

# HAWAII LABOR MARKET DYNAMICS



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Department of Labor & Industrial Relations  
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# Executive Summary

This report provides a current overview of the local labor market and economy to inform those developing workforce development policies and making workforce investment decisions. The following are some significant findings:

- Among the 50 states, Hawaii ranks 42nd in the nation in terms of labor force size and is the 40th most populated state.
- Almost sixty-three percent of Hawaii's population 16 years old and older participates in the labor force, nearly the same as the U.S. rate.
- Hawaii's job count improved in 2011, following three years of job losses. Three out of the four counties - Maui County, Kauai County, and Honolulu MSA reported gains. Only Hawaii County incurred a slight loss.
- Compared with the nation, the state's unemployment rate remained relatively low, averaging 6.7 percent in 2011, placing Hawaii in the top quarter of states with the lowest jobless ratio.
- The unemployment rates in all of the counties dropped in 2011. Honolulu MSA posted the lowest rate, followed by Maui County, Kauai County, and Hawaii County.
- Five out of the ten major industries posted job gains in 2011. Leisure and hospitality and professional and business services accounted for the majority of the increase. The information industry suffered the greatest decline in jobs.
- According to Quarterly Workforce Indicator (QWI) data, in the third quarter of 2011, the number of new hires increased by 2.2 percent.
- The number of green workers statewide increased nominally from the first quarter 2010 to the third quarter 2011.
- The pace of non-farm job growth is expected to be better over the short-term from 2011 to 2013 compared to the 2010 to 2020 period.
- While there will be many job openings for workers with limited skills, about one in six openings will require a bachelor's degree or higher.

# Introduction

The Hawaii Labor Market Dynamics report focuses on significant labor market statistics and trends that affected Hawaii's economy in 2011. In addition to highlighting job trends over the past year and reporting anticipated short- and long-term job forecasts, statistics on Hawaii's green workforce are also presented. Whenever possible, comparisons are made between national and state figures. Additionally, county statistics

are reported when available, and major developments are cited that impacted the local economy during this period.

Workforce and economic analyses provided in this report supports Hawaii's workforce information system as directed by the U.S. Department of Labor's Employment and Training Administration.

## Labor Market Highlights

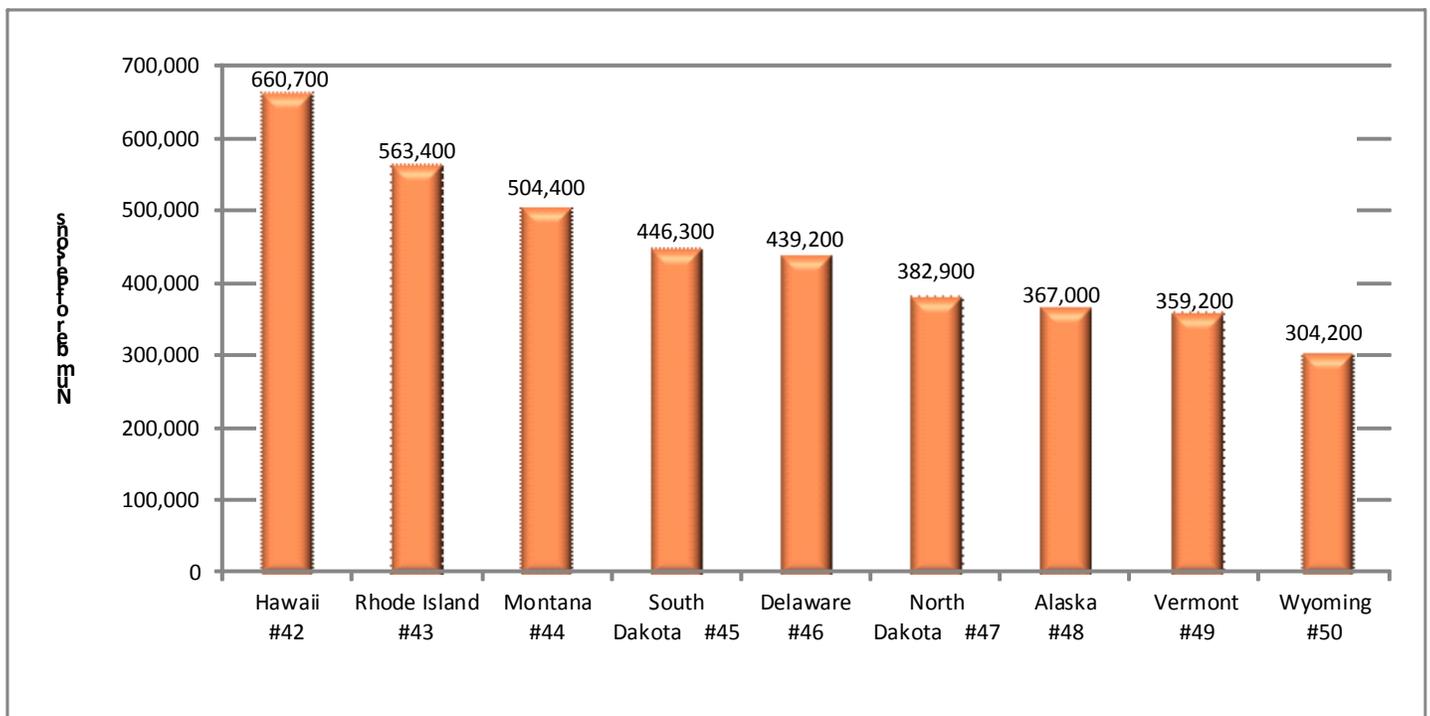
According to population estimates for 2011, with a population count of nearly 1,370,000, Hawaii ranks 40<sup>th</sup> in size compared to the other 49 states<sup>1</sup>.

In terms of labor force size, Hawaii ranked 42nd approximately 660,700 persons in the state's civilian labor force in

2011 (Figure 1) of which 616,500 were employed and 44,200 were unemployed<sup>2</sup>.

Hawaii's labor force participation ratio averaged 62.8 percent in 2011, slightly behind the U.S. rate of 64.1 percent.

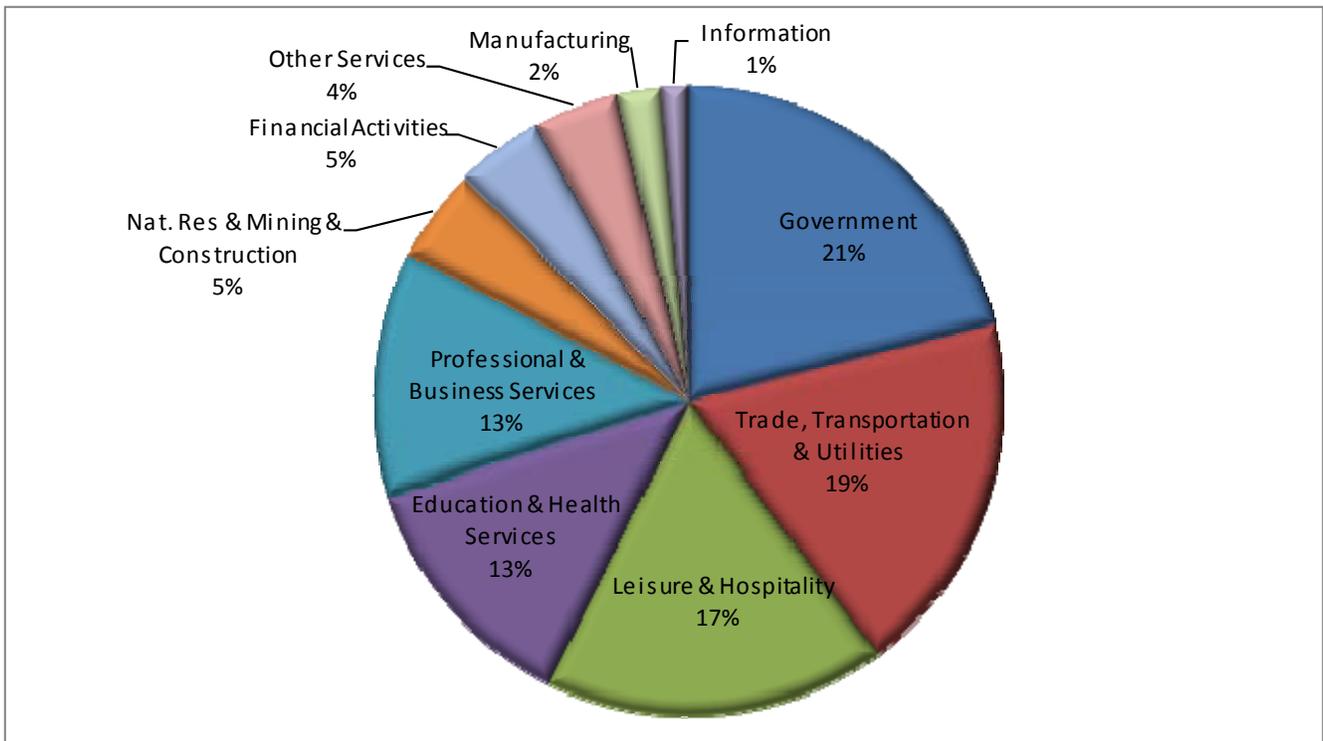
Figure 1. Hawaii ranked 42nd in the U.S. in Labor Force size in 2011



The state’s non-farm job market recorded 592,100 jobs in 2011. This figure is based on the monthly payroll survey of business establishments, which defines employment differently than the household survey.

Only 7 percent of Hawaii’s non-farm job market consisted of goods-producing industries. The balance was made up of service-providing industries (Figure 2). Three of the sectors, government; trade, transportation, and utilities; and leisure and hospitality, continued to account for more than half of Hawaii’s jobs.

**Figure 2. Three largest industries comprise more than half of Hawaii’s jobs in 2011**



## Hawaii Compared to the Nation

### Civilian Labor Force

In 2011, Hawaii’s civilian labor force continued to expand for the second year in a row, following a dip during the recent recession (Figure 3). The total labor force estimate grew by 1.8 percent over 2010, which was the third highest percentage change among the 50 states. Most of the change occurred due to an increase in employed persons combined with a drop in the total number of unemployed.

