

# Job Vacancy Survey Winter 2003





# Pikes Peak Job Vacancy Survey

Conducted February 18 - March 5, 2003

State of Colorado Bill Owens, *Governor* 

# **Colorado Department of Labor & Employment**

Jeffrey M. Wells *Executive Director* 

Funding Provided in Part by The Colorado Workforce Development Council

Released Winter 2003

This publication is a product of the Colorado Department of Labor and Employment's Labor Market Information Section and was prepared by members of the Workforce Research and Analysis unit.

Analyst for this region:

# Leora Starr

The staff of Workforce Research and Analysis would like to extend sincerest gratitude to all area employers who participated. The analysis provided in this document would not be possible without their help.



# Contents

Introduction1
Executive Summary2
Regional Information3
Survey Findings7
Occupational Details16
Sector Briefs27
Appendix28
How to Use This Report28
Caveats29
Methodology29
NAICS

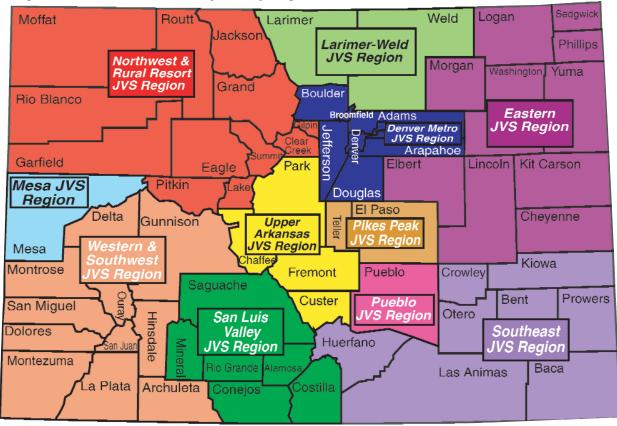
Material in this publication is in the public domain and, with appropriate credit, may be reproduced without permission. Please reference: *Colorado Department of Labor and Employment, Labor Market Information, Workforce Research and Analysis.* 

This report is published semi-annually. Comments, suggestions, and questions regarding content and format are welcome and may be addressed to:

Workforce Research & Analysis Labor Market Information Two Park Central, Suite 300 1515 Arapahoe Street Denver, CO 80202-2117

> (303) 318-8890 Email: Imi@state.co.us www.coworkforce.com/Imi/wra/home.htm





The unemployment rate, along with the level and growth rate of employment, has been used as an indicator of labor market conditions for decades. While this indicator provides information about changes in the supply and demand for labor, it reveals nothing about the skills most sought after by employers. As such, individuals preparing themselves for the job market have done so with limited knowledge of what skills are necessary to successfully compete in the contemporary labor market. Employers have had an equally difficult time determining appropriate compensation levels due to a limited knowledge of what similar firms in their region are currently offering.

Job seekers and employers, as well as Workforce Centers and economic developers need more than a measure of demand for workers at a specific point in time. They also need a measure of where in the economy that demand is located and what education and experience levels are most preferred. The Colorado Department of Labor and Employment (CDLE) developed the Job Vacancy Survey (JVS) to meet this need. The JVS is designed to provide a snapshot estimate of job vacancies along with detailed information and analysis on accompanying wages, skill requirements and work experience.

# Introduction to the Colorado Job Vacancy Survey

The CDLE's survey unit collects original data by conducting phone interviews with a representative sample of employers in a given region. The department's economists analyze the raw data, estimate the number of vacancies in the area and publish the report within weeks of the original data collection, providing a timely portrait of the employment situation.

The survey is funded by a grant from the U.S. Department of Labor's Employment and Training Administration. The survey is produced for each region in Colorado by Labor Market Information's office of Workforce Research and Analysis.

# **Executive Summary**

The winter Pikes Peak Job Vacancy Survey was conducted from February 18<sup>th</sup> through March 5<sup>th</sup>, 2003. The goal of the survey is to provide current information on the demand for workers so that employers, job seekers, economic developers, educators, and workforce centers can make informed decisions in the Pikes Peak Region.

Over the survey period Government and large employers, as well as randomly selected small to mid-size employers with at least five employees, were contacted in the region. Employers are asked if they are actively hiring at the time of the survey, and a variety of questions about positions they are seeking to fill.

A total of 1,888 employers representing 41% of the region's employment responded to the survey. Out of these, 64 are large employers (250 or more employees), 89 are Government employers, and 1,735 are from the small to mid-size category (five to 249 employees). The survey has a 73% response rate and a cooperation rate of 99%. The margin of sampling error for the overall vacancy estimate is plus or minus 8%, meaning that the true number of vacancies is between 1,245 and 1,461. The major findings of the survey follow:

◆ It is estimated that a total of 1,353 jobs were open for hire in the Pikes Peak Region during

- ♦ Fifty-one percent of vacancies are considered as being not difficult to fill while this time last year 51% were considered at least somewhat difficult to fill......Page 13

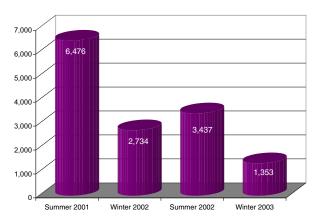
# Pikes Peak Region

ccording to the U.S. Census Bureau, Census updates of 2001, the Pikes Peak Region, which includes El Paso and Teller counties, is home to over 550,000 people. Similar to statewide figures, El Paso County experienced a 30% increase in population growth from 1990 to 2000. Teller County population grew by 65% in the same period. Teller County also experienced a higher population growth (4.2%) compared to El Paso (3.2%) over the 2000-2001 period.

Employment proportions are comparable to the area's population with El Paso County recording 95% of the area's employed individuals. Teller County makes up about 5% of the area's population and employment. Many of these individuals commute to and from the Denver Metro area. Teller County residents spend 30 minutes, on

average, to commute to work while workers in El Paso County spend only about 20 minutes in the commute. El Paso County shows a 1999 median household income in the upper \$40,000s. Teller County, however, shows a median household income just over \$50,000.

In the summer of 2001, the Colorado Department of Labor and Employment began collecting data on job vacancies in the Pikes Peak Region. On average, the summer season shows more employment opportunities than in the winter due to a strong volume of seasonal businesses. However, job vacancies in general have steadily decreased mostly due to the decrease in economic activity seen not just in the state of Colorado, but nationwide (*Figure 2*).



# Figure 2: Historical Vacancies – Pikes Peak Region JVS

	Summer 2001	Winter 2002	Summer 2002	Winter 2003
Vacancies	6,476	2,734	3,437	1,353
Employment	268,226	266,256	270,923	274,266
Unemployment	12,085	18,606	17,384	18,429
Unemployment Rate	4.3%	6.5%	6.0%	6.3%

Source: CDLE, Local Area Unemployment Statistics. January 2003

decreased over the last two winter reports. With the winter reports the Pikes Peak Region's unemployment rate shows a similar pattern, meaning the seasonal labor force level has remained relatively in check with the fluctuations in employment levels.

Although the availability of job opportunities has declined over the last four surveys, employment per season has increased. For example, not only did employment increase from the summer of 2001 to the summer of 2002, employment also increased from the winter of 2002 to the winter of 2003. Furthermore, unemployment levels Pikes Peak Region Job Vacancy Surveys are conducted twice a year, once in winter and once in summer. Vacancies found in the winter represent demand for labor at a time of year when employment is at its cyclical low. A study at this time indicates the types of occupations found at the time when demand for workers is at its lowest. When the Job Vacancy Survey is conducted during the summer, results represent demand for labor at a time when employers are nearing peak employment, yet are still in the process of actively recruiting. Historically, the level of employment in the Pikes Peak Region peaks in or around the months of July and August. The labor force follows a similar pattern (*Figure 3*). Unemployment levels have increased over the last two years, following the state and national trends, although in general, the region has experienced declining unemployment through the better part of the last ten years. Unemployment vary from month to month, however it tends to peak in the month of June of each year.

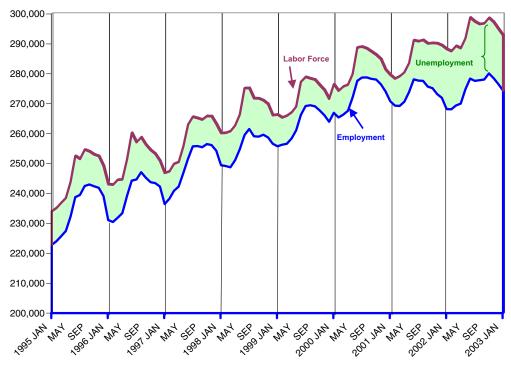
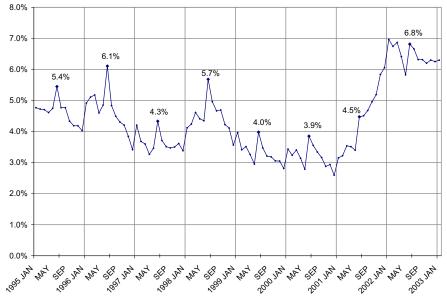


Figure 3: Employment & Labor Force Trends for the Pikes Peak Region (Not Seasonally Adjusted)

Source: CDLE, Local Area Unemployment Statistics, March 2003

While this trend has been apparent for years, changes in the employment and labor force have been notable over the past year. The total number of employed decreased more than usual since mid-2001, reflecting the effects of a slowing economy in addition to seasonal decline. Yet, rather than following seasonal trend, the total labor force decreased at a much slower rate as individuals remained in or reentered the labor market. This caused the actual number of unemployed individuals to climb over the last half of 2001 and throughout most of 2002, as seen by the widening gap between the two series. After steadily decreasing throughout the late 90s, the region's unemployment rate followed the state and national trends of persistent increases since late-2000 (*Figure 4*). After reaching a high of 7.0% in January 2002, the local economy showed promising signs of increasing employment. Unemployment levels increased and remained somewhat elevated possibly due to the increased numbers of people staying in or reentering the labor force. Unemployment in the region is comparable to that in other metropolitan statistical areas.

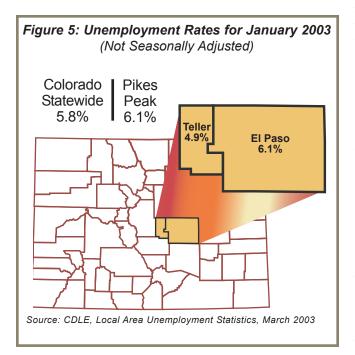
# Figure 4: Pikes Peak Region Unemployment Rate Trend (Not Seasonally Adjusted)



Source: CDLE, Local Area Unemployment Statistics, March 2003

*Figure 5* shows the most current unemployment statistics for the individual counties of the Pikes Peak Region. Both counties show unemployment rates lower than the reported rates of this time last year.

While El Paso County cannot claim title to highest mountain peak, it can lay claim to Pikes Peak – towering at 14,110 feet.



Discovered in 1806 by Lt. Zebulon Pike, Pikes Peak is called "America's Mountain" for inspiring the words for *America the Beautiful*, written by Katharine Lee Bates in the late 1800s. Fortunately, the summer 2002 Hayman Fire did not affect Pikes Peak. While mountain biking, mountain climbing and other outdoor activities are just as popular here as on neighboring mountains, Pikes Peak also hosts the second oldest auto race in the nation. *Race to the Clouds* (the Pikes Peak Hill Climb), includes top racecar drivers climbing to the summit at speeds of over 100 miles per hour. Those looking for adventure at lower elevations can visit the Air Force Academy or the Garden of the Gods, among other sites, or head out to eastern El Paso County to the Calhan Paint Mines.

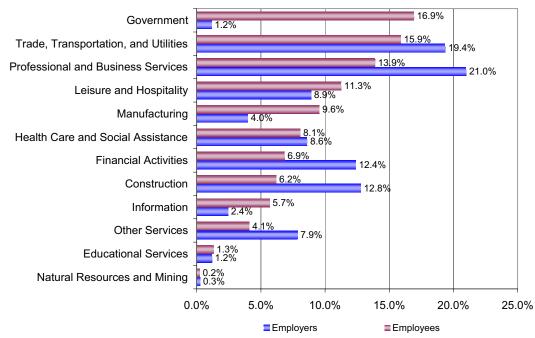
Teller County extends the region's activities westward. The cities of Woodland Park, Cripple Creek and Victor offer historical museums, gold mining discovery escapades, and year-round out-door recreation activities. Whether it's fishing at Skagway Reservoir near Victor, limited-stakes gambling in Cripple Creek, or a round of golf at Woodland Park's 18-hole championship golf course, Teller County increases the region's attractions.

