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# Southeast Region

## Job Vacancy Survey

Summer 2004



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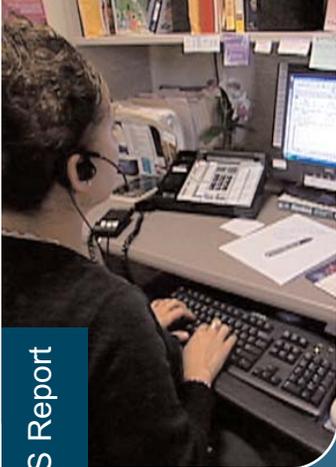
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# Introduction

## The Colorado Job Vacancy Survey

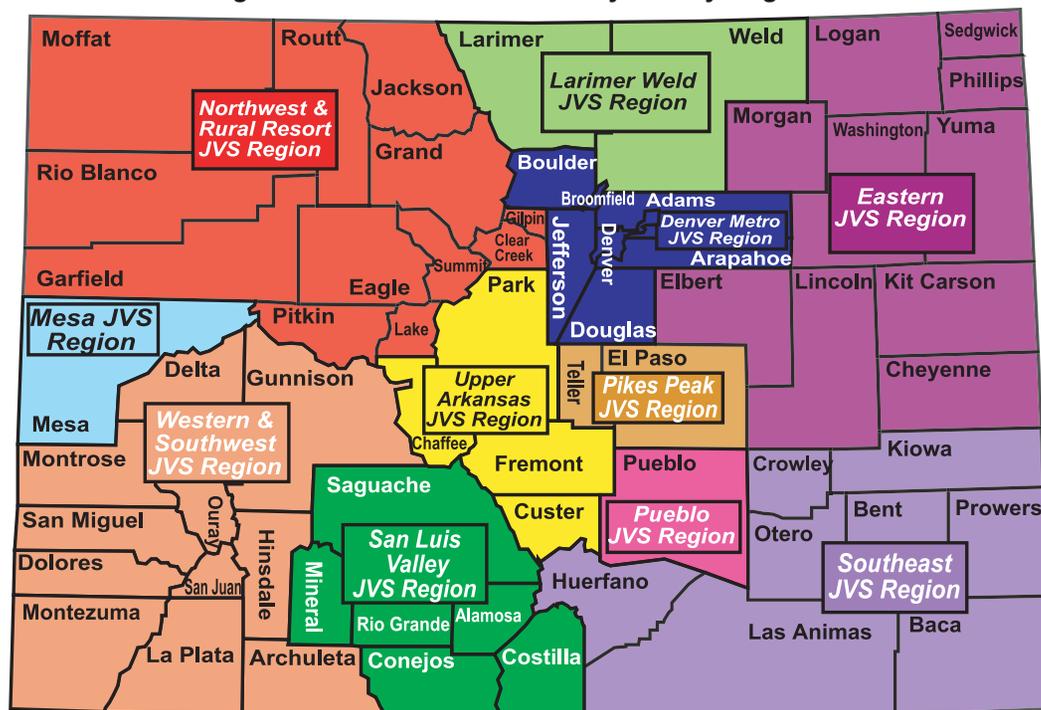
The unemployment rate and the level and growth rate of employment have been used as indicators of labor market conditions for decades. While these indicators provide information about changes in the supply and demand for labor, they reveal nothing about the skills most sought after by employers. As such, individuals preparing themselves for the job market have done so with limited knowledge of what skills are necessary to successfully compete in

the contemporary labor market. Employers have had an equally difficult time determining appropriate compensation levels due to a limited knowledge of what similar firms in their region are currently offering.

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

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.*

# Executive Summary

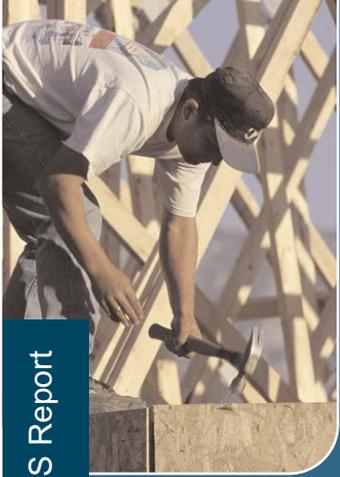
**The Summer 2004 Southeast Region Job Vacancy Survey** was conducted from August 12th through August 23rd. The goal of the survey is to provide current information on the demand for workers so that employers, job seekers, economic developers, educators and workforce centers can make more informed decisions in the Southeast Region.

A random sample of small to mid-size private employers with at least five employees was contacted over the survey period. Additionally, the Colorado Department of Labor and Employment (CDLE) survey unit attempted to interview all large employers and Government entities. Employers were asked if they were actively hiring at the time of the survey along with a variety of questions about the positions that they were seeking to fill.

A total of 581 employers, representing approximately 56% of the region's total employment, responded to the survey. Out of these, 114 were government agencies, 21 were large employers and 446 were small to mid-sized entities. The survey had an 86% response rate and a 97% cooperation rate. The margin of sampling error for the overall result is plus or minus 2.5% or about 7 vacancies.

## *Major Findings of the Survey:*

- ◆ An estimated 265 jobs were open for immediate hire in the region during the survey period, up from 149 a year ago. ....Page 4
- ◆ Eighty vacancies are estimated to be open in the Information, Financial Activities and Professional & Business Services JVS sector, the most in any category. ....Page 8
- ◆ The overall average wage offered by surveyed employers is \$11.50 per hour. ....Page 9
- ◆ Only 26% of the vacancies require education beyond a high school diploma or GED. ....Page 12
- ◆ Vacancies requiring experience either related to or within the same field as the vacant position account for 32% of all reported openings. ....Page 13
- ◆ Employers are finding positions more difficult to fill compared to last summer. ....Pages 14
- ◆ Eighty-four percent of the reported vacancies offer some form of medical insurance. ....Page 16
- ◆ Construction & Extraction occupations account for 31% of all vacancies found. ....Page 18
- ◆ Of the vacancies reported, Management occupations offer the highest wages while Food Preparation & Serving Related occupations offer the lowest average wages. ....Page 18



# Regional Information

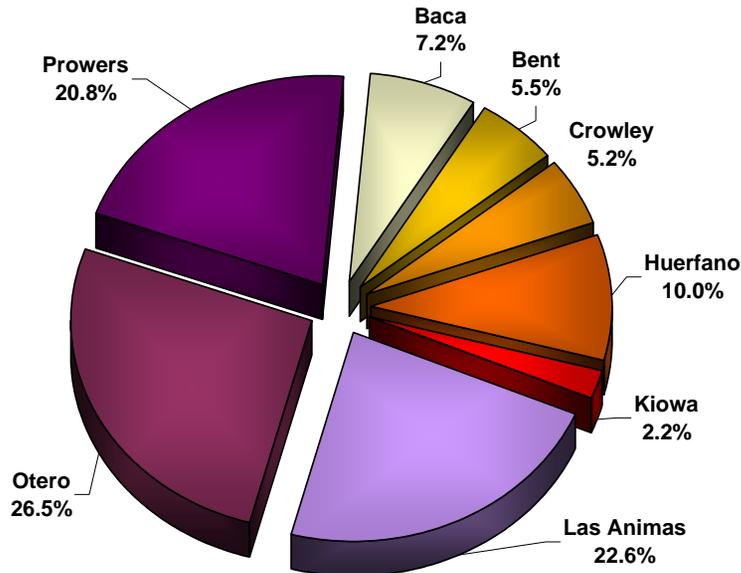
**The Southeast Region consists of Baca, Bent, Crowley, Huerfano, Kiowa, Las Animas, Otero and Prowers counties.** The Demography Section of the Colorado Department of Local Affairs estimated the region's population at 76,379 as of July of 2003 (The latest figures available). That represents a gain of 734 people or 1.0% from the previous year which is comparable to the 1.1% growth rate statewide. As a portion of the state, the region makes up 1.7% of the total population. The region employed 34,316 people out of a labor force of 35,942 in August 2004.

The first Southeast Region Job Vacancy Survey was conducted in 2001 in which 340 vacancies were estimated. The following surveys showed considerable declines and by 2003 only 149 vacancies were estimated, less than half the number of just two years earlier. There was also an increase in the unemployment rate from 4.1% in August 2001 to 5.5%

in August 2003. This meant that approximately 650 additional people were unemployed in 2003 than there were in 2001. There were fewer job openings and more job seekers which meant tougher competition for the region's potential employees.

These difficult times for the region reflected the conditions in the state and national economies over the period. The national recession (defined as two consecutive quarters of negative growth in output) was shallow relative to other recessions since the end of World War II, but the recovery has been less than robust in terms of job growth. Many economists described the period as a 'jobless recovery' because total output was expanding, rapidly at times, but there was not the typical recovery in employment. Several factors contributed to the slow recovery in employment including the bust of the internet stock bubble, corporate scandals, productivity gains, foreign competition, terrorist attacks, geo-political instability, and war. Not all of these factors immediately impacted the region, but they were important in the larger economic context in which the region finds itself.

**Figure 2: Employment by County, August 2004**



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

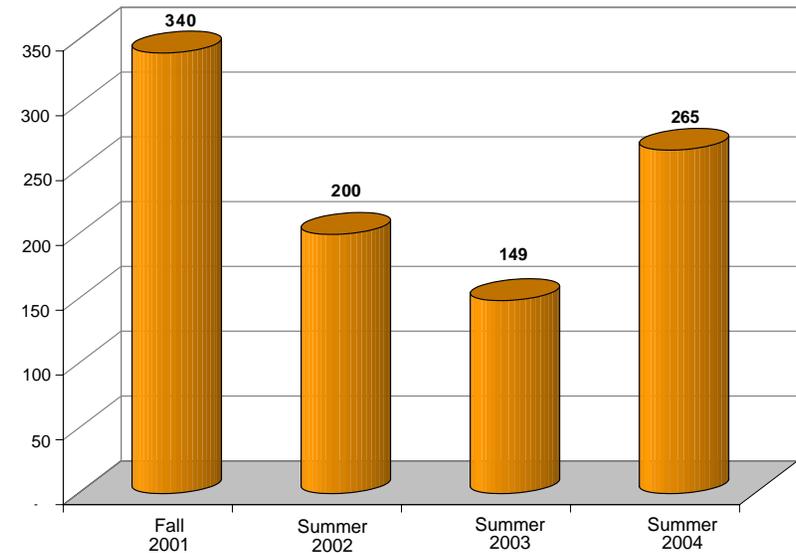
## Regional Information — continued

While recovery has been slow, the increasing unemployment rate and decline in vacancies seem to have been reversed: there are now an estimated 265 vacancies which is a nearly 78% increase from last year. Also the unemployment rate has declined to 4.5% in August 2004 from 5.5% in August 2003, with roughly 360 fewer people unemployed than a year ago. With the increase in vacancies, and the decline of over two percent in the unemployment rate from its peak in June 2003 the economy in the region is looking up.

Agriculture and Tourism are among the most important industries for the local economy. Both have been adversely affected over the past several years by severe drought and the national economic downturn. Despite the regional importance of these sectors, the Government sector has the largest share of total employment. As the drought has lessened in severity and the economy continues to improve, both agriculture and tourism are expected to strengthen.

The change of policy by the U.S. Department of the Interior and the Bureau of Land Management (BLM) that has put more emphasis on domestic energy production is likely to affect the region's Goods Producing sector, specifically the Oil & Gas Extraction subsector. The BLM leases federally owned land and issues permits to drill for natural resources. This has especially impacted the American West, including Colorado, New Mexico, Montana, Wyoming and Utah. Nationally the number of approved drilling permits on BLM land is up 61% from last year, and has doubled since 2000 (BLM statistics). In Colorado approved permits are up 48% from 2003 and are almost two and a half times what they were in 2000. According to the Colorado Department of Natural Resources there were over 350 approved permits for individual wells in the region in 2004. That this change may be affecting the region is also shown by the fact that in this survey Construction & Extraction occupations account for the largest portion of vacancies of any single occupational group.

