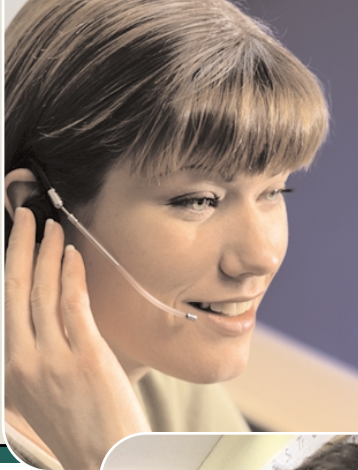


# Larimer/Weld Region

## Job Vacancy Survey

Spring 2004



Survey Conducted  
March 8 – 30, 2004

Released  
Summer 2004

*Funding Provided in Part by  
The Colorado Workforce Development Council*

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.

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## The Colorado Job Vacancy Survey

# Introduction

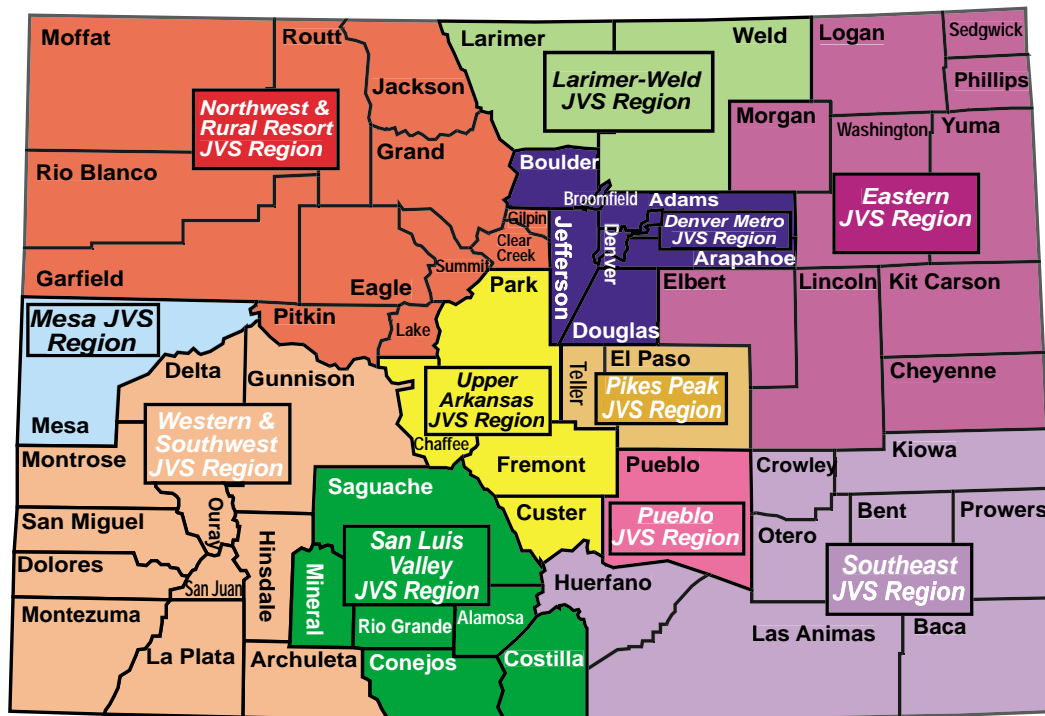
The unemployment rate, along with the level and growth rate of employment, has been used as an indicator of labor market conditions for decades. While this indicator provides information about changes in the supply and demand for labor, it reveals nothing about the skills most sought after by employers. As such, individuals preparing themselves for the job market have done so with limited knowledge of what skills are necessary to successfully

compete in the contemporary labor market. Employers have had an equally difficult time determining appropriate compensation levels due to a limited knowledge of what similar firms in their region are currently offering.

Job seekers and employers, as well as Workforce Centers and economic developers, need more than a measure of demand for workers at a specific point in time. They also need a measure of where in the economy that demand is located and what education and experience levels are most preferred. The Colorado Department of Labor and Employment (CDLE) developed the Job Vacancy Survey (JVS) to meet these needs. 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

Figure 1: Colorado Job Vacancy Survey Regions



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.

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

# Executive Summary

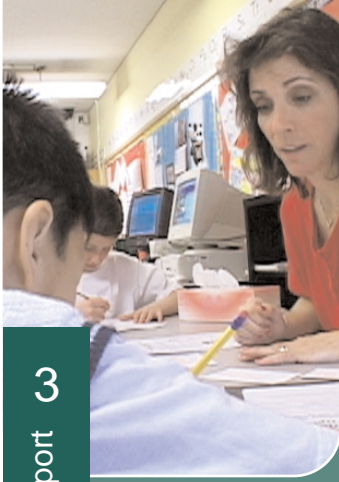
**The Spring 2004 Larimer/Weld Job Vacancy Survey** was conducted from March 8th through the 30th, 2004. The goal of the survey is to provide current information on the demand for workers so that employers, job seekers, economic developers, educators and workforce centers can make more informed decisions in the Larimer/Weld Region.

A random sample of small to mid-size, private employers with at least five employees were contacted over the survey period. Additionally, the Colorado Department of Labor and Employment (CDLE) survey unit attempted to interview all large employers and Government entities with at five or more employees in the region. Employers were asked if they were actively hiring at the time of the survey and a variety of other questions about the positions they were seeking to fill.

A total of 1,942 employers, representing approximately 53% of the region's employment in firms with five or more employees, responded to the survey. Of these, 139 are Government agencies, 44 are large employers and 1,762 are small to mid-size employers. The survey has a response rate of 84% and a cooperation rate of 99%. The margin of sampling error for the overall vacancy rate is plus or minus 3.1% or about 56 vacancies.

## Major Findings of the Survey:

- ◆ For this survey period, 1,787 jobs are estimated as available for hire, which coincides with a .98% vacancy rate. At this time last year, 1,160 vacancies were estimated. ....Page 8
- ◆ Government accounts for 497 vacancies, followed by Health Care & Social Assistance (306), Leisure & Hospitality (232), and Professional Business (173). ....Page 8
- ◆ The overall average wage for vacancies in this survey is approximately \$10.90 per hour. ....Page 9
- ◆ Approximately 9% of the surveyed employers report having at least one job vacancy. ....Page 10
- ◆ Sixty-six percent of the openings are permanent, full-time positions, while almost 15% are full-time, temporary. ....Page 11
- ◆ Sixty percent of the vacancies do not require education beyond the high school/GED level. Thirty-seven percent require no diploma, and 15% require at least a bachelor's degree. ....Page 12
- ◆ Approximately 20% of the job vacancies require occupation specific experience, while 45% require experience in a related field. ....Page 14
- ◆ Sixty-three percent of the vacant positions have been open for less than 30 days, while 12% have been open for 60 or more days. ....Page 16
- ◆ Education, Training, & Library has the most vacancies out of all of the 22 occupational groups, with teachers and professors as the most common occupation. Arts, Design, Entertainment, Sports, & Media group has the second most, with youth sports positions as the most common occupation. ....Page 19



# Regional Information

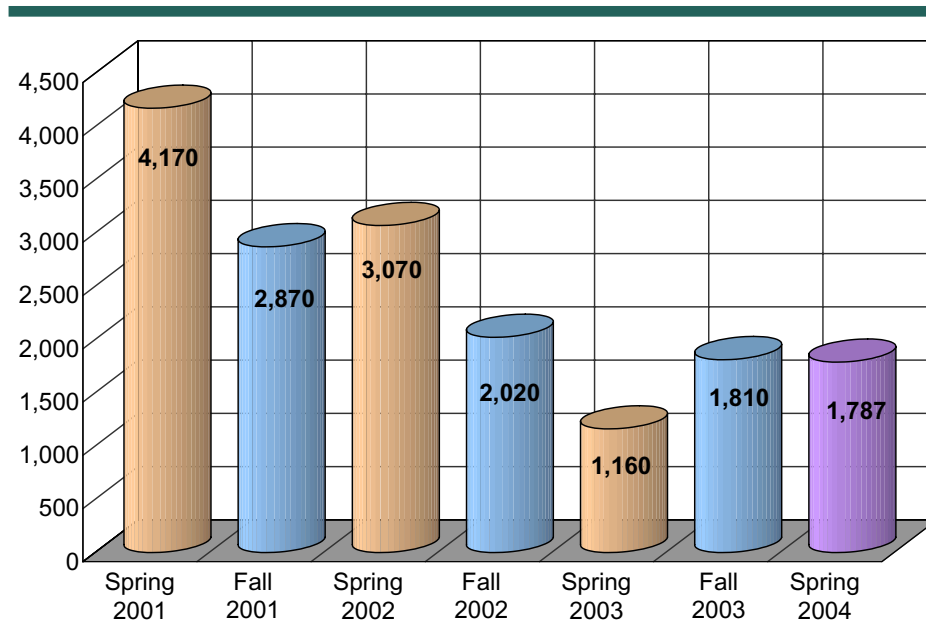
**The Larimer/Weld Region, located in north-central Colorado, encompasses a total of 6,644 square miles. The region, made up of Larimer and Weld counties, has a population of more than 480,000 residents<sup>1</sup>. Larimer County, with 2,640 square miles, includes some of the finest irrigated farmland in the state as well as vast stretches of scenic ranch lands, forests and high mountain peaks. Weld County, on the other hand, covers an area of 4,004 square miles making it the third largest county in the state. The land surface is fairly level in the east, with rolling prairies and low hills near the western border.**

The regional economy is a diverse mix of agriculture, advanced technology, manufacturing and service firms. Weld County is the leading producer of cattle, grains and sugar beets in the state. In fact, Weld County is the leading agricultural products seller in the state and is the fifth largest producing county nationally, according to Colorado State University. It is also the second leading producer of oil and gas in the state of Colorado.

Larimer County accounts for 56% of the region's total population, which is about 268,000 residents, and has grown 44% since the 1990 Census. This is almost 5% higher than the state's growth of 31% over the same period. Larimer County accounts for 60% of the employment in the region. Weld County, which accounts for 44% of the regional population, has grown just over 61% since 1990. Approximately 39% of the population in Weld is concentrated in the city of Greeley. In Larimer County, around 46% of the population is centered in the city of Fort Collins.

The estimate of 1,787 vacancies in the Larimer/Weld region are approximately 54% more than those found this time last year. This is a significant year to year increase, but is not close to the 3,070 vacancies estimated for the Spring 2002 survey. The effect of a rebounding national economy and the demands of a growing region have reversed the losses in employment and boosted employment demand.

**Figure 2: Historical Vacancies—Larimer/Weld Region**



	Spring 2001	Fall 2001	Spring 2002	Fall 2002	Spring 2003	Fall 2003	Spring 2004
Vacancies	4,170	2,870	3,070	2,020	1,160	1,810	1,787
Labor Force	229,587	249,954	247,897	254,047	257,886	263,808	264,445
Employment	221,739	238,541	233,265	239,733	242,703	249,426	250,205
Unemployment	7,848	11,413	14,632	14,314	15,183	14,382	14,240
Unemployment Rate	3.4%	4.6%	5.9%	5.6%	5.9%	5.5%	5.4%

*Source: CDLE, Local Area Unemployment Statistics Released March 2004*

<sup>1</sup>U.S. Census Bureau, 2004 Estimates



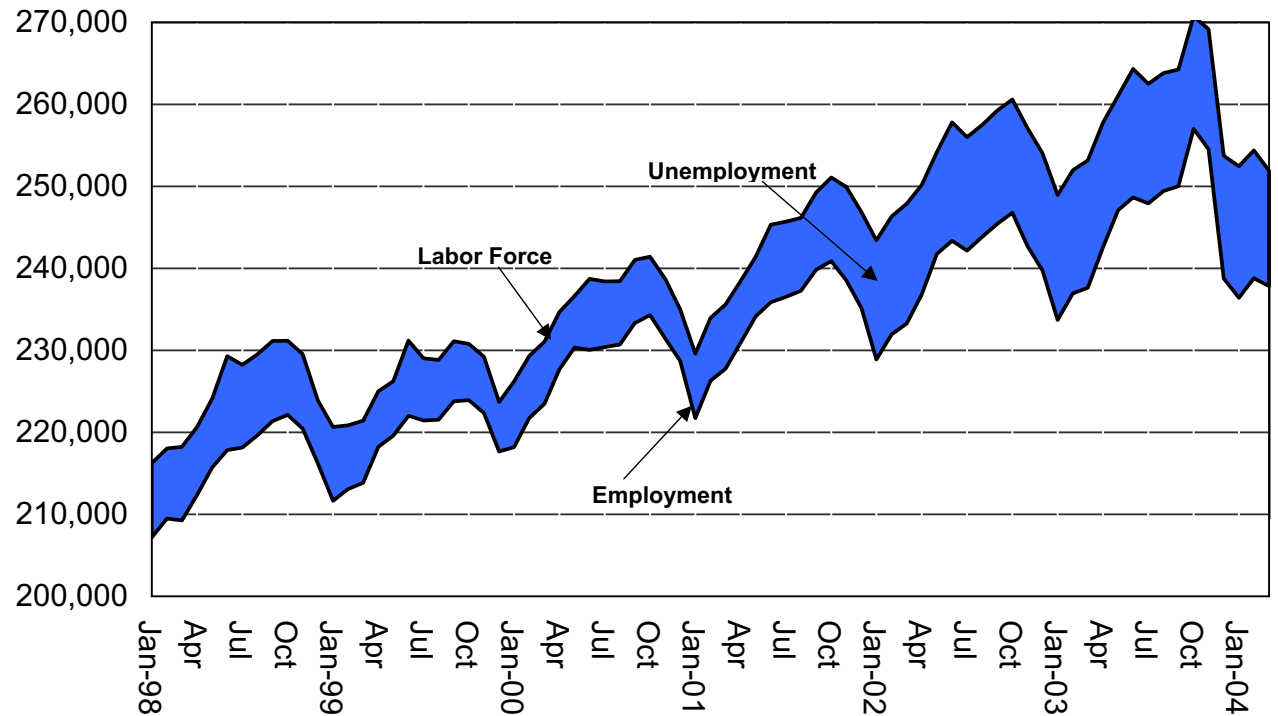
## Regional Information —continued

Figure 3 illustrates the historical progression of both the region's labor force and employment levels. The upward trend illustrates the growth in both the labor force and employment over the years. The region's employment has grown at an average annual growth rate of 2.3% per year from February of 1998 to approximately October of 2003. This growth rate was as high as 4.7% between 1997 and 1998 and as low as 0.9% between 1999 and 2000. The labor force has grown at a much faster rate in recent years than employment, leading to a larger gap of unemployed people.

