Job Vacancy Survey
January 2003



# Mesa County Job Vacancy Survey 

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## State of Colorado

Bill Owens, Governor

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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

Colorado Job Vacancy Survey Regions

sample of employers in a given region. The department's economists analyze the raw data, estimate the number of vacancies in the area and publish the report within weeks of the original data collection, providing a timely portrait of the employment situation.

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

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## How to Use This Report

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

- Is there a labor shortage in the region?
- If so, what types of labor are in short supply?
- Is there a shortage of skills?
- What skills are necessary to fill current vacancies?

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 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

TThe 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, it might indicate 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.

## - Employee Training-

A firm may also choose to increase investment in training for their current employees instead of expanding recruitment efforts.

## - Compensation and Benefits Planning-

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

## - New Site Selection-

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

## Job Seekers

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

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

## Workforce Centers

TThe 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.

Public officials, educational institutions, and Government agencies can use this survey informa-
tion to effectively apply resources to education, training, and job placement programs.

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 (www.coworkforce.com $/ \mathrm{lmi} / \mathrm{oeo} / \mathrm{oeo} . \mathrm{htm}$ ). The projections highlight growing as well as declining occupations. 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 economic growth and development potential. 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 current labor demand stands today, as identified by the survey, and where the local market is trending using Labor Market Information's employment projections.

## Caveats



TThe Job Vacancy Survey statistics are indicators of the demand for workers in the region and should not be interpreted as actual values. The CDLE relies on information from surveyed companies to obtain a representative sample of institutions and the occupations that fuel them. Not all surveyed firms participate; however, the employers who do participate enable the production of statistically reliable results.

The study provides estimates of job openings for a point in time; they do not necessarily portray the distribution of job vacancies in the region. This report does not attempt to explain the cause of vacancieswhether these current vacancies are due to actual growth or to job turnover in an occupation. Readers should also keep in mind that the authors are not attempting to project the level of vacancies into the future. Be aware that events having occurred since the time period analyzed such as plant closings or the migration of people in and out of the area might
significantly affect the vacancy status of some occupations. Job openings are very dynamic - current openings are being filled, new positions are being created, and some roles are being phased out.

Occupational demand is subject to seasonal changes and 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, the CDLE may be able to identify patterns that more accurately reflect changing labor market conditions. Regional surveys are timed to make these comparisons possible.

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

## Executive Summary

The latest Mesa County Job Vacancy Survey (JVS) was conducted from October 21st through November 5th, 2002. The goal of the survey is to obtain region-specific knowledge about current job market conditions. 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 agencies in
the region. Employers were asked about current hiring activity.

A total of 955 employers representing $48 \%$ of the region's total employment, responded to the survey. Of these 35 are Government agencies, 22 are large employers and 898 are small to mid-sized employers. The survey had a response rate of $82 \%$ and a cooperation rate of $98 \%$. The major findings of the survey are as follows:

- An estimated 660 jobs were available for hire during the survey period, coinciding with a $1.4 \%$ vacancy rate. This vacancy rate is lower than those found in the two previous Mesa surveys.
- Approximately $40 \%$ of surveyed employers report having at least one job vacancy.
- The average wage for all reported vacancies is $\$ 12.60$ per hour. Government agencies offer the highest wages for reported openings, followed by the Services and Finance, Insurance, and Real Estate industries.
- Small to mid-size employers account for $72 \%$ of the estimated vacancies. Most of these employers are in the Retail Trade industry.
- The Retail Trade industry has many job openings requiring only a high school diploma, GED, or no diploma at all. Fifty-four percent of surveyed vacancies are available to candidates at these education levels.
- Seventy-five percent of the openings are permanent, full-time positions.
- Sixty percent of the reported vacancies require a candidate to have related or jobspecific experience. Surveyed openings that require higher levels of education generally require more experience.

Employers report little difficulty filling open positions. Sixty-eight percent of reported vacancies have been open for less than 30 days.

- Candidates can expect some employer contribution toward their medical insurance premium for $99 \%$ of the vacancies offered by employers with company sponsored health plans.


## Mesa County

Mesa County in western-central Colorado is host to Interstate 70 along which the county's major cities lie. Much of the county's land is owned and managed by the U.S. Forest Service and the Bureau of Land Management.

Since the shale oil bust of the mid-80s Mesa County has diversified its economic base and is now more focused in the Services industry. Land use and planning are hot topics as the county looks to manage its long-term growth and stimulate economic development. The county's population consists of a larger proportion of retirees than that of the state in general; $15.1 \%$ of Mesa's population is age 65 or older compared to $9.7 \%$ of the state's.

The county's population and economic activity are concentrated in the city of Grand Junction. Almost 42,000 people or $36 \%$ of the county population reside in the city while $86 \%$ of area firms are located here. Grand Junction is the largest city in western Colorado. The city also serves as the major medical hub between Denver and Salt Lake City.

Fruita is the county's second largest population center with about 6,500 residents, $6 \%$ of the county total, according to the 2000 Census. The city currently hosts $4 \%$ of area firms including some of the county's largest.

Palisade, with the third largest population in the county (approximately 2,600 ) is known for its fruit orchards and vineyards. Residents in the late 1800s recognized that the area's mild climate was conducive
to the cultivation of certain agricultural crops-peaches and grapes in particular. Although Palisade is home to just over $2 \%$ of the county's population, $3 \%$ of the businesses are located in the city.

The region's labor force is estimated at 61,841 for October of 2002. Of these 59,381 are employed in Mesa County. The region's unemployment rate of $4.0 \%$ is well below that of the state and the U.S. rate of $5.3 \%$.

Figure 1: Unemployment Rates for October 2002
(Rates Not Seasonally Adjusted)
Colorado Statewide
5.0\%

Mesa County


Source: CDLE Local Area Unemployment Statistics

Area establishments have been categorized into the 11 major Standard Industrial Classifications (SIC) to provide a better picture of the industries that drive the Mesa economy. Mesa County's economy closely mirrors that of the state with regard to industrial composition. Like the rest of Colorado, Services and Retail Trade play a major role in the economy. Combined, these two industries account for $53 \%$ of the region's employers and $52 \%$ of the employment.

It is important to note that the Bureau of Labor Statistics' Employment and Wages (ES-202) program
collects information on firms whose employees are covered by unemployment insurance. Nationally, this program captures $94 \%$ of total employment. Agriculture, however, is an industry in which much of the employment is not covered. Many agricultural employers are exempt from paying unemployment insurance tax, and therefore are not represented in the Employment and Wages calculations. Simply put, agricultural employment may represent a larger portion of the Mesa labor market than indicated by the $3 \%$ reported under the ES-202 program.

