

Mesa County



Job Vacancy Survey Spring 2003



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Colorado State Parks

Mesa County Job Vacancy Survey



Conducted
April 8-18, 2003

State of Colorado
Bill Owens, *Governor*

Colorado Department of Labor & Employment

Jeffrey M. Wells
Executive Director

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Analyst for this region:

Sonya Guram

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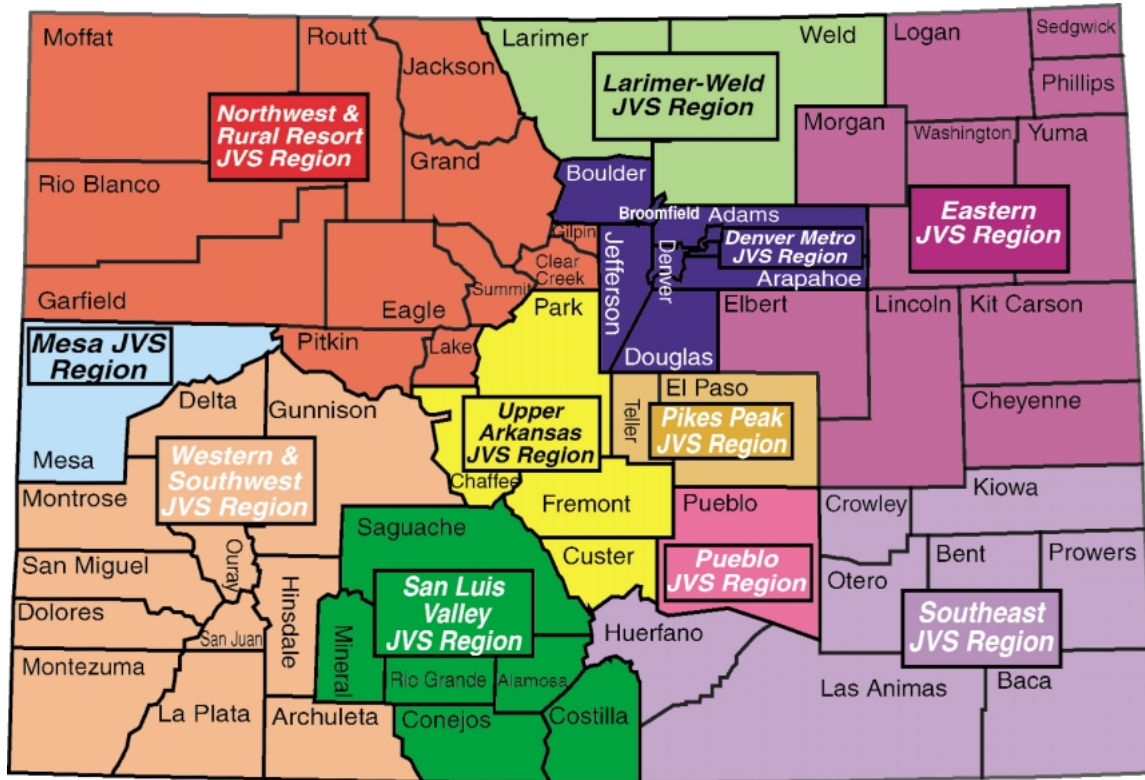
Workforce Research & Analysis
Labor Market Information
Two Park Central, Suite 300
1515 Arapahoe Street
Denver, CO 80202-2117

(303) 318-8890

Email: Imi@state.co.us

www.coworkforce.com/Imi/wra/home.htm

Figure 1: Colorado Job Vacancy Survey Regions



Introduction to the Colorado Job Vacancy Survey

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

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

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

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

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



Executive Summary

The Mesa County Job Vacancy Survey (JVS) was conducted from April 8th through the 18th, 2003. The survey provides a reliable estimate of the total number of job vacancies in the region while also relating demand-specific information about the available positions. 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 informed decisions in Mesa County. The Job Vacancy Survey is conducted twice a year in spring and fall to provide frequent and timely analysis of the demand for labor.

The survey is directed at all large employers, government and small to mid-size private employers with five or

more employees. Employers are asked if they are currently hiring, and if so, details about those positions they are seeking to fill.

A total of 896 employers representing 57% of the region's total employment responded to the survey. Of these surveyed, 42 are Government agencies, 42 are large employers and 812 are small to mid-size employers. The response rate for this survey is 89.8% while the cooperation rate is 99.8%. The margin of error for the overall vacancy estimate is plus or minus 3.8%, meaning that the true number of vacancies is between 403 and 435. The major findings of the survey follow:

- ◆ An estimated 419 jobs were available for hire during the survey period, coinciding with a 1.1% vacancy rate. At this time last year, 1,030 vacancies were estimated.Page 6
- ◆ Trade, Transportation & Utilities has 116 vacancies, followed by Health Care & Social Assistance with an estimated 101 job vacancies.....Page 6
- ◆ About 8% of the employers surveyed report at least one job vacancy.Page 7
- ◆ The average reported wage for vacancies in this survey is \$12.50 per hour.Page 7
- ◆ Thirty-two percent of the reported openings are part-time, temporary positions.Page 9
- ◆ A majority of the reported job vacancies require educational attainment at the high school/GED level, or no diploma at all.Page 10
- ◆ Sixty-four percent of the job vacancies require related or occupation specific experience.Page 11
- ◆ Fifty-five percent of the vacant positions have been open less than 30 days, while a significant portion, 16%, have been open for 60 or more days.Page 12
- ◆ Healthcare Practitioner & Technical occupations are the most frequently reported of the 22 major occupational groups included in the survey.Pages 15-16

Mesa County

Mesa County in western-central Colorado is host to Interstate 70 along which the county's major cities lie. The Demography Section of the Colorado Department of Local Affairs estimates Mesa County's population at 199,975 people. The character and economy of the county are influenced by large holdings of public land managed by the U.S. Forest Service and the Bureau of Land Management.

The 2000 Census reports that high school graduation or its equivalency is the highest level of educational attainment for 30% of the population age 25 years and older. Almost 26% of Mesa residents have some college training, but no degree. Nearly 22% hold a bachelor's or a higher level degree; this compares with about 33% for Colorado as a whole.

Per capita income as reported in the 2000 Census is \$18,715 compared to \$24,049 for the state. The difference in earnings between men and women for full-time, year-round workers is \$9,122 in the county. Some reasons for this disparity may be the type of work performed, and the skill and education required.

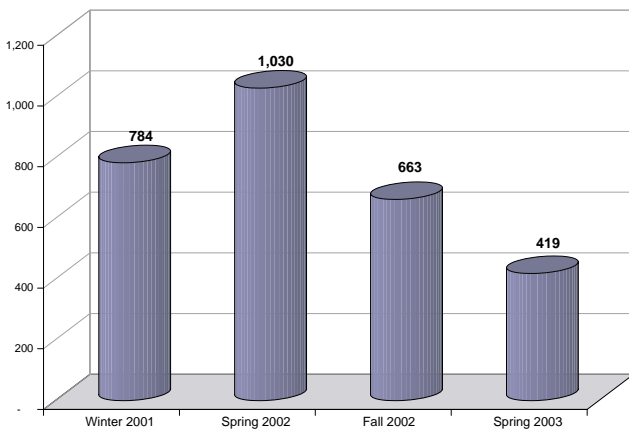
Figure 2 highlights the number of vacancies for each Mesa County Job Vacancy Survey. The decline in employment opportunities for job seekers is apparent with each of

the last two surveys finding fewer open positions. In April 2002 the county's unemployment rate was 4.7% with a labor force of almost 63,000. In April 2003, the unemployment rate climbed to 5.2% with more than 65,000 people in the labor force—either working or looking for work.

Higher unemployment along with fewer openings increases the competition for job seekers in Mesa County, but they are not alone. These circumstances are prevalent throughout the state, nation and even internationally. Typically, economic recoveries are characterized by significant increases in output and employment, with decreasing unemployment and rising equity markets. National output—the total amount of goods and services produced—has been growing from 2002 through the first quarter 2003 estimate. Meanwhile there are fewer people employed nationally though the unemployment rate is steady. Wages increased only slightly while the stock market continued to decline.

On the other hand, many qualified candidates competing for open positions can benefit employers looking to hire workers. In the late 1990s many employers found it difficult, if not impossible, to hire qualified people at wages they could afford. Since the first survey, a larger proportion of employers have found it easier to fill their vacancies.