The U.S. Census Bureau shows both counties in the Pikes Peak Region to have a higher high school graduation rate than the state and nation. Teller County has a 94% graduation rate and El Paso County's is 91% while the state average is 87% and national even lower at 80%. The region's percentage of individuals with bachelor's degrees is only slightly lower than the state percentage of 33%. In both counties, 32 % of people 25 or older hold a bachelor's degree.

Since conducting the first Job Vacancy Survey in the Pikes Peak Region, Healthcare Practitioners and Technical occupations as well as Office and Administrative Support positions have been in the highest demand. *Figure 6* shows the employment breakdown for each of the JVS sectors during the first quarter of 2002. This serves as a useful reference for the time period in which the Pikes Peak Job Vacancy Survey was conducted.

Shares of employment by industry in the Pikes Peak Region have remained fairly constant over prior years; however, classification of industries has recently changed. The 60-year-old SIC (Standard Industrial Classification) system has been replaced with NAICS (North American Industry Classification System). While some industries have remained in a similar classification category, others have largely changed. This is mostly due to the classification of establishments into detailed categories based on the production process they use. This reclassification has considerably changed the locations of many businesses in the classification structure. NAICS recognizes hundreds of new businesses in the economy, especially those in the rapidly growing service sector. These are businesses that are indicative of the "new economy" such as Information, Financial Activities, and Professional and Business Services. Health Care and Social Assistance and Educational Services are also separate from other service industries can now be reviewed at a greater level of detail than previously available.

The Government sector represent a very small percentage of area employers but the largest percentage (16.9%) of the area's employees. The Trade, Transportation, and Utilities industry has 15.9% of the area's employers and Professional and Business Services has 13.9%. These three sectors combined contain almost half (46.7%) of the Pikes Peak Region's employees. The Financial Activities and Construction sectors also hold a good share of the region's employers while Leisure & Hospitality and Manufacturing have a strong portion of the area's employees.



# Figure 6: Pikes Peak Employers & Employees, 1st Quarter, 2002

Source: CDLE, Colorado Employment and Wages, (ES-202)

# **Estimated Vacancies**

# JVS Sectors and Employer Size

Figure 7: Estimated Vacancies and

Average Wages by JVS Sectors

uring the survey period, an estimated 1,353 vacancies were open for immediate hire in firms with at least five employees in the Pikes Peak Region. The region's estimated vacancy rate is 0.67%, meaning there are approximately seven vacancies in the survey for every 1,000 positions. The overall vacancy rate is calculated by dividing the estimated number of vacancies by total employment plus the estimated number of vacancies. The demand for labor is composed of people currently employed plus all of the open positions that employers want to fill. The results of this survey suggest current employment numbers and the demand for workers has decreased.

Only 8% of employers responding to the survey report having at least one vacancy, down from 13% a year ago. The survey also reports very few vacancies in Natural Resources and Mining. Openings in Natural Resources & Mining and in Construction are usually more prevalent during the warmer, summer season. There are also a very small percentage of vacancies reported in the Educational Services sector which includes teaching positions in private schools. Most teaching positions are a part of Government. The highest

400

350

300

250

200

150

100

50

0

Estimated Vacancies

\$21.00

\$19.70 . \$20.00 \$16.90 \$15.30 \$14.50 \$15.00 Average Wage \$10.00 ge \$13.00 • \$10.10 \$8.60 \$7.20 \$6.70 \$7 \$5.00 \$0.00 1 Social Assistan HOR. and Utilit ational Servi and Hospite OtherSer concentration of vacancies is found in Health Care and Social Assistance where 75% are health care related. Opportunities in health services range from certified

Opportunities in health services range from certified nurses' assistants and other aides to registered nurses, therapists and medical technicians. Leisure and Hospitality also shows continued demand for specialized cooks and chefs and bartenders and servers. While some post-secondary education and experience are required for some positions, most are available to applicants regardless of education completed or experience acquired. Survey Findings Estimated Vacancies: JVS Sectors & Employer Size

7

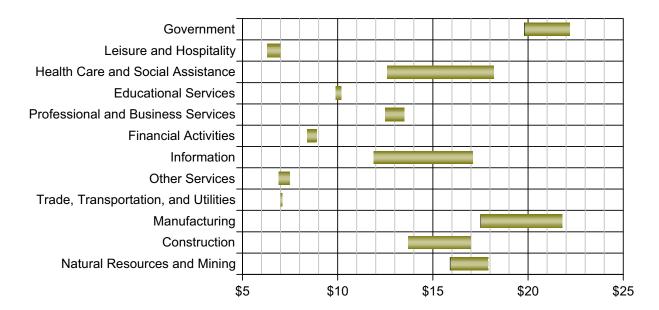
\$25.00



Since wages offered vary according to the individual applicant's qualifications, employers are asked to provide the range of wages offered for the vacancies (Figure 8). Wages reported for this study represent those offered by employers for current vacancies over the survey period. This survey shows wide wage ranges for Health Care and Social Assistance, Information, and Manufacturing. On average, sectors with a wider wage range usually have a variety of vacancies that include lower education and experience requirements. For example, in the Health Care and Social Assistance sector, many vacancies at the higher wage range include registered nurses and pharmacists. Both occupations typically require at least a bachelor's degree. Vacancies at the lower end of the wage range include positions requiring less education and experience such as clerks, food service workers and various aides. These positions usually require only high school completion and general work experience. Many positions in the middle of the wage range like licensed practical nurses and therapists require at least two years of post-secondary education or vocational training/certification.

The overall average wage for all vacancies is \$14.80 per hour. The highest average wages offered for this survey are in the Government and Manufacturing sectors. In Government, 34% of the vacancies are in the educational arena including teachers, principals and deans with a majority of the positions requiring an advanced degree. While only a few job vacancies in the Manufacturing sector require an advanced degree, 65% of them require at least a bachelor's degree. These are positions as scientists, physicists, and a wide variety of engineers. All of these vacancies associated with higher pay also require a minimum of experience in a related field.

Figure 8: Reported Average Wage Ranges by JVS Sectors



Small to mid-size firms account for 57% of total vacancies (Figure 9) in the Pikes Peak Region. Large companies are reporting 34% and Government agencies have only 9% of all vacancies. The highest concentration of vacancies within the large company category is found among health care occupations. High levels of vacancies are also found in computer manufacturing firms and throughout the school systems.

According to the survey, Government is offering \$6.60 per hour more, on average, than the average wage offered by large firms. Furthermore, average wages offered by the Government are nearly twice those offered by the small to mid-size companies. Most of these higher paid positions require a bachelor's degree although some require vocational training/certification.

# Figure 9: Estimated Vacancies and Average Wages by Employer Size

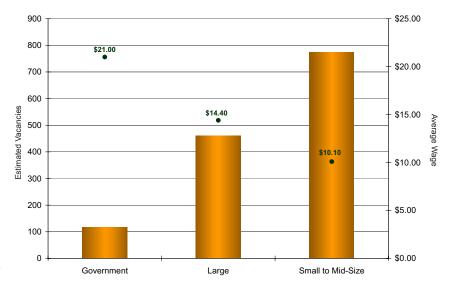
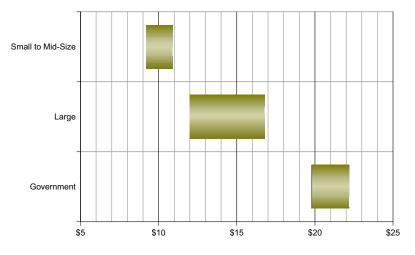


Figure 10: Reported Average Wage Ranges by Employer Size

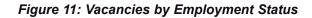


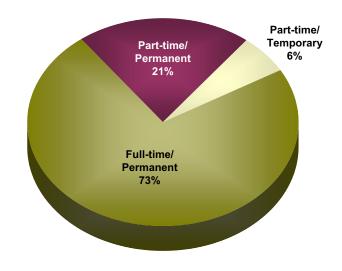
Wage ranges in each employer size class reflect characteristics of the vacancies in each category. While many vacancies within large firms are highly specialized (software engineers and registered nurses), there are many vacancies among large firms that do not require postsecondary training or related experience, allowing a mixture of applicants to find positions in large firms. This is not the case, however, with the varying positions among the small to midsize firms, which have vacancies ranging from entry level to specialized positions. The wage range is well above the legal minimum wage (\$5.15 per hour) but the tighter wage range may imply that a majority of the vacancies are either lower-skilled positions or the small to mid-size firms are not demanding (or paying for) higher education and experience levels.

# Vacancies Employment Status, Education & Experience Requirements

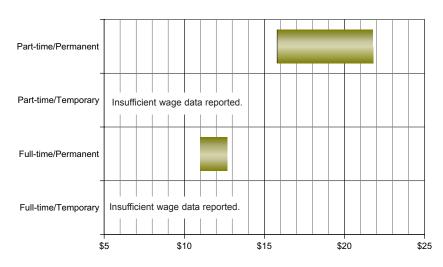
The remainder of this report provides descriptive statistics of the vacancies reported in and unique to this survey; this is supplemental data of interest to the reader. The survey design does not allow for application of this detail to the region as a whole, but it can be used to understand characteristics of those job vacancies and occupations reported.

For this winter survey, 73% of the reported vacancies are for full-time permanent positions (*Figure 11*) while 21% of the positions are reported to be part-time permanent. Last year at this time 85% of the reported vacancies were full-time permanent. The decrease in full-time permanent employment may be another indication that actual openings at this time are harder to find. All Pikes Peak Region Job Vacancy Surveys, summer and winter, have consistently shown a high percentage of permanent positions. This is the first time there has been a decline in fulltime opportunities and an increase in part-time opportunities. Job seekers who prefer to work less than full-time, opportunities do exist. Full-time positions include occupations in all industries while most part-time positions are in restaurants, schools, and hospitals.





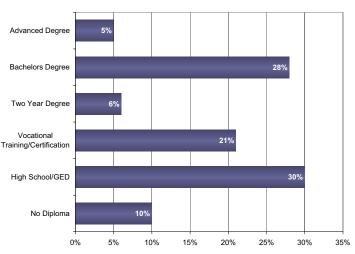
# Figure 12: Reported Average Wage Ranges by Employment Status



In general, full-time positions pay more than part-time and temporary positions. Part-time permanent vacancies offer wages higher than both fulltime permanent vacancies and the overall average of \$14.80 (*Figure 12*). Many of these part-time permanent vacancies include highly specialized positions in the Health Care and Social Assistance sector like registered nurses. Last year at this time, part-time permanent positions were offering the lowest wages. This may have been a result of the nature of the positions open at the time. Employers were asked about education requirements for open positions. Sixty percent of the positions reported by employers in the Pikes Peak Region require post-secondary education (Figure 13). This is due, in part, to the fact that a high proportion of the region's vacancies are for skilled occupations, particularly in health care and engineering positions. Furthermore, due to economic conditions, employers are in a position to insist that applicants have completed a specified level of training. Last year at this time, employers reported that 54% of the vacancies required the applicant to be educated beyond high school.

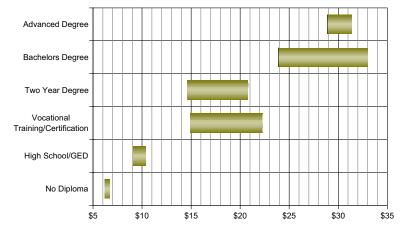
While the nature of the open position plays a significant role in the education and experience demanded, the availability of workers also has an effect on employers' demands. Most of the area's vacancies are occupations requiring a bachelor's degree or at a minimum, vocational training/certification (or a similar two-year degree). While most of the nursing positions require the applicants to have bachelor's degrees, many establishments in the health arena will offer the position providing the applicant has a twovear degree or vocational training/certification and adequate experience in the occupation. Engineers, educational principals and deans, and college professors require advanced degrees. Other vacancies requiring formal education equivalent to two-year degrees include correctional officers, childcare workers, and other trade positions such as barbers and electricians.

# Figure 13: Vacancies by Education



Forty percent of all vacancies require no more than a high school diploma. While these are mostly jobs at lower skill levels, the positions can lead to more fruitful positions within the company or industry. These include positions in retail, security, and construction in addition to restaurants and hotels.

Last year at this time, 16% of job vacancies did not require a high school diploma. That number is down to 10% this survey period. Similar patterns occur with four-year degree requirements. Currently 28% of reported vacancies require a bachelor's degree. Last year that number was 19%.



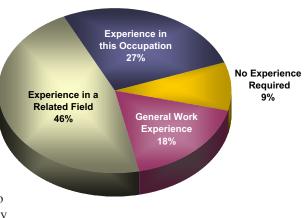
For this survey, the highest wages are found for positions requiring a bachelor's or an advanced degree (*Figure 14*). These wages are, on average, at least \$10 an hour more than positions requiring a two-year degree. Wages for two-year and vocational training/certification are predictably lower, and wages for vacancies associated with no post-secondary education are lowest. Wage offers for those without high school completion are still above the minimum wage of \$5.15 per hour and increase by at least \$3 per hour if high school is finished.

