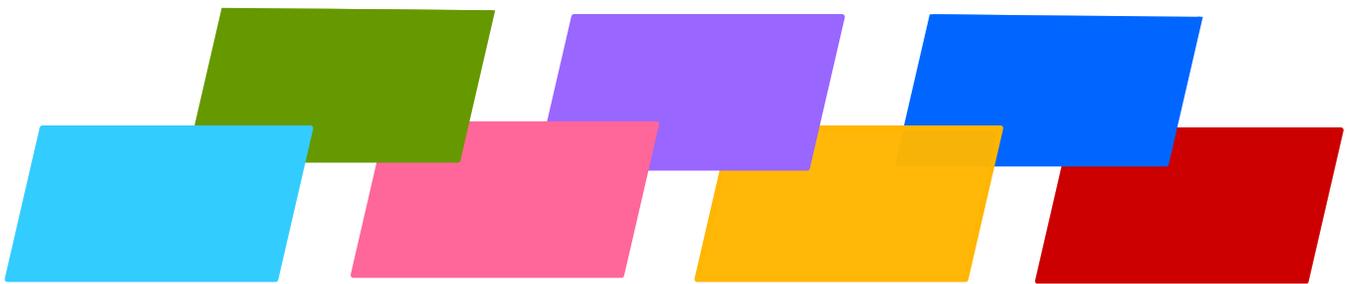




Hawaii Labor Market Dynamics

Has the economy fully recovered from the recession?



September 2015

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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 of the significant findings for 2014:

- Among the 50 states, Hawaii held onto its 42nd place ranking in terms of labor force size expanding to 668,200. Labor force participation rose for the first time in seven years to 61.6 percent.
- Hawaii's unemployment rate decreased by 0.4 percentage point to 4.4 percent, well below the U.S. rate of 6.2 percent, ranking the state 10th in the nation. Unemployment in all four counties also dropped - Honolulu MSA posted the lowest rate (4.1 percent), followed by Maui County (4.5 percent), Kauai County (4.9 percent), and Hawaii County (5.5 percent).
- Hawaii's non-farm job count improved by 1.1 percent to 625,300, the fourth consecutive year of increases following the recession. All four counties reported job gains. Overall, the economy has regained 38,400 jobs since bottoming out in 2010.
- Nine out of ten major industries posted job gains following the recession. Four industries grew at faster than average rates in the post-recession period from 2010 to 2014: professional and business services; leisure and hospitality; natural resources, mining and construction; and trade, transportation, and utilities. Only information remains below its pre-recession job total.
- According to the Local Employment Dynamics program's Quarterly Workforce Indicators (QWI) data, from the second quarter of 2004 to the second quarter of 2014, the number of hires was 6.6 percent lower, due to a significant dropoff during the recession, and separations were also down 2.1 percent.
- Average monthly earnings rose by 26.4 percent from 2004 to 2014, according to QWI data. Workers in some of Hawaii's key industries fared well as wages outpaced the state average in terms of percentage growth: construction wages rose by 29.0 percent to \$5,354; health care and social assistance pay jumped 31.9 percent to \$4,298; educational services salaries increased 26.5 percent to \$3,372.
- The pace of job growth is expected to be better over the short-term with 1.4 percent average annual growth through 1st Quarter 2016 as the economy rebounds from the recession, compared to the long-term period with 1.0 percent average annual growth through 2022. Industries with the most job growth will be education and health services; professional and business services; trade, transportation, and utilities; and leisure and hospitality.
- The volume of online job advertisements has been on the uprise over the last five years since a slowdown in 2009.

Introduction

The Hawaii Labor Market Dynamics report focuses on significant labor market statistics and trends that affected Hawaii's economy in 2014. This report looks at the dynamics occurring in the labor force, employment, and earnings over the past ten years and provides both short-and long-term employment forecasts for the state.

Whenever feasible, comparisons are made between the state and the nation as a whole and the counties. The 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.

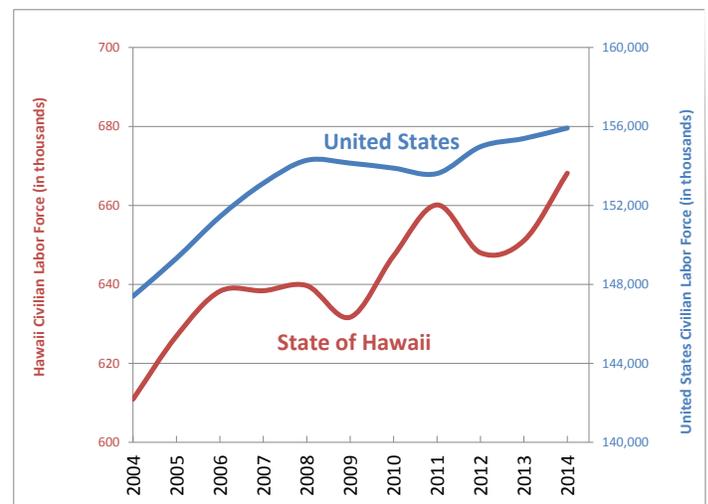
Hawaii's Labor Force on the Rise

In 2014, an improving job market pushed Hawaii's civilian labor force to 668,200, consisting of 639,000 employed and 29,150 unemployed. This was up by 17,100 over the 2013 figure, surpassing the previous high of 660,150 in 2011. An over-the-year increase of 2.6 percent compared favorably to the national growth rate of 0.3 percent, and topped growth among all 50 states. In fact, Hawaii was one of only a handful of states that exceeded growth of over two percent in 2014. The national labor force tally rose by 533,000 to 155,922,000. Compared to the other states, Hawaii continued to rank 42nd in size.

Over the past 10 years, Hawaii's labor force posted a net increase of about 57,250 for a gain of 9.4 percent. In comparison, the nation expanded its labor force by 5.8 percent during the same decade. From 2004 to 2008, Hawaii's economy expanded in every year of that four year span (Figure 1). The economic impact of the the Great Recession in 2009 drove Hawaii's labor force down by 1.3 percent. This drop was fairly steep relative to the other states, accounting for the sixth largest percentage loss in the nation, and placing Hawaii 46th out of 50 in terms of over-the-year change. In 2010, the state's civilian labor force turned around and grew by

the fifth fastest rate, with a gain of 2.5 percent, despite the continuing decline nationwide. This momentum continued into 2011 as Hawaii's labor force climbed by 2.0 percent, again fifth fastest in the nation. Unfortunately, growth stalled in 2012 and Hawaii placed

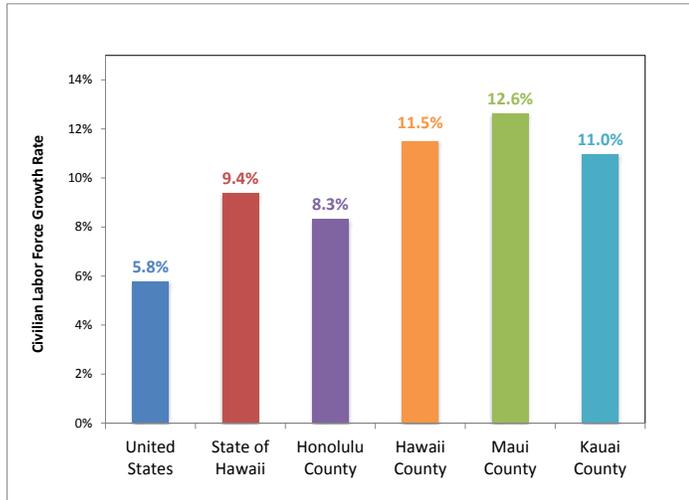
Figure 1. Civilian Labor Force, Hawaii vs. U.S., 2004-2014



Source: U.S. Bureau of Labor Statistics

49th among states in terms of over-the-year change, dropping by 1.8 percent. Hawaii's civilian labor force remained relatively stagnant in 2013 with an increase of 0.5 percent, ranking 17th among states in terms of yearly change.

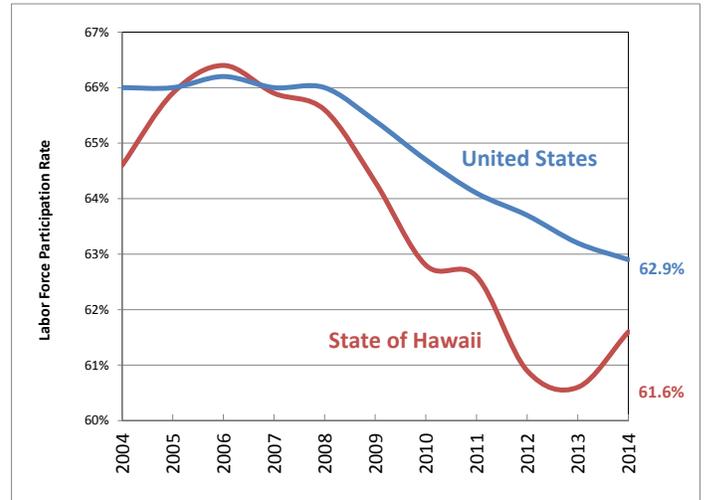
Figure 2. Civilian Labor Force Growth Rate, 2004-2014



Source: U.S. Bureau of Labor Statistics.

From 2004-2014, Maui County’s civilian labor force recorded the greatest increase with an expansion rate of 12.6 percent (Figure 2). Both Hawaii County with 11.5 percent growth and Kauai County, which rose by 11.0 percent, grew at a faster pace than the state. Only Honolulu County lagged behind with growth that amounted to 8.3 percent over the same period.

Figure 3. Civilian Labor Force Participation Rates, Hawaii vs. U.S., 2004-2014



Source: U.S. Bureau of Labor Statistics.