Figure 2: Historical Vacancies—Mesa County



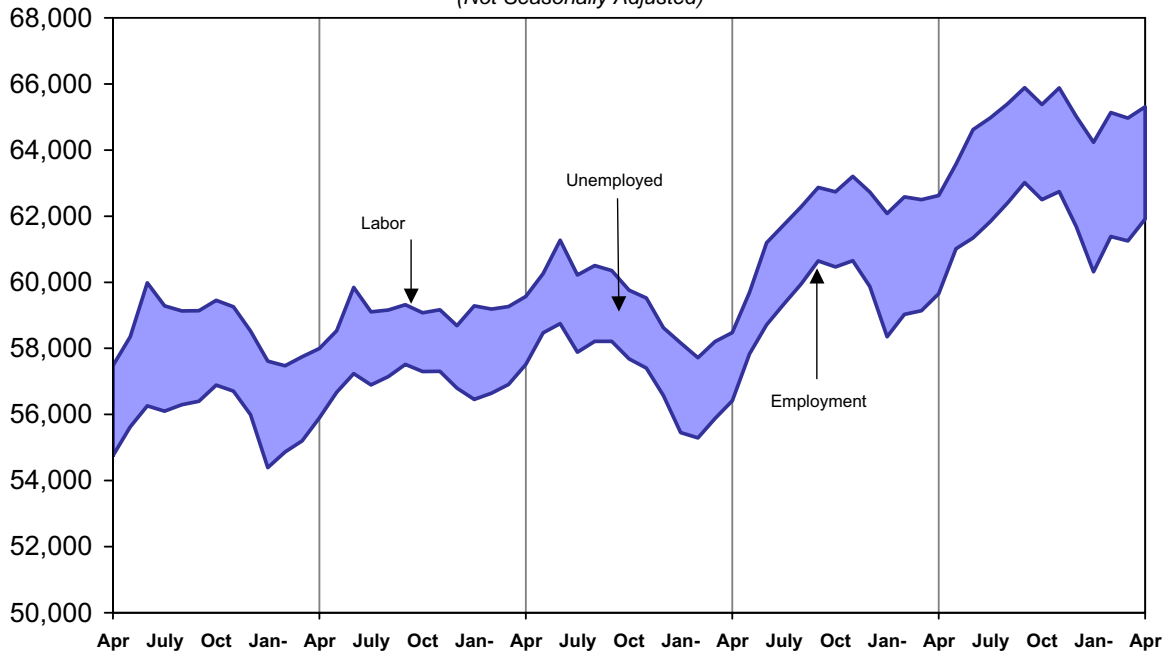
	Winter 2001	Spring 2002	Fall 2002	Spring 2003
Vacancies	784	1,030	663	419
Employment	55,453	59,658	62,500	61,912
Unemployed	2,713	2,970	2,879	3,395
Unemployment Rate	4.7%	4.7%	4.4%	5.2%

Source: CDLE, Local Area Unemployment Statistics Released May 2003

Figure 3 illustrates the historical progression in 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 upward trend illustrates the growth in both the labor force and employment over the years. Though the number of unemployed people has increased, both the labor force and employment

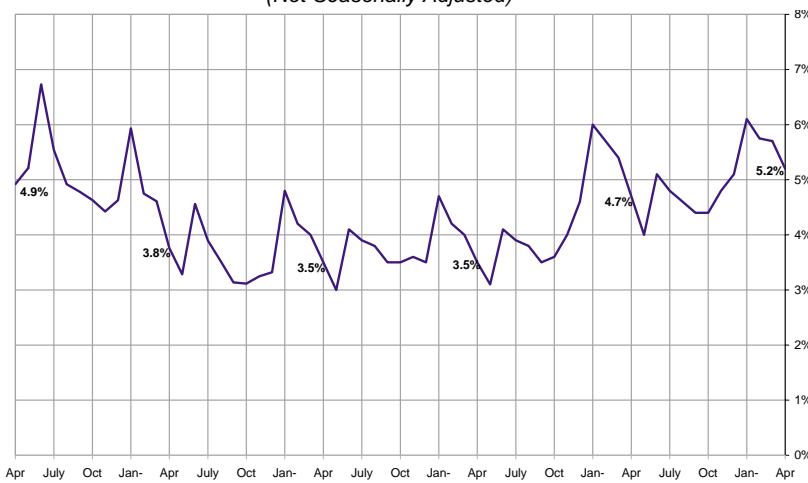
figures are climbing as well. The region's labor force and employment have both grown at a compound annual rate of around 2.5% per year from April of 1998 through April of 2003. The net growth in the labor force over the five-year period is almost 14%. The graph illustrates the higher growth rates in the labor force and employment over the last two years as compared to the previous three.

Figure 3: Employment and Labor Force Trends for Mesa County
(Not Seasonally Adjusted)



Source: CDLE, Local Area Unemployment Statistics Released May 2003

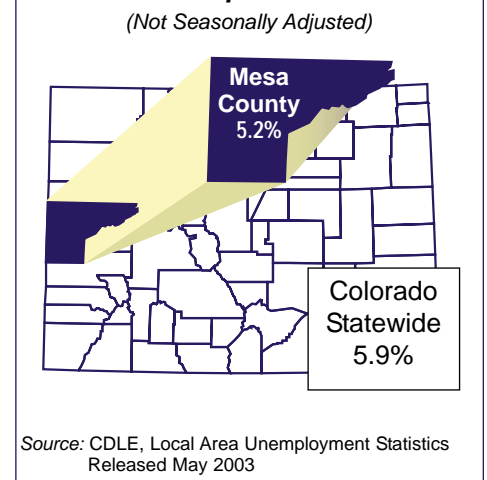
Figure 4: Mesa County Unemployment Rate Trend
(Not Seasonally Adjusted)



Source: CDLE, Local Area Unemployment Statistics Released May 2003

Figure 4 highlights unemployment rate changes in Mesa County. The unemployment rate tends to peak in January each year—while the labor force experiences a seasonal decline it is outweighed by a decrease in the number of jobs. It is in the second quarter of the calendar year that the gap between the labor force and employment is most

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



Source: CDLE, Local Area Unemployment Statistics Released May 2003

narrow. For the time period shown, the highest rate of unemployment was recorded in June 1998, reaching 6.7%.

Mesa's unemployment rate at 5.2% is below both the Colorado rate of 5.9% and the not-seasonally-adjusted U.S. level of 5.8%.

Area establishments are now grouped into 12 JVS sectors under the North American Industry Classification System (NAICS). NAICS has replaced the Standard Industrial Classification System (SIC) and is also used by

both Canada and Mexico. The industry classifications better reflect today's economic activity, providing new detail within the SIC catchall category for Services. See the *Appendix* for more information on NAICS.

**Figure 6: Mesa County
Employers and Employees, 1st Quarter, 2002**

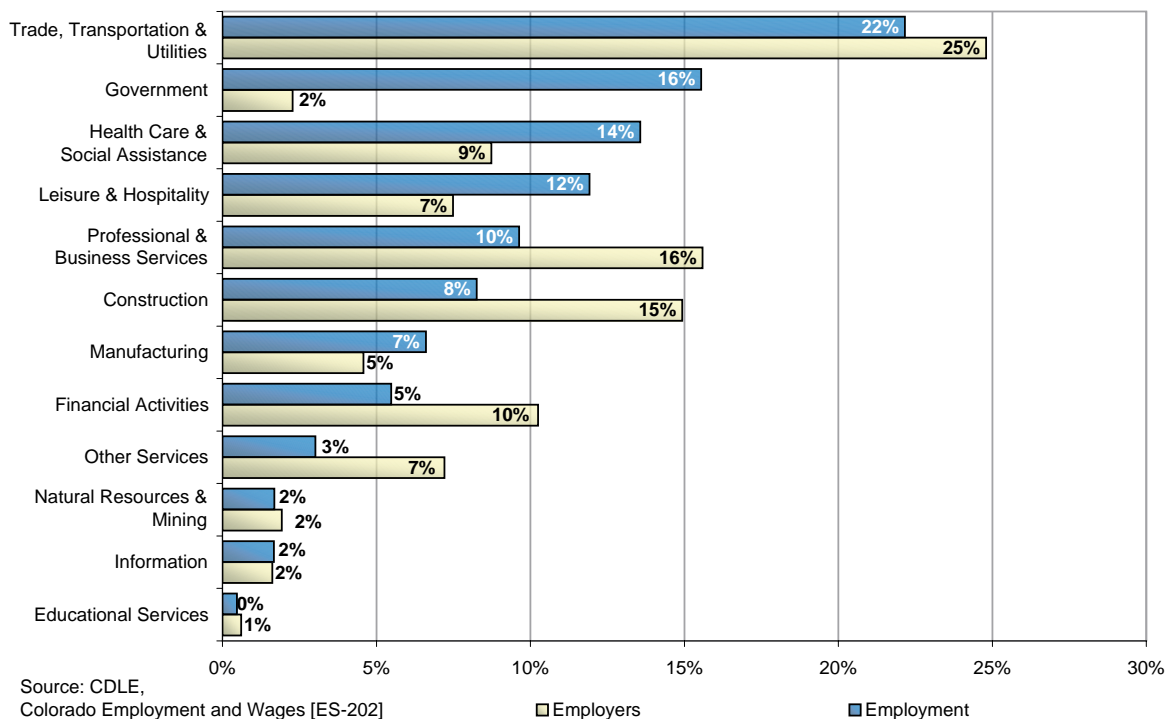


Figure 6 presents employers and employees data for the 12 JVS sectors used in the Metropolitan Statistical Areas (MSAs) in Colorado (Page 24). Data are gathered under the Covered Employment and Wages program and include employers required to pay Unemployment Insurance Tax. Although 97% of the nation's employment is covered under the Unemployment Insurance program, positions typically excluded are agriculture, railroad, elected officials, student workers, certain non-profits, the self-employed, domestic workers and unpaid family workers.

The two highest employment JVS sectors for Mesa are also the highest for the state. The Trade, Transportation & Utilities JVS sector represents a combination of NAICS sectors accounting for the largest portion of employment in Mesa County.

Government is the second largest sector in terms of employment. All public employees are included in this

sector. These entities perform functions in health care, social services and transportation, including postal services, among other industry categories. Forty-six percent of the region's Government employment is in Educational Services while 32% is in Public Administration.

Health Care & Social Assistance ranks third in terms of employment for the county while it runs fifth for Colorado as a whole.

The distribution of employers among JVS sectors is fairly consistent for both the county and the state. The sectors with the greatest number of firms represent specialty trade contractors; law, architecture and doctors offices; and eating and drinking places. High demand, the ability to differentiate product or service offerings, relatively low capital investment, and fewer legal hurdles help certain industries flourish and provide opportunity for owners of small businesses.



