

# Denver Metro

**11.00-112.00/hr.**  
 Part time, temporary (6-8 month) positions available to assist in research programs. Successful candidates will have excellent communication and fundamental computer knowledge. All interviews will be conducted on campus. Flexible hours are available between 8:00am-8:00pm.  
 Immediate consideration. Please send, fax or your cover letter and CV with salary history to: AMC Cancer Research Center, Human Resources Department, 600 Pierce Street, Aurora, CO 80012.

**PART TIME** Growing CO. seeks organized person for Admin. General duties. Word needed. 3 days a week. Fax resume to Kathy 303-741-0502

**FIRSTDAY PART TIME**  
 Clerical position. Quickbooks Word a plus. 16-22 hr/wk. \$9/hr. Cedar Canyon Tree Care 303-745-2118

**Part Time Participants Wanted**  
 Research Project on Jury System, \$100 for One Day, 3/17 or 3/18. Over 21, Registered Voter Jefferson or Gilpin County Residents. 1-303-727-7811.

**PART TIME: Contract**  
 Counselor, CAC II, 20 hrs. Fax resume to: domenic@comcast.net or 303-747-3077 Please visit our website at www.priorfoods.com

**PAYROLL ACCOUNTANT**  
 PWT seeks exp. (2-3) payroll acct. to input & process bills. Multi-state acct. w/approx. 200 EE's. Qual. applicant must have exp. in Fed. St. tax filings on a major & mn. basis. Rec'd payroll exp. is req. including 91K & med. deductions, FBA, life ins. other deductions. W/ doct. or spec. pref'd. Email, fax or e-mail salary history & exp. prior to 3/16/01 of PWT, 3 Parfet St., Ste 200, Littleton, CO 80120, or lthieb@outlook.com PWT is an EEO/ADA Employer

**Planner II**  
 The Town of Parfet is opening for a Planner II in the Planning Department. Under general supervision of the Development Manager, this position is responsible for view of commercial proposals, prepare staff reports and presentations to Town Planning Commission various committees.

**PHARMACEUTICAL**  
 Major manufacturer needs researchers and med. writers. Send salary history resume to: [redacted]

**FIRSTDAY PRESS OPERATOR**  
 Looking for highly motivated individuals who are accepting applications for a Police Sergeant, Colorado POST certification, a valid driver's license and a minimum of three years exp. are required. Supervisory experience preferred. Extensive background investigations and testing will be conducted. Starting salary \$2,299 - \$3,959/month plus benefits. Resumes must be submitted with a city application at 4101 S. Federal Blvd., Sheridan, CO by March 19th, 4:30 p.m.

**Vice President of Marketing**  
 Individual will interface heavily with R&D, Project Manager and Sales. Project new approaches to nucleic acid (DNA/RNA) testing and a world leader in developing and manufacturing innovative diagnostic reagents is currently seeking two highly motivated and talented individuals to lead its molecular biology marketing group as:

**PROGRAMMING**  
 You need the skills! See our ad in Class 2080. CollegeAmerica

**PROPERTY TAX SPECIALIST INTERN**  
 Under close supervision, individual level position will be trained to make statewide applications for real and personal property tax exemption. Duties include conducting on-site field inspections; collecting and reviewing organizational documents and financial statements; applying statutes; writing detailed recommendations for the approval of the Property

## Job Vacancy Survey

Conducted May 1-July 3, 2001

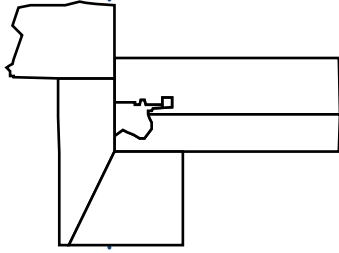
Adams, Arapahoe, Boulder, Denver, Douglas & Jefferson Counties

November 2001



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





# Denver Metro Job Vacancy Survey

*Conducted  
May 1-July 3, 2001*

## **State of Colorado**

Bill Owens,

## **Colorado Department of Labor & Employment**

Vickie Armstrong, *Executive Director*

Jeffrey M. Wells, *Deputy Executive Director*

Funding Provided in Part by  
The Colorado Workforce Development Council

November 2001

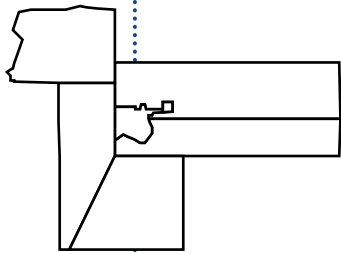


**Workforce Research & Analysis**  
**Labor Market Information**  
**Two Park Central, Suite 300**  
**1515 Arapahoe Street**  
**Denver CO 80202-2117**

**(303) 318-8890**

**Email: [lmi@state.co.us](mailto:lmi@state.co.us)**

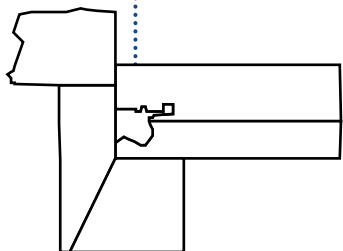
**[www.coworkforce.com/lmi/wra/home.htm](http://www.coworkforce.com/lmi/wra/home.htm)**



# 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
Denver Metro Region .....	6
JVS Sample .....	8
The Survey Instrument .....	9
Timing Considerations .....	9
Labor Market Conditions .....	10
Vacancies by Industry .....	12
Services .....	12
Government .....	12
Retail Trade .....	12
Manufacturing .....	13
FIRE .....	13
TCPU .....	13
Wholesale Trade .....	13
Construction .....	13
Agriculture .....	13
Mining .....	13
Vacancies and Wages .....	14
Medical Insurance and Wages .....	15
Education and Experience Requirements .....	16
Education and Wages .....	16
Experience and Wages .....	17
Difficulty to Fill .....	18
Sign-On Bonus .....	20
Occupations .....	21
Requirements by Major Occupational Groups .....	23
OES Wage Data Listing for Occupations with More than 10 Vacancies .....	25
OES Wage Data Listing for Occupations with Fewer than 10 Vacancies .....	33
Methodology .....	39
Survey Instrument and Redesign .....	39
Survey Sample Methodology .....	40
Data Editing .....	40
Definitions .....	41
Appendix .....	42
Survey Instrument .....	42

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

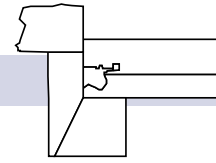


## List of Figures

1. Unemployment Rates for June 2001.....	6
2. Employment by Industry .....	6
3. Denver Metro Region Employers and Employees in the 2nd Quarter, 2000	7
4. Annual Growth of Employment and Labor Force .....	7
5. Timing Considerations .....	9
6. Vacancy Status .....	10
7. Vacancies by Firm Size.....	10
8. Part-Time vs. Full-Time by County .....	10
9a. Vacancies by County.....	11
9b. 2000 Third Quarter Total Employment by County.....	11
10. Total Employment and Vacancies by Industry .....	12
11. Average Wage by Firm Size .....	14
12. Average Wage by Status .....	14
13. Average Wage by Industry .....	14
14. Employer's Contribution to Medical Insurance Premium .....	15
15. Average Wage by Medical Insurance Offered .....	15
16. Vacancies by Education .....	16
17. Range of Average Wages by Education .....	17
18. Vacancies by Experience .....	17
19. Average Wage by Experience .....	17
20. Difficulty to Fill .....	18
21. Duration of Vacancies.....	18
22. Average Wage by Difficulty to Fill .....	19
23. Average Wage by Vacancy Duration.....	19
24. Difficulty to Fill by County .....	19
25. Sign-On Bonus .....	20
26. Sign-On Bonus by Industry .....	20
27. Vacancies by Major Occupational Groups .....	21
28. Range of Average Wages by Major Occupational Group.....	22
29. Major Occupational Groups by Education .....	23
30. Major Occupational Groups by Experience .....	23
31. Major Occupational Groups by Time Duration .....	24
32. Major Occupational Groups by Difficulty to Fill.....	24

## List of Tables

1. Table 1: Small to Mid-Size Response Requirements .....	8
2. Experience Requirements by Educational Level .....	16
3. OES Wage Data for Occupations with 10 or More Vacancies .....	25
4. OES Wage Data for Occupations with Fewer Than 10 Vacancies .....	33



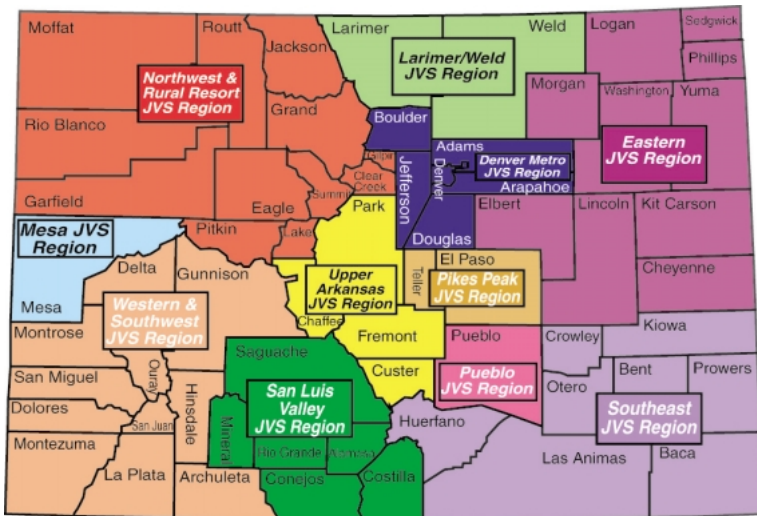
# Introduction

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

The Denver Metro 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.

## Colorado Job Vacancy Survey Regions



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 the entire state of Colorado. The Denver Metro JVS survey 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.

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

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

- Senior Economist:** Alexandra E. Hall
- Economists:** Yasir Ahmed  
Paul Paez  
Michael Patton  
Wande Reweta, Ph.D.  
Leora Starr
- Statistical Analyst:** Joseph Winter
- Administrative Assistant:** Dionne M. Frey
- Graphic Artist:** Martha Cooper

- For this report:**
- Statistical Analyst:** Joseph Winter
- Narrative Analyst:** Yasir Ahmed
- Project Management/Editor:** Alexandra E. Hall
- Design/Production:** Martha Cooper

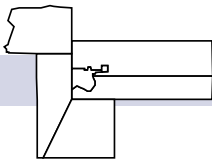
Material in this publication is in the public domain and, with appropriate credit, may be reproduced without permission. Please reference: *Colorado Department of Labor and Employment, Labor Market Information, Workforce Research and Analysis.*

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

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

Email: [lmi@state.co.us](mailto:lmi@state.co.us) (303) 318-8890

[www.coworkforce.com/lmi/wra/home.htm](http://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, employees, job seekers, trainers and planning officials. While Labor Market Information (LMI) 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 offer a more complete picture of local labor markets.

### *Employers*

The Job Vacancy Survey measures the area's current vacancies and provides information to employers who may be experiencing difficulty in filling positions due to worker shortage, an imbalance between job seekers' skills and employers' needs, or compensation packages that are insufficient as a recruitment tool when compared to market standards.

The JVS will also identify specific issues regarding current vacancies and prompt decision-makers to take remedial actions where necessary. For example, upon review of the JVS 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.

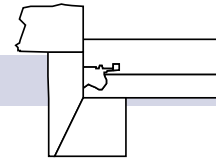
Employers from outside the region considering relocating to the area can review the JVS results and determine if the company's employment needs will be filled with minimum delay (current low vacancies). In addition, the JVS results and Occupational Employment Statistics (OES) wage data (a measure of 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 the JVS report is a roadmap that can be used to determine where the best paying jobs are given their skills and level of education. The JVS illustrates the current demands of the local job market and provides associated average wages. A job seeker can review LMI's occupational projections

in addition to the JVS to see if current opportunities can contribute to long-term career goals. With information the JVS provides, job seekers can better tailor their education and training efforts toward industries and occupations that lead to more permanent positions.





## 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 an immediate clear picture of the area's current employment needs. Workforce Centers can direct job seekers towards high demand occupations to increase placement success, or in a direction that might better suit the needs of the applicants' future career goals.

Workforce Center staff can also review the nature of job vacancies and decide where to focus placement efforts. Future investments in the workforce can be directed towards occupations or industries that continuously contribute to the local economy.

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

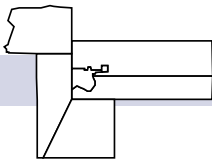
future training programs. LMI's Employment and Wages publication (ES-202 data) provides monthly, county and statewide industry data on a quarterly basis. To prepare for the high demand of seasonal workers where vacancies persist, Workforce Centers and educators can offer training during the off-season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

In addition, LMI provides statewide occupational projections at [www.coworkforce.com/lmi.wra/home.htm](http://www.coworkforce.com/lmi.wra/home.htm), which includes projected employment growth, and identifies growing as well as declining occupations. This information, used with the JVS's identification of current vacancies, can help Workforce Centers identify occupations in demand now and in the future. Workforce Centers can subsequently plan for future training programs in cooperation with businesses and educators.

## Economic Developers

Economic development professionals can use the JVS data 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 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 JVS, and where the local market is trending using LMI's employment projections.



## Caveats

---

The JVS data should be used as indicators, not actual values of the demand for workers in the Denver Metro 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.

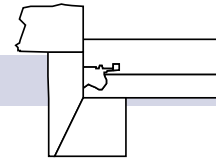
The results of the survey are based only on the sample of responses collected from February 9 through February 28, 2001 and should not be considered as necessarily portraying the exact distribution of job vacancies in the Denver Metro Region. After several years of JVS data are available, patterns may 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. 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.