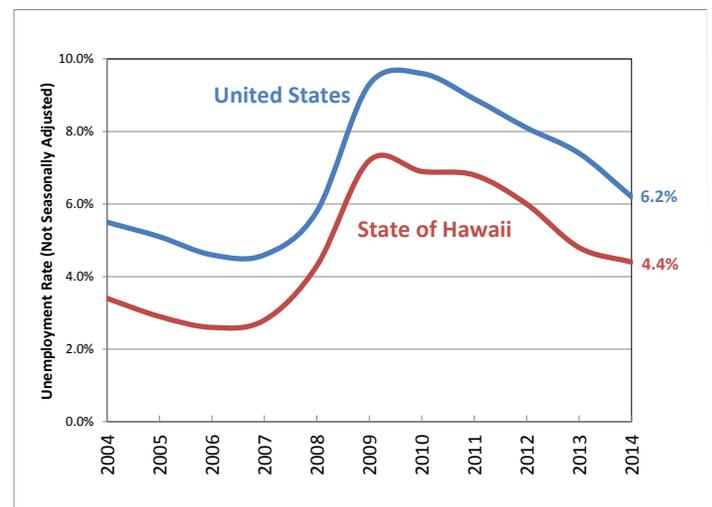
Dividing the civilian labor force by the civilian non-institutional population 16 years and older determines the labor participation rate. The statewide labor force participation ratio edged upward following seven straight years of declines dating back to 2007 and up until 2013 (Figure 3). This brings Hawaii’s participation rate of 61.6 percent slightly closer to the national rate of 62.9 percent in 2014.

Unemployment Rate Drops Further

The state’s unemployment rate continued to fall, dropping to 4.4 percent in 2014. This marks the fifth straight year that the ratio has fallen, helping Hawaii retain its ranking as one of a dozen states with the lowest unemployment ratio since 2010. Despite a larger improvement in the national rate of 1.2 percentage point versus a 0.4 percentage point decline in the state’s ratio, Hawaii remained 1.8 percentage point below the U.S. average. Generally, the top 20 states with the lowest unemployment rates also tended to be among the smaller populated states.

Over the past ten years, Hawaii’s unemployment rate has remained consistently lower than the national rate

Figure 4. Unemployment Rate, Hawaii vs. U.S., 2004-2014



Source: U.S. Bureau of Labor Statistics

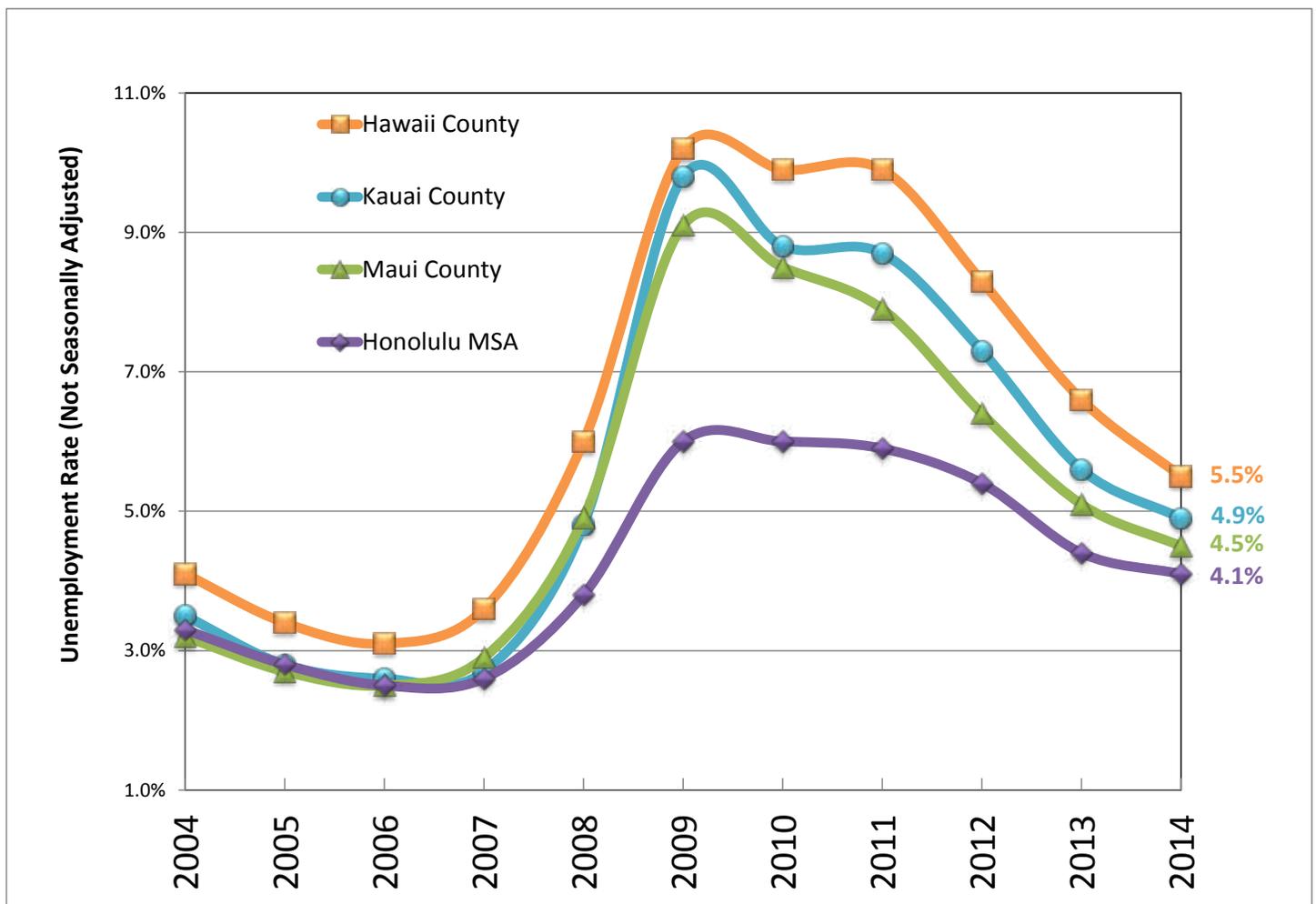
(Figure 4). The gap has ranged from at least 1.5 percentage points (in 2008) to 2.7 percentage points (in 2010) below the national rate. As a result, Hawaii was among the 10 states with the lowest unemployment ratio in seven out of the last 10 years. In fact, from 2004 to 2006 Hawaii ranked either first or second. However, in 2008, 2009, and 2012, Hawaii was nudged out of the Top 10, until returning in 2013.

Although the state’s unemployment rate has been relatively low, among the counties, unemployment has been uneven. Since more opportunities normally exist in urban areas, the unemployment rates in these areas generally tend to be lower than those of more rural regions.

The unemployment ratio of all four counties improved in 2014 at varying rates (Figure 5). Honolulu MSA posted the lowest unemployment ratio, edging downward by 0.3 percentage point. Maui County averaged the next lowest rate of 4.5 percent, followed by Kauai County’s ratio of 4.9 percent. Hawaii County, the only county with a rate exceeding 5 percent, fell by 16.7 percent over the past year, signifying the largest improvement compared to the other counties.

In direct correlation to the state’s unemployment rate, from 2004-2014, Honolulu MSA has either posted the lowest rate or hovered near the low. Even throughout the economic slowdown from 2008 to 2010, the rate increase of 2.2 percentage points was the smallest among

Figure 5. Unemployment Rates, Counties of Hawaii, 2004-2014



Source: Hawaii State Department of Labor and Industrial Relations, Research and Statistics Office, LAUS program.

the counties. The annual unemployment rate of 4.1 percent in 2014, while below the other counties, was still 1.5 percentage point higher than the 2007 pre-recession unemployment rate.

Prior to 2007, Maui County's unemployment ratio was at the same level as Honolulu MSA or even lower. However, during the recession, Maui's unemployment rate nearly doubled, jumping to 4.9 percent in 2008 and went as high as 9.1 percent in 2009. The unemployment ratio finally eased a bit in 2010 and has continued to improve from 2011 to 2014.

After hovering near the state's unemployment ratio through 2007, Kauai County's unemployment rate climbed the fastest, with a gain of 5.0 percentage points from 2008 to 2009. Since peaking at 9.8 percent in

2009, the ratio has also declined the most, dropping by 4.9 percentage point over the last five years.

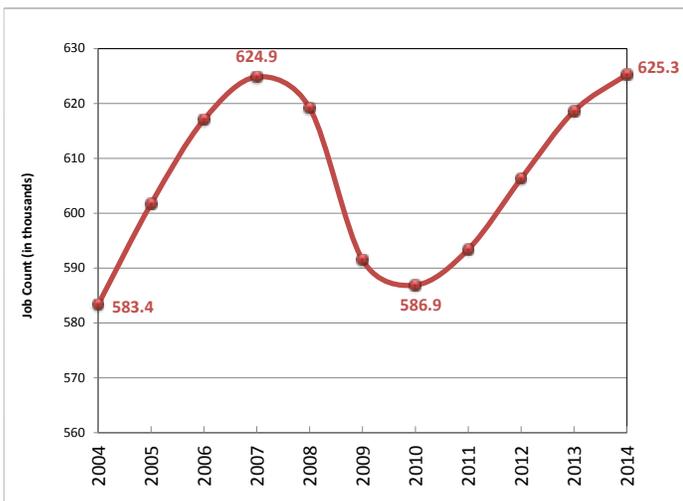
Hawaii County posted the highest unemployment rate of all the counties during the recession period. In fact, over the past 10 years, Hawaii County's ratio has exceeded the other counties every year. After three years of increases, beginning in 2007, the ratio finally edged downward slightly by 0.3 percentage points to 9.9 percent in 2010. This momentum continued from 2012 to 2014, with a drop of 2.8 percentage points, bringing the county rate down to 5.5 percent in 2014.

Further improvement appears to be the trend in 2015. So far the unemployment rates for January through July 2015 are lower than the 2014 rates across all counties.