**Figure 3: Historical Vacancies — Southeast Region**



	Fall 2001	Summer 2002	Summer 2003	Summer 2004
<b>Vacancies</b>	340	200	149	265
<b>Employment</b>	31,568	32,269	34,131	34,316
<b>Unemployed</b>	1,225	1,582	1,978	1,626
<b>Unemployment Rate</b>	3.7%	4.7%	5.5%	4.5%

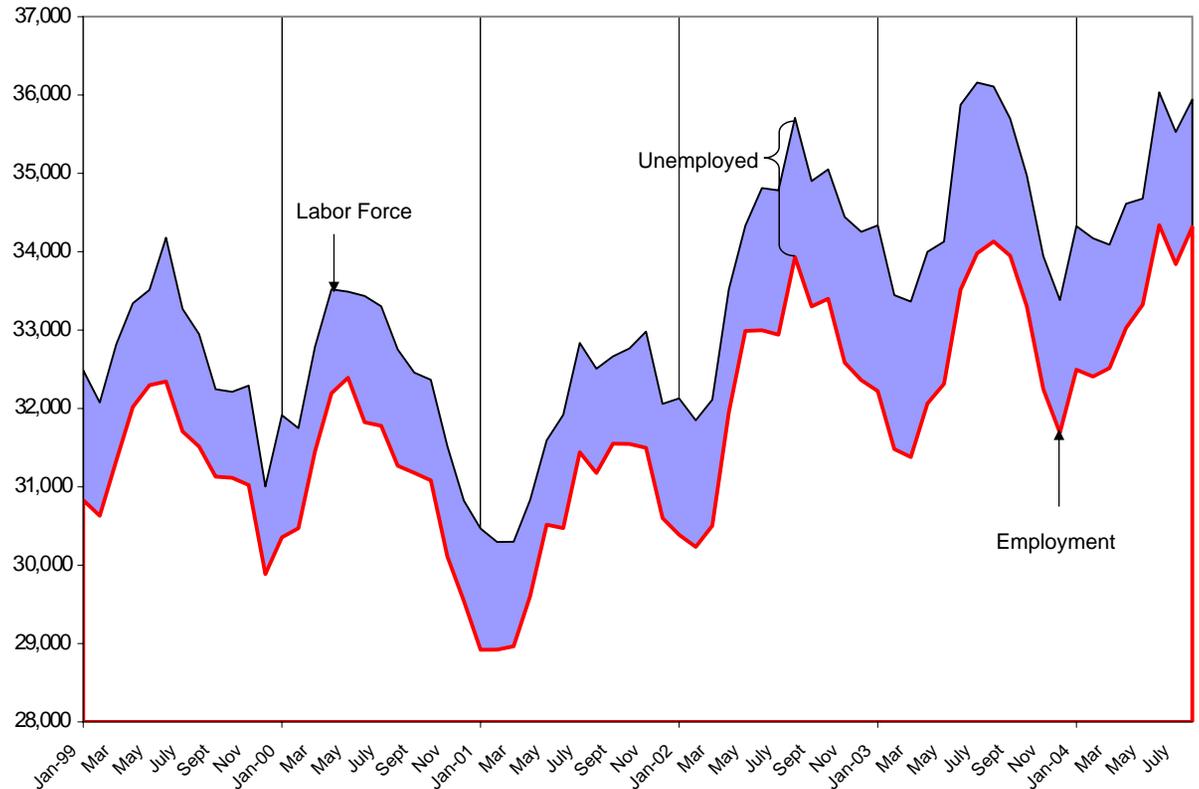
Source: CDLE, Local Area Unemployment Statistics, Released September 2004

# Regional Information *—continued*

Figure 4 shows a 5-year history of both the region's labor force and employment levels from August 1999 to August 2004. As these figures are not corrected for seasonality, it is possible to see the seasonal patterns in employment as well as the unemployment in the region. Both employment and the labor force peak in the summer and bottom out in the winter. Unemployment is the vertical distance between the two lines. The Job Vacancy Survey is conducted annually when employers are nearing peak employment, yet are still in the process of actively recruiting.

The labor force of the Southeast Region has grown from 32,948 in August 1999 to 35,942 in August 2004. But compared to the labor force of 36,109 in August 2003, it is actually slightly smaller. A person is in the labor force if he/she is 16 years of age or older and either currently working or actively looking for work. Unemployment is the difference between the number of people in the labor force and the number employed. A narrower gap between the two lines indicates fewer people are unemployed. The slight decline in the labor force and the increase in employment have combined to reduce the unemployment rate which is a positive sign for the region's workers.

**Figure 4: Employment and Labor Force Trends for the Southeast Region**  
(Not Seasonally Adjusted)

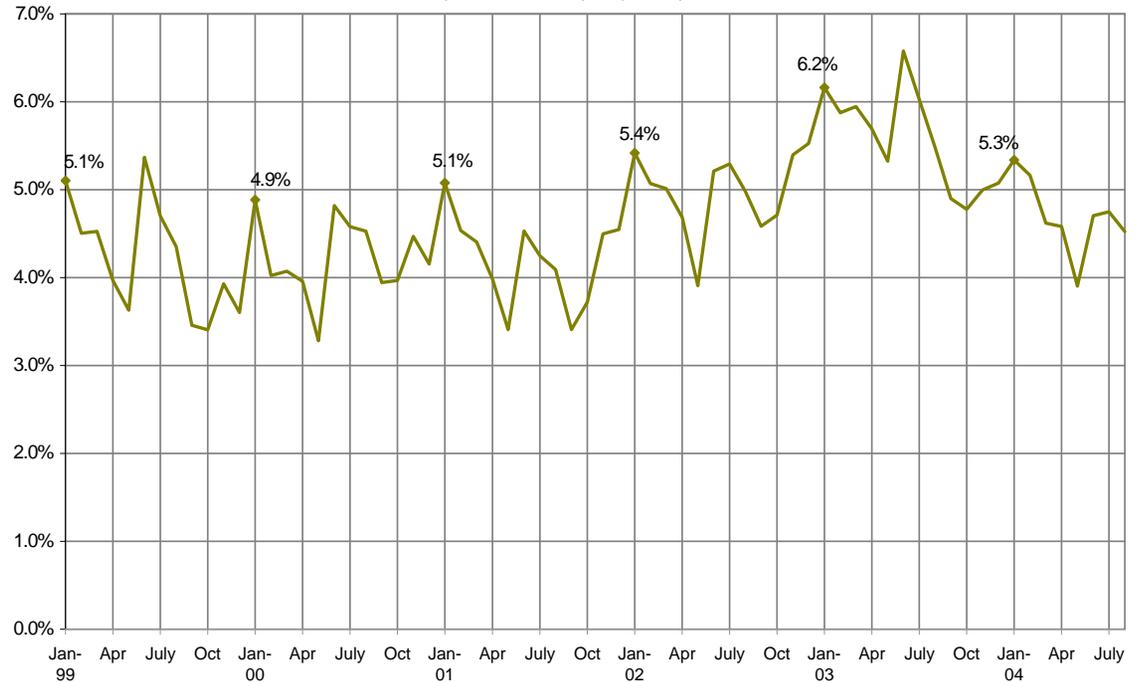


Source: CDLE, Local Area Unemployment Statistics, Released September 2004

# Regional Information –continued

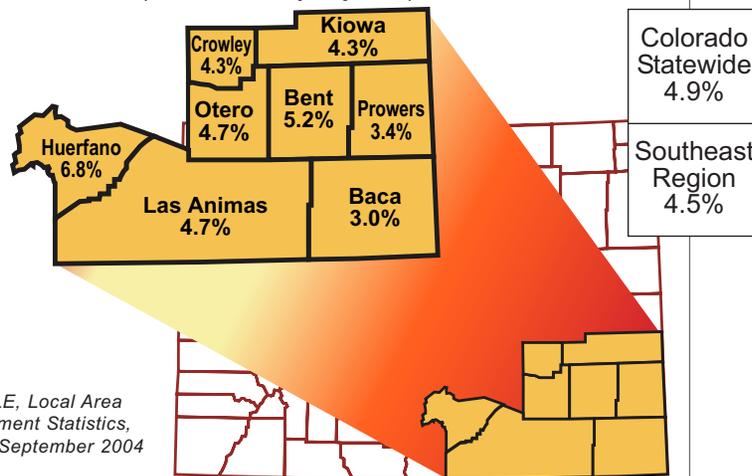
Over the last five years the unemployment rate has ranged from a low of 3.3% in May 2000 to a high of 6.6% in June 2003. The current 4.5% rate is lower than the 5.5% rate in August 2003 and the 5.0% rate in August 2002. The month-to-month changes of the unemployment rate are less significant than the overall pattern of the unemployment rate over several months or even a year or more. The unemployment rate moves somewhat erratically in a short term view, but over several years, clear trends in the unemployment rate emerge. It is the general employment and unemployment trends that the unemployment rate more accurately measures.

**Figure 5: Southeast Region Unemployment Rate Trend**  
(Not Seasonally Adjusted)



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

**Figure 6: Unemployment Rates for August 2004**  
(Not Seasonally Adjusted)

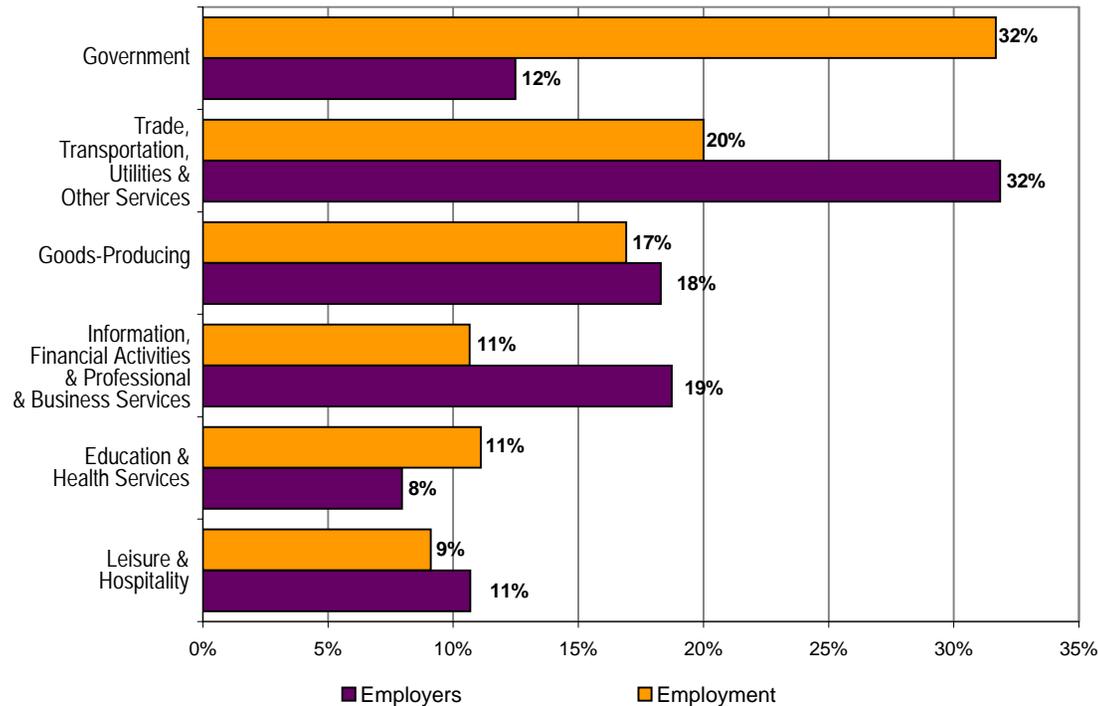


Source: CDLE, Local Area Unemployment Statistics, Released September 2004

The overall unemployment rate in the Southeast Region is lower than the statewide rate of 4.9% and the national rate of 5.1%. The lowest rate of unemployment occurs in Baca County at 3.0% while the highest rate is in Huerfano County at 6.8%. Several of the counties in the region have such small populations and labor forces that small changes in number of employed can swing the rates substantially.

