

# Upper Arkansas Region

## Job Vacancy Survey

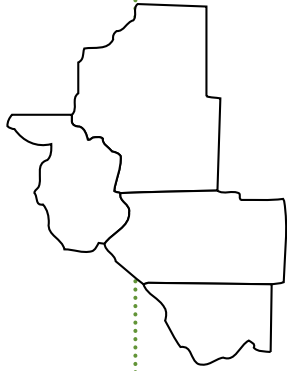
Chaffee, Custer, Fremont & Park Counties

September 2000



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





# Upper Arkansas Region Job Vacancy Survey

For week of September 18, 2000

## State of Colorado

Bill Owens, Governor

## Colorado Department of Labor & Employment

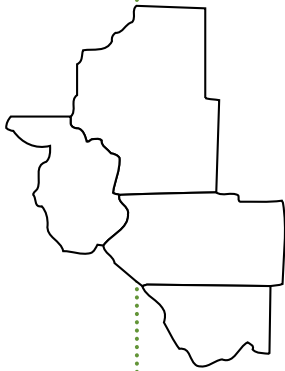
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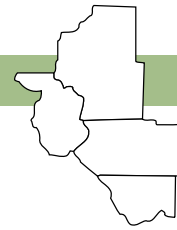
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The Office of Workforce Research and Analysis would like to extend their sincerest gratitude to the 140 employers in the Upper Arkansas Region who took the time to participate in this study. The analysis provided in this document would not be possible without their help. Also, special recognition should be given to the employees of the Salida and Cañon City Workforce Centers who offered valuable advice and support during the design and implementation of the survey. Thank you all for your cooperation.



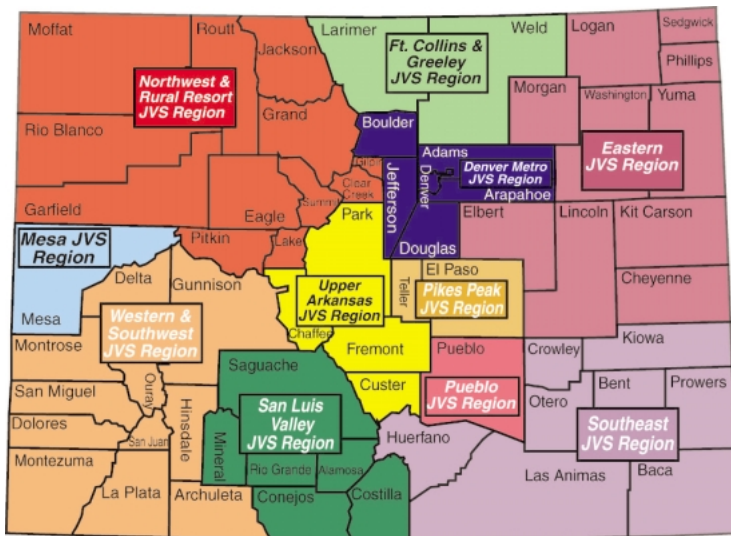
## Introduction

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 profi-

iciencies are necessary to successfully compete in the contemporary labor market.

The Job Vacancy Survey (JVS) was adopted by Colorado's Department of Labor and Employment (CDLE) to estimate the number of vacancies by occupation and some of the tools employers use to recruit for those positions. It is a comprehensive survey that measures the demand for labor by employers as opposed to the demand for employment by job seekers.

### Colorado Job Vacancy Survey Regions



JVS pilot studies were conducted for the Denver Metro Area in September 1999 and April 2000. The popularity of the reports based on the survey data led the CDLE to expand its coverage to include the entire state of Colorado. The survey instrument was revised to eliminate ambiguity and enhanced to gather more specific information on the job vacancy within the survey constraints. The September 2000 survey of the Upper Arkansas Region (UAR) was conducted as a pilot study to test the revised instrument.

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 (WRA).

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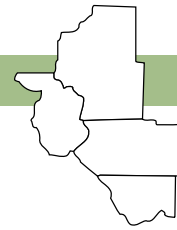
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## How to Use This Report

**W**ith 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, employees, trainers and planning officials. While LMI has provided information on the local labor force supply, the JVS will further complement this data by providing information about the demand for labor and offer a more complete picture of local labor markets.

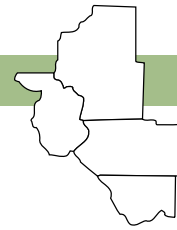
- ◆ The JVS measures the area's current vacancies and provides information to employers who may be experiencing difficulty in filling positions due to: a worker shortage, an imbalance between job seekers' skills and employers' needs, or compensation packages that are insufficient as a recruitment tool when compared to market standards.
- ◆ For current job seekers it is a roadmap that can be used to determine where the best paying jobs are given their skills and level of education.
- ◆ Public officials, educational institutions, and government agencies can use the information to allocate resources more efficiently among education, training, and job placement programs.
- ◆ Economic development professionals can use the data to track key industries and evaluate the area's economic growth and development.

The JVS data should be used as indicators, not actual values of the demand for workers in the UAR. 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 July to January would represent nothing more than a seasonal decline, not a long-term decrease in the demand for such workers.

The results of the survey are based only on the sample of responses collected during the week of September 18, 2000 and should not be considered as necessarily portraying the exact distribution of job vacancies in the UAR. After several years of JVS 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 vacancies are due to job turnover.

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 persons 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 analyses.



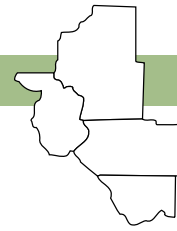
## Executive Summary

**D**uring the week of September 18, 2000, about 16%, or 154, of firms with at least five employees were contacted in the Upper Arkansas Region (UAR) (Chaffee, Custer, Fremont, and Park counties). Employers were asked a variety of questions about positions that they were seeking to fill. This was the first Job Vacancy Survey (JVS) conducted in Colorado's rural areas.

The employers contacted account for nearly 30% of the estimated employment in large (80 or more employees) and small to mid-size (5 to 79 employees) firms in the UAR. Twenty-one large employers responded to the survey and 119 small to mid-size firms: a response rate of over 90%. Firms reported the title and number of vacancies in a position, if any, at the time of the survey as well as more detail about each vacancy. Information on the compensation offered, the education and experience required, and the employer's perceived difficulty in filling the vacancies was collected.

