NoRTEC

Northern Rural Training and Employment Consortium (NoRTEC)

Butte 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

Table of Contents

Executive Summary 1
Key Findings 1
Recommendations 2

Butte County 4
Demographic and Labor Force Characteristics 4
Human Capital 8
Industry Sector Analysis 10
Occupation Analysis 14
High Demand Jobs – Education and Training 18
Detailed Industry Analysis 21

Appendix 32
Data Sources and Glossary of Key Terms 32
Industry Sector Definitions 34
Butte Input Session Takeaways 38
Butte County Survey Summary 39

Executive Summary

This report provides a detailed Demographic, Labor Market and Industry/Sector Analysis for Butte 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 increased at a rate of 4.8% over the past ten years. This outpaced growth within the NoRTEC region, which was 1.3%. However, it lags growth within the state which was 9.3% over the same time period.
- The median household income in the county is $43,165, which is slightly below the average for the NoRTEC region, which is $43,977. It is much lower than the state average, which is $61,489. The poverty rate for the county is 21.9%. This is both higher than the NoRTEC region and state averages, which are 18.6% and 16.4%, respectively.
- Over the past ten years, unemployment trends within the county have largely matched the state's trends. However, the unemployment rate has consistently been 1 to 2 percentage points higher.
- The county's top sector by employment is Health Care and Social Assistance, which makes up over 20% of employment within the county. Other significant employment sectors include: Government; Retail Trade; and Accommodation and Food Services. All of these sectors experienced growth over the past five years, with the Health Care and Social Assistance sector adding over 4,500 new jobs over the past five years.
- Top occupations by employment include: Office and Administrative Support (13,717 employees); Sales and Related Occupations (9,109 employees); and Food Preparation and Serving Related Occupations (8,431 employees).
- For high demand occupations, many fall within the Health Care and Social Assistance sector. While wages for many of these occupations tend to be low, the average hourly wage for Registered Nurses is $37.11/hr, and through 2020, it is projected that there will be 101 annual openings.
- Many of the top occupations by employment are projected to grow through 2020. Leading the way is Personal Care Aides (602 new jobs), followed by Fast Food and Counter Workers (330 new jobs); Nursing, Psychiatric, and Home Health Aides (273 new jobs); and Registered Nurses (248 new jobs).
- According to feedback from the two input sessions held in May 2016, entrepreneurship is a big opportunity for Butte County and the region.

- Participants also mentioned that employers are having a difficult time finding the right candidate. While they may have a high volume of candidates, they often do not have the ability to find the right information or validate the skills of these candidates. Because of this, turnover is a big problem for many employers, and they are spending more and more time and money in recruiting, screening, and hiring processes.
- Based on survey results, the most significant challenges for employers within the county include filling high-skill positions and finding qualified candidates to hire.
- For difficult to fill positions, most employers indicated that previous work experience 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 Butte County all five sectors are present and are recommended for the county.

Health Care

- Health Care is the largest sector by employment within Butte County and added 4,500 new jobs over the past five years. It is projected to add over 2,300 new jobs through 2020. Of the top ten high demand occupations within the county, six are within the Health Care sector. These trends indicate that this should be a priority sector for the county.
- Key occupations within Health Care include: Registered Nurses; Nursing, Psychiatric, and Home Health Aides; Personal Care Aides; and Miscellaneous Healthcare Support Occupations. All have experienced growth over the past five years and are projected to growth through 2020. Registered Nurses, which makes up the largest occupation also has one of the highest wages at $34.80 (4-digit SOC).

Manufacturing

- For the manufacturing sector, key subsectors for the county include Beverage Manufacturing; Bakeries and Tortilla Manufacturing; Miscellaneous Manufacturing; Grain and Oilseed Milling; Other Wood Product Manufacturing; and Converted Paper Product Manufacturing. All have experienced growth over the past five years and are projected to grow through 2020. They also have a relatively high Location Quotient, which means employment within these sectors is more highly concentrated than in similar industries in other regions of the country.

- Key occupations to focus on within manufacturing include: Laborers and Material Movers, Hand; Miscellaneous Production Workers; Miscellaneous Assemblers and Fabricators; and Miscellaneous Food Processing Workers. These occupations make up a majority of employment within the manufacturing sector. However, it should be noted that median hourly earnings for these occupations tend to be between $12 and $13/hr. High wage occupations within manufacturing for Butte County include: First-Line Supervisors of Production and Operating Workers ($21.73/hr); General and Operations Managers ($38.61/hr); Industrial Machinery Installation, Repair, and Maintenance Workers ($17.80/hr); Sales Representatives, Wholesale and Manufacturing ($24.36/hr) and Machinists ($18.74/hr). Of these higher paying occupations, the greatest opportunity for future employment is found within Industrial Machinery Installation, Repair and Maintenance Workers, which is projected to add 14 new jobs through 2020.

Agriculture

- The Agriculture sector is an important sector within the county, as it has a Location Quotient of 3.03. This indicates that employment within this sector is much more highly concentrated within the County than in other regions throughout the country. Recent employment growth has been steady and is projected to experience flat to modest growth through 2020. The vast majority of agriculture employment within the county is in Crop Production.
- Key occupations within Agriculture include: Miscellaneous Agricultural Workers; Farmers, Ranchers, and Other Agricultural Managers; Laborers and Material Movers, Hand; and Driver/Sales Workers and Truck Drivers. Median hourly earnings range from $12.19 for Miscellaneous Agricultural Workers (the largest occupation) to $20.05 for Farmers, Ranchers, and Other Agricultural Managers.

Tourism

- The Tourism sector falls across several business categories including Hotels and Restaurants; Travel Agencies and Tour Operators; Arts, Entertainment and Recreation; and Sightseeing Transportation. Within the county, the largest subsectors include Restaurants and Other Eating Places; Other Amusement and Recreation Industries; and Drinking Places (Alcoholic Beverages). Of the three, Restaurants and Other Eating Places is projected to see the most growth.
- Key occupations for the Tourism sector primarily fall within food services: Fast Food and Counter Workers; Cooks; Waiters and Waitresses; Supervisors of Food Preparation and Serving Workers; and Dishwashers. Of these, Supervisors, etc. pay the highest median wage ($14.07/hr).

Information Technology (IT)

- Although total employment is lower in IT than in the other recommended sectors, many IT occupations are in high demand and pay relatively higher wages.
- The most in demand occupations for IT include: Software Developers and Programmers; Computer Support Specialists; and Computer and Information Analysts. All three pay a median hourly wage of at least $25.44/hr.

Butte County

Introduction

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

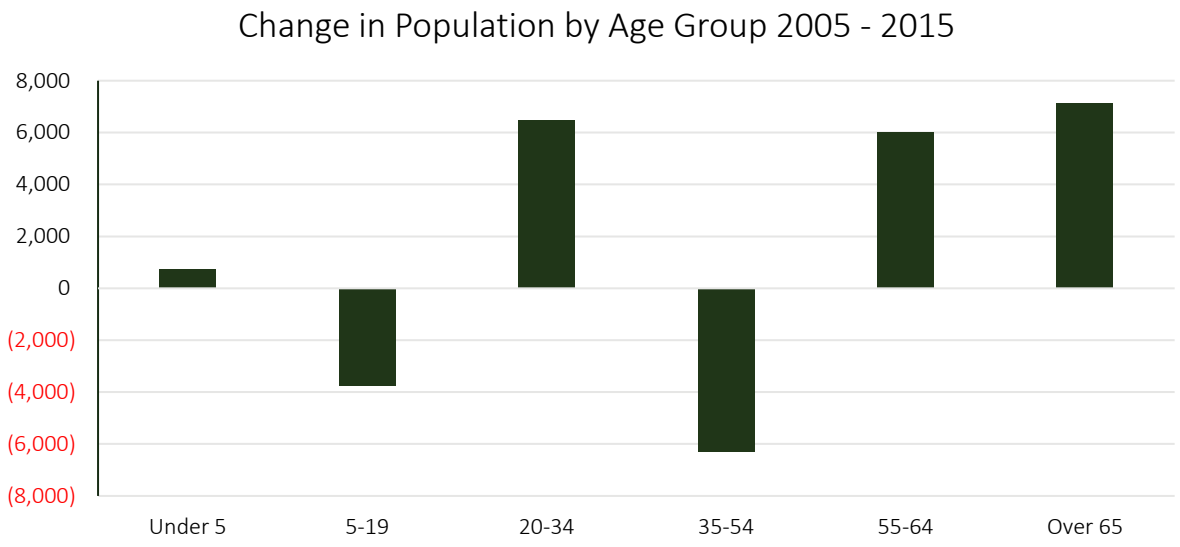
Total Population

Butte County is located at the southern end of the NoRTEC region, along the western slope of the Sierra Nevada Mountains. The largest city is Chico. The population in Butte County increased from 214,735 to 225,042 over the past ten years.[1] This represents a 4.8% increase, which is lower than the state's growth rate of 9.3% and the national growth rate of 8.7%. Looking forward from 2015, the region's population is projected to continue to increase 2% over the next five years. The majority of this growth will be among the non-working age ranges of people younger than age 19 and older than age 65.

In general, Butte County has an aging population. Over the past ten years, the population of people 55 years and older increased significantly, while the population decreased for people ages 5 through 19 and 35 through 54. The aging population is a concern for the economy because it will impact the availability of labor over the next decade.

Age	2005 Population	2015 Population	Change (2005-2015)		Projected Change (2015-2020)	
Under 5	11,573	12,318	745	6.4%	1,135	9.2%
5-19	45,183	41,419	(3,764)	(8.3%)	1,377	2.6%
20-34	47,425	53,889	6,464	13.6%	(2,701)	(5.0%)
35-54	54,714	48,397	(6,317)	(11.5%)	527	1.1%
55-64	23,731	29,759	6,028	25.4%	(891)	(3.0%)
Over 65	32,109	39,260	7,151	22.3%	6,194	15.8%
Total	214,735	225,042	10,307	4.8%	4,509	2.0%

[1] EMSI Analyst, 2016.1



Race/Ethnicity

The population of the region is fairly diverse; with 73% identifying as White in 2015, followed by 15% identifying as Hispanic. The top three fastest growing race/ethnicity groups in the county are Hispanic, Two or More Races, and Asian.[2]

Race/Ethnicity	2015 Population	------Change, 2005-2015------	
White	164,408	(2,787)	(1.7%)
Hispanic	35,485	8,825	33.1%
Asian	10,146	1,908	23.2%
Two or More Races	7,654	1,683	28.2%
American Indian or Alaskan Native	3,517	155	4.6%
Black	3,374	445	15.2%
Native Hawaiian or Pacific Islander	457	77	20.3%

[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, Butte County has a higher percentage of those with an Associate's Degree or higher. However, the country trails the state and US averages.

