

Upper Arkansas Region

Job Vacancy Survey

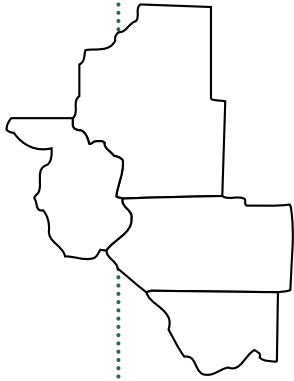
*Conducted
July 5 - July 12, 2001*

Chaffee, Custer, Fremont & Park Counties

October 2001



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



Upper Arkansas Region Job Vacancy Survey

Conducted July 5 - July 12, 2001

State of Colorado

Bill Owens, Governor

Colorado Department of Labor & Employment

Vickie Armstrong, Executive Director

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Funding Provided in Part by
The Colorado Workforce Development Council

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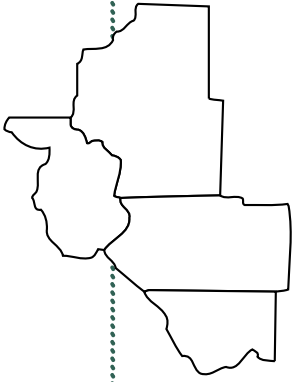
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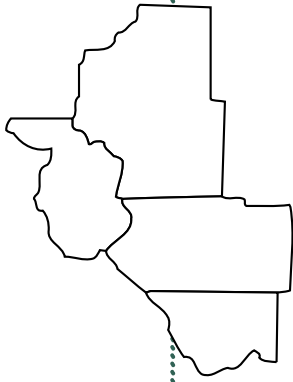
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The office of Workforce Research and Analysis would like to extend sincerest gratitude to all the employers of the Upper Arkansas Region who participated in this study. The analysis provided in this document would not be possible without their help.

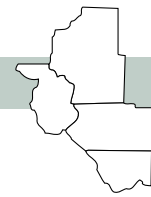


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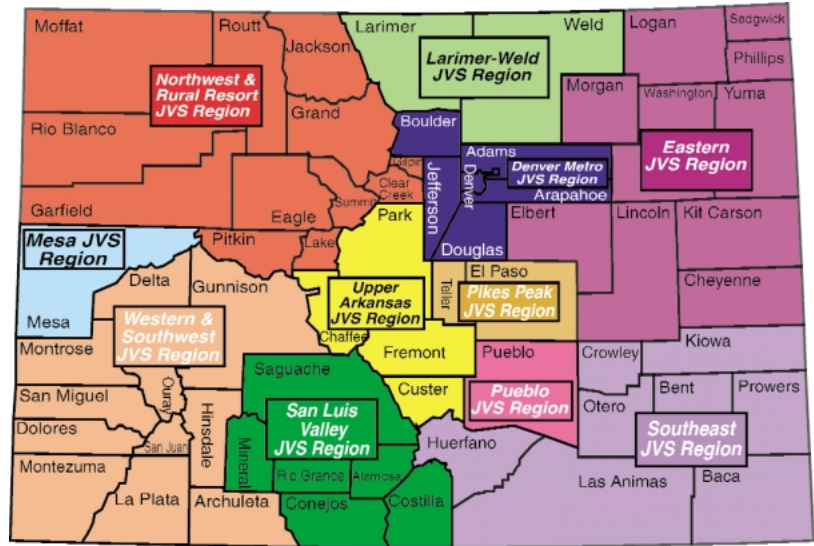
Introduction

The unemployment rate, along with the level and growth rate of employment, has been used as an indicator of labor market conditions for decades. While this indicator provides information about changes in the 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.

The Upper Arkansas Job Vacancy Survey was initiated not only to measure demand for workers at a specific point in time, but also to provide detailed information on the quality of employees demanded.

The Job Vacancy Survey was adopted by Colorado’s Department of Labor and Employment through the Denver Metro pilot studies of September 1999 and April 2000, which were initiated by Arapahoe/Douglas Works! The popularity of the reports based on the survey data led the CDLE to expand its coverage to include the entire state of Colorado. Since the last Denver Metro JVS, the survey instrument was revised

Colorado Job Vacancy Survey Regions



to eliminate ambiguity and enhanced to gather more specifics on job vacancies within the survey constraints.

The survey is funded by a grant from the U.S. Department of Labor’s Employment and Training Administration. The JVS is produced by Labor Market Information’s office of Workforce Research and Analysis.

This publication is a product of the Colorado Department of Labor and Employment’s Labor Market Information Section, Bill LaGrange-Director. This report was prepared by LMI’s office of Workforce Research and Analysis. Members of this unit are:

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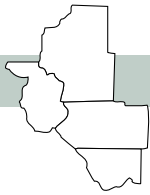
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This report is published semi-annually. Comments, suggestions, and questions regarding content and format are welcome and may be addressed to:

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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.

- ◆ Is there a labor shortage in the region?
- ◆ If so, what types of labor are in short supply?
- ◆ Is there a shortage of skills?
- ◆ What skills are necessary to fill current vacancies?

The answers to these and similar questions are important in the decision-making processes of employers, job seekers, trainers and planning officials. While Labor Market Information has provided information on the local labor force supply, the Job Vacancy Survey will further complement this data by providing information about the demand for labor and offering a more complete picture of local labor markets.

Employers

The Job Vacancy Survey measures the area's current vacancies and provides information to employers who may be experiencing difficulty in filling positions due to

- ◆ worker shortage,
- ◆ an imbalance between job seekers' skills and employers' needs,
- ◆ compensation packages that are insufficient as a recruitment tool when compared to market standards.

This report identifies certain characteristics of current vacancies according to general categories. For example, upon review of the results, an employer observes a high percentage of vacancies in the region's firms requiring a specific level of education or experience. This observation might indicate that the labor force and/or its skills fall short of the market needs, thus calling for a decision to increase investment in training or import skilled workers. Delays in filling vacancies despite increases in wages and/or benefits

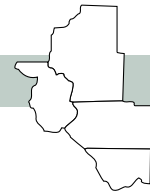
may be attributed to an overall shortage of applicants in the area. Similarly, if a low percentage of vacancies exist for a particular position with the same educational and/or experience requirement, but an employer is finding it difficult to fill, a comparison between the wages offered to the market average may indicate a need for an adjustment.

After a series of surveys from the same time of year have been conducted, current and prospective employers will be able to identify industries and/or occupations that may be consistently oversupplied, in equilibrium, or undersupplied. Employers that are relocating to the area can review the report and determine if the company's employment needs will be filled with minimum delay (current low vacancies). In addition, the Job Vacancy Survey results and Occupational Employment Statistics (OES) wage data (a measure of current wages being paid by occupation) can be used to develop a benchmark of wages to offer for the upcoming positions.

Job Seekers

For current job seekers, this report is a roadmap that can be used to determine where the best paying jobs are given their skills and level of education. The Job Vacancy Survey helps to illustrate the current supply/demand balance in the local job market and provides associated average wages. Job seekers can review Labor Market

Information's occupational projections in addition to the Job Vacancy Survey to see if current opportunities can contribute to long-term career goals. With information the report provides, job seekers can better tailor education and training efforts toward industries and occupations that lead to a more successful job match.



Workforce Centers

Public officials, educational institutions, and government agencies can use the Job Vacancy Survey information to allocate resources more efficiently among education, training, and job placement programs. The survey provides short-term illumination of the area's current employment needs. Workforce Center representatives can direct job seekers toward high demand occupations in order to increase placement success, or in a direction that might better suit the needs of the applicants' career goals.

Workforce Center officials can also review the nature of job vacancies and decide where to focus placement efforts. Investments in the workforce can be directed toward occupations or industries that continuously contribute to the local economy or to those that show a chronic tendency toward undersupply.

Current vacancy conditions as presented by the Job Vacancy Survey, coupled with other Labor Market Information reports, can offer a better picture of seasonality and long-term trends that might affect the

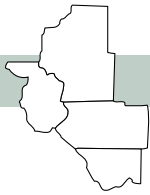
provisions of future training programs. The Employment and Wage publication (ES-202 data) provides monthly county and statewide industry data on a quarterly basis. To prepare for the high demand of seasonal workers where vacancies persist, Workforce Centers and educators can offer training during the off-season as indicated by the quarterly data. Long-term industry trends in employment are also recorded on an annual basis in the same report for each county.

In addition, Labor Market Information provides statewide occupational projections available at <http://lmi.cdle.state.co.us/wra.home.htm>, which includes projected employment growth, and identifies growing as well as declining occupations. This information, used with the Job Vacancy Survey's identification of current vacancies, can help Workforce Centers identify occupations in demand now as well as in the future. Workforce Centers can subsequently plan for future training programs in cooperation with businesses and educators.

Economic Developers

For economic development professionals, this report is a tool that can be used to track the labor status of key industries and evaluate the area's economic growth and development potential. The survey results can help determine where labor bottlenecks may occur should current vacancies persist. Economic developers

can also generate a comprehensive picture of the region by determining where current labor demand stands today, as identified by the Job Vacancy Survey, and where the market, in general, is trending using Labor Market Information's employment projections.



Caveats

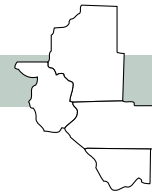
The Job Vacancy Survey statistics should be used as indicators, not actual values of the demand for workers in the Upper Arkansas Region. Figures from the survey should not be interpreted as annual vacancies; rather, they are estimates of openings at a point-in-time. Users should consider, when comparing the results of one survey to another, the effects seasonality and the business cycle will have on the data. For instance, a decrease in vacancies for construction workers from April to November would represent seasonal variations, not necessarily a long-term decrease in the demand for such workers.