- ◆ Based on the results of the survey, it is estimated that more than 450 positions were available to fill in firms with at least five employees in the UAR during the week of the survey.

- ◆ Nearly three-fourths of the vacancies reported are for full-time/permanent employment.
- ◆ Small to mid-size firms and service producing employers account for the majority of the vacancies estimated in the area.
- ◆ Thirty-three percent of the openings require at least some post-secondary education.
- ◆ Over half of the vacancies require either specific or related experience.
- ◆ About half of the vacancies were reported as "very difficult" to fill.
- ◆ According to the businesses surveyed, the average wage rate offered for all vacancies was \$10.73 per hour, with an average minimum of \$9.30 and average maximum of \$12.16.
- ◆ As expected, the higher the level of education required, the higher the wages offered.
- ◆ Although wages increased with experience required, the change was not as dramatic as with education.
- ◆ Medical insurance was offered for over 90% of vacancies.



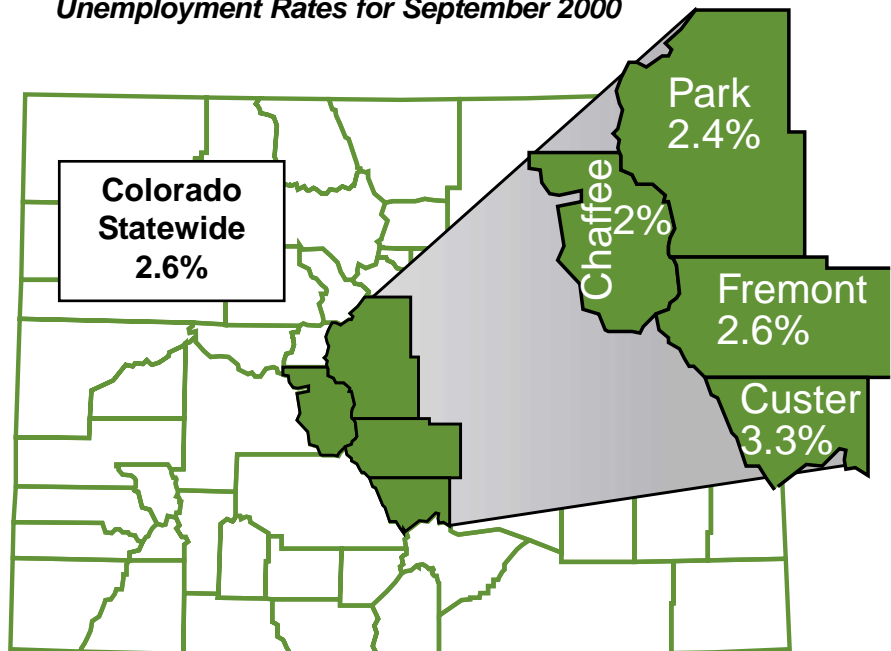
## Upper Arkansas Region

The Upper Arkansas Region (UAR), which includes Chaffee, Custer, Fremont and Park counties, consists of over 78,000 residents according to the state demographer's estimates for July, 1999. The increase in population exceeded the state's average of 2.6% in 1998/99 (July to July - Colorado Dept. of Local Affairs). In the same year, the average population growth rate for Custer and Park counties was 6.7%, while that in both Chaffee and Fremont counties grew at a rate of 2.9%. The area employs about 36,000 individuals (LMI's Local Area Unemployment Statistics, September, 2000). Fremont County accounts for 49% of

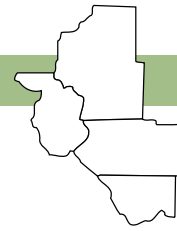
the employed as compared to 24%, 22% and 5% in Park, Chaffee and Custer counties, respectively. The region's growth in employment over the same period ranged from 0.5% in Custer County to 4.5% in Chaffee County. Overall, the UAR's total employment growth rate was 3.1%. Unemployment for September 2000 ranged between 2% in Chaffee County to 3.3% in Custer County (Figure 1).

Although Custer and Chaffee counties account for smaller portions of the total employment in the region, the industry mix among all four counties is relatively similar. Each has the highest concentra-

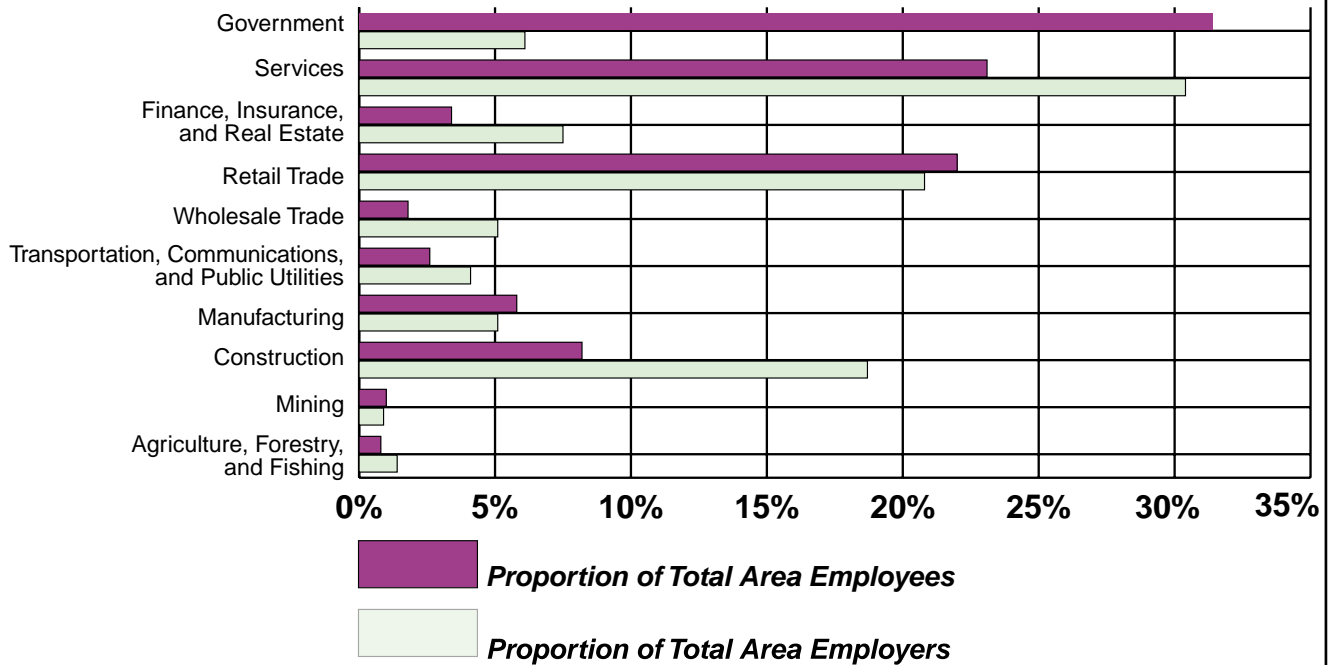
**Figure 1:**  
**Unemployment Rates for September 2000**