From 2000 to 2011 after peaking at 644,000 in 2008, like the rest of the nation, Hawaii’s labor force plunged to 637,900 in 2009. The decrease of 0.9 percent in 2009 was fairly steep relative to the other states. This

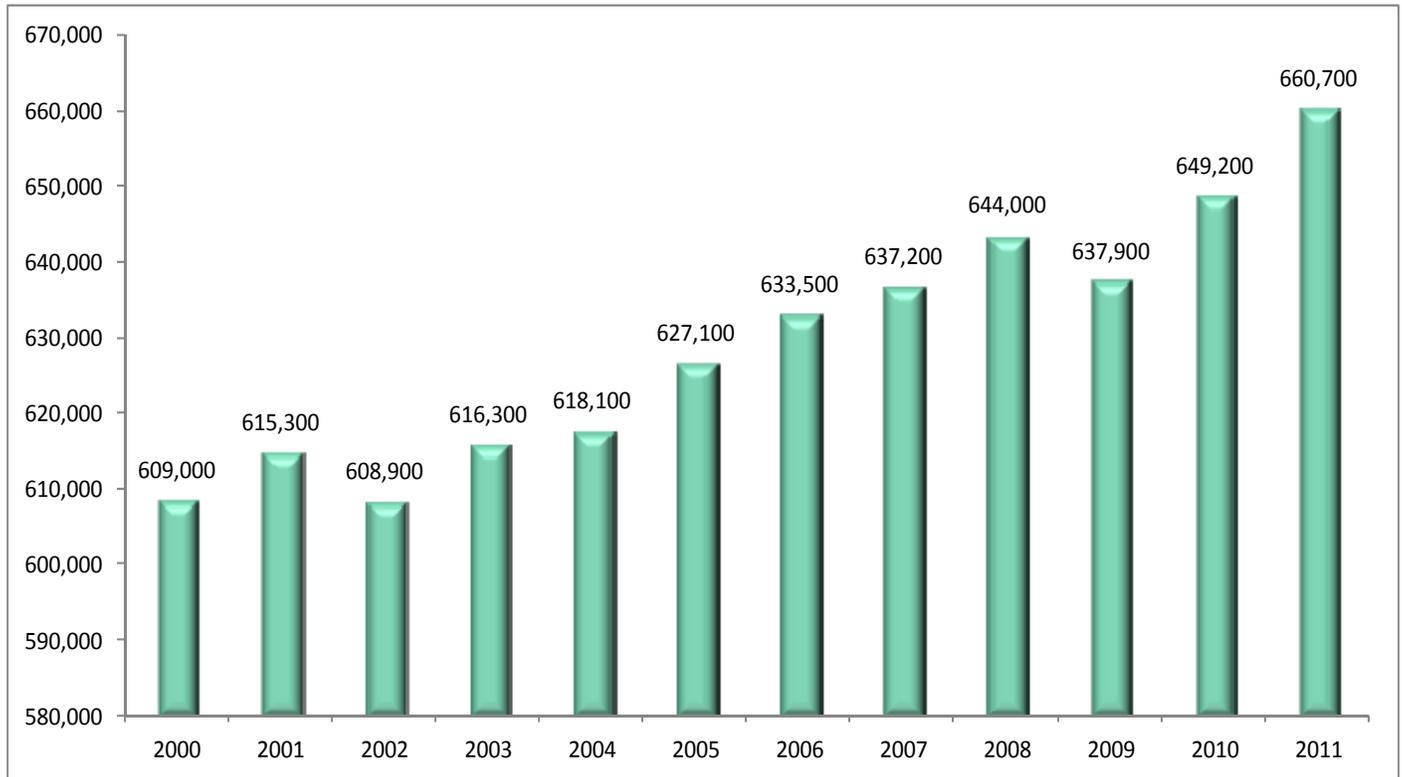
accounted for the 11th largest percentage loss in the nation, placing Hawaii 39 out of 50 in terms of over-the-year change. In 2010, the state’s civilian labor force began to turn around and grew by the third fastest rate, with a gain of 1.8 percent to 649,200. This momentum continued into 2011 as Hawaii’s labor force climbed to 660,700.

For the first seven months of 2012, Hawaii’s civilian labor force has been trending downward. Every month thus far, the numbers have been lower than the previous year’s figures.

Roughly 616,500 persons were employed in 2011, while 44,200 were unemployed. This represents approximately 62.8 percent of Hawaii's civilian non-institutional population 16 years and that older participated in the labor force in 2011 versus 64.1

percent for the nation. The remainder of the working-age population is not in the labor force, which includes homemakers, stay-at-home care-givers, students, disabled persons, retirees, and those who are neither working nor seeking employment.

**Figure 3. Hawaii's Civilian Labor Force, 2000 - 2011**



## Unemployment Rates

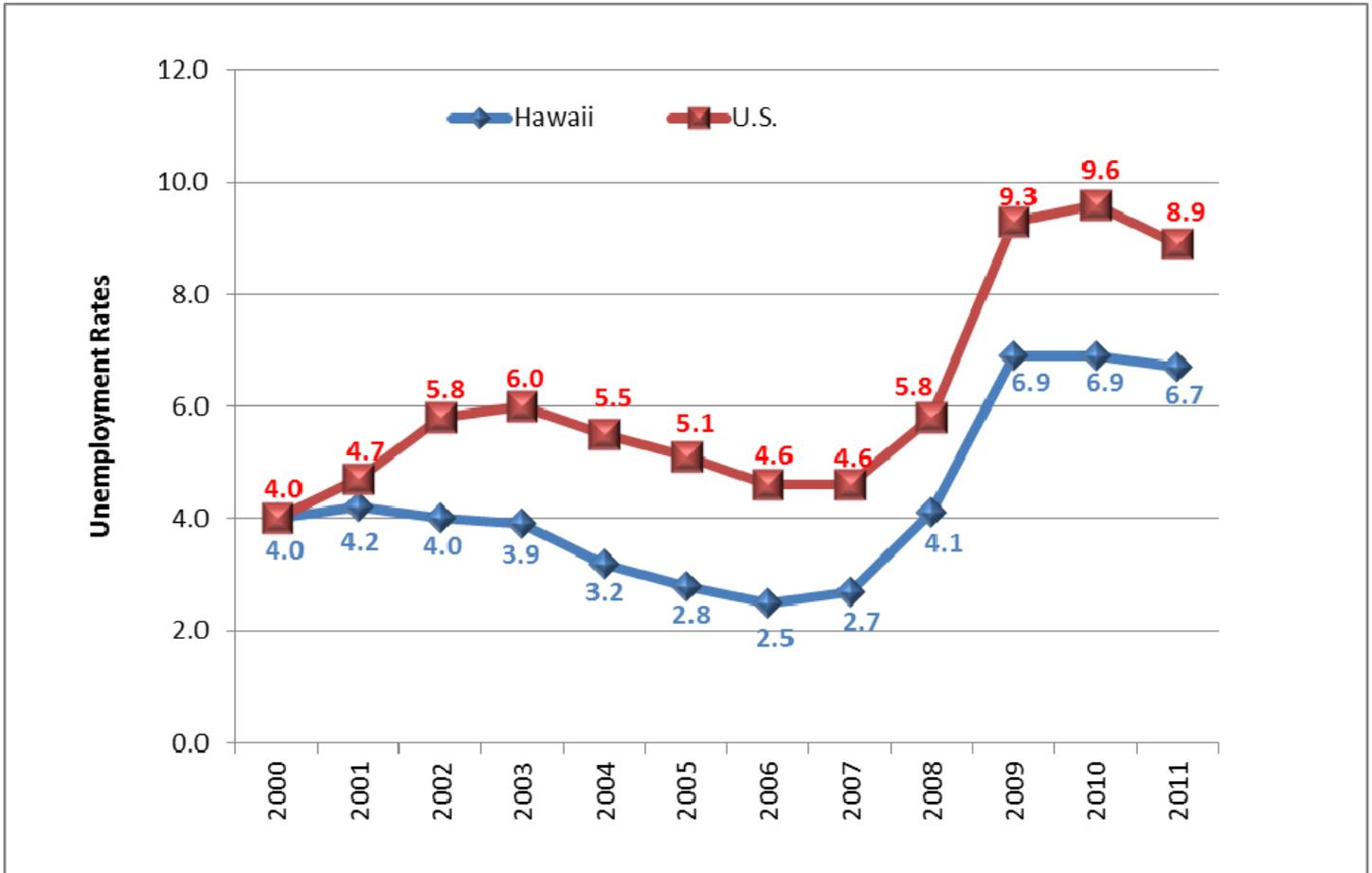
After holding steady at 6.9 percent for the past two years, Hawaii's unemployment rate improved in 2011, dropping to 6.7 percent. This was 2.2 percentage points below the nation's unemployment rate of 8.9 percent, which translated to being tied with two other states with the 11<sup>th</sup> lowest unemployment ratio among the 50 states. However, the decline of 0.2 percentage point ranked the state 44<sup>th</sup> slowest in the nation.

Since the year 2001, Hawaii's unemployment rate has remained consistently lower than the national rate (Figure 4). In fact, over the last 10 years, Hawaii's rate has ranged from at least 1.7 percentage points to 2.7 percentage points below the national rate. As a result, between the years 2002 to 2008, Hawaii was among the 10 states with

the lowest unemployment ratio. Over the last three years, from 2009 to 2011, as the state's ratio climbed above six percent, Hawaii's ranking has gone up slightly, though still remains within the top 12 states with the lowest unemployment ratio.

An over-the-year comparison for the first seven months of 2012 show a favorable unemployment rate for every month thus far except for March, which remained at the same level. The current rate as of July 2012 was 6.3 percent for Hawaii, compared to 8.3 percent for the nation. Although Hawaii's rate in 2012 has shown some encouraging signs of further improvement, the current rate is still double the pre-recession low of 2.5 percent in 2006.

Figure 4. Hawaii's unemployment rate remains lower than U.S. (not seasonally adjusted)



## Non-Farm Employment

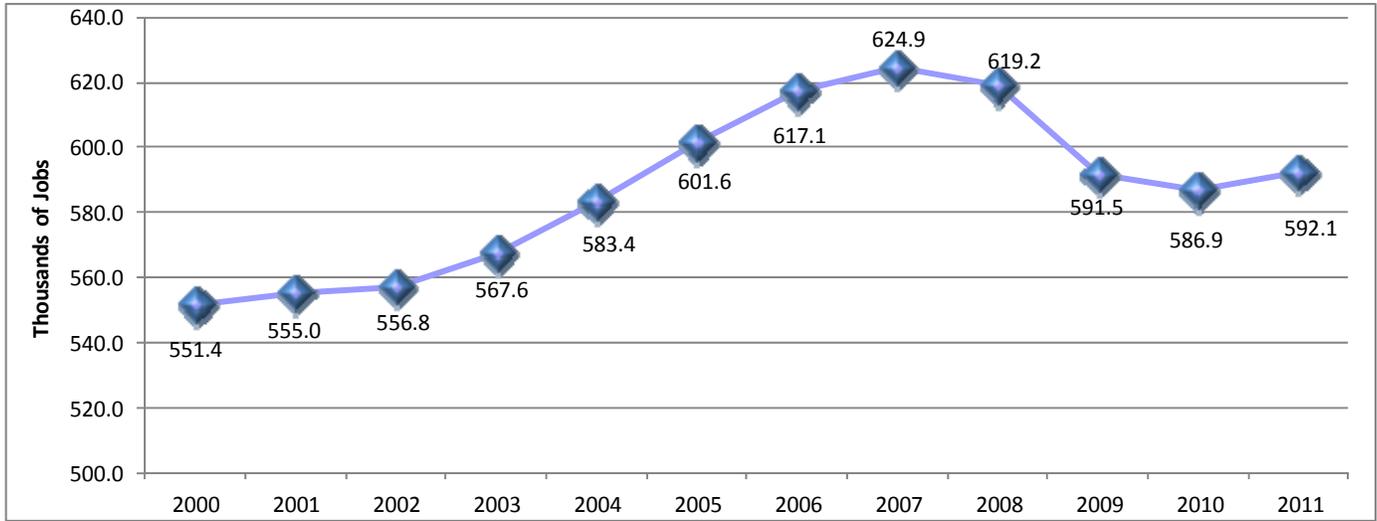
Hawaii's nonfarm job count rebounded slightly by 5,200 jobs to 592,100 in 2011, marking the end to a three year slide that began in 2008. Compared to the rest of the nation, Hawaii's modest over-the-year increase of 0.9 percent remained slower than most states, ranking 30 out of 50 in terms of percentage growth.

