NoRTEC

Northern Rural Training and Employment Consortium (NoRTEC)

Shasta County Labor Market Profile and Industry/Sector Analysis

December 2016

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NoRTEC Workforce Development Board

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Acknowledgements

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Executive Summary

This report provides a detailed Demographic, Labor Market and Industry Sector Analysis for Shasta County, which is part of the Northern Rural Training and Employment Consortium (NoRTEC) Region within Northern California. The analysis includes age and race trends and projections; income and poverty analysis; human capital and labor force analysis; unemployment analysis; commuting patterns; employment by industry; employment by occupation; industry and occupation connections; and detailed industry sector analysis. In addition, a summary of the May 2016 input session has been included, as well as a summary of the employer survey results.

Key Findings

- The population within the county increased by 2.6% over the past ten years, a positive trend compared to many counties within the NoRTEC region. However, it is lower than the state average of 9.3% over the same time period.
- The median household income in the county is $44,556, the fourth highest in the NoRTEC region but lower than the state average of $61,489. Its poverty rate, while not the lowest in the region, is lower than the state's rate of 16.4%.
- Between 2005 and 2015, unemployment trends within the county were similar to those within the state. However, overall unemployment rates in the county have been consistently higher than the state.
- The top industry sectors within the county by employment are Health Care and Social Assistance (13,475 jobs) and Government (13,400 jobs). Since 2010, Health Care and Social Assistance added over 2,600 new jobs. In addition to Health Care, with an LQ of 1.49, Shasta County has relatively high concentrations of employment in Utilities (LQ = 1.59), Crop and Animal Production (LQ = 1.53), and Retail Trade (LQ = 1.25).
- Top occupations by employment within the county include: Office and Administrative Support (10,868 jobs); Sales and Related (8,561 jobs); and Food Preparation and Serving Related (6,155 jobs).
- Over the next five years, occupations that are projected to experience growth include: Personal Care Aides (654 new jobs); Fast Food and Counter Workers (162 new jobs); and Registered Nurses (130 new jobs). Of these three, Registered Nurses has the highest median hourly earnings at $43.25/hour.
- Based on feedback from the May 2016 input session, participants mentioned that many employers are struggling with hiring and training practices that no longer fit with the changing economy and workforce. They mentioned that education on evolving best practices related to human resources processes would be helpful to many employers within the county.
- Based on survey results, the most significant challenges for employers within the county include: filling high-skill positions; finding qualified candidates to hire; and training new workers.
- For difficult to fill positions, most employers indicated that education was the most desired attribute amongst candidates.

Recommendations

The priority sectors for the NoRTEC region include: Health Care, Manufacturing, Agriculture, Tourism, and Information Technology (IT). These recommendations are based on an analysis of employment trends within each of the 11 counties, as well as the region as a whole. These industry sectors are economically vital to the region, have experienced employment growth, are projected to grow through 2020, and/or tend to be concentrated within the region. Another key consideration was an emphasis on industry sectors with occupations that have a variety of entry-level educational requirements, and pay a relatively higher wage compared to other sectors. All of these sectors are present to some degree within each of the 11 NoRTEC counties. However, some of the sectors are a better fit for individual counties than for others.

Within Shasta County, all five recommended sectors for the overall NoRTEC region are a good fit.

Health Care

- Health Care is the largest employment sector within the county. It added the greatest number of new jobs (2,609) since 2010, and is projected to add another 2,169 new jobs through 2020. Of the top ten high demand occupations within the county, eight are within the Health Care sector. These trends indicate that this should be a priority sector for the county.
- Key occupations within Health Care include: Personal Care Aides, Registered Nurses, and Miscellaneous Healthcare Support Occupations. All have experienced growth over the past five years and are projected to grow through 2020. Registered Nurses, which is one of the largest occupational groups, pays one of the highest wages, with a median hourly wage of $43.25/hr.

Manufacturing

- For the Manufacturing sector, key subsectors include Sawmills and Wood Preservation; Cement and Concrete Product Manufacturing; Other Nonmetallic Mineral Product Manufacturing; Architectural and Structural Metals Manufacturing; Miscellaneous Manufacturing; and Navigational, Measuring, Electromedical, and Control Instruments Manufacturing. These six subsectors each employ at least 100 within the county. The greatest growth in the number of jobs through 2020 is projected to be within Architectural and Structural Metals Manufacturing; Bakeries and Tortilla Manufacturing; Cement and Concrete Product Manufacturing; and Miscellaneous Manufacturing.
- Occupations with the greatest number of employees include: Woodworking Machine Setters, Operators, and Tenders; Drivers/Sales Workers and Truck Drivers; and Laborers and Material Movers, Hand. However, job growth within these occupations is projected to remain flat through 2020. Median hourly earnings for these three occupations range from $11.37/hr to $18.50/hr. High wage manufacturing jobs within the county include: General and Operations Managers ($33.64/hr); Industrial Machinery Installation, Repair, and Maintenance Workers ($31.46/hr); and First-Line Supervisors of Production and Operating Workers ($28.30/hr).

Agriculture

- The Agriculture sector has experienced job growth since 2010, but is projected to remain flat through 2020. The majority of employment is found within Crop Production and Logging.
- Key occupations within Agriculture for the county include: Miscellaneous Agricultural Workers and Logging Workers. The median wage for Miscellaneous Agricultural Workers is $18.88/hr, while the median wage for Logging Workers is $20.50/hr.

Tourism

- The Tourism sector falls across several business categories including Hotels and Restaurants; Travel Agencies and Tour Operators; Arts, Entertainment and Recreation; and Sightseeing Transportation. Within the county, the largest subsectors include Restaurants and Other Eating Places; Traveler Accommodation; Other Amusement and Recreation Industries. All are projected to grow through 2020.
- Key occupations for the Tourism sector primarily fall within food service: Fast Food and Counter Workers; Cooks; and Waiters and Waitresses. All three pay median hourly wages between $9.60 and $11.00/hr.

Information Technology (IT)

- The majority of industry employment is found within Computer Systems Design and Related Services. It has added 37 new jobs between 2010 and 2015.
- Key occupations within this sector include: Software Developers and Programmers; Computer Support Specialists; and Computer and Information Analysts. All have grown and are projected to grow through 2020. Median hourly earnings for these occupations range from $21.00/hr (Computer Support Specialists) to $33.50/hr (Computer and Information Analysts).

Shasta County

Introduction

The following is a labor market and industry/sector profile for Shasta County, California. The quantitative data for the profile includes a geographic overview, demographic and labor force characteristics, industry analysis, occupation analysis, and labor force data. For the profile, the project team collected and analyzed data from Economic Modeling Specialists Int'l. (EMSI), U.S. Census Bureau, and the U.S. Bureau of Labor Statistics.

Demographic and Labor Force Characteristics

Total Population

Shasta County is located at the center of the NoRTEC region, nestled between the Shasta-Trinity National Forest and the Lassen National Forest. The largest city is Redding. The population in Shasta County has increased from 175,619 to 180,318 over the past ten years.[1] The population increased by 2.6%, a positive trend compared to many counties in the NoRTEC region, but still lower than the state growth over the same period (9.3%). The county's population is projected to increase by 1.3% over the next five years. However, this growth is expected among non-working age cohorts, including Under 5 years, 5 to 19 years, and Over 65 years.

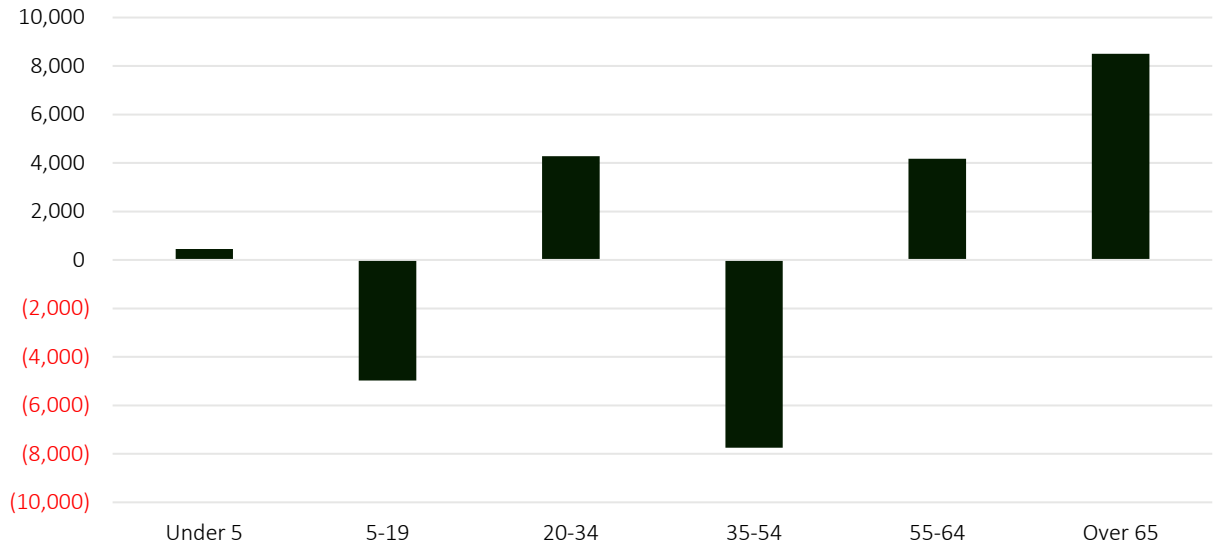
Despite positive growth in the population Under 5 and age 20 to 34, the county has an aging population. Over the past ten years, the population of individuals older than 65 increased significantly, while the population decreased for those ages 5 to 19 and 35 to 54. As of 2015, the population 55 and over comprises one-third of Shasta County's population. The aging population is a concern because it impacts the availability of labor over the next decade.

Table 1: Population by Age

Age	2005 Population	2015 Population	Change (2005-2015)		Projected Change (2015-2020)	
Under 5	10,079	10,534	455	5%	655	6%
5-19	37,322	32,344	(4,978)	(13.3%)	331	1.0%
20-34	29,081	33,365	4,284	14.7%	(1,701)	(5.1%)
35-54	49,802	42,061	(7,741)	(15.5%)	(918)	(2.2%)
55-64	22,303	26,473	4,170	18.7%	(825)	(3.1%)
Over 65	27,035	35,543	8,508	31.5%	4,777	13.4%
Total	175,619	180,318	4,699	2.6%	2,323	1.3%

[1] EMSI Analyst 2015

Figure 1: Change in Population by Age Group, 2005-2015



Race/Ethnicity

Lassen County's population has been changing and becoming more diverse over the past ten years. To illustrate, in 2005, 85% of the population was White; by 2015, this had decreased to 81%. The largest population growth has been in the Hispanic[2] racial/ethnic group, which represented 7% of the county's population in 2005 but 10% in 2015, growing by 4,660 people. With the exception of the American Indian or Alaskan Native racial/ethnic groups, all non-White population groups increased in size from 2005 to 2015.

Table 2: Population by Race/Ethnicity

Race/Ethnicity	2015 Population	Change, 2005-2015	
White	145,219	(2,939)	(2%)
Hispanic	17,371	4,660	37%
Two or More Races	6,427	1,454	29%
Asian	5,251	1,291	33%
American Indian or Alaskan Native	4,078	(112)	(3%)
Black	1,424	290	20%
Native Hawaiian or Pacific Islander	258	56	28%

[2] The Hispanic population includes Hispanics in White, Black, Two or More Races, Asian, American Indian or Alaskan Native, Native Hawaiian, or Pacific Islander.

Educational Attainment

The NoRTEC region has a higher percentage of people with at least a high school diploma (86.5%) than California (80.7%) and the U.S. (85.6%). The population in Shasta County with at least a high school diploma is higher than all three of these regions, at 88.5%. Shasta County also outpaces the state and the nation in terms of portion of its population that has completed at least some college (61.3% in Shasta County compared with 59.7% in California and 57.5% in the U.S.).

One area of strength for NoRTEC as a region is the portion of adults who have a "middle skill" level of education – some college but no degree or an Associate's degree. Shasta County, too, is strong in this category; 43.9% of its adult residents have a middle-skill education, compared with 40.2% in the NoRTEC region overall, 29.5% in California, and 28.8% throughout the U.S. Within this group is 41,628 individuals – nearly a third of the county's population – who have some college but no degree. Shasta County may consider focusing on this group as a potential mechanism for increasing educational attainment in the region, as some may be just a few credits short of an Associate's or Bachelor's degree or may have already earned a postsecondary certification or other credential.

Table 3: Population by Educational Attainment

Education Level	2015 Population	2015 Percent	2015 Percent NoRTEC	2015 Percent California	2015 Percent US
Less Than 9th Grade	4,808	3.8%	5.1%	11.2%	6.6%
9th Grade to 12th Grade	9,823	7.8%	8.4%	8.2%	7.7%
High School Diploma	34,438	27.2%	24.9%	21.0%	28.1%
Some College	41,628	32.9%	30.5%	21.7%	21.0%
Associate's Degree	13,914	11.0%	9.7%	7.8%	7.8%
Bachelor's Degree	14,544	11.5%	14.2%	19.3%	18.0%
Graduate Degree and Higher	7,465	5.9%	7.2%	10.9%	10.7%

Income

At 14.7%, Shasta County has the fourth-lowest poverty rate in the NoRTEC region.[3] The median household income for Shasta County ($44,556) is the fourth highest in the region, but still considerably trails the California average of $61,489.