Job Count Grows

Hawaii's non-farm job count, which is based on the monthly payroll survey of business establishments, rose

Figure 6. Non-Farm Job Count, Hawaii, 2004-2014

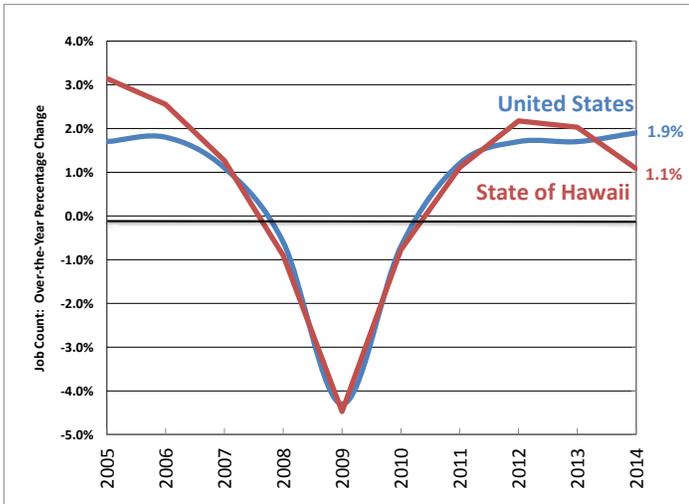


Source: Hawaii State Department of Labor and Industrial Relations, Research and Statistics Office, CES program.

for the fourth consecutive year, adding 6,700 jobs from 2013 to 2014 (Figure 6). Hawaii's over-the-year increase of 1.1 percent was slower than the previous two years and ranks among the bottom third compared to the other 49 states. However, this gain managed to erase the losses from 2008 to 2010 and non-farm jobs reached a new high of 625,300 in 2014.

Over the past 10 years, the state's job count has grown by 41,900 jobs for an increase of 7.2 percent. Prior to the 2014 total of 625,300, the previous high of 624,900 jobs was recorded in 2007. During that time, the state's economy was booming following a succession of widespread gains. Hawaii's economy, along with the rest of the nation, then suffered a major setback over the next three years as the recession deeply impacted the

Figure 7. Job Count Over-the-Year Percent Change, Hawaii, vs. U.S., 2004-2014

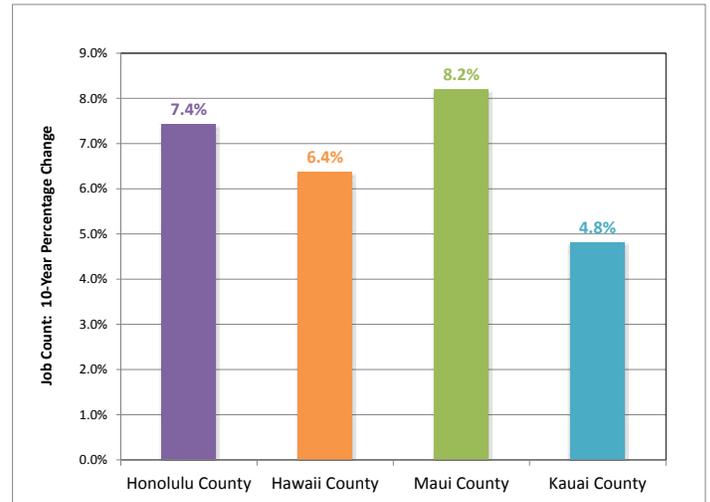


Source: U.S. Bureau of Labor Statistics; Hawaii State Department of Labor and Industrial Relations, Research and Statistics Office, CES program.

job market. A slight decline in 2008 was followed by a large drop of 4.5 percent in 2009. Non-farm employment bottomed out in 2010 at 586,900. In 2011, the state’s economy began to recover and added 31,900 jobs between 2011 and 2014. Based on 2014 figures, Hawaii along with 27 other states or more than half of the 50 states surpassed their 2007 pre-recession job totals.

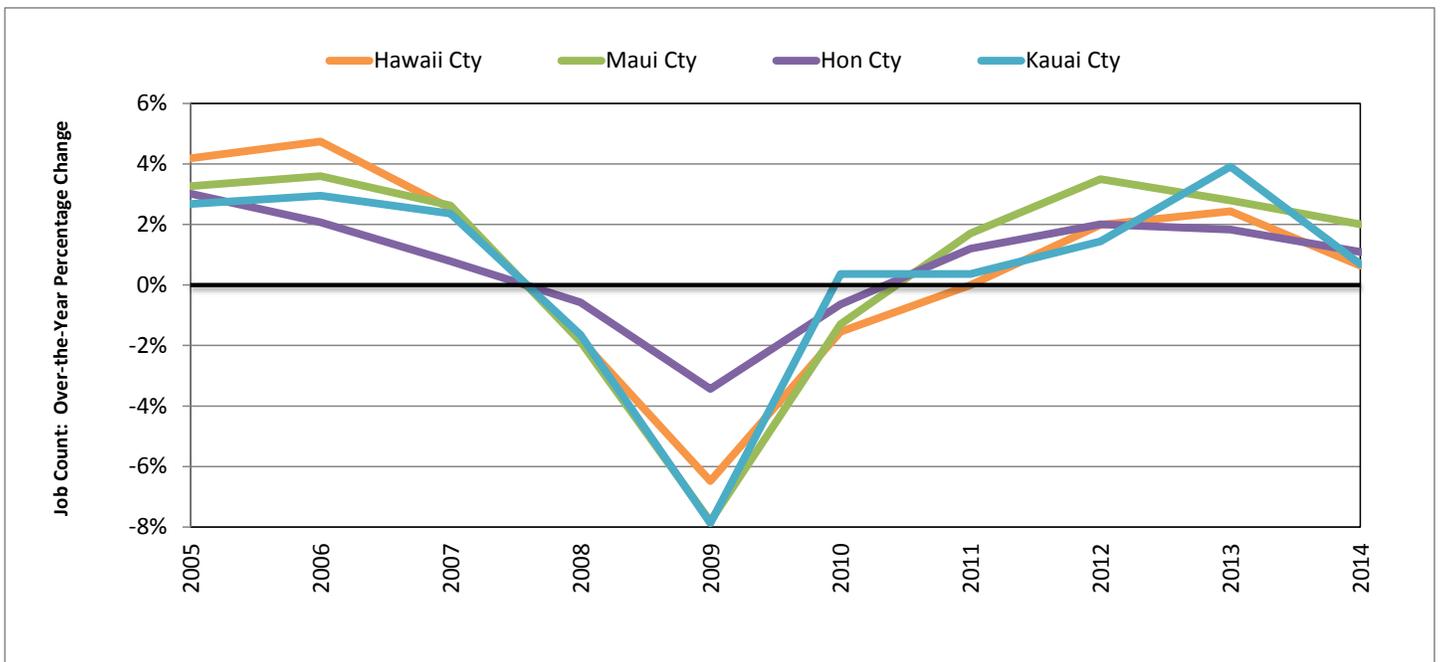
Prior to 2008, Hawaii’s job growth outpaced the nation. During the downturn, from 2008 and into the early part of the recovery, up until 2011, Hawaii’s trend paralleled the nation. Over the last three years, although the job count has continued to expand for both Hawaii and the U.S, Hawaii advanced faster in 2012 and 2013, then slowed down in 2014 (Figure 7).

Figure 8. Job Count 10-Year Percent Change, Counties of Hawaii, 2004-2014



Source: Hawaii State Department of Labor and Industrial Relations, Research and Statistics Office, CES program.

Figure 9. Job Count Over-the-Year Percent Change, Counties of Hawaii, 2004-2014



Source: Hawaii State Department of Labor and Industrial Relations, Research and Statistics Office, CES program.

So far, given the available data for January through July 2015, Hawaii's monthly job count is 1.1 percent higher than it was for the same 7-month period in the prior year. Meanwhile, the nation is averaging a 2.2 percent increase over a similar seven month comparison between 2014 and 2015.

While the state's job count expanded by 7.2 percent from 2004 to 2014, only two of the four counties generated gains in non-farm payroll jobs that exceeded the statewide growth rate (Figure 8). Maui County advanced the fastest with growth of 8.2 percent. Honolulu County followed with a gain of 7.4 percent. Hawaii County ranked third, with a 6.4 percent growth rate in the number of jobs. Kauai County was up by 4.8

percent, ranking last among the counties in percentage growth.

Between 2004 and 2014, over-the-year growth rates for the Counties generally followed the same trend as the nation and the state - a big drop in 2009 and rebounding since 2011 (Figure 9). Honolulu County posted the smallest growth rates, in general, but also experienced the smallest declines.

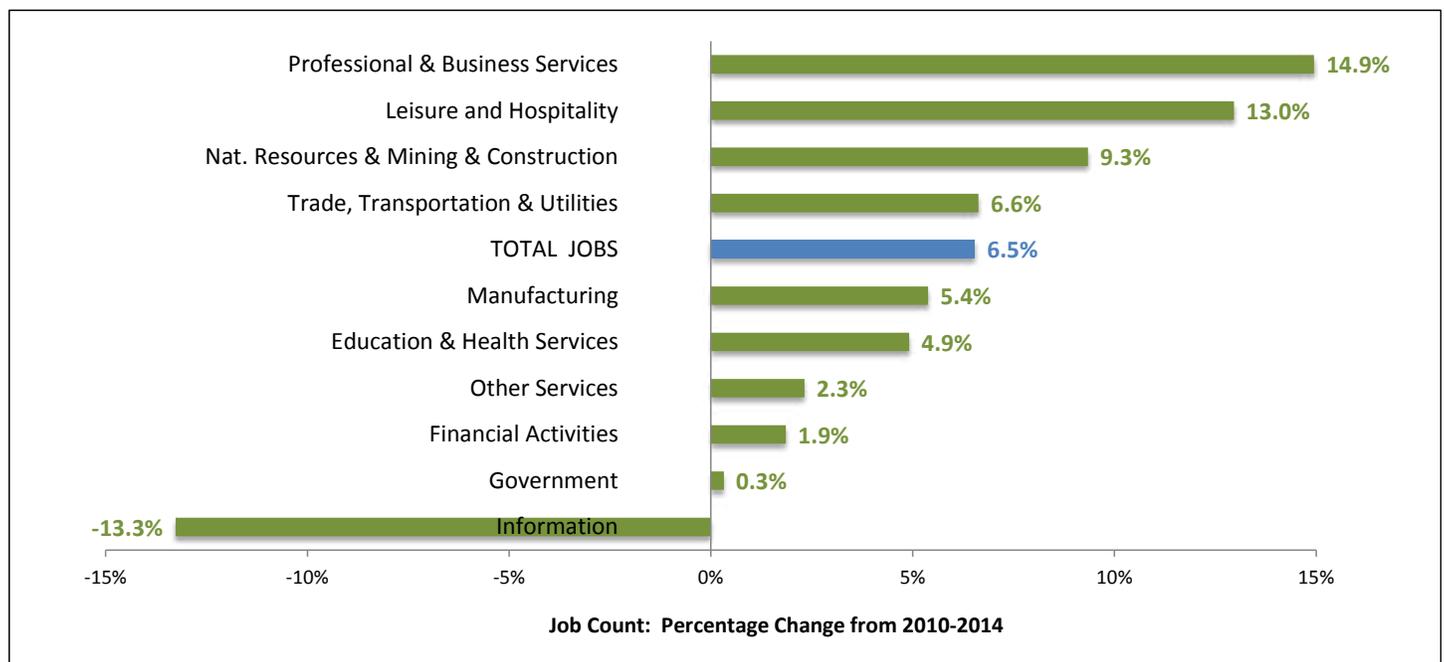
Based on the data for January through July, the job counts look mixed for the rest of 2015. The 7-month average for 2015 is ahead of 2014 for Maui County and Honolulu County but the average for Hawaii County and Kauai County remain down.