The results of the survey are based only on the sample of responses collected from July 5th through 12th and should not be considered as necessarily portraying the exact distribution of job vacancies in the Upper Arkansas Region. After several years of Job Vacancy Survey data are available, patterns may begin to emerge that more accurately reflect changing labor

market conditions. It should be recognized that the survey identifies current vacancies only, and does not explain whether the vacancies are due to employment growth in the occupations or if they are due to job turnover. In addition, not all surveyed firms participated. However, the employers who did participate enabled the production of statistically reliable results.

Users should keep in mind that the authors of this report are not attempting to project the level of vacancies into the future. In addition, events that have occurred since the time period analyzed, such as plant closings or the migration of people in and out of the area, may have had an effect on the vacancy status of some occupations.

Given the caveats, appropriate application by the user is the most important element for making the information in this report a relevant tool in job vacancy analysis.

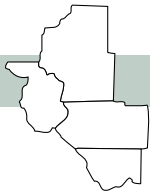


Executive Summary

The Upper Arkansas Job Vacancy Survey was conducted from July 5th through 12th, 2001. Over the survey period, randomly selected employers with at least five employees were contacted in the region. Employers were asked if they were actively hiring at the time of the survey, and a variety of questions about positions they were seeking to fill.

A total of 380 employers (40% of the Upper Arkansas employers with five or more employees), representing over 50% of the region's total employment responded to the survey. Out of these, 11 are large employers (70 or more employees), 319 are from the small to mid-size category (5-69 employees), and 51 are government employers (of any size). The major findings of the survey are as follows:

- ◆ It is estimated that a total of 415 jobs were open for hire in the Upper Arkansas Region during the survey period.
- ◆ All 415 estimated jobs are permanent openings.
- ◆ Ninety percent of the reported vacancies are full-time positions.
- ◆ About 94% of the estimated job openings are in the service producing industries.
- ◆ The overall average wage for all vacancies is \$12.80 per hour. The average wages for positions in large firms exceed those in small to mid-size firms by \$6.00 per hour at the minimum level to \$9.00 per hour at the maximum level.
- ◆ Both education and experience requirements have a significant positive influence on wages offered.
- ◆ Over 60% percent of the openings require experience in the specific position or in a related occupation.



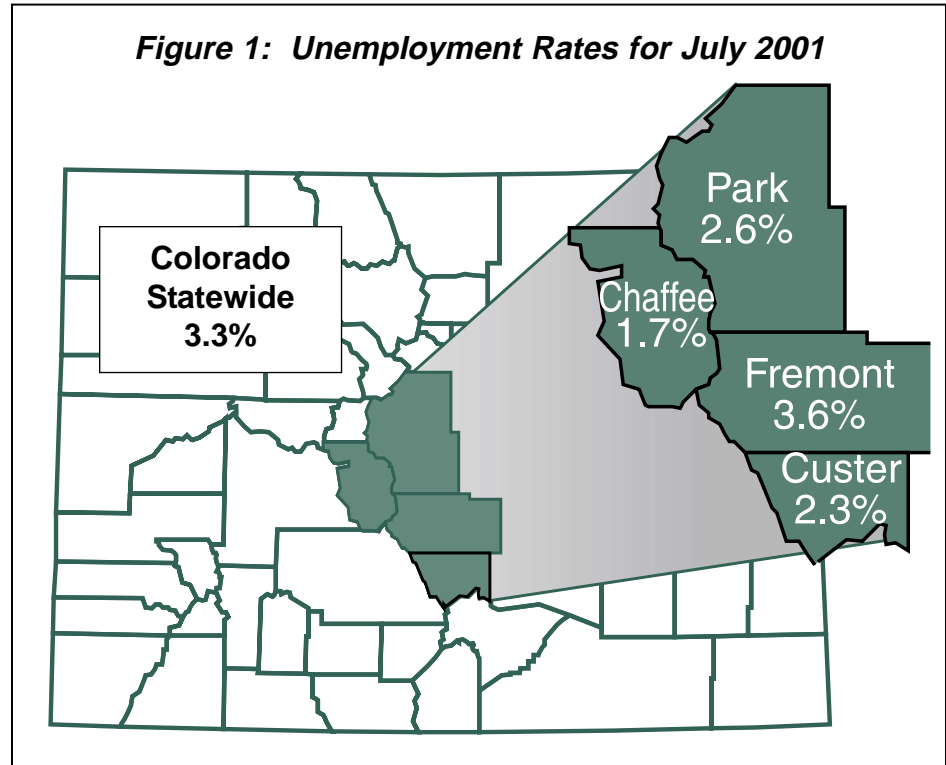
Upper Arkansas Region

According to the U.S. Census Bureau, Census 2000, the Upper Arkansas Region (UAR), which includes Chaffee, Custer, Fremont and Park counties, is home to over 80,000 people. Fremont County has the largest population (over 46,000 residents) while Park and Custer counties experienced the most growth over the 1990 to 2000 period, at rates of 102.4% and 81.9%, respectively. Park County recorded the third highest population increase of all Colorado counties. Chaffee County, with a population of over 16,000 people, grew at a moderate 28.1% growth rate, just slightly below Colorado's 30.6% growth rate over the same ten-year period.

The UAR employed nearly 39,000 individuals from a labor force pool of about 40,000 people in July 2001, according to Colorado's Labor Market Information, Local Area Unemployment Statistics. Fremont County accounts for 46% of the employment in the region. Park and Chaffee counties have 25% and 23% of area employment, respectively, while Custer accounts for 6%. These employment proportions are very similar to the area's population proportions. In the period between July 2000 and July 2001, the labor force in the area increased by 4.1% while total employment in the area increased by 3.9% over the same period, increasing unemployment slightly from 2.7% to 2.8%. According to Labor Market Information's Local Area Unemployment Statistics, Colorado's unemployment rate was 3.3% in July 2001 while rates ranged between 1.7% in Chaffee County to 3.6% in Fremont (*Figure 1*).

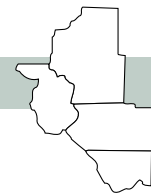
Figure 2 shows the employment distribution for each of the major industry divisions according to Colorado Employment and Wages (ES-202) during the third quarter of 2000. This serves as a useful reference for the time period in which the UAR Job Vacancy Survey was conducted. Employment by industry in the

Figure 1: Unemployment Rates for July 2001



Upper Arkansas Region has remained fairly constant over the past six years. While each county accounts for different proportions of the area's employment, the industry mix in each of the four counties is relatively similar. Although government agencies represent only 6% of the total employers in the area, this industry accounts for the highest proportion of employees (31%). The Services and Retail Trade divisions follow with employment proportions of 23% and 20%, respectively. The Construction industry has shown strong gains over the last few years, resulting in a higher share of employment (10%) than in previous years. Other division's employment shares range from 1% in Mining to 6% in Manufacturing.

Most of the UAR's industries follow a seasonal trend in employment, with the 3rd quarter offering the highest employment levels and low employment periods occurring during the 1st quarter. Seasonality is most notable in the Services and Retail industries due to the employment size of these industries. Seasonality is also a factor in all other industries except Manufacturing, Transportation, Communication and Public Utilities, and FIRE (Finance, Insurance, and

