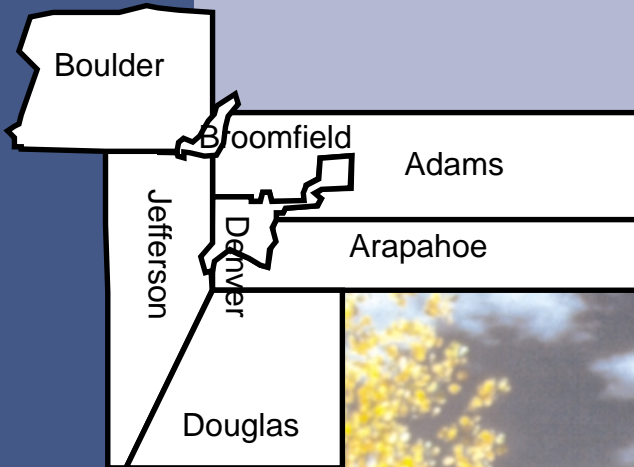


# Denver Metro

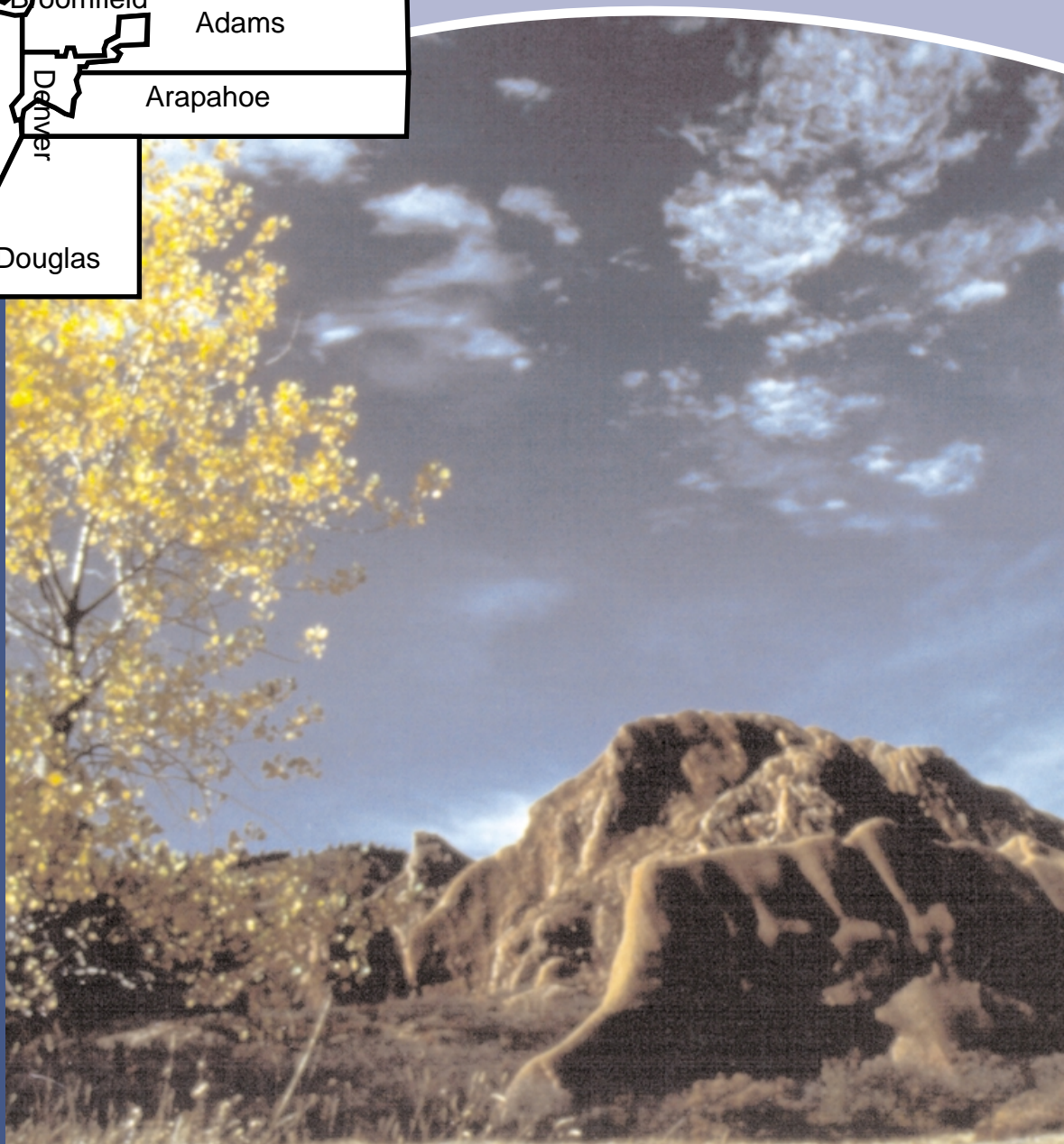
## Job Vacancy Survey

Spring 2003



*See Colorado First*

*Roxborough State Park  
Photo by Barnum  
Courtesy Colorado State Parks*





# Denver Metro Region Job Vacancy Survey

*Conducted*  
*April 23–June 6, 2003*

**State of Colorado**  
Bill Owens, *Governor*

**Colorado Department of  
Labor & Employment**

Jeffrey M. Wells  
*Executive Director*

Funding Provided in Part by  
The Colorado Workforce  
Development Council

*Released*  
*Summer 2003*

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

**Analyst for this region:**

Yasir Ahmed

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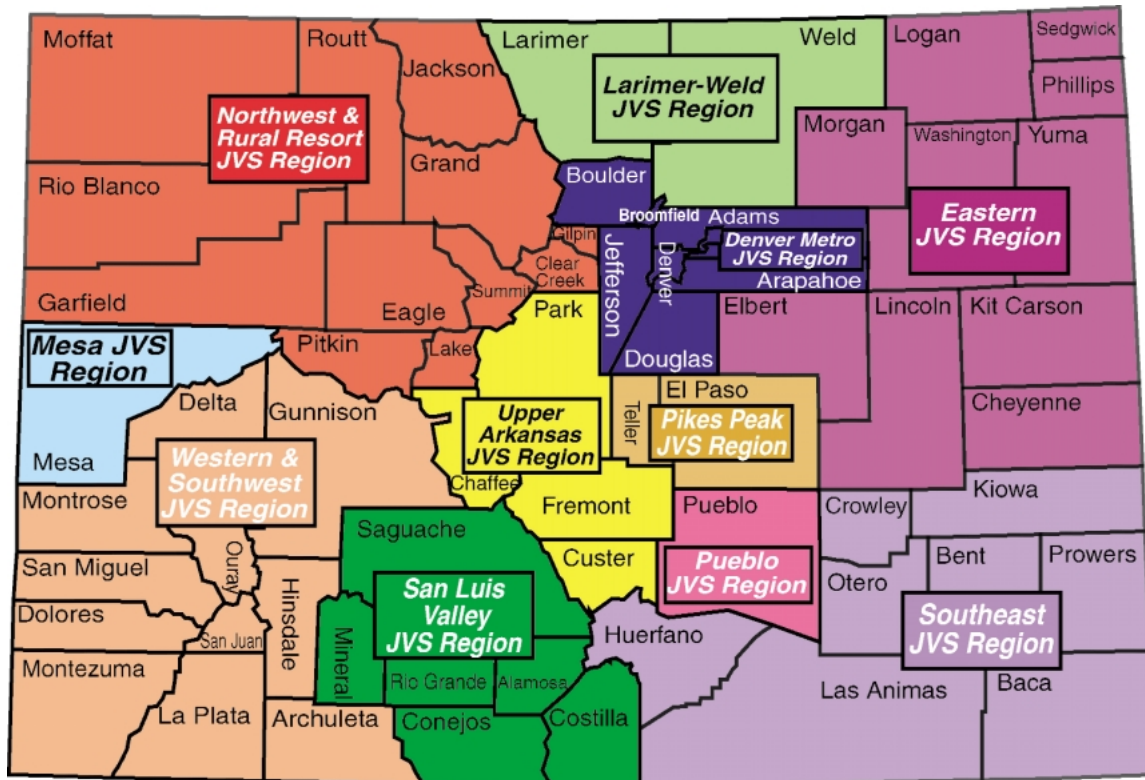
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Figure 1: Colorado Job Vacancy Survey Regions



## Introduction to the Colorado Job Vacancy Survey

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

Job seekers and employers, as well as Workforce Centers and economic developers need more than a measure of demand for workers at a specific point in time. They also need a measure of where in the economy that demand is located and what education and experience levels are most preferred. The Colorado Department of Labor

and Employment (CDLE) developed the Job Vacancy Survey (JVS) to meet this need. The JVS is designed to provide a snapshot estimate of job vacancies along with detailed information and analysis on accompanying wages, skill requirements and work experience.

The CDLE's survey unit collects original data by conducting phone interviews with a representative sample of employers in a given region. The department's economists analyze the raw data, estimate the number of 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.

## Executive Summary

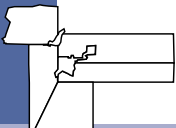
The Spring 2003 Denver Metro Job Vacancy Survey (JVS) was conducted from April 23rd through June 6th, 2003. The goal of the survey is to provide current information on the demand for workers so that employers, job seekers, economic developers, educators and workforce centers can make more informed decisions in the Denver Metro Region.

This survey is the first in the Denver Metro Region conducted using the new North American Industry Classification System (NAICS). As a result, employers contacted were split into 20 different NAICS sectors in this survey compared to the traditional 11 industries surveyed previously under the Standard Industrial Classification (SIC) system.

Over the survey period, all large and government employers as well as a random sample of private employers with at least five employees in the Denver Metro Region were contacted. Employers were asked if they were actively hiring at the time of the survey and a variety of questions about the positions they were seeking to fill.

A total of 5,762 employers, representing 35% of the region's employment responded to the survey. Of these, 314 are large employers, 231 are Government employers and 5,217 are small to mid-size employers. The survey has an effective response rate of 77.2% and a cooperation rate of 98.9%. The margin of sampling error for the overall vacancy estimate is plus or minus 2.4% or about 348 vacancies. The major findings of the survey follow:

- ◆ An estimated 14,500 vacancies were open for immediate hire in the Denver Metro Region during the survey period compared to 24,200 a year ago. ....Page 8
- ◆ The overall average wage is \$13.60 per hour. ....Page 8
- ◆ Eleven percent of the employers responding to the survey reported having at least one vacancy.....Page 8
- ◆ The Health Care & Social Assistance sector accounts for the largest number of estimated vacancies and the highest average wage offered. ....Page 8
- ◆ Denver County accounts for the greatest number of estimated vacancies and commands the highest average wage while Douglas County has the fewest estimated vacancies. ....Page 10
- ◆ Small to mid-size employers account for 53% of the total estimated vacancies. ....Page 11
- ◆ Eighty-three percent of the openings are full-time positions and 88% are for permanent employment. ....Page 12
- ◆ Sixty-two percent of the openings require education beyond high-school.....Page 13
- ◆ Vacancies requiring related or specific experience to the vacant occupation account for 78% of all reported openings. ....Page 14
- ◆ The percentage of vacancies reported as not difficult to fill increased while the percentage of vacancies reported as very difficult to fill decreased compared to the Spring 2002 survey. ....Page 15
- ◆ Medical benefits are offered for 81% of the vacancies reported in this survey.....Page 17



# Denver Metro Region

The Denver Metro Region consists of Adams, Arapahoe, Boulder, Broomfield, Denver, Douglas, and Jefferson counties. Until a complete census of the county's employers is compiled, Broomfield County will continue to be surveyed as part of the Boulder Metropolitan Statistical Area.

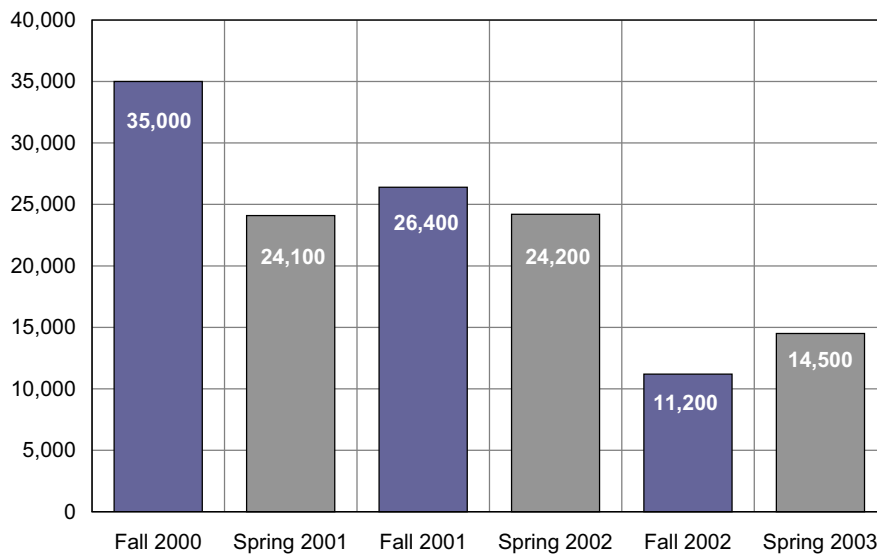
According to the State's Demographer's Office, the Denver Metro Region covers an area of 4,531 square miles or 4.3% of Colorado's total area. With 1,182 square miles, Adams County is the largest County in the region while Broomfield is the smallest with only 34 sq. miles. Although the region accounts for only 4.3% of Colorado's geographical size its estimated 2.5 million residents represent 56% of the State's population. The three most populated counties, Arapahoe, Denver, and Jefferson, make up 64% of the region's population. Since 1990, the region's population has grown by 33%, a rate slightly lower than the 34% growth rate experienced by the state as a whole.

The Denver Metro Region has a fairly diverse economy with no single sector dominating economic activity. The

region has strong employment in Retail Trade; Professional, Scientific & Technical Services; Manufacturing; HealthCare and Social Assistance; Educational Services; Construction; and Accommodation & Food Services Sectors. Employment is lowest in Mining and Agricultural, Forestry, Fishing and Hunting sectors.

The Denver Metro Region accounts for 58% of Colorado's total employment and labor force. According to Colorado's Labor Market Information, Local Area Unemployment Statistics, the region employed 1,350,265 individuals from a labor force of about 1,429,591 in May 2002. Since the Spring 2002 Denver Metro JVS was conducted, Labor force increased by 9,970 while employment increased by 6,608 jobs. The unemployment rate inched up from 5.4% to 5.5% between the two periods. Unemployment rates peaked in early 2002 at levels above 6% not experienced in the region since early 1993. At 6.5%, the unemployment rate was highest in Denver County in May followed by Adams County at 6.3%. The rate was lowest in Douglas County for the same month at 4.4%. The

**Figure 2: Historical Vacancies Denver Metro Region**



	Fall 2000	Spring 2001	Fall 2001	Spring 2002	Fall 2002	Spring 2002
Vacancies	35,000	24,100	26,400	24,200	11,200	14,500
Employment	1,320,773	1,341,197	1,343,048	1,330,038	1,343,484	1,350,265
Unemployed	30,984	36,157	71,100	75,397	82,790	79,326
Unemployment Rate	2.3%	2.6%	5.0%	5.4%	5.8%	5.5%

Source: CDLE, Local Area Unemployment Statistics, May 2003

nationally weak economy is evident in the region; the 14,500 estimated vacancies in this survey represent 60% of the vacancies estimated in the spring of last year. Overcapacity in most sectors resulting from the historically long economic boom of the 1990s, the shakeout in the technology sector, in addition to war and terrorism anxieties directly impacted recruitment activities in the region. Other evidence of weak economic activity in the region include a struggling manufacturing sector, a shrinking nonresidential construction sub sector due to high vacancy rates, and continuing mass layoffs at levels comparable to those recorded the same time last year.

Figure 3 illustrates the historical progression of both the region's labor force and employment levels. The upward trend illustrates growth in both the labor force and the employment over the years. The region's employment has grown at an average annual growth rate of 2.0% from May 1998 to May 2003. Annual employment in the region decreased by 0.8% between 2001 and 2002, however, the average employment level for January through May of this year is 1.2% higher than the average of the same months a year earlier.

The labor force has maintained positive annual growth rates in the Denver Metro Region since 1998. In some years such as 1998, 1999 and 2000 average annual employment growth exceeded that of the labor force.

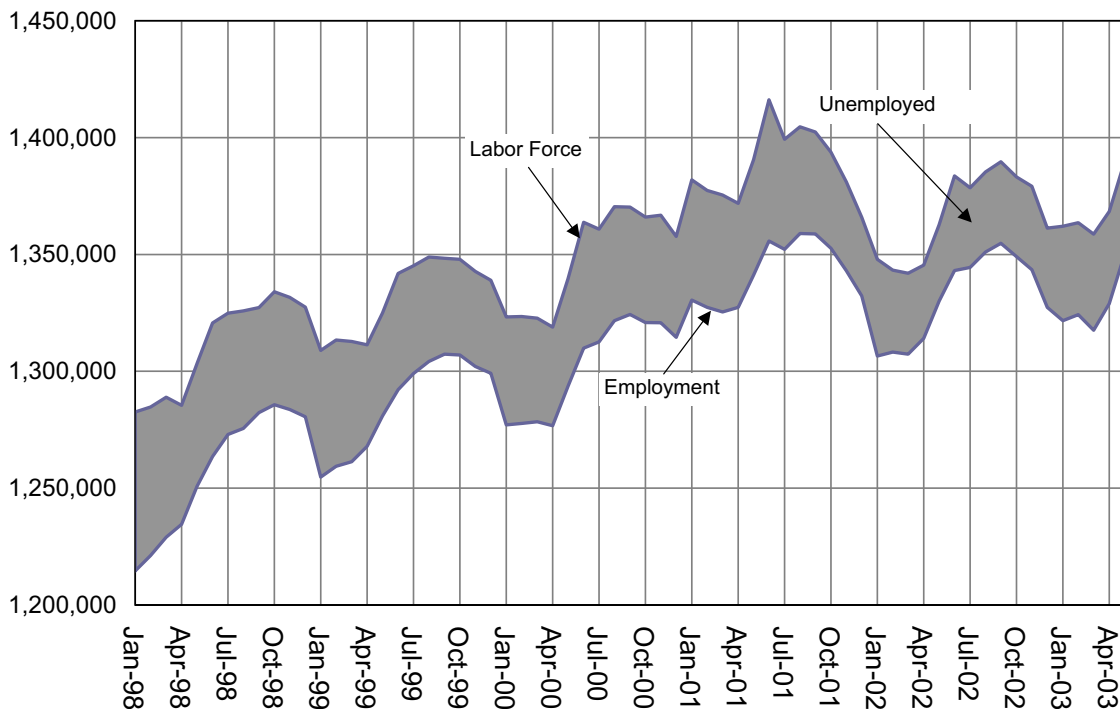
Record low average annual unemployment rates were registered in those years at levels of 2.8% or lower. In 2002, the labor force expanded by 1.7% while employment decreased by 0.8% from 2001. This resulted in an average annual unemployment rate of 5.9%.

Figure 3, along with Figure 4, also provides a visual representation of unemployment. In Figure 3, unemployment is represented by the gap between the labor force and the employment trend lines; the wider vertical distance between the two lines, the greater the number of unemployed. Unemployment tends to peak in or around the months January and June each year.

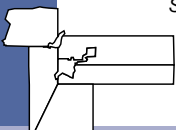
Analysis of historical employment trends for the Denver Metro Region indicates that employment levels are at their lowest levels in January and peak in or around the month of October. Employers in the region are contacted semi-annually in the spring and fall in order to measure the demand for labor at 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 around its peak, yet employers are still in the process of recruiting.

