

# Denver Metro

## Job Vacancy Survey

March 2003

**ADAMS COUNTY**

Training & hands assistance in janitorial services. Must be willing to work with no over night have extensive supervising office age & industrial projects. Preference given to individuals living in the Colorado area. Salary: \$2450.00 to \$2600.00 DOE. Benefits & Vehicle. Background check req. Call 303-922-8922 or cell 303-922-9728 for office location.

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**LANDSCAPE ESTIMATOR**  
Must be fam w/cont admin. & take-off. min 5yrs exp. sal. + profit sharing bene. w/raiser Sam SaBell @303.921.3641 or 303.203.9228

**LANDSCAPE TRUCK DRIVER**  
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Cherry Creek Law Firm specializing in estate planning & probate. No prior legal exp nec. Good phone & English skills a must. Fax resume w/cover letter & salary req to 303.420-0034.

**LEGAL** Rapidly growing SE collection Law Firm needs a legal secretary w/CA Civil Lit. exp. 2-3yrs. Org. skills, team

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Mature exp fast to Broomfield area \$36k DOE, ins. 480-632-1711

**Manager Self S**  
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**Mechanic**  
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Fast growing Denver firm seeking associated to entry level Management position. Background in public contact such as bartending, teaching, or restaurant mgmt. is helpful. Exc. benes, call 720-298-1070 720-275-847

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84th Ave. Commerce City, Co. 80022 or fax resume Attn Perry Bourgeois at 303-287-7491.

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**LOAN OFFICERS**  
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Establ. Cherry Creek co. seeks LO's to work from home. Highest unit in

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**RECEPTION/ GEN OF**  
Immed FT opening for person bi-lingual Span/Eng For reception & gen Ofc duties for general contractor located Golden, MS Wood 8-15

col req. Human Resource exp. helpful. Resume to (303)279-0900

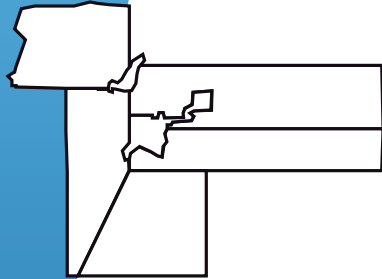
**RECEPTIONIST**  
Full time position 35 40 hours a week.

Counties — Adams  
Arapahoe  
Boulder  
Broomfield  
Denver  
Douglas & Jefferson



Workforce Research & Analysis  
Labor Market Information  
Colorado Department of Labor and Employment





# Denver Metro Job Vacancy Survey

*Conducted  
November 6–December 5, 2002*

**State of Colorado**

Bill Owens, *Governor*

**Colorado Department of Labor & Employment**

Jeffrey M. Wells, *Executive Director*

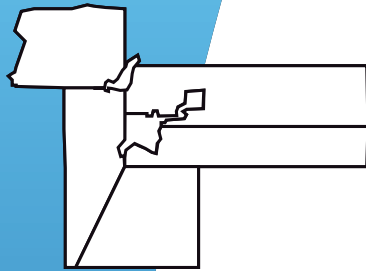
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March 2003



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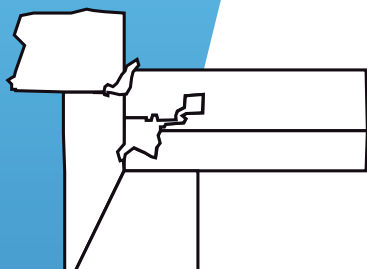
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The staff of Workforce Research and Analysis would like to extend sincerest gratitude to all area employers who participated in this study. The analysis provided in this document would not be possible without their help.



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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*—

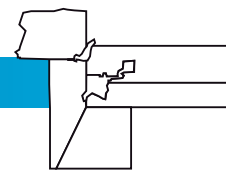
A firm may also choose to increase investment in training for their current employees instead of expanding recruitment efforts.

#### ◆ *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 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/lmi/oeo/oeo.htm](http://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

The 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.

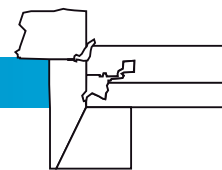
The study provides estimates of job openings for a point-in-time; they do not necessarily portray the distribution of job vacancies in the region. This report does not attempt to explain the cause of vacancies—whether these current vacancies are due to actual growth or to job turnover in an occupation. 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 Fall 2002 Denver Metro Region Job Vacancy Survey (JVS) was conducted from November 6th through December 5th, 2002. The goal of the survey is to provide current information on the demand for workers so that job seekers, economic developers, educators and workforce centers can make informed decisions about the current job market in the region.

Over the survey period, all large and government employers as well as a random sample of small to mid-size employers with at least 5 employees in the Denver Metro Region were contacted. Employers were asked if they were actively hiring at the time of the survey, and a variety of questions about their current open positions.

A total of 3,880 employers representing 30% of the region's total employment responded to the survey. Of these, 250 are government agencies, 346 are large employers, and the remaining 3,284 are small to mid-sized firms. The survey had a response rate of 78% and a cooperation rate of 99.5%.

Survey results found existing job market conditions to be much softer than those that existed a year earlier. The number of estimated vacancies in this survey is less than half of those estimated in the Fall 2001 JVS. Other major findings of the survey include the following:

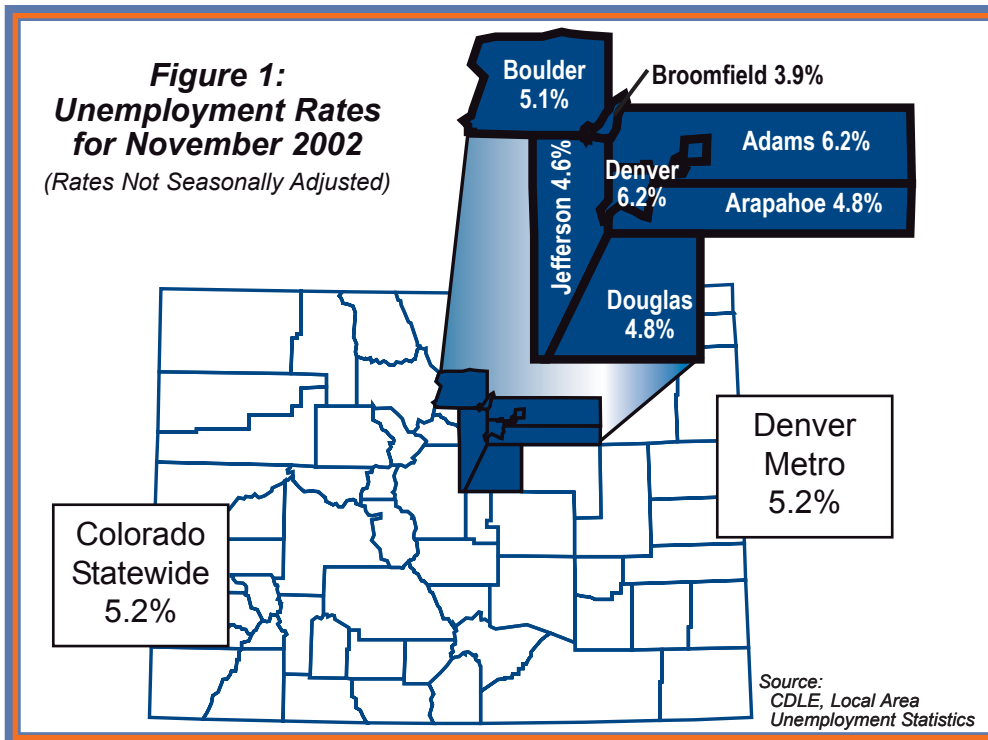
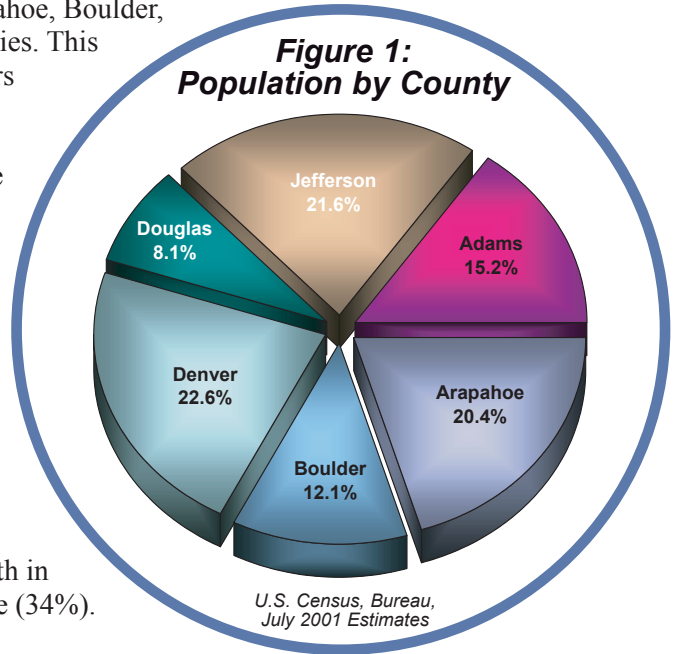
- ◆ An estimated 11,200 vacancies were open for immediate hire in the Denver Metro Region during the survey period compared with 26,400 a year ago.
- ◆ Eleven percent of the employers responding reported at least one vacancy.
- ◆ Firms with less than 250 employees account for a little over half of the estimated vacancies.
- ◆ The number of estimated vacancies is lower across all industries compared to the fall of 2001 except in Transportation, Communications and Public Utilities.
- ◆ Denver County has the greatest number of estimated vacancies while Douglas County has the least.
- ◆ Employers are seeking to fill the majority of their openings with full-time permanent employees.
- ◆ Employers' educational requirements for open positions have remained almost unchanged compared to the Fall 2001 JVS.
- ◆ More employers are seeking specialized experience in the vacant occupation compared to last year's survey.
- ◆ Employers consider 70% of the vacancies not difficult to fill compared to 28% a year earlier.
- ◆ Almost 70% of the vacancies are open for less than 30 days compared to 27% in the fall of 2001.
- ◆ Eighty-five percent of the vacancies reported by employers include some form of medical insurance.

# Denver Metro Region

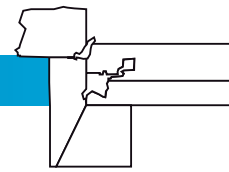
The Denver Metro Region consists of Adams, Arapahoe, Boulder, Broomfield, Denver, Douglas, and Jefferson counties. This region grew from six to seven counties when voters approved the incorporation of the City and County of Broomfield in November 2001. Most of the area involved was already in the Denver Metro Region. Until a complete census of that new county's employers is compiled, Broomfield will continue to be surveyed and reported on as part of the Boulder area for the purposes of this report.

More than half of Colorado's population lives in this seven-county region. The 2.46 million people residing within its boundaries represented 56% of all Coloradoans in July of 2001, according to the U.S. Census Bureau's estimates for that time. Within this seven-county region, Arapahoe, Denver, and Jefferson counties together are home to almost two-thirds of the region's residents. Since 1990, the 33% population growth in this region closely approached that of the state as a whole (34%).

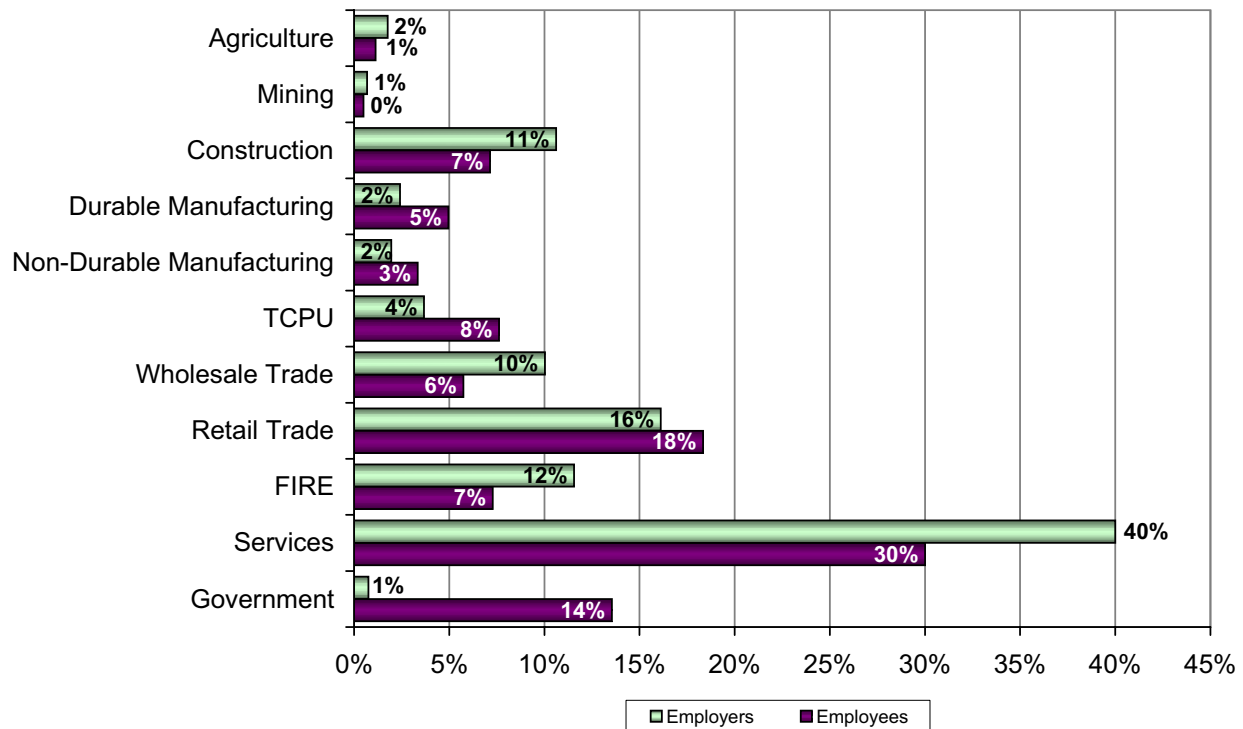
The area employed 1,305,935 individuals from a labor force of 1,378,118 in November 2002, according to Colorado's Labor Market Information, Local Area Unemployment Statistics. Between November 2001 and November 2002 the region's labor force increased by almost 17,400 people and employment increased by almost 11,500 jobs. Unemployment between the two periods increased from 4.9% to 5.2%.



Higher unemployment rates recorded at the end of 2001, however, seem to have peaked and stabilized in the first quarter of 2002. The sharp decline in the unemployment rate in April and May was followed by a temporary spike in June due to labor force expansion. At 6.2%, both Adams and Denver counties were highest in unemployment while Broomfield County had the smallest unemployment rate among all counties in the region at 3.9%.



**Figure 3: Denver Metro Employers and Employees (4th Quarter 2001)**



Agriculture includes Forestry and Fishing  
 FIRE—Finance, Insurance, and Real Estate  
 TCPU—Transportation, Communication and Public Utilities

Source: Colorado Employment and Wages (ES-202)

As with the rest of the state, the economy of the Denver Metro Region consists predominantly of Services and Retail Trade businesses as shown in *Figure 3*. Combined, employers in these two industries make up 56% of the region’s total employers and 48% of the employment.

Manufacturing, of both durable and non-durable goods, accounts for 8% of the region’s employment. Activities in this industry have subsided recently as a result of the current economic slowdown. Agriculture and Mining continue to be the smallest industries in both employment size and number of employers.

**Figure 4: Employment & Labor Force Trends for the Denver Metro Region**

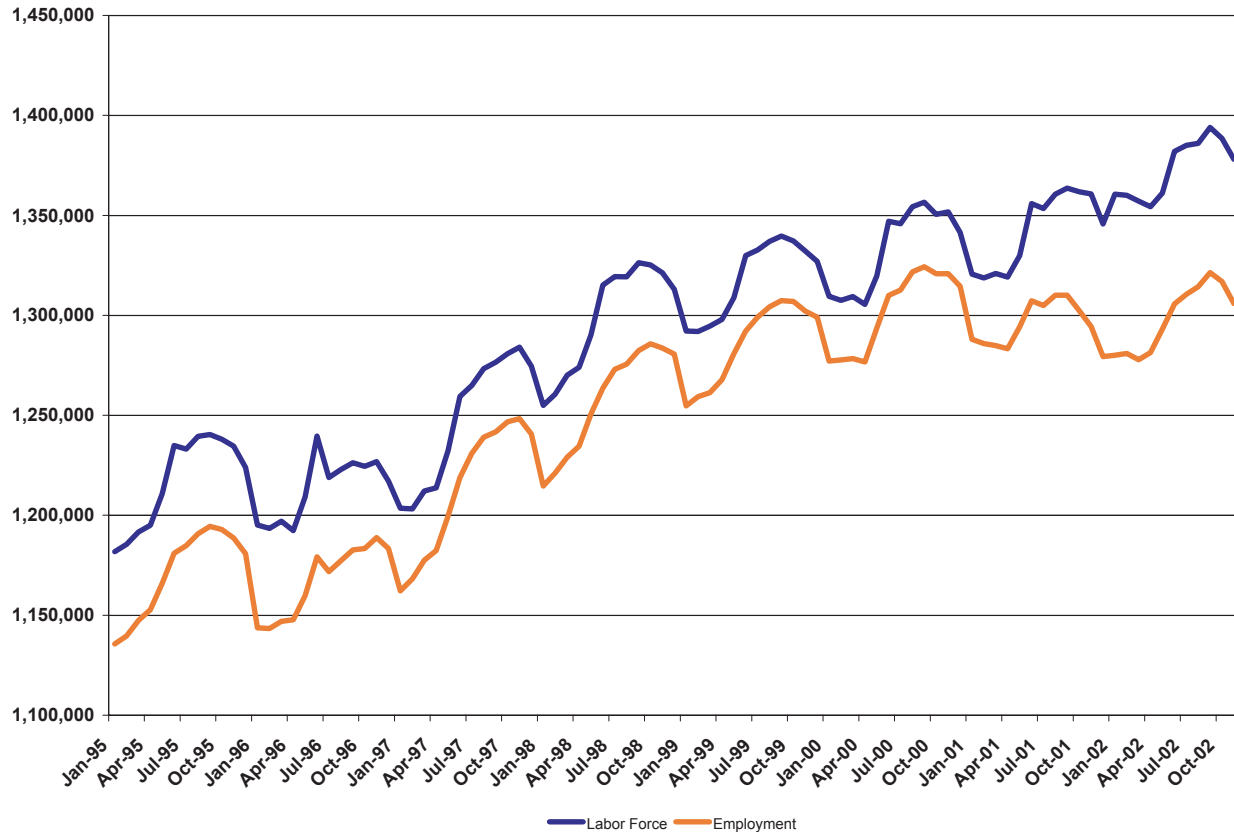


Figure 4 shows a 7-year history of both the region's labor force and employment levels between April 1995 and November 2002. Several different conclusions may be drawn from this graph:

◆ **The rising trend lines demonstrate that both labor force and employment levels have grown since 1995.**

From November 1995 to November 2002, employment in the Denver Metro Region increased by 9.9%, compared to 12.4% increase in the state employment for the same period. The employment level in the Denver Metro Region reached its cyclical peak in late 2000. Since then the region has experienced lower employment levels and higher unemployment rates.

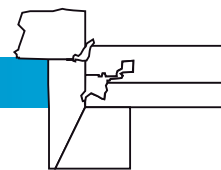
◆ **The graph also illustrates unemployment trends.**

The unemployment level is represented by the space between the labor force and employment series on the graph.

The widening gap between the lines in most recent months reflects the rise in unemployment resulting from the recent economic slowdown. The number of unemployed people in the region grew from 45,983 in November 1995 to reach 72,183 by November 2002.

