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# 2022-2026 Hawaii Statewide Comprehensive Economic Development Strategy

*Prepared by*  
Economic Development Alliance of Hawaii  
August 2022

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ECONOMIC DEVELOPMENT  
ALLIANCE OF HAWAII



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under an award from the U.S. Department of Commerce,  
Economic Development Administration (Award No. 07-69-07760)**

### **About the Economic Development Alliance of Hawaii**

The Economic Development Alliance of Hawaii (EDAH) is a 501(c)(3) nonprofit corporation, working with the public and private sectors and community-based organizations and individuals to spur economic growth and sustainability throughout the State of Hawaii. It is led by an Executive Director and a Board of Directors comprised of representatives from the four county Economic Development Boards (EDBs), the Hawaii Business Roundtable, the business community and the University of Hawaii. EDAH identifies opportunities and challenges in Hawaii's economy, developing strategies and implementing solutions through its members in conjunction with a wide network of community partners that spans across government, business, academia, and community organizations with mutual interests.

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## Introduction

The Hawaii Comprehensive Economic Development Strategy (CEDS) is a five-year economic development plan for Hawaii, active for the period of 2022-2026. Driven by the need to improve resilience of the state's economy and lay a foundation for future success, this plan follows the U.S. Economic Development Administration's CEDS Guidelines for a strategy-driven, regionally owned plan designed to build capacity and guide the economic prosperity and resiliency of an area (see Figure 1). This 2022-2026 CEDS plan takes the place of the Hawaii 2016-2021 CEDS plan which was extended into 2022 until the final publication of this 2022-2026 plan.



Figure 1. Why is the CEDS Plan important?

Developed between October 2021 and August 2022, this updated Hawaii CEDS plan reflects different but still challenging economic circumstances than the prior CEDS published in 2016. At that time, Hawaii's economy both thrived with record unemployment of 2.7% as of December 2016 and a record-low of 1.9% in October through December 2017<sup>1</sup> (BLS). Though spiking to a high of 22.4% in April 2020 due to the onset of the Coronavirus (COVID-19) pandemic, the unemployment rate has receded to 4.2% as of May 2022 (see Figure 2).

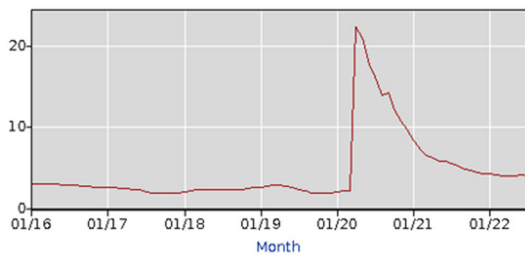


Figure 2. Hawaii Unemployment Rate (2016-2022)  
(US Bureau of Labor Statistics)

The pandemic dramatically exposed Hawaii's economic vulnerability and underlying weaknesses as the state developed some of the highest levels of unemployment in the country in part due to its longtime heavy reliance on the visitor and tourism industry cluster that was severely impacted by the stringent social restrictions designed to curb the virus.

As of mid-2022, Hawaii's state economy continues its recovery from the impacts of the pandemic in part due to the return of the visitor industry as the state eased travel restrictions, robust construction activity buoyed by federal infrastructure spending, and continued job growth and growing trends toward rebuilding and reskilling the local workforce toward higher-paying jobs in a broader range of innovation

<sup>1</sup> Databases, Tables & Calculators, US Bureau of Labor Statistics, <https://data.bls.gov/>

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and diverse sectors aligned with the Aloha+ Challenge<sup>2</sup>, Hawaii 2050 Sustainability Plan<sup>3</sup> and United Nations Sustainable Development Goals.<sup>4</sup>

However, Hawaii also continues to reel from macroeconomic headwinds in the form of inflation raising household and business production costs, energy prices rising due to international war, supply chain challenges caused by production shutdowns around the globe, labor scarcity in part due to declining population figures, and surging home prices and rental rates. Combine these factors with high taxes, challenging land-use and zoning regulations and premium shipping costs for a state that imports more than 80% of its food and energy, updating and implementing the CEDS plan is even more crucial. The 2022-2026 CEDS will help increase capacity-building and build resilience for our local economy to reduce Hawaii’s high cost of living and promote well-being for its residents.

The Economic Development Alliance of Hawaii (EDAH) oversaw the development of the 2022-2026 Hawaii Statewide CEDS, in partnership with the four regional county Economic Development Boards and funded by the US Economic Development Administration through a grant (Award No. 07-69-07760) administered by the State of Hawaii Department of Business, Economic Development and Tourism (DBEDT) Office of Planning and Sustainable Development (OPSD).

Included in this document are the Statewide CEDS report which covers broad themes that cut across the Hawaiian Islands, as well as the CEDS plans from each of the State’s four counties: Hawaii County, Kauai County, Maui County, and the City and County of Honolulu (Oahu). The CEDS has provided a vehicle for individuals, government, private industry, educational institutions, and nonprofit organizations to engage in dialogue to determine the efforts that will best serve Hawaii to address the challenges and opportunities faced statewide.

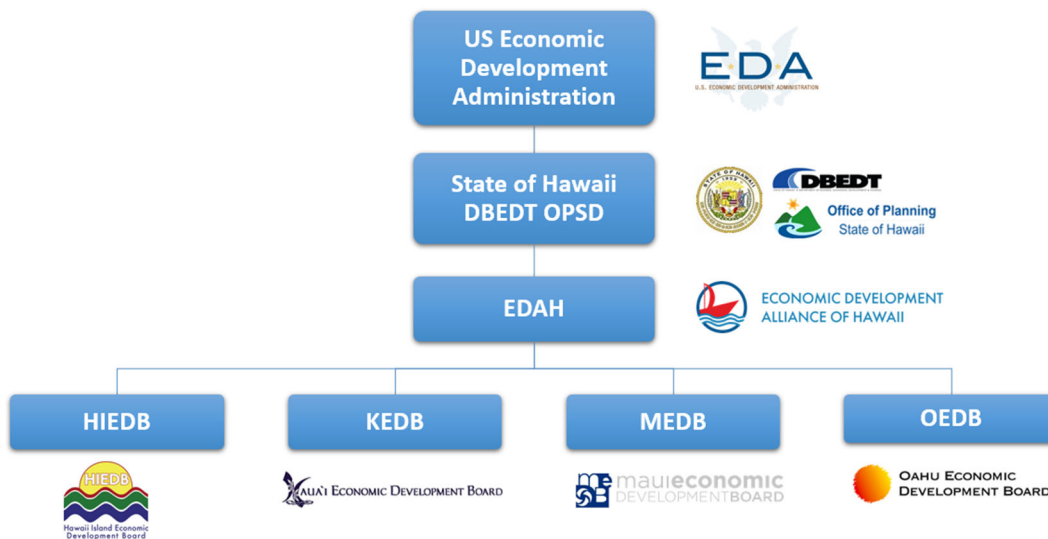


Figure 3. 2022-2026 Hawaii Statewide CEDS Update: Funding and Organizational Flow

<sup>2</sup> Aloha+ Challenge, <https://aloha-challenge.hawaii greengrowth.org/>

<sup>3</sup> Hawaii 2050 Sustainability Plan, <https://planning.hawaii.gov/sustainability/hawaii2050/>

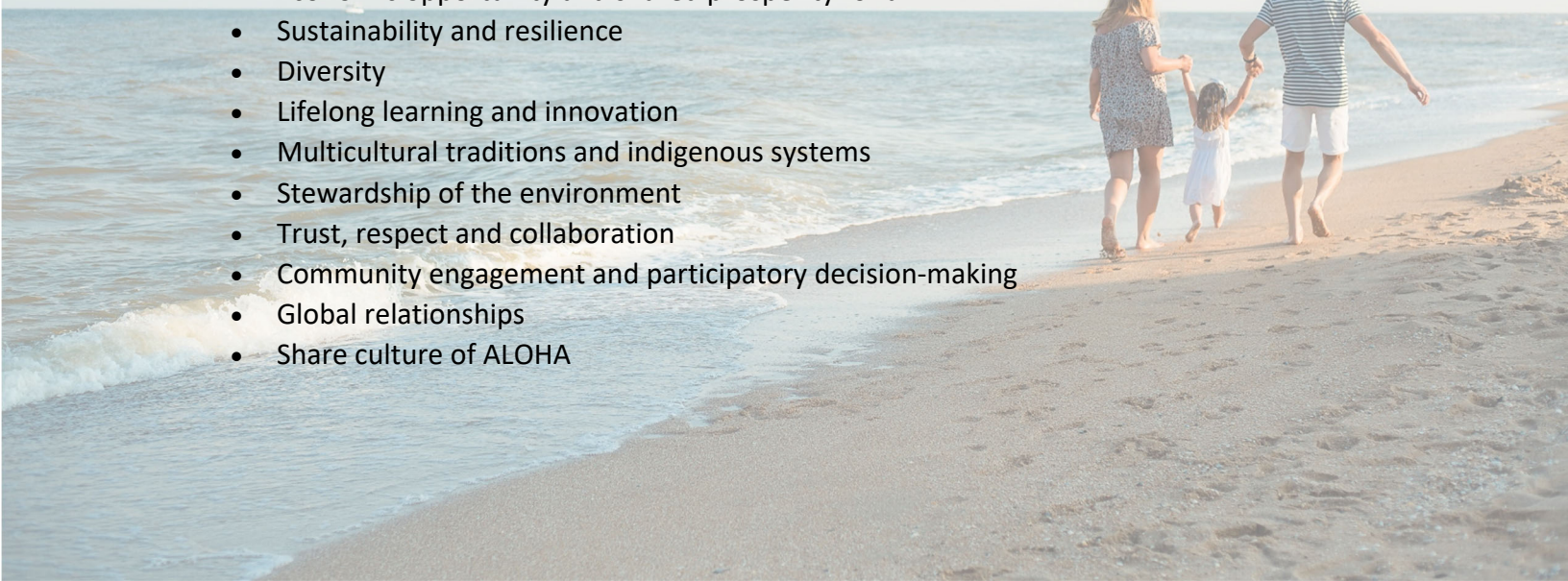
<sup>4</sup> United Nations Sustainable Development Goals , <https://www.un.org/sustainabledevelopment/sustainable-development-goals/>

## CEDS Vision

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

## CEDS Values

- Economic opportunity and shared prosperity for all
- Sustainability and resilience
- Diversity
- Lifelong learning and innovation
- Multicultural traditions and indigenous systems
- Stewardship of the environment
- Trust, respect and collaboration
- Community engagement and participatory decision-making
- Global relationships
- Share culture of ALOHA



### State Statutory and Planning Framework

Hawaii's statutes and plans provide an additional framework for the CEDS. The Hawaii State Plan, Chapter 226 of the Hawaii Revised Statute (HRS), sets forth the following broad state goal:

*HRS §226-4: In order to ensure, for present and future generations, those elements of choice and mobility that ensure that individuals and groups may approach their desired levels of self-reliance and self-determination, it shall be the goal of the State to achieve:*

*A strong, viable economy, characterized by stability, diversity, and growth, that enables the fulfillment of the needs and expectations of Hawaii's present and future generations.*

- (1) A desired physical environment, characterized by beauty, cleanliness, quiet, stable natural systems, and uniqueness, that enhances the mental and physical well-being of the people.*
- (2) Physical, social, and economic well-being, for individuals and families in Hawaii, that nourishes a sense of community responsibility, of caring, and of participation in community life. [L 1978, c 100, pt of §2; am L 1986, c 276, §3; am L 2017, c 82, §1]*

Hawaii can serve as a model for the way in which an economy can transition to a sustainable and prosperous future. Isolated from the rest of the world, Hawaii is highly dependent on imports and therefore extremely vulnerable to outside economic and environmental disturbances. During the Special Session of 2005, the Hawaii State Legislature established the Hawaii 2050 task force. Its context was the

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desire of the citizenry to have a vibrant, diversified economy; a healthy quality of life that is grounded in a multi-ethnic culture and host culture values and healthy natural resources.

In 2011, the Hawaii State Legislature amended the Hawaii State Plan to establish priority guidelines and principles to promote sustainability, setting forth:

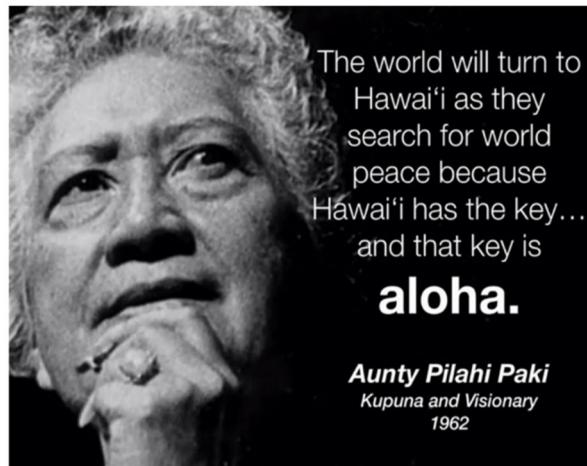
*HRS §226-108: Sustainability. Priority guidelines and principles to promote sustainability shall include:*

- (1) Encouraging balanced economic, social, community, and environmental priorities;*
- (2) Encouraging planning that respects and promotes living within the natural resources and limits of the State;*
- (3) Promoting a diversified and dynamic economy;*
- (4) Encouraging respect for the host culture;*
- (5) Promoting decisions based on meeting the needs of the present without compromising the needs of future generations;*
- (6) Considering the principles of the ahupuaa system; and*
- (7) Emphasizing that everyone, including individuals, families, communities, businesses, and government, has the responsibility for achieving a sustainable Hawaii. [L 2011, c 181, §2]*

## Law of Aloha Spirit

The principles, priorities, strategies and action plans of the Hawaii Statewide CEDS process were also predicated on a fundamental law in Hawaii, the *Law of Aloha Spirit*.

Codified in 1986 by Hawaii lawmakers in HRS Section 5-7.5, this statute recognized the Aloha Spirit as “the working philosophy of native Hawaiians and was presented as a gift to the people of Hawaii.” The language of the statute followed the *unuhi laulā loa*, a popular definition of aloha created by Aunty Pilahi Paki, a renowned educator and philosopher. It defines the Aloha Spirit and the process in which stakeholders plan Hawaii’s economic future through “coordination of mind and heart within each person,” that “Each person must think and emote good feelings to others,” and that “Aloha is the essence of relationships in which each person is important to every other person for collective existence.”



This statute governs the civility in business, social and personal interactions that, when practiced, distinguishes the State of Hawaii as a leader in cultural, religious and economic and social harmony.



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## **HRS § 5-7.5 "Aloha Spirit"**

*(a) "Aloha Spirit" is the coordination of mind and heart within each person. It brings each person to the self. Each person must think and emote good feelings to others. In the contemplation and presence of the life force, "Aloha", the following unuhi laulā loa may be used:*

*"Akahai", meaning kindness to be expressed with tenderness;*

*"Lōkahi", meaning unity, to be expressed with harmony;*

*"Olu'olu" meaning agreeable, to be expressed with pleasantness;*

*"Ha'aha'a", meaning humility, to be expressed with modesty;*

*"Ahonui", meaning patience, to be expressed with perseverance.*

*These are traits of character that express the charm, warmth and sincerity of Hawaii's people. It was the working philosophy of native Hawaiians and was presented as a gift to the people of Hawaii. "Aloha" is more than a word of greeting or farewell or a salutation. "Aloha" means mutual regard and affection and extends warmth in caring with no obligation in return. "Aloha" is the essence of relationships in which each person is important to every other person for collective existence. "Aloha" means to hear what is not said, to see what cannot be seen and to know the unknowable.*

*(b) In exercising their power on behalf of the people and in fulfillment of their responsibilities, obligations and service to the people, the legislature, governor, lieutenant governor, executive officers of each department, the chief justice, associate justices, and judges of the appellate, circuit, and district courts may contemplate and reside with the life force and give consideration to the "Aloha Spirit". [L 1986, c 202, § 1]*

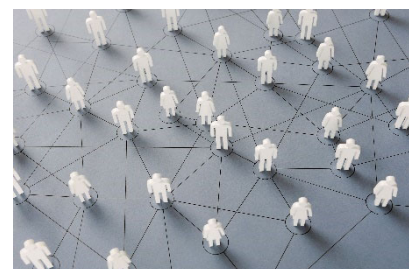
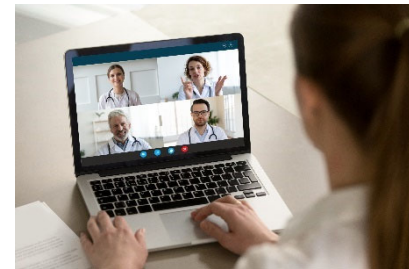
## The State of Hawaii CEDS Process

### 2022-2026 Statewide CEDS Process Overview

The Hawaii Statewide CEDS is a collaborative process engaging numerous stakeholders to responsibly steward our islands' resources and manage economic growth to ensure stable long-term economic vitality for all residents of Hawaii. The CEDS process will deploy Cluster Based Strategies as prescribed by the U.S. Economic Development Administration<sup>5</sup>, designed to identify actionable initiatives at the local (county) level that drive the economic resilience and managed economic growth for the 5-year period from 2022 to 2026. This will help to drive towards the goal of diversification and long-term economic stability for all Hawaii's residents.

The 2022-2026 Hawaii Statewide CEDS plan kicks off with an overview of the State of Hawaii's core demographics and data which sets the stage for the State's economic outlook and overarching themes, strategies and priority actions. The Statewide CEDS plan also includes and is informed by the regional county CEDS developed in all four counties of Hawaii: Hawaii County, Kauai County, Maui County and the City & County of Honolulu (Oahu). The state and local plans will serve as the basis for ongoing discussions and economic planning by Hawaii's business, government and educational leaders as a systematic methodology for ensuring greater economic viability and sustainability.

The Statewide CEDS is as an ongoing, systematic process that examines both strengths and weaknesses as well as opportunities and threats that potentially impact Hawaii. Identified by key business, government, nonprofit and education stakeholders through the Hawaii CEDS Statewide Advisory Committee, opportunities and threats that impact our islands' economic viability will serve as the basis for applying a common understanding of the State's strengths and weaknesses to capitalize on national and global opportunities and defend against threats to the quality of life for Hawaii's residents. The opportunities and



<sup>5</sup> US EDA defines clusters as a geographic concentration of firms, workers and industries that do business with each other and have common needs for talent, technology and infrastructure. *CEDS Content Guidelines*, US EDA, <https://eda.gov/files/ceds/CEDS-Content-Guidelines-full.pdf> (page 8)

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threats identified at this meeting allowed the Economic Development Alliance of Hawaii to begin a systematic process of mapping the opportunities and threats to Hawaii's economic clusters. Subsequent stakeholder meetings focused on developing statewide economic goals, objectives and actions as identified in *Section 3. Strategic Direction and Action Plan* of this report.

## Goals of the Hawaii CEDS

The following goals emerged from the process of analyzing Hawaii's current economic situation, and systematically gathering feedback and input from stakeholders at the statewide level as well as at the county level. Each goal can be thought of as a priority focus goal, further broken down into objectives and actions that are SMART (specific, measurable, achievable, relevant and time-bound).

1. **Strengthening economic industry clusters.** Industry clusters is the term used throughout this CEDS to describe Hawaii's major sectors, which bring money into the state by selling goods or services outside of it. They include Agriculture & Food Production, Creative Industries & Technologies, Energy & Sustainable Renewables, Health & Wellbeing, Hospitality & Tourism, Military & National Security and Science & Technology.
2. **Cultivate and grow emerging sectors.** Emerging sectors are those small or nascent industries with high growth potential based on Hawaii's competitive advantages. They include aerospace, agriculture, creative industries, among others, which have the potential to diversify the state economy and ultimately become economic engines.
3. **Develop workforce and human capital.** Economies exist for the good of the people and depend upon a workforce that is prepared and well trained. This will strive to improve the readiness of the workforce to permit the greatest possible opportunity to make a good living, meet the needs of an expanding economy, and support the well-being of residents.
4. **Support a strong business climate and entrepreneurial ecosystem.** Industries large and small depend on the climate that makes a state a good place to start and run a business. This goal is concerned with these factors, including access to capital and training for entrepreneurs.
5. **Build and update economic foundations.** Economic foundations are the assets and elements like infrastructure, housing, environmental health, quality of life, and cost of living that must be in place for any commercial activity to take place. These factors are not specific to one industry, but broadly support all economic activity.
6. **Build a resilient economy.** Resilience relates to the ability of an economy to avoid or withstand negative events like natural disasters, pandemics or recessions. It includes proactive and responsive measures to reduce harm to workers, employers and communities.

## Statewide Advisory Committee Meetings

A total of four Statewide Advisory Committee meetings were held virtually via Zoom due to safety precautions with the pandemic and to better enable statewide participation. The meeting dates and committee members are below:

- **June 29, 2022** – Kickoff meeting with introductions of EDAH CEDS management team, DBEDT OPSD team and SAC members; overview of CEDS purpose and required components; initial statewide SWOT exercise; regional county CEDS presentations overview and process update
- **July 21, 2022** – Reviewed SWOT analysis results from June meeting; deeper dive into CEDS plan structure, priority focus areas, strategic priorities, process for calls-to-action and implementation, equity and inclusion; detailed review of statewide industry clusters, priority infrastructure sectors and capital; detailed SWOT exercise industry clusters via MeetingSift online tool
- **August 4, 2022** – Facilitated discussion of each statewide industry cluster; review of in-depth SWOT exercise results; CEDS vision statement discussion; discussion on goals and objectives for priority focus areas of the statewide CEDS
- **August 18, 2022** – Facilitated discussion of each statewide industry cluster; developing draft *Goals, Objectives and Priority Action* items for each cluster and discussing initial Implementation methods for completed CEDS report.

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## CEDS Statewide Advisory Committee Members

We would like to thank the following individuals and organizations who provided input, feedback and support throughout the 2022-2026 Hawaii Statewide CEDS update process.

**Douglass Shipman Adams**

Hawaii County Research and Development

**Amy Asselbaye**

City & County of Honolulu Office of Economic Revitalization

**Lance Atkinson**

Chaminade University

**Lynn Babington**

Chaminade University

**Nalani Brun**

Kauai County Office of Economic Development

**Dr. Greg Chun**

Mauna Kea Stewardship Center

**Jonathan Chun**

Belles Graham Proudfoot Wilson and Chun

**Celeste Connors**

Hawaii Green Growth

**Luella Costales**

Oahu Economic Development Board

**Chancellor Joseph Daisy**

Kauai Community College

**Mary Alice Evans**

DBEDT Office of Planning and Sustainable Development

**John Harrisson**

Maui Economic Development Board

**Len Higashi**

High Technology Development Corporation

**Jacqui Hoover**

Hawaii Island Economic Development Board

**Chancellor Bonnie Irwin**

University of Hawaii at Hilo

**Jackie Kaina**

Kauai Economic Development Board

**Brent Kakesako**

Hawaii Alliance of Community Based Economic Development

**Keoni Kuoha**

Hawaii Community Foundation

**Esther Kiaaina**

Pacific Basin Development Council

**Harrison Kuranishi**

Workforce Development Council

**Nelson Lau**

Oahu Economic Development Board

**Lisa Maruyama**

Hawaii Alliance of Nonprofit Organizations

**Keola Peters**

State Chamber of Commerce

**Jay Rojas**

Pacific Basin Development Council

**Kym Sparlin**

City & County of Honolulu Office of Economic Revitalization

**Chancellor Rachel Solemsaas**

Hawaii Community College

**Omar S. Sultan**

Sultan Ventures and XLR8

**Susan Tai**

Economic Development Alliance of Hawaii

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**Senator Glenn Wakai**  
State of Hawaii Senate

**Leslie Wilkins**  
Maui Economic Development Board

**Ross Wilson**  
Current Events

**Laurie Yoshida**  
Corteva AgriScience

**Guest Members from DBEDT Office of Planning  
and Sustainable Development:**

Kim Ishimoto  
David Kobayashi  
Mary Lou Kobayashi  
Lauren Primiano

## CEDS Statewide Working Group Members

Many thanks also to the following members of EDAH's Working Group for their input and contributions to the 2022-2026 Hawaii Statewide CEDS update process:

John Harrison, Maui Economic Development Board  
Jacqui Hoover, Hawaii Island Economic Development Board  
Gary Kai, Hawaii Business Roundtable  
Jaclyn Kaina, Kauai Economic Development Board  
Shannell Komine, Hawaii Business Roundtable  
Cyd Miyashiro, American Savings Bank  
Nelson Lau, Oahu Economic Development Board  
Breanna Rose, BR Strategies and Oahu Economic Development Board  
Jeanne Unemori Skog, Skog Rasmussen LLC  
Susan Tai, Economic Development Alliance of Hawaii  
Shawn Uehira, Hawaiian Electric Company  
Leslie Wilkins, Maui Economic Development Board  
Laurie Yoshida, Corteva Agriscience  
Sylvia Yuen, Research Corporation of University of Hawaii (retired)

## Organization of the CEDS Plan

This 2022-2026 Hawaii Statewide CEDS captures the foundational economic planning activities for the Hawaii 2022-2026 CEDS Process. The strategy consists of the following five (5) major sections as required by US EDA:

### **1. Summary Background Information**

This section of the Hawaii Statewide CEDS provides the reader with a baseline understanding of Hawaii's economy. The section provides a current economic outlook and forecast by county. It also provides an evaluation using population demographics, labor market information and other key data of eight (8) of Hawaii's industry clusters. This provides the reader with both an understanding of the current trajectory of Hawaii's economy and the impact and contributions to the U.S. national economy.

### **2. SWOT Analysis**

Section 2 of the report provides the reader with a better understanding of what Hawaii's stakeholders have identified as Hawaii's strengths and weaknesses as well of the opportunities and threats for driving and mitigating economic growth in today's dynamic, fast-paced and correlated global markets. This section identifies the necessary investments Hawaii will make in its factors of production including financial capital, infrastructure (including policy, business climate and physical capacity) and workforce, to drive economic development and vitality in the future.

### **3. Strategic Direction and Action Plan**

This section of the 2022-2026 Statewide CEDS prioritizes the opportunities and threats identified in the SWOT analysis and aligns them with traded and local economic clusters to identify both industries and occupations that may benefit from, or be adversely impacted, by these external factors. This section then identifies economic strategies that are articulated by Hawaii's four counties. The counties then performed individual CEDS processes that identify local strategies that fall within the umbrella of the Hawaii Statewide Strategies. In addition to local strategies, the local CEDS processes also identify actionable tactical initiatives. This ensures that the Hawaii Statewide CEDS process and plans are coordinated at the state level, but driven by the local stakeholders.

### **4. Evaluation Framework**

The Hawaii Statewide CEDS evaluation framework is designed to measure the impact of economic investments and actionable items identified in Section 4 of the individual county CEDS reports. The county objectives are designed to be specific, measurable, attainable, relevant and time-bound (SMART) and significant in driving the individual county goals. The county activities collectively drive the state indicators identified in this section. This section of the Hawaii Statewide CEDS measures how well these regional initiatives are improving the overall quality of life for our residents of the State of Hawaii.

### **5. Economic Resilience**

A top Investment Priority for U.S. EDA is resiliency and recovery planning and implementation to ensure economic resilience of businesses, industries and communities. EDA finds that economic resilience is

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inclusive of three primary attributes: the ability to recover quickly from a shock, the ability to withstand a shock, and the ability to avoid the shock altogether. The State of Hawaii has previously developed resilience plans to shore up the regional economic, protect it from additional decline and implement vital roles for key local institutions to ensure the fundamentals of recovery will be in place to address natural and man-made disasters:

- The state’s “Natural Disaster Economic Recovery Strategy”<sup>6</sup> and subsequent works, which was initiated through funding from the U.S. Department of Commerce. This process engaged key Hawaii leaders in identifying eight goals and corresponding objectives to help in eliminating gaps in preparedness, response, and recovery.
- Access to training through the National Disaster Preparedness Training Center, a member of the National Domestic Preparedness Consortium (NDPC), originally established through a U.S. Congressional mandate in 2001. The NDPC is the principal means through which the Department of Homeland Security/FEMA National Preparedness Directorate develops and delivers training to state and local responders.

