

# Larimer Weld Region Job Vacancy Survey

Fall 2004



Survey Conducted  
August 24 –  
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## The Colorado Job Vacancy Survey

# Introduction

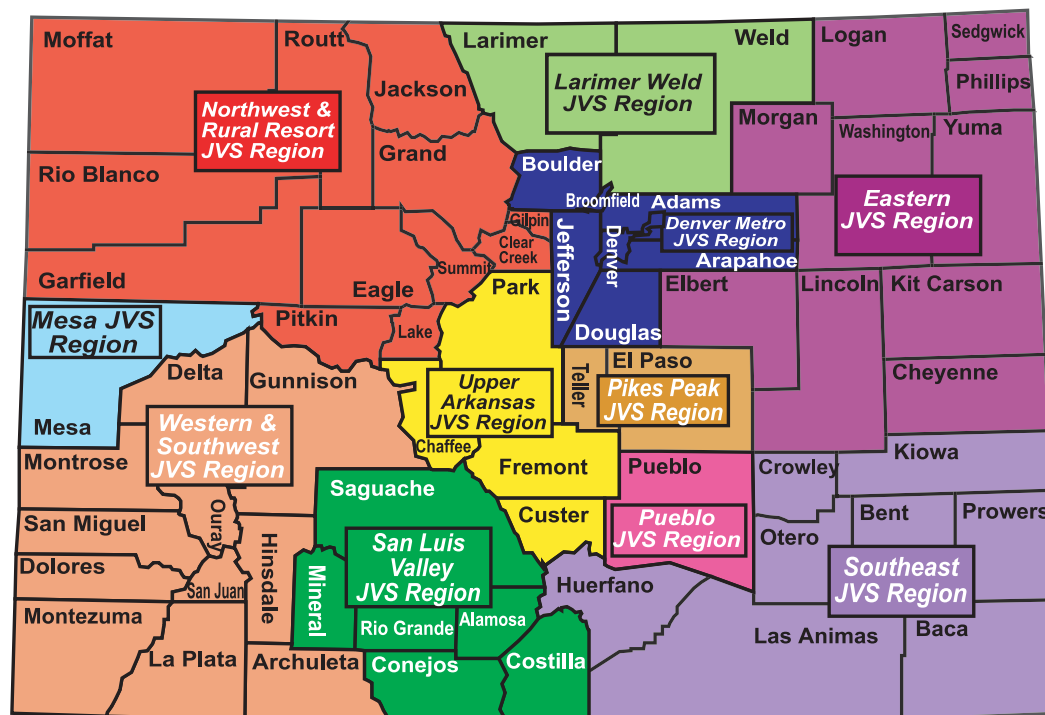
The unemployment rate and the level and growth rate of employment have been used as indicators of labor market conditions for decades. While these indicators provide information about changes in the supply and demand for labor, they reveal nothing about the skills most sought after by employers. As such, 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 Fall 2004 Larimer Weld Job Vacancy

Survey was conducted from August 24th through September 14th, 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 least 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 1,918 employers, representing approximately 44% of the region's employment in firms with five or more employees, responded to the survey. Of these, 132 are Government agencies, 44 are large employers and 1,742 are small to mid-size employers. The survey has a response rate of 91% and a cooperation rate of 99%. The margin of sampling error for the overall vacancy rate is plus or minus 3.1% or about 54 vacancies.

## Major Findings of the Survey:

- ◆ An estimated 1,720 jobs are available, compared to 1,810 vacancies last fall. ....Page 8
- ◆ Government has the most vacancies with 416; followed by 382 in Health Care & Social Assistance; 254 in Trade, Transportation, and Utilities; and 243 in Leisure & Hospitality. ....Page 9
- ◆ The overall average wage in this survey is \$13.30. ....Page 9
- ◆ Of all openings, 60% are permanent/full-time, while only 2% are temporary. ....Page 11
- ◆ More than a high school/GED education is required for 56% of all vacancies. Workers with Vocational Training/Certification are the highest of this group with 23% of the total. ....Page 12
- ◆ Related or occupation specific experience is required for 84% of all vacancies. ....Page 13
- ◆ Of the vacant positions, 42% have been open for less than 30 days, while 12% have been open for 60 or more days. ....Page 15
- ◆ Healthcare Practitioner and Technical has the most vacancies out of the 22 occupational groups. Office and Administrative Support, which had the most vacancies last fall, has dropped to fifth this year. ....Page 18



# 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.**

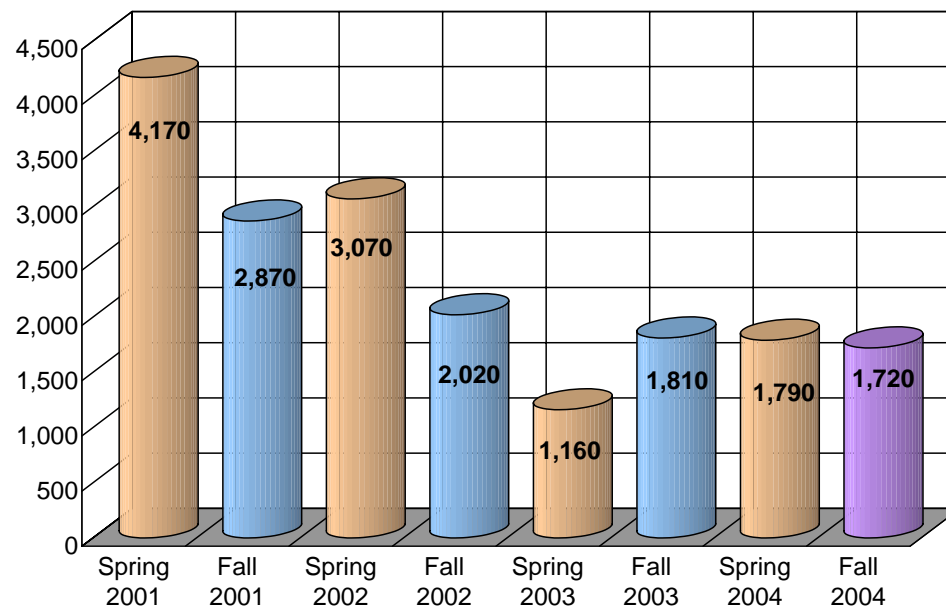
The regional economy is a diverse mix of agriculture, advanced technology, manufacturing and service firms. Weld County is the leading producer of cattle, grains and sugar beets in the state. In fact, Weld County is the leading agricultural products seller in the state and is the fifth largest producing 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 1,720 vacancies in the Larimer Weld Region is almost 5% less than those found this time last year. Since Fall 2001 the amount of vacancies have fallen from 2,870, but have remained relatively stable between the Fall 2003 survey and present.

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

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



	Spring 2001	Fall 2001	Spring 2002	Fall 2002	Spring 2003	Fall 2003	Spring 2004	Fall 2004
Vacancies	4,170	2,870	3,070	2,020	1,160	1,810	1,790	1,720
Labor Force	229,587	249,954	247,897	254,047	257,886	263,808	264,445	264,668
Employment	221,739	238,541	233,265	239,733	242,703	249,426	250,205	251,6416
Unemployment	7,848	11,413	14,632	14,314	15,183	14,382	14,240	13,027
Unemployment Rate	3.4%	4.6%	5.9%	5.6%	5.9%	5.5%	5.4%	4.9%

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



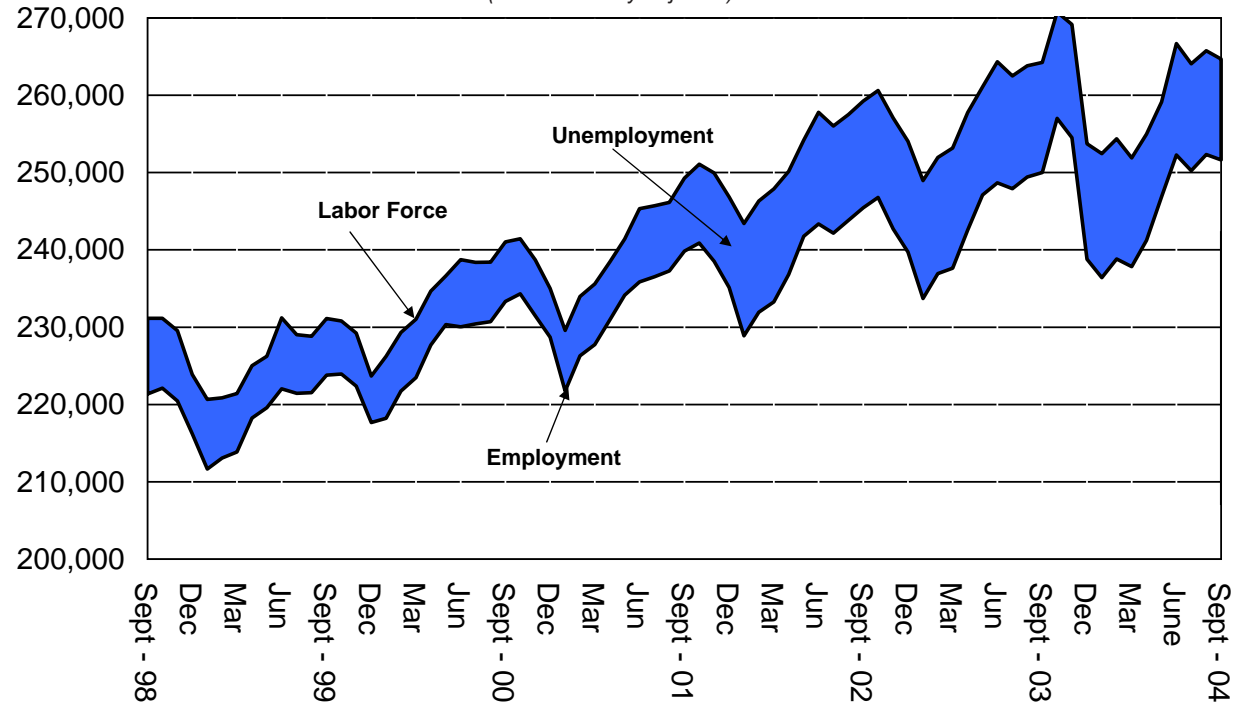
# Regional Information *—continued*

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 2.2% per year from September of 1998 through September 2004. Between September 2003 and 2004 there was a significant drop in the number of unemployed by nearly 1,200 people. This 8.4% decline shows up in the unemployment rate that dropped from 5.4% one year ago to 4.9% today.

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 line and the employment line; the wider the distance between the two, the higher 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 twice 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)



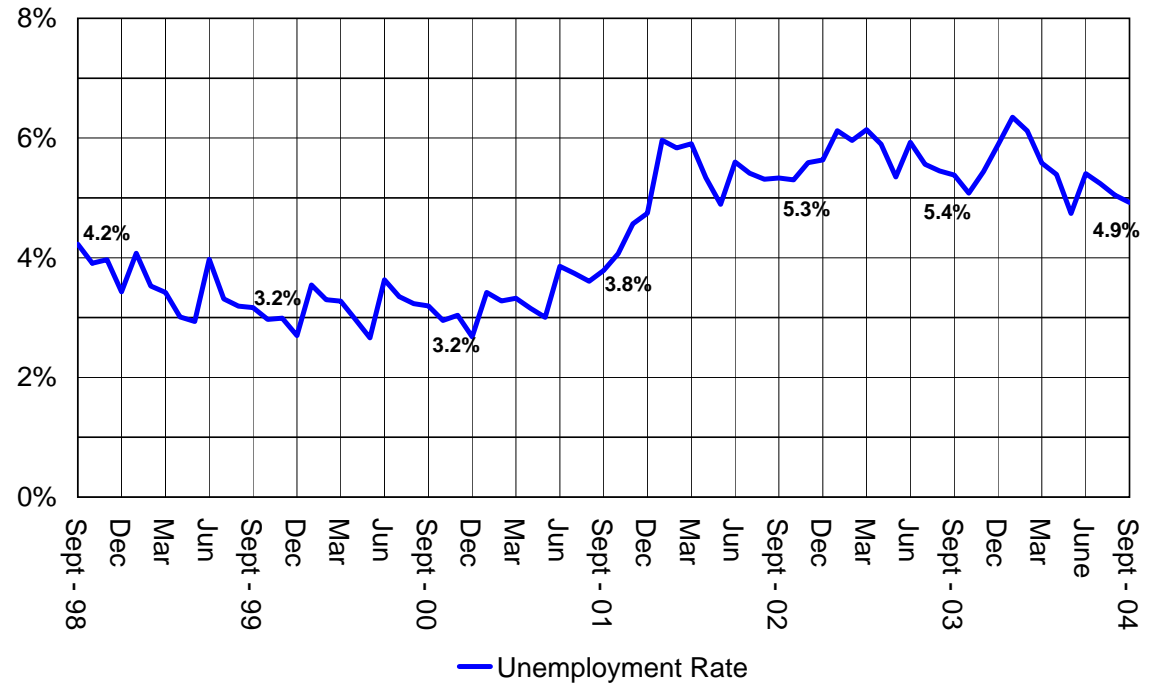
Source: CDLE, Local Area Unemployment Statistics, Released September 2004

Figure 3 shows that in September 2004, the labor force and employment declined slightly in the region. 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.

