NoRTEC

Northern Rural Training and Employment Consortium (NoRTEC)

Sierra County Labor Market Profile and Industry/Sector Analysis

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Prepared for:

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Michael Cross, Executive Director

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Siskiyou Training and Employment Center

Del Norte Workforce Center

Alliance for Workforce Development

Smart Business Resource Center

Job Training Center

This report was compiled by:

THOMAS P. MILLER & ASSOCIATES
1630 N Meridian Street, Suite 430
Indianapolis, IN 46202
317.894.5508
www.tpma-inc.com

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Executive Summary

This report provides a detailed Demographic, Labor Market and Industry/Sector Analysis for Trinity County, which is part of the Northern Rural Training and Employment Consortium (NoRTEC) Region within Northern California.

The report includes both quantitative and qualitative data regarding past, current and projected economic trends within the county. Data examined include age and race trends and projections; income and poverty; human capital and labor force; unemployment; commuting patterns; employment by industry; employment by occupation; industry and occupation connections; and industry sectors. Data were gathered from a variety of public and proprietary data sources and a survey of regional employers. An input session was held within the county in May 2016 to validate and supplement the quantitative data. Participants included key stakeholders, service providers, and employers.

Based on an analysis of the quantitative and qualitative information gathered, the following section outlines the key findings, including strengths and challenges within the county, as well as recommended industry sectors to emphasize for purposes of workforce planning and resource allocation.

Key Findings

- The county's population over the past ten years declined by 12.6%. This is in stark contrast to trends both within the NoRTEC region (1.7% growth) and the state (9.3% growth). The county's population is projected to decrease by an additional 5.8% through 2020.
- The median household income for the county is $43,107, which is slightly below the NoRTEC average of $43,977. By comparison, the state average is $61,489. The poverty rate for the county is 13.8%, which is below both the NoRTEC (18.6%) and state (16.4%) averages.
- Over the past ten years, unemployment trends and rates within the county have largely matched the state's trends. However, the county's unemployment rates have remained significantly higher.
- By far, the largest industry sector is Government, which makes up over 40% of all employment. Other significant sectors include: Health Care and Social Assistance; Construction; Accommodation and Food Services; and Retail Trade. While most sectors experienced job losses, both Health Care and Social Assistance and Construction added jobs over the past five years, 55 jobs and 14 jobs, respectively.
- Top occupations by employment within the county fall within three areas: Office and Administrative Support Occupations (83 jobs); Education, Training, and Library Occupations (79 jobs); and Construction and Extraction Occupations (76 jobs).
- Based on feedback from the May 2016 input session, the pool of workers in the county is very small and there are not many local training options. This leads to employers having positions that are difficult to fill. Talent attraction is also difficult, due to the lack of housing availability within the county.
- Based on survey results, the most significant challenges for employers within the county include: training new workers; finding qualified candidates to hire; and filling high-skill positions.
- 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 Sierra County, the sectors that match the priority sectors for the region include: Health Care and Tourism.

Health Care

- Health Care is the second largest employment sector within the county and added the greatest number of jobs since 2010. Growth is projected to continue through 2020.

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 main subsectors include Restaurants and Other Eating Places and Traveler Accommodation. Both are projected to contract in employment through 2020.

Sierra County

Introduction

The following is a labor market and industry/sector profile for Sierra 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

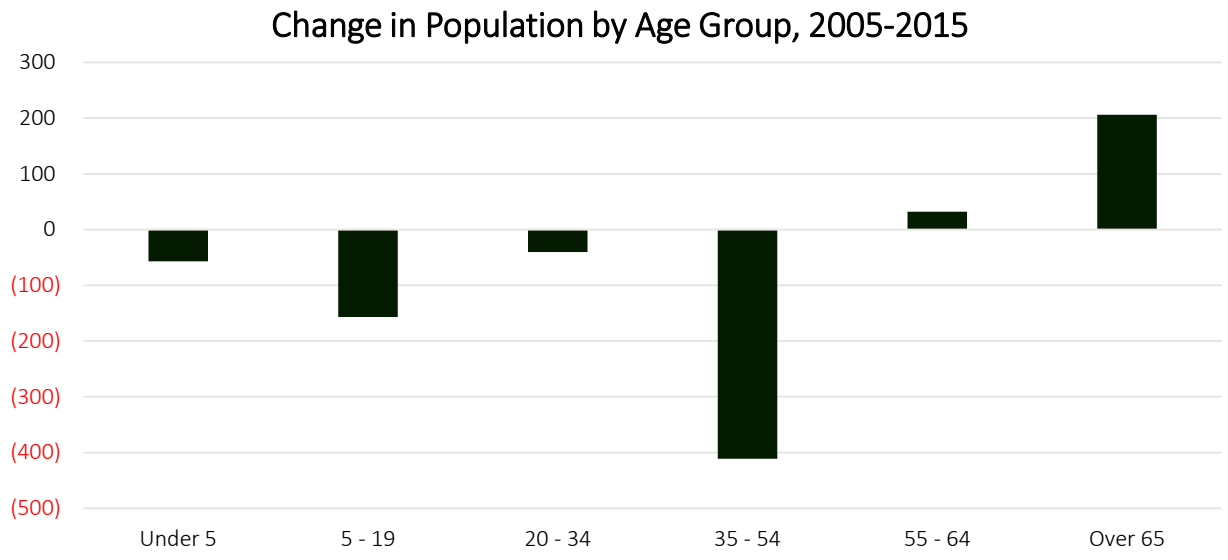
Total Population

Sierra County is located at the northeastern end of the NoRTEC region, covering both the Plumas and Tahoe National Forest. The largest community is Loyalton. The population in Sierra County has decreased from 3,379 to 2,952 over the past ten years.[1] The decrease of 12.6% is drastically different from the state of California, which saw population increase 9.3% over the same period of time. The county's population is projected to decrease 5.8% over the next five years. The trend of decreasing population is consistent across all population cohorts except for individuals 65 and over, which is projected to increase by one-third.

Further highlighting the aging population of the county, over the past ten years the population of those 55 years and older increased significantly, while the population decreased for all other age ranges. The aging population is a concern because it impacts the availability of labor over the next decade.

Age	2005 Population	2015 Population	Change (2005-2015)		Projected Change (2015-2020)	
Under 5	157	100	(57)	(36.3%)	9	9%
5-19	572	415	(157)	(27.4%)	(46)	(11.1%)
20-34	378	338	(40)	(10.6%)	(22)	(6.5%)
35-54	1,077	666	(411)	(38.2%)	(130)	(19.5%)
55-64	577	609	32	5.5%	(53)	(8.7%)
Over 65	618	824	206	33.3%	69	8.4%
Total	3,379	2,952	(427)	(12.6%)	(173)	(5.9%)

[1] EMSI Analyst 2016



Race/Ethnicity

The population of the county is predominantly White (85% of the 2015 population) but also includes a proportionately large proportion of Hispanic individuals. The top three fastest growing race/ethnicity groups in the county are American Indian or Alaskan Native, Native Hawaiian or Pacific Islanders, and Black.[2]

Race/Ethnicity	2015 Population	Change, 2005-2015	
White	2,529	(492)	(16.3%)
Hispanic	293	53	17%
Asian	15	4	(3.6%)
Two or More Races	53	(2)	9.3%
American Indian or Alaskan Native	47	4	36.4%
Black	10	5	10%
Native Hawaiian or Pacific Islander	3	0	100%

[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

Compared to the NoRTEC region, Sierra County has a similar percentage of those with a High School Diploma, Some College, and an Associate's Degree. Compared to the state and the nation, the percentage is much higher. However, the county has a lower percentage of those with a Bachelor's Degree or higher.

