Western \&
Southwest Region Job Vacancy Survey Winter 2004


Labor \& Employment

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Introduction

## The unemployment rate, along

 with the level and growth rate of employment, has been used as an indicator of labor market conditions for decades. While this indicator provides information about changes in the supply and demand for labor, it reveals nothing about the skills most sought after by employers. As such, individuals preparing themselves for the job market have done so with limited knowledge of what skills are necessary to successfully compete in the contemporary labor market. Employers have had an equally difficult time determining appropriate compensation levels due to a limited knowledge of what similar firms in their region are currently offering.Job seekers and employers, as well as Workforce Centers and economic developers need more than a measure of demand for workers at a specific point in time. They also need a measure of where in the economy that demand is located and what education and experience levels are most preferred. The Colorado Department of Labor and Employment (CDLE) developed the Job Vacancy Survey (JVS) to meet this need. The JVS is designed to provide a snapshot estimate of job vacancies along with detailed information and analysis on accompanying wages, skill requirements and work experience.

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

## 2 Executive Summary

## The 2004 Winter Western \& Southwest Job

Vacancy Survey was conducted from January 14th through January 27, 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 more informed decisions in the Western \& Southwest 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 1,228 employers, representing approximately $43 \%$ of the region's total employment, responded to the survey. Out of these, 187 were government agencies, 61 were large employers and 980 were small to mid-sized entities. The survey had an $87 \%$ response rate. The margin of sampling error for the overall result is plus or minus 30 vacancies.

## Major Findings of Survey:

- An estimated 627 jobs were open for immediate hire in the region during the survey period, up from 577 a year ago.
- The unemployment rate for January 2004 is $5.7 \%$ compared to $6.4 \%$ in January 2003
- The overall average wage offered by surveyed employers is $\$ 11.70$ per hour. .Page 8

Cashiers, Registered Nurses and Waiters \& Waitresses are in highest demand. ......Page 9
Two hundred-twenty eight vacancies are estimated to be open in the Leisure \& Hospitality JVS sector, the most in any category.

Page 9

- Sixty-nine percent of vacancies require at least a high school diploma or GED.

Page 10

- Employers find open positions more difficult to fill than in last year's survey. ....Page 10
- Seventy-one percent of vacancies offer medical insurance with most of them offering to pay a portion of the policy premium.
- There were no sign-on bonuses offered in the survey. Page 11
- The highest average wages in the survey are for Management and Healthcare Practitioner \& Technical occupations.

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## Regional Information

The Western \& Southwest Region consists of Archuleta, Delta, Dolores, Gunnison, Hinsdale, La Plata, Montezuma, Montrose, Ouray, San Juan, and San Miguel counties. The region contains a wide variety of geographic and economic areas that contribute to its beauty and appeal. The Western \& Southwest region contains world-class ski resorts, historic and quaint small
towns, productive agricultural resources, and growing metropolitan areas. The Demography Section of the Colorado Department of Local Affairs estimated the region's population at 174,414 as of July of 2002. The region's population increased by 2,887 or $1.7 \%$ from 2001 to 2002, primarily due to migration into the area. The region employed 86,100 in June 2003 out of a labor force of 91,321 . La Plata and Montrose counties make up $50 \%$ of the employment and contain the two largest cities in the region, Durango and Montrose.

Figure 2: Employment by County, June 2003


## 4 Regional Information

For the last three years the Western \& Southwest Job Vacancy Survey has attempted to measure the demand for new workers in the region. From the summer of 2001 to the summer of 2003, the estimated number of vacancies in the region gradually dropped. This drop was consistent with the loss of jobs and rising unemployment in both the state and nation. The tide is reversing in the national and state economies, and this is helping to improve conditions for job seekers in the Western \& Southwest Region as well. The number of estimated vacancies increased $8.6 \%$ from 577 in the winter 2003 survey to 627 in the winter 2004 survey. The unemployment rate dropped from $6.4 \%$ to $5.7 \%$ for the same period.

The improving national economy and a good winter snowfall in the region, will likely lead to increasing labor demand for at least the next year. The U.S. equity markets performed well in 2003. The Dow Jones Industrial Average, the Standard \& Poor's 500 Index and the Nasdaq Index gained $25 \%, 26 \%$ and $49 \%$ respectively ${ }^{1}$. Historically, the stock market has been an excellent predictor of national economic activity ${ }^{2}$. Interest rates are at the lowest levels in decades encouraging both individuals and businesses to continue spending. Increasing state and national employment as well as solid stock market performance will likely aid the tourism industry in the region.

Tourism and agriculture are among the most important drivers of the local economy in the Western \& Southwest Region. Both have been adversely affected by one of the worst droughts in Colorado history. The region has received its first good winter snowfall in several years and it appears that the severity of the drought this summer will be reduced. Snowpack levels are near their 30 -year averages and well above the average of the last few years. The number of fires in the region should decrease and the length and quality of the rafting season improve, both of which will help tourism related businesses. Increased precipitation levels will also be a welcome relief to farmers and ranchers.

Figure 3: Historical Vacancies-Western \& Southwest Region


[^0]
## 5 Regional Information -continued

Figure 4 shows a 6-year history of both the region's labor force and employment levels from January 1998 to January 2004. Several conclusions may be drawn from this graph:

- The rising trend lines demonstrate that both labor force and employment levels in the region have grown since 1998.
The labor force of the Western \& Southwest Region has grown from 81,122 in January 1998 to 91,321 in January 2004, a $2.0 \%$ annual growth rate. A person is in the labor force if he/she is either currently working or looking for work. Employment increased from 75,491 to 86,100 during the same period, a $2.2 \%$ growth rate.


## -Unemployment declined despite a

 growing labor force.Unemployment is the difference between the number of people in the labor force and the number employed. A wider gap between the two lines indicates more people are unemployed. In January 1998 there were 5,631 people unemployed compared to 5,221 in January 2004, a 410-person decline. During the same period the unemployment rate dropped from $6.9 \%$ to $5.7 \%$. The number of people in the Western \& Southwest labor force increased, but employment in the region grew even faster.
\&In addition, Figure 4 demonstrates the region's labor demand is near its seasonal trough.
Both employment levels and the labor force peak in the middle of the summer and bottom out in early winter. The Job Vacancy Survey is

Figure 4: Employment and Labor Force Trends for the Western \& Southwest Region (Not Seasonally Adjusted)


Source: CDLE, Local Area Unemployment Statistics, Released March 2004
conducted semi-annually in winter and summer in order to measure the demand for labor at both high and low employment periods.
Surveys conducted in summer represent the demand for labor at a time when employers are nearing peak employment, yet are still in the process of actively recruiting. Vacancies found in winter represent the demand for labor at a time of year when employment is at its seasonal low. A study at this time indicates the type of occupations for which a labor shortage exists even when the labor supply is least constrained.

Over the last six years the unemployment rate decreased from $6.9 \%$ to $5.7 \%$. Over that period the rate peaked at $7.2 \%$ in February and May of 1998 and bottomed in September of 2001 at $3.4 \%$. The current $5.7 \%$ rate is lower than the $6.4 \%$ rate in January of 2003 and the $6.3 \%$ rate in January of 2002.