Over the past 12 years, the state's non-farm employment count, which is based on the monthly payroll survey of business establishments, peaked at 624,850 in 2007 (Figure 5). From 2008 to 2011, the percentage change for Hawaii paralleled the national trend, which is in line with the recession that has gripped the nation since the

end of 2007 (Figure 6). Prior to 2008, growth in Hawaii's non-farm employment had outpaced the nation. A slight decline in 2008 was followed by a larger loss of 4.5 percent in 2009. Non-farm employment continued to shrink in 2010, but the rate of the decline slowed considerably. During the 2007-2010 slowdown, Hawaii's non-farm employment contracted by 6.1 percent. Only 16 other states reported higher employment losses.

Overall, Hawaii's job growth has been stronger than the nation. The state's non-farm payrolls expanded by 7.4 percent compared to a slight decrease for the nation.

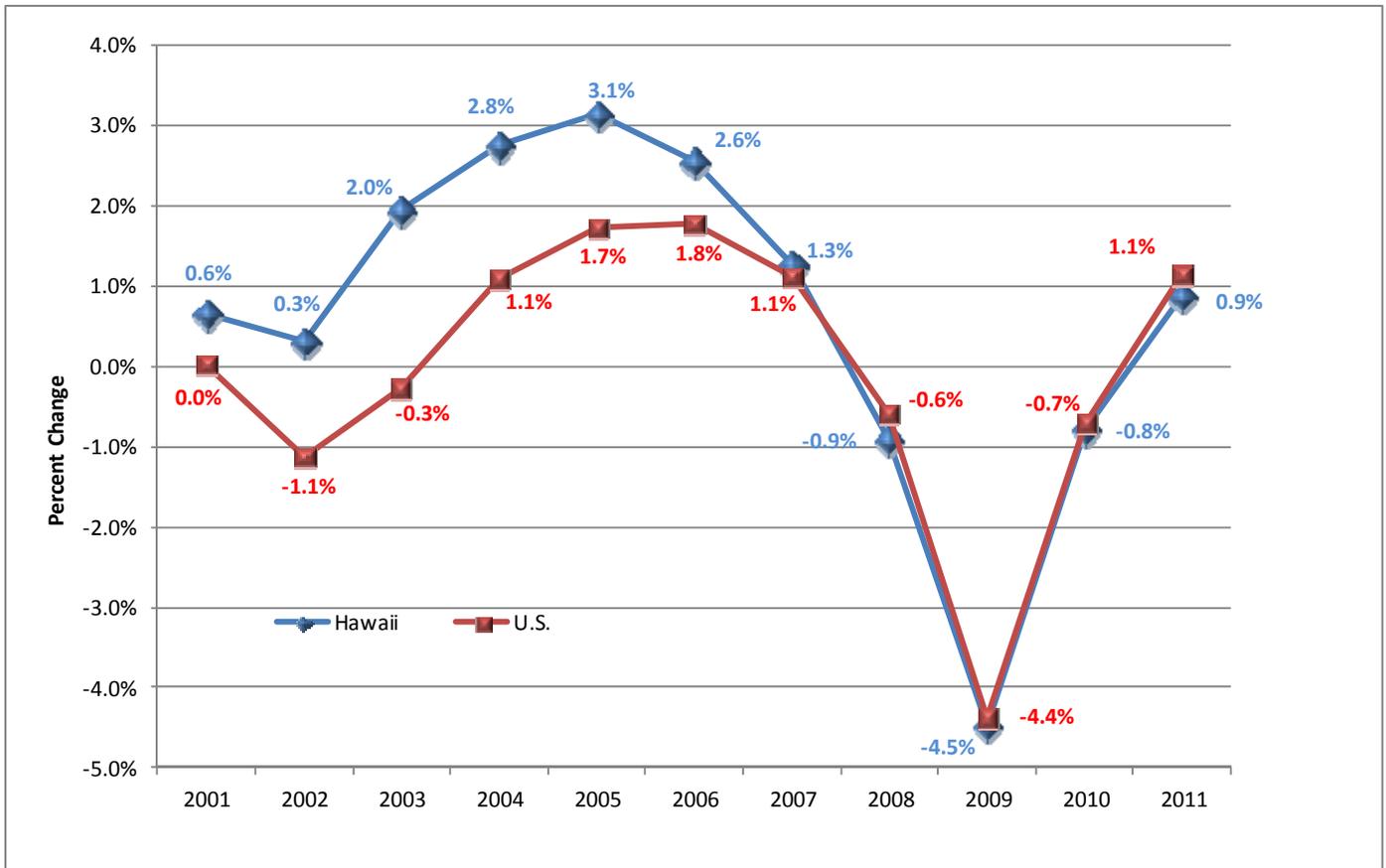
Figure 5. Hawaii's 11-Year Job Trend (not seasonally adjusted)



So far 2012 monthly non-farm employment data for both the state and the nation look better than previous year totals. Although both have been trending upwards,

Hawaii's growth has generally trailed the national figures in terms of month-to-month percentage growth.

Figure 6. Hawaii's vs. U.S. job trend in the last twelve years (not seasonally adjusted)



# At the County Level

Hawaii consists of four county labor market areas- Honolulu Metropolitan Statistical Area (MSA), the largest job market, followed by Maui County, Hawaii County,

and Kauai County. Since nearly three-quarters of all jobs originate in Honolulu MSA, the economic activity of this area largely impacts the overall state data.

## Unemployment Rates

Unemployment rates have been uneven among the counties. The unemployment rates of the urban areas generally tend to be lower than those of more rural regions (Figure 7).

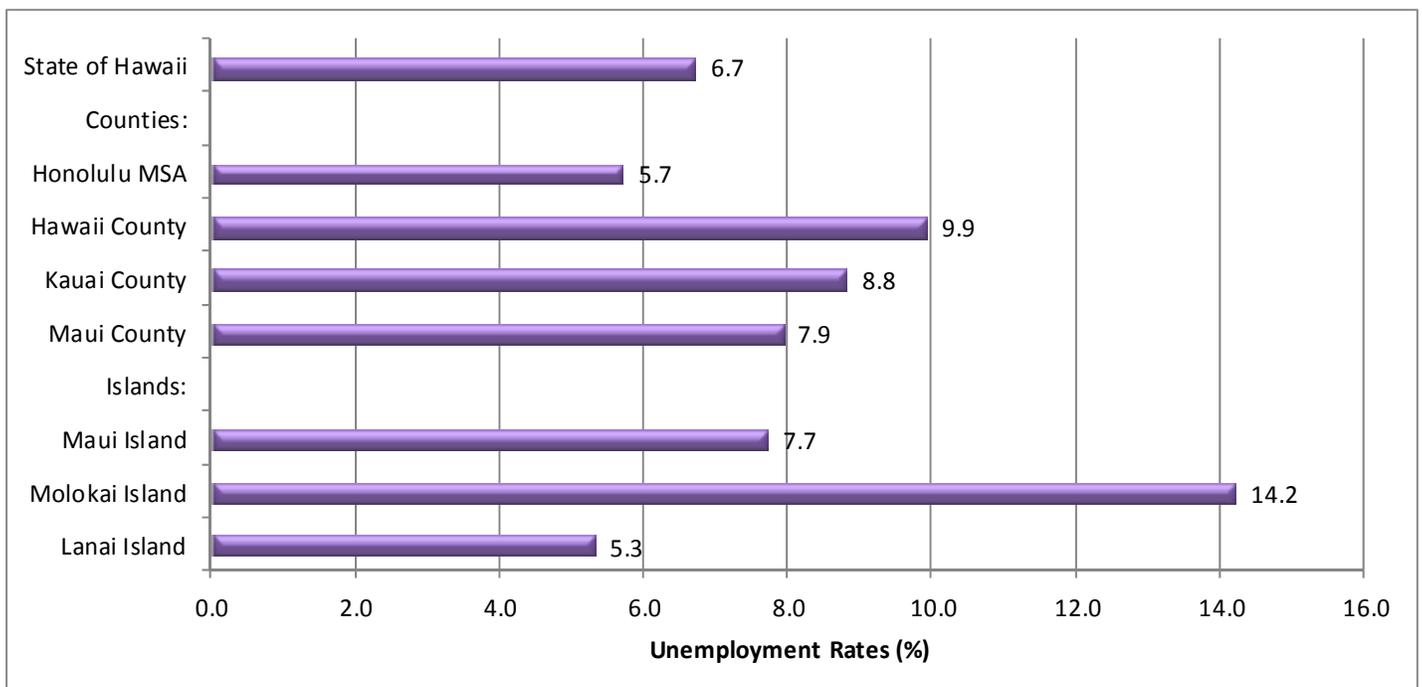
The unemployment rate for all counties eased slightly in 2011 (Figure 8 and Table 1). Honolulu MSA had the lowest jobless rate of 5.7 percent in 2011, followed by Maui County at 7.9 percent, Kauai County at 8.8 percent, and Hawaii County at 9.9 percent. While Maui County posted the second lowest rate statewide, Molokai suffered the highest unemployment rate of all islands at 14.2 percent.

From 2000-2011, Honolulu MSA's unemployment rate has remained the lowest of the counties or near the bottom. Even throughout the slowdown from 2008 to

2010, the rate of increase at 2.1 percentage points was the smallest among the counties. The annual rate of 5.7 percent in 2011, while well below the other counties, was still elevated in comparison to the 2007 pre-recession unemployment ratio.

Prior to 2007, Maui County's unemployment ratio was at the same level as Honolulu MSA or, in some years, even lower. However, during the recession, the unemployment rate nearly doubled, jumping from 4.6 percent in 2008 to 8.6 percent in 2010. Within the county, while the jobless ratio for both Maui Island and Lanai both fell in 2011, Molokai recorded an increase of 1.0 percentage point to 14.2 percent, the highest since 1996 when the ratio reached 14.8 percent. Overall though, Maui County's unemployment rate posted the largest over-the-year decline of 0.7 percentage point to 7.9 percent in 2011.

Figure 7. Unemployment rates for Counties in Hawaii, 2011 (not seasonally adjusted)



During the 2008 to 2010 period, Kauai County's unemployment rate surged by 4.4 percentage points, climbing from a recession low of 4.6 percent to 9.0 percent in 2010. After peaking at 9.4 percent in 2009, the ratio has improved over the last two years.

Hawaii County posted the highest unemployment rate of all the counties during the recession period. In fact, throughout the past 12 years, Hawaii County's ratio has exceeded the other counties every year except in 2001 when it tied with Kauai County. After four years of

increases, beginning with 2006, the ratio finally edged downward slightly in 2011 by 0.1 percentage point to 9.9 percent.

Improvement appears likely in 2012. So far the unemployment rates for the first seven months of 2012 are lower than the 2011 rates for all counties except for Honolulu MSA. Within Honolulu MSA, three out of the seven months - March, April, and May reported higher rates, while the unemployment ratio either stayed the same or fell during the other four months.

