## Northwest \&



Conducted
July 11 - July 27, 2001
Clear Creek, Eagle, Garfield, Gilpin, Grand, Jackson, Lake, Moffat, Pitkin, Rio Blanco, Routt, \& Summit Counties

## November 2001



# Northwest \& Rural Resort Region Job Vacancy Survey 

Conducted<br>July 11 - July 27, 2001

State of Colorado<br>Bill Owens, Governor

# Colorado Department of Labor \& Employment <br> Vickie Armstrong, Executive Director <br> Jeffrey M. Wells, Deputy Executive Director 

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## Contents

Introduction .....  1
How to Use This Report ..... 2
Employers .....  2
Job Seekers ..... 2
Workforce Centers .....  3
Economic Developers .....  3
Caveats .....  4
Executive Summary ..... 5
Northwest \& Rural Resort Region .....  6
JVS Sample .....  8
The Survey Instrument .....  8
Timing Considerations .....  9
Labor Market Conditions ..... 10
Vacancies and Wages ..... 11
Medical Insurance and Wages ..... 12
Education and Experience Requirements ..... 13
Education and Wages ..... 14
Experience and Wages ..... 15
Difficulty to Fill ..... 15
Sign-On Bonus ..... 17
Occupations ..... 18
Methodology ..... 27
Survey Instrument and Redesign ..... 27
Survey Sample Methodology ..... 28
Data Editing and Cleaning ..... 28
Definitions ..... 29
Appendix ..... 30
Survey Instrument ..... 30

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## List of Figures

1. Colorado Job Vacancy Survey Regions ........................................................ 1
2. Unemployment Rates for June 2001.............................................................. 6
3. Employment by Industry .............................................................................. 6
4. Northwest \& Rural Resort Region Employers and Employees in the 2nd Quarter, 2000.... 7
5. Annual Growth of Employment and Labor Force ......................................... 7
6. Historical Employment Trends for Northwest \& Rural Resort Region ........ 9

7a. Permanent vs. Temporary, Full Time vs. Part Time Employment .............. 10
7b. Vacancies by Stratification .......................................................................... 10
8. Average Wage by Firm Size and Product Group ........................................ 11
9. Average Wage by Status .............................................................................. 12
10. Employer's Contribution to Medical Insurance Premium ........................... 12
11. Average Wage by Medical Insurance Offered ............................................ 12
12. Medical Insurance by Vacancy Status ......................................................... 13
13. Vacancies by Education .............................................................................. 14
14. Range of Average Wages by Education ..................................................... 14
15. Vacancies by Experience ............................................................................ 15
16. Average Wage by Experience ...................................................................... 15
17. Difficulty to Fill ........................................................................................... 15
18. Duration of Vacancies .................................................................................. 15
19. Average Wage by Difficult to Fill ................................................................. 16
20. Average Wage by Vacancy Duration............................................................ 16
21. Sign-On Bonus ............................................................................................ 17
22. Vacancies by Major Occupational Groups ................................................... 18
23. Range of Average Wages by Major Occupational Group ............................. 19

## List of Tables

1. Goods and Service Producing Industries ...................................................... 8
2. Experience Requirements by Educational Level ........................................ 13
3. OES Wage Data for Occupations with 10 or More Vacancies .................... 20
4. OES Wage Data for Occupations with Fewer Than 10 Vacancies ............... 23

## 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

Figure 1: Colorado Job Vacancy Survey Regions

such, individuals preparing themselves for the job market have done so with limited knowledge of what proficiencies are necessary to successfully compete in the contemporary labor market.

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

The Job Vacancy Survey (JVS) was adopted by Colorado's Department of Labor and Employment (CDLE) 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 all other regions in the entire state of Colorado (Figure 1). The Denver Metro JVS instrument was revised in the fall 2000 report to eliminate ambiguity and enhanced to gather more specifics on the job vacancy within the survey constraints.

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


## 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

TThe 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.

The Job Vacancy Survey will also identify specific issues regarding current vacancies and prompt deci-sion-makers to take remedial actions where necessary. 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.

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 carrier goals. With information the report provides, job seekers can better tailor their 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 www.coworkforce.com/lmi/oeo/oeo.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

TThe Job Vacancy Survey statistics should be used as indicators, not actual values of the demand for workers in the Northwest \& Rural Resort 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 11th through 27th and should not be considered as necessarily portraying the exact distribution of job vacancies in the 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 first Northwest \& Rural Resort Job Vacancy Survey was conducted from July 11th through July 27th, 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 916 employers responded to the survey out of 950 contacted ( $97 \%$ effective response rate). Out of these, 76 are large employers ( 150 or more employees) and 840 are from the small to mid-size category (5-149 employees). The major findings of the survey are as follows:

- It is estimated that a total of 2,700 jobs were open for hire in the Northwest \& Rural Resort Region during the survey period.
- A total of 2,430 jobs are estimated to be full-time permanent openings while 140 are part-time permanent openings.
- Thirty jobs are estimated to be part-time temporary and 110 are full-time temporary positions.
- About $84 \%$ of the estimated job openings are in service producing industries. The remaining $16 \%$ are in goods producing industries.
- The overall average wage for all vacancies is $\$ 14.60$ per hour. Average wages for permanent positions exceed those of temporary positions at both the full-time and parttime levels.
- Both education and experience required have a significant positive influence on wages offered.
- Fifty-nine percent of the openings require experience in the specific position or in a related occupation.
- Eighty percent of the job openings are either very difficult to fill or somewhat difficult to fill.
- Thirty-five percent of employers provided full medical insurance coverage while $64 \%$ provided partial cost coverage.
- Employers offered sign-on bonuses for only 4\% of the vacancies.


## Northwest \& Rural Resort Region

The Northwest \& Rural Resort Region (NW\&RRR), made up of Clear Creek, Eagle, Garfield, Gilpin, Grand, Jackson, Lake, Moffat, Pitkin, Rio Blanco, Routt, and Summit counties, has a population of more than 198,600 residents. ${ }^{1}$ The region employed over 105,900 individuals from a labor force pool of about 108,300 people in July 2001, according to Colorado's Labor Market Information, Local Area Unemployment Statistics. Employment distribution by county varies from a low of less than $1 \%$ in Jackson County to a high of $24 \%$ in Garfield County. Garfield, Eagle, Summit and Routt counties account for a total of about $66 \%$ of all employment in the region. While Moffat, Grand and Pitkin counties account for about $20 \%$ of the regional employment, Clear Creek, Gilpin, Rio Blanco, Lake and Jackson counties account for about $14 \%$. In the period between July 2000 and July 2001, the labor force in the area increased by $3.7 \%$. Total employment in the area increased by $3.9 \%$ over the same period effectively

Figure 2: Unemployment Rates for July 2001


Figure 3: Employment by Industry



Mining 1\% Construction 13\%

Manufacturing 2\% TCPU 3\%

Wholesale Trade 2\%

Retail Trade 23\%
reducing unemployment by $3.3 \%$. While overall the unemployment rate for the region was $2.7 \%$, unemployment varied from a low of $1.6 \%$ in Routt County to $4.2 \%$ in Clear Creek County ${ }^{2}$ (Figure 2).