Education Level	2015 Population	2015 Percent	2015 Percent NoRTEC	2015 Percent California	2015 Percent US
Less Than 9th Grade	112	4.8%	5.1%	11.2%	6.6%
9th Grade to 12th Grade	172	7.4%	8.4%	8.2%	7.7%
High School Diploma	714	30.9%	24.9%	21.0%	28.1%
Some College	716	31.0%	30.5%	21.7%	21.0%
Associate's Degree	218	9.4%	9.7%	7.8%	7.8%
Bachelor's Degree	250	10.8%	14.2%	19.3%	18.0%
Graduate Degree and Higher	129	5.6%	7.2%	10.9%	10.7%

Income

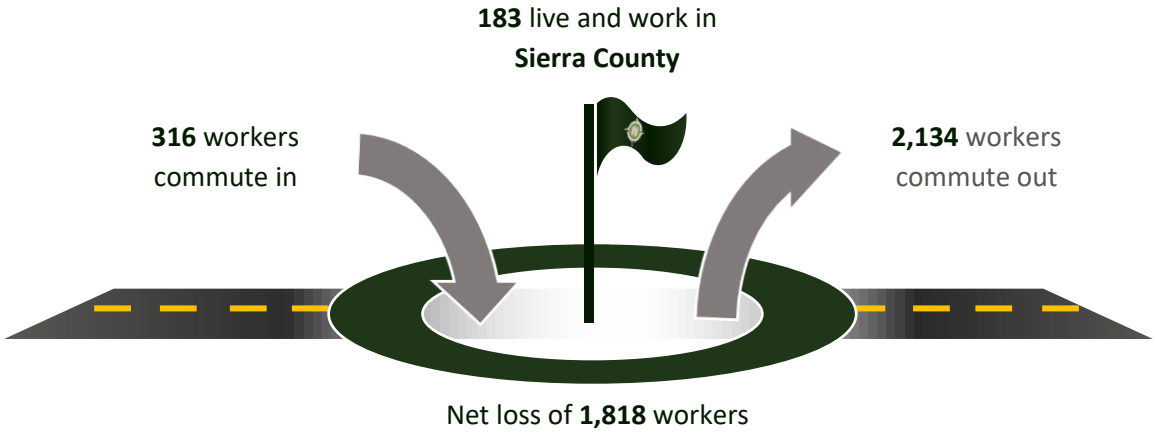
Sierra County's poverty rate of 13.8% was one of the lowest among all NoRTEC region counties, and lower than rate for the United States (14.8%).[3] The Median Household Income for Sierra County ($43,107) is roughly in the middle as compared to other counties in the region. However, it is lower than the state and US medians.

	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, Sierra County had 316 workers commuting into the county and over 2,130 commuting out. This means that Sierra County is a large net exporter of commuters.[4] A small proportion of people also both live and work within Sierra County. Nevada County is the largest contributor of in-commuting workers (68, 13.6% of the county's workforce), seconded by Washoe County, Nevada (36, 7.2%). The top destination counties for Sierra County out-commuting workers are Placer County (436, 18.8% of Sierra County residents), and Nevada County (298, 12.9%).



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

Human Capital

Labor Force

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 1,300 workers participated in the Sierra County labor force, of these, roughly 1,100 were employed. Over the last 20 years, employment in the county was at its highest in April 2010 and lowest in February 2016. As of February 2016, the unemployment rate for the county was 9.8%, higher than the unemployment rate of California (5.8%) and the United States (4.9%).

EMPLOYMENT IN SIERRA COUNTY 1996-2016 [5]		
Peak	August 2000 (1,905)	January 2016 (1,174 – 38.4% lower)
Trough	April 2012 (1,163)	January 2016 (1,174– 0.9% higher)
Jan 2016	Employment: 1,174 Labor Force: 1,302 Unemployment rate: 9.8%	

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.

Labor Force Participation Rate

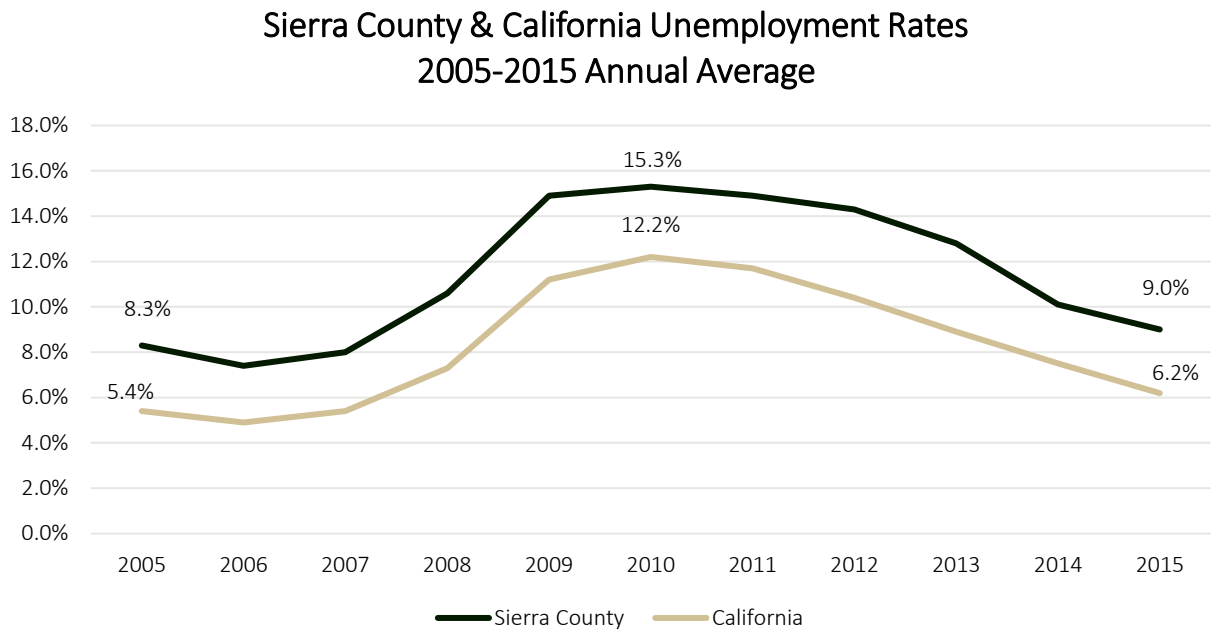
The labor force participation rate is sensitive to demographic changes because the participation rates vary across age, gender, income and race/ethnicity. For example, in 2015 the national labor force participation rate for those older than 54 was 39.9%, compared to 80.7% for those between the ages of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

Workers in older age brackets and those who are retirement age, compose a large proportion of Sierra County's population. The older worker population (55 to 64 years of age) was estimated to be 3,864 in 2015, which is equivalent to 21% of the county's population.[6] A large number of these older workers are expected to retire in the next ten years. Additionally, those who are 65 years and older were estimated to total 824.

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

[6] 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.



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 United States Department of Labor as unemployed. Like participation rates, what is considered a normal unemployment rate 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 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 of the U.S. Department of Labor reports a mostly gradual decrease in unemployment in Sierra County since 2010. Over the period analyzed, the unemployment rate struck its peak in 2010 at 15.3%, and dipped in 2006 at 7.4%. The unemployment rate for the state of California followed a similar trend as Sierra County between 2010 and 2015, though the state's story is consistently more positive, as the rate has been considerably lower. For California, the unemployment rate hit its highest mark in 2010 at 12.2% and its lowest mark in 2006 at 4.9%.

Industry Sector Analysis

Industry data are classified according to the types of goods and services that are rendered by businesses. These data indicate past and projected growth trends by sector and reveal sectors in which Tehama County is well suited to be competitive.

A chart and several tables are displayed related to industry data. Each of the figures prove data that descend 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).