# Figure 14: Reported Average Wage Ranges by Education

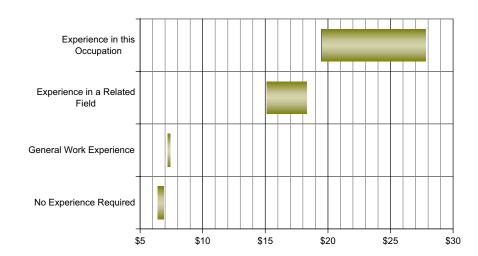
Having valid work experience is essential for many positions. During an economic downturn, employers can command higher levels of education and experience due to the increased number of job seekers available to work.

Employers are requiring the applicant to have experience in a related field or in the occupation more this year than last. In fact, 46% of all vacan-Experience in a cies required experience in a related field whereas Related Field this time last year, only 38% of all vacancies required 46% the same level of experience. This is primarily due to the high concentration of vacancies in engineering and college instruction, which require higher education and experience. As a result, many of these positions are open at least 30 to 59 days and are considered somewhat difficult to fill. Vacancies that do not require experience, or require only general work experience are mostly food and beverage workers in the Leisure and Hospitality sector, although some of these openings can be found as customer service representatives in Professional and Business Services and retail sales clerks in Trade, Transportation, and Utilities.

# Figure 15: Vacancies by Experience



# Figure 16: Reported Average Wage Ranges by Experience

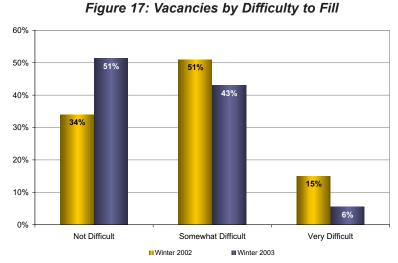


As with increasing levels of education, employers are willing to pay higher wages when requiring higher levels of experience. Vacancies requiring experience in the occupation offer an average minimum wage of nearly \$20.00 per hour to start. This wage far exceeds the minimum average wages offered for other experience levels especially those requiring low levels of experience. Most of the vacancies requiring experience in the occupation also require post-secondary education. This is comparable to last year's wages offered to those with high levels of experience. Wages offered are significantly higher for those who have related or specific experience than for those who only have general work experience.

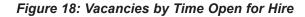
# Vacancies Difficulty to Fill and Time Open for Hire

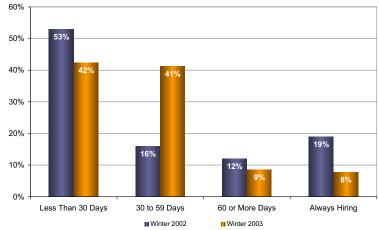
n addition to asking employers about their perceived difficulty in filling vacant positions, the Job Vacancy Survey also measures the amount of time an employer has been actively recruiting for the position. This additional information allows readers to make better judgments regarding the difficulty employers are experiencing than if the survey relied wholly on employers' opinions. Of the employers responding to these questions, only 6% of the vacancies reported are classified as very difficult to fill. This is down nine percentage points from last year. Logically, with more individuals available for work, employers should find it a little easier to fill vacancies. While 51% of the vacancies reported are considered not difficult to fill, 49% are associated with some sort of hiring difficulty.

Last year at this time, positions that were considered difficult to fill tended to be in the health care related occupations.



In this report, positions considered very difficult to fill and those considered not difficult to fill are comprised of occupations in all industries at all education levels.

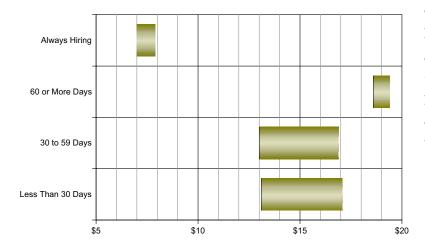




While some employers may consider a vacancy to be difficult to fill when it has been open for 30 to 60 days, another employer may consider a similar vacancy not difficult to fill given the same time frame. There is a significantly higher percentage of vacancies that take 30 to 59 days to fill this year, and fewer vacancies that are open less than 30 days (*Figure 18*).

Forty-two percent of all vacancies were open for less than 30 days with an additional 41% open for 30 to 59 days. As with occupations in the difficulty to fill category, these vacancies are not concentrated in any particular group. They are vacancies of all occupational types, within all educational categories and are found throughout all sectors. Once again, the slower economy has created an abundance of workers who are willing to fill vacancies when the employment conditions are matched with the individuals' preferences and skills. In this report, vacancies reported as always hiring are predictably





entry-level positions requiring little or no previous experience or education.

Positions considered not difficult to fill generally offer lower wages (as would be expected), while positions considered difficult to fill offer higher wages. For this survey, vacancies considered not difficult to fill are compensated with wage offers close to the region's overall average of \$14.80 per hour. In past surveys, positions considered difficult to fill offered higher wages. Such wages do not exist for the current survey.

Traditionally the longer it takes to fill a vacancy the higher the wage offered to start. Current survey results have departed from tradition. For example, this survey shows wages are highest for vacancies open 60 or more days, but similar wage ranges exist for both vacancies open less than 30 days and vacancies open 30-59 days. The vacancies in these two categories are the majority (about 80%) of all vacancies reported in this survey and include occupations with varying levels of education and experience requirements.

# Vacancies Additional Compensation Medical Insurance & Sign-On Bonus

# **Medical Insurance**

Equivalent time offer compensation related benefits to recruit qualified candidates. Some of these perks are paid time off, transportation or parking vouchers and subsidized childcare. One of the most important benefits offered to employees is medical insurance via an employer group plan. Employers may pay all, part of or none of the monthly premium. How can an employer offer medical insurance and not pay for it? While this scenario is uncommon, employers can and do offer employees the opportunity to participate in their group medical insurance plans even though they do not contribute to the premium.

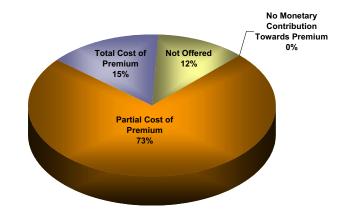
For the current survey, 88% of the vacancies include some form of medical insurance. Twelve percent of the surveyed firms reported that a medical insurance plan is not available. Compared to last year at this time, more employers are paying partial cost of the insurance premium while fewer are paying the total premium. For the winter 2002 report, only 70% of the employers paid the partial cost of the premium, while in this report 83% pay a portion. Furthermore, 7% fewer employers pay the total cost this year.

As expected, the vacancies with more requirements offer not only higher pay but also more complete medical

# Sign-On Bonus

There are no sign-on bonuses reported for this survey. This type of compensation is usually used during

# Figure 20: Employer's Contribution to Medical Insurance



coverage. In particular, the employer pays a partial cost of the premium for most of the vacancies among health care related occupations, engineers, college instructors, and managers. Vacancies offering to pay the total cost of a medical premium are for positions offering higher wages like senior software engineers and registered nurses. But, vacancies offering lower wages like surgical technologists and specialized cooks also have the total cost of the insurance premium covered.

times when employers are having difficulty attracting potential applicants.

Pikes Peak Region 15

# **Major Occupational Groups**

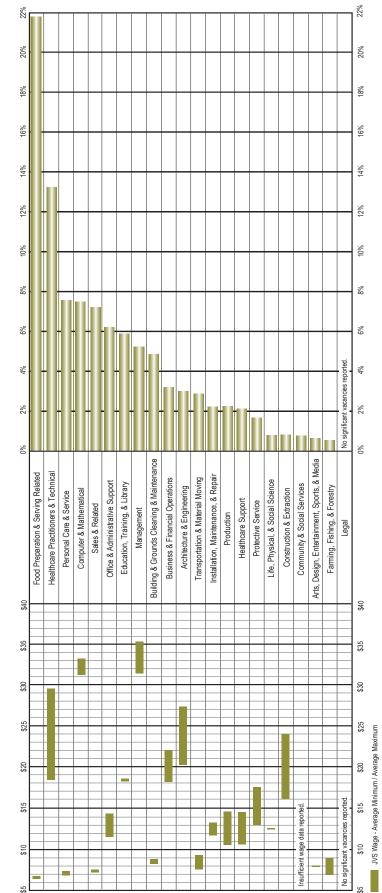
The information reported in the Job Vacancy Survey is intended to provide job seekers and employers with useful and current information to help them make informed labor market decisions. Estimating the number of overall vacancies in a region and breaking those numbers down by sector and size provides a useful overview of the vacancy market, but when it comes down to filling a particular opening, the more detailed the information the better. Reporting vacancies at the individual occupational level is the most detailed information the survey can provide without breaking confidentiality with those employers who participated in the survey.

In order to help make comparisons between the results of this survey and other sources of employment statistics easier, all jobs reported are assigned an occupation code based on the 2000 Standard Occupational Classification Manual published by the Executive Office of the President, Office of Management and Budget. The SOC system contains 821 detailed occupation titles that fall into 23 major occupation groups.

Vacancies found in this survey were coded into 21 of the 23 major occupation groups. The most frequently occurring job vacancies fall into the Food Preparation and Serving Related occupations. Vacancies most in demand in the past three surveys were in the Healthcare Practitioners and Technical Occupations. Food Preparation and Serving Related occupations reached the top of the chart for the Winter 2003 survey, relegating Healthcare Practitioners and Technical occupations to the category with the second highest demand.

Personal Care and Service, Computer and Mathematical, and Sales and Related are among the top five occupational groups in demand. The ranking of vacancies in these occupational groups vary form survey to survey. Occupations least in demand are in Farming, Fishing, and Forestry. For this survey, there are no vacancies in Legal occupations.

Survey results show that the major occupation groups with the most vacancies are not necessarily the groups offering the highest wages. This indicates that vacancy characteristics other than the level of unfulfilled employer demand influence wages. In addition, low vacancies at this time of the year, plus the soft economy, can produce little or no wage data. For this report, two occupational groups had insufficient wage data to report. The occupational groups offering the highest wages in this survey typically require higher levels of education and experience: Healthcare Practitioners and Technical; Computer and Mathematical; Management; and Architecture and Engineering.





Occupational Details Vacancies and Reported Average Wage Ranges by Major Occupational Groups

# **Occupational Estimates**

Table 1 contains a list of all the detailed SOC job titles that were assigned to vacancies reported in this survey. Because a census of large employers and Government agencies is conducted, the list contains titles for nearly all of the vacancies available at the time of the survey for those employers. Approximately one-third of all small to mid-size employers were contacted for the random sample, so the list also includes occupations reported by those employers. Given the large size of the random sample collected the list of occupations should be fairly comprehensive, however, it is not exhaustive.

# **Estimated Vacancies**

Because nearly all large employers and government agencies are contacted, the number of vacancies by occupation for those groups is not estimated; it is an actual accounting of the vacancies. Those vacancies reported by small to mid-size employers are then added to the others as well as additional estimated vacancies. The additional estimated vacancies are based on the assumption that the vacancies by occupation in the region are distributed exactly like the filled positions in the region at the major occupational group level. Estimated vacancies by major occupational group are then distributed among the specific occupations reported in the survey.

### Vacancies Found

The number of vacancies by occupation found in the survey.

### Average JVS Wage

The average wages found in the survey are also reported for each occupation. The reported averages are based on information provided by employers and do not reflect information not gathered in the survey or wages paid to currently filled positions. Wage information in this survey was provided for only 36% of reported vacancies.

# **Occupational Employment Statistics (OES) Wage Data**

Occupational Employment Statistics (OES) wage data are also provided for each occupation. OES data are based on a national survey of employers and refers to filled positions, not vacancies. The data provided here are reported for El Paso and Teller counties when available and Statewide otherwise. It was collected in 2001 and aged to 2002 using the Employment Cost Index (ECI). Complete descriptions of the OES survey and the ECI are available on the Internet at: http://www.bls.gov/.

