



Survey Conducted February 13 – March 1, 2004

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Pikes Peak Region

Job Vacancy Survey

Winter 2004



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The Colorado Job Vacancy Survey

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 nec-

Introduction

essary 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 these needs. 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.

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



Figure 1: Colorado Job Vacancy Survey Regions

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.

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

The winter Pikes Peak Job

Vacancy Survey was conducted from February 13th through March 1st, 2004. 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 midsize employers with at least five employees, were contacted in the region. Employers were 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 1,190 employers representing 33% of the region's employment responded to the survey. Out of these, 61 are large employers (250 or more employees), 109 are Government Employers, and 1,020 are from Small to Mid-size Employers (five to 249 employees). The survey has an 88% response rate and a cooperation rate of 99%. The margin of sampling error for the overall vacancy estimate is plus or minus 3.9%, or about 95 vacancies.

Major Findings of the Survey:

♦ It is estimated that a total of 2,448 jobs were open for hire in the Pikes Peak Region during the survey period, up 81% from 1,353 a year ago
 Twelve percent of the employers responding to the survey reported having at least one vacancy.
 Twenty percent of all vacancies are in Health Care & Social Assistance, 18% are in Leisure & Hospitality, 15% are in Manufacturing, and 13% in Trade, Transportation, & Utilities. The remaining 34% of the vacancies are in all other industries (<i>Figure 7</i>)
The average wage for all vacancies is \$14.60 per hour. The Healthcare & Social Assistance sector offers the highest average wage of \$21.90 per hour
 Fifty-eight percent of vacancies are in small to mid-size firms and another 37% are in large firms. Only 5% of the region's vacancies are in Government agencies. These are similar to last year's distribution of vacancies.
Eighty-seven percent of estimated vacancies are full-time permanent positions, while 13% are part-time permanent (<i>Figure 11</i>)Page 11
 Fifty-seven percent of all vacancies require post-secondary education, 21% require high school or GED completion, and 22% have no educational requirements. This report shows that 31% of all vacancies require a bachelor's degree
 Forty-four percent of vacancies are considered <i>not difficult to fill</i>, while this time last year, 51% were considered the same. Only 13% of the vacancies are <i>very difficult to fill</i>Page 14
♦ Forty-three percent of reported vacancies are open for less than 30 days, slightly more than last year's report. An additional 23% of vacancies are open 30 to 59 days, almost half of last year's report when 41% of vacancies were open for this length of time. Only 8% of all vacancies are open for 60 or more days. The remaining 26% are always hiring



Regional Information

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 outdoor 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.

According 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. Overall, Colorado has seen a slowdown in population growth, from 2.4% over the 2000-2001 period to just over 1% during the 2002-2003 period according the U.S. Census Bureau.

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*). This current survey shows a change in the winter vacancies, in that there are more vacancies this winter than last.

Regional Information -continued

7.000 6,476 6.000 5,000 4.000 3,000 3,437 2,734 2,448 2,000 2,414 1,000 1,353 0-Summer 2001 Winter 2002 Summer 2002 Winter 2003 Summer 2003 Winter 2004

Figure 2: Historical Vacancies – Pikes Peak Region

	Summer 2001	Winter 2002	Summer 2002	Winter 2003	Summer 2003	Winter 2004
Vacancies	6,476	2,734	3,437	1,353	2,414	2,448
Employment	277,611	268,071	277,533	274,266	278,585	278,461
Unemployed	13,104	20,062	19,794	18,429	18,086	16,651
Unemployment Rate	4.5%	7.0%	6.7%	6.3%	6.1%	5.6%

Source: CDLE, Local Area Unemployment Statistics, Released March 2004

Although the availability of job opportunities declined over prior winter surveys, employment per season has increased. For example, not only did employment increase from the winter of 2002 to the winter of 2003-and again to the winter of 2004, employment also increased over the summer reports. Furthermore, unemployment levels decreased over the last three winter reports, though a portion of this could be due to discouraged workers leaving the labor market. The Pikes Peak Region's unemployment rate decreased over the last 2 summer reports as well, meaning the seasonal labor force level has remained relatively in check with the fluctuations in employment 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.

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5 Regional Information -continued

Historically, the level of employment in the Pikes Peak Region peaks in or around the months of July and August (*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 varies from month to month, however it tends to peak in the month of June of each year.

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.



Figure 3: Employment and Labor Force Trends for the Pikes Peak Region

Source: CDLE, Local Area Unemployment Statistics, Released March 2004

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 had remained somewhat elevated possibly due to the increased numbers of people staying in or reentering the labor force through mid-2003 but had been on an overall downward trend since. Unemployment in the region is comparable to that in other metropolitan statistical areas.





Figure 4: Pikes Peak Region Unemployment Rate Trend

Source: CDLE, Local Area Unemployment Statistics, Released March 2004

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.

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.

Regional Information – continued

Since conducting the first Job Vacancy Survey in the Pikes Peak Region, Healthcare Practitioners & Technical occupations as well as Office & 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 2003. This serves as a useful reference for the time period in which the Pikes Peak Job Vacancy Survey was conducted.

The relative proportions of employment by industry in the Pikes Peak Region have remained fairly constant over prior years; however, classification of industries has recently changed. The 60year-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 & Business Services. Health Care & Social Assistance and Educational Services are also separate from other service industries and can now be reviewed at a greater level of detail than previously available.



Figure 6: Pikes Peak Region Employers and Employees, 1st Quarter, 2003

Source: CDLE, Quarterly Census of Employment and Wages (QCEW), 1st Quarter, 2003

The Government sector represents a very small percentage of area employers but the largest percentage (17.7%) of the area's employees. The Trade, Transportation, & Utilities sector has 16.0% of the area's employees and Professional & Business Services has 14.0%. These three sectors combined contain almost half (47.7%) of the Pikes Peak Region's employees. The Leisure & Hospitality sector also holds a good share of the region's employees.



Estimated Vacancies: JVS Sectors and Employer Size

Survey Findings

During the survey period, an estimated 2,448

vacancies were open for immediate hire in firms with at least five employees in the Pikes Peak Region. The overall vacancy rate found in this survey is 1.1%. 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 have increased.

Twelve percent of employers responding to the survey reported having at least one vacancy,

up from only 8% a year ago. The survey reports very few vacancies in Natural Resources & 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 concentration of vacancies is found in Health Care & Social Assistance where 88% are health care related (*Figure 7*). Opportunities in health services range from certified nurses' assistants and other aides to registered nurses, therapists and medical technicians. Leisure & Hospitality also shows continued demand for specialized cooks, chefs, bartenders and servers, as well as for groundskeepers, housekeepers and hotel clerks.



