

HAWAII COMPREHENSIVE ECONOMIC DEVELOPMENT STRATEGY

2016-2020 Strategic Plan

Prepared by:

Economic Development Alliance of Hawaii



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Introduction

The Hawaii Statewide Comprehensive Economic Development Strategy (CEDS) provides a blueprint for economic development throughout the state. A CEDS is a strategy-driven plan for regional economic development. It is the result of a regionally-owned planning process designed to build capacity and guide the economic prosperity and resiliency of an area. A CEDS must be updated every five years in order to qualify for Public Works and Economic Adjustment Assistance programs through the U.S. Economic Development Administration.

Included in this document are the State CEDS, which covers broad themes that cut across the Hawaiian Islands, and the CEDS from each of the State's four counties: Hawaii County, Kauai County, Maui County, and the City and County of Honolulu. The CEDS has provided a vehicle for individuals, state and city government, private industry, educational institutions, and non-profit organizations to engage in dialogue to determine what efforts will best serve Hawaii.

2016-2020 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 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 2016 to 2020. This will ultimately lead to diversification and long-term economic stability for all Hawaii's residents.

State Statutory and Planning Framework

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

In order to guarantee, for present and future generations, those elements of choice and mobility that insure 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:

1. 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.
2. 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.
3. Physical, social, and economic well-being, for individuals and families in Hawaii, that nourishes sense of community responsibility, of caring, and of participation in community life.

QUICK FACTS

State Population: 1.4 million

Number of Islands: 137

Area: 6,423 sq. mi.

8 Major Islands: Niihau, Kauai, Oahu, Molokai, Lanai, Kahoolawe, Maui, and Hawaii Island

4 Counties: County of Kauai, City and County of Honolulu, County of Maui, and County of Hawaii

Hawaii is roughly 2,500 miles from the U.S. mainland, making it one of the most geographically isolated populations on earth.

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 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, HRS Sec. 226-108, as follows:

- Encouraging balanced economic, social, community, and environmental priorities;
- Encouraging planning that respects and promotes living within the natural resources and limits of the State;
- Promoting a diversified and dynamic economy;
- Encouraging respect for the host culture;
- Promoting decisions based on meeting the needs of the present without compromising the needs of future generations;
- Considering the principles of the ahupuaa system; and¹
- Emphasizing that everyone, including individuals, families, communities, businesses, and government, has the responsibility for achieving a sustainable Hawaii.

The collaboration of the Hawaii CEDS process was also predicated on a fundamental law in Hawaii... The Law of Aloha. Codified in HRS Section 5-7.5, this statute defines the Aloha Spirit and the process in which stakeholders plan Hawaii's economic future through, "coordination of mind and heart within each person... Each person must think and emote good feelings to others." "Aloha is the essence of relationships in which each person is important to every other person for collective existence."²

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.

The Hawaii Statewide CEDS Process

The 2016-2020 Hawaii Statewide CEDS is as an ongoing, systematic process that examines both opportunities and threats that potentially impact Hawaii. Identified by key business, government and education stakeholders through the Hawaii CEDS Statewide Strategy Committee, opportunities and threats that impact our islands' economic viability will serve as the basis for applying a common understanding of our State's strengths and weaknesses

¹ *A Hawaiian term for the ancient Hawaiian traditional socioeconomic, geologic, and climactic sustainable land management system.*

² *HRS Sec. 5-7.5, 1986*

Quality of Life

The CEDS attempts to serve as a continuous economic development resource by gathering these pieces under one measurable umbrella:

Increased quality of life for Hawaii's residents.

Hawaii Comprehensive Economic Development Strategy

to capitalize on national and global opportunities and defend against threats to the quality of life for Hawaii's residents.

On Thursday September 10, 2015, the Economic Development Alliance of Hawaii organized and held the initial convening of the Hawaii CEDS Statewide Strategy Committee. The outcome of this meeting was to develop a common understanding between stakeholders of Hawaii's strengths, weaknesses, opportunities and threats.

The opportunities and 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 of this report.

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.

A total of seven Statewide Strategy Committee meetings were held on Oahu. The meeting dates and the names of the committee members are below:

September 10, 2015 – Formed and oriented the Statewide Strategy Committee on the CEDS process and completed a statewide SWOT analysis

December 1, 2015 – Updated the Strategy Committee on progress and worked through a vision statement for the report

May 9, 2016 – Using the information provided through the SWOT analysis, the Strategy Committee decided on and worked through the Strategic Direction and Action Plan of 3 clusters: Health Care, Hospitality and Tourism, and Research and Innovation

July 28, 2016 – The Strategy Committee worked on the next set of clusters: Energy, National Security, and Agriculture and Food Production

August 30, 2016 – Stakeholder evaluation of the draft plans suggested identifying specific goals, objections and actions for Hawaii's manufacturing and creative industry clusters

September 14, 2016 – Finalized stakeholder input on Hawaii's manufacturing and creative industry clusters and the entire cluster analysis before the public comment period

October 12, 2016 – The Strategy Committee finalized the Hawaii CEDS and worked on next steps to continue the process of engagement

Hawaii Comprehensive Economic Development Strategy

Committee Members

Chris Benjamin
Alexander and Baldwin

Greg Chun
Hawaii Island Economic Development Board

Celeste Connors
Hawaii Green Growth

John De Fries
Hawaii County Research and Development

Keith Demello
State Office of Information Technology

Mary Alice Evans
Department of Business Economic Dev., and Tourism

John Harrison
Maui Economic Development Board

Len Higashi
High Technology Development Corporation

Jacqui Hoover
Hawaii Island Economic Development Board

Kim Ishimoto
State Office of Planning

Gary Kai
Hawaii Business Roundtable

Jackie Kaina
Kauai Economic Development Board

Keira Kamiya
Lieutenant Governor's Office

Flo Kong Kee
United Public Workers

Keali'i Lopez
Oahu Economic Development Board

Camille Masutomi
Department of Education

Bricen McCartney
Oahu Economic Development Board

Luis Salaveria
Department of Business, Economic Dev., and Tourism

Marissa Sandblom
Grove Farm

Pono Shim
Oahu Economic Development Board

Jeanne Skog
Maui Economic Development Board

Gino Soquena
Laborer's International Union

Josh Stanbro
Hawaii Community Foundation

Susan Tai Kaneko
Kauai Economic Development Board

Barry Taniguchi
Hawaii Island Economic Development Board

Allicyn Tasaka
Workforce Development Council

Lieutenant Governor Shan Tsutsui
State of Hawaii

David Tumilowicz
Kaiser Permanente

Helen Turner
Chaminade University

Leilani Ventura
Maui Economic Development Board

Senator Glenn Wakai
District 15

Jayson Watts
Lieutenant Governor's Office

John White
Pacific Resource Partnership

Leslie Wilkins
Maui Economic Development Board

Hawaii Comprehensive Economic Development Strategy

Robbie Melton
High Technology Development Corporation

Scott Murakami
University of Hawaii Community Colleges

Todd Nacapuy
State Office of Enterprise Technology Services

Dan Oshima
American Savings Bank

Dr. Virginia Pressler
Department of Health

Brooke Wilson
Pacific Resource Partnership

Cathy Wiltse
Small Business Development Center

Jarret Yip
University of Hawaii Community Colleges

Sylvia Yuen
Research Corporation of the University of Hawaii

The 2016-2020 CEDS

This 2016-2020 Hawaii Statewide CEDS captures the foundational economic planning activities for the Hawaii 2016-2020 CEDS Process. The strategy consists of the following five (5) major sections:

1. Summary Background Information

This section of the 2016-2020 Hawaii Statewide CEDS provides the reader with a baseline understanding of Hawaii's economy. The section provides the current economic forecast by county. It also provides an evaluation using labor market information (LMI) of seven (7) of Hawaii's traded clusters that rank in the top 25% of all regions throughout the United States, by employment specialization, as identified by the U.S. Department of Commerce, Economic Development Administration funded U.S. Cluster Mapping Project by the Institute for Strategy and Competitiveness at Harvard Business School. 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 internal 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 of 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 2015-2020 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 impact 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 articulate with 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 3 of the individual county CEDS reports. The county objectives are designed to be specific, measureable, attainable/achievable, relevant and time bound that are relevant to 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 been improving the overall quality of life for our residents of the State of Hawaii.

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In measuring the quality of life for Hawaii's residents in the Hawaii Statewide CEDS leverages previous works completed in 2009 by the Department of Business, Economic Development and Tourism and the University of Hawaii Center on the Family³, and the 2011⁴ and 2014 Hawaii Quality of Life reports published by Hawaii Business Magazine⁵.

These publications focus on quantifiably measuring:

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

Building off of these reports provides a solid baseline measurement of factors that truly impact our residents' daily lives.

In addition to the measures identified in these plans, the Hawaii Statewide CEDS stakeholder engagement committee and the Economic Development Alliance of Hawaii (EDAH) will be measuring additional factors in educational attainment and success, infrastructure issues including traffic and commuting patterns. We will also be complementing these prior works with supplemental data on the labor force participation rate and identifying other factors that provide us with clearer perspective on the impact of the state and county CEDS on our community.

The majority of indicators identified in this report are lagging economic indicators. As such, the ongoing CEDS process will explore additional measures of quality of life on an annual basis. EDAH will incorporate other studies and reports on impact of changes in Hawaii's economic condition and the subsequent impact on our island residents.

The initial measures in the evaluation framework that measure the impact of regional economic development project on the quality of life for Hawaii's residents will include the following:

1. Gross Domestic Product
2. Jobs in the labor force
3. Unemployment rate
4. Average per capita income
5. Direct income from major export industries
6. High school graduation rates
7. College graduation rates

Baseline data on these measures is provided in Appendix 1.

³State of Hawaii Department Business Economic Development and Tourism and University of Hawaii, Center on the Family, Quality of Life in Hawai'i 2009 Report. Please see appendix for this report.

⁴Hawaii Business Magazine, Hawaii 2011, Our Quality of Life, Six Challenges Facing our State and the Path Forward. Please see appendix for this report.

⁵Hawaii Business Magazine, Hawaii Quality of Life Report 2014. Please see appendix for this report.

5. Economic Resilience

EDA finds that economic resilience is 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 will leverage two key assets in ensuring economic resilience from natural and man-made disasters.