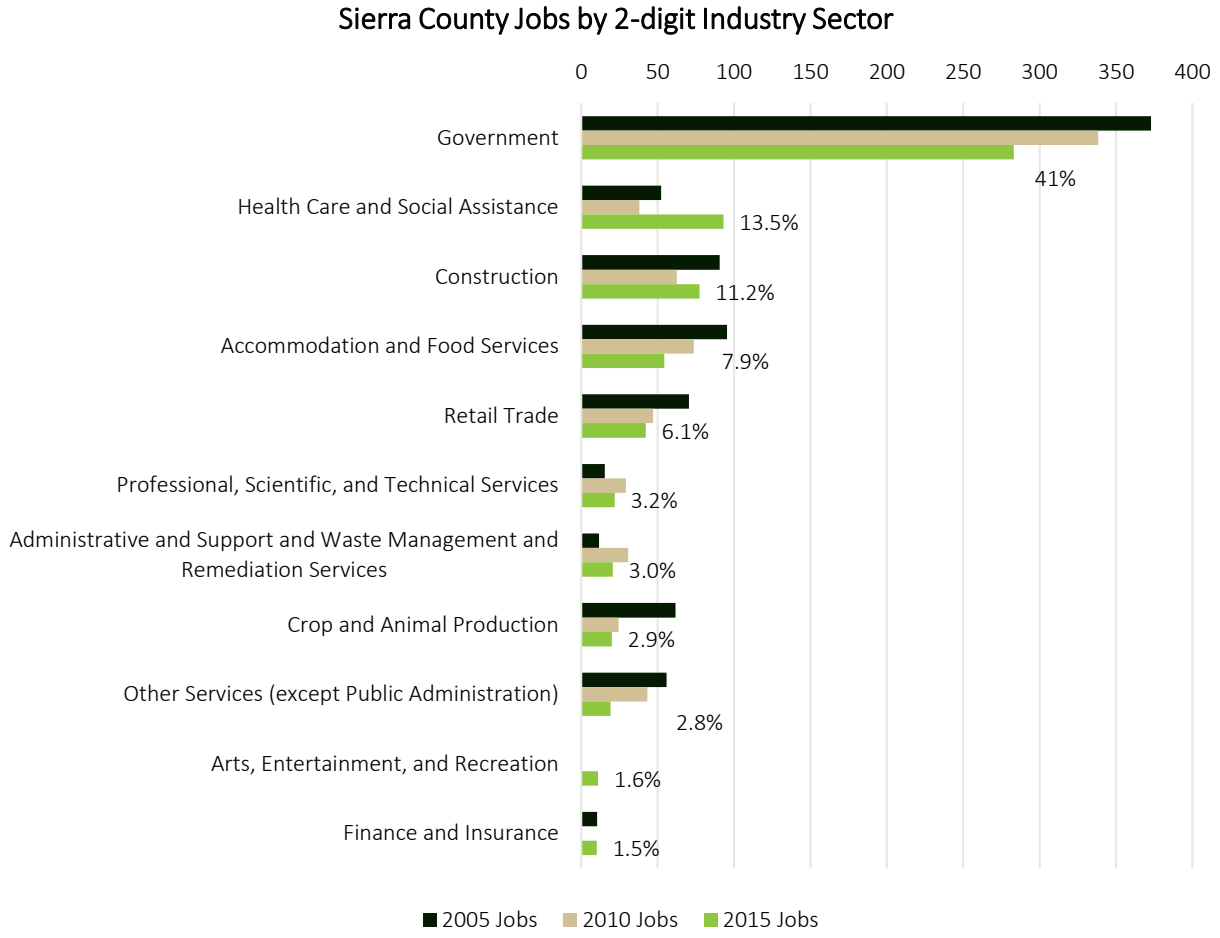
The competitive effect helps to determine the amount of job growth that occurred due to the county's competitive advantages as compared to the national growth in general and the national growth rate for each sector. In other words, a positive number indicates that the county experienced more growth than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

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 that circulating money already present within the county.[7]

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

Industry Mix

The broad industry sectors in Sierra County employing the most workers are Government (283, 41% of all county employment), Health Care and Social Assistance (93, 13.5%), Construction (77, 11.2%), and Accommodation and Food Services (54, 7.9%).[8] While the Government sector continues to be the largest employer, it has been in decline over the past ten years. Conversely, the Health Care and Social Assistance sector has experienced the most growth (145%) over the past five years.



Within Sierra County, most of industry sectors declined over the past five years. The most significant job losses were within Government and Other Services (except Public Administration). Two bright spots for the Sierra County economy have been Construction and Health Care and Social Assistance. Construction had a 2015 location quotient of 2.11, and grew 22% over the past five years. Health Care and Social Assistance had a location quotient of 1.08 and grew 145% over the past five years. In both bases the majority of new job growth was due to reasons unique to Sierra County (as indicated by the positive competitive effect).

[8] These industries are by 2-digit NAICS code. EMSI Analyst 2016.

Industry	2010 Jobs	2015 Jobs	Change in Jobs 2010 - 2015		Change in Jobs 2015 - 2020		Location Quotient	Comp. Effect
Government	338	283	(55)	(16%)	3	1%	2.65	(49)
Health Care	38	93	55	145%	45	48%	1.08	50
Construction	63	77	14	22%	13	17%	2.11	8
Accommodation and Food Services	74	54	(20)	(27%)	(24)	(44%)	0.94	(31)
Retail Trade	47	42	(5)	(11%)	(8)	(19%)	0.59	(8)
Professional, Scientific, and Technical Services	29	22	(7)	(24%)	8	36%	0.50	(12)
Administrative and Support Services	31	21	(10)	(32%)	9	43%	0.48	(15)
Crop and Animal Production (Agriculture)	24	20	(4)	(17%)	0	0%	2.37	(5)
Other Services (except Public Administration)	43	19	(24)	(56%)	1	5%	0.58	(25)
Arts, Entertainment, and Recreation	<10	11	Insf. Data	Insf. Data	3	27%	0.96	4
Finance and Insurance	<10	10	Insf. Data	Insf. Data	Insf. Data	Insf. Data	0.37	0
Educational Services	<10	<10	Insf. Data	Insf. Data	Insf. Data	Insf. Data	0.17	0
Unclassified Industry	<10	<10	Insf. Data	Insf. Data	Insf. Data	Insf. Data	0.95	(12)
Real Estate and Rental and Leasing	<10	<10	Insf. Data	Insf. Data	Insf. Data	Insf. Data	0.39	(3)
Utilities	22	<10	Insf. Data	Insf. Data	Insf. Data	Insf. Data	1.45	(19)
Mining, Quarrying, and Oil and Gas Extraction	16	<10	Insf. Data	Insf. Data	Insf. Data	Insf. Data	1.53	(13)
Manufacturing	<10	<10	Insf. Data	Insf. Data	Insf. Data	Insf. Data	0.08	(1)
Wholesale Trade	<10	<10	Insf. Data	Insf. Data	Insf. Data	Insf. Data	0.17	2
Information	<10	<10	Insf. Data	Insf. Data	Insf. Data	Insf. Data	0.26	0
Transportation and Warehousing	<10	<10	Insf. Data	Insf. Data	Insf. Data	Insf. Data	0.34	(2)

Key Industries

Looking at data by 2-digit NAICS is a good way to understand high-level trends; however, 4-digit NAICS industry data provide information about the more specific drivers of growth. The following table shows the 20 largest industries in terms of employment in Sierra County in 2015.[9] Many industries have such small employment totals that they cannot be examined in detail. Of those that do have sufficient employment to warrant further analysis, many decreased in employment in the past five years, headlined by Local Government, Excluding Education and Hospitals, which decreased by 35 jobs. A few fields with strong projected growth from 2015 to 2020 include Offices of Physicians; Foundation, Structure, and Building Exterior Contractors; Facilities Support Services; and Child Day Care Services.

Industry	2015 Jobs	'10-'15 Change		'15-'20 Change	
Local Government, Excluding Education and Hospitals	145	-35	-19%	3	2%
Education and Hospitals (Local Government)	84	-10	-11%	1	1%
Federal Government, Civilian	49	-9	-16%	-1	-2%
Individual and Family Services	34	Insf. Data	Insf. Data	10	29%
Residential Building Construction	32	5	19%	-4	-13%
Restaurants and Other Eating Places	25	-5	-17%	Insf. Data	Insf. Data
Offices of Physicians	25	25	Insf. Data	23	92%
Child Day Care Services	24	Insf. Data	Insf. Data	12	50%
Traveler Accommodation	24	-13	-35%	-9	-38%
Foundation, Structure, and Building Exterior Contractors	22	Insf. Data	Insf. Data	16	73%
Facilities Support Services	14	Insf. Data	Insf. Data	9	64%
Animal Production and Aquaculture	11	Insf. Data	Insf. Data	0	0%

[9] 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's important to understand the specific occupational roles that are required to keep local businesses flourishing.

The occupational 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 Categories

Sierra County's top occupations include:

- Office and Administrative Support Occupations (83 jobs)
- Education, Training, and Library Occupations (79 jobs)
- Construction and Extraction Occupations (76 jobs)[10]

The median hourly earnings for all occupations available range from $11.31/hr for Food Preparation and Service Related Occupations to $48.52/hr for Healthcare Practitioners and Technical Occupations.

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

- Life, Physical, and Social Science Occupations (4.39)
- Protective Service Occupations (3.62)
- Construction and Extraction Occupations (2.46)
- Farming, Fishing, and Forestry Occupations (2.35)
- Education, Training and Library Occupations (2.02)
- Personal Care and Service Occupations (1.52)

These are the occupation groups for which the region is highly specialized. For example, jobs in Protective Service Occupations make up 3.62x more of the employment base than they do nationally.