Figure 7: Estimated Vacancies and Average Wages by JVS Sectors



Figure 8: Reported Average Wage Ranges by JVS Sectors

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 & Social Assistance, Information, and Manufacturing. On average, sectors with a wider wage range usually have a variety of vacancies that include lower and higher education and experience requirements. For example, in the Health Care & 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 \$14.60 per hour. The highest average wages offered for this survey are in Health Care & Social Assistance and in Natural Resources & Mining; the former having the most vacancies and the latter having the fewest. In Natural Resources & Mining, vacancies include positions such as Millwrights, Truck Mechanics & Diesel Engine specialists, and Medical & Clinical Laboratory Technologists. These positions require a bachelor's degree as well as experience in the occupation.

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Small to mid-size firms account for 58% of total vacancies (Figure 9) in the Pikes Peak Region. Large companies are reporting 37% and Government agencies have only 5% of all vacancies. The highest concentration of vacancies within the large company category is found among health care occupations most of which are at the local hospitals and rehabilitative centers. High levels of vacancies are also found in computer manufacturing and other high tech-related firms, and throughout the school systems. Most retail positions are in small to mid-size firms though vacancies are found in large retail enterprises as well. According to the survey, Government and large firms are offering \$8 to \$9 per hour more, on average, than the average wage offered by small to mid-size firms.

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 post-secondary training or related experience, allowing a mixture of applicants to find positions in large firms. The wage range for the small to mid-size firms is \$8 to \$9.40 per hour—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.



Figure 9: Estimated Vacancies and Average Wages





Vacancies: Employment Status, Education and Experience Requirements

Survey Findings

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, 87% of the reported vacancies are for full-time permanent positions (Figure 11) while 13% of the positions are reported to be part-time permanent. There are no temporary positions found in this job vacancy survey. Last year at this time only 73% of the reported vacancies were full-time permanent. All Pikes Peak Region Job Vacancy Surveys, summer and winter, have consistently shown a high percentage of permanent positions. Last winter's drop in full-time permanent positions was due, in part, to the slowdown in the economy. The increase in available full-time permanent positions in this winter's report is consistent with a recovering economy. For job seekers who prefer to work less than full-time, opportunities do exist. Thirteen percent of the vacancies for which employment status is reported are part-time permanent positions. Full-time positions include occupations in all industries. Part-time vacancies are positions such as teachers and administrators of elementary schools, registered nurses, radiation and respiratory therapists, waiters and waitresses, cashiers, crossing guards, retail salespersons, maintenance and repair workers, and a variety of clerical and related positions from information clerks to accountants and auditors.

In general, full-time positions pay more than part-time and temporary positions. For this survey, part-time permanent vacancies offer wages higher than both full-time permanent vacancies and the overall average of \$14.60 (*Figure 12*). Many of these part-time permanent vacancies include highly specialized positions in the Health Care & Social Assistance sector like registered nurses.

Figure 11: Vacancies by Employment Status









Figure 14: Reported Average Wage Ranges by Education



Employers were asked about education requirements for open positions. Fifty-seven 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, management and computer 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 60% 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 provided the applicant has a two-year degree or vocational training/certification and adequate experience in the occupation. Many engineers (for example, aerospace engineers), a portion of the registered nurses, medical technologists, and college professors require advanced degrees include teachers' assistants, food service and lodging managers, a portion of registered nurses and therapists,

computer programmers, and other trade positions such as mechanics, truck drivers, plumbers, and electricians.

Forty-three 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 as wait staff, telemarketers, clerks, secretaries, medical assistants, security guards, administrative support workers, construction laborers, and customer service representatives. Last year at this time, 10% of job vacancies did not require a high school diploma. That number is up to 22% this survey period.

For this survey, the highest wages are found for positions requiring an advanced degree followed by positions requiring a bachelor's degree (*Figure 14*). These wages are, on average, at least \$5 to \$15 an hour more than positions requiring a two-year degree. Generally, the more education required for a position, the higher the wages offered and the wider the distance between the high and low amounts in the range. 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 approximately \$3 per hour if high school is finished.

Survey Findings Vacancies: Employment Status, Education and Experience Requirements—continued 13



Figure 16: Reported Average Wage Ranges by Experience

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 at about the same rate as last year. In fact, 78% of all vacancies required experience in a related field or in the occupation whereas this time last year, very little changed as 73% of all vacancies required 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. Vacancies that do not require experience, or require only general work experience are mostly food and beverage workers in the Leisure & Hospitality sector, although some of these openings can be found as crossing guards in Government, telemarketers in Information, and cashiers in Trade, Transportation, & Utilities.

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 \$17.00 per hour to start. This wage far exceeds the minimum average wages offered for other vacancies especially those requiring low levels of experience. Most of the vacancies requiring experience in the occupation also require post-secondary education, especially bachelor's and advanced degrees. This is comparable to last year's wages offered to those with high levels of experience except this year, the minimum wage offered for vacancies requiring experience are slightly less than wages offered a year ago. Wages offered are significantly higher for those who have related or specific experience than for those who only have general work experience or no experience at all.

Open for Hire

Vacancies: Difficulty to Fill and Time

In addition to asking employers about the 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 only on employers' opinions. Of the employers responding to these questions, only 13% of the vacancies reported are classified as very difficult to fill. This is up only seven percentage points from last year. Logically, with more individuals available for work, employers should find it a little easier to fill vacancies. While 44% of the vacancies reported are considered not difficult to fill, 43% are associated with some degree of hiring difficulty. In this report, positions considered very difficult to fill are senior software engineers and a variety of other positions such as certified nursing assistants, room service supervisors, and painters.

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 lower percentage of vacancies that take 30 to 59 days to fill this year, and a significantly higher percentage (26%) of vacancies that are always hiring (Figure 18). Forty-three percent of all vacancies were open for less than 30 days with an additional 23% 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. Vacancies reported as always hiring tripled in occurrence and are predictably entry-level positions requiring little or no previous experience or education. These vacancies include food servers, dishwashers, cashiers, telemarketers, bank tellers, and stockers. Though the positions require no previous experience and offer lower pay, they offer entry into the labor market. These positions are also found in most retail areas, indicative of the economy pulling out of a slump and catering to a spending population.







Figure 18: Vacancies by Time Open for Hire

15 Survey Findings Vacancies: Difficulty to Fill and Time Open for Hire-continued

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 below the region's overall average of \$14.60 per hour. Specifically, wages offered for vacancies considered not difficult to fill range from \$8.70 to \$10.20 per hour; wages for positions considered somewhat difficult to fill range from \$12.90 to \$15.40 per hour; and for very difficult to fill positions, wages offered are \$16.50 to \$19.40 per hour.

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 30 - 59 days, but similar wage ranges exist for both vacancies open less than 30 days and vacancies open 60 or more days.



Figure 19: Reported Average Wage Ranges by Time Open for Hire

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Additional Survey Findings

Compensation

Medical Insurance

Employers frequently 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 through an employer group plan. Employers can and do offer employees the opportunity to participate in a group medical insurance plan even though they may not contribute to the premium. Employers may pay all, part of or none of the monthly premium.

Employers responding to this category report that health insurance is offered with the vacancies in this survey. Furthermore, with 93% of the vacancies, employers are paying partial cost of the insurance premium and an additional 3% are paying the total cost of the premium. Compared to last year at this time, more employers are paying partial cost of the insurance premium while fewer are paying the total premium.