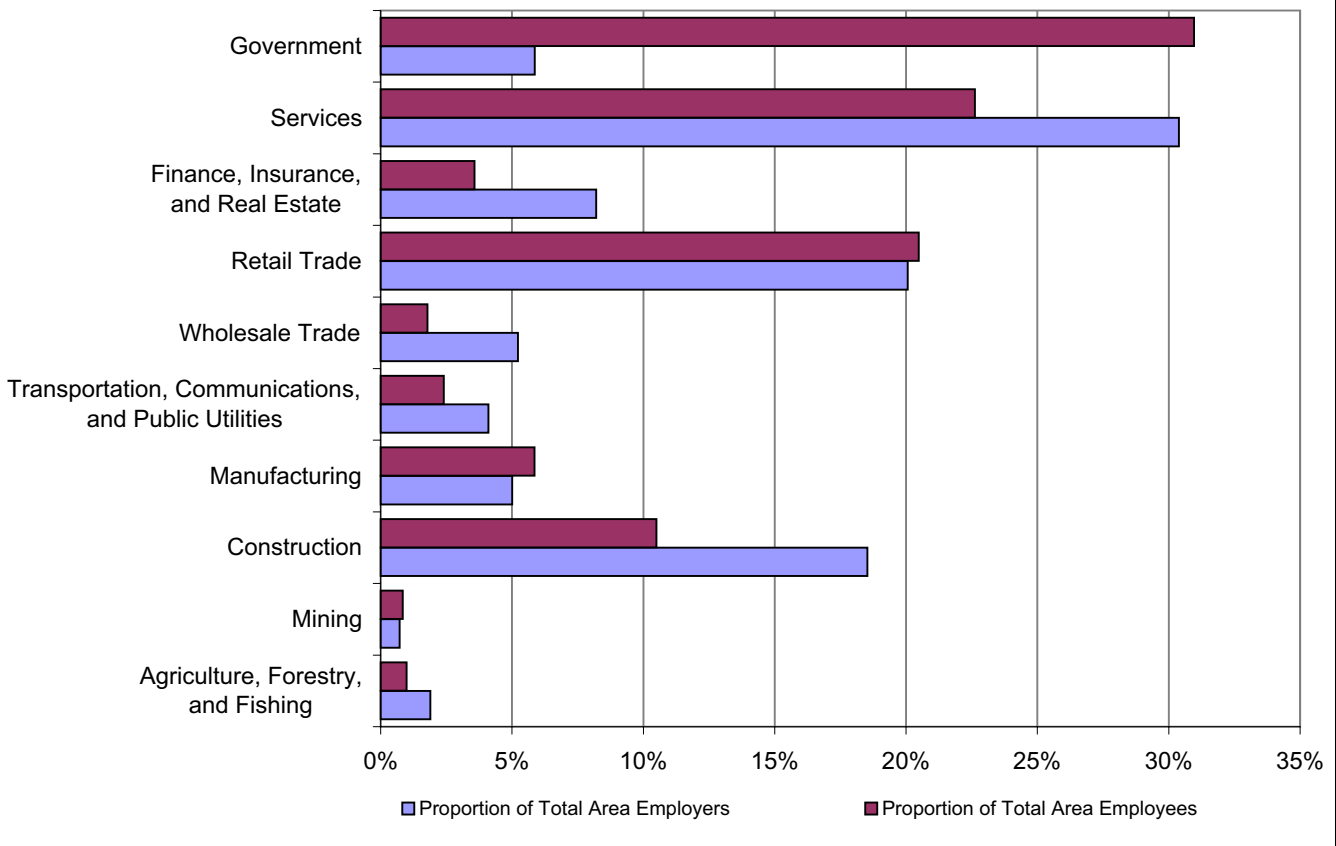


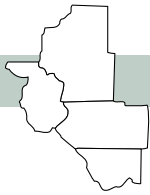
Real Estate). With the exception of Manufacturing and Transportation, Communication, and Public Utilities, all industries have experienced overall increasing employment trends over the last six years.

The region is dominated by a large number of firms with less than five employees that account for 72% of the firms in the area. However, in terms of employment,

these firms account for only 20% of total employment in the area. The small to mid-size firms (5-69 employees) account for about 27% of all firms in the region and employ 44% of the area's total employees. Large firms (with 70 and more employees) account for 1% of the regional firms and employ 36% of the total employees.

Figure 2: Proportion of Employment, 3rd Quarter, 2000





The Job Vacancy Survey Sample

The survey instrument, upon which the telephone questionnaire used for this study is based, was tested in the Upper Arkansas Region in September of 2000, and is a revised version of the one used for the two Denver Metro pilot studies (see Appendix).

For the purpose of this report, employers with at least 70 employees will be referred to as “large employers” and account for about 36% of the total employment in the region. Firms employing between five and 69 individuals are considered “small to mid-size employers,” and account for 44% of the total employment. Firms with four or fewer employees were not contacted as they represent only a small portion of employment in the region.

The UAR “sample universe” consists of 925 firms with 5 to 69 employees, 33 firms with 70 or more employees, and 108 government establishments regardless of the number of employees. Attempts were made to conduct a full census of each of the large

employers as well as the government agencies in the UAR, in addition to a representative sample of small to mid-size employers (randomized from the 925 firms) in both the goods and service producing industries (Table 1). A total of 513 (approximately 48%) of the large and small to mid-size firms in the UAR were contacted. A total of 319 employers responded to the survey: a response rate of over 62%.

For the 925 small to mid-size employers, the survey was stratified by goods and service producing industries. These employers account for nearly 80% of the estimated employment in the UAR. About 84% of all employers in the region are in service producing industries and account for approximately 87% of the region’s employment. The sample was designed to achieve a solid representation from each industry group. While every effort is made to report in as much detail as possible, the UAR’s size and limited vacancies restricts reporting to the two general industry categories.

Table 1: Goods and Service Producing Industries

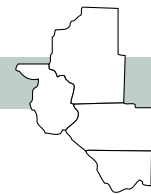
Goods Producing Industries	Service Producing Industries
Agriculture, Forestry, and Fishing (except Agricultural Services)	Transportation, Communications, and Public Utilities
Mining	Wholesale Trade
Construction	Retail Trade
Manufacturing	Finance, Insurance, and Real Estate
	Agricultural Services

The Survey Instrument

Employers were asked by telephone if they had job vacancies, or open positions, which they were actively seeking to fill. Only 14% of the firms contacted reported at least one vacancy. Firms actively recruiting were then asked to provide more detail about each position. Information on compensation offered, the level of education and experience required, and the employer’s perceived difficulty in filling the vacancy, as well as length of time the posi-

tion had been open was collected. Whenever necessary, employers were contacted a second time to clarify responses.

Employers were also asked whether or not a sign-on bonus or health insurance was offered for the position. This information was collected in addition to the minimum and maximum wages offered to describe in more detail the compensation offered.



Timing Considerations

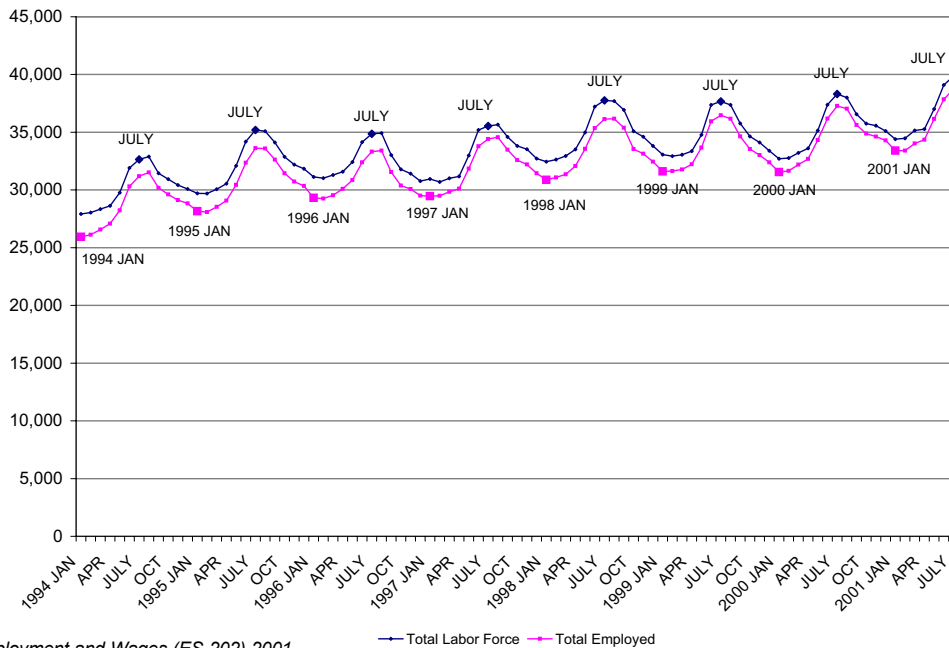
Upper Arkansas Region Job Vacancy Surveys will be conducted semi-annually in January and July. The timing of the survey was developed with the intent of measuring demand for labor at intervals that provide the most useful information.

Analysis of the historical employment trend in the UAR indicates the level of employment peaks in or around the month of August. Likewise, the participating labor force follows a similar cyclical pattern, with the total number of participants out-numbering the employed consistently over time (*Figure 3*). By conducting the JVS in July, results represent the demand for labor at a time when employers are nearing peak employment, yet are still in the process of actively recruiting. Vacancies found in January represent the

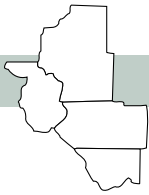
demand for labor at a time of year when employment is at its cyclical low. A study at this time indicates the types of occupations for which a labor shortage exists when the labor supply is least constrained.

Difficulties in hiring at the two differing times of year may signal different issues. A study of any labor shortage during the winter low period may not indicate a general labor availability problem. Rather, it may indicate that labor for certain types of occupations is in short supply. On the other hand, while a labor shortage during the summer may indicate specific occupation groups where shortages exist, it may also indicate a generalized labor shortage. The two conditions have different implications for decision-makers, especially in government and job training positions.