◆ **In addition, Figure 4 demonstrates the region's seasonal trends.**

Both employment and labor force reach their lowest levels in January and peak in or around the month of October. Employers are contacted semi-annually in the spring and fall in order to measure the demand for labor at intervals that provide the most useful information. Surveys conducted in the spring represent the demand for labor at the time of the year when employment is expanding. Vacancies found in the fall survey reflect the demand for labor at a time when employment is at or nearing its peak, yet employers are still in the process of recruiting.



## The Job Vacancy Survey Sample

The Fall 2002 Denver Metro JVS was conducted from November 6th through December 5th, 2002. For the purpose of this report, all employers in the region with five or more employees are referred to as the sample universe.

The survey separates employers into either government or private industry categories. Private firms are

grouped by employment level into either large or small to mid-size categories. Attempts were made to contact each large employer and government agency in the region. Small to mid-size firms are further divided by both industry and county and randomly sampled until a representative response is obtained for each category. *Table 1* below reflects a breakdown of these.

**Table 1: Small to Mid-Size Response Requirements**

Major Industry	Adams	Arapahoe	Boulder	Denver	Douglas	Jefferson	Total Denver Metro
Agriculture				60			60
Mining				60			60
Construction	60	60	60	60	60	60	360
Manufacturing, Non-Durable	60	60	60	60	14	60	314
Manufacturing, Durable	60	60	60	60	26	60	326
Transportation, Communications, and Public Utilities	60	60	60	60	28	60	328
Trade, Wholesale	60	60	60	60	50	60	350
Trade, Retail	60	60	60	60	60	60	360
Finance, Insurance, and Real Estate	60	60	60	60	60	60	360
Services	60	60	60	60	60	60	360
<b>Government &amp; Large Employers</b>	<b>Census</b>						<b>362</b>
<b>Micro Employers</b>	<b>Vacancy Index</b>						

Small to Mid-Size

Large

Micro

Government makes up 12% of the total regional employment. Private industry employers make up the remaining 88%. Employers with at least 250 employees are referred to as large employers. They account for about 20% of the total employment in the region. Firms employing five to 249 individuals are considered small to mid-size employers and account for 58% of employment. Micro employers, with fewer than five employees, account for the remaining 10% of the employment.

For the small to mid-size employers, the survey was grouped by both county and major industry. The sample was designed to achieve a solid representation from each industry group. A completed response from 60 employers per county per industry was targeted, for

a maximum of 360 responses per industry. In groups with too few employers to reach this target, a response from 50% of the employers was targeted. Attempts were made to contact all employers in the large and government categories in the region. Also, an index was developed to estimate the vacancy rates of employers with fewer than five employees. This index was used to enhance the vacancy estimates.

Over the survey period a total of 3,880 employers responded to the survey. Out of these, 346 were large, 250 were government, and 3,284 were small to mid-size. Overall, 30% of the Denver Metro Region employers with five or more employees responded.

## Data Collection

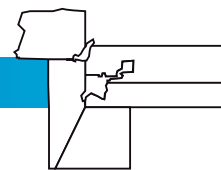
Data for the Job Vacancy Survey are collected using a Computer Assisted Telephone Interview (CATI) process. While this system of data collection has been in use in the public sector for several years, Colorado is the first state in the nation to pioneer the use of CATI data collection for the Job Vacancy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

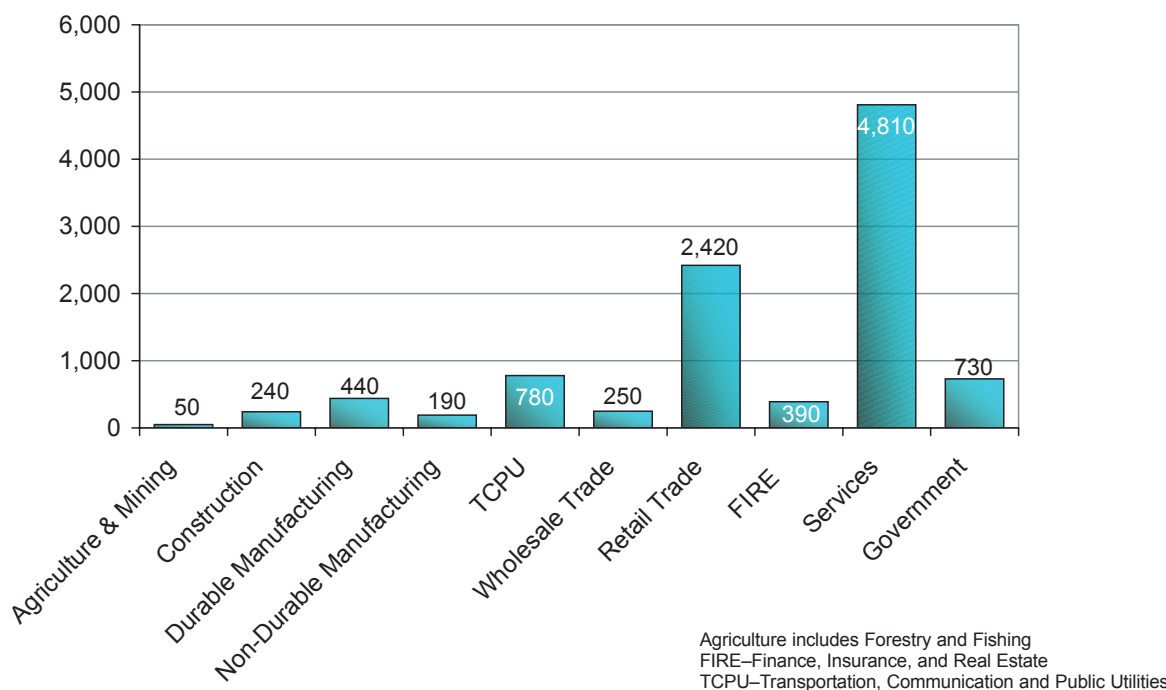


## Vacancies: Industry, County, Size and Status

An estimated 11,200 vacancies were open for immediate hire in the Denver Metro Region during the survey period. It is widely believed that softer labor market conditions are the main reason behind the large decline in vacancies between the two surveys, however, a two and a half week delay in conducting the survey this year may have resulted in missing a big portion of Retail Trade and Services vacancies.

Both the Services and Retail Trade industries show the greatest number of job openings (*see Figure 5*). Vacancies in the Services industry decreased by 35% compared to the fall of 2001 while those in Retail Trade decreased by 63%. These two industries combined account for 64% of the employers, 65% of the employment, and 70% of the vacancies<sup>1</sup> in the Denver Metro Region.

**Figure 5: Estimated Vacancies by Industry Group**



Within the Services industry, healthcare accounts for 56% of the vacancies and achieved the highest vacancy rate of 3.1%. The majority of open healthcare jobs include: registered nurses; medical secretaries; radiologic technologists and technicians; nursing aides, orderlies, and attendants; licensed practical and licensed vocational nurses; and medical assistants. See *Table 3*, page 28.

Transportation, Communication and Public Utilities is the only industry actively recruiting more than in the fall 2001 survey. This industry, with almost 8% of the estimated vacancies ranks third behind Retail Trade and Services. The increased vacancies within

the industry are most likely due to large construction projects currently undertaken such as the T-REX project and light rail expansion. Government agencies, on the other hand, account for 7% of the vacancies and rank fourth among all industries. Budget deficits in state and local governments and a hiring freeze for state agencies contributed to government's 69% drop in the number of estimated vacancies between fall of 2001 and the current survey. Vacancies in Government include occupations such as: teacher assistants; food preparation and serving related workers; industrial truck and tractor operators; fire fighters; registered nurses; and security guards.

<sup>1</sup>Total vacancies by industry group does not include total vacancies for micro employers (900 vacancies).

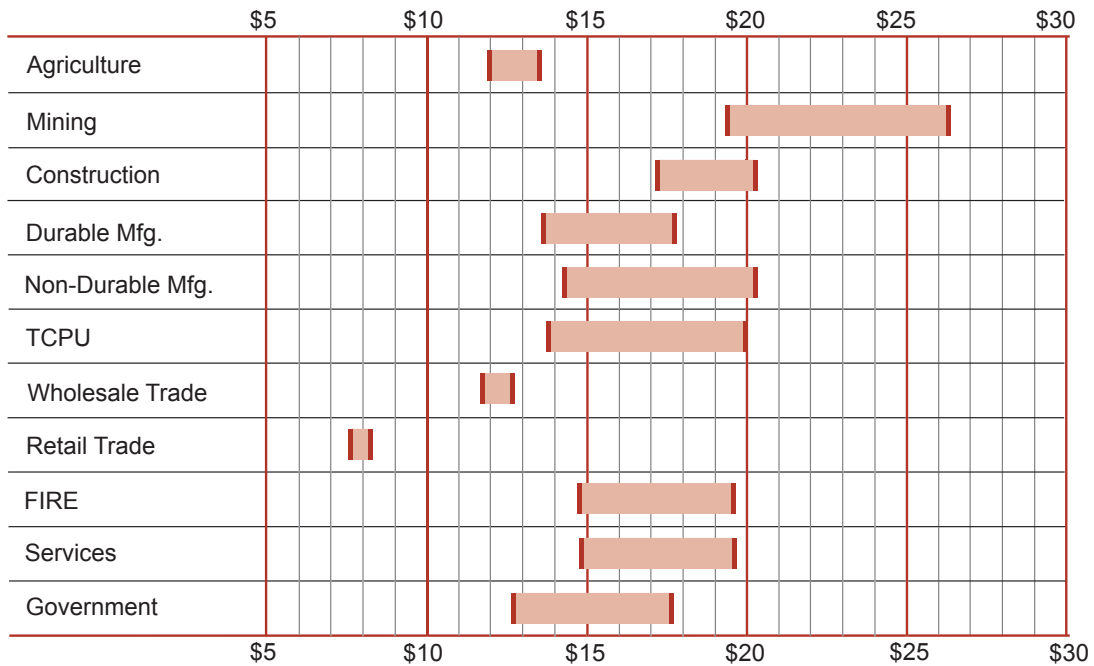
Wages reflect labor force supply and demand along with the skill and experience requirements for occupations. Forty-three percent of the vacancies reported were accompanied by wage information. The overall average wage in this survey is \$16.10.

The highest wages in the Denver Metro Region are reported in the Mining and Construction industries. The highest paying occupations within these two industries are electricians and construction managers. High average wages are also offered in the following industries: Government; Services; Non-Durable Manufacturing; Transportation, Communications and Public Utilities; Finance, Insurance and Real Estate. The highest wage

offerings within these industries are for occupations such as: medical and health services managers; family and general practitioners; sales managers; and computer and information systems managers.

As expected, because of low educational and experience requirements, the Retail Trade, industry offers the lowest average wages in the region. This industry has a high concentration of low paid occupations such as: waiters and waitresses; cashiers; retail salespersons; light or delivery services truck drivers; and hand packers and packagers. The highest paid vacancies within this industry are for first-line supervisors/managers of office and administrative support workers.

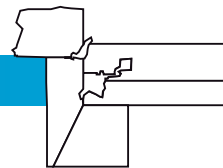
**Figure 6: Average Wages by Industry Group**



■ JVS Wage - Average Minimum / Average Maximum

Agriculture includes Forestry and Fishing  
 FIRE—Finance, Insurance, and Real Estate  
 TCPU—Transportation, Communication and Public Utilities

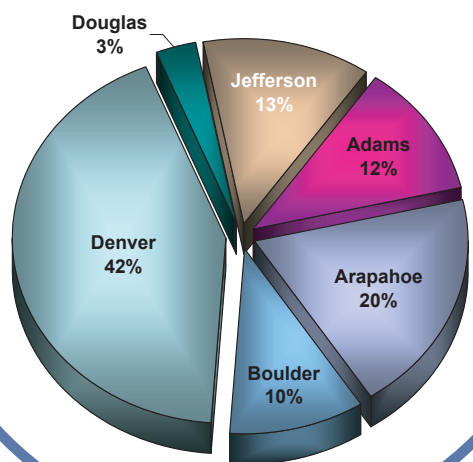




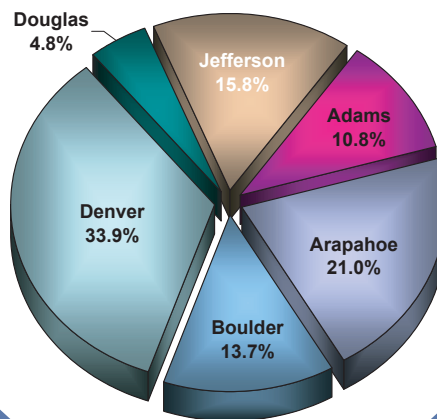
The ratio of job openings to current employment is highest in Denver, Adams and Arapahoe counties with Denver at 1.4%, Adams at 1.1% and Arapahoe at 1%. This ratio, known as the vacancy rate, declined across all counties between the fall 2001 survey and this current survey.

Denver, Arapahoe and Jefferson counties together account for 75% of the estimated vacancies. Douglas County accounts for the smallest share of estimated vacancies. As shown in Figures 7a and 7b, employment and vacancies by county in the fourth quarter of 2001 follow a very similar pattern.

**Figure 7a:  
Vacancies by County**

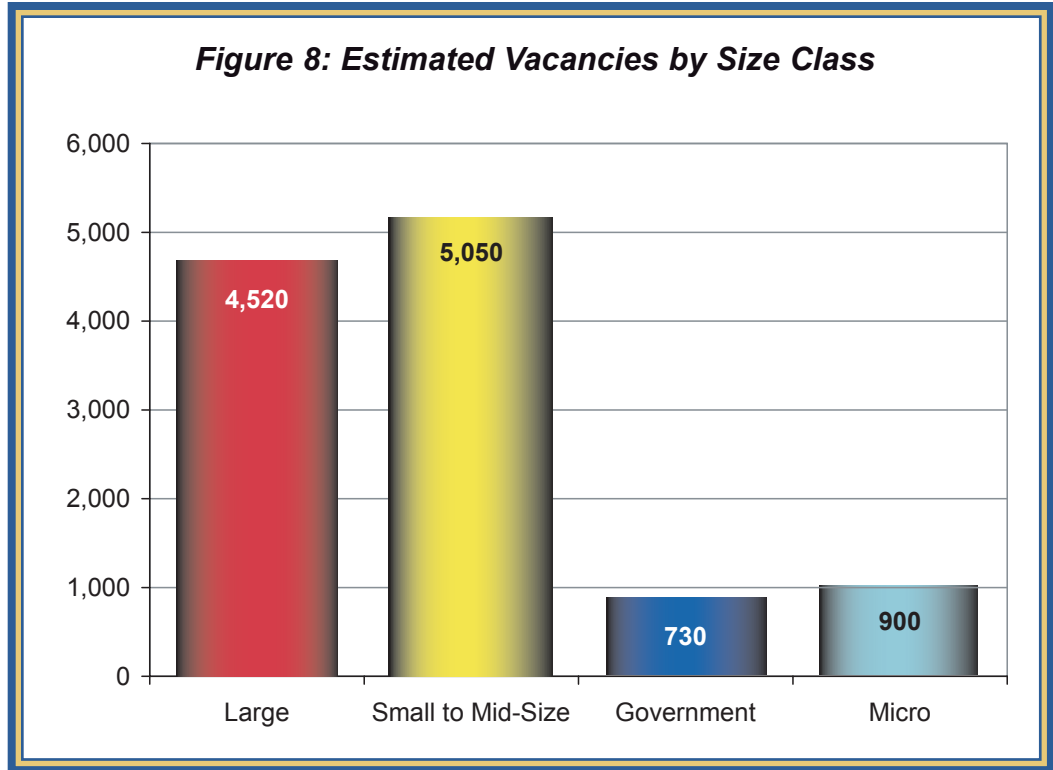


**Figure 7b:  
Total Employment  
by County**



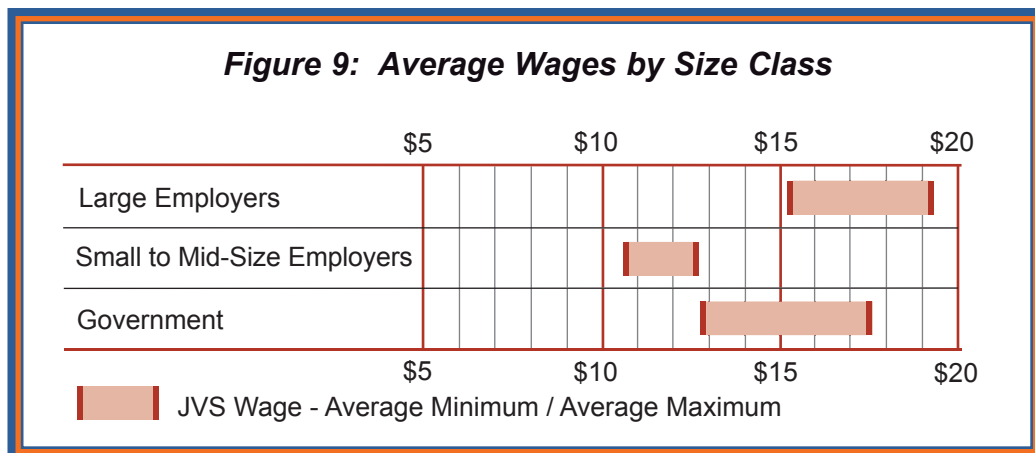
Source: CDLE, LMI, ES-202

In this survey, small to mid-size employers account for 45% of the estimated vacancies. This group of employers also account for the largest decline in the estimated vacancies compared to the Fall 2001 JVS. The vacancy rate for this category of employers dropped from 1.6% in the fall of 2001 to 0.4% this survey period. This represents a drop of more than 8,000 vacancies since fall of 2001. Small to mid-size employers, however, still account for the largest number of vacancies compared to other employer class sizes.



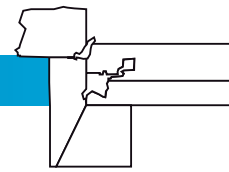
Large employers account for 40% of the estimated vacancies in this survey. The 1.7% vacancy rate for this category of employer is the highest among all

employer sizes. Government and micro employers have the least numbers of estimated vacancies, accounting for a combined 15%.



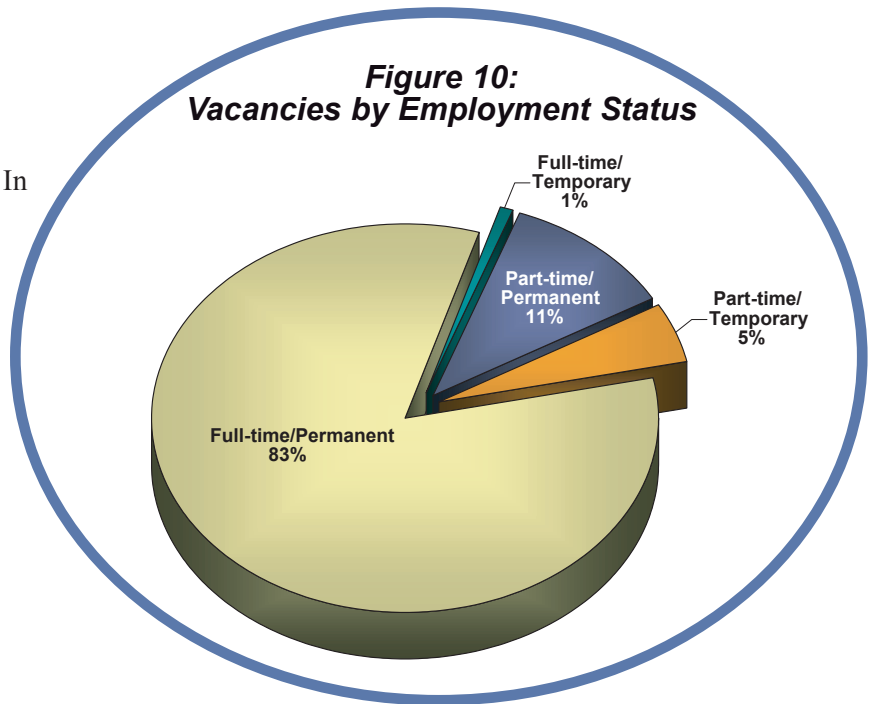
Large employers offer the highest average hourly wage of \$17.20 among all class sizes. Average wages offered by large employers have a great influence on the region's \$16.10 overall average wage because of the high concentration of vacancies and the higher wages offered within this size of employers. Government employers also offer a relatively high average wage of \$15.30 that falls slightly short of the overall average wage.