As expected, the vacancies with more requirements offer not only higher pay but also more complete medical coverage. In particular, employers pay a partial cost of the premium for most of the vacancies among health care related occupations, engineers, college instructors, telemarketers, customer service representatives, clerks, various repair workers, many wait-staff and housekeeping jobs, and all management positions. Employers offering to pay the total cost of medical premiums are for positions not necessarily offering the highest wages. These vacancies include educational administrators, highway maintenance workers, school bus drivers, plumbers, secretaries, police officers and security guards, among others.





Sign-On Bonus

There are no sign-on bonuses reported for this survey. This type of compensation is usually used during times when employers are having difficulty attracting potential applicants.



Occupational Details

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 occupa-

tional 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 (SOC) 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. Results show that the most frequently occurring job

vacancies are in the Computer & Mathematical occupational group—a category that is finally expanding again with the region's economic recovery. The Healthcare Practitioner & Technical occupational group remains near the top with a persistent need for registered nurses. Both occupational groups show that average wages offered are above the survey's overall average wage of \$14.60 per hour, reflecting the higher level of education and experience required. Management positions offer the highest wages, starting at nearly \$30 to \$35 per hour. For this survey, management positions include marketing, public relations, administrative services, computer and information systems, financial, industrial production, purchasing, construction, general, engineering, food service, lodging, medical and health services, social and community service, and educational managers.

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: Management; Healthcare Practitioners & Technical; Computer & Mathematical; and Architecture & Engineering.

Occupational Details --continued

Figure 21: Vacancies and Reported Average Wage Ranges by Major Occupational Groups



Pikes Peak Region JVS Report

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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 59% 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 -

					Occupational Employment Statistics Wage Data (2002)								
					A	verage Wag	es		Perce	ntile Distrib	ution		
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	85	73	\$24.30	\$15.69	\$20.83	\$23.40	\$14.50	\$18.24	\$21.14	\$24.66	\$27.42	
43-4081	Hotel, Motel, and Resort Desk Clerks	80	7	\$8.50	\$7.74	\$8.62	\$9.06	\$7.32	\$7.82	\$8.57	\$9.51	\$10.54	
41-9041	Telemarketers	73	66	\$7.50	\$6.26	\$8.71	\$9.93	\$6.05	\$6.71	\$8.09	\$9.96	\$12.41	
41-2011	Cashiers	72	23	\$7.30	\$6.47	\$8.64	\$9.72	\$6.08	\$7.00	\$8.06	\$9.14	\$13.06	
35-3031	Waiters and Waitresses	54	22	\$5.20	\$6.14	\$8.92	\$10.31	\$5.75	\$6.21	\$6.99	\$10.12	\$11.80	
35-3021	Combined Food Preparation and Serving Workers, Including Fast Food	54	20	\$6.00	\$6.19	\$7.51	\$8.17	\$5.78	\$6.21	\$6.94	\$8.55	\$10.46	
25-9041	Teacher Assistants	53	8	\$8.90	\$14,371	\$18,955	\$21,247	\$13,080	\$15,654	\$18,584	\$22,059	\$25,882	
41-2031	Retail Salespersons	50	8	\$9.70	\$6.68	\$10.61	\$12.57	\$6.17	\$7.23	\$8.55	\$11.26	\$17.45	
15-1032	Computer Software Engineers, Systems Software	48	48	\$28.90	\$27.40	\$36.07	\$40.41	\$25.20	\$30.14	\$36.65	\$42.19	\$47.77	
43-3071	Tellers	39	3	\$7.80	\$8.29	\$9.60	\$10.24	\$7.83	\$8.71	\$9.53	\$10.57	\$11.40	
15-1051	Computer Systems Analysts	38	38	+	\$22.08	\$34.27	\$40.37	\$20.20	\$25.60	\$32.99	\$41.57	\$52.59	
37-2011	Janitors and Cleaners, Except Maids and Housekeeping Cleaners	36	15	\$9.70	\$6.83	\$8.83	\$9.83	\$6.28	\$7.31	\$8.34	\$10.10	\$12.35	
15-1021	Computer Programmers	35	12	+	\$22.30	\$30.37	\$34.41	\$20.65	\$24.47	\$29.20	\$36.53	\$43.04	
41-2021	Counter and Rental Clerks	32	4	\$6.30	\$6.68	\$9.90	\$11.52	\$6.16	\$7.23	\$8.47	\$10.74	\$17.07	
43-4171	Receptionists and Information Clerks	30	6	\$12.20	\$8.02	\$10.75	\$12.12	\$7.51	\$8.85	\$10.39	\$12.33	\$15.16	
15-1031	Computer Software Engineers, Applications	30	13	\$28.40	\$24.43	\$34.40	\$39.39	\$22.23	\$27.65	\$33.60	\$41.03	\$48.85	
39-9011	Child Care Workers	30	3	\$9.00	\$6.19	\$7.39	\$7.99	\$5.92	\$6.55	\$7.46	\$8.29	\$8.81	
31-1012	Nursing Aides, Orderlies, and Attendants	26	10	\$10.60	\$8.44	\$10.11	\$10.93	\$7.95	\$8.97	\$10.06	\$11.17	\$12.76	
43-2011	Switchboard Operators, Including Answering Service	26	2	\$8.00	\$8.64	\$10.55	\$11.50	\$8.02	\$9.10	\$10.27	\$11.49	\$13.84	
43-4051	Customer Service Representatives	26	26	\$12.50	\$8.97	\$12.59	\$14.39	\$8.30	\$9.88	\$12.08	\$14.48	\$17.65	
25-2011	Preschool Teachers, Except Special Education	25	2	+	\$7.42	\$10.25	\$11.66	\$7.09	\$7.73	\$8.92	\$10.98	\$15.15	
47-2073	Operating Engineers and Other Construction Equipment Operators	24	3	\$14.80	\$12.52	\$16.94	\$19.14	\$11.84	\$13.48	\$16.97	\$20.25	\$22.20	
43-6011	Executive Secretaries and Administrative Assistants	24	12	\$13.90	\$12.81	\$16.90	\$18.94	\$12.01	\$14.01	\$16.51	\$19.56	\$22.56	

