## $\bigcup_{\text {Region }}^{\text {pper } A \text { rkansas }}$

## Job Vacancy Survey



Chaffee
Custer
Fremont \&
Park
Counties
April 2002


Workforce Research \& Analysis Labor Market Information

# Upper Arkansas Region Job Vacancy Survey 

Conducted
January 11-17, 2002

State of Colorado<br>Bill Owens, Governor

# Colorado Department of Labor \& Employment <br> Vickie Armstrong, Executive Director <br> Jeffrey M. Wells, Deputy Executive Director <br> Funding Provided in Part by The Colorado Workforce Development Council 

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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 by Labor Market Information's office of Workforce Research and Analysis for each region in Colorado.

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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 (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.

## - 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

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

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

## Workforce Centers

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

Public officials, educational institutions, and government agencies can use this survey information
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/lmi/oeo/oeo.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

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TThe Job Vacancy Survey statistics are indicators of the demand for workers in the region and should not be interpreted as actual values. We rely 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 vacancies whether 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, we 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 Winter 2002 Upper Arkansas Job Vacancy Survey was conducted from January $11^{\text {th }}$ through $17^{\text {th }}, 2002$. Over the survey period, randomly selected employers with at least five employees were contacted in the region. Employers were asked if they are actively hiring at the time of the survey, and a variety of questions about positions they are seeking to fill.

A total of 452 employers representing over $51 \%$ of the region's total employment responded to the survey. Out of these, 19 were large employers, 401 were from the small to mid-size category, and 32 were government employers. The survey had a $73 \%$ effective response rate. The major findings of the survey are as follows:

- It is estimated that a total of 300 jobs were open for hire in the Upper Arkansas Region during the survey period.
- Fourteen percent of employers responding to the survey reported having at least one vacancy.
- About $86 \%$ of the estimated job openings are in the service producing industries.
- Nearly two-thirds of the estimated vacancies are offered by small to mid-size employers.
- Over $90 \%$ of reported jobs are for permanent positions.
- Seventy-eight percent of the reported vacancies are for full-time positions.
- The overall average wage for all vacancies is $\$ 12.10$ per hour. The average wages for positions in large firms exceed those in small to mid-size firms by $\$ 5.00$ per hour at both the minimum and maximum levels.
- Both education and experience requirements have a positive influence on wages offered.
- Nearly three-fourths of the job openings are either very difficult or somewhat difficult to fill.

Employers offered sign-on bonuses for only $1 \%$ of the vacancies.

## Upper Arkansas Region

According to the U.S. Census Bureau, Census 2000, the Upper Arkansas Region (UAR), which includes Chaffee, Custer, Fremont and Park counties, is home to over 80,000 people. Park and Custer counties experienced the most growth over the 1990 to 2000 period. Park County grew $102.4 \%$ and recorded the third highest population increase of all Colorado counties. Custer County grew $81.9 \%$. The population in Chaffee County rose by a moderate $28.1 \%$, just slightly below Colorado's $30.6 \%$ increase over the same ten-year period. According to the Colorado Department of Local Affairs, the state demographer is projecting that increases in population will begin to slow over the next quarter century.


Figure 2: Unemployment Rates for January 2002


Source: CDLE, Colorado Local Area Unemployment Statistics

Employment proportions are comparable to the area's population proportions. In the period between January 2001 and January 2002, the labor force in the area increased by $6.2 \%$ while total employment in the area increased by only $3.8 \%$ over the same period. The unemployment rate in Upper Arkansas increased to 5.5\% from 3.3\% one year ago. According to Labor Market Information's Local Area Unemployment Statistics, Colorado's unemployment rate was $5.9 \%$ in January 2002 while rates ranged between $4.1 \%$ and $4.2 \%$ in Chaffee and Custer counties to $5.9 \%$ and $6.0 \%$ in Fremont and Park counties (Figure 2).

In January, 2002, nearly 33,000 individuals were employed in the Upper Arkansas Region from a labor pool of about 35,000 people according to Colorado's Labor Market Information, Local Area Unemployment Statistics.

Fremont County accounts for $51 \%$ of the employment in the region. Park and Chaffee counties have $22 \%$ and $21 \%$ of area employment, respectively, while Custer accounts for $6 \%$.

Figure 3: Upper Arkansas Region Employers \& Employees, 1st Quarter, 2001


Agriculture includes Forestry and Fishing
FIRE-Finance, Insurance, Real Estate
Source: Colorado Employment
TCPU-Transportation, Communication and Public Utilities
and Wages (ES-202)

Figure 3 shows the employment distribution for each of the major industry divisions according to Colorado Employment and Wages (ES-202) during the first quarter of 2001. This serves as a useful reference for the time period in which the survey was conducted. Shares of employment by industry in the Upper Arkansas Region have remained fairly constant over the past six years. The Services division has the highest proportion of firms and the highest proportion of employment in the area, accounting for approximately one-third of the region's total employment. Although government agencies represent only $3 \%$ of the total employers, this industry accounts for $22 \%$ of all employees in the Upper Arkansas Region. The Retail Trade and Construction divisions follow with employment proportions of $20 \%$ and $10 \%$, respectively. The Construction industry has shown strong gains over the
last few years, resulting in a higher share of employment than in previous years. Employment shares of other industries range from $1 \%$ in Agriculture, Forestry \& Fishing and Mining to $6 \%$ in Manufacturing.