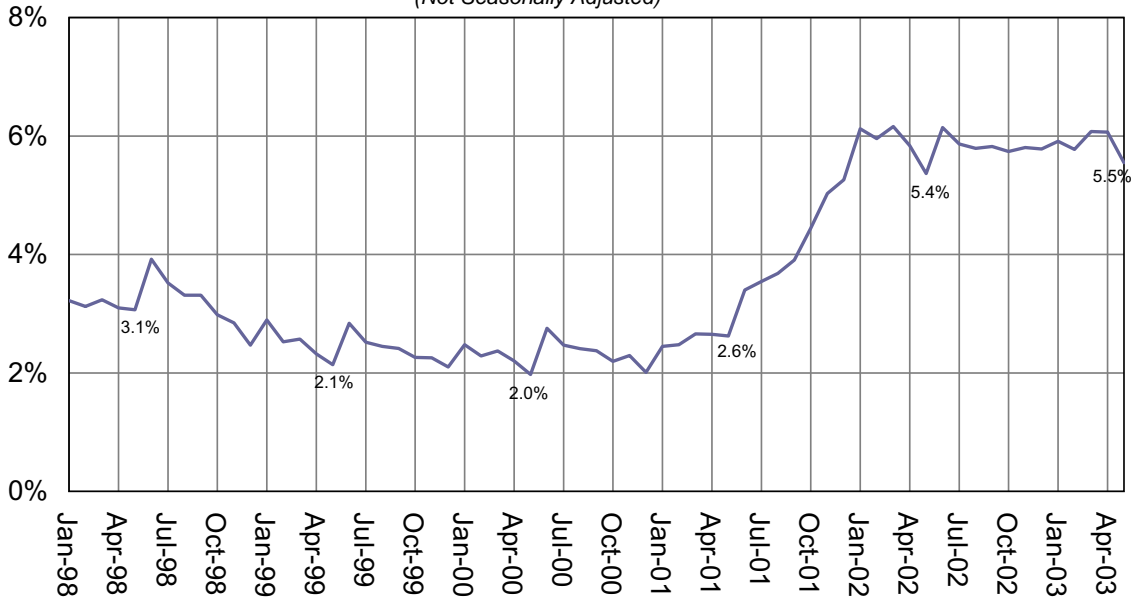
**Figure 3: Employment & Labor Force Trends for the Denver Metro Region**  
(Not Seasonally Adjusted)



Source: CDLE, Local Area Unemployment Statistics, May 2003

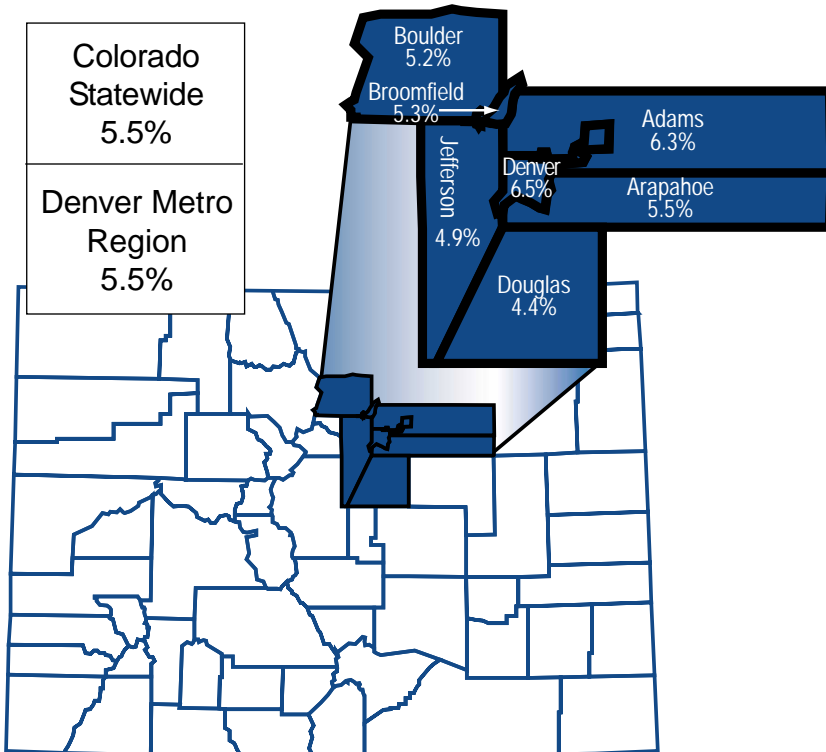


**Figure 4: Denver Metro Region Unemployment Rate Trend**  
(Not Seasonally Adjusted)



Source: CDLE, Local Area Unemployment Statistics, May 2003

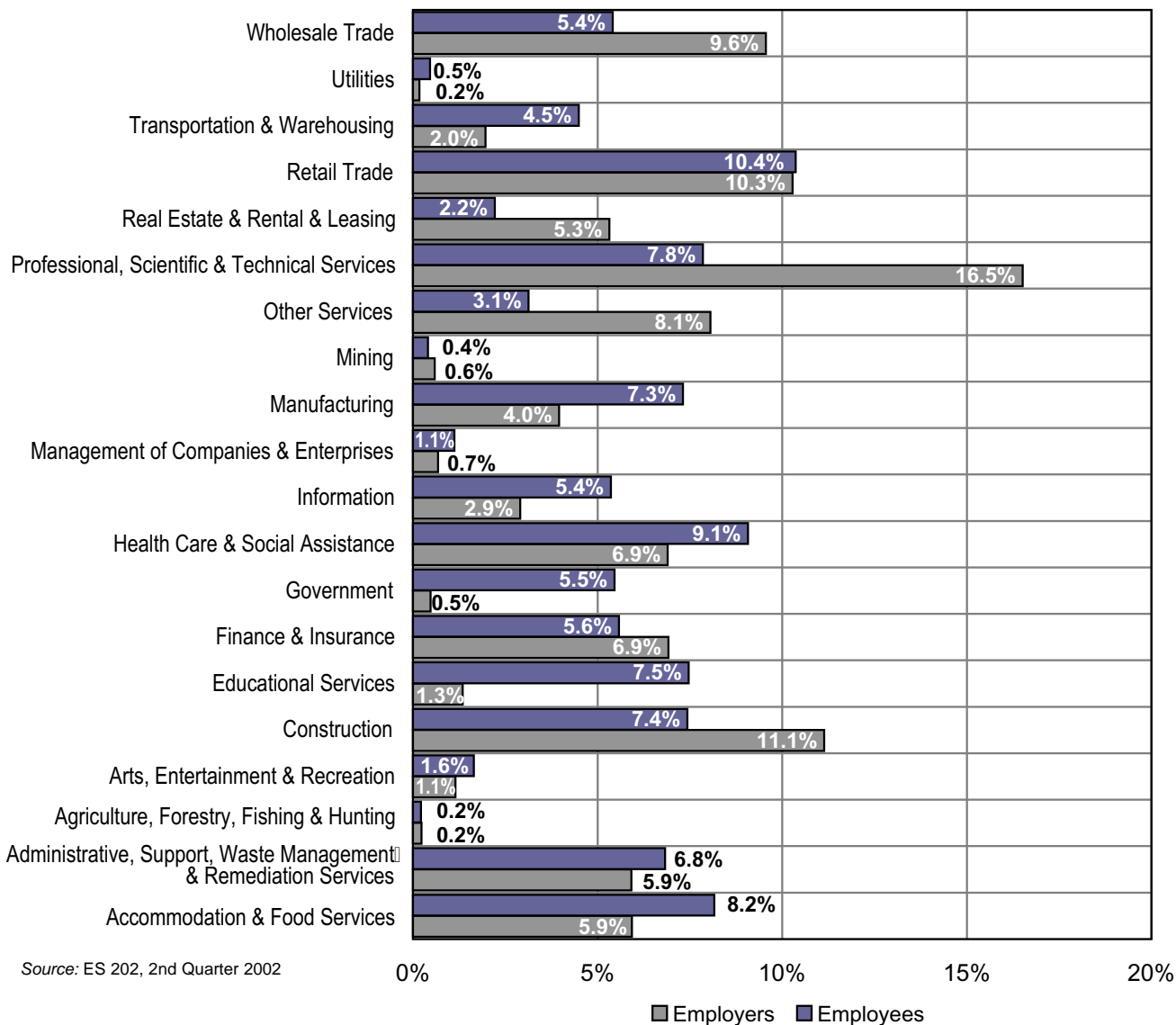
**Figure 5: Unemployment Rates for May 2003**  
(Not Seasonally Adjusted)



Source: CDLE, Local Area Unemployment Statistics, May 2003

The non-seasonally adjusted unemployment rates in the region were as high as 6.1% in March and April of this year but declined in May to match that of the state at 5.5%. This rate is the lowest since June of last year, however, it is still one-tenth of a percentage point higher than May of 2002. Between May 2002 and May 2003, the unemployment rate increased for all counties in the Denver Metro region except for Douglas and Jefferson where the rate declined from 4.7% to 4.4% for Douglas and from 5.0% to 4.9% for Jefferson.

**Figure 6: Denver Metro Region Employers and Employees, 2nd Quarter, 2002**



Firms in the Denver Metro Region are now grouped into 20 sectors under the North American Industry Classification System (NAICS). NAICS has replaced the Standard Industrial Classification System (SIC) as a better reflection of today's economic activity. Advantages to the new system include a greater breakdown of the old SIC Services industry, and direct comparability with industries in Mexico and Canada.

Data for *Figure 6* are gathered under the Covered Employment and Wage Program (ES-202) which includes employers who pay Unemployment Insurance Tax. Although 97% of the nation's civil employment is covered under the Unemployment Insurance program, positions typically excluded are agriculture, railroad, some state and local government, certain non-profits, the self-employed, domestic workers and unpaid family workers.

The Retail Trade sector accounts for the highest number of employees and the third highest number of employers in the region. This sector makes up about 10% of the region's employment and employers. The Denver Metro Region accounts for 55% of Colorado's employment in this sector.

Healthcare Services & Social Assistance, with 9% of the region's employment, is the second largest sector in the region. Healthcare, generally, experienced great difficulties recruiting and retaining workers during the late 1990s due to factors such as long working hours, inflexible schedules and the High-Tech boom that attracted young talent during that period. The Denver Metro Region accounts for 57% of Colorado's employment in this sector.

Sectors such as Finance & Insurance; Information; Management of Companies & Enterprises; Professional,



Scientific & Technical Services; Transportation & Warehousing; and Wholesale Trade have the bulk of their statewide employment in the Denver Metro Region. Each of these sectors has 70% or more of its statewide employment in the region. All of these sectors, with the exception of Management of Companies & Enterprises, employ a significant number of people in the region.

Slightly over half of Colorado's manufacturing employment is in the Denver Metro Region. Seven percent of the region's workers are employed in this sector. Employment in manufacturing has been declining in the region since 1998. Job losses within this sector nationally are a major concern for labor union groups who charge that economic blocks such as NAFTA and the WTO are causing an outflow of manufacturing jobs to less developed countries. Twenty-eight percent of the manufacturing industry employment in the region is concentrated in Denver County, 24% in Boulder and 20% in Jefferson counties. The manufacturing activity in the region showed some positive signals in most recent months. The Purchasing Managers' Index (PMI), an index produced by the College of Business at the University of Colorado at Denver, showed a reading of 53 in June down from 53.2 in May of this year. A reading above 50 indicates increasing activity in manufacturing. In other words, manufacturing activity in the Denver Metro Region expanded during June but at a lower rate than in May.

The Denver Metro Region has a sizeable Construction sector, which makes up 7% of the region's employment. Within this sector, the Residential Building Construction industry group continued to expand in recent periods spurred by record low interest rates. The Nonresidential Building industry group suffered some setbacks since late 2000 due to factors such as the burst of the technology bubble and overcapacity. This resulted in high office space vacancy rates. The Heavy and Civil Engineering Construction sub-sector received significant support from major construction projects undertaken by the State government such as the T-Rex and the Light Rail expansion.

Although the Government sector comprises less than 1% of the region's employers it accounts for 5% of the region's total employment. Thirty-nine percent of the sector's employment in the region is concentrated in Denver County while Jefferson County accounts for 23%. The Government sector includes educational services owned by state or local governments.

Utilities; Mining; Management of Companies & Enterprises; and Agriculture, Forestry, Fishing & Hunting are the smallest sectors in the Denver Metro Region in terms of the number of employers and employees. These sectors combined account for 1.7% of the employers and 2.2% of the employees in the Denver Metro Region. These sectors are also small at the state level.

# Estimated Vacancies

## JVS Sectors and Employer Size

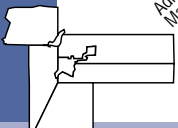
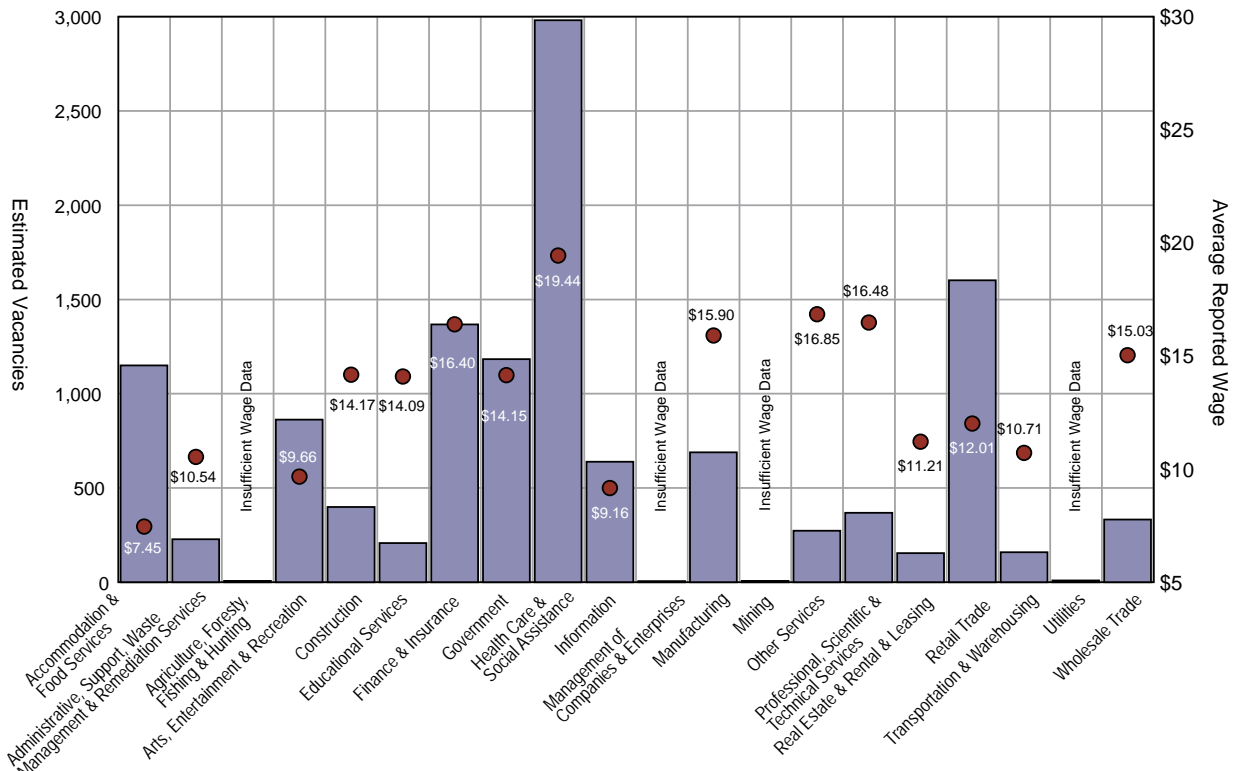
During the survey period, an estimated 14,500 vacancies were open for immediate hire in the Denver Metro Region. The overall average wage for the reported vacancies in this survey is \$13.60. Private firms from the American Labor Market Information System (ALMIS) employer database with five or more employees and all government agencies constitute the sample frame. All survey data refer to this subset of the population. Contrasting the results of this survey and the Spring 2002 is not possible at the sector level because of the shift from the SIC System to the NAICS. Under the new system, data is collected and reported for 20 NAICS sectors compared to the 11 traditional industries under the SIC system.

Eleven percent of the employers responding to the survey reported having at least one vacancy. The overall vacancy rate found in this survey is 1.2%. Beginning this calendar year, the overall vacancy rate is calculated by

dividing the estimated vacancies by the sum of the estimated vacancies and total employment. This method results in a 2.0% vacancy rate for the spring 2002 survey.

Hiring activity in this survey is highest in the Health Care & Social Assistance and Retail Trade sectors. Together, they account for 14% of the regional employment and 36% of the estimated vacancies. The \$19.44 average wage reported by employers within the Healthcare & Social Assistance sector is the highest in the region, while the average wage offered by vacancies in the Retail Trade sector is lower than the region's overall average wage. High wages commanded by the Healthcare & Social Assistance sector are due to the high demand for Registered Nurses. Forty percent of the vacancies reported in this sector are for Registered Nurses. Forty-seven percent of vacancies reported in the Retail Trade sector are Sales & Related Occupations and 13% are Transportation & Material Moving Occupations.

Figure 7: Estimated Vacancies and Average Wages by JVS Sectors



A relatively large number of vacancies was also found in the Accommodation & Food Services; Finance & Insurance; Art, Entertainment & Recreation; and Government sectors. Accommodation & Food Services offers an hourly average wage of \$7.45, the lowest average wage among all sectors. Sixty-five percent of the vacancies reported in this sector are for Food Preparation & Serving Related occupations. The Finance & Insurance sector accounts for 11% of the estimated vacancies, but wages offered within this sector are among the highest in the region. Over half of the vacancies reported in this sector are for occupations in Office & Administrative Support and Business & Financial Operations.

Manufacturing accounts for 5% of the estimated vacancies in this survey and commands one of the highest average wages among all sectors in the region. High wages offered in this sector are due to the abundance of highly skilled occupations for which employers are hiring. Thirty-five percent of the reported vacancies in this sector are for Computer & Mathematical occupations and 29% are for Architecture & Engineering occupations. Similarly, the Information sector accounts for almost 5% of the estimated vacancies. Average wages offered for vacancies in this sector, however, are the second lowest in the region.

Hiring activity is low in the Administrative, Support, Waste Management & Remediation Services; Construction; Educational Services; Other Services;

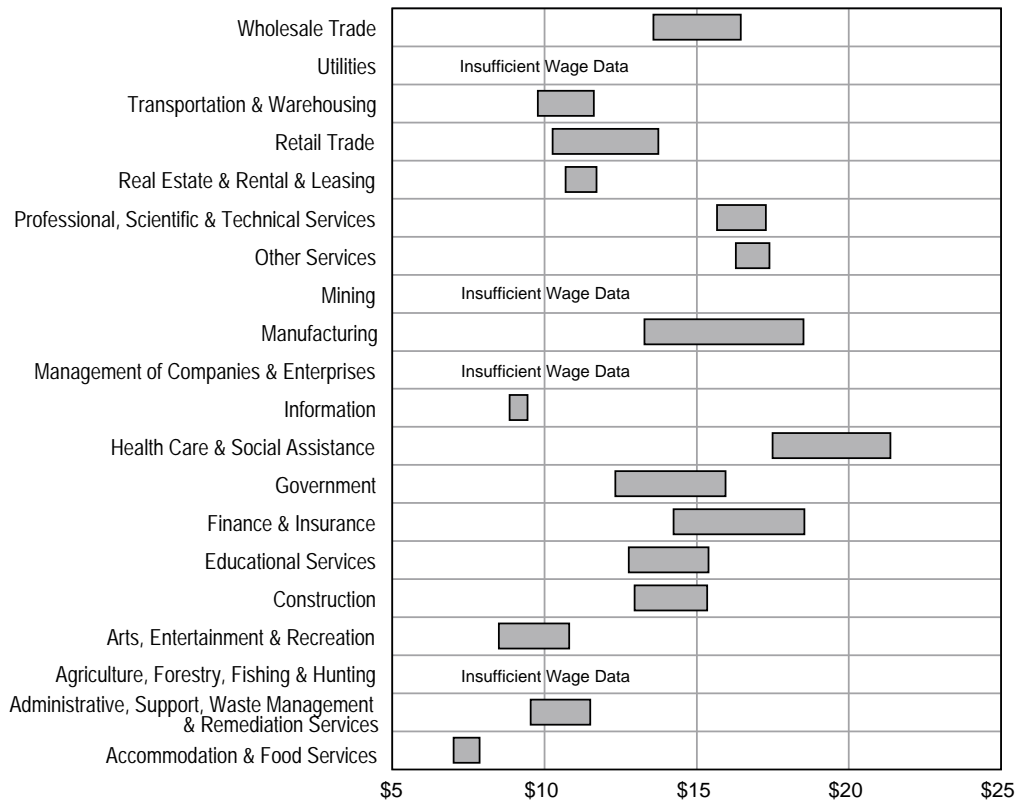
Professional, Scientific & Technical Services; Real Estate & Rental & Leasing; Transportation & Warehousing; and Wholesale Trade sectors. Combined, these sectors account for 15% of the estimated vacancies. The Administrative, Support, Waste Management & Remediation Services sector offer the lowest average wage among these sectors at \$10.54 while the Professional, Scientific & Technical Services sector offered the highest average wage at \$16.48.

Less than 10 vacancies are estimated to be open in each of the Agriculture, Forestry, Fishing & Hunting; Management of Companies & Enterprises; Mining; and the Utilities sectors. Wage information reported in each of these sectors is less than the required level for reporting.

Wages reflect labor force supply and demand along with the set of skill and experience requirements for occupations. A wide range between the average minimum and the average maximum wages within a sector reflects a wide range of skills and experience in occupations for which employers are hiring.

The Health Care & Social Assistance, Manufacturing, Finance & Insurance, and Government sectors offer the widest wage ranges. A wide range of wages in the Health Care & Social Assistance sector reflects employers' desire to hire Health Care workers at all levels of education and experience.

**Figure 8: Reported Average Wage Ranges by JVS Sectors**



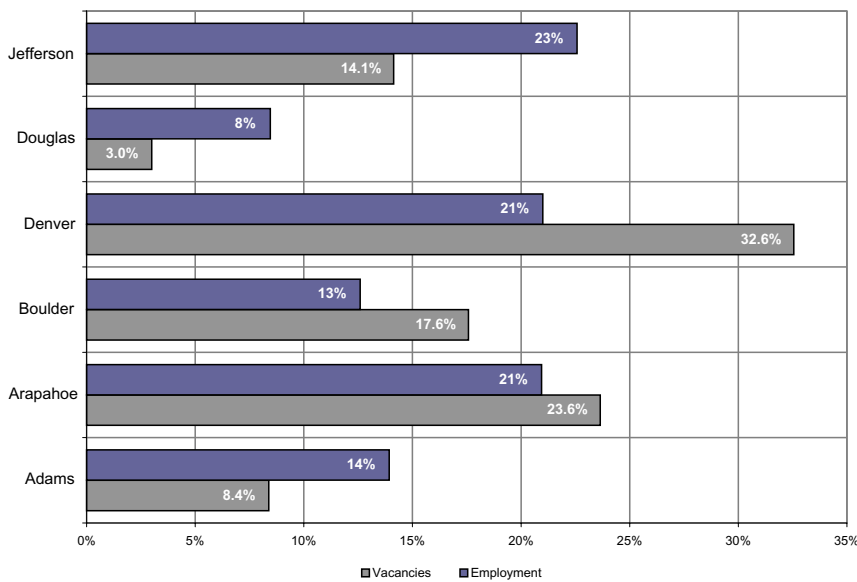
The Accommodation & Food Services; Information; Other Services; and Real Estate, Rental & Leasing sectors offer narrow wage ranges. Occupations for which employers are hiring require limited sets of skills and experience to perform the jobs needed. Such occupations include Telemarketers, Customer Service Representatives, and Waiters & Waitresses.

