economic growth: 1999-2019

Industry group	% of Additional GDP in HI	% of Additional GDP in U.S.
Top 5 sectors in Hawaii	62.7	47.3
Real estate and rental and leasing	28.0	14.9
Government	11.9	4.5
Health care and social assistance	9.3	10.5
Retail trade	8.0	5.5
Professional, scientific, and technical services	5.6	11.8
Top 5 sectors in U.S.	49.2	60.0
Real estate and rental and leasing	28.0	14.9
Information	4.9	12.8
Professional, scientific, and technical services	5.6	11.8
Healthcare and social assistance	9.3	10.5
Manufacturing	1.5	10.0

Hawaii Industry Share of Jobs: 1969 and 1989 (%)

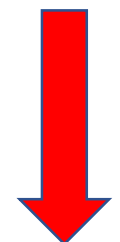
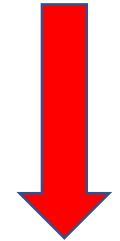
Industry (by SIC code)	1969	1989
Federal government	25.1	14.6
Retail trade	13.3	18.1
Other services	9.7	13.3
Finance, insurance, and real estate	9.1	8.5
State and local government	8.7	9.8
Manufacturing	6.3	3.5
Construction	6.1	5.1
Transportation and public utilities	5.7	6.1
Hotels and other lodging places	4.0	5.5
Wholesale trade	3.9	3.5
Agriculture, forestry, and fishing	3.9	3.0
Health services	2.3	4.6
Business services	1.9	4.3



Source: U.S. Bureau of Economic Analysis

Hawaii Industry Share of Jobs: 1999 and 2018 (%)

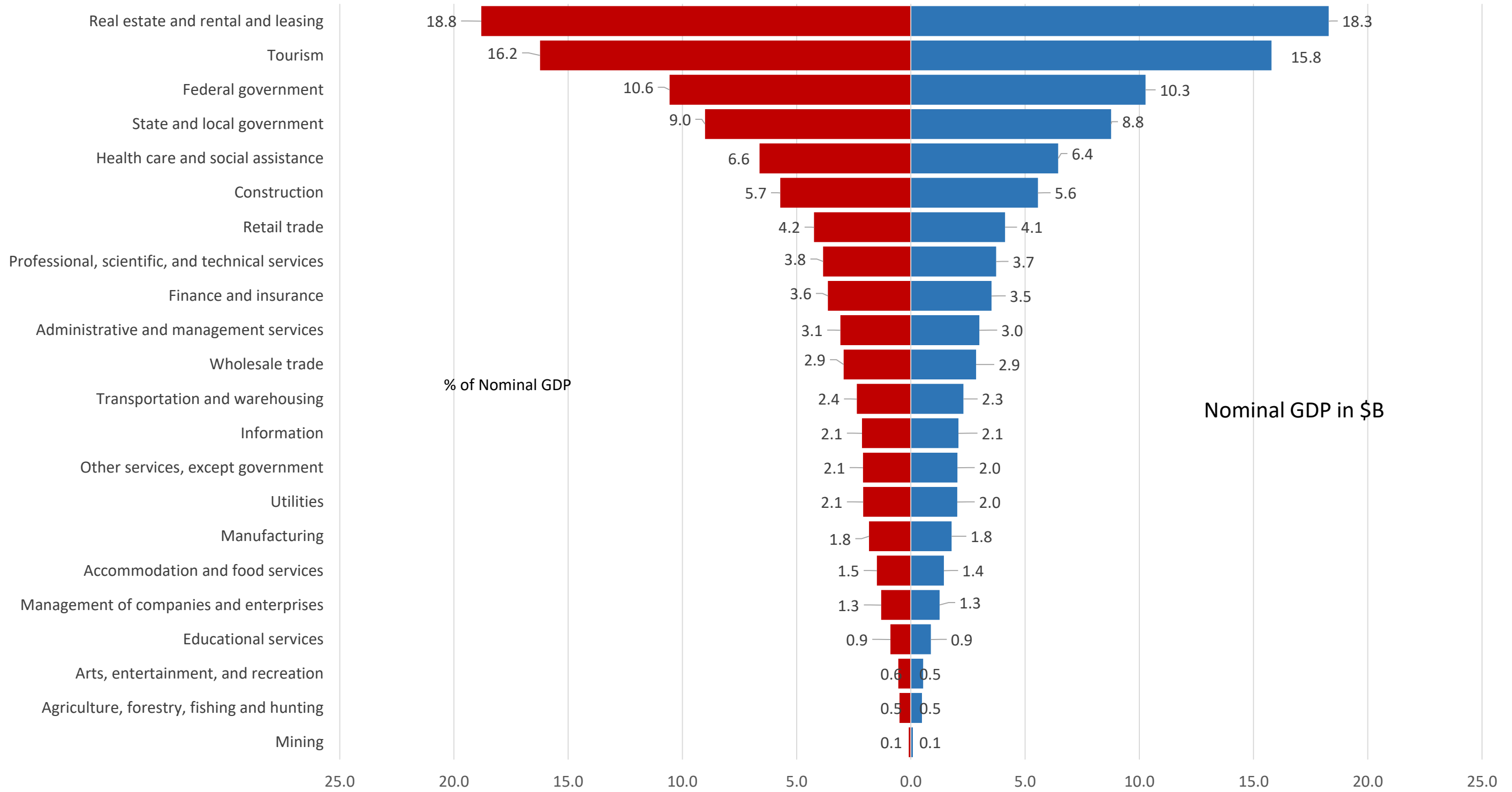
Industry (by NAICS code)	1999	2018
Hospitality	14.6	15.3
Other services	14.1	15.6
Trade	14.0	12.1
Federal government	11.2	9.6
State and local government	11.1	10.0
Health care and social assistance	7.8	9.0
Professional services	4.8	5.0
Construction	4.2	5.2
Real estate and rental and leasing	3.9	4.9
Transportation and warehousing	3.8	4.7
Finance and insurance	3.6	3.2
Manufacturing	2.6	2.0
Agriculture, forestry, fishing and hunting	2.3	1.8
Information	1.8	1.2
Utilities	0.4	0.4



