NoRTEC

Northern Rural Training and Employment Consortium (NoRTEC)

Modoc County Labor Market Profile and Industry/Sector Analysis

November 2016

Prepared for:

NoRTEC Workforce Development Board

Michael Cross, Executive Director

Acknowledgements

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 Modoc 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 analysis, 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 declined by 6.7% over the past ten years. This is in stark contrast to both the state and the NoRTEC region, which experienced 9.3% and 1.3% growth, respectively. Over the next five years, the county is projected to decline at a rate of 4.7%.
- The median household income within the county is $38,560. This is below the NoRTEC ($43,977) and state average ($61,489). The poverty rate (20.2%) is also higher than the NoRTEC region (18.6%) and California (16.4%) averages.
- Over the past ten years, unemployment rates within the county have largely mirrored those within California. However, the employment rate within the county has averaged significantly higher than the state's average.
- The largest sector within the county is Government, which represented nearly 40% of all employment in 2015. Other significant sectors include Crop and Animal Production and Retail Trade. Over the past five years, Crop and Animal Production (Agriculture) and Professional, Scientific, and Technical Services added the most jobs with 58 and 30, respectively.
- The county's top occupations include Office and Administrative Support and Farming, Fishing, and Forestry occupations.
- The top occupations in the county are projected to decline or experience minimal growth through 2020.
- Based on feedback from the input session's participants, entrepreneurship and small business development are great opportunities for the county.

- Much of the county's employment is within the Government sector, due in part to the high proportion of public lands within the county. Many local jobseekers do not apply for these Government jobs, potentially because the hiring process is not centralized in the county. These jobs could provide great employment opportunities for local jobseekers if connections are made with these public entities to increase awareness and advertising of open positions.
- Based on survey results, the most significant challenges for employers in the county include finding qualified candidates to hire and filling high-skill positions.
- For difficult to fill positions, most employers indicated that either education or previous work experience were most desired in 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 Modoc County, the sectors that match the priority sectors for the region include Agriculture and Tourism.

Agriculture

- The Agriculture sector is the second largest industry sector within the county. It has experienced growth since 2010 and, while it is projected to remain flat through 2020, the location quotient for the sector is 11.93. This indicates that employment within the industry is highly concentrated within the county as compared to other regions within the US. Thus, it is a significant economic sector for the county. Significant subsectors include Crop Production, Support for Crop Production and Animal Production.
- Key occupations within Agriculture for the county include: Farmworkers and Laborers, Crop, Nursery, and Greenhouse and Farmers, Ranchers, and Other Agricultural Managers. The median wage for Farmworkers and Laborers, etc. is $11.74/hr. However, the median wage for Farmers, Ranchers, and Other Agricultural Managers is $18.74/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 subsector is Restaurants and Other Eating Places.
- Key occupations for the Tourism sector primarily fall within food service: Cooks; Fast Food and Counter Workers; and Waiters and Waitresses. The median hourly wage for these occupations is around $10.00/hr.

Modoc County

Introduction

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

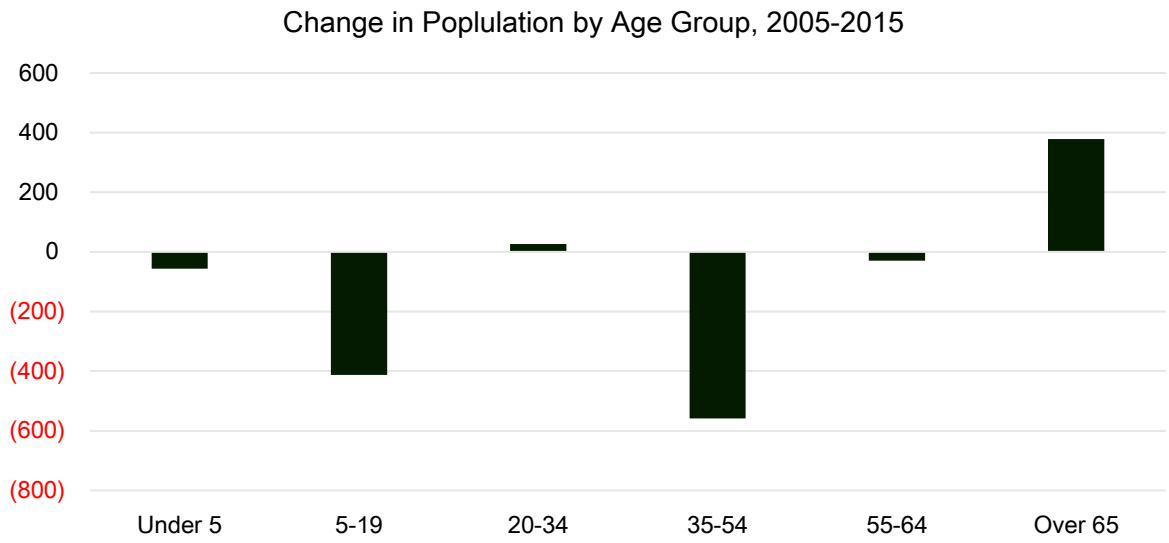
Modoc County is located at the northeastern end of the NoRTEC region, along the eastern slope of the Sierra Nevada Mountains. The largest city in Modoc County is Alturas. The population in of the county has decreased from 9,565 to 8,915 over the past ten years.[1] This decrease of 6.7% is drastically 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 an additional 4.7% 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 21.9%.

The region has an aging population. Over the past ten years, the population of people 55 years and older decreased slightly, but the population older than 64 increased by 21.9%. Core working population cohorts, including 20 to 34 year olds and 35-54 year olds, also have decreased. The aging population is a concern because it will impact the availability of labor in the county over the next decade.

Age Distribution

Age	2005 Population	2015 Population	Change (2005-2015)		Projected Change (2015-2020)	
Under 5	487	431	-56	-11.5%	21	4.9%
5-19	1,947	1,534	-413	-21.2%	-140	-9.1%
20-34	1,287	1,313	26	2.0%	-80	-6.1%
35-54	2,637	2,078	-559	-21.2%	-228	-11.0%
55-64	1,481	1,452	-29	-2.0%	-83	-5.7%
Over 65	1,729	2,107	378	21.9%	89	4.2%
Total	9,568	8,915	-653	-6.8%	-421	-4.7%

1 EMSI Analyst 2016



Race/Ethnicity

The population of the region is predominately White (73% of the 2015 population). However, over the past ten years, the White population has decreased 11% from its 2005 level. On the other end of the spectrum, the top three fastest growing races in the region Asian, Black, and Native Hawaiian or Pacific Islander.[2]

Race/Ethnicity	2015 Population	Change, 2005-2015	
White	6,896	-854	-11.0%
Hispanic	1,336	185	16.1%
Asian	97	33	51.6%
Two or More Races	206	11	5.6%
American Indian or Alaskan Native	256	-55	-17.7%
Black	99	26	35.6%
Native Hawaiian or Pacific Islander	25	3	13.6%

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, Modoc County has a slightly lower percentage of those with at least some college. However, this percentage is much higher than the state and US averages.

Education Level	2015 Population	2015 Percent	2015 Percent NoRTEC	2015 Percent California	2015 Percent US
Less Than 9th Grade	534	8.2%	5.1%	11.2%	6.6%
9th Grade to 12th Grade	775	11.9%	8.4%	8.2%	7.7%
High School Diploma	1,918	29.4%	24.9%	21.0%	28.1%
Some College	1,865	28.5%	30.5%	21.7%	21.0%
Associate's Degree	556	8.5%	9.7%	7.8%	7.8%
Bachelor's Degree	654	10.0%	14.2%	19.3%	18.0%
Graduate Degree and Higher	232	3.5%	7.2%	10.9%	10.7%

Income

Modoc County has the third highest poverty rate in the NoRTEC region at 20.2%.[3] The Median Household Income for Modoc County ($38,560) is the third lowest within the region, and also significantly trails the United States and the state of California.