The first key asset is the “2014 Natural Disaster Economic Recovery Strategy” 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.

The second asset is the 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.

Section 1. Summary Background Information
State of Hawaii and Local County Economic Baseline and Forecast

Why a Cluster Based Approach?

The Hawaii Statewide CEDS focuses on a cluster based approach as research shows that companies tend to locate near each other as their geographic proximity provides a number of benefits including economies of scale, access to labor and knowledge, improvement in logistics and perhaps most important, greater opportunities to innovate.

The companies may be connected by functional relationship (e.g. suppliers and purchasers, producers and distributors) or by competition for similar markets.⁶

Clusters are defined by business relationships. Although in many cases, they share spatial boundaries, the boundaries are dynamic and do not define the industry cluster.

“Clusters are more likely to develop in regions that offer the needed human, intellectual, financial, and social capital and that nourish their growth support through supportive public policies and programs.”⁷

“Among all of the advantages in clustering, none is as important as access to innovation, knowledge and know how. In the New Economy – defined by knowledge-intensive traditional and emerging industries – companies look for their main competitive advantage in access to ideas and talent, which requires geographic proximity to professional colleagues, cutting edge suppliers, discriminating customers, highly skilled labor pools, research and development facilities, and industry leaders. Industry-specific knowledge and know-how accumulate and disperse through entrepreneurial areas and innovative companies.

Clustering gives firms quicker information about advances in technologies and changes in customer or consumer preferences. Not incidentally, it reduces transaction costs.”⁸

⁶ National Governors Association and the Council on Competitiveness, *Innovation America. Cluster-Based Strategies for Growing State Economies*, 2006.

⁷ Ibid.

⁸ National Governors Association, *A Governor’s Guide to Cluster-Based Economic Development*, Washington, DC, 2002.

U.S. Cluster Mapping Project⁹

The U.S. Cluster Mapping Project is a national economic initiative that provides over 50 million open data records on industry clusters and regional business environments in the United States to promote economic growth and national competitiveness. The project is led by Harvard Business School's Institute for Strategy and Competitiveness in partnership with the U.S. Department of Commerce and U.S. Economic Development Administration. Regional economies are the building blocks of U.S. competitiveness. The nation's ability to produce high-value products and services depends on the creation and strengthening of regional clusters of industries that become hubs of innovation. Clusters, which are regional concentrations of related industries, are a striking feature of all modern economies, making regions uniquely competitive for jobs and private investment.

Local Clusters

“consist of industries that serve the local market. They are prevalent in every region of the country, regardless of the competitive advantages of a particular location. As a result, a region's employment in local clusters is usually proportional to the population of the region. Moreover, the majority of a region's employment comes from jobs in local clusters. Since local clusters are tied to the regions in which they are located, they are not directly exposed to competition from other regions.”¹¹

The Cluster Mapping Project focuses on Traded and Local clusters.

A breakdown of Hawaii's traded clusters can be found in Appendix 2.

Department of Business, Economic Development, and Tourism (DBEDT) Cluster Economic Performance

The CEDS was also informed by DBEDT analysis of Hawaii's clusters. Based on cluster definitions from the Harvard Study and adjustments for Hawaii's unique economic structure, Hawaii's private sector was first grouped into 292 industry groups based on different NAICS level. The 292 industry groups were then grouped into 32 traded clusters, 16 local clusters, and 1 resource-based cluster.

The DBEDT cluster analysis can be found in Appendix 3.

Traded Clusters

“groups of related industries that serve markets beyond the region in which they are located. They are free to choose their location of operation (unless the location of natural resources drives where they can be) and are highly concentrated in a few regions, tending to only appear in regions that afford specific competitive advantages. Since traded clusters compete in cross-regional markets, they are exposed to competition from other regions.”¹⁰

⁹ The narrative from this section is a direct quote from the U.S. Cluster Mapping website at <http://www.clustermapping.us/about>

¹⁰ Harvard Business School, Institute for Strategy and Competitiveness, *U.S. Cluster Mapping Project*, <http://www.clustermapping.us/about>

¹¹ *Ibid.*

Hawaii's Statewide and Local Economic Forecast

Profile of the State of Hawaii Economy

The economy of the State of Hawaii has a combined gross regional product from the four counties of approximately \$73 billion (2013) and net exports of \$38.9 billion. The State's economy supports approximately 900,006 jobs (2015) that pay an average of \$52,048 in annual earnings.¹²



Statewide CEDS Targeted Clusters

Through the stakeholder engagement process, the CEDS targeted cluster industries, are further discussed in later sections of this report. Targeted clusters were identified through the CEDS formulation process and included review of public policy documents and input from government, stakeholder and community groups. Statewide targeted clusters are:

1. Hospitality and Tourism
2. Health Care
3. Research, Innovation, Technology and Creative Industries
4. National Security
5. Agriculture
6. Energy
7. Manufacturing
8. Creative Industries

State of Hawaii Economic Outlook¹³

A compilation of the outlook of the individual counties, the State of Hawaii is anticipating continued high levels of tourism activity, albeit with marginal gains.

“Overall, we expect visitor arrivals to ease to 1.5% growth next year, following this year's 4.2% rise. The number of visitor days will advance at a similar rate, firming a bit as we move into 2017. With only modest anticipated growth in accommodations, the measured growth in visitor numbers will be sufficient to maintain the occupancy rate near its current level of 78-80%.

¹² Source: Statistics other than noted, were derived from the Economic Modeling Specialist, International (EMSI), Developer for the period of 2015 to 2020. Data reflects the following parameters: County of Hawaii, 2014-2015, QCEW, Non QCEW, Self Employed, and Extended Proprietors.

¹³Bonham, C., Gangnes, B., Fuleky, P., Hirashima, A., Jones, J., Balderston, A., Ward, V., *UHERO Forecast Project. Annual Hawaii Forecast: Subscribers Edition, Expansion Will Continue Despite Global Challenges, UHERO The Economic Research Organization at the University of Hawaii, December 11, 2015.*

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Visitor spending will continue to be constrained by weak foreign currencies, rising about 2.5% or less annually over the next several years.”¹⁴

Construction will continue to be a strong contributor to Hawaii’s economy in 2016. Importantly, Hawaii is seeing increased construction activity on the neighbor islands.

“The construction industry looks set for several more years of growth before work tapers off late in the decade. New and continuing projects on the residential side will increase available housing on all islands, even if activity falls short of anticipated need. Any array of commercial and resort-related construction and renovation will add to retail growth and upgraded visitor accommodations.”¹⁵

A comprehensive analysis of the State of Hawaii Traded Clusters that demonstrate high employment specialization, ranking in the top 25% of regions by specialization in 2013 has been provided in Appendix 2.

¹⁴ *Bonham, C., Gangnes, B., Fuleky, P., Hirashima, A., Jones, J., Balderston, A., Ward, V., UHERO Forecast Project, Annual Hawaii Forecast: Subscribers Edition, Expansion Will Continue Despite Global Challenges, UHERO The Economic Research Organization at the University of Hawaii, December 11, 2015.*

¹⁵ *Ibid.*

County of Kauai - Regional Economic Benchmark Data

Profile of Kauai County Economy

The economy of Kauai County has a gross regional product of approximately \$3.6 billion (2013) and net exports of \$743 million. Kauai's economy supports approximately 43,606 jobs (2015) that pay an average of \$49,652 in annual earnings.¹⁶



Kauai County CEDS Targeted Industry Clusters

Kauai County targeted cluster industries, are further discussed in the Kauai section of this report. Targeted cluster industries were identified by the Kauai Economic Development Board and Steering Committee. Data from the North American Industry Classification System (NAICS) and Hawaii's Cluster Economic Performance report, DBEDT, 2015 also informed the economic analysis of Kauai's industry clusters. Kauai targeted industry clusters are:

1. Food and Agriculture
2. Sustainable Technologies and Practices
3. Science and Technology
4. Health and Wellness
5. Sports and Recreation
6. Arts and Culture

Kauai County Economic Outlook¹⁷

Talent. Infrastructure. Capital. These are the three critical factors for economic development that have been identified by the Hawaii State Department of Business, Economic Development and Tourism (DBEDT) and also by the stakeholders who contributed to the Comprehensive Economic Development Strategy (CEDS) update for Kauai for 2016-2020.

Kauai's fast-growing population was a significant consideration regarding the economic development strategy for the next five years, as were many local issues including housing, growth management, land use and sustainability. Marketplace factors that were considered included climate change, the globalization of business, the internet and social media, and grassroots movements of passionate citizens. It was clear from the analysis of Strengths, Weaknesses, Opportunities and Threats (SWOT) that Kauai is a talent-rich community in need of more job creation, workforce development, infrastructure improvements and greater access to capital.

¹⁶ Source: Statistics other than noted, were derived from the *Economic Modeling Specialist, International (EMSI), Developer for the period of 2015 to 2020. Data reflects the following parameters: County of Kauai, 2014-2015, QCEW, Non QCEW, Self Employed, and Extended Proprietors.*

¹⁷ Syderhoud, J., *Economic Forecast Kauai Edition 2015-2016, First Hawaiian Bank.*

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The Goals, Objectives and Actions that emerged in light of these circumstances focus on:

1. ***Workforce development*** through greater education and training;
2. ***Innovation and small businesses*** through more resources for entrepreneurs;
3. ***Adaptability and resilience*** through further disaster and climate change planning;
4. ***Collaboration*** within, between and beyond industry clusters;
5. ***Sustainable development*** of natural resources;
6. ***Greater food self-sufficiency*** through increased local farming and consumption of local produce and livestock;
7. ***Capacity building for economic development*** for industry clusters through planning and assessment; and
8. ***Enhancing the community's ability to thrive*** in terms of health and wellness, technology and affordable housing.

Ultimately, the greatest outcome of updating the Kauai County CEDS was the engagement of leaders from all aspects of government, business and the community in moving Kauai forward together. This report captures their input and the current state of Kauai's economy as best as possible during the Statewide CEDS update as of February 2016. However, there is recognition in the community that the CEDS is in actuality a living document to be championed, adapted and built upon as more ideas, strategies and action items emerge. The outcomes from the CEDS over the next five years will depend on the community's ownership, commitment and efforts to be bold in seizing the opportunities at hand, collaborative in addressing challenges, willing to find compromise among diverse perspectives, and steadfast in the vision for Kauai's future.

