

Colorado

Larimer Weld Region

Job Vacancy Survey Spring 2005

Photo: USDA Forest Service



Pawnee National Grassland, Weld County



Survey Conducted
March 11–April 1, 2005
Released Summer 2005



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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.

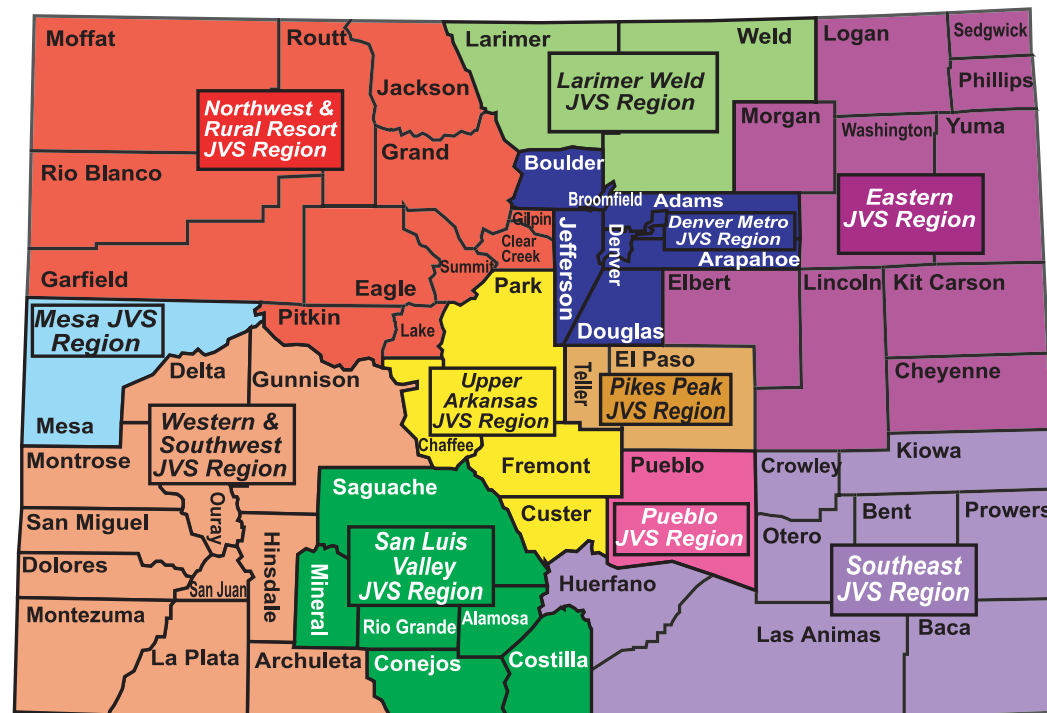
Job seekers and employers, as well as Workforce Centers and economic developers, need more than a measure of demand for workers at a specific point in time. They also need a measure of where in the economy that demand is located and what education and experience levels are most preferred. The Colorado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

The CDLE's survey unit collects original data by conducting phone interviews with a representative sample of employers in a given region. The department's economists analyze the raw data, estimate the number of vacancies in the area and publish the report within weeks of the original data collection, providing a timely portrait of the employment situation.

The 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.

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.

Figure 1: Colorado Job Vacancy Survey Regions



The Spring 2005 Larimer Weld Job Vacancy Survey was conducted from March 11th through April 1st, 2005. 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 in the region. Employers were asked if they were actively hiring at the time of the survey and, if so a variety of other questions about the positions they were seeking to fill.

A total of 1,956 employers, representing approximately 44% of the region's employment responded to the survey. Of these, 134 are government agencies, 49 are large employers and 1,773 are small to mid-size employers. The survey has a response rate of 93.4% and a cooperation rate of 99.7%. The margin of sampling error for the overall vacancy rate is plus or minus 2.5% or about 72 vacancies.

Major Findings of the Survey:

- ◆ An estimated 2,894 jobs were available for hire during this survey period, up from 1,790 vacancies a year ago.Page 7
- ◆ Leisure & Hospitality accounts for the most vacancies with 603, followed by Trade, Transportation & Utilities (587) and Government (547).Page 7
- ◆ The overall average wage for vacancies in this survey is \$12.00 per hour.Page 8
- ◆ Approximately 13% of the surveyed employers report having at least one job vacancy.Page 9
- ◆ Sixty-one percent of the openings are permanent, full-time positions, while almost 28% are part-time, permanent.Page 10
- ◆ Eighty percent of all vacancies require at least a high school/GED education level.Page 11
- ◆ Twenty percent of the job vacancies require occupation specific experience, while 47% require experience in a related field.Page 13
- ◆ Sixty-two percent of the vacant positions have been open for less than 30 days, while 4% have been open for 60 days or more.Page 15
- ◆ Sales & Related has the most vacancies out of all of the 22 occupational groups, followed by Arts, Design, Entertainment, Sports, & Media.Page 17

The Larimer Weld Region, located in north-central Colorado, encompasses a total of 6,644 square miles.

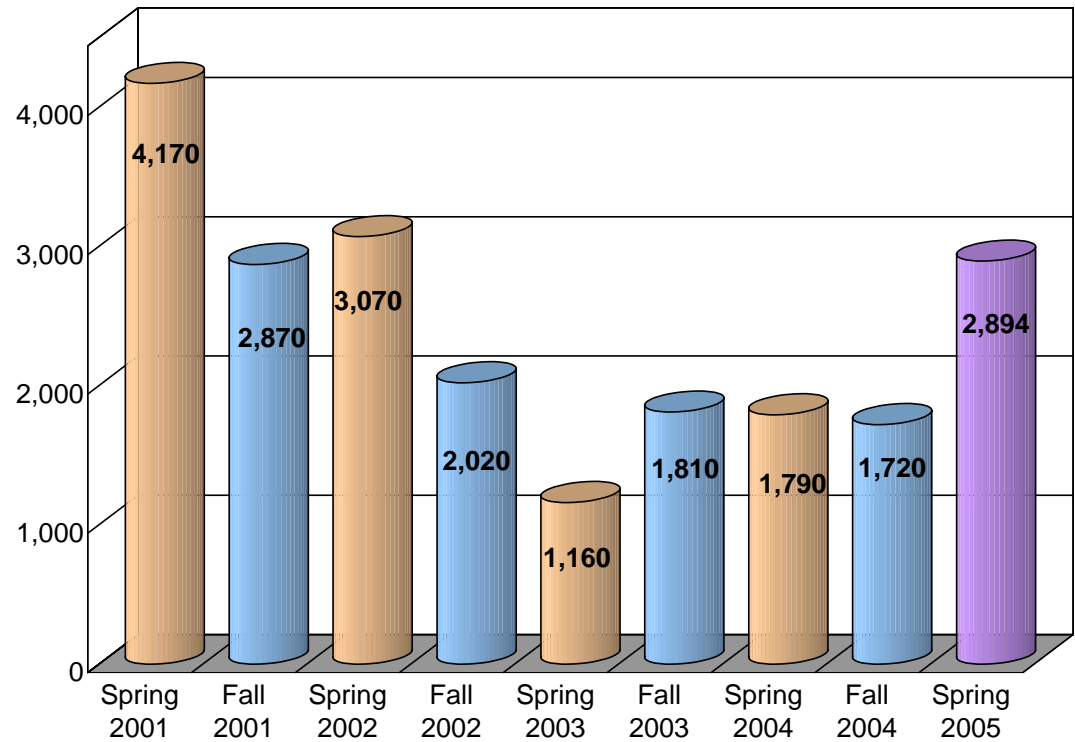
According to the U.S. Census Bureau, the region, made up of Larimer and Weld counties, had a population of more than 488,000 residents in 2004. Larimer County, with 2,640 square miles, includes some of the finest irrigated farmland in the state as well as vast stretches of scenic ranch lands, forests and high mountain peaks. Weld County 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 55% of the region's total population and has grown 44% since the 1990 Census. It also accounts for 60% of the employment in the region. Weld County has grown just over 66% since 1990. Weld County was one of the fastest growing counties in the United States between April 1, 2000 and July 1, 2004. Approximately 40% of the population in Weld is concentrated in the city of Greeley. In Larimer County, around 47% of the population is centered in the city of Fort Collins.

The estimate of 2,894 vacancies in the Larimer Weld region is approximately 60% more than those found this time last year. This is a significant increase, edging closer to the 3,070 vacancies found in the Spring 2002 survey, and a sign of the economy's rebound from the recession.

Figure 2: Job Vacancies—Larimer Weld JVS



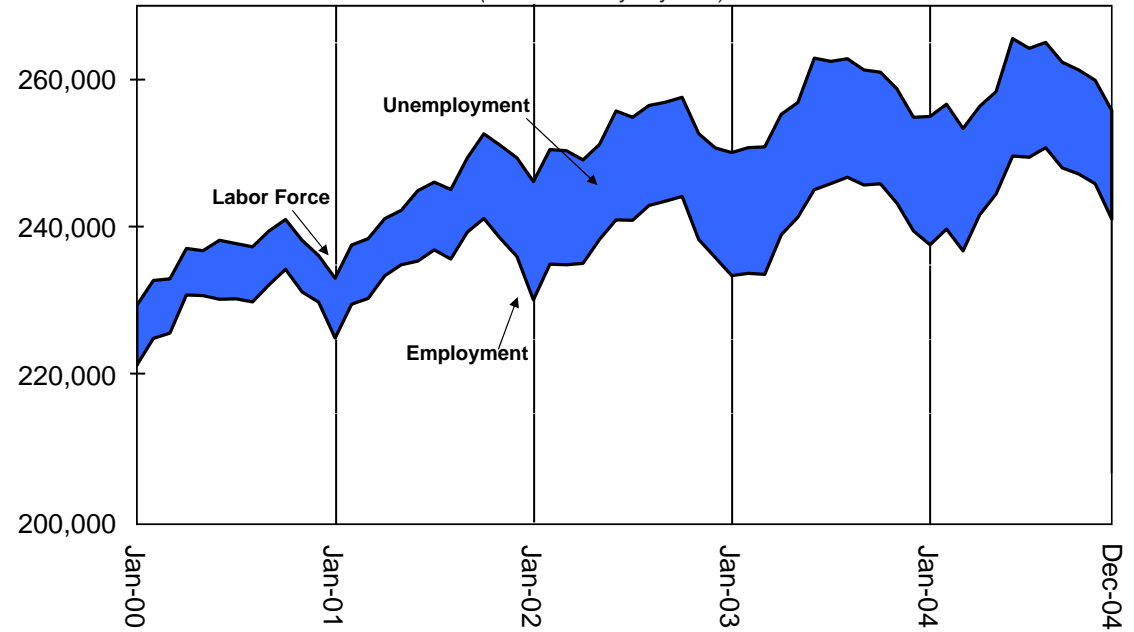
	Spring 2001	Fall 2001	Spring 2002	Fall 2002	Spring 2003	Fall 2003	Spring 2004	Fall 2004	Spring 2005
Vacancies	4,170	2,870	3,070	2,020	1,160	1,810	1,790	1,720	2,894
Labor Force	229,587	249,954	247,897	254,047	257,886	263,808	264,445	264,668	275,442
Employment	221,739	238,541	233,265	239,733	242,703	249,426	250,205	251,641	261,508
Unemployment	7,848	11,413	14,632	14,314	15,183	14,382	14,240	13,027	13,934
Unemployment Rate	3.4%	4.6%	5.9%	5.6%	5.9%	5.5%	5.4%	4.9%	5.1%

Source: CDLE, Local Area Unemployment Statistics Released March 2005

Figure 3 illustrates the progression of both the region's labor force and employment levels. The shaded area between the labor force and employment lines represents the number of unemployed people. The unemployment rate in the region has dropped from 5.4% in March 2004 to 5.1% in March 2005. 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 1.6% per year from 2000 to 2004, with the rate ranging between 1.4% and 2.3%.

Figure 3: Employment and Labor Force Trends for the Larimer Weld Region

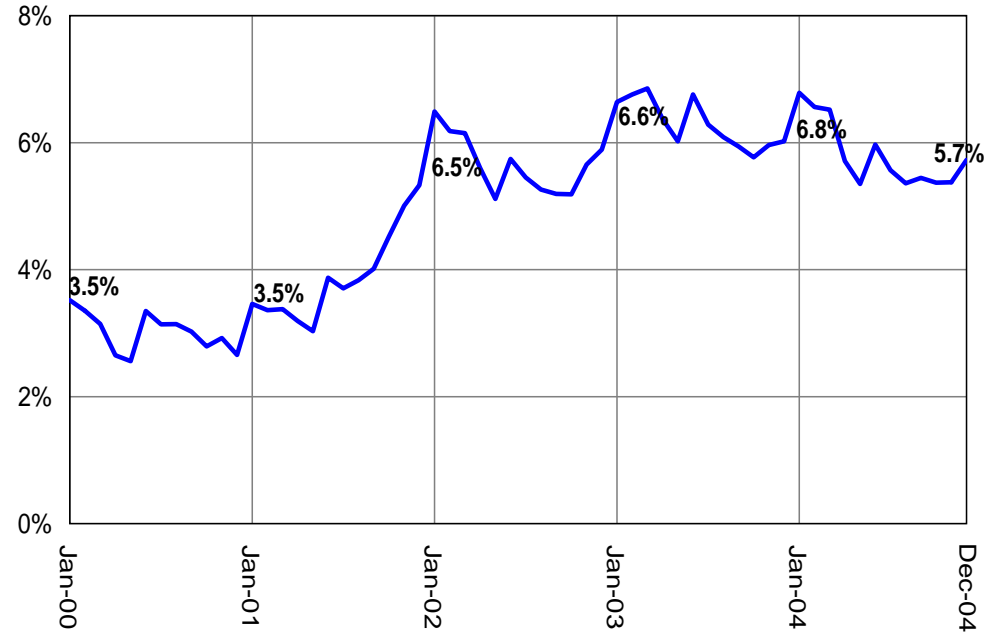
(Not Seasonally Adjusted)



Source: CDLE, Local Area Unemployment Statistics, Released January 2005

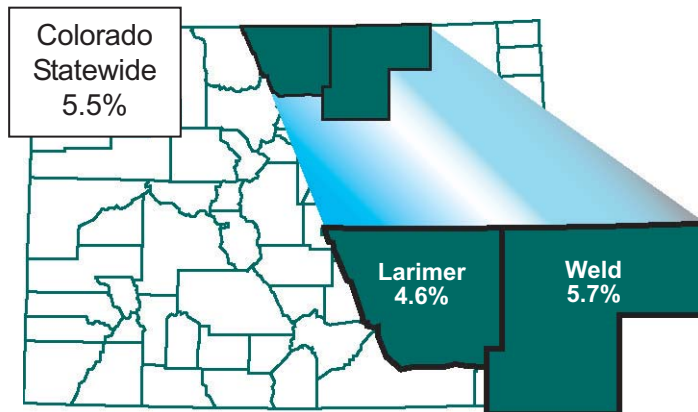
Figure 4 highlights unemployment rate changes in the Larimer Weld Region. The unemployment rate—the ratio of unemployed to the labor force expressed as a percent—has peaked each January and June in the recent past.