Table 4: Income and Poverty in the NoRTEC Region, California, and U.S.

	Median Household Income ('10-'14)	Poverty Rate
Butte	$43,165	21.9%
Del Norte	$39,302	22.4%
Lassen	$53,351	19.4%
Modoc	$38,560	20.2%
Nevada	$56,949	11.4%
Plumas	$48,032	14.0%
Shasta	**$44,556**	**14.7%**
Sierra	$43,107	13.8%
Siskiyou	$37,495	21.1%
Tehama	$42,369	18.2%
Trinity	$36,862	19.9%
California	$61,489	16.4%
United States	$53,482	14.8%

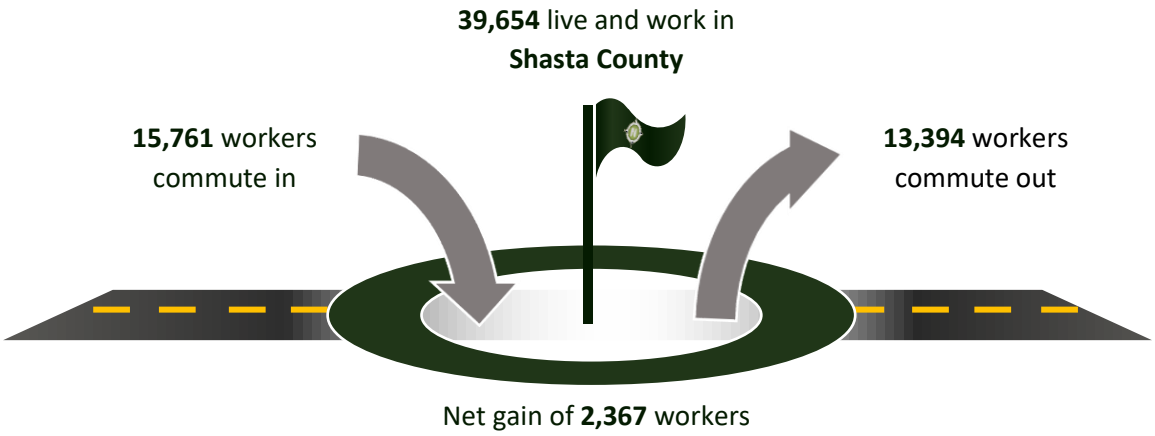
[3] U.S. Census Bureau 2010-2014.

Commuting

In 2014, Shasta County had nearly 15,800 workers commuting into the county and about 13,400 commuting out. This means that Shasta County is a slight net importer of workers.[4] Larger than both of these categories is the number of people who both live and work in Shasta County (39,654).[5]

Tehama County is the largest contributor of in-commuting workers (3,213; 5.8% of the county's workforce), followed by Trinity County (1,489; 2.7%). The top destination counties for Shasta County out-commuting workers are Tehama County (2,195; 4.1% of residents) and Butte County (1,513; 2.9%).

Figure 2: County Labor Exchange



[4] U.S. Census Bureau, OnTheMap, 2014 (most recently available). http://onthemap.ces.census.gov/

[5] The total numbers of in-commuters plus those who live and work in the county is likely to be lower than the total number of employed individuals in the county, shown in the Labor Force section on the next page. This is because the Longitudinal Employer-Household Dynamics (LEHD) data used by Census OnTheMap does not include self-employed workers or any workers that do not participate in the unemployment insurance (UI) wage record system. Further, no military employment or employees of secretive federal agencies are included. Finally, Bureau of Labor Statics (BLS) does not necessarily use the same definition for jobs as is used by OnTheMap.

Human Capital

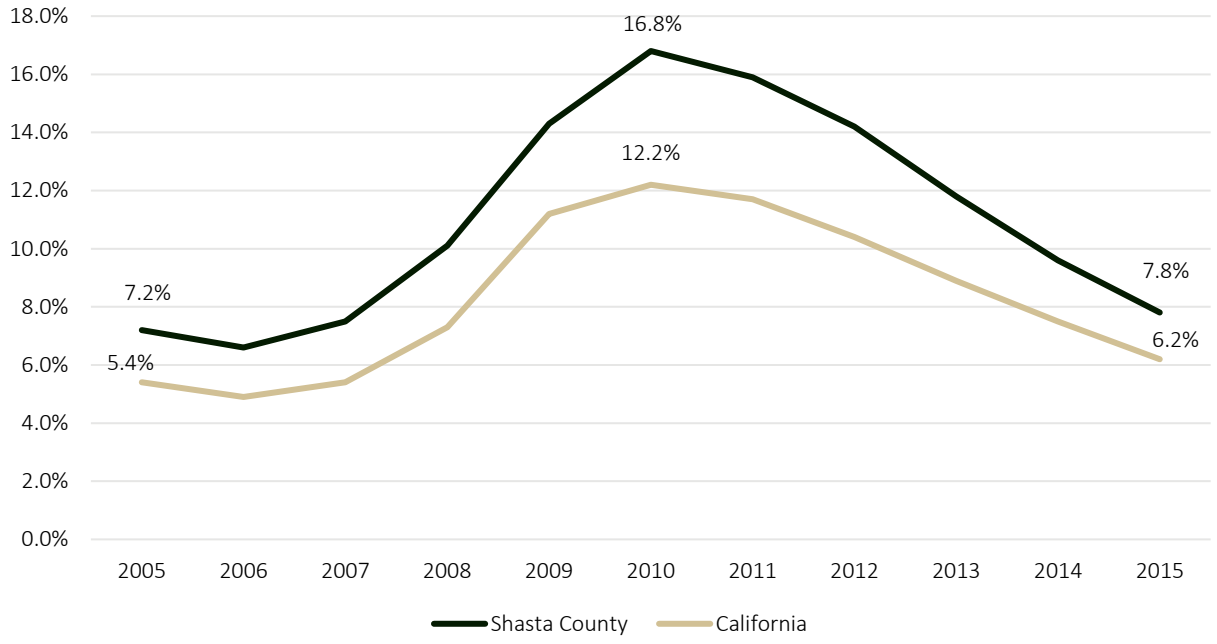
Labor Force

Table 5: Labor Force Statistics

EMPLOYMENT IN SHASTA COUNTY 1996-2016 [6]		
Peak	October 2006 (79,609)	January 2016 (69,076 – 13% lower)
Trough	February 1996 (62,330)	January 2016 (69,076 – 11% higher)
Jan 2016	Employment: 69,076 Labor Force: 75,063 Unemployment rate: 8.0%	

Labor force statistics include both the employed and the unemployed, excluding only those who have stopped looking for work (discouraged workers) and those who are voluntarily not in the labor force. In 2016, a little over 75,000 workers participated in the Shasta County labor force, of these, 69,076 were employed. Over the last 20 years, employment in the county was at its highest in October 2006 and lowest in February 1996. As of January 2016, the unemployment rate for the county was 8.0%, higher than the unemployment rate of California (5.8%) and the United States (4.9%).

Figure 3: County & State Unemployment Rates, 2005-2015 Annual Average



As noted previously, individuals can be members of the labor force even if they are not currently employed. Those who are not employed but who are actively looking for work are classified by the U.S. Department of Labor as unemployed. Like participation rates, what is considered a normal unemployment varies from region to region based on demographics of each population. Generally speaking, unemployment tends to spike during recessions and following major layoffs or relocations, eventually settling to a more normal and stable rate as individuals adjust to the new availability of

6 U.S. Bureau of Labor Statistics, 1996.1-2016.1. http://www.bls.gov/data/

employment opportunities. Prolonged periods of unusually high unemployment rates are typically a signal that the supply of workers is not in balance with demand for workers.

The Bureau of Labor Statistics reports a gradual decrease in unemployment in Shasta County since 2010. Over the period analyzed, the unemployment rate struck its peak in 2010 at 16.8%, and hit its lowest rate in 2006 at 6.6%. The unemployment rate for the state of California displayed a trends similar to Shasta County between 2011 and 2015, though the state story is consistently more positive, as the rate is lower. For California, the unemployment rate hit its highest mark in 2010 at 12.2% and its lowest mark in 2006 at 4.9%.

Labor Force Participation Rate

> ***Labor Force Participation Rate***
>
> The labor force participation rate represents the proportion of the population that is working or pursuing work, as opposed to those voluntarily not working or not pursuing work. The labor force participation rate is affected by various factors, including availability of jobs, socioeconomic composition of the population, demographics, as well as structural changes in the economy.

The labor force participation rate is sensitive to demographic changes because the participation rates vary across age, gender, income, and race/ethnicity. For example, in 2015 the national labor force participation rate for those older than 54 was 39.9%, compared to 80.7% for those between the ages of 25 and 54.

The national labor force participation rate has decreased since 2000, a trend that is expected to continue in the next decade, in part due to the aging of the baby boomer generation. In 2000, baby boomers were the heart of the workforce. However, as this large group of individuals moves closer to retirement, the overall workforce participation rate decreases. It is worth mentioning that the participation rate of older workers has been increasing in the past ten years, but it is still significantly lower than those of the young adult and middle-aged groups.

The older worker population (55 to 64 years of age) was estimated to be 26,473 in 2015, which is equivalent to 15% of the county's population.[7] Because Shasta County's population is aging, the county is likely to experience a drop in overall labor force participation as these older workers retire in the next ten years.

[7] The older worker population (55 years and older) in the county is estimated by multiplying the population of this age group by the corresponding labor force participation rate.

Industry Sector Analysis

To this point, the analysis of Shasta County has focused on the socioeconomic characteristics of the region's population. Socioeconomic data are useful in understanding the people who live and work in an area, but industry data, which are classified according to the types of goods and services businesses produce,[8] help provide a fuller picture of economic dynamics. Occupation data, presented in the final section, then connect people with businesses through industry-occupation relationships.

Each chart and table below provides data descending in order according to 2015 employment. Other data displayed include employment growth over the past five years, forecasted growth over the next five years, growth due to Competitive Effect (CE), and Location Quotient (LQ). These data indicate past and projected growth trends by sector and reveal sectors in which Shasta County is well suited to be competitive.

The Competitive Effect (CE) helps to determine the amount of job growth that occurred due to the county's competitive advantages, as compared to the national growth in general and the national growth rate for each sector. In other words, a positive number indicates that the county experienced more growth than was expected, likely due to unique regional factors.

Location Quotient (LQ) measures how concentrated or specialized an industry is in a particular county and helps to demonstrate what makes a particular county's economy unique. A number greater than 1.25 indicates that the particular sector is considerably more concentrated than the national average. It also typically indicates that local demand for the products and/or services produced by that industry have been met and the industry is likely exporting products and/or services outside of the county. In other words, these may be industries that are bringing money into the county, rather than circulating money already present within the county.[9]

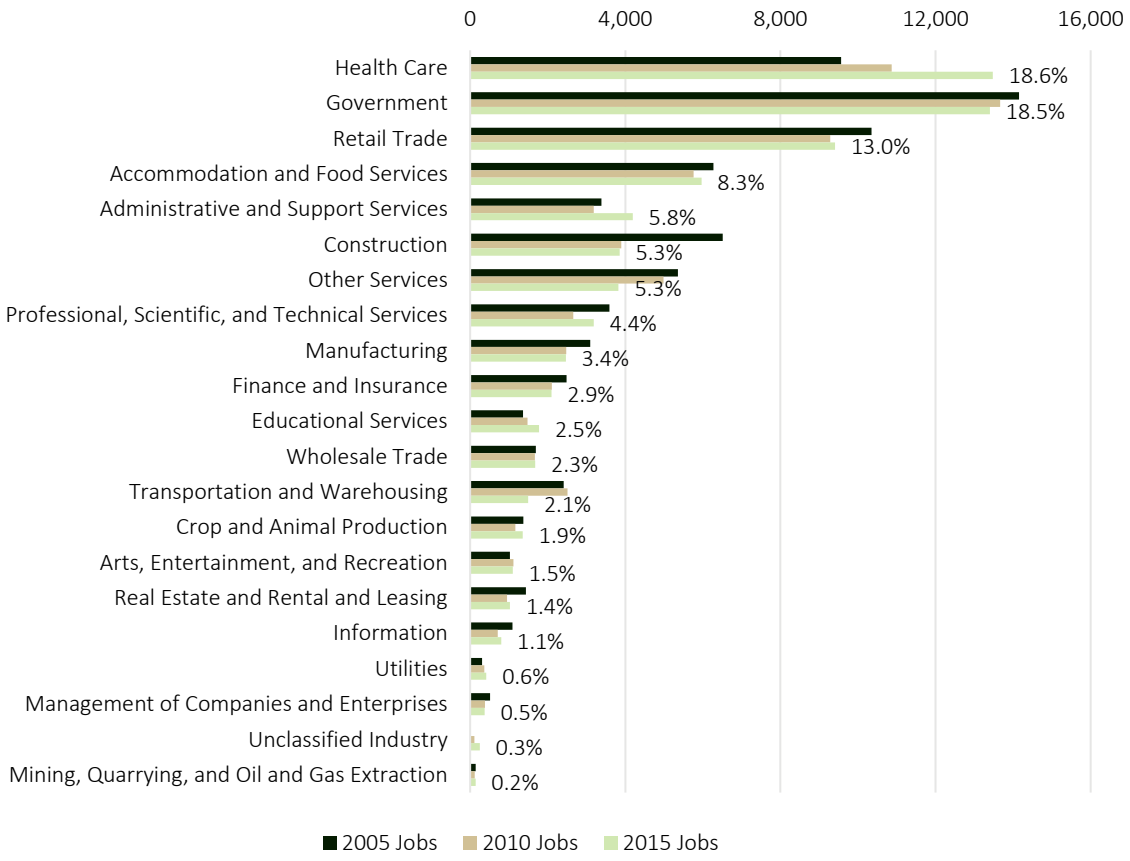
[8] Industries are classified according to the North American Industry Classification System (NAICS), a system used in the U.S., Canada and Mexico to measure economic activity. NAICS codes are used in this report at the 2-digit level, which presents the broadest industry sector level, and 4-digit level, which designates industry groups within each 2-digit sector. For more information about NAICS see www.census.gov/eos/www/naics. For detailed definitions of each industry sector see www.census.gov/eos/www/naics/2012NAICS/2012_Definition_File.pdf.