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

Broad Occupation Mix

Occupation	2015 Employment	% of Total Employment	Median Hourly Earnings	Location Quotient
Office and Administrative Support	83	12.1%	$17.40	0.80
Education, Training, and Library	79	11.5%	$20.00	2.02
Construction and Extraction	76	11.0%	$18.18	2.46
Protective Service	56	8.1%	$32.04	3.62
Management	48	6.9%	$28.66	1.29
Personal Care and Service	42	6.1%	$12.49	1.52
Sales and Related	39	5.7%	$12.81	0.56
Food Preparation and Serving Related	35	5.1%	$11.31	0.62
Building and Grounds Cleaning and Maintenance	30	4.4%	$12.50	1.15
Life, Physical, and Social Science	25	3.6%	$19.69	4.39
Transportation and Material Moving	23	3.4%	$16.62	0.52
Installation, Maintenance, and Repair	23	3.3%	$19.45	0.88
Business and Financial Operations	22	3.2%	$27.02	0.65
Healthcare Practitioners and Technical	21	3.1%	$48.52	0.58
Arts, Design, Entertainment, Sports, and Media	14	2.1%	$14.78	1.19
Production	14	2.1%	$20.77	0.35
Healthcare Support	13	1.8%	$17.46	0.65
Community and Social Service	12	1.8%	$20.43	1.10
Farming, Fishing, and Forestry	12	1.8%	$13.43	2.35
Military	<10	Insf. Data	Insf. Data	0.54
Computer and Mathematical	<10	Insf. Data	Insf. Data	0.18
Legal	<10	Insf. Data	Insf. Data	1.18
Architecture and Engineering	<10	Insf. Data	Insf. Data	0.57
Unclassified	0	0	$0.00	0.80

Top Occupations – 4 Digit SOC Codes

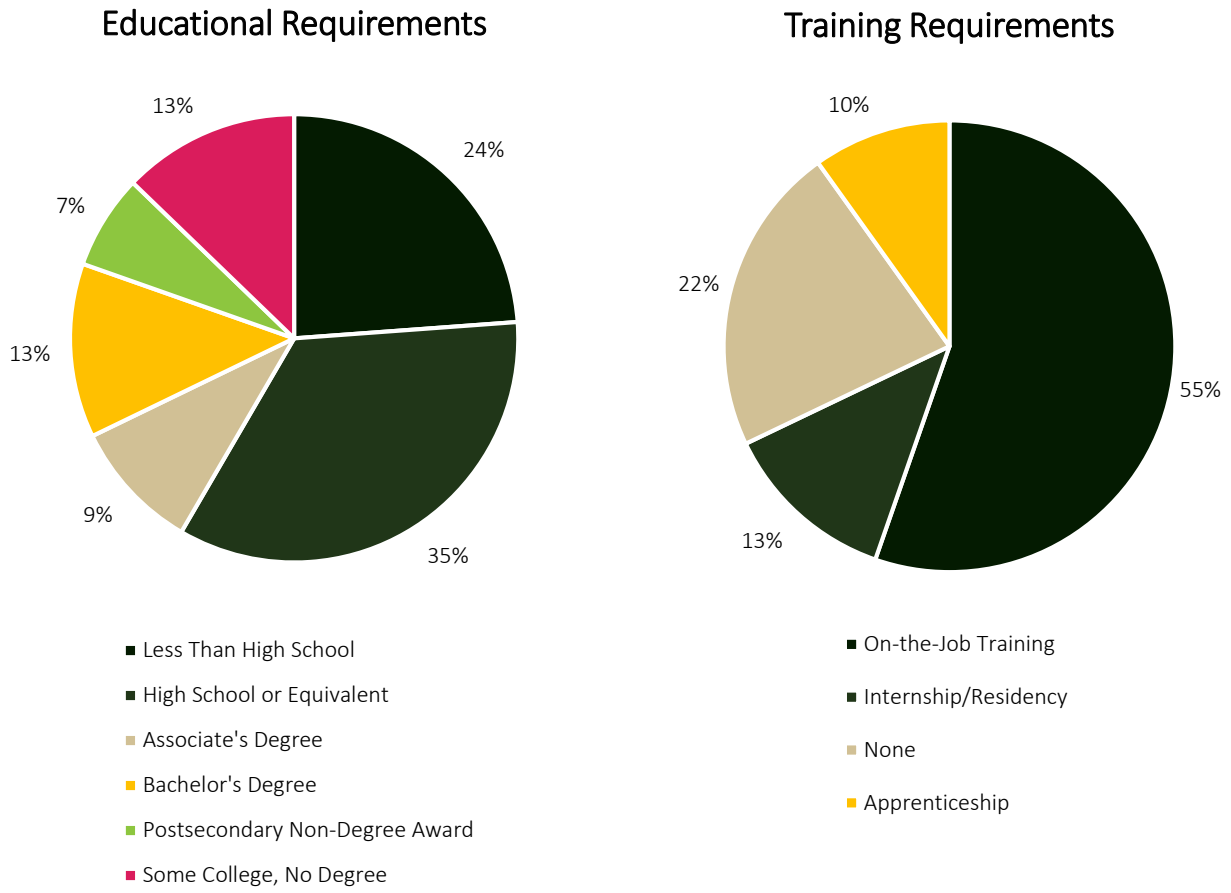
The following table displays the top 20 occupational groups by 4-digit SOC codes[11]. Median hourly earnings for these occupations range from $9.99 at the low end for Child Care Workers to $40.34 at the high end for Firefighters. Nearly all occupations on the list have declined in employment over the past ten years, with the exception of Bailiffs, Correction Officers, and Jailers; Preschool and Kindergarten Teachers; and Construction Laborers.

Occupation	2015 Employment	Change, 2010-2015		Projected Change, 2015-2020		Projected Annual Openings	Median Hourly Earnings
Elementary and Middle School Teachers	23	(1)	(4%)	0	0%	Insf. Data	$28.08
Teacher Assistants	21	2	11%	2	10%	Insf. Data	$12.74
Building Cleaning Workers	21	(10)	(32%)	(1)	(5%)	Insf. Data	$11.44
Bailiffs, Correctional Officers, and Jailers	17	2	13%	4	24%	Insf. Data	$34.64
Carpenters	17	5	42%	0	0%	Insf. Data	$19.08
Miscellaneous Life, Physical, and Social Science Technicians	17	(3)	(15%)	0	0%	Insf. Data	$14.63
Construction Laborers	15	3	25%	3	20%	Insf. Data	$13.12
Secretaries and Administrative Assistants	14	0	0%	4	29%	Insf. Data	$17.30
Cashiers	13	(5)	(28%)	Insf. Data	Insf. Data	Insf. Data	$10.26
Preschool and Kindergarten Teachers	13	Insf. Data	Insf. Data	5	38%	Insf. Data	$15.39
Police Officers	13	(2)	(13%)	0	0%	Insf. Data	$40.32
Childcare Workers	12	(1)	(8%)	3	25%	Insf. Data	$9.99
Firefighters	11	(3)	(21%)	1	9%	Insf. Data	$40.34
First-Line Supervisors of Sales Workers	11	1	10%	0	0%	Insf. Data	$11.51

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

Top Occupations – Education and Training

According to the U.S. Bureau of Labor Statistics analysis of minimum education and training requirements[12], 24% typically require less than a high school diploma[13] Approximately 13% of these high demand jobs typically require at least a Bachelor's degree. In terms of training and experience requirements, over half of these jobs (65%) require some type of training, which is typically on-the-job training or an Apprenticeship.



[12] 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.
[13] A total of 20 occupations with the highest projected job growth from 2015 are included in this analysis. These occupations are with 5 digit SOC code. EMSI Analyst 2015

Description	2015 Jobs	2015 - 2020 Change	Avg. Hourly Earnings	Typical Entry Level Education	Typical On-The-Job Training
Teacher Assistants	21	2	$13.10	Some college, no degree	None
Elementary School Teachers, Except Special Education	21	1	$27.90	Bachelor's degree	Internship/residency
Correctional Officers and Jailers	17	4	$32.17	High school diploma or equivalent	Moderate-term on-the-job training
Carpenters	17	0	$19.43	High school diploma or equivalent	Apprenticeship
Forest and Conservation Technicians	16	0	$16.61	Associate's degree	None
Construction Laborers	15	3	$13.41	Less than high school	Short-term on-the-job training
Cashiers	13	Insf. Data	$11.53	Less than high school	Short-term on-the-job training
Police and Sheriff's Patrol Officers	12	1	$36.45	High school diploma or equivalent	Moderate-term on-the-job training
Childcare Workers	12	3	$10.46	High school diploma or equivalent	Short-term on-the-job training
Janitors and Cleaners, Except Maids and Housekeeping Cleaners	11	2	$12.89	Less than high school	Short-term on-the-job training
Firefighters	11	1	$32.33	Postsecondary non-degree award	Long-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.[14] The list of key industries related to these occupations is dominated by Government.