Figure 4: Larimer Weld Region Unemployment Rates
(Not Seasonally Adjusted)



Source: CDLE, Local Area Unemployment Statistics, Released January 2005

Figure 5: Unemployment Rates for March 2005
(Not Seasonally Adjusted)



Source: CDLE, Local Area Unemployment Statistics, Released April 2005

The region's unemployment rate was the lowest in May 2000 at 2.6%. The highest was in March 2003 at 6.9% following the economic downturns of 2001. The unemployment rate in the region has shown a gradual decline over the past year.

The region employed more than 261,500 individuals from a labor force pool of about 275,000 people in March 2005. Of these, 61% work in Larimer County. The region's March unemployment rate of 5.1% is lower than the State's rate of 5.5% and the national rate of 5.4%. Unemployment rates were 4.6% for Larimer County and 5.7% for Weld County in March 2005.

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.

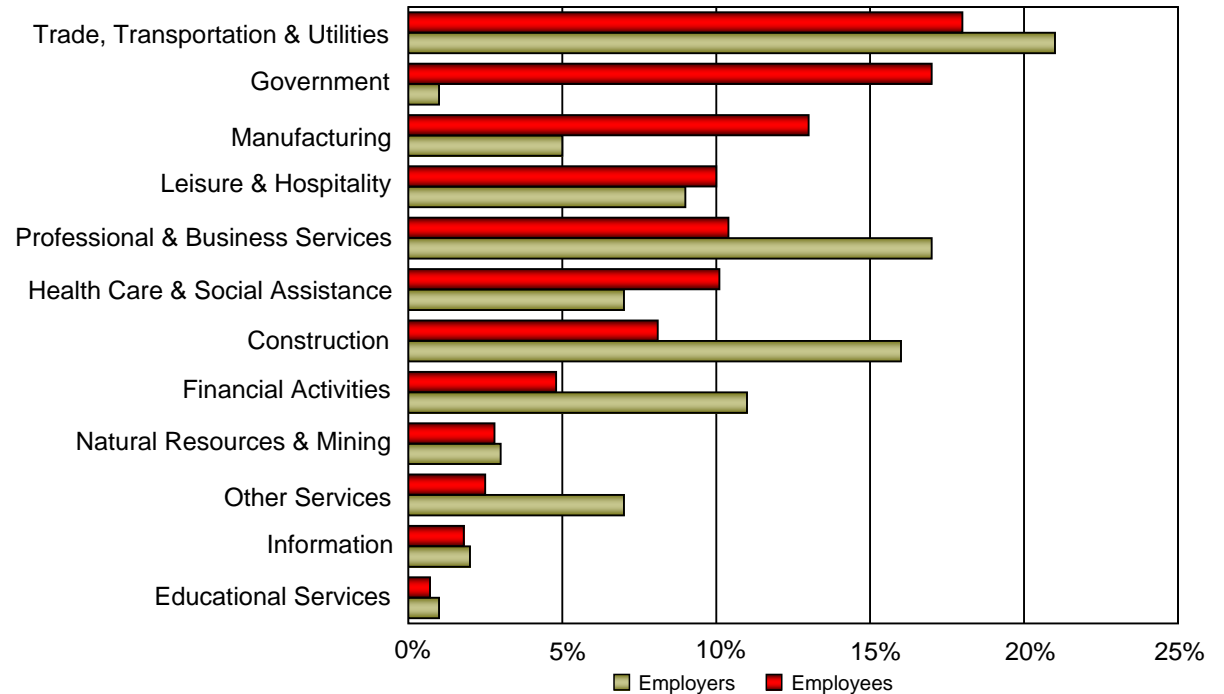
Figure 6 presents employers and employment data for the 12 JVS sectors used in most Metropolitan Statistical Areas (MSAs) in Colorado (page 34). Data are gathered under the Quarterly Census of Employment and Wages Program (QCEW, formerly ES-202), which includes all employers who pay Unemployment Insurance Tax. About 98% of the State's workers are covered under the Unemployment Insurance program. Positions typically excluded are agriculture, railroad, some state and local government, certain non-profit organizations, the self-employed, domestic workers and unpaid family workers.

Trade, Transportation & Utilities is the largest JVS sector, providing 18% of the region's employment. It also accounts for 21% 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 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 60% of the region's Government employment is in Educational Services. This is due to large educational entities such as Colorado State University and the Poudre Valley School District.

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

Figure 6: Larimer Weld Region Employers and Employees, 1st Quarter, 2004



Source: CDLE, Quarterly Census of Employment and Wages (QCEW), 1st Quarter, 2004

region's employment and 5% of the employers. Statewide manufacturing accounts for 7.4% of all workers. By employment, Manufacturing has the largest average firm size, next to the Government sector.

Natural Resources & Mining also has a higher concentration of employment than the State. This sector accounts for 3% of employers and workers in the region, while accounting for only 1% of the statewide share.

Other sectors in the region reflect the same percentages as the statewide employer representation. These sectors include Health Care & Social Assistance, Information, and Trade, Transportation & Utilities.

During the survey period, an estimated 2,894 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 1.7%, meaning that there are 17 vacancies for every 1,000 positions.

Leisure & Hospitality has the highest vacancy rate of all JVS sectors at 3%. Professional & Business Services has a vacancy rate of 2.4%, while Health Care & Social Assistance is the next highest with 1.7%.

When comparing firm size and vacancies, 40% of the more than 340 estimated vacancies for Health Care & Social Assistance are in large businesses. Small firms dominate in terms of vacancies for Leisure and Hospitality, Financial Activities, Construction, Other Services, and Professional & Business Services.

Leisure & Hospitality is a JVS sector with a large discrepancy between the percentage of vacancies and the percentage of employment. This sector has 21% of the estimated vacancies compared to 10% of employment, a stark contrast to last year's survey in which they had 3% of the estimated vacancies. This could be as a result of consumer spending on tourism as the national and state economy rebound from the July 2001 recession.

Manufacturing, however, gaps the other way. The sector accounts for approximately 13% of the region's total employment, yet has 6% of the estimated vacancies.

The Government sector ranks second in terms of employment with 17%, and third in the number of estimated vacancies with 19%.

Figure 7: Estimated Vacancies and Average Wages by JVS Sectors

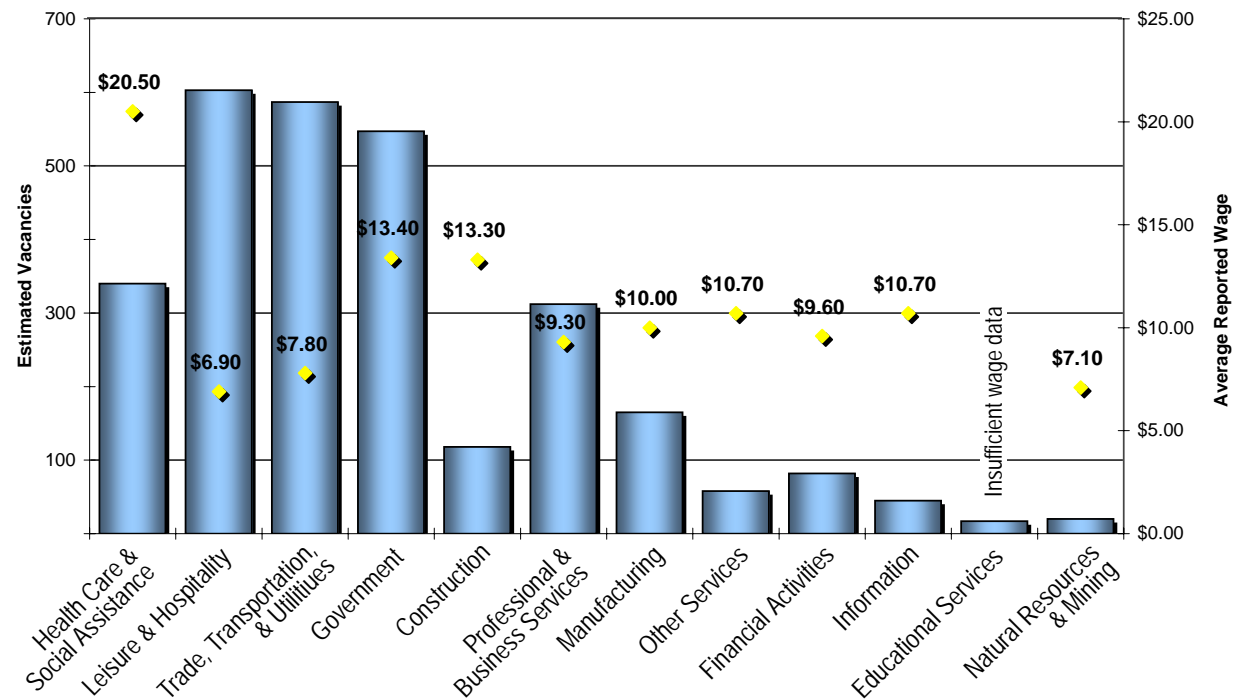
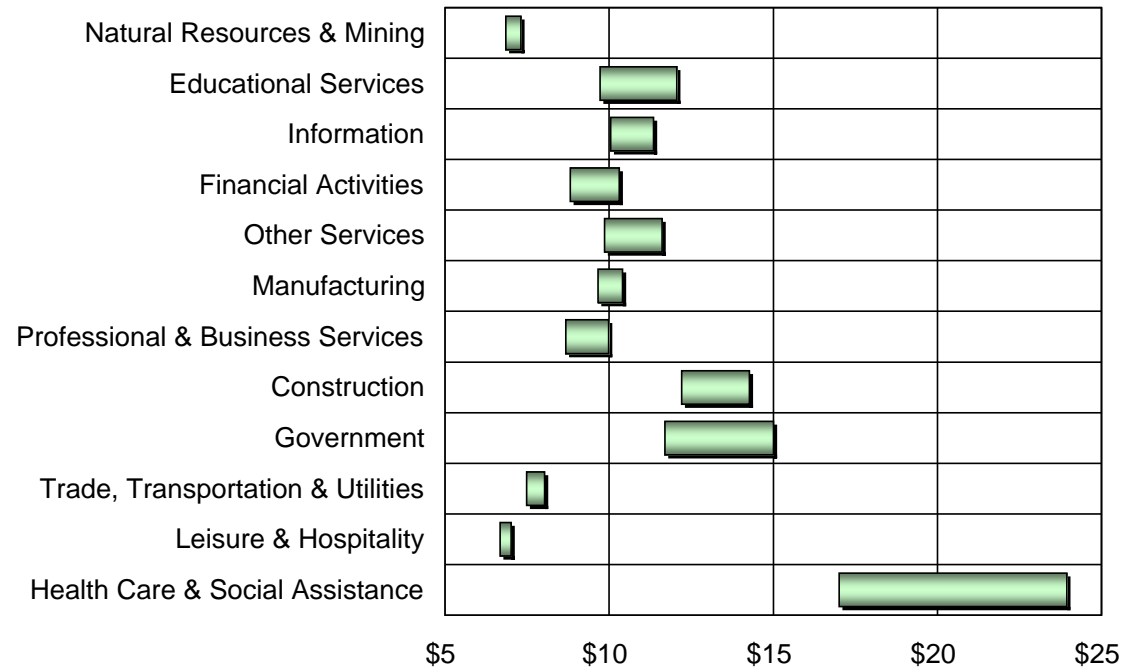


Figure 8: Reported Average Wage Ranges by JVS Sectors



Three of the 12 JVS sectors have average wages higher than the overall average of \$12.00. Health Care & Social Assistance has the highest average wage by a significant margin, while having the fourth most vacancies at 340. Vacancies in the Health Care & Social Assistance sector include Registered Nurses; Nursing Aides, Orderlies & Attendants; Pharmacists; and Radiologic Technologists & Technicians. Health Care & Social Assistance, with an average wage of \$20.50 places it with Government as the two most desirable sectors in this survey when

looking at a combination of vacancies and pay. Government has a lower average wage of \$13.40. Vacancies in the Government sector include Landscaping & Groundskeeping Workers, Coaches & Scouts, Recreation Workers and Umpires, Referees, & Other Sports Officials.

Construction also offers wages above the survey average, at \$13.20 per hour, yet has a lower number of vacancies at 118.

