Chapter 4: Economic Development

Aia a kau ka i a i ka wa’a, mana’o ke ola.
One can think of life after the fish is in the canoe. ~Hawaiian ʻŌlelo Noʻeau

Maui was the first of the neighbor islands to attract large-scale resort development as the islands transitioned from a plantation-based economy to one based on tourism. Maui’s economy has thrived on tourism and it continues as Maui’s primary engine. Any economy, however, needs to diversify in order to flourish as times and markets change. Moving forward, Maui must make a fundamental shift to an economy driven by innovation and the creative capacity of its residents. Maui can secure the economic well-being of its residents while protecting the island’s scenic beauty, pristine environment, and cultural heritage that residents and visitors cherish.
Background Information

Maui continues to dominate the neighbor-island tourism market and has consistently led the other counties in the rate of job growth and per-capita income. Today, the County has approximately 4,700 business establishments, which, when combined with Federal, State, and County jobs, provides about 71,600 wage and salary jobs.¹ According to the 2004 Maui County Comprehensive Economic Development Strategy (CEDS), 88 percent of Maui firms employ fewer than 20 people. The State Department of Business, Economic Development, and Tourism (DBEDT) estimates that the County has an additional 19,000 self-employed jobs, which include small business owners.² With the exception of the economic downturn in the early 1990s, the unemployment rate for Maui County has closely tracked the statewide average.

It is now acknowledged that the health of the island’s economy is directly tied to the health of the island’s natural environment. The 2010 CEDS cited widespread community and political support for economic diversification, renewable energy, and environmental protection.³ Maui’s numerous natural and cultural sites and qualities, as well as the cultural diversity of Maui’s people, are critical resources to be protected. Participants in this and past planning processes have repeatedly recognized the island’s scenic beauty, pristine environment, cultural heritage, and historic sites as assets that require thoughtful stewardship. Economic development must therefore strike a delicate balance between growth and protection of these treasured resources.

This chapter incorporates data from a number of studies, technical papers, and community efforts. These papers and efforts provide background information and statistics regarding economic issues facing Maui. The following studies and reports are available at the Maui County Planning Department’s Long Range Planning Division:

5. Hawai‘i Tourism Authority, Maui County Tourism Strategic Plan: 2006-2015;
6. Maui Farm Bureau, with the Office of Economic Development, Maui Agricultural Development Plan, August 2008;
7. Report to the Twenty-Fourth Legislature, State of Hawai‘i, 2008, Pursuant to Section 2 of Act 219 Session Laws of Hawai‘i 2007, Requiring a Report by the Maui Health Initiative Task Force; and

² Includes both full- and part-time jobs. An individual may hold two jobs or more, as a wage and salary employee and/or as a self-employed person.
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Diversifying Maui’s economy has been a key, longstanding County goal. A move toward a more diversified economy will create more resilience and reduce Maui’s reliance on tourism and its consequent vulnerability to fuel costs and external economic conditions. Diversification may also reduce the island’s dependence on construction for the visitor and off-island housing markets, thereby reducing demand on the island’s natural resources. Economic diversification will provide a broader spectrum of job opportunities, including high-skill and higher-paying jobs, thereby increasing jobs that pay a living wage.
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In addition to attracting high-technology industries and supporting the expansion of agriculture, recent diversification efforts have focused on potential growth sectors such as local agriculture, sports and recreation, education, health care, film and entertainment, and energy production using renewable resources.

Comprehensive planning for economic development in Maui County has been led by a strong collaboration between the County government and the Maui Economic Development Board, Inc. (MEDB). Current policy recommendations are stated in the 2010 CEDS, which MEDB prepared for the Office of Economic Development. The CEDS drew upon focus group meetings, as well as two prior efforts that incorporated extensive community participation: the Focus Maui Nui project and the 2004 Mayor’s Economic Summit.

CHALLENGES AND OPPORTUNITIES

The island of Maui, like the County as a whole, faces two fundamental challenges in economic development: (1) diversification; and (2) increasing the number and proportion of living wage jobs. There is a subset of more specific challenges, such as the high cost of housing and the need to strengthen public education. These challenges are described in the 2010 CEDS and are summarized below.

- **Affordable Housing.** Substantially increased housing costs since 2001 have negatively impacted the quality of life for residents and pose a barrier to attracting and retaining skilled workers in fields from high technology to agriculture.

- **Education and Workforce Development.** The 2010 CEDS focused on the need to train Maui’s residents to qualify for high-skill jobs and the related need to improve the public education system.

- **Infrastructure Development.** The 2010 CEDS cited water, road, and air transportation systems as particular areas of concern in the 2010 CEDS planning process. More recently, the capacity of Kahului Harbor has emerged as a major concern.

- **Business Climate.** Maui struggles with an unpredictable business environment. The cost of land, labor, and shipping are high compared to many of the island’s mainland and overseas competitors. Maui also has regulations that are intended to protect the island’s cultural and natural resources, but these regulations increase business costs. Streamlining government permitting requirements for projects in targeted industries will support new opportunities and make development decisions more predictable, cost effective, and feasible.

The **Maui County Tourism Strategic Plan: 2006-2015** (Maui County TSP) states that, among the four counties, Maui is the most reliant on tourism. Of Maui County’s Gross County Product, 39 percent is attributed to tourism, versus a range of 19 to 29 percent for the other counties. A large proportion of jobs in Maui County are low-wage jobs, many of them tourism-related. Most households are supported by individuals with two or more jobs.

The importance of the visitor industry to the island’s economy is illustrated by the

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proportion of jobs by industry. In Maui County, according to data provided by the Hawai`i Department of labor and Industrial Relations (2007), the accommodations and food services industry accounts for the largest proportion of jobs – 29 percent of all wage and salary jobs. This is nearly double the statewide proportion of 15 percent. Retail trade, also driven substantially by tourism, is second at 13 percent of all wage and salary jobs.

The Maui Island Plan recommends a shift in thinking about economic success. It suggests that we no longer measure economic vitality solely by statistics such as the number of building permits issued or growth in tax revenue, but by much more balanced sustainability indicators. In the community workshops discussing the General Plan update, residents stressed a desire to keep economic priorities in balance with the environment and community.

The Hawai`i 2050 Sustainability Plan focuses on the triple bottom line approach. The Plan notes that the goals of economic prosperity, social and community well-being, and environmental stewardship should be considered equally important and interdependent.

Increase Sustainability

Diversified agriculture and knowledge- and innovation-based industries such as high technology, film and digital media, health care, and biotechnology are promising industries that can provide a foundation for building a sustainable economy. While the private and public sectors have made great strides and investments in these areas, it is vital to sustain and increase these efforts if we are to fundamentally transform our economy.

A diversified economy would still provide for growth of the tourism sector, but the other sectors would grow at a higher rate.

GOAL, OBJECTIVES, POLICIES, AND ACTIONS

Goal:

4.1 Maui will have a balanced economy composed of a variety of industries that offer employment opportunities and well-paying jobs and a business environment that is sensitive to resident needs and the island’s unique natural and cultural resources.

Objective:

4.1.1 A more diversified economy.

Policies:

4.1.1.a Encourage an economy that is driven by innovation, research and development, and human resource development, including but not limited to, increasing technology- and knowledge-based sectors to be a major component in Maui County’s economic base.

4.1.1.b Support the creation of new jobs and industries that provide a living wage.

4.1.1.c Facilitate and expedite permits and approvals.
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4.1.1.d Develop linkages and partnerships among international research and development activities and Maui businesses.

Objective:

4.1.2 Increase activities that support principles of sustainability.

Policies:

4.1.2.a Support industries that are sustainable, and culturally and environmentally sensitive.