[^0]

The region is dominated by a large number of firms with fewer than five employees, which account for $64 \%$ of the firms in the area. However, in terms of employment, these firms account for only $15 \%$ of the total. The small to mid-size firms (5-149 employees) account for about $36 \%$ of all firms in the region and $57 \%$ of total employment. Large firms, on the other
hand, employing more than 150 individuals, account for less than $1 \%$ of the regional firms and $28 \%$ of total employment. Figure 4 shows the distribution for each of the major industry divisions according to the 1987 release of the Standard Industrial Classification Manual during the second quarter of 2000.


Figure 5: Annual Growth of Employment and Labor Force

With the exception of 1998, employment growth in the Northwest \& Rural Resort Region outpaced that of the labor force in the past four years. The growth difference ranged from a low of $1.30 \%$ (1998) to a high of $5.20 \%$ in 2000. Overall, the growth in employment exceeded the growth in labor force by about 2.30\% (Figure 5).


## The JVS Sample

The premier Northwest \& Rural Resort Job Vacancy Survey was conducted from July 11th through July 27th, 2001. The survey instrument upon which the telephone questionnaire was based (Appendix l) was developed, tested, and enhanced to increase information available for analysis by the Workforce Research and Analysis office of Colorado Department of Labor and Employment.

For the purpose of this report, all employers with 5 or more employees are referred to as the "sample universe." Workers in the sample universe account for approximately $85 \%$ of the total employment in the region. Employers with at least 150 employees are
referred to as "large employers." They account for about $33 \%$ of the employment in the sample universe. Firms employing 5 to 149 individuals are considered "small to mid-size employers," and account for the remaining $67 \%$ of sample universe employment.

For the small to mid-size employers, the survey was stratified by goods and service producing industries (Table 1). To achieve a solid representation from each industry group 360 completed responses were required for each stratification. Attempts were made to contact all employers in the "large employer" category in the region.

| Table 1: Goods and Service Producing Industries |  |
| :--- | :--- |
| Goods Producing Industries | Service Producing Industries |
| Agriculture, Forestry, and Fishing (except <br> Agricultural Services) <br> Mining | Transportation, Communications, and <br> Public Utilities <br> Construction <br> Manufacturing |
|  | Retail Trade |
|  | Finance, Insurance, and Real Estate <br> Services (including Agricultural Services) <br> Public Administration |

Over the survey period a total of 916 employers, approximately $16 \%$ of the NW\&RR employers in the sample universe, responded to the survey. Out of these,

86 were large employers and 830 were small to midsize employers. Fifty-nine percent were in the service producing and $41 \%$ in the goods producing industries.

## The Survey Instrument

Employers were asked if they had job vacancies, or _open positions, which they were actively seeking to fill. About one-fifth of the firms contacted reported at least one vacancy. Firms actively recruiting were then asked to provide more details 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 position had been open
was collected. ${ }^{1}$ Whenever necessary, employers were contacted again 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 to describe in more detail the compensation offered.


## Timing Considerations

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 historical employment trends for the Northwest \& Rural Resort Region indicates that
employment levels are at their lowest in May and October and peak in or around the months of February and July. The Job Vacancy Survey is conducted semiannually in February and July to measure demand for labor at its peaks (Figure 6).

Figure 6: Historical Employment Trends for Northwest \& Rural Resort Region


## Labor Market Conditions

During the survey period, an estimated 2,700 vacancies were open for immediate hire in the Northwest \& Rural Resort Region. About $90 \%$ of the reported vacancies are for full-time permanent employment and $5 \%$ are for parttime permanent positions. Vacancy distribution between part-time temporary and full-time temporary employment is $1 \%$ and $4 \%$, respectively (Figure 7a).

Figure 7b:
Vacancies by Stratification


Figure 7a:
Permanent vs. Temporary, Full Time vs. Part Time Employment


Part-time
Temporary


Small to mid-size firms, (comprising of approximately $66 \%$ of the region's total employment) account for $1940(72 \%)$ of the total estimated vacancies while large firms account for 760 (28\%) of the estimated vacancies. The distribution of vacancies between goods and service producing industries is $16 \%$ and $84 \%$, respectively (Figure $7 b$ ).


## 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 (Figure 8):

- The overall average wage offered for all vacancies is $\$ 14.60$ per hour.
- The average minimum wage offered for all vacancies is $\$ 13.00$ and the average maximum is $\$ 16.30$ per hour.
- Sixty-six percent of the vacancies offer a wage rate lower than the overall average. Fifty-six percent of these are small firms, and $80 \%$ are goods producing industries.
- Sixty-Six percent of the vacancies offering wages above the overall average are in the goods producing industries. Fifty-Six percent of these are small firms.

Figure 8: Average Wage by Firm Size and Product Group


Service producing industries offered slightly higher wages than those offered in the goods producing industries. While the average minimum wage for small firms is about $\$ 1.40$ above those for large firms, average maximum wages for large firms tends to be slightly higher than those for smaller firms.


Figure 9: Average Wage by Status


The survey found a marked difference between wages paid for fulltime/permanent and full-time/temporary positions employment. While the wage difference between the two vary from a low of $\$ 1.90$ to a high of $\$ 3.70$ for the average minimum and maximum wages, that for part-time/temporary and part-time/permanent vary from a low of $\$ 0.60$ to $\$ 1.10$.

On average, a full time permanent position paid about $\$ 5.00$ higher than a part-time permanent position. A full-time temporary position paid $\$ 3.00$ higher than a part-time temporary position (Figure 9). About 90\% of the reported vacancies were for full-time/permanent positions.

## Medical Insurance and Wages

Almost all vacancies reported by employers include some form of medical insurance. Employers offer to pay the entire premium for $35 \%$ of all vacancies reported and a portion of the premium for $64 \%$ of the vacancies.


Figure 10:
Employer's Contribution to Medical Insurance Premium

## Total Cost of Premium

 35\%No Monetary
Contribution
Towards
Premium

$$
1 \%
$$

 Premium 64\%

Survey results reveal a positive relationship between wage and medical insurance coverage offered (Figure 11). As higher paying jobs require higher levels of education and experience, employers offer better medical insurance packages to attract qualified candidates. Businesses that pay the total cost of the medical insurance premium offer an average wage of $\$ 17.70$ per hour for the reported vacancies. At the other end of the spectrum, positions where no monetary contribution is offered towards the insurance premium pay an average wage of $\$ 9.00$ per hour.


Survey results also reveal the following (Figure 12):

- The proportion of vacancies for which employers offer to pay a portion of the medical insurance premium is higher for permanent positions than temporary.
- The proportion of vacancies for which employers offer to pay the total cost of the medical insurance premium is higher for fulltime positions than part-time regardless of whether it is permanent or temporary.
- The proportion of vacancies for which employers offer no monetary contribution towards the premium is higher in part-time than full-time vacancies regardless of whether the position is permanent or temporary.