# Regional Information – continued

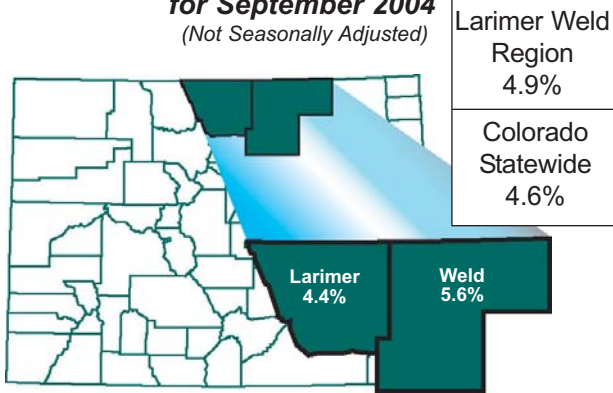
Figure 4, on the other hand, highlights unemployment rates over time in the Larimer Weld Region. The unemployment rate tends to peak in January and June each year and is lowest in May.

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



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

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

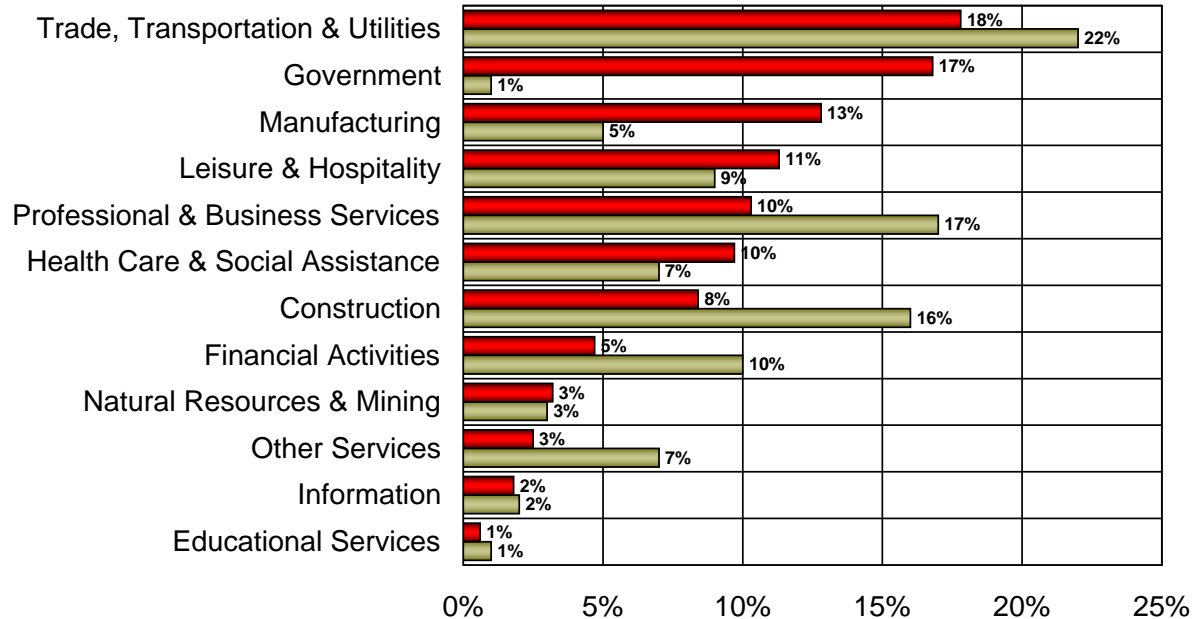


Source: CDLE, Local Area Unemployment Statistics, Released September 2004

The region employed almost 252,000 individuals from a labor force of about 265,000 people in September 2004. Of these, 60% work in Larimer County. The region's September unemployment rate of 4.9% is higher than the State rate of 4.6%. County unemployment rates were 4.4% for Larimer County and 5.6% for Weld County in September of 2004.

# Regional Information —continued

**Figure 6: Larimer Weld Employers and Employees**



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

■ Employers ■ Employees

Firms in the Larimer Weld Region are now grouped into 12 JVS sectors derived from the North American Industry 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.

Figure 6 presents employers and employment data for the 12 JVS sectors used in the Metropolitan Statistical Areas (MSAs) in Colorado (page 33). Data 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 accounts for the largest portion 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 the second largest employing sector in the Larimer Weld Region. The 1% of the region's employers classified under Government employ 17% 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 57% of the

## Regional Information *—continued*

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.

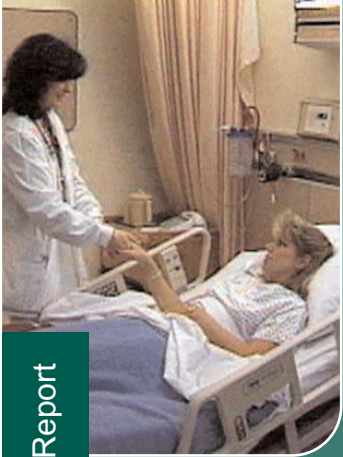
Manufacturing has a higher concentration of employment in the Larimer Weld region than in the state as a whole. The sector accounts for 13% of the region's employment and 5% of the employers. The statewide percentage of manufacturing workers is 7%. By employment, Manufacturing has the largest average firm size, next to the Government sector.

The region also has sizable Leisure & Hospitality; Health Care & Social Assistance; and Professional & Business Services JVS sectors that each employ roughly 10% of the region's workers. Construction is notable as it employs 8% of the region's workers. Construction showed a 40% increase in the number of vacancies from 69 last year to 98 this year.

The Leisure & Hospitality JVS sector had a one percent increase in employers in the region, while the number of employees in that sector fell by two percent. The Professional & Business Services and Information JVS sectors have remained strong in the region during the last 12 months representing nearly 19% of employers in Larimer and Weld Counties.

Another sector that fared well was Manufacturing. While the sector saw very little growth in the number of employers, it did see an increase in the number of employees between the 3rd quarter of 2002 and the third quarter of 2003. 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

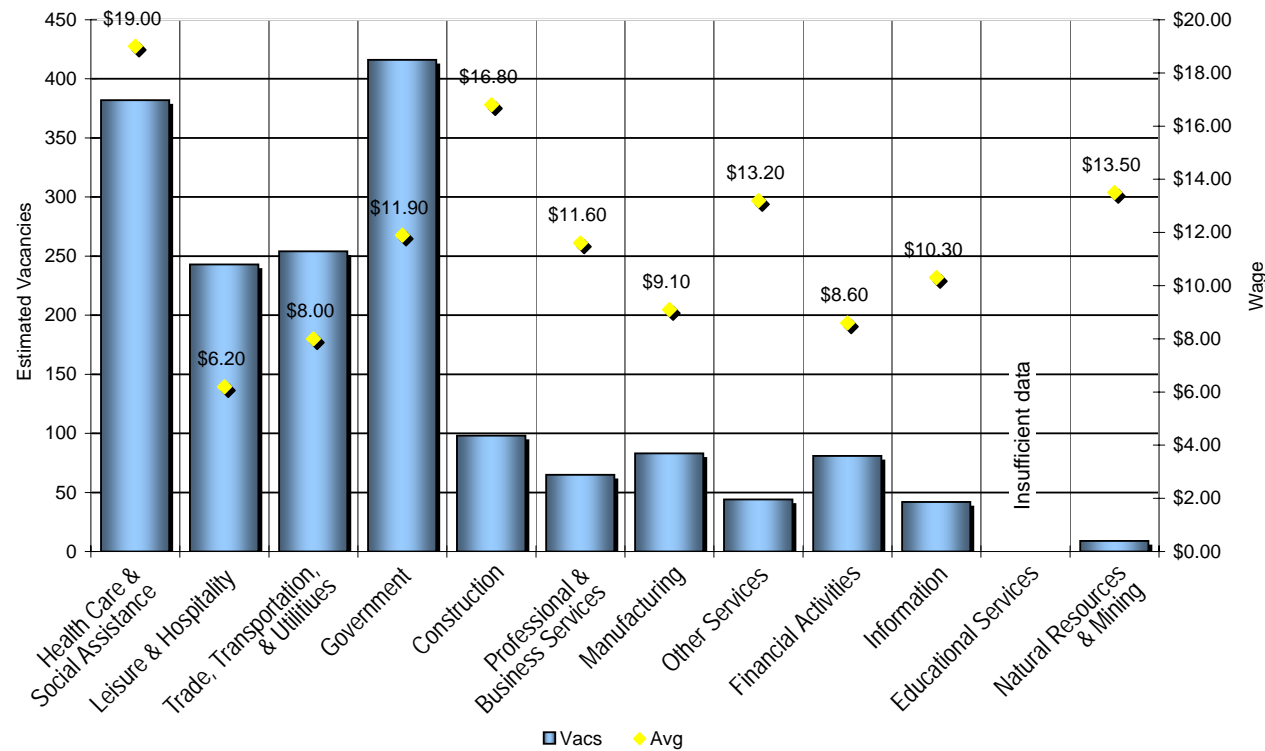
During the survey period, an estimated 1,720 vacancies were open for immediate hire in firms with at least five employees in the Larimer Weld Region. The overall vacancy rate for this survey is 0.98%.

Health Care & Social Assistance has the highest vacancy rate of all JVS sectors at 1.4%. This is reflected in Healthcare Practitioner & Technical,

which has the most vacancies of all occupation groups. Government has a vacancy rate of 1.1%, while Construction and Leisure & Hospitality are tied for third with a 0.9% vacancy rate.

When comparing firm size and vacancies, 83% of the more than 350 vacancies for Health Care & Social Assistance are in large firms. Small firms account for all vacancies in the: Leisure & Hospitality; Construction; Financial Activities; and Other Services sectors.

Figure 7: Estimated Vacancies and Average Wages by JVS Sectors



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

The different levels of government account for approximately 17% of the region’s total employment, just one percent lower than Trade, Transportation & Utilities.

The JVS sectors with the highest number of vacancies are: Government; Health Care & Social Assistance; Trade, Transportation & Utilities; and Leisure & Hospitality. Government alone has more vacancies than the bottom seven industries combined. Almost half of the vacancies in government are part-time permanent positions.

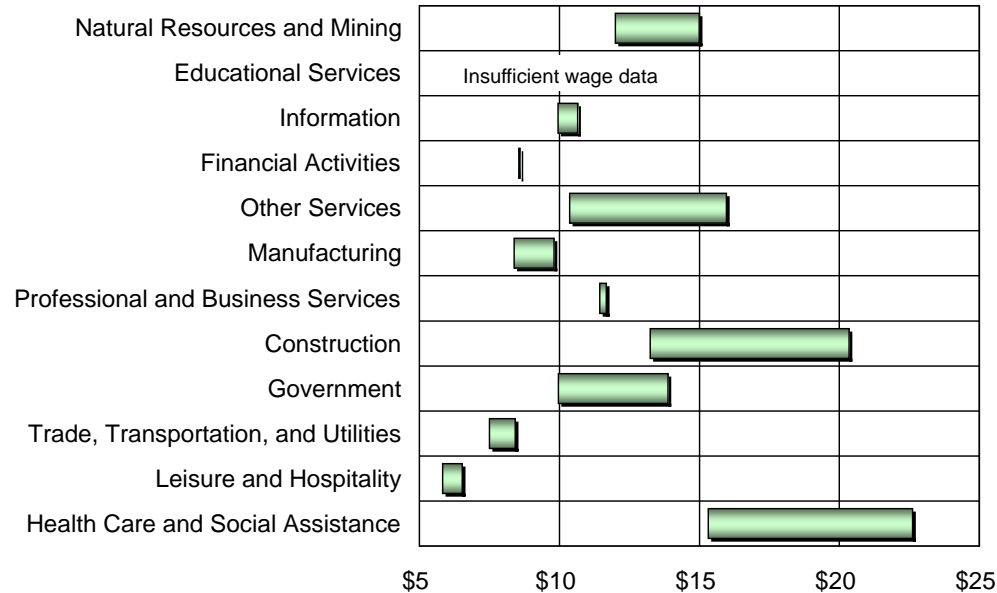
Health Care & Social Assistance has the second highest number of vacancies and the highest average wage in the survey at \$19.00 per hour. This is nearly four times the minimum wage, and nearly \$2.00 more per hour than the average wage in Construction, which is the second highest paying JVS sector.