Education Level	2015 Population	2015 Percent	2015 Percent NoRTEC	2015 Percent California	2015 Percent US
Less Than 9th Grade	8,288	5.7%	5.1%	11.2%	6.6%
9th Grade to 12th Grade	10,716	7.4%	8.4%	8.2%	7.7%
High School Diploma	32,038	22.1%	24.9%	21.0%	28.1%
Some College	43,532	30.1%	30.5%	21.7%	21.0%
Associate's Degree	13,449	9.3%	9.7%	7.8%	7.8%
Bachelor's Degree	24,790	17.1%	14.2%	19.3%	18.0%
Graduate Degree and Higher	12,044	8.3%	7.2%	10.9%	10.7%

Income

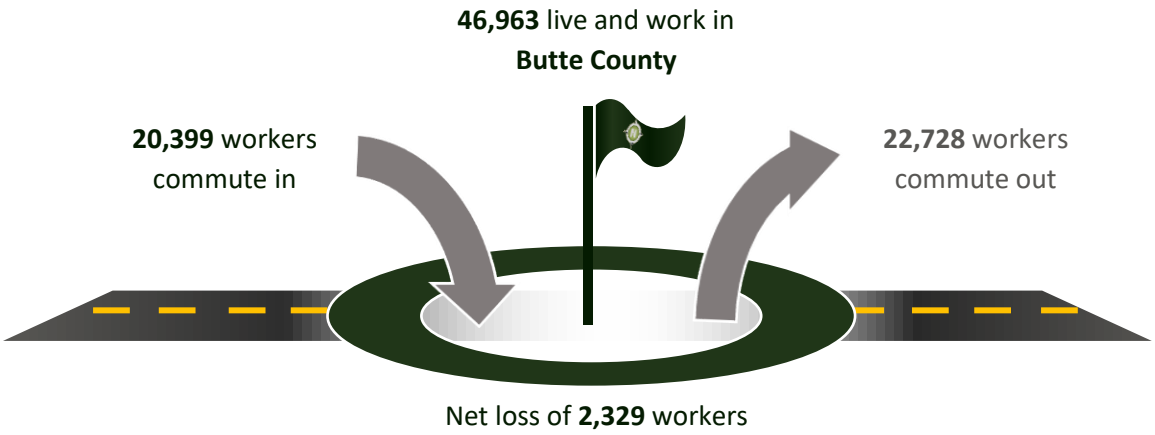
Butte County has the second highest poverty rate in the NoRTEC region at 21.9%, which is higher than the state and national rate of 14.8%.[3] Butte County's Median Household Income ($43,165) is the sixth highest amongst the 11 counties and is well below that of California and United States.

County	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, Butte County had over 20,000 workers commuting into the county and over 22,500 commuting out. This means that Butte County was a slight net exporter of commuters.[4] However, the vast majority of Butte County workers (46,963) both lived and worked within the county. Of those commuting into Butte County, the largest number came from Sacramento County (3,078; or 4.4% of Butte County's workforce); seconded by Sutter County (1,769, or 2.5% of the workforce). The top destinations for Butte County out-commuting workers were Sutter County (2,032; 3.0% of the County's residents) and Glenn County (1,965; 2.9% of the workforce).



[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, 101,671 individuals participated in the Butte County labor force, of these, 94,203 were employed and 7,468 were unemployed. Over the last 20 years, employment in the county was at its highest in October 2006 and lowest in January 1996. As of January 2016, the unemployment rate was 7.3%, higher than the unemployment rate of California (5.8%) and the United States (4.9%).

EMPLOYMENT IN BUTTE COUNTY 1996-2016 [5]		
Peak	October 2006 (97,252)	January 2016 (94,203 – 3% lower)
Trough	January 1996 (70,940)	January 2016 (94,203 – 33% higher)
Jan 2016	Employment: 94,203 Labor Force: 101,671 Unemployment rate: 7.3%	

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

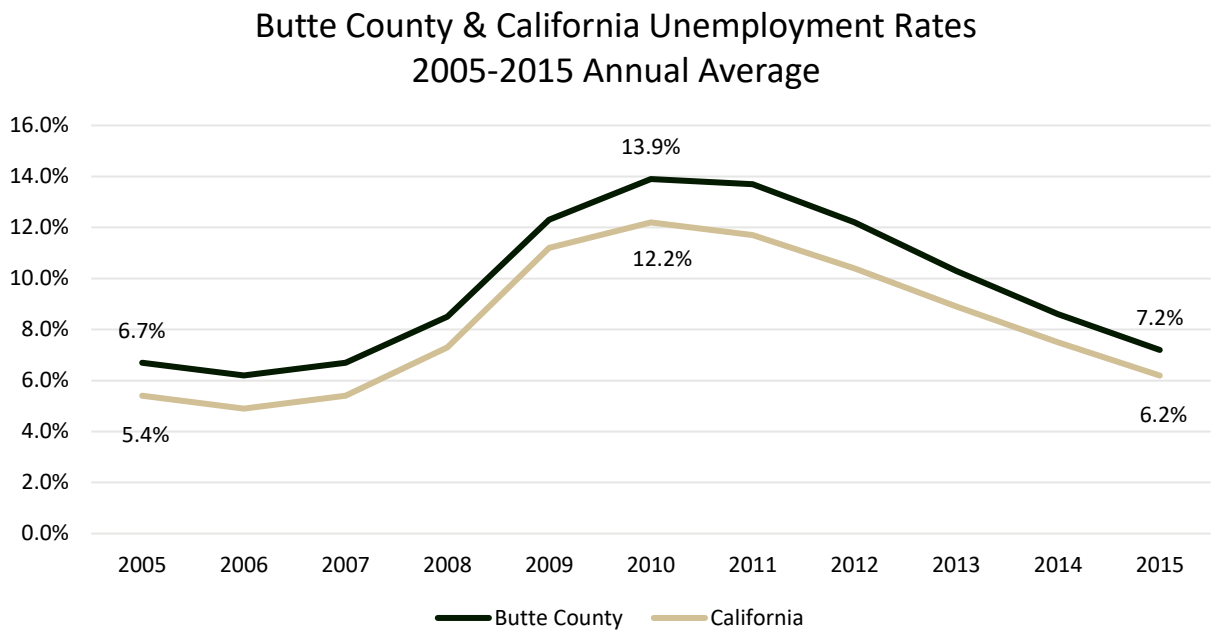
The labor force participation rate is sensitive to demographic changes because participation rates vary across age, gender, income and race/ethnicity. For example, in 2015 the national labor force participation rate for individuals older than age 54 (39.9%) was significantly lower than for those between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

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 considerable proportion of Butte County's population. The older worker population (55 to 64 years of age) was estimated to be 29,750 in 2015, which is equivalent to 13% of the county's population.[6] A large number of these older workers are expected to retire in the next ten years. Even more notably, those who are 65 years and older were estimated to total 39,260, equivalent to 17% of the county's 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 Labor reports a precipitous decrease in unemployment in Butte County between 2010 and 2015. Over the period analyzed, the unemployment rate struck its peak in 2010 at 13.9% and dipped to its lowest rate in January 2006 at 6.2%. The unemployment rate for the state of California followed a similar trend as Butte County between 2010 and 2015, though the story at the state level is more positive; the state's rate is consistently 1 to 2 percentage points lower than Butte 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 Butte 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 Butte 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).

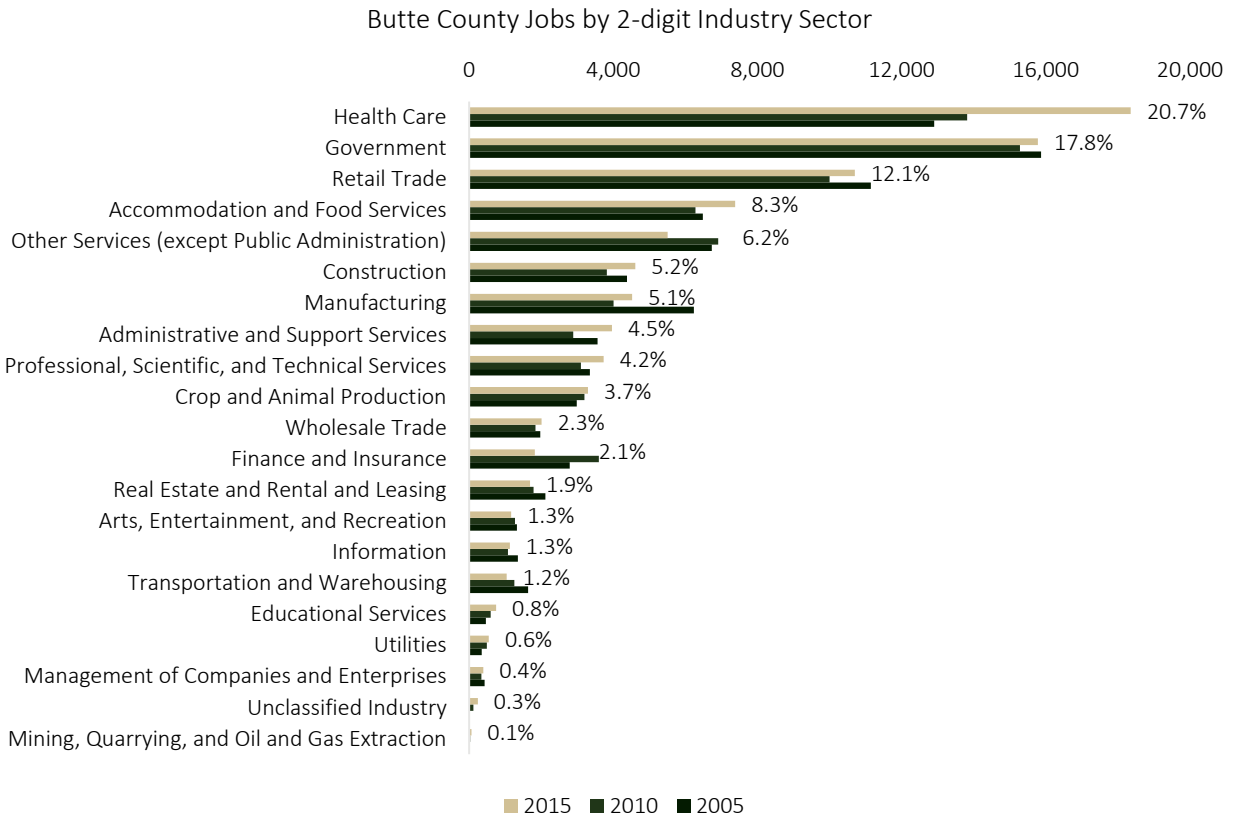
The competitive effect helps to determine the amount of job growth that occurred due to the county's competitive advantages as compared to the national growth in general and the national growth rate for each sector. In other words a positive number indicates that the county experienced more growth than 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 the Butte County region employing the most workers are Healthcare and Social Assistance (18,360, 20.7% of all county employment), Government (15,783, 17.8%), Retail Trade (10,699, 12.1%), and Accommodation and Food Services (7,383, 8.3%). It is worth noting that these four industries grew in the past five years and are projected to grow again in the next five. In contrast, industries that lost a significant number of employees (at least 200) include Finance and Insurance, Other Services (Except Public Administration), and Transportation and Warehousing.



In terms of past growth, Healthcare and Social Assistance significantly outpaced other industries between 2010 and 2015, adding over 4,500 new jobs and contributing almost two-thirds of Butte County's net new job growth. Distantly following Healthcare and Social Assistance were Accommodation and Food Services, and Administrative and Support and Waste Management and Remediation Services.

Looking deeper into job change in the county, competitive effect reveals how many jobs were created or retained due uniquely to characteristics of Butte County. According to these data, again Healthcare and Social Assistance is the strongest (adding 2,733 jobs due to competitive effect). Others that performed better in Butte County than other regions in the United States include Government, Administrative and Support and Waste Management and Remediation Services, and Manufacturing. Looking at both location quotient scores and 2015 employment, the following industries are strongly concentrated in Butte County: Crop and Animal Production, Healthcare and Social Assistance, and Other Services (Except Public Administration).