Source: U.S. Bureau of Economic Analysis

Hawaii GDP by Industry: 2019

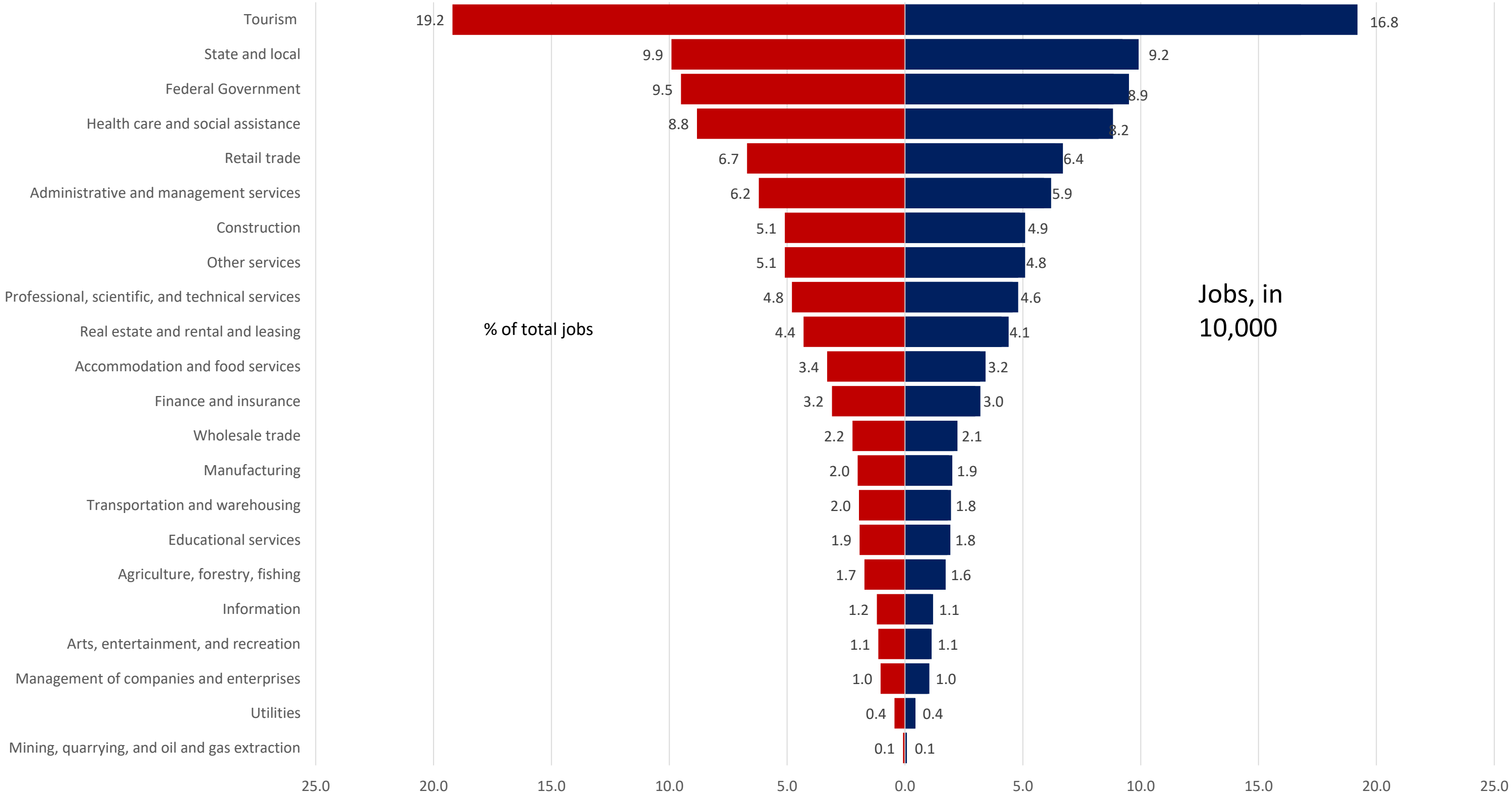
(in current dollars)



Source: U.S. Bureau of Economic Analysis and DBEDT

Hawaii Employment by Industry: 2018

(include payroll jobs and proprietors)



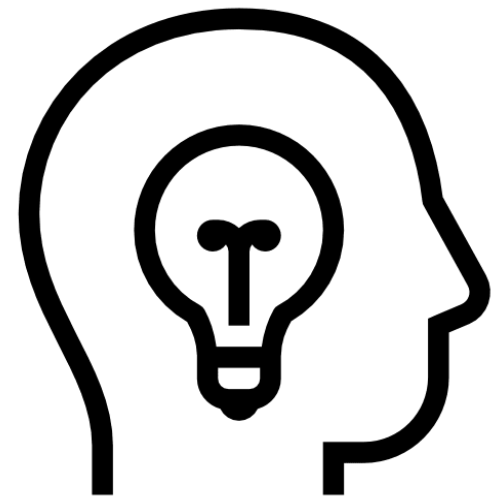
Source: U.S. Bureau of Economic Analysis and DBEDT





**Senate Ways and Means Committee
and
Senate Energy, Economic Development and
Tourism Committee
May 21, 2020**

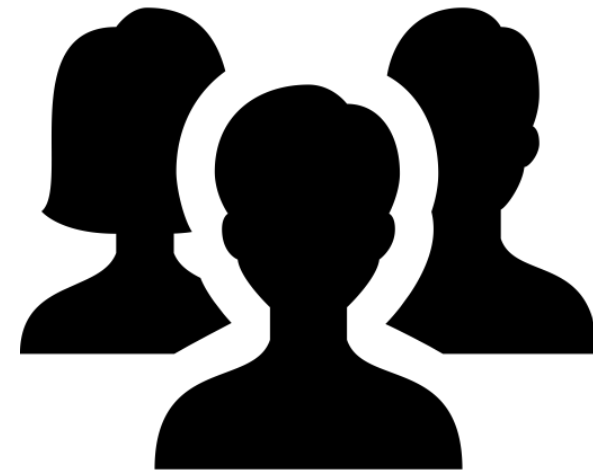
A Facilitative Catalyst for the Future of Hawaii