[9] Data from this section are from Economic Modeling Specialists International (EMSI), 2016.1 Class of Worker.

Industry Mix

The broad industry sectors in Shasta County employing the most workers are Healthcare and Social Assistance (13,475, 18.6% of all county employment), Government (13,400, 18.5%), Retail Trade (9,406, 13.0%), and Accommodation and Food Services (5,965, 8.3%).[10] With the exception of Government, which declined by 265 jobs from 2010 to 2015, the top industries in Shasta County added jobs in the last five years. These three growing industries are also projected to continue growing over the next five years, with the largest gains by far (+2,169 jobs) projected in Health Care and Social Assistance. Although the Health Care sector is projected to grow nationwide, the concentration of Health Care employment in Shasta County is exceeds the national concentration by about 50% (LQ = 1.49).

Figure 4: Change in Jobs by 2-digit Industry Sector, 2005-2015



Beyond Health Care, Shasta County has relatively high concentrations of industry sector employment in Utilities (LQ = 1.59), Crop and Animal Production (LQ = 1.53), and Retail Trade (LQ = 1.25).

The greatest negative trend in Shasta County is the loss of 1,163 jobs (-23%) in Other Services (Except Public Administration) and more than over 1,000 jobs (-40%) in Transportation and Warehousing. The county is projected to lose the most workers over the next five years in Construction (-900, -24%) and Transportation and Warehousing (-199, -13%).

[10] These industries are by 2-digit NAICS code. EMSI Analyst 2015.

Table 6: Jobs by 2-digit Industry Sector

Industry	2010 Jobs	2015 Jobs	Change in Jobs 2010 - 2015		Change in Jobs 2015-2020		Location Quotient	Comp. Effect
Health Care and Social Assistance	10,866	13,475	2,609	24%	2,169	16%	1.49	1,185
Government	13,665	13,400	(265)	(2%)	(58)	(0%)	1.20	(27)
Retail Trade	9,288	9,406	118	1%	237	3%	1.25	(571)
Accommodation and Food Services	5,757	5,965	208	4%	202	3%	0.98	(712)
Administrative and Support and Waste Management and Remediation Services	3,185	4,197	1,012	32%	(44)	(1%)	0.93	453
Construction	3,895	3,855	(40)	(1%)	(909)	(24%)	1.00	(429)
Other Services (except Public Administration)	4,989	3,826	(1,163)	(23%)	50	1%	1.10	(1,210)
Professional, Scientific, and Technical Services	2,655	3,186	531	20%	231	7%	0.69	142
Manufacturing	2,477	2,469	(8)	(0%)	(31)	(1%)	0.43	(164)
Finance and Insurance	2,108	2,094	(14)	(1%)	118	6%	0.73	(102)
Educational Services	1,476	1,774	298	20%	160	9%	0.97	149
Wholesale Trade	1,670	1,675	5	0%	174	10%	0.60	(113)
Transportation and Warehousing	2,510	1,494	(1,016)	(40%)	(199)	(13%)	0.63	(1,333)
Crop and Animal Production	1,161	1,358	197	17%	(41)	(3%)	1.53	149
Arts, Entertainment, and Recreation	1,112	1,098	(14)	(1%)	57	5%	0.91	(154)
Real Estate and Rental and Leasing	951	1,026	75	8%	(103)	(10%)	0.86	14
Information	710	798	88	12%	30	4%	0.59	67
Utilities	363	416	53	15%	64	15%	1.59	45
Management of Companies and Enterprises	384	377	(7)	(2%)	(68)	(18%)	0.37	(80)
Unclassified Industry	113	248	135	119%	5	2%	2.09	58
Mining, Quarrying, and Oil and Gas Extraction	113	140	27	24%	24	17%	0.40	13

Key Industries

Drilling down from 2-digit NAICS sector-level data into 4-digit NAICS industry group-level data provides information about the more specific drivers of growth. The tables below show the 20 largest industry groups by employment in Shasta County.[11] Of these, 14 had positive growth rates from 2010-2015, adding a combined 4,740 jobs, and 6 industry groups saw job losses totaling 1,093 over the same period.

The largest gains were in Individual and Family Services (+2,330, +201%), Employment Services (+639, +57%), and Other General Merchandise Stores (+389, +25%). The number of jobs in Employment Services is projected to decline by 128 through 2020 but will remain higher than 2010 levels. Individual and Family Services and Other General Merchandise Stores, along with Nursing Care Facilities and Religious Organizations, are projected to add the most jobs between 2015-2020.

Table 7: Jobs by 4-digit Industry Group

Industry	2015 Jobs	'10-'15 Change		'15-'20 Change	
Education and Hospitals (Local Government)	5,894	22	0%	(5)	(0%)
Restaurants and Other Eating Places	4,870	186	4%	45	1%
Local Government, Excluding Education and Hospitals	3,971	(178)	(4%)	19	0%
Individual and Family Services	3,491	2,330	201%	1,257	36%
General Medical and Surgical Hospitals	2,288	(81)	(3%)	(17)	(1%)
State Government, Excluding Education and Hospitals	1,906	65	4%	(25)	(1%)
Employment Services	1,767	639	57%	(128)	(7%)
Offices of Physicians	1,683	60	4%	122	7%
Services to Buildings and Dwellings	1,463	272	23%	118	8%
Grocery Stores	1,362	(71)	(5%)	58	4%
Federal Government, Civilian	1,297	(213)	(14%)	(38)	(3%)
Other General Merchandise Stores	1,255	389	45%	495	39%
Nursing Care Facilities (Skilled Nursing Facilities)	1,097	(198)	(15%)	246	22%
Religious Organizations	1,048	291	38%	185	18%
Automotive Repair and Maintenance	865	99	13%	93	11%
Department Stores	841	(352)	(30%)	(311)	(37%)
Continuing Care Retirement Communities and Assisted Living Facilities for the Elderly	829	177	27%	124	15%
Building Equipment Contractors	778	13	2%	(123)	(16%)
Traveler Accommodation	753	66	10%	102	14%
Colleges, Universities, and Professional Schools	745	131	21%	107	14%

[11] These industries are by 4-digit NAICS code.

Occupation Analysis

An examination of occupational demand is separate and distinct from industry analysis because industries require a mix of occupations to function. For example, the Manufacturing sector employs occupations that might be traditionally defined as "manufacturing occupations" – called Production occupations at the broadest level of occupation classification. The Manufacturing sector, however, also employs managers, accountants, maintenance and repair personnel, administrative support staff, lawyers, and many other occupational categories necessary for the industry's survival.

As a workforce development board, NoRTEC's mission is to serve individual job seekers and businesses more specifically than serving as catalysts for industry-specific development. As such, it is important to understand the specific occupational roles that are required to keep local businesses flourishing.

The occupation analysis that follows provides a view of the most critical occupations within the region from an overarching economic perspective and specifically related to some of the key industries that were highlighted previously.

Occupational Groups

Shasta County's top occupational groups[12] include:

- Office and Administrative Support Occupations (10,868 jobs)
- Sales and Related Occupations (8,561 jobs)
- Food Preparation and Serving Related Occupations (6,155 jobs)
- Education, Training and Library Occupations (4,984 jobs)

The median hourly earnings for all occupations range from $10.57/hr for Personal Care and Service Occupations to $42.86/hr for Healthcare Practitioners and Technical Occupations.

As noted in the industry analysis section, location quotient scores can indicate occupational groups where the county has a strong competitive advantage over other regions in United States. Occupational groups where Shasta County has a strong concentration of workers (above an LQ of 1.25) include:

- Farming, Fishing, and Forestry Occupations (1.97)
- Life, Physical, and Social Science Occupations (1.83)
- Community and Social Services Occupations (1.53)
- Personal Care and Service Occupations (1.42)
- Healthcare Practitioners and Technical Occupations (1.26)

These are the occupation groups for which the region is highly specialized. For example, jobs in Farming, Fishing, and Forestry make up 1.97-times more of Shasta County's employment base than they do nationally.

[12] These occupations are by 2 digit SOC code (Standard Occupation Classification System)

Table 8: Employment by 2-digit Occupational Group

Group	2015 Employment	% of Total Employment	Median Hourly Earning	Location Quotient
Office and Administrative Support	10,868	15.04%	$15.48	0.99
Sales and Related	8,561	11.85%	$13.30	1.15
Food Preparation and Serving Related	6,155	8.52%	$10.65	1.03
Education, Training, and Library	4,984	6.90%	$24.05	1.22
Healthcare Practitioners and Technical	4,925	6.81%	$42.86	1.26
Personal Care and Service	4,091	5.66%	$10.57	1.42
Transportation and Material Moving	4,049	5.60%	$16.89	0.87
Construction and Extraction	3,806	5.27%	$20.21	1.18
Management	3,219	4.45%	$32.53	0.83
Building and Grounds Cleaning and Maintenance	3,030	4.19%	$12.02	1.10
Installation, Maintenance, and Repair	2,813	3.89%	$19.83	1.03
Production	2,303	3.19%	$18.09	0.53
Business and Financial Operations	2,284	3.16%	$27.38	0.64
Healthcare Support	2,175	3.01%	$15.10	1.08
Community and Social Service	1,778	2.46%	$20.06	1.53
Protective Service	1,602	2.22%	$27.31	0.99
Life, Physical, and Social Science	1,072	1.48%	$25.10	1.83
Arts, Design, Entertainment, Sports, and Media	1,072	1.48%	$17.47	0.85
Farming, Fishing, and Forestry	1,070	1.48%	$18.16	1.97
Architecture and Engineering	910	1.26%	$41.06	0.76
Computer and Mathematical	723	1.00%	$27.11	0.37
Legal	455	0.63%	$39.71	0.76
Military	332	0.46%	$16.42	0.35

Top Occupations

The following table displays the top 20 occupations by 4 Digit SOC codes within Shasta County.[13] Median hourly earnings for these occupations range from a low of $9.69 for Waiters and Waitresses, to a high of $33.64 for General and Operations Managers. Occupations that added the most jobs since 2010 include Personal Care Aides (+2,712, +73%), Registered Nurses (+207, 12%), and Fast Food and Counter Workers (+168, 9%). These three occupation groups are also projected to grow the most through 2020.

Of the top 20 occupation groups, 16 have added jobs since 2010 and 17 are projected to add jobs between 2015-2020. Just two of the top 20 occupations, Driver/Sales Workers and Truck Drivers and Waiters and Waitresses, both lost jobs from 2010-2015 and are projected to decline from 2015-2020.

Table 9: Top Occupations by Total 2015 Employment, 4-digit SOC

Occupation	2015 Employment	Change, 2010-2015		Projected Change, 2015-2020		Annual Openings	Median Hourly Earnings
Retail Salespersons	2,712	8	0%	8	0%	125	$10.84
Cashiers	2,437	67	3%	44	2%	122	$10.09
Secretaries and Administrative Assistants	2,082	165	9%	83	4%	60	$15.65
Fast Food and Counter Workers	1,963	168	9%	162	8%	119	$10.38
Driver/Sales Workers and Truck Drivers	1,909	(604)	(24%)	(130)	(7%)	111	$18.50
Registered Nurses	1,905	207	12%	130	7%	82	$43.25
Building Cleaning Workers	1,817	(324)	(15%)	100	6%	90	$11.25
Personal Care Aides	1,669	703	73%	654	39%	110	$10.15
Office Clerks, General	1,422	85	6%	28	2%	56	$13.10
Elementary and Middle School Teachers	1,414	34	2%	10	1%	49	$32.35
Miscellaneous Healthcare Support Occupations	1,275	73	6%	37	3%	42	$16.21
Laborers and Material Movers, Hand	1,245	70	6%	(14)	(1%)	67	$11.37
Cooks	1,234	47	4%	26	2%	43	$11.17
First-Line Supervisors of Sales Workers	1,073	8	1%	15	1%	32	$15.77
Waiters and Waitresses	1,002	(5)	(0%)	(34)	(3%)	64	$9.69
General and Operations Managers	996	112	13%	36	4%	34	$33.64
Bookkeeping, Accounting, and Auditing Clerks	993	81	9%	16	2%	23	$16.29
Stock Clerks and Order Fillers	991	(1)	(0%)	30	3%	43	$11.31
Teacher Assistants	933	53	6%	14	2%	35	$11.81
Grounds Maintenance Workers	907	106	13%	30	3%	43	$12.07

[13] Occupations are by 4 digit SOC code.