Figure 9: Estimated Vacancies and Average Wages by Employer Size

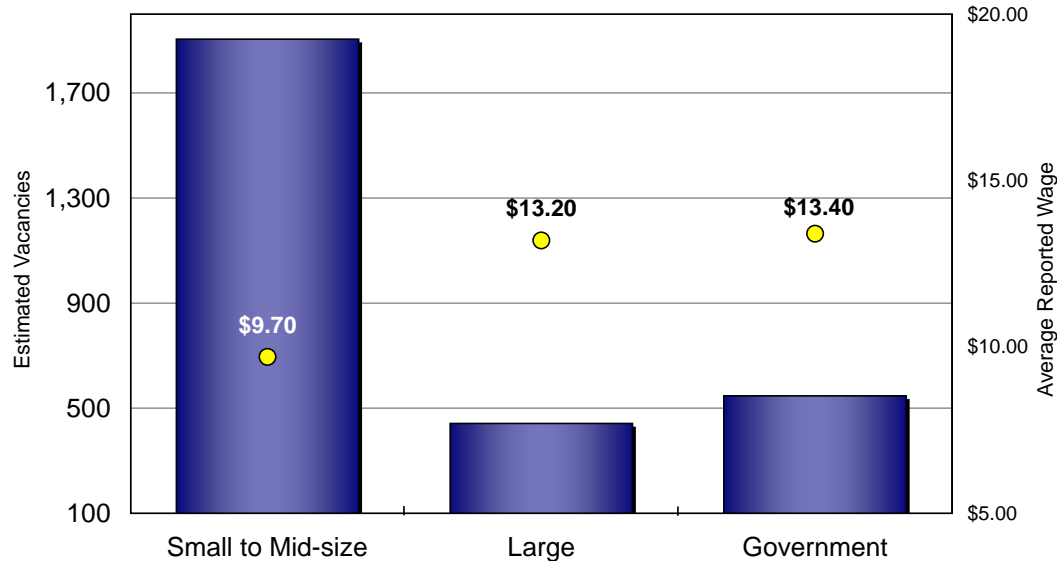
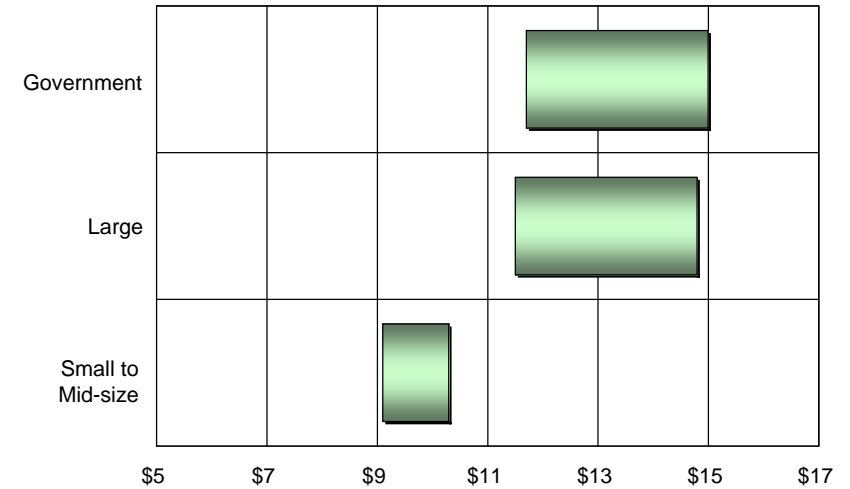


Figure 10: Reported Average Wage Ranges by Employer Size



Approximately 13% of the surveyed employers reported having at least one vacancy. Of all reported job vacancies, two-thirds are with small to mid-size businesses. They represent 91% of sample frame employers and 32% of employment. Occupations with the most vacancies in this size group include:

Leisure & Hospitality (26%): Combined Food Preparation & Serving Workers, Including Fast Food, followed by Recreation Workers, and Security Guards.

Health Care & Social Assistance (14%): Child Care Workers followed by Home Health Aides, and Dental Assistants.

Professional & Business Services (13%): Landscaping & Groundskeeping Workers.

Trade, Transportation, Utilities, & Other Services (12%): Cashiers followed by Retail Salespersons.

Large employers represent just over one-quarter of current employment and account for about 15% of the job openings. Vacancies in this size group are found in:

Health Care & Social Assistance—Registered Nurses, Pharmacists, and Occupational Therapist Aides.

Manufacturing—Marketing Managers, Management Analysts, and Computer Support Specialists.

Trade, Transportation & Utilities—Retail Salespersons and Cashiers.

Professional & Business Services—Telemarketers and Cashiers.

Seventeen percent of current employment and about one-fifth of reported job vacancies are found in Government entities. Employment within this sector is mainly concentrated in educational entities such as Colorado State University or other federal government research extensions.

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.

Figures 11 and 12 refer to employment status. Full-time permanent positions make up a majority of vacancies, 61%, and offer average wages that range between \$11.40 and \$13.80. Full-time temporary positions make up 3% of the total openings and offer lower wages that range between \$8.40 and \$9.50.

Twenty-eight percent of the vacancies are part-time permanent. Three-quarters of all vacancies in this group are in the Government (46%) and Healthcare & Social Assistance (29%) sectors. About 18% of part-time permanent positions are in small firms, 9% in mid-sized, and 27% are in large employers. For small firms, almost 42% of the part-time permanent vacancies are in Leisure & Hospitality, while another 15% are in Health Care & Social Assistance.

Thirty-one percent of vacancies classified as part-time/temporary are in the Leisure & Hospitality sector. Part-time temporary positions offer average wages that range between \$7.70 and \$8.30 while the average wage for the full-time temporary vacancies range from \$8.40 to \$9.50 per hour.

Figure 11: Vacancies by Employment Status

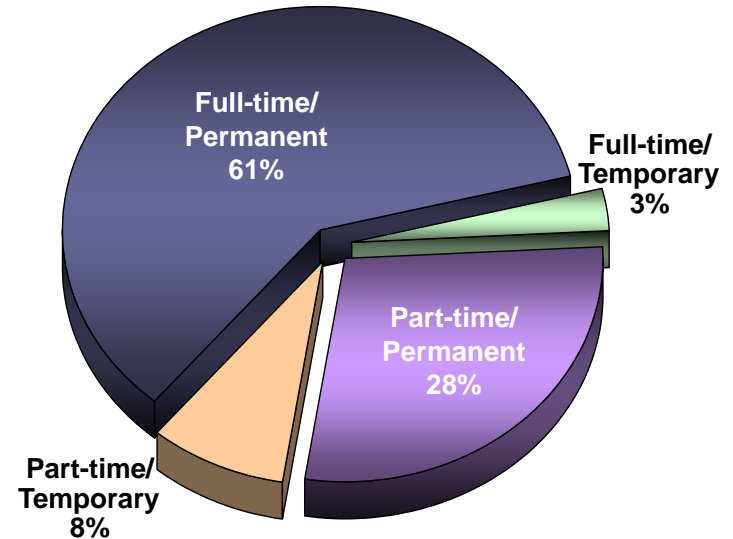
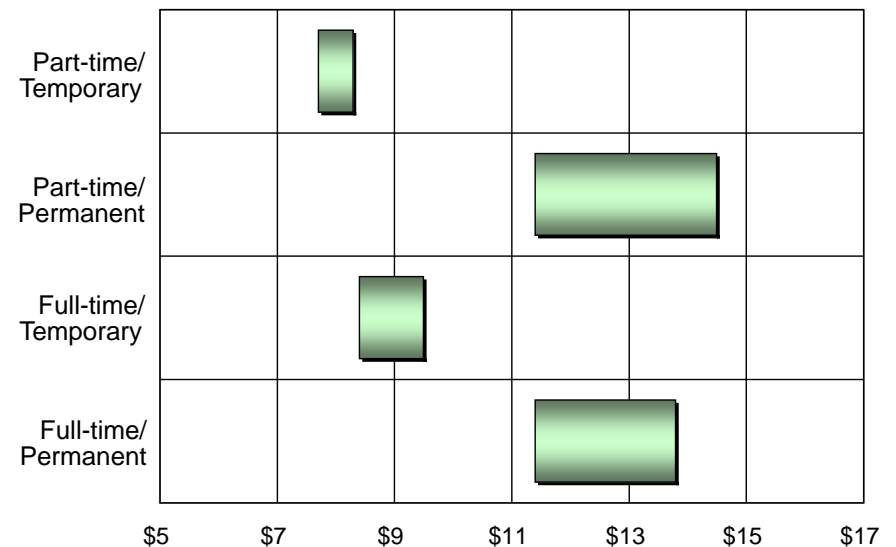


Figure 12: Reported Average Wage Ranges by Employment Status



The Job Vacancy Survey also asks employers what education and experience levels are necessary to fill their vacancies. Approximately 82% of reported job vacancies have information on the education requirements and 95% on the experience requirements of surveyed employers.

Fifty-seven percent of all reported vacancies require education beyond the high school level. Vocational training/certification is required for 24% of the vacancies during this survey period, while 23% require a high school diploma or GED. Of the vacancies requiring a high school diploma or GED, 29% are in Government and 15% are in Trade, Transportation & Utilities. Small employers account for 42% of the vacancies requiring this qualification.

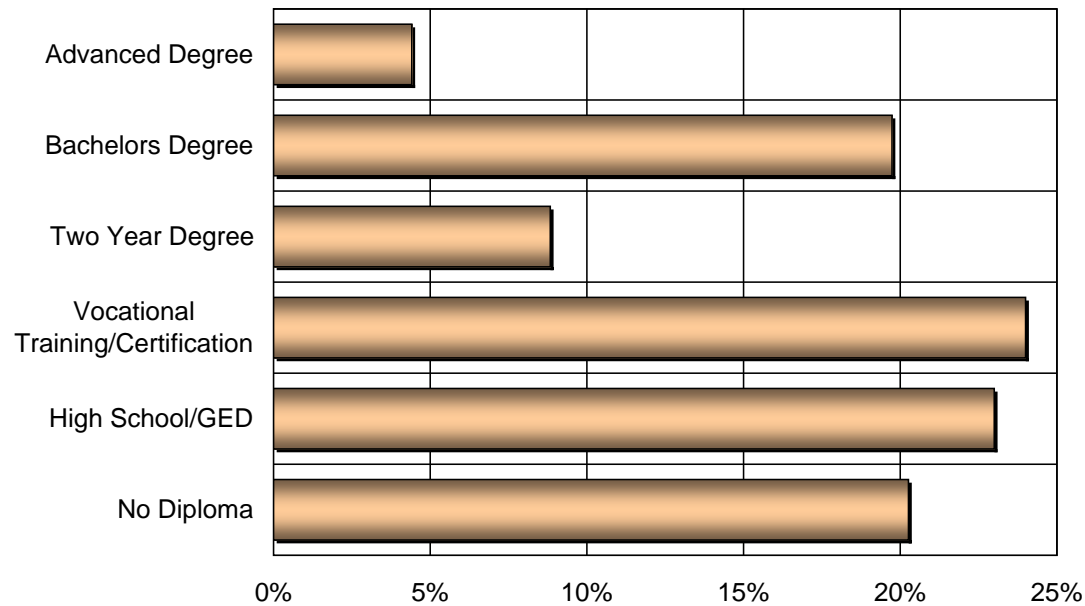
Figure 14 illustrates that wages offered tend to be correlated with educational attainment — higher levels of education command higher wages. Following are the details of the occupations demanded and the wages offered for vacancies grouped by education required:

Advanced Degree: Job vacancies requiring an advanced degree were found in: Health Care & Social Assistance; Government; Manufacturing; and Professional & Business Services JVS sectors. Vacancies in Government pay the highest in this category. Education Administrators, Elementary and Secondary account for 14% of the vacancies in this category, followed by Biological Science Teachers, Postsecondary.

Bachelor’s Degree: Most vacancies requiring a bachelor’s degree are in Manufacturing followed by Government and Health Care & Social Assistance sectors. Vacancies in Health Care & Social Assistance pay the highest wages. Marketing Managers, Registered Nurses, and Pharmacists account for most of the vacancies in this group.

Two-Year Degree: Positions in the Health Care & Social Assistance sector are reported most often. Registered Nurses account for 58% of the vacancies in this category, followed by Civil Engineering Technicians.

Figure 13: Vacancies by Education



Vocational Training/Certification: Government accounts for 53% of vacancies requiring vocational training or certification, followed by Health Care & Social Assistance, and Leisure & Hospitality. Professional & Business Services positions offer the highest wages while Leisure & Hospitality vacancies pay the lowest wages. Coaches & Scouts account for the majority of vacancies requiring either Vocational Training or Certification, followed by Recreation Workers and Umpires, Referees & Other Sports Officials.

High-School/GED: Government positions account for the highest number of openings in this group, followed by Trade, Transportation & Utilities and

Health Care & Social Assistance. Retail Salespersons have the most vacancies in the high school/GED category, followed by Landscaping & Groundskeeping Workers and Customer Service Representatives.

No Diploma: Telemarketer positions account for 21% of the vacancies in this category, followed by Retail Salespersons and Landscaping & Groundskeeping Workers.