tion of firms in the *Services* division followed by *Retail Trade*. The total number of individuals employed is highest in the *Government* division. Federal and State Correctional facilities are the primary employers in the area. Other government entities, school districts, the health care industry as well as many small, privately owned businesses also contribute to the area's employment. Figure 2 shows the distribution for each of the major industry divisions under the Standard Industrial Classification system during the third quarter of 1999. This should serve as a useful reference for the time period in which the UAR Job Vacancy Survey was conducted.



**Figure 2: Upper Arkansas Region Employers and Employees in the 3rd Quarter, 1999**



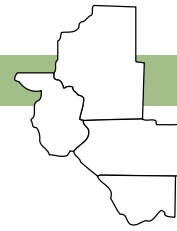
## The JVS Sample

During the week of September 18, 2000, WRA conducted a pilot study of the newly designed survey instrument in the Upper Arkansas Region. This pilot study helped determine the final form of the JVS, which will be conducted regularly throughout the state. Surveys will be conducted for each of Colorado’s 11 JVS regions, which are based on its 18 Workforce Development Regions.

For the purpose of this report, employers with at least 80 employees will be referred to as “large employers.” They account for about 35% of the employment in the sample universe. Firms employing between five and 79 individuals are considered “small to mid-size employers,” and account for the remaining 65% of sample universe employment.

Over a period of four days, a total of 154 (16%) of the large and small to mid-size firms in the UAR were contacted. These employers account for nearly 30% of the estimated employment in firms with at least five employees. Attempts were made to contact each of the large employers in the UAR (from a total of 37 firms) as well as a representative sample of small to mid-size employers (from a total of 911 firms) in both the goods and service producing industries (Table 1). About 85% of all employers in the region are in service producing industries and account for approximately 90% of the region’s employment. Twenty-one large employers and 119 small to mid-size employers responded to the survey: a response rate of over 90%.





**Table 1: Goods and Service Producing Industries**

Goods Producing Industries	Service Producing Industries
<p><b>Agriculture, Forestry, and Fishing (except for Agricultural Service)</b></p> <p><b>Mining</b></p> <p><b>Construction</b></p> <p><b>Manufacturing</b></p>	<p><b>Transportation, Communications, and Public Utilities</b></p> <p><b>Wholesale Trade</b></p> <p><b>Retail Trade</b></p> <p><b>Finance, Insurance, and Real Estate</b></p> <p><b>Services (including Agricultural)</b></p> <p><b>Public Administration</b></p>

According to the survey, although the greater part of firms contacted were small to mid-size employers, large employers accounted for most of the employment in the area out of firms surveyed.

Both the bulk of firms contacted as well as the total employment were largely represented by the service producing industries (Table 2).

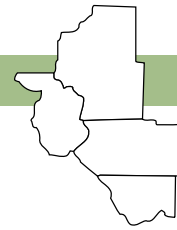
**Table 2: Employers and Responses**

Type of Employer	Proportion of Responses	
	By # of Employers	By # Employed
<b>Large</b>	<b>15%</b>	<b>70%</b>
<b>Small to Mid-size</b>	<b>85%</b>	<b>30%</b>
<b>Service Producing</b>	<b>66%</b>	<b>76%</b>
<b>Goods Producing</b>	<b>34%</b>	<b>24%</b>

## The Survey Instrument

Employers were asked if they had job vacancies, or open positions, which they were actively seeking to fill. Nearly one-third of the firms contacted reported at least one vacancy. Firms actively recruiting were then asked for more detail about each position. Information on the compensation offered, the education and experience required, and the employer’s perceived difficulty in filling the vacancy was collected (see appendix and methodology for more detail). Whenever necessary, employers were contacted 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. The results of the survey include information regarding health insurance and wages, but limited data were available regarding bonuses. As a result of the findings for the UAR pilot study, the survey methodology was redesigned to provide a greater likelihood of obtaining a sufficient number of respondents to reliably report all information collected in the survey results.

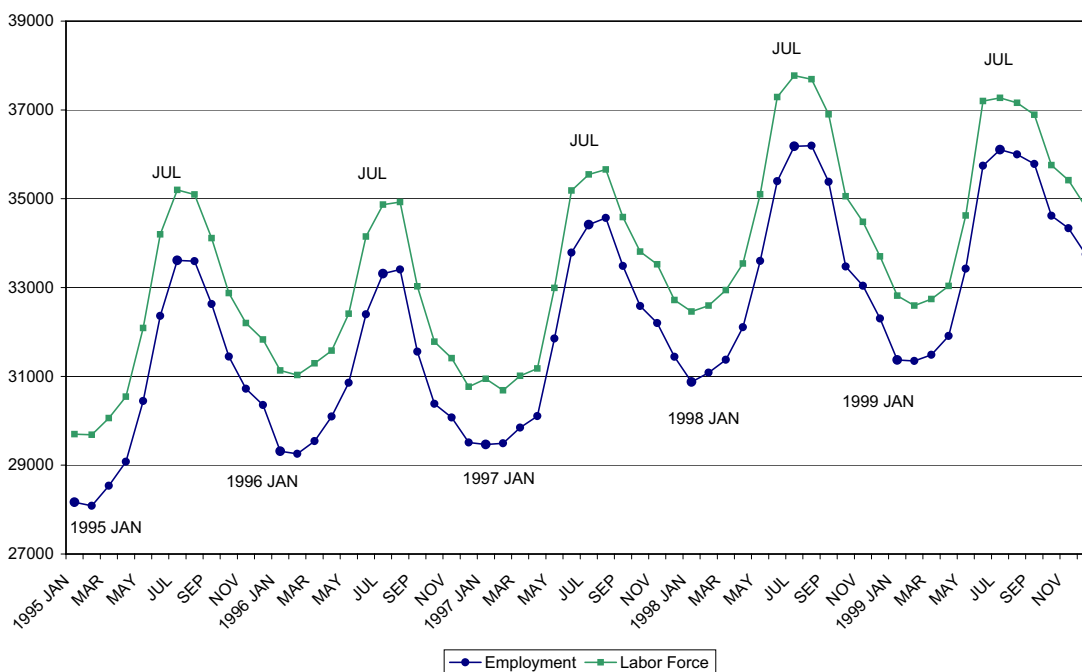


## Timing Considerations

The next survey in the UAR will be conducted in July of 2001. Future surveys will be conducted semi-annually in January and July. The timing of the survey was developed with