# Regional Information —continued

**Figure 7: Southeast Region Employers and Employees, Third Quarter, 2003**

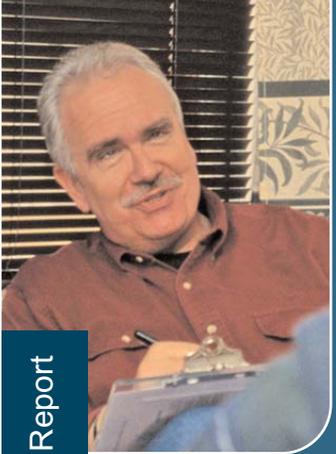


Source: CDLE, Quarterly Census of Employment and Wages (QCEW)

Figure 7 represents regional employer and employee data from the Quarterly Census of Employment and Wages (QCEW), which compiles payroll records from companies that participate in the Unemployment Insurance system. It shows the distribution of those employers and employees among the 6 JVS sectors used in rural regions in Colorado. The JVS sectors are based on the 2002 manual of the North American Industry Classification System (NAICS), which was first used in the Job Vacancy Survey in 2003. This classification system presents vacancies in a more relevant and detailed manner that better reflects today's service based economy. For more information on the JVS industry classification

relative to NAICS please see the chart on Page 27 and for information on the industry changes associated with NAICS see the chart on Page 29.

Government employs more people in the Southeast Region than any other JVS sector. Trade, Transportation, Utilities, & Other Services employs the second highest number of people, and has the highest number of firms. The majority of employment in this JVS sector is in retail trade which includes general merchandisers, car dealerships, grocery stores and gas stations. The Goods Producing JVS Sector is the third largest JVS sector by employment in the region.



# Survey Findings

## Estimated Vacancies: JVS Sectors and Employer Size

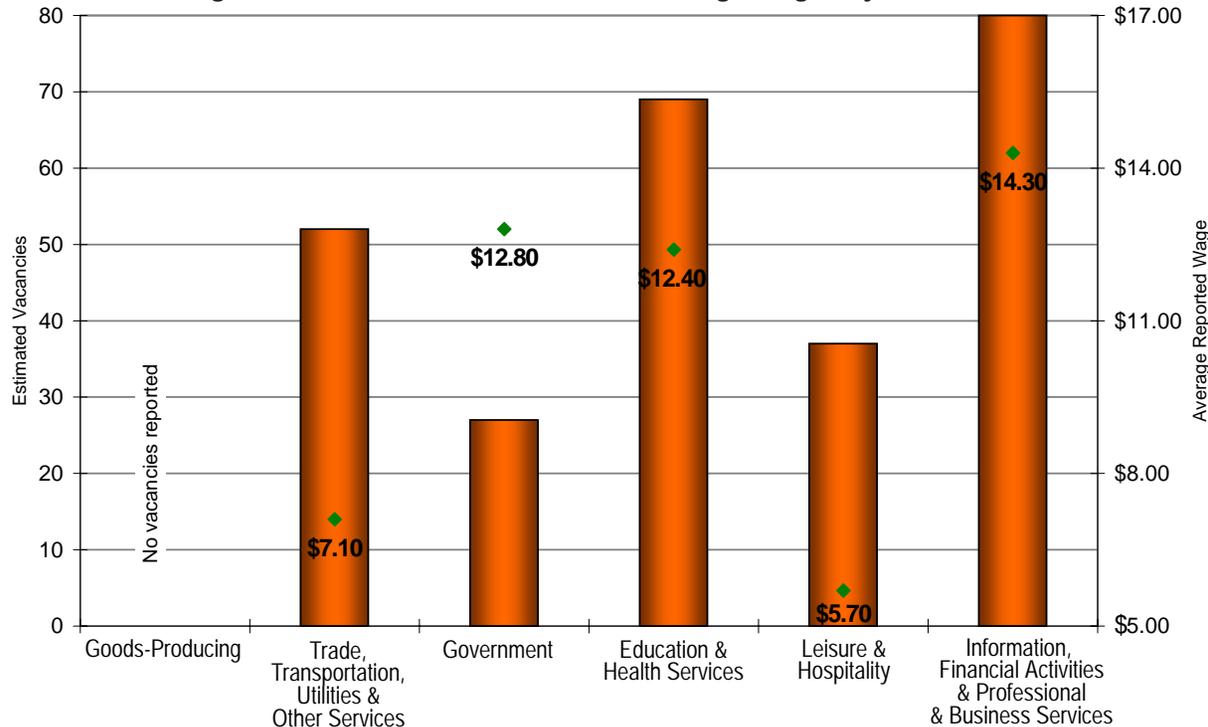
During the survey period, an estimated 265 vacancies were open for immediate hire with private firms having at least 5 employees and all government employers in the Southeast Region. The total number of estimated vacancies is up from the 149 found in the summer of 2003. Both surveys were conducted during essentially the same time period, using similar methods. The jump in vacancies suggests an increase in hiring activity in line with the general economic recovery nationwide.

Of the 581 companies contacted, 9.1% reported having at least one vacancy. This is up from 7.6% a year ago which is encouraging for job seekers in the region. The region's estimated

vacancy rate is 1.2%, meaning that there are approximately 12 vacancies for every 1,000 positions. This is an increase from last year's vacancy rate of 0.7%. The overall vacancy rate is calculated by dividing the estimated number of vacancies by the sum of estimated number of vacancies and total employment. Unemployment is lower than a year ago and job vacancies have increased, indicating that job seekers in the Southeast Region may find a labor market with more opportunities.

In this survey the most openings occur in Information, Financial Activities & Professional & Business Services sector. Education & Health Services, has the second highest number of vacancies. There were no reported vacancies in the Goods Producing sector. *Figure 8* shows estimated vacancies and the average wage offered in each JVS sector. The highest wages are offered in Information, Financial Activities & Professional & Business Services, Education & Health Services and the Government sector. The lowest wages are offered in Leisure & Hospitality and are only slightly above the minimum wage.

**Figure 8: Estimated Vacancies and Average Wages by JVS Sectors**



# Survey Findings *Estimated Vacancies: JVS Sectors and Employer Size — continued*

Why is the average wage so much higher in some JVS Sectors and lower in others? While increasing or decreasing demand for labor will put pressure on the average wage offered, the JVS sector’s specific mix of occupations probably has the greatest impact. Vacancies in a particular occupation tend to offer similar wages regardless of the JVS sector. For example, while Janitors and Cleaners are found in a variety of JVS sectors, most JVS sectors have very different occupational mixes. If occupations that are found across industries offer similar wages, then the large discrepancy in average wages across JVS sectors must be due to different occupations found in each industry category.

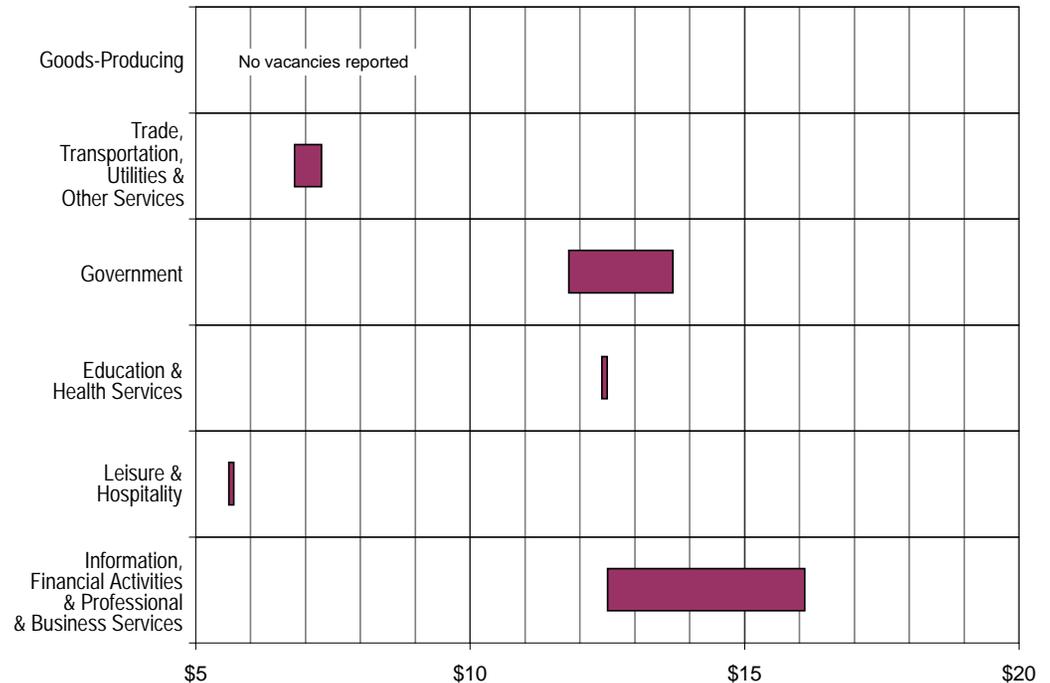
The amount of employment in a JVS sector does not solely predict the number of vacancies found in that category. For example, Government employs more people than any other JVS sector in the region, but has the fifth highest number of vacancies. Leisure & Hospitality has the fourth highest number of vacancies, but the least amount of employment.

Because wages vary according to an individual’s qualifications, employers are asked to provide the range of wages offered for their vacancies. An average wage is then calculated based on the mid-point of that range. While wages do reflect the labor force supply and demand, they are most heavily affected by the particular occupations employers are looking to fill during the survey period. The overall average wage offered for all vacancies in the region is \$11.50 per hour. The average wage offered was \$7.50 a year ago. The change in average

wage is most likely due to changes in the occupational mix of vacancies in the survey rather than an increase in the general wage level.

On average, employers in Information, Financial Activities & Professional & Business Services, Government, and Education & Health Services offer higher and wider wage ranges than employers in Leisure & Hospitality or Trade, Transportation, Utilities, & Other Services. This is most likely due to the fact that open positions in these higher paying JVS Sectors tend to require more skill, education and experience.