Industry	2010 Jobs	2015 Jobs	Change in Jobs 2010 - 2015		Change in Jobs 2015-2020		Location Quotient	Comp. Effect
Health Care	13,815	18,360	4,545	33%	2,346	13%	1.65	2,733
Government	15,282	15,783	501	3%	541	3%	1.15	768
Retail Trade	9,995	10,699	704	7%	703	7%	1.16	(37)
Accommodation and Food Services	6,280	7,383	1,103	18%	697	9%	0.99	101
Other Services (except Public Administration)	6,919	5,509	(1,410)	(20%)	(230)	(4%)	1.30	(1,474)
Construction	3,999	4,614	615	15%	49	1%	0.98	216
Manufacturing	3,819	4,525	706	18%	167	4%	0.64	467
Administrative and Support Services	2,891	3,959	1,068	37%	261	7%	0.71	561
Professional, Scientific, and Technical Services	3,106	3,730	624	20%	483	13%	0.66	169
Crop and Animal Production (Agriculture)	3,204	3,299	95	3%	47	1%	3.03	(35)
Wholesale Trade	1,837	2,011	174	9%	205	10%	0.59	44
Finance and Insurance	3,602	1,824	(1,778)	(49%)	32	2%	0.52	(1,928)
Real Estate and Rental and Leasing	1,784	1,690	(94)	(5%)	14	1%	1.15	(209)
Arts, Entertainment, and Recreation	1,274	1,168	(106)	(8%)	(44)	(4%)	0.79	(265)
Information	1,075	1,127	52	5%	111	10%	0.68	20
Transportation and Warehousing	1,256	1,043	(213)	(17%)	(44)	(4%)	0.36	(371)
Educational Services	597	747	150	25%	243	33%	0.33	90
Utilities	495	548	53	11%	78	14%	1.71	42
Management of Companies and Enterprises	343	394	51	15%	(54)	(14%)	0.31	(15)
Unclassified Industry	117	239	122	104%	12	5%	1.64	43
Mining, Quarrying, and Oil and Gas Extraction	30	61	31	103%	0	0%	0.14	27

Key Industries

The following table shows the 20 largest industries in terms of employment in Butte County in 2015.[8] Of the top 20 largest industries, 14 of them added employment between 2010 and 2015, and two experienced triple-digit growth rates. These two industries are Individual and Family Services which grew at 331%, and Electronic Shopping and Mail-Order Houses (154% growth). Among the largest employing industries, the highest projected growth is within Electronic Shopping and Mail-Order Houses, General Medical and Surgical Hospitals, and Restaurants and Other Eating Places.

Industry	2015 Jobs	'10-'15 Change		Forecasted '15-'20 Change	
Restaurants and Other Eating Places	6,462	1,240	24%	642	10%
Education and Hospitals (Local Government)	6,078	(10)	(0%)	227	4%
General Medical and Surgical Hospitals	5,682	1,029	22%	768	14%
Local Government, Excluding Education and Hospitals	5,143	188	4%	199	4%
Individual and Family Services	5,038	3,870	331%	1,414	28%
Education and Hospitals (State Government)	3,208	419	15%	169	5%
Crop Production	2,170	102	5%	74	3%
Services to Buildings and Dwellings	1,778	344	24%	65	4%
Grocery Stores	1,694	33	2%	54	3%
Offices of Physicians	1,555	(42)	(3%)	(73)	(5%)
Department Stores	1,261	8	1%	186	15%
Employment Services	1,223	482	65%	7	1%
Nursing Care Facilities (Skilled Nursing Facilities)	1,095	25	2%	(18)	(2%)
Residential Building Construction	1,028	17	2%	64	6%
Building Equipment Contractors	909	197	28%	11	1%
Electronic Shopping and Mail-Order Houses	887	538	154%	282	32%
Other Amusement and Recreation Industries	867	(137)	(14%)	(72)	(8%)
Building Material and Supplies Dealers	867	30	4%	3	0%
Support Activities for Crop Production	819	(40)	(5%)	(36)	(4%)
Building Finishing Contractors	817	137	20%	(75)	(9%)

[8] 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 Groups

Butte County's top occupations include:

- Office and Administrative Support Occupations (13,717 jobs)
- Sales and Related Occupations (9,109 jobs)
- Food Preparation and Serving Related Occupations (8,431 jobs)
- Education, Training and Library Occupations (6,951 jobs)[9]

The median hourly earnings for all occupations range from $10.73/hr for Food Preparation and Serving Occupations to $40.39/hr for Legal 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 Butte County has a strong concentration of workers (above an LQ of 1.25) include

- Farming, Fishing and Forestry (3.26)
- Community and Social Service (1.59)
- Education, Training, and Library (1.38)
- Healthcare Support (1.34)
- Person Care and Services (1.29)

These are the occupation groups for which the region is highly specialized. For example, jobs in Farming, Fishing, and Forestry make up 3.26x 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 Earning	2015 Location Quotient
Office and Administrative Support	13,717	15.46%	$16.53	1.02
Sales and Related	9,109	10.27%	$16.14	1.00
Food Preparation and Serving Related	8,431	9.50%	$10.73	1.15
Education, Training, and Library	6,951	7.84%	$24.31	1.38
Healthcare Practitioners and Technical	5,914	6.67%	$40.02	1.24
Personal Care and Service	4,561	5.14%	$11.45	1.29
Management	4,545	5.12%	$38.77	0.95
Transportation and Material Moving	4,288	4.83%	$15.70	0.75
Building and Grounds Cleaning and Maintenance	3,932	4.43%	$13.13	1.16
Construction and Extraction	3,884	4.38%	$19.90	0.98
Production	3,589	4.05%	$16.51	0.68
Installation, Maintenance, and Repair	3,358	3.78%	$19.19	1.00
Healthcare Support	3,323	3.75%	$14.96	1.34
Business and Financial Operations	2,701	3.04%	$29.32	0.62
Community and Social Service	2,269	2.56%	$19.75	1.59
Farming, Fishing, and Forestry	2,174	2.45%	$13.57	3.26
Protective Service	1,422	1.60%	$23.16	0.72
Arts, Design, Entertainment, Sports, and Media	1,323	1.49%	$17.84	0.85
Computer and Mathematical	1,219	1.37%	$30.73	0.51
Architecture and Engineering	621	0.70%	$36.63	0.43
Life, Physical, and Social Science	555	0.63%	$29.74	0.77
Legal	476	0.54%	$40.39	0.65
Military	354	0.40%	$17.22	0.30

Top Occupations by Employment – 4 Digit SOC Codes

The following table displays the top occupational by total employment.[10] Median hourly earnings for these occupations range from $10.04 at the low end for Fast Food Counter Workers to $48.75 at the high end for General and Operations Managers. The greatest degree of growth is among Personal Care Aides, which increased 75% between 2010 and 2015; furthermore, this category is projected to increase another 38% over the next five years.

In Butte County all of the top occupations have experienced job growth in the last five years with the exception of Building Cleaning Workers, which experienced a significant loss. Additionally, all of these occupations, including Building Cleaning Workers, are projected to grow in the next five years. Occupations that have the most projected growth include Personal Care Aides; Nursing, Psychiatric, and Home Health Aides; Registered Nurses; and Fast Food and Counter Workers.

Generally speaking, healthcare practitioners and educational occupations, including Registered Nurses; Elementary and Middle School Teachers, and Postsecondary Teachers, are some of the most intriguing occupations on the list because of their high number of projected openings and earnings.

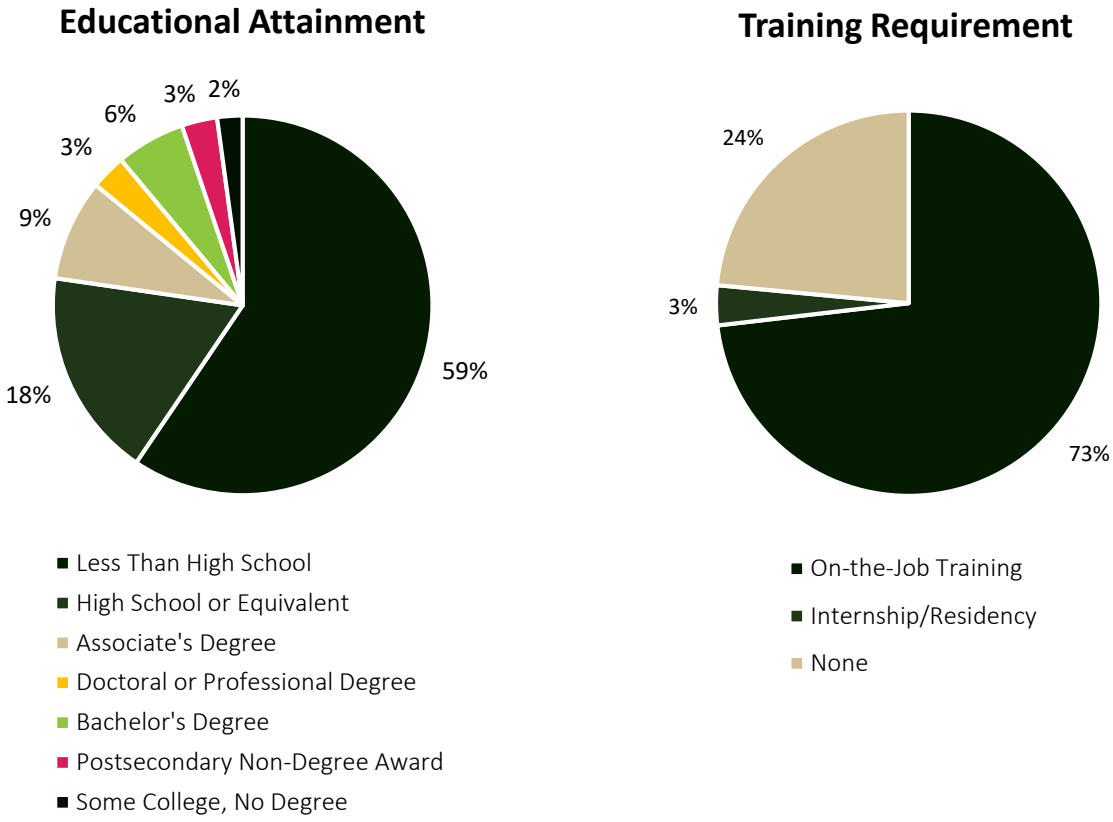
Occupation	2015 Employment	Change, 2010-2015		Projected Change, 2015-2020		Projected Annual Openings	Median Hourly Earnings
Fast Food and Counter Workers	3,011	586	24%	330	11%	199	$10.04
Retail Salespersons	2,826	99	4%	213	8%	144	$12.61
Office Clerks, General	2,525	281	13%	47	2%	63	$15.52
Secretaries and Administrative Assistants	2,520	235	10%	130	5%	60	$17.36
Registered Nurses	2,482	352	17%	248	10%	101	$37.11
Building Cleaning Workers	2,338	(298)	(11%)	56	2%	73	$12.61
Cashiers	2,316	85	4%	76	3%	117	$12.04
Laborers and Material Movers, Hand	2,001	244	14%	99	5%	81	$13.64
Miscellaneous Agricultural Workers	1,857	59	3%	33	2%	65	$12.73
Postsecondary Teachers	1,754	102	6%	86	5%	44	$35.50
Cooks	1,706	286	20%	117	7%	60	$11.01
Nursing, Psychiatric, and Home Health Aides	1,680	500	42%	273	16%	90	$12.77
Personal Care Aides	1,590	654	70%	602	38%	138	$10.20
Miscellaneous Healthcare Support Occupations	1,469	121	9%	64	4%	43	$17.01
Elementary and Middle School Teachers	1,410	45	3%	124	9%	58	$23.94
Driver/Sales Workers and Truck Drivers	1,380	78	6%	83	6%	42	$17.08
Waiters and Waitresses	1,356	164	14%	81	6%	84	$10.12

[10] Occupations are by 4 digit SOC code.