The month-to-month changes of the unemployment rate are less accurate and important than the overall pattern of the unemployment rate over several years. Within a six month period or even a year (July 1998 to July 1999 is a good example), the unemployment rate moves somewhat erratically. Over several years, however, clear trends in the unemployment rate emerge. It is the general employment and unemployment trends that the unemployment rate accurately measures. After increased unemployment in 2002 and most of 2003, it appears that the Western \& Southwest Region's unemployment rate has declined in late 2003 through the beginning of 2004.

Figure 5: Western \& Southwest Region Unemployment Rate Trend


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

The overall unemployment rate in the Western \& Southwest Region is lower than the statewide rate of $6.0 \%$. The lowest rate of unemployment occurs in Hinsdale County at $2.5 \%$ while the highest rate is in San Juan at $12.8 \%$. Because both counties have a very small labor force, less than 600 people, a small change in the number of unemployed has a large effect on the unemployment rate. San Juan County has 35 more people unemployed than Hinsdale County. Of the larger counties in the region, Montezuma has the highest rate and La Plata has the lowest.

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


## 7 Regional Information -continued

Figure 7 presents employer and employee data for the six JVS sectors used in rural areas in Colorado. The JVS sectors are based on the 2002 manual of the North American Industry Classification System (NAICS), which has been used in the Job Vacancy Survey for one year. This new classification system presents vacancies in a more relevant and detailed manner that better reflects today's service based economy ${ }^{3}$.

Government employs more people in the Western \& Southwest Region than any other JVS sector. Trade, Transportation, Utilities, \&

Other Services is the second largest employer, and has the highest number of firms. The majority of employment in this JVS sector is in retail trade that includes general merchandisers, car dealerships, grocery stores and gas stations. Leisure \& Hospitality, which is closely linked to tourism, is the third largest JVS sector in the region in terms of employment. One of the advantages of the new NAICS classification system is that it allows for indepth study and reporting of tourism related employment.

Figure 7: Western \& Southwest Region Employers and Employees, 1st Quarter, 2003


[^1]\section*{Western \& Southwest Region JVS Report

\section*{Report

## Report JVS Sectors and Employer Size

## During the survey period, an estimated 629

vacancies were open for immediate hire with private firms having at least 5 employees and all government employers in the Western \& Southwest Region. The total number of estimated vacancies is up from the 577 found in the winter of 2003. Both surveys were conducted during the same two weeks in January using similar methods. The increase in vacancies from a year ago is a positive sign for job seekers in the Western \& Southwest Region.

The region's estimated vacancy rate is $1 \%$, meaning that there are approximately 10 vacancies in the survey for every 1,000 positions. The vacancy rate increased from $.9 \%$ a year ago, but remains below the $1.3 \%$ rate in the winter 2002 survey. The overall vacancy rate is calculated by dividing the estimated number of vacancies by the sum of the estimated number of vacancies and total employment. 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 as well as current employment numbers suggest that the demand for workers has increased from January 2003 to January 2004. There are approximately 2,300 more people employed in the region than a year ago and the number of current job vacancies has increased as well. Job seekers have benefited from the increased labor demand, as there are almost 500 fewer people unemployed despite almost 2,000 more people now in the labor force.

In this survey the most openings occur in Leisure \& Hospitality. Education \& Health Services as well as Trade, Transportation, Utilities, \& Other Services also have many vacancies. Figure 8 shows estimated vacancies and the overall average wage offered in each JVS sector. The highest wages are offered in Education \& Health Services and Government. The lowest wages are offered in Leisure \& Hospitality; the second lowest wages are offered in

Figure 8: Estimated Vacancies and Average Wages by JVS Sectors


## 9 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 mix of occupations found probably has the greatest impact. Vacancies in a particular occupation tend to offer similar wages regardless of the JVS sector. For example, Registered Nurse positions offered on average $\$ 21.20$ in the private sector and $\$ 22.30$ in the public sector. 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.

Occupations with the most vacancies by JVS sectors are as follows:

Goods-Producing

- Construction \& Extraction Occupations

Trade, Transportation, Utilities \& Other Services

- Cashiers

Government

- Education, Training \& Library Occupations


## Education \& Health Services

- Registered Nurses

Leisure \& Hospitality

- Waiters \& Waitresses


## Information, Financial Activities \& Professional \& Business Services

- Office \& Administrative Support Occupations

Top occupations demanded in each JVS sector illustrate why the average wages are so different across industry groups. Government and Education \& Health Services demand skilled, higher paying occupations,

Figure 9: Reported Average Wage Ranges by JVS Sectors

such as teachers or Registered Nurses, while Trade, Transportation, Utilities \& Other Services tends to demand lower paying occupations, such as Cashiers.

Because wages vary according to an individual's qualifications, employers are asked to provide the range of wages offered for their vacancies. The average wage is then calculated based on the mid-point of that range. The overall average wage offered for all vacancies in the region is $\$ 11.70$ per hour. A year ago the average wage offered in the survey was $\$ 10.30$.

## 10 Survey Findings Estimated Vacancies: JvS Sectors and Employer Size -continued

Most vacancies are found in the small to mid-size ( 5 to 99 employees) category. Large employers and Government agencies combined make up $48 \%$ of the vacancies. Does this imply that job seekers should target small to mid-size firms? Not necessarily. It is important to consider that while large firms (private firms with 100 or more employees) make up less than $1 \%$ of all firms in the region, they have a large number of vacancies per employer. Overall, there are more vacancies in small to mid-size firms, but because there are more small to mid-size firms, there are actually fewer vacancies per employer than with Government or large employers. There are 3.4 vacancies per large private employer, 0.4 vacancies per Government entity and 0.1 vacancies per small to mid-size employer.

The estimated vacancies by size class compared to a year ago:
Small to mid-size: 325 down from 383 in 2003.
Large: 222 up from 133 in 2003.
Government: 80 up from 61 in 2003.
Almost the entire increase in vacancies from a year ago is the result of increased demand by large employers. Large employers may be responding to changes in the economy faster than small to mid-size employers. Government employment usually responds slower than private sector employment ${ }^{4}$.

In this survey, government agencies offer higher wages than 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. Vacancies in Government are dominated by Education, Training \& Library occupations which are demanded by public school systems. Public schools are included in Government instead of in Education \& Healthcare because they are publicly funded and operated. The vast majority of healthcare related occupations are found in the large size category. These relatively high paying positions push up the average wage. The most prominent occupational groups in the small to mid-size category are Food Preparation \& Serving Related Occupations, Office \& Administrative Support and Construction \& Extraction occupations.
${ }^{4}$ See Sector Briefs for a more detailed explanation of the way government entities respond to business cycle fluctuations.

Figure 10: Estimated Vacancies and Average Wages by Employer Size


Figure 11: Reported Average Wage Ranges by Employer Size


## Survey Findings

Experience Requirements

## The remainder of this report provides descriptive

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

Ninety-three percent of the vacancies reported are permanent employment opportunities. Seventy-seven percent are full-time/permanent positions; $16 \%$ are part-time/permanent positions. Seven percent of the positions are temporary.

Many economists believe that changes in temporary employment are an excellent predictor of future economic trends. Before employers begin to increase their permanent payrolls, it is thought that they first look to increase their workforce by hiring temporary workers. If business conditions do not continue to improve, it is quicker and easier for employers to let temporary workers go than permanent employees. When the economy starts to enter into a recession, employers let go their temporary employees before they lay off permanent workers. If the demand for labor in the Western \& Southwest region continues to increase, it is likely that job vacancies for temporary workers will increase as a percentage of all open positions.