**Figure 9: Reported Average Wage Ranges by JVS Sectors**

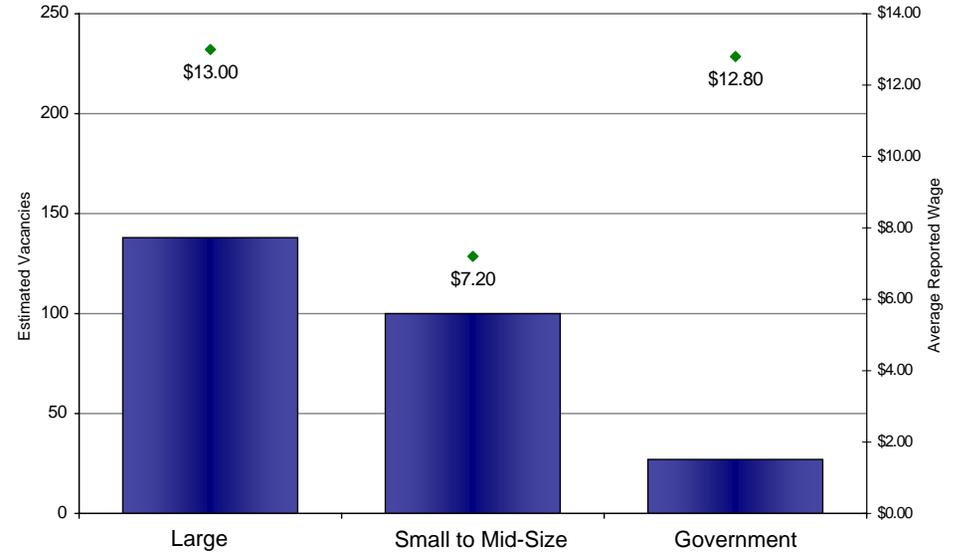


# Survey Findings *Estimated Vacancies: JVS Sectors and Employer Size — continued*

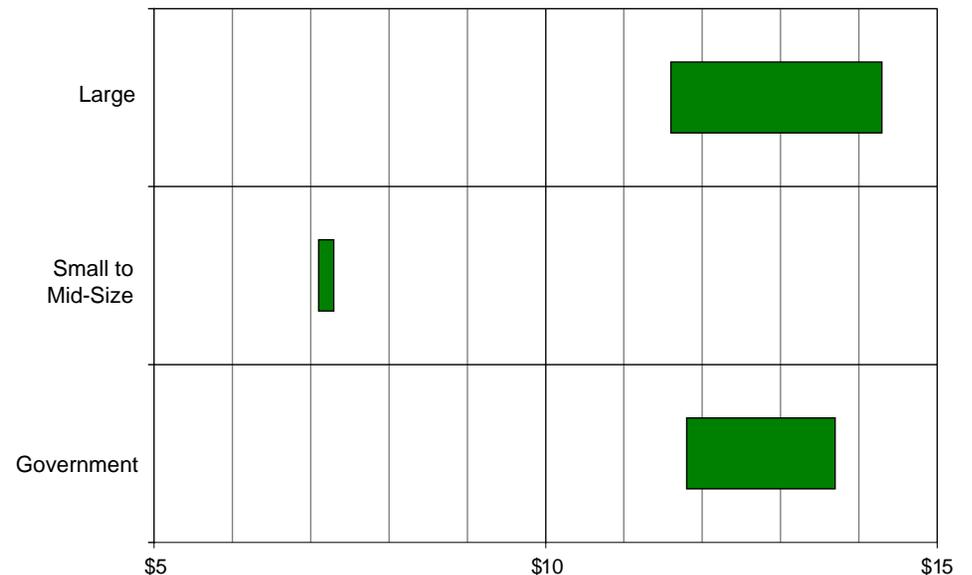
Most vacancies are found in the large (75 or more employees) category. Small to mid-size employers and Government agencies combined make up 48% of the vacancies. This is a departure from the prior survey where the majority of vacancies were in the small to mid-size category. When considering the relative demand for new employees across size classifications it is best to turn to vacancy rates. Vacancy rates by size class are: 0.4% for Government agencies, 0.9% for small to mid-size employers, and 2.6% for large employers. While having the smallest total number of employees of the three size classes, large employers have the most vacancies and thus the highest vacancy rate. Job seekers should not disregard the other employers, but should keep in mind that for the time being large employers offer more vacancies than either small & mid-size or Government.

Large employers also offer higher wages than Government or small to mid-size firms. Like all the categories discussed in this report, occupations found in a size class play a major role in determining the average wage in that category. The vast majority of healthcare related occupations and construction & extraction occupations are found in the large size category, and these tend to pay higher wages. These higher wages are often influenced by the more demanding education and experience requirements of the positions. The occupation most frequently demanded by large employers is Operating Engineers & Other Construction Equipment Operators. Small to mid-size employers have strong demand for Cashiers and Nursing Aides, Orderlies and Attendants, while Government entities have the most openings for Teacher Assistants.

**Figure 10: Estimated Vacancies and Average Wages by Employer Size**



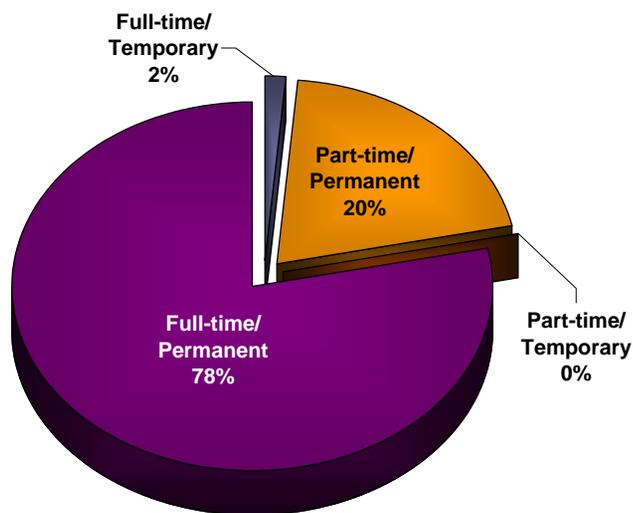
**Figure 11: Reported Average Wage Ranges by Employer Size**



# Survey Findings

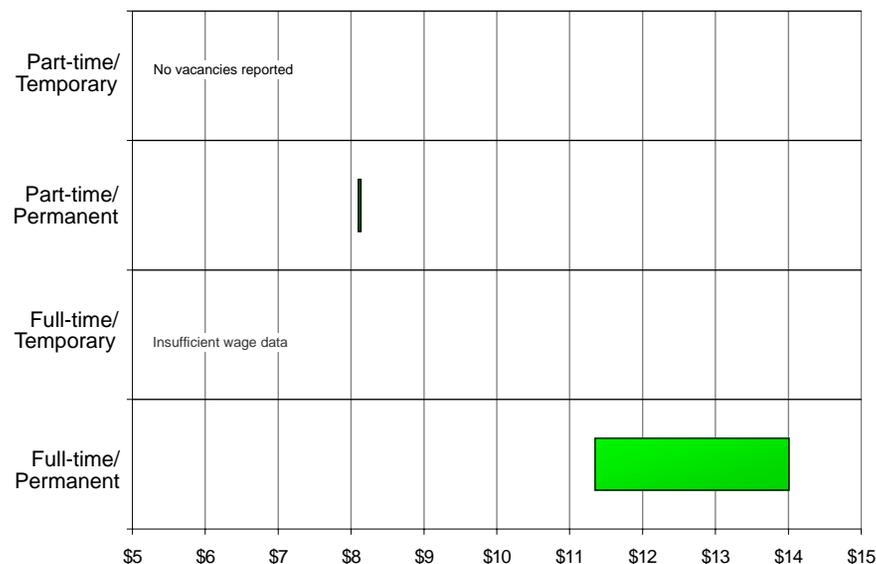
The remainder of this report provides descriptive statistics of the vacancies reported in and unique to this survey; this is supplemental data of interest to the reader. The survey design does not allow for application of this detail to the region as a whole, but it can be used to understand characteristics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

**Figure 12: Vacancies by Employment Status**



Ninety-eight percent of the vacancies reported are permanent employment opportunities. Seventy-eight percent are full-time/permanent positions, 20% are part-time/permanent positions. Two percent of the positions are temporary, down from 3% last year. The part-time positions are mostly for Cashiers and Combined Food Preparation and Serving Workers, Including Fast Food. In this survey, most full-time/permanent

**Figure 13: Reported Average Wage Ranges by Employment Status**



vacancies are for Operating Engineers & Other Construction Equipment Operators and Registered Nurses. Positions in this category offer the highest average wages at \$12.70. This is consistent with most of the Job Vacancy Surveys conducted in the region in the last three years. However, in the 2002 Job Vacancy Survey, this was not the case when Full-time/Temporary positions offered the highest wages.

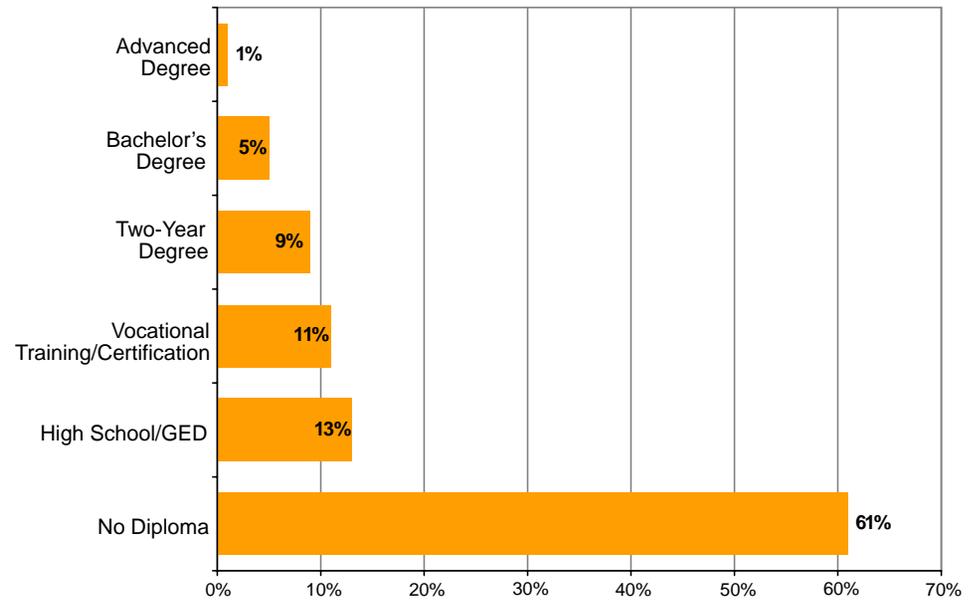
# Survey Findings *Vacancies: Employment Status, Education and Experience Requirements—continued*

Education and experience requirements accompanying the vacancies are important information reported by employers. They provide job seekers with an idea of the set of skills and education required to fill certain positions and where they might want to direct their future efforts. Almost 94% of reported job vacancies have information on the education and experience requirements of surveyed employers.

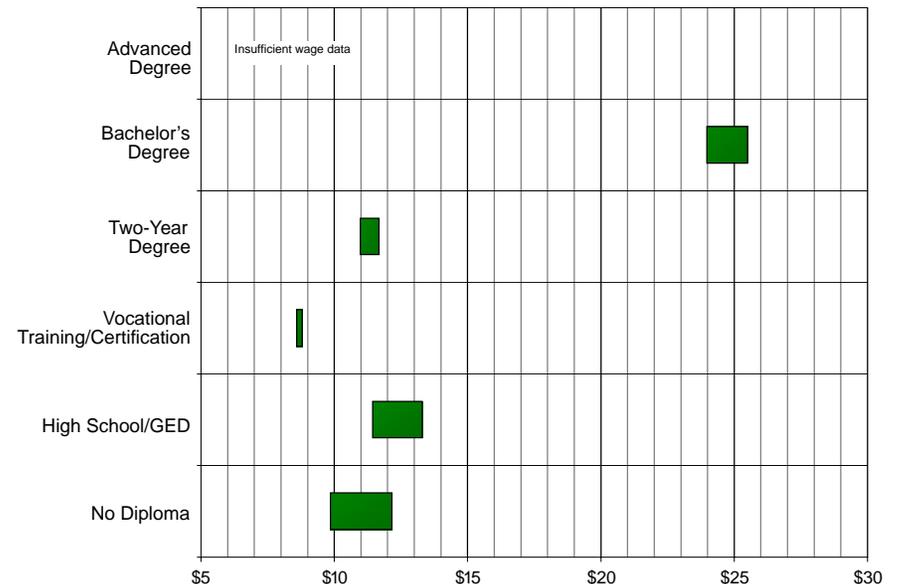
In this survey 26% of the vacancies require some form of post-secondary education compared to 39% last year. Seventy-six percent of the vacancies requiring post-secondary education are offered by employers in the Education & Health Services JVS sector. The Information, Financial Activities & Professional & Business Services JVS sector accounts for 47% of the vacancies that do not require more than a high school degree. Eighty-six percent of all vacancies requiring vocational training and/or certification and 71% of those requiring a two-year degree are in the Education & Health Services sector. Operating Engineers & Other Construction Equipment Operators and Cashiers are the most demanded occupations that do not have a specific educational requirement. In positions that require a high school diploma or GED, the most vacancies are for Tellers. Medical occupations are in high demand in the vocational training and two-year degree categories: Nursing Aides, Orderlies and Attendants and Registered Nurses have the most openings in these educational categories respectively. Pharmacists are the one occupation in most demand for positions that require a bachelor's degree.