Most of the industries in the Upper Arkansas Region follow a seasonal trend in employment, with the third quarter offering the highest employment levels and the first quarter having lower employment. Although the seasonal changes are a factor in most industries in the region, the affect is most notable in Services and Retail Trade due to the employment size of these industries. With the exception of Manufacturing and Transportation, Communications, \& Public Utilities, all industries have experienced overall increasing employment over the last six years.

Upper Arkansas Region Job Vacancy Surveys are conducted semi-annually in the winter and summer months. The timing of the survey was developed with the intent of measuring demand for labor at intervals that provide the most useful information.

Historically, the level of employment in the Upper Arkansas Region peaks in or around the month of August. Likewise, the labor force follows a similar pat-
tern, with the total number of available workers consistently out-numbering those with jobs over time (Figure 4). Unemployment rates have increased over the last year, following the state and national trend, although in general, the region has experienced declining unemployment through the better part of the decade. The unemployment rate tends to peak in the months of January and June. The remainder of each year employment and available workers are more closely balanced.

Figure 4: Employment and Labor Force Trends in the
Upper Arkansas Region


Source: CDLE, Local Area Unemployment Statistics

By conducting the Job Vacancy Survey during the summer, results represent demand for labor at a time when employers are nearing peak employment, yet are still in the process of actively recruiting. During the height of the season, employers are competing for job seekers available in the labor market at a time when there are too few applicants available for the open positions. Vacancies found in the winter represent demand for labor at a time of year when employment is at its cyclical low. A study at this time indicates the types of occupations for which vacancies exist even when there are an adequate number of job seekers available and willing to work.

Difficulties in hiring at the two times of year may signal different issues. A study of any labor shortage during the winter may not indicate a general labor availability problem. Rather, it may indicate that labor for certain types of occupations is in short supply. On the other hand, a labor shortage during the summer may indicate specific occupation groups where shortages exist, but it may also indicate a generalized labor shortage. The two conditions have different implications for decision-makers, especially for those in government and job training positions.

## The Job Vacancy Survey Sample

TThe survey instrument, upon which the telephone questionnaire used for this study is based, was developed, tested, and enhanced to increase information available for examination by the Workforce Research and Analysis office of the Colorado Department of Labor and Employment.

For the purpose of this report, firms with five or more employees, as well as all government establishments regardless of size, are referred to as the "sample universe." The region is dominated by a large number of firms with fewer than five employees that account for $71 \%$ of the firms in the area. However, these firms represent only $18 \%$ of total employment in the area. The small to mid-size firms (five to 74 employees) account for about $27 \%$ of all firms in the region and $39 \%$ of the area's total employees. Large firms (with 75 and more employees) account for $1 \%$ of the regional firms and $15 \%$ of the total employees. Government establishments ( $1 \%$ of area firms) account for $28 \%$ of regional employment.

For the small to mid-size employers, the survey was categorized by goods and service producing industries (Table 1). To achieve a solid representation of employment, 360 completed responses were required from each industry group. For those containing fewer than 360 employers, a response rate of at least $50 \%$ was required. Attempts were made to contact all employers in the "large employers" and "government" categories in the region.

Over the January 11th through 17th survey period, a total of 452 employers, approximately $52 \%$ of the Upper Arkansas Region employers in the sample universe, responded to the survey. Out of these, 19 were large employers, 401 were small to mid-size employers, and 32 were government establishments. Fifteen percent were from the goods producing and $77 \%$ were from the service producing industries.

Table 1: Industry Categories

## Government

## Public Administration

## Private Industry

Goods Producing Industries
Agriculture, Forestry, \& Fishing (except Agricultural Services)
Mining
Construction
Manufacturing

Service Producing Industries
Transportation, Communications, \& Public Utilities
Wholesale Trade
Retail Trade
Finance, Insurance, \& Real Estate
Services (including Agricultural)

## Data Collection

Data for the Job Vacancy Survey is 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 opened. 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 300 vacancies were open for immediate hire in firms with at least five employees in the Upper Arkansas Region. This estimation was derived from vacancy rates reported for actual employment levels and applied to total employment for the appropriate industry divisions. Vacancy rates by industry group show where activity is occurring in the local labor market. A higher vacancy rate
can indicate a more dynamic labor situation than in other industries. Both a rapidly growing industry and one experiencing high job turnover could have relatively high vacancy rates. Likewise, an industry division with a low employment level is likely to have a relatively high vacancy rate due to the proportion of vacancies to the lower level of employment.

The vacancy rate for the service producing companies is $2.5 \%$, slightly higher than the region's overall $2.4 \%$. This industry division has experienced both a growing and changing market (due to population growth and increasing technology) and is also the division that accounts for most of the area's employment. As noted before, service producing industries account for the highest employment level in both the economy in general as well as in the survey. That is why it is not surprising that this division would have the most vacancies and be experiencing more activity than the goods producing and government divisions (Figure 5).

While the overall level of vacancies may appear low, the survey was conducted in the first quarter when employers need fewer workers. Persistent vacancies may be due to structural changes in the economy; vacancies open for long periods because the skills and aspirations of the labor force do not match those required for the available positions.

Since wages offered vary according to the individual applicant's qualifications, employers were asked to provide the range of wages offered for the vacancies (Figure 6).

