

COMPREHENSIVE STATE PLAN FOR WORKFORCE DEVELOPMENT

STATE OF HAWAII
2009-2014



ANNUAL REPORT TO THE GOVERNOR YEAR ONE



WORKFORCEDEVELOPMENT
COUNCIL



May 2009

Hawaii Workforce Development Council Members

PRIVATE SECTOR

Gregg Yamanaka
Workforce Development Council Chair
CEO-APEC Hawaii

Signe Godfrey
Workforce Development Council Vice Chair
President-Olsten Staffing Services

Todd Apo
Director, Public Affairs — Aulani Resort

Jonathan Chun
Attorney-Belles Graham Proudfoot & Wilson

Allen Chung,
Chair, Workforce Investment Act Performance Committee
President-C Three Consulting LLC

Carl Hinson
Director, Workforce Development—Hawaii Pacific Health

Nani Medeiros
Public Affairs & Advocacy Director —
Hawaii Primary Care Association

Michael Gleason,
Chair, Hawaii County Workforce Investment Board,
CEO-Arc of Hilo

Steve Lupkes
Chair, Kauai Workforce Investment Board
Research Station Manager — BASF

Ron Nelson
Chair, Maui Workforce Investment Board
HR Manager — Macy's

Marcia Taira
Director of Human Resources-Oceanic Time Warner Cable

James Tollefson
Chair, Oahu Workforce Investment Board
President & CEO-Chamber of Commerce of Hawaii

Jeffrey Piontek
Head of School— Hawaii Technology Academy

Lance Wilhelm
Sr. Vice President & Area Mgr., Kiewit Building Group, Inc.

Raynard Shayne Chung
Labor Organization
Service Representative-Hawaii Carpenters Union

James Wataru
Labor Organization
State President-United Public Workers

Carla Kurokawa,
Community-based Hawaiian Organization
Employment and Training Manager, ALU LIKE, Inc.

PUBLIC SECTOR

Linda Lingle
Governor-State of Hawaii
Designee: Ezra Bendiner, Policy Analyst

Peter Carlisle
Mayor- City and County of Honolulu
Designee: Deborah Kim Morikawa, Director-Dept. of
Community Services

Alan Arakawa
Mayor- County of Maui
Designee: JoAnn Inamasu, Economic Dev. Specialist

Will Espero
State Senator

Vacant
State Senator

Karl Rhoads
State Representative

Ryan Yamane
State Representative

Pearl Imada Iboshi
Director-Department of Labor and Industrial Relations

Kathryn Matayoshi
Superintendent- Department of Education
Designee: TBD

Lillian Koller
Director-Department of Human Services
Designee: Henry Oliva, Deputy Director

Ted Liu
Director-Dept. of Business, Econ. Dev. & Tourism
Designee: Steven R. Lee, Business Development
Manager- Strategic Marketing and Support Division,
*Co-Chair - Workforce Development Council Planning
Committee*

MRC Greenwood, Ph.D.
President-University of Hawaii System
Designee: Peter Quigley, Assoc. VP for Academic
Affairs-Comm. Colleges. *Chair, Workforce
Development Council Planning Comm.*

WORKFORCE DEVELOPMENT COUNCIL STAFF

James Hardway, Executive Director
Amita Aung-Thwin, Program Specialist
Anna Powell, Employment Analyst
Stan Fichtman, Employment Analyst
Maile Horita, Program Specialist

**State of Hawaii
Comprehensive State Plan for Workforce Development
2009-2014**

First Year Report



Annual report to the Governor of the State of Hawaii

May 2009

LINDA LINGLE
GOVERNOR



GREGG YAMANAKA
CHAIRPERSON

JAMES P. HARDWAY
EXECUTIVE DIRECTOR

**STATE OF HAWAII
WORKFORCE DEVELOPMENT COUNCIL**

830 PUNCHBOWL STREET, SUITE 417
HONOLULU, HAWAII 96813
www.hawaii.gov/labor/WDC
Phone: (808) 586-8672 / Fax: (808) 586-8674
Email: dlir.director@hawaii.gov

May 1, 2009

The Honorable Linda Lingle
Governor, State of Hawaii
State Capitol
Honolulu, Hawaii 96813

Dear Governor Lingle:

I am pleased to submit the *Hawaii State Comprehensive Workforce Development Plan for 2009 to 2014*. This plan encompasses the Workforce Development Council's ("WDC") Annual Report to the Governor for 2009. The WDC engaged a multi-stakeholder process incorporating information, recommendations, and priorities from the private and public sectors.

Hawaii is currently facing difficult economic times. As such, the WDC's primary focus has shifted to addressing rising unemployment and ensuring that Workforce Investment Act ("WIA") dollars (formula funds and competitive grants) under the American Reinvestment and Recovery Act ("ARRA") are quickly deployed in a transparent and accountable manner.

This Plan provides a blueprint that focuses on developing the workforce, increasing opportunities for individuals to be trained for higher-paying jobs and modifying our state unemployment system to be more responsive to the needs of claimants and employers. An important addition to the WDC strategic priorities for Year One is to address the shortage of affordable workforce housing, an issue on all islands and at all occupational levels.

Some of the short term recommendations include the need to reform the unemployment insurance system to allow for more flexible working arrangements that reduce layoffs and help businesses retain valuable workers. Further, the WDC is developing criteria and tools for a comprehensive evaluation of all publicly-funded workforce development programs, which will ensure accountability, transparency, and provide a guide for closing gaps and reducing redundancy in the system.

Finally, the WDC continues to work toward a more effective and efficient workforce development system, one that will raise the average wages of Hawaii's residents and increase the global competitiveness of the State, and address long-term skills shortage.

The WDC has been reinvigorated with the addition of several new members and stakeholders engaged in the effort to improve the State's workforce development system. We look forward to continuing our work in Year One, and planning for Year Two.

Sincerely,

A handwritten signature in black ink, reading "Gregg Yamanaka".

Gregg Yamanaka, Chair

Table of Contents

Page	
iv	Executive Summary
1	Introduction
3	Role, Mission and Vision of the Workforce Development Council
5	Hawaii's Planning Context
6	Factors External to Workforce Development
13	Factors Internal to Workforce Development
18	Planning Assumptions
21	Assessment
27	Goals and Priorities, 2009-2014
33	Strategic Plan Recommendations
41	Evaluation of Current State Programs
43	Next Steps
45	Appendices
47	Appendix A: Long-Term Industry Projections 2006-2016 for Hawaii
51	Appendix B: Long-Term Occupational Projections 2006-2016 for Hawaii
70	Appendix C: Definition of Education and Training Codes
71	Appendix D: Planning Committee Members & January 12, 2009 Strategic Planning Forum Participants
	Appendix E: Summaries of Multi-Stakeholder Plans
73	Hawaii Statewide Comprehensive Economic Development Strategy
76	Tourism Workforce Development Strategic Plan Vision 2015
83	Hawaii State Center for Nursing Strategic Plan and Goals 2007-2010
85	Hawaii Construction Workforce Action Plan
87	Innovation & Technology in Hawaii: An Economic & Workforce Profile
88	Department of Education Strategic Plan
90	University of Hawaii System Strategic Plan, 2008-2015
93	United for Learning: The Hawaii P-20 Initiative Strategic Plan 2006-2010
95	The Carl D. Perkins Career and Technical Education Improvement Act of 2006
97	Hawaii State Plan for Title I-B of the Workforce Investment Act and The Wagner-Peyser Act
104	Temporary Assistance for Needy Families Program - Five-Year Strategic Plan
106	Hawaii's Early Childhood Comprehensive System Plan 2005-2008

List of Figures

Page

3	Figure 1.	Role, Mission and Vision of the Workforce Development Council
6	Figure 2.	State Rankings in 2002, 2007, and 2008
7	Figure 3.	Annual Self-Sufficiency Family Budgets for Selected Family Types, 2007
7	Figure 4.	Monthly Self-Sufficiency Family Budgets for Honolulu County, 2007
8	Figure 5.	Assets and Opportunity Scorecard, 2007-2008
8	Figure 6.	Housing: Hawaii and Honolulu Samples, 2006
9	Figure 7.	Employment by Industry, 2006
9	Figure 8.	Employment by Education and Training Requirements, 2006
10	Figure 9.	Average Wage by Education and Training Requirement, May 2007
11	Figure 10.	Labor Force Participation by Underrepresented Groups, 2007
11	Figure 11.	Workforce Age Structure, 1996 to 2006
12	Figure 12.	Net Migration by Age Group and Education Level, 2007
12	Figure 13.	Temporary Foreign High and Low-Skilled Labor, 2006
13	Figure 14.	K-12 Enrollment, 2006-2007
13	Figure 15.	Readiness for School, 2004-2007 and Educational Output, K-12
14	Figure 16.	Graduation & Dropout Rates & High School Diplomas/Certificates, 2004-05 and 2006-07
14	Figure 17.	Advanced Placement & Remediation Courses & Senior Exit Plans Survey, 2005 and 2007
15	Figure 18.	Post-Secondary Education Output, 1990s and 2008
15	Figure 19.	University of Hawaii Educational Output by Campus and Various Cohorts
16	Figure 20.	University of Hawaii Output in Critical Areas, 2004-2006
16	Figure 21.	Talent Development Among Working Age Population, 1990s and 2008
17	Figure 22.	Adults and Lifelong Learning Output-Information Gaps
17	Figure 23.	Employment or Work Transition Services
18	Figure 24.	Historical and Projected Unemployment Rates, 1976-2009
18	Figure 25.	Growth and Annual Openings - Trend-Based Projections
20	Figure 26.	Initial Unemployment Claims by Broad Industry Occupations March 2008-February 2009
27	Figure 27.	Demand for Skilled Workers, 2006-2016
28	Figure 28.	Projected High-Demand Occupations, 2006-2016
29	Figure 29.	Projected Need for Skilled Workers, 2006-2016
29	Figure 30.	Projected Declining Occupations, 2006-2016
30	Figure 31.	Projected Occupations in the Technology Sector
31	Figure 32.	Timeframe for Training and Development
31	Figure 33.	Education and Training Requirements in the Technology Sector
41	Figure 34.	Integrated Performance Information Performance Measures

Workforce Development Council

The Hawaii Workforce Development Council (“WDC”) is mandated by State law to develop and update a Comprehensive State Workforce Development Plan (“Plan”). In a departure from past efforts, the WDC initiated a comprehensive planning process wherein WDC members and staff reviewed planning data and economic information; identified major challenges; assessed the strength of partnerships; prioritized goals for the planning period 2009- 2014; and developed recommendations for 2009-2010 planning and implementation by the WDC and other stakeholders.

Hawaii is more competitive than five years ago. Some of the evidence for this comes from the State’s climb in rankings for competitiveness and in K-12 educational achievement. However, the State continues to lag behind the results of many states. More data is needed to identify opportunities and close gaps in the system. The major workforce development challenges facing Hawaii are:

- an insufficient number of “living wage” jobs;
- the ongoing loss of “baby boomer” generation workers;
- leaks in the education-to-workforce pipeline;
- the need for skills upgrading and lifelong learning for incumbent workers;
- the inability to meet demand in critical occupation areas

- a loosely organized workforce development system that is confusing and not well understood by policymakers and the general public; and
- The lack of workforce housing

Some of these challenges are addressed in more depth in the multi-year plans and initiatives of key industries, economic sectors, and education pipeline segments. The 2009-2014 Plan includes the following goals and priorities:

- **Goal 1: Delivering timely education and training to close gaps in producing future workers for high-demand occupations;**
- **Goal 2: Upgrading the skills of incumbent workers to keep them current with the changing needs of the occupational requirements;**
- **Goal 3: Expanding the labor pool in the face of an anticipated long-term labor shortage due to the retirement of the “baby boom” generation; and**
- **Goal 4: Addressing workforce housing options.**

Recommendations were developed to address the four goals and priorities, and the Year 1 Plan (2009-2010) identifies the following recommendations as the focus for planning and implementation.



Goal 1:

- Developing common assessment and evaluation methodologies for workforce development programs and initiatives across the education and workforce pipeline,
- Increasing and expanding access to workforce development resources
- Preparing future workers for careers in all occupations deemed high-demand and moderate to high-skilled
- Providing mechanisms to facilitate experiential learning for students and youth, and working to expand business-education partnerships.

Goal 2:

- Amending the unemployment insurance (UI) law to allow laid-off workers to receive on-site workplace training, UI benefits, and a special training allowance
- Creating roundtable forums to develop incentives for employers to retrain incumbent workers

Workforce Development Council Executive Summary (continued)

Goal 3:

- Identifying federal funding sources to implement a “Green Jobs Initiative,” that will assist the State’s need for self-sufficiency and to build economy-driving industries in this sector.
- Recognizing the need for robust economic drivers in the short and long term (the Sector Initiative) that are compatible with people and eliminating barriers to employment
- Re-launch the Business Leadership Network, a private-sector group to share information about hiring

people with disabilities;
explore expanding the
concept to other under-
represented groups

Goal 4:

- Taking an active role in supporting housing policies that will support the needs of working people in Hawaii;
- Researching housing, transportation, and infrastructure needs to support workforce development, and identifying common problems
- Seeking county support for an island-by-island workshop series on housing issues

- Soliciting information and feedback through a link on HireNet Hawaii Website regarding barriers to housing and employment of HireNet users
- Exploring housing options that is affordable for the state’s workforce



Workforce Development Council

The Hawaii Workforce Development Council (“WDC”), is comprised of private and public-sector members appointed by the Governor. The 31 members are committed to providing direction to the State’s workforce development efforts, and supporting and encouraging the best use of resources for those purposes. Each year, the WDC presents workforce issues and recommendations in its *Report to the Governor on Workforce Development*.

During 2008-2009, WDC members and other stakeholders revisited the role, mission, and vision of the WDC; outlined the state’s planning context using previous reports and studies; assessed how the State compares with the rest of the nation; and established goals and priorities for 2009-2014.

This Plan includes recommendations for planning and implementation based on an evaluation of current state programs and resource

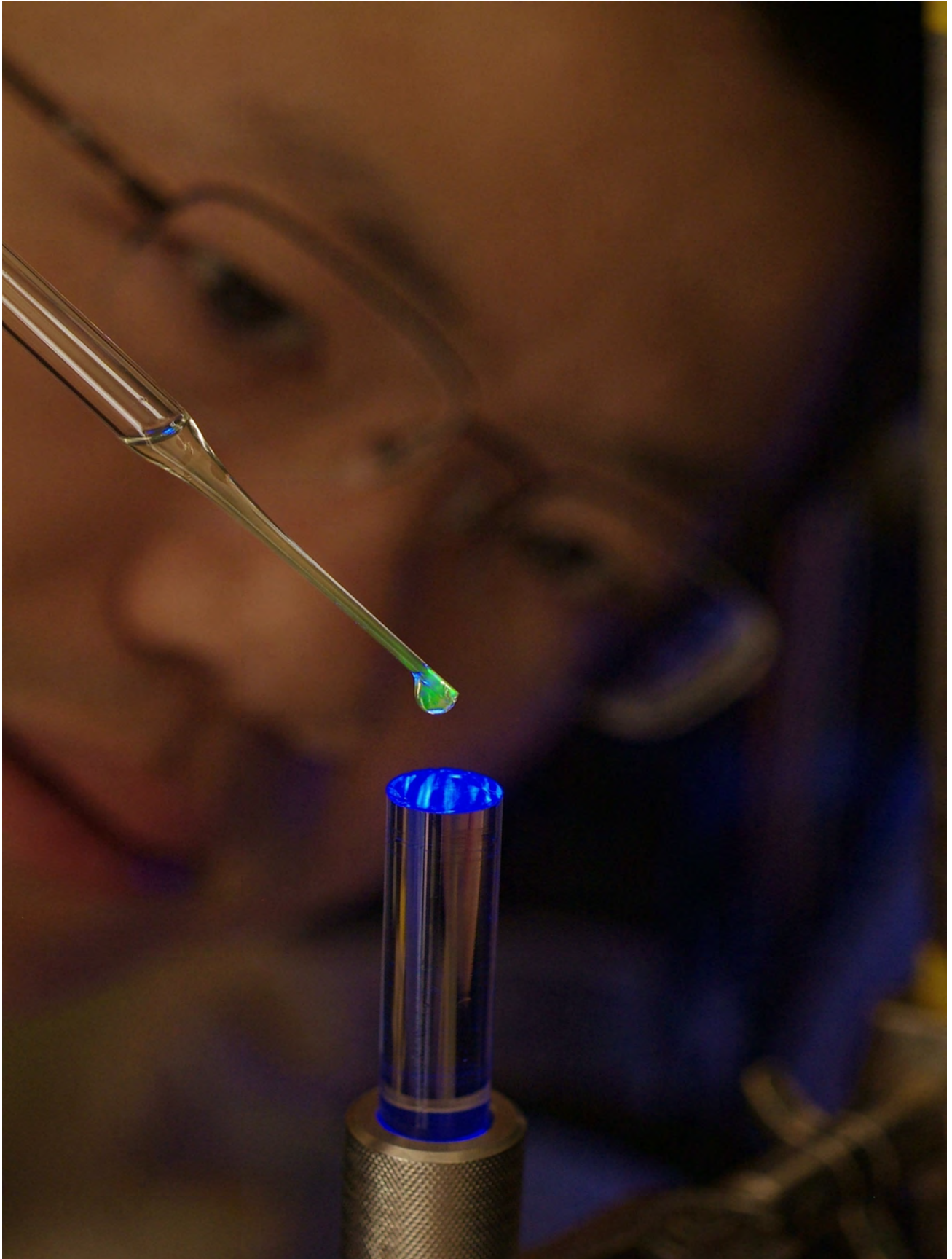
requirements.

The four workforce development priorities in this Plan are to:

- Improve the delivery of timely education and training to prepare current and future workers for projected high-demand occupations.
- Focus more attention on upgrading the skills of incumbent workers.
- Expand the labor pool in the face of anticipated long-term shortages.
- Address workforce housing.



WORKFORCEDEVELOPMENT
COUNCIL



Role, Mission and Vision of the Workforce Development Council

The Workforce Development Council (“WDC”) vision is one shared with partners in education, employment and economic development (Figure 1). With this relationship came the term, “e3.”

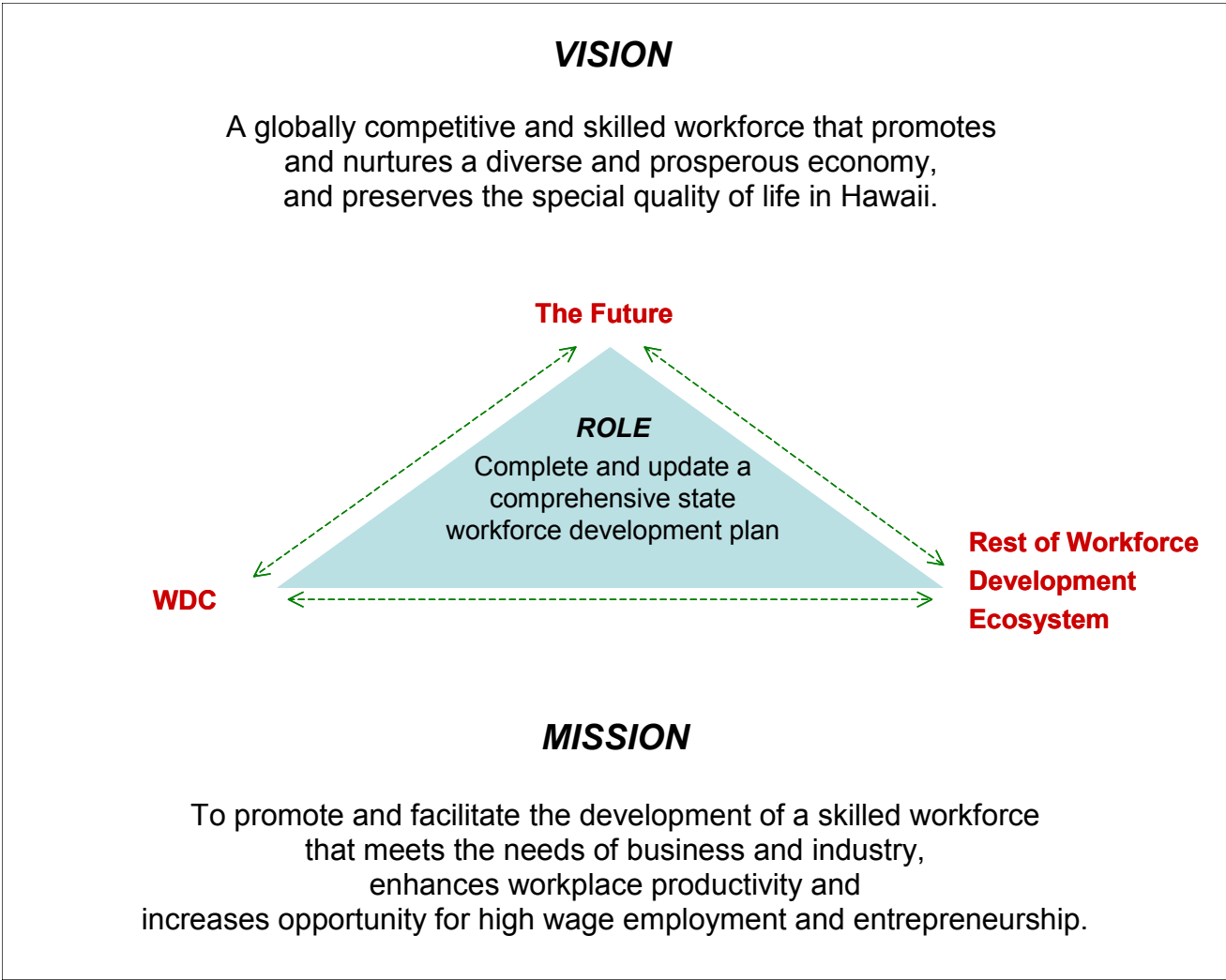
To achieve this vision, the role of the WDC includes the completion and regular updating

of a comprehensive state workforce development plan that contains strategic goals and measurable outcomes.

The WDC mission statement has been restated; in place of a statement that puts the Workforce Development Council in charge of *developing* a skilled workforce, the new statement

clarifies that the Workforce Development Council will *promote and facilitate the development* of a skilled workforce.

Figure 1: Role, Mission and Vision of the Workforce Development Council





Hawaii's Planning Context

The WDC facilitated a comprehensive planning process during 2008-2009 covering:

- an analysis of the general workforce population;
- the projected skills requirements of Hawaii's economy-driving industries; and
- the less calculable needs of emerging and desired economic drivers of the future.

All US States and countries compete in the global economy and aim to develop a "21st Century" workforce that will attract business and improve the standard of living.

However, states have different planning contexts and therefore face different menus of strategic options.

Many forces influence comprehensive plan development, and they can either aid or hinder achieving goals.

There are factors external to the workforce development system in Hawaii, such as technological, political and demographic changes over which the WDC and workforce stakeholders have no control.

There are also internal factors-conditions that stakeholders can change or influence. The planning context includes occupational and industry projections through 2014 that will influence planning and implementation at all levels in the State.

Hawaii has improved in economic competitiveness and workforce preparation in the past decade. However, there remains a need for major improvements to lower the cost of living and reduce information gaps that lessen the ability to improve processes, programs and initiatives.

These needs include benchmarks and measures from education, employment, and economic development stakeholders. The benchmarks and measures indicate an overall state of economic competitiveness, quality of life and employment, workforce supply, education and training, and workforce preparation. In-depth details are included in the appendices of the Plan.

HAWAII'S PLANNING CONTEXT

Factors "External" to Workforce Development

"External" means outside forces over which the WDC and other stakeholders have no control

Factors "Internal" to Workforce Development

"Internal" means conditions that WDC and stakeholders can change or influence

Planning Assumptions

Strategic factors that should be anticipated as they will affect the ability to succeed

Hawaii's Planning Context

FACTORS EXTERNAL TO WORKFORCE DEVELOPMENT

Hawaii was more competitive in 2008 than in the previous five-year period, according to two rating systems: the "State New Economy Index" ("Index") and Forbes' "Best States For Business" ("Forbes") (Figure 2).

The "New Economy" refers to the new, high growth industries that rely on high technology. Massachusetts, Washington, Maryland, Delaware and New Jersey are leading the nation's transformation into a global, entrepreneurial and knowledge- and innovation-based New Economy.

The Index uses 29 indicators divided into five categories to measure how effectively a state operates to compete nationally and globally. The Index focuses on a single question: *To what degree does the structure of state economies match the ideal structure of the New Economy?*

According to the Index, Hawaii dipped from 38th place in 2002 to 41st in 2007, but then climbed to rank 35th in 2008.

In Forbes' Best States for Business rankings, Hawaii jumped ten places from 38th in 2002 to 27th in 2008.

Figure 2: State Rankings in 2002, 2007, and 2008



The Forbes ranking measures states on six areas of importance: business costs, labor supply, regulatory environment, current economic climate, growth prospects and quality of life.

In Forbes' Best States For Business rankings, Hawaii improved slightly from 38th in 2002 to 37th in 2007. However, in 2008 it jumped up ten places to finish at 27th.

Virginia led the nation for the third straight year; other states comprising the Top 5 are Georgia, Utah, Washington, and North Carolina.

Despite improvements in Hawaii's standing compared to other states, the high cost of living threatens Hawaii's quality of life and future economic competitiveness. Most families or households need at least two wage earners to pay for basic expenses. The largest expense is housing but food, childcare and taxes also account for significant portions of family budgets. For a household to be financially self-sufficient requires much more than the current minimum wage, and median family incomes do not provide discretionary spending (Figure 3).

Hawaii County had the lowest self-sufficiency income requirements among all five family types, while Maui had the highest income requirements. The 2007 median income for families of single adult, adult couples, and two adult families with children, all exceeded self-sufficiency income needs. However, for single adult families with one or two children, the median income in 2007 was below the respective self-sufficiency income standards. As expected, childless adult couples had the smallest percentage of families that fell below the self-sufficiency standard, while the share doubled for couples with two children.

Because statewide data is not available, only Honolulu data is provided. (Figure 4).

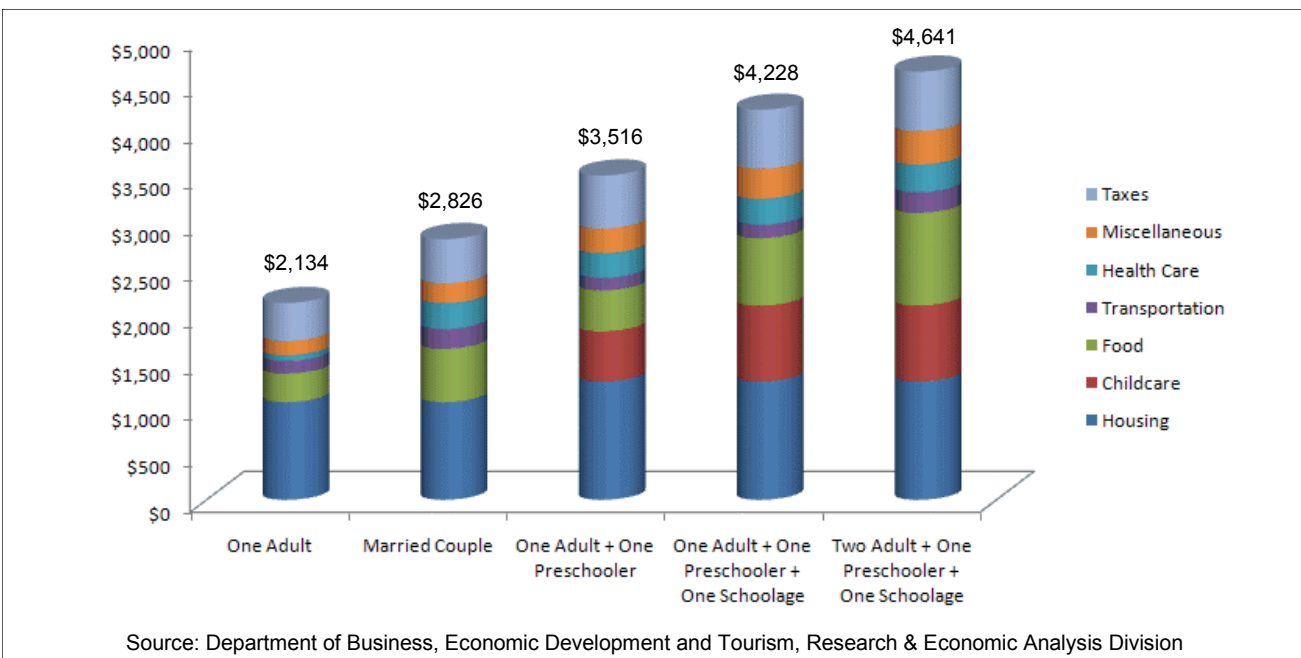
Hawaii's Planning Context

Figure 3: Annual Self-Sufficiency Family Budgets for Selected Family Types, 2007

<u>Island</u>	<u>One Adult</u>	<u>Two Adult Family</u>	<u>One Adult + One Preschooler</u>	<u>One Adult + One Preschooler + One Schoolage</u>	<u>Two Adult + One Preschooler + One Schoolage</u>
Honolulu	\$25,605.24	\$33,906.48	\$42,188.50	\$50,731.34	\$55,688.23
Hawaii	\$23,884.96	\$33,498.40	\$36,355.12	\$43,314.07	\$49,666.95
Maui	\$31,456.97	\$42,619.40	\$45,194.65	\$51,429.12	\$60,526.86
Kauai	\$28,278.49	\$39,585.83	\$42,749.97	\$51,634.39	\$59,159.34
State of Hawaii	\$26,151.16	\$35,092.86	\$41,761.78	\$49,852.53	\$55,581.23
Selected Income Benchmarks					
Poverty Threshold	\$11,750.00	\$15,750.00	\$15,750.00	\$19,750.00	\$23,750.00
Minimum Wage	\$15,312.00	\$30,624.00	\$15,312.00	\$15,312.00	\$30,624.00
Median Family Income	\$31,369.00	\$80,143.00	\$35,417.00	\$31,369.00	\$83,786.00
% by Which Self-Sufficiency Income Is Above or Below Selected Income Benchmarks					
Poverty Threshold	122.6%	122.8%	165.2%	152.4%	134.0%
Minimum Wage	70.8%	14.6%	172.7%	225.6%	81.5%
Median Family Income	-16.6%	-56.2%	17.9%	58.9%	-33.7%
% of Families with Income Below Self-Sufficiency Level (based on ACS-PUMS data)					
State Total	43.4%	12.4%	66.6%	81.0%	24.8%

Source: Department of Business, Economic Development and Tourism, Research & Economic Analysis Division

Figure 4: Monthly Self-Sufficiency Family Budgets in the City & County of Honolulu, 2007



Hawaii’s Planning Context

The prospect for achieving economic advancement such as business ownership, college education, or home ownership is not positive.

Using six indexes (Financial Security, Business Development, Homeownership, Health Care, Education, and Tax Policy and Accountability), the 2007-08 Asset and Opportunity Scorecard (“Scorecard”) ranks states and the District of Columbia on their performance in 84 outcome and policy measures.

Although Hawaii fared well in some areas, the Scorecard found that Hawaii lacks a comprehensive asset policy framework (Figure 5). Hawaii families face significant challenges in financial security, including the ability to buy a home. On this Scorecard, Hawaii ranks 46th in the nation in

Figure 5: Assets and Opportunity Scorecard, 2007-2008

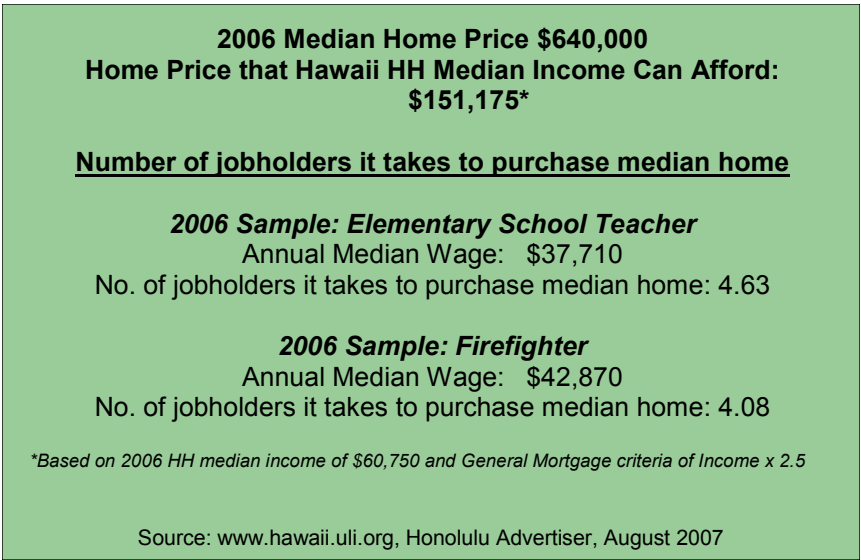


median household net worth, 48th in having zero or negative net worth, and 48th in home ownership. These outcomes make it difficult for Hawaii’s residents to move up the economic ladder or weather economic downturns. On the positive side, Hawaii did score an overall grade of ‘A’ due to the strength in providing health

care and business development expertise. Residents have good access to health insurance and ranked 5th in employer-supported health insurance, 1st in covering uninsured low-income parents, and 2nd in covering uninsured low-income children.

The high cost of housing in Hawaii means a relatively small percentage of residents are able to own a home (Figure 6). In 2006, a household earning Hawaii’s median income can afford to pay \$157,910 for a home, but the median price of a home in Honolulu was four times that amount. Housing is not affordable even among many highly-skilled workers. For example, the Urban Land Institute estimated it would take about 4.5 individuals earning a teacher’s annual median wage to purchase a home in Hawaii, or about four individuals earning a firefighter’s annual median wage to purchase the same home.

Figure 6: Housing: Hawaii and Honolulu Samples, 2006

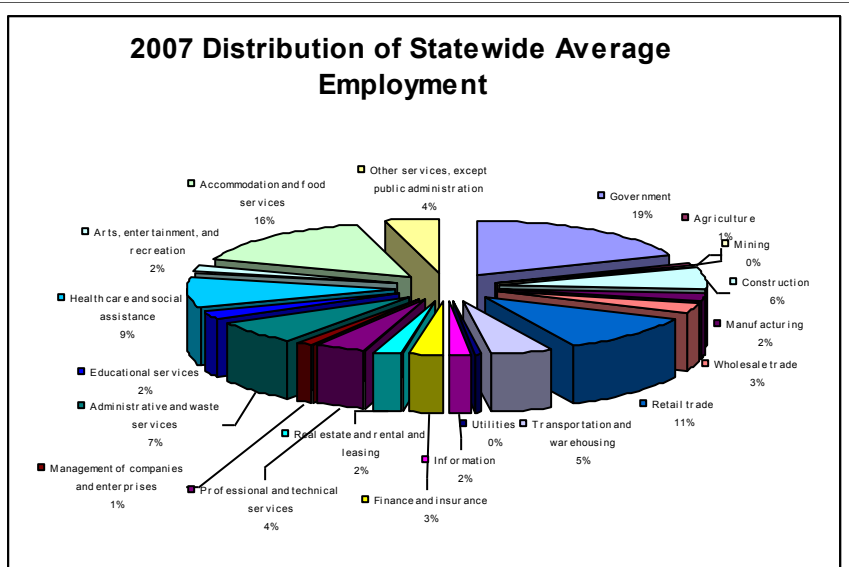


In Hawaii, the largest-employing industry (Figure 7) was government, with 9 percent of the 2007 total employment. Industries related to accommodation and food service (16 percent), retail trade (11 percent) and health care and social assistance (9 percent) followed. Construction comes in at 6 percent.

Other larger industries in Hawaii include administrative and waste services (7 percent); transportation and warehousing (5 percent); professional and technical services (4 percent); finance and insurance (3 percent); and educational services (2 percent).

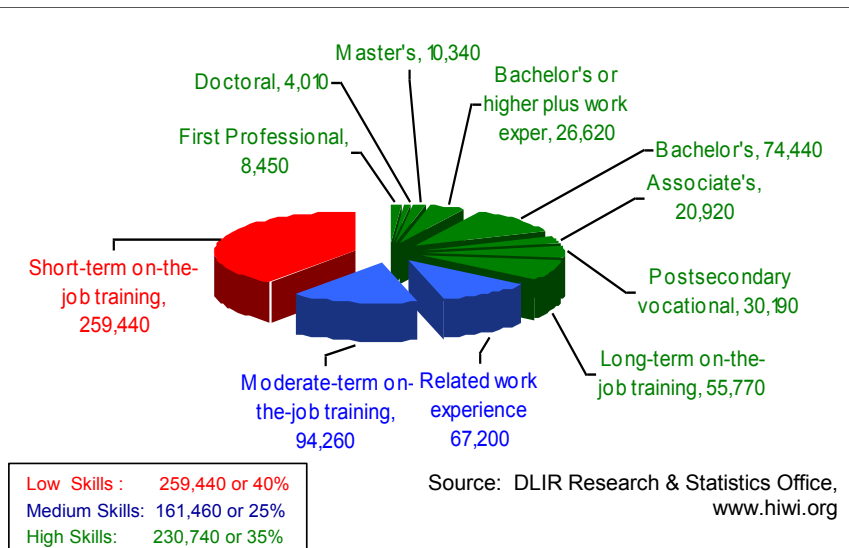
The minimum education and training requirements for occupations range from short-term on-the-job training (one month or less) to some type of post-baccalaureate degree (Figure 8). Using a classification consistent used in other states such as Illinois and Ohio, the WDC estimates that 40 percent of the current jobs are low-skilled (requiring one month or less of on-the-job training), 25 percent are medium-skilled (requiring moderate-term on-the-job training or related work experience), and 35 percent are high-skilled (requiring long-term on-the-job training or some kind of postsecondary certificate or degree).