**Embraces
innovation**

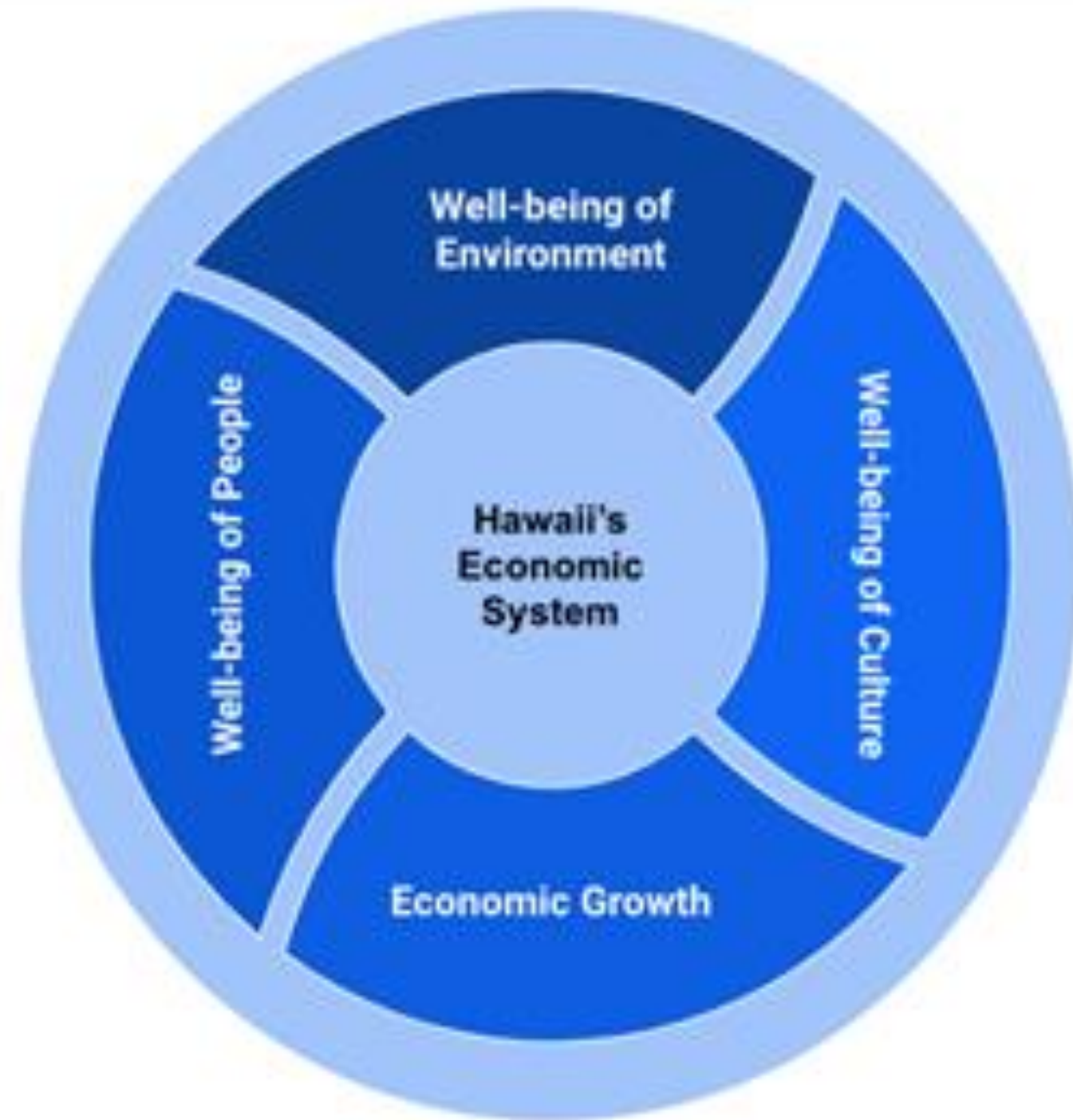


**Globally
relevant,
dynamic, and
productive**



**Provides
opportunities
for all of
Hawaii's
citizens**

A New Model for Economic Development



Values, Strategies, and Tactics

VALUES

- ▶ Always be considerate and respectful of Hawaii's people, place, and culture
- ▶ Work together to prioritize balanced long-term growth and sustainable economic development
- ▶ Integrate all sectors and stakeholders to work for the common good and collective existence

STRATEGIES

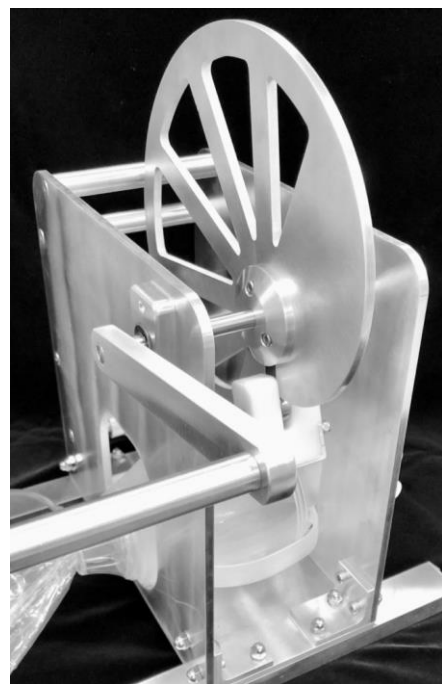
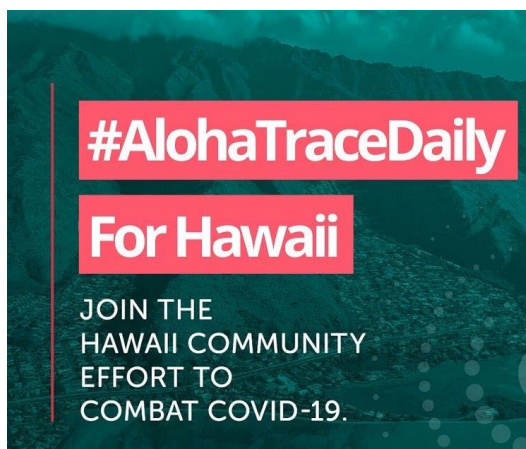
- ▶ Capitalize on Hawaii's strengths and assets
- ▶ Strengthen and leverage collaboration between public and private organizations and Hawai'i citizens
- ▶ Empower the internal capacity of the department by giving programs and staff the tools they need to succeed
- ▶ Redesign the department to support flexibility and agility to better serve a dynamic economy
- ▶ Use continuous improvement processes for long-term growth

TACTICS

- ▶ Leverage internal expertise to sift through large volumes of information to make data-driven decisions
- ▶ Empower DBEDT's economic development experts with data to facilitate deep evaluation and analysis that can generate compelling and innovative ideas for a sustainable economic future
- ▶ Foster connections and collaboration amongst all stakeholders in order to build trust, consensus, and buy-in



Len Higashi
Acting Executive Director



Hawaii COVID-19 Technology, Manufacturing, Entrepreneurs

Innovation Is Here

Recover with Tech-enabled Jobs

- ▶ Local Businesses need Sales Now
 - ▶ Promotion
 - ▶ COVID-19 safety - masks, protocol
 - ▶ E-commerce, new sales offering, tech infrastructure, data
 - ▶ Webinars - insights from Japan
- ▶ Workforce needs support
 - ▶ Webinars - job hunting strategies, transitioning into tech careers
 - ▶ Online training
 - ▶ HireNet
- ▶ Federal funds
 - ▶ Grants for business, SBIR
 - ▶ Grants for HTDC to help businesses