Figure 5: Estimated Vacancies by Industry Group


Wages reported for this study represent wages offered by employers for current vacancies available over the survey period. For this survey, the private service and goods producing industries and government agencies provide similar wages. Ranges between the average minimum and average maximum wages are close, the widest gap of only $\$ 3.90$ occurs in the goods producing industries.

Figure 6: Average Wages by Industry Group


[^0]Small to mid-size firms reported approximately $64 \%$ of the total vacancies (Figure 7). While large firms have only $22 \%$ of the area's open jobs, vacancy rates for large and small to mid-size firms are close, at $2.5 \%$ and $2.1 \%$ respectively.

Figure 7: Estimated Vacancies by Size Class


The highest concentration of vacancies in the Upper Arkansas Region is found in Healthcare Practitioners \& Technical Occupations, which are more likely to be found in larger firms. High levels of vacancies are also found in lower paid services occupations, such as Food Preparation and Office \& Administrative Support, more common in small to mid-size firms. Government agencies are offering a variety of positions in Management, Protective Service, Office \& Administrative Support, and Transportation \& Material Moving, among others.

According to the survey, large firms offer substantially higher wages than small to mid-size firms with a difference of approximately $\$ 5.00$ per hour across the minimum and maximum ranges (Figure 8). The Healthcare Practitioners and Technical Occupations, suffer constantly from a shortage of workers. Wages in small to mid-size firms are similar for a variety of positions across most occupational groups.

Figure 8: Average Wages by Size Class


JVS Wage - Average Minimum / Average Maximum
Figure 10: Average Wages by Status

JVS Wage - Average Minimum / Average Maximum

In general, full-time permanent positions pay more than part-time and temporary positions. In contrast, results of this survey show that the higher average minimum and maximum wages offered are for full-time temporary jobs. Furthermore, the wage range for full-time permanent positions is only slightly greater than $\$ 2.50$ whereas the wage ranges for temporary positions is at least $\$ 6.00$. While proportional differences in the number of vacancies can play a role in the wage ranges, higher wages paid to fill temporary positions indicate that
employers may be willing to increase pay scales depending on the importance of filling the position.

For example, in this survey, full-time temporary positions include occupations such as site-seeing guides, cooks, and tax preparers, among others. For these positions, employers prefer applicants with an average of a two-year degree and related work experience. Thus, for this survey, employers are willing to offer higher wages in order to fill the vacancy.

# Vacancies: Education and Experience Requirements 

Employers were asked what level of education is required of an applicant in order to be considered for a particular vacancy. Over half of the positions reported by employers in the Upper Arkansas Region require no post-secondary education. This is due, in part, to the fact that a high proportion of the region's vacancies are for unskilled occupations. However, nearly $40 \%$ require vocational training or certification (or other similar two-year training), which shows the importance of trade-related positions available in the area. While the reported vacancies in this survey tend to be at the lower end of educational requirements, further surveys may help establish whether this is reflective of the condition of the overall economy (local, state and national), a seasonal trait, or unique according to the structure of businesses within the local economy.

Figure 11: Vacancies by Education


Figure 12: Average Wages by Education

| | JVS Wage - Average Minimum / Average Maximum

On average, employers add a substantial premium to pay scales when requiring higher levels of educational attainment (Figure 12). The highest average minimum wage rate difference ( $\$ 5.60$ per hour) was found between having a high school education and completing a vocational training program or obtaining certification for a trade. These positions are also preferred with related work experience, on average. Reported wages show a decline between two-year
degrees and a bachelor's, however, this is due to a combination of the limited opportunities in these positions and as a result of low reporting for these categories for this particular survey. Higher wages reported for positions requiring two-year and/or vocational training indicate the characteristics of positions available in the region, for the most part, are currently trade-related or similar.

Employers require the applicant to have experience in a related field or in the occupation for $60 \%$ of all the vacancies. Only one-fourth of the reported job openings require no prior experience and even fewer prefer general work experience. Openings requiring experience within the occupation are about one-third of all reported vacancies (Figure 13). On average, positions that require a wide skill range or some experience are those that offer greater variation in wages. For this survey, those occupations are concentrated in the Architecture \& Engineering, Computer \& Mathematical, Business \& Financial, and Education, Training, \& Library occupational groups. Occupation groups with narrower wage ranges fall either into a category that requires more specific skills and training requirements or into groups requiring little or no experience and are generally labor intensive.

Figure 14: Average Wages by Experience


JVS Wage - Average Minimum / Average Maximum

As with increasing levels of education, employers are willing to pay higher wages for added skills. Vacancies requiring experience in the occupation, the category most sought after by employers, offer an average of $\$ 5.30$ per hour more than those requiring only
general work experience. Employers pay the least for applicants with little or no experience (Figure 14). The difference in pay associated with the experience level is not as great as that associated with education.

Survey results show that experience requirements for open jobs increase with education requirements (Table 2). Employers desiring any kind of formal training also prefer applicants with related experience. This is expected because advanced degrees are the most techni-
cal; therefore having occupational experience would be more crucial. In fact, reported vacancies requiring a minimum of a Bachelor's degree also require experience in a related field, with more preference to those with experience in the specific occupation.