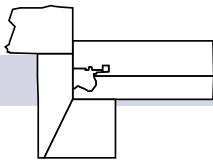


## Executive Summary

The Spring 2001 Denver Metro Job Vacancy Survey was conducted from May 1st, through July 3rd, 2001. Over the survey period, randomly selected employers of all employment levels were contacted in Adams, Arapahoe, Boulder, Denver, Douglas, and Jefferson counties. 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.

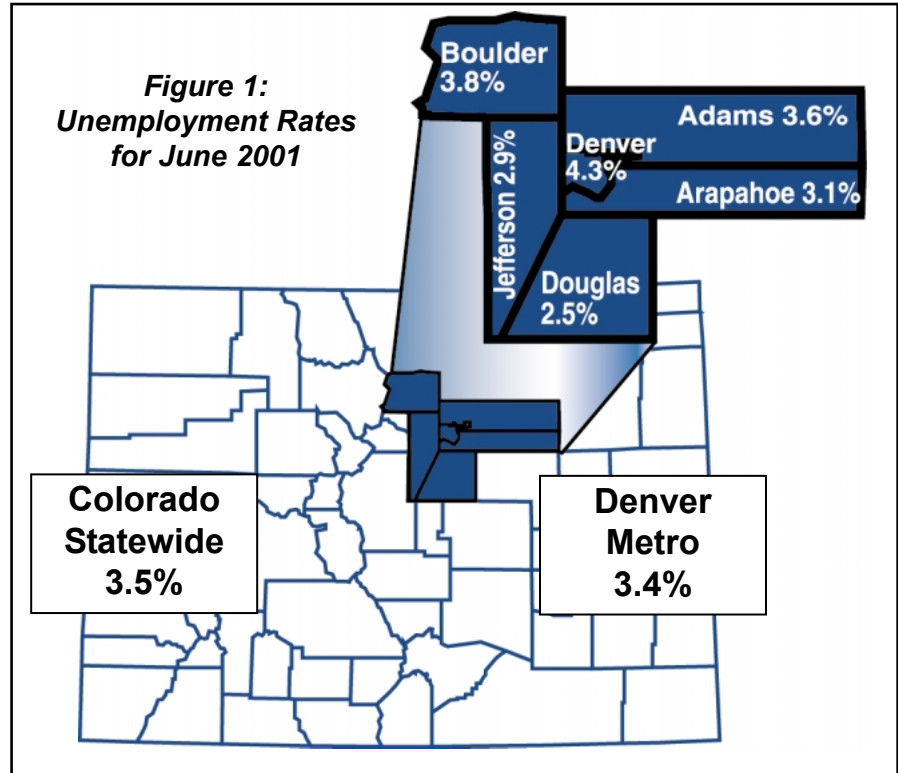
A total of 3,786 employers, representing 23% of the region's total employment responded to the survey. Out of these, 211 are large employers (250 or more employees), 2,707 are from the small to mid-size category (5-249 employees), and 868 are Micro employers (with fewer than 5 employees). The major findings of the survey are as follows:

- ◆ It is estimated that a total of 24,100 jobs were open for hire in the Denver Metro Region during the survey period.
- ◆ Of total estimated jobs, 22,036 are full-time permanent openings while 2,064 are part-time permanent openings.
- ◆ Of total estimated temporary jobs, 559 are part-time and 581 are full-time positions.
- ◆ Micro employers account for 18% of the total estimated vacancies, small to mid-size employers 42%, while large employers account for the remaining 40%.
- ◆ About 65% of the estimated job openings are in Service and Retail Trade.
- ◆ The overall average wage for all vacancies is \$13.50 per hour. Average wages for permanent positions exceed those of temporary positions at both the full-time and part-time levels.
- ◆ Both education and experience requirements have a significant positive influence on wages offered.
- ◆ Employers are seeking to hire employees with high levels of experience. Seventy-four percent of the openings require experience in the specific position or in a related occupation.
- ◆ Seventy-eight percent of the job openings are either very difficult or somewhat difficult to fill.
- ◆ Employers offered sign-on bonuses for only 2% of the vacancies.

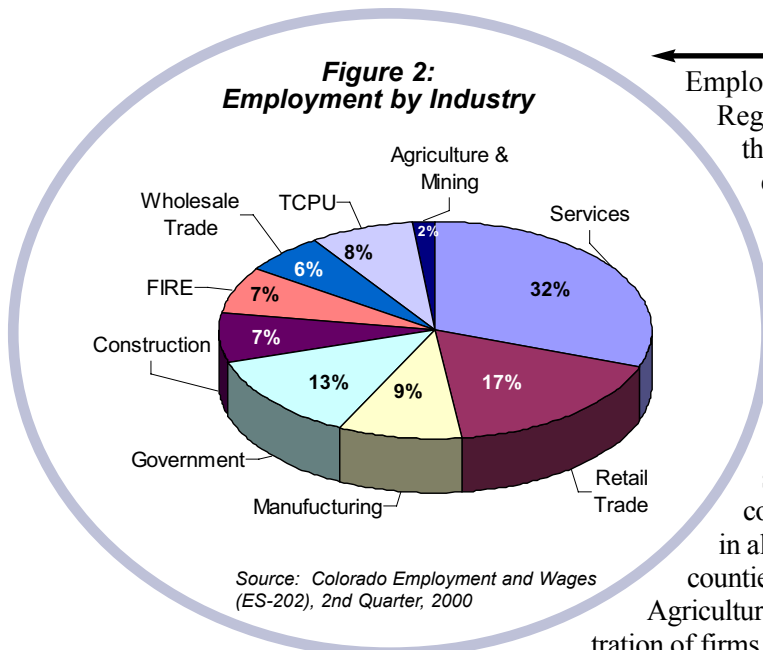


# Denver Metro Region

The Denver Metro Region (DMR), made up of Adams, Arapahoe, Boulder, Denver, Douglas and Jefferson counties, has a population of more than 2.3 million residents. The area employs over 1.34 million individuals from a labor force pool of about 1.38 million people in June 2001, according to Colorado's Labor Market Information, Local Area Unemployment Statistics. Two-thirds of the area employment is concentrated in Arapahoe, Denver and Jefferson counties at shares of 22%, 21% and 23% respectively. Both Adams and Boulder account for 14% each of the area employment while Douglas County ranks last with a 7% share. In the period between June 2000 and June 2001, the labor force in the area increased by 3.0%. Total employment in the area increased by a lower rate of 2.5% over the same period increasing unemployment by 20%. While overall the unemployment rate for the region



was 3.4%, unemployment varied from a low of 2.5% in Douglas County to a high of 4.3% in Denver County<sup>1</sup> (Figure 1).

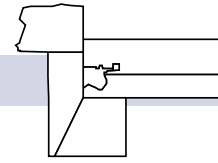


Source: Colorado Employment and Wages (ES-202), 2nd Quarter, 2000

Employment by industry in the Denver Metro Region has remained fairly constant throughout the 1990's. The Services division has the highest employment share (32%) followed by both Retail Trade (17%) and Government (13%). Other division's employment shares range from less than 1% in Mining to 9% in Manufacturing (Figure 2).

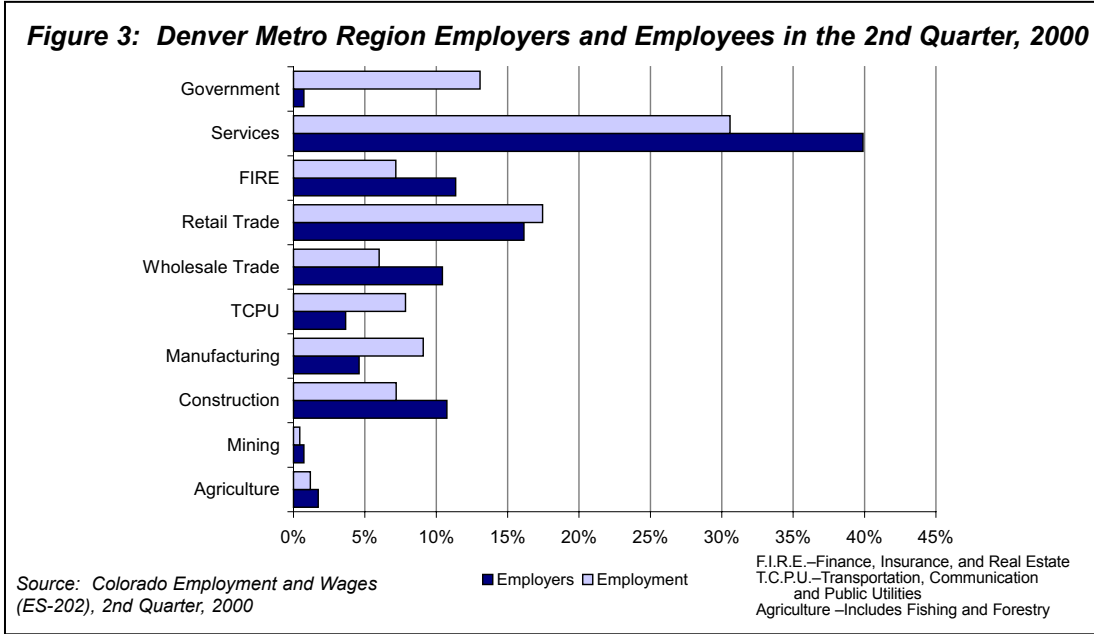
Although the level of employment varies greatly from one county to another, the industry mix in the six counties is relatively similar. The service division has the highest concentration of firms, followed by Retail Trade, in almost all counties except Douglas. While all counties have the smallest number of firms in Agriculture, Mining, and Government divisions, concentration of firms in the remaining industries vary by county.

<sup>1</sup>Colorado Labor Market Information, Local Area Unemployment Statistics



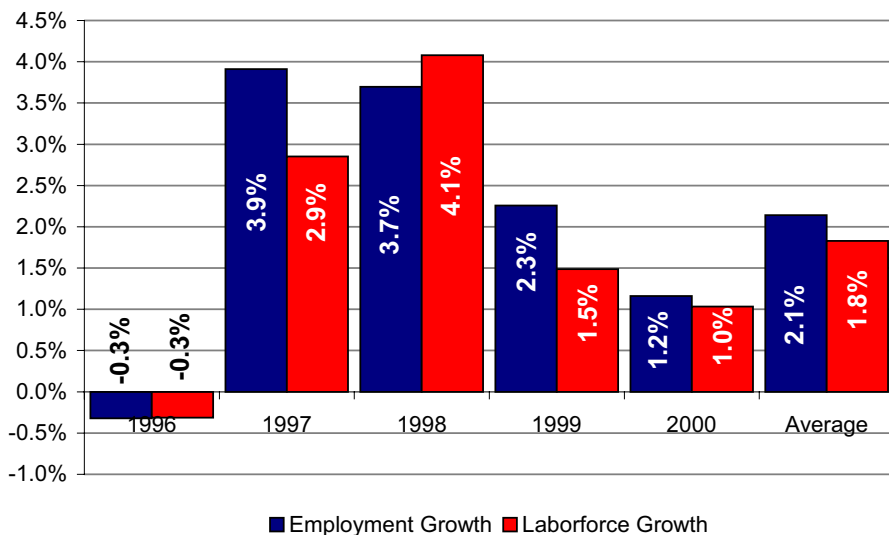
The region is dominated by a large number of firms with fewer than five employees, which account for almost 60% of the firms in the area. However, in terms of employment, these firms account for only 9% of total employment in the area. The small to mid-size firms (5-249 employees) account for about 40% of all firms in the region and employ 56% of the total

employees. Large firms, on the other hand, employing at least 250 individuals, account for less than 1% of the regional firms and employ 35% of the total employees. *Figure 3* shows the distribution of firms and employment for major industry divisions according to the 1987 release of the *Standard Industrial Classification Manual* during the second quarter of 2001.



**Figure 4: Annual Growth of Employment and Labor Force**

Employment and labor-force growth in the Denver Metro Region has been positive in all years except 1996. With the exception of 1998, employment growth in the Denver Metro Region outpaced that of the labor force in the past five years. The growth difference ranged from a low of 0.0% (1996) to a high of 1.1% in 1997. Overall, the growth in employment exceeded the growth in labor force by close to one-third of a percentage point (*Figure 4*).



Source: CDLE, LMI, Local Area Unemployment Statistics

## The JVS Sample

The Spring 2001 Denver Metro Job Vacancy Survey was conducted between May 1st, 2001 and July 3rd, 2001. The survey instrument used (Appendix 1) 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 at least 250 employees are referred to as “large employers.” They account for about 35% of the employment in the sample universe. Firms employing 5 to 249 individuals are considered “Small to mid-size employers,” and account for 56% of sample universe employment. “Micro employers,” with fewer than 5 employees, account for the remaining 9% of the area employment.

For the small to mid-size employers, the survey was stratified by both county and major industry. The sample was designed to achieve a solid representation from each industry group. For groups that contain fewer than 100 employers, a 60% response rate was targeted. Sixty responses were required for industry groups containing 100 to 120 firms and a 50% response rate, or 60 completed responses, whichever was less, was targeted for groups containing more than 120 employers. Attempts were made to contact all employers in the “large employer” and the Government categories in the region. Responses from 1,000 Micro employers were also required with no county or industry stratification.