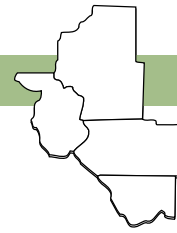
the intent of measuring the demand for labor at intervals that provide the most useful information (Figure 3).

**Figure 3: Employment in the Upper Arkansas Region**



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 outnumbering the employed consistently over time. 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 even when the labor supply is least constrained.

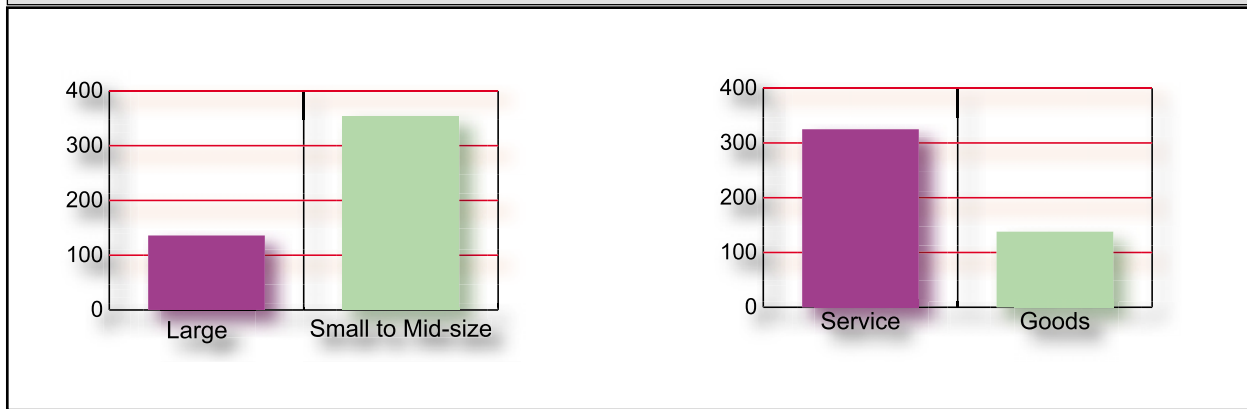


## Vacancies

**B**ased on the results of the survey, it is estimated that more than 450 positions were available to fill in firms with at least five employees for the UAR during the week of September 18, 2000. Nearly three-fourths of the

vacancies reported were for full-time/permanent employment. Small to mid-size and service producing employers account for most of the vacancies estimated in the area (Figure 4).

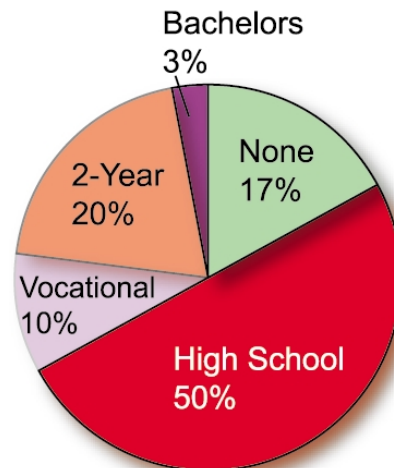
**Figure 4: Estimated Number of Vacancies by Employer Type**

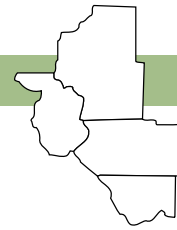


## Education Requirements

Employers were asked what level of education was required of an applicant in order to be considered for a particular vacancy. At the time of the survey, no vacancies were reported to require education beyond a bachelor's degree. Thirty-three percent of the openings were reported to require at least some post-secondary education, with the majority of those requiring a two-year degree. Half of the positions required at least a high school education while some required no formal education at all (Figure 5).

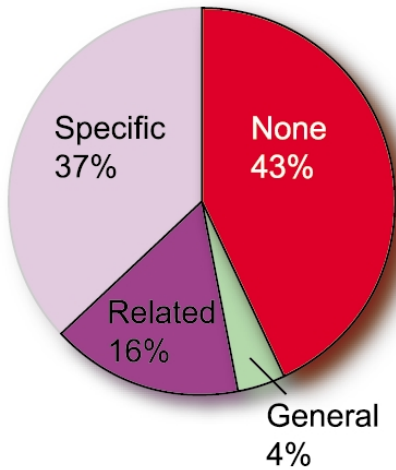
**Figure 5: Educational Requirements**





## Experience Requirements

**Figure: 6 Experience Requirements**



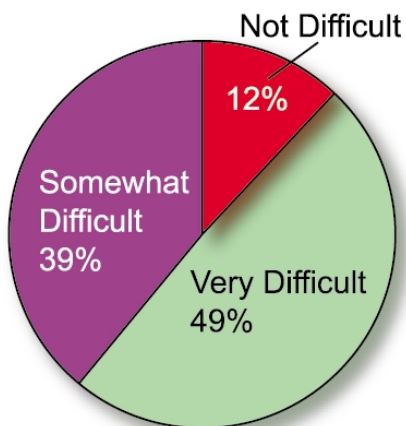
Of the vacancies reported to require some experience, the majority required it to be occupation-specific (Figure 6). Many vacancies required no work experience at all. In some of these cases, however, interviewers found that while it was not required, some experience was preferred.

