

# Denver Metro Job Vacancy Survey

*Conducted  
April 22–May 31, 2002*

## **State of Colorado**

Bill Owens, *Governor*

## **Colorado Department of Labor & Employment**

Vickie Armstrong, *Executive Director*

Jeffrey M. Wells, *Deputy Executive Director*

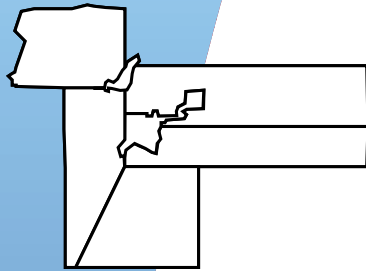
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*Workforce Research & Analysis*  
**Labor Market Information**  
**Two Park Central, Suite 300**  
**1515 Arapahoe Street**  
**Denver, CO 80202-2117**

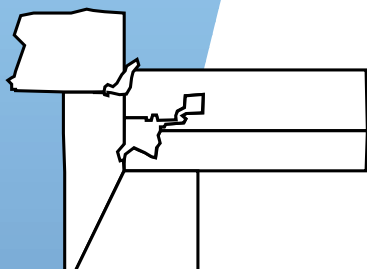
**(303) 318-8890**  
Email: [Imi@state.co.us](mailto:Imi@state.co.us)  
[www.coworkforce.com/Imi/wra/home.htm](http://www.coworkforce.com/Imi/wra/home.htm)



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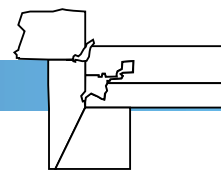


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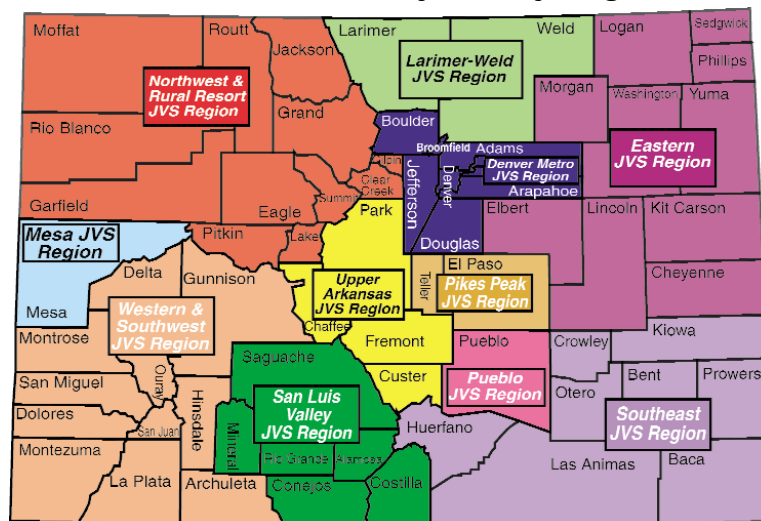
# Introduction

The unemployment rate, along with the level and growth rate of employment, has been used as an indicator of labor market conditions for decades. While this indicator provides information about changes in the supply and demand for labor, it reveals nothing about the skills most sought after by employers. As such, individuals preparing themselves for the job market have done so with limited knowledge of what skills are necessary to successfully compete in the contemporary labor market. Employers have had an equally difficult time determining appropriate compensation levels due to a limited knowledge of what similar firms in their region are currently offering.

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

The CDLE's survey unit collects original data by conducting phone interviews with a representative

**Colorado Job Vacancy Survey Regions**



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

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

**This publication is a product of the Colorado Department of Labor and Employment's Labor Market Information Section and was prepared by the Workforce Research and Analysis unit. Members of this unit are:**

**Acting Senior Economist:** Wande Reweta, Ph.D.  
**Economists:** Yasir Ahmed

Sonya Guram  
Steven Krichbaum  
Paul Paez  
Michael Patton  
Leora Starr

**Statistical Analyst:** Joseph Winter

**Program Assistant:** Dionne M. Frey

**Graphic Artists:** Martha Cooper

Vicki N. Netherland

**Analyst for this region:** Yasir Ahmed

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Workforce Research & Analysis  
Labor Market Information  
Colorado Department of Labor & Employment  
Two Park Central, Suite 300  
1515 Arapahoe Street,  
Denver, CO 80202-2117

Email: [lmi@state.co.us](mailto:lmi@state.co.us) (303) 318-8890

[www.coworkforce.com/lmi/wra/home.htm](http://www.coworkforce.com/lmi/wra/home.htm)

## 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, it might indicate a shortage of applicants in the area. Therefore, recruitment efforts could be focused outside of the region in areas where the necessary skills are more likely to be found.

#### ◆ *Employee Training*—

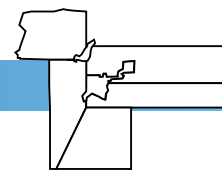
A firm may also choose to increase investment in training for their current employees instead of expanding recruitment efforts.

#### ◆ *Compensation and Benefits Planning*—

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

#### ◆ *New Site Selection*—

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



## Job Seekers

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

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

## Workforce Centers

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

Public officials, educational institutions, and government agencies can use this survey information

to effectively apply resources to education, training, and job placement programs.

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

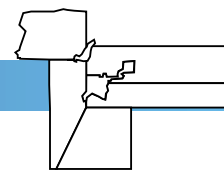
The study provides estimates of job openings for a point-in-time; they do not necessarily portray the distribution of job vacancies in the region. This report does not attempt to explain the cause of vacancies—whether these current vacancies are due to actual growth or to job turnover in an occupation. 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 Spring 2002 Denver Metro Region Job Vacancy Survey (JVS) was conducted from April 22nd through May 31st, 2002. The goal of the survey is to learn more about current job market conditions in the region.

Over the survey period, all large and government employers in the Denver Metro Region as well as a random sample of the Denver Metro Region private employers with at least five employees are contacted. Employers are asked if they are actively hiring at the time of the survey and if the reply is *yes*, a variety of questions about their current job vacancies are then asked.

A total of 3,639 employers representing 38% of the region's total employment responded to the survey. Of these, 238 are government agencies, 328 are large employers, and the remaining 3,073 are small to mid-sized firms.

Survey results found existing job market conditions to be similar to those that existed a year earlier. No statistical difference was found in the number of estimated vacancies and average wage offered between the two periods. Other major findings of the survey include the following:

- ◆ An estimated 24,200 vacancies were open for immediate hire in the Denver Metro Region during the survey period.
- ◆ Twenty percent of the employers responding reported having at least one vacancy.
- ◆ Micro and small to mid-size employers account for over two-thirds of the estimated vacancies.
- ◆ Number of vacancies found in the Construction industry are double the vacancies found in the Spring 2001 JVS.
- ◆ Denver County has the greatest number of estimated vacancies while Douglas County has the least.
- ◆ Eighty percent of the openings are full-time.
- ◆ Fifty-three percent of the openings require more than a high-school education.
- ◆ Vacancies requiring related or specific experience to the vacant position account for 64% of all reported openings.
- ◆ According to employer's responses, only 36% of the vacancies are considered not difficult to fill.
- ◆ Employers are facing less difficulty in filling Computer and Mathematical vacancies than they did a year ago.
- ◆ Ninety-four percent of the employers find registered nurses positions very difficult to fill compared to 88% a year earlier.
- ◆ Ninety-three percent of the vacancies reported by employers include some form of medical insurance.

## Denver Metro Region

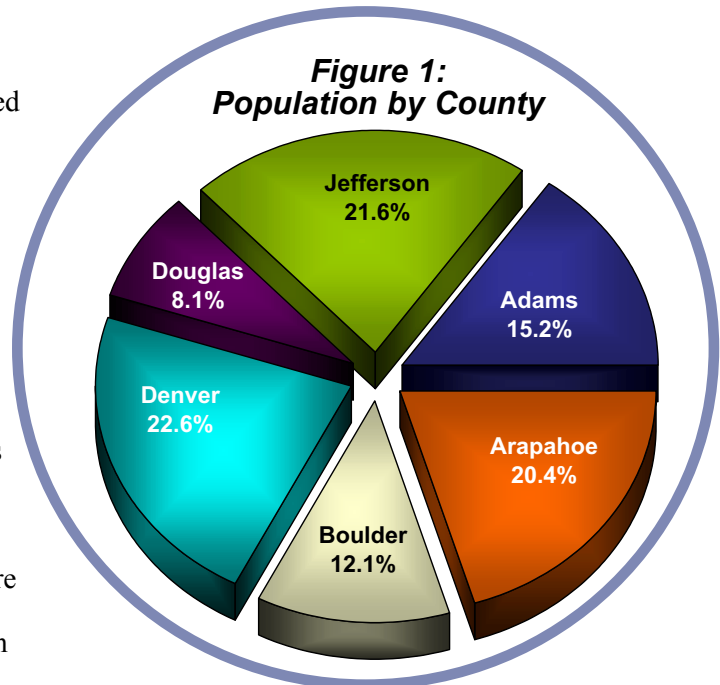
The Denver Metro Region consists of Adams, Arapahoe, Boulder, Broomfield, Denver, Douglas, and Jefferson counties. This region grew from six to seven counties when voters approved the incorporation of the City and County of Broomfield in November 2001. Most of the area involved was already in the Denver 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 the population of the entire state of Colorado live in this seven-county region. The 2.4 million people residing within its boundaries represented 56% of all Coloradoans in July of 2001, according to the US Census Bureau's estimates for that time. And within this seven-county region itself, 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 approaches that of the state as a whole (34%).

The area employed 1,292,761 individuals from a labor force of about 1,360,700 in May 2002, according to Colorado's Labor Market Information, Local Area Unemployment Statistics. The labor force increased by almost 31,000 people from May 2001 to May 2002 while employment decreased by almost 1,500 jobs, resulting in a sharp rise in the unemployment rate.

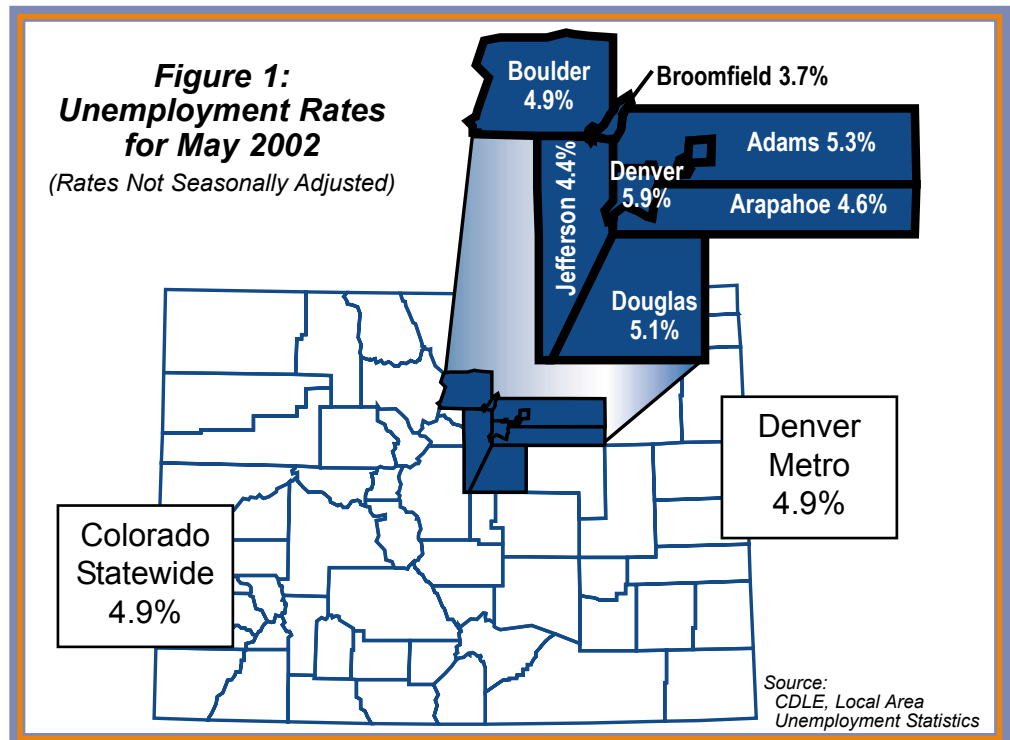
Higher unemployment rates recorded at the end of 2001, however, seem to have peaked and stabilized in the first quarter of 2002. A drop in the region's unemployment rate from 5.9% in March to 5.4% in April, and then to 5.0% in May is a good indication that the turnaround of the region's labor market conditions is well on the way. At 5.9%, unemployment was highest in Denver County

**Figure 1:  
Population by County**



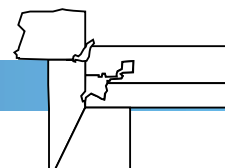
**Figure 1:  
Unemployment Rates  
for May 2002**

(Rates Not Seasonally Adjusted)

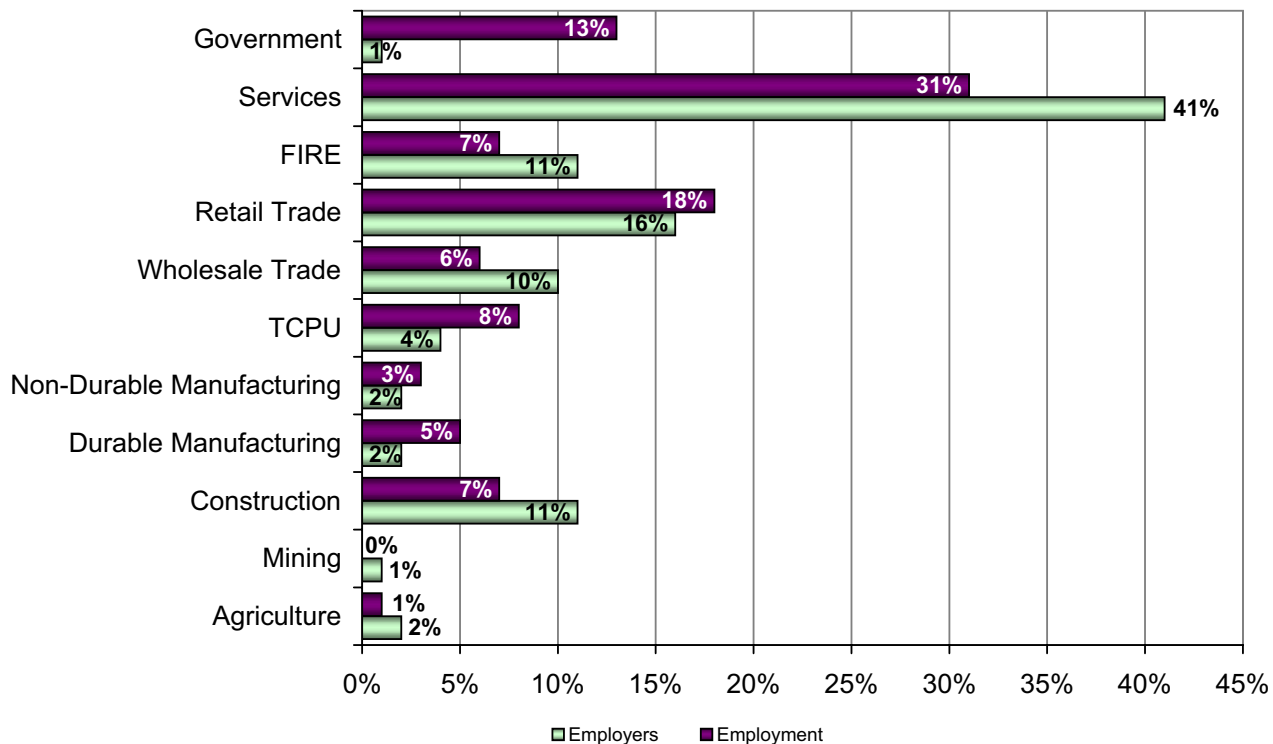


Source:  
CDLE, Local Area  
Unemployment Statistics

followed by Adams County with a 5.3% unemployment rate. Broomfield County, the smallest employing county in the region, had the smallest unemployment rate among all counties in the region.