Trade, Transportation & Utilities, with a vacancy rate of 0.7%, has the third highest number of vacancies. Leisure & Hospitality, with the fourth highest number of vacancies, has the lowest average wage at \$6.20 per hour.

Three out of twelve JVS sectors have average wages higher than the overall average of \$13.30. *Figure 8* illustrates the average reported wage range by JVS sectors. Construction and Health Care & Social Assistance both offer wide wage ranges. Wages in Health Care & Social Assistance vary greatly with occupation as well as educational attainment.

Leisure & Hospitality has the lowest average wage range, starting at just over \$6.00 per hour. There are a variety of factors that play into this, including the abundance of entry level work, and the amount of openings without wage information.

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



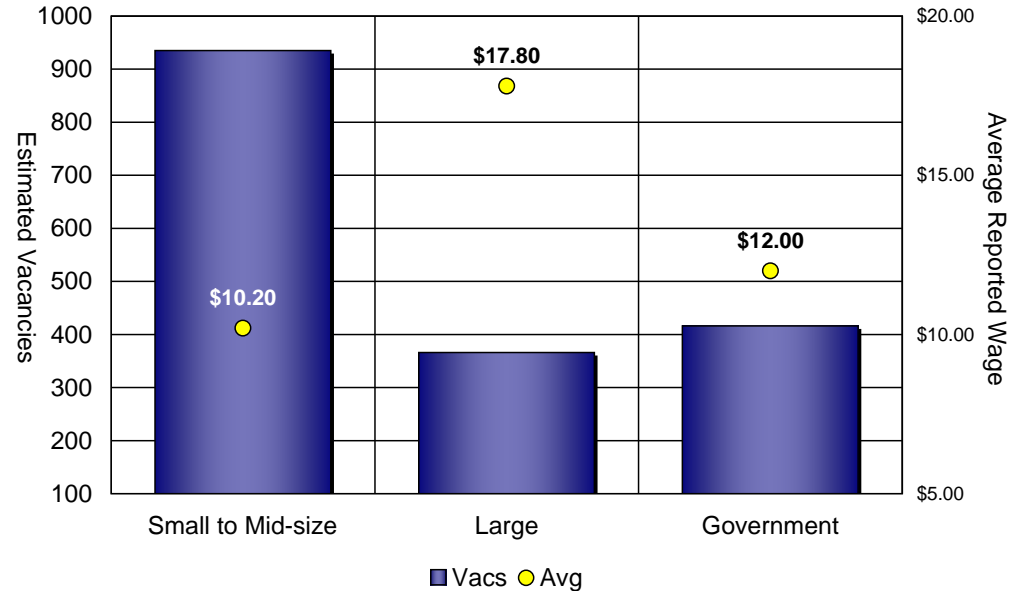
# Survey Findings *Estimated Vacancies: JVS Sectors and Employer Size — continued*

Overall, 10% of employers surveyed reported at least one vacancy. That said, the likelihood of finding an open position at a business varied with employer size, as defined by the number of employees at a firm and by whether they are Private or Government firms. About 52% of large and 17% of Government employers surveyed report a vacancy, while just 8% of the many small to mid-size employers have an opening.

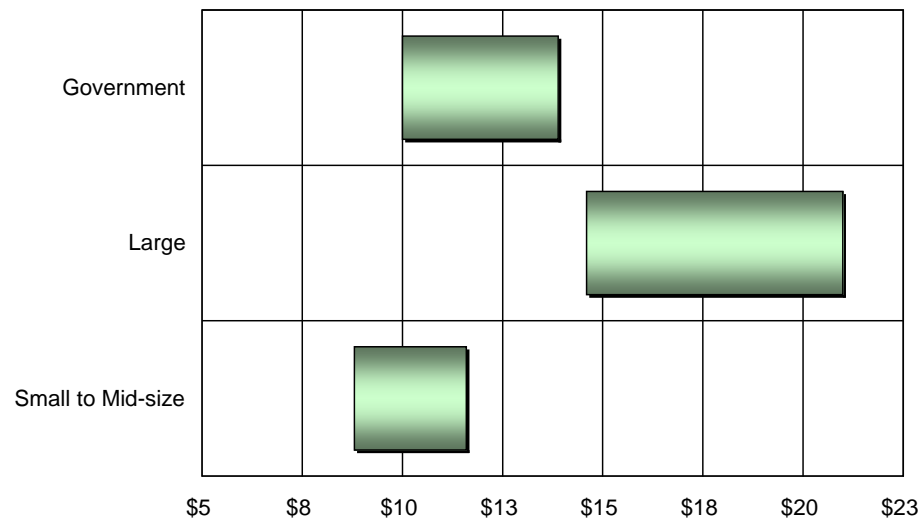
Small to mid-size employers (those with 5-199 employees) offer 54% of the vacancies. Government institutions offer the second highest percentage at 25%. Large firms offer the least amount of openings, with 21%. Government entities offer the second highest wages as a group below Large firms.

*Figure 10* illustrates the reported average wage range by employer size for this survey. In comparing wages between this survey and the Fall 2003 survey, it can be noted that wage ranges tightened in two categories. Average wages in Government went from \$9.00-15.00 last year to \$10.00-13.90 this year. A decrease can be seen in average wage ranges of large employers where wages that ranged from \$17.00-26.00 last year decreased to \$14.60-21.00 this year. Small to mid-size employers are offering higher wages this year, with an increase of roughly \$2.00 per hour over wages offered last year.

**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 98% of the job vacancies for which employment status is reported are permanent positions. Full-time permanent positions make up 60% of the total openings and offer average wages that range between \$12.20 and \$16.30. Part-time permanent positions make up 38% of the total openings and offer wages that range between \$10.60 and \$15.70. Approximately 38% of the full-time vacancies are in the Government sector.

Of the vacancies that are in the part-time permanent category, Government makes up 56% while Healthcare & Social Assistance accounts for 23%. Leisure & Hospitality has 8% of the vacancies, 66% of which are in small firms.

Temporary positions constitute 2% of the vacancies, with over half of these being full-time temporary positions. Temporary positions offer average wages that range between \$8.40 and \$13.00.

Figure 11: Vacancies by Employment Status

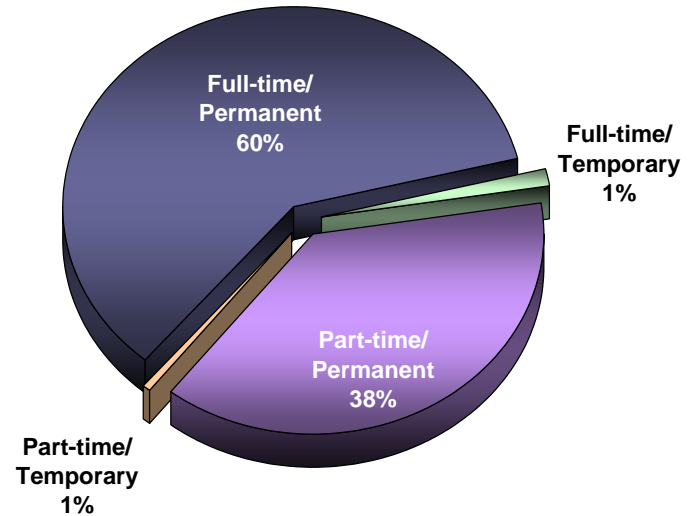
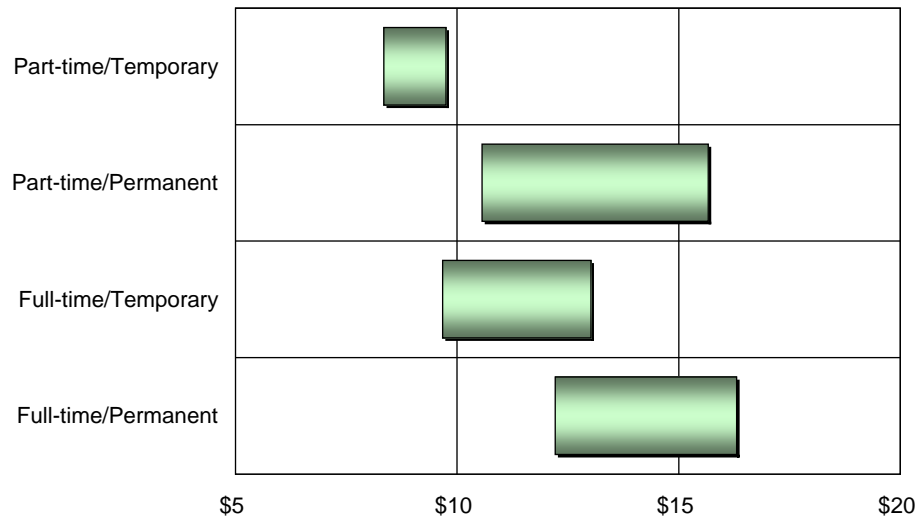


Figure 12: Reported Average Wage Ranges by Employment Status



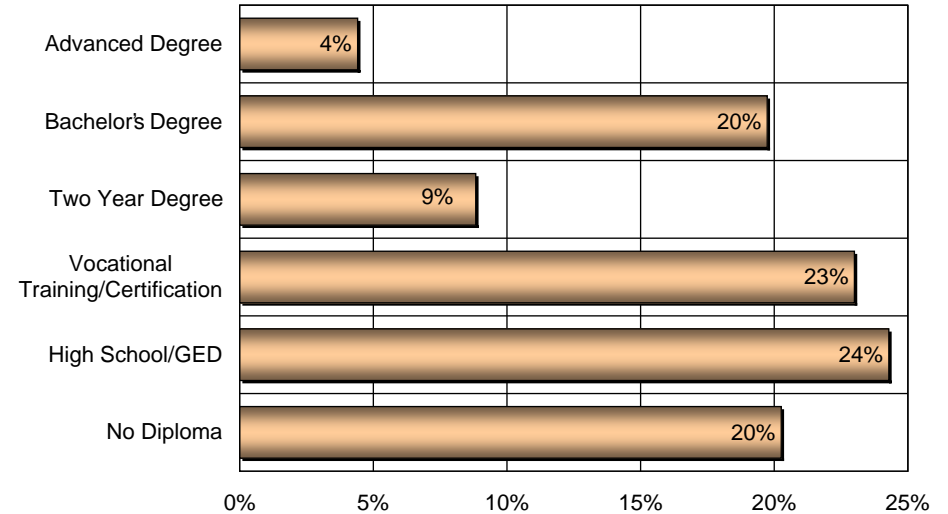
# Survey Findings *Vacancies: Employment Status, Education and Experience Requirements—continued*

During periods of high unemployment, one might assume that there are plenty of qualified candidates and no job openings. The reality is that even in recessions there are many employers who cannot find qualified candidates for their open positions. It is important, therefore, that job seekers have information regarding what education and experience levels are in highest demand.

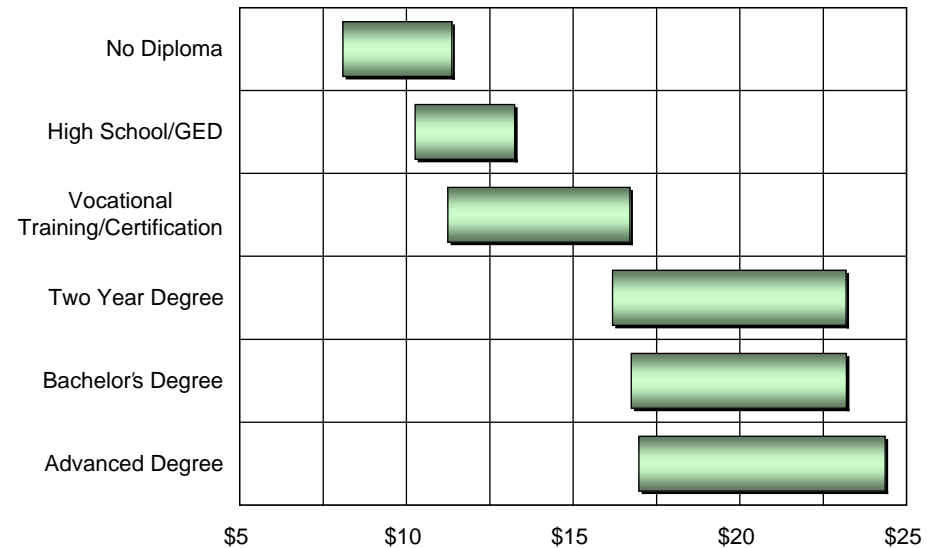
Fifty-six percent of the vacancies in this survey require more than a high school diploma or GED. The largest category is vocational training or certification which is required by 23% of the vacancies. Twenty percent of the vacancies have no diploma requirements. Most of these vacancies are in Building & Grounds Cleaning & Maintenance.