Figure 8. Unemployment rates for Counties in Hawaii, 2000 - 2011 (not seasonally adjusted)

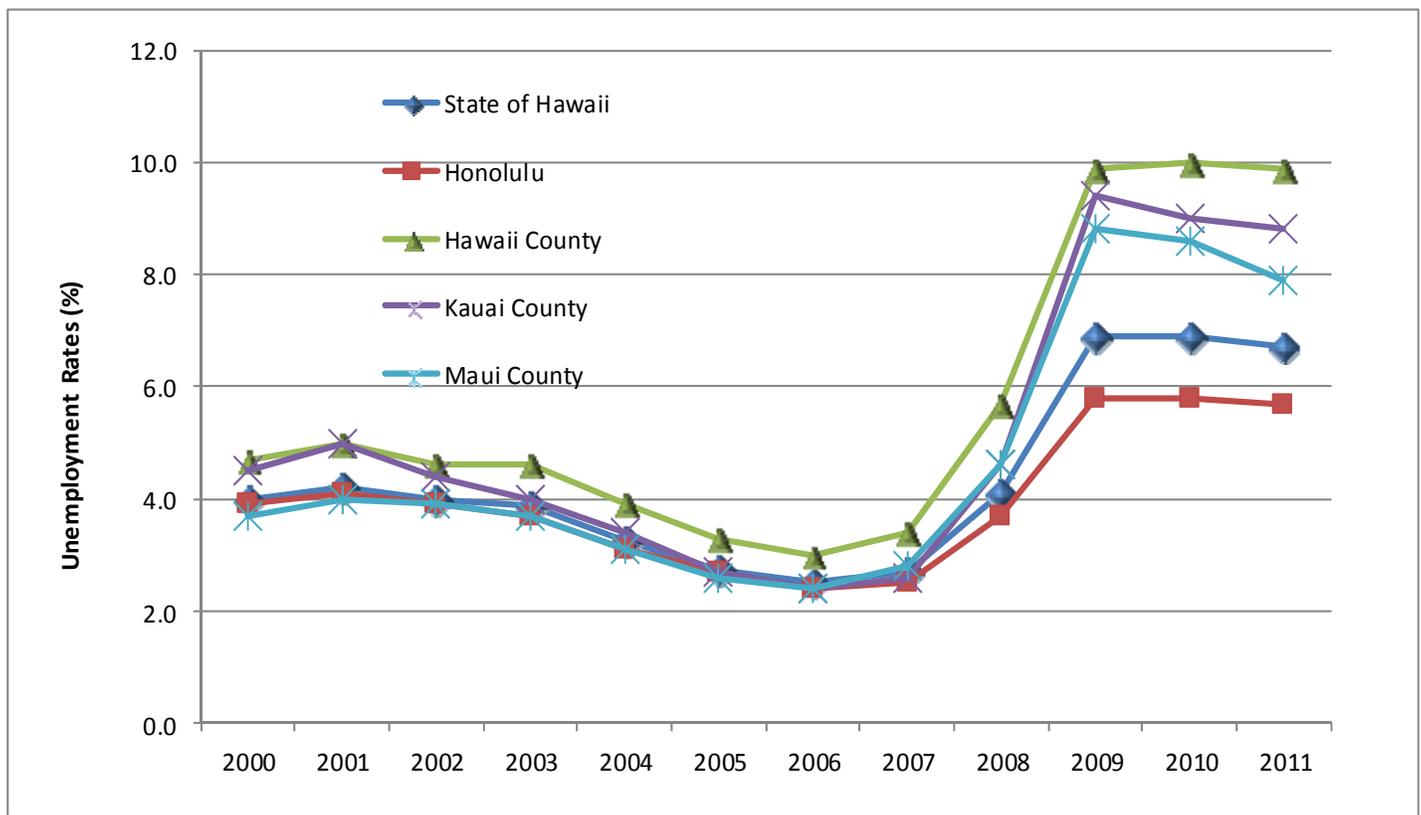


Table 1. Unemployment rates for Counties in Hawaii, 2000 - 2011 (not seasonally adjusted)

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
State	4.0	4.2	4.0	3.9	3.2	2.8	2.5	2.7	4.1	6.9	6.9	6.7
Honolulu	3.9	4.1	3.9	3.7	3.1	2.7	2.4	2.5	3.7	5.8	5.8	5.7
Hawaii County	4.7	5.0	4.6	4.6	3.9	3.3	3.0	3.4	5.7	9.9	10.0	9.9
Kauai County	4.5	5.0	4.4	4.0	3.4	2.7	2.4	2.6	4.6	9.4	9.0	8.8
Maui County	3.7	4.0	3.9	3.7	3.1	2.6	2.4	2.8	4.6	8.8	8.6	7.9

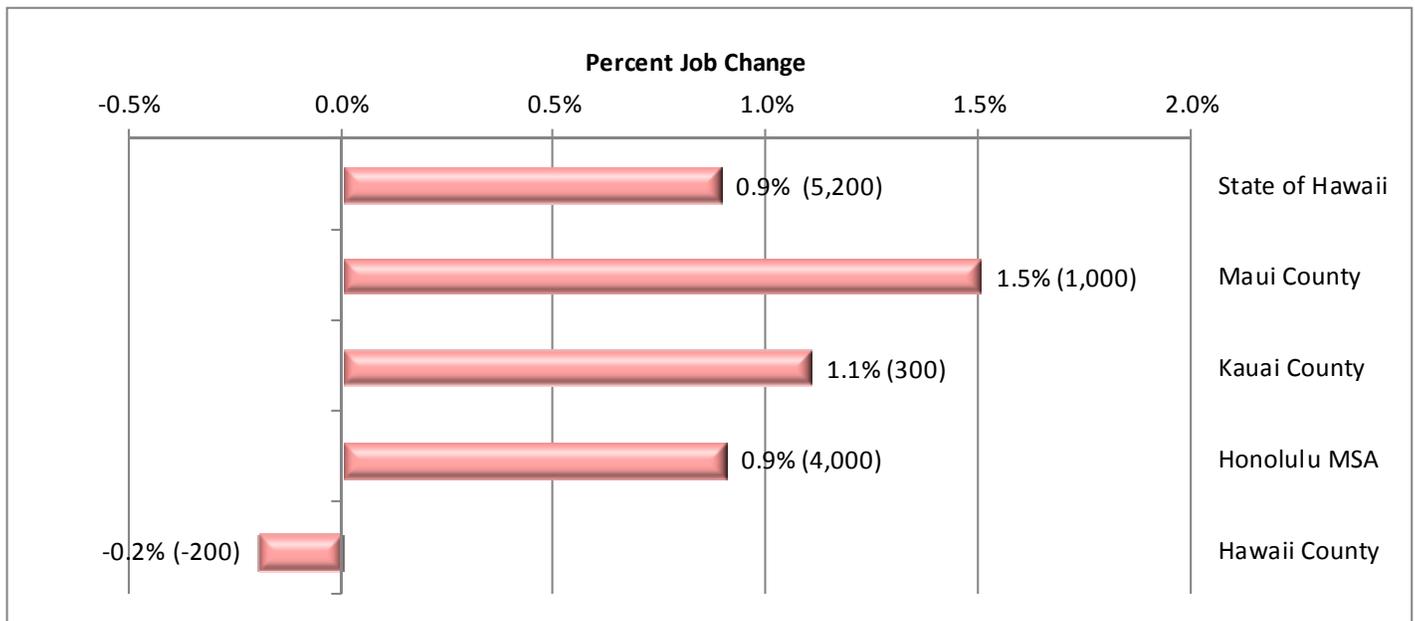
## Non-Farm Jobs

Non-farm payrolls advanced in three of the four counties from 2010 to 2011 (Figure 9). Maui County registered the fastest growth at 1.5 percent, followed by Kauai County which grew by 1.1 percent. While Honolulu MSA posted the smallest percentage increase of 0.9 percent, the 4,000 jobs added was the most of all counties. Only Hawaii County reported a reduction in employment with the loss of 100 jobs. This was the fourth straight year of job losses for Hawaii county,

however, this was much lower than the previous year's decline of nearly 1,000.

So far the outlook for 2012 appears promising. For the first seven months of the year, a month-by-month comparison by county, points to an improving labor market. The job count increased in every month except one month for Hawaii County. Even then, within the county, January 2012 registered a minimal loss of 100 jobs, which hopefully leads to positive growth for the year.

Figure 9. Percent Job change for Counties in Hawaii (not seasonally adjusted), 2010-2011



## Industry Highlights

### The Recession in Hawaii

The most recent national recession that began in December 2007 and officially ended in June 2009 caused a major slowdown in the economy that the nation has yet to fully recover from. During the 2007 to 2009 period, Hawaii lost 33,350 jobs. As of 2011, a total of only 600 jobs have been added as Hawaii's job count continued to shrink in 2010 and finally began to recover in 2011. Not surprisingly, the goods-producing industry sector experienced the larger percentage decline of 17 percent, while service-providing industries fell by 4 percent.

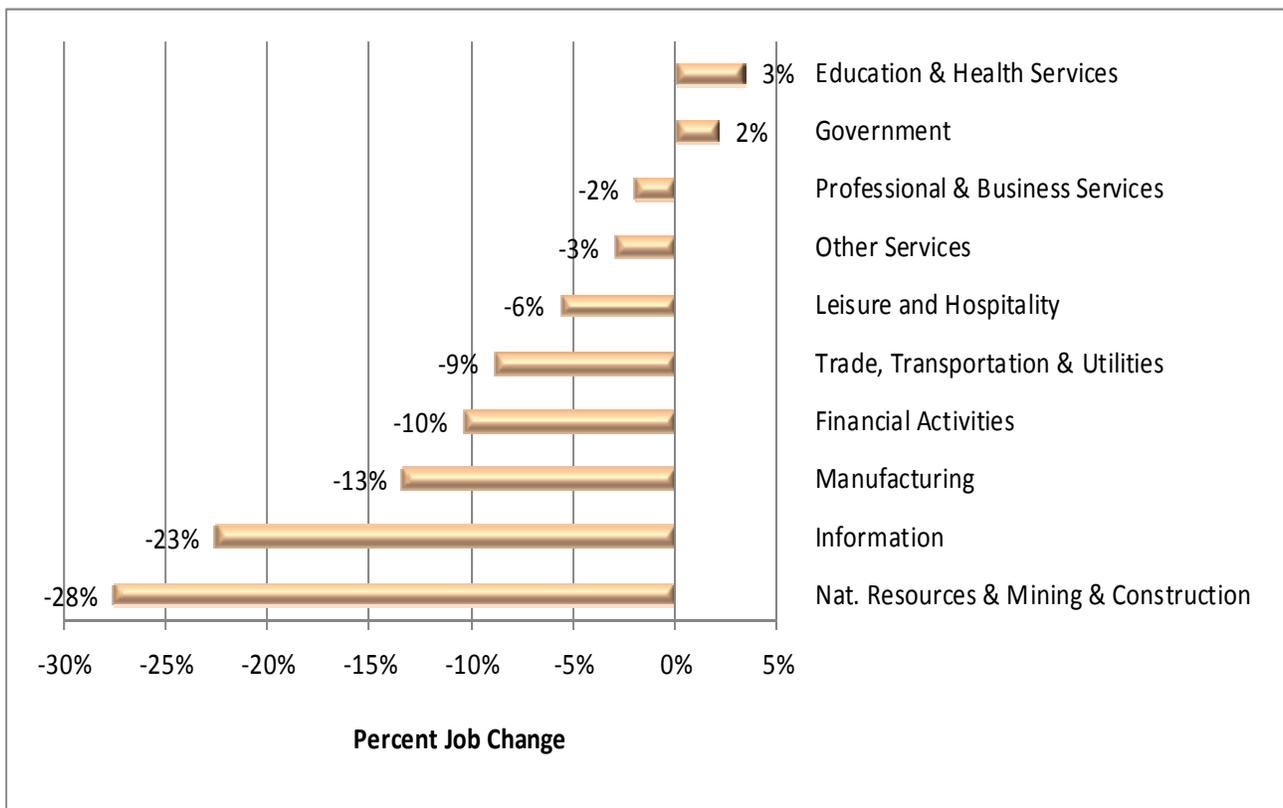
Two industries managed an increase in employment during the recession—education and health services, along with government. Although education and health services has expanded further in the two years following the recession, government employment has retracted over the same period.