Figure 14: Reported Average Wage Ranges by Education

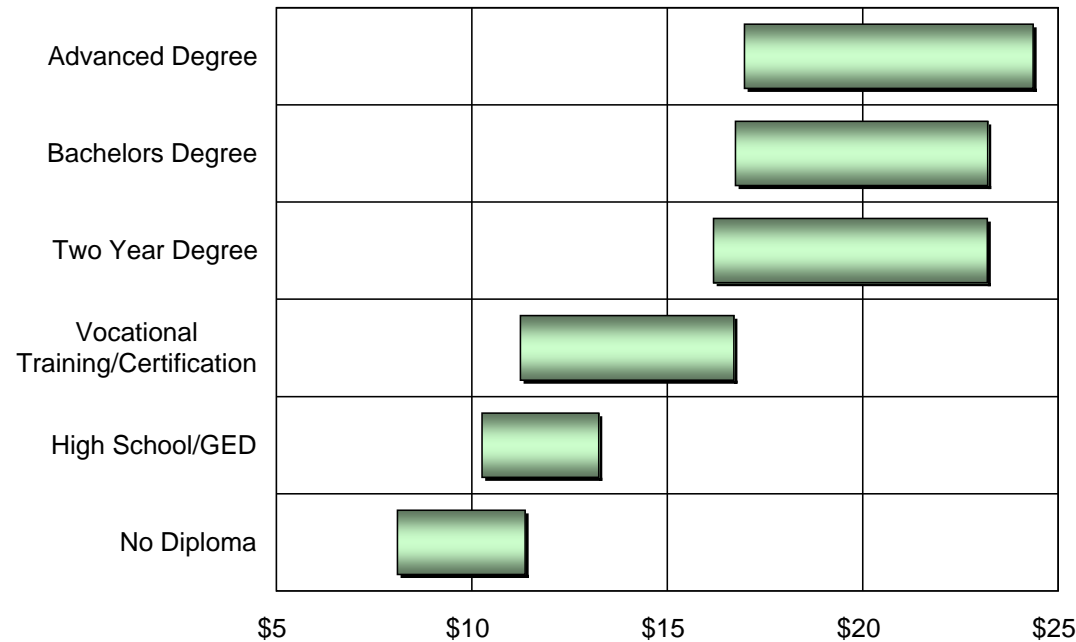


Figure 15 shows the percent breakdown of vacancies by experience requirement. One out of five vacancies requires occupation specific experience, while almost a half require experience in a related field.

Positions demanding higher levels of experience generally pay higher wages. The minimum and maximum wages for each experience category represent a variety of occupations along with the requisite skills and training for each. For example, the “experience in this occupation” category may include a vacancy in a hospital seeking a registered nurse with prior experience.

Knowing the occupations reported in the JVS enhances the relevance of these experience categories:

Experience in This Occupation:

Government and Health Care & Social Assistance combined make up nearly 45% of the vacancies in this experience category. Along with vacancies in Professional & Business Services, these jobs offer wages at the high end of the wage scale. Leisure & Hospitality vacancies pay the lowest wages for openings for which direct experience is required. Registered Nurses accounted for 9% of the vacancies in this category, followed by Recreation Workers and Lifeguards, Ski Patrol & Other Recreational Protective Service Workers.

Experience in a Related Field:

Most vacancies in this group are found in Government. Positions offering higher pay are in Health Care & Social Assistance fields. Leisure & Hospitality vacancies offer the lowest pay. Recreational Workers account for 9% of the vacancies followed by Umpires, Referees & Other Sports Officials and Landscaping & Groundskeeping Workers each with nearly 8% of the vacancies.

General Work Experience:

Jobs in Government are the most frequently reported vacancies of positions requiring general work experience. They offer the highest starting wage while vacancies in Natural Resources & Mining are the lowest paying in this experience category. Landscaping & Groundskeeping Workers led the number of vacancies in this category, followed by Correctional Officers & Jailers and Team Assemblers.

No Experience Required:

Candidates new to the labor force have many opportunities to obtain work experience in Trade, Transportation & Utilities jobs. Beginning wages paid for jobs in this category are low and do not increase significantly. Opportunities in Health Care & Social Assistance and Natural Resources & Mining have the highest average wage in this category, while vacancies in Leisure & Hospitality offer the lowest average wage. Telemarketing positions account for nearly one-fourth of the vacancies in this category, followed by Retail Salespersons.

Figure 15: Vacancies by Experience

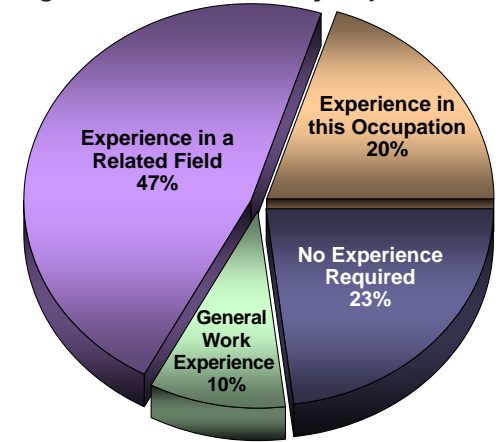
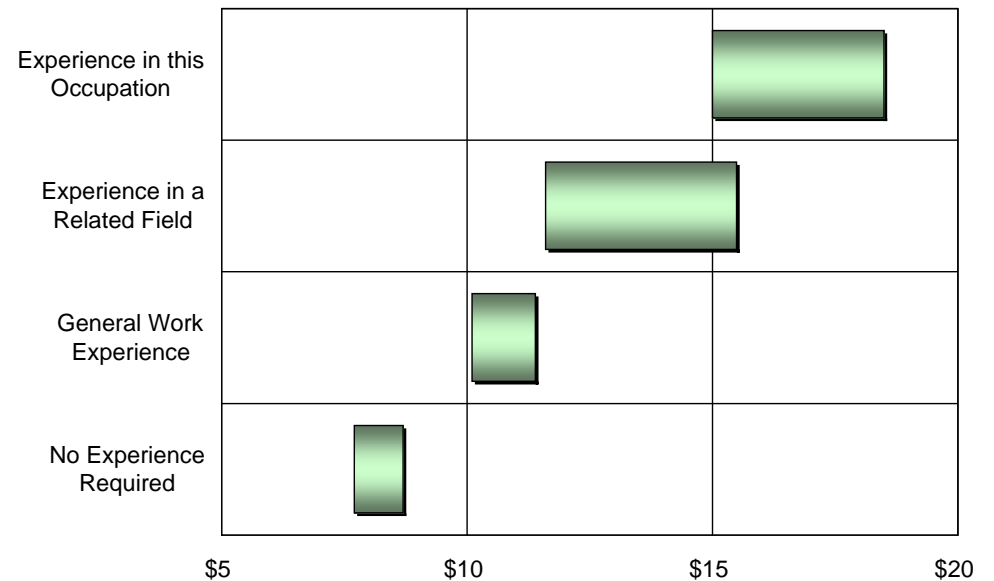


Figure 16: Reported Average Wage Ranges by Experience



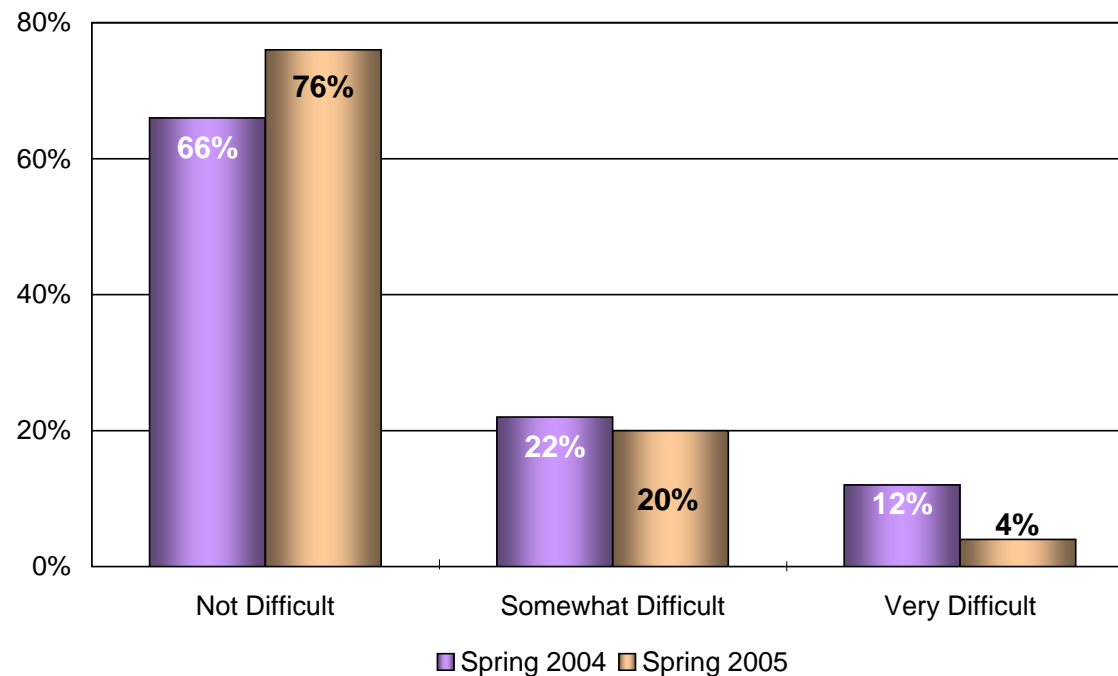
Employers' abilities to find and hire qualified candidates are an important indicator of the supply side of the labor force. Seventy-six percent of employers claim that they are not having difficulty in filling their vacant positions during this survey compared to 66% in the spring survey of 2004.

The percentage of vacancies reported as somewhat difficult to fill dropped slightly from the spring of last year. Sixty-nine percent of these vacancies are with small to mid-size firms, 19% with large firms, and 12% in Government. Leisure

& Hospitality sector accounts for over one-third of the vacancies in this category, followed by Health Care & Social Assistance and Professional & Business Services.

Four percent of vacancies are considered very difficult to fill compared to 12% in the Spring 2004 survey. Most of the difficult to fill positions came in Healthcare & Social Assistance and Construction.

Figure 17: Vacancies by Difficulty to Fill



Forty-five percent of the reported vacancies do not include information on the amount of time they are open. Of those that do, 62% are open for less than 30 days. Of the vacancies open for less than 30 days, approximately 87% are considered not difficult to fill.

Eighty-seven percent of positions classified as always open for hire are also listed as not being difficult to fill. Sixty-seven percent of these vacancies have a High School diploma/GED or less requirement.

Eighty-four percent of vacancies open between 30 and 59 days were classified as somewhat difficult to fill, with more than half requiring vocational training.

Figure 18: Vacancies by Time Open for Hire

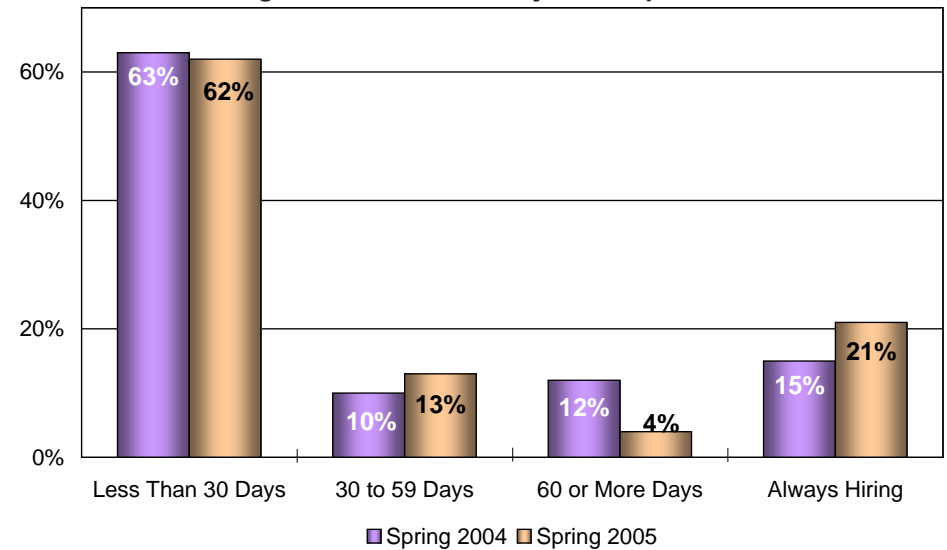
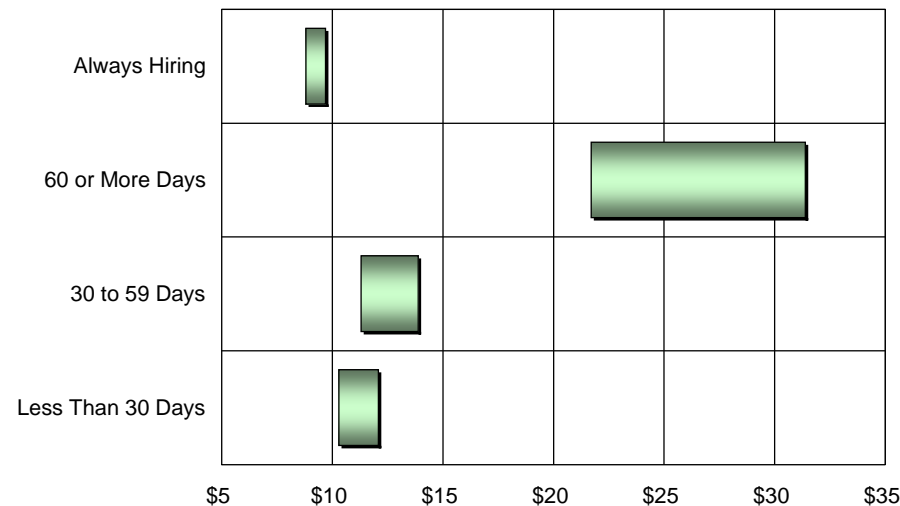


Figure 19: Reported Average Wage Ranges by Time Open for Hire



Medical Insurance

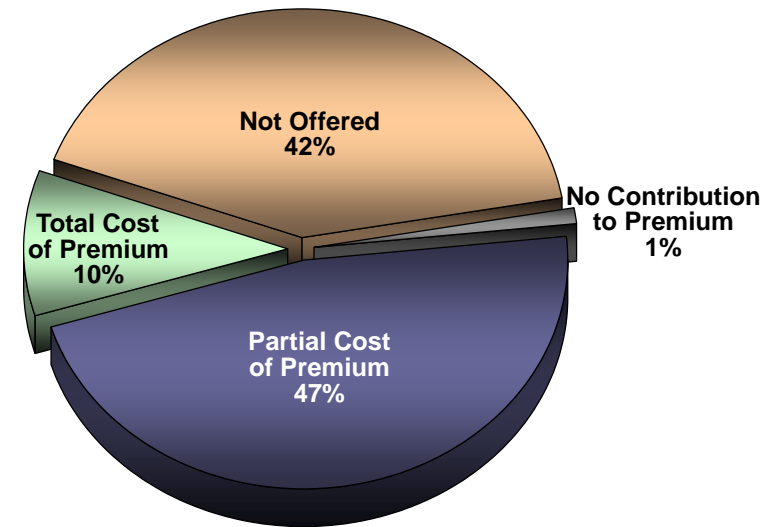
Employers frequently offer other compensation and benefits to recruit qualified candidates. Some of these perks are paid time off, transportation or parking vouchers, and subsidized child care. One of the most common benefits offered to employees is a group medical insurance plan. An employer may pay all or part of the monthly insurance premium for employees or none at all, even if they offer it.