HAWAII STATE ENERGY OFFICE

Scott Glenn
Chief Energy Officer

Existing and Proposed Renewable Energy Projects

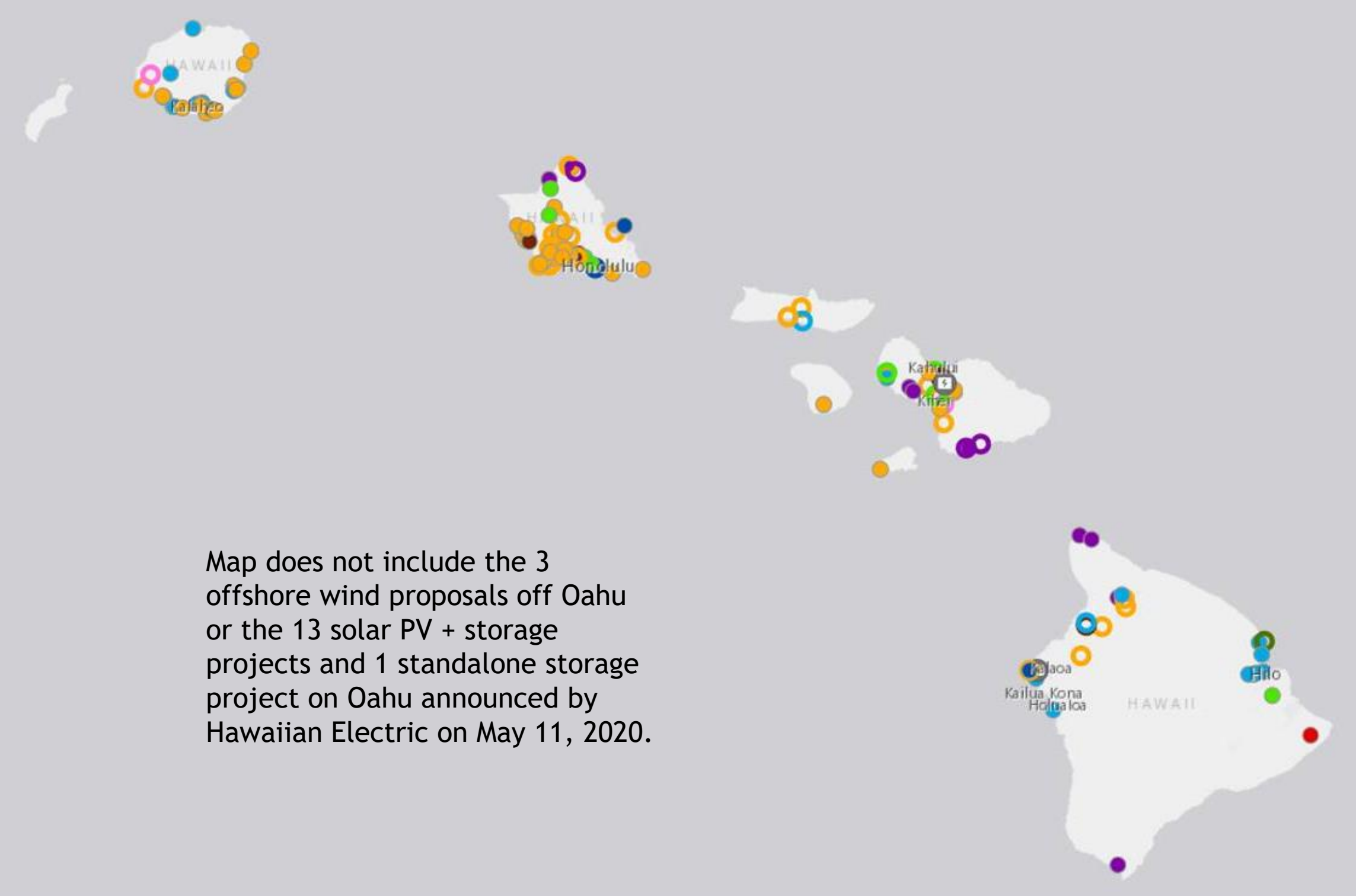
135 total projects statewide*

Island	Existing	Proposed	Total
Kauai	20	2	22
Oahu	32	25	57
Molokai	0	3	3
Lanai	1	0	1
Kahoolawe	1	0	1
Maui	8	13	21
Hawaii	18	12	30
TOTAL	80	55	135

Estimated **15,587** Total Jobs

- **14,506** Part-time (PT)
- **1,081** Full-time (FT)

Numbers include May 2020 Hawaiian Electric announced **13** new solar + storage projects and **3** new storage projects on Oahu, Maui, and Hawaii



* Hawaii State Energy Office, Hawaii Renewable Energy Projects Directory

Solar + Storage, Energy Efficiency, Resiliency

The 100% RPS goal plans for 100% of Oahu residential roofs to be covered. HECO's 2016 PSIP estimates more than 2.1 GW of rooftop solar needed for all single-family homes to be net-zero and to offset about 15% of commercial and industrial electricity demand on Oahu.

In 2019, **81,783** total rooftop PV installs on Oahu, Maui Nui, and Hawaii (up 4.65% from 2018). But, Oahu is only 25% toward achieving the 2045 PSIP forecast.

As of May 12, 2020, 531.91 MW of rooftop solar applications have been executed (33% of residential rooftops).

The 2016 plan was to have 628.7 MW by 2020 so current installed is about 15% off 2020 target.



The blue on the map below represents all rooftops on Oahu.