Additionally, the State of Hawaii Office of Planning & Sustainable Development’s Special Plans Branch was awarded a Statewide Planning Grant funded by the U.S. Department of Commerce Economic Development Administration to develop an economic recovery and resiliency plan for Hawaii. Known as the Hawaii Economic Recovery & Resilience (“HIERR”) Project, this planning process aims to strengthen the resiliency of Hawaii’s economy. The planning period is currently ongoing at the time of publication of this 2022-2026 Hawaii State CEDS plan and will conclude by April 2024 (see <http://hierr.online/>).



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<sup>6</sup> *Natural Disaster Economic Recovery Strategy*, Hawaii DBEDT Office of Planning, December 2014, [https://files.hawaii.gov/dbedt/op/spb/2014\\_nders\\_final.pdf](https://files.hawaii.gov/dbedt/op/spb/2014_nders_final.pdf)



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## How to Use the CEDS

The Hawaii Statewide CEDS is the product of an eleven-month process reflecting extensive analysis of the state economy, input from hundreds of Hawaii residents through county-level engagement, and the involvement of dozens of businesses, government, education and nonprofit leaders. Although led by the Economic Development Alliance of Hawaii, it is designed to be used broadly by anyone working to strengthen the Hawaii economy.

Similarly, all four counties in the state of Hawaii have robust county CEDS plans in place. A primary reason for the development of the Statewide CEDS is to connect local and regional strategies from the “bottom up” and encourage collaboration between them and among stakeholders in each region. Most of the state’s industry clusters span more than one region, as do its foundational gaps such as, but not limited to, affordable housing, education, workforce development, roads and transportation, water and broadband connectivity. In these cases, collaborative statewide strategies may be required to make progress.

The goals, strategies and actions laid out in this statewide CEDS plan and its component county CEDS plans are rooted in extensive evaluation of the economic situation on regional and statewide levels. They have been vetted through focused stakeholder group meetings and public comment sessions, guided by a vision of being locally based, regionally driven, and connected statewide. By presenting an analysis of Hawaii’s economic challenges, opportunities, and strategic directions, this CEDS may inspire business, community and civic leaders in the state to act in thoughtful ways that promote opportunity and support a cohesive strategy.

One of the top goals for this CEDS process and plan is not only to create an economic roadmap and planning document. But it is also designed as a call-to-action and a space created for impactful, meaningful strategies and initiatives that meet the economic development goals of Hawaii. This CEDS plan will also be used to attract greater investment in Hawaii from local, state, federal, public and private sources. Federal agencies often require a CEDS or other broadly recognized strategic plan to be in place as a prerequisite for certain types of funding. Those sources of funding can then be further leveraged to attract additional investment from funders who recognize strong coalitions being built and focused on producing jobs, developing local resiliency and producing sustained economic growth. Please refer to Section 4. Evaluation Framework for proposed metrics, implementation strategies and guidance on measuring progress and performance of the CEDS plan.

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## Section 1. State and County Summary Background Information

# STATE OF HAWAII

The economy of the State of Hawaii demonstrated a gross domestic product of

**\$90.1 Billion**

gross in 2021. This is a decrease from a gross regional product of \$91.8 billion in 2019, but an increase from \$82.9 billion in 2020 at the onset of the COVID-19 pandemic and an increase from \$73 billion in 2016.

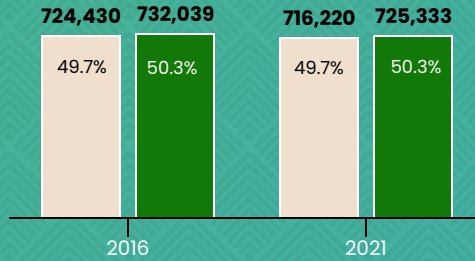
## POPULATION



**1,456,469**  
2016  
**1,441,553**  
2021

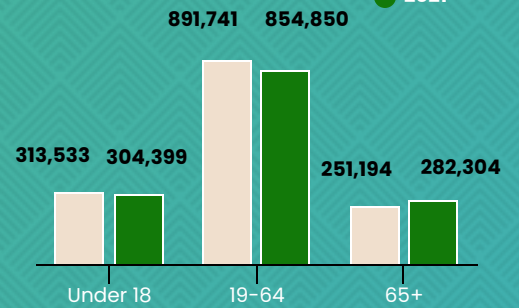
### By Gender (Number of residents)

● Female  
● Male



### By Age

● 2016  
● 2021



## EDUCATION



2016-2020 Average

**92.5%**

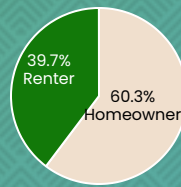
High School Graduates

**33.6%**

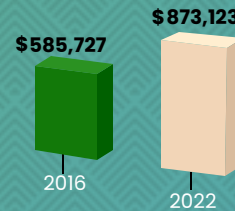
College and Higher Degree Graduates

## HOUSING

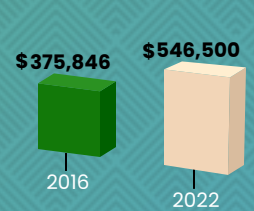
2016-2020 Average



### Single Family Home

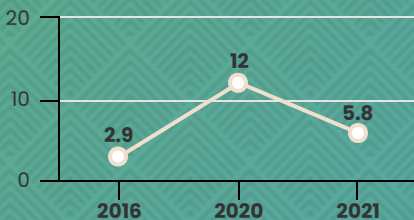


### Condo

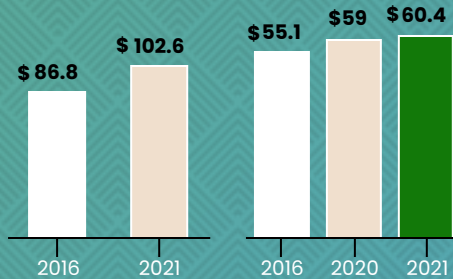


## ECONOMY

### Unemployment Rate (%)

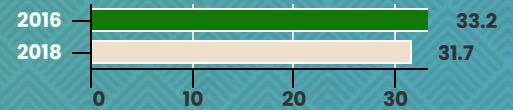


### Median Household Income (\$ Thousands)

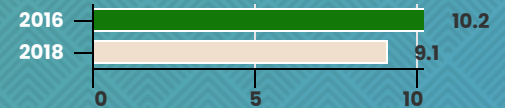


### Per Capita Personal Income (\$ Thousands)

### Percentage of Population considered ALICE (%)



### Percentage of Population Below Poverty Level (%)



## LARGEST INDUSTRIES

Top Industries By GDP (\$ Millions)	2016	2021
Government	17,784	19,182
Real Estate, Rental, and Leasing	15,255	15,981
State and Local	8,010	8,953
Accommodation and Food Services	7,538	7,930
Health Care and Social Assistance	5,674	7,014
<b>Total GDP</b>	<b>83,914</b>	<b>90,059</b>

Top Industries By Number of Jobs	2016	2021
Government	126,000	120,200
Leisure and Hospitality	122,400	109,000
Trade, Transportation & Utilities	121,400	94,000
Education & Health Services	85,000	84,500
Professional & Business Services	72,900	67,700
<b>Total Employees</b>	<b>647,600</b>	<b>583,500</b>

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## State of Hawaii Outlook and Summary of Economic Forecast

### Profile of State of Hawaii Economy

The economy of the State of Hawaii demonstrated a gross domestic product of \$90.1 billion gross in 2021. This is a decrease from a gross regional product of \$91.8 billion in 2019, but an increase from \$82.9 billion in 2020 at the onset of the COVID-19 pandemic and an increase from \$73 billion in 2016<sup>7</sup> when the last Hawaii Statewide CEDS report was published. The State of Hawaii’s economy supports approximately 549,375 jobs (2020) that pay an average of \$58,190 in annual earnings.<sup>8</sup>

### State of Hawaii Economic Outlook

The State of Hawaii is at an important crossroads with its economy greatly impacted by the COVID-19 pandemic in crucial areas such as population, unemployment, job growth, visitor industry/arrivals, gross domestic product, personal income, consumer inflation and climate change.

ACTUAL AND FORECAST OF KEY ECONOMIC INDICATORS FOR HAWAII: 2020 TO 2025

Economic Indicators	2020	2021 <sup>1</sup>	2022	2023	2024	2025
	Actual		Forecast			
Total population (thousands) <sup>2</sup>	1,452	1,442	1,440	1,441	1,444	1,446
Visitor arrivals (thousands) <sup>3</sup>	2,708	6,778	9,191	9,838	10,223	10,503
Visitor days (thousands) <sup>3</sup>	28,660	65,312	85,476	88,909	90,748	92,456
Visitor expenditures (million dollars) <sup>3</sup>	5,162	13,154	19,101	20,862	21,932	23,015
Honolulu CPI-U (1982-84=100)	286.0	296.8	315.6	325.8	333.1	340.3
Personal income (million dollars)	82,527	87,054	86,285	88,442	91,045	93,766
Real personal income (millions of 2012\$)	66,459	68,200	64,961	65,455	66,179	66,961
Personal income deflator (2012=100)	124.2	127.6	132.8	135.1	137.6	140.0
Non-agricultural wage & salary jobs (thousands)	559.9	583.5	608.1	627.6	641.4	653.5
Civilian unemployment rate	12.0	5.7	3.8	3.6	3.2	2.9
Gross domestic product (million dollars)	82,885	90,059	97,161	101,421	105,615	109,670
Real gross domestic product (millions of 2012\$)	70,625	73,880	75,805	77,131	78,781	80,376
Gross domestic product deflator (2012=100)	117.4	121.9	128.2	131.5	134.1	136.4

Figure 1. Actual and Forecast of Key economic Indicators for Hawaii: 2020 to 2025  
[https://files.hawaii.gov/dbedt/economic/data\\_reports/qser/outlook.xls](https://files.hawaii.gov/dbedt/economic/data_reports/qser/outlook.xls)

<sup>7</sup> 2016-2020 Hawaii Statewide Comprehensive Economic Development Strategy, DBEDT, [https://files.hawaii.gov/dbedt/op/spb/CEDS\\_2016\\_final.pdf](https://files.hawaii.gov/dbedt/op/spb/CEDS_2016_final.pdf)

<sup>8</sup> Quickfacts Statistics – Hawaii, United States Census, <https://www.census.gov/quickfacts/HI>

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A June 2022 University of Hawaii Economic Research Organization (UHERO) report explored in-depth how the pandemic affected Hawaii residents with their jobs, ability to buy food and their mental well-being among other areas of their lives. Almost 2 in 3 adults in the state reported negative effects on mental health, food security, job security, housing and poverty: 23% had their savings depleted, 18% had trouble with their children's education, 15% were unable to pay rent, and 9% lost their jobs while 12% indicated they were laid off or had their work hours reduced. More than 20% of adults reported low or very low food security, and those who were infected with COVID-19 experienced more food insecurity.<sup>9</sup>

While the state's economy has been greatly impacted by the pandemic, with the easing of COVID-19 restrictions, business and community activity gradually resumed. As reported by State of Hawaii DBEDT's Research & Economic Analysis Division (READ) in the August 31, 2022 release of its *Quarterly Statistical & Economic Report (QSER)*<sup>10</sup> and associated press release,<sup>11</sup> Hawaii's economy has performed well during the first seven months of 2022:

- **Tourism:** Hawaii welcomed a total of 5.4 million visitors, representing 86.8% recovery from the same period in 2019. Visitor spending totaled \$11.2 billion, representing 5.8% higher than the spending during the same period in 2019.<sup>12</sup>
- **Labor Market:** The labor market continued to improve with unemployment rate at 4.2% seasonally adjusted and 3.7% not seasonally adjusted. In comparison, the seasonally adjusted unemployment rate was 6.5% and not seasonally adjusted rate was 6.3% during the first seven months of 2021. Hawaii's seasonally adjusted unemployment rate during the first seven months of 2021 was the 11th highest in the nation and now dropped to the 15th highest during the first seven months of 2022.<sup>13</sup>
- **Construction Activity and Home Sales:** The construction industry grew during 2020 and 2021 and, during the first four months of 2022, increased 6.7% mainly due to the 20.5% increase in private building permit value and 66.9% increase in the value of government contracts awarded in 2021. Government contracts awarded increased 479.2% during the first half of 2022 compared with the same period in 2021, mainly due to federal government awards. During the first half of 2022, there were 11,914 homes sold statewide (down 5.5% from the same period in 2021). The average sales price for single-family homes in first half of 2022 was \$1,113,242 (up 8% from the first half of 2021). The average sales price for condo homes was \$717,868 (up 9.7% from the same period in 2021). Of the homes sold during first half of 2022, 8,833 units (or 74.1%)

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<sup>9</sup> *Health Effects and Views of COVID-19 in Hawaii*, University of Hawaii Economic Research Organization, [https://uhero.hawaii.edu/wp-content/uploads/2022/06/HealthEffectsAndViewsOfCOVID\\_May2022.pdf](https://uhero.hawaii.edu/wp-content/uploads/2022/06/HealthEffectsAndViewsOfCOVID_May2022.pdf)

<sup>10</sup> *Quarterly Statistical & Economic Report*, DBEDT, August 31, 2022, <https://dbedt.hawaii.gov/economic/qser/>

<sup>11</sup> *Declining Investment Drives Down Hawaii Economic Growth*, State of Hawaii DBEDT, August 31, 2022, <https://dbedt.hawaii.gov/blog/22-41/>

<sup>12</sup> *ibid*

<sup>13</sup> *ibid*

# DRAFT

were sold to local buyers, and 3,801 units (or 25.9%) sold to out-of-state buyers. Of the homes sold between 2008 and 2021, 25% of them were sold to out-of-state buyers.<sup>14</sup>

- **Honolulu Consumer Inflation:** Inflation in the Honolulu area, as measured by the Consumer Price Index for All Urban Consumers (CPI-U), averaged 6.8% during the first seven months of 2022. Though it was the highest since 1991 (when the annual rate was 7.2%), it decreased from 7.5% in March to 7% in May and down to 6.8% in July. The increase in inflation was partly driven by energy prices, which jumped 35.6% due to an increase in crude oil prices. Supply chain disruptions also contributed to the higher inflation rate with an increase for commodities in Honolulu at 12.2% in July 2022. In fighting the high inflation rate, the Federal Reserve Bank increased the Federal Funds target rate by 50 basis points (0.5%) in May 2022 and again by 75 basis points (0.75%) in July with more rates hikes expected in the following months. Higher interest rates have negative impact on investments, especially on home sales.<sup>15</sup>
- **New COVID-19 Cases Declining and International Tension Increasing:** New COVID-19 cases in Hawaii have been decreasing since the beginning of June 2022. At the time the third quarter QSER was written, the average daily new COVID-19 cases were at 317 for the week ending August 24, 2022, compared to 1,260 at the end of May. As of August 24, 2022, Hawaii had 22 cases of monkeypox. With no end in sight currently for the Ukraine War, tensions are rising in Asia and the Middle East which will impact the supply chain further and drive-up inflation, especially the construction costs that affect the building of high-rise buildings.<sup>16</sup>

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<sup>14</sup> ibid

<sup>15</sup> ibid

<sup>16</sup> ibid

## Summary of Economic Forecast and Benchmark Data

Looking ahead, Hawaii's economy is showing momentum and continues to move forward positively as evidenced by more jobs and strong tax collections. Its economic growth rate is expected to be higher than the U.S. economy at 1.7% versus 0.7% in 2023.

In 2023, Hawaii's gross domestic product is expected to exceed \$100 billion for the first time ever. Hawaii's economic growth rate, as measured by the percentage change in real gross domestic product (GDP), will increase 2.6% in 2022 over the previous year. In 2023, Hawaii's economic growth is expected to slow down further, to 1.7%, due to the expected global slow down. U.S. economic growth is expected to grow only at 0.7% in 2023 with more than 50% possibility that the U.S. economy will be in recession according to Blue Chip Economic Indicators. In 2024 and 2025, Hawaii's economic growth will be coming back to the normal growth at about 2%.<sup>17</sup>

### NEW CHALLENGES TO HAWAII'S ECONOMY

- Slowdown in construction and real estate activity and the labor shortage
- Wars and upheavals among world regions and worldwide inflation due to supply chain interruptions and drastic energy price increases
- Continuation of COVID-19 worldwide
- Slowing economic growth worldwide, especially in the U.S. economy.

*"These will all impact our recovery progress and add uncertainty to our economy and our daily lives however, we expect the impact to Hawaii to be less than the rest of the world's economies."*

**Mike McCartney, Hawaii DBEDT Director**

*Declining Investment Drives Down Hawaii Economic Growth*, DBEDT, August 31, 2022, <https://dbedt.hawaii.gov/blog/22-41>

In the third quarter 2022 Statistical and Economic Report released on August 31, 2022, DBEDT predicts:

- **Hawaii's economic growth rate:** As measured by the percentage change in real gross domestic product (GDP), the growth rate will increase 2.6% in 2022 over the previous year and slow down in 2023 to 1.7% due to the expected global slow down. In 2024 and 2025, Hawaii's economic growth is predicted to come back to the normal growth at about 2%.
- **Visitor arrivals:** Projected to be 9.2 million in 2022, increase to 9.8 million in 2023, 10.2 million in 2024, and 10.5 million in 2025, which is at full recovery to the 2019 level.
- **Visitor spending:** Projected to be \$19.1 billion in 2022, which is greater than previously projected due to the higher-than-expected average visitor daily spending. During the first seven months of 2022, daily visitor spending increased 19.8% from the same period in 2021. Total visitor spending is projected to grow at 9.2%, 5.1% and 4.9% respectively for 2023, 2024, and 2025.
- **Non-agriculture payroll jobs:** Forecast to increase by 4.2% in 2022, lower than previously projected due to a slowdown in construction. Job counts are anticipated to increase by 3.2% in 2023, 2.2% in 2024 and 1.9% in 2025 (i.e., recovering to the pre-pandemic (2019) level by 2025).
- **State unemployment rate:** Forecast to improve as economic recovery continues. The rate (not seasonally adjusted) is projected to be 3.8% in 2022, 3.6% in 2023, 3.2% in 2024 and will finally decrease to 2.9% in 2025.
- **Personal Income:** During the pandemic, personal income increased due to government transfers related to unemployment insurance payments and other CARES Act funds. As government

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<sup>17</sup> ibid

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support was reduced in 2021, personal income is expected to decrease in 2022 by 0.9%, and then grow between 2.5% and 3.0% for the following years until 2025.

- **Inflation:** As measured by the Honolulu Consumer Price Index for urban consumers, inflation is expected to be 6.3% in 2022, still lower than the projected U.S. consumer inflation rate at 8.1%. Hawaii consumer inflation will increase at rates between 2.2 and 3.2% in the following years until 2025. These inflation projections are higher than those projected last quarter (2Q 2022).

Given Hawaii's forecast and benchmark data, conducting a Strengths, Weaknesses, Opportunities, Threats (SWOT) analysis with the Hawaii Statewide Advisory Committee provides the state with a combination of realistic, fact-based, data-driven research with real-life context, fresh perspectives and new ideas from a diverse body of leaders and stakeholders throughout the community. While tables of the SWOT analyses are available in *Section 3. SWOT Analysis* (and raw data are available in *Section 6. Additional Reports and Resources*) of this Statewide CEDS plan, the following are cross-cutting themes that help guide entities using this CEDS plan toward strategies and tactical activities more likely to be successful at strengthening our local economy.

1. **Affordability, Cost of Living.** The cost of living in Hawaii continues to rise in 2022. In March, the Urban Hawaii Consumer Price Index (CPI) was 7.5% higher than it was one year ago, squeezing household budgets and disproportionately impacting low-income households. Hawaii last saw an elevated inflation rate of 6.0% briefly in mid-2006, but otherwise inflation has not been over 7.5% since 1991. The recent surge stands in stark contrast to the inflation experience of recent years: between 2017 and 2020, Hawaii inflation averaged just 1.9%. If we take 1.9% to be the typical inflation rate for Honolulu, then the additional 5.6% inflation for the year ending in March can be viewed as "excess inflation." CNBC's 2020 survey ranked Hawaii 46th out of fifty states for business, measuring them on more than eighty-five different metrics in ten key categories of competitiveness. The lack of affordability impacts all socio-economic measurements including and not limited to housing, labor force, age of population, poverty, and quality of life. The 2020 Aloha United Way report *ALICE (Asset Limited, Income Constrained, Employed): A Study of Financial Hardship* demonstrated that 42% of households struggled to make ends meet. Further, 9% of Hawaii residents were already below the federal poverty line and 33% were ALICE households.<sup>18</sup>
2. **Diversification.** Hawaii currently remains dependent on one primary cluster<sup>19</sup>, which the pandemic demonstrated is a risk to the state's economy and overall resilience. The Hospitality and Tourism cluster is by far the largest and strongest of Hawaii's traded clusters. Outside of Hospitality and Tourism, the remaining two strong traded clusters (government including military, and construction) employ far fewer workers. For each of Hawaii's counties, the basic picture is of a large, strong Hospitality and Tourism cluster and a handful of other small, traded clusters, requiring a focus on

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<sup>18</sup> *Asset Limited, Income Constrained, Employed (ALICE) – 2020 Hawaii Report*, Aloha United Way, [https://www.auw.org/sites/default/files/pictures/2020ALICEReport\\_HI\\_FINAL.pdf](https://www.auw.org/sites/default/files/pictures/2020ALICEReport_HI_FINAL.pdf)

<sup>19</sup> A cluster is a regional concentration of related industries connected by employee skills, technology, shared sources of supply or demand, and/or other inter-industry linkages. They arise because firms can benefit from being geographically close to one another.



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increasing other clusters. In addition to the significant loss of jobs resulting in historic unemployment rates and economic decline during the pandemic, the number of tourists arriving in Hawaii has rebounded to exceed pre-pandemic arrivals when the economy and services have not fully recovered. This is increasing frustration by residents of Hawaii and demand for better tourism management.

Yet, innovation and education are growing clusters providing opportunities for Hawaii to utilize technology including broadband to gain higher market share in the global economy. In addition, the pandemic increased momentum to grow the local agricultural sector in the face of future global disruption, unexpected events, and supply chain challenges.

Hawaii's DEI efforts are strengthened through its rich Hawaiian culture, heritage, shared values, and traditions. With respect to diversity, equity, and inclusion (DEI), Hawaii has long been considered a racial melting pot, yet has persistent socioeconomic disparities. In particular, Native Hawaiians and Pacific Islanders face some of the greatest inequities due to historic marginalization with higher health risks, disproportionate incarceration rates and financial hardship. There are coalitions across government, businesses and civil society sectors working to address these urgent socioeconomic inequities in Hawaii, especially in regards to ALICE households and houselessness.

- 3. Education and Workforce Development.** Hawaii's fastest growing cluster is the Education and Knowledge Creation cluster. There are five key barriers to confront when establishing and expanding statewide workforce systems – program access, program implementation, data use, funding (for both programming and individuals), and system alignment and coordination. These barriers are best addressed through collaboration and partnerships sponsored by organizations like the Workforce Development Council. Hawaii's current Workforce Development Council includes the Superintendent of Education and the President of the University of Hawaii. The state is yet to have a policy that defines high-demand occupations. Workforce development funding is provided through the department of labor and economic development, among other departments as well as, federal and private funding.

There is also a double-edged sword as institutions of learning at all levels in Hawaii work to provide relevant curriculum in a rapidly changing world to give Hawaii students a competitive edge. As Hawaii looks to gain a stronger footing in the global economy for its residents, there remain numerous questions as to what jobs of today will remain tomorrow, and what new career opportunities will be created that require new job skills. The ability to quickly adapt which is necessary is a challenge for education institutions including the Hawaii State Department of Education (pre-K to 12) that must be overcome to meet 21<sup>st</sup> century challenges and opportunities.

- 4. Housing.** Hawaii continues to be among the most expensive states in the country in which to live and ranks second in the nation for per capita houselessness at a rate of 45.6 out of every 10,000

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people experiencing homelessness<sup>20</sup>, a poverty rate of 9.3% and a cost of living that is 11.3% higher than the national average.<sup>21</sup> As of June 2022, the median sales price of a single-family home was \$1.1 million. Hawaii's counties have some of the highest regulatory burdens, even when compared with the nation's thirty most expensive counties. According to UHERO, the categories that contribute most significantly to the regulatory burden in U.S. housing markets are court involvement, state political involvement and local political pressure. Hawaii ranks highly in all three categories, and its level of local political pressure is particularly high, ranking in the top 5% of the national survey sample. Affordable housing requirements are particularly widespread in Hawaii and permitting wait times are roughly triple the national average. Reducing the regulatory burden of housing construction could lower housing costs. Experts said renters face a more uncertain future than homeowners because median household income for renters is \$57,000 compared to \$100,000 for homeowners, and federal protections for homeowners, while far from perfect, are more robust and push more responsibility for renters' assistance to states and counties.

The housing market is further challenged by the increased number of houses that have been moved from long-term rental to short-term and vacation rental categories which contributes to the frustration and growing demand from residents to cease marketing Hawaii as a tourist destination without emphasizing that Hawaii is also our home. The historic workforce shortages in Hawaii are in part due to the high outmigration of working age individuals who leave Hawaii to seek opportunities for higher wages and more balanced cost of living in the contiguous United States and hopes of fulfilling one of the long-held American dreams, home ownership.

- 5. Infrastructure.** According to the American Society of Civil Engineers (ASCE), the majority of Hawaii's infrastructure has been operating beyond its useful life, and some components of systems are over one hundred years old. Due to a lack of funding, it has been difficult to effectively maintain and improve the existing infrastructure systems to keep up with increasing usage and rapidly changing lifestyles. As population, economic growth, and development increase, the strain on Hawaii's infrastructure will continue to escalate with many of its infrastructure systems struggling to stay in operable condition. Water main breaks, flood water damage, loss of property from coastal erosion, and beach and park closures from brown water advisories are all results of deteriorating infrastructure. The slow but steady sea level increases in the coming years will also present new challenges that will threaten not only our infrastructure but also our iconic beaches and coastlines. Hawaii is the only state not accessible via ground transportation. The only methods of transportation to and from Hawaii and between islands are by sea or air, with the majority of travel occurring by air. According to the U.S. Department of Transportation, as of January 2020 56.4% of Hawaii's roads are in good or fair condition and 24.7% of bridges are in good condition. Largely

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<sup>20</sup> *State of Homelessness: 2021 Edition*, National Alliance to End Homelessness, <https://endhomelessness.org/homelessness-in-america/homelessness-statistics/state-of-homelessness-2021/>

<sup>21</sup> *State of Homelessness: Hawaii Dashboard*, National Alliance to End Homelessness, <https://endhomelessness.org/homelessness-in-america/homelessness-statistics/state-of-homelessness-dashboards/?State=Hawaii>

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dependent on imports, transportation by water and international shipping is critical and Hawaii's harbors must be maintained and in need of modernization.

As in other jurisdictions, the COVID-19 pandemic revealed internet/broadband access to be critical for conducting daily living, health, learning, and business. With its predominantly rural nature, there are unserved and underserved areas requiring updated and, in many cases, completely new access to broadband and the required infrastructure. The state and counties are taking steps toward the ubiquitous "last mile" with support from federal stimulus funds intended to assist with economic recovery and resilience. This effort is expected to provide new opportunities for Hawaii residents from a more equitable and inclusive perspective as accessibility is increased.