* OES wages reported for Colorado statewide

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

						Осси	upational E	nployment	Statistics W	/age Data (2	2002)	
					A	/erage Wag	es		Perce	ntile Distrik	oution	
SOC Code	SOC Occupational Title	Vacancies Estimated	Vacancies Found	Average JVS Wage	Entry- Level	Overall	Experi- enced	10th	25th	50th	75th	90th
47-2061	Construction Laborers	23	2	\$9.00	\$9.30	\$12.34	\$13.87	\$8.58	\$10.05	\$12.03	\$14.38	\$16.84
* 51-2011	Aircraft Structure, Surfaces, Rigging, and Systems Assemblers	23	1	†	\$12.16	\$17.95	\$20.86	\$11.42	\$13.40	\$17.95	\$22.35	\$26.24
51-4031	Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and Plastic	23	1	\$11.50	\$9.39	\$11.96	\$13.25	\$8.83	\$9.80	\$11.35	\$14.06	\$16.52
51-9032	Cutting and Slicing Machine Setters, Operators, and Tenders	23	1	\$8.00	\$8.05	\$10.01	\$10.99	\$7.71	\$8.53	\$9.75	\$10.93	\$13.11
53-7062	Laborers and Freight, Stock, and Material Movers, Hand	22	10	\$7.40	\$7.21	\$10.00	\$11.39	\$6.66	\$8.07	\$9.94	\$11.25	\$13.69
13-1111	Management Analysts	21	3	†	\$16.10	\$24.67	\$28.95	\$15.05	\$17.75	\$23.58	\$29.09	\$36.57
13-1121	Meeting and Convention Planners	21	3	\$9.50	\$11.52	\$18.27	\$21.66	\$10.50	\$13.46	\$16.77	\$22.60	\$28.65
53-3032	Truck Drivers, Heavy and Tractor-Trailer	21	3	†	\$11.32	\$14.87	\$16.64	\$10.47	\$12.18	\$14.08	\$16.85	\$20.99
13-1073	Training and Development Specialists	20	2	†	\$12.89	\$20.42	\$24.18	\$11.31	\$14.54	\$18.01	\$25.71	\$32.79
35-9011	Dining Room and Cafeteria Attendants and Bartender Helpers	19	10	\$7.50	\$6.21	\$6.83	\$7.14	\$5.76	\$6.12	\$6.71	\$7.46	\$8.62
17-2199	Engineers, All Other	19	5	†	\$23.81	\$34.22	\$39.41	\$21.18	\$27.66	\$34.38	\$41.55	\$47.17
11-2021	Marketing Managers	18	4	\$20.50	\$20.82	\$36.91	\$44.96	\$18.17	\$24.29	\$33.71	\$49.97	\$62.34
35-2014	Cooks, Restaurant	18	13	\$9.70	\$7.24	\$9.49	\$10.63	\$6.54	\$7.92	\$9.40	\$11.03	\$12.95
29-1123	Physical Therapists	18	6	\$26.50	\$19.09	\$25.18	\$28.22	\$18.31	\$21.05	\$25.08	\$28.61	\$33.72
29-2061	Licensed Practical and Licensed Vocational Nurses	18	6	\$16.40	\$12.73	\$15.47	\$16.86	\$11.96	\$13.74	\$15.53	\$17.11	\$18.61
41-3099	Sales Representatives, Services, All Other	17	3	\$15.00	\$12.28	\$22.49	\$27.60	\$11.46	\$14.37	\$17.31	\$28.06	\$42.89
11-1011	Chief Executives	16	2	\$40.90	\$34.04	\$54.48	\$64.69	\$29.22	\$41.30	\$58.54	†	†
11-9041	Engineering Managers	16	9	\$58.90	\$32.83	\$46.32	\$53.06	\$29.15	\$37.95	\$45.89	\$56.98	\$68.05
43-6014	Secretaries, Except Legal, Medical, and Executive	16	4	\$12.40	\$9.70	\$13.17	\$14.91	\$9.34	\$10.72	\$12.90	\$15.54	\$17.57
35-1012	First-Line Supervisors/Managers of Food Preparation and Serving Workers	15	10	\$8.40	\$7.41	\$12.21	\$14.60	\$6.09	\$9.26	\$11.95	\$13.83	\$19.20
49-9021	Heating, Air Conditioning, and Refrigeration Mechanics and Installers	15	5	\$14.10	\$11.11	\$15.10	\$17.09	\$10.24	\$11.88	\$14.79	\$17.24	\$21.06

* OES wages reported for Colorado statewide

Table 1: Occupations with 10 or More Estimated Vacancies – Page 3

					Occupational Employment Statistics Wage Data (2002)								
					A	verage Wag	es		Perce	ntile Distrik	oution		
SOC Code	SOC Occupational Title	Vacancies Estimated	Vacancies Found	Average JVS Wage	Entry- Level	Overall	Experi- enced	10th	25th	50th	75th	90th	
43-3031	Bookkeeping, Accounting, and Auditing Clerks	14	2	\$14.80	\$9.85	\$14.03	\$16.12	\$9.44	\$10.92	\$13.34	\$17.57	\$20.35	
43-9021	Data Entry Keyers	14	2	\$8.50	\$8.06	\$10.27	\$11.39	\$7.65	\$8.39	\$9.73	\$11.36	\$14.01	
15-1041	Computer Support Specialists	14	8	\$19.20	\$14.07	\$18.42	\$20.59	\$13.03	\$15.07	\$17.91	\$20.77	\$24.79	
43-4131	Loan Interviewers and Clerks	13	1	†	\$10.97	\$14.37	\$16.07	\$9.95	\$12.07	\$14.12	\$16.62	\$18.85	
43-5032	Dispatchers, Except Police, Fire, and Ambulance	13	1	†	\$9.28	\$13.02	\$14.88	\$8.34	\$10.43	\$12.94	\$14.93	\$17.67	
43-9081	Proofreaders and Copy Markers	13	1	†	\$8.90	\$12.36	\$14.09	\$8.10	\$9.75	\$11.62	\$15.53	\$17.59	
35-2012	Cooks, Institution and Cafeteria	13	11	\$7.40	\$7.21	\$9.99	\$11.39	\$6.55	\$8.04	\$9.84	\$11.82	\$13.71	
49-3023	Automotive Service Technicians and Mechanics	12	2	\$22.30	\$10.37	\$16.48	\$19.53	\$9.54	\$11.96	\$15.86	\$20.16	\$25.72	
49-3093	Tire Repairers and Changers	12	2	\$8.30	\$9.14	\$10.80	\$11.62	\$8.67	\$9.30	\$10.24	\$11.55	\$14.92	
11-3021	Computer and Information Systems Managers	12	12	†	\$29.84	\$43.47	\$50.28	\$28.13	\$33.73	\$41.88	\$53.52	\$66.69	
15-1081	Network Systems and Data Communications Analysts	12	12	\$24.30	\$19.86	\$27.27	\$30.96	\$18.83	\$21.95	\$26.28	\$32.07	\$39.16	
47-1011	First-Line Supervisors/Managers of Construction Trades and Extraction Workers	12	1	\$21.60	\$16.01	\$22.13	\$25.19	\$13.91	\$18.46	\$21.94	\$26.29	\$30.50	
* 47-4031	Fence Erectors	12	1	\$8.50	\$9.52	\$13.05	\$14.82	\$9.16	\$10.38	\$12.74	\$15.58	\$17.30	
* 11-3042	Training and Development Managers	11	4	\$24.20	†	†	†	†	†	†	†	†	
37-3011	Landscaping and Groundskeeping Workers	11	4	\$16.30	\$7.57	\$10.56	\$12.06	\$7.13	\$8.38	\$10.22	\$12.25	\$15.04	
* 29-2011	Medical and Clinical Laboratory Technologists	11	11	\$20.30	\$15.60	\$20.28	\$22.64	\$14.60	\$16.99	\$20.23	\$23.13	\$26.79	
* 11-3041	Compensation and Benefits Managers	10	3	†	†	†	†	†	†	†	†	†	
11-9032	Education Administrators, Elementary and Secondary School	10	10	\$36.80	\$54,674	\$68,676	\$75,676	\$50,922	\$60,780	\$69,334	\$78,680	\$90,652	
33-9032	Security Guards	10	4	\$10.10	\$7.48	\$9.49	\$10.50	\$7.11	\$7.91	\$9.06	\$10.66	\$12.62	
35-3041	Food Servers, Nonrestaurant	10	6	\$5.20	\$6.19	\$7.27	\$7.81	\$5.75	\$6.15	\$6.81	\$8.18	\$10.01	
31-9091	Dental Assistants	10	3	\$10.50	\$10.70	\$17.65	\$21.13	\$9.48	\$12.25	\$16.47	\$24.35	\$26.54	