Connection between Top Occupations and Key Industries

Top Occupations	Key Industries
Teacher Assistants	• Elementary and Secondary Schools (Local Government) • Services for the Elderly and Persons with Disabilities
Elementary School Teachers, Except Special Education	• Elementary and Secondary Schools (Local Government)
Correctional Officers and Jailers	• Local Government, Excluding Education and Hospitals • State Government, Excluding Education and Hospitals
Carpenters	• Site Preparation Contractors • Painting and Wall Covering Contractors
Forest and Conservation Technicians	• Federal Government, Civilian, Excluding Postal Service • Local Government, Excluding Education and Hospitals
Construction Laborers	• Construction
Cashiers	• Retail Trade
Police and Sheriff's Patrol Officers	• Government
Childcare Workers	• Health Care
Janitors and Cleaners, Except Maids and Housekeeping Cleaners	• Administrative and Support Services

[14] Occupations are by 6-digit SOC code.

Detailed Industry Analysis

The following section provides an in-depth look at sectors that are important to the Sierra County economy. These industry sectors include: Health Care and Tourism. For each of these sectors the top employing sub-sectors are listed by 4-digit NAICS code, as well as the staffing patterns 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 by Employment – (Top 4-Digit NAICS)

The largest employing sectors include Services for the Elderly and Persons with Disabilities (31 jobs); Offices of Physicians (25); and Child Day Care Services (24). The sectors with the largest LQ included Services for the Elderly and Persons with Disabilities (4.49) and Child Day Care Services at (4.43). The industry paying the highest average wages was Offices of Physicians ($50,951), while the sector with the lowest average wages was Services for the Elderly and Persons with Disabilities ($10,503).

Industry	2015 Jobs	'10-'15 Change	CE '10-'15	'15-'20 Change	CE '15-'20	'15 LQ	Average Earnings
Individual and Family Services	31	34	31	10	3	3.37	$11,931
Offices of Physicians	25	25	24	23	20	2.12	$50,951
Child Day Care Services	24	24	20	12	11	4.43	$38,816
Other Ambulatory Health Care Services	<10	<10	(0)	Insf. Data	1	0.85	Insf. Data
Home Health Care Services	<10	<10	(0)	Insf. Data	(0)	0.11	Insf. Data
Offices of Other Health Practitioners	<10	<10	(14)	Insf. Data	0	0.61	Insf. Data
Vocational Rehabilitation Services	<10	<10	3	Insf. Data	(1)	1.72	Insf. Data
Offices of Dentists	<10	<10	(13)	Insf. Data	(2)	0.84	Insf. Data
Other Residential Care Facilities	<10	0	0	0	0	0.00	$0
Community Food and Housing, and Emergency and Other Relief Services	<10	0	0	0	0	0.00	$0
Continuing Care Retirement Communities and Assisted Living Facilities for the Elderly	<10	0	0	0	0	0.00	$0

Staffing Patterns for Health Care (Top 4-digit SOC)

Within the relatively small Health Care and Social Assistance industry category there was only one occupation with greater than ten employees in 2015, namely, Childcare Workers.

Occupation	2015 Employment	Change, 2010-2015		Projected Change, 2015-2020		Median Hourly Earnings
Childcare Workers	10	6	150%	4	40%	$9.99
Physicians and Surgeons, All Other	<10	1	Insf. Data	1	100%	$85.42
Light Truck or Delivery Services Drivers	<10	0	0%	0	0%	$13.44
Office Clerks, General	<10	1	100%	1	50%	$13.52
Surgeons	<10	0	0%	1	Insf. Data	$110.34
Bus Drivers, School or Special Client	<10	1	Insf. Data	0	0%	$11.15
Medical Assistants	<10	2	100%	4	100%	$18.42
Dental Assistants	<10	(5)	(83%)	0	0%	$19.23
Bookkeeping, Accounting, and Auditing Clerks	<10	1	Insf. Data	1	100%	$16.18
Billing and Posting Clerks	<10	1	Insf. Data	2	200%	$18.42
Maids and Housekeeping Cleaners	<10	0	0%	1	Insf. Data	$10.34
First-Line Supervisors of Office and Administrative Support Workers	<10	0	0%	1	100%	$22.47
Nursing Assistants	<10	1	Insf. Data	1	100%	$13.63
Maintenance and Repair Workers, General	<10	0	0%	0	0%	$16.08
Physician Assistants	<10	0	0%	1	Insf. Data	$55.27
Clinical, Counseling, and School Psychologists	<10	(1)	(50%)	0	0%	$29.21
Business Operations Specialists, All Other	<10	0	0%	0	0%	$29.64
Social and Human Service Assistants	<10	2	Insf. Data	0	0%	$16.73
Mental Health Counselors	<10	1	Insf. Data	0	0%	$14.70
Rehabilitation Counselors	<10	1	Insf. Data	1	100%	$14.54

Tourism[15] by Employment – (Top 4-Digit NAICS)

There are only two subsectors that employ more than ten people: Restaurants and Other Eating Places (25) and Traveler Accommodation (24). Both sectors are projected to decline through 2020.

Industry	2015 Jobs	'10-'15 Change	CE '10-'15	'15-'20 Change	CE '15-'20	'15 LQ	Average Earnings
Restaurants and Other Eating Places	25	(5)	(10)	Insf. Data	(18)	0.57	$12,026
Traveler Accommodation	24	(13)	(16)	(9)	(10)	2.98	$24,003

Staffing Patterns for Tourism (Top 4-digit SOC)

Because the existing tourism industry in the region is so small, there is insufficient data regarding staffing patterns for the industry.

[15] The Tourism industry 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).

Appendix

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[16], *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.

[16] 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

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

Sierra County Input Session Takeaways

- Sierra County is home to small communities and a relatively small population, but there are many great things happening across the county that benefit these communities. These small strengths need to be gathered into a cohesive story that can be told about the county and used to advertise it as a great place to live and work.
- The pool of workers in Sierra County is very small and there are not many local training options which leads to having many positions that are very hard to fill. Recruitment and talent attraction are difficult, but are necessary to fulfill skill needs that aren't available locally. There is not a common attraction strategy in the county to help bring workers to the area.
- Talent attraction is especially difficult due to a lack of housing availability In Sierra County has a great effect on the community and workforce. There are limited short-term or rental properties in the county that could accommodate seasonal workers or those relocating from other areas. There are some vacant houses in the community, but often the owners are unknown or they need to be renovated.
- Much of the land in Sierra County is owned by the Federal or State government. It is important to make and maintain relationships with these entities for collaborative efforts, especially around maintenance of infrastructure.

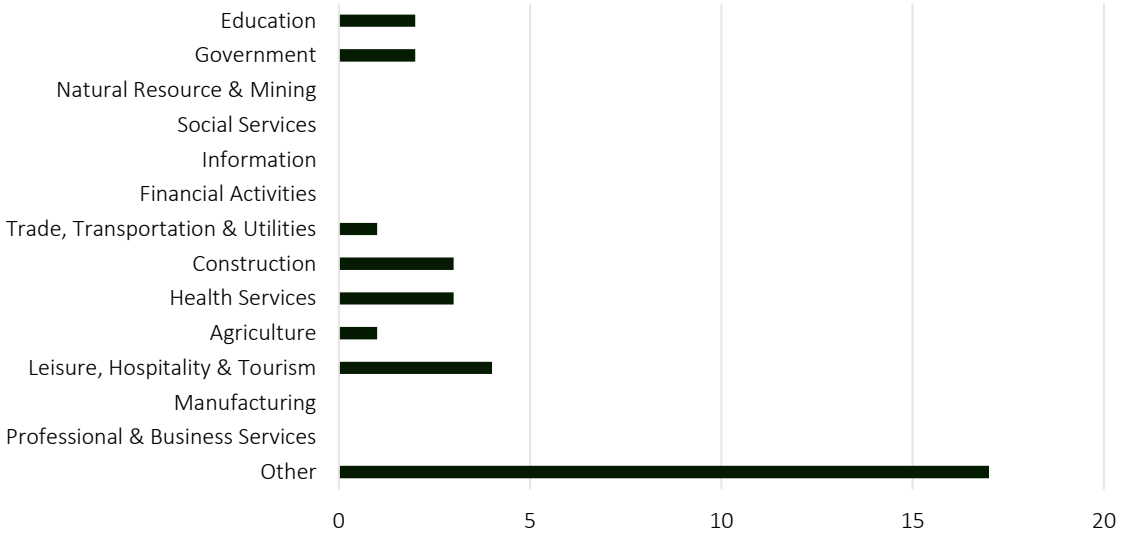
Sierra County Survey Summary

TPMA developed a survey designed to engage county employers and to better understand current workforce trends and needs in the Sierra 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 were 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.