Estimated Vacancies

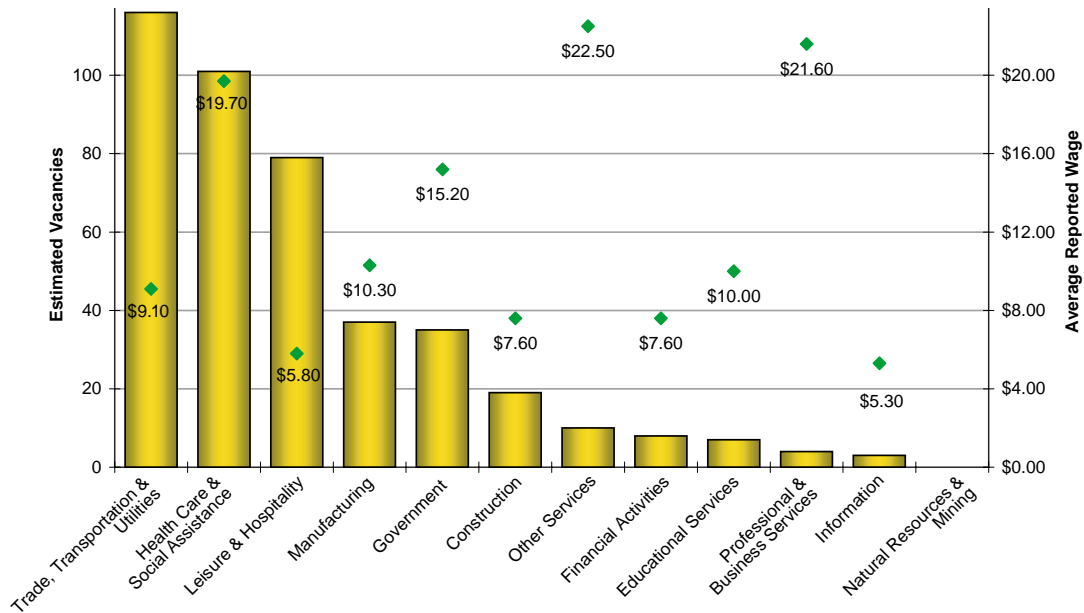
JVS Sectors and Employer Size

Survey results and employer and employment figures are discussed in the context of a subset of employers that includes all Government institutions and private firms with five or more employees in the region.

During the survey period, an estimated 419 vacancies were open for immediate hire. With 38,246 people already

employed the result is a regional vacancy rate of 1.1%. Beginning this calendar year, the vacancy rate is being calculated with a denominator containing current employment and estimated vacancies. This method results in a 2.2% vacancy rate for the spring 2002 survey.

Figure 7: Estimated Vacancies and Average Wages by JVS Sectors



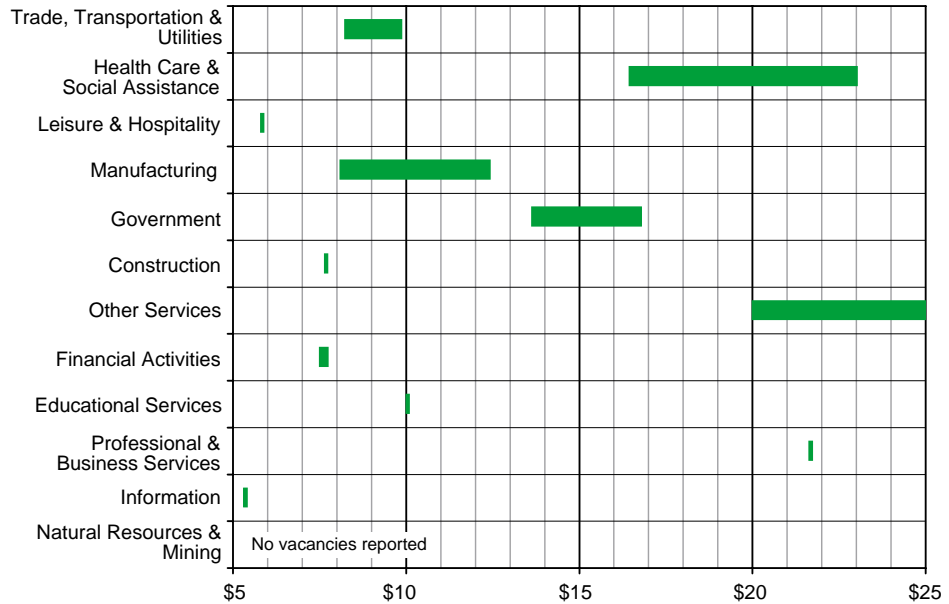
The total and industry-specific vacancy rates are key outcomes of the Job Vacancy Survey. The vacancy rates reveal hiring strength, providing insight into which industries are experiencing employment growth or turnover. Of the JVS sectors, Educational Services has the highest vacancy rate at 3.4%. Simply put, this sector has more job vacancies per current employment than any other. The number of people currently employed in the sector as well as the number of actual vacancies is also relatively small compared to other sectors.

Just as Trade, Transportation & Utilities accounts for the largest portion of employment, this JVS sector offers the greatest number of vacancies. Although this relationship holds for most JVS sectors; the proportion of vacancies to current employment for Government and Professional & Business Services is low, while hiring in Manufacturing and Educational Services is relatively strong.

The average of all wages reported for each JVS sector is included on the graph with estimated vacancies. While wages do reflect the labor force supply and demand they are also heavily affected by the particular occupations that employers are looking to fill during the survey period.

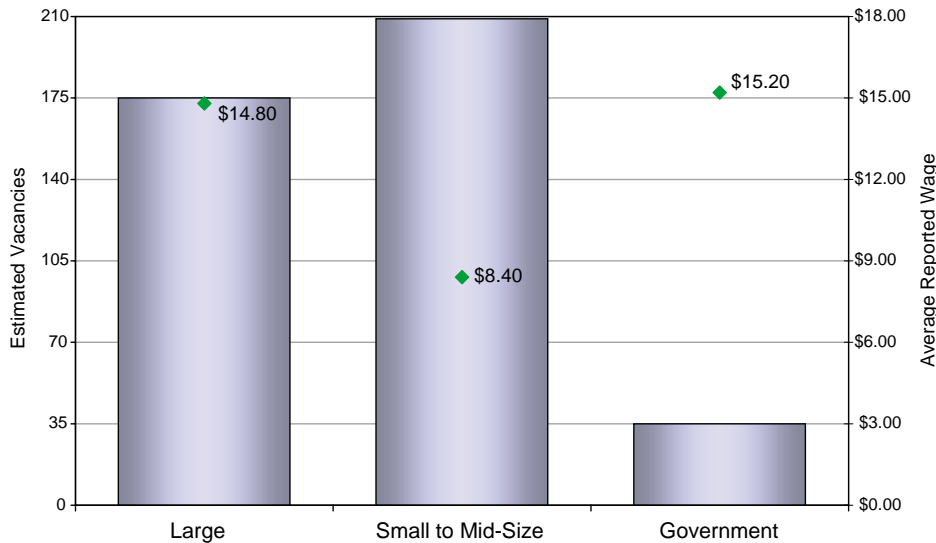
The overall average wage of \$12.50 offered in this survey is similar to that offered in the last two regional surveys—\$12.60 in fall and \$12.50 in spring 2002. The figure is based only on wage data supplied by employers during the survey period and relates specifically to vacancies, not filled positions. In this survey wages are reported for 80% of all vacancies. The type of occupation, the skills and knowledge required to fill the vacancy, and the philosophy of the employer offering the position generally influence wages.

Figure 8: Reported Average Wage Ranges by JVS Sectors



Four JVS sectors offer wages above the \$12.50 average for this survey. Health Care & Social Assistance vacancies have the widest range of wages offered; these wages represent 20 different occupations.

Figure 9: Estimated Vacancies and Average Wages by Employer Size



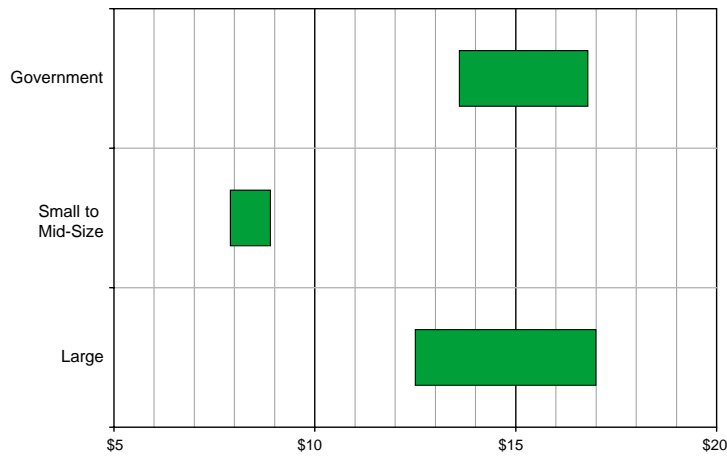
Almost 8% of the employers surveyed report at least one job vacancy. That said, the likelihood of finding an open position at a business varies with size class, as defined by ownership and the number of employees at a firm. About 25% of large and 22% of Government employers surveyed report a vacancy, while 5% of the many small to mid-size employers have an opening.

Two-and-a-half percent of employers eligible to participate in the survey in Mesa County are Government owned entities. Almost 19% of current employment and 8% of reported job vacancies are found in such entities. Wages offered for these open positions are above the survey average wage.