The shares of vacancies estimated in Arapahoe, Boulder and Denver counties exceed their individual shares of the region's employment. Denver County has the highest vacancy rate at 1.4% and also has the largest share of vacancies among all counties. Arapahoe County has the second largest share of vacancies in the region. Boulder

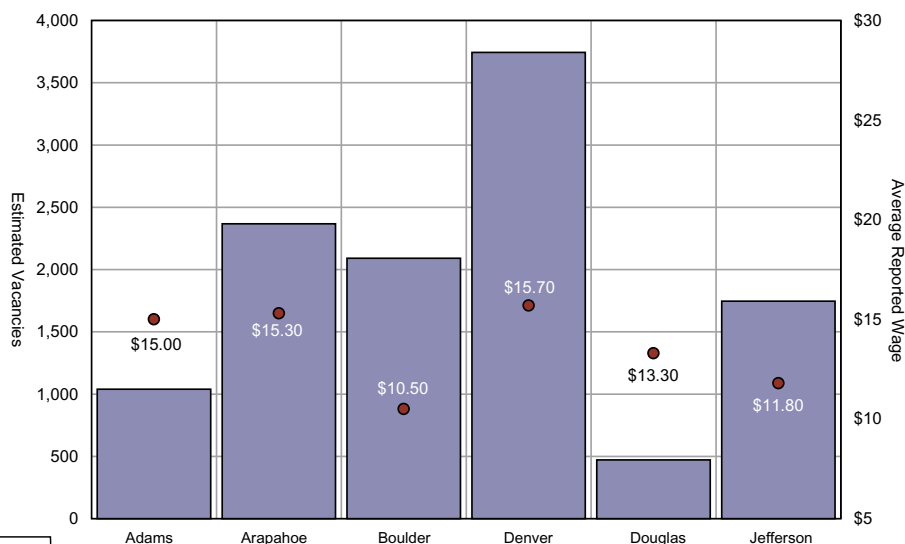
County, with the second largest vacancy rate of 1.3%, ranks third in shares of vacancies. The higher vacancy rate in Boulder County indicates that the ratio of estimated vacancies to the total employment is higher in Boulder County than in Arapahoe County.

In Adams, Douglas and Jefferson counties, the proportion of vacancies found in the individual counties is less than the proportion of employment for each county. The vacancy rate is lowest in Douglas at 0.4% and 0.6% in Jefferson although Jefferson has the largest employment in the region. Adams accounts for 8% of the vacancies and has a vacancy rate of 0.6%.

**Figure 9: Estimated Vacancies—Distribution of Employment and Vacancies by County**



**Figure 10: Vacancies and Wages by County**



The average wage offered for vacancies is highest in Denver County. High wages are due to the fact that 66% of the vacancies in this county are reported by the Health Care & Social Assistance sector which offers the highest average wage among all sectors. The lowest average wages are offered in Boulder County. The highest concentration of vacancies in Boulder county is reported by the Arts, Entertainment & Recreation sector. Fifty-nine percent of the vacancies reported in Adams County are reported in the Health Care & Social Assistance and Government sectors. Both Arapahoe and Douglas counties have their highest concentration of vacancies in the Government sector.

Small to mid-size employers account for 65% of the region's sample frame employment. This group of employers accounts for 53% of the estimated vacancies and has the highest vacancy rate at 2.7%. Arts, Entertainment & Recreation employers reported the highest single concentration of vacancies (27%) within this size class. Small to mid-size employers accounted for 56% of the vacancies in the Spring 2002 survey.

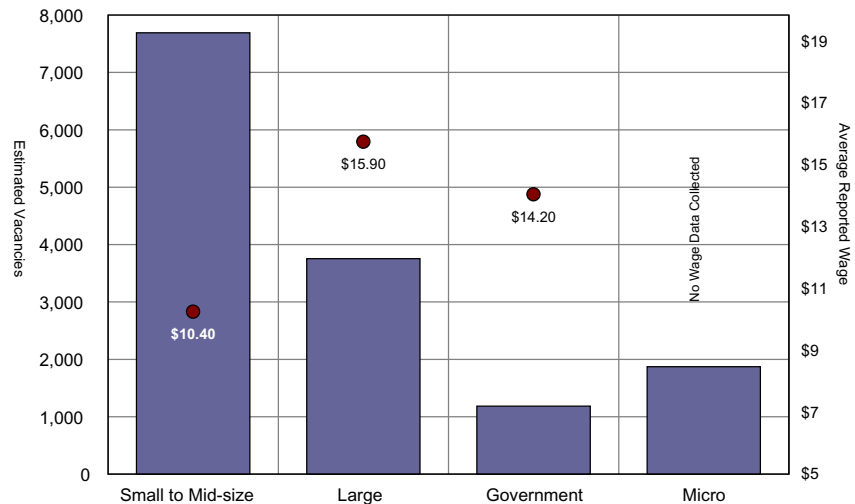
Large employers account for 21% of the Denver Metro Region sample frame employment. Twenty-six percent of the region's vacancies are estimated within this class size. Health Care & Social Assistance employers, which account for only 10% of all large employers in the region, reported 47% of the vacancies within this size class.

Vacancies found in Government declined by 50% from the Spring 2002 survey. Only 8% of the vacancies are estimated to be with government employers even though it accounts for 14% of the region's sample frame employment.

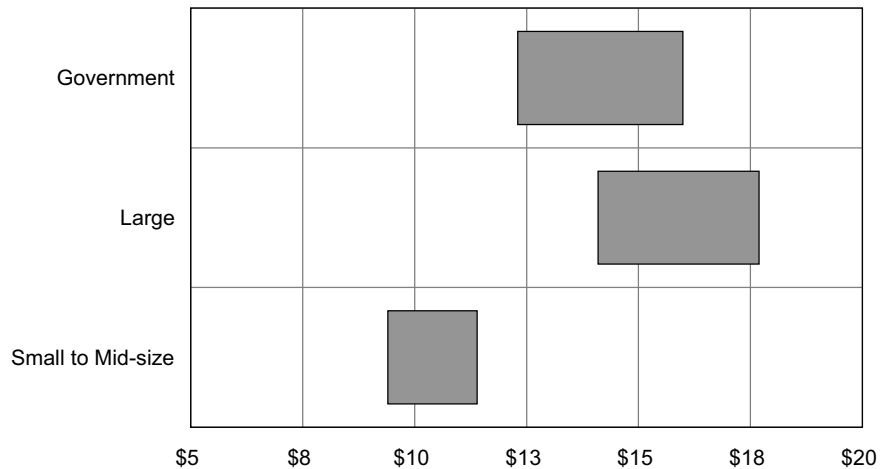
While employers with fewer than five employees, or micro-employers, are not contacted by the Colorado Department of Labor and Employment, the department does estimate the vacancy rate for this size class by creating a vacancy index. It is estimated that employers in this size category have a vacancy rate of 1.4%. Thirteen percent of the estimated vacancies or 1,885 vacancies are estimated to be open with this size category. This number is about two-thirds of the estimated vacancies for micro employers in the Spring 2002 survey.

Of any size class, large employers offer the highest average wage of \$15.90. Once again, high wages in this category of employers is due to the high presence of vacancies in the Health Care & Social Assistance sector. A high concentration of Education, Training, and Library occupations in Government vacancies slightly reduced the average wage for this category of employers to \$14.20. Small to mid-size firms offer the lowest average wage and the smallest in range between the average minimum and the average maximum. The Government sector offered the lowest average wages in the Spring 2002 survey.

**Figure 11: Estimated Vacancies and Average Wages by Employer Size**



**Figure 12: Reported Average Wage Ranges by Employer Size**



# Vacancies

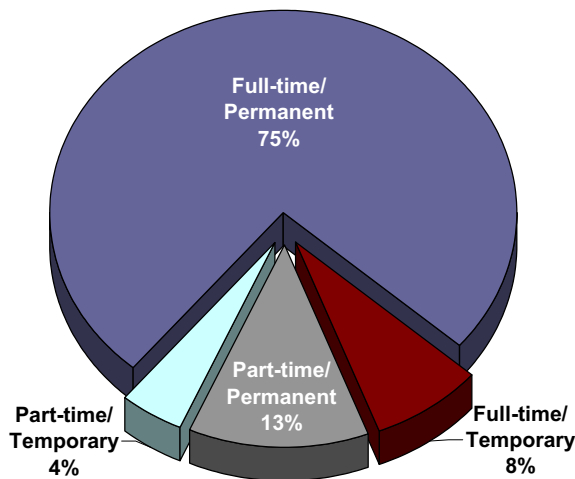
## Employment Status, Education, and Experience Requirements

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

Eighty-eight percent of the vacancies for which employment status is reported are permanent positions. Permanent positions accounted for 92% of the vacancies in the Spring 2002 report. Full-time/Permanent positions are offered with an average wage that ranges between \$13.40 and \$18.10 while full-time/Temporary vacancies offer average wages that range between \$9.50 and \$11.60. Employers in the Health Care & Social Assistance sector reported 26% of the permanent positions. Government reported 19%. Most of the positions are for Registered Nurses.

Fifty-one percent of the part-time/temporary positions are with small to mid-size employers while 32% are with large employers. Forty-six percent of the part-time/temporary positions reported are within the Arts, Entertainment & Recreation sector and 35% are for Building & Grounds Cleaning & Maintenance occupations. The average wage offered for vacancies with this status is the second highest among all vacancies.

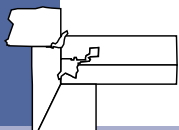
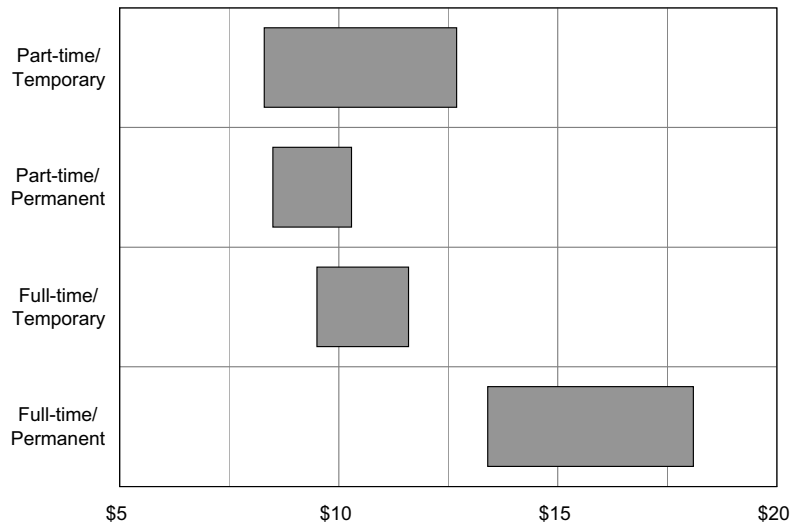
**Figure 13: Vacancies by Employment Status**



Part-time/permanent positions account for 13% of the vacancies that provided information about employment status. Large employers account for 62% of the part-time/permanent positions with one-third of these in Healthcare Practitioners & Technical occupations. This category of vacancies offers the lowest average wage and the narrowest range.

Part-time/temporary positions, on the other hand, account for the smallest proportion of vacancies. A slightly higher average wage is offered for part-time/permanent than for part-time/temporary positions.

**Figure 14: Reported Average Wage Ranges by Employment Status**



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 various 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 levels are in highest demand.

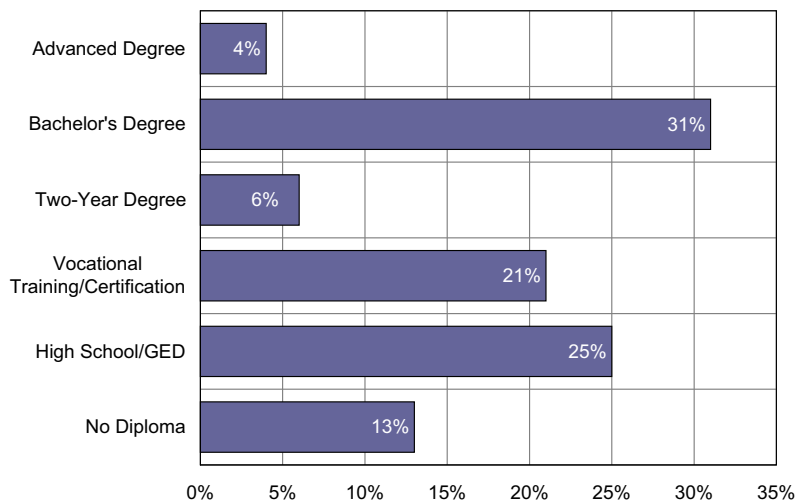
Thirty-eight percent of the reported vacancies require a high school education or less. As with the Spring 2002 survey, vacancies with these minimal educational requirements are for occupations such as Office & Administrative Support, Sales and Related and Building & Grounds Cleaning & Maintenance. Government, Health Care & Social Assistance and the Information sectors account for half of these vacancies.

Positions requiring a bachelor's degree have the highest concentration of vacancies in this survey. Last spring, positions requiring only a high school or GED education had the highest concentration. The percentage of positions requiring advanced degrees remained the same in both surveys. Education, Training, & Library and Management occupations account for half of the vacancies requiring an advanced degree.

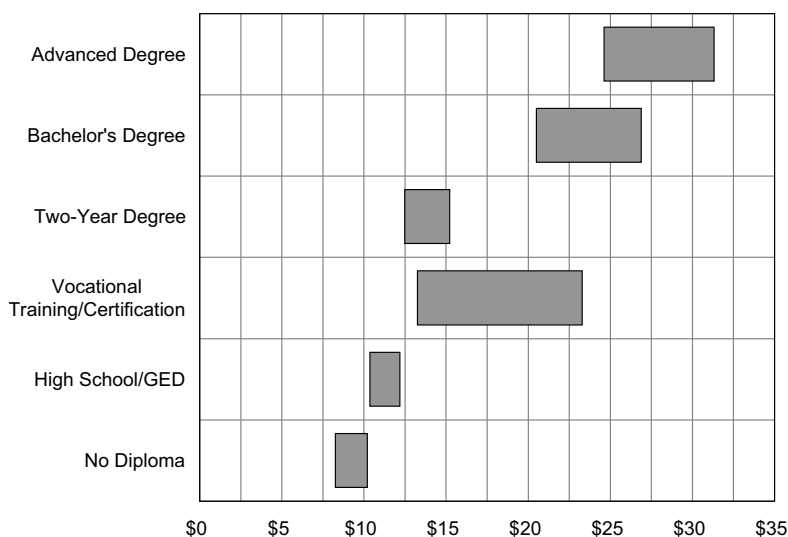
For vacancies requiring vocational training or certification, 50% are reported in the Health Care and Social Assistance sector, 25% are reported in the Government sector. Twenty percent are for Registered Nurses.

Generally, the more education required for a position, the higher the wages offered and the wider the distance between the high and low amount in the range. Positions requiring vocational training or certification show an odd behavior to this general rule. The average wage offered for

**Figure 15: Vacancies by Education**



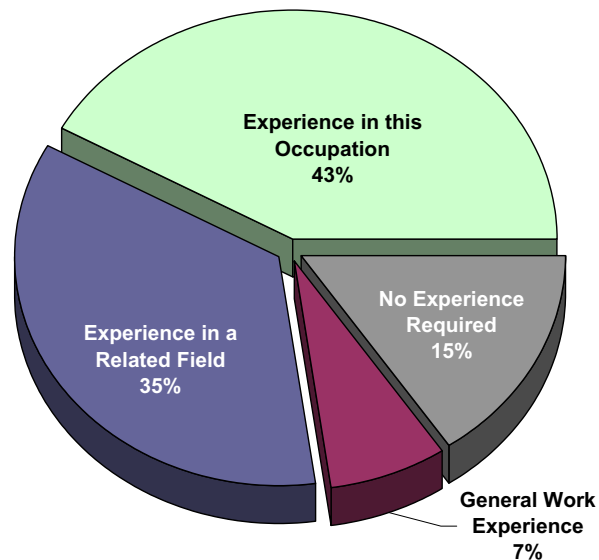
**Figure 16: Reported Average Wage Ranges by Education**



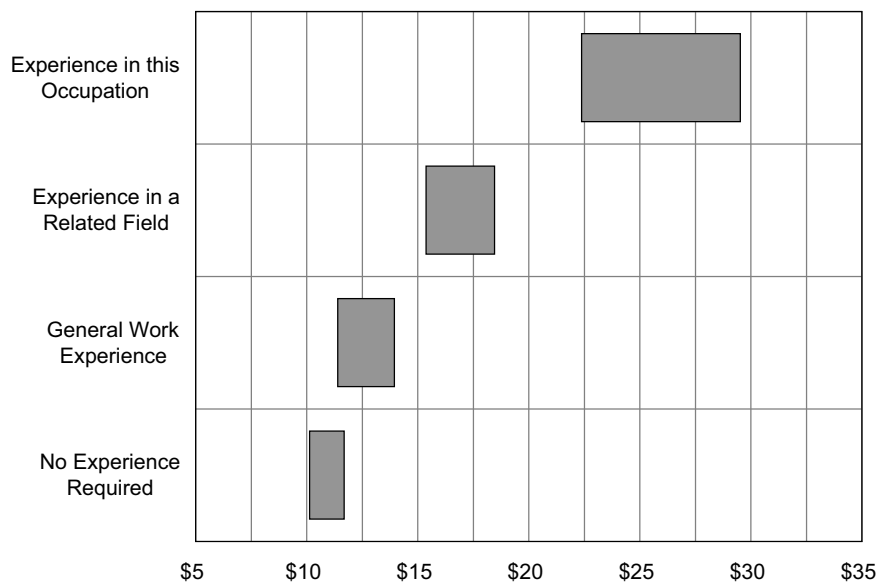
positions requiring this level of education not only exceeds that of positions requiring a two-year degree but also is the widest in range for all educational levels. High demand for Healthcare related occupations in vacancies requiring this level of education skewed average wages towards the higher end.

Figure 17 shows the breakdown of vacancies by experience requirements. Results from this survey show employers requiring higher levels of experience compared to positions open a year earlier. The percentage of positions requiring specific experience in the occupation increased from 29% in the Spring 2002 to 43% in this report. Between the two surveys, positions requiring general work experience increased from 7% to 14% at a time when positions with no experience requirements decreased from 22% to 15%. The percentage of positions requiring experience in a related field remained unchanged between the two surveys.

**Figure 17: Vacancies by Experience**



**Figure 18: Reported Average Wage Ranges by Experience**

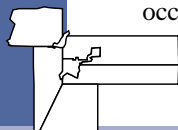


Wages offered for vacancies not only increase with higher levels of experience but also become wider in range. Variations in wages are mostly due to the types of occupations for which employers are hiring under each experience level. Higher levels of experience are mostly required for highly professional occupations that require specific experience and higher levels of education. Employers offer higher wages for these types of occupations to compensate candidates for their professionalism, education, and experience.

Of the vacancies for which experience in the specific occupation is required, 30% are Healthcare Practitioners & Technical, 11% are Education, Training, & Library, and 9% are Management. Office & Administrative

Support occupations account for 17% of the vacancies requiring experience in a related field. Healthcare Practitioners and Technical occupations followed with 14% of the reported vacancies.

Fifty percent of the vacancies requiring no previous work experience or just general work experience are in Building & Grounds Cleaning & Maintenance, Sales & Related, and Office & Administrative Support occupations. Healthcare Practitioners & Technical occupations still have considerable demand at these low levels of experience. Nine percent of vacancies requiring general work experience or less are for Healthcare Practitioners & Technical occupations.





# Vacancies

## Difficulty to Fill and Time Open for Hire

Employers' ability to find and hire qualified candidates is an important indicator of the supply side of the labor force. More employers claim less difficulty in filling their vacant positions in this survey compared to the spring survey of 2002.

The percentage of vacancies reported as not difficult to fill increased to 59% in this survey compared to 36% in last spring's survey. Half of the vacancies reported in this survey as not difficult to fill are Sales and Related, Office and Administrative Support, or Food Preparation and Serving Related occupations. Wages offered for these occupations are among the lowest in the survey.

The proportion of positions reported as somewhat difficult to fill decreased to 34% of the reported vacancies in this survey compared to 43% in the Spring 2002 survey. The percentage of positions perceived by employers as very difficult to fill also decreased from 21% to 7%. Sixteen percent of the vacancies reported as somewhat difficult or very difficult to fill are Healthcare Practitioners and Technical occupations. Another 14% are Education, Training, and Library occupations.

Eighty-two percent of the Healthcare Practitioners & Technical occupations in this survey are reported as somewhat difficult to fill, 12% as not difficult to fill, and 6% as very difficult to fill.