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 | $27 \%$ | $24 \%$ | $34 \%$ | $15 \%$ |
| High School Diploma/GED | $41 \%$ | $23 \%$ | $19 \%$ | $17 \%$ |
| Vocational Training/Certification | $23 \%$ | $0 \%$ | $42 \%$ | $35 \%$ |
| Two-Year Degree | $16 \%$ | $5 \%$ | $8 \%$ | $71 \%$ |
| Bachelor's Degree | $7 \%$ | $7 \%$ | $40 \%$ | $46 \%$ |
| Advanced Degree | $0 \%$ | $0 \%$ | $0 \%$ | $100 \%$ |

Note: Percentages based on each educational category.

Positions requiring an advanced degree are usually associated with a high concentration of vacancies at a level requiring specific experience in the occupation. These are career occupations usually achieved only through commitment to high levels of education in addition to gaining experience in the field through paid employment positions as well as from internships and apprenticeships. In the Upper Arkansas Region less technical occupations that require some, though not extensive education, still require higher levels of experience related to the position offered.

In a tight labor market, employers may be willing to trade experience levels for educational attainment, and
vice versa, according to the specifications of the position offered and the skills and training that the applicants possess. During an economic downturn though, employers can command higher levels of education and experience due to the increased number of job seekers available to work.

The majority of positions requiring no diploma or only a high school education require lower levels of experience. These are occupations that can be easily learned through on-the-job training.

## Vacancies: Difficulty to Fill

To measure the level of difficulty in filling vacancies, employer's perception of difficulty as well as data on how long each position was open at the time of the survey were gathered. All employers responding to the survey were willing to provide some kind of indication of difficulty to fill. Only $19 \%$ of the vacancies reported are classified as very difficult to fill. While less than one-third of the responding employers believed open positions were not difficult to fill, approximately half of the reported vacancies were considered somewhere in between (Figure 15).

Knowing how long a position was open helps analyze the subjectivity of the response to the question about how difficult it is to fill a vacancy. While some employers may consider a vacancy to be difficult to fill when it has been open for 30 to 60 days, another employer may consider a similar vacancy not difficult to fill given the same time frame.

Results show that almost three-fourths of the area's vacancies are reported as at least somewhat difficult to fill. While it could be that the job seeker's skills do not match those required for the desired position, the vacancy could also be related to lower-than-expected wages or require a longer commute to work. The inconsistency of the perceptions of difficulty to fill adds to the challenge of interpreting hiring difficulty.

Figure 16: Average Wages by Difficulty to Fill


JVS Wage - Average Minimum / Average Maximum

Although positions considered easiest to fill offer lower wages, as would be expected, positions employers report as difficult to fill do not offer higher wages relative to those considered only somewhat difficult to fill. In fact, vacancies considered only moderately difficult to fill offer the highest wage rates. This may imply that wages are associated more with job and job
seeker characteristics, and less with difficulty or need as viewed by the employer.

Positions considered difficult to fill do not tend toward any particular occupational group nor toward any particular education or experience level. The same is true for vacancies that remain open for varying periods of time.

Just over half of all vacancies are open less than 30 days. While a small portion of highly technical vacancies are in this group, the majority of vacancies open for this short time period are those that require lower levels of education and experience, are variably full and parttime positions, and are found throughout all industries (Figure 17). Vacancies reported as always open are, on average, entry-level positions requiring differing education levels. These occupations are in Service industries, are full and part-time, with wage ranges suggesting the ability to "move up" in the company.

Almost one-third of the vacancies are reported as open for 60 days or more. For this survey, employers also prefer the applicant to have a minimum of vocational training/certification or a two-year degree. Approximately half of these positions are in the healthcare industry. This may imply that the Upper Arkansas Region may be experiencing a shortage of qualified applicants in general for occupations within the healthcare industry.

Figure 18: Reported Wages by Time Open for Hire


JVS Wage - Average Minimum / Average Maximum

Except for positions that are always open for hire, higher wages are offered as the time a vacancy takes to fill increases. For this survey, the lowest wages offered are for positions that fall into two categories: either the vacancy exists in a trade position, in which case the wage is more representative of an entry wage, or the vacancy is in an occupation that, on average, is a tipped employee, where the base pay rate will be
closer to minimum wage. Positions open for 60 or more days offer the highest wages. Almost all these positions require a minimum of a two-year degree and at least $75 \%$ of them require experience within the occupation. For this survey, these are all full-time positions with at least two-thirds appearing in the healthcare industry. Once again, this may imply a shortage of skilled healthcare workers.

## Vacancies: Medical Insurance

Almost all of the vacancies reported by employers include some form of medical insurance. Employers offer to pay the entire premium $15 \%$ of the time and a portion of the premium for just over $80 \%$ of the vacancies.

Vacancies associated with no monetary contribution toward the premium are usually temporary and/or parttime positions.

While it is expected that positions with more intensive requirements will offer higher pay as well as more complete medical coverage, for this survey results show that employers tend to cover more of the premium for occupations with relatively lower pay. These are occupations in the Food Preparation and Serving Related group as well as in the Installation, Maintenance and Repair occupations among others. Employers offer better medical insurance packages for these service-related occupations to compete for qualified candidates.