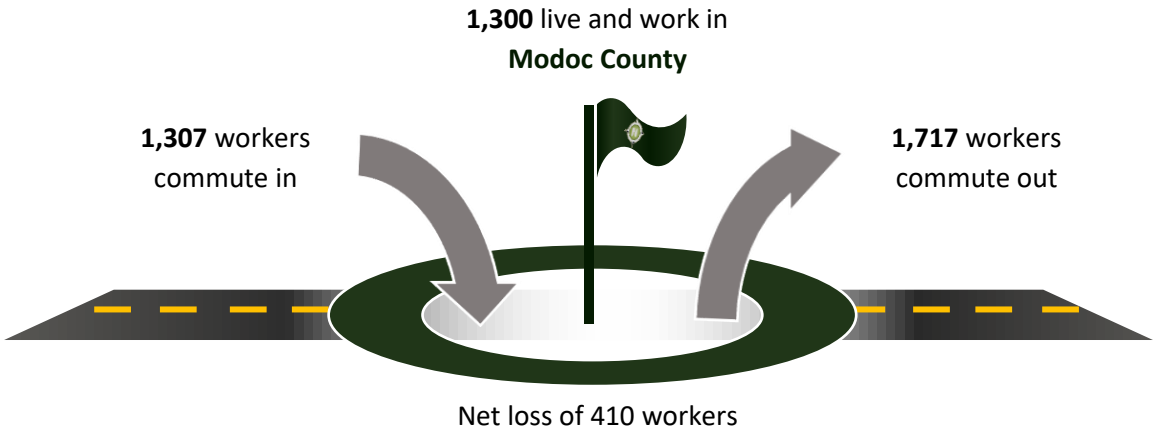
	Median Household Income ('10-'14)	Poverty Rate
Butte	$43,165	21.9%
Del Norte	$39,302	22.4%
Lassen	$53,351	19.4%
Modoc	**$38,560**	**20.2%**
Nevada	$56,949	11.4%
Plumas	$48,032	14.0%
Shasta	$44,556	14.7%
Sierra	$43,107	13.8%
Siskiyou	$37,495	21.1%
Tehama	$42,369	18.2%
Trinity	$36,862	19.9%
California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

Commuting

In 2014, Modoc County had slightly more than 1,300 workers commuting into the county and over 1,700 commuting out. Furthermore, only 1,300 of the county's working residents also live in the county.

3 U.S. Census Bureau 2010-2014.

Therefore, of those who live in Modoc County, the majority commute outside of the county for work rather than working within the county.[4] Of those who commute into to Modoc County, the largest number of commuters come from Siskiyou County (130, 5.0% of Modoc County's workforce), seconded by Merced County (119, 4.6%). The top destination counties for Modoc County's out-commuting workers are Lassen County (274, 9.1% of residents), and Shasta County (204, 6.8%).



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 January 2016, a little over 3,100 workers participated in the Modoc County labor force. Of these, 2,801 were employed. Over the last 20 years, employment in the county was at its highest in June 2003 and lowest in January 2015. As of January 2016, the unemployment rate for the county is 10.3% which is much higher than the state's rate of 5.8% and the nation's rate of 4.9%.

EMPLOYMENT IN MODOC COUNTY 1996-2016 [5]		
Peak	June 2003 (4,120)	January 2016 (2,801 – 32.0% lower)
Trough	January 2015 (2,783)	January 2016 (2,801 – .06% higher)
Jan 2016	Employment: 2,801 Labor Force: 3,123 Unemployment rate: 10.3%	

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

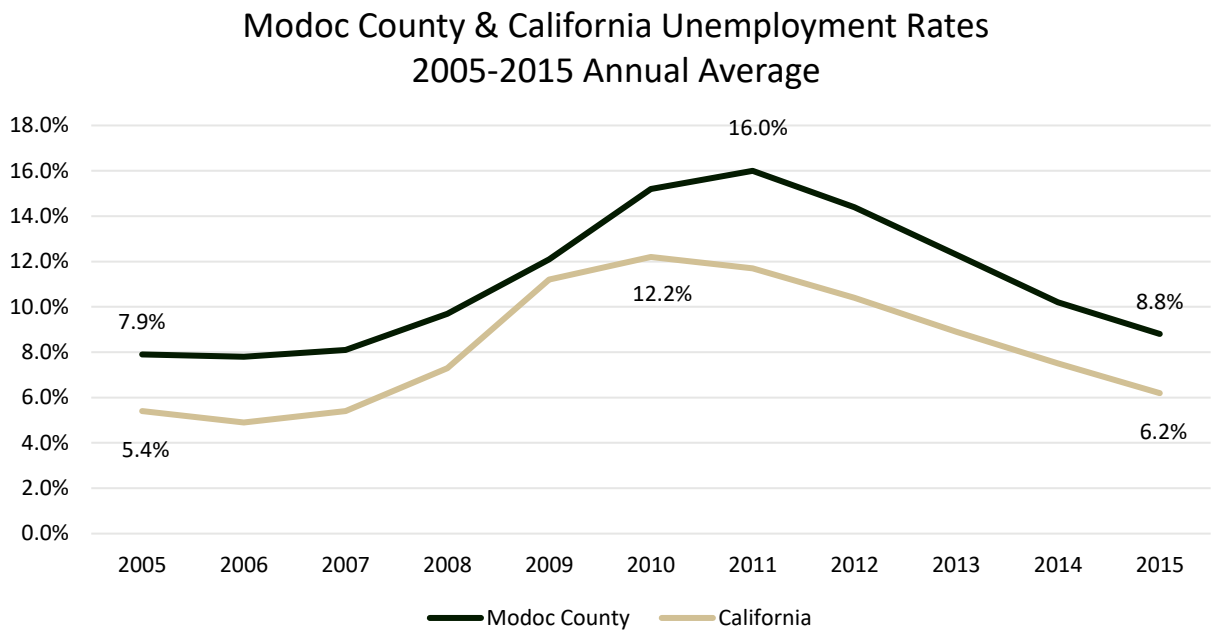
The labor force participation rate is sensitive to demographic changes because the participation rates vary across age, gender, income and race/ethnicity. For example, in 2015 the national labor force participation rate for those older than 54 was 39.9%, compared to 80.7% for those between the ages of 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 are the most concentrated of Modoc County's population groups. The older worker population (55 to 64 years of age) was estimated to be 3,864 in 2015, which is equivalent to 16% 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 2,107, almost a quarter of the county's total population.

[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 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 notable decrease in unemployment in Modoc County since 2011. At its peak, the unemployment rate struck 16.0% in 2011. The rate dipped to its lowest point in the ten-year time frame in 2006, when it reached 7.8%. The unemployment rate for the state of California followed a similar trend as Modoc County between 2006 and 2016, though the story is consistently more positive, as the state's rate is consistently 2 to 3 percentage points lower than Modoc County's. 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

To this point, the analysis of Modoc County has focused on the socioeconomic characteristics of the region's population. Socioeconomic data are useful in understanding the economy, but to truly comprehend economic dynamics we must also analyze industry data. 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 Modoc 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).