**Table 1: Small to Mid-Size Response Requirements**

Major Industry	Adams	Arapahoe	Boulder	Denver	Douglas	Jefferson	Total Denver Metro
Agriculture			60				60
Mining			60				60
Construction	60	60	60	60	60	60	360
Manufacturing, Non-Durable	40	60	60	60	14	60	294
Manufacturing, Durable	60	60	60	60	28	60	328
Transportation, Communications, and Public Utilities	60	60	60	60	29	60	329
Trade, Wholesale	60	60	60	60	52	60	352
Trade, Retail	60	60	60	60	60	60	360
Finance, Insurance, and Real Estate	60	60	60	60	60	60	360
Services	60	60	60	60	60	60	360
<b>Government &amp; Large Employers</b>	<b>Census</b>						<b>325</b>
<b>Micro Employers</b>							<b>1,000</b>
<b>Total</b>							<b>3,863</b>

Small to Mid-Size

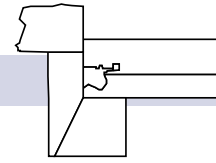
Large

Micro

Over the survey period a total of 3786 employers responded to the survey. Out of these, 211 were large and Government employers, 2707 were small to mid-size,

and 868 were Micro employers. Overall, 8% of the DMR employers with five or more employees and 2% of the Micro employers responded to the survey.

<sup>1</sup>Refer to Methodology section



## The Survey Instrument

Employers were asked if they had job vacancies, or open positions, which they were actively seeking to fill. Eighteen percent 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 level 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.<sup>1</sup> Whenever necessary, employers were contacted again to clarify responses.

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

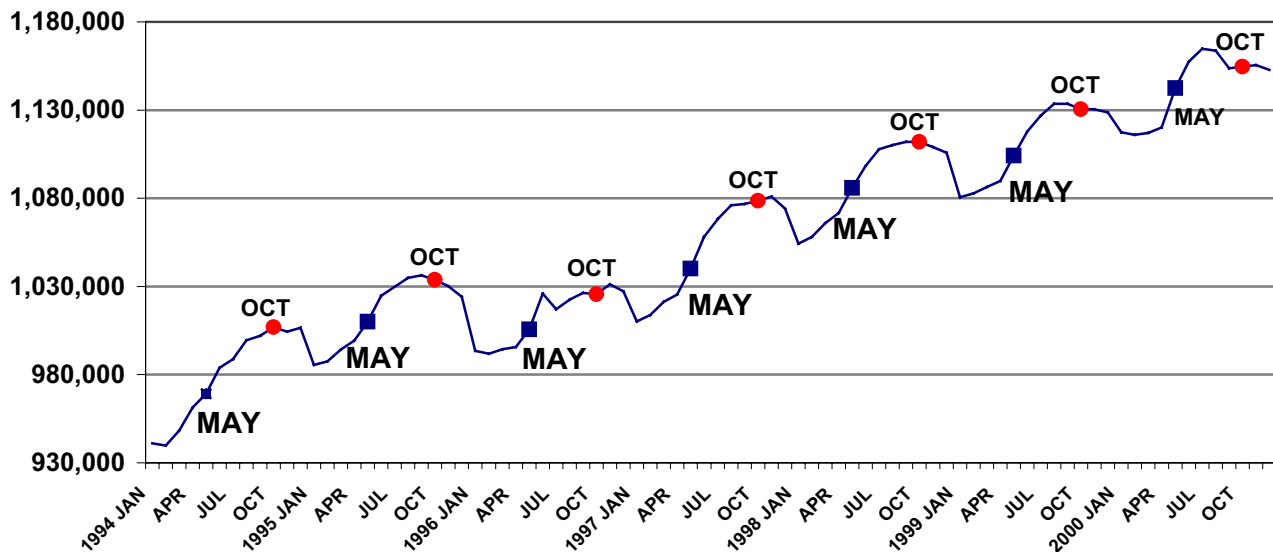
## Timing Considerations

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 Denver Metro Region indicates that employment

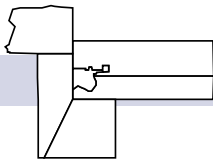
levels are at their lowest in January and peak in or around the month of October. The Denver Metro JVS is conducted semi-annually in May and October to measure demand for labor when employment is rapidly expanding as well as when it is at its peak.

Figure 5: Timing Considerations



Source: Colorado Employment and Wages (ES-202)

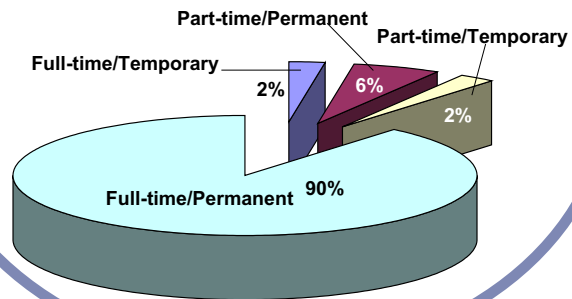
<sup>1</sup>Refer to Methodology section



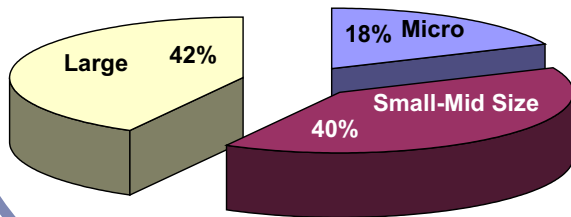
# Labor Market Conditions

During the survey period, an estimated 24,100 vacancies were open for immediate hire in the Denver Metro Region. About 90% of the reported vacancies are full-time permanent employment and 6% are part-time permanent positions. Vacancy distribution between part-time temporary and full-time temporary employment is 2% each (Figure 6).

**Figure 6:  
Vacancy Status**



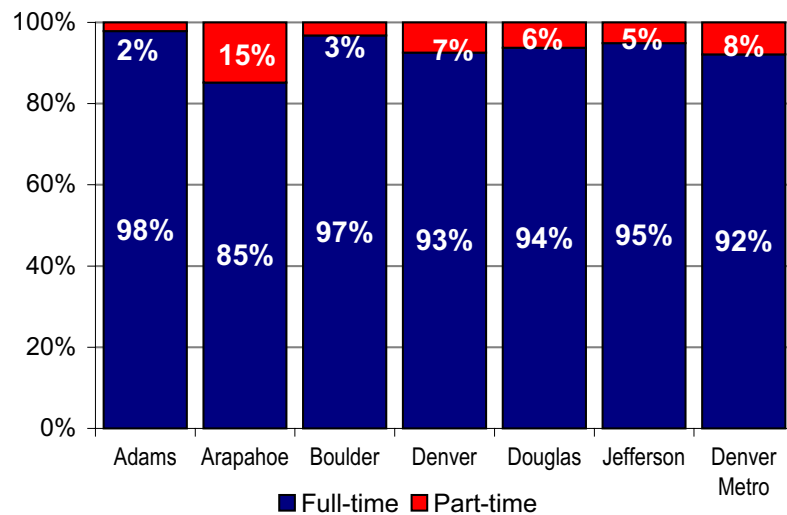
**Figure 7:  
Vacancies by Firm Size**

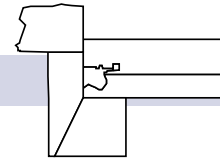


Small to mid-size firms, comprising approximately 54% of the region's total employment, account for 9,600 (40%) of the total estimated vacancies. While large firms, with only 39% of the area employment, account for 10,100 (42%) of the estimated vacancies while micro employers make up the remaining 18% (Figure 7).

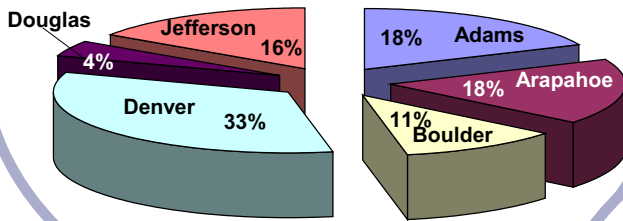
Full-time vacancies shares were well above 90% of total vacancies in all counties except Arapahoe County. Overall, 92% of all vacancies in the region are full-time positions while the remaining 8% are part-time positions (Figure 8).

**Figure 8: Part-Time vs. Full-Time by County**



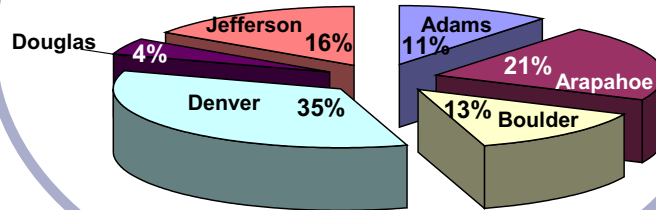


**Figure 9a:  
Vacancies by County**



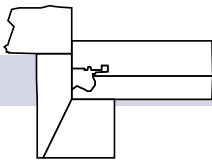
Vacancies distribution between counties<sup>1</sup> varies from a low of 4% in Douglas County to a high of 33% in Denver County. For the remaining counties, distribution of vacancies is almost symmetrical with no clear evidence of dominance of a County over the others (Figure 9a). Employment by County in the third quarter of 2001 follows a very similar pattern (Figure 9b).

**Figure 9b:  
2000 Third Quarter Total  
Employment by County**



<sup>1</sup>Distribution of vacancies by counties reflects vacancies reported only by Small to mid-size and Large employers. The design of the survey does not allow any county breakdown for vacancies reported by Micro employers.



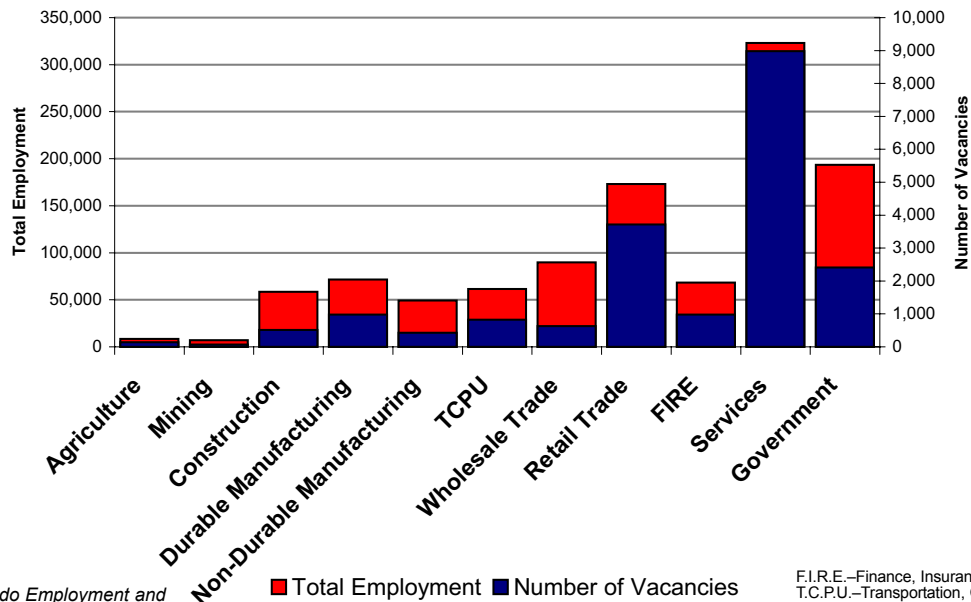


## Vacancies by Industry

The number of estimated vacancies varies greatly from one industry to another. The overall vacancy rate for all industries is 2.0%. Vacancy rate

was highest (3.8%) in the Services industry and lowest (0.8%) in the Mining industry.

**Figure 10: Total Employment and Vacancies by Industry**



Source: Colorado Employment and Wages (ES-202), 2nd Quarter, 2000

F.I.R.E.—Finance, Insurance, and Real Estate  
T.C.P.U.—Transportation, Communication and Public Utilities  
Agriculture—Includes Fishing and Forestry

### Services

The Services division is the largest in the Denver Metro Region and the fastest in growth. It had the highest share of job vacancies (46%) during the survey period. Conducting the survey in a high employment expansion period of the industry may explain the division's high vacancy rate of 3.8%.

Healthcare Practitioners and Technical Occupations constitute 44% of the vacancies within the services sector followed by Office and Administrative Support Occupations at 18%.

### Government

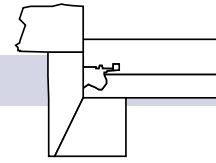
Government at all levels (federal, state, and local) was the second largest employer in the DMR at the time of the survey. Employment in this division is seasonal with peaks in the second quarter of each year

<sup>1</sup>See Definitions section

and lows in the third quarter. While survey results show a vacancy rate of 1.7%, the division's share ranked third with 12% of total estimated vacancies. Although Federal employment has declined and State government has experienced slow to moderate growth throughout the 1990s, local government has increased rapidly in an attempt to keep up with population growth and efforts to decrease school classroom size.

### Retail Trade

This was the third largest division in the region at the time of the survey and accounts for the second largest proportion of vacancies (19%). With its moderate vacancy rate of 2.1% and average growth rate of 3.8%, Retail Trade is one of the rapidly growing divisions in the region. Typically, the first quarter is the slowest for Retail Trade after which the industry employment start growing until it peaks in the fourth quarter.



Thirty-six percent of the vacancies in the Retail Trade industry are Sales and Related Occupations followed by 15% in the Food Preparation and Serving Related Occupations.

## **Manufacturing**

**M**anufacturing, of both Durable and Non-Durable Goods, was found to have a 1.2% vacancy rate during the survey period. It is also the fourth largest employing division in the region and has the fourth largest proportion of estimated vacancies (7%). Manufacturing activity, at both national and regional levels, is the most affected by the current economic slowdown. The State index for manufacturing employment was down to 40.0 in June 2001 from 42.7 in May suggesting further declines in the industry's employment (a score under 50.0 means employment is decreasing).