Occupation	2015 Employment	Change, 2010-2015		Projected Change, 2015-2020		Projected Annual Openings	Median Hourly Earnings
Stock Clerks and Order Fillers	1,239	44	4%	55	4%	49	$12.07
Grounds Maintenance Workers	1,219	166	16%	9	1%	39	$13.03
General and Operations Managers	1,184	148	14%	73	6%	38	$48.75

High Demand Jobs – Education and Training

Among high demand jobs in Butte County, over half of the jobs (66%) typically require less than a high school diploma.[11] Approximately 11% of these high demand jobs typically require at least a Bachelor's degree. In terms of training and experience requirements, about three quarters of these jobs (73%) require some type of training, which is typically on-the-job training. Average hourly earnings range from $10.01/hr for Combined Food Preparation and Serving Workers, Including Fast Food to $48.75/hr for General Operations Managers. Registered Nurses are expected to add the third highest number of jobs through 2020 with the second highest wage of $37.11/hr. Other growing occupations that pay high wages include: Postsecondary Teachers ($35.50/hr); First-Line Supervisors of Office and Administrative Support Workers ($23.97/hr); Elementary School Teachers, Except Special Education ($22.75/hr); Customer Service Representatives ($16.34/hr); Secretaries and Administrative Assistants ($15.98/hr); Laborers and Freight, Stock, and Material Movers, Hand ($15.30/hr); and First-Line Supervisors of Food Preparation and Serving Workers ($15.28/hr). Of these occupations, five require a high school diploma or less.



[11] A total of 20 occupations with the highest projected job growth from 2015 to 2020 are included in this analysis. These occupations are defined at the 5 digit SOC code level. EMSI Analyst 2016.1.

Description	2020 Jobs	2015 - 2020 Change	Annual Openings	Avg. Hourly Earnings	Typical Entry Level Education	Typical On-The-Job Training
Personal Care Aides	2,192	602	138	$10.20	Less than high school	Short-term on-the-job training
Combined Food Preparation and Serving Workers, Including Fast Food	2,897	317	170	$10.01	Less than high school	Short-term on-the-job training
Registered Nurses	2,730	248	101	$37.11	Associate's degree	None
Customer Service Representatives	1,323	219	78	$16.34	High school diploma or equivalent	Short-term on-the-job training
Retail Salespersons	3,039	213	144	$12.61	Less than high school	Short-term on-the-job training
Home Health Aides	758	176	49	$11.01	Less than high school	Short-term on-the-job training
Janitors and Cleaners, Except Maids and Housekeeping Cleaners	1,564	110	51	$13.83	Less than high school	Short-term on-the-job training
Elementary School Teachers, Except Special Education	1,190	96	45	$22.75	Bachelor's degree	Internship/residency
Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	1,613	94	38	$15.98	High school diploma or equivalent	Short-term on-the-job training
Nursing Assistants	1,070	87	37	$13.29	Postsecondary non-degree award	None
Postsecondary Teachers	1,840	86	44	$35.50	Doctoral or professional degree	None
Waiters and Waitresses	1,437	81	84	$10.12	Less than high school	Short-term on-the-job training
Social and Human Service Assistants	691	80	34	$13.37	High school diploma or equivalent	Short-term on-the-job training
Cashiers	2,360	75	116	$12.06	Less than high school	Short-term on-the-job training
General and Operations Managers	1,257	73	38	$48.75	Bachelor's degree	None
Laborers and Freight, Stock, and Material Movers, Hand	1,327	69	54	$15.30	Less than high school	Short-term on-the-job training
Cooks, Restaurant	737	65	27	$11.04	Less than high school	Moderate-term on-the-job training
Teacher Assistants	926	62	33	$13.32	Some college, no degree	None
First-Line Supervisors of Food Preparation and Serving Workers	561	61	27	$15.28	High school diploma or equivalent	None
First-Line Supervisors of Office and Administrative Support Workers	862	58	32	$23.97	High school diploma or equivalent	None

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 ten high demand occupations and how they are connected to some of the region's key industries.[12] Note that five of the top ten occupations are tied to the Health Care and Social Assistance industry.

Connection between Top Occupations and Key Industries

Top Occupations	Key Industries
Personal Care Aides	• Health Care
Combined Food Preparation and Serving Workers, Including Fast Food	• Accommodation and Food Services
Registered Nurses	• Health Care
Customer Service Representatives	• Retail Trade • Administrative and Support Services • Finance and Insurance
Retail Salespersons	• Retail Trade
Home Health Aides	• Health Care
Janitors and Cleaners, Except Maids and Housekeeping Cleaners	• Government • Administrative and Support Services • Health Care • Other Services (except Public Administration)
Elementary School Teachers, Except Special Education	• Government
Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	• Government • Health Care • Other Services (except Public Administration) • Professional, Scientific, and Technical Services
Nursing Assistants	• Health Care

[12] Occupations are by 5-digit SOC code.

Detailed Industry Analysis

The following section provides an in-depth look at sectors that are important to the Butte County economy. These industry sectors include: Health Care; Manufacturing; Agriculture; Tourism and Information Technology (IT). 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 in Butte County include General Medical and Surgical Hospitals (5,682 jobs), Individual and Family Services (5,038), Offices of Physicians (1,555), and Nursing Care Facilities (Skilled Nursing Facilities) (1,095). The two largest of these sectors (General Medical and Surgical Hospitals and Individual Family Services) also have high LQs (2.18 and 3.94, respectively). Over the past five years the most significant growth has been within these two sectors, and both are projected to continue growing over the next five years to 2020.

The individual industries within the Health Care and Social Assistance sector are a mix of high-paying and low-paying. The highest paying sector is Offices of Physicians ($82,590), while the sector with the lowest average wages is Individual and Family Services ($12,668). It is worth noting that Individual and Family Services is also one of the largest employing industries in the county.

Industry	2015 Jobs	'10-'15 Change	CE '10-'15	'15-'20 Change	CE '15-'20	'15 LQ	Average Earnings
General Medical and Surgical Hospitals	5,682	1,029	765	778	387	2.18	$62,551
Individual and Family Services	5,038	3,870	3,143	1,441	365	3.94	$12,668
Offices of Physicians	1,555	(42)	(199)	(72)	(233)	1.04	$82,590
Nursing Care Facilities (Skilled Nursing Facilities)	1,095	25	19	(19)	(103)	1.16	$32,065
Offices of Dentists	817	84	14	72	1	1.50	$47,459
Continuing Care Retirement Communities and Assisted Living Facilities for the Elderly	696	123	24	107	(3)	1.40	$19,839
Child Day Care Services	624	(45)	(39)	(20)	(39)	0.88	$17,727
Offices of Other Health Practitioners	577	3	(115)	(8)	(91)	1.08	$35,210
Outpatient Care Centers	511	(2)	(125)	118	20	1.16	$52,151
Residential Intellectual and Developmental Disability, Mental Health, and Substance Abuse Facilities	437	(53)	(99)	(47)	(97)	1.24	$17,849
Vocational Rehabilitation Services	402	(299)	(290)	68	56	2.02	$15,537
Home Health Care Services	336	(124)	(220)	(126)	(199)	0.42	$29,205
Community Food and Housing, and Emergency and Other Relief Services	209	35	24	80	59	2.25	$32,489
Other Residential Care Facilities	139	(24)	(26)	(3)	(12)	1.49	$23,629
Other Ambulatory Health Care Services	129	(29)	(50)	(19)	(36)	0.70	$43,040
Medical and Diagnostic Laboratories	109	11	(2)	7	(7)	0.70	$50,298
Specialty (except Psychiatric and Substance Abuse) Hospitals	<10	Insf. Data	4	Insf. Data	(6)	0.03	Insf. Data
Psychiatric and Substance Abuse Hospitals	0	(20)	(22)	0	0	0.00	$0

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

The top four highest employment occupations for this industry sector include: Registered Nurses (2,357 jobs); Nursing, Psychiatric, and Home Health Aides (1,615); Personal Care Aids (1,507); and Miscellaneous Healthcare Support Occupations (1,222). All four occupations experienced strong growth over the past five years; however, Personal Care Aids had the highest growth, adding 1,022 jobs. Over the next five years through 2020, it is also expected to add the highest number of jobs (627). Unfortunately, wages for Personal Care Aids are among the lowest median wages in this industry sector at $9.88/hr, only marginally higher than the lowest paid occupation, Childcare Workers ($9.55/hr). On the opposite end of the earnings scale, Physicians and Surgeons is the highest paid occupation ($111.62/hr).

Occupation	2015 Employment	Change, 2010-2015		Projected Change, 2015-2020		Median Hourly Earnings
Registered Nurses	2,357	401	21%	244	10%	$34.80
Nursing, Psychiatric, and Home Health Aides	1,615	542	51%	272	17%	$12.10
Personal Care Aides	1,507	1,022	211%	627	42%	$9.88
Miscellaneous Healthcare Support Occupations	1,222	103	9%	55	5%	$16.69
Secretaries and Administrative Assistants	839	162	24%	72	9%	$17.05
Miscellaneous Community and Social Service Specialists	701	372	113%	101	14%	$13.79
Building Cleaning Workers	557	122	28%	59	11%	$11.71
Office Clerks, General	523	131	33%	12	2%	$13.54
Childcare Workers	466	10	2%	(19)	(4%)	$9.55
Counselors	459	108	31%	49	11%	$21.32
Therapists	421	41	11%	32	8%	$39.09
Licensed Practical and Licensed Vocational Nurses	413	60	17%	16	4%	$23.21
Physicians and Surgeons	368	(1)	(0%)	8	2%	$111.62
Receptionists and Information Clerks	355	44	14%	13	4%	$13.46
Social Workers	288	104	57%	57	20%	$23.92
Health Practitioner Support Technologists and Technicians	274	44	19%	34	12%	$20.85
Preschool and Kindergarten Teachers	240	31	15%	23	10%	$13.43
Diagnostic Related Technologists and Technicians	223	33	17%	35	16%	$32.29
First-Line Supervisors of Office and Administrative Support Workers	215	38	21%	14	7%	$22.27
Dental Hygienists	200	24	14%	22	11%	$42.35

Manufacturing by Employment – (Top 4-Digit NAICS)

Many of the top manufacturing employers are classified within the food and beverage industry. These sectors include Beverage Manufacturing (567 jobs); Fruit and Vegetable Preserving and Specialty Food Manufacturing (441); Bakeries and Tortilla Manufacturing (323); and Agriculture, Construction, and Mining Machinery Manufacturing (310). These four also have a relatively high LQ. However, the sector with the highest LQ is Manufacturing and Reproducing Magnetic and Optical Media (10.23).