Large employers represent 22% of current employment, but offer about 42% of the estimated job openings. This

translates into a relatively strong 2.1% vacancy rate for large firms. While only 45 firms fall into the large category, 38% of these are in Trade, Transportation & Utilities. This JVS sector accounts for 28% of the vacancies in this size class and report wages at the lower end of the average wage range. Large Health Care & Social Assistance

Figure 10: Reported Average Wage Ranges by Employer Size



organizations offer 57% of the 175 estimated vacancies with large firms. As seen in the details of *Figure 7*, these jobs pay more than average.

Ninety-five percent of area firms are classified as small to mid-size based on their ownership and employment numbers. They account for about 60% of the employment and represent approximately 50% of the vacancies reported by surveyed companies. Thirty-one percent of the small to mid-size vacancies are with firms in the Leisure & Hospitality JVS sector, while 27% are available with businesses classified as Trade, Transportation & Utilities. Although small to mid-size firms operate in each of the 10 JVS private sectors reporting vacancies in this survey, the wage range shown is most illustrative of vacancies in Leisure & Hospitality. A limited number of high wages are reported in Other Services and Professional & Business Services.

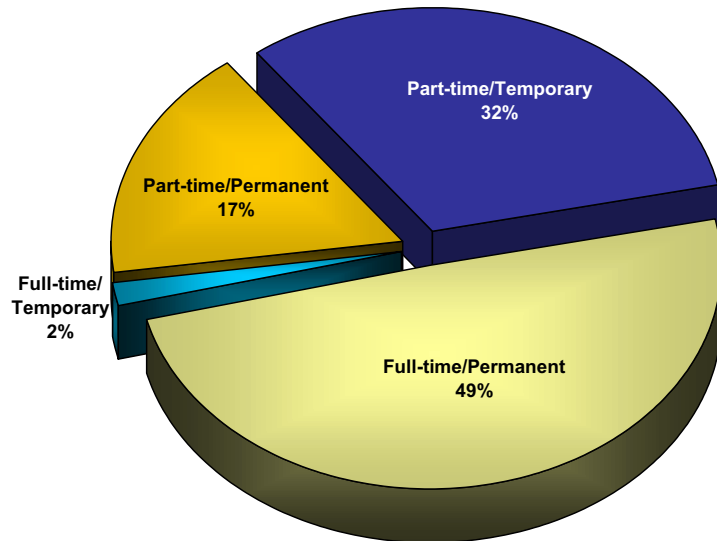
Vacancies

Employment Status, Education, and Experience Requirements

The remainder of this report provides descriptive statistics of the vacancies reported in and unique to this survey. The survey design does not allow for application of this detail to the region as a whole; however, the following information may be used to understand characteristics of those job vacancies and occupations reported.

Large and Government employers each account for 2.5% of the employers within the sample frame and each constitutes 4.7% of the firms surveyed. Small to mid-size firms represent 95% of employers and account for 90.6% of the surveyed firms.

Figure 11: Vacancies by Employment Status

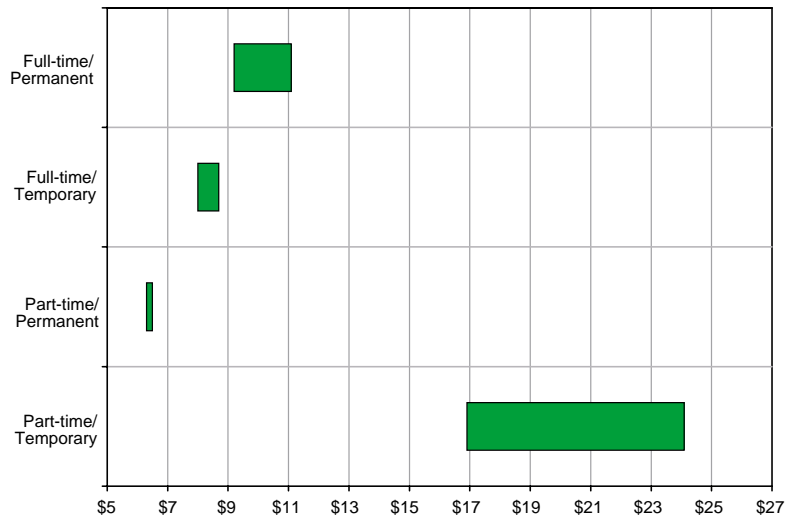


Figures 11 and 12 refer to employment status. Open positions are split almost fifty-fifty between part-time and full-time status. Job openings in the Leisure & Hospitality JVS sector are also split about equally between part-time and full-time.

Almost twice as many positions available in Trade, Transportation & Utilities are full-time as compared to part-time. Ten times as many Health Care and Social Assistance vacancies are part-time as compared to full-time.

There are a significant number of part-time/temporary vacancies in this survey. Demand for registered nurses and other Healthcare Practitioner & Technical occupations account for most of these and offer the relatively high wages shown for this category.

Figure 12: Reported Average Wage Ranges by Employment Status



During periods of high unemployment, one might assume that there are plenty of qualified candidates but not enough job openings to support them. The reality is that even in times of recession there are many employers who cannot find qualified candidates to fill their open positions. A region's overall labor force is actually made up of a number of smaller labor groups defined by specialized skills, experience, and education. It is important, therefore, that job seekers have information regarding what types of

education and experience are in highest demand. Employers can use this information to better understand market demands for various education and experience requirements when they are recruiting for job vacancies.

Less than 50% of reported vacancies require education beyond the high school level. *Figure 14* illustrates the relationship between education and pay—higher educational attainment generally is rewarded by higher wages.

Figure 13: Vacancies by Education

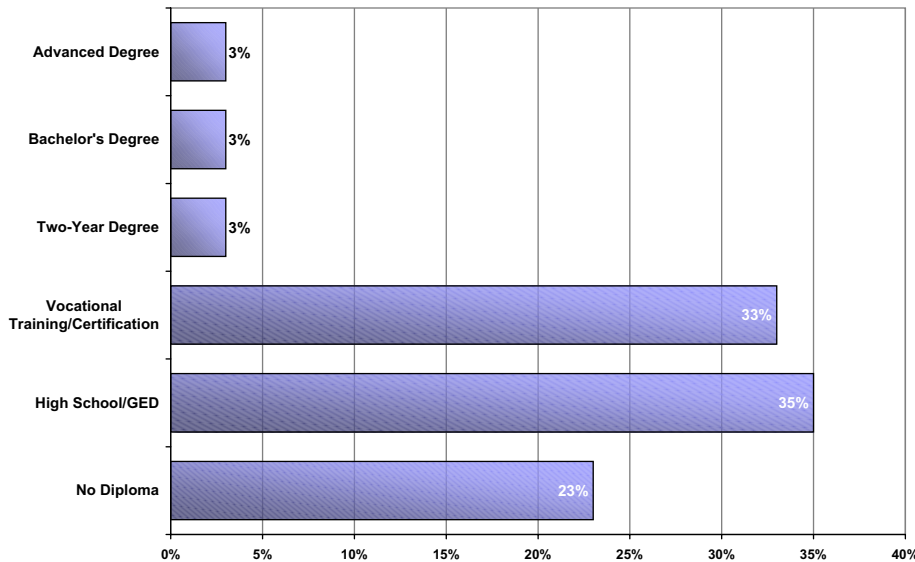
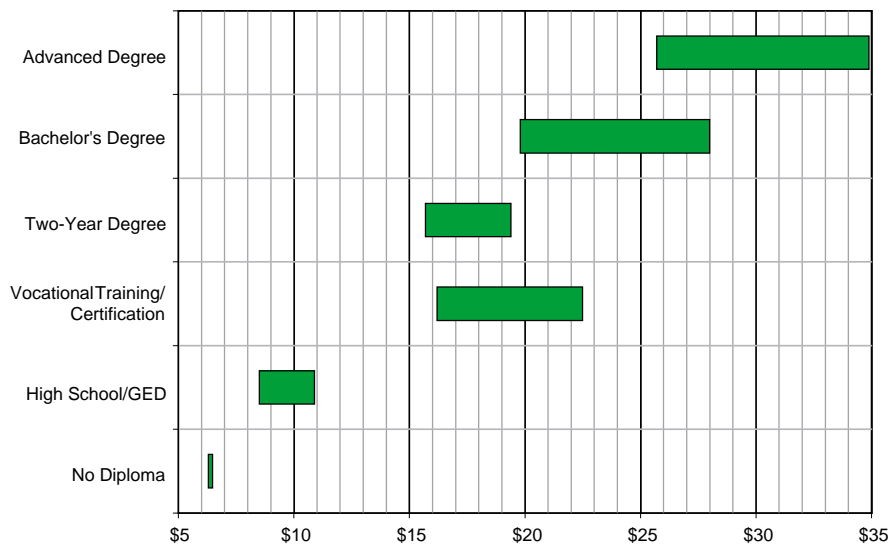


Figure 14: Reported Average Wage Ranges by Education



The Health Care & Social Assistance and the Government sectors seek job candidates with two-year degrees. As noted earlier, both of these sectors tend to offer higher wages. However, more health care related vacancies are for candidates with vocational training/certification; these push the wage range for this education group higher. Indeed, the Health Care & Social Assistance sector offers the most opportunity in terms of job openings for all of the higher education groups during this survey.

Fifty percent of positions open to candidates with a high school diploma or GED are with Trade, Transportation & Utilities businesses, while Leisure & Hospitality businesses account for 50% of the vacancies requiring no diploma.