## **Finance, Insurance, and Real Estate (FIRE)**

**T**his is the sixth largest employing division in the Denver Metro Region, it also ranked fifth in its share of estimated vacancies (5%) during the survey period. Almost 50% of the vacancies within this industry are Office and Administrative Support related

## **Transportation, Communications, and Public Utilities (TCPU)**

**T**CPU has experienced a rapid increase in employment since the fourth quarter of 1998. The industry has a vacancy rate of 1.6% and ranks sixth in the proportion of estimated vacancies (4%).

One sector within this industry that has been hit hard by the current economic slowdown is the Telecommunication sector. A significant number of lay-off announcements were made during the survey period in which Telecommunication had the largest share.

## **Wholesale Trade**

**T**his division ranks seventh in total estimated vacancies (3.2). Employment growth in Wholesale Trade is moderate compared to other industries. The industry ranks as the seventh largest employer in the region. Employment in this division is highly seasonal and peaks around the third quarter and the Christmas holiday season.

## **Construction**

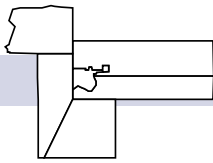
**W**ith 4% of the total estimated vacancies, construction ranks low compared to other industries. The survey was conducted in a period when construction employment approaches its peak. Non-Residential construction has slowed significantly during the survey period. Compared to May 2000 Non-Residential construction dropped by 9.4% in May 2001, statewide. Its vacancy rate of 0.9% is below the average vacancy rate for the region. Historically, employment growth in this industry has remained strong and has recorded the highest average growth rate (8.7%) in the region.

## **Agriculture**

**A**griculture in the DMR is mostly in the form of Agricultural services such as Landscaping and Veterinary. It peaks in the third quarter and sharply declines during the fourth and first quarters of each year. Agriculture has a vacancy rate of 1.1% and accounts for 0.7% of the estimated vacancies in the Denver Metro Region.

## **Mining**

**M**ining has been in decline since the mid-80s. The industry ranks last in total employment size among other industries and in proportion of total estimated vacancies (0.4%). It also has the lowest job vacancy rate in the region (0.08%).



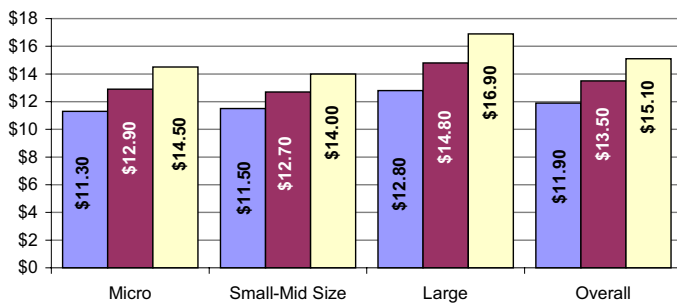
# Vacancies and Wages

Since wages offered may vary with the levels 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 11):

- ◆ The overall average wage offered for all vacancies is \$13.50 per hour.
- ◆ The average minimum wage offered for all vacancies is \$11.90 and the average maximum is \$15.10 per hour.

- ◆ Fifty-seven percent of the vacancies offer an average wage lower than the overall average.
- ◆ Thirty-two percent of the positions for which wages offered are lower than the overall average are in the Government sector followed by Services and Retail Trade at 24% and 23% respectively.
- ◆ Seventy-three percent of the vacancies offering wages above the overall average are in the Government, Services, and Manufacturing industries.

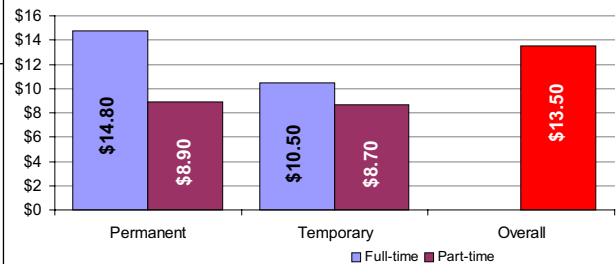
**Figure 11: Average Wage by Firm Size**



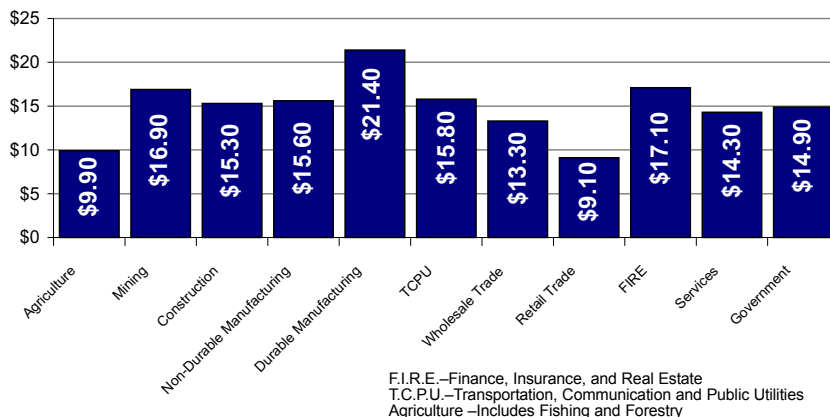
Large companies reported wages that average approximately \$2.00 an hour higher than those offered by small to mid-size and Micro firms. The wage differential prevails at both the minimum and maximum wage levels.

Full-time permanent positions pay over \$4.00 on average more per hour than temporary full-time positions. Average part-time wages are slightly different with permanent positions offering only \$0.20 over temporary positions (Figure 12).

**Figure 12: Average Wage by Status**

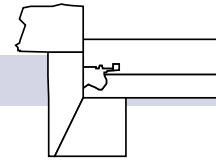


**Figure 13: Average Wage by Industry**



Average wages offered are well over \$13.00 per hour for all industries except Retail Trade and Agriculture (Figure 12). The highest average wage offered, which is in the Durable Goods Manufacturing industry, exceeded the lowest average wage by over \$12.00 per hour.

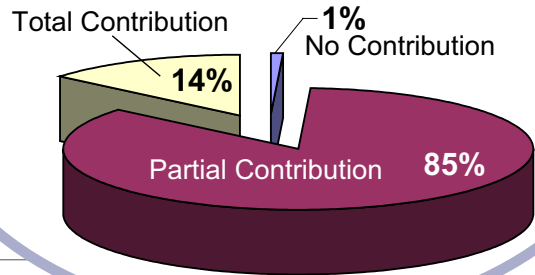
About 5% of total estimated vacancies are in Durable Goods Manufacturing while 19% are in Retail Trade. Services, which has the largest share of vacancies (46%), offers an average wage of \$14.30 per hour.



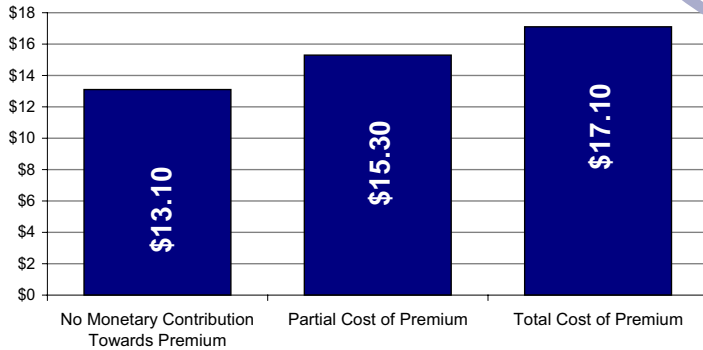
## Medical Insurance and Wages

Almost all vacancies reported by employers include some form of medical insurance. Employers offer to pay the entire premium for 14% of the vacancies and partial cost of the premium for another 85%. Only 1% of the vacancies offer no contribution towards the medical insurance premium.

**Figure 14:**  
**Employer's Contribution to Medical Insurance Premium**



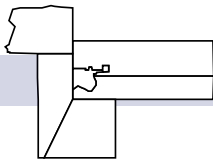
**Figure 15:**  
**Average Wage by Medical Insurance Offered**



Survey results reveal a positive relationship between wage and medical insurance coverage offered (Figure 15). 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 \$17.10 per hour for the reported vacancies. At the other end of the spectrum, positions where no monetary contribution is offered towards the medical insurance premium pay an average wage of \$13.10 per hour or lower.

Survey results also reveal the following:

- ◆ Ninety-three percent of the vacancies offering at least partial cost of the premium are full-time permanent positions.
- ◆ Forty-one percent of vacancies offering at least partial cost of the medical insurance premium are in the Services industry followed by the Government sector with 17%.
- ◆ Over 60% of vacancies offering total cost of the medical insurance premium are in the Services and Durable Manufacturing industries.



## Education and Experience Requirements

**Table 2: Experience Requirements by Educational Level**

	No Experience	General Work Experience	Experience in a Related Field	Experience in This Occupation
No Diploma	47%	24%	13%	16%
High School Diploma/GED	9%	39%	36%	16%
Vocational Training/Certification	1%	6%	67%	26%
Two-Year Degree	2%	2%	21%	75%
Bachelor's Degree	3%	1%	54%	43%
Advanced Degree	0%	0%	27%	73%

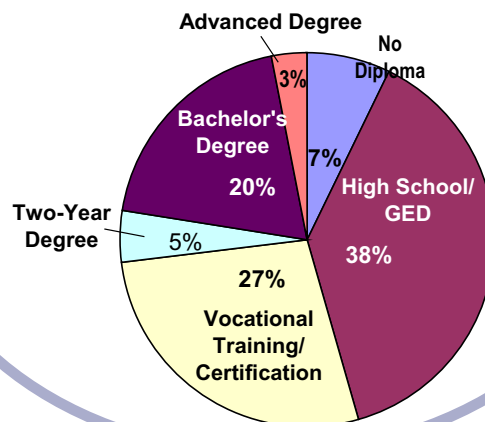
Employers' experience requirements are summarized in the following (*Table 2*):

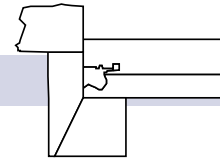
- ◆ The majority of positions requiring no diploma (47%) require no experience of any kind.
- ◆ Positions requiring high school diploma/GED show higher concentration of vacancies at the General Work Experience and Experience in a Related Field levels.
- ◆ The vast majority of vacancies requiring vocational training or certification also require higher levels of experience.
- ◆ Seventy-five percent of vacancies requiring a two-year degree also require very specific experience.
- ◆ Ninety-seven percent of positions requiring a bachelor's degree require at least experience in a related field.
- ◆ All positions requiring an advanced degree also require higher levels of experience.

## Education and Wages

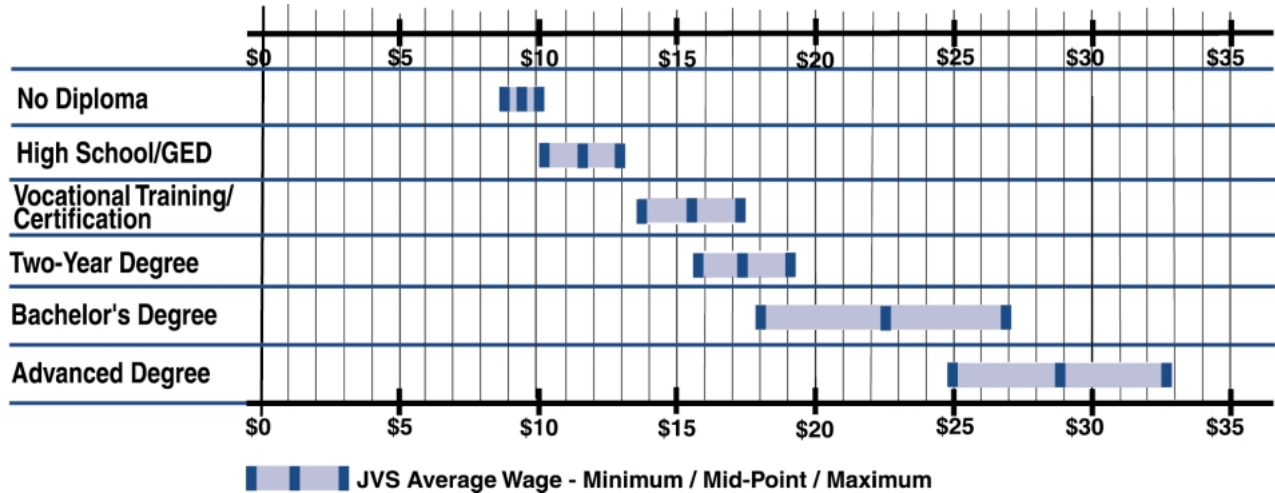
Employers were asked what level of education is required of an applicant in order to be considered for a particular vacancy. Results show that 45% of the positions reported by employers require no post-secondary education. Twenty-seven percent require vocational training or certification. The majority of the remaining positions (20%) require a Bachelor's degree.

**Figure 16: Vacancies by Education**





**Figure 17: Range of Average Wages by Education**



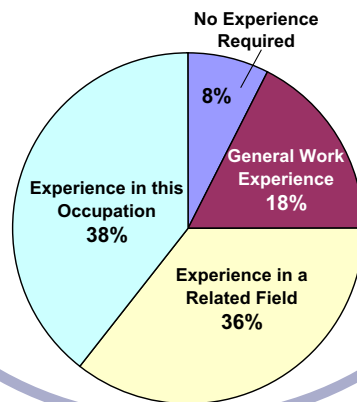
Employers add a substantial premium to wage compensation when requiring higher levels of educational attainment (Figure 17). The highest wage rate difference (\$7.70 per hour) is found between a two-year and

a Bachelor's degree. Moving from a high school diploma/GED to a vocational training or certification increases average wage offered by \$4.40 per hour.