Vacancies reported as difficult to fill are generally expected to offer higher average wages because they require more education and experience. Wage information provided in this survey confirms this general notion. Employers were found to offer higher and wider ranges of wages as the perceived level of difficulty increases. Vacancies considered very difficult to fill offer the highest average wage of \$16.00 followed by

Figure 19: Vacancies by Difficulty to Fill

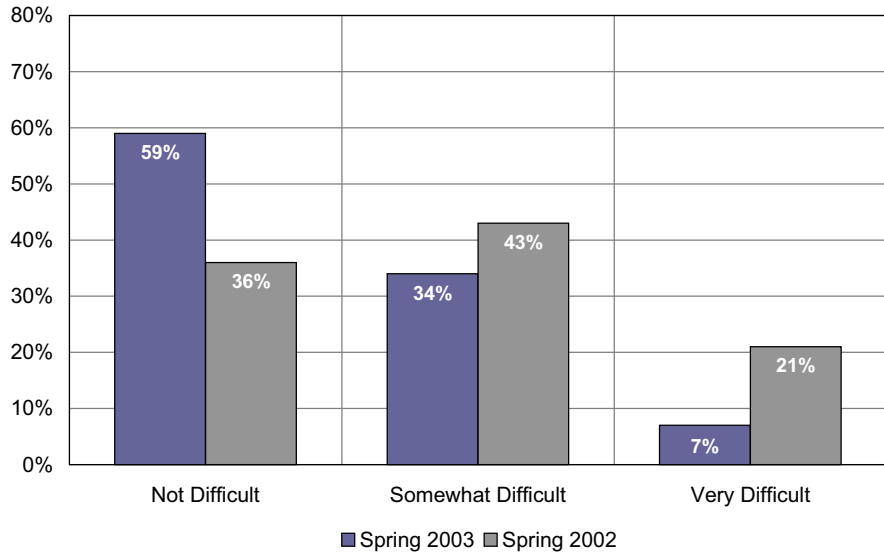
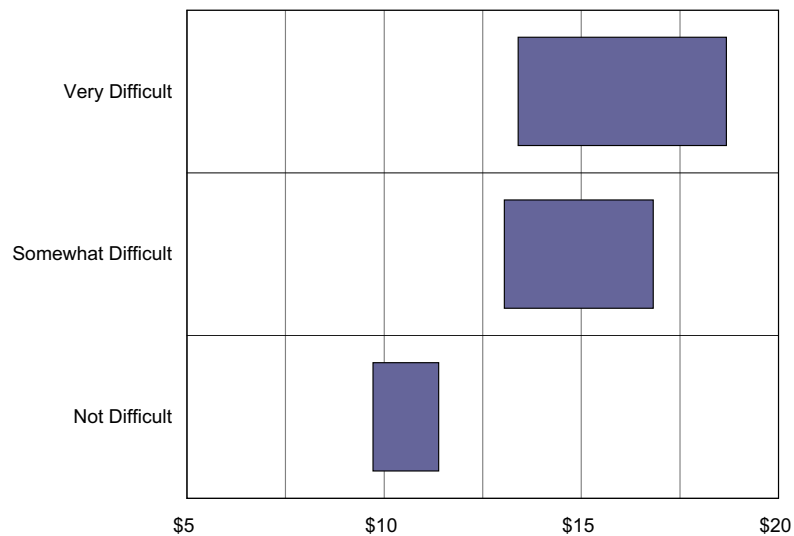


Figure 20: Reported Average Wage Ranges by Difficulty to Fill



an average wage of \$15.00 offered for positions reported as somewhat difficult to fill. A high concentration of low paid occupations among vacancies perceived not difficult to fill reduced the average wage offered for this category of vacancies to \$10.56.

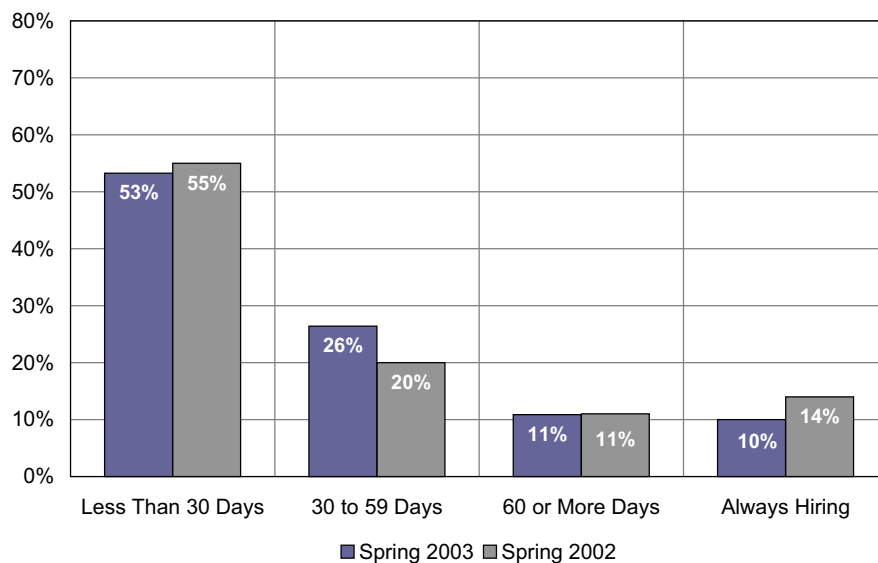
Little change is observed in the time periods for which positions are open between this survey and the Spring 2002 survey. A slight decrease is found in the proportion of vacancies open for periods less than 30 days and positions that are always open for hire. This decrease is completely offset by an increase in the percentage of positions open between 30 and 59 days. No change occurred to the proportion of positions open for 60 or more days between the two surveys.

Survey results show a connection between the perceived level of difficulty in filling a vacant position and the time period for which the vacancy remains open. Seventy-two percent of the positions open for less than 30 days are reported as not difficult to fill. Similarly, 65% of

the positions reported as not difficult to fill have been open for a period less than 30 days. On the other hand, positions that remain open for longer periods are perceived to be more difficult to fill. Almost half of the vacancies reported as being open for 60 or more days are also reported as very difficult to fill.

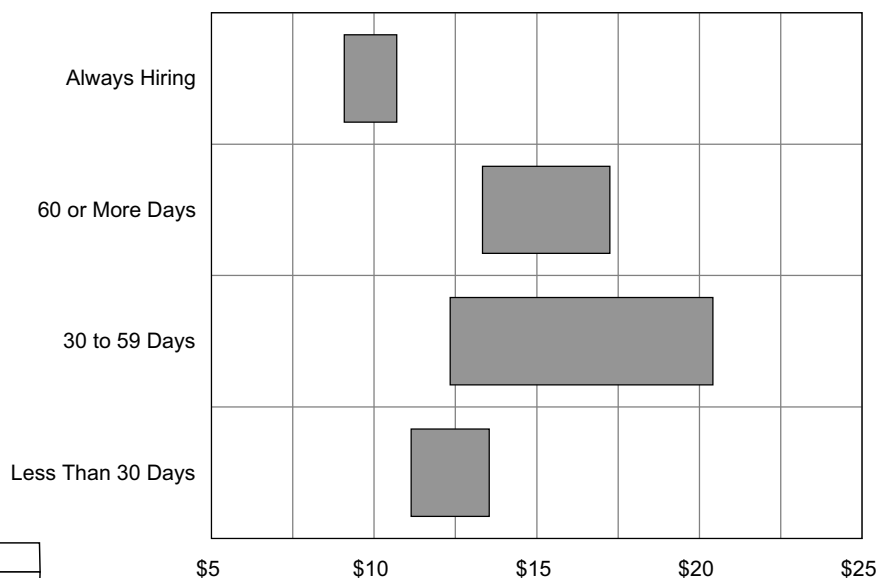
The correlation between the period a position is open and the level of difficulty employers perceive is also evident in positions open between 30 and 59 days. Fifty-six percent of the positions open between 30 and 59 days are reported as somewhat difficult to fill. Employers also reported that 52% of the positions perceived as somewhat difficult to fill have been open for periods that extended between 30 and 59 days.

**Figure 21: Vacancies by Time Open for Hire**

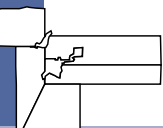


Positions always open for hire, but with low perceived levels of difficulty in filling may indicate that employers are having more difficulty retaining workers than getting them hired. Low wages, demanding work duties and harsh working conditions are some of the reasons a turnover rate may be high, leaving a position open for continuous hiring. Fifty-two percent of positions always open for hire are reported as not difficult to fill. Another 32% are reported as somewhat difficult to fill. Wages offered for positions always open for hire are the lowest and narrowest in range between the average minimum and the average maximum. Almost two-thirds of these vacancies are Personal Care & Service, Sales & Related, or Protective Service occupations.

**Figure 22: Reported Average Wage Ranges by Time Open for Hire**



Positions open between 30 to 59 days are found to offer higher average wages than positions open for 60 or more days in this survey. This is due to the fact that half of the Healthcare Practitioners & Technical occupations, which command one of the highest average wages, are reported to have been open for a period between 30 to 59 days.



# 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 child-care. One of the most common benefits offered to employees is a group medical insurance plan- the employer may pay all, a part or none of the monthly insurance premium for employees.

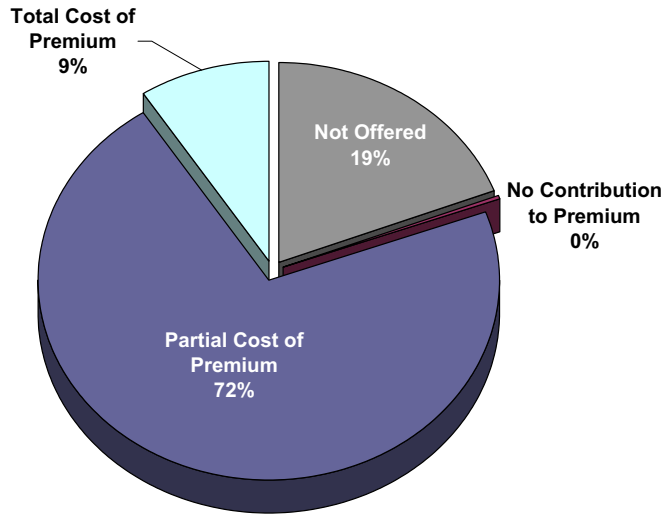
Medical benefits are offered to 81% of the vacancies reported in this survey compared to 71% in the Spring 2002 report. This increase should not be taken as an indication that more employers are offering healthcare benefits compared to last year. Rather, economic conditions may have forced employers to cut their hiring for non-essential positions for which healthcare benefits are not normally offered while continuing hiring for more essential positions for which healthcare benefits are offered more often. Health Care & Social Assistance employers account for one-third of the vacancies reported to offer some form of medical insurance. Manufacturing and government employers each account for 15% of the vacancies offering medical insurance.

Thirty-nine percent of the vacancies not offering any form of medical insurance premium are reported within the Government sector. Another 25% are reported within the Arts, Entertainment & Recreation sector.

### Sign-On Bonus

Employers offer sign-on bonus information for 65% of the reported vacancies. A sign-on bonus is offered for only 1% for the vacancies for which the information was offered. The majority of the positions offering sign-

Figure 23: Employers' Contribution to Medical Insurance



Medical insurance is high for vacancies reported within almost all sectors except Accommodation & Food Services and Government. Medical insurance is offered to 58% of the vacancies within the Accommodation & Food Services sector. Government offers medical insurance benefits to 62% of its reported vacancies.

on bonuses are reported within the Finance & Insurance and Government sectors. Bonus amounts ranged from \$150 to \$5,000.

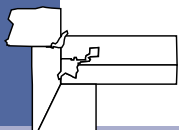
# Occupations

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

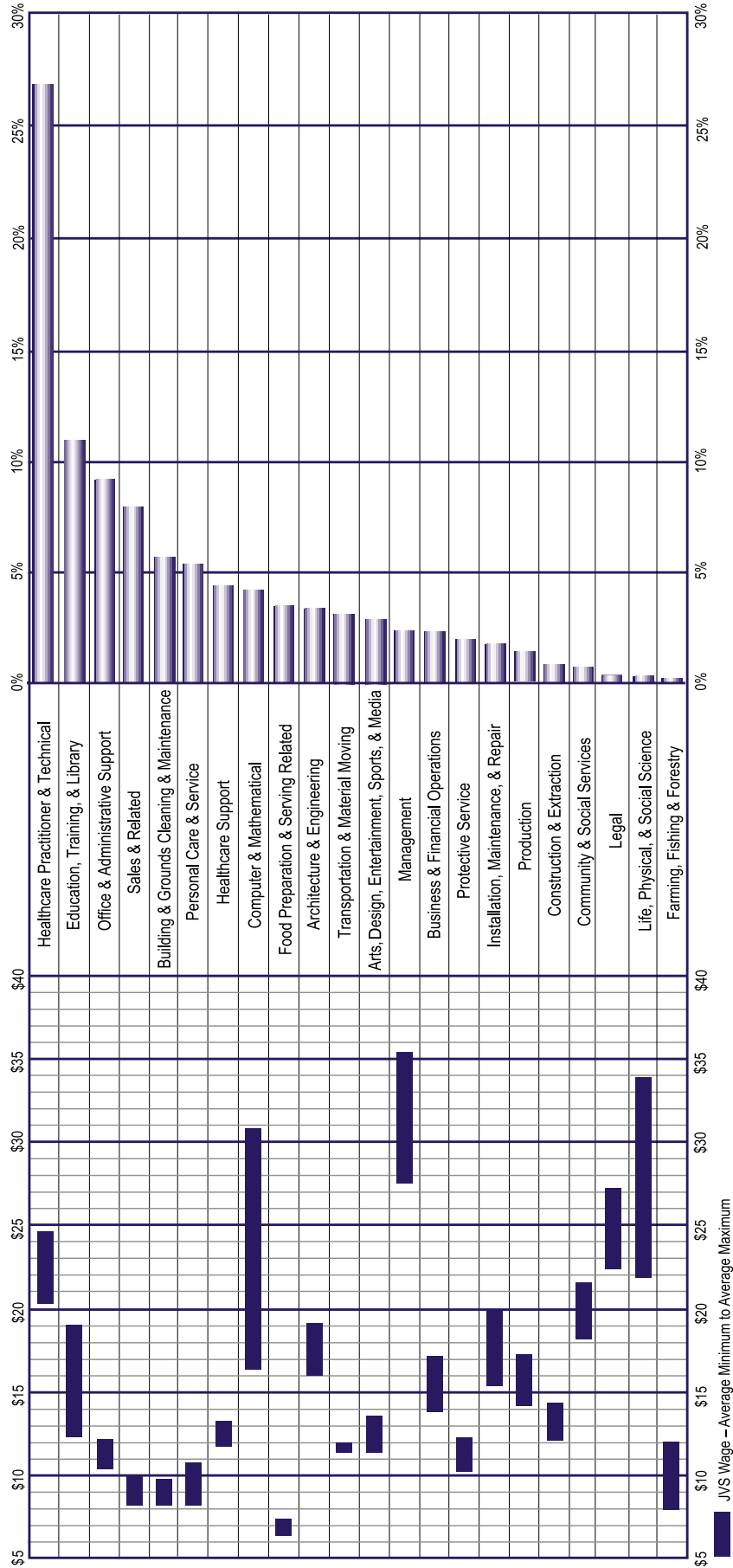
In order to help make comparisons between this survey and other sources of employment statistics, all jobs reported are assigned a Standard Occupational Classification (SOC) code from the *2000 Standard Occupational Classification Manual*. Eleven out of the 22 major occupational groups offer an average wage above the overall average wage reported for all vacancies in this report of \$13.60. These eleven major occupational groups account for 55% of the reported vacancies.

Survey results show major occupational groups with the most vacancies are not necessarily the groups offering the highest wages. Wages accompanying vacancy information reflect both the degree of skill and experience required to do the job, and/or the supply and demand for an occupation in the labor market.

The Healthcare Practitioners & Technical occupational group is the only one that accounts for a large percentage of the vacancies while also offering top wages. This group of occupations accounts for 27% of all vacancies reported in the region and offers the fifth highest average wage among all major occupational groups. Other occupational groups that offer average wages higher than wages offered by Healthcare Practitioners & Technical occupations are Management; Life, Physical & Social Science; Legal; Computer & Mathematical, but account for only 7% of the reported vacancies, combined.



**Figure 24: Vacancies and Reported Average Wage Ranges by Major Occupational Groups**



## Occupational Estimates

*Table 1* contains a list of all detailed SOC job titles assigned to vacancies reported in this survey. Because a census of large employers and government agencies is conducted, the list contains titles for nearly all of the vacancies available at the time of the survey. Nearly 15% of all small to mid-size employers were contacted from the random sample, so the list also includes occupations reported by those employers. Given the large size of the random sample collected, the list of occupations should be fairly comprehensive; however, it is not exhaustive. Most likely, a different random sample would have some differences in the job titles reported, but there would also be many of the same.

### Estimated Vacancies

Because nearly all large employers and government agencies are contacted, the number of vacancies by occupation for those groups is not estimated; it is an actual count of the vacancies. However, in addition to the number reported, vacancies are estimated for occupations reported by small to mid-size, private firms. The additional estimated occupational vacancies are calculated per the current mix of occupations found in the region, but restricted to the occupations reported in the survey.

### Vacancies Found

The number of vacancies by occupation found in the survey.

### Average JVS Wage

The average of any and all wages reported in the survey is given for each occupation. The average wage is based solely on information provided by employers responding to this survey and do not reflect information from other sources or wages paid for currently filled positions.

### Occupational Employment Statistics (OES) Wage Data

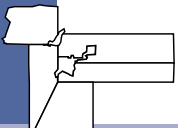
Occupational Employment Statistics (OES) wage data are provided for each occupation. OES data are based on a national survey of employers and refer to filled positions, not vacancies. The data provided here are reported for the Denver Metro Region when available and statewide otherwise. Data were collected over 3 years, from 1999 through 2001 and are aged to September 2002. A complete description of the OES survey is available on the Internet at: <http://www.bls.gov/>.

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

## High Demand Occupations

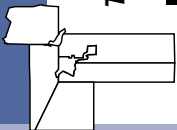
From the 22 major occupational groups, one can find 800 detailed occupation titles designed to classify work activity. The top twenty occupations found in this survey

account for 53% of the total estimated vacancies. These occupations are accompanied by wage data as reported by surveyed employers.



**Table 1: Occupations with 10 or More Estimated Vacancies**

SOC Code	SOC Occupational Title	Vacancies Estimated	Average JVS Wage	Occupational Employment Statistics Wage Data (2002)							
				Average Wages			Percentile Distribution				
				Entry-Level	Overall	Experienced	10th	25th	50th	75th	90th
41-2031	Retail Salespersons	962	\$11.15	\$7.40	\$11.93	\$14.18	\$6.98	\$7.90	\$9.29	\$13.27	\$19.84
29-1111	Registered Nurses	951	\$25.19	\$18.74	\$24.46	\$27.31	\$17.91	\$20.83	\$24.44	\$27.77	\$32.61
37-3011	Landscaping and Groundskeeping Workers	406	\$8.96	\$7.79	\$10.43	\$11.75	\$7.53	\$8.29	\$9.62	\$11.99	\$15.00
35-3031	Waiters and Waitresses	347	\$6.95	\$6.07	\$8.66	\$9.94	\$5.65	\$6.05	\$6.71	\$9.68	\$10.91
41-2011	Cashiers	244	\$8.50	\$7.07	\$9.39	\$10.55	\$6.50	\$7.51	\$8.54	\$10.48	\$14.86
31-1012	Nursing Aides, Orderlies, and Attendants	234	\$12.58	\$9.50	\$11.10	\$11.88	\$8.93	\$9.84	\$11.01	\$12.48	\$13.85
35-3021	Combined Food Preparation and Serving Workers, Including Fast Food	231	\$6.26	\$6.34	\$7.85	\$8.60	\$6.04	\$6.85	\$7.74	\$8.64	\$10.17
13-2072	Loan Officers	212	\$12.05	\$15.39	\$31.72	\$39.89	\$13.97	\$18.15	\$26.94	\$41.35	\$68.99
43-3071	Tellers	206	\$11.21	\$9.97	\$11.40	\$12.12	\$9.34	\$9.97	\$10.99	\$12.73	\$14.21
43-4171	Receptionists and Information Clerks	204	\$11.34	\$8.69	\$11.82	\$13.38	\$7.86	\$9.63	\$11.65	\$13.79	\$16.52
43-4051	Customer Service Representatives	196	\$10.81	\$10.48	\$14.26	\$16.14	\$9.75	\$11.44	\$13.48	\$16.59	\$20.17
43-6014	Secretaries, Except Legal, Medical, and Executive	191	\$13.48	\$10.54	\$14.47	\$16.44	\$9.60	\$11.94	\$14.45	\$17.03	\$19.84
25-9041	Teacher Assistants	186	\$9.88	\$15.294	\$20.315	\$22.824	\$14.502	\$16.668	\$19.995	\$23.053	\$27.782
15-1032	Computer Software Engineers, Systems Software	177	\$22.12	\$26.87	\$35.82	\$40.30	\$24.22	\$29.67	\$34.87	\$42.57	\$50.59
31-9092	Medical Assistants	169	\$12.22	\$11.72	\$14.50	\$15.89	\$11.01	\$12.53	\$14.44	\$16.41	\$18.16
41-9041	Telemarketers	161	\$7.29	\$7.36	\$11.24	\$13.18	\$6.66	\$8.35	\$10.57	\$13.34	\$16.80
35-3041	Food Servers, Nonrestaurant	156	\$6.03	\$7.34	\$10.10	\$11.48	\$6.80	\$8.24	\$10.30	\$12.17	\$13.39
39-3091	Amusement and Recreation Attendants	156	\$8.57	\$6.87	\$8.53	\$9.36	\$6.38	\$7.32	\$8.15	\$9.00	\$10.87
41-3031	Securities, Commodities, and Financial Services Sales Agents	151	\$5.64	\$14.77	\$27.16	\$33.35	\$13.51	\$16.53	\$21.40	\$32.81	\$53.80
43-6013	Medical Secretaries	145	\$11.26	\$11.51	\$16.70	\$19.30	\$10.86	\$12.39	\$14.96	\$22.76	\$25.84
29-2061	Licensed Practical and Licensed Vocational Nurses	141	\$14.57	\$14.77	\$16.92	\$17.99	\$13.91	\$15.10	\$16.54	\$18.19	\$21.00
25-2021	Elementary School Teachers, Except Special Education	137	\$19.89	\$28,068	\$38,627	\$43,905	\$25,850	\$30,718	\$36,507	\$46,019	\$55,356
39-9032	Recreation Workers	129	\$10.66	\$7.40	\$10.77	\$12.45	\$7.00	\$8.05	\$9.81	\$12.49	\$16.75
39-9031	Fitness Trainers and Aerobics Instructors	129	\$9.56	\$9.52	\$16.23	\$19.57	\$8.40	\$10.86	\$13.99	\$20.91	\$27.00
11-9199	Managers, All Other	121	\$27.96	\$23.44	\$36.71	\$43.35	\$21.32	\$27.29	\$35.85	\$45.92	\$55.64