Figure 15: Vacancies by Experience

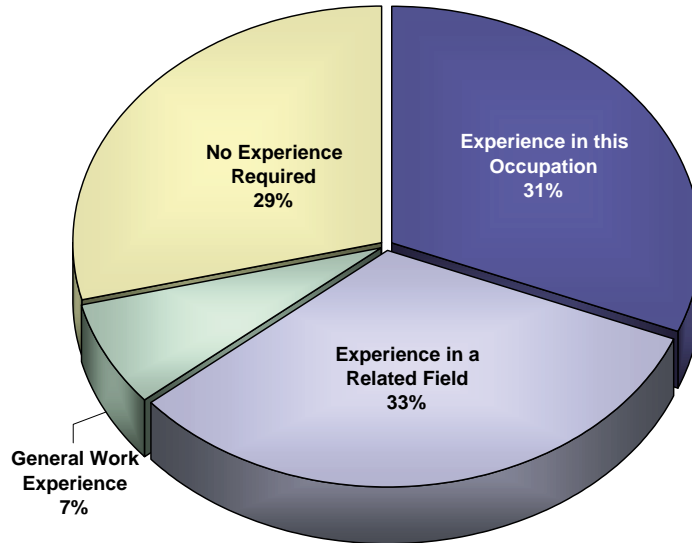


Figure 15 shows the percentage distribution of vacancies by experience requirement. Sixty-four percent of the reported vacancies require at least experience in a related field.

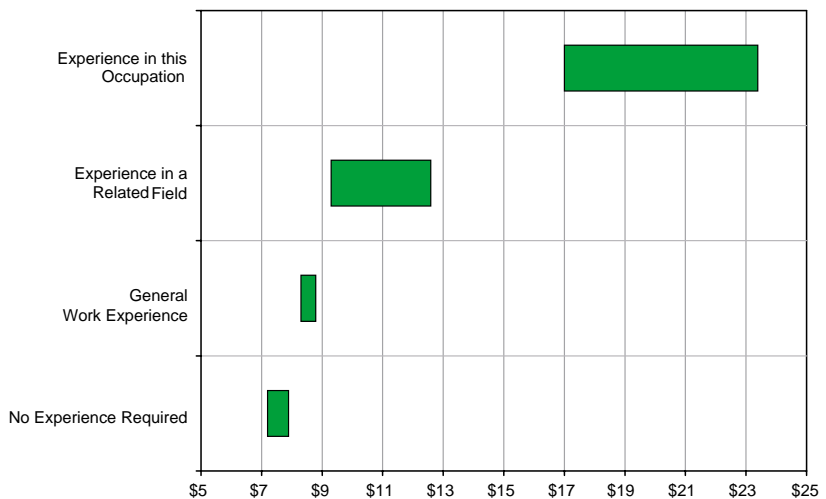
Job vacancies for which experience is required in the occupation pay the highest wages and represent a significant portion of the reported job openings. Healthcare Practitioner & Technical occupations account for 66% of these.

Thirty-three percent of all reported vacancies require experience in a related field. Of these, Sales & Related occupations account for 32% of the total, while Protective Service occupations account for 19%.

The survey found most occupations for which general work experience is required are for Sales & Related positions.

Thirty-one percent of the vacancies requiring no prior experience are for Food Preparation & Serving Related jobs.

Figure 16: Reported Average Wage Ranges by Experience



Vacancies

Difficulty to Fill and Time Open for Hire

Employers' ability to find and hire qualified candidates in a timely manner is an important indicator of the supply side of the labor force. The current unemployment rate is reflective of a larger labor pool and fewer jobs available than in April of last year.

Of the vacancies termed not difficult to fill, the largest portion is in the Leisure & Hospitality JVS sector. Health Care & Social Assistance employers claim higher degrees of difficulty in filling open positions.

Figure 17: Vacancies by Difficulty to Fill

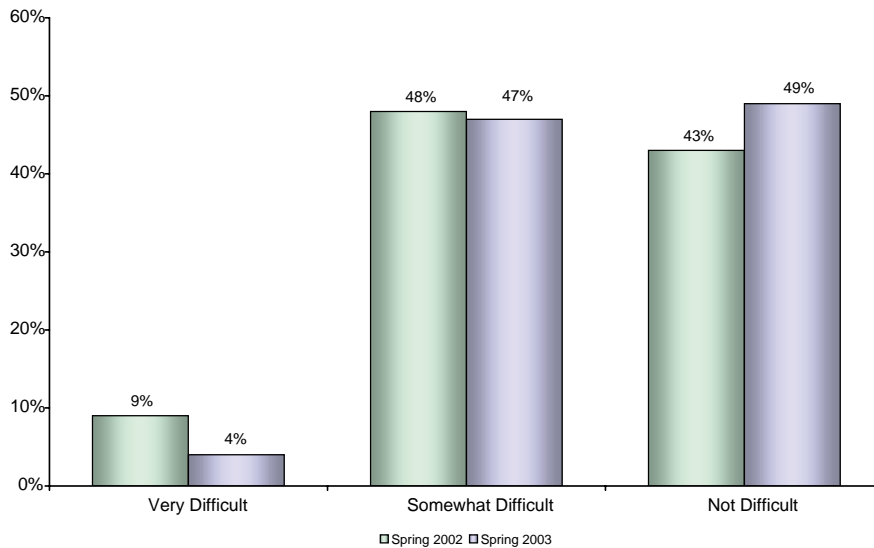
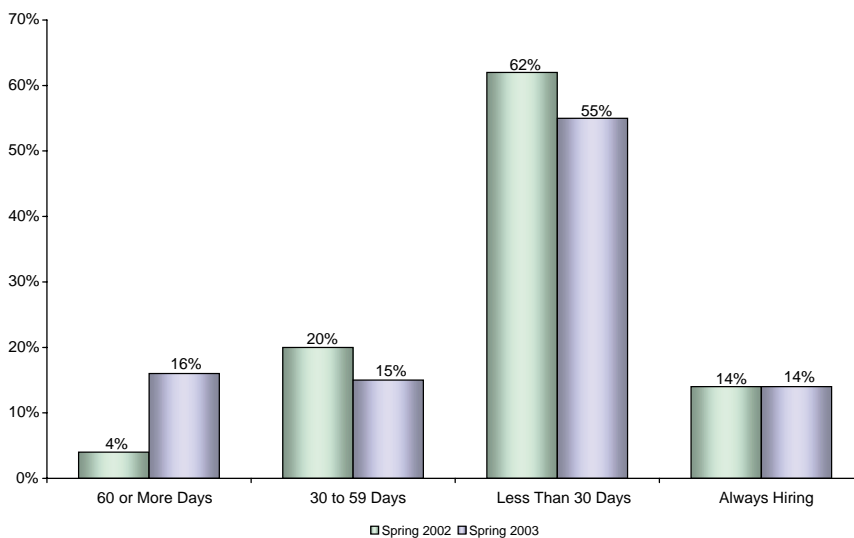


Figure 18: Vacancies by Time Open for Hire

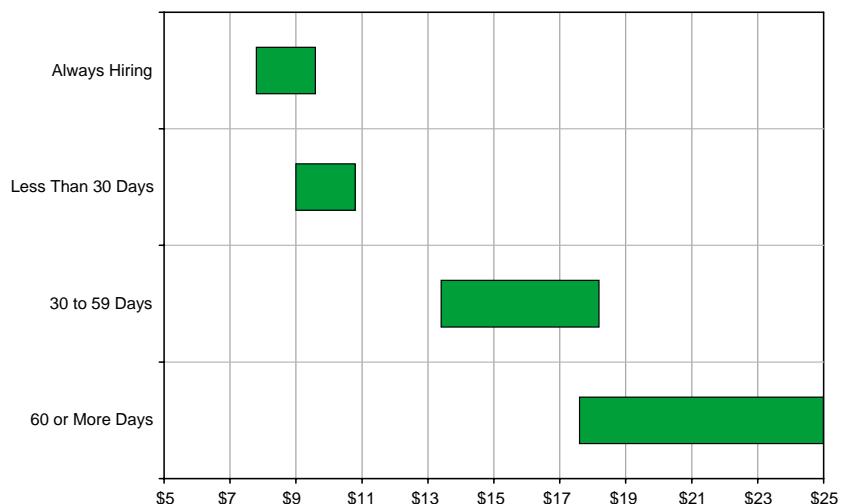


The length of time that a vacancy is open is a good indicator of the degree of difficulty an employer is having in filling a position. Factors include: the availability of qualified candidates, competition among employers for similar candidates, and the willingness of candidates to accept job duties in light of wages and benefits offered. Also, employers may allow more time to fill a vacancy in order to ensure the fit of the candidate with the organization.

Sixteen percent of the vacancies have been open for 60 or more days. This is up from 4% at this time last year. Healthcare Practitioner & Technical occupations account for 84% of these.

A great number of health care occupations make up the vacancies where positions have been open 30 to 59 days as well. Healthcare Practitioner & Technical occupations combined with Healthcare Support occupations account for 60% of the vacancies in this category. A majority of vacancies have been open for less than 30 days, supporting the employer sentiment of little difficulty in filling open positions. Employers most often cite Sales & Related occupations as those for which they are always hiring.

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



The survey indicates that positions open for longer periods of time often have higher associated wages. As higher wages usually accompany occupations that require specialized skills, it may take an employer longer to recruit and hire a candidate with the desired background.