County of Maui - Regional Economic Benchmark Data

Profile of Maui County Economy

The economy of Maui County has a gross regional product of approximately \$7.8 billion (2013) and net exports of \$708 million. Maui's economy supports approximately 103,319 jobs (2015) that pay an average of \$47,764 in annual earnings.¹⁸



Maui County CEDS Targeted Industry Clusters

Maui County targeted cluster industries were identified by the Maui Strategy Committee and are further discussed in later sections of this report. Maui targeted industry clusters are:

1. Agriculture
2. Construction
3. Creative Industries
4. Energy
5. Health and Wellness
6. Science, Technology and Innovation
7. Sports and Recreation
8. Visitor Industry
9. In addition, geographical clusters for Hana, Lanai and Molokai were identified, recognizing that economic priorities in these communities are different.

Maui County's Economic Outlook

Maui County consists of the Hawaiian islands of Maui, Lanai and Molokai (excluding Kalawao County, location of the Kalaupapa community). In 2015, the county had a population of 164,726 and an official labor force of 84,200. The dominant economic activity in the County is the visitor industry, which in terms of direct and indirect employment, accounts for around two-thirds of the economy.

Among the major challenges Maui County faces in economic development are diversification of the economy; increasing the number and proportion of living wage jobs; increasing the stock of affordable housing which affects quality of life and presents a barrier to attracting and retaining skilled workers; and improving the business environment which faces complex regulation, high shipping costs, and some issues engendering public animosity.

¹⁸ Source: Statistics other than noted, were derived from the Economic Modeling Specialist, International (EMSI), Developer for the period of 2015 to 2020. Data reflects the following parameters: County of Maui, 2014-2015, QCEW, Non QCEW, Self Employed, and Extended Proprietors.

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A consensus exists among residents and stakeholders that Maui County's economic development should be measured by increased sustainability and resilience, especially considering Maui's isolated geographic isolation and the likelihood of potential natural disasters or economic downturn. There is also a consensus that the desirability of developing a vibrant, diversified economy must be balanced by sensitivity to residents' needs and the county's unique natural and cultural resources.

The Maui County CEDS Strategy Committee was convened on several occasions during this process to review Focus Group input and refine the goals and strategies. The Focus Group goals were established as follows

Agriculture:

- *Develop and improve agriculture infrastructure*
- *Explore and identify opportunities with major stakeholders for public/private partnerships*
- *Increase awareness of programs that develop entrepreneurial Ag skills*

Construction:

- *Streamline and reorganize Government regulatory and permitting processes*
- *Increase investment in, and development of, infrastructure*
- *Create incentives for more affordable housing*

Creative Industries:

- *Triple the economic impact of creative industries in the next five years*
- *Create an arts and entertainment district in Wailuku*

Energy:

- *Support expansion of renewable energy including community based options*
- *Increase energy efficiency and conservation and demand response efforts*
- *Reduce the cost of energy for business and the importation of energy fuels for electricity generation by 2045 through renewable energy using the most suitable technologies*

Health and Wellness:

- *Provide a greater range and higher quality of health care services*
- *Improve the recruitment and retention of healthcare practitioners and technicians*
- *Encourage and incentivize collaboration among provider organizations in the continuum of care Promote Wellness as an industry*

Science, Technology and Innovation:

- *Better connect Maui globally and improve business attraction and retention*
- *Support world class science and technical activities*
- *Further develop, attract, and retain educated workforce in STEM fields*

Sports and Recreation:

- *Streamline permitting process with State and County*
- *Develop a comprehensive sports plan for Maui County*
- *Support the creation of State Sports Commission with participation from Counties*

Visitor Industry:

- *Improve transportation access to and from other islands and beyond*
- *Closely monitor Customs and Immigration issues and react accordingly*
- *Keep ahead of the competition*
- *Maintain and improve visitor satisfaction*
- *Improve facilities (Maui as a "mature" destination)*

Hawaii Comprehensive Economic Development Strategy

Hana:

- *(Ag Cluster) Complete Hana Marketplace or a similar center for sustainable, local products*
- *(Ag/Energy Clusters) Create a community commercial kitchen, including packing and processing facility for ag products, supplied by renewable energy*
- *(Ag Cluster) Establish an Agricultural Cooperative*
- *(Construction Cluster) Partner with a Land Trust (e.g. Hawaiian Islands Land Trust or Habitat for Humanity) to direct plan to preserve open shoreline space and plan for affordable housing and rentals to be built by local labor*
- *(Construction Cluster) Fix back road through Kipahulu/Kaupo*

Lanai:

- *Increase career and economic opportunities*
- *Build population to sustainable level while maintaining uniqueness on the island*
- *Diversify visitor base*

Molokai:

- *Fast-track and improve permitting for County and SMA process and transfer more authority to Molokai (especially for restoration and improvement projects)*
- *Establish an integrated plan for Kaunakakai as a Waterfront Town*
- *Partner with National Park Service to Restore Traditional Use of Waikolu Valley*
- *Fix causeway with flow-through culverts to remediate South Shore reef sedimentation*

County of Hawaii - Regional Economic Benchmark Data

Profile of Hawaii County Economy ¹⁹

The economy of the Hawaii County has a gross regional product of approximately \$6.31 billion (2013) and net exports of \$123 million. The Hawaii County economy supports approximately 100,560 jobs (2015) that pay an average of \$41,153 in annual earnings.²⁰



Hawaii County CEDS Targeted Industry Clusters

Hawaii County targeted cluster industries were identified by the Hawaii County CEDS Steering Committee and are further discussed in later sections of this report. Sectors supported in the Hawaii County section of the CEDS are:

1. Agriculture and Aquaculture
2. Astronomy, Aerospace and Aviation
3. Business Development, Small Business and Entrepreneurship
4. Construction, Land and Resource Use, Planning and Development
5. Built Infrastructure and Environmental Services
6. Education, Workforce Development, Data and Information
7. Energy, Utilities and Shipping/Transportation
8. Health, Medical Care, Well-Being, Recreation
9. Military, Defense, First and Disaster Response-Resiliency
10. Technology and Innovation
11. Visitor/Hospitality Industry

Hawaii County Economic Outlook

The outlook for 2016 of Hawaii County continues to be good due to continuing strength in the tourism market and residential construction. What is promising for Hawaii County, is a diversification in the destinations from which visitor are arriving.

Hawaii County which makes up a land mass of 4,028 square miles that is larger than the combined total square miles (~2,400) of the other eight major islands that comprise the State of

¹⁹ County of Hawaii, Hawaii County, Big Island, and Hawaii Island are used interchangeably throughout the State CEDS

²⁰ Source: Statistics other than noted, were derived from the Economic Modeling Specialist, International (EMSI), Developer for the period of 2015 to 2020. Data reflects the following parameters: County of Hawaii, 2014-2015, QCEW, Non QCEW, Self Employed, and Extended Proprietors.

Hawaii Comprehensive Economic Development Strategy

Hawaii.²¹ Nicknamed the “Big Island”, the island’s sheer size is one source of some of the economic challenges faced by the county. Once the home to thousands of acres dedicated to the cultivation of sugar cane and multiple sugar processing mills spread across the island, the last sugar plantation on the island, Kau Agribusiness closed in 1996. In the intervening years, the island’s landscape and use of land continue to be transformed.

When the last update to the Hawaii County CEDS was done in 2010, the county, its residents and businesses, were in the process of recovery from the deepest and widest global recession experienced since World War II. Simultaneous to being confronted by economic shockwaves, Hawaii County was also facing environmental and societal challenges.

The largest employers in Hawaii County are in the medical, hospitality, and government (County, State, Federal combined) sectors.²²

In the years between 2009 and 2015, fuel costs for both transportation and electricity rose then declined dramatically; visitor arrivals also declined sharply before rising again; construction dropped to unprecedented levels before starting to rise; unemployment rates increased along with the number of residents living at or below the poverty level; homelessness visibly increased; multiple natural disasters including storms and lava created havoc; and infrastructure and other projects were halted due to lack of funding and/or lack of public support (including regulatory in some cases).

In 2016 Hawaii County is faced with rebuilding and strengthening its economy and infrastructure in a manner that fosters resiliency and *sustainability*.²³ In doing so, it is important to recognize the current state of the economy for the county and its residents.

The national trend of growing income and wealth inequality that began in the 1970’s when “economic growth slowed and the income gap widened”²⁴ is reflected in Hawaii County where there are limited opportunities for individuals to build a livelihood capable of sustaining themselves and their families.

²¹ Honolulu, Hawaii: Office of Planning, Hawaii State Department of Business, Economic Development and Tourism. *State of Hawaii Data Book (2014 Edition)*.

²² State of Hawaii: Data.Hawaii.Gov. “Top 50 Employers in Hawaii County.” 2014. <https://data.hawaii.gov/Employment/Top-50-Employers-in-Hawaii-County/ucmb-vy6y/data>.

²³ The definition of sustainability used is adopted from the United Nations World Commission on Environment and Development (Brundtland Commission) which states that “Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs.” United Nations Department of Economic and Social Affairs (DESA); published 16 December 1999; <http://www.un.org/documents/ga/res/42/ares42-197.htm>.

²⁴ Center on Budget and Policy Priorities. 2015. <http://www.cbpp.org/research/poverty-and-inequality/a-guide-to-statistics-on-historical-trends-in-income-inequality>.