**Table 1: Occupations with 10 or More Estimated Vacancies — Page 2**

SOC Code	SOC Occupational Title	Vacancies Estimated	Average JVS Wage	Occupational Employment Statistics Wage Data (2002)						
				Average Wages		Percentile Distribution				
			Entry-Level	Overall	Experienced	10th	25th	50th	75th	90th
41-1011	First-Line Supervisors/Managers of Retail Sales Workers	117	\$11.07	\$19.51	\$23.50	\$10.77	\$12.91	\$16.31	\$21.45	\$31.74
43-4131	Loan Interviewers and Clerks	117	†	\$16.85	\$18.91	\$11.88	\$13.91	\$16.55	\$19.51	\$22.10
39-5012	Hairdressers, Hairstylists, and Cosmetologists	111	\$9.00	\$10.95	\$12.12	\$7.93	\$9.29	\$10.54	\$12.08	\$13.86
47-2061	Construction Laborers	108	\$11.44	\$12.06	\$13.91	\$7.63	\$9.34	\$11.64	\$14.47	\$17.50
27-2023	Umpires, Referees, and Other Sports Officials	104	\$12.49	\$25.696	\$29.673	\$16.553	\$19,236	\$24,555	\$29,741	\$35,728
* 25-3099	Teachers and Instructors, All Other	101	\$10.64	†	†	†	†	†	†	†
13-2011	Accountants and Auditors	100	\$19.38	\$27.67	\$32.57	\$16.31	\$19.42	\$24.16	\$32.37	\$44.05
53-7062	Laborers and Freight, Stock, and Material Movers, Hand	98	\$10.76	\$11.27	\$12.63	\$7.76	\$9.35	\$10.81	\$12.98	\$15.71
49-3023	Automotive Service Technicians and Mechanics	98	\$21.61	\$19.29	\$23.24	\$10.38	\$12.97	\$18.17	\$23.56	\$30.01
11-3031	Financial Managers	95	\$28.65	\$40.26	\$47.84	\$22.57	\$28.53	\$37.76	\$50.21	\$70.72
35-2014	Cooks, Restaurant	90	\$8.68	\$10.40	\$11.74	\$6.98	\$8.69	\$10.31	\$12.22	\$14.18
25-2031	Secondary School Teachers, Except Special and Vocational Education	89	\$22.46	\$45.590	\$53,110	\$28,795	\$33,916	\$44,318	\$56,740	\$67,766
51-4121	Welders, Cutters, Solderers, and Brazers	89	\$15.80	\$15.69	\$17.66	\$11.18	\$12.86	\$15.46	\$18.35	\$21.27
53-3033	Truck Drivers, Light or Delivery Services	83	\$12.04	\$13.47	\$15.77	\$8.08	\$10.16	\$12.98	\$16.25	\$19.75
25-2022	Middle School Teachers, Except Special and Vocational Education	83	\$19.26	\$42.740	\$48,774	\$28,954	\$33,037	\$41,016	\$51,915	\$60,493
25-2011	Preschool Teachers, Except Special Education	81	\$10.01	\$10.15	\$11.39	\$6.90	\$8.69	\$9.83	\$10.99	\$13.39
43-3031	Bookkeeping, Accounting, and Auditing Clerks	80	\$13.77	\$15.24	\$17.37	\$10.30	\$12.37	\$15.01	\$17.82	\$21.22
17-2199	Engineers, All Other	77	†	\$35.52	\$41.42	\$21.96	\$26.90	\$34.65	\$43.56	\$52.69
11-9111	Medical and Health Services Managers	76	\$28.08	\$34.13	\$39.99	\$20.01	\$25.56	\$32.61	\$41.40	\$51.91
53-3032	Truck Drivers, Heavy and Tractor-Trailer	74	\$14.29	\$16.89	\$18.99	\$11.98	\$14.08	\$16.54	\$19.75	\$22.30
43-1011	First-Line Supervisors/Managers of Office and Administrative Support Workers	74	\$13.91	\$22.17	\$25.48	\$14.69	\$17.28	\$20.70	\$26.08	\$33.09
29-2034	Radiologic Technologists and Technicians	73	\$19.61	\$20.13	\$22.19	\$14.83	\$17.65	\$20.30	\$23.06	\$26.19
27-2022	Coaches and Scouts	71	\$10.98	\$35,184	\$43,883	\$15,523	\$20,494	\$26,171	\$40,448	\$58,343
15-1021	Computer Programmers	70	\$18.03	\$33.17	\$38.31	\$20.01	\$27.52	\$33.27	\$39.77	\$45.94
43-9061	Office Clerks, General	67	\$10.47	\$12.96	\$14.90	\$8.42	\$10.23	\$12.71	\$15.59	\$17.98



Table 1: Occupations with 10 or More Estimated Vacancies — Page 3

SOC Code	SOC Occupational Title	Vacancies Estimated	Average JVS Wage	Occupational Employment Statistics Wage Data (2002)									
				Average Wages				Percentile Distribution					
				Entry-Level	Overall	Experienced	10th	25th	50th	75th	90th		
37-2012	Maids and Housekeeping Cleaners	65	\$7.40	\$6.82	\$8.69	\$9.63	\$6.34	\$7.33	\$8.56	\$10.07	\$11.31		
47-2152	Plumbers, Pipefitters, and Steamfitters	63	\$17.20	\$12.58	\$19.93	\$23.61	\$10.88	\$14.55	\$19.44	\$24.94	\$28.26		
13-2053	Insurance Underwriters	60	†	\$17.66	\$27.90	\$33.02	\$15.81	\$20.06	\$26.31	\$35.21	\$42.47		
11-2021	Marketing Managers	59	\$21.46	\$25.09	\$39.89	\$47.29	\$22.29	\$29.04	\$39.15	\$49.84	\$62.34		
29-2056	Veterinary Technologists and Technicians	52	†	\$9.76	\$11.93	\$13.02	\$9.23	\$10.01	\$11.41	\$13.11	\$15.04		
53-7064	Packers and Packers, Hand	51	\$9.50	\$6.32	\$8.64	\$9.81	\$6.08	\$6.79	\$7.99	\$9.87	\$12.38		
35-1012	First-Line Supervisors/Managers of Food Preparation and Serving Workers	49	\$11.59	\$9.14	\$14.12	\$16.61	\$7.83	\$10.91	\$14.29	\$17.13	\$20.72		
29-2041	Emergency Medical Technicians and Paramedics	49	\$27.03	\$9.75	\$14.62	\$17.07	\$9.37	\$10.68	\$13.06	\$16.83	\$24.61		
29-1126	Respiratory Therapists	49	\$18.14	\$14.65	\$18.39	\$20.25	\$13.75	\$15.74	\$18.53	\$21.14	\$23.13		
33-9032	Security Guards	47	\$10.17	\$9.61	\$12.27	\$13.60	\$9.10	\$9.86	\$10.93	\$13.09	\$19.92		
41-3099	Sales Representatives, Services, All Other	47	\$12.78	\$15.00	\$28.37	\$35.06	\$13.57	\$17.51	\$26.62	\$35.24	\$51.50		
43-6011	Executive Secretaries and Administrative Assistants	45	\$16.01	\$13.90	\$18.22	\$20.38	\$12.72	\$15.06	\$17.67	\$21.01	\$24.49		
* 33-9092	Lifeguards, Ski Patrol, and Other Recreational Protective Service Workers	44	\$8.24	†	†	†	†	†	†	†	†		
23-2011	Paralegals and Legal Assistants	43	\$17.86	\$15.79	\$20.91	\$23.47	\$14.47	\$17.39	\$19.93	\$22.94	\$27.49		
* 17-3029	Engineering Technicians, Except Drafters, All Other	43	\$10.43	†	†	†	†	†	†	†	†		
47-2073	Operating Engineers and Other Construction Equipment Operators	43	\$16.12	\$15.21	\$19.00	\$20.90	\$14.51	\$16.25	\$19.09	\$21.57	\$23.40		
41-4011	Sales Representatives, Wholesale and Manufacturing, Technical and Scientific Products	43	\$28.85	\$18.58	\$33.84	\$41.47	\$16.52	\$21.54	\$30.02	\$44.92	\$59.79		
29-2055	Surgical Technologists	41	\$14.70	\$11.53	\$15.29	\$17.17	\$10.55	\$12.66	\$15.20	\$17.89	\$20.69		
35-9099	Food Preparation and Serving Related Workers, All Other	41	\$9.71	\$7.50	\$9.62	\$10.68	\$7.18	\$7.97	\$9.33	\$10.74	\$12.77		
43-3011	Bill and Account Collectors	41	\$15.11	\$10.43	\$14.43	\$16.44	\$9.71	\$11.42	\$13.50	\$16.48	\$21.11		
15-1071	Network and Computer Systems Administrators	40	†	\$21.61	\$31.53	\$36.48	\$19.53	\$24.05	\$30.07	\$38.95	\$45.89		
35-9021	Dishwashers	40	\$7.35	\$6.95	\$7.96	\$8.47	\$6.47	\$7.28	\$7.97	\$8.66	\$9.72		
41-1012	First-Line Supervisors/Managers of Non-Retail Sales Workers	39	†	\$17.74	\$29.80	\$35.82	\$15.44	\$20.90	\$27.27	\$37.50	\$48.29		

**Table 1: Occupations with 10 or More Estimated Vacancies — Page 4**

SOC Code	SOC Occupational Title	Vacancies Estimated	Average JVS Wage	Occupational Employment Statistics Wage Data (2002)							
				Average Wages			Percentile Distribution				
			Entry-Level	Overall	Experienced	10th	25th	50th	75th	90th	
53-7051	Industrial Truck and Tractor Operators	39	\$12.49	\$10.21	\$13.61	\$15.30	\$9.69	\$11.06	\$13.19	\$15.88	\$17.87
17-2051	Civil Engineers	38	\$22.15	\$20.64	\$29.24	\$33.54	\$19.43	\$22.00	\$27.02	\$34.63	\$43.22
37-2011	Janitors and Cleaners, Except Maids and Housekeeping Cleaners	38	\$9.73	\$7.37	\$9.74	\$10.92	\$7.00	\$7.77	\$8.99	\$11.16	\$13.91
13-2051	Financial Analysts	38	†	\$18.60	\$30.98	\$37.18	\$17.22	\$20.68	\$26.70	\$35.37	\$58.34
15-1099	Computer Specialists, All Other	36	\$16.79	\$19.66	\$30.22	\$35.50	\$17.01	\$23.27	\$29.39	\$36.68	\$44.71
11-3021	Computer and Information Systems Managers	36	\$26.63	\$32.11	\$45.66	\$52.44	\$29.19	\$36.80	\$45.16	\$55.89	\$68.00
47-2111	Electricians	35	\$17.74	\$16.31	\$23.20	\$26.65	\$14.41	\$19.21	\$24.16	\$27.12	\$30.76
53-3021	Bus Drivers, Transit and Intercity	34	\$12.73	\$10.25	\$13.87	\$15.69	\$9.67	\$11.23	\$13.00	\$16.80	\$20.51
25-2041	Special Education Teachers, Preschool, Kindergarten, and Elementary School	32	\$17.95	\$31,822	\$45,915	\$52,961	\$29,951	\$34,828	\$45,144	\$55,944	\$66,760
37-1011	First-Line Supervisors/Managers of Housekeeping and Janitorial Workers	32	\$11.44	\$10.05	\$14.83	\$17.22	\$9.51	\$10.88	\$13.61	\$17.72	\$22.67
17-2141	Mechanical Engineers	31	†	\$23.91	\$34.91	\$40.41	\$22.34	\$26.76	\$33.17	\$42.26	\$52.80
43-9021	Data Entry Keyers	31	\$10.00	\$8.67	\$11.47	\$12.88	\$7.93	\$9.48	\$11.41	\$13.42	\$15.32
27-1024	Graphic Designers	31	\$18.65	\$12.49	\$18.04	\$20.82	\$10.75	\$14.45	\$17.24	\$21.58	\$26.64
29-2031	Cardiovascular Technologists and Technicians	31	†	\$12.27	\$18.68	\$21.89	\$11.29	\$13.77	\$18.58	\$23.27	\$27.24
43-5081	Stock Clerks and Order Fillers	30	\$9.53	\$8.20	\$12.41	\$14.51	\$7.61	\$9.02	\$11.72	\$15.58	\$18.53
49-9099	Installation, Maintenance, and Repair Workers, All Other	30	\$10.25	\$9.51	\$14.75	\$17.37	\$9.03	\$10.23	\$13.61	\$18.49	\$22.04
35-9011	Dining Room and Cafeteria Attendants and Bartender Helpers	30	\$6.58	\$6.16	\$7.24	\$7.78	\$5.79	\$6.28	\$7.09	\$8.14	\$8.89
29-2021	Dental Hygienists	29	\$27.95	\$21.32	\$32.10	\$37.48	\$10.35	\$29.79	\$35.54	\$40.28	\$43.10
19-4099	Life, Physical, and Social Science Technicians, All Other	29	\$16.76	\$10.17	\$16.53	\$19.71	\$8.87	\$11.93	\$15.37	\$19.37	\$25.52
29-1127	Speech-Language Pathologists	28	\$22.54	\$18.39	\$24.51	\$27.57	\$16.92	\$20.07	\$24.12	\$27.94	\$33.31
17-2072	Electronics Engineers, Except Computer	27	†	\$24.73	\$34.99	\$40.12	\$23.31	\$27.44	\$33.31	\$42.01	\$51.85
41-3011	Advertising Sales Agents	27	\$14.78	\$14.06	\$23.07	\$27.59	\$12.64	\$16.23	\$20.87	\$26.54	\$35.55
29-2032	Diagnostic Medical Sonographers	27	\$25.57	\$24.08	\$30.15	\$33.18	\$22.79	\$24.54	\$27.35	\$37.88	\$41.95
49-9042	Maintenance and Repair Workers, General	27	\$15.10	\$10.54	\$15.35	\$17.77	\$9.58	\$12.05	\$14.88	\$18.49	\$21.99

Table 1: Occupations with 10 or More Estimated Vacancies — Page 5

SOC Code	SOC Occupational Title	Vacancies Estimated	Average JVS Wage	Occupational Employment Statistics Wage Data (2002)							
				Average Wages		Percentile Distribution					
				Entry-Level	Overall	Experienced	10th	25th	50th	75th	90th
45-4011	Forest and Conservation Workers	27	\$10.07	\$9.93	\$13.73	\$15.63	\$8.55	\$11.52	\$13.79	\$16.33	\$19.15
51-3011	Bakers	27	\$8.58	\$9.11	\$13.24	\$15.29	\$8.40	\$10.14	\$12.99	\$15.75	\$17.35
19-2043	Hydrologists	26	†	\$23.08	\$32.38	\$37.03	\$21.56	\$25.78	\$31.60	\$37.87	\$45.56
15-1051	Computer Systems Analysts	26	†	\$24.53	\$34.27	\$39.14	\$22.06	\$27.97	\$35.85	\$41.03	\$44.27
* 49-9092	Commercial Divers	26	\$12.27	†	†	†	†	†	†	†	†
41-2022	Parts Salespersons	25	\$13.42	\$10.51	\$16.88	\$20.07	\$9.70	\$11.58	\$15.27	\$21.41	\$27.67
49-9021	Heating, Air Conditioning, and Refrigeration Mechanics and Installers	25	\$18.21	\$12.08	\$16.61	\$18.88	\$10.69	\$13.73	\$16.15	\$19.51	\$22.76
29-2011	Medical and Clinical Laboratory Technologists	25	\$21.47	\$15.44	\$20.22	\$22.61	\$14.60	\$16.77	\$20.12	\$23.07	\$26.79
51-8031	Water and Liquid Waste Treatment Plant and System Operators	24	\$20.79	\$13.47	\$18.61	\$21.17	\$12.67	\$14.27	\$18.79	\$22.31	\$25.56
15-1081	Network Systems and Data Communications Analysts	24	†	\$20.83	\$30.40	\$35.19	\$18.95	\$23.13	\$29.38	\$36.84	\$44.53
29-1122	Occupational Therapists	23	†	\$18.93	\$24.23	\$26.88	\$18.02	\$20.70	\$24.10	\$26.97	\$29.19
11-3011	Administrative Services Managers	23	\$29.05	\$16.49	\$30.52	\$37.54	\$14.07	\$19.86	\$28.36	\$39.38	\$51.63
29-2012	Medical and Clinical Laboratory Technicians	23	\$17.54	\$11.23	\$15.55	\$17.70	\$10.36	\$12.16	\$14.97	\$18.56	\$21.50
27-2042	Musicians and Singers	22	†	\$39,943	\$87,241	\$110,891	\$16,839	\$64,335	\$87,026	\$119,735	†
43-9031	Desktop Publishers	22	\$10.71	\$12.81	\$17.13	\$19.29	\$12.12	\$14.19	\$17.03	\$20.26	\$22.72
11-2022	Sales Managers	22	\$11.43	\$23.39	\$41.68	\$50.81	\$20.79	\$26.91	\$38.57	\$56.12	†
* 37-2021	Pest Control Workers	22	\$10.00	\$7.30	\$12.10	\$14.50	\$6.73	\$8.07	\$11.25	\$15.71	\$18.52
13-2052	Personal Financial Advisors	22	\$5.15	\$14.72	\$30.97	\$39.11	\$13.27	\$16.59	\$24.70	\$40.26	\$67.20
41-2021	Counter and Rental Clerks	22	\$8.00	\$6.62	\$9.94	\$11.61	\$6.27	\$7.17	\$8.56	\$10.85	\$15.95
35-2021	Food Preparation Workers	21	\$8.57	\$7.35	\$9.29	\$10.25	\$6.81	\$7.74	\$8.69	\$10.70	\$13.22
11-1021	General and Operations Managers	21	\$38.50	\$22.15	\$42.66	\$52.92	\$19.28	\$26.24	\$40.94	\$59.43	†
15-1031	Computer Software Engineers, Applications	21	\$29.52	\$24.19	\$37.98	\$44.88	\$21.25	\$27.85	\$36.58	\$45.38	\$60.80
53-3022	Bus Drivers, School	20	\$11.22	\$9.15	\$12.43	\$14.07	\$8.42	\$10.49	\$12.62	\$14.43	\$16.61
13-1071	Employment, Recruitment, and Placement Specialists	20	\$20.39	\$14.32	\$21.23	\$24.68	\$13.23	\$15.94	\$19.07	\$25.54	\$32.54
13-1199	Business Operations Specialists, All Other	20	†	\$18.08	\$27.58	\$32.32	\$16.52	\$20.74	\$26.32	\$33.60	\$41.77

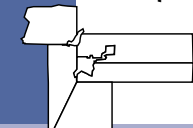
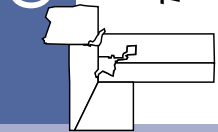


Table 1: Occupations with 10 or More Estimated Vacancies — Page 6

SOC Code	SOC Occupational Title	Vacancies Estimated	Average JVS Wage	Occupational Employment Statistics Wage Data (2002)									
				Average Wages			Percentile Distribution						
				Entry-Level	Overall	Experienced	10th	25th	50th	75th	90th		
11-9033	Education Administrators, Postsecondary	20	\$20.84	\$20.14	\$33.68	\$40.45	\$18.22	\$22.54	\$30.66	\$41.02	\$58.31		
39-2021	Nonfarm Animal Caretakers	20	†	\$7.40	\$10.16	\$11.54	\$6.80	\$7.91	\$9.18	\$11.15	\$14.78		
31-9091	Dental Assistants	19	†	\$15	\$19	\$20	\$14	\$18	\$19	\$21	\$23		
29-2052	Pharmacy Technicians	19	\$13.04	\$10.87	\$13.26	\$14.47	\$9.84	\$11.79	\$13.38	\$15.17	\$16.84		
11-9032	Education Administrators, Elementary and Secondary School	19	\$34.11	\$56,201	\$69,569	\$76,253	\$50,295	\$62,266	\$70,074	\$79,409	\$91,760		
21-1091	Health Educators	19	\$21.11	\$11.66	\$19.73	\$23.77	\$10.35	\$13.32	\$19.29	\$25.50	\$29.54		
13-2071	Loan Counselors	19	†	\$11.84	\$14.88	\$16.40	\$11.25	\$12.22	\$13.74	\$17.06	\$20.30		
43-5032	Dispatchers, Except Police, Fire, and Ambulance	18	\$8.81	\$11.74	\$16.67	\$19.13	\$10.72	\$13.17	\$16.25	\$19.93	\$22.90		
27-1023	Floral Designers	18	\$7.00	\$9.19	\$11.83	\$13.15	\$8.69	\$9.43	\$10.59	\$13.47	\$18.04		
53-6031	Service Station Attendants	18	\$5.50	\$8.00	\$10.94	\$12.42	\$7.77	\$8.80	\$10.64	\$12.72	\$15.61		
15-1041	Computer Support Specialists	18	\$16.74	\$14.97	\$23.19	\$27.30	\$14.27	\$16.45	\$20.25	\$26.95	\$40.61		
11-9141	Property, Real Estate, and Community Association Managers	18	\$11.00	\$11.79	\$22.10	\$27.25	\$11.47	\$13.21	\$17.86	\$26.48	\$39.95		
35-2012	Cooks, Institution and Cafeteria	18	\$9.62	\$8.09	\$10.43	\$11.60	\$7.70	\$8.70	\$10.22	\$11.83	\$13.86		
31-2022	Physical Therapist Aides	18	\$10.82	\$7.62	\$10.13	\$11.37	\$7.27	\$7.94	\$9.77	\$12.01	\$13.56		
17-2011	Aerospace Engineers	18	†	\$24.39	\$32.95	\$37.22	\$23.45	\$26.38	\$32.09	\$39.73	\$44.99		
51-9131	Photographic Process Workers	18	\$9.50	\$7.80	\$10.82	\$12.34	\$7.52	\$8.24	\$9.55	\$12.60	\$17.00		
43-4071	File Clerks	18	\$10.40	\$8.22	\$10.87	\$12.19	\$7.58	\$9.13	\$10.66	\$12.71	\$14.73		
49-3031	Bus and Truck Mechanics and Diesel Engine Specialists	17	\$15.13	\$14.00	\$18.57	\$20.85	\$12.82	\$15.26	\$18.41	\$21.79	\$25.37		
47-2141	Painters, Construction and Maintenance	17	\$11.99	\$10.95	\$14.85	\$16.81	\$9.97	\$12.08	\$14.62	\$16.99	\$20.95		
41-4012	Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	17	\$16.83	\$15.08	\$25.43	\$30.60	\$13.27	\$17.90	\$23.40	\$30.99	\$40.87		
13-1072	Compensation, Benefits, and Job Analysis Specialists	17	\$22.80	\$17.04	\$25.45	\$29.67	\$15.64	\$18.49	\$22.49	\$29.34	\$37.05		
29-1051	Pharmacists	17	\$34.05	\$28.00	\$34.21	\$37.31	\$27.58	\$31.49	\$35.35	\$39.65	\$43.39		
39-6011	Baggage Porters and Bellhops	16	\$5.15	\$6.32	\$11.78	\$14.52	\$6.09	\$6.81	\$8.31	\$19.51	\$22.02		
29-1123	Physical Therapists	16	\$10.82	\$19.13	\$24.83	\$27.68	\$17.66	\$22.15	\$25.01	\$27.67	\$32.06		