Small to mid-size firms offer the lowest wages and the narrowest in range between the average minimum and the average maximum. Average wages are lowest for this category of employers because of the high concentration of openings for low paying jobs such as: retail salespersons; waiters and waitresses; cashiers; truck drivers, heavy and tractor-trailer; taxi drivers and chauffeurs; and customer service representatives.

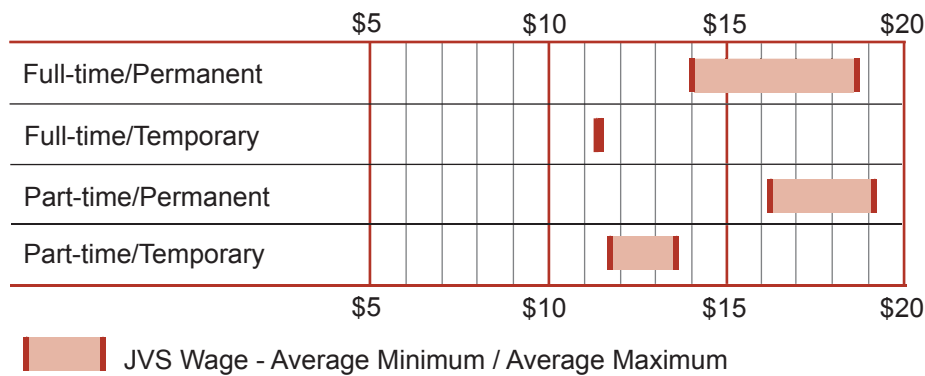


Ninety-four percent of the vacancies reported are for permanent employment. In addition to stability, these positions also offer higher wages. Full-time/permanent positions in particular account for 83% of all reported vacancies and offer the highest average wages compared to other employment status categories. Temporary positions account for 6% of the reported vacancies most of which are part-time.

**Figure 10: Vacancies by Employment Status**



**Figure 11: Average Wages by Employment Status**

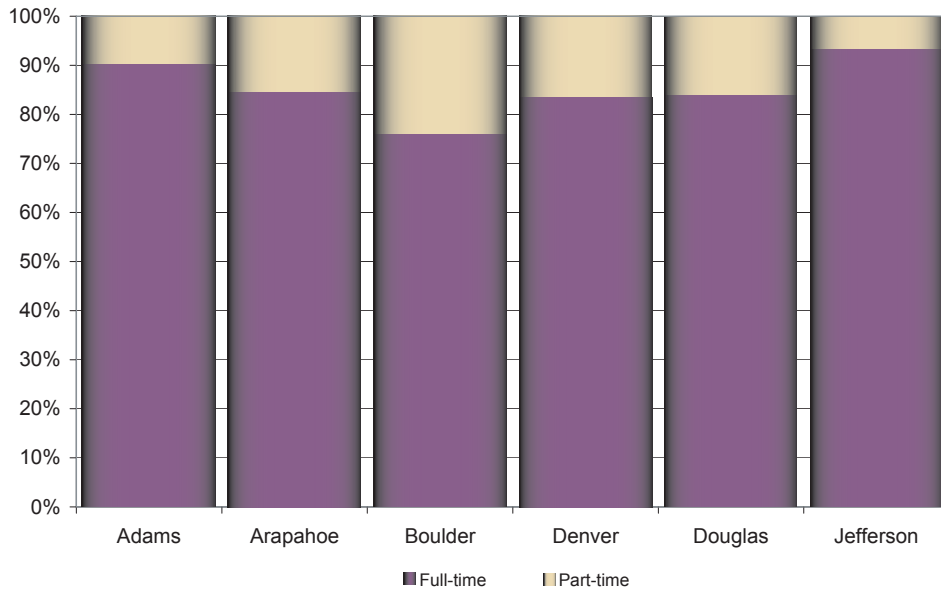


Full-time/permanent positions not only account for the majority of vacancies, but also offer high wages. In general, survey results show that permanent positions offer higher wages than temporary ones.

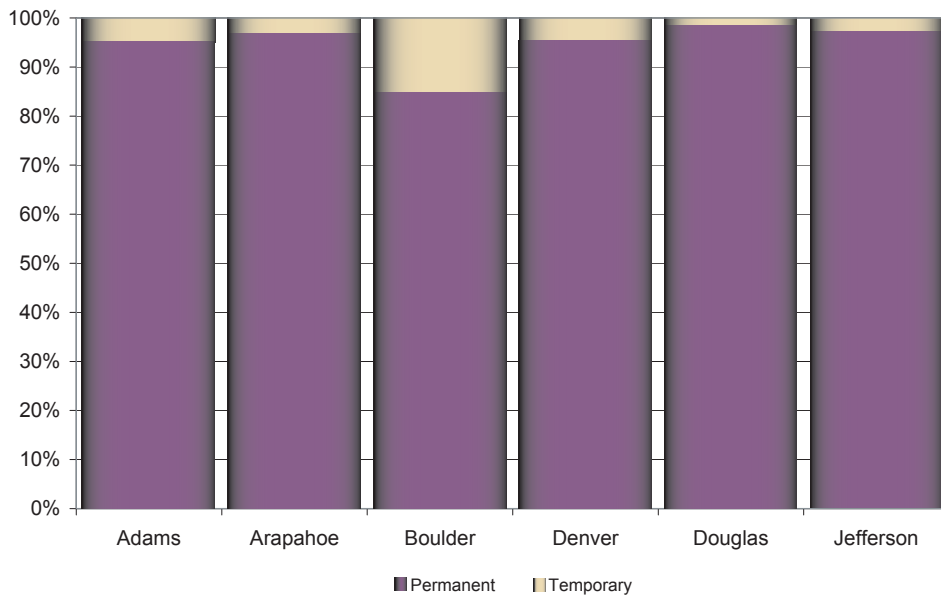
Permanent positions represent over 90% of reported vacancies in all counties except Boulder County where this proportion is 84%. Similarly, Boulder has the lowest concentration of full-time vacancies among all counties. The high concentration of part-time/temporary positions in Boulder County is most likely due

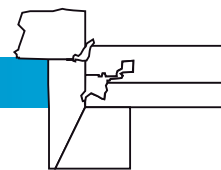
to the higher demand for student employment. The most frequently reported part-time/temporary occupations in Boulder County include: food preparation and serving related workers; cashiers; coaches and scouts; and general office clerks.

**Figure 12a: Part-Time vs. Full-Time by County**



**Figure 12b: Permanent vs. Temporary Vacancies by County**





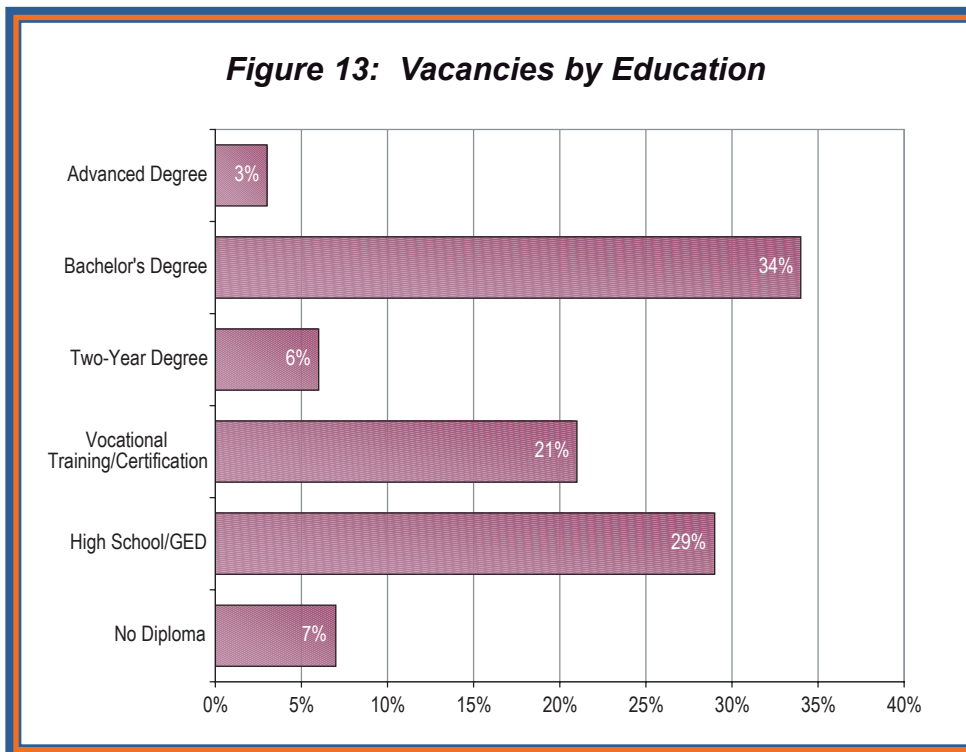
## Vacancies: Education and Experience Requirements

During periods of high unemployment, one might assume that there are too many qualified candidates and too few job openings. The reality is that even in recessions there are many employers who cannot find qualified candidates to fill their open positions. Actually, a region's overall labor force is made up of multiple smaller labor groups defined by skills, experience, and education. It is important, therefore, that job seekers have accurate information regarding what types of education and experience are in high demand. Employers can use this information to better understand market demands for

various education and experience requirements when they are recruiting for job vacancies.

Slightly over one-third of the vacancies require a bachelor's degree while another 3% require an advanced degree. Thirty-six percent of the reported job openings require no post-secondary education.

The educational requirements of vacancies in this survey are almost identical to those of the Fall 2001 JVS with a slight percentage increase in the demand for bachelor's degrees.



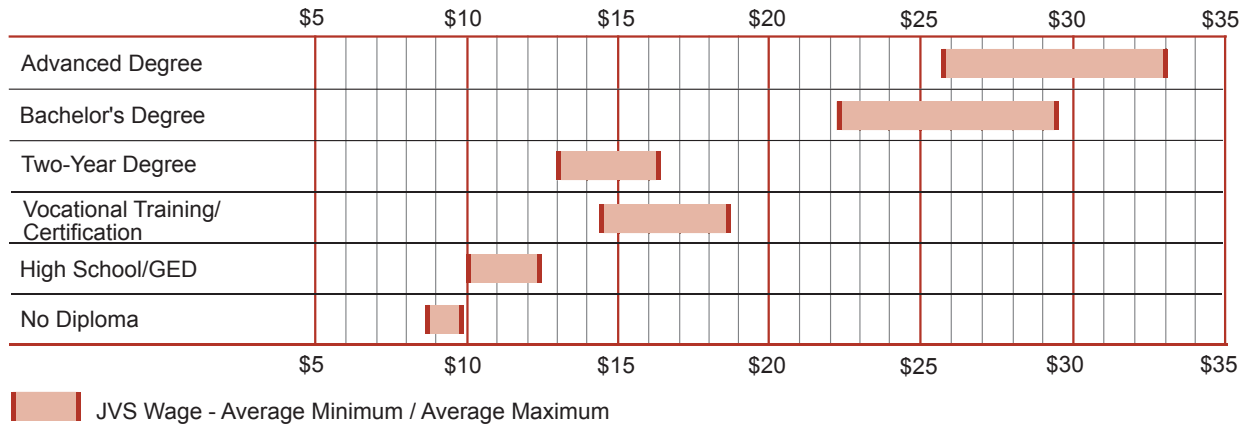
Education requirements in this survey are better understood by looking into the occupations that coincide with education levels. For this survey, vacancies are assigned an occupational code from the *2000 Standard Occupational Classification Manual* which groups occupations into 23 major groups as shown in *Figure 24* on page 25.

The survey finds Healthcare Practitioners and Technical occupations in high demand. Vacancies in this occupational group require an educational background ranging from a two-year to an advanced degree. Demand for registered nurses is higher than

all other vacancies requiring a two-year degree, a bachelor's degree and an advanced degree. Licensed practical and licensed vocational nurses are the occupations most in demand of all vacancies requiring vocational training or certification.

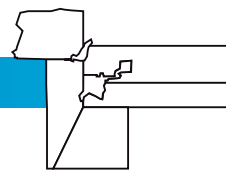
Job vacancies most frequently cited as requiring a high school education or less show up in the Office and Administrative Support occupational group followed by Sales and Related occupations. Jobs are also plentiful in Food Preparation and Serving Related occupations where no diploma is required.

**Figure 14: Average Wages by Education**



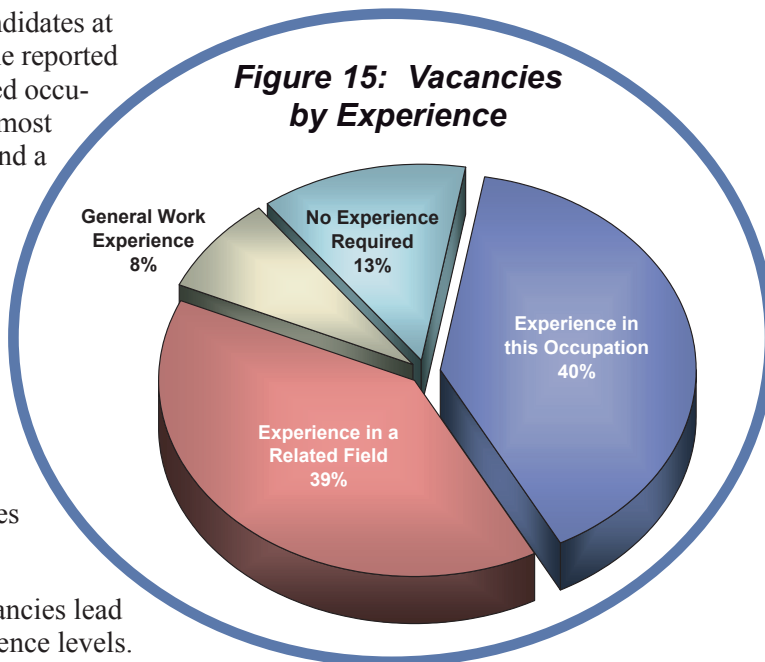
Generally, the more education required for a position, the higher the wages offered. As vacancies require higher levels of education, wages offered both increase and become wider in range. Wider ranges of wages are most likely due to the wider range of experience

requirements for these occupations. The high concentration of healthcare occupations requiring vocational training or certification boosted the average minimum and maximum wages to levels higher than those offered for positions requiring a two-year degree.

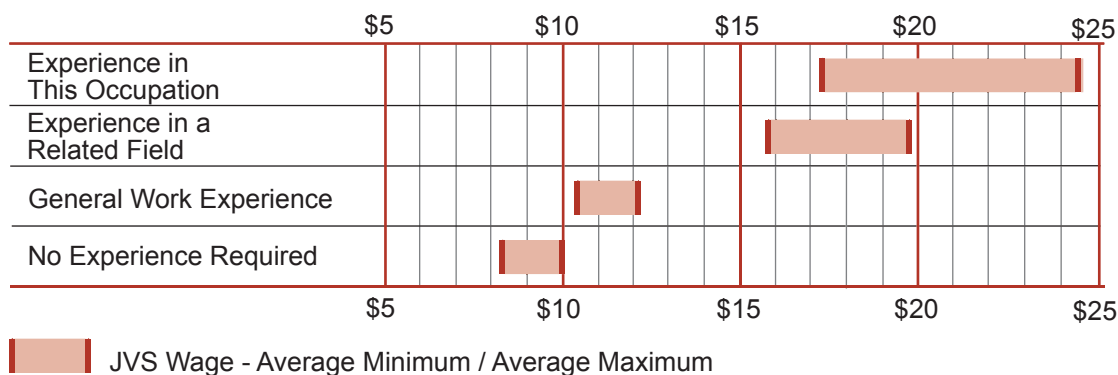


Surveyed employers expressed a need for candidates at all experience levels. Seventy-nine percent of the reported vacancies required at least experience in a related occupation up from 70% in the fall of last year. The most significant change between the present survey and a year ago is in the increase in the proportion of vacancies requiring experience in the specific occupation. Preference for experience in the occupation is up 12 percentage points from 28% in the fall 2001 to 40% in this survey. Also, in this survey:

- Sales and Related vacancies are the most prevalent at the no experience level.
- Office and Administrative Support vacancies top the general work experience level.
- Healthcare Practitioners and Technical vacancies lead both related and occupation specific experience levels.



**Figure 16: Average Wages by Experience**



Positions demanding higher levels of experience generally pay higher wages. Results of this survey show that jobs requiring experience in the particular

occupation for which the vacancy exists offer the highest wages.

Survey results confirm a notion generally held as true - the higher the level of education demanded, the higher the level of experience required. In today's job market employers are looking for candidates with both experience and education. Experience gained through internships and apprenticeships may therefore make a candidate more competitive when applying for jobs.

Survey results reveal the following about how experience requirements and education relate to job vacancies:

- Ninety-nine percent of jobs requiring a bachelor's degree and 98% of those requiring advanced

degrees specify the candidate should have experience related to or in the occupation.

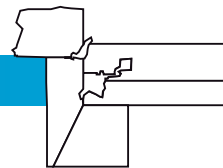
- Most jobs with no diploma requirement also require no experience.
- Positions with high school diploma or GED requirements are demanded at all levels of experience.
- The majority of job vacancies requiring education beyond high school but less than a bachelor's degree primarily seek people with high levels of experience.

**Table 2: Experience Requirements by Educational Level**

	No Experience	General Work Experience	Experience in a Related Field	Experience in This Occupation
<b>No Diploma</b>	<b>69%</b>	<b>9%</b>	<b>13%</b>	<b>9%</b>
<b>High School Diploma/GED</b>	<b>24%</b>	<b>20%</b>	<b>37%</b>	<b>19%</b>
<b>Vocational Training/Certification</b>	<b>4%</b>	<b>5%</b>	<b>38%</b>	<b>53%</b>
<b>Two-Year Degree</b>	<b>12%</b>	<b>5%</b>	<b>51%</b>	<b>32%</b>
<b>Bachelor's Degree</b>	<b>0%</b>	<b>1%</b>	<b>45%</b>	<b>54%</b>
<b>Advanced Degree</b>	<b>1%</b>	<b>1%</b>	<b>20%</b>	<b>78%</b>

Note: Percentages based on each educational category.