This graph, 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 lines; the larger the distance between the two lines, the greater the number of unemployed. Unemployment tends to peak in January and June each year most likely due to end of school periods and the re-entry of students into the labor force.

Historical employment trends for the Larimer/Weld Region indicate that employment levels are at their lowest in January and peak in or around the month of October. The Larimer/Weld Job Vacancy Survey is conducted two times a year in the spring and the fall. Both surveys are timed to measure the demand for labor as it approaches its peak periods.

**Figure 3: Employment and Labor Force Trends for the Larimer/Weld Region**  
(Not Seasonally Adjusted)



Source: CDLE, Local Area Unemployment Statistics, Released March 2004

Both *Figures 3 and 4* show that in October of 2003, the labor force and employment declined in the region as well as statewide. The low point for this decline for both the State and the region was in January 2004. Since then, the labor force and employment are up significantly and the unemployment rate has dropped.

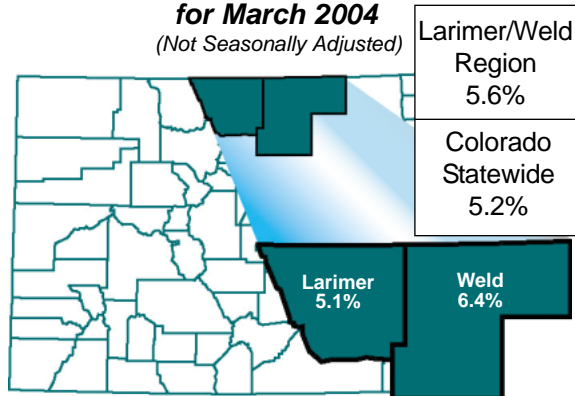
The region employs almost 238,000 individuals from a labor force pool of about 252,000 people in March 2004. Of these, 60% work in Larimer County. The region's March unemployment rate of 5.6% is higher than the State rate, but is lower than the national rate of 6.0%. County unemployment rates were 5.1% for Larimer County and 6.4% for Weld County in March of 2004.

**Figure 4: Larimer/Weld Region Unemployment Rate Trend**  
(Not Seasonally Adjusted)

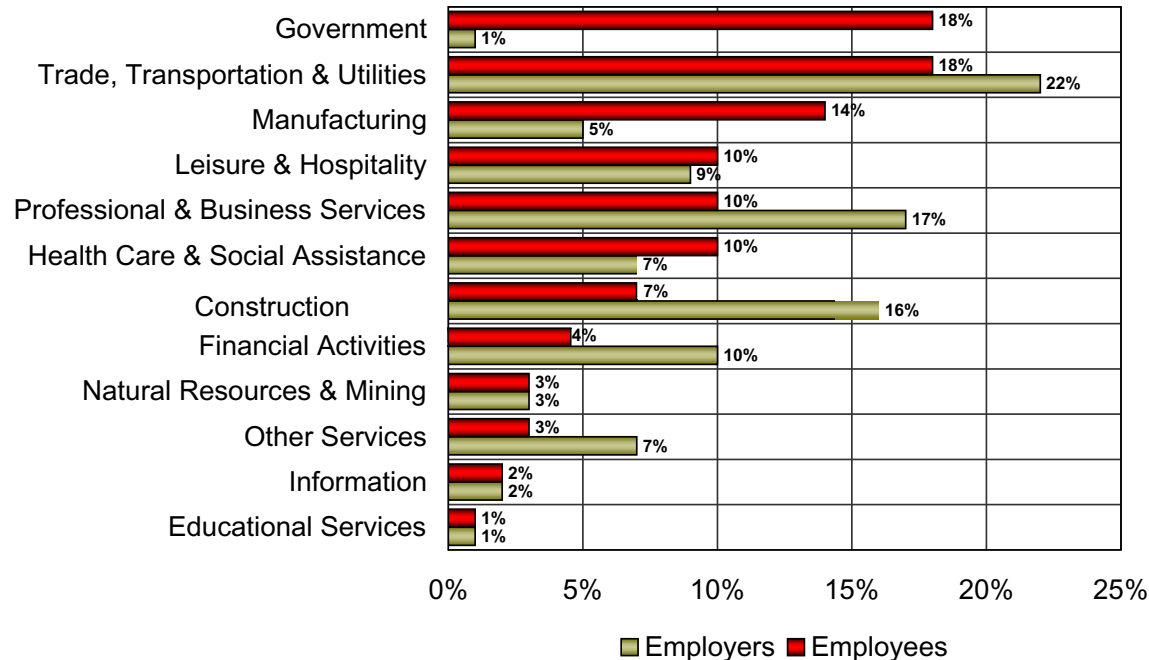


Source: CDLE, Local Area Unemployment Statistics, Released March 2004

**Figure 5: Unemployment Rates for March 2004**  
(Not Seasonally Adjusted)



Source: CDLE, Local Area Unemployment Statistics, Released March 2004

**Figure 6: Larimer/Weld Employers and Employees, 3rd Quarter, 2003**

Source: CDLE, Quarterly Census of Employment and Wages (QCEW), 3rd Quarter, 2003

Firms in the Larimer/Weld Region are now grouped into 12 categories under the North American Industrial Classification System (NAICS). NAICS has replaced the Standard Industrial Classification System (SIC) and better reflects today's economic activity. Advantages to the new system include a greater breakdown of the old SIC Services industry and also direct comparability with industries in Mexico and Canada.

Data for *Figure 6* are gathered under the Quarterly Census of Employment and Wages Program (QCEW, formerly ES-202), which includes all employers who pay Unemployment Insurance Tax. Although 97% of the nation's employment is covered under the Unemployment Insurance program, there are jobs that are not covered. Positions typically excluded are agriculture, railroad, some state and local government, certain non-profits, the self-employed, domestic workers and unpaid family workers.

The Trade, Transportation & Utilities JVS sector is the strongest in terms of employment in the area, providing 18% of the region's employment. It also accounts for 22% of all employers. Employment concentration for this JVS sector mirrors its size statewide where it represents 20% of the state's employment.

Government is tied with Trade, Transportation & Utilities as the largest employing sector in the Larimer/Weld Region. The 1% of the region's employers classified under Government also employ 18% of the region's workers. Government entities perform functions in the construction, mining, transportation, information, education and health services and other areas in addition to public administration. Over 61% of the region's Government employment is in Educational Services. This is due to large educational entities such as Colorado State University and the Poudre Valley School District.

## Regional Information *—continued*

Manufacturing has a higher concentration of employment in the Larimer/Weld region than in the state as a whole. The sector accounts for 14% of the region's employment and 5% of the employers. The statewide percentage of manufacturing workers is only 7.2%. By employment, Manufacturing has the largest average firm size, next to the Government sector.

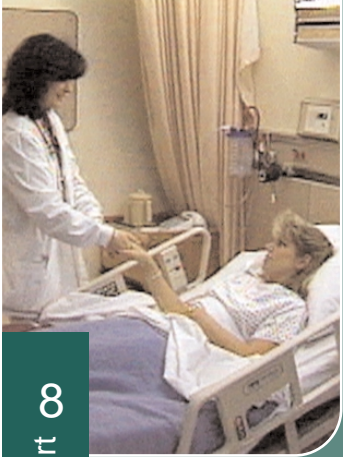
Manufacturing remains a struggling sector in the Larimer/Weld region, in terms of employment. Employment within the sector has declined by 9.1% from January 2001 to December 2003. However, contrary to the decline of 4% in establishments of the statewide manufacturing sector, the Larimer/Weld manufacturing sector has experienced an increase of 3.4% over that same time frame.

The region also has sizable Leisure & Hospitality, Health Care & Social Assistance, and Professional & Business Services JVS sectors that each employ 10% of the region's workers. Construction is notable as it employs 7% of the region's workers. The Leisure & Hospitality JVS sector had the highest percentage of employment growth from December 2002 to December 2003, at 20.4%. The Professional & Business Services and Information JVS

sectors have had strong turnarounds in the region during the last 12 months. Professional & Business Services recovered from a time of losing around 2,500 jobs every year, to gaining around 700 jobs by the end of 2003. Information, a smaller employment sector, ended the year up 1.6% in employment. After a time of losing more than 500 jobs per year, 2003 ended with a gain of over 50. On the other hand, Educational Services as well as Government declined. Educational Services had year to year growth early in 2003 of over 4%, yet ended the year with a 1% loss of jobs. A similar scenario played out in Government, going from a growth of 6% to a small 0.5% increase. Both probably reflect cuts in government budgets.

Of the sectors that didn't fare very well, Manufacturing suffered the most. The sector lost over 1,300 jobs from December 2002 to December 2003, which translates to over 5% of the total employment. Recently, the losses in that sector have slowed significantly. Construction also declined from year to year, falling by about 600 jobs, or 3.7%. This was a sector bound to lose some employment however, because of the longstanding high level of performance.





Estimated Vacancies: JVS Sectors and Employer Size

# Survey Findings

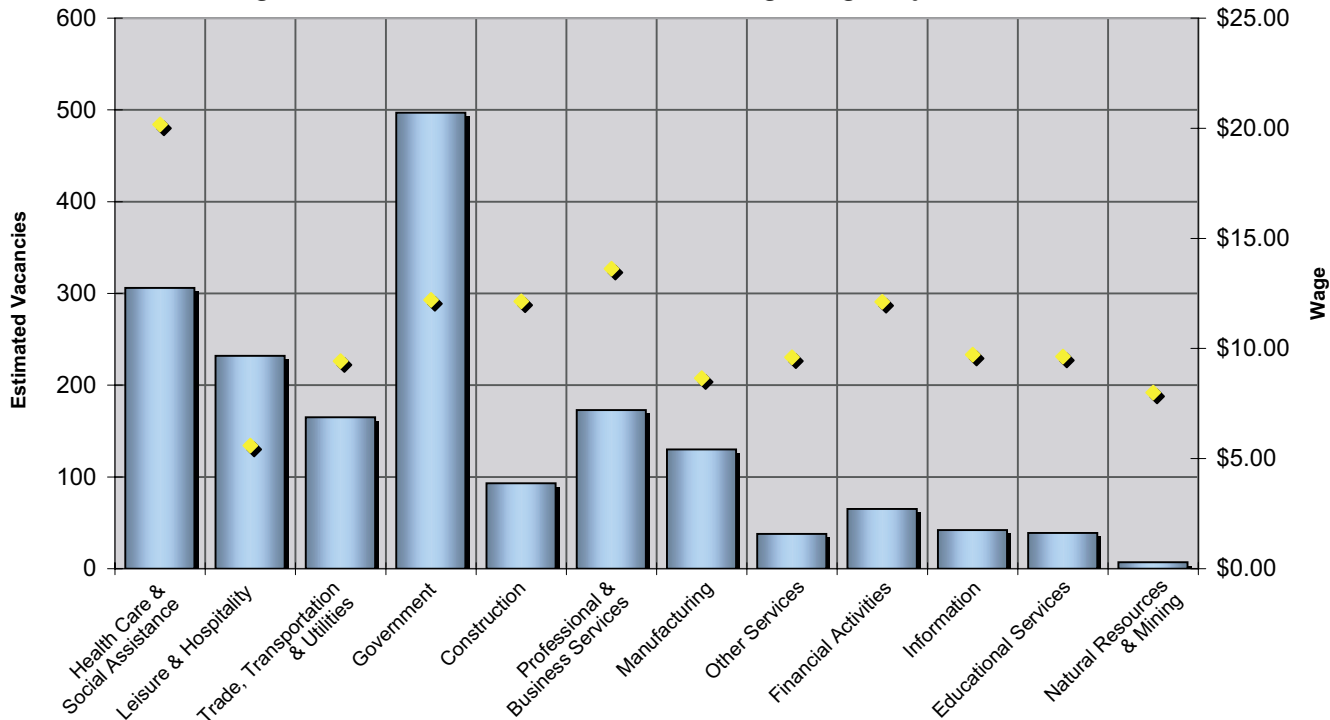
During the survey period, an estimated 1,787 vacancies were open for immediate hire in firms with at least five employees in the Larimer/Weld Region. The overall vacancy rate for this survey is 0.98%.