## Difficulty to Fill

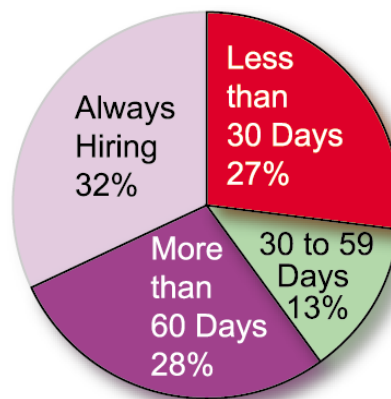
Because the response to the question, “Is this position difficult to fill?” is subjective, employers were queried as to how long each position had been open at the time of the survey. Knowing how long a position has been open allows further analysis into the subjectivity of the response to the first question. This information may help gain further insight concerning the challenges employers face in filling vacancies. Nearly half of the vacancies were reported to be “very

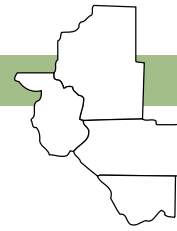
difficult” to fill (Figure 7) with only 12% considered as “not difficult.” Thirty-two percent of vacancies, however, were reported as “always hiring” (Figure 8). This does not necessarily suggest that there is growing demand for these positions, but may imply that a high job turnover rate exists. Position turnovers could be a result of the employee moving up or laterally within the company or leaving the firm.

**Figure: 7 Difficult to Fill**



**Figure: 8 Duration**





# Wages

## Employer Classification

According to the employers surveyed, the average wage rate offered for all vacancies was \$10.73 per hour. Further analysis of the data reveals differences in wage ranges between position characteristics among companies as well as the education and skill level required to fill a position.

Large companies offered higher wages than small to mid-size firms with a difference of approximately \$2.00 per hour across the minimum/maximum ranges. On average, large firms offered close to \$12 per hour while the small to mid-size firms offered \$10 (Table 3).

**Table 3: Wages for Large/Small to Mid-Size and Goods/Service-Producing Firms**

Employer Type	Average Wage		
	Minimum	Mid-Point	Maximum
Large	\$10.52	\$11.91	\$13.30
Small	\$8.53	\$9.96	\$11.39
Service	\$10.02	\$11.27	\$12.52
Goods	\$8.51	\$10.14	\$11.77

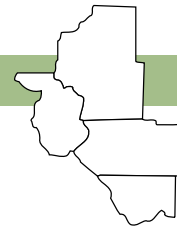
Businesses in the service producing industries offered slightly higher wages than those in the goods producing industries, with average wages of about \$11 and \$10 per hour respectively. This goes

against the commonly accepted belief that goods producing companies pay more than service producing.

## Occupation Status

The survey found that full-time and part-time positions offered similar wages, with an overall average of nearly \$11 per hour (Table 4). Permanent positions were also reported to pay close to \$11 per hour compared to tempo-

rary positions, which offered nearly \$4 per hour less on average. Almost 75% of the reported vacancies in the region were full-time/permanent jobs.



**Table 4: Wages for Full/Part-Time and Permanent/Temporary Positions**

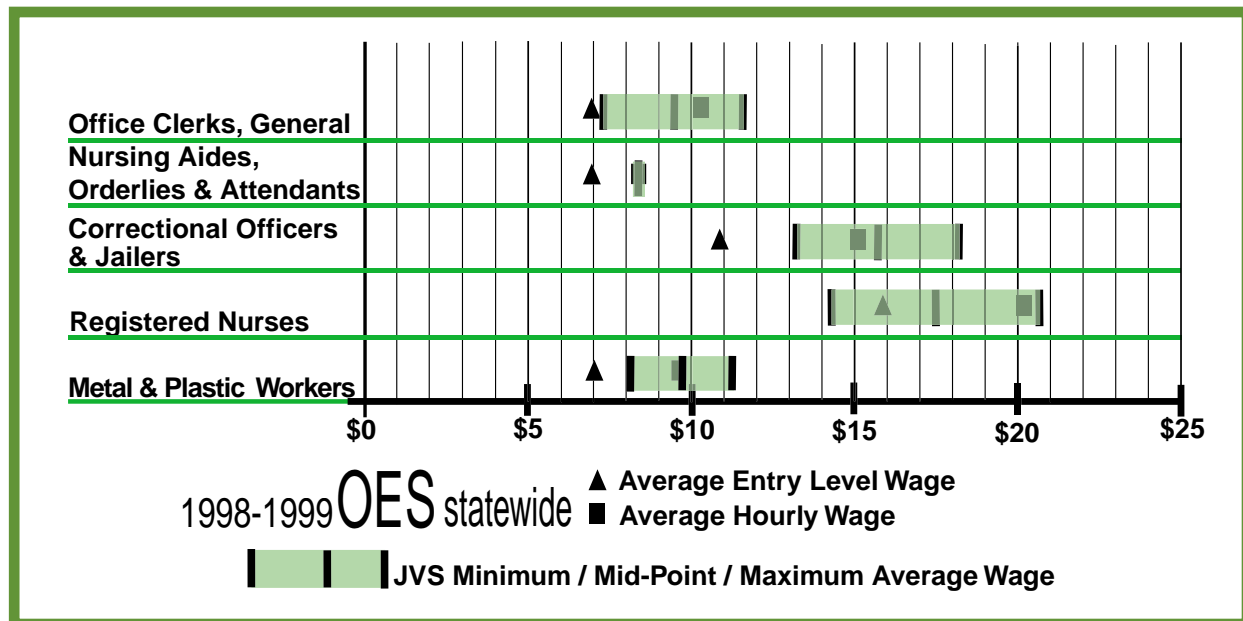
Position Status	Average Wage		
	Minimum	Mid-Point	Maximum
Full-Time	\$9.33	\$10.73	\$12.13
Part-Time	\$8.89	\$10.69	\$12.49
Permanent	\$9.63	\$11.16	\$12.69
Temporary	\$6.75	\$7.40	\$8.05

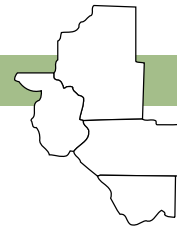
## Occupations With at Least 10 Vacancies Reported

Average wages offered to fill the occupations most frequently reported in the UAR were comparable to the state averages as reported by LMI (Table 5). The average minimum wage offered in the region, however, varied from the average entry-level wage reported by LMI for the state as a whole, with some wages above and others below.