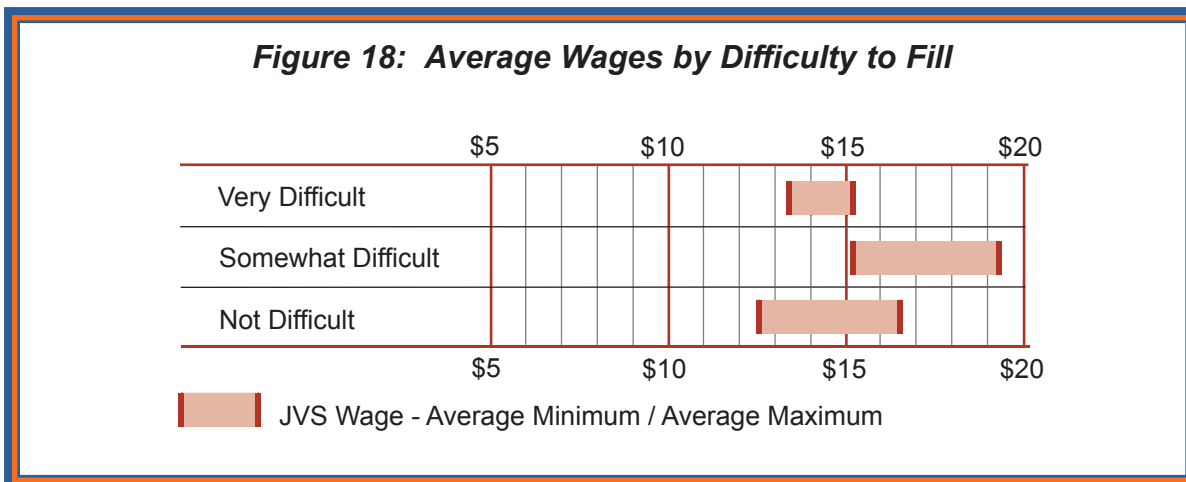
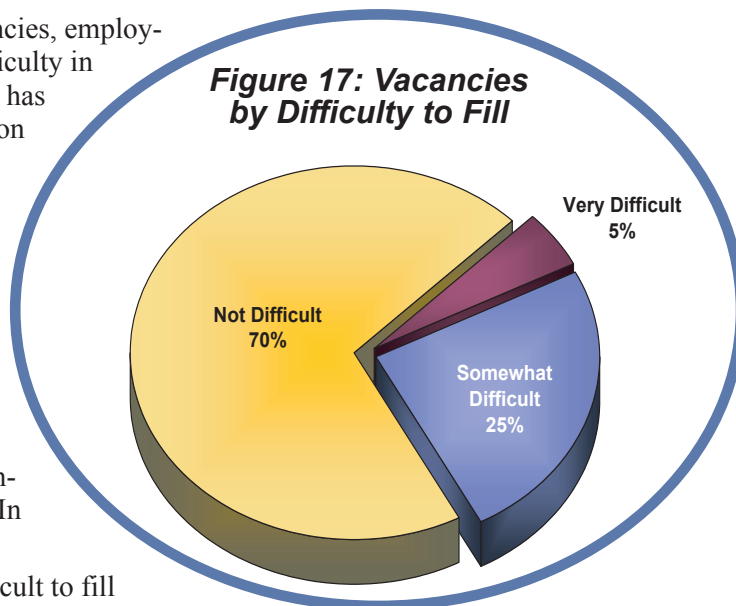
# Vacancies: Difficulty to Fill

To measure the level of difficulty in filling vacancies, employers are asked about their perceived level of difficulty in filling a job and the length of time that position has been open. If a large proportion of vacancies in a region are difficult to fill, it may signal one or a combination of the following:

- too few specifically skilled workers to satisfy the labor market,
- a need for alternate employer recruitment efforts,
- a mismatch between jobs offered and work desired by job seekers, and/or,
- unattractive compensation.

Employers are having less difficulty in filling vacancies in this survey as compared to the Fall 2001 JVS. In comparing the two periods:

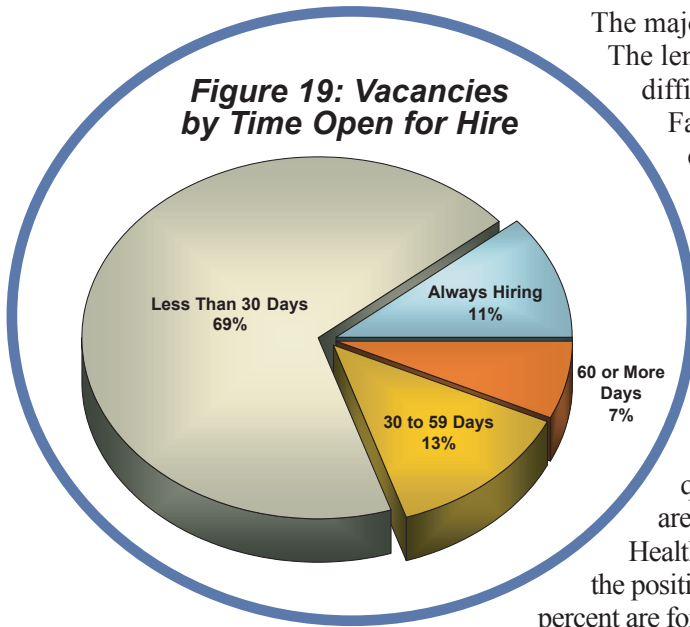
- The proportion of vacancies reported as very difficult to fill dropped from 16% to 5%.
- Vacancies reported as somewhat difficult to fill dropped from 56% to 25%.
- Vacancies reported as not difficult to fill increased from 28% to 70%.



Vacancies reported as difficult to fill are generally expected to offer the highest average wages because they require higher levels of education and experience. In this survey, vacancies reported as very difficult to fill offer the lowest average wage of \$14.20. The

majority of vacancies within this category are for occupations such as: retail salespersons; taxi drivers and chauffeurs; transit and intercity bus drivers; and receptionists and information clerks all paying average wages of \$10 per hour or less.

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

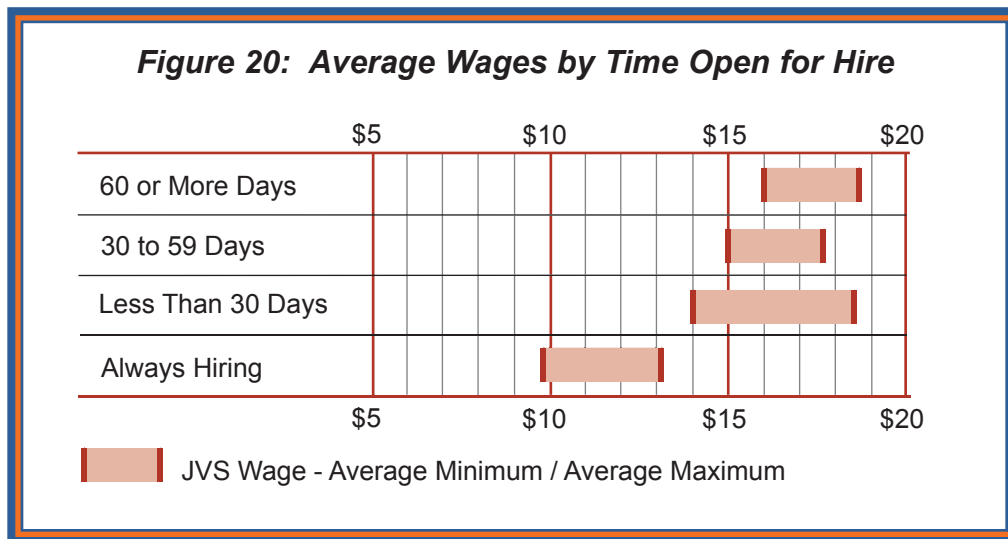


The majority of positions have been open for less than 30 days. The length of time a vacancy is open indicates the degree of difficulty an employer is having in filling the position.

Factors such as the availability of qualified candidates; competition among employers for similar candidates; and willingness of candidates to accept job duties, wages, and benefits may affect how long a job remains open. In other cases, employers may allow more time to fill a position in order to ensure the fit of the candidate with the organization.

Eleven percent of the reported vacancies are always open - this could be due to high turnover, growing demand for these roles, and/or a perpetual short supply of qualified candidates. Forty-three percent of these vacancies are Sales and Related occupations while another 16% are Healthcare Practitioners and Technical occupations. One-third of the positions always open for hire are for telemarketers. Thirteen percent are for registered nurses.

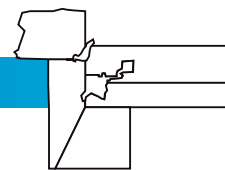
**Figure 20: Average Wages by Time Open for Hire**



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 reported as open for less than 30 days show the widest range of wages between the average

minimum and maximum wages. This spread in wages offered is highly influenced by the great diversity of occupational groups to which these vacancies belong. The highest concentration of these vacancies is in occupational groups such as: Healthcare Practitioners and Technical; Office and Administrative Support; Computer and Mathematical; and Food Preparation and Serving Related.



## Vacancies: Additional Compensation

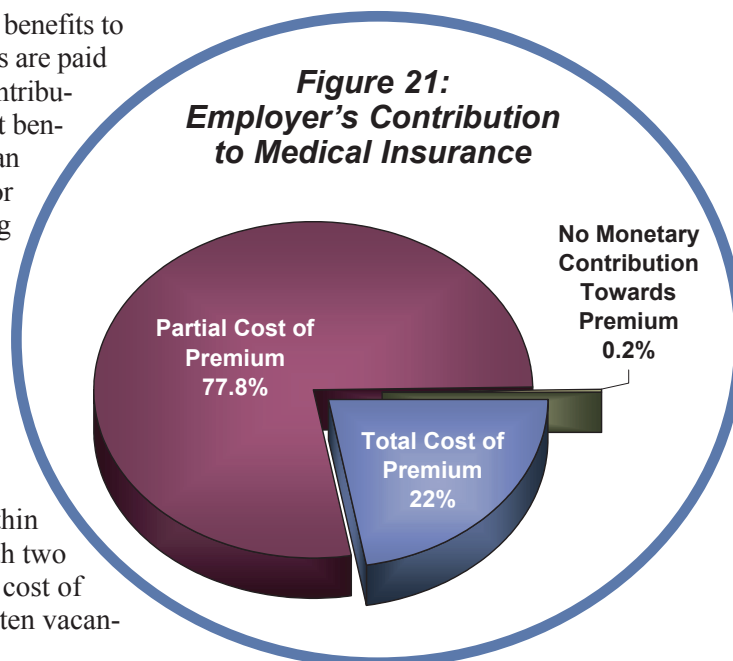
### Medical Insurance

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 individuals can find on their own. In the Denver Metro Region, 85% of the job vacancies offer medical insurance coverage. Of these, only a few make no contribution to the employees' premium cost.

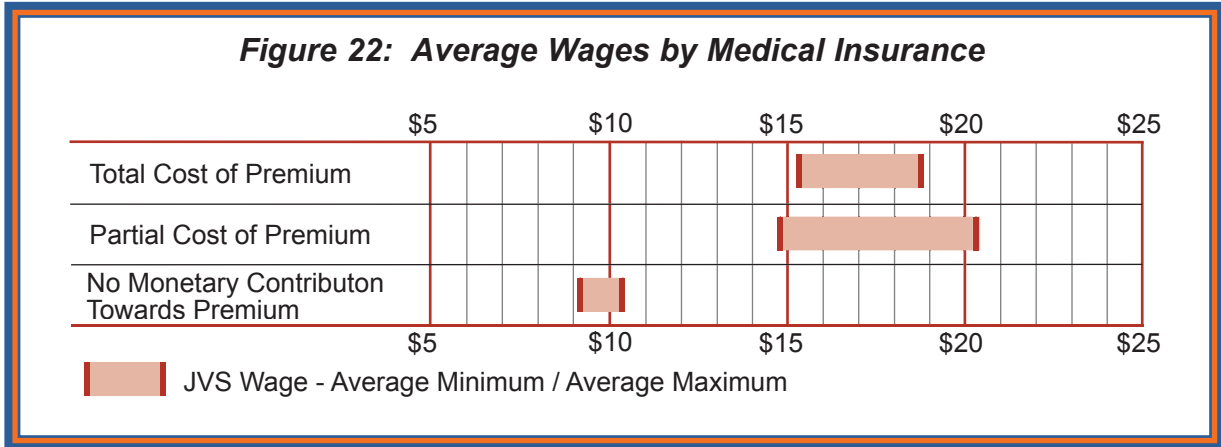
The healthcare industry accounts for 38% of all vacancies offering medical coverage to potential candidates. Eighty-six percent of the vacancies within this industry offer medical insurance coverage, with two out of every ten vacancies offering to pay the total cost of a medical insurance premium, and eight out every ten vacancies offering to pay partial cost of the premium.

Government agencies offer to pay the total cost of medical insurance premiums in 53% of the vacancies for which medical insurance coverage is offered. This percentage is the highest among all industries and is mainly offered for occupations such as: teacher assistants; fire fighters; and licensed practical and licensed vocational nurses.

**Figure 21:  
Employer's Contribution  
to Medical Insurance**



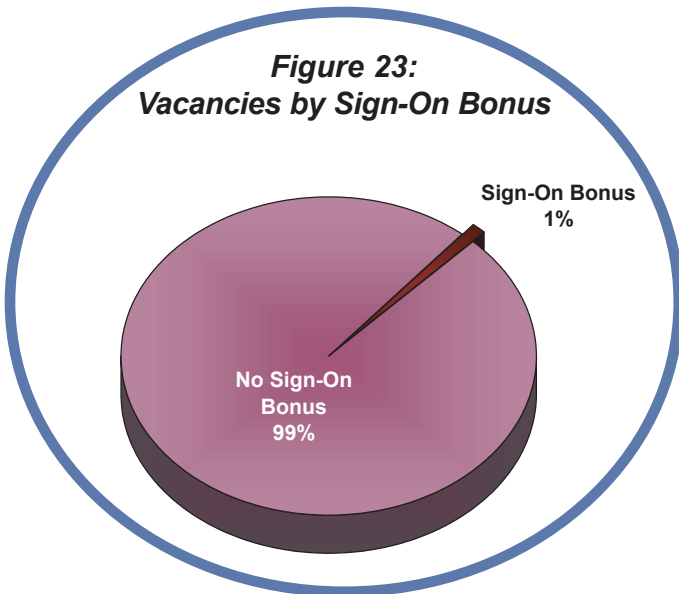
The construction industry offers to pay the partial cost of medical insurance premiums to 91% of its vacancies for which medical insurance coverage is offered—the highest rate among all industries. Partial cost of the medical insurance premium offered in this industry is mainly for jobs in occupational groups such as: Management; Construction and Extraction; and Business and Financial Operations.



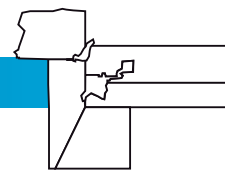
Often there is a clear correlation between higher paying jobs and greater contributions towards medical insurance premiums. In this survey, positions offered with partial cost of the medical insurance premium paid offer the highest average wage of \$17.60 and the

widest in range between the average minimum and maximum. Higher average wages for this category of vacancies is highly influenced by the heavy concentration of healthcare related occupations.

### Sign-On Bonus



Sign-on bonuses became popular lore in the late nineties when a tight labor market existed for many occupations. It is unclear whether the actual size and frequency of sign-on bonuses deserved the hype. As the economy began cooling in 2000, unemployment rates rose and fewer companies needed sign-on bonuses to attract qualified candidates. Less than 1% of the reported vacancies in this survey offer sign-on bonuses upon hiring.



# Occupations

The information reported in the Job Vacancy Survey is intended to provide job seekers and employers with useful and current information to help them make informed labor market decisions. Estimating the number of overall vacancies in a region and breaking those numbers down by categories such as industry and size provides a useful overview of the vacancy market, but when it comes down to filling a particular opening, the more detailed the information the better. Reporting vacancies at the individual occupation level is the most detailed information the survey can provide without breaking confidentiality with those employers who participated in the survey.

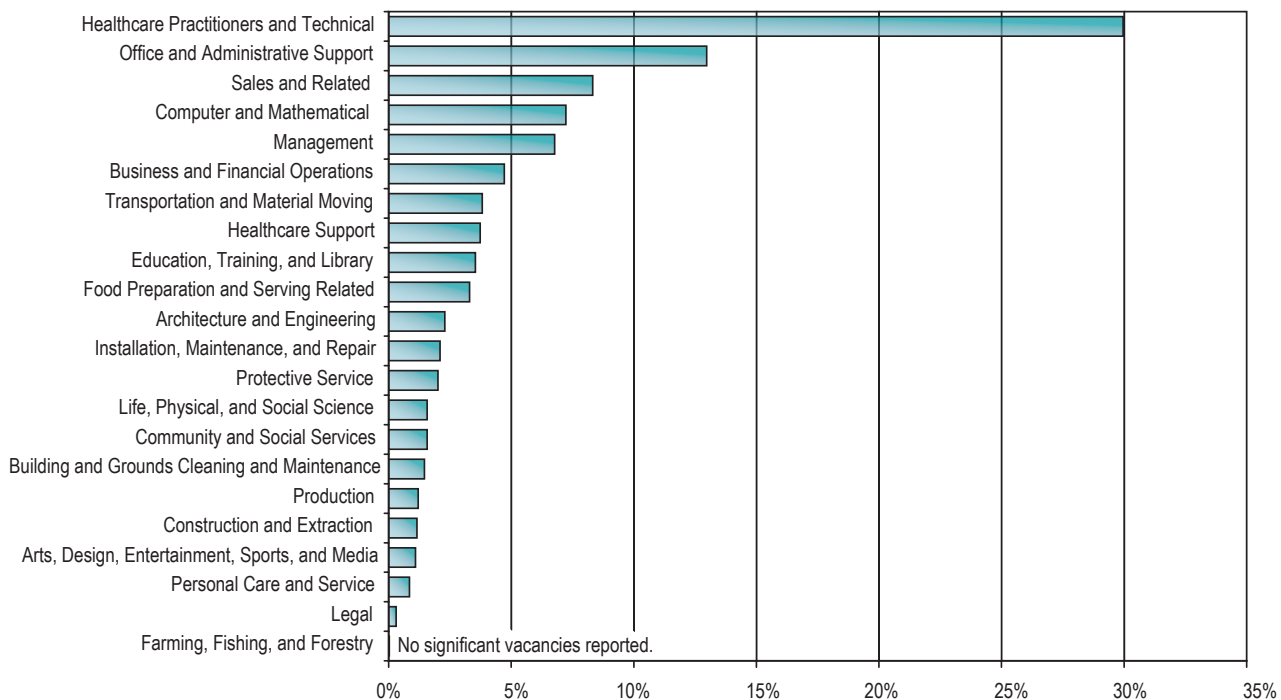
In order to facilitate comparing results of this survey with other sources of employment statistics, all jobs reported are assigned a Standard Occupational Classification code from the *2000 Standard Occupational Classification Manual* published by the Executive Office of the President, Office of

Management and Budget. The Standard Occupational Classification (SOC) system contains 821 detailed occupation titles that fall into 23 major occupational groups.

Vacancies found in this survey were coded into 22 of the 23 major occupational groups. Not surprisingly, the most frequently occurring job openings fall into occupational groups most often associated with the largest industries in the region: Services and Retail Trade.

Healthcare Practitioners and Technical occupational group is the category most often reported by employers. The high demand for healthcare workers is a national phenomenon and will impact medical costs beyond those referred to in the Additional Compensation segment on this report on page 23. A high frequency of vacancies also occurred in two other occupational groups: Office and Administrative Support; and Sales and Related.