Hawaii Comprehensive Economic Development Strategy

Per capita income for Hawaii County is the lowest of the four counties in the state of Hawaii estimated at \$34,870.00 at the close of 2014.²⁵ This information was also discussed in a report by USA Today identifying the poorest counties in each state that named Hawaii County as such, with an average median household income of \$51,250 between 2009 to 2013 in comparison to the state median household income of \$67,402 for the same period. The report noted that Hawaii County is “...not especially poor when compared to the rest of the nation. However, this figure may be somewhat misleading because of the state’s remarkably high cost of living.”²⁶

The USA Today report also cited the poverty rate for Hawaii County from 2009-2013 as 18.3%³⁴ which is again comparable to and supported by U.S. Census Bureau statistics which cites 18.1% of Hawaii County residents to be living in poverty.²⁷

While lower per capita and household income and poverty are often linked to lack of education, the USA Today report noted a high percentage (91%) of Hawaii County residents as having at least a high school diploma over the subject five years from 2009-2013 as compared to the national average (86%).³⁴ This figure is confirmed by the U.S. Census Bureau which cites that the percentage of individuals aged 25 years and older residing in Hawaii County to have a high school diploma between 2010-2014 as 91%. The bureau also reports that for the same period of time, 25.9% of Hawaii County residents hold a Bachelor’s degree or higher.²⁸

Economic growth and shared prosperity is largely dependent on sufficient potable water and sewer capacity which is limited both naturally and by inadequate infrastructure in many areas of Hawaii County. Similarly, reliable and reasonably priced energy is necessary and Hawaii County’s infrastructure for generation, transmission and distribution of electricity must undergo significant updating which despite major investments by the regulated utility have not kept pace with changing technologies and societal demands for energy produced from non-carbon based fuel sources.

The 21st century finds us “... living in a new economy – powered by technology, fueled by information, and driven by knowledge.”²⁹ Like other jurisdictions and communities, Hawaii County is “... grappling with long-term unemployment, ... changes in health care employment

²⁵ Hilo, Hawaii: County of Hawaii, Department of Research and Development 2016. *Hawaii County Data Book 2015*. Table 1.4.1 Personal Income, Total and Per Capita By County (p.25), selected year 2014.

²⁶ Frohlich, Thomas C. 24/7 Wall St, USA TODAY. *The poorest county in each state*. January 10, 2015. <http://www.usatoday.com/story/money/personalfinance/2015/01/10/247-wall-st-poorest-county-each-state/21388095>.

²⁷ United States Census Bureau. Quick Facts Hawaii County, Hawaii. *Income and Poverty: Persons in poverty, percent*. <http://www.census.gov/quickfacts/table/IPE120214/15001>.

²⁸ United States Census Bureau. Quick Facts Hawaii County, Hawaii. *Education*. <http://www.census.gov/quickfacts/table/IPE120214/15001>.

²⁹ U.S. Department of Labor. *Futurework – Trends and Challenges for Work in the 21st Century*. <http://www.doe.gov/dol/aboutdol/history/herman/reports/futurework/execsum.htm>.

and delivery, climate change issues...”³⁰ and we must make the necessary adjustments and investments in education, innovation industries, small businesses, and infrastructure.

³⁰ International Economic Development Council. Five Year Strategic Plan 2015-2020 Updated October 2014. www.iedconline.org/clientuploads/Downloads/IEDC_Strategic_Plan.pdf.

City and County of Honolulu - Regional Economic Benchmark Data

Profile of City & County of Honolulu Economy

The economy of the City and County of Honolulu has a gross regional product of approximately \$56 billion (2013) and net exports of \$35 billion. City and County of Honolulu's economy supports approximately 651,607 jobs (2015) that pay an average of \$54,513 in annual earnings.³¹



City and County of Honolulu CEDS Targeted Industry Clusters

City and County of Honolulu (Oahu) targeted cluster industries are further discussed in later sections of this report. Targeted cluster industries were identified by the Oahu Steering Committee and were informed by public policy documents and government, stakeholder and community input. Oahu targeted industries are:

1. Hospitality and Tourism
2. Health Care
3. Research, Innovation, Technology and Creative Industries
4. National Security
5. Agriculture
6. Construction/Infrastructure
7. Energy

City and County of Honolulu Economic Outlook³²

The City and County of Honolulu CEDS report focuses on 7 local clusters identified by the Oahu Strategy Committee. Six of the seven clusters are identical to the statewide cluster list. The additional cluster that the Oahu Strategy Committee chose to call out is construction. An important aspect of construction includes maintaining and upgrading Honolulu's aging infrastructure. This cluster plays a significant role on Honolulu due to the shortage and affordability of housing options and the current Honolulu Rail project from West Oahu to Ala Moana Shopping Center that will significantly alter the way Honolulu's residents live, work, and play. Construction in Honolulu will continue to grow with construction permits (leading indicator) suggesting pent-up demand for housing. Tourism and construction continue to drive economic growth in Honolulu and is expected to continue to grow in 2016, albeit at a more modest rate than in 2015.

³¹ Source: Statistics other than noted, were derived from the Economic Modeling Specialist, International (EMSI), Developer for the period of 2015 to 2020. Data reflects the following parameters: County of Honolulu, 2014-2015, QCEW, Non QCEW, Self Employed, and Extended Proprietors.

³² Snyderhoud, J., *Economic Forecast, Oahu Edition 2015-2016*, First Hawaiian Bank.

Hawaii Comprehensive Economic Development Strategy

The similarities in state and county focus, reveals Honolulu's role in the state economy. The island of Oahu houses Hawaii's capitol, Honolulu, and serves as the gathering place for state agencies and policymakers to make decisions that affect all of Hawaii's residents. Oahu also houses Hawaii's only international airport and its largest population base and tax revenues.

The City and County of Honolulu has the highest density of population in the State of Hawaii. Some of the contributing factors or impacts of the density are business and commerce, the seat of State government, Honolulu International Airport, the largest tourism lodging infrastructure, the largest proportion of higher education and K-12 institutions and the largest retail infrastructure.

In May 2016, Honolulu was selected to join the Rockefeller Foundation's 100 Resilient Cities network. 100 Resilient Cities helps cities around the world become more resilient to social, economic, and environmental challenges. Honolulu was selected for their innovative leadership and commitment to investing in building resilience. The identified resilience challenges for Honolulu are aging infrastructure, economic shifts, natural disasters (tsunami) and storms (hurricanes, typhoons, cyclones, and rainfall flooding) and effects of sea level rise and coastal erosion, infrastructure failure, and intractable homelessness. Joining the international 100 Resilient Cities network further emphasizes Hawaii's role as an island leader and model for locally appropriate implementation of the global 2030 Sustainable Development Goals.

The overarching goal of the Hawaii Statewide CEDS is to increase quality of life for its residents. In addition to the cluster focus, meetings were convened with state and City and County of Honolulu agencies to begin to analyze the needs and leverage the resources of State, City, and private stakeholders. Through cross matching the input from state and city agencies with the Oahu Steering committee, we encountered several themes that resonated across agencies, industries and clusters to increase the quality of life for our residents:

1. Increase the capacity of local education, research, development, and training institutions to serve local business needs through the 7 local clusters identified through the SWOT analysis
2. Align the business needs of the 7 identified local clusters with the expertise of the local education, research, development, and training institutions
3. Present opportunities to educate and innovate to inspire silo busting
4. Streamline business permitting and regulation processes
5. Support and develop projects and policies that align with reducing cost of living and increasing personal wealth measures of the State evaluation framework
6. Create the conditions and recognize the opportunities to trampolined off the 7 identified local clusters

Summary of Economic Forecast

The economic forecast above is further supported by the five-year cluster analysis and job projections completed in the Appendix 1. The data from both the economic forecast and the cluster analysis projections suggest that the economy of the State of Hawaii continues to be highly concentrated in Hospitality and Tourism. This continues to be of concern. Although the Hospitality and Tourism cluster is characterized by high number of jobs in the state that are expected to grow at a faster pace (11.59% faster) than the national average, and pay average annual earning that are 40.48% higher than the national average, jobs in this cluster are outpaced by Hawaii's higher cost of living.

The concentration in hospitality and tourism also creates exposures to economic, political and social volatility in U.S. and foreign markets. This concentration suggests that Hawaii's economy is much more susceptible to shocks caused by fluctuations a variety of foreign and domestic issues such as foreign currencies, political instability as well as competition from alternative tourism destinations.

Concerns over the concentration and the dependence of Hawaii's economy on Hospitality and Tourism were echoed by the State of Hawaii CEDS Statewide Strategy Committee, reflective in the following weaknesses identified in the initial convening of this committee.

1. Stereotype of being just a vacation destination
2. Perception of boondoggle location
3. Over reliance on tourism and development
4. Lack of diversified economy
5. Other substitute tourism destinations

The vulnerability of Hawaii's economy was further highlighted by the following weaknesses and threats that impact Hawaii's tourism market:

1. Climate change and sea level rise
2. Growing polarization in the community and the loss of Hawaii's historical context
3. Changes in values and the loss of common shared values
4. Bypassed by the global economy
5. High cost of living

The objective quantitative data, validated by the qualitative SWOT process was the impetus for the Statewide CEDS Strategy Committee to organize and intentionally identify opportunity for economic stabilization through diversification in the 2016-2020 CEDS processes. The results from the Statewide Strategy Committee SWOT activity and the subsequent alignment to Hawaii's economic clusters and development of strategies by the Economic Development Alliance of Hawaii are intentionally designed to the issues of concentration and dependence on Hospitality and Tourism and to stabilize Hawaii's economic future for the welfare of the state and improve our contribution to the US national economy.