Bachelor degrees command on average between \$16.10 and \$23.20 an hour in this survey, while a high school diploma or GED command on average between \$10.30 and \$13.30 per hour. While obtaining higher levels of education is expensive and difficult, the difference in pay offers an incentive.

**Figure 13: Vacancies by Education**



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





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

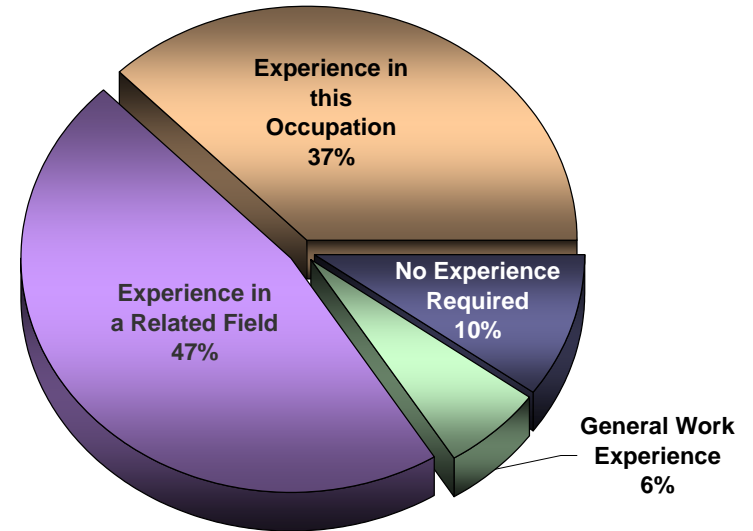
Figure 15 shows the percent breakdown of vacancies by experience requirement. Almost 90% of the vacancies have experience requirements. Approximately 37% of the vacancies require occupation specific experience, while 47% require experience in a related field. Job vacancies for which prior experience is required in the same occupation paid the highest average wages, commanding a premium of more than 10% over positions requiring experience in a related field. There is a steady drop from experience in a related field to general work experience and no experience required. Vacancies not requiring work experience have an average wage of \$8.70 per hour, which is well above the minimum wage.

Government accounts for 39% of vacancies requiring occupation specific experience. Of these, youth athletics is the most common occupation. The Healthcare & Social Assistance sector has about 32% of the vacancies that require occupation specific experience. Twenty-four percent of all vacancies requiring occupation specific experience are in the Healthcare Practitioners & Technical occupations. Openings in these occupations 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. The Government sector also has positions with higher end wages, which are typically in management and specialist areas.

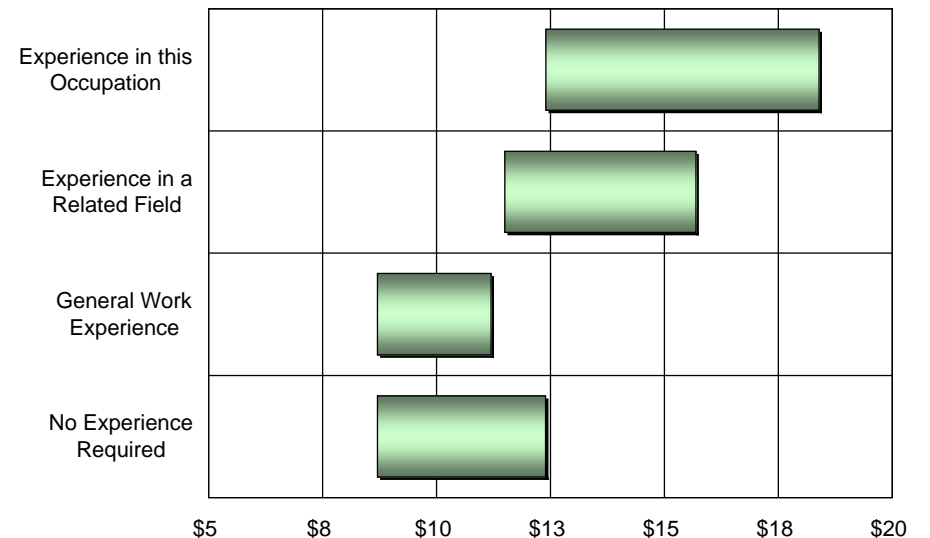
Forty-seven percent of all vacancies require experience in a related field. Of these, 47% are in the Government sector. Another 38% are in large firms, making a total of 85% between Government and Large firms. Thirty percent of vacancies requiring experience in a related field are in the Healthcare Practitioners & Technical occupations, 40% of these are for Registered Nurses.

General work experience requirements are most often for Cashiers, Tellers and Retail Salespeople. Thirty-eight percent of vacancies with the general work experience requirement are in the Government sector, most of which are in Protective Service.

**Figure 15: Vacancies by Experience**

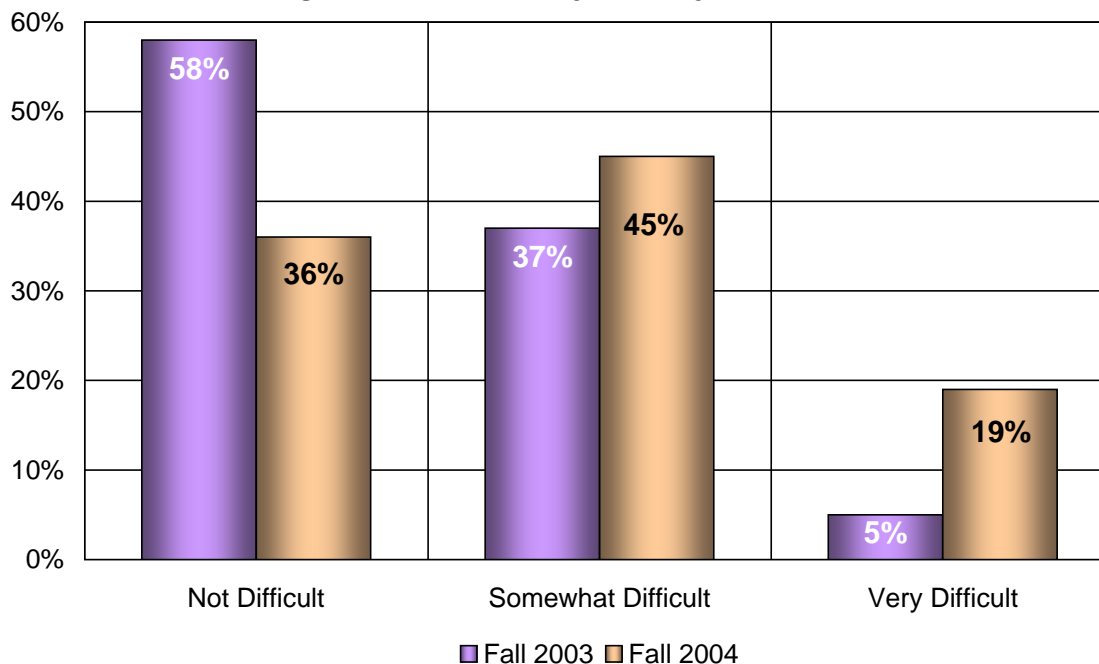


**Figure 16: Reported Average Wage Ranges by Experience**



# Survey Findings

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



**The level of difficulty an employer experiences when filling a vacancy** can vary dramatically depending on the nature of the individual vacancy as well as the prevailing labor market conditions. For example, finding a high level executive with the right qualifications is usually more difficult than a retail salesperson. When jobs are plentiful, and labor is in short supply, as it was in the late 1990's here in Colorado, it may be difficult to fill vacancies no matter what the position or its associated skills and requirements. The composition of the currently available labor pool will also affect the difficulty employers experience when trying to meet all of the regions demand. If employers are finding the same positions difficult to fill one survey after another, then local education and training institutions may want to design programs that try to meet that demand.

Employers are finding it more difficult hire qualified workers in this survey than in the fall of 2003. A comparison of the two surveys reveals:

- The proportion of vacancies reported as very difficult to fill increased from 5% to 19%.
- Openings reported as somewhat difficult to fill increased from 37% to 45%.
- Vacancies reported as not difficult to fill decreased from 58% last fall to 36% this fall.

In addition to asking employers about their perceived difficulty in filling vacant positions, the Job Vacancy Survey also measures the amount of time for which employers have been actively recruiting for positions. This additional information allows readers to make better judgments regarding the difficulty employers are experiencing than if the survey relied wholly on an employer's perception of how difficult a vacancy is to fill.

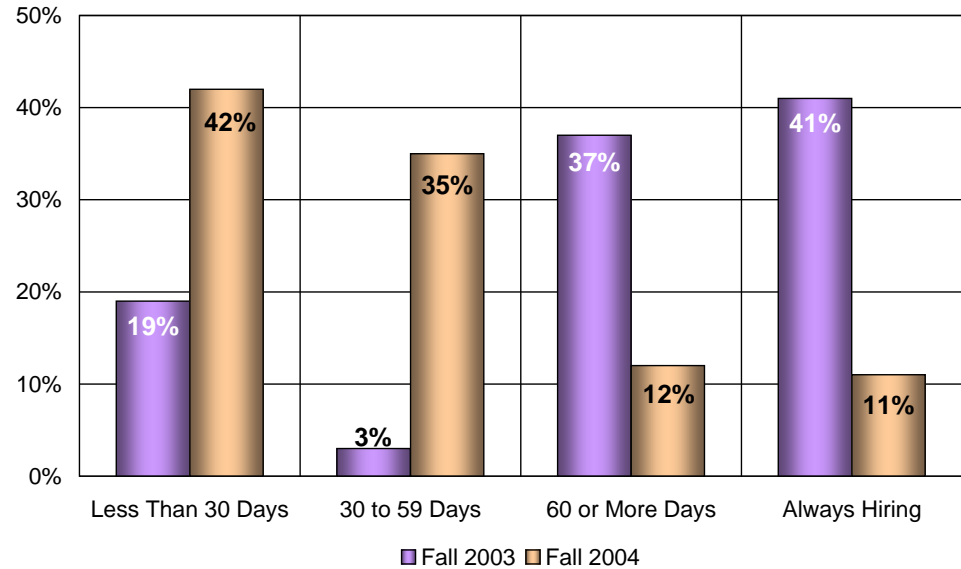
# Survey Findings *Vacancies: Difficulty to Fill and Time Open for Hire—continued*

How long a vacancy is open is often indicative of the degree of difficulty an employer is having in filling the position. Factors include: the availability of qualified candidates; competition among employers for similar applicants; and the willingness of candidates to accept job duties considering wages and benefits offered. Also, employers may allow more time to fill a vacancy in order to ensure the fit of the candidate with the organization, or because there may be a limited number of qualified candidates.

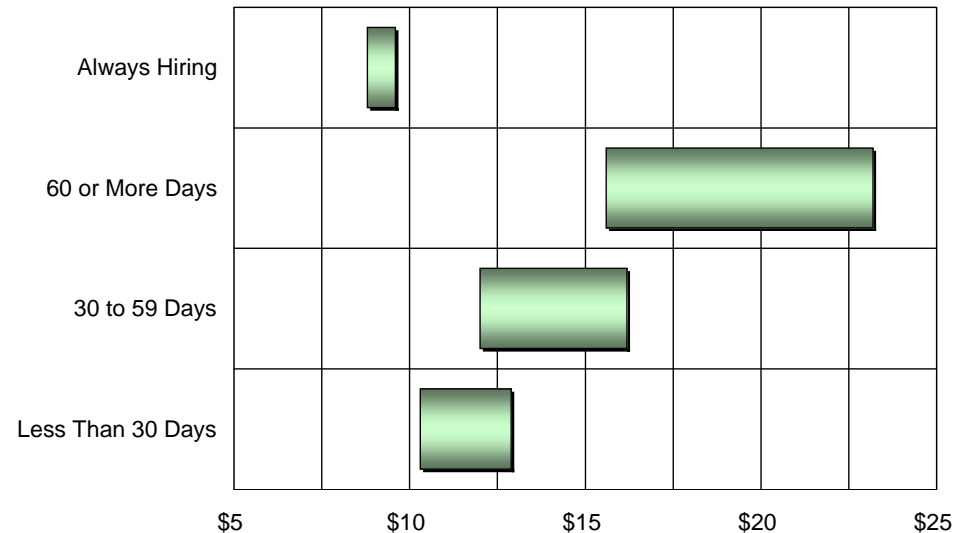
While one employer may consider a vacancy somewhat difficult to fill when it has been open for 30 to 60 days, another employer may consider a similar vacancy not difficult to fill given the same time frame. A significantly higher percentage of vacancies were open for 30 to 59 days and for less than 30 days this year compared to last year.