Although Secondary School Teachers belong in this group there were insufficient data to report JVS wages. OES data from the 1998-1999 survey indicate the statewide average entry level and annual salaries for this occupation are \$25,300 and \$36,400, respectively.

**Table 5: Wages by Occupation in Upper Arkansas Region**



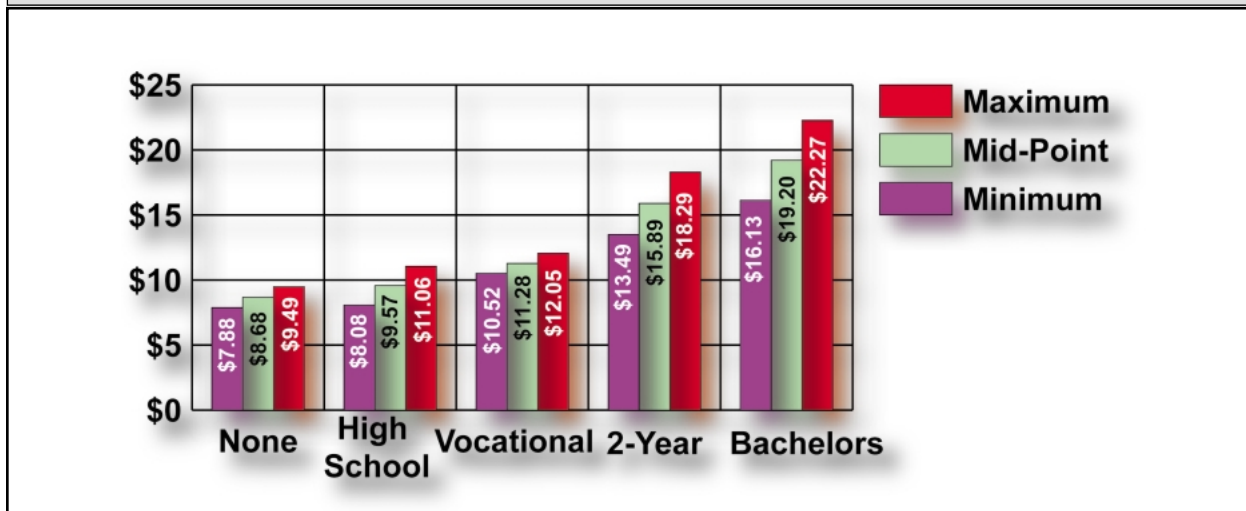


## Education and Wages

Sixty-seven percent of the vacancies reported required a high-school education or less. These occupations also offered a considerably lower rate of pay. The remaining 33% of UAR job openings requiring post-secondary edu-

cation offered nearly \$5 more per hour (Figure 9). As one would expect, the survey results exhibit a positive relationship between wages and education in the region, i.e. the higher the level of education required, the higher the rate of pay.

**Figure 9: Wage and Educational Requirements**

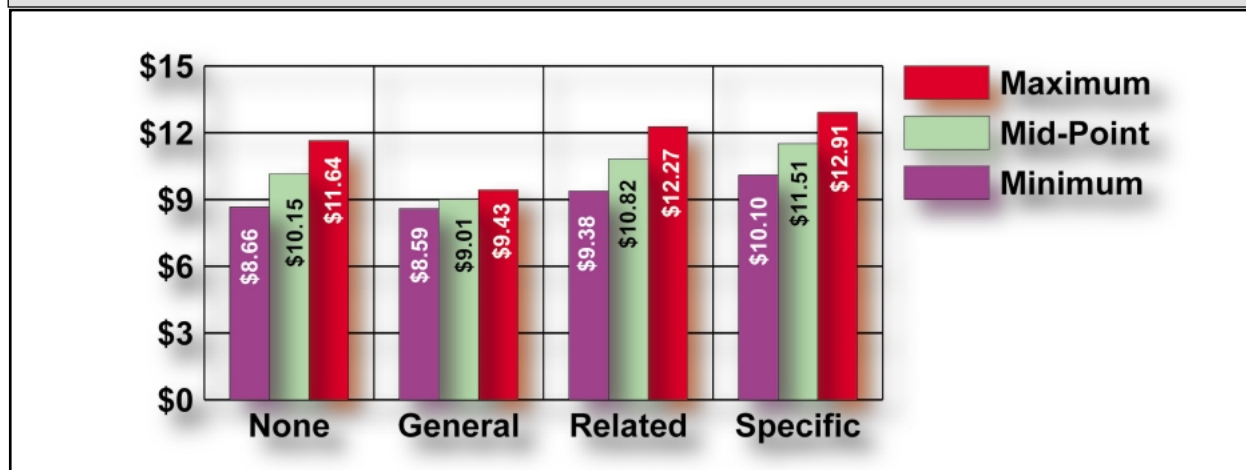


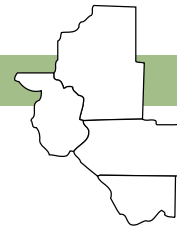
## Experience and Wages

Forty-three percent of businesses surveyed did not require prior work experience for the job openings. These vacancies were filled at only slightly lower wages than the overall average (Figure 10). Vacancies that did require some expe-

rience were associated with an increase in wages relative to an increase in experience. In a tight labor market, it is not unusual for employers to offer on-the-job training as well as higher wages to compete for the limited supply of labor.

**Figure 10: Wages and Experience Requirements**

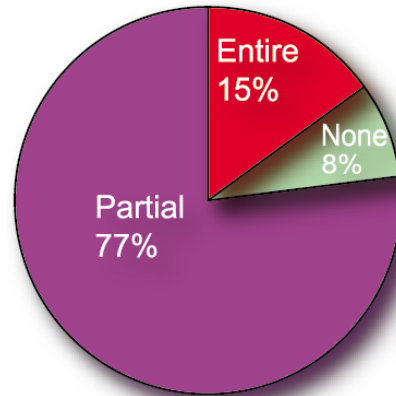




## Medical Insurance Benefits

Ninety-two percent of the vacancies reported by employers included some form of medical insurance as part of the compensation package (Figure 11). Less than 10% of the positions offering medical insurance required the employee to pay the full premium. In a tight labor market, medical insurance and other benefits are often used as incentives to attract prospective applicants.