Figure 2: Mesa County Employers \& Employees, 4th Quarter, 2001


The chart below illustrates the historical progression of both the county's labor force and employment levels. A long-term growth trend is evident; however, within this time series both employment and the labor force were stunted in 2000, continuing into 2001. The 12-month period ending October 2002 shows a resumption of the three percent average annual growth rate experienced from 1996 through 1999.

The graph also provides a visual illustration of unemployment. Unemployment is represented by the
gap between the labor force and the employment lines; the larger the distance between the two lines, the greater the number of unemployed.

Seasonal patterns are also evident in the region's labor market. Both the labor force and the employment level peak in or around October and bottom out in January. The Job Vacancy Survey is conducted semi-annually in spring and autumn to measure the demand for labor at robust periods of the cycle.

Figure 3: Employment \& Labor Force Trends for Mesa County


Source: CDLE, Local Area Unemployment Statistics

## The Job Vacancy Survey Sample

TThe third Mesa regional survey was conducted from October 21st through November 5th, 2002. For the purpose of this report, employers with five or more employees ( 1,864 in the region) are referred to as the sample universe. Firms with fewer than five employees account for about $76 \%$ of the region's employers and represent $21 \%$ of the total employment; however, by focusing on organizations with five or more employees the survey gains more labor information per contact.

The Job Vacancy Survey first separates employers from this sample universe into Government or private industry classifications. Next, private firms are split into large (150 or more employees) and small to mid-size (from five to 149 employees) categories. The small to mid-size firms are divided by industry and randomly sampled until a representative response is obtained for each category. The survey unit attempts to contact all Government and large employers in the region along with a random sample of small to mid-size firms.

| Table 1: Industry Categories |  |
| :---: | :---: |
| Government |  |
| Public Administration |  |
| $\qquad$ Priva <br> Goods Producing Industries | dustry $\qquad$ Service Producing Industries |
| Agriculture, Forestry, and Fishing (except Agricultural Services) <br> Mining <br> Construction <br> Manufacturing | Transportation, Communications, and Public Utilities <br> Wholesale Trade <br> Retail Trade <br> Finance, Insurance, and Real Estate <br> Services (including Agricultural Services) |

Just over 2\% of the sample universe employers are Government entities, including public schools. Large private employers represent approximately $1 \%$ while small to mid-size firms account for more than $96 \%$ of firms listed in the survey universe. The survey included responses from 955 employers representing slightly more than $51 \%$ of all those with five or more employees in Mesa County; those surveyed provide $61 \%$ of the jobs in firms with five or more employees. Of these respondents, 35 are Government, 22 are large employers and 898 are from the small to mid-sized category.

The survey is designed to create estimates of the total number of vacancies in the survey region based
on establishment size and industry type. Statistical methods for estimating vacancies provide reliable information about the region as a whole without having to survey every employer in the region. In the Mesa County Job Vacancy Survey, numbers of vacancies by establishment size and industry type are estimated, but other vacancy characteristics are based purely on information provided by surveyed employers.

The survey response rate is $82 \%$, measuring how successful the survey is at contacting eligible employers. This survey's cooperation rate of $98 \%$ measures the success of the survey team in collecting information from employers once they are contacted.

## Data Collection

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

Professional interviewers, trained in economic data collection processes, gather information from a call center located in the Colorado Department of Labor and Employment. This interview process results in increased control over the survey process, better accuracy, and dependable results.

Employers are asked if they have job vacancies or open positions which they are actively seeking to fill.

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

The survey is conducted so as to ensure the statistical integrity of this report. When necessary, employers are contacted a second time to clarify responses.

## Vacancies: Industry, Size and Status

During the survey period, an estimated 660 vacancies were open for immediate hire in firms with at least five employees in Mesa County. County-wide employment is estimated at 47,323 individuals, resulting in a $1.4 \%$ vacancy rate. The two prior Mesa Job Vacancy Surveys revealed higher vacancy rates: $2.7 \%$ for the winter 2001 survey, and $2.2 \%$ for the spring 2002 survey. The number of job vacancies relative to currently filled positions is lower for this survey. Fewer job openings are reflective of the current economic climate as well as seasonal employment trends.

The total and industry-specific vacancy rates are key outcomes of the Job Vacancy Survey. As job vacancy rate data are compiled, associations with other economic
indicators can be studied and relationships among job vacancies, employment growth and general economic conditions better understood.

Currently, comparisons can be made among industry vacancy rates within the region. Retail Trade has the highest rate of demand for filling open positions as compared to current employment with a vacancy rate of $2.1 \%$. The Services industry follows Retail Trade closely with a $2.0 \%$ job vacancy rate. Agriculture, Forestry, and Fishing has the third highest vacancy rate at $1.9 \%$. While these industries are actively hiring, Government and Finance, Insurance, and Real Estate have job vacancy rates less than $0.5 \%$ meaning that their rate of hiring is weaker.

Figure 4: Estimated Vacancies by Industry Group


Wages reflect labor force supply and demand along with the skill and experience requirements for occupations. Eighty-three percent of reported vacancies have associated wage information as reported by the employer. The overall average wage for vacancies in this survey is $\$ 12.60$. The prior survey conducted in April 2002 reported an average wage of $\$ 12.50$.

Government agencies offer the highest wage in this survey. At an average of $\$ 20$ per hour, it is $\$ 5$ more
than in the previous survey. Business and Financial Operations occupations are the highest paying reported vacancies in Government.

Hourly wages offered in the Services industry are also more than $\$ 1$ higher than those found in the previous survey. Many high-paying Healthcare Practitioners and Technical job openings are supporting the higher average wage within the Services industry.

Figure 5: Average Wages by Industry Group


JVS Wage - Average Minimum / Average Maximum
Agriculture includes Forestry and Fishing
FIRE-Finance, Insurance, and Real Estate
TCPU-Transportation, Communication and Public Utilities

The survey labels employers as Government, large, or small to mid-size based on ownership and the number of people they employ. Notice that there are many more job vacancies with the small to midsize employer group; they also support a majority of current employment.

Of those employers with five or more employees, small to mid-size firms represent $96 \%$ of the firms, $64 \%$ of the employment, and $61 \%$ of the estimated vacancies. Thirty percent of the vacancies in this size category are for Food Preparation and Serving Related occupations. Another 20\% are for Sales and Related occupations like cashiers and retail salespeople.

Large employers account for just over $1 \%$ of the firms, but provide $18 \%$ of the existing jobs and offer $36 \%$ of the vacancies. More than $60 \%$ of vacancies open for hire with large companies are for Healthcare Practitioners and Technical occupations including

Figure 6: Estimated Vacancies by Size Class

registered nurses and medical and clinical lab technicians. Transportation and Material Moving occupations are second highest in demand among large employers.