Vacancies Additional Compensation

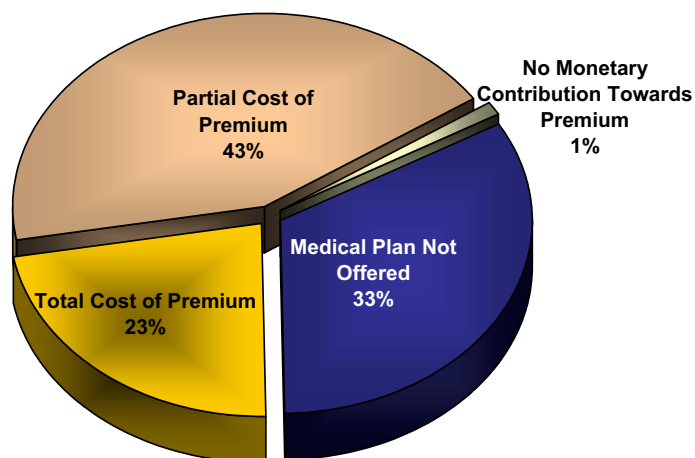
Medical Insurance

Employers frequently offer compensation related benefits to recruit qualified candidates. Some of these perks are paid time off, transportation or parking vouchers, and contributions to retirement funds. One of the most common benefits offered to employees is medical insurance via an employer group plan. Employers may pay all, part or none of the monthly insurance premium while trying to offer a lower cost or more comprehensive option than what an individual might be able to obtain.

Sixty-seven percent of the reported job vacancies are with employers who offer a company sponsored medical plan. Of these, all but one percent pay some portion of the employee's medical premium.

Thirty-three percent of the available job openings include no medical benefit. The JVS sector least likely to offer medical insurance is Leisure & Hospitality, where 68% of the reported vacancies do not have a medical benefit.

Figure 20: Employers' Contribution to Medical Insurance



Seventy-eight percent of Health Care & Social Assistance vacancies and 70% of Trade, Transportation & Utilities job openings offer medical benefit. Positions for which this benefit is not offered in these JVS sectors tend to be for part-time employment status.

Sign-On Bonus

Sign-on bonuses are virtually nonexistent in this market, characterized by a large supply of labor and a limited

number of vacancies. However, there is one reported job vacancy for which a bonus is offered.

Occupations

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

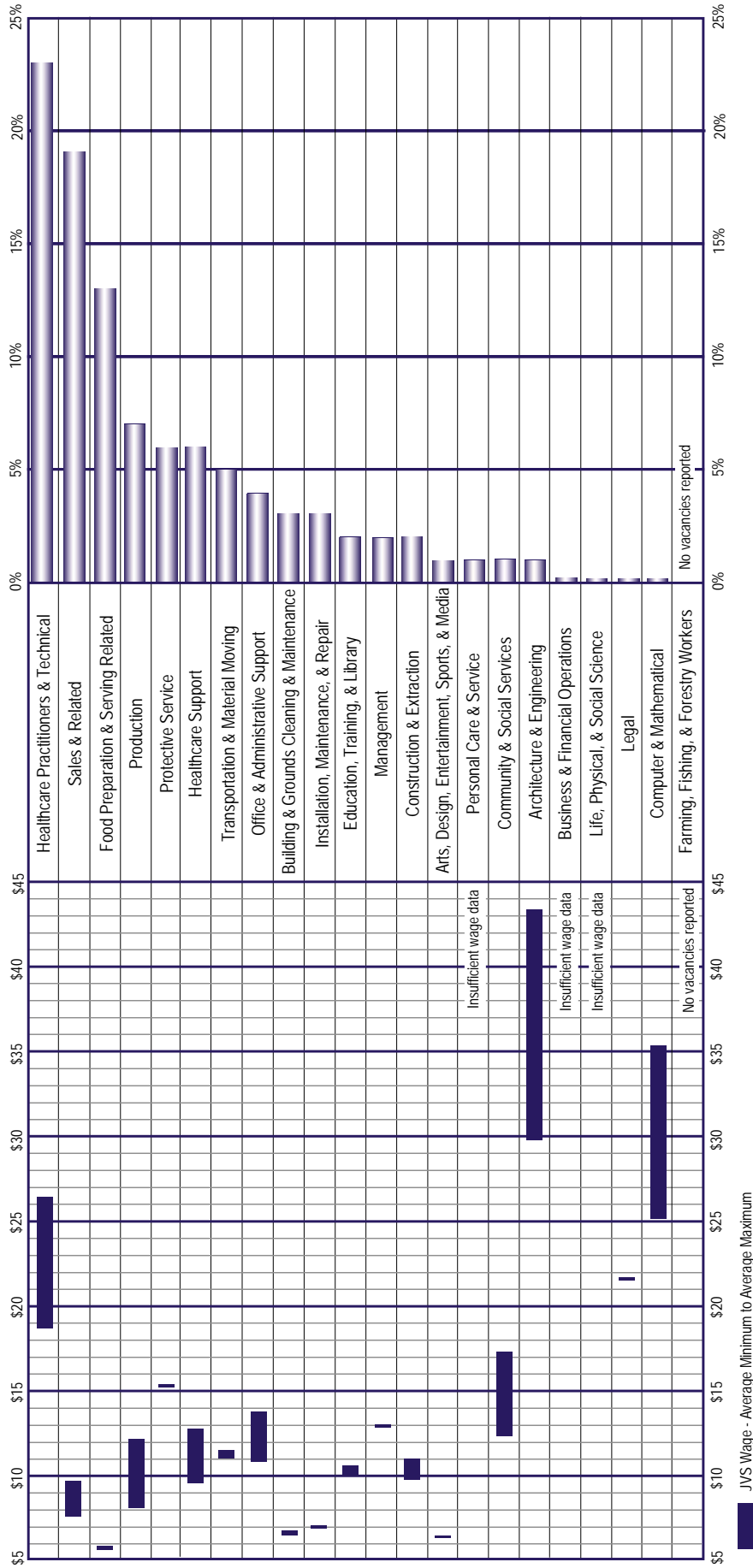
In order to help make comparisons between the results of this survey and other sources of employment statistics easier, all jobs reported are assigned an occupation code based on the *2000 Standard Occupational Classification*

(SOC) *Manual*. The SOC system contains 821 detailed occupation titles that fall into 23 major occupational groups. Vacancies found in this survey have been coded into 21 of 22 major occupational groups.

At the major SOC occupation level shown in *Figure 21*, job vacancies in Healthcare Practitioners & Technical occupations top the list as the category with the greatest number of reported vacancies. Both Sales & Related and Food Preparation & Serving Related occupations are associated with the Trade, Transportation & Utilities JVS sector which represents the greatest number of estimated vacancies.

The wages associated with these occupations reflect the training and education required, as well as the supply of, and demand for labor appropriately skilled for the job.

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



Occupational Estimates

Estimated Vacancies

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

Vacancies estimated and found are displayed for those occupations where at least 10 vacancies are estimated.

Vacancies Found

This column of *Table 1* refers to the number of vacancies reported 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.

Occupational Employment Statistics (OES) Wage Data

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

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

Table 1: Occupations with 10 or More Estimated Vacancies

SOC Code	SOC Occupational Title	Vacancies Estimated	Vacancies Found	Average JVS Wage	Occupational Employment Statistics Wage Data (2002)									
					Average Wages					Percentile Distribution				
					Entry-Level	Overall	Experienced	10th	25th	50th	75th	90th		
41-2031	Retail Salespersons	45	35	\$8.80	\$6.79	\$11.17	\$13.35	\$6.25	\$7.43	\$9.47	\$12.58	\$18.96		
29-1111	Registered Nurses	40	40	\$23.30	\$17.71	\$20.73	\$22.24	\$16.70	\$18.38	\$20.08	\$21.76	\$26.38		
35-3021	Combined Food Preparation and Serving Workers, Including Fast Food	26	18	\$5.90	\$6.19	\$6.64	\$6.87	\$5.73	\$6.05	\$6.59	\$7.14	\$8.21		
41-2011	Cashiers	18	15	\$8.70	\$6.37	\$9.07	\$10.41	\$6.07	\$6.93	\$8.15	\$10.48	\$14.65		
* 33-9092	Lifeguards, Ski Patrol, and Other Recreational Protective Service Workers	15	15	†	†	†	†	†	†	†	†	†		
51-4041	Machinists	14	10	\$11.80	\$10.51	\$16.32	\$19.23	\$9.76	\$11.61	\$15.57	\$18.44	\$22.34		
31-1012	Nursing Aides, Orderlies, and Attendants	13	10	\$9.70	\$7.29	\$8.95	\$9.78	\$6.82	\$7.78	\$8.98	\$10.21	\$10.98		
43-4081	Hotel, Motel, and Resort Desk Clerks	12	2	†	\$6.40	\$7.68	\$8.33	\$6.14	\$6.81	\$7.63	\$8.59	\$9.61		
37-2012	Maids and Housekeeping Cleaners	11	8	\$6.50	\$6.22	\$7.59	\$8.28	\$5.89	\$6.41	\$7.22	\$8.61	\$10.37		
35-3031	Waiters and Waitresses	11	10	\$5.20	\$6.06	\$6.94	\$7.37	\$5.60	\$5.94	\$6.49	\$7.16	\$9.86		
53-3032	Truck Drivers, Heavy and Tractor-Trailer	10	4	\$16.20	\$11.97	\$14.94	\$16.42	\$11.39	\$12.76	\$15.11	\$17.11	\$18.52		