Over the past five years, Bakeries and Tortilla Manufacturing and Beverage Manufacturing added the most employees (264 and 109, respectively). Much of the growth in Bakeries and Tortilla Manufacturing was due to unique strengths within Butte County, as demonstrated by the large competitive effect. Both sectors are projected to grow over the next five years to 2020. Other growing sectors include Miscellaneous Manufacturing; Grain and Oilseed Milling; Converted Paper Product Manufacturing; Other Wood Product Manufacturing; Boiler, Tank, and Shipping Container Manufacturing; Metalworking Machinery Manufacturing; and Cut and Sew Apparel Manufacturing.

The manufacturing sector paying the highest average earnings is Manufacturing and Reproducing Magnetic and Optical Media ($66,945). The sector with the lowest average wages is Printing and Related Support Activities ($26,601).

Industry	2015 Jobs	'10-'15 Change	CE '10-'15	'15-'20 Change	CE '15-'20	'15 LQ	Average Earnings
Beverage Manufacturing	567	109	(4)	54	34	4.74	$42,531
Fruit and Vegetable Preserving and Specialty Food Manufacturing	441	(125)	(115)	(52)	(41)	4.56	$45,089
Bakeries and Tortilla Manufacturing	323	264	260	87	84	1.82	$26,944
Agriculture, Construction, and Mining Machinery Manufacturing	310	100	65	(21)	(38)	2.29	$45,990
Other Miscellaneous Manufacturing	277	52	37	30	54	1.55	$29,559
Grain and Oilseed Milling	269	25	27	76	77	8.12	$51,871
Other Wood Product Manufacturing	219	85	75	9	23	1.71	$41,113
Converted Paper Product Manufacturing	216	72	79	49	65	1.42	$47,090
Architectural and Structural Metals Manufacturing	196	24	1	(3)	(11)	0.94	$39,576
Plastics Product Manufacturing	190	50	36	4	10	0.61	$54,994
Printing and Related Support Activities	137	29	38	(3)	14	0.52	$26,601
Medical Equipment and Supplies Manufacturing	137	(20)	(26)	(32)	(35)	0.75	$43,929
Household and Institutional Furniture and Kitchen Cabinet Manufacturing	130	9	(0)	(47)	(31)	0.88	$34,871
Ventilation, Heating, Air-Conditioning, and Commercial Refrigeration Equipment Manufacturing	108	3	4	13	16	1.51	$38,984
Boiler, Tank, and Shipping Container Manufacturing	106	17	5	24	21	1.94	$45,911
Manufacturing and Reproducing Magnetic and Optical Media	99	35	57	(65)	(32)	10.23	$66,945
Sawmills and Wood Preservation	86	(27)	(38)	(23)	(22)	1.60	$42,011
Metalworking Machinery Manufacturing	65	45	42	11	15	0.63	$42,052
Cut and Sew Apparel Manufacturing	63	32	34	17	35	0.88	$29,004
Machine Shops; Turned Product; and Screw, Nut, and Bolt Manufacturing	58	25	19	1	(2)	0.27	$34,344

Staffing Patterns for Manufacturing in Butte County (Top 4-digit SOC)

The occupational categories that employ the most individuals in the manufacturing sector include Laborers and Material Movers, Hand (349 jobs) and Miscellaneous Production Workers (324). These two occupations also contributed the largest number of new jobs added within the manufacturing sector over the past five years, each adding over 60 jobs. Growth projections for these occupations through 2020 are modest, with Miscellaneous Food Processing Workers and Bakers leading the way. Among the top 20 highest employing occupations, General and Operations Managers offers the highest wages ($38.61/hr), while Packaging and Filling Machine Operators and Tenders offers the lowest ($11.16).

Occupation	2015 Employment	Change, 2010-2015		Projected Change, 2015-2020		Median Hourly Earnings
Laborers and Material Movers, Hand	349	68	24%	8	2%	$12.31
Miscellaneous Production Workers	324	66	26%	20	6%	$11.79
Miscellaneous Assemblers and Fabricators	264	25	10%	(2)	(1%)	$13.17
Miscellaneous Food Processing Workers	182	29	19%	21	12%	$13.15
First-Line Supervisors of Production and Operating Workers	166	22	15%	6	4%	$21.73
Packaging and Filling Machine Operators and Tenders	144	5	4%	13	9%	$11.16
Driver/Sales Workers and Truck Drivers	115	27	31%	9	8%	$16.22
General and Operations Managers	104	18	21%	2	2%	$38.61
Industrial Machinery Installation, Repair, and Maintenance Workers	103	16	18%	14	14%	$17.80
Sales Representatives, Wholesale and Manufacturing	100	9	10%	4	4%	$24.36
Maintenance and Repair Workers, General	94	13	16%	3	3%	$14.47
Inspectors, Testers, Sorters, Samplers, and Weighers	86	7	9%	3	3%	$13.44
Welding, Soldering, and Brazing Workers	85	16	23%	3	4%	$15.67
Office Clerks, General	84	14	20%	(2)	(2%)	$13.54
Industrial Truck and Tractor Operators	84	2	2%	0	0%	$15.85
Printing Workers	83	22	36%	1	1%	$15.45
Shipping, Receiving, and Traffic Clerks	82	10	14%	2	2%	$16.19
Machinists	76	20	36%	3	4%	$18.74
Machine Tool Cutting Setters, Operators, and Tenders, Metal and Plastic	70	7	11%	(3)	(4%)	$14.68
Cabinetmakers and Bench Carpenters	60	8	15%	(14)	(23%)	$14.15

Agriculture by Employment – (Top 4-Digit NAICS)

The vast majority of employment in this sector is found in the Crop Production industry, followed by Support Activities for Crop Production. Crop Production added the most new jobs over the past five years and is projected to continue growing through 2020. Several other industries are also projected to grow marginally including: Logging and Support Activities for Animal Production. None of the industries in the Crop and Animal production group are very high paying, but the industry paying the highest average wages is Logging ($44,915), while the industry paying the least is Support Activities for Animal Production ($19,997).

Industry	2015 Jobs	'10-'15 Change	CE '10-'15	'15-'20 Change	CE '15-'20	'15 LQ	Average Earnings
Crop Production	2,170	102	(12)	74	71	4.51	$36,957
Support Activities for Crop Production	819	(40)	(116)	(36)	(81)	3.11	$41,178
Animal Production and Aquaculture	90	3	4	(5)	(1)	0.37	$36,459
Logging	85	(16)	(14)	5	12	2.02	$44,915
Support Activities for Forestry	57	15	13	(11)	(9)	5.40	$32,082
Support Activities for Animal Production	57	33	33	18	19	2.46	$19,997
Fishing	16	3	3	1	2	0.89	$31,035
Hunting and Trapping	<10	Insf. Data	(3)	Insf. Data	(0)	1.82	Insf. Data
Forest Nurseries and Gathering of Forest Products	0	Insf. Data	(1)	0	0	0.00	$0
Timber Tract Operations	0	0	0	0	0	0.00	$0

Staffing Patterns for Agriculture (Top 4-digit SOC)

The largest single occupation within the Crop and Animal production industry is Miscellaneous Agricultural Workers. This occupation also grew the most over the past five years and is projected to add the most new jobs over the next five years. The occupation that pays the highest median wages is General and Operations Managers ($38.61/hr), while the occupation paying the least is Nonfarm Animal Caretakers ($11.60).

Occupation	2015 Employment	Change, 2010-2015		Projected Change, 2015-2020		Median Hourly Earnings
Miscellaneous Agricultural Workers	1,794	54	3%	28	2%	$12.19
Farmers, Ranchers, and Other Agricultural Managers	359	9	3%	5	1%	$20.05
Laborers and Material Movers, Hand	128	2	2%	0	0%	$12.31
Driver/Sales Workers and Truck Drivers	105	3	3%	5	5%	$16.22
First-Line Supervisors of Farming, Fishing, and Forestry Workers	97	2	2%	2	2%	$21.20
Graders and Sorters, Agricultural Products	70	0	0%	0	0%	$11.55
Grounds Maintenance Workers	50	4	9%	1	2%	$11.72
Logging Workers	42	(7)	(14%)	0	0%	$22.78
Secretaries and Administrative Assistants	34	3	10%	1	3%	$17.05
Office Clerks, General	30	0	0%	1	3%	$13.54
Bookkeeping, Accounting, and Auditing Clerks	28	1	4%	1	4%	$17.28
Miscellaneous Production Workers	26	1	4%	0	0%	$11.79
Sales Representatives, Wholesale and Manufacturing	25	1	4%	2	8%	$24.36
Industrial Truck and Tractor Operators	23	0	0%	0	0%	$15.85
Nonfarm Animal Caretakers	22	1	5%	(4)	(18%)	$11.60
Heavy Vehicle and Mobile Equipment Service Technicians and Mechanics	21	1	5%	0	0%	$20.99
Building Cleaning Workers	20	1	5%	1	5%	$11.71
Maintenance and Repair Workers, General	20	2	11%	1	5%	$14.47
Animal Trainers	17	(5)	(23%)	(4)	(24%)	$12.13
General and Operations Managers	17	0	0%	1	6%	$38.61

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

The vast majority of employment within this industry sector is found within two subsectors: Restaurants and Other Eating Places (6,462); and Other Amusement and Recreation Industries (867). Over the past five years, Restaurants and Other Eating Places added over 1,240 jobs. The subsector is projected to add nearly 650 jobs through 2020. The sector with the highest average earnings is Other Support Services ($48,806), while the sector with the lowest is Spectator Sports ($4,321).

Industry	2015 Jobs	'10-'15 Change	CE '10-'15	'15-'20 Change	CE '15-'20	'15 LQ	Average Earnings
Restaurants and Other Eating Places	6,462	1,240	313	642	199	1.13	$15,352
Other Amusement and Recreation Industries	867	(137)	(262)	(72)	(138)	1.17	$13,720
Drinking Places (Alcoholic Beverages)	385	(9)	(39)	65	56	1.76	$13,596
Traveler Accommodation	279	(65)	(92)	(31)	(44)	0.27	$17,272
Special Food Services	238	(22)	(70)	14	0	0.55	$17,509
Independent Artists, Writers, and Performers	157	4	(4)	0	(3)	0.94	$8,598
Other Support Services	71	60	58	(32)	(37)	0.40	$48,806
Spectator Sports	49	16	12	2	1	0.45	$4,321
Museums, Historical Sites, and Similar Institutions	27	2	(1)	11	8	0.31	$23,643
Gambling Industries	23	6	5	6	5	0.30	$27,663
Travel Arrangement and Reservation Services	21	(2)	(3)	(8)	(7)	0.17	$26,002
Amusement Parks and Arcades	18	Insf. Data	11	9	8	0.15	$5,674
Rooming and Boarding Houses	17	1	(0)	9	8	1.95	$21,030
Promoters of Performing Arts, Sports, and Similar Events	13	(5)	(11)	0	(1)	0.16	$17,964
Performing Arts Companies	10	(5)	(6)	Insf. Data	(1)	0.13	$7,455

[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).

Staffing Patterns for Tourism (Top 4-digit SOC)

The majority of employment within this industry sector is found within four occupations that are within the food service industry: Fast Food and Counter Workers (2,438); Cooks (1,374); Waiters and Waitresses (1,214); and Supervisors of Food Preparation and Serving Workers (435). These subsectors also added the most jobs over the past five years, and are projected to add the greatest number through 2020.

Within this industry sector, General and Operations Managers is the occupation paying the highest median wage at $38.61/hr. The occupation with the lowest median earnings is Dishwashers at $9.56/hr.