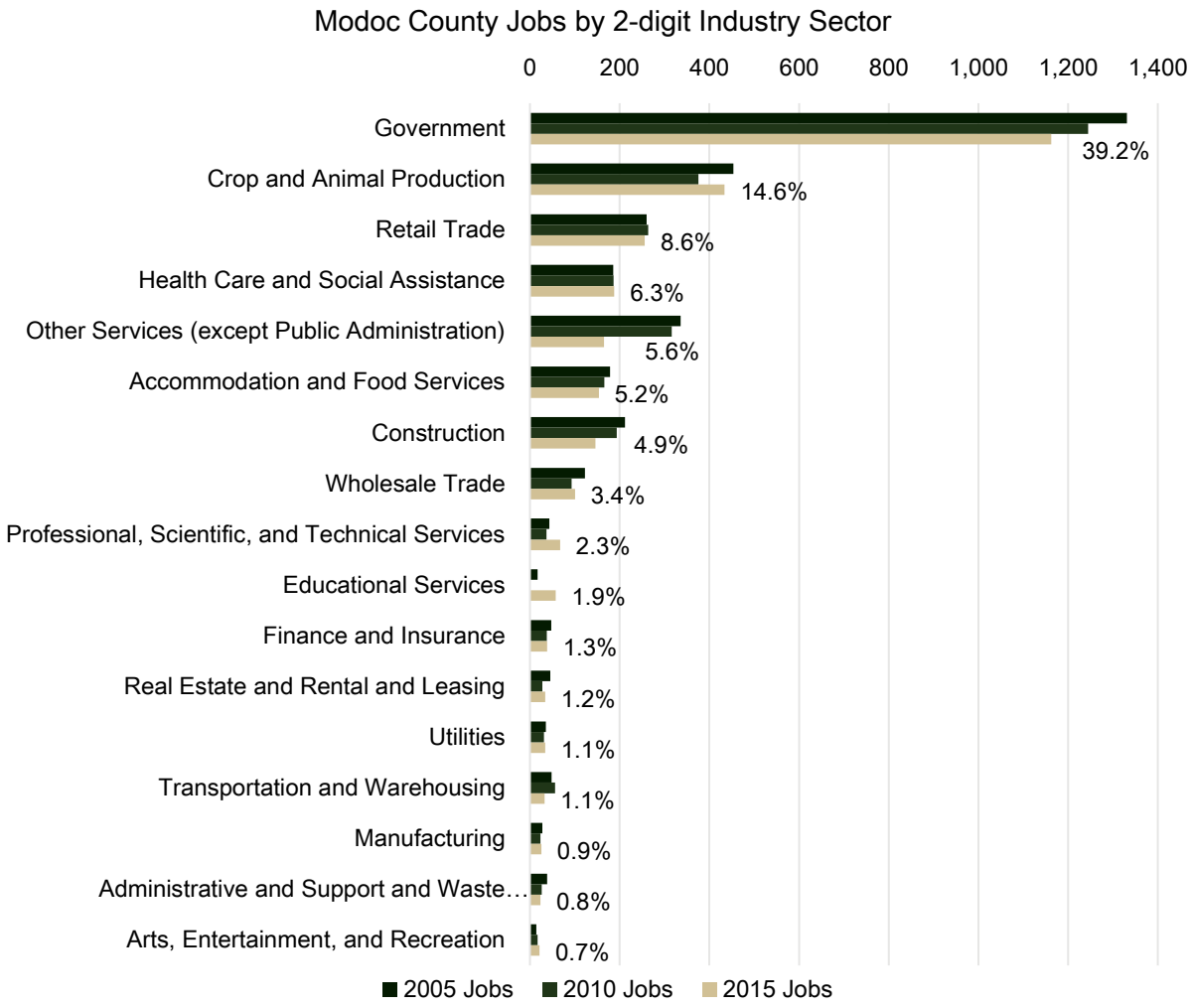
The competitive effect helps to determine the amount of job growth that occurred due to the county's competitive advantages as compared to the national growth in general and the national growth rate for each sector. In other words, a positive number indicates that the county experienced more growth than 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 Modoc County employing the most workers are Government (1,162, 39.2% of all county employment), Crop and Animal Production (Agriculture) (434, 14.6%), Retail Trade (256, 8.6%), and Health Care (188, 6.3%). Over the past five years, Government and Retail Trade have experienced declines, while Crop and Animal Production (Agriculture) and Health Care have added jobs.



Other Services (Except Public Administration) had the most job loss in Modoc County over the past five years (151 jobs lost). As signified by the negative competitive effect, all of that job loss was for reasons unique to Modoc County; the industry performed much better at the national level. Government and Construction also lost a significant number of jobs. Conversely, jobs in Crop and Animal Production grew by 58 (15% growth from 2010) and Professional, Scientific and Technical Services increased by 81%. In terms of location quotient, Crop and Animal Production, Government, and Utilities are the only three sectors with a large local concentration.

Industry	2010 Jobs	2015 Jobs	Change in Jobs 2010 - 2015		Change in Jobs 2015-2020		Location Quotient	Comp. Effect
Government	1,245	1,162	(83)	(7%)	42	4%	2.53	(61)
Crop and Animal Production (Agriculture)	376	434	58	15%	(2)	(0%)	11.93	43
Retail Trade	263	256	(7)	(3%)	6	2%	0.83	(27)
Health Care	187	188	1	1%	23	12%	0.51	(23)
Other Services (except Public Administration)	316	165	(151)	(48%)	(1)	(1%)	1.16	(154)
Accommodation and Food Services	166	154	(12)	(7%)	12	8%	0.62	(39)
Construction	193	146	(47)	(24%)	3	2%	0.93	(66)
Wholesale Trade	93	101	8	9%	(15)	(15%)	0.88	1
Professional, Scientific, and Technical Services	37	67	30	81%	18	27%	0.36	25
Educational Services	<10	57	Insf. Data	Insf. Data	37	65%	0.77	49
Finance and Insurance	38	38	0	0%	1	3%	0.32	(1)
Real Estate and Rental and Leasing	28	34	6	21%	0	0%	0.70	4
Utilities	31	34	3	10%	1	3%	3.17	2
Transportation and Warehousing	56	33	(23)	(41%)	(6)	(18%)	0.34	(30)
Manufacturing	23	25	2	9%	10	40%	0.11	1
Administrative and Support Services	27	24	(3)	(11%)	(1)	(4%)	0.13	(7)
Arts, Entertainment, and Recreation	17	21	4	24%	6	29%	0.43	2
Unclassified Industry	14	14	0	0%	2	14%	2.97	(9)
Mining, Quarrying, and Oil and Gas Extraction	0	<10	Insf. Data	Insf. Data	Insf. Data	Insf. Data	0.11	1
Information	<10	<10	Insf. Data	0%	Insf. Data	Insf. Data	0.17	3

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 top 20 largest industries by employment in Modoc County in 2015.[8] Of the top 20 largest industries, 60% experienced growth from 2010-2015, headlined by Individual and Family Services, which grew 242% over the past five years. Among the 20 largest industries, the greatest degree of new job growth is within Individual and Family Services; Local Government, Excluding Education and Hospitals; Education and Hospitals (Local Government).

Industry	2015 Jobs	'10-'15 Change		'15-'20 Change	
Local Government, Excluding Education and Hospitals	504	38	8%	27	5%
Education and Hospitals (Local Government)	368	(50)	(12%)	17	5%
Federal Government, Civilian	241	(49)	(17%)	(2)	(1%)
Crop Production	170	6	4%	7	4%
Restaurants and Other Eating Places	127	(2)	(2%)	14	11%
Support Activities for Crop Production	124	9	8%	9	7%
Animal Production and Aquaculture	112	32	40%	(19)	(17%)
Individual and Family Services	89	63	242%	38	43%
Grocery Stores	78	(4)	(5%)	(5)	(6%)
Gasoline Stations	62	33	114%	19	31%
Grocery and Related Product Merchant Wholesalers	41	1	3%	3	7%
Automotive Repair and Maintenance	40	6	18%	8	20%
Highway, Street, and Bridge Construction	38	(22)	(37%)	0	0%
State Government, Excluding Education and Hospitals	35	(21)	(38%)	1	3%
Petroleum and Petroleum Products Merchant Wholesalers	34	(8)	(19%)	Insf. Data	Insf. Data
Electric Power Generation, Transmission and Distribution	34	3	10%	1	3%
Other Specialty Trade Contractors	33	5	18%	(1)	(3%)
Social Advocacy Organizations	32	Insf. Data	Insf. Data	(19)	(59%)
Private Households	30	(193)	(87%)	(6)	(20%)
Educational Support Services	30	30	Insf. Data	22	73%

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

Occupation Analysis

Industries are the business units that generally drive local economic growth because they create goods and services that bring fresh dollars in from outside the county, or in the case of businesses that primarily serve a local population, retain dollars in the county that otherwise would have been spent elsewhere. Although it's important that NoRTEC understand its industry assets, as a workforce development board, NoRTEC's mission is to serve individual job seekers and businesses to a greater degree than serving industries. 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 Modoc County from an overarching economic perspective. It also provides insight specifically related to some of the key industries that were highlighted previously.

Occupational Groups

Modoc County's top occupations include:

- Office and Administrative Support Occupation (339 jobs)
- Farming, Fishing, and Forestry Occupations (283 jobs)
- Sales and Related Occupations (216 jobs)
- Management Occupations (215 jobs).[9]

The median hourly earnings for all occupations range from $10.30/hr for Food Preparation and Serving Related Occupations to $35.69/hr for Protective Service 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 Modoc County has a strong concentration of workers (above an LQ of 1.25) include:

- Farming, Fishing, and Forestry Occupations (12.70)
- Life, Physical, and Social Science Occupations (5.76)
- Protective Service Occupations (2.80)
- Management Occupations (1.35)

These are the occupation groups for which the region is highly specialized. For example, jobs in Farming, Fishing, and Forestry make up 12.70x more of the employment base than they do nationally.