From 2007 to 2011, the natural resources and mining and construction industry; and the information industry suffered the biggest percentage losses in jobs. Natural

resources and mining and construction, the bulk of which consists of construction employment, lost 10,800 positions or over a quarter of its workforce, while information, the smallest industry, fell by 23 percent. Both durable and non-durable goods negatively impacted the manufacturing industry, causing an overall reduction of 2,050 positions or 13 percent. Both of the finance and insurance subsector, and the real estate and rental and leasing subsector contributed to the 10 percent decline in

the financial activities industry. Two industries largely impacted by tourism—trade, transportation, and utilities; and leisure and hospitality are down by 9 percent and 6 percent, respectively. Other services experienced the smallest numerical loss of 800 jobs or 3 percent. The professional and business services industry fell by 2 percent despite a gain of 13 percent in employment services (Figure 10).

**Figure 10. Hawaii’s percent change in jobs (not seasonally adjusted), 2007-2011**



### Over-the Year-Change

In 2011, half of Hawaii’s ten industry sectors gained jobs, four recorded losses, while one sector remained the same (Figure 11). Leisure and hospitality, and professional and business services posted the largest over-the-year job gains, both above 3,000 jobs. Accommodation and food services provided over 95 percent of the increase in leisure and hospitality. More than 90 percent of the positions added in professional and business services were due to the administrative and support and waste management and

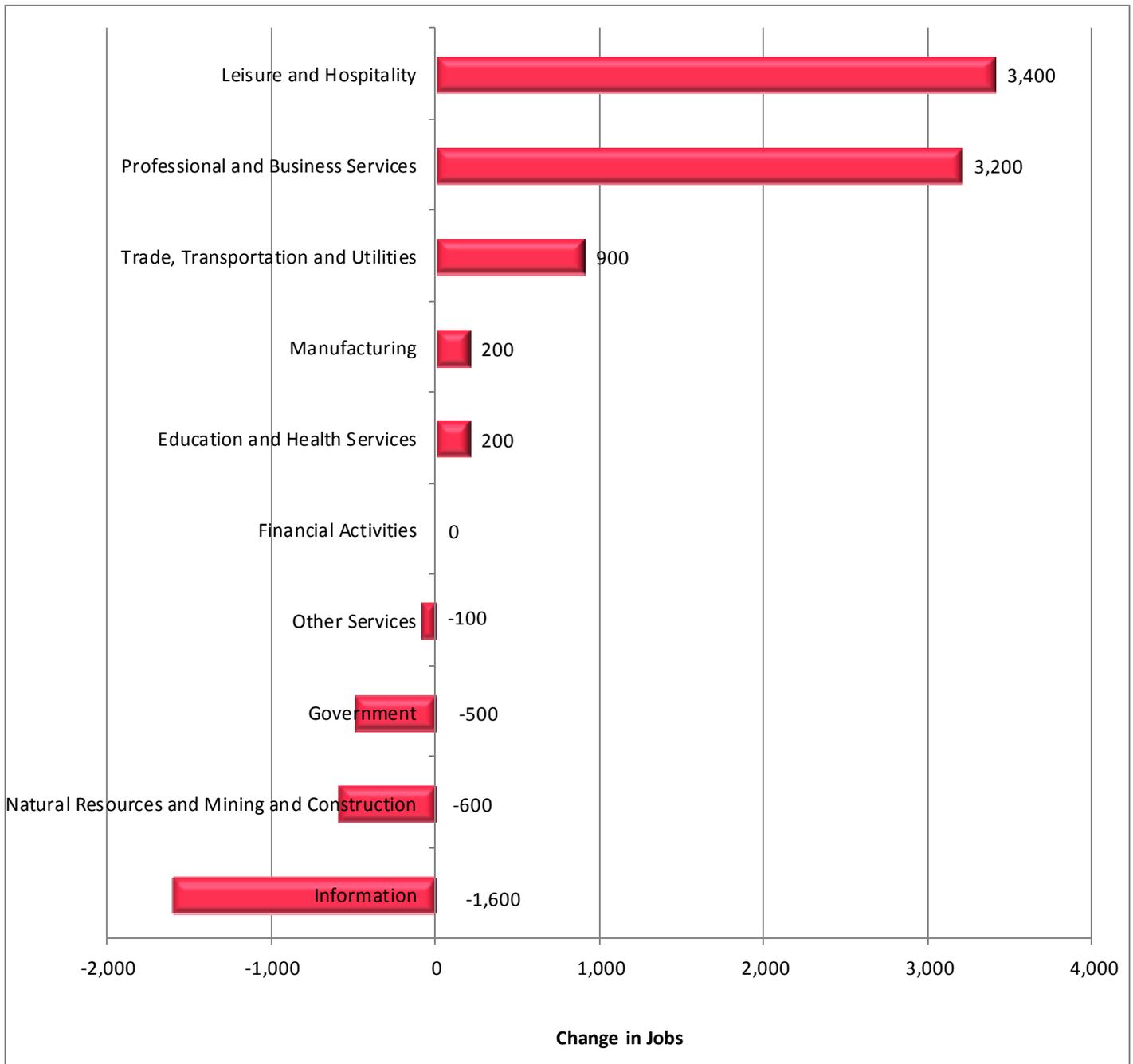
remediation services subsector, which includes temporary help agencies. Employment in trade, transportation, and utilities improved in 2011, following three straight years of reduced payrolls. Two industry sectors—education and health services, and manufacturing each added 200 jobs. Education and health services, largely unaffected by the recession, received a boost from healthcare and social assistance. Meanwhile, manufacturing finally moved into positive territory after four years of declines.

The information industry reported the largest job loss, reducing its jobcount by 16 percent or 1,600 jobs. Since the year 2000, this industry has lost a third of its workforce. Natural resources and mining and construction, which has been on a downward trend since 2007, dropped 600. However, the magnitude of the decline was significantly smaller than the prior years. A reduction in state

government payrolls for the second straight year partially resulted in a decrease of 500 government jobs. Other services fell slightly, losing 100 positions. Financial activities remained unchanged in 2011.

Thus far the data for 2012 looks promising. All seven months of statewide non-farm data are higher compared to year-ago totals.

**Figure 11. Hawaii’s over-the-year job change (not seasonally adjusted), 2010-2011**



# Local Employment Dynamics

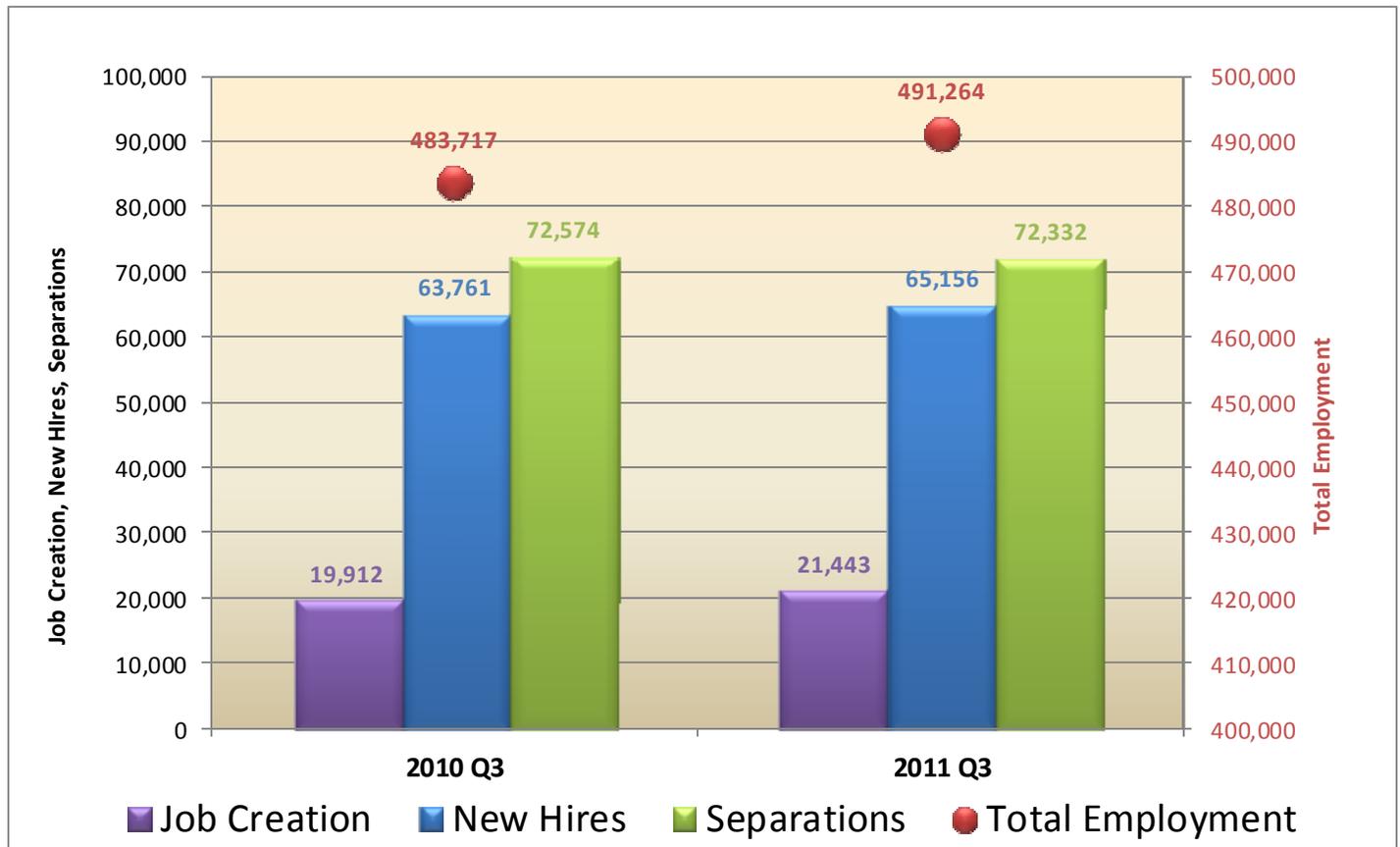
The U.S. Census Bureau’s Local Employment Dynamic (LED) program produces Quarterly Workforce Indicators (QWI) that gives an overview of the State’s workforce. The latest data available is for the third quarter of 2011 and comparisons against the same quarter a year earlier illustrate some of the dynamics happening within the workforce. For the scope of this report, public administration was not included because the QWI data currently does not have a complete set of government data.