4.1.2.b Encourage and support local businesses.

4.1.2.c Substitute imports with locally-produced services and products where practicable.

4.1.2.d Support the development of economic development clusters in targeted industry sectors.

4.1.2.e Encourage all businesses to save energy, water, and other resources.

Implementing Actions:

4.1.2-Action 1 Regularly study market trends with the intent to attract new industries that are environmentally/culturally appropriate for Maui.

4.1.2-Action 2 Develop programs that brand all locally produced services and products or devise other measures to achieve import substitution.

4.1.2-Action 3 Create a database of imports suitable for substitution by locally produced services and products and annually report on progress made towards import substitution.

Objective:

4.1.3 Improve the island’s business climate.

Policies:

4.1.3.a Upgrade, maintain the quality of, and improve access to telecommunications infrastructure.

4.1.3.b Ensure an adequate supply of affordable workforce housing.

4.1.3.c Develop neighborhoods and communities that are attractive to the workforce of a diversified economy.

4.1.3.d Encourage, nurture, and reward entrepreneurship and innovation.

4.1.3.e Encourage employers to establish incentive programs. Support flexibility in workforce policies compatible with business and quality of life goals.
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4.1.3.f Assist community development organizations with revitalization and development of neighborhoods and communities that are attractive to the workforce of a diversified economy.

**Implementing Action:**

4.1.3-Action 1 Develop and implement innovative land use tools, public/private transportation incentives, and flexible business practices to reduce travel costs and job trips.
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TOURISM

The visitor industry serves as Maui County’s economic engine, generating more than 80 percent of the County’s economic activity. Tourism also provides 75 percent of all private sector jobs on Maui and contributes approximately 40 percent of real property tax collections. The $3 billion in annual visitor spending significantly boosts nearly all sectors of Maui County’s economy. The leisure and hospitality sector is comprised of accommodations, arts and entertainment, and food service industries. Indirectly, the sector generates considerable activity and employment in other industries such as small businesses, agriculture, retail, health services, commerce, construction, and real estate. The Maui County TSP states
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that Maui’s economy is the most reliant on tourism among the four counties. Therefore, significant care must be taken to nurture a healthy and vibrant visitor industry.
The Hawai`i Tourism Authority (HTA) is the lead agency and advocate for Hawai`i’s tourism industry. Funded through the Transient Accommodations Tax (TAT), the HTA oversees marketing Hawai`i as a visitor destination, invests in “product development,” and carries out research and planning. In marketing, HTA funds the Hawai`i Convention and Visitors Bureau and the Maui Visitors Bureau, as well as other agencies to promote Hawai`i in international markets.

The County has a more limited role in tourism planning. It receives a portion of the TAT from the State, which currently accounts for approximately 7 percent of its General Fund revenues and is the County’s second largest source of revenue. The County’s principal role involves regulation of land uses, including visitor units and related recreational real estate, in addition to commercial attractions. It is envisioned that Maui will play a more active role in tourism planning through the County’s Office of Economic Development and other agencies that play a supporting role in job creation and economic growth.

The Maui County TSP is one of four county-level Strategic Tourism Plans prepared under the auspices of the HTA. The County plans are intended to provide specific guidance, and build on the themes and policies set forth in the statewide Hawai`i Tourism Strategic Plan. In the plan, the “Maui County Tourism Goal” is stated as follows:

To strategically manage tourism on Maui, Moloka`i, and Lāna`i in a sustainable manner that promotes economic well-being, quality of life for residents, preservation of natural and cultural resources, and quality experiences for visitors.

CHALLENGES AND OPPORTUNITIES

Maui is one of the most desired visitor destinations in the world. However, tourism is highly dependent on the subjective and variable interests of global markets. Maintaining the strength of the visitor industry by keeping Maui a desirable destination for visitors, and home for residents, will be a critical challenge.

The goal of the visitor industry should be to continue to promote visitor revenue and attract higher-spending visitors that address and complement the needs and goals of the local communities.

The relationship between the number of residents and visitors on the island at any given time cannot be overlooked as an important public policy discussion point. Resort communities all around the world that are dependent on tourism have grappled with the “golden goose” debate, whereby the tourism experience may be compromised by the very nature of the area’s popularity.

The visitor industry continues to provide opportunities for small, locally-owned businesses to provide goods and services to the industry. The visitor sector supports both the State and Maui County Tourism Strategic Plans that place significant emphasis on attracting higher-spending visitors. The visitor industry continues to market to a well-balanced and diversified visitor demographic. A diversity of visitors
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will provide new market opportunities and help the industry recover from downturns.

![A cruise ship docked in the harbor, Kahului.](image)

Promoting cross-related enterprises in the arts and entertainment, sports and recreation, and education sectors can strengthen small, locally-owned businesses. Particular opportunities lie in agri-tourism, eco-tourism, educational tourism, heritage tourism, voluntourism, and health and wellness tourism. Developing strategies to reduce the leakage of the expended tourist dollar out of Maui is an important way to increase the economic benefit of tourism for Maui.

To protect the quality of Maui’s visitor industry, and the island lifestyle, the County must carefully manage and control any future expansion of visitor units on Maui island.

Maui’s visitor industry is diversifying from one dominated by hotels to one with a mix of visitor unit types.

Alternative forms of tourism, such as timeshare, resort condos, second homes, cruise ships, vacation rental homes, bed and breakfasts (B&Bs), and other types of visitor accommodations, have social, fiscal, and economic implications that need to be understood, monitored, and managed.

The conversion of housing from long-term residential use to transient-vacation-rental use raises a number of potential issues including, loss of community due to the transient nature of neighborhoods, disruptions such as overflow parking or partying, purported avoidance of the TAT by some operators, loss of residential housing stock to visitor use, and higher residential property taxes.

Concerns have also been raised about the gentrification of Maui neighborhoods, the proliferation of gated communities, and the allocation of scarce resources, such as water, to developments targeted to offshore buyers.
However, alternative tourism accommodations also diversify Maui’s visitor accommodations portfolio, and provide an alternative to the large-scale, coastal resort experience. These accommodations generate more economic activity per dollar spent, provide opportunities for small business creation and entrepreneurship, and provide accommodation opportunities for Maui residents and visiting family members.

The identified need for additional visitor facilities in the late 1950s gave birth to the concept of the resort destination area, and in 1961 Kā’anapali became the first planned resort destination area in the State. The resort destination area trend continued to grow on Maui with the subsequent development of Wailea and Kapalua.\(^4\) Per previous General Plans, it has been County policy to limit large-scale resort development to the defined resort destination areas of Wailea, Mākena, Kapalua, and Kā’anapali. The tremendous contribution that tourism makes to our economy must be acknowledged with careful management and diversification so that the tourism sector will continue to grow in a manner that addresses the issues that have been raised.

The visitor industry continues to provide Maui residents with many economic opportunities. The industry generates the most tax revenue and employs more residents than any other industry. Many Maui residents benefit from the industry.

Over the years, it has been County policy to maximize the economic benefits of the visitor industry by attracting higher-spending visitors rather than maximizing the number of visitors to the island. This policy ensures a rich visitor experience while protecting the island’s natural beauty, culture, island lifestyles, and aloha spirit.

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**GOAL, OBJECTIVES, POLICIES, AND ACTIONS**

**Goal:**

4.2 A healthy visitor industry that provides economic well-being with stable and diverse employment opportunities.

**Objective:**

4.2.1 Increase the economic contribution of the visitor industry to the island’s environmental well-being for the island’s residents’ quality of life.

**Policies:**

4.2.1.a Engage the visitor industry in the growth of emerging sectors where practicable.