Ten percent of the vacancies paid the total cost of insurance premium. Health Care & Social Assistance accounts for almost half of vacancies in this group followed by the Construction sector. Vacancies that paid partial cost of insurance (47%) are mostly found in Government, Professional & Business Services, and Trade, Transportation & Utilities.

Sign-On Bonus

There was insufficient data to report on sign-on bonuses.

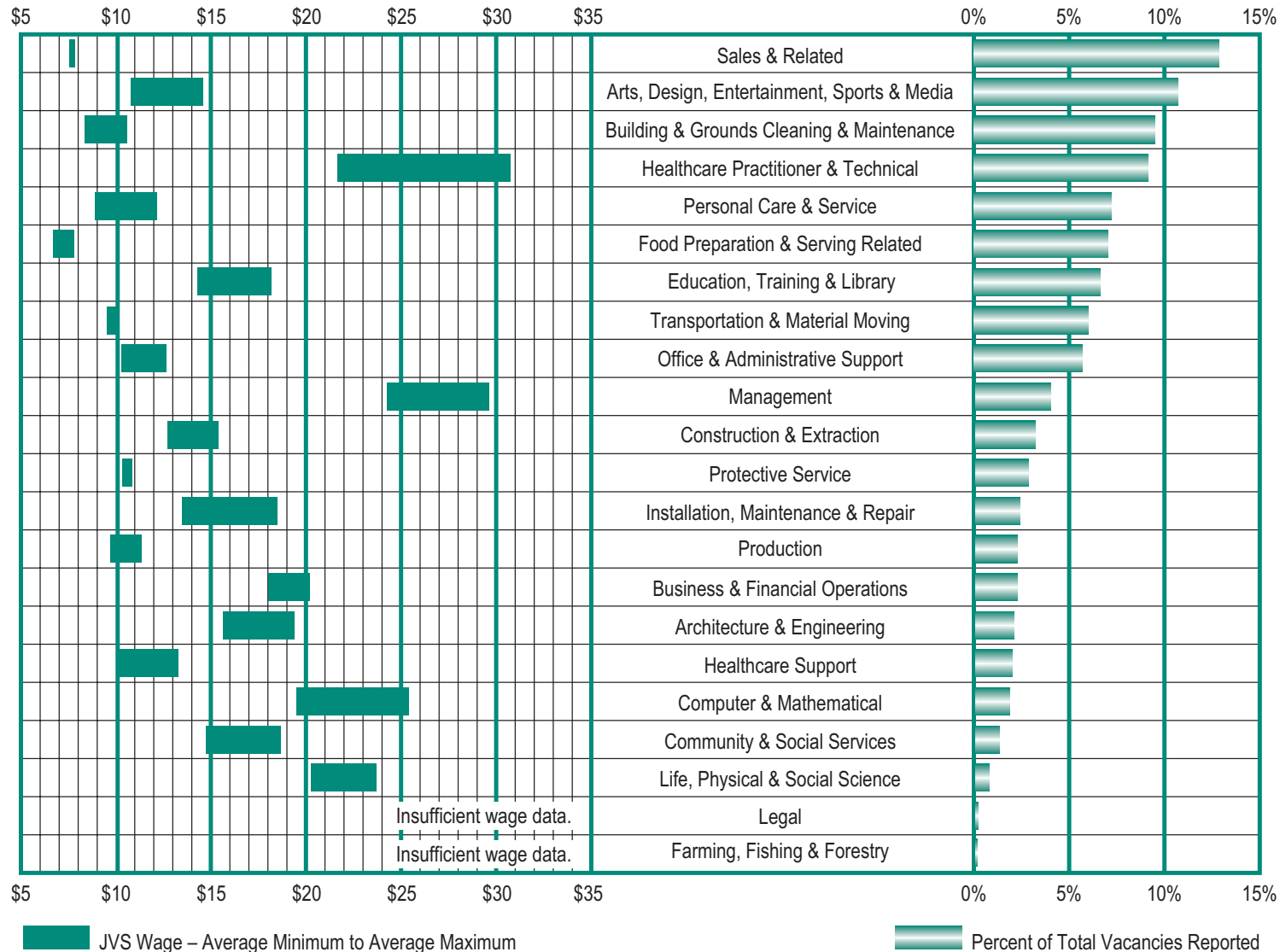
Figure 20: Employers' Contribution to Medical Insurance



In order to help make comparisons between this survey and other sources of employment statistics, all jobs are assigned a Standard Occupational Classification (SOC) code from the 2000 Standard Occupational Classification Manual. Figure 21 is a ranking of the most-to-least vacancies by major

occupational group. Of those major occupation groups, Sales & Related accounts for the highest number of vacancies, followed by Arts, Design, Entertainment, Sports, & Media, then Building & Grounds Cleaning & Maintenance.

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



Occupational Estimates

Tables 1 and 2 contain a list of all the detailed SOC job titles assigned to vacancies reported in this survey. As 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. Nearly 25% percent of small to mid-size employers were contacted for the random sample, and likewise the occupations associated with these 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 these groups is not estimated; it is an actual count of the vacancies. However, in addition to the number found, vacancies are estimated for occupations reported by small to mid-size private firms. The additional estimated occupational vacancies are calculated per the current mix of occupations found in the region, but restricted to the occupational titles reported in the survey.

Vacancies Found

The number of vacancies by occupation found in the survey.

Average JVS Wage

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

Average OES Wage

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. 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 for already filled positions. Together, these data provide employers and job seekers with a good indication of the compensation available in the current job market.

continued

Table 1: Occupations with 10 or More Estimated Vacancies

SOC Code	Occupational Title	Vacancies Estimated	Vacancies Found	Average JVS Wage	Occupational Employment Statistics Wage Data (2003)							
					Average Wages			Percentile Distribution				
					Entry	Overall	Experienced	10th	25th	50th	75th	90th
37-3011	Landscaping and Groundskeeping Workers	168	117	\$9.30	\$7.71	\$10.59	\$12.03	\$7.30	\$8.41	\$10.10	\$12.14	\$15.11
41-2031	Retail Salespersons	159	66	\$7.70	\$7.18	\$11.15	\$13.14	\$6.64	\$7.64	\$8.87	\$12.20	\$17.76
35-3021	Combined Food Preparation and Serving Workers, Including Fast Food	106	41	\$6.50	\$6.00	\$7.47	\$8.21	\$5.75	\$6.41	\$7.40	\$8.33	\$9.52
27-2022	Coaches and Scouts	99	91	\$13.00	†	†	†	†	†	†	†	†
39-9032	Recreation Workers	87	70	\$9.90	\$7.20	\$10.21	\$11.71	\$6.74	\$7.68	\$8.98	\$12.23	\$16.17
29-1111	Registered Nurses	86	61	\$27.60	\$17.24	\$22.23	\$24.73	\$15.89	\$18.62	\$21.58	\$25.72	\$29.00
43-3071	Tellers	84	13	\$9.00	\$8.66	\$10.21	\$10.98	\$8.06	\$9.07	\$10.12	\$11.18	\$12.87
43-4051	Customer Service Representatives	76	19	\$10.50	\$6.79	\$11.24	\$13.46	\$6.15	\$7.30	\$10.53	\$13.78	\$17.44
* 41-9041	Telemarketers	67	67	\$7.50	\$6.99	\$10.42	\$12.13	\$6.50	\$7.55	\$9.24	\$11.85	\$16.39
41-2011	Cashiers	66	28	\$7.60	\$6.48	\$8.67	\$9.77	\$6.06	\$6.96	\$8.01	\$9.33	\$13.47
51-2092	Team Assemblers	64	11	\$9.00	\$8.51	\$11.71	\$13.31	\$7.73	\$9.35	\$11.49	\$13.74	\$16.55
35-3031	Waiters and Waitresses	63	23	\$5.40	\$5.99	\$7.39	\$8.08	\$5.62	\$6.05	\$6.77	\$8.75	\$10.25
53-3032	Truck Drivers, Heavy and Tractor-Trailer	59	20	\$13.10	\$11.30	\$15.25	\$17.22	\$10.83	\$12.38	\$14.72	\$17.48	\$21.37
25-2031	Secondary School Teachers, Except Special and Vocational Education	51	16	\$16.30	†	†	†	†	†	†	†	†
* 33-9092	Lifeguards, Ski Patrol, and Other Recreational Protective Service Workers	45	21	\$6.60	†	†	†	†	†	†	†	†
* 27-2023	Umpires, Referees, and Other Sports Officials	43	43	\$12.00	†	†	†	†	†	†	†	†
53-3031	Driver/Sales Workers	38	12	\$5.30	\$5.97	\$9.53	\$11.31	\$5.61	\$6.07	\$6.89	\$11.08	\$17.79
47-2061	Construction Laborers	36	10	\$10.60	\$8.63	\$11.75	\$13.31	\$7.95	\$9.30	\$11.14	\$13.64	\$16.52
43-9061	Office Clerks, General	35	7	\$10.90	\$7.74	\$11.78	\$13.80	\$6.81	\$8.80	\$11.11	\$13.68	\$16.57
11-9111	Medical and Health Services Managers	29	5	\$22.00	\$22.19	\$33.68	\$39.42	\$19.84	\$24.80	\$30.06	\$39.50	\$52.25

* OES wages reported for Colorado statewide
† insufficient wage data

continued

Table 1: Occupations with 10 or More Estimated Vacancies
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					Occupational Employment Statistics Wage Data (2003)							
					Average Wages			Percentile Distribution				
SOC Code	Occupational Title	Vacancies Estimated	Vacancies Found	Average JVS Wage	Entry	Overall	Experienced	10th	25th	50th	75th	90th
47-2073	Operating Engineers and Other Construction Equipment Operators	29	12	\$16.20	\$13.94	\$16.95	\$18.46	\$12.83	\$14.76	\$16.65	\$19.40	\$21.80
43-4171	Receptionists and Information Clerks	26	5	\$10.00	\$8.62	\$11.40	\$12.79	\$7.88	\$9.30	\$10.94	\$13.23	\$16.05
25-1194	Vocational Education Teachers, Postsecondary	25	8	\$9.00	\$15.16	\$24.58	\$29.29	\$14.06	\$16.72	\$23.67	\$31.77	\$39.67
31-1012	Nursing Aides, Orderlies, and Attendants	25	14	\$12.00	\$8.63	\$10.55	\$11.51	\$7.89	\$9.15	\$10.33	\$12.04	\$13.59
49-3023	Automotive Service Technicians and Mechanics	25	7	\$13.50	\$10.58	\$17.71	\$21.27	\$9.32	\$12.33	\$16.60	\$22.36	\$27.42
13-2072	Loan Officers	25	3	†	\$16.93	\$36.49	\$46.27	\$14.66	\$19.98	\$27.66	\$35.90	†
25-2021	Elementary School Teachers, Except Special Education	24	7	\$6.50	†	†	†	†	†	†	†	†
25-2022	Middle School Teachers, Except Special and Vocational Education	24	7	\$14.30	†	†	†	†	†	†	†	†
51-4121	Welders, Cutters, Solderers, and Brazers	23	4	\$13.50	\$9.18	\$13.28	\$15.32	\$8.30	\$10.29	\$12.82	\$15.87	\$18.85
47-2152	Plumbers, Pipefitters, and Steamfitters	22	5	\$19.60	\$13.26	\$19.87	\$23.18	\$12.00	\$15.26	\$20.07	\$24.97	\$28.10
15-1071	Network and Computer Systems Administrators	21	2	\$20.90	\$18.77	\$28.49	\$33.35	\$17.15	\$21.41	\$27.99	\$34.48	\$41.84
15-1081	Network Systems and Data Communications Analysts	21	2	\$18.70	\$18.32	\$27.82	\$32.57	\$15.71	\$21.45	\$27.19	\$34.22	\$42.06
17-3022	Civil Engineering Technicians	21	6	\$13.00	\$11.44	\$17.67	\$20.78	\$10.44	\$12.59	\$18.39	\$22.29	\$26.05
13-2011	Accountants and Auditors	19	5	\$25.60	\$17.52	\$24.53	\$28.03	\$16.33	\$18.87	\$22.42	\$28.67	\$36.19
35-3022	Counter Attendants, Cafeteria, Food Concession, and Coffee Shop	19	13	\$7.60	\$6.00	\$7.58	\$8.37	\$5.70	\$6.27	\$7.36	\$8.72	\$10.14
53-7061	Cleaners of Vehicles and Equipment	19	6	\$8.80	\$6.93	\$8.98	\$10.00	\$6.39	\$7.46	\$8.79	\$10.27	\$11.90
11-2011	Advertising and Promotions Managers	18	2	\$9.00	\$13.00	\$22.36	\$27.04	\$10.92	\$15.28	\$20.51	\$26.73	\$36.49