Figure 12: Vacancies by Employment Status


In this survey, full-time/permanent positions offer the highest average wages. There are several reasons for this. Employers probably value fulltime/permanent positions more than other status types. A worker who will remain with a company for years is more productive than a worker who stays only a few months. Theoretically, wages are determined by the productivity or value of an employee. The types of positions that are hired full-time/permanent are also generally in occupations that require higher levels of skill, education and experience. The higher the worker's skill, education and experience, the higher the employee's value. This view is supported by the fact that certain occupational groups figure predominantly in certain status categories. The 30 highest paying job vacancies in the survey are all for Full-time/Permanent positions and over half of the 30 lowest paying occupations are for temporary positions.

The most frequently demanded occupations by status category are:

## Full-time/Permanent: Registered Nurses

Part-time/Permanent: Food Preparation \& Serving Related
Full-time/temporary: Food Preparation \& Serving Related
Part-time/temporary: Umpires, Referees and Other Sports Officials

Figure 13: Reported Average Wage Ranges by Employment Status


## 12 Survey Findings

During periods of high unemployment, it might be assumed that there are too many qualified candidates and too few job openings. The reality is that even in recessions there are many employers who cannot find qualified candidates for their open positions. It is important, therefore, that job seekers have information regarding what education and experience levels are in highest demand.

Sixty-nine percent of the vacancies require at least a high school diploma or GED. The educational requirements demanded in this survey are very similar to the other surveys conducted in the Western \& Southwest region.

Figure 14: Vacancies by Education


The following are the occupations most in demand in this survey grouped by education required:

Advanced Degree: There are many post-secondary teaching positions demanded in the survey from a large variety of academic disciplines. Several management positions also require advanced degrees.
Bachelor's Degree: Management occupations dominate the Bachelor's degree category. These positions include CEOs, Farm, Ranch \& Other Agricultural Managers and Education Administrators.

Two-Year Degree: The majority of Healthcare Practitioner \& Technical openings require Two-Year degrees. Registered Nurses are the most dominant specific occupation in this category.
Vocational Training/Certification: Once again, Healthcare Practitioner \& Technical occupations are the most demanded in this category. Almost all of the Healthcare Practitioner \& Technical vacancies other than Registered Nurses, require Vocational Training/Certification. Several vacancies in this category are also for Transportation \& Material Moving and Construction \& Extraction occupations.
High-School/GED: There are almost three times as many vacancies in Office \& Administrative Support positions as the next most represented occupational group, Food Preparation \& Serving Related.
No Diploma: Food Preparation \& Serving Related occupations are the most frequently demanded among vacancies with no educational requirement. There are also many vacancies in the Sales \& Related occupations as well as in Building \& Grounds Cleaning \& Maintenance occupations.

## 13 Survey Findings vacancies: Employment Status, Education and Experience Requirements-continued

Generally, the greater 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 potential earnings. Bachelor's degrees commanded on average between $\$ 20.90$ and $\$ 27.50$ an hour in this survey, while a high school diploma or GED commanded on average between $\$ 10.30$ and $\$ 11.90$ an hour. While obtaining higher levels of education is expensive and difficult, the difference in pay offers a powerful incentive. As vacancies require higher levels of education, wage ranges widen. This is most likely due to the wider range of experience requirements for these occupations.

In this survey, however, positions requiring an advanced degree offer lower wages on average than positions requiring a bachelor's degree. Very few of the positions requiring an Advanced degree include wages, while a majority of the positions requiring a Bachelor's degree include wages. The vacancy characteristics do not include wages for most of the post-secondary teachers. This lowers the average wage in the Advanced degree category.

Figure 15: Reported Average Wage Ranges by Education


## 14 Survey Findings

Forty-nine percent of the vacancies require experience in a related occupation. Only 5\% require general work experience. Employer's demand higher levels of experience in this survey than any other conducted in the Western \& Southwest Region.

The following is the percentage of vacancies requiring each experience level compared to the winter 2003 and 2002 surveys:

Experience in This Occupation:
$16 \%$ in 2002, $22 \%$ in 2003 and $25 \%$ in 2004
Experience in a Related Field:
$30 \%$ in $2002,30 \%$ in 2003 and $49 \%$ in 2004

## General Work Experience:

$15 \%$ in 2002, 24\% in 2003 and $5 \%$ in 2004
No Experience Required:
$39 \%$ in $2002,24 \%$ in 2003 and $21 \%$ in 2004.
Over the last three years employers have increasingly demanded higher levels of experience. Forty-six percent of the vacancies required more than general work experience in 2002, compared to $52 \%$ in 2003 and $74 \%$ in 2004. The number of people unemployed increased in 2002 and 2003, which allowed employers to raise job requirements. The trend makes less sense in 2004, however, because unemployment declined in the region. With fewer workers for employers to choose from, employers would tend to relax experience require-

Figure 16: Vacancies by Experience


Figure 17: Reported Average Wage Ranges by Experience


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 require related experience to be effective. In this survey, the average wage for positions requiring experience in a particular occupation is more than twice as high as for those not requiring experience.

In most of the surveys conducted in the Western \& Southwest region, the wage ranges are larger for positions requiring more work experience. The skills in occupations requiring higher levels of experience vary to a greater degree than entry-level jobs requiring no experience. For example, Bartenders, Diagnostic Medical Sonographers, Hotel Desk Clerks \& Chief Executives all require experience in the occupation. Almost all of the vacancies not requiring work experience are entry-level jobs requiring lower skill levels. Examples would be Cashiers and Janitors.

## Survey Findings

## 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 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.In addition to asking employers about their perceived difficulty in filling vacant positions, the Job Vacancy Survey also measures the amount of time for which employers have been actively recruiting for positions. 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.

Employers are finding it more difficult to hire qualified workers in this survey than in the winter of 2003. A comparison of the two surveys reveals:

- The proportion of vacancies reported as very difficult to fill increased from $13 \%$ to $15 \%$.
- Openings reported as somewhat difficult to fill increased from $29 \%$ to $33 \%$.
- Vacancies reported as not difficult to fill decreased from $58 \%$ a year ago to $52 \%$.

In all of the surveys in the Western \& Southwest Region, a change in the perceived difficulty of hiring workers has coincided with a change in the overall number of estimated vacancies. When employers found it easier to fill vacancies, the number of vacancies was lower. When employers found it more difficult to fill vacancies, the number of vacancies was higher.

The following are the most frequently found occupations by Difficulty to Fill category:
Very Difficult: Healthcare Practitioner \& Technical Somewhat Difficult: Healthcare Practitioner \& Technical Not Difficult: Food Preparation \& Serving Related.

Figure 18: Vacancies by Difficulty to Fill


## 16 Survey Findings vacancies: Difficulty to Fill and Time Open for Hire-continued

Although employers consider vacancies more difficult to fill than a year ago, employers have been actively recruiting for fewer days on average.

- Vacancies open for less than 30 days increased from 50\% to $64 \%$.
- Positions open between 30 and 59 days decreased from $27 \%$ to $12 \%$.
- Vacancies open for 60 days or more increased from $8 \%$ to $9 \%$.
- Positions for which employers are always hiring remained $15 \%$ of the vacancies found.