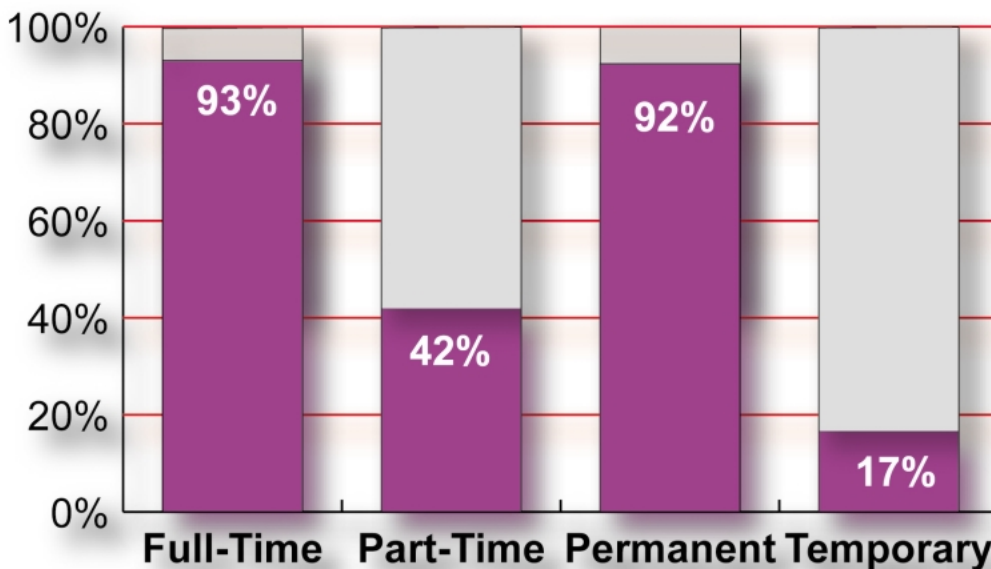
**Figure 11: Employer's Contribution to Medical Insurance Premium**



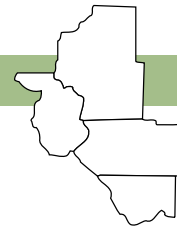
Between 70 and 85 percent of vacancies were offered medical insurance regardless of classification (large vs. small to mid-size employers or service vs. goods producing employers). Medical insurance was offered to nearly all full-time or

permanent positions, while only 42% of the part-time vacancies offered the benefit (Figure 12). More often than not, temporary positions did not offer medical insurance.

**Figure 12: Proportion of Vacancies Offering Medical Insurance**





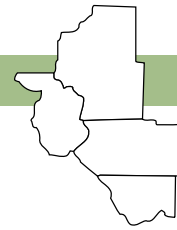


## Occupations

Occupation titles for all of the vacancies reported are provided on the following pages. Based on job titles and/or job descriptions supplied by employers at the time of the survey, vacancies were assigned O\*Net job titles which were then linked to Occupation Employment Statistics (OES) wage data. More information on the O\*Net occupational coding system is available at <http://online.onetcenter.org/>. OES Wage data pre-

sented are from the Central Colorado Wages, which includes Chaffee, Clear Creek, Custer, Fremont, Gilpin, Park, and Teller counties (more on OES Wage data: <http://lmi.cdle.state.co.us/wages/wages.htm>). Wage data not available for occupations in Central Colorado are statewide averages and are denoted with asterisks. The titles listed may provide a better understanding of the types of employment to which this report refers.

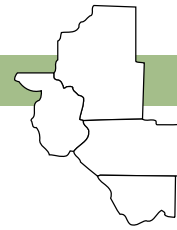
O*Net Code	O*Net Occupational Title	OES Average Hourly Wage (\$)
11-2011.00	Advertising and Promotions Managers	\$21.71
27-4011.00	Audio and Video Equipment Technicians	\$12.97*
51-5011.02	Bindery Machine Operators and Tenders	\$10.32*
49-3031.00	Bus and Truck Mechanics and Diesel Engine Specialists	\$15.15
51-3021.00	Butchers and Meat Cutters	\$12.27*
51-7011.00	Cabinetmakers and Bench Carpenters	\$11.23*
41-2011.00	Cashiers	\$8.61
15-1051.00	Computer Systems Analysts	\$29.21*
47-2061.00	Construction Laborers	\$10.25
33-3012.00	Correctional Officers and Jailers	\$15.04*
41-2021.00	Counter and Rental Clerks	\$6.75
43-4051.00	Customer Service Representatives	\$12.10*
29-2051.00	Dietetic Technicians	\$10.97*
49-2094.00	Electrical and Electronics Repairers, Commercial and Industrial Equipment	\$18.09*
49-9051.00	Electrical Power-Line Installers and Repairers	\$20.06*
47-2111.00	Electricians	\$15.40
53-7032.00	Excavating and Loading Machine and Dragline Operators	\$14.47
47-1011.00	First-Line Supervisors/Managers of Construction Trades and Extraction Workers	\$8.10
35-1012.00	First-Line Supervisors/Managers of Food Preparation and Serving Workers	\$17.05
53-1021.00	First-Line Supervisors/Managers of Helpers, Laborers, and Material Movers, Hand	\$15.22*
37-1011.00	First-Line Supervisors/Managers of Housekeeping and Janitorial Workers	\$11.63
51-1011.00	First-Line Supervisors/Managers of Production and Operating Workers	\$18.62
35-2021.00	Food Preparation Workers	\$7.00
49-9021.00	Heating, Air Conditioning, and Refrigeration Mechanics and Installers	\$16.14
37-2011.00	Janitors and Cleaners, Except Maids and Housekeeping Cleaners	\$7.70
53-7062.00	Laborers and Freight, Stock, and Material Movers, Hand	\$9.02
37-3011.00	Landscaping and Groundskeeping Workers	\$8.96*
51-6011.00	Laundry and Dry-Cleaning Workers	\$7.43
29-2061.00	Licensed Practical and Licensed Vocational Nurses	\$13.35
49-9042.00	Maintenance and Repair Workers, General	\$9.25
51-4000.00	Metal Workers and Plastic Workers	\$12.00