BUSINESS AND SUPPORT DIVISION

**Dennis Ling
Administrator**

VIRTUAL EXPORT “BUY HAWAII, GIVE ALOHA” WEBSITE



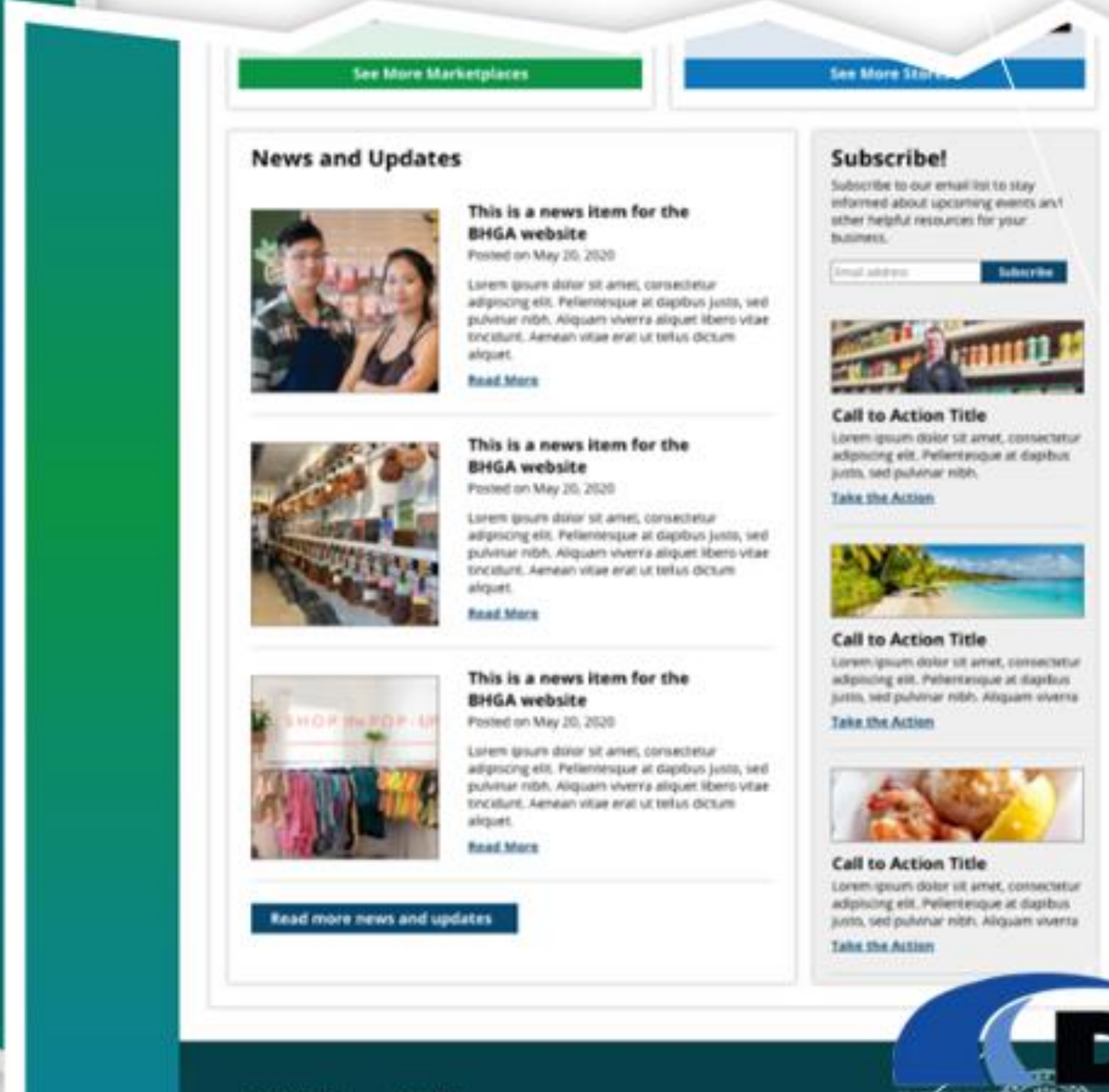
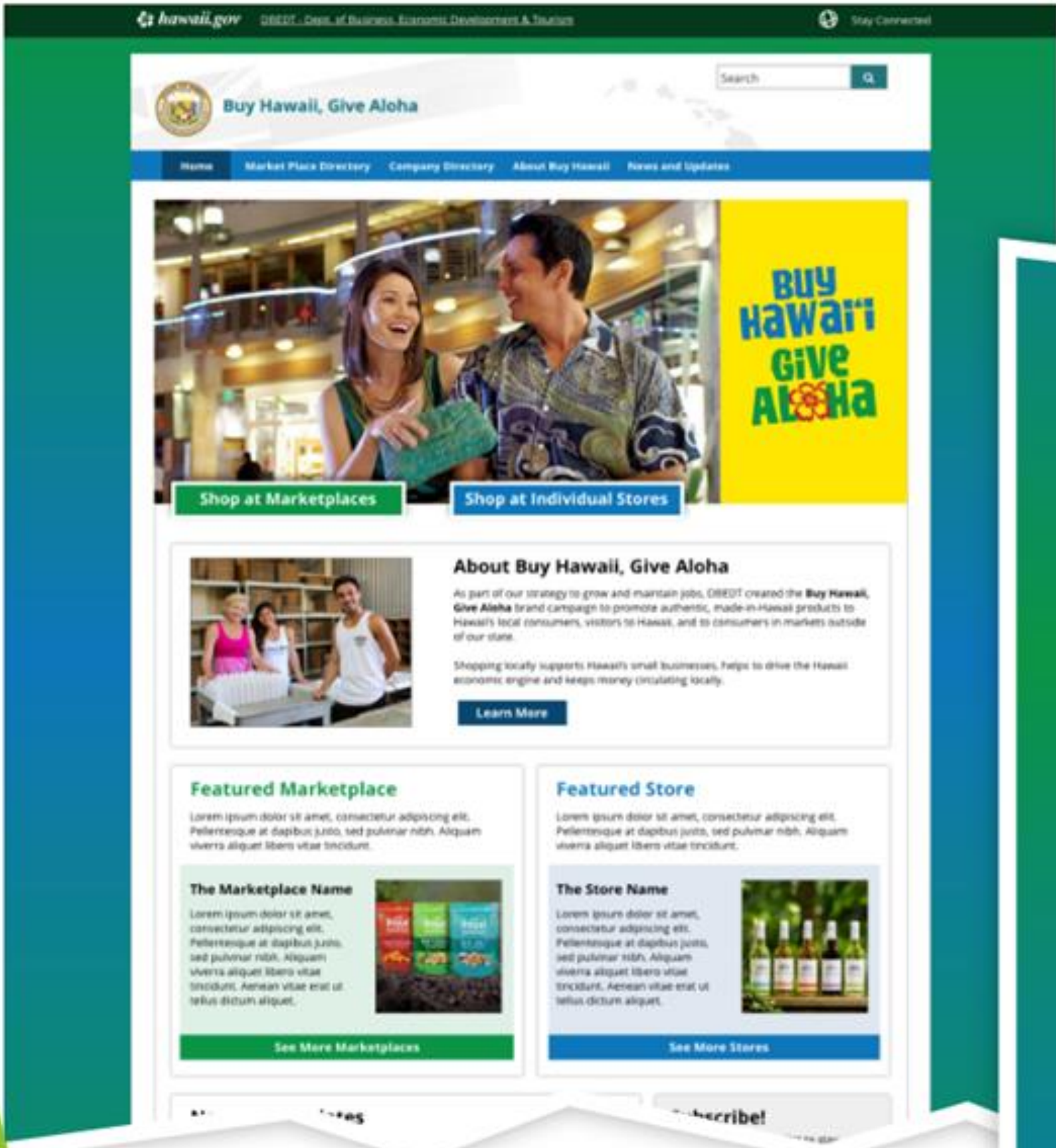
- **Develop a State produced and managed marketplace of Hawaii made products**
- **Drive kamaaina, U.S. domestic and international customers to Hawaii firms' e-commerce website**
- **Campaign to advertise and increase awareness of site through PSAs, press releases, social media platforms**
- **Keep the site fresh and customers returning through ongoing campaigns of special discounts, holidays and celebrations, etc.**

GROW JOBS AND THE GDP

- Increase local sales (Phase I - Target date July 4th weekend)
 - Increase revenue flow from local and military consumer audience
- Increase domestic out-of-state sales (Phase II)
 - Assist companies to fulfill orders through Amazon
 - Pilot program to reduce cost of shipping products (fresh and processed foods, fruits, floral, seafood) to major mainland West Coast markets (LAX, SFO, SEA) through consolidation
- Increase international sales (Phase III)
 - On-line campaign with Hankyu Department Store - major department store in Japan
 - Hawaii Marketplaces with Rakuten, Alibaba
 - HTA/HTJ - Keeping Hawaii in the minds of Japanese travelers/consumers

PARTNERS:

- *HDOA
- *INNOVATE Hawaii/HTDC
- *Hawaii Food Manufacturers Association
- *Chamber of Commerce of Hawaii
- *Ethnic Chambers of Commerce
- *SBA
- *U.S. Commercial Service





NATURAL ENERGY LABORATORY OF HAWAII AUTHORITY

Greg Barbour
Executive Director

Aquaculture as a Means of Job Creation and Economic Growth

Global aquaculture industry is poised for a sustained period of growth and expansion.