Generally, the higher the education required for a position, the higher the wage offered. It is important for people considering whether or not to continue their education to have an idea of how it will affect their earnings. There was no wage information associated with the highest level of education, but positions requiring Bachelor's degrees offer an average wage more than twice the overall average of \$11.50 per hour. Contrary to the expected trend, vacancies requiring a high school diploma or equivalent offered a higher average wage than those requiring either vocational training or a two-year degree. This is a result of the particular mix of occupations reported in this survey and a small number of vacancies in the high school category with very

**Figure 14: Vacancies by Education**



**Figure 15: Reported Average Wage Ranges by Education**



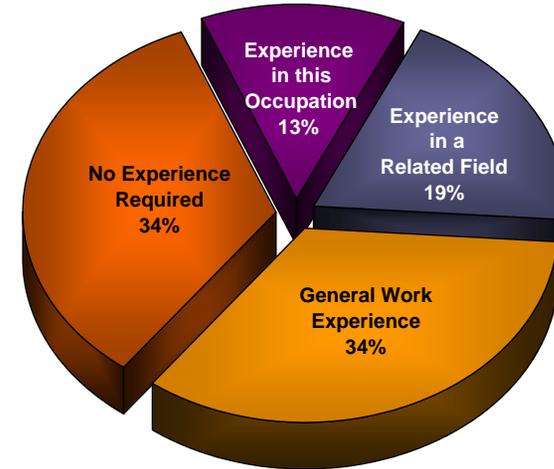
# Survey Findings *Vacancies: Employment Status, Education and Experience Requirements—continued*

high wages that affected the average. In general pay differentials for educational attainment offer a powerful incentive to continue one’s education.

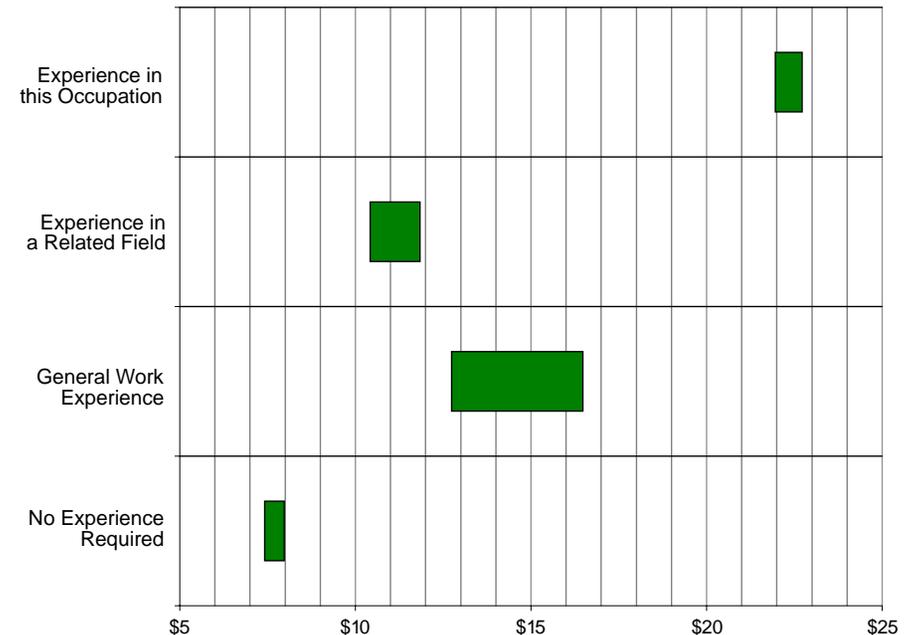
Most vacancies reported in this survey require some level of experience. Vacancies offered by Trade, Transportation, Utilities & Other Services employers make up the largest proportion of vacancies that do not require prior work experience, while those requiring general work experience in the occupation consist mainly of vacancies offered by employers in the Information, Financial Activities & Professional & Business Services sector. Employers in the Education & Health Services sector make up the largest portion of vacancies requiring both related and specific experience. The most demanded occupation that does not have a prior experience requirement is for Cashiers. Operating Engineers & Other Construction Equipment Operators have the most openings that require general work experience. Of the vacancies that require experience in a related field Nursing Aides, Orderlies and Attendants are the most demanded, while Registered nurses have the most vacancies that require prior experience in the occupation.

Positions requiring higher levels of experience generally pay higher wages. The primary reason for this is that workers with higher levels of experience are often more productive. Also, higher-level positions such as management typically require related experience. In this survey, the average wage for positions requiring experience in a particular occupation is almost three times the average wage for those not requiring experience. Vacancies in the general work experience category offer the second highest average wages. This is due to a large number of vacancies in that category, especially for Operating Engineers & Other Construction Equipment Operators that offer wages which are higher than the overall average for the survey.

**Figure 16: Vacancies by Experience**

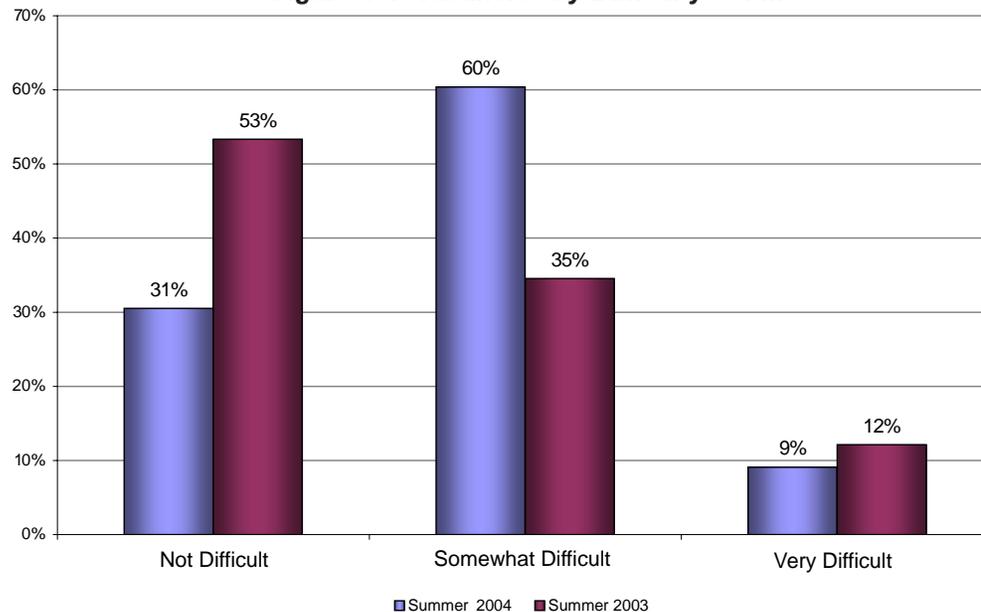


**Figure 17: Reported Average Wage Ranges by Experience**



# Survey Findings

**Figure 18: Vacancies by Difficulty to Fill**



**The level of difficulty an employer experiences when filling a vacancy** can vary dramatically depending on the nature of the individual vacancy as well as the prevailing labor market conditions. For example, finding a high level executive with the right qualifications is usually more difficult than a waiter or waitress. In tight labor markets, such as the one which existed in Colorado during the late 1990s, it may be difficult to fill vacancies no matter what the position. Who is available to work will also affect the difficulty employers experience when trying to fill vacancies. The availability of candidates suited to fill a vacancy requiring a specific skill set is not always sufficient to meet all of the region’s demand. If employers are finding the same positions difficult to fill one survey after another, then local education and training institutions may want to design programs to train candidates to meet that demand.

Employers are finding it more challenging to fill their vacancies than in the summer of 2003. Employers in the region experience no difficulty in filling 31% of the reported vacant positions. This is down from 53% in the 2003 survey and much closer to the 2002 level, where 33% of vacancies

were so described. This decline in positions not deemed difficult to fill is mostly countered by increases in positions considered somewhat difficult to fill. These positions increased to 60% of all vacancies from 35% in 2003. Vacancies described as very difficult to fill actually fell from 12% to 9% between the two surveys.

Employers from the Trade, Transportation, Utilities & Other Services sector have the highest number of vacancies described as not difficult to fill. The most frequently demanded occupation in this category is Cashiers. Information, Financial Activities & Professional & Business Services sector employers make up the majority of vacancies that are somewhat difficult to fill, with Operating Engineers & Other Construction Equipment Operators as the occupation in highest demand. Vacancies that are very difficult to fill are concentrated in the Education & Health Services sector, especially for Registered Nurses. Because jobs like nurses tend to require higher levels of both education and experience, it is not surprising that these positions would be more difficult to fill.

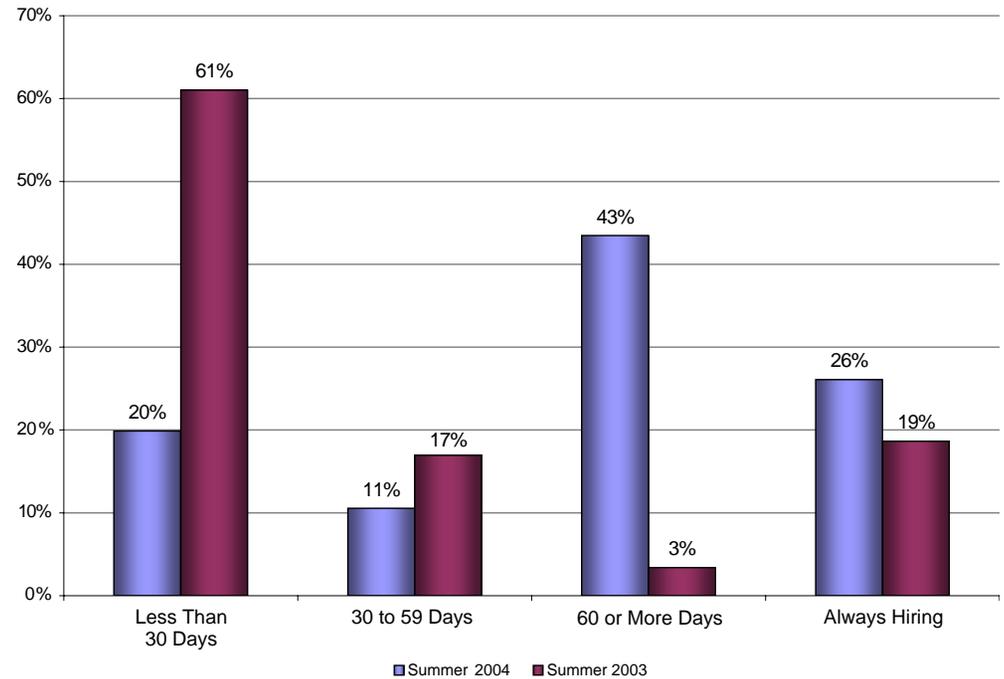
# Survey Findings *Vacancies: Difficulty to Fill and Time Open for Hire—continued*

In addition to asking employers about their perceived difficulty in filling vacant positions, the Job Vacancy Survey also measures the amount of time that employers have been actively recruiting for a position. This additional information allows the reader to make a better judgment regarding the difficulty employers are having than if the survey relied wholly on employers' perceptions of how difficult a vacancy is to fill. How long a vacancy is open can indicate the degree of difficulty an employer is having in filling the position. Factors include: the availability of qualified candidates; competition among employers for similar candidates; and the willingness of candidates to accept job duties considering wages and benefits offered. Also, employers may allow more time to fill a vacancy in order to ensure the fit of the candidate with the organization, or because there may be a limited number of qualified applicants.