- 6. Innovation and Technology.** Innovation is the key to regional growth and prosperity. UHERO uses a dashboard to track key innovation assets and outcomes including education, research and development, entrepreneurship, and economic prosperity. The dashboard indicates that Hawaii growth has fallen behind the nation since the 1990's however, the COVID-19 pandemic did reveal the resilience and innovation mindset of Hawaii's people as many found ways to innovatively utilize technology and other resources to pivot and adapt. The in-migration experienced during the pandemic as Hawaii was viewed as a COVID-safe destination due to the state's management and comparatively low numbers of infection and death from the virus, included many individuals who are now working remotely for corporations both on the continental U.S. and internationally. This wealth of expertise provides opportunities for innovation, establishment of new businesses, increased entrepreneurship, collaborations, mentoring, education, and workforce development.
- 7. Labor Force Shortages.** According to UHERO, after a second half pause last year, the labor market has begun to edge upward again. The state's labor force took a hit during the pandemic. While the proportion of working age people employed or looking for work has now largely recovered, declining population—mostly on Oahu—leaves the pool of available workers below 2019 levels, acting as a constraint on future growth. Hawaii's nonfarm payroll job count will rise by more than 4% this year, continuing at a healthy pace in 2023. In Hawaii, 21.5% of the population is aged sixty and over, a little more than the U.S. average of 19.5%. As this population retires, shortages will continue. The U.S. Census Bureau estimates that, between July 1, 2019, and July 1, 2020, Hawaii's population decreased by 4,721. Hawaii was one of ten states to lose population. Hawaii has been losing population for three consecutive years beginning in 2017. Persistent decline in the state's population may be an indication of an ailing state facing major economic and social problems. Population losses can directly affect political representation and can also dampen the state's economy. The outmigration and demographics changes are related to prohibitive cost of living and housing.
- 8. Water.** Currently in large part due to the U.S. Department of Defense and historically high numbers of tourism that have breached carrying capacity, the State of Hawaii is facing one of the largest water crises ever experienced on Oahu. Navy fuel contamination has severely threatened the water supply, posing dangerous health risks on Oahu, while the tourism sector continues to also stress

# DRAFT

water supply with high usage throughout the state. Climate change is poised to exacerbate the situation even further. As wet areas become wetter and dry areas drier, aquifers are struggling to consistently absorb freshwater, and it is difficult to maintain reservoir levels needed across the state due to ongoing drought conditions.

In general, respondents to surveys and participants in SWOT exercises express fervent desire to maintain Hawaii as their home, value the diversity of its people and culture, recognize Hawaii's uniqueness and seek to find ways to maximize strengths and opportunities while being aware of the weaknesses and challenges that must be addressed.

## State of Hawaii Overarching Themes, Objectives and Strategies

As prescribed by the US Economic Development Administration, undertaking the Hawaii Statewide CEDS process to broaden the industrial base with diversification initiatives includes targeting existing and emerging industry clusters that both build on the state's unique assets and competitive strengths and provide stability during potential economic downturns that may disproportionately impact one or more clusters or industries. The following industry clusters have been identified in the Statewide CEDS update, reflecting past, present and future opportunities to build Hawaii's competitive advantage and opportunities for economic diversification.

1. Agriculture and Food Production
2. Creative Industries and Technologies
3. Education and Knowledge Creation
4. Energy and Sustainable Renewables
5. Health and Wellbeing
6. Hospitality and Tourism
7. Military and National Security
8. Science and Technology

These eight industry clusters are therefore the focus of the *Section 3. SWOT Analysis* and the *Section 4. Strategic Direction and Action Plan* components of this document. However, to provide context for the statewide strategic and tactical planning, full 2022-2026 CEDS Plan updates were conducted on the state's four counties. The following infographics and economic overviews provide a quick reference into the counties' *Industry Clusters, Economic Outlooks* and *Overarching Themes, Objectives and Strategies*. Please consult the respective county's full 2022-2026 CEDS Plan update for more details on their regional economic development planning.

# HAWAII COUNTY

The 2020 economy of Hawaii County reflects a gross domestic product (GDP) of

**\$8.4 Billion**

which represents approximately ten percent (10%) of the 2020 Hawaii State GDP of \$82,884,589k which in turn represents 0.4% of the U.S. national GDP. 1

## POPULATION



**197,059**

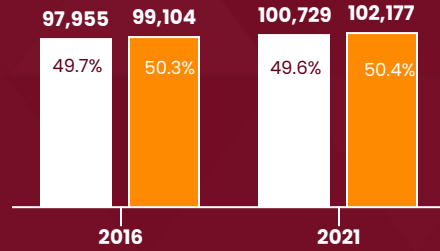
2016

**202,906**

2021

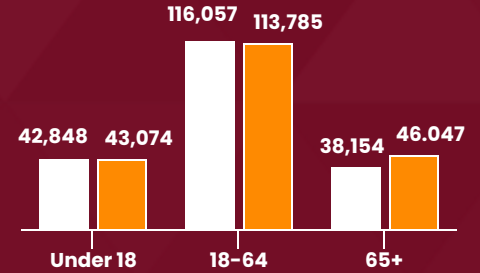
### By Gender (Number of residents)

● Male  
● Female



### By Age

● 2016  
● 2021



## EDUCATION

2016-2020 Average

**92.9%**

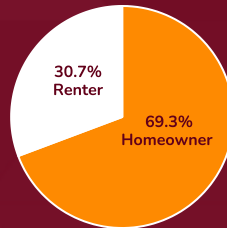
High School Graduates

**29.5%**

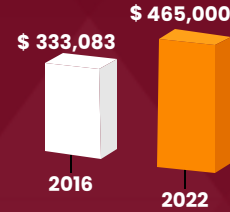
College and Higher Degree Graduates

## HOUSING

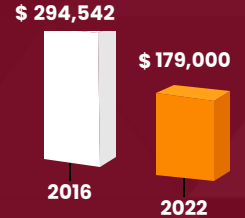
2016-2020 Average



### Single Family Home

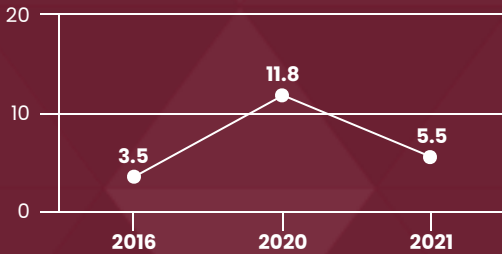


### Condo

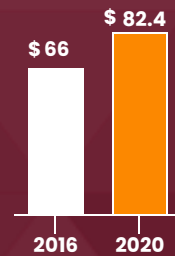


## ECONOMY

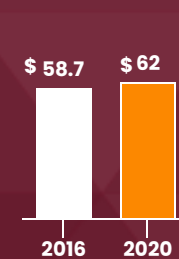
Unemployment Rate (%)



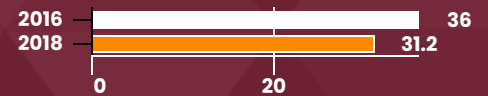
Median Household Income (\$ Thousands)



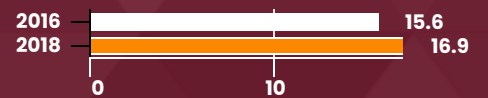
Per Capita Personal Income (\$ Thousands)



Percentage of Population Below Poverty Level (%)



Percentage of Population Below Poverty Level (%)



## LARGEST INDUSTRIES

### Top Industries By GDP (\$ Millions)

	2016		2020
Real Estate, Rental, and Leasing	1,786	Real Estate, Rental, and Leasing	2,067
Government	1,296	Government	1,515
Retail Trade	669	Retail Trade	834
Construction	536	Agriculture, Forestry, Fishing, and Hunting	251
Utilities	221	Professional and Technical Services	235
<b>Total GDP</b>	<b>7,854</b>		<b>8,429</b>

### Top Industries By Number of Jobs

	2016		2020
Leisure and Hospitality	15,000	Government	14,100
Trade, Transportation & Utilities	14,000	Trade, Transportation & Utilities	14,000
Government	13,900	Leisure and Hospitality	12,100
Education & Health Services	9,000	Education & Health Services	8,600
Professional & Business Services	6,700	Professional & Business Services	5,900
<b>Total Employees</b>	<b>69,300</b>		<b>64,700</b>

## County of Hawaii: Regional Economic Benchmark Data

### PROFILE OF HAWAII COUNTY ECONOMY

#### Hawaii County CEDS Targeted Industry Clusters

Hawaii County targeted cluster industries as identified by the Hawaii Island CEDS 2022 Strategic Advisory Committee are (in alphabetical order):

- Agriculture and Food Systems
- Astronomy and Technology
- Construction and Infrastructure
- Creative Arts and Industries
- Education, Knowledge Creation, and Workforce Development
- Energy and Resiliency
- Environment and Climate Change
- Government
- Health and Wellness
- Hospitality and Tourism

#### Hawaii County's Economic Outlook

1. The County of Hawaii boasts a land mass of 4,028 square miles that is larger than the combined approximately 2,400 total square miles of the other seven major islands that comprise the State of Hawaii.<sup>22</sup> Nicknamed the “Big Island”, Hawaii Island’s size is one source of some of the economic challenges faced by the county.
2. The largest employers on Hawaii Island are: *Government, Leisure and Hospitality and Health and Human (Social) Services.*
3. Economic recovery efforts are a confluence of socio-economic impacts including
  - a. 2018 Kilauea volcanic eruption which resulted in almost 14 square miles covered by lava flows and 700 homes lost and<sup>23</sup> displacement of 2,000 residents. Recovery costs were estimated to be in excess of \$800 million in the most destructive volcanic event in the United States since the 1980 eruption of Mount St. Helen in Washington State.
  - b. The eruption also impacted Puna Geothermal Venture (PGV) which had produced 25% of the island’s electricity and was forced to shut down due to seismic and lava flow. PGV was in the process of restarting operations when Hawaii Governor David Ige issued a Third Supplementary Proclamation in response to the global COVID-19 pandemic declaring “... all persons within the State of Hawaii are ordered to stay at home or in their place of residence

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<sup>22</sup> Honolulu, Hawaii: Office of Planning, Hawaii State Department of Business, Economic Development and Tourism. [State of Hawaii Data Book 2021](#). accessed 12 August 2022 [https://HawaiiDataBook\\_Land Area by County](https://HawaiiDataBook_Land Area by County)

<sup>23</sup> Burnett, John. “Official count of houses destroyed reaches 700” Hawaii Tribune-Herald. Archived from the original on 2018 July 10. Retrieved 15 July 2022

# DRAFT

...<sup>24</sup> in March 2020 which signaled the beginning of a myriad of negative socio-economic impacts that continue in the third quarter of 2022.

4. Residents and businesses in Hawaii County have demonstrated resilience multiple times in the past including: transitioning from large industrial sugar plantations and agriculture to an expanded hospitality and tourism sector; and the 1960 tsunami resulting in devastating economic loss which heralded the introduction of astronomy as an important economic engine for the island with construction of the first telescope on Mauna Kea in 1967.

While the COVID-19 pandemic created previously unfathomable socio-economic challenges, many of the factors contributing to the confluence changing the island's economic environment predates the pandemic. Of note are the cascading socio-economic impacts exacerbated by the global pandemic including and not limited to high cost of living and doing business; lack of affordable, attainable housing for both ownership and rental; changes in behavior and expectations of the island's residents; ongoing supply chain disruptions; historically high volume of visitors to the island leading to increased pressure and competition for natural and other resources with such competition shifting the balance of shared values and changing resident perspectives including increased demand for better tourism management; concerns regarding sense of place and maintaining Hawaii Island's unique, historical, social resources and community identity; and the overall well-being and future of Hawaii Island and its residents.

There is also increasing evidence of and concern about the widening economic divide driven in large part by structural changes resulting in economic and opportunity inequality. The relationship between economic inequality and opportunity can be illustrated easily by considering the digital divide which is often the result of inaccessibility to internet. Hawaii Island's size and geography predominantly rural in nature contributes to limited physical access to digital technology due to both prohibitive costs and the general lack of the infrastructure needed to support internet access and is compounded further by limited digital literacy necessary to access and use resources.

The digital divide is characterized by two crucial problems:

1. limited and costly infrastructure to support internet access
2. limited digital literacy in low/middle-income communities to use resources

With the twenty-first century bringing another significant economic transformation as we navigate the highway taking us from an industrial to information and knowledge-based economy, it is critically important to address accessibility in the digital and numerous other arenas.

On a more positive note, regarding this transition, having recently made the transition from an agrarian to industrial based economy, Hawaii Island's kamaaina (long-time resident) populace has demonstrated its resilience to such transitions and can draw upon real-life experience versus depending exclusively on

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<sup>24</sup> Dayton, Kevin. "Recovery from Kilauea eruption might cost \$800M" Star Advertiser. Archived from the original on 2018 September 02. Retrieved 15 July 2022

# DRAFT

second-hand nostalgia and oratory accounts as they look to 21<sup>st</sup> century opportunities including transitioning to an information-based, digital economy.

Such resilience is once again on display as we build upon the strengths of Hawaii Island's pre-pandemic economy and work together to develop a more vibrant, diverse, and sustainable economy. Working to improve resilience to systemic shocks and creating opportunities for more shared prosperity, numerous initiatives by the public and private sector respectively and collectively are in various stages of planning, development, and/or implementation. These include and are not limited to the County of Hawaii Build Back Better Agriculture Coalition; the Hawaii Aerospace-Astronomy Coalition; a multipurpose manufacturing and innovation facility; climate change adaptation and related projects in renewable energy, water resource development and management; conversion of thousands of cesspools to modernized septic systems; modernizing, and firming the island's electric grid; transformative changes to transportation and mobility systems; and developing strategies for destination and visitor management.

Building upon the strengths of Hawaii Island's pre-pandemic economy, we are working to develop a more vibrant, diverse sustainable economy; improve resilience to systemic shocks; and identify and create opportunities for our island's diverse communities.

## **Hawaii County's Overarching Themes, Objectives and Strategies**

- Cost of Living, Affordability
- Cost of Doing Business
- Economic Disparity
- Housing
- Water
  - Wai = Water
  - Wai Wai = Wealth
- Child Care and Early Childhood Education
- Agriculture
- Natural Resources
- Indigenous Knowledge
- Cultural Resources
- Permitting and Regulations must be streamlined and expedited
- Carrying capacity
  - Too many tourists
  - Extractive visitor industry – need regenerative tourism, reciprocity

## Strategies

- Diversify and provide new job opportunities
  - Incentives to bring new industries offering viable, well-paying jobs to the island
  - Support small businesses and reduce regulation, impact fees where possible and in the community's best interest
  - Support education and workforce development initiatives to prepare workforce for transitional job skills (i.e., better prepare for jobs of today and tomorrow)
  - Identify existing "talent/skills gaps" and develop one-stop jobs dashboard
- Create opportunities for all who want to stay and live in Hawaii can do so



# DRAFT

- Keep kamaaina (long-time often lifetime residents) here
- Our shared values, traditions, health, and well-being are being lost with increased out-migration of our kamaaina and in-migration of individuals not interested or vested in our lifestyle
- Identify innovative opportunities for housing
  - Funding
  - New technology and models for housing and community development
    - Accessible dwelling units
    - Housing on agricultural lands
    - Workforce housing on resorts
    - Housing that is attainable (affordable is not necessarily attainable)
  - Revisit regulations and reduce/eliminate where possible
- Conduct comprehensive study to identify freshwater resources and better understand Hawaii Island's complex water system (natural resources and built infrastructure)
  - Increase public outreach and education on importance of water conservation
    - Ka Wai Ola = Water is Life
- Commit resources to provide affordable childcare and early childhood education opportunities
  - Incentives to employers to provide opportunities close to place of employment
- Develop succession plans for local farmers and ranchers (many families face loss of farm/ranch as offspring leave for other industries and/or leave the island)
  - Keep agricultural land in agriculture
  - Expand farm/ranch/ocean to table education
  - Return to food self-sufficiency and sustainability
  - NO one shall go hungry
- Implement Destination Management Action Plans
  - Provide opportunities for regenerative tourism
  - Expand visitor outreach and education for better understanding of natural and cultural resources
  - Expand visitor understanding of and respect for Indigenous values, traditions
- Do a comprehensive study of all infrastructure and develop plan for repairs, maintenance, and modernization
  - Work with community to prioritize capital improvement projects and funding
- Digital access is an equalizer
  - Expedite broadband coverage into rural, un-/underserved communities
  - Expand digital literacy programs and opportunities
  - Secure funding to ensure households have devices necessary to participate in digital economy

# KAUAI COUNTY

The economy of Kauai County has a gross regional product of approximately

**\$3.6 Billion**

(2020). Kauai County's economy supports approximately 30,302 jobs (2021) that pay an average of \$51,3093 in annual earnings (2020).

## POPULATION



**72,378**

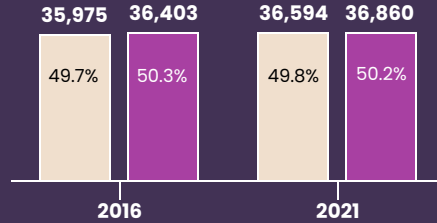
2016

**73,454**

2021

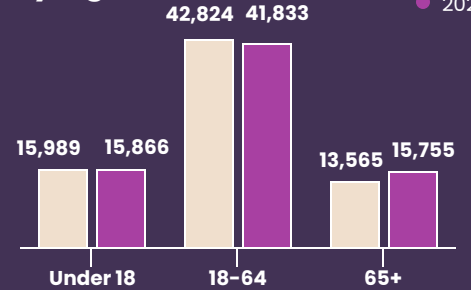
### By Gender (Number of residents)

● Female  
● Male



### By Age

● 2016  
● 2021



## EDUCATION

2016-2020 Average

**92.4%**

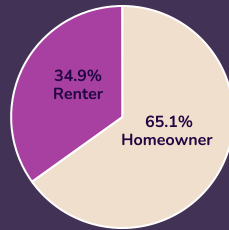
High School Graduates

**28.5%**

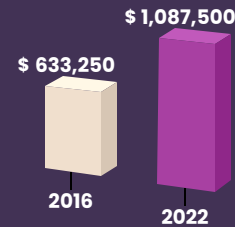
College and Higher Degree Graduates

## HOUSING

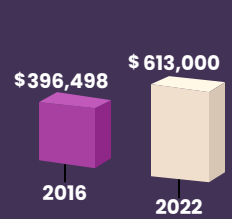
2016-2020 Average



### Single Family Home

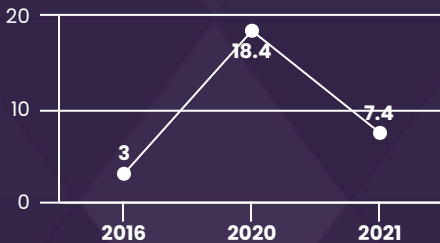


### Condo

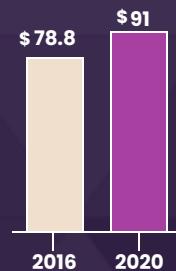


## ECONOMY

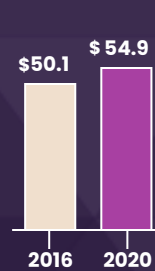
Unemployment Rate (%)



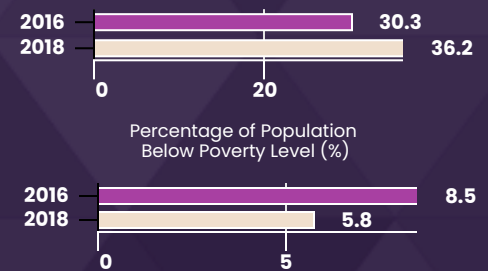
Median Household Income (\$ Thousands)



Per Capital Personal Income (\$ Thousands)



Percentage of Population Below Poverty Level (%)



## LARGEST INDUSTRIES

Top Industries By GDP (\$ Millions)	2016		2020
Real Estate, Rental, and Leasing	826	Real Estate, Rental, and Leasing	790
Government	483	Government	567
Retail Trade	291	Retail Trade	349
Construction	218	Professional and Technical Services	110
Other Services, except Government	88	Health Care and Social Assistance	97
<b>Total GDP</b>	<b>3,725</b>		<b>3,627</b>

Top Industries By Number of Jobs	2016		2020
Leisure and Hospitality	10,300		7,000
Trade, Transportation & Utilities	6,000		5,500
Government	4,800		5,000
Education & Health Services	3,300		3,100
Professional & Business Services	3,000		2,700
<b>Total Employees</b>	<b>32,000</b>		<b>27,900</b>

# DRAFT

## County of Kauai: Regional Economic Benchmark Data

### PROFILE OF KAUAI COUNTY ECONOMY

#### Kauai County CEDS Targeted Industry Clusters

Kauai County targeted cluster industries were identified by Kauai CEDS Steering Committee and further discussed in the Kauai County section of this report. Kauai County's targeted industry clusters are (in alphabetical order):

1. Arts and Culture
2. Food and Agriculture
3. Health and Wellness
4. Renewable Energy and Sustainable Technologies
5. Science and Technology
6. Visitor Industry, Management and Preservation

#### Kauai County's Economic Outlook

Kauai's economic outlook remains positive despite COVID-19's the impact on the economy and the challenges of competing in a global economy. Kauai County's population is steadily increasing, it is well on its way of increasing the island's renewable energy resources, jobs are continuing to increase, and Kauai's tourism industry is rapidly recovering. Despite these positive factors many challenges remain that will have to be addressed.

1. **Renewable energy:** Kauai will reach a goal of 70% renewable level by 2030.
2. **Visitor industry:** Visitor arrivals will remain strong throughout 2022. Year to date 28% increase. Visitor spending in 2022 is expected to exceed 2019 numbers.
3. **Technology and practices:** Preparing future workforce through collaboration with high schools and Kauai Community College.
4. **Ageing population:** In 2021, the age group with the highest percentage is the 65+ group at 21.12%. The 85+ population is projected to grow by 5.8% between 2025 and 2030 and by 7,7% between 2030 and 2035. This will require an increase in senior healthcare and related senior services.
5. **Housing:** Increase needed for affordable rentals and ownership units by 2025. Rentals - Single family 208; Multi-family 367. Ownership units - Single family 289; Multi-family 195
6. **Jobs:** 17.6% increase in jobs added during first quarter of 2022 compared to 2021. Jobs will continue to grow, especially in the accommodation and service industries.
7. **Labor force:** Labor participation rate will continue to be below 2019 levels due in large part to the effects of COVID-19.
8. **Population:** The resident population of KauaiCounty is projected to grow at an annual rate of 0.8% during the 2016 to 2045 period. There has been a significant net loss of a core component of Kuaa'i's workforce (residents from the ages of 40 to 59) and a significant net gain of people over 60.

# DRAFT

9. **Gross Domestic Product:** Kauai's Real GDP for 2020 was \$3,083,667 which is 4th among the State counties. In 2020, Kauai County ranked 2nd among the four Hawaii Counties in percent change from 2019 with a 17% decrease.
10. **Opportunity zones:** Kauai County has 2 designated Opportunity Zones. In total these Opportunity Zones have a population of approximately 4,300 that represents 6% of the county's total population of 72,000.

## Kauai County's overarching Themes, Objectives and Strategies

Throughout the CEDS process the community's ability to respond to changing economic, social and environmental needs has been mentioned. This ability arises from the fact most community leaders sit on multiple boards or committees. This factor allows for greater collaboration and cooperation between organizations. Whether it be leading the State in renewable energy or implementing a community-based management system for Haena State Park, the community's ability to work together and respond collaboratively will be an important factor in accomplishing many of the strategies outlined in the CEDS.

### **Theme: Build, attract and retain a 21<sup>st</sup> century workforce.**

Strategy: Provide the workforce with the skills they need to be gainfully employed.

Objectives:

- Explore and document software development training and development opportunities; types and numbers of IT related jobs currently in the county, including remote jobs.
- Increase career growth path planning in schools and on-the-job.
- Increase and improve training opportunities for new and current workers.

Strategy: Assist schools in meeting college and career expectations.

Objectives:

- Increase student interest in careers through increased experiential learning, internships and partnerships among schools, KCC and the business community.
- Increase the development and training for career pathways. (Kauai Community College, Office of Continuing Education and Training, and High Schools)
- Market visitor industry positions as opportunities for growth.

Strategy: Address talent gaps and "brain drain" by positioning Kauai as a desirable place for people to live and work.

Objectives:

- Determine the type of workforce necessary to sustain future County needs including competitive wages. (What would incentivize you to work, have a life and live here?)
- Continue to increase affordable housing availability.
- Increase the appeal of visitor industry jobs.
- Increase CNAs, NPs and APRNs.

**Theme: Increase adaptability and resilience, particularly regarding natural disasters and climate change.**

# DRAFT

Strategy: Develop a supportive and equitable business development environment for beginning farmers and other enterprises sustainably utilizing or enhancing Kauai's agriculture, water or other natural resources.

Objectives:

- Align County's Climate Adaptation plan with CEDS. (Adopt 2023)
- Increase the capacity and growth of the food hub movement.
- Increase focus on how to monetize performing arts.

Strategy: Review and monitor existing conservation and sustainability plans for Kauai's key natural resources to maintain their availability for responsible economic development use. Objectives:

- Maintain adequate access to water for small farmers.
- Identify a mechanism to "pull all healthcare resources into one bucket" in the event of a natural disaster/pandemic.
- Increase education and involvement of visitors and residents in sustaining areas on island.

Strategy: Participate in the re-branding of the visitor experience to ensure Kauai's natural assets are valued and used both by residents and visitors.

Objectives:

- Increase "user satisfaction" with opportunities and experiences connected to Kauai's natural resources.
- Reengineer the visitor industry on Kauai to include healthy aspects of the County.
- Increase balanced use of and protection for natural resource attractions for both visitors and locals including the Na Pali Coast, Polihale, Wailua Falls and Waimea Canyon Lookout.

**Theme: Support and enhance our island community where all residents and visitors enjoy active, secure, healthy and fulfilled lives.**

Strategy: Achieve greater food self-sufficiency.

Objectives:

- Increase the capacity to plan for and achieve food self-sufficiency.
- Support new initiatives such as vertical farming models, aquaponics, indoor farming, etc.
- Include greater community food systems and local food networks in events/expos.

Strategy: Enhance the community's ability to thrive.

Objectives:

- Address the issue of maintaining permanent affordability instead of short term sunset clauses that allow affordable housing to be converted to market value housing after a short period of time, thus reducing the inventory of affordable housing.
- Increase the promotion of Kauai Arts.
- Increase communication between residents and the visitor industry community.

Strategy: Promote healthy lifestyle choices for improved health outcomes and individual prosperity. Objectives:

- Increase transportation methods supporting the multi-modal County initiative.
- Increase exposure of residents (students and community) to jobs which are less visible. (i.e., remote workers and small businesses)

# DRAFT

- Incorporate art in open spaces.
- Lead with Hawaiian values.

Strategy: Provide high-speed internet to every home, business and institution

Objectives:

- Increase access and connectivity to reliable high-speed broadband internet.

Strategy: Ensure residents have quality, income-appropriate housing choices

Objectives:

- Increase collaboration among county agencies and organizations working to improve the affordable housing issues.
- Coordinate county-wide efforts to improve access to affordable housing.
- Examine affordable housing options.

**Theme: Develop plans and continue to build capacity for economic development of the six target industry clusters.**

Strategy: Increase collaboration.

Objectives:

- Increase synergy in achieving plan objectives through collaboration with other clusters.
- Increase communication between businesses and the county.

Strategy: Support economic innovation and digitization for all businesses.

Objectives:

- Increase communication and learning among startup businesses.
- Increase remote workers/jobs on island.

Strategy: Develop infrastructure.

Objectives:

- Increase use of alternative modes of ground transportation.
- Conduct an assessment to identify and prioritize future infrastructure needs.

Strategy: Support the development of new businesses and markets for a diversity of products derived from agricultural and technological activity.

Objectives:

- Increase on-island learning opportunities for tech jobs.
- Increase vertical farming opportunities.
- Increase opportunities to “develop and incubate” new businesses by encouraging entrepreneurship.

# MAUI COUNTY

The economy of Maui County has a gross regional product of approximately

## \$10.8 Billion

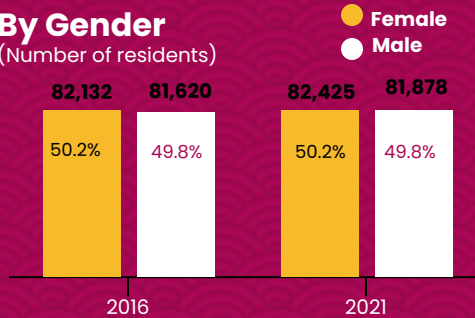
(2018). Maui County's economy supports approximately 83,650 jobs (2022, YTD) that pay an average of \$55,970 in annual earnings.