**Figure 3: Denver Metro Employers and Employees (2nd Quarter 2001)**



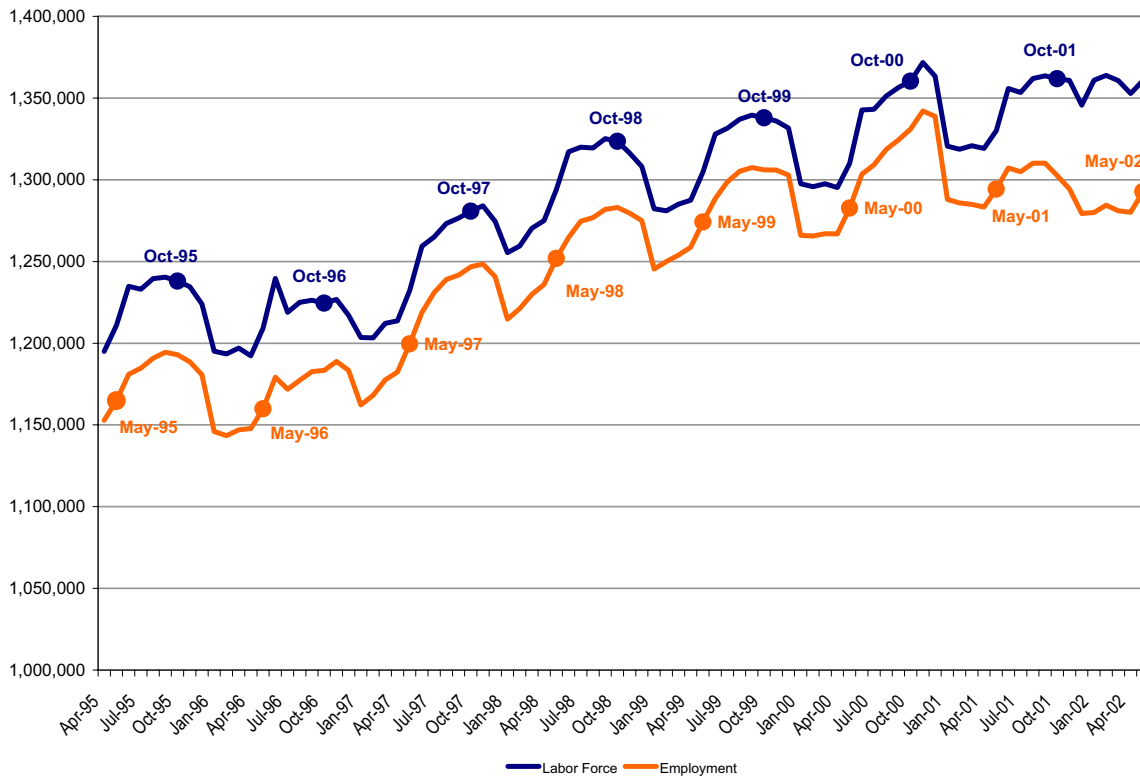
Agriculture includes Forestry and Fishing  
 FIRE—Finance, Insurance, and Real Estate  
 TCPU—Transportation, Communication and Public Utilities

Source: Colorado Employment and Wages (ES-202)

Like 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 57% of the region’s total employers and 49% 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**



Source: CDLE, Local Area Unemployment Statistics

Figure 4 shows a 7-year history of both the region's labor force and employment levels between April 1995 and May 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 May 1995 to May 2002, employment increased by 11%, slightly over the 10.5% 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 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.

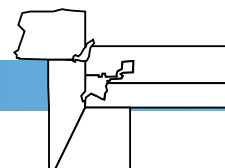
The widening gap between the lines in most recent months reflects the rise in unemployment resulting

from the recent economic slowdown. The number of unemployed people in the region grew from 44,569 in April 1995 to reach 72,775 by April 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 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 Spring 2002 Denver Metro JVS was conducted from April 22nd through May 31st, 2002. For the purpose of this report, all employers in the region 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.

Government makes up 12% of the employment in the sample universe. 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 private industry employment in the sample universe. Firms employing 5 to 249 individuals are considered small to mid-size employers and account for 58% of sample universe

employment. Micro employers, with fewer than 5 employees, account for the remaining 10% of sample universe employment.

For the small to mid-sized employers, the survey was stratified 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 micro employers with fewer than 5 employees. This index was used to enhance the vacancy estimates.

Over the survey period a total of 3,639 employers responded to the survey. Out of these, 328 were large, 238 were government, and 3,073 were small to mid-size. Overall, 10% of the Denver Metro Region employers with 5 or more employees responded.

**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>Micro Employers</b>							<b>Vacancy Index</b>

Small to Mid-Size

Large

Micro

## *Data Collection*

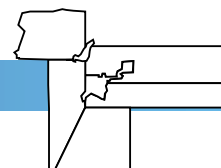
Data for the Job Vacancy Survey are collected using a Computer Assisted Telephone Interview (CATI) process. While this system of data collection has been in use in the public sector for several years, Colorado is the first state in the nation to pioneer the use of CATI data collection for the Job Vacancy 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 24,200 vacancies were open for immediate hire in the Denver Metro Region during the survey period. With a total sample universe employment estimate of 425,497 jobs this results in an overall estimated vacancy rate of 1.9%. This vacancy rate was virtually unchanged from the Spring 2001 JVS. This is a good indication that the labor demand in the Denver Metro Region is currently at a level similar to one that existed in spring 2001.

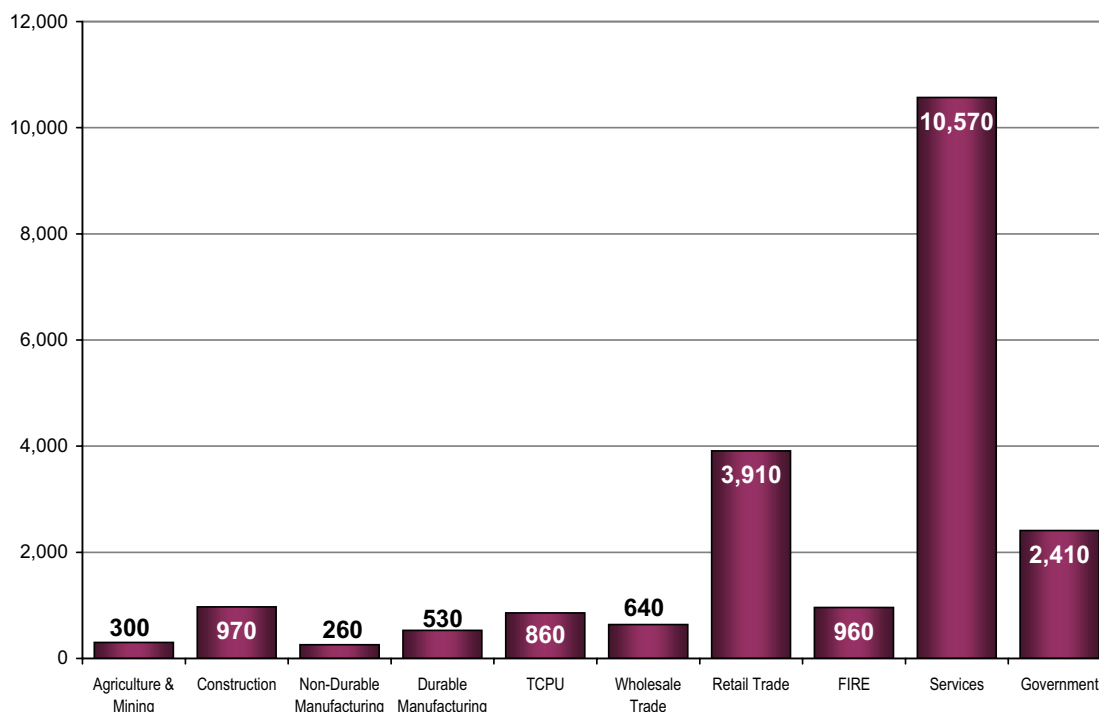
Both the Services and Retail Trade industries, with vacancy rates of 3.1% and 1.6%, respectively, show the most job vacancies as illustrated in Figure 5. These two industries combined account for:

- 53% of the region’s employers,
- 56% of the employment and
- 67% of the vacancies.

Within the Services industry, healthcare recorded the highest vacancy rate of 4.3%. Open healthcare jobs include: registered nurses; nursing aides, orderlies, and attendants; licensed practical and licensed vocational nurses; medical secretaries; radiologic technologists and technicians; medical and clinical laboratory technicians; and medical and health services managers. See *Table 3*, page 26.

The Government sector with 10% of the estimated vacancies is third in number of vacancies. The Construction industry, with a 1.7% vacancy rate, shows almost double the number of vacancies found in the spring of 2001.

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



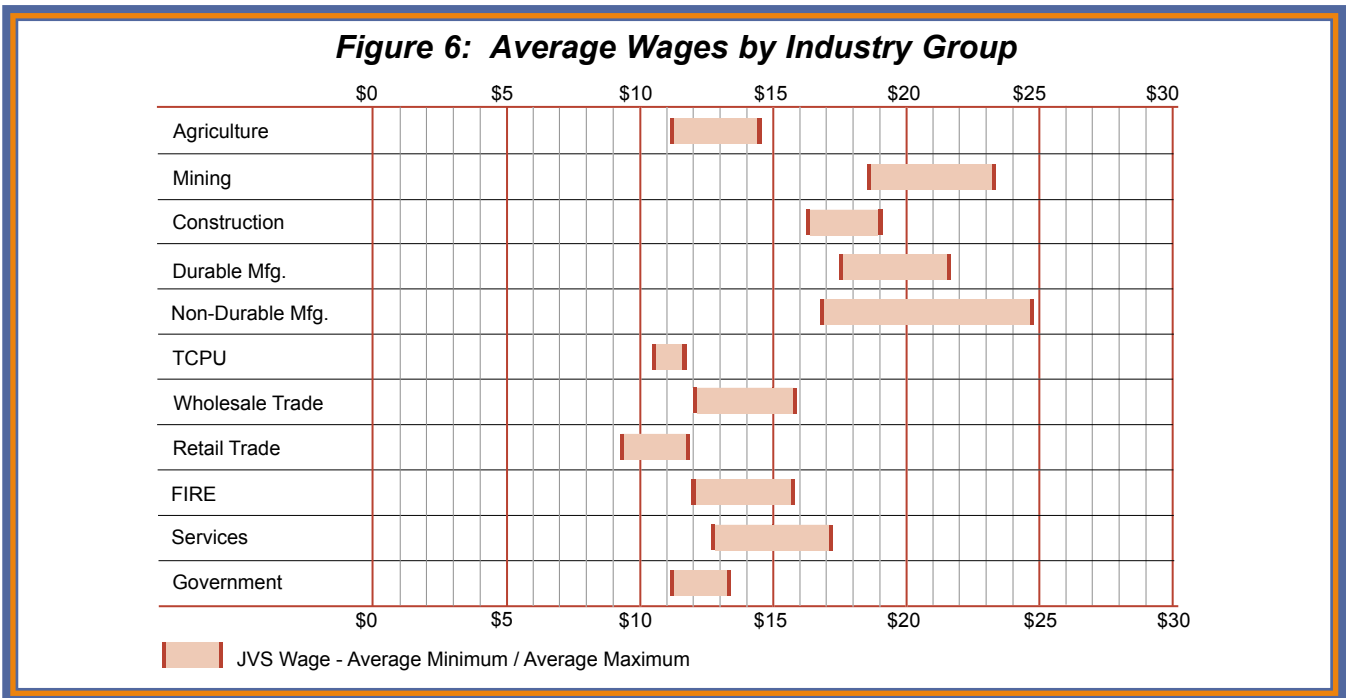
Agriculture includes Forestry and Fishing  
 FIRE—Finance, Insurance, and Real Estate  
 TCPU—Transportation, Communication and Public Utilities

Wages reflect labor force supply and demand along with the skill and experience requirements for occupations. Sixty-seven percent of employers surveyed provided information on the minimum and maximum wages offered for their vacancies. The overall average wage for all vacancies in this survey is \$13.60.

Highest wages in the Denver Metro Region appear in three industries: Manufacturing, both Durable and Non-Durable Goods; Mining; and Construction. Some of

these higher paying jobs include: operating engineers and other construction equipment operators; heating, air conditioning, and refrigeration mechanics and installers; and electrical engineers.

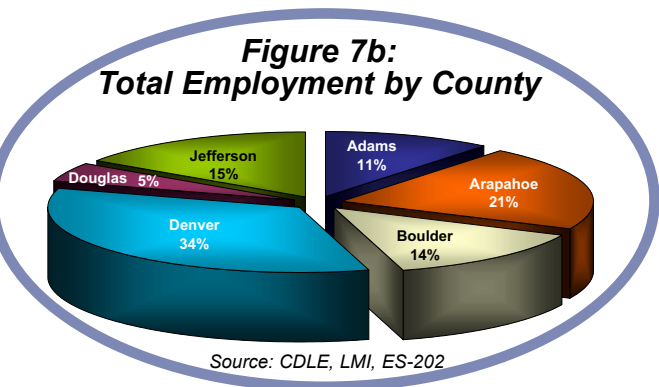
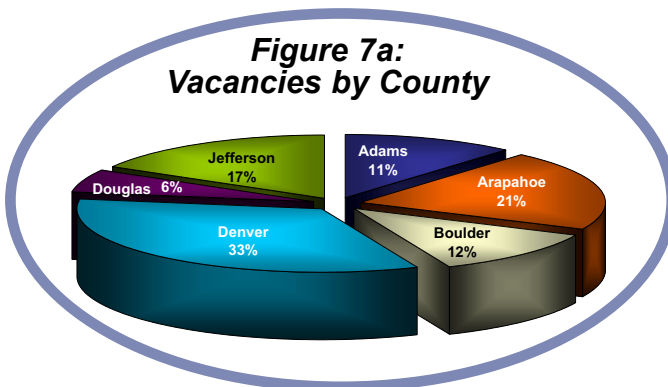
As expected, because of low educational and experience requirements, the Retail Trade industry, with the second largest number of vacancies, offers the lowest wages. This industry includes such jobs as: retail salespeople; cashiers; and waiters and waitresses.



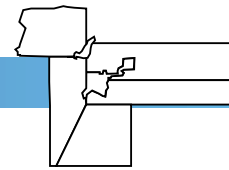
Denver, Arapahoe, and Jefferson counties collectively account for over 70% of estimated vacancies. Though Douglas represents a relatively small proportion of the metro region's total employment, the survey found it to have the highest ratio of job openings to current employment. This ratio, known as the vacancy

rate, is 2.4% for Douglas County compared with 1.5% for Boulder and approximately 2.0% for the other four counties.

Employment by county in the second quarter of 2001 follows a very similar pattern.

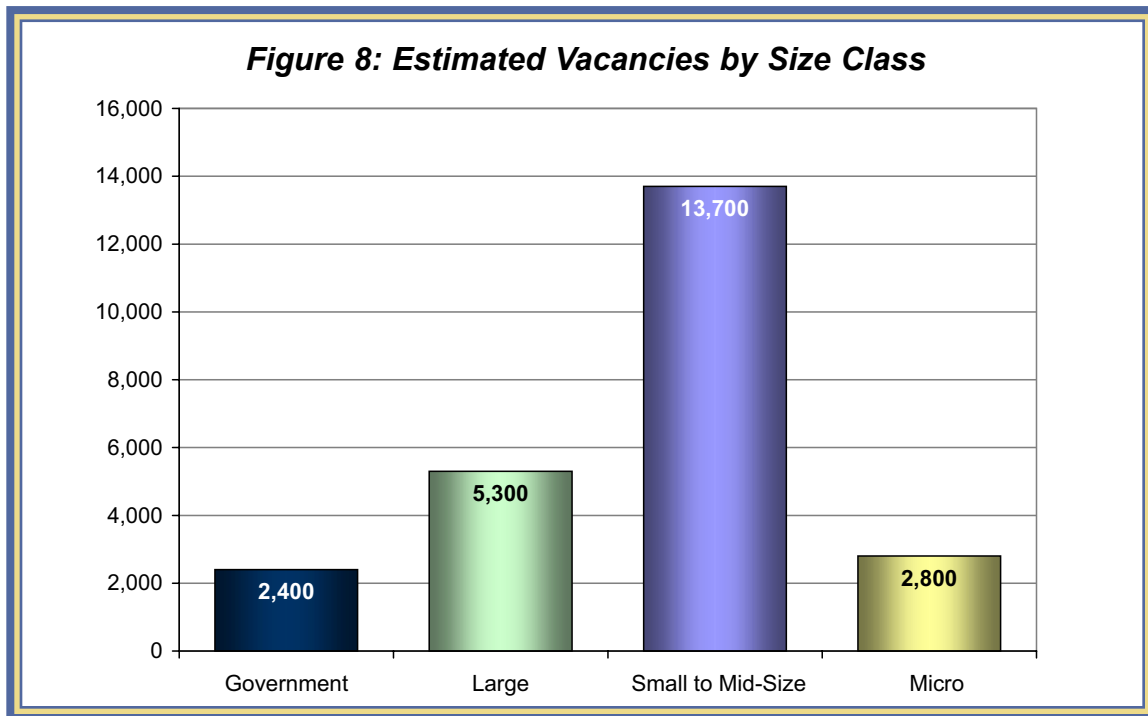






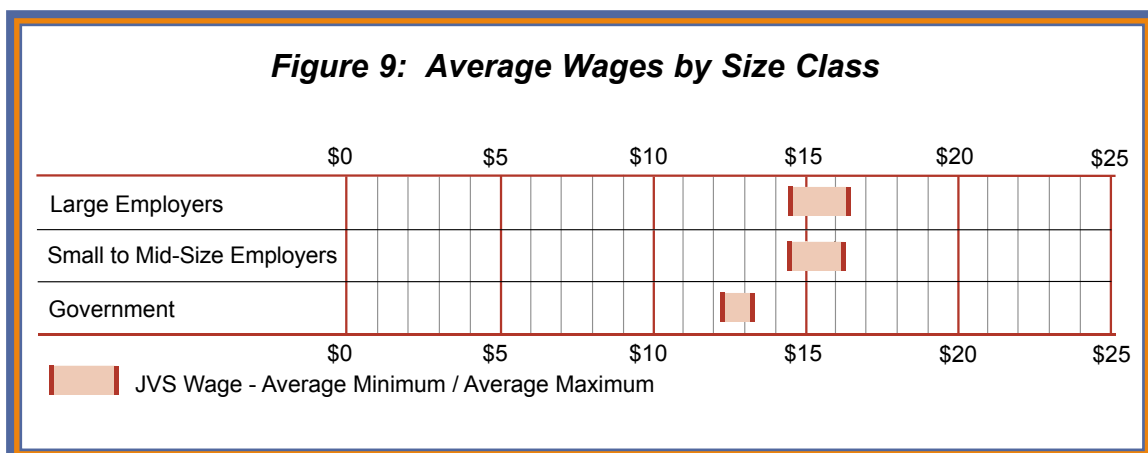
Small to mid-size employers have a vacancy rate of 2.3%, the highest by employer class size. This group accounts for 58% of the total employment in the region and 57% of all vacancies. While 56% of large employers and 23% of government agencies report at least one vacancy, only 7% of small to mid-size

employers report job openings. Micro employers, with fewer than 5 employees, account for 11% of the estimated vacancies. While micro employers make up 93% of the region's employers, they account for only 9% of the region's total employment.