* OES wages reported for Colorado statewide
† insufficient wage data

continued

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

SOC Code	Occupational Title	Vacancies Estimated	Vacancies Found	Average JVS Wage	Occupational Employment Statistics Wage Data (2003)							
					Average Wages			Percentile Distribution				
					Entry	Overall	Experienced	10th	25th	50th	75th	90th
* 43-4061	Eligibility Interviewers, Government Programs	18	4	\$14.40	\$11.89	\$15.51	\$17.32	\$11.25	\$12.68	\$14.73	\$17.73	\$21.05
49-3031	Bus and Truck Mechanics and Diesel Engine Specialists	18	5	\$14.80	\$12.30	\$16.24	\$18.20	\$11.84	\$13.29	\$15.66	\$18.53	\$21.84
51-9061	Inspectors, Testers, Sorters, Samplers, and Weighers	17	3	\$8.00	\$8.77	\$12.72	\$14.69	\$8.08	\$9.63	\$11.88	\$14.66	\$18.82
31-1011	Home Health Aides	17	6	\$10.00	\$8.15	\$10.86	\$12.21	\$7.64	\$8.77	\$10.09	\$11.90	\$15.87
53-7062	Laborers and Freight, Stock, and Material Movers, Hand	17	13	\$8.40	\$7.83	\$10.91	\$12.45	\$7.44	\$8.51	\$10.53	\$13.00	\$15.56
53-3033	Truck Drivers, Light or Delivery Services	17	6	\$9.30	\$7.75	\$13.09	\$15.76	\$7.25	\$8.59	\$11.87	\$16.48	\$22.00
29-2061	Licensed Practical and Licensed Vocational Nurses	17	11	\$13.50	\$13.06	\$17.27	\$19.37	\$11.38	\$14.57	\$17.27	\$19.98	\$22.42
43-4141	New Accounts Clerks	16	2	\$12.00	\$10.99	\$13.59	\$14.89	\$10.12	\$11.70	\$13.36	\$15.49	\$17.47
35-2014	Cooks, Restaurant	16	5	\$7.50	\$7.11	\$8.97	\$9.90	\$6.59	\$7.60	\$8.81	\$10.17	\$11.24
39-9011	Child Care Workers	15	9	\$8.80	\$6.54	\$8.58	\$9.61	\$6.07	\$7.03	\$8.37	\$9.94	\$11.46
37-2011	Janitors and Cleaners, Except Maids and Housekeeping Cleaners	14	12	\$9.70	\$7.20	\$9.33	\$10.39	\$6.66	\$7.61	\$8.66	\$10.63	\$13.16
43-6013	Medical Secretaries	13	6	\$14.10	\$9.82	\$13.03	\$14.64	\$8.65	\$11.12	\$13.38	\$15.46	\$16.92
11-9032	Education Administrators, Elementary and Secondary School	13	13	\$37.50	†	†	†	†	†	†	†	†
25-3021	Self-Enrichment Education Teachers	13	13	\$16.00	\$9.45	\$13.18	\$15.04	\$9.04	\$10.01	\$11.99	\$16.39	\$20.01
41-3021	Insurance Sales Agents	13	2	†	\$14.87	\$26.17	\$31.82	\$14.18	\$15.51	\$21.70	\$34.25	\$42.39
11-2022	Sales Managers	12	4	\$20.20	\$23.41	\$45.31	\$56.27	\$20.72	\$27.47	\$37.63	\$55.71	
49-9042	Maintenance and Repair Workers, General	12	7	\$11.30	\$9.29	\$14.38	\$16.93	\$8.43	\$10.64	\$13.64	\$17.40	\$21.81
39-9031	Fitness Trainers and Aerobics Instructors	12	12	\$16.30	\$6.54	\$12.32	\$15.21	\$5.99	\$7.24	\$10.24	\$16.68	\$20.88
53-3022	Bus Drivers, School	12	12	\$12.00	\$9.61	\$11.94	\$13.10	\$9.18	\$10.23	\$11.57	\$13.44	\$15.86

* OES wages reported for Colorado statewide

† insufficient wage data

Table 1: Occupations with 10 or More Estimated Vacancies
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					Occupational Employment Statistics Wage Data (2003)							
					Average Wages			Percentile Distribution				
SOC Code	Occupational Title	Vacancies Estimated	Vacancies Found	Average JVS Wage	Entry	Overall	Experienced	10th	25th	50th	75th	90th
29-1122	Occupational Therapists	12	6	\$23.50	\$17.33	\$21.93	\$24.23	\$15.59	\$18.69	\$21.67	\$25.41	\$27.94
29-1123	Physical Therapists	12	6	\$24.20	\$17.46	\$23.20	\$26.08	\$16.11	\$19.78	\$23.73	\$26.76	\$29.56
* 51-2041	Structural Metal Fabricators and Fitters	12	2	\$13.30	\$12.35	\$16.47	\$18.53	\$11.27	\$13.87	\$16.06	\$18.61	\$23.91
47-1011	First-Line Supervisors/Managers of Construction Trades and Extraction Workers	12	3	\$19.40	\$19.09	\$26.05	\$29.53	\$17.99	\$21.03	\$24.85	\$29.02	\$35.11
29-2081	Opticians, Dispensing	11	3	†	\$9.76	\$13.18	\$14.89	\$9.37	\$10.58	\$12.71	\$14.46	\$16.69
11-2021	Marketing Managers	11	11	†	\$25.10	\$40.93	\$48.84	\$22.58	\$29.05	\$41.22	\$49.90	\$59.98
33-3012	Correctional Officers and Jailers	11	11	\$17.70	\$15.26	\$19.43	\$21.52	\$14.83	\$17.37	\$19.87	\$22.07	\$25.16
* 47-2042	Floor Layers, Except Carpet, Wood, and Hard Tiles	11	2	\$15.00	\$14.18	\$19.50	\$22.16	\$12.90	\$15.96	\$19.02	\$21.73	\$29.11
47-3013	Helpers--Electricians	11	2	\$10.00	\$11.24	\$13.26	\$14.28	\$10.29	\$11.82	\$13.05	\$14.28	\$16.98
49-9052	Telecommunications Line Installers and Repairers	11	3	\$16.40	\$16.36	\$18.63	\$19.77	\$14.79	\$17.67	\$19.19	\$20.73	\$21.66
* 53-7072	Pump Operators, Except Wellhead Pumpers	10	4	\$15.00	\$8.96	\$12.87	\$14.82	\$8.29	\$9.73	\$12.16	\$15.63	\$19.12
35-2012	Cooks, Institution and Cafeteria	10	6	\$13.20	\$6.99	\$9.07	\$10.12	\$6.41	\$7.49	\$8.71	\$10.35	\$12.44
13-1071	Employment, Recruitment, and Placement Specialists	10	3	\$12.40	\$11.12	\$17.44	\$20.60	\$9.62	\$12.95	\$16.44	\$21.19	\$26.81
43-6011	Executive Secretaries and Administrative Assistants	10	3	\$14.30	\$12.85	\$16.95	\$19.00	\$12.13	\$13.76	\$15.98	\$18.98	\$22.70

* OES wages reported for Colorado statewide

† insufficient wage data

continued

Table 2: Occupations with Fewer than 10 Estimated Vacancies

		Occupational Employment Statistics Wage Data (2003)							
		Average Wages			Percentile Distribution				
SOC Code	SOC Occupational Title	Entry Level	Overall	Experienced	10th	25th	50th	75th	90th
35-2021	Food Preparation Workers	\$6.50	\$8.62	\$9.68	\$6.04	\$7.03	\$8.18	\$9.98	\$12.21
11-3011	Administrative Services Managers	\$17.98	\$30.34	\$36.52	\$16.14	\$20.82	\$28.43	\$36.78	\$45.84
11-9141	Property, Real Estate, and Community Association Managers	\$11.72	\$22.35	\$27.67	\$10.79	\$13.26	\$17.48	\$31.07	\$42.35
11-9199	Managers, All Other	\$23.23	\$37.41	\$44.51	\$21.41	\$27.12	\$36.22	\$45.75	\$56.89
43-5071	Shipping, Receiving, and Traffic Clerks	\$8.61	\$12.29	\$14.14	\$7.88	\$9.42	\$12.01	\$15.04	\$17.41
43-6014	Secretaries, Except Legal, Medical, and Executive	\$8.51	\$11.85	\$13.51	\$7.69	\$9.41	\$11.32	\$13.84	\$17.09
* 25-1042	Biological Science Teachers, Postsecondary	†	†	†	†	†	†	†	†
* 53-6099	Transportation Workers, All Other	\$8.97	\$13.85	\$16.29	\$8.78	\$9.89	\$12.59	\$16.73	\$22.01
43-4081	Hotel, Motel, and Resort Desk Clerks	\$6.10	\$7.58	\$8.32	\$5.76	\$6.32	\$7.27	\$8.67	\$10.39
43-4111	Interviewers, Except Eligibility and Loan	\$6.12	\$10.59	\$12.83	\$5.90	\$6.65	\$10.97	\$13.66	\$15.74
43-9021	Data Entry Keyers	\$8.94	\$10.57	\$11.38	\$8.26	\$9.24	\$10.30	\$11.72	\$13.69
15-1041	Computer Support Specialists	\$13.67	\$20.18	\$23.43	\$12.64	\$15.01	\$18.44	\$24.13	\$31.14
29-1051	Pharmacists	\$30.92	\$35.94	\$38.45	\$30.31	\$32.94	\$36.40	\$40.76	\$43.61
27-1024	Graphic Designers	\$12.47	\$17.66	\$20.26	\$11.74	\$13.66	\$17.15	\$21.01	\$24.96
19-2043	Hydrologists	\$20.34	\$29.62	\$34.26	\$17.05	\$24.29	\$30.58	\$35.93	\$41.02
39-5012	Hairdressers, Hairstylists, and Cosmetologists	\$8.27	\$12.83	\$15.11	\$7.11	\$9.38	\$11.89	\$15.99	\$18.15
13-1111	Management Analysts	\$15.84	\$34.62	\$44.01	\$12.12	\$20.17	\$30.15	\$47.20	\$54.37
29-1127	Speech-Language Pathologists	\$15.82	\$21.47	\$24.30	\$14.88	\$17.06	\$20.98	\$26.03	\$29.53
* 29-2011	Medical and Clinical Laboratory Technologists	\$16.18	\$20.81	\$23.12	\$15.02	\$17.53	\$20.77	\$24.18	\$27.19
17-2141	Mechanical Engineers	\$18.37	\$26.44	\$30.47	\$17.82	\$19.60	\$23.99	\$32.35	\$39.69
51-3011	Bakers	\$6.93	\$10.55	\$12.36	\$6.37	\$7.67	\$10.01	\$13.29	\$16.13
31-9091	Dental Assistants	\$12.36	\$15.46	\$17.01	\$11.77	\$12.79	\$14.64	\$17.70	\$21.02
41-2022	Parts Salespersons	\$9.87	\$16.69	\$20.11	\$9.20	\$11.13	\$14.95	\$21.39	\$27.91
41-3041	Travel Agents	\$9.56	\$12.61	\$14.14	\$9.18	\$10.08	\$11.61	\$15.03	\$17.23

* OES wages reported for Colorado statewide
† insufficient wage data

continued

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

		Occupational Employment Statistics Wage Data (2003)							
		Average Wages			Percentile Distribution				
SOC Code	SOC Occupational Title	Entry Level	Overall	Experienced	10th	25th	50th	75th	90th
* 41-3099	Sales Representatives, All Other	†	†	†	†	†	†	†	†
41-4012	Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	\$12.80	\$24.08	\$29.72	\$11.55	\$14.95	\$20.61	\$30.66	\$41.64
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
35-2011	Cooks, Fast Food	\$6.45	\$7.97	\$8.73	\$6.10	\$6.95	\$7.90	\$8.92	\$10.23
19-2041	Environmental Scientists and Specialists, Including Health	\$12.08	\$19.81	\$23.67	\$11.28	\$13.50	\$17.44	\$23.31	\$34.39
19-3031	Clinical, Counseling, and School Psychologists	\$16.05	\$23.60	\$27.38	\$14.90	\$18.11	\$22.83	\$28.53	\$33.04
25-1071	Health Specialties Teachers, Postsecondary	†	†	†	†	†	†	†	†
27-3041	Editors	\$13.32	\$19.39	\$22.42	\$12.25	\$15.06	\$18.76	\$22.64	\$28.89
29-2034	Radiologic Technologists and Technicians	\$14.61	\$18.40	\$20.30	\$13.53	\$15.46	\$18.21	\$21.30	\$23.85
41-4011	Sales Representatives, Wholesale and Manufacturing, Technical and Scientific Products	\$18.48	\$32.69	\$39.80	\$15.95	\$22.03	\$31.58	\$43.35	\$53.53
47-4051	Highway Maintenance Workers	\$12.70	\$17.17	\$19.40	\$11.87	\$13.88	\$17.67	\$20.35	\$22.07
17-1012	Landscape Architects	\$16.72	\$23.94	\$27.56	\$15.27	\$18.63	\$23.68	\$27.30	\$33.72
17-1022	Surveyors	\$14.04	\$21.13	\$24.68	\$12.50	\$16.03	\$20.47	\$25.75	\$31.18
17-2131	Materials Engineers	\$20.50	\$28.86	\$33.04	\$18.85	\$22.44	\$25.32	\$37.53	\$46.73
17-3031	Surveying and Mapping Technicians	\$10.62	\$13.82	\$15.43	\$9.77	\$11.18	\$12.91	\$15.95	\$20.11
29-2056	Veterinary Technologists and Technicians	\$9.70	\$11.10	\$11.80	\$9.14	\$9.81	\$10.93	\$12.48	\$13.57
51-4021	Extruding and Drawing Machine Setters, Operators, and Tenders, Metal and Plastic	\$10.78	\$13.72	\$15.18	\$9.90	\$11.76	\$13.43	\$16.02	\$18.40
51-5023	Printing Machine Operators	\$8.88	\$15.38	\$18.64	\$7.76	\$10.44	\$15.93	\$20.15	\$22.41
47-2031	Carpenters	\$10.23	\$15.23	\$17.73	\$9.48	\$11.40	\$14.60	\$18.77	\$22.63
47-2051	Cement Masons and Concrete Finishers	\$9.85	\$14.00	\$16.07	\$9.09	\$10.86	\$13.44	\$17.04	\$20.38
47-2071	Paving, Surfacing, and Tamping Equipment Operators	\$12.35	\$15.67	\$17.34	\$11.87	\$13.12	\$15.39	\$17.92	\$20.74
47-2141	Painters, Construction and Maintenance	\$9.36	\$13.81	\$16.03	\$8.76	\$10.59	\$13.43	\$16.59	\$19.61