## POPULATION

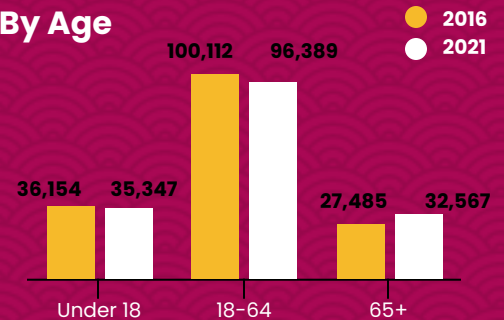


**163,752**  
2016  
**164,303**  
2021

### By Gender (Number of residents)



### By Age



## EDUCATION

2016-2020 Average



**92.3%**

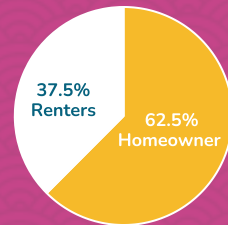
High School Graduates

**28.3%**

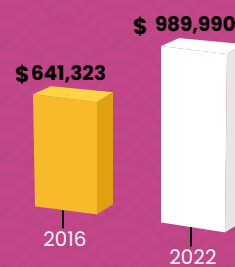
College and Higher Degree Graduates

## HOUSING

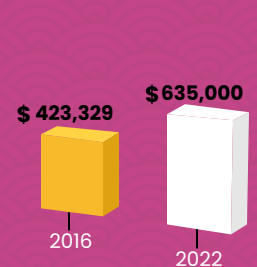
2016-2020 Average



### Single Family Home

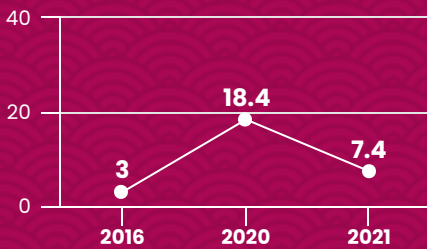


### Condo

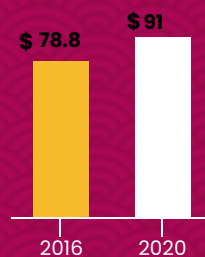


## ECONOMY

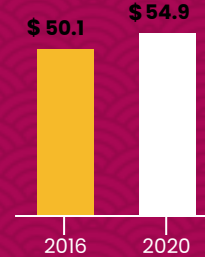
Unemployment Rate (%)



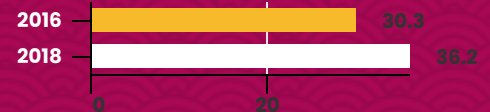
Median Household Income (\$ Thousands)



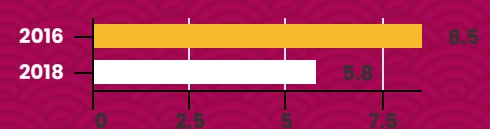
Per Capita Personal Income (\$ Thousands)



Percentage of Population considered ALICE (%)



Percentage of Population Below Poverty Level (%)



## LARGEST INDUSTRIES

Top Industries By GDP (\$ Millions)	2016	2020
Real Estate, Rental, and Leasing	2,056	1,979
Accommodation and Food Services	1,948	1,446
Government	1,019	954
Retail Trade	722	830
Construction	600	6,64
<b>Total GDP</b>	<b>9,382</b>	<b>8,704</b>

Top Industries By Number of Jobs	2016	2020
Leisure and Hospitality	24,700	19,500
Trade, Transportation & Utilities	15,500	14,000
Government	10,200	9,100
Education & Health Services	7,100	8,700
Professional & Business Services	7,100	6,300
<b>Total Employees</b>	<b>76,900</b>	<b>69,100</b>

## County of Maui: Regional Economic Benchmark Data

### PROFILE OF MAUI COUNTY ECONOMY

#### Maui County CEDS Targeted Industry Clusters

Maui County targeted cluster industries were identified by the Maui County CEDS Strategy Committee and further discussed in the Maui County CEDS plan in the Appendix. Maui County's targeted industry clusters and regions are (in alphabetical order):

1. Agriculture, Aquaculture and Forestry
2. Attainable Housing and Construction
3. Creative Industries
4. Eco-Economy (incl. Conservation, Ecosystem and Environmental Restoration and Management, Climate Change Adaptation)
5. Energy (incl. Renewable Energy)
6. Hawaiian Knowledge and Culture
7. Healthcare and Wellness
8. Visitor Industry
9. Hana
10. Lanai
11. Molokai

#### Maui County's Economic Outlook

The economic "stress test" of the COVID-19 pandemic era saw historic unemployment levels in Maui County that were the highest in the nation in 2020, attributable to the economy's overreliance on the visitor industry and consequent lack of resilience. At the same time, the housing market saw unprecedented price increases, affecting single family homes, condominiums, and the rental market. Many families and residents were priced out of the housing market altogether and the need for more attainable and workforce housing became even more acute. As the pace of price inflation accelerated during 2022, the economic recovery that resulted in unemployment levels falling – although still close to double the figures pre-pandemic – has led to uncertainty regarding Maui County's economic outlook.

1. Largely dependent on External factors, beyond our control:
  - a. Visitor numbers
  - b. Intensity of COVID pandemic (or new variants or restrictions affecting travel)
  - c. Inflationary pressures (burdening economic growth). Real incomes expected to decline 5% in 2022
  - d. Interest rates and Federal Reserve/US monetary policy
  - e. Continued supply chain issues, including effects of Ukraine war and China policies
  - f. U.S. trending towards possible recession (which could dampen visitor numbers)
2. Demography: In-migration and out-migration rates (loss of younger workforce/brain drain and influx of older workers tied to Continental US economy)



# DRAFT

3. Structural labor force changes (loss of younger workers, undesirability of traditional jobs such as fast food, service industry, retirement rates)
4. Maui County Housing prices, rental prices, and rate of increase Attainable Housing stock
5. Meaningful, measurable economic diversification requires consensus, mindful planning and coordination, funding, and assignment of tasks and responsibilities to put priorities and strategies into action. The extent to which diversification is achieved and its pace of delivery depend on the confluence and efficacy of, and sustained commitment to, these factors.
6. UHERO forecasts Maui County unemployment to fall from 4.2% currently to pre-pandemic rates by 2024, and visitor numbers to stabilize because of the above factors.

## Maui County's overarching Themes, Objectives and Strategies

A number of “throughlines” manifested during the Strategy Committee and cluster Focus Group deliberations that were common to most of the convened groups. Together with themes that arose more than once, and the key objectives that stood out for Maui County’s more rural communities, the main takeaways were as follows:

1. Maui residents come first: Urgent need for Attainable/Affordable Housing an overarching theme
2. Related: need to streamline and improve County permitting processes
3. Discomfort with Tourism numbers and lack of reciprocity/depletion of natural resources
4. Overarching importance of education across all clusters, especially in STEM subjects to facilitate diversification and education for future occupations and needs
5. Need for increased resilience and sustainability, including food security; importance of Agriculture
6. Anticipate future needs (a predictive model) for Healthcare cluster, especially given demographic trends and population aging; increase in training and provider collaboration
7. Recognition of the importance and centrality to all sectors of Hawaiian knowledge and culture and increase access to capital for Native Hawaiian owned businesses
8. Recognition of potential of the Eco-Economy as an economic driver and the importance of preserving and enhancing Maui’s environment for residents
9. Establish a film production/digital media/music and sound facility to anchor the creative arts in Maui County and establish a home-grown resource
10. Create a Maui County Eco testing lab to create local diagnostic, monitoring, and analytic capability
11. Increase EV infrastructure and ensure equitable access to renewable energy technology and resources such as PV and community solar projects
12. Create a Science, Technology and Innovation incubator/accelerator facility for Maui County businesses to further advance economic diversification
13. Importance of nurturing the non-profit sector that supports and benefits the majority of residents
14. Inadequate data collection and disaggregation for many aspects and sectors of the economy
15. Need for increased access to capital for small business

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16. Need for improvement in connectivity and ability to keep pace with technology advances (fiber optics etc.)
17. Hana: Create plan for Hana Civic Center
18. Lanai: Establish long-term care facility and retrofit kupuna homes to enable remaining on-island
19. Molokai: Maximize locally sourced renewable energy to decrease energy costs, restore forests with native plants and trees, and prioritize small business development.

# HONOLULU COUNTY

The economy of Honolulu County has a gross domestic product of approximately

**\$62.1 Billion**

a year in 2020 which decreased from \$67.6 billion in 2019. Honolulu County's economy supports approximately 364,092 jobs (2020) that pay an average of \$62,793 in annual earnings.



## POPULATION

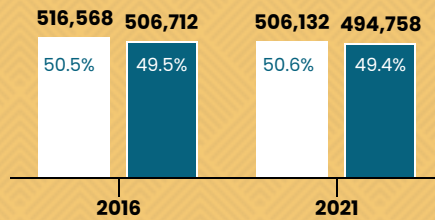
**1,023,280**  
2016

**1,000,890**  
2021

### By Gender

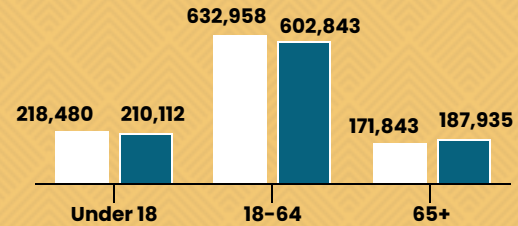
(Number of residents)

● Female  
● Male



### By Age

● 2016  
● 2021



## EDUCATION

2016-2020 average

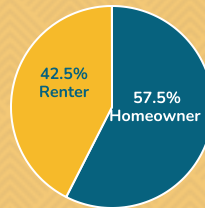
**92.4%**  
High School Graduates

**35.7%**  
College and Higher Degree Graduates

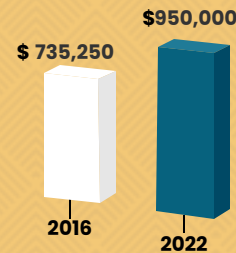


## HOUSING

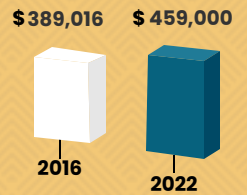
2016-2020 average



### Single Family Home

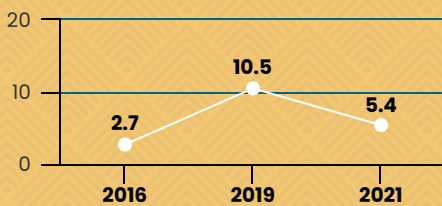


### Condo

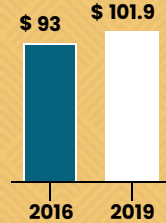


## ECONOMY

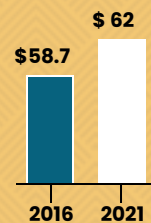
Unemployment Rate (%)



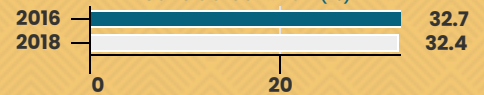
Median Household Income (\$ Thousands)



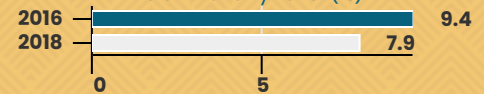
Per Capita Personal Income (\$ Thousands)



Percentage of Population considered ALICE (%)



Percentage of Population Below Poverty Level (%)



## LARGEST INDUSTRIES

Top Industries By GDP (\$ Millions)	2016	2020
Government	14,987	15,580
Real Estate, Rental, and Leasing	10,586	10,551
Health Care and Social Assistance	4,588	5,112
Accommodation and Food Services	4,095	3,904
Retail Trade	3,794	3,807
<b>Total GDP (\$ Millions)</b>	<b>62,953</b>	<b>62,124</b>

Top Industries by Number of Jobs	2016	2020
Government	97,200	92,600
Trade, Transportation & Utilities	85,600	75,600
Leisure and Hospitality	72,400	63,600
Education & Health Services	65,600	55,300
Professional & Business Services	56,100	52,800
<b>Total Employees</b>	<b>468,800</b>	<b>421,800</b>

## City and County of Honolulu (Oahu): Regional Economic Benchmark Data

### PROFILE OF HONOLULU COUNTY ECONOMY

#### Honolulu County CEDS Targeted Industry Clusters

Honolulu County targeted and emerging cluster industries were identified by the Oahu Economic Development Board based on data analysis and island-wide consultation and further discussed in the Honolulu County CEDS Plan in the Appendix. Honolulu County's targeted industry clusters are (in alphabetical order):

1. Agriculture and Food Systems
2. Art and Creativity
3. Education and Innovation
4. Environment and Natural Systems
5. Health and Wellness
6. Hospitality and Reciprocity
7. Housing and Critical Services
8. Safety and Peace

#### Honolulu County's Economic Outlook

Oahu is at an important crossroads. COVID-19 caused large-scale disruption with a public health crisis and a global economic crisis. While the pandemic brought hardship and grief to Oahu residents, it revealed crucial lessons to carry forward. It brought critical attention to the grave socio-economic disparities and income inequality. It underscored the need to reduce the vulnerability of the Oahu community and economy to external volatilities, especially as the most isolated population on the planet. In particular, over-dependence on a single industry for jobs and commerce and on imports for energy, food, and essential goods puts Oahu at risk.

Unemployment was at an all-time high, families struggled, supply chain disruptions impacted residents, and local businesses closed their doors. Yet, it also showed the strength of an Oahu community connected by a culture of ALOHA and spurred innovation and partnerships.

As other challenges loom on the horizon, particularly the real and current threat of climate change, building resilience and a sustainable, equitable future has never been more critical. The lessons learned from the pandemic response can inform preparation to ensure that Oahu will withstand future shocks and stressors. Importantly, it opened collaborative dialogue on Hawaii-wide economic recovery to build long-term resilience and prosperity through foundational Hawaiian and island values.

Against this backdrop, the 2022-2026 Comprehensive Economic Development Strategy (CEDS) is an opportunity to create an economic recovery 'sail plan' that ensures the current generation and those to come will truly thrive. As the state's largest economy, Oahu plays a key role in Hawaii's economic future direction. This island-wide consultation revealed that Oahu is ready to advance values-driven economic recovery efforts that contribute to Hawaii-wide prosperity.

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Hawaii has exemplary, world-class business and community models for sustainable development and economic recovery - what sets us apart is ALOHA. Today, Hawaii is recognized by the United Nations (UN) as a global sustainability leader and is uniquely positioned to model a regenerative economy grounded in traditional values. The Oahu CEDS charts a course for economic recovery that is grounded in indigenous knowledge, embraces modern innovation, and builds on the momentum of existing initiatives across sectors. In particular, it builds upon the Aloha+ Challenge, Hawaii's local framework to meet the UN's global 2030 agenda to advance a sustainable economy, 'Āina Aloha Economic Futures recovery recommendations, CHANGE Framework, and state and country plans to build long-term sustainability and resilience.

## Honolulu County's overarching Themes, Objectives and Strategies

### Overarching Themes:

- Sustainability (environmental, social, and economic) and 'Āina Momona (abundant land)
- Equity and Peace
- Resilience and Climate Change
- Workforce/Human Development and Lifelong Learning
- Entrepreneurship and Innovation Mindset
- Cross-Sector Collaboration

### Objectives:

1. **Build inclusive communities connected through ALOHA** by perpetuating Native Hawaiian and island values and shared responsibility to care for Oahu and Hawaii.
2. **Increase affordability for Oahu residents** by addressing the projected affordable housing need of 22,000 units by 2025 through innovative approaches and reducing cost of living to ensure that all residents can afford to stay and thrive in Hawai'i.
3. **Center the community in decision-making at all levels** across government, business, and civil society to build trust and empower courageous leaders with island values.
4. **Achieve healthy 'āina (land and water) and balanced land-use** by developing and implementing policies, plans, programs, and partnerships that prioritize a healthy environment mauka to makai (ridge to reef) while meeting the core needs of Oahu residents (e.g., affordable housing, local food, clean energy and transportation, and climate adaptation and resilience).
5. **Invest in accessible, quality P-20 education, career pathways, and workforce development** to foster innovation, support lifelong learning, create well-paying jobs, and provide an environment where businesses that align with Hawaii's values can thrive.
6. **Build a resilient Oahu community and diversified economy** through the Action Plans for eight critical economic clusters: *Housing and Critical Infrastructure, Environment and Natural Systems, Agriculture and Food Systems, Education and Innovation, Health and Wellness, Safety and Peace, Art and Creativity, and Hospitality and Reciprocity*

### Strategies:

- **Cultivate shared values and innovation** to inspire unprecedented levels of action

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- **Mobilize and connect leadership across sectors** to collaborate on agreed priorities
- **Increase access to capital**, resources, and critical infrastructure equitably
- **Invest in the next generation** and skill-building to grow future leaders of Hawaii
- **Grow localized circular economic models** that reinvest locally as a force-multiplier
- **Support community-based solutions** that empower participatory decision-making
- **Enact systematic policy** to reduce barriers and accelerate solution-making
- **Commit to accountability** that promotes rigor, learning, and shared responsibility
- **Facilitate global exchange and partnerships** with others around the world

## Economic Clusters Overview

The Oahu CEDS identifies eight economic clusters based on review and evaluation of existing Hawaii CEDS and national examples, data-driven cluster analysis, and multi-stakeholder and community priority-setting. In particular, data from the University of Hawaii Economic Research Organization (UHERO) 2017 report “*A New Perspective on Hawaii’s Economy: Understanding the Role of Clusters*”<sup>25</sup> and U.S. Cluster Mapping Project<sup>26</sup> were used to assess existing cluster strengths and identify emerging economic opportunities. This plan cross-walks national traded cluster categories with the local economic development priorities identified in the island-wide consultation process). The following Oahu CEDS clusters are grounded in data and aligned with national standards yet framed to illustrate the strategic direction set locally by diverse Oahu stakeholders and communities. The following eight clusters include existing industries, sectors, and jobs and invite new opportunities for economic development that benefit Oahu residents and their island home.

- **Housing & Critical Infrastructure** (e.g., *Housing, Built Environment; Clean Energy, Transportation, Water, and Waste; Financial and Communications technologies*)
- **Environment & Natural Systems** (e.g., *Environmental Stewardship, Natural Resource Management, and Climate Resilience*)
- **Agriculture & Local Food Systems** (e.g., *Local Food Systems, Agriculture, Aquaculture, Consumer Packaged Goods*)
- **Education & Innovation** (e.g., *Education, Science, Research, Technology*)
- **Health & Wellness** (e.g., *Health Care, Wellness, Social Services, Recreation, Sports*)
- **Arts & Creativity** (e.g., *Art, Culture, and Creative Industries*)
- **Safety & Peace** (e.g., *First and Disaster Response, Law, Public Safety, Legal Services, Conflict Resolution, Diplomacy, Public Safety, Cybersecurity, Military*)
- **Hospitality & Reciprocity** (e.g., *Regenerative Visitor and Hospitality industries, events, and retail, restaurant, and service industries*)

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<sup>25</sup> *A New Perspective on Hawaii’s Economy: Understanding the Role of Clusters*, UHERO, [https://uhero.hawaii.edu/wp-content/uploads/2019/08/New\\_Perspective\\_Hawaii.pdf](https://uhero.hawaii.edu/wp-content/uploads/2019/08/New_Perspective_Hawaii.pdf)

<sup>26</sup> US Cluster Mapping Project, <http://www.clustermapping.us/>

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<b>O'ahu 2022-26 CEDs Clusters (Locally-Based)</b>	Housing & Critical Infrastructure	Education & Innovation	Art & Creativity	Security & Peace	Hospitality & Reciprocity	Health & Wellness	Agriculture & Food Systems	Environment & Natural Systems
<b>U.S. Traded Clusters Categories (National)</b>	Construction Products & Services	Education & Knowledge Creation	Ed/Knowledge: Creative Industries	Aerospace Vehicles & Defense	Hospitality &Tourism	Health Care	Agricultural Inputs & Services	Environmental Services; Forestry

*Figure 2. Cluster Crosswalk - Oahu CEDs Clusters and U.S. Traded Clusters*

## Section 2. SWOT Analysis

Strengths, Weaknesses, Opportunities, and Threats (SWOT) analyses were conducted with the 2022-2026 CEDS Statewide Advisory Committee (SAC) in its first two meetings, as well as throughout the state of Hawaii at the county level via the CEDS processes in Hawaii County, Kauai County, Maui County and the City & County of Honolulu (Oahu). The Statewide SAC SWOT results mirrored many issues voiced by the county level SACs and focus groups and are provided below.

The SAC Overview SWOT analysis is provided on the next page, followed by summary tables of SWOT analyses for the eight (8) statewide industry clusters. Detailed MeetingSift SWOT data for the eight (8) industry clusters can be found in *Section 6. Additional Reports and Resources*.





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## Statewide SAC Overview SWOT Exercise Results from June 29, 2022 Meeting:

STRENGTHS	WEAKNESSES
<ul style="list-style-type: none"> <li>• People resilient and with ALOHA spirit</li> <li>• Multi-cultural community, esp., indigenous knowledge by host culture</li> <li>• Lowering silos in corporate, government, NPOs</li> <li>• Knowledge-based industries because of natural resources (e.g., dark skies and astronomy)</li> <li>• Ambitious and achievable energy climate goals recognized by United Nations et al to achieve their goals (focus on credible implementation/action)</li> <li>• Island economy while challenging is also tremendous asset (food security, energy, housing, natural resource management).</li> <li>• Hawaii at the forefront on how to put together solutions and be model to others, and can attract additional resources as we achieve goals</li> <li>• `Āina and place is a Strength and Weakness because we are not protecting it well, and is also Opportunity and Threat; it will be critical to strategies; facilitators from Oahu SWOT should share their SWOT results</li> <li>• Innate spirit of collaboration/kuleana versus competition</li> <li>• County that has public education system in only one district, one university system helps equity and access; also a Weakness because of bureaucratic nature, detachment with more rural areas and less ability to act quickly to meet the rapidly changing workforce mentioned</li> <li>• Climate and natural environment</li> <li>• Visitor industry</li> </ul>	<ul style="list-style-type: none"> <li>• Aging Infrastructure</li> <li>• High cost of living</li> <li>• Aging and inadequate broadband infrastructure</li> <li>• Shipping costs</li> <li>• Food insecurity and high proportion of imported food at approx. 85%</li> <li>• Lack of continuity and stability for good programs (challenges incl., funding, discipline, or attention paid to it) that become one- offs. Need runway to see desired outcomes for programs</li> <li>• Continuity and connectivity between various efforts</li> <li>• Climate change, sea-level rise, long-term drought</li> <li>• Heat stress has huge impact on health; also an Opportunity to work on adaptations to work on heat stress with areas losing their urban tree canopy and opportunity to build healthcare system to be aware of where climate change and heat stress taking us</li> <li>• Lack of affordable housing: many highly educated young families moving to mainland to get affordable house. Must look at teacher housing and other housing that's transit oriented. Also cannot rely on public subsidies entirely and must reduce costs we can (outside of labor costs)</li> <li>• Heavy reliance on Visitor Industry</li> </ul>
OPPORTUNITIES	THREATS
<ul style="list-style-type: none"> <li>• Brilliant people with ecological mindset who leave islands because of the lack of opportunities and threats name</li> <li>• HI can be leader for sustainable island communities and on national AND global stage</li> <li>• Unique way we do business in HI can be bright light to showcase how done here and how it can be industry- leading for other areas; can help build bridges with people across the world</li> <li>• Workforce: to equip young and incumbent workers for jobs that we currently go to the mainland for – i.e., supply local skilled workforce.</li> <li>• Sustainable growth, esp., around tourism</li> <li>• Responsible/regenerative Visitor Industry</li> </ul>	<ul style="list-style-type: none"> <li>• Cost of living and brain drain</li> <li>• Aging workforce and out-migration</li> <li>• Greenhouse gas</li> <li>• Visitor industry</li> </ul>

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## Statewide SAC Industry Cluster SWOT Exercise Results from July 21, 2022 Meeting:

The following are the SWOT analyses of the eight industry clusters evaluated by the Statewide SAC members, highlighting the most prevalent and common responses (as denoted by the numbers at the end of each bullet point) under each Strengths, Weaknesses, Opportunities and Threats aspects. The full list of SAC members detailed feedback in raw form, as gathered via the online MeetingSift collaboration platform, is available in *Section 6. Additional Reports and Resources*.

AGRICULTURE and FOOD	
<p><b>STRENGTHS</b></p> <ul style="list-style-type: none"> <li>• Education, Support, Collaboration (12)</li> <li>• Weather/Climate (8)</li> <li>• Water (8)</li> <li>• Land and Soil (7)</li> <li>• Unique, Niche, Boutique, Value Added (7)</li> <li>• Indigenous Knowledge (4)</li> </ul>	<p><b>WEAKNESSES</b></p> <ul style="list-style-type: none"> <li>• Costs (16)</li> <li>• Housing and Affordability (13)</li> <li>• Water and Infrastructure (10)</li> <li>• Aging Workforce (9)</li> <li>• Land (9)</li> <li>• Permitting and Regulations (8)</li> <li>• Shipping and Transportation (7)</li> </ul>
<p><b>OPPORTUNITIES</b></p> <ul style="list-style-type: none"> <li>• Ag tourism &amp; Regenerative Agriculture (16)</li> <li>• Value Added, Specialty, Niche (12)</li> <li>• Collaboration and Partnerships (12)</li> <li>• Outreach and Education (10)</li> <li>• Innovation and Technology (10)</li> </ul>	<p><b>THREATS</b></p> <ul style="list-style-type: none"> <li>• Policies, Regulations, Legislation (12)</li> <li>• Pests and Invasive Species (11)</li> <li>• Water, Irrigation and Infrastructure (10)</li> <li>• Competition (9)</li> <li>• Climate Change (6)</li> </ul>

CREATIVE INDUSTRIES and TECHNOLOGY	
<p><b>STRENGTHS</b></p> <ul style="list-style-type: none"> <li>• People/Workforce (16)</li> <li>• Culture (15)</li> <li>• Storytelling/Musician (9)</li> <li>• Place/Location (8)</li> <li>• Schools/Curriculum/Halau (8)</li> <li>• Diversity (7)</li> </ul>	<p><b>WEAKNESSES</b></p> <ul style="list-style-type: none"> <li>• Lack of Funding, Support (18)</li> <li>• Infrastructure (7)</li> <li>• Lack of Education Pathways (7)</li> <li>• Cultural Appropriation (6)</li> <li>• Workforce Instability (5)</li> </ul>
<p><b>OPPORTUNITIES</b></p> <ul style="list-style-type: none"> <li>• Collaboration/Community (9)</li> <li>• Create Meeting/Workspaces (9)</li> <li>• Visitors/Tourism (8)</li> <li>• Local Artist Exposure (8)</li> <li>• Cultural Diversity (7)</li> </ul>	<p><b>THREATS</b></p> <ul style="list-style-type: none"> <li>• Lack of Support (9)</li> <li>• Low Wages (8)</li> <li>• Not a Priority for Investment (7)</li> <li>• Not a Priority for Education (7)</li> <li>• Cultural Appropriation (7)</li> </ul>

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EDUCATION and KNOWLEDGE CREATION	
<p><b>STRENGTHS</b></p> <ul style="list-style-type: none"> <li>• Diversity (7)</li> <li>• Cultural/Indigenous Knowledge (7)</li> <li>• ‘Āina Based Education (6)</li> <li>• Sustainability (6)</li> <li>• Collaborations (5)</li> </ul>	<p><b>WEAKNESSES</b></p> <ul style="list-style-type: none"> <li>• Low Pay for Teachers (11)</li> <li>• Curriculum not aligned with Workforce (9)</li> <li>• Disparities between Oahu and Neighbor Island Education (7)</li> <li>• Disparities between Private/Public Schools – Socioeconomic disparity (7)</li> <li>• Housing (6)</li> <li>• Bureaucracy &amp; Top-Heavy Administration (5)</li> </ul>
<p><b>OPPORTUNITIES</b></p> <ul style="list-style-type: none"> <li>• Collaboration/Community (9)</li> <li>• Industry Alignment w/Education (9)</li> <li>• Hawaiian Culture Integration in Curriculum (8)</li> <li>• Integration of Innovation (8)</li> <li>• Cultural Diversity (7)</li> </ul>	<p><b>THREATS</b></p> <ul style="list-style-type: none"> <li>• Legislature (Lack of Support) (9)</li> <li>• Low Wages (8)</li> <li>• Cost of Living (7)</li> <li>• Brain Drain (7)</li> <li>• Status Quo/Resistance to Change (7)</li> </ul>