The survey found that positions open for longer periods of time often 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


## 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 via an employer group plan. Employers may pay all, part of or none of the monthly insurance premium. How can an employer offer medical insurance and not pay for it? While this scenario is uncommon, employers can and do offer employees the opportunity to participate in their group medical insurance plans even though they do not contribute to the premium.For seventy-one percent of the vacancies, employers offer medical insurance. In the last six surveys the percentage of vacancies offering medical insurance has remained fairly constant, between $60 \%-71 \%$. When medical insurance is offered, employers contribute a partial cost of the premium most of the time. In this survey $49 \%$ of the vacancies are offered with a portion of the premium paid and $19 \%$ of the vacancies have the entire insurance premium paid.

## Sign-On Bonus

No sign-on bonuses are offered in this survey. Despite the increasing demand for labor and declining unemployment, the frequency of sign-on bonuses declined. If this continues, it may imply that sign-on bonuses are a rare occurrences in the Western \& Southwest Region regardless of the business cycle phase.


Introduction participating employers.

## 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

To facilitate comparisons between the results of this survey and other sources of employment statistics, all jobs reported are assigned a Standard

Occupational Classification (SOC) code from the 2000 Standard Occupational Classification Manual.

Most vacancies are found in the Healthcare Practitioner \& Technical occupation group followed by the Food Preparation \& Serving Related category. Together these two occupational groups make up approximately $35 \%$ of all vacancies. For almost every survey in the Western \& Southwest Region, the most vacancies have been found in these two occupational groups.

The average wages offered for open positions in these occupations differ greatly. Food Preparation \& Serving Related occupations offer an average wage of $\$ 7.00$ an hour, while Healthcare Practitioner \& Technical occupations offer an average wage of \$19.80 an hour. Management occupations and Business \& Financial occupations also offer high wages, but they also require higher levels of education and experience.

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


## 20 Occupational Details

## 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. Almost 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. 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.

## 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

Average wages found in the survey are reported for each occupation. Reported averages are based solely on information provided by employers responding to this survey and do not reflect information from other sources or wages paid for currently filled positions.

## Occupational Employment Statistics (OES) Wage Data

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 Western \& Southwest Region when available and statewide otherwise. Data were collected in 2000 and 2001 and aged to 2002 using the Employment Cost Index (ECI). 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.

## 21 Occupational Details

-continued

Table 1: Occupations with Five or More Estimated Vacancies

|  |  |  |  |  | Occupational Employment Statistics Wage Data (2002) |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | Average Wages |  |  | Percentile Distribution |  |  |  |  |
| $\begin{aligned} & \text { SOC } \\ & \text { Code } \end{aligned}$ | SOC Occupational Title | Vacancies <br> Estimated | Vacancies Found | Average JVS <br> Wage | EntryLevel | Overall | Experienced | 10th | 25th | 50th | 75th | 90th |
| 41-2011 | Cashiers | 45 | 17 | \$7.30 | \$6.15 | \$8.70 | \$9.98 | \$5.85 | \$6.46 | \$7.76 | \$9.99 | \$14.70 |
| 29-1111 | Registered Nurses | 38 | 33 | \$21.40 | \$16.95 | \$21.01 | \$23.02 | \$15.56 | \$18.43 | \$20.85 | \$23.83 | \$27.37 |
| 35-3031 | Waiters and Waitresses | 26 | 18 | \$5.20 | \$6.02 | \$7.15 | \$7.72 | \$5.54 | \$5.87 | \$6.40 | \$7.00 | \$10.84 |
| 43-4081 | Hotel, Motel, and Resort Desk Clerks | 22 | 8 | \$7.40 | \$7.73 | \$9.19 | \$9.92 | \$6.58 | \$8.79 | \$9.57 | \$10.36 | \$10.83 |
| 37-2012 | Maids and Housekeeping Cleaners | 20 | 12 | \$7.50 | \$6.33 | \$8.32 | \$9.31 | \$5.97 | \$6.83 | \$8.09 | \$9.54 | \$10.98 |
| 47-2031 | Carpenters | 16 | 6 | \$8.80 | \$14.47 | \$19.53 | \$22.05 | \$13.06 | \$16.31 | \$19.52 | \$21.95 | \$26.48 |
| 35-2012 | Cooks, Institution and Cafeteria | 15 | 6 | \$8.10 | \$7.46 | \$9.68 | \$10.78 | \$7.11 | \$7.79 | \$8.87 | \$11.00 | \$14.30 |
| 35-3021 | Combined Food Preparation and Serving Workers, Including Fast Food | 15 | 6 | \$6.40 | \$6.03 | \$6.32 | \$6.46 | \$5.53 | \$5.82 | \$6.28 | \$6.75 | \$7.37 |
| 43-6014 | Secretaries, Except Legal, Medical, and Executive | 14 | 7 | \$9.60 | \$8.38 | \$10.97 | \$12.27 | \$7.64 | \$9.21 | \$10.56 | \$12.54 | \$14.94 |
| 43-3031 | Bookkeeping, Accounting, and Auditing Clerks | 13 | 3 | $\dagger$ | \$7.67 | \$11.63 | \$13.59 | \$6.76 | \$8.69 | \$11.49 | \$13.77 | \$17.01 |
| 35-2014 | Cooks, Restaurant | 12 | 10 | \$8.70 | \$7.01 | \$8.81 | \$9.71 | \$6.51 | \$7.30 | \$8.13 | \$10.08 | \$12.60 |
| 25-9041 | Teacher Assistants | 11 | 6 | \$7.70 | \$15,875 | \$19,307 | \$21,022 | \$15,152 | \$16,815 | \$19,029 | \$21,758 | \$23,823 |
| 49-3031 | Bus and Truck Mechanics and Diesel Engine Specialists | 11 | 1 | $\dagger$ | \$12.49 | \$16.43 | \$18.39 | \$11.79 | \$13.65 | \$16.20 | \$19.02 | \$21.53 |
| 43-1011 | First-Line Supervisors/Managers of Office and Administrative Support Workers | 11 | 4 | \$22.50 | \$11.46 | \$17.17 | \$20.02 | \$10.65 | \$12.84 | \$16.10 | \$20.47 | \$25.36 |
| 29-2061 | Licensed Practical and Licensed Vocational Nurses | 11 | 7 | \$15.30 | \$10.54 | \$13.51 | \$14.99 | \$10.01 | \$11.20 | \$13.15 | \$15.43 | \$17.62 |
| 41-2031 | Retail Salespersons | 10 | 1 | \$5.20 | \$7.06 | \$10.37 | \$12.03 | \$6.51 | \$7.49 | \$8.56 | \$10.70 | \$17.23 |
| 39-9011 | Child Care Workers | 10 | 8 | \$9.30 | \$7.11 | \$9.83 | \$11.18 | \$6.39 | \$7.85 | \$10.06 | \$12.11 | \$13.15 |
| 37-2011 | Janitors and Cleaners, Except Maids and Housekeeping Cleaners | 9 | 5 | \$7.80 | \$6.77 | \$9.50 | \$10.86 | \$6.21 | \$7.39 | \$9.37 | \$11.22 | \$13.39 |
| * 47-2131 | Insulation Workers, Floor, Ceiling, and Wall | 8 | 3 | \$8.50 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ |