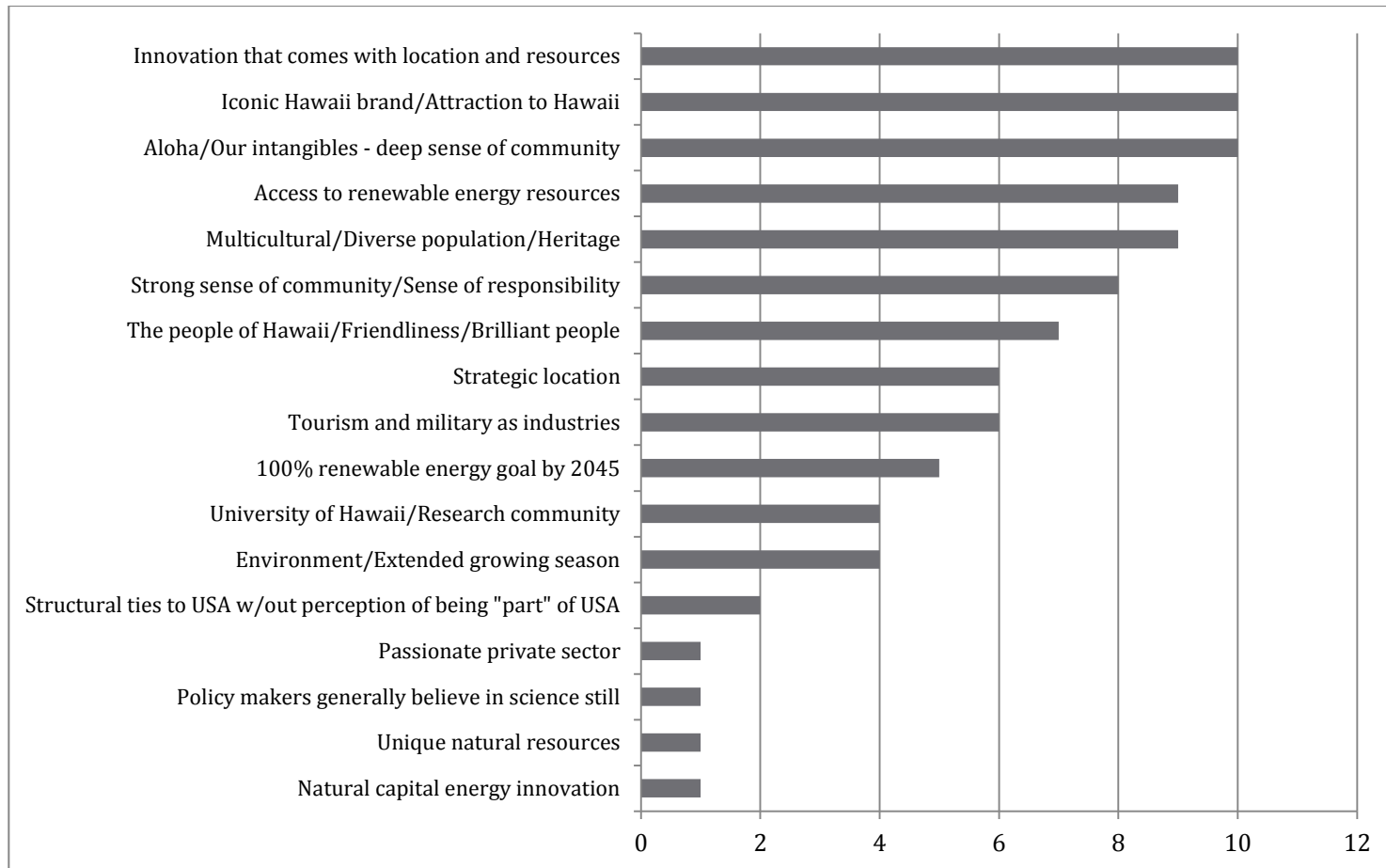
Section 2. SWOT Analysis

On Thursday, September 10, 2015, the Economic Development Alliance of Hawaii, an alliance comprised of the 4 county economic development boards convened the Hawaii Comprehensive Economic Development Strategy (CEDS) Statewide Strategy Committee. The Committee consists of leaders from the Hawaii Business Roundtable, members of Chamber of Commerce of Hawaii, leaders from not-for-profit organizations, government agencies, civic leaders, elected officials and representatives from K-12 and higher education.

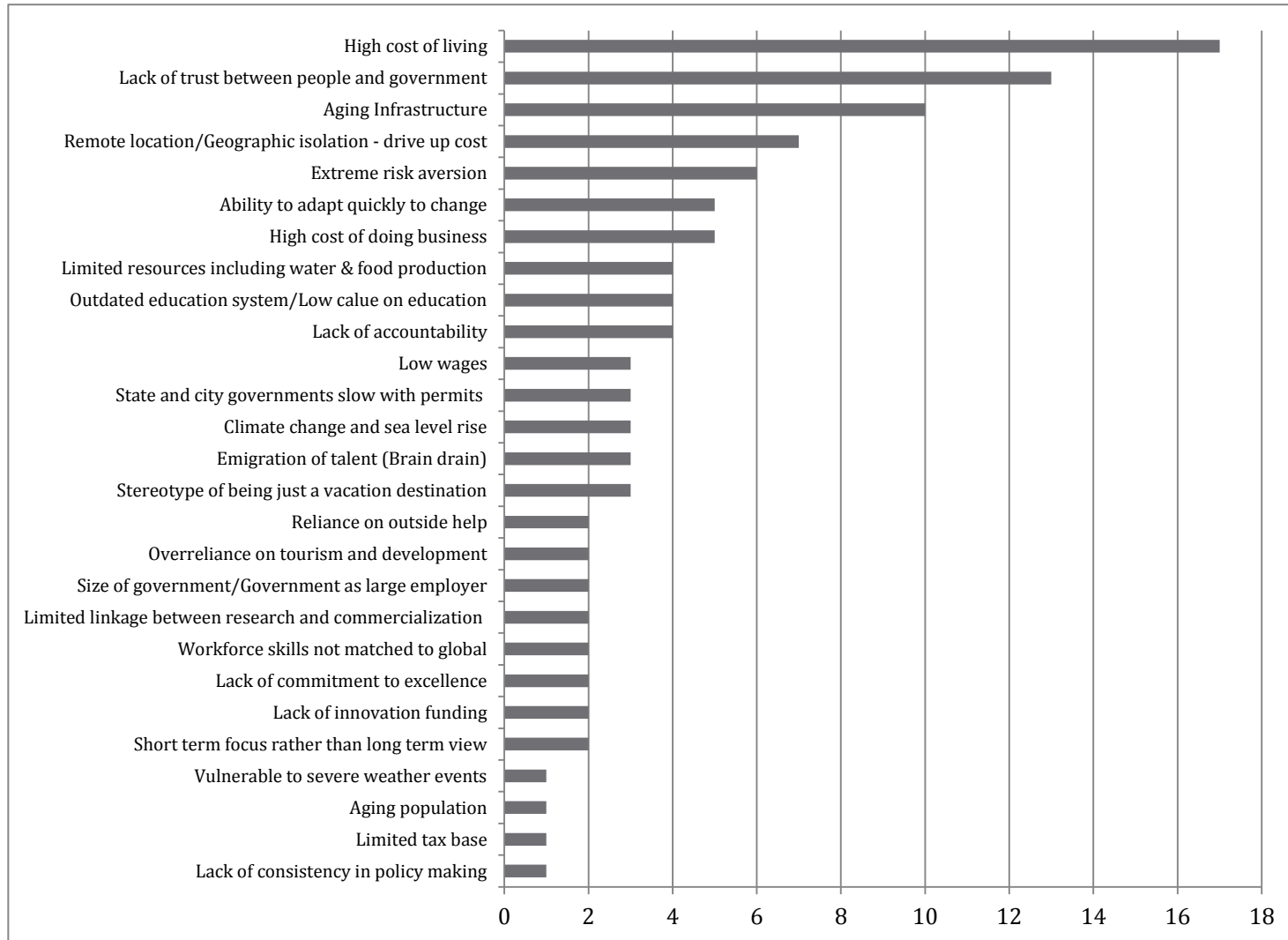
At this convening, the Committee conducted a SWOT analysis identifying both the internal strengths and weaknesses of our State, as well as the external opportunities and threats to Hawaii's economy.

The following section includes the results of the September 10, 2015 convening. The numbers correspond to the number of votes each topic received.