* OES wages reported for Colorado statewide

† Insufficient wage data



Table 2: Occupations with Fewer than 10 Estimated Vacancies

SOC Code	SOC Occupational Title	Average Wages					Percentile Distribution				
		Entry-Level	Overall	Experienced	10th	25th	50th	75th	90th		
41-3011	Advertising Sales Agents	\$9.39	\$18.26	\$22.70	\$8.66	\$10.87	\$15.32	\$24.16	\$33.50		
17-3011	Architectural and Civil Drafters	\$12.39	\$15.03	\$16.35	\$11.68	\$12.52	\$13.89	\$17.21	\$20.67		
51-2099	Assemblers and Fabricators, All Other	\$7.64	\$10.16	\$11.43	\$6.86	\$8.64	\$10.04	\$11.27	\$13.79		
* 49-2091	Avionics Technicians	\$14.89	\$18.69	\$20.58	\$14.63	\$16.54	\$18.98	\$21.12	\$22.68		
43-3031	Bookkeeping, Accounting, and Auditing Clerks	\$8.88	\$12.25	\$13.94	\$8.15	\$9.78	\$11.85	\$14.00	\$16.92		
* 27-4012	Broadcast Technicians	\$8.04	\$15.59	\$19.36	\$7.29	\$9.05	\$13.61	\$18.73	\$26.40		
* 53-3022	Bus Drivers, School	\$8.38	\$11.31	\$12.78	\$7.37	\$9.44	\$11.19	\$13.43	\$15.56		
35-1011	Chefs and Head Cooks	\$10.67	\$12.80	\$13.87	\$8.67	\$11.52	\$12.47	\$13.42	\$16.37		
53-7061	Cleaners of Vehicles and Equipment	\$6.49	\$8.18	\$9.03	\$6.11	\$7.00	\$8.10	\$9.20	\$10.74		
* 51-9192	Cleaning, Washing, and Metal Pickling Equipment Operators and Tenders	\$7.72	\$11.12	\$12.81	\$7.47	\$8.47	\$10.35	\$13.22	\$17.27		
15-1051	Computer Systems Analysts	\$24.08	\$30.08	\$33.08	\$22.89	\$24.90	\$28.83	\$33.79	\$42.62		
47-2061	Construction Laborers	\$9.31	\$11.29	\$12.28	\$8.75	\$9.66	\$10.92	\$12.87	\$14.44		
35-2014	Cooks, Restaurant	\$6.33	\$7.97	\$8.80	\$6.04	\$6.61	\$7.43	\$9.07	\$10.84		
* 33-3012	Correctional Officers and Jailers	\$14.11	\$18.74	\$21.06	\$13.46	\$15.68	\$18.83	\$21.78	\$25.51		
41-2021	Counter and Rental Clerks	\$6.07	\$8.74	\$10.08	\$5.67	\$6.11	\$6.85	\$10.46	\$14.88		
35-3022	Counter Attendants, Cafeteria, Food Concession, and Coffee Shop	\$6.08	\$6.86	\$7.25	\$5.61	\$5.95	\$6.52	\$7.26	\$8.62		
43-9021	Data Entry Keyers	\$9.20	\$19.88	\$25.23	\$8.59	\$10.11	\$12.25	\$14.91	\$55.39		
* 29-2032	Diagnostic Medical Sonographers	\$22.95	\$28.74	\$31.62	\$21.85	\$23.76	\$26.36	\$35.53	\$41.30		
35-9021	Dishwashers	\$6.16	\$6.78	\$7.09	\$5.73	\$6.11	\$6.74	\$7.50	\$8.35		
* 11-9033	Education Administrators, Postsecondary	\$19.00	\$31.89	\$38.33	\$17.48	\$21.17	\$28.62	\$38.59	\$54.87		
11-9031	Education Administrators, Preschool and Child Care Center/Program	\$11.69	\$17.35	\$20.18	\$10.68	\$12.89	\$16.58	\$20.64	\$22.87		
* 43-4061	Eligibility Interviewers, Government Programs	\$11.94	\$15.28	\$16.95	\$11.39	\$12.56	\$14.33	\$17.33	\$20.79		
17-2199	Engineers, All Other	\$21.29	\$30.32	\$34.84	\$19.10	\$24.43	\$30.85	\$35.28	\$42.58		
43-6011	Executive Secretaries and Administrative Assistants	\$11.74	\$16.23	\$18.48	\$10.81	\$12.91	\$15.86	\$19.03	\$21.66		
43-1011	First-Line Supervisors/Managers of Office and Administrative Support Workers	\$10.75	\$17.40	\$20.72	\$10.05	\$11.74	\$15.99	\$21.69	\$27.61		

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

SOC Code	SOC Occupational Title	Average Wages					Percentile Distribution				
		Entry-Level	Overall	Experienced	10th	25th	50th	75th	90th		
41-1011	First-Line Supervisors/Managers of Retail Sales Workers	\$10.24	\$16.91	\$20.24	\$9.46	\$11.45	\$14.09	\$18.55	\$27.51		
* 51-3092	Food Batchmakers	\$7.03	\$10.91	\$12.86	\$6.37	\$7.72	\$10.24	\$14.33	\$16.58		
35-2021	Food Preparation Workers	\$6.05	\$8.24	\$9.33	\$5.70	\$6.20	\$7.20	\$10.10	\$13.04		
35-3041	Food Servers, Nonrestaurant	\$6.12	\$7.81	\$8.66	\$5.75	\$6.22	\$7.03	\$9.36	\$11.34		
* 51-9051	Furnace, Kiln, Oven, Drier, and Kettle Operators and Tenders	\$10.01	\$13.68	\$15.52	\$9.57	\$10.88	\$13.22	\$16.32	\$19.20		
51-4033	Grinding, Lapping, Polishing, and Buffing Machine Tool Setters, Operators, and Tenders, Metal and Plastic	\$9.53	\$10.94	\$11.63	\$9.06	\$9.79	\$11.05	\$12.34	\$13.29		
39-5012	Hairdressers, Hairstylists, and Cosmetologists	\$6.18	\$8.18	\$9.17	\$5.79	\$6.28	\$7.06	\$9.25	\$12.23		
* 21-1091	Health Educators	\$11.85	\$19.43	\$23.23	\$10.68	\$13.42	\$18.88	\$25.13	\$28.49		
49-9021	Heating, Air Conditioning, and Refrigeration Mechanics and Installers	\$10.75	\$15.74	\$18.23	\$9.58	\$12.27	\$16.49	\$19.61	\$21.30		
35-9031	Hosts and Hostesses, Restaurant, Lounge, and Coffee Shop	\$6.13	\$7.06	\$7.53	\$5.74	\$6.19	\$6.94	\$7.96	\$8.76		
11-3040	Human Resources Managers	\$17.04	\$27.56	\$32.82	\$15.95	\$19.86	\$27.18	\$35.03	\$42.77		
49-9099	Installation, Maintenance, and Repair Workers, All Other	\$12.40	\$17.44	\$19.96	\$11.71	\$13.53	\$17.75	\$20.32	\$21.86		
43-9041	Insurance Claims and Policy Processing Clerks	\$11.56	\$18.60	\$22.12	\$10.37	\$11.74	\$17.01	\$24.79	\$30.34		
53-7062	Laborers and Freight, Stock, and Material Movers, Hand	\$7.69	\$9.66	\$10.65	\$7.33	\$8.03	\$9.15	\$11.27	\$13.23		
37-3011	Landscaping and Groundskeeping Workers	\$7.89	\$10.80	\$12.25	\$7.59	\$8.31	\$10.00	\$12.45	\$16.10		
23-1011	Lawyers	\$26.29	\$37.42	\$42.98	\$23.42	\$29.72	\$35.08	\$42.71	\$60.36		
29-2061	Licensed Practical and Licensed Vocational Nurses	\$13.11	\$14.82	\$15.67	\$12.15	\$13.88	\$15.09	\$16.35	\$17.10		
29-2011	Medical and Clinical Laboratory Technologists	\$14.84	\$19.32	\$21.56	\$13.06	\$16.67	\$19.77	\$22.13	\$25.45		
11-9111	Medical and Health Services Managers	\$23.05	\$32.86	\$37.77	\$21.39	\$24.86	\$29.52	\$41.14	\$52.17		
31-9092	Medical Assistants	\$9.76	\$11.45	\$12.29	\$9.23	\$10.06	\$11.28	\$12.95	\$14.13		
* 31-9093	Medical Equipment Preparers	\$9.50	\$11.98	\$13.22	\$9.01	\$10.08	\$11.68	\$13.40	\$15.44		
29-2071	Medical Records and Health Information Technicians	\$9	\$14	\$16	\$8	\$10	\$14	\$17	\$19		
27-1026	Merchandise Displayers and Window Trimmers	\$9.14	\$10.50	\$11.18	\$8.51	\$9.31	\$10.07	\$10.83	\$15.46		
* 29-2033	Nuclear Medicine Technologists	\$19.26	\$22.78	\$24.55	\$18.46	\$20.30	\$23.07	\$25.90	\$27.71		
29-1122	Occupational Therapists	\$18.29	\$20.51	\$21.62	\$17.52	\$18.70	\$20.46	\$22.62	\$25.40		
53-7064	Packers and Packagers, Hand	\$6.14	\$7.48	\$8.16	\$5.76	\$6.15	\$6.82	\$8.43	\$10.72		
47-2141	Painters, Construction and Maintenance	\$10.03	\$13.52	\$15.26	\$9.61	\$11.10	\$13.36	\$15.74	\$17.48		