The survey found that positions open for longer periods of time often have higher associated wages. As higher wages usually accompany occupations that require specialized skills, it may take an employer longer to hire the candidate with the desired background. Seventeen percent of the vacancies open for less than 59 days were found in Landscaping & Groundskeeping Workers which had an average wage of \$10.50 per hour, while more than 47% of the vacancies open for more than 60 days were for Registered Nurses with an average hourly wage of \$24.80.

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



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



Additional  
Compensation

## 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 important 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.

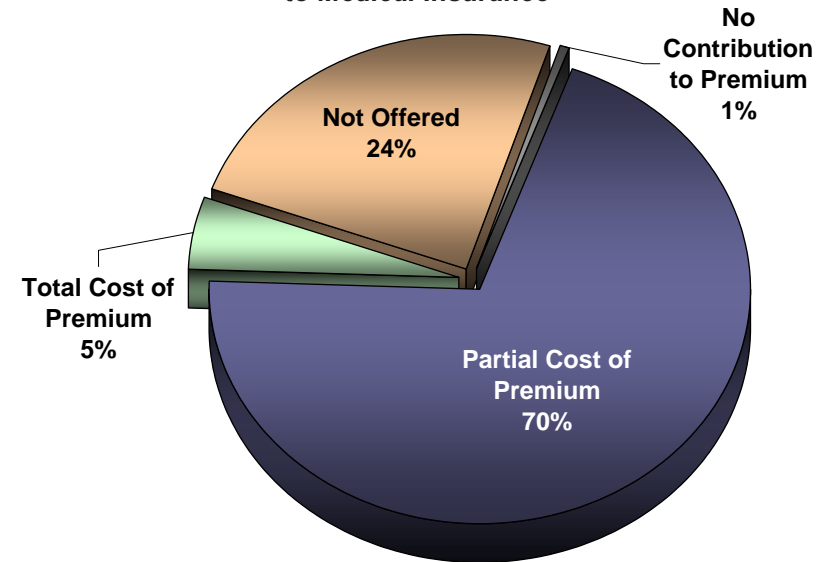
Of the vacancies that provided data on medical insurance, 5% contributed to the total cost of the premium compared to 70% that paid partial cost of the premium. In the remaining 25% of vacancies, the employer made no contribution to medical insurance or did not offer it.

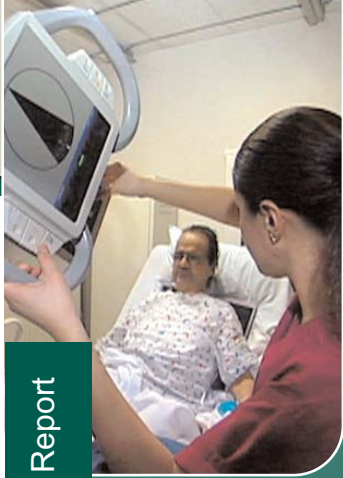
Over 50% of firms offering to pay the total cost of the premium are in Construction; Health Care & Social Assistance; and Other Services, each accounting for 17% of the vacancies in this category. The remaining 49% of vacancies are distributed between the Financial & Insurance; Manufacturing; Transportation & Warehousing; and Information Sectors. Wages range from \$13.00 – \$17.10 for openings in which total cost of the premium is offered.

**Sign-On Bonus**

**In a labor market characterized by relatively high rates of unemployment and limited job vacancies, few employers offer sign-on bonuses.** No vacancies are offered with bonuses in this survey.

*Figure 20: Employers' Contribution to Medical Insurance*





## Introduction

# Occupational Details

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

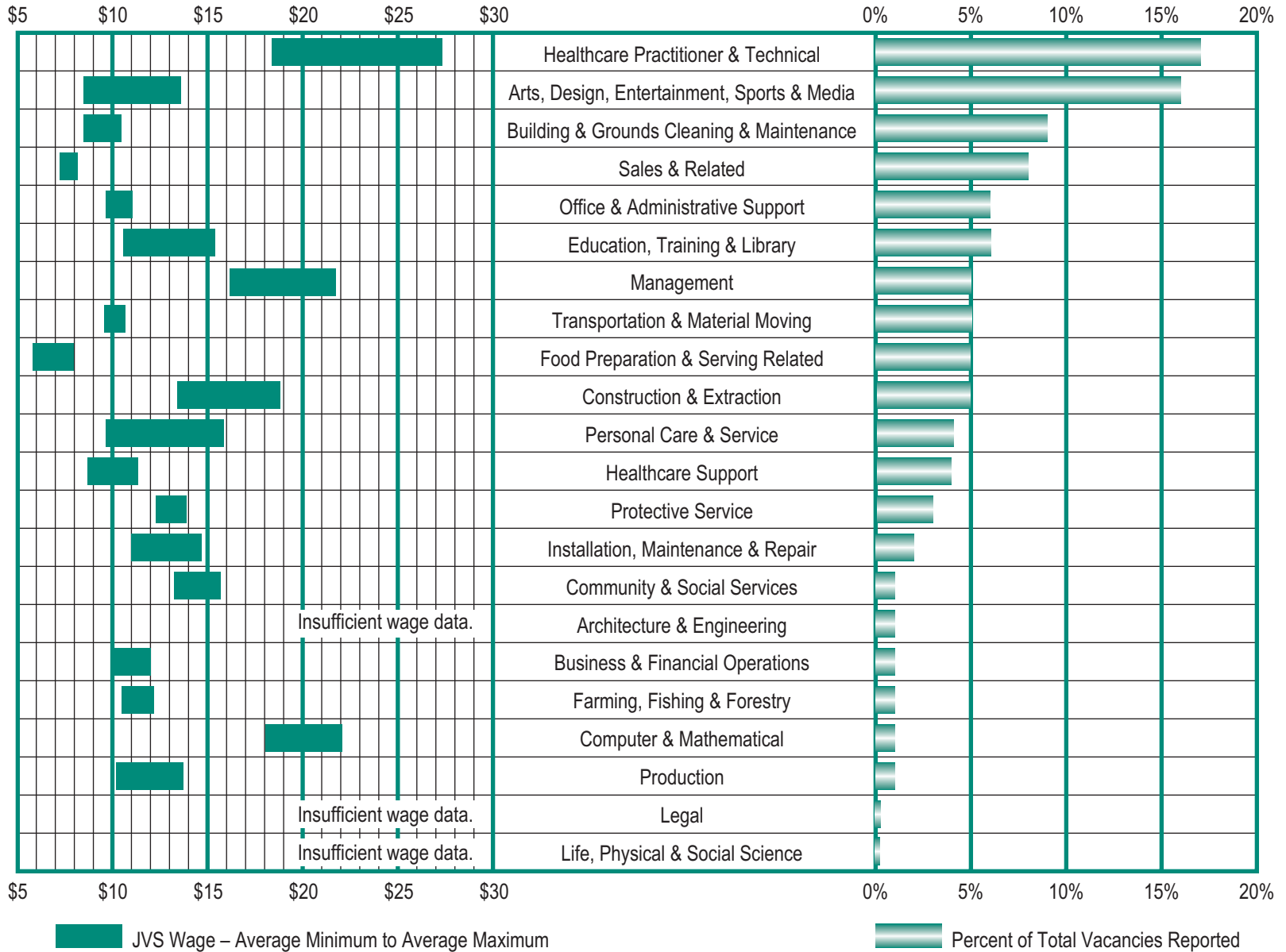
In order to help make comparisons between the results of this survey and other sources of employment statistics easier, all jobs reported are assigned an occupation code based on the *2000 Standard Occupational Classification Manual* published by the Executive Office of the President, Office of Management and Budget. The SOC system contains 821 detailed occupation titles that fall into 23 major occupational groups. Vacancies found in this survey were coded into 22 of the 23 major occupational groups.

*Figure 21* is a ranking of the vacancies by major occupational group. Of those occupation groups, Healthcare Practitioner & Technical accounts for the highest number of vacancies, followed by Arts, Design Entertainment, Sports & Media, then Building & Grounds Cleaning & Maintenance.



# Occupational Details *—continued*

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



# Occupational Details *—continued*

## High Demand Occupations

The most demanded occupations in the survey come from several different occupational groups. Registered Nurses are in the Healthcare Practitioners & Technical group; Nursing Aides, Orderlies, and Attendants are in Healthcare Support occupational group, while Retail Salespersons are from the Sales & Related group.

Of the different occupations with the 20 highest average wages, nearly half are from just four occupational groups: Healthcare Practitioners & Technical; Arts, Entertainment, Sports & Media; Buildings & Grounds Cleaning & Maintenance; and Sales & Related occupations. By far, the greatest number of vacancies in these high-paying occupations is, as in past surveys, for Registered Nurses. Also in demand are Nursing Aides, Orderlies & Attendants, while several other occupational categories have only a handful of open positions. People currently preparing to work in the healthcare field should feel confident they will be able to find employment and receive relatively high starting wages.

## Occupational Estimates

*Table 1* and *Table 2* contain a list of detailed SOC job titles assigned to vacancies reported in this survey which had five or more estimated vacancies. Because a census of large employers and Government agencies is conducted, the list contains titles for nearly all of the vacancies available at the time of the survey for those employers. Twenty-six percent of all small to mid-size employers were contacted for the random sample and likewise the occupations associated with those vacancies are listed.

Vacancies estimated and reported along with wages offered are displayed in *Table 1* 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 accounting of the vacancies. However, in addition to the number found, vacancies are estimated for occupations reported by small to mid-size private firms. The estimated vacancies are calculated per the current mix of occupations filled in the region at the major occupational group level. Estimated vacancies by major occupational group are then proportionally distributed among the specific detailed occupations reported in the survey.

## Vacancies Found

The number of vacancies by occupation reported in the survey.

## Average JVS Wage Offered

The average of all wages reported in the survey is given for each occupation. The average wage is based solely on information provided by employers responding to this survey, and does not reflect information from other sources or wages paid for currently filled positions. Wage information accompanied 29% of reported vacancies.

## Average OES Wage Paid

Occupational Employment Statistics (OES) wage data are provided for each occupation. OES data are based on a national survey of employers and refer to filled positions, not vacancies. The data provided here are reported for the Larimer Weld Region when available and statewide otherwise. Data are collected for the three-year rolling OES panels, concluding in May 2003. 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 already filled positions. Together, these data provide employers and job seekers with a good indication of the compensation available in the current job market.