9 These occupations are by 2 digit SOC code (Standard Occupation Classification System).

Broad Occupation Mix

Occupation	2015 Employment	% of Total Employment	Median Hourly Earnings	2015 Location Quotient
Office and Administrative Support	339	11.4%	$15.75	0.75
Farming, Fishing, and Forestry	283	9.5%	$15.63	12.70
Sales and Related	216	7.3%	$12.78	0.71
Management	215	7.2%	$26.35	1.35
Education, Training, and Library	213	7.2%	$20.06	1.27
Protective Service	186	6.3%	$35.69	2.80
Transportation and Material Moving	182	6.1%	$16.60	0.95
Construction and Extraction	166	5.6%	$16.83	1.25
Food Preparation and Serving Related	153	5.2%	$10.30	0.63
Healthcare Practitioners and Technical	144	4.8%	$35.38	0.90
Personal Care and Service	143	4.8%	$11.63	1.21
Life, Physical, and Social Science	138	4.7%	$19.03	5.76
Installation, Maintenance, and Repair	108	3.6%	$19.94	0.96
Building and Grounds Cleaning and Maintenance	101	3.4%	$12.14	0.89
Business and Financial Operations	92	3.1%	$25.40	0.63
Production	74	2.5%	$20.43	0.42
Healthcare Support	58	1.9%	$13.41	0.70
Community and Social Service	48	1.6%	$17.98	1.02
Arts, Design, Entertainment, Sports, and Media	36	1.2%	$16.28	0.69
Architecture and Engineering	23	0.8%	$30.93	0.47
Legal	17	0.6%	$31.43	0.71
Computer and Mathematical	16	0.6%	$28.48	0.21
Military	14	0.5%	$16.31	0.35

Top Occupations – 4 Digit SOC Codes

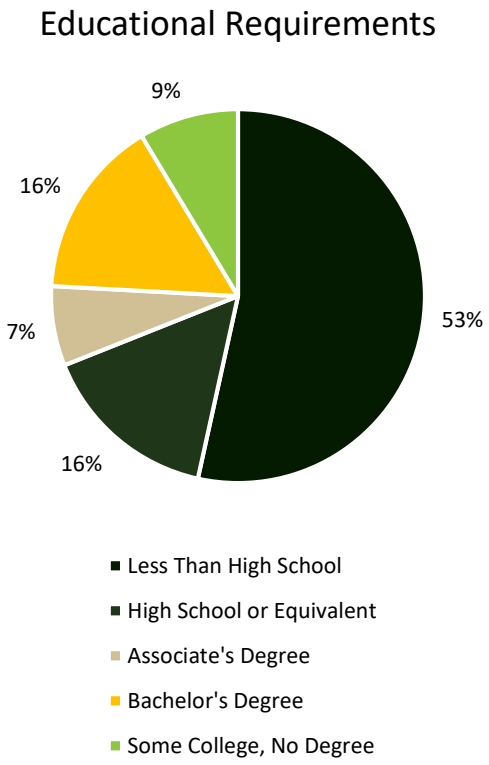
Drilling a bit deeper, the following table displays the top 20 occupations by 4 Digit SOC occupational groups within Modoc County.[10] Median hourly earnings for these occupations range from $9.78 at the low end for Fast Food and Counter Workers to $40.34 at the high end for Firefighters. The two occupations that added the largest number of new jobs over the past five years are Miscellaneous Agricultural Workers and Cashiers (29 and 17 jobs, respectively). The occupation with the greatest loss of jobs over the past five years is Building Cleaning Workers.

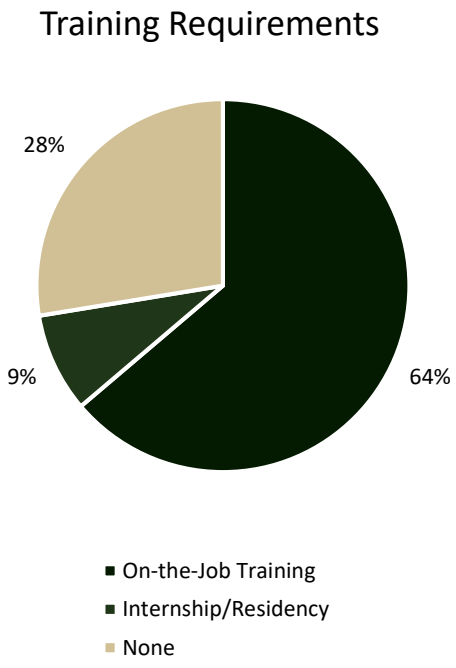
Occupation	2015 Jobs	Change, 2010-2015		Projected Change, 2015-2020		Annual Openings	Median Hourly Earnings
Miscellaneous Agricultural Workers	235	29	14%	2	1%	17	$14.25
Miscellaneous Life, Physical, and Social Science Technicians	96	(12)	(11%)	0	0%	4	$15.72
Cashiers	96	17	22%	10	10%	8	$10.37
Building Cleaning Workers	70	(66)	(49%)	(2)	(3%)	6	$11.70
Driver/Sales Workers and Truck Drivers	69	(6)	(8%)	(7)	(10%)	3	$16.28
Elementary and Middle School Teachers	61	(8)	(12%)	5	8%	Insf. Data	$27.30
Farmers, Ranchers, and Other Agricultural Managers	58	9	18%	(5)	(9%)	3	$18.74
Teacher Assistants	56	(1)	(2%)	5	9%	2	$12.72
Secretaries and Administrative Assistants	56	1	2%	3	5%	2	$15.35
Laborers and Material Movers, Hand	54	1	2%	4	7%	3	$14.29
Registered Nurses	50	(6)	(11%)	4	8%	7	$31.53
Bailiffs, Correctional Officers, and Jailers	50	(2)	(4%)	2	4%	3	$33.36
Construction Equipment Operators	45	(10)	(18%)	2	4%	Insf. Data	$19.78
Police Officers	44	2	5%	3	7%	4	$40.32
Office Clerks, General	44	2	5%	1	2%	Insf. Data	$13.03
Cooks	41	(2)	(5%)	4	10%	3	$10.77
Firefighters	40	3	8%	2	5%	3	$40.34
General and Operations Managers	38	4	12%	2	5%	Insf. Data	$31.97
Fast Food and Counter Workers	37	1	3%	7	19%	5	$9.78
First-Line Supervisors of Sales Workers	37	1	3%	0	0%	2	$13.68

10 Occupations are by 4 digit SOC code.

High Demand Jobs – Education and Training

Among high demand jobs in Modoc County, a fourth (25%) typically require less than a high-school diploma.[11] Approximately 10% of these high demand jobs require at least a Bachelor's degree. In terms of training and experience requirements, almost two-thirds (65%) require some type of training, which is typically on-the-job training.





11 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	2020 Jobs	2015 - 2020 Change	Annual Openings	Avg. Hourly Earnings	Typical Entry Level Education	Typical On-The-Job Training
Personal Care Aides	39	12	3	$10.63	Less than high school	Short-term on-the-job training
Cashiers	105	10	6	$11.60	Less than high school	Short-term on-the-job training
Combined Food Preparation and Serving Workers, Including Fast Food	38	6	3	$10.31	Less than high school	Short-term on-the-job training
Teacher Assistants	61	5	2	$13.07	Some college, no degree	None
Elementary School Teachers, Except Special Education	62	5	2	$27.08	Bachelor's degree	Internship/residency
Registered Nurses	54	4	Insf. Data	$32.74	Associate's degree	None
Recreation Workers	31	4	Insf. Data	$14.22	Bachelor's degree	None
Police and Sheriff's Patrol Officers	47	3	Insf. Data	$36.45	High school diploma or equivalent	Moderate-term on-the-job training
Construction Laborers	32	3	Insf. Data	$12.45	Less than high school	Short-term on-the-job training
Managers, All Other	20	3	Insf. Data	$22.48	High school diploma or equivalent	None
Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	37	3	Insf. Data	$15.18	High school diploma or equivalent	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 high demand occupations and how they are connected to some of the county's key industries.[12] The majority of the occupations fall within Health Care and Government.

Connection between Top Occupations and Key Industries

Top Occupations	Key Industries
Personal Care Aides	• Health Care
Cashiers	• Retail
Combined Food Preparation and Serving Workers, Including Fast Food	• Accommodation and Food Services
Teacher Assistants	• Government
Elementary School Teachers, Except Special Education	• Government
Registered Nurses	• Health Care
Recreation Workers	• Government
Police and Sheriff's Patrol Officers	• Government
Construction Laborers	• Construction
Managers, All Other	• Transportation and Warehousing
Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	• Government • Health Care • Other Services (except Public Administration) • Professional, Scientific, and Technical Services

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

Detailed Industry Analysis

The following section provides an in-depth look at sectors that are important to the *Modoc* County economy. These industry sectors include Agriculture 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.

Agriculture by Employment in Modoc County – (4-Digit NAICS)

There are several large employment industries within the Agriculture sector, most notably, Crop Production (170 jobs), Support Activities for Crop Production (124) and Animal Production and Aquaculture (112). Animal Production for Aquaculture experienced the strongest growth in employment over the past five years. The industry paying the highest average wage is Support Activities for Crop Production ($39,735), while the lowest paying is Animal Production and Aquaculture ($23,482).