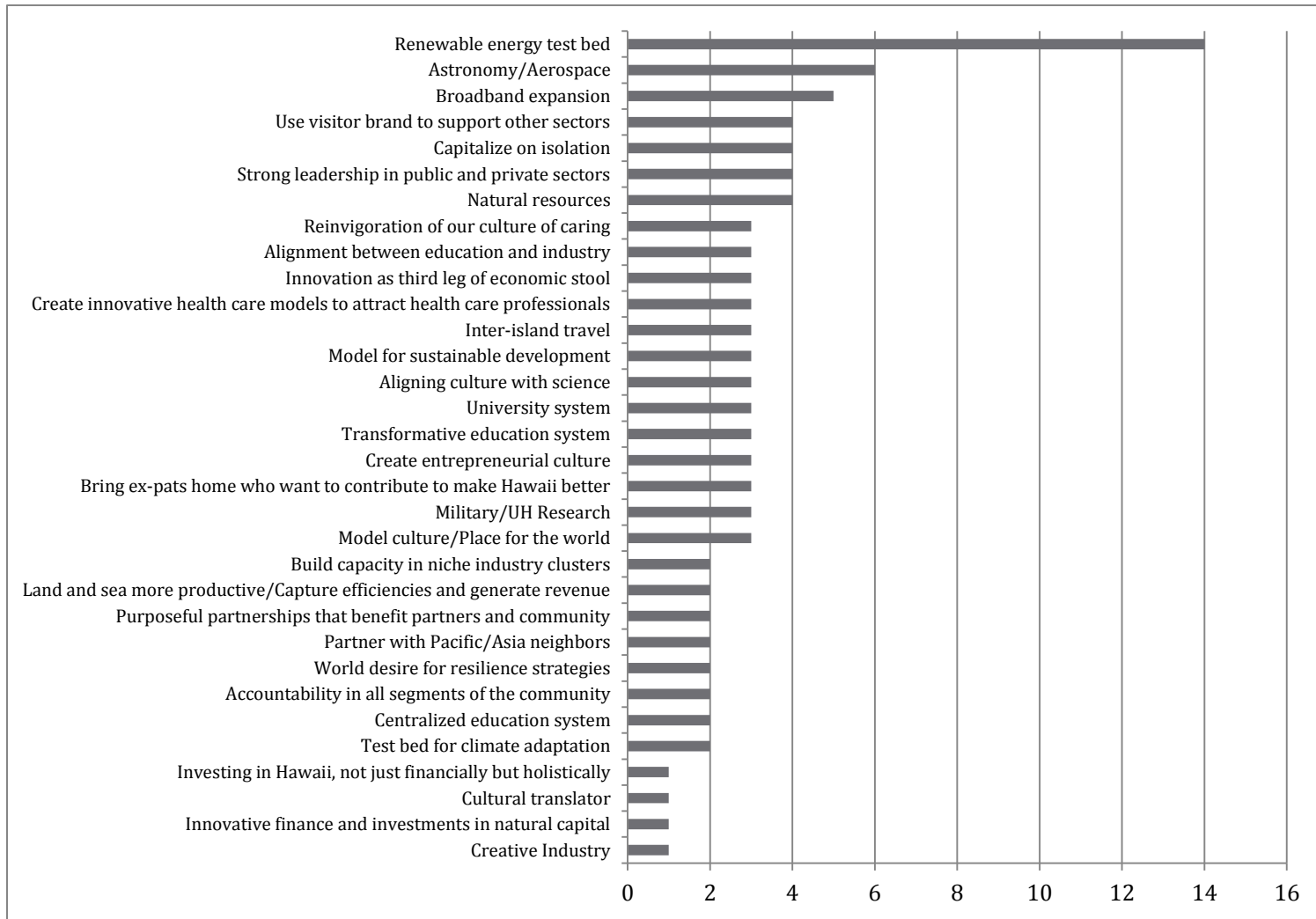
HAWAII STRENGTHS



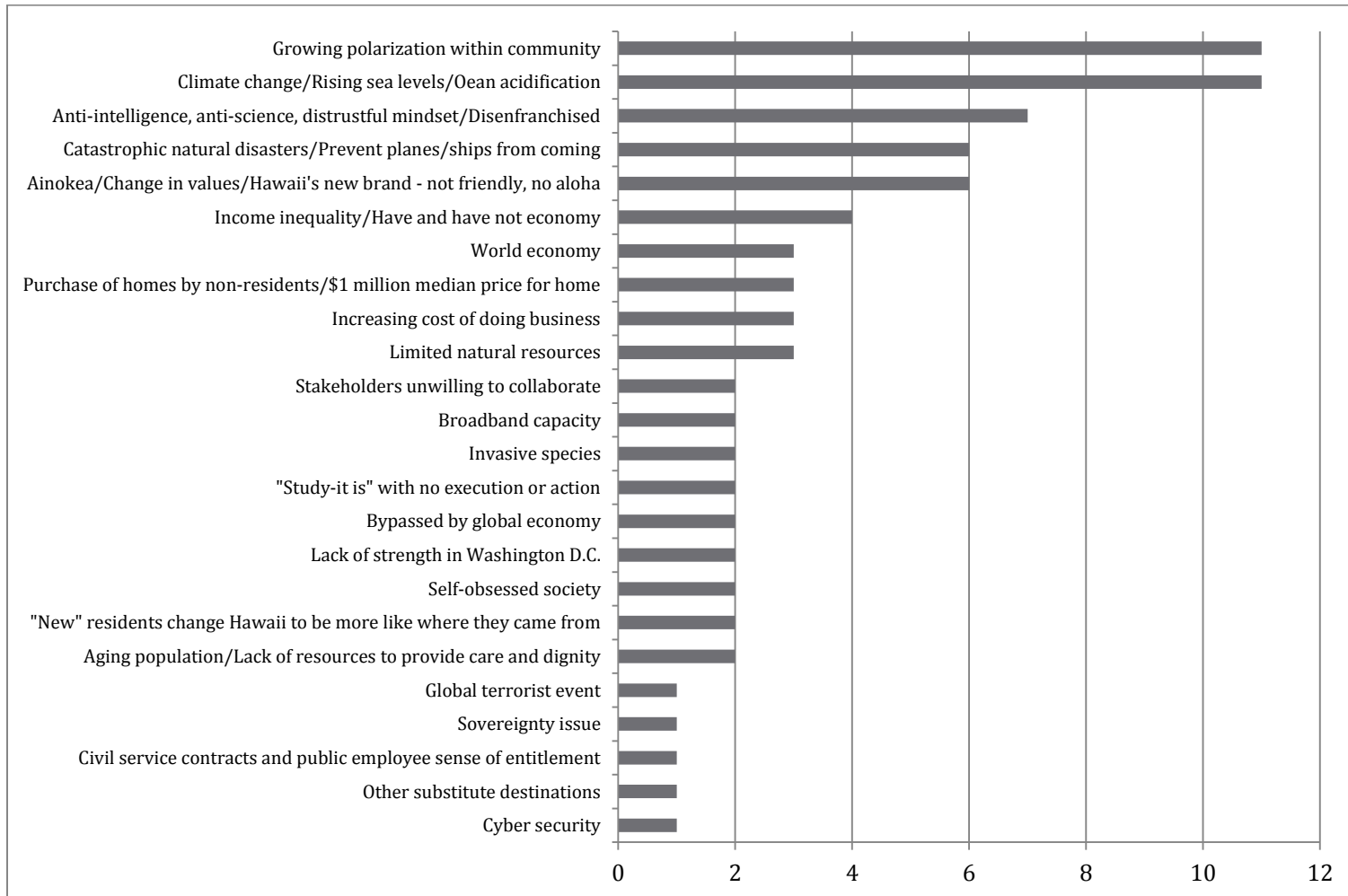
HAWAII WEAKNESSES



HAWAII OPPORTUNITIES



HAWAII THREATS



Section 3. Strategic Direction and Action Plan

This section of the Hawaii Statewide CEDS identifies economic development strategies that are based on both opportunities and threats identified by the Hawaii CEDS Statewide Strategy Committee in the SWOT activity of September 10, 2015. Aligning our state economic development strategy with the identified opportunities and threats that are external to and impact Hawaii identified through this public process allows us to incorporate time series as well as geopolitical global issues that impact the identified opportunities and the subsequent impact on both Hawaii's Traded and Local Clusters.

Organizing our CEDS based on the identified opportunities allows Hawaii's executive, legislative and business leaders to reprioritize economic initiatives based on ever changing timing issues, global financial and business markets, exchange rates, and other business, social, political and economic factors that impact Hawaii's economy for the 5-year duration of the CEDS planning cycle.

Through this structure the CEDS process will allow for focused strategic conversations throughout the 2015-2020 CEDS cycle. The focus allows the Hawaii CEDS Statewide Strategy Committee to identify appropriate experts to advise the Committee as well as the opportunity to better coordinate other federal programs such as the U.S. Department of Labor Workforce Innovation and Opportunity Act (See the WIOA Unified State Plan) on Integration with the Hawaii Statewide CEDS to maximize tactical initiatives on meeting the Hawaii's strategic economic goals.

Each of Hawaii's four counties' CEDS include strategies and tactical initiatives that will articulate with and drive the following statewide economic strategies at the local level. For specific tactical initiatives and accountability frameworks, please reference the individual county plans included with the submission of the Hawaii CEDS.

CEDS Vision

Our unique island state innovates and diversifies to ensure shared economic vitality.

Cluster Based Strategy

The State of Hawaii CEDS report focuses on 8 local clusters identified by the Oahu Strategy Committee.

1. Hospitality and Tourism
2. Health Care
3. Research and Innovation
4. National Security
5. Agriculture
6. Energy
7. Manufacturing
8. Creative Industries

The overarching goal of the Hawaii CEDS is to increase quality of life for its residents measured through the evaluation framework detailed in Section 4. In addition to the cluster focus, meetings were convened with various state agencies to begin to analyze the needs and leverage the resources of state, city, and private stakeholders. Through cross matching the input from state agencies with the Statewide Steering Committee, we encountered several themes that resonated across agencies, industries and clusters to increase the quality of life for our residents:

- Increase the capacity of local education, research, development, and training institutions to serve local business needs identified through the SWOT analysis
- Align the business needs of the identified local clusters with the expertise of the local education, research, development, and training institutions
- Present opportunities to educate and innovate to inspire silo busting
- Streamline business permitting and regulation processes
- Support and develop projects and policies that align with reducing cost of living and increasing personal wealth measures of the State evaluation framework

The impact of the goals, objectives, and action plans will be measured through the evaluation framework measures of quality of life in Section 4 of the document.

CEDS Values

- We value economic opportunity for all
- We value resilience
- We value and embrace diversity
- We value lifelong learning
- We value cultural traditions
- We value stewardship of the environment
- We value respect and collaboration
- We value broad-based community engagement
- We value global relationships



State Targeted Clusters

Health Care

Goal

Health care is a critical infrastructure to attracting new business for our economic viability. Equitable business models sustain health care practitioners and services. Residents have access to affordable, high quality healthcare, including those in underserved areas. Innovation in health care technology and services improves reach and addresses health care costs.

Summary of Cluster

The Local Health Services cluster in the State of Hawaii spans 36 industries. In 2015, this cluster reported 71,425 jobs which is 17% below the national average. The average earning per job in cluster is \$69,466 which is higher than the national average of \$61,563. From 2015 to 2020, jobs are forecast to grow at a rate of 8%, slower than the 10.9% job growth forecast for the nation.

This cluster has approximately 3,436 payrolled business locations in Hawaii with a job multiplier 2.09.

Objectives and Action Plans

Objective

Invest in telemedicine to improve access to and complement existing health care services and support business development

Action

- Increase access to broader array of quality services
- Identify location and type of telemedicine services that would be most significant to a community
- Expand telemedicine hubs

Objective

Attract and maintain adequate number and array of physicians, health care, and wellness practitioners

Action

- Analyze the challenges and opportunities of practicing health care in Hawaii
- Create incentives to attract and retain physicians, health care, and wellness practitioners
- Promote health care as a viable career pathway to maximize local pipeline to workforce needs
- Conduct survey on the challenges of attracting and maintaining physicians and health practitioners in Hawaii
- Create benefits of practicing in Hawaii
- Expand health care academies in public schools

Objective

Promote technological innovation and entrepreneurship in health care and wellness

Hawaii Comprehensive Economic Development Strategy

Action

- Collaborate with academic, public and private sectors, to identify needs and opportunities for innovation
- Convene and establish statewide Steering Committee to coalesce data and align opportunities
- Create a health care accelerator
- Organize health care start up events
- Work with the University of Hawaii Innovation Initiative

Objective

Promote enterprises that inspire a lifestyle of wellness

Action

- Capitalize on Hawaii's location and natural resources to support economic development
- Understand scope of wellness activities in Hawaii
- Increase understanding of the value of wellness among residents
- Brand Hawaii's value as an wellness destination
- Create an inventory of existing needs, services, and opportunities
- Publicize wellness services
- Emphasize Hawaii as a wellness destination in visitor and other economic development marketing



Research, Innovation, and Technology

Goal

Hawaii contributes to local and global solutions through research and innovation. Federal and entrepreneurship activities are framed by Hawaii's multi-cultural lens, fueled by our intellectual and human capital, and leverage our unique geographical location.