# Occupational Details *—continued*

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

SOC Code	Occupational Title	Vacancies Estimated	Vacancies Found	Mid-point JVS Wage	Occupational Employment Statistics Wage Data (2003)							
					Average Wages			Percentile Distribution				
					Entry	Overall	Experienced	10th	25th	50th	75th	90th
29-1111	Registered Nurses	100	84	\$24.80	\$17.24	\$22.23	\$24.73	\$15.89	\$18.62	\$21.58	\$25.72	\$29.00
27-2022	Coaches and Scouts	87	87	\$11.20	\$15,551	\$36,545	\$47,041	\$14,180	\$17,174	\$23,232	\$48,937	\$82,388
37-3011	Landscaping and Groundskeeping Workers	69	62	\$9.60	\$7.71	\$10.59	\$12.03	\$7.30	\$8.41	\$10.10	\$12.14	\$15.11
41-2011	Cashiers	64	36	\$7.40	\$6.48	\$8.67	\$9.77	\$6.06	\$6.96	\$8.01	\$9.33	\$13.47
25-2011	Preschool Teachers, Except Special Education	48	6	\$10.00	\$7.73	\$10.29	\$11.57	\$7.40	\$8.19	\$9.54	\$10.97	\$13.96
* 27-2023	Umpires, referees, and other sports officials	47	47	\$11.10	\$15,220	\$28,180	\$34,670	\$13,230	\$17,440	\$24,080	\$35,470	\$43,340
41-2031	Retail Salespersons	47	17	\$7.40	\$7.18	\$11.15	\$13.14	\$6.64	\$7.64	\$8.87	\$12.20	\$17.76
31-1012	Nursing Aides, Orderlies, and Attendants	41	28	\$9.20	\$8.63	\$10.55	\$11.51	\$7.89	\$9.15	\$10.33	\$12.04	\$13.59
35-3031	Waiters and Waitresses	40	11	\$5.20	\$5.99	\$7.39	\$8.08	\$5.62	\$6.05	\$6.77	\$8.75	\$10.25
43-3071	Tellers	37	12	\$9.00	\$8.66	\$10.21	\$10.98	\$8.06	\$9.07	\$10.12	\$11.18	\$12.87
53-3031	Driver/Sales Workers	33	12	\$6.20	\$5.97	\$9.53	\$11.31	\$5.61	\$6.07	\$6.89	\$11.08	\$17.79
53-7062	Laborers and Freight, Stock, and Material Movers, Hand	33	21	\$11.10	\$7.83	\$10.91	\$12.45	\$7.44	\$8.51	\$10.53	\$13.00	\$15.56
35-2014	Cooks, Restaurant	33	9	\$7.40	\$7.11	\$8.97	\$9.90	\$6.59	\$7.60	\$8.81	\$10.17	\$11.24
43-9061	Office Clerks, General	24	7	\$11.50	\$7.74	\$11.78	\$13.80	\$6.81	\$8.80	\$11.11	\$13.68	\$16.57
43-4171	Receptionists and Information Clerks	21	4	\$8.80	\$8.62	\$11.40	\$12.79	\$7.88	\$9.30	\$10.94	\$13.23	\$16.05
47-2152	Plumbers, Pipefitters, and Steamfitters	21	7	\$23.50	\$13.26	\$19.87	\$23.18	\$12.00	\$15.26	\$20.07	\$24.97	\$28.10
35-3021	Combined Food Preparation and Serving Workers, Including Fast Food	21	13	\$7.50	\$6.00	\$7.47	\$8.21	\$5.75	\$6.41	\$7.40	\$8.33	\$9.52
17-2141	Mechanical Engineers	20	1	†	\$18.37	\$26.44	\$30.47	\$17.82	\$19.60	\$23.99	\$32.35	\$39.69
15-1021	Computer Programmers	20	1	\$20.00	\$18.61	\$28.46	\$33.39	\$16.27	\$21.93	\$27.09	\$35.10	\$42.67
13-2011	Accountants and Auditors	17	5	\$11.00	\$17.52	\$24.53	\$28.03	\$16.33	\$18.87	\$22.42	\$28.67	\$36.19

\* OES Wages reported for Colorado statewide

† Insufficient wage data available

# Occupational Details *—continued*

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

SOC Code	Occupational Title	Vacancies Estimated	Vacancies Found	Mid-point JVS Wage	Occupational Employment Statistics Wage Data (2003)							
					Average Wages			Percentile Distribution				
					Entry	Overall	Experienced	10th	25th	50th	75th	90th
51-4034	Lathe and Turning Machine Tool Setters, Operators, and Tenders, Metal and Plastic	17	2	\$16.00	†	†	†	†	†	†	†	†
37-2012	Maids and Housekeeping Cleaners	17	4	\$8.60	\$6.38	\$7.79	\$8.49	\$6.01	\$6.85	\$7.72	\$8.56	\$9.90
11-2022	Sales Managers	17	10	\$12.00	\$23.41	\$45.31	\$56.27	\$20.72	\$27.47	\$37.63	\$55.71	†
47-2073	Operating Engineers and Other Construction Equipment Operators	16	8	\$14.90	\$13.94	\$16.95	\$18.46	\$12.83	\$14.76	\$16.65	\$19.40	\$21.80
43-6011	Executive Secretaries and Administrative Assistants	15	7	\$11.80	\$12.85	\$16.95	\$19.00	\$12.13	\$13.76	\$15.98	\$18.98	\$22.70
39-9032	Recreation Workers	15	15	\$11.90	\$7.20	\$10.21	\$11.71	\$6.74	\$7.68	\$8.98	\$12.23	\$16.17
* 47-2221	Structural iron and steel workers	15	5	\$16.00	\$14.00	\$19.00	\$22.00	\$13.00	\$16.00	\$20.00	\$23.00	\$26.00
37-2011	Janitors and Cleaners, Except Maids and Housekeeping Cleaners	15	8	\$8.30	\$7.20	\$9.33	\$10.39	\$6.66	\$7.61	\$8.66	\$10.63	\$13.16
33-9032	Security Guards	14	3	\$8.80	\$7.26	\$10.48	\$12.09	\$6.40	\$8.25	\$10.05	\$12.35	\$14.99
29-2034	Radiologic Technologists and Technicians	12	10	\$22.10	\$14.61	\$18.40	\$20.30	\$13.53	\$15.46	\$18.21	\$21.30	\$23.85
* 29-2011	Medical and clinical laboratory technologists	12	12	\$21.60	\$16.00	\$21.00	\$23.00	\$15.00	\$18.00	\$21.00	\$24.00	\$27.00
47-2061	Construction Laborers	12	4	\$9.90	\$8.63	\$11.75	\$13.31	\$7.95	\$9.30	\$11.14	\$13.64	\$16.52
53-3032	Truck Drivers, Heavy and Tractor-Trailer	12	4	\$12.80	\$11.30	\$15.25	\$17.22	\$10.83	\$12.38	\$14.72	\$17.48	\$21.37
39-5012	Hairdressers, Hairstylists, and Cosmetologists	12	5	\$15.00	\$8.27	\$12.83	\$15.11	\$7.11	\$9.38	\$11.89	\$15.99	\$18.15
43-3031	Bookkeeping, Accounting, and Auditing Clerks	11	3	\$12.50	\$10.01	\$13.98	\$15.96	\$9.35	\$11.15	\$13.35	\$16.61	\$20.19
43-5081	Stock Clerks and Order Fillers	11	3	\$7.30	\$7.72	\$11.07	\$12.75	\$7.35	\$8.40	\$10.44	\$13.46	\$16.50
49-9042	Maintenance and Repair Workers, General	11	7	\$11.70	\$9.29	\$14.38	\$16.93	\$8.43	\$10.64	\$13.64	\$17.40	\$21.81

\* OES Wages reported for Colorado statewide

† Insufficient wage data available

# Occupational Details *—continued*

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

SOC Code	Occupational Title	Vacancies Estimated	Vacancies Found	Mid-point JVS Wage	Occupational Employment Statistics Wage Data (2003)							
					Average Wages			Percentile Distribution				
					Entry	Overall	Experienced	10th	25th	50th	75th	90th
33-9099	Protective Service Workers, All Other	11	11	\$9.10	\$6.37	\$9.72	\$11.40	\$5.99	\$6.86	\$8.40	\$11.45	\$13.74
43-4131	Loan Interviewers and Clerks	10	2	†	\$9.85	\$12.88	\$14.40	\$9.57	\$10.68	\$12.30	\$14.99	\$17.91
43-5041	Meter Readers, Utilities	10	2	†	\$10.55	\$14.32	\$16.21	\$9.48	\$11.53	\$13.91	\$16.41	\$20.27
11-2021	Marketing Managers	10	3	†	\$25.10	\$40.93	\$48.84	\$22.58	\$29.05	\$41.22	\$49.90	\$59.98
11-9021	Construction Managers	10	3	\$24.30	\$22.57	\$29.93	\$33.62	\$19.88	\$24.99	\$28.41	\$33.78	\$41.73
11-9111	Medical and Health Services Managers	10	10	\$21.70	\$22.19	\$33.68	\$39.42	\$19.84	\$24.80	\$30.06	\$39.50	\$52.25
47-4051	Highway Maintenance Workers	10	10	\$14.70	\$12.70	\$17.17	\$19.40	\$11.87	\$13.88	\$17.67	\$20.35	\$22.07

\* OES Wages reported for Colorado statewide

† Insufficient wage data available



# Occupational Details *—continued*

**Table 2: Occupations with Fewer than 10 Estimated Vacancies**

SOC Code	SOC Occupational Title	Occupational Employment Statistics Wage Data (2003)							
		Average Wages			Percentile Distribution				
		Entry	Overall	Experienced	10th	25th	50th	75th	90th
43-6013	Medical Secretaries	\$9.82	\$13.03	\$14.64	\$8.65	\$11.12	\$13.38	\$15.46	\$16.92
11-9051	Food Service Managers	\$14.19	\$36.93	\$48.30	\$13.13	\$15.68	\$21.59	\$62.35	†
25-9041	Teacher Assistants	\$15,681	\$20,219	\$22,488	\$14,882	\$16,961	\$19,673	\$22,975	\$27,037
39-9031	Fitness Trainers and Aerobics Instructors	\$6.54	\$12.32	\$15.21	\$5.99	\$7.24	\$10.24	\$16.68	\$20.88
47-2111	Electricians	\$11.97	\$19.05	\$22.59	\$11.39	\$13.10	\$18.03	\$23.36	\$31.14
41-2021	Counter and Rental Clerks	\$6.65	\$10.63	\$12.63	\$6.11	\$7.18	\$8.83	\$12.28	\$17.77
41-9091	Door-to-Door Sales Workers, News and Street Vendors, and Related Workers	†	†	†	†	†	†	†	†
53-3033	Truck Drivers, Light or Delivery Services	\$7.75	\$13.09	\$15.76	\$7.25	\$8.59	\$11.87	\$16.48	\$22.00
51-1011	First-Line Supervisors/Managers of Production and Operating Workers	\$14.29	\$22.99	\$27.35	\$13.06	\$16.22	\$20.66	\$26.65	\$34.08
51-3011	Bakers	\$6.93	\$10.55	\$12.36	\$6.37	\$7.67	\$10.01	\$13.29	\$16.13
51-4121	Welders, Cutters, Solderers, and Brazers	\$9.18	\$13.28	\$15.32	\$8.30	\$10.29	\$12.82	\$15.87	\$18.85
51-4122	Welding, Soldering, and Brazing Machine Setters, Operators, and Tenders	\$11.79	\$14.26	\$15.50	\$11.15	\$12.31	\$14.00	\$16.32	\$18.00
51-7011	Cabinetmakers and Bench Carpenters	\$9.51	\$14.11	\$16.41	\$7.00	\$11.40	\$13.97	\$17.15	\$20.34
29-2061	Licensed Practical and Licensed Vocational Nurses	\$13.06	\$17.27	\$19.37	\$11.38	\$14.57	\$17.27	\$19.98	\$22.42
11-2011	Advertising and Promotions Managers	\$13.00	\$22.36	\$27.04	\$10.92	\$15.28	\$20.51	\$26.73	\$36.49
35-9021	Dishwashers	\$6.11	\$7.25	\$7.82	\$5.79	\$6.35	\$7.29	\$8.25	\$8.87
43-3011	Bill and Account Collectors	\$10.26	\$14.31	\$16.33	\$9.64	\$11.17	\$13.31	\$16.70	\$20.83
25-3021	Self-Enrichment Education Teachers	\$9.45	\$13.18	\$15.04	\$9.04	\$10.01	\$11.99	\$16.39	\$20.01
* 21-2021	Directors, religious activities and education	\$10.00	\$18.00	\$21.00	\$8.00	\$12.00	\$17.00	\$21.00	\$28.00
49-3023	Automotive Service Technicians and Mechanics	\$10.58	\$17.71	\$21.27	\$9.32	\$12.33	\$16.60	\$22.36	\$27.42
49-9021	Heating, Air Conditioning, and Refrigeration Mechanics and Installers	\$11.93	\$17.05	\$19.61	\$10.96	\$13.24	\$16.39	\$20.72	\$24.95
49-3031	Bus and Truck Mechanics and Diesel Engine Specialists	\$12.30	\$16.24	\$18.20	\$11.84	\$13.29	\$15.66	\$18.53	\$21.84
11-9199	Managers, All Other	\$23.23	\$37.41	\$44.51	\$21.41	\$27.12	\$36.22	\$45.75	\$56.89