Figure 12: Medical Insurance by Vacancy Status


## Education and Experience Requirements

Table 2: Experience Requirements by Educational Level

|  | No Experience | General Work <br> Experience | Experience in <br> Related Field | Experience in <br> This Occupation |
| :--- | :---: | :---: | :---: | :---: |
| No Diploma | $41 \%$ | $26 \%$ | $13 \%$ | $20 \%$ |
| High School Diploma/GED | $27 \%$ | $20 \%$ | $21 \%$ | $32 \%$ |
| Vocational Training/Certification | $19 \%$ | $2 \%$ | $17 \%$ | $62 \%$ |
| Two-Year Degree | $0 \%$ | $0 \%$ | $29 \%$ | $71 \%$ |
| Bachelor's Degree | $10 \%$ | $14 \%$ | $19 \%$ | $57 \%$ |
| Advanced Degree | $0 \%$ | $0 \%$ | $29 \%$ | $71 \%$ |

Employers' experience requirements are as follows (Table 2):

Seventy-nine percent of job openings that require at least Vocational Training/Certification also require either experience in a related field or experience specific to the occupation.

- For positions at the high school diploma/GED level, $53 \%$ of employers are seeking to hire people with experience in a related field or in the specific occupation.
- About sixty percent of positions that require no diploma required at least some general work experience.


## Education and Wages

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 $68 \%$ of the positions reported by employers require no post-secondary education. Twenty-six percent require vocational training or certification.


Figure 14: Range of Average Wages by Education

| | JVS Minimum / Mid-Point / Maximum Average Wage

Employers add a substantial premium to wage compensation when requiring higher levels of educational attainment (Figure 14). The highest wage rate difference ( $\$ 13.50$ per hour) was found between a two-year
and a Bachelor's degree. The requirement of vocational training or certification increases the wage rate by $\$ 4.80$ per hour from a high school diploma/GED.


## Experience and Wages

One-fifth of the reported job openings do not require prior work experience compared to $49 \%$, which require general work experience or experience in a related field. Openings requiring experience in the occupation form $31 \%$ of all reported vacancies.

Figure 16: Average Wage by Experience


Figure 15: Vacancies by Experience


Survey results indicate that employers are willing to pay more for higher experience levels. The higher pay scale ranges from less than $\$ 1.00$ per hour at the general work experience level to almost $\$ 2.00$ at the experience in this occupation level.

## 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. Survey results show that employers do perceive difficulties in filling open positions. Eighty percent of the vacancies reported are classified as either "somewhat" or very difficult to fill with the remaining $20 \%$ considered not difficult to fill (Figure 17).

Figure 18: Duration of Vacancies

Figure 17: Difficulty to Fill
 always hiring, compared to $33 \%$ which are open for a period less than 30 days (Figure 18).

Figure 19: Average Wage by Difficult to Fill


Analysis of wage information reported by employers highlights 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 tend to be filled quickly if the wage offered is around the market average. Positions that pay significantly less than the average are typically more challenging to fill.

Wages for positions perceived to be very difficult and "somewhat difficult" to fill are approximately $8 \%$ and $1 \%$ over the average wage offered for positions not difficult to fill. Vacancies open for continuous hire offer an average wage of $\$ 11.40$ per hour (Figure 20).


Figure 20: Average Wage by Vacancy Duration


## OTHER FINDINGS:

- Seventy-one percent of positions requiring no diploma and $63 \%$ of positions requiring a high school diploma/GED were open for less than 30 days. In each category, about $25 \%$ of these positions were always open for hire.
- A majority of positions requiring either vocational training/certification or two-year degrees have been open for less than 60
days. Between $35 \%$ and $47 \%$ of these positions are always open for hire.
- Eighty-six percent of positions for which an advanced degree is preferred were open for less than 30 days as compared to about $49 \%$ for positions requiring a Bachelor's degree. None of the positions requiring an advanced degree and about $21 \%$ of those requiring a Bachelor's degree are open for continuous hire.



## Sign-On Bonus

f all vacancies reported, only $4 \%$ offer sign-on bonuses (Figure 21). The bonus amounts ranged from a minimum of $\$ 100$ to a maximum of $\$ 2,000$. The mean sign-on amount was $\$ 690$. Sixty-percent of positions for which sign-on bonuses are offered come from goods producing firms. Service producing firms account for the remaining 40\%.

Figure 21: Sign-On Bonus


## Occupations

The number of vacancies varies greatly between major occupational groups. Out of the 19 major occupational groups, nine groups have more
than 100 openings. More than three quarters of the estimated vacancies fall in the top eight major occupational groups in Figure 22.


Employers reported 154 different occupations with at least one vacancy. The average number of job openings per occupation is 18 . About $36 \%$ of all occupations are above the average number of vacancies per occupation while the remaining $64 \%$ are below the average.

Occupational groups with high levels of educational requirements such as Healthcare Practitioners and

Technical, Business and Financial, Life, Physical \& Social Services, Architecture and Engineering, as well as Computer and Mathematical offer the highest wages. Although the wage ranges between the minimum and maximum offered for these occupational groups varies, they tend to be wider compared to other groups (Figure 23).

Figure 23: Range of Average Wages by Major Occupational Group


JVS Average Wage - Minimum / Mid-Point / Maximum

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 and Grounds Cleaning and Maintenance.

Over one-third of the vacancies reported are in the top ten occupations by openings (Table 3); 74\% of the openings are in the top $25 \%$ of the occupations listed.