Government represents more than $2 \%$ of the employers, $17 \%$ of the employment and almost $3 \%$ of the job openings. At the time of the survey, Government employers in Mesa County were looking to fill Transportation and Material Moving roles along with Business and Financial Operations jobs and a few others.

Figure 7: Average Wages by Size Class


This chart displays wages offered for surveyed job vacancies grouped by the size of the employer. The lower average wage for openings with small to midsize firms reflects the wages offered for the many positions in Food Preparation and Serving Related as well as Sales and Related occupations.

Healthcare Practitioners and Technical occupations not only represent the majority of job vacancies with large employers, but also account for the largest number of vacancies reported for any major occupational group. Therefore, the relatively high wage offered for these job openings has a significant impact on the overall average wage offered for this survey.

Full-time/permanent status is offered for a great majority of the surveyed vacancies. Thirty-seven percent of the full-time/permanent positions are occupations in the Healthcare Practitioners and Technical category. Another 17\% are Food Preparation and Serving Related occupations.

Most part-time job opportunities are in Transportation and Material Moving occupations while Sales and Related jobs also account for a significant portion. These occupations are often found in the Retail Trade industry. Sixty-five percent of part-time opportunities are in the Retail Trade industry.

Temporary job opportunities are predominantly in the Retail Trade industry. These employers are seeking temporary employees for Transportation and Material Moving jobs more frequently than Sales and Related personnel.

Figure 8: Vacancies by


Only one reported job opening is for a full-time/temporary person.

Figure 9: Average Wages by Employment Status


JVS Wage - Average Minimum / Average Maximum

Full-time/permanent positions not only account for the majority of vacancies, but also offer the highest wages. Full-time/permanent Healthcare Practitioners and Technical job openings of which there are many
offer a $\$ 20.50$ average wage. However, Management and Business and Financial Operations occupations are the highest paying positions in the full-time/permanent category.

## Vacancies: Education and Experience Requirements

 uring periods ofDhigh unemployment, one might assume that there are plenty of qualified candidates but not enough job openings to support them. The reality is that even in times of recession there are many employers who cannot find qualified candidates to fill their open positions. A region's overall labor force is actually made up of a number of smaller labor groups defined by specialized skills, experience, and education. It is important, therefore, that job seekers have information regarding what types of education and experience are in highest demand.

Figure 10: Vacancies by Education


Employers can use this information to better understand market demands for various education and experience requirements when they are recruiting for job vacancies.

The majority of vacancies reported in the region require lower levels of education. Vacancies requiring either no diploma or a high-school diploma or equivalent make up $54 \%$ of the job openings. Employers in the Retail Trade industry account for $54 \%$ of the job offerings open to those with less education. These retail positions are most often found with small to mid-size businesses.

The demand for candidates with vocational training or certification is coming from general medical and surgical hospitals for roles in a variety of healthcare specialties.

Eighty-five percent of vacancies requiring a twoyear, a bachelor's or an advanced degree are in the Services industry; organizations providing health services within the larger Services industry account for $93 \%$ of Service industry vacancies. Positions are also reported in: educational services; social services; and engineering, accounting, research, management, and related services.

While $24 \%$ of surveyed vacancies require a college education, demand for such workers is expected to increase dramatically. A recently completed Conference Board study, based on BLS data, finds that 24 million workers will need to be replaced nationwide by 2008 because of death or retirement in the baby-boom generation; it is projected that threequarters of these jobs will require a college education.

Generally, the more education required for a position, the higher the wages offered. These survey results conform to this pattern; the wage reward for higher education is significant. Occupations available for candidates with a two-year degree pay more than twice that offered for roles available to candidates with a high school or equivalent education.

The highest wage opportunities reported in this survey for the top four demanded education levels are as follows. Thirty-four percent of the positions are available to candidates who have completed high school or obtained a GED equivalent; the highest paying job opportunities are in the Education, Training, and

Library occupations. For the $22 \%$ of vacancies requiring a bachelor's degree, candidates for Business and Financial Operations roles are being offered the highest salaries. Top paying job vacancies that require no diploma are in the Production occupations. Finally, among the $18 \%$ of reported vacancies open to those with vocational training or certification, Protective Service jobs offer the potential for the highest salary.

A November, 2002 New York Times article notes that income inequality has increased in the United States since the late 1970s. "Top earners account for a larger percentage of total income, and college-educated workers command an increasingly large premium."

Figure 11: Average Wages by Education


Given a current labor market composed of many people looking for work and fewer employers hiring, those employers looking to expand employment roles are often able to choose from highly skilled candidates looking for any opportunity. Notice that for $60 \%$ of the job vacancies, recruiters are asking for candidates with experience related to or directly in the occupation for which they are hiring.

Candidates who desire to use their accumulated experience to work in the same field are in high demand in health services and the Durable Manufacturing industry where production, operations and management positions are open.

Seventy-five percent of the vacant positions for candidates with experience in a field related to the occupation are in the Services industry with health services representing the majority.

Retail Trade businesses offer the most opportunity for job seekers with general or no work experience. Within this industry, Food Preparation and Serving


Related job postings are more likely to require general experience than are Sales and Related openings that often do not require experience.

Positions demanding higher levels of experience generally pay higher wages. The results of this Job Vacancy Survey show that positions requiring experience in the particular occupation for which the vacancy
exists offer the highest wages. This wage is about three times higher than that for job openings that do not require experience.

Figure 13: Average Wages by Experience

| | JVS Wage - Average Minimum / Average Maximum

The survey results confirm a notion generally held as true-the higher the level of education demanded, the higher the level of experience required. Internships and apprenticeships are important options to consider as employers today are looking for candidates with experience as well as academic achievement.

More than $97 \%$ of positions for which bachelor's degrees are required also request that the candidates have experience related to or in the occupation. Indeed,
most surveyed vacancies for candidates with education beyond high school require applicants to have related or direct job experience.

For most jobs with no diploma requirement, there is no experience requirement for candidates. With a high school diploma or GED the employers tend to require either general or related work experience.

Table 2: Experience Requirements by Educational Level

|  | No Experience | General Work <br> Experience | Experience in a <br> Related Field | Experience in <br> This Occupation |
| :--- | :---: | :---: | :---: | :---: |
| No Diploma | $79 \%$ | $3 \%$ | $16 \%$ | $2 \%$ |
| High School Diploma/GED | $28 \%$ | $32 \%$ | $36 \%$ | $4 \%$ |
| Vocational Training/Certification | $0 \%$ | $7 \%$ | $78 \%$ | $15 \%$ |
| Two-Year Degree | $0 \%$ | $15 \%$ | $54 \%$ | $31 \%$ |
| Bachelor's Degree | $1 \%$ | $2 \%$ | $86 \%$ | $11 \%$ |
| Advanced Degree | $16 \%$ | $17 \%$ | $17 \%$ | $50 \%$ |

Note: Percentages based on each educational category.