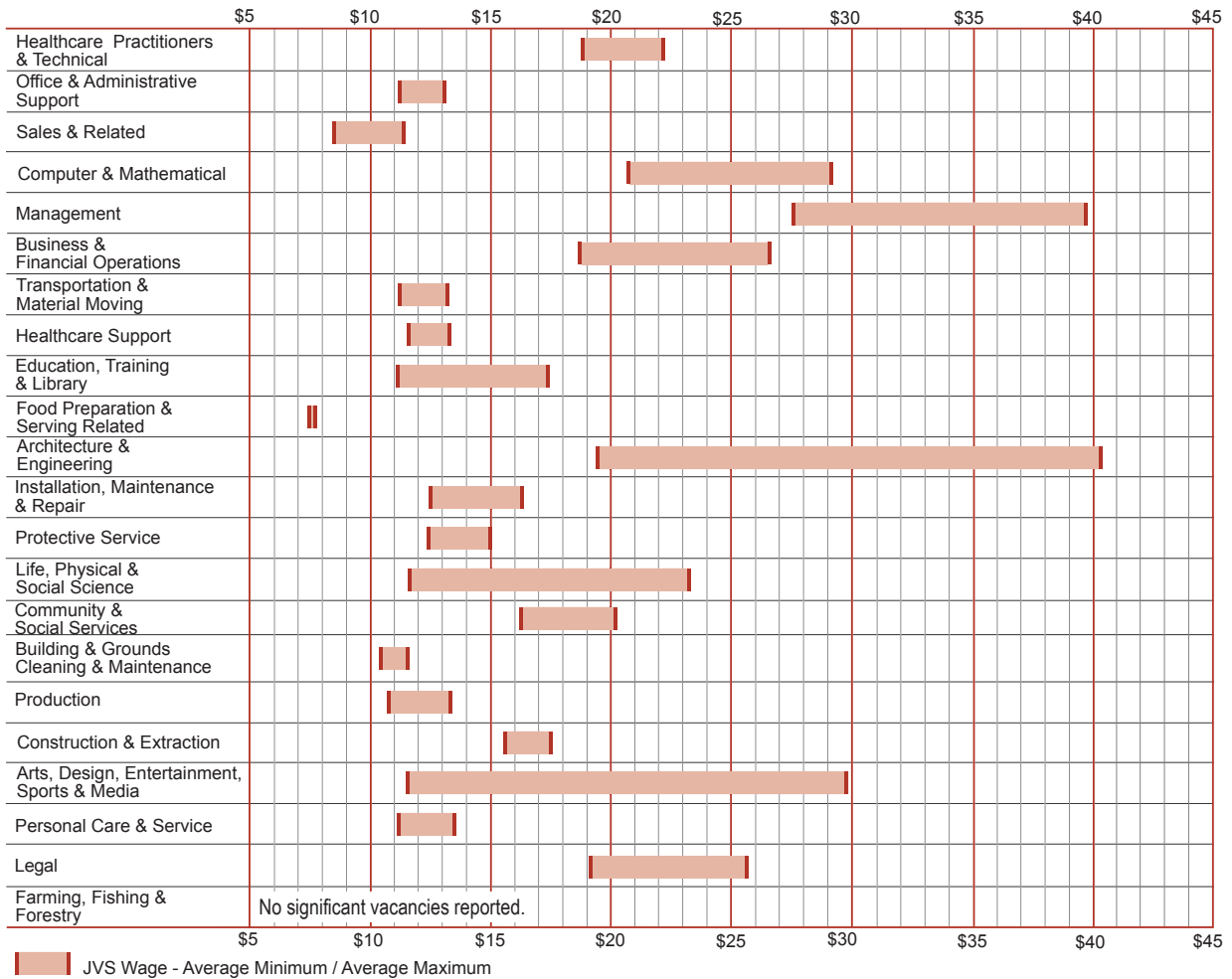
**Figure 24: Vacancies by Major Occupational Groups**



Results of the survey show that the most frequently occurring job vacancies are not necessarily offering the highest wages. This indicates that compensation for workers can be explained by looking at other vacancy characteristics. Occupations offering the highest average wages are typically ones requiring higher levels of education and experience. The three occupational groups offering the highest average

wages in this survey are: Management; Architecture and Engineering; and Computer and Mathematical. Occupations requiring lower levels of education and experience reflect the lowest wages in the survey. These include: waiters and waitresses; hand packers and packagers; and food preparation and serving related workers.

**Figure 25: Average Wages by Major Occupational Groups**



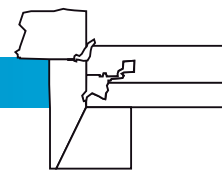


Table 3 contains a list of all of the detailed SOC job titles that were assigned to vacancies reported in this survey. Because a census of large employers and Government agencies is conducted, the list contains titles for nearly all of the vacancies available at the time of the survey for those employers. Almost one-third of all small to mid-size employers were contacted for the random sample, so the list also includes occupations reported by those employers. Given the large size of the random sample collected, the list of occupations should be fairly comprehensive; however, it is not exhaustive. Most likely, if a different random sample had been drawn there would be some differences in the job titles reported, but there would also be many of the same.

#### **Vacancy Rank**

Occupations are ranked based on the total number of vacancies 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 everything in-between.

#### **Average JVS Wage**

The average wages found in the survey are reported for each occupation. The reported averages are based

solely on information provided by employers responding to this survey and do not reflect information from other sources or wages paid to currently filled positions.

#### **Occupational Employment Statistics (OES) wage data**

Occupational Employment Statistics (OES) wage data are provided for each occupation. OES data are based on a national survey of employers and refer to filled positions, not vacancies. The data provided here are reported for the Denver Metro Region when available and statewide 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 filled positions. Together, these data provide employers and job seekers with a good indication of the compensation offered in the current job market.

**Table 3: Occupations with 10 or More Vacancies**

SOC Code	SOC Occupational Title	Vacancies	Average JVS Wage	Occupational Employment Statistics Wage Data (2001)							
				Average Wages		Percentile Distribution					
				Entry Level	Overall	Experienced	10th	25th	50th	75th	90th
29-1111	Registered Nurses	930	\$23.60	\$18.74	\$24.46	\$27.31	\$17.91	\$20.83	\$24.44	\$27.77	\$32.61
41-2031	Retail Salespersons	920	\$8.40	\$7.40	\$11.93	\$14.18	\$6.98	\$7.90	\$9.29	\$13.27	\$19.84
35-3031	Waiters and Waitresses	390	\$5.30	\$6.07	\$8.66	\$9.94	\$5.65	\$6.05	\$6.71	\$9.68	\$10.91
41-2011	Cashiers	200	\$7.20	\$7.07	\$9.39	\$10.55	\$6.50	\$7.51	\$8.54	\$10.48	\$14.86
15-1021	Computer Programmers	190	\$24.80	\$22.90	\$33.17	\$38.31	\$20.01	\$27.52	\$33.27	\$39.77	\$45.94
15-1032	Computer Software Engineers, Systems Software	190	†	\$26.87	\$35.82	\$40.30	\$24.22	\$29.67	\$34.87	\$42.57	\$50.59
43-4051	Customer Service Representatives	190	\$11.50	\$10.48	\$14.26	\$16.14	\$9.75	\$11.44	\$13.48	\$16.59	\$20.17
53-7062	Laborers and Freight, Stock, and Material Movers, Hand	140	\$11.00	\$8.55	\$11.27	\$12.63	\$7.76	\$9.35	\$10.81	\$12.98	\$15.71
43-6013	Medical Secretaries	140	\$11.80	\$11.51	\$16.70	\$19.30	\$10.86	\$12.39	\$14.96	\$22.76	\$25.84
41-9041	Telemarketers	140	\$10.00	\$7.36	\$11.24	\$13.18	\$6.66	\$8.35	\$10.57	\$13.34	\$16.80
29-2061	Licensed Practical and Licensed Vocational Nurses	130	\$15.20	\$14.77	\$16.92	\$17.99	\$13.91	\$15.10	\$16.54	\$18.19	\$21.00
43-3031	Bookkeeping, Accounting, and Auditing Clerks	110	\$13.30	\$10.99	\$15.24	\$17.37	\$10.30	\$12.37	\$15.01	\$17.82	\$21.22
35-9031	Hosts and Hostesses, Restaurant, Lounge, and Coffee Shop	110	\$7.40	\$6.19	\$8.07	\$9.01	\$5.92	\$6.64	\$7.77	\$8.75	\$10.62
43-4171	Receptionists and Information Clerks	110	\$10.40	\$8.69	\$11.82	\$13.38	\$7.86	\$9.63	\$11.65	\$13.79	\$16.52
43-6014	Secretaries, Except Legal, Medical, and Executive	110	\$12.30	\$10.54	\$14.47	\$16.44	\$9.60	\$11.94	\$14.45	\$17.03	\$19.84
33-9032	Security Guards	110	\$9.50	\$9.61	\$12.27	\$13.60	\$9.10	\$9.86	\$10.93	\$13.09	\$19.92
49-3023	Automotive Service Technicians and Mechanics	100	\$7.00	\$11.39	\$19.29	\$23.24	\$10.38	\$12.97	\$18.17	\$23.56	\$30.01
31-1012	Nursing Aides, Orderlies, and Attendants	100	\$12.50	\$9.50	\$11.10	\$11.88	\$8.93	\$9.84	\$11.01	\$12.48	\$13.85
29-2034	Radiologic Technologists and Technicians	100	\$18.20	\$15.99	\$20.13	\$22.19	\$14.83	\$17.65	\$20.30	\$23.06	\$26.19
37-2011	Janitors and Cleaners, Except Maids and Housekeeping Cleaners	90	\$10.60	\$7.37	\$9.74	\$10.92	\$7.00	\$7.77	\$8.99	\$11.16	\$13.91
25-9041	Teacher Assistants	90	\$10.00	\$15.294	\$20.315	\$22.824	\$14.502	\$16.668	\$19.995	\$23.053	\$27.782
13-2011	Accountants and Auditors	80	\$20.60	\$17.87	\$27.67	\$32.57	\$16.31	\$19.42	\$24.16	\$32.37	\$44.05
35-2014	Cooks, Restaurant	80	\$8.30	\$7.72	\$10.40	\$11.74	\$6.98	\$8.69	\$10.31	\$12.22	\$14.18
11-9111	Medical and Health Services Managers	80	†	\$22.43	\$34.13	\$39.99	\$20.01	\$25.56	\$32.61	\$41.40	\$51.91
11-9199	Managers, All Other	70	†	\$23.44	\$36.71	\$43.35	\$21.32	\$27.29	\$35.85	\$45.92	\$55.64
43-5081	Stock Clerks and Order Fillers	70	\$9.50	\$8.20	\$12.41	\$14.51	\$7.61	\$9.02	\$11.72	\$15.58	\$18.53
11-3021	Computer and Information Systems Managers	60	\$50.90	\$32.11	\$45.66	\$52.44	\$29.19	\$36.80	\$45.16	\$55.89	\$68.00
11-3031	Financial Managers	60	\$37.20	\$25.08	\$40.26	\$47.84	\$22.57	\$28.53	\$37.76	\$50.21	\$70.72
13-2099	Financial Specialists, All Other	60	†	\$15.68	\$24.91	\$29.53	\$13.83	\$17.85	\$22.62	\$29.72	\$39.36
11-2021	Marketing Managers	60	†	\$25.09	\$39.89	\$47.29	\$22.29	\$29.04	\$39.15	\$49.84	\$62.34
29-2012	Medical and Clinical Laboratory Technicians	60	†	\$11.23	\$15.55	\$17.70	\$10.36	\$12.16	\$14.97	\$18.56	\$21.50
43-3071	Tellers	60	\$13.20	\$9.97	\$11.40	\$12.12	\$9.34	\$9.97	\$10.99	\$12.73	\$14.21
11-3011	Administrative Services Managers	50	\$29.60	\$16.49	\$30.52	\$37.54	\$14.07	\$19.86	\$28.36	\$39.38	\$51.63
53-3021	Bus Drivers, Transit and Intercity	50	\$10.60	\$10.25	\$13.87	\$15.69	\$9.67	\$11.23	\$13.00	\$16.80	\$20.51
29-2032	Diagnostic Medical Sonographers	50	\$25.50	\$24.08	\$30.15	\$33.18	\$22.79	\$24.54	\$27.35	\$37.88	\$41.95

\* OES wages reported for Colorado statewide

† No wage data available



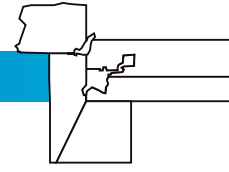


Table 3: Occupations with 10 or More Vacancies – Page 2

SOC Code	SOC Occupational Title	Vacancies	Average JVS Wage	Occupational Employment Statistics Wage Data (2001)							
				Average Wages		Percentile Distribution					
			Entry Level	Overall	Experienced	10th	25th	50th	75th	90th	
43-6011	Executive Secretaries and Administrative Assistants	50	\$15.60	\$13.90	\$18.22	\$20.38	\$12.72	\$15.06	\$17.67	\$21.01	\$24.49
43-1011	First-Line Supervisors/Managers of Office and Administrative Support Workers	50	\$24.70	\$15.53	\$22.17	\$25.48	\$14.69	\$17.28	\$20.70	\$26.08	\$33.09
51-9061	Inspectors, Testers, Sorters, Samplers, and Weighers	50	†	\$9.74	\$15.12	\$17.81	\$8.75	\$11.13	\$14.33	\$18.28	\$22.97
31-9092	Medical Assistants	50	\$13.00	\$11.72	\$14.50	\$15.89	\$11.01	\$12.53	\$14.44	\$16.41	\$18.16
15-1071	Network and Computer Systems Administrators	50	†	\$21.61	\$31.53	\$36.48	\$19.53	\$24.05	\$30.07	\$38.95	\$45.89
15-1099	Computer Specialists, All Other	40	\$25.40	\$19.66	\$30.22	\$35.50	\$17.01	\$23.27	\$29.39	\$36.68	\$44.71
15-1041	Computer Support Specialists	40	\$23.50	\$14.97	\$23.19	\$27.30	\$14.27	\$16.45	\$20.25	\$26.95	\$40.61
47-2111	Electricians	40	\$23.40	\$16.31	\$23.20	\$26.65	\$14.41	\$19.21	\$24.16	\$27.12	\$30.76
29-2041	Emergency Medical Technicians and Paramedics	40	\$19.10	\$9.75	\$14.62	\$17.07	\$9.37	\$10.68	\$13.06	\$16.83	\$24.61
17-2199	Engineers, All Other	40	\$27.00	\$23.71	\$35.52	\$41.42	\$21.96	\$26.90	\$34.65	\$43.56	\$52.69
41-1011	First-Line Supervisors/Managers of Retail Sales Workers	40	†	\$11.56	\$19.51	\$23.50	\$10.77	\$12.91	\$16.31	\$21.45	\$31.74
13-2072	Loan Officers	40	\$30.00	\$15.02	\$22.92	\$26.86	\$13.50	\$17.07	\$20.59	\$27.46	\$35.01
37-2012	Maids and Housekeeping Cleaners	40	\$8.50	\$6.82	\$8.69	\$9.63	\$6.34	\$7.33	\$8.56	\$10.07	\$11.31
49-9042	Maintenance and Repair Workers, General	40	\$15.70	\$10.54	\$15.35	\$17.77	\$9.58	\$12.05	\$14.88	\$18.49	\$21.99
13-1111	Management Analysts	40	\$41.50	\$20.89	\$32.55	\$38.38	\$18.99	\$23.70	\$30.60	\$38.33	\$50.40
29-1126	Respiratory Therapists	40	\$15.70	\$14.65	\$18.39	\$20.25	\$13.75	\$15.74	\$18.53	\$21.14	\$23.13
25-3099	Teachers and Instructors, All Other	40	\$15.70	†	†	†	†	†	†	†	†
39-3091	Amusement and Recreation Attendants	30	†	\$6.87	\$8.53	\$9.36	\$6.38	\$7.32	\$8.15	\$9.00	\$10.87
49-3021	Automotive Body and Related Repairers	30	†	\$15.50	\$24.35	\$28.77	\$14.32	\$17.89	\$22.48	\$29.97	\$38.95
41-2021	Counter and Rental Clerks	30	\$11.40	\$6.62	\$9.94	\$11.61	\$6.27	\$7.17	\$8.56	\$10.85	\$15.95
35-3022	Counter Attendants, Cafeteria, Food Concession, and Coffee Shop	30	\$7.10	\$6.15	\$6.91	\$7.29	\$5.75	\$6.11	\$6.72	\$7.50	\$8.77
53-3031	Driver/Sales Workers	30	†	\$6.50	\$12.55	\$15.57	\$6.09	\$6.98	\$11.14	\$16.94	\$21.91
17-2071	Electrical Engineers	30	\$30.00	\$23.34	\$31.96	\$36.28	\$22.03	\$25.83	\$31.17	\$37.25	\$44.50
49-9021	Heating, Air Conditioning, and Refrigeration Mechanics and Installers	30	\$23.50	\$12.08	\$16.61	\$18.88	\$10.69	\$13.73	\$16.15	\$19.51	\$22.76
43-6012	Legal Secretaries	30	\$21.60	\$15.26	\$16.76	\$17.50	\$14.23	\$14.97	\$16.17	\$17.38	\$21.32
25-4021	Librarians	30	\$18.10	\$14.38	\$19.24	\$21.67	\$13.41	\$15.79	\$18.89	\$22.44	\$26.41
* 19-4099	Life, Physical, and Social Science Technicians, All Other	30	\$10.90	\$10.17	\$16.43	\$19.57	\$8.84	\$11.93	\$15.30	\$19.48	\$25.65
13-2071	Loan Counselors	30	\$18.70	\$11.48	\$14.69	\$16.30	\$10.78	\$12.52	\$14.98	\$16.74	\$18.58
43-9051	Mail Clerks and Mail Machine Operators, Except Postal Service	30	\$9.00	\$8.34	\$10.41	\$11.45	\$7.84	\$8.96	\$10.19	\$11.48	\$13.39
29-2011	Medical and Clinical Laboratory Technologists	30	\$13.50	\$15.44	\$20.22	\$22.61	\$14.60	\$16.77	\$20.12	\$23.07	\$26.79
21-1022	Medical and Public Health Social Workers	30	†	\$14.64	\$19.05	\$21.24	\$13.53	\$15.72	\$18.22	\$22.25	\$26.31
21-1014	Mental Health Counselors	30	\$20.50	\$10.34	\$14.24	\$16.19	\$9.83	\$10.91	\$12.92	\$16.07	\$19.98
43-9061	Office Clerks, General	30	\$7.30	\$9.06	\$12.96	\$14.90	\$8.42	\$10.23	\$12.71	\$15.59	\$17.98