Industry	2015 Jobs	'10-'15 Change	CE '10-'15	'15-'20 Change	CE '15-'20	'15 LQ	Average Earnings
Crop Production	170	6	(3)	7	7	10.59	$36,516
Support Activities for Crop Production	124	9	(1)	9	3	14.03	$39,735
Animal Production and Aquaculture	112	32	32	(19)	(12)	13.69	$23,482
Support Activities for Animal Production	17	Insf. Data	9	1	2	21.71	$36,412
Support Activities for Forestry	<10	Insf. Data	1	Insf. Data	(1)	6.29	Insf. Data
Hunting and Trapping	<10	Insf. Data	(0)	Insf. Data	(0)	8.69	Insf. Data
Logging	<10	Insf. Data	2	Insf. Data	0	6.16	Insf. Data

Staffing Patterns for Agriculture (Top 20 4-digit SOC)

The largest employing occupations within this sector are Farmworkers and Laborers, Crop, Nursery, and Greenhouse and Farmers, Ranchers, and Other Agricultural Managers. Of the occupations on this list, Farmworkers and Laborers, Crop, Nursery, and Greenhouse grew the most over the past five years in terms of new jobs, but is projected to decrease slightly the next five years. Representatives, Wholesale and Manufacturing, Technical and Scientific Products pays the highest wage ($37.42), while Helpers – Production Workers pays the lowest ($11.29).

Occupation	2015 Employment	Change, 2010-2015		Projected Change, 2015-2020		Median Hourly Earnings
Farmworkers and Laborers, Crop, Nursery, and Greenhouse	178	16	10%	(2)	(1%)	$11.73
Farmers, Ranchers, and Other Agricultural Managers	58	9	18%	(5)	(9%)	$18.74
Agricultural Equipment Operators	26	3	13%	1	4%	$22.29
Farmworkers, Farm, Ranch, and Aquaculture Animals	22	8	57%	2	9%	$21.84
First-Line Supervisors of Farming, Fishing, and Forestry Workers	15	2	15%	0	0%	$25.22
Graders and Sorters, Agricultural Products	11	0	0%	1	9%	$17.35
Commercial Pilots	<10	0	0%	0	0%	$19.49
First-Line Supervisors of Office and Administrative Support Workers	<10	0	0%	0	0%	$19.51
Production Workers, All Other	<10	0	0%	0	0%	$17.51
Maintenance and Repair Workers, General	<10	1	50%	0	0%	$15.79
Data Entry Keyers	<10	0	0%	0	0%	$14.21
Helpers--Production Workers	<10	0	0%	1	Insf. Data	$11.29
Soil and Plant Scientists	<10	0	0%	0	0%	$27.87
First-Line Supervisors of Helpers, Laborers, and Material Movers, Hand	<10	0	0%	0	0%	$20.47
Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	<10	0	0%	0	0%	$13.91
Light Truck or Delivery Services Drivers	<10	1	50%	0	0%	$15.37
Sales Representatives, Wholesale and Manufacturing, Technical and Scientific Products	<10	0	0%	0	0%	$37.42
Industrial Machinery Mechanics	<10	0	0%	0	0%	$20.72
Accountants and Auditors	<10	1	100%	0	0%	$23.64
Heavy and Tractor-Trailer Truck Drivers	<10	0	0%	0	0%	$16.85

Tourism[13] by Employment – (4-Digit NAICS)

The vast majority of employment within this industry sector is found within one subsector: Restaurants and Other Eating Places (127). Over the past five years, Restaurants and Other Eating Places job growth was flat, but it is expected to add 14 jobs through 2020. The sector with the highest average earnings is Other Amusement and Recreation Industries ($15,926), while the sector with the lowest is Traveler Accommodation ($13,562).

Industry	2015 Jobs	'10-'15 Change	CE '10-'15	'15-'20 Change	CE '15-'20	'15 LQ	Average Earnings
Restaurants and Other Eating Places	127	(2)	(25)	14	5	0.67	$14,578
Traveler Accommodation	22	(7)	(10)	(2)	(2)	0.62	$13,562
Other Amusement and Recreation Industries	12	Insf. Data	1	2	1	0.48	$15,926

Staffing Patterns for Tourism (Top 4-digit SOC)

The majority of employment within this industry sector is found within five occupations that are within the food service industry: Cooks (31); Fast Food and Counter Workers (24); Waiters and Waitresses (23); Supervisors of Food Preparation and Serving Workers (13); and Food Service Managers (11). All are expected to grow over the next five years.

Within this industry sector, Food Services Managers is the occupation paying the highest median wage at $12.33/hr. The occupation with the lowest median earnings is Fast Food and Counter Workers at $9.78/hr.

Occupation	2015 Employment	Change, 2010-2015		Projected Change, 2015-2020		Median Hourly Earnings
Cooks	31	(1)	(3%)	3	10%	$10.77
Fast Food and Counter Workers	24	1	4%	6	25%	$9.78
Waiters and Waitresses	23	(3)	(12%)	1	4%	$9.93
Supervisors of Food Preparation and Serving Workers	13	0	0%	2	15%	$11.61
Food Service Managers	11	(2)	(15%)	1	9%	$12.33

[13] 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[14], *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.

[14] 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.

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.

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

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

Modoc County Input Session Takeaways

- There are a variety of resources, services, and planning efforts that exist currently in Modoc County, but each community within the county is doing things on their own. Participants recognized that county-wide collaboration and aligning these efforts could help to maximize resources and increase the reach of influence.
- Modoc County has several highly engaged communities that leads to a high level of involvement by community members. Participants emphasized the importance of ensuring adequate follow up throughout these collaborative efforts; continuing communication about results and next steps to ensure that individuals stay engaged and see the impact of their involvement. A website to communicate all of this information could be helpful to keep everyone informed.
- Participants identified entrepreneurship and small business ownership as great opportunities in Modoc County. There is commercial space available in Alturas and other areas of the county as well as a variety of service gaps that need to be filled. Entrepreneurship can help to make the connection between the available space and service needs of the community.
- Much of Modoc County's employment is in State or Federal government positions, due in part to the high proportion of public lands in the county. Many local jobseekers do not apply for these State and Federal jobs, potentially because the hiring process is not centralized in Modoc County. These jobs could provide great employment opportunities for local jobseekers if connections are made with these public entities to increase awareness and advertising of open positions.
- There is a perception among youth in the county that they need to leave the area to find good employment. While it is inevitable that some will leave for jobs or education, promoting the opportunities that are available locally to high school students may help some see what is available to them if they stay, especially the career pathways that are available for growth beyond entry level or low-wage positions.

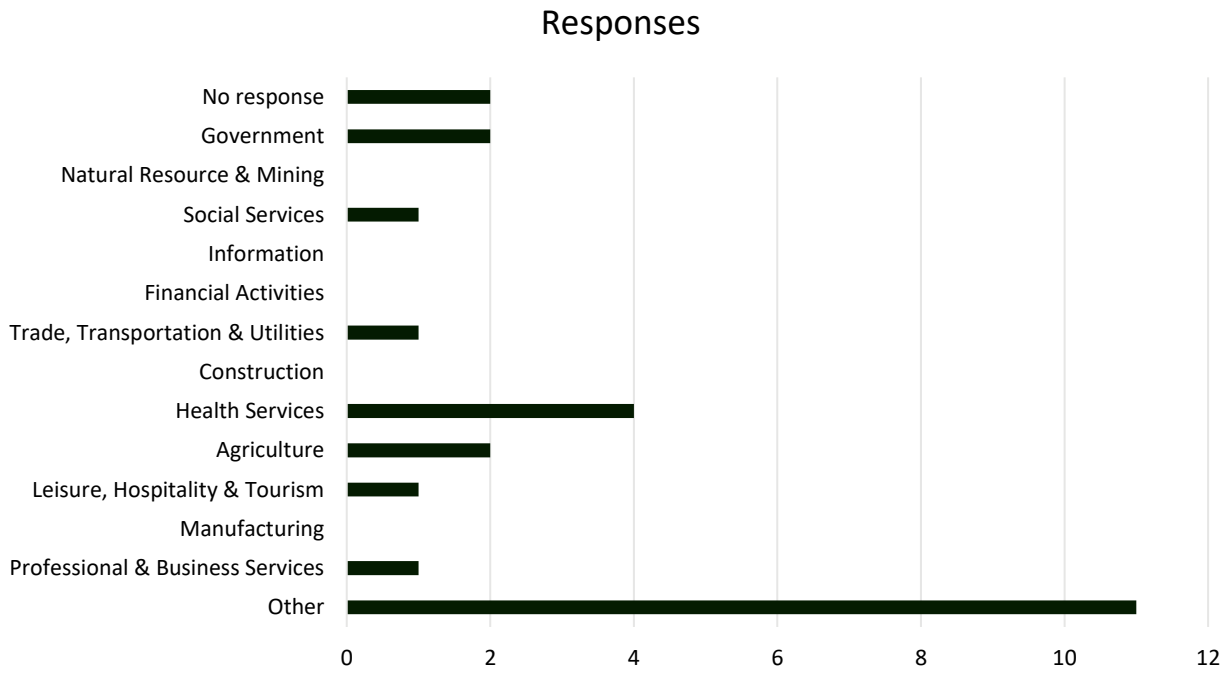
Modoc County Survey Responses

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

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

Which industry best describes your company?