Figure 7: Employment by Industry, 2007



Data is based on QCEW (ES202) data, Quarterly Census of Employment and Wages. Source: DLIR Research & Statistics Office

Figure 8: Employment by Education and Training Requirements, 2006



Hawaii’s Planning Context

In Hawaii generally, “education pays,” meaning that on average, “the more you learn the more you earn” (Figure 9).

Jobs requiring short-term on-the-job training averaged \$26,870 annual pay in 2007. Jobs that need moderate-term on-the-job training paid \$37,230, while jobs requiring long-term on-the-job training such as apprenticeships averaged \$46,785. Previous job experience is

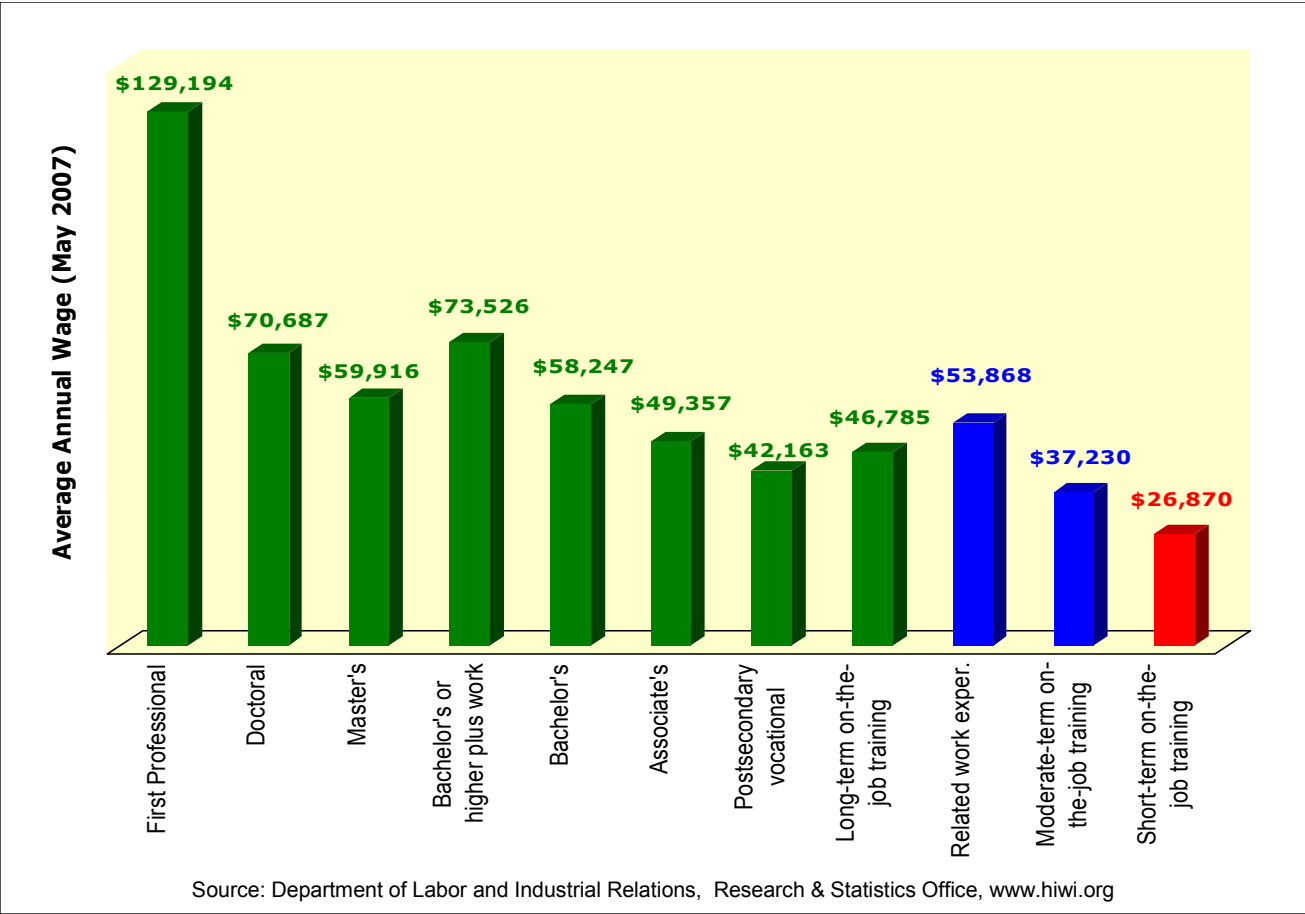
considered valuable by employers - jobs that did not require any on-the-job training or degree, but only related work experience paid an average of \$53,868, topping the average pay of jobs requiring postsecondary vocational certificates (\$42,163) or associate degrees (\$49,357).

Those with a bachelor’s degree could expect to earn an average of \$58,247, but jobs that require at least a bachelor’s degree plus work experience pay \$73,526,

significantly higher than jobs requiring master’s (\$59,916) or doctoral (\$70,687) degrees. First professional degree holders (at least 3 years full-time academic study beyond a bachelor degree) average \$129,194 annually.

Occupations that are high-wage and in high demand through 2016 include: registered nurses, elementary and secondary school teachers, retail supervisors, general and operations managers, and carpenters.

Figure 9: Average Wage by Education & Training Requirement, May 2007



In 2007, about 65 percent of Hawaii's working age population participated in the labor force - with the remainder of 356,466 not in the labor force (Figure 10).

The participation rates of some groups were lower. For the less educated, participation rates were 61.6 percent with 18,558 not participating. The participation rate for those below the poverty level was even lower (40.9 percent) with 34,013 people not counting themselves as working or looking for work.

People with one or more disabilities had a 47.1 percent participation rate with 40,827 not in the labor force. The older population 65-74 years old had

Figure 10: Labor Force Participation by Underrepresented Groups, 2007

Labor Force Participation by Underrepresented Groups, 2007		
	<u>Participation rate</u>	<u># not in labor force</u>
General Population, 16+ yrs:	65.4%	356,466
Less than HS education, 25-64 yrs:	61.6%	18,558
Below poverty level in past 12 months, 16+ yrs:	40.9%	34,013
With disability, 16+ yrs:	47.1%	40,827
65 to 74 yrs:	25.5%	65,390

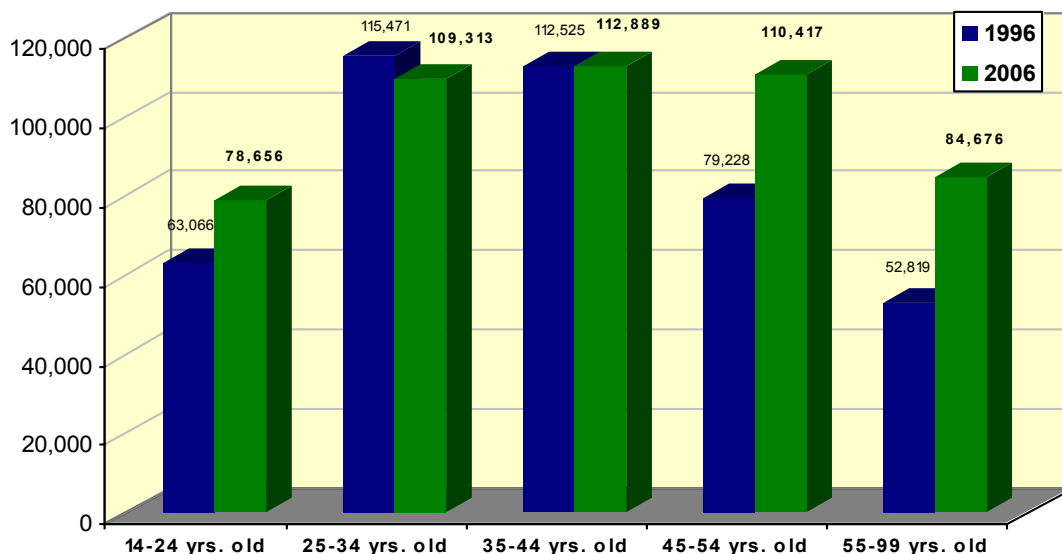
Source: U.S. Census Bureau, 2007 American Community Survey, Table S2301

only a 25.5 percent participation rate with 65,390 choosing not or unable to participate in the labor force.

Older workers (55+ years old) outnumbered younger workers (14-24 years old) by 6,020. However, ten years earlier in 1996, it was younger workers

who outnumbered older workers by nearly 10,250. This aging of the workforce occurred because older workers have grown at a faster pace than any other age.

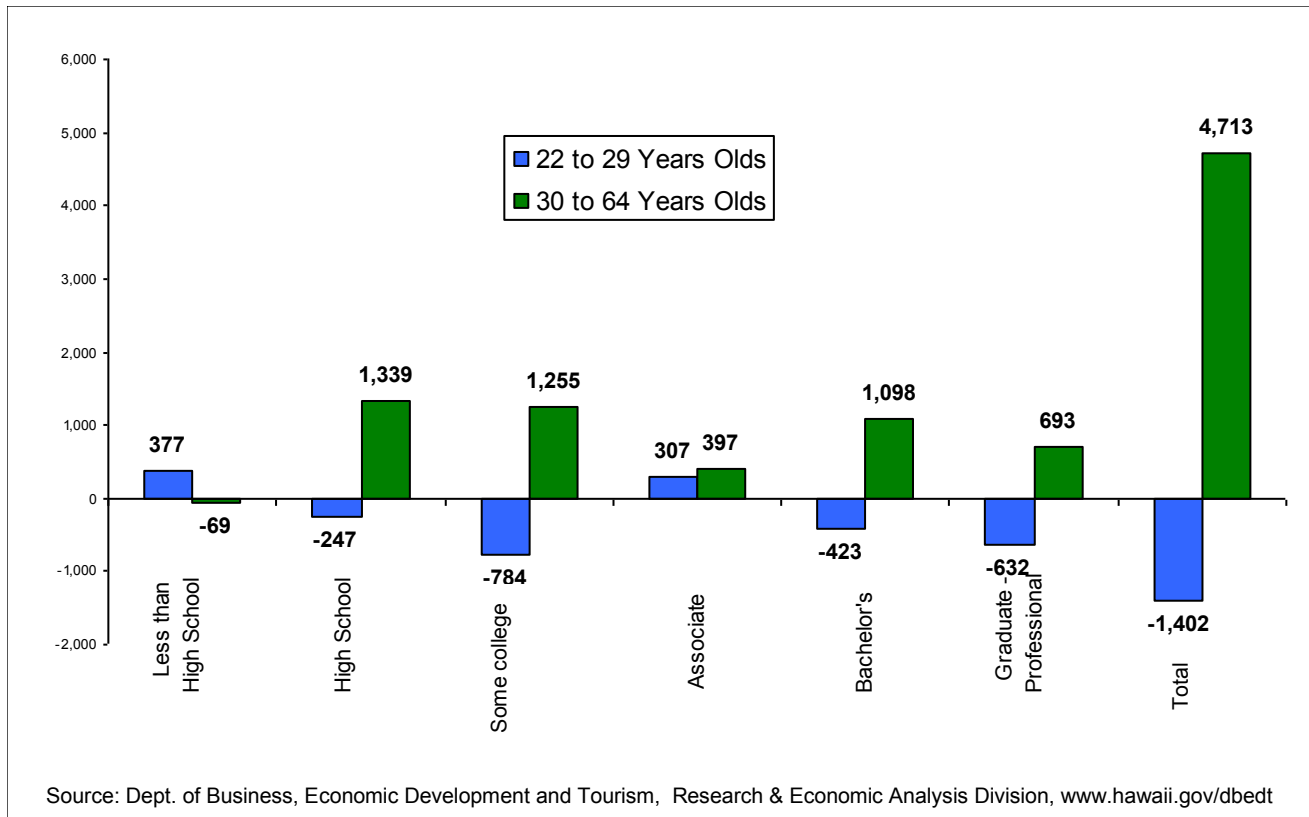
Figure 11: Workforce Age Structure, 1996 to 2006



Source: Department of Labor and Industrial Relations, Research & Statistics Office, www.hiwi.org

Hawaii's Planning Context

Figure 12: Net Migration by Age Group and Education Level, 2007



Hawaii is one state where the number of younger workers (22 to 29 years old) decreased due to net out-migration, particularly during the extended recession of the 1990s. (Figure 12). Data from the 2007 American Community Survey indicates that out-migration of younger workers is significant among those with some college, and with bachelor, graduate and professional degrees. In-migration of older workers were concentrated in people with a high school degree, some college, and a bachelor degree.

Hawaii has not tapped temporary foreign workers (H-1B visa for skilled and H-1A for unskilled) to the same degree as other states, and ranked 33rd among the 50 states in 2006 (Figure 13).

At the same time, Hawaii has prepared thousands of foreign students (F1 and J1 visa holders) through attendance at The East-West Center, University of Hawaii system, Hawaii Pacific University and other smaller education and training institutions.

Figure 13: Temporary Foreign High- and Low-Skilled Labor, 2006

Temporary Foreign Labor, High-Skilled and Low-Skilled

H-1B Visa per 1,000 Workers, 2006

Hawaii = 1.84 (~1,183 Visas)

US = 2.85

Hawaii ranks 33rd

F1 & J1 = 11,510 foreign student or exchange visitors

Other Visas, Total 2006

H2A = 26 seasonal agricultural workers

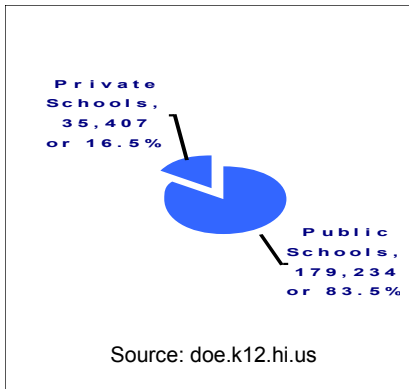
H2B = 55 seasonal nonagricultural workers

Source: www.dhs.gov

FACTORS INTERNAL TO WORKFORCE DEVELOPMENT— EDUCATION

Hawaii educates an estimated 84 percent of its K-12 population in public schools, with the remaining 16 percent attending private schools (Figure 14).

Figure 14: K-12 Enrollment, 2006-2007



On average among public high school graduates, an estimated one-third attend local colleges and universities, one-third move to the US mainland for their education, and the final third start a business, go to work, join the military or pursue other endeavors.

Workforce preparation data from *Measuring Up 2008: The State Report Card on Higher Education*, published by the National Center for Public Policy and Higher Education, indicates that Hawaii is improving its preparation of the future workforce, showing increases in the percentage of high school diplomas and college degrees awarded. However, the State lags when compared with the best performing US states.

Research shows that adequate preparation in a child's early years prepares them for success throughout the school years. During the 2007-2008 school year, 61 percent of public

school kindergarteners had attended preschool the previous year, marking an increase of three percent over the previous two-year period (Figure 15). This result signifies a higher number of kindergarteners were prepared for kindergarten.

By fourth grade, 31 percent of Hawaii's public school students tested at a "proficient to advanced" rating in reading in a national assessment of educational progress. The same group had a 37 percent rating in mathematics. While lower than many states' rankings, the Hawaii students improved 10 percent or more in four years.

Improvements were less notable by the middle school grades, with 21 percent of eighth graders having a "proficient to advanced" rating in the national reading assessment test, and 24 percent having the same rating in mathematics. The eighth grade percentages also lagged behind those of many states.

Figure 15: Readiness for School, 2004-2007 and Educational Output, K-12

<u>Readiness for School, 2004-2007</u>					
Public School Kindergarteners who attended Preschool*: 2004-2005: 58% 2006-2007: 61%					
<i>*no national benchmark</i>					
<u>Educational Output, K-12</u>					
NATIONAL ASSESSMENT of EDUCATIONAL PROGRESS (NAEP)					
(Percent Proficient and Advanced)					
		--- 2003 ---		--- 2007 ---	
		<u>HI</u>	<u>US</u>	<u>HI</u>	<u>US</u>
Reading:	Grade 4	21%	30%	31%	39%
	Grade 8	22%	30%	21%	31%
Mathematics:	Grade 4	23%	31%	37%	45%
	Grade 8	17%	27%	24%	38%
Source: doe.k12.hi.us					

Hawaii's Planning Context

The Hawaii public high school graduation rate in 2007 was slightly less than 80 percent (Figure 16). A comparable number is not available for private schools nor are there reliable national benchmarks using similar criteria. There is little data on the education, training or work habits of those who do not graduate high school.

According to data on the latest public high school graduates, 31.5 percent earned a BOE Diploma, 62.7 percent obtained the regular diploma, and 5.8 percent received non-diploma certificates (generally awarded to special needs students). Of those students entering the UH Community Colleges in Fall 2007, 24 percent required English remediation and 29 percent needed math remediation (Figure 17). The need for remediation courses (courses below 100 level for AA students and below required courses for AS students) reveals that many students are ill-prepared graduates for lifelong learning, and may experience less successful school outcomes.

The more academically-rigorous BOE Diploma is an indicator of the holder's preparedness to pursue higher level academics at senior colleges and major in high-demand areas such as science, technology, engineering, and mathematics (STEM).

The 2007 class of graduating public high school seniors reported that immediately after high school, 86 percent were going for more schooling, 79 percent were entering the

workforce, and/or 4 percent were joining the military. At the UH System overall, about 25 percent students earned a certificate or degree in 2008, a gain of 8 percentage points from

Figure 16: Graduation and Dropout Rates and High School Diplomas/Certificates

GRADUATION & DROPOUT RATES		
	2004-05	2006-07
Graduation (On Time)	79.5%	78.9%
Dropouts	14.9%	16.5%
HIGH SCHOOL DIPLOMA		
	2004-05	2006-07
BOE Diploma	31.3%	31.5%
Regular Diploma	62.1%	62.7%
Non-Diploma Certificate	6.6%	5.8%

Note: Measures Are Not Comparable Nationwide

Source: doe.k12.hi.us

Figure 17: Advanced Placement and Remediation Courses and Senior Exit Plans Survey, 2005 and 2007

AP AND REMEDIATION COURSES		
Advanced Placement Courses	2005	2007
No. of Students enrolled in AP Courses	-	2,725
Percent of Exams Passed	49%	47%
Remedial Courses Enrollment*	2005	2007
English	-	24%
Math	-	29%

**Public School June Graduates Entering UH in Fall semester*

SENIOR EXIT PLANS SURVEY		
	2005	2007
School Only	5%	16%
Work Only	8%	9%
School and Work	77%	66%
School, Work, & Military	7%	4%

Source: doe.k12.hi.us

the 1990s (Figure 18). This number fell short of the 44 percent median rate of the top five states nationally.

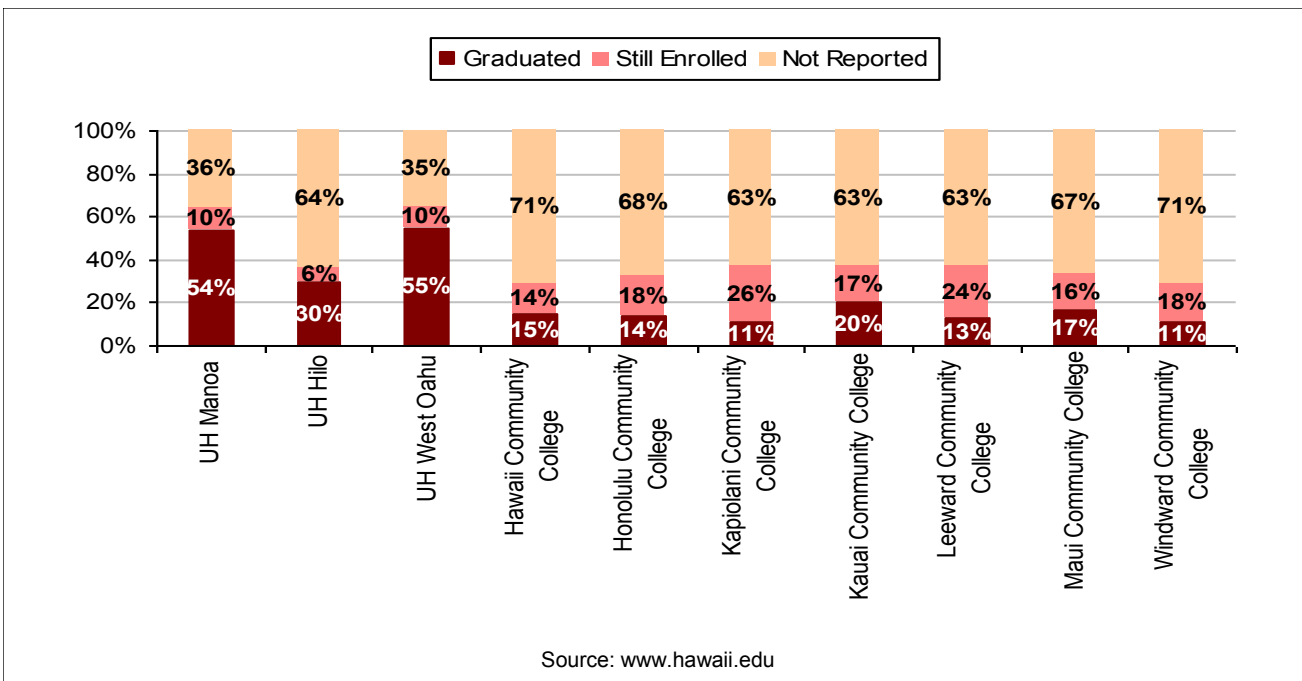
Across the UH System, graduation rates ranged from 11 percent at Windward and Kapiolani Community Colleges to 55 and 54 percent at the UH West Oahu and the UH Manoa, respectively (Figure 19). Community colleges typically show lower graduation rates as many associate of arts students (about half the student population at UH Community Colleges) plan to transfer to UH Manoa, UH West Oahu, UH Hilo, or other colleges or universities, and do not attain an associate degree before they transfer.

Figure 18: Post-Secondary Education Output, 1990s and 2008

	HAWAII		Top States 2008
	Early 1990s	2008	
PERSISTENCE (20%)			
1st year community college students returning their 2nd year	n/a	51%	66%
Freshmen at 4-year colleges/universities returning their sophomore year	n/a	68%	82%
COMPLETION (80%)			
First-time, full-time students completing a bachelor's degree within 6 years of college entrance	48%	46%	65%
Certificates, degrees and diplomas awarded at all colleges and universities per 100 undergraduate students	18	26	44

Source: measuringup2008.highereducation.org

Figure 19: University of Hawaii (UH) Educational Output by Campus and Various Cohorts

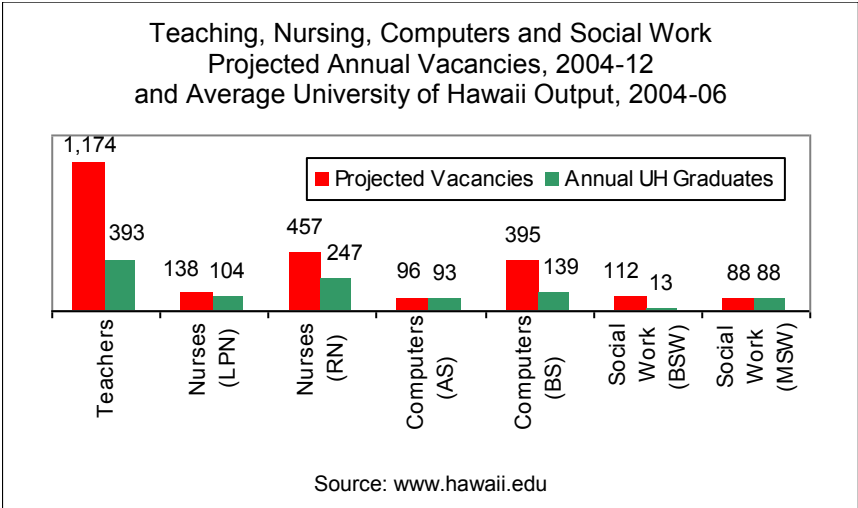


Hawaii's Planning Context

As recently as 2004-2006, the UH System produced far fewer certificates and degrees than the State required in critical occupation areas such as education/teaching, nursing, and computer science (Figure 20). For instance, teaching and four-year computer graduate rates were one-third of the number required in the workforce. The registered nurse vacancies to graduates ratio was about two to one.

Younger workers age 18-24 years old, are more engaged in continuing education than workers between the ages of 25 and 49 years (Figure 21). Young workers were six times more likely to enroll in college than their older counterparts in 2008. This was an improvement over the early 1990s, but trailed the experience of the top five states.

Figure 20: University of Hawaii Output in Critical Areas, 2004-2006



Apart from the UH System (approximately 50,000 students), there are smaller education and training providers such as Hawaii Pacific University, Chaminade University, University of Phoenix, WIA-eligible training

providers, online providers that may not be based in Hawaii, and employer and trade association-based training. As a result, Hawaii lacks a statewide, unified tracking system for adults to refine data for use in workforce development (Figure 22).

Figure 21: Talent Development Among Working Age Population, 1990s and 2008

PARTICIPATION	HAWAII		Top States 2008
	Early 1990s	2008	
YOUNG ADULTS (67%)			
18- to 24-year-olds enrolled in college	26%	30%	44%
WORKING-AGE ADULTS (40%)			
25- to 49-year-olds enrolled part-time in some type of postsecondary education	6.2%	5.2%	8.9%
Source: measuringup2008.highereducation.org			

While there are fragmented program-driven tracking systems from education and training providers, data gaps include the supply and demand for skills that employers consider critical, such as basic work readiness, high technology skills, behavioral skills, and management and supervisory skills.

The State has a method to determine the need for employment and re-employment assistance. The Wagner-Peyser labor exchange system (administered through One-Stop Centers) served 50,059 during the program year 2007-2008 (Figure 23). Of that number:

Figure 22: Adults and Lifelong Learning Output-Information Gaps

There are output information gaps throughout the education to workforce pipeline but especially about adults and lifelong learning

- Many lifelong learning providers including non-accredited providers, online sources not based in Hawaii, and employer-provided training programs.
- There is no statewide or unified tracking system for enrollment and output.

There are Few Statewide Metrics on Cross-Industry Skills Desired by Employers

- Basic work readiness
- High technology skills
- Management and supervisory skills
- Behavioral skills

Figure 23: Employment or Work Transition Services

DLIR Wagner-Peyser Program Data, 2007-2008

EMPLOYER SIDE

Total Job Openings Received: 15,642

JOBSEEKER SIDE

Total Program Participants Referred to Employment:
22,547 out of 50,059

Total Program Participants Referred to WIA Services:
485 or 3.45%

No. of Participants Still in School: 5,272

No. of Participants Who Did Not Graduate From High School: 5,016

Participants Who Are High School Graduates or Have GED: 25,853

Participants with Post-Secondary Degree or Certificates: 13,195

Source: US DOLETA 9002 E Report 09/01/07 to 10/30/07

- 23 percent were dislocated workers;
- 52 percent were high school graduates or had General Education Diplomas (GEDs);
- 26 percent possessed post-secondary degrees or certificates;
- 10 percent did not graduate from high school; and
- 11 percent were in school.

The One-Stop Centers referred 3.45 percent of participants to WIA programs, which is lower than the national trend.

Hawaii's Planning Context

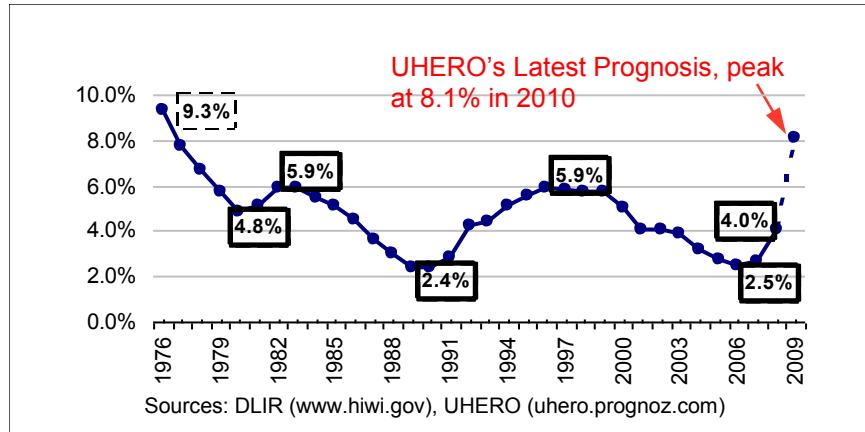
PLANNING ASSUMPTIONS

The WDC developed long-range assumptions to form a context that will guide the Plan's goals, actions, and recommendations. Sources include WDC mandates, leadership and staff; short and long-term economic projections; and the priorities of State leadership.

The current planning effort assumes:

- The WDC will be stable in terms of mandate, leadership, and staff, which increases competence and productivity in working with partners and collaborators.
- Hawaii's unemployment rate will continue to rise in the

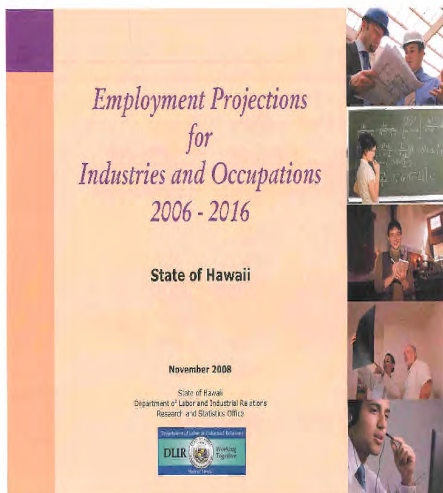
Figure 24: Historical and Projected Unemployment Rates 1976-2009



into 2009 (Figure 24). The nation's is expected to be protracted, with a slow recovery. On February 6, 2009 the U.S. Department of Labor's Bureau of Labor

Statistics reported the national unemployment rate jumped to 7.6 percent in January as 598,000 jobs were eliminated: the most since September 1992. The

Figure 25: Growth and Annual Openings - Trend-Based Projections



- ↑ 7.6% job growth from 2006 to 2016
- ↑ 5,650 job openings annually due to job creation
- ↑ 15,670 job openings annually due to replacement of retired/resigned workers
- ↑ At least 1.4% increase in high-skilled jobs.

Source: DLIR Research & Statistics Office, www.hiwi.org

continued loss of jobs is higher than analysts' expectations.

The University of Hawaii Economic Research Organization ("UHERO"), stated in its latest quarterly forecast that the unemployment rate will peak at 8.1 percent in 2010. First Hawaiian Bank has projected that only by 2011 can the State's economy be 'firing on all cylinders once again'.

To address the economic challenges in Hawaii caused largely by national and international factors, the Lingle-Aiona Administration is implementing a comprehensive, five-point economic plan to stabilize the economy and encourage investment. Each of these points impacts workforce development, and are in turn impacted by the degree to which the State can adequately prepare the workforce.

The State will increasingly need skilled workers who are: more flexible, more able to transfer their skills from existing occupations to those of the future, and who possess the foundational competencies for learning new skills.

- The economy will rebound from the current down cycle and create jobs in the long-run, and DLIR projections estimate 7.6 percent job growth between 2006 and 2016 (Figure 25). This growth translates to an average of over 21,000 annual job openings over the ten-year period - 5,650 due to employment growth and 15,670 due to replacement of retired workers. The need for high-skilled workers will grow at the rate of 1.4 percent a year.
- The State will continue to require skilled workers who are more flexible, better able to transfer their skills from existing occupations to those of the future, and who possess the foundational competencies for learning new skills.

State Administration's Five-Point Plan for Bolstering Hawaii's Economy

The plan's five components include a commitment to:

1. Increased tourism outreach and marketing
2. Investing in improvements to our infrastructure and state facilities
3. Lowering business fees and providing tax relief
4. Attracting outside investment, especially in energy
5. Maximizing federal dollars and partnerships

Source: hawaii.gov/gov/economy

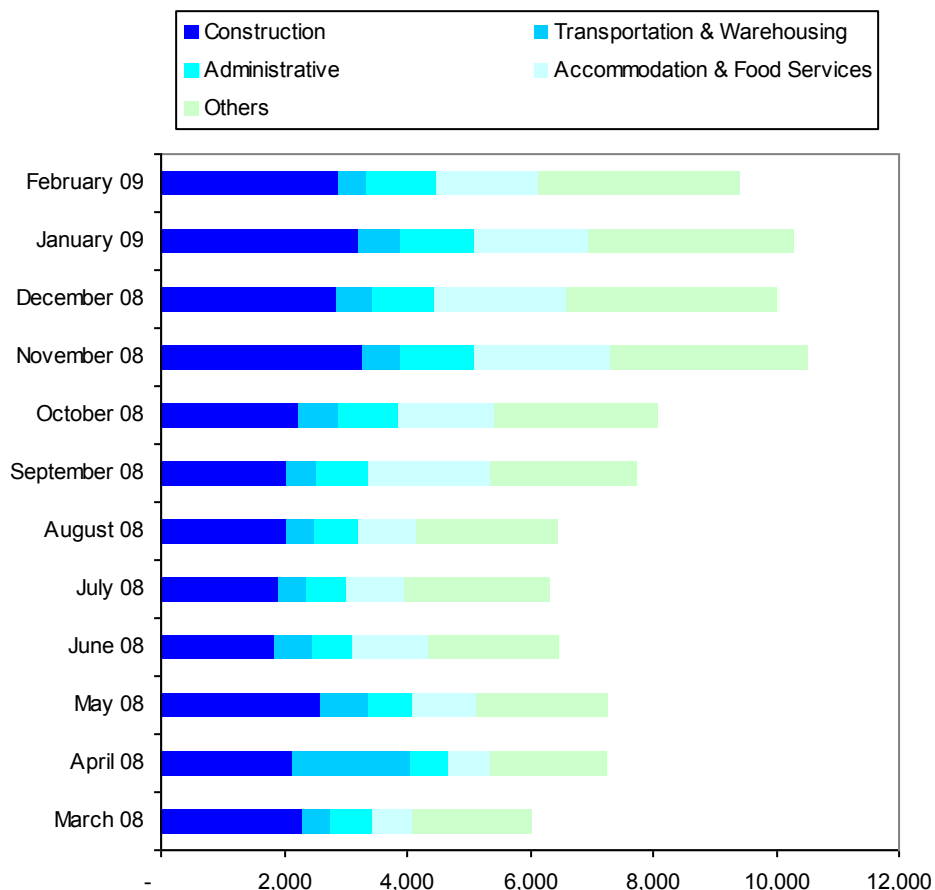
Hawaii's Planning Context

The planning effort will assume that Hawaii's pace of economic stabilization and long-term progress will be impacted by its short-term responses to unique recession-time unemployment patterns and employment opportunities.

The current recession is generating the highest number of layoffs in the construction and tourism industries (Figure 26). Moderately more recession-proof sectors include government, education, health, and social services.

Projections for short-term employment by occupation and industry will be updated and disseminated in the summer of 2009.

Figure 26: Initial Unemployment Claims By Broad Industry Occupations March 2008-February 2009 Trend



Source: DLIR Research and Statistics Office, 2009

Assessments

Hawaii's strategic options are determined by the State's challenges, assets, and resources, including:

- Conclusions from Planning Context
- Workforce Development Council Accomplishments - Where has the WDC excelled?
- Local Workforce Investment Board accomplishments—Where have LWIBs excelled?
- Multi-Year Plans, funding, strengths of partnerships, and expansion capacity- What can and should be connected? What can be leveraged? Where are the gaps?
- Best Practices- What programs and processes have proven to be effective?

Hawaii faces the same major challenges today that were articulated in the publication, 2004 National Governors' Association (NGA) *A Pathway to Excellence* project. These challenges are:

- creating living wage jobs;
- dealing with an aging workforce;
- training an inadequately prepared workforce; and
- assisting the unskilled or under-skilled workers.

Due to conditions that have become more urgent since the NGA project, three issues can be added as major challenges:

- lack of affordable workforce housing;
- the inability to meet skills needs in critical occupation areas; and
- a fragmented workforce development system that is not well understood.

Globalization and innovation requires a workforce development system that is more agile in response to market trends and shifts, ensuring that sufficient workers with the right skills are prepared for jobs that are in demand.

CONCLUSIONS FROM PLANNING CONTEXT

Major workforce challenges:

- An insufficient number of living wage jobs
- A continuing loss of "baby-boom generation" workers
- Leaks in the education to workforce pipeline
- The need for lifelong learning for incumbent workers

Additional workforce challenges due to the worsening or urgent situation:

- A lack of affordable/workforce housing
- The inability to meet demand in critical occupation areas
- An inadequate workforce intelligence. Hawaii's fragmented workforce development system is confusing and not very well understood by policymakers and the general public.

Globalization and Innovation creates the need for an agile and effective workforce development system

Assessments

WDC ACCOMPLISHMENTS OF GOALS SINCE THE 2001 PLAN

Since 2001, more than 90 leaders from *business*, *non-profit*, and *government* sectors served as WDC members or designees.