- United Nations, OECD and the World Bank see substantial upside and projections show increases of up to 50 percent by 2050.
- Generally considered as a best solution to provide to nutrition especially considering its sustainability aspects.

Likewise, the US Federal Government has recognized this potential as a new growth sector for the nation.

- President Trump signed an Executive Order just several weeks ago to “Promoting American Seafood Competitiveness and Economic Growth”.
- 180 days to assess whether to revise the National Aquaculture Development Plan.
- The US Department of Commerce is completing a programmatic EIS for the Pacific Ocean.

Hawaii has A Significant Comparative Advantage

Several years ago we began efforts to raise Hawaii's global visibility in marine aquaculture to capitalize on this opportunity.

- Natural Resources:
 - We are a large ocean State with significant resources to grow the ocean economy.
 - We have the premier “master-permitted” facility in the world in Kona.
- Labor: World-class reputation, strong well-qualified mentors and initial workforce and training programs.
- Capital: Venture fund approaching \$10 million.
- Entrepreneurship: Worlds only aquaculture accelerator.

Post Covid19 World – Going Forward

Many current small businesses may have disappeared. New entrepreneurs will need resources and we can be perfectly positioned to offer assistance.

Working closely with our strategic partners: NOAA, Department of Agriculture, HTDC and UH.

- DOA Plan:

- We worked with DOA over the past several weeks in creating a proposal to grow this sector.
- We strongly support their plan - very well written.
- Includes several initiatives to take our facility to the next level and be at the forefront of growing global marine aquaculture.

- Metrics:

- 2X number of jobs in 5 yrs. - stretch goal to grow by 1,000.
- Increase economic impact by 50% or \$50 million annually.
- Grow tax revenue by 50% to almost \$8M annually.

Pacific International Space Center for Exploration Systems

Rodrigo Romo
Program Director

PISCES Actions

ECONOMIC DEVELOPMENT

- Work on Plan for Aerospace Program in Hawaii.
- Sintered Basalt Tile Manufacturing
- Basalt Fiber Manufacturing Plant
- Laser Communications Ground Station

PLANETARY SURFACE RESEARCH GRANTS PENDING

- 3D Printing with Basalt/Binder in Lunar Conditions (NASA)
- Basalt/Binder Launch Pad Material Testing (NASA – MSFC)
- Surface Mobility Testing (Motiv Space Systems, NASA SBIR)
- Robotic Learning for Exploration on Extreme Environments (HSFL, NASA EPSCoR)

WORKFORCE DEVELOPMENT

- Credit Based Internships (UH/HCC)
- Outreach Programs (STARS)
- International Robotics Competition (Caterpillar)



PACIFIC INTERNATIONAL SPACE CENTER FOR
EXPLORATION SYSTEMS | PISCES.HAWAII.GOV

HAWAII AEROSPACE DEVELOPMENT (HAD) AREAS OF OPPORTUNITY

Aerospace Industry Cluster Hilo, Hawaii

SMALL SATELLITE LAUNCH SERVICES

- East Hawaii Launch Facility
- Glider Launch Operations

UNMANNED AERIAL SYSTEMS

- HAPSMobile UAS Operations in Lanai
- Maintenance Facility in Hilo
- UH/OSU Collaboration for UAS Training Program

PLANETARY SURFACE OPERATIONS R&D (Currently PISCES)

- Dual Use Technology Applied Research Grants
- Spin Off Technologies
- Workforce Development



PACIFIC INTERNATIONAL SPACE CENTER FOR
EXPLORATION SYSTEMS | PISCES.HAWAII.GOV



Foreign-Trade Zone No. 9

David Sikkink
Administrator



FTZ9 Initiatives During The Pandemic

- **Committed to Staying Open**
- **Supported Critical Businesses**
 - **Food Distribution, Medical Supplies, Transportation, Construction.**
- **Accommodated All Storage Requests**
- **Supported 75 Offices**
 - **Import/Export, Shipping, Logistics, Stevedores, Customs Brokers.**
- **Assisted in Import of PPE**



Pivot To Rebuild The Economy

- **Continue To Service Industry**
- **Work With Clients To Reduce Costs**
 - **Removal of Some Fees**
 - **Alter Office Lease Structure to Reduce Burden**
- **Aggressively Seek Out ASF Candidates**
 - **Identify and Establish New Zone Sites**
 - **Faster Approval Process**
 - **Duty Deferral/Reduction Benefits to Manufacturers on Imported Component Parts**

CREATIVE INDUSTRIES DIVISION

Georja Skinner
Division Chief

Snapshot of Metrics

- ▶ **\$400M+** Average 3-year Film Production expenditures per year (2017-19)*
- ▶ **\$700M+** Average 3-year Economic impact per year
- ▶ **4,000** jobs created per year
- ▶ **53,464** Creative Sector jobs
- ▶ **\$55,868** Average Creative Sector job earnings annually
- ▶ **6.1%** of jobs are Creative Sector specific, compared with other industries
- ▶ **\$4.2B GDP** = 45% of total state GDP
- ▶ **10% growth** (2008-2018) over 10 years (+4,861 jobs)

Immediate Stabilization Strategy: Short Term

1. FILM & TELEVISION PRODUCTION REBOOT

IMMEDIATE -- LATE JUNE / JULY 2020 - ONGOING

- a. Currently 95-100% of labor union jobs impacted
- b. Production down 100%
- c. New class of jobs/businesses needed in on set Safety, CDC protocols
 - i. Partnership with nursing programs, medical school

2. HAWAII CREATIVE CONTENT EXPORT

IMMEDIATE – JUNE START

- a. Drives new revenue to the 65% of arts, media, music sectors currently jobless
- b. Increases revenue streams for local content industries, new markets for arts
- c. Potential for ALICE population training/job shadowing

3. INFRASTRUCTURE DEVELOPMENT

SUMMER 2020 – FALL 2022 STUDIO COMPLEX, CREATIVE SPACES/STUDIOS

- a. New Creative Media, Film Studio and Performance Space complex – Oahu
 - i. Private sector driven
 - ii. Shovel ready by 2021
- b. CreativeSpace 808 studio and production facilities statewide (Sandbox Model)
 - i. Funding: EDA Matching Grant – CIP Retrofit of Existing Spaces
 - ii. Partnerships: Private Sector, Public Access Station Facilities Statewide

4. WORKFORCE DEVELOPMENT

PIPELINE FROM EDUCATION TO INDUSTRY JOBS

- a. Strategic development of industry specific jobs; high paying.
- b. Integration w/CTE/DOE and University System