In the third quarter of 2011, total employment in Hawaii averaged 491,264, an increase of 7,547 or 1.6 percent from the third quarter of 2010 (Figure 12). The accommodations and food services industry posted the greatest gains in employment by adding 2,745 jobs from the third quarter of 2010 to the third quarter of 2011, an improvement of 3.1 percent (Table 2). Also showing significant growth was the administrative, support, waste management, and

remediation services sector which expanded employment by 5.6 percent, or 2,408 workers. Smaller advances were experienced by the retail trade sector and most of the other sectors as well. With the economy recovering from the great recession, only four industry sectors suffered employment declines: Information (710 jobs or 7.0 percent); educational services (643 jobs or 4.7 percent); wholesale trade (-464 jobs or 2.6 percent); and finance and insurance (59 jobs or 0.4 percent).

Job creation also rebounded from last year with a 7.7 percent hike, increasing by 1,531 jobs for a third quarter 2011 average of 21,443. This indicator is defined as the number of jobs created by new companies or expansion of existing companies. It is good news that employers are beginning to feel more confident in the economic recovery and are willing to hire more workers. The accommodation and food services industry showed the most dramatic

Figure 12. Quarterly Workforce Indicators, State of Hawaii, 2010 Q3 - 2011 Q3



improvement over the year as new job gains averaged 668 more than the prior year, for a 20.4 percent spike. The administrative, support, waste management, and remediation services sector also fared well in creating 661 new jobs – a 26.7 percent increase over jobs created the same time a year earlier.

The number of new hires rose by 1,395, or 2.2 percent, to average 65,156 for the third quarter of 2011. What industries contributed to this increase in hiring? Like the previous two indicators, the accommodation and food services industry sector led with 1,836 more new hires in the third quarter of 2011, as compared to the same quarter the year before, which represents an increase of 14.7 percent. The retail trade

sector also had a substantial increase in hiring with 917 more new hires than the previous year, or 10.8 percent more.

Unlike the same time a year ago, the number of separations diminished by 0.3 percent, or 242, for an average of 72,332 in the third quarter of 2011. This indicator counts the number of workers who left their job for various reasons. Most of the separations occurred in the accommodation and food services sector (15,199), administrative, support, waste management, and remediation services industry (9,987), and retail trade (9,719). The information industry sector, meanwhile, experienced the largest reduction in the number of separations in the third quarter of 2011 as compared to the prior year – down by 2,910, or 49.6 percent.

**Table 2. Quarterly Workforce Indicators by Industry, Hawaii, 2011 Q3 Comparison to 2010 Q3**

Industry	Total Employment			Job Creation			New Hires			Separations		
	2011 Q3	# CHG	% CHG	2011 Q3	# CHG	% CHG	2011 Q3	# CHG	% CHG	2011 Q3	# CHG	% CHG
<b>Total, All Industries</b>	<b>491,264</b>	<b>7,547</b>	<b>1.6%</b>	<b>21,443</b>	<b>1,531</b>	<b>7.7%</b>	<b>65,156</b>	<b>1,395</b>	<b>2.2%</b>	<b>72,332</b>	<b>-242</b>	<b>-0.3%</b>
Manufacturing	13,540	385	2.9%	465	29	6.7%	1,235	60	5.1%	1,383	68	5.2%
Construction	29,146	258	0.9%	2,596	384	17.4%	4,790	548	12.9%	5,417	609	12.7%
Wholesale Trade	17,464	-464	-2.6%	707	144	25.6%	1,460	64	4.6%	1,465	-50	-3.3%
Retail Trade	66,506	1,328	2.0%	2,467	305	14.1%	9,414	917	10.8%	9,719	793	8.9%
Transportation & Warehouse	25,618	611	2.4%	556	-108	-16.3%	2,091	11	0.5%	2,410	136	6.0%
Information	9,372	-710	-7.0%	929	-359	-27.9%	2,822	-2,634	-48.3%	2,962	-2,910	-49.6%
Finance & Ins.	15,470	-59	-0.4%	360	42	13.2%	1,234	289	30.6%	1,374	269	24.3%
Real Estate, Rental, Leasing	11,516	71	0.6%	456	-36	-7.3%	1,228	44	3.7%	1,358	49	3.7%
Prof., Sci., Tech.	24,247	90	0.4%	1,118	-95	-7.8%	2,428	37	1.5%	2,940	127	4.5%
Admin., Support, Waste Mgmt., Remed. Svcs.	45,378	2,408	5.6%	3,140	661	26.7%	9,943	406	4.3%	9,987	-379	-3.7%
Educational Svcs.	13,085	-643	-4.7%	616	-17	-2.7%	2,154	3	0.1%	3,151	-206	-6.1%
Health Care & Social Asst.	61,999	842	1.4%	1,743	54	3.2%	5,888	77	1.3%	7,083	-561	-7.3%
Arts, Enter., Rec.	11,857	233	2.0%	469	-43	-8.4%	1,596	52	3.4%	1,993	129	6.9%
Accommodation & Food Svcs.	91,922	2,745	3.1%	3,950	668	20.4%	14,357	1,836	14.7%	15,199	1,651	12.2%
Other Services	23,777	216	0.9%	1,134	-56	-4.7%	2,815	-226	-7.4%	3,452	94	2.8%

Note: Data extracted on 9/18/12 from LEHD website: <http://lehd.ces.census.gov/led/datatools/qwiapp.html>

# Update on Hawaii's Green Workforce

Much attention has been directed towards the “greening” of Hawaii’s workforce. Two reports released within the last two years focused on the state’s growing green workforce.

According to a report generated in 2010 by the Department of Labor and Industrial Relation’s Research and Statistics Office, *Hawaii’s Green Workforce - A Baseline Assessment*, green jobs in Hawaii’s private sector totaled 11,145 or 2.4 percent of total private employment in 2010. This number was projected to grow by 26 percent to 14,048, equivalent to 2.9 percent of the workforce by 2012. Green job vacancies were estimated at 670, accounting for 1.5 percent of the total unemployed.

In early 2012, the Bureau of Labor Statistics (BLS) distributed a Green Goods and Services (GGS) Employment 2010 Report. According to the data, four out of the top five industries employing the greatest number of green workers were similar for both the United States and Hawaii. In a nationwide ranking, the percentage of Hawaii workers employed in green jobs tied for 12th highest among the 50 states.

Following the release of these reports, the Department of Labor and Industrial Relation’s Research and Statistics Office performed an analysis to update its initial

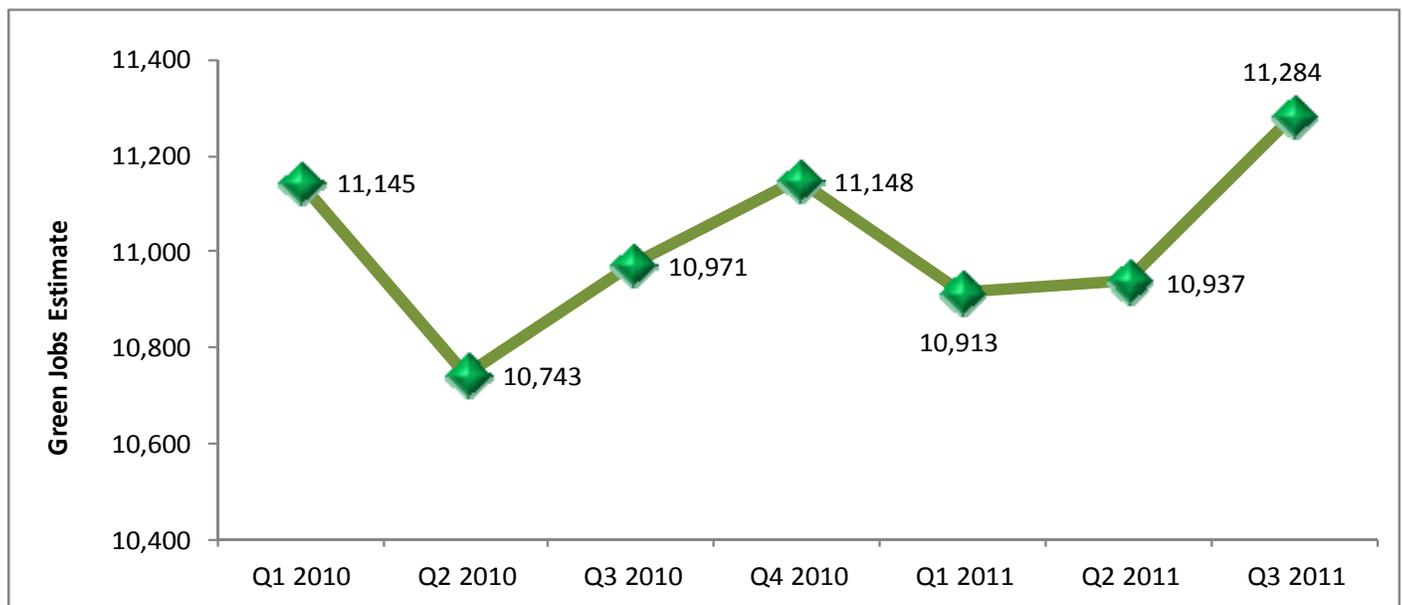
assessment of the green workforce in Hawaii. Estimates of the number of green jobs created statewide from the first quarter of 2010 to the third quarter of 2011 were generated (Figure 13). This study also compared the green jobs estimates to the University of Hawaii’s Economic Research Organization (UHARO) 2012 Green Jobs Forecast. The results of these findings are summarized in the report, *Reality Check: How Green is Hawaii’s Workforce?*, which was released in April 2012.

Key findings include:

- The number of green workers at the 330 sampled worksites increased by 0.4 percent going from 3,164 to 3,175 from the first quarter of 2010 to the third quarter of 2011. During the same period, the total number of all jobs increased by 6 percent. This small increase is due to a large extent to declines in construction and mining, which is the industry with the largest number of green jobs.
- From the first quarter of 2010 to the third quarter of 2011, 335 jobs were lost at 102 construction and mining worksites, resulting in an estimated loss of 91 green jobs.

For more detailed information please go to [www.greenjobshawaii.org](http://www.greenjobshawaii.org).