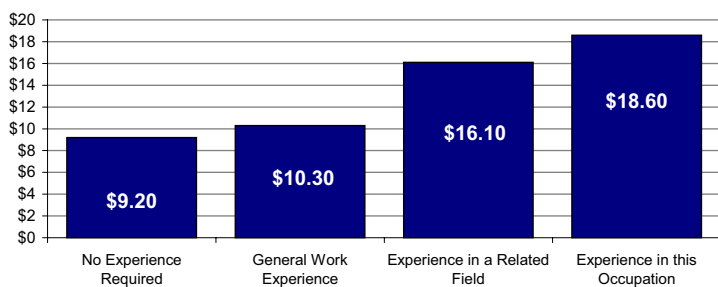
## Experience and Wages

Survey results show the majority of employers to be seeking employees with higher levels of experience. Almost three-fourth of the reported job openings require at least experience in a related occupation. The remaining 26% require no experience of any form or just general work experience.

**Figure 18: Vacancies by Experience**

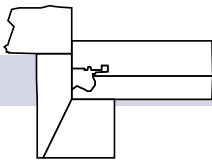


**Figure 19: Average Wage by Experience**



Employers offer premiums for higher experience levels. These premiums range from slightly over \$1.00 per hour between no experience required and the general work experience levels to close to \$6.00 between general work experience and experience in related field levels.

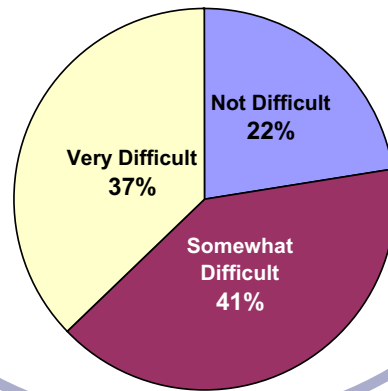




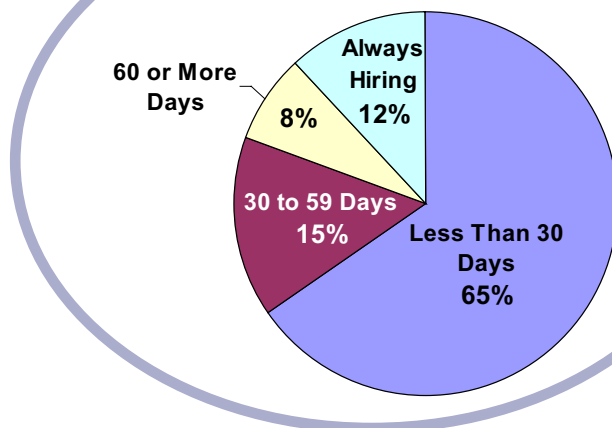
## Difficulty to Fill

To estimate the level of difficulty in filling vacancies, employers were asked about their perceived level of difficulty in filling vacancies and the time period for which the position remained vacant. Survey results show that employers do perceive difficulties in filling open positions. Seventy-eight percent of the vacancies reported are classified as either somewhat difficult or very difficult to fill. The remaining 22% of the vacancies are considered not difficult to fill as reported by employers (*Figure 20*).

**Figure 20: Difficulty to Fill**



**Figure 21: Duration of Vacancies**

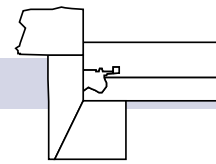


Twelve percent of the vacancies, however, are reported as always hiring, compared to 65%, which are open for a period less than 30 days. Positions open for periods longer than 30 days account for 23% of all vacancies (*Figure 21*).

Further analysis of positions revealed by employers to be somewhat or very difficult to fill shows the following:

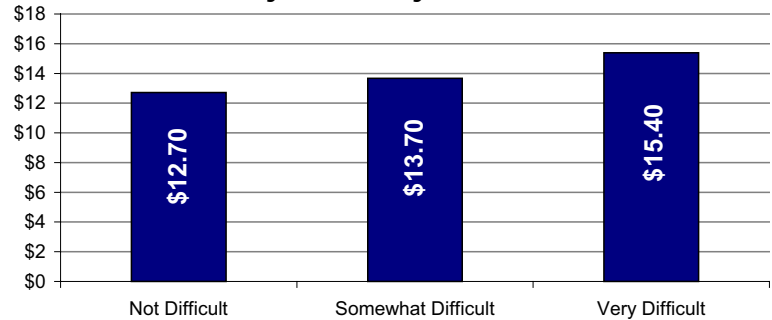
- ◆ Sixty-three percent are open for less than 30 days and 13% are always open for hiring.
- ◆ Only 24% percent are open for periods extending over 30 days.
- ◆ Forty-three percent are in the Services industry, 17% in the Government sector, while 11% are in Retail Trade.
- ◆ Thirty-five percent require a High School/GED, 35% a Two-Year degree, and 19% a Bachelor's degree.
- ◆ Almost 80% require at least experience in a related field.



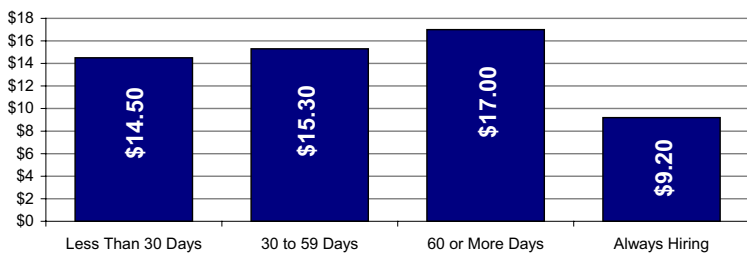


Employers offer wages for positions “very difficult” and “somewhat difficult” to fill that are approximately 21% and 8% over the average wage offered for positions “not difficult” to fill, respectively.

**Figure 22: Average Wage by Difficulty to Fill**



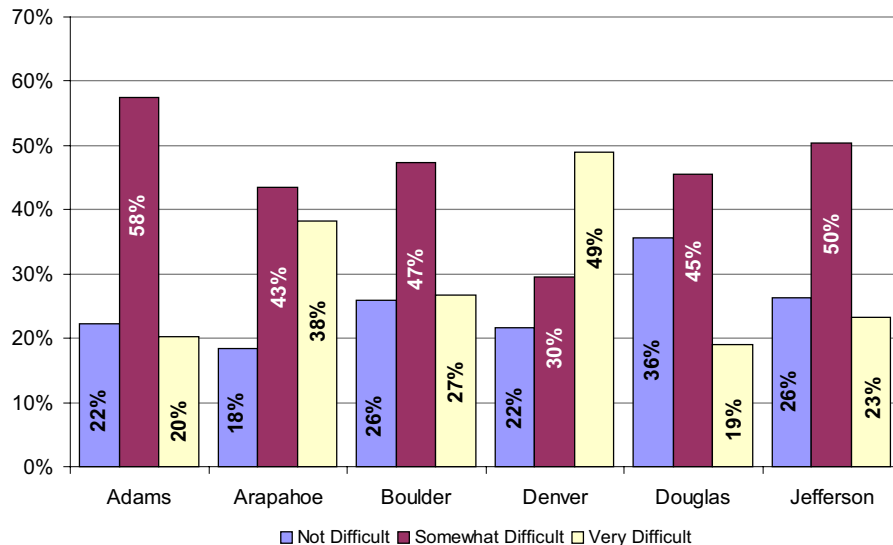
**Figure 23: Average Wage by Vacancy Duration**

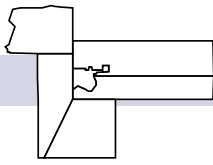


Employers tend to offer higher wages for positions that remain to be open for longer periods. Positions always open for hiring offer an average wage of \$9.20 per hour.

The mix of difficulty level in filling vacancies varies from one county to the other. Adams County has the highest concentration of vacancies “Somewhat difficult” to fill, while Denver County has the highest concentration of vacancies “Very Difficult” to fill. Douglas County has a relatively high concentration of vacancies “Not Difficult” to fill (Figure 24).

**Figure 24: Difficulty to Fill by County**



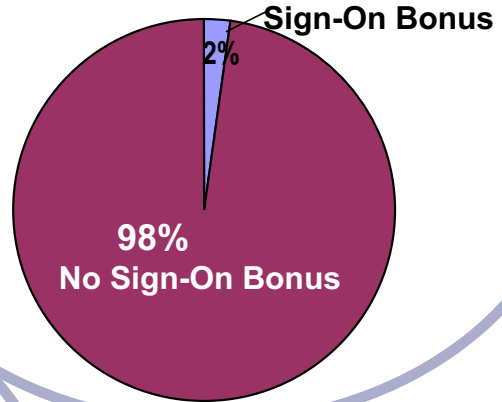


## Sign-On Bonus

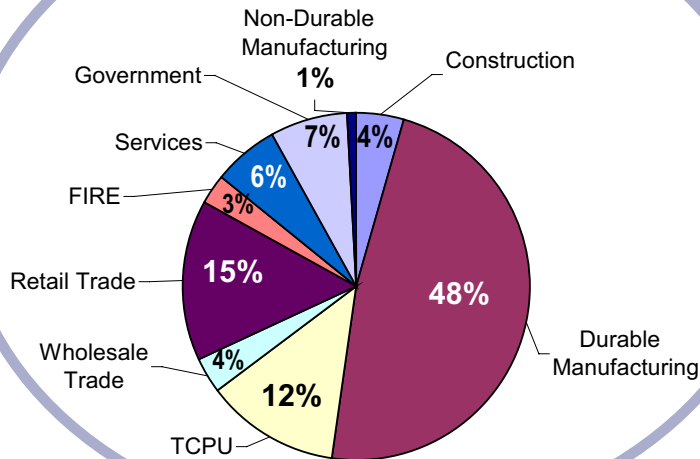
Only 2% of the vacancies reported offer a sign-on bonus. The bonuses reported range from \$200 to \$5,000.

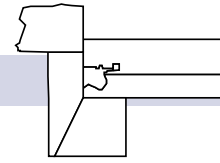
Almost half of the vacancies for which a sign-on bonus is offered are in the Durable Manufacturing industry. Both Retail Trade and TCPU follow at 15% and 12%, respectively.

**Figure 25:  
Sign-On Bonus**



**Figure 26:  
Sign-On Bonus by Industry**



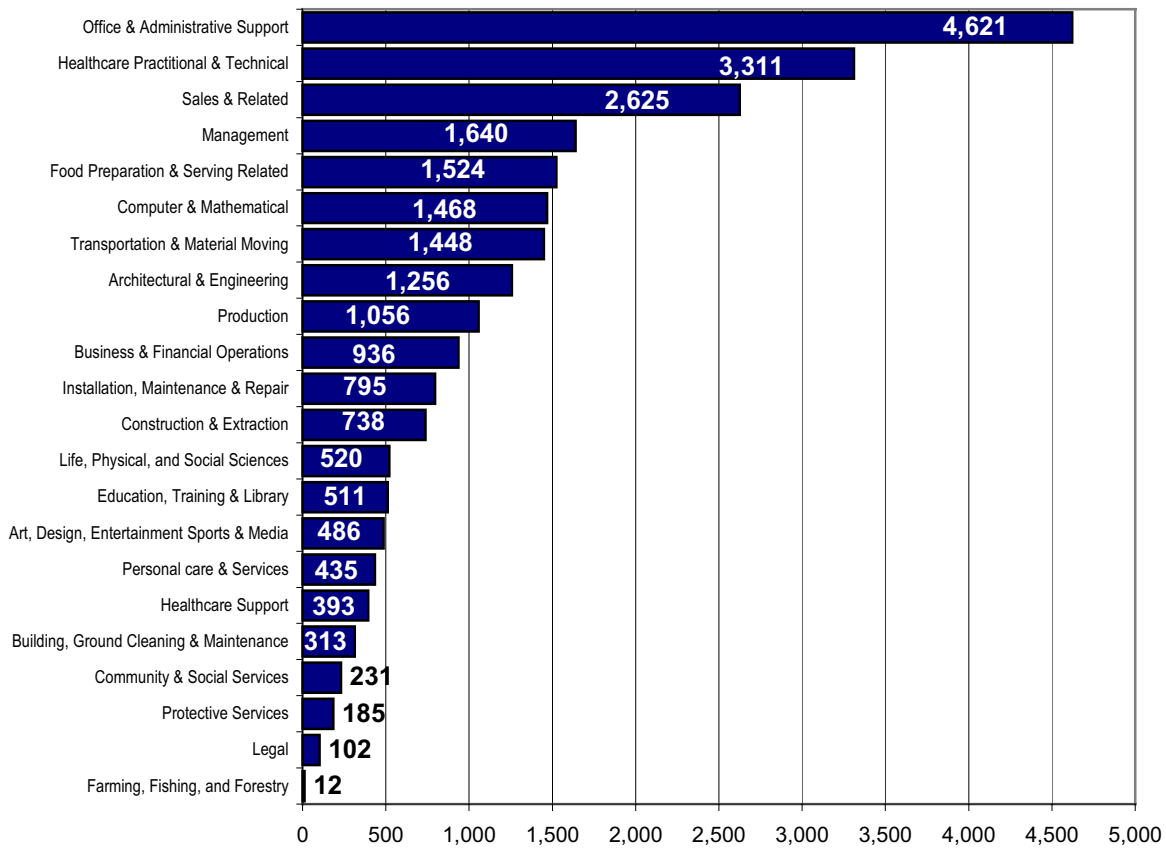


# Occupations

The distribution of vacancies varies greatly between major occupational groups. All major occupational groups, except Farming, Fishing, and Forestry,

and Forestry, have more than 100 openings. More than two-thirds of the estimated vacancies fall in the top seven major occupational groups (*Figure 27*).