Table 3: Occupations with 10 or More Vacancies

| $\begin{aligned} & \text { SOC } \\ & \text { CODE } \end{aligned}$ | SOC TITLE | Estimated <br> Number of <br> Vacancies | Average Wage Offered, Summer 2001 | Occupational Employment Statistics Wage Data 2000 |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Average Wages |  |  | Percentile Distribution |  |  |  |  |  |
|  |  |  |  | Entry | Overall | Experienced | 10th | 25th | 50th | 75th | 90th |  |
| 35-3031 | Waiters and Waitresses | 208 | \$5.50 | \$5.90 | \$7.00 | \$7.50 | \$5.80 | \$5.90 | \$6.20 | \$7.00 | \$10.50 |  |
| 53-3033 | Truck Drivers, Light or Delivery Services | 109 | \$12.00 | \$8.80 | \$11.00 | \$12.10 | \$8.10 | \$9.20 | \$10.50 | \$12.60 | \$15.20 |  |
| 29-1111 | Registered Nurses | 109 | \$24.80 | \$15.70 | \$19.90 | \$21.90 | \$14.70 | \$17.20 | \$20.00 | \$22.80 | \$9.00 |  |
| 53-3032 | Truck Drivers, Heavy and Tractor-Trailer | 107 | \$13.50 | \$12.70 | \$16.70 | \$18.70 | \$12.00 | \$13.50 | \$16.60 | \$19.70 | \$21.50 |  |
| 43-4081 | Hotel, Motel, and Resort Desk Clerks | 105 | \$10.80 | \$7.80 | \$9.70 | \$10.60 | \$7.40 | \$8.10 | \$9.40 | \$11.50 | \$11.80 |  |
| 37-2012 | Maids and Housekeeping Cleaners | 95 | \$9.90 | \$7.10 | \$9.50 | \$10.60 | \$6.50 | \$7.70 | \$9.60 | \$10.90 | \$12.50 |  |
| 51-9199 | Production Workers, All Other | 88 | \$10.50 | \$8.80 | \$12.30 | \$14.00 | \$8.10 | \$9.60 | \$12.00 | \$13.90 | \$13.20 |  |
| 33-9091 | Crossing Guards | 83 | \$10.50 | \$6.20 | \$9.50 | \$11.10 | \$5.90 | \$6.60 | \$8.80 | \$12.30 | \$14.60 | ** |
| 17-2050 | Civil Engineer | 81 | \$15.30 | \$18.40 | \$25.40 | \$28.90 | \$17.20 | \$20.40 | \$24.80 | \$30.70 | \$37.80 |  |
| 47-2031 | Carpenters | 77 | \$15.50 | \$13.00 | \$16.00 | \$17.60 | \$12.20 | \$13.70 | \$15.80 | \$17.80 | \$20.70 |  |
| 41-2011 | Cashiers | 69 | \$9.40 | \$7.30 | \$9.50 | \$10.60 | \$6.70 | \$7.70 | \$9.20 | \$10.80 | \$17.50 |  |
| 35-2011 | Cooks, Fast Food | 66 | \$10.30 | \$5.90 | \$6.50 | \$6.90 | \$5.80 | \$5.90 | \$6.20 | \$6.80 | \$8.60 |  |
| 35-3021 | Combined Food Preparation and Serving Workers, Including Fast Food | 57 | \$6.80 | \$6.30 | \$8.10 | \$9.00 | \$6.00 | \$6.50 | \$7.90 | \$9.40 | \$10.70 |  |
| 35-2012 | Cooks, Institution and Cafeteria | 49 | \$11.80 | \$7.30 | \$9.10 | \$10.00 | \$6.80 | \$7.60 | \$8.70 | \$10.30 | \$36.50 |  |
| 35-3011 | Bartenders | 49 | \$6.40 | \$5.90 | \$7.20 | \$7.90 | \$5.80 | \$6.00 | \$6.60 | \$8.00 | \$10.10 |  |
| 53-7064 | Packers and Packagers, Hand | 47 | \$9.60 | \$6.10 | \$8.00 | \$9.00 | \$6.00 | \$6.40 | \$8.00 | \$9.50 | \$21.70 |  |
| 43-3071 | Tellers | 42 | \$13.30 | \$8.20 | \$10.40 | \$11.50 | \$7.30 | \$9.20 | \$10.90 | \$11.90 | \$15.10 |  |
| 37-2011 | Janitors and Cleaners, Except Maids and Housekeeping Cleaners | 40 | \$10.20 | \$8.30 | \$10.00 | \$10.90 | \$7.50 | \$9.10 | \$10.00 | \$10.90 | \$12.80 |  |
| 33-9099 | Protective Service Workers, All Other | 37 | \$13.50 | \$7.20 | \$12.00 | \$14.50 | \$6.70 | \$8.10 | \$11.00 | \$14.40 | \$10.10 |  |
| 47-2051 | Cement Masons and Concrete Finishers | 36 | \$13.60 | \$9.90 | \$10.40 | \$10.60 | \$9.10 | \$9.50 | \$10.10 | \$10.80 | \$11.40 |  |
| 47-2061 | Construction Laborers | 35 | \$11.30 | \$9.40 | \$11.80 | \$13.00 | \$9.00 | \$9.70 | \$11.00 | \$13.30 | \$50.50 |  |
| 31-9096 | Veterinary Assistants and Laboratory Animal Caretakers | 33 | \$11.10 | \$7.40 | \$8.50 | \$9.10 | \$7.10 | \$7.50 | \$8.20 | \$9.30 | \$11.30 | ** |
| 35-9031 | Hosts and Hostesses, Restaurant, Lounge, and Coffee Shop | 30 | \$6.60 | \$6.90 | \$9.10 | \$10.20 | \$6.10 | \$7.60 | \$9.60 | \$10.70 | \$11.60 |  |
| 37-2019 | Grounds Maintenance Workers, All Other | 28 | \$11.50 | * | * | * | * | * | * | * |  |  |
| 41-2030 | Retail Salesperson | 26 | \$25.20 | \$7.50 | \$10.90 | \$12.60 | \$7.10 | \$8.00 | \$9.80 | \$11.80 | \$15.70 |  |