- Led awareness about major workforce challenges and opportunities:
 - Advanced workforce initiatives involving voluntary schemes, regulations, pilots, and funding.
 - Held five policy forums for leaders and stakeholders.
 - Participated in meetings of goal-forwarding partnerships and networks.
 - Supported the “National Governors’ Association (“NGA”) A Pathway to Excellence” project by identifying needs and strategic actions.
 - Included NGA-identified directions in WIA 2007-2009 State and Local Area Plans.
- Facilitated assessments/evaluation studies.
- Sought /supported funding for strategic transformation projects.
- Completed initial mapping of Hawaii publicly-funded workforce development programs.

The WDC’s core asset, the ability to cover broad issues and recommendations, is aided by the broad representation by its members—leaders representing education, employment, human services, economic development, business and labor, a native Hawaiian organization for employment and training, elected officials, and LWIBs.

The LWIBs provide local input on issues and recommendations. Like the WDC, LWIBs bring together diverse groups of stakeholders, connecting businesses, workforce development, and schools for purposes that ranged from project implementation to strategic planning.

LWIBS ACCOMPLISHMENTS

- Proactively connected local businesses, workforce development services, and schools.
- Led multi-agency consortia for operating and growing one-stop delivery systems—Oahu WorkLinks, WorkWise Kauai, Big Island Workplace Connection, WorkSource Maui.
- Conducted evaluative studies on the needs of employers, one stop centers, and job-seekers.
- Fostered regional cooperation among LWIBs and shared promising practices such as business and school partnerships.
- Led or participated in workforce development planning and resource leveraging including identification of target industry clusters, WIA 2 or 5 year plans, and Reed Act plans.

RELATED STAKEHOLDER PLANS

Workforce development is a major element in multi-year plans of other Councils and special groups. The core competence of each group is in the area of *providing depth and focus* on specific challenges.

For example, the **P-20 Initiative** and **Early Education Council** plans each address the challenge of fixing the leaking education-to-workforce pipeline. The Nursing Workforce and Construction Workforce Action plans both address the challenges of shortages in specific critical-need areas.

The **Hawaii State Center for Nursing** was established to address nursing issues by collecting and analyzing the status and future trends of the nursing workforce, and developing and implementing strategies to recruit and retain nursing professionals.

The **Hawaii Tourism Strategic Plan** identifies the tourism industry as the second largest economic contributor to the state's economy. The industry is maturing, requiring continued transformation despite the limitations of the tourism infrastructure. To be successful, this goal requires:

- constant upgrading of tourism worker skills, such as developing tourism specific education programs for entry level positions and providing career ladders to increase worker retention and workforce stability;

- developing certification programs; and
- providing training online for more accessibility.

The tourism plan seeks to provide an adequate source of quality workers by ensuring that workers are well-trained and educated in visitor industry competencies. Hawaii must offer sufficient employment and advancement opportunities to retain talent.

The recent **Hawaii Science and Technology Report** foresees the need to:

- involve all science and technology stakeholders in developing an industry-wide strategic plan;
- diversify the industry from defense-based technology to non-defense activities;
- assist in the development of risk capital (venture funds);
- examine how 2 and 4-year post-secondary programs in Hawaii can better meet industry needs by producing

a talent pool with appropriate science technology, engineering, and math skills;

- support existing professional and trade groups to develop key technology market segments; and
- design a comprehensive technology workforce retention strategy to reduce turnover and retain local talent.

Overall, the State's **WIA Plans** envision a workforce system that includes quality jobs providing living wages; opportunities for incumbent workers to upgrade their skills; and offering youth, discouraged workers and job-seekers from under-represented groups more access to One-Stop Job Centers.

The Plans work to establish a network that communicates and coordinates information between jobseekers and businesses for informed decision-making purposes.

MULTI-YEAR, MULTI-STAKEHOLDERS PLANS

Comprehensive Economic Development Plans
 Tourism Workforce Development Plan
 Nursing Workforce Plan
 Construction Workforce Action Plan
 Hawaii Science and Technology Council Report
 DOE Strategic Plan
 UH Strategic Plan
 P-20 Initiative Plan
 CTE Plan
 WIA Plans
 TANF IV-A Plan, Vocational Rehabilitation Plan
 Early Education Council Plan

Assessments

Other initiatives instill *urgency* and *immediate action* to issues and recommendations. For example, the **Economic Momentum Commission** focused on the urgency of creating living wage jobs and focus on Science, Technology, Engineering, and Math (“STEM”) education.

The **Hawaii Innovation Initiative** recognizes the need to develop the workforce and increase their capacity to innovate in order to compete, diversify, and sustain Hawaii’s economy on a global level.

The **Clean Energy Initiative** stipulates the need to create educational and employment opportunities necessary to support a clean energy economy.

The WDC, the LWIBs, and other stakeholders rely on funds, networks and relationships, and infrastructure for effective implementation. Some resources and assets are well-defined, but most must be mapped and evaluated further.

Summaries of the major plans are located in the appendices of this Report. The Social, Economic and Workforce programs unit of the National Governors’ Association Center for Best Practices is a source of updates.

Promising and best practices are also part of community conversations in the Innovating Networks website at www.innovatingnetworks.net.

SELECTED STATE-LEVEL INITIATIVES

Hawaii Innovation Initiative
Economic Momentum Commission
Clean Energy Initiative
Education Work Group
Online Task Force
Reed Act Two Year Plans
2050 Sustainability Plan

STATE RESOURCES AND ASSETS

- Workforce Development Funds, Leveraging
 - Public and private
 - For direct education and training, for infrastructure or support
- Partnerships, Networks
 - Policy level interagency boards, mandated and voluntary
 - Private-sector initiated industry and cross-industry boards
 - Program implementation and service delivery, collaboration, mandated and voluntary
- Capacity To Expand with E-infrastructure
 - For direct education and training purposes
 - For Information management and accountability purposes
- Others

NATIONAL GOVERNORS ASSOCIATION BEST PRACTICES [2001]

A Governor's Guide to Creating a 21st Century Workforce

- Connect workforce development to economic needs through education
- Build a stronger education pipeline to produce trainable graduates who have strong foundational skills
- Expand/create incentives for continuous learning
- Enhance workers' abilities to manage their careers
- Strengthen work supports (including education and training) to promote employment retention and career advancement
- Strengthen governance and accountability in the workforce system

The NGA also published best practices with respect to federal workforce programs. The report also offers foundational strategies that successful states have used.

Source: www.nga.org

NGA Best Practices Relating to Federal Workforce Programs

- Reform all federal workforce-related programs in tandem
- New information systems are needed by policymakers, employers, and individuals
- Better strategies to engage the private sector
- Encourage greater access to training and certification
- Allow for flexible service delivery structures, not one-size fits all
- Promote cross-system measures and integrated performance information systems

Source: www.nga.org



Goals and Priorities, 2009-2014

WDC PRIORITIES

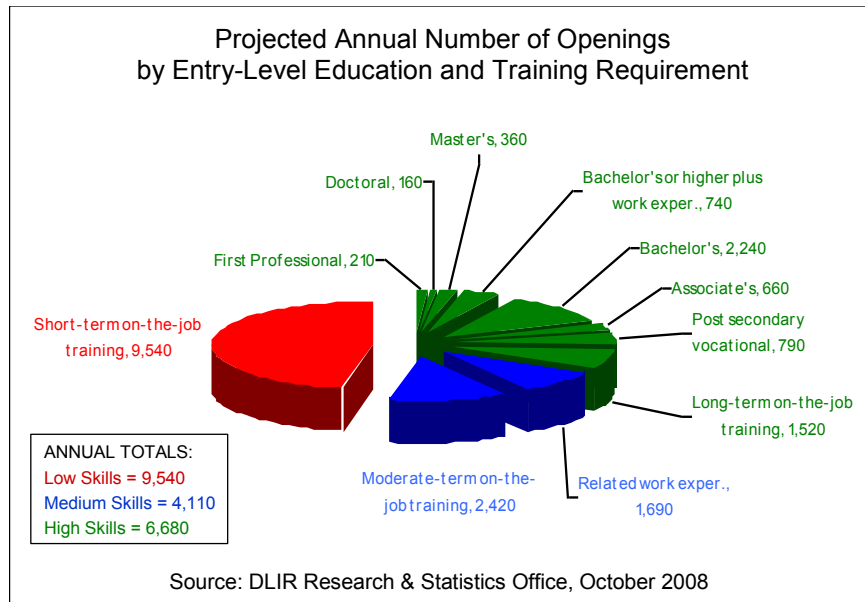
To address workforce challenges, the WDC identified four areas as priorities for the 2009-2014 planning period.

The first three priorities were identified in the WDC's Report to the Governor in prior years. The fourth priority, added in 2009, addresses the lack of sufficient workforce housing in all counties of the State.

Workforce Development Council Priorities

- Improve the delivery of timely education and training to prepare current and future workers for required and projected demand occupations.
- Focus more attention on upgrading the skills of incumbent workers to keep them current with the changing needs of the economy.
- Expand the labor pool in the face of anticipated labor shortages largely due to the retirement of the "baby boomer" generation.
- Address the need for workforce housing.

Figure 27: Demand for Skilled Workers, 2006-2016



FUTURE FOCUS

Current and future planning efforts focus on issues, recommendations, and other elements of the four identified priority areas. Statewide strategic goals and priorities as defined by State statute (HRS 202) are:

1. Desired number of skilled workers in the workforce
2. Number of placements of individuals into higher-skilled jobs
3. High-demand areas for job growth
4. Needed skilled workers in the next five and ten years
5. Time frame for training and development
6. Benchmarks

The Department of Labor and Industrial Relation's ("DLIR") Research and Statistics Office produces trend-based employment projections that serve as background information in planning strategies to address detailed requirements of the law.

According to the 2006-2016 occupational projections (Figure 27), there will be an annual demand of 9,540 low-skilled workers (46.9 percent), 4,110 medium-skilled workers (20.2 percent), and 6,680 high-skilled workers (32.8 percent).

Data for strategic planning includes demand level, wages, minimum education and training requirements, and required time for training or education for hundreds of occupations.

Goals and Priorities, 2009-2014

The 2006-2016 projections provide information on high-demand occupations (Figure 28).

The occupations with the most job openings created by growth as well as replacement needs are considered 'high-demand'. It is noted that only one of the top ten occupations listed require post-secondary education (registered nurses). The remaining occupations require short-term on-the-job training such as retail salespersons, wait help, cashiers, and office clerks.

The projections also provide details on high-skilled occupations that pay high wages (Figure 28). Registered nurses, along with secondary and elementary school teachers, rank highest on this list. Other high paying jobs that will be in demand include retail and office supervisors, general managers, carpenters, sales representatives and accountants.

Occupations expected to significantly decline in employment between 2006 and 2016 include stock clerks, word processors, file clerks, office clerks, and information clerks

(Figure 30). These losses are primarily due to the impact of technology changes on the workplace. Also predicted to lose employment are water vessel workers, packers, farm workers, secretaries, and personal care workers.

Detailed employment projections are available in Appendix A: Long-Term Industry Projections (page 47) and Appendix B: Long-Term Occupational Projections (page 51) of this Report. Appendix C provides definitions of education and training codes utilized by the U.S. Department of Labor (page 70).

Figure 28: Projected High-Demand Occupations, 2006-2016

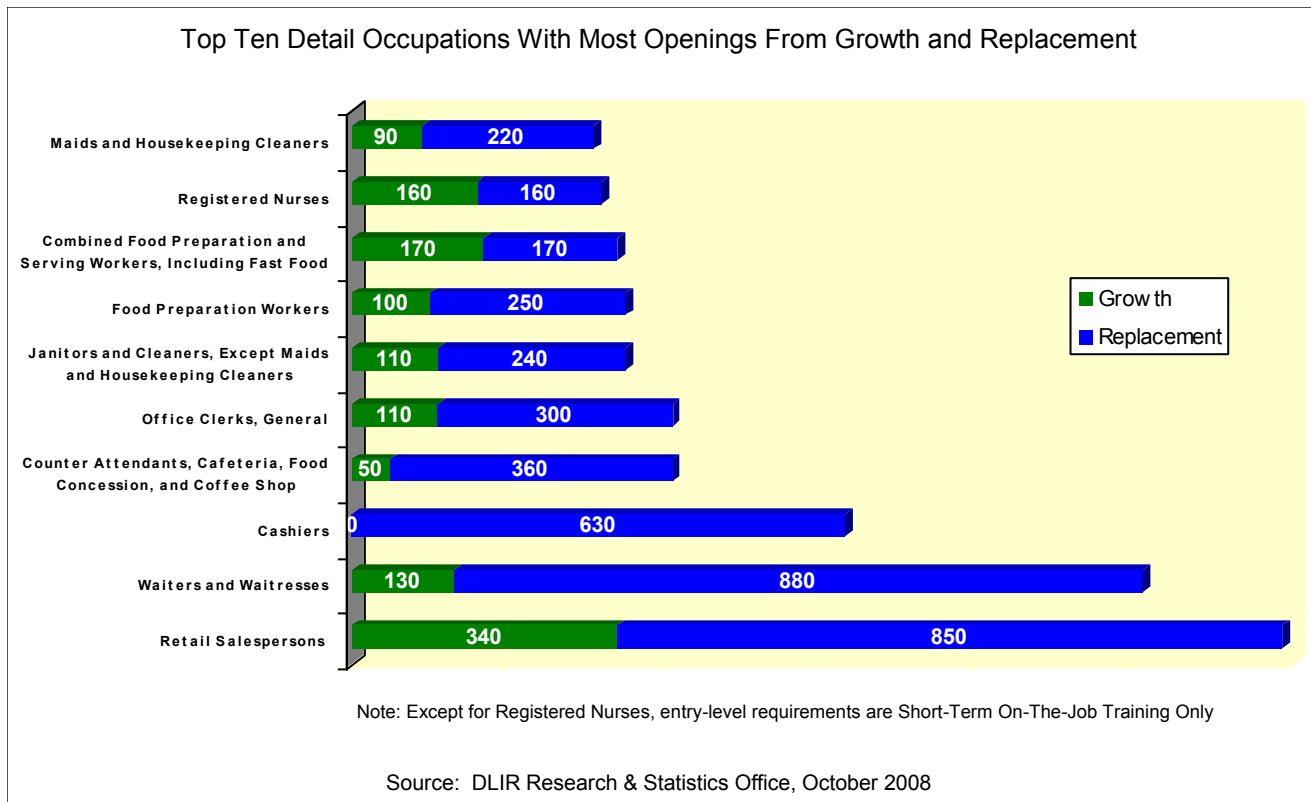


Figure 29: Projected Need for Skilled Workers, 2006-2016

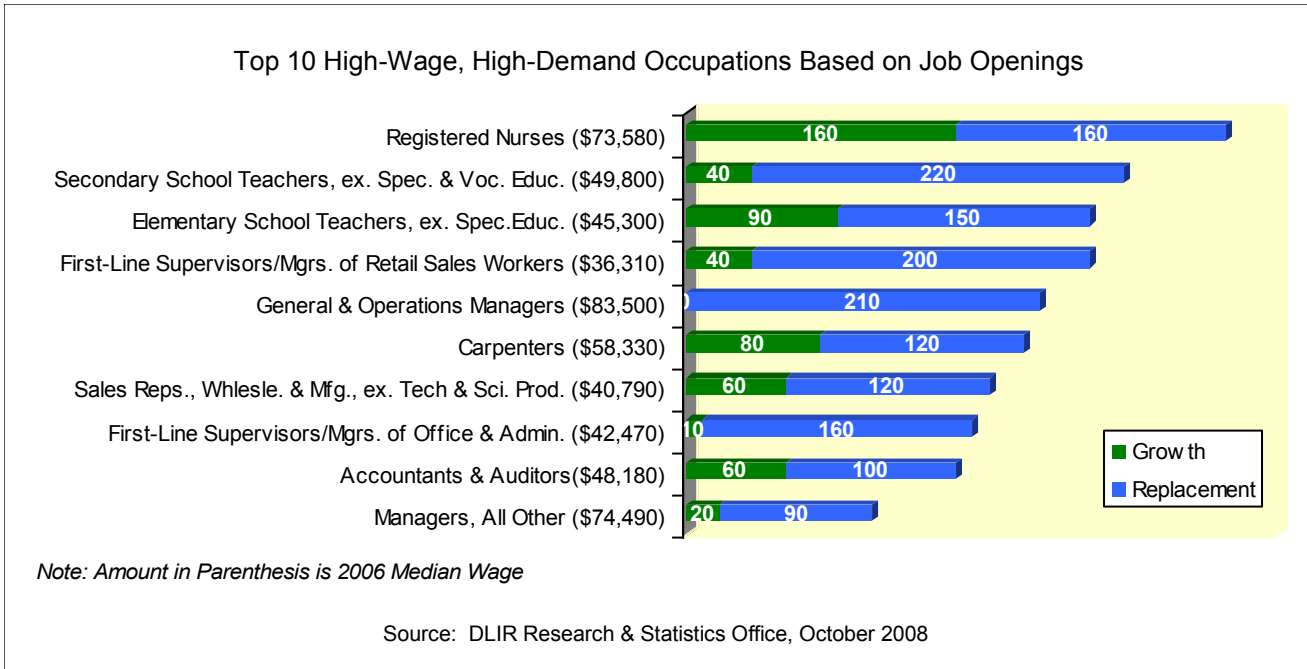
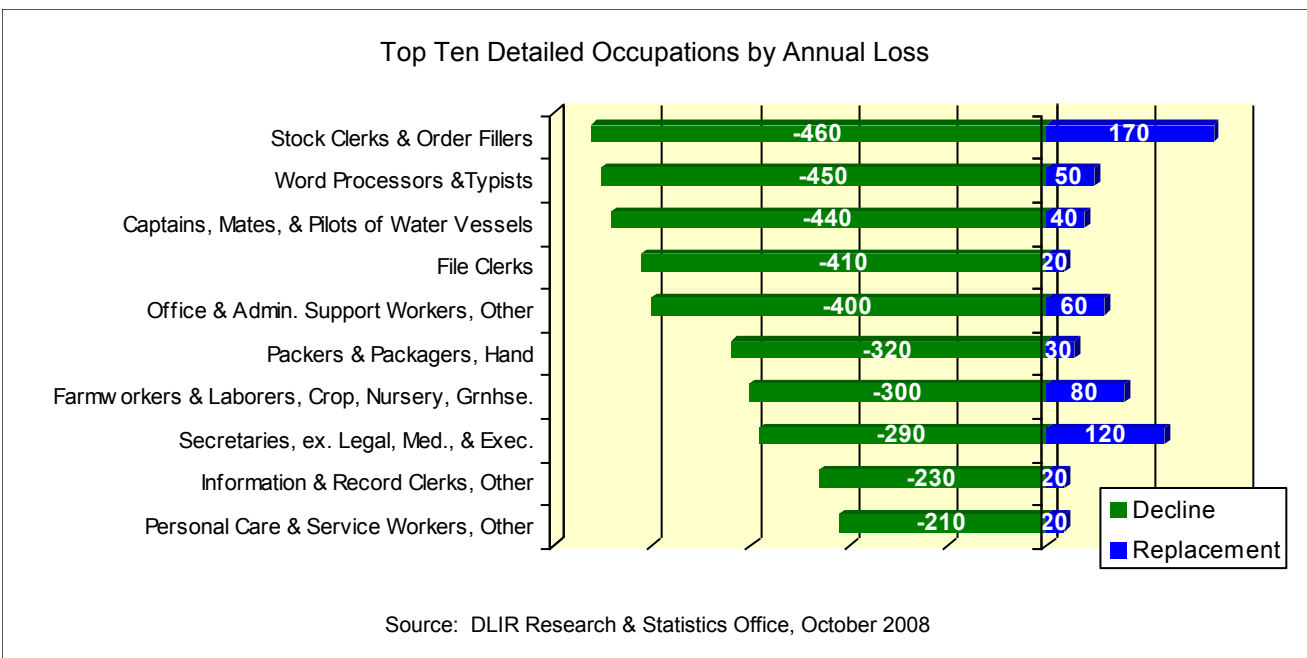


Figure 30: Projected Declining Occupations, 2006-2016



Goals and Priorities, 2009-2014

The demand for technology sector occupations, which are essential to foster emerging industries, was projected by the Department of Business, Economic Development and Tourism (“DBEDT”) with data from the Economic Modeling Specialists Inc. (“EMSI”). The chart below (Figure 31) presents the top ten occupations in the technology sector ranked by the size of job growth from 2006 to 2016. Topping the list are management analysts with 490 new jobs.

The preparation time for the high-skill, high-demand occupations vary (Figure 32). It is Hawaii’s experience that students do not complete their degrees or certification within the time frames estimated by the Bureau of Labor Statistics (“BLS”) but may take as much as 150 percent longer. Many University of Hawaii System students are attending part-time and take time off from studies for work or other reasons. While the BLS has established that a bachelor’s degree takes four years of full-time study, the UH experience is that the average student takes six years.

In contrast to the broad needs of business, a greater proportion of projected openings in the technology sector require a college education (Figure 33), while a much smaller number require basic skills or on-the-job training. Six of the top ten largest growing technology sector jobs are considered high-skilled and will require college education. (Figure 31).

Figure 31: Projected Occupations in the Technology Sector

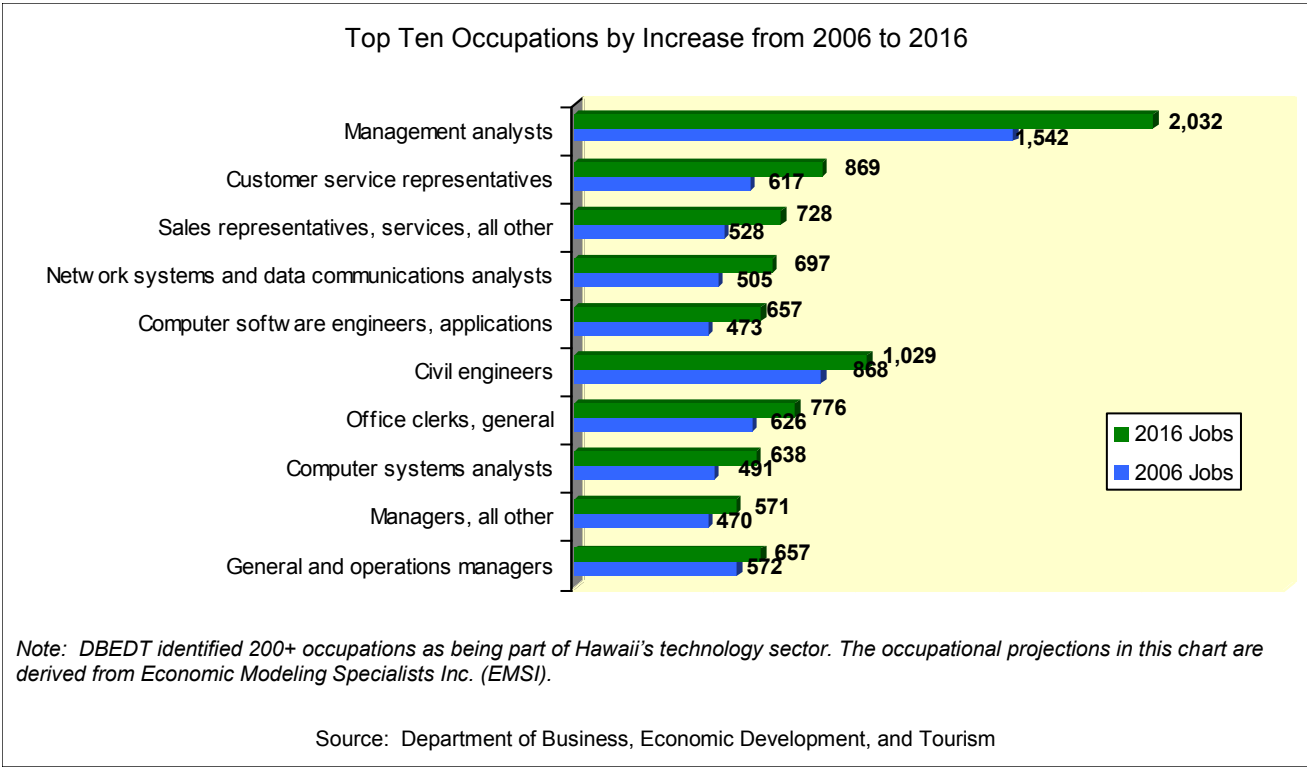


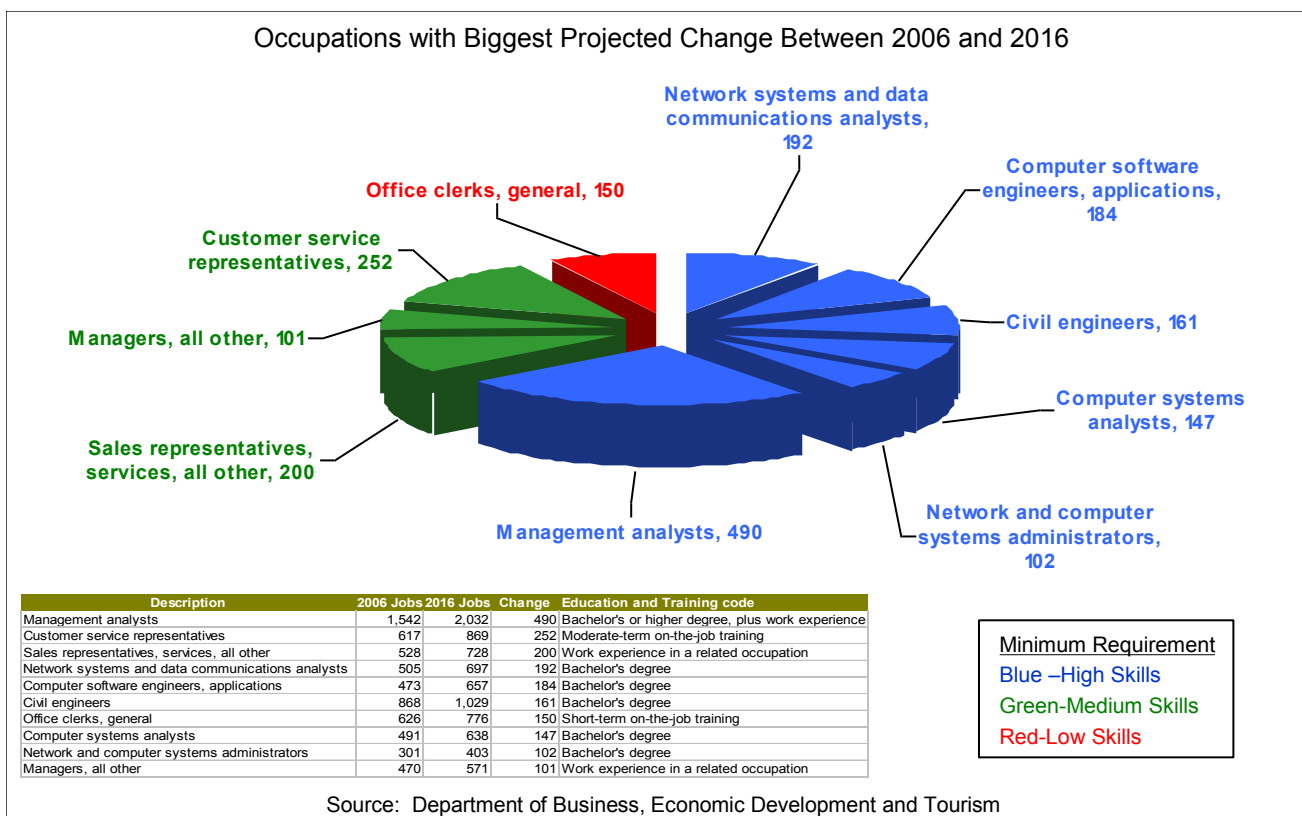
Figure 32: Timeframe for Training and Development

“Based on UH experience, the average time frame for training and education is 150% of the following BLS established lengths.” ~ Mike Rota, University of Hawaii

First-professional and doctoral degrees	3 yrs of full-time study plus bachelor's degree
Master degree	1 to 2 yrs of full-time study plus bachelor's degree
Bachelor degree	4 yrs of full-time study
Associate degree	2 yrs of full-time study
Post-secondary vocational award	Several weeks to a year or more
Long-term on-the-job training	More than 1 year of on-the-job or combined work and formal classroom instructions, e.g., apprenticeship
Bachelor or higher degree plus work exp.	Mostly managerial occupations requiring experience in non-management position that require a degree
Work experience in a related occupation	Skills acquired in a related occupation, degree optional
Moderate-term on-the-job training	1-12 month of combined on-the-job and informal training

Source: US Department of Labor, Bureau of Labor Statistics

Figure 33: Education and Training Requirements in the Technology Sector



WDC Plan Recommendations 2009-2010

The WDC and other stakeholders identified recommendations that address the priority areas in the first year of the planning period 2009 to 2014, at a WDC Special Meeting, held on

January 12, 2009. WDC Planning Committee members and participants at the meeting are listed in Appendix D on page 69 of this report.

Recommendations identified as the focus for planning and implementation during Year 1 (2009-2010) are:

Priority #1 “Improve the Delivery of Timely Education and Training to Prepare Current and Future Workers for High-Demand Occupations”

A. Develop common assessment and evaluation methodologies for workforce development programs/initiatives across the education and workforce pipeline.

1. Update and expand the asset map of workforce development. Identify talent pipelines and workforce needs for the six primary industry clusters.
2. Develop a comprehensive evaluation model for workforce development programs to promote accountability, increase effectiveness and gain efficiencies.

Develop criteria in partnership with education and training agencies (public and private), using best practices from other states and regions. Include a continuous improvement component.

3. Encourage agencies that collect data useful to improving workforce development to share their data and develop a “common language” across the system.

Align Career Pathways and Career Academy information with the U.S. Department of Labor’s occupational codes to help participants understand career options and education/skill requirements. Reassign codes when possible to conform to USDOL/DLIR.

Conduct a comprehensive audit of barriers to data sharing. Make legislative and administrative recommendations for changes to increase and encourage sharing.

4. Continue to investigate work-readiness certification models and implement a work-readiness certification

process recognized by employers statewide (Oahu Workforce Development Board is reviewing vendors and will implement a pilot).

Obtain buy-in from employers and their intermediaries. Use experiences in other states and regions to make refinements.

B. Increase and Expand Access to Workforce Development Resources

5. Conduct an assessment of One-Stop Centers including current and desired capabilities, and the gaps in the current system.

- Based on gaps, work with community and faith based groups to place Access Points station in areas not covered by One-Stops. Seek private or federal funding.

Plan Recommendations 2009-2010

- Make recommendations to the Governor and the Legislature on ways to strengthen the One-Stop system.
6. Reduce the remediation requirements of public school students who enter UH community colleges (generally math and English).
 - Investigate using Adult Education resources.
 - Identify benchmarks that enable UHCC campuses to focus on college-level instruction and reduce remediation.
 7. Create alternatives to funding for workforce preparation (such as the private sector, tax credits, expansion of ETF, bond financing, use of community and faith-based organizations and schools, reallocation of existing resources, and participation in multi-state and regional consortia). Investigate actions taken in other states and regions.
- C. Prepare future workers for careers in all occupations deemed high-demand and moderate to high-skilled.**
8. Develop scholarship and other support for students who enter specific fields of study such as nursing, education (especially in math, science and special education) and other identified high-need occupations. Students would agree to work in Hawaii for a specific period, and priority would be given to those who contractually agree to work in isolated and rural areas.
- D. Provide mechanisms to facilitate experiential learning for students and youth, and work to expand business-education partnerships.**
9. Create and expand incentives and opportunities for teachers (particularly in STEM and other high-demand areas) to receive education and training in areas that will help them to generate more student interest in workforce development-related areas. Increase the visibility of these programs and raise funds to participate in national competitions.
 10. Conduct a social marketing campaign for the public that stresses the importance of post-secondary education and training. Seek private or federal funding.

Priority #2

“Focus more attention on upgrading the skills of incumbent workers”

A. Provide incentives for incumbent worker upgrade training.

1. The legislature should explore an innovative training initiative designed to stimulate job growth and hiring. Hawaii’s Unemployment Insurance (“UI”) law could be amended to allow those receiving UI benefits to receive on-site workplace training, while receiving regular UI benefits as well as a training allowance. This allowance would be intended to defray some of the costs associated with training such as childcare, transportation, tools and work clothes

Employers in the program would provide up to 24 hours per week of training for up to eight weeks with no wage costs, during which time the employer would evaluate the UI claimant for a possible permanent job. The claimant would continue to seek employment on days not training. In other states, where a similar system exists, 66 percent of trainees were hired by the participating company.

2. Create roundtable forums

with stakeholders to provide recommendations to the Governor and Legislature on ways to incentivize employers to create and maintain in-house training programs to upgrade the skills of their employees.

3. The legislature should explore amending Hawaii’s UI law to allow for a federally-approved Shared Work program. Currently, Hawaii offers partial UI benefits for employees who have their hours reduced, but the take-home pay cannot exceed the UI benefit amount.

The Shared Work program gives employers an additional option when reducing staff by allowing the employer to divide available hours of work among a group of employees, as opposed to layoff. Affected employees may then receive partial UI benefits while working reduced hours. By participating, an employer can maintain morale, productivity and flexibility in the work place.

The Shared Work

program is intended as an alternative to full layoffs. It cannot be used by employers facing seasonal layoffs and is not an effective tool for employers faced with a permanent downsizing.

Example: A firm facing a 20 percent reduction in business may consider laying off one-fifth of its workforce. However, under an approved Shared Work plan, that company could maintain its total workforce while reducing each worker’s scheduled hours by one-fifth or 20 percent. Employees would receive a partial unemployment insurance payment equal to 20 percent of their individual weekly unemployment insurance award along with the income earned for the week under the approved plan.

4. Enact Lifelong Learning Account (“LiLA”) legislation. LiLAs are employer-matched, portable individual savings accounts used to finance education and training for career advancement, and are similar to a 401(k).

LiLAs provides Hawaii’s employers an incentive by offering annual tax credits of up to \$500 to offset the employee’s contributions to the account. The employer matches each employee contribution dollar-for-dollar.

LiLA’s are “portable”, which means employees can take the training account with them when they change jobs.

B. Skills identification

5. Identify skill sets for high demand occupations linked with priorities for training and an approved credentialing process. The credentialing process would also need to be developed for recommendations #1 and #2 to be effective.



Priority #3

“Expand the labor pool in the face of anticipated long-term labor shortage”

Policy Action Statement	Next Steps	
<p>“To fully employ untapped and under-tapped labor pools of <i>unskilled</i> and <i>skilled</i> people, the three strategic priority recommendations for the WDC are geared towards expanding the economy and engaging businesses.”</p> <ul style="list-style-type: none"> • Green Jobs Initiative Hawaii must be more self-sustaining and build economy-driving industries. The Federal “Green Jobs Act” will likely be funded; Hawaii should be prepared to compete for funds. • Sector Initiative Use sector strategy to identify and expand economic drivers compatible with people with one or more barriers to employment. For example, the creative industry includes micro-enterprises and cottage industries. • Business Leadership Network This concept, enacted at the national level, helps employers understand issues in hiring people with disabilities. Two counties are creating networks. Explore creating employer networks for other groups such as veterans, ex-offenders, immigrants, and welfare recipients. 	<ol style="list-style-type: none"> 1. The WDC will broker the development of a “Green Jobs” workforce development information clearinghouse, which could feature a summit, report publication, or a combination of several initiatives. Lead Stakeholders: DBEDT, DLIR, UH, Industry-Driven Councils, WDC and LWIBs, DLNR. The Green Jobs Act of 2007 calls for state programs for green jobs workforce development. The Pew Charitable Foundation will release a State-by-State Green Jobs Report in March 2009. 2. The WDC will seek technical assistance to explore effective economic drivers for the State, small businesses, and under-represented populations. Acceleration of sector strategy will cover: <ul style="list-style-type: none"> • use of methods such as industry skill panels, scenario planning-based projections, and social networking-based collaboration; • creation of programs such as mentoring camps and fairs, industry-relevant ESL in public libraries, and job 	<p>shadowing; and</p> <ul style="list-style-type: none"> • alignment of various programs such as apprenticeship, adult education, CTE, and other employer-based contextual work readiness preparation and English language acquisition. <p>Lead Stakeholders: Industry-Driven Councils, Chambers of Commerce, DBEDT, DLIR, UH, DOE, DHS VocRehab.</p> <p>Research sector strategies, especially creative industries, tourism for kamaaina, and integrated health.</p> <ol style="list-style-type: none"> 3. The UH Center for Disabilities Studies (“CDS”), WDC and LWIBs will expand networks of private employers. Explore funding, alignment, and opportunities to replicate the networks for other underrepresented groups. <p>Maui and Hawaii Counties are facilitating Business Leadership Networks. The CDS will facilitate the formation of networks for the other counties, and will be formed with an emphasis on small business owners.</p>

Priority #4 “Address Workforce Housing”

Policy Action Statement

“The Workforce Development Council will take an active role in supporting policies so that access to housing is not a barrier to having a vibrant (low to high end) workforce in Hawaii.”

Research

Solicit organizations to present their programs to the WDC in order to assist the Council in understanding the role it can have regarding housing, transportation and public infrastructure to support workforce development.