Figure 3: Historical Employment Trends for Upper Arkansas Region



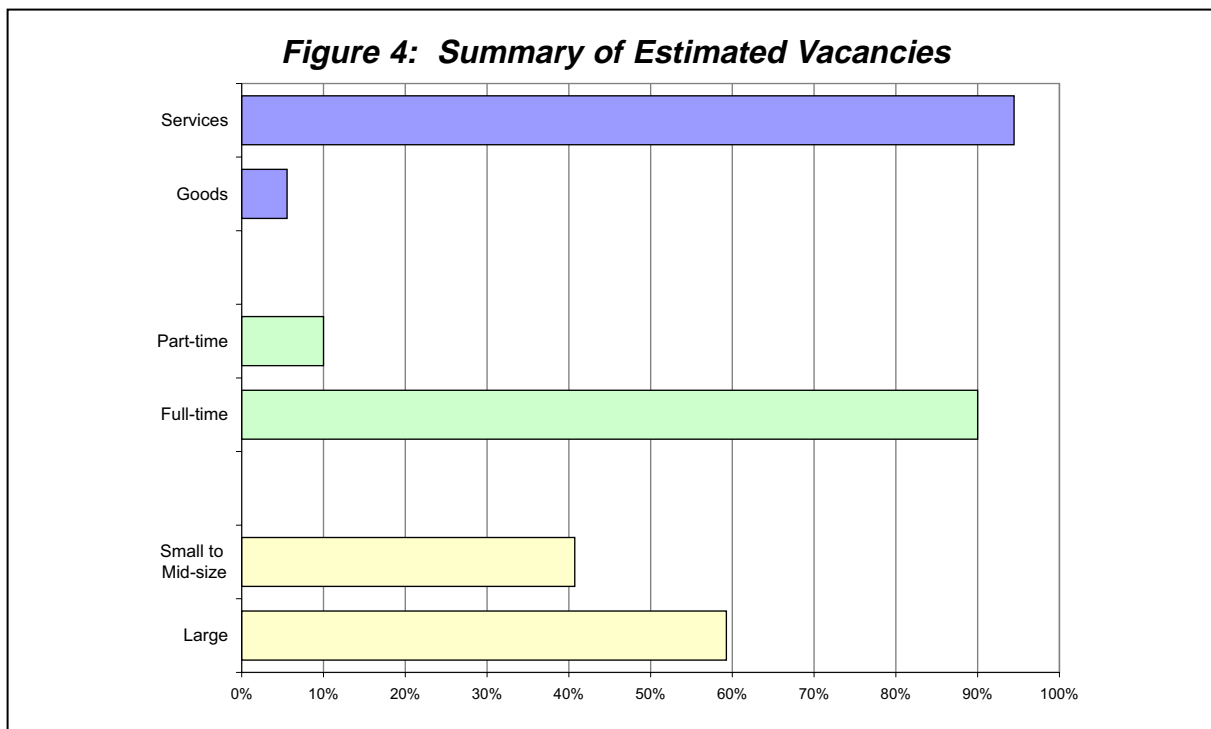
Source: Colorado Employment and Wages (ES-202) 2001

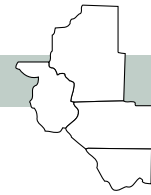


Estimated Vacancies

During the survey period, an estimated 415 vacancies were open for immediate hire in firms with at least five employees in the Upper Arkansas Region. This estimation was derived from vacancy rates reported for actual employment levels and extrapolated to the total employment for the appropriate industry divisions. All vacancies reported

are permanent positions and 90% of those are full-time positions. Small to mid-size firms comprise approximately 40% of the region's total employment while large firms account for 41%. Ninety-four percent of all vacancies in the region are in the service producing industries (*Figure 4*).





Vacancies and Wages

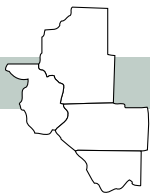
Since wages offered may vary with the level of education and experience of the applicant, employers were asked to provide the range of wages offered for the vacancies and the average was

calculated based on the mid-point of that range. Based on the information employers reported, analysis reveals the following:

- ◆ The overall average wage offered for all vacancies is \$12.80 per hour.
- ◆ The average minimum wage offered for all vacancies is \$11.30 and the average maximum is \$14.30 per hour.
- ◆ Over 50% of the vacancies are offered with a wage rate higher than the overall average.
- ◆ Over 95% of the positions for which wages are higher than the overall average are in the service producing industries.
- ◆ Large firms offer substantially higher wages than small to mid-size firms with a difference of approximately \$7.00 per hour across the minimum/maximum ranges.

Table 2: Wage Ranges

Employer Type	Average Wage		
	Minimum	Mid-Point	Maximum
Services	\$11.30	\$12.80	\$14.30
Goods	\$11.50	\$12.30	\$13.00
Large	\$13.50	\$15.60	\$17.70
Small	\$7.60	\$8.10	\$8.60
Full-Time	\$11.50	\$13.10	\$14.80
Part-Time	\$10.10	\$10.40	\$10.70

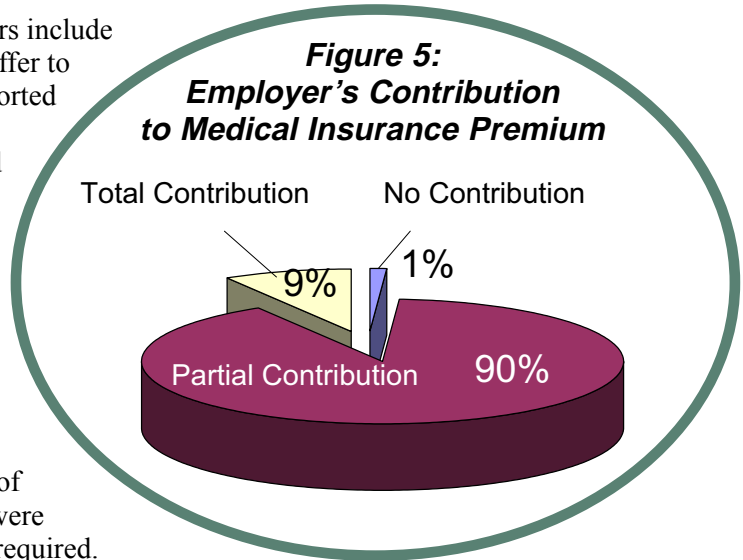


Medical Insurance and Wages

Nearly all of the vacancies reported by employers include some form of medical insurance. Employers offer to pay the entire premium for 9% of all vacancies reported and a portion of the premium for 90% of the vacancies. Only a very small fraction of reported vacancies are offered without such contributions and these are associated most often with part-time positions (Figure 5).

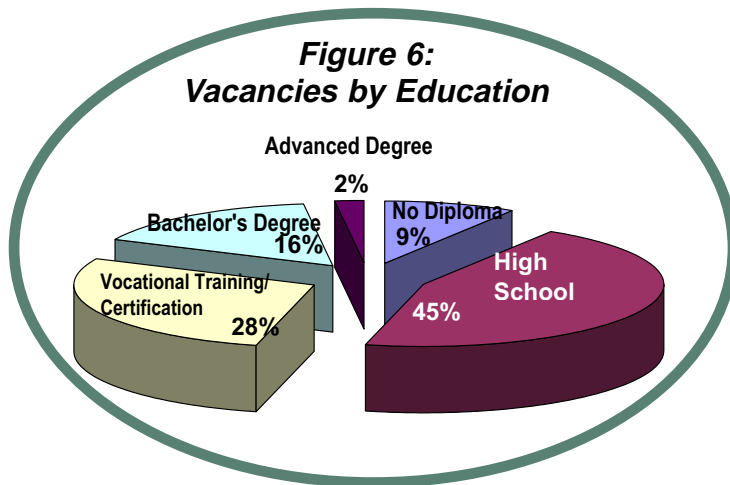
On average, as higher paying jobs require higher levels of education and experience, employers offer better medical insurance packages to attract qualified candidates. For the vacancies associated with premiums paid in part, the average wage is \$15.80. These positions were throughout a variety of occupations, and where educational requirements were relaxed, more occupation-specific experience was required.

Figure 5: Employer's Contribution to Medical Insurance Premium



Education and Wages

Figure 6: Vacancies by Education

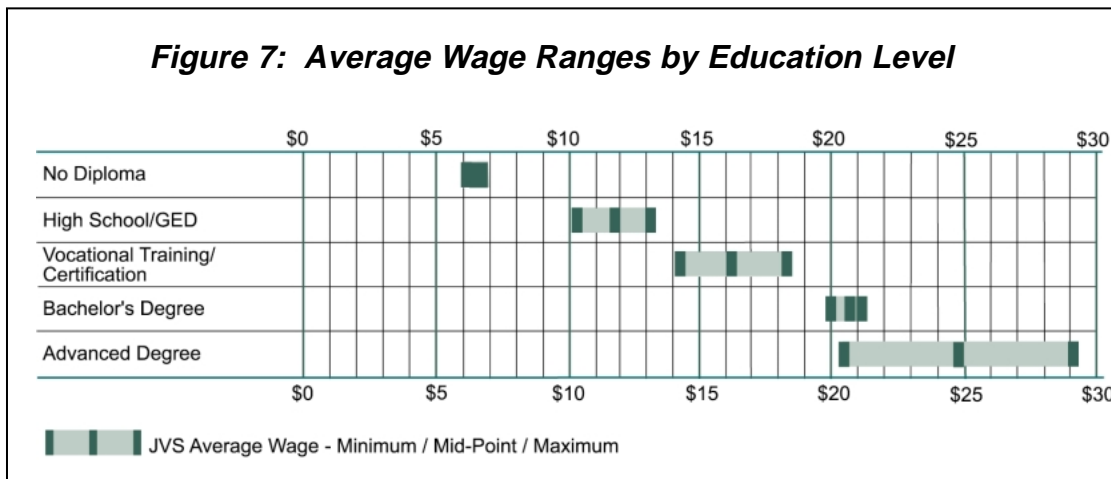


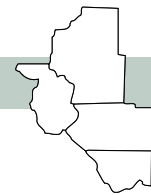
Employers were asked what level of education is required of an applicant in order to be considered for a particular vacancy. Results show that about half of the positions reported by employers require no post-secondary education. Twenty-eight percent require vocational training or certification (or other similar two-year training) while 18% require at least a Bachelor's degree (Figure 6).

Employers add a substantial premium to wage compensation when requiring higher levels of educational attainment (Figure 7). The highest average wage rate difference (\$5.50 per hour) was found between having no diploma and completing a high school education.

The requirement of post-secondary education increases the wage rate by approximately \$4.50 with each increment.