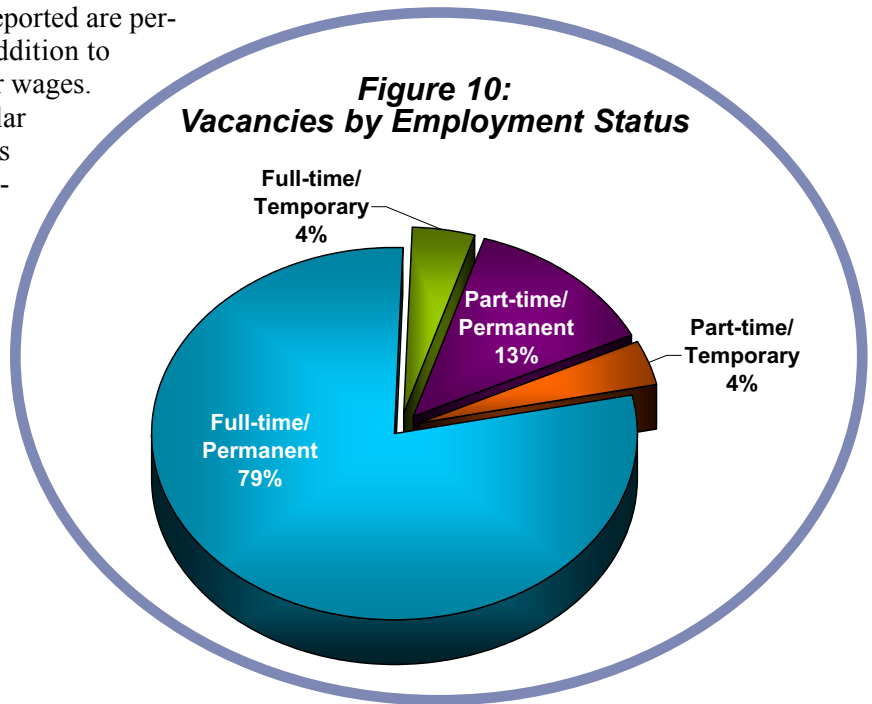
Average hourly wages offered by large employers are very similar to those offered by small to mid-size employers. Wages offered by government employers are about \$3 lower per hour than the average offered by large employers and considerably narrower in the range between minimum and maximum wage offered.

Lower wages offered by the Government sectors are due to the fact that over half of the reported vacancies in this sector are in the Education, Training, and Library; Building and Grounds Cleaning and Maintenance; and Personal Care and Service occupational groups. These three major occupational groups are among the lower paying occupations found by the survey.

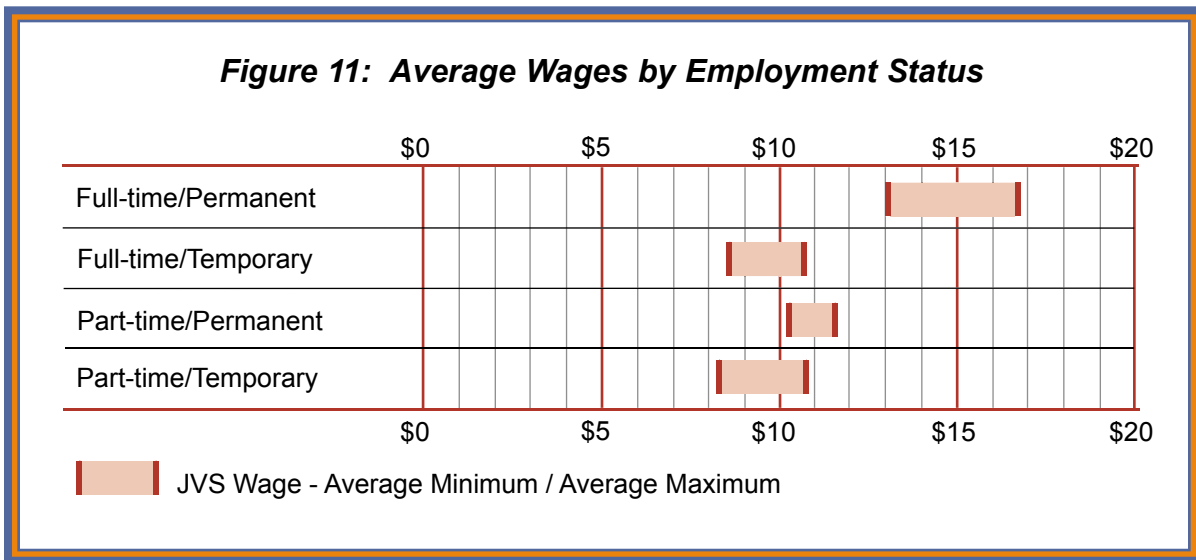


Ninety-two percent of the vacancies reported are permanent employment opportunities. In addition to stability, these positions also offer higher wages. Full-time/permanent positions in particular account for 79% of all reported vacancies and offer the highest average wages compared to other employment status categories. Temporary positions account for 8% of the reported vacancies. Half of these are full-time and half are part-time.

**Figure 10: Vacancies by Employment Status**

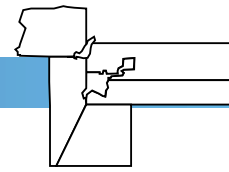


**Figure 11: Average Wages by Employment Status**



Full-time/permanent positions not only account for the majority of vacancies, but also offer the highest

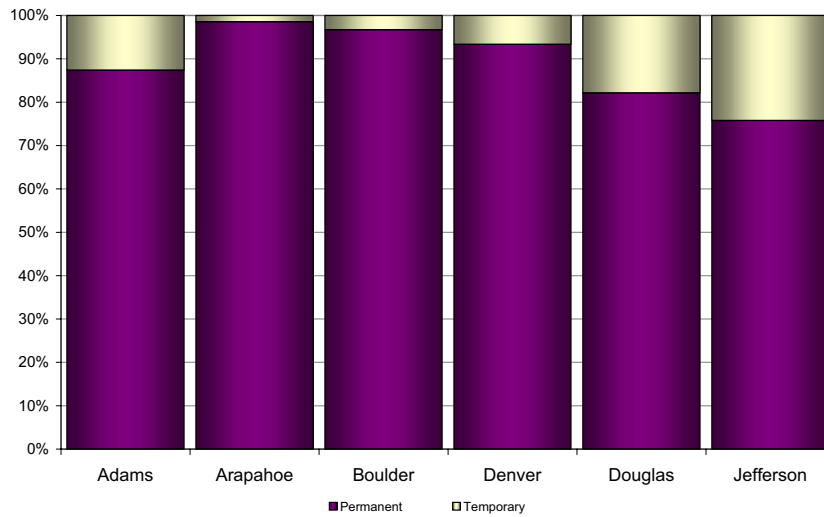
wages. In general, survey results show permanent positions to offer higher wages than temporary ones.



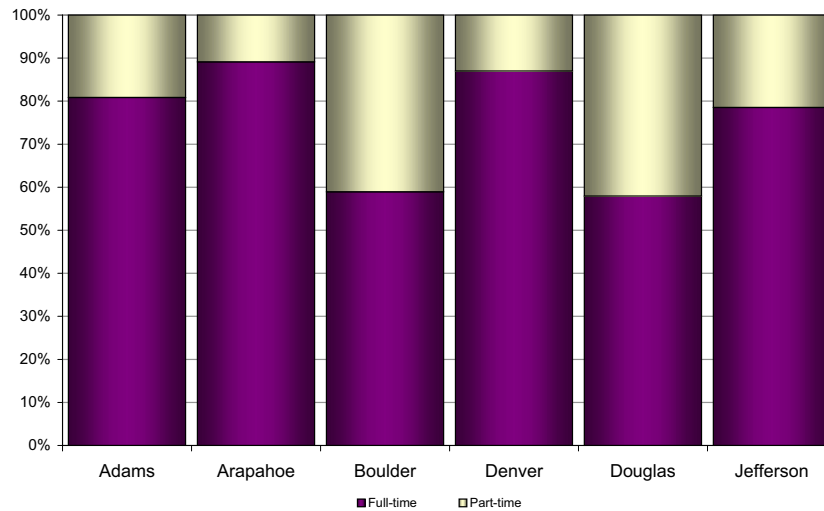
Over 90% of the vacancies represent permanent positions in each of Arapahoe, Boulder, and Denver counties. This concentration of permanent vacancies shows up lower in Adams and Douglas counties, and

lowest in Jefferson County. Proportions of full-time openings appear highest in Arapahoe and Denver counties while in Boulder and Douglas counties full-time positions amount to less than 60% of the vacancies.

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



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

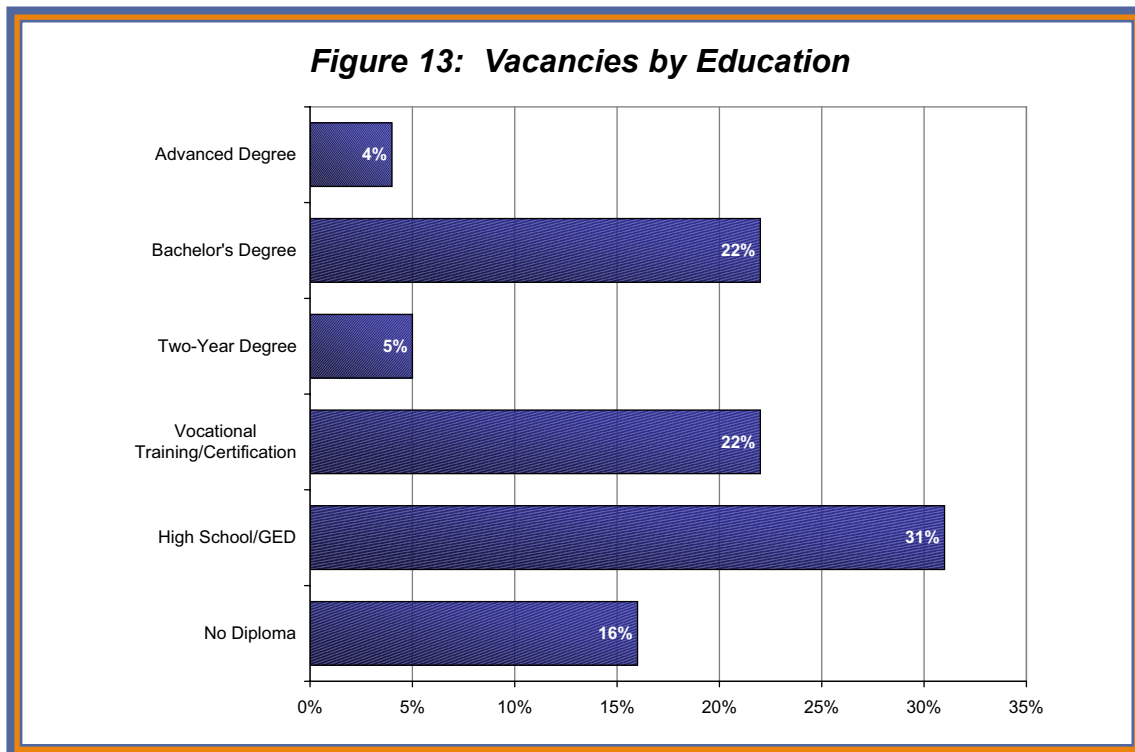


## Vacancies: Education and Experience Requirements

During periods of high unemployment, it might be assumed that there are too many qualified candidates and too few job openings. The reality is that even in recessions there are many employers who cannot find qualified candidates 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; only a certain number of qualified candidates can compete for any given

job. It is important, therefore, that job seekers have accurate information regarding what types of education and experience are in highest demand.

Slightly less than half of the reported vacancies require either no diploma or a high-school diploma/GED. Twenty-six percent of reported job openings require either a bachelor's or an advanced degree.

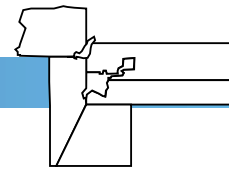


Education requirements in this survey are better understood by looking into the occupations that coincide with education levels. For this kind of analysis, vacancies are assigned an occupational code from the 2000 *Standard Occupational Classification Manual* which groups occupations into 22 major groups as shown in *Figure 24* on page 24.

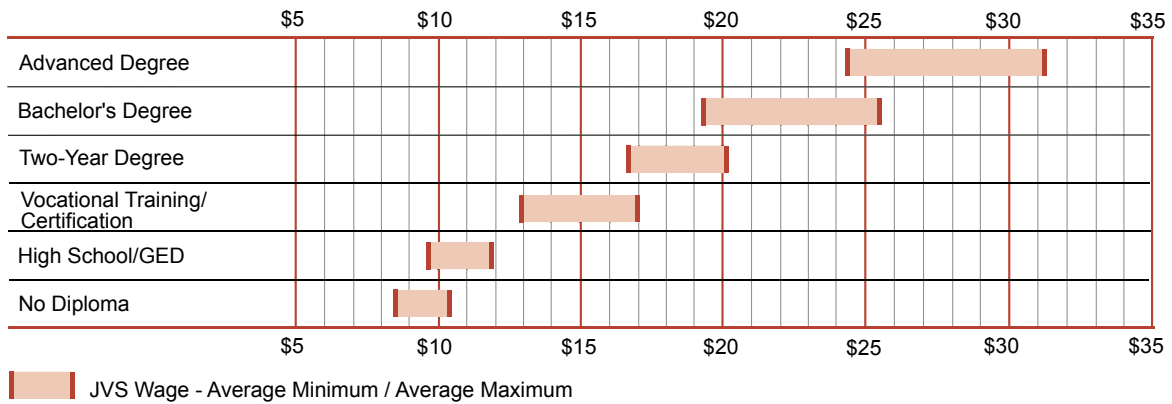
The survey finds Healthcare Practitioners and Technical candidates in high demand and that vacancies in this occupational group require educational backgrounds ranging from vocational training to

advanced degrees. Demand for registered nurses is higher than all other reported occupations. Employers also seek candidates with two-year degrees for licensed nursing and health technician roles.

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



**Figure 14: Average Wages by Education**

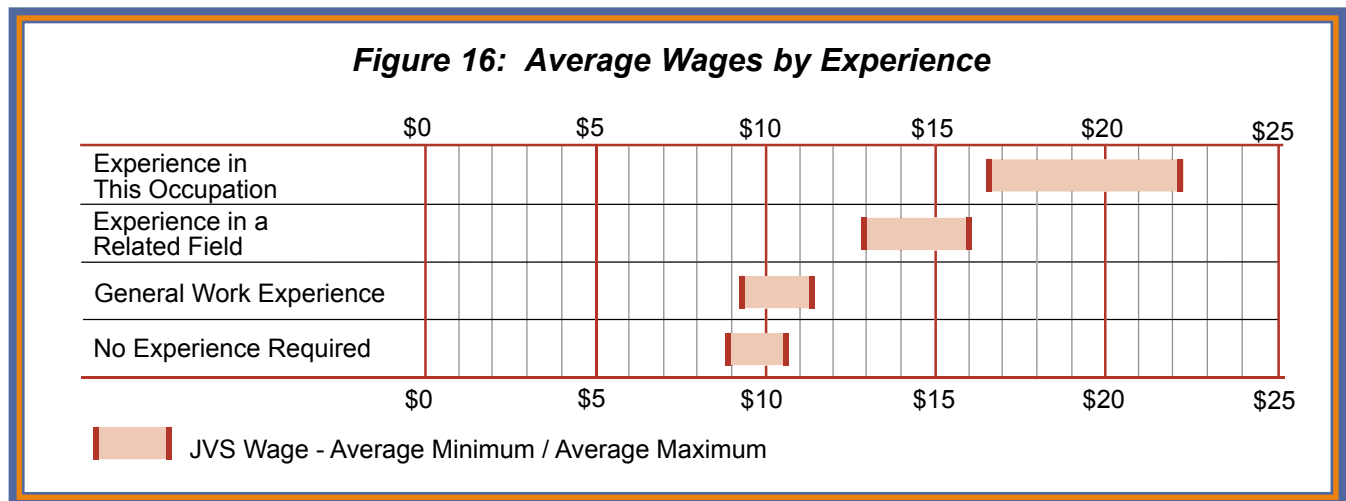
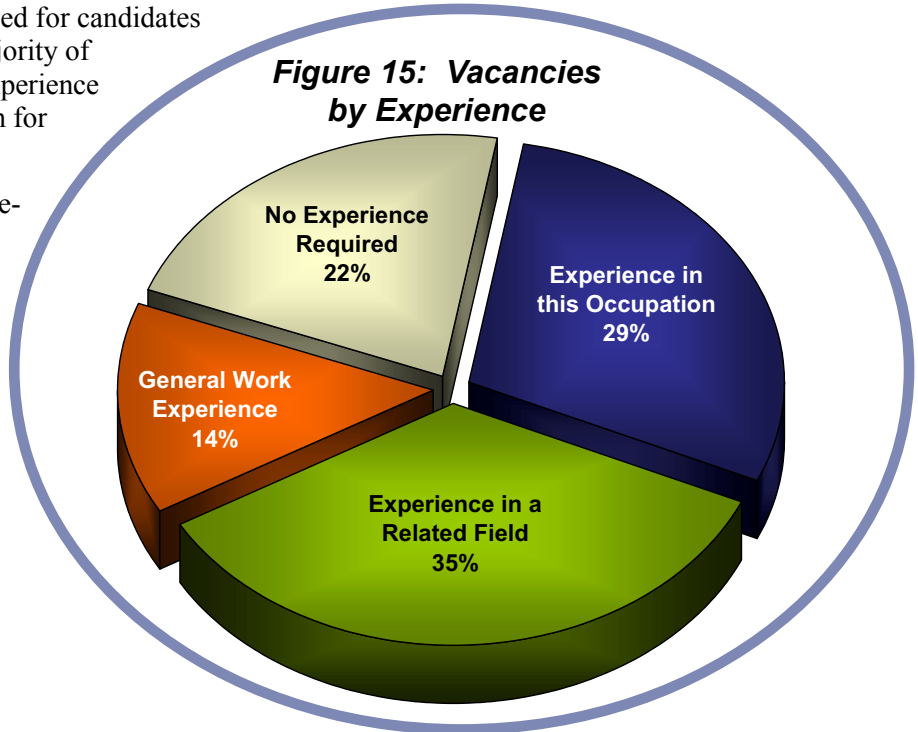


Generally, the more education required for a position, the higher the wages offered. In its report on *Usual Weekly Earnings of Wage and Salary Workers* for the first quarter of 2002 the Bureau of Labor Statistics found that full-time workers age 25 and over without a high school diploma had median weekly earnings of \$386, compared with \$536 for high school graduates and \$940 for college graduates.