4.2.1.b Support the implementation of the Maui County TSP, when consistent with the MIP.

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4.2.1.c Focus economic growth in the visitor industry through enhanced visitor experiences and an emphasis on attracting higher-spending.

4.2.1.d Provide a rich visitor experience, while protecting the island’s natural beauty, culture, lifestyles, and aloha spirit.

4.2.1.e Diversify the tourism industry by supporting appropriate niche activities such as ecotourism, cultural tourism, voluntourism, ag-tourism, health and wellness tourism, educational tourism, medical tourism, and other viable tourism-related businesses in appropriate locations.

4.2.1.f Recognize the important economic contributions that the visitor industry makes and support a healthy and vibrant visitor industry.

4.2.1.g Support the increased availability of kama`āina discount programs.

Implementing Actions:

4.2.1-Action 1 Conduct and regularly update an impact assessment (social, economic, and environmental) of the costs and benefits of mega-resort, timeshare, vacation rental, and other types of visitor accommodations.

4.2.1-Action 2 Seek additional revenues to offset the potential loss of HTA funds that will help support niche activities.

4.2.1-Action 3 Develop a yearly performance report to the Maui County Council that describes the returns resulting from expenditures of public funds/grants that are awarded for the visitor industry.

Objective:

4.2.2 Comprehensively manage future visitor-unit expansion.

Policies:

4.2.2.a Mitigate the impact of tourism on the host culture, natural environment, and resident lifestyles.

4.2.2.b Allow, where permitted by the community plan, the development of business hotels and small, sensitively-designed inns.

4.2.2.c Manage impacts from transient vacation rentals, hotels, bed and breakfast units, timeshares, and resort condominiums on residential communities, public infrastructure, and community facilities.

4.2.2.d Discourage supplanting of existing island housing to visitor accommodations that may have a negative impact on long-term rental housing, price of housing, and price of land.

4.2.2.e Allow the designation of retreat/mini-conference centers in appropriate locations through the community plan process.
4.2.2.f Community plans should consider establishing standards such as limits on building size, room count, and the number of inns, if any, that will be allowed in small towns.

Implementing Actions:

4.2.2-Action 1 Manage transient vacation rentals through permitting in accordance with adopted regulations and community plan policies.

4.2.2-Action 2 Work cooperatively to establish a comprehensive set of resource management standards, including protection of Native Hawaiian rights and certification programs for ecotourism.

4.2.2-Action 3 Develop programs and/or regulations to:
   (1) Allow for the development of small, locally-owned inns and B&Bs in the commercial cores of Maui’s country towns and business districts if permitted, and as defined in the community plans;
   (2) Cap the number and type of visitor accommodations that can be permitted; and
   (3) Manage the number and type of visitor accommodations that can be permitted.

4.2.2-Action 4 Develop design guidelines for small, locally-owned inns, retreat centers, and like-kind accommodations.

Objective:

4.2.3 Maximize residents’ benefits from the visitor industry.

Policies:

4.2.3.a Promote a desirable island population by striving to not exceed an island-wide visitor population of roughly 33 percent of the resident population.

4.2.3.b Use the required General Plan Annual Status Report to monitor trends related to residents and visitors.
Agriculture on Maui consists of large, land-extensive activities (plantation crops and cattle-grazing) and labor-intensive small farming. Agricultural enterprises range from subsistence farming to corporate-owned plantations. Products include plant crops, livestock products, and aquaculture. In terms of acreage, sugar and pineapple continue to be Maui’s leading crops. In terms of value, seed corn is the leading crop. One sugar plantation remains in the State, Hawaiian Commercial & Sugar Company (HC&S). Currently, wage and salary jobs in agriculture have declined as plantations have closed or become more efficient.
In 1984, the County had 3,700 agricultural jobs. By 2005, the number of wage and salary jobs in agriculture dropped to 1,600, only 2.3 percent of all Maui County jobs. By 2009, they dropped to 2.2 percent of all Maui County jobs.

Planning for agriculture generally focuses on a specific issue, crop, or project. Between 2002 and 2003, the Maui County Farm Bureau, Inc. (Farm Bureau) engaged in a strategic planning process with support from the Mayor’s Office of Economic Development. This resulted in the preparation of the *Maui Agricultural Strategic Plan* (2003). The Strategic Plan sets forth a vision and a set of initiatives, as well as more detailed implementation steps. In July 2009, the Farm Bureau, in cooperation with the Office of Economic Development, produced the *Maui Agricultural Development Plan*.

### CHALLENGES AND OPPORTUNITIES

**Achieving Food and Energy Self-Sufficiency**

Each agricultural industry confronts its own unique challenges and opportunities that fluctuate with market and biological influences. Most of the challenges and opportunities discussed pertain to small farms. Large corporate landowner/agricultural producers such as HC&S confront different sets of challenges and opportunities.

Increasing local consumption of Maui agricultural goods is a long-term opportunity for stabilizing and expanding agriculture. Besides economic benefits to farmers, substituting locally-produced food for imports could allow Maui to become more self-sufficient. Success will involve a commitment by Maui residents, businesses, and institutions to buy locally-produced food; grocers to contract with local farmers; and government to provide land, water, and tax incentives to support critical industries and crops.

It is estimated that 85-90 percent of food consumed in Hawai‘i is imported. The globalization of food production and processing poses a challenge to exports and imports. Plantation agriculture and the export of sugar and pineapple have declined because crops can be grown and food products can be processed at lower cost overseas.

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5 State of Hawai‘i, Department of Business, Economic Development and Tourism (various years). *State of Hawai‘i Databook.*
6 State of Hawai‘i, Department of Agriculture (December 2008). *Food Self-Sufficiency in Hawai‘i.*
There are many opportunities for Maui’s farmers and food manufacturers to expand their sales of natural and organic foods. Supporting the establishment of farmers markets, pick-your-own farms, community gardens, and other community-supported agricultural programs will provide alternative market channels to expand sales of locally grown and manufactured organic products.

Growing crops that can be processed to generate electrical power or to make fuel will provide agricultural jobs, utilize agricultural lands, and make Maui more energy self-reliant.

The economic feasibility of energy crops for biofuels depends largely on factors in the sugar and oil markets, and alternative uses for land. Only land zoned for agriculture is likely to be available for energy crops. Market forces appear to be working in favor of biofuel development on Maui. Potential synergies and trade-offs between dedicating land to biofuel crops for automotive fuels versus utility-scale power generation should be further examined. Potential areas identified for biomass energy crop production include former Lahaina plantation land; HC&S land in Pā‘ia; and HC&S land in Pu`unēnē. Potential also exists on Upcountry ranch lands.

If agriculture on Maui is to be economically viable, the State and County will need to ensure that farmers have access to sufficient supplies of affordable water. Water rates must be implemented that encourage conservation and provide affordable water to farmers. The community will need to invest in the maintenance and construction of water system infrastructure including storage, transmission, and treatment.

The availability of transportation to markets outside of and on Maui affects the economic viability of many agricultural enterprises. Some industries, such as cut flowers, rely heavily on airline shipping to the mainland. Fruit and vegetable farmers ship to Oahu by way of the inter-island barge. Transportation costs can be a significant part of the farmer’s overall cost of doing business.