Workshop Series

The WDC will seek county support for a statewide workshop series on workforce housing issues, and identify specific workforce housing needs for each county.

HireNet Hawaii Modification

Include within the HireNet Hawaii system an information and feedback process (for employers and jobseekers) to identify barriers to housing and employment .

Advocacy

Advocate to advance recommendations from other organizations that support access to housing that more of Hawaii’s workforce can afford.

The WDC has established a Workforce Housing Committee with the mandate to respond on issues relating to housing.



Evaluation of Current State Programs

Hawaii must address a history of lack of performance accountability in workforce development programs. The WDC will review the experiences of states that have successfully measured performance.

In 2004, a team of six states published *“Integrated Performance Information for Workforce Development: A Blueprint for States”*. These states are Florida, Michigan, Montana, Oregon, Texas and Washington. Figure 34 lists the measures they recommend for implementation. These measures focus on outcomes

important across workforce development programs, such as those for accountability measures for which there could be targets and consequences. Of great importance are criteria for determining the setting of targets and benchmarks. Also, successful measures do not attempt to measure everything, but rather focus on those that have the highest impact.

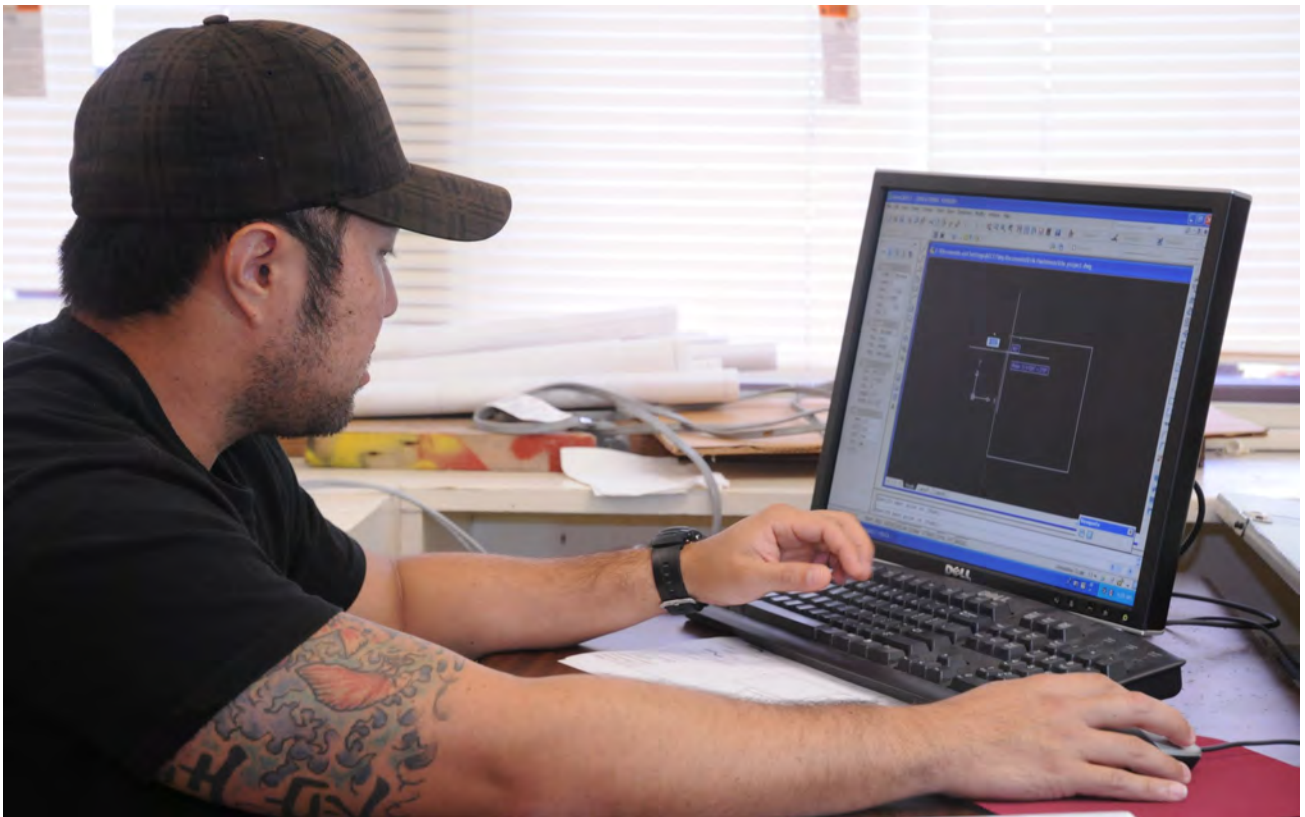
To integrate performance information, the six states followed the same steps, but differed in solutions and approaches.

Six important common and successful factors are:

- Establishing authority to cover workforce development programs.
- Building a culture of shared accountability and trust.
- Generating capacity to evaluate.
- Crafting performance measures.
- Setting and using targets.
- Creating and maintaining a shared information system.

Figure 34: Integrated Performance Information Performance Measures

EXAMPLES OF ACCOUNTABILITY MEASURES	
Category	Measure
Labor Market Results for Program Participants <ul style="list-style-type: none"> • Do people get jobs? • What are they paid? 	1. Short-term employment 2. Long-term employment 3. Earning levels
Skill Gains <ul style="list-style-type: none"> • To what extent do education levels increase? 	Credential completion rate
Results for Employers and the Economy <ul style="list-style-type: none"> • Are we meeting the needs of employers? 	Repeat employer customers
EXAMPLES OF PERFORMANCE INDICATORS	
Category	Measure
Results for Employers and the Economy <ul style="list-style-type: none"> • Are we meeting the needs of employers? 	Employer Market Penetration
Return on Investment <ul style="list-style-type: none"> • What is the return on investment? 	Taxpayer Return on Investment Participant Return on Investment



Next Steps

At its February 12, 2009 meeting, the WDC approved the creation of five committees to effectively advance the recommendations under each of the Council's four priority areas. The five committees are:

Committees Formed at the February 12, 2009 WDC Meeting

1. EVALUATION AND ACCOUNTABILITY COMMITTEE

Chair: Allen Chung

Vice-Chair: Les Muraoka

Task: Facilitate performance evaluation of all publicly-funded workforce development programs in Hawaii, and address recommendations relating to evaluation and accountability such as:

- Development of an evaluation model for all workforce development programs
- Mapping of barriers to implement an integrated evaluation of all programs
- Policy development to implement evaluation
- An assessment of One Stop Centers

This committee will be the WDC's review and recommending group in matters relating to WIA performance measures negotiation and annual reports.

2. EDUCATION AND TRAINING COORDINATION COMMITTEE

Chair: Signe Godfrey

Vice-Chair: Daniel Hamada

Task: Facilitate the timely delivery of education and training; and skills upgrading for incumbent workers; address policies, issues and recommendations relating to:

- Workforce-readiness implementation
- UHCC and DOE adult education benchmarking to reduce remediation
- Recommendation for streamlining of training programs
- Implementation of lifelong learning accounts
- Identification of skills sets for critical occupation categories
- Unemployment benefit policy improvement
- Social marketing campaign to underscore the importance of post-secondary education
- Increase teacher training opportunities for experiential learning

This committee will also be the Council's review and recommending group in matters relating to required activities for the WIA Youth program.

3. ECONOMIC DEVELOPMENT, LABOR POOL EXPANSION AND WORKFORCE HOUSING POLICY COMMITTEE

Chair: Jim Tollefson

Vice-Chair: Michael Gleason

Task: To facilitate solutions to projected long-term labor shortages by tapping skilled and unskilled individuals from underrepresented populations, and promoting workforce housing solutions.

The Committee will address recommendations such as:

- Green Jobs Initiative
- Sector strategy initiative
- Business Leadership Networks for underrepresented groups
- Mapping of organizations with workforce housing resources
- Statewide workforce housing workshops
- Online information gathering tools in HireNet Hawaii
- Advocacy

The Committee will be the WDC's lead review and recommending group for the WIA 2007 amendment for the Green Jobs Act.

Next Steps

4. PLANNING COMMITTEE

Chair: Mike Rota

Co-Chair: Steve Lee

Tasks:

- Facilitate the completion and regular update of a comprehensive state workforce development plan that includes strategic goals and measurable outcomes.
- This committee will be the Council's review and recommending group for the WIA State Plan and ARRA bill requirements.

5. EXECUTIVE COMMITTEE

Chair: Gregg Yamanaka

Vice-Chair: Signe Godfrey

Members:

Committee Chairs

Jill Cooper

Debbie Morikawa

Sandy Baz

Tasks:

- Link activities of the WDC and be a liaison to the committees;
- Facilitate resilient responses to new development or business opportunities; and
- Facilitate the WDC Plan



Appendices

Appendix A: Long-Term Industry Projections, State of Hawaii, 2006-2016

NAICS Code	Industry Title	Employment		Growth		Average Annual Growth
		2006	2016	Net	Percent	
000000	TOTAL, ALL INDUSTRIES	686,750	735,390	48,640	7.1%	0.7%
101000	GOODS-PRODUCING INDUSTRIES	58,320	60,680	2,360	4.0%	0.4%
101100	Natural Resources and Mining	7,570	6,800	-770	-10.2%	-1.0%
110000	Agriculture, Forestry, Fishing and Hunting	7,290	6,500	-790	-10.8%	-1.1%
111000	Crop Production	5,890	5,080	-810	-13.8%	-1.4%
112000	Animal Production	650	640	-10	-1.5%	-0.2%
114000	Fishing, Hunting and Trapping	140	210	70	50.0%	5.0%
115000	Support Activities for Agriculture and Forestry	610	560	-50	-8.2%	-0.8%
210000	Mining	290	310	20	6.9%	0.7%
101200	Construction	35,610	38,530	2,920	8.2%	0.8%
230000	Construction	35,610	38,530	2,920	8.2%	0.8%
236000	Construction of Buildings	11,750	12,940	1,190	10.1%	1.0%
237000	Heavy and Civil Engineering Construction	5,020	5,320	300	6.0%	0.6%
238000	Specialty Trade Contractors	18,840	20,270	1,430	7.6%	0.8%
101300	Manufacturing	15,140	15,350	210	1.4%	0.1%
310000	Manufacturing	15,140	15,350	210	1.4%	0.1%
311000	Food Manufacturing	6,300	6,310	10	0.2%	0.0%
312000	Beverage and Tobacco Product Manufacturing	750	930	180	24.0%	2.4%
313000	Textile Mills	50	50	0	0.0%	0.0%
314000	Textile Product Mills	210	210	0	0.0%	0.0%
315000	Apparel Manufacturing	830	620	-210	-25.3%	-2.5%
321000	Wood Product Manufacturing	360	400	40	11.1%	1.1%
322000	Paper Manufacturing	210	200	-10	-4.8%	-0.5%
323000	Printing and Related Support Activities	1,190	930	-260	-21.8%	-2.2%
324000	Petroleum and Coal Products Manufacturing	460	450	-10	-2.2%	-0.2%
325000	Chemical Manufacturing	370	370	0	0.0%	0.0%
326000	Plastics and Rubber Products Manufacturing	290	280	-10	-3.4%	-0.3%
327000	Nonmetallic Mineral Product Manufacturing	1,130	1,240	110	9.7%	1.0%
332000	Fabricated Metal Product Manufacturing	470	500	30	6.4%	0.6%
334000	Computer and Electronic Product Manufacturing	70	60	-10	-14.3%	-1.4%
336000	Transportation Equipment Manufacturing	540	750	210	38.9%	3.9%
337000	Furniture and Related Product Manufacturing	560	600	40	7.1%	0.7%
339000	Miscellaneous Manufacturing	1,280	1,400	120	9.4%	0.9%

Source: Employment Projections for Industries and Occupations 2006-2016, Research and Statistics Office, Hawaii State Department of Labor and Industrial Relations, November 2008.

Appendix A: Long-Term Industry Projections, State of Hawaii, 2006-2016 (continued)

NAICS Code	Industry Title	Employment		Growth		Average Annual Growth
		2006	2016	Net	Percent	
102000	SERVICES-PROVIDING INDUSTRIES	566,280	610,900	44,620	7.9%	0.8%
102100	Trade, Transportation, and Utilities	120,510	125,660	5,150	4.3%	0.4%
420000	Wholesale Trade	17,910	19,200	1,290	7.2%	0.7%
423000	Merchant Wholesalers, Durable Goods	6,590	7,220	630	9.6%	1.0%
424000	Merchant Wholesalers, Nondurable Goods	9,530	9,990	460	4.8%	0.5%
425000	Wholesale Electronic Markets and Agents and Brokers	1,800	2,000	200	11.1%	1.1%
440000	Retail Trade	69,900	74,420	4,520	6.5%	0.6%
441000	Motor Vehicle and Parts Dealers	7,380	7,720	340	4.6%	0.5%
442000	Furniture and Home Furnishings Stores	1,820	1,960	140	7.7%	0.8%
443000	Electronics and Appliance Stores	1,700	1,750	50	2.9%	0.3%
444000	Building Material and Garden Equipment and Supplies Dealers	4,910	5,450	540	11.0%	1.1%
445000	Food and Beverage Stores	12,770	13,060	290	2.3%	0.2%
446000	Health and Personal Care Stores	5,170	5,630	460	8.9%	0.9%
447000	Gasoline Stations	2,670	2,560	-110	-4.1%	-0.4%
448000	Clothing and Clothing Accessories Stores	11,490	12,650	1,160	10.1%	1.0%
451000	Sporting Goods, Hobby, Book, and Music Stores	3,400	3,450	50	1.5%	0.1%
452000	General Merchandise Stores	12,340	14,090	1,750	14.2%	1.4%
453000	Miscellaneous Store Retailers	5,950	5,750	-200	-3.4%	-0.3%
454000	Nonstore Retailers	300	350	50	16.7%	1.7%
480000	Transportation and Warehousing	29,770	28,920	-850	-2.9%	-0.3%
481000	Air Transportation	10,130	10,290	160	1.6%	0.2%
483000	Water Transportation	5,010	2,340	-2,670	-53.3%	-5.3%
484000	Truck Transportation	3,200	3,550	350	10.9%	1.1%
485000	Transit and Ground Passenger Transport	2,120	2,210	90	4.2%	0.4%
487000	Scenic and Sightseeing Transportation	3,500	3,960	460	13.1%	1.3%
488000	Support Activities for Transportation	3,750	4,030	280	7.5%	0.7%
492000	Couriers and Messengers	1,330	1,640	310	23.3%	2.3%
493000	Warehousing and Storage	740	920	180	24.3%	2.4%
220000	Utilities	2,930	3,110	180	6.1%	0.6%
221000	Utilities	2,930	3,110	180	6.1%	0.6%
102200	Information	10,690	11,420	730	6.8%	0.7%
510000	Information	10,690	11,420	730	6.8%	0.7%
511000	Publishing Industries	2,550	2,630	80	3.1%	0.3%
512000	Motion Picture and Sound Recording Industries	1,810	2,140	330	18.2%	1.8%
515000	Broadcasting (except Internet)	1,230	1,340	110	8.9%	0.9%

Source: Employment Projections for Industries and Occupations 2006-2016, Research and Statistics Office, Hawaii State Department of Labor and Industrial Relations, November 2008.

Appendix A: Long-Term Industry Projections, State of Hawaii, 2006-2016 (continued)

NAICS Code	Industry Title	Employment		Growth		Average
		2006	2016	Net	Percent	Annual Growth
516000	Internet Publishing and Broadcasting	30	50	20	66.7%	6.7%
518000	Internet Service Providers, Web Search Portals, and Data Processing Services	730	770	40	5.5%	0.5%
102300	Financial Activities	29,880	31,030	1,150	3.8%	0.4%
520000	Finance and Insurance	16,890	17,450	560	3.3%	0.3%
522000	Credit Intermediation and Related Activities	8,970	9,410	440	4.9%	0.5%
523000	Securities, Commodity Contracts, & Other Financial Investments & Related Activities	1,120	1,230	110	9.8%	1.0%
524000	Insurance Carriers and Related Activities	6,760	6,780	20	0.3%	0.0%
525000	Funds, Trusts, and Other Financial Vehicles	30	40	10	33.3%	3.3%
530000	Real Estate and Rental and Leasing	13,000	13,580	580	4.5%	0.4%
531000	Real Estate	8,340	8,620	280	3.4%	0.3%
532000	Rental and Leasing Services	4,650	4,940	290	6.2%	0.6%
102400	Professional and Business Services	78,200	86,740	8,540	10.9%	1.1%
540000	Professional, Scientific, and Technical Services	24,080	26,760	2,680	11.1%	1.1%
541000	Professional, Scientific, and Technical Services	24,080	26,760	2,680	11.1%	1.1%
550000	Management of Companies and Enterprises	7,510	8,460	950	12.6%	1.3%
551000	Management of Companies and Enterprises	7,510	8,460	950	12.6%	1.3%
560000	Administrative & Support & Waste Management & Remediation Services	46,610	51,520	4,910	10.5%	1.1%
561000	Administrative and Support Services	44,940	49,480	4,540	10.1%	1.0%
562000	Waste Management and Remediation Service	1,670	2,030	360	21.6%	2.2%
102500	Education and Health Services	122,910	139,180	16,270	13.2%	1.3%
610000	Educational Services	61,430	68,360	6,930	11.3%	1.1%
611000	Educational Services	61,430	68,360	6,930	11.3%	1.1%
620000	Health Care and Social Assistance	61,480	70,830	9,350	15.2%	1.5%
621000	Ambulatory Health Care Services	22,830	25,140	2,310	10.1%	1.0%
622000	Hospitals	18,550	20,430	1,880	10.1%	1.0%
623000	Nursing and Residential Care Facilities	6,680	8,260	1,580	23.7%	2.4%
624000	Social Assistance	13,420	17,010	3,590	26.8%	2.7%
102600	Leisure and Hospitality	107,710	116,660	8,950	8.3%	0.8%
710000	Arts, Entertainment, and Recreation	11,500	12,730	1,230	10.7%	1.1%
711000	Performing Arts, Spectator Sports, and Related Industries	1,820	2,000	180	9.9%	1.0%
712000	Museums, Historical Sites, and Similar Institution	1,540	1,770	230	14.9%	1.5%
713000	Amusement, Gambling, and Recreation Industries	8,140	8,960	820	10.1%	1.0%
720000	Accommodation and Food Services	96,210	103,930	7,720	8.0%	0.8%
721000	Accommodation	39,140	41,090	1,950	5.0%	0.5%
722000	Food Services and Drinking Places	57,070	62,830	5,760	10.1%	1.0%

Source: Employment Projections for Industries and Occupations 2006-2016, Research and Statistics Office, Hawaii State Department of Labor and Industrial Relations, November 2008.

Appendix A: Long-Term Industry Projections, State of Hawaii, 2006-2016 (continued)

NAICS Code	Industry Title	Employment		Growth		Average
		2006	2016	Net	Percent	Annual Growth
102700	Other Services (Except Government)	24,610	27,350	2,740	11.1%	1.1%
810000	Other Services (Except Government)	24,610	27,350	2,740	11.1%	1.1%
811000	Repair and Maintenance	4,500	4,950	450	10.0%	1.0%
812000	Personal and Laundry Services	7,600	8,370	770	10.1%	1.0%
813000	Religious, Grantmaking, Civic, Professional, and Similar Organizations	12,030	13,490	1,460	12.1%	1.2%
814000	Private Households	490	540	50	10.2%	1.0%
102800	Government	71,750	72,880	1,130	1.6%	0.2%
900000	Government	71,750	72,880	1,130	1.6%	0.2%
910000	Total Federal Government Employment	31,740	31,370	-370	-1.2%	-0.1%
999100	Federal Government, Excluding Post Office	28,970	28,650	-320	-1.1%	-0.1%
491100	Postal Service	2,770	2,720	-50	-1.8%	-0.2%
920000	State, Excluding Education and Hospitals	22,540	22,840	300	1.3%	0.1%
999200	State Government, Excluding Education and Hospitals	22,540	22,840	300	1.3%	0.1%
930000	Local, Excluding Education and Hospitals	17,470	18,670	1,200	6.9%	0.7%
999300	Local Government, Excluding Education and Hospitals	17,470	18,670	1,200	6.9%	0.7%
000671	TOTAL SELF-EMPLOYED AND UNPAID FAMILY WORKERS	62,150	63,810	1,660	2.7%	0.3%
006010	Self-Employed Workers	60,640	62,640	2,000	3.3%	0.3%
007010	Unpaid Family Workers	1,510	1,170	-340	-22.5%	-2.3%

Note: Data were rounded to nearest ten and may not sum to totals in bold.

Source: *Employment Projections for Industries and Occupations 2006-2016*, Research and Statistics Office, Hawaii State Department of Labor and Industrial Relations, November 2008.

Appendix B: Long-Term Occupational Projections, State of Hawaii, 2006-2016

SOC Code	Occupation Title	Employment		Growth		Avg. Ann. Growth	Average Annual Openings			Training Code*
		2006	2016	Net	Percent		Growth	Replacement	Total	
00-0000	Total, All Occupations	686,750	735,390	48,640	7.1%	0.7%	5,650	15,670	21,320	
11-0000	Management Occupations	43,890	45,540	1,650	3.8%	0.4%	180	860	1,040	
11-1000	Top Executives	10,420	10,360	-60	-0.6%	-0.1%	0	260	260	
11-1011	Chief Executives	1,740	1,740	0	0.0%	0.0%	0	50	50	4
11-1021	General and Operations Managers	8,550	8,490	-60	-0.7%	-0.1%	0	210	210	4
11-1031	Legislators	130	130	0	0.0%	0.0%	0	**	**	4
11-2000	Advertising, Marketing, Promotions, Public Rel., & Sales Mgrs.	2,780	3,000	220	7.9%	0.8%	20	60	90	
11-2011	Advertising and Promotions Managers	240	250	10	4.2%	0.4%	**	10	10	4
11-2021	Marketing Managers	500	560	60	12.0%	1.2%	10	10	20	4
11-2022	Sales Managers	1,760	1,890	130	7.4%	0.7%	10	40	50	4
11-2031	Public Relations Managers	280	310	30	10.7%	1.1%	**	10	10	4
11-3000	Operations Specialties Managers	5,680	6,100	420	7.4%	0.7%	40	110	160	
11-3011	Administrative Services Managers	1,090	1,160	70	6.4%	0.6%	10	30	40	4
11-3021	Computer and Information Systems Managers	680	750	70	10.3%	1.0%	10	10	20	4
11-3031	Financial Managers	2,520	2,690	170	6.7%	0.7%	20	40	50	4
11-3041	Compensation and Benefits Managers	170	190	20	11.8%	1.2%	**	**	10	4
11-3042	Training and Development Managers	60	70	10	16.7%	1.7%	**	**	**	4
11-3049	Human Resources Managers, All Other	270	280	10	3.7%	0.4%	**	10	10	4
11-3051	Industrial Production Managers	190	200	10	5.3%	0.5%	**	10	10	8
11-3061	Purchasing Managers	220	230	10	4.5%	0.5%	**	10	10	4
11-3071	Transportation, Storage, and Distribution Managers	490	530	40	8.2%	0.8%	**	20	20	8
11-9000	Other Management Occupations	25,010	26,080	1,070	4.3%	0.4%	120	430	540	
11-9012	Farmers and Ranchers	5,110	5,000	-110	-2.2%	-0.2%	0	50	50	9
11-9021	Construction Managers	2,250	2,560	310	13.8%	1.4%	30	40	70	5
11-9031	Education Administrators, Preschool and Child Care Center/Program	320	350	30	9.4%	0.9%	**	10	10	4
11-9032	Education Administrators, Elementary and Secondary School	1,210	1,300	90	7.4%	0.7%	10	30	40	4
11-9033	Education Administrators, Postsecondary	280	320	40	14.3%	1.4%	**	10	10	4
11-9039	Education Administrators, All Other	140	160	20	14.3%	1.4%	**	**	10	4
11-9041	Engineering Managers	610	650	40	6.6%	0.7%	**	10	20	4
11-9051	Food Service Managers	2,640	2,710	70	2.7%	0.3%	10	60	70	8
11-9081	Lodging Managers	850	890	40	4.7%	0.5%	**	20	20	8
11-9111	Medical and Health Services Managers	1,040	1,130	90	8.7%	0.9%	10	20	30	4
11-9121	Natural Sciences Managers	220	230	10	4.5%	0.5%	**	10	10	4
11-9131	Postmasters and Mail Superintendents	70	70	0	0.0%	0.0%	0	**	**	8
11-9141	Property, Real Estate, and Community Association Managers	4,270	4,370	100	2.3%	0.2%	10	60	70	5

Source: Employment Projections for Industries and Occupations 2006-2016, Research and Statistics Office, Hawaii State Department of Labor and Industrial Relations, November 2008.

Appendix B: Long-Term Occupational Projections, State of Hawaii, 2006-2016 (continued)

SOC Code	Occupation Title	Employment		Growth		Avg. Ann. Growth	Average Annual Openings			Training Code*
		2006	2016	Net	Percent		Growth	Replacement	Total	
11-9151	Social and Community Service Managers	640	730	90	14.1%	1.4%	10	10	20	5
11-9199	Managers, All Other	4,740	4,970	230	4.9%	0.5%	20	90	120	8
13-0000	Business and Financial Operations Occupations	27,400	29,490	2,090	7.6%	0.8%	220	450	670	
13-1000	Business Operations Specialists	17,560	18,860	1,300	7.4%	0.7%	140	280	420	
13-1021	Purchasing Agents and Buyers, Farm Products	80	70	-10	-12.5%	-1.3%	0	**	**	9
13-1022	Wholesale and Retail Buyers, Except Farm Products	1,110	1,110	0	0.0%	0.0%	0	30	30	9
13-1023	Purchasing Agents, Except Wholesale, Retail, and Farm Products	1,070	1,020	-50	-4.7%	-0.5%	0	20	20	9
13-1031	Claims Adjusters, Examiners, and Investigators	800	820	20	2.5%	0.3%	**	20	20	9
13-1032	Insurance Appraisers, Auto Damage	90	100	10	11.1%	1.1%	0	**	**	7
13-1041	Compliance Officers, exc. Agric., Const., Health & Safety, & Transportation	2,890	2,880	-10	-0.3%	0.0%	0	30	30	9
13-1051	Cost Estimators	820	970	150	18.3%	1.8%	20	20	30	5
13-1071	Employment, Recruitment, and Placement Specialists	770	790	20	2.6%	0.3%	**	20	20	5
13-1072	Compensation, Benefits, and Job Analysis Specialists	280	320	40	14.3%	1.4%	**	10	10	5
13-1073	Training and Development Specialists	550	630	80	14.5%	1.5%	10	10	20	4
13-1079	Human Resources, Training, and Labor Relations Specialists, All Other	620	710	90	14.5%	1.5%	10	10	20	5
13-1081	Logisticians	370	400	30	8.1%	0.8%	**	10	10	5
13-1111	Management Analysts	2,110	2,180	70	3.3%	0.3%	10	40	40	4
13-1121	Meeting and Convention Planners	260	290	30	11.5%	1.2%	**	10	10	5
13-1199	Business Operations Specialists, All Other	5,550	6,380	830	15.0%	1.5%	80	60	140	5
13-2000	Financial Specialists	9,830	10,630	800	8.1%	0.8%	90	170	260	
13-2011	Accountants and Auditors	5,580	6,190	610	10.9%	1.1%	60	100	160	5
13-2021	Appraisers and Assessors of Real Estate	330	360	30	9.1%	0.9%	**	10	10	5
13-2031	Budget Analysts	450	460	10	2.2%	0.2%	**	10	10	5
13-2041	Credit Analysts	170	170	0	0.0%	0.0%	0	10	10	5
13-2051	Financial Analysts	410	490	80	19.5%	2.0%	10	**	10	5
13-2052	Personal Financial Advisors	660	690	30	4.5%	0.5%	**	10	10	5
13-2053	Insurance Underwriters	270	260	-10	-3.7%	-0.4%	0	10	10	5
13-2061	Financial Examiners	60	60	0	0.0%	0.0%	0	**	**	5
13-2071	Loan Counselors	80	80	0	0.0%	0.0%	0	**	**	5
13-2072	Loan Officers	930	1,010	80	8.6%	0.9%	10	10	20	5
13-2081	Tax Examiners, Collectors, and Revenue Agents	150	150	0	0.0%	0.0%	**	**	10	5
13-2082	Tax Preparers	220	180	-40	-18.2%	-1.8%	0	**	**	10
13-2099	Financial Specialists, All Other	540	550	10	1.9%	0.2%	**	10	20	5
15-0000	Computer and Mathematical Occupations	9,000	10,280	1,280	14.2%	1.4%	140	210	350	
15-1000	Computer Specialists	8,650	9,930	1,280	14.8%	1.5%	140	200	340	
15-1011	Computer and Information Scientists, Research	50	50	0	0.0%	0.0%	0	**	**	2

Source: Employment Projections for Industries and Occupations 2006-2016, Research and Statistics Office, Hawaii State Department of Labor and Industrial Relations, November 2008.

Appendix B: Long-Term Occupational Projections, State of Hawaii, 2006-2016 (continued)

SOC Code	Occupation Title	Employment		Growth		Avg. Ann. Growth	Average Annual Openings			Training Code*
		2006	2016	Net	Percent		Growth	Replacement	Total	
15-1021	Computer Programmers	1,540	1,410	-130	-8.4%	-0.8%	0	30	30	5
15-1031	Computer Software Engineers, Applications	570	800	230	40.4%	4.0%	20	10	30	5
15-1032	Computer Software Engineers, Systems Software	380	480	100	26.3%	2.6%	10	10	20	5
15-1041	Computer Support Specialists	1,280	1,390	110	8.6%	0.9%	10	40	50	6
15-1051	Computer Systems Analysts	1,030	1,260	230	22.3%	2.2%	20	30	50	5
15-1061	Database Administrators	300	360	60	20.0%	2.0%	10	**	10	5
15-1071	Network and Computer Systems Administrators	930	1,130	200	21.5%	2.2%	20	20	40	5
15-1081	Network Systems and Data Communications Analysts	1,130	1,600	470	41.6%	4.2%	50	20	70	5
15-1099	Computer Specialists, All Other	1,430	1,450	20	1.4%	0.1%	**	40	40	6
15-2000	Mathematical Scientists	350	350	0	0.0%	0.0%	**	10	10	
15-2031	Operations Research Analysts	130	120	-10	-7.7%	-0.8%	0	**	**	3
15-2041	Statisticians	170	180	10	5.9%	0.6%	**	10	10	3
17-0000	Architecture and Engineering Occupations	9,560	9,930	370	3.9%	0.4%	50	220	270	
17-1000	Architects, Surveyors, and Cartographers	1,090	1,160	70	6.4%	0.6%	10	20	30	
17-1011	Architects, Except Landscape and Naval	740	770	30	4.1%	0.4%	**	10	20	5
17-1012	Landscape Architects	120	130	10	8.3%	0.8%	**	**	**	5
17-1021	Cartographers and Photogrammetrists	60	70	10	16.7%	1.7%	**	**	**	5
17-1022	Surveyors	170	190	20	11.8%	1.2%	**	10	10	5
17-2000	Engineers	5,600	5,880	280	5.0%	0.5%	30	130	160	
17-2051	Civil Engineers	2,180	2,340	160	7.3%	0.7%	20	60	70	5
17-2061	Computer Hardware Engineers	110	120	10	9.1%	0.9%	**	**	10	5
17-2071	Electrical Engineers	720	780	60	8.3%	0.8%	10	20	20	5
17-2072	Electronics Engineers, Except Computer	650	660	10	1.5%	0.2%	**	20	20	5
17-2081	Environmental Engineers	230	250	20	8.7%	0.9%	**	10	10	5
17-2111	Health and Safety Engineers, Except Mining Safety Engineers & Inspectors	90	90	0	0.0%	0.0%	0	**	**	5
17-2112	Industrial Engineers	80	110	30	37.5%	3.8%	**	**	**	5
17-2121	Marine Engineers and Naval Architects	170	130	-40	-23.5%	-2.4%	0	**	**	5
17-2131	Materials Engineers	20	20	0	0.0%	0.0%	0	0	0	5
17-2141	Mechanical Engineers	380	390	10	2.6%	0.3%	**	10	10	5
17-2199	Engineers, All Other	650	650	0	0.0%	0.0%	**	10	10	5
17-3000	Drafters, Engineering, and Mapping Technicians	2,870	2,890	20	0.7%	0.1%	10	70	70	
17-3011	Architectural and Civil Drafters	910	870	-40	-4.4%	-0.4%	0	30	30	7
17-3012	Electrical and Electronics Drafters	170	180	10	5.9%	0.6%	**	10	10	7
17-3019	Drafters, All Other	30	40	10	33.3%	3.3%	0	**	**	7
17-3022	Civil Engineering Technicians	310	320	10	3.2%	0.3%	**	10	10	6
17-3023	Electrical and Electronic Engineering Technicians	470	470	0	0.0%	0.0%	0	10	10	6

Source: Employment Projections for Industries and Occupations 2006-2016, Research and Statistics Office, Hawaii State Department of Labor and Industrial Relations, November 2008.

Appendix B: Long-Term Occupational Projections, State of Hawaii, 2006-2016 (continued)

SOC Code	Occupation Title	Employment		Growth		Avg. Ann. Growth	Average Annual Openings			Training Code*
		2006	2016	Net	Percent		Growth	Replacement	Total	
17-3024	Electro-Mechanical Technicians	40	50	10	25.0%	2.5%	**	**	**	6
17-3026	Industrial Engineering Technicians	20	30	10	50.0%	5.0%	0	0	0	6
17-3027	Mechanical Engineering Technicians	20	20	0	0.0%	0.0%	0	0	0	6
17-3029	Engineering Technicians, Except Drafters, All Other	540	530	-10	-1.9%	-0.2%	0	10	10	6
17-3031	Surveying and Mapping Technicians	270	290	20	7.4%	0.7%	0	10	10	10
19-0000	Life, Physical, and Social Science Occupations	8,010	8,520	510	6.4%	0.6%	50	210	270	
19-1000	Life Scientists	1,660	1,830	170	10.2%	1.0%	20	40	60	
19-1012	Food Scientists and Technologists	80	90	10	12.5%	1.3%	**	**	**	5
19-1013	Soil and Plant Scientists	200	210	10	5.0%	0.5%	**	10	10	5
19-1022	Microbiologists	80	80	0	0.0%	0.0%	0	**	**	2
19-1023	Zoologists and Wildlife Biologists	210	220	10	4.8%	0.5%	**	**	10	5
19-1029	Biological Scientists, All Other	340	340	0	0.0%	0.0%	0	10	10	2
19-1031	Conservation Scientists	120	140	20	16.7%	1.7%	**	**	10	5
19-1032	Foresters	30	30	0	0.0%	0.0%	0	**	**	5
19-1042	Medical Scientists, Except Epidemiologists	510	620	110	21.6%	2.2%	10	20	30	2
19-1099	Life Scientists, All Other	50	50	0	0.0%	0.0%	0	**	**	5
19-2000	Physical Scientists	1,640	1,760	120	7.3%	0.7%	10	40	50	
19-2011	Astronomers	150	150	0	0.0%	0.0%	**	**	10	2
19-2012	Physicists	80	80	0	0.0%	0.0%	0	**	**	2
19-2021	Atmospheric and Space Scientists	70	70	0	0.0%	0.0%	0	**	**	5
19-2031	Chemists	160	160	0	0.0%	0.0%	**	**	10	5
19-2041	Environmental Scientists and Specialists, Including Health	810	890	80	9.9%	1.0%	10	20	30	3
19-2042	Geoscientists, Except Hydrologists and Geographers	270	290	20	7.4%	0.7%	**	10	10	3
19-2043	Hydrologists	30	30	0	0.0%	0.0%	0	**	**	3
19-3000	Social Scientists and Related Workers	2,790	2,970	180	6.5%	0.6%	20	60	80	
19-3011	Economists	70	70	0	0.0%	0.0%	0	**	**	3
19-3021	Market Research Analysts	200	210	10	5.0%	0.5%	**	**	**	5
19-3022	Survey Researchers	170	170	0	0.0%	0.0%	**	**	**	5
19-3031	Clinical, Counseling, and School Psychologists	750	810	60	8.0%	0.8%	10	10	20	2
19-3039	Psychologists, All Other	110	120	10	9.1%	0.9%	0	**	**	3
19-3051	Urban and Regional Planners	440	480	40	9.1%	0.9%	**	10	20	3
19-3091	Anthropologists and Archeologists	480	540	60	12.5%	1.3%	10	20	20	3
19-3099	Social Scientists and Related Workers, All Other	520	520	0	0.0%	0.0%	**	20	20	3
19-4000	Life, Physical, and Social Science Technicians	1,920	1,970	50	2.6%	0.3%	10	60	70	
19-4011	Agricultural and Food Science Technicians	300	320	20	6.7%	0.7%	**	10	10	6
19-4021	Biological Technicians	720	720	0	0.0%	0.0%	0	30	30	5

Source: Employment Projections for Industries and Occupations 2006-2016, Research and Statistics Office, Hawaii State Department of Labor and Industrial Relations, November 2008.