25 employers participated in the survey. The following includes a summary, analysis and key findings.

Which industry best describes your company?



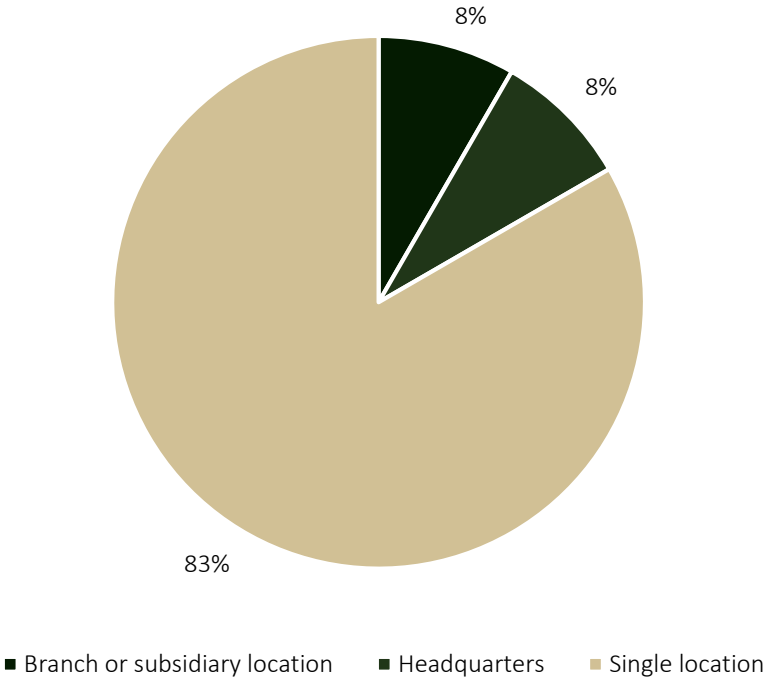
How many employees do you have?

Number of employees	Average
Total	10
Full-time	6.5
Part-time	4.53
Seasonal	1
Temp	5..67

How many total employees do you have by county?

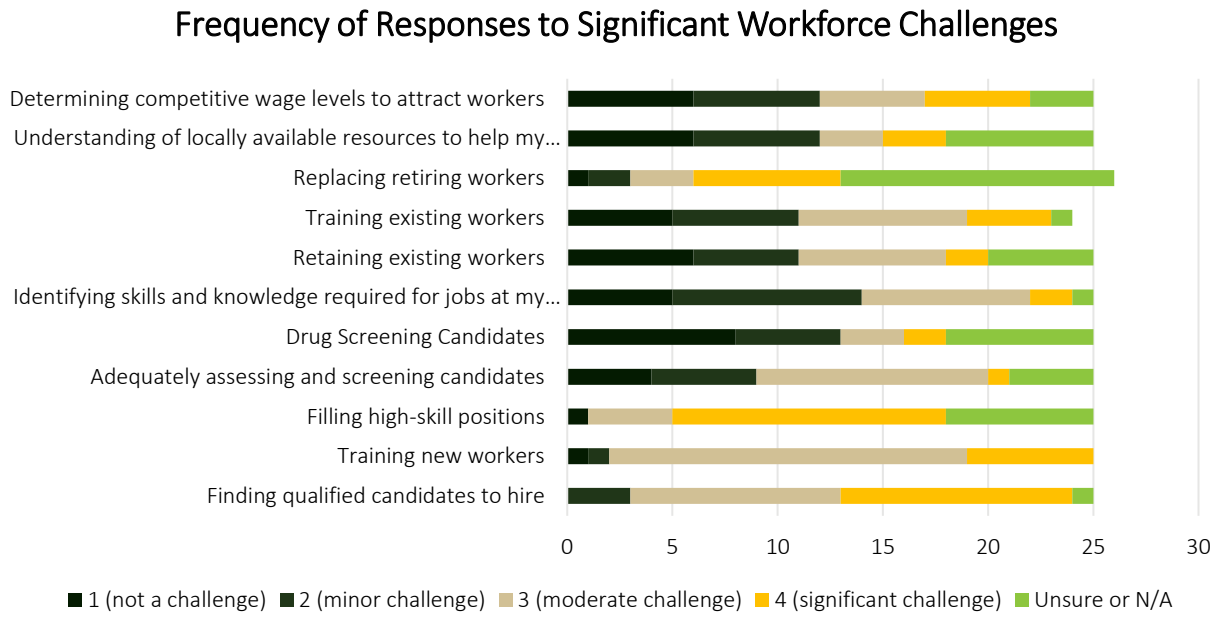
County	Average
Butte	0
Del Norte	0
Lassen	0
Modoc	0
Nevada	0
Plumas	1.75
Shasta	0
Sierra	10.21
Siskiyou	0
Tehama	0
Trinity	0

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	0	3	10	11	1
Training new workers	1	1	17	6	0
Filling high-skill positions	1	0	4	13	7
Adequately assessing and screening candidates	4	5	11	1	4
Drug Screening Candidates	8	5	3	2	7
Identifying skills and knowledge required for jobs at my company	5	9	8	2	1
Retaining existing workers	6	5	7	2	5
Training existing workers	5	6	8	4	1
Replacing retiring workers	1	2	3	7	13
Understanding of locally available resources to help my company	6	6	3	3	7
Determining competitive wage levels to attract workers	6	6	5	5	3



Top Five Most Challenging Workforce Issues from Above

Top Five Challenges	Responded "Moderate Challenge" or higher
Training new workers	23
Finding qualified candidates to hire	21
Filling high-skill positions	17
Adequately assessing and screening candidates	12
Training existing workers	12

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

Challenge	Top Responses
Finding qualified workers	10
Finding workers with soft skills (attendance, work ethic, people skills)	9
Finding workers with customer service skills	1
Trying to pay a competitive wage	1
Retention of employees	1
Transportation to work	1

What is the average vacancy length for open positions?

The average length based on all responses is 11.28 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	0.6	0-1
1 - 2 years	0.8	0-1
3 - 4 years	0.6	0-1
5 - 7 years	0.8	0-1

Number of replacement positions	Average	Range
0-12 months	0.8	0-1
1 - 2 years	0.6	0-1
3 - 4 years	0.6	0-1
5 - 7 years	1.6	1-2

Number of retiring positions	Average	Range
0-12 months	0.6	0-1
1 - 2 years	0.4	0
3 - 4 years	0.6	0-1
5 - 7 years	0.8	0-1

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: Management positions

Job Description: Manage day-to-day operations; supervise other staff

Average number of jobs at location: 1

Desired/required certificates/credentials: None; previous management experience preferred

Average entry level: $12.95/hr

Average mid-level: $13.50/hr

Average advanced-level: $22.33/hr

Top Occupation #2

Title: Entry-level positions

Job Description: General entry-level laborers (waiters, clerks, maintenance)

Average number of jobs at location: 3.5

Desired/required certificates/credentials: None; Food Handler's Card and previous work experience preferred