High Demand Jobs – Education and Training

The charts below provide two analyses of education requirements for high-demand occupations in Shasta County,[14] both of which depict data from the high-demand occupations table in this section. Note, as shown in the high-demand occupations table, all of these occupations are projected to grow in number of jobs between 2015-2020. The pie chart looks at education requirements based on the number of jobs to be added in high-demand occupational categories. The bar chart shows not change in total number of jobs but rather the change in the *concentration* of minimum education requirements for jobs in high-demand occupations over that time period.

Both charts show that the greatest net-new job growth among high-demand occupations in Shasta County is projected to occur in occupations that require less than high school and jobs that require high school or equivalent. Of the net-new jobs to be added in high-demand categories, 61% of new jobs will require less than high school and 12% of net-new jobs will require high school or equivalent. In other words, the growth in high-demand jobs that require less than high school or high school or equivalent outpaces the growth in high-demand jobs requiring higher levels of education. This presents employment opportunity for Shasta County residents with modest educational attainment, but high-demand occupations that require at least an Associate's degree are still projected to see 315 net-new jobs added by 2020.

Figure 5: Education Requirements, Net-New Jobs

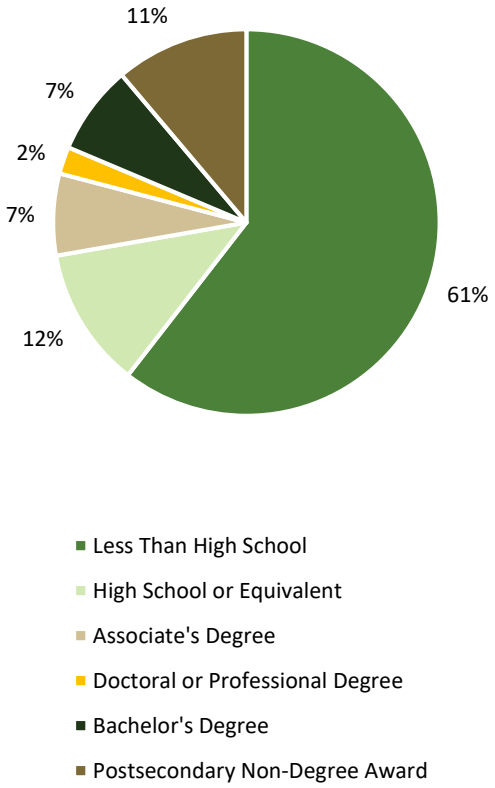
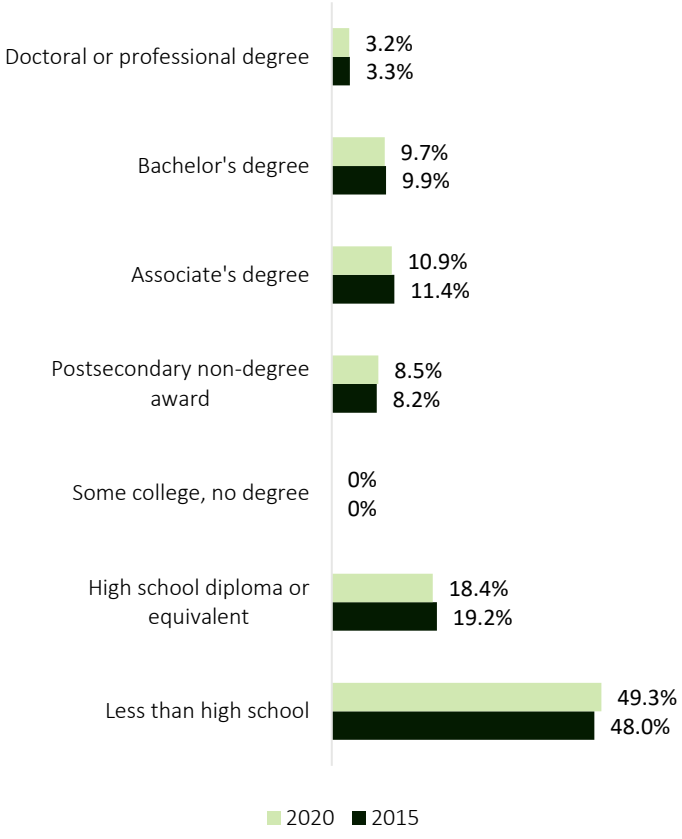


Figure 6: Education Requirements, 2015 vs. 2020



[14] Individual employers may require more education than BLS analysis suggests is required. For example, some employers may require high school completion even for jobs that BLS suggests could be performed with less education.

Similar to the pie and bar charts above, the charts below depict the minimum training requirements for jobs in high-demand occupations in Shasta County. The pie chart looks at training requirements based on the number of jobs to be added in high-demand occupational categories. The bar chart shows not change in total number of jobs but rather the change in the *concentration* of minimum training requirements for jobs in high-demand occupations over that time period.

Both charts show that the greatest net-new job growth among high-demand occupations in Shasta County is projected to occur in occupations that require on-the-job training (OJT). The pie chart shows that of the net-new jobs to be added in high-demand categories, nearly three-quarters (73%) will require short- or medium-term (OJT). This is translated in the bar chart as change in concentration of training requirements for jobs in high-demand occupations. Overall, the concentration of training requirements among high-demand occupations will remain relatively flat. Jobs in high-demand occupations that require short-term OJT, 59.6% of jobs in high-demand occupations in 2015, will change by less than 1% percentage point by 2020, and the concentration of jobs that require no training will decline in concentration by 1 percentage point over the same time period.

Although Shasta County will not see a dramatic change in the *concentration* of jobs requiring various training levels, occupations that require some OJT are projected to add the equivalent of nearly 1,400 net-new jobs by 2020. This represents a significant opportunity for the workforce development system in the NoRTEC region to work with employers to educate and train workers for the high-demand jobs outlined in the table on the next page.

Figure 7: Training Requirements, Net-New Jobs

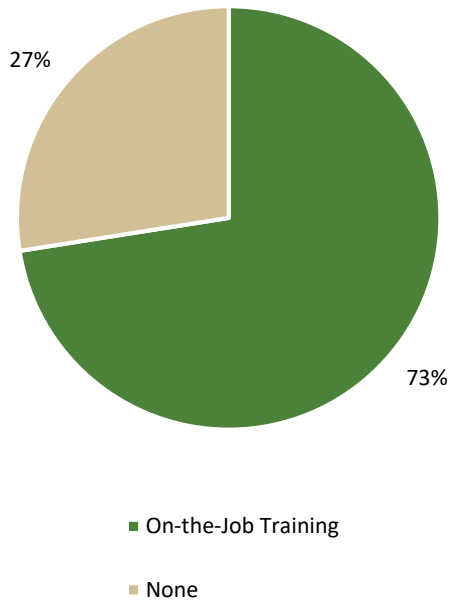


Figure 8: Training Requirements, 2015 vs. 2020

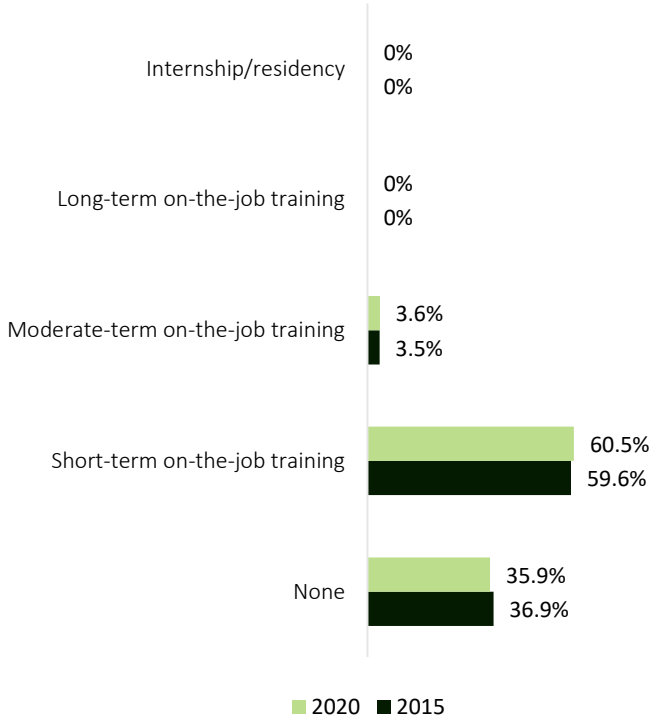


Table 10: High-Demand Occupations by 2015-2020 Change

Description	2020 Jobs	2015 - 2020 Change	Annual Openings	Avg. Hourly Earnings	Typical Entry Level Education	Typical On-The-Job Training
Personal Care Aides	2,323	654	148	$10.45	Less than high school	Short-term on-the-job training
Home Health Aides	464	172	43	$11.57	Less than high school	Short-term on-the-job training
Combined Food Preparation and Serving Workers, Including Fast Food	1,782	146	95	$11.34	Less than high school	Short-term on-the-job training
Registered Nurses	2,035	130	65	$43.12	Associate's degree	None
Nursing Assistants	523	110	31	$12.79	Postsecondary non-degree award	None
Janitors and Cleaners, Except Maids and Housekeeping Cleaners	1,103	104	41	$13.20	Less than high school	Short-term on-the-job training
Licensed Practical and Licensed Vocational Nurses	411	65	23	$23.89	Postsecondary non-degree award	None
Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	1,267	64	28	$14.88	High school diploma or equivalent	Short-term on-the-job training
Social and Human Service Assistants	294	44	16	$14.06	High school diploma or equivalent	Short-term on-the-job training
Cashiers	2,473	43	115	$11.03	Less than high school	Short-term on-the-job training
Postsecondary Teachers	593	43	17	$36.73	Doctoral or professional degree	None
Medical Secretaries	466	42	14	$14.30	High school diploma or equivalent	Moderate-term on-the-job training
Clergy	205	40	12	$22.81	Bachelor's degree	Moderate-term on-the-job training
Customer Service Representatives	527	38	22	$17.13	High school diploma or equivalent	Short-term on-the-job training
Medical Assistants	651	37	20	$15.50	Postsecondary non-degree award	None
General and Operations Managers	1,032	36	26	$39.27	Bachelor's degree	None
First-Line Supervisors of Office and Administrative Support Workers	875	35	28	$22.94	High school diploma or equivalent	None
Recreation Workers	320	34	10	$10.38	Bachelor's degree	None
Management Analysts	243	32	10	$25.54	Bachelor's degree	None
Stock Clerks and Order Fillers	1,021	30	36	$13.49	Less than high school	Short-term on-the-job training

Industry and Occupation Connections

Industries drive economic growth, but the fuel that enables those industries to function are its workers, who are classified by occupational codes. Considering the importance of talent to supporting key regional industries, it is worth exploring the connections between significant industries and the occupations that are most critical to those industries.

The following table identifies the top occupations and connected key industries.[15] The list of key industries related to these occupations is dominated by Health Care.

Table 11: Connection between Top Occupations and Key Industries

Top Occupations	Key Industries
Personal Care Aides	• Health Care
Home Health Aides	• Health Care
Combined Food Preparation and Serving Workers, Including Fast Food	• Accommodation and Food Services
Registered Nurses	• Health Care • Government
Nursing Assistants	• Health Care
Janitors and Cleaners, Except Maids and Housekeeping Cleaners	• Administrative and Support Services • Government • Health Care
Licensed Practical and Licensed Vocational Nurses	• Health Care
Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	• Government • Health Care • Other Services (except Public Administration) • Educational Services
Social and Human Service Assistants	• Health Care
Cashiers	• Retail Trade • Accommodation and Food Services • Government

[15] Occupations are by 4-digit SOC code.

Detailed Industry Analysis

The following section provides an in-depth look at sectors important to the Shasta County economy: Health Care, Manufacturing, Agriculture, Tourism, and Information Technology (IT). The top employing subsectors, listed by 4-digit NAICS, and staffing patterns are provided for each sector. Staffing patterns data show the top employing occupations at the 4-digit SOC level, along with past and projected growth, competitive effect, location quotient, and average earnings.

Health Care

Industry Groups

The largest employing sectors in the county include Individual and Family Services (3,491 jobs), General Medical and Surgical Hospitals (2,288), Offices of Physicians (1,683), and Nursing Care Facilities (Skilled Nursing Facilities) (1,097). The sectors with the highest LQ include Individual and Family Services (3.35) and Specialty (except Psychiatric and Substance Abuse) Hospitals (2.72). Notably, the industry with the most significant growth was Individual and Family Services, the industry that is projected to grow the most through 2020. The sector paying the highest average wages was Specialty (except Psychiatric and Substance Abuse) Hospitals ($95,307), while the sector with the lowest average wages was Individual and Family Services ($16,579). (See table: Health Care Sector Industry Groups by 2015 Jobs, 4-digit NAICS.)