ENERGY and SUSTAINABLE RENEWABLES	
<p><b>STRENGTHS</b></p> <ul style="list-style-type: none"> <li>• Diverse Renewable Portfolio (15)</li> <li>• Public Sector and Community Support (12)</li> <li>• Climate, Solar (10)</li> <li>• Innovation and Technology (10)</li> <li>• Partnerships and Collaborations (8)</li> <li>• Renewable goals (2045) (6)</li> </ul>	<p><b>WEAKNESSES</b></p> <ul style="list-style-type: none"> <li>• Politics and Policies (12)</li> <li>• Costs (10)</li> <li>• People (vulnerable populations, NIMBY, politics) (8)</li> <li>• Aging Infrastructure, Grid (5)</li> <li>• Land (limited, conflicting use) (5)</li> <li>• Monopolies (5)</li> </ul>
<p><b>OPPORTUNITIES</b></p> <ul style="list-style-type: none"> <li>• Technology and Innovation (18)</li> <li>• Reduce Costs (15)</li> <li>• Public Sector (Fed, State) Funding (12)</li> <li>• Geothermal, Hydrogen (10)</li> <li>• Renewables Portfolio (9)</li> <li>• Partnerships and Collaboration (8)</li> </ul>	<p><b>THREATS</b></p> <ul style="list-style-type: none"> <li>• Costs and Volatility (9)</li> <li>• Lack of information and public understanding/engagement (7)</li> </ul>

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HEALTH and WELLBEING	
<p><b>STRENGTHS</b></p> <ul style="list-style-type: none"> <li>• Good awareness, community support (10)</li> <li>• Good living environment (9)</li> <li>• Good jobs/career path/pay (8)</li> <li>• Funding (public sector) (7)</li> <li>• Innovation, Technology (7)</li> </ul>	<p><b>WEAKNESSES</b></p> <ul style="list-style-type: none"> <li>• Insufficient providers, facilities (21)</li> <li>• Cost of Living, Housing, Loans, Low Reimbursement Rates (20)</li> <li>• Increasing Healthcare Costs (16)</li> <li>• Lack of Housing (9)</li> <li>• Aging population including Providers (8)</li> </ul>
<p><b>OPPORTUNITIES</b></p> <ul style="list-style-type: none"> <li>• Community support &amp; organizers (15)</li> <li>• High Paying, Living Wage Jobs, Diversity in Workplace (14)</li> <li>• Telehealth, Innovation (13)</li> <li>• Mental Health response (13)</li> <li>• Partnerships, Resource Sharing (8)</li> </ul>	<p><b>THREATS</b></p> <ul style="list-style-type: none"> <li>• Costs, Poverty - Rural Healthcare, Access (20)</li> <li>• Aging Population - Healthcare workers, labor issues (11)</li> <li>• Politics, Policies (9)</li> <li>• Affordability, Housing (6)</li> </ul>

HOSPITALITY and TOURISM	
<p><b>STRENGTHS</b></p> <ul style="list-style-type: none"> <li>• Mature Market, Experience Expertise (17)</li> <li>• Brand, Aloha, Culture, Values, Diversity (17)</li> <li>• Environment, Beauty, Weather (15)</li> <li>• Location (10)</li> <li>• Destination Management, Focus on Regenerative Tourism, Tourism Management (9)</li> <li>• Infrastructure incl. accommodations, airports, etc. (7)</li> </ul>	<p><b>WEAKNESSES</b></p> <ul style="list-style-type: none"> <li>• Too many visitors, carrying capacity (25)</li> <li>• Extraction and Impact on `Āina, Natural Resources, Infrastructure (21)</li> <li>• Economy too dependent (20)</li> <li>• Non-reciprocal industry (18)</li> <li>• Resident Perceptions, Community Non-Supportive – Desire Change (18)</li> <li>• Labor Shortage (17)</li> <li>• Housing and Cost of Living (14)</li> <li>• Peer to Peer Accommodations, Short Term Vacation Rentals (12)</li> <li>• Infrastructure – Lack of, Aging (9)</li> </ul>
<p><b>OPPORTUNITIES</b></p> <ul style="list-style-type: none"> <li>• Diversification and Reframing – Ag Tourism, Eco-Tourism, Regenerative Tourism, Health Tourism, Edu-Tourism, Home as well as, Destination (26)</li> <li>• Destination Management Plans Tourism Management, Scale Successes, Community Based Management, Carrying Capacity Study (24)</li> <li>• Affordability and Costs Increasing Housing, Residents priced out, Wages too low, Technology &amp; Innovation (12)</li> <li>• Outreach &amp; Education (12)</li> <li>• History, Culture, Values (12)</li> <li>• Residents (vs Tourist mindset), Different expectations, Losing community/resident support (12)</li> </ul>	<p><b>THREATS</b></p> <ul style="list-style-type: none"> <li>• Resident Sentiment Degrading, Negative Impacts (Housing, Affordability, Competition for resources, Loss of Values, Resident voices not heard) (28)</li> <li>• Damaging &amp; Endangering Environment, Lifestyle, Resources, Demographics (Out migration of residents) (26)</li> <li>• Losing workforce as more people Forced to leave Hawaii (22)</li> <li>• Climate Change (22)</li> <li>• Policies, Fees, Taxes (20)</li> <li>• Infrastructure Insufficient Inc Services such as Restaurants (16)</li> <li>• Oversaturation, Too Many Tourists (14)</li> </ul>

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<b>MILITARY and NATIONAL SECURITY</b>	
<p style="text-align: center;"><b>STRENGTHS</b></p> <ul style="list-style-type: none"> <li>• Contracts, Federal \$, High Wage Jobs (26)</li> <li>• Dual Use, Technology, Innovation, Cybersecurity (16)</li> <li>• Defense (15)</li> <li>• Education &amp; Workforce 915)</li> <li>• Infrastructure (12)</li> <li>• Location (12)</li> </ul>	<p style="text-align: center;"><b>WEAKNESSES</b></p> <ul style="list-style-type: none"> <li>• Lack of Care for Hawaii, Red Hill and other Environmental Damage (26)</li> <li>• Public Distrust Credibility lacking, Lack of Community Engagement and Transparency (25)</li> <li>• Disconnect with Community, Residents (22)</li> <li>• Use Out of State Contractors \$ diverted out of state (15)</li> <li>• Prioritization of National Interests over local interests and community (15)</li> </ul>
<p style="text-align: center;"><b>OPPORTUNITIES</b></p> <ul style="list-style-type: none"> <li>• Contracts, Federal \$, High Wage Jobs (22)</li> <li>• Partnerships, Collaboration (22)</li> <li>• Education, Workforce Development (22)</li> <li>• DoD Investment in energy and infrastructure (22)</li> <li>• Innovation, Technology, Dual Use (18)</li> <li>• Improve relationship with community Build relationships and trust (18)</li> <li>• Leverage resources First Response, Climate Change (15)</li> </ul>	<p style="text-align: center;"><b>THREATS</b></p> <ul style="list-style-type: none"> <li>• Hawaii a target with military presence (20)</li> <li>• Lose military and Hawaii becomes a target (18)</li> <li>• Mismanagement of land &amp; natural resources (10)</li> <li>• Impact on local economy e.g., Deployments (10)</li> <li>• Aging Infrastructure (10)</li> <li>• Further erosion of relationship, trust Inc misinformation (10)</li> </ul>

<b>SCIENCE and TECHNOLOGY</b>	
<p style="text-align: center;"><b>STRENGTHS</b></p> <ul style="list-style-type: none"> <li>• STEM (18)</li> <li>• Location (18)</li> <li>• University System, Education (16)</li> <li>• Dark Skies and Astronomy (10)</li> <li>• Innovation &amp; Innovative Thinkers (10)</li> <li>• Indigenous Knowledge (10)</li> <li>• Collaboration, e.g., Broadband Hui (10)</li> </ul>	<p style="text-align: center;"><b>WEAKNESSES</b></p> <ul style="list-style-type: none"> <li>• Cost of Doing Business, Affordability, Housing (19)</li> <li>• Infrastructure Aging, Obsolete, Non-existent (18)</li> <li>• Lack of Capital Investment Low Rank as Place to do Business (18)</li> <li>• Misalignment between trained workforce, graduates and jobs (18)</li> <li>• System inequities Education and workforce development Access to capital (18)</li> <li>• Education (15)</li> </ul>
<p style="text-align: center;"><b>OPPORTUNITIES</b></p> <ul style="list-style-type: none"> <li>• Diverse Ecosystems NELHA, Learning Labs Economic Development Collaboration (28)</li> <li>• University of Hawaii, other Higher Education (19)</li> <li>• Remote Working High Tech Attraction (12)</li> <li>• Climate Change and Research (12)</li> <li>• Energy, Renewable, Sustainability (12)</li> </ul>	<p style="text-align: center;"><b>THREATS</b></p> <ul style="list-style-type: none"> <li>• Housing and Workforce (18)</li> <li>• Lack of public sector (gov't) support (12)</li> <li>• Wages not competitive (12)</li> <li>• Brain Drain Linked to housing, cost of living, Wages, and lack of jobs (10)</li> <li>• Conflicts such as TMT (10)</li> </ul>

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WORKFORCE DEVELOPMENT	
<p style="text-align: center;"><b>STRENGTHS</b></p> <ul style="list-style-type: none"> <li>• Educational Opportunities Including place based (15)</li> <li>• Collaborations/Partnerships (7)</li> <li>• Community Colleges (6)</li> </ul>	<p style="text-align: center;"><b>WEAKNESSES</b></p> <ul style="list-style-type: none"> <li>• Lack of understanding/information About opportunities (5)</li> <li>• Education System - Curriculum not aligned with Workforce (5)</li> <li>• Status Quo/Resistance to Change (5)</li> <li>• Housing (5)</li> </ul>
<p style="text-align: center;"><b>OPPORTUNITIES</b></p> <ul style="list-style-type: none"> <li>• Collaboration (6)</li> <li>• Cost of Living (5)</li> <li>• Housing (5)</li> <li>• Reskill/Upskill (4)</li> <li>• Hawaiian Culture Integration in Curriculum (4)</li> </ul>	<p style="text-align: center;"><b>THREATS</b></p> <ul style="list-style-type: none"> <li>• Housing (5)</li> <li>• Low Wages (5)</li> <li>• Lack of Training Pathways (5)</li> <li>• Brain Drain (5)</li> </ul>

### Resilience and Beneficiaries

After completing the SWOT of the eight (8) industry clusters at the July 2022 meeting of the Statewide Advisory Committee, SAC members were also asked to share *Characteristics and Traits of a Resilient Hawaii Economy* (see Figure 5) and to identify the *Beneficiaries of the 2022-2026 Hawaii State CEDS plan* (see Figure 6). Detailed MeetingSift data for these responses can be found in Section 6. *Additional Reports and Resources*.

Characteristics and Traits	# Responses
Flexible/Resilient	23
Affordable/Accessible	19
Sustainable	17
Balanced	13
Diverse	13
Hawaiian Culture	10
Climate	8
Housing	7
Food Security	6
Education	4
Energy	2

Figure 5. *Characteristics of a Resilient Local Economy*

Beneficiaries of CEDS	# Responses
Hawaii and its People	27
Economy	7
Younger Generations	6
Environment	4
Government and NPOs	4

Figure 6. *Beneficiaries of Hawaii Statewide CEDS Plan*

## Section 3. Strategic Direction and Action Plan

This section of the Hawaii Statewide CEDS identifies economic development strategies that are based on the SWOT analysis and priority identification by the Hawaii CEDS Statewide Advisory Committee in July and August 2022.

The overarching goal of the Hawaii Statewide CEDS is to increase the quality of life of its residents and create conditions for all people to thrive and fulfill their potential. The CEDS intends to support the well-being of the state's diverse communities and unique natural environment as the foundation for a vibrant economy. To help achieve this, the CEDS sets out to build a diversified, resilient economy and sustainable future by advancing the statewide goals set forth by the Hawaii 2050 Sustainability Plan and the Aloha+ Challenge, Hawaii's local framework to measure progress towards the United Nations 2030 Sustainable Development Goals (SDGs).

Aligning the state's economic development strategy with the SDGs, the CEDS promotes an equitable, sustainable economic recovery that builds long-term resilience in both Hawaii's Traded and Local Clusters. Informed by the SWOT analysis, the statewide strategy includes identified opportunities for the five-year CEDS cycle to inform Hawaii government, business, and civil society leaders in prioritizing economic development initiatives based on ever-changing factors that impact Hawaii's economy. Through this structure, the CEDS will allow for focused strategic dialogue, regular evaluation, and ongoing cross-sector collaboration from 2022-2026.

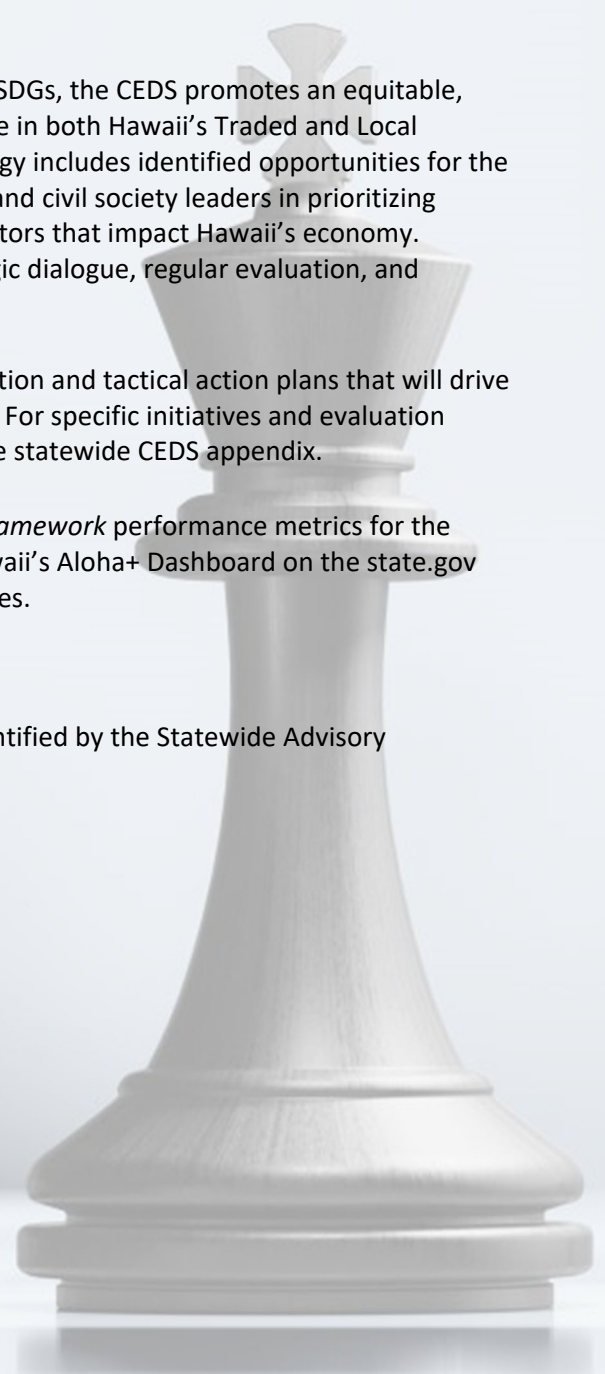
Each of Hawaii's four counties' CEDS includes a strategic direction and tactical action plans that will drive the following statewide economic strategies at the local level. For specific initiatives and evaluation frameworks, please reference the county plans included in the statewide CEDS appendix.

The evaluation framework detailed in *Section 4. Evaluation Framework* performance metrics for the Hawaii Statewide CEDS. The CEDS will be measured using Hawaii's Aloha+ Dashboard on the [state.gov](http://state.gov) website to track economic, social, and environmental outcomes.

### Statewide Industry Clusters

The Hawaii Statewide CEDS focuses on 8 industry clusters identified by the Statewide Advisory Committee:

1. Agriculture, Aquaculture, and Food Systems
2. Creative Industries
3. Education and Knowledge Creation
4. Energy and Sustainable Renewables
5. Health and Well Being
6. Hospitality and Tourism
7. Military and National Security
8. Science and Technology



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## Focus Areas and Priorities

The Hawaii Statewide CEDS Focus Areas and Strategic Priorities are integrated across the eight local clusters to increase the quality of life for residents. These include the following:

- Equity and Inclusion
- Basic Necessities
- Resilience and Sustainability
- Infrastructure
- Education and Workforce Development

## Cross-Cutting Strategies

The Hawaii Statewide CEDS strategies build on the identified cross-cutting focus areas and priorities to support advancing the statewide goals and cluster action plans:

- Advance policies and programs to reduce the cost of living and increase economic stability
- Promote cross-sector collaboration to break down silos and achieve shared goals
- Increase the capacity of local education, research, development, and training institutions
- Reduce barriers to encourage innovation and foster small business development
- Cultivate island values and strong relationships across institutions and communities
- Build regional and global partnerships

## Hawaii Statewide CEDS Goals and Objectives

EDAH coordinators, together with the Statewide SAC members, identified the following goals and objectives as priority strategies to guide action and progress in each of the eight industry clusters.

**Goal: Create a vibrant entrepreneurial ecosystem** for homegrown Hawaii businesses and organizations to thrive in a 21st-century context.

### **Objectives:**

- **Increase access to capital** and resources for small businesses, entrepreneurs, organizations, and communities through diverse, innovative public-private sources.
- **Expand critical infrastructure for innovation** with affordable and accessible broadband internet, telecommunications services, clean energy, and transportation.
- **Provide business development** that supports startups to scale.
- **Invest in localized supply chains** and circular economic models to mitigate future disruption and build long-term resilience.

**Goal: Build education and career pathways** in existing, emerging, and new Hawaii sectors and industries aligned with the Aloha+ Challenge and UN Sustainable Development Goals.

### **Objectives:**

- **Increase workforce development activities** that promote equitable access to skill-building and good-paying jobs in sectors that are more resilient to future challenges.



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- **Expand partnerships in the P-20 education system** (early learning to post-secondary) for technical, social-emotional, and non-cognitive skills to grow future leaders.
- **Implement the Good Jobs Challenge** and career programs to expand opportunities.

**Goal: Position Hawaii to leverage and participate in the global digital economy**

**Objectives:**

- **Create conditions to strengthen remote work** as an option for Hawaii’s residents to participate in and realize the associated benefits
- **Promote the development and export of Hawaii’s professional services** as enabled by the digital economy
- **Strengthen broadband infrastructure, access, and literacy** to enable equitable access to participation in the digital economy

**Goal: Position Hawaii as a leader regionally and globally** in a systems approach to sustainable economic development and to build overall resilience.

**Objectives:**

- **Invest in the ecosystem of Hawaii institutions**, existing and emerging, that foster strong partnerships across the Asia-Pacific region and internationally.
- **Build Hawaii’s brand** as a leader in sustainability and innovation.
- **Promote the export of goods and services** and support Hawaii role as a hub of international trade
- **Invest in world-class research, development, and technology** to meet the SDGs, particularly the health-water-energy-food-climate nexus and indigenous innovation.
- **Collaborate on data** analytics, visualization, and dashboards across the Pacific.

**Goal: Enhance Hawaii’s unique value proposition** and foundation for a healthy economy.

**Objectives:**

- **Reinvest in natural capital** from ridge to reef with watershed forest and marine management, freshwater quality and capacity, and native ecosystem health.<sup>27</sup>
  - **Water Reuse** – identify infrastructure needs and technology innovation funding for water reuse, such as seed money for demonstration projects, to secure long-term water supply needed for economic growth and increase the need for a skilled economic workforce sector in water operations; and bring in more funding subsidies to support innovative technologies that increase island sustainability such as onsite water reuse, high efficiency water use and smart water irrigation.

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<sup>27</sup> See Section 6. Additional Reports and Resources for list of plans, reports and studies to support water infrastructure and resource needs

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- **Water Recharge** – support watershed protections for recharge potential and develop green infrastructure.
- **Water Conservation** – balance water use by increasing water conservation and reuse of visitor industry, and apply more modern technology of water systems to improve water infrastructure and conservation; better align sources and uses of water to protect long-term water security.
- **Perpetuate and support Native Hawaiian culture**, language, practices, and communities.
- **Promote programs that benefit residents and communities** experiencing the greatest inequities, including support for community-based economic development.
- **Advance land use decisions** aligned with meeting the state’s goals for conversation, affordable housing, local agriculture, clean energy, transportation, and climate resilience.

## Economic Industry Cluster Goals-Objectives-Priority Actions

### Agriculture, Aquaculture, and Food Systems

**Goal:** Grow Hawaii’s agricultural sector to diversify the economy, build resilient local food systems, and increase self-sufficiency while protecting Hawaii’s natural and cultural resources.

**Objective 1: Build agricultural sector capacity** to increase local food production and support successful agribusinesses, entrepreneurs, farmers, and food producers.

#### *Priority Actions:*

- **Prioritize agricultural land affordability and equitable water access**, including land use planning and classification and improved water infrastructure and quality protection.
- **Increase capital investment** for production and value-added products (e.g., low-cost capital, revolving funds, federal grants, and loans) for small to medium farm businesses.
- **Promote business development and back-office operations capacity**, particularly for small to medium agribusinesses, entrepreneurs, and nonprofit organizations.
- **Address high energy costs** with increased renewable energy and energy efficiency.
- **Support indigenous food systems**, including taro farming, fishpond restoration, biocultural land stewardship, and traditional subsistence and cultural practices.
- **Improve available technology and innovation options** for farmers and agribusinesses.
- **Implement the Hawaii Biosecurity Strategy** to address current and mitigate future invasive species threats to the agricultural sector and enhance natural resources.

**Objective 2: Create a strong workforce pipeline** for the agricultural sector to promote local food production and sustainable food systems.

#### *Priority Actions:*

- **Invest in P-20 agricultural education and workforce development** with programs and personnel across school and university curricula.

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- **Cultivate the next generation of leaders across** agriculture and aquaculture careers, including farm succession planning and multi-generation knowledge transfer.
- **Increase agricultural housing** to reduce the cost of living for the agricultural workforce.
- **Promote experiential learning opportunities** through paid internships, apprenticeships, hands-on training programs, and cross-industry partnerships.
- **Expand food-safety certification programs**, training, and support for local producers.

**Objective 3: Encourage the purchase of local agricultural products** from state and county governments, businesses, visitors, and consumers.

***Priority Actions:***

- **Expand the “Farm to State” program**, government procurement, and institutional purchasing of local agricultural products
- **Market farm-to-table initiatives** (e.g., “Buy Local, It Matters,” etc.) that promote local food consumption and reduce food waste with the government, businesses, and residents.
- **Promote agritourism** to integrate local agriculture into the visitor experience.
- **Expand accessibility and affordability programs** that increase equitable access to and consumption of fresh, local nutritious local foods for low-income households (e.g., SNAP, Da Bux).
- **Support culturally based foods** with community biocultural land stewardship and farms.
- **Identify appropriate export crops** while prioritizing food production for local consumption.

**Objective 4: Integrate local agricultural supply chain and infrastructure** to increase value chain coordination.

***Priority Actions:***

- **Establish food hubs and cooperatives on all islands** to increase access to markets and aggregate services (e.g., distribution, storage, processing, marketing).
- **Increase cooperative transportation** (e.g., air, water, and land) for cost-sharing and coordination of local agricultural products.
- **Increase local agricultural-related facilities and access**, including processing plants, slaughterhouses, commercial kitchens, storage, and distribution.
- **Review existing built infrastructure** (e.g., harbors, roads, reservoir decommission and modernization, water infrastructure) to increase resilience, safety, and equitable access.

## Creative Industries

**Goal:** Expand and strengthen a Creative Industries sector that reflects Hawaii’s unique culture.

**Objective 1: Increase public exposure and outreach** for Hawaii’s Creative Industries Sector to elevate diverse local artists and their work.

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- **Elevate art and culture** (e.g., music, dance, storytelling, cultural heritage and crafts, film, fashion, new media, publishing, and diverse fine, performing, and visual arts, etc.) as integral parts of Hawaii community socioeconomics for residents and visitors.
- **Showcase diverse local artists** in accessible public venues and community spaces across all islands (e.g., outdoor events, festivals, art installations, and cultural activities)
- **Support Native Hawaiian culture**, arts, language, practices, and communities to perpetuate traditional cultural heritage and arts.
- **Promote local Hawaii artists** statewide, nationally, and internationally (e.g., local designers' work and exposure at fashion shows, etc.).
- **Collaborate with stakeholders** to promote Creative Industries and mainstream key economic and trade policy recommendations.

**Objective 2: Provide education that promotes creativity and increases awareness** of art and culture's contribution to fostering diverse thinking, self-expression, and self-determination.

***Priority Actions:***

- **Ensure strong arts and culture education** in the P-20 school system with curricula that cultivates students' creativity, innovation, and self-expression.
- **Provide Native Hawaiian cultural education** for youth, adults, and across industries.
- **Increase educational partnerships for the arts** with businesses, nonprofits, and creative professionals to create next-generation career pathways in the Creative Industries sector.
- **Support opportunities for residents** of all ages that foster creativity and increase access to and appreciation of the arts.

**Objective 3: Support creative entrepreneurs** with business development and resources.

***Priority Actions:***

- **Provide business development and mentorship** for artists and creators (e.g., accounting, marketing, patent law, intellectual property, etc.).
- **Resource creative entrepreneurs** with access to capital, markets, and other support to assist in bringing creative products and services to market.
- **Revamp the "Made in Hawaii" branding program** to increase the visibility and value of Hawaii-made products.
- **Secure creative spaces** (e.g., co-working spaces, studios) that allow creative organizations and entrepreneurs to share resources, innovate, and collaborate across sectors.

## Education and Knowledge Creation

**Goal:** Establish Hawaii as a center for knowledge and innovation that leads regionally and globally in addressing 21st-century challenges.

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## **Priority Actions:**

**Objective 1: Increase P-20 education degree attainment and curricula** that equitably nurtures innovation, critical thinking, and creativity in Hawaii’s future leaders.<sup>28</sup>

### **Priority Actions:**

- **Advance new P-20 Attainment goals** with equity-focused early childhood education to post-secondary degree attainment targets.
- **Expand P-20 education curricula and experiential learning** (e.g., ‘āina based education, Social Emotional Learning (SEL), Science Technology Engineering Art Mathematics (STEAM), diverse project-based learning)
- **Identify and implement curriculum changes** to keep pace with current needs and support well-rounded students prepared to thrive in a 21st-century context.
- **Increase educational partnerships across sectors** with businesses, nonprofits, communities, and diverse professionals to create next-generation career pathways.

**Objective 2: Build a skilled workforce prepared for existing and future jobs** by investing in people at all stages of their lives and careers.

### **Priority Actions:**

- **Support the ‘Resilient Hawaii: Good Jobs Challenge’** regional workforce training program (e.g., clean energy, creative industries, health, agriculture, technology, etc).
- **Connect employers with educational institutions** to create skilled workforce pipelines for key clusters and critical industries.
- **Increase the number of paid internships** (for all ages from high school to postdocs), apprenticeships, and other experiential learning to grow skillsets.
- **Fund transitional career programs that train, upskill, and reskill residents** to pursue jobs in new and emerging knowledge-based sectors.
- **Anticipate and align training and certification programs** with community and workforce needs.

**Objective 3: Grow innovation sectors and entrepreneurship**, particularly in emerging and new industries aligned with the Aloha+ Challenge and UN Sustainable Development Goals.

### **Priority Actions:**

- **Provide business development and training** that promotes an innovation mindset, entrepreneurial skillsets, and new homegrown startups, businesses, and patents.
- **Invest in world-class research and development** at the nexus of health, climate, water, energy, and food as an important economic opportunity and to build resilience.
- **Elevate indigenous innovation** and Native Hawaiian entrepreneurship, technology, start-ups, and businesses with financial and other forms of capital.
- **Encourage Hawaii-based intellectual property generation**, including breakthrough innovations, research, trademarks, and patents in aligned sectors and industries.

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<sup>28</sup> Hawaii Attainment Goals, *Hawaii Graduates for Hawaii’s Future*, <https://www.hawaiip20.org/>

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- **Revisit exportable knowledge and intellectual property** opportunities that promote Hawaii exporting knowledge and importing financial resources.
- **Establish Hawaii as a knowledge center** regionally and internationally for higher education, research, innovation, sustainability, and indigenous knowledge.

**Objective 4: Bridge the digital divide** with increased access to online learning, digital literacy opportunities, and critical infrastructure deployment for an equitable digital economy.