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.

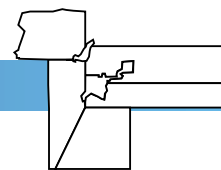
Surveyed employers express a need for candidates at all experience levels. A slight majority of respondents seek candidates with experience in a field related to the position open for hire. In this survey:

- Sales and Related vacancies prevail 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.



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.



The survey results confirm a notion generally held as true—the higher the level of education demanded, the higher the level of experience required. Internships and apprenticeships are important options to consider; in today’s job market employers are looking for candidates with experience as well as academic knowledge.

In considering how experience requirements and education relate to job vacancies in this survey, results show:

- Eighty-seven percent of jobs requiring bachelor’s degrees and 89% of those requiring advanced

degrees specify the candidate 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 tend to require general work experience or experience in a related field.
- The majority of job vacancies for candidates with education beyond high school but less than a bachelor’s degree primarily seek people with experience in related fields.

**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>67%</b>	<b>9%</b>	<b>14%</b>	<b>10%</b>
<b>High School Diploma/GED</b>	<b>20%</b>	<b>27%</b>	<b>35%</b>	<b>18%</b>
<b>Vocational Training/Certification</b>	<b>15%</b>	<b>4%</b>	<b>43%</b>	<b>38%</b>
<b>Two-Year Degree</b>	<b>11%</b>	<b>7%</b>	<b>49%</b>	<b>32%</b>
<b>Bachelor’s Degree</b>	<b>4%</b>	<b>9%</b>	<b>38%</b>	<b>49%</b>
<b>Advanced Degree</b>	<b>4%</b>	<b>6%</b>	<b>31%</b>	<b>58%</b>

Note: Percentages based on each educational category.

## Vacancies: Difficulty to Fill

To estimate 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:

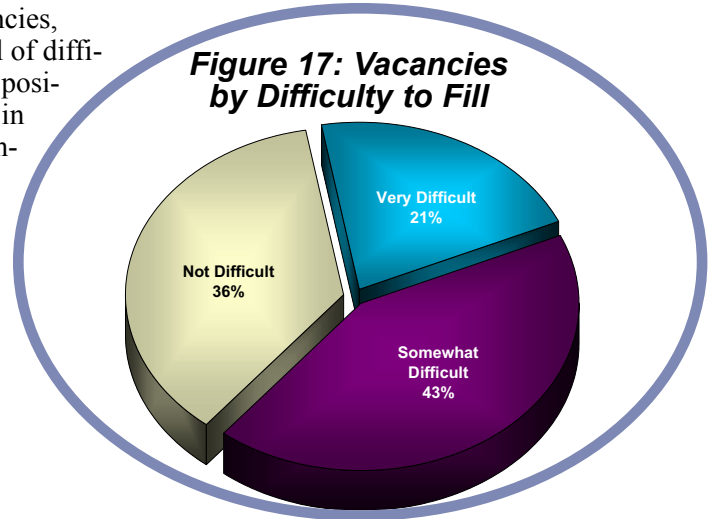
- too few specifically skilled workers to satisfy the labor demand,
- a need for alternate employer recruitment efforts,
- a mismatch between jobs offered and work desired by job seeker, and/or
- unattractive compensation.

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

- The proportion of vacancies reported as very difficult to fill dropped from 37% to 21%.
- Vacancies reported as somewhat difficult to fill dropped from 56% to 43%.
- Vacancies reported as not difficult to fill increased from 28% to 36% of all vacancies reported.

Registered nurses top the list of very-difficult-to-fill vacancies and account for almost 50% of the openings in that category. Those vacancies reported as somewhat difficult to fill indicate a higher demand for

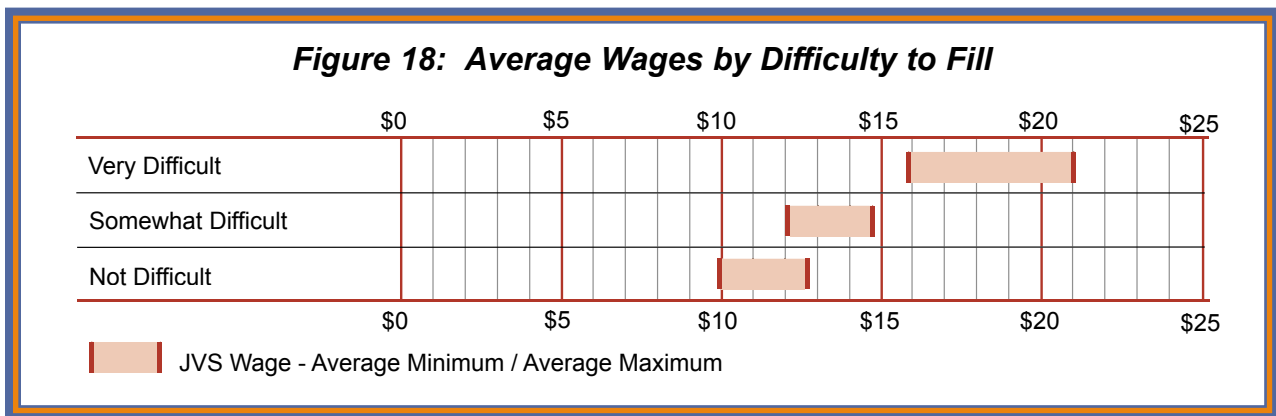
**Figure 17: Vacancies by Difficulty to Fill**



teacher assistants and secondary school teachers. The majority of the vacancies perceived as not difficult to fill come from the Sales and Administrative Support occupational group.

Computer and Mathematical vacancies were easier for employers to fill this spring than a year ago. The proportion of these openings employers perceived to be very difficult to fill dropped from 25% in the spring of 2001 to 3% in this survey. This drop was countered by an increase in the proportions of vacancies not difficult and somewhat difficult to fill within the same occupational group.

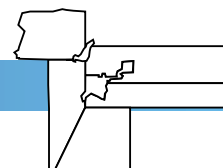
**Figure 18: Average Wages by Difficulty to Fill**



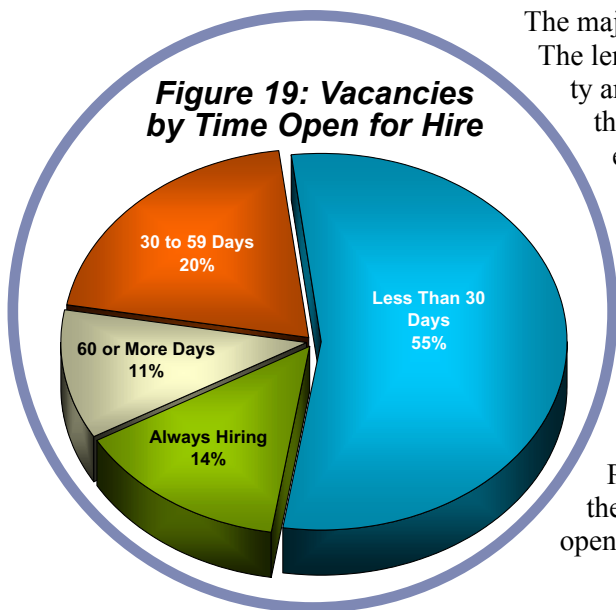
Among vacancies considered very difficult to fill, Architecture and Engineering roles offer the highest salaries while Food Preparation and Serving Related occupations pay the least. Registered nurses, although noted previously as the most sought after among the difficult to fill positions, ranked 28th in

average wage offered among 105 occupations in its category. Management as well as Computer and Mathematical occupations are at the high end of the not-difficult-to-fill wage range, while Food Preparation and Serving Related roles fall on the low end.





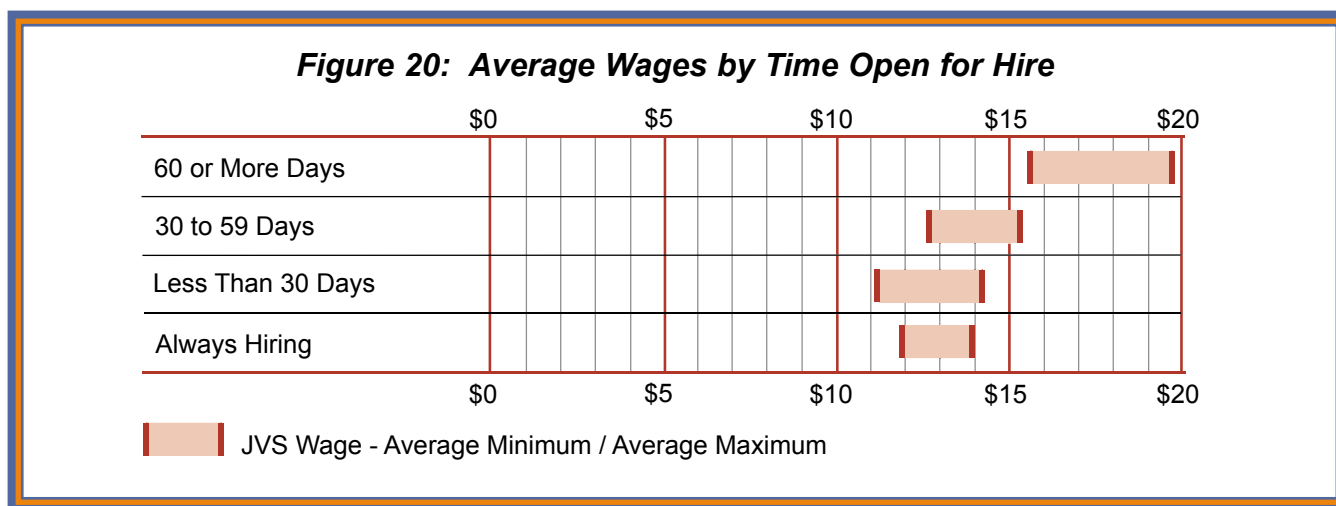
**Figure 19: Vacancies by Time Open for Hire**



The majority of job vacancies 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 the 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.

Fourteen percent of 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 percent of these are from the Healthcare Practitioners and Technical occupational group combined with the Sales and Related group. Almost 11% of vacancies always open 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: Additional Compensation

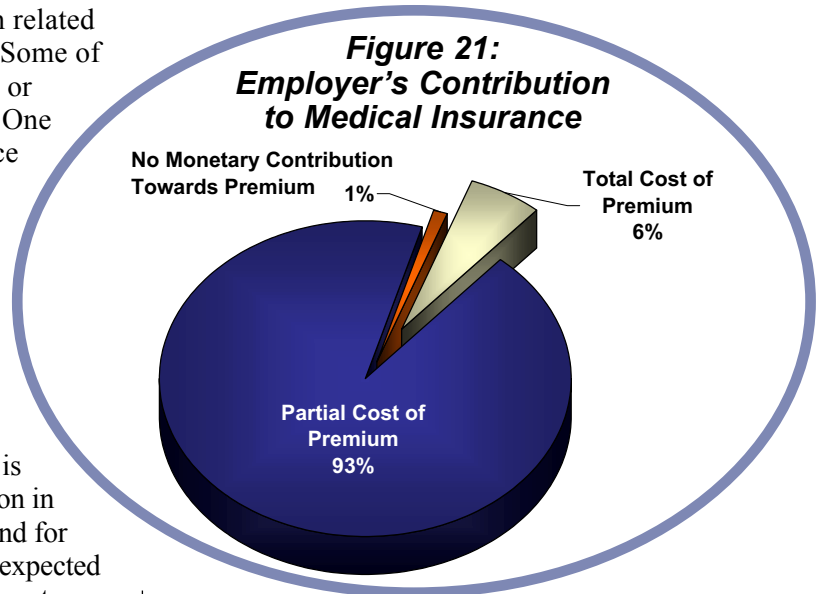
### Medical Insurance

Employers frequently offer compensation related benefits to recruit qualified candidates. Some of these perks are paid time off, transportation or parking vouchers and subsidized childcare. One common benefit offered is medical insurance through an employer group plan. The employer may pay all or part of the monthly insurance premiums for employees.

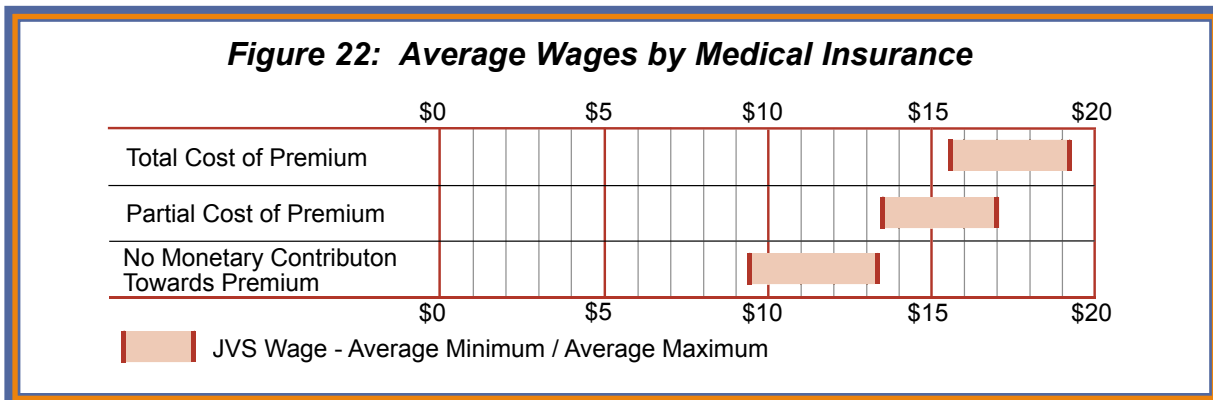
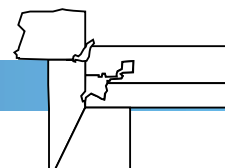
A vast majority of employers reporting job vacancies in the Denver Metro Region offer to pay either partial or full medical insurance premiums for open positions.

Generally, the ageing of the US population is expected to continue stimulating rising inflation in medical costs as there will be excessive demand for medical services. As costs rise employers are expected to shift more responsibility for medical coverage to employees—the number of employers paying the total cost of medical insurance premiums will likely decline.

Compared to the Spring 2001 JVS the current survey finds more employers offer partial contributions for medical insurance premiums. The percentage of employers offering full payment of medical insurance



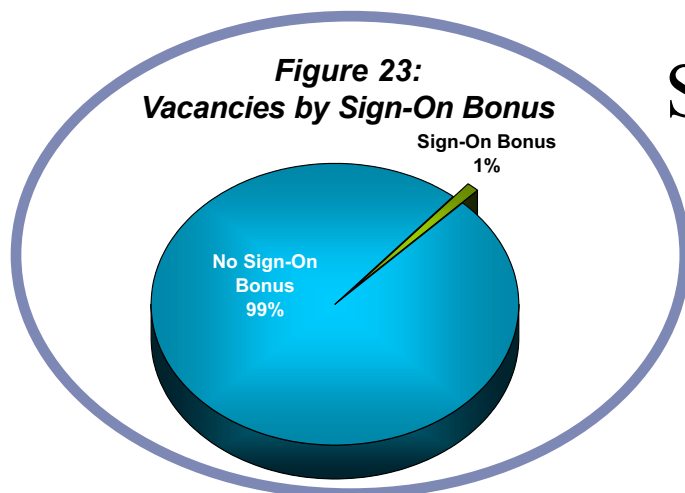
premiums dropped from 14% to 6% between the two periods. It is unclear if this drop results from: attempts by employers to reduce costs in response to the current economic conditions; demographic changes and rising healthcare costs; or a change in the mix of occupations and qualification requirements reported.