\* OES wages reported for Colorado statewide

† No wage data available

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

SOC Code	SOC Occupational Title	Vacancies	Average JVS Wage	Average Wages				Occupational Employment Statistics Wage Data (2001) Percentile Distribution				
				Entry Level	Overall	Experienced	10th	25th	50th	75th	90th	
53-7064	Packers and Packers, Hand	30	\$6.10	\$6.32	\$8.64	\$9.81	\$6.08	\$6.79	\$7.99	\$9.87	\$12.38	
53-6021	Parking Lot Attendants	30	\$7.70	\$6.12	\$7.85	\$8.72	\$5.76	\$6.25	\$7.12	\$9.21	\$11.07	
29-1051	Pharmacists	30	\$34.50	\$28.00	\$34.21	\$37.31	\$27.58	\$31.49	\$35.35	\$39.65	\$43.39	
29-2052	Pharmacy Technicians	30	\$13.40	\$10.87	\$13.26	\$14.47	\$9.84	\$11.79	\$13.38	\$15.17	\$16.84	
29-1123	Physical Therapists	30	\$21.70	\$19.13	\$24.83	\$27.68	\$17.66	\$22.15	\$25.01	\$27.67	\$32.06	
25-1199	Postsecondary Teachers, All Other	30	\$11.80	\$25,820	\$43,396	\$52,184	\$22,722	\$29,947	\$37,110	\$53,887	\$70,738	
29-2055	Surgical Technologists	30	\$13.70	\$11.53	\$15.29	\$17.17	\$10.55	\$12.66	\$15.20	\$17.89	\$20.69	
13-1073	Training and Development Specialists	30	\$48.50	\$15.01	\$22.98	\$26.96	\$14.34	\$16.61	\$21.57	\$28.54	\$35.16	
53-3033	Truck Drivers, Light or Delivery Services	30	\$14.90	\$8.89	\$13.47	\$15.77	\$8.08	\$10.16	\$12.98	\$16.25	\$19.75	
41-3011	Advertising Sales Agents	20	\$17.50	\$9.12	\$13.30	\$15.39	\$8.55	\$9.62	\$11.34	\$13.84	\$20.12	
17-1011	Architects, Except Landscape and Naval	20	\$26.90	\$17.58	\$26.94	\$31.63	\$16.04	\$19.27	\$25.39	\$32.73	\$41.14	
51-2099	Assemblers and Fabricators, All Other	20	\$8.80	\$7.89	\$10.68	\$12.08	\$7.47	\$8.58	\$9.79	\$11.44	\$15.86	
27-4011	Audio and Video Equipment Technicians	20	\$14.80	\$10.16	\$14.75	\$17.04	\$9.67	\$10.57	\$14.39	\$19.11	\$21.60	
49-3031	Bus and Truck Mechanics and Diesel Engine Specialists	20	†	\$14.00	\$18.57	\$20.85	\$12.82	\$15.26	\$18.41	\$21.79	\$25.37	
13-1199	Business Operations Specialists, All Other	20	\$18.50	\$13.90	\$20.14	\$23.27	\$12.79	\$15.28	\$19.58	\$22.38	\$28.52	
* 29-2031	Cardiovascular Technologists and Technicians	20	\$14.90	\$11.59	\$17.49	\$20.44	\$10.42	\$13.13	\$16.92	\$21.60	\$26.20	
11-1011	Chief Executives	20	\$70.90	\$29.96	\$49.64	\$59.49	\$28.35	\$35.22	\$48.13	\$72.56	\$75.22	
17-2051	Civil Engineers	20	†	\$20.64	\$29.24	\$33.54	\$19.43	\$22.00	\$27.02	\$34.63	\$43.22	
53-7061	Cleaners of Vehicles and Equipment	20	\$10.60	\$6.44	\$8.70	\$9.84	\$6.03	\$6.95	\$8.20	\$9.86	\$12.30	
* 21-2011	Clergy	20	\$17.30	\$11.13	\$17.95	\$21.36	\$9.92	\$12.79	\$17.47	\$21.53	\$28.25	
13-1072	Compensation, Benefits, and Job Analysis Specialists	20	\$27.20	\$14.70	\$21.30	\$24.60	\$13.33	\$16.70	\$20.36	\$24.66	\$30.57	
47-4011	Construction and Building Inspectors	20	\$12.90	\$13.44	\$19.40	\$22.40	\$12.01	\$14.98	\$18.81	\$23.63	\$27.84	
47-2061	Construction Laborers	20	\$12.00	\$8.36	\$12.06	\$13.91	\$7.63	\$9.34	\$11.64	\$14.47	\$17.50	
35-2019	Cooks, All Other	20	†	†	†	†	†	†	†	†	†	
35-2012	Cooks, Institution and Cafeteria	20	\$11.60	\$6.64	\$8.38	\$9.25	\$6.22	\$7.17	\$8.21	\$9.55	\$11.06	
13-1051	Cost Estimators	20	\$20.60	\$16.59	\$24.44	\$28.37	\$15.36	\$18.05	\$23.59	\$30.86	\$35.59	
13-2041	Credit Analysts	20	†	\$13.87	\$21.93	\$25.97	\$12.49	\$15.64	\$20.73	\$26.16	\$29.78	
51-4031	Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and Plastic	20	†	\$9.64	\$15.52	\$18.46	\$9.03	\$10.85	\$14.96	\$20.02	\$23.77	
43-9021	Data Entry Keyers	20	\$10.50	\$8.08	\$10.43	\$11.60	\$7.57	\$8.04	\$8.83	\$10.77	\$13.70	
29-2051	Dietetic Technicians	20	†	\$6.70	\$10.74	\$12.76	\$6.31	\$7.30	\$10.00	\$13.55	\$17.01	
35-9011	Dining Room and Cafeteria Attendants and Bartender Helpers	20	\$7.80	\$6.16	\$7.24	\$7.78	\$5.79	\$6.28	\$7.09	\$8.14	\$8.89	
11-9039	Education Administrators, All Other	20	\$18.20	†	†	†	†	†	†	†	†	
11-9033	Education Administrators, Postsecondary	20	†	\$20.14	\$33.68	\$40.45	\$18.22	\$22.54	\$30.66	\$41.02	\$58.31	
* 25-1081	Education Teachers, Postsecondary	20	\$23.60	\$31,190	\$48,483	\$57,139	\$29,945	\$36,557	\$45,732	\$57,720	\$76,393	
25-9099	Education, Training, and Library Workers, All Other	20	\$7.90	†	†	†	†	†	†	†	†	

\* OES wages reported for Colorado statewide

† No wage data available

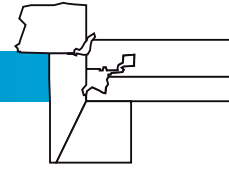


Table 3: Occupations with 10 or More Vacancies – Page 4

SOC Code	SOC Occupational Title	Vacancies	Average JVS Wage	Occupational Employment Statistics Wage Data (2001)						
				Average Wages		Percentile Distribution				
			Entry Level	Overall	Experienced	10th	25th	50th	75th	90th
* 43-4061	Eligibility Interviewers, Government Programs	20	\$14.20	\$14.83	\$16.44	\$11.04	\$12.15	\$13.68	\$16.86	\$20.46
13-1071	Employment, Recruitment, and Placement Specialists	20	\$20.60	\$18.95	\$21.68	\$12.41	\$15.02	\$17.38	\$22.55	\$26.87
25-1123	English Language and Literature Teachers, Postsecondary	20	†	\$47,697	\$56,466	\$29,230	\$33,571	\$42,466	\$56,498	\$76,640
19-2041	Environmental Scientists and Specialists, Including Health	20	†	\$29.48	\$34.19	\$17.87	\$22.61	\$29.00	\$36.30	\$42.64
33-2011	Fire Fighters	20	\$16.20	\$17.77	\$25.55	\$16.68	\$19.70	\$23.69	\$26.75	\$28.76
49-1011	First-Line Supervisors/Managers of Mechanics, Installers, and Repairers	20	†	\$26.16	\$30.06	\$16.50	\$21.00	\$25.49	\$30.16	\$36.32
39-1021	First-Line Supervisors/Managers of Personal Service Workers	20	\$10.10	\$14.89	\$16.74	\$9.82	\$12.17	\$13.72	\$17.19	\$22.66
39-9031	Fitness Trainers and Aerobics Instructors	20	\$14.60	\$16.23	\$19.57	\$8.40	\$10.86	\$13.99	\$20.91	\$27.00
35-3041	Food Servers, Nonrestaurant	20	\$5.60	\$6.96	\$7.42	\$5.62	\$6.03	\$6.70	\$7.91	\$8.76
11-1021	General and Operations Managers	20	†	\$42.66	\$52.92	\$19.28	\$26.24	\$40.94	\$59.43	†
47-2121	Glaziers	20	\$15.60	\$13.09	\$15.08	\$8.46	\$10.44	\$12.53	\$15.38	\$18.59
39-5012	Hairdressers, Hairstylists, and Cosmetologists	20	\$10.30	\$10.95	\$12.12	\$7.93	\$9.29	\$10.54	\$12.08	\$13.86
29-2099	Health Technologists and Technicians, All Other	20	\$15.30	†	†	†	†	†	†	†
* 47-3016	Helpers--Roofers	20	†	\$9.67	\$10.83	\$6.80	\$8.37	\$9.93	\$11.10	\$12.58
43-4161	Human Resources Assistants, Except Payroll and Timekeeping	20	\$12.50	\$13.74	\$15.06	\$10.22	\$11.95	\$13.54	\$15.84	\$17.62
* 13-2053	Insurance Underwriters	20	\$27.40	\$25.46	\$30.08	\$14.63	\$18.10	\$24.11	\$31.57	\$38.04
25-2012	Kindergarten Teachers, Except Special Education	20	\$15.30	\$38,071	\$44,157	\$24,600	\$28,387	\$36,168	\$48,618	\$55,424
37-3011	Landscaping and Groundskeeping Workers	20	†	\$7.79	\$10.43	\$11.75	\$7.53	\$8.29	\$9.62	\$15.00
25-1112	Law Teachers, Postsecondary	20	†	\$58,478	\$83,088	\$54,899	\$69,803	\$84,112	\$96,147	\$118,438
25-4031	Library Technicians	20	\$9.70	\$11.33	\$13.14	\$7.15	\$8.61	\$11.25	\$13.51	\$16.33
25-1022	Mathematical Science Teachers, Postsecondary	20	\$16.60	\$51,979	\$62,136	\$28,857	\$36,841	\$47,573	\$64,227	\$81,802
51-3022	Meat, Poultry, and Fish Cutters and Trimmers	20	†	\$9.34	\$13.09	\$14.96	\$8.65	\$9.85	\$11.33	\$20.27
17-2141	Mechanical Engineers	20	\$42.10	\$34.91	\$40.41	\$22.34	\$26.76	\$33.17	\$42.26	\$52.80
15-1081	Network Systems and Data Communications Analysts	20	†	\$20.83	\$30.40	\$35.19	\$18.95	\$23.13	\$29.38	\$36.84
25-1072	Nursing Instructors and Teachers, Postsecondary	20	\$36.10	\$47,198	\$54,832	\$31,089	\$35,148	\$46,157	\$55,624	\$68,492
29-1122	Occupational Therapists	20	\$19.40	\$24.23	\$26.88	\$18.02	\$20.70	\$24.10	\$26.97	\$29.19
43-9071	Office Machine Operators, Except Computer	20	\$9.30	\$10.46	\$11.43	\$7.83	\$9.04	\$10.31	\$11.97	\$13.58
23-2011	Paralegals and Legal Assistants	20	\$21.60	\$20.91	\$23.47	\$14.47	\$17.39	\$19.93	\$22.94	\$27.49
13-2052	Personal Financial Advisors	20	\$25.20	\$30.97	\$39.11	\$13.27	\$16.59	\$24.70	\$40.26	\$67.20
37-3012	Pesticide Handlers, Sprayers, and Applicators, Vegetation	20	\$12.90	\$10.32	\$11.39	\$7.78	\$8.45	\$9.87	\$12.07	\$13.94
31-2021	Physical Therapist Assistants	20	\$15.40	\$15.83	\$16.38	\$13.91	\$14.80	\$15.94	\$17.09	\$17.95
* 19-2012	Physicists	20	†	\$30.80	\$41.52	\$29.09	\$34.98	\$41.66	\$49.49	\$56.37
47-2152	Plumbers, Pipefitters, and Steamfitters	20	\$17.50	\$17.35	\$20.15	\$11.19	\$13.46	\$17.00	\$21.48	\$25.48

\* OES wages reported for Colorado statewide

† No wage data available

Table 3: Occupations with 10 or More Vacancies – Page 5

SOC Code	SOC Occupational Title	Vacancies	Average JVS Wage	Occupational Employment Statistics Wage Data (2001)							
				Average Wages		Percentile Distribution					
				Entry Level	Overall	Experienced	10th	25th	50th	75th	90th
43-5031	Police, Fire, and Ambulance Dispatchers	20	\$18.10	\$12.77	\$17.17	\$19.37	\$11.63	\$14.11	\$17.64	\$20.47	\$22.21
25-2011	Preschool Teachers, Except Special Education	20	\$9.80	\$7.67	\$10.15	\$11.39	\$6.90	\$8.69	\$9.83	\$10.99	\$13.39
25-1066	Psychology Teachers, Postsecondary	20	†	\$32,015	\$55,667	\$67,493	\$30,527	\$34,720	\$51,937	\$70,031	\$91,313
* 29-1124	Radiation Therapists	20	\$24.50	\$21.66	\$25.29	\$27.10	\$19.51	\$23.03	\$25.45	\$27.87	\$32.31
41-9022	Real Estate Sales Agents	20	\$17.30	\$12.34	\$23.79	\$29.52	\$11.03	\$14.07	\$19.23	\$23.06	\$50.81
41-9031	Sales Engineers	20	\$14.20	\$26.66	\$31.57	\$34.03	\$23.83	\$29.35	\$32.08	\$34.81	\$36.49
11-2022	Sales Managers	20	\$55.00	\$23.39	\$41.68	\$50.81	\$20.79	\$26.91	\$38.57	\$56.12	†
41-3099	Sales Representatives, Services, All Other	20	†	\$15.00	\$28.37	\$35.06	\$13.57	\$17.51	\$26.62	\$35.24	\$51.50
51-6031	Sewing Machine Operators	20	\$8.20	\$7.22	\$9.89	\$11.23	\$6.68	\$7.99	\$9.85	\$11.83	\$13.51
43-5071	Shipping, Receiving, and Traffic Clerks	20	\$11.00	\$9.02	\$12.54	\$14.30	\$8.22	\$9.99	\$12.23	\$14.53	\$17.42
11-9151	Social and Community Service Managers	20	\$23.10	\$10.59	\$20.37	\$25.26	\$8.87	\$12.71	\$19.20	\$24.32	\$35.30
21-1093	Social and Human Service Assistants	20	\$14.30	\$8.22	\$12.55	\$14.71	\$7.40	\$9.23	\$11.58	\$15.63	\$19.36
21-1029	Social Workers, All Other	20	\$16.40	†	†	†	†	†	†	†	†
29-1127	Speech-Language Pathologists	20	\$22.00	\$18.39	\$24.51	\$27.57	\$16.92	\$20.07	\$24.12	\$27.94	\$33.31
27-3042	Technical Writers	20	†	\$18.16	\$24.55	\$27.74	\$16.81	\$20.27	\$24.68	\$28.14	\$32.61
53-6099	Transportation Workers, All Other	20	†	\$9.48	\$16.52	\$20.04	\$8.98	\$10.58	\$15.42	\$22.65	\$26.98
11-3071	Transportation, Storage, and Distribution Managers	20	†	\$19.27	\$30.14	\$35.56	\$15.86	\$22.91	\$28.35	\$36.81	\$46.14
53-3032	Truck Drivers, Heavy and Tractor-Trailer	20	\$16.50	\$12.70	\$16.89	\$18.99	\$11.98	\$14.08	\$16.54	\$19.75	\$22.30
29-1131	Veterinarians	20	\$41.70	\$19.99	\$30.68	\$36.04	\$18.62	\$22.27	\$30.66	\$34.49	\$43.57
31-9096	Veterinary Assistants and Laboratory Animal Caretakers	20	\$8.40	\$6.05	\$9.05	\$10.56	\$5.74	\$6.31	\$7.66	\$10.09	\$17.18
13-1022	Wholesale and Retail Buyers, Except Farm Products	20	\$31.30	\$13.53	\$21.71	\$25.81	\$11.69	\$15.48	\$19.70	\$26.51	\$34.87
39-2011	Animal Trainers	10	\$10.30	\$8.00	\$8.39	\$8.59	\$7.37	\$7.70	\$8.26	\$8.81	\$10.17
17-3011	Architectural and Civil Drafters	10	\$13.20	\$12.60	\$17.65	\$20.17	\$12.09	\$13.46	\$17.60	\$21.38	\$25.18
43-3021	Billing and Posting Clerks and Machine Operators	10	\$12.20	\$8.97	\$12.90	\$14.86	\$6.58	\$11.13	\$13.25	\$15.25	\$17.21
* 25-1042	Biological Science Teachers, Postsecondary	10	\$15.60	\$33,640	\$59,942	\$73,103	\$31,004	\$39,089	\$53,714	\$74,317	\$103,567
19-1029	Biological Scientists, All Other	10	†	†	†	†	†	†	†	†	†
19-4021	Biological Technicians	10	\$12.60	\$11.77	\$17.76	\$20.75	\$10.91	\$13.06	\$17.58	\$21.82	\$26.10
53-3022	Bus Drivers, School	10	\$11.50	\$9.15	\$12.43	\$14.07	\$8.42	\$10.49	\$12.62	\$14.43	\$16.61
47-2031	Carpenters	10	\$9.00	\$12.97	\$17.58	\$19.90	\$11.10	\$14.82	\$17.30	\$20.62	\$23.63
35-1011	Chefs and Head Cooks	10	†	\$9.76	\$15.16	\$17.88	\$8.00	\$11.74	\$15.35	\$19.57	\$21.51
17-2041	Chemical Engineers	10	†	\$26.18	\$36.24	\$41.26	\$23.41	\$29.51	\$35.57	\$44.00	\$52.68
19-2031	Chemists	10	\$42.10	\$18.82	\$23.42	\$25.71	\$17.95	\$19.47	\$21.85	\$26.42	\$33.65
27-2022	Coaches and Scouts	10	\$24.30	\$17,784	\$35,184	\$43,883	\$15,523	\$20,494	\$26,171	\$40,448	\$58,343
35-3021	Combined Food Preparation and Serving Workers, Including Fast Food	10	\$8.00	\$6.34	\$7.85	\$8.60	\$6.04	\$6.85	\$7.74	\$8.64	\$10.17
* 25-1021	Computer Science Teachers, Postsecondary	10	\$25.80	\$30,536	\$46,064	\$53,828	\$29,135	\$32,488	\$38,643	\$52,064	\$78,687
15-1031	Computer Software Engineers, Applications	10	\$34.90	\$24.19	\$37.98	\$44.88	\$21.25	\$27.85	\$36.58	\$45.38	\$60.80

\* OES wages reported for Colorado statewide

† No wage data available

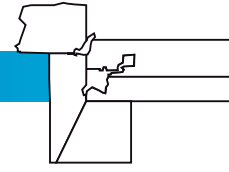


Table 3: Occupations with 10 or More Vacancies – Page 6

SOC Code	SOC Occupational Title	Vacancies	Average JVS Wage	Occupational Employment Statistics Wage Data (2001)							
				Average Wages		Percentile Distribution					
			Entry Level	Overall	Experienced	10th	25th	50th	75th	90th	
51-4011	Computer-Controlled Machine Tool Operators, Metal and Plastic	10	\$12.00	\$9.77	\$14.54	\$16.92	\$9.36	\$10.43	\$13.00	\$16.81	\$24.82
39-6012	Concierges	10	\$9.30	\$9.95	\$13.00	\$14.53	\$9.37	\$10.12	\$14.13	\$16.01	\$17.09
11-9021	Construction Managers	10	†	\$22.69	\$34.88	\$40.98	\$20.34	\$25.94	\$32.77	\$41.31	\$55.11
33-3012	Correctional Officers and Jailers	10	\$12.90	\$16.29	\$19.57	\$21.21	\$15.31	\$17.21	\$19.57	\$21.78	\$25.11
21-1019	Counselors, All Other	10	\$22.70	†	†	†	†	†	†	†	†
43-5021	Couriers and Messengers	10	\$11.50	\$8.23	\$11.68	\$13.40	\$7.89	\$8.85	\$10.33	\$12.99	\$19.87
15-1061	Database Administrators	10	\$18.00	\$16.03	\$23.69	\$27.51	\$14.97	\$17.66	\$23.00	\$29.80	\$34.30
31-9091	Dental Assistants	10	\$13.70	\$11.81	\$13.76	\$14.74	\$11.24	\$12.11	\$13.55	\$15.62	\$17.10
29-2021	Dental Hygienists	10	\$15.10	\$24.55	\$31.34	\$34.73	\$23.55	\$25.94	\$30.92	\$37.74	\$42.34
33-3021	Detectives and Criminal Investigators	10	\$15.60	\$19.13	\$23.92	\$26.31	\$18.42	\$21.08	\$24.10	\$26.60	\$28.09
29-1031	Dietitians and Nutritionists	10	\$17.60	\$14.56	\$19.34	\$21.72	\$14.11	\$16.18	\$19.58	\$22.69	\$25.90
43-5032	Dispatchers, Except Police, Fire, and Ambulance	10	\$10.50	\$11.74	\$16.67	\$19.13	\$10.72	\$13.17	\$16.25	\$19.93	\$22.90
11-9032	Education Administrators, Elementary and Secondary School	10	\$33.40	\$51.119	\$64.978	\$71.908	\$48.831	\$55.600	\$65.214	\$74.276	\$86.505
11-9031	Education Administrators, Preschool and Child Care Center/Program	10	\$15.10	\$9.69	\$13.65	\$15.64	\$8.86	\$10.98	\$13.47	\$15.93	\$17.53
17-2072	Electronics Engineers, Except Computer	10	\$25.00	\$23.14	\$31.19	\$35.22	\$21.44	\$26.01	\$31.46	\$35.29	\$41.43
17-3029	Engineering Technicians, Except Drafters, All Other	10	\$10.90	†	†	†	†	†	†	†	†
39-3099	Entertainment Attendants and Related Workers, All Other	10	\$7.10	†	†	†	†	†	†	†	†
19-4091	Environmental Science and Protection Technicians, Including Health	10	\$15.30	\$16.75	\$23.02	\$26.17	\$13.56	\$19.21	\$23.08	\$27.73	\$32.47
13-2051	Financial Analysts	10	\$30.70	\$18.60	\$30.98	\$37.18	\$17.22	\$20.68	\$26.70	\$35.37	\$58.34
47-1011	First-Line Supervisors/Managers of Construction Trades and Extraction Workers	10	\$17.80	\$17.80	\$26.10	\$30.26	\$16.38	\$19.54	\$25.19	\$31.04	\$37.24
35-1012	First-Line Supervisors/Managers of Food Preparation and Serving Workers	10	\$9.90	\$9.14	\$14.12	\$16.61	\$7.83	\$10.91	\$14.29	\$17.13	\$20.72
37-1011	First-Line Supervisors/Managers of Housekeeping and Janitorial Workers	10	†	\$10.05	\$14.83	\$17.22	\$9.51	\$10.88	\$13.61	\$17.72	\$22.67
41-1012	First-Line Supervisors/Managers of Non-Retail Sales Workers	10	\$12.00	\$14.14	\$25.37	\$30.98	\$12.93	\$15.35	\$19.54	\$28.59	\$48.48
33-1099	First-Line Supervisors/Managers, Protective Service Workers, All Other	10	†	\$13.14	\$22.36	\$26.97	\$12.47	\$14.28	\$17.68	\$28.65	\$42.14
35-9099	Food Preparation and Serving Related Workers, All Other	10	\$9.90	\$6.20	\$7.94	\$8.81	\$5.91	\$6.46	\$7.31	\$8.78	\$11.18
27-1024	Graphic Designers	10	\$15.80	\$13.44	\$18.29	\$20.71	\$12.28	\$15.49	\$18.67	\$21.23	\$24.02
31-9099	Healthcare Support Workers, All Other	10	\$8.90	\$8.61	\$10.59	\$11.59	\$7.91	\$9.13	\$10.49	\$12.25	\$13.63
47-3019	Helpers, Construction Trades, All Other	10	\$10.00	\$10.40	\$11.82	\$12.54	\$9.72	\$11.01	\$12.10	\$13.08	\$13.68