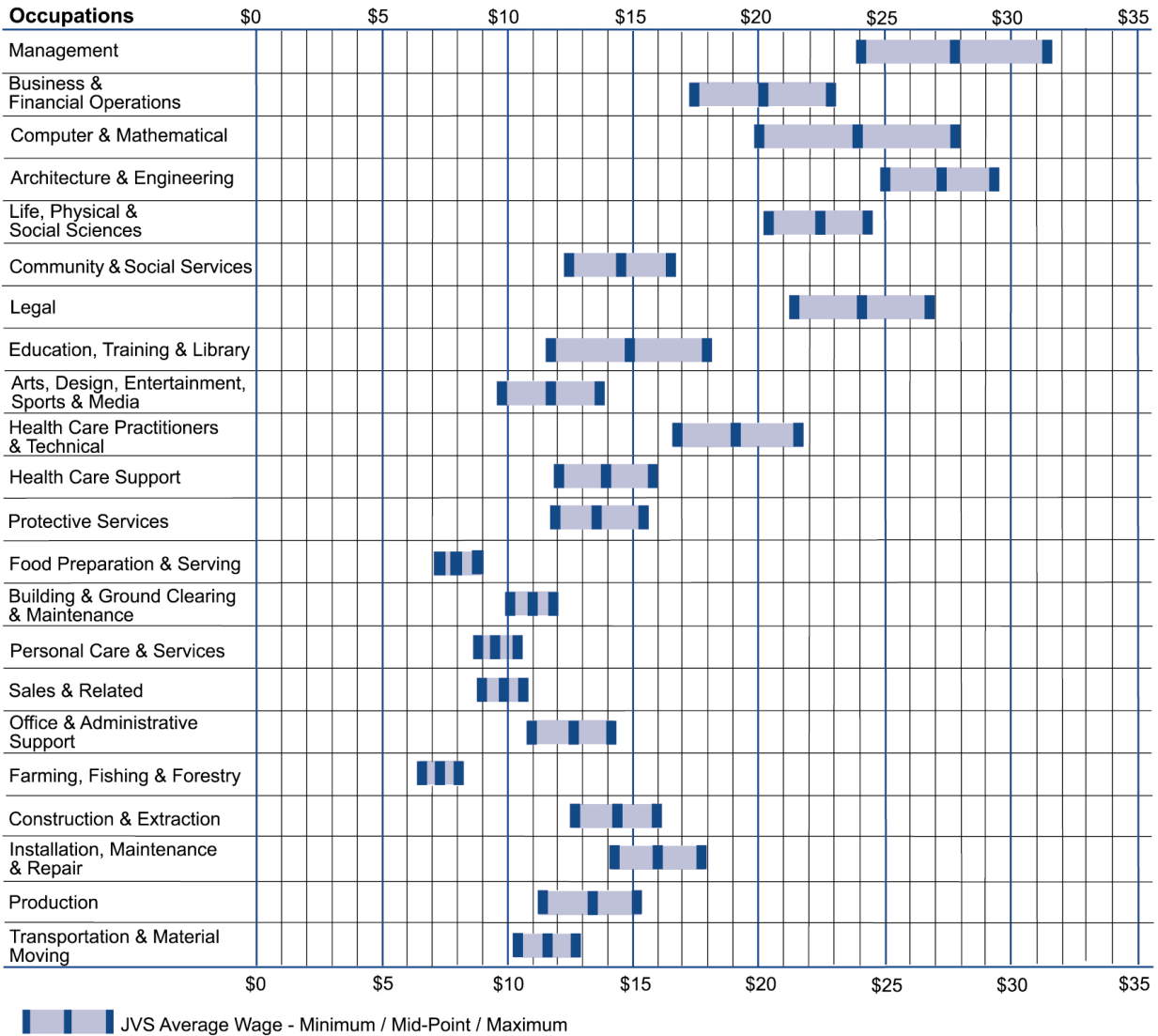
**Figure 27: Vacancies by Major Occupational Groups**



Employers reported 410 different occupations with at least one vacancy. The average number of estimated job openings per occupation is 60. About 24% of all occupations are above the average while the remaining 76% are below the average number of vacancies per occupation.

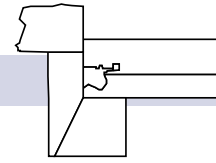
Occupational groups with higher levels of educational and experience requirements such as Management, Architecture & Engineering, Healthcare Practitioners, Technical, Computer and Mathematical, as well as Life, Physical & Social Services, offer higher and wider range of wages (*Figure 28*).

**Figure 28: Range of Average Wages by Major Occupational Group**



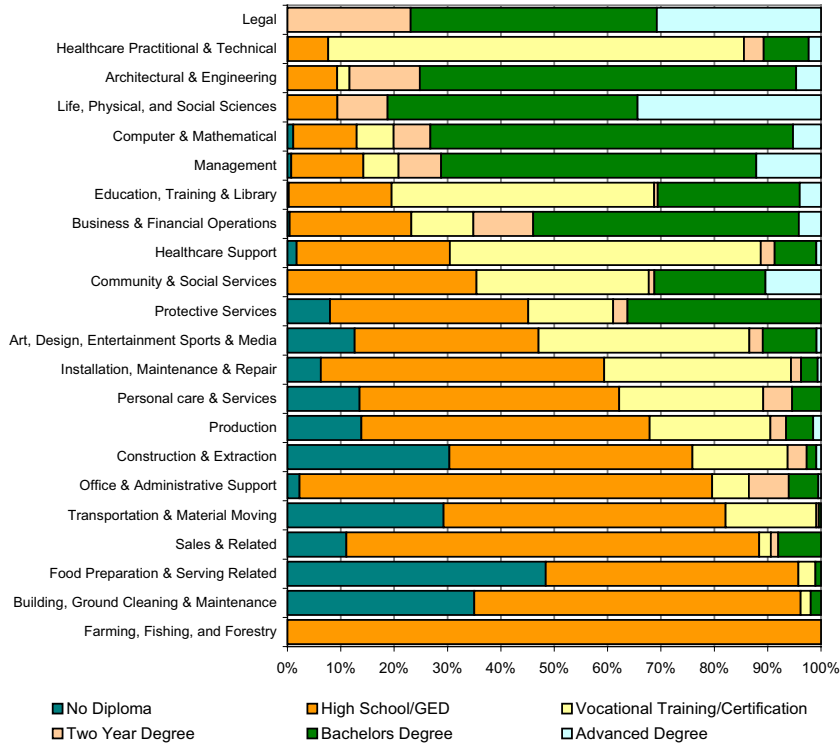
Lower wages with less variation between the minimum and maximum are offered for major occupational groups with the least educational requirements. Such groups include Food Preparation & Serving Related, Building and Grounds Cleaning and Maintenance, Personal Care & Service, Sales & Related, and Farming,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

One-third of the vacancies reported are in the top fifteen occupations with most openings (Table 2). Furthermore, over 80% of the openings are in the top 25% of the occupations listed.

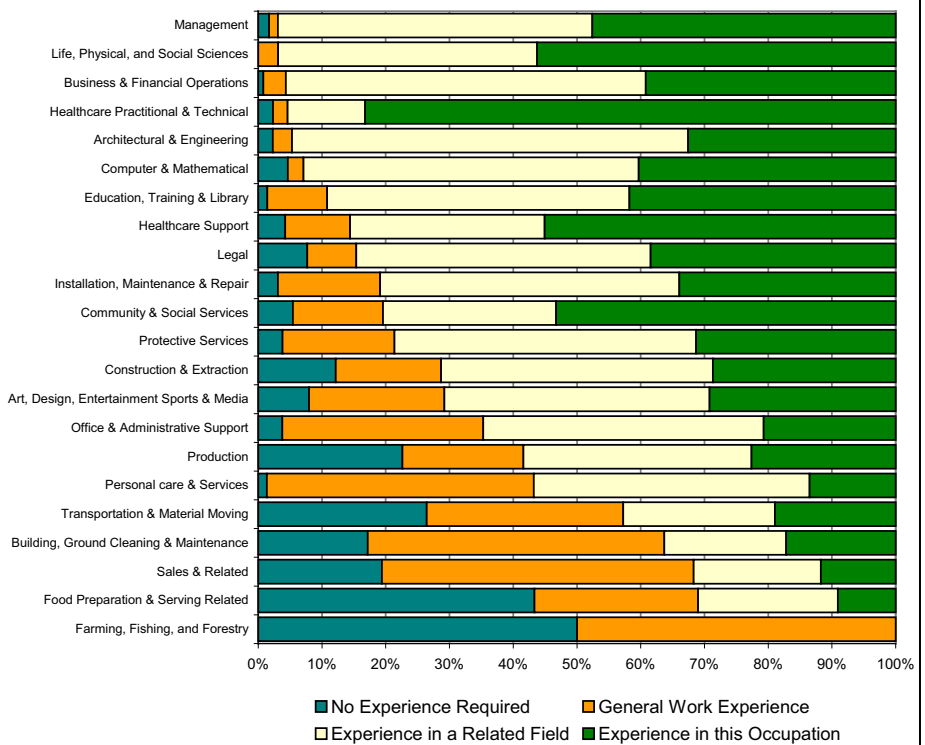


## Requirements by Major Occupational Groups

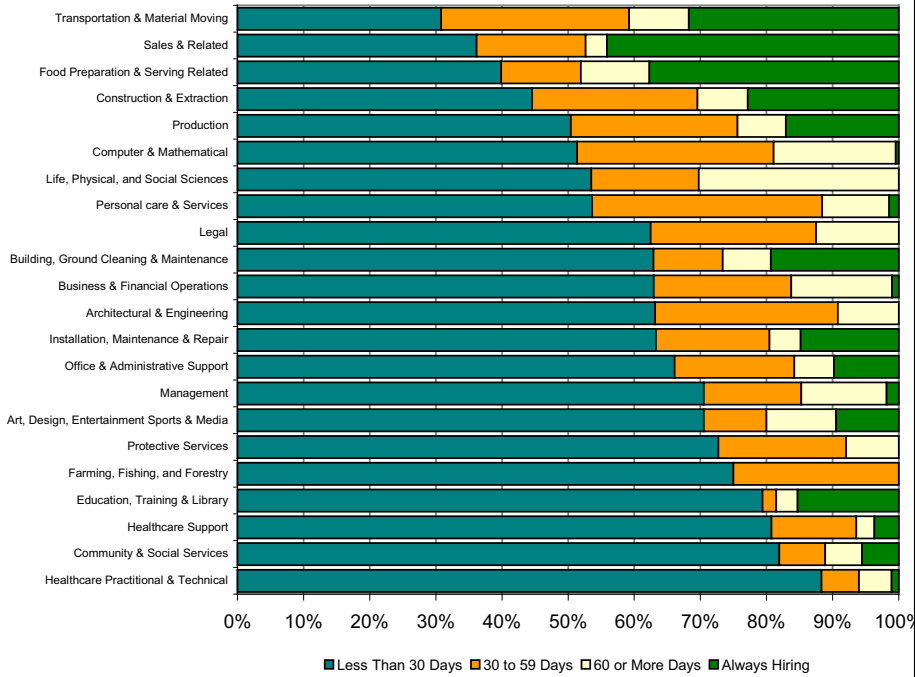
**Figure 29: Major Occupational Groups by Education**



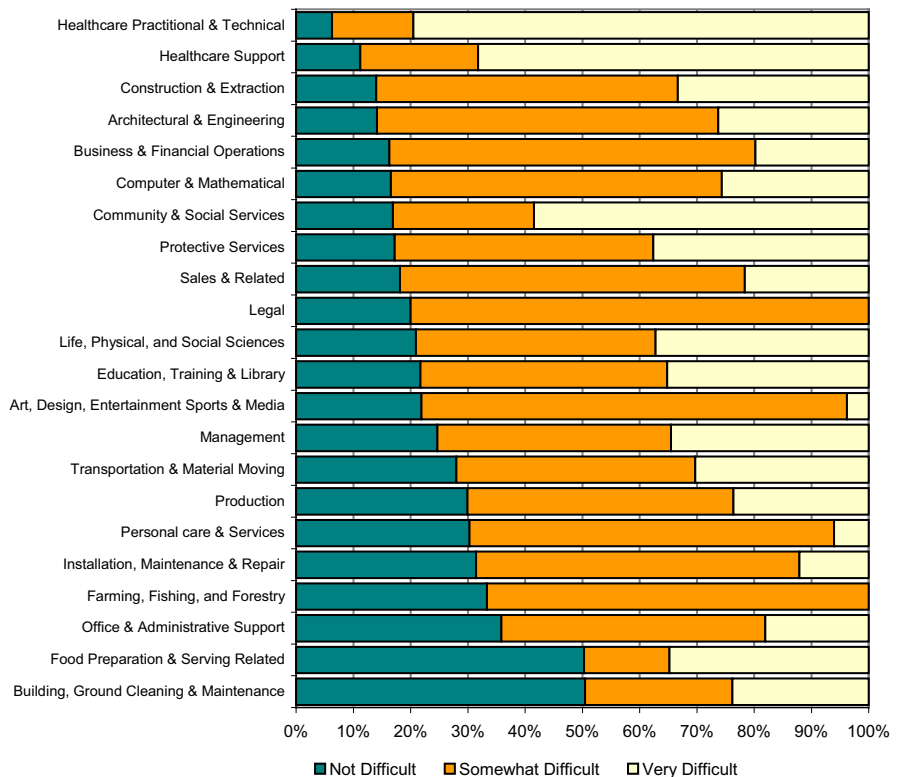
**Figure 30: Major Occupational Groups by Experience**