Educational Services has the highest vacancy rate of all JVS sectors at 1.95%. This corresponds to Education, Training & Library, which has the most vacancies of all occupation groups. Health Care & Social Assistance has a vacancy rate of 1.43%, while Professional & Business Services is the next highest with 1.34%.

When comparing firm size and vacancies, approximately two-thirds of the more than 300 vacancies for Health Care & Social Assistance are in large firms. Small firms dominate in terms of vacancies for Leisure and Hospitality (61% of 232), Professional & Business Services (61% of 173), Construction (71% of 93), Manufacturing (75% of 130), and Trade, Transportation & Utilities (53% of 165).

Trade, Transportation, & Utilities is a JVS sector with a large discrepancy between the percentage of employment and the percentage of vacancies. This sector has 4% of the estimated vacancies compared to 18% of employment, which makes it the largest employment sector in the region.

Figure 7: Estimated Vacancies and Average Wages by JVS Sectors



# Survey Findings *Estimated Vacancies: JVS Sectors and Employer Size —continued*

Government, however, gaps the other way. The different levels of government account for approximately 18% of the region's total employment, tying it with Trade, Transportation & Utilities. This employment percentage is well below the almost 28% vacancy rate.

Health Care & Social Assistance is a sector with another story between employment and vacancies. This sector ranks just above the middle, with 10% of employment and also accounts for approximately 10% of the vacancies.

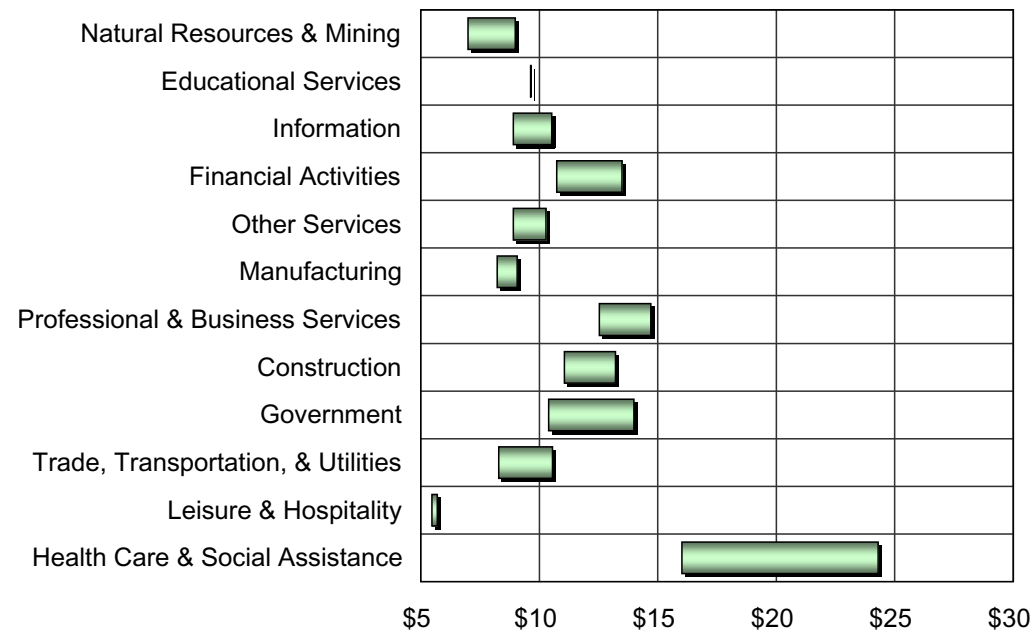
The Leisure & Hospitality JVS sector ties for third with approximately 10% of the region's employment, but only about 3% of the estimated vacancies, which is very low at only 51 openings.

The Manufacturing sector accounts for approximately 4% of the estimated vacancies, which is a much smaller proportion than the 14% proportion of total employment in the region. This could reflect the ongoing decline in the manufacturing sector.

Five out of twelve JVS sectors have average wages higher than the overall average of \$10.90. Health Care & Social Assistance has the highest average wage by a significant margin. It also has the second most vacancies. Having the second most vacancies, its average wage of \$20.20 places it with Government as the two most desirable sectors in this survey when looking at a combination of hiring and pay. Government has a lower average wage of \$12.20, but by far the most vacancies.

Professional & Business Services at \$13.60, Financial Activities at \$12.10, and Construction at \$12.10 are the remaining JVS sectors with average wages significantly above the overall average. Of the three, Professional & Business Services is the most significant in this survey. It has the second highest average wage and the fourth-most vacancies.

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

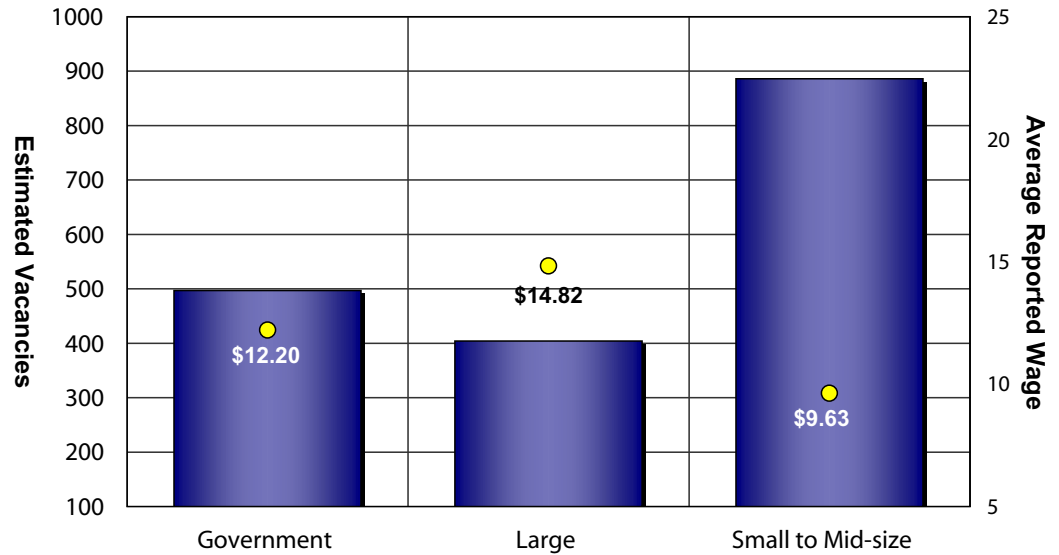


Overall, 9% of employers surveyed reported at least one vacancy. Government accounts for about 7% of the regional employers listed for contact, 39% of current employment and approximately 28% of the job vacancies. Employment within this sector is mainly concentrated in educational entities such as Colorado State University or other federal government research extensions.

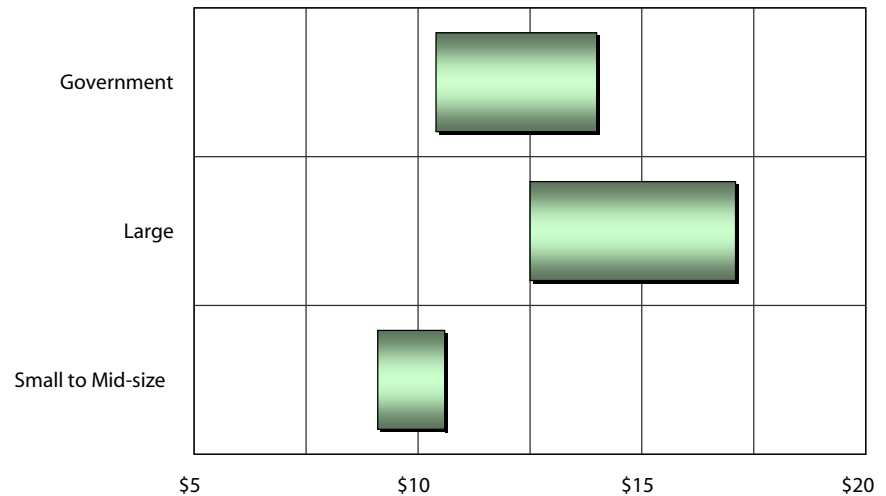
Large employers represent just over 29% of current employment, offering about 18% of the job openings. Trade, Transportation, & Utilities, Manufacturing, and Health Care & Social Assistance employers dominate the large employers category. These employers combined account for over 79% of the large employers in the region. These businesses also account for 73% of the 313 job vacancies in this category.

Ninety-seven percent of all the firms in the region, and 91% of the firms in the survey, are classified as small to mid-size based on their amount of employees. They account for approximately 29% of the total employment and 25% of the vacancies, which converts to almost 50% of the total vacancies. Approximately 36% of the estimated job vacancies in small to mid-size firms are in Leisure & Hospitality and the Trade, Transportation, & Utilities industries.

**Figure 9: Estimated Vacancies and Average Wages by Employer Size**



**Figure 10: Reported Average Wage Ranges by Employer Size**



# Survey Findings

The remainder of this report provides descriptive statistics of the vacancies in this survey. The survey design does not allow for application of this detail to the region as a whole, but is useful in understanding characteristics of those job vacancies and occupations reported.

Approximately 80% of the job vacancies for which employment status is reported are permanent positions. Full-time permanent positions make up 66% of the total openings and offer average wages that range between \$12.00 and \$15.30. Full-time temporary positions make up 15% of the total openings and offer lower wages that range between \$8.80 and \$11.20. Approximately 30% of the full-time vacancies are in the Health Care & Social Assistance sector, with 43% of these positions being with large firms.

Fourteen percent of the vacancies are part-time permanent. Of these Government with 30% and Leisure & Hospitality with 20% make up half of the job openings. Just over 51% of part-time permanent positions are in small firms while over 10% are in large ones. For small firms, almost 14% of the part-time permanent vacancies are in the Leisure & Hospitality JVS sector, while another 8% is in Health Care & Social Assistance.

Temporary positions constitute 20% of the vacancies, with over 75% of these being full-time temporary positions and 86% being in government. Full-time temporary positions offer average wages that range between \$5.30 and \$35.00 while the average wage for the limited, part-time, temporary vacancies range from \$8.00 to \$13.90 per hour.

Figure 11: Vacancies by Employment Status

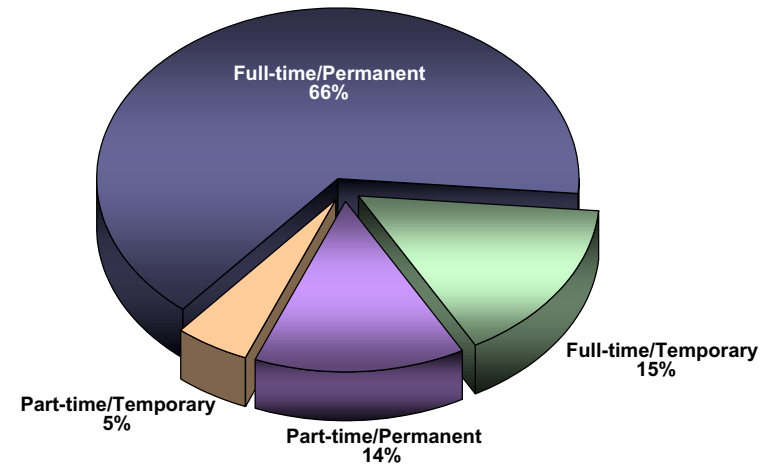
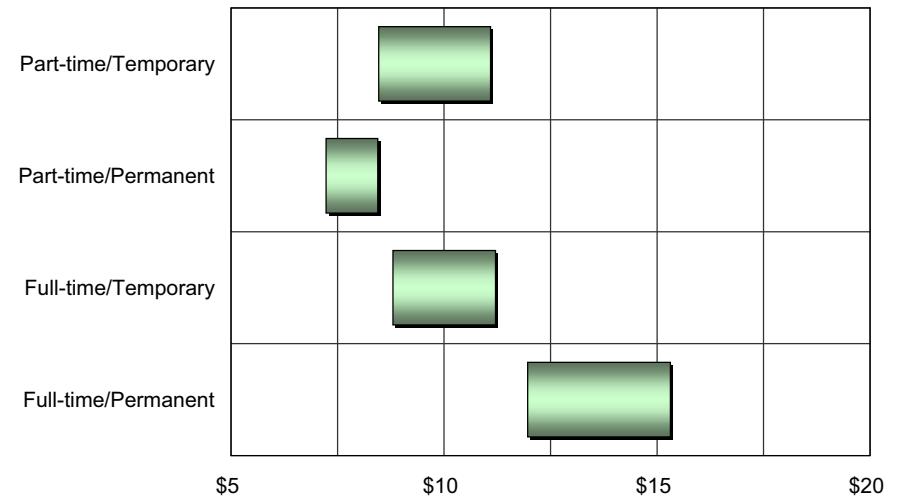


Figure 12: Reported Average Wage Ranges by Employment Status



## Survey Findings *Vacancies: Employment Status, Education and Experience Requirements—continued*

While the vast majority of full-time temporary positions do not require a diploma, they require work related experience. The part-time temporary positions require mostly general work experience, but also a high school diploma/GED.