*OES wages reported for Colorado Statewide

		Occupational Employment Statistics Wage Data (2002)							
		A	verage Wage	es		Perce	entile Distrib	oution	
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
11-3011	Administrative Services Managers	\$15.03	\$27.17	\$33.24	\$13.20	\$17.28	\$24.44	\$34.36	\$45.25
11-2011	Advertising and Promotions Managers	\$16.91	\$26.51	\$31.32	\$15.63	\$18.60	\$22.39	\$32.02	\$45.20
41-3011	Advertising Sales Agents	\$11.64	\$21.37	\$26.22	\$11.17	\$13.14	\$17.64	\$25.00	\$38.05
17-2011	Aerospace Engineers	\$32.57	\$40.55	\$44.54	\$30.89	\$35.14	\$40.52	\$47.52	\$53.28
* 53-3011	Ambulance Drivers and Attendants, Except Emergency Medical Technicians	\$7.93	\$14.70	\$18.07	\$7.34	\$8.77	\$11.96	\$22.78	\$26.27
* 19-1011	Animal Scientists	†	t	+	†	†	†	†	†
* 25-1121	Art, Drama, and Music Teachers, Postsecondary	\$33,499	\$51,196	\$60,045	\$30,461	\$38,691	\$48,297	\$60,841	\$74,984
27-4011	Audio and Video Equipment Technicians	\$7.85	\$13.32	\$16.06	\$7.12	\$8.83	\$12.87	\$16.52	\$20.15
29-1121	Audiologists	\$17.41	\$22.96	\$25.74	\$15.13	\$21.89	\$24.28	\$26.61	\$28.93
51-3011	Bakers	\$7.29	\$11.30	\$13.31	\$6.51	\$8.35	\$11.12	\$14.31	\$16.67
35-3011	Bartenders	\$6.17	\$8.27	\$9.31	\$5.88	\$6.47	\$7.66	\$9.91	\$11.54
43-3011	Bill and Account Collectors	\$8.12	\$12.98	\$15.42	\$7.27	\$9.11	\$12.22	\$16.96	\$20.70
13-2031	Budget Analysts	\$18.90	\$26.11	\$29.71	\$18.03	\$20.24	\$24.43	\$30.98	\$35.72
49-3031	Bus and Truck Mechanics and Diesel Engine Specialists	\$12.88	\$16.67	\$18.58	\$12.01	\$14.29	\$16.46	\$18.81	\$22.35
53-3022	Bus Drivers, School	\$9.02	\$11.25	\$12.37	\$8.50	\$9.73	\$11.06	\$12.92	\$14.47
53-3021	Bus Drivers, Transit and Intercity	\$7.64	\$10.74	\$12.29	\$6.27	\$9.46	\$11.68	\$12.86	\$13.56
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
* 29-2031	Cardiovascular Technologists and Technicians	\$11.60	\$17.53	\$20.50	\$10.43	\$13.16	\$16.90	\$21.62	\$26.25
35-1011	Chefs and Head Cooks	\$8.88	\$11.71	\$13.13	\$8.23	\$9.11	\$10.29	\$12.77	\$17.16
* 25-1052	Chemistry Teachers, Postsecondary	\$38,338	\$58,785	\$69,008	\$35,619	\$43,356	\$54,499	\$70,991	\$90,671
21-1021	Child, Family, and School Social Workers	\$13.45	\$18.50	\$21.03	\$12.39	\$14.42	\$16.86	\$21.09	\$26.66
13-1031	Claims Adjusters, Examiners, and Investigators	\$17.84	\$23.89	\$26.91	\$16.41	\$19.42	\$23.18	\$27.81	\$33.82
53-7061	Cleaners of Vehicles and Equipment	\$7.47	\$9.81	\$10.97	\$6.98	\$7.88	\$8.96	\$11.69	\$13.43
19-3031	Clinical, Counseling, and School Psychologists	\$18.42	\$25.83	\$29.53	\$16.87	\$20.46	\$25.35	\$30.93	\$34.99