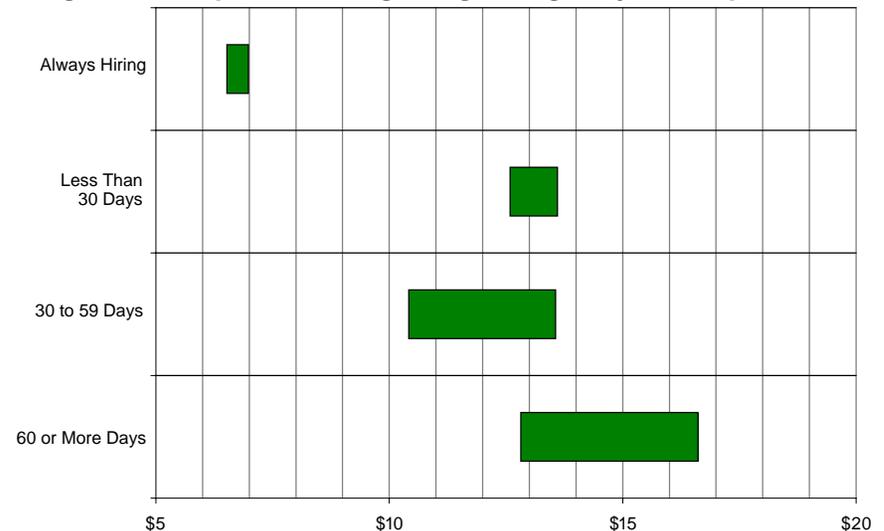
In this survey vacancies have been open for substantially longer than they were a year ago, suggesting that employers are currently finding it more difficult to attract qualified candidates. The substantial increase in the number of vacancies that are open for 60 or more days along with the increase in vacancies for which employers are always hiring highlight and reinforce the conclusion from the difficulty to fill section: employers are having a more difficult time and it is taking longer to fill positions than last year. There is a wide variety of occupations from many different groups that have been open less than 30 days and those open for 30 to 59 days, notably in the Healthcare Practitioner & Technical and Food Preparation & Serving Related groups. Operating Engineers & Other Construction Equipment Operators and Registered Nurses are the most often demanded occupations that have been open for 60 or more days. The most popular occupation in the always hiring category is Cashiers.

The survey found that positions open for longer periods of time have higher associated wages. As higher wages usually accompany occupations that require more specialized skills, it may take an employer longer to recruit and hire a candidate with the desired background.

**Figure 19: Vacancies by Time Open for Hire**



**Figure 20: Reported Average Wage Ranges by Time Open for Hire**



# Survey Findings

## Medical Insurance

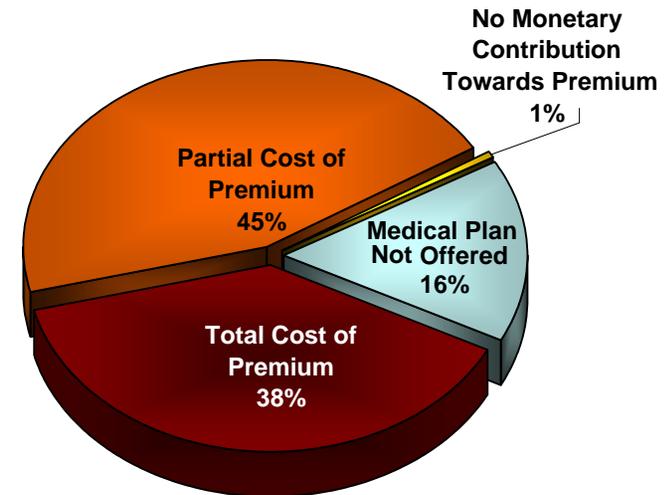
**Employers frequently offer compensation related benefits to recruit qualified candidates.** Some of these perks are paid time off, transportation or parking vouchers, subsidized childcare, or deferred compensation savings plans. One important benefit offered is medical insurance through an employer group plan. The employer may or may not contribute to insurance premiums related to the plan. How can an employer offer medical insurance and not pay for it? While this scenario is uncommon, employers can and do offer employees the opportunity to participate in their group medical insurance plans even though they do not contribute to the premium.

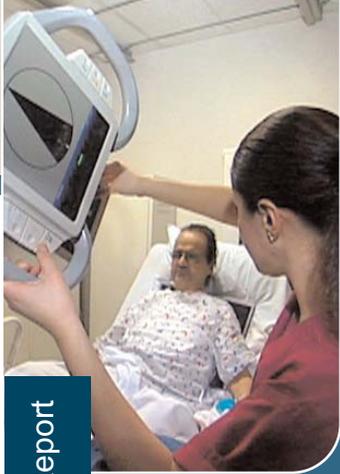
In the current survey 84% of all reported vacancies include a medical insurance plan, up from 59% in the 2003 survey. In essentially all the vacancies that have medical insurance available employers offer to pay at least part of the premium. Registered Nurses and Cashiers are the most demanded occupations where employers pay a portion of the premium. Operating Engineers & Other Construction Equipment Operators are the most demanded occupation which offers to pay the total cost of the premium. In times when healthcare costs are rising much faster than the rate of inflation, it is a positive sign for employees that one of the most widespread ways by which they can have access to insurance plans remains in place.

## Sign-On Bonus

**There are no bonuses offered in this survey. Sign-on bonuses are used as a tool to attract workers in tight labor market conditions.** As the labor market tightens it will be interesting to learn whether sign-on bonuses will again be used as a recruitment tool.

Figure 21: Employers' Contribution to Medical Insurance





## Introduction

# Occupational Details

**The information reported in the Job Vacancy Survey** is partly intended to provide job seekers and employers with useful and current information to help them make informed decisions about job hunting and hiring. Estimating the number of overall vacancies in a region and breaking those numbers down by categories such as JVS sector and employer size provides a useful overview of the job market, but when it comes down to filling a particular opening, the more detailed the information the better.

Reporting vacancies at the individual occupation level is the most detailed information the survey can provide without breaking confidentiality with participating employers.

In order to help make comparisons between the results of this survey and other sources of employment statistics easier, all jobs reported are assigned an occupation code based on the *2000 Standard Occupational*

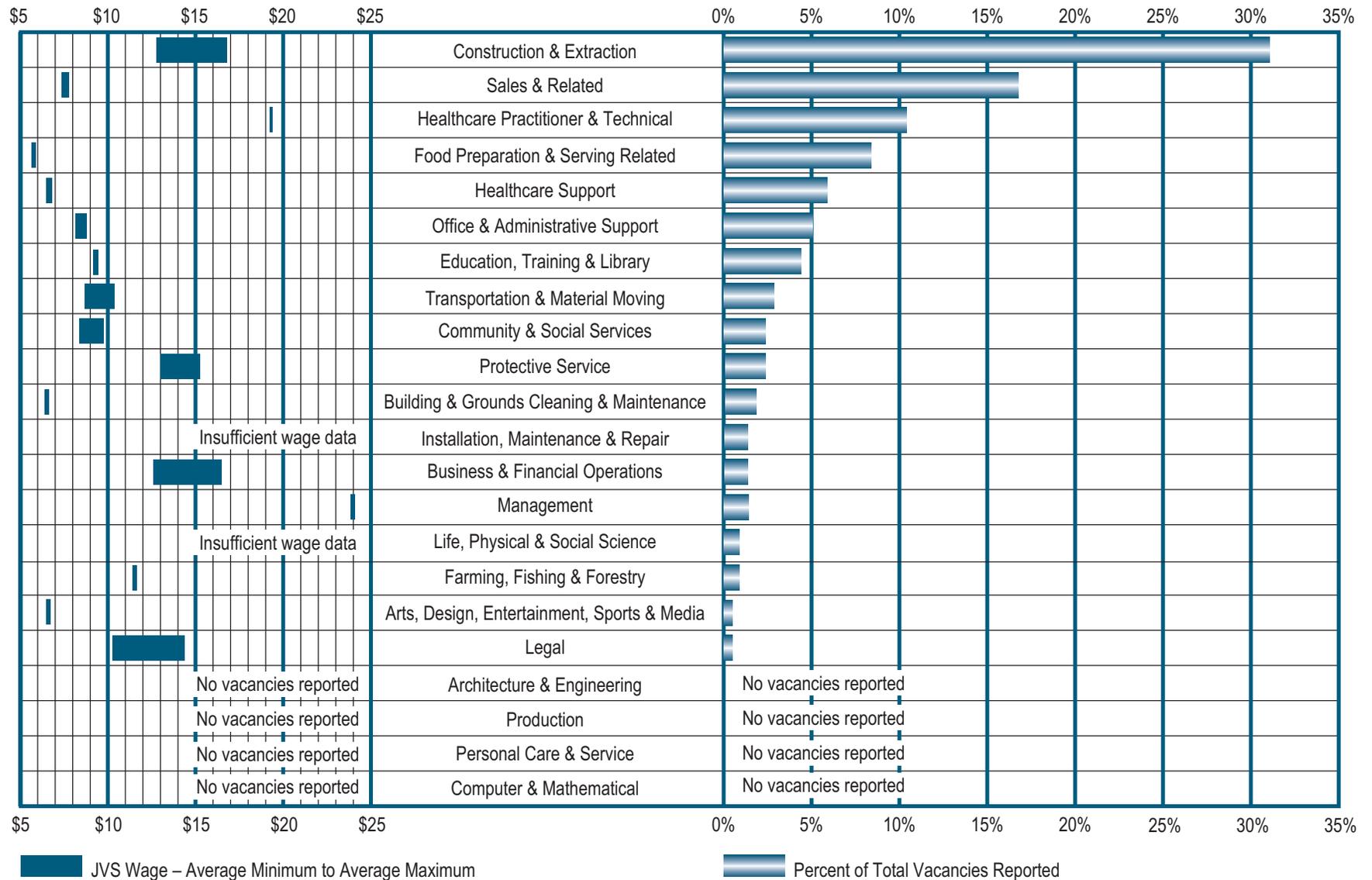
*Classification Manual* published by the Executive Office of the President, Office of Management and Budget. The SOC system contains 821 detailed occupation titles that fall into 23 major occupational groups. Vacancies found in this survey were coded into 18 of those 23 major groups.

The results of the survey show that the most frequently occurring job vacancies do not necessarily offer the highest wages. This indicates that compensation for workers can be explained by the investigation of other vacancy characteristics. Occupations offering the lowest wages tend to be occupations typically requiring lower levels of education and experience. Occupational groups offering the highest wages in the survey are Management, Healthcare Practitioner & Technical, and Construction & Extraction .

Throughout the state Healthcare Practitioners & Technical Occupations are consistently in demand. People currently preparing to work in the healthcare field should feel confident that they will be able to find employment and receive excellent wages.

# Occupational Details *—continued*

**Figure 22: Vacancies and Reported Average Wage Ranges by Major Occupational Groups**



# Occupational Details *—continued*

## High Demand Occupations

The most demanded occupations in the survey come from several different occupational groups. Operating Engineers & Other Construction Equipment Operators are in the Construction & Extraction group, Cashiers are in Sales and Related group, while Tellers are from the Office & Administrative Support group.