Table 3: Occupations with 10 or More Vacancies - Page 2

| $\begin{aligned} & \text { SOC } \\ & \text { CODE } \end{aligned}$ | SOC TITLE | Estimated Number of Vacancies | Average Wage Offered, Summer 2001 | Occupational Employment Statistics Wage Data 2000 |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Average Wages |  |  | Percentile Distribution |  |  |  |  |  |
|  |  |  |  | Entry | Overall | Experienced | 10th | 25th | 50th | 75th | 90th |  |
| 37-3011 | Landscaping and Groundskeeping Workers | 26 | \$13.20 | \$8.50 | \$11.20 | \$12.50 | \$7.60 | \$9.40 | \$10.90 | \$13.00 | \$15.10 |  |
| 47-2152 | Plumbers, Pipefitters, and Steamfitters | 25 | \$16.80 | \$13.40 | \$19.40 | \$22.40 | \$12.60 | \$14.60 | \$18.90 | \$22.90 | \$12.20 |  |
| 25-2022 | Middle School Teachers, Except Special and Vocational Education | 25 |  | \$27,190 | \$36,760 | \$41,540 | \$25,350 | \$28,917 | \$35,635 | \$43,813 | \$51,639 |  |
| 33-1010 | First-Line Supervisors/Managers, Law Enforcement Workers | 25 | \$21.20 | \$20.20 | \$24.50 | \$26.70 | \$18.30 | \$21.80 | \$24.40 | \$27.20 | \$32.50 |  |
| 35-2021 | Food Preparation Workers | 25 | \$8.20 | \$7.50 | \$9.70 | \$10.90 | \$7.30 | \$8.10 | \$9.50 | \$11.00 | \$13.20 |  |
| 41-3099 | Sales Representatives, Services, All Other | 25 | \$7.50 |  |  |  |  |  |  |  | * |  |
| 35-3041 | Food Servers, Nonrestaurant | 22 | \$5.20 | \$6.00 | \$7.50 | \$8.20 | \$5.80 | \$6.10 | \$6.90 | \$9.20 | \$14.70 |  |
| 35-9011 | Dining Room and Cafeteria Attendants and Bartender Helpers | 30 | \$7.50 | \$5.90 | \$6.70 | \$7.20 | \$5.80 | \$6.00 | \$6.20 | \$7.30 | \$8.90 |  |
| 35-9021 | Dishwashers | 22 | \$6.90 | \$7.30 | \$9.30 | \$10.30 | \$7.10 | \$7.90 | \$9.30 | \$10.50 | \$39.00 |  |
| 47-2111 | Electricians | 21 | \$19.90 | \$18.90 | \$22.10 | \$23.70 | \$17.80 | \$19.50 | \$22.30 | \$25.30 | \$27.10 |  |
| 47-3012 | Helpers--Carpenters | 21 | \$20.50 | \$9.40 | \$12.20 | \$13.60 | \$8.30 | \$10.90 | \$11.80 | \$13.80 | \$16.50 |  |
| 43-6011 | Executive Secretaries and Administrative Assistants | 18 | \$11.00 | \$13.20 | \$16.20 | \$17.70 | \$12.10 | \$14.30 | \$16.00 | \$17.70 | \$21.00 |  |
| 43-4181 | Reservation and Transportation Ticket Agents and Travel Clerks | 18 | \$11.30 | \$9.90 | \$11.00 | \$11.60 | \$9.20 | \$9.60 | \$10.40 | \$11.20 | \$11.90 |  |
| 27-2022 | Coaches and Scouts | 17 |  | \$19,086 | \$34,052 | \$41,535 | \$17,845 | \$20,758 | \$25,764 | \$35,401 | \$67,209 |  |
| 29-2061 | Licensed Practical and Licensed Vocational Nurses | 17 | \$11.40 | \$10.50 | \$13.40 | \$14.80 | \$9.80 | \$11.40 | \$13.40 | \$15.50 | \$16.70 |  |
| 37-3019 | Ground Maintanance Worker | 17 | \$12.00 | \$7.90 | \$11.50 | \$13.20 | \$7.60 | \$8.50 | \$10.50 | \$15.00 | \$16.60 |  |
| 41-9099 | Sales and Related Workers, All Other | 17 |  | \$10.10 | \$19.30 | \$23.90 | \$8.80 | \$12.00 | \$16.70 | \$24.00 | \$33.00 | ** |
| 43-5071 | Shipping, Receiving, and Traffic Clerks | 17 | \$12.00 | \$8.60 | \$11.90 | \$13.50 | \$7.70 | \$9.50 | \$11.40 | \$14.90 | \$12.80 |  |
| 49-3091 | Bicycle Repairers | 17 | \$9.00 | \$7.70 | \$9.10 | \$9.90 | \$7.30 | \$7.90 | \$8.90 | \$10.20 | \$11.50 | ** |
| 11-9199 | Managers, All Other | 17 | \$14.30 | \$15.90 | \$24.30 | \$28.50 | \$13.30 | \$18.60 | \$24.10 | \$27.70 | \$36.10 |  |
| 31-1012 | Nursing Aides, Orderlies, and Attendants | 13 | \$15.50 | \$8.00 | \$9.70 | \$10.50 | \$7.60 | \$8.70 | \$9.70 | \$10.60 | \$11.80 |  |
| 35-1011 | Chefs and Head Cooks | 13 | \$5.20 | \$9.90 | \$16.40 | \$19.70 | \$9.50 | \$10.40 | \$15.20 | \$19.50 | \$21.70 |  |
| 43-9061 | Office Clerks, General | 13 | \$10.80 | \$6.90 | \$10.30 | \$12.00 | \$6.30 | \$7.90 | \$10.20 | \$12.60 | \$14.20 |  |
| 41-1011 | First-Line Supervisors/Managers of Retail Sales Workers | 12 | * | \$10.00 | \$16.80 | \$20.20 | \$9.30 | \$11.00 | \$14.40 | \$17.60 | \$28.00 | ** |

Table 3: Occupations with 10 or More Vacancies - Page 3

| $\begin{aligned} & \text { SOC } \\ & \text { CODE } \end{aligned}$ | SOC TITLE | Estimated Number of Vacancies | Average Wage Offered, Summer 2001 | Occupational Employment Statistics Wage Data2000 |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Average Wages |  |  | Percentile Distribution |  |  |  |  |  |
|  |  |  |  | Entry | Overall | Experienced | 10th | 25th | 50th | 75th | 90th |  |
| 47-2073 | Operating Engineers and Other Construction Equipment Operators | 12 | \$14.50 | \$14.20 | \$18.20 | \$20.20 | \$13.10 | \$15.00 | \$17.90 | \$20.70 | \$20.30 |  |
| 39-5094 | Skin Care Specialists | 11 |  |  |  |  | * |  |  |  |  |  |
| 43-4171 | Receptionists and Information Clerks | 11 | \$11.30 | \$7.60 | \$10.50 | \$12.00 | \$6.80 | \$8.60 | \$10.50 | \$12.40 | \$10.70 |  |
| 49-9043 | Maintenance Workers, Machinery | 11 | \$6.00 | \$11.10 | \$16.50 | \$19.30 | \$11.00 | \$11.60 | \$15.70 | \$21.60 | \$24.90 |  |
| 47-3013 | Helpers--Electricians | 10 |  | \$9.20 | \$13.10 | \$15.10 | \$8.50 | \$10.40 | \$12.70 | \$15.70 | \$19.50 | ** |
| 13-2011 | Accountants and Auditors | 10 | \$42.50 | \$14.30 | \$24.70 | \$29.80 | \$12.50 | \$16.20 | \$22.20 | \$28.80 | \$54.60 |  |
| 35-1012 | First-Line Supervisors/Managers of Food Preparation and Serving Workers | 10 | \$13.50 | \$10.40 | \$14.30 | \$16.20 | \$8.70 | \$12.00 | \$14.40 | \$16.80 | \$19.60 |  |
| 43-9199 | Office and Administrative Support Workers, All Othe | 10 | \$12.40 |  |  |  | * |  |  |  |  |  |
| 51-4121 | Welders, Cutters, Solderers, and Brazers | 10 | \$14.00 | \$10.80 | \$17.40 | \$20.70 | \$9.70 | \$12.40 | \$15.20 | \$22.90 | \$27.80 |  |