Jobs Recovered in All but One Industry

Prior to the Great Recession, which extended from December 2007 to June 2009, Hawaii enjoyed nine years of successive gains dating back to 1999. After peaking at 624,900, the state lost 38,000 jobs from 2008 to 2010.

In the aftermath of the recession, the jobcount has rebounded to 625,300, exceeding the 2007 pre-recession employment level.

Figure 10. Industry Job Count Percent Change, State of Hawaii, 2010-2014



Source: Hawaii State Department of Labor and Industrial Relations, Research and Statistics Office, CES program.

Nine out of the ten major industries created jobs after the recession ended (Figure 10). Only information actually saw a further decline after 2010 that still persisted until 2014. Information is the smallest industry sector with only 8,500 jobs in 2014. Due to its relatively small number, a decrease can register a large percentage drop. The loss of 1,300 jobs from 2010 to 2014 resulted in a decline of 13.3 percent, mainly in the motion picture and video industries but also due to some job losses at newspaper, book, and directory publishers.

Statewide, the job recovery after the recession stood at 6.5 percent. Four industries exceeded this growth rate and rebounded strongly after the trough in 2010.

Professional and business services expanded at the fastest pace after the recession with 14.9 percent growth, adding 10,700 new jobs from 2010 to 2014. The administrative, support, waste management, and remediation services sub-sector was responsible for 9,000 new jobs and a large chunk of 7,300 positions were created in the employment services area. Management of companies and enterprises contributed about 1,700 and the remaining 200 occurred in the professional, scientific, and technical services sub-sector.

The second fastest growing industry in the post-recession period was leisure and hospitality, up 13.0 percent, and posting the greatest amount of new jobs with 13,000. As tourism rebounded and reached record levels in terms of visitor counts and spending, the accommodations and food services sub-sector responded with the addition of 11,300 positions.

The natural resources, mining, and construction sector also showed strength with 9.3 percent growth and 2,700

new jobs. The special trades created nearly two-thirds of the jobs, while 1,200 were in building construction.

Trade, transportation, and utilities benefitted from a 6.6 percent hike, adding 7,300 jobs. The new jobs were fairly evenly distributed between two sub-sectors. Retail trade, which makes up more than half of this industry expanded its payroll by 3,700 positions. Also performing well, transportation, warehousing, and utilities including airlines, contributed another 3,500 jobs.

The education and health services industry, though an important and sizable industry, did not grow at a particularly fast rate after bottoming out in 2010. However, the 4.9 percent growth rate did translate into 3,700 new jobs. Although the education sector actually posted a decline of 200 positions, hiring within health care and social assistance more than made up for the job loss with an increase totaling 3,900. Two-thirds of the new healthcare jobs were in the ambulatory health care services sub-sector.

In 2014, government, Hawaii's largest industry, reported an increase of 400 for a minimal rise of 0.3 percent post-recession. Over the last four years, the job count has fluctuated near the 2010 level. Combined growth in both State and Local government, offset cuts at the Federal branch.

There is reason for continued optimism that Hawaii's non-farm employment will improve further in 2015. In fact, looking at the 7-month average for January to July 2015, jobs are 1.1 percent higher than a year ago. With the exception of a few industries, the figures show positive trends.

Dynamics Evident in Hires and Separations

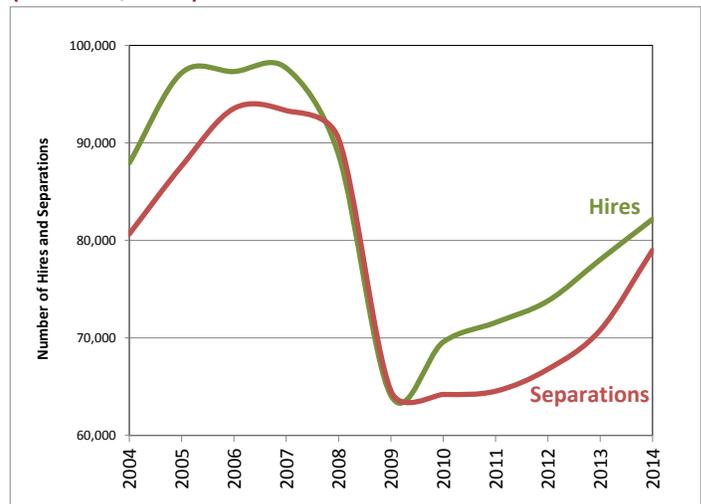
The U.S. Census Bureau's Local Employment Dynamic (LED) program produces Quarterly Workforce Indicators (QWI) that gives an overview of the State's workforce. The latest data available is for the second quarter of 2014 and comparisons against the same quarter of a prior ten year period illustrate some of the dynamics happening within the workforce. *Hires* are defined as the estimated number of workers who started a new job in the specified quarter - it is the sum of new hires and recalled hires. *Separations* are the estimated number of workers whose job with a given employer ended in the specified quarter.

In 2004, hires outnumbered separations and this continued through 2007, where hires peaked at 97,681 (Figure 11). Hires began to dwindle in 2008 as the recession took hold and reached its lowest point of 64,094 in 2009. During this 2-year downturn, separations slightly outnumbered hires. However, beginning in 2010 hires partially rebounded as Hawaii entered the recovery phase. However, in 2014 the number of hires were still about 6.6 percent lower than they were ten years prior.

Separations in 2014 were also down by 2.1 percent from 2004. This is interesting in that even during the recession period, there was a drop in separations. It most likely indicates that people hung onto their jobs during lean times, whereas during boom years, more people left their positions seeking to change, upgrade, or retire from their jobs.

Overall, Hawaii's economy performed favorably as hires outnumbered separations in all but two years during the last decade. Which industries fared better than others?

Figure 11. Hires vs. Separations, State of Hawaii, 2004-2014 (Second Quarter)



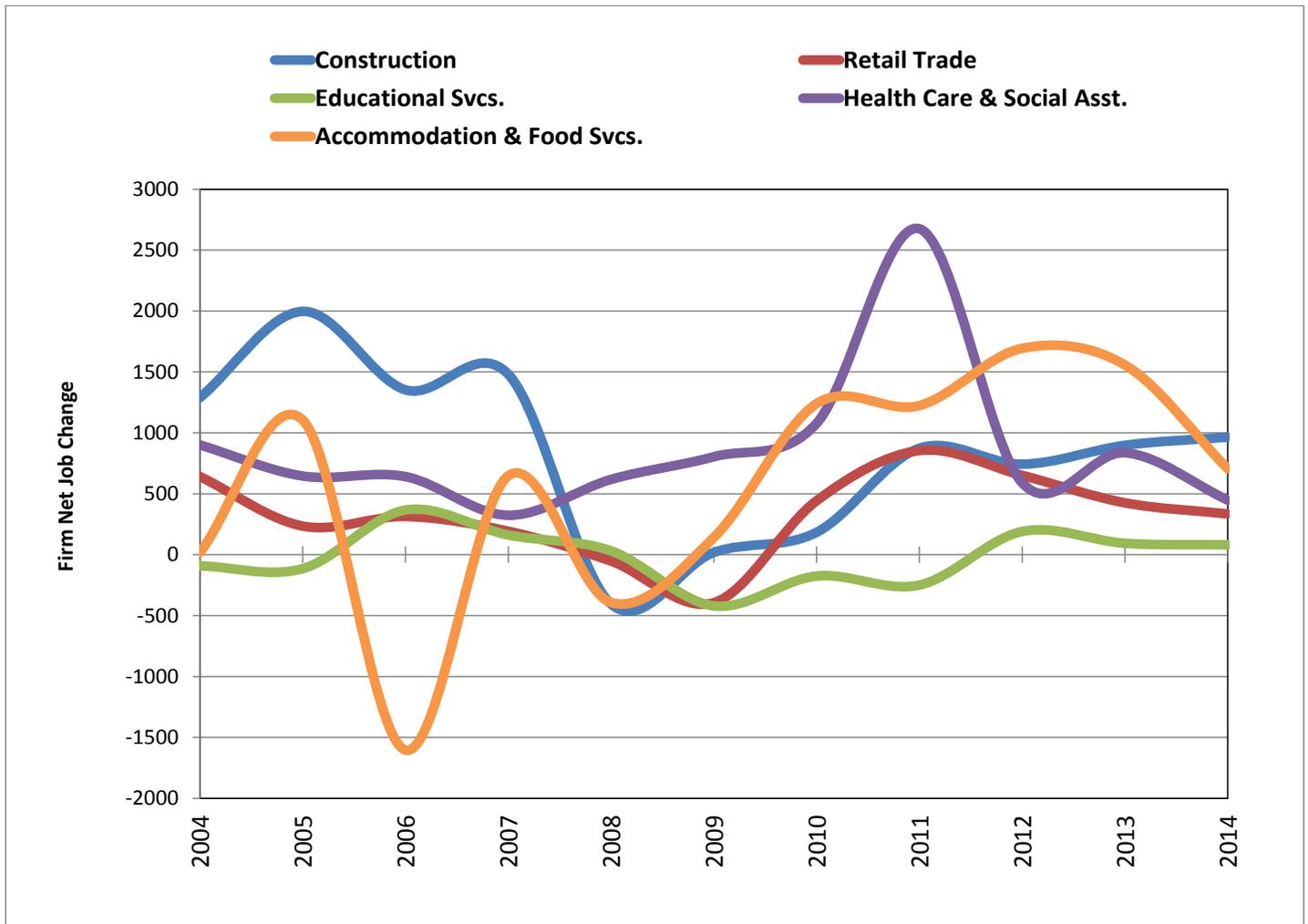
Source: U.S. Census Bureau, Local Employment Dynamics, Quarterly Workforce Indicators, LED Extraction tool, data as of 8/5/15.