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

		Occupational Employment Statistics Wage Data (2002)							
		A [,]	verage Wage	es		Perce	entile Distrib	ution	
SOC Code	SOC Occupational Title	Entry- Level	Overall	Experi- enced	10th	25th	50th	75th	90th
27-2022	Coaches and Scouts	\$31,854	\$53,048	\$63,645	\$23,503	\$41,714	\$60,454	\$66,752	\$70,637
13-1041	Compliance Officers, Except Agriculture, Construction, Health and Safety, and Transportation	\$15.95	\$23.12	\$26.72	\$15.08	\$17.46	\$21.43	\$26.97	\$34.83
15-1011	Computer and Information Scientists, Research	\$21.50	\$33.80	\$39.95	\$19.85	\$26.17	\$31.75	\$39.23	\$55.02
17-2061	Computer Hardware Engineers	\$28.68	\$39.31	\$44.63	\$26.46	\$31.43	\$39.58	\$47.17	\$54.93
15-1099	Computer Specialists, All Other	\$17.78	\$30.21	\$36.42	\$14.85	\$21.68	\$29.90	\$37.61	\$47.35
11-9021	Construction Managers	\$22.75	\$31.77	\$36.29	\$20.89	\$25.27	\$31.41	\$36.74	\$44.21
* 35-2019	Cooks, All Others	+	t	+	†	†	t	†	†
43-4021	Correspondence Clerks	\$9.11	\$11.84	\$13.21	\$8.44	\$9.69	\$11.12	\$14.38	\$16.55
13-1051	Cost Estimators	\$17.14	\$25.02	\$28.96	\$15.39	\$19.01	\$23.05	\$28.49	\$34.85
35-3022	Counter Attendants, Cafeteria, Food Concession, and 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
33-9091	Crossing Guards	\$10.07	\$11.10	\$11.61	\$9.55	\$10.04	\$10.82	\$11.58	\$14.36
15-1061	Database Administrators	\$15.01	\$26.05	\$31.57	\$12.93	\$17.47	\$24.61	\$33.08	\$42.88
29-2032	Diagnostic Medical Sonographers	\$22.18	\$28.26	\$31.29	\$20.34	\$22.95	\$25.05	\$27.14	\$35.55
35-9021	Dishwashers	\$6.33	\$7.54	\$8.15	\$6.02	\$6.74	\$7.59	\$8.40	\$9.04
53-3031	Driver/Sales Workers	\$6.09	\$9.35	\$10.98	\$5.72	\$6.22	\$7.17	\$12.35	\$14.58
* 25-1063	Economics Teachers, Postsecondary	\$37,106	\$62,553	\$75,276	\$33,011	\$43,531	\$62,543	\$77,604	\$94,081
27-3041	Editors	\$13.03	\$19.40	\$22.59	\$11.63	\$14.85	\$18.45	\$23.18	\$28.47
11-9033	Education Administrators, Postsecondary	\$16.35	\$25.99	\$30.82	\$15.35	\$17.66	\$20.89	\$29.95	\$44.95
21-1012	Educational, Vocational, and School Counselors	\$16.65	\$22.83	\$25.92	\$15.28	\$18.05	\$22.18	\$27.49	\$32.55
17-3012	Electrical and Electronics Drafters	\$12.02	\$17.99	\$20.97	\$11.48	\$13.25	\$17.06	\$22.79	\$26.97
49-2094	Electrical and Electronics Repairers, Commercial and Industrial Equipment	\$16.78	\$21.23	\$23.46	\$15.52	\$17.76	\$19.85	\$22.13	\$28.77
17-2071	Electrical Engineers	\$22.89	\$31.65	\$36.03	\$20.94	\$25.53	\$31.27	\$37.12	\$43.65
49-9051	Electrical Power-Line Installers and Repairers	\$19.43	\$23.56	\$25.62	\$17.84	\$21.33	\$24.49	\$26.88	\$28.36
47-2111	Electricians	\$12.98	\$20.51	\$24.28	\$11.40	\$14.80	\$19.08	\$23.94	\$27.78
49-2096	Electronic Equipment Installers and Repairers, Motor Vehicles	\$8.80	\$12.13	\$13.80	\$7.96	\$9.86	\$11.85	\$14.61	\$16.82

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

		Occupational Employment Statistics Wage Data (2002)							
		A	verage Wage	es		Perce	entile Distrib	ution	
SOC Code	SOC Occupational Title	Entry- Level	Overall	Experi- enced	10th	25th	50th	75th	90th
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
* 49-3041	Farm Equipment Mechanics	\$9.35	\$13.35	\$15.34	\$8.60	\$10.39	\$12.91	\$15.96	\$18.95
13-2051	Financial Analysts	\$20.56	\$32.04	\$37.77	\$18.50	\$23.15	\$32.88	\$40.73	\$45.22
13-2061	Financial Examiners	\$18.37	\$26.33	\$30.31	\$13.89	\$23.53	\$26.80	\$30.97	\$35.63
11-3031	Financial Managers	\$21.96	\$35.48	\$42.24	\$19.73	\$24.98	\$32.29	\$44.16	\$59.13
* 35-1012	First-Line Supervisors/Managers of Food Preparation and Serving Workers	†	†	†	†	†	†	†	†
53-1021	First-Line Supervisors/Managers of Helpers, Laborers, and Material Movers, Hand	\$11.63	\$23.47	\$29.40	\$10.25	\$13.49	\$17.26	\$27.28	\$51.28
37-1011	First-Line Supervisors/Managers of Housekeeping and Janitorial Workers	\$9.07	\$14.50	\$17.21	\$8.56	\$10.05	\$13.16	\$17.68	\$24.04
37-1012	First-Line Supervisors/Managers of Landscaping, Lawn Service, and Groundskeeping Workers	\$12.24	\$17.15	\$19.60	\$10.80	\$14.29	\$16.69	\$19.93	\$25.06
43-1011	First-Line Supervisors/Managers of Office and Administrative Support Workers	\$12.72	\$20.11	\$23.80	\$11.64	\$14.26	\$18.31	\$23.57	\$32.31
51-1011	First-Line Supervisors/Managers of Production and Operating Workers	\$14.49	\$21.99	\$25.75	\$13.39	\$16.16	\$21.27	\$26.76	\$32.50
33-1099	First-Line Supervisors/Managers, Protective Service Workers, All Other	\$14.27	\$20.67	\$23.87	\$13.14	\$15.45	\$18.82	\$25.04	\$31.44
51-3093	Food Cooking Machine Operators and Tenders	\$7.32	\$10.56	\$12.18	\$6.98	\$7.92	\$10.11	\$13.24	\$15.64
35-2021	Food Preparation Workers	\$7.52	\$8.49	\$8.97	\$7.08	\$7.51	\$8.17	\$9.00	\$10.78
11-9051	Food Service Managers	\$12.96	\$20.33	\$24.01	\$12.15	\$14.75	\$17.86	\$25.88	\$33.52
41-2012	Gaming Change Persons and Booth Cashiers	\$7.59	\$10.24	\$11.56	\$6.96	\$8.62	\$10.26	\$11.77	\$13.33
* 39-3019	Gaming Service Workers, All Other	†	†	†	†	†	†	†	†
11-1021	General and Operations Managers	\$19.90	\$36.47	\$44.74	\$17.27	\$23.12	\$31.17	\$46.64	†
* 29-2099	Health Technologists and Technicians, All Other	†	†	†	†	†	†	†	†
47-4051	Highway Maintenance Workers	\$13.39	\$16.63	\$18.26	\$12.61	\$14.32	\$16.73	\$18.99	\$21.08
* 25-1125	History Teachers, Postsecondary	\$34,545	\$52,604	\$61,632	\$31,935	\$39,210	\$49,899	\$64,937	\$81,008
43-4161	Human Resources Assistants, Except Payroll and Timekeeping	\$11.15	\$14.09	\$15.57	\$10.29	\$11.90	\$13.91	\$16.28	\$18.04
* 11-3049	Human Resources Managers, All Other	†	†	+	†	†	†	†	†