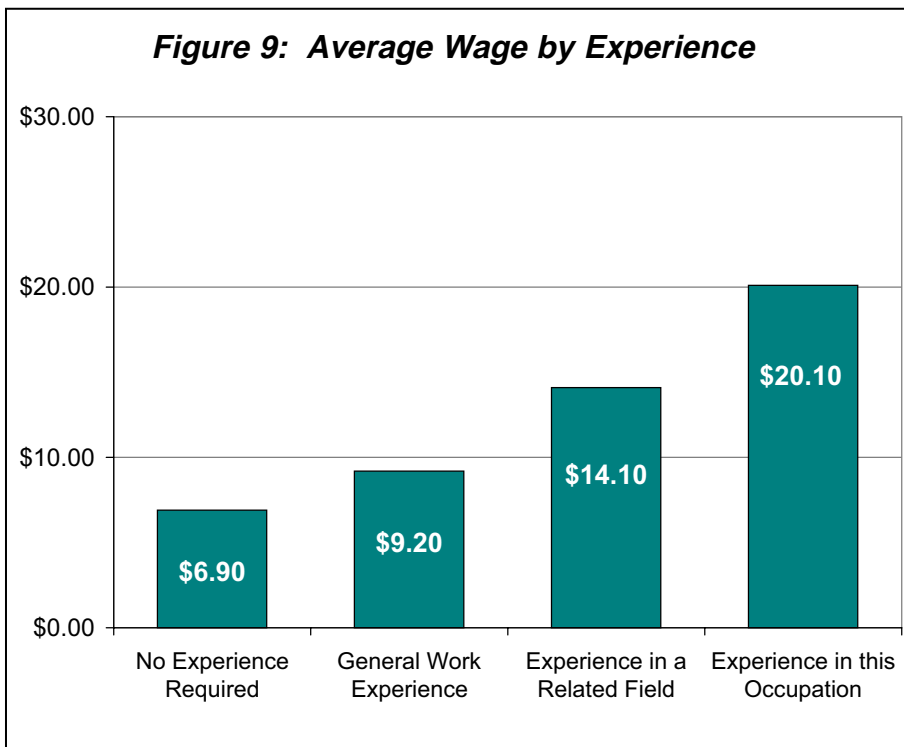
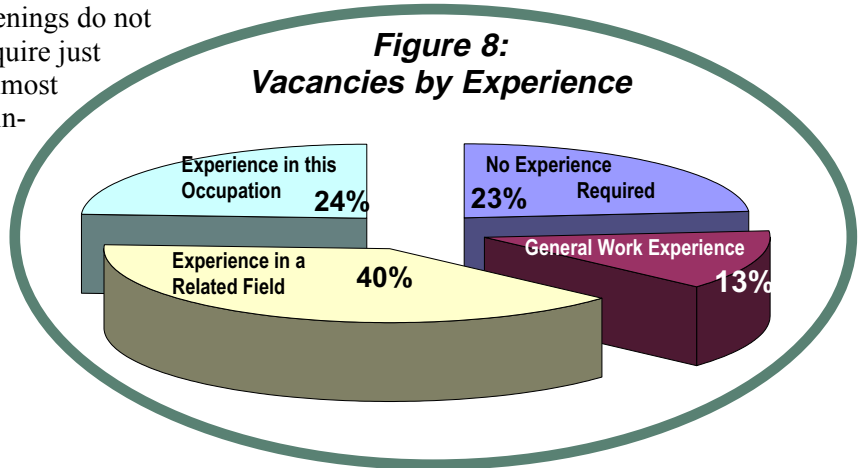
Figure 7: Average Wage Ranges by Education Level



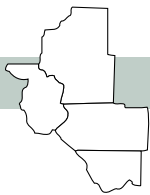


Experience and Wages

Over one-third of the reported job openings do not require prior work experience or require just general work experience, compared to almost 40% of the vacancies which require a minimum of experience in a related field. Openings requiring specific experience within the occupation form less than one quarter of all reported vacancies (Figure 8).



As with increasing levels of education, employers are willing to offer premiums for added experience. Vacancies requiring experience in a related field, the experience category most sought after by employers, are offered with an average of \$5.00 per hour more than to those with only general work experience. Employers requiring high levels of experience within the occupation were willing to offer even an additional \$6.00 per hour on average (Figure 9).



Difficulty to Fill

To establish the level of difficulty in filling vacancies, employer’s perception and data on how long each position had been open at the time of the survey were gathered. Of the employers responding to these questions, 40% of the vacancies reported are classified as very difficult to fill. Less than one-third of the responding employers believed open positions were not difficult to fill (*Figure 10*). Furthermore, only one-third of the reported vacancies are filled within 30 days. Seventeen percent of the vacancies remain open for more than 60 days, while 38% of the positions are always open for hire (*Figure 11*).

Figure 10: Difficult to Fill

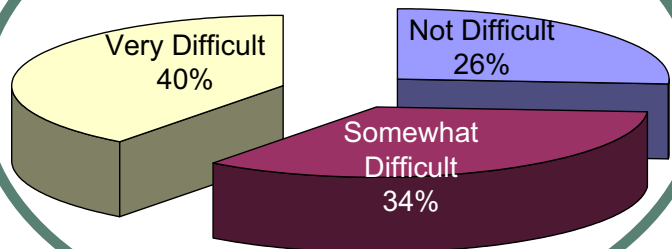
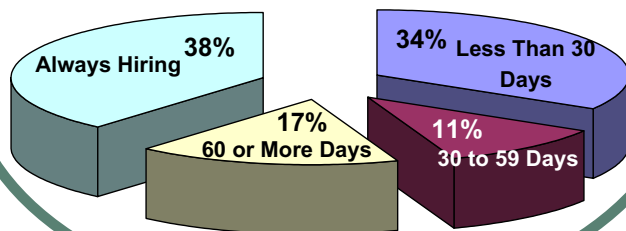


Figure 11: Duration of Vacancies

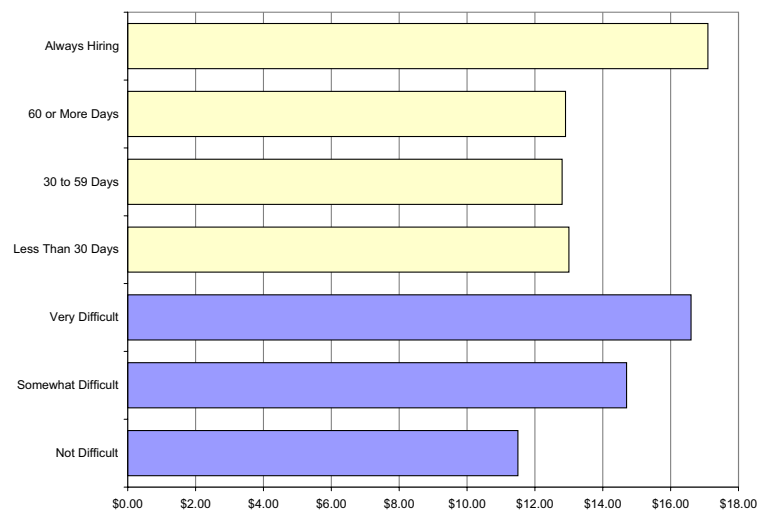


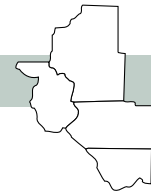
Analysis of wage information reported by employers highlight two observations:

1. Positions for which employers offered higher wages tend to be more difficult, and take longer to fill. Most likely this could be due to the training and skills required to fill these positions.
2. Jobs for which lower wages are offered are not biased toward any time duration if the wage offered is around the market average. Positions that pay significantly more than the average typically are more challenging to fill.

Employers offer higher wages for positions that are perceived more difficult to fill (*Figure 12*). Over 60% of the vacancies not reported as always open for hire are associated with a wage close to the overall market average of \$12.80 per hour. Vacancies open for continuous hire offer an average wage at a premium of \$17.10 per hour. These vacancies are in the service industries and are full-time positions. While only half of these higher-paid positions require education beyond high school, most positions open for hire continuously require specific experience within the occupation. A high proportion of these vacancies are health care related.