Staffing Patterns

The top four occupations by employment for this industry sector include: Personal Care Aides (1,604 jobs); Registered Nurses (1,574); Miscellaneous Healthcare Support Occupations (1,059); and Nursing, Psychiatric, and Home Health Aides (673). All four occupations experienced strong growth over the past five years, headlined by Personal Care Aids, which adding 1,031 jobs. The occupation offering the lowest median earnings is Childcare Workers at $10.02/hr. The occupation with the highest median hourly earnings is Physicians and Surgeons at $104.61/hr. (See table: Health Care Sector Occupations by 2015 Employment, 4-digit NAICS.)

Table 12: Health Care Sector Industry Groups by 2015 Jobs, 4-digit NAICS

Industry	2015 Jobs	'10-'15 Change	CE '10-'15	'15-'20 Change	CE '15-'20	'15 LQ	Average Earnings
Individual and Family Services	3,491	2,330	1,608	1,257	483	3.35	$16,579
General Medical and Surgical Hospitals	2,288	(81)	(215)	(17)	(170)	1.08	$88,646
Offices of Physicians	1,683	60	(99)	122	(54)	1.39	$85,349
Nursing Care Facilities (Skilled Nursing Facilities)	1,097	(198)	(204)	246	161	1.42	$51,619
Continuing Care Retirement Communities and Assisted Living Facilities for the Elderly	829	177	65	124	(15)	2.05	$24,888
Offices of Other Health Practitioners	661	3	(133)	110	2	1.51	$41,872
Offices of Dentists	586	20	(33)	33	(24)	1.32	$55,996
Home Health Care Services	491	(35)	(145)	124	11	0.76	$31,149
Child Day Care Services	471	(28)	(25)	15	(5)	0.82	$22,552
Outpatient Care Centers	426	172	111	104	21	1.19	$58,718
Residential Intellectual and Developmental Disability, Mental Health, and Substance Abuse Facilities	358	(39)	(76)	(31)	(73)	1.24	$32,172
Specialty (except Psychiatric and Substance Abuse) Hospitals	278	235	232	76	5	2.72	$95,307
Medical and Diagnostic Laboratories	206	(24)	(56)	(28)	(55)	1.62	$53,427
Other Ambulatory Health Care Services	198	(47)	(80)	(2)	(31)	1.32	$90,089
Other Residential Care Facilities	169	(16)	(19)	24	15	2.22	$35,338
Vocational Rehabilitation Services	143	116	116	14	9	0.88	$23,232
Community Food and Housing, and Emergency and Other Relief Services	98	(37)	(45)	(3)	(12)	1.30	$45,250
Psychiatric and Substance Abuse Hospitals	<10	Insf. Data	1	Insf. Data	0	0.03	Insf. Data

Table 13: Health Care Sector Occupations by 2015 Employment, 4-digit SOC

Occupation	2015 Employment	Change, 2010-2015		Projected Change, 2015-2020		Median Hourly Earnings
Personal Care Aides	1,604	1,031	180%	677	42%	$10.15
Registered Nurses	1,574	137	10%	130	8%	$43.25
Miscellaneous Healthcare Support Occupations	1,059	47	5%	32	3%	$16.21
Nursing, Psychiatric, and Home Health Aides	673	67	11%	287	43%	$11.95
Secretaries and Administrative Assistants	639	92	17%	70	11%	$15.65
Childcare Workers	370	(9)	(2%)	(3)	(1%)	$10.02
Building Cleaning Workers	368	60	19%	50	14%	$11.25
Therapists	364	39	12%	62	17%	$38.01
Miscellaneous Community and Social Service Specialists	335	146	77%	60	18%	$19.06
Physicians and Surgeons	331	(3)	(1%)	8	2%	$104.61
Receptionists and Information Clerks	322	32	11%	28	9%	$12.03
Licensed Practical and Licensed Vocational Nurses	302	17	6%	66	22%	$22.74
Counselors	302	65	27%	40	13%	$19.24
Office Clerks, General	266	45	20%	23	9%	$13.10
Social Workers	255	71	39%	46	18%	$22.10
First-Line Supervisors of Office and Administrative Support Workers	201	28	16%	18	9%	$21.23
Health Practitioner Support Technologists and Technicians	172	16	10%	12	7%	$20.19
Diagnostic Related Technologists and Technicians	155	4	3%	5	3%	$36.51
General and Operations Managers	153	45	42%	22	14%	$33.64
Medical Records and Health Information Technicians	151	9	6%	11	7%	$23.03

Manufacturing

Industry Groups

The top manufacturing industries include Sawmills and Wood Preservation (659 jobs), Cement and Concrete Product Manufacturing (226), Other Nonmetallic Mineral Product Manufacturing (184), and Architectural and Structural Metals Manufacturing (181). Industries with the largest location quotient scores include Sawmills and Wood Preservation, Other Nonmetallic Mineral Production Manufacturing, and Cement and Concrete Product Manufacturing. Over the past five years, Sawmills and Wood Preservation added the most employees (659); however, it is also projected to lose the most employees over the next five years (138). Other growing sectors include Architectural and Structural Metals Manufacturing, Bakeries and Tortilla Manufacturing, Miscellaneous manufacturing, and Cut and Sew Apparel Manufacturing.

The industry paying the highest average earnings is Cement and Concrete Product Manufacturing ($74,747), followed closely by Sawmills and Wood Preservation ($72,972). The industry with the lowest average wages is Bakeries and Tortilla Manufacturing ($20,897). (See table: Manufacturing Sector Industry Groups by 2015 Jobs, 4-digit NAICS.)

Staffing Patterns

The occupations employing the most people in the manufacturing sector include Woodworking Machine Setters, Operators, and Tenders (168 jobs); Driver/Sales Workers and Truck Drivers (167); and Laborers and Material Movers, Hand (159). All three of these occupations grew in the last five years, but are projected to lose jobs between 2015 and 2020 (with the exception of Driver/Sales Workers and Truck Drivers). The occupation within this sector offering the highest median earnings is General and Operations Managers ($33.64/hr), while the occupation paying the lowest is Laborers and Material Movers, Hand ($11.37/hr). (See table: Manufacturing Sector Occupations by 2015 Employment, 4-digit NAICS.)

Table 14: Manufacturing Sector Industry Groups by 2015 Jobs, 4-digit NAICS

Industry	2015 Jobs	'10-'15 Change	CE '10-'15	'15-'20 Change	CE '15-'20	'15 LQ	Average Earnings
Sawmills and Wood Preservation	659	113	57	(138)	(125)	15.01	$72,972
Cement and Concrete Product Manufacturing	226	12	(2)	23	17	2.67	$74,747
Other Nonmetallic Mineral Product Manufacturing	184	(17)	(45)	(29)	(33)	5.16	$70,112
Architectural and Structural Metals Manufacturing	181	107	98	89	81	1.07	$43,811
Other Miscellaneous Manufacturing	136	4	(5)	22	34	0.94	$30,958
Navigational, Measuring, Electromedical, and Control Instruments Manufacturing	102	1	4	(2)	(0)	0.56	$55,065
Bakeries and Tortilla Manufacturing	90	52	48	32	31	0.62	$20,897
Household and Institutional Furniture and Kitchen Cabinet Manufacturing	84	14	8	(10)	1	0.69	$34,315
Cut and Sew Apparel Manufacturing	83	38	42	25	48	1.42	$49,293
Machine Shops; Turned Product; and Screw, Nut, and Bolt Manufacturing	82	(18)	(34)	7	3	0.47	$48,215
Medical Equipment and Supplies Manufacturing	77	(6)	(8)	2	(0)	0.51	$55,297
Beverage Manufacturing	60	(28)	(49)	12	10	0.62	$60,498
Industrial Machinery Manufacturing	59	15	10	(30)	(29)	1.16	$65,495
Printing and Related Support Activities	57	(37)	(29)	(34)	(27)	0.27	$31,659
Metalworking Machinery Manufacturing	40	(9)	(17)	3	5	0.48	$63,675
Animal Slaughtering and Processing	36	15	15	18	17	0.16	$30,492
Plastics Product Manufacturing	35	(9)	(14)	(8)	(6)	0.14	$51,801
Other General Purpose Machinery Manufacturing	29	(2)	(6)	5	5	0.24	$56,317
Other Wood Product Manufacturing	29	(91)	(100)	(19)	(16)	0.27	$44,864
Coating, Engraving, Heat Treating, and Allied Activities	26	Insf. Data	21	10	10	0.40	$37,479

Table 15: Manufacturing Sector Occupations by 2015 Employment, 4-digit SOC

Occupation	2015 Employment	Change, 2010-2015		Projected Change, 2015-2020		Median Hourly Earnings
Woodworking Machine Setters, Operators, and Tenders	168	11	7%	(33)	(20%)	$16.64
Driver/Sales Workers and Truck Drivers	167	11	7%	4	2%	$18.50
Laborers and Material Movers, Hand	159	7	5%	(16)	(10%)	$11.37
Miscellaneous Assemblers and Fabricators	79	(40)	(34%)	3	4%	$14.18
First-Line Supervisors of Production and Operating Workers	76	(4)	(5%)	0	0%	$28.30
Miscellaneous Production Workers	75	(2)	(3%)	4	5%	$14.32
Welding, Soldering, and Brazing Workers	72	17	31%	12	17%	$16.69
Sales Representatives, Wholesale and Manufacturing	67	(6)	(8%)	(1)	(1%)	$23.73
General and Operations Managers	67	2	3%	(1)	(1%)	$33.64
Cabinetmakers and Bench Carpenters	62	2	3%	(13)	(21%)	$17.41
Sewing Machine Operators	52	22	73%	9	17%	$12.03
Machinists	51	(5)	(9%)	4	8%	$16.69
Shipping, Receiving, and Traffic Clerks	45	1	2%	(1)	(2%)	$12.25
Packaging and Filling Machine Operators and Tenders	42	(12)	(22%)	2	5%	$15.39
Industrial Machinery Installation, Repair, and Maintenance Workers	42	2	5%	(1)	(2%)	$31.46
Logging Workers	41	10	32%	(6)	(15%)	$20.50
Machine Tool Cutting Setters, Operators, and Tenders, Metal and Plastic	40	(2)	(5%)	3	8%	$16.10
Miscellaneous Managers	39	(1)	(3%)	2	5%	$23.80
Office Clerks, General	38	(2)	(5%)	(1)	(3%)	$13.10
Maintenance and Repair Workers, General	37	(1)	(3%)	(1)	(3%)	$16.57

Agriculture

Industry Groups

The largest employing occupations in the Crop and Animal Production sector are Crop Production and Logging. Crop Production grew the most over the past five years, but a slight decline is projected through 2020 (-6 jobs). The industry paying the highest average wages was Forest Nurseries and Gathering of Forest Products ($90,409), meanwhile the industry paying the lowest average wage was Fishing ($16,675). (See table: Agriculture Sector Industry Groups by 2015 Jobs, 4-digit NAICS.)

Staffing Patterns

The largest occupations by employment size within this sector are Miscellaneous Agricultural Workers; Logging Workers; and Farmers, Ranchers, and Other Agricultural Managers. Miscellaneous Agricultural Workers grew the most over the past five years in terms of new jobs, but is projected to decline slightly over the next five years. The occupation that pays the highest median wages was Agricultural Inspectors ($37.60), while the occupation with the lowest was Forest and Conservation Workers ($9.01). (See table: Agriculture Sector Occupations by 2015 Employment, 4-digit NAICS.)

Table 16: Agriculture Sector Industry Groups by 2015 Jobs, 4-digit NAICS

Industry	2015 Jobs	'10-'15 Change	CE '10-'15	'15-'20 Change	CE '15-'20	'15 LQ	Average Earnings
Crop Production	530	185	165	(6)	(6)	1.35	$34,724
Logging	271	(42)	(35)	(40)	(18)	7.94	$58,545
Support Activities for Forestry	205	(8)	(19)	(3)	4	23.65	$78,135
Animal Production and Aquaculture	200	11	12	1	12	1.01	$40,403
Support Activities for Crop Production	60	13	9	3	0	0.28	$52,941
Fishing	31	5	6	6	8	2.16	$16,675
Forest Nurseries and Gathering of Forest Products	28	Insf. Data	28	0	3	25.72	$90,409
Support Activities for Animal Production	18	(3)	(2)	(4)	(4)	0.98	$20,614
Timber Tract Operations	<10	Insf. Data	6	Insf. Data	(0)	3.42	Insf. Data
Hunting and Trapping	<10	Insf. Data	1	Insf. Data	2	3.21	Insf. Data

Table 17: Agriculture Sector Occupations by 2015 Employment, 4-digit SOC

Occupation	2015 Employment	Change, 2010-2015		Projected Change, 2015-2020		Median Hourly Earnings
Miscellaneous Agricultural Workers	451	119	36%	(7)	(2%)	$18.88
Logging Workers	184	(24)	(12%)	(24)	(13%)	$20.50
Farmers, Ranchers, and Other Agricultural Managers	147	27	23%	4	3%	$19.62
Forest and Conservation Workers	66	4	6%	(3)	(5%)	$9.01
First-Line Supervisors of Farming, Fishing, and Forestry Workers	63	4	7%	(4)	(6%)	$26.37
Driver/Sales Workers and Truck Drivers	60	4	7%	(4)	(7%)	$18.50
Secretaries and Administrative Assistants	28	5	22%	0	0%	$15.65
Fishers and Related Fishing Workers	24	4	20%	4	17%	$13.53
Laborers and Material Movers, Hand	23	5	28%	0	0%	$11.37
Grounds Maintenance Workers	20	5	33%	0	0%	$12.07
Nonfarm Animal Caretakers	19	0	0%	(3)	(16%)	$10.51
Graders and Sorters, Agricultural Products	14	4	40%	0	0%	$19.44
Animal Trainers	13	(4)	(24%)	(3)	(23%)	$11.64
Hunters and Trappers	12	2	20%	2	17%	$10.92
Bookkeeping, Accounting, and Auditing Clerks	12	2	20%	0	0%	$16.29
Conservation Scientists and Foresters	12	0	0%	(1)	(8%)	$31.85
Miscellaneous Production Workers	11	2	22%	0	0%	$14.32
Agricultural Inspectors	<10	0	0%	0	0%	$37.60
Security Guards and Gaming Surveillance Officers	<10	0	0%	0	0%	$11.75
Welding, Soldering, and Brazing Workers	<10	0	0%	0	0%	$16.69

Tourism

Industry Groups

The vast majority of employment within this industry sector[16] is found within three subsectors: Restaurants and Other Eating Places (4,870), Traveler Accommodation (753), and Other Amusement and Recreation Industries (724). Over the past five years, Restaurants and Other Eating Places added 186 jobs, and the subsector is projected to add another 45 jobs through 2020. The sector with the highest average earnings is Performing Arts Companies ($34,032), while the sector with the lowest is Gambling Industries ($9,266). (See table: Tourism Sector Industry Groups by 2015 Jobs, 4-digit NAICS.)