There is generally a correlation between higher paying jobs and greater contributions towards medical insurance premiums. As higher paying jobs require specific levels of skill, experience or education employers offer more comprehensive medical insurance packages as incentive to attract qualified candidates.

Occupational groups offering no contribution toward medical insurance premiums for the majority of vacancies are: Transportation and Material Moving; Sales and Related; and Food Preparation and Serving Related. Among those occupational groups for which employers paid the full cost of medical insurance premiums, Construction and Extraction occupations appear most frequently.

### Sign-On Bonus



Sign-on bonuses became popular lore in the late 1990s when a tight labor market existed in many occupational sectors. It is unclear whether the actual size and frequency of sign-on bonuses deserved the hype. Since the economy began cooling in 2000, unemployment rates have risen and talk of sign-on bonuses has subsided in this survey. Less than 1% of the employers offered sign-on bonuses for vacancies for which they are hiring.

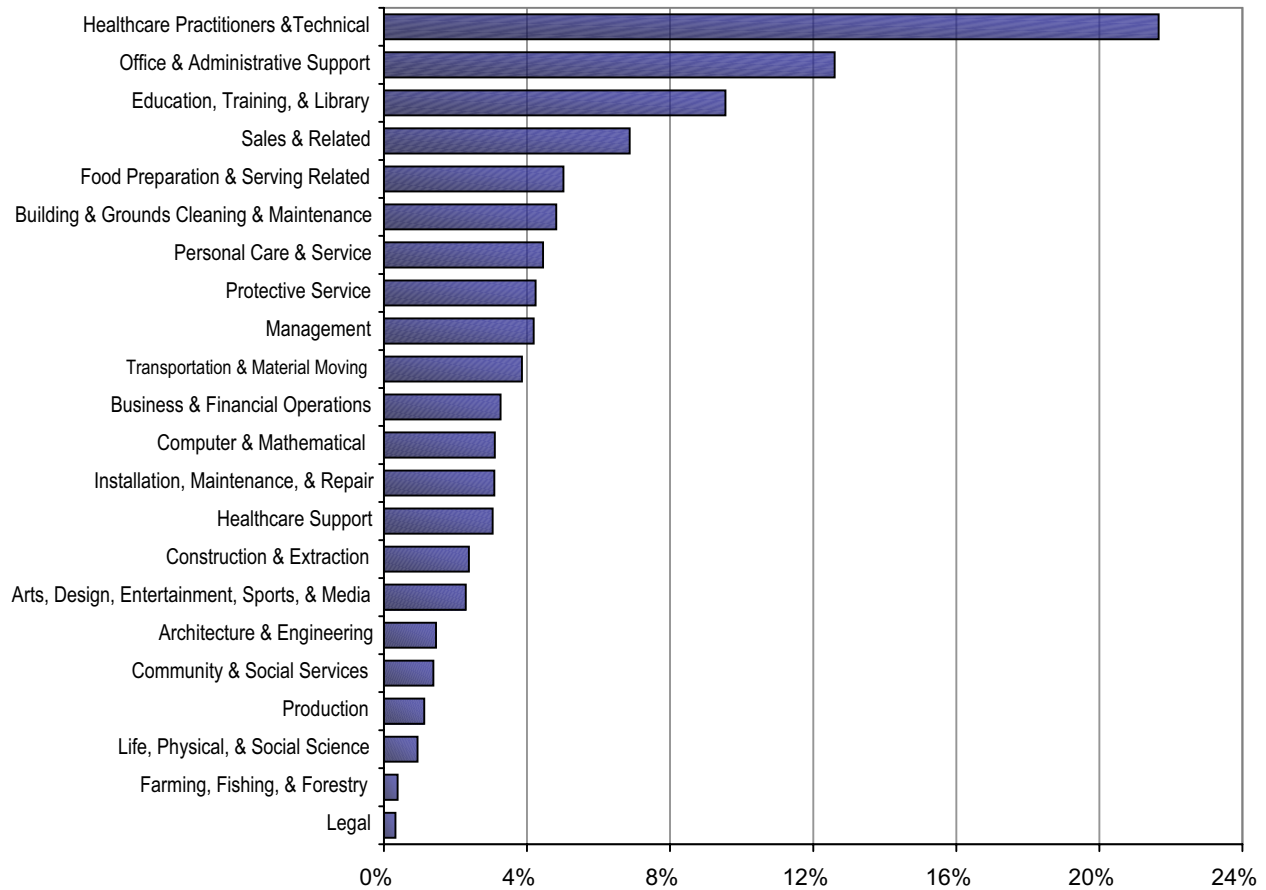
# Occupations

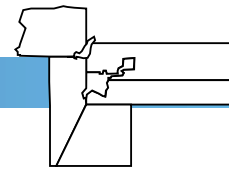
In order to facilitate comparing results of this survey with other sources of employment statistics, all jobs reported are assigned a Standard Occupational Classification code from the 2000 *Standard Occupational Classification Manual*. Each job fits into one of the 22 major occupational groups shown below.

The Healthcare Practitioners and Technical occupational group represents the most job vacancies—the

high demand of 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 22. A high frequency of vacancies also occurred in two other occupational groups: Office and Administrative Support; and Education, Training and Library.

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

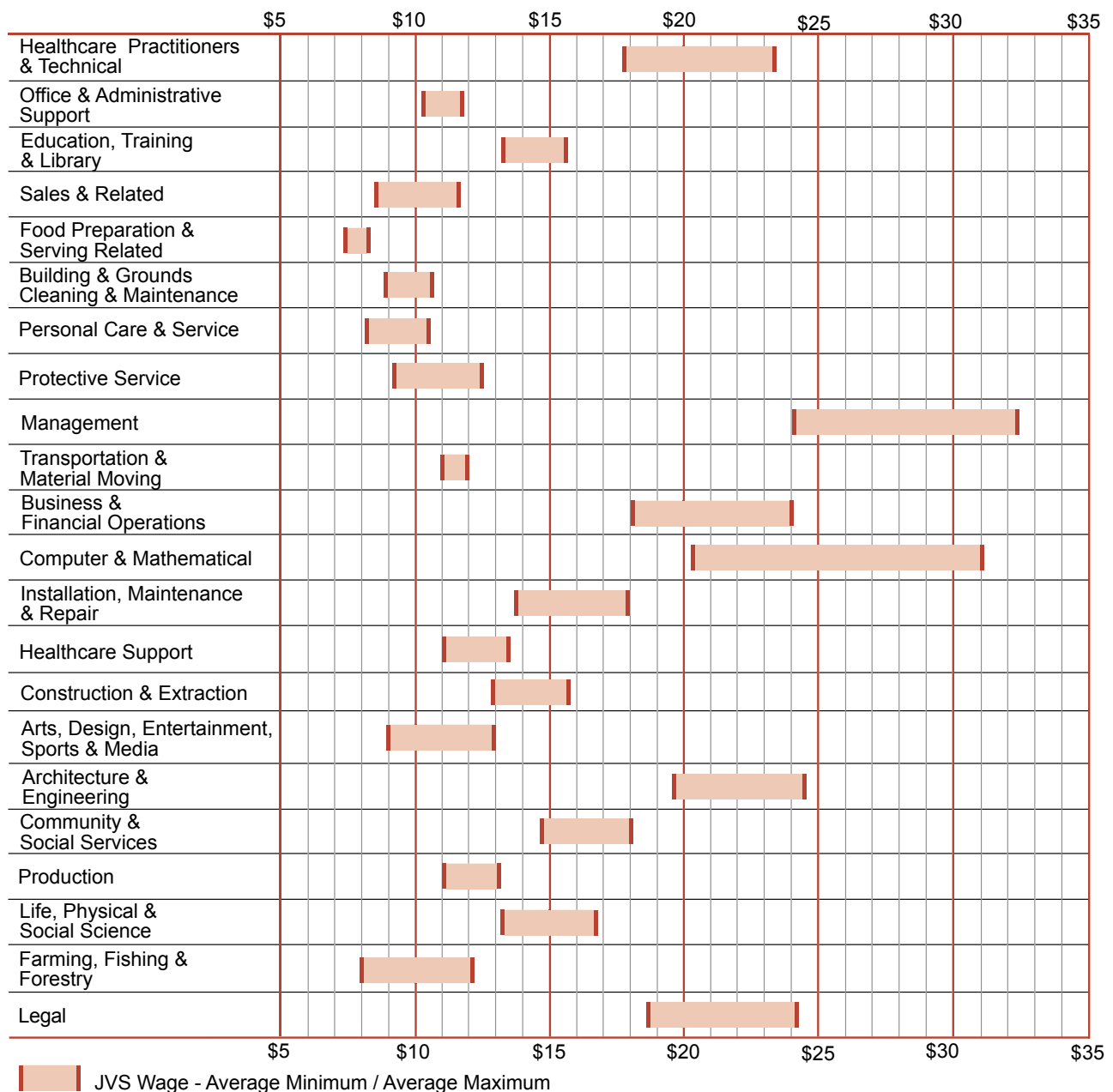




Results of the survey show higher wages offered for occupational groups with higher education and experience requirements. The three occupational groups offering the highest average wages this year remain the same as a year ago: Management; Computer and Mathematical; and Architecture and Engineering. High average wages offered for Healthcare Practitioners and

Technical occupations reflect the great employment shortages the healthcare industry has been facing in most recent years. Occupations requiring lower levels of education and experience reflect the lowest wages in the survey. These include waiters and waitresses, customer service representatives, retail salespeople and cashiers.

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



**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	1,660	\$23.40	\$17.27	\$21.38	\$23.44	\$15.84	\$18.52	\$21.01	\$24.32	\$27.60
35-3031	Waiters and Waitresses	780	\$6.90	\$6.09	\$8.58	\$9.83	\$5.71	\$6.14	\$6.86	\$8.75	\$10.61
43-4051	Customer Service Representatives	770	\$10.00	\$7.74	\$10.98	\$12.60	\$6.61	\$8.95	\$10.45	\$12.63	\$15.73
41-2031	Retail Salespersons	730	\$12.80	\$6.57	\$10.28	\$12.14	\$6.09	\$7.07	\$8.28	\$10.86	\$17.14
41-2011	Cashiers	730	\$7.60	\$6.31	\$8.78	\$10.03	\$5.97	\$6.86	\$7.92	\$9.76	\$14.17
31-1012	Nursing Aides, Orderlies, and Attendants	450	\$12.30	\$7.88	\$9.42	\$10.19	\$7.52	\$8.15	\$9.13	\$10.68	\$12.23
35-3021	Combined Food Preparation and Serving Workers, Including Fast Food	410	\$8.30	\$6.18	\$7.24	\$7.77	\$5.88	\$6.40	\$7.19	\$8.14	\$8.75
53-7062	Laborers and Freight, Stock, and Material Movers, Hand	380	\$11.50	\$7.53	\$9.89	\$11.07	\$7.18	\$8.00	\$9.24	\$11.12	\$13.86
33-9092	Lifeguards, Ski Patrol, and Other Recreational Protective Service Workers	330	\$9.30	†	†	†	†	†	†	†	†
37-3011	Landscaping and Groundskeeping Workers	330	\$9.60	\$7.54	\$10.33	\$11.73	\$7.21	\$8.19	\$9.76	\$11.51	\$15.13
39-3031	Ushers, Lobby Attendants, and Ticket Takers	290	\$9.00	\$6.13	\$7.24	\$7.80	\$5.72	\$6.09	\$6.70	\$9.05	\$10.32
29-2061	Licensed Practical and Licensed Vocational Nurses	280	\$15.30	\$12.14	\$15.05	\$16.50	\$11.71	\$13.15	\$15.21	\$16.97	\$18.23
49-9042	Maintenance and Repair Workers, General	270	\$11.90	\$9.05	\$13.51	\$15.73	\$8.36	\$10.29	\$12.90	\$16.61	\$20.31
47-2073	Operating Engineers and Other Construction Equipment Operators	250	\$17.90	\$13.79	\$16.18	\$17.37	\$12.57	\$14.61	\$16.21	\$17.88	\$20.42
13-2011	Accountants and Auditors	240	\$20.00	\$14.77	\$20.62	\$23.54	\$13.96	\$15.80	\$18.99	\$23.14	\$29.84
43-4171	Receptionists and Information Clerks	240	\$10.30	\$7.63	\$9.71	\$10.74	\$7.35	\$8.20	\$9.52	\$10.99	\$12.99
43-6014	Secretaries, Except Legal, Medical, and Executive	230	\$12.20	\$8.55	\$11.41	\$12.83	\$7.89	\$9.30	\$10.94	\$13.28	\$16.08
43-6013	Medical Secretaries	220	\$11.50	\$9.85	\$12.19	\$13.36	\$9.44	\$10.42	\$12.02	\$13.77	\$15.95
15-1021	Computer Programmers	210	\$28.00	\$14.97	\$26.79	\$32.70	\$12.80	\$17.24	\$28.08	\$35.09	\$41.73
33-9032	Security Guards	210	\$9.30	\$7.81	\$10.97	\$12.54	\$7.51	\$8.36	\$10.01	\$12.06	\$16.37
37-2011	Janitors and Cleaners, Except Maids and Housekeeping Cleaners	200	\$10.50	\$6.97	\$8.76	\$9.66	\$6.35	\$7.37	\$8.24	\$9.47	\$11.42
25-2031	Secondary School Teachers, Except Special and Vocational Education	190	\$22.10	\$27,843	\$41,162	\$47,821	\$25,830	\$30,595	\$38,025	\$50,411	\$59,205
43-5081	Stock Clerks and Order Fillers	180	\$9.20	\$7.33	\$11.19	\$13.12	\$6.87	\$8.01	\$10.17	\$14.39	\$17.31

\* OES wages reported for Colorado statewide

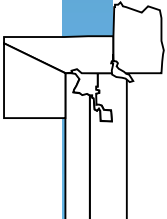
† No wage data available

**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
43-1011	First-Line Supervisors/Managers of Office and Administrative Support Workers	170	\$12.70	\$11.57	\$17.91	\$21.08	\$10.66	\$13.10	\$16.96	\$21.67	\$27.10
* 27-4012	Broadcast Technicians	160	\$11.10	\$8.09	\$16.03	\$20.00	\$7.38	\$9.06	\$12.78	\$19.75	\$26.82
25-2011	Preschool Teachers, Except Special Education	160	\$9.80	\$7.85	\$9.43	\$10.23	\$7.44	\$7.98	\$8.87	\$10.33	\$11.57
25-9041	Teacher Assistants	150	\$9.20	\$14,203	\$17,542	\$19,212	\$13,153	\$15,172	\$17,365	\$20,106	\$22,579
43-3031	Bookkeeping, Accounting, and Auditing Clerks	150	\$13.00	\$9.47	\$12.98	\$14.74	\$9.00	\$10.50	\$12.63	\$15.14	\$17.64
39-9032	Recreation Workers	150	\$9.50	\$7.16	\$9.13	\$10.13	\$6.64	\$7.51	\$8.39	\$9.82	\$14.41
35-9011	Dining Room and Cafeteria Attendants and Bartender Helpers	150	\$7.10	\$6.08	\$6.63	\$6.91	\$5.63	\$6.00	\$6.59	\$7.34	\$8.23
25-3099	Teachers and Instructors, All Other	140	\$11.60	†	†	†	†	†	†	†	†
11-9111	Medical and Health Services Managers	140	\$30.00	\$20.18	\$32.13	\$38.12	\$16.97	\$23.36	\$28.21	\$39.60	\$52.65
29-2012	Medical and Clinical Laboratory Technicians	140	\$14.80	\$10.22	\$12.95	\$14.32	\$9.50	\$11.21	\$12.71	\$14.59	\$17.19
41-9041	Telemarketers	140	\$8.30	\$7.52	\$8.54	\$9.05	\$7.22	\$7.61	\$8.25	\$8.90	\$10.88
37-2012	Maids and Housekeeping Cleaners	140	\$7.60	\$6.24	\$7.80	\$8.57	\$5.93	\$6.75	\$7.75	\$8.61	\$9.99
43-6011	Executive Secretaries and Administrative Assistants	130	\$14.30	\$11.26	\$15.01	\$16.89	\$10.35	\$12.06	\$14.37	\$17.16	\$20.86
43-9061	Office Clerks, General	130	\$9.80	\$7.47	\$11.50	\$13.51	\$7.02	\$8.31	\$10.22	\$12.60	\$15.47
29-2034	Radiologic Technologists and Technicians	120	\$17.90	\$13.93	\$17.44	\$19.19	\$12.77	\$14.97	\$17.45	\$20.24	\$21.99
49-3023	Automotive Service Technicians and Mechanics	120	\$26.10	\$9.34	\$16.62	\$20.25	\$7.99	\$10.97	\$16.39	\$21.26	\$25.82
49-9021	Heating, Air Conditioning, and Refrigeration Mechanics and Installers	120	\$23.70	\$10.65	\$14.26	\$16.07	\$9.79	\$11.47	\$13.55	\$16.76	\$20.44
47-2061	Construction Laborers	120	\$10.40	\$8.27	\$11.31	\$12.83	\$7.22	\$9.34	\$10.95	\$13.28	\$16.07
43-4081	Hotel, Motel, and Resort Desk Clerks	120	\$8.30	\$6.69	\$8.08	\$8.78	\$6.11	\$7.16	\$8.05	\$8.88	\$10.46
35-2014	Cooks, Restaurant	120	\$9.00	\$6.16	\$8.19	\$9.20	\$5.95	\$6.66	\$7.81	\$9.17	\$10.85
25-2021	Elementary School Teachers, Except Special Education	110	\$14.40	\$28,252	\$39,909	\$45,738	\$26,091	\$30,628	\$37,523	\$46,895	\$56,711
* 15-1032	Computer Software Engineers, Systems Software	110	\$30.70	\$26.96	\$35.31	\$39.48	\$24.41	\$29.59	\$34.41	\$41.68	\$48.87
* 17-2199	Engineers, All Other	110	\$24.60	\$23.15	\$34.06	\$39.50	\$21.27	\$26.41	\$33.52	\$41.56	\$49.18
15-1071	Network and Computer Systems Administrators	110	\$28.10	\$16.58	\$23.80	\$27.41	\$15.33	\$17.81	\$21.58	\$28.87	\$35.21
53-3099	Motor Vehicle Operators, All Other	110	\$6.40	\$6.11	\$11.52	\$14.22	\$5.88	\$6.54	\$10.45	\$16.40	\$19.33