Occupation	2015 Employment	Change, 2010-2015		Projected Change, 2015-2020		Median Hourly Earnings
Fast Food and Counter Workers	2,438	512	27%	307	13%	$9.69
Cooks	1,374	240	21%	103	7%	$10.63
Waiters and Waitresses	1,214	147	14%	76	6%	$9.65
Supervisors of Food Preparation and Serving Workers	435	70	19%	57	13%	$14.07
Dishwashers	317	44	16%	16	5%	$9.56
Bartenders	293	16	6%	39	13%	$9.98
Food Service Managers	225	27	14%	6	3%	$18.71
Cashiers	223	27	14%	15	7%	$10.48
Hosts and Hostesses, Restaurant, Lounge, and Coffee Shop	209	30	17%	13	6%	$9.59
Food Preparation Workers	180	18	11%	19	11%	$10.52
Recreation and Fitness Workers	175	(42)	(19%)	(6)	(3%)	$14.81
Dining Room and Cafeteria Attendants and Bartender Helpers	160	17	12%	12	8%	$9.69
Building Cleaning Workers	119	(19)	(14%)	(5)	(4%)	$11.71
Hotel, Motel, and Resort Desk Clerks	90	(23)	(20%)	(10)	(11%)	$9.65
Driver/Sales Workers and Truck Drivers	81	13	19%	11	14%	$16.22
Miscellaneous Entertainment Attendants and Related Workers	77	(12)	(13%)	(5)	(6%)	$10.66
Athletes, Coaches, Umpires, and Related Workers	65	0	0%	0	0%	$16.85
General and Operations Managers	55	0	0%	1	2%	$38.61
Grounds Maintenance Workers	53	(10)	(16%)	(4)	(8%)	$11.72
Musicians, Singers, and Related Workers	51	4	9%	0	0%	$18.41

Information Technology (IT) by Employment – (4-Digit NAICS)

The largest subsector by employment within this sector is Computer Systems Design and Related Services with 1,268 jobs. It is also projected to add the most jobs through 2020. In fact, all three subsectors are projected to add jobs during the same time period.

All three subsectors pay high wages of at least $57,000 annually.

Industry	2015 Jobs	'10-'15 Change	CE '10-'15	'15-'20 Change	CE '15-'20	'15 LQ	Average Earnings
Computer Systems Design and Related Services	504	116	6	130	46	0.43	$60,701
Software Publishers	84	4	(15)	21	10	0.46	$57,200
Data Processing, Hosting, and Related Services	80	(3)	(18)	17	14	0.46	$81,190

Staffing Patterns for Information Technology (IT) (Top 4-digit SOC)

Within this sector, the occupations with highest number of jobs include Software Developers and Programmers (219); Computer Support Specialists (71); and Computer and Information Analysts (43). All three have both demonstrated and are projected to experience growth. Wages within this sector tend to be high, with many paying greater than $20.00/hr.

Occupation	2015 Employment	Change, 2010-2015		Projected Change, 2015-2020		Median Hourly Earnings
Software Developers and Programmers	219	45	26%	52	24%	$32.01
Computer Support Specialists	71	17	31%	20	28%	$25.44
Computer and Information Analysts	43	6	16%	13	30%	$34.37
Database and Systems Administrators and Network Architects	25	2	9%	8	32%	$34.16
General and Operations Managers	22	5	29%	5	23%	$38.61
Customer Service Representatives	21	3	17%	5	24%	$15.72
Miscellaneous Sales Representatives, Services	18	2	13%	6	33%	$19.07
Office Clerks, General	18	4	29%	3	17%	$13.54
Computer and Information Systems Managers	16	2	14%	5	31%	$46.51
Sales Representatives, Wholesale and Manufacturing	16	2	14%	4	25%	$24.36
Secretaries and Administrative Assistants	15	3	25%	3	20%	$17.05
Management Analysts	13	2	18%	3	23%	$26.42
Marketing and Sales Managers	11	2	22%	3	27%	$39.21
Bookkeeping, Accounting, and Auditing Clerks	10	2	25%	3	30%	$17.28
Market Research Analysts and Marketing Specialists	10	2	25%	4	40%	$26.27

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

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

Manufacturing

NAICS	Description
3111	Animal Food Manufacturing
3112	Grain and Oilseed Milling
3114	Fruit and Vegetable Preserving and Specialty Food Manufacturing
3115	Dairy Product Manufacturing
3116	Animal Slaughtering and Processing
3118	Bakeries and Tortilla Manufacturing
3119	Other Food Manufacturing
3121	Beverage Manufacturing
3149	Other Textile Product Mills
3152	Cut and Sew Apparel Manufacturing
3169	Other Leather and Allied Product Manufacturing
3211	Sawmills and Wood Preservation
3212	Veneer, Plywood, and Engineered Wood Product Manufacturing
3219	Other Wood Product Manufacturing
3222	Converted Paper Product Manufacturing
3231	Printing and Related Support Activities
3254	Pharmaceutical and Medicine Manufacturing
3255	Paint, Coating, and Adhesive Manufacturing
3256	Soap, Cleaning Compound, and Toilet Preparation Manufacturing
3259	Other Chemical Product and Preparation Manufacturing
3261	Plastics Product Manufacturing
3271	Clay Product and Refractory Manufacturing
3272	Glass and Glass Product Manufacturing
3273	Cement and Concrete Product Manufacturing
3279	Other Nonmetallic Mineral Product Manufacturing
3313	Alumina and Aluminum Production and Processing
3321	Forging and Stamping
3322	Cutlery and Handtool Manufacturing
3323	Architectural and Structural Metals Manufacturing
3324	Boiler, Tank, and Shipping Container Manufacturing
3325	Hardware Manufacturing
3327	Machine Shops; Turned Product; and Screw, Nut, and Bolt Manufacturing
3328	Coating, Engraving, Heat Treating, and Allied Activities
3329	Other Fabricated Metal Product Manufacturing
3331	Agriculture, Construction, and Mining Machinery Manufacturing
3332	Industrial Machinery Manufacturing
3333	Commercial and Service Industry Machinery Manufacturing
3334	Ventilation, Heating, Air-Conditioning, and Commercial Refrigeration Equipment Manufacturing
3335	Metalworking Machinery Manufacturing
3339	Other General Purpose Machinery Manufacturing
3341	Computer and Peripheral Equipment Manufacturing
3342	Communications Equipment Manufacturing

NAICS	Description
3344	Semiconductor and Other Electronic Component Manufacturing
3345	Navigational, Measuring, Electromedical, and Control Instruments Manufacturing
3346	Manufacturing and Reproducing Magnetic and Optical Media
3351	Electric Lighting Equipment Manufacturing
3352	Household Appliance Manufacturing
3353	Electrical Equipment Manufacturing
3362	Motor Vehicle Body and Trailer Manufacturing
3363	Motor Vehicle Parts Manufacturing
3364	Aerospace Product and Parts Manufacturing
3366	Ship and Boat Building
3369	Other Transportation Equipment Manufacturing
3371	Household and Institutional Furniture and Kitchen Cabinet Manufacturing
3372	Office Furniture (including Fixtures) Manufacturing
3391	Medical Equipment and Supplies Manufacturing
3399	Other Miscellaneous Manufacturing

Agriculture

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

Tourism

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

Information Technology (IT)

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

Butte Input Session Takeaways

- There are many resources available to help meet business needs in Butte County, but often employers are not aware of them, or they do not know where to start. A centralized location to find out about the availability and process for accessing resources would be useful, both for employers to be able to research and for the various community partners to be able to understand the breadth of services to which they can refer business customers.
- Entrepreneurship is a big opportunity for Butte County and the region. There is a strong entrepreneurial spirit among residents and there are a lot of opportunities for support. Storefronts that went empty in the last few years provide opportunities for new small business owners to take advantage of, and the aging and retiring population provides a talent pool for potential mentors and success stories.
- Employers are having a hard time finding the right candidates – they may have a high volume of candidates, but often do not have the ability to find the right information or validate the skills of these candidates. Because of this, turnover is a big problem for many employers, and they are spending more and more time and money in recruiting, screening, and hiring processes. There may be opportunities to help employers refine hiring processes to ensure maximum efficiency based on sharing of best practices.
- Participants identified the need to reach students at a younger age to communicate local career opportunities and information about what it takes to hold a job. This education at the high school level and even earlier can help to set expectations for pursuing education or employment after graduation.
- A lack of basic work readiness skills permeates many of the issues related to hiring and retention, among youth and adults. Training options to build these skills, and even certify them where possible, could help employers in their screening practices.
- While entry-level positions were mentioned as difficult to fill for most employers, first-line supervisors and leaders to guide these entry level workers were also identified as a need. Having effective employees in these leadership positions is vital to the retention and development of entry level workers.
- There are various infrastructure issues that affect the ability of local businesses to grow and build or attract a strong workforce. These include the lack of four-lane highways through parts of the County for easy transportation, expensive utilities, limited internet connectivity in some areas, and a lack of housing for workers, especially at entry-level positions and wages.

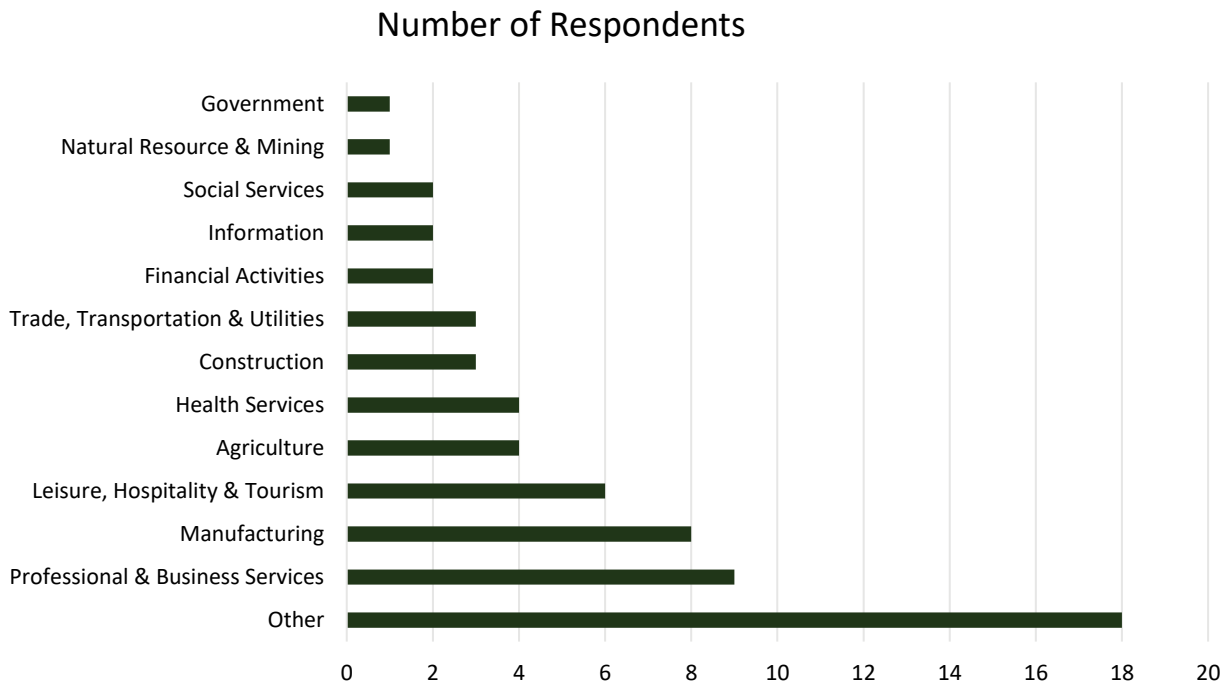
Butte County Survey Summary

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

Over 60 employers participated in the survey. The following includes a summary, analysis and key findings.