Average entry level: $10.83/hr

Average mid-level: $11.50/hr

Average advanced-level: $14.49/hr

Top Occupation #3

Job Description: HVAC Journeymen, appliance repairman, plumber, carpenter

Average number of jobs at location: 1

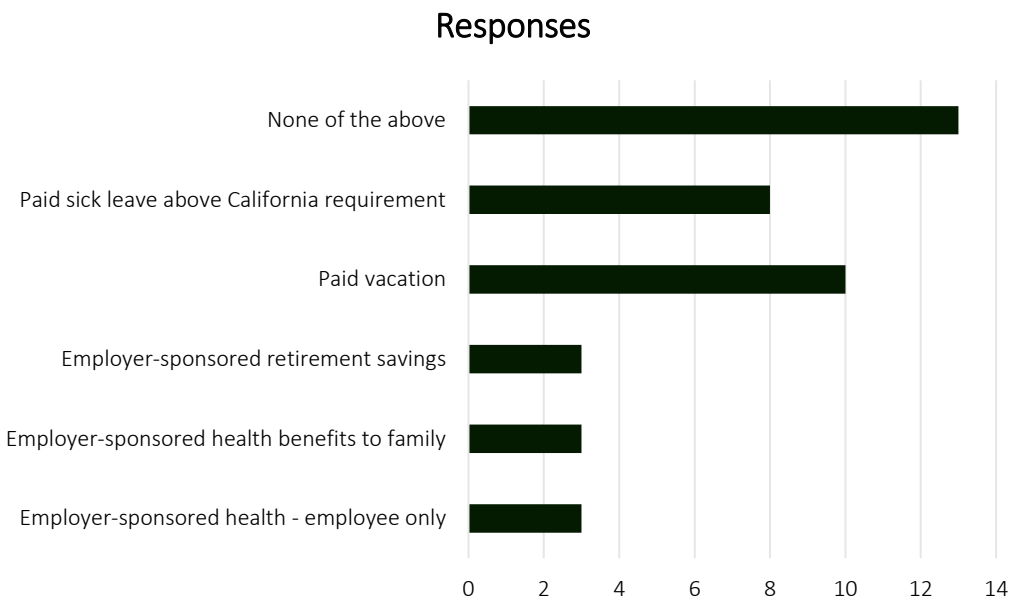
Desired/required certificates/credentials: N/A

Average entry level: $15.90/hr

Average mid-level: $23.67/hr

Average advanced-level: $24/hr

Do you provide any of the following health benefits?



Most difficult to fill positions and why

Position	Responses	Reason
Highly skilled positions	4	Lack of qualified candidates
Technicians	3	Offering a competitive wage
Entry level positions	2	N/A
Math and Science Teachers	1	Lack of qualified candidates

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

Title: Technicians
Brief job description: N/A
Number of current openings: 4
Desired or required certificates or credentials (if any): Journeyman card or equivalent experience
Hourly/annual wage ($) $14.50/hr

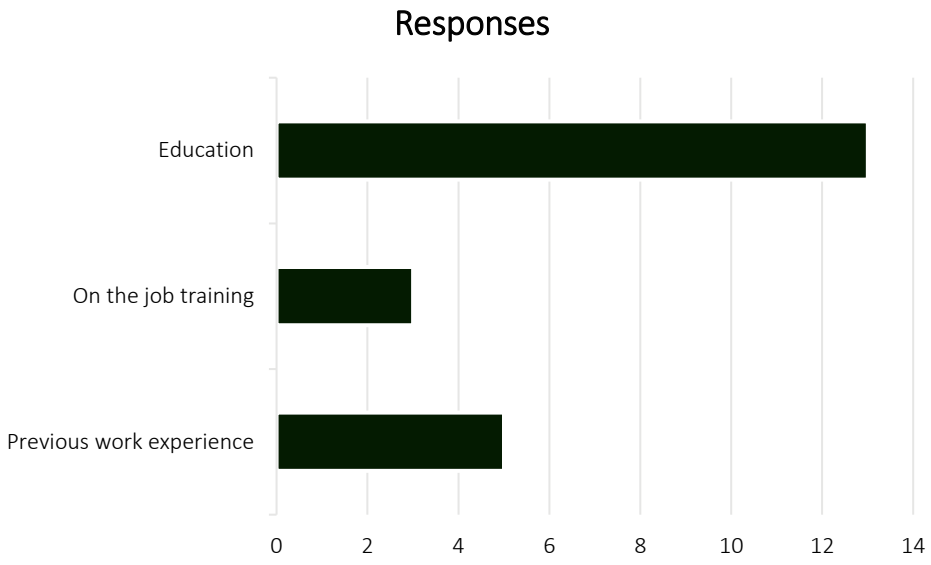
Title: Entry level positions
Brief job description: Cashiers
Number of current openings: 1
Desired or required certificates or credentials (if any): Previous work experience
Hourly/annual wage ($) $10.67/hr

Title: Nurse
Brief job description: Care for patients in a variety of settings
Number of current openings: 13
Desired or required certificates or credentials (if any): CNA or LVN license
Hourly/annual wage ($) $16.95/hr

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

Factors	Responses
Finding qualified candidates	8
Candidates lacking soft skills	4
Candidates failing drug test	3
Training existing employees	2
Transportation to work site	2
Candidates unwilling to relocate to rural area	1
Filling PT positions	1
Offering a competitive wage	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
Interpersonal/customer service	5
Computer skills	4
Previous trade experience	4
Bilingual	1
CAN or LVN	1

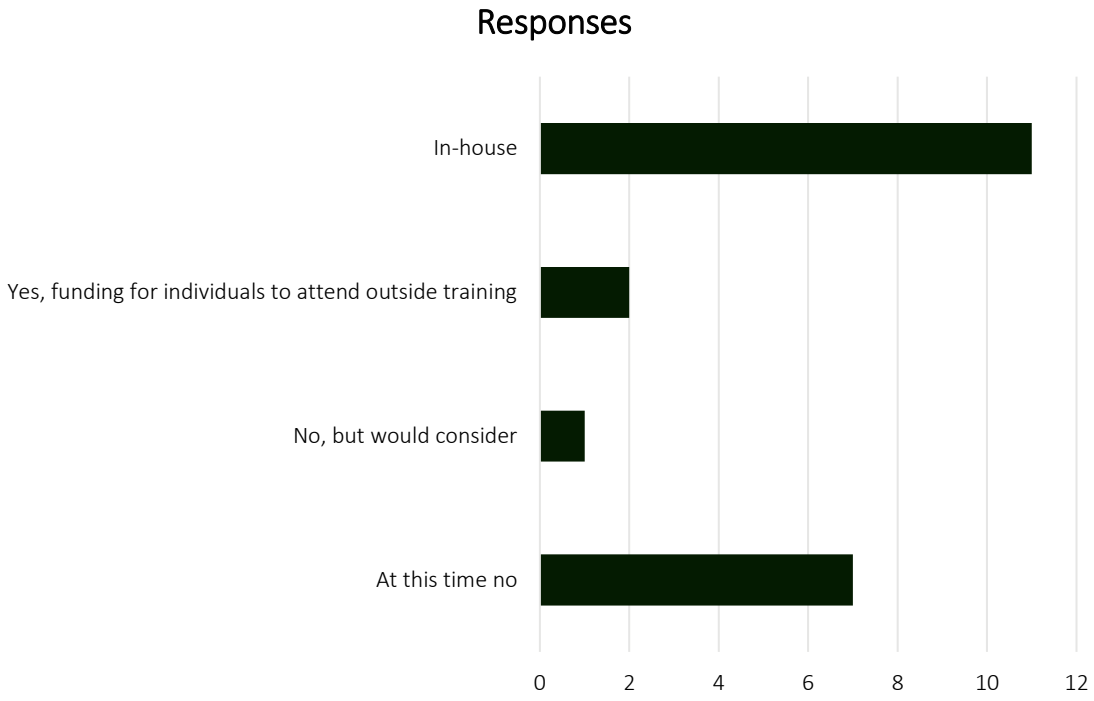
What other {if any} skills and/or experience levels are most difficult to find?

Top Responses	Responses
Skilled tradesmen/journeymen	4
Class A drivers	2
Computer skills	2
Customer service skills	1
CVN/LVN	1
Willing to work evening shifts	1

What industry-recognized credentials, certifications and/or degrees do you value most?