- GROW THE NEIGHBOR ISLAND ACCESS TO CREATIVE SPACE BUILD FACILITIES INTO EXISTING FRAMEWORKS
 - STARTUP COMMUNITY ACCESS TO TOOLS NEEDED NOW TO EXPORT CONTENT
 - BUILD SKILLSETS FOR REMOTE WORKING AND ON SITE FOR NEW STAGE COMPLEX
 - INCREASING TRAINING IN CREATIVE SECTOR JOBS VIA BROADBAND / IN PERSON

COVID-19 RESPONSE

Hawai'i Tourism Recovery

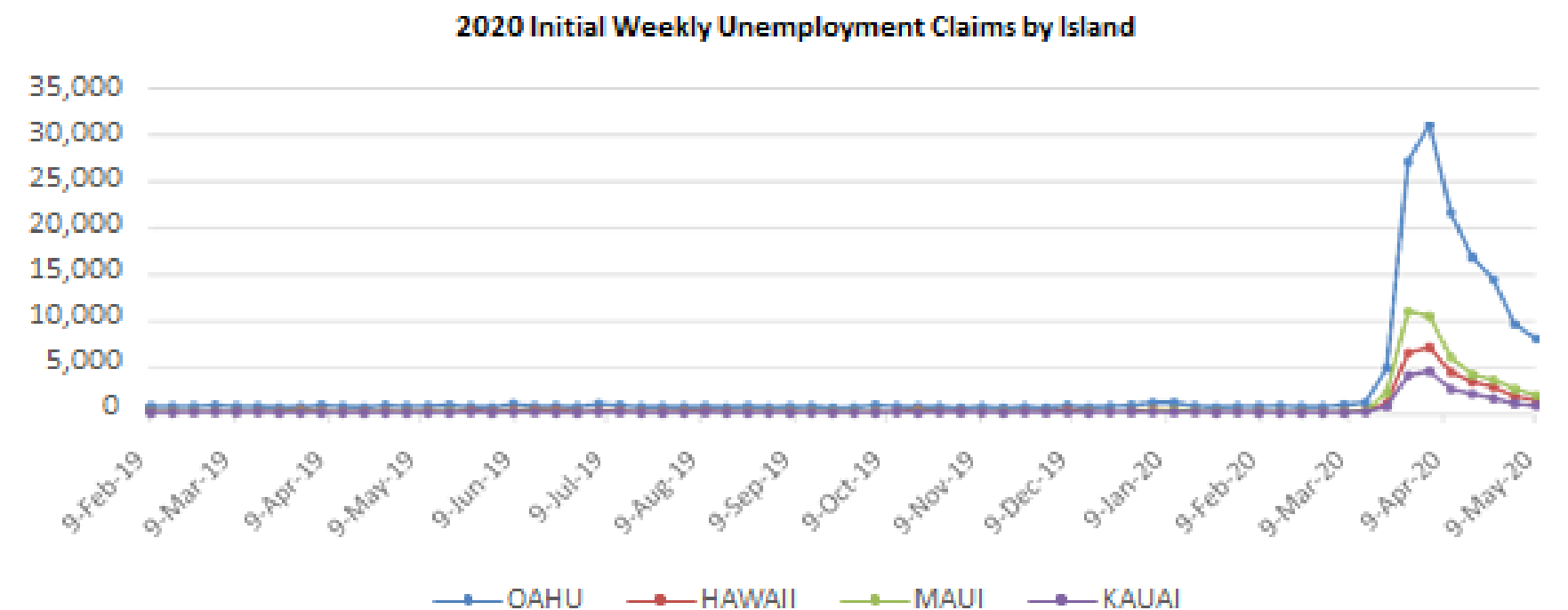
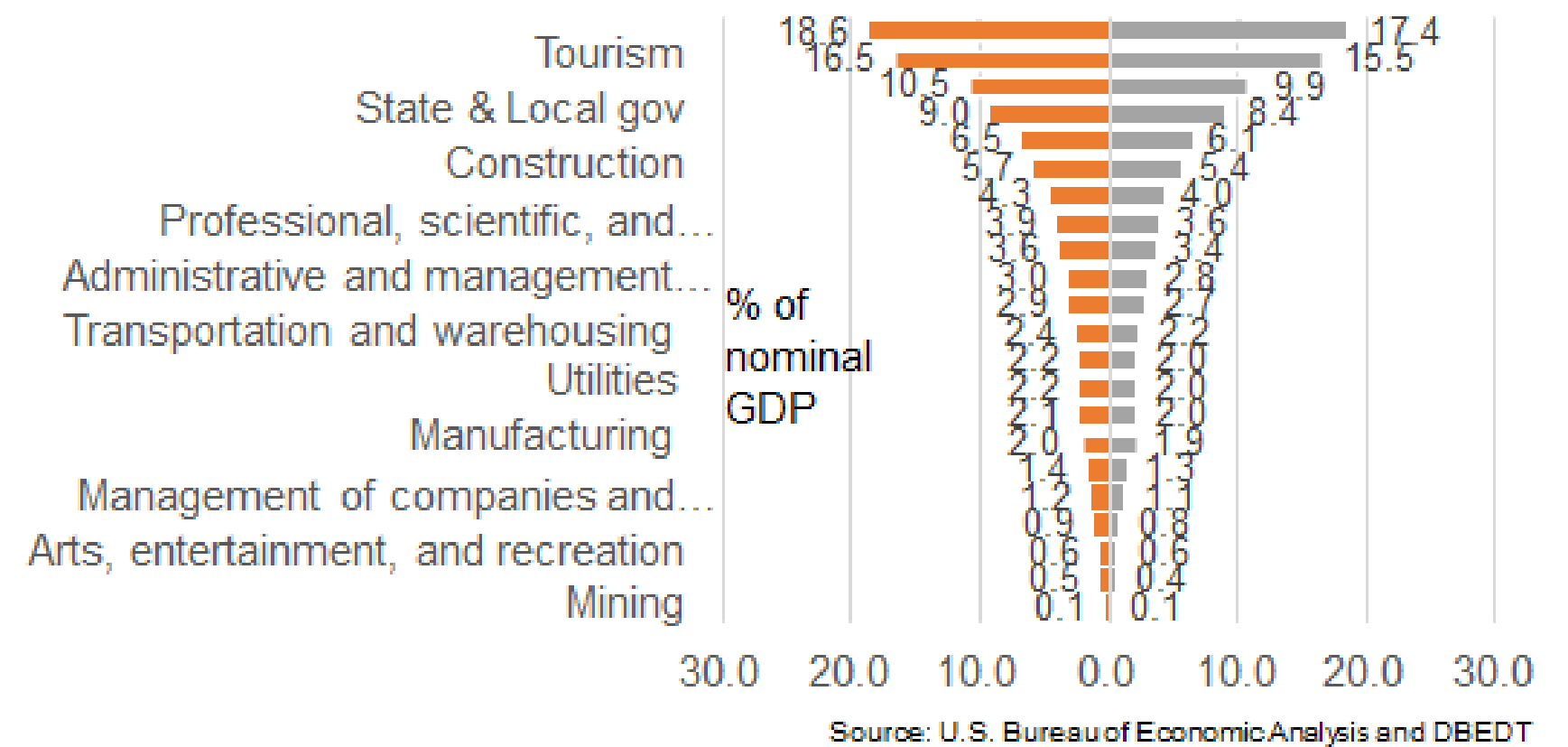
May 2020