Staffing Patterns

The majority of employment within this industry sector is found within four occupations that are within the food service industry: Fast Food and Counter Workers (1,589), Cooks (990), Waiters and Waitresses (924), and Supervisors of Food Preparation and Serving Workers (318). With the exception of Waiters and Waitresses, these subsectors also added the most jobs over the past five years. Fast Food and Counter Workers is projected to add the greatest number through 2020.

Within this industry sector, General and Operations Managers is the occupation paying the highest median wage at $33.64/hr. The occupation with the lowest median earnings is Dishwashers at $9.57/hr. (See table: Tourism Sector Occupations by 2015 Employment, 4-digit NAICS.)

Table 18: Tourism Sector Industry Groups by 2015 Jobs, 4-digit NAICS

Industry	2015 Jobs	'10-'15 Change	CE '10-'15	'15-'20 Change	CE '15-'20	'15 LQ	Average Earnings
Restaurants and Other Eating Places	4,870	186	(644)	45	(288)	1.05	$15,338
Traveler Accommodation	753	66	11	102	69	0.89	$18,560
Other Amusement, Recreation Industries	724	55	(28)	56	1	1.20	$18,105
Special Food Services	186	(27)	(66)	54	43	0.53	$18,391
Drinking Places (Alcoholic Beverages)	109	(19)	(29)	(4)	(7)	0.61	$14,027
Independent Artists, Writers, Performers	108	(13)	(21)	(15)	(16)	0.79	$12,541
Museums, Historical Sites, and Similar Institutions	105	23	10	(1)	(10)	1.48	$25,283
Gambling Industries	82	15	13	23	17	1.30	$9,266
Other Support Services	47	28	26	45	41	0.33	$33,653
RV Parks and Recreational Camps	45	1	(5)	5	3	1.54	$14,699
Performing Arts Companies	30	7	3	(1)	(2)	0.44	$34,032
Spectator Sports	29	(33)	(39)	(7)	(8)	0.32	$15,956
Travel Arrangement and Reservation Services	14	(6)	(7)	(2)	(1)	0.13	$13,184

[16] The Tourism sector crosses over several industries, including NAICS 48 (Transportation and Warehousing); 56 (Administrative and Support Services); 71 (Arts, Entertainment, and Recreation; and 72 (Accommodation and Food Services).

Table 19: Tourism Sector Occupations by 2015 Employment, 4-digit SOC

Occupation	2015 Employment	Change, 2010-2015		Projected Change, 2015-2020		Median Hourly Earnings
Fast Food and Counter Workers	1,589	138	10%	136	9%	$10.38
Cooks	990	27	3%	1	0%	$11.17
Waiters and Waitresses	924	(22)	(2%)	(38)	(4%)	$9.69
Supervisors of Food Preparation and Serving Workers	318	20	7%	22	7%	$14.54
Cashiers	271	4	1%	8	3%	$10.09
Bartenders	245	(7)	(3%)	3	1%	$10.47
Food Preparation Workers	242	2	1%	27	12%	$10.29
Hosts and Hostesses, Restaurant, Lounge, and Coffee Shop	224	(5)	(2%)	30	14%	$9.86
Hotel, Motel, and Resort Desk Clerks	218	28	15%	(3)	(1%)	$9.83
Building Cleaning Workers	213	12	6%	(13)	(6%)	$11.25
Dishwashers	193	(4)	(2%)	(5)	(3%)	$9.57
Food Service Managers	124	(5)	(4%)	2	2%	$15.36
Dining Room and Cafeteria Attendants and Bartender Helpers	116	(2)	(2%)	18	17%	$9.69
Miscellaneous Entertainment Attendants and Related Workers	115	(7)	(6%)	6	5%	$10.05
Driver/Sales Workers and Truck Drivers	113	9	9%	8	7%	$18.50
Recreation and Fitness Workers	108	10	10%	1	1%	$10.70
Grounds Maintenance Workers	74	6	9%	4	5%	$12.07
General and Operations Managers	60	0	0%	3	5%	$33.64
Maintenance and Repair Workers, General	49	1	2%	6	12%	$16.57
Musicians, Singers, and Related Workers	48	1	2%	(2)	(4%)	$20.65

Information Technology

Industry Groups

The largest subsector by employment within this sector is Computer Systems Design and Related Services, with 232 jobs. All three subsectors pay high wages of at least $35,000 annually. (See table: IT Sector Industry Groups by 2015 Jobs, 4-digit NAICS.)

Staffing Patterns

Within this sector, there are three primary occupations: Software Developers and Programmers, Computer Support Specialists, and Computer and Information Analysts. All have grown and are projected to grow through 2020. (See table: IT Sector Occupations by 2015 Employment, 4-digit NAICS)

Table 20: IT Sector Industry Groups by 2015 Jobs, 4-digit NAICS

Industry	2015 Jobs	'10-'15 Change	CE '10-'15	'15-'20 Change	CE '15-'20	'15 LQ	Average Earnings
Computer Systems Design and Related Services	232	37	(18)	(9)	(48)	0.25	$40,492
Data Processing, Hosting, and Related Services	20	Insf. Data	16	1	1	0.15	$35,674
Software Publishers	14	14	14	22	20	0.10	$43,449

Table 21: IT Sector Occupations by 2015 Employment, 4-digit SOC

Occupation	2015 Employment	Change, 2010-2015		Projected Change, 2015-2020		Median Hourly Earnings
Software Developers and Programmers	41	12	41%	7	17%	$25.69
Computer Support Specialists	14	4	40%	3	21%	$21.37
Computer and Information Analysts	11	3	38%	1	9%	$33.57

Appendix A

Data Sources and Glossary of Key Terms

Data Sources

All data and analysis for this report are directly or indirectly derived from information provided by either the U.S. Bureau of the Census or U.S. Bureau of Labor Statistics:

- Economic Modeling Specialists International (EMSI), 2016.1 Class of Worker data (based on the U.S. Quarterly Census of Employment and Wages) and general demographic estimates
- U.S. Census American Community Survey 2010-2014 Estimates
- U.S. Census OnTheMap

Competitive Effect

Used in conjunction with "Shift-Share Analysis" techniques[17], *The Competitive Effect* metric seeks to isolate the influence of local dynamics from the influence of non-local factors on industries' employment growth or decline. A positive number indicates that the study area experienced more growth within a particular industry than would have been expected from non-local trends; the magnitude of *The Competitive Effect* indicates the strength of the purely local influence on the industry's employment change.

Location Quotient

Location Quotient (LQ) measures the relative importance of an industry's employment to a particular region, and uses the straightforward formula:
[% of total local employment/% of total national employment].
Location Quotients are one of the most common and important indicators of local economic characteristics; *LQ's* greater than 1.25 are typically considered to be the threshold for identifying an industry as especially relatively strong.

NAICS Codes (The North American Industry Classification System)

NAICS is the standard used by Federal statistical agencies in classifying business establishments for the purpose of collecting, analyzing, and publishing statistical data related to the U.S. business economy. The numbering structure is hierarchical in nature, meaning that fewer digits are broader in their meaning, while longer (up to six) digits provider greater specificity.

SOC Codes (Standard Occupational Classification)

The 2000 Standard Occupational Classification (SOC) System was developed in response to a growing need for a universal occupational classification system. Such a classification system allows government agencies and private industry to produce comparable data. Users of occupational data include government program managers, industrial and labor relations practitioners, students considering career training, job seekers, vocational training schools, and employers wishing to set salary scales or locate a new plant. It is used by federal agencies collecting occupational data, providing a standard means to compare such data across agencies. It is designed to cover all occupations in which work is performed for pay or profit, reflecting the current occupational structure in the United States.

[17] Shift share is a standard regional analysis method that attempts to determine how much of regional job growth can be attributed to national trends and how much is due to unique regional factors. Shift share helps answer why employment is growing or declining in a regional industry, cluster, or occupation.

As with NAICS, the SOC coding structure is hierarchical, with fewer digits provide broad data (occupational categories), while larger provide more specific data (specific professions).

Industry Sector Definitions

Health Care

NAICS	Description
6211	Offices of Physicians
6212	Offices of Dentists
6213	Offices of Other Health Practitioners
6214	Outpatient Care Centers
6215	Medical and Diagnostic Laboratories
6216	Home Health Care Services
6219	Other Ambulatory Health Care Services
6221	General Medical and Surgical Hospitals
6222	Psychiatric and Substance Abuse Hospitals
6223	Specialty (except Psychiatric and Substance Abuse) Hospitals
6231	Nursing Care Facilities (Skilled Nursing Facilities)
6232	Residential Intellectual and Developmental Disability, Mental Health, and Substance Abuse Facilities
6233	Continuing Care Retirement Communities and Assisted Living Facilities for the Elderly
6239	Other Residential Care Facilities
6241	Individual and Family Services
6242	Community Food and Housing, and Emergency and Other Relief Services
6243	Vocational Rehabilitation Services
6244	Child Day Care Services

Agriculture

NAICS	Description
1110	Crop Production
1120	Animal Production and Aquaculture
1131	Timber Tract Operations
1132	Forest Nurseries and Gathering of Forest Products
1133	Logging
1141	Fishing
1142	Hunting and Trapping
1151	Support Activities for Crop Production
1152	Support Activities for Animal Production
1153	Support Activities for Forestry

Tourism

NAICS	Description
4871	Scenic and Sightseeing Transportation, Land
4872	Scenic and Sightseeing Transportation, Water
4879	Scenic and Sightseeing Transportation, Other
5615	Travel Arrangement and Reservation Services
5619	Other Support Services
7111	Performing Arts Companies
7112	Spectator Sports
7113	Promoters of Performing Arts, Sports, and Similar Events
7114	Agents and Managers for Artists, Athletes, Entertainers, and Other Public Figures
7115	Independent Artists, Writers, and Performers
7121	Museums, Historical Sites, and Similar Institutions
7131	Amusement Parks and Arcades
7132	Gambling Industries
7139	Other Amusement and Recreation Industries
7211	Traveler Accommodation
7212	RV (Recreational Vehicle) Parks and Recreational Camps
7213	Rooming and Boarding Houses
7223	Special Food Services
7224	Drinking Places (Alcoholic Beverages)
7225	Restaurants and Other Eating Places

Information Technology (IT)

NAICS	Description
5112	Software Publishers
5182	Data Processing, Hosting, and Related Services
5415	Computer Systems Design and Related Services

Appendix B

Shasta County Input Session Findings

- Shasta County is one of the population centers of the region, and accordingly, there are a lot of services available in the area for businesses and individuals. Participants identified that an umbrella organization would be helpful that could coordinate all of these resources and provide a clear picture on what is available and where to gain access.
- Though there is a high number of community partners that are engaged in the county, sometimes the level of employer input is not as high. Participants recognized that continually gathering feedback and keeping open communication with employers is vital to providing high quality workforce services.
- Many employers are struggling with hiring and training practices that do not fit with the changing economy and workforce. Education on the evolving best practices in human resources-related processes would be helpful to many employers, especially those who do not have the time to think about making these changes on their own.
- There are many involved, engaged, and generous community members who put a lot of time and effort into community initiatives. People can get spread thin, so it is important to find ways to engage more people in community efforts. There are some innovative efforts that can make it profitable for individuals to spearhead community initiative. Combining personal, social, and community interests may draw more to be involved.