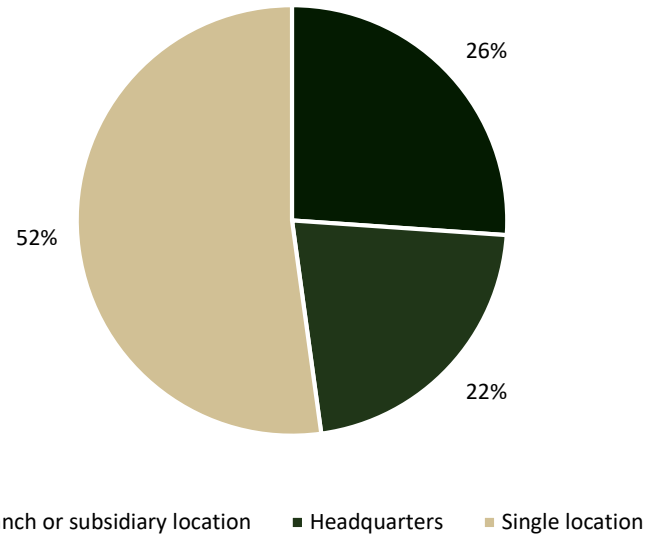
How many employees do you have?

Number of employees	Average
Total	41
Full-time	27
Part-time	5
Seasonal	19
Temp	2

How many total employees do you have by county?

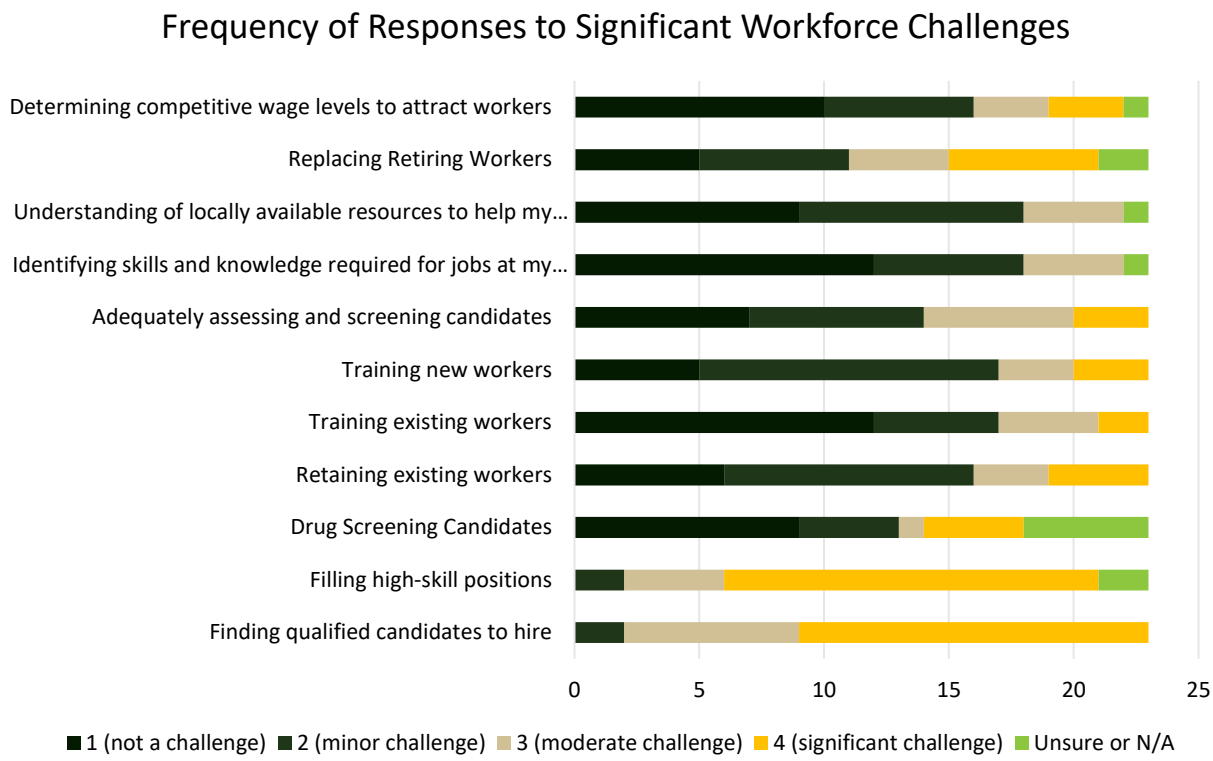
County	Average
Butte	0
Del Norte	0
Lassen	8
Modoc	50
Nevada	0
Plumas	0
Shasta	0
Sierra	0
Siskiyou	1
Tehama	0
Trinity	0

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	2	7	14	0
Filling high-skill positions	0	2	4	15	2
Drug Screening Candidates	9	4	1	4	5
Retaining existing workers	6	10	3	4	0
Training existing workers	12	5	4	2	0
Training new workers	5	12	3	3	0
Adequately assessing and screening candidates	7	7	6	3	0
Identifying skills and knowledge required for jobs at my company	12	6	4	0	1
Understanding of locally available resources to help my company	9	9	4	0	1
Replacing Retiring Workers	5	6	4	6	2
Determining competitive wage levels to attract workers	10	6	3	3	1



Top Five Most Challenging Workforce Issues from Above

Top Five Challenges	Responded "Moderate Challenge" or higher
Finding qualified candidates to hire	21
Filling high-skill positions	19
Replacing retiring workers	10
Retaining existing workers	10
Adequately Assessing and screening candidates	9

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

Challenge	Top Responses
Finding qualified workers	12
Retention of employees	3
Finding candidates who will relocate to rural areas	3
Filling high-skilled positions	2
Finding workers who can pass background check	1
Trying to pay a competitive wage	1
Knowing where to post vacancies	1
Working with union regulations	1

What is the average vacancy length for open positions?

The average length based on all responses is 10.69 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	1.0	1
1 - 2 years	0.8	0-1
3 - 4 years	0.5	0-1
5 - 7 years	1.1	1.0

Number of replacement positions	Average	Range
0-12 months	2.9	2-3
1 - 2 years	2.6	2-3
3 - 4 years	2.0	2
5 - 7 years	2.1	2

Number of retiring positions	Average	Range
0-12 months	1.4	1
1 - 2 years	1.1	1
3 - 4 years	1.1	1
5 - 7 years	1.4	1

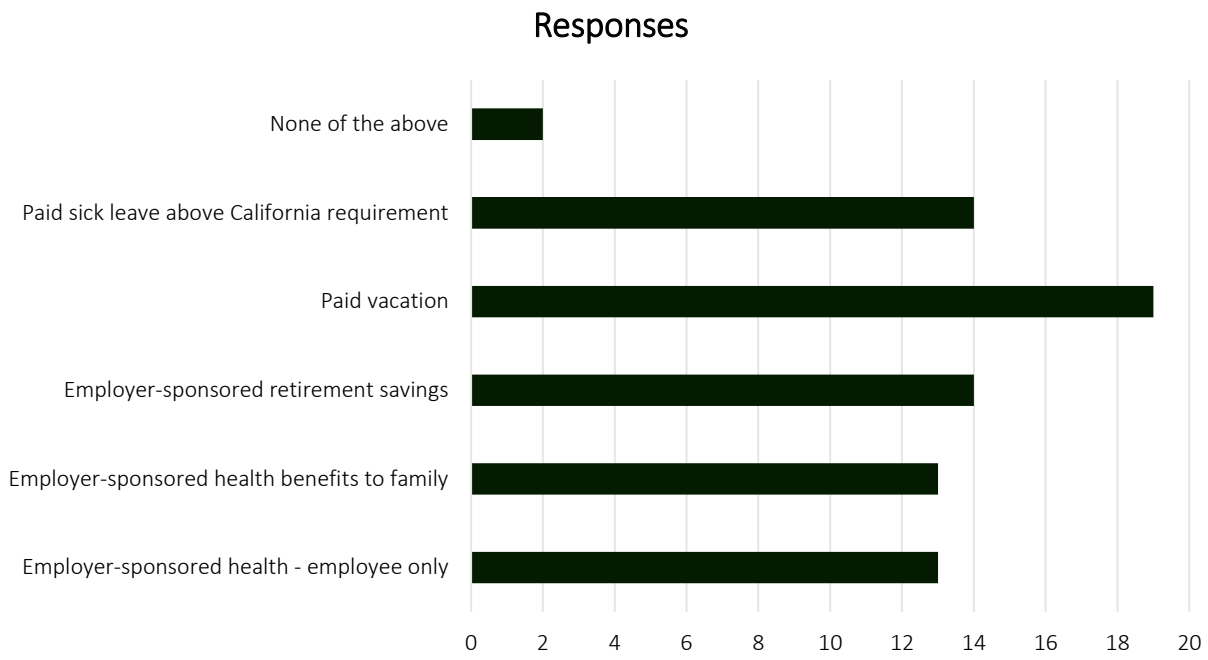
Please provide information regarding your current wages for up to 3 of your top full-time occupations by number of employees.