Which industry best describes your company?



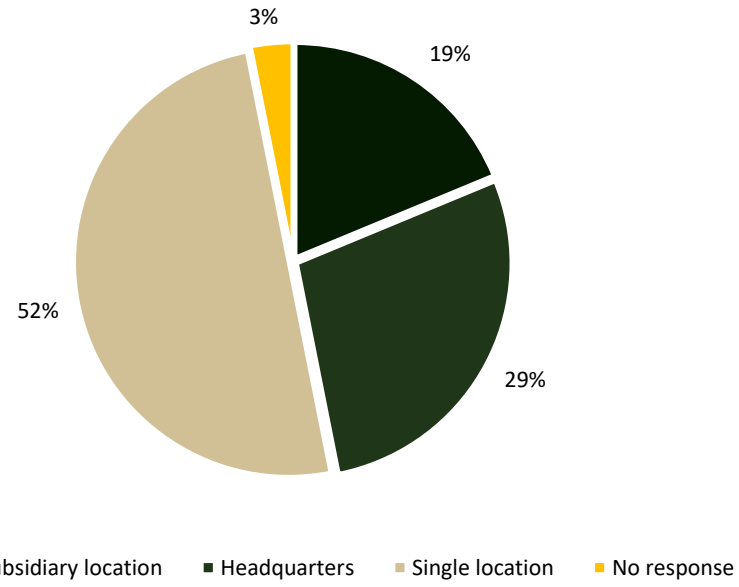
How many employees do you have?

Number of employees	Average
Total	61
Full-time	53
Part-time	14
Seasonal	>1
Temp	3

How many total employees do you have by county?

County	Average
Butte	42
Del Norte	0
Lassen	0
Modoc	0
Nevada	2
Plumas	1
Shasta	2
Sierra	0
Siskiyou	2
Tehama	4
Trinity	0

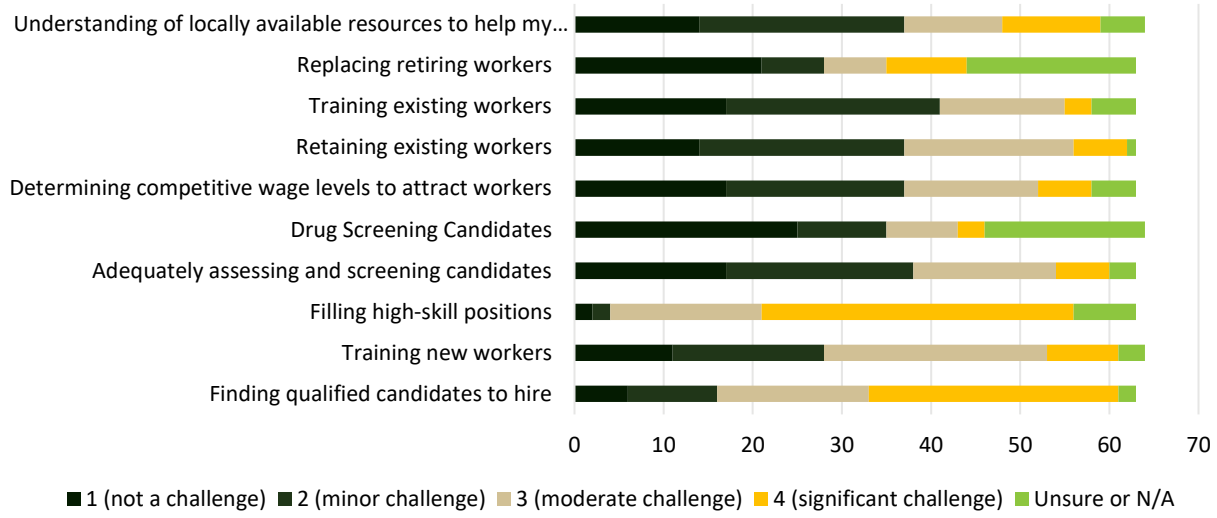
Which best describes this location?



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	6	10	17	28	2
Training new workers	11	17	25	8	3
Filling high-skill positions	2	2	17	35	7
Adequately assessing and screening candidates	17	21	16	6	3
Drug screening candidates	25	10	8	3	18
Determining competitive wage levels to attract workers	17	20	15	6	5
Retaining existing workers	14	23	19	6	1
Training existing workers	17	24	14	3	5
Replacing retiring workers	21	7	7	9	19
Understanding of locally available resources to help my company	14	23	11	11	5

Frequency of Responses to Significant Workforce Challenges



Top Five Most Challenging Workforce Issues from Above

Top Five Challenges	Responded "Moderate Challenge" or Higher
Filling high-skill positions	52
Finding qualified candidates to hire	45
Training new workers	33
Replacing retiring workers	25
Adequately assessing and screening candidates	22
Understanding of locally available resources to help my company	22

What is your most significant workforce-related challenge or your greatest workforce need? (ten or more responses)

Challenge	Top Responses
General talent attraction	21
Soft skills	15
Finding highly skilled/experienced workers	14

What is the average vacancy length for open positions?

The average length based on all responses is 5.66 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	2.6	2-3
1 - 2 years	3.6	3-4
3 - 4 years	2.6	2-3
5 - 7 years	2.4	2

Number of replacement positions	Average	Range
0-12 months	2.5	2
1 - 2 years	3.1	3
3 - 4 years	3.8	3-4
5 - 7 years	4.1	4

Number of retiring positions	Average	Range
0-12 months	0.5	0-1
1 - 2 years	1.1	1
3 - 4 years	0.6	0-1
5 - 7 years	1.2	1

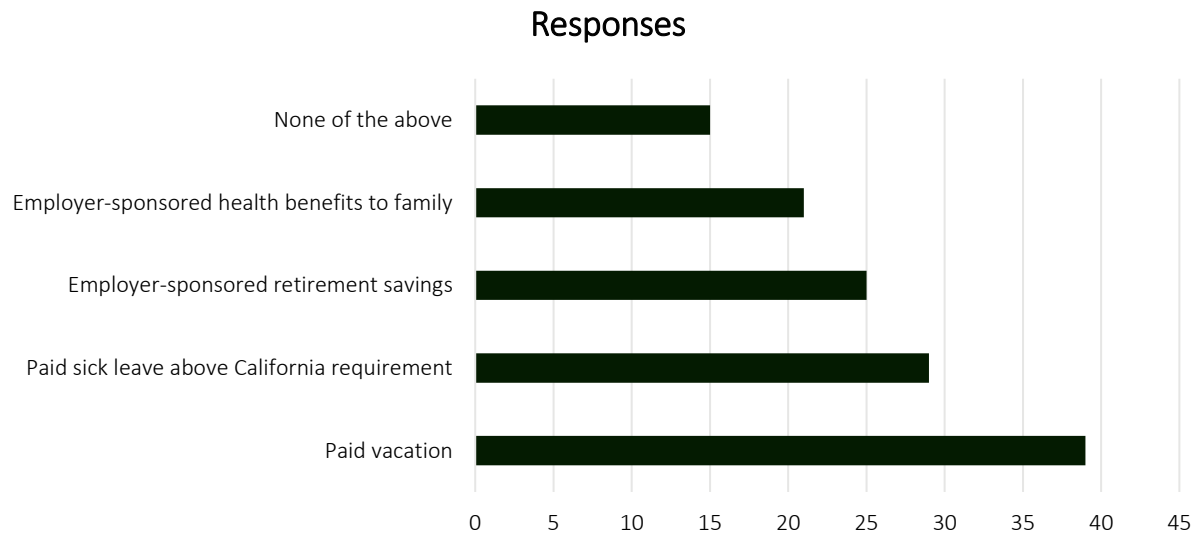
Please provide information regarding your current wages for up to 3 of your top full-time occupations by number of employees.

Top Occupation #1
Title: Administrative Positions
Job Description: Office management, billing, front desk, etc.
Average number of jobs at location: 4.875
Desired/required certificates/credentials:
H/S diploma
Average entry level: $13.63
Average mid-level: $15.79
Average advanced-level: $16.05

Top Occupation #2
Title: Manager Positions
Job Description: Day-to-day business administration, inventory, prep, managing staff)
Average number of jobs at location: 6.36
Desired/required certificates/credentials: None
Average entry level: $10.55
Average mid-level: $13.95
Average advanced-level: $14.04

Top Occupation #3
Title: General Labor
Title: Job Description: Housekeeping, warehouse labor, maintenance, sewing, etc.
Title: Average number of jobs at location: 2.65
Desired/required certificates/credentials:
H/S diploma, bachelor degree
Average entry level: $14.78
Average mid-level: $16.67

Do you provide any of the following health benefits?



Top five most difficult to fill positions and why

Position	Reason	Responses
Manager Positions	Lack of qualified, experienced candidates; low wages in the area	7
General Labor	Finding entry level workers with soft skills	6
Sales Associates	Hard to find individuals who are motivated; low wages; lack of qualified candidates	5
IT and Software Development	Lack of qualified candidates	4
Heavy Equipment Operators	Lack of experienced candidates	3

Please provide information for up to 3 of your most difficult to fill full-time occupations

Title: Manager
Brief job description: Day-to-day business administration, inventory, prep, managing staff
Number of current openings: 7
Desired or required certificates or credentials (if any): BS in Business Mgmt preferred, 3-5 years work experience
Hourly/annual wage ($) $18.54/hr

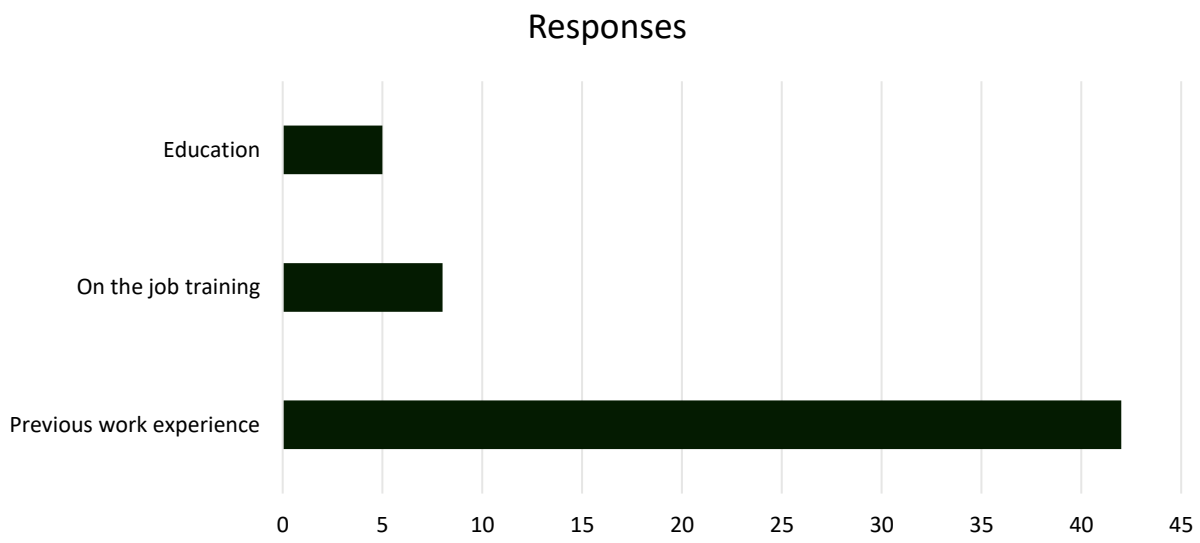
Title: General labor
Brief job description: Housekeeping, warehouse labor, maintenance, sewing, etc.
Number of current openings: 9
Desired or required certificates or credentials (if any): None
Hourly/annual wage ($) $12.50/hr