While the Job Vacancy Survey average wages reflect what is being offered to fill vacancies at the time of the survey, OES wage data reflect what is being paid for filled positions. Together, these data provide employers and job seekers with a good indication of the compensation offered in the current job market. Table 1: Occupations with 10 or More Estimated Vacancies -

					Ŏ	ccupatio	nal Emp	loyment	Statistic	s Wage I	Occupational Employment Statistics Wage Data (2002)	2)
					Ave	Average Wages	ges		Percen	<b>Percentile Distribution</b>	ribution	
SOC Code	SOC Occupational Title	Vacancies Estimated	Vacancies Found	Average JVS Wage	Entry-Level	Overall	Experi- enced	10th	25th	50th	75th	90th
29-1111	Registered Nurses	78	60	\$24.70	\$15.69	\$20.83	\$23.40	\$14.50	\$18.24	\$21.14	\$24.66	\$27.42
	Combined Food Preparation and Serving Workers,											
35-3021	Including Fast Food	50	22	\$6.10	\$6.19	\$7.51	\$8.17	\$5.78	\$6.21	\$6.94	\$8.55	\$10.46
35-3031	Waiters and Waitresses	39	22	\$5.20	\$6.14	\$8.92	\$10.31	\$5.75	\$6.21	\$6.99	\$10.12	\$11.80
41-2011	Cashiers	39	23	\$7.30	\$6.47	\$8.64	\$9.72	\$6.08	\$7.00	\$8.06	\$9.14	\$13.06
43-3011	Bill and Account Collectors	37	9	\$15.60	\$8.12	\$12.98	\$15.42	\$7.27	\$9.11	\$12.22	\$16.96	\$20.70
	Customer Service											
43-4051	Representatives	36	2	\$8.50	\$8.97	\$12.59	\$14.39	\$8.30	\$9.88	\$12.08	\$14.48	\$17.65
51-4041	Machinists	35	e	\$11.00	\$9.59	\$13.61	\$15.62	\$9.10	\$10.41	\$13.01	\$16.76	\$19.75
35-9021	Dishwashers	31	31	\$8.50	\$6.33	\$7.54	\$8.15	\$6.02	\$6.74	\$7.59	\$8.40	\$9.04
41-2031	Retail Salespersons	30	10	\$7.40	\$6.68	\$10.61	\$12.57	\$6.17	\$7.23	\$8.55	\$11.26	\$17.45
	Computer Software											
	Engineers, Systems											
15-1032	Software	30	17	+-	\$27.40	\$36.07	\$40.41	\$25.20	\$30.14	\$36.65	\$42.19	\$47.77
15 1071	Network and Computer	CC	75	+	01 000	10100	¢ 76 6 7	¢10.00	¢72 00	¢00 £0	¢20 76	C 11 07
* 35-2010		52	c S C	-+	6t-07¢	++ ++	+	0.7.0 +	00.02¢	++	+	++.
13-2072	Loan Officere	29	2 u	- +	\$14 BO	\$20.58	\$23.47	\$13.41	¢16.68	\$10.67	\$22.14	\$20.60
7 107 01	Secretaries Excent Legal	2	<b>,</b>	-	) 	00.04		- 	2000 <del>2</del>	5.5- <b>→</b>	+	
43-6014	Medical, and Executive	25	9	\$11.60	\$9.70	\$13.17	\$14.91	\$9.34	\$10.72	\$12.90	\$15.54	\$17.57
17-2199	Engineers, All Other	23	12	\$39.20	\$23.81	\$34.22	\$39.41	\$21.18	\$27.66	\$34.38	\$41.55	\$47.17
	Receptionists and											
43-4171	Information Clerks	23	4	\$10.60	\$8.02	\$10.75	\$12.12	\$7.51	\$8.85	\$10.39	\$12.33	\$15.16
	Amusement and Recreation											
39-3091	Attendants	22	22	\$6.70	\$6.22	\$7.08	\$7.51	\$5.82	\$6.17	\$6.75	\$7.43	\$8.97
	Hairdressers, Hairstylists,											
39-5012	and Cosmetologists	21	13	\$7.00	\$8.09	\$10.54	\$11.75	\$7.40	\$9.10	\$10.28	\$11.38	\$13.67
53-3031	Driver/Sales Workers	21	5	\$5.60	\$6.09	\$9.35	\$10.98	\$5.72	\$6.22	\$7.17	\$12.35	\$14.58
25-9041	Teacher Assistants	20	1	\$9.10	\$14,371	\$18,955	\$21,247	\$13,080	\$15,654	\$18,584	\$22,059	\$25,882

\* OES wages reported for Colorado statewide
† Insufficient Wage Data Available

Occupational Details | Table 1: Occupations with Ten

					Õ	ccupatio	nal Emp	loyment	Statistic	s Wage I	Occupational Employment Statistics Wage Data (2002)	2)
					Ave	Average Wages	ges		Percen	<b>Percentile Distribution</b>	ribution	
SOC Code	SOC Occupational Title	Vacancies Estimated	/acancies Vacancies Estimated Found	Average JVS Wage	Entry-Level	Overall	Experi- enced	10th	25th	50th	75th	90th
37-2012	Maids and Housekeeping Cleaners	20	11	\$7.80	\$6.82	\$7.89	\$8.42	\$6.35	\$7.18	\$7.86	\$8.54	\$9.44
47-2081	Drywall and Ceiling Tile Installers	18	ო	+	\$8.91	\$12.49	\$14.28	\$8.11	\$9.33	\$10.78	\$16.16	\$18.56
35-2011	Cooks, Fast Food	17	17	+	\$6.18	\$8.04	\$8.97	\$5.88	\$6.44	\$7.49	\$9.46	\$11.32
53-3033	Truck Drivers, Light or Delivery Services	17	7	\$12.90	\$8.61	\$12.49	\$14.43	\$7.84	\$9.39	\$10.98	\$14.27	\$20.22
31_1010	Nursing Aides, Orderlies,	4	a	¢6.60	\$8 <i>1</i> 1	¢10.11	¢10.03	¢7 05	¢8 07	\$10.06	¢11 17	¢10.76
33-9032	Security Guards	15	6	\$12.30	\$7.48	\$9.49	\$10.50	\$7.11	\$7.91	\$9.06	\$10.66	\$12.62
41-3011	Advertising Sales Agents	15	ę	+	\$11.64	\$21.37	\$26.22	\$11.17	\$13.14	\$17.64	\$25.00	\$38.05
11-3031	Financial Managers	15	7	+	\$21.96	\$35.48	\$42.24	\$19.73	\$24.98	\$32.29	\$44.16	\$59.13
7700 ZC	Janitors and Cleaners, Except Maids and	Ţ	o	¢0 00	۵۵ ۵۵	0 0 0	00 40 40	و د د	4 7 7	0 0 7	¢10 10	670 ОП С
1107-10	Heating, Air Conditioning,	t	0	00.0¢	00.0¢	0.0¢	00.0¢	07.0¢	-0.10	40.0¢	2. 	00.21 ¢
49-9021	and Refrigeration Mechanics and Installers	12	ო	\$14.00	\$11.11	\$15.10	\$17.09	\$10.24	\$11.88	\$14.79	\$17.24	\$21.06
35-1011	Chefs and Head Cooks	10	10	+	\$8.88	\$11.71	\$13.13	\$8.23	\$9.11	\$10.29	\$12.77	\$17.16
	First-Line											
	Supervisors/Managers of Food Preparation and											
35-1012	Serving Workers	10	10	+	\$7.41	\$12.21	\$14.60	\$6.09	\$9.26	\$11.95	\$13.83	\$19.20
41-2022	Parts Salespersons	10	2	+	\$8.50	\$13.60	\$16.15	\$7.87	\$9.21	\$11.77	\$16.88	\$23.11

Table 1: Occupations with 10 or More Estimated Vacancies Page 2

\* OES wages reported for Colorado statewide
† Insufficient Wage Data Available

Table 2: Occupations with Fewer than 10 Estimated Vacancies –

		0	ccupatio	nal Emp	loyment	Statistic	s Wage I	Occupational Employment Statistics Wage Data (2002)	2)
		Ave	Average Wages	ges		Percer	Percentile Distribution	ribution	
SOC Code	SOC Occupational Title	Entry-Level	Overall	Experi- enced	10th	25th	50th	75th	90th
13-2011	Accountants and Auditors	\$15.70	\$23.14	\$26.86	\$14.82	\$17.29	\$21.62	\$27.17	\$34.64
11-2011	Advertising and Promotions Managers	\$16.91	\$26.51	\$31.32	\$15.63	\$18.60	\$22.39	\$32.02	\$45.20
29-1121	Audiologists	\$17.41	\$22.96	\$25.74	\$15.13	\$21.89	\$24.28	\$26.61	\$28.93
49-3023	Automotive Service Technicians and Mechanics	\$10.37	\$16.48	\$19.53	\$9.54	\$11.96	\$15.86	\$20.16	\$25.72
39-6011	Baggage Porters and Bellhops	\$6.21	\$6.67	\$6.90	\$5.75	\$6.06	\$6.59	\$7.13	\$8.40
51-3011	Bakers	\$7.29	\$11.30	\$13.31	\$6.51	\$8.35	\$11.12	\$14.31	\$16.67
39-5011	Barbers	\$6.32	\$9.92	\$11.73	\$6.06	\$6.68	\$8.41	\$13.60	\$16.55
35-3011	Bartenders	\$6.17	\$8.27	\$9.31	\$5.88	\$6.47	\$7.66	\$9.91	\$11.54
* 25-1042	Biological Science Teachers, Postsecondary	\$35,629	\$65,283	\$80,111	\$32,541	\$42,039	\$57,737	\$84,162	\$114,888
43-3031	Bookkeeping, Accounting, and Auditing Clerks	\$9.85	\$14.03	\$16.12	\$9.44	\$10.92	\$13.34	\$17.57	\$20.35
13-2031	Budget Analysts	\$18.90	\$26.11	\$29.71	\$18.03	\$20.24	\$24.43	\$30.98	\$35.72
* 37-2019	Building Cleaning Workers, All Other	÷	+	+	+-	+	+	+	÷
53-3022	Bus Drivers, School	\$9.02	\$11.25	\$12.37	\$8.50	\$9.73	\$11.06	\$12.92	\$14.47
13-1199	Business Operations Specialists, All Other	\$12.86	\$22.38	\$27.13	\$12.05	\$13.84	\$21.98	\$28.21	\$34.86
51-3021	Butchers and Meat Cutters	\$11.74	\$15.09	\$16.76	\$10.88	\$13.03	\$15.51	\$17.25	\$19.01
* 25-1052	Chemistry Teachers, Postsecondary	\$38,338	\$58,785	\$69,008	\$35,619	\$43,356	\$54,499	\$70,991	\$90,671
39-9011	Child Care Workers	\$6.19	\$7.39	\$7.99	\$5.92	\$6.55	\$7.46	\$8.29	\$8.81
13-1031	Claims Adjusters, Examiners, and Investigators	\$17.84	\$23.89	\$26.91	\$16.41	\$19.42	\$23.18	\$27.81	\$33.82
21-2011	Clergy	\$12.39	\$23.84	\$29.56	\$10.63	\$14.54	\$18.88	\$23.23	+
19-3031	Clinical, Counseling, and School Psychologists	\$18.42	\$25.83	\$29.53	\$16.87	\$20.46	\$25.35	\$30.93	\$34.99
27-2022	Coaches and Scouts	\$31,854	\$53,048	\$63,645	\$23,503	\$41,714	\$60,454	\$66,752	\$70,637
* 11-3041	Compensation and Benefits Managers	÷	+	+-	+-	+-	+-	÷	+-
11-3021	Computer and Information Systems Managers	\$29.84	\$43.47	\$50.28	\$28.13	\$33.73	\$41.88	\$53.52	\$66.69
15-1021	Computer Programmers	\$22.30	\$30.37	\$34.41	\$20.65	\$24.47	\$29.20	\$36.53	\$43.04
15-1031	Computer Software Engineers, Applications	\$24.43	\$34.40	\$39.39	\$22.23	\$27.65	\$33.60	\$41.03	\$48.85
15-1099	Computer Specialists, All Other	\$17.78	\$30.21	\$36.42	\$14.85	\$21.68	\$29.90	\$37.61	\$47.35
15-1041	Computer Support Specialists	\$14.07	\$18.42	\$20.59	\$13.03	\$15.07	\$17.91	\$20.77	\$24.79
15-1051	Computer Systems Analysts	\$22.08	\$34.27	\$40.37	\$20.20	\$25.60	\$32.99	\$41.57	\$52.59
* 39-6012	Concierges	\$8.84	\$11.20	\$12.38	\$8.07	\$9.37	\$10.65	\$12.77	\$15.47
35-2012	Cooks, Institution and Cafeteria	\$7.21	\$9.99	\$11.39	\$6.55	\$8.04	\$9.84	\$11.82	\$13.71
35-2014	Cooks, Restaurant	\$7.24	\$9.49	\$10.63	\$6.54	\$7.92	\$9.40	\$11.03	\$12.95
35-2015	Cooks, Short Order	\$7.47	\$8.35	\$8.79	\$7.05	\$7.49	\$8.17	\$9.04	\$10.53