Title: Medical Personnel
Job Description: Nurse, paramedic, dental assistant, lab tech
Average number of jobs at location: 2-3
Desired/required certificates/credentials: Varies based on role, but: CA-CNS certification; CPR certification; RN license; IV certification; Paramedic license: X-ray certification; CLS license
Average entry level: $21.80/hr
Average mid-level: $27.35/hr
Average advanced-level: $29.83/hr

Top Occupation #2
Title: Entry Level Workers
Job Description: Cashier, waitress, stocking/inventory, dishwasher
Average number of jobs at location: 5
Desired/required certificates/credentials: None; food handler's card (preferred)
Average entry level: $10.50/hr
Average mid-level: $11.63/hr
Average advanced-level: $12.32/hr

Top Occupation #3
Title: Management Positions
Job Description: Day-to-day operations; managing other employees; placing orders
Average number of jobs at location: 2-3
Desired/required certificates/credentials: None; related work experience and computer skills preferred
Average entry level: $13.34/hr
Average mid-level: $22.10/hr
Average advanced-level: $25.47/hr

Do you provide any of the following health benefits?



Most difficult to fill positions and why

Position	Responses	Reason
Positions requiring advanced skills/degree	1	Lack of candidates.
Social workers/counselors	1	Lack of candidates.
Drivers	1	Passing background check.
Special education teachers	1	Lack of candidates.
Entry level	1	Dependability.
Cook	1	No training.
Hostess	1	Low pay, no tips.

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

Title: Manager
Job Description: Day-to-day operations; managing other employees; placing orders
Number of current openings: 1
Desired or required certificates or credentials (if any): None, BA preferred
Hourly/annual wage ($) $19.40

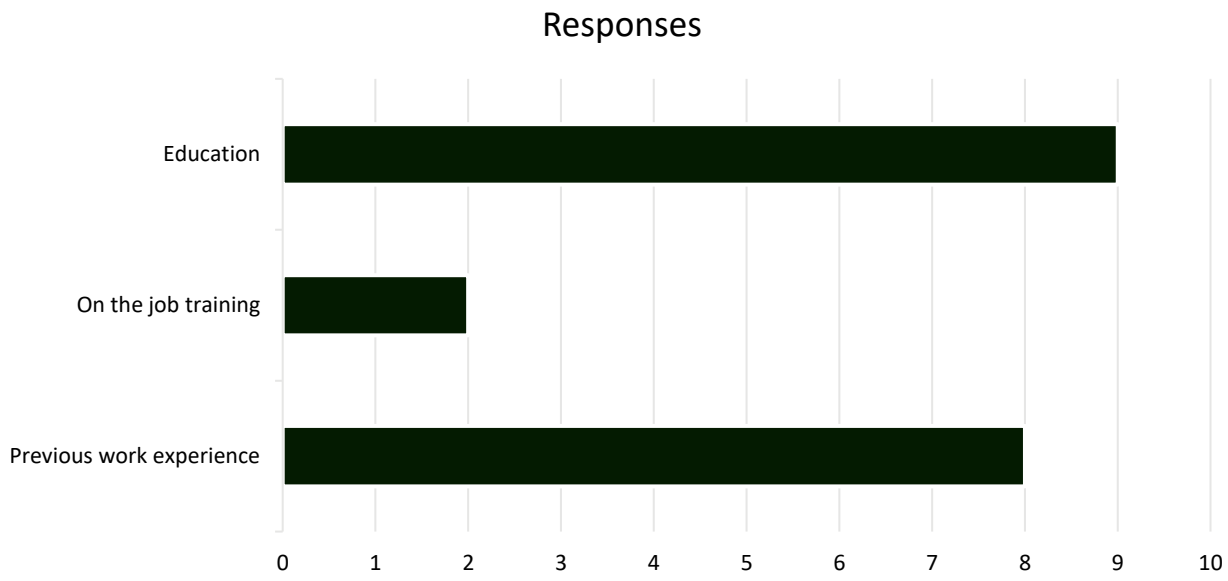
Title: Medical Professionals
Job Description: Nurse, paramedic, dental assistant, lab tech
Number of current openings: 20
Desired or required certificates or credentials (if any): Varies with position, but: CAN license; CPR certification; RN license; LVN license; Paramedic license; CLS license
Hourly/annual wage ($) $27.83/hr

Title: Entry level positions
Brief job description: Primarily food service (servers, hosts); maintenance
Number of current openings: 7
Desired or required certificates or credentials (if any): None
Hourly/annual wage ($) $11.66/hr

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

Factors	Responses
Lack of qualified candidates, generally	7
Lack of soft skills	5
Lack of candidates for positions requiring high skill/education level	3
Rural location	3
Undesirable work schedule	2
Candidates passing drug test	1
Low wages	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
Computer skills	5
Customer service skills	5
Soft skills	4
Agricultural experience	1
Money handling	1
Food handlers certificate	1
Medical coder	1
GIS and GPS skills	1
Phone skills	1

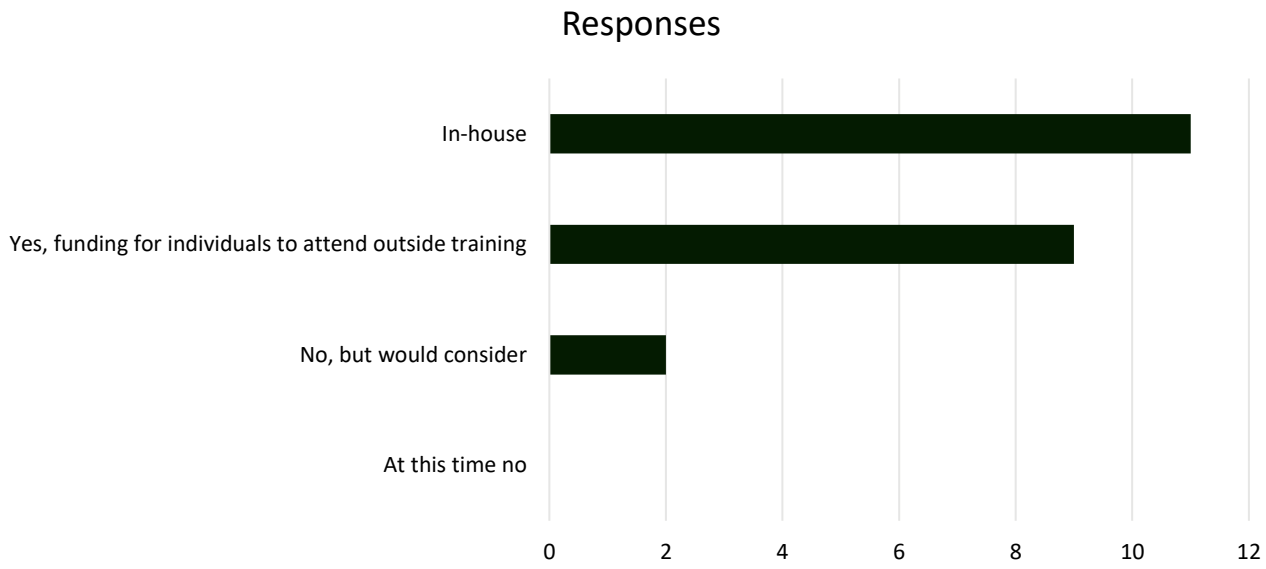
What other {if any} skills and/or experience levels are most difficult to find?