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

|  |  |  |  |  | Occupational Employment Statistics Wage Data (2002) |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | Average Wages |  |  | Percentile Distribution |  |  |  |  |
| $\begin{aligned} & \text { SOC } \\ & \text { Code } \end{aligned}$ | SOC Occupational Title | Vacancies Estimated | Vacancies Found | Average JVS <br> Wage | EntryLevel | Overall | Experienced | 10th | 25th | 50th | 75th | 90th |
| 43-4171 | Receptionists and Information Clerks | 7 | 4 | \$9.30 | \$7.54 | \$9.61 | \$10.64 | \$6.79 | \$8.49 | \$9.74 | \$10.75 | \$11.92 |
| 31-1012 | Nursing Aides, Orderlies, and Attendants | 7 | 5 | \$9.80 | \$7.95 | \$9.29 | \$9.96 | \$7.56 | \$8.13 | \$9.06 | \$10.55 | \$11.67 |
| 51-6011 | Laundry and Dry-Cleaning Workers | 7 | 4 | \$7.50 | \$6.27 | \$7.97 | \$8.81 | \$5.98 | \$6.81 | \$8.04 | \$9.14 | \$10.38 |
| * 33-9092 | Lifeguards, Ski Patrol, and Other Recreational Protective Service Workers | 7 | 1 | \$6.50 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ |
| 43-3071 | Tellers | 6 | 3 | \$9.20 | \$7.14 | \$9.19 | \$10.21 | \$6.69 | \$7.70 | \$9.14 | \$10.56 | \$12.24 |
| 53-3031 | Driver/Sales Workers | 6 | 2 | \$5.20 | \$8.60 | \$13.00 | \$15.21 | \$6.63 | \$11.09 | \$13.22 | \$15.80 | \$18.24 |
| * 53-7072 | Pump Operators, Except Wellhead Pumpers | 6 | 2 | \$9.50 | \$9.43 | \$13.57 | \$15.65 | \$8.72 | \$10.10 | \$12.08 | \$16.53 | \$20.65 |
| 25-2011 | Preschool Teachers, Except Special Education | 6 | 1 | \$7.80 | \$8.49 | \$10.57 | \$11.61 | \$7.88 | \$9.09 | \$10.40 | \$11.99 | \$13.58 |
| 25-2043 | Special Education Teachers, Secondary School | 6 | 1 | $\dagger$ | \$30,936 | \$40,700 | \$45,582 | \$29,415 | \$32,350 | \$37,905 | \$47,635 | \$58,392 |
| 11-9111 | Medical and Health Services Managers | 6 | 6 | \$26.40 | \$19.35 | \$26.63 | \$30.27 | \$17.70 | \$21.48 | \$26.02 | \$30.15 | \$36.76 |
| 29-2041 | Emergency Medical Technicians and Paramedics | 6 | 6 | \$8.80 | \$6.22 | \$12.21 | \$15.19 | \$5.80 | \$6.68 | \$10.99 | \$18.10 | \$20.70 |
| 35-9011 | Dining Room and Cafeteria Attendants and Bartender Helpers | 6 | 4 | \$5.80 | \$6.03 | \$7.34 | \$7.99 | \$5.58 | \$5.94 | \$6.52 | \$7.80 | \$11.62 |
| 35-9021 | Dishwashers | 6 | 4 | \$6.80 | \$6.01 | \$6.74 | \$7.11 | \$5.55 | \$5.90 | \$6.46 | \$7.40 | \$8.96 |
| 47-2111 | Electricians | 5 | 2 | \$8.30 | \$14.35 | \$19.28 | \$21.75 | \$13.91 | \$16.09 | \$19.08 | \$21.68 | \$26.73 |
| 47-2152 | Plumbers, Pipefitters, and Steamfitters | 5 | 2 | \$17.50 | \$13.34 | \$20.44 | \$23.99 | \$12.19 | \$15.56 | \$19.80 | \$23.21 | \$31.21 |
| * 27-2023 | Umpires, Referees, and Other Sports Officials | 5 | 4 | \$5.50 | \$18,296 | \$24,492 | \$27,590 | \$16,648 | \$19,648 | \$22,204 | \$27,069 | \$38,831 |
| 51-3011 | Bakers | 5 | 2 | \$11.50 | \$8.76 | \$11.13 | \$12.32 | \$8.06 | \$9.29 | \$11.08 | \$12.99 | \$14.25 |
| 11-9033 | Education Administrators, Postsecondary | 5 | 5 | \$31.30 | \$19.23 | \$29.49 | \$34.62 | \$18.44 | \$21.02 | \$26.74 | \$38.17 | \$46.44 |

## 23 Occupational Details

Table 1: Occupations with Five or More Estimated Vacancies - Page 3

|  |  |  |  |  | Occupational Employment Statistics Wage Data (2002) |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | Average Wages |  |  | Percentile Distribution |  |  |  |  |
| SOC Code | SOC Occupational Title | Vacancies <br> Estimated | Vacancies Found | Average JVS Wage | EntryLevel | Overall | Experienced | 10th | 25th | 50th | 75th | 90th |
| 47-2073 | Operating Engineers and Other Construction Equipment Operators | 5 | 5 | \$14.70 | \$13.60 | \$17.41 | \$19.30 | \$12.60 | \$14.31 | \$16.74 | \$20.15 | \$24.27 |
| 49-9042 | Maintenance and Repair Workers, General | 5 | 5 | \$11.00 | \$7.96 | \$12.79 | \$15.20 | \$7.55 | \$8.69 | \$12.20 | \$16.21 | \$20.19 |