OES wages reported for Colorado statewide Insufficient Wage Data Available \*

+

Occupational Details Table 2: Occupations with Fewer

Occupational Details Table 2: Occupations with Fewer

		Õ	ccupatio	nal Emp	loyment	Statistic	s Wage I	Occupational Employment Statistics Wage Data (2002)	2)
		Ave	Average Wages	ges		Percer	Percentile Distribution	ribution	
SOC Code	SOC Occupational Title	Entry-Level	Overall	Experi- enced	10th	25th	50th	75th	90th
13-1051	Cost Estimators	\$17.14	\$25.02	\$28.96	\$15.39	\$19.01	\$23.05	\$28.49	\$34.85
41-2021	Counter and Rental Clerks	\$6.68	\$9.90	\$11.52	\$6.16	\$7.23	\$8.47	\$10.74	\$17.07
	Counter Attendants, Cafeteria, Food Concession, and								
35-3022	Coffee Shop	\$6.13	\$7.74	\$8.54	\$5.78	\$6.27	\$7.14	\$8.55	\$11.03
13-2041	Credit Analysts	\$12.82	\$22.01	\$26.61	\$11.77	\$14.15	\$17.34	\$25.02	\$32.85
43-4041	Credit Authorizers, Checkers, and Clerks	\$11.99	\$14.72	\$16.09	\$11.35	\$12.20	\$13.63	\$16.55	\$19.53
33-9091	Crossing Guards	\$10.07	\$11.10	\$11.61	\$9.55	\$10.04	\$10.82	\$11.58	\$14.36
43-9021	Data Entry Keyers	\$8.06	\$10.27	\$11.39	\$7.65	\$8.39	\$9.73	\$11.36	\$14.01
15-1061	Database Administrators	\$15.01	\$26.05	\$31.57	\$12.93	\$17.47	\$24.61	\$33.08	\$42.88
43-9031	Desktop Publishers	\$13.21	\$16.48	\$18.11	\$12.60	\$14.33	\$16.45	\$18.48	\$21.27
33-3021	Detectives and Criminal Investigators	\$17.09	\$25.59	\$29.84	\$15.96	\$18.10	\$23.24	\$33.15	\$39.97
29-2032	Diagnostic Medical Sonographers	\$22.18	\$28.26	\$31.29	\$20.34	\$22.95	\$25.05	\$27.14	\$35.55
	Dining Room and Cafeteria Attendants and Bartender								
35-9011	Helpers	\$6.21	\$6.83	\$7.14	\$5.76	\$6.12	\$6.71	\$7.46	\$8.62
27-3041	Editors	\$13.03	\$19.40	\$22.59	\$11.63	\$14.85	\$18.45	\$23.18	\$28.47
* 11-9039		+	+-	+	+	+	+	≁	≁
	Education Administrators, Elementary and Secondary								
11-9032	School	\$54,674	\$68,676	\$75,676	\$50,922	\$60,780	\$69,334	\$78,680	\$90,652
11-9033	Education Administrators, Postsecondary	\$16.35	\$25.99	\$30.82	\$15.35	\$17.66	\$20.89	\$29.95	\$44.95
17-3023	Electrical and Electronic Engineering Technicians	\$13.79	\$19.65	\$22.58	\$12.40	\$15.63	\$19.45	\$23.57	\$26.97
17-2071	Electrical Engineers	\$22.89	\$31.65	\$36.03	\$20.94	\$25.53	\$31.27	\$37.12	\$43.65
47-2111	Electricians	\$12.98	\$20.51	\$24.28	\$11.40	\$14.80	\$19.08	\$23.94	\$27.78
17-2072	Electronics Engineers, Except Computer	\$25.34	\$34.04	\$38.40	\$23.72	\$28.12	\$33.03	\$40.34	\$47.47
25-2021	Elementary School Teachers, Except Special Education	\$27,129	\$38,123	\$43,620	\$25,263	\$29,492	\$34,916	\$44,559	\$55,757
13-1071	Employment, Recruitment, and Placement Specialists	\$14.02	\$20.77	\$24.15	\$12.76	\$15.49	\$18.19	\$24.71	\$35.47
11-9041	Engineering Managers	\$32.83	\$46.32	\$53.06	\$29.15	\$37.95	\$45.89	\$56.98	\$68.05
* 17-3029	Engineering Technicians, Except Drafters, All Other	+	+	+-	+	+	+	+	+
	English Language and Literature Teachers,								
25-1123	Postsecondary	\$31,427	\$54,404	\$65,893	\$27,204	\$36,472	\$50,021	\$69,187	\$89,001
* 25-1053	Environmental Science Teachers, Postsecondary	+	+-	≁	+	+	+	+-	+
43-6011	Executive Secretaries and Administrative Assistants	\$12.81	\$16.90	\$18.94	\$12.01	\$14.01	\$16.51	\$19.56	\$22.56

Table 2: Occupations with Fewer than 10 Estimated Vacancies Page 2

OES wages reported for Colorado statewide Insufficient Wage Data Available

Table 2: Occupations with Fewer than 10 Estimated Vacancies Page 3 --

		Ō	ccupatio	nal Emp	loyment	Statistic	s Wage I	Occupational Employment Statistics Wage Data (2002)	2)
		Ave	Average Wages	ges		Percer	Percentile Distribution	ribution	
SOC Code	SOC Occupational Title	Entry-Level	Overall	Experi- enced	10th	25th	50th	75th	90th
45-2092	Farmworkers and Laborers, Crop, Nursery, and Greenhouse	\$8.47	\$11.26	\$12.65	\$8.12	\$9.04	\$10.52	\$12.07	\$15.65
45-2093	Farmworkers, Farm and Ranch Animals	\$7.31	\$9.54	\$10.65	\$6.84	\$8.10	\$9.51	\$10.48	\$11.30
13-2051	Financial Analysts	\$20.56	\$32.04	\$37.77	\$18.50	\$23.15	\$32.88	\$40.73	\$45.22
	First-Line Supervisors/Managers of Housekeeping and								
37-1011	Janitorial Workers	\$9.07	\$14.50	\$17.21	\$8.56	\$10.05	\$13.16	\$17.68	\$24.04
	First-Line Supervisors/Managers of Landscaping, Lawn								
37-1012	Service, and Groundskeeping Workers	\$12.24	\$17.15	\$19.60	\$10.80	\$14.29	\$16.69	\$19.93	\$25.06
	First-Line Supervisors/Managers of Office and								
43-1011	Administrative Support Workers	\$12.72	\$20.11	\$23.80	\$11.64	\$14.26	\$18.31	\$23.57	\$32.31
	First-Line Supervisors/Managers of Personal Service								
39-1021	Workers	\$9.36	\$13.18	\$15.09	\$8.85	\$9.71	\$11.06	\$14.62	\$21.10
	First-Line Supervisors/Managers of Police and								
33-1012	Detectives	\$24.97	\$29.20	\$31.31	\$23.92	\$25.78	\$28.81	\$33.31	\$36.79
	First-Line Supervisors/Managers of Production and								
51-1011	Operating Workers	\$14.49	\$21.99	\$25.75	\$13.39	\$16.16	\$21.27	\$26.76	\$32.50
	First-Line Supervisors/Managers of Retail Sales								
41-1011	Workers	\$10.02	\$16.88	\$20.31	\$9.29	\$11.16	\$14.54	\$18.51	\$28.53
39-9031	Fitness Trainers and Aerobics Instructors	\$9.03	\$12.91	\$14.84	\$8.55	\$9.34	\$10.74	\$15.99	\$19.39
35-2021	Food Preparation Workers	\$7.52	\$8.49	\$8.97	\$7.08	\$7.51	\$8.17	\$9.00	\$10.78
35-3041	Food Servers, Nonrestaurant	\$6.19	\$7.27	\$7.81	\$5.75	\$6.15	\$6.81	\$8.18	\$10.01
11-9051	Food Service Managers	\$12.96	\$20.33	\$24.01	\$12.15	\$14.75	\$17.86	\$25.88	\$33.52
* 39-3012	Gaming and Sports Book Writers and Runners	\$7.34	\$8.46	\$9.02	\$6.96	\$7.43	\$8.18	\$9.37	\$10.80
11-1021	General and Operations Managers	\$19.90	\$36.47	\$44.74	\$17.27	\$23.12	\$31.17	\$46.64	+
21-1091	Health Educators	\$12.95	\$17.01	\$19.04	\$12.16	\$14.01	\$15.78	\$21.15	\$25.25
25-1071	Health Specialties Teachers, Postsecondary	\$29,426	\$51,008	\$61,799	\$27,113	\$31,455	\$38,048	\$60,083	\$100,629
47-3013	HelpersElectricians	\$10.09	\$16.12	\$19.13	\$9.50	\$10.69	\$13.44	\$21.78	\$25.93
31-1011	Home Health Aides	\$7.77	\$9.47	\$10.32	\$7.46	\$8.10	\$9.12	\$10.45	\$11.61
	Hosts and Hostesses, Restaurant, Lounge, and Coffee								
35-9031	Shop	\$6.23	\$7.85	\$8.65	\$5.99	\$6.70	\$7.89	\$8.95	\$10.08
43-4081	Hotel, Motel, and Resort Desk Clerks	\$7.74	\$8.62	\$9.06	\$7.32	\$7.82	\$8.57	\$9.51	\$10.54

\* OES wages reported for Colorado statewide
† Insufficient Wage Data Available

Occupational Details | Table 2: Occupations with Fewer

		Ō	ccupatio	nal Emp	loyment	Occupational Employment Statistics Wage Data (2002)	s Wage	Data (200	2)
		Ave	Average Wages	ges		Percer	Percentile Distribution	ribution	
SOC Code	SOC Occupational Title	Entry-Level	Overall	Experi- enced	10th	25th	50th	75th	90th
	Human Resources Assistants, Except Payroll and								
43-4161		CL.11\$	\$14.09	\$15.57	87.01\$	\$11.90	\$13.91 \$25.07	\$16.28	\$18.04
11-3051		\$20./8	\$36.69	\$44.65	\$18.42	\$23.90	\$35.25	\$48.50	\$59.07
51-9061	Inspectors, Testers, Sorters, Samplers, and Weighers	\$9.44	\$12.39	\$13.87	\$8.68	\$10.13	\$12.11	\$13.93	\$16.36
	Installation, Maintenance, and Repair Workers, All								
49-9099	Other	\$10.29	\$15.49	\$18.09	\$9.25	\$11.49	\$14.31	\$19.56	\$23.03
43-9041	Insurance Claims and Policy Processing Clerks	\$9.55	\$12.07	\$13.32	\$8.93	\$9.95	\$11.34	\$13.94	\$16.67
13-2053	Insurance Underwriters	\$16.16	\$25.05	\$29.49	\$15.09	\$17.80	\$24.39	\$31.40	\$36.26
25-2012	Kindergarten Teachers, Except Special Education	\$25,883	\$39,387	\$46,139	\$24,903	\$29,369	\$37,170	\$48,602	\$58,448
53 7060	I shorors and Ervisht Stool and Matorial Marians Hand	¢7 01	¢10.00	¢11 20	46 66	¢0 07	¢0.04	¢11 05	¢12 60
37-3011	Landscaping and Groundskeeping Workers	10.1\$	\$10.56	\$12.06	\$7.13	\$8.38	\$10.22	\$12.25	\$15.04
51-6011	Laundry and Dry-Cleaning Workers	\$6.30	\$7.82	\$8.58	\$6.05	\$6.85	\$7.86	\$8.76	\$9.93
25-4021	Librarians	\$14.90	\$19.96	\$22.50	\$14.44	\$16.79	\$19.86	\$23.31	\$26.93
29-2061	Licensed Practical and Licensed Vocational Nurses	\$12.73	\$15.47	\$16.86	\$11.96	\$13.74	\$15.53	\$17.11	\$18.61
	Life, Physical, and Social Science Technicians, All								
19-4099	Other	\$11.76	\$17.20	\$19.93	\$11.55	\$13.54	\$16.75	\$20.66	\$24.78
49-9042	Maintenance and Repair Workers, General	\$9.17	\$13.83	\$16.15	\$8.67	\$10.38	\$13.05	\$16.85	\$20.92
11-9199	Managers, All Other	\$23.92	\$33.53	\$38.34	\$21.27	\$28.16	\$33.17	\$38.56	\$47.63
19-3021	Market Research Analysts	\$19.11	\$31.90	\$38.31	\$17.37	\$21.56	\$29.65	\$40.19	\$50.74
11-2021	Marketing Managers	\$20.82	\$36.91	\$44.96	\$18.17	\$24.29	\$33.71	\$49.97	\$62.34
25-1022	Mathematical Science Teachers, Postsecondary	\$36,179	\$54,432	\$63,559	\$33,215	\$40,227	\$50,737	\$69,136	\$84,979
17-2141	Mechanical Engineers	\$23.80	\$31.76	\$35.74	\$22.94	\$25.68	\$30.24	\$34.92	\$46.29
* 29-2011	Medical and Clinical Laboratory Technologists	\$15.60	\$20.28	\$22.64	\$14.60	\$16.99	\$20.23	\$23.13	\$26.79
11-9111	Medical and Health Services Managers	\$18.72	\$28.40	\$33.22	\$18.27	\$20.86	\$26.07	\$34.11	\$44.11
31-9092	Medical Assistants	\$9.69	\$11.29	\$12.10	\$9.14	\$9.79	\$10.86	\$12.49	\$14.10
43-6013	Medical Secretaries	\$11.17	\$16.85	\$19.70	\$10.41	\$12.08	\$16.38	\$21.43	\$25.26
31-9094	Medical Transcriptionists	\$11.34	\$13.75	\$14.95	\$10.64	\$12.13	\$13.65	\$15.60	\$17.16
	Middle School Teachers, Except Special and Vocational								
25-2022	Education	\$28,000	\$36,609	\$40,914	\$25,917	\$29,809	\$34,220	\$42,166	\$52,464
	Mining and Geological Engineers, Including Mining								
* 17-2151	Safety Engineers	\$22.18	\$33.78	\$39.58	\$19.10	\$26.54	\$33.74	\$41.53	\$48.91