Appendix C

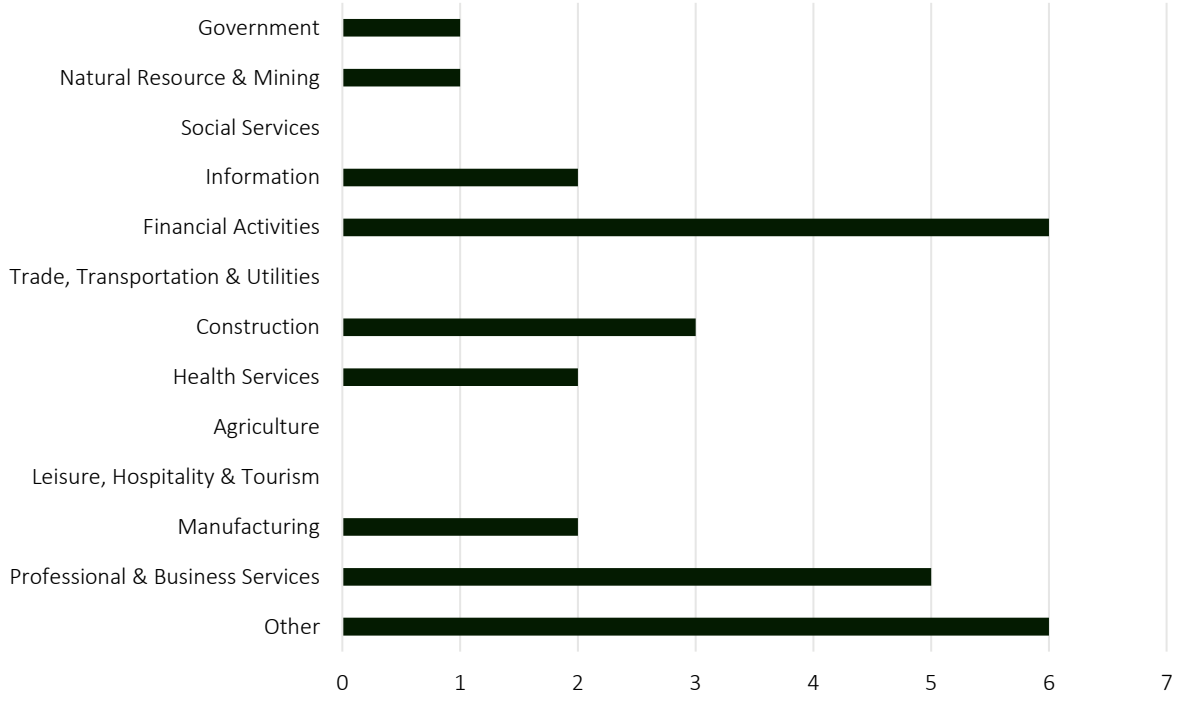
Shasta County Survey Results

TPMA developed a survey designed to engage county employers and to better understand current workforce trends and needs in the Shasta County region. In doing so, our consulting team collaborated with NoRTEC and its service providers, which included a diverse group of workforce development, economic development, and other community organizations. Over a four-month period the survey was distributed via email and completed through face-to-face meetings with employers. Survey questions focused on the following topics:

- Industry and business demographics;
- Employment numbers and projections;
- Labor market "churn";
- Skill needs and gaps;
- Education and training requirements;
- Desired industry recognized credentials; and
- Training challenges.

24 employers participated in the survey.

Which industry best describes your company?



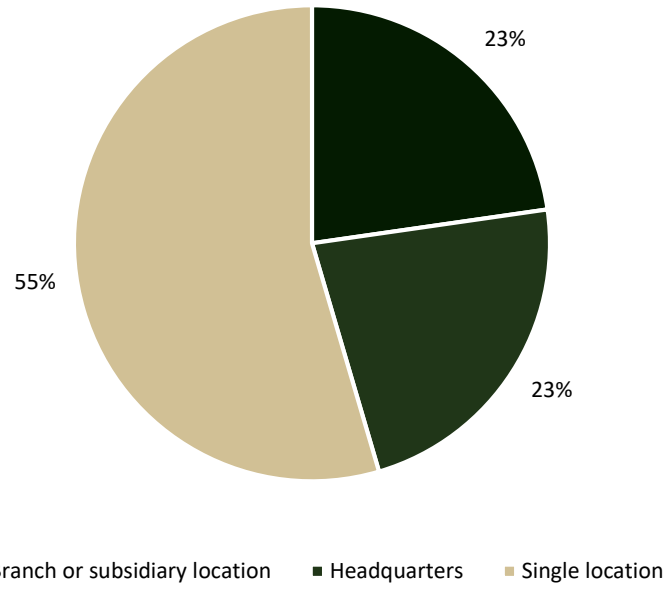
How many employees do you have?

Number of employees	Average
Total	13
Full-time	12
Part-time	6
Seasonal	0.33
Temp	0.25

How many total employees do you have by county?

County	Average
Butte	5
Del Norte	0
Lassen	0
Modoc	0
Nevada	0
Plumas	0
Shasta	12
Sierra	0
Siskiyou	0
Tehama	12
Trinity	0

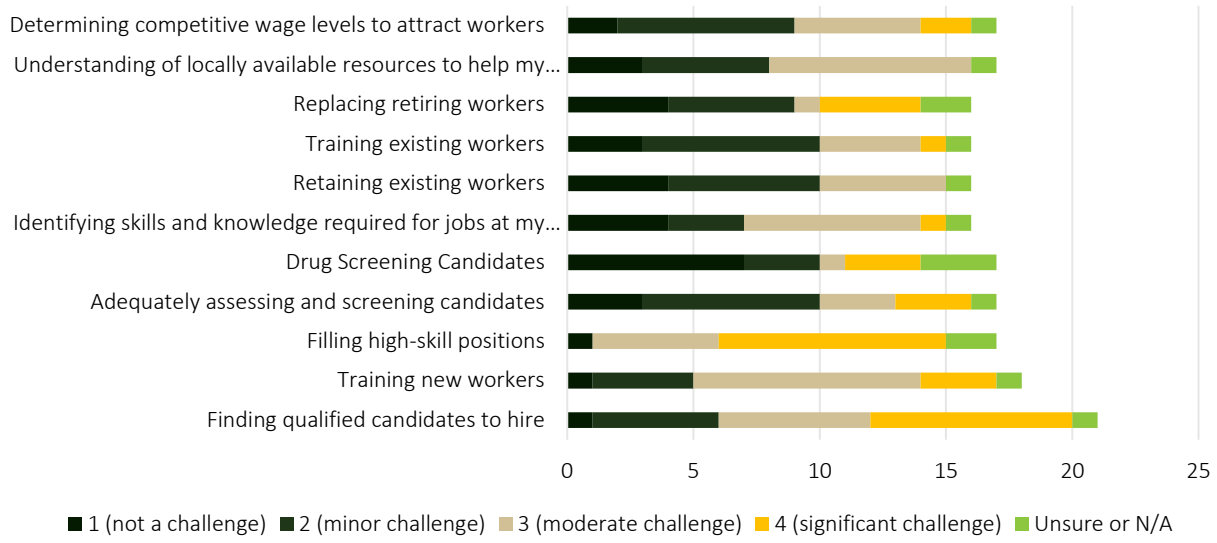
Which best describes this location?



On a scale of 1 {not a challenge} to 4 {significant challenge}, how challenging are the following workforce issues for your company?

Workforce Issues	1 (not a challenge)	2 (minor challenge)	3 (moderate challenge)	4 (significant challenge)	Unsure or N/A
Finding qualified candidates to hire	1	5	6	8	1
Training new workers	1	4	9	3	1
Filling high-skill positions	1	0	5	9	2
Adequately assessing and screening candidates	3	7	3	3	1
Drug Screening Candidates	7	3	1	3	3
Identifying skills and knowledge required for jobs at my company	4	3	7	1	1
Retaining existing workers	4	6	5	0	1
Training existing workers	3	7	4	1	1
Replacing retiring workers	4	5	1	4	2
Understanding of locally available resources to help my company	3	5	8	0	1
Determining competitive wage levels to attract workers	2	7	5	2	1

Frequency of Responses to Significant Workforce Challenges



Top Five Most Challenging Workforce Issues from Above

Top Five Challenges	Responded "Moderate Challenge" or higher
Filling high-skill positions	14
Finding qualified candidates to hire	14
Training new workers	12
Identifying skills and knowledge required for jobs at my company	8
Understanding of locally available resources to help my company	8

What is your most significant workforce-related challenge or your greatest workforce need?

Challenge	Top Responses
Finding qualified workers	8
Finding workers with soft skills (work ethic)	2
Training new employees	2
Trying to pay a competitive wage	2
Retention of employees	1
Filling management positions	1
Finding general laborers	1

What is the average vacancy length for open positions?

The average length based on all responses is 9.65 weeks.

How many full-time (35+ hours/week) new, replacement, and retiring workers do you expect within the next 0 to 12 months, 1 to 2 years, 3 to 4 years, and 5 to 7 years?

Number of new positions	Average	Range
0-12 months	1.5	1-2
1 - 2 years	3.0	3
3 - 4 years	3.7	3-4
5 - 7 years	4.8	4-5

Number of replacement positions	Average	Range
0-12 months	4.8	4-5
1 - 2 years	0.8	0-1
3 - 4 years	1.3	1
5 - 7 years	2.3	2

Number of retiring positions	Average	Range
0-12 months	2.6	2-3
1 - 2 years	0.3	0-1
3 - 4 years	0.6	0-1
5 - 7 years	1.3	1

Please provide information regarding your current wages for up to 3 of your top full-time occupations by number of employees.

Top Occupation #1

Title: Financial management and processing

Job Description: CPA, loan officer, fiscal officer, bookkeeper, credit administrator

Average number of jobs at location: 3-4

Desired/required certificates/credentials: BA in accounting; previous work experience preferred; NMLS license preferred

Average entry level: $17.05/hr

Average mid-level: $23.46/hr

Average advanced-level: $34.43/hr

Top Occupation #2

Title: Manager Positions

Job Description: Oversee day-to-day operations of the business/organization

Average number of jobs at location: 1-2

Desired/required certificates/credentials: BA preferred; previous work experience

Average entry level: $20.10/hr

Average mid-level: $27.55/hr

Average advanced-level: $40.01/hr

Top Occupation #3

Title: Executive-level positions

Job Description: Responsible for running operations, making strategic decisions, and providing leadership

Average number of jobs at location: 1

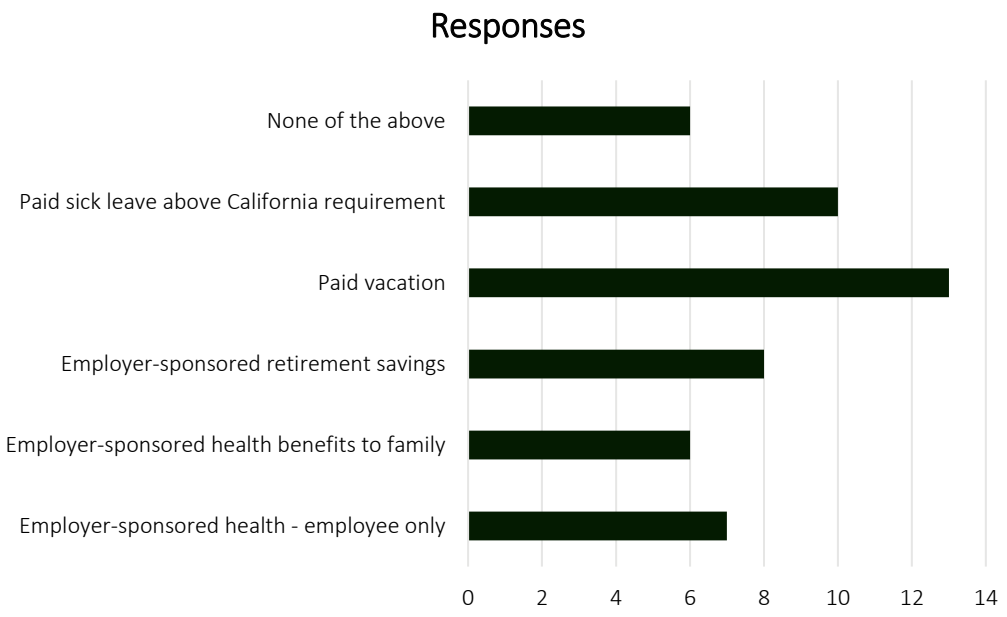
Desired/required certificates/credentials: Bachelor degree required

Average entry level: $26.83/hr

Average mid-level: $52.57/hr

Average advanced-level: $67.09/hr

Do you provide any of the following health benefits?



Most difficult to fill positions and why

Position	Responses	Reason
Financial management and processing positions	5	Finding qualified candidates; candidates unwilling to relocate to rural area.
Computer technicians/web developers	4	Lack of qualified candidates.
General laborers	4	Retention; undesirable schedules; low wages.
Auto technicians	1	None given
Caregivers	1	Retention; passing background/drug test.
Massage therapists	1	Finding qualified and experienced candidates
Executive positions	1	Retention
Gym manager	1	Finding qualified candidates.