Chris Tatum
President and Chief Executive
Officer

HAWAIIAN
ISLANDS

Economy Devastated by Tourism Losses

- **Tourism represents 19% of the state's GDP and impacts all other sectors of the economy.**
- **37% unemployment.**
- **225,000 people out of work, 116,000 directly attributed to tourism.**
- **The economy will not improve without a tourism recovery.**
- **Once these benefits expire, additional strain will be put on state infrastructure.**



U.S. Resident Travel Sentiment Remains Low, Tourism Recovery Will Start Slowly

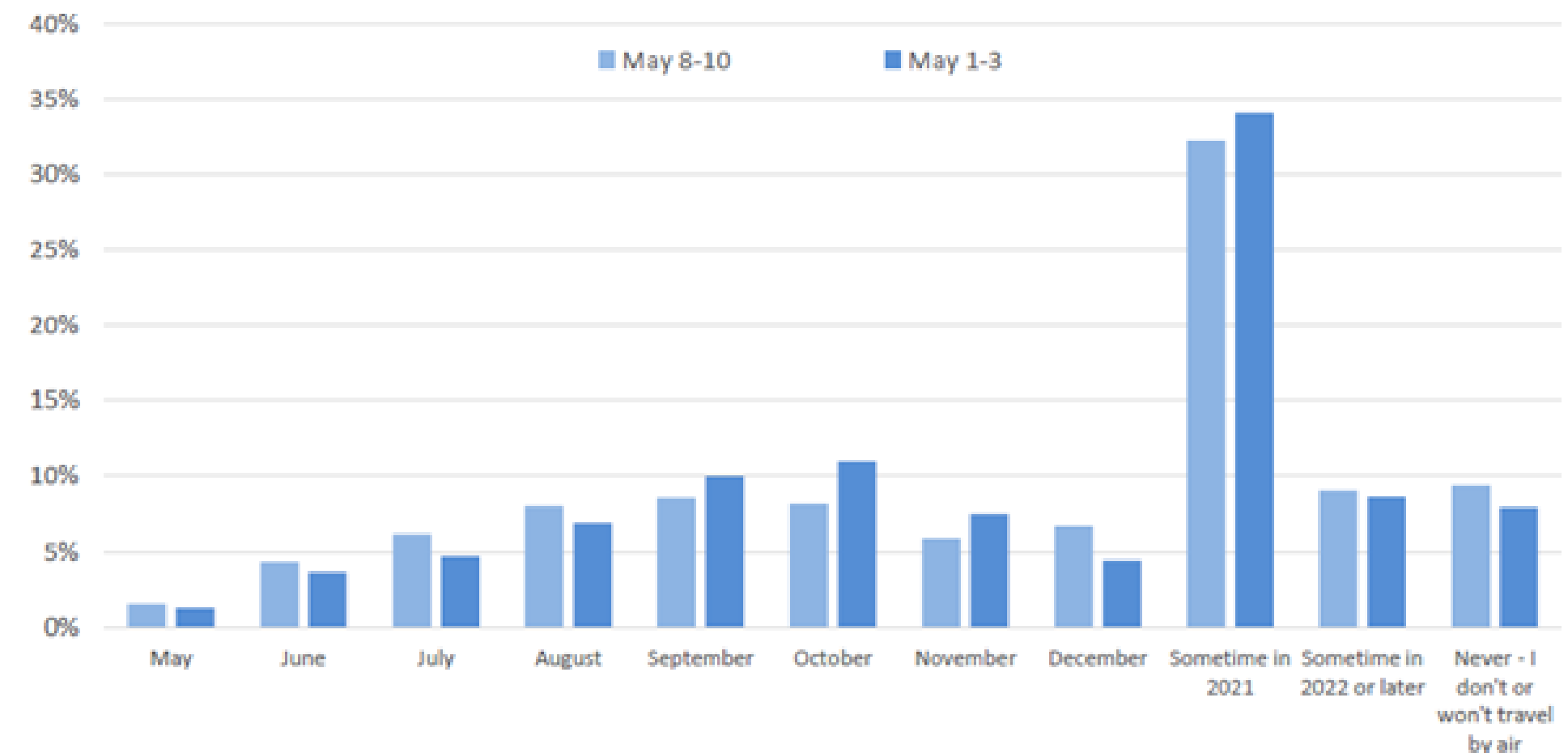
- American travelers are unlikely to take a trip by commercial air in 2020. Nearly a third (32.2%) said they don't expect to take their next commercial airline trip until sometime in 2021 at the earliest.
- 51.5 percent now say they'll probably take more regional trips while avoiding long-haul trips due to the coronavirus.
- Only 1 in 4 will travel more than 1,000 miles for next trip.
- Worries that the pandemic will impact Americans' personal finances held constant this week, at 64.5 percent. Nearly 90 percent of travelers expressed some level of concern for the national economy.
- American concerns about contracting the coronavirus remain unsurprisingly high. Now, 70.6 percent of survey respondents say they have some level of concern about contracting the virus.

Tourism Recovery Slow To Start, Airlines Will Be Key

- Airlines anticipate capacity of 60% at most, due to social distancing, which is a reduction of approx. 250,000 domestic seats (April 2020 schedule).
- Due to CARES Act exemptions, direct service from the U.S. mainland to Honolulu and the neighbor islands will be impacted.
 - Reduced frequencies, as well as suspension of many city pairs into Honolulu.
 - Delta and Southwest did not file exemptions. Delta currently flies to LIH, KOA, OGG.
 - Honolulu in the short-term will be the primary connecting gateway for neighbor island visitors.

Most American travelers appear unlikely to take a trip by commercial air in 2020.

Nearly a third (32.2%) said they expect to take their next commercial airline trip sometime next year.





Rebuilding Tourism For The Community

- **\$1M allocated for each county for HTA to facilitate county destination management plans.**
- **Following the pillars of our strategic plan, including engaging the community, natural resources, Hawaiian culture.**
- **It's important that we reopen parts of tourism to get people working again, while having this important conversation to rebuild a resilient tourism industry.**
- **An integral part of the planning process is to engage communities across all counties.**
- **Seeking quality not quantity of visitors moving forward.**
- **Affirm that Hawai'i will not just go back to the way things were... nowhere near 10 million visitors for the foreseeable future.**



Mahalo