\* 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	Occupational Employment Statistics Wage Data (2001)							
				Average Wages			Percentile Distribution				
				Entry Level	Overall	Experienced	10th	25th	50th	75th	90th
53-3033	Truck Drivers, Light or Delivery Services	110	\$12.30	\$7.11	\$11.13	\$13.13	\$6.55	\$7.88	\$10.33	\$13.77	\$16.93
11-3021	Computer and Information Systems Managers	100	\$43.60	\$17.57	\$34.70	\$43.25	\$14.01	\$21.23	\$34.56	\$47.28	\$55.89
* 41-2012	Gaming Change Persons and Booth Cashiers	100	\$10.00	\$6.87	\$9.66	\$11.05	\$6.27	\$7.51	\$9.37	\$11.29	\$13.78
11-2021	Marketing Managers	90	\$43.30	\$19.51	\$35.46	\$43.43	\$16.67	\$23.00	\$37.25	\$46.53	\$55.40
15-1041	Computer Support Specialists	90	\$13.30	\$8.06	\$14.52	\$17.74	\$7.80	\$8.74	\$12.14	\$17.40	\$25.83
35-1012	First-Line Supervisors/Managers of Food Preparation and Serving Workers	90	\$10.90	\$7.98	\$11.01	\$12.51	\$7.60	\$8.28	\$9.76	\$12.43	\$15.56
11-3031	Financial Managers	80	\$31.40	\$19.75	\$31.67	\$37.62	\$18.21	\$22.20	\$28.99	\$39.80	\$50.66
11-9199	Managers, All Other	80	\$23.90	\$16.93	\$29.66	\$36.02	\$15.07	\$20.17	\$27.63	\$37.63	\$48.62
11-9033	Education Administrators, Postsecondary	80	\$37.30	\$17.25	\$29.23	\$35.21	\$15.37	\$19.44	\$25.17	\$35.44	\$46.57
29-2055	Surgical Technologists	80	\$13.60	\$12.01	\$15.78	\$17.67	\$11.40	\$12.31	\$13.82	\$17.01	\$24.81
* 53-3021	Bus Drivers, Transit and Intercity	80	\$10.50	\$9.28	\$12.82	\$14.59	\$9.03	\$10.21	\$12.25	\$14.62	\$18.60
31-9092	Medical Assistants	80	\$12.20	\$9.51	\$10.71	\$11.31	\$8.99	\$9.56	\$10.41	\$11.34	\$13.77
25-2022	Middle School Teachers, Except Special and Vocational Education	70	\$14.40	\$28,463	\$37,764	\$42,415	\$26,139	\$30,104	\$35,662	\$44,544	\$53,843
* 27-2023	Umpires, Referees, and Other Sports Officials	70	\$8.30	\$19,659	\$25,585	\$28,554	\$18,444	\$20,230	\$22,440	\$27,869	\$41,881
27-2022	Coaches and Scouts	70	\$8.00	\$16,430	\$24,033	\$27,834	\$15,188	\$16,060	\$17,512	\$29,998	\$45,073
29-1051	Pharmacists	70	\$33.80	\$31.57	\$33.30	\$34.16	\$29.72	\$31.10	\$33.39	\$35.68	\$38.94
11-2022	Sales Managers	70	\$19.70	\$18.53	\$32.66	\$39.73	\$16.71	\$20.92	\$31.44	\$41.30	\$53.56
15-1081	Network Systems and Data Communications Analysts	70	\$29.40	\$13.31	\$21.93	\$26.25	\$11.74	\$15.30	\$22.61	\$27.58	\$33.73
* 29-1126	Respiratory Therapists	70	\$18.10	\$14.57	\$17.73	\$19.31	\$13.63	\$15.40	\$17.89	\$20.37	\$21.87
53-3032	Truck Drivers, Heavy and Tractor-Trailer	70	\$15.50	\$11.18	\$14.58	\$16.29	\$10.39	\$12.18	\$14.51	\$16.81	\$19.29
43-4071	File Clerks	70	\$11.00	\$7.20	\$9.23	\$10.24	\$6.54	\$7.71	\$8.79	\$10.38	\$12.75
51-6011	Laundry and Dry-Cleaning Workers	70	\$6.00	\$6.50	\$8.11	\$8.92	\$6.06	\$7.02	\$7.86	\$8.68	\$11.29
39-3091	Amusement and Recreation Attendants	70	\$6.20	\$6.19	\$6.89	\$7.24	\$5.76	\$6.08	\$6.61	\$7.15	\$8.47
* 25-1121	Art, Drama, and Music Teachers, Postsecondary	60	\$20.20	\$32,758	\$51,659	\$61,114	\$30,433	\$38,716	\$49,832	\$62,069	\$75,895
13-2051	Financial Analysts	60	\$25.60	\$21.35	\$29.78	\$33.99	\$19.78	\$22.72	\$28.68	\$34.80	\$42.93
11-9021	Construction Managers	60	\$27.40	\$22.89	\$28.49	\$31.28	\$22.31	\$24.01	\$26.66	\$31.83	\$39.18

\* 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
17-2051	Civil Engineers	60	\$30.50	\$19.39	\$26.09	\$29.45	\$18.65	\$20.40	\$24.12	\$31.30	\$36.82
39-9031	Fitness Trainers and Aerobics Instructors	60	\$14.50	\$12.48	\$17.34	\$19.76	\$10.30	\$14.59	\$16.52	\$20.47	\$26.14
41-1011	First-Line Supervisors/Managers of Retail Sales Workers	60	\$12.00	\$10.45	\$17.25	\$20.65	\$9.65	\$11.38	\$14.48	\$19.02	\$28.16
29-2041	Emergency Medical Technicians and Paramedics	60	\$17.10	\$11.10	\$15.10	\$17.11	\$10.23	\$11.77	\$14.17	\$17.72	\$21.39
41-3099	Sales Representatives, Services, All Other	60	\$9.40	\$7.69	\$19.05	\$24.73	\$7.36	\$8.18	\$13.69	\$23.64	\$45.72
43-4131	Loan Interviewers and Clerks	60	\$18.60	\$9.91	\$12.49	\$13.79	\$9.40	\$10.21	\$11.85	\$14.19	\$16.95
39-5012	Hairdressers, Hairstylists, and Cosmetologists	60	\$9.00	\$6.81	\$11.37	\$13.66	\$6.27	\$7.49	\$9.93	\$14.98	\$17.45
41-2021	Counter and Rental Clerks	60	\$9.30	\$6.30	\$9.46	\$11.04	\$5.98	\$6.84	\$8.33	\$11.36	\$14.85
43-2011	Switchboard Operators, Including Answering Service	60	\$8.20	\$6.09	\$8.06	\$9.05	\$5.79	\$6.38	\$7.64	\$9.44	\$11.49
35-9021	Dishwashers	60	\$7.70	\$6.08	\$7.02	\$7.47	\$5.73	\$6.23	\$7.05	\$7.98	\$8.55
35-9031	Hosts and Hostesses, Restaurant, Lounge, and Coffee Shop	60	\$8.60	\$6.10	\$7.10	\$7.60	\$5.76	\$6.24	\$7.04	\$8.02	\$8.65
11-1021	General and Operations Managers	50	\$28.70	\$18.02	\$33.74	\$41.60	\$15.66	\$21.39	\$30.74	\$42.84	\$59.65
15-1031	Computer Software Engineers, Applications	50	\$35.70	\$20.29	\$32.08	\$37.98	\$19.36	\$22.92	\$29.60	\$39.68	\$47.09
11-3011	Administrative Services Managers	50	\$28.00	\$13.52	\$25.04	\$30.82	\$12.07	\$16.31	\$25.70	\$32.77	\$38.92
29-1123	Physical Therapists	50	\$21.00	\$21.32	\$24.77	\$26.50	\$19.72	\$22.62	\$25.05	\$27.32	\$29.24
27-3042	Technical Writers	50	\$19.20	\$16.20	\$23.40	\$27.00	\$14.53	\$18.20	\$23.08	\$28.05	\$33.99
47-1011	First-Line Supervisors/Managers of Construction Trades and Extraction Workers	50	\$16.50	\$17.11	\$23.14	\$26.16	\$15.60	\$18.50	\$21.77	\$27.13	\$33.69
29-2011	Medical and Clinical Laboratory Technologists	50	\$16.10	\$16.95	\$21.31	\$23.48	\$14.47	\$18.72	\$21.54	\$24.91	\$27.39
51-1011	First-Line Supervisors/Managers of Production and Operating Workers	50	\$21.90	\$14.65	\$20.99	\$24.16	\$13.21	\$16.84	\$20.47	\$24.28	\$29.72
51-8031	Water and Liquid Waste Treatment Plant and System Operators	50	\$16.10	\$14.80	\$19.84	\$22.35	\$14.12	\$16.15	\$19.11	\$21.90	\$26.16
41-4012	Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	50	\$22.30	\$11.70	\$21.13	\$25.85	\$10.35	\$13.63	\$17.83	\$25.39	\$35.29
47-2111	Electricians	50	\$14.30	\$12.01	\$18.35	\$21.51	\$10.77	\$13.45	\$17.76	\$21.57	\$27.22
49-3042	Mobile Heavy Equipment Mechanics, Except Engines	50	\$16.40	\$11.68	\$16.07	\$18.26	\$10.13	\$13.43	\$16.31	\$19.49	\$21.55

\* OES wages reported for Colorado statewide

† No wage data available

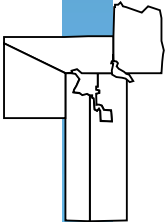


Table 3: Occupations with 10 or More Vacancies – Page 5

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
13-1073	Training and Development Specialists	50	\$16.90	\$11.26	\$17.60	\$20.77	\$10.08	\$12.88	\$16.19	\$21.55	\$27.58
49-3031	Bus and Truck Mechanics and Diesel Engine Specialists	50	\$15.50	\$11.67	\$16.43	\$18.81	\$11.49	\$13.10	\$15.78	\$19.54	\$23.69
47-2051	Cement Masons and Concrete Finishers	50	\$11.50	\$10.11	\$14.91	\$17.31	\$9.33	\$11.15	\$14.63	\$17.87	\$21.29
43-3011	Bill and Account Collectors	50	\$14.70	\$9.02	\$11.96	\$13.44	\$8.30	\$9.59	\$11.48	\$13.98	\$16.74
37-1011	First-Line Supervisors/Managers of Housekeeping and Janitorial Workers	50	\$12.40	\$9.20	\$12.49	\$14.13	\$8.43	\$9.73	\$11.34	\$13.91	\$17.51
39-9041	Residential Advisors	50	\$8.70	\$8.15	\$10.89	\$12.26	\$7.73	\$8.64	\$10.31	\$12.73	\$15.89
43-3071	Tellers	50	\$10.10	\$8.03	\$9.70	\$10.54	\$7.68	\$8.45	\$9.62	\$10.83	\$12.24
* 25-1071	Health Specialties Teachers, Postsecondary	40	\$19.90	\$19,700	\$58,001	\$77,151	\$16,970	\$21,890	\$52,012	\$79,901	\$124,315
11-9041	Engineering Managers	40	\$34.00	\$29.33	\$43.49	\$50.57	\$24.61	\$36.28	\$44.07	\$53.91	\$62.31
15-1051	Computer Systems Analysts	40	\$26.00	\$22.46	\$32.43	\$37.40	\$20.72	\$25.53	\$31.79	\$39.21	\$46.64
41-3031	Securities, Commodities, and Financial Services Sales Agents	40	\$15.20	\$13.14	\$34.97	\$45.89	\$9.18	\$17.73	\$31.44	\$52.20	\$70.58
11-3071	Transportation, Storage, and Distribution Managers	40	\$33.50	\$17.74	\$29.75	\$35.75	\$15.69	\$20.58	\$26.41	\$36.12	\$50.12
41-4011	Sales Representatives, Wholesale and Manufacturing, Technical and Scientific Products	40	\$13.00	\$17.62	\$26.24	\$30.55	\$16.75	\$19.46	\$25.83	\$33.39	\$37.17
* 29-2032	Diagnostic Medical Sonographers	40	\$21.70	\$21.73	\$26.25	\$28.50	\$19.69	\$23.13	\$25.58	\$28.01	\$37.19
33-3051	Police and Sheriff's Patrol Officers	40	\$18.20	\$15.65	\$20.18	\$22.45	\$15.09	\$16.80	\$20.06	\$23.93	\$26.67
47-4011	Construction and Building Inspectors	40	\$20.10	\$14.57	\$19.46	\$21.89	\$14.51	\$16.56	\$19.56	\$22.27	\$26.13
21-1022	Medical and Public Health Social Workers	40	\$20.70	\$13.58	\$17.80	\$19.92	\$12.47	\$14.61	\$17.01	\$20.72	\$25.22
47-2211	Sheet Metal Workers	40	\$11.00	\$11.22	\$17.37	\$20.44	\$10.29	\$12.69	\$16.49	\$21.96	\$26.75
13-2041	Credit Analysts	40	\$14.90	\$12.72	\$17.86	\$20.44	\$12.18	\$13.37	\$16.04	\$19.67	\$25.82
21-1011	Substance Abuse and Behavioral Disorder Counselors	40	\$13.70	\$12.41	\$15.04	\$16.36	\$11.69	\$12.33	\$13.41	\$15.07	\$22.18
23-2011	Paralegals and Legal Assistants	40	\$20.90	\$11.64	\$13.78	\$14.86	\$10.96	\$11.86	\$13.12	\$15.36	\$18.25
43-5071	Shipping, Receiving, and Traffic Clerks	40	\$9.80	\$7.76	\$11.19	\$12.90	\$7.45	\$8.47	\$10.69	\$13.68	\$16.38
35-3011	Bartenders	40	\$7.60	\$6.11	\$8.22	\$9.28	\$5.83	\$6.40	\$7.60	\$10.09	\$11.82
37-3019	Grounds Maintenance Workers, All Other	30	\$9.40	†	†	†	†	†	†	†	†
35-2019	Cooks, All Other	30	\$8.50	†	†	†	†	†	†	†	†