In the LED program, there are many indicators that involve *firms* and not just *individuals* as was just previously addressed with the hires and separations.

Job creation is defined as the estimated number of jobs gained at firms throughout the quarter - a measure that counts total employment increase at firms that grew over the course of the quarter. *Job destruction*, on the other hand, is the estimated number of jobs lost at firms throughout the quarter - counts of employment decrease at firms that shrank over the course of the quarter. The difference between job creation and job destruction is the *firm net job change*, which can illustrate which industries moved in a positive direction over the last decade.

Looking at five of Hawaii's major industries, there is evidence that firm net job change fluctuates differently for various industries (Figure 12). It didn't always follow the job trend of the economic recession.

Figure 12. Firm Net Job Change by Industry, State of Hawaii, 2004-2014 (Second Quarter)



Source: U.S. Census Bureau, Local Employment Dynamics, Quarterly Workforce Indicators, LED Extraction tool, data as of 7/24/14.

Construction displayed a positive trend for most of the decade, with net change running above 1,000 between 2004 and 2007. Then came a small dip below zero in 2008, followed by a recovery with positive outcomes ranging from 19 to 965 between 2009 and 2014. It managed a positive movement from 2013 to 2014.

Educational services, on the other hand, exhibited a positive net change only half of the time, hovering near zero most of the time. Its highest point was 367 in 2006 and its lowest point was -420 in 2009.

Firm net job change in accommodation and food services was much more volatile, with a deep plunge to -1,604 in 2006, then rising to 1,694 in 2012.

Surprisingly, the trend in retail trade was relatively stable for a high-turnover industry and mostly positive except for 2008 and 2009, when it fell to -52 and -394, respectively. It peaked at 855 in 2011.

Health care and social assistance also exhibited large swings, all of it in the positive range with a sharp peak in 2011 at 2,675. Since then, it settled down to a more moderate range of 448 in 2014.

What these firm net job changes illustrate is that there is a lot of churning going on within companies that are not visible in other data sets dealing with employment. While overall jobs could appear to be stable on the outside, the dynamics may be very active on the inside.

Earnings Increase Despite Recession

Although Hawaii's workforce endured a significant amount of job losses during the recession, the good news is that average monthly earnings rose by 26.4 percent from 2004 to \$3,621 in 2014 (Figure 13) based on second quarter data from the Local Employment Dy-

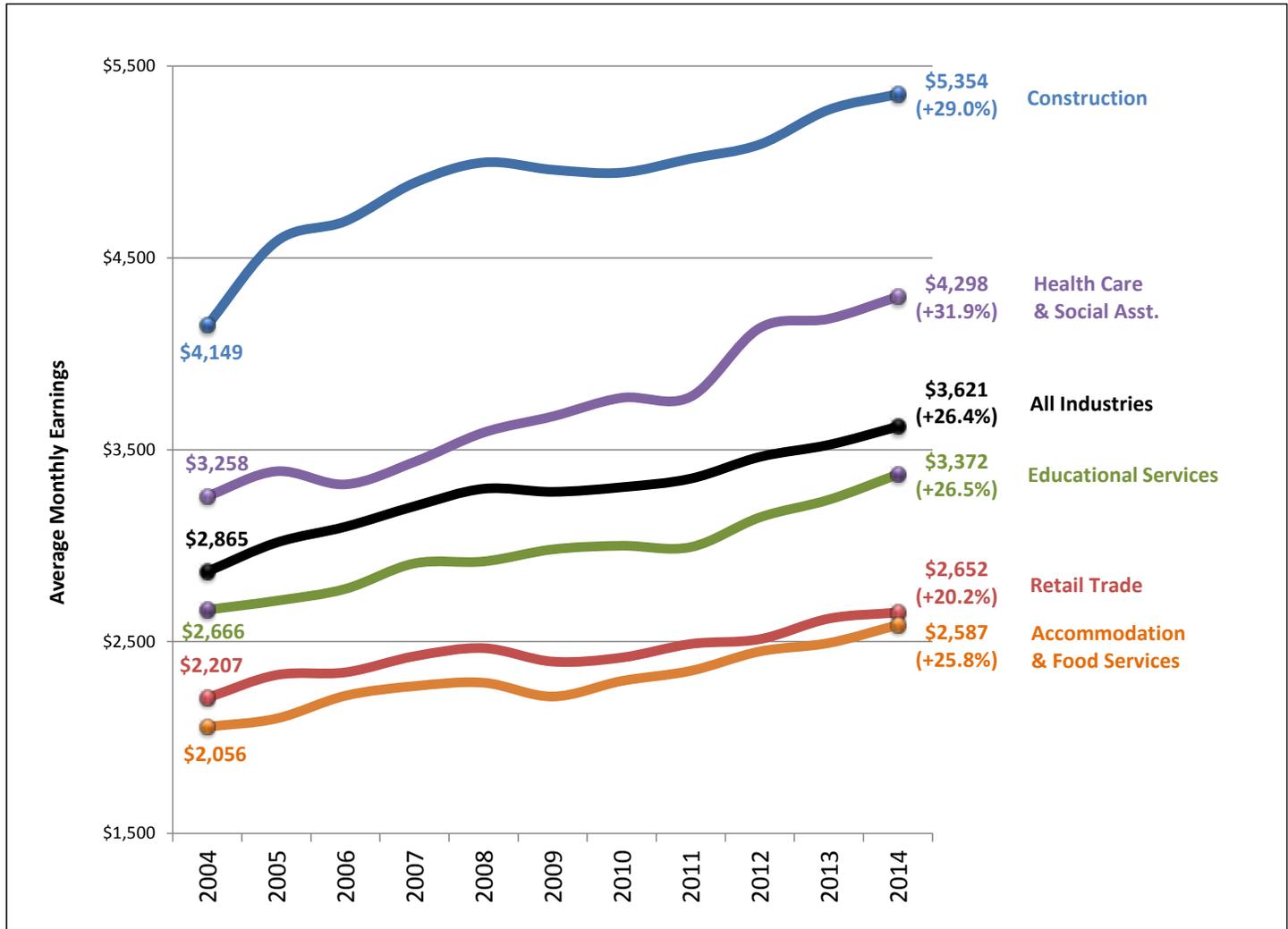
namics program. Average monthly earnings by industry discussed here include only employees with stable jobs (those that worked with the same firm throughout the quarter). In this respect, many of Hawaii's key industries fared well (Figure 14).

Figure 13. Average Monthly Earnings and Growth by Industry, State of Hawaii, 2004 and 2014 (Second Quarter)

Ranked by 2014 earnings	2004	2014	Percent Growth
Mining, Quarrying, and Oil and Gas Extraction	\$6,126	\$7,350	20.0%
Utilities	\$5,521	\$7,193	30.3%
Professional, Scientific, and Technical Services	\$4,121	\$5,525	34.1%
Construction	\$4,149	\$5,354	29.0%
Finance and Insurance	\$4,389	\$5,290	20.5%
Public Administration	\$3,824	\$5,204	36.1%
Management of Companies and Enterprises	\$3,808	\$4,936	29.6%
Wholesale Trade	\$3,415	\$4,425	29.6%
Health Care and Social Assistance	\$3,258	\$4,298	31.9%
Information	\$3,591	\$3,988	11.1%
Transportation and Warehousing	\$3,140	\$3,954	25.9%
Real Estate and Rental and Leasing	\$3,039	\$3,834	26.2%
All Industries	\$2,865	\$3,621	26.4%
Manufacturing	\$2,746	\$3,487	27.0%
Educational Services	\$2,666	\$3,372	26.5%
Admin. & Support & Waste Mgmt. & Remediation Services	\$2,334	\$2,909	24.6%
Agriculture, Forestry, Fishing and Hunting	\$2,097	\$2,881	37.4%
Other Services (except Public Administration)	\$2,184	\$2,732	25.1%
Retail Trade	\$2,207	\$2,652	20.2%
Accommodation and Food Services	\$2,056	\$2,587	25.8%
Arts, Entertainment, and Recreation	\$2,001	\$2,469	23.4%

Source: U.S. Census Bureau, Local Employment Dynamics, Quarterly Workforce Indicators, QWI Explorer, data as of 8/5/15.

Figure 14. Average Monthly Earnings for Key Industries, State of Hawaii, 2004-2014 (Second Quarter)



Source: U.S. Census Bureau, Local Employment Dynamics, Quarterly Workforce Indicators, QWI Explorer tool, data as of 8/5/15.

Construction industry average monthly earnings rose 29.0 percent in the ten year period from 2004 to 2014. With \$5,354 monthly earnings in 2014, construction workers have higher average wages than many other types of workers.

Workers in the health care and social assistance industry benefited from a wage increase of 31.9 percent between 2004 and 2014, better than the average worker. Wages in this field at \$4,298 in 2014 are also higher than the average pay for all industries.

Educational services employees earn lower pay than the average worker with \$3,372 in 2014, but the pay out-

paced the overall average gain by a small margin with 26.5 percent growth over the last decade.