The issues of pest control and invasive species pose different problems for exporters of Hawai‘i products and for importers of food and agricultural materials. Exporters face rigorous controls to prevent the spread of pests and alien species to mainland and export markets. These controls can increase the cost of Maui products and halt their export altogether. The introduction of pests and alien species is also a threat to Maui agriculture. Unless agricultural inspection services are sufficiently funded and implemented, enlarging transportation facilities and adding direct connections from foreign and domestic ports can increase Maui’s vulnerability to pests and alien species.
HC&S, a subsidiary of Alexander & Baldwin, Inc., is Maui’s largest agricultural business with over 900 employees. HC&S grows sugarcane on 37,000 acres of land in Central and East Maui, and utilizes and maintains the State’s most extensive surface water system. HC&S plans to continue to grow sugarcane and seeks to increase profitability by developing value added products such as its Maui Brand Natural Cane Sugar. HC&S has also expressed an interest in expanding biofuel production to meet Maui’s demand for renewable energy.

For agriculture to flourish in Central Maui, reliable and affordable supplies of water will need to be made available to the region. Without an adequate supply of affordable water, farmers may be reluctant to invest capital in agricultural production.

Processing facilities are needed to prepare export crops for shipping and to enable small businesses to make value-added products. With aid from the County, the Maui Flower Growers Association has considered the development of a facility for de-infestation of tropical flowers and other commodities. The cultivation of kalo and other principal and traditional Hawaiian foods is increasingly supported and is linked closely to self-sufficient stewardship of natural resources through hard work. Even with the right crops and ample land and water, agriculture will not expand without attracting additional farmer-entrepreneurs and laborers. Today’s farm operators are aging, and their children are typically choosing other occupations. The high cost of farm labor presents a challenge towards providing affordable locally-grown food. Training and education can improve the number of men and women prepared to run farming operations. The Maui Agricultural Strategic Plan calls for more educational programs for farmers in subjects such as record-keeping, marketing, and business planning. The 2010 CEDS recommends expanding the agricultural education in Maui’s schools (K-12 and beyond) to attract young people to the agriculture sector and to improve farm succession planning.

Researchers at the University of Hawai’i have identified several “star” industries, including aquaculture, herbs, seed crops, vegetables and melons, floriculture, and nursery products. Maui County has seen growth in these crops – particularly in vegetables and fruit and floriculture/nursery products.

Maui’s share of diversified crop production, especially in the area of vegetables and fruits, has declined with increasing competition from mainland and Oahu producers and because of high shipping costs. Since the closing of Haleakalā Dairy, Maui no longer has a major producer of fresh milk and dairy products.

The quality of Maui’s agricultural lands and favorable climate provide the island with an intrinsic competitive advantage that offsets, to some extent, the high cost of production. Maui is in a relatively good position to participate in the expansion of the production of seed crops worldwide.

Agricultural tourism is a growing sector, with on-farm sales, recreational activities, and other retail sales providing the largest amounts of revenue. An example is Haleakalā Ranch, which offers horseback riding, all-terrain vehicle riding, and zipline activities. Streamlining zoning and permitting for ag-tourism businesses that supplement the income of farming activities could be one way to encourage the growth of this sector.
GOAL, OBJECTIVES, POLICIES, AND ACTIONS

Goal:

4.3 Maui will have a diversified agricultural industry contributing to greater economic, food, and energy security and prosperity.

Objective:

4.3.1 Strive for at least 85 percent of locally-consumed fruits and vegetables and 30 percent of all other locally-consumed foods to be grown in-State.

Policies:

4.3.1.a Strive to substitute food/agricultural product imports with a reliable supply of locally-produced food and agricultural products.

4.3.1.b Facilitate and support the direct marketing/sale of the island’s agricultural products to local consumers, through farmers markets and similar venues.

4.3.1.c Encourage growing a diverse variety of crops and livestock to ensure the stewardship of our land while safeguarding consumer safety.

4.3.1.d Work with the State to regulate and monitor genetically-modified-organism (GMO) crops to ensure the safety of all crops and label all GMO products.

Implementing Actions:

4.3.1-Action 1 Encourage the development of community gardens, including gardens on greenbelts that separate communities.

4.3.1-Action 2 Establish benchmarks to monitor progress towards achieving island-wide food self-sufficiency.

4.3.1-Action 3 Propose revisions to the zoning ordinance to allow the direct marketing of the island’s agricultural products through farmers markets, “pick-your-own” farms, farm stands, and similar venues.

Objective:

4.3.2 Maintain or increase agriculture’s share of the total island economy.

Policies:

4.3.2.a Encourage the export of the island’s agricultural products to offshore markets.

4.3.2.b Support infrastructure investments at harbors, such as ferry service, airports, and other facilities for the rapid and cost-effective export of island-grown products.
4.3.2.c Encourage the continued viability of sugar cane production, or other agricultural crops, in central Maui and all of Maui Island.

4.3.2.d Work with the State to reduce excise taxes for commercial agricultural products produced within the State.

4.3.2.e Coordinate with appropriate State and Federal Departments and agencies, private shipping companies, and farmers associations to assist in the rapid and cost-effective export of Maui’s agricultural products to off-island markets.

**Implementing Actions:**

4.3.2-Action 1 Bi-annually update the Maui Agricultural Development Plan to provide strategic direction for the expansion of agriculture on Maui and to determine ongoing direct and indirect benefits of agriculture on Maui.

4.3.2-Action 2 Increase staffing within the Office of Economic Development to promote agricultural development, as financially feasible.

**Objective:**

4.3.3 Expand diversified agriculture production at an average annual rate of 4 percent.

**Policies:**

4.3.3.a Promote the development of locally-grown and ecologically-sound biofuels, aquaculture, and forest products.

4.3.3.b Support the development of farming associations/cooperatives.

4.3.3.c Work with educational institutions and appropriate agencies to provide education and training for farm owners and entrepreneurs.

**Implementing Actions:**

4.3.3-Action 1 Implement the Maui Agricultural Development Plan (July 2009) and its updates, when consistent with the MIP.

4.3.3-Action 2 Develop a program to expand the seed crop industry consistent with safe GMO practices.
EMERGING SECTORS

Our national economy is moving from a post-industrial economy to one that is based on innovation and knowledge. Maui’s geographic isolation presents challenges to almost any business trying to become established on the island. The isolation factor often increases costs and can be a barrier to obtaining necessary financing, business supplies, and equipment. On the other hand, Maui is in a highly strategic location between the mainland U.S. and Asia, creating a natural gateway between these two high technology markets. Another competitive advantage of Maui’s mid-Pacific location is the flexibility provided by Hawai‘i’s time zone, which allows Maui companies to conduct business with Asia and the U.S. East Coast in the same business day.
In 2005, Maui’s technology industry earned an estimated $145 million. In recent years, high technology’s contribution to the island’s economy has increased, and the average wage for jobs in the technology sector surpassed Maui’s living wage standard. Wages within the technology industry are highly competitive with other industries, providing Maui’s workforce with new opportunities for highly skilled and well-paid employment. The average salary per year paid to high technology workers in 2005 was $60,000 to $70,000. Statewide, wages in the technology sector in 2005 were 66 percent above the average for the private sector as a whole.

Employment in Maui’s technology sector grew almost 20 percent between 2002 and 2007 (an annual rate of 3.7 percent), outperforming the statewide (and national) average. By 2007, an estimated 163 technology companies were operating on Maui, with a total workforce of 1,886, or almost 2 percent of the total workforce. The average technology company on Maui has 12 workers. Many of the sector’s jobs are concentrated in the information, communications, and defense/aerospace markets. Environmental sciences, agricultural biotech, ocean science, and renewable energy are additional sectors that have shown significant growth potential. Since the birth of Maui’s high technology sector in the early 1980s, total employment, annual earnings, and average employee wages have all increased.