## Vacancies: Difficulty to Fill

 o learn more about the job market, employers areTasked about their perceived level of difficulty in filling a job and the length of time that a position has been open.
Less than half of the job vacancies reported included information on the difficulty in hiring. Of those vacancies where the question is answered, a majority claim that job vacancies are not difficult to fill; this is in contrast to previous surveys. In the 2001 winter survey $42 \%$ said vacancies were very difficult to fill while $22 \%$ claimed they were somewhat difficult. The spring 2002 survey showed $9 \%$ of employers claiming positions are very difficult to fill and $48 \%$ somewhat difficult.

This survey period, employers in the Mining industry are having difficulty finding qualified candidates. On the other hand, retail businesses along with Transportation, Communications, Electric, Gas, and Sanitary

Figure 14: Vacancies by Difficulty to Fill Services employers say it is not difficult to find qualified candidates.

Figure 15: Average Wages by Difficulty to Fill


JVS Wage - Average Minimum / Average Maximum

Occupations that employers say they are having no difficulty in filling are: Food Preparation and Serving Related; Sales and Related; and Office and Administrative Support. The hourly wage associated with these jobs is about $\$ 6$.

On the high end of the wage range for positions that are very difficult to fill are Management occupations.

The length of time that a vacancy is open is a good indicator of the degree of difficulty an employer is having in filling a position. Factors include: the availability of qualified candidates, competition among employers for similar candidates, and the willingness of candidates to accept job duties in light of wages and benefits offered. Also, employers may allow more time to fill a vacancy in order to ensure the fit of the candidate with the organization, or because there may be a limited number of qualified applicants.

Although many surveyed employers did not answer the subjective question of how difficult these vacancies are to fill, $85 \%$ of the vacancies do have information about how long they have been unfilled. The majority of job vacancies, $68 \%$ of those with such information, have been open for less than 30 days.

Eight percent of reported vacancies are constantly open for hire-this could be due to high turnover, growing demand for these roles, or a perpetual short supply of qualified candidates. Employers in this survey are always hiring Food Preparation and Serving Related

Figure 16: Vacancies by Time Open for Hire

workers, as well as Healthcare Support and Transportation and Material Moving workers.

Healthcare Practitioners and Technical Occupations make up a majority of the job vacancies open 60 days or more.

Figure 17: Average Wages by Time Open for Hire


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

## Vacancies: Additional Compensation

## Medical Insurance

Employers frequently offer compensation related benefits to recruit qualified candidates. Some of these perks are paid time off, transportation or parking vouchers and contributions to retirement funds. One of the more important benefits offered to employees is medical insurance via an employer group plan.

Employers may pay all, part or none of the monthly insurance premium while trying to offer a lower cost option than what an individual can find. The National Academy of Sciences released a report in November noting that "the cost of private health insurance is increasing at an annual rate in excess of $12 \%$. Individuals are paying more out of pocket and receiving fewer benefits."

Sixty-four percent of the reported job vacancies are with employers who offer a company sponsored medical plan. Of these most are paying some portion of the employee's medical premium.

According to a November USA Today article, employers are cutting benefits including healthcare,

mental health coverage, retirement funding, and leave/vacation because of mounting pension expenses, the dismal economy and soaring healthcare costs.

Figure 19: Average Wages by Employer's Contribution to Medical Insurance


Certainly, as more employers opt to pay part of the employee's medical premium, there are a wide range of jobs and salaries in this category. A significant number of Healthcare Practitioners and Technical job openings have relatively high wages in the partial cost
of premium category. Likewise, some employers of lower paying Installation, Maintenance, and Repair and Production occupations are covering employees' full premium cost.

## Sign-On Bonus



## Occupations

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

In order to help make comparisons between the results of this survey and other sources of employment statistics easier, all jobs reported are assigned an occupation code based on the 2000 Standard Occupational Classification (SOC) Manual, published by the Executive Office of the President, Office of Management and Budget. The SOC system contains 821 detailed occupation titles that fall into 23 major occupation groups. Vacancies found in this survey have been coded into 20 of 23 major occupation groups.

Figure 21: Proportion of Actual Vacancies by Major Occupational Groups


Healthcare Practitioners and Technical occupations represent the most job vacancies-the high demand for healthcare workers is a national phenomenon and will impact medical costs beyond those referred to in the Additional Compensation segment of this report. The other highly demanded occupational groups are also associated with the region's major industries: Services and Retail Trade.

All reported vacancies with wages are grouped to allow for comparisons among the SOC categories. Following along with Figure 21, one can see where the majority of vacancies are along with the accompanying wage. The wages are reflective of the unique
education and experience requirements along with the specific job duties.

Survey results show that the major occupation groups with the most vacancies are not necessarily the groups offering the highest wages. This confirms that vacancy characteristics other than the level of unfulfilled employer demand influence wages. The groups offering the highest wages in this survey typically require higher levels of education and experience: Business and Financial Operations; Management; and Life, Physical, and Social Science. It is not yet confirmed whether the high demand for Healthcare Practitioners and Technical workers is pushing up their salary range.

Figure 22: Average Wages by Major Occupational Groups


Table 3 contains a list of all of the detailed SOC job titles assigned to vacancies reported in this survey. Occupational specifics are the most detailed information publishable from the survey due to confidentiality agreements with employers who participate in the 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.

As half of all small to mid-size employers were contacted for the random sample, the list also includes a significant representation of occupations with those employers; however, it is not exhaustive. It is likely that a different random sample would result in some differences in the job titles reported, but there would also be many of the same.

## Vacancy Rank

Vacancies are ranked based on the total number reported for each occupation. The top $25 \%$ are ranked as high demand because they are the most frequently occurring vacancies. The bottom $25 \%$ are ranked as low demand, and the medium demand vacancies include all occupations in-between.

## Average JVS Wage

The average wages found in the survey are reported by occupation. Not every employer provides the wage they are offering for the vacancies they report; however,
these figures provide an indication of wages currently being offered. Wage information in this survey was provided for $83 \%$ of reported vacancies.

## Occupational Employment Statistics (OES) Wage Data

Occupational Employment Statistics (OES) wage data are also provided for each occupation. OES data are based on a national survey of employers and refer to occupied positions, not vacancies. The figures shown are based on data from Mesa County employers when available and a larger aggregation of Colorado businesses otherwise. Data were collected in 1999 and 2000 and aged to 2001 using the Employment Cost Index (ECI). A complete description of the OES survey and the ECI is available on the Internet at: http://www.bls.gov/.