**Figure 13. Total Private Industry Green Jobs Estimate 2010 Q1 to 2011 Q3**



# Short- and Long-term Job Outlook

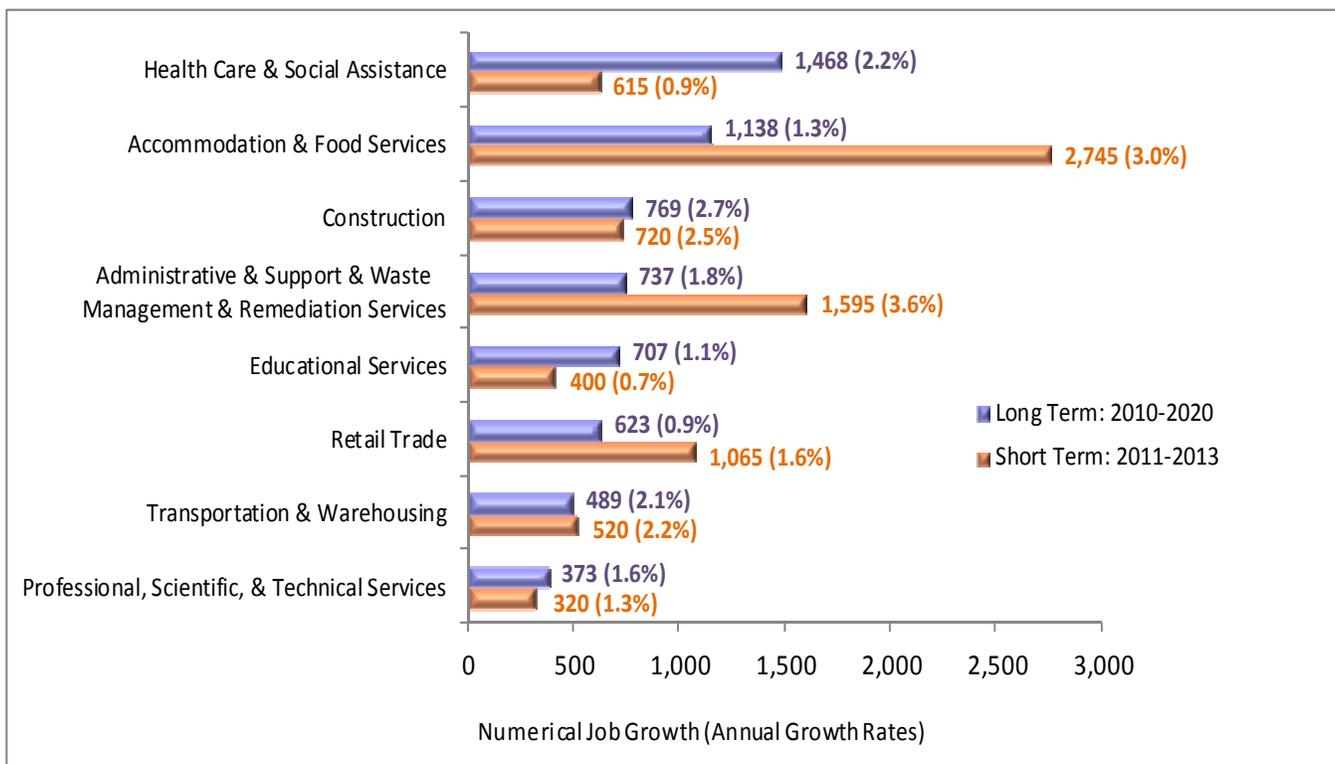
Future job growth in Hawaii for both the short-term and the long-term remains positive. The short-term outlook, from 2011 to 2013, points to a recovering economy and forecasts the addition of 20,460 jobs, or 1.6 percent annually. Growth over the long term, which tends to fluctuate from year-to-year, will average a slower rate of increase at 1.2 percent annually from 2010 to 2020. (Sources for *More Labor Market Information* section on page 19 provide links to detailed reports on the short- and long-term job outlook.)

Job gains among the industries will vary slightly depending on the timeframe of the projections. About two-thirds of the short-term job gain is projected to occur in three sectors: leisure and hospitality (5,860); professional and business services (4,200); and trade, transportation, and utilities (3,660). Within these sectors, accommodation and food services will provide the biggest gains, followed by administrative and support and waste management and remediation services, and retail trade. Three industries will also account for almost two-thirds of the increase in the long-term forecasts: education and health services (21,750);

trade, transportation, and utilities (13,520); and leisure and hospitality (12,650). Within the major sectors, the following subsectors will add at least 600 jobs per year: healthcare and social assistance; accommodation and food services; construction; administrative and support and waste management and remediation services; educational services; and retail trade. (Figure 14) During this same period, information; agriculture, forestry, fishing, and hunting; and government will incur a slight decline in jobs.

As the state's economy progresses towards a recovery from the recent recession, the overall job outlook for the short-term appears more positive compared to the long-term. Tourism remains the driving force behind the current recovery and continues to post impressive gains in both visitor arrivals and spending. This is anticipated to last through the end of 2012. In addition to a boost in air seat capacity, other encouraging signs of a rebound include, a strengthening housing market, and a pickup in car sales. Major planned construction projects should also boost employment.

**Figure 14. Hawaii's top growth industries: Projected annual job growth for short- and long-term**

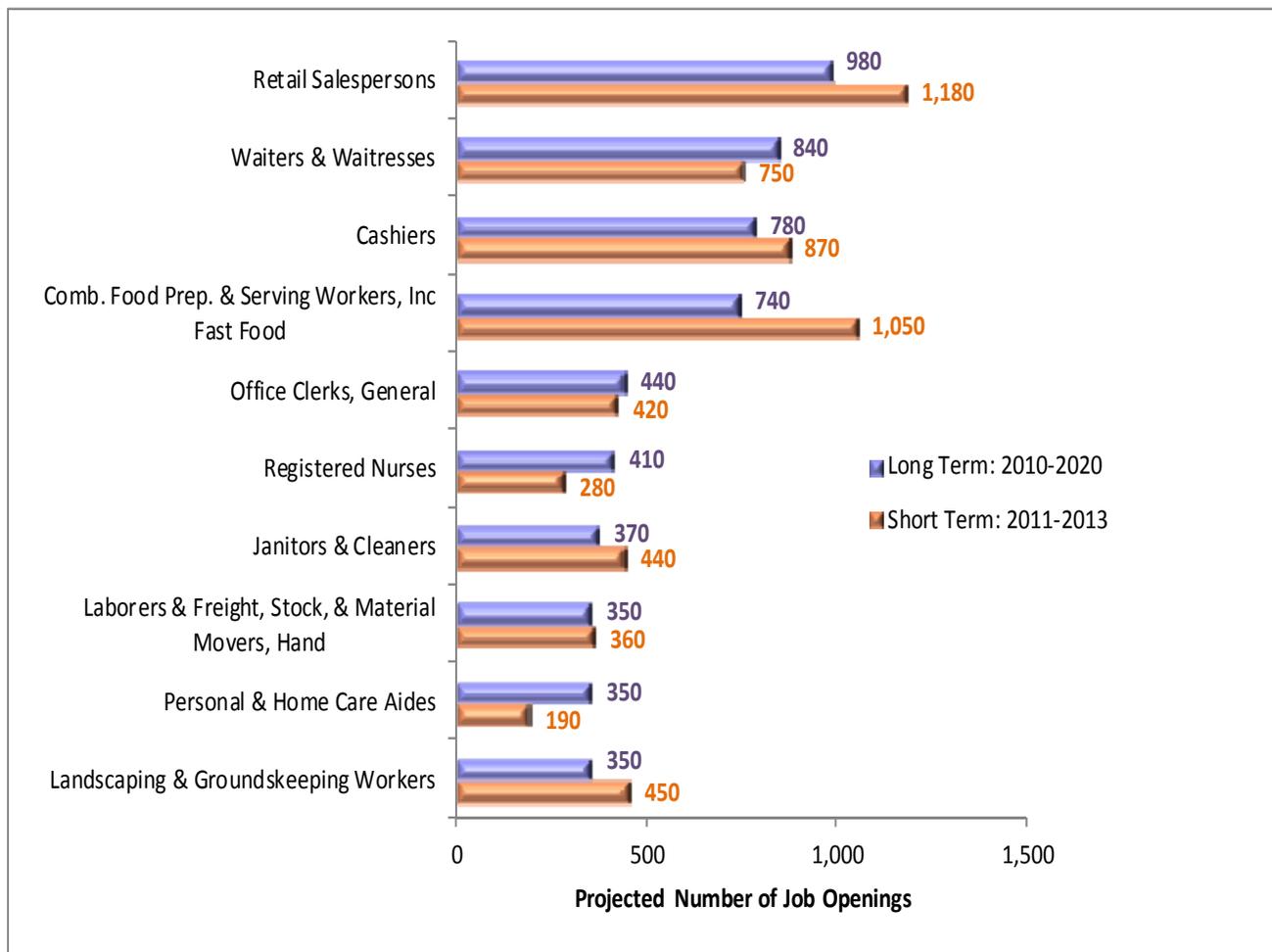


Job openings are created when an industry grows or a worker creates a vacant position by leaving the labor force or changing occupations. Many of the job openings (growth plus replacements) for the short-and long-term will occur in entry level, transitional jobs in which there is a constant turnover of workers (Figure 15). Nine of the ten occupations with the most projected job openings require only short-term on-the-job training, while registered nurses require more education. The average annual wages for the occupations listed below, excluding registered nurses, range from \$18,880 to \$30,800, which

is equivalent to an hourly rate of \$9.08 to \$14.81 per hour. Registered nurses earn a much higher annual salary of \$83,950 or \$40.36 per hour.

Two of the ten occupations below require at least a high school degree. Registered nurses must obtain an associate's degree, while general office clerks need a high school diploma or equivalent. The remaining occupations do not require a high school education for employment. Work experience is not a requirement for any of the jobs.

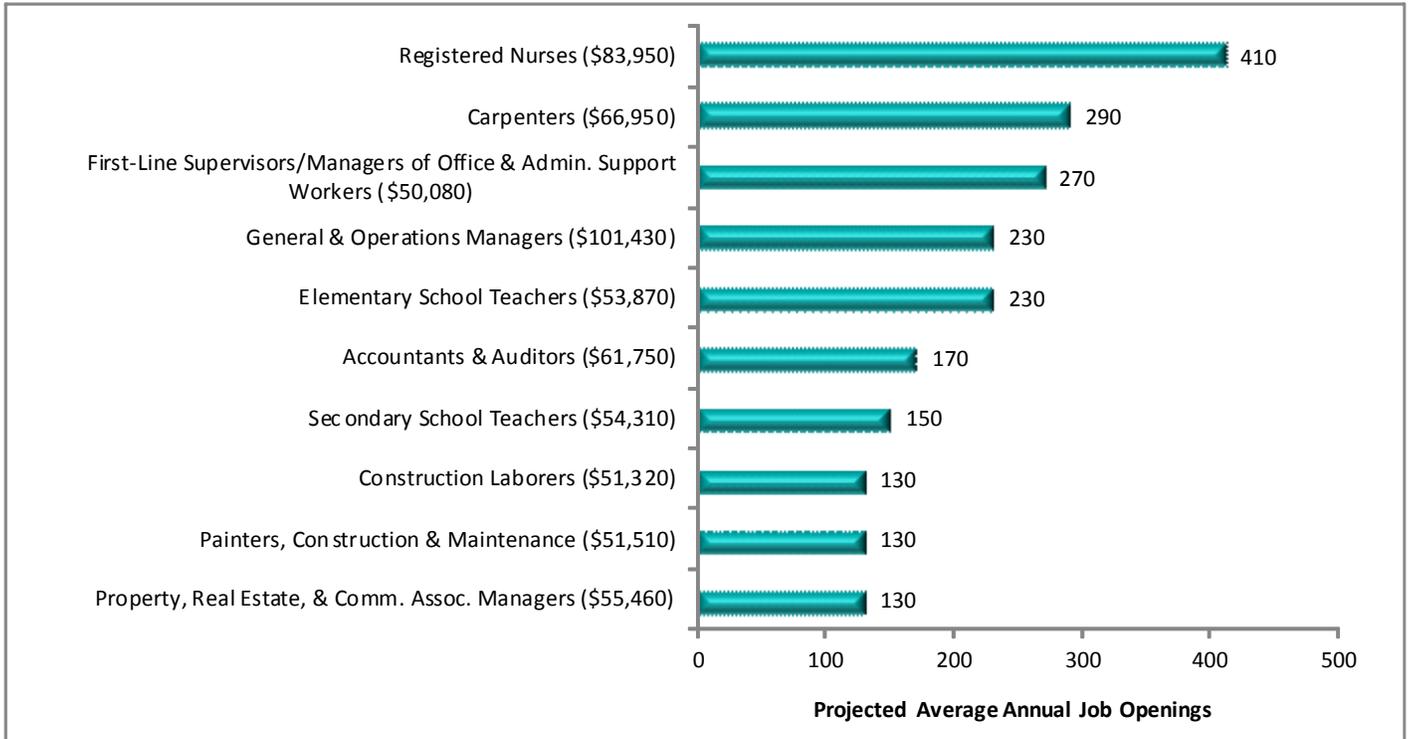
**Figure 15. Ten Hawaii occupations projected to have the most annual job openings**



Jobs that pay mean annual wages of more than \$50,000 will provide a substantial number of job openings through 2020. Five of the occupations: carpenters; first-line supervisors/managers of office and administrative support workers; property, real estate, and community association managers; painters; and construction laborers do not require postsecondary training (Figure 16).