The success of the high technology industry depends on the presence of several key factors. In mainland regions such as Silicon Valley, Research Triangle, and Route 128, where high technology has been extremely successful, the following key factors are present and provide essential support for the industry:

- High quality of life;
- Intellectual infrastructure such as universities and public or private research laboratories that generate new knowledge and technologies;
- Mechanisms for transferring knowledge between companies;
- Physical infrastructure such as high quality telecommunication systems;
- Highly skilled technical workforce;
- Sources of risk capital; and
- Entrepreneurial culture.

**CHALLENGES AND OPPORTUNITIES**

High technology is a driving force in the global economy. Thus it is important for Maui to support and expand its technology sector to be globally competitive and maintain a strong economic base. The technology sector includes a wide range of employment opportunities and requires a workforce with an array of skill sets. Clusters of niche technology industries allow related companies to draw productive advantage from their mutual proximity and connections. Maui has the opportunity to support the growth and development of clusters around key technology niches such as biotechnology, astronomy, space surveillance, ocean sciences, and disaster mitigation. Due to Maui’s year-round growing season, biotechnology has the potential of becoming a big player in the island’s high technology industry.

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8 Office of Economic Development, County of Maui (October 2010). *County of Maui Comprehensive Economic Development Strategy*.
Additionally, with Haleakalā’s elevation and high quality visibility, space surveillance is another industry niche with considerable growth potential. Growth of this industry niche also depends on continuing cooperation with the University of Hawai‘i Astronomy Program. While it is unlikely that high technology will become a dominant industry on Maui in the near future, the industry will continue to be a growing economic sector which is vital to the diversification of the island’s economy and the provision of quality employment and education opportunities for residents.

Access to high technology infrastructure such as advanced telecommunications systems and affordable high speed internet connections is imperative to facilitate the growth of the technology industry. Maui is highly equipped in this aspect with a diversified network of trans-Pacific high-bandwidth telecommunications and a sophisticated satellite communications system. Maui must overcome the following challenges to succeed in the high technology and innovation sector:

- **Shortcomings of (K-12) Public Education.** The State will need to significantly increase its investment in the State’s public school system if Hawai‘i’s students are to have a strong educational foundation that will allow them to compete for high technology jobs on Maui.

- **Lack of Postgraduate Education.** Studies have demonstrated that research and development institutions, including research universities, play a major role in supporting and enhancing a robust technology-oriented private sector. Maui’s lack of postgraduate educational opportunities in math, science, engineering, and technology present a significant challenge to advancing the high technology industry. Opportunities exist to partner with leading research universities to establish satellite campuses on Maui oriented around Maui’s emerging sectors.

- **High Cost of Living.** Maui’s high cost of living and shortage of affordable housing create barriers to attracting and retaining the skilled workforce needed by many high technology industries.

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Maui County established the Maui County Film Office in 1994, under the auspices of the Office of the Mayor in the Office of Economic Development. The Office’s mission statement was as follows: “To market and highlight the positive reasons Maui should be considered as a prime location for film, television, stills, documentaries, reality television, commercials and multi-media productions. The promotion of our island further showcases its beauty and venues available to produce quality programming.”

Often, many of Maui’s signature sporting events are funded with a combination of private, state, and county dollars – and are broadcast to a national audience. Most of these events showcase our islands in the process. Many of the sporting events held in the County require assistance from the Department of Parks and Recreation and also receive promotional support from the Maui Visitors Bureau via County funding.


The goal of the initiative is to decrease energy demand and accelerate the use of renewable, indigenous energy resources so the State will meet 70 percent of its energy demand through clean, renewable energy sources by 2030.

Renewable energy can grow new local industries, provide jobs and income for the people of Maui County, and protect the environment, which is also the basis of Maui’s economy. According to the U.S. Department of Energy, “renewable” energy sources include biomass, hydroelectric, geothermal, solar, wind, ocean thermal, wave action, and tidal action. Renewable energy development will be critical to help the State of Hawai`i and Maui County reduce energy costs, avoid the negative economic effects of volatile oil prices, reduce overdependence on oil, and increase energy security by reducing imports.

Several studies from across the country suggest that renewable energy is a significant potential source of employment in a wide range of sectors including agriculture, engineering, manufacturing, chemistry, construction, information technology, communications, sales/marketing, and business services.

Pacific Biodiesel, Kahului.
## Economic Development

### Goal, Objectives, Policies, and Actions

<table>
<thead>
<tr>
<th>Goal:</th>
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<tr>
<td>4.4 A diverse array of emerging economic sectors.</td>
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<table>
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<tr>
<th>Objective:</th>
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<tr>
<td>4.4.1 Support increased investment and expanded activity in emerging industries.</td>
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<table>
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<tr>
<th>Policies:</th>
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<tbody>
<tr>
<td>4.4.1.a Support the development of and access to state-of-the-art voice, video, and data telecommunications systems and high-speed Internet.</td>
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<tr>
<td>4.4.1.b Attract and assist industries to compete in high technology activities such as those related to renewable energy, green technologies, diversified agriculture, ocean sciences, health sciences, space technologies, and other knowledge-based industries.</td>
</tr>
<tr>
<td>4.4.1.c Support new industries that are environmentally and culturally sensitive such as health and wellness, sports and outdoor activities, cultural activities, the arts, film-making, entertainment, and digital media.</td>
</tr>
<tr>
<td>4.4.1.d Support a sustainable, culturally sensitive, astronomy industry.</td>
</tr>
<tr>
<td>4.4.1.e Support the continued development of the Maui Research and Technology Park in Kihei, as a center for research and development, education, and diversified economic development, as provided by the Maui County Code.</td>
</tr>
<tr>
<td>4.4.1.f Work with appropriate organizations to support the development of high technology clusters around renewable energy, diversified agriculture, ocean sciences, health sciences, and other knowledge-based industries.</td>
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</tbody>
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### Implementing Actions:

| 4.4.1-Action 1 | Develop streamlined permitting procedures for emerging industries. |
| 4.4.1-Action 2 | Prepare a list of environmentally and culturally sensitive and appropriate industries that would potentially benefit Maui as listed in the updated CEDS report. |

<table>
<thead>
<tr>
<th>Objective:</th>
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<tr>
<td>4.4.2 Increase the development of renewable energy technologies that are supported by the local community.</td>
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<tr>
<th>Policies:</th>
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<tr>
<td>4.4.2.a Support the expansion of the renewable energy sector and the use of solar, wind, wave, and biofuel technologies.</td>
</tr>
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</table>
4.4.2.b Provide incentives to encourage renewable energy development, the use of green energy technologies, and energy conservation.

4.4.2.c Ensure an adequate supply of land and facilitate permitting to meet the needs for renewable energy technologies such as solar, wind, wave, biofuel, and other technologies, provided that environmental, view plane, and cultural impacts are addressed.

4.4.2.d Support the Maui County Energy Alliance Plan where consistent with the MIP.

Implementing Actions:

4.4.2-Action 1 Publicize renewable energy production opportunities to potential investors.

4.4.2-Action 2 Support the implementation of a wheeling tariff.

4.4.2-Action 3 Develop plans, programs, and incentives to:
   (1) Attract/strengthen/retain renewable energy businesses; and
   (2) Assist businesses and homeowners to obtain/install/use solar, wind, and other forms of renewable energy facilities.

4.4.2-Action 4 Implement the goals and objectives of the Maui County Energy Alliance Plan where consistent with the MIP and financially feasible.
**ECONOMIC DEVELOPMENT**

**SMALL BUSINESS DEVELOPMENT**

Small businesses are the backbone of Maui County’s economy. According to the 2004 CEDS, 88 percent of Maui firms employ fewer than 20 people. The State DBEDT estimates that the County has an additional 15,000 self-employed jobs that are not included in the official labor force data.\(^{13}\) Small businesses with an average of 12 employees each account for about 3,500 business establishments on Maui. Supporting efforts to increase the local production and consumption of goods and services can significantly strengthen the economy as money recycles within the community instead of leaking out of the community to off-island interests. Aligning small businesses with County economic goals and assisting small and micro businesses with access to financial markets is one important component of economic diversification.