While the Job Vacancy Survey average wages reflect what was being offered to fill vacancies at the time of the survey, OES wage data reflect what was being paid to employees holding positions in the given occupation. Together, these data provide employers and job seekers with a good indication of the compensation offered in the current job market.
Table 3:

|  |  |  |  | Occupational Employment Statistics Wage Data(2001) |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Average Wages |  |  | Percentile Distribution |  |  |  |  |
| SOC Code | SOC Occupational Title | $\ddagger$ Vacancy Rank | Average JVS Wage | Entry- <br> Level | Overall | Experienced | 10th | 25th | 50th | 75th | 90th |
| 11-0000 | Management Occupations |  | \$25.50 | \$13.03 | \$25.66 | \$31.97 | \$11.56 | \$15.50 | \$22.72 | \$32.55 | \$44.64 |
| * 11-2031 | Public Relations Managers | L | \$16.00 | \$16.21 | \$32.36 | \$40.43 | \$13.90 | \$19.06 | \$26.62 | \$42.79 | \$64.97 |
| * 11-9039 | Education Administrators, All Other | M | \$17.30 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ |
| 11-9041 | Engineering Managers | L | \$43.30 | \$25.03 | \$34.46 | \$39.16 | \$24.14 | \$26.70 | \$33.08 | \$42.12 | \$50.46 |
| 13-0000 | Business and Financial Operations Occupations |  | \$27.30 | \$12.01 | \$21.14 | \$25.71 | \$10.20 | \$14.40 | \$19.50 | \$25.86 | \$33.50 |
| 13-1022 | Wholesale and Retail Buyers, Except Farm Products | M | \$21.60 | \$9.80 | \$16.36 | \$19.63 | \$7.94 | \$11.23 | \$15.95 | \$19.36 | \$26.11 |
| 13-1023 | Purchasing Agents, Except Wholesale, Retail, and Farm Products | L | \$38.50 | \$13.90 | \$19.53 | \$22.35 | \$12.52 | \$15.33 | \$18.81 | \$23.69 | \$27.36 |
| * 13-1079 | Human Resources, Training, and Labor Relations Specialists, All Other | L | \$27.40 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ |
| 13-2021 | Appraisers and Assessors of Real Estate | L | $\dagger$ | \$12.54 | \$20.61 | \$24.63 | \$11.70 | \$14.15 | \$19.87 | \$24.92 | \$33.30 |
| * 13-2052 | Personal Financial Advisors | L | $\dagger$ | \$13.16 | \$27.70 | \$34.96 | \$12.25 | \$14.24 | \$19.86 | \$32.31 |  |
| 13-2072 | Loan Officers | L | $\dagger$ | \$13.33 | \$24.05 | \$29.41 | \$11.70 | \$16.11 | \$20.92 | \$28.76 | \$41.00 |
| 17-0000 | Architecture and Engineering Occupations |  | \$18.00 | \$13.53 | \$21.98 | \$26.21 | \$12.16 | \$15.51 | \$21.50 | \$27.02 | \$33.14 |
| * 17-1011 | Architects, Except Landscape and Naval | L | \$19.20 | \$17.70 | \$26.97 | \$31.61 | \$16.07 | \$19.76 | \$25.48 | \$32.45 | \$40.76 |
| * 17-2112 | Industrial Engineers | L | \$16.80 | \$21.01 | \$29.32 | \$33.48 | \$19.37 | \$22.92 | \$28.42 | \$35.30 | \$42.34 |
| 17-3027 | Mechanical Engineering Technicians | L | $\dagger$ | \$12.45 | \$18.60 | \$21.67 | \$11.59 | \$13.58 | \$18.94 | \$23.64 | \$26.53 |
| 19-0000 | Life, Physical, and Social Science Occupations |  | \$20.20 | \$15.44 | \$23.31 | \$27.25 | \$13.49 | \$17.90 | \$23.41 | \$27.84 | \$33.21 |
| 19-4099 | Life, Physical, and Social Science Technicians, All Other | L | \$20.20 | \$11.53 | \$16.92 | \$19.62 | \$10.54 | \$12.73 | \$15.86 | \$22.03 | \$25.81 |
| 21-0000 | Community and Social Services Occupations |  | \$18.00 | \$9.03 | \$14.45 | \$17.16 | \$8.22 | \$10.15 | \$13.02 | \$17.07 | \$24.25 |
| * 21-1013 | Marriage and Family Therapists | L | \$25.00 | \$13.31 | \$16.31 | \$17.81 | \$12.20 | \$14.35 | \$16.14 | \$18.15 | \$21.12 |


23-1011 25-0000
25-1194 25-4021
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N 27-4011 29-0000 $\qquad$

29-1123

* OES wages reported for Colorado statewide
$\dagger$ No wage data available
 L The bottom $25 \%$ are ranked as low demand.