Appendix B: Long-Term Occupational Projections, State of Hawaii, 2006-2016 (continued)

SOC Code	Occupation Title	Employment		Growth		Avg. Ann. Growth	Average Annual Openings			Training Code*
		2006	2016	Net	Percent		Growth	Replacement	Total	
19-4061	Social Science Research Assistants	60	60	0	0.0%	0.0%	0	**	**	6
19-4091	Environmental Science and Protection Technicians, Including Health	150	160	10	6.7%	0.7%	**	10	10	6
19-4092	Forensic Science Technicians	70	80	10	14.3%	1.4%	**	**	10	5
19-4093	Forest and Conservation Technicians	90	90	0	0.0%	0.0%	0	**	**	6
19-4099	Life, Physical, and Social Science Technicians, All Other	450	460	10	2.2%	0.2%	**	20	20	6
21-0000	Community and Social Services Occupations	10,100	11,630	1,530	15.1%	1.5%	150	170	320	
21-1000	Counselors, Social Workers & Other Community & Social Svc. Spec.	9,060	10,450	1,390	15.3%	1.5%	140	150	290	
21-1011	Substance Abuse and Behavioral Disorder Counselors	510	610	100	19.6%	2.0%	10	10	20	5
21-1012	Educational, Vocational, and School Counselors	1,290	1,420	130	10.1%	1.0%	10	30	40	3
21-1014	Mental Health Counselors	450	570	120	26.7%	2.7%	10	10	20	3
21-1015	Rehabilitation Counselors	370	400	30	8.1%	0.8%	**	10	10	3
21-1021	Child, Family, and School Social Workers	1,660	1,820	160	9.6%	1.0%	20	40	50	5
21-1022	Medical and Public Health Social Workers	430	520	90	20.9%	2.1%	10	10	20	5
21-1023	Mental Health and Substance Abuse Social Workers	380	440	60	15.8%	1.6%	10	10	20	3
21-1029	Social Workers, All Other	190	200	10	5.3%	0.5%	**	**	10	5
21-1091	Health Educators	430	500	70	16.3%	1.6%	10	10	10	5
21-1092	Probation Officers and Correctional Treatment Specialists	120	130	10	8.3%	0.8%	**	**	**	5
21-1093	Social and Human Service Assistants	1,980	2,470	490	24.7%	2.5%	50	20	70	10
21-1099	Community and Social Service Specialists, All Other	1,120	1,220	100	8.9%	0.9%	10	10	20	5
21-2000	Religious Workers	1,030	1,170	140	13.6%	1.4%	10	20	30	
21-2011	Clergy	840	950	110	13.1%	1.3%	10	10	20	3
21-2021	Directors, Religious Activities and Education	90	110	20	22.2%	2.2%	**	**	**	5
21-2099	Religious Workers, All Other	100	110	10	10.0%	1.0%	**	**	**	5
23-0000	Legal Occupations	5,070	5,300	230	4.5%	0.5%	30	90	110	
23-1000	Lawyers, Judges, and Related Workers	3,200	3,320	120	3.8%	0.4%	10	60	70	
23-1011	Lawyers	2,960	3,070	110	3.7%	0.4%	10	60	70	1
23-1021	Administrative Law Judges, Adjudicators, and Hearing Officers	70	70	0	0.0%	0.0%	0	**	**	4
23-2000	Legal Support Workers	1,870	1,980	110	5.9%	0.6%	10	30	40	
23-2011	Paralegals and Legal Assistants	1,100	1,230	130	11.8%	1.2%	10	20	30	6
23-2093	Title Examiners, Abstractors, and Searchers	360	340	-20	-5.6%	-0.6%	0	10	10	10
23-2099	Legal Support Workers, All Other	270	280	10	3.7%	0.4%	**	**	10	10
25-0000	Education, Training, and Library Occupations	43,310	48,990	5,680	13.1%	1.3%	570	860	1,430	
25-1000	Postsecondary Teachers	8,750	10,760	2,010	23.0%	2.3%	200	150	350	
25-1022	Mathematical Science Teachers, Postsecondary	210	260	50	23.8%	2.4%	10	**	10	3
25-1042	Biological Science Teachers, Postsecondary	680	840	160	23.5%	2.4%	20	10	30	2
25-1051	Atmospheric, Earth, Marine, & Space Sciences Teachers, Postsecondary	200	250	50	25.0%	2.5%	10	**	10	2

Source: Employment Projections for Industries and Occupations 2006-2016, Research and Statistics Office, Hawaii State Department of Labor and Industrial Relations, November 2008.

Appendix B: Long-Term Occupational Projections, State of Hawaii, 2006-2016 (continued)

SOC Code	Occupation Title	Employment		Growth		Avg. Ann. Growth	Average Annual Openings			Training Code*
		2006	2016	Net	Percent		Growth	Replacement	Total	
25-1061	Anthropology and Archeology Teachers, Postsecondary	70	80	10	14.3%	1.4%	**	**	**	2
25-1062	Area, Ethnic, and Cultural Studies Teachers, Postsecondary	180	230	50	27.8%	2.8%	**	**	10	2
25-1064	Geography Teachers, Postsecondary	50	70	20	40.0%	4.0%	**	**	**	2
25-1067	Sociology Teachers, Postsecondary	160	200	40	25.0%	2.5%	**	**	10	2
25-1081	Education Teachers, Postsecondary	710	880	170	23.9%	2.4%	20	10	30	2
25-1121	Art, Drama, and Music Teachers, Postsecondary	350	440	90	25.7%	2.6%	10	10	20	3
25-1124	Foreign Language and Literature Teachers, Postsecondary	340	420	80	23.5%	2.4%	10	10	10	3
25-1194	Vocational Education Teachers, Postsecondary	1,020	1,220	200	19.6%	2.0%	20	20	40	4
25-2000	Primary, Secondary, and Special Education School Teachers	21,720	24,000	2,280	10.5%	1.0%	230	520	750	
25-2011	Preschool Teachers, Except Special Education	2,770	3,130	360	13.0%	1.3%	40	50	80	7
25-2012	Kindergarten Teachers, Except Special Education	430	500	70	16.3%	1.6%	10	10	10	5
25-2021	Elementary School Teachers, Except Special Education	6,770	7,690	920	13.6%	1.4%	90	150	240	5
25-2022	Middle School Teachers, Except Special and Vocational Education	2,740	3,050	310	11.3%	1.1%	30	60	90	5
25-2023	Vocational Education Teachers, Middle School	120	110	-10	-8.3%	-0.8%	0	**	**	4
25-2031	Secondary School Teachers, Except Special and Vocational Education	7,210	7,610	400	5.5%	0.6%	40	220	260	5
25-2032	Vocational Education Teachers, Secondary School	100	100	0	0.0%	0.0%	0	**	**	4
25-2041	Special Education Teachers, Preschool, Kindergarten, & Elem. School	700	830	130	18.6%	1.9%	10	20	30	5
25-2042	Special Education Teachers, Middle School	330	380	50	15.2%	1.5%	10	10	10	5
25-2043	Special Education Teachers, Secondary School	560	600	40	7.1%	0.7%	10	10	20	5
25-3000	Other Teachers and Instructors	5,210	5,930	720	13.8%	1.4%	70	60	130	
25-3011	Adult Literacy, Remedial Education, and GED Teachers and Instructors	170	190	20	11.8%	1.2%	**	**	**	5
25-3021	Self-Enrichment Education Teachers	2,530	3,060	530	20.9%	2.1%	50	30	80	8
25-3099	Teachers and Instructors, All Other	2,510	2,690	180	7.2%	0.7%	20	30	50	5
25-4000	Librarians, Curators, and Archivists	1,320	1,380	60	4.5%	0.5%	10	50	50	
25-4011	Archivists	30	40	10	33.3%	3.3%	0	**	**	3
25-4012	Curators	30	40	10	33.3%	3.3%	0	**	**	3
25-4013	Museum Technicians and Conservators	40	50	10	25.0%	2.5%	**	**	**	5
25-4021	Librarians	770	810	40	5.2%	0.5%	**	20	20	3
25-4031	Library Technicians	430	450	20	4.7%	0.5%	**	20	20	7
25-9000	Other Education, Training, and Library Occupations	6,310	6,920	610	9.7%	1.0%	60	100	160	
25-9031	Instructional Coordinators	670	810	140	20.9%	2.1%	10	10	20	3
25-9041	Teacher Assistants	4,510	4,890	380	8.4%	0.8%	40	70	110	11
25-9099	Education, Training, and Library Workers, All Other	1,030	1,130	100	9.7%	1.0%	10	10	20	5
27-0000	Arts, Design, Entertainment, Sports, and Media Occupations	13,070	14,270	1,200	9.2%	0.9%	130	340	460	
27-1000	Art and Design Workers	2,570	2,880	310	12.1%	1.2%	30	70	100	
27-1011	Art Directors	140	150	10	7.1%	0.7%	0	**	**	4

Source: Employment Projections for Industries and Occupations 2006-2016, Research and Statistics Office, Hawaii State Department of Labor and Industrial Relations, November 2008.

Appendix B: Long-Term Occupational Projections, State of Hawaii, 2006-2016 (continued)

SOC Code	Occupation Title	Employment		Growth		Avg. Ann. Growth	Average Annual Openings			Training Code*
		2006	2016	Net	Percent		Growth	Replacement	Total	
27-1012	Craft Artists	50	50	0	0.0%	0.0%	0	**	**	9
27-1021	Commercial and Industrial Designers	20	20	0	0.0%	0.0%	0	**	**	5
27-1022	Fashion Designers	80	80	0	0.0%	0.0%	**	**	**	6
27-1023	Floral Designers	200	190	-10	-5.0%	-0.5%	0	10	10	10
27-1024	Graphic Designers	700	730	30	4.3%	0.4%	**	20	20	5
27-1025	Interior Designers	140	160	20	14.3%	1.4%	**	**	10	6
27-1026	Merchandise Displayers and Window Trimmers	550	650	100	18.2%	1.8%	10	20	30	10
27-1027	Set and Exhibit Designers	80	90	10	12.5%	1.3%	**	**	**	5
27-2000	Entertainers and Performers, Sports and Related Workers	5,260	5,670	410	7.8%	0.8%	40	160	210	
27-2012	Producers and Directors	260	280	20	7.7%	0.8%	**	10	10	4
27-2021	Athletes and Sports Competitors	30	30	0	0.0%	0.0%	0	**	**	9
27-2031	Dancers	970	1,030	60	6.2%	0.6%	10	50	60	9
27-2032	Choreographers	100	80	-20	-20.0%	-2.0%	0	10	10	8
27-2041	Music Directors and Composers	190	210	20	10.5%	1.1%	**	**	10	4
27-2042	Musicians and Singers	1,690	1,750	60	3.6%	0.4%	10	30	40	9
27-3000	Media and Communication Workers	3,240	3,560	320	9.9%	1.0%	40	60	90	
27-3011	Radio and Television Announcers	390	370	-20	-5.1%	-0.5%	0	10	10	9
27-3012	Public Address System and Other Announcers	70	60	-10	-14.3%	-1.4%	0	**	**	9
27-3021	Broadcast News Analysts	30	30	0	0.0%	0.0%	0	**	**	4
27-3022	Reporters and Correspondents	90	110	20	22.2%	2.2%	**	**	10	5
27-3031	Public Relations Specialists	1,520	1,680	160	10.5%	1.1%	20	10	30	5
27-3041	Editors	370	400	30	8.1%	0.8%	**	10	10	5
27-3042	Technical Writers	40	50	10	25.0%	2.5%	**	**	**	5
27-3043	Writers and Authors	380	430	50	13.2%	1.3%	10	10	10	5
27-3091	Interpreters and Translators	190	250	60	31.6%	3.2%	10	10	10	9
27-3099	Media and Communication Workers, All Other	170	190	20	11.8%	1.2%	**	**	10	9
27-4000	Media and Communication Equipment Workers	2,000	2,160	160	8.0%	0.8%	20	50	70	
27-4011	Audio and Video Equipment Technicians	220	260	40	18.2%	1.8%	10	10	10	9
27-4012	Broadcast Technicians	230	270	40	17.4%	1.7%	**	10	10	6
27-4021	Photographers	920	930	10	1.1%	0.1%	**	20	20	9
27-4031	Camera Operators, Television, Video, and Motion Picture	180	210	30	16.7%	1.7%	**	**	10	7
27-4032	Film and Video Editors	120	140	20	16.7%	1.7%	**	**	**	5
27-4099	Media and Communication Equipment Workers, All Other	270	280	10	3.7%	0.4%	**	10	10	10
29-0000	Healthcare Practitioners and Technical Occupations	26,780	29,870	3,090	11.5%	1.2%	320	490	810	
29-1000	Health Diagnosing and Treating Practitioners	17,950	20,090	2,140	11.9%	1.2%	220	300	530	
29-1011	Chiropractors	140	140	0	0.0%	0.0%	0	**	**	1

Source: Employment Projections for Industries and Occupations 2006-2016, Research and Statistics Office, Hawaii State Department of Labor and Industrial Relations, November 2008.

Appendix B: Long-Term Occupational Projections, State of Hawaii, 2006-2016 (continued)

SOC Code	Occupation Title	Employment		Growth		Avg. Ann. Growth	Average Annual Openings			Training Code*
		2006	2016	Net	Percent		Growth	Replacement	Total	
29-1021	Dentists, General	820	770	-50	-6.1%	-0.6%	0	20	20	1
29-1029	Dentists, All Other Specialists	20	20	0	0.0%	0.0%	0	0	0	1
29-1031	Dietitians and Nutritionists	280	290	10	3.6%	0.4%	**	10	10	5
29-1041	Optometrists	210	200	-10	-4.8%	-0.5%	0	**	**	1
29-1051	Pharmacists	1,330	1,610	280	21.1%	2.1%	30	20	50	1
29-1061	Anesthesiologists	210	220	10	4.8%	0.5%	**	**	10	1
29-1062	Family and General Practitioners	840	820	-20	-2.4%	-0.2%	0	20	20	1
29-1063	Internists, General	270	260	-10	-3.7%	-0.4%	0	10	10	1
29-1065	Pediatricians, General	150	140	-10	-6.7%	-0.7%	0	**	**	1
29-1066	Psychiatrists	150	150	0	0.0%	0.0%	0	**	**	1
29-1067	Surgeons	190	180	-10	-5.3%	-0.5%	0	**	**	1
29-1069	Physicians and Surgeons, All Other	960	1,000	40	4.2%	0.4%	**	20	20	1
29-1071	Physician Assistants	200	230	30	15.0%	1.5%	**	**	10	3
29-1111	Registered Nurses	9,660	11,230	1,570	16.3%	1.6%	160	160	320	6
29-1122	Occupational Therapists	280	320	40	14.3%	1.4%	**	**	10	3
29-1123	Physical Therapists	920	1,060	140	15.2%	1.5%	10	10	30	3
29-1125	Recreational Therapists	50	50	0	0.0%	0.0%	0	**	**	5
29-1126	Respiratory Therapists	300	350	50	16.7%	1.7%	10	**	10	6
29-1127	Speech-Language Pathologists	180	190	10	5.6%	0.6%	**	**	10	3
29-1129	Therapists, All Other	50	50	0	0.0%	0.0%	0	**	**	5
29-1131	Veterinarians	200	240	40	20.0%	2.0%	**	**	10	1
29-2000	Health Technologists and Technicians	8,200	9,120	920	11.2%	1.1%	90	180	270	
29-2011	Medical and Clinical Laboratory Technologists	780	870	90	11.5%	1.2%	10	10	20	5
29-2012	Medical and Clinical Laboratory Technicians	660	670	10	1.5%	0.2%	**	10	10	6
29-2021	Dental Hygienists	740	820	80	10.8%	1.1%	10	10	20	6
29-2031	Cardiovascular Technologists and Technicians	160	190	30	18.8%	1.9%	**	**	10	6
29-2032	Diagnostic Medical Sonographers	110	120	10	9.1%	0.9%	**	**	**	6
29-2034	Radiologic Technologists and Technicians	560	600	40	7.1%	0.7%	**	10	10	6
29-2041	Emergency Medical Technicians and Paramedics	510	550	40	7.8%	0.8%	10	10	10	7
29-2051	Dietetic Technicians	70	80	10	14.3%	1.4%	**	**	**	7
29-2052	Pharmacy Technicians	1,080	1,400	320	29.6%	3.0%	30	30	70	10
29-2054	Respiratory Therapy Technicians	60	50	-10	-16.7%	-1.7%	0	**	**	6
29-2055	Surgical Technologists	300	350	50	16.7%	1.7%	10	10	10	7
29-2056	Veterinary Technologists and Technicians	320	410	90	28.1%	2.8%	10	10	20	6
29-2061	Licensed Practical and Licensed Vocational Nurses	1,810	1,900	90	5.0%	0.5%	10	50	60	7
29-2071	Medical Records and Health Information Technicians	570	620	50	8.8%	0.9%	10	20	20	6

Source: Employment Projections for Industries and Occupations 2006-2016, Research and Statistics Office, Hawaii State Department of Labor and Industrial Relations, November 2008.

Appendix B: Long-Term Occupational Projections, State of Hawaii, 2006-2016 (continued)

SOC Code	Occupation Title	Employment		Growth		Avg. Ann. Growth	Average Annual Openings			Training Code*
		2006	2016	Net	Percent		Growth	Replacement	Total	
29-2081	Opticians, Dispensing	100	100	0	0.0%	0.0%	0	**	**	9
29-2099	Health Technologists and Technicians, All Other	340	340	0	0.0%	0.0%	**	**	**	7
29-9000	Other Healthcare Practitioners and Technical Occupations	630	660	30	4.8%	0.5%	**	10	20	
29-9011	Occupational Health and Safety Specialists	330	340	10	3.0%	0.3%	**	10	10	5
29-9099	Healthcare Practitioners and Technical Workers, All Other	210	210	0	0.0%	0.0%	**	**	10	5
31-0000	Healthcare Support Occupations	16,280	18,830	2,550	15.7%	1.6%	260	180	440	
31-1000	Nursing, Psychiatric, and Home Health Aides	7,520	9,080	1,560	20.7%	2.1%	160	70	220	
31-1011	Home Health Aides	1,640	2,250	610	37.2%	3.7%	60	20	80	11
31-1012	Nursing Aides, Orderlies, and Attendants	5,170	6,040	870	16.8%	1.7%	90	50	130	7
31-1013	Psychiatric Aides	710	790	80	11.3%	1.1%	10	10	20	11
31-2000	Occupational and Physical Therapist Assistants and Aides	550	640	90	16.4%	1.6%	10	10	20	
31-2021	Physical Therapist Assistants	130	150	20	15.4%	1.5%	**	**	10	6
31-2022	Physical Therapist Aides	120	140	20	16.7%	1.7%	**	**	**	11
31-9000	Other Healthcare Support Occupations	8,220	9,120	900	10.9%	1.1%	90	110	200	
31-9011	Massage Therapists	2,070	2,300	230	11.1%	1.1%	20	20	50	7
31-9091	Dental Assistants	1,470	1,630	160	10.9%	1.1%	20	30	40	10
31-9092	Medical Assistants	2,410	2,860	450	18.7%	1.9%	50	30	80	10
31-9093	Medical Equipment Preparers	120	130	10	8.3%	0.8%	**	**	**	11
31-9094	Medical Transcriptionists	220	230	10	4.5%	0.5%	**	**	**	7
31-9095	Pharmacy Aides	270	250	-20	-7.4%	-0.7%	0	**	**	11
31-9096	Veterinary Assistants and Laboratory Animal Caretakers	240	240	0	0.0%	0.0%	**	**	**	11
31-9099	Healthcare Support Workers, All Other	1,410	1,480	70	5.0%	0.5%	10	20	30	11
33-0000	Protective Service Occupations	21,050	23,130	2,080	9.9%	1.0%	210	550	760	
33-1000	First-Line Supervisors/Managers, Protective Service Workers	1,870	2,020	150	8.0%	0.8%	10	50	70	
33-1011	First-Line Supervisors/Managers of Correctional Officers	50	60	10	20.0%	2.0%	**	**	**	8
33-1012	First-Line Supervisors/Managers of Police and Detectives	1,070	1,150	80	7.5%	0.7%	10	30	40	8
33-1021	First-Line Supervisors/Managers of Fire Fighting and Prevention Workers	460	490	30	6.5%	0.7%	**	10	20	8
33-1099	First-Line Supervisors/Managers, Protective Service Workers, All Other	290	320	30	10.3%	1.0%	**	10	10	8
33-2000	Fire Fighting and Prevention Workers	2,010	2,140	130	6.5%	0.6%	10	70	90	
33-2011	Fire Fighters	1,970	2,100	130	6.6%	0.7%	10	70	90	9
33-3000	Law Enforcement Workers	5,140	5,810	670	13.0%	1.3%	70	130	200	
33-3012	Correctional Officers and Jailers	1,580	1,930	350	22.2%	2.2%	40	40	70	10
33-3021	Detectives and Criminal Investigators	550	660	110	20.0%	2.0%	10	10	20	8
33-3031	Fish and Game Wardens	100	100	0	0.0%	0.0%	0	**	**	6
33-3051	Police and Sheriff's Patrol Officers	2,810	3,010	200	7.1%	0.7%	20	80	100	9

Source: Employment Projections for Industries and Occupations 2006-2016, Research and Statistics Office, Hawaii State Department of Labor and Industrial Relations, November 2008.

Appendix B: Long-Term Occupational Projections, State of Hawaii, 2006-2016 (continued)

SOC Code	Occupation Title	Employment		Growth		Avg. Ann. Growth	Average Annual Openings			Training Code*
		2006	2016	Net	Percent		Growth	Replacement	Total	
33-9000	Other Protective Service Workers	12,020	13,160	1,140	9.5%	0.9%	110	300	410	
33-9011	Animal Control Workers	70	70	0	0.0%	0.0%	**	**	**	10
33-9032	Security Guards	9,610	10,460	850	8.8%	0.9%	90	200	280	11
33-9091	Crossing Guards	80	80	0	0.0%	0.0%	0	**	**	11
33-9092	Lifeguards, Ski Patrol, and Other Recreational Protective Service Workers	540	580	40	7.4%	0.7%	10	40	50	11
35-0000	Food Preparation and Serving Related Occupations	71,770	78,640	6,870	9.6%	1.0%	690	2,700	3,380	
35-1000	Supervisors, Food Preparation and Serving Workers	6,460	7,000	540	8.4%	0.8%	50	60	110	
35-1011	Chefs and Head Cooks	1,160	1,210	50	4.3%	0.4%	10	20	20	8
35-1012	First-Line Supervisors/Managers of Food Preparation and Serving Workers	5,300	5,790	490	9.2%	0.9%	50	40	90	8
35-2000	Cooks and Food Preparation Workers	19,930	21,860	1,930	9.7%	1.0%	190	590	790	
35-2011	Cooks, Fast Food	3,690	3,990	300	8.1%	0.8%	30	100	130	11
35-2014	Cooks, Restaurant	6,430	7,040	610	9.5%	0.9%	60	170	230	9
35-2015	Cooks, Short Order	1,420	1,480	60	4.2%	0.4%	10	40	50	11
35-2021	Food Preparation Workers	7,100	8,070	970	13.7%	1.4%	100	250	340	11
35-3000	Food and Beverage Serving Workers	34,540	38,320	3,780	10.9%	1.1%	380	1,540	1,920	
35-3011	Bartenders	3,180	3,450	270	8.5%	0.8%	30	120	140	11
35-3021	Combined Food Preparation and Serving Workers, Including Fast Food	9,130	10,820	1,690	18.5%	1.9%	170	170	340	11
35-3022	Counter Attendants, Cafeteria, Food Concession, and Coffee Shop	5,180	5,700	520	10.0%	1.0%	50	360	410	11
35-3031	Waiters and Waitresses	16,170	17,440	1,270	7.9%	0.8%	130	880	1,010	11
35-3041	Food Servers, Non restaurant	880	910	30	3.4%	0.3%	**	10	20	11
35-9000	Other Food Preparation and Serving Related Workers	10,840	11,460	620	5.7%	0.6%	60	510	570	
35-9011	Dining Room and Cafeteria Attendants and Bartender Helpers	3,870	4,120	250	6.5%	0.6%	30	160	190	11
35-9021	Dishwashers	4,630	4,820	190	4.1%	0.4%	20	190	210	11
35-9031	Hosts and Hostesses, Restaurant, Lounge, and Coffee Shop	2,200	2,370	170	7.7%	0.8%	20	150	170	11
35-9099	Food Preparation and Serving Related Workers, All Other	140	160	20	14.3%	1.4%	**	10	10	11
37-0000	Building and Grounds Cleaning and Maintenance Occupations	39,100	42,240	3,140	8.0%	0.8%	310	660	970	
37-1000	Supervisors, Building & Grounds Cleaning & Maintenance Workers	3,240	3,480	240	7.4%	0.7%	30	40	60	
37-1011	First-Line Supervisors/Managers of Housekeeping and Janitorial Workers	1,810	1,930	120	6.6%	0.7%	10	30	40	8
37-1012	First-Line Suprv./Mgrs. of Landscaping, Lawn Svc., & Grndskpng. Wrkrs.	1,430	1,550	120	8.4%	0.8%	10	10	20	8
37-2000	Building Cleaning and Pest Control Workers	25,040	27,110	2,070	8.3%	0.8%	210	480	690	
37-2011	Janitors and Cleaners, Except Maids and Housekeeping Cleaners	12,470	13,560	1,090	8.7%	0.9%	110	240	350	11
37-2012	Maids and Housekeeping Cleaners	11,870	12,800	930	7.8%	0.8%	90	220	320	11
37-3000	Grounds Maintenance Workers	10,820	11,650	830	7.7%	0.8%	80	140	230	
37-3011	Landscaping and Groundskeeping Workers	10,500	11,310	810	7.7%	0.8%	80	140	220	11
37-3012	Pesticide Handlers, Sprayers, and Applicators, Vegetation	50	50	0	0.0%	0.0%	0	**	**	10

Source: Employment Projections for Industries and Occupations 2006-2016, Research and Statistics Office, Hawaii State Department of Labor and Industrial Relations, November 2008.

Appendix B: Long-Term Occupational Projections, State of Hawaii, 2006-2016 (continued)

SOC Code	Occupation Title	Employment		Growth		Avg. Ann. Growth	Average Annual Openings			Training Code*
		2006	2016	Net	Percent		Growth	Replacement	Total	
37-3013	Tree Trimmers and Pruners	200	210	10	5.0%	0.5%	**	**	**	11
37-3019	Grounds Maintenance Workers, All Other	70	70	0	0.0%	0.0%	0	**	**	11
39-0000	Personal Care and Service Occupations	26,330	29,620	3,290	12.5%	1.2%	350	620	970	
39-1000	Supervisors, Personal Care and Service Workers	1,880	2,000	120	6.4%	0.6%	10	40	50	
39-2000	Animal Care and Service Workers	530	600	70	13.2%	1.3%	10	10	20	
39-2011	Animal Trainers	290	350	60	20.7%	2.1%	10	10	10	10
39-2021	Nonfarm Animal Caretakers	240	260	20	8.3%	0.8%	**	**	10	11
39-3000	Entertainment Attendants and Related Workers	1,970	2,160	190	9.6%	1.0%	20	100	120	
39-3031	Ushers, Lobby Attendants, and Ticket Takers	330	360	30	9.1%	0.9%	**	20	30	11
39-3091	Amusement and Recreation Attendants	1,310	1,430	120	9.2%	0.9%	10	70	80	11
39-3093	Locker Room, Coatroom, and Dressing Room Attendants	210	230	20	9.5%	1.0%	**	10	10	11
39-4000	Funeral Service Workers	70	80	10	14.3%	1.4%	**	**	**	
39-4011	Embalmers	20	20	0	0.0%	0.0%	0	0	0	7
39-4021	Funeral Attendants	60	60	0	0.0%	0.0%	**	**	**	11
39-5000	Personal Appearance Workers	3,470	3,980	510	14.7%	1.5%	50	40	90	
39-5012	Hairdressers, Hairstylists, and Cosmetologists	2,070	2,340	270	13.0%	1.3%	30	30	50	7
39-5092	Manicurists and Pedicurists	310	390	80	25.8%	2.6%	10	**	10	7
39-5094	Skin Care Specialists	520	660	140	26.9%	2.7%	10	10	20	7
39-6000	Transportation, Tourism, and Lodging Attendants	7,270	7,550	280	3.9%	0.4%	30	170	200	
39-6011	Baggage Porters and Bellhops	1,830	1,830	0	0.0%	0.0%	0	20	20	11
39-6012	Concierges	650	650	0	0.0%	0.0%	0	10	10	10
39-6021	Tour Guides and Escorts	2,410	2,500	90	3.7%	0.4%	10	100	110	10
39-6031	Flight Attendants	1,780	1,920	140	7.9%	0.8%	10	30	50	9
39-9000	Other Personal Care and Service Workers	11,150	13,250	2,100	18.8%	1.9%	230	250	480	
39-9011	Child Care Workers	3,950	4,490	540	13.7%	1.4%	50	110	170	11
39-9021	Personal and Home Care Aides	3,720	5,260	1,540	41.4%	4.1%	160	60	220	11
39-9031	Fitness Trainers and Aerobics Instructors	610	700	90	14.8%	1.5%	10	10	20	7
39-9032	Recreation Workers	1,700	1,810	110	6.5%	0.6%	10	30	40	11
39-9041	Residential Advisors	260	300	40	15.4%	1.5%	**	10	10	11
39-9099	Personal Care and Service Workers, All Other	910	700	-210	-23.1%	-2.3%	0	20	20	11
41-0000	Sales and Related Occupations	72,870	78,440	5,570	7.6%	0.8%	580	2,170	2,750	
41-1000	Supervisors, Sales Workers	11,930	12,350	420	3.5%	0.4%	40	240	280	
41-1011	First-Line Supervisors/Managers of Retail Sales Workers	9,690	10,080	390	4.0%	0.4%	40	200	240	8
41-1012	First-Line Supervisors/Managers of Non-Retail Sales Workers	2,230	2,270	40	1.8%	0.2%	**	30	40	8
41-2000	Retail Sales Workers	44,050	47,780	3,730	8.5%	0.8%	380	1,580	1,960	
41-2011	Cashiers	13,270	13,260	-10	-0.1%	0.0%	0	630	630	11

Source: Employment Projections for Industries and Occupations 2006-2016, Research and Statistics Office, Hawaii State Department of Labor and Industrial Relations, November 2008.

Appendix B: Long-Term Occupational Projections, State of Hawaii, 2006-2016 (continued)

SOC Code	Occupation Title	Employment		Growth		Avg. Ann. Growth	Average Annual Openings			Training Code*
		2006	2016	Net	Percent		Growth	Replacement	Total	
41-2021	Counter and Rental Clerks	2,420	2,840	420	17.4%	1.7%	40	90	140	11
41-2022	Parts Salespersons	670	630	-40	-6.0%	-0.6%	0	10	10	10
41-2031	Retail Salespersons	27,700	31,050	3,350	12.1%	1.2%	340	850	1,190	11
41-3000	Sales Representatives, Services	6,030	6,660	630	10.4%	1.0%	70	130	200	
41-3021	Insurance Sales Agents	910	960	50	5.5%	0.5%	**	20	20	5
41-3031	Securities, Commodities, and Financial Services Sales Agents	1,080	1,130	50	4.6%	0.5%	10	30	30	5
41-3041	Travel Agents	760	690	-70	-9.2%	-0.9%	0	10	10	7
41-4000	Sales Representatives, Wholesale and Manufacturing	5,750	6,370	620	10.8%	1.1%	60	130	190	
41-4011	Sales Representatives, Wholesale & Mfg., Tech. & Sci. Prod.	490	550	60	12.2%	1.2%	10	10	20	8
41-4012	Sales Representatives, Wholesale & Mfg., exc. Tech. & Sci. Prod.	5,270	5,820	550	10.4%	1.0%	60	120	170	8
41-9000	Other Sales and Related Workers	5,110	5,290	180	3.5%	0.4%	30	100	130	
41-9011	Demonstrators and Product Promoters	780	870	90	11.5%	1.2%	10	20	30	10
41-9021	Real Estate Brokers	610	590	-20	-3.3%	-0.3%	0	10	10	8
41-9022	Real Estate Sales Agents	1,420	1,390	-30	-2.1%	-0.2%	0	20	20	7
41-9041	Telemarketers	580	500	-80	-13.8%	-1.4%	0	20	20	11
41-9099	Sales and Related Workers, All Other	880	950	70	8.0%	0.8%	10	10	20	10
43-0000	Office and Administrative Support Occupations	107,500	109,270	1,770	1.6%	0.2%	520	2,270	2,790	
43-1000	Supervisors, Office and Administrative Support Workers	7,750	7,870	120	1.5%	0.2%	10	160	170	
43-1011	First-Line Supervisors/Mgrs. of Office & Administrative Support Workers	7,750	7,870	120	1.5%	0.2%	10	160	170	8
43-2000	Communications Equipment Operators	940	810	-130	-13.8%	-1.4%	0	20	20	
43-2011	Switchboard Operators, Including Answering Service	920	790	-130	-14.1%	-1.4%	0	20	20	11
43-3000	Financial Clerks	16,150	17,260	1,110	6.9%	0.7%	120	320	430	
43-3011	Bill and Account Collectors	1,100	1,220	120	10.9%	1.1%	10	20	30	11
43-3021	Billing and Posting Clerks and Machine Operators	2,020	2,000	-20	-1.0%	-0.1%	0	30	30	10
43-3031	Bookkeeping, Accounting, and Auditing Clerks	9,640	10,470	830	8.6%	0.9%	80	150	230	10
43-3051	Payroll and Timekeeping Clerks	780	770	-10	-1.3%	-0.1%	0	20	20	10
43-3061	Procurement Clerks	440	420	-20	-4.5%	-0.5%	0	10	10	10
43-3071	Tellers	2,170	2,380	210	9.7%	1.0%	20	100	120	11
43-4000	Information and Record Clerks	27,230	28,020	790	2.9%	0.3%	200	670	870	
43-4011	Brokerage Clerks	60	60	0	0.0%	0.0%	0	**	**	10
43-4031	Court, Municipal, and License Clerks	820	840	20	2.4%	0.2%	**	20	20	11
43-4051	Customer Service Representatives	6,750	8,050	1,300	19.3%	1.9%	130	190	320	10
43-4061	Eligibility Interviewers, Government Programs	850	880	30	3.5%	0.4%	**	20	20	10
43-4071	File Clerks	920	510	-410	-44.6%	-4.5%	0	20	20	11
43-4081	Hotel, Motel, and Resort Desk Clerks	2,120	2,310	190	9.0%	0.9%	20	90	110	11
43-4111	Interviewers, Except Eligibility and Loan	570	560	-10	-1.8%	-0.2%	0	20	20	11

Source: Employment Projections for Industries and Occupations 2006-2016, Research and Statistics Office, Hawaii State Department of Labor and Industrial Relations, November 2008.

Appendix B: Long-Term Occupational Projections, State of Hawaii, 2006-2016 (continued)

SOC Code	Occupation Title	Employment		Growth		Avg. Ann. Growth	Average Annual Openings			Training Code*
		2006	2016	Net	Percent		Growth	Replacement	Total	
43-4121	Library Assistants, Clerical	320	340	20	6.3%	0.6%	**	10	10	11
43-4131	Loan Interviewers and Clerks	720	690	-30	-4.2%	-0.4%	0	10	10	11
43-4141	New Accounts Clerks	350	280	-70	-20.0%	-2.0%	0	10	10	8
43-4151	Order Clerks	760	560	-200	-26.3%	-2.6%	0	20	20	11
43-4161	Human Resources Assistants, Except Payroll and Timekeeping	1,150	1,220	70	6.1%	0.6%	10	10	20	11
43-4171	Receptionists and Information Clerks	4,450	4,790	340	7.6%	0.8%	40	110	140	11
43-4199	Information and Record Clerks, All Other	1,280	1,050	-230	-18.0%	-1.8%	0	20	20	11
43-5000	Material Recording, Scheduling, Dispatching, & Distributing Workers	15,950	15,710	-240	-1.5%	-0.2%	30	390	420	
43-5011	Cargo and Freight Agents	890	960	70	7.9%	0.8%	10	20	30	10
43-5021	Couriers and Messengers	510	520	10	2.0%	0.2%	**	10	20	11
43-5031	Police, Fire, and Ambulance Dispatchers	260	280	20	7.7%	0.8%	**	10	10	10
43-5032	Dispatchers, Except Police, Fire, and Ambulance	1,060	1,040	-20	-1.9%	-0.2%	0	30	30	10
43-5041	Meter Readers, Utilities	90	80	-10	-11.1%	-1.1%	0	**	**	11
43-5051	Postal Service Clerks	480	490	10	2.1%	0.2%	0	10	10	11
43-5052	Postal Service Mail Carriers	1,110	1,110	0	0.0%	0.0%	**	30	30	11
43-5053	Postal Service Mail Sorters, Processors, & Processing Machine Operators	650	600	-50	-7.7%	-0.8%	0	10	10	11
43-5061	Production, Planning, and Expediting Clerks	790	860	70	8.9%	0.9%	10	20	30	10
43-5071	Shipping, Receiving, and Traffic Clerks	2,820	2,970	150	5.3%	0.5%	10	70	80	11
43-5081	Stock Clerks and Order Fillers	7,050	6,590	-460	-6.5%	-0.7%	0	170	170	11
43-5111	Weighers, Measurers, Checkers, and Samplers, Recordkeeping	250	230	-20	-8.0%	-0.8%	0	10	10	11
43-6000	Secretaries and Administrative Assistants	14,830	15,020	190	1.3%	0.1%	50	240	280	
43-6011	Executive Secretaries and Administrative Assistants	5,110	5,530	420	8.2%	0.8%	40	80	120	8
43-6012	Legal Secretaries	800	810	10	1.3%	0.1%	**	10	20	6
43-6013	Medical Secretaries	1,450	1,500	50	3.4%	0.3%	10	20	30	10
43-6014	Secretaries, Except Legal, Medical, and Executive	7,470	7,180	-290	-3.9%	-0.4%	0	120	120	10
43-9000	Other Office and Administrative Support Workers	24,650	24,580	-70	-0.3%	0.0%	110	480	590	
43-9011	Computer Operators	430	310	-120	-27.9%	-2.8%	0	10	10	10
43-9021	Data Entry Keyers	1,240	1,130	-110	-8.9%	-0.9%	0	30	30	10
43-9022	Word Processors and Typists	2,770	2,320	-450	-16.2%	-1.6%	0	50	50	10
43-9041	Insurance Claims and Policy Processing Clerks	450	410	-40	-8.9%	-0.9%	0	10	10	10
43-9051	Mail Clerks and Mail Machine Operators, Except Postal Service	280	230	-50	-17.9%	-1.8%	0	10	10	11
43-9061	Office Clerks, General	16,220	17,350	1,130	7.0%	0.7%	110	300	410	11
43-9071	Office Machine Operators, Except Computer	370	360	-10	-2.7%	-0.3%	0	10	10	11
43-9111	Statistical Assistants	80	80	0	0.0%	0.0%	0	**	**	10
43-9199	Office and Administrative Support Workers, All Other	2,730	2,330	-400	-14.7%	-1.5%	0	60	60	11

Source: Employment Projections for Industries and Occupations 2006-2016, Research and Statistics Office, Hawaii State Department of Labor and Industrial Relations, November 2008.