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

		Occupational Employment Statistics Wage Data (2002)							
	ſ	A	verage Wag	es		Perce	entile Distrik	Jution	
SOC Code	SOC Occupational Title	Entry- Level	Overall	Experi- enced	10th	25th	50th	75th	90th
* 13-1079	Human Resources, Training, and Labor Relations Specialists, All Other	+	t	+	†	+	†	t	†
11-3051	Industrial Production Managers	\$20.78	\$36.69	\$44.65	\$18.42	\$23.90	\$35.25	\$48.50	\$59.07
53-7051	Industrial Truck and Tractor Operators	\$9.68	\$12.15	\$13.39	\$9.23	\$10.12	\$11.54	\$13.79	\$16.57
51-9061	Inspectors, Testers, Sorters, Samplers, and Weighers	\$9.44	\$12.39	\$13.87	\$8.68	\$10.13	\$12.11	\$13.93	\$16.36
49-9099	Installation, Maintenance, and Repair Workers, All 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
41-3021	Insurance Sales Agents	\$12.27	\$20.84	\$25.12	\$11.69	\$13.43	\$17.88	\$21.56	\$38.27
13-2053	Insurance Underwriters	\$16.16	\$25.05	\$29.49	\$15.09	\$17.80	\$24.39	\$31.40	\$36.26
27-3091	Interpreters and Translators	\$13.00	\$17.42	\$19.65	\$12.33	\$13.98	\$16.52	\$21.03	\$24.99
43-4111	Interviewers, Except Eligibility and Loan	\$8.90	\$10.63	\$11.50	\$7.78	\$9.61	\$10.63	\$11.91	\$13.61
17-1012	Landscape Architects	\$13.91	\$23.13	\$27.73	\$12.90	\$14.53	\$21.96	\$28.13	\$39.08
51-6011	Laundry and Dry-Cleaning Workers	\$6.30	\$7.82	\$8.58	\$6.05	\$6.85	\$7.86	\$8.76	\$9.93
* 43-4121	Library Assistants, Clerical	\$7.36	\$9.84	\$11.08	\$6.89	\$8.01	\$9.61	\$11.55	\$13.58
* 33-9092	Lifeguards, Ski Patrol, and Other Recreational Protective Service Workers	+	+	+	+	+	†	†	+
11-9081	Lodging Managers	\$12.38	\$18.63	\$21.74	\$12.40	\$13.93	\$19.45	\$22.67	\$26.65
37-2012	Maids and Housekeeping Cleaners	\$6.82	\$7.89	\$8.42	\$6.35	\$7.18	\$7.86	\$8.54	\$9.44
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
17-2131	Materials Engineers	\$25.25	\$34.04	\$38.44	\$22.10	\$29.02	\$33.92	\$39.91	\$45.21
17-2141	Mechanical Engineers	\$23.80	\$31.76	\$35.74	\$22.94	\$25.68	\$30.24	\$34.92	\$46.29
27-4099	Media and Communication Equipment Workers, All Other	\$16.66	\$25.47	\$29.86	\$12.27	\$21.01	\$26.39	\$31.33	\$34.27
27-3099	Media and Communication Workers, All Other	\$11.20	\$16.65	\$19.37	\$10.18	\$12.73	\$15.00	\$19.43	\$26.21
11-9111	Medical and Health Services Managers	\$18.72	\$28.40	\$33.22	\$18.27	\$20.86	\$26.07	\$34.11	\$44.11
21-1022	Medical and Public Health Social Workers	\$14.57	\$18.47	\$20.42	\$13.65	\$15.83	\$18.68	\$21.03	\$22.65
31-9092	Medical Assistants	\$9.69	\$11.29	\$12.10	\$9.14	\$9.79	\$10.86	\$12.49	\$14.10
29-2071	Medical Records and Health Information Technicians	\$9.14	\$12.71	\$14.50	\$8.64	\$9.68	\$12.09	\$15.53	\$17.95

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

		Occupational Employment Statistics Wage Data (2002)							
		A	verage Wage	es		Perce	entile Distrib	oution	
SOC Code	SOC Occupational Title	Entry- Level	Overall	Experi- enced	10th	25th	50th	75th	90th
31-9094	Medical Transcriptionists	\$11.34	\$13.75	\$14.95	\$10.64	\$12.13	\$13.65	\$15.60	\$17.16
25-2022	Middle School Teachers, Except Special and Vocational Education	\$28,000	\$36,609	\$40,914	\$25,917	\$29,809	\$34,220	\$42,166	\$52,464
* 49-9044	Millwrights	\$10.42	\$14.14	\$16.00	\$9.83	\$10.59	\$11.84	\$17.95	\$21.29
15-1071	Network and Computer Systems Administrators	\$20.49	\$31.24	\$36.63	\$18.20	\$23.08	\$29.53	\$38.75	\$44.27
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
15-2031	Operations Research Analysts	\$28.55	\$36.07	\$39.84	\$27.20	\$32.09	\$37.36	\$41.39	\$43.83
47-2141	Painters, Construction and Maintenance	\$11.97	\$14.76	\$16.16	\$11.41	\$12.82	\$14.69	\$16.79	\$18.56
23-2011	Paralegals and Legal Assistants	\$14.06	\$17.75	\$19.58	\$12.76	\$15.02	\$17.09	\$19.67	\$23.22
43-3051	Payroll and Timekeeping Clerks	\$11.73	\$14.27	\$15.54	\$11.15	\$12.37	\$13.99	\$16.28	\$18.12
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
29-1051	Pharmacists	\$31.61	\$35.37	\$37.25	\$29.99	\$32.03	\$35.39	\$39.58	\$43.49
* 25-1126	Philosophy and Religion Teachers, Postsecondary	\$34,167	\$53,070	\$62,520	\$31,070	\$38,416	\$50,204	\$65,408	\$84,103
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
51-9199	Production Workers, All Other	\$8.28	\$11.49	\$13.09	\$7.47	\$9.18	\$10.75	\$13.21	\$16.27
* 25-1066	Psychology Teachers, Postsecondary	\$32,237	\$54,132	\$65,079	\$29,885	\$36,812	\$50,263	\$67,022	\$87,489
11-2031	Public Relations Managers	\$16.65	\$37.08	\$47.29	\$14.91	\$18.57	\$28.79	\$64.66	†
11-3061	Purchasing Managers	\$21.51	\$33.79	\$39.94	\$19.45	\$24.23	\$32.93	\$42.15	\$49.97
* 29-1124	Radiation Therapists	\$23.15	\$26.98	\$28.90	\$21.92	\$24.05	\$26.78	\$30.42	\$34.35
* 27-3011	Radio and Television Announcers	+	+	†	+	†	†	†	†
29-2034	Radiologic Technologists and Technicians	\$14.12	\$17.30	\$18.89	\$13.17	\$14.71	\$17.10	\$19.92	\$21.88
* 49-3092	Recreational Vehicle Service Technicians	\$10.25	\$16.41	\$19.48	\$9.44	\$11.78	\$16.19	\$21.08	\$25.10
* 27-3022	Reporters and Correspondents	+	+	†	†	†	†	†	†
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