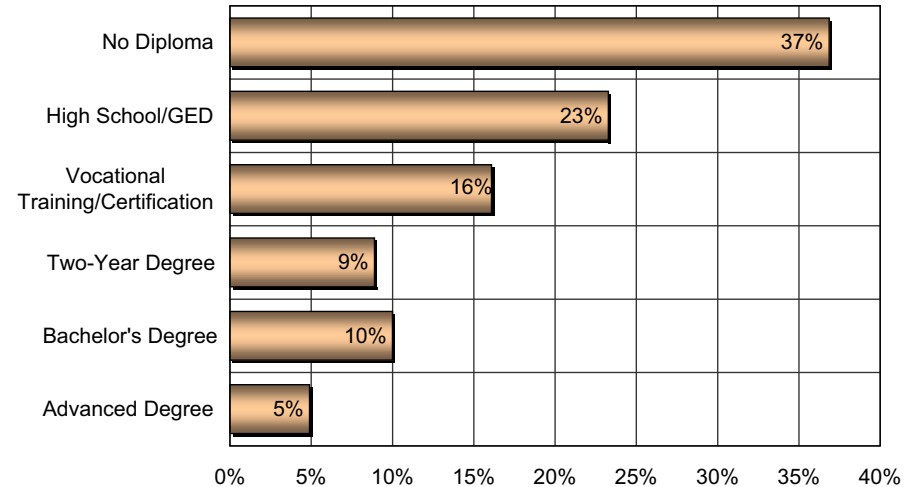
A region's overall labor force is made up of multiple labor groups defined by skills, experience, and education. Approximately 92% of reported job vacancies have information on the education requirements and 93% on the experience requirements of surveyed employers.

Forty percent of all reported vacancies require education beyond the high school level while 23% requires a high school degree or GED, making it the second category most in demand during this survey period. On the other hand, 37% requires less than a high school degree or GED. Of the vacancies requiring a high school degree or GED, 24% are in the Professional & Business Services JVS sector and 20% are in Trade, Transportation & Utilities. Large employers account for 52% of the vacancies requiring this qualification, while 27% are small employers.

Fifty-seven percent of vacancies that do not require a high school diploma are within the Government sector, while 13% are in Leisure & Hospitality. The vacancies in the Government sector are almost all maintenance or sports related. Approximately 62% of the vacancies in Leisure & Hospitality are food servers. In addition, 27% of the vacancies not requiring a high school diploma are full-time/permanent and 29% are part-time/permanent.

Ten percent of the vacancies require a minimum of a bachelor's degree. Ninety-three percent of these are permanent/full-time. Sixty-five percent of the reported vacancies require at least experience in a related field. Candidates with these qualifications will find 37% of the opportunities in Healthcare & Technical occupations and 35% in Government, with half being from large employers.

**Figure 13: Vacancies by Education**



About 5% of all vacancies require an advanced degree. Of those, 61% are full-time/permanent and 73% require experience in a related field. Eighty-eight percent of the vacancies are in Government, with professorial positions accounting for the vast majority of those vacancies.

Sixteen percent of vacancies require a vocational or two-year degree. Fifty-four percent of these require experience in a related field and 56% are full-time/permanent. Two-year degree vacancies are most prevalent in the Health Care & Social Services sector (36%), while the Government sector accounts for the highest percentage of the vacancies requiring a vocational degree (45%).



# Survey Findings *Vacancies: Employment Status, Education and Experience Requirements—continued*

Wages in this survey do not follow an expected pattern. Rather than a clear-cut, positive correlation between education level and pay, the wages are not predictable above the Vocational Training level. From a two-year through advanced degree, there is substantial overlap in the offered pay range. The top starting wage is not associated with an advanced degree, as would be

expected. However, advanced degree vacancies have the third highest wage. The top pay is associated with a two-year degree. Bachelor's degree vacancies have the next highest wage. This discrepancy may be explained by the occupational mix in each category, experience requirements, as well as supply-demand factors.

**Figure 14: Reported Average Wage Ranges by Education**

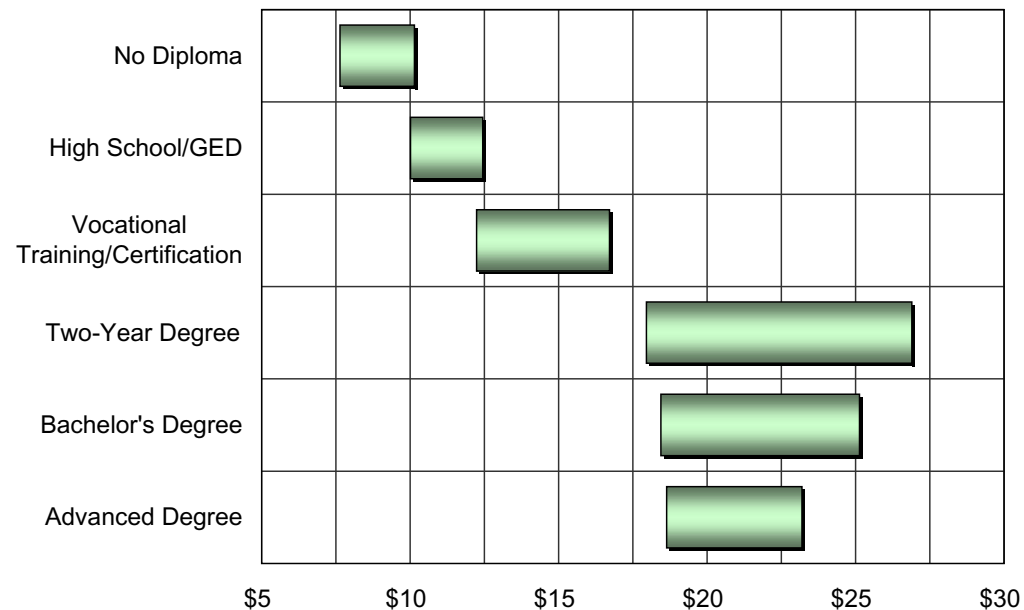


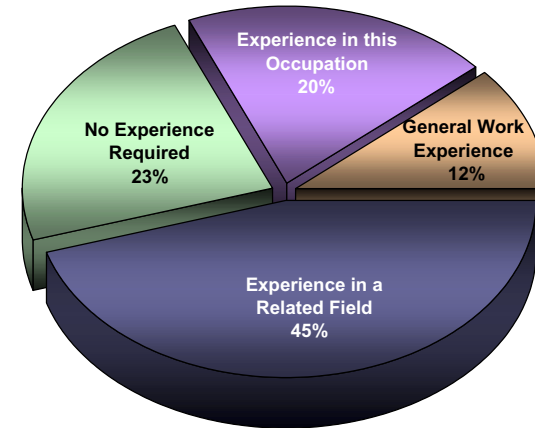
Figure 15 shows the percent breakdown of vacancies by experience requirement. Approximately 78% of the vacancies have experience information. Approximately 20% of the vacancies require occupation specific experience, while 45% require experience in a related field. Job vacancies for which prior experience is required in the same occupation paid the highest wages, commanding an approximate premium of several dollars per hour over positions requiring experience in a related field. There is a steady drop from experience in a related field, through general work experience, to no experience required. Even the no experience category has a minimum wage that is over \$8.00 per hour, which is well above the minimum wage.

Government accounts for 27% of vacancies requiring specific experience. Of these, youth athletics is the most common. The Healthcare & Social Assistance sector has about 22% of the vacancies that require experience in that occupation. Healthcare Practitioners & Technical occupations constitute 15% of those vacancies – the most of any occupational group. Wages for Healthcare Practitioners & Technical job openings are at the high end of the wage scale for this experience category. Top wages for vacancies requiring experience in the occupation are offered for registered nurses and medical specialists. Government also has positions with higher end wages, which are typically in management and specialist areas.

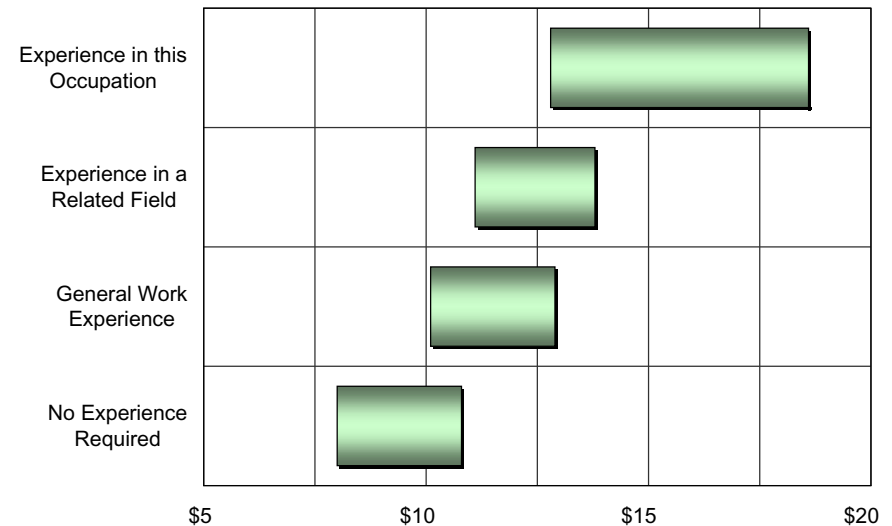
Forty-five percent of all vacancies require experience in a related field, with 58% of these being in the Government sector. Another 26% of these vacancies are in large firms, making a total of 84% between Government and Large firms. Twenty-one percent of the vacancies in this category are in the Health Care & Social Assistance sector, with 26% of these vacancies being for registered nurses.

General work experience requirements are most often for Cashier, Telemarketing, Lot Person, Maintenance Tech, and Entry Level Manufacturing jobs. Wages for General Work Experience range from \$5.20 to \$46.30, with the high end of this range being for Maintenance Tech positions.

**Figure 15: Vacancies by Experience**

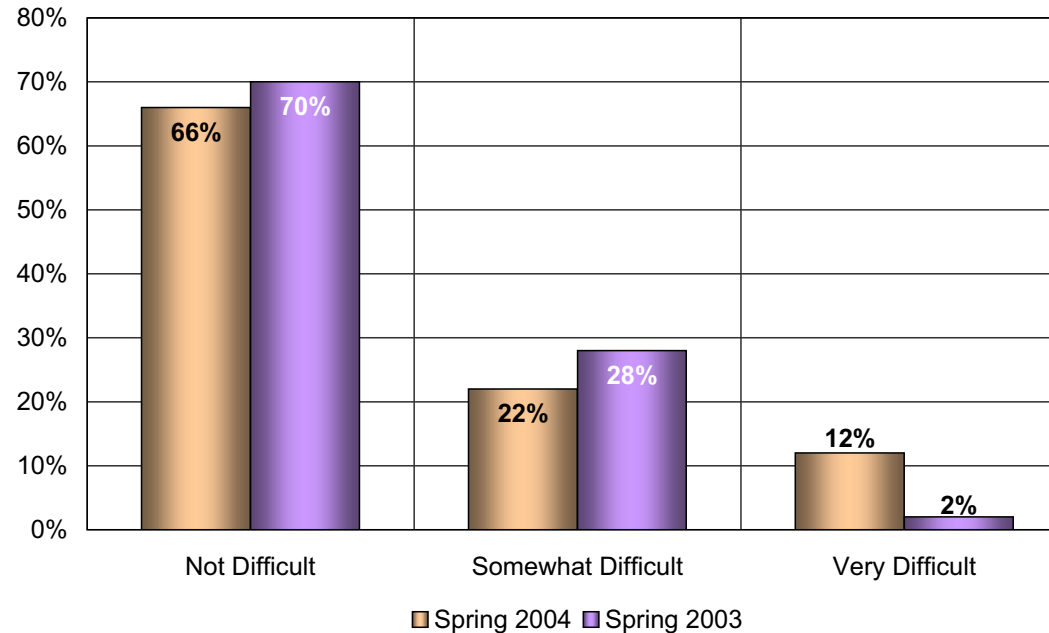


**Figure 16: Reported Average Wage Ranges by Experience**



# Survey Findings

Figure 17: Vacancies by Difficulty to Fill



**Employers' abilities to find and hire qualified candidates are an important** indicator of the supply side of the labor force. Slightly fewer, or 66%, of employers claim that they are not having difficulty in filling their vacant positions during this survey than the 70% in the spring survey of 2003. Since this is a small change from the previous year, it is hard to extract any significant information about the nature of the labor market.

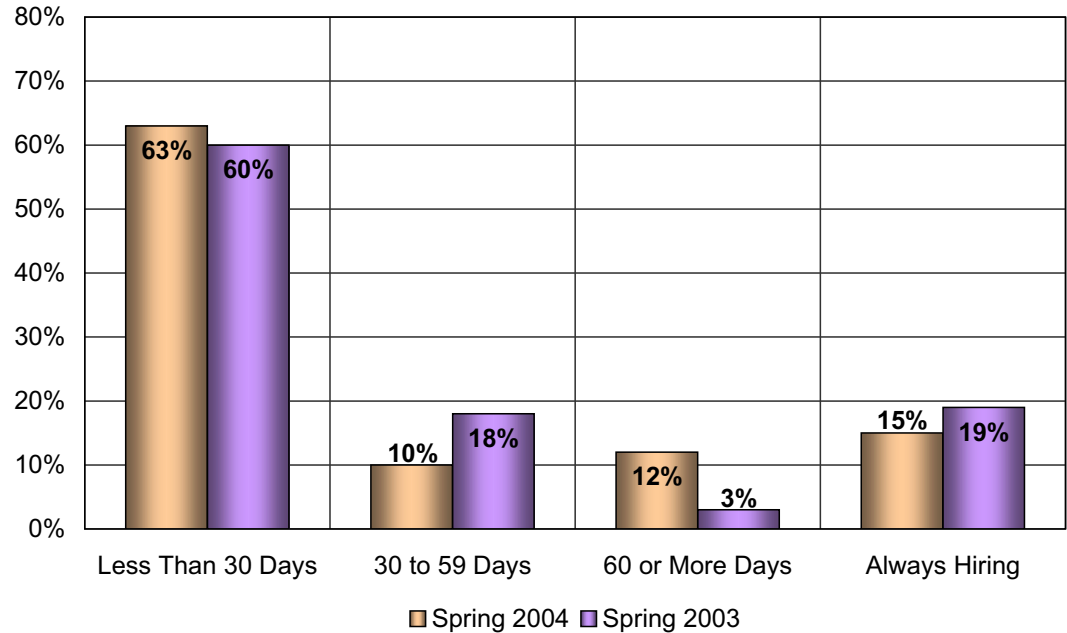
The percentage of vacancies reported as somewhat difficult to fill dropped approximately a fifth from the spring of last year. Thirty-eight percent of these vacancies are with Government, 30% with Large firms, and 32% with small to mid-size firms. Manufacturing and Health Care & Social Assistance are also prominent sectors. Manufacturing accounts for 27% of vacancies, while Health Care & Social Assistance accounts for 12%.