Figure 20: Average Wages by Medical Insurance Contribution


JVS Wage - Average Minimum / Average Maximum

Figure 19: Vacancies by Employer's Contribution to


The overall average wage offered for vacancies where the employer pays only part of the premium is $\$ 12.40$. These vacancies are in a wide variety of industries and across all levels of educational attainment.

## Sign-On Bonus

Only a very small percentage of vacancies offer a sign on bonus. For this survey, these vacancies are associated with full-time positions in service industries and favor applicants with experience in the occupation as well as a minimum of a Bachelor's degree.

Figure 21: Sign-On Bonus

## Occupations

The distribution of vacancies varies among the 22 major occupational groups. For this survey, nearly $25 \%$ of all vacancies are in the
Healthcare Practitioners \& Technical occupations with an additional 3\% in Healthcare Support occupations. Most of these require a minimum of two years of education. On average, these positions take longer to fill. Food Preparation \& Serving Related and Office \&

Administrative Support together make up over 30\% of the region's vacancies. The majority of these positions do not require post-secondary education and the openings are open less than 30 days. According to the data compiled, there are only limited openings for the higher paid positions in Computer \& Mathematical as well as Architecture \& Engineering occupations.

Figure 22: Proportion of Actual Vacancies by Major Occupational Groups


Occupations with the highest wages are found in the Architecture \& Engineering; Computer \& Mathematical; Life, Physical, \& Social Sciences; Business \& Financial Operations; and Sales \& Related groups. Wage ranges within these groups tend to vary according to the more specific characteristics of the job vacancy. On average, these occupations require higher levels of education and experience. For this survey, only a small percentage of vacancies are found within these higher paid groups. Though vacancies
found within Healthcare Practitioners \& Technical; Installation, Maintenance, \& Repair; Personal Care \& Service; and Construction \& Extraction offer slightly lower wage rates, there are more opportunities available in these occupational groups. A high proportion of vacancies fall within the Food Preparation \& Serving Related as well as Office \& Administrative Support groups. While these vacancies have the fewest education and experience restrictions, they also offer lower pay.

Figure 23: Average Wages by Major Occupational Groups


|  |  |  |  | Occupational Employment Statistics Wage Data(2001) |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Average Wages |  |  | Percentile Distribution |  |  |  |  |
| SOC Code | SOC Occupational Title | $\begin{array}{c\|} \hline \text { Vacancy } \\ \text { Rank } \end{array}$ | Average <br> JVS <br> Wage | Entry- <br> Level | Overall | Experienced | 10th | 25th | 50th | 75th | 90th |
| 11-0000 | Management |  |  | \$15.23 | \$27.84 | \$34.14 | \$11.98 | \$19.26 | \$25.81 | \$33.85 | \$45.60 |
| 11-9111 | Medical and Health Services Managers | L | $\dagger$ | \$27.91 | \$34.42 | \$37.68 | \$25.60 | \$29.46 | \$33.46 | \$39.57 | \$46.43 |
| 11-9199 | Managers, All Other | L | $\dagger$ | \$17.64 | \$26.28 | \$30.60 | \$13.52 | \$22.32 | \$27.93 | \$32.53 | \$35.26 |
| 13-0000 | Business and Financial Operations |  |  | \$11.32 | \$19.04 | \$22.90 | \$9.10 | \$13.45 | \$16.86 | \$23.83 | \$32.02 |
| * 13-1051 | Cost Estimators | L | \$16.80 | \$17.23 | \$24.53 | \$28.19 | \$15.74 | \$18.98 | \$23.82 | \$29.25 | \$34.26 |
| * 13-2082 | Tax Preparers | L | \$11.00 | \$7.53 | \$14.42 | \$17.86 | \$7.02 | \$8.41 | \$11.54 | \$18.00 | \$22.80 |
| 15-0000 | Computer and Mathematical |  |  | \$12.64 | \$24.81 | \$30.89 | \$10.66 | \$15.92 | \$24.50 | \$30.06 | \$46.34 |
| * 15-1071 | Network and Computer Systems Administrators | L | \$20.20 | \$20.76 | \$30.56 | \$35.45 | \$18.83 | \$23.08 | \$28.49 | \$37.12 | \$44.84 |
| 17-0000 | Architecture and Engineering |  |  | \$18.89 | \$31.68 | \$38.08 | \$16.47 | \$22.90 | \$28.99 | \$43.07 | \$53.10 |
| * 17-1022 | Surveyors | L | \$16.00 | \$14.21 | \$18.93 | \$21.29 | \$13.15 | \$15.25 | \$18.11 | \$21.77 | \$26.84 |
| 19-0000 | Life, Physical, and Social Science |  |  | \$13.72 | \$20.31 | \$23.61 | \$12.40 | \$15.41 | \$20.58 | \$25.05 | \$27.50 |
| * 19-3093 | Historians | L | \$16.10 | \$14.63 | \$23.50 | \$27.94 | \$13.14 | \$16.37 | \$22.33 | \$30.32 | \$36.28 |
| 21-0000 | Community and Social Services |  |  | \$8.95 | \$15.76 | \$19.17 | \$6.80 | \$11.26 | \$15.17 | \$20.33 | \$25.89 |
| 21-1029 | Social Workers, All Other | M | \$10.90 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ |  |
| * 21-2011 | Clergy | L | $\dagger$ | \$11.05 | \$17.82 | \$21.21 | \$9.85 | \$12.70 | \$17.35 | \$21.38 | \$28.05 |
| * 21-2021 | Directors, Religious Activities and Education | L | \$16.80 | \$12.25 | \$15.72 | \$17.46 | \$10.31 | \$14.23 | \$15.59 | \$16.97 | \$21.46 |
| 21-2099 | Religious Workers, All Other | L | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ |  |
| 25-0000 | Education, Training, and Library |  |  | \$10.07 | \$15.69 | \$18.49 | \$8.22 | \$12.03 | \$15.55 | \$19.65 | \$23.20 |
| 25-2021 | Elementary School Teachers, Except Special Education | M | \$13.40 | \$12.64 | \$17.08 | \$19.30 | \$12.02 | \$13.49 | \$16.44 | \$20.46 | \$24.26 |
| 25-3099 | Teachers and Instructors, All Other | L | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ |  |
| 25-9041 | Teacher Assistants | H | \$9.10 | \$6.95 | \$8.87 | \$9.83 | \$6.44 | \$7.32 | \$8.50 | \$10.32 | \$11.95 |
| 27-0000 | Arts, Design, Entertainment, Sports, and Media |  |  | \$8.77 | \$14.05 | \$16.70 | \$6.80 | \$10.53 | \$13.09 | \$16.86 | \$23.32 |
| * 27-1023 | Floral Designers | L | $\dagger$ | \$8.12 | \$10.37 | \$11.49 | \$7.48 | \$8.83 | \$10.14 | \$11.34 | \$14.12 |