\* OES wages reported for Colorado statewide

† No wage data available

Table 3: Occupations with 10 or More Vacancies – Page 7

SOC Code	SOC Occupational Title	Vacancies	Average JVS Wage	Occupational Employment Statistics Wage Data (2001)							
				Average Wages		Percentile Distribution					
				Entry Level	Overall	Experienced	10th	25th	50th	75th	90th
11-3040	Human Resources Managers	10	\$39.70	\$22.49	\$35.65	\$42.22	\$20.35	\$25.67	\$33.67	\$45.02	\$56.13
13-1079	Human Resources, Training, and Labor Relations Specialists, All Other	10	\$20.70	†	†	†	†	†	†	†	†
43-4199	Information and Record Clerks, All Other	10	\$12.40	†	†	†	†	†	†	†	†
49-9099	Installation, Maintenance, and Repair Workers, All Other	10	†	\$9.51	\$14.75	\$17.37	\$9.03	\$10.23	\$13.61	\$18.49	\$22.04
25-9031	Instructional Coordinators	10	\$15.00	\$10.71	\$20.84	\$25.91	\$9.80	\$11.79	\$19.48	\$26.82	\$38.48
41-3021	Insurance Sales Agents	10	\$12.50	\$14.50	\$22.10	\$25.90	\$13.35	\$15.16	\$17.07	\$24.59	\$37.29
* 27-3091	Interpreters and Translators	10	\$13.20	\$10.81	\$15.58	\$17.97	\$9.87	\$11.89	\$14.24	\$19.51	\$23.63
51-5021	Job Printers	10	\$15.20	\$8.14	\$13.41	\$16.04	\$7.81	\$8.62	\$14.77	\$16.94	\$18.29
23-1011	Lawyers	10	\$28.80	\$27.56	\$43.62	\$51.66	\$24.75	\$31.86	\$41.74	\$55.47	†
23-2099	Legal Support Workers, All Other	10	\$15.60	†	†	†	†	†	†	†	†
* 43-4121	Library Assistants, Clerical	10	\$8.50	\$7.28	\$10.02	\$11.39	\$6.78	\$8.04	\$9.96	\$12.09	\$13.72
43-4131	Loan Interviewers and Clerks	10	†	\$12.73	\$16.85	\$18.91	\$11.88	\$13.91	\$16.55	\$19.51	\$22.10
* 39-3093	Locker Room, Coatroom, and Dressing Room Attendants	10	\$7.80	\$6.13	\$7.78	\$8.61	\$5.83	\$6.36	\$7.36	\$8.84	\$10.75
11-9081	Lodging Managers	10	\$9.80	\$12.29	\$16.42	\$18.49	\$11.90	\$14.29	\$17.20	\$19.77	\$21.28
49-9043	Maintenance Workers, Machinery	10	\$16.90	\$10.68	\$14.41	\$16.28	\$9.89	\$11.39	\$13.93	\$17.23	\$20.21
39-5092	Manicurists and Pedicurists	10	\$11.00	\$7.12	\$7.69	\$7.97	\$6.52	\$7.32	\$7.86	\$8.39	\$8.71
* 49-9062	Medical Equipment Repairers	10	\$12.90	\$17.03	\$22.32	\$24.96	\$14.85	\$19.49	\$22.87	\$26.19	\$28.29
31-9094	Medical Transcriptionists	10	†	\$11.52	\$14.94	\$16.65	\$11.08	\$12.82	\$14.91	\$16.96	\$19.43
* 13-1121	Meeting and Convention Planners	10	\$8.60	\$13.03	\$18.41	\$21.11	\$11.96	\$14.51	\$17.34	\$22.09	\$26.61
21-1023	Mental Health and Substance Abuse Social Workers	10	†	\$11.20	\$13.65	\$14.86	\$10.41	\$11.61	\$13.21	\$15.66	\$17.74
51-4072	Molding, Coremaking, and Casting Machine Setters, Operators, and Tenders, Metal and Plastic	10	\$10.50	\$7.86	\$11.72	\$13.64	\$7.55	\$8.35	\$9.92	\$14.53	\$19.63
11-9121	Natural Sciences Managers	10	\$28.70	\$28.77	\$39.04	\$44.17	\$25.99	\$33.85	\$40.46	\$46.77	\$53.23
43-4141	New Accounts Clerks	10	\$10.60	\$10.77	\$12.39	\$13.19	\$9.84	\$11.43	\$12.53	\$13.56	\$14.41
39-2021	Nonfarm Animal Caretakers	10	\$10.70	\$6.77	\$8.74	\$9.73	\$6.30	\$7.23	\$8.25	\$10.08	\$12.62
* 29-2033	Nuclear Medicine Technologists	10	†	\$18.99	\$22.47	\$24.20	\$18.19	\$20.00	\$22.73	\$25.52	\$27.31
43-9199	Office and Administrative Support Workers, All Other	10	†	†	†	†	†	†	†	†	†
43-3051	Payroll and Timekeeping Clerks	10	\$11.00	\$10.95	\$14.11	\$15.69	\$10.06	\$11.76	\$14.31	\$16.36	\$17.61
39-9021	Personal and Home Care Aides	10	†	\$6.80	\$8.49	\$9.34	\$6.28	\$7.32	\$8.52	\$9.82	\$10.83
39-9099	Personal Care and Service Workers, All Other	10	\$7.20	\$6.98	\$9.88	\$11.34	\$6.48	\$7.40	\$8.43	\$11.11	\$16.35
* 37-2021	Pest Control Workers	10	\$10.00	\$6.23	\$8.76	\$10.03	\$5.95	\$6.73	\$7.77	\$8.82	\$14.52
27-4021	Photographers	10	†	\$8.55	\$13.07	\$15.33	\$7.56	\$9.51	\$10.91	\$16.12	\$22.52
* 51-9131	Photographic Process Workers	10	\$10.00	\$7.58	\$10.86	\$12.51	\$7.32	\$8.22	\$9.97	\$12.88	\$17.16
31-2022	Physical Therapist Aides	10	\$10.80	\$7.62	\$10.13	\$11.37	\$7.27	\$7.94	\$9.77	\$12.01	\$13.56
29-1069	Physicians and Surgeons, All Other	10	\$61.30	\$17.41	\$39.73	\$50.90	\$15.90	\$18.48	\$22.09	\$69.94	\$72.67
51-5023	Printing Machine Operators	10	\$14.00	\$8.39	\$12.75	\$14.94	\$7.78	\$8.83	\$12.36	\$14.42	\$19.78

\* OES wages reported for Colorado statewide

† No wage data available

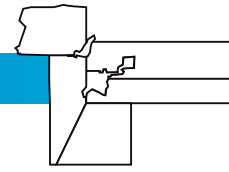


Table 3: Occupations with 10 or More Vacancies – Page 8

SOC Code	SOC Occupational Title	Vacancies	Average JVS Wage	Occupational Employment Statistics Wage Data (2001)							
				Average Wages		Percentile Distribution					
				Entry Level	Overall	Experienced	10th	25th	50th	75th	90th
27-2012	Producers and Directors	10	†	\$31,298	\$37,824	\$41,086	\$27,741	\$35,104	\$39,689	\$43,053	\$45,072
29-2053	Psychiatric Technicians	10	\$11.90	\$10.74	\$13.95	\$15.57	\$9.71	\$12.08	\$14.47	\$16.11	\$17.13
11-2031	Public Relations Managers	10	\$22.70	\$11.64	\$22.88	\$28.50	\$9.91	\$13.69	\$17.50	\$31.17	\$40.94
11-3061	Purchasing Managers	10	\$30.60	\$17.33	\$30.64	\$37.31	\$15.17	\$21.01	\$29.40	\$40.33	\$49.38
41-4011	Sales Representatives, Wholesale and Manufacturing, Technical and Scientific Products	10	†	\$18.58	\$33.84	\$41.47	\$16.52	\$21.54	\$30.02	\$44.92	\$59.79
25-2031	Secondary School Teachers, Except Special and Vocational Education	10	\$23.00	\$30,551	\$45,590	\$53,110	\$28,795	\$33,916	\$44,318	\$56,740	\$67,766
25-1069	Social Sciences Teachers, Postsecondary, All Other	10	†	†	†	†	†	†	†	†	†
25-2042	Special Education Teachers, Middle School	10	\$15.50	\$28,332	\$38,521	\$43,616	\$26,025	\$30,135	\$37,121	\$46,550	\$54,247
25-2041	Special Education Teachers, Preschool, Kindergarten, and Elementary School	10	\$14.60	\$29,812	\$41,488	\$47,326	\$27,219	\$31,797	\$38,331	\$50,526	\$57,605
25-2043	Special Education Teachers, Secondary School	10	\$12.80	\$29,658	\$40,689	\$46,203	\$27,115	\$32,057	\$39,632	\$47,846	\$56,222
* 15-2041	Statisticians	10	\$19.00	\$18.45	\$27.63	\$32.21	\$17.39	\$20.17	\$26.77	\$33.71	\$41.59
21-1011	Substance Abuse and Behavioral Disorder Counselors	10	\$14.00	\$10.78	\$15.05	\$17.19	\$9.90	\$11.60	\$14.40	\$17.44	\$22.28
* 19-3022	Survey Researchers	10	\$17.30	\$8.09	\$11.31	\$12.93	\$7.64	\$8.20	\$9.14	\$11.64	\$16.77
53-3041	Taxi Drivers and Chauffeurs	10	\$10.00	\$8.01	\$10.14	\$11.21	\$7.54	\$8.77	\$10.05	\$11.17	\$13.12
49-9052	Telecommunications Line Installers and Repairers	10	\$12.50	\$11.36	\$16.02	\$18.34	\$10.46	\$12.58	\$15.30	\$17.99	\$22.40
49-3093	Tire Repairers and Changers	10	†	\$8.44	\$9.75	\$10.40	\$7.82	\$8.91	\$9.83	\$10.67	\$11.28
* 39-6021	Tour Guides and Escorts	10	\$12.80	\$9.41	\$12.96	\$14.73	\$7.87	\$11.45	\$13.60	\$15.65	\$17.00
37-3013	Tree Trimmers and Pruners	10	\$14.00	\$9.94	\$12.60	\$13.93	\$9.32	\$9.97	\$11.05	\$15.16	\$18.29
27-2023	Umpires, Referees, and Other Sports Officials	10	†	\$17,739	\$25,696	\$29,673	\$16,553	\$19,236	\$24,555	\$29,741	\$35,728
19-3051	Urban and Regional Planners	10	\$21.50	\$18.51	\$23.89	\$26.59	\$17.74	\$20.00	\$23.15	\$27.44	\$32.84
51-4121	Welders, Cutters, Solderers, and Brazers	10	\$12.00	\$8.82	\$12.37	\$14.14	\$8.04	\$9.52	\$11.70	\$14.44	\$17.50
* 51-7099	Woodworkers, All Other	10	\$9.00	\$7.62	\$10.38	\$11.76	\$7.34	\$8.12	\$9.59	\$12.24	\$15.04

\* OES wages reported for Colorado statewide

† No wage data available

Table 4: Occupations with Fewer Than 10 Vacancies

SOC Code	SOC Occupational Title	Average Wages					Percentile Distribution				
		Entry Level	Overall	Experienced	10th	25th	50th	75th	90th		
17-3021	Aerospace Engineering and Operations Technicians	\$19.54	\$25.40	\$28.33	\$17.93	\$21.83	\$25.34	\$28.67	\$34.28		
43-3011	Bill and Account Collectors	\$10.43	\$14.43	\$16.44	\$9.71	\$11.42	\$13.50	\$16.48	\$21.11		
17-2031	Biomedical Engineers	\$23.68	\$29.75	\$32.78	\$22.71	\$25.89	\$30.14	\$33.72	\$37.32		
17-3019	Drafters, All Other	†	†	†	†	†	†	†	†		
47-2081	Drywall and Ceiling Tile Installers	\$10.70	\$15.45	\$17.82	\$8.84	\$13.04	\$15.88	\$17.91	\$21.29		
17-3029	Engineering Technicians, Except Drafters, All Other	†	†	†	†	†	†	†	†		
11-9051	Food Service Managers	\$13.60	\$21.61	\$25.61	\$11.68	\$15.41	\$19.11	\$25.36	\$39.16		
21-1091	Health Educators	\$11.66	\$19.73	\$23.77	\$10.35	\$13.32	\$19.29	\$25.50	\$29.54		
13-1079	Human Resources, Training, and Labor Relations Specialists, All Other	†	†	†	†	†	†	†	†		
43-9071	Office Machine Operators, Except Computer	\$8.84	\$11.65	\$13.04	\$8.11	\$9.47	\$11.21	\$13.58	\$15.93		
29-1124	Radiation Therapists	\$22.79	\$26.79	\$28.79	\$21.35	\$23.86	\$26.56	\$30.03	\$34.31		
43-2011	Switchboard Operators, Including Answering Service	\$8.96	\$11.80	\$13.22	\$8.13	\$10.20	\$12.18	\$13.58	\$14.66		
21-1021	Child, Family, and School Social Workers	\$13.66	\$19.94	\$23.09	\$12.18	\$15.61	\$19.50	\$23.83	\$28.70		
17-2061	Computer Hardware Engineers	\$28.38	\$38.34	\$43.32	\$26.11	\$31.04	\$37.54	\$44.68	\$54.56		
43-4071	File Clerks	\$8.22	\$10.87	\$12.19	\$7.58	\$9.13	\$10.66	\$12.71	\$14.73		
35-9099	Food Preparation and Serving Related Workers, All Other	\$7.50	\$9.62	\$10.68	\$7.18	\$7.97	\$9.33	\$10.74	\$12.77		
43-4199	Information and Record Clerks, All Other	†	†	†	†	†	†	†	†		
39-2021	Nonfarm Animal Caretakers	\$7.40	\$10.16	\$11.54	\$6.80	\$7.91	\$9.18	\$11.15	\$14.78		
19-3051	Urban and Regional Planners	\$15.53	\$22.78	\$26.40	\$14.90	\$16.52	\$21.94	\$27.65	\$33.57		
29-2056	Veterinary Technologists and Technicians	\$9.76	\$11.93	\$13.02	\$9.23	\$10.01	\$11.41	\$13.11	\$15.04		
27-4012	Broadcast Technicians	\$8.21	\$16.25	\$20.25	\$7.54	\$9.13	\$14.16	\$20.12	\$27.47		
29-2031	Cardiovascular Technologists and Technicians	\$12.27	\$18.68	\$21.89	\$11.29	\$13.77	\$18.58	\$23.27	\$27.24		
13-1031	Claims Adjusters, Examiners, and Investigators	\$16.64	\$23.74	\$27.29	\$15.52	\$18.39	\$22.43	\$27.50	\$34.36		
35-2012	Cooks, Institution and Cafeteria	\$8.09	\$10.43	\$11.60	\$7.70	\$8.70	\$10.22	\$11.83	\$13.86		
35-9021	Dishwashers	\$6.95	\$7.96	\$8.47	\$6.47	\$7.28	\$7.97	\$8.66	\$9.72		
17-3023	Electrical and Electronic Engineering Technicians	\$15.55	\$26.04	\$31.28	\$13.24	\$18.24	\$23.71	\$32.92	\$44.03		
17-3012	Electrical and Electronics Drafters	\$13.75	\$20.33	\$23.60	\$12.52	\$15.13	\$18.90	\$25.01	\$29.17		
11-9041	Engineering Managers	\$33.19	\$46.39	\$52.99	\$30.76	\$37.13	\$45.66	\$56.42	\$69.01		
27-3091	Interpreters and Translators	\$12.56	\$18.22	\$21.05	\$11.16	\$14.52	\$18.37	\$22.03	\$25.93		
33-9092	Lifeguards, Ski Patrol, and Other Recreational Protective Service Workers	†	†	†	†	†	†	†	†		
49-3042	Mobile Heavy Equipment Mechanics, Except Engines	\$15.03	\$18.44	\$20.14	\$14.20	\$16.11	\$18.58	\$20.91	\$22.57		
53-3099	Motor Vehicle Operators, All Other	\$6.28	\$9.20	\$10.67	\$5.97	\$6.50	\$7.38	\$10.57	\$16.46		
51-4012	Numerical Tool and Process Control Programmers	\$15.76	\$23.58	\$27.50	\$11.16	\$18.92	\$22.69	\$30.93	\$34.22		
41-2022	Parts Salespersons	\$10.51	\$16.88	\$20.07	\$9.70	\$11.58	\$15.27	\$21.41	\$27.67		
51-4193	Plating and Coating Machine Setters, Operators, and Tenders, Metal and Plastic	\$9.32	\$12.70	\$14.39	\$8.94	\$10.16	\$12.00	\$14.13	\$17.25		