\* OES wages reported for Colorado statewide

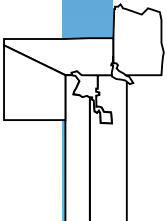
† No wage data available

**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	
11-9039	Education Administrators, All Other	30	\$23.10	†	†	†	†	†	†	†	†	†
25-1031	Architecture Teachers, Postsecondary	30	\$27.50	†	†	†	†	†	†	†	†	†
* 25-1066	Psychology Teachers, Postsecondary	30	\$39.70	\$34,190	\$58,385	\$70,477	\$30,651	\$40,781	\$55,240	\$70,747	\$93,156	
25-1011	Business Teachers, Postsecondary	30	\$36.10	\$34,138	\$57,649	\$69,405	\$32,117	\$36,932	\$48,918	\$74,161	\$100,821	
25-1123	English Language and Literature Teachers, Postsecondary	30	\$31.30	\$31,719	\$51,306	\$61,100	\$27,470	\$37,313	\$46,352	\$60,883	\$84,580	
23-1011	Lawyers	30	\$25.90	\$19.43	\$36.55	\$45.10	\$16.59	\$22.80	\$36.09	\$47.94	\$60.06	
17-2071	Electrical Engineers	30	\$30.00	\$27.44	\$35.37	\$39.33	\$24.88	\$29.81	\$34.27	\$41.17	\$49.21	
13-1111	Management Analysts	30	\$19.50	\$17.52	\$29.43	\$35.39	\$15.62	\$20.49	\$26.85	\$35.34	\$45.10	
* 29-2033	Nuclear Medicine Technologists	30	\$22.20	\$19.05	\$22.09	\$23.60	\$18.11	\$19.78	\$22.34	\$25.14	\$27.18	
29-1122	Occupational Therapists	30	\$21.20	\$17.32	\$22.04	\$24.39	\$15.56	\$18.91	\$22.11	\$25.83	\$27.95	
29-1127	Speech-Language Pathologists	30	\$16.60	\$16.08	\$21.84	\$24.72	\$15.09	\$17.40	\$22.00	\$25.94	\$28.23	
49-1011	First-Line Supervisors/Managers of Mechanics, Installers, and Repairers	30	\$21.20	\$12.18	\$20.29	\$24.34	\$8.27	\$15.59	\$21.10	\$25.80	\$28.58	
15-1099	Computer Specialists, All Other	30	\$15.60	\$10.96	\$20.82	\$25.75	\$9.56	\$13.01	\$21.09	\$27.33	\$32.89	
* 13-2099	Financial Specialists, All Other	30	\$21.20	\$14.24	\$22.38	\$26.44	\$12.93	\$16.11	\$20.39	\$26.04	\$33.89	
17-3023	Electrical and Electronic Engineering Technicians	30	\$16.20	\$14.37	\$19.76	\$22.46	\$13.42	\$16.02	\$19.30	\$22.37	\$27.28	
* 13-1022	Wholesale and Retail Buyers, Except Farm Products	30	\$20.40	\$12.27	\$19.48	\$23.09	\$10.63	\$14.18	\$17.50	\$22.84	\$31.27	
21-1021	Child, Family, and School Social Workers	30	\$17.40	\$13.79	\$17.35	\$19.13	\$12.67	\$14.67	\$17.07	\$20.13	\$22.19	
* 43-9041	Insurance Claims and Policy Processing Clerks	30	\$16.30	\$10.18	\$15.43	\$18.06	\$9.46	\$11.23	\$14.72	\$17.40	\$23.99	
21-1014	Mental Health Counselors	30	\$10.80	\$11.76	\$15.58	\$17.49	\$11.50	\$12.53	\$14.70	\$17.44	\$23.37	
* 45-4011	Forest and Conservation Workers	30	\$10.00	\$11.12	\$15.15	\$17.16	\$10.16	\$12.09	\$14.46	\$17.90	\$20.98	
41-9022	Real Estate Sales Agents	30	\$15.20	\$10.46	\$21.43	\$26.92	\$9.71	\$11.09	\$14.39	\$20.94	\$54.12	
47-2041	Carpet Installers	30	\$10.00	\$9.81	\$13.22	\$14.92	\$9.25	\$10.01	\$14.15	\$16.20	\$17.43	
19-4021	Biological Technicians	30	\$9.30	\$9.77	\$14.75	\$17.23	\$8.53	\$11.04	\$14.06	\$18.24	\$21.93	
11-9051	Food Service Managers	30	\$14.60	\$11.74	\$21.50	\$26.38	\$11.27	\$12.24	\$13.62	\$19.45	\$72.56	
47-2151	Pipelayers	30	\$15.50	\$11.69	\$13.68	\$14.67	\$11.24	\$11.97	\$13.14	\$15.22	\$18.06	
29-2052	Pharmacy Technicians	30	\$13.60	\$10.58	\$12.73	\$13.80	\$9.49	\$11.65	\$12.84	\$14.04	\$15.99	

\* 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
47-2141	Painters, Construction and Maintenance	30	\$15.10	\$9.42	\$13.27	\$15.19	\$8.90	\$10.27	\$12.79	\$16.05	\$18.70
* 27-1026	Merchandise Displayers and Window Trimmers	30	\$16.50	\$8.54	\$12.10	\$13.88	\$7.63	\$9.58	\$11.69	\$13.64	\$17.01
53-7051	Industrial Truck and Tractor Operators	30	\$12.50	\$8.76	\$11.77	\$13.27	\$7.99	\$9.55	\$11.39	\$13.67	\$16.27
43-3021	Billing and Posting Clerks and Machine Operators	30	\$15.50	\$9.39	\$11.76	\$12.94	\$8.88	\$9.84	\$11.39	\$13.50	\$15.86
29-2071	Medical Records and Health Information Technicians	30	\$14.30	\$9.40	\$12.69	\$14.33	\$8.99	\$9.85	\$11.17	\$15.63	\$19.27
29-2056	Veterinary Technologists and Technicians	30	\$12.20	\$9.40	\$11.74	\$12.91	\$8.92	\$9.66	\$10.89	\$14.10	\$16.35
53-3022	Bus Drivers, School	30	\$10.90	\$8.94	\$10.58	\$11.39	\$8.29	\$9.46	\$10.44	\$11.60	\$13.60
41-3041	Travel Agents	30	\$9.20	\$6.76	\$11.53	\$13.93	\$6.23	\$7.52	\$10.28	\$14.30	\$17.52
* 51-9199	Production Workers, All Other	30	\$10.20	\$6.68	\$10.10	\$11.81	\$6.19	\$7.28	\$9.52	\$11.99	\$15.41
51-2099	Assemblers and Fabricators, All Other	30	\$10.50	\$7.08	\$9.62	\$10.90	\$6.45	\$7.47	\$8.39	\$11.25	\$15.58
35-2021	Food Preparation Workers	30	\$8.20	\$6.29	\$8.25	\$9.23	\$6.05	\$6.85	\$7.89	\$8.95	\$11.84
51-6021	Pressers, Textile, Garment, and Related Materials	30	\$10.00	\$7.32	\$7.74	\$7.94	\$6.91	\$7.38	\$7.89	\$8.41	\$8.71
39-9011	Child Care Workers	30	\$7.90	\$6.30	\$7.97	\$8.81	\$6.02	\$6.84	\$7.85	\$8.77	\$10.48
53-7064	Packers and Packagers, Hand	30	\$8.90	\$6.16	\$7.21	\$7.75	\$5.76	\$6.16	\$6.83	\$8.09	\$9.65
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
21-1029	Social Workers, All Other	20	\$16.40	†	†	†	†	†	†	†	†
29-2099	Health Technologists and Technicians, All Other	20	\$15.30	†	†	†	†	†	†	†	†
25-9099	Education, Training, and Library Workers, All Other	20	\$7.90	†	†	†	†	†	†	†	†
25-1022	Mathematical Science Teachers, Postsecondary	20	\$16.60	\$31,669	\$51,979	\$62,136	\$28,857	\$36,841	\$47,573	\$64,227	\$81,802
25-1072	Nursing Instructors and Teachers, Postsecondary	20	\$36.10	\$31,930	\$47,198	\$54,832	\$31,089	\$35,148	\$46,157	\$55,624	\$68,492
* 25-1081	Education Teachers, Postsecondary	20	\$23.60	\$31,190	\$48,483	\$57,139	\$29,945	\$36,557	\$45,732	\$57,720	\$76,393
25-2012	Kindergarten Teachers, Except Special Education	20	\$15.30	\$25,898	\$38,071	\$44,157	\$24,600	\$28,387	\$36,168	\$48,618	\$55,424
25-1199	Postsecondary Teachers, All Other	20	\$17.60	\$22,063	\$37,102	\$44,620	\$18,715	\$25,940	\$32,954	\$39,276	\$65,999
11-1011	Chief Executives	20	\$70.90	\$29.96	\$49.64	\$59.49	\$28.35	\$35.22	\$48.13	\$72.56	\$75.22
* 19-2012	Physicists	20	†	\$30.80	\$41.52	\$46.88	\$29.09	\$34.98	\$41.66	\$49.49	\$56.37
41-9031	Sales Engineers	20	\$14.20	\$26.66	\$31.57	\$34.03	\$23.83	\$29.35	\$32.08	\$34.81	\$36.49

\* OES wages reported for Colorado statewide

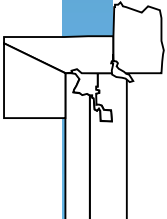
† No wage data available

**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
29-1131	Veterinarians	20	\$41.70	\$19.99	\$30.68	\$36.04	\$18.62	\$22.27	\$30.66	\$34.49	\$43.57
17-2141	Mechanical Engineers	20	\$28.80	\$20.60	\$29.56	\$34.04	\$18.82	\$23.90	\$30.25	\$34.59	\$41.03
17-1011	Architects, Except Landscape and Naval	20	\$37.30	\$18.67	\$26.70	\$30.71	\$18.36	\$20.67	\$26.62	\$32.84	\$36.99
* 29-1124	Radiation Therapists	20	\$24.50	\$21.66	\$25.29	\$27.10	\$19.51	\$23.03	\$25.45	\$27.87	\$32.31
* 13-2053	Insurance Underwriters	20	\$27.40	\$16.22	\$25.46	\$30.08	\$14.63	\$18.10	\$24.11	\$31.57	\$38.04
13-1051	Cost Estimators	20	\$20.60	\$16.59	\$24.44	\$28.37	\$15.36	\$18.05	\$23.59	\$30.86	\$35.59
13-2072	Loan Officers	20	\$30.00	\$15.02	\$22.92	\$26.86	\$13.50	\$17.07	\$20.59	\$27.46	\$35.01
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
* 13-2052	Personal Financial Advisors	20	\$15.10	\$13.16	\$27.70	\$34.96	\$12.25	\$14.24	\$19.86	\$32.31	
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
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
25-4021	Librarians	20	\$18.10	\$14.38	\$19.24	\$21.67	\$13.41	\$15.79	\$18.89	\$22.44	\$26.41
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
* 21-2011	Clergy	20	\$17.30	\$11.13	\$17.95	\$21.36	\$9.92	\$12.79	\$17.47	\$21.53	\$28.25
13-1071	Employment, Recruitment, and Placement Specialists	20	\$20.60	\$13.51	\$18.95	\$21.68	\$12.41	\$15.02	\$17.38	\$22.55	\$26.87
47-2152	Plumbers, Pipefitters, and Steamfitters	20	\$17.50	\$11.77	\$17.35	\$20.15	\$11.19	\$13.46	\$17.00	\$21.48	\$25.48
* 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
31-2021	Physical Therapist Assistants	20	\$15.40	\$14.74	\$15.83	\$16.38	\$13.91	\$14.80	\$15.94	\$17.09	\$17.95
* 19-4099	Life, Physical, and Social Science Technicians, All Other	20	\$10.90	\$10.17	\$16.43	\$19.57	\$8.84	\$11.93	\$15.30	\$19.48	\$25.65
* 29-2053	Psychiatric Technicians	20	\$11.90	\$11.47	\$14.55	\$16.10	\$10.65	\$12.77	\$15.00	\$16.62	\$17.59
13-2071	Loan Counselors	20	\$18.70	\$11.48	\$14.69	\$16.30	\$10.78	\$12.52	\$14.98	\$16.74	\$18.58
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
39-1021	First-Line Supervisors/Managers of Personal Service Workers	20	\$10.10	\$11.19	\$14.89	\$16.74	\$9.82	\$12.17	\$13.72	\$17.19	\$22.66
* 43-4061	Eligibility Interviewers, Government Programs	20	\$14.20	\$11.60	\$14.83	\$16.44	\$11.04	\$12.15	\$13.68	\$16.86	\$20.46
43-4161	Human Resources Assistants, Except Payroll and Timekeeping	20	\$12.50	\$11.12	\$13.74	\$15.06	\$10.22	\$11.95	\$13.54	\$15.84	\$17.62
47-2121	Glaziers	20	\$15.60	\$9.11	\$13.09	\$15.08	\$8.46	\$10.44	\$12.53	\$15.38	\$18.59

\* OES wages reported for Colorado statewide

† No wage data available



**Table 3: Occupations with 10 or More Vacancies – Page 9**

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
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
41-3011	Advertising Sales Agents	20	\$17.50	\$9.12	\$13.30	\$15.39	\$8.55	\$9.62	\$11.34	\$13.84	\$20.12
25-4031	Library Technicians	20	\$9.70	\$7.71	\$11.33	\$13.14	\$7.15	\$8.61	\$11.25	\$13.51	\$16.33
43-6012	Legal Secretaries	20	\$15.60	\$10.35	\$12.05	\$12.91	\$9.60	\$10.13	\$11.01	\$14.33	\$16.76
43-9071	Office Machine Operators, Except Computer	20	\$9.30	\$8.51	\$10.46	\$11.43	\$7.83	\$9.04	\$10.31	\$11.97	\$13.58
* 47-3016	Helpers--Roofers	20	\$22.50	\$7.38	\$9.67	\$10.83	\$6.80	\$8.37	\$9.93	\$11.10	\$12.58
37-3012	Pesticide Handlers, Sprayers, and Applicators, Vegetation	20	\$12.90	\$8.16	\$10.32	\$11.39	\$7.78	\$8.45	\$9.87	\$12.07	\$13.94
51-6031	Sewing Machine Operators	20	\$8.20	\$7.22	\$9.89	\$11.23	\$6.68	\$7.99	\$9.85	\$11.83	\$13.51
43-9021	Data Entry Keyers	20	\$10.50	\$8.08	\$10.43	\$11.60	\$7.57	\$8.04	\$8.83	\$10.77	\$13.70
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
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
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
35-3041	Food Servers, Nonrestaurant	20	\$5.60	\$6.06	\$6.96	\$7.42	\$5.62	\$6.03	\$6.70	\$7.91	\$8.76
39-3099	Entertainment Attendants and Related Workers, All Other	10	\$7.10	†	†	†	†	†	†	†	†
21-1019	Counselors, All Other	10	\$22.70	†	†	†	†	†	†	†	†
17-3029	Engineering Technicians, Except Drafters, All Other	10	\$10.90	†	†	†	†	†	†	†	†
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	†	†	†	†	†	†	†	†
23-2099	Legal Support Workers, All Other	10	\$15.60	†	†	†	†	†	†	†	†
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
* 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
27-2012	Producers and Directors	10	†	\$31,298	\$37,824	\$41,086	\$27,741	\$35,104	\$39,689	\$43,053	\$45,072
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
* 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
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

\* OES wages reported for Colorado statewide

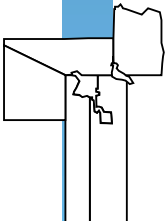
† No wage data available

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

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
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
11-9121	Natural Sciences Managers	10	\$28.70	\$28.77	\$39.04	\$44.17	\$25.99	\$33.85	\$40.46	\$46.77	\$53.23
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
29-2021	Dental Hygienists	10	\$15.10	\$24.55	\$31.34	\$34.73	\$23.55	\$25.94	\$30.92	\$37.74	\$42.34
11-3061	Purchasing Managers	10	\$30.60	\$17.33	\$30.64	\$37.31	\$15.17	\$21.01	\$29.40	\$40.33	\$49.38
* 15-2041	Statisticians	10	\$19.00	\$18.45	\$27.63	\$32.21	\$17.39	\$20.17	\$26.77	\$33.71	\$41.59
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
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
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
15-1061	Database Administrators	10	\$18.00	\$16.03	\$23.69	\$27.51	\$14.97	\$17.66	\$23.00	\$29.80	\$34.30
* 49-9062	Medical Equipment Repairers	10	\$12.90	\$17.03	\$22.32	\$24.96	\$14.85	\$19.49	\$22.87	\$26.19	\$28.29
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
19-2031	Chemists	10	\$42.10	\$18.82	\$23.42	\$25.71	\$17.95	\$19.47	\$21.85	\$26.42	\$33.65
19-2041	Environmental Scientists and Specialists, Including Health	10	\$17.30	\$18.35	\$22.95	\$25.25	\$17.10	\$18.95	\$21.40	\$25.76	\$32.61
29-1031	Dietitians and Nutritionists	10	\$17.60	\$14.56	\$19.34	\$21.72	\$14.11	\$16.18	\$19.58	\$22.69	\$25.90
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
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
25-9031	Instructional Coordinators	10	\$15.00	\$10.71	\$20.84	\$25.91	\$9.80	\$11.79	\$19.48	\$26.82	\$38.48
27-1024	Graphic Designers	10	\$15.80	\$13.44	\$18.29	\$20.71	\$12.28	\$15.49	\$18.67	\$21.23	\$24.02
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
11-2031	Public Relations Managers	10	\$22.70	\$11.64	\$22.88	\$28.50	\$9.91	\$13.69	\$17.50	\$31.17	\$40.94
* 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
11-9081	Lodging Managers	10	\$9.80	\$12.29	\$16.42	\$18.49	\$11.90	\$14.29	\$17.20	\$19.77	\$21.28
41-3021	Insurance Sales Agents	10	\$12.50	\$14.50	\$22.10	\$25.90	\$13.35	\$15.16	\$17.07	\$24.59	\$37.29
49-9052	Telecommunications Line Installers and Repairers	10	\$11.80	\$11.08	\$15.87	\$18.27	\$11.56	\$13.03	\$15.64	\$19.35	\$21.95
35-1011	Chefs and Head Cooks	10	†	\$9.76	\$15.16	\$17.88	\$8.00	\$11.74	\$15.35	\$19.57	\$21.51