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| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Av | age W | es |  | Percen | e Dist | bution |  |
| SOC Code | SOC Occupational Title | $\ddagger$ Vacancy Rank | Average JVS <br> Wage | EntryLevel | Overall | Experienced | 10th | 25th | 50th | 75th | 90th |
| * 29-1126 | Respiratory Therapists | L | \$18.70 | \$14.57 | \$17.73 | \$19.31 | \$13.63 | \$15.40 | \$17.89 | \$20.37 | \$21.87 |
| * 29-1127 | Speech-Language Pathologists | M | \$20.70 | \$18.00 | \$23.75 | \$26.62 | \$16.39 | \$19.58 | \$23.34 | \$27.13 | \$32.26 |
| 29-2011 | Medical and Clinical Laboratory Technologists | H | \$18.00 | \$12.49 | \$17.32 | \$19.74 | \$11.97 | \$13.19 | \$18.76 | \$20.62 | \$21.75 |
| 29-2012 | Medical and Clinical Laboratory Technicians | H | \$15.40 | \$10.55 | \$14.13 | \$15.92 | \$9.67 | \$11.28 | \$13.06 | \$16.70 | \$20.89 |
| 29-2031 | Cardiovascular Technologists and Technicians | M | \$16.80 | \$13.31 | \$16.25 | \$17.73 | \$8.96 | \$15.20 | \$16.76 | \$18.36 | \$20.72 |
| * 29-2032 | Diagnostic Medical Sonographers | M | \$23.80 | \$21.73 | \$26.25 | \$28.50 | \$19.69 | \$23.13 | \$25.58 | \$28.01 | \$37.19 |
| * 29-2033 | Nuclear Medicine Technologists | M | \$22.10 | \$19.05 | \$22.09 | \$23.60 | \$18.11 | \$19.78 | \$22.34 | \$25.14 | \$27.18 |
| 29-2034 | Radiologic Technologists and Technicians | H | \$18.30 | \$10.29 | \$14.68 | \$16.88 | \$8.10 | \$12.41 | \$14.93 | \$16.91 | \$20.34 |
| 29-2052 | Pharmacy Technicians | M | \$10.90 | \$8.73 | \$10.98 | \$12.11 | \$8.11 | \$9.22 | \$11.11 | \$12.74 | \$13.89 |
| 29-2056 | Veterinary Technologists and Technicians | L | \$8.50 | \$7.08 | \$9.65 | \$10.95 | \$6.45 | \$8.01 | \$9.85 | \$11.12 | \$13.13 |
| 29-2061 | Licensed Practical and Licensed Vocational Nurses | H | \$11.00 | \$12.02 | \$13.93 | \$14.88 | \$11.39 | \$12.29 | \$13.78 | \$15.83 | \$17.14 |
| 31-0000 | Healthcare Support Occupations |  | \$10.30 | \$7.38 | \$9.75 | \$10.92 | \$6.97 | \$7.90 | \$9.24 | \$10.85 | \$13.55 |
| 31-1012 | Nursing Aides, Orderlies, and Attendants | H | \$9.70 | \$7.01 | \$8.61 | \$9.40 | \$6.42 | \$7.46 | \$8.55 | \$9.88 | \$10.80 |
| 31-9092 | Medical Assistants | H | \$11.10 | \$9.54 | \$11.20 | \$12.03 | \$9.02 | \$9.82 | \$11.02 | \$12.69 | \$13.89 |
| 31-9094 | Medical Transcriptionists | L | \$12.90 | \$9.97 | \$11.40 | \$12.11 | \$9.27 | \$9.81 | \$10.73 | \$12.64 | \$14.12 |
| 33-0000 | Protective Service Occupations |  | \$17.50 | \$11.65 | \$18.28 | \$21.59 | \$9.69 | \$13.97 | \$17.62 | \$22.79 | \$27.36 |
| * 33-2011 | Fire Fighters | L | $\dagger$ | \$14.12 | \$20.68 | \$23.96 | \$12.96 | \$16.05 | \$21.18 | \$25.66 | \$28.04 |
| * 33-3041 | Parking Enforcement Workers | L | $\dagger$ | \$9.30 | \$11.87 | \$13.15 | \$8.92 | \$9.80 | \$11.15 | \$13.76 | \$16.54 |
| 33-3051 | Police and Sheriff's Patrol Officers | M | \$19.70 | \$17.51 | \$21.30 | \$23.19 | \$16.09 | \$18.51 | \$21.32 | \$24.76 | \$27.04 |
| * 33-9099 | Protective Service Workers, All Other | L | \$12.90 | \$6.89 | \$11.22 | \$13.40 | \$6.27 | \$7.40 | \$8.74 | \$12.88 | \$21.31 |
| 35-0000 | Food Preparation and Serving-Related Occupations |  | \$5.90 | \$6.11 | \$7.33 | \$7.94 | \$5.70 | \$6.08 | \$6.72 | \$7.93 | \$10.04 |
| 35-2014 | Cooks, Restaurant | H | \$6.00 | \$6.18 | \$7.21 | \$7.72 | \$5.83 | \$6.26 | \$6.98 | \$8.04 | \$9.36 |
| OES wages reported for Colorado statewide No wage data available |  | $\ddagger$ Vacancies are ran <br> H The top 25\% are ra <br> M The medium dema <br> L The bottom $25 \%$ |  | ed based ked as hig d vacancie ranked as | on the tota demand s include low dema | number because th verything in d. | eported fo ey are the -between | r each oc most frequ ow and hig | upation. <br> ntly occu demand | ing vacanc |  |


| SOC Code | SOC Occupational Title |  |  | Occupational Employment Statistics Wage Data(2001) |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Average Wages |  |  | Percentile Distribution |  |  |  |  |
|  |  | $\ddagger$ Vacancy Rank | Average JVS Wage | Entry- <br> Level | Overall | Experienced | 10th | 25th | 50th | 75th | 90th |
| 35-3011 | Bartenders | M | \$5.80 | \$6.16 | \$6.41 | \$6.54 | \$5.70 | \$5.99 | \$6.46 | \$6.94 | \$7.28 |
| 35-3021 | Combined Food Preparation and Serving Workers, Including Fast Food | H | \$6.10 | \$6.10 | \$6.49 | \$6.67 | \$5.63 | \$5.95 | \$6.46 | \$6.97 | \$7.95 |
| 35-3022 | Counter Attendants, Cafeteria, Food Concession, and Coffee Shop | L | \$6.20 | \$6.05 | \$6.72 | \$7.07 | \$5.61 | \$6.01 | \$6.66 | \$7.59 | \$8.34 |
| 35-3031 | Waiters and Waitresses | H | \$5.60 | \$6.08 | \$6.71 | \$7.03 | \$5.61 | \$5.92 | \$6.45 | \$6.97 | \$8.76 |
| 35-9021 | Dishwashers | H | \$5.50 | \$6.08 | \$6.40 | \$6.57 | \$5.60 | \$5.90 | \$6.40 | \$6.90 | \$7.91 |
| 35-9031 | Hosts and Hostesses, Restaurant, Lounge, and Coffee Shop | L | \$5.20 | \$6.08 | \$6.72 | \$7.04 | \$5.63 | \$5.98 | \$6.56 | \$7.34 | \$8.56 |
| 37-0000 | Building and Grounds Cleaning and Maintenance Occupations |  | \$9.20 | \$6.12 | \$8.54 | \$9.75 | \$5.91 | \$6.59 | \$7.87 | \$9.80 | \$12.50 |
| 37-2011 | Janitors and Cleaners, Except Maids and Housekeeping Cleaners | L | \$9.20 | \$6.24 | \$8.56 | \$9.73 | \$5.97 | \$6.76 | \$8.01 | \$9.98 | \$12.54 |
| 39-0000 | Personal Care and Service Occupations |  | \$6.50 | \$6.10 | \$9.04 | \$10.52 | \$5.87 | \$6.54 | \$7.89 | \$10.55 | \$14.52 |
| 39-2021 | Nonfarm Animal Caretakers | L | \$6.60 | \$6.75 | \$8.47 | \$9.34 | \$6.16 | \$7.21 | \$8.35 | \$9.85 | \$10.95 |
| 39-5012 | Hairdressers, Hairstylists, and Cosmetologists | M | \$5.50 | \$6.05 | \$6.83 | \$7.21 | \$5.57 | \$5.90 | \$6.45 | \$7.01 | \$9.44 |
| * 39-6011 | Baggage Porters and Bellhops | L | \$6.30 | \$6.15 | \$9.99 | \$11.91 | \$5.90 | \$6.52 | \$7.81 | \$11.51 | \$19.35 |
| 39-9011 | Child Care Workers | L | \$5.20 | \$6.11 | \$7.57 | \$8.30 | \$5.87 | \$6.54 | \$7.54 | \$8.54 | \$9.80 |
| * 39-9032 | Recreation Workers | L | \$11.00 | \$6.86 | \$9.74 | \$11.17 | \$6.28 | \$7.39 | \$8.78 | \$11.12 | \$14.86 |
| 41-0000 | Sales and Related Occupations |  | \$6.60 | \$6.87 | \$11.80 | \$14.27 | \$6.27 | \$7.51 | \$9.52 | \$13.40 | \$20.41 |
| 41-1011 | First-Line Supervisors/Managers of Retail Sales Workers | L | \$15.40 | \$9.38 | \$16.19 | \$19.61 | \$8.62 | \$10.68 | \$13.49 | \$17.24 | \$26.52 |
| 41-2011 | Cashiers | H | \$5.90 | \$6.20 | \$8.51 | \$9.67 | \$5.93 | \$6.75 | \$7.88 | \$9.42 | \$12.92 |
| 41-2021 | Counter and Rental Clerks | L | \$6.30 | \$6.00 | \$9.87 | \$11.81 | \$5.66 | \$6.17 | \$7.41 | \$12.48 | \$17.88 |
| 41-2022 | Parts Salespersons | L | $\dagger$ | \$6.72 | \$11.65 | \$14.11 | \$6.09 | \$7.47 | \$9.50 | \$13.88 | \$20.68 |
| * OES wages reported for Colorado statewide <br> $\dagger$ No wage data available |  | $\ddagger$ Vacancies are ranked based on the total number reported for each occupation. <br> H The top $25 \%$ are ranked as high demand because they are the most frequently occurring vacancies. <br> M The medium demand vacancies include everything in-between low and high demand. <br> L The bottom $25 \%$ are ranked as low demand. |  |  |  |  |  |  |  |  |  |