Three components comprise the education and training requirements for each occupation—entry-level education, related work experience, and typical on-the-job training. The long-term outlook for these components reflect the need for education and/or training throughout the workforce.

Figure 16. High-wage occupations projected to have the most average annual openings in 2020

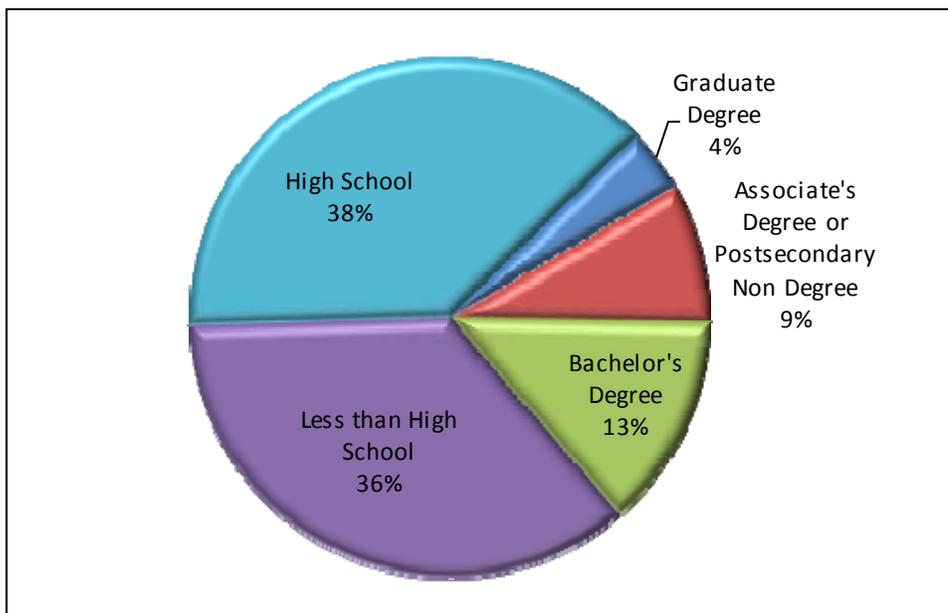


In terms of education, about three-quarters of all projected job openings can be obtained with a high school degree or less. Jobs requiring a bachelor’s degree will account for 13 percent of the total, followed by positions demanding an associate’s degree or postsecondary non degree award with

9 percent. A graduate degree will be required for 4 percent of all jobs (Figure 17).

Even though postsecondary education is not necessary for most of the jobs, workers who lack postsecondary

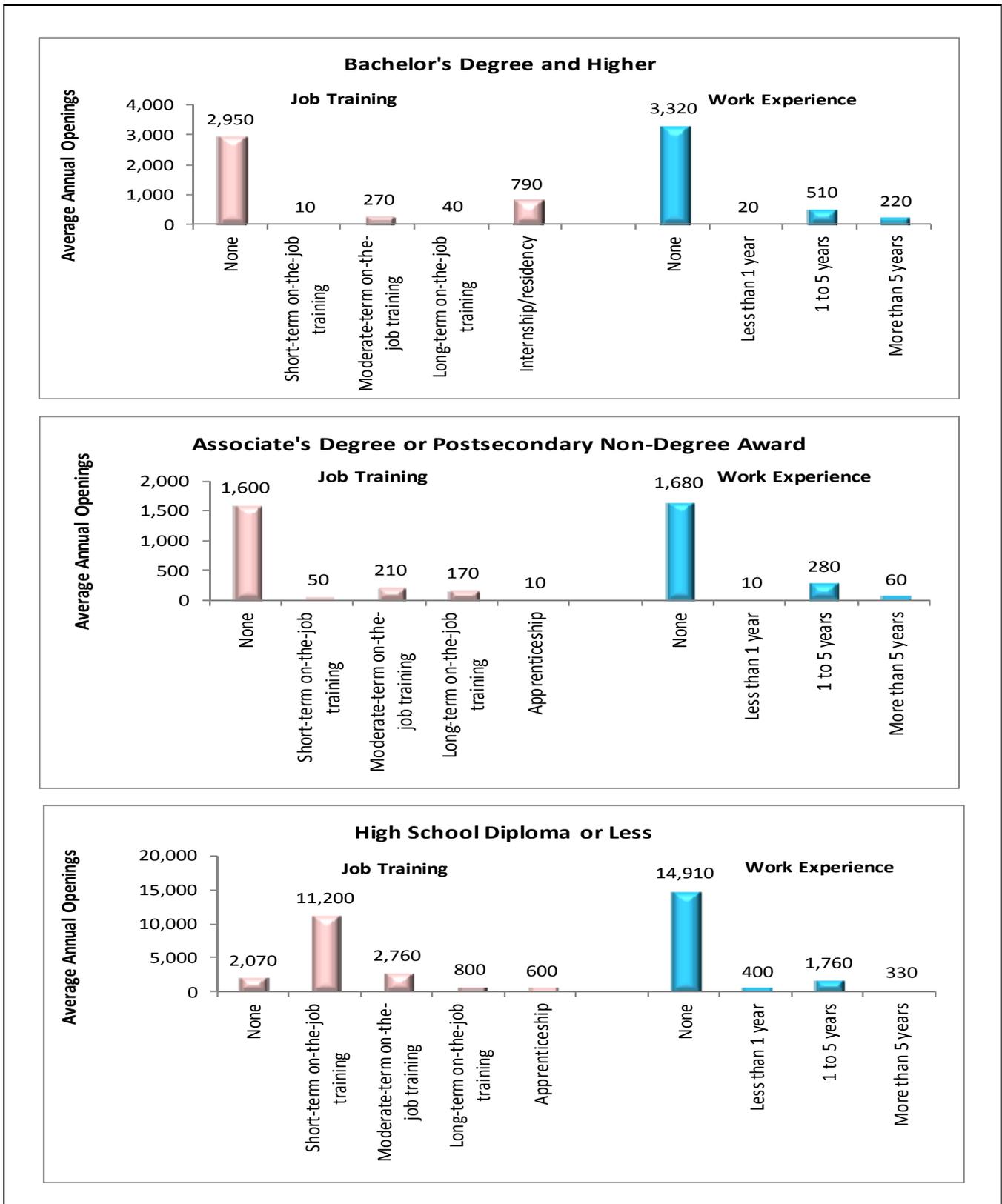
Figure 17. Projected annual openings by education requirements, 2010 - 2020



education will need to undergo more job training than any other education group. In fact, almost 90 percent in this group can expect to receive some type of on-the-job training. Conversely,

those with postsecondary education are not as involved with job training. Prior work experience is not required for almost 85 percent of all occupations (Figure 18).

**Figure 18. Projected annual openings by education level for training and work experience requirements, 2010 - 2020**



# More Labor Market Information

For more information, visit the Research and Statistics Office's website at [www.hiwi.org](http://www.hiwi.org) or [www.hawaii.gov/labor](http://www.hawaii.gov/labor). There you will find the many publications that the Labor Market Research Section produces about the state of the local labor market as well as employment projections by industry and occupations and analyses. In addition to the *Hawaii Labor Market Dynamics* report, other recently published material include:

- [Affirmative Action Programs – Labor Information](#) tables for state and counties updated *Table 1- Labor Force Information by Sex and Race* with 2010 Annual Local Area Unemployment Statistics (LAUS) data and based on 2000 Census.
- [Employment Forecasts for the Short-Term Future](#) provides short-term industry and occupational projections for Hawaii, using 3rd quarter employment data in 2011 to forecast employment for the equivalent quarter in 2013.
- [Hawaii's Green Workforce - A Baseline Assessment](#) provides a comprehensive framework for assessing green jobs in the private sector of the State of Hawaii in 2010.
- [Hawaii's Green Workforce - Beyond the Baseline](#) presents industry and occupational projections to 2018 regarding Hawaii's green workforce based on survey data from the 2010 Hawaii Green Jobs Survey.
- [Hawaii's Green Workforce - Green Occupational Profiles](#) supplements *Hawaii's Green Workforce: A Baseline Assessment*. Green Careers profiled reflect new and emerging green occupations as defined in the Occupational Information Network (O\*NET) program.
- [Hawaii's Green Workforce - Industry Profiles and Business Directory](#) supplements *Hawaii's Green Workforce: A Baseline Assessment* that profiles the three largest industries, as measured by the number of green workers in each county and provides a directory of green businesses based on the Hawaii Green Jobs Survey completed in July 2010.
- [Reality Check: How Green is Hawaii's Workforce?](#) estimates green jobs created in the State of Hawaii at the industry level from the first quarter of 2010 to the third quarter of 2011.
- [Local Employment Dynamics](#) reports can be generated for Hawaii private industries based on eight quarterly workforce indicators such as employment, job creation and flow via new hires and separations, worker turnover, and wages by industry, age, and gender.
- [Long-Term Industry and Occupational Projections, State of Hawaii 2010-2020](#) tables contain state employment for industries and occupations and expected growth amounts for the designated time period as well as occupational openings based on growth and replacement needs.
- [Long-Term Industry and Occupational Projections, Counties 2008-2018](#) tables contain county employment for industries and occupations and expected growth amounts for the designated time period as well as occupational openings based on growth and replacement needs.
- [Occupational Employment and Wages in Hawaii 2011](#) is an annual report compiling the results of the Occupational Employment Statistics survey, collecting employment and wage data by occupation over a three-year period from approximately 6,000 establishments.

# Notes

- <sup>1</sup> U.S. Census Bureau, [<http://www.census.gov/popest/states/data/state/totals/2011/tables/NST-EST2011.xls>], April 1, 2010 to July 1, 2011 (NST-EST2011=01).
- <sup>2</sup> U.S. Department of Labor, Bureau of Labor Statistics, [<http://www.bls.gov/news.release/pdf/srgune.pdf>].
- <sup>3</sup> U.S. Census Bureau, Local Employment Dynamics, QWI Online, [<http://lehd.did.census.gov/led/datatools/qwiapp.html>].