Summary of Cluster

The Education and Knowledge Creation cluster in the State of Hawaii includes 16 industries. In 2015, this cluster reported 29,321 jobs which is equal to the national average. The average earning per job in cluster is \$48,370 which is significantly lower than the national average of \$63,810. From 2015 to 2020, jobs are forecast to grow at a rate of 8.5%, exceeding the nation job growth forecast of 7.9%.

This cluster has approximately 729 pay rolled business locations in Hawaii with a job multiplier 1.53.

Objectives and Action Plans

Objective

Provide a supportive environment for research and innovation and the transfer of technology to spur economic growth.

Action

- Enlist the support of policymakers, educational administrators, and others to provide the facilities, resources, and incentives that nurture and enable research, innovation, and technology to thrive.

Objective

Adopt meaningful community engagement on the value research and innovation brings to Hawaii and our economy.

Action

- Work with the Hawaii Business Roundtable to leverage support from the public and private sectors to link investors, entrepreneurs and companies with resources to develop UH innovations and technologies into viable businesses.
- Convene community forums in every county in which the media and all sectors of the community are invited to see how research and innovation benefit the local community.
- Utilize a variety of communication channels to inform the community about the value of research and innovation and the people who conduct the work.
- Publicize the research at Hawaii's research institutions

Objective

Expand Science, Technology, Education, and Math (STEM) pathways—in formal educational settings and informal activities—from pre-Kindergarten to STEM careers.

Action

- Work with educational institutions of all levels to expand STEM curricular and opportunities for students to engage in STEM.

Hawaii Comprehensive Economic Development Strategy

- Work with children and youth groups (e.g., 4-H, Boys and Girls Clubs, Girl Scouts) to offer STEM activities in their programs.

Objective

Encourage businesses to provide mentors to schools and informal student programs on entrepreneurship.

Action

- Provide awards and recognition to outstanding mentors and student entrepreneurs.

Objective

Ensure adequate bandwidth throughout the state

Action

- Ensure adequate bandwidth throughout the state
- Lay broadband cable

Objective

Business support services throughout the life of an enterprise

Action

- Develop services that respond to needs at all stages of business growth
- Enabling businesses to export as appropriate
- Support services that cover mentoring, publicity (marketing), and capital

Objective

Develop and grow the technology industry in Hawaii to help our businesses flourish in a globally competitive economy

Actions

- Develop and manage a network of incubation services and facilities for technology companies
- Assist technology companies in raising startup capital
- Provide business development services for businesses in the technology sector



Hospitality and Tourism

Goal

Hawaii is a destination that embraces international and domestic and business and leisure guests. We enrich their lives through the Aloha in our people, unique culture, natural beauty, location and diversity.

Summary of Cluster

The traded and local cluster activity in Hospitality and Tourism cluster in the State of Hawaii includes 37 industries. In 2015, the combined clusters reported a total of 137,032 jobs and a total of 5,300 pay rolled businesses in the State.

Of this total, 59,831 jobs are classified in the traded cluster, which is 295% above the national average. The average earning per job in this cluster is \$45,912 which is higher than the national average of \$31,880. From 2015 to 2020, jobs are forecast to grow at a rate of 7.4%, exceeding the nation job growth forecast of 6.0%.

This cluster has approximately 1,492 pay rolled business location in Hawaii with a job multiplier 1.93.

The local cluster of industries that represents non-destination activities but also support the Hospitality and Tourism cluster of business activities include a total of 77,201 jobs which is 20% above the national average. The average earnings for the hospitality and tourism cluster is \$24,722 which is higher than the national average of \$19,861. For the period of 2015-2020, jobs are forecast to grow at a rate of 4.6% which is lower than the projected national job growth rate of 6.4%.

The local Hospitality and Tourism cluster includes 3,808 payrolled businesses in Hawaii with a jobs multiplier of 1.50.

Objectives and Action Plans

Objective

Improve local infrastructure to accommodate and balance the needs of visitors and residents

Action

- Monitor local infrastructure needs to support resident and visitor activity
- Assist other counties in building capacity to service international flights

Objective

Perpetuate our local expertise and global influence in cultural harmony

Action

- Inventory the innovative efforts and solutions of Hawaii tied to the cluster mapping opportunities which reveal the strength of social and cultural sensitivity to foster a healthy social economic ecosystem poised for new opportunity
- Capitalize on Hawaii's strengths to enrich the experience and lives of our guests and residents
- Create a Living Legends program to stimulate local enterprises aligned with our multi-cultural values, arts, and practices

Hawaii Comprehensive Economic Development Strategy

- Compile and showcase Living Legends

Objective

Educate our residents and guests about the law and spirit of aloha – HRS Section 5-7.5

Action

- Reach out to residents and guests through tourism and social media channels
- Display the Law of Aloha on all flights/cruise ships into Hawaii
- Link on all visitor websites

Objective

Redefine and diversify Hawaii as a destination of choice

Action

- Support the Hawaii Tourism Authority in their initiatives to transform the meetings and conventions market by producing a marketing video that reveals the advantages and significant value for the MCI (meetings, conventions, and incentives) market
- Help to identify new tourism markets
- Support the effort to attract more national and international conferencing and events of all nature



Energy

Goal

Hawaii is less dependent on imported carbon based energy with shared access to renewable energy benefits and is on track to meet the state's goal of 100% clean energy by 2045.

Summary of Hawaii's Renewable Energy Cluster

Hawaii's Renewable Electric Power Generation Cluster consists of 5 industries. In 2016, these industries reported 322 jobs which is 450% above the national average. The average earnings per job were \$100,536 which is lower than the national average of \$119,173. From 2015 to 2020, jobs are forecast to grow at a range of 7.8% which is faster than that national average of 7.6%.

Objectives and Action Plans

Objective

Utilize full portfolio of renewable energy resources

Action

- Align policies and processes to enable adoption of more renewable energy sources
- Accelerate the adoption of storage
- Support research and development in new technologies

Objective

Expand energy efficiency and sustainability practices

Action

- Invest in more forms of public transportation
- Create incentives for energy efficiency behavior and practices at home and business
- Promote live/work community planning
- Optimize the use of waste for energy production

Objective

Improve awareness and understanding about energy resources and practices among homeowners, business and government

Action

- Increase investment in ongoing community-based energy education
- Employ multiple partners in delivering outreach and education statewide

Objective

Update electrical grid infrastructure

Action

- Establish partnerships and capital to build, maintain and enhance infrastructure



National Security

Goal

Hawaii values our shared interests of peace and prosperity with our military and national security partners.

Summary of Cluster

The Water Transportation cluster in the State of Hawaii includes 9 industries. In 2015, this cluster reported 3,816 jobs which is equal to the 205% above the national average. The average earning per job in cluster is \$101,238 which is significantly higher than the national average of \$81,250. From 2015 to 2020, jobs are forecast to decline at a rate of -3.3%, exceeding the nation job decline rate of -1.0%.

This cluster has approximately 77 payrolled business locations in Hawaii with a job multiplier 5.39.

The Aerospace Vehicles and Defense cluster in the State of Hawaii includes just 1 industry, the Search, Detection, Navigation, Guidance, Aeronautical and Nautical System and Instrument Manufacturing Industry. In 2015, this cluster reported 134 jobs which is 78% below the national average. The average earning per job in cluster is \$88,188 which is significantly lower than the national average of \$128,905. From 2015 to 2020, jobs are forecast to grow at a rate of 7.5%, exceeding the nation job decline forecast of -6.4%.

This cluster has 7 payrolled business locations in Hawaii with a job multiplier 2.18.

Objectives and Action Plans

Objective

Expand research opportunities with federal national security partners and agencies

Action

- Increase local procurement of federal contracts, goods and services
- Strengthen local business capacity to secure federal contracts
- Build awareness of opportunities and process of doing business with military workshops, introductions
- Optimize opportunities of local conferences (Future Focus conference, AMOS Conferences, etc.)

Objective

Expand workforce pipeline

Action

- Align educational pathways with national security needs in Hawaii
- Support and develop training programs for local residents

Objective

Foster healthy relations between military with local communities

Action

- Improve community engagement and education about military and affiliated branches
- Broaden collaboration among local partners
- Organize community awareness and education on the value of the military and affiliated branches
- Coordinate and coalesce common interests
- Develop plan for building relationships between community and military



Agriculture and Food Production

Goal

Diversified agriculture and value-added products flourish as vital components of Hawaii's economy.

Summary of Clusters

Agriculture in the State of Hawaii consists of five (5) industry clusters including Agricultural Inputs, Food Processing, Livestock Processing, Forestry, and Fishing and Fish products. These 5 clusters employ a total of 22,305 jobs that paid a weighted average earning (weighted by the number of jobs per cluster contributing to the total jobs in all five clusters) of \$34,757.46.

Objectives and Action Plans

Objective

Expand market reach of local producers to institutions and the military

Action

- Align existing and new policies and procedures
- Assist farmers and retailers to achieve food safety certification

Objective

Increase access to agricultural lands with affordable, long-term leases and necessary infrastructure

Action

- Increase the number of ag parks
- Maintain and repair state agriculture irrigation systems

Objective

Grow the next generation of farmers and agriculture entrepreneurs

Action

- Expand outreach and technical and business assistance
- Create incubator/accelerator sites and programs for emerging farmers and entrepreneurs
- Create and strengthen agriculture and entrepreneurial pathways in schools and in organizations serving youth
- Support food trucks, farmers markets, agri-tourism and other forms of entrepreneurship
- Create greater awareness of the agriculture career field
- Develop partnerships between industry and academia to recruit and prepare students for a career in agriculture

Objective

Develop meaningful forums for listening and sharing with the community on agriculture and entrepreneurship

Hawaii Comprehensive Economic Development Strategy

Action

- Conduct community engagement process to capture the values, concerns and priorities of agriculture as an industry
- Regularly inform the community about the changing landscape of agriculture
- Promoting understanding of science and economics of agriculture
- Convene a millennial conference on the future of ag

Objective

Support pest prevention, control and management

Action

- Increase number of agriculture inspectors
- Increase funding to State Department of Agriculture
- Conduct research on most effective technology and practices

Objective

Invest in and subsidize infrastructure to revitalize agriculture

Action

- Use technology to enable more affordable practices
- Increase number of and access to produce and floral processing, handling and production facilities
- Increase number of and access to livestock slaughtering, processing, and finishing facilities
- Explore program to share resources among farmers
- Encourage efficient distribution systems to move food to market including food incubators and food hubs

Objective

Increase demand for and access to locally grown foods

Action

- Expand and improve branding and labeling programs to identify local foods
- Support consumer education programs to help consumers know local farms and farmers



Manufacturing

Goal

Products developed in Hawaii achieve commercialization and export capability through supporting infrastructure and programs.