Table 1: Occupations with 10 or More Estimated Vacancies — Page 7

SOC Code	SOC Occupational Title	Vacancies Estimated	Average JVS Wage	Occupational Employment Statistics Wage Data (2002)							
				Average Wages				Percentile Distribution			
				Entry-Level	Overall	Experienced	10th	25th	50th	75th	90th
43-4081	Hotel, Motel, and Resort Desk Clerks	16	\$9.38	\$8.10	\$9.58	\$10.31	\$7.75	\$8.51	\$9.63	\$10.69	\$11.34
47-2044	Tile and Marble Setters	16	\$14.00	\$15.24	\$23.26	\$27.28	\$14.61	\$15.39	\$16.70	\$18.02	\$63.19
13-1073	Training and Development Specialists	16	†	\$15.01	\$22.98	\$26.96	\$14.34	\$16.61	\$21.57	\$28.54	\$35.16
17-2071	Electrical Engineers	15	†	\$23.34	\$31.96	\$36.28	\$22.03	\$25.83	\$31.17	\$37.25	\$44.50
51-6011	Laundry and Dry-Cleaning Workers	15	\$7.15	\$7.64	\$9.14	\$9.90	\$7.30	\$7.94	\$8.94	\$10.37	\$11.51
27-3042	Technical Writers	15	†	\$18.16	\$24.55	\$27.74	\$16.81	\$20.27	\$24.68	\$28.14	\$32.61
17-3023	Electrical and Electronic Engineering Technicians	15	\$12.50	\$15.55	\$26.04	\$31.28	\$13.24	\$18.24	\$23.71	\$32.92	\$44.03
25-2043	Special Education Teachers, Secondary School	15	\$16.50	\$32,371	\$47,420	\$54,946	\$29,709	\$36,039	\$47,900	\$57,624	\$68,293
21-1013	Marriage and Family Therapists	14	\$18.28	\$12.90	\$15.97	\$17.51	\$11.84	\$14.23	\$15.95	\$17.55	\$20.32
29-1124	Radiation Therapists	14	†	\$22.79	\$26.79	\$28.79	\$21.35	\$23.86	\$26.56	\$30.03	\$34.31
23-1011	Lawyers	14	\$49.12	\$27.56	\$43.62	\$51.66	\$24.75	\$31.86	\$41.74	\$55.47	†
43-5071	Shipping, Receiving, and Traffic Clerks	14	\$11.60	\$9.02	\$12.54	\$14.30	\$8.22	\$9.99	\$12.23	\$14.53	\$17.42
11-9041	Engineering Managers	13	†	\$33.19	\$46.39	\$52.99	\$30.76	\$37.13	\$45.66	\$56.42	\$69.01
43-2021	Telephone Operators	13	\$8.50	\$7.27	\$10.64	\$12.32	\$6.63	\$8.26	\$11.16	\$13.19	\$14.29
* 11-3042	Training and Development Managers	13	†	†	†	†	†	†	†	†	†
19-4021	Biological Technicians	13	†	\$11.77	\$17.76	\$20.75	\$10.91	\$13.06	\$17.58	\$21.82	\$26.10
29-2081	Opticians, Dispensing	13	\$14.00	\$10.25	\$14.91	\$17.23	\$9.36	\$12.32	\$15.55	\$17.67	\$19.98
39-6012	Concierges	13	\$12.50	\$8.45	\$10.05	\$10.84	\$7.79	\$8.93	\$9.93	\$10.85	\$12.69
15-1061	Database Administrators	13	†	\$19.22	\$29.36	\$34.42	\$17.12	\$22.12	\$27.90	\$37.01	\$44.10
43-3021	Billing and Posting Clerks and Machine Operators	13	\$12.00	\$8.97	\$12.90	\$14.86	\$6.58	\$11.13	\$13.25	\$15.25	\$17.21
49-9041	Industrial Machinery Mechanics	13	\$18.50	\$14.12	\$19.34	\$21.96	\$12.75	\$16.05	\$19.29	\$22.84	\$26.70
17-1021	Cartographers and Photogrammetrists	12	†	\$18.50	\$25.48	\$28.97	\$16.29	\$21.40	\$25.75	\$30.41	\$33.86
21-1022	Medical and Public Health Social Workers	12	\$19.78	\$14.64	\$19.05	\$21.24	\$13.53	\$15.72	\$18.22	\$22.25	\$26.31
33-9099	Protective Service Workers, All Other	12	\$16.74	\$7.48	\$11.82	\$13.99	\$7.11	\$7.91	\$9.25	\$13.20	\$21.83
13-1041	Compliance Officers, Except Agriculture, Construction, Health and Safety, and Transportation	12	\$34.33	\$16.69	\$25.26	\$29.54	\$15.77	\$19.84	\$24.70	\$30.22	\$35.95
13-1031	Claims Adjusters, Examiners, and Investigators	12	†	\$16.64	\$23.74	\$27.29	\$15.52	\$18.39	\$22.43	\$27.50	\$34.36
51-3092	Food Batchmakers	12	\$14.55	\$7.15	\$11.34	\$13.44	\$6.49	\$7.90	\$11.63	\$15.00	\$16.78



**Table 1: Occupations with 10 or More Estimated Vacancies — Page 8**

SOC Code	SOC Occupational Title	Vacancies Estimated	Average JVS Wage	Occupational Employment Statistics Wage Data (2002)									
				Average Wages			Percentile Distribution						
				Entry-Level	Overall	Experienced	10th	25th	50th	75th	90th		
47-1011	First-Line Supervisors/Managers of Construction Trades and Extraction Workers	12	\$21.00	\$17.80	\$26.10	\$30.26	\$16.38	\$19.54	\$25.19	\$31.04	\$37.24		
15-1011	Computer and Information Scientists, Research	12	†	\$27.48	\$43.67	\$51.78	\$24.79	\$31.97	\$41.10	\$56.91	†		
43-9041	Insurance Claims and Policy Processing Clerks	11	\$14.54	\$11.49	\$16.34	\$18.75	\$10.43	\$12.66	\$15.47	\$17.96	\$23.49		
25-2012	Kindergarten Teachers, Except Special Education	11	†	\$20,217	\$37,850	\$46,667	\$17,180	\$24,626	\$36,264	\$50,664	\$59,969		
39-9011	Child Care Workers	11	\$7.71	\$6.52	\$8.54	\$9.55	\$6.15	\$7.09	\$8.29	\$9.75	\$11.25		
19-2099	Physical Scientists, All Other	11	†	\$21.75	\$33.31	\$39.10	\$19.22	\$25.80	\$33.74	\$40.92	\$47.93		
25-9031	Instructional Coordinators	11	\$25.58	\$14.20	\$27.70	\$34.45	\$12.66	\$16.37	\$22.56	\$40.99	\$53.53		
13-2021	Appraisers and Assessors of Real Estate	11	\$23.40	\$14.67	\$29.15	\$36.39	\$12.21	\$18.39	\$24.99	\$35.63	\$58.24		
13-1111	Management Analysts	11	†	\$20.89	\$32.55	\$38.38	\$18.99	\$23.70	\$30.60	\$38.33	\$50.40		
33-3051	Police and Sheriffs Patrol Officers	11	\$20.73	\$18.15	\$23.83	\$26.67	\$17.00	\$19.90	\$23.97	\$27.85	\$32.20		
49-9052	Telecommunications Line Installers and Repairers	10	\$12.50	\$11.36	\$16.02	\$18.34	\$10.46	\$12.58	\$15.30	\$17.99	\$22.40		
* 11-9039	Education Administrators, All Other	10	\$14.48	†	†	†	†	†	†	†	†		
51-1011	First-Line Supervisors/Managers of Production and Operating Workers	10	\$15.08	\$14.98	\$22.44	\$26.17	\$13.60	\$16.95	\$21.36	\$27.27	\$33.62		
25-2042	Special Education Teachers, Middle School	10	\$24.00	\$32,463	\$44,420	\$50,399	\$30,661	\$35,166	\$43,657	\$52,907	\$59,047		
51-4192	Lay-Out Workers, Metal and Plastic	10	\$16.69	\$11.78	\$17.72	\$20.68	\$11.10	\$12.66	\$16.28	\$21.04	\$28.43		
53-6099	Transportation Workers, All Other	10	\$12.86	\$9.48	\$16.52	\$20.04	\$8.98	\$10.58	\$15.42	\$22.65	\$26.98		
41-9031	Sales Engineers	10	\$19.23	\$20.23	\$33.60	\$40.28	\$18.00	\$23.35	\$30.95	\$41.99	\$55.66		
* 21-1029	Social Workers, All Other	10	\$21.47	†	†	†	†	†	†	†	†		
11-9021	Construction Managers	10	\$27.10	\$22.69	\$34.88	\$40.98	\$20.34	\$25.94	\$32.77	\$41.31	\$55.11		

\*OES wages reported for Colorado statewide

† Insufficient wage data

Table 2: Occupations with Fewer than 10 Estimated Vacancies

SOC Code	SOC Occupational Title	Occupational Employment Statistics Wage Data (2002)									
		Average Wages			Percentile Distribution						
		Entry-Level	Overall	Experienced	10th	25th	50th	75th	90th		
15-2011	Actuaries	\$23.08	\$36.47	\$43.17	\$21.62	\$26.04	\$34.06	\$44.03	\$59.54		
25-3011	Adult Literacy, Remedial Education, and GED Teachers and Instructors	\$10.40	\$14.40	\$16.40	\$9.79	\$10.52	\$11.75	\$17.66	\$23.70		
11-2011	Advertising and Promotions Managers	\$19.07	\$32.38	\$39.03	\$17.12	\$22.10	\$29.88	\$40.66	\$54.10		
* 49-3011	Aircraft Mechanics and Service Technicians	†	†	†	†	†	†	†	†		
33-9011	Animal Control Workers	\$13.58	\$16.80	\$18.41	\$12.57	\$14.51	\$16.93	\$19.42	\$21.36		
17-3011	Architectural and Civil Drafters	\$14.11	\$18.93	\$21.34	\$12.94	\$15.87	\$19.05	\$21.80	\$25.63		
25-1121	Art, Drama, and Music Teachers, Postsecondary	\$35,519	\$52,142	\$60,453	\$33,239	\$39,983	\$49,207	\$61,012	\$73,923		
29-9091	Athletic Trainers	\$22,972	\$33,539	\$38,821	\$21,193	\$24,878	\$31,947	\$40,186	\$46,728		
27-4011	Audio and Video Equipment Technicians	\$9.37	\$15.01	\$17.84	\$8.15	\$10.81	\$13.59	\$17.78	\$23.82		
29-1121	Audiologists	\$18.21	\$21.31	\$22.85	\$17.63	\$19.04	\$20.91	\$23.39	\$26.72		
49-3021	Automotive Body and Related Repairers	\$15.50	\$24.35	\$28.77	\$14.32	\$17.89	\$22.48	\$29.97	\$38.95		
35-3011	Bartenders	\$6.19	\$8.00	\$8.91	\$5.84	\$6.35	\$7.22	\$9.64	\$11.14		
* 19-1021	Biochemists and Biophysicists	†	†	†	†	†	†	†	†		
25-1042	Biological Science Teachers, Postsecondary	\$34,281	\$63,275	\$77,772	\$31,506	\$40,260	\$56,846	\$81,682	\$111,200		
* 19-1029	Biological Scientists, All Other	†	†	†	†	†	†	†	†		
13-2031	Budget Analysts	\$17.85	\$25.86	\$29.87	\$16.06	\$20.04	\$25.36	\$31.52	\$36.99		
* 37-2019	Building Cleaning Workers, All Other	†	†	†	†	†	†	†	†		
47-2031	Carpenters	\$12.97	\$17.58	\$19.90	\$11.10	\$14.82	\$17.30	\$20.62	\$23.63		
47-2051	Cement Masons and Concrete Finishers	\$10.79	\$16.04	\$18.67	\$9.76	\$11.99	\$16.11	\$19.30	\$22.41		
35-1011	Chefs and Head Cooks	\$11.83	\$16.87	\$19.40	\$11.31	\$12.40	\$15.19	\$20.37	\$25.79		
17-2041	Chemical Engineers	\$26.18	\$36.24	\$41.26	\$23.41	\$29.51	\$35.57	\$44.00	\$52.68		
51-8091	Chemical Plant and System Operators	\$12	\$17	\$19	\$12	\$14	\$18	\$20	\$22		
19-4031	Chemical Technicians	\$14.26	\$18.75	\$21.00	\$13.05	\$15.34	\$17.58	\$21.56	\$26.66		
25-1052	Chemistry Teachers, Postsecondary	\$38,874	\$58,630	\$68,508	\$35,598	\$43,799	\$54,432	\$71,078	\$91,431		
19-2031	Chemists	\$14.27	\$25.02	\$30.41	\$13.13	\$15.71	\$22.25	\$32.44	\$42.25		
11-1011	Chief Executives	\$42.53	\$61.63	\$71.17	\$37.19	\$52.95	\$68.93	†	†		

Table 2: Occupations with Fewer than 10 Estimated Vacancies —Page 2

SOC Code	SOC Occupational Title	Occupational Employment Statistics Wage Data (2002)									
		Average Wages					Percentile Distribution				
		Entry-Level	Overall	Experienced	10th	25th	50th	75th	90th		
21-1021	Child, Family, and School Social Workers	\$13.66	\$19.94	\$23.09	\$12.18	\$15.61	\$19.50	\$23.83	\$28.70		
17-3022	Civil Engineering Technicians	\$13.49	\$20.23	\$23.60	\$10.84	\$15.87	\$19.90	\$24.92	\$29.57		
21-2011	Clergy	\$6.85	\$14.32	\$18.05	\$6.03	\$7.50	\$12.54	\$18.57	\$25.01		
19-3031	Clinical, Counseling, and School Psychologists	\$15.33	\$23.45	\$27.50	\$14.30	\$17.03	\$23.44	\$29.22	\$33.90		
49-9091	Coin, Vending, and Amusement Machine Servicers and Repairers	\$8.89	\$12.87	\$14.86	\$8.12	\$9.99	\$12.97	\$15.36	\$17.41		
* 11-3041	Compensation and Benefits Managers	†	†	†	†	†	†	†	†		
17-2061	Computer Hardware Engineers	\$28	\$38	\$43	\$26	\$31	\$38	\$45	\$55		
43-9011	Computer Operators	\$12.19	\$16.63	\$18.86	\$11.56	\$13.30	\$15.94	\$19.65	\$23.01		
25-1021	Computer Science Teachers, Postsecondary	\$31,045	\$46,222	\$53,810	\$29,201	\$32,704	\$38,476	\$49,816	\$80,069		
47-4011	Construction and Building Inspectors	\$13.44	\$19.40	\$22.40	\$12.01	\$14.98	\$18.81	\$23.63	\$27.84		
33-3012	Correctional Officers and Jailers	\$14.32	\$19.43	\$21.98	\$13.61	\$15.80	\$19.30	\$23.11	\$26.66		
43-4021	Correspondence Clerks	\$10.92	\$14.46	\$16.23	\$10.12	\$11.58	\$13.65	\$17.91	\$20.40		
13-1051	Cost Estimators	\$17.52	\$25.19	\$29.02	\$15.98	\$19.20	\$24.39	\$30.59	\$35.28		
* 21-1019	Counselors, All Other	†	†	†	†	†	†	†	†		
35-3022	Counter Attendants, Cafeteria, Food Concession, and Coffee Shop	\$6.55	\$8.34	\$9.23	\$6.15	\$7.12	\$8.22	\$9.43	\$11.03		
43-5021	Couriers and Messengers	\$7.60	\$10.10	\$11.35	\$7.16	\$8.15	\$9.53	\$12.14	\$13.89		
13-2041	Credit Analysts	\$13.87	\$21.93	\$25.97	\$12.49	\$15.64	\$20.73	\$26.16	\$29.78		
* 25-1111	Criminal Justice and Law Enforcement Teachers, Postsecondary	\$31,581	\$69,728	\$88,801	\$28,390	\$36,501	\$53,969	\$103,995	\$139,773		
* 25-4012	Curators	†	†	†	†	†	†	†	†		
* 29-1021	Dentists, General	†	†	†	†	†	†	†	†		
* 27-1029	Designers, All Other	†	†	†	†	†	†	†	†		
29-2051	Dietetic Technicians	\$6.70	\$10.74	\$12.76	\$6.31	\$7.30	\$10.00	\$13.55	\$17.01		
29-1031	Dietitians and Nutritionists	\$15	\$20	\$22	\$14	\$17	\$20	\$23	\$27		
21-2021	Directors, Religious Activities and Education	\$10.26	\$14.57	\$16.72	\$6.17	\$14.45	\$15.73	\$17.01	\$17.77		
53-3031	Driver/Sales Workers	\$6.50	\$12.55	\$15.57	\$6.09	\$6.98	\$11.14	\$16.94	\$21.91		



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

SOC Code	SOC Occupational Title	Occupational Employment Statistics Wage Data (2002)									
		Average Wages				Percentile Distribution					
		Entry-Level	Overall	Experienced	10th	25th	50th	75th	90th		
25-1063	Economics Teachers, Postsecondary	\$35,722	\$61,493	\$74,378	\$32,300	\$41,661	\$60,489	\$77,265	\$93,416		
19-3011	Economists	\$22.50	\$30.48	\$34.47	\$20.60	\$24.64	\$30.47	\$35.01	\$40.64		
27-3041	Editors	\$12.36	\$20.33	\$24.30	\$11.67	\$13.55	\$18.10	\$26.05	\$33.01		
11-9031	Education Administrators, Preschool and Child Care Center/Program	\$13.78	\$17.56	\$19.44	\$12.95	\$14.58	\$16.33	\$18.81	\$25.67		
25-1081	Education Teachers, Postsecondary	\$31,835	\$49,961	\$59,024	\$28,876	\$36,314	\$46,818	\$59,714	\$79,999		
* 25-9099	Education, Training, and Library Workers, All Other	†	†	†	†	†	†	†	†		
51-2022	Electrical and Electronic Equipment Assemblers	\$7.46	\$10.80	\$12.48	\$6.71	\$8.51	\$10.56	\$12.98	\$15.34		
17-3012	Electrical and Electronics Drafters	\$13.75	\$20.33	\$23.60	\$12.52	\$15.13	\$18.90	\$25.01	\$29.17		
43-4061	Eligibility Interviewers, Government Programs	\$12.66	\$15.47	\$16.87	\$12.01	\$12.96	\$14.47	\$17.27	\$20.78		
* 25-1032	Engineering Teachers, Postsecondary	\$40,353	\$70,470	\$85,527	\$35,193	\$48,655	\$66,783	\$89,375	\$115,490		
25-1123	English Language and Literature Teachers, Postsecondary	\$30,159	\$47,697	\$56,466	\$29,230	\$33,571	\$42,466	\$56,498	\$76,640		
25-1123	Environmental Engineers	\$22.05	\$31.54	\$36.29	\$20.24	\$24.82	\$31.68	\$38.44	\$43.21		
29-1062	Family and General Practitioners	\$36.48	\$48.89	\$55.09	\$29.95	\$44.99	\$50.68	\$56.11	\$70.31		
45-2092	Farmworkers and Laborers, Crop, Nursery, and Greenhouse	\$7.31	\$9.50	\$10.60	\$6.93	\$7.62	\$8.62	\$10.56	\$13.73		
13-2099	Financial Specialists, All Other	\$15.68	\$24.91	\$29.53	\$13.83	\$17.85	\$22.62	\$29.72	\$39.36		
33-2011	Fire Fighters	\$17.77	\$22.96	\$25.55	\$16.68	\$19.70	\$23.69	\$26.75	\$28.76		
33-1021	First-Line Supervisors/Managers of Fire Fighting and Prevention Workers	\$27	\$32	\$35	\$23	\$30	\$33	\$36	\$42		
37-1012	First-Line Supervisors/Managers of Landscaping, Lawn Service, and Groundskeeping Workers	\$13.43	\$19.15	\$22.01	\$12.56	\$14.60	\$18.29	\$22.19	\$26.81		
49-1011	First-Line Supervisors/Managers of Mechanics, Installers, and Repairers	\$18.33	\$26.16	\$30.06	\$16.50	\$21.00	\$25.49	\$30.16	\$36.32		
39-1021	First-Line Supervisors/Managers of Personal Service Workers	\$8.71	\$13.33	\$15.64	\$7.97	\$9.37	\$11.48	\$14.46	\$22.91		
33-1012	First-Line Supervisors/Managers of Police and Detectives	\$27.41	\$34.15	\$37.52	\$25.41	\$29.48	\$34.41	\$39.81	\$44.17		