Table 2: Occupations with Fewer than 10 Estimated Vacancies - Page 6

		Occupational Employment Statistics Wage Data (2002)							
		A	verage Wage	es		Perce	entile Distrib	ution	
SOC Code	SOC Occupational Title	Entry- Level	Overall	Experi- enced	10th	25th	50th	75th	90th
41-4011	Sales Representatives, Wholesale and Manufacturing, Technical and Scientific Products	\$19.56	\$32.48	\$38.95	\$17.35	\$22.79	\$31.26	\$40.03	\$53.21
25-2031	Secondary School Teachers, Except Special and Vocational Education	\$28,265	\$42,901	\$50,218	\$25,959	\$31,150	\$39,683	\$53,254	\$66,917
43-5071	Shipping, Receiving, and Traffic Clerks	\$8.88	\$11.65	\$13.04	\$8.24	\$9.48	\$11.27	\$13.52	\$16.14
11-9151	Social and Community Service Managers	\$13.84	\$20.68	\$24.10	\$12.84	\$15.27	\$18.54	\$24.75	\$31.51
* 19-3041	Sociologists	†	†	†	†	†	†	†	†
* 25-1067	Sociology Teachers, Postsecondary	\$34,421	\$56,265	\$67,188	\$31,266	\$39,733	\$52,512	\$69,120	\$91,045
25-2041	Special Education Teachers, Preschool, Kindergarten, and Elementary School	\$30,288	\$42,249	\$48,230	\$28,093	\$32,712	\$40,614	\$51,681	\$59,637
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
43-5081	Stock Clerks and Order Fillers	\$7.43	\$11.25	\$13.15	\$6.81	\$8.34	\$10.22	\$13.47	\$18.13
29-2055	Surgical Technologists	\$12.23	\$14.67	\$15.89	\$11.57	\$12.48	\$13.97	\$16.34	\$18.45
17-3031	Surveying and Mapping Technicians	\$11.83	\$16.36	\$18.62	\$11.12	\$12.95	\$16.02	\$19.59	\$21.95
27-3042	Technical Writers	\$16.12	\$23.58	\$27.32	\$15.28	\$17.23	\$22.73	\$28.31	\$33.78
49-2022	Telecommunications Equipment Installers and Repairers, Except Line Installers	\$16.68	\$22.07	\$24.76	\$14.80	\$18.95	\$23.21	\$26.07	\$27.74
* 43-2021	Telephone Operators	\$7.73	\$11.31	\$13.10	\$6.89	\$8.91	\$11.62	\$13.66	\$15.73
39-6021	Tour Guides and Escorts	\$5.98	\$8.21	\$9.31	\$5.75	\$6.50	\$8.06	\$9.89	\$10.83
41-3041	Travel Agents	\$8.65	\$11.45	\$12.86	\$7.55	\$9.63	\$11.00	\$13.23	\$16.58
53-3033	Truck Drivers, Light or Delivery Services	\$8.61	\$12.49	\$14.43	\$7.84	\$9.39	\$10.98	\$14.27	\$20.22
43-5111	Weighers, Measurers, Checkers, and Samplers, Recordkeeping	\$9.86	\$12.92	\$14.44	\$9.47	\$10.44	\$12.74	\$15.38	\$17.20
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



Sector Briefs

While the Manufacturing sector ranks fifth 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 the education and experience to fulfill the requirements, though many more are needed as it appears there is increasing demand for high tech and other manufacturing workers with the improving economy.

In the first guarter of 2003, about 21,155 workers, were employed in 600 manufacturing firms. While the NAICS Manufacturing sector consists of many manufacturing subsectors including apparel, textile, food, and chemical manufacturing, most of the vacancies in this report are found in the aerospace product, pharmaceutical, and computer and electronic product manufacturing subsectors.

Eleven percent of the manufacturing vacancies are in small to midsize firms and the remaining 89% are in large organizations. For this survey, there are no manufacturing vacancies in Government agencies. All vacancies in the small to mid-size firms are full-time positions and the employers offer a medical insurance plan with most paying the premium in part. Thirteen percent of these vacancies require an advanced degree and 50% require a bachelor's degree. These vacancies include computer programmers, aerospace and mechanical engineers, computer software engineers, and managers. Twelve percent require either high-school completion or a two year degree, and 25% have no educational requirements. These include positions that are not necessarily high-tech related but

rather, are related to the production-line process or that accompany or promote growth in the manufacturing sector. Vacancies are for assemblers, machine setters/operators, laborers/material movers, supervisors of protective service workers, and construction laborers.

Over 95% of the vacancies in large companies are high-tech related and require a minimum of a bachelor's degree. A small fraction of these vacancies will accept a postsecondary education level of two years with the stipulation that the job seeker has had adequate experience in the occupation. High-tech positions include managers in engineering, computer and information systems, general and operations. Other high-tech positions in large companies are computer programmers, computer software engineers, systems analysts, database administrators, network administrators, data communications analysts, and computer hardware engineers. Vacancies in the manufacturing sector that require at least a bachelor's degree as well as experience in the occupation include budget and financial analysts, management analysts, cost estimators, health and safety compliance officers, wholesale and retail buyers, market research analysts, and training and development specialists.

Vacancies in the manufacturing sector that require only a two year degree or less still require experience in the occupation or experience in a related field. These vacancies include audio and video equipment technicians, payroll clerks, customer service representatives, receptionists and information clerks, executive secretaries and administrative assistants, telecommunications equipment installers, electrical and electronic repairers of commercial and industrial equipment, inspectors and sorters, mechanics, millwrights, production workers and medical and clinical laboratory technologists.



Appendix

With 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 employers 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 JVS sector 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 workexperience 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 can 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 bottlenecks 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.

Caveats

Caveats and

Methodology

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.

Non-sampling 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 a JVS sector 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 positions 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 34% 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 five 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 34% of the region's employment is found with large and government employers that make up only 1% of the total number of firms. Conducting a census of these entities allows us to cover a large portion of the region's employment while contacting relatively few entities.

Survey Sample

This Pikes Peak Region Survey was conducted from February 13th through March 1st, 2004. For the purpose of this report, all Large employers, Government and Small to Mid-Size 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 33% 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-size firms are split into JVS industry 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 the employers are contacted, but no more than 200 of them. 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 37% of the employment in the sample frame, while private industry employers make up the remaining 63%. Large firms account for 67% of private industry employment in the sample frame. Firms employing from five to 249 individuals are considered small to mid-size employers, and account for the remaining 33% of private industry employment.

The margin of error for the overall vacancy estimate is plus or minus 3.9% or about 95 vacancies at a .95 certaintly level. In other words, in 95 out of 100 samples taken the actual number of vacancies in the region will be between 2,353 and 2,543 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 88%. 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

The new North American Industry Classification System (NAICS) increases the number of major groups to 20 from the Standard Industrial Classification System which only had 10. 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 33*.

Pikes Peak Region 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

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33 Appendix: Methodology – continued

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 private 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.

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.

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.

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.

North American Industry 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 purposes¹. 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 Committee². Government agencies from the United States, Mexico and Canada³ 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 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.

¹Executive 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

²ECPC 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

³Specifically, Mexico's Instituto Nacional de Estadística, Geografía e Informàtica (INEGI) and Statistics Canada *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 & 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 five-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 & 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.

Comparison of NAICS and SIC Major Industry Groups

SIC Standard Industrial Classification	NAICS North American Industry 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 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

Appendix

Glossary

These 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 one 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 one 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 five or more employees; government entities are drawn from the Quarterly Census of Employment and Wages 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 four-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, straighttime 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.





WORKFORCE CENTERS IN THE PIKES PEAK JOB VACANCY SURVEY REGION

Aspen Mine Center

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

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