Of the different occupations with the 20 highest average wages, nearly half are from just three occupational groups: Healthcare Practitioners & Technical, Office & Administrative Support, and Transportation & Material Moving occupations. Some of these higher paying occupations have many vacancies available like the Operating Engineers & Other Construction Equipment Operators and Registered Nurses which have some of the highest levels of vacancies in the survey. But several other of the highest paying positions have only a handful of vacancies as they are very specialized.

## Occupational Estimates

Tables 1 and 2 contain 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. Half 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. Most likely, if a different random sample had been drawn there would be some differences in the job titles reported, but there would also be many of the same.

Vacancies estimated and reported along with wages offered are displayed in Table 1 for those occupations where at least 4 vacancies are estimated.

## 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. However, in addition to the number found, vacancies are estimated for occupations reported by small to mid-size private firms. The estimated vacancies are calculated per the current mix of occupations filled in the region at the major occupational group level. Estimated vacancies by major occupational group are then proportionally distributed among the specific detailed occupations reported in the survey.

## Vacancies Found

The number of vacancies by occupation reported in the survey.

## Average JVS Wage Offered

The average of all wages reported in the survey is given for each occupation. The average wage is based solely on information provided by employers responding to this survey, and does not reflect information from other sources or wages paid for currently filled positions. Wage information accompanied 77% of reported vacancies.

## Average (OES) Wage Paid

Occupational Employment Statistics (OES) wage data are provided for each occupation. OES data are based on a national survey of employers and refer to filled positions, not vacancies. The data provided here are reported for the Southeast Region when available and statewide otherwise. Data are collected for the three-year rolling OES panels, concluding in May 2003. A complete description of the OES survey is 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 to already filled positions. Together, these data provide employers and job seekers with a good indication of the compensation available in the current job market.

# Occupational Details *—continued*

**Table 1: Occupations with Four or More Estimated Vacancies**

					Occupational Employment Statistics Wage Data (2003)							
					Average Wages			Percentile Distribution				
SOC Code	SOC Occupational Title	Vacancies Estimated	Vacancies Found	Average JVS Wage	Entry-Level	Overall	Experienced	10th	25th	50th	75th	90th
47-2073	Operating Engineers and Other Construction Equipment Operators	60	60	\$15.00	\$11.57	\$14.59	\$16.11	\$10.91	\$12.47	\$14.59	\$16.86	\$19.03
41-2011	Cashiers	33	28	\$6.70	\$6.09	\$6.67	\$6.96	\$5.62	\$5.96	\$6.51	\$7.13	\$8.43
43-3071	Tellers	13	4	\$8.10	\$6.37	\$8.21	\$9.14	\$6.03	\$6.85	\$8.02	\$9.46	\$10.77
29-1111	Registered Nurses	12	11	\$17.10	\$17.75	\$23.56	\$26.47	\$16.37	\$18.80	\$21.56	\$26.67	\$34.29
31-1012	Nursing Aides, Orderlies, and Attendants	12	11	\$6.70	\$7.33	\$10.00	\$11.34	\$6.91	\$7.90	\$9.38	\$11.43	\$15.01
35-3021	Combined Food Preparation and Serving Workers, Including Fast Food	9	6	\$5.50	\$5.94	\$6.90	\$7.38	\$5.57	\$6.04	\$6.81	\$7.80	\$8.44
25-2011	Preschool Teachers, Except Special Education	8	2	†	\$7.87	\$10.93	\$12.45	\$7.10	\$8.74	\$10.33	\$12.43	\$17.04
* 41-9041	Telemarketers	6	4	\$7.30	\$6.99	\$10.42	\$12.13	\$6.50	\$7.55	\$9.24	\$11.85	\$16.39
43-4171	Receptionists and Information Clerks	5	3	\$8.20	\$7.09	\$9.41	\$10.57	\$6.46	\$7.66	\$9.12	\$10.84	\$13.14
37-2012	Maids and Housekeeping Cleaners	5	2	\$6.50	\$6.12	\$7.07	\$7.54	\$5.67	\$6.05	\$6.68	\$7.91	\$9.62
35-9021	Dishwashers	4	3	\$6.50	\$6.18	\$6.74	\$7.03	\$5.72	\$6.08	\$6.69	\$7.45	\$8.38
25-9041	Teacher Assistants	4	4	\$8.60	\$12,346	\$16,020	\$17,858	\$11,595	\$12,543	\$14,126	\$19,108	\$22,728
33-3051	Police and Sheriff's Patrol Officers	4	4	\$14.10	\$11.22	\$14.61	\$16.30	\$10.40	\$11.79	\$13.07	\$15.67	\$22.68
53-3031	Driver/Sales Workers	4	2	\$5.50	\$9.12	\$14.99	\$17.92	\$8.08	\$9.90	\$12.92	\$20.78	\$22.28
35-3031	Waiters and Waitresses	4	3	\$5.20	\$6.13	\$7.47	\$8.14	\$5.72	\$6.16	\$6.89	\$8.94	\$10.57

\* OES wages reported for Colorado statewide

† Insufficient wage data

# Occupational Details —continued

**Table 2: Occupations with Fewer than Four Estimated Vacancies**

		Occupational Employment Statistics Wage Data (2003)							
		Average Wages			Percentile Distribution				
SOC Code	SOC Occupational Title	Entry-Level	Overall	Experienced	10th	25th	50th	75th	90th
* 11-2021	Marketing Managers	\$23.64	\$41.49	\$50.41	\$21.80	\$27.11	\$38.36	\$52.26	\$66.74
49-3023	Automotive Service Technicians and Mechanics	\$9.33	\$13.42	\$15.46	\$8.49	\$10.13	\$11.89	\$15.47	\$22.13
29-2061	Licensed Practical and Licensed Vocational Nurses	\$8.49	\$13.44	\$15.91	\$7.75	\$9.29	\$12.73	\$16.45	\$20.38
* 47-3012	Helpers--Carpenters	\$6.66	\$10.95	\$13.09	\$6.23	\$7.25	\$11.30	\$13.81	\$16.42
29-1062	Family and General Practitioners	\$60.08	\$64.33	\$66.46	\$55.07	\$61.30	\$65.80	†	†
* 25-2042	Special Education Teachers, Middle School	\$31,370	\$43,010	\$48,840	\$29,770	\$34,190	\$42,090	\$51,800	\$59,450
* 53-7072	Pump Operators, Except Wellhead Pumpers	\$8.96	\$12.87	\$14.82	\$8.29	\$9.73	\$12.16	\$15.63	\$19.12
47-4051	Highway Maintenance Workers	\$9.61	\$11.99	\$13.18	\$9.26	\$10.52	\$12.24	\$13.39	\$14.32
* 19-3031	Clinical, Counseling, and School Psychologists	\$16.39	\$25.85	\$30.58	\$14.96	\$18.48	\$25.36	\$31.48	\$35.59
13-2011	Accountants and Auditors	\$17.08	\$25.41	\$29.57	\$15.37	\$19.18	\$24.47	\$29.51	\$33.51
29-1051	Pharmacists	\$24.97	\$35.13	\$40.22	\$11.13	\$35.00	\$38.80	\$42.25	\$44.37
53-3032	Truck Drivers, Heavy and Tractor-Trailer	\$10.05	\$13.38	\$15.05	\$9.59	\$10.52	\$12.22	\$15.21	\$18.18
* 49-3041	Farm Equipment Mechanics	\$10.11	\$14.51	\$16.71	\$9.16	\$11.16	\$14.38	\$17.30	\$20.80
41-3011	Advertising Sales Agents	\$8.03	\$10.07	\$11.09	\$7.51	\$8.04	\$8.94	\$11.83	\$13.77
41-1011	First-Line Supervisors/Managers of Retail Sales Workers	\$8.05	\$12.98	\$15.45	\$6.79	\$9.48	\$13.50	\$15.94	\$17.90
35-3041	Food Servers, Nonrestaurant	\$6.03	\$7.73	\$8.58	\$5.73	\$6.31	\$7.34	\$8.63	\$11.12
35-1012	First-Line Supervisors/Managers of Food Preparation and Serving Workers	\$9.41	\$12.77	\$14.45	\$8.89	\$9.95	\$11.56	\$15.51	\$19.38
45-2099	Agricultural Workers, All Other	†	†	†	†	†	†	†	†
25-3099	Teachers and Instructors, All Other	†	†	†	†	†	†	†	†
21-1019	Counselors, All Other	†	†	†	†	†	†	†	†
21-1029	Social Workers, All Other	†	†	†	†	†	†	†	†

\* OES wages reported for Colorado statewide

† Insufficient wage data

# Occupational Details *—continued*

**Table 2: Occupations with Fewer than Four Estimated Vacancies — Page 2**

		Occupational Employment Statistics Wage Data (2003)							
		Average Wages			Percentile Distribution				
SOC Code	SOC Occupational Title	Entry-Level	Overall	Experienced	10th	25th	50th	75th	90th
23-2099	Legal Support Workers, All Other	†	†	†	†	†	†	†	†
* 35-3022	Counter Attendants, Cafeteria, Food Concession, and Coffee Shop	\$6.10	\$7.81	\$8.67	\$5.82	\$6.48	\$7.59	\$8.89	\$10.39
* 35-9031	Hosts and Hostesses, Restaurant, Lounge, and Coffee Shop	\$6.12	\$7.65	\$8.42	\$5.81	\$6.37	\$7.24	\$8.50	\$10.19
37-2011	Janitors and Cleaners, Except Maids and Housekeeping Cleaners	\$6.19	\$8.63	\$9.84	\$5.92	\$6.63	\$8.02	\$10.18	\$12.51
35-2012	Cooks, Institution and Cafeteria	\$6.31	\$8.32	\$9.32	\$5.90	\$6.81	\$8.08	\$9.31	\$11.02
* 45-2093	Farmworkers, Farm and Ranch Animals	\$6.56	\$8.90	\$10.07	\$6.13	\$7.08	\$8.48	\$10.17	\$12.77
53-7081	Refuse and Recyclable Material Collectors	\$7.34	\$9.31	\$10.30	\$6.98	\$7.44	\$8.27	\$11.94	\$13.23
29-2041	Emergency Medical Technicians and Paramedics	\$7.99	\$14.12	\$17.18	\$6.91	\$9.34	\$12.50	\$19.13	\$23.68
43-6013	Medical Secretaries	\$8.49	\$10.91	\$12.12	\$7.96	\$9.00	\$10.38	\$12.16	\$15.19
* 21-1015	Rehabilitation Counselors	\$9.08	\$14.69	\$17.50	\$8.16	\$10.21	\$12.91	\$17.01	\$25.22
43-5031	Police, Fire, and Ambulance Dispatchers	\$9.57	\$10.62	\$11.14	\$8.86	\$9.39	\$10.26	\$11.89	\$13.19
33-3012	Correctional Officers and Jailers	\$10.26	\$15.74	\$18.48	\$9.20	\$11.65	\$15.94	\$19.99	\$22.24
29-2034	Radiologic Technologists and Technicians	\$11.02	\$15.89	\$18.32	\$9.34	\$12.96	\$16.00	\$18.48	\$22.22
37-1011	First-Line Supervisors/Managers of Housekeeping and Janitorial Workers	\$11.15	\$13.93	\$15.33	\$10.09	\$12.10	\$13.79	\$16.02	\$18.22
* 21-1014	Mental Health Counselors	\$11.24	\$16.19	\$18.66	\$10.34	\$12.10	\$14.38	\$17.76	\$23.71
* 31-2021	Physical Therapist Assistants	\$11.47	\$15.58	\$17.64	\$9.10	\$13.50	\$15.83	\$17.98	\$20.95
* 43-4161	Human Resources Assistants, Except Payroll and Timekeeping	\$11.96	\$16.26	\$18.41	\$11.23	\$13.49	\$15.95	\$18.86	\$21.74
* 27-3043	Writers and Authors	\$12.31	\$21.45	\$26.02	\$11.67	\$14.21	\$19.18	\$26.18	\$35.41
* 13-1071	Employment, Recruitment, and Placement Specialists	\$13.90	\$22.93	\$27.44	\$12.52	\$15.78	\$20.10	\$27.40	\$35.06