***Priority Actions:***

- **Support upskilling and digital literacy programs** (e.g., the Workforce Development Council’s Digital Resiliency Initiative).
- **Increase broadband internet access** with continued subsidized payments for low-income households to access digital-learning opportunities and various services
- **Pilot family technology programs** for K-6 students and parents with extra-curricular evenings, afterschool, and weekend classes.
- **Create well-paying jobs** (e.g., electricians, technicians) deploying critical infrastructure, particularly broadband internet, photovoltaic, and electric vehicles.

## Energy and Sustainable Renewables

**Goal:** Build the Energy Innovation sector to meet Hawaii’s commitment to 100% renewable portfolio standards (RPS) by 2045 and provide distributed, affordable clean electricity to Hawaii residents and businesses.

**Objective 1: Increase renewable energy to 40% of total statewide annual output** for electricity generation by 2030.

***Priority Actions:***

- **Encourage renewable energy** to build a resilient and reliable grid from local, renewable sources while pursuing energy efficiency and conservation.
- **Study and implement smart grid** components and capabilities emphasizing load smoothing needs to accommodate renewable energy.
- **Provide incentives** to encourage renewable and alternative energy development.
- **Reduce energy costs** (i.e., current costs and future renewable energy projects) to address impacts on the cost of living and cost of doing business.
- **Explore and support other means of carbon-negative projects** to bring Green House Gas rates down to meet Hawaii’s commitment of 70% reduction by 2030.
- **Address barriers to successful renewable energy projects** (e.g., slow or delayed permitting and other factors).
- **Ensure early and ongoing community engagement** on renewable energy projects to balance meeting Hawaii’s clean energy goal with the needs of local communities, especially those facing the greatest inequities.

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**Objective 2: Promote energy efficiency** to achieve 4,300 gigawatt-hours of cumulative energy savings by 2030.

***Priority Actions:***

- **Increase energy efficiency for private and public buildings**, including via the retrofit of existing buildings and changes to building code standards.
- **Expand Hawaii Green Business Program** to promote energy efficiency and savings.
- **Support education programs and resources** that help residents, small businesses, and the private sector increase energy efficiency.

**Objective 3: Grow the Energy Innovation sector** to advance Hawaii's 100% clean electricity goal by 2045 and grow the economy.

***Priority Actions:***

- **Invest in research, development, and technology** that builds clean, renewable, distributed energy, particularly with higher education institutions.
- **Provide business development and training** that promotes an innovation mindset, entrepreneurial skillsets, and new homegrown startups, businesses, and patents.
- **Expand infrastructure and physical resources** needed for innovation (e.g., broadband internet, facilities, technology).
- **Encourage incentives to support startups and entrepreneurs** and address barriers to facilitate small business growth.

## Health and Wellbeing

**Goal:** Build a holistic health and wellness sector that equitably improves the quality and years of life for Hawaii's people.

**Objective 1: Improve access to healthcare with increased telehealth opportunities** to complement existing services and expand services for rural communities and neighbor islands.

***Priority Actions:***

- **Improve telehealth and broadband access**, particularly for neighbor islands, rural communities, and those facing the greatest inequities.
- **Encourage insurance companies' continued support for telehealth services** (i.e., individual coverage, payouts/reimbursements to practitioners) beyond the pandemic.
- **Expand federal funding and support for Federally Qualified Health Centers (FQHC)** and clinics that serve as hubs for communities that cannot easily afford health services.
- **Improve infrastructure, tools, and outreach services** for rural communities, particularly paratransit services, broadband internet, devices such as laptops and tablets, and language, cultural, and other outreach services.
- **Establish funding and support programs for long-term care** and home retrofit needs that allow elders to age in place, particularly for rural communities.

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- **Promote place-based, cultural approaches to wellness** (e.g., culturally responsive interventions, Native Hawaiian and Pacific Islander traditional practices).
- **Establish a Health Information Technology (HIT) workgroup** to identify key information technology goals.

**Objective 2: Increase access to affordable services** for behavioral and mental health and substance abuse that are culturally responsive and trauma-informed.

***Priority Actions:***

- **Standardize insurance coverage for mental, emotional, and behavioral health** for everyone, especially for children through 18 years of age.
- **Expand school mental health services** in the P-20 education system with curriculum and support for teachers, counselors, and administrators.
- **Increase training and scholarship assistance** for a diverse workforce with cultural, language, and trauma-informed care competencies.
- **Provide Human Resources services for employees** in workplaces that promote behavioral and mental health and ensure trauma-informed care.
- **Develop local facilities and infrastructure** that provide specialized services.
- **Collaborate to address social determinants of health** (e.g., access to affordable housing, nutritious local foods, environmental factors) and promote psychosocial health.
- **Encourage coordination** with the State of Hawaii Office of Wellness and Resiliency and other stakeholders.

**Objective 3: Recruit, retain, and provide training for professionals and businesses** in the health care, social services, and wellness sectors.

***Priority Actions:***

- **Create incentives** to attract and retain physicians and diverse health and wellness practitioners (e.g., healthcare, dental, social services, community health centers, nursing homes, cultural practitioners, counseling, nutrition, etc.).
- **Provide training, certification, and support pathways** for residents seeking to enter the healthcare and wellness sector for residents of all ages and education levels.
- **Expand certification training for critical jobs in the healthcare system** (e.g., Physician Assistants, Advance Practice Nurses, and Advanced Paramedics).
- **Support business development and skill-building** (e.g., accounting, marketing, technology) for private practice professionals, entrepreneurs, and businesses.
- **Develop and expand cultural and language workforce development opportunities** to improve care for communities with pre-existing health disparities
- **Expand affordable, quality childcare facilities** with well-paid early childhood education professionals.

**Objective 4: Support research, innovation, technology, and high-impact collaborations** that promote equitable, holistic health for Hawaii residents and strengthen the economy.



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## ***Priority Actions:***

- **Support medical research institutions** in leading medical technology, clinical drug trials, treatment protocols, biomedical research, and culturally-informed research.
- **Invest in predictive models and tools** that anticipate and help prepare for future healthcare needs (e.g., pandemics, aging population, climate impacts).
- **Promote health and wellness innovation** (e.g., entrepreneurship, technology development, cultural wellness frameworks, higher education partnerships, etc.).
- **Build and maintain wide-reaching collaborations** to address systemic health challenges (e.g., pandemics, mental health, and social determinants of health such as housing, food, and environmental factors).
- **Support equity-based indigenous innovation and wellness programs** that serve Native Hawaiian, Pacific Islander, and communities facing the greatest health inequities.
- **Provide psychosocial health programs** in workplaces, healthcare, and communities.

## Hospitality and Tourism

**Goal:** Establish Hawaii as a leader in regenerative tourism that balances economic, social, and environmental goals and perpetuates cultural values.

**Objective 1: Position Hawaii as a regenerative tourism model** with responsible destination management practices that create enriching experiences for residents and visitors alike.

## ***Priority Actions:***

- **Implement the State of Hawaii Destination Management Plans (DMAP)** for all islands with collaboration across sectors and industries to address pressure on residents, natural and cultural resources, and infrastructure while supporting the economy.
- **Provide training and certification opportunities** in regenerative, sustainable, and responsible tourism for the visitor industry and workforce.
- **Increase funding and maintenance** for tourism-impacted natural and cultural sites.
- **Support and scale successful community-based models** for regenerative tourism (e.g., Ha'ena State Park) to address destination hotspots.
- **Host international meetings, events, and conferences** that build Hawaii's brand as a global center for sustainability, innovation, and ALOHA.
- **Increase organized visitor transportation** (i.e., shuttle buses with culturally, historically knowledgeable drivers) to reduce vehicle and parking impacts on residents.
- **Focus on higher spending-lower impact market segments** while prioritizing destination management strategies articulated in island-level DMAPs.
- **Conduct carrying capacity studies** at statewide and island levels to guide industry strategies for long-term natural and cultural resource health and resident needs.

**Objective 2: Ensure authentic presentation of Hawaiian culture and values** in visitor industry materials, marketing, workforce training, and resident and visitor experiences.

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## ***Priority Actions:***

- **Elevate Hawaiian culture** across the visitor industry with cultural practitioners, advisors, and partnerships with cultural and community-based organizations.
- **Provide funding for Native Hawaiian programs**, events, festivals, stewardship sites, and traditional practices perpetuating Hawaiian culture, language, and values.
- **Address cultural appropriation and intellectual property issues** across the visitor industry and other sectors.
- **Utilize curated tools and resources** (e.g., Hawaii Tourism Authority Ma'ema'e Toolkit) and develop new industry-wide standards and practices.

**Objective 3: Promote visitor industry alignment** with the Aloha+ Challenge and United Nations Sustainable Development Goals

## ***Priority Actions:***

- **Track key sustainability metrics** for the visitor industry, including water consumption, renewable energy installations and kilowatt hours used, and waste generation (i.e., Aloha+ Dashboard Environmental, Social, Governance/Science Based Targets initiative).
- **Increase sustainable commercial practices** such as local food purchases, waste reduction, decreased water usage, energy efficiency, and multi-modal transit.
- **Expand the Hawaii Green Business Program** in the visitor industry by increasing the number of partners and organizations.
- **Encourage the visitor industry to lead on climate resilience** and collaborate across sectors (e.g., coastal infrastructure, parks, beaches, land use planning, setbacks).

**Objective 4: Provide authentic visitor experiences and opportunities** that connect visitors, local communities, and businesses.

## ***Priority Actions:***

- **Provide visitor education and authentic experiences** through community organization and business partnerships (e.g., ecotourism, voluntourism, agritourism, and mālama 'āina land stewardship opportunities).
- **Promote the Pledge to our Keiki** created by students across Hawaii to support visitor participation in youth-led community, environmental, and cultural stewardship.
- **Encourage “Buy Local,” “Eat Local,” and “Made in Hawaii” programs** to support local agriculture and Hawaii-based products, businesses, and services.
- **Leverage Hawaii’s tourism expertise and brand to increase opportunities for the export of local products and services**
- **Support business development** for diverse homegrown businesses and Native Hawaiian entrepreneurs that provide regenerative tourism opportunities and products.
- **Reinvest in environmental and community programs** with visitor and regenerative tourism fees, corporate giving, and other funding mechanisms.

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## Military and National Security

**Goal:** Build healthy relationships and trust between Hawaii communities, diverse stakeholders, and national security partners to ensure peace and prosperity for Hawaii and the Pacific.

**Objective 1: Foster healthy relations and trust** between the military and local communities.

***Priority Actions:***

- **Foster healthy relationships** between communities, the military, and affiliated branches through facilitated dialogue, remediation projects, trust-building, and engagement.
- **Advocate for a solution to the Red Hill crisis** that thoroughly addresses community concerns and ensures the long-term health of the natural environment and water quality.
- **Collaborate on U.S. Department of Defense grants** to advance common goals on climate adaptation, resilience, and environmental restoration that help to benefit military facilities, adjacent neighborhoods, and the health of Hawaii overall.
- **Increase multi-stakeholder coordination and communication**, especially in disaster response, civil defense, and emergency management.
- **Prepare local businesses to qualify for federal contracts** (e.g., high-volume, high-paying military contracts) and encourage companies to take the lead in working with military training centers to engage with local communities.
- **Communicate about collaborations between the local community and military** and mutual contributions to shared goals (e.g., wildfire mitigation, restoration projects).

**Objective 2: Support education and workforce development programs** to train residents for careers in diverse security sectors, diplomacy, and peacebuilding.

***Priority Actions:***

- **Support career pathways** via apprenticeship and vocational programs for diverse security, diplomacy, peacebuilding, and defense-related fields.
- **Create a talent pipeline** for IT, cybersecurity, and innovation jobs.
- **Advocate for a cost-of-living adjustment (COLA)** for civilian employees in Hawaii.
- **Strengthen the pipeline between trade schools and skill-building programs** with available jobs at Pearl Harbor Shipyard, National Security Agency, etc.
- **Support educational opportunities** that support regional diplomacy, partnership building, and peace.

**Objective 3: Build a cybersecurity ecosystem** within the state as an industry that improves cybersecurity for local businesses and residents.

***Priority Actions:***

- **Support a lead agency** to mitigate and address cybersecurity risks.
- **Establish cybersecurity clinics and risk assessments** for small businesses to ensure they meet DoD cybersecurity requirements.

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- **Refine training programs** with hands-on opportunities to develop specialized skillsets needed for businesses operating in Hawaii.
- **Develop robust courses and certificate programs** to meet cybersecurity hiring needs, including experiential learning opportunities that benefit students and host companies.
- **Build strategic partnerships and coordination capacity** across federal, state, and city government, business, and communities.

**Objective 4: Provide funding** for diverse economic and resilience initiatives that benefit Hawaii and the Pacific region.

***Priority Actions:***

- **Maintain funding** for and work with existing defense economy initiatives (e.g., Hawaii Defense Economy (HDE), Hawaii Defense Alliance, DFARS Compliance – eResilience).
- **Increase climate resilience funding** for Hawaii and the Pacific region, working with local governments, businesses, and nonprofit organizations on climate adaptation and resilience, clean energy, local agriculture, and environmental restoration.
- **Provide funding opportunities and contracts to Native Hawaiian entities** (non-profit organizations, businesses, and communities) to build resilience and diverse benefits.
- **Invest in cybersecurity programs** to mitigate and address cyber risks.
- **Support regional programs** for partnerships, diplomacy, and peacebuilding.

## Science and Technology

**Goal:** Build a diverse science and technology sector to address 21st-century challenges.

**Objective 1: Grow the science and technology sector** to meet the Aloha+ Challenge and UN 2030 Sustainable Development Goals and strengthen Hawaii’s innovation economy.

***Priority Actions:***

- **Invest in and support world-class science and technology** to meet the Aloha+ Challenge and UN Sustainable Development Goals and grow economic opportunities.
- **Encourage Hawaii-based intellectual property generation**, including breakthrough innovations, research, trademarks, and patents in aligned sectors and industries.
- **Elevate Native Hawaiian knowledge as a leading foundation** by supporting indigenous science, technology, research, innovation, and entrepreneurship.
- **Increase access to capital** to develop and scale technology solutions.
- **Support creation, retention, and profitability** of science and technology businesses.
- **Revisit exportable knowledge and intellectual property** opportunities that promote Hawaii exporting knowledge and importing financial resources.

**Objective 2: Support educational programs and funding opportunities** for students to pursue careers in Science, Technology, Engineering, and Mathematics (STEM).

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## ***Priority Actions:***

- **Expand STEM programs**, particularly project-based and experiential learning.
- **Secure funding** to expand existing science education programs (e.g., STEMworks, Journey Through the Universe, etc.)
- **Provide student scholarships**, grants, and other funding that helps to ensure equitable access to STEM education and career opportunities, especially in rural public schools.
- **Build a database of opportunities** focused on science and technology that is easily accessible by students of all ages.
- **Develop and conduct parent-student shared opportunities** (e.g., robotic competitions, computer program classes, fishpond innovation, cultural practices).

**Objective 3: Build workforce development and career pathways** for science and technology through partnerships with schools, organizations, and businesses.

## ***Priority Actions:***

- **Increase paid internships statewide** and provide hands-on opportunities (e.g., apprenticeships, mentorship, shadowing, and experiential learning).
- **Fund transitional career programs that train, upskill, and reskill residents** to pursue jobs in the science, technology, and innovation sectors.
- **Provide business development** that promotes an innovation mindset, entrepreneurial skillsets, and new homegrown startups, businesses, and patents.
- **Conduct work fairs** and other opportunities for employment outreach.
- **Develop and fund online tools** to match companies with local talent.

**Objective 4: Encourage outreach and collaboration** between diverse stakeholders to address 21st-century challenges and enhance scientific understanding and appreciation.

## ***Priority Actions:***

- **Expand community engagement** in diverse science, technology, innovation, education, research, development, and job opportunities.
- **Facilitate dialogue and collaboration opportunities** between government, businesses, and communities to build trusting, healthy relationships and advance progress on shared goals via the science and technology industry and other sectors.
- **Partner on communications and outreach** to expand public perception and understanding of diverse science and technology, including indigenous science, and its role in addressing challenges and improving quality of life (e.g., broadband).
- **Share skilled personnel and talent** across specific projects as needed statewide.
- **Collaborate to promote innovation and job creation** to meet Hawaii's 2030 goals, particularly in renewable energy, sustainable agriculture, wastewater management, cesspool conversion, marine science, health, and other areas.

## Section 4. Evaluation Framework

An evaluation framework for Hawaii Statewide CEDS implementation is critical to developing accountability, benchmarking progress and success, and measuring the impact of economic investments and regional coalitions. It serves as a mechanism to gauge progress on the successful implementation of the overall CEDS while providing information for the annual performance tracking. These regular updates keep the strategic direction and action plan outlined in the CEDS current and the plan relevant. The evaluation framework is an important element of the ongoing planning process and should answer the questions “How are we doing?” and “What can we do better?”

The performance measures identified below are selected to evaluate the progress of activities in achieving the vision, goals and objectives of this Statewide CEDS plan. Though the metrics and priorities differ throughout the state based upon the region’s priorities and regional assets, the measurements should reinforce the *relevant* data and background information collected, SWOT analysis undertaken, and strategic direction and action plan developed to help identify the critical internal and external factors that speak to the region’s assets, limitations, and overall ability to build capacity. The measures selected span across economic, social, and environmental data to comprehensively evaluate progress on the Hawaii Statewide CEDS priorities and factor in multiple forms of capital for regional wealth.

In measuring the quality of life for Hawaii’s residents, the Hawaii Statewide CEDS also leverages information completed by the Department of Business, Economic Development and Tourism (DBEDT) via its Hawaii Quality of Life reports<sup>29</sup>. These publications focus on quantifiably measuring:

- Population and Changing Demographics
- Hawaii’s Economic Health
- Education
- Health
- Housing
- Crime and Communities
- Environment and Energy

Building from these reports provides a solid baseline measurement of factors that truly impact our residents’ daily lives, including the following types of measurements.

### Measurements

1. Core Performance Metrics
  - a. Population (estimated and projected)
  - b. Gross Domestic Product
  - c. Trade Exports and Imports
  - d. Industry Cluster Growth

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<sup>29</sup> State of Hawaii Department Business Economic Development and Tourism (DBEDT), Quality of Life in Hawai’i, 2019 Report.

- e. Increase in business establishments
  - f. Increase in self-employment
  - g. Improved tax base
  - h. Unemployment rate
  - i. Employment by industry
  - j. Wages by Industry
  - k. Supply of skilled workers
  - l. Number of jobs retained or created
  - m. Average annual earnings
    - i. Households in Asset-Limited, Income-Constrained, Employed (ALICE) population
    - ii. Households and Individuals below poverty level
  - n. Increase in median household income
  - o. Housing (owners, renters, new construction, building permits)
  - p. Houselessness
  - q. Increase in education attainment (high school and college education attainment)
  - r. Increase in workforce training programs offered and enrollment
2. Unique Performance Metrics
    - a. Access to healthcare
    - b. Broadband access
    - c. Climate of innovation and entrepreneurship
    - d. Energy cost
    - e. Transportation
    - f. Human Services
    - g. Housing
    - h. Houselessness
  3. CEDS Plan Implementation
    - a. Number of initiatives funded by US EDA
    - b. Number of initiatives funded by non-US EDA federal sources
    - c. Number of initiatives receiving local, state, private investments

Two local tools to measure Hawaii's economic recovery include:

- **Aloha+ Challenge Dashboard: Measuring Hawaii's Sustainable Economic Recovery**

The Aloha+ Dashboard<sup>30</sup> is an online open-data platform that tracks Hawaii's local contribution to the United Nations 2030 Sustainable Development Goals (SDGs) through community-based metrics developed in a multi-year statewide engagement process. The Aloha+ Challenge is jointly led by the State of Hawaii, City and County of Honolulu, County of Hawaii, County of Maui, and County of Kauai, Office of Hawaiian Affairs, State Legislature, and a network of private sector, civil society, and community-based partners. Hosted on the State of Hawaii data portal, the Aloha+ Dashboard tracks statewide and county-level indicators across the economy, workforce development, education, environment, housing, and community. The dashboard is

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<sup>30</sup> Aloha+ Challenge, <https://aloha-challenge.hawaiiingreengrowth.org/>

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managed by the Hawaii Green Growth Local2030 Hub, a statewide network and recognized UN Local203 Hub for local models to meet the SDGs.

- **Genuine Progress Indicator (GPI): Beyond GDP**

The Genuine Progress Indicator featured on the Aloha+ Dashboard, provides an alternate economic measurement of Gross Domestic Product (GDP) with environmental and social aspects to give a fuller picture of economic and community health. Created in 1989, GPI has gained international traction and has been applied across the United States. Researchers at the University of Hawaii and Hawaii Pacific University are developing GPI “Island Style” with locally appropriate metrics for Hawaii. Similar to GDP, GPI rolls up into a single number and also breaks out to track the diversity of economic, social, and environmental indicators for a more comprehensive way of tracking well-being.

## Implementation

### Regional and Local Economic Development Stakeholders

The work of implementation often falls to local economic development groups and practitioners. Many of these groups and individuals already work on initiatives that speak to regional priorities but may have had limited connection to the CEDS in the past. By recognizing these groups as integral to CEDS implementation, this update has been designed to work as a practical tool for guiding regional economic development efforts and providing opportunities for local economic development groups and practitioners to access federal partners and funding.

This update proposes to harness the diverse, existing capacity of the four counties in Hawaii along with local government, convened by an economic development organization such as EDAH. The role of these groups in implementation includes regular discussion of regional priorities and projects at their own meetings and participation in quarterly or semiannual CEDS implementation meetings. Members of these groups may then opt to participate in Working Groups given interest, capacity, and existing work.

The role of economic development practitioners in CEDS implementation should include participating in quarterly or semiannual CEDS implementation meetings convened by organizations such as EDAH. These practitioners may include and not be limited to representatives from entities, such as:

- Economic development organizations
- Small, medium and large businesses
- Entrepreneurial associations
- Local and statewide private and public institutions
- Workforce development boards

During CEDS implementation meetings, practitioners should communicate their sector or organization priorities related to the CEDS Plan and discuss relevant successes and challenges from their perspective. They may also opt to participate in Working Groups to act on the strategic goals, objectives and actions. Additionally, local economic development practitioners may engage with CEDS implementation in the following ways:



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- Building awareness and sharing the CEDS priorities with their sectors or organization’s members and leadership and aligning the CEDS priorities with those of their sector or organization
- Communicating desired economic development resources to their region’s communities

## Working Groups

**Working Groups** may be the vehicles through which coordinated, regional implementation of the CEDS priorities will occur. Working Groups could be formed as a result of quarterly to semiannual CEDS implementation meetings and based on regional priority projects. Membership will be decided at CEDS implementation meetings and may include economic development practitioners and other stakeholders from across the four counties in Hawaii based on interest, capacity or the alignment of the existing work.

The format of the Working Group structure would maintain energy and accountability for priority project implementation. Working Groups should also have clear leadership, such as from a Project Champion, and convening guidance or assistance from EDAH to optimize success. Their main role would include identifying Project Champions, engaging in and building regional coalitions, setting meeting schedules and milestones and measure performance and record successes and challenges. These Groups can be categorized in four broader groups: regional economic development practitioners, entrepreneur and innovation, workforce development, and rural development. The structure of Working Groups may be based on projects or initiatives rather than topics to encourage sustained participation as it is often easier to motivate a Group around a specific project idea rather than an abstract topic.

**Project Champions** would be responsible for convening their Working Groups, with potential guidance or assistance from EDAH leadership. They would help recruit and communicate with Working Group members, create meeting agendas, and communicate project needs to its members and partners. If no one volunteers to be a Project Champion, it may be a good indication that a respective project or initiative may not have enough buy-in and energy to sustain it, and the project may need to be tabled until a Project Champion emerges.

## Plan Maintenance and Implementation Schedule

Plan maintenance is a critical component of the CEDS. This section presents a basic five-year schedule and generalized work program intended to empower EDAH and those partners with economic development missions with an appropriate timeline, meeting objectives, and a timeframe for tracking indicators outlined in the strategic priority framework. While EDAH could have the primary responsibility for quarterly or semiannual CEDS implementation meetings, Working Groups would establish their own meeting schedule based on their needs and the requirements of the project or initiative identified.

The following table describes a sample schedule for CEDS implementation meetings. The frequency of the meetings on a quarterly or semiannual basis may be determined by a statewide economic development organization such as EDAH or other associates, as necessary. EDAH leadership may produce an annual report of CEDS implementation activities, including gathering data on indicators.

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- Year 1: Convene CEDS implementation meetings, Working Groups to be formed and set meeting schedules and priorities, end-of-year report to be published on CEDS implementation activities and measurement data gathered
- Year 2-4: Continue to convene CEDS implementation meetings, Working Groups continue to be formed based on needs and interest emerging from implementation meetings, end-of-year report to be published on CEDS implementation activities, measurement data gathered and success and challenges of initiatives that have been initiated
- Year 5: Continue to convene CEDS implementation meetings, Working Groups continue to be formed based on needs and interest emerging from implementation meetings, end-of-year report to be published on CEDS implementation activities, measurement data gathered and success and challenges of initiatives that have been initiated; planning process for the next five-year CEDS Plan update will be initiated to start identifying stakeholders and designing update process and metrics of success

## CEDS Implementation meetings

CEDS implementation meetings may be the foundation and catalyst for regional collaboration and CEDS implementation. While EDAH may take a leadership role in convening quarterly to semiannual CEDS implementation meetings, other partners and collaborators may assist with coordinating and scheduling agendas and outreach for CEDS implementation meetings to develop:

1. Updates from local economic development groups and practitioners on their existing work
2. Updates from the above stakeholders on regional resources, support and/or funding
3. Regional priority projects that align with the CEDS strategic priority areas and/or the interests or existing work local economic development practitioners
4. Identification of Project Champion and Working Group members for each priority action or project
5. Working Groups around priority projects once a Project Champion has been identified
6. Process to record successes and challenges encountered during the implementation process and make necessary adjustments

EDAH and other stakeholders may also convene regional workshops or presentations that support economic development efforts, either as part of CEDS implementation meetings or as standalone events.

## Annual CEDS report

EDAH may produce an annual report based on implementation activities and data gathering held throughout the year. An annual report is intended to inform local and regional economic development groups and practitioners on CEDS progress, as well as track the indicators detailed in the CEDS plan. Annual CEDS reports would inform the next plan review cycle and provide an avenue for recognizing and celebrating successful regional projects.

## Section 5. Resilience

Hawaii's economy experiences various challenges. Regional economic prosperity is linked to an area's ability to prevent, withstand, and quickly recover from major disruptions to its economic base. The Hawaii Statewide CEDS Plan is a prime opportunity to develop, nurture and strengthen key partnerships and strategically invest in capacity-building efforts throughout the community.

In the context of economic development, economic resilience becomes inclusive of three primary attributes:

- the ability to recover quickly from a shock
- the ability to withstand a shock
- the ability to avoid the shock altogether

These shocks can include natural disasters, hazards and impact of climate change, as well as man-made economic disruptions such as closures of regional large employers, changes in workforce, and shifts in population trends. Economic shocks often transcend geographic and jurisdictional boundaries, and the interdependence of economies and infrastructure locally and globally make strong regional efforts and coalitions a must.

Establishing economic resilience in a local or regional economy requires the ability to anticipate risk, evaluate how that risk can impact key economic assets, and build a responsive capacity. Often, the shocks/disruptions to the economic base of an area or region are manifested in three ways:

- Downturns or other significant events in the national or international economy which impact demand for locally produced goods and consumer spending;
- Downturns in particular industries that constitute a critical component of the region's economic activity; and/or
- Other external shocks (a natural or man-made disaster, closure of a military base, exit of a major employer, the impacts of climate change, etc.)



Figure 3. Three Primary Attributes of Economic Resilience

While Hawaii continues to face the challenges of inflation, labor shortages, supply chain disruptions, higher fuel costs and the unpredictable nature and impact of COVID case counts, it is critical that economic development and disaster management organizations consider their role in the pre- and post-incident environment to include steady-state and responsive initiatives. The US Economic Development Administration recommends a two-pronged approach to integrating resilience into the CEDS:

- 1) <sup>31</sup>Planning for and implementing resilience through specific goals or actions to bolster the long-term economic durability of the region (steady-state), and
- 2) Establishing information networks among the various stakeholders in the region to encourage active and regular communications between the public, private, education, and non-profit sectors to collaborate on existing and potential future challenges (responsive).