Appendix B: Long-Term Occupational Projections, State of Hawaii, 2006-2016 (continued)

SOC Code	Occupation Title	Employment		Growth		Avg. Ann. Growth	Average Annual Openings			Training Code*
		2006	2016	Net	Percent		Growth	Replacement	Total	
45-0000	Farming, Fishing, and Forestry Occupations	5,230	5,040	-190	-3.6%	-0.4%	20	120	150	
45-1000	Supervisors, Farming, Fishing, and Forestry Workers	410	400	-10	-2.4%	-0.2%	0	10	10	
45-1011	First-Line Supervisors/Managers of Farming, Fishing, & Forestry Workers	410	400	-10	-2.4%	-0.2%	0	10	10	8
45-2000	Agricultural Workers	4,370	3,980	-390	-8.9%	-0.9%	**	110	110	
45-2041	Graders and Sorters, Agricultural Products	320	280	-40	-12.5%	-1.3%	0	10	10	8
45-2092	Farmworkers and Laborers, Crop, Nursery, and Greenhouse	3,290	2,990	-300	-9.1%	-0.9%	0	80	80	11
45-2093	Farmworkers, Farm and Ranch Animals	610	530	-80	-13.1%	-1.3%	0	20	20	11
45-4000	Forest, Conservation, and Logging Workers	120	150	30	25.0%	2.5%	**	10	10	
45-4011	Forest and Conservation Workers	120	150	30	25.0%	2.5%	**	10	10	10
47-0000	Construction and Extraction Occupations	42,300	45,800	3,500	8.3%	0.8%	360	710	1,070	
47-1000	Supervisors, Construction and Extraction Workers	3,070	3,310	240	7.8%	0.8%	20	40	70	
47-1011	First-Line Supervisors/Mgrs. of Construction Trades & Extraction Wrkrs.	3,070	3,310	240	7.8%	0.8%	20	40	70	8
47-2000	Construction Trades Workers	35,600	38,580	2,980	8.4%	0.8%	300	580	880	
47-2011	Boilermakers	60	60	0	0.0%	0.0%	0	**	**	9
47-2021	Brickmasons and Blockmasons	390	420	30	7.7%	0.8%	**	10	10	9
47-2022	Stonemasons	130	140	10	7.7%	0.8%	**	**	**	9
47-2031	Carpenters	9,070	9,880	810	8.9%	0.9%	80	120	200	9
47-2041	Carpet Installers	630	610	-20	-3.2%	-0.3%	0	10	10	10
47-2042	Floor Layers, Except Carpet, Wood, and Hard Tiles	220	190	-30	-13.6%	-1.4%	0	**	**	10
47-2044	Tile and Marble Setters	1,110	1,260	150	13.5%	1.4%	20	20	30	9
47-2051	Cement Masons and Concrete Finishers	1,080	1,190	110	10.2%	1.0%	10	30	40	10
47-2061	Construction Laborers	6,530	7,150	620	9.5%	0.9%	60	50	110	10
47-2071	Paving, Surfacing, and Tamping Equipment Operators	160	180	20	12.5%	1.3%	**	**	**	10
47-2073	Operating Engineers and Other Construction Equipment Operators	2,550	2,750	200	7.8%	0.8%	20	50	70	10
47-2081	Drywall and Ceiling Tile Installers	1,380	1,470	90	6.5%	0.7%	10	20	30	10
47-2082	Tapers	610	650	40	6.6%	0.7%	**	10	10	10
47-2111	Electricians	2,600	2,750	150	5.8%	0.6%	20	70	80	9
47-2121	Glaziers	250	280	30	12.0%	1.2%	**	**	10	9
47-2141	Painters, Construction and Maintenance	3,520	3,860	340	9.7%	1.0%	30	60	100	10
47-2151	Pipelayers	70	70	0	0.0%	0.0%	**	**	**	10
47-2152	Plumbers, Pipefitters, and Steamfitters	2,380	2,560	180	7.6%	0.8%	20	50	70	9
47-2161	Plasterers and Stucco Masons	270	290	20	7.4%	0.7%	**	10	10	9
47-2171	Reinforcing Iron and Rebar Workers	400	440	40	10.0%	1.0%	**	10	10	9
47-2181	Roofers	960	1,070	110	11.5%	1.1%	10	20	30	10
47-2211	Sheet Metal Workers	720	760	40	5.6%	0.6%	**	20	20	9
47-2221	Structural Iron and Steel Workers	310	330	20	6.5%	0.6%	**	10	10	9

Source: Employment Projections for Industries and Occupations 2006-2016, Research and Statistics Office, Hawaii State Department of Labor and Industrial Relations, November 2008.

Appendix B: Long-Term Occupational Projections, State of Hawaii, 2006-2016 (continued)

SOC Code	Occupation Title	Employment		Growth		Avg. Ann. Growth	Average Annual Openings			Training Code*
		2006	2016	Net	Percent		Growth	Replacement	Total	
47-3000	Helpers, Construction Trades	1,490	1,600	110	7.4%	0.7%	10	40	50	
47-3012	Helpers--Carpenters	410	450	40	9.8%	1.0%	**	10	10	11
47-3013	Helpers--Electricians	300	310	10	3.3%	0.3%	**	10	10	11
47-3014	Helpers--Painters, Paperhangers, Plasterers, and Stucco Masons	150	150	0	0.0%	0.0%	0	**	**	11
47-3015	Helpers--Pipelayers, Plumbers, Pipefitters, and Steamfitters	340	370	30	8.8%	0.9%	**	10	10	11
47-3019	Helpers, Construction Trades, All Other	140	150	10	7.1%	0.7%	**	**	**	11
47-4000	Other Construction and Related Workers	1,790	1,930	140	7.8%	0.8%	10	40	50	
47-4011	Construction and Building Inspectors	730	800	70	9.6%	1.0%	10	10	20	8
47-4021	Elevator Installers and Repairers	300	320	20	6.7%	0.7%	**	10	10	9
47-4099	Construction and Related Workers, All Other	250	260	10	4.0%	0.4%	**	10	10	10
47-5000	Extraction Workers	350	390	40	11.4%	1.1%	**	10	20	
47-5021	Earth Drillers, Except Oil and Gas	80	90	10	12.5%	1.3%	**	**	**	10
47-5031	Explosives Workers, Ordnance Handling Experts, and Blasters	130	150	20	15.4%	1.5%	**	**	10	10
49-0000	Installation, Maintenance, and Repair Occupations	25,610	27,300	1,690	6.6%	0.7%	180	390	570	
49-1000	Supervisors of Installation, Maintenance, and Repair Workers	2,540	2,660	120	4.7%	0.5%	10	60	70	
49-1011	First-Line Supervisors/Managers of Mechanics, Installers, and Repairers	2,540	2,660	120	4.7%	0.5%	10	60	70	8
49-2000	Electrical & Electronic Equipment Mechanics, Installers, & Repairers	3,120	3,190	70	2.2%	0.2%	20	70	90	
49-2011	Computer, Automated Teller, and Office Machine Repairers	690	650	-40	-5.8%	-0.6%	0	10	10	7
49-2022	Telecomm. Equipment Installers and Repairers, exc. Line Installers	800	720	-80	-10.0%	-1.0%	0	20	20	7
49-2091	Avionics Technicians	70	70	0	0.0%	0.0%	0	**	**	7
49-2092	Electric Motor, Power Tool, and Related Repairers	60	60	0	0.0%	0.0%	0	**	**	7
49-2093	Electrical & Electronics Installers & Repairers, Transportation Equipment	80	80	0	0.0%	0.0%	**	**	**	7
49-2094	Electrical and Electronics Repairers, Commercial and Industrial Equipment	700	820	120	17.1%	1.7%	10	20	40	7
49-2095	Electrical and Electronics Repairers, Powerhouse, Substation, and Relay	120	120	0	0.0%	0.0%	0	**	**	7
49-2097	Electronic Home Entertainment Equipment Installers and Repairers	140	150	10	7.1%	0.7%	**	**	**	7
49-2098	Security and Fire Alarm Systems Installers	300	350	50	16.7%	1.7%	10	**	10	7
49-3000	Vehicle and Mobile Equipment Mechanics, Installers	7,000	7,570	570	8.1%	0.8%	60	140	190	
49-3011	Aircraft Mechanics and Service Technicians	970	980	10	1.0%	0.1%	**	10	10	7
49-3021	Automotive Body and Related Repairers	720	790	70	9.7%	1.0%	10	20	20	9
49-3023	Automotive Service Technicians and Mechanics	3,330	3,640	310	9.3%	0.9%	30	70	100	7
49-3031	Bus and Truck Mechanics and Diesel Engine Specialists	900	990	90	10.0%	1.0%	10	20	30	7
49-3042	Mobile Heavy Equipment Mechanics, Except Engines	470	490	20	4.3%	0.4%	**	10	10	9
49-3051	Motorboat Mechanics	70	70	0	0.0%	0.0%	0	**	**	9
49-3052	Motorcycle Mechanics	80	90	10	12.5%	1.3%	**	**	**	9
49-3053	Outdoor Power Equipment and Other Small Engine Mechanics	110	110	0	0.0%	0.0%	0	**	**	10
49-3093	Tire Repairers and Changers	310	370	60	19.4%	1.9%	10	10	10	11

Source: Employment Projections for Industries and Occupations 2006-2016, Research and Statistics Office, Hawaii State Department of Labor and Industrial Relations, November 2008.

Appendix B: Long-Term Occupational Projections, State of Hawaii, 2006-2016 (continued)

SOC Code	Occupation Title	Employment		Growth		Avg. Ann. Growth	Average Annual Openings			Training Code*
		2006	2016	Net	Percent		Growth	Replacement	Total	
49-9000	Other Installation, Maintenance, and Repair Occupations	12,950	13,870	920	7.1%	0.7%	100	130	220	
49-9012	Control and Valve Installers and Repairers, Except Mechanical Door	50	60	10	20.0%	2.0%	**	**	**	10
49-9021	Heating, Air Conditioning, and Refrigeration Mechanics and Installers	800	850	50	6.3%	0.6%	10	10	20	9
49-9031	Home Appliance Repairers	310	320	10	3.2%	0.3%	**	10	10	9
49-9041	Industrial Machinery Mechanics	560	670	110	19.6%	2.0%	10	10	20	9
49-9042	Maintenance and Repair Workers, General	7,060	7,620	560	7.9%	0.8%	60	20	70	10
49-9043	Maintenance Workers, Machinery	280	320	40	14.3%	1.4%	**	10	10	10
49-9051	Electrical Power-Line Installers and Repairers	410	460	50	12.2%	1.2%	10	10	20	9
49-9052	Telecommunications Line Installers and Repairers	570	560	-10	-1.8%	-0.2%	0	20	20	9
49-9062	Medical Equipment Repairers	40	40	0	0.0%	0.0%	**	**	**	6
49-9069	Precision Instrument and Equipment Repairers, All Other	180	180	0	0.0%	0.0%	0	10	10	10
49-9091	Coin, Vending, and Amusement Machine Servicers and Repairers	200	210	10	5.0%	0.5%	**	10	10	10
49-9092	Commercial Divers	50	60	10	20.0%	2.0%	0	0	0	7
49-9098	Helpers--Installation, Maintenance, and Repair Workers	760	820	60	7.9%	0.8%	10	20	20	11
49-9099	Installation, Maintenance, and Repair Workers, All Other	1,150	1,180	30	2.6%	0.3%	**	10	10	10
51-0000	Production Occupations	18,810	19,470	660	3.5%	0.4%	120	390	510	
51-1000	Supervisors, Production Workers	1,380	1,450	70	5.1%	0.5%	10	20	30	
51-1011	First-Line Supervisors/Managers of Production and Operating Workers	1,380	1,450	70	5.1%	0.5%	10	20	30	8
51-2000	Assemblers and Fabricators	1,170	1,240	70	6.0%	0.6%	10	20	30	
51-2041	Structural Metal Fabricators and Fitters	120	130	10	8.3%	0.8%	**	**	**	10
51-2092	Team Assemblers	440	480	40	9.1%	0.9%	**	10	10	10
51-2099	Assemblers and Fabricators, All Other	560	580	20	3.6%	0.4%	**	10	10	10
51-3000	Food Processing Workers	3,340	3,650	310	9.3%	0.9%	30	90	120	
51-3011	Bakers	1,490	1,650	160	10.7%	1.1%	20	30	50	9
51-3021	Butchers and Meat Cutters	500	520	20	4.0%	0.4%	**	20	20	9
51-3022	Meat, Poultry, and Fish Cutters and Trimmers	550	610	60	10.9%	1.1%	10	20	20	11
51-3023	Slaughterers and Meat Packers	120	130	10	8.3%	0.8%	**	**	10	10
51-3091	Food & Tobacco Roasting, Baking, & Drying Machine Operators & Tenders	50	60	10	20.0%	2.0%	**	**	**	11
51-3092	Food Batchmakers	520	580	60	11.5%	1.2%	10	10	20	11
51-3093	Food Cooking Machine Operators and Tenders	110	100	-10	-9.1%	-0.9%	0	**	**	11
51-4000	Metal Workers and Plastic Workers	1,840	1,950	110	6.0%	0.6%	20	40	50	
51-4041	Machinists	450	490	40	8.9%	0.9%	**	10	10	9
51-4072	Molding, Coremng., & Casting Mach. Strs., Oper. & Tndrs., Metal & Plast.	90	80	-10	-11.1%	-1.1%	0	**	**	10
51-4121	Welders, Cutters, Solderers, and Brazers	780	900	120	15.4%	1.5%	10	20	30	7
51-5000	Printing Workers	930	890	-40	-4.3%	-0.4%	0	20	20	
51-5011	Bindery Workers	90	70	-20	-22.2%	-2.2%	0	**	**	11

Source: Employment Projections for Industries and Occupations 2006-2016, Research and Statistics Office, Hawaii State Department of Labor and Industrial Relations, November 2008.

Appendix B: Long-Term Occupational Projections, State of Hawaii, 2006-2016 (continued)

SOC Code	Occupation Title	Employment		Growth		Avg. Ann. Growth	Average Annual Openings			Training Code*
		2006	2016	Net	Percent		Growth	Replacement	Total	
51-5021	Job Printers	130	130	0	0.0%	0.0%	0	**	**	9
51-5022	Prepress Technicians and Workers	190	180	-10	-5.3%	-0.5%	0	**	**	7
51-5023	Printing Machine Operators	520	510	-10	-1.9%	-0.2%	0	10	10	10
51-6000	Textile, Apparel, and Furnishings Workers	3,570	3,550	-20	-0.6%	-0.1%	10	60	70	
51-6011	Laundry and Dry-Cleaning Workers	1,460	1,570	110	7.5%	0.8%	10	30	40	10
51-6021	Pressers, Textile, Garment, and Related Materials	710	670	-40	-5.6%	-0.6%	0	10	10	11
51-6031	Sewing Machine Operators	780	670	-110	-14.1%	-1.4%	0	10	10	10
51-6062	Textile Cutting Machine Setters, Operators, and Tenders	30	20	-10	-33.3%	-3.3%	0	**	**	10
51-6092	Fabric and Apparel Patternmakers	20	20	0	0.0%	0.0%	0	**	**	9
51-6099	Textile, Apparel, and Furnishings Workers, All Other	210	200	-10	-4.8%	-0.5%	0	10	10	11
51-7000	Woodworkers	720	820	100	13.9%	1.4%	10	20	30	
51-7011	Cabinetmakers and Bench Carpenters	490	560	70	14.3%	1.4%	10	20	20	9
51-7042	Woodworking Machine Setters, Operators, and Tenders, Except Sawing	100	120	20	20.0%	2.0%	**	**	10	10
51-7099	Woodworkers, All Other	70	70	0	0.0%	0.0%	**	**	**	10
51-8000	Plant and System Operators	1,020	1,100	80	7.8%	0.8%	10	30	40	
51-8012	Power Distributors and Dispatchers	30	30	0	0.0%	0.0%	0	**	**	9
51-8013	Power Plant Operators	300	340	40	13.3%	1.3%	**	10	10	9
51-8021	Stationary Engineers and Boiler Operators	40	40	0	0.0%	0.0%	0	**	**	9
51-8031	Water and Liquid Waste Treatment Plant and System Operators	310	360	50	16.1%	1.6%	10	10	10	9
51-8093	Petroleum Pump System Operators, Refinery Operators, and Gaugers	250	240	-10	-4.0%	-0.4%	0	10	10	9
51-8099	Plant and System Operators, All Other	80	90	10	12.5%	1.3%	**	**	**	9
51-9000	Other Production Occupations	4,840	4,830	-10	-0.2%	0.0%	20	100	120	
51-9021	Crushing, Grinding, & Polishing Machine Setters, Operators, & Tenders	30	30	0	0.0%	0.0%	0	**	**	10
51-9022	Grinding and Polishing Workers, Hand	20	20	0	0.0%	0.0%	0	0	0	10
51-9023	Mixing and Blending Machine Setters, Operators, and Tenders	140	140	0	0.0%	0.0%	0	**	**	10
51-9031	Cutters and Trimmers, Hand	50	50	0	0.0%	0.0%	**	**	**	11
51-9032	Cutting and Slicing Machine Setters, Operators, and Tenders	70	60	-10	-14.3%	-1.4%	0	**	**	10
51-9041	Extruding, Forming, Pressing & Compacting Mach. Setters, Oper. & Tndrs.	80	70	-10	-12.5%	-1.3%	0	**	**	10
51-9071	Jewelers and Precious Stone and Metal Workers	230	230	0	0.0%	0.0%	0	**	**	7
51-9081	Dental Laboratory Technicians	250	300	50	20.0%	2.0%	10	10	10	9
51-9083	Ophthalmic Laboratory Technicians	60	70	10	16.7%	1.7%	**	**	**	10
51-9111	Packaging and Filling Machine Operators and Tenders	890	860	-30	-3.4%	-0.3%	0	20	20	11
51-9122	Painters, Transportation Equipment	130	140	10	7.7%	0.8%	**	**	**	10
51-9123	Painting, Coating, and Decorating Workers	20	20	0	0.0%	0.0%	0	0	0	11
51-9131	Photographic Process Workers	100	60	-40	-40.0%	-4.0%	0	**	**	10
51-9132	Photographic Processing Machine Operators	200	100	-100	-50.0%	-5.0%	0	10	10	11

Source: Employment Projections for Industries and Occupations 2006-2016, Research and Statistics Office, Hawaii State Department of Labor and Industrial Relations, November 2008.

Appendix B: Long-Term Occupational Projections, State of Hawaii, 2006-2016 (continued)

SOC Code	Occupation Title	Employment		Growth		Avg. Ann. Growth	Average Annual Openings			Training Code*
		2006	2016	Net	Percent		Growth	Replacement	Total	
51-9194	Etchers and Engravers	100	110	10	10.0%	1.0%	0	**	**	9
51-9195	Molders, Shapers, and Casters, Except Metal and Plastic	140	160	20	14.3%	1.4%	**	**	**	10
51-9196	Paper Goods Machine Setters, Operators, and Tenders	120	110	-10	-8.3%	-0.8%	0	**	**	10
51-9197	Tire Builders	40	40	0	0.0%	0.0%	0	**	**	10
51-9198	Helpers--Production Workers	980	1,040	60	6.1%	0.6%	10	20	30	11
51-9199	Production Workers, All Other	360	370	10	2.8%	0.3%	**	10	10	10
53-0000	Transportation and Material Moving Occupations	43,740	43,820	80	0.2%	0.0%	220	1,010	1,230	
53-1000	Supervisors, Transportation and Material Moving Workers	1,960	2,130	170	8.7%	0.9%	20	40	60	
53-1011	Aircraft Cargo Handling Supervisors	30	30	0	0.0%	0.0%	**	**	**	8
53-1021	First-Line Supervisors/Mgrs. of Helpers, Laborers, & Material Movers, Hand	630	700	70	11.1%	1.1%	10	10	20	8
53-1031	First-Line Suprv./Mgrs. of Transp. & Material-Movng Mach. & Vehicle Oper.	1,300	1,390	90	6.9%	0.7%	10	30	40	8
53-2000	Air Transportation Workers	1,170	1,290	120	10.3%	1.0%	10	30	50	
53-2011	Airline Pilots, Copilots, and Flight Engineers	500	550	50	10.0%	1.0%	10	20	20	5
53-2021	Air Traffic Controllers	290	330	40	13.8%	1.4%	**	10	10	9
53-3000	Motor Vehicle Operators	16,830	18,130	1,300	7.7%	0.8%	140	270	410	
53-3021	Bus Drivers, Transit and Intercity	2,430	2,680	250	10.3%	1.0%	30	30	60	10
53-3022	Bus Drivers, School	760	800	40	5.3%	0.5%	**	10	10	10
53-3031	Driver/Sales Workers	2,270	2,190	-80	-3.5%	-0.4%	0	40	40	11
53-3032	Truck Drivers, Heavy and Tractor-Trailer	4,210	4,610	400	9.5%	1.0%	40	80	120	10
53-3033	Truck Drivers, Light or Delivery Services	4,970	5,540	570	11.5%	1.1%	60	90	150	11
53-3041	Taxi Drivers and Chauffeurs	1,810	1,900	90	5.0%	0.5%	10	20	30	11
53-5000	Water Transportation Workers	3,640	2,130	-1,510	-41.5%	-4.1%	0	110	110	
53-5021	Captains, Mates, and Pilots of Water Vessels	1,410	970	-440	-31.2%	-3.1%	0	40	40	8
53-6000	Other Transportation Workers	3,820	4,070	250	6.5%	0.7%	30	110	130	
53-6021	Parking Lot Attendants	1,980	2,130	150	7.6%	0.8%	20	50	70	11
53-6031	Service Station Attendants	550	550	0	0.0%	0.0%	0	30	30	11
53-6041	Traffic Technicians	40	40	0	0.0%	0.0%	0	**	**	11
53-6051	Transportation Inspectors	150	170	20	13.3%	1.3%	**	10	10	8
53-6099	Transportation Workers, All Other	1,110	1,180	70	6.3%	0.6%	10	20	30	11
53-7000	Material Moving Workers	16,320	16,080	-240	-1.5%	-0.1%	20	460	480	
53-7011	Conveyor Operators and Tenders	140	140	0	0.0%	0.0%	**	**	**	11
53-7021	Crane and Tower Operators	210	230	20	9.5%	1.0%	**	**	10	9
53-7051	Industrial Truck and Tractor Operators	1,560	1,520	-40	-2.6%	-0.3%	0	40	40	11
53-7061	Cleaners of Vehicles and Equipment	2,390	2,550	160	6.7%	0.7%	20	90	110	11
53-7062	Laborers and Freight, Stock, and Material Movers, Hand	7,840	7,810	-30	-0.4%	0.0%	0	250	250	11
53-7063	Machine Feeders and Offbearers	350	300	-50	-14.3%	-1.4%	0	10	10	11

Source: Employment Projections for Industries and Occupations 2006-2016, Research and Statistics Office, Hawaii State Department of Labor and Industrial Relations, November 2008.

Appendix B: Long-Term Occupational Projections, State of Hawaii, 2006-2016 (continued)

SOC Code	Occupation Title	Employment		Growth		Avg. Ann. Growth	Average Annual Openings			Training Code*
		2006	2016	Net	Percent		Growth	Replacement	Total	
53-7064	Packers and Packagers, Hand	2,670	2,350	-320	-12.0%	-1.2%	0	30	30	11
53-7072	Pump Operators, Except Wellhead Pumpers	70	60	-10	-14.3%	-1.4%	0	**	**	10
53-7081	Refuse and Recyclable Material Collectors	770	810	40	5.2%	0.5%	**	20	20	11

Note: Data were rounded to nearest ten and may not sum to totals in bold. Occupations with less than 20 employees in 2006 and 2016 were suppressed.

*See Appendix C for Training Code definitions.

**Openings were less than ten but not equal to zero.

Source: *Employment Projections for Industries and Occupations 2006-2016*, Research and Statistics Office, Hawaii State Department of Labor and Industrial Relations, November 2008.

Appendix C: Definition of Education and Training Codes

Education/Training Code	Type of Education/Training	Definition
1	First-professional degree	Requires at least 3 years of full-time academic study beyond a bachelor's degree
2	Doctoral degree	Requires at least 3 years of full-time academic study beyond a bachelor's degree
3	Master's degree	Requires 1 or 2 years of full-time academic study beyond a bachelor's degree
4	Bachelor's or higher degree, plus work experience	Requires experience in a related nonmanagerial position for which a bachelor's or higher degree is required
5	Bachelor's degree	Requires at least 4 years of full-time academic study beyond high school
6	Associate's degree	Requires at least 2 years of full-time academic study beyond high school
7	Postsecondary vocational award	Program length ranges from several weeks to a year or more and leads to a certificate but not a degree
8	Work experience in a related occupation	Requires skills and training acquired in a related occupation
9	Long-term on-the-job training	Requires 12 months of on-the-job training or combined work experience and formal classroom instruction, such as apprenticeships and employer-sponsored training
10	Moderate-term on-the-job training	Requires 1 to 12 months of combined on-the-job experience and informal training
11	Short-term on-the-job training	Requires a short demonstration of job duties or 1 month or less of on-the-job experience or instruction

Source: U.S. Department of Labor, Bureau of Labor Statistics.

Appendix D: Planning Committee Members and January 12, 2009 Planning Forum Participants

WDC Planning Committee

Mike Rota, University of Hawaii,
Chair
Steve Lee, DBEDT, *Co-Chair*
Darwin Ching, DLIR
(designee Ryan Markham)
Jonathan Chun, Kauai WIB &
WDC
Jill Cooper, Office of the
Governor
Signe Godfrey, Olsten Staffing
Services
James Hardway, WDC Office
Debbie Morikawa, C&C of
Honolulu, (designee Marilyn
Matsunaga)
Lester Muraoka, Kamehameha
Schools
Norman Sakamoto, Hawaii State
Senate
Robert Shore, DBEDT Research
and Analysis Division
JoAnn Inamasu, Maui County
Office of Economic
Development
Kathleen Nielsen, Hawaii County
Office of Housing and
Community Development
Jim Tollefson, Oahu WIB and
Chamber of Commerce of
Hawaii

Staff and Technical Support: WDC Staff

Francisco P. Corpuz, DLIR
Research and Statistics Office
Cynthia Nakamura, DLIR
Workforce Development
Division ("WDD")
Elaine Young, DLIR WDD

January 12, 2009 Planning Forum Participants

Wayne Aguiran, Maui County
Office of Economic
Development ("OEO")
Todd Apo, Ko Olina Community
Association
Jeri Arucan, DLIR Research and
Statistics Office
Sandy Baz, Maui WIB and Maui
OEO
Darwin Ching, DLIR Director
Jonathan Chun, Belles Graham
Proudfoot & Wilson
Tammi Chun, P-20 Initiative
Allen Chung, C Three Consulting
Jill Cooper, Office of the
Governor
Francisco Corpuz, DLIR Research
and Statistics Office
Rolanse Crisafulli, Oahu Work
Links Consortium
Stanford Fichtman, WDC Office
Randall Francisco, Kauai WIB
and Kauai Chamber of
Commerce
Michael Gleason, Hawaii WIB
and Arc of Hilo
Signe Godfrey, Olsten Staffing
Services
Lili Hallett, Outrigger Hotels and
Resorts
James Hardway, WDC Office
Dayna Honaker, Maui County
OEO
JoAnn Inamasu, Maui County
OEO
Karla Jones, Career and
Technical Education Center
Carol Kanayama, DLIR WDD
Kevin Kimizuka, DLIR WDD Maui
Corianne Lau, Alston Hunt Floyd
and Ing
Vicki Lau, DLIR Research and
Statistics Office
Linda Lawson, National
Governors' Association
Steven Lee, DBEDT Strategic
Marketing and Support Division

Ryan Markham, DLIR Director's
Office
Marilyn Matsunaga, Oahu WIB
Nani Medeiros, Housing Hawaii
Susan Miller, UH Center for
Disabilities Studies
Jan Miyamoto, Kauai County
OEO
Deborah Kim Morikawa, City and
County of Honolulu
Cynthia Nakamura, DLIR WDD
Lei Nakamura, Oahu Worklinks
Consortium
Kathleen Nielsen, Hawaii County
Office of Housing and
Community Development
Henry Oliva, Department of
Human Services
Anna Powell, WDC Office
Michael Rota, University of
Hawaii
Norman Sakamoto, Hawaii State
Senate
Karen Seddon, DBEDT-Hawaii
Housing Finance and
Development Corporation
Marcia Taira, Oceanic Time
Warner Cable
James Tollefson, Oahu WIB
Carolyn Weygan-Hildebrand,
WDC Office
Gregg Yamanaka, LearningBiz
Group
Audrey Yasutake, WDC Office
Elaine Young, DLIR WDD
Cindy Alm, Mediation Center of
Pacific ("MCP")
Chuck Hurd, MCP
Ed Morrell, MCP
Barbara Polk, MCP

*Administrative and Technical
Support provided by:*
DLIR Administrative Services,
Kapiolani Community College
and WDC Staff

Appendix E: Summaries of Multi-Stakeholders Plans

Hawaii Statewide Comprehensive Economic Development Strategy (CEDS)

The Statewide Comprehensive Economic Development Strategy (“CEDS”) is a collaborative effort between the State of Hawaii; the Economic Development Boards of Kauai, Maui and Hawaii Counties; Enterprise Honolulu; the Economic Development Alliance of Hawaii; and County Economic Development Agencies. This groundbreaking effort coordinates economic development strategy statewide.

The Economic Development Administration of the U.S. Department of Commerce provided funding to develop a CEDS that includes capacity building and uses cluster industry analysis for economic development. The two related parts of this project are the CEDS and the identification of cluster industries and infrastructure projects to support identified industries over a five-year time period. In addition, a CEDS is required for certain types of EDA funding.

The Federal grant provided assistance to the State after the catastrophic events of September 11, 2001, the SARS epidemic and other events leading to a substantial loss of Hawaii-bound travel and subsequent economic dislocation. While Hawaii’s economy rebounded after the events, it is prudent to continue efforts to diversify and expand the economy.

Workshops, focus groups, and public informational meetings were held throughout the State to develop economic development strategies, identify targeted cluster industries, and recommend infrastructure projects to support industries.

The first workshop, held on January 9, 2004, was attended by leaders from the public, private, and community sectors. The plenary panel addressed one question: *“How do we protect Hawaii’s host culture, working families and island environment while growing our economy?”* In breakout sessions to solicit feedback it was determined that an essential component of Hawaii’s economic development was to support social, environmental, and cultural goals. Key economic drivers were identified:

- Tourism is the dominant economic engine, providing one of every three jobs directly or indirectly. Opportunities to diversify exist in the expansion of niches such as in agriculture, cultural expression, education, health and wellness, ecology and environment, and technology.
- Defense, agriculture, technology, life science/ biotechnology, energy/ renewable technologies, astronomy and space science, arts, film and

entertainment, ocean industries, and forestry are other key areas of emerging and growing economic activity.

Enterprise Honolulu prepared the Oahu component of the Statewide CEDS in coordination with the City and County of Honolulu, Department of Community Development. Four areas were targeted for Oahu:

- 1) Diversified Agriculture
- 2) Film and Digital Media
- 3) Information Communication Technology
- 4) Life Sciences

Focus group meetings were held with stakeholders from each cluster to identify physical infrastructure needs, propose projects to address these needs, and identify funding sources. A public meeting garnered broader public input on economic development strategies and projects. Some of the major projects recommended include:

- Projects to support agriculture such as inter-island ferry facility improvements; the Hawaii Seal of Quality branding program and the Kapiolani Culinary Institute to expand use of local produce.
- A Film and Digital Media facility to support Hawaii’s film industry.
- Wireless Waikiki/Oahu to provide the visitor with

Appendix E: Summaries of Multi-Stakeholders Plans

Hawaii Statewide Comprehensive Economic Development Strategy (con't)

seamless and consistent access to the internet.

- Projects to support a Life Science Cluster in Kakaako, anchored by the UH medical school campus, including a Life Science Technician Workforce Training Facility, and an outpatient facility for the Cancer Center of Hawaii.

The Kauai Economic Development Board and County of Kauai Office of Economic Development prepared a report summarizing findings from focus groups, phone interviews and one-to-one meetings. Six clusters were identified for Kauai:

- Food and Agriculture
- Health and Wellness
- Recreation
- Arts and Culture
- High Technology
- Renewable Energy

Capital improvement project recommendations included:

- Treatment, handling and packing facilities for agricultural products
- Certified commercial kitchens
- Health and wellness centers
- State Park improvements at Haena and Kokee
- A permanent fair grounds for cultural festivals
- A renewable energy park

Major technical assistance projects to bolster economic development include:

- Conducting market studies for agricultural growers
- Producing a local farm/crop directory
- Forming cluster working groups
- Providing marketing and business planning assistance to arts and culture enterprises
- Advocating for more legislative support on high technology issues
- Conducting a study of best practices and trends in renewable energy

On Maui, *Focus Maui Nui* was led by the Maui Economic Development Board and Maui County. Approximately 1,700 residents were involved in a participatory process to plan the future of Maui County, led by an advisory committee of 23 community leaders. An Economic Summit was held in January 2004. The following areas were identified as growth clusters:

- Agriculture
- High Technology
- Film, Entertainment, Arts
- Health
- Sports
- Visitor Industry

In addition, the community emphasized the need to focus on small town retail revitalization.

The Maui Economic Development Board conducted focus group meetings for each growth cluster, and included

representation from Maui, Lanai, and Molokai. Participants were asked to consider physical infrastructure needs, recommend infrastructure projects to support the cluster, and identify potential sources of funding. A Maui CEDS Committee was formed to review and provide input into the recommendations and projects. Recommendations included:

- Maui County Water Plan
- Agriculture Academy
- Film, Entertainment, Arts Market Study
- Molokai Culture and Arts Center
- Digital Media Multipurpose Center
- Expand/Develop Hospital Space
- Lanai Women's Center
- Health Careers Academy
- Mechanist Fabrication Facility
- Facility at Maui R&T Park
- Trolley for Central Maui
- Sports Strategic Plan
- Spring Training/Olympic Training Facility
- Greenways Feasibility Study

In Hawaii County, conferences, workshops, and visioning sessions preceded the formulation of the CEDS. A "Renaissance Workshop" involved community, environmental, social services, business, academic, and cultural leaders in a discussion on values and future scenarios. A series of public workshops throughout the island provided additional

Appendix E: Summaries of Multi-Stakeholders Plans

Hawaii Statewide Comprehensive Economic Development Strategy (con't)

information to augment relevant research and analysis. The following cluster industries were targeted:

- Visitor Industry (Heritage Tourism and Cruise Industry)
- Agriculture
- Science and High Technology
- Education
- Health and Wellness
- Energy Development

Major project recommendations included:

- Cruise Ship and Super Ferry Infrastructure
- Science and Technology Innovation Centers
- Agricultural Products Marketing Facility Water Delivery Systems for former plantation communities
- Art and Environmental Education Campus at the Volcano Art Center
- Solid Waste Diversion
- Pacific Area Center for Emergency Management

A Statewide Wrap Up Workshop was held on October 8, 2004. Presentations were made by each of the counties regarding findings and recommendations, followed by breakout sessions for public input.