\* OES wages reported for Colorado statewide

† No wage data available



**Table 3: Occupations with 10 or More Vacancies – Page 11**

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
51-5021	Job Printers	10	\$15.20	\$8.14	\$13.41	\$16.04	\$7.81	\$8.62	\$14.77	\$16.94	\$18.29
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
* 27-3091	Interpreters and Translators	10	\$13.20	\$10.81	\$15.58	\$17.97	\$9.87	\$11.89	\$14.24	\$19.51	\$23.63
39-6012	Concierges	10	\$9.30	\$9.95	\$13.00	\$14.53	\$9.37	\$10.12	\$14.13	\$16.01	\$17.09
49-9043	Maintenance Workers, Machinery	10	\$16.90	\$10.68	\$14.41	\$16.28	\$9.89	\$11.39	\$13.93	\$17.23	\$20.21
47-2031	Carpenters	10	\$16.40	\$10.03	\$14.20	\$16.27	\$9.17	\$11.46	\$13.64	\$17.07	\$20.44
* 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
31-9091	Dental Assistants	10	\$13.70	\$11.81	\$13.76	\$14.74	\$11.24	\$12.11	\$13.55	\$15.62	\$17.10
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
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
51-4031	Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and Plastic	10	\$11.90	\$8.85	\$12.73	\$14.67	\$7.89	\$10.12	\$13.14	\$15.54	\$17.04
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
43-4141	New Accounts Clerks	10	\$10.60	\$10.77	\$12.39	\$13.19	\$9.84	\$11.43	\$12.53	\$13.56	\$14.41
51-5023	Printing Machine Operators	10	\$14.00	\$8.39	\$12.75	\$14.94	\$7.78	\$8.83	\$12.36	\$14.42	\$19.78
51-9061	Inspectors, Testers, Sorters, Samplers, and Weighers	10	\$8.40	\$8.41	\$12.95	\$15.21	\$7.73	\$9.26	\$12.36	\$15.31	\$19.52
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
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
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
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
53-3031	Driver/Sales Workers	10	\$14.40	\$6.12	\$11.34	\$13.95	\$5.87	\$6.65	\$10.46	\$14.70	\$19.67
43-5021	Couriers and Messengers	10	\$11.50	\$8.23	\$11.68	\$13.40	\$7.89	\$8.85	\$10.33	\$12.99	\$19.87
31-2022	Physical Therapist Aides	10	\$10.80	\$8.24	\$11.72	\$13.46	\$7.80	\$8.72	\$10.23	\$13.25	\$20.10
43-9051	Mail Clerks and Mail Machine Operators, Except Postal Service	10	\$9.00	\$8.34	\$10.41	\$11.45	\$7.84	\$8.96	\$10.19	\$11.48	\$13.39
* 51-9131	Photographic Process Workers	10	\$10.00	\$7.58	\$10.86	\$12.51	\$7.32	\$8.22	\$9.97	\$12.88	\$17.16

\* OES wages reported for Colorado statewide

† No wage data available

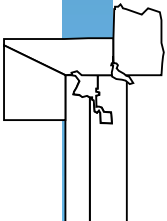


**Table 3: Occupations with 10 or More Vacancies – Page 12**

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
* 43-4121	Library Assistants, Clerical	10	\$8.50	\$7.28	\$10.02	\$11.39	\$6.78	\$8.04	\$9.96	\$12.09	\$13.72
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
49-3093	Tire Repairers and Changers	10	\$10.00	\$7.45	\$9.35	\$10.30	\$6.78	\$8.36	\$9.59	\$10.52	\$11.07
* 51-7099	Woodworkers, All Other	10	\$9.00	\$7.62	\$10.38	\$11.76	\$7.34	\$8.12	\$9.59	\$12.24	\$15.04
* 19-3022	Survey Researchers	10	\$17.30	\$8.09	\$11.31	\$12.93	\$7.64	\$8.20	\$9.14	\$11.64	\$16.77
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
39-2011	Animal Trainers	10	\$10.30	\$8.00	\$8.39	\$8.59	\$7.37	\$7.70	\$8.26	\$8.81	\$10.17
39-2021	Nonfarm Animal Caretakers	10	\$10.70	\$6.77	\$8.74	\$9.73	\$6.30	\$7.23	\$8.25	\$10.08	\$12.62
53-3041	Taxi Drivers and Chauffeurs	10	\$11.70	\$7.39	\$9.24	\$10.16	\$7.03	\$7.50	\$8.18	\$8.90	\$14.08
39-5092	Manicurists and Pedicurists	10	\$11.00	\$7.12	\$7.69	\$7.97	\$6.52	\$7.32	\$7.86	\$8.39	\$8.71
* 37-2021	Pest Control Workers	10	\$10.00	\$6.23	\$8.76	\$10.03	\$5.95	\$6.73	\$7.77	\$8.82	\$14.52
* 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
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

\* OES wages reported for Colorado statewide

† No wage data available

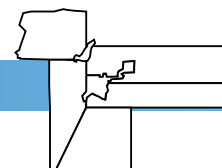


**Table 4: Occupations with Fewer Than 10 Vacancies**

		Occupational Employment Statistics Wage Data (2001)							
		Average Wages			Percentile Distribution				
SOC Code	SOC Occupational Title	Entry Level	Overall	Experienced	10th	25th	50th	75th	90th
27-3022	Reporters and Correspondents	†	†	†	†	†	†	†	†
29-9099	Healthcare Practitioners and Technical Workers, All Other	†	†	†	†	†	†	†	†
19-1029	Biological Scientists, All Other	†	†	†	†	†	†	†	†
17-3019	Drafters, All Other	†	†	†	†	†	†	†	†
27-1029	Designers, All Other	†	†	†	†	†	†	†	†
43-9199	Office and Administrative Support Workers, All Other	†	†	†	†	†	†	†	†
25-1053	Environmental Science Teachers, Postsecondary	†	†	†	†	†	†	†	†
33-2022	Forest Fire Inspectors and Prevention Specialists	†	†	†	†	†	†	†	†
* 25-1054	Physics Teachers, Postsecondary	\$38,446	\$58,146	\$67,996	\$36,245	\$43,677	\$53,216	\$71,442	\$91,859
* 25-1061	Anthropology and Archeology Teachers, Postsecondary	\$35,301	\$49,842	\$57,118	\$31,803	\$39,857	\$48,877	\$57,347	\$73,570
* 29-9091	Athletic Trainers	\$23,157	\$33,609	\$38,840	\$21,247	\$25,430	\$32,083	\$39,286	\$46,511
27-2099	Entertainers and Performers, Sports and Related Workers, All Other	\$13,454	\$22,952	\$27,701	\$12,830	\$14,691	\$22,664	\$28,180	\$34,277
29-1062	Family and General Practitioners	\$44.35	\$58.50	\$65.57	\$25.08	\$60.05	\$60.05	\$60.06	\$69.15
* 33-1021	First-Line Supervisors/Managers of Fire Fighting and Prevention Workers	\$20.24	\$28.79	\$33.06	\$18.75	\$23.34	\$30.28	\$34.36	\$37.67
* 19-3011	Economists	\$22.05	\$30.48	\$34.70	\$20.08	\$24.18	\$30.13	\$35.05	\$42.16
* 49-2021	Radio Mechanics	\$13.87	\$24.99	\$30.54	\$12.05	\$16.20	\$29.31	\$32.58	\$34.55
33-1012	First-Line Supervisors/Managers of Police and Detectives	\$21.75	\$28.47	\$31.82	\$20.00	\$23.36	\$28.86	\$33.40	\$36.34
11-3051	Industrial Production Managers	\$20.07	\$30.43	\$35.62	\$18.78	\$22.46	\$28.21	\$37.73	\$45.06
19-3021	Market Research Analysts	\$17.97	\$28.02	\$33.05	\$15.74	\$20.84	\$28.14	\$35.25	\$42.04
19-1099	Life Scientists, All Other	\$16.54	\$28.35	\$34.24	\$13.10	\$19.79	\$26.30	\$37.87	\$46.56
17-2111	Health and Safety Engineers, Except Mining Safety Engineers and Inspectors	\$18.21	\$27.20	\$31.70	\$17.66	\$21.01	\$25.99	\$32.06	\$42.14
49-2022	Telecommunications Equipment Installers and Repairers, Except Line Installers	\$16.77	\$23.25	\$26.49	\$14.63	\$19.86	\$24.95	\$27.49	\$29.05
33-2011	Fire Fighters	\$18.60	\$23.28	\$25.62	\$16.89	\$20.31	\$24.42	\$26.91	\$28.41
* 19-3099	Social Scientists and Related Workers, All Other	\$17.26	\$25.38	\$29.45	\$15.77	\$18.99	\$24.02	\$30.66	\$38.60
13-2031	Budget Analysts	\$18.01	\$23.64	\$26.46	\$14.49	\$20.15	\$23.46	\$26.98	\$32.27
19-2042	Geoscientists, Except Hydrologists and Geographers	\$17.12	\$26.01	\$30.45	\$15.67	\$18.25	\$22.27	\$31.36	\$44.84
21-1092	Probation Officers and Correctional Treatment Specialists	\$17.14	\$22.65	\$25.41	\$15.70	\$18.21	\$22.15	\$26.70	\$31.62
27-1021	Commercial and Industrial Designers	\$13.31	\$24.25	\$29.72	\$12.40	\$13.97	\$21.29	\$36.15	\$42.70
53-6041	Traffic Technicians	\$17.02	\$20.11	\$21.65	\$15.98	\$17.88	\$19.93	\$22.01	\$25.36

\* 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	Occupational Employment Statistics Wage Data (2001)							
		Average Wages			Percentile Distribution				
		Entry Level	Overall	Experienced	10th	25th	50th	75th	90th
* 13-1032	Insurance Appraisers, Auto Damage	\$13.58	\$19.27	\$22.10	\$12.78	\$14.37	\$19.54	\$22.73	\$26.62
* 39-1011	Gaming Supervisors	\$13.78	\$19.52	\$22.39	\$12.53	\$15.82	\$19.47	\$23.11	\$27.10
* 47-2022	Stonemasons	\$14.22	\$19.24	\$21.74	\$12.99	\$15.38	\$19.44	\$22.68	\$26.04
* 33-2021	Fire Inspectors and Investigators	\$10.26	\$20.68	\$25.89	\$9.69	\$10.47	\$19.37	\$31.62	\$34.95
27-3041	Editors	\$14.16	\$20.74	\$24.03	\$13.00	\$15.35	\$19.04	\$25.63	\$32.71
37-1012	First-Line Supervisors/Managers of Landscaping, Lawn Service, and Groundskeeping Workers	\$13.98	\$19.77	\$22.67	\$12.32	\$15.56	\$18.62	\$22.66	\$29.16
49-3021	Automotive Body and Related Repairers	\$12.28	\$19.01	\$22.36	\$10.22	\$14.87	\$18.58	\$22.12	\$28.38
53-1031	First-Line Supervisors/Managers of Transportation and Material-Moving Machine and Vehicle Operators	\$14.79	\$19.62	\$22.04	\$14.12	\$15.72	\$18.53	\$23.61	\$27.59
13-1041	Compliance Officers, Except Agriculture, Construction, Health and Safety, and Transportation	\$14.77	\$19.93	\$22.50	\$14.03	\$15.55	\$18.20	\$23.10	\$28.38
49-9041	Industrial Machinery Mechanics	\$11.55	\$17.65	\$20.70	\$9.65	\$13.93	\$17.72	\$21.97	\$26.13
* 29-2091	Orthotists and Prosthetists	\$14.56	\$18.98	\$21.19	\$13.18	\$15.49	\$17.48	\$23.06	\$27.15
51-4041	Machinists	\$12.57	\$16.78	\$18.88	\$10.88	\$14.53	\$17.00	\$19.91	\$21.94
25-1194	Vocational Education Teachers, Postsecondary	\$13.05	\$18.38	\$21.05	\$12.06	\$14.19	\$16.79	\$22.85	\$27.01
* 27-4014	Sound Engineering Technicians	\$10.50	\$21.08	\$26.36	\$9.64	\$12.27	\$16.01	\$21.92	\$46.20
31-2011	Occupational Therapist Assistants	\$13.01	\$15.87	\$17.30	\$12.31	\$13.77	\$15.91	\$17.85	\$20.24
27-3099	Media and Communication Workers, All Other	\$11.54	\$15.57	\$17.59	\$10.16	\$13.08	\$15.86	\$17.82	\$20.67
43-9111	Statistical Assistants	\$12.79	\$15.25	\$16.48	\$12.16	\$14.23	\$15.59	\$17.01	\$18.29
25-3021	Self-Enrichment Education Teachers	\$8.20	\$15.48	\$19.12	\$6.93	\$9.77	\$14.74	\$18.15	\$30.05
51-8099	Plant and System Operators, All Other	\$12.33	\$15.72	\$17.42	\$11.99	\$12.98	\$14.70	\$18.60	\$21.30
43-5032	Dispatchers, Except Police, Fire, and Ambulance	\$9.75	\$14.12	\$16.31	\$8.55	\$11.29	\$14.43	\$16.82	\$19.14
11-9141	Property, Real Estate, and Community Association Managers	\$11.63	\$17.48	\$20.40	\$11.35	\$12.44	\$14.36	\$19.51	\$25.71
* 49-9091	Coin, Vending, and Amusement Machine Servicers and Repairers	\$9.74	\$13.36	\$15.18	\$8.41	\$11.39	\$13.68	\$15.98	\$17.47
49-9099	Installation, Maintenance, and Repair Workers, All Other	\$8.53	\$14.54	\$17.54	\$7.75	\$9.73	\$13.59	\$19.45	\$22.05
53-7081	Refuse and Recyclable Material Collectors	\$11.10	\$13.33	\$14.45	\$10.18	\$11.95	\$13.53	\$15.20	\$16.77
19-4031	Chemical Technicians	\$10.44	\$14.30	\$16.23	\$9.67	\$11.23	\$13.48	\$16.95	\$20.77
23-2092	Law Clerks	\$9.89	\$12.98	\$14.53	\$9.41	\$10.30	\$13.44	\$15.67	\$16.94
43-5041	Meter Readers, Utilities	\$10.73	\$13.97	\$15.59	\$9.72	\$11.66	\$13.24	\$15.84	\$19.87
43-9022	Word Processors and Typists	\$9.95	\$12.49	\$13.76	\$9.51	\$10.46	\$12.26	\$14.26	\$16.49
13-2082	Tax Preparers	\$6.16	\$11.87	\$14.72	\$5.90	\$6.48	\$12.21	\$16.20	\$20.77
51-2022	Electrical and Electronic Equipment Assemblers	\$9.62	\$12.56	\$14.03	\$9.20	\$10.23	\$12.12	\$14.16	\$16.85

\* OES wages reported for Colorado statewide

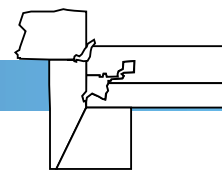
† No wage data available

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

		Occupational Employment Statistics Wage Data (2001)							
		Average Wages			Percentile Distribution				
SOC Code	SOC Occupational Title	Entry Level	Overall	Experienced	10th	25th	50th	75th	90th
* 43-4181	Reservation and Transportation Ticket Agents and Travel Clerks	\$9.14	\$12.70	\$14.48	\$8.43	\$9.78	\$11.90	\$14.54	\$19.50
51-5022	Prepress Technicians and Workers	\$8.91	\$12.73	\$14.64	\$8.15	\$9.57	\$11.86	\$15.72	\$19.39
33-9011	Animal Control Workers	\$7.76	\$11.80	\$13.81	\$7.44	\$8.29	\$11.75	\$13.69	\$18.11
41-2022	Parts Salespersons	\$9.08	\$13.05	\$15.03	\$8.40	\$9.74	\$11.46	\$15.80	\$20.38
51-4033	Grinding, Lapping, Polishing, and Buffing Machine Tool Setters, Operators, and Tenders, Metal and Plastic	\$8.89	\$12.34	\$14.06	\$8.18	\$9.54	\$10.96	\$13.68	\$20.15
43-9011	Computer Operators	\$8.92	\$11.79	\$13.23	\$8.25	\$9.29	\$10.84	\$13.43	\$16.76
51-2092	Team Assemblers	\$8.18	\$10.98	\$12.38	\$7.59	\$8.80	\$10.76	\$13.03	\$15.22
* 51-9083	Ophthalmic Laboratory Technicians	\$8.37	\$10.88	\$12.15	\$7.74	\$8.90	\$10.26	\$12.28	\$15.85
45-2092	Farmworkers and Laborers, Crop, Nursery, and Greenhouse	\$7.43	\$9.69	\$10.82	\$7.12	\$7.95	\$9.51	\$11.01	\$13.09
* 51-6062	Textile Cutting Machine Setters, Operators, and Tenders	\$7.92	\$9.87	\$10.85	\$7.49	\$8.10	\$9.27	\$10.87	\$13.95
31-1011	Home Health Aides	\$7.36	\$10.49	\$12.05	\$6.93	\$7.83	\$9.16	\$11.58	\$18.26
33-9099	Protective Service Workers, All Other	\$7.12	\$10.66	\$12.44	\$6.58	\$7.59	\$8.93	\$11.62	\$18.35
53-6031	Service Station Attendants	\$7.54	\$9.10	\$9.88	\$7.17	\$7.86	\$8.93	\$10.24	\$11.05
31-9011	Massage Therapists	\$7.42	\$10.33	\$11.79	\$7.08	\$7.74	\$8.88	\$10.79	\$17.87
47-3014	Helpers--Painters, Paperhangers, Plasterers, and Stucco Masons	\$7.49	\$8.77	\$9.40	\$7.13	\$7.77	\$8.74	\$9.91	\$10.84
21-1013	Marriage and Family Therapists	\$13.31	\$16.31	\$17.81	\$12.20	\$14.35	\$16.14	\$18.15	\$21.12
27-1023	Floral Designers	\$7.44	\$8.77	\$9.43	\$7.06	\$7.54	\$8.23	\$9.20	\$11.57
51-5011	Bindery Workers	\$7.80	\$8.73	\$9.21	\$7.18	\$7.49	\$8.00	\$8.53	\$9.74

\* 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.

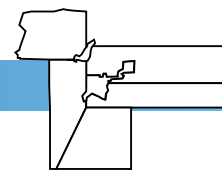
### *Occupational Coding*

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).