Summary

Hawaii's manufacturing industry consists of 935 businesses with payroll located in the State of Hawaii. In 2016, these businesses have a total of 18,722 jobs which are forecast to grow at a rate of 4% between 2015-2020 which is higher than the national projected job decline of -1.5%. The manufacturing industry in Hawaii pays average annual wages of \$49,493 per job.

Hawaii's manufacturing industry has a jobs multiplier of 14.06.

Objectives and Action Plans

Objective

Increase the number of and foster stronger partnerships between SBIR companies and federal lab with the intention of bringing more resources and knowledge to technology and manufacturing companies in Hawaii.

Action

- Support programs that cover the entrepreneurial aspects of manufacturing
- Continue Hawaii on the Hill Initiative to provide national exposure to manufacturers of Hawaii products.

Objective

Focus on revenue growth by expanding into new markets for Hawaii's manufacturers and technology companies, locally, nationally and internationally to be more globally competitive

Action

- Continue to work with the Chamber of Commerce of Hawaii in a coordinate manner through the Manufacturing in Hawaii Group on increases the voice of manufacturing in Hawaii.
- Evaluate and assess barriers to markets outside of Hawaii and develop strategies to support innovative solutions and actions to address the barriers, i.e. Jones Act, Land Use Policies, and Tax Reform affecting manufacturers
- Provide support for manufacturers with a focus on prototyping and 3-d printing

Objective

Gain efficiencies for Hawaii's manufacturing, reducing cost, increasing workforce competency. Achieve production efficiency through Lean Six Sigma training, energy efficiency, programmable logic controls and systems training.

Action

- Work with the appropriate organizations as well as private education providers on the training Hawaii's manufacturing workforce by leveraging both federal and state training programs like the Manufacturing Extension Partnership

- Develop a system of engagement between the education, research, development, training and manufacturing stakeholders to solve problems faced in the manufacturing industry



Creative Industries

Vision

Hawaii hosts a thriving creative industries group that brings increased value to our visitor industries and local communities.

Summary

The creative industries cluster is a fairly substantial traded cluster consisting of 3706 pay rolled businesses across 69 individual industries. This cluster reported having 49,366 jobs in 2015. For the five-year period of 2015-2020, this cluster is expected to grow at a rate of 6.0%, less than the national average of 10.3%. This year (2016), the average earnings for this cluster is \$47,355, less than the national average of \$74,788.

Hawaii's creative industries cluster has a job multiplier of 2.19.

Objectives and Action Plans

Objective

Investment in innovative and emerging technologies to allow Hawaii's creative products to better compete in the global market

Action

- Establish creative lab accelerators to develop creative/tech companies
- Establish a creative media fund to support Hawaii based content development across multiple disciplines and platforms
- Leverage tourism marketing resources to advance broadcast, web and mobile channels showcasing Hawaii's creative clusters
- Position Hawaii as cultural creative hub in the pacific economy

Objective

Continue building of public-private partnerships to identify opportunities in commercial markets, particularly in digital media and film

Action

- Increase sector growth through programs and strategic partnerships that expand creative export
- Build on, reinforce, and expand on the storytelling of Hawaii's history to inspire creative business development solutions based on our multicultural integration, which currently have ongoing activities of music, film, cultural expression, and new media
- Establish policies to support creative media infrastructure development
- Strengthen the cross platform collaborations with film, music, tech and new media industries to advance sector and Creative Industries cluster growth

Objective

Continue the development and fostering of new ideas, content and local talent

Action

- Work with local programs that foster the expanded growth of Hawaii's middle school and high school digital media and recording programs

Hawaii Comprehensive Economic Development Strategy

Objective

Develop and grow the creative industry sector in Hawaii by increasing access to business mentors, increasing export/distribution, building workforce expertise, and providing facilities.

Actions

- Continue to provide mentoring and access to market specific decision-makers, investors and distribution outlets
- Continue workforce development programs to prepare students for creative industry jobs of the future
- Continue to provide accelerator programs for creative industry startup projects
- Continue support maintenance and development of facilities for creative industries

Section 4. Evaluation Framework

Please see Appendix 1 for the Evaluation Framework.

Section 5. Economic Resilience and Stability through Diversification

Statewide Natural Disaster Economic Recovery Strategy and Planning

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). 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 reports 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:

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.
- 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.

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.

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 supported.

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

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.

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.

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.

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
- 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. 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
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. TEEEX/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:

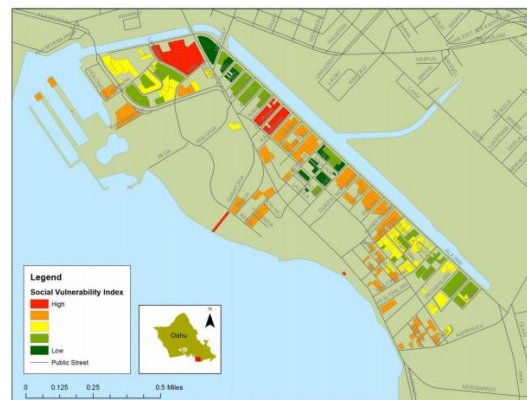
1. The Pacific Risk Management Ohana (PRiMO), is a coalition of organizations with a role in hazard risk management in the Pacific region.
2. Pacific Disaster Center (PDC), an applied science, information and technology center, working to reduce disaster risks and impacts to people's lives and property. 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.

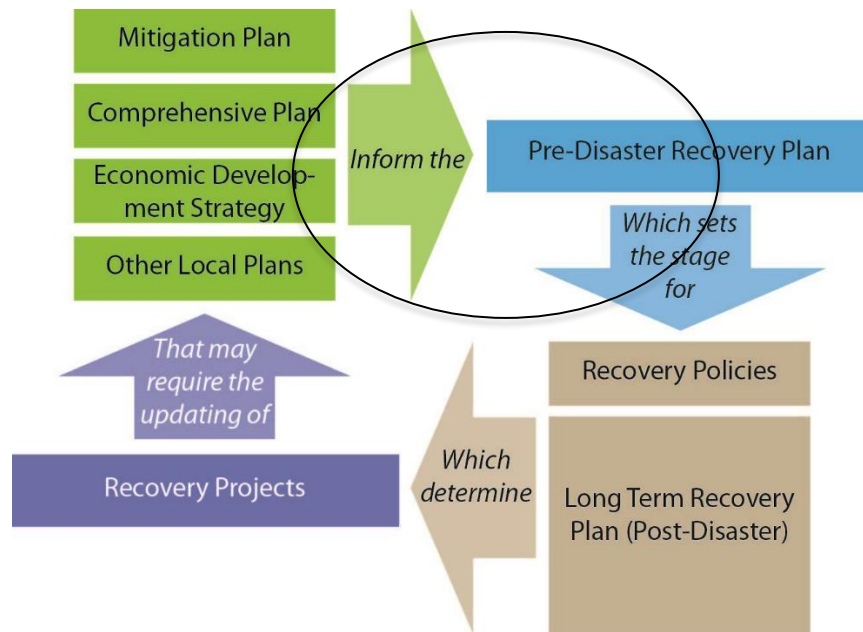
6. Pacific Marine Environmental Laboratory (PMEL), Center for Tsunami Research, conducts research in support of improved measurement technology and the design of optimal tsunami monitoring networks, development and implementation of improved models to increase the speed and accuracy of operational forecasts 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.

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 Hawai'i, as well as with external partners across the region to integrate the delivery of its trainings, products, and services.

Ability to Recover from Disasters – Planning for and implementing resilience to bolster the long-term economic durability of the region – Ensuing the Steady State

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.





The Plan is currently in second draft with a target completion date of September 30, 2016. The final plan will be submitted in October 2016. For more information on the planning process, please visit <https://sites.google.com/site/waikikirecoveryplanning/>. The NDPTC, working through the Economic Development Alliance of Hawaii, will work with the Hawaii Island Economic Development Board, the Kauai Economic Development Board, the Maui Economic Development Board and the Oahu Economic Development Board, both individually and collectively to identify key state economic cluster to further the mission of the NDPTC expanding pre-disaster planning and increasing economic resiliency. This cooperative approach will allow Hawaii counties to leverage and learn from similar economic clusters located throughout our state and deploy this pre-incident planning and community engagement process where resources permit.

Uniformity of Effort Between Hawaii’s economic clusters. Statewide Coordination

This uniformed approach allows the state of Hawaii to leverage other forms of disaster management planning through the NDPTC network of consortium members and partners. This allows the NDPTC to expand into other disaster preparedness areas that include a wide range of threats and hazards that pose a significant risk to Hawaii’s economy.

These additional hazards and threats include:

1. Biological hazards and threats that include pandemic and infectious diseases
2. Technological and accidental hazards such as failure of infrastructure, accidental chemical spills or other unintentional activities that could result in economic loss to the state of Hawaii.
3. Terrorist organizations or affiliates that acquire, build and deploy weapons of mass destruction as well as conventional acts of terrorism.
4. Malicious cyber-activity that can have catastrophic consequences. These include cyber-attacks on infrastructure such as power grid or attacks that result in financial system failures.

The proposed expansion of the pre-disaster recovery planning process to other economic cluster in Hawaii is important as each economic cluster demonstrates varying exposures and are impacted differently by various types of hazards and threats. For example, the Hawaii's health care cluster has a greater exposure to pandemic and other forms of biological threats. However, the health care cluster also plays a critical role as a first responder in any form of disaster.

Expanding Hawaii's ability to deal with multiple forms of disasters through a common process and a central organization (NDPTC) provides great uniformity. Uniformity provides better opportunities to identify both leverage points and vulnerabilities that exist between and within Hawaii's economic clusters. In turn the uniformity allows Hawaii to collectively leverage and address vulnerabilities, creating greater resiliency and a stronger ability to withstand economic shocks that may result from any form of hazard or threat.