* OES wages reported for Colorado statewide

† insufficient wage data

continued

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

		Occupational Employment Statistics Wage Data (2003)							
		Average Wages			Percentile Distribution				
SOC Code	SOC Occupational Title	Entry Level	Overall	Experienced	10th	25th	50th	75th	90th
47-4011	Construction and Building Inspectors	\$13.71	\$21.15	\$24.86	\$10.57	\$17.28	\$21.19	\$26.86	\$30.84
11-9033	Education Administrators, Postsecondary	\$22.46	\$35.91	\$42.64	\$20.33	\$25.49	\$32.93	\$42.65	\$57.62
13-1073	Training and Development Specialists	\$14.07	\$21.50	\$25.21	\$12.79	\$15.90	\$20.14	\$26.22	\$34.00
15-1032	Computer Software Engineers, Systems Software	\$26.64	\$38.87	\$44.98	\$24.28	\$30.20	\$38.04	\$47.71	\$54.95
21-1012	Educational, Vocational, and School Counselors	\$11.92	\$19.99	\$24.02	\$10.52	\$13.47	\$19.46	\$26.14	\$31.48
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
21-1014	Mental Health Counselors	\$9.50	\$13.19	\$15.03	\$9.26	\$10.35	\$12.63	\$15.33	\$18.75
21-1091	Health Educators	\$14.13	\$20.98	\$24.41	\$12.67	\$16.21	\$21.54	\$26.13	\$28.69
* 21-2021	Directors, Religious Activities and Education	\$9.85	\$17.50	\$21.32	\$8.23	\$11.60	\$16.72	\$20.83	\$27.94
29-2071	Medical Records and Health Information Technicians	\$9.74	\$12.93	\$14.53	\$9.21	\$9.97	\$11.38	\$15.28	\$19.46
* 31-9093	Medical Equipment Preparers	\$9.46	\$11.96	\$13.21	\$8.96	\$10.11	\$11.76	\$13.43	\$15.67
11-1021	General and Operations Managers	\$20.17	\$41.75	\$52.54	\$17.83	\$23.69	\$35.67	\$52.02	
15-1021	Computer Programmers	\$18.61	\$28.46	\$33.39	\$16.27	\$21.93	\$27.09	\$35.10	\$42.67
19-4011	Agricultural and Food Science Technicians	\$9.03	\$13.18	\$15.25	\$8.27	\$9.99	\$12.47	\$15.40	\$19.66
21-1011	Substance Abuse and Behavioral Disorder Counselors	\$10.14	\$12.57	\$13.79	\$9.37	\$10.94	\$12.60	\$14.24	\$16.26
* 33-3031	Fish and Game Wardens	\$18.55	\$22.71	\$24.79	\$16.01	\$21.36	\$23.72	\$25.79	\$27.03
43-5031	Police, Fire, and Ambulance Dispatchers	\$12.82	\$17.75	\$20.22	\$11.88	\$14.09	\$18.22	\$21.00	\$23.61
21-1013	Marriage and Family Therapists	\$14.51	\$17.94	\$19.65	\$13.98	\$15.39	\$17.45	\$20.89	\$23.84
21-1022	Medical and Public Health Social Workers	\$13.18	\$17.94	\$20.31	\$12.00	\$14.35	\$17.39	\$21.05	\$25.51
29-1062	Family and General Practitioners	\$37.86	\$70.83	\$87.32	\$31.01	\$48.17	\$66.92		
29-2052	Pharmacy Technicians	\$10.94	\$14.11	\$15.69	\$9.79	\$11.91	\$13.82	\$16.52	\$19.36
49-3021	Automotive Body and Related Repairers	\$12.74	\$19.35	\$22.66	\$11.23	\$14.95	\$18.80	\$21.35	\$29.03
49-3093	Tire Repairers and Changers	\$8.60	\$10.43	\$11.34	\$7.86	\$9.03	\$10.21	\$11.70	\$13.46

* OES wages reported for Colorado statewide

† insufficient wage data

continued

Table 2: Occupations with Fewer than 10 Estimated Vacancies
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		Occupational Employment Statistics Wage Data (2003)							
		Average Wages			Percentile Distribution				
SOC Code	SOC Occupational Title	Entry Level	Overall	Experienced	10th	25th	50th	75th	90th
* 49-9012	Control and Valve Installers and Repairers, Except Mechanical Door	\$6.57	\$15.03	\$19.26	\$5.94	\$6.80	\$12.93	\$21.02	\$28.05
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
31-2011	Occupational Therapist Assistants	\$13.32	\$16.20	\$17.65	\$12.22	\$14.08	\$16.34	\$18.75	\$20.55
53-1021	First-Line Supervisors/Managers of Helpers, Laborers, and Material Movers, Hand	\$12.26	\$19.25	\$22.74	\$10.97	\$13.82	\$18.28	\$23.69	\$27.61
53-6031	Service Station Attendants	\$7.59	\$9.58	\$10.58	\$7.22	\$7.88	\$9.06	\$10.73	\$12.80
35-3011	Bartenders	\$6.01	\$7.87	\$8.80	\$5.67	\$6.16	\$7.04	\$9.13	\$11.71
35-9021	Dishwashers	\$6.11	\$7.25	\$7.82	\$5.79	\$6.35	\$7.29	\$8.25	\$8.87
35-9031	Hosts and Hostesses, Restaurant, Lounge, and Coffee Shop	\$6.09	\$6.90	\$7.31	\$5.67	\$6.08	\$6.77	\$7.70	\$8.50
11-3031	Financial Managers	\$22.92	\$36.59	\$43.43	\$21.17	\$25.57	\$34.65	\$44.22	\$55.27
13-2051	Financial Analysts	\$19.96	\$26.70	\$30.06	\$18.87	\$21.70	\$25.26	\$28.86	\$36.93
17-2051	Civil Engineers	\$20.91	\$29.87	\$34.34	\$19.35	\$22.80	\$28.62	\$35.74	\$43.69
17-2061	Computer Hardware Engineers	\$27.60	\$40.24	\$46.55	\$24.61	\$32.07	\$39.42	\$46.51	\$56.96
17-2112	Industrial Engineers	\$24.05	\$33.63	\$38.42	\$22.75	\$26.24	\$33.27	\$40.75	\$46.31
17-3023	Electrical and Electronic Engineering Technicians	\$14.46	\$19.71	\$22.34	\$13.16	\$16.30	\$19.70	\$22.61	\$26.67
25-1022	Mathematical Science Teachers, Postsecondary	†	†	†	†	†	†	†	†
* 25-1062	Area, Ethnic, and Cultural Studies Teachers, Postsecondary	†	†	†	†	†	†	†	†
25-1124	Foreign Language and Literature Teachers, Postsecondary	†	†	†	†	†	†	†	†
31-9099	Healthcare Support Workers, All Other	\$8.87	\$11.84	\$13.32	\$8.19	\$9.58	\$11.51	\$13.59	\$16.21
33-9091	Crossing Guards	\$7.73	\$11.10	\$12.79	\$7.45	\$8.28	\$9.75	\$11.49	\$18.06
41-9031	Sales Engineers	\$24.62	\$34.19	\$38.98	\$22.98	\$27.49	\$33.16	\$40.99	\$49.74
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
* 27-3011	Radio and Television Announcers	†	†	†	†	†	†	†	†

* OES wages reported for Colorado statewide

† insufficient wage data

continued

Table 2: Occupations with Fewer than 10 Estimated Vacancies
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		Occupational Employment Statistics Wage Data (2003)							
		Average Wages			Percentile Distribution				
SOC Code	SOC Occupational Title	Entry Level	Overall	Experienced	10th	25th	50th	75th	90th
* 27-3043	Writers and Authors	\$12.31	\$21.45	\$26.02	\$11.67	\$14.21	\$19.18	\$26.18	\$35.41
37-2012	Maids and Housekeeping Cleaners	\$6.38	\$7.79	\$8.49	\$6.01	\$6.85	\$7.72	\$8.56	\$9.90
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
15-1031	Computer Software Engineers, Applications	\$22.06	\$33.39	\$39.05	\$20.49	\$25.02	\$32.50	\$40.77	\$47.73
15-1099	Computer Specialists, All Other	\$16.69	\$27.27	\$32.55	\$15.45	\$18.15	\$24.19	\$32.60	\$45.39
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
25-1072	Nursing Instructors and Teachers, Postsecondary	†	†	†	†	†	†	†	†
25-1123	English Language and Literature Teachers, Postsecondary	†	†	†	†	†	†	†	†
25-2011	Preschool Teachers, Except Special Education	\$7.73	\$10.29	\$11.57	\$7.40	\$8.19	\$9.54	\$10.97	\$13.96
25-4021	Librarians	\$15.61	\$21.37	\$24.25	\$14.59	\$17.21	\$20.15	\$24.87	\$31.57
27-3091	Interpreters and Translators	\$12.64	\$16.49	\$18.41	\$11.95	\$13.54	\$15.51	\$19.28	\$23.94
29-2012	Medical and Clinical Laboratory Technicians	\$11.06	\$13.97	\$15.42	\$10.07	\$11.74	\$13.52	\$16.10	\$18.69
33-3051	Police and Sheriff's Patrol Officers	\$16.44	\$23.38	\$26.86	\$15.63	\$17.73	\$23.66	\$28.71	\$32.81
37-3012	Pesticide Handlers, Sprayers, and Applicators, Vegetation	\$12.43	\$15.23	\$16.62	\$11.82	\$13.06	\$15.11	\$17.30	\$19.67
39-3091	Amusement and Recreation Attendants	\$6.20	\$8.11	\$9.06	\$5.92	\$6.68	\$7.97	\$9.24	\$10.50
41-1012	First-Line Supervisors/Managers of Non-Retail Sales Workers	\$14.31	\$29.76	\$37.49	\$12.50	\$16.58	\$23.91	\$35.82	\$55.81
41-3011	Advertising Sales Agents	\$10.78	\$18.92	\$23.00	\$9.32	\$12.10	\$14.70	\$24.46	\$33.44
43-5061	Production, Planning, and Expediting Clerks	\$11.85	\$17.53	\$20.37	\$10.60	\$13.42	\$17.69	\$21.15	\$24.13
49-1011	First-Line Supervisors/Managers of Mechanics, Installers, and Repairers	\$15.44	\$23.70	\$27.84	\$14.84	\$18.01	\$22.27	\$28.65	\$35.08
49-9062	Medical Equipment Repairers	\$13.81	\$21.10	\$24.74	\$11.83	\$15.73	\$19.45	\$25.10	\$35.00
39-2021	Nonfarm Animal Caretakers	\$6.88	\$9.07	\$10.16	\$6.34	\$7.31	\$8.27	\$10.77	\$13.56
* 39-4021	Funeral Attendants	\$8.21	\$11.37	\$12.95	\$7.80	\$8.71	\$12.19	\$13.47	\$14.23

* OES wages reported for Colorado statewide

† insufficient wage data

continued

Table 2: Occupations with Fewer than 10 Estimated Vacancies
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		Occupational Employment Statistics Wage Data (2003)							
		Average Wages			Percentile Distribution				
SOC Code	SOC Occupational Title	Entry Level	Overall	Experienced	10th	25th	50th	75th	90th
39-9021	Personal and Home Care Aides	\$7.81	\$9.43	\$10.24	\$7.46	\$8.15	\$9.22	\$10.46	\$11.87
11-3021	Computer and Information Systems Managers	\$30.40	\$45.88	\$53.62	\$27.30	\$35.17	\$44.95	\$54.44	\$65.79
11-3071	Transportation, Storage, and Distribution Managers	\$21.15	\$31.29	\$36.36	\$17.25	\$25.74	\$32.25	\$36.64	\$43.08
11-9021	Construction Managers	\$22.57	\$29.93	\$33.62	\$19.88	\$24.99	\$28.41	\$33.78	\$41.73
11-9151	Social and Community Service Managers	\$15.33	\$22.68	\$26.36	\$14.23	\$17.53	\$20.80	\$24.73	\$35.92
13-1022	Wholesale and Retail Buyers, Except Farm Products	\$11.69	\$18.76	\$22.29	\$11.01	\$12.98	\$16.23	\$21.22	\$28.99
13-1041	Compliance Officers, Except Agriculture, Construction, Health and Safety, and Transportation	\$15.01	\$22.24	\$25.85	\$14.12	\$16.42	\$20.24	\$26.98	\$33.69
13-1051	Cost Estimators	\$15.65	\$23.64	\$27.64	\$14.37	\$17.31	\$22.42	\$28.64	\$35.98
* 13-1079	Human Resources Training, and Labor Relations Specialists, All Other	†	†	†	†	†	†	†	†
13-1199	Business Operations Specialists, All Other	\$17.05	\$25.24	\$29.33	\$15.50	\$19.25	\$23.86	\$30.25	\$37.50
13-2099	Financial Specialists, All Other	\$15.20	\$24.10	\$28.56	\$13.92	\$17.29	\$21.58	\$28.67	\$40.73
15-1051	Computer Systems Analysts	\$22.05	\$31.53	\$36.27	\$20.21	\$24.62	\$30.55	\$38.50	\$44.68
15-1061	Database Administrators	\$16.68	\$28.41	\$34.27	\$14.09	\$19.60	\$27.01	\$36.78	\$42.49
17-2071	Electrical Engineers	\$21.14	\$32.38	\$38.01	\$19.18	\$23.49	\$31.80	\$40.14	\$48.72
17-2111	Health and Safety Engineers, Except Mining Safety Engineers and Inspectors	\$21.45	\$31.90	\$37.13	\$19.60	\$23.68	\$30.54	\$39.81	\$48.38
17-2199	Engineers, All Other	\$22.24	\$29.43	\$33.03	\$20.40	\$24.23	\$28.26	\$33.62	\$38.24
* 19-1021	Biochemists and Biophysicists	†	†	†	†	†	†	†	†
* 19-2021	Atmospheric and Space Scientists	†	†	†	†	†	†	†	†
19-3021	Market Research Analysts	\$15.93	\$36.07	\$46.14	\$14.90	\$18.01	\$29.42	\$39.67	
21-1015	Rehabilitation Counselors	\$11.84	\$18.30	\$21.53	\$11.29	\$12.19	\$13.72	\$23.48	\$32.77
23-2011	Paralegals and Legal Assistants	\$12.60	\$15.29	\$16.64	\$11.80	\$12.52	\$13.75	\$18.03	\$21.53
25-1011	Business Teachers, Postsecondary	†	†	†	†	†	†	†	†