* No Wage Data Available
** Regional Wage Data
*** Annual Salaries

| $\begin{aligned} & \text { SOC } \\ & \text { CODE } \end{aligned}$ | SOC TITLE | Estimated Number of Vacancies | Average Wage Offered, Summer 2001 | Occupational Employment Statistics Wage Data$2000$ |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Average Wages |  |  | Percentile Distribution |  |  |  |  |  |
|  |  |  |  | Entry | Overall | Experienced | 10th | 25th | 50th | 75th | 90th |  |
| 11-1021 | General and Operations Managers | 8 | \$15.90 | \$15.40 | \$30.40 | \$37.90 | \$13.30 | \$17.60 | \$26.00 | \$41.60 | \$23.10 |  |
| 11-2021 | Marketing Managers | 8 |  | \$21.40 | \$36.00 | \$43.30 | \$18.00 | \$25.80 | \$34.80 | \$45.40 | \$57.20 | * |
| 11-3031 | Financial Managers | 8 | \$10.00 | \$17.00 | \$26.70 | \$31.60 | \$15.40 | \$19.10 | \$25.10 | \$31.70 | \$43.50 |  |
| 11-9080 | Lodging Manager | 8 | \$12.00 | \$15.90 | \$24.70 | \$29.10 | \$12.70 | \$18.30 | \$20.90 | \$30.80 | \$39.50 |  |
| 13-1079 | Human Resources, Training, and Labor Relations Specialists, All Other | 8 | \$18.90 | \$11.90 | \$16.40 | \$18.60 | \$10.50 | \$13.40 | \$15.80 | \$18.00 | \$21.50 |  |
| 13-2090 | Miscellaneous Financial Specialist | 8 |  |  |  |  |  |  |  |  |  |  |
| 13-2099 | Financial Specialists, All Other | 8 | \$17.00 | \$24.90 | \$29.50 | \$31.80 | \$23.60 | \$25.60 | \$29.20 | \$33.40 | \$25.20 |  |
| 15-2031 | Operations Research Analysts | 8 | \$17.30 | \$20.30 | \$26.90 | \$30.30 | \$18.70 | \$22.00 | \$26.80 | \$32.00 | \$35.40 | ** |
| 17-1022 | Surveyors | 8 | \$20.00 | \$13.80 | \$19.70 | \$22.70 | \$12.30 | \$13.90 | \$20.50 | \$24.10 | \$26.70 |  |
| 21-1014 | Mental Health Counselors | 8 | \$8.10 | \$9.70 | \$14.20 | \$16.50 | \$9.20 | \$10.00 | \$11.40 | \$16.90 | \$22.80 | ** |
| 27-3091 | Interpreters and Translators | 8 |  | \$10.10 | \$12.40 | \$13.60 | \$9.40 | \$11.00 | \$12.30 | \$13.60 | \$15.70 | ** |
| 33-3092 | Life Guard | 8 |  | \$6.30 | \$9.60 | \$11.20 | \$6.10 | \$6.90 | \$9.40 | \$11.20 | \$13.30 |  |
| 35-2019 | Building Cleaning Workers, All Other | 8 | \$7.70 |  |  |  |  |  |  |  |  |  |
| 39-5012 | Hairdressers, Hairstylists, and Cosmetologists | 8 |  | \$7.00 | \$9.30 | \$10.40 | \$6.50 | \$7.60 | \$9.00 | \$10.50 | \$12.30 | ** |
| 43-1011 | First-Line Supervisors/Managers of Office and Administrative Support Workers | 8 |  | \$11.70 | \$18.00 | \$21.20 | \$10.90 | \$13.30 | \$16.80 | \$20.90 | \$26.60 | ** |
| 43-2021 | Telephone Operators | 8 | \$7.50 | \$7.30 | \$9.90 | \$11.20 | \$6.60 | \$7.40 | \$8.80 | \$12.30 | \$14.90 | ${ }^{* *}$ |
| 43-4071 | File Clerks | 8 | \$12.00 | \$7.60 | \$9.90 | \$11.00 | \$7.00 | \$8.00 | \$9.60 | \$11.80 | \$13.40 |  |
| 53-2012 | Commercial Pilots | 8 |  | \$33,907 | \$48,885 | \$56,369 | \$29,696 | \$37,962 | \$47,749 | \$55,588 | \$77,852 |  |
| 53-6099 | Transportation Workers, All Other | 8 | \$9.00 | \$6.80 | \$10.20 | \$11.80 | \$6.20 | \$7.80 | \$11.20 | \$12.60 | \$13.40 |  |
| 41-2010 | Cashiers | 8 | \$9.70 | \$7.30 | \$9.50 | \$10.60 | \$6.70 | \$7.70 | \$9.20 | \$10.80 | \$13.20 |  |
| 29-2041 | Emergency Medical Technicians and Paramedics | 7 | \$12.10 | \$8.60 | \$11.20 | \$12.50 | \$8.00 | \$9.30 | \$10.90 | \$12.90 | \$14.70 |  |
| 39-9032 | Recreation Workers | 7 |  | \$6.80 | \$9.70 | \$11.10 | \$6.30 | \$7.50 | \$9.10 | \$10.80 | \$14.90 | ** |
| 43-3031 | Bookkeeping, Accounting, and Auditing Clerks | 7 | \$11.80 | \$9.50 | \$13.40 | \$15.40 | \$9.00 | \$10.70 | \$13.00 | \$15.40 | \$18.60 |  |
| 43-6013 | Medical Secretaries | 7 | \$18.70 | \$10.60 | \$12.70 | \$13.70 | \$10.70 | \$11.60 | \$12.80 | \$13.80 | \$15.00 |  |
| 49-3090 | Miscellaneous Vehicle and Mobile Equipment Mechanics, Installers, and Repairers | 7 | * | \$8.70 | \$14.00 | \$16.70 | \$7.70 | \$10.00 | \$14.10 | \$16.83 | \$20.70 | ** |
| 13-2021 | Appraisers and Assessors of Real Estate | 6 | \$13.00 | \$14.70 | \$22.80 | \$26.90 | \$13.80 | \$15.40 | \$17.30 | \$25.30 | \$50.50 |  |



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Table 4: Occupations with Fewer Than 10 Vacancies - Page 2