Fifty-three, or 12%, of the vacancies are considered very difficult to fill compared to 2% in the Spring 2003 survey. Forty-seven percent of these vacancies require related experience. Both Experience in this Occupation and General Work Experience account for 26% of the vacancies. Professional & Business Services has 28%, Health Care & Social Assistance has 27%, and Government has 25% of the total job vacancies that are considered difficult to fill. In Professional & Business Services, Maintenance Tech is the dominant occupation. In Health Care & Social Assistance, the dominant occupation is registered nurses and in Government, it is Professors/Instruction.

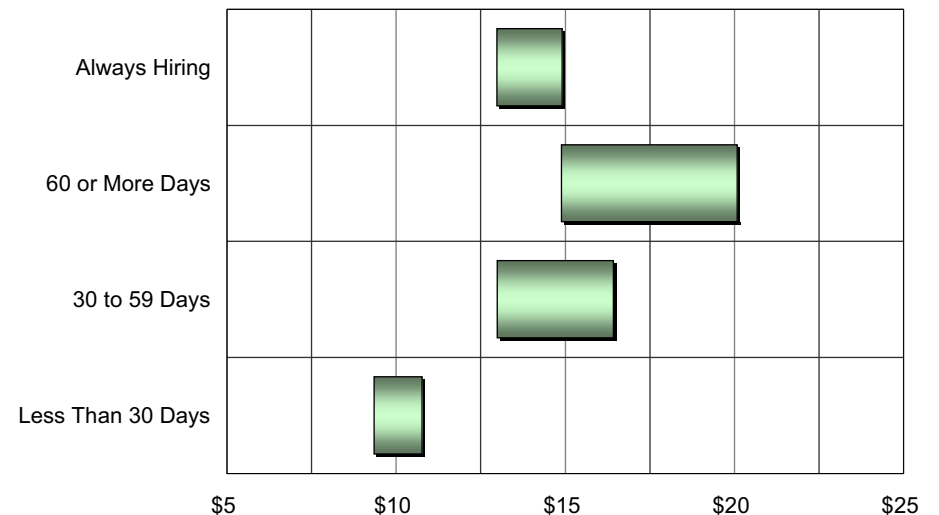
Sixty-two percent of the reported vacancies do not include information on the amount of time they are open. Of those that do, 63% are open for less than 30 days, compared to 60% a year earlier. Of the vacancies open for less than 30 days, approximately 76% are considered not difficult to fill. These vacancies are distributed quite evenly across industry and occupation groups.

Forty-five percent of positions always open for hire are also listed as not being difficult to fill. Seventy-three percent of these vacancies have a High School diploma/GED or less requirement. Forty-five percent of these vacancies also do not require prior work experience.

**Figure 18: Vacancies by Time Open for Hire**



**Figure 19: Reported Average Wage Range by Time Open for Hire**



# Survey Findings

## Medical Insurance

**Employers frequently offer other compensation and 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. An employer may pay all or part of the monthly insurance premium for employees or none at all, even if they offer it.

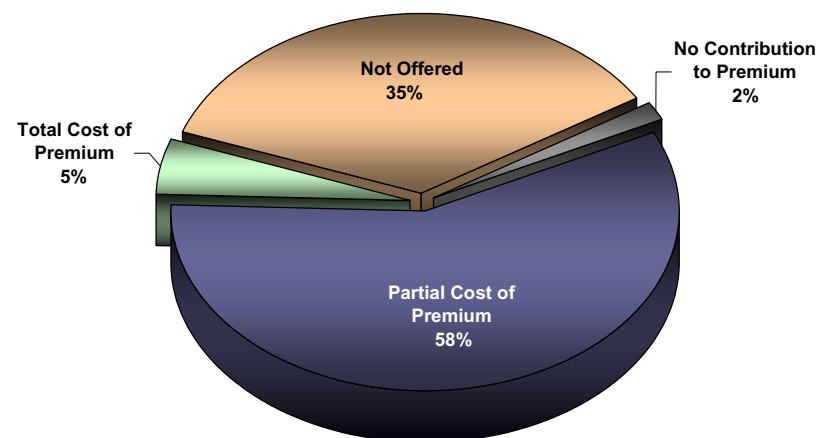
Fifty-one percent of the vacancies did not provide information on medical insurance. Of those that did, 5% contributed to total cost of the premium, compared to 58% that paid partial cost of the premium. Fifty-one percent of these require experience in a related occupation. A majority of these vacancies are also full-time/permanent positions. Retail sales, customer care, and registered nurses occupations occur most frequently.

The occupational distribution is diverse, with no dominate category. However, Construction accounts for 35% of the vacancies with a total payment of medical insurance benefits.

## Sign-On Bonus

**There are no vacant positions that offer a sign-on bonus.**

**Figure 20: Employers' Contribution to Medical Insurance**







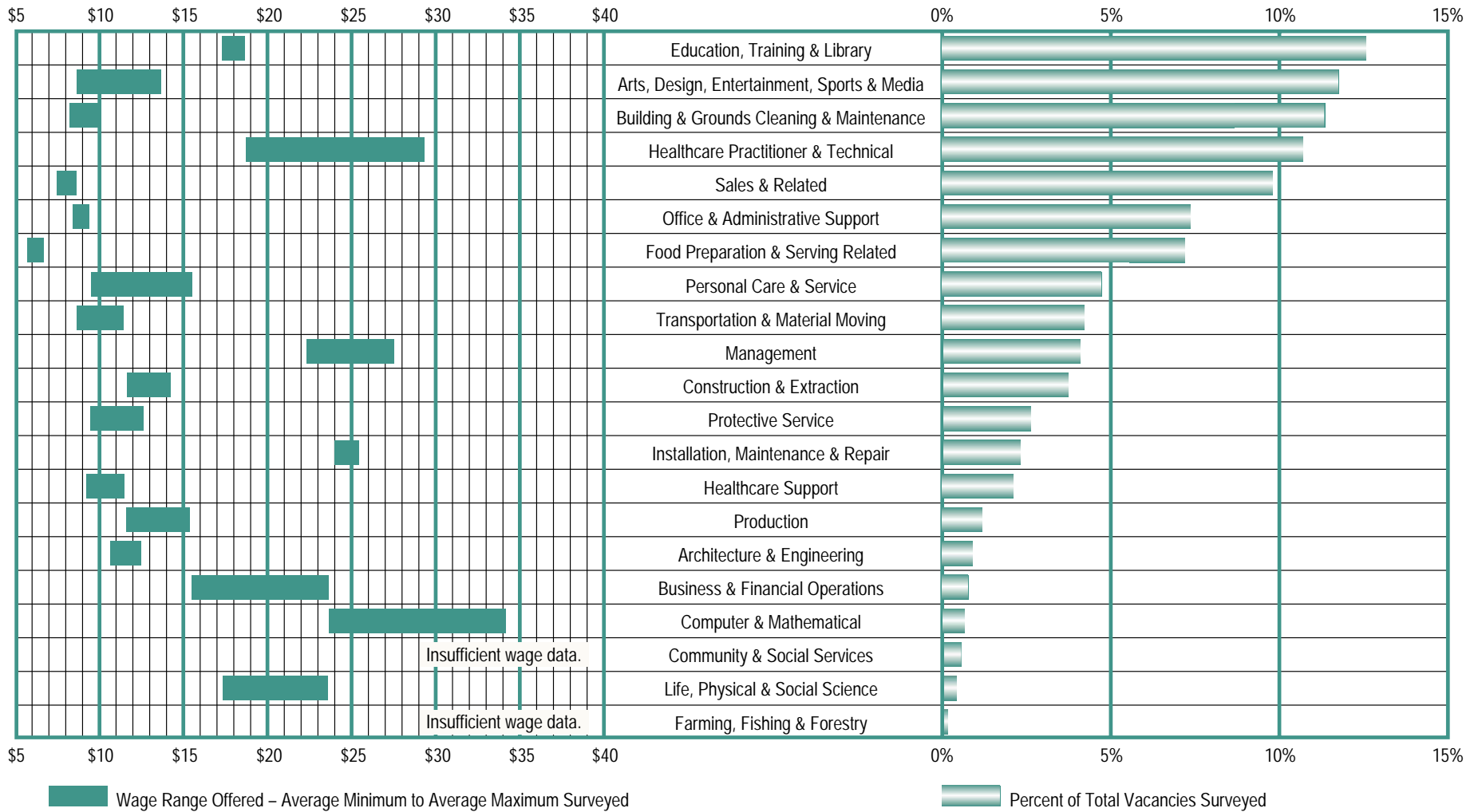
# Occupational Details

## Introduction

Entertainment, Sports, & Media, then Building & Grounds Cleaning & Maintenance.

**In order to help make comparisons between** this survey and other sources of employment statistics, all jobs are assigned a Standard Occupational Classification (SOC) code from the *2000 Standard Occupational Classification Manual*. *Figure 21* is a ranking of the least-to-most vacancies by major occupational group. Of those major occupation groups, Education, Training, & Library accounts for the highest number of vacancies, followed by Arts, Design,

**Figure 21: Vacancies and Reported Average Wage Ranges by Major Occupational Groups**



## Occupational Details *—continued*

The wages associated with these occupations reflect the degree of skill and experience required to do the job. They may also reflect supply and demand in the labor market. This would require a study of the wage/supply relationship over the long run to make such assumptions about the labor economy.

### **Wage Data**

Following is a list of all of the detailed SOC job titles assigned to the vacancies in this survey. Because the CDLE conducts a census of large employers and Government agencies, the list contains titles for nearly all of the vacancies available at the time of the survey. Thirty-five percent of all small to mid-size employers were contacted for the random sample, so the occupations associated with those vacancies are listed. Though the sample of small to mid-size employers is representative and significant, it is not exhaustive. If a different random sample had been drawn, there would be some differences in the job titles reported, but there would also be many similarities. Vacancies estimated and found are displayed for those occupations where at least 10 vacancies are estimated.

### **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 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 in the survey.

### **Vacancies Found**

The “vacancies found” heading refers to the actual number of vacancies by occupation found in the survey.

### **Average JVS Wage**

The average of any and all wages in the survey is given for each occupation. The average wage is based solely on information provided by employers responding to this survey and does 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 is based on a national survey of employers and refer to filled positions, not vacancies. The data provided here are for the Larimer/Weld Region when available and statewide otherwise. Data was collected over three 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 is being paid to filled positions. Together, these data provide employers and job seekers with a good indication of the compensation offered in the current job market.