Table 2: Occupations with Fewer than 10 Estimated Vacancies Page 4

\* OES wages reported for Colorado statewide † Insufficient Wage Data Available

Table 2: Occupations with Fewer than 10 Estimated Vacancies Page 5 –

		Õ	ccupatic	nal Emp	loyment	Statistic	Occupational Employment Statistics Wage Data (2002)	Data (200	2)
		Ave	Average Wages	ges		Percer	<b>Percentile Distribution</b>	ribution	
SOC Code	SOC Occupational Title	Entry-Level	Overall	Experi- enced	10th	25th	50th	75th	90th
49-3042	Mobile Heavy Equipment Mechanics, Except Engines	\$14.53	\$16.97	\$18.19	\$13.84	\$14.97	\$16.62	\$18.93	\$21.30
	Multiple Machine Tool Setters, Operators, and Tenders,								
* 51-4081	Metal and Plastic	\$9.40	\$13.87	\$16.12	\$8.98	\$10.36	\$13.26	\$16.93	\$20.51
39-2021	Nonfarm Animal Caretakers	\$7.13	\$9.62	\$10.86	\$6.51	\$7.76	\$9.14	\$10.93	\$12.97
29-2033	Nuclear Medicine Technologists	\$19.94	\$22.68	\$24.05	\$18.73	\$20.09	\$22.27	\$25.50	\$27.64
25-1072	Nursing Instructors and Teachers, Postsecondary	\$37,210	\$50,201	\$56,696	\$35,248	\$42,131	\$50,654	\$57,768	\$68,649
29-1122	Occupational Therapists	\$18.72	\$24.15	\$26.86	\$18.03	\$20.14	\$23.86	\$27.54	\$32.73
43-9061	Office Clerks, General	\$8.51	\$11.93	\$13.63	\$7.59	\$9.57	\$11.37	\$14.10	\$17.01
53-7064	Packers and Packagers, Hand	\$6.25	\$8.71	\$9.93	\$5.99	\$6.66	\$7.85	\$9.96	\$13.93
53-6021	Parking Lot Attendants	\$6.36	\$7.76	\$8.46	\$6.05	\$6.75	\$7.54	\$8.48	\$10.08
39-9099	Personal Care and Service Workers, All Other	\$6.89	\$9.26	\$10.44	\$6.42	\$7.42	\$8.51	\$10.42	\$13.54
37-2021	Pest Control Workers	\$8.08	\$12.20	\$14.26	\$7.34	\$8.99	\$11.35	\$15.48	\$18.04
29-1051	Pharmacists	\$31.61	\$35.37	\$37.25	\$29.99	\$32.03	\$35.39	\$39.58	\$43.49
* 19-2099	Physical Scientists, All Other	\$21.42	\$33.10	\$38.94	\$19.12	\$25.38	\$33.38	\$40.75	\$47.82
29-1123	Physical Therapists	\$19.09	\$25.18	\$28.22	\$18.31	\$21.05	\$25.08	\$28.61	\$33.72
* 19-2012	Physicists	\$32.13	\$43.11	\$48.59	\$29.18	\$36.37	\$42.29	\$51.62	\$62.22
47-2152	Plumbers, Pipefitters, and Steamfitters	\$13.21	\$17.87	\$20.20	\$12.13	\$14.63	\$18.21	\$21.25	\$23.22
* 33-3051	Police and Sheriff's Patrol Officers	\$16.34	\$22.34	\$25.34	\$15.17	\$18.18	\$22.45	\$26.77	\$30.32
43-5031	Police, Fire, and Ambulance Dispatchers	\$12.58	\$15.75	\$17.34	\$12.14	\$13.37	\$15.70	\$17.76	\$20.15
* 25-1199	Postsecondary Teachers, All Other	\$25,796	\$42,641	\$51,063	\$22,501	\$30,089	\$36,574	\$51,670	\$70,199
* 51-8012	Power Distributors and Dispatchers	\$24.46	\$27.45	\$28.96	\$23.35	\$24.85	\$27.12	\$29.71	\$34.86
25-2011	Preschool Teachers, Except Special Education	\$7.42	\$10.25	\$11.66	\$7.09	\$7.73	\$8.92	\$10.98	\$15.15
11-2031	Public Relations Managers	\$16.65	\$37.08	\$47.29	\$14.91	\$18.57	\$28.79	\$64.66	÷
* 21-2099	Religious Workers, All Other	+	+-	+-	+-	+-	+	≁	÷
	Reservation and Transportation Ticket Agents and								
43-4181	Travel Clerks	\$8.02	\$11.66	\$13.47	\$7.56	\$8.77	\$10.78	\$13.65	\$17.07
39-9041	Residential Advisors	\$8.46	\$10.42	\$11.40	\$7.11	\$9.34	\$10.35	\$11.72	\$13.92
* 29-1126	Respiratory Therapists	\$14.88	\$18.36	\$20.10	\$14.15	\$15.89	\$18.52	\$20.99	\$22.61
41-9031	Sales Engineers	\$23.75	\$31.43	\$35.27	\$23.59	\$25.57	\$28.89	\$36.30	\$45.36
11-2022	Sales Managers	\$22.35	\$42.22	\$52.17	\$20.30	\$25.57	\$38.39	\$61.40	÷
41-3099	Sales Representatives, Services, All Other	\$12.28	\$22.49	\$27.60	\$11.46	\$14.37	\$17.31	\$28.06	\$42.89

\* OES wages reported for Colorado statewide
† Insufficient Wage Data Available

9
Page
lacancies
Estimated \
0
than
Fewer than
with
Occupations
Table 2:

		0	ccupatic	nal Emp	Occupational Employment Statistics Wage Data (2002)	Statistic	s Wage I	Data (200	2)
		Ave	Average Wages	ges		Percen	Percentile Distribution	ribution	
SOC Code	SOC Occupational Title	Entry-Level	Overall	Experi- enced	10th	25th	50th	75th	90th
	Sales Representatives, Wholesale and Manufacturing,								
41-4011	Technical and Scientific Products	\$19.56	\$32.48	\$38.95	\$17.35	\$22.79	\$31.26	\$40.03	\$53.21
	Secondary School Teachers, Except Special and								
25-2031	25-2031 Vocational Education	\$28,265	\$42,901	\$50,218	\$25,959	\$31,150	\$39,683	\$53,254	\$66,917
	Securities, Commodities, and Financial Services Sales								
41-3031	Agents	\$13.19	\$26.06	\$32.50	\$12.15	\$14.28	\$17.26	\$26.77	\$69.47
* 39-5093	Shampooers	+	≁	+	+	+-	+	+	+
43-5071	Shipping, Receiving, and Traffic Clerks	\$8.88	\$11.65	\$13.04	\$8.24	\$9.48	\$11.27	\$13.52	\$16.14
25-2042	Special Education Teachers, Middle School	\$30,193	\$38,216	\$42,226	\$28,085	\$31,913	\$37,386	\$43,796	\$51,312
25-2043	Special Education Teachers, Secondary School	\$31,906	\$43,242	\$48,909	\$29,425	\$35,392	\$43,217	\$52,015	\$57,783
29-1127	Speech-Language Pathologists	\$20.16	\$25.66	\$28.41	\$18.48	\$22.54	\$25.27	\$27.96	\$36.84
29-2055	Surgical Technologists	\$12.23	\$14.67	\$15.89	\$11.57	\$12.48	\$13.97	\$16.34	\$18.45
13-2081	Tax Examiners, Collectors, and Revenue Agents	\$14.82	\$22.78	\$26.77	\$13.17	\$16.74	\$23.12	\$27.63	\$33.52
* 25-3099	Teachers and Instructors, All Other	+	+	+	+	+	+	+	+
27-3042	Technical Writers	\$16.12	\$23.58	\$27.32	\$15.28	\$17.23	\$22.73	\$28.31	\$33.78
49-9052	Telecommunications Line Installers and Repairers	\$11.65	\$18.36	\$21.72	\$11.13	\$12.87	\$15.93	\$20.23	\$34.71
41-9041	Telemarketers	\$6.26	\$8.71	\$9.93	\$6.05	\$6.71	\$8.09	\$9.96	\$12.41
43-3071	Tellers	\$8.29	\$9.60	\$10.24	\$7.83	\$8.71	\$9.53	\$10.57	\$11.40
13-1073	Training and Development Specialists	\$12.89	\$20.42	\$24.18	\$11.31	\$14.54	\$18.01	\$25.71	\$32.79
53-3032	Truck Drivers, Heavy and Tractor-Trailer	\$11.32	\$14.87	\$16.64	\$10.47	\$12.18	\$14.08	\$16.85	\$20.99
29-2056	Veterinary Technologists and Technicians	\$10.70	\$11.92	\$12.53	\$9.93	\$11.23	\$12.21	\$13.13	\$13.70
25-1194	Vocational Education Teachers, Postsecondary	\$13.46	\$21.72	\$25.85	\$12.33	\$14.91	\$21.01	\$28.01	\$33.82
13-1022	Wholesale and Retail Buyers, Except Farm Products	\$9.97	\$15.45	\$18.18	\$8.83	\$11.56	\$15.18	\$18.89	\$22.25

\* OES wages reported for Colorado statewide
† Insufficient Wage Data Available

# Health Care and Social Assistance

hile the Health Care and Social Assistance sector ranks sixth in the Pikes Peak Region in terms of employment representation, it accounts for some of the highest demanded occupations by local employers. Some individuals have already chosen this career path and are on their way with education and experience to fulfill the requirements, though many more are needed as it appears there is a persistent shortage of health care workers.

In the first quarter of 2001, about 19,250 people, were employed in Health Care and Social Assistance. This sector includes four subsectors: Ambulatory Health Care Services, Hospitals, Nursing and Residential Care Facilities, and Social Assistance. About 45% of all health care-related occupations are in the Ambulatory Health Care Services subsector in the Pikes Peak Region. These are positions in all physicians' and dentists' offices, including (but not limited to) offices of chiropractors, optometrists, and other outpatient care center, medical and diagnostic laboratories, ambulance services, and blood and organ banks.

Opportunities exist at nearly every level in this NAICS sector. While fewer highly specialized occupations exist (surgical technologists, respiratory therapists, etc.) for this winter report, there is still need at the upper end on occasion. The largest health care occupation, with over two million jobs nationwide, is registered nurses, which is also the most demanded occupation in this survey. Wages are usually above regional average, especially for advanced nurses with higher levels of education and experience. From the Occupational Table in this report, the top 25% of all registered nurses earn at least \$24.66 per hour. For this survey, the average JVS wage offered of \$24.70 per hour is about the same, which means new hires are being offered a wage very competitive to those near the high end of wages for RNs currently working in the field. Varying levels of medical personnel are always in demand in the region, ranging from registered nurses, radiation and respiratory technicians and other health diagnosing and treating practitioners to lower-skilled entry positions in health care support such as home health aides, nursing aides, orderlies and other assistants.

Entering into health care occupations offers almost immediate employment in addition to allowing the trained

individual to find employment anywhere in the state. The Pikes Peak Region has a multitude of emergency medical facilities and family practice clinics offering varying levels of opportunities. In fact, there are over 15 hospitals and clinics and more than 550 offices of physicians and surgeons servicing the region. In addition to traditional medical office work, there are highly specialized RN positions staffing Flight For Life medical teams, with one of three base locations at Penrose Hospital in Colorado Springs. While Flight For Life RNs have approximately 10 years of extensive critical care medical training, many other positions, including entry level, are available in the Pikes Peak Region.