O*Net Code	O*Net Occupational Title	OES Average Hourly Wage (\$)
27-2042.02	Musicians, Instrumental	\$50,880 **
31-1012.00	Nursing Aides, Orderlies, and Attendants	\$8.22
43-9061.00	Office Clerks, General	\$8.77
29-1123.00	Physical Therapists	\$25.66
47-2152.00	Plumbers, Pipefitters, and Steamfitters	\$16.61*
51-5023.09	Printing Press Machine Operators and Tenders	\$12.73*
21-1092.00	Probation Officers and Correctional Treatment Specialists	\$19.47
51-9198.02	Production Helpers	\$9.02
51-9198.01	Production Laborers	\$9.02
27-3011.00	Radio and Television Announcers	\$13.14*
29-1111.00	Registered Nurses	\$16.81
41-2031.00	Retail Salespersons	\$9.52
25-2031.00	Secondary School Teachers, Except Special and Vocational Education	\$36,400 **
47-2211.00	Sheet Metal Workers	\$13.01*
43-5081.00	Stock Clerks and Order Fillers	\$9.55*
43-5081.03	Stock Clerks- Stockroom, Warehouse, or Storage Yard	\$9.13
41-9041.00	Telemarketers	\$9.16
53-3032.01	Truck Drivers, Heavy	\$15.24*
53-3032.00	Truck Drivers, Heavy and Tractor-Trailer	\$15.24*
53-3033.00	Truck Drivers, Light or Delivery Services	\$10.27
25-1194.00	Vocational Education Teachers Postsecondary	\$33,260 **

\* Wages reported for Colorado State-Wide

\*\* Annual Salaries reported for Colorado State-Wide



## Methodology

### Survey Instrument and Redesign

The Job Vacancy Survey was initiated in Denver and five other MSA's across the nation as a pilot study regarding the nature of vacant positions in the labor market. As a result of the success of the Denver Job Vacancy Survey, studies have been approved for all of Colorado's Workforce Development Regions.

After evaluation and redesign of the survey instrument, the JVS was introduced to the Upper Arkansas Region as the pilot study of the first rural area. In choosing questions, considerations were made regarding various form and gradations. Decisions were made to address the core of what was required in order to stay within the defined limits. Page one (Part A) of the survey was expanded to not only 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 page two (Part B) 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 in addition to the vacancy classification of Full- or Part-time status.

C: Wages/Salary: This question was revised to request the maximum and the minimum rate 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?" This has become

an important question to gauge the extra effort to which employers are going to hire qualified staff. In addition to noting whether or not a bonus is offered, the revised survey allowed a dollar amount to be entered. While the Upper Arkansas Region pilot study did not produce enough data to present the sign-on bonus results, future surveys may offer such results for businesses to compare the use of this incentive.

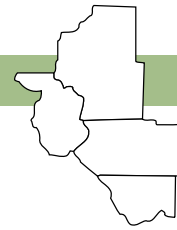
E: "Is medical insurance offered?" In addition, the revised survey prompted for the portion (if any) that the firm contributed. To better understand the relationship between types of positions, pay, vacancies, and the existence of medical insurance, it was important to note how much the firm contributed 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, applicant qualifications demanded 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

The central question this survey is designed to answer is: what is the frequency of job vacancies in the Upper Arkansas Region? The types of firms were categorized into groups, or stratifications, and the resulting percentages of vacancies for each category were used to estimate total job vacancies from each group.

In order to define the types of firms to place into the stratifications, the following decisions were made. Only firms with five or more employ-

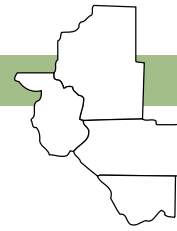
ees were included in the survey. To protect confidentiality among the firms sampled, analysis was kept at the broader categories of larger employers of all types and small to mid-size goods producing and service producing firms. The list of Upper Arkansas Region firms used for this survey, with their contact information, staff size and industry classification was obtained from the ALMIS database.

Goods Producing Industries	Service Producing Industries
<p><b>Agriculture, Forestry, and Fishing (except for Agricultural Service)</b></p> <p><b>Mining</b></p> <p><b>Construction</b></p> <p><b>Manufacturing</b></p>	<p><b>Transportation, Communications, and Public Utilities</b></p> <p><b>Wholesale Trade</b></p> <p><b>Retail Trade</b></p> <p><b>Finance, Insurance, and Real Estate</b></p> <p><b>Services (including Agricultural)</b></p> <p><b>Public Administration</b></p>

The list of employers was categorized into the three main groups; large employers (80 or more); small to mid-sized (5 to 79) goods producing; and small to mid-sized service producing firms.

Attempts were made to contact all 37 of the large employers. The lists of the small to mid-

sized goods and service producing groups were randomized. A sample of sufficient size to achieve a predictable level of accuracy for the estimates of job vacancies was taken from the randomized lists. A total of 119 of the firms in the small to mid-sized employers responded to the survey.



## 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. For example: Consider three households A, B and C, with annual income of \$30,000, \$44,000 and \$40,000 respectively. The average income for the three households will be calculated as follows:

$$\begin{aligned} & \text{Average Household income} \\ = & \frac{\text{The sum of individual households income}}{\text{The number of households}} \\ = & \frac{\$30,000 + \$44,000 + \$40,000}{3} = \$38,000 \end{aligned}$$

### 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.

### 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.

### O\*Net Occupation Codes

The O\*NET database includes information on skills, abilities, knowledge, work activities, and interests associated with occupations. This information can be used to facilitate career exploration, vocational counseling, and a variety of human resources functions, such as developing job orders and position descriptions and aligning training with current workplace needs.

Information on O\*NET is available for over 950 occupations. Each occupational title and code is based on the most current version (1999) of the Standard Occupational Classification system.

Definition from the O\*NET Welcome web page: <http://online.onetcenter.org/>

### 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.

### Sign-on Bonus

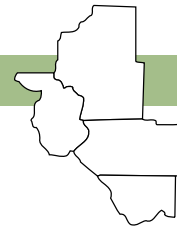
An additional financial incentive offered by a firm to new employees in order to influence their decisions to agree to employment with that firm. The bonus, for purposes of this survey, is a monetary lump sum.

### 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 Job Vacancy Survey

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 (303) 620-4988.

For the purposes of this survey, a vacancy at your company is a job opening for which your firm is actively recruiting. For different job sites, please list vacancies on separate forms. Only provide information for job vacancies in the following counties, which make up the Upper Arkansas area:

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 area: \_\_\_\_\_
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 ➡**