Appendix E: Summaries of Multi-Stakeholders Plans

Tourism Workforce Development Strategic Plan Vision 2015

The Hawaii Tourism Authority (“HTA”), created by the Hawaii State Legislature in 1998, is the lead agency and advocate for Hawaii’s tourism industry. The HTA strengthens Hawaii’s visitor industry by formulating policy, conducting research, coordinating development and implementation of the Tourism Strategic Plan, supporting product development, and coordinating the marketing of Hawaii as a visitor destination.

Highlights of the HTA Plan

The tourism industry is the second-largest economic contributor to the State’s economy. The market for tourism in Hawaii has matured, requiring re-development of programs and ideas to increase high-end and niche tourism sectors to Hawaii.

These activities require upgrading of tourism worker skills, but these efforts have been hampered in recent years by a number of factors:

- A low unemployment rate through much of the 2000s has reduced the available skilled labor pool;
- The lack of access to training and education programs by tourism workers, especially on the neighbor islands; and
- Tourism worker wages have not kept pace with the rise in the cost of living, thus forcing possible high skilled workers in

the field to opportunities outside the industry.

More recently, with the downturn in the global economy, tourism arrivals to Hawaii have and are predicted to remain lower than the record -breaking arrival numbers of the past five years. As a result, the industry has begun restructuring employee roles as of late 2008, reducing the number of positions available in the industry.

Workforce preparation issues, while not new to the tourism industry, have taken on a sense of urgency in light of the maturing tourism market. This urgency has allowed the creation of a number of education opportunities for those interested in making a career in the tourism field. These opportunities include:

- Developing education programs specifically for tourism entry level occupations. These “Work Readiness Programs” link trained employees to tourism industry employers for seamless movement from school to work.
- Providing career-advancement programs to increase worker retention and promote workforce stability through expansion of skills.
- Increasing the ability to provide training through online distance learning and

providing more options for neighbor island workers to obtain managerial degrees.

- Developing incentives for industry workers to encourage entry level workers to advance.
- Developing certification programs to professionalize the industry.

Appendix E: Summaries of Multi-Stakeholders Plans

Tourism Workforce Development Strategic Plan Vision 2015 (con't)

Strategic direction

The Hawaii Tourism Authority has suggested initiatives to coordinate employment, training and human resources services for the industry:

STRATEGIC DIRECTION 1.0

Provide an adequate source of quality workforce to support the needs of Hawaii's visitor industry

Action	Suggested stakeholder organizations
Establish an ongoing Tourism Workforce Council to plan, coordinate and implement employment and workforce development services and strategies. Key activities: 1. Gain commitment for strategic plan; 2. Coordinate funding requests to the Legislature and other sources; 3. Monitor outcomes and impacts of the tourism workforce strategic plan	Lead organization: HTA Supporting organizations: DLIR (WDC), DBEDT, UH System, DOE, county workforce investment boards, private sector, community groups
Establish a full-time Tourism Workforce Coordinator position to provide leadership and communication and coordinate functions for tourism workforce education and training and public relations and information on tourism workforce issues	Lead organization: HTA Supporting organizations: DLIR (WDC), DBEDT, UH System, DOE, county workforce investment boards, private sector, community groups
Establish a dedicated source of funding for tourism workforce development initiatives identified in the tourism workforce strategic plan. Key activities: 1. Fund new education and training programs through proposal solicitation; 2. Develop recognition and certification programs; 3. Maintain comprehensive database; 4. Support communication and information programs; 5. Explore recruitment and training initiatives for out-of-state workers including foreign guest workers to expand labor supply.	Lead organization: HTA Supporting organizations: DLIR (WDC), DBEDT, UH System, DOE, county workforce investment boards, private sector, community groups
Establish and fund coordinator's position to plan and promote Academy of Hospitality and Tourism (AOHT) programs in the DOE.	Lead organizations: DOE, HTA, AOHT

Appendix E: Summaries of Multi-Stakeholders Plans

Tourism Workforce Development Strategic Plan Vision 2015 (con't)

Action	Suggested stakeholder organizations
Expand DOE's Academy of Hospitality and Tourism ("AOHT") to additional high schools (currently offered in 6 high schools on Maui, Kauai, and Oahu). Key activities: 1. Fund NAF "Year of Planning" cost per school; 2. Assemble stakeholders group to assist each school with planning; 3. Target Kealahou High School in Hawaii County and Campbell High School, Kahuku High and Intermediate School and Farrington High School on Oahu; 4. Support non-NAF affiliated Hospitality and tourism Academy schools by providing more access to services and resources; 5. Develop other Hawaii-based model programs for possible expansion in high schools	Lead organization: DOE, AOHT Supporting organizations: HTA, HHLA, HSTA and private sector
Fund the proposed University of Hawaii Hospitality and Tourism Institute to facilitate education, training and research opportunities among all campuses in the UH system to support the tourism activity. Key activities: 1. Provide a coordinated rapid-response workforce development training approach for tourism; 2. Share UH system's instructional resources; 3. Use distance and other distributed learning tools to offer full range of courses.	Lead organization: UH system Supporting organizations: HHLA, HRA, Hawaii Transportation Association and private sector
Develop tourism industry mentorship programs similar to Hawaii Electric Light Company (HELCO) and DOE's mentorship summer internship program to provide work-readiness training for academically challenged high school students. Key activities: 1. Provide work-readiness curriculum to students for workplace activity; 2. Train industry representatives in principles of mentoring.	Lead organization: DOE, ILWU, private sector Supporting organizations: DLIR, labor unions, UHCC-OCET

Appendix E: Summaries of Multi-Stakeholders Plans

Tourism Workforce Development Strategic Plan Vision 2015 (con't)

STRATEGIC DIRECTION 2.0

Ensure a well-trained and educated visitor industry workforce

Action	Suggested stakeholder organizations
Develop and maintain a comprehensive website and database to provide accurate and up-to-date information on tourism occupations, opportunities, compensation and available training. Key activities: 1. Coordinate economic (DBEDT) and employment (DLIR) data on industry and occupation projections; 2. Develop databases that measure the labor supply to the state in conjunction with labor demands; 3. Target advisors, students, job seekers and job changers	Lead organization: HTA Supporting organizations: DLIR, DBEDT, UH System, DOE
Support MCC VITEC plans to establish on-going training programs for Maui's tourism industry. Key activities: 1. Establish a comprehensive visitor training institute offering a continuum of services from pre-vacation and work readiness course to special training for higher-skill levels; 2. Establish a permanent host culture training	Lead organization: MCC-VITEC Supporting organizations: DOE, private sector
Develop and promote programs to help entrepreneurs interested in starting tourism-related businesses. Key activities: 1. Provide workshops for new tourism-related entrepreneurs; 2. Develop database for tourism entrepreneurs	Lead organization: UHM, UHCC, Alu Like, HSBDC/SBA, OHA Supporting organizations: private sector
Promote collaborative professional level programs at the management level for the tourism industry	Lead organization: UH-TIM, HPU, BYUH Supporting organizations: Private sector
Target expansion of educational and training offering where new tourism development resorts are being planned (Ko'Olina, Kulima).	Lead organization: LCC, WCC, UH-TIM, BYUH
Identify, support and promote incentives for employers to provide employee training during work hours, comp time for training attended and other initiatives	Lead organization: DLIR Supporting organizations: HTA, private sector

Appendix E: Summaries of Multi-Stakeholders Plans

Tourism Workforce Development Strategic Plan Vision 2015 (con't)

Action	Suggested stakeholder organizations
Establish statewide professional training standards for cooks. Key activities: 1. Promote an industry-wide agreement to provide standard compensation for graduates of UHCC Culinary Art programs; 2. Establish a certification program	Lead organization: UHCC Supporting organizations: Private sector
Establish statewide certification for other tourism-related training programs through maintenance of data base and awarding of certificates of achievement.	Lead organization: UHCC, UH-TIM Supporting organizations: HTA, private sector

STRATEGIC DIRECTION 3.0

Ensure that the community has sufficient employment and advancement opportunities within the visitor industry.

Action	Suggested stakeholder organizations
Include tourism workforce-related concerns as a component in HTA's "Communication and Outreach Initiative" to increase stakeholders' and residents' knowledge and understanding of employment-related issues, impacts and opportunities. Key activities: 1. Develop and communicate timely and accurate information on employment and training for industry; 2. Promote employment opportunities for residents; 3. Improve the employment and careers image of industry employment	Lead organization: HTA Supporting organizations: Private sector, training providers, community organizations
Develop and support regularly scheduled Tourism Job Fairs to bring together employers, recruitment agencies and job seekers. Key activities: 1. Sponsor annually in each county	Lead organizations: DLIR, private sector Supporting organizations: HTA, HHLA, HRA, Hawaii Transportation Association, county Economic Development Boards

Appendix E: Summaries of Multi-Stakeholders Plans

Tourism Workforce Development Strategic Plan Vision 2015 (con't)

Action	Suggested stakeholder organizations
<p>Fund UHCC and DOE to market and disseminate information on tourism industry related training programs and offerings to targeted audiences. Key activities:</p> <ol style="list-style-type: none"> 1. Develop “youth friendly” media promotion of DOE-based tourism training programs and related careers in “youth friendly” environments; 2. Fund UHCC-based training through media to highlight success of local graduates; 3. Highlight success stories of local residents in executive positions. 	<p>Lead organization: UHCC, DOE</p> <p>Supporting organizations: HTA</p>
<p>Develop media campaign targeted to tourism industry decision-makers on the “business value” of sustained employee training and professional development. Key activities:</p> <ol style="list-style-type: none"> 1. Promote correlation between training employee retention and improved customer satisfaction; 2. Target industry executives. 	<p>Lead organization: HTA</p> <p>Supporting organizations: HVCB</p>
<p>Conduct industry employee satisfaction surveys for the purpose of identifying factors that increase worker motivation and retention. Key activities:</p> <ol style="list-style-type: none"> 1. Conduct workforce surveys on regular basis in each county; 2. Coordinate surveys with HTA’s annual resident sentiment survey 	<p>Lead organization: HTA</p> <p>Supporting organizations: private sector</p>
<p>Coordinate with DOE in conducting surveys of student attitudes and values related to career expectations. Key activities:</p> <ol style="list-style-type: none"> 1. Track student perceptions of tourism industry jobs; 2. Establish benchmark data for current and new AOHT programs. 	<p>Lead organization: DOE</p> <p>Supporting organizations: HTA</p>
<p>Conduct regular assessment of tourism training programs in order to identify “best practices” for the purpose of continuing industry coordination and support. Key activities:</p> <ol style="list-style-type: none"> 1. Identify and address skill gaps by industry sectors; 2. Improve the flexibility and relevance of training to the industry. 	<p>Lead organization: UHCC, UH-TIM</p> <p>Supporting organizations: HTA, HHLA, private sector</p>

Appendix E: Summaries of Multi-Stakeholders Plans

Tourism Workforce Development Strategic Plan Vision 2015 (con't)

Action	Suggested stakeholder organizations
<p>Develop Annual Tourism Workforce Awards to highlight achievement of business and training providers in promoting exemplary workforce development programs which:</p> <p>1. Improve employment and career images of the tourism industry; 2. Improve skills in current workforce and address identified gaps; 3. Encourage employers and employees to support and raise skill standards; 4. Improve the flexibility and relevance of training; 5. Target recruitment and pre-employment initiative and encourage businesses to hire workers who complete work-readiness programs; 6. Encourage and support employees through counseling, mentorship, transportation, child care, tuition support to pursue work-related education and training</p>	<p>Lead organization: HTA</p> <p>Supporting organization: DLIR, private sector</p>
<p>Identify and promote incentives for businesses to move employees from part-time to full-time employment with benefits.</p>	<p>Lead organization: DLIR</p> <p>Supporting organizations: HTA, private sector, county workforce investment boards</p>

Appendix E: Summaries of Multi-Stakeholders Plans

Hawaii State Center for Nursing Strategic Plan 2007-2010 and Goals

Vision

“The Hawai’i State Center for Nursing will be a nationally recognized leader in workforce planning, nursing research and professional practice. The Center will be recognized as a source of reliable information on existing and emerging trends in nursing. The Center will be viewed as a dynamic and respected champion for the nursing profession. Thinking strategically, acting collaboratively, and seeking synergistic solutions will be hallmarks of the Center.”

Mission

To assure that the State of Hawai’i has the nursing resources necessary to meet the health care needs of its people

Mandates

The Hawai’i State Center for Nursing was established by the Hawai’i State Legislature in 2003 “to address nursing workforce issues” (Act 198, HB 422).

Functions of the Center

- 1) Collects and analyzes data, and prepares and disseminates reports and recommendations regarding the current and future status and trends of the nursing workforce;
- 2) Conducts research on best practices and quality outcomes;
- 3) Develops a plan to implement strategies to recruit and retain nurses; and
- 4) Researches, analyzes, and

reports data related to the retention of the nursing workforce.

Core Values

- **Excellence.** We value excellence in the provision of evidence based nursing practice.
- **Accessibility.** We value accessibility to quality nursing care for the people of Hawaii.
- **Collaboration.** We value collaborating within the nursing profession, our community and state in the spirit of consensus building and teamwork.
- **Innovation.** We value innovation and creativity that leads to the development of ideas that ensure the best possible delivery of care.
- **Cultural Diversity.** We value a professional workforce that respects and reflects our culturally diverse population.
- **Education.** We value the knowledge and experience gained through all levels of nursing education.

GOAL 1

Serve as an information resource that addresses the trends and status of the nursing workforce and conduct a comprehensive research program focusing on best practices and quality outcomes

Objectives

1. Complete Annual Survey on Educational Capacity

2. Utilizing 2005-2020 projections, outline current trends in the nursing workforce
3. Develop scenarios to estimate the impact of specific factors on the nursing shortage
4. Provide information and recommend strategies to increase retention
5. Evaluate the impact of leadership training programs and new graduate RN residency programs.

GOAL 2

Develop and implement a comprehensive marketing plan to promote the image of nursing as a desirable profession

Objectives

1. Develop a broad-based understanding of the nursing shortage leading to increased partnerships and support for nursing
2. Increase and promote accomplishments of the Center
3. Design and implement a recruiting plan that targets students
4. Attract and increase the numbers of men and other underrepresented minorities to the profession

GOAL 3

Develop strategies, initiatives and recommendations for recruitment, education, and retention of nurses and nursing faculty

Appendix E: Summaries of Multi-Stakeholders Plans

Hawaii State Center for Nursing Strategic Plan 2007-2010 and Goals (con't)

Objectives

1. Make leadership training available to current and future nursing leaders
2. Develop an evidenced-based residency program for new graduate RNs
3. Develop and implement a preceptor training program
4. Implement annual statewide career fairs for student nurses
5. Complete Hawai'i Partners in Nursing grant funded demonstration project and secure funding to expand successful aspects of the project to additional sites
6. Support legislation and public policy to increase educational capacity

GOAL 4

Convene key stakeholders and groups to focus on strategies and positive outcomes

Objectives

1. Develop and support legislation and policies that will have a positive effect on the education, recruitment and retention of RNs
2. Broaden funding support through partnerships and grants
3. Develop and implement a plan for the nursing workforce to assure that health care needs of Hawaii's people are

Appendix E: Summaries of Multi-Stakeholders Plans

Hawaii Construction Workforce Action Plan

Hawaii's construction industry is a major generator of jobs and revenue in the State. Through the Hawaii Jobs Initiative, the Hawaii Institute for Public Affairs ("HIPA"), in coordination with the Chamber of Commerce of Hawaii and Pacific Resource Partnership, conducted research and analysis on labor demands that upcoming military construction projects will place on Hawaii's construction industry. HIPA's efforts included assessment of other workforce, health, socioeconomic, and housing impacts of increased demand and importation of construction labor to Hawaii. The growing demand for skilled construction workers was described in the Hawaii Construction Workforce Action Plan publication.

The Plan offers the following four strategies to address current and future construction workforce shortages:

- A. Improve the readiness of persons interested in entering apprenticeship programs and increase the proportion of applicants who are accepted into apprenticeship programs.
 - Expand access to pre-apprenticeship programs.
 - Seek public and private support for expansion of pre-apprenticeship training programs and academic remediation.
- B. Improve apprenticeship program retention and completion.
 - Work with the DOE to increase the number of high-school students taking construction-related courses. Promote the development and expansion of partnerships between the DOE, community colleges and the industry.
 - Convene and facilitate negotiations among a working group representing stakeholders to collaborate on developing and implementing pre-apprenticeship and remediation initiatives.
 - Identify and build on current efforts to improve retention and completion rates for apprenticeship programs.
 - Convene a working group of key organizations to identify and develop additional measures and facilitate negotiations and problem solving to enable their implementation.
 - In concert with recruitment efforts, provide interested candidates with a more realistic perspective on the demands and expectations involved in working in the construction industry.
- C. Increase the number applying to apprenticeship programs in general, and to targeted trades in particular, through focused marketing of apprenticeship and employment opportunities.
 - Develop a public-private partnership to create and sustain a comprehensive marketing effort targeting potential recruits.
 - Organize a representative group of stakeholders to work with a qualified marketing consultant to develop and implement the campaign.
 - Coordinate the marketing effort with contractor and union recruitment needs and activities, particularly in recruitment for high-demand trades.
 - Create industry partnerships with schools to build student interest in working in the industry and to support career-technical education programs.
 - Involve active construction workers in recruitment activities.
 - Explore the potential of recruiting among the population of young adults without a high school diploma, who represent an untapped pool but one that will require a significant investment.

Appendix E: Summaries of Multi-Stakeholders Plans

Hawaii Construction Workforce Action Plan (con't)

D. Continue and expand efforts to develop, organize, coordinate, monitor, and report on workforce development initiatives outlined in this plan.

The implementation of the Hawaii Construction Workforce Action Plan requires ongoing collaboration and long-term dedication of business, labor, and government organizations

In order to build and maintain the momentum of construction workforce improvement, a number of essential functions need to be performed, including:

- Advocating for development and adoption of public policies needed for the successful implementation of this plan;
- Convening, organizing, and facilitating working groups and partnerships necessary to carry out plan activities;
- Providing a communications hub for all organizations involved;
- Tracking and reporting on progress; and
- Continuing evaluation, projection, and data collection.

The Hawaii Construction Workforce Plan addresses both policy and budgetary implications of pursuing the strategies, including a call for the state legislature to fund public-private partnerships targeted to expand programs, as well as coordinated, ongoing marketing to enhance the pool of candidates.

Appendix E: Summaries of Multi-Stakeholders Plans

Innovation and Technology in Hawaii: An Economic and Workforce Profile

The Hawaii Science and Technology Council (HSTC)

is a 501(c)6 industry association which seeks to connect, unify and strengthen Hawaii's science and technology communities to accelerate the growth and success of innovation in Hawaii.

The Hawaii Science and Technology Institute (HSTI)

is a tax-exempt 501(c)3 organization whose mission is to support science and technology in Hawaii through research, education and workforce programs and lifelong learning. The institute works in close partnership with the HSTC.

Both organizations' missions are to accelerate the growth of Hawaii's science and technology economy. Sector emphasis is in:

- ocean sciences,
- diversified agriculture,
- life sciences,
- astronomy and aerospace,
- energy/environment, and
- defense and dual-use (military/civilian)

Highlights of the plan:

Many emerging technology companies in Hawaii are small. The breadth of these firms' activities can be broad, and only a few companies may operate in any particular market space. At this stage of the technology economy's development many of these companies have not matured sufficiently to specialize in a particular product or service line. The limited number of larger businesses in Hawaii suggests that few have developed the depth of experience or expertise to compete on a national or global scale. Income of workers in technology industries in the State, in comparison to similar workers in other states, tend to earn less in pay and benefits.

These challenges, combined with a shortage of qualified individuals with the necessary advanced degrees in one of the STEM occupations graduating from State learning institutions limit the growth of this industry in Hawaii.

Strategic direction:

The following strategic directions from the HSTI do not cover all issues in developing a high-technology workforce, and the suggestions should be placed in the context of a strategic plan approach to fostering technology as an integral element in the state's future economic growth.

- With all stakeholders, develop a industry-wide strategic plan;
- Diversify from defense-based technology to non-defense activities;
- Assist in the development of risk capital (venture funds);
- Examine how 2-year and 4-year degree programs at the universities and community colleges here in Hawaii can better meet industry needs;
- Support existing professional and trade groups to develop key technology segments; and
- Design a comprehensive technology workforce retention strategy to reduce turnover and keep talent in Hawaii.

Appendix E: Summaries of Multi-Stakeholders Plans

Department of Education Strategic Plan

The State of Hawaii Department of Education (“DOE”) embarked on a process to prepare for the 2008-2011 Strategic Plan. This process included convening 10 statewide focus groups of varied levels within the DOE, and they built on the 2005-2008 Strategic Plan. The 2008-2011 Strategic Plan focuses on three goals:

- (1) Improving student achievement through standards-based education;
- (2) Providing comprehensive support for all students; and
- (3) Continuously improving performance and quality.

The DOE acknowledges that contemporary public education faces a dynamic and constantly changing set of challenges and opportunities. Although there has been success, there is more to be done to strengthen and improve educational programs and support services.

Vision

All public school graduates will:

- Realize their individual goals and aspirations;
- Possess the attitudes, knowledge and skills necessary to contribute positively and compete in a global society;
- Exercise the rights and responsibilities of citizenship; and
- Pursue post-secondary education and/or careers without need for remediation.

The DOE views the No Child Left Behind (“NCLB”) federal law as an opportunity to further support the Department’s vision and goals, and has revisited all initiatives aimed at improving student achievement to ensure compliance with NCLB requirements.

General Learner Outcomes

There are six General Learner Outcomes (“GLO”) in all content areas, and they are the essential goals for all grade levels and all academic disciplines. Every content and performance standard should support the learner’s progress towards these outcomes. Public school students should be able to:

- be responsible for their own learning;
- work well with others;
- engage in complex thinking and problem solving;
- recognize quality performance and produce quality products;
- communicate effectively; and
- use a variety of technologies effectively and ethically.

GLOs are the observable behaviors or evidence that a student has achieved a standards-based education; they apply to all students and are fostered in daily classroom activities and evident in a student’s application of learning. Student progress on the six General Learner Outcomes is reported on the standards-based report card.

Hawaii Content and Performance Standards

The Hawaii Content and Performance Standards areas are: Language arts, Fine Arts, Mathematics, Health, Science, Physical Education, Social Studies, World Languages, and Career and Life Skills. Testing challenges the learner to demonstrate, provide evidence of understanding, evaluate, use, or apply content knowledge.

Student Priorities

The 2008-2011 Strategic Plan embraces three student-oriented priorities:

Achievement - ensure each student achieves proficiency on the Hawaii State Assessment as specified in the Hawaii Content and Performance Standards.

Safety and Well Being - promote each student’s physical, emotional, and social well being in a secure and supportive learning environment.

Civic Responsibility - guide each student’s growth as an informed and concerned citizen who actively contributes to the well being of others, society, and the environment.

Appendix E: Summaries of Multi-Stakeholders Plans

Department of Education Strategic Plan (con't)

Goal Objectives and Strategies

Goal 1 - IMPROVE STUDENT ACHIEVEMENT THROUGH STANDARDS-BASED EDUCATION

Objective 1.1 - Provide standards-based curriculum, instruction, and assessment in all classrooms that reflect rigor, relevance, and relationships (Three Rs).

Objective 1.2 - Increase proficiency in reading, mathematics, and science for all students.

Objective 1.3 - Ensure that all students demonstrate the six General Learner Outcomes.

Objective 1.4 - Ensure students will be caring, responsible, contributing participants in a democratic society.

Goal 2 - PROVIDE COMPREHENSIVE SUPPORT FOR ALL STUDENTS

Objective 2.1 - Provide a focused and responsive system of supports to strengthen the social, emotional, and physical well-being of all students.

Objective 2.2 - Provide students with expanded learning opportunities that support standards-based education through partnerships with families and the community.

Goal 3 - CONTINUOUSLY IMPROVE PERFORMANCE AND QUALITY

Objective 3.1 - Continuously improve school quality and performance.

Objective 3.2 - Continuously improve system quality.

Ten-Year Strategic Plan Goals

By 2018, the DOE envisions:

1. Standards as the foundation of our system.
2. All students and staff demonstrating the six General Learner Outcomes.
3. All students are educated to be responsible and productive citizens.
4. All graduates will personify the "Vision of the Public School Graduate."
5. All schools to be fully staffed with highly qualified and highly effective educators.
6. Parents and community members actively

Appendix E: Summaries of Multi-Stakeholders Plans

University of Hawaii System Strategic Plan Summary, 2008 - 2015

The *University of Hawaii System Strategic Plan: Entering the University's Second Century, 2002-2010* was adopted by the Board of Regents in 2002. During the 2007-08 academic year, members of the University community and the general public:

- participated in discussions that reaffirmed the UH System Strategic Plan, 2002-2010,
- assigned performance measures to strategic outcomes and
- extended the plan to year 2015.

Updates to the plan, seek to strategically position the university to meet the needs of the state through the establishment of clear measurable outcomes to guide future priorities and inform the budget-planning process. The complete University of Hawaii System Strategic Plan is available at: <http://www.hawaii.edu/ovppp/uhplan/> and <http://www.hawaii.edu/ovppp/stratplansys.html>.

Vision

"Based on the Hawaiian ethic of sharing, collaboration, and conservation that benefited Hawaii in the old days, the University as a system of interdependent and collaborative institutions will ensure the responsible allocation, management, and sustainable use of limited resources and the generous

sharing of diverse expertise. The teaching, research, and service provided by these institutions will prepare the liberally educated and highly skilled workforce essential for the future economic success, health, and well-being of this island state. In particular, the institution provides educational leadership in support of Native Hawaiians, their indigenous culture, and Hawaii's unique sense of pluralism."

"Working together for the betterment of all the diverse ethnic populations that are now part of this state, the University of Hawaii system will help ensure the survival and prosperity of Hawaii's people and these beautiful islands for generations to come."

Mission

The common purpose of the UH System is to serve the public by creating, preserving, and transmitting knowledge in a multi-cultural environment. The University is positioned to take advantage of Hawaii's unique location, physical and biological environment, and rich cultural setting. Students and teachers engage in the mastery and discovery of knowledge to advance the values and goals of a democratic society and ensure the survival of present and future generations with improvement in the quality of life.

Functioning as a system, the purposes of the UH System are to:

- provide all qualified people in Hawaii with equal opportunity for high quality college and university education and training;
- provide a variety of entry points into a comprehensive set of post-secondary educational offerings, allowing flexibility for students to meet individual educational and professional goals; and
- advance missions that promote distinctive pathways to excellence, differentially emphasizing instruction, research, and service while fostering a cohesive response to state needs and participation in the global community.

As the state's only public higher education institution, the UH System prepares an educated citizenry, supports the creation of quality jobs, and prepares an educated workforce to fill occupational requirements in the State. Building on a strong liberal arts foundation, the UH system prepares a variety of workers from technicians, physicians, and scientists to artists, teachers, and marketing specialists—who are needed in a technologically advanced and culturally diverse island state.

Appendix E: Summaries of Multi-Stakeholders Plans

University of Hawaii System Strategic Plan Summary, 2008 - 2015 (con't)

Commitments and Core Values

The University of Hawaii system is bound together by:

- Aloha
- Collaboration and respect
- Academic freedom and intellectual rigor
- Institutional integrity and service
- Access, affordability, and excellence
- Active learning and discovery
- Diversity, fairness, and equity
- Leveraged technology
- Hawaiian and Asian-Pacific advantage
- Innovation and empowerment
- Accountability and fiscal integrity
- Malama aina sustainability

Strategic Goals

Goal 1. Educational Effectiveness and Student Success

The University of Hawaii will embrace a culture of excellence and performance as the hallmarks of effective learning and student success and achieve a shared institutional culture by—

- Making student learning and success the responsibility of all, which includes effective enrollment management, transformational educational experiences, and positive student involvement.

- Treasuring diversity and inclusion, honoring collegiality, and continuously striving for exceptional performance. This requires promotion of core values, improving the decision-making structure, evaluating teaching and administrative effectiveness, increasing and supporting participation by underrepresented populations, and recognizing academic achievers.

Goal 2. A Learning, Research, and Service Network

- Excelling in basic and applied research for the discovery and dissemination of new knowledge: building on existing research strengths and addressing critical gaps, promoting internal and external collaborations, providing adequate support for research and training, and strengthening library resources.
- Building UH partnerships with educational, governmental, and business institutions to support Hawaii's economy, workforce development, and improved access and flow of education from preschool through a lifetime of learning. This requires fostering a working P-20 partnership that begins with a state Department of Education/UH summit, expanding the UH research enterprise and commercialization, facilitating

technology education, expanding workforce training, emphasizing a liberal arts foundation, addressing transfer issues and credit for non-classroom learning, maintaining affordable access, and encouraging financial support for needy students.

- Providing students, faculty, and staff with access to first-rate information technology infrastructure, support, and services.

Goal 3. A Model Local, Regional, and Global University

- Establishing UH and the state of Hawaii as the research, service, and training hub of Oceania, with bridges to the Asia-Pacific region, the Americas, and elsewhere: identification of strategic international markets, expansion of intercultural educational activities, education abroad, and region-wide affiliations, and the integration of international education in teaching and research.
- Preserving and perpetuating Hawaiian culture, language, and values; serving as a resource and facilitating the discourse for an equitable and peaceful reconciliation between the U.S. government and the Hawaiian people; funding and improving programs and services for Native Hawaiians; increasing

Appendix E: Summaries of Multi-Stakeholders Plans

University of Hawaii System Strategic Plan Summary, 2008 - 2015 (con't)

Native Hawaiian representation in all facets of the University, and promoting use of the Hawaiian language.

Goal 4. Investment in Faculty, Staff, Students, and Their Environment

- Creating a culture of excellence and fostering a spirit of joint enterprise and appreciation for all employees, including graduate assistants and student employees. Actions include establishing competitive and equitable workloads, improving benefits and salaries, ensuring adequate support staff, facilitating career development, encouraging involvement in college governance, and promoting wellness.
- Creating positive, healthful, resource-efficient, and sustainable physical environments. Strategies include extending campus life into surrounding communities in appropriate ways, maintaining and improving campus structures and landscaping, meshing capital improvement priorities with academic priorities, and ensuring that new construction and renovation

projects consider environmental and economic sustainability and the health and well-being of occupants.

Goal 5. Resources and Stewardship

- Building an effective constituency that converts community support into public and private revenue streams. This will require effective enrollment and marketing efforts, a first-rate information technology infrastructure, sustainable stewardship of resources, a transparent policy on appropriate levels of funding from various sources, reallocation of resources to programs critical to strategic planning goals, and aggressive fundraising in support of University priorities.
- Allocating and managing resources to achieve continuing improvement in organization, people, and processes and to secure competitive advantage. Strategies include comprehensive review and redesign of administrative and student support processes for efficiency and effectiveness, rewarding innovation, investing in change that reduces costs and generates revenue, executing a comprehensive and integrated marketing plan, and developing a culture that promotes improvement and accountability.

UH System Strategic Outcomes and Performance Measures 2008-2015

For detailed strategic outcomes and performance measures see the plan at http://www.hawaii.edu/ovppp/uhplan/SOPM_web.html

UH System Performance Measures 2008

For detailed performance measures see the plan at http://www.hawaii.edu/ovppp/uhplan/PM08_web.html

Appendix E: Summaries of Multi-Stakeholders Plans

United for Learning: The Hawaii P-20 Initiative Strategic Plan 2006 - 2010

United for Learning: The Hawaii P-20 Initiative is a statewide community partnership led by the University of Hawaii, the DOE, and the Good Beginnings Alliance, and is dedicated to creating a seamless educational pipeline for Hawaii's students. P-20 Initiative begins with a focus on improving the academic achievement of learners at all levels in order to improve the pipeline outcomes and, ultimately, to improve the quality of life for all of Hawaii's people.

Highlights of the Plan:

Three principles guide the P-20 Initiative concept:

- **A Focus on the Learner:**
Traditionally, the focus has been on students as products of the separate education systems through which they pass. P-20 approaches education as a pipeline that encompasses the academic experience and the influencing factors that affect that experience. This leads to a recognition that youth are not just students of various educational institutions—they are learners who need to be prepared to succeed and supported as individuals in the classroom, during the academic transitions in their lives, and in the communities that support them throughout life.

- **A Scope that is Lifelong:**
Learning is not to be isolated within the walls of academia; it is a lifelong activity that needs to continue outside of school and beyond formal education. Hawaii's residents should be able to access learning throughout all phases of their lives to advance their knowledge and enhance the quality of living for themselves, their families, and their communities.
- **A Commitment to an Overall Vision of Achievement:** All of the efforts to prepare learners concentrate on creating socially responsible, economically productive, contributing members of society who will be ready to succeed in an increasingly global system and will solidify Hawaii's position as a sustainable contender in a global economy.

The overall vision of United for Learning: the Hawaii P-20 Initiative is that: *All Hawaii residents will be educated, caring, self-sufficient, and able to contribute to their families, to the economy and to the common good, and will be encouraged to continue learning throughout their lives.*

Achieving equity among all student learners in Hawaii begins with first addressing the educational challenges affecting vulnerable youth. The Native Hawaiian, Filipino, Samoan, and Micronesian populations are

consistently underrepresented in post-secondary learning opportunities. Before we can move forward as a statewide community, we must work to narrow the historical achievement gap so all are enabled to move forward together.

To address these challenges, the primary focus of the Hawaii P-20 Initiative is enhancing the statewide P-20 capacity to provide resources and support to community initiatives, educational institutions, and agents of statewide change. By building capacity, the initiative aims to position itself as a catalyst for statewide educational transformation.

To enhance statewide P-20 capacity, the Initiative will:

- Collect, assess, and disseminate statewide data relevant to the P-20 vision;
- Build awareness and understanding of the P-20 pipeline concept through comprehensive communication strategies;
- Secure resources to advance P-20 efforts;
- Promote policy implementation that enhances achievement of P-20 goals; and
- Promote synergy between communities and institutions and impact statewide change to benefit learners.

Appendix E: Summaries of Multi-Stakeholders Plans

United for Learning: The Hawaii P-20 Initiative Strategic Plan 2006 - 2010 (con't)

As a catalyst for change, the Initiative will facilitate collaboration, resource sharing, and strategy development among communities and institutions that advance goals to accomplish the overall P-20 vision for Hawaii.

To promote statewide educational change, the Initiative will support efforts that:

- Engage communities in the learner's success;
- Build the capacity of institutions to be prepared for learners; and
- Influence statewide change.

Goals, Objectives and Activities:

Hawaii's P-20 Initiative goals, objectives, and activities are detailed in the strategic plan. Those goals, objectives, and activities relevant to advancing the statewide P-20 Initiative capacity over the next five years are provided in Part A of the P-20 Strategic plan. Part B reflects goals, objectives, and activities to be achieved at the community and/or institutional level.

Part A is the road map for creating statewide P-20 capacity over the next five years. It builds upon the strengths of the P-20 Council, whose members comprise not only the key educational leaders of the state, both public and private, but also

key leaders from business (large and small), from labor unions (public and private), and from government (legislative and executive). These are people who can gather data, attract resources, and implement policies. The P-20 Leadership Team, P-20 Council and staff hold themselves responsible for accomplishing P-20 goals and meeting P-20 objectives as described in Part A. To enhance statewide P-20 capacity, the Initiative will:

- Collect, assess, and disseminate statewide data relevant to the P-20 vision;
- Build awareness and understanding of the P-20 pipeline concept through comprehensive communication strategies;
- Secure resources for advancing P-20 efforts; and
- Promote synergy between communities and institutions and impact statewide change to benefit learners.

Part B reflects the undertakings of the many state, local and regional partners who are also committed to achieving the P-20 vision for Hawaii. It reflects specific strategies that promote statewide educational change by engaging communities in the learner's success, building the capacity of institutions to be prepared for learners, and influencing statewide change.

As a catalyst for change, the Initiative works to facilitate

collaboration, resource sharing, and strategy development between communities and institutions. To promote statewide educational change, the Initiative supports efforts that:

- Engage communities in the learner's success;
- Build the capacity of institutions to be prepared for learners; and
- Influence statewide change.

Appendix E: Summaries of Multi-Stakeholders Plans

The Carl D. Perkins Career and Technical Education Improvement Act of 2006

The Carl D. Perkins Career and Technical Education Improvement Act of 2006 required the State to conduct public hearings to give all segments of the community and interested organizations and groups an opportunity to present their views and make recommendations regarding the State plan. The public expressed support for Hawaii's Career Pathways System and the opportunities the System provides students to earn post-secondary credit for successful completion of courses at the secondary level (known as articulated dual credit).

Other comments expressed the importance of using standards approved by Career Pathway Councils as the basis for curriculum, assessment, and articulation to assure smooth student transition from secondary to post-secondary education, and to ensure employers that career and technical education program of study graduates have achieved specified levels of mastery.

Only those career and technical education activities that enhance the Hawaii Career Pathway System ("HCPS") will be assisted. The HCPS spans Hawaii's secondary and post-secondary career and technical education systems and begins with a framework with six pathways. All occupations fit into one of these six pathways. And each pathway has three

levels of occupationally appropriate academic and technical preparation: core, cluster, and concentration. Business and industry-validated standards for each of these levels move from a broad pathway focus (core level) to a specifically focused occupational area (concentration level).