Table 3: Job Vacancy Survey Occupations with OES Wages - Page 5

$\qquad$ 49-9021
49-9042
51-0000 51-2099

* 51-4012
51-4041

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 * 51-9081 51-9111 51-9198

|  |  |  |  | Occupational Employment Statistics Wage Data (2001) |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Average Wages |  |  | Percentile Distribution |  |  |  |  |
| SOC Code | SOC Occupational Title | $\ddagger$ Vacancy Rank | Average JVS <br> Wage | Entry- <br> Level | Overall | Experienced | 10th | 25th | 50th | 75th | 90th |
| 47-2211 | Sheet Metal Workers | M | $\dagger$ | \$12.55 | \$15.99 | \$17.71 | \$10.92 | \$14.47 | \$16.32 | \$18.11 | \$20.79 |
| * 47-4051 | Highway Maintenance Workers | L | \$16.00 | \$11.75 | \$15.67 | \$17.64 | \$11.38 | \$13.07 | \$15.62 | \$18.28 | \$20.98 |
| 49-0000 | Installation, Maintenance, and Repair Occupations |  | \$12.80 | \$8.89 | \$14.72 | \$17.64 | \$8.12 | \$10.18 | \$13.84 | \$18.46 | \$22.63 |
| * 49-2021 | Radio Mechanics | L | $\dagger$ | \$13.87 | \$24.99 | \$30.54 | \$12.05 | \$16.20 | \$29.31 | \$32.58 | \$34.55 |
| * 49-2091 | Avionics Technicians | M | $\dagger$ | \$15.15 | \$18.80 | \$20.63 | \$14.83 | \$16.52 | \$18.90 | \$21.13 | \$23.05 |
| * 49-2094 | Electrical and Electronics Repairers, Commercial and Industrial Equipment | L | $\dagger$ | \$13.92 | \$19.95 | \$22.97 | \$12.68 | \$15.60 | \$19.32 | \$23.80 | \$27.99 |
| * 49-3011 | Aircraft Mechanics and Service Technicians | M | \$9.40 | \$11.35 | \$17.07 | \$19.94 | \$10.33 | \$12.78 | \$18.34 | \$20.63 | \$22.00 |
| * 49-3041 | Farm Equipment Mechanics | L | \$12.00 | \$9.08 | \$13.34 | \$15.47 | \$8.33 | \$10.19 | \$12.84 | \$16.21 | \$19.65 |
| * 49-3051 | Motorboat Mechanics | L | \$14.00 | \$10.68 | \$14.50 | \$16.41 | \$9.61 | \$11.65 | \$13.55 | \$16.98 | \$20.90 |
| 49-9021 | Heating, Air Conditioning, and Refrigeration Mechanics and Installers | M | \$23.00 | \$9.82 | \$14.45 | \$16.76 | \$8.95 | \$10.86 | \$14.29 | \$18.30 | \$20.78 |
| 49-9042 | Maintenance and Repair Workers, General | L | \$12.50 | \$7.79 | \$12.60 | \$14.99 | \$6.83 | \$8.93 | \$11.94 | \$15.93 | \$19.62 |
| 51-0000 | Production Occupations |  | \$10.30 | \$7.54 | \$11.93 | \$14.12 | \$7.13 | \$8.36 | \$10.78 | \$14.57 | \$17.91 |
| 51-2099 | Assemblers and Fabricators, All Other | H | \$6.60 | \$7.52 | \$9.85 | \$11.02 | \$7.13 | \$8.35 | \$9.82 | \$11.04 | \$13.19 |
| * 51-4012 | Numerical Tool and Process Control Programmers | M | \$15.50 | \$15.97 | \$23.30 | \$26.97 | \$14.61 | \$18.48 | \$21.76 | \$30.70 | \$33.81 |
| 51-4041 | Machinists | L | \$14.00 | \$9.66 | \$17.69 | \$21.70 | \$9.07 | \$10.77 | \$16.05 | \$20.89 | \$31.06 |
| 51-4121 | Welders, Cutters, Solderers, and Brazers | L | \$9.50 | \$8.31 | \$12.46 | \$14.54 | \$7.55 | \$9.44 | \$12.43 | \$14.88 | \$17.67 |
| 51-6031 | Sewing Machine Operators | L | \$6.00 | \$6.10 | \$7.70 | \$8.51 | \$5.84 | \$6.43 | \$7.51 | \$8.62 | \$10.57 |
| * 51-6041 | Shoe and Leather Workers and Repairers | L | \$11.50 | \$9.13 | \$11.45 | \$12.61 | \$8.38 | \$9.68 | \$11.37 | \$13.11 | \$14.17 |
| * 51-9081 | Dental Laboratory Technicians | M | \$21.50 | \$8.90 | \$14.06 | \$16.64 | \$8.06 | \$10.02 | \$13.06 | \$16.82 | \$22.12 |
| 51-9111 | Packaging and Filling Machine Operators and Tenders | L | \$8.60 | \$7.72 | \$10.59 | \$12.03 | \$7.44 | \$8.34 | \$9.80 | \$12.53 | \$16.08 |
| 51-9198 | Helpers--Production Workers | L | \$7.50 | \$7.40 | \$10.24 | \$11.65 | \$6.31 | \$9.04 | \$10.71 | \$12.30 | \$13.54 | Vacancies are ranked based on the total number reported for each occupation. The top $25 \%$ are ranked as high demand because they are the most frequently occurring vacancies.