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


## 24 Occupational Details

Table 2: Occupations with Fewer than Five Estimated Vacancies

|  |  | Occupational Employment Statistics Wage Data (2002) |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Average Wages |  |  | Percentile Distribution |  |  |  |  |
| $\begin{aligned} & \hline \text { SOC } \\ & \text { Code } \end{aligned}$ | SOC Occupational Title | EntryLevel | Overall | Experienced | 10th | 25th | 50th | 75th | 90th |
| 13-2011 | Accountants and Auditors | \$14.38 | \$21.61 | \$25.23 | \$13.46 | \$15.87 | \$20.00 | \$25.03 | \$32.54 |
| 39-3091 | Amusement and Recreation Attendants | \$5.97 | \$9.05 | \$10.60 | \$5.70 | \$6.35 | \$8.53 | \$10.77 | \$13.41 |
| * 25-1121 | Art, Drama, and Music Teachers, Postsecondary | \$33,499 | \$51,196 | \$60,045 | \$30,461 | \$38,691 | \$48,297 | \$60,841 | \$74,984 |
| 39-6011 | Baggage Porters and Bellhops | \$6.22 | \$8.58 | \$9.76 | \$5.89 | \$6.42 | \$7.59 | \$10.20 | \$11.19 |
| 35-3011 | Bartenders | \$6.05 | \$7.61 | \$8.40 | \$5.65 | \$6.07 | \$6.77 | \$8.65 | \$11.95 |
| 43-3011 | Bill and Account Collectors | \$9.68 | \$13.55 | \$15.49 | \$9.20 | \$10.49 | \$13.01 | \$16.21 | \$19.37 |
| * 25-1042 | Biological Science Teachers, Postsecondary | \$35,629 | \$65,283 | \$80,111 | \$32,541 | \$42,039 | \$57,737 | \$84,162 | \$114,888 |
| 53-3021 | Bus Drivers, Transit and Intercity | \$6.34 | \$10.67 | \$12.84 | \$5.87 | \$6.76 | \$10.87 | \$12.85 | \$18.37 |
| * 17-1021 | Cartographers and Photogrammetrists | \$18.03 | \$25.15 | \$28.70 | \$16.27 | \$20.70 | \$25.37 | \$30.07 | \$33.75 |
| 35-1011 | Chefs and Head Cooks | \$9.77 | \$15.03 | \$17.67 | \$9.17 | \$9.85 | \$10.94 | \$22.21 | \$25.95 |
| 11-1011 | Chief Executives | \$28.38 | \$51.48 | \$63.03 | \$24.95 | \$34.39 | \$55.37 | $\dagger$ | $\dagger$ |
| 21-1021 | Child, Family, and School Social Workers | \$11.01 | \$13.53 | \$14.80 | \$10.18 | \$11.66 | \$13.42 | \$15.43 | \$17.17 |
| * 49-9091 | Coin, Vending, and Amusement Machine Servicers and Repairers | \$9.33 | \$13.29 | \$15.27 | \$8.65 | \$10.43 | \$13.23 | \$15.98 | \$18.10 |
| 15-1021 | Computer Programmers | \$20.12 | \$23.96 | \$25.88 | \$13.94 | \$23.44 | \$25.31 | \$27.16 | \$28.30 |
| 39-6012 | Concierges | \$9.79 | \$12.43 | \$13.74 | \$9.35 | \$10.52 | \$12.34 | \$14.18 | \$16.43 |
| 35-3022 | Counter Attendants, Cafeteria, Food Concession, and Coffee Shop | \$6.04 | \$7.31 | \$7.94 | \$5.71 | \$6.24 | \$7.52 | \$8.48 | \$9.08 |
| * 43-4031 | Court, Municipal, and License Clerks | \$11.48 | \$14.94 | \$16.68 | \$11.04 | \$12.37 | \$14.43 | \$17.56 | \$20.50 |
| 43-4051 | Customer Service Representatives | \$9.04 | \$12.22 | \$13.81 | \$8.39 | \$9.70 | \$11.51 | \$13.93 | \$18.12 |
| 43-9021 | Data Entry Keyers | \$6 | \$10 | \$12 | \$6 | \$7 | \$10 | \$12 | \$14 |
| 29-2032 | Diagnostic Medical Sonographers | \$18.04 | \$21.90 | \$23.83 | \$16.94 | \$18.64 | \$21.88 | \$25.59 | \$27.61 |
| * 25-1081 | Education Teachers, Postsecondary | \$30,621 | \$48,689 | \$57,723 | \$27,721 | \$35,764 | \$45,860 | \$58,310 | \$77,875 |
| 25-2021 | Elementary School Teachers, Except Special Education | \$28,194 | \$36,922 | \$41,285 | \$26,075 | \$30,444 | \$35,606 | \$43,358 | \$51,815 |
| * 25-1032 | Engineering Teachers, Postsecondary | \$40,353 | \$70,470 | \$85,527 | \$35,193 | \$48,655 | \$66,783 | \$89,375 | \$115,490 |

Table 2: Occupations with Fewer than Five Estimated Vacancies - Page 2

|  |  | Occupational Employment Statistics Wage Data (2002) |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Average Wages |  |  | Percentile Distribution |  |  |  |  |
| $\begin{aligned} & \text { SOC } \\ & \text { Code } \end{aligned}$ | SOC Occupational Title | EntryLevel | Overall | Experienced | 10th | 25th | 50th | 75th | 90th |
| 53-7032 | Excavating and Loading Machine and Dragline Operators | \$10.13 | \$12.17 | \$13.20 | \$9.64 | \$10.55 | \$12.01 | \$13.40 | \$14.24 |
| 43-6011 | Executive Secretaries and Administrative Assistants | \$12.38 | \$16.76 | \$18.95 | \$11.90 | \$13.52 | \$16.26 | \$19.72 | \$22.53 |
| 35-1012 | First-Line Supervisors/Managers of Food Preparation and Serving Workers | \$8.15 | \$12.93 | \$15.31 | \$7.47 | \$9.06 | \$12.78 | \$15.52 | \$18.02 |
| 37-1011 | First-Line Supervisors/Managers of Housekeeping and Janitorial Workers | \$9.61 | \$14.77 | \$17.35 | \$8.76 | \$10.72 | \$13.61 | \$17.44 | \$24.10 |
| 39-1021 | First-Line Supervisors/Managers of Personal Service Workers | \$9.59 | \$11.71 | \$12.77 | \$9.18 | \$9.95 | \$11.18 | \$12.99 | \$15.34 |
| 35-2021 | Food Preparation Workers | \$6.11 | \$8.07 | \$9.06 | \$5.84 | \$6.47 | \$7.63 | \$9.31 | \$11.49 |
| 11-9051 | Food Service Managers | \$12.22 | \$18.90 | \$22.22 | \$10.83 | \$14.01 | \$18.57 | \$22.31 | \$28.16 |
| * 39-3012 | Gaming and Sports Book Writers and Runners | \$7.34 | \$8.46 | \$9.02 | \$6.96 | \$7.43 | \$8.18 | \$9.37 | \$10.80 |
| * 41-2012 | Gaming Change Persons and Booth Cashiers | \$8.03 | \$10.89 | \$12.33 | \$7.22 | \$8.99 | \$11.08 | \$12.84 | \$14.23 |
| * 39-3011 | Gaming Dealers | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ |
| * 39-3019 | Gaming Service Workers, All Other | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ |
| 27-1024 | Graphic Designers | \$10.02 | \$15.15 | \$17.72 | \$9.05 | \$11.21 | \$14.35 | \$18.05 | \$21.57 |
| * 29-1199 | Health Diagnosing and Treating Practitioners, All Other | \$14.77 | \$34.07 | \$43.72 | \$13.70 | \$16.69 | \$22.08 | \$62.79 | $\dagger$ |
| * 47-4051 | Highway Maintenance Workers | \$12.19 | \$16.24 | \$18.27 | \$11.57 | \$13.53 | \$16.50 | \$19.34 | \$21.19 |
| * 25-1125 | History Teachers, Postsecondary | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ |
| 31-1011 | Home Health Aides | \$6.23 | \$7.84 | \$8.64 | \$5.89 | \$6.41 | \$7.19 | \$8.70 | \$10.57 |
| 35-9031 | Hosts and Hostesses, Restaurant, Lounge, and Coffee Shop | \$6.04 | \$7.04 | \$7.54 | \$5.63 | \$6.07 | \$6.81 | \$8.06 | \$8.84 |
| * 11-3049 | Human Resource Managers, All Other | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ |
| * 27-1025 | Interior Designers | \$17.31 | \$26.86 | \$31.64 | \$15.40 | \$20.19 | \$29.61 | \$33.39 | \$35.67 |
| 37-3011 | Landscaping and Groundskeeping Workers | \$7.84 | \$11.04 | \$12.64 | \$7.29 | \$8.65 | \$10.69 | \$13.07 | \$15.58 |
| 11-9081 | Lodging Managers | \$11.74 | \$17.91 | \$21.00 | \$11.17 | \$12.62 | \$15.82 | \$23.48 | \$28.93 |
| 11-9199 | Managers, All Other | \$18.54 | \$27.43 | \$31.88 | \$17.75 | \$20.62 | \$25.84 | \$33.06 | \$40.58 |