\* OES wages reported for Colorado statewide

† No wage data available



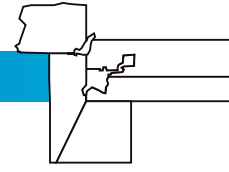


Table 4: Occupations with Fewer Than 10 Vacancies – Page 2

SOC Code	SOC Occupational Title	Average Wages		Occupational Employment Statistics Wage Data (2001)						
		Entry Level	Overall	Experienced	Percentile Distribution					
					10th	25th	50th	75th	90th	
47-2181	Roofers	\$11.65	\$14.70	\$16.22	\$11.03	\$12.86	\$14.81	\$16.60	\$18.32	
41-9031	Sales Engineers	\$20.23	\$33.60	\$40.28	\$18.00	\$23.35	\$30.95	\$41.99	\$55.66	
41-3031	Securities, Commodities, and Financial Services Sales Agents	\$14.77	\$27.16	\$33.35	\$13.51	\$16.53	\$21.40	\$32.81	\$53.80	
47-2211	Sheet Metal Workers	\$11.49	\$18.09	\$21.39	\$10.51	\$12.91	\$17.69	\$23.56	\$27.38	
29-1129	Therapists, All Other	†	†	†	†	†	†	†	†	
51-4121	Welders, Cutters, Solderers, and Brazers	\$11.77	\$15.69	\$17.66	\$11.18	\$12.86	\$15.46	\$18.35	\$21.27	
41-3011	Advertising Sales Agents	\$14.06	\$23.07	\$27.59	\$12.64	\$16.23	\$20.87	\$26.54	\$35.55	
25-1061	Anthropology and Archeology Teachers, Postsecondary	\$35.302	\$58.711	\$70.415	\$32.051	\$42.045	\$55.696	\$75.101	\$95.353	
25-1121	Art, Drama, and Music Teachers, Postsecondary	\$35.519	\$52.142	\$60.453	\$33.239	\$39.983	\$49.207	\$61.012	\$73.923	
49-2091	Avionics Technicians	\$15.98	\$19.06	\$20.60	\$15.27	\$17.24	\$19.26	\$21.17	\$22.53	
25-1021	Computer Science Teachers, Postsecondary	\$31.045	\$46.222	\$53.810	\$29.201	\$32.704	\$38.476	\$49.816	\$80.069	
25-1191	Graduate Teaching Assistants	\$12.760	\$20.565	\$24.467	\$12.210	\$13.601	\$18.547	\$25.870	\$32.583	
41-3021	Insurance Sales Agents	\$19.22	\$29.94	\$35.31	\$16.87	\$22.33	\$26.47	\$33.93	\$47.64	
25-4031	Library Technicians	\$9.75	\$13.33	\$15.13	\$9.26	\$10.78	\$13.00	\$15.85	\$18.27	
25-1022	Mathematical Science Teachers, Postsecondary	\$30.019	\$47.322	\$55.974	\$28.547	\$33.767	\$41.899	\$55.559	\$78.887	
25-2022	Middle School Teachers, Except Special and Vocational Education	\$30.674	\$42.740	\$48.774	\$28.954	\$33.037	\$41.016	\$51.915	\$60.493	
25-1126	Philosophy and Religion Teachers, Postsecondary	\$33.361	\$52.138	\$61.527	\$30.922	\$36.724	\$49.339	\$64.936	\$80.900	
11-2031	Public Relations Managers	\$18.36	\$34.11	\$42.00	\$14.85	\$21.96	\$29.95	\$43.98	\$63.57	
*25-1193	Recreation and Fitness Studies Teachers, Postsecondary	\$28.524	\$43.100	\$50.390	\$25.640	†	\$40.750	\$50.240	\$62.040	
51-9012	Separating, Filtering, Clarifying, Precipitating, and Still Machine Setters, Operators, and Tenders	\$8.05	\$12.85	\$15.26	\$6.88	\$9.38	\$12.24	\$17.23	\$20.02	
15-2041	Statisticians	\$19.65	\$28.25	\$32.55	\$18.66	\$21.30	\$27.26	\$33.33	\$41.32	
29-1131	Veterinarians	\$19.43	\$28.22	\$32.60	\$18.39	\$20.03	\$23.28	\$33.65	\$49.83	
27-4011	Audio and Video Equipment Technicians	\$9.37	\$15.01	\$17.84	\$8.15	\$10.81	\$13.59	\$17.78	\$23.82	
21-1019	Counselors, All Other	†	†	†	†	†	†	†	†	
47-2121	Glaziers	\$15.78	\$21.16	\$23.85	\$14.47	\$18.03	\$22.23	\$25.43	\$27.42	
27-1024	Graphic Designers	\$12.49	\$18.04	\$20.82	\$10.75	\$14.45	\$17.24	\$21.58	\$26.64	
43-9041	Insurance Claims and Policy Processing Clerks	\$11.49	\$16.34	\$18.75	\$10.43	\$12.66	\$15.47	\$17.96	\$23.49	
13-2053	Insurance Underwriters	\$17.66	\$27.90	\$33.02	\$15.81	\$20.06	\$26.31	\$35.21	\$42.47	
43-4121	Library Assistants, Clerical	\$7.97	\$10.50	\$11.77	\$7.58	\$8.72	\$10.34	\$12.50	\$14.04	
43-4151	Order Clerks	\$9.74	\$13.59	\$15.52	\$9.38	\$10.70	\$13.26	\$16.06	\$18.45	
49-9069	Precision Instrument and Equipment Repairers, All Other	\$14.71	\$19.68	\$22.17	\$13.51	\$16.36	\$19.86	\$22.69	\$26.38	
49-2098	Security and Fire Alarm Systems Installers	\$12.29	\$17.18	\$19.63	\$11.60	\$13.71	\$16.47	\$19.37	\$25.40	
13-2082	Tax Preparers	\$7.70	\$14.71	\$18.22	\$7.31	\$8.58	\$11.81	\$19.81	\$26.06	
53-6041	Traffic Technicians	\$13.10	\$19.84	\$23.21	\$12.10	\$14.42	\$19.31	\$25.17	\$28.48	
17-2011	Aerospace Engineers	\$24.39	\$32.95	\$37.22	\$23.45	\$26.38	\$32.09	\$39.73	\$44.99	

\* OES wages reported for Colorado statewide

† No wage data available

Table 4: Occupations with Fewer Than 10 Vacancies – Page 3

SOC Code	SOC Occupational Title	Average Wages					Percentile Distribution				
		Entry Level	Overall	Experienced	10th	25th	50th	75th	90th		
19-2021	Atmospheric and Space Scientists	†	†	†	†	†	†	†	†	†	
39-6011	Baggage Porters and Bellhops	\$6.32	\$11.78	\$14.52	\$6.09	\$6.81	\$8.31	\$19.51	\$22.02	\$22.02	
13-2031	Budget Analysts	\$17.85	\$25.86	\$29.87	\$16.06	\$20.04	\$25.36	\$31.52	\$36.99	\$36.99	
15-1051	Computer Systems Analysts	\$24.53	\$34.27	\$39.14	\$22.06	\$27.97	\$35.85	\$41.03	\$44.27	\$44.27	
41-9091	Door-to-Door Sales Workers, News and Street Vendors, and Related Workers	†	†	†	†	†	†	†	†	†	
43-4061	Eligibility Interviewers, Government Programs	\$12.66	\$15.47	\$16.87	\$12.01	\$12.96	\$14.47	\$17.27	\$20.78	\$20.78	
13-1071	Employment, Recruitment, and Placement Specialists	\$14.32	\$21.23	\$24.68	\$13.23	\$15.94	\$19.07	\$25.54	\$32.54	\$32.54	
17-2081	Environmental Engineers	\$22.05	\$31.54	\$36.29	\$20.24	\$24.82	\$31.68	\$38.44	\$43.21	\$43.21	
37-1012	First-Line Supervisors/Managers of Landscaping, Lawn Service, and Groundskeeping Workers	\$13.43	\$19.15	\$22.01	\$12.56	\$14.60	\$18.29	\$22.19	\$26.81	\$26.81	
39-1021	First-Line Supervisors/Managers of Personal Service Workers	\$8.71	\$13.33	\$15.64	\$7.97	\$9.37	\$11.48	\$14.46	\$22.91	\$22.91	
19-2042	Geoscientists, Except Hydrologists and Geographers	\$21.06	\$35.73	\$43.07	\$18.40	\$24.40	\$34.82	\$45.21	\$55.83	\$55.83	
17-2112	Industrial Engineers	\$22.94	\$31.74	\$36.15	\$21.20	\$24.92	\$30.72	\$38.22	\$44.32	\$44.32	
21-1023	Mental Health and Substance Abuse Social Workers	\$11.90	\$16.56	\$18.89	\$11.39	\$12.90	\$15.72	\$19.65	\$23.66	\$23.66	
47-2073	Operating Engineers and Other Construction Equipment Operators	\$15.21	\$19.00	\$20.90	\$14.51	\$16.25	\$19.09	\$21.57	\$23.40	\$23.40	
29-2091	Orthotists and Prosthetists	\$13.61	\$20.63	\$24.13	\$12.27	\$15.26	\$20.33	\$25.62	\$31.27	\$31.27	
43-3051	Payroll and Timekeeping Clerks	\$12.82	\$18.14	\$20.79	\$12.08	\$13.87	\$16.01	\$18.56	\$21.93	\$21.93	
39-9099	Personal Care and Service Workers, All Other	\$7.40	\$10.50	\$12.05	\$6.91	\$7.94	\$9.58	\$12.27	\$16.15	\$16.15	
19-2099	Physical Scientists, All Other	\$21.75	\$33.31	\$39.10	\$19.22	\$25.80	\$33.74	\$40.92	\$47.93	\$47.93	
11-3061	Purchasing Managers	\$19.34	\$31.83	\$38.09	\$17.41	\$21.88	\$29.07	\$40.18	\$52.34	\$52.34	
17-1022	Surveyors	\$15.02	\$19.68	\$22.01	\$14.36	\$15.93	\$19.02	\$22.91	\$26.77	\$26.77	
13-2081	Tax Examiners, Collectors, and Revenue Agents	\$17.55	\$25.50	\$29.47	\$15.99	\$18.93	\$23.80	\$32.10	\$39.55	\$39.55	
41-3041	Travel Agents	\$9.38	\$12.90	\$14.66	\$8.81	\$10.24	\$12.65	\$15.41	\$17.35	\$17.35	
31-9096	Veterinary Assistants and Laboratory Animal Caretakers	\$7.42	\$11.44	\$13.44	\$6.88	\$8.08	\$9.80	\$11.70	\$14.70	\$14.70	
11-2011	Advertising and Promotions Managers	\$19.07	\$32.38	\$39.03	\$17.12	\$22.10	\$29.88	\$40.66	\$54.10	\$54.10	
29-9091	Athletic Trainers	\$22.972	\$33.539	\$38.821	\$21.193	\$24.878	\$31.947	\$40.186	\$46.728	\$46.728	
39-5011	Barbers	\$9.76	\$11.26	\$12.01	\$9.28	\$9.90	\$10.89	\$12.50	\$14.14	\$14.14	
35-3022	Counter Attendants, Cafeteria, Food Concession, and Coffee Shop	\$6.55	\$8.34	\$9.23	\$6.15	\$7.12	\$8.22	\$9.43	\$11.03	\$11.03	
43-5021	Couriers and Messengers	\$7.60	\$10.10	\$11.35	\$7.16	\$8.15	\$9.53	\$12.14	\$13.89	\$13.89	
11-3051	Industrial Production Managers	\$21.99	\$34.94	\$41.42	\$19.60	\$25.03	\$32.83	\$43.11	\$56.50	\$56.50	
31-2021	Physical Therapist Assistants	\$13.32	\$16.48	\$18.06	\$12.52	\$14.21	\$16.18	\$18.50	\$21.37	\$21.37	
51-5023	Printing Machine Operators	\$12.03	\$17.32	\$19.96	\$10.87	\$13.75	\$16.67	\$21.19	\$25.57	\$25.57	
41-4012	Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	\$15.08	\$25.43	\$30.60	\$13.27	\$17.90	\$23.40	\$30.99	\$40.87	\$40.87	

\* OES wages reported for Colorado statewide

† No wage data available

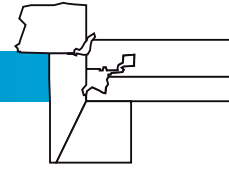


Table 4: Occupations with Fewer Than 10 Vacancies – Page 4

SOC Code	SOC Occupational Title	Average Wages				Occupational Employment Statistics Wage Data (2001)				
		Entry Level	Overall	Experienced	10th	25th	50th	75th	90th	
21-1029	Social Workers, All Other	†	†	†	†	†	†	†	†	
51-8091	Chemical Plant and System Operators	\$12.41	\$16.99	\$19.28	\$11.69	\$13.59	\$17.87	\$20.38	\$21.78	
19-4031	Chemical Technicians	\$14.26	\$18.75	\$21.00	\$13.05	\$15.34	\$17.58	\$21.56	\$26.66	
11-1011	Chief Executives	\$42.53	\$61.63	\$71.17	\$37.19	\$52.95	\$66.59	†	†	
51-9192	Cleaning, Washing, and Metal Pickling Equipment Operators and Tenders	\$7.37	\$10.49	\$12.05	\$6.66	\$8.44	\$10.30	\$12.29	\$15.02	
17-2072	Electronics Engineers, Except Computer	\$24.73	\$34.99	\$40.12	\$23.31	\$27.44	\$33.31	\$42.01	\$51.85	
51-1011	First-Line Supervisors/Managers of Production and Operating Workers	\$14.98	\$22.44	\$26.17	\$13.60	\$16.95	\$21.36	\$27.27	\$33.62	
29-2099	Health Technologists and Technicians, All Other	†	†	†	†	†	†	†	†	
53-7051	Industrial Truck and Tractor Operators	\$10.21	\$13.61	\$15.30	\$9.69	\$11.06	\$13.19	\$15.88	\$17.87	
17-1012	Landscape Architects	\$13.63	\$23.84	\$28.95	\$12.49	\$15.80	\$21.02	\$28.58	\$37.55	
51-4041	Machinists	\$11.25	\$17.06	\$19.97	\$9.94	\$13.04	\$16.94	\$21.03	\$24.77	
17-2131	Materials Engineers	\$23.35	\$34.64	\$40.30	\$21.18	\$26.89	\$34.72	\$42.33	\$50.71	
27-3099	Media and Communication Workers, All Other	\$13.92	\$20.33	\$23.52	\$12.96	\$15.34	\$19.18	\$25.34	\$29.44	
19-1042	Medical Scientists, Except Epidemiologists	\$22.00	\$32.22	\$37.32	\$20.40	\$23.32	\$27.62	\$37.17	\$53.56	
27-1026	Merchandise Displayers and Window Trimmers	\$9.62	\$13.10	\$14.85	\$9.19	\$10.51	\$12.25	\$13.97	\$19.45	
51-7031	Model Makers, Wood	†	†	†	†	†	†	†	†	
51-4072	Molding, Coremaking, and Casting Machine Setters, Operators, and Tenders, Metal and Plastic	\$8.51	\$11.79	\$13.42	\$7.78	\$9.23	\$10.93	\$14.50	\$16.95	
29-1064	Obstetricians and Gynecologists	\$63.50	\$68.50	\$70.99	\$66.16	†	†	†	†	
29-1071	Physician Assistants	\$18.10	\$27.43	\$32.09	\$16.24	\$21.05	\$28.83	\$33.68	\$38.54	
51-8099	Plant and System Operators, All Other	\$12.85	\$18.43	\$21.23	\$10.66	\$15.28	\$18.77	\$21.47	\$25.46	
51-9199	Production Workers, All Other	\$7.25	\$10.95	\$12.80	\$6.65	\$8.19	\$10.22	\$12.99	\$16.70	
11-9141	Property, Real Estate, and Community Association Managers	\$11.79	\$22.10	\$27.25	\$11.47	\$13.21	\$17.86	\$26.48	\$39.95	
31-1013	Psychiatric Aides	\$9.73	\$10.90	\$11.49	\$9.06	\$9.62	\$10.42	\$11.71	\$13.92	
29-1066	Psychiatrists	\$46.84	\$61.13	\$68.27	\$43.64	\$54.76	\$67.55	†	†	
51-8021	Stationary Engineers and Boiler Operators	\$15.23	\$21.34	\$24.40	\$12.77	\$18.15	\$22.75	\$25.66	\$27.48	
53-2022	Airfield Operations Specialists	\$14.25	\$18.20	\$20.18	\$13.35	\$14.75	\$16.70	\$20.48	\$27.07	
29-1121	Audiologists	\$18.21	\$21.31	\$22.85	\$17.63	\$19.04	\$20.91	\$23.39	\$26.72	
21-2011	Clergy	\$6.85	\$14.32	\$18.05	\$6.03	\$7.50	\$12.54	\$18.57	\$25.01	
43-4021	Correspondence Clerks	\$10.92	\$14.46	\$16.23	\$10.12	\$11.58	\$13.65	\$17.91	\$20.40	
31-9091	Dental Assistants	\$15.35	\$18.74	\$20.44	\$13.69	\$17.51	\$19.16	\$20.96	\$23.17	
29-2021	Dental Hygienists	\$21.32	\$32.10	\$37.48	\$10.35	\$29.79	\$35.54	\$40.28	\$43.10	
35-2021	Food Preparation Workers	\$7.35	\$9.29	\$10.25	\$6.81	\$7.74	\$8.69	\$10.70	\$13.22	
27-1025	Interior Designers	\$19.11	\$27.92	\$32.32	\$16.72	\$22.50	\$30.58	\$33.64	\$35.48	
13-1081	Logisticians	†	†	†	†	†	†	†	†	

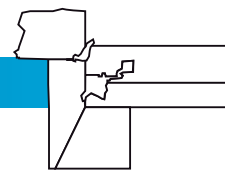
\* OES wages reported for Colorado statewide  
 † No wage data available

Table 4: Occupations with Fewer Than 10 Vacancies – Page 5

SOC Code	SOC Occupational Title	Average Wages					Percentile Distribution				
		Entry Level	Overall	Experienced	10th	25th	50th	75th	90th		
19-1022	Microbiologists	\$20.30	\$26.14	\$29.05	\$18.37	\$22.45	\$25.81	\$29.53	\$34.82		
43-5031	Police, Fire, and Ambulance Dispatchers	\$13.83	\$17.19	\$18.87	\$12.81	\$14.89	\$16.90	\$19.70	\$22.36		
41-9099	Sales and Related Workers, All Other	\$11.87	\$23.70	\$29.61	\$10.27	\$14.17	\$20.12	\$31.15	\$44.80		
51-6031	Sewing Machine Operators	\$7.55	\$9.47	\$10.43	\$7.20	\$7.94	\$9.02	\$10.84	\$12.95		
*43-9111	Statistical Assistants	\$13.77	\$17.50	\$19.37	\$12.85	\$14.99	\$17.97	\$20.46	\$21.96		
17-3031	Surveying and Mapping Technicians	\$13.74	\$18.64	\$21.10	\$12.27	\$15.79	\$19.05	\$21.22	\$24.63		
43-5111	Weighers, Measurers, Checkers, and Samplers, Recordkeeping	\$9.96	\$14.66	\$17.00	\$9.39	\$10.80	\$13.34	\$16.84	\$24.36		
19-3031	Clinical, Counseling, and School Psychologists	\$15.33	\$23.45	\$27.50	\$14.30	\$17.03	\$23.44	\$29.22	\$33.90		
51-2022	Electrical and Electronic Equipment Assemblers	\$7.46	\$10.80	\$12.48	\$6.71	\$8.51	\$10.56	\$12.98	\$15.34		
53-1031	First-Line Supervisors/Managers of Transportation and Material-Moving Machine and Vehicle Operators	\$14.33	\$23.66	\$28.32	\$12.77	\$16.56	\$22.99	\$28.24	\$34.87		
51-4033	Grinding, Lapping, Polishing, and Buffing Machine Tool Setters, Operators, and Tenders, Metal and Plastic	\$9.61	\$12.17	\$13.45	\$9.15	\$10.00	\$11.41	\$13.51	\$16.65		

\* OES wages reported for Colorado statewide

† No wage data available



## 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.

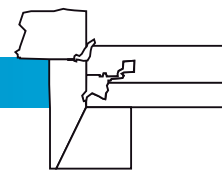
### *Occupational Coding*

The 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 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 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).