Top Responses	Responses
Previous job experience	2
Interpersonal skills	2
Customer service skills	2
Nurse with ER experience	1
Leadership skills	1
Classroom aids	1
Computer skills	1
Basic math skills	1

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

Top Responses	Responses
AA or BA	3
Food handlers certification	2
CA Dept. of Public Health licenses	1
Certified technicians	1
Class A CDL	1
HS diploma	1
RDA	1
RDH	1
Teaching license	1
X-ray certification	1

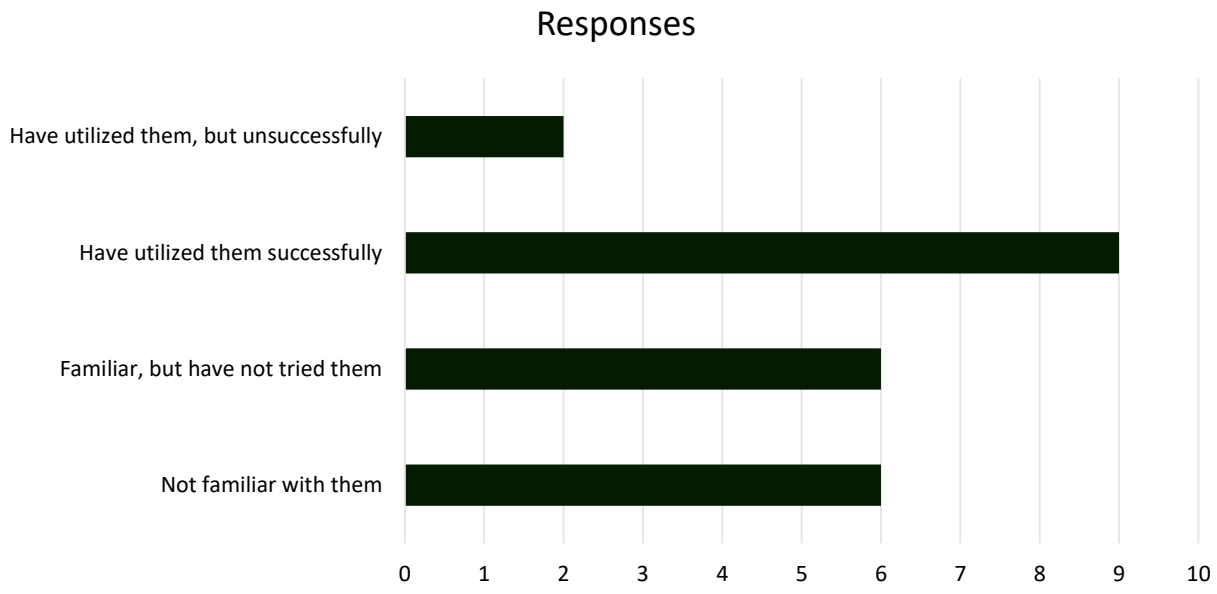
Do you offer training or other professional development, above and beyond initial on-the-job training?



How do you rate the following?

Top Responses	Excellent	Good	Poor	Fair	Unsure
Soft skills of workers	1	9	1	9	0
Hard/technical skills of workers	1	10	2	7	0
Overall quality of entry-level workers	0	7	1	12	0
Overall quality of high-skill workers	4	11	1	4	0
Quality of education and training programs	3	10	3	3	1
Knowledge of available services from America's Job Center of California (e.g. assistance with job ads)	4	5	3	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?



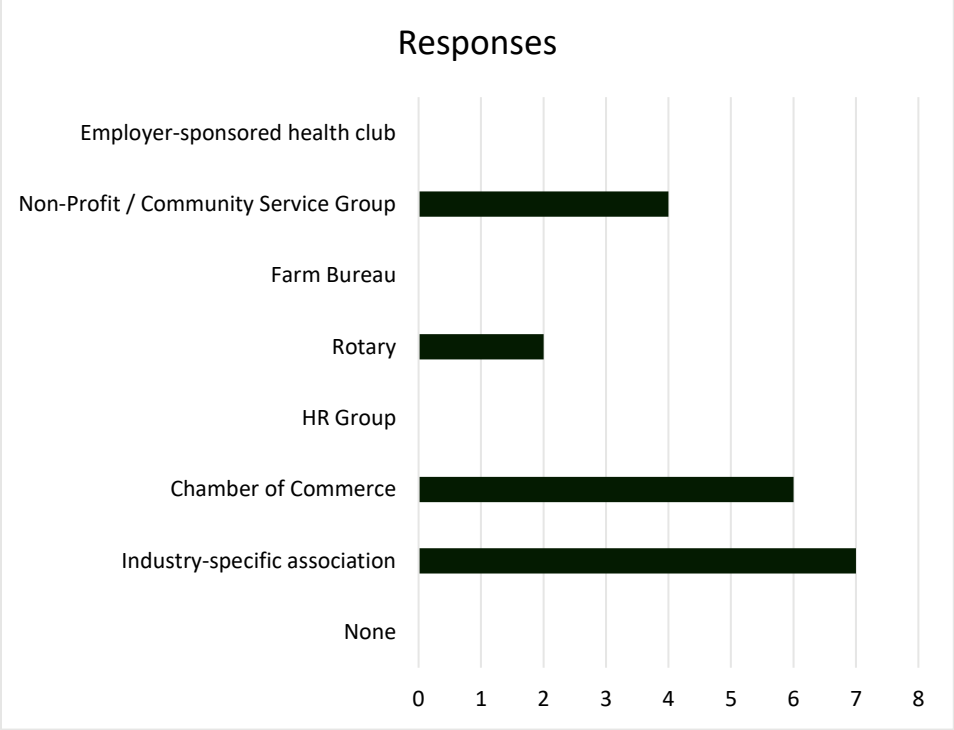
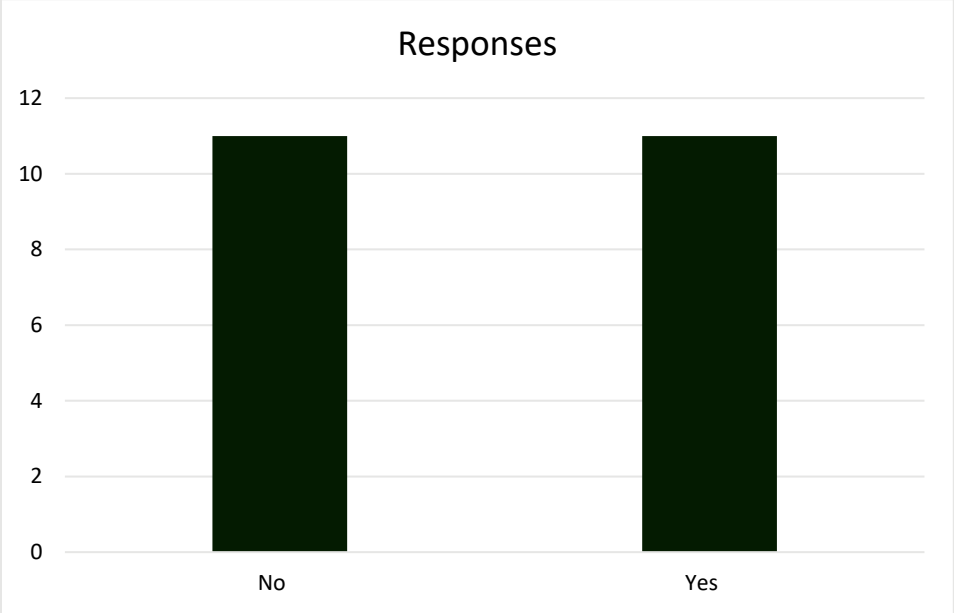
If utilized, if you could improve one thing about your local America's Job Center in California office and/or business service center, what would it be?

Top Responses	Responses
More workshops	3
Improved candidate pool	1
Resume building assistance	1
Location closer to clients	1
Shorter job fair, 2 hours	1
Follow up after presentations	1
More outreach and recruitment	1

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

Services	Responses
Employee recruitment	11
Candidate screening/assessment	9
On-the-Job Training (OJT)	9
Employee education	8
Employer professional development seminars	8
Other training resources	8
Benefits of hiring a veteran	7
Pre-employment testing	7
Assistance with employee retention	6
Hiring ex-offenders (a second chance)	6
Labor market information, wage data	5
Tax credit information	5
Job analysis and profiling information	3
On-site assistance for business downsizing	2
Would like to know of programs that provide workers at no cost	1

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?