The region has over 40 major schools, colleges and universities to prepare individuals for entering into these various levels of nursing positions. University of Colorado at Colorado Springs (UCCS) recently acquired Beth-El College of Nursing and Health Sciences and offers both undergraduate and graduate degrees in nursing. UCCS also offers certificate programs for non-degree seeking students as well as for extended studies and continuing education. Regis University and University of Phoenix also offer extensive nursing programs through the graduate level.

Two-year colleges such as Pikes Peak Community College and Blair Junior College offer associate degrees and certificates, allowing nursing candidates to enter the medical labor market even sooner. Pikes Peak Community College (PPCC) offers an accredited nursing program along two tracks. The first is for students not yet licensed but who want to pursue an associate of applied science degree. The second is for individuals who are already licensed practical nurses and are pursuing an associate degree in nursing. PPCC also offers certificate programs including certification for nursing assistants, licensed practical nursing, psychiatric technicians and pharmacy technicians. Blair College offers associate of applied science degrees in medical assisting, preparing students for entry level positions in a variety of medical environments including clinics, medical offices, and ambulatory settings.

27

# How to Use This Report

which the analysis of labor market conditions, many questions regarding labor demand and supply, as well as labor skills requirements, often arise...

How many job openings are there?

♦What industries are hiring?

- ♦What skills are employer's seeking?
- Are employers having difficulty filling positions?

The answers to these and similar questions are important in the decision-making processes of employers, employees, job seekers, trainers, and planning officials. While Labor Market Information (LMI) provides data on the local labor force supply, the Job Vacancy Survey complements this by providing information about the demand for labor and offers a more complete picture of local labor markets.

# Employers

The Job Vacancy Survey measures the area's current vacancies along with education and experience requirements. This report can serve as a strategic planning tool in the following areas:

### **Employee Recruitment**—

If findings indicate that employers have had positions open for a significant period of time, and compensation is sufficient, one might deduce a shortage of applicants in the area. Therefore, recruitment efforts could be focused outside of the region in areas where the necessary skills are more likely to be found.

### Compensation and Benefits Planning-

The Job Vacancy Survey provides wages offered for surveyed job openings. Tables in this report also detail current wages by occupation from Occupational Employment Statistics data. Together these pieces of information can be used to develop wage guidelines for compensation practices.

### New Site Selection—

Employers considering relocating or expanding to the area can study the survey and determine how easily the company's employment needs will be met by reviewing current vacancies. Companies need a sufficient, qualified labor pool to operate. High labor demand within a particular industry segment along with indications of difficulty filling these positions should caution a firm requiring a similar labor profile.

# **Job Seekers**

The Job Vacancy Survey provides job seekers with a broad view of which industries are hiring, which occupations are in demand along with currently offered salaries and benefits, and what education and experience levels are required. This report is a roadmap that can be used to determine where the best paying jobs are given an individual's skills and level of education.

Job seekers can also use Labor Market Information's occupational projections, which provide a long-term outlook of occupational demand, along with the survey, which illustrates the current level of demand in the local job market to determine how current employment opportunities can contribute to their long-term career goals. Career minded individuals can tailor education, training, and work-experience to fit future high-demand positions.

# **Workforce Centers**

The Job Vacancy Survey is designed to aid Colorado's Workforce Centers and other job placement organizations. As Workforce Centers serve job seekers and employers, the report acts as a handy reference for information on current vacancies, position requirements, wages and benefits offered, seasonal employment trends, and dominant regional industries. Workforce Center representatives can increase placement success by directing job seekers toward high demand occupations and industries. The Workforce Research and Analysis survey unit cooperates with regional Workforce Centers to list reported vacancies given the approval of the reporting businesses.

While this report is a picture of the area's current employment needs and historical seasonal patterns, other Labor Market Information products provide projections of occupational growth and anticipated openings. These can be accessed at www.coworkforce.com/lmi/oeo/oeo.htm. Projections highlight growing as well as declining occupations. Public officials, educational institutions, and Government agencies can use this survey information to effectively apply resources to education, training, and job placement programs. Investments in the workforce can be directed toward occupations or industries that continuously contribute to the local economy or to those where there is a constant need for workers.

# **Economic Developers**

Economic development professionals Ecan use the Job Vacancy Survey to track the labor situation in key industries and evaluate the area's labor needs. The survey results help determine where bottle-

necks may occur should current vacancies persist. Economic developers can also generate a comprehensive picture of the region by determining where labor demand stands today, as identified by the survey, and where the local market is trending using Labor Market Information's employment projections.

# Appendix Caveats &

# Caveats

The Job Vacancy Survey uses sampling methods to estimate over-all job vacancies for regions. As such, readers should be mindful of sampling issues.

Sampling error results from the Job Vacancy Survey producing estimates from one particular sample, rather than examining the entire population. Different samples will likely result in different estimates for the population, thus we report the overall estimate with a confidence interval; i.e. the range of values within which the actual sample derived vacancy estimate is likely to fall 95% of the time.

Nonsampling error occurs primarily from reporting, translating data to standard terms, and incorrect information about firms in our sample frame. Some examples include placing reported vacancies in the wrong occupational codes, inadequate data collection in an industry due to non-response, and estimating errors. The majority of non-sampling errors are corrected in the Job Vacancy Survey's extensive review and validation process that takes place before estimates are published. The study provides estimates of job openings for a point-in-time and does not attempt to project the level of vacancies into the future. Readers should be aware that events having occurred since the time period analyzed such as plant closings or the migration of people in and out of the area might significantly affect the vacancy status of some occupations. Job openings are very dynamic—current openings are being filled, new positions are being created, and some roles are being phased-out.

Occupational demand is subject to seasonal changes and is affected by business cycles. For example, the reader would want to be aware that a decrease in vacancies for construction workers from April to November could represent seasonal variations, not necessarily a long-term decrease in the demand for such workers. When several years of survey data have been collected, patterns that more accurately reflect changing labor market conditions may be identified. Regional surveys are timed to make these comparisons possible.

The occupational detail provided is supplemental data believed to be of interest to the reader. The survey design does not allow for application of this detail to the region as a whole, but it can be used to understand characteristics of those job vacancies reported. These vacancy characteristics are not estimated and therefore do contain significant bias. Approximately two thirds of the non-estimated information comes from large employers and government agencies, but they represent approximately 40% of the employment in the region. The vacancy characteristics therefore are heavily influenced by what is being demanded by large employers and government agencies. This information is still useful and important, but the user of this data needs to keep in mind its inherit bias.

Given the caveats, appropriate application by the user is a key element in this report being a useful tool for job vacancy analysis.

# Methodology

The Job Vacancy Survey (JVS) conducted by the Colorado Department of Labor and Employment involves the collection, processing, and dissemination of regional job vacancies and their characteristics. The survey design allows for estimation of a job vacancy rate and the total job vacancies within a region by industry and size of firm. Additional data related to these vacancies is informative of the occupations for which they are reported, but is not indicative of overall vacancy characteristics in the regional *universe*.

The number of vacancies—used to calculate the job vacancy rate—is an important measure of the unmet demand for labor. With this statistic, it is possible to paint a more complete picture of the regional labor market than by looking solely at the unemployment rate, a measure of the excess supply of labor.

# Survey Design

The Job Vacancy Survey was designed to accurately estimate the number of job vacancies for firms employing 5 or more people. The secondary purpose of the survey is to obtain and report significant vacancy characteristics.

The survey estimates vacancies based on the ratio of vacancies to employment size in each stratification. It attempts to determine how many positions in a region are filled and unfilled. A filled position is an employee and an unfilled position is a job vacancy. Because positions are not independent of one another or evenly dispersed, we collect this information in naturally occurring clusters, *i.e.*, firms. Firms are asked how many employees they have and how many positions they are actively recruiting for. In each size and industry stratification a ratio of vacancies to employment is calculated based on the sampled firms. That ratio is then applied to the total number of employees in that stratification to obtain the estimated number of vacancies in that stratification. The total number of vacancies for a region is the sum of each stratification's estimated vacancies.

Stratifications containing small and medium sized private employers are randomly sampled. In order to report vacancy characteristics such as education and experience requirements demanded, the survey must contact more employers than would be necessary if the survey only estimated the total number of vacancies. For this reason all of the large employers and government agencies are contacted in the region. These employers provide the most cost effective means of obtaining large amounts of vacancy information. Approximately 40% of the employment in the region is found in large and government employers that make up only 1%-2% of the total number of firms. Censusing these entities allows us to cover a large portion of the region's employment while contacting relatively few entities.

# **Survey Sample**

The Pikes Peak survey was conducted from February 18 through March 5. For the purpose of this report, all government and private employers with five or more employees are referred to as the sample frame. Firms with fewer than five employees make up a very large portion of all employers in the region, but a small proportion of the total employment. Employment in the sample frame accounts for 89% of the region's total employment.

The Job Vacancy Survey separates employers into either government or private industry. Private firms are then split into large and small to mid-size categories. Firms with at least 250 employees are considered large employers. Attempts are made to contact all government agencies and large firms in the sample frame. The remaining small to mid-

# **JVS Sectors**

The new North American Industry Classification System increases the number of major industry groups to 20 from the Standard Industrial Classification System. The new coding system better reflects today's service based economy and allows comparison of industries in the United States, Mexico and Canada.

In the Pikes Peak Region, the 20 NAICS sectors have been combined into 12 JVS Sectors. These groupings are based on the NAICS sectors, but are somewhat unique to the Job Vacancy Survey. The new groupings allow the Job Vacancy Survey to study local Colorado labor markets in a more relevant and meaningful way.

For more information on the North American Industry Classification System see *Page 31*.

size firms are split into JVS sectors. The number of firms surveyed in each sector varies according to the number of employees and employers in the sector. In most JVS sectors half of all employers are contacted up to 200 employers. In JVS sectors with less than 1,000 employees, efforts are made to capture at least 500 employees in the sample. If less than 500 employees work in a sector then all employers are contacted. This sampling method insures that all the vacancy estimates are based on a sufficiently large sample size.

Government makes up 21% of the employment in the sample frame, while private industry employers make up the remaining 79%. Large firms account for 61% of private industry employment in the sample frame. Firms employing from five to 249 individuals are considered small to mid-size

Pikes Peak Region

employers, and account for the remaining 39% of private industry employment.

The margin of error for the overall vacancy estimate is plus or minus 8% or 108 vacancies at a .95 certainty level. In other words, in 95 out of 100 samples taken, the actual number of vacancies for the region will be between 1,245 and 1,461 in the survey period. Labor Market Information is confident that the estimates in this survey are accurate and that the survey was conducted according to recognized survey research standards.

The survey response rate is 73%. This measures the quality of the survey database, or the success experienced in contacting eligible employers. The cooperation rate is 99% and measures the success in obtaining data once an employer is contacted.

JVS Sectors	Iude NAICS Sectors
Natural Resources & Mining	Agriculture, Forestry, Fishing, & Hunting Mining
Construction	Construction
Manufacturing	Manufacturing
Trade, Transportation, & Utilities	Utilities Wholesale Trade Retail Trade Transportation & Warehousing
Other Services (except Public Administration)	Other Services (except Public Administration)
Information	Information
Financial Activities	Finance & Insurance Real Estate & Rental & Leasing
Professional & Business Services	Professional, Scientific, & Technical Services Management of Companies & Enterprises Administrative & Support & Waste Management & Remediation Services
Educational Services	Educational Services
Health Care & Social Assistance	Health Care & Social Assistance
Leisure & Hospitality	Accommodation & Food Services Arts, Entertainment, & Recreation
Government	Public Administration

# **Data Collection**

Data for the Job Vacancy Survey are collected using a Computer Assisted Telephone Interview (CATI) process. While this system of data collection has been in use in the public sector for several years, Colorado is the first state in the nation to pioneer the use of CATI data collection for the Job Vacancy Survey.

Professional interviewers, trained in economic data collection processes, gather

the information from a call center located in the Colorado Department of Labor and Employment. This interview process results in increased control over the survey process, better accuracy, and dependable results.

Employers are asked if they have job vacancies or open positions which they are actively seeking to fill. Those that are actively hiring are then asked to provide more detail about each position—compensation offered, levels of education and experience required, and the employer's perceived difficulty in filling the vacancy along with the number of days the position has been open. Employers are also asked if sign-on bonuses and health insurance coverage are offered for these positions. These data are collected in addition to the minimum and maximum wages in order to describe more fully the compensation offered.