## 26 Occupational Details

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

|  |  | Occupational Employment Statistics Wage Data (2002) |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Average Wages |  |  | Percentile Distribution |  |  |  |  |
| $\begin{aligned} & \hline \text { SOC } \\ & \text { Code } \\ & \hline \end{aligned}$ | SOC Occupational Title | EntryLevel | Overall | Experienced | 10th | 25th | 50th | 75th | 90th |
| * 25-1022 | Mathematical Science Teachers, Postsecondary | \$31,583 | \$49,224 | \$58,044 | \$29,601 | \$35,893 | \$44,180 | \$58,585 | \$79,657 |
| 31-9092 | Medical Assistants | \$10.09 | \$11.08 | \$11.58 | \$9.41 | \$9.98 | \$10.93 | \$12.29 | \$13.48 |
| 43-6013 | Medical Secretaries | \$8.91 | \$10.34 | \$11.05 | \$8.16 | \$9.26 | \$10.20 | \$11.10 | \$11.95 |
| 31-9094 | Medical Transcriptionists | \$11.07 | \$12.81 | \$13.68 | \$10.31 | \$11.65 | \$12.73 | \$13.91 | \$15.78 |
| 21-1014 | Mental Health Counselors | \$9.39 | \$12.83 | \$14.54 | \$8.33 | \$10.79 | \$13.24 | \$15.49 | \$16.77 |
| 29-1122 | Occupational Therapists | \$19.18 | \$24.09 | \$26.55 | \$18.63 | \$21.13 | \$24.29 | \$27.01 | \$29.34 |
| * 43-9199 | Office and Administrative Support Workers, All other | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ |
| 39-9099 | Personal Care and Service Workers, All Other | \$8.42 | \$11.94 | \$13.69 | \$7.80 | \$9.30 | \$11.88 | \$13.53 | \$15.89 |
| 29-1051 | Pharmacists | \$29.81 | \$34.55 | \$36.92 | \$29.71 | \$31.72 | \$34.91 | \$39.12 | \$43.63 |
| 29-2052 | Pharmacy Technicians | \$9.05 | \$11.25 | \$12.35 | \$8.22 | \$9.70 | \$11.39 | \$13.01 | \$14.09 |
| 29-1123 | Physical Therapists | \$21.89 | \$25.52 | \$27.34 | \$20.18 | \$23.05 | \$25.59 | \$28.24 | \$32.16 |
| * 25-1054 | Physics Teachers, Postsecondary | \$39,336 | \$59,910 | \$70,198 | \$36,774 | \$44,642 | \$55,232 | \$74,631 | \$93,204 |
| 33-3051 | Police and Sheriff's Patrol Officers | \$14.56 | \$18.47 | \$20.42 | \$13.71 | \$15.24 | \$17.51 | \$21.65 | \$25.61 |
| 11-9141 | Property, Real Estate, and Community Association Managers | \$17.61 | \$24.56 | \$28.04 | \$13.51 | \$21.42 | \$25.05 | \$27.45 | \$29.15 |
| 33-9099 | Protective Service Workers, All Other | \$7.04 | \$11.03 | \$13.01 | \$6.56 | \$7.45 | \$8.67 | \$13.47 | \$19.16 |
| * 29-2053 | Psychiatric Technicians | \$11.30 | \$14.39 | \$15.92 | \$10.51 | \$12.52 | \$14.78 | \$16.44 | \$17.66 |
| 29-2034 | Radiologic Technologists and Technicians | \$15.75 | \$19.30 | \$21.09 | \$15.01 | \$16.84 | \$19.18 | \$21.61 | \$24.51 |
| * 25-1193 | Recreation and Fitness Studies Teachers, Postsecondary | \$28,955 | \$43,730 | \$51,117 | \$26,022 | \$33,845 | \$41,348 | \$50,983 | \$62,959 |
| 43-4181 | Reservation and Transportation Ticket Agents and Travel Clerks | \$8.22 | \$10.29 | \$11.34 | \$7.82 | \$8.50 | \$9.79 | \$11.16 | \$12.95 |
| 29-1126 | Respiratory Therapists | \$15.65 | \$18.76 | \$20.33 | \$14.99 | \$16.62 | \$18.95 | \$21.17 | \$22.59 |
| 47-2181 | Roofers | \$10.14 | \$13.33 | \$14.92 | \$9.48 | \$11.19 | \$12.99 | \$15.20 | \$17.88 |
| 11-2022 | Sales Managers | \$16.37 | \$36.41 | \$46.44 | \$11.40 | \$21.16 | \$32.59 | \$58.52 | \$69.25 |
| 51-7041 | Sawing Machine Setters, Operators, and Tenders, Wood | \$8.71 | \$10.72 | \$11.72 | \$7.87 | \$9.31 | \$10.52 | \$11.81 | \$13.76 |

## 27 Occupational Details

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

|  |  | Occupational Employment Statistics Wage Data (2002) |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Average Wages |  |  | Percentile Distribution |  |  |  |  |
| $\begin{aligned} & \hline \text { SOC } \\ & \text { Code } \end{aligned}$ | SOC Occupational Title | EntryLevel | Overall | Experienced | 10th | 25th | 50th | 75th | 90th |
| 33-9032 | Security Guards | \$6.93 | \$9.83 | \$11.28 | \$6.48 | \$7.52 | \$9.36 | \$11.36 | \$13.82 |
| * 39-5094 | Skin Care Specialists | \$6.06 | \$8.84 | \$10.23 | \$5.78 | \$6.36 | \$7.41 | \$10.07 | \$13.39 |
| 29-1127 | Speech-Language Pathologists | \$17.04 | \$23.82 | \$27.21 | \$15.80 | \$17.87 | \$23.98 | \$27.48 | \$32.56 |
| 29-2055 | Surgical Technologists | \$11.26 | \$14.21 | \$15.68 | \$10.41 | \$11.98 | \$14.08 | \$16.34 | \$18.01 |
| 17-1022 | Surveyors | \$15.67 | \$21.86 | \$24.95 | \$15.01 | \$16.71 | \$22.26 | \$26.51 | \$30.20 |
| 53-3032 | Truck Drivers, Heavy and Tractor-Trailer | \$10.56 | \$13.87 | \$15.53 | \$9.78 | \$11.53 | \$13.47 | \$16.05 | \$18.01 |
| 53-3033 | Truck Drivers, Light or Delivery Services | \$9.49 | \$13.92 | \$16.15 | \$9.02 | \$10.26 | \$12.23 | \$15.22 | \$24.93 |
| 19-3051 | Urban and Regional Planners | \$18.06 | \$24.76 | \$28.11 | \$16.32 | \$20.06 | \$25.13 | \$30.06 | \$33.74 |
| 51-8031 | Water and Liquid Waste Treatment Plant and System Operators | \$13.29 | \$17.93 | \$20.24 | \$11.97 | \$15.08 | \$18.70 | \$21.10 | \$22.70 |
| 51-4121 | Welders, Cutters, Solderers, and Brazers | \$6.51 | \$11.81 | \$14.47 | \$5.97 | \$7.20 | \$10.16 | \$13.46 | \$22.03 |
| 13-1022 | Wholesale and Retail Buyers, Except Farm Products | \$10.38 | \$14.55 | \$16.64 | \$9.90 | \$11.03 | \$13.49 | \$15.83 | \$17.62 |
| 27-3043 | Writers and Authors | \$10.88 | \$18.55 | \$22.39 | \$10.38 | \$12.93 | \$17.37 | \$22.41 | \$29.31 |

* OES wages reported for Colorado statewide
† Insufficient Wage Data Available of the community.