Table 1: Occupations with 10 or More Estimated Vacancies

SOC Code	Occupational Title	Vacancies Estimated	Vacancies Found	Average JVS Wage	Occupational Employment Statistics Wage Data (2002)							
					Average Wages			Percentile Distribution				
					Entry	Overall	Experienced	10th	25th	50th	75th	90th
37-3011	Landscaping and Groundskeeping Workers	107	93	\$9.10	\$7.33	\$9.89	\$11.18	\$6.88	\$7.88	\$9.27	\$11.06	\$14.13
29-1111	Registered Nurses	89	70	\$27.10	\$17.97	\$21.70	\$23.55	\$16.66	\$18.97	\$21.29	\$24.52	\$27.66
27-2022	Coaches and Scouts	69	69	\$11.20	+	+	+	+	+	+	+	+
41-2011	Cashiers	69	42	\$8.50	\$6.09	\$8.75	\$10.08	\$5.86	\$6.54	\$7.88	\$9.85	\$14.34
41-2031	Retail Salespersons	65	32	\$7.30	\$6.91	\$10.75	\$12.67	\$6.37	\$7.38	\$8.60	\$11.38	\$17.22
35-3031	Waiters and Waitresses	62	31	\$5.00	\$6.14	\$8.23	\$9.28	\$5.74	\$6.15	\$6.85	\$8.66	\$10.63
27-2023	Umpires, Referees, and Other Sports Officials	52	50	\$11.40	\$18,296	\$24,492	\$27,590	\$16,648	\$19,648	\$22,204	\$27,069	\$38,831
43-4051	Customer Service Representatives	41	41	\$7.20	\$6.01	\$11.07	\$13.60	\$5.78	\$6.46	\$10.13	\$13.83	\$18.60
25-2031	Secondary School Teachers, Except Special and Vocational Education	40	40	\$21.30	\$28,080	\$41,421	\$48,091	\$26,077	\$30,866	\$38,266	\$50,621	\$59,660
53-7062	Laborers and Freight, Stock, and Material Movers, Hand	36	25	\$9.30	\$7.66	\$10.32	\$11.65	\$7.31	\$8.19	\$9.59	\$11.67	\$14.74
25-2021	Elementary School Teachers, Except Special Education	31	20	\$18.70	\$28,377	\$40,226	\$46,151	\$26,248	\$30,897	\$37,849	\$47,279	\$57,342
13-2072	Loan Officers	29	6	\$20.40	\$16.05	\$26.94	\$32.38	\$14.33	\$18.21	\$23.93	\$32.66	\$40.39
35-3021	Combined Food Preparation and Serving Workers, Including Fast Food	26	13	\$6.20	\$6.21	\$7.43	\$8.04	\$5.92	\$6.47	\$7.36	\$8.40	\$9.18
51-4121	Welders, Cutters, Solderers, and Brazers	24	5	\$13.40	\$9.39	\$13.46	\$15.49	\$8.59	\$10.53	\$12.96	\$15.97	\$19.21
43-4171	Receptionists and Information Clerks	24	5	\$8.40	\$7.87	\$10.51	\$11.83	\$7.54	\$8.55	\$10.08	\$12.01	\$14.51
39-9032	Recreation Workers	23	23	\$13.50	\$6.95	\$8.78	\$9.69	\$6.37	\$7.43	\$8.29	\$9.37	\$12.09
43-3071	Tellers	22	3	\$9.70	\$8.50	\$10.02	\$10.78	\$7.94	\$8.90	\$9.95	\$10.99	\$12.65
* 43-6014	Secretaries, Except Legal, Medical, and Executive	20	7	\$10.20	\$8.22	\$11.74	\$13.49	\$7.58	\$9.18	\$11.12	\$13.77	\$17.75
* 41-2021	Counter and Rental Clerks	20	8	\$7.40	\$6.13	\$8.78	\$10.11	\$5.88	\$6.60	\$7.92	\$10.01	\$13.40
37-2011	Janitors and Cleaners, Except Maids and Housekeeping Cleaners	19	16	\$9.40	\$7.07	\$8.87	\$9.77	\$6.49	\$7.49	\$8.42	\$9.79	\$11.47
11-9111	Medical and Health Services Managers	18	12	\$25.00	\$21.11	\$31.95	\$37.37	\$17.95	\$23.95	\$28.00	\$38.31	\$52.28
47-2221	Structural Iron and Steel Workers	17	5	+	\$14.84	\$19.49	\$21.81	\$13.45	\$16.64	\$19.83	\$22.52	\$25.07
43-3031	Bookkeeping, Accounting, and Auditing Clerks	17	4	\$12.60	\$9.53	\$13.30	\$15.17	\$9.05	\$10.41	\$12.71	\$15.76	\$18.87
43-1011	First-Line Supervisors/Managers of Office and Administrative Support Workers	17	4	\$25.70	\$12.07	\$19.13	\$22.67	\$10.93	\$13.72	\$17.78	\$23.35	\$28.52
31-1012	Nursing Aides, Orderlies, and Attendants	15	9	\$9.10	\$8.12	\$9.97	\$10.89	\$7.78	\$8.49	\$9.66	\$11.31	\$13.22

\* OES Wages reported for Colorado statewide

+ Insufficient wage data available

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

SOC Code	Occupational Title	Vacancies Estimated	Vacancies Found	Average JVS Wage	Occupational Employment Statistics Wage Data (2002)							
					Average Wages			Percentile Distribution				
					Entry	Overall	Experienced	10th	25th	50th	75th	90th
47-4051	Highway Maintenance Workers	15	15	\$9.80	\$13.40	\$17.51	\$19.58	\$12.30	\$14.41	\$17.99	\$20.50	\$22.02
17-2051	Civil Engineers	15	1	\$16.50	\$19.57	\$27.10	\$30.88	\$18.94	\$21.01	\$25.35	\$32.68	\$40.13
53-3031	Driver/Sales Workers	15	4	\$8.60	\$6.03	\$10.64	\$12.95	\$5.75	\$6.38	\$9.64	\$14.07	\$19.07
47-2171	Reinforcing Iron and Rebar Workers	14	4	\$18.00	\$9.74	\$13.73	\$15.72	\$9.36	\$10.19	\$11.60	\$17.07	\$21.71
53-3032	Truck Drivers, Heavy and Tractor-Trailer	14	3	+	\$11.00	\$15.24	\$17.37	\$10.33	\$12.51	\$15.09	\$17.51	\$21.63
37-2012	Maids and Housekeeping Cleaners	14	7	\$8.10	\$6.35	\$7.90	\$8.68	\$5.99	\$6.85	\$7.82	\$8.71	\$10.25
49-9041	Industrial Machinery Mechanics	13	13	\$36.40	\$11.57	\$18.17	\$21.47	\$9.69	\$13.94	\$18.64	\$22.79	\$26.64
49-3023	Automotive Service Technicians and Mechanics	13	4	\$11.50	\$9.59	\$16.32	\$19.67	\$8.57	\$10.86	\$15.26	\$20.19	\$26.29
25-9041	Teacher Assistants	13	7	\$8.50	\$14,725	\$18,156	\$19,872	\$13,618	\$15,667	\$17,909	\$20,873	\$23,373
25-2022	Middle School Teachers, Except Special and Vocational Education	13	7	\$15.30	\$28,850	\$38,192	\$42,863	\$26,492	\$30,548	\$36,091	\$44,965	\$54,394
25-1194	Vocational Education Teachers, Postsecondary	13	7	\$16.80	\$12.90	\$19.21	\$22.37	\$11.95	\$14.13	\$17.55	\$24.62	\$27.30
53-3033	Truck Drivers, Light or Delivery Services	12	5	\$13.80	\$7.81	\$12.56	\$14.93	\$7.21	\$8.74	\$11.25	\$15.20	\$21.54
41-9041	Telemarketers	12	12	\$7.90	\$7.81	\$9.17	\$9.85	\$7.45	\$7.89	\$8.59	\$9.31	\$12.47
39-1021	First-Line Supervisors/Managers of Personal Service Workers	12	12	\$14.40	\$10.88	\$16.12	\$18.73	\$9.50	\$12.22	\$14.31	\$20.45	\$25.92
39-5012	Hairdressers, Hairstylists, and Cosmetologists	11	4	\$9.30	\$6.99	\$11.78	\$14.17	\$6.44	\$7.75	\$10.35	\$15.48	\$17.84
35-2014	Cooks, Restaurant	11	5	\$6.30	\$6.50	\$8.52	\$9.52	\$6.15	\$7.05	\$8.32	\$9.88	\$11.16
47-2061	Construction Laborers	10	3	\$11.30	\$8.59	\$11.47	\$12.93	\$7.78	\$9.41	\$10.95	\$13.33	\$16.29

\* OES Wages reported for Colorado statewide

+ Insufficient wage data available



**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	Overall	Experienced	10th	25th	50th	75th	90th
43-9061	Office Clerks, General	\$7.92	\$11.91	\$13.90	\$7.30	\$8.84	\$10.84	\$13.50	\$16.46
15-1051	Computer Systems Analysts	\$22.01	\$31.71	\$36.55	\$20.11	\$24.88	\$31.06	\$38.40	\$45.79
15-1021	Computer Programmers	\$16.45	\$26.91	\$32.14	\$14.03	\$19.33	\$26.72	\$34.33	\$41.05
53-7051	Industrial Truck and Tractor Operators	\$9.13	\$12.37	\$13.97	\$8.43	\$10.03	\$11.93	\$14.26	\$17.18
* 25-1072	Nursing Instructors and Teachers, Postsecondary	\$33,372	\$47,901	\$55,167	\$32,060	\$36,481	\$47,307	\$56,087	\$68,634
35-2021	Food Preparation Workers	\$6.53	\$8.70	\$9.78	\$6.22	\$7.10	\$8.20	\$9.69	\$12.81
11-3031	Financial Managers	\$20.70	\$33.43	\$39.79	\$19.08	\$23.01	\$31.49	\$42.37	\$52.69
35-3022	Counter Attendants, Cafeteria, Food Concession, and Coffee Shop	\$6.13	\$7.39	\$8.02	\$5.79	\$6.27	\$7.09	\$8.27	\$9.93
33-3031	Fish and Game Wardens	\$17.42	\$22.36	\$24.83	\$16.31	\$19.28	\$23.44	\$25.85	\$27.31
29-2056	Veterinary Technologists and Technicians	\$9.59	\$11.46	\$12.40	\$9.09	\$9.90	\$11.22	\$12.85	\$14.29
11-3042	Training and Development Managers	+	+	+	+	+	+	+	+
11-9021	Construction Managers	\$23.09	\$30.42	\$34.07	\$21.83	\$24.88	\$28.27	\$34.42	\$42.88
11-9039	Education Administrators, All Other	+	+	+	+	+	+	+	+
43-4081	Hotel, Motel, and Resort Desk Clerks	\$6.00	\$7.62	\$8.43	\$5.66	\$6.22	\$7.40	\$8.79	\$10.43
43-3011	Bill and Account Collectors	\$9.42	\$12.94	\$14.69	\$8.91	\$10.14	\$12.21	\$14.94	\$18.95
43-4199	Information and Record Clerks, All Other	+	+	+	+	+	+	+	+
43-9021	Data Entry Keyers	\$8.28	\$10.68	\$11.89	\$7.84	\$8.58	\$9.72	\$11.86	\$14.44
47-2073	Operating Engineers and Other Construction Equipment Operators	\$13.59	\$16.44	\$17.88	\$12.40	\$14.63	\$16.47	\$18.48	\$21.03
21-2099	Religious Workers, All Other	+	+	+	+	+	+	+	+
35-2012	Cooks, Institution and Cafeteria	\$6.82	\$8.81	\$9.80	\$6.34	\$7.35	\$8.57	\$10.27	\$11.83
33-9032	Security Guards	\$8.78	\$11.13	\$12.30	\$8.14	\$9.20	\$10.43	\$12.33	\$14.94
47-2111	Electricians	\$12.02	\$18.86	\$22.29	\$11.28	\$13.26	\$17.86	\$22.81	\$29.73
11-2021	Marketing Managers	\$21.56	\$36.84	\$44.48	\$18.25	\$25.81	\$38.26	\$45.57	\$56.41
35-9011	Dining Room and Cafeteria Attendants and Bartender Helpers	\$6.12	\$6.70	\$7.00	\$5.67	\$6.03	\$6.61	\$7.37	\$8.40
49-9021	Heating, Air Conditioning, and Refrigeration Mechanics and Installers	\$11.04	\$15.43	\$17.62	\$10.12	\$11.94	\$14.59	\$18.33	\$21.87

\* OES Wages reported for Colorado statewide

+ Insufficient wage data available

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	Overall	Experienced	10th	25th	50th	75th	90th
31-9092	Medical Assistants	\$8.97	\$10.84	\$11.78	\$8.20	\$9.60	\$10.67	\$11.87	\$14.21
33-9099	Protective Service Workers, All Other	\$6.08	\$9.48	\$11.18	\$5.85	\$6.58	\$8.18	\$10.72	\$15.39
17-3029	Engineering Technicians, Except Drafters, All Other	+	+	+	+	+	+	+	+
27-3011	Radio and Television Announcers	+	+	+	+	+	+	+	+
49-9042	Maintenance and Repair Workers, General	\$8.95	\$13.79	\$16.21	\$8.05	\$10.38	\$13.32	\$16.89	\$20.86
31-9099	Healthcare Support Workers, All Other	\$8.38	\$11.01	\$12.31	\$7.75	\$9.13	\$10.77	\$12.71	\$14.23
33-9092	Lifeguards, Ski Patrol, and Other Recreational Protective Service Workers	+	+	+	+	+	+	+	+
* 25-2041	Special Education Teachers, Preschool, Kindergarten, and Elementary School	\$30,251	\$41,723	\$47,459	\$27,778	\$32,093	\$38,315	\$50,737	\$58,237
29-2034	Radiologic Technologists and Technicians	\$13.89	\$17.69	\$19.58	\$12.82	\$15.00	\$17.45	\$20.69	\$22.76
11-3051	Industrial Production Managers	\$21.60	\$32.29	\$37.64	\$19.86	\$23.82	\$30.09	\$38.57	\$47.67
41-9091	Door-to-door Sales Workers, News and Street Vendors, and Related Workers	+	+	+	+	+	+	+	+
51-6099	Textile, Apparel, and Furnishings Workers, All Other	\$7.50	\$10.35	\$11.77	\$6.74	\$8.60	\$10.23	\$11.49	\$13.56
51-3022	Meat, Poultry, and Fish Cutters and Trimmers	\$9.66	\$10.37	\$10.73	\$9.10	\$9.55	\$10.29	\$11.03	\$12.03
51-4011	Computer-Controlled Machine Tool Operators, Metal and Plastic	\$9.91	\$14.34	\$16.57	\$9.47	\$10.54	\$13.01	\$16.66	\$24.05
51-7099	Woodworkers, All Other	\$7.12	\$10.16	\$11.68	\$6.37	\$7.87	\$9.43	\$11.98	\$14.98
11-9051	Food Service Managers	\$12.16	\$30.07	\$39.03	\$11.71	\$13.15	\$17.08	\$58.82	\$69.42
11-9151	Social and Community Service Managers	\$12.53	\$21.34	\$25.74	\$10.54	\$15.29	\$19.72	\$23.94	\$36.04
* 25-2012	Kindergarten Teachers, Except Special Education	\$23,394	\$33,599	\$38,702	\$21,671	\$24,843	\$28,601	\$42,869	\$53,711
41-3099	Sales Representatives, Services, All Other	\$9.83	\$23.06	\$29.68	\$8.38	\$11.52	\$18.20	\$30.33	\$51.45
35-2011	Cooks, Fast Food	\$6.44	\$8.05	\$8.85	\$6.09	\$6.94	\$7.92	\$9.11	\$10.43
49-3031	Bus and Truck Mechanics and Diesel Engine Specialists	\$11.94	\$16.13	\$18.23	\$11.60	\$12.82	\$15.31	\$18.95	\$22.75
39-9031	Fitness Trainers and Aerobics Instructors	\$7.56	\$14.33	\$17.71	\$6.67	\$8.55	\$14.68	\$17.85	\$23.92
29-1122	Occupational Therapists	\$17.53	\$22.17	\$24.50	\$15.81	\$19.10	\$22.30	\$25.88	\$28.07
11-9199	Managers, All Other	\$18.12	\$30.76	\$37.09	\$16.03	\$21.66	\$28.86	\$38.78	\$49.67
25-4021	Librarians	\$13.49	\$19.15	\$21.98	\$12.30	\$15.06	\$18.86	\$22.78	\$26.94