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\(^{13}\) DBEDT (2009). Includes both full- and part-time jobs. An individual may hold two jobs or more, as a wage and salary employee and/or as a self-employed person.
ECONOMIC DEVELOPMENT

The County partners with many organizations and committees that support small business efforts, including the MEDB; the Made in Maui Trade Council of the Maui Chamber of Commerce; the Workforce Development Council; the Maui County Workforce Investment Board; the Tri-Isle Resource Conservation and Development Council, Inc.; the Maui Rural Development Project; the Moloka`i Chamber of Commerce; the Moloka`i Enterprise Community; the Maui Economic Opportunity (MEO) Business Development Corporation; and Lōkahi Pacific.

There are about 71,600 wage and salary jobs on Maui.\textsuperscript{14} To maintain a growing and healthy economy, Maui will have to substantially increase its rate of new business formation over the next 10 years. According to the Maui Chamber of Commerce, Maui needs up to 10,000 new jobs in businesses that are not dependent on tourism.\textsuperscript{15} Most new businesses are small businesses, and small businesses create the majority of new jobs. However, according to the Maui Chamber of Commerce, approximately 80 percent of new businesses fail within the first 5 years of operation.\textsuperscript{16}

CHALLENGES AND OPPORTUNITIES

National Economic Cycles

The success of small firms depends on multiple factors, including access to financial markets, a talented employment pool, efficient delivery and transportation systems, and effective marketing options. Maui’s small businesses are highly vulnerable to national economic trends and business and tourism cycles. Retailing, accommodations, and service sectors are dependent on a vibrant visitor industry.

High Start-up and Operating Costs

Hawai`i has consistently received poor ratings as a place to conduct business. According to Chief Executive Magazine’s 2009 survey of the best states in which to do business, Hawai`i ranked 41\textsuperscript{st} of 50 states. Hawai`i is a very difficult place to do business due to its geographic isolation, high cost of living, and the high cost of doing business.

\begin{figure}[h]
\centering
\includegraphics[width=0.5\textwidth]{calasa-service-station-kula.jpg}
\caption{Calasa Service Station, Kula.}
\end{figure}

\textsuperscript{14} PlanPacific Inc. (October 2007). Economic Development Issue Paper, Island of Maui, Maui County General Plan 2030.
\textsuperscript{15} Maui Chamber of Commerce (October 2009). The Maui Website, Maui Chamber of Commerce.
\textsuperscript{16} Id.
The cost of worker’s compensation is a primary concern of Hawai`i employers, where small employers account for over 90 percent of employer firms.\(^{17}\) In a 2007 national study by the State of Oregon, Hawai`i was ranked 3\textsuperscript{rd} highest in the nation in terms of the dollars Hawai`i employers pay for worker’s compensation for every $100 of payroll.\(^{18}\)

Another significant challenge is the cost of health care. A 2008 study estimates that by 2016 the average cost of family employer-sponsored health insurance will top $16,679, an increase of 77 percent from 2006 premium costs.\(^{19}\) In Hawai`i, this would mean that family health insurance would consume 22.7 percent of the projected Hawai`i median family income. It is estimated that small businesses pay health care premiums that are 18 percent greater than larger companies.\(^{20}\)

Niche Opportunities

Several sectors have demonstrated recent strong performance such as the renewable energy sector, health and wellness industries, and to a limited degree, diversified agriculture. Maui’s wealth of natural resources, ideal environmental attributes, and year-round growing season provide natural advantages for these industry niches.

### Goal, Objectives, Policies, and Actions

**Goal:**

4.5 Small businesses will play a key role in Maui’s economy.

**Objective:**

4.5.1 Increase the number of and revenue generated by small businesses and decrease the percentage of small business failures.

**Policies:**

4.5.1.a Provide incentives and support for small businesses and entrepreneurs that incorporate sustainable technologies and practices into their operations, utilize local materials, or produce and sell locally-made goods or services.

4.5.1.b Assist traditional “mom and pop” business establishments.

4.5.1.c Reduce barriers to small business development.

4.5.1.d Require, where feasible, the government procurement of goods and services from locally-owned, small businesses.

4.5.1.e Support community markets and venues that sell locally-made produce, goods, and services.

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\(^{18}\) Oregon Department of Consumer & Business Services (January 2007). \textit{Oregon Workers’ Compensation Premium Rate Ranking: Calendar Year 2006}.

\(^{19}\) New America Foundation (June 2009). \textit{The State of State Health website}.

\(^{20}\) Democratic Policy Committee Special Report (June 2009). \textit{Health Care Costs in Hawaii}.
Implementing Actions:

4.5.1-Action 1 Develop and market an online directory of local small businesses and their products/services.

4.5.1-Action 2 Provide business assistance, workshops, and marketing programs to small businesses to establish and enhance their viability.

4.5.1-Action 3 Review and revise regulations and procedures to improve Maui’s small-business climate.

4.5.1-Action 4 Develop a program and revise procedures to facilitate government procurement of goods and services from local businesses.

4.5.1-Action 5 Develop and enhance programs that help locally-operated small businesses to market and provide goods and services to visitors and the visitor industry.

4.5.1-Action 6 Adopt the UBC’s Uniform Code for Building Conservation to reduce the cost of rehabilitating older structures for commercial and other uses.

4.5.1-Action 7 Continue to work with small businesses and direct them to organizations that provide loans.
HEALTH CARE SECTOR

Obtaining quality health care is an essential part of every resident’s life and will continue to grow in importance as Maui’s population ages. The traditional and alternative medicine sectors are identified as growth sectors, and opportunities exist to create a robust niche industry that can provide viable employment. To build a solid foundation for the provision of quality health care services, including mental health and substance abuse services, and realize the economic potential of these sectors, Maui needs to develop and provide access to a comprehensive and integrated spectrum of health care services and improve the quality of medical facilities. In 2007, the Maui Health Initiative Task Force developed a strategic health care plan that aimed to address Hawai`i’s severe shortage of health care workers, particularly on neighbor islands. The measure called for the State Department of Health to develop a system to assess and address health care staffing needs statewide.
The task force addressed four major areas of health care in Maui County: acute, primary, and emergency health care services; home- and community-based services; disaster preparedness; and remote rural area health care needs. The task force identified a number of priorities, objectives, and actions aimed at improving health care services. This effort forms the basis of many of the policies in this plan.

**CHALLENGES AND OPPORTUNITIES**

**Expand Economic Benefits in Health Care**

Health care and closely related fields have shown above average job growth in recent years, and this trend is expected to continue as Maui’s population continues to grow and age. It is forecasted that the percentage of the island’s population 60 years of age and older will increase from 15 percent in year 2000 to 25 percent in year 2030. Thus, significant investment will be necessary to address the health care needs of a larger and older population.

**Health Care Workforce Shortages**

Developing and maintaining an adequate supply of highly skilled health care professionals will be a critical factor in realizing the economic potential of the health care sector. At present, Maui is facing a shortage of health care workers that is driven by factors such as low reimbursement rates, high cost of housing and living, the perceived limitations of rural community life, facilities in need of upgrades, and access to quality education. It is estimated that an additional 7,500 nurses will be needed within the next 10 years to replace nurse retirees.

Investment in the health care sector would benefit Maui by increasing the number of jobs available in a number of health-related fields; providing job-oriented educational opportunities; and improving access to health care programs and services.