The medium demand vacancies include everything in-between low and high demand. L The bottom $25 \%$ are ranked as low demand.


[^1]
## Methodology

Many challenges exist in collecting and analyzing the data for the Job Vacancy Survey.
Because methods selected to carry out a survey impact the final results, great effort is put into
making this survey statistically viable and, most importantly, accurate. Methods used in this survey will continue to be reviewed and, where statistical viability and accuracy can be improved, modified.

## Computer Assisted Telephone Interview

TThe CDLE's professional survey unit developed the Computer Assisted Telephone Interview (CATI) to maximize accuracy and usefulness, while minimizing length and survey bias. In accordance
with recognized survey research standards, the following selection of questions are taken directly from the phone interview script.

## In General

1. How many employees do you have working within the region?
2. Do you have any job vacancies for which your firm is actively recruiting?
3. How many job vacancies is your firm recruiting to fill?

## For Each Vacancy

1. What is the job title?
2. Briefly, what are the job duties?
3. Which of the following best describes this vacancy?

- Full-time/Permanent
- Full-time/Temporary
- Part-time/Permanent
- Part-time/Temporary

4. What is the maximum wage offered for this vacancy?
5. What is the minimum wage offered for this vacancy?
6. Is a sign-on bonus offered? If yes, how much?

## 7. Is medical insurance offered?

8. If yes, does your firm pay the total cost of the premium, partial cost of the premium or do you make no contribution at all to the premium?
9. Which of the following best describes the education level required to fill this vacancy?

- No diploma required
- High school or GED diploma
- Two-year degree
- Bachelor's degree
- Advanced degree

10. What best describes the type of experience required to qualify for this vacancy?

- No experience is required
- General work experience
- Experience in a related field
- Experience in this occupation

11. How long has this vacancy been open?

- Less than 30 days
- 30 to 59 days
- 60 or more days
- Always hiring for this position

12. How difficult is this vacancy to fill?

- Not difficult
- Somewhat difficult
- Very difficult


## Survey Sample Methodology

This survey is designed to estimate the number of vacancies in the region and to provide detailed vacancy characteristics. Employers with at least five employees are placed into either Government or private industry categories. Firms with fewer than five employees make up a very large portion of all employers in the region, but a small proportion of total employment. The possibility of employing statistical methods to estimate vacancies for this group is currently being explored.

Private firms are grouped by employment level into either large or small to mid-size categories. Attempts are made to contact each large private employer and Government agency in the region. Small to mid-size firms are further divided by major industry and randomly sampled until a representative response is obtained for each category.

The original list of private industry firms used for the survey, along with their contact information, staff size and industry classification is obtained from the America's Labor Market Information System (ALMIS) database. Government contact information is provided by the Colorado Department of Labor and Employment's ES-202 employer database.

## Data Editing

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

## Occupational Coding

TThe job title and duties reported by employers are used to code vacancies in accordance with the latest release of the Standard Occupational Classification system. For more information on this occupational classification system, please refer to the Definitions section.

## Wage Conversion

Q tandard 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 wage are adjusted to that amount. Currently, the federal minimum wage is $\$ 5.15$ per hour.

## Definitions

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

The arithmetic average (also called the mean) for a group of items is defined as the sum of the values of the items divided by the number of items.

## Average Minimum and Average Maximum Wage

When surveyed employers report wages offered for current vacancies, both a minimum and a maximum wage are recorded. All minimum wages are averaged to determine the reported average minimum wage. The same is true for the reported average maximum wage.

## Employer

A person or establishment that pays one or more people a wage or salary.

## Employment

Includes people who did any work for pay or profit in the reference period, worked 15 hours or more without pay in a family business or farm, or were temporarily absent from their jobs.

## Full-time and Part-time Employment

To be classified as full-time employment, a position must require a minimum of 35 hours of work per week. Part-time employment refers to cases where a position requires less than 35 hours of work a week.

## Industry Classification

Employers are grouped into industries on the basis of their principal product or activity in accordance with the 1987 Standard Industrial
Classification Manual.

## Job Seekers

People 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. The definition does not include positions that are anticipated, but not yet created.

## Job Vacancy Rate

The number of openings in a specific industry or category expressed as a share of the total employment in that same industry.

## Labor Force

Consists of all employed or unemployed civilians who are eligible to work, plus members of the Armed Forces stationed in the United States.

## Level of Education

Refers to completed education programs-high school diplomas, associate, professional, vocational, bachelor's, and graduate degrees all are examples of completed programs.

## Medical Insurance Premium

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

## Permanent and Temporary Employment

A vacancy is classified as permanent if it will be filled for more than six months. Temporary employment refers to those positions that will be filled for six months or less.

## Sign-on Bonus

An additional financial incentive offered by a firm to a 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.

## SOC

The Standard Occupational Classification is a system for classifying all occupations in the economy, including private, public, and military occupations. This classification system replaces all occupational
classification systems previously used by federal statistical agencies. It will be used by all federal statistical agencies and programs collecting occupational data, providing a means to compare occupational data across agencies. It is designed to cover all occupations in which work is performed for pay or profit, reflecting the current occupational structure in the United States.

## Survey Sample Universe

All private industry and Government employers with five or more employees in the region. Government entities are drawn from ES-202 while private companies come from the ALMIS database.

## Unemployment

Includes people 16 years of age and over who had no employment during the reference period, were
available for work (except for temporary illness), and have made specific efforts to find employment. People who did not look for work because they were on temporary layoff or waiting to start new jobs within the next 30 days are also counted among the unemployed.

## Unemployment Rate

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

## Wage

The monetary return per hour of work. The definition does not include benefits (e.g., insurance, retirement program, or stock plans).


[^0]:    Workforce Research \& Analysis Labor Market Information

[^1]:    Vacancies are ranked based on the total number reported for each occupation.
    ${ }_{\mathrm{H}} \mathbf{}$ The top $25 \%$ are ranked as high demand because they are the most frequently occurring vacancies. M The medium demand vacancies include everything in-between low and high demand. L The bottom $25 \%$ are ranked as low demand.