Retail trade employees realized an increase of 20.2 percent from 2004 to 2014, growing slower than the overall average. Wages in this industry, \$2,652 in 2014, are also lower than the all-industry average.

Workers in the accommodations and food services industry benefitted from earnings growth of 25.8 percent between 2004 and 2014. But this slower than average growth rate still kept the low monthly pay of \$2,587 in 2014 among the lowest of all industries.

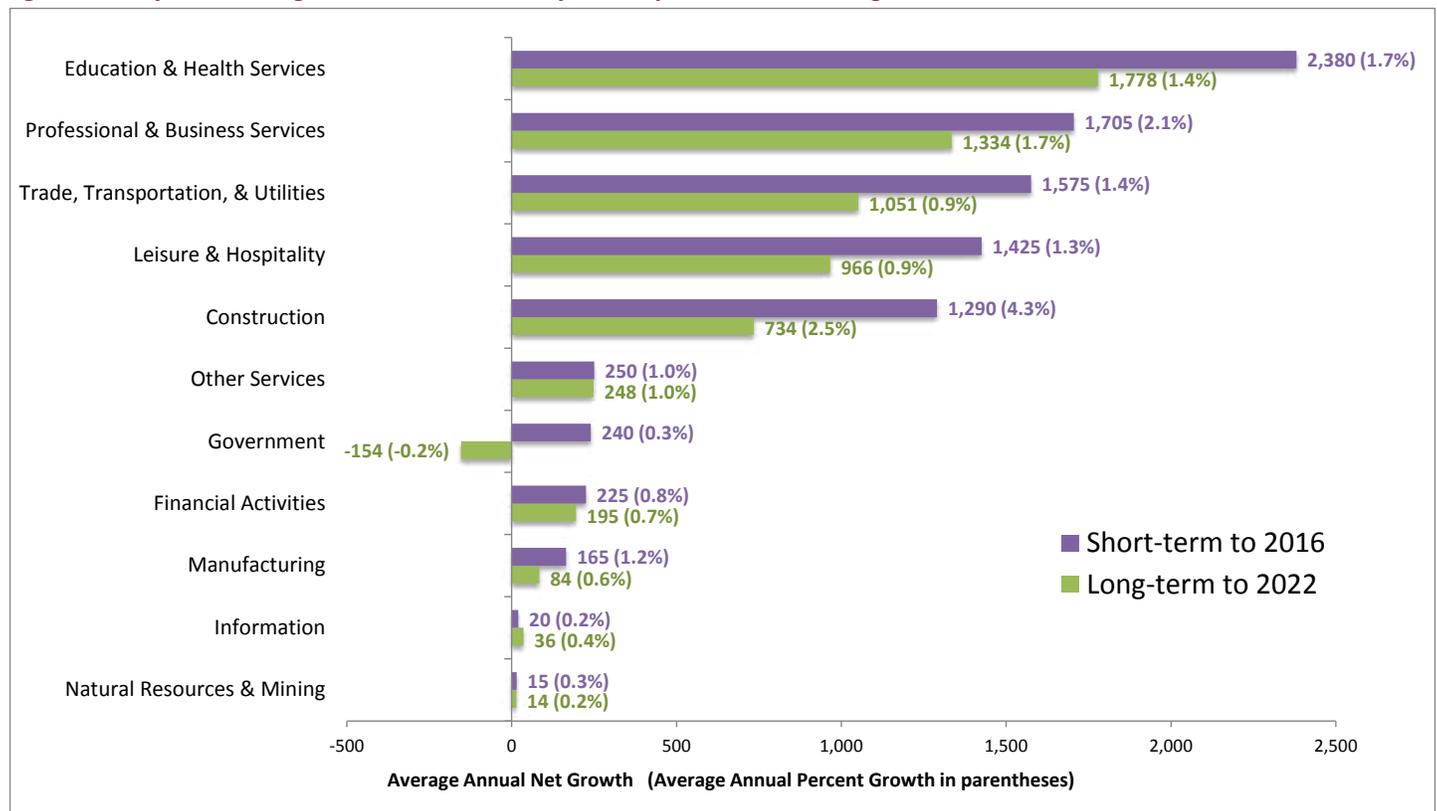
Short- and Long-Term Job Forecast is Positive

Future job growth in Hawaii for both the short-term and the long-term remains positive. The short-term forecast from 2014 to 2016 points to a rebounding economy with 1.4 percent average annual growth. Growth over the longer term will average a more modest rate of increase at 1.0 percent annually from 2012 to 2022. Short- and long-term projections are done independently using different starting and ending periods, making direct comparisons difficult. In addition, the methodology for the short-term forecast attempts to incorporate the current business cycle, whereas the long-term projections assumes structural stability in the economy. This explains why growth rates may be higher in the short-term as Hawaii rebounds from the recession

compared to the long-term which assumes full employment. Therefore, to lessen the impact of the differences between short- and long-term methodologies, average growth is presented on an annual basis.

In the near future, most of the job gains will be in the following major industries (Figure 15): education and health services; professional and business services; ; trade, transportation, and utilities; leisure and hospitality; and construction. With the exception of construction, these are the largest industries, and therefore, it is not surprising that they will provide the most job growth in the coming years.

Figure 15. Projected Average Annual Job Growth by Industry for Short- and Long-Term



Source: Hawaii State Department of Labor and Industrial Relations, Research and Statistics Office, Projections program.

Although construction is not a very large industry, it is poised to be the fastest growing over the short- and long-term future as it emerges from a downcycle and benefits from rail transit and other commercial and residential projects. The specialty trades will contribute the most new construction jobs, followed by building construction, and to a lesser degree, heavy and civil engineering construction.

Government, on the flip side, is a large industry that is expected to contract over the long-term despite positive growth forecasted for next year. Expected job losses in the federal branch will negate the anticipated gains in local and state government.

The other industries projected to expand the most, the administrative and support services sector will boost the professional and business services industry. Gains in the education and health services industry over both the two-year and ten-year projected period will outpace all the other industries. The majority of these jobs will be derived from the health care and social assistance sector. Meanwhile, leisure and hospitality will benefit from strength in the accommodation and food services sector.

These forecasted new jobs are just one part of the future job openings, and are attributed to economic growth. However, when a current worker leaves the labor force or changes occupation, it also creates a job opening, which we refer to as replacement openings. The combined total of the openings due to growth and replacements represent the total openings.

Many of the future job openings will occur in entry level, transitional jobs in which there is a constant turnover of workers, such as those related to food prepara-

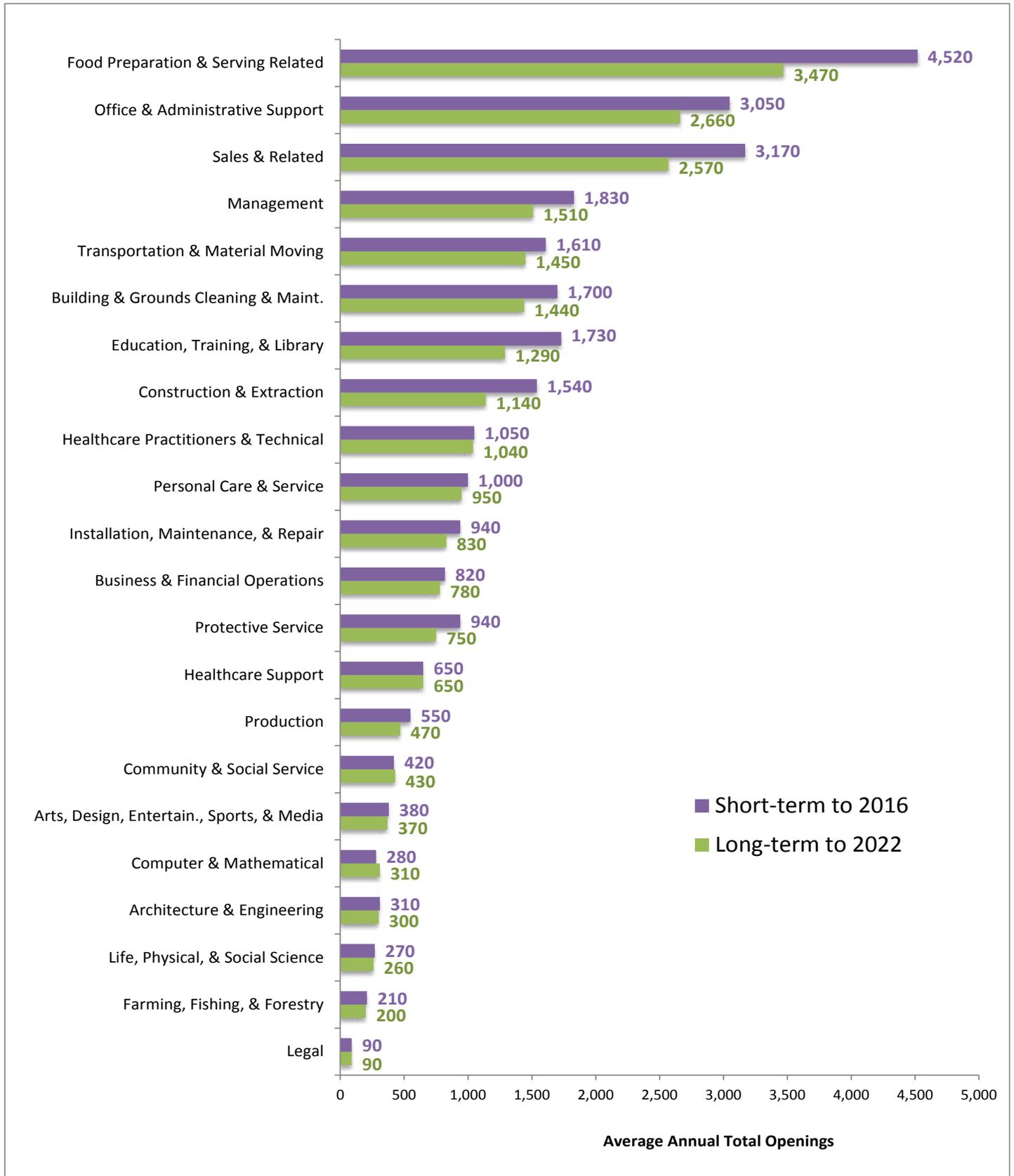
tion and serving, office and administrative support, and sales (Figure 16). However, occupations with higher education and training such as management, education, and healthcare are also expected to provide lots of openings. It is noteworthy to see that construction and extraction type occupations will have many openings in the short-term, as the building industry and trades continue to emerge from a prolonged downcycle and future projects offer further employment opportunities.