| CODE | SOC TITLE | Estimated Number of Vacancies | Average Wage Offered, Summer 2001 | Occupational Employment Statistics Wage Data 2000 |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Average Wages |  |  | Percentile Distribution |  |  |  |  |  |  |
|  |  |  |  | Entry | Overall | Experienced | 10th | 25th | 50th | 75th | 90th |  |  |
| 11-3010 | Administrative Services Manage | 5 | \$12.50 | \$13.80 | \$21.92 | \$26.00 | \$12.00 | \$16.50 | \$23.60 | \$26.40 | \$28.50 |  |  |
| 11-3071 | Transportation, Storage, and Distribution Managers | 5 |  | \$15.50 | \$26.90 | \$32.60 | \$13.30 | \$19.50 | \$25.60 | \$33.60 | \$43.00 |  |  |
| 29-1051 | Pharmacists | 5 | \$34.00 | \$26.40 | \$31.50 | \$34.00 | \$23.70 | \$28.40 | \$33.00 | \$38.70 | \$12.40 |  |  |
| 29-2099 | Health Technologists and Technicians, All Other | 5 | \$33.90 |  |  |  |  |  |  |  |  |  |  |
| 31-9099 | Healthcare Support Workers, All Other | 5 |  | \$8.00 | \$11.20 | \$12.80 | \$7.50 | \$8.80 | \$10.50 | \$12.90 | \$15.90 |  | ** |
| 33-9032 | Security Guards | 5 |  | \$7.70 | \$10.80 | \$12.30 | \$7.20 | \$8.20 | \$9.70 | \$11.80 | \$17.60 |  |  |
| 33-9092 | Lifeguards, Ski Patrol, and Other Recreational Protective Service Workers | 5 | \$10.80 | * | * |  |  |  |  |  |  |  |  |
| 35-2015 | Cooks, Short Order | 5 | \$13.00 | \$8.00 | \$10.30 | \$11.40 | \$7.60 | \$8.30 | \$9.90 | \$11.50 | \$12.20 |  |  |
| 39-9099 | Personal Care and Service Workers, All Other | 5 | \$13.10 | \$7.30 | \$8.60 | \$9.20 | \$7.00 | \$7.50 | \$8.20 | \$8.90 | \$8.60 |  |  |
| 43-4051 | Customer Service Representatives | 5 |  | \$9.20 | \$12.80 | \$14.60 | \$8.80 | \$9.90 | \$11.90 | \$14.90 | \$19.10 |  |  |
| 43-6014 | Secretaries, Except Legal, Medical, and Executive | 5 | \$12.60 | \$8.80 | \$11.80 | \$13.20 | \$8.10 | \$9.40 | \$11.10 | \$14.20 | \$11.50 |  |  |
| 51-1011 | First-Line Supervisors/Managers of Production and Operating Workers | 5 |  | \$14.20 | \$23.20 | \$27.70 | \$12.90 | \$16.20 | \$23.90 | \$29.50 | \$34.00 |  |  |
| 53-6021 | Parking Lot Attendants | 5 |  | \$6.90 | \$8.60 | \$9.40 | \$6.40 | \$7.40 | \$8.90 | \$10.00 | \$10.60 |  |  |
| 17-2199 | Engineers, All Other | 5 | \$19.80 | \$25.10 | \$30.60 | \$33.40 | \$24.10 | \$26.60 | \$30.60 | \$34.40 | \$39.00 |  |  |
| 39-9031 | Fitness Trainers and Aerobics Instructors | 5 | \$15.10 | \$15.60 | \$21.30 | \$24.10 | \$14.90 | \$16.20 | \$23.00 | \$25.90 | \$27.60 |  |  |
| 41-2021 | Counter and Rental Clerks | 5 | \$13.60 | \$6.60 | \$8.80 | \$9.90 | \$6.20 | \$7.20 | \$8.20 | \$10.30 | \$41.60 |  |  |
| 49-9021 | Heating, Air Conditioning, and Refrigeration Mechanics and Installers | 5 | \$20.80 | \$13.50 | \$17.10 | \$18.90 | \$13.00 | \$14.40 | \$17.20 | \$19.70 | \$16.70 |  |  |
| 51-3021 | Butchers and Meat Cutters | 5 | \$16.50 | \$8.80 | \$13.40 | \$15.70 | \$8.10 | \$10.10 | \$14.50 | \$16.40 | \$17.50 |  |  |
| 17-1012 | Landscape Architects | 4 | \$16.30 | \$15.90 | \$24.40 | \$28.60 | \$15.40 | \$17.20 | \$22.40 | \$32.40 | \$41.60 |  |  |
| 27-1012 | Craft Artists | 4 | \$27.50 |  |  |  |  |  |  | * |  |  |  |
| 43-4199 | Information and Record Clerks, All Other | 4 | \$12.50 |  | * |  |  |  |  | * | * |  |  |
| 47-2181 | Roofers | 4 |  | \$11.30 | \$14.30 | \$15.80 | \$11.00 | \$11.60 | \$12.60 | \$16.80 | \$20.40 |  |  |
| 47-5021 | Earth Drillers, Except Oil and Gas | 4 | \$11.00 | \$18.40 | \$22.80 | \$25.00 | \$16.90 | \$20.30 | \$23.70 | \$26.00 | \$27.10 |  |  |
| 51-4041 | Machinists | 4 |  | \$8.90 | \$15.00 | \$18.10 | \$7.80 | \$9.90 | \$13.10 | \$20.90 | \$25.70 |  |  |
| 51-6031 | Sewing Machine Operators | 4 | \$9.50 | \$7.20 | \$8.70 | \$9.40 | \$6.30 | \$7.00 | \$8.10 | \$9.20 | \$11.80 |  |  |
| 53-3021 | Bus Drivers, Transit and Intercity | 4 | \$12.50 | \$10.10 | \$12.40 | \$13.50 | \$9.50 | \$11.10 | \$12.10 | \$14.00 | \$24.00 |  |  |

Table 4: Occupations with Fewer Than 10 Vacancies - Page 3

| $\begin{aligned} & \text { SOC } \\ & \text { CODE } \end{aligned}$ | SOC TITLE | Estimated Number of Vacancies | Average Wage Offered, Summer 2001 | Occupational Employment Statistics Wage Data$2000$ |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Average Wages |  |  | Percentile Distribution |  |  |  |  |  |
|  |  |  |  | Entry | Overall | Experienced | 10th | 25th | 50th | 75th | 90th |  |
| 53-7199 | Material Moving Workers, All Other | 4 | \$12.80 | \$9.00 | \$13.60 | \$15.90 | \$8.50 | \$9.90 | \$12.70 | \$17.20 | \$20.60 | ** |
| 47-5099 | Extraction Workers, All Other | 3 | \$19.20 | \$12.40 | \$16.40 | \$18.40 | \$11.80 | \$12.70 | \$14.50 | \$17.70 | \$23.60 | * |
| 11-2031 | Public Relations Managers | 2 | \$26.00 | \$19.80 | \$32.10 | \$38.20 | \$15.30 | \$25.20 | \$36.30 | \$40.80 | \$10.70 |  |
| 11-3021 | Computer and Information Systems Managers | 2 |  | \$26.50 | \$40.20 | \$47.00 | \$24.10 | \$31.30 | \$39.90 | \$49.60 | \$58.10 | ** |
| 11-3061 | Purchasing Managers | 2 | \$11.50 | \$11.40 | \$16.00 | \$18.30 | \$11.10 | \$11.60 | \$12.30 | \$17.10 | \$10.50 |  |
| 11-9031 | Education Administrators, Preschool and Child Care Center/Program | 2 | \$23.00 | \$14.10 | \$16.00 | \$16.90 | \$12.90 | \$14.40 | \$15.60 | \$16.80 | \$12.30 |  |
| 11-9190 | Miscellaneous Manager | 2 | \$13.00 |  |  |  | * |  |  |  |  |  |
| 25-2011 | Preschool Teachers, Except Special Education | 2 | \$9.20 | \$7.40 | \$9.40 | \$10.40 | \$6.70 | \$7.70 | \$8.90 | \$10.50 | \$12.40 | ** |
| 29-1124 | Radiation Therapists | 2 |  | \$14.90 | \$19.10 | \$21.20 | \$14.30 | \$16.40 | \$18.90 | \$21.30 | \$25.20 |  |
| 29-1126 | Respiratory Therapists | 2 |  | \$14.30 | \$17.60 | \$19.20 | \$13.50 | \$15.50 | \$17.70 | \$19.90 | \$21.50 | ** |
| 29-1129 | Therapists, All Other | 2 | \$23.00 |  |  |  |  |  |  |  |  |  |
| 29-2052 | Pharmacy Technicians | 2 |  | \$8.70 | \$11.50 | \$12.90 | \$8.00 | \$9.60 | \$11.70 | \$13.30 | \$14.40 | ** |
| 29-2055 | Surgical Technologists | 2 | \$15.80 | \$12.00 | \$16.80 | \$19.10 | \$10.60 | \$13.80 | \$17.20 | \$19.70 | \$12.50 |  |
| 29-2071 | Medical Records and Health Information Technicians | 2 |  | \$8.30 | \$11.90 | \$13.70 | \$7.70 | \$8.80 | \$10.80 | \$13.50 | \$19.60 |  |
| 31-1011 | Home Health Aides | 2 |  | \$7.00 | \$9.30 | \$10.40 | \$6.40 | \$7.30 | \$8.60 | \$10.30 | \$12.90 | ** |
| 31-2021 | Phisical Therapist Assistant | 2 |  | \$7.80 | \$8.70 | \$9.10 | \$7.30 | \$7.60 | \$8.30 | \$9.30 | \$11.20 |  |
| 31-9010 | Massage Therapist | 2 |  | \$9.90 | \$13.10 | \$14.70 | \$9.20 | \$9.70 | \$10.60 | \$13.30 | \$21.10 |  |
| 31-9094 | Medical Transcriptionists | 2 | \$14.00 | \$9.10 | \$12.90 | \$14.80 | \$8.40 | \$10.20 | \$12.60 | \$15.30 | \$18.20 | ** |
| 33-9031 | Gaming Surveillance Officers and Gaming Investigators | 2 | \$11.50 | \$8.90 | \$10.80 | \$11.70 | \$8.20 | \$9.20 | \$10.30 | \$12.00 | \$13.80 |  |
| 35-2014 | Cooks, Restaurant | 2 |  | \$7.00 | \$9.00 | \$10.10 | \$6.30 | \$7.30 | \$8.80 | \$10.40 | \$12.10 | ** |
| 35-9090 | Miscelleneous Food Preparation and Service Related | 2 |  | \$6.00 | \$8.00 | \$9.00 | \$5.60 | \$6.00 | \$6.60 | \$8.20 | \$15.10 |  |
| 39-3011 | Gaming Dealers | 2 | \$10.00 |  |  |  | , |  |  |  |  |  |
| 39-3099 | Entertainment Attendants and Related Workers, All Othe | 2 |  |  |  |  | * |  | * |  | * |  |
| 39-6011 | Baggage Porters and Bellhops | 2 | \$6.00 | \$5.90 | \$6.90 | \$7.40 | \$5.80 | \$6.00 | \$6.50 | \$7.60 | \$43.60 |  |
| 39-9010 | Child Care Workers | 2 | \$10.10 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$27.10 |  |
| 41-2012 | Gaming Change Persons and Booth Cashiers | 2 |  | \$6.80 | \$9.30 | \$10.50 | \$6.20 | \$7.50 | \$9.30 | \$10.80 | \$12.70 |  |
| 41-3041 | Travel Agents | 2 |  | \$8.30 | \$11.50 | \$13.10 | \$7.40 | \$9.30 | \$11.10 | \$13.30 | \$16.20 | ** |
| 43-3011\| | Bill and Account Collectors | 2 | \$12.00 | \$9.30 | \$12.50 | \$14.20 | \$8.70 | \$10.40 | \$12.10 | \$14.10 | \$17.30 | ** |