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21 County of Maui, Department of Planning (June 2006). *Socio-Economic Forecast: The Economic Projections for the Maui County General Plan 2030.*


23 Id.
Maui Memorial Medical Center (MMMC) is the only regional hospital on the island, with 1,000 employees and 200 attending physicians. Plans are also being discussed to include West and/or South Maui facilities that would assist those particular communities with not only specialties, but also urgent care. Partnerships with other counties may also be considered.

The health and wellness services sector has emerged as a popular industry with a significant number of private alternative medical practitioners serving the visitor and resident populations throughout all regions of the island. There is a demonstrated interest in health and wellness tourism on Maui. There are a number of natural advantages that Maui offers to the health and wellness sector. Many seek out alternative medical treatments on Maui for the natural and healing environment the island offers.

There is a growing awareness that mental and emotional health problems are associated with staggering social and economic costs that create a heavy burden for the workplace. Productivity can be affected if workers who are employed are not able to work at their full capacity because of a disability or underemployment. This underscores the need for strategies that may allow workers to become more healthy and productive, but also ensure that there are opportunities for employment. The annual burden of mental disorders is primarily associated with costs arising from unemployment, decreased productivity, and disability.  

Substance abuse is a costly health problem in Maui County that impacts the community on multiple levels. In addition to the breadth of destructive public health and safety implications of drug abuse and addiction, substance-abuse effects include family disintegration, loss of employment, failure in school, domestic violence, and child abuse. Effective prevention programs demonstrate a delay in the

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onset of substance abuse, and a reduction in subsequent problems later in life.25

**GOAL, OBJECTIVES, POLICIES, AND ACTIONS**

**Goal:**

4.6 Maui will have a health care industry and options that broaden career opportunities that are reliable, efficient, and provide social well-being.

**Objective:**

4.6.1 Expand the economic benefits of the health care sector.

**Policies:**

4.6.1.a Encourage expanded services at MMMC and at other medical facilities.

4.6.1.b Support expansion of federally qualified health centers with the direct involvement of the residents of the communities served.

4.6.1.c Support the use of multimedia as a means to provide healthcare information.

4.6.1.d Encourage digitalization of all diagnostic equipment at all facilities on Maui to enable sharing of data and more efficient use of limited provider workforce, consistent with data protection and patient privacy.

4.6.1.e Support the expansion of telemedicine.

4.6.1.f Encourage expansion and improved access to emergency care in all communities.

**Objective:**

4.6.2 Be more efficient in the delivery of health care services and in minimizing health care costs.

**Policies:**

4.6.2.a Support expansion of health care providers and facilities to improve access to quality care throughout the island.

4.6.2.b Encourage the expansion of veteran health care services.

4.6.2.c Allow home-based out-patient medical care that does not interfere with surrounding neighborhoods.

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Objective:

4.6.3 Expand Maui’s alternative health care services, including spiritual practices.

Policies:

4.6.3.a Support efforts to promote alternative medicine.

4.6.3.b Allow small-scale home-alternative medicine businesses such as massage, chiropractic care, traditional Hawaiian healing, and acupuncture that do not interfere with surrounding neighborhoods.

Implementing Action:

4.6.3-Action 1 Support the alternative health practices industry as well as local entrepreneurs who offer related services.
EDUCATION AND WORKFORCE DEVELOPMENT

Maui County has recognized the need to improve educational infrastructure and develop the local workforce as a basic building block for creating a vibrant local economy. Intellectual resources help provide the climate necessary for research and innovation. Investing in human resources can tie together the innate abilities, talents, knowledge, skills, and experience of the workforce to make it economically productive. Human capital can be increased by investing in health care, education, and job training. Communities that improve educational infrastructure and create telecommunications infrastructure linkages between industry and education have demonstrated above average economic performance.
Maui needs to continue to encourage the State to strengthen public education in a variety of ways. In 2007 as part of the Hawai`i Public Education Poll, 600 residents across the state were surveyed over the telephone about Hawai`i’s public schools. As expected, the highest educational priority was communication skills followed closely by reading and math skills. Historically, Hawai`i’s student proficiency rates in reading and math have been low; however, since 2003, they have been improving.

As part of the effort to increase educational options, Act 272 was passed in 1994 authorizing Hawai`i’s first 25 charter schools. This law created an opportunity for existing State Department of Education (DOE) schools to convert to “student centered” schools. In 1999, the Hawai`i legislature again amended the law through Act 62 to allow new start-up charter schools, and changed their designation from "student-centered" to "New Century" schools. Act 130 was passed in June of 2012 and established a new charter school law. The law provides an accountability system for charter schools, with performance measures in academics and operations. Hawai`i public charter schools reported an enrollment record in September 2012 of more than 10,000 Kindergarten through Grade 12 students enrolled in classes after summer break. The projected enrollment of 10,097 represents a milestone for Hawai`i’s charter movement, which served just 1,341 students in 2000. The Kihei Public Charter school serves grades K-12 in South Maui.

Additionally, the DOE funds Hawaiian language immersion classes. Hawai`i is the only state in the United States that has two official state languages, with Hawaiian designated a native language. In 1987, in light of the Hawai`i State Constitution mandate to promote the study of Hawaiian culture, language, and history, the DOE established the Hawaiian Language Immersion Program, Ka Papahana Kaiapuni Hawai`i.

The DOE also surveyed island residents to elicit concerns about the public school system as a means to identify priorities for their budget. The DOE received over 2,000 responses. The public was most concerned about the availability of programs and courses offered; achieving smaller class sizes; the availability of classroom supplies and textbooks; teacher quality; and personnel, resources, and services to improve student performance. The responses helped the DOE identify the following three strategic goals for the years 2008-2011:

1. Improve student achievement through standards-based education;
2. Provide comprehensive support for all students; and
3. Continuously improve the performance and quality of instruction, teacher personnel, and develop clear communication with stakeholders groups.

Hawai`i’s public education system, unlike the other 49 states, receives its funding predominantly from State and Federal sources. Hawai`i’s public school system is the only one in the nation not dependent on local property taxes as a major source of revenue.

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29 Id.
30 Id.
**CHALLENGES AND OPPORTUNITIES**

**Renewal of Public (K-12) Education**

Hawai`i has ranked low in comparison to national averages in both student math and reading proficiency. In its 2008 report card on public education, Education Week magazine gave Hawai`i a “D” grade in K-12 achievement. According to data from the College Board, in 2009, Hawai`i ranked 48 out of 50 states on Scholastic Aptitude Test (SAT) scores. However, Hawai`i has seen some progress since 2003 as the percent of students scoring proficient or above has increased in both reading and math, with about one-half of Hawai`i’s schools showing growth in both reading and math over the last 3 years.\(^{31}\)

Hawai`i has also shown improved student performance results in relation to targets set locally under the No Child Left Behind Act of 2001. Schools have raised both their reading and math proficiency rates by 20 or more percentage points during the last 3 years, and 86 schools have raised either their reading or math proficiency rate by 20 or more percentage points in the same period of time. Recent increases are a result of improvements in student achievement as well as implementation of a new State assessment.\(^{32}\) This progress suggests teaching practices designed to improve performance in targeted areas have been successful and should continue.

Maui will need to overcome the following challenges to develop and maintain a vibrant public education system that will provide a pool of talented employees to meet the island’s economic development goals:

- **Lack of Resources.** Figure 4-2 compares Hawai`i’s percentage of State and local expenditures in support of public education with 4 comparable states and the national average. Hawai`i’s per capita percentage of State and local expenditures for public education declined slightly, from 19.3 percent in the 2003-2004 period, to 18.5 percent in the 2004-2005 period. Similar declines were seen in the other 4 states. Hawai`i’s expenditures per pupil continue to rank below the other 4 states, and it is well below the national average.