## Sector Briefs

With $\mathbf{2 4 \%}$ of the employment in the Western \& Southwest, Government is the largest employer in the region. Typically Government makes up a large proportion of employment in less populated rural areas and a smaller proportion of employment in densely populated metropolitan areas. The Denver Metropolitan Region for instance employs $14 \%$ of its labor force in government, despite being the state capital and headquarters to almost all state and federal agencies in the state. Government must provide an adequate level of core services such as education and police protection in every part of the state regardless of population. Although there are less firemen, policemen, teachers and city administrators in rural areas, there are more of these workers for each member

The Government JVS Sector is made up of local, state and federal government entities. Federal agency employment makes up $9 \%$ of government employment in the region, state agencies make up $12 \%$ and local governmental entities make up $79 \%$ of the employment. The three largest government employers in the region are Durango School District, Delta School District and Fort Lewis College.

While the Government JVS Sector employs the most people in the Western \& Southwest Region, it has the fourth highest number of
vacancies. Government hiring activity significantly lags the private sector in responding to economic expansions and contractions. Government's revenue source, taxes, are much more stable than private sector revenues such as crop prices, construction or restaurant patronage. Government is a stabilizing force in the labor market. When economic times are good, government does not increase its employment as much as private sector employers, but when economic times are bad government does not decrease hiring as much either. While Colorado's labor market and level of production of goods and services will be in better shape than in 2003, government budgets and hiring activity are still reflecting lower past tax revenues.

Eighty vacancies are estimated in the Government JVS Sector in the winter 2004 survey. The average wage offered for vacant positions is $\$ 14.70$ an hour, the second highest among JVS Sectors.

Government entities demand the widest range of occupations among all JVS sectors. The most vacancies found in the survey are for Education, Training \& Library occupations, but there are also many vacancies for Office \& Administrative Support positions as well as Healthcare Practitioner \& Technical occupations. These positions tend to require higher levels of education and experience and over $85 \%$ of them offer medical insurance benefits.

## 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

## 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 $40 \%$ of the employment in the region. The vacancy characteristics therefore are heavily influenced by what is being demanded by large employers and government agencies. This information is still useful and important, but the user of this data needs to keep in mind its inherit bias.

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

## Methodology

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

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

## Survey Design

The Job Vacancy Survey was designed to accurately estimate the number of job vacancies for firms employing 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 $31 \%$ of the employment in the region is found in large and government employers that make up only $2 \%$ 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

The Western \& Southwest Survey was conducted from January 14th through January 27, 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 $76 \%$ 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 100 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 $20 \%$ of the employment in the sample frame, while private industry employers make up the remaining $80 \%$. Large firms account for $22 \%$ of private industry employment in the sample frame. Firms employing from five to 99 individuals are considered small to mid-size employers, and account for the remaining $78 \%$ of private industry employment.

The margin of error for the overall vacancy estimate is plus or minus $4.7 \%$ or 30 vacancies at a .95 certainty level. In other words, in 95 out of 100 samples taken, the actual number of vacancies in the region will be between 597 and 657 during 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 $87 \%$. 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 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 Western \& Southwest Region, the 20 NAICS sectors have been combined into 6 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 32.

| Western \& Southwest Region JVS Sectors | $\square$ include - NA/CS Sectors |
| :---: | :---: |
| Goods-Producing | Agriculture, Forestry, Fishing \& Hunting Mining <br> Construction <br> Manufacturing |
| Trade, Transportation, Utilities \& Other Services | Utilities <br> Wholesale Trade <br> Retail Trade <br> Transportation \& Warehousing <br> Other Services (except Public Administration) |
| Information, Financial Activities <br>  <br> Business Services | Information <br> Finance \& Insurance <br> Real Estate \& Rental \& Leasing <br> Professional, Scientific \& Technical Services <br> Management of Companies \& Enterprises <br>  <br> Waste Management \& Remediation Services |
| Education \& Health Services | Educational Services <br> Health Care \& Social Assistance |
| Leisure \& Hospitality | Accommodation \& Food Services Arts, Entertainment \& Recreation |
| Government | Public Administration |

## 32 <br> 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 opened. Employers are also asked if signon 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 ${ }^{1}$. 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 ${ }^{2}$. Government agencies from the United States, Mexico and Canada ${ }^{3}$ 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.

Executive Office of the President Office of
Management and Budget. North American Industry Classification System. White Plains, MD: Bernan and U.S. Department of Commerce, 2002
${ }^{2}$ 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
${ }^{3}$ Specifically, 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

| Comparison of NAICS and SIC Major Industry Groups |  |
| :---: | :---: |
| SIC <br> Standard Industrial Classification | NAICS <br> North American Industry Classification System |
| Agriculture, Forestry \& Fishing | Agriculture, Forestry, Fishing \& Hunting |
| Mining | Mining |
| Construction | Construction |
| Manufacturing | Manufacturing |
| Transportation, Communications \& Public Utilities | Utilities <br> Transportation \& Warehousing |
| Wholesale Trade | Wholesale Trade |
| Retail Trade | Retail Trade Accommodation \& Food Services |
| Finance, Insurance \& Real Estate | Finance \& Insurance <br> Real Estate \& Rental \& Leasing |
| Services | Information <br> Professional, Scientific \& Technical Services <br> Administrative \& Support \& Waste Management <br> \& Remediation Services <br> Educational Services <br> Health Care \& Social Assistance <br> Arts, Entertainment, \& Recreation <br> Other Services (except Public Administration) |
| Public Administration | Public Administration |
| (parts of all divisions) | Management of Companies \& Enterprises | 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.

[^2]
## 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.

## 35 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 25 th 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 Western \& Southwest Job Vacancy Survey Region

Delta Workforce Center
206 Ute Street
Delta, CO 81486
Phone: 970-874-5781
Fax: 970-874-0091
delta@cwfc.net
Dove Creek Satellite Office
Dolores County Dept. of Human Services 409 N. Main
Dove Creek, CO 81324
Gunnison Workforce Center
109 E. Georgia Avenue
Gunnison, CO 81230
Phone: 970-641-0031
Fax: 970-641-5258
gunnison@cwfc.net
Montrose Workforce Center
504 North 1st
Montrose, CO 81401
Phone: 970-249-7783
Fax: 970-249-0445
montrose@cwfc.net

Cortez Workforce Center
217 West Main Street
Cortez, CO 81321 Phone: 970-565-3759 Fax: 970-565-0916 cortez@cwfc.net

Durango Workforce Center
331 South Camino Del Rio \#C
Durango, CO 81301 Phone: 970-247-0308 Fax: 970-247-0328 durango@cwfc.net

Pagosa Springs Workforce Center 449 San Juan Street
Pagosa Springs, CO 81147
Phone: 970-264-4133
Fax: 970-264-4134
pagosasprings@cwfc.net
Ridgway Satellite Office
112 Village Square, \#202
Ridgway, CO 81432
Phone: 970-626-2555


Silverton Satellite Office
Silverton Library
1111 Reese Street
Silverton, CO 80433 Phone: 970-387-5770

Telluride Satellite Office 100 W. Colorado Ave., \#213
Telluride, CO 81435 Phone: 970-728-5585


[^0]:    ${ }^{1}$ www.nytimes.com: December 31, 2003 closing price of the Dow Jones Industrial Average, S\&P 500 Index and the NASDAQ 100 average.
    ${ }^{2}$ www.conference-board.com: Business Cycle Indicators, Leading Indicators.

[^1]:    ${ }^{3}$ For more information on the industry changes please see North American Industry Classification System, Page 32

[^2]:    U.S. Bureau of the Census, U.S. Department of Commerce