[^1]H - highest $25 \%$ of actual responses

|  |  |  |  | Occupational Employment Statistics Wage Data(2001) |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Average Wages |  |  | Percentile Distribution |  |  |  |  |
| $\begin{aligned} & \text { SOC } \\ & \text { Code } \end{aligned}$ | SOC Occupational Title | Vacancy Rank | Average JVS Wage | EntryLevel | Overall | Experienced | 10th | 25th | 50th | 75th | 90th |
| * 27-2022 | Coaches and Scouts | L | \$12.20 | \$8.07 | \$14.23 | \$17.31 | \$6.79 | \$9.37 | \$12.18 | \$17.95 | \$24.40 |
| 29-0000 | Healthcare Practitioners and Technical |  |  | \$12.71 | \$20.28 | \$24.08 | \$11.64 | \$14.43 | \$19.46 | \$25.82 | \$31.63 |
| 29-1111 | Registered Nurses | H | \$15.75 | \$17.16 | \$21.24 | \$23.27 | \$15.30 | \$18.87 | \$21.40 | \$24.39 | \$27.28 |
| * 29-1123 | Physical Therapists | M | $\dagger$ | \$20.74 | \$25.47 | \$27.84 | \$19.28 | \$22.37 | \$25.08 | \$27.77 | \$32.93 |
| * 29-1126 | Respiratory Therapists | M | $\dagger$ | \$14.47 | \$17.60 | \$19.17 | \$13.53 | \$15.29 | \$17.77 | \$20.23 | \$21.72 |
| * 29-2034 | Radiologic Technologists and Technicians | M | $\dagger$ | \$14.12 | \$18.12 | \$20.11 | \$13.09 | \$15.43 | \$18.25 | \$20.89 | \$23.10 |
| * 29-2041 | Emergency Medical Technicians and Paramedics | L | + | \$9.80 | \$13.72 | \$15.68 | \$9.44 | \$10.45 | \$12.50 | \$15.99 | \$20.66 |
| 29-2061 | Licensed Practical and Licensed Vocational Nurses | H | + | \$12.42 | \$15.41 | \$16.90 | \$10.52 | \$14.23 | \$15.77 | \$17.19 | \$19.60 |
| * 29-2071 | Medical Records and Health Information Technicians | L | $\dagger$ | \$9.97 | \$13.49 | \$15.25 | \$9.23 | \$11.04 | \$12.84 | \$15.62 | \$19.39 |
| 31-0000 | Healthcare Support |  |  | \$7.74 | \$9.11 | \$9.80 | \$7.34 | \$7.94 | \$8.93 | \$10.11 | \$10.85 |
| * 31-1012 | Nursing Aides, Orderlies, and Attendants | H | \$8.30 | \$7.94 | \$9.97 | \$10.99 | \$7.52 | \$8.64 | \$9.93 | \$11.24 | \$13.00 |
| 33-0000 | Protective Service Occupations |  |  | \$13.31 | \$17.65 | \$19.82 | \$11.73 | \$15.17 | \$17.74 | \$20.69 | \$23.64 |
| 33-3012 | Correctional Officers and Jailers | M | \$12.30 | \$15.01 | \$17.61 | \$18.90 | \$14.37 | \$15.58 | \$17.62 | \$20.01 | \$21.45 |
| 33-3051 | Police and Sheriff's Patrol Officers | M | \$12.50 | \$14.54 | \$19.95 | \$22.66 | \$13.69 | \$16.22 | \$20.17 | \$24.13 | \$26.70 |
| 35-0000 | Food Preparation and Serving Related |  |  | \$6.01 | \$8.21 | \$9.32 | \$5.65 | \$6.14 | \$6.94 | \$8.61 | \$12.36 |
| * 35-2011 | Cooks, Fast Food | M | \$7.20 | \$6.03 | \$8.32 | \$9.46 | \$5.82 | \$6.49 | \$8.04 | \$10.08 | \$11.78 |
| 35-2014 | Cooks, Restaurant | H | \$23.20 | \$7.67 | \$8.67 | \$9.18 | \$7.11 | \$7.49 | \$8.13 | \$8.90 | \$10.41 |
| * 35-2015 | Cooks, Short Order | M | $\dagger$ | \$6.27 | \$8.03 | \$8.90 | \$5.93 | \$6.79 | \$7.94 | \$9.27 | \$10.57 |
| * 35-3011 | Bartenders | M | $\dagger$ | \$6.00 | \$7.90 | \$8.85 | \$5.68 | \$6.19 | \$7.16 | \$9.35 | \$11.34 |
| 35-3021 | Combined Food Preparation and Serving Workers, Including Fast Food | L | \$6.90 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | + | $\dagger$ | $\dagger$ |
| 35-3031 | Waiters and Waitresses | H | \$6.30 | \$5.98 | \$6.06 | \$6.11 | \$5.46 | \$5.72 | \$6.14 | \$6.56 | \$6.81 |
| * 35-3041 | Food Servers, Nonrestaurant | H | \$13.40 | \$6.11 | \$8.67 | \$9.95 | \$5.85 | \$6.63 | \$8.40 | \$10.50 | \$12.47 |