The eight occupations projected to have the most job openings in the long-term future through 2022 are usually the largest occupations (Figure 17). Retail salespersons tops the list, followed by waiters and waitresses. Combined food preparation and serving workers, as well as cashiers, are third and fourth on the list. Three building and grounds cleaning related occupations made the list: maids and housekeeping cleaners; landscaping and groundskeeping workers; and janitors and cleaners. There is only one office-related job on the list, which is general office clerks.

Not surprisingly, all of the top eight jobs are low paying jobs, with minimal education and training requirements. In fact, all of the jobs earn less than the overall average pay of \$46,230. In addition, these eight occupations need only a HS diploma or less education, and just short-term on-the-job training.

Overall, more than 72 percent of the state's projected job openings through 2022 require only a high school diploma or less (Figure 18). About 15 percent of the future openings will require a Bachelor's degree and another 3 percent will need an Associate's degree. The prerequisite for almost 2 percent of all openings will be a Master's degree while another 2 percent will necessitate a Doctoral/Professional degree for employment.

Figure 16. Projected Average Annual Total Job Openings by Occupation Group for Short- and Long-Term



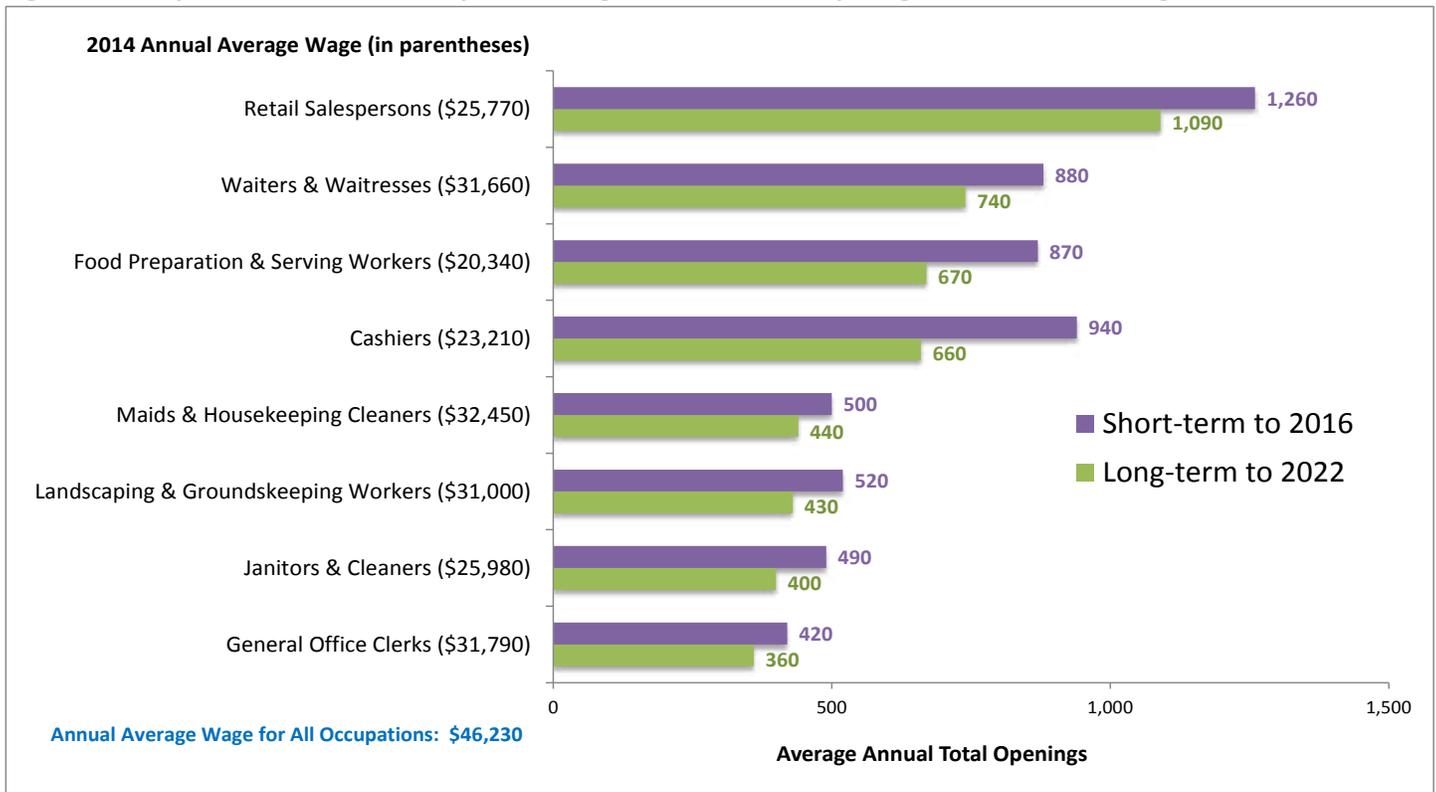
Source: Hawaii State Department of Labor and Industrial Relations, Research and Statistics Office, Projections program.

The remaining job opportunities call for a postsecondary certificate (5 percent) or some college (1 percent).

A significant portion of job openings, 86 percent, will not demand any related work experience. About 12 percent will require less than 5 years experience and the remaining 3 percent will need 5 or more years.

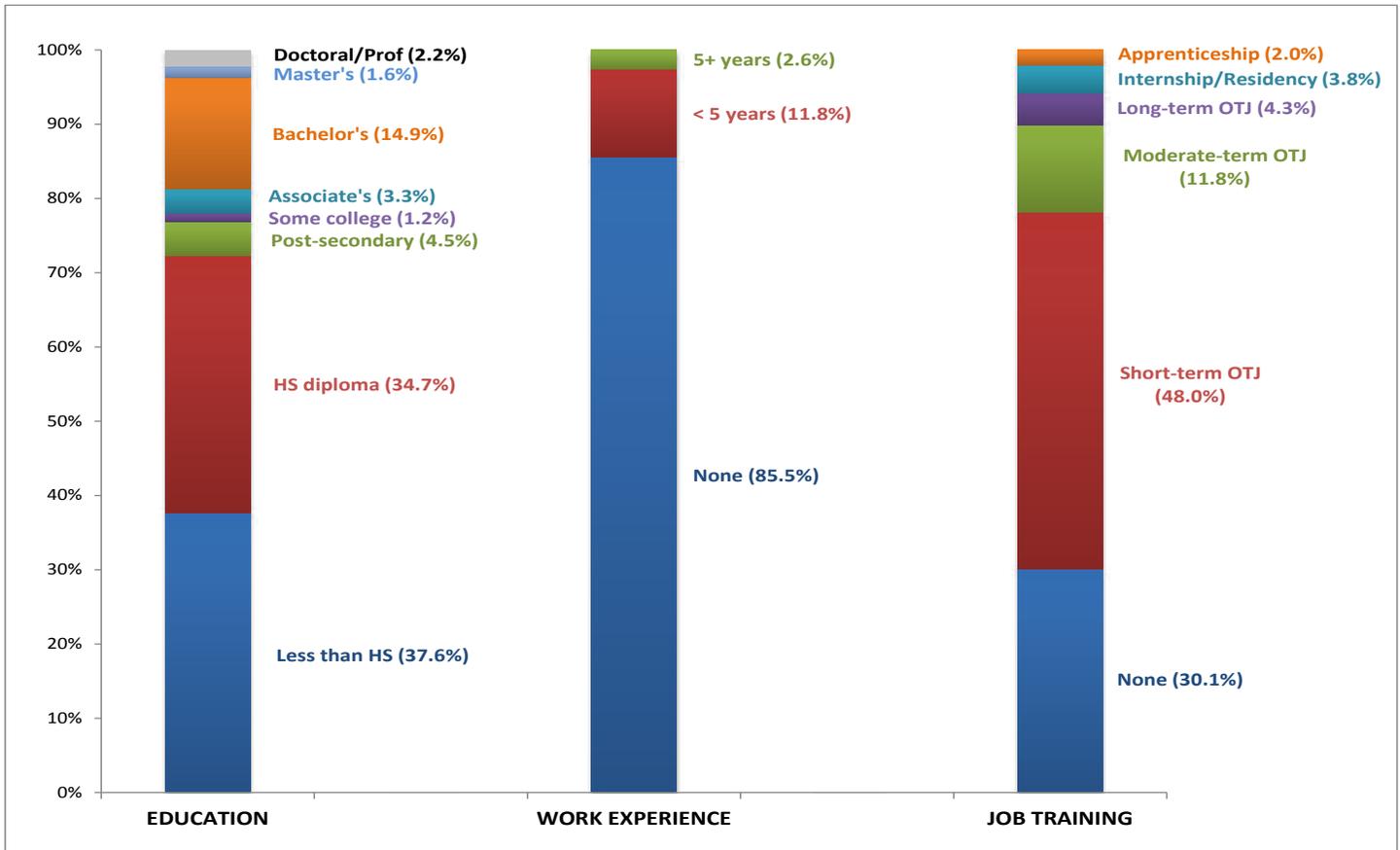
Over 30 percent of the job openings will also have no job training requirements. Nearly half, or 48 percent will require short-term on-the-job training and another 12 percent will require moderate-term on-the-job training. Long-term on-the-job training will be needed for just 4 percent of job openings. The rest of the openings will need an internship/residency (4 percent) or an apprenticeship training program (2 percent).