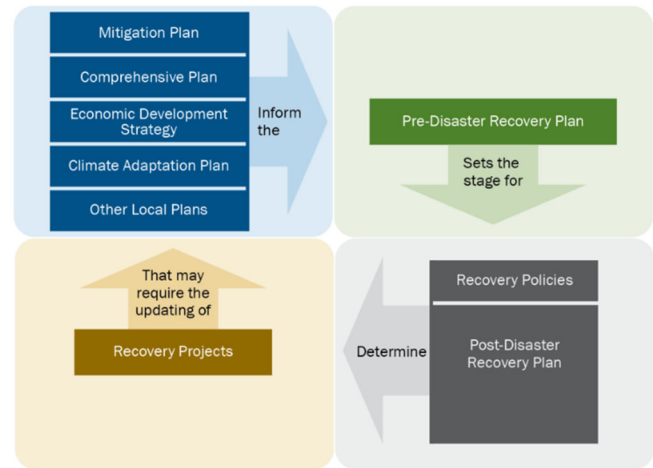


Figure 4. The Cyclical Nature of Planning (from *Pre-Disaster Recovery Planning Guide for Local Governments*, FEMA 2017) <sup>32</sup>

## Hawaii-Based Disaster-Management, Economic Recovery and Resilience Resources

### Hawaii Economic Recovery & Resilience (HIERR) Project

The COVID-19 pandemic has brought to light the vulnerabilities of many communities and regions around the world. From high rates of unemployment sparked by shutdowns and travel restrictions to the ripple effects this had on sectors such as childcare and education, Kauai was no exception. As our state begins returning to a sense of normal, it becomes critical to reflect on the vulnerabilities identified throughout the pandemic to better prepare for, avoid, or minimize the negative impacts from similar challenges in the future.

The State of Hawaii Office of Planning & Sustainable Development’s Special Plans Branch was awarded a Statewide Planning Grant funded by the U.S. Department of Commerce Economic Development Administration to develop an economic recovery and resiliency plan for Hawaii. Known as the Hawaii Economic Recovery & Resilience (“HIERR”) Project, this planning process aims to strengthen the resiliency of Hawaii’s economy.

The HIERR Project is focused on enabling the conditions for a more resilient economy in three ways: 1) strengthening pre- and post-disaster economic recovery planning, 2) coordinating cluster-based economic development to diversify Hawaii’s tax revenue sources and support the well-being of Hawaii’s people, environment, and culture, and 3) analyzing import dependencies and substitution feasibility to inform policies, programs, and projects that advance Hawaii’s security goals.

Economic, social, environmental, equity, and sustainability outcomes will frame the planning process to ensure that the HIERR Project facilitates community-centered well-being and values. The HIERR Project will build on both the statewide and county-level goals and objectives, and cluster-based priority actions, identified in the Comprehensive Economic Development Strategy (CEDS), with the goal of

<sup>31</sup> *Pre-Disaster Recovery Planning Guide for Local Governments*, February 2017, U.S. Department of Homeland Security Federal Emergency Management Agency (FEMA), <https://www.fema.gov/sites/default/files/2020-07/pre-disaster-recovery-planning-guide-local-governments.pdf>

facilitating a more integrated implementation of projects and programs across community-based, government, and non-government economic development organizations and practitioners. In doing so, the HIERR Project may help to better position such initiatives for alignment with federal, state, and philanthropic funding sources, and maximize the impact of the dollars spent.

The planning period is currently ongoing and will conclude by April 2024. For current information on the HIERR Project, visit <http://hierr.online/>.

## Statewide Natural Disaster Economic Recovery Strategy and Planning

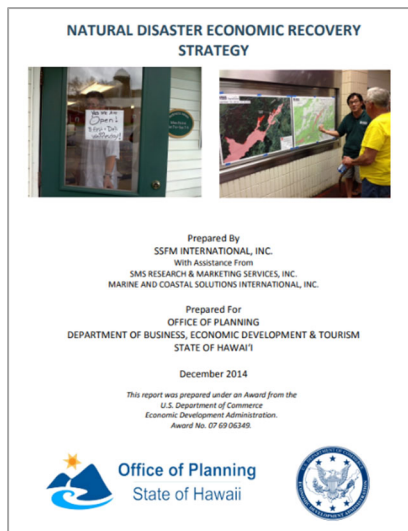


Figure 5. Hawaii Natural Economic Recovery Strategy (Dec. 2014)

In December 2014, the State of Hawaii Department of Business, Economic Development and Tourism, Office of Planning released the State of Hawaii “Natural Disaster Economic Recovery Strategy” (NDERS).<sup>32</sup> This report was made possible through an award from the U.S. Department of Commerce, Economic Development Administration (Award No. 07 69 06349). This report, prepared by SSFM international, Inc., with assistance from SMS Research Service, Inc., and the Marine and Coastal Solutions International, Inc., addresses pre-disaster operations continuity planning and post-disaster recovery actions for both public and private sectors, with special attention paid to small business and economic recovery.

The plan identifies strengths and gaps in the preparedness, response, and recovery for Hawaii’s small businesses. This report identifies the primary gap in small businesses, particularly those with 25 employees or less, is a lack of information and

preparedness.

The 2014 NDERS report identified the following eight (8) goals and corresponding objectives:

**NDERS GOAL 1:** Increase knowledge of and motivation to implement natural disaster preparedness and business continuity planning by small businesses in Hawaii.

**OBJECTIVES:**

- a. Clearly define roles and priorities for agencies and the private sector in improving business preparedness and continuity planning in Hawaii.
- b. Establish conduits for information and outreach through key business organizations, associations, and professional service providers that work with small businesses to expand the audience for disaster preparedness and recovery information
- c. Develop a community-based approach to disaster preparedness that utilizes community leaders and residents to develop context-sensitive programs and solutions.

<sup>32</sup> Natural Disaster Economic Recovery Strategy, Hawaii DBEDT Office of Planning, December 2014, [https://files.hawaii.gov/dbedt/op/spb/2014\\_nders\\_final.pdf](https://files.hawaii.gov/dbedt/op/spb/2014_nders_final.pdf)

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- d. Utilize and disseminate real-life stories and examples that can be shared online and within the community to increase the awareness and sense of urgency to be prepared.
- e. Provide easily accessible and affordable resources that enable businesses to craft and implement a business continuity plan.
- f. Increase the awareness number of business interruption insurance and natural disaster insurance coverage, particularly in high-risk areas.
- g. Provide the financial motivations to the small businesses in Hawaii to have and implement a business continuity plan and natural disaster plan through state tax rebates, discounts on permit fees, and mandated insurance premium discounts to those businesses who have a business continuity plan and natural disaster recovery plan and resources to implement these plans.

**NDERS GOALS 2:** Forge partnerships between large and small businesses with government agencies to promote coordinated efforts for disaster preparedness, response and recovery.

**OBJECTIVES:**

- a. Establish a framework for partnerships between large and small businesses to promote coordinated natural disaster economic preparedness and economic recovery.
- b. Strengthen bridges between disaster management agencies and small businesses by supporting and expanding existing outreach programs and developing messaging, collateral, and tools that can be used across agencies for consistent communications to the private sector.
- c. Support the creation or expansion of an ongoing “hui” [group] of public and private stakeholders that meets regularly to share experiences and engage the topics of disaster preparedness, response, and recovery.

**NDERS GOAL 3:** Ensure adequate response planning for business districts in high-risk areas.

**OBJECTIVES:**

- a. Develop plans at the community and neighborhood level that support preparedness, response, and recovery in high risk and commercial areas.
- b. Develop response plans and priorities targeted to high-risk areas and commercial districts across the islands.
- c. Ensure the large industrial facilities, hotels, and other large businesses are well prepared and supports.

**NDERS GOAL 4:** Provide post-disaster recovery financial and technical assistance programs for small businesses which is linked to pre-disaster preparedness.

**OBJECTIVES:**

- a. Support funding for programs such as FEMA and SBA that offer low-interest disaster loans for property damage and economic injury, and technical assistance to small businesses during recovery efforts.
- b. Provide the necessary technical assistance to equip small businesses in Hawaii with financial tools like bridge loans to pay for disaster recovery costs over the short term.
- c. Explore government-supported funding and technical assistance at the County and State level that can support small business recovery efforts.

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- d. Expand the insurance coverage of Hawaii's small businesses to improve their business continuity capacity, including business interruption insurance and natural disaster insurance.

**NDERS GOAL 5:** Expand response and recovery coordination between Hawaii small businesses and the communities where they operate

**OBJECTIVES:**

- a. Increase participation of small businesses in Community Emergency Response Training (CERT)
- b. Educate business associations about the CERT program to encourage their members to participate in CERT programs and get trained.
- c. In areas prone to specific natural disasters, increase the number of communities working together to plan to better prepare for a natural disaster, and to better respond and recover.
- d. On Oahu, encourage Neighborhood Boards to disseminate information about the CERT program to their residents and businesses and recruit neighborhoods to get trained.

**NDERS GOAL 6:** Increase resiliency of statewide utilities and infrastructure, which critically impact small businesses.

**OBJECTIVES:**

- a. Develop and implement policies, goals and regulations that will result in increased resilience for Hawaii's critical infrastructure, including electricity, communications, roads, water, and sewer.
- b. Reduce supply chain vulnerabilities for Hawaii's small businesses by encouraging them to decrease complete reliance on "just in time" shipping.
- c. Increase businesses' level of accountability and readiness for extended interruptions in communications, roads, and power.
- d. Prioritize efforts to harden the state's critical infrastructure to mitigate natural hazards and ensure faster return to service.
- e. Support implementation of the State's Energy Emergency Plan and energy resilience efforts.
- f. Prioritize and support the development of locally based sources of food, fuel, and energy generation. Support existing goals for Hawaii energy independence and food security.

**NDERS GOAL 7:** Provide centralized and user-friendly information about preparedness, response, and recovery which is tailored to small business.

**OBJECTIVES:**

- a. Identify and establish centralized and resilient platforms for disseminating information about agencies and resource with plans and best practices for Hawaii small business preparedness, response, and recovery after a natural disaster.
- b. Develop a system for vetting information sources and Hawaii-based businesses and organizations which provide resources and services for recovery operations.

**NDERS GOAL 8:** Increase each island's self-reliance and ability to sustain itself following a natural disaster.

**OBJECTIVES:**

- a. Improve the self-sufficiency of food production on each island

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- b. Increase the percentage of energy production powered by a fuel source produced on each island
- c. Increase the amount of food, fuel, and supplies stored on each island to increase self-sufficiency and support the population for a longer duration following a disaster.

The findings of the NDERS clearly suggest the need for greater community building around the pre-event disaster planning, particularly involving small business. Pre-event planning allows businesses to foster relationships that are key to mutual support, which plays a critical role in returning Hawaii's economy to a steady-state and normalcy in the shortest amount of time.

## National Disaster Preparedness Training Center – University of Hawaii

The National Disaster Preparedness Training Center (NDPTC) at the University of Hawaii Department of Urban and Regional Planning is headquartered in the central business district of City and County of Honolulu, with divisions located at the NOAA Inouye Regional Center on Ford Island. Expanded to include the University of Hawaii in 2007, the NDPTC is a member of the National Domestic Preparedness Consortium (NDPC) that addresses all forms of hazards.

The NDPC is the principal means through which the Department of Homeland Security/FEMA National Preparedness Directorate develops and delivers training to state and local responders. The NDPC was originally established by Congressional Mandate, House Conference Report [H.R.2267] and reconfirmed by public law 107-273 in 2001.

The NDPTC is authorized to develop and deliver training and educational programs related to homeland security and disaster management, with a specific focus on natural hazards, coastal communities, and the special needs and opportunities of islands and territories. The NDPTC actively engages internally with FEMA and the University of Hawaii, as well as with external partners across the region to integrate the delivery of its trainings, products, and services. An overview of their areas of focus may be found in *Section 6. Additional Reports and Resources*.

## Regional Disaster Management Organizations

In addition to the NDPTC, other consortium members include: Center for Domestic Preparedness (CDP), Department of Energy's Nevada Test Site/Counter Terrorism Operations Support (NTS/CTOS), Energetic Materials Research and Testing Center (EMRTC), The National Center for Biomedical Research and Training (NCBRT), TEEX/National Emergency Response and Rescue Training Center (NERRTC), and the Transportation Technology Center, Inc. (TTCI), focusing on transportation research and testing organization, providing emerging technology solutions for the railway industry.

In addition to the consortium members, the NDPTC works in collaboration with the following organizations to fulfill its goal of providing high quality, up-to-date training on natural disasters: the Pacific Risk Management Ohana (PRiMO), Pacific Disaster Center (PDC), Asia-Pacific Center for Security Studies (APCSS), National Oceanic and Atmospheric Administration (NOAA), Center for Excellence: In



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Disaster Management & Humanitarian Assistance (COE), Pacific Marine Environmental Laboratory (PMEL) Center for Tsunami Research, UNESCO/IOC – NOAA International Tsunami Information Centre (ITIC) and USGS Volcano Hazards Program Observatories and Centers. An overview of their areas of focus is provided in *Section 6. Additional Reports and Resources*.

## Waikiki Pre-Disaster Recovery Planning Project

The Waikiki Pre-Disaster Recovery Planning Project is sponsored through a partnership between the Waikiki Business Improvement District Association (WBIDA) and the National Disaster Preparedness Training Center (NDPTC) at the University of Hawaii at Manoa. The Project includes researching Waikiki's disaster risk, identifying best recovery practices, and collaborating with community stakeholders from different sectors. A culmination of these efforts will result in a recovery plan that aims to create a safer, stronger, more equitable, and sustainable Waikiki.

## Section 6. Additional Reports and Resources

### A. Hawaii Statewide Advisory Committee

1. Meeting on July 21, 2022 – Industry Cluster SWOT Analysis (MeetingSift input synthesized and raw data)

### B. *DBEDT Emerging Industries Updated Report, December 2021,*

[https://files.hawaii.gov/dbedt/economic/data\\_reports/emerging-industries/Hawaii\\_Targeted\\_Emerging\\_Industries\\_2021\\_Update\\_Report.pdf](https://files.hawaii.gov/dbedt/economic/data_reports/emerging-industries/Hawaii_Targeted_Emerging_Industries_2021_Update_Report.pdf)

### C. *2021 The State of Hawaii Data Book, August 2022,*

[https://files.hawaii.gov/dbedt/economic/databook/db2021/DB2021\\_final.pdf](https://files.hawaii.gov/dbedt/economic/databook/db2021/DB2021_final.pdf)

### D. *Hawaii Natural Disaster Economic Recovery Strategy, December 2014,*

[https://files.hawaii.gov/dbedt/op/spb/2014\\_nders\\_final.pdf](https://files.hawaii.gov/dbedt/op/spb/2014_nders_final.pdf)

### E. *Hawaii 2050 Sustainability Plan: Charting a Course for the Decade of Action (2020-2030),*

Department of Business, Economic Development and Tourism (DBEDT) Office of Planning and Sustainable Development, <https://hawaii2050.hawaii.gov/wp-content/uploads/2021/07/FINAL-Hawaii-2050-Sustainability-Plan-web-1.pdf>

### F. *Aloha+ Challenge,* <https://aloha-challenge.hawaiigreengrowth.org/>

### G. Sustainable Development Goals

1. **United Nations 2030 Sustainable Development Goals,**

<https://www.un.org/sustainabledevelopment/sustainable-development-goals/>

2. **Hawaii's Aloha+ Challenge Dashboard,** <https://alohachallenge.hawaii.gov/>

### H. *Asset Limited, Income Constrained, Employed (ALICE) – 2020 Hawaii Report,* Aloha United Way,

[https://www.auw.org/sites/default/files/pictures/2020ALICEReport\\_HI\\_FINAL.pdf](https://www.auw.org/sites/default/files/pictures/2020ALICEReport_HI_FINAL.pdf)

### I. *Natural Disaster Economic Recovery Strategy,* Department of Business, Economic Development

and Tourism (DBEDT) Office of Planning and Sustainable Development, December 2014, [https://files.hawaii.gov/dbedt/op/spb/2014\\_nders\\_final.pdf](https://files.hawaii.gov/dbedt/op/spb/2014_nders_final.pdf)

### J. **National Disaster Preparedness Training Center – University of Hawaii**

The National Disaster Preparedness Training Center (NDPTC) at the University of Hawaii Department of Urban and Regional Planning is headquartered in the central business district of City and County of Honolulu, with divisions located at the NOAA Inouye Regional Center on Ford Island. Expanded to include the University of Hawaii in 2007, the NDPTC is a member of the National Domestic Preparedness Consortium (NDPC) that addresses all forms of hazards. The NDPC is the principal means through which the Department of Homeland Security/FEMA National Preparedness Directorate develops and delivers training to state and local responders. The NDPC was originally established by Congressional Mandate, House Conference Report [H.R.2267] and reconfirmed by public law 107-273 in 2001. In addition to the NDPTC, other consortium members include:

1. **Center for Domestic Preparedness (CDP),** focusing on prevention, deterrence, and response to chemical, biological and nuclear attacks involving hazmat

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2. **Department of Energy's Nevada Test Site/Counter Terrorism Operations Support (NTS/CTOS)** which focuses on prevention, deterrence and response to radiological/nuclear attacks
3. **Energetic Materials Research and Testing Center (EMRTC)**, focusing on explosive and incendiary attacks
4. **The National Center for Biomedical Research and Training (NCBRT)**, focusing on prevention, deterrence and response to terrorist acts, chem-/bio-/ag-related terrorism response
5. **TEEX/National Emergency Response and Rescue Training Center (NERRTC)**, focusing on Incident Management, EMS, HAZMAT, Public Works, Threat and Risk Assessment, Senior Executive Program
6. **Transportation Technology Center, Inc. (TTCI)**, focusing on transportation research and testing organization, providing emerging technology solutions for the railway industry.

In addition to the consortium members, the NDPTC works in collaboration with the following organizations to fulfill its goal of providing high quality, up-to-date training on natural disasters:

1. **The Pacific Risk Management Ohana (PRiMO)** is a coalition of organizations with a role in hazard risk management in the Pacific region.
2. **Pacific Disaster Center (PDC)**, an applied science, information and technology center, working to reduce disaster risks and impacts to people's lives and property. PDC works to foster disaster resiliency through the use of science, information, and technology for sound, evidence-based decision making.
3. **Asia-Pacific Center for Security Studies (APCSS)** focusing on a multilateral approach to addressing regional security issues and concerns between the U.S. Pacific Command and the armed forces of the nations in the Asia-Pacific region.
4. **National Oceanic and Atmospheric Administration (NOAA)** provides integrated locally relevant services and information that support the well-being of Pacific coastal and ocean communities, economies, and natural resources.
5. **Center for Excellence: In Disaster Management & Humanitarian Assistance (COE)** is a direct reporting unit to the U.S. Pacific Command (USPACOM) and principal agency to promote disaster preparedness and resiliency in the Asia-Pacific region.
6. **Pacific Marine Environmental Laboratory (PMEL), Center for Tsunami Research** conducts research in support of improved measurement technology and the design of optimal tsunami monitoring networks, development and implementation of improved models to increase the speed and accuracy of operational forecasts and warnings, and the research and development of improved methods to predict tsunami impacts on the population and infrastructure of coastal communities.
7. **UNESCO/IOC – NOAA International Tsunami Information Centre (ITIC)** maintains and develops relationships with counties, international organizations, scientific research and academic centers, civil defense agencies, and the public to carry out its mission to mitigate the tsunami hazard by improving tsunami preparedness. The ITIC serves as an information and training resource helping the US and other countries to strengthen their mitigation capacities.
8. **USGS Volcano Hazards Program Observatories and Centers** conducts monitoring and research at the five volcano observatories in conjunction with the Menlo Park Science Center. These activities help advance the understanding of active volcanism and allows the Volcano Hazards Program to provide warnings of impending eruptions in the United States.

# DRAFT

- K. **Waikiki Pre-Disaster Recovery Planning Project – Final Report**, September 2018,  
<https://drive.google.com/file/d/0BybRvCpfX2PBBeGtVFpXVFJ2aTg/view?resourcekey=0-XgXLh7A9mDd95dZvke0vsg>
- L. **Hawaii Attainment Goals, Hawaii Graduates for Hawaii’s Future**, Hawaii P-20 Partnerships for Education, <https://www.hawaii20.org/>
- M. **Statewide Water Infrastructure and Resource Needs Support Documentation can be found at:**
  - a) **Blueprint for action:** <https://www.hawaiicommunityfoundation.org/file/2021/Blueprint-for-Action-2016-2030-2.pdf>
  - b) **Water Reuse Task Force:** <https://health.hawaii.gov/opppd/files/2019/01/Water-Reuse-Task-Force-Legislative-Report.pdf>
  - c) **Act 170:** <http://www.capitol.hawaii.gov/session2016/bills/GM1272..PDF>
  - d) **Board of Water Supply Watershed Management Plans:**  
<https://www.boardofwatersupply.com/water-resources/watershed-management-plan>
  - e) **National Blue Ribbon Commission for Onsite Non-potable Water Systems:**  
<https://watereuse.org/educate/national-blue-ribbon-commission-for-onsite-non-potable-water-systems/resources-for-onsite-non-potable-water-programs/>
  - f) **Commission on Water Resource Management Water Conservation:**  
<https://dlnr.hawaii.gov/cwrm/planning/conservation/>
  - g) **Hawaii Association of Watershed Partnerships:** <http://hawp.org/>
  - h) **US EPA National Water Reuse Action Plan (p.17 Hawaii):**  
<https://www.epa.gov/sites/default/files/2019-09/documents/water-reuse-action-plan-draft-2019.pdf>
  - i) **One Water for Climate Resiliency White Paper for City and County of Honolulu Climate Change Commission:**  
<https://static1.squarespace.com/static/5e3885654a153a6ef84e6c9c/t/5f21c29cedcf827970c3ef53/1596048041904/One+Water+For+Climate+Resiliency+White+Paper+-+Final.pdf>

Strengths, Weaknesses, Opportunities, Threats  
 SWOT input – Hawaii State CEDS  
 Strategic Advisory Committee (SAC)  
 21 July 2022

Ranking of Themes

**AGRICULTURE and FOOD**

Strengths

Education, Support, Collaboration	12
Weather/Climate	8
Water	8
Land and Soil	7
Unique, Niche, Boutique, Value Added	7
Indigenous Knowledge	4

Weaknesses

Costs	16
Housing and Affordability	13
Water and Infrastructure	10
Aging Workforce	9
Land	9
Permitting and Regulations	8
Shipping and Transportation	7

Opportunities

Ag tourism & Regenerative Agriculture	16
Value Added, Specialty, Niche	12
Collaboration and Partnerships	12
Outreach and Education	10
Innovation and Technology	10

Threats

Policies, Regulations, Legislation	12
Pests and Invasive Species	11
Water, Irrigation and Infrastructure	10
Competition	9
Climate Change	6

**ENERGY and SUSTAINABLE RENEWABLES**

Strengths

Diverse Renewable Portfolio	15
Public Sector and Community Support	12
Climate, Solar	10
Innovation and Technology	10

Partnerships and Collaborations	8
Renewable goals (2045)	6
Weaknesses	
Politics and Policies	12
Costs	10
People (vulnerable populations, NIMBY, politics)	8
Aging Infrastructure, Grid	5
Land (limited, conflicting use)	5
Monopolies	5
Opportunities	
Technology and Innovation	18
Reduce Costs	15
Public Sector (Fed, State) Funding	12
Geothermal, Hydrogen	10
Renewables Portfolio	9
Partnerships and Collaboration	8
Threats	
Costs and Volatility	9
Lack of information and public Understanding/engagement	7

## HEALTH and WELLNESS

### Strengths

Good awareness, community support	10
Good living environment	9
Good jobs/career path/pay	8
Funding (public sector)	7
Innovation, Technology	7

### Weaknesses

Insufficient providers, facilities	21
Cost of Living, Housing, Loans, Low Reimbursement Rates	20
Increasing Healthcare Costs	16
Lack of Housing	9
Aging population including Providers	8

### Opportunities

Community support & organizers	15
High Paying, Living Wage Jobs, Diversity in Workplace	14
Telehealth, Innovation	13
Mental Health response	13
Partnerships, Resource Sharing	8

### Threats

Costs, Poverty Rural Healthcare, Access	20
Aging Population Healthcare workers, labor issues	11
Politics, Policies	9
Affordability, Housing	6

## HOSPITALITY and TOURISM

### Strengths

Mature Market, Experience	
Expertise	17
Brand, Aloha, Culture, Values,	
Diversity	17
Environment, Beauty, Weather	15
Location,	10
Destination Management,	
Focus on Regenerative Tourism	
Tourism Management	9
Infrastructure inc accommodations,	
airports, etc.	7

### Weaknesses

Too many visitors, carrying capacity	25
Extraction and Impact on `Aina,	
Natural Resources, Infrastructure	21
Economy too dependent	20
Non-reciprocal industry	18
Resident Perceptions, Community	
Non Supportive – Desire Change	18
Labor Shortage	17
Housing and Cost of Living	14
Peer to Peer Accommodations,	
Short Term Vacation Rentals	12
Infrastructure – Lack of, Aging	9

### Opportunities

Diversification and Reframing –	
Ag Tourism, Eco-Tourism,	
Regenerative Tourism,	
Health Tourism, Edu-Tourism,	
Home as well as, Destination	26
Destination Management Plans	
Tourism Management,	
Scale Successes, Community	
Based Management, Carrying	
Capacity Study	24
Affordability and Costs Increasing	
Housing, Residents priced out,	
Wages too low,	
Technology & Innovation	12
Outreach & Education	12
History, Culture, Values	12
Residents (vs Tourist mindset),	
Different expectations,	
Losing community/resident support	12



## **HOSPITALITY and TOURISM (cont'd)**

### Threats

Resident Sentiment	28
Degrading, Negative Impacts (Housing, Affordability, Competition for resources, Loss of Values, Resident voices not heard)	
Damaging & Endangering	26
Environment, Lifestyle, Resources, Demographics (Out migration of residents)	
Losing workforce as more people Forced to leave Hawaii	22
Climate Change	22
Policies, Fees, Taxes	20
Infrastructure Insufficient	16
Inc Services such as Restaurants	
Oversaturation, Too Many Tourists	14

## **MILITARY and NATIONAL SECURITY**

### Strengths

Contracts, Federal \$, High Wage Jobs	26
Dual Use, Technology, Innovation, CyberSecurity	16
Defense	15
Education & Workforce	15
Infrastructure	12
Location	12

### Weaknesses

Lack of Care for Hawaii, Red Hill and other Environmental Damage	26
Public Distrust	25
Credibility lacking, Lack of Community Engagement Lack of Transparency	
Disconnect with Community, Residents	22
Use Out of State Contractors	15
\$ diverted out of state	
Prioritization of National Interests over local interests and community	15

## MILITARY and NATIONAL SECURITY (cont'd)

### Opportunities

Contracts, Federal \$, High Wage Jobs	22
Partnerships, Collaboration	22
Education, Workforce Development	22
DoD Investment	22
Inc in energy and infrastructure	
Innovation, Technology, Dual Use	18
Improve relationship with community	18
Build relationships and trust	
Leverage resources	15
First Response, Climate Change	

### Threats

Hawaii a target with military presence	20
Lose military and Hawaii does become a target	18
Mismanagement of land and Natural resources	10
Impact on local economy e.g. Deployments	10
Aging Infrastructure	10
Further erosion of relationship, trust Inc misinformation	10

## SCIENCE and TECHNOLOGY

### Strengths

STEM	18
Location	18
University System, Education	16
Dark Skies and Astronomy	10
Innovation & Innovative Thinkers	10
Indigenous Knowledge	10
Collaboration	10
e.g. Broadband Hui	

### Weaknesses

Cost of Doing Business, Affordability, Housing	20
Infrastructure Aging, Obsolete, Non-existent	19
Lack of Capital Investment	18
Low Rank as Place to do Business	
Misalignment between trained workforce, graduates and jobs	18
System inequities	18
Education and workforce development	
Access to capital, Education	15