Table 2: Occupations with Fewer than 10 Estimated Vacancies — Page 4

SOC Code	SOC Occupational Title	Occupational Employment Statistics Wage Data (2002)									
		Average Wages					Percentile Distribution				
		Entry-Level	Overall	Experienced	10th	25th	50th	75th	90th		
53-1031	First-Line Supervisors/Managers of Transportation and Material-Moving Machine and Vehicle Operators	\$14	\$24	\$28	\$13	\$17	\$23	\$28	\$35		
* 33-3031	Fish and Game Wardens	\$17.42	\$22.36	\$24.83	\$16.31	\$19.28	\$23.44	\$25.85	\$27.31		
47-2042	Floor Layers, Except Carpet, Wood, and Hard Tiles	\$12.66	\$18.04	\$20.72	\$10.51	\$14.81	\$17.02	\$20.97	\$28.79		
47-2043	Floor Sanders and Finishers	\$12.77	\$17.69	\$20.15	\$11.43	\$14.34	\$17.99	\$20.79	\$22.49		
11-9051	Food Service Managers	\$13.60	\$21.61	\$25.61	\$11.68	\$15.41	\$19.11	\$25.36	\$39.16		
19-4092	Forensic Science Technicians	\$17.68	\$21.76	\$23.80	\$16.29	\$18.67	\$21.71	\$25.19	\$27.58		
37-3019	Grounds Maintenance Workers, All Other	\$7.72	\$9.71	\$10.71	\$7.21	\$7.70	\$8.48	\$10.21	\$15.79		
* 47-4041	Hazardous Materials Removal Workers	†	†	†	†	†	†	†	†		
17-2111	Health and Safety Engineers, Except Mining Safety Engineers and Inspectors	\$22.41	\$31.78	\$36.47	\$20.74	\$24.74	\$29.98	\$39.12	\$47.28		
29-1199	Health Diagnosing and Treating Practitioners, All Other	\$15.89	\$36.24	\$46.40	\$15.15	\$17.49	\$22.62	\$67.84	†		
25-1071	Health Specialties Teachers, Postsecondary	\$19,387	\$58,056	\$77,390	\$17,123	\$21,312	\$52,615	\$79,971	\$125,610		
* 29-2099	Health Technologists and Technicians, All Other	†	†	†	†	†	†	†	†		
47-3019	Helpers, Construction Trades, All Other	\$9.55	\$13.70	\$15.77	\$9.14	\$10.16	\$14.09	\$16.97	\$19.79		
49-9098	Helpers--Installation, Maintenance, and Repair Workers	\$9.17	\$13.04	\$14.98	\$8.56	\$9.83	\$11.60	\$15.89	\$19.59		
47-4051	Highway Maintenance Workers	\$13.03	\$16.80	\$18.67	\$12.16	\$14.19	\$17.11	\$19.83	\$21.43		
49-9031	Home Appliance Repairers	\$10.14	\$17.44	\$21.09	\$9.02	\$11.68	\$17.14	\$23.48	\$26.89		
43-4161	Human Resources Assistants, Except Payroll and Timekeeping	\$11.76	\$16.01	\$18.14	\$10.88	\$13.32	\$15.77	\$18.28	\$21.51		
11-3040	Human Resources Managers	\$22.49	\$35.65	\$42.22	\$20.35	\$25.67	\$33.67	\$45.02	\$56.13		
* 11-3049	Human Resources Managers, All Other	†	†	†	†	†	†	†	†		
* 13-1079	Human Resources, Training, and Labor Relations Specialists, All Other	†	†	†	†	†	†	†	†		
11-3051	Industrial Production Managers	\$22	\$35	\$41	\$20	\$25	\$33	\$43	\$57		
* 43-4199	Information and Record Clerks, All Other	†	†	†	†	†	†	†	†		
51-9061	Inspectors, Testers, Sorters, Samplers, and Weighers	\$9.74	\$15.12	\$17.81	\$8.75	\$11.13	\$14.33	\$18.28	\$22.97		
41-3021	Insurance Sales Agents	\$19	\$30	\$35	\$17	\$22	\$26	\$34	\$48		

Table 2: Occupations with Fewer than 10 Estimated Vacancies — Page 5

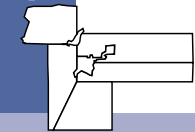
SOC Code	SOC Occupational Title	Occupational Employment Statistics Wage Data (2002)							
		Average Wages		Percentile Distribution					
		Entry-Level	Overall	Experienced	10th	25th	50th	75th	90th
27-1025	Interior Designers	\$19.11	\$27.92	\$32.32	\$16.72	\$22.50	\$30.58	\$33.64	\$35.48
27-3091	Interpreters and Translators	\$12.56	\$18.22	\$21.05	\$11.16	\$14.52	\$18.37	\$22.03	\$25.93
23-1023	Judges, Magistrate Judges, and Magistrates	\$35	\$44	\$48	\$34	\$38	\$43	\$52	\$57
17-1012	Landscape Architects	\$13.63	\$23.84	\$28.95	\$12.49	\$15.80	\$21.02	\$28.58	\$37.55
43-6012	Legal Secretaries	\$15.26	\$16.76	\$17.50	\$14.23	\$14.97	\$16.17	\$17.38	\$21.32
* 23-2099	Legal Support Workers, All Other	†	†	†	†	†	†	†	†
25-4021	Librarians	\$15.90	\$21.49	\$24.28	\$14.76	\$17.57	\$21.10	\$25.53	\$29.31
43-4121	Library Assistants, Clerical	\$7.97	\$10.50	\$11.77	\$7.58	\$8.72	\$10.34	\$12.50	\$14.04
25-1082	Library Science Teachers, Postsecondary	\$37,423	\$56,882	\$66,611	\$33,951	\$44,034	\$54,801	\$69,447	\$87,596
25-4031	Library Technicians	\$9.75	\$13.33	\$15.13	\$9.26	\$10.78	\$13.00	\$15.85	\$18.27
* 13-1081	Logisticians	†	†	†	†	†	†	†	†
53-7063	Machine Feeders and Offbearers	\$9.28	\$11.52	\$12.62	\$8.59	\$9.70	\$11.11	\$13.24	\$15.19
43-9051	Mail Clerks and Mail Machine Operators, Except Postal Service	\$8.88	\$11.58	\$12.94	\$8.17	\$9.45	\$11.31	\$13.33	\$15.57
49-9043	Maintenance Workers, Machinery	\$7.75	\$14.67	\$18.14	\$6.37	\$9.58	\$14.82	\$19.97	\$22.63
39-5092	Manicurists and Pedicurists	\$6.62	\$8.91	\$10.06	\$6.25	\$7.11	\$8.15	\$10.02	\$14.49
19-3021	Market Research Analysts	\$17.17	\$29.19	\$35.20	\$15.67	\$18.96	\$26.26	\$36.19	\$49.31
31-9011	Massage Therapists	\$11.24	\$15.33	\$17.37	\$11.03	\$11.58	\$12.57	\$13.57	\$30.97
53-7199	Material Moving Workers, All Other	\$9.51	\$13.09	\$14.88	\$9.09	\$9.94	\$11.48	\$15.76	\$20.57
25-1022	Mathematical Science Teachers, Postsecondary	\$30,019	\$47,322	\$55,974	\$28,547	\$33,767	\$41,899	\$55,559	\$78,887
17-3027	Mechanical Engineering Technicians	\$15	\$21	\$24	\$14	\$17	\$20	\$24	\$30
27-3099	Media and Communication Workers, All Other	\$13.92	\$20.33	\$23.52	\$12.96	\$15.34	\$19.18	\$25.34	\$29.44
31-9093	Medical Equipment Preparers	\$9.68	\$12.43	\$13.80	\$9.22	\$10.40	\$12.11	\$13.70	\$16.58
31-9094	Medical Transcriptionists	\$11.52	\$14.94	\$16.65	\$11.08	\$12.82	\$14.91	\$16.96	\$19.43
13-1121	Meeting and Convention Planners	\$14.78	\$20.28	\$23.04	\$13.76	\$16.38	\$19.75	\$23.55	\$27.77
21-1014	Mental Health Counselors	\$10	\$14	\$16	\$10	\$11	\$13	\$16	\$20
27-1026	Merchandise Displayers and Window Trimmers	\$9.62	\$13.10	\$14.85	\$9.19	\$10.51	\$12.25	\$13.97	\$19.45

Table 2: Occupations with Fewer than 10 Estimated Vacancies — Page 6

SOC Code	SOC Occupational Title	Occupational Employment Statistics Wage Data (2002)									
		Average Wages					Percentile Distribution				
		Entry-Level	Overall	Experienced	10th	25th	50th	75th	90th		
19-1022	Microbiologists	\$20.30	\$26.14	\$29.05	\$18.37	\$22.45	\$25.81	\$29.53	\$34.82		
49-3042	Mobile Heavy Equipment Mechanics, Except Engines	\$15.03	\$18.44	\$20.14	\$14.20	\$16.11	\$18.58	\$20.91	\$22.57		
51-4061	Model Makers, Metal and Plastic	\$14.79	\$22.09	\$25.76	\$12.98	\$16.41	\$23.01	\$27.10	\$30.36		
51-4072	Molding, Coremaking, and Casting Machine Setters, Operators, and Tenders, Metal and Plastic	\$8.51	\$11.79	\$13.42	\$7.78	\$9.23	\$10.93	\$14.50	\$16.95		
53-3099	Motor Vehicle Operators, All Other	\$6.28	\$9.20	\$10.67	\$5.97	\$6.50	\$7.38	\$10.57	\$16.46		
51-4081	Multiple Machine Tool Setters, Operators, and Tenders, Metal and Plastic	\$10.79	\$15.92	\$18.48	\$9.69	\$12.18	\$15.97	\$19.40	\$22.33		
11-9121	Natural Sciences Managers	\$29.63	\$41.98	\$48.15	\$27.23	\$33.95	\$42.51	\$51.38	\$57.07		
43-4141	New Accounts Clerks	\$10.47	\$12.33	\$13.26	\$9.73	\$11.20	\$12.46	\$13.65	\$14.93		
* 29-2033	Nuclear Medicine Technologists	\$19	\$23	\$25	\$18	\$20	\$23	\$26	\$28		
25-1072	Nursing Instructors and Teachers, Postsecondary	\$33,706	\$46,864	\$53,444	\$32,130	\$34,876	\$41,146	\$54,494	\$60,662		
29-1064	Obstetricians and Gynecologists	\$63.50	\$68.50	\$70.99	\$66.16	†	†	†	†		
* 43-9199	Office and Administrative Support Workers, All Other	†	†	†	†	†	†	†	†		
43-9071	Office Machine Operators, Except Computer	\$8.84	\$11.65	\$13.04	\$8.11	\$9.47	\$11.21	\$13.58	\$15.93		
51-9083	Ophthalmic Laboratory Technicians	\$9.05	\$12.06	\$13.56	\$8.27	\$9.64	\$11.18	\$15.00	\$17.08		
* 29-1022	Oral and Maxillofacial Surgeons	†	†	†	†	†	†	†	†		
43-4151	Order Clerks	\$9.74	\$13.59	\$15.52	\$9.38	\$10.70	\$13.26	\$16.06	\$18.45		
29-2091	Orthotists and Prosthetists	\$14	\$21	\$24	\$12	\$15	\$20	\$26	\$31		
53-6021	Parking Lot Attendants	\$6	\$8	\$9	\$6	\$6	\$7	\$9	\$11		
43-3051	Payroll and Timekeeping Clerks	\$12.82	\$18.14	\$20.79	\$12.08	\$13.87	\$16.01	\$18.56	\$21.93		
25-1126	Philosophy and Religion Teachers, Postsecondary	\$33,361	\$52,138	\$61,527	\$30,922	\$36,724	\$49,339	\$64,936	\$80,900		
31-2021	Physical Therapist Assistants	\$13.32	\$16.48	\$18.06	\$12.52	\$14.21	\$16.18	\$18.50	\$21.37		
25-1054	Physics Teachers, Postsecondary	\$41,080	\$63,571	\$74,817	\$38,458	\$44,959	\$57,202	\$81,764	\$98,976		
43-5031	Police, Fire, and Ambulance Dispatchers	\$13.83	\$17.19	\$18.87	\$12.81	\$14.89	\$16.90	\$19.70	\$22.36		
25-1199	Postsecondary Teachers, All Other	\$25,820	\$43,396	\$52,184	\$22,722	\$29,947	\$37,110	\$53,887	\$70,738		
33-9021	Private Detectives and Investigators	\$10.62	\$19.48	\$23.91	\$9.46	\$12.12	\$22.17	\$26.09	\$29.80		
27-2012	Producers and Directors	\$34,621	\$57,360	\$68,729	\$29,823	\$40,958	\$51,172	\$67,169	\$98,623		

Table 2: Occupations with Fewer than 10 Estimated Vacancies —Page 7

SOC Code	SOC Occupational Title	Occupational Employment Statistics Wage Data (2002)									
		Average Wages					Percentile Distribution				
		Entry-Level	Overall	Experienced	10th	25th	50th	75th	90th		
43-5061	Production, Planning, and Expediting Clerks	\$13	\$18	\$21	\$12	\$15	\$18	\$21	\$24		
29-2053	Psychiatric Technicians	\$10.74	\$13.95	\$15.57	\$9.71	\$12.08	\$14.47	\$16.11	\$17.13		
* 19-3039	Psychologists, All Other	†	†	†	†	†	†	†	†		
25-1066	Psychology Teachers, Postsecondary	\$32,015	\$55,667	\$67,493	\$30,527	\$34,720	\$51,937	\$70,031	\$91,313		
11-2031	Public Relations Managers	\$18.36	\$34.11	\$42.00	\$14.85	\$21.96	\$29.95	\$43.98	\$63.57		
13-1023	Purchasing Agents, Except Wholesale, Retail, and Farm Products	\$16.75	\$24.11	\$27.78	\$15.40	\$18.32	\$22.17	\$28.63	\$35.19		
11-3061	Purchasing Managers	\$19.34	\$31.83	\$38.09	\$17.41	\$21.88	\$29.07	\$40.18	\$52.34		
41-9021	Real Estate Brokers	\$12.14	\$26.94	\$34.33	\$11.64	\$12.70	\$17.20	\$40.72	\$56.08		
41-9022	Real Estate Sales Agents	\$12.34	\$23.79	\$29.52	\$11.03	\$14.07	\$19.23	\$23.06	\$50.81		
21-1015	Rehabilitation Counselors	\$9.88	\$14.42	\$16.68	\$9.53	\$10.43	\$11.97	\$17.08	\$24.45		
* 21-2099	Religious Workers, All Other	†	†	†	†	†	†	†	†		
* 27-3022	Reporters and Correspondents	†	†	†	†	†	†	†	†		
29-2054	Respiratory Therapy Technicians	\$8.82	\$14.53	\$17.39	\$7.18	\$10.80	\$15.25	\$17.57	\$21.05		
41-9099	Sales and Related Workers, All Other	\$11.87	\$23.70	\$29.61	\$10.27	\$14.17	\$20.12	\$31.15	\$44.80		
11-9151	Social and Community Service Managers	\$14.08	\$21.75	\$25.60	\$13.46	\$16.79	\$20.56	\$25.46	\$32.77		
* 19-4061	Social Science Research Assistants	†	†	†	†	†	†	†	†		
* 25-1069	Social Sciences Teachers, Postsecondary, All Other	†	†	†	†	†	†	†	†		
51-8021	Stationary Engineers and Boiler Operators	\$15.23	\$21.34	\$24.40	\$12.77	\$18.15	\$22.75	\$25.66	\$27.48		
15-2041	Statisticians	\$19.65	\$28.25	\$32.55	\$18.66	\$21.30	\$27.26	\$33.33	\$41.32		
21-1011	Substance Abuse and Behavioral Disorder Counselors	\$10.78	\$15.05	\$17.19	\$9.90	\$11.60	\$14.40	\$17.44	\$22.28		
17-3031	Surveying and Mapping Technicians	\$13.74	\$18.64	\$21.10	\$12.27	\$15.79	\$19.05	\$21.22	\$24.63		
43-2011	Switchboard Operators, Including Answering Service	\$8.96	\$11.80	\$13.22	\$8.13	\$10.20	\$12.18	\$13.58	\$14.66		
13-2081	Tax Examiners, Collectors, and Revenue Agents	\$18	\$26	\$29	\$16	\$19	\$24	\$32	\$40		
53-3041	Taxi Drivers and Chauffeurs	\$8	\$10	\$11	\$8	\$9	\$10	\$11	\$13		
* 29-1129	Therapists, All Other	†	†	†	†	†	†	†	†		
53-6041	Traffic Technicians	\$13.10	\$19.84	\$23.21	\$12.10	\$14.42	\$19.31	\$25.17	\$28.48		



**Table 2: Occupations with Fewer than 10 Estimated Vacancies — Page 8**

SOC Code	SOC Occupational Title	Occupational Employment Statistics Wage Data (2002)									
		Average Wages			Percentile Distribution						
		Entry-Level	Overall	Experienced	10th	25th	50th	75th	90th		
11-3071	Transportation, Storage, and Distribution Managers	\$19	\$30	\$36	\$16	\$23	\$28	\$37	\$46		
41-3041	Travel Agents	\$9.38	\$12.90	\$14.66	\$8.81	\$10.24	\$12.65	\$15.41	\$17.35		
37-3013	Tree Trimmers and Pruners	\$9	\$13	\$15	\$8	\$10	\$13	\$17	\$20		
19-3051	Urban and Regional Planners	\$15.53	\$22.78	\$26.40	\$14.90	\$16.52	\$21.94	\$27.65	\$33.57		
39-3031	Ushers, Lobby Attendants, and Ticket Takers	\$6	\$7	\$8	\$6	\$6	\$7	\$8	\$9		
25-1194	Vocational Education Teachers, Postsecondary	\$14.37	\$21.58	\$25.19	\$13.40	\$15.59	\$19.89	\$26.70	\$34.01		
25-2032	Vocational Education Teachers, Secondary School	\$34,371	\$47,911	\$54,680	\$31,569	\$37,695	\$47,261	\$57,297	\$67,839		
13-1022	Wholesale and Retail Buyers, Except Farm Products	\$13.53	\$21.71	\$25.81	\$11.69	\$15.48	\$19.70	\$26.51	\$34.87		
27-3043	Writers and Authors	\$14.64	\$22.34	\$26.20	\$12.91	\$16.80	\$21.19	\$26.96	\$34.08		

\*OES wages reported for Colorado statewide

† Insufficient wage data

## The Health Care & Social Assistance Sector

The Health Care & Social Assistance sector accounts for 7% of Denver Metro's employers and employs about 9% of the region's workers. However, this sector was found to account for 24% of the vacancies estimated in this survey. This section of the report details information specifically provided by employers in the Health Care and Social Assistance sector.

The Health Care & Social Assistance sector is found to offer the highest wages within this survey. Employers within this sector faced great difficulty during the late 1990s and early 2000s in recruiting and retaining employees. Spiraling demand for healthcare services due to a growing aging population increased the need for qualified healthcare workers. This need was left unmet for the most part of the 1990s for factors such as the hi-tech boom that diverted employment from the Health Care sector to more lucrative technology fields. Long working hours, inflexible scheduling, in addition to stressful working conditions further exacerbated recruitment difficulties in the sector.

Although Health Care vacancies are highest among all sectors, vacancies found in this survey and the Fall 2002 survey are significantly lower than vacancies found in the Spring 2002 survey. The decline in the Health Care vacancies may indicate that employers in this sector had better chances, during this period of economic hardship, filling positions that remained open for long periods or that the decline in the sector's vacancies is due to the decline in hiring activities experienced in the region as a whole.

Sixty-five percent of the vacancies reported within the sector are full-time/permanent openings while 22% are part-time/permanent positions. Seventy percent of the reported vacancies require either Vocational Training/Certification or a Bachelors Degree and 87% require a minimum of experience in a related field to the occupations for which the employer is hiring. Health Care & Social Assistance employers are having greater difficulty filling positions than employers overall in the region. Sixty-one percent of the vacancies reported within the sector are reported as somewhat difficult to fill while 5% are reported as very difficult to fill. The majority of the vacant positions appear to have been open for short periods with 72% of the vacancies being open for a period of less than 60 days. Medical insurance is offered for 94% of the vacancies reported within the sector with 83% of these vacancies offering partial payment towards the medical insurance premium and the remaining 17% offering to pay full cost of the premium.

Thirty-nine percent of the vacancies reported within the sector are for Registered Nurses positions. This occupation also represents the occupation with the most vacancies in the whole region. The average of \$25.20 offered for this occupation in this survey is in the top 87th percentile of average wages reported for vacancies in the region.

# How to Use This Report

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

- ◆How many job openings are there?
- ◆What industries are hiring?

## Employers

The Job Vacancy Survey measures the area's current vacancies along with education and experience requirements. This report can serve as a strategic planning tool in the following areas:

### Employee Recruitment—

If findings indicate that employers have had positions open for a significant period of time, and compensation is sufficient, one might deduce a shortage of applicants in the area. Therefore, recruitment efforts could

- ◆What skills are employers seeking?
- ◆Are employers having difficulty filling positions?

The answers to these and similar questions are important in the decision-making processes of employers, employees, job seekers, trainers, and planning officials.

While Labor Market Information (LMI) provides data on the local labor force supply, the Job Vacancy Survey complements this by providing information about the demand for labor and offers a more complete picture of local labor markets.

## 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

be focused outside of the region in areas where the necessary skills are more likely to be found.

### Compensation and Benefits Planning—

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

### New Site Selection—

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

## 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

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.

industries. The Workforce Research and Analysis survey unit cooperates with regional Workforce Centers to list reported vacancies given the approval of the reporting businesses.

While this report is a picture of the area's current employment needs and historical seasonal patterns, other Labor Market Information products provide projections of occupational growth and anticipated openings. These can be accessed at

[www.coworkforce.com/lmi/oeo/oeo.htm](http://www.coworkforce.com/lmi/oeo/oeo.htm). Projections highlight growing as well as declining occupations. Public officials, educational institutions, and Government agencies can use this survey information to effectively apply resources to education, training, and job placement programs. Investments in the workforce can be directed toward occupations or industries that continuously contribute to the local economy or to those where there is a constant need for workers.

## Economic Developers

Economic development professionals can use the Job Vacancy Survey to track the labor situation in key industries and evaluate the area's labor needs. The survey results help determine

where bottlenecks may occur should current vacancies persist. Economic developers can also generate a comprehensive picture of the region by determining where labor demand stands today, as identified by

the survey, and where the local market is trending using Labor Market Information's employment projections.