**Figure 31: Major Occupational Groups by Time Duration**



**Figure 32: Major Occupational Groups by Difficulty to Fill**



**Table 3: Occupations with 10 or More Vacancies**

SOC Cod	SOC Occupation Title	Estimated Number of Vacancies	Average Wage Offered (nearest dime)	Occupational Employment Statistics Wage Data (aged to 2000)							
				Average Wages			Percentile Distribution				
				Entry-Level	Overall	Experienced	10th	25th	50th	75th	90th
29-1111	Registered Nurses	1616	\$21.80	\$17.41	\$22.86	\$25.58	\$16.10	\$18.85	\$22.42	\$25.82	\$32.90
41-4012	Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	780	\$16.70	\$12.78	\$22.23	\$26.95	\$11.65	\$14.78	\$19.04	\$26.26	\$41.02
43-4051	Customer Service Representatives	715	\$11.50	\$9.38	\$12.99	\$14.79	\$9.00	\$10.15	\$12.25	\$15.19	\$18.83
29-2061	Licensed Practical and Licensed Vocational Nurses	541	\$13.80	\$13.18	\$15.78	\$17.08	\$12.72	\$13.83	\$15.25	\$16.72	\$18.83
43-4171	Receptionists and Information Clerks	528	\$9.70	\$7.73	\$10.61	\$12.04	\$7.04	\$8.73	\$10.57	\$12.07	\$14.21
41-2031	Retail Salespersons	485	\$9.10	\$6.94	\$10.38	\$12.10	\$6.30	\$7.25	\$8.57	\$11.24	\$16.53
43-6014	Secretaries, Except Legal, Medical, and Executive	470	\$12.20	\$10.07	\$13.32	\$14.95	\$9.30	\$11.31	\$13.29	\$15.71	\$17.35
41-2011	Cashiers	383	\$7.80	\$6.64	\$9.09	\$10.32	\$6.14	\$6.96	\$8.23	\$10.16	\$15.03
53-3033	Truck Drivers, Light or Delivery Services	379	\$13.20	\$8.53	\$11.96	\$13.68	\$7.84	\$9.24	\$11.62	\$13.92	\$16.91
43-6013	Medical Secretaries	376	\$11.60	\$10.57	\$12.68	\$13.75	\$10.15	\$11.17	\$12.01	\$13.98	\$16.40
11-1021	General and Operations Managers	372	\$35.80	\$19.87	\$37.66	\$46.54	\$18.12	\$22.29	\$33.79	\$50.88	\$72.56
43-5081	Stock Clerks and Order Fillers	348	\$11.80	\$7.44	\$11.55	\$13.61	\$6.84	\$8.19	\$10.56	\$14.50	\$17.95
43-9061	Office Clerks, General	347	\$11.80	\$8.86	\$11.61	\$12.99	\$8.17	\$9.54	\$11.04	\$13.40	\$16.28
53-7064	Packers and Packagers, Hand	344	\$8.70	\$6.05	\$7.80	\$8.66	\$5.84	\$6.27	\$7.12	\$9.04	\$11.15
35-3031	Waiters and Waitresses	343	\$5.60	\$5.95	\$7.56	\$8.37	\$5.76	\$5.97	\$6.32	\$7.11	\$10.19
43-6011	Executive Secretaries and Administrative Assistants	287	\$12.80	\$13.01	\$16.93	\$18.88	\$11.90	\$14.23	\$16.36	\$19.39	\$22.21
43-1011	First-Line Supervisors/Managers of Office and Administrative Support Workers	282	\$15.50	\$12.42	\$18.52	\$21.57	\$11.60	\$13.97	\$17.31	\$21.39	\$27.05
35-9021	Dishwashers	276	\$7.20	\$5.97	\$7.07	\$7.62	\$5.68	\$6.17	\$7.00	\$8.05	\$8.70
44501	Marketing Managers	275	\$25.00	\$24.45	\$38.12	\$44.95	\$20.86	\$29.11	\$36.90	\$47.75	\$59.81
15-1032	Computer Software Engineers, Systems Software	271	\$25.70	\$23.43	\$32.94	\$37.68	\$21.36	\$26.36	\$32.69	\$39.70	\$44.93
41-3099	Sales Representatives, Services, All Other	258	\$12.80	-----	-----	-----	-----	-----	-----	-----	-----
17-1010*	Architects, Except Naval	242	-----	\$16.48	\$25.24	\$29.63	\$15.26	\$17.92	\$22.76	\$31.57	\$41.12
31-1012	Nursing Aides, Orderlies, and Attendants	241	\$12.60	\$8.16	\$9.77	\$10.58	\$7.53	\$8.81	\$9.84	\$10.74	\$11.91
17-2051	Civil Engineers	240	\$27.80	\$19.97	\$28.42	\$32.66	\$18.64	\$21.41	\$27.27	\$35.29	\$43.81
35-3041	Food Servers, Nonrestaurant	215	\$6.10	\$6.03	\$7.81	\$8.70	\$5.89	\$6.45	\$7.66	\$8.84	\$10.47
406090	Administrative Services Managers	213	\$27.40	\$10.88	\$23.48	\$29.77	\$9.96	\$12.33	\$20.01	\$31.92	\$42.94
41-2021	Counter and Rental Clerks	209	\$9.50	\$6.19	\$8.81	\$10.12	\$5.98	\$6.63	\$7.92	\$9.65	\$12.89
15-1051	Computer Systems Analysts	204	\$26.90	\$22.14	\$31.10	\$35.59	\$20.22	\$25.23	\$31.11	\$36.67	\$43.31
15-1031	Computer Software Engineers, Applications	204	\$22.80	\$24.59	\$33.90	\$38.55	\$23.32	\$26.95	\$33.19	\$40.60	\$45.59
51-3011	Bakers	196	\$12.20	\$8.31	\$12.64	\$14.81	\$7.63	\$9.22	\$11.95	\$14.76	\$18.78
49-9021	Heating, Air Conditioning, and Refrigeration Mechanics and Installers	195	\$18.90	\$12.66	\$17.89	\$20.51	\$11.52	\$14.10	\$16.85	\$21.22	\$25.15
47-2061	Construction Laborers	193	\$11.10	\$8.31	\$11.29	\$12.77	\$7.68	\$8.99	\$11.03	\$13.33	\$15.83
15-1071	Network and Computer Systems Administrators	189	\$23.80	\$18.33	\$26.65	\$30.81	\$17.03	\$20.67	\$25.61	\$31.84	\$39.02
15-1021	Computer Programmers	189	\$22.80	\$18.23	\$28.79	\$34.07	\$15.24	\$21.20	\$29.37	\$38.68	\$45.31
29-2052	Pharmacy Technicians	188	\$14.40	\$9.26	\$11.99	\$13.34	\$8.47	\$10.45	\$12.37	\$13.69	\$14.75
43-4111	Interviewers, Except Eligibility and Loan	179	-----	\$7.71	\$10.00	\$11.14	\$7.00	\$7.83	\$9.02	\$11.95	\$14.43

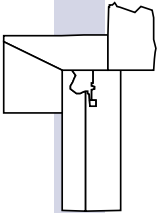
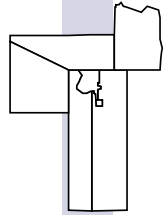




Table 3: Occupations with 10 or More Vacancies - Page 2

SOC Cod	SOC Occupation Title	Estimated Number of Vacancies	Average Wage Offered (nearest dime)	Occupational Employment Statistics Wage Data (aged to 2000)							
				Average Wages			Percentile Distribution				
				Entry-Level	Overall	Experienced	10th	25th	50th	75th	90th
47-4041	Hazardous Materials Removal Workers	174	\$13.00	\$11.33	\$13.02	\$13.87	\$11.03	\$11.47	\$12.30	\$13.74	\$16.93
53-3032	Truck Drivers, Heavy and Tractor-Trailer	171	\$13.70	\$11.83	\$16.09	\$18.23	\$11.34	\$12.70	\$15.14	\$17.97	\$21.34
19-4091	Environmental Science and Protection Technicians, Including Health	170	-----	\$13.57	\$19.34	\$22.22	\$11.99	\$15.17	\$18.69	\$23.25	\$27.17
13-2051	Financial Analysts	169	\$24.80	\$18.43	\$31.66	\$38.27	\$17.96	\$20.34	\$24.84	\$33.70	\$72.56
49-2022	Telecommunications Equipment Installers and Repairers, Except Line Installers	169	\$23.10	\$17.45	\$22.62	\$25.21	\$15.30	\$20.46	\$24.08	\$26.28	\$27.58
44866	Sales Managers	169	\$26.30	\$23.39	\$38.94	\$46.72	\$20.93	\$26.64	\$35.29	\$49.14	\$72.56
35-2011	Cooks, Fast Food	166	\$9.90	\$5.89	\$6.84	\$7.32	\$5.79	\$6.01	\$6.40	\$7.65	\$8.76
53-3031	Driver/Sales Workers	164	\$10.30	\$5.92	\$11.18	\$13.80	\$5.87	\$6.21	\$9.80	\$14.90	\$20.23
13-2011	Accountants and Auditors	161	\$19.10	\$15.51	\$22.97	\$26.71	\$14.47	\$17.07	\$20.57	\$26.93	\$37.51
15-1041	Computer Support Specialists	158	\$18.50	\$13.89	\$17.71	\$19.62	\$12.66	\$14.75	\$16.69	\$20.15	\$24.72
29-2056	Veterinary Technologists and Technicians	152	\$8.80	\$9.78	\$12.95	\$14.54	\$9.27	\$10.03	\$11.37	\$13.43	\$17.53
35-3022	Counter Attendants, Cafeteria, Food Concession, and Coffee Shop	149	\$7.10	\$6.00	\$7.35	\$8.02	\$5.89	\$6.45	\$7.55	\$8.40	\$8.93
41-1010*	First-Line Supervisors/Managers, Sales Workers	147	\$15.50	\$12.05	\$20.21	\$24.29	\$10.79	\$13.49	\$17.62	\$23.27	\$33.88
29-2034	Radiologic Technologists and Technicians	143	\$17.50	\$12.69	\$16.91	\$19.01	\$11.36	\$14.45	\$16.77	\$19.86	\$22.02
37-2012	Maids and Housekeeping Cleaners	143	\$10.20	\$6.14	\$7.44	\$8.10	\$5.89	\$6.44	\$7.42	\$8.49	\$9.34
17-2141	Mechanical Engineers	140	\$27.60	\$20.59	\$29.47	\$33.91	\$18.87	\$22.83	\$29.43	\$38.14	\$44.48
43-3031	Bookkeeping, Accounting, and Auditing Clerks	137	\$11.00	\$9.64	\$13.37	\$15.24	\$9.01	\$11.03	\$13.04	\$15.64	\$17.71
15-1081	Network Systems and Data Communications Analysts	133	\$26.60	\$20.10	\$29.58	\$34.32	\$18.18	\$22.13	\$28.35	\$35.94	\$43.47
35-3021	Combined Food Preparation and Serving Workers, Including Fast Food	133	\$8.00	\$5.94	\$6.88	\$7.35	\$5.78	\$6.04	\$6.58	\$7.67	\$8.82
53-7051	Industrial Truck and Tractor Operators	130	\$10.80	\$10.01	\$13.29	\$14.94	\$9.52	\$10.95	\$12.98	\$15.40	\$17.23
39-2021	Nonfarm Animal Caretakers	130	\$12.50	\$7.62	\$10.25	\$11.56	\$7.31	\$7.98	\$9.23	\$10.94	\$16.65
39-9032	Recreation Workers	129	\$9.40	\$7.09	\$9.83	\$11.19	\$6.60	\$7.81	\$9.36	\$10.67	\$14.20
49-9042	Maintenance and Repair Workers, General	128	\$13.60	\$8.68	\$12.92	\$15.05	\$7.85	\$9.81	\$12.00	\$15.70	\$19.57
43-5032	Dispatchers, Except Police, Fire, and Ambulance	128	-----	\$9.71	\$14.30	\$16.60	\$9.42	\$10.71	\$13.32	\$17.23	\$20.94
17-2199	Engineers, All Other	127	-----	\$22.68	\$31.96	\$36.60	\$20.76	\$24.93	\$31.30	\$38.71	\$44.64
413395	Financial Managers	127	\$28.30	\$23.25	\$36.20	\$42.68	\$21.42	\$26.31	\$33.55	\$43.92	\$59.01
43-2011	Switchboard Operators, Including Answering Service	120	\$9.50	\$7.62	\$9.83	\$10.95	\$6.88	\$7.99	\$9.50	\$11.39	\$13.50
27-1024	Graphic Designers	120	\$21.00	\$11.10	\$18.01	\$21.46	\$10.07	\$12.54	\$16.89	\$23.07	\$27.38
25-9041**	Teacher Assistants	115	\$18,720	\$14,057	\$17,605	\$19,378	\$12,849	\$15,025	\$17,246	\$20,093	\$23,168
43-3071	Tellers	115	\$13.60	\$8.54	\$10.10	\$10.89	\$7.78	\$9.25	\$10.09	\$10.96	\$12.31
43-9021	Data Entry Keyers	112	\$11.40	\$8.10	\$10.49	\$11.69	\$7.42	\$8.85	\$10.24	\$11.91	\$13.92
25-2021**	Elementary School Teachers, Except Special Education	104	\$30,576	\$27,549	\$39,487	\$45,456	\$25,536	\$29,810	\$36,749	\$46,098	\$57,663
29-1126	Respiratory Therapists	102	-----	\$14.31	\$17.60	\$19.25	\$13.51	\$15.43	\$17.60	\$19.94	\$21.67
33-9032	Security Guards	101	\$11.90	\$7.96	\$11.18	\$12.78	\$7.47	\$8.63	\$10.02	\$12.12	\$18.59