![Figure 4 - 2. Comparison of State and Local Expenditures for Public Education.](image)

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\(^{32}\) Id.
According to the U.S. Census Bureau, in 2004 and 2005, Hawai`i ranked second to last and last, respectively, in the proportion it spends on education. In 2004-2005, the State of Hawai`i ranked 23rd in its total expenditures per pupil as compared to other states. In reviewing the data, if the State increased funding for public education by approximately 25 percent, Hawai`i would be among the top ten states nationally for its investment in K-12 public education.

- **High Percentage of Special Needs Students.** Students with special needs have constituted a majority of those enrolled in Hawai`i public schools. Special needs students include English language learners, the economically disadvantaged, and students in special education. In 2008, 51 percent of Hawai`i’s students had special needs. The challenge and cost of educating special needs students have become state and national issues.\(^{33}\)

- **Homelessness and/or Family Crisis.** Identifying and providing support services for students who are homeless continues to be a priority under the McKinney-Vento Homeless Education Assistance Improvement Act of 2001 (McKinney-Vento Act). The DOE’s current economic forecasts for Hawai`i suggest that the number of students who are homeless across the state is likely to increase. Families experiencing homelessness – whether for the first time or chronically – face obstacles that affect students’ ability to focus on academics.\(^{34}\)

- **Quality of Instruction.** Respondents to a 2008 State survey done to gauge community concerns about education indicate that improving the quality of instruction in Maui’s schools is a high priority.\(^{35}\) Programs designed to improve learning approaches and measure effectiveness of teaching practices should be developed. According to the DOE’s Office of Human Resources, the percentages of teachers with advanced degrees (30 percent) and fully licensed teachers (86 percent) have increased gradually over the past 4 years. The County of Maui encourages the State to foster improved working conditions for teachers, opportunities for career development, and enhanced compensation packages to retain qualified faculty.

- **Bureaucracy/Lack of Accountability.** Hawai`i has the country’s only State-run K-12 public education system. As a result, administrative functions are highly centralized. Administrative tasks such as procurement of supplies, facility repair and maintenance, and teacher training and recruitment can be hampered by complex procedural requirements that may not reflect the needs of the State’s varying school complexes. The responsibility for financing, managing, and planning the public school system is split among the State legislature, Governor’s office, DOE, and the State Board of Education (BOE). The nature of school governance has complicated school reform and clouded accountability for the performance of the public school system.

\(^{33}\) Id.  
\(^{34}\) Id.  
\(^{35}\) Id.
Providing support for the expansion of University of Hawai‘i Maui College (UHMC), the University of Hawai‘i Center-Maui, and other schools of higher education and vocational training has been an important and longstanding policy of academia, government, and Maui’s business community. UHMC’s potential to be a greater economic driver in the community is significant, and providing expanded degree programs can greatly contribute to the County’s welfare.

In the long term, UHMC’s master plan anticipates future expansion of facilities and programs. This expansion could provide for additional classroom space to accommodate as many as 5,000 full-time equivalent students. As such, State and County officials will need to work together to identify appropriate locations for the school’s expansion or accommodate an increase in density at the existing campus. Investing in telecommunications infrastructure and distance learning modes will also become an increasingly important building block for economic development.

There have been dramatic increases in the number of students earning distance learning degrees, and this trend is expected to continue as residents find educational resources limited on-island and commuting by air to off-island educational centers cost prohibitive.

The Maui County Workforce Investment Board (MCWIB) has played an important role in preparing our workforce for the diverse challenges that lie ahead. The MCWIB operates under Maui Economic Opportunity, Inc (MEO). The MCWIB’s vision is to have a globally competitive and proficient workforce, which aims to uphold a diverse and prosperous economy while preserving the quality of life in Maui County.

In preparing the workforce for successful careers in 21st century businesses, S.T.E.M. (science, technology, engineering, and mathematics) programs are provided by many of Maui’s high schools as well as UHMC. Workforce development programs are also offered on a noncredit basis. Maui’s workforce also has access to such centers of technological excellence as Chaminade University, the University of Hawai‘i (UH), the UH College of Engineering, and the UH Computer Science Department.

**GOAL, OBJECTIVES, POLICIES, AND ACTIONS**

**Goal:**

4.7 Maui will have effective education and workforce development programs and initiatives that are aligned with economic development goals.

**Objective:**

4.7.1 Improve preschool and K-12 education to allow our youth to develop the skills needed to successfully navigate the 21st century.

**Policies:**

4.7.1.a Encourage the State to implement programs such as:

1. Universally available preschool for children between the ages of one and five;
2. Mandatory kindergarten;
(3) Mandatory K-5th grade classroom size limits of 1 teacher to 20 students;
(4) Mandatory nutrition programs; and
(5) Mandatory Native Hawaiian programs at all grade levels.

4.7.1.b Encourage the DOE to extend the school day by at least an hour.

4.7.1.c Encourage the State to increase funding for public education so that Hawai`i is among the top 10 states nationally as measured by investment per pupil.

4.7.1.d Encourage the State to ensure teacher certifications relate to effective delivery and improved student performances, and develop an industry experience/equivalency certification to assure our DOE students have access to career technical education and training.

4.7.1.e Encourage the UHMC to provide dormitory space for high school students.

4.7.1.f Encourage the development and implementation of curriculum on native Hawaiian history, culture, and practices, in consultation with native Hawaiian groups and associations.

Objective:

4.7.2 Encourage an increase in the number of certificate recipients and associate, bachelors, and graduate degrees conferred.

Policies:

4.7.2.a Encourage the State to increase the number of articulation agreements between the UHMC and four-year universities, particularly the University of Hawai`i at Manoa.

4.7.2.b Encourage the State to expand accredited 2-year, 4-year, and graduate programs through the UHMC.

4.7.2.c Encourage the education and training of our residents to meet the needs of a diversified economy.

4.7.2.d Support education and training programs such as student internships, vocational training, and career development opportunities to ensure a highly skilled workforce.

4.7.2.e Work with educational institutions to improve and expand access to education and training through multiple modes, including distance learning.

Implementing Actions:

4.7.2-Action 1 Consider a labor force capacity study to project the future supply and demand for knowledge-based workers to serve Maui’s technology-related needs.

4.7.2-Action 2 Partner with the State and other entities toward the development of a County database of health care resources such as workforce, area shortages, and present and future needs, up to and including a plan to address such needs.
ECONOMIC DEVELOPMENT

4.7.2-Action 3 Work with the UHMC, trade unions, and other entities to develop curriculum and certification programs relating to design, installation, and operation/maintenance of renewable energy systems.

4.7.2-Action 4 Work with appropriate institutions and trade unions to develop and implement a certification program on current or emerging building code and land use regulations and consider conducting a County training program on same.

Objective:

4.7.3 Strive to ensure that more of Maui’s jobs are developed in STEM-related sectors by 2030.

Policies:

4.7.3.a Support the development of STEM-related certificates and degrees at the two- and four-year levels.

4.7.3.b Support the education initiatives of the Maui Agricultural Development Plan.

4.7.3.c Expand and seek funding for internships, mentoring, job shadowing, etc. to foster interest in health and green workforce careers.

4.7.3.d Work with MEDB, UHMC, and other similar organizations to expand internship/education programs to support STEM careers.

4.7.3.e Continue to partner with the MEDB and other similar organizations to recruit, assist, and retain emerging industries, research and development activities, and educational/workforce opportunities.