$\ddagger$ L- lowest $25 \%$ of actual responses H - highest $25 \%$ of actual responses

OES wages reported for Colorado statewide
No wage data available
*
$\dagger$

|  |  |  |  | Occupational Employment Statistics Wage Data(2001) |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Average Wages |  |  | Percentile Distribution |  |  |  |  |
| SOC Code | SOC Occupational Title <br> Dining Room and Cafeteria Attendants and | Vacancy Rank | Average JVS Wage | EntryLevel | Overall | Experienced | 10th | 25th | 50th | 75th | 90th |
| * 35-9011 |  | L | \$6.00 | \$6.01 | \$7.07 | \$7.59 | \$5.65 | \$6.11 | \$6.87 | \$7.95 | \$8.67 |
| 37-0000 | Building and Grounds Cleaning and Maintenance |  |  | \$6.93 | \$9.46 | \$10.73 | \$6.33 | \$7.34 | \$8.40 | \$10.95 | \$14.86 |
| 37-2012 | Maids and Housekeeping Cleaners | M | $\dagger$ | \$6.92 | \$7.58 | \$7.92 | \$6.42 | \$7.13 | \$7.70 | \$8.26 | \$8.61 |
| 39-0000 | Personal Care and Service Occupations |  |  | \$6.05 | \$8.67 | \$9.97 | \$5.81 | \$6.57 | \$7.66 | \$8.62 | \$13.43 |
| * 39-6021 | Tour Guides and Escorts | H | $\dagger$ | \$9.29 | \$12.80 | \$14.54 | \$7.77 | \$11.31 | \$13.43 | \$15.45 | \$16.79 |
| * 39-9031 | Fitness Trainers and Aerobics Instructors | M | $\dagger$ | \$8.29 | \$14.57 | \$17.70 | \$7.54 | \$9.34 | \$13.06 | \$18.00 | \$25.53 |
| 39-9032 | Recreation Workers | L | \$6.80 | \$6.40 | \$10.06 | \$11.89 | \$5.94 | \$6.89 | \$8.39 | \$11.62 | \$18.86 |
| 41-0000 | Sales and Related Occupations |  |  | \$5.94 | \$11.37 | \$14.08 | \$5.58 | \$6.08 | \$7.00 | \$10.90 | \$22.87 |
| 41-2011 | Cashiers | L | \$7.10 | \$5.98 | \$7.35 | \$8.04 | \$5.71 | \$6.31 | \$7.30 | \$8.36 | \$9.56 |
| 41-2031 | Retail Salespersons | L | \$21.60 | \$5.93 | \$8.63 | \$9.99 | \$5.47 | \$5.81 | \$6.37 | \$7.48 | \$11.32 |
| 43-0000 | Office and Administrative Support |  |  | \$7.12 | \$11.51 | \$13.70 | \$6.54 | \$7.92 | \$10.20 | \$14.12 | \$18.52 |
| 43-1011 | First-Line Supervisors/Managers of Office and Administrative Support Workers | M | \$12.40 | \$11.95 | \$16.88 | \$19.34 | \$10.55 | \$14.02 | \$15.91 | \$18.81 | \$25.94 |
| 43-3031 | Bookkeeping, Accounting, and Auditing Clerks | L | \$17.38 | \$7.75 | \$13.24 | \$16.00 | \$7.31 | \$8.54 | \$11.40 | \$15.63 | \$23.33 |
| * 43-3071 | Tellers | M | $\dagger$ | \$8.72 | \$10.53 | \$11.44 | \$8.03 | \$9.17 | \$10.35 | \$11.94 | \$13.53 |
| * 43-4081 | Hotel, Motel, and Resort Desk Clerks | L | $\dagger$ | \$7.40 | \$9.21 | \$10.12 | \$7.04 | \$8.03 | \$9.31 | \$10.46 | \$11.23 |
| 43-4171 | Receptionists and Information Clerks | H | $\dagger$ | \$6.53 | \$8.54 | \$9.54 | \$6.02 | \$7.05 | \$8.53 | \$10.08 | \$11.07 |
| 43-5081 | Stock Clerks and Order Fillers | L | \$6.00 | \$6.16 | \$10.38 | \$12.49 | \$5.96 | \$6.68 | \$8.24 | \$14.66 | \$19.60 |
| * 43-6013 | Medical Secretaries | L | \$7.75 | \$9.46 | \$11.75 | \$12.90 | \$8.98 | \$9.88 | \$11.30 | \$13.44 | \$15.81 |
| 43-6014 | Secretaries, Except Legal, Medical, and Executive | H | \$11.20 | \$6.23 | \$9.79 | \$11.56 | \$6.05 | \$6.83 | \$8.98 | \$11.36 | \$16.29 |
| 43-9061 | Office Clerks, General | M | \$7.00 | \$6.04 | \$8.64 | \$9.93 | \$5.79 | \$6.47 | \$8.35 | \$10.33 | \$12.15 |
| 47-0000 | Construction and Extraction |  |  | \$9.94 | \$15.23 | \$17.87 | \$9.18 | \$11.05 | \$14.87 | \$18.68 | \$21.73 |