* OES wages reported for Colorado statewide
† insufficient wage data

continued

Table 2: Occupations with Fewer than 10 Estimated Vacancies
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		Occupational Employment Statistics Wage Data (2003)							
		Average Wages			Percentile Distribution				
SOC Code	SOC Occupational Title	Entry Level	Overall	Experienced	10th	25th	50th	75th	90th
* 25-1051	Atmospheric Earth, Marine and Space Sciences Teachers, Postsecondary	†	†	†	†	†	†	†	†
* 25-1054	Physics Teachers, Postsecondary	†	†	†	†	†	†	†	†
25-1063	Economics Teachers, Postsecondary	†	†	†	†	†	†	†	†
* 25-1065	Political Science Teachers, Postsecondary	†	†	†	†	†	†	†	†
* 25-1111	Criminal Justice and Law Enforcement Teachers, Postsecondary	†	†	†	†	†	†	†	†
* 25-1122	Communications Teachers, Postsecondary	†	†	†	†	†	†	†	†
25-2042	Special Education Teachers, Middle School	†	†	†	†	†	†	†	†
25-2043	Special Education Teachers, Secondary School	†	†	†	†	†	†	†	†
25-9041	Teacher Assistants	†	†	†	†	†	†	†	†
29-2032	Diagnostic Medical Sonographers	\$20.36	\$25.39	\$27.90	\$19.41	\$21.57	\$24.68	\$27.66	\$34.92
29-2041	Emergency Medical Technicians and Paramedics	\$10.79	\$15.64	\$18.06	\$9.69	\$12.06	\$15.07	\$18.62	\$22.30
29-2055	Surgical Technologists	\$11.61	\$15.36	\$17.23	\$10.96	\$12.23	\$13.80	\$16.90	\$23.27
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
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
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
43-3031	Bookkeeping, Accounting, and Auditing Clerks	\$10.01	\$13.98	\$15.96	\$9.35	\$11.15	\$13.35	\$16.61	\$20.19
43-3061	Procurement Clerks	\$10.57	\$15.36	\$17.76	\$9.95	\$11.51	\$15.33	\$19.07	\$21.65
43-5081	Stock Clerks and Order Fillers	\$7.72	\$11.07	\$12.75	\$7.35	\$8.40	\$10.44	\$13.46	\$16.50
43-6012	Legal Secretaries	\$10.95	\$14.32	\$16.00	\$9.88	\$12.14	\$14.52	\$16.41	\$18.45
43-9022	Word Processors and Typists	\$9.76	\$12.73	\$14.22	\$9.24	\$10.82	\$12.59	\$14.56	\$16.98
* 45-4011	Forest and Conservation Workers	\$11.19	\$16.12	\$18.59	\$10.14	\$12.93	\$15.67	\$19.50	\$21.75
49-2094	Electrical and Electronics Repairers, Commercial and Industrial Equipment	\$17.61	\$23.48	\$26.41	\$16.31	\$19.77	\$23.66	\$26.96	\$31.49

* OES wages reported for Colorado statewide
† insufficient wage data

Table 2: Occupations with Fewer than 10 Estimated Vacancies
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		Occupational Employment Statistics Wage Data (2003)							
		Average Wages			Percentile Distribution				
SOC Code	SOC Occupational Title	Entry Level	Overall	Experienced	10th	25th	50th	75th	90th
49-9051	Electrical Power-Line Installers and Repairers	\$22.15	\$25.30	\$26.88	\$20.18	\$23.19	\$25.53	\$27.90	\$31.69
* 49-9096	Riggers	†	†	†	†	†	†	†	†
51-4041	Machinists	\$12.94	\$17.89	\$20.37	\$10.92	\$15.04	\$17.95	\$21.29	\$24.28
* 51-8021	Stationary Engineers and Boiler Operators	\$14.27	\$20.84	\$24.12	\$13.00	\$16.23	\$20.78	\$25.55	\$28.34
51-8031	Water and Liquid Waste Treatment Plant and System Operators	\$14.92	\$19.84	\$22.31	\$14.10	\$16.62	\$20.11	\$23.46	\$26.31
53-3021	Bus Drivers, Transit and Intercity	\$8.69	\$12.93	\$15.04	\$7.11	\$10.40	\$13.16	\$15.71	\$17.90
53-7051	Industrial Truck and Tractor Operators	\$9.68	\$12.60	\$14.05	\$9.24	\$10.41	\$12.30	\$14.32	\$17.16
53-7081	Refuse and Recyclable Material Collectors	\$11.09	\$14.60	\$16.36	\$10.10	\$12.39	\$14.94	\$17.00	\$18.38

* OES wages reported for Colorado statewide

† insufficient wage data

The Trade, Transportation & Utilities sector represents a mix of private-sector businesses that offer a variety of services throughout the region.

This sector represents the largest proportion of employment as compared to the other 11 JVS sectors. Eighteen percent of the region's employment was associated with this sector in the 1st quarter of 2004. The Trade, Transportation & Utilities sector also has the highest percentage of employers accounting for 21% of the region's employers¹ and the second highest number of vacancies, behind Leisure & Hospitality.

- The Trade, Transportation & Utilities sector has a relatively low average wage at \$7.80. This could be a result of the many positions with little or no experience or educational requirements, such as Retail Salespersons.
- Three percent of vacancies in the Trade, Transportation & Utilities sector that reported education information require education beyond a High School Diploma/GED, while 73% of the vacancies in the sector require no diploma.
- Eighty-nine percent of openings in the sector require no experience, while 8% of vacancies have either occupation specific, or experience in a related field as a requirement.
- Of the vacancies providing information about medical insurance benefits in the sector, 83% contribute partially to a medical plan, 10% pay the total cost of the premium, and the remaining 7% offer medical insurance, but do not contribute to the premium.
- Seventy percent of vacancies in this sector have been open for less than 30 days, with the remaining 30% classified as always hiring.

The following major occupations dominate vacancy distribution in the sector:

Sales & Related Occupations

Sixty-nine percent of vacancies within the Trade, Transportation & Utilities sector were for positions within Sales & Related Occupations, with an average wage of \$7.60.

Within this group, 67% are Retail Salespersons, which pay an average wage of \$7.50 per hour. Most vacancies for Retail Salespersons do not require experience, and were classified as either "always hiring" or open for less than 30 days.

Transportation & Material Moving Occupations

Opportunities in the Transportation & Material Moving Occupations account for 10% of vacancies within Trade, Transportation & Utilities. The average wage offered for this survey is \$9.20 per hour. Nearly half of the vacancies within this group are for Laborers & Freight, Stock & Material Movers, Hand, which have an average wage of \$6.60 per hour.

Grounds Maintenance Workers

Grounds Maintenance Workers account for 8% of Trade, Transportation & Utilities vacancies. The average wage associated with vacancies in the Grounds Maintenance Workers category for the Spring 2005 Survey is \$7.40 per hour.

1. CDLE, Colorado Employment and Wages series (QCEW)

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

Economic Developers

Economic development professionals can use the Job Vacancy Survey to track the labor situation in key industries and evaluate the area's labor needs. The survey results help determine where bottlenecks may occur should current vacancies persist. Economic developers can also generate a comprehensive picture of the region by determining where labor demand stands today, as identified by the survey, and where the local market is trending using Labor Market Information's employment projections.

Caveats

The Job Vacancy Survey uses sampling methods to estimate 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. Thirty-one percent of the employment in the region is found in large and government employers that make up only 1% 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.

Survey Sample

The Larimer Weld Region survey was conducted from March 11th through April 1st, 2005. 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 86% 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 fewer 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 21% of the employment in the sample frame, while private industry employers make up the remaining 79%. Large firms account for 18% 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 82% of private industry employment.

The margin of error for the overall vacancy estimate is plus or minus 2.5% or about 72 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 2,822 and 2,966 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 93.4%. This measures the quality of the survey database, or the success experienced in contacting eligible employers. The cooperation rate is 99.7% 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 35.

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 (except Public Administration)		Other Services (except Public Administration)
Information		Information
Financial Activities		Finance & Insurance Real Estate & Rental & Leasing
Professional & Business Services		Professional, Scientific, & Technical Services Management of Companies & Enterprises Administrative & Support & Waste Management & Remediation Services
Educational Services		Educational Services
Health Care & Social Assistance		Health Care & Social Assistance
Leisure & Hospitality		Accommodation & Food Services Arts, Entertainment, & Recreation
Government		Public Administration

Data Collection

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

Professional interviewers, trained in economic data collection processes, gather the information from a call center located in the Colorado Department of Labor and Employment. This interview process results in increased control over the survey process, better accuracy, and dependable results.

Employers are asked if they have job vacancies or open positions which they are actively seeking to fill. Those that are actively hiring are then asked to provide more detail about each position—compensation offered, levels of education and experience required, and the employer’s perceived difficulty in filling the vacancy along with the number of days the position has been open. 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 purposes¹. 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 Committee². Government agencies from the United States, Mexico and Canada³ 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.

¹Executive 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

²ECPC 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

³Specifically, Mexico’s Instituto Nacional de Estadística, Geografía e Informática (INEGI) and Statistics Canada

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

Consistent—NAICS classifies an organization based on how it produces something, not simply what it produces. Businesses that use identical or similar technologies and processes to produce something will be grouped together. For example, software creation falls under the new Information sector, while software duplication falls under Manufacturing. Under SIC both enterprises were grouped under the same major industry sector, because both were engaged in production of software.

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

Things to Consider

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

New Industries Reflected in NAICS

◆ NAICS heralds the creation of a new Information sector that pulls businesses from communications, publishing, motion picture and sound recording and online services to recognize an information-based economy.

◆ Formerly, under SIC, corporate headquarters were not distinguished from the industry category of the product or service they produced. Now corporate headquarters are recognized in the new Management sector.

◆ Manufacturing is restructured to account for high-tech industries.

◆ An increase in the amount of detail overall accompanies the shift to NAICS including a further breakdown of SIC’s Services sector into nine new sectors.

◆ Eating and drinking places move out of Retail Trade into a new category called Accommodation & Food Services.

◆ The difference between Retail and Wholesale is now based on how each store conducts business. For example, many computer stores are reclassified from Wholesale to Retail.

Comparison of NAICS and SIC Major Industry Groups	
SIC Standard Industrial Classification	NAICS North American Industry Classification System
Agriculture, Forestry & Fishing	Agriculture, Forestry, Fishing & Hunting
Mining	Mining
Construction	Construction
Manufacturing	Manufacturing
Transportation, Communications & Public Utilities	Utilities 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

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

Average Maximum Wage

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

Average Minimum Wage

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

Computer Assisted Telephone Interviewing (CATI)

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

Cooperation Rate

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

Educational Attainment

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

Effective Response Rate

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

Employed Persons (Employment)

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

- a) did any work at all (at least one hour) as paid employees, worked in their own business, profession, or on their own farm, or worked 15 hours or more as unpaid workers in an enterprise operated by a member of the family, and

- b) all those who were not working but who had jobs or businesses from which they were temporarily absent because of vacation, illness, bad weather, childcare problems, maternity or paternity leave, labor-management dispute, job training, or other family or personal reasons, whether or not they were paid for the time off or were seeking other jobs.

Employer

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

Full-time Employee

Employees who usually work 35 hours per week or more.

Goods Producing Industries (NAICS)

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

Industry

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

Job Seeker

A person actively looking for employment or researching career options.

Job Vacancy

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

Job Vacancy Rate

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

Labor Force

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

Medical Insurance

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

Medical Insurance Premium

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

North American Industry Classification System (NAICS)

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

Not Seasonally Adjusted

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

Occupation

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

Part-time Employee

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

Percentile Wage Estimate

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

Permanent Employment

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

Sample

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

Sample Frame

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

Seasonally Adjusted

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

Service Producing Industries (NAICS)

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

Sign-on Bonus

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

Standard Occupational Classification (SOC) System

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

Temporary Employment

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

Unemployed Persons

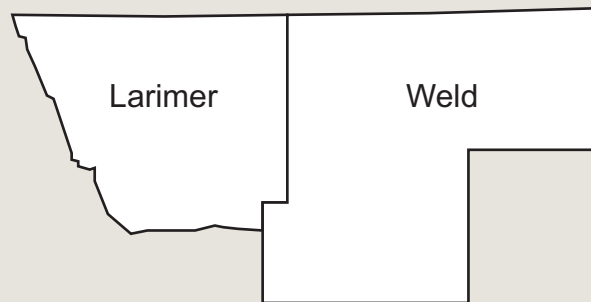
Persons 16 years of age and over who had no employment during the reference week, were available for work, except for temporary illness, and had made specific efforts to find employment sometime during the four-week period ending with the reference week. Persons who were waiting to be recalled to a job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

Unemployment Rate

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

Wages

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



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