Postsecondary Programs of Study are Associate of Science (AS), Associate of Applied Science (AAS), and career and technical education certificate programs. Postsecondary Programs of Study are developed at the college level by faculty and local business and industry. The programs are reviewed and reviewed by relevant agencies.

Required education elements include: coherent and rigorous content aligned with challenging academic standards, and relevant Career and Technical Education (CTE) content in a coordinated, non-duplicative progression of courses that prepare students to succeed in post-secondary education; the opportunity for secondary education students to participate in dual or concurrent enrollment programs; and results in an industry-recognized credential or certificate at the post-secondary level, or an associate or baccalaureate degree.

The DOE and the UH Community Colleges, together with the Office of the State Director for Career and Technical Education have worked cooperatively to develop the Hawaii Career Pathway System, including Dual Credit Articulated Programs, since its inception in 2001.

The secondary and postsecondary career and technical education ("CTE") programs to be carried out by the DOE complement and enhance the goals of the No Child Left Behind Act.

CTE supports standards-based education and Hawaii's Career Pathway System serves as a framework to organize many components essential to school CTE reform.

Schools are required to use data to identify gaps and student needs when implementing CTE reform initiatives including comprehensive counseling and guidance, integration of State academic and industry standards, and transitions and partnerships with post-secondary and business and industry.

At the postsecondary CTE level, career and technical education programs are carried out within the context of the mission and Strategic Plan goals of the UH Community Colleges.

Appendix E: Summaries of Multi-Stakeholders Plans

The Carl D. Perkins Career and Technical Education Improvement Act of 2006 (con't)

These goals are to:

- promote learning and teaching for student success;
- function as a seamless state system;
- promote workforce and economic development;
- develop our human resources through recruitment, retention, and renewal; and
- develop an effective, efficient, and sustainable infrastructure to support student learning

More specifics on the CTE Five Year Plan can be found at http://www.hawaii.edu/cte/publications/5yearPlan_F2.pdf.

Appendix E: Summaries of Multi-Stakeholders Plans

Hawaii State Plan for Title I-B of the Workforce Investment Act and The Wagner-Peyser Act

July 1, 2007 to June 30, 2009

The Hawaii Workforce Investment Act (“WIA”) Plan is a major contributor to the attainment of Governor Linda Lingle’s primary goal for the State of Hawaii: *positive momentum of Hawaii’s economy leading to a higher standard of living for Hawaii’s citizens*. The WIA Plan envisions a workforce system that includes:

1. Higher quality jobs that can provide a living wage; an optimum balance of both large and small businesses; the most advantageous combination of established service industry businesses and emerging industries; and the ability to provide good jobs for the people of Hawaii and raise their standard of living.
2. An adequate worker supply that includes opportunities for incumbent workers to better their positions, encourages ex-patriates to return to Hawaii, and embraces currently underrepresented workers, such as people with disabilities, Temporary Assistance for Needy Families (“TANF”) clients, immigrants, out-of-school youth, older workers and retirees, and people with substance abuse and criminal backgrounds.
3. Qualified workers with the knowledge, skills, and abilities needed to fill the “quality jobs”, resulting from a strong education pipeline that also produces “home grown” entrepreneurs to develop and invest in businesses that provide “quality jobs.”
4. A technological portal and a network of One-Stop Job Centers throughout the state that constitutes the State’s “Opportunity Office” (providing training, counseling, and information to both job seekers and businesses), in addition to serving as its “Employment Services Office.”
5. A component that focuses on youth, provides them the opportunity to find and succeed in self-satisfying careers that will provide an adequate standard of living.
6. An effective communication and coordination network continually providing information and tools needed for informed decision making and strategically targeted efforts, and including a feedback loop that results in genuine two-way communication between the workforce professionals and their customers, job seekers and businesses.

Stakeholders:

Key partners in workforce development for the State of Hawaii include various business, economic development groups, state and local government, educators, and labor organizations. The Workforce Development Council (WDC) serves as the catalyst to bring together workforce development stakeholders to create a coordinated, focused, and cost-effective workforce system.

Highlights of the plan:

Workforce investment priorities for the State’s public workforce system relate to closing gaps between the current situation and the Governor’s vision for workforce and economic development. The gaps are as follows:

Appendix E: Summaries of Multi-Stakeholders Plans

Hawaii State Plan for Title I-B of the Workforce Investment Act and The Wagner-Peyser Act (con't)

1. Job Quality Gap

The State's Department of Business, Economic Development and Tourism ("DBEDT"), in conjunction with each county's Economic Development Board, is the lead agency dedicated to encouraging development of businesses and industries that will provide quality jobs. It is the role of the state workforce system to support DBEDT's efforts to close the state's Job Quality Gap by:

- Increasing the range of knowledge, skills, abilities and numbers of workers to meet the needs of both established and emerging business for worker skills and to lead to higher incomes for workers based on upgraded skill acquisition,
- Providing an effective means of matching job seekers and businesses,
- Creating accurate, persuasive information that will convince businesses of the availability of skilled workers in adequate numbers, and
- Providing information needed for informed planning and decision-making for appropriate economic development by businesses and career choices by job seekers.

2. Worker Supply Gap

With respect to closing the state's Worker Supply Gap, the Governor's priority is to increase the number of qualified workers by:

- Helping incumbent workers advance in their careers,
- Facilitating entrance of underrepresented groups [such as people with disabilities, Temporary Assistance for Needy Families ("TANF") clients, immigrants, out-of-school youth, senior citizens, and people with substance abuse and criminal backgrounds] into the workforce, and
- Supplementing the workforce with in-migration of ex-patriates and other job seekers.

3. Worker Preparation Gap

The priority regarding closing the Worker Preparation Gap will primarily focus on fortifying the state's education pipeline as follows:

- Identifying and patching "leaks" in the pipeline that may result in system unprepared for either a job or higher education; "leaks" are between preschool and elementary school, between elementary school and middle school, between middle school and high school, between high school and college or technical school, and throughout life,
- Improving integration of existing programs and institutions,
- Enhancing a work-relevant curriculum, including opportunities for experiential learning (such as internships and mentoring) for each student,
- Providing meaningful career planning and counseling beginning in middle school and continuing throughout an individual's work-life, providing mechanisms, such as workforce readiness certificates, that facilitate matching job seekers and employers,
- More training for low skill/low wage incumbent workers and unemployed job seekers, and
- More training targeted to filling positions in high wage/high growth industries.

Appendix E: Summaries of Multi-Stakeholders Plans

Hawaii State Plan for Title I-B of the Workforce Investment Act and The Wagner-Peyser Act (con't)

4. One-Stop Job Center Gap

Closing the gap between the quality and type of services currently provided by One-Stops, and the ones envisioned in Section I of the WIA State Plan will include:

- Clear communication of where the One-Stops fit within the statewide vision and what the expectations are for their contribution,
- Latitude to prioritize in accordance with each county's local situation and within the availability of resources, and
- Cooperation between One-Stops and their partners.

5. Youth Services Gap

Hawaii will close the youth services gap by giving priority to out-of-school youth, with accountability for increased secondary and post-secondary education outcomes. Local youth councils will continue to build an improved system for youth services. Coordination of comprehensive youth services will be improved, with emphasis on service delivery to the most at-risk youth, adult mentors, school dropout prevention, continuing education for well paying jobs, and coordinated, integrated service delivery.

6. Communication and Coordination Gap

With respect to facilitating the evolution of the current workforce development system into the one envisioned in Section I through improved communication and coordination, the priorities are:

- a) To provide the information and tools needed for informed decision-making, strategically targeted efforts, and increased use by job seekers and businesses by:
 - Continuing development and maintenance of a website that serves as a comprehensive resource to job seekers, business, students, and workforce professionals,
 - Establishing a communication and coordination system that will support One-Stops across the state and save on individual local expenses by sharing common activities such as media buys, workforce supply-demand studies, and preparation of printed material, and
 - Mutually agreed-upon performance expectations for LWIBs, a system for State oversight of LWIBs, and meaningful opportunity for the LWIBs to affect State policy.
- b) To integrate service delivery and resource leveraging by developing State policies aimed at improving coordinated services for youth.

Appendix E: Summaries of Multi-Stakeholders Plans

Hawaii State Plan for Title I-B of the Workforce Investment Act and The Wagner-Peyser Act (con't)

The six priorities will be addressed through the implementation of the following strategies:

1. Strategy to Address Priority 1 - Job Quality Gap

- Monitor Department of Business and Economic Development Tourism and County Economic Development Boards' activities,
- Provide support as appropriate, and
- Use information in supply/demand matrix.

2. Strategy to Address Priority 2 - Worker Supply Gap

- Develop underrepresented supply including:

Ex-patriates	People with Disabilities
TANF Clients	Immigrants
Out-of-School Youth	Older Workers/Retirees
Substance Abusers	Ex-offenders
- Explore means of encouraging hiring of underrepresented through employer incentives and WIA waivers (e.g., risk mitigation through temporary hiring, appropriate WIA performance measures)
- Develop and implement worker in-migration strategies (Find job seekers with knowledge, skills, abilities needed by target industries)
- Provide information regarding high wage/high growth industries and occupations to agencies directing training and career counseling
- Continuously identify institutional barriers to achieving workforce goals and recommend changes to laws, regulations, and policies
- Address related barriers to workforce development such as affordable housing, substance abuse, construction permitting and transportation.
- Market Hawaii's job opportunities within HAWAII and in areas with high concentrations of post-secondary students from Hawaii (address perception that Hawaii does not have good jobs)
- Reach out to discouraged workers
- Develop and implement policies to drive the vision

3. Strategy to Address Priority 3 - Worker Preparation Gap

- Identify education pipeline gaps and develop implementation plan to close; particularly with respect to work readiness
- Coordinate career planning information and counseling

Appendix E: Summaries of Multi-Stakeholders Plans

Hawaii State Plan for Title I-B of the Workforce Investment Act and The Wagner-Peyser Act (con't)

- Enhance Career Relevant Education Curriculum
 - Train for skills (not occupations)
 - Mentorships/Internships/Contextual Experience
 - Post-secondary institutions Directed to High Wage/High Growth Areas
- Coordinate Incumbent Worker Training
 - Business involvement / information
 - Worker involvement/information
- Work readiness certification
- Encourage further education BEFORE Jobs

4. Strategy to Address Priority 4- One-stop Job Center-Gap

- Develop local WIB vision and implementation plan consistent with State WIA plan

Define Services and Responsibilities

- Identify workforce programs and define scopes of responsibility
- MOU in conformance with WIA§121(c)
- Vision for on-the-job training
- Identify workforce development needs of job seekers and employers, who is responsible for meeting which need, and how those needs will be met
- MOU with providers and partners
- Procedures and criteria re: priority to public assistance recipients and other low-income for intensive and training services
- Describe how services will be provided and coordinated through one-stops
- Describe how cost of service and operating costs are funded
- Describe method of referral of individuals between One-Stop partners

Strategically Expend Available Resources

- Strategy for allocation of training resources
- Prioritize training funds: consider directing certain percentage of training funds to high demand, economically vital, and/or targeted skills
- Seek out opportunities to combine and simplify programs
- Seek out opportunities to arrange for interagency agreements to reduce overlapping services
- Seek out opportunities for infrastructure savings
- Identify ways affiliates can support local WIB plans
- Review One-Stop organizational structure
- Strategy for providing core, intensive, training to adult and dislocated workers
- Seek out opportunities for universal access and review consistency of statewide/countywide services
- Strategy for reemployment services to UI claimants most likely to exhaust benefits

Appendix E: Summaries of Multi-Stakeholders Plans

Hawaii State Plan for Title I-B of the Workforce Investment Act and The Wagner-Peyser Act (con't)

- Strategy for One-Stop delivery system that is accessible to and will meet the needs of dislocated workers, displaced homemakers, low-income individuals such as migrants and seasonal farm workers, women, minorities, individuals training for non-traditional employment, veterans, public assistance recipients and individuals with multiple barriers to employment (including older individuals, people with limited English-speaking proficiency, and people with disabilities)

Drive the Vision

- Establish goals, deadlines, progress monitoring process, system of accountability
- Incorporate national demand-driven priorities
- Develop and implement strategy for enhancing workforce role of faith-based and community-based organizations
- Percent, if any, of WIA training funds directed to preparation for jobs that pay at least a self-sufficiency wage

Service Quality

- Plan for Addressing Past Problems, like data entry and unsatisfactory youth performance
- Include Plan for ongoing monitoring of accurate data collection for calculation of performance measures and provision of timely feedback
- Establish procedures to ensure quality of service, staff competencies, and continuous improvement
- Establish minimum operating guidelines
- Explore waivers as means of improving operations

Serve Youth

- Prepare a comprehensive youth plan (addressing needs of both youth-in-need and all other youths; covering areas of education, vocation, support services)
- Include in youth plan, concept of continuous improvement
- Identify and Inform One-Stops of Expectations
 - Implementation of demand-driven concepts
 - Incorporating non-traditional resources
 - Utilization of ETF funds
 - Integration with counselors at affiliated agencies
 - Outreach to under-represented job seekers
 - Outreach to incumbent workers
 - Training for skills
- Develop System for stronger state oversight, including WDC exploration of mechanism for incentives and disincentives

5. Strategy to Address Priority 5 - Youth Services Gap

Appendix E: Summaries of Multi-Stakeholders Plans

Hawaii State Plan for Title I-B of the Workforce Investment Act and The Wagner-Peyser Act (con't)

- Inclusionary implementation procedures for youth with disabilities
- Youth access to career, employment, labor market information through One-stops
- Broad spectrum of employment experiences to help shape career paths
- Workforce-related prevention strategies to lessen school dropout rates
- Minimum of 40% of youth funds on out-of-school youth
- Coalitions of youth service providers using collaborative strategies to deliver seamless, continual services throughout individual's developmental years
- Monitor youth service performance in delivery of services and data entry

6. Strategy to Address Priority 6 - Communications and Coordination Gap

- Comprehensive Website for employers and jobseekers
- Explore use of AUW-211 system for workforce-related referrals
- Two-way communication with business - regularly learn business needs and workforce-related initiatives from business groups
- Strategic selection of WDC membership
- Communicate/coordinate statewide vision with local WIBs (including assisting with raising awareness of importance of constant performance monitoring and progress feedback)
- Build understanding of statewide workforce vision and WDC plans
- Research workforce supply-demand for state/counties WDC
- Facilitate and coordinate inter-agency agreements
 - Specify roles, responsibilities, outcomes and reduce duplicative services
 - electronic connectivity between partners
 - Coordinate delivery of youth services between agencies
 - Develop and identify resource support for innovative strategies
 - Identify educational needs to deliver skills needed by business partners
 - Identify educational needs
- Review LWIB plans consistency with state vision, statutory requirements, and accountability mechanisms such as universal access, consistency of countywide/statewide services, partner and provider selection criteria

Appendix E: Summaries of Multi-Stakeholders Plans

Temporary Assistance for Needy Families Program - Five-Year Strategic Plan

In January 2006, the State of Hawaii Department of Human Services (“DHS”), in partnership with Blueprint for Change, embarked on a statewide, community-based process to develop a five-year Temporary Assistance for Needy Families (“TANF”) Strategic Plan, the purpose of which is to ensure that Hawaii maximizes use of its resources in meeting the four purposes of TANF, which are:

1. Provide assistance to needy families;
2. End dependence of needy families by promoting job preparation, work and marriage;
3. Prevent and reduce out-of-wedlock pregnancies; and
4. Encourage the formation and maintenance of two-parent families.

Two of the purposes - provide assistance to needy families (TANF Purpose One) and end dependence of needy families by promoting job preparation, work and marriage (TANF Purpose Two) - deal with existing poverty and dependency. Services that states provide in these areas are to ameliorate and reduce dependency of families already in need of public assistance. These kinds of services have been available to families since the enactment of the Social Security Act in 1935.

The innovative aspect introduced by the federal government in 1996 was the ability for states to use TANF block grants for providing services that prevent the kinds of dependency requiring cash assistance and for second-chance work services.

The Five-Year Strategic Plan is organized to reflect these two primary themes of TANF: promoting self-sufficiency for families already in need of public assistance, and providing services that strengthen families and positively develop youth in order to prevent future dependency.

While some of the TANF goals have been successfully implemented, the federal Deficit Reduction Act (DRA) in 2006 compelled DHS to rethink and enhance some of its strategies.

In the following sections, we provide strategic planning objectives, performance measures, strategic activities, and first-year targets for TANF Purposes 1 and 2, which deal with currently impoverished families, and TANF Purposes 3 and 4, which attempt to prevent the poverty of future generations.

TANF PURPOSE 1 AND 2 - PROVIDE ASSISTANCE TO NEEDY FAMILIES AND END DEPENDENCE OF NEEDY FAMILIES BY PROMOTING JOB PREPARATION, WORK AND MARRIAGE

Stakeholders identified the following key needs:

- More employment opportunities by expanding the SEE Hawaii Work (Supporting Employment Empowerment) program; increasing work experience sites; increasing job development for unsubsidized employment; continuing to support and expand technical education opportunities as well as other post-secondary education opportunities.
- Measuring the success of work-related activities in terms of placement and employment, higher wage rates, higher retention rates, increased ability to exit welfare due to sufficient earnings, job advancement, employer/employee satisfaction, long-term retention of employment, utilization of incentives, and successful completion of job readiness programs. Expanding supportive services such as transportation, infant/toddler childcare, sick childcare, elder care, job coaching/mentoring, housing assistance, and financial literacy to help TANF

Appendix E: Summaries of Multi-Stakeholders Plans

Temporary Assistance for Needy Families Program - Five-Year Strategic Plan (con't)

families succeed in work activities.

TANF PURPOSE 3 AND 4 - PROMOTE SERVICES THAT STRENGTHEN FAMILIES AND POSITIVELY DEVELOP YOUTH IN ORDER TO PREVENT FUTURE DEPENDENCY

The following objectives are designed to accomplish program needs expressed by stakeholders in the community workshops. They identified the following key needs:

- Maximize the number of youth engaged in youth development programs where youth experience positive outcomes by using TANF funds for strengthening families and positive youth development through before- and after-school programs, career and technical exploration/work

programs for youth, and additional efforts similar to the array of programs for families and children offered under the Department of Defense's About Face! programs.

- Invest a minimum of 25% of the TANF Block Grant to these prevention activities which are highly effective and create additional social benefits (e.g., youth staying in school, avoiding abuse of alcohol and drugs, character building, responsibility and job readiness skills) which are reasonably calculated to contribute, directly or indirectly, to the prevention of dependency in Hawaii.

- Maximize the safety of children served by the child welfare system by using TANF funds to promote safe and stable families.

DHS will monitor completion of first-year targets through quarterly monitoring sessions. In addition to these scheduled monitoring meetings, target activities will be regularly discussed in meetings of DHS Divisions and in monthly top-level management meetings. Reports of accomplishments will be compiled. The quarterly monitoring meetings will also be used to develop subsequent-year targets and, if necessary, additional strategic objectives and activities.

Appendix E: Summaries of Multi-Stakeholders Plans

Hawaii's Early Childhood Comprehensive System Plan 2005-2008

The Early Childhood Comprehensive System (ECCS), funded by a federal grant from the Maternal and Child Health Bureau under the Human Resources and Services Administration (HRSA), is a five year initiative focused on the development of a strategic plan for a more comprehensive early childhood system of care for Hawaii's children.

Implementation funds will be used to fund a system pilot project at a homeless shelter that services the target population of families with children ages 0-8.

VISION

In 1998, the state of Hawaii Legislature passed the House Concurrent Resolution that "All of Hawaii's children will be safe, healthy, and ready to succeed." ECCS has adopted the state of Hawaii's vision as our own and has developed four visions to achieve the State's vision.

1. Hawaii will have an early childhood system that is integrated, effective, efficient and adequately funded.
2. All of Hawaii's young children will have a safe and supportive environment.
3. All of Hawaii's young children will be healthy.
4. All of Hawaii's young children will be ready to succeed.

MISSION STATEMENT

"To promote the optimal health, development and well being of Hawaii's young children and their families through supporting enhanced collaboration, improved integration, and the provision of culturally responsive services for all island communities."

PLANNING

The heart of ECCS is collaboration—to effectively contribute to enhancing the system, the ECCS planning grant structure needed to include input from a diverse group of stakeholders in early childhood.

As a result of a needs assessment conducted during May-November 2004, a snapshot of Hawaii's current early childhood system has emerged. A Title V Needs Assessment was completed July 2005 and include a mapping of Hawaii's Maternal and Child Health Branch ("MCHB") capacity.

Hawaii's ECCS team has incorporated the State Early Childhood Comprehensive Systems' (SECCS) five components into our four visions:

1. Family Support Services
2. Parent Education
3. Medical Homes
4. Mental Health and Socio-emotional Development
5. Early Care and Education

NEEDS ASSESSMENT METHODOLOGY AND FINDINGS

Three primary activities were conducted to thoroughly understand the existing system of services for children in the targeted age group:

- 1) Data was collected on the status of the children and information on existing plans, initiatives and efforts were identified and reviewed;
- 2) A statewide conference on early childhood systems building was conducted; and
- 3) A series of focus groups with both providers and parents were held on all major islands in 2004.

Participants engaged in guided discussions about the five ECCS components:

- While essential services for young children are available on all islands, there is great variability in the degree of availability, quality and accessibility between communities.
- Many families continuously struggle to meet their basic needs including housing, transportation and childcare. As a result, nurturing or learning to nurture or prepare children for success in school is often a secondary concern.

Appendix E: Summaries of Multi-Stakeholders Plans

Hawaii's Early Childhood Comprehensive System Plan 2005-2008 (con't)

- Our communities need jobs that pay a living wage, affordable housing and childcare, especially infant, evening, weekend, and respite childcare, and services for special needs children who “age out” from the early interventions programs.
- There is a lack of therapeutic services including mental health, speech, hearing, alcohol and substance abuse. Neighbor Islanders lack sufficient medical and dental professionals, and developmental screeners.
- Early childhood care providers need training in identifying and caring for youngsters who present social-emotional challenging behaviors, and also training in health and safety matters.
- Communication difficulties are a major barrier to existing services. Difficulties ranged from the need for interpreter services (non-English speaking), to illiteracy; fear of technology voicemail; shame in asking for help or repeating one's plight; cultural and gender insensitivity of service providers; lack of information about existing services; inability to “navigate the system,” isolation; and lack of trust or time.

STRATEGIC MANAGEMENT TEAM AND WORK TEAMS

The SMT worked to develop the ECCS plan and created a number of teams:

1. Data and Evaluation
2. Service Integration and Policy
3. Inter-Professional Development
4. Public Awareness

IMPLEMENTATION

During the 2005-2006 cycle, ECCS implemented three projects: 1) a pilot project at a homeless shelter, 2) a website for ECCS and EC; and 3) a roll-out of the ECCS plan as a framework for community planning.

The next year's cycle 2006-2007 continued and expanded the projects. In the final year, ECCS will complete systemic issues changes at the statewide level through policy and department procedural changes.

EVALUATION

Evaluation of the ECCS planning, pilot project, and process will ensure best practices, timely results, and measurable outcomes.

VISION 1: HAWAII WILL HAVE AN EARLY CHILDHOOD SYSTEM THAT IS INTEGRATED, EFFECTIVE, EFFICIENT AND ADEQUATELY FUNDED.

ECCS will require the following essential elements to be successful:

- Leadership in the form of a clear governance entity and structure that commits to the overall vision, while engaging and inspiring others toward its attainment.
- Results that more clearly define the vision, and offer realistic and measurable indicators to gauge progress.
- Strategies (or programs) that deliver services to children and families both effectively and respectfully,
- Integration of services across sectors & programs that ultimately lead toward desired results, while ensuring easier access and utilization by children and families.
- Quality in each system component through the development of a quality workforce, appropriate standards, assessments and performance measures.
- Clear and frequent communication and information sharing among all key stakeholders and finally,
- Adequate resources to ensure that the system functions properly and is progressing toward the expected results.

Appendix E: Summaries of Multi-Stakeholders Plans

Hawaii's Early Childhood Comprehensive System Plan 2005-2008 (con't)

COORDINATION OF EARLY EDUCATION & CARE

In 1997, Legislative Act 77 established a system of early childhood education and care services Hawaii, establishing three entities to facilitate the development of a coordinated system:

- A non-profit corporation designated to develop policy recommendations concerning all aspects of a coordinated early childhood education and care system, resource development, and advocacy.
- County-level Community Councils representative of families, organizations representing parents, providers of health, human service, education & early care and education services, business and local government.
- An Interdepartmental Council (IDC) of state agency directors from a variety of public and private agencies.

LEADERSHIP AND GOVERNANCE

The charge of Act 77 is not comprehensive of the health and social service sectors. The 2005 Legislature passed Act 151 to develop a comprehensive plan for early education for Hawaii. The work of the group developing the plan will further articulate the intersection among health, safety, and early education within our state public and private sectors.

CLEAR RESULTS AND INDICATORS

Hawaii has made steady progress towards establishing public and private partnerships to achieve desired outcomes for our children.

- In 1999, Act 160 created the Hawaii Performance Partnership Board ("HPPB") that focuses on cross-sector government programs on outcomes and performance measurement.
- In 2000, the School Readiness Performance Partnership was formed and IDC members adopted 17 indicators which would help align their programs toward enhancing young children's readiness for school.
- The 2003 Legislature passed Senate Concurrent Resolution No. 13, which established an interagency task force to develop an implementation plan for the coordination and expansion of services provided to young children at risk and their families through Healthy Start. The 2004 Legislature passed SCR 45 granting a one year extension on the task force's plan development.

Data on the early childhood education component is available through organizations Hawaii Association for the Education of Young Children, Center on the Family, People Attentive to Children, and the Good Beginnings Alliance. This

data on accreditation, occupancy, availability, professional credentials of workforce are components of the data needed across service sectors.

Other data repositories include the Hawaii Outcomes Institute, which provides sustainable health outcomes information to the communities, public health professionals and researchers.

SERVICE INTEGRATION

Early childhood services are highly fragmented, particularly at the community level where consumers often are unaware of what help is available. Better service integration is needed so that families can access key providers that also

Better service integration at the public agency level is also underway. The Governor has initiated a service integration effort within the DHS, which administers a myriad of family support programs. One-stop or integrated service centers are being promoted.

At the DOH, an active effort to integrate the services of its various programs and their partners is underway. In 2005 efforts began to connect the early education and child abuse and neglect communities through the Strengthening Families initiatives. A joint training was held for partners in the community who implement

Appendix E: Summaries of Multi-Stakeholders Plans

Hawaii's Early Childhood Comprehensive System Plan 2005-2008 (con't)

early education.

VISION 2: ALL OF HAWAII'S YOUNG CHILDREN WILL HAVE A SAFE AND SUPPORTIVE ENVIRONMENT.

SAFETY SYSTEM COORDINATION ISSUES

Hawaii has many independent activities focusing on child safety issues and which are coordinated through the Hawaii Injury Prevention Plan 2005-2010 which was completed in November 2005 by the Injury Prevention Advisory Committee and the Injury Prevention and Control Program. There are also other initiatives:

- Blueprint for Change is a collaborative project between the Department of Health Maternal Child Health Branch and the Department of Human Services which addresses child welfare and safety issues.
- The Keiki Injury Prevention Coalition (KIPC)/SAFE KIDS mission is to prevent and reduce injuries to children in Hawaii.
- The Hawaii Children's Trust Fund (HCTF) was established by statute in 1993 to support family strengthening programs .

PARENTING EDUCATION AND SUPPORTS

All parents, regardless of income, ethnicity, marital or working status, require support from extended family members, local communities and the larger society to effectively nurture their young child's optimal development. Hawaii has developed a rich landscape of (43) parenting education & support programs, which were recently compiled by the Center on the Family, 2004.

The ECCS Needs Assessment revealed the following concerns regarding their quality, accessibility and level of integration with other services:

- Coordination among parent education programs is weak. Ideally, locate parent education programs at local schools or family resource centers.
- Eligibility requirements place barriers to service and can stigmatize. Universal access is needed.
- Access is hindered by transportation and childcare problems.
- Standards and qualifications for parent educators need to be developed.
- Tailor programs to the needs of grandparents, fathers & cultural groups.

HOUSING NEEDS

The needs assessment points out that Hawaii's critical affordable housing shortage places a significant stressor upon family well-being and compromises young children's safety and development. In May 2005, the City of Honolulu stopped accepting applications for federal rental housing assistance with a waiting list of about 10,500 people. The state program on Oahu stopped placing names on its waiting list in 1999, yet there are still over 1,000 people waiting for vouchers. Homeless agencies fear a swelling population of people on the verge of homelessness. In response to this crisis, several coalitions have been created that address specific areas of need.

ALCOHOL AND DRUG ISSUES

In recent years Hawaii has been devastated by an epidemic use of crystal methamphetamine or "ice" across all segments of the population. It has taken severe tolls upon family life in the islands and has demanded constant attention and significant dedication of resources particularly from the health, child welfare, education, and justice systems.

Appendix E: Summaries of Multi-Stakeholders Plans

Hawaii's Early Childhood Comprehensive System Plan 2005-2008 (con't)

The Lt. Governor's Office's Hawaii Drug Control Plan, released in January 2005, focuses on prevention, treatment, and law enforcement to combat illicit drug use and underage drinking. In February, the DOH Alcohol and Drug Abuse Division (ADAD) met with MCH, and various partners to develop the Strategic Prevention Framework, that will be integrated into the Drug Control Plan.

Hawaii is one of ten states that have been funded as subcontracts by Northrop Grumman IT Health Solutions. The Department of Health's (DOH) Maternal and Child Health Branch (MCHB), in partnership with the University of Hawaii's Center on Disability Studies (CDS), will conduct a statewide initiative to prevent fetal alcohol spectrum disorders (FASD) in our State. The FASD Task Force was established in March 2005 to prevent adverse outcomes from prenatal exposure to alcohol and develop comprehensive systems of care for those affected by FASD.

The Substance Abuse Free Environment Council (SAFE) is a statewide organization of community and agency representatives who meet to address issues concerning substance using pregnant women. The Council works closely with DOH Alcohol and Drug Abuse Division and the DHS Child Welfare Division to

coordinate advocacy efforts and program planning.

VISION 3: ALL OF HAWAII'S YOUNG CHILDREN WILL BE HEALTHY.

ACCESS TO HEALTH INSURANCE

At one point, Hawaii led the nation in health insurance of its citizens due to enactment of pioneering legislation, the Prepaid Health Care Act of 1974. This ranking has begun to slip over the years. A 2003 Hawaii Health Survey revealed that 2.9 % of Hawaii's children ages 0-17 are uninsured. The University of Hawaii's Social Science Research Institute (SSRI) estimates that more than 27,000 (8.25%) of Hawaii's children lack health insurance. Researchers estimate that more than half of these uninsured children (14,000) are eligible for government-sponsored programs, but are not enrolled.

Hawaii Covering Kids (HCK) is a statewide collaborative project whose purpose is to create a seamless health insurance enrollment process for children and youth through outreach, enrollment, and process simplification.

MEDICAL HOME ISSUES

When young children and their primary caregivers are healthy, the children are more likely to succeed in school and in time become more productive members of society. Longitudinal research on risk and protective factors has established the critical role of a stable, nurturing caregiver to a young child's health and development. Promoting maternal well-being and prenatal care at the earliest stages of development is fundamental to ensuring positive child health and developmental outcomes. Health services in general, are becoming more attentive to these inter-generational aspects of care.

Hawaii has been at the forefront of promoting the medical home concept from the community through to the state and national arenas.

DENTAL HOMES ISSUES

Children under the age of 8 years in Hawaii suffer from some of the worst oral health conditions in the U.S. on several key indicators. The consequences of such poor oral health not only include physical pain and suffering, but also difficulty eating, inability to concentrate on learning activities and poor self esteem due to an unattractive appearance. The DOH's Dental

Appendix E: Summaries of Multi-Stakeholders Plans

Hawaii's Early Childhood Comprehensive System Plan 2005-2008 (con't)

Health Division leads collaborative efforts to reduce the rate of childhood dental caries (tooth decay or cavities), by ensuring that each child has an appropriate dental care and is accessing routine care.

Head Start Hawaii also developed an oral health strategic plan calling for development of partnerships to increase education opportunities and resources to their children and families, dental professionals, legislators and other stakeholders.

HEALTH CARE PROVIDERS

Findings from the 2005 ECCS needs assessment indicate that rural communities especially have a shortage of obstetricians, pediatricians, vision, hearing and language specialists, dentists and mental health providers who are trained to deal with maternal and child health issues.

SYSTEMATIC SCREENING, SURVEILLANCE, & FOLLOW-UP:

Hawaii is near universal levels in providing newborns with metabolic and hearing screening, assuring that infants who need help, will receive appropriate follow up assessments and treatments. The Preschool Developmental Screening Program promotes early identification of developmental problems for children 3-K. Several early

learning programs (including Healthy Start, Head Start, Kamehameha Schools and many Native Hawaiian groups have included developmental screening.

Remaining Concerns:

- Children not enrolled in early learning programs may not receive screening services prior to kindergarten.
- Providers need training, support and adequate compensation to systematically use standardized screening instruments across all developmental areas.
- Better communication linkages are needed to share screening results with medical & dental homes.
- Screening activity needs to occur more systematically across all sectors.

EARLY CHILDHOOD SOCIAL-EMOTIONAL WELL-BEING

Children's social-emotional health is firmly rooted in the quality of their relationships or attachments with their parents and other significant caregivers. These competencies lay the foundation for behaviors critical to success in school, such as, exploration, focusing their attention, problem solving and persistence. The State of Hawaii provides mental health services through the Departments of Health (DOH), Human Services (DHS) and Education (DOE).

Department of Health

- Early Intervention Section (EIS) serves children birth to three years, and the Preschool Development and Screening Program serves children from three to five years;
- Creating Opportunities for All Children (COACH) program provides consultations;
- Keiki Care is a statewide project of the Early Intervention Section of the DOH in collaboration with the DHS, and provides training, technical assistance, and support for three to five year old children with social, emotional, and behavioral challenges; and
- Child and Adolescent Mental Health Division (CAMHD), serves children ages 3-17.

Department of Human Services

- Med-QUEST Division serves Medicaid eligible populations by providing coverage for mental health services in the private sector.
- The Child Care Development Fund helps communities value and support the social and emotional well being of children.

Appendix E: Summaries of Multi-Stakeholders Plans

Hawaii's Early Childhood Comprehensive System Plan 2005-2008 (con't)

Department of Education

- A school based mental health model to address the array of needs students present that impede their educational goals.

Remaining Concerns:

- Only a limited number of programs provide technical support and consultation on mental health and social emotional development to private childcare providers.
- There is a need for increased awareness of mental health and socio-emotional issues, particularly in the identification of problems and resources for support.
- There is a need for increased awareness campaigns, screening and treatment protocols to address the particular issues for post-partum depression.

VISION 4: ALL OF HAWAII'S YOUNG CHILDREN WILL BE READY TO SUCCEED.

EARLY CARE & EDUCATION Act 77 has set the stage for critical infrastructure development for Hawaii's early care and education system.

Another critical milestone was the establishment of the School Readiness Performance Partnership in 2000 and the School Readiness Task Force in September of 2001, both of which accepted responsibility

for developing strategies to implement a school readiness initiative.

The definition spearheaded the development of Preschool Content Standards with accompanying Family and Community Guidelines, a Kindergarten Assessment Tool and Kindergarten Transition materials.

DHS is developing an incentive program to increase quality in all child-care settings. Child Care Providers will be eligible for incentive payments if they implement the "Preschool Content Standards," and if providers meet benchmark professional development standards.

Remaining Concerns:

- More state funds are needed to enhance the availability of subsidized care.
- The demand for quality early childhood education and care in Hawaii far exceeds the supply, particularly for infants and children and those needing care on evenings and weekends.
- More incentives, in particular better compensation are needed to encourage childcare providers to improve their level of service quality.

QUALITY WORKFORCE

The early childhood education community has been addressing workforce issues through the Hawaii Early Childhood Career Development Coalition, a group of 21 public and private organizations. The coalition has designed several components to the Hawaii Early Childhood Career Development System:

- The Hawaii Careers with Young Children Registry, which documents the education and training of professionals, who work in the field of early care and education with families of children 0-8 years old.
- T.E.A.C.H. (Teacher, Education and Compensation Helps), a scholarship program
- A Training Quality Assurance System is also in development to establish standards for endorsement of community-based training offered to early care and education professionals.

DHS provides funding for scholarships and training for child care providers. These efforts are intended to assist providers to enhance their credentials and provide children with quality experiences.

Program quality is also being addressed through the Hawaii Association for the Education of Young Children's "Hawaii Early Childhood Accreditation Project" which offers mentors to early childhood programs toward achieving NAEYC accreditation.

Inside back cover

Photo Credits:

Photographs contained within this report come from these sources, all rights reserved.

- The University of Hawaii External Affairs and University Relations Creative Services
Director, Cheryl Ernst
- State of Hawaii Department of Labor and Industrial Relations, Career Kokua
- State of Hawaii Department of Labor and Industrial Relations, Office of Community Services
- State of Hawaii Department of Labor and Industrial Relations, Director's Office

Outside back cover

Hawaii Workforce Development Council
830 Punchbowl Street, Room 417, Honolulu, Hawaii 96813
Telephone: 808-586-8670 Facsimile: 808-586-8674
<http://hawaii.gov/labor/wdc/>