\* OES wages reported for Colorado statewide

† Insufficient wage data

# Occupational Details *—continued*

**Table 2: Occupations with Fewer than Four Estimated Vacancies — Page 3**

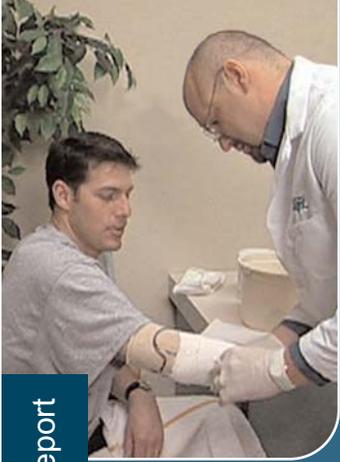
		Occupational Employment Statistics Wage Data (2003)							
		Average Wages			Percentile Distribution				
SOC Code	SOC Occupational Title	Entry-Level	Overall	Experienced	10th	25th	50th	75th	90th
21-1012	Educational, Vocational, and School Counselors	\$15.01	\$17.90	\$19.34	\$14.20	\$15.24	\$16.90	\$19.91	\$22.43
* 29-1126	Respiratory Therapists	\$15.19	\$18.93	\$20.81	\$14.50	\$16.52	\$19.11	\$21.49	\$23.82
11-9199	Managers, All Other	\$15.25	\$20.99	\$23.85	\$14.11	\$15.87	\$17.68	\$22.57	\$35.56
29-1123	Physical Therapists	\$21.73	\$24.14	\$25.34	\$19.94	\$22.55	\$24.53	\$26.44	\$28.00
11-9111	Medical and Health Services Managers	\$21.91	\$29.01	\$32.57	\$20.52	\$23.30	\$26.95	\$30.94	\$35.97

\* OES wages reported for Colorado statewide

† Insufficient wage data

Average Wage Paid refers to the Occupational Employment Statistics (OES) wage data.

Average Wage Offered to applicants comes from the current Job Vacancy Survey (JVS) for this region.



## Education & Health Services

# Sector Briefs

### Education & Health Services JVS sector

includes the Educational Services sector, and the Health Care & Social Assistance sector which is further broken down into the Ambulatory Health Care Services subsector, the Hospital subsector, the Nursing and Residential Care Facilities subsector and the Social Assistance subsector. Educational Services is relatively small in the region making up less than one percent of the total employment in this JVS sector. This is due to the fact that most educational institutions are funded by the government and are thus classified in the Government sector. It is important to understand that this analysis of the sector deals with employers whose primary activity is in the sector, and while they certainly employ healthcare professionals such as doctors and nurses, they also employ some people in occupations that do not specifically deal with the practice of medicine.

In the Southeast region, the Education & Health Services JVS sector has the lowest number of employers, and makes up only 11% of total employment. Despite this, the Education & Health Services JVS sector is important to highlight because it has consistently offered a larger portion of vacancies than its share of total employment. In the current survey the sector accounts for 26% of the total estimated vacancies; more than double its share of total employment. Also the demographic shift taking place as the population ages and baby boomers require more care adds to the sector's future significance.

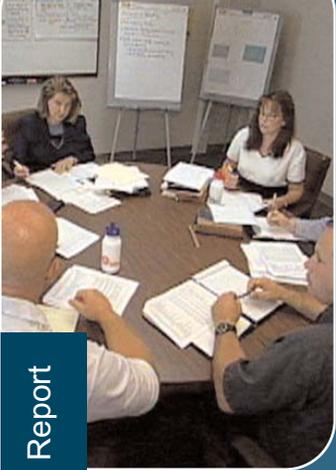
The number of estimated vacancies in the JVS sector, and their percentage of overall estimated vacancies have varied over the past several surveys. The number has increased in this survey to 69 from 60 in the 2003 survey, and 28 in the 2002 survey. The percentage of overall estimated vacancies has fluctuated from the current 26%, to 40% seen in the survey in 2003 and 14% in 2002. Over 23% of employers surveyed had at least one vacancy which is up from 19% a year ago. This is much higher than

the overall average of 9% for the survey. As well the JVS sector's vacancy rate at 1.7% is higher than the 1.2% for the overall survey. These factors may indicate that the sector is still experiencing strong demand for labor and/or that the recruitment problems finding qualified candidates facing employers yet persist.

Employers in the Education & Health Services JVS sector offered the third highest average wages for open positions within this survey. Spiraling demand for health care services have put the sector in increased need of qualified healthcare workers. This need was unfulfilled for the most part of the 1990s and early 2000s due to factors such as the hi-tech boom that diverted employment from health care to more lucrative emerging technology fields. Some typical characteristics such as long working hours, problematic scheduling, and difficult working conditions had further exacerbated recruitment problems for employers in the sector.

Seventy-four percent of the vacancies reported within the JVS sector are full-time/permanent openings and the remaining 26% are part-time/permanent positions. Eighty-four percent of the reported vacancies require some form of post-secondary education and 76% require at least experience in a field related to the occupation for which the employer is hiring. Eighty-six percent of the vacancies reported within the sector are reported as somewhat or very difficult to fill. Nearly two-thirds of the vacant positions had already been open for 30 or more days or were always hiring. Medical insurance is offered for 87% of the vacancies reported within the sector with 84% of these vacancies offering at least partial payment towards the medical insurance premium.

Twenty percent of the estimated vacancies within the JVS sector are for Registered Nurses positions. Another 22% of the estimated vacancies are for Nursing Aides, Orderlies, and Attendants. These occupations are the fourth and fifth most demanded in the survey, respectively. The average JVS wage of \$17.10 offered for Registered Nurses in this survey is nearly 50% higher than the average wage of \$11.50 reported in the overall survey.



## How to Use This Report

# 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 work-experience to fit future high-demand positions.

### Workforce Centers

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

While this report is a picture of the area's current employment needs and historical seasonal patterns, other Labor Market Information products provide projections of occupational growth and anticipated openings. These can be accessed at [www.coworkforce.com/lmi/oeo/oeo.htm](http://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.**

# Appendix *—continued*

## Caveats

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

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

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.

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 42% of the employment in the region is found in large and government employers that make up not quite 5% 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.

# Appendix: Methodology —continued

## Survey Sample

The Southeast Region survey was conducted from August 12th through August 23rd, 2004. For the purpose of this report, private and government 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 provide only a small proportion of the total employment. Employment in the sample frame accounts for 80% 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 75 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 employers are contacted up to 200 employers. In JVS sectors with less than 1,000 employees, efforts are made to capture at least 500 employees in the sample. If less than 500 employees work in a sector then all employers are contacted. This sampling method insures that all the vacancy estimates are based on a sufficiently large sample size.

Government makes up 28% of the employment in the sample frame, while private industry employers make up the remaining 72%. Large firms account for 33% of private industry employment in the sample frame. Firms employing from five to 74 individuals are considered small to mid-size employers, and account for the remaining 67% of private industry employment.

The margin of error for the overall vacancy estimate is plus or minus 2.5% or about 7 vacancies at a 95% confidence level. In other words, in 95 out of 100 samples, the actual number of vacancies in the region will be between 258 and 272 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 86%. This measures the quality of the survey database, or the success experienced in contacting eligible employers. The cooperation rate is 97% and measures the success in obtaining data once an employer is contacted.

## JVS Sectors

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

In the Southeast Region, the 20 NAICS sectors have been combined into six JVS sectors. These groupings are based on the NAICS sectors, but are somewhat unique to the Job Vacancy Survey. The new group 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 28.

<b>Southeast Region JVS Sectors</b>	include →	<b>NAICS Sectors</b>
<b>Goods-Producing</b>		Agriculture, Forestry, Fishing & Hunting Mining Construction Manufacturing
<b>Trade, Transportation, Utilities &amp; Other Services</b>		Utilities Wholesale Trade Retail Trade Transportation & Warehousing Other Services (except Public Administration)
<b>Information, Financial Activities &amp; Professional &amp; Business Services</b>		Information Finance & Insurance Real Estate & Rental & Leasing Professional, Scientific & Technical Services Management of Companies & Enterprises Administrative & Support & Waste Management & Remediation Services
<b>Education &amp; Health Services</b>		Educational Services Health Care & Social Assistance
<b>Leisure &amp; Hospitality</b>		Accommodation & Food Services Arts, Entertainment & Recreation
<b>Government</b>		Public Administration

# Appendix: Methodology —continued

## North American Industry Classification System

### 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 (NAICS)

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

### History of Process

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

### Industrial Classification vs. Occupational Classification

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

### Benefits

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

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

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

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

# Appendix: NAICS —continued

**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

# Appendix

**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*.

## Appendix: Glossary —continued

### **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**

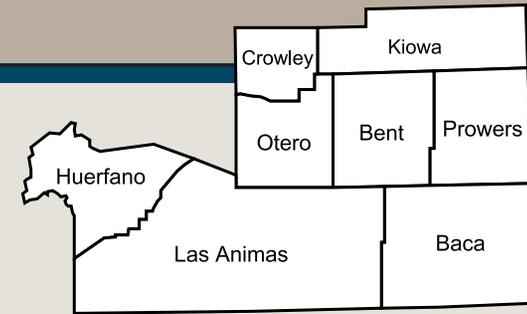
Persons 16 years of age and over who had no employment during the reference week, were available for work, except for temporary illness, and had made specific efforts to find employment sometime during the four-week period ending with the reference week. Persons who were waiting to be recalled to a job 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, straight-time earnings divided by the corresponding hours. Straight-time wage and salary rates are total earnings before payroll deductions, excluding premium pay for overtime and for work on weekends and holidays, shift differentials, and non-production bonuses such as lump-sum payments provided in lieu of wage increases.



## SOUTHEAST JVS REGION WORKFORCE CENTERS

### **Baca County Satellite**

Baca County Library  
733 Main Street  
Springfield, CO 81073  
Phone: 719-523-6962

### **Bent County Satellite**

Community Center  
1724 Ambassador Thompson Blvd.  
Las Animas, CO 81054  
Phone: 719-254-3396

### **Crowley County Satellite**

613 Main Street  
Ordway, CO 81063  
Phone: 719-267-4405  
Fax: 719-384-6955

### **Kiowa County Satellite**

Kiowa County Library  
1305 Goff Basement  
P.O. Box 790  
Eads, CO 81036  
Phone: 719-438-5581

### **LaJunta Workforce Center**

215 Raton Avenue  
LaJunta, CO 81050  
Phone: 719-383-3191  
Fax: 719-384-8317  
lajunta@cwfc.net

### **Lamar Workforce Center**

405 E. Olive Street  
Lamar, CO 81052  
Phone: 719-336-2256  
Toll-Free: 866-370-4931  
Fax: 719-336-2259  
Lamar@cwfc.net

### **Rocky Ford Workforce Center**

801 Chestnut Avenue  
Rocky Ford, CO 81067  
Phone: 719-254-3397  
Fax: 719-254-3877  
RockyFord@cwfc.net

### **Trinidad Workforce Center**

140 North Commercial  
Trinidad, CO 81082  
Phone: 719-846-9221  
Fax: 719-846-7594

### **Walsenburg Workforce Center**

528 Main Street  
Walsenburg, CO 81089-2116  
Tues. & Wed., 9 am - 4 pm  
Phone: 719-738-2372  
Fax: 719-738-3616