[^2] H - highest $25 \%$ of actual responses

[^3]|  |  |  |  | Occupational Employment Statistics Wage Data(2001) |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Ave | rage Wa | ges |  | ercenti | Distr | ution |  |
| SOC Code | SOC Occupational Title | $\begin{gathered} \text { Vacancy } \\ \text { Rank } \end{gathered}$ | Average JVS <br> Wage | EntryLevel | Overall | Experienced | 10th | 25th | 50th | 75th | 90th |
| 47-2031 | Carpenters | M | $\dagger$ | \$15.86 | \$18.41 | \$19.68 | \$13.04 | \$18.13 | \$19.51 | \$20.87 | \$21.69 |
| 47-2061 | Construction Laborers | M | \$10.20 | \$9.34 | \$11.97 | \$13.28 | \$8.88 | \$9.84 | \$11.77 | \$14.15 | \$16.17 |
| * 47-2121 | Glaziers | L | $\dagger$ | \$11.84 | \$18.58 | \$21.94 | \$10.18 | \$13.91 | \$19.18 | \$23.92 | \$26.57 |
| 47-4051 | Highway Maintenance Workers | H | \$13.00 | \$12.85 | \$15.93 | \$17.48 | \$11.77 | \$14.17 | \$15.88 | \$17.54 | \$20.93 |
| 49-0000 | Installation, Maintenance, and Repair |  |  | \$9.73 | \$17.12 | \$20.81 | \$8.84 | \$11.26 | \$16.05 | \$24.21 | \$27.24 |
| * 49-3023 | Automotive Service Technicians and Mechanics | H | \$19.37 | \$10.45 | \$17.96 | \$21.71 | \$9.04 | \$12.14 | \$16.83 | \$21.98 | \$27.99 |
| 49-3031 | Bus and Truck Mechanics and Diesel Engine Specialists | M | $\dagger$ | \$12.73 | \$16.68 | \$18.66 | \$12.13 | \$13.62 | \$15.54 | \$17.52 | \$25.51 |
| 49-9099 | Installation, Maintenance, and Repair Workers, All Other | M | $\dagger$ | \$9.34 | \$15.12 | \$18.01 | \$7.77 | \$11.38 | \$13.21 | \$22.59 | \$25.95 |
| 51-0000 | Production |  |  | \$6.37 | \$10.85 | \$13.09 | \$6.05 | \$6.94 | \$9.25 | \$12.67 | \$20.12 |
| * 51-8031 | Water and Liquid Waste Treatment Plant and System Operators | L | $\dagger$ | \$12.90 | \$18.00 | \$20.54 | \$11.93 | \$14.23 | \$17.94 | \$21.34 | \$25.04 |
| 53-0000 | Transportation and Material Moving |  |  | \$8.39 | \$12.35 | \$14.33 | \$6.95 | \$9.60 | \$11.98 | \$15.19 | \$17.46 |
| 53-3033 | Truck Drivers, Light or Delivery Services | H | \$9.10 | \$9.09 | \$11.61 | \$12.86 | \$8.42 | \$10.29 | \$12.09 | \$13.29 | \$14.06 |
| 53-7064 | Packers and Packagers, Hand | M | $\dagger$ | \$8.09 | \$8.09 | \$8.09 | \$7.45 | \$7.73 | \$8.20 | \$8.68 | \$8.95 |
| * OES wages reported for Colorado statewide <br> $\dagger$ No wage data available |  | L - lowest $25 \%$ of actual responses M - middle $50 \%$ of actual responses H - highest $25 \%$ of actual responses |  |  |  |  |  |  |  |  |  |

## 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

Our 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 to fill

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

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 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 persons 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

Persons 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, bachelors, 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 persons 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. Persons who did not look for work because they were on temporary layoff or waiting to start new jobs within the next thirty 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]:    | | JVS Wage - Average Minimum / Average Maximum

[^1]:    $\ddagger \quad \mathrm{L}$ - lowest $25 \%$ of actual responses
    M - middle 50\% of actual responses

[^2]:    $\ddagger \quad$ L - lowest $25 \%$ of actual responses

[^3]:    OES wages reported for Colorado statewide No wage data available