Figure 12: Average Wage by Difficulty to Fill/Time Open for Hire





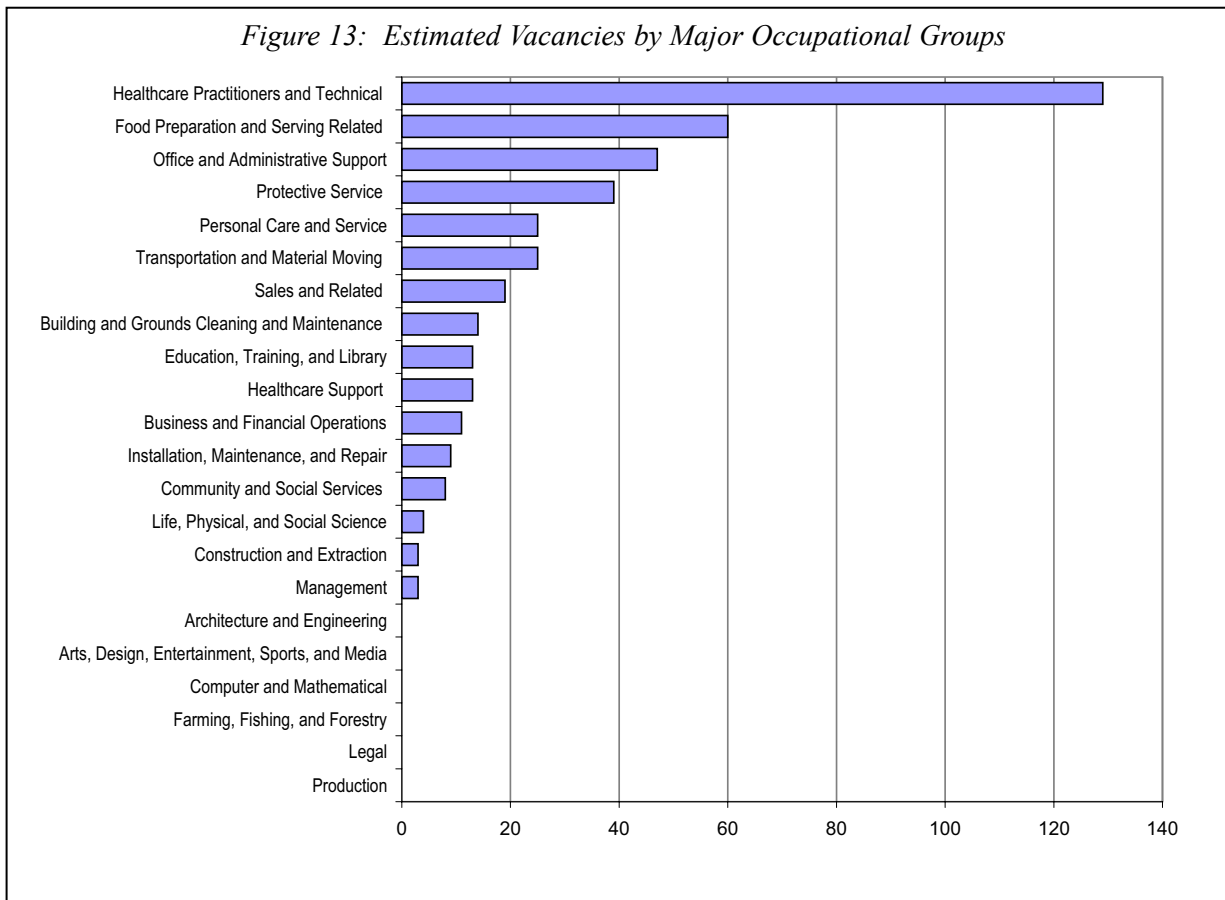
Occupations

The number of vacancies varies greatly between major occupational groups, however, out of the 22 major occupational groups, only the Healthcare Practitioners/Technical occupation category has more than 100 openings. Over 80% of the estimated vacancies fall in the top seven major occupational groups (*Figure 13*).

Estimated vacancies in the Healthcare Practitioners/Technical occupations (129) were over

twice that of the next highest occupation, Food Preparation and Serving Related occupations (60). While occupations in the service producing industries are greatly responsible for the high percentage of “Always Hiring” classification mentioned before, the majority of them are in specialized occupations within the health care industry, which explains, in part, the high wages reported in the “Always Hiring” category.

Figure 13: Estimated Vacancies by Major Occupational Groups



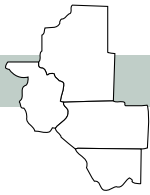
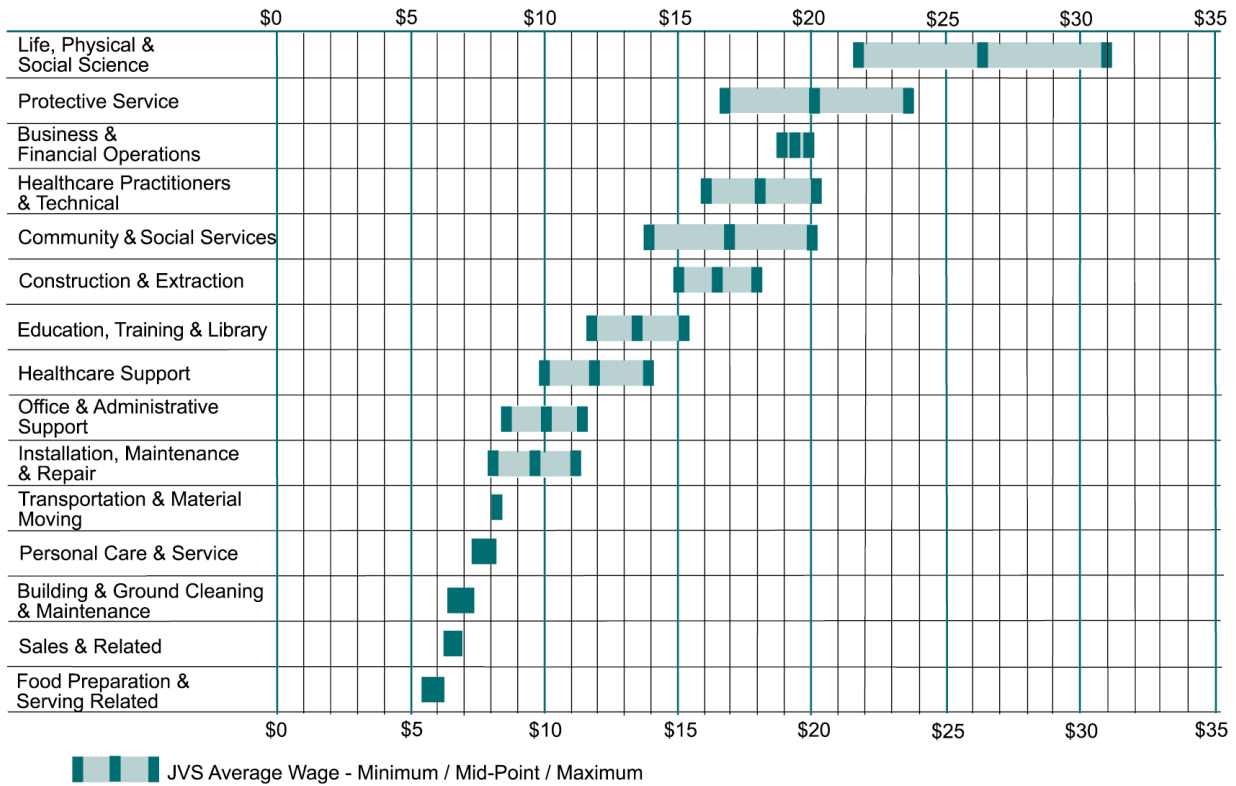


Figure 14: Range of Average Wages by Major Occupational Groups



Occupational groups with high levels of educational requirements such as Healthcare Practitioners, Community and Social Services, Business and Financial Operations, Protective Services, as well as Life, Physical & Social Services, offer the highest wages. Wages for these occupational groups also have a relatively wider range between the minimum and maximum offered (*Figure 14*).

Lower wages with less variation between the minimum and maximum are offered for major occupational groups with the least educational requirements. Such groups include Food Preparation & Serving Related, Sales & Related, Building & Grounds Cleaning & Maintenance, Personal Care & Service, and Transportation and Material Moving.

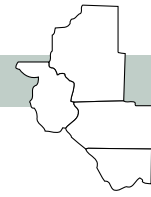


Table 3: Occupations with 10 or More Vacancies

SOC Code	Occupation Title	Occupational Employment Statistics Wage Data (aged to 2000)										
		Estimated Number of Vacancies	Average Wage Offered (nearest dime)	Average Wages			Percentile Distribution					
				Entry-Level	Overall	Experienced	10th	25th	50th	75th	90th	
29-2061	Licensed Practical and Licensed Vocational Nurses	83	\$14.90	\$12.08	\$14.86	\$16.25	\$11.46	\$13.39	\$15.07	\$16.49	\$18.18	
29-1111	Registered Nurses	37	***	\$15.90	\$20.47	\$22.76	\$14.89	\$17.46	\$20.09	\$23.78	\$26.73	
* 33-1099	First-Line Supervisors/Managers, Protective Service Workers, All Other	34	\$20.90	\$12.52	\$21.63	\$26.19	\$11.91	\$13.55	\$17.16	\$27.84	\$40.81	
35-3031	Waiters and Waitresses	21	\$5.30	\$6.00	\$6.14	\$6.22	\$5.56	\$5.78	\$6.13	\$6.63	\$7.09	
35-3021	Combined Food Preparation and Serving Workers, Including Fast Food	21	\$6.40	\$6.02	\$7.28	\$7.90	\$5.72	\$6.08	\$6.79	\$8.13	\$10.56	
43-4171	Receptionists and Information Clerks	18	\$7.60	\$6.32	\$8.14	\$9.06	\$5.93	\$6.65	\$8.13	\$9.66	\$10.47	
* 39-9021	Personal and Home Care Aides	16	***	\$6.13	\$7.34	\$7.93	\$5.85	\$6.37	\$7.25	\$8.36	\$9.08	
53-3032	Truck Drivers, Heavy and Tractor-Trailer	14	\$8.60	\$10.79	\$13.58	\$14.97	\$9.91	\$11.49	\$13.74	\$15.80	\$17.03	
37-2012	Maids and Housekeeping Cleaners	13	\$6.60	\$6.02	\$6.47	\$6.69	\$5.62	\$5.86	\$6.29	\$6.88	\$8.68	
43-6011	Executive Secretaries and Administrative Assistants	11	\$13.00	\$10.44	\$14.13	\$15.98	\$9.75	\$11.06	\$14.00	\$16.75	\$19.50	
41-2011	Cashiers	11	\$7.00	\$5.97	\$7.34	\$8.02	\$5.61	\$5.95	\$6.50	\$7.56	\$11.28	
29-1122	Occupational Therapists	11	***	\$14.64	\$18.61	\$20.58	\$13.33	\$15.53	\$17.20	\$22.63	\$25.12	
31-1012	Nursing Aides, Orderlies, and Attendants	10	***	\$6.69	\$8.88	\$9.97	\$5.87	\$7.20	\$9.08	\$10.41	\$11.73	