\* OES Wages reported for Colorado statewide

+ Insufficient wage data available

Table 2: Occupations with Fewer than 10 Estimated Vacancies — Page 3

SOC Code	SOC Occupational Title	Occupational Employment Statistics Wage Data (2002)							
		Average Wages			Percentile Distribution				
		Entry	Overall	Experienced	10th	25th	50th	75th	90th
29-1123	Physical Therapists	\$20.28	\$24.44	\$26.52	\$19.21	\$21.70	\$24.80	\$27.32	\$29.37
29-2032	Diagnostic Medical Sonographers	\$20.90	\$24.89	\$26.89	\$19.69	\$22.11	\$24.93	\$27.36	\$29.11
29-1126	Respiratory Therapists	\$14.88	\$18.36	\$20.10	\$14.15	\$15.89	\$18.52	\$20.99	\$22.61
47-2051	Cement Masons and Concrete Finishers	\$10.71	\$15.15	\$17.37	\$9.83	\$11.67	\$14.32	\$18.01	\$21.71
47-2041	Carpet Installers	\$10.01	\$13.49	\$15.23	\$9.45	\$10.22	\$14.45	\$16.55	\$17.81
47-2152	Plumbers, Pipefitters, and Steamfitters	\$12.52	\$18.22	\$21.06	\$11.60	\$14.47	\$18.40	\$22.00	\$26.11
47-2141	Painters, Construction and Maintenance	\$9.64	\$13.47	\$15.39	\$9.08	\$10.53	\$12.91	\$16.07	\$18.84
49-9044	Millwrights	\$10.50	\$11.73	\$12.36	\$9.70	\$10.18	\$10.97	\$11.74	\$16.44
49-3092	Recreational Vehicle Service Technicians	\$10.25	\$16.41	\$19.48	\$9.44	\$11.78	\$16.19	\$21.08	\$25.10
39-3091	Amusement and Recreation Attendants	\$6.20	\$7.27	\$7.80	\$5.79	\$6.15	\$6.74	\$7.46	\$8.97
39-9011	Child Care Workers	\$6.41	\$8.01	\$8.82	\$6.02	\$6.91	\$7.94	\$8.93	\$10.38
53-7081	Refuse and Recyclable Material Collectors	\$10.59	\$13.26	\$14.59	\$9.63	\$11.69	\$13.41	\$15.41	\$17.03
29-2061	Licensed Practical and Licensed Vocational Nurses	\$12.47	\$15.40	\$16.88	\$11.93	\$13.56	\$15.52	\$17.29	\$19.01
29-2054	Respiratory Therapy Technicians	\$9.91	\$15.12	\$17.73	\$8.56	\$11.68	\$15.44	\$17.97	\$21.37
29-2011	Medical and Clinical Laboratory Technologists	\$17.49	\$21.76	\$23.89	\$15.36	\$19.06	\$21.92	\$25.33	\$27.77
21-1014	Mental Health Counselors	\$9.95	\$14.41	\$16.64	\$9.35	\$10.68	\$13.11	\$16.59	\$21.61
* 25-1022	Mathematical Science Teachers, Postsecondary	\$33,787	\$52,120	\$61,286	\$31,271	\$37,927	\$46,740	\$62,119	\$83,587
* 25-1061	Anthropology and Archeology Teachers, Postsecondary	\$37,109	\$57,439	\$67,605	\$34,376	\$43,140	\$53,889	\$71,171	\$91,373
* 25-1071	Health Specialties Teachers, Postsecondary	\$22,044	\$61,340	\$80,987	\$17,576	\$25,611	\$54,887	\$85,519	\$129,767
29-1051	Pharmacists	\$31.88	\$34.30	\$35.50	\$30.22	\$31.78	\$34.39	\$36.99	\$41.49
39-9021	Personal and Home Care Aides	\$7.54	\$9.31	\$10.20	\$7.22	\$8.02	\$9.18	\$10.48	\$11.81
39-5092	Manicurists and Pedicurists	\$7.27	\$7.85	\$8.14	\$6.63	\$7.48	\$8.02	\$8.57	\$8.90
39-5094	Skin Care Specialists	\$5.98	\$6.83	\$7.25	\$5.55	\$5.96	\$6.64	\$7.68	\$8.43
* 27-2041	Music Directors and Composers	\$16,732	\$41,074	\$53,245	\$12,863	\$23,551	\$38,049	\$49,154	\$81,743
45-2093	Farmworkers, Farm and Ranch Animals	\$9.39	\$12.91	\$14.67	\$9.01	\$10.05	\$12.90	\$15.70	\$17.17
41-3041	Travel Agents	\$7.88	\$11.91	\$13.93	\$6.79	\$9.14	\$10.89	\$14.40	\$17.64
35-3011	Bartenders	\$6.10	\$7.70	\$8.50	\$5.71	\$6.14	\$6.85	\$9.02	\$11.45
35-2015	Cooks, Short Order	\$6.40	\$8.38	\$9.38	\$6.07	\$6.93	\$8.57	\$9.85	\$10.75

\* OES Wages reported for Colorado statewide

+ Insufficient wage data available

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	Overall	Experienced	10th	25th	50th	75th	90th
35-1012	First-Line Supervisors/Managers of Food Preparation and Serving Workers	\$8.45	\$11.99	\$13.75	\$7.96	\$8.98	\$11.03	\$13.83	\$16.96
31-9091	Dental Assistants	\$11.87	\$14.96	\$16.50	\$11.40	\$12.33	\$13.97	\$17.98	\$20.42
31-9096	Veterinary Assistants and Laboratory Animal Caretakers	\$6.44	\$9.64	\$11.23	\$6.06	\$6.95	\$8.13	\$10.59	\$17.84
37-1011	First-Line Supervisors/Managers of Housekeeping and Janitorial Workers	\$9.44	\$13.37	\$15.33	\$8.82	\$9.98	\$11.80	\$15.86	\$20.40
53-3022	Bus Drivers, School	\$9.14	\$10.84	\$11.70	\$8.43	\$9.67	\$10.69	\$11.96	\$13.96
37-1012	First-Line Supervisors/Managers of Landscaping, Lawn Service, and Groundskeeping Workers	\$12.57	\$18.23	\$21.06	\$11.47	\$13.71	\$17.47	\$21.59	\$26.51
31-1013	Psychiatric Aides	\$8.93	\$10.90	\$11.90	\$8.14	\$9.38	\$10.55	\$12.45	\$14.25
41-3011	Advertising Sales Agents	\$10.61	\$19.20	\$23.49	\$9.36	\$11.92	\$15.47	\$24.01	\$35.29
29-2012	Medical and Clinical Laboratory Technicians	\$10.90	\$14.12	\$15.73	\$10.02	\$11.76	\$13.53	\$16.46	\$19.75
19-3051	Urban and Regional Planners	\$19.18	\$25.56	\$28.76	\$18.57	\$21.03	\$25.06	\$30.13	\$34.51
15-1041	Computer Support Specialists	\$9.41	\$16.79	\$20.49	\$8.34	\$10.78	\$15.72	\$21.23	\$26.86
* 25-1032	Engineering Teachers, Postsecondary	\$40,353	\$70,470	\$85,527	\$35,193	\$48,655	\$66,783	\$89,375	\$115,490
* 25-1042	Biological Science Teachers, Postsecondary	\$35,629	\$65,283	\$80,111	\$32,541	\$42,039	\$57,737	\$84,162	\$114,888
* 25-1052	Chemistry Teachers, Postsecondary	\$38,338	\$58,785	\$69,008	\$35,619	\$43,356	\$54,499	\$70,991	\$90,671
* 25-1054	Physics Teachers, Postsecondary	\$39,336	\$59,910	\$70,198	\$36,774	\$44,642	\$55,232	\$74,631	\$93,204
* 25-1065	Political Science Teachers, Postsecondary	\$36,258	\$57,997	\$68,867	\$33,529	\$41,460	\$53,753	\$72,045	\$94,213
* 25-1123	English Language and Literature Teachers, Postsecondary	\$31,549	\$51,127	\$60,917	\$27,652	\$37,280	\$46,938	\$59,488	\$83,756
27-3041	Editors	\$13.28	\$19.83	\$23.10	\$12.21	\$15.14	\$18.83	\$23.83	\$30.81
29-2041	Emergency Medical Technicians and Paramedics	\$10.76	\$15.27	\$17.52	\$9.86	\$11.81	\$14.42	\$18.00	\$21.92
31-9093	Medical Equipment Preparers	\$9.50	\$11.98	\$13.22	\$9.01	\$10.08	\$11.68	\$13.40	\$15.44
41-4012	Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Product	\$12.19	\$22.24	\$27.27	\$10.93	\$14.13	\$18.87	\$27.35	\$38.06
43-6011	Executive Secretaries and Administrative Assistants	\$11.55	\$15.62	\$17.65	\$10.74	\$12.35	\$14.63	\$17.56	\$21.86
51-1011	First-Line Supervisors/Managers of Production and Operating Workers	\$15.69	\$22.59	\$26.03	\$14.16	\$17.77	\$21.24	\$26.41	\$33.20

\* OES Wages reported for Colorado statewide

+ Insufficient wage data available

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	Overall	Experienced	10th	25th	50th	75th	90th
35-3022	Counter Attendants, Cafeteria, Food Concession, and Coffee Shop	+	+	+	+	+	+	+	+
43-4121	Library Assistants, Clerical	\$7.36	\$9.84	\$11.08	\$6.89	\$8.01	\$9.61	\$11.55	\$13.58
43-5031	Police, Fire, and Ambulance Dispatchers	\$11.46	\$15.95	\$18.19	\$10.81	\$12.40	\$15.42	\$19.60	\$22.51
27-3091	Interpreters and Translators	\$12.03	\$15.94	\$17.89	\$11.48	\$12.94	\$15.10	\$18.65	\$22.66
37-2019	Building Cleaning Workers, All Other	+	+	+	+	+	+	+	+
17-3011	Architectural and Civil Drafters	\$12.77	\$18.01	\$20.63	\$12.23	\$13.70	\$18.08	\$21.88	\$25.56
53-6041	Traffic Technicians	\$18.17	\$20.25	\$21.29	\$17.27	\$18.31	\$19.97	\$21.64	\$25.12
29-2071	Medical Records and Health Information Technicians	\$9.57	\$13.35	\$15.25	\$9.20	\$10.27	\$11.93	\$17.11	\$20.19
33-3012	Correctional Officers and Jailers	\$14.21	\$18.82	\$21.13	\$14.19	\$16.36	\$19.33	\$21.71	\$24.71
53-3021	Bus Drivers, Transit and Intercity	\$9.62	\$13.42	\$15.32	\$9.15	\$11.03	\$12.89	\$15.95	\$19.70
27-1024	Graphic Designers	\$12.67	\$18.09	\$20.81	\$11.49	\$14.70	\$18.42	\$21.42	\$24.92
19-3031	Clinical, Counseling, and School Psychologists	\$13.56	\$20.88	\$24.55	\$10.68	\$15.98	\$20.12	\$26.32	\$31.05
* 25-2043	Special Education Teachers, Secondary School	\$29,536	\$40,781	\$46,403	\$26,888	\$31,914	\$39,596	\$48,079	\$56,889
* 25-1063	Economics Teachers, Postsecondary	\$37,106	\$62,553	\$75,276	\$33,011	\$43,531	\$62,543	\$77,604	\$94,081
13-2031	Budget Analysts	\$20.08	\$25.49	\$28.21	\$19.19	\$22.15	\$25.32	\$28.79	\$34.06
* 29-9091	Athletic Trainers	\$29,207	\$49,483	\$59,621	\$26,687	\$30,963	\$36,954	\$77,400	\$88,468
43-3021	Billing and Posting Clerks and Machine Operators	\$9.65	\$12.40	\$13.78	\$9.19	\$10.25	\$11.98	\$14.15	\$16.93
43-9031	Desktop Publishers	\$11.89	\$16.44	\$18.71	\$11.21	\$13.39	\$16.37	\$19.59	\$22.37
11-2022	Sales Managers	\$20.21	\$38.42	\$47.52	\$17.54	\$23.73	\$36.30	\$48.81	+
29-1031	Dietitians and Nutritionists	\$15.87	\$20.64	\$23.02	\$15.07	\$17.46	\$20.81	\$24.14	\$26.99
* 25-2042	Special Education Teachers, Middle School	\$28,633	\$38,846	\$43,953	\$26,311	\$30,458	\$37,477	\$46,785	\$54,718
15-1099	Computer Specialists, All Other	\$9.65	\$18.26	\$22.55	\$9.30	\$10.52	\$15.74	\$25.31	\$31.22
47-4011	Construction and Building Inspectors	\$13.26	\$19.79	\$23.05	\$10.56	\$16.19	\$20.14	\$23.65	\$27.68
51-8021	Stationary Engineers and Boiler Operators	\$14.40	\$20.61	\$23.71	\$13.08	\$16.65	\$21.29	\$25.11	\$27.37
19-1011	Animal Scientists	+	+	+	+	+	+	+	+
* 11-9032	Education Administrators, Elementary and Secondary School	\$52,561	\$66,977	\$74,184	\$50,258	\$57,250	\$67,224	\$76,653	\$89,327