Figure 17. Occupations with the Most Projected Average Annual Total Job Openings in the Short- and Long-Term



Source: Hawaii State Department of Labor and Industrial Relations, Research and Statistics Office, Projections program.

Figure 18. Distribution of Projected Average Annual Total Job Openings by Education, Work Experience, and Job Training Requirements, 2012-2022



Source: Hawaii State Department of Labor and Industrial Relations, Research and Statistics Office, Projections program.

Advertised Online Jobs and Skills

Another sign pointing to an improving job market is the elevated demand for more workers by employers in Hawaii. Since a big dropoff in 2009, the succeeding five years, with the exception of a slight decline in

2012, generated an increase in the volume of advertised openings. The last two years in particular have shown a pronounced rise in hiring throughout the state. (Figure 19).

Figure 19. Total Annual Advertised Openings for the State and Counties, 2009-2014

Area	2009	2010	2011	2012	2013	2014
Hawaii	101,361	106,089	132,771	131,608	210,014	278,652
Honolulu County	78,203	82,344	100,132	94,826	150,700	198,602
Maui County	9,457	10,072	14,765	16,549	28,555	39,386
Hawaii County	8,670	8,503	11,084	12,823	19,291	25,474
Kauai County	5,031	5,170	6,790	7,410	11,468	15,194

Source: Online advertised jobs data, America's Labor Market Analyzer (ALMA)

After the slowdown in 2009, job advertisements in three out of the four counties continued to improve every year from 2010 to 2014. Only Honolulu County experienced the same trend as the state with a slight dip in 2012, followed by a pickup in employment opportunities over the next two years. From 2009 to 2014, the number of job listings more than doubled in all counties. While this may be partly due to increased utilization

of online boards for recruiting, the trend has definitely been moving upward. Maui County led the way with over 300 percent more postings followed by gains of 202 percent in Kauai County and 194 percent for Hawaii County. Although Honolulu County rose by the smallest percent, jobseekers benefitted from the highest volume of help wanted ads.

A Closer Look At ...

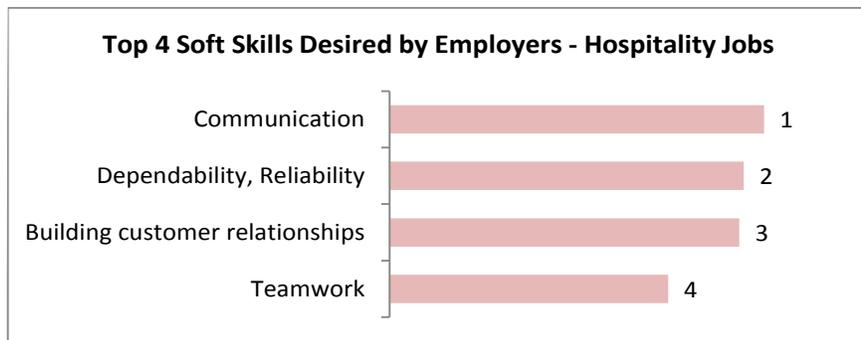
The following tables provide a snapshot of the current online job openings available in four different occupational sectors. These sectors - construction, information technology, health care, and hospitality, are expected to add positions in the future and offer a mixture of opportunities with various educational requirements and a wide range of salary options.

According to the data, jobs commonly found within the hospitality industry appear to have the most openings which is not surprising considering the strength of the visitor industry (Figure 20). However, wages in these occupations also tend to be below the state average of \$46,230. Candidates seeking work within the information technology sector (Figure 21) and in healthcare

Figure 20: Advertised Openings and Skills for Hospitality Jobs

Hospitality Jobs				
	Advertised Openings	Potential Candidates	Education Level Preferred by Employer	2014 OES Wages
Retail Salespersons	880	726	Not Specified	\$22,970
Customer Service Representatives	348	1187	Not Specified	\$33,770
First-Line Supervisors of Retail Sales Workers	296	293	High School Diploma	\$40,610
Cashiers	189	792	High School Diploma	\$21,410
Waiters & Waitresses	88	591	No Minimum/High School Diploma	\$27,200
Maids & Housekeeping Cleaners	86	336	High School Diploma	\$33,190
Chefs & Head Cooks	71	221	No Minimum	\$38,700

Source: Online Advertised Jobs, America's Labor Market Analyzer (ALMA), September 2015

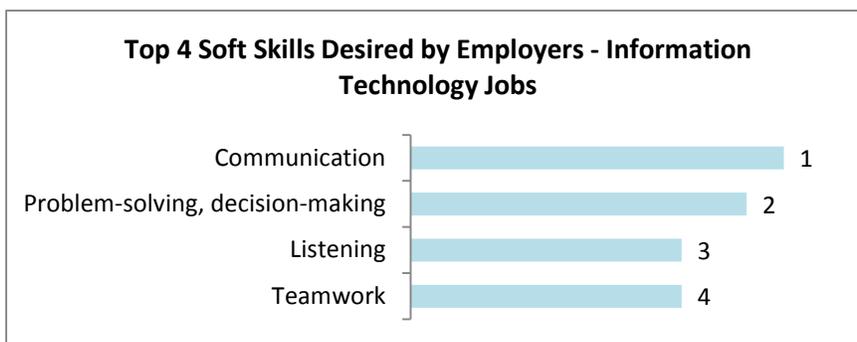


Source: Soft Skills Survey, Workforce Development Division, June 2015

Figure 21: Advertised Openings and Skills for Information Technology Jobs

Information Technology Jobs				
	Advertised Openings	Potential Candidates	Education Preferred by Majority of Employers	2014 OES Wages
Computer Systems Analysts	98	32	Bachelor's Degree	\$74,210
Computer User Support Specialists	79	90	High School Diploma	\$45,980
Network & Computer Systems Administrators	63	65	Bachelor's Degree	\$66,990
Computer Programmers	50	21	Bachelor's Degree	\$67,040
Computer Systems Engineers/Architects	38	6	Bachelor's Degree	\$87,280

Source: Online Advertised Jobs, America's Labor Market Analyzer (ALMA), September 2015



Source: Soft Skills Survey, Workforce Development Division, June 2015

Figure 22: Advertised Openings and Skills for Health Care Jobs

Healthcare Jobs				
	Advertised Openings	Potential Candidates	Education Preferred by Majority of Employers	2014 OES Wages
Registered Nurses	908	156	Bachelor's Degree	\$90,220
Nursing Assistant	101	199	High School Diploma	\$30,430
Licensed Practical & Licensed Vocational Nurses	93	49	Bachelor's Degree	\$45,860
Personal Care Aides	79	75	High School Diploma	\$24,790
Medical & Health Services Managers	66	50	Bachelor's Degree	\$104,500
Medical Assistants	63	199	High School Diploma	\$33,180

Source: Online Advertised Jobs, America's Labor Market Analyzer (ALMA), September 2015

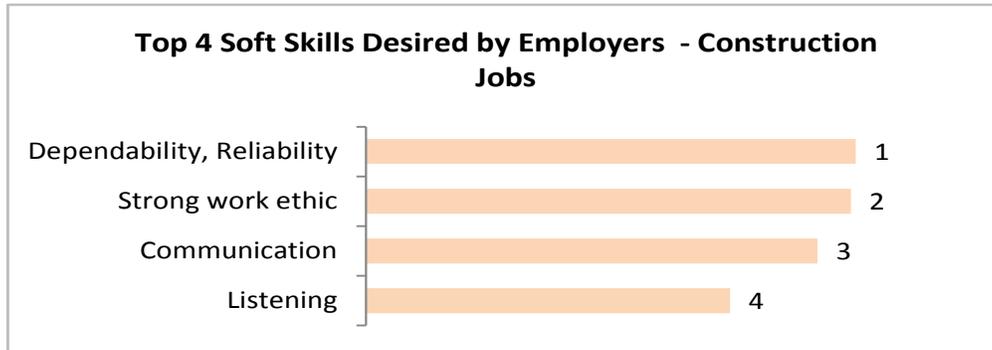


Source: Soft Skills Survey, Workforce Development Division, June 2015

Figure 23: Advertised Openings and Skills for Construction Jobs

Construction Jobs				
Job Title	Advertised Openings	Potential Candidates	Education Preferred by Majority of Employers	2014 OES Wages
Electricians	53	131	Not Specified	\$63,380
Maintenance & Repair Workers, General	42	282	High School Diploma	\$42,070
Heating & Air Conditioning Mechanics & Installers	34	28	Not Specified	\$53,460
Construction Managers	22	162	Not Specified	\$90,820

Source: Online Advertised Jobs, America's Labor Market Analyzer (ALMA), September 2015



Source: Soft Skills Survey, Workforce Development Division, June 2015

(Figure 22) may have a good chance for employment since the number of jobs advertised exceeds the supply of potential candidates for some of the positions. One thing to keep in mind regarding construction jobs is that advertised jobs may not reflect vacancies filled through worker unions (Figure 23).

In addition to technical skills, soft skills are an essential

aspect to successful employment. The top four soft skills considered important by employers, obtained through a survey of Hawaii businesses, are also listed. Communication remains common to all industries, and in fact ranks highest for every sector except construction. Another desirable skill, listening was mentioned by three out of the four sectors.

More Labor Market Information Available on Hawaii Workforce Infonet Website

For more information, visit the Research and Statistics Office's website at www.hiwi.org. There you will find 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 detailed analyses. Recently published reports include:

- Affirmative Action Programs – Labor Information tables for state and counties updated Table 1- Labor Force Information by Sex and Race with 2013 Annual Local Area Unemployment Statistics (LAUS) data and based on 2006-2010 Census.
- Employment Forecasts for the Short-Term Future provides short-term industry and occupational projections for Hawaii, using 1st Quarter 2014 employment data to forecast employment for the 1st Quarter 2016.
- Local Employment Dynamics reports can be generated for Hawaii private industries based on 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 2012-2022 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 2012-2022 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 2014 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 3,500 establishments.
- Soft Skills Survey Results and Analysis report presents the soft skills ranked by importance in four in-demand industries: construction, healthcare, hospitality, and information technology. Data was generated by survey responses from 250 employers within the State of Hawaii.



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