* OES wages reported for Colorado statewide

*** No wage data available

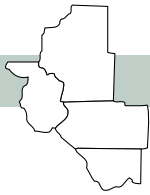


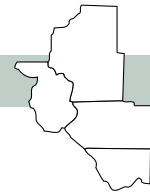
Table 4: Occupations - Fewer Than 10 Vacancies

SOC Code	Occupation Title	Occupational Employment Statistics Wage Data (aged to 2000)							
		Entry-Level	Average Wages		Percentile Distribution				
			Overall	Experienced	10th	25th	50th	75th	90th
43-5081	Stock Clerks and Order Fillers	\$6.14	\$9.70	\$11.48	\$5.90	\$6.58	\$8.33	\$11.67	\$16.51
29-1123	Physical Therapists	\$23.29	\$26.31	\$27.82	\$21.77	\$23.12	\$25.06	\$28.62	\$39.32
* 35-9011	Dining Room and Cafeteria Attendants and Bartender Helpers	\$5.93	\$6.61	\$6.95	\$5.75	\$5.96	\$6.30	\$7.10	\$8.65
31-9099	Healthcare Support Workers, All Other	\$7.97	\$11.56	\$13.36	\$7.60	\$8.49	\$10.70	\$14.30	\$17.03
* 29-2041	Emergency Medical Technicians and Paramedics	\$8.20	\$12.39	\$14.48	\$7.11	\$9.50	\$11.47	\$13.97	\$19.15
* 29-1126	Respiratory Therapists	\$14.25	\$17.57	\$19.24	\$13.50	\$15.49	\$17.66	\$19.91	\$21.53
43-3071	Tellers	\$7.77	\$9.68	\$10.63	\$7.19	\$8.31	***	***	***
43-3031	Bookkeeping, Accounting, and Auditing Clerks	\$7.59	\$12.05	\$14.28	\$7.18	\$8.25	\$10.88	\$14.83	\$17.18
33-9032	Security Guards	\$6.02	\$8.99	\$10.47	\$5.76	\$6.22	\$7.14	\$11.66	\$13.49
* 29-9091	Athletic Trainers	***	***	***	***	***	***	***	***
21-1012	Educational, Vocational, and School Counselors	\$16.57	\$20.76	\$22.86	\$14.45	\$18.14	\$21.17	\$24.43	\$26.35
19-3031	Clinical, Counseling, and School Psychologists	\$15.80	\$21.43	\$24.24	\$14.80	\$15.90	\$17.74	\$28.06	\$32.84
* 29-1071	Physician Assistants	\$18.78	\$27.23	\$31.44	\$13.60	\$23.12	\$28.18	\$34.49	\$41.26
41-2031	Retail Salespersons	\$6.54	\$12.28	\$15.14	\$5.98	\$6.94	\$8.60	\$12.72	\$30.76
** 25-2031	Secondary School Teachers, Except Special and Vocational Education	\$29,239	\$38,316	\$42,854	\$26,695	\$31,015	\$36,401	\$45,441	\$53,676
** 25-2021	Elementary School Teachers, Except Special Education	\$20,427	\$31,520	\$37,066	\$17,296	\$23,972	\$30,057	\$39,071	\$47,390
* 21-1022	Medical and Public Health Social Workers	\$12.60	\$17.41	\$19.81	\$11.75	\$13.77	\$16.36	\$20.55	\$25.31
* 13-2072	Loan Officers	\$12.60	\$22.12	\$26.89	\$11.45	\$14.88	\$19.64	\$27.19	\$35.78
* 13-1071	Employment, Recruitment, and Placement Specialists	\$13.67	\$20.01	\$23.17	\$12.69	\$14.96	\$17.10	\$22.89	\$31.44
53-7062	Laborers and Freight, Stock, and Material Movers, Hand	\$5.99	\$8.63	\$9.95	\$5.84	\$6.57	\$8.06	\$10.11	\$12.94
49-9021	Heating, Air Conditioning, and Refrigeration Mechanics and Installers	\$14.39	\$23.66	\$28.28	\$13.52	\$14.92	\$19.94	\$36.13	\$43.26
* 49-9012	Control and Valve Installers and Repairers, Except Mechanical Door	\$13.65	\$19.02	\$21.71	\$12.56	\$15.07	\$18.27	\$23.99	\$26.63
49-3023	Automotive Service Technicians and Mechanics	\$8.08	\$11.95	\$13.89	\$7.60	\$8.17	\$9.11	\$15.12	\$18.79
47-2111	Electricians	\$15.45	\$20.80	\$23.47	\$11.73	\$18.65	\$21.87	\$25.08	\$27.01
* 43-4081	Hotel, Motel, and Resort Desk Clerks	\$7.14	\$8.41	\$9.05	\$6.42	\$7.34	\$8.26	\$9.23	\$11.01
** 25-3999	All Other Teachers, Primary, Secondary, and Adult	\$19,648	\$35,512	\$43,444	\$18,856	\$21,201	\$33,772	\$49,438	\$56,703
** 25-2041	Special Education Teachers, Preschool, Kindergarten, and Elementary School	\$30,351	\$39,788	\$44,507	\$28,187	\$33,242	\$39,896	\$45,577	\$52,975
** 25-2022	Middle School Teachers, Except Special and Vocational Education	\$29,653	\$38,288	\$42,605	\$27,127	\$31,389	\$37,093	\$44,782	\$52,534
** 11-9032	Education Administrators, Elementary and Secondary School	\$48,225	\$58,809	\$64,099	\$47,342	\$51,357	\$58,049	\$67,897	\$74,031

* OES wages reported for Colorado statewide

** OES annual salaries reported for Colorado statewide

*** No wage data available



Methodology

Survey Instrument and Redesign

The Job Vacancy Survey was initiated in the Denver Metro area by Arapahoe/Douglas Works! through funding from the Employment and Training Administration in cooperation with Labor Market Information. The Denver Metro pilot studies were conducted along with pilot studies in five other metropolitan areas across the nation. As a result of the success of the Denver Metro Job Vacancy Survey, the Colorado Department of Labor and Employment initiated a plan to expand the studies across the entire state.

After the first two Denver Metro pilot studies, the survey instrument was evaluated and redesigned. In choosing questions, considerations were made regarding various forms and gradations. Decisions were made to address the core of what was required in order to stay within the defined limits. The survey was expanded not only to state the purpose of the survey, but also to collect employer information; verifying addresses, number of employees, and establishing contact names. Email and fax numbers were added to provide a means of contacting employers for notification of the availability of survey results. A review of the survey questions follows:

A—The “Job Title” section remained relatively the same, although a definition of Full- versus Part-time was included.

B—“Number of vacancies for which your firm is actively recruiting”: The objective was to get a measure of the job market from the employer’s point of view. A variant of this question was, “Number of vacancies that your firm currently has.” Actively recruiting was queried due to the possible presence of vacancies that were deliberately left vacant. Also revised was the query for Permanent vs. Temporary identification.

C—The “Wages/Salary” question was revised to request the maximum and the minimum rates of pay to evaluate variations in pay given different applicant qualifications.

D—“Is a sign-on bonus offered to the person hired to fill this vacancy?” In addition to noting whether or not a bonus is offered, the revised survey allows a dollar amount to be entered.

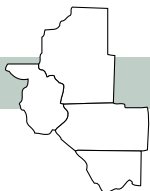
E—“Is medical insurance offered?” In addition, the revised survey prompted for the portion (if any) that the firm contributed. To better understand the relationship between types of positions, pay, vacancies, and the existence of medical insurance, it was important to note to what degree the firm contributes to the insurance premium.

F—“What is the typical education level required to fill this vacancy?” Examination of the nature of the job market and the needs of employers included the query of educational requirements.

G—“What is the typical type of experience required to qualify for this vacancy?” This also adds to the characteristics that employers are looking for in applicants. It was important to expand this question, allowing the firm to note the nature of the experience requested. During times of excess labor supply, qualifications demanded of applicants tend to increase. During periods of limited supply, the reverse tends to occur.

H—“How long has this vacancy been open?” This question was added to the revised survey to gauge the tightness of the labor market. It provides an objective measure that can be tracked and compared across time.

I—“How difficult is this vacancy to fill?” Questions H and I together help to evaluate the challenges employers face in the timely hiring of personnel and the degree to which the supply of labor falls short of demand.



Survey Sample Methodology

This survey is designed to find frequency of job vacancies in the surveyed region and identifies the characteristics of those vacancies. Firms were ordered into groups, or stratifications, by employment size and industry, and the resulting percentages of vacancies for each category were used to estimate total job vacancies for each group. Only firms with five or more employees were surveyed. The list private sector firms used for this survey, contact information, staff size and industry classification was obtained from the America's Labor Market Information System (ALMIS) database. That for government agencies was obtained from LMI's ES-202 database.

The survey was conducted by telephone. In some cases copies of the survey form were faxed to employers upon request.