\* OES Wages reported for Colorado statewide

† Insufficient wage data available

# Occupational Details *—continued*

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

SOC Code	SOC Occupational Title	Occupational Employment Statistics Wage Data (2003)							
		Average Wages			Percentile Distribution				
		Entry	Overall	Experienced	10th	25th	50th	75th	90th
29-1051	Pharmacists	\$30.92	\$35.94	\$38.45	\$30.31	\$32.94	\$36.40	\$40.76	\$43.61
29-1127	Speech-Language Pathologists	\$15.82	\$21.47	\$24.30	\$14.88	\$17.06	\$20.98	\$26.03	\$29.53
* 45-4011	Forest and conservation workers	\$11.00	\$16.00	\$19.00	\$10.00	\$13.00	\$16.00	\$20.00	\$22.00
47-1011	First-Line Supervisors/Managers of Construction Trades and Extraction Workers	\$19.09	\$26.05	\$29.53	\$17.99	\$21.03	\$24.85	\$29.02	\$35.11
41-3021	Insurance Sales Agents	\$14.87	\$26.17	\$31.82	\$14.18	\$15.51	\$21.70	\$34.25	\$42.39
31-9092	Medical Assistants	\$8.55	\$11.43	\$12.87	\$7.49	\$9.55	\$11.06	\$13.42	\$16.32
39-9011	Child Care Workers	\$6.54	\$8.58	\$9.61	\$6.07	\$7.03	\$8.37	\$9.94	\$11.46
43-4051	Customer Service Representatives	\$6.79	\$11.24	\$13.46	\$6.15	\$7.30	\$10.53	\$13.78	\$17.44
43-6012	Legal Secretaries	\$10.95	\$14.32	\$16.00	\$9.88	\$12.14	\$14.52	\$16.41	\$18.45
43-9021	Data Entry Keyers	\$8.94	\$10.57	\$11.38	\$8.26	\$9.24	\$10.30	\$11.72	\$13.69
13-1071	Employment, Recruitment, and Placement Specialists	\$11.12	\$17.44	\$20.60	\$9.62	\$12.95	\$16.44	\$21.19	\$26.81
13-2072	Loan Officers	\$16.93	\$36.49	\$46.27	\$14.66	\$19.98	\$27.66	\$35.90	†
33-3012	Correctional Officers and Jailers	\$15.26	\$19.43	\$21.52	\$14.83	\$17.37	\$19.87	\$22.07	\$25.16
15-1032	Computer Software Engineers, Systems Software	\$26.64	\$38.87	\$44.98	\$24.28	\$30.20	\$38.04	\$47.71	\$54.95
29-1126	Respiratory Therapists	\$15.40	\$18.66	\$20.29	\$14.68	\$16.13	\$18.56	\$21.18	\$23.07
* 39-5092	Manicurists and pedicurists	\$7.00	\$10.00	\$12.00	\$6.00	\$7.00	\$9.00	\$11.00	\$18.00
35-1012	First-Line Supervisors/Managers of Food Preparation and Serving Workers	\$9.33	\$13.13	\$15.03	\$8.81	\$10.20	\$12.47	\$15.06	\$18.13
27-2012	Producers and Directors	\$19,876	\$33,740	\$40,672	\$18,951	\$20,857	\$34,160	\$44,023	\$50,558
49-9043	Maintenance Workers, Machinery	\$11.85	\$17.82	\$20.80	\$10.91	\$13.35	\$16.74	\$23.57	\$26.46
35-2012	Cooks, Institution and Cafeteria	\$6.99	\$9.07	\$10.12	\$6.41	\$7.49	\$8.71	\$10.35	\$12.44
17-2071	Electrical Engineers	\$21.14	\$32.38	\$38.01	\$19.18	\$23.49	\$31.80	\$40.14	\$48.72
21-1012	Educational, Vocational, and School Counselors	\$11.92	\$19.99	\$24.02	\$10.52	\$13.47	\$19.46	\$26.14	\$31.48
25-1051	Atmospheric, Earth, Marine, and Space Science Teachers, Postsecondary	†	†	†	†	†	†	†	†
29-1031	Dietitians and Nutritionists	\$16.64	\$21.40	\$23.78	\$15.44	\$18.06	\$20.85	\$24.52	\$27.05

\* OES Wages reported for Colorado statewide

† Insufficient wage data available

# Occupational Details *—continued*

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

SOC Code	SOC Occupational Title	Occupational Employment Statistics Wage Data (2003)							
		Average Wages			Percentile Distribution				
		Entry	Overall	Experi- enced	10th	25th	50th	75th	90th
29-2012	Medical and Clinical Laboratory Technicians	\$11.06	\$13.97	\$15.42	\$10.07	\$11.74	\$13.52	\$16.10	\$18.69
37-1011	First-Line Supervisors/Managers of Housekeeping and Janitorial Workers	\$10.80	\$15.95	\$18.52	\$9.95	\$11.70	\$14.86	\$18.22	\$25.39
41-3011	Advertising Sales Agents	\$10.78	\$18.92	\$23.00	\$9.32	\$12.10	\$14.70	\$24.46	\$33.44
* 41-9041	Telemarketers	\$7.00	\$10.00	\$12.00	\$6.00	\$8.00	\$9.00	\$12.00	\$16.00
35-2011	Cooks, Fast Food	\$6.45	\$7.97	\$8.73	\$6.10	\$6.95	\$7.90	\$8.92	\$10.23
21-1014	Mental Health Counselors	\$9.50	\$13.19	\$15.03	\$9.26	\$10.35	\$12.63	\$15.33	\$18.75
39-1021	First-Line Supervisors/Managers of Personal Service Workers	\$10.61	\$15.58	\$18.07	\$9.72	\$11.45	\$13.24	\$18.91	\$25.69
29-1041	Optometrists	\$34.79	\$45.82	\$51.33	\$32.31	\$36.61	\$43.11	\$53.07	\$57.70
29-2021	Dental Hygienists	\$27.31	\$32.15	\$34.56	\$25.50	\$28.77	\$32.08	\$35.45	\$41.88
29-2056	Veterinary Technologists and Technicians	\$9.70	\$11.10	\$11.80	\$9.14	\$9.81	\$10.93	\$12.48	\$13.57
29-2081	Opticians, Dispensing	\$9.76	\$13.18	\$14.89	\$9.37	\$10.58	\$12.71	\$14.46	\$16.69
* 49-2097	Electronic home entertainment equipment installers and repairers	\$10.00	\$15.00	\$18.00	\$9.00	\$11.00	\$15.00	\$19.00	\$23.00
49-3041	Farm Equipment Mechanics	\$11.39	\$15.43	\$17.44	\$10.17	\$12.89	\$15.39	\$17.47	\$21.07
49-3093	Tire Repairers and Changers	\$8.60	\$10.43	\$11.34	\$7.86	\$9.03	\$10.21	\$11.70	\$13.46
49-9099	Installation, Maintenance, and Repair Workers, All Other	\$8.76	\$15.12	\$18.30	\$8.05	\$9.81	\$13.96	\$19.74	\$24.66
* 27-3043	Writers and authors	\$12.00	\$21.00	\$26.00	\$12.00	\$14.00	\$19.00	\$26.00	\$35.00
33-3051	Police and Sheriff's Patrol Officers	\$16.44	\$23.38	\$26.86	\$15.63	\$17.73	\$23.66	\$28.71	\$32.81
11-9033	Education Administrators, Postsecondary	\$22.46	\$35.91	\$42.64	\$20.33	\$25.49	\$32.93	\$42.65	\$57.62
25-1194	Vocational Education Teachers, Postsecondary	\$15.16	\$24.58	\$29.29	\$14.06	\$16.72	\$23.67	\$31.77	\$39.67
25-2031	Secondary School Teachers, Except Special and Vocational Education	\$29,367	\$41,699	\$47,866	\$27,607	\$32,003	\$39,943	\$51,078	\$61,212
25-2041	Special Education Teachers, Preschool, Kindergarten, and Elementary School	\$31,018	\$44,227	\$50,832	\$29,566	\$33,602	\$43,044	\$54,791	\$63,584
29-1122	Occupational Therapists	\$17.33	\$21.93	\$24.23	\$15.59	\$18.69	\$21.67	\$25.41	\$27.94

\* OES Wages reported for Colorado statewide

† Insufficient wage data available

# Occupational Details *—continued*

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

SOC Code	SOC Occupational Title	Occupational Employment Statistics Wage Data (2003)							
		Average Wages			Percentile Distribution				
		Entry	Overall	Experi- enced	10th	25th	50th	75th	90th
29-1123	Physical Therapists	\$17.46	\$23.20	\$26.08	\$16.11	\$19.78	\$23.73	\$26.76	\$29.56
29-2055	Surgical Technologists	\$11.61	\$15.36	\$17.23	\$10.96	\$12.23	\$13.80	\$16.90	\$23.27
29-2071	Medical Records and Health Information Technicians	\$9.74	\$12.93	\$14.53	\$9.21	\$9.97	\$11.38	\$15.28	\$19.46
47-2141	Painters, Construction and Maintenance	\$9.36	\$13.81	\$16.03	\$8.76	\$10.59	\$13.43	\$16.59	\$19.61
* 47-5021	Earth drillers, except oil and gas	\$13.00	\$17.00	\$19.00	\$12.00	\$15.00	\$17.00	\$20.00	\$22.00
41-1011	First-Line Supervisors/Managers of Retail Sales Workers	\$11.27	\$18.06	\$21.46	\$10.27	\$12.64	\$15.83	\$20.63	\$29.03
41-9099	Sales and Related Workers, All Other	\$9.43	\$20.02	\$25.32	\$7.94	\$11.30	\$16.34	\$26.09	\$36.39
53-7061	Cleaners of Vehicles and Equipment	\$6.93	\$8.98	\$10.00	\$6.39	\$7.46	\$8.79	\$10.27	\$11.90
* 53-7072	Pump operators, except wellhead pumpers	\$9.00	\$13.00	\$15.00	\$8.00	\$10.00	\$12.00	\$16.00	\$19.00
45-2093	Farmworkers, Farm and Ranch Animals	\$7.21	\$10.78	\$12.57	\$6.49	\$8.15	\$10.10	\$13.89	\$16.32
* 39-6021	Tour guides and escorts	\$7.00	\$11.00	\$13.00	\$7.00	\$8.00	\$10.00	\$13.00	\$16.00
27-1024	Graphic Designers	\$12.47	\$17.66	\$20.26	\$11.74	\$13.66	\$17.15	\$21.01	\$24.96
27-3010	Announcers	\$6.88	\$10.02	\$11.60	\$6.31	\$7.46	\$8.98	\$10.92	\$13.80
27-4021	Photographers	\$8.95	\$17.70	\$22.08	\$7.44	\$10.72	\$17.52	\$22.99	\$26.84
31-9094	Medical Transcriptionists	\$10.97	\$14.15	\$15.73	\$10.27	\$11.53	\$14.14	\$16.71	\$18.21
33-1012	First-Line Supervisors/Managers of Police and Detectives	\$21.40	\$29.53	\$33.59	\$19.80	\$23.35	\$30.05	\$35.28	\$40.54
35-3022	Counter Attendants, Cafeteria, Food Concession, and Coffee Shop	\$6.00	\$7.58	\$8.37	\$5.70	\$6.27	\$7.36	\$8.72	\$10.14
11-3011	Administrative Services Managers	\$17.98	\$30.34	\$36.52	\$16.14	\$20.82	\$28.43	\$36.78	\$45.84
11-3031	Financial Managers	\$22.92	\$36.59	\$43.43	\$21.17	\$25.57	\$34.65	\$44.22	\$55.27
11-3042	Training and Development, Managers	†	†	†	†	†	†	†	†
17-2072	Electronics Engineers, Except Computer	\$24.45	\$35.13	\$40.47	\$22.82	\$27.96	\$33.46	\$41.59	\$53.24
23-1011	Lawyers	\$24.02	\$44.76	\$55.13	\$21.47	\$27.83	\$42.36	\$60.64	\$68.70
25-1022	Mathematical Science Teachers, Postsecondary	\$35,668	\$54,987	\$64,647	\$32,621	\$39,819	\$49,160	\$66,316	\$87,891
* 25-1042	Biological science teachers, postsecondary	\$38,120	\$72,210	\$89,260	\$34,110	\$44,480	\$61,790	\$89,840	\$121,850