\* OES Wages reported for Colorado statewide

+ Insufficient wage data available



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	Overall	Experienced	10th	25th	50th	75th	90th
11-9033	Education Administrators, Postsecondary	\$20.50	\$34.43	\$41.41	\$18.52	\$23.43	\$32.11	\$42.50	\$58.19
11-1011	Chief Executives	\$31.50	\$51.90	\$62.09	\$30.58	\$36.57	\$52.75	+	+
11-1021	General and Operations Managers	\$19.60	\$37.25	\$46.07	\$17.11	\$23.03	\$33.84	\$48.26	+
11-2011	Advertising and Promotions Managers	\$13.82	\$26.64	\$33.06	\$12.60	\$15.76	\$21.70	\$37.28	\$47.00
11-9081	Lodging Managers	\$12.37	\$17.86	\$20.62	\$11.97	\$14.50	\$18.48	\$21.02	\$22.72
13-1073	Training and Development Specialists	\$13.04	\$19.64	\$22.94	\$12.16	\$14.20	\$18.74	\$23.33	\$27.80
13-1079	Human Resources, Training, and Labor Relations Specialists, All Other	+	+	+	+	+	+	+	+
15-1031	Computer Software Engineers, Applications	\$21.16	\$32.44	\$38.08	\$19.74	\$24.08	\$31.04	\$39.92	\$46.01
15-1032	Computer Software Engineers, Systems Software	\$29.86	\$37.11	\$40.73	\$29.16	\$32.05	\$35.88	\$44.45	\$51.29
17-2071	Electrical Engineers	\$25.10	\$34.69	\$39.48	\$22.23	\$28.50	\$34.06	\$41.28	\$49.58
17-2112	Industrial Engineers	\$23.57	\$33.99	\$39.20	\$20.94	\$26.98	\$34.48	\$41.26	\$45.63
21-1013	Marriage and Family Therapists	\$13.64	\$16.05	\$17.25	\$12.60	\$14.41	\$15.88	\$17.45	\$20.47
21-1019	Counselors, All Other	+	+	+	+	+	+	+	+
* 25-1011	Business Teachers, Postsecondary	\$32,298	\$57,916	\$70,725	\$29,721	\$37,697	\$52,186	\$74,153	\$99,692
* 25-1051	Atmospheric, Earth, Marine, and Space Sciences Teachers, Postsecondary	\$35,567	\$56,228	\$66,559	\$32,565	\$38,912	\$49,202	\$72,042	\$91,661
* 25-1064	Geography Teachers, Postsecondary	\$35,390	\$54,796	\$64,498	\$33,200	\$41,623	\$51,683	\$68,712	\$87,091
* 25-1066	Psychology Teachers, Postsecondary	\$32,237	\$54,132	\$65,079	\$29,885	\$36,812	\$50,263	\$67,022	\$87,489
* 25-1067	Sociology Teachers, Postsecondary	\$34,421	\$56,265	\$67,188	\$31,266	\$39,733	\$52,512	\$69,120	\$91,045
* 25-1121	Art, Drama, and Music Teachers, Postsecondary	\$33,499	\$51,196	\$60,045	\$30,461	\$38,691	\$48,297	\$60,841	\$74,984
* 25-1125	History Teachers, Postsecondary	\$34,545	\$52,604	\$61,632	\$31,935	\$39,210	\$49,899	\$64,937	\$81,008
* 25-1126	Philosophy and Religion Teachers, Postsecondary	\$34,167	\$53,070	\$62,520	\$31,070	\$38,416	\$50,204	\$65,408	\$84,103
* 25-1193	Recreation and Fitness Studies Teachers, Postsecondary	\$26,631	\$45,265	\$54,582	\$24,781	\$31,219	\$41,695	\$53,715	\$69,351
* 25-1199	Postsecondary Teachers, All Other	\$26,084	\$49,458	\$61,145	\$21,274	\$31,800	\$43,612	\$63,820	\$85,830
27-1011	Art Directors	\$14.00	\$26.28	\$32.42	\$12.57	\$15.82	\$23.08	\$31.96	\$49.31
29-1127	Speech-Language Pathologists	\$16.42	\$22.25	\$25.18	\$15.35	\$17.76	\$22.34	\$26.30	\$28.67
29-2053	Psychiatric Technicians	\$11.30	\$14.39	\$15.92	\$10.51	\$12.52	\$14.78	\$16.44	\$17.66

\* OES Wages reported for Colorado statewide

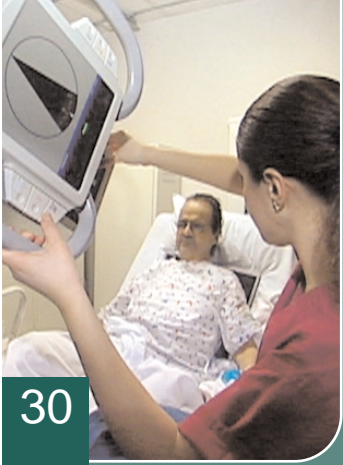
+ Insufficient wage data available

**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	Overall	Experienced	10th	25th	50th	75th	90th
33-9091	Crossing Guards	\$7.97	\$9.14	\$9.72	\$7.41	\$7.87	\$8.65	\$10.07	\$11.63
35-1011	Chefs and Head Cooks	\$8.49	\$13.89	\$16.58	\$7.79	\$9.23	\$12.35	\$17.59	\$21.86
41-1012	First-Line Supervisors/Managers of Non-Retail Sales Workers	\$14.25	\$27.88	\$34.70	\$12.98	\$15.70	\$21.52	\$35.33	\$59.21
41-9099	Sales and Related Workers, All Other	\$8.77	\$16.92	\$21.00	\$8.00	\$9.84	\$12.88	\$19.45	\$32.85
43-5071	Shipping, Receiving, and Traffic Clerks	\$8.45	\$11.77	\$13.43	\$7.89	\$9.14	\$11.44	\$14.12	\$16.75
43-9081	Proofreaders and Copy Markers	\$7.31	\$12.78	\$15.52	\$6.93	\$8.10	\$9.94	\$13.31	\$29.25
47-4041	Hazardous Materials Removal Workers	\$19.23	\$22.75	\$24.51	\$18.33	\$20.24	\$23.09	\$25.63	\$27.16
51-2022	Electrical and Electronic Equipment Assemblers	\$9.66	\$12.53	\$13.97	\$9.26	\$10.32	\$12.14	\$14.09	\$16.84
51-5022	Prepress Technicians and Workers	\$9.99	\$14.46	\$16.69	\$9.07	\$11.15	\$14.28	\$18.06	\$20.68

\* OES Wages reported for Colorado statewide

+ Insufficient wage data available



## Health Care & Social Assistance

# Sector Briefs

**Although the Health Care & Social Assistance** sector ranks sixth in the Larimer/Weld Region in terms of employment, it accounts for the largest number of vacancies estimated in this report. This sector makes up about 9% of total employment or about 19,600 people<sup>2</sup> as of the fourth quarter of 2003. The sector's demand for workers seems immune to seasonal fluctuations.

With a new system of sector classification under NAICS, data at the sector level only go back to first quarter 2001 and are available through fourth quarter 2003 at the writing of this report. The Health Care & Social Assistance sector remains healthy in the Larimer/Weld Region in spite of the adverse economic conditions at the national, state, and local levels.

Within Health Care & Social Assistance, there are four sub-groupings: Ambulatory Health Care Services; Hospitals; Nursing & Residential Care Facilities; and Social Assistance. Ambulatory Health Care Services is the largest sub-sector with 44% of the sector, followed by Hospitals at almost 32%. Nursing & Residential Care accounts for approximately 13%, while Social Assistance ranks last at 11% of the total employment in the Health Care & Social Assistance sector.

<sup>2</sup> Based on QCEW, Covered Employment and Wages, a census of employers required by law to pay unemployment insurance tax.



## How to Use This Report

# Appendix

**With 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?
- ◆ 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.

## Employers

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

**Employee Recruitment**—If findings indicate that employers have had positions open for a significant period of time, and compensation is sufficient, one might deduce a shortage of applicants in the area. Therefore, recruitment efforts could be focused outside of the region in areas where the necessary skills are more likely to be found.

**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.

## Job Seekers

**The Job Vacancy Survey provides job seekers with a broad view of which industries are hiring, which occupations are in demand along with currently offered**

salaries and benefits, and what education and experience levels are required. This report is a roadmap that can be used to determine where the best paying jobs are given an individual's skills and level of education.

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

## Workforce Centers

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

## Appendix *—continued*

### 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 positions 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 2% of the non-estimated information comes from large employers and government agencies, but they represent approximately 29% 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 for. 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 68% of the region's employment is found with large and government employers that make up only 9% of the total number of firms. Conducting a census of these entities allows us to cover a large portion of the region's employment while contacting relatively few entities.



## Appendix: Methodology —continued

### Survey Sample

The Larimer/Weld survey was conducted from March 8th through 30th. For the purpose of this report, all large employers, government and small to mid-size private 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 53% 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 JVS industry 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 200 employers. In JVS 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 39% of the employment in the sample frame, while private industry employers make up the remaining 61%. Large firms account for 50% of private industry employment in the sample frame. Firms employing from five to 250 individuals are considered small to mid-size employers, and account for the remaining 50% of private industry employment.

The margin of error for the overall vacancy estimate is plus or minus 3.13%, or about 56 vacancies at a .95 certainty level. In other words, in 95 out of 100 samples taken, the actual number of vacancies in the region would be between 1,731 and 1,843 during 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 84%. This measures the quality of the survey database, or the success experienced in contacting eligible employers. The cooperation rate is 99% and measures the success in obtaining data once an employer is contacted.

### JVS Sectors

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.

In the Larimer/Weld JVS Region, the 20 NAICS sectors have been combined into 12 JVS sectors. These groupings are based on the NAICS sectors, but are somewhat unique to the Job Vacancy Survey. The new groupings allow the Job Vacancy Survey to study local Colorado labor markets in a more relevant and meaningful way.

For more information on the North American Industry Classification System see *Page 34*.

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

## 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 development 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.

<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



**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 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.

## 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 Transportation & Warehousing
Wholesale Trade		Wholesale Trade
Retail Trade		Retail Trade Accommodation & Food Services
Finance, Insurance & Real Estate		Finance & Insurance Real Estate & Rental & Leasing
Services		Information Professional, Scientific & Technical Services Administrative & Support & Waste Management & Remediation Services Educational Services Health Care & Social Assistance Arts, Entertainment, & Recreation Other Services (except Public Administration)
Public Administration (parts of all divisions)		Public Administration Management of Companies & Enterprises

◆ 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 seven 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.

# Appendix

**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 the Quarterly Census of Employment and Wages 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**

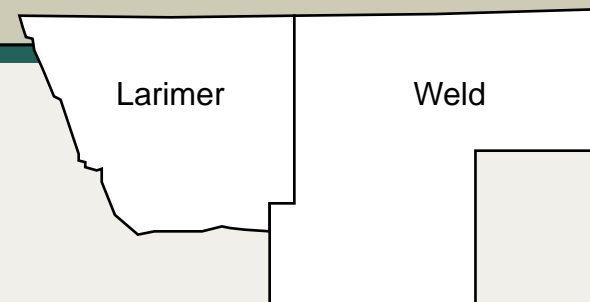
Persons 16 years of age and over who had no employment during the reference week, were available for work, except for temporary illness, and had made specific efforts to find employment sometime during the four-week period ending with the reference week. Persons who were waiting to be recalled to a job 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.



## WORKFORCE CENTERS IN THE LARIMER/WELD JVS REGION

### *Larimer County Workforce Center/Fort Collins*

200 W. Oak, Suite 5000  
 P.O. Box 2367  
 Fort Collins, CO 80521-2367  
 Phone: 970-498-6600  
 Fax: 970-498-6673  
 E-mail: lcwc@co.larimer.co.us

### *Larimer County Workforce Center/Loveland*

418 East 4th Street  
 Loveland, CO 80537  
 Phone: 970-667-4261  
 Fax: 970-663-7271  
 E-mail: lcwc@co.larimer.co.us

### *Employment Services of Weld County*

1551 North 17th Avenue  
 P.O. Box 1805  
 Greeley, CO 80632-1805  
 Phone: 970-353-3800  
 Fax: 970-356-3975  
 E-mail: lperez@co.weld.co.us

### *Employment Services of Weld County*

330 Park Avenue  
 Fort Lupton, CO 80621  
 Phone: 970-857-3039 x5981  
 Fax: 970-356-0122



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