Stratifications

Employers are referred to as "small to mid-size" or "large" employers depending on the number of employees within the firm as well as on the level of employment in the region. Large firms account for approximately 30% of the employment in the sample universe. Small to mid-size employers account for the remaining 70%. For optimum sample representation, each region will produce different cutoff points for employer classification. For example, the Denver Primary Metropolitan Statistical Area (PMSA) considers "small to mid-size" employers as those having 5 to 249 employees and "large" employers as those with 250 or more. Attempts are made to contact all large employers.

Most Metropolitan Statistical Area (MSA) regions will define the cutoff between large and small employers to mid-size at an employment level of 200 employees. However, this cutoff number will be dependent on the number of firms representing approximately 30% of the region's employment.

Rural regions will generally have a cutoff at an employment level of 80. Each JVS will clearly define specifications for the region. All cutoff points depend upon the proportion of employment per region.

The survey sample was then stratified into the following major industry classifications as defined by the 1987 *Standard Industrial Classification Manual* for small to mid-size employers in the PMSA and MSA areas:

- ◆ Construction
- ◆ Durable Goods Manufacturing
- ◆ Non-Durable Goods Manufacturing
- ◆ Transportation, Communication, and Public Utilities (TCPU)
- ◆ Wholesale Trade
- ◆ Retail Trade
- ◆ Finance, Insurance, and Real Estate (FIRE)
- ◆ Services
- ◆ Government

Due to limited data, rural regions are not stratified by industry, rather, they are stratified into "Goods Producing" (top 3 industries) and "Service Producing" industries.

The lists of small to mid-sized employers were randomized and a sample of sufficient size was drawn to achieve a proportional representation from each stratification.

Data Editing and Cleaning

In preparing data for analysis, data entry was reviewed. Employers were called in cases to clarify questionable entries and/or inconsistencies.

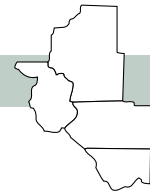
Occupational Coding

Job titles and their descriptions were used to match vacancies with the appropriate Standard Occupational Classification (SOC) occupational titles.¹ In some cases a second interview with the employer was necessary to decide on a specific occupational title.

Wage Conversion

Standard conversions were used to convert salaries into hourly wages: 2,080 hours for annual salaries, 173 hours for monthly salaries.

All wages below the minimum wage level were adjusted upwards to \$5.15 per hour. When necessary employers were contacted a second time for more information on questionable wages.



Definitions

Annual Salary

The monetary return for one year's work. The definition does not include benefits (e.g., insurance, retirement program, or stock plans).

Average

The arithmetic average (also called the mean) for a group of items is defined as the sum of the values of the items divided by the number of items.

Full-time and Part-time Employment

To be classified as full-time employment a position must require a minimum of 35 hours of work a week. Part-time employment refers to cases where a position requires less than 35 hours of work a week.

Job Vacancy Rate

Is the number of openings in a specific occupation expressed as a share of total employment in that same occupation.

Level of Education

Refers to completed programs of work. High school diplomas, associate, professional, vocational, bachelors, and graduate degrees all are examples of programs of work.

Medical Insurance Premium

Refers to the monthly payments that a holder of an insurance policy pays in order to keep his/her policy current.

Mid-Point

For the purpose of this survey, the Mid-Point refers to the wage halfway between the average minimum and average maximum wages as reported by survey respondents.

Permanent and Temporary Employment

Employment is classified as permanent if it will be filled for more than six months. Temporary employment on the other hand refers to those positions which will be filled for six months or less.

Sample Frame

The set of employers randomly chosen for the survey from the whole population of employers. Since vacancies and employment data were the central objectives of the survey, the sample frame was designed to allow necessary representation in those categories.

Sign-on Bonus

An additional financial incentive offered by a firm to new employees in order to influence their decisions to agree to employment with that firm. The bonus, for purposes of this survey, is a monetary lump sum.

SOC

The 1998 Standard Occupational Classification (SOC), with 822 detailed occupations, reflects the current occupational structure in the United States and was designed to provide a universal classification system. All federal agencies that collect occupational data will adhere to the new SOC. Information on the 1998 SOC, including its occupational structure, is available online.

Internet: http://stats.bls.gov/soc/soc_home.htm.

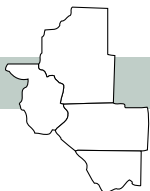
Source: *Occupational Outlook Handbook*, 2000-01 Edition, U.S. Department Of Labor, Bureau of Labor Statistics, January 2000.

Vacancy

An established position that is currently unfilled for which the firm is actively recruiting to fill. The definition does not include positions that are anticipated, but not yet created.

Wage

The monetary return per hour of work. The definition does not include benefits (e.g., insurance, retirement program, or stock plans).



Appendix - Survey Instrument



Upper Arkansas Region Job Vacancy Survey

Survey ID: 104307011

Company ID: _____

Survey Instructions

- Please direct this survey to the manager or human resources professional responsible for hiring and recruitment at your business.
- Please **respond within three business days**. Your assistance will allow us to complete this survey in a timely manner.
- Return this survey by fax to (887) 222-0921.

For the purposes of this survey, a vacancy at your company is a job opening for which your firm is actively recruiting. Only provide information for job vacancies in the following counties, which make up the Upper Arkansas Region:

Fremont

Chaffee

Park

Custer

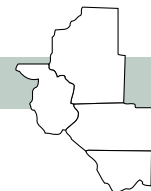
Part A: About Your Firm

1. Who may we contact regarding job vacancies at your location and at other Upper Arkansas area locations? _____
2. Contact's:
 - a. Job Title _____
 - b. Phone # _____
 - c. Fax # _____
 - d. E-Mail Address _____
3. Company Name: _____
4. Number of Employees working within the Upper Arkansas Region: _____
5. Do you have any job vacancies for which your firm is actively recruiting?

Yes No

If you answered yes to question number five, please complete the next page of this survey. If you have more vacancies than will fit on the next page or, if you have more than one job site for which to list vacancies, please make copies before you begin filling out the form. Thank you very much for your participation in the survey. **We look forward to providing you with a final copy of the study.**

Part B: About Your Vacancies, See next page →



<p>Part B:</p> <p>Job Title for Vacancies</p> <p>Please group vacancies by job title and full- or part-time status</p> <p>Full = Full Time (35+ hours per week) Part = Part Time (1-34 hours per week)</p> <p>Company ID:</p>		<p>I: How difficult is this vacancy to fill? (Choose One)</p> <p>3) Very Difficult</p> <p>2) Somewhat Difficult</p> <p>1) Not Difficult</p>	<p>3</p> <p>2</p> <p>1</p>	<p>3</p> <p>2</p> <p>1</p>
		<p>H: How long has this vacancy been open? (Choose One)</p> <p>4) Always Hiring</p> <p>3) 60 or More Days</p> <p>2) 30 to 59 Days</p> <p>1) Less than 30 Days</p>	<p>4</p> <p>3</p> <p>2</p> <p>1</p>	<p>4</p> <p>3</p> <p>2</p> <p>1</p>
		<p>G: What is the typical type of experience required to qualify for this vacancy? (Choose One)</p> <p>4) Experience in this Occupation</p> <p>3) Experience in a Related Field</p> <p>2) General Work Experience</p> <p>1) No Experience Required</p>	<p>4</p> <p>3</p> <p>2</p> <p>1</p>	<p>4</p> <p>3</p> <p>2</p> <p>1</p>
		<p>F: What is the typical education level required to fill this vacancy? (Choose One)</p> <p>6) Advanced Degree</p> <p>5) Bachelor's Degree</p> <p>4) Two Year Degree</p> <p>3) Vocational Training/Certification</p> <p>2) High School/GED</p> <p>1) No Diploma</p>	<p>6</p> <p>5</p> <p>4</p> <p>3</p> <p>2</p> <p>1</p>	<p>6</p> <p>5</p> <p>4</p> <p>3</p> <p>2</p> <p>1</p>
		<p>E: 2 If "yes", does your firm contribute:</p> <p>3) Total cost of premium</p> <p>2) Partial cost of premium</p> <p>1) No monetary contribution towards premium</p>	<p>3</p> <p>2</p> <p>1</p>	<p>3</p> <p>2</p> <p>1</p>
		<p>E: 1 Is medical insurance offered?</p> <p>2) No (skip to question F)</p> <p>1) Yes (answer question E:2)</p>	<p>2</p> <p>1</p>	<p>2</p> <p>1</p>
		<p>D: Is a sign-on bonus offered to the person hired to fill this vacancy? If yes, enter Y, or, preferably, the amount of the bonus. If no, enter N.</p>		
		<p>C:</p> <p>If wages offered for this vacancy are salaried go to a, if hourly go to b:</p> <p>a:</p> <p>Maximum Annual Salary Offered</p> <p>Minimum Annual Salary Offered</p> <p>b:</p> <p>Maximum Hourly Wage Offered</p> <p>Minimum Hourly Wage Offered</p>		
		<p>B: Number of vacancies for which your firm is actively recruiting</p> <p>Permanent (6 or more months)</p> <p>Temporary or Seasonal</p>		
		<p>A:</p> <p>Full</p> <p>Part</p> <p>Brief description of job duties:</p>		
		<p>Full</p> <p>Part</p> <p>Brief description of job duties:</p>		
		<p>Full</p> <p>Part</p> <p>Brief description of job duties:</p>		
		<p>Full</p> <p>Part</p> <p>Brief description of job duties:</p>		
		<p>Full</p> <p>Part</p> <p>Brief description of job duties:</p>		
		<p>Full</p> <p>Part</p> <p>Brief description of job duties:</p>		