Table 4: Occupations with Fewer Than 10 Vacancies - Page 4

| $\begin{aligned} & \text { SOC } \\ & \text { CODE } \end{aligned}$ | SOC TITLE | Estimated Number of Vacancies | Average Wage Offered, Summer 2001 | Occupational Employment Statistics Wage Data$2000$ |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Average Wages |  |  | Percentile Distribution |  |  |  |  |  |
|  |  |  |  | Entry | Overall | Experienced | 10th | 25th | 50th | 75th | 90th |  |
| 43-3051 | Payroll and Timekeeping Clerks | 2 | \$12.50 | \$10.10 | \$12.90 | \$14.40 | \$9.40 | \$11.50 | \$12.70 | \$14.40 | \$19.60 |  |
| 49-2093 | Electrical and Electronics Installers and Repairers, Transportation Equipment | 2 | * | \$17.10 | \$19.00 | \$20.00 | \$17.70 | \$18.40 | \$19.70 | \$21.00 | \$21.80 | ** |
| 53-3041 | Taxi Drivers and Chauffeurs | 2 |  | \$8.70 | \$10.20 | \$10.90 | \$7.90 | \$9.40 | \$10.20 | \$11.20 | \$12.70 |  |
| 53-3099 | Motor Vehicle Operators, All Other | 2 | \$17.20 | \$11.30 | \$13.90 | \$15.20 | \$10.40 | \$12.00 | \$14.00 | \$16.00 | \$17.20 |  |
| 53-7061 | Cleaners of Vehicles and Equipment | 2 |  | \$7.20 | \$9.10 | \$10.00 | \$6.50 | \$7.50 | \$8.90 | \$10.30 | \$11.10 |  |
| 27-3022 | Reporters and Correspondents | 2 | \$9.50 | \$9.90 | \$12.40 | \$13.70 | \$9.70 | \$10.60 | \$12.30 | \$14.10 | \$16.20 |  |
| 33-9010 | Animal Control Worker | 2 |  | \$10.10 | \$13.40 | \$15.70 | \$9.40 | \$11.40 | \$13.50 | \$16.60 | \$19.70 | ** |
| 39-6012 | Concierges | 2 | \$26.20 | \$9.20 | \$10.40 | \$11.00 | \$8.80 | \$9.30 | \$10.10 | \$10.90 | \$46.50 |  |
| 43-4041 | Credit Authorizers, Checkers, and Clerks | 2 | \$13.60 | \$10.20 | \$13.90 | \$15.70 | \$9.70 | \$10.90 | \$14.90 | \$16.40 | \$26.70 |  |
| 47-2151 | Pipelayers | 2 | \$15.50 | \$12.40 | \$15.00 | \$16.20 | \$11.90 | \$13.30 | \$15.10 | \$16.70 | \$18.20 |  |
| 47-3011 | Helpers--Brickmasons, Blockmasons, Stonemasons, and Tile and Marble Setters | 2 | \$20.00 | \$10.20 | \$11.70 | \$12.50 | \$9.60 | \$11.10 | \$11.70 | \$12.40 | \$13.90 |  |
| 53-7032 | Excavating and Loading Machine and Dragline Operators | 2 |  | \$12.60 | \$15.90 | \$17.50 | \$12.30 | \$13.30 | \$15.10 | \$16.80 | \$21.20 |  |
| 47-4031 | Fence Erectors | 1 | \$16.00 | \$10.60 | \$12.30 | \$13.20 | \$10.80 | \$11.20 | \$11.90 | \$13.50 | \$14.50 | ** |
| 49-3021 | Automotive Body and Related Repairers | 1 | \$22.00 | \$14.90 | \$17.10 | \$18.20 | \$14.30 | \$15.20 | \$16.70 | \$18.80 | \$21.00 | ** |
| 49-3031 | Bus and Truck Mechanics and Diesel Engine Specialists | 1 | \$19.70 | \$13.80 | \$17.40 | \$19.20 | \$12.90 | \$14.90 | \$16.90 | \$20.00 | \$42.40 |  |

* No Wage Data Available
** Regional Wage Data
*** Annual Salaries


## 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 Parttime 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.

## $\underline{\text { Sign-on Bonus }}$

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



## Northwest \& Rural Resort Region Job Vacancy Survey

Survey ID: 103707011

## 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 Northwest \& Rural Resort Region:

Moffat Routt Jackson Grand Gilpin Clear Creek Summit Lake Pitkin Eagle Garfield...Rio Blanco

## Part A: About Your Firm

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



[^0]:    ${ }^{1}$ US Census Bureau, Census 2000
    ${ }^{2}$ Colorado Department of Labor and Employment, Area Labor Force Data