Top Responses	Responses
Food Hander's Certification	3
Class A Driver's License	2
State of CA Waste Water Certification Grade 1	1
AA	1
Certification in Pilates Method Alliance	1
Mechanic Certification	1
Cosmetology License	1
Teaching Credential	1

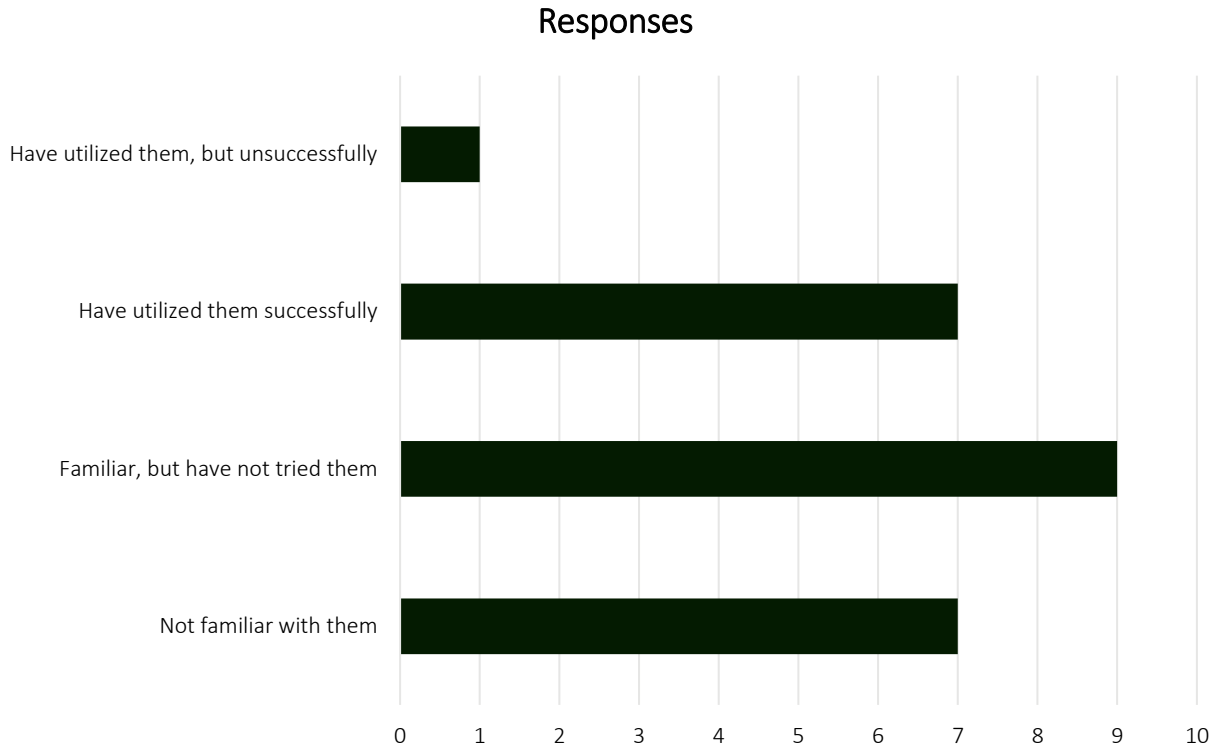
Do you offer training or other professional development, above and beyond initial on-the-job training?



How do you rate the following?

Top Responses	Excellent	Good	Poor	Fair	Unsure
Soft skills of workers	0	9	1	9	2
Hard/technical skills of workers	2	5	3	6	5
Overall quality of entry-level workers	1	7	3	9	2
Overall quality of high-skill workers	3	7	3	5	4
Quality of education and training programs	2	3	3	3	9
Knowledge of available services from America's Job Center of California (e.g. assistance with job ads)	1	3	1	7	9

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



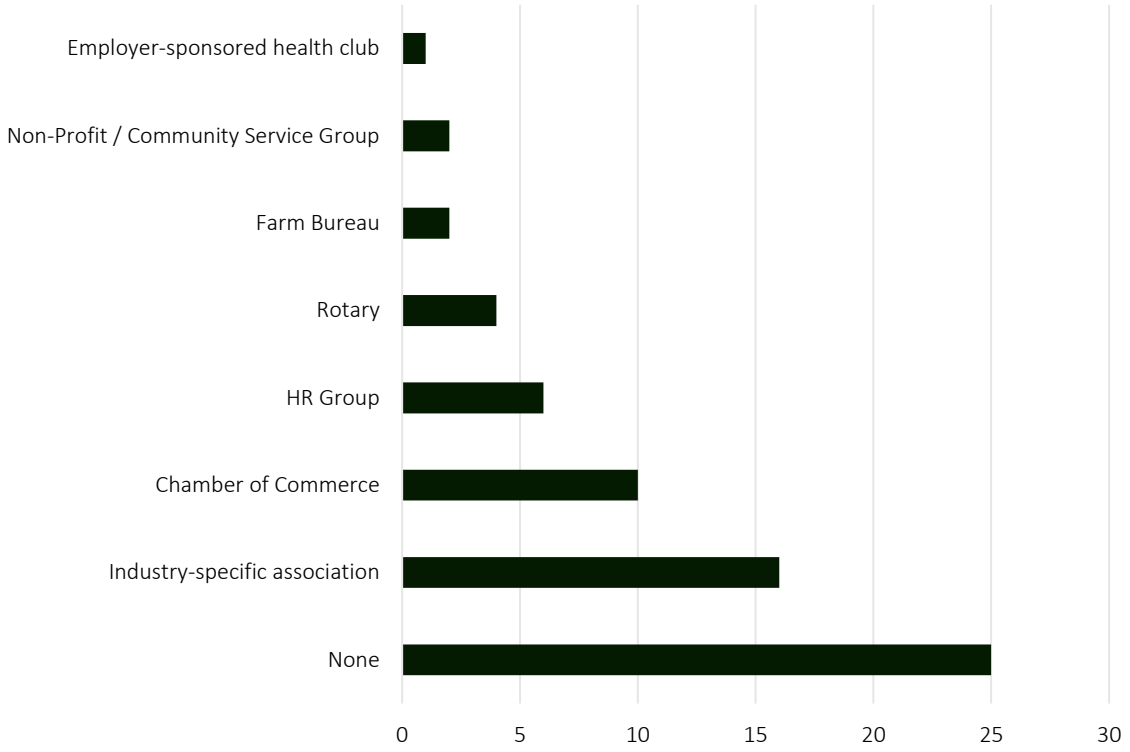
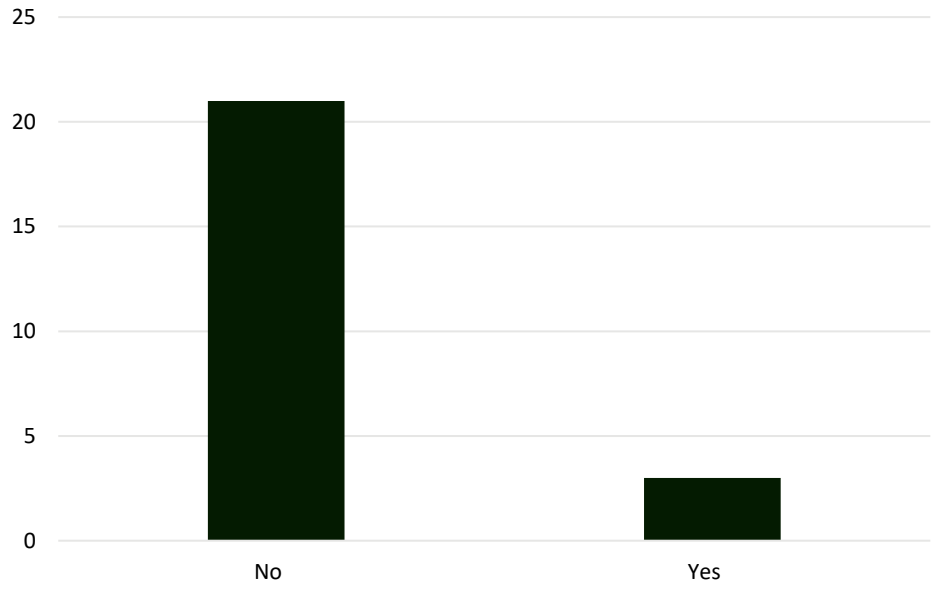
If utilized, if you could improve one thing about your local America's Job Center in California office and/or business service center, what would it be?

Top Responses	Responses
Move back Loyalton	2
Less time to monitor and paperwork	1
Lower expectation of business to take on total expense of the worker too soon	1

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

Service	Responses
On-the-Job Training (OJT)	9
Employee recruitment	7
Benefits of hiring a veteran	5
Other training resources	4
Pre-employment testing	4
Hiring ex-offenders (a second chance)	3
Tax credit information	3
Candidate screening/assessment	2
Employee education	1
Assistance with employee retention	0
Employer professional development seminars	0
Job analysis and profiling information	0
Labor market information, wage data	0
On-site assistance for business downsizing	0
Would like to know of programs that provide workers at no cost	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?