## Caveats

The Job Vacancy Survey uses sampling methods to estimate over-all job vacancies for regions. As such, readers should be mindful of sampling issues.

Sampling error results from the Job Vacancy Survey producing estimates from one particular sample, rather than examining the entire population. Different samples will likely result in different estimates for the population, thus we report the overall estimate with a confidence interval; *i.e.*, the range of values within which the actual sample derived vacancy estimate is likely to fall 95% of the time.

Non-sampling error occurs primarily from reporting, translating data to standard terms, and incorrect information about firms in our sample frame. Some examples include placing reported vacancies in the wrong occupational codes, inadequate data collection in a JVS sector due to non-response, and estimating errors. The majority of non-sampling errors are corrected in the Job Vacancy Survey's extensive review

and validation process that takes place before estimates are published.

The study provides estimates of job openings for a point-in-time and does not attempt to project the level of vacancies into the future. Readers should be aware that events having occurred since the time period analyzed such as plant closings or the migration of people in and out of the area might significantly affect the vacancy status of some occupations. Job openings are very dynamic—current openings are being filled, new positions are being created, and some roles are being phased-out.

Occupational demand is subject to seasonal changes and is affected by business cycles. For example, the reader would want to be aware that a decrease in vacancies for construction workers from April to November could represent seasonal variations, not necessarily a long-term decrease in the demand for such workers. When several years of survey data have been collected, patterns that more accurately reflect changing labor market conditions may be identified.

Regional surveys are timed to make these comparisons possible.

The occupational detail provided is supplemental data believed to be of interest to the reader. The survey design does not allow for application of this detail to the region as a whole, but it can be used to understand characteristics of those job vacancies reported. These vacancy characteristics are not estimated and therefore do contain significant bias. Approximately two-thirds of the non-estimated information comes from large employers and government agencies, but they represent approximately 40% of the employment in the region. The vacancy characteristics therefore are heavily influenced by what is being demanded by large employers and government agencies. This information is still useful and important, but the user of this data needs to keep in mind its inherent bias.

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

## Methodology

The Job Vacancy Survey (JVS) conducted by the Colorado Department of Labor and Employment involves the collection, processing, and dissemination of regional job vacancies and their characteristics. The survey design allows for estimation of a job vacancy rate and the total job vacancies within a region by

industry and size of firm. Additional data related to these vacancies is informative of the occupations for which they are reported, but is not indicative of overall vacancy characteristics in the regional *universe*.

The number of vacancies—used to calculate the job vacancy rate—is an important

measure of the unmet demand for labor. With this statistic, it is possible to paint a more complete picture of the regional labor market than by looking solely at the unemployment rate, a measure of the excess supply of labor.

### Survey Design

The Job Vacancy Survey was designed to accurately estimate the number of job vacancies for firms employing five or more people. The secondary purpose of the survey is to obtain and report significant vacancy characteristics.

The survey estimates vacancies based on the ratio of vacancies to employment size in each stratification. It attempts to determine how many positions in a region are filled and unfilled. A filled position is an employee and an unfilled position is a job vacancy. Because positions are not independent of one another or evenly dispersed, we collect this information in naturally occurring clusters, *i.e.*, firms. Firms are

asked how many employees they have and how many positions they are actively recruiting. In each size and industry stratification a ratio of vacancies to employment is calculated based on the sampled firms. That ratio is then applied to the total number of employees in that stratification to obtain the estimated number of vacancies in that stratification. The total number of vacancies for a region is the sum of each stratification's estimated vacancies.

Stratifications containing small and medium sized private employers are randomly sampled. In order to report vacancy characteristics such as education and experience requirements demanded, the survey

must contact more employers than would be necessary if the survey only estimated the total number of vacancies. For this reason all of the large employers and government agencies are contacted in the region. These employers provide the most cost effective means of obtaining large amounts of vacancy information. Approximately 34% of the employment in the region is found in large and government employers that make up only 2% of the total number of firms with five or more employees. Conducting a census of these entities allows us to cover a large portion of the region's employment while contacting relatively few entities.

## Survey Sample

The Denver Metro Region survey was conducted from April 23rd through June 6th. For the purpose of this report, private and government employers with five or more employees are referred to as the *sample frame*. Firms with fewer than five employees make up a very large portion of all employers in the region, but a small proportion of the total employment. Employment in the sample frame accounts for 80% of the region's total employment.

The Job Vacancy Survey separates employers into either government or private industry. Private firms are then split into large and small to mid-size categories. Firms with at least 250 employees are considered large employers. Attempts are made to contact all government agencies and large firms in the sample frame. The remaining small to mid-size firms are split into sectors. The number of firms surveyed

in each sector varies according to the number of employees and employers in the sector. In most JVS sectors half of all employers are contacted up to 60 employers. In sectors with less than 1,000 employees, efforts are made to capture at least 500 employees in the sample. If less than 500 employees work in a sector then all employers are contacted. This sampling method insures that all the vacancy estimates are based on a sufficiently large sample size.

Government makes up almost 15% of the employment in the sample frame, while private industry employers make up the remaining 85%. Large firms account for 21% of private industry employment in the sample frame. Firms employing from five to 249 individuals are considered small to mid-size employers, and account for the

remaining 79% of private industry employment.

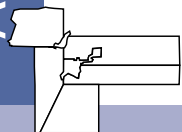
The margin of error for the overall vacancy estimate is plus or minus 2.4% or 300 vacancies at a .95 certainty level. In other words, in 95 out of 100 samples taken, the estimated number of vacancies in the region will be between 14,150 and 14,850 in the survey period. Labor Market Information is confident that the estimates in this survey are accurate and that the survey was conducted according to recognized survey research standards.

The survey response rate is 77.2%. This measures the quality of the survey database, or the success experienced in contacting eligible employers. The cooperation rate is 98.9% and measures the success in obtaining data once an employer is contacted.

Denver Metro JVS Sectors	include →	NAICS Sectors
Agriculture, Forestry, Fishing & Hunting		Agriculture, Forestry, Fishing & Hunting
Mining		Mining
Utilities		Utilities
Construction		Construction
Manufacturing		Manufacturing
Wholesale Trade		Wholesale Trade
Retail Trade		Retail Trade
Transportation & Warehousing		Transportation & Warehousing
Information		Information
Finance & Insurance		Finance & Insurance
Real Estate & Rental & Leasing		Real Estate & Rental & Leasing
Professional, Scientific & Technical Services		Professional, Scientific & Technical Services
Management of Companies & Enterprises		Management of Companies & Enterprises
Administrative, Support, Waste Management & Remediation Services		Administrative & Support & Waste Management & Remediation Services
Educational Services		Educational Services
Health Care & Social Assistance		Health Care & Social Assistance
Arts, Entertainment & Recreation		Arts, Entertainment & Recreation
Accommodation & Food Services		Accommodation & Food Services
Other Services		Other Services (except Public Administration)
Government		Public Administration

The new North American Industry Classification System increases the number of major groups to 20 from the Standard Industrial Classification System. The new coding system better reflects today's service based economy and allows comparison of industries in the United States, Mexico and Canada. Stratification of employers in the Denver Metro Region survey is based on these 20 NAICS sectors.

For more information on the North American Industry Classification System see *Page 41*.



## Data Collection

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

Professional interviewers, trained in economic data collection processes, gather

the information from a call center located in the Colorado Department of Labor and Employment. This interview process results in increased control over the survey process, better accuracy, and dependable results.

Employers are asked if they have job vacancies or open positions which they are actively seeking to fill. Those that are actively hiring are then asked to provide more detail about each position—compensation offered,

levels of education and experience required, and the employer's perceived difficulty in filling the vacancy along with the number of days the position has been opened. Employers are also asked if 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.

## Occupational Coding

The job title, duties, education and experience requirements reported by employers are used to code vacancies in accordance with the latest release of the Standard Occupational Classification system.

## Data Editing

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

## Wage Conversion

Standard conversions are used to translate salaries into hourly wages: 2,080 hours for annual, 173.3 hours for monthly.

All wages reported below the federal minimum are adjusted to that amount. Currently, the federal minimum wage is \$5.15 per hour. Where only a single wage figure is reported, that wage is used as both the minimum and maximum wage for that job vacancy.

# North American Industry Classification System (NAICS)

The Office of Management and Budget (OMB) in cooperation with agencies from Mexico and Canada has developed an industry classification system called the North American Industry Classification System (NAICS pronounced *nakes*) that replaced the Standard Industrial Classification (SIC) system. While work has been underway since 1993, OMB formally adopted NAICS on January 16, 2001.

## History of Process

The Office of Management and Budget established the Economic Classification Policy Committee in 1992 to pursue a fresh slate examination of economic classifications for statistical purposes<sup>1</sup>. Since 1939 the U.S. has been using the Standard Industrial Classification (SIC) system. While SIC had undergone periodic revisions, the last one in 1987, rapid changes in the U.S. and world economies brought SIC under increased scrutiny. In response to the need for a classification system that better reflected the dynamic nature of economies, OMB established the Economic Classification Policy Committee<sup>2</sup>. Government agencies from the United States, Mexico and Canada<sup>3</sup> were tasked with the develop-

ment of a system that accounted for rapid changes in the U.S and world economies.

## Industrial Classification vs. Occupational Classification

NAICS is a system concerned with classifying organizations into different industries; as opposed to classification at the occupational level. The newly revised Standard Occupational Classification (SOC) system classifies occupations by job duties. Occupations specific to certain industries may be found in a different industry category because of the shift to NAICS, yet the Standard Occupational Classification Code remains the same. Systems like O\*NET and other classification systems based on SOC are not subject to changes because of the shift to NAICS. Professionals who use information at the occupational level will not notice changes in job categories as a result of the shift to NAICS, unless they are looking at occupations by industry.

## Benefits

**Comparable**—NAICS is organized in such a way so as to allow direct comparison of economic data with our NAFTA trading partners Canada and Mexico.

**Relevant**—NAICS recognizes hundreds of new businesses in the economy with 20 broad industry sectors, up from SIC's 10. Some new industry categories include an Information sector and a Health Care & Social Assistance sector formerly lumped into Services under SIC.

**Consistent**—NAICS classifies an organization based on how it produces something, not simply what it produces. Businesses that use identical or similar technologies and processes to produce something will be grouped together. For example, software creation falls under the new Information sector, while software duplication falls under Manufacturing. Under SIC

<sup>1</sup>Executive Office of the President Office of Management and Budget. *North American Industry Classification System*. White Plains, MD: Bernan and U.S. Department of Commerce, 2002

<sup>2</sup>ECPC is chaired by the Bureau of Economic Analysis, U.S. Department of Commerce, with representatives from the Bureau of the Census, U.S. Department of Commerce, and the Bureau of Labor Statistics, U.S. Department of Labor

<sup>3</sup>Specifically, Mexico's Instituto Nacional de Estadística, Geografía e Informática (INEGI) and Statistics Canada

both enterprises were grouped under the same major industry sector, because both were engaged in production of software.

**Adaptable**—Regular updates, which are scheduled in five-year intervals, account for emerging industries not currently known.

**Things to Consider**

The shift to NAICS means a break in historical time series. SIC and NAICS industry groupings are not directly comparable since the code changes for NAICS have split some SIC groups.

**New Industries Reflected in NAICS**

- ◆ NAICS heralds the creation of a new Information sector that pulls businesses

from communications, publishing, motion picture and sound recording and online services to recognize an information-based economy.

- ◆ Formerly, under SIC, corporate headquarters were not distinguished from the industry category of the product or service they produced. Now corporate headquarters are recognized in the new Management sector.
- ◆ Manufacturing is restructured to account for high-tech industries.
- ◆ An increase in the amount of detail overall accompanies the shift to NAICS

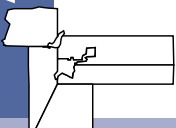
including a further breakdown of SIC's Services sector into nine new sectors.

- ◆ Eating and drinking places move out of Retail Trade into a new category called Accommodation & Food Services.
- ◆ The difference between Retail and Wholesale is now based on how each store conducts business. For example, many computer stores are reclassified from Wholesale to Retail.

**Comparison of NAICS and SIC Major Industry Groups**

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

U.S. Bureau of the Census, U.S. Department of Commerce



# Glossary

These definitions are meant to clarify data gathered for the Job Vacancy Survey. For other data sources referenced in the document, please see that source for a complete definition.

## Average Maximum Wage

An average maximum wage is calculated by summing the maximum wages offered for all vacancies in a given category and then dividing by the number of vacancies in that category.

## Average Minimum Wage

An average minimum wage is calculated by summing the minimum wages offered for all vacancies in a given category and then dividing by the number of vacancies in that category.

## Computer Assisted Telephone Interviewing (CATI)

A structured system of data collection by telephone that speeds up the collection and editing of such data.

## Cooperation Rate

The number of completed interviews divided by the number of all units surveyed that are eligible. Measures the effectiveness of surveyors in gaining information once an eligible employer is contacted.

## Educational Attainment

The highest diploma or degree, or level of work towards a diploma or degree, an individual has completed. In this survey, an individual recorded in the bachelor's degree category has completed the degree.

## Effective Response Rate

The number of completed interviews divided by the sum of all units surveyed that are eligible as well as those with unknown eligibility. This is a measure of how well the survey obtains completed interviews from employers in the sample.

## Employed Persons (Employment)

Persons 16 years and over in the civilian non-institutional population who, during the reference period

- a) did any work at all (at least one hour) as paid employees, worked in their own business, profession, or on their own farm, or worked 15 hours or more as unpaid workers in an enterprise operated by a member of the family, and
- b) all those who were not working but who had jobs or businesses from which they were temporarily absent because of vacation, illness, bad weather, childcare problems, maternity or paternity leave, labor-management dispute, job training, or other family or personal reasons, whether or not they were paid for the time off or were seeking other jobs.

## Employer

A person or establishment that employs one or more people for wages or salary.

## Full-time Employee

Employees who usually work 35 hours per week or more.

## Goods Producing Industries (NAICS)

Includes manufacturing, construction, mining, and agriculture, forestry, fishing and hunting.

## Industry

A group of establishments that use similar processes and technologies to produce goods and services. The North American Industry Classification System (NAICS) groups establishments using closely similar technologies into industries.

## Job Seeker

A person actively looking for employment or researching career options.

## Job Vacancy

A specific position of employment at an establishment with the condition that there is work available for the position and the employer is actively recruiting for the position.

## Job Vacancy Rate

The estimated number of vacancies divided by the sum of current employment and estimated vacancies.

## Labor Force

The labor force includes all persons classified as employed or unemployed in accordance with the definitions contained in this glossary.

## Medical Insurance

Refers to any insurance plan that includes coverage for medical and related care.

## Medical Insurance Premium

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

## North American Industry Classification System (NAICS)

The successor to the Standard Industrial Classification (SIC) system; this system of classifying business establishments is used by the United States, Canada and Mexico. See full description within *Appendix*.

## Not Seasonally Adjusted

This term is used to describe data series not subject to the seasonal adjustment process. In other words, the effects of regular, or seasonal, patterns have not been removed from these series.

## Occupation

Represents a set of activities and skills for which an employee is paid to perform. Employees that perform essentially the same tasks are grouped into the same occupation whether or not they are in the same industry. Some occupations are concentrated in a few particular industries, other occupations are found in most or all industries.

## Part-time Employee

An employee who usually works between one and 34 hours per week.

**Percentile Wage Estimate**

Shows what percentage of workers in an occupation earn less than a given wage and what percentage earn more. For example, a 25th percentile wage of \$15.00 indicates that 25% of workers (in a given occupation in a given area) earn at or less than \$15.00; therefore 75% of workers earn at or more than \$15.00.

**Permanent Employment**

A vacancy is classified as a permanent position if the employee is hired to be employed for more than six months.

**Sample**

A subset of the population selected for interview as a representative subset of the sample frame.

**Sample Frame**

A listing of all units in a population. For this report the sample frame includes employers with five or more employees; government entities are drawn from ES-202 while private companies come from the ALMIS (America's Labor Market Information System) database.

**Seasonally Adjusted**

Seasonal adjustment removes the effects of events that follow a more or less regular pattern each year. These adjustments make it easier to observe the cyclical and other non-seasonal movements in a data series.

**Service Producing Industries (NAICS)**

Includes utilities; wholesale trade; retail trade; transportation and warehousing; information; finance and insurance; real estate and rental and leasing; professional, scientific, and technical services; management of companies and enterprises; administrative and support and waste management and remediation services; educational services; health care and social assistance; arts, entertainment, and recreation; accommodation and food services; other services (except public administration); public administration.

**Sign-on Bonus**

An additional financial incentive offered by a firm to a potential new employee to influence his/her decision to agree to employment with that firm. The bonus, for purposes of this survey, is a monetary lump sum.

**Standard Occupational Classification (SOC) System**

This system is used by all Federal statistical agencies to classify workers into occupational categories for the purpose of collecting, calculating, or disseminating data. All workers are classified into one of over 820 occupations according to their occupational definition. To facilitate classification, occupations are combined to form 23 major groups, 96 minor groups, and 449 broad occupations. Each broad occupation includes detailed occupations requiring similar job duties, skills, education, or experience.

**Temporary Employment**

A vacancy is classified as a temporary position if the employee is hired to be employed for six months or less.

**Unemployed Persons**

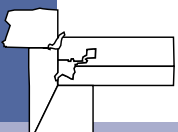
Persons 16 years of age and over who had no employment during the reference week, were available for work, except for temporary illness, and had made specific efforts to find employment sometime during the four-week period ending with the reference week. Persons who were waiting to be recalled to a job from which they had been laid off need not have been looking for work to be classified as unemployed.

**Unemployment Rate**

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

**Wages**

Hourly straight-time wage rate or, for workers not paid on an hourly basis, straight-time earnings divided by the corresponding hours. Straight-time wage and salary rates are total earnings before payroll deductions, excluding premium pay for overtime and for work on weekends and holidays, shift differentials, and non-production bonuses such as lump-sum payments provided in lieu of wage increases.



**T**ourism and our State Parks are important parts of Colorado's economy.

We urge you to

• **C**. See  
**COLORADO**  
first

Roxborough State Park



Photo courtesy Colorado State Parks

*State parks to explore*

in the  
**Denver**  
**Metro Region**

*Barr Lake State Park*

*Eldorado Canyon State Park*

*Castlewood Canyon State Park*

*Golden Gate Canyon State Park*

*Chatfield State Park*

*Roxborough State Park*

*Cherry Creek State Park*

**Colorado State Parks** <http://parks.state.co.us/home>

# WORKFORCE CENTERS IN THE DENVER METRO JOB VACANCY SURVEY REGION

## *Arapahoe/Douglas WORKS!*

Arapahoe Centre Point Plaza  
14980 E. Alameda Dr.  
Aurora, CO 80012  
Phone: 303-636-1160  
Fax: 303-636-1250

## *Aurora*

3508 Peora St.  
Aurora, CO 80010  
Phone: 303-363-9380  
Fax: 303-363-9381

## *Bear Valley*

3100 S. Sheridan Blvd., #A-5  
Denver, CO 80227  
Phone: 303-922-2450  
Fax: 303-922-2618

## *Brighton*

1931 E. Bridge St.  
Brighton, CO 80601  
Phone: 303-659-4250  
Fax: 303-659-9178

## *Broomfield Workforce Center*

6650 W. 120th Ave., A3  
Broomfield, CO 80020  
Phone: 303-464-5855  
Fax: 303-465-0117

## *Commerce City*

7190 Colorado Blvd., 5th Floor  
Commerce City, CO 80022  
Phone: 303-227-2000  
Fax: 303-227-2045

## *Douglas County*

101 Third St.  
Castle Rock, CO 80104  
Phone: 303-688-4825  
Fax: 303-688-0292

## *East Campus*

3532 Franklin St.  
Denver, CO 80205  
Phone: 303-295-1550  
Fax: 303-295-4309

## *Front Range Community College*

3645 W. 112th Ave., Rm. B-1315  
Westminster, CO 80031  
Phone: 303-404-5163  
Fax: 303-438-9524

## *Littleton*

1610 W. Littleton Blvd., Ste. 100  
Littleton, CO 80120  
Phone: 303-734-5200  
Fax: 303-734-5229

## *Longmont*

1500 Kansas Ave., Ste. 4D  
Longmont, CO 80501  
Phone: 303-678-8103  
303-651-1510  
Fax: 303-651-0288

## *Mayor's Office of Workforce Development*

1391 N. Speer Blvd., #710  
Denver, CO 80204  
Phone: 720-865-5700  
Fax: 720-865-5681

## *Quigg Newton*

4440 Navajo St.  
Denver, CO 80211  
Phone: 303-458-4891  
Fax: 303-433-3567

## *Stapleton Plaza*

3401 Quebec, Ste. 7700  
Denver, CO 80207  
Phone: 720-865-0060  
Fax: 720-865-0091

## *Thornton*

550 Thornton Pkwy.  
Thornton, CO 80229  
Phone: 303-452-2304  
Fax: 303-452-7072

## *Tri-County Workforce Center*

730 Simms, Ste. 300  
Golden, CO 80401  
Phone: 303-271-4700  
Fax: 303-271-4708

## *Westside*

1200 Federal Blvd.  
Denver, CO 80204  
Phone: 720-944-1615  
Fax: 720-944-4131

## *Workforce Boulder County*

2905-C Center Green Court S.  
Boulder, CO 80301  
Phone: 303-441-3985  
Fax: 303-939-0054

For a listing of all Colorado Workforce Centers:  
[www.coworkforce.com/EMP/WFCs.asp](http://www.coworkforce.com/EMP/WFCs.asp)



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

 **CDLE** (303) 318-8890  
COLORADO DEPARTMENT OF LABOR & EMPLOYMENT  
lmi@state.co.us  
[www.coworkforce.com/lmi.wra/home.htm](http://www.coworkforce.com/lmi.wra/home.htm)