### Opportunities

Diverse Ecosystems	28
NELHA, Learning Labs	
Economic Development	
Collaboration	
University of Hawaii and other Higher Education	19
Remote Working	12
High Tech Attraction	
Climate Change and Research	12
Energy, Renewable, Sustainability	12

### Threats

Housing and Workforce	18
Lack of public sector (gov't) support	12
Wages not competitive	12
Brain Drain	10
Linked to housing, cost of living, Wages, and lack of jobs	
Conflicts such as TMT	10

## **Common Themes / Trends**

Affordability, Cost of Living,  
Education and Workforce Development  
Housing  
Infrastructure  
Innovation and Technology  
Labor Force Shortages  
Water

## **Cross Sector – Cross Cutting Issues**

Affordability, Cost of Living,  
Business  
Climate Change  
Communication  
Community (including Community Engagement)  
Competition for resources (including Visitors vs Residents)  
Culture, Heritage, and Tradition  
Education and Workforce Development  
Diversity, Equity (Access), Inclusiveness  
Energy  
Environment, Natural Resources  
Funding, Investment, Fiscal Sustainability and Resiliency  
Government, Policies, Regulations  
Hospitality and Tourism Impacts  
Housing  
Infrastructure  
Innovation and Technology  
Labor Force Shortages  
Partnerships, Collaborations  
Perception, Mis Information  
People (Aging, In- and Out-Migration, Perspectives)  
Policies, Rules, Regulations  
Relationship, Trust, Transparency  
Shipping  
Transportation  
Water





CEDS SAC Meeting #2 (v002)

 Settings

AGENDA	REPORT
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Meeting Hosts: Susan Tai +

02:00 pm	Agenda Section 1	More actions ▾
	 1. Test	00:01:27 More actions ▾
	 2. Agriculture & Food - STRENGTHS	00:02:11 More actions ▾
	 3. Agriculture & Food - WEAKNESSES	00:01:27 More actions ▾
	 4. Agriculture & Food - OPPORTUNITIES	00:01:16 More actions ▾
	 5. Agriculture & Food - THREATS	00:01:33 More actions ▾
	 6. Energy & Sustainable Renewables - STRENGTHS	00:01:15 More actions ▾
	 7. Energy & Sustainable Renewables - WEAKNESSES	00:01:09 More actions ▾
	 8. Energy & Sustainable Renewables - OPPORTUNITIES	00:01:23 More actions ▾
	 9. Energy & Sustainable Renewables - THREATS	00:01:22 More actions ▾
	 10. Healthcare - STRENGTHS	00:01:19 More actions ▾
	 11. Healthcare - WEAKNESSES	00:01:35 More actions ▾
	 12. Healthcare - OPPORTUNITIES	00:01:38 More actions ▾
	 13. Healthcare - THREATS	00:01:42 More actions ▾
	 14. Hospitality & Tourism - STRENGTHS	00:01:34 More actions ▾
	 15. Hospitality & Tourism - WEAKNESSES	00:01:41 More actions ▾
	 16. Hospitality & Tourism - OPPORTUNITIES	00:01:18 More actions ▾
	 17. Hospitality & Tourism - THREATS	00:01:19 More actions ▾
	 18. Military & National Security - STRENGTHS	00:01:16 More actions ▾
	 19. Military & National Security - WEAKNESSES	00:01:23 More actions ▾
	 20. Military & National Security - OPPORTUNITIES	00:01:24 More actions ▾
	 21. Military & National Security - THREATS	00:01:46 More actions ▾
	 22. Science & Technology - STRENGTHS	00:01:39 More actions ▾
	 23. Science & Technology - WEAKNESSES	00:01:24 More actions ▾
	 24. Science & Technology - OPPORTUNITIES	00:01:52 More actions ▾
	 25. Science & Technology - THREATS	00:02:02 More actions ▾
	 26. Creative Industries & Technologies - STRENGTHS	00:02:19 More actions ▾
	 27. Creative Industries & Technologies - WEAKNESSES	00:01:45 More actions ▾
	 28. Creative Industries & Technologies - OPPORTUNITIES	00:01:54 More actions ▾
	 29. Creative Industries & Technologies - THREATS	00:02:22 More actions ▾
	 30. Education _STRENGTHS	00:01:57 More actions ▾
	 31. Education _WEAKNESSES	00:01:59 More actions ▾
	 32. Education Opportunities	00:01:55 More actions ▾
	 33. Education _ THREATS	00:01:39 More actions ▾
	 34. Workforce Development - STRENGTHS	00:01:47 More actions ▾
	 35. Workforce Development - WEAKNESSES	00:02:10 More actions ▾

	36. Workforce Development - OPPS	00:02:19	More actions ▾
	37. Workforce Development - THREATS	00:01:46	More actions ▾
	38. What is a resilient economy in Hawaii?	00:03:24	More actions ▾
	39. Who/what will the CEDS plan serve? Who will be its beneficiaries?	00:02:14	More actions ▾

02:05 pm      **End of meeting**      Update scheduled meeting duration (120 minutes) to reflect the agenda duration (5 minutes)  
*This meeting has ended. Review the report.*

## CEDS SAC Meeting #2 (v002)

### Agenda Section 1

Start: 12:20

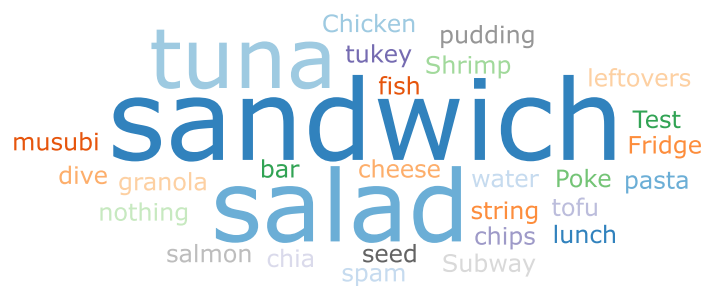
#### Test

duration: 00:01:27

#### Participant Input

- water
- tuna fish
- string cheese and granola bar
- salad
- Poke
- Shrimp
- nothing!
- tukey sandwich
- chips
- tofu
- chia seed pudding
- tuna
- salad
- salmon
- Subway sandwich
- what's lunch?
- pasta
- Chicken salad sandwich
- spam musubi
- tuna sandwich
- Sandwich
- salad
- Fridge dive - leftovers
- Test

#### Word Cloud



## Agriculture & Food - STRENGTHS

Start: 12:22

duration: 00:02:11

### Participant Input

- good soil
- Availability of land
- clean water
- passion for growing food
- sunshine
- weather
- Access to water
- year round growing
- relatively consistent weather year-round
- Housing for employees
- strong indigenous knowledge and care for the āina
- Multi-generational farmers
- Water
- indigenous intelligence
- water (for now!!)
- Food safety
- Unique boutique products
- Hawaii brand
- commercial consumers
- market, transportation, environmental regulations, lack of workers,
- growing demand for local foods, CSAs increased during pandemic
- growing collaboration around stakeholders
- unique crops
- high quality land for a variety of crops and ranching
- cultural knowledge
- strong farm-to-school movement
- tradition of indigenous success
- Value added
- P-20 education
- non-food items that represent hawaii eg orchids, anthuriums
- climate
- attention on growing the sector
- weather for growing
- restaurants seeking more locally grown ingredients
- strengths are availability of land
- Saving our reservoirs!! DLNR
- motivated farmers and ranchers
- public support for farming
- renewable energy sources
- multiple growing seasons
- climate for social enterprise and learning to scale
- small enough community to know where local food comes from
- increasing trainings for young farmers
- general low pay of ag workers
- Rain

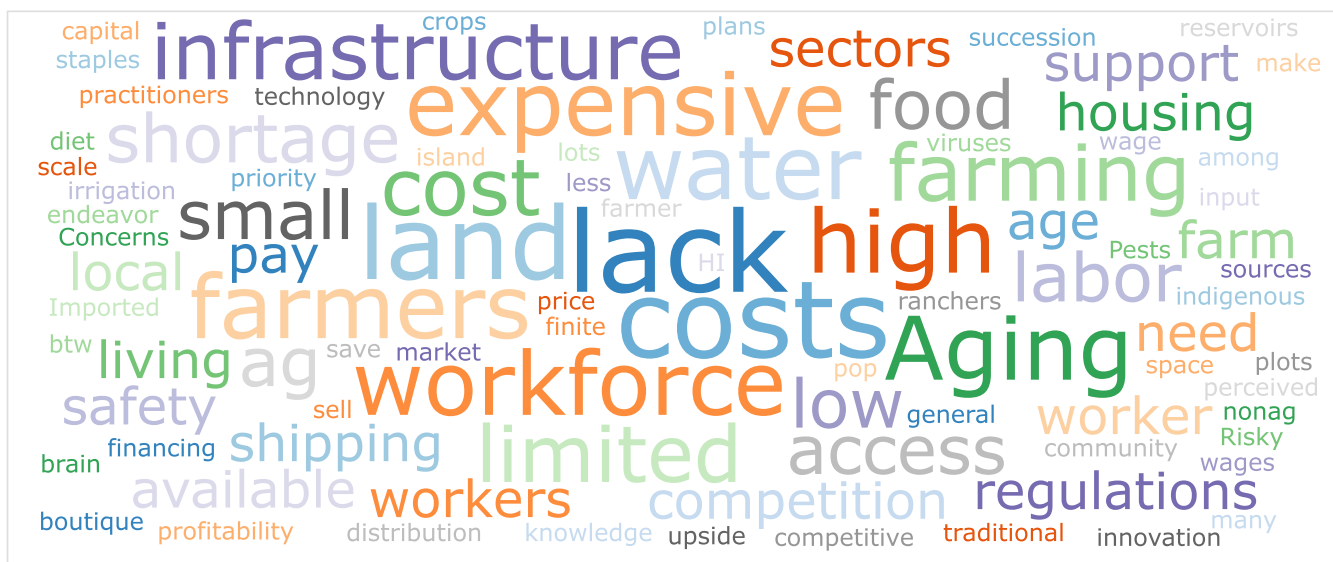
### Word Cloud





- aging farming pop & workforce
- competition for labor from non-ag sectors
- Risky endeavor
- small lots, land costs, lack of workers, lack of market, transportation costs
- worker wages not living wage in HI
- lack of innovation
- small farming plots
- We need to save our reservoirs
- aging workforce
- more boutique crops than staples
- many startups with limited capacity
- workforce housing
- economies of scale
- No ag worker housing
- available marketplace to sell produce
- Lack of farmers
- shortage of affordable capital
- difficult to make a living farming
- lack of aggregation infrastructure
- bottlenecks in procurement
- Permitting challenges
- barriers to entry
- Youth does not want to farm
- lack of local support
- expensive land
- informational disparities
- Lack of capital
- talent shortage, brain drain
- small and diversified farmers = lack of advocacy
- (over)permitting
- mismatch between local diet & production
- regulations
- food safety regulations
- not enough support from retailers
- Food safety costs
- limited tech
- access to ag land
- available land
- consumer demand
- startup costs for young farmers
- Energy costs
- mismatch btw demand and supply
- aging infrastructure

## Word Cloud



## Agriculture & Food - OPPORTUNITIES

Start: 12:25

duration: 00:01:16

### Participant Input

- Value added
- Investments in local producers to compete with imports
- volume farming
- awareness and demand for locally produced food
- Improve value chain coordination
- partnerships across the sector
- diversity of products
- Boutique products
- farming science and technology
- Dept. of Ag support
- value added products
- Direct sale to consumers
- hospitality sector interested in more local foods/tours/ecotourism
- lots of room to be innovative to increase production and yields
- Build cooperatives to leverage buying
- growing awareness of indigenous and cultural foods
- specialty markets
- Develop comprehensive food hubs
- Agri-tourism
- Hawaii branded exports
- HI BBB EDA grant
- UH CTAHR
- regional specialties
- More food hubs to support small farmers
- Agricultural workforce housing
- name recognition
- strong community support for agriculturer
- longer growing season
- export capabilities to other places to scale up
- cultural significance
- Connect workforce to producers, producers to markets
- philanthropic partners
- Gourmet products
- Farm to Table
- ag coalitions
- ag coops



- competition from low labor cost areas of the planet
- Competitive market for available land
- Westher
- pests
- invasive species
- competition from industrial ag
- invasive species
- Low paying jobs; other sectors pay more
- Losing employees
- supply chain
- water availability
- available workforce
- invasive species
- No capital investment
- international competition
- Transportation
- Policies that do not align with food production and distribution
- Deer, Undulates, other invasive species
- Natural disasters
- supply chain
- Market volatility (climate change, pandemics)
- lack of information on infrastructure needed
- lack of succession in agricultural workers
- energy costs
- low wages
- interest in younger generations to farm
- supply chain
- aging workforce
- Inadequate food storage infrastructure
- invasive species
- closure of systems likerereservoirs
- rising USD
- Water access
- inflation
- Disease
- Lack of capital
- distinction of local v imported produce
- limited resources
- Saving our infrastructure for farming
- increasing costs to produce food for local consumption
- water availability
- theft and vandalism
- In-state processing & facilities
- high cost of living
- lack of affordable housing for farm labor
- lack of irrigation
- reduction in staffing for Dept of Ag
- competing interests with other land uses
- inflation impacts on all aspects of biz/products
- invasive species
- ag security
- shipping costs rising
- politics
- inequities
- lack of workers
- lack of ag inspectors
- competition from cheap labor countries

## Word Cloud











# Energy & Sustainable Renewables - THREATS Start: 12:32

duration: 00:01:22

## Participant Input

- Costs
- climate change'
- lack of equity in access
- cost of imports
- Political will
- Climate change!
- competing land use
- Legislation
- access
- NIMBYs
- coherent community engagement
- costs
- environmental regulations
- rising costs
- grid resistance
- Politics
- enough storage
- renewable energy generation not keeping up with demand
- takeover or acquisition from outside entities – loss of energy independence
- picking one type of system over another
- climate change
- Lobbyists for fossil fuel interests
- Storage
- Status quo
- Rising costs - too expensive
- no clear plan
- climate versus energy
- public utility acceptance
- Incumbents who already feed off government handouts
- pull to remain status quo
- unstable grid, aging infrastructure
- Lack or box-checking community engagement
- food versus energy
- useful life of components and disposal
- energy market volatility
- cost of importing equipment
- no energy plan
- lack of renewal energy literacy
- imposition of developments on communities
- PUC
- uncoordinated land use
- solar panels from china
- fuel cost fluctuation
- no statewide energy plan to provide guidance
- not investing in grid resilience
- lack of trust
- nat disasters

## Word Cloud







- telehealth
- Trlemeficine
- telemedicine
- Increase culturally-grounded, place-based support
- Community Health Workers
- vibrant native Hawaiian health practitioners
- remote working
- Develop incentive programs
- diverse population for federal research \$
- Hawaii as a healthcare role model in the Pacific
- CMS expenseregulations
- technology innovation both in and outside of the clinic
- increased training for workers
- Address trauma
- Telemedicine
- consortiums and conveners like community first
- mental health
- utilize technology to lower costs
- multi-lingual community
- Wellness programs
- Begin regular emotional/mental wellness check ups
- capital improvement
- high demand and well paying jobs
- communication hub
- improved access to rural and remote populations
- Increase elder care and aging in place programs
- better care for our healthcare providers
- growing awareness and acceptance of home birth as a true option
- creating career pathways from high school
- focus on reducing costs
- support for expanded medical residencies
- technology
- opportunity for diversity in the workforce
- Shift federal funds and resources to mental health
- medical school
- More partnerships and resource sharing
- pilot programs
- address burnout for healthcare providers
- community-based organizations filling in gaps for kupuna, keiki, and mother care
- data sharing across systems
- Integrate more cultural prevention practices
- Combining western and alternative medicine to care for whole person
- supporting home-grown providers
- high demand
- link childcare, early childhood education
- mental and emotoianl health support
- Expanded mental health
- collaboration
- wellness focus - address upstream causes
- comunity wellbeing

## Word Cloud



- inability to bring more providers
- lack of mental health care
- lack of mental health professionals
- workforce stress
- movement towards formulary care and not personal attention
- aging infrastructure and facilities
- Lack of housing
- Rural healthcare and hospital and EMS access
- Mental health care is a revolving door
- not enough capacity in health care education institutions
- incidence of youth mental health challenges
- climate refugees
- losing local medical workforce to other places
- concierge medicine
- no housing

Word Cloud



Hospitality & Tourism - STRENGTHS

Start: 12:40

duration: 00:01:34

Participant Input

- weather
- mature market
- back from COVID
- plenty of demand
- Great product
- Natural environment
- beautiful place
- DMAP effort
- Aloha and welcoming attitudes
- visitors recognize the aloha present when visiting
- Location between East/West
- vibrant native Hawaiian culture
- expertise in area
- Incredible landscape/scenery
- DMAPs
- Global leader
- opportunity for regenerative tourism
- diversity





# Hospitality & Tourism - WEAKNESSES

Start: 12:41

duration: 00:01:41

## Participant Input

- too many visitors
- cost is too high
- over reliance
- Labor shortage
- historically focused on growth
- No leadership
- Carrying capacity exceeded
- LACK OF MANAGEMENT IN STATE PARKS
- Politicized hospitality environment
- capacity challenges
- Too many visitors
- impact on 'aina
- Too many tourists
- poor infrastructure
- Lack of funds to maintain facilities, poor infrastructure
- lack of vision in making it better
- declining public support
- No enforcement for current rules
- Lack of infrastructure
- TAT funding instability
- Industry reputation
- airport outdated
- impact on community & residents
- too much
- resident resentment of TVR's in local neighborhoods
- industry doesn't give back to the state
- infrastructure to support visitor industry
- Status quo approaches
- competing markets
- sacred places / environment overrun
- Resident sentiment
- lack of labor
- degradation of environment
- higher costs
- Loss of community/resident support
- Costs
- lack of coherent strategy or investment
- reinvestment decisions from tourism
- Resident sentiment
- residents experience tourism burnout
- People coming here and taking advantage of our places for \$\$\$
- workforce shortage
- extractive of natural resources
- management crosses too many depts
- Limited reallocation of resources to the local community and the natural environment
- TVRs in established residential areas
- lack of affordable housing near resorts
- profit over environment and local population
- Political interference
- lack of visitor respect for Hawaiian culture, customs, and places
- Industry reluctance to change, new approaches
- Short term vacation rentals
- F&B has low wage structure based on tip wage
- growing impact on community
- No housing for those born here
- lack of indigenous importance in hospitality marketing



- New travel trends: authentic, sustainable experiences
- DMAP's!
- experience and education
- carry out ke kumu and DMAPS and expand
- medical tourism
- DMAP
- better understanding of needs and problems
- Implement DMAPs
- hospitality innovations
- regenerative tourism
- give back to the State other than in taxes
- technology
- limit number of visitors at popular sites
- Tourism has political support and can affect change
- community driven tourism models
- creative industries bigger role in showing who we are
- innovations around visitor experience
- Infusion of Technology
- Leverage tourism for a diversified economy
- Limits at places so they are not abused
- usage fees to fund improvements
- more astute travelers
- connecting with climate work
- regenerative tourism (inspiration: New Zealand)
- International markets
- sustainable development innovation
- Scale successes and community-based models
- user fees to maintain trails and beaches
- provide more opportunities for residents to enjoy resources
- educate our visitors
- Carrying Capacity
- what we have learned during covid about limiting harm to 'aina
- mobility hubs
- Digitizing forms
- green fee
- new and more meaningful experiences for repeat visitors
- knowledge economy
- Community engagement & collaboration
- social media as a way to promote positive visitor behavior
- leveraging HI brand for exported products/experiences (eg, made in Hawaii products)
- focus on history, culture, and environment
- global sustainability conferences; purpose driven global convening
- Regenerative tourism - we want mindful travelers
- Monetizing assets
- Visitor education on values, culture, and environment
- change industry for new jobs and technologies
- ridge to reef tourism
- becoming a global hub for sector innovations

## Word Cloud





- Defense
- location between East and West
- Location
- dual use tech
- federal funding
- Federal \$
- population sentiments changing
- brings dollars into Hawaii
- Provides a critical technology pull
- HI home to assets/installations
- location
- Hawaii should be tip of the spear for DOD engagement in the region
- \$\$
- Technology
- Pacific location
- good paying, hi-skill contractor jobs
- connection with communities
- brings high tech jobs for locals
- Support services
- education and workforce opportunities
- military investments in infrastructure
- high dollar investment
- innovation and technology opportunities
- military more engaged with community than in the past
- cyber security presence
- relevance of Hawaii
- Civilian jobs - high wage/technology
- Defense capabilities
- economic investment
- INDOPACOM part of a broader ecosystem of Hawaii institutions
- gives families a sense of what living in hawaii is like
- global hub
- Lucrative contracts
- technology
- Economic benefits
- provide volunteer help in disasters
- provides high paying jobs
- job opportunities for Hawaii residents
- Dual Use
- Support local services such as fire
- technology innovations
- bringing new population
- Hawaii is the real asset to DOD; DOD should invest in Hawaii infrastructure
- provides technical business growth

## Word Cloud











## Science & Technology - STRENGTHS

Start: 12:51

duration: 00:01:39

### Participant Input

- Resources
- astronomy
- Innovative thinkers
- Dual use
- university system
- natural resources in Hawai'i
- local research university
- Dark Skies
- university
- the inclusion of indigenous knowledge
- environment
- high wage jobs
- Diverse renewable energy portfolio
- Military Assets seeding innovation
- navigation opportunities for learning - sea and sky
- geographic positioning
- local brain power
- Great STEM programs for youth in HI
- remote location
- indigenous practitioners and knowledge
- UARC
- SOEST
- Unique sites
- Emerging technologies
- connectivity (for now)
- cultural knowledge
- reverse brain drain
- Indigenous Knowledge
- indigenous knowledge
- remotely working from Hawaii
- Community groups like Broadband Hui
- STEM programs
- location in central pacific
- scientists
- UH CTAHR
- some areas are environmentally friendly
- critical technology pull from the other sectors
- our diversity
- Increase in local entrepreneurship
- Aerospace industry and ancillary industries - jobs
- Schools and educational system
- STEM resources
- Innovation centers and coworking hubs that facilitate connection co learning
- indigenous knowledge
- people
- work ethic
- STEM pipeline
- indigenous knowledge

### Word Cloud







- influence of western trained scientists overpowering efforts to lift up indigenous knowledge
- cost of doing business
- continued lack of exposure for youth
- Inequitable access to funding
- cost of living
- brain drain
- DISinformation - MISinformation
- Supply chain disruption
- educational programs & curriculum
- conflict at Mauna Kea
- Social media misinformation
- deficient curricula in STEM
- attainable house for workforce
- Dependence on conventional measures of success
- high cost of basic research
- missing opportunity to engage girls/women in STEM
- high taxes
- competition for our rising stars
- mistrust of science and tech
- Lack of alignment of culture and science
- cultural clashes
- no state or county gov't support
- wages not high enough to attract the talent needed
- Tendency to commoditize culture
- Cultural terrorism
- lack of support for remote workers
- lack of positions / opportunities for residents and native Hawaiian individuals
- Support from legislature and state fickle - not enough time to grow and scale
- lack of inclusion of innovation
- political will to support the sector
- Culture versus science
- too much focus on tourism
- land use bureaucracy
- limited hands on opportunities
- need to be more technology agnostic
- energy costs
- competition with entities that do not have a relationship with this place
- Need more diversity in the Science profession
- bureaucracy
- no infrastructure to compete with mainland
- UH
- lack of a career ladder from tech to professional
- legislature not supporting UH
- UH not supplying education

## Word Cloud









## Participant Input

- Collaborate and expand efforts beyond the arts silo
- sky's the limit
- Hawaii's unique cultural millieu
- visitor market
- Increase youth and resident access to creativity
- Broadband!
- technology and digital media arts
- protection of native Hawaiian culture, music, designs, likenesses, etc.
- broadband allows creative work to be exported
- cultural diversity
- Build mindset that art is integral to life
- global market
- art tourism
- Art as a "second responder" to key local-global issues
- gatherings and collaborations
- Hawaii's unique island context
- 10 million visitors
- global hub
- Improve institutional disconnect with arts community
- sustainability
- funding more since it's what visitors are searching for..
- Collaborative spaces
- infrastructure development
- Authentic cultural/arts protections
- integrate with mental health care
- Showcase Hawaii
- creation of meeting spaces
- Support local artists
- connect co-work spaces closely with arts and music
- physical spaces not tied to a single entity
- Shared working/creative spaces
- increasing number of local artists receiving national recognition
- innovative creative open spaces
- New partnerships and collabs via art
- Bringing industry Leaders to HI to share their mana'o with our residents
- using local labor
- Film studio
- HIFF - global presence to share HI stories
- tie to cultural and historical roots - unique Hawaii story
- Need economic data and impacts for residents, currently measured under leisure
- provides jobs to union workers
- viable jobs
- state film offices collaborations
- create our own film festival outdoors
- Need to pay those who travel for tourism
- walking areas
- storytelling

## Word Cloud











# Education Opportunities

Start: 01:10

duration: 00:01:55

## Participant Input

- climate work
- community engaged schools
- trauma inform programs & curr
- incorporation of innovation
- climate and clean energy innovation
- Ground Hawaiian cultural values into free education
- Clean slate to update curriculum and philosophy
- sustainability leaders
- 'aina-based education
- inncorporation of creative problem solving
- industry alignment with education
- trauma informed programming
- partnerships across public/private divide
- dual credits
- achieving sustainability and ESG through cultural lens
- Lifestyle for families is enticing is costs and housing was better
- education/industry partnerships
- strategic partnerships at highschoools with UH and other colleges
- culturall based education programming
- lifting up Hawaiian immersion schools
- broadband
- partnerships with island nations
- university centers
- intersection of multi-disciplinary practices
- adding mental health care
- align education with workforce other than tourism
- Expand project based learning
- stackable credentials
- University of Hawaii System - opportunity for legislature to be more supportive
- more health care education academies
- cultural based learning & practices
- Community & business partnerships for on-the-ground experience
- increasing applied learning experiences
- Career readiness
- Improved pipelines between edu and industry
- proximity of pathways and resources
- open to nonp[rofit suggestions
- invest in teaching as a viable career
- entrepreneurial education
- lifelong learning
- Connect dots between education and industry of future
- Advanced knowledge-based economy credentials
- expansion from vocational
- more engagement from industry
- blue zones schools
- Integrate art, creativity & innovation
- Recognize importance of trades
- Sustainability education
- hybrid programs

## Word Cloud













# What is a resilient economy in Hawaii?

Start: 01:22

duration: 00:03:24

## Participant Input

- nimble and flexible
- strong cultural base
- green, equitable
- reduced barriers to entry
- economy can meet food, energy and housing needs after a natural disaster
- affordable
- one where no one is left behind
- diversified sectors
- affordable and livable
- It's where young people want to stay here do they can thrive
- grounded in native Hawaiian culture and worldview
- interisland transportation still functions
- diverse opportunities
- people can afford to live here
- green
- economy that priorities health of enviroment & residents
- can withstand negative global competition
- high wage jobs
- housing/child care close to work
- sustainable and diverse
- Flexible and nimble education to upskill and reskill
- values indigenou knowledge
- balance of environment vs growth
- can withstand external systemic shocks
- One that has BALANCE for the place, the people and the economic drivers. We are unbalanced now with too much emphasis on tourism
- food security, clean energy, affordable housing
- everyone's basic need are met
- housing and childcare supply
- only one middle class wage job necessary
- economy that is not dependent on a single industry
- Balanced, holisitic
- Highly educated workforce with easy opportunities to reskill
- Ahupua'a as model for society - basic needs met here (enough locally grown food, freshwater, housing, strong community fabric, aloha)
- Looks long-term health not short-term gain
- ag security
- Climate change will be something we MUST address.
- women are supotted as parents and workers
- Grounded in Hawaii's values
- one that can withstand economic shocks
- Diverse career opportunities
- shared prosperity
- gov't that understands how to run a State
- diversified
- job opportunities for all ages
- doesn't focus on just efficiencies and profit
- regenerative economy
- Food security has to have a priority
- Competitive niche areas in which we can invest for longterm prosperity
- Benefits allow work life balance = people can care for their families, have vacation, healthcare
- higher skilled / trained workforce
- an economy that is not only supported by an industry or industries but also actively supports the industry or industries.
- one that is prepared for climate change
- No glass ceilings