Please provide information for your most difficult to fill full-time occupations

Title: Financial management and processing
Job Description: CPA, loan officer, fiscal officer, bookkeeper, credit administrator
Number of current openings: 8-9
Desired or required certificates or credentials (if any): BA in accounting; national registration and/or licensing; previous work experience
Hourly/annual wage ($) $28.84/hr

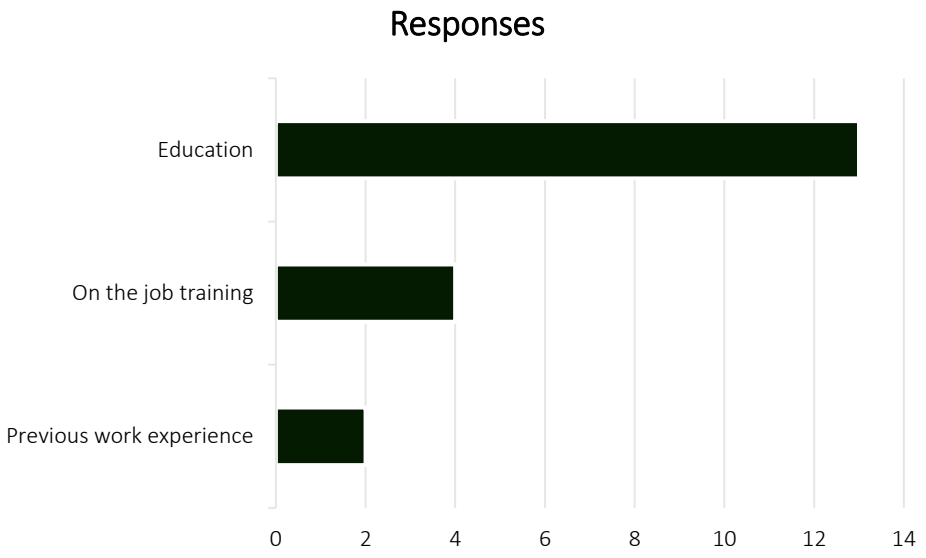
Title: General labor
Brief job description: Entry-level physical labor
Number of current openings: 3-4
Desired or required certificates or credentials (if any): None; previous work experience
Hourly/annual wage ($) $19.50/hr

Title: Management positions
Brief job description: Handle day-to-day operations of business/organization
Number of current openings: 2
Desired or required certificates or credentials (if any): 1-2 hour certification preferred
Hourly/annual wage ($) $28.68/hr

What are the factors that most impact difficult to fill positions?

Factors	Responses
Finding candidates with previous work experience	7
Finding qualified candidates (generally)	6
Finding candidates with strong soft skills	2
Candidates lack proper education/certifications	2
Candidates passing background checks	1
Retaining employees	1
Attracting qualified candidates to rural area	1

What do you look for most from candidates in difficult-to-fill positions?



What other {if any} skills and/or experience levels are currently in greatest demand?

Top Responses	Responses
Communication skills	4
Customer service skills	2
Previous work experience	2
Content knowledge: mortgage	1
Content knowledge: carpentry	1
Content knowledge: purchasing	1
Content knowledge: lending	1
Content knowledge: programming	1
Work ethic	1

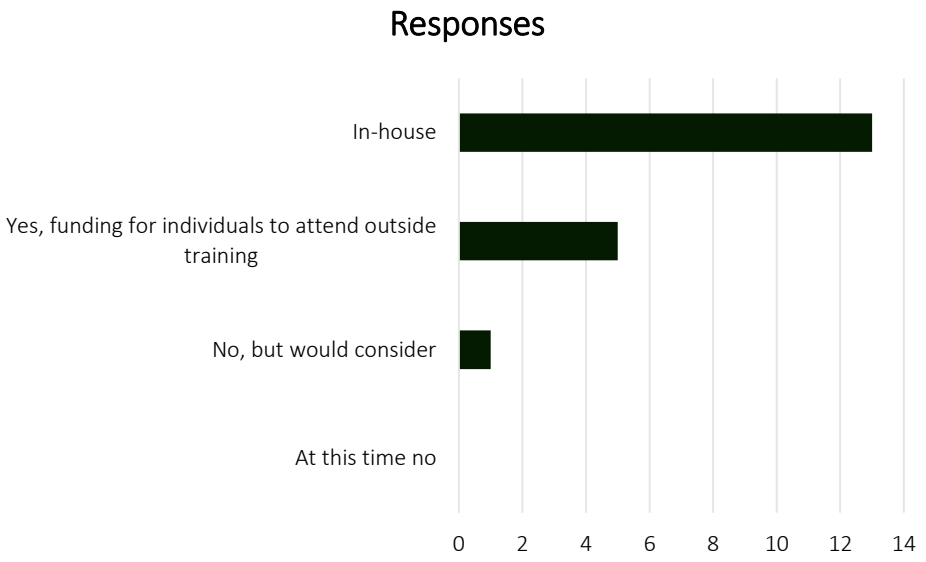
What other {if any} skills and/or experience levels are most difficult to find?

Top Responses	Responses
Communication skills	2
Loan processors	2
Banking experience	1
Sobriety	1
Programming	1
Technical background	1
Time management skills	1

What industry-recognized credentials, certifications and/or degrees do you value most? [two or more responses]

Top Responses	Responses
BA	4
HR certification	1
Payroll certification	1
CA Real Estate Agent License	1
CA broker's license	1
NMLS license	1
International Coach Federation	1

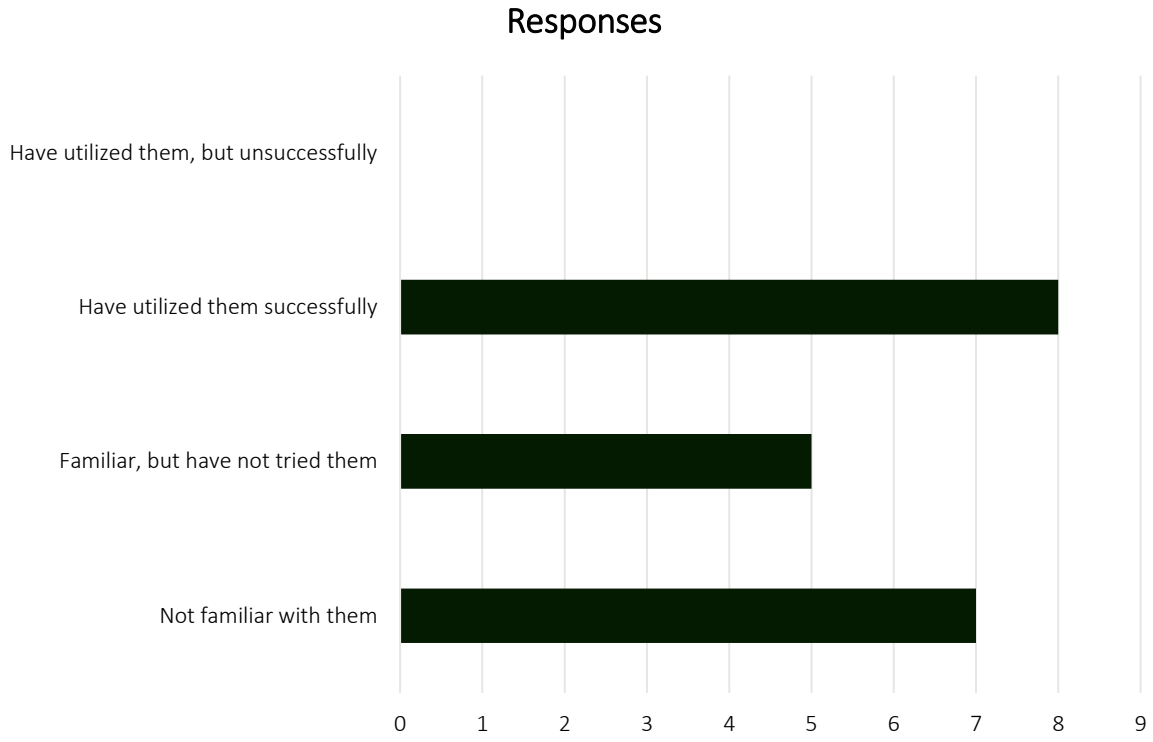
Do you offer training or other professional development, above and beyond initial on-the-job training?



How do you rate the following?

Top Responses	Excellent	Good	Poor	Fair	Unsure
Soft skills of workers	3	5	0	6	1
Hard/technical skills of workers	2	7	0	4	1
Overall quality of entry-level workers	1	6	0	7	1
Overall quality of high-skill workers	2	12	0	0	1
Quality of education and training programs	1	5	0	8	1
Knowledge of available services from America's Job Center of California (e.g. assistance with job ads)	2	3	2	4	4

Which of the following best describes your experience with your local America's Job Center of California office and/or business service center?



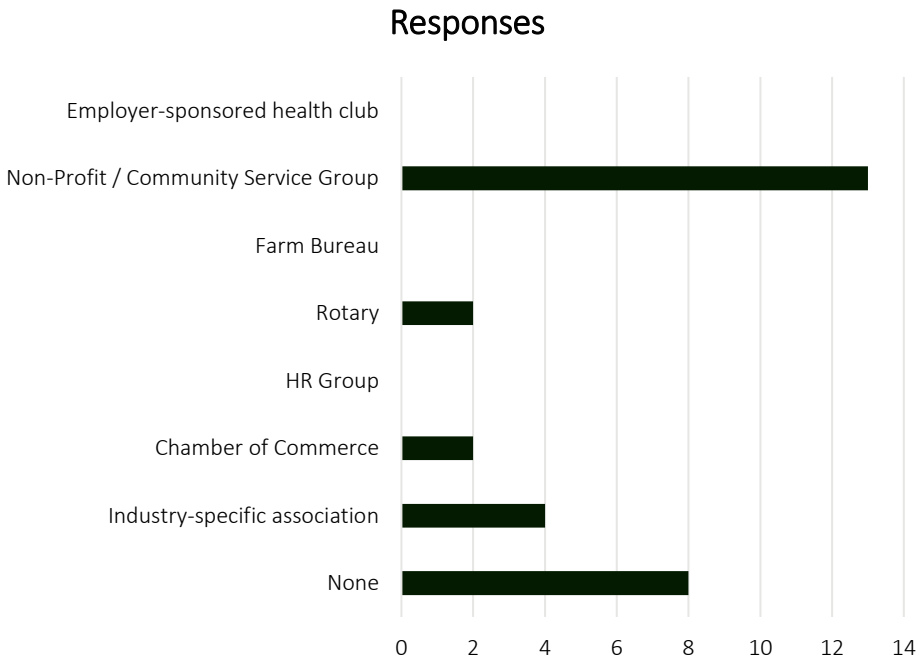
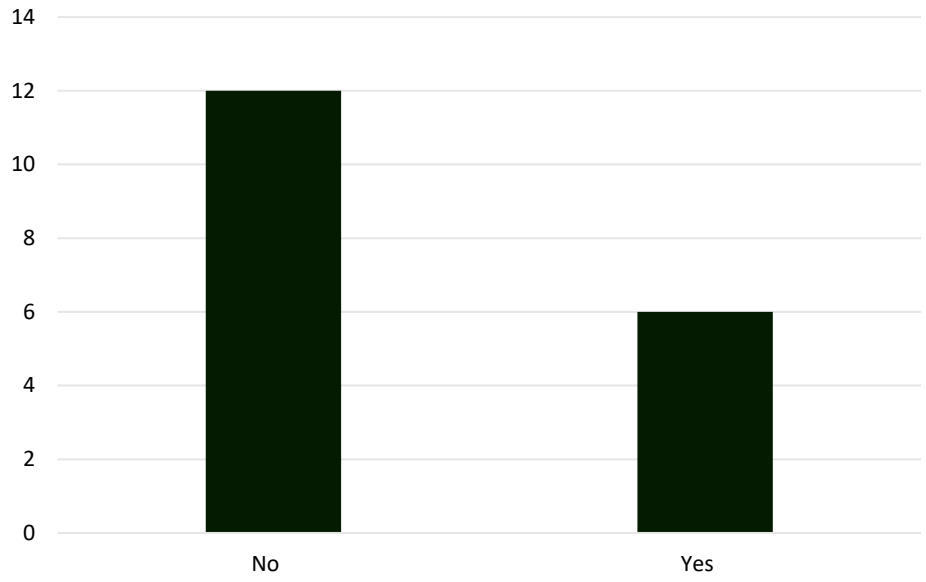
If utilized, if you could improve one thing about your local America's Job Center in California office and/or business service center, what would it be?

Top Responses	Responses
Nothing, they're doing great	4
More funding to help dislocated workers	1
More information	1
Make it easier for employers to receive training reimbursements	1
Help finding higher skilled workers (as opposed to entry level)	1
Consistent tax breaks on specific entry-level training hired positions	1

Would you like to learn more about any of the following services to strengthen your business?

Services	Responses
Employee recruitment	5
Tax credit information	5
Assistance with employee retention	4
Candidate screening/assessment	4
Labor market information, wage data	4
On-the-Job Training (OJT)	4
Benefits of hiring a veteran	3
Employee education	3
Employer professional development seminars	3
Pre-employment testing	3
Job analysis and profiling information	1
Other training resources	1
Hiring ex-offenders (a second chance)	0
On-site assistance for business downsizing	0

What business or trade groups do you currently participate in?



If you do not participate, would you be open to a member of our staff contacting you to participate in a local business group that focuses on tackling the most pressing workforce and business growth issues?