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

SOC Code	SOC Occupational Title	Average Wages			Percentile Distribution				
		Entry-Level	Overall	Experienced	10th	25th	50th	75th	90th
29-1051	Pharmacists	\$30.65	\$35.64	\$38.13	\$30.05	\$32.70	\$36.47	\$40.52	\$43.36
29-1123	Physical Therapists	\$21.94	\$24.73	\$26.13	\$20.35	\$22.38	\$24.37	\$26.68	\$29.18
* 19-2012	Physicists	\$32.13	\$43.11	\$48.59	\$29.18	\$36.37	\$42.29	\$51.62	\$62.22
* 51-4193	Plating and Coating Machine Setters, Operators, and Tenders, Metal and Plastic	\$8.93	\$12.12	\$13.71	\$8.12	\$9.63	\$11.66	\$13.70	\$16.62
* 33-3051	Police and Sheriff's Patrol Officers	\$16.34	\$22.34	\$25.34	\$15.17	\$18.18	\$22.45	\$26.77	\$30.32
25-2011	Preschool Teachers, Except Special Education	\$7.46	\$11.91	\$14.14	\$7.12	\$7.82	\$9.44	\$14.98	\$21.46
* 51-9199	Production Workers, All Other	\$6.96	\$10.77	\$12.67	\$6.42	\$7.71	\$10.08	\$12.95	\$16.52
13-1023	Purchasing Agents, Except Wholesale, Retail, and Farm Products	\$14.70	\$20.30	\$23.11	\$13.41	\$15.93	\$19.10	\$24.62	\$28.48
* 29-1124	Radiation Therapists	\$23.15	\$26.98	\$28.90	\$21.92	\$24.05	\$26.78	\$30.42	\$34.35
* 27-3011	Radio and Television Announcers	†	†	†	†	†	†	†	†
29-2034	Radiologic Technologists and Technicians	\$12.59	\$17.43	\$19.85	\$12.02	\$14.31	\$17.32	\$20.69	\$24.79
41-9022	Real Estate Sales Agents	\$12.90	\$14.76	\$15.70	\$12.03	\$12.58	\$13.52	\$14.44	\$23.02
43-4171	Receptionists and Information Clerks	\$7.35	\$10.09	\$11.46	\$6.88	\$7.97	\$9.46	\$11.59	\$15.14
* 29-1126	Respiratory Therapists	\$14.88	\$18.36	\$20.10	\$14.15	\$15.89	\$18.52	\$20.99	\$22.61
43-6014	Secretaries, Except Legal, Medical, and Executive	\$8.42	\$11.52	\$13.07	\$7.60	\$9.46	\$11.25	\$13.90	\$16.19
* 49-2098	Security and Fire Alarm Systems Installers	\$11.18	\$16.99	\$19.90	\$10.14	\$12.93	\$17.51	\$20.93	\$23.09
47-2211	Sheet Metal Workers	\$13.95	\$17.42	\$19.16	\$12.48	\$15.45	\$17.66	\$20.01	\$22.16
* 29-1127	Speech-Language Pathologists	\$17.90	\$24.11	\$27.21	\$16.37	\$19.68	\$23.96	\$27.58	\$32.81
21-1011	Substance Abuse and Behavioral Disorder Counselors	\$9.88	\$12.87	\$14.36	\$9.33	\$10.83	\$12.91	\$14.47	\$16.89
43-2011	Switchboard Operators, Including Answering Service	\$8.25	\$10.24	\$11.25	\$7.68	\$8.89	\$10.25	\$11.80	\$13.27
* 25-3099	Teachers and Instructors, All Other	†	†	†	†	†	†	†	†
53-3033	Truck Drivers, Light or Delivery Services	\$8	\$13	\$16	\$7	\$9	\$12	\$16	\$23

* OES wages reported for Colorado statewide

† Insufficient wage data

Sector Briefs

Trade, Transportation & Utilities

Trade, Transportation & Utilities is the largest JVS sector in Mesa County in terms of employment, the number of employers, and estimated vacancies for this survey. The sector employed about 11,600 people as of the second quarter of 2002. This sector includes four NAICS sectors: Utilities, Wholesale Trade, Retail Trade and Transportation & Warehousing.

Sixty-three percent of this JVS sector employment is in Retail Trade, followed by 18% in Transportation & Warehousing, 16% in Wholesale Trade with the remaining 3% in Utilities.

The U.S. economy has been characterized as a consumption-based economy where Retail Trade is key.

Within this industrial classification are general merchandise stores accounting for 20% of the employment, but less than 3% of businesses. Food and beverage stores are the second largest subsector in terms of employment with more than 1,400 employees followed by motor vehicle and parts dealers with almost 1,100 employees as of the second quarter 2002.

The greatest number of retail businesses in any one subsector is attributed to motor vehicle and parts dealers—there are 82 such businesses in the county. A closely related subsector, gasoline stations, accounts for another 53 businesses and 452 employees.



How to Use This Report

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

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

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

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

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

Employers

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

Employee Recruitment—

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

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

Compensation and Benefits Planning—

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

New Site Selection—

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

Job Seekers

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

given an individual's skills and level of education.

Job seekers can also use Labor Market Information's occupational projections, which provide a long-term outlook of occupational demand, along with the survey, which illustrates the current level of

demand in the local job market to determine how current employment opportunities can contribute to their long-term career goals. Career minded individuals can tailor education, training, and work-experience to fit future high-demand positions.

Workforce Centers

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

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

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

www.coworkforce.com/lmi/oeo/oeo.htm. 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 bottle-

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

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

Caveats

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

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

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

and validation process that takes place before estimates are published.

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

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

Regional surveys are timed to make these comparisons possible.

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

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

Methodology

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

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

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

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

Survey Design

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

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

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

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

must contact more employers than would be necessary if the survey only estimated the total number of vacancies. For this reason all of the large employers and government agencies are contacted in the region. These employers provide the most cost effective means of obtaining large amounts of vacancy information. Approximately 30% of the employment in the region is found in large and government employers that make up only 1%-2% 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 Mesa County survey was conducted from April 8 through April 18. For the purpose of this report, private and government employers with five or more employees are referred to as the *sample frame*. Firms with fewer than five employees make up a very large portion of all employers in the region, but a small proportion of the total employment. Employment in the sample frame accounts for 84% 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 100 employees are considered large employers. Attempts are made to contact all government agencies and large firms in the sample frame. The remaining small to mid-size firms are split into JVS industry sectors.

The number of firms surveyed in each sector varies according to the number of employees and employers in the sector. In most JVS sectors half of all employers are contacted up to 200 employers. In JVS sectors with less than 1,000 employees, efforts are made to capture at least 500 employees in the sample. If less than 500 employees work in a sector then all employers are contacted. This sampling method insures that all the vacancy estimates are based on a sufficiently large sample size.

Government makes up almost 19% of the employment in the sample frame, while private industry employers make up the remaining 88%. Large firms account for 27% of private industry employment in the sample frame. Firms employing from five to 99 individuals are considered small to mid-size employers, and account for the

remaining 73% of private industry employment.

The margin of error for the overall vacancy estimate is plus or minus 3.8% or 16 vacancies at a .95 certainty level. In other words, in 95 out of 100 samples taken, the actual number of vacancies for the region will be between 403 and 435 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 89.8%. This measures the quality of the survey database, or the success experienced in contacting eligible employers. The cooperation rate is 99.8% 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 Mesa County, 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 25*.

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

Data Collection

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

Professional interviewers, trained in economic data collection processes, gather

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

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

levels of education and experience required, and the employer's perceived difficulty in filling the vacancy along with the number of days the position has been opened. Employers are also asked if sign-on bonuses and health insurance coverage are offered for these positions. These data are collected in addition to the minimum and maximum wages in order to describe more fully the compensation offered.

Occupational Coding

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

Data Editing

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

Wage Conversion

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

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

North American Industry Classification System (NAICS)

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

History of Process

The Office of Management and Budget established the Economic Classification Policy Committee in 1992 to pursue a fresh slate examination of economic classifications for statistical 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.

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

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

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

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 (parts of all divisions)		Public Administration Management of Companies & Enterprises

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

Glossary

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

Average Maximum Wage

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

Average Minimum Wage

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

Computer Assisted Telephone Interviewing (CATI)

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

Cooperation Rate

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

Educational Attainment

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

Effective Response Rate

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

Employed Persons (Employment)

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

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

Employer

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

Full-time Employee

Employees who usually work 35 hours per week or more.

Goods Producing Industries (NAICS)

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

Industry

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

Job Seeker

A person actively looking for employment or researching career options.

Job Vacancy

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

Job Vacancy Rate

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

Labor Force

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

Medical Insurance

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

Medical Insurance Premium

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

North American Industry Classification System (NAICS)

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

Not Seasonally Adjusted

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

Occupation

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

Part-time Employee

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



Percentile Wage Estimate

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

Permanent Employment

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

Sample

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

Sample Frame

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

Seasonally Adjusted

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

Service Producing Industries (NAICS)

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

Sign-on Bonus

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

Standard Occupational Classification (SOC) System

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

Temporary Employment

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

Unemployed Persons

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

Unemployment Rate

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

Wages

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

Tourism and our State Parks are important parts of Colorado's economy. We urge you to
...see COLORADO first

Colorado River State Park—Island Acres



Photo by Tom Kenyon, Courtesy Colorado State Parks

in
Mesa
County
Explore

Colorado River State Park

Highline Lake State Park

Vega State Park

Colorado State Parks

<http://parks.state.co.us/home>



MESA COUNTY WORKFORCE CENTER

2897 North Avenue
Grand Junction, CO 81501

Phone: 970-248-0871

Fax: 970-257-2219

<http://www.mesaworkforce.org>

For a listing of all Colorado Workforce Centers: www.coworkforce.com/EMP/WFCs.asp

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



(303) 318-8890

Imi@state.co.us

www.coworkforce.com/Imi.wra/home.htm