# Appendix NAICS

# Wage Conversion

Standard conversions are used to translate salaries into hourly wages: 2,080 hours for annual, 173.3 hours for monthly.

All wages reported below the federal minimum are adjusted to that amount. Currently, the federal minimum wage is \$5.15 per hour. Where only a single wage figure is reported, that wage is used as both the minimum and maximum wage for that job vacancy.

# **Data Editing**

Once data collection is complete, measures are taken to prepare the data for analysis. To ensure accuracy, follow-up phone calls are made when employer responses need clarification.

# **Occupational Coding**

The job title, duties, education and experience requirements reported by employers are used to code vacancies in accordance with the latest release of the Standard Occupational Classification system.

# North American Industry Classification System (NAICS)

The Office of Management and Budget (OMB) in cooperation with agencies from Mexico and Canada has developed an industry classification system called the North American Industry Classification System (NAICS pronounced nakes) that replaced the Standard Industrial Classification (SIC) system. While work has been underway since 1993, OMB formally adopted NAICS on January 16, 2001.

### **History of Process**

The Office of Management and Budget established the Economic Classification Policy Committee in 1992 to pursue a fresh slate examination of economic classifications for statistical purposes<sup>1</sup>. Since 1939 the U.S. has been using the Standard Industrial Classification (SIC) system. While SIC had undergone periodic revisions, the last one in 1987, rapid changes in the U.S. and world economies brought SIC under increased scrutiny. In response to the need for a classification system that better reflected the dynamic nature of economies, OMB established the Economic Classification Policy Committee<sup>2</sup>. Government agencies from the United States. Mexico and Canada<sup>3</sup> were tasked with the development of a system that accounted for rapid changes in the U.S and world economies.

# Industrial Classification vs. Occupational Classification

NAICS is a system concerned with classifying organizations into different industries; as opposed to classification at the occupational level. The newly revised Standard Occupational Classification (SOC) system classifies occupations by job duties. Occupations specific to certain industries may be found in a different industry category because of the shift to NAICS, yet the Standard Occupational Classification Code remains the same. Systems like O\*NET and other classification systems based on SOC are not subject to changes because of the shift to NAICS. Professionals who use information at the occupational level will not notice changes in job categories as a result of the shift to NAICS, unless they are looking at occupations by industry.

# Benefits

*Comparable*—NAICS is organized in such a way so as to allow direct comparison of economic data with our NAFTA trading partners Canada and Mexico.

**Relevant**— NAICS recognizes hundreds of new businesses in the economy with 20 broad industry sectors, up from SIC's 10. Some new industry categories include an Information Sector and a Health Care and Social Assistance Sector formerly lumped into Services under SIC.

**Consistent**—NAICS classifies an organization based on how it produces something, not simply what it produces. Businesses that use identical or similar technologies and processes to produce something will be grouped together. For example, software creation falls under the new Information sector, while software duplication falls under Manufacturing. Under SIC both enterprises were grouped under the same major industry sector, because both were engaged in production of software.

*Adaptable*—Regular updates, which are scheduled in 5 year intervals account for emerging industries not currently known.

### Things to Consider

The shift to NAICS means a break in historical time series. SIC and NAICS industry groupings are not directly comparable since the code changes for NAICS have split some SIC groups.

# New Industries Reflected in NAICS

- NAICS heralds the creation of a new information sector that pulls businesses from communications, publishing, motion picture and sound recording and online services to recognize an information-based economy.
- Formerly, under SIC corporate headquarters were not distinguished from the industry category of the product or service they produced. Now corporate headquarters are recognized in the new Management Sector.
- Manufacturing is restructured to account for high-tech industries.
- An increase in the amount of detail overall accompanies the shift to NAICS including a further breakdown of SIC's services sector into nine new sectors.
- Eating and drinking places move out of Retail Trade into a new category called Accommodation and Food Services.
- The difference between Retail and Wholesale is now based on how each store conducts business. For example, many computer stores are reclassified from Wholesale to Retail.

<sup>1</sup>Executive Office of the President Office of Management and Budget. *North American Industry Classification System*. White Plains, MD: Bernan and U.S. Department of Commerce, 2002

<sup>2</sup>ECPC is chaired by the Bureau of Economic Analysis, U.S. Department of Commerce, with representatives from the Bureau of the Census, U.S. Department of Commerce, and the Bureau of Labor Statistics, U.S. Department of Labor

<sup>3</sup>Specifically, Mexico's Instituto Nacional de Estadística, Geografía e Informàtica (INEGI) and Statistics Canada

# **Comparison of NAICS and SIC Major Industry Groups**

SIC Standard Industrial Classification	NAICS North American Industy Classification System
Agriculture, Forestry, & Fishing	Agriculture, Forestry, Fishing, & Hunting
Mining	Mining
Construction	Construction
Manufacturing	Manufacturing
Transportation, Communications & Public Utilities	Utilities
	Transportation & Warehousing
Wholesale Trade	Wholesale Trade
Retail Trade	Retail Trade
	Accommodation & Food Services
Finance, Insurance, & Real Estate	Finance & Insurance
Orminer	Real Estate & Rental & Leasing
Services	Information
	Professional, Scientific, & Technical Services
	Administrative Support; Waste Management & Remediation Services
	Educational Services
	Health Care & Social Assistance
	Arts, Entertainment, & Recreation
	Other Services (except Public Administration)
Public Administration	Public Administration
(parts of all divisions)	Management of Companies & Enterprises

U.S. Bureau of the Census, U.S. Department of Commerce

Glossary

hese definitions are meant to clarify data gathered for the Job Vacancy Survey. For other data sources referenced in the document, please see that source for a complete definition.

# Average Maximum Wage

An average maximum wage is calculated by summing the maximum wages offered for all vacancies in a given category and then dividing by the number of vacancies in that category.

# Average Minimum Wage

An average minimum wage is calculated by summing the minimum wages offered for all vacancies in a given category and then dividing by the number of vacancies in that category.

# Computer Assisted Telephone Interviewing (CATI)

A structured system of data collection by telephone that speeds up the collection and editing of such data.

# **Cooperation Rate**

The number of completed interviews divided by the number of all units surveyed that are eligible. Measures the effectiveness of surveyors in gaining information once an eligible employer is contacted.

# **Educational Attainment**

The highest diploma or degree, or level of work towards a diploma or degree, an individual has completed. In this survey, an individual recorded in the Bachelor's degree category has completed the degree.

# **Effective Response Rate**

The number of completed interviews divided by the sum of all units surveyed that are eligible as well as those with unknown eligibility. This is a measure of how well the survey obtains completed interviews from employers in the sample.

# **Employed Persons (Employment)**

Persons 16 years and over in the civilian non-institutional population who, during the reference period

- a) did any work at all (at least 1 hour) as paid employees, worked in their own business, profession, or on their own farm, or worked 15 hours or more as unpaid workers in an enterprise operated by a member of the family, and
- b) all those who were not working but who had jobs or businesses from which they were temporarily absent because of vacation, illness, bad weather, childcare problems, maternity or paternity leave, labor-management dispute, job training, or other family or personal reasons, whether or not they were paid for the time off or were seeking other jobs.

# Employer

A person or establishment that employs one or more people for wages or salary.

# Full-time Employee

Employees who usually work 35 hours per week or more.

# **Goods Producing Industries (NAICS)**

Includes manufacturing, construction, mining, and agriculture, forestry, fishing and hunting.

# Industry

A group of establishments that use similar processes and technologies to produce goods and services. The North American Industry Classification System (NAICS) groups establishments using closely similar technologies into industries.

# Job Seeker

A person actively looking for employment or researching career options.

# Job Vacancy

A specific position of employment at an establishment with the condition that there is work available for the position and the employer is actively recruiting for the position.

# Job Vacancy Rate

The estimated number of vacancies divided by the sum of current employment and estimated vacancies.

# Labor Force

The labor force includes all persons classified as employed or unemployed in accordance with the definitions contained in this glossary.

# **Medical Insurance**

Refers to any insurance plan that includes coverage for medical and related care.

# **Medical Insurance Premium**

Payments that a holder of an insurance policy pays in order to keep his/her policy current.

# North American Industry Classification System (NAICS)

The successor to the Standard Industrial Classification (SIC) system; this system of classifying business establishments is used by the United States, Canada, and Mexico. See full description within *Appendix*.

# Not Seasonally Adjusted

This term is used to describe data series not subject to the seasonal adjustment process. In other words, the effects of regular, or seasonal, patterns have not been removed from these series.

# **Occupation**

Represents a set of activities and skills for which an employee is paid to perform. Employees that perform essentially the same tasks are grouped into the same occupation whether or not they are in the same industry. Some occupations are concentrated in a few particular industries, other occupations are found in most or all industries.

# Part-time Employee

An employee who usually works between 1 and 34 hours per week.

# **Percentile Wage Estimate**

Shows what percentage of workers in an occupation earn less than a given wage and what percentage earn more. For example, a 25th percentile wage of \$15.00 indicates that 25% of workers (in a given occupation in a given area) earn at or less than \$15.00; therefore 75% of workers earn at or more than \$15.00.

### **Permanent Employment**

A vacancy is classified as a permanent position if the employee is hired to be employed for more than six months.

### Sample

A subset of the population selected for interview as a representative subset of the sample frame.

### Sample Frame

A listing of all units in a population. For this report the sample frame includes employers with 5 or more employees; government entities are drawn from ES-202 while private companies come from the ALMIS (America's Labor Market Information System) database.

# **Seasonally Adjusted**

Seasonal adjustment removes the effects of events that follow a more or less regular pattern each year. These adjustments make it easier to observe the cyclical and other non-seasonal movements in a data series.

# Service Producing Industries (NAICS)

Includes utilities; wholesale trade; retail trade; transportation and warehousing; information; finance and insurance; real estate and rental and leasing; professional, scientific, and technical services; management of companies and enterprises; administrative and support and waste management and remediation services; educational services; health care and social assistance; arts, entertainment, and recreation; accommodation and food services; other services (except public administration); public administration.

### Sign-on Bonus

An additional financial incentive offered by a firm to a potential new employee to influence his/her decision to agree to employment with that firm. The bonus, for purposes of this survey, is a monetary lump sum.

# Standard Occupational Classification (SOC) System

This system is used by all Federal statistical agencies to classify workers into occupational categories for the purpose of collecting, calculating, or disseminating data. All workers are classified into one of over 820 occupations according to their occupational definition. To facilitate classification, occupations are combined to form 23 major groups, 96 minor groups, and 449 broad occupations. Each broad occupation includes detailed occupations requiring similar job duties, skills, education, or experience.

# **Temporary Employment**

A vacancy is classified as a temporary position if the employee is hired to be employed for six months or less.

### **Unemployed Persons**

Persons 16 years of age and over who had no employment during the reference week, were available for work, except for temporary illness, and had made specific efforts to find employment sometime during the 4-week period ending with the reference week. Persons who were waiting to be recalled to a job from which they had been laid off need not have been looking for work to be classified as unemployed.

### **Unemployment Rate**

The unemployment rate represents the number unemployed as a percent of the labor force.

# Wages

Hourly straight-time wage rate or, for workers not paid on an hourly basis, straight-time earnings divided by the corresponding hours. Straight-time wage and salary rates are total earnings before payroll deductions, excluding premium pay for overtime and for work on weekends and holidays, shift differentials, and non-production bonuses such as lump-sum payments provided in lieu of wage increases. OUVISM and our State Parks are important parts of Colorado's economy.



We urge you to See JOLORADO -irst

# State parks to explore in the region

Mueller

Colorado State Parks http://parks.state.co.us/home

Photo-Courtesy of Colorado State Parks

Pikes Peak Region

# WORKFORCE CENTERS



Aspen Mine Center - Cripple Creek, CO Pikes Peak Workforce Center 166 East Bennett Ave. P.O Box 129 Cripple Creek, CO 80813-0129 Phone: (719) 689-3584, ext. 13 Fax: (719) 689- 5711

Lorraine Community Center - Fountain, CO 301 East Iowa Street Fountain, CO 80817 Phone: (719) 667-3885 Fax: (719) 322-0739

Pikes Peak Workforce Center 2306 East Pikes Peak Blvd. Colorado Springs, CO 80909 Phone: (719) 667-3700 Fax: (719) 667-3754

Pikes Peak Community College Pikes Peak Workforce Center 5675 South Academy Blvd, Suite A-115 Colorado Springs, CO 80906 Phone: (719) 579-3080 Fax: (719) 579-3089

For a listing of all Colorado Workforce Centers: www.coworkforce.com/EMP/WFCs.asp

Workforce Research & Analysis Labor Market Information Colorado Department of Labor and Employment



Mueller State Park, Teller County