\* OES Wages reported for Colorado statewide

† Insufficient wage data available

# Occupational Details —continued

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

SOC Code	SOC Occupational Title	Occupational Employment Statistics Wage Data (2003)							
		Average Wages			Percentile Distribution				
		Entry	Overall	Experienced	10th	25th	50th	75th	90th
25-1071	Health Specialties Teachers, Postsecondary	\$29,000	\$67,733	\$87,100	\$22,266	\$36,473	\$53,938	\$87,020	\$126,555
25-1123	English Language and Literature Teachers, Postsecondary	\$33,091	\$50,552	\$59,283	\$29,779	\$37,724	\$48,008	\$59,733	\$77,154
25-1199	Postsecondary Teachers, All Other	†	†	†	†	†	†	†	†
25-2021	Elementary School Teachers, Except Special Education	\$29,334	\$40,581	\$46,204	\$27,389	\$31,567	\$38,289	\$49,226	\$59,120
27-3091	Interpreters and Translators	\$12.64	\$16.49	\$18.41	\$11.95	\$13.54	\$15.51	\$19.28	\$23.94
29-1071	Physician Assistants	\$16.84	\$24.38	\$28.16	\$15.12	\$17.17	\$24.48	\$27.15	\$31.74
29-2032	Diagnostic Medical Sonographers	\$20.36	\$25.39	\$27.90	\$19.41	\$21.57	\$24.68	\$27.66	\$34.92
* 29-2051	Dietetic technicians	\$7.00	\$11.00	\$13.00	\$6.00	\$8.00	\$10.00	\$13.00	\$16.00
37-2019	Building Cleaning Workers, All Others	†	†	†	†	†	†	†	†
41-4012	Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Product	\$12.80	\$24.08	\$29.72	\$11.55	\$14.95	\$20.61	\$30.66	\$41.64
43-3051	Payroll and Timekeeping Clerks	\$10.90	\$14.27	\$15.96	\$10.10	\$11.97	\$14.27	\$16.73	\$18.36
53-3022	Bus Drivers, School	\$9.61	\$11.94	\$13.10	\$9.18	\$10.23	\$11.57	\$13.44	\$15.86
* 31-9093	Medical equipment preparers	\$9.00	\$12.00	\$13.00	\$9.00	\$10.00	\$12.00	\$13.00	\$16.00
* 33-1021	First-line supervisors/managers of fire fighting and prevention workers	\$23.00	\$30.00	\$34.00	\$21.00	\$26.00	\$30.00	\$34.00	\$40.00
33-9092	Lifeguards, Ski Patrol, and Other Recreational Protective Service Workers	†	†	†	†	†	†	†	†
11-3040	Human Resources Managers	\$20.36	\$33.63	\$40.27	\$17.74	\$24.01	\$33.14	\$41.81	\$50.42
11-3051	Industrial Production Managers	\$23.14	\$34.79	\$40.62	\$21.20	\$25.73	\$31.96	\$41.36	\$52.32
* 11-9011	Farm, ranch, and other agricultural managers	\$17.00	\$23.00	\$26.00	\$16.00	\$18.00	\$23.00	\$27.00	\$31.00
11-9031	Education Administrators, Preschool and Child Care Center/Program	\$11.02	\$17.85	\$21.27	\$9.81	\$12.48	\$16.20	\$20.94	\$29.44
11-9151	Social and Community Service Managers	\$15.33	\$22.68	\$26.36	\$14.23	\$17.53	\$20.80	\$24.73	\$35.92
13-1073	Training and Development Specialists	\$14.07	\$21.50	\$25.21	\$12.79	\$15.90	\$20.14	\$26.22	\$34.00
13-2051	Financial Analysts	\$19.96	\$26.70	\$30.06	\$18.87	\$21.70	\$25.26	\$28.86	\$36.93

\* OES Wages reported for Colorado statewide

† Insufficient wage data available

# Occupational Details —continued

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

SOC Code	SOC Occupational Title	Occupational Employment Statistics Wage Data (2003)							
		Average Wages			Percentile Distribution				
		Entry	Overall	Experi- enced	10th	25th	50th	75th	90th
15-1061	Database Administrators	\$16.68	\$28.41	\$34.27	\$14.09	\$19.60	\$27.01	\$36.78	\$42.49
17-2051	Civil Engineers	\$20.91	\$29.87	\$34.34	\$19.35	\$22.80	\$28.62	\$35.74	\$43.69
17-2081	Environmental Engineers	\$17.79	\$30.24	\$36.46	\$17.05	\$19.54	\$28.03	\$34.59	\$44.46
19-3031	Clinical, Counseling, and School Psychologists	\$16.05	\$23.60	\$27.38	\$14.90	\$18.11	\$22.83	\$28.53	\$33.04
21-1015	Rehabilitation Counselors	\$11.84	\$18.30	\$21.53	\$11.29	\$12.19	\$13.72	\$23.48	\$32.77
21-1019	Counselors, All Others	†	†	†	†	†	†	†	†
* 21-1021	Child, family, and school social workers	\$13.00	\$19.00	\$22.00	\$12.00	\$14.00	\$18.00	\$23.00	\$27.00
21-1023	Mental Health and Substance Abuse Social Workers	\$12.66	\$15.14	\$16.38	\$11.93	\$12.81	\$14.29	\$17.09	\$20.32
* 25-1052	Chemistry teachers, postsecondary	\$38,430	\$60,500	\$71,540	\$36,620	\$43,230	\$54,510	\$71,520	\$93,620
25-1069	Social Sciences Teachers, Postsecondary, All Others	†	†	†	†	†	†	†	†
* 25-1081	Education teachers, postsecondary	\$30,900	\$49,770	\$59,210	\$28,260	\$36,400	\$46,990	\$60,140	\$78,920
25-1121	Art, Drama, and Music Teachers, Postsecondary	\$33,936	\$52,623	\$61,966	\$30,413	\$38,871	\$48,633	\$62,840	\$79,505
25-2042	Special Education Teachers, Middle School	\$29,659	\$40,535	\$45,972	\$27,671	\$31,709	\$38,360	\$48,337	\$58,966
25-2043	Special Education Teachers, Secondary School	\$30,318	\$42,601	\$48,743	\$28,261	\$33,297	\$41,529	\$51,796	\$60,341
25-4031	Library Technicians	\$8.91	\$12.59	\$14.43	\$8.17	\$10.04	\$12.30	\$14.38	\$17.26
27-3042	Technical Writers	\$11.95	\$20.86	\$25.32	\$11.42	\$12.57	\$19.46	\$28.72	\$33.62
* 29-2033	Nuclear medicine technologists	\$20.00	\$24.00	\$26.00	\$19.00	\$21.00	\$24.00	\$27.00	\$29.00
29-2041	Emergency Medical Technicians and Paramedics	\$10.79	\$15.64	\$18.06	\$9.69	\$12.06	\$15.07	\$18.62	\$22.30
31-2022	Physical Therapist Aides	\$7.35	\$10.79	\$12.51	\$6.30	\$8.56	\$10.25	\$12.57	\$16.42
35-3041	Food Servers, Nonrestaurant	\$6.13	\$7.12	\$7.62	\$5.73	\$6.13	\$6.82	\$7.98	\$9.35
37-3012	Pesticide Handlers, Sprayers, and Applicators, Vegetation	\$12.43	\$15.23	\$16.62	\$11.82	\$13.06	\$15.11	\$17.30	\$19.67
* 39-1011	Gaming supervisors	\$14.00	\$18.00	\$20.00	\$14.00	\$15.00	\$18.00	\$21.00	\$23.00
43-1011	First-Line Supervisors/Managers of Office and Administrative Support Workers	\$13.39	\$20.17	\$23.56	\$12.26	\$14.79	\$18.69	\$24.01	\$29.74
43-4161	Human Resources Assistants, Except Payroll and Timekeeping	\$11.26	\$15.37	\$17.43	\$10.11	\$12.83	\$15.37	\$18.19	\$20.79

\* OES Wages reported for Colorado statewide

† Insufficient wage data available

# Occupational Details *—continued*

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

SOC Code	SOC Occupational Title	Occupational Employment Statistics Wage Data (2003)							
		Average Wages			Percentile Distribution				
		Entry	Overall	Experienced	10th	25th	50th	75th	90th
43-5031	Police, Fire, and Ambulance Dispatchers	\$12.82	\$17.75	\$20.22	\$11.88	\$14.09	\$18.22	\$21.00	\$23.61
43-6014	Secretaries, Except Legal, Medical, and Executive	\$8.51	\$11.85	\$13.51	\$7.69	\$9.41	\$11.32	\$13.84	\$17.09
45-2092	Farmworkers and Laborers, Crop, Nursery, and Greenhouse	\$6.09	\$7.59	\$8.33	\$5.65	\$6.07	\$6.77	\$8.61	\$11.07
47-4011	Construction and Building Inspectors	\$13.71	\$21.15	\$24.86	\$10.57	\$17.28	\$21.19	\$26.86	\$30.84
49-9062	Medical Equipment Repairers	\$13.81	\$21.10	\$24.74	\$11.83	\$15.73	\$19.45	\$25.10	\$35.00
53-3021	Bus Drivers, Transit and Intercity	\$8.69	\$12.93	\$15.04	\$7.11	\$10.40	\$13.16	\$15.71	\$17.90
* 53-6041	Traffic technicians	\$12.00	\$17.00	\$19.00	\$11.00	\$13.00	\$17.00	\$20.00	\$23.00

\* OES Wages reported for Colorado statewide

† Insufficient wage data available





## Manufacturing

# Sector Briefs

**The Manufacturing sector ranks third in the Larimer Weld Region in terms of payroll employment.** This sector makes up about 13% of total employment or about 24,200 people<sup>2</sup> as of the third quarter of 2003. The sector's demand for workers seems immune to seasonal fluctuations as there is very little change in the amount of workers throughout the year.

Historically, employment in Manufacturing in the Larimer Weld Region has remained steady since the first Job Vacancy Survey was completed in the Fall of 2001. The industry has historically employed approximately 15% of the workforce, and has had five percent of the regions employers.

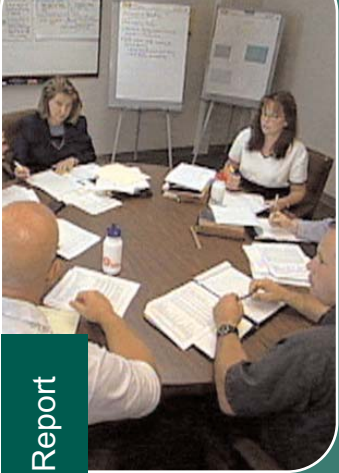
There are 21 sub-sector grouping within Manufacturing. They range from Apparel to Foods to Wood Products. Also included is Computer and Electronic Product Manufacturing, which seems to be one of the largest industries in the region employing nearly 30% of the total or 8,000 people. Food Manufacturing ranks second in the region as far as employment with nearly 13% or 3,200 people working in this sub-group.

Larimer County holds approximately 60% of total employment within the Manufacturing Sector, employing approximately 14,500 people. Weld, represents 40% of total employment within the sector, with 9,700 employed.

Food manufacturing accounts for nearly 34% of employment in Weld County, while Computer and electronic product manufacturing accounts for more than 50% of employment within the industry in Larimer County.

There are an estimated 84 vacancies within the region in the Manufacturing sector. Wages offered in this sector average between \$8.40 and \$9.80, with the average wage being \$9.10. Only 14% of all jobs in this sector had wage information. The most demanded occupation in this sector is Sales Managers. Lathe and Turning Machine Tool Setters, Operators, and Tenders, Metal and Plastic offers an average hourly wage of \$16.00, well above the sector average of \$9.10.

<sup>2</sup> SOURCE: CDLE, Quarterly Census of Employment and Wages (QCEW)



# Appendix

## How to Use This Report

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

- ◆ 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 overall 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.

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 35% of the employment in the region is found in large and government employers that only make up 4% 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 Region survey was conducted from August 24th through September 14th, 2004. For the purpose of this report, private and government employers with five or more employees are referred to as the sample frame. Firms with fewer than five employees make up a very large portion of all employers in the region, but provide only a small proportion of the total employment. Employment in the sample frame accounts for 69% 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 200 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 19% of the employment in the sample frame, while private industry employers make up the remaining 81%. Large firms account for 25% of private industry employment in the sample frame. Firms employing from five to 199 individuals are considered small to mid-size employers, and account for the remaining 75% of private industry employment.

The margin of error for the overall vacancy estimate is plus or minus 3.1% or about 54 vacancies at a 0.95% certainty level. In other words, in 95 out of 100 samples, the actual number of vacancies in the region will be between 1,663 and 1,771 in the survey period. Labor Market Information is confident that the estimates in this survey are accurate and that the survey was conducted according to recognized survey research standards.

The survey response rate is 91%. 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 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



## Appendix: Methodology —continued

### North American Industry Classification System

#### 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: Berman 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

# Appendix: NAICS —continued

**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		Public Administration
(parts of all divisions)		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.

## Glossary

## 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*.



## Appendix: Glossary —continued

### **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**

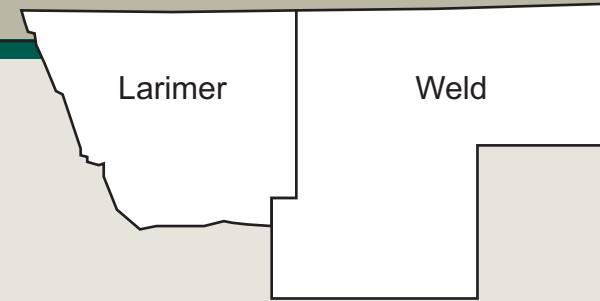
Persons 16 years of age and over who had no employment during the reference week, were available for work, except for temporary illness, and had made specific efforts to find employment sometime during the four-week period ending with the reference week. Persons who were waiting to be recalled to a job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