Title: Sales Associates
Brief job description: Inbound-outbound sales; cold calls
Number of current openings: 6-7
Desired or required certificates or credentials (if any): HS diploma; previous sales experi
Hourly/annual wage ($): $15/hr and/or commission

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

Factors	Responses
Candidates lack necessary skills, experiences, and education	14
Candidates lack soft skills	9
Candidates are unwilling to accept the area's low wages	9
Lack of needed talent in the area	9
Candidates struggle to pass drug and background tests	6

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
Customer service skills	13
Strong soft skills, especially work ethic	8
Clerical and basic math skills	5

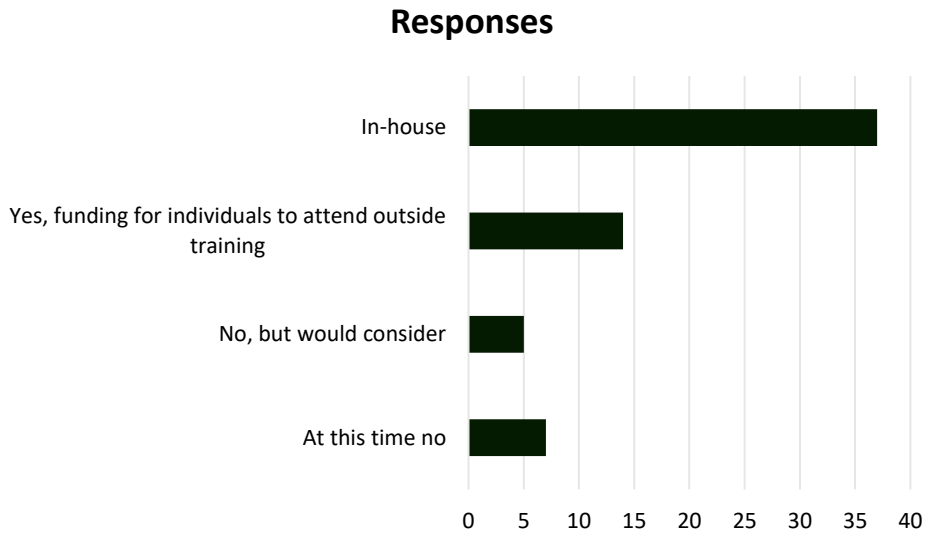
What other {if any} skills and/or experience levels are most difficult to find?

Top Responses	Responses
Position-specific technical / professional knowledge	9
Strong work ethic	8
Communication skills	7

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

Top Responses	Responses
Certificates and Credentials (Heavy equipment operator certification, welding certificate, forklift certification)	26
Bachelor's Degrees (business, marketing, IT, computer science, social work)	6
None- previous work experience is more important (one elaborated that "it's good to see that they can complete something")	7

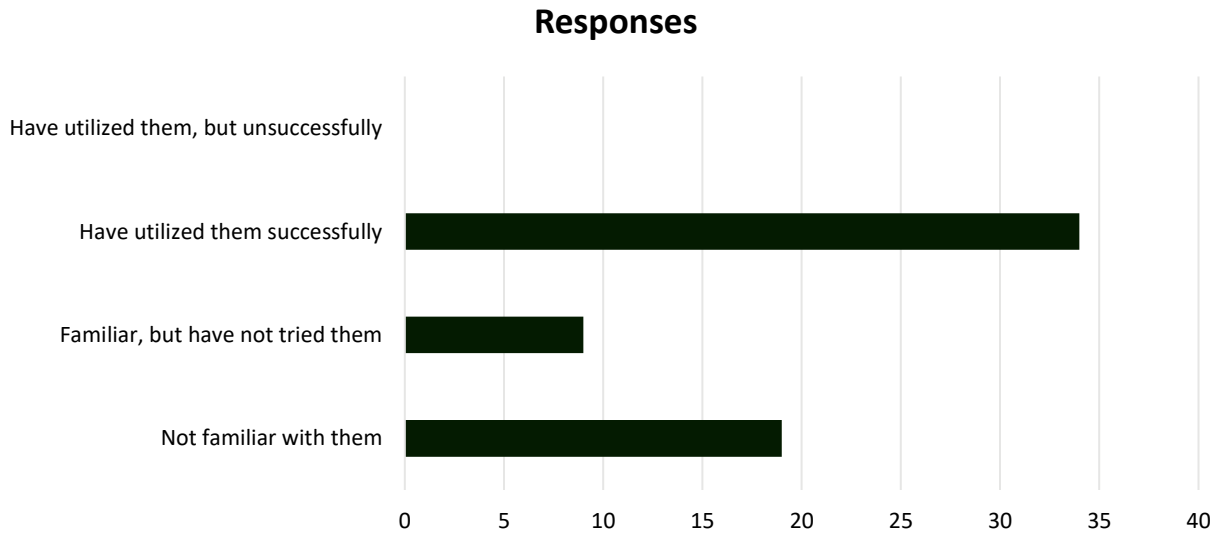
Do you offer training or other professional development, above and beyond initial on-the-job training?



How do you rate the following?

Top Responses	Excellent	Good	Poor	Fair	Unsure
Soft skills of workers	14	25	2	17	4
Hard/technical skills of workers	10	30	6	12	4
Overall quality of entry-level workers	4	25	3	28	2
Overall quality of high-skill workers	16	27	2	7	10
Quality of education and training programs	5	22	4	18	13
Knowledge of available services from America's Job Center of California (e.g. assistance with job ads)	13	13	11	12	13

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



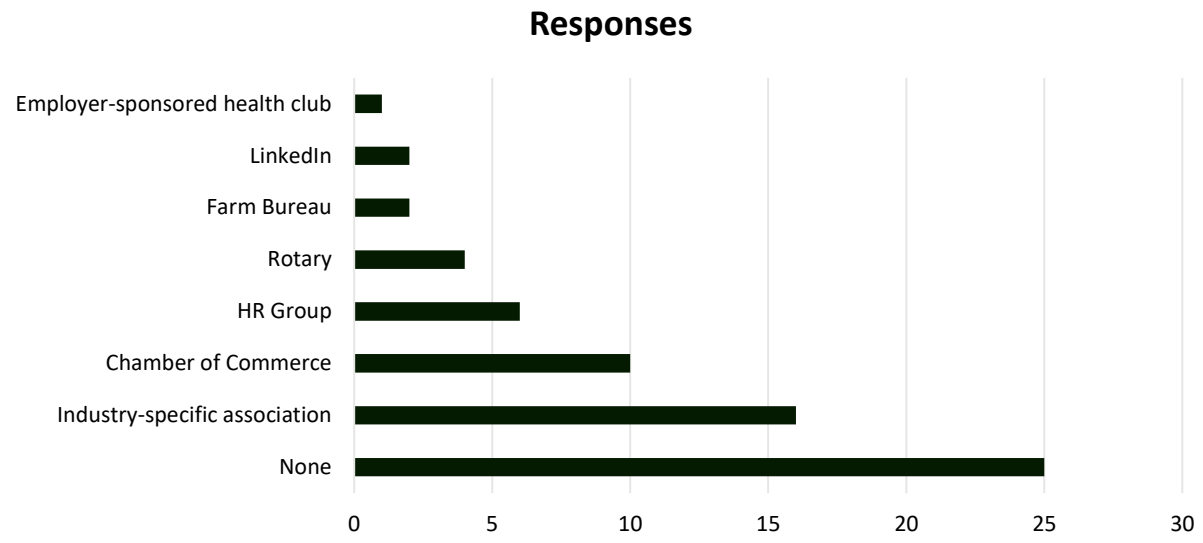
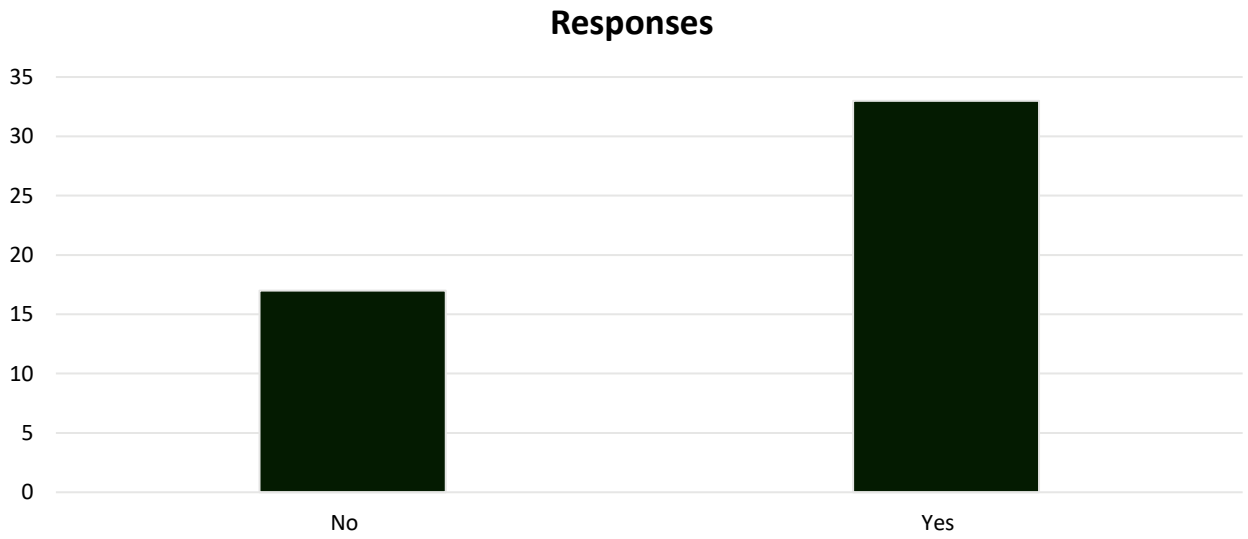
If utilized, if you could improve one thing about your local America's Job Center in California office and/or business service center, what would it be?

Top Responses	Responses
Larger, more highly skilled applicant pool (several said they wished they were screened more thoroughly). A thought tied to this response was that people wished the pool was updated more frequently	5
More training opportunities/assistance (more trainings in customer service, help streamlining HR training)	4
Nothing – they're doing great	7
More convenient location (one mentioned that it would be nice if they would meet in local offices to do assessments of candidates)	4
Opportunities to network and information share (newsletter, proactive notification of new/changed services, opportunities to meet small businesses	2
Resume Services (being able to search resumes online whenever needed; resume building support; resume referrals)	4
Timeliness (faster hiring turn-around; faster delivery of reimbursement checks)	2
More professional atmosphere	1

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

Services	Responses
Employee recruitment	35
Labor market information, wage data	32
On-the-Job Training (OJT)	29
Other training resources	28
Tax credit information	27
Assistance with employee retention	22
Benefits of hiring a veteran	22
Employer professional development seminars	22
Pre-employment testing	22
Candidate screening/assessment	21
Employee education	20
Job analysis and profiling information	12
Hiring ex-offenders (a second chance)	9
On-site assistance for business downsizing	6

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?