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

SOC Cod	SOC Occupation Title	Estimated Number of Vacancies	Average Wage Offered (nearest dime)	Occupational Employment Statistics Wage Data (aged to 2000)							
				Average Wages			Percentile Distribution				
				Entry-Level	Overall	Experienced	10th	25th	50th	75th	90th
43-4031	Court, Municipal, and License Clerks	101	\$12.40	\$12.40	\$15.51	\$17.07	\$11.89	\$13.16	\$15.16	\$17.12	\$19.98
41-9011	Demonstrators and Product Promoters	98	\$8.50	\$7.65	\$10.53	\$11.97	\$7.31	\$7.91	\$8.90	\$11.71	\$15.94
51-3021	Butchers and Meat Cutters	96	\$10.90	\$10.39	\$14.52	\$16.58	\$9.58	\$11.44	\$15.07	\$16.86	\$18.98
2666211	Managers, All Other	95	\$20.20	\$21.19	\$32.91	\$38.78	\$19.23	\$24.50	\$32.10	\$40.95	\$50.22
17-2072	Electronics Engineers, Except Computer	94	\$31.20	\$22.95	\$32.93	\$37.91	\$21.29	\$26.01	\$33.06	\$40.32	\$44.82
37-3011	Landscaping and Groundskeeping Workers	89	\$9.70	\$7.53	\$9.63	\$10.68	\$7.21	\$7.80	\$8.79	\$10.91	\$13.70
27-2023**	Umpires, Referees, and Other Sports Officials	88	\$10.60	\$7.84	\$10.20	\$11.38	\$7.37	\$7.88	\$8.73	\$12.56	\$13.60
29-2055	Surgical Technologists	87	\$19.20	\$9.66	\$13.89	\$16.01	\$9.02	\$11.36	\$13.20	\$15.63	\$17.48
35-2021	Food Preparation Workers	86	\$12.40	\$7.48	\$8.64	\$9.22	\$7.12	\$7.51	\$8.19	\$9.02	\$11.86
51-6031	Sewing Machine Operators	85	\$8.50	\$6.71	\$8.34	\$9.16	\$6.09	\$7.14	\$8.07	\$9.26	\$11.03
21-1020*	Social Workers	85	\$13.70	\$12.58	\$17.60	\$20.12	\$11.22	\$14.05	\$17.04	\$20.94	\$24.89
53-7062	Laborers and Freight, Stock, and Material Movers, Hand	84	\$8.90	\$7.98	\$11.00	\$12.51	\$7.14	\$8.97	\$10.26	\$12.42	\$16.61
47-4011	Construction and Building Inspectors	81	\$18.90	\$14.93	\$20.98	\$24.00	\$11.77	\$17.75	\$21.00	\$25.01	\$27.99
13-1111	Management Analysts	77	-----	\$20.80	\$36.95	\$45.03	\$18.37	\$24.12	\$32.00	\$48.07	\$72.30
43-4081	Hotel, Motel, and Resort Desk Clerks	75	\$10.40	\$7.53	\$8.27	\$8.64	\$6.72	\$7.45	\$8.23	\$9.02	\$10.06
17-3012	Electrical and Electronics Drafters	73	-----	\$14.46	\$21.13	\$24.45	\$13.39	\$16.27	\$22.85	\$25.84	\$27.63
47-4051	Highway Maintenance Workers	71	\$13.80	\$12.98	\$15.93	\$17.42	\$12.28	\$14.03	\$15.75	\$17.70	\$20.56
51-9199	Production Workers, All Other	70	\$11.40	\$6.21	\$10.26	\$12.28	\$5.92	\$6.78	\$9.24	\$13.15	\$16.39
53-3021	Bus Drivers, Transit and Intercity	69	\$12.90	\$8.49	\$12.09	\$13.88	\$7.61	\$9.37	\$12.03	\$14.83	\$16.75
51-4111	Tool and Die Makers	67	\$20.20	\$14.14	\$19.21	\$21.74	\$13.10	\$16.55	\$19.22	\$22.25	\$25.51
41-9091	Door-to-Door Sales Workers, News and Street Vendors, and Related Workers	65	\$13.90	\$9.20	\$15.72	\$18.98	\$8.91	\$9.72	\$11.05	\$23.21	\$27.20
35-3011	Bartenders	65	\$6.40	\$5.97	\$6.99	\$7.49	\$5.78	\$6.08	\$6.67	\$7.70	\$9.03
51-3092	Food Batchmakers	65	\$9.00	\$7.81	\$8.68	\$9.13	\$7.24	\$7.58	\$8.15	\$8.72	\$12.02
19-2041	Environmental Scientists and Specialists, Including Health	65	\$10.50	\$17.89	\$25.94	\$29.97	\$16.34	\$20.09	\$25.37	\$31.31	\$35.61
51-7099	Woodworkers, All Other	65	\$10.00	\$7.26	\$9.98	\$11.35	\$7.01	\$7.67	\$8.77	\$12.44	\$14.79
19-4021	Biological Technicians	65	\$17.50	\$12.49	\$15.36	\$16.80	\$11.88	\$12.92	\$14.77	\$16.81	\$20.29
51-2092	Team Assemblers	65	\$8.00	\$7.39	\$10.22	\$11.64	\$7.17	\$8.13	\$9.88	\$12.06	\$13.76
19-1029	Biological Scientists, All Other	65	\$37.00	-----	-----	-----	-----	-----	-----	-----	-----
420700	Industrial Production Managers	60	\$28.30	\$19.85	\$30.80	\$36.27	\$17.22	\$22.75	\$30.48	\$40.58	\$48.49
17-2071	Electrical Engineers	59	\$38.70	\$21.27	\$30.28	\$34.78	\$19.57	\$22.39	\$29.78	\$37.60	\$43.01
25-2041**	Special Education Teachers, Preschool, Kindergarten, and Elementary School	59	\$27,456	\$27,603	\$36,050	\$40,275	\$25,637	\$29,132	\$33,442	\$39,885	\$51,734
25-2031**	Secondary School Teachers, Except Special and Vocational Education	59	\$4,076	\$28,449	\$40,636	\$46,731	\$26,201	\$31,063	\$39,208	\$49,773	\$57,194
29-1127	Speech-Language Pathologists	57	-----	\$17.19	\$21.91	\$24.27	\$15.58	\$18.25	\$21.02	\$24.89	\$27.89
27-1014	Multi-Media Artists and Animators	57	\$15.00	\$10.90	\$17.67	\$21.06	\$10.00	\$11.95	\$16.96	\$21.92	\$26.35

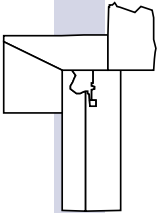


Table 3: Occupations with 10 or More Vacancies - Page 4

SOC Cod	SOC Occupation Title	Estimated Number of Vacancies	Average Wage Offered (nearest dime)	Occupational Employment Statistics Wage Data (aged to 2000)							
				Average Wages			Percentile Distribution				
				Entry-Level	Overall	Experienced	10th	25th	50th	75th	90th
17-2061	Computer Hardware Engineers	57	\$20.20	\$25.59	\$34.45	\$38.87	\$23.77	\$27.88	\$33.30	\$40.99	\$49.13
31-9092	Medical Assistants	56	\$25.20	\$9.73	\$12.12	\$13.32	\$9.39	\$10.54	\$12.09	\$13.49	\$15.43
15-1030*	Computer Software Engineers	56	\$26.00	\$24.26	\$33.63	\$38.30	\$22.77	\$26.78	\$33.05	\$40.35	\$45.40
51-4041	Machinists	56	\$12.50	\$11.79	\$16.21	\$18.42	\$11.34	\$13.20	\$15.91	\$19.08	\$21.75
37-2011	Janitors and Cleaners, Except Maids and Housekeeping Cleaners	55	\$9.00	\$6.50	\$8.84	\$10.02	\$6.05	\$6.90	\$8.41	\$10.36	\$12.57
23-1011	Lawyers	54	\$30.50	\$32.16	\$42.87	\$48.23	\$27.09	\$36.75	\$41.68	\$49.42	\$65.60
13-2072	Loan Officers	53	\$16.60	\$12.10	\$22.79	\$28.14	\$10.67	\$14.74	\$20.80	\$27.93	\$38.16
27-4011	Audio and Video Equipment Technicians	50	\$15.60	\$13.24	\$18.36	\$20.91	\$11.63	\$14.72	\$17.57	\$20.93	\$25.99
29-2051	Dietetic Technicians	49	-----	\$6.53	\$9.43	\$10.89	\$6.06	\$7.03	\$9.05	\$11.40	\$13.92
27-3010	Announcers	48	\$17.20	\$6.53	\$14.57	\$18.60	\$6.02	\$7.28	\$11.06	\$15.23	\$26.65
424353	Purchasing Managers	48	\$58.60	\$16.95	\$27.77	\$33.17	\$15.09	\$19.45	\$26.12	\$36.82	\$45.53
13-1199	Business Operations Specialists, All Other	47	\$18.90	\$16.07	\$23.95	\$27.89	\$14.58	\$18.01	\$23.12	\$28.97	\$34.70
43-3021	Billing and Posting Clerks and Machine Operators	47	\$13.80	\$9.84	\$12.52	\$13.85	\$9.30	\$10.94	\$12.17	\$14.01	\$16.43
49-3023	Automotive Service Technicians and Mechanics	47	\$17.20	\$10.50	\$16.87	\$20.05	\$9.07	\$12.14	\$15.96	\$20.31	\$25.36
29-2071	Medical Records and Health Information Technicians	47	-----	\$10.15	\$12.95	\$14.33	\$9.55	\$10.90	\$12.50	\$14.00	\$17.21
51-4121	Welders, Cutters, Solderers, and Brazers	46	\$13.70	\$10.18	\$14.18	\$16.18	\$9.56	\$11.31	\$13.67	\$16.63	\$19.91
49-3031	Bus and Truck Mechanics and Diesel Engine Specialists	46	\$16.90	\$12.89	\$17.23	\$19.40	\$11.67	\$14.17	\$17.15	\$20.20	\$23.08
23-2011	Paralegals and Legal Assistants	45	\$14.40	\$12.82	\$18.53	\$21.39	\$11.93	\$14.00	\$17.68	\$22.34	\$27.01
41-4011	Sales Representatives, Wholesale and Manufacturing, Technical and Scientific Products	45	\$27.30	\$18.75	\$34.57	\$42.47	\$16.78	\$22.12	\$33.14	\$50.05	\$62.94
47-2211	Sheet Metal Workers	45	\$11.90	\$9.40	\$16.38	\$19.87	\$7.24	\$11.55	\$15.56	\$22.32	\$25.72
13-1072	Compensation, Benefits, and Job Analysis Specialists	42	\$21.60	\$14.89	\$24.31	\$29.02	\$13.69	\$16.56	\$19.93	\$25.44	\$57.74
13-2082	Tax Preparers	42	-----	\$7.80	\$15.39	\$19.20	\$6.87	\$9.05	\$15.27	\$20.12	\$25.25
21-1015	Rehabilitation Counselors	42	\$14.30	\$9.12	\$11.72	\$13.02	\$8.91	\$9.47	\$10.40	\$12.28	\$18.44
51-2022	Electrical and Electronic Equipment Assemblers	41	\$13.50	\$5.97	\$9.55	\$11.35	\$5.83	\$6.53	\$9.41	\$12.16	\$14.13
48153	Public Relations Managers	40	\$19.20	\$14.62	\$26.00	\$31.69	\$12.21	\$17.62	\$22.97	\$32.23	\$45.60
33-9030*	Security Guards and Gaming Surveillance Officers	39	\$12.10	\$7.96	\$11.18	\$12.78	\$7.47	\$8.63	\$10.02	\$12.12	\$18.59
15-1061	Database Administrators	38	\$23.60	\$18.40	\$27.33	\$31.80	\$16.71	\$20.91	\$26.30	\$35.75	\$43.28
29-1123	Physical Therapists	37	\$16.70	\$19.01	\$25.82	\$29.22	\$18.13	\$20.84	\$24.47	\$30.81	\$41.57
21-1021	Child, Family, and School Social Workers	36	\$13.90	\$12.57	\$17.76	\$20.36	\$11.08	\$14.25	\$17.60	\$21.15	\$24.90
41-3041	Travel Agents	36	\$13.00	\$8.49	\$11.66	\$13.25	\$7.69	\$9.52	\$11.40	\$13.38	\$16.28
39-9099	Personal Care and Service Workers, All Other	36	\$7.00	\$7.21	\$10.98	\$12.86	\$6.90	\$7.92	\$9.73	\$12.79	\$16.20
27-2022**	Coaches and Scouts	36	\$10.70	\$10	\$18	\$21	\$9	\$12	\$17	\$22	\$27
13-1081	Logisticians	35	-----	-----	-----	-----	-----	-----	-----	-----	-----
29-2041	Emergency Medical Technicians and Paramedics	35	\$16.00	\$10.09	\$14.70	\$17.00	\$9.52	\$11.37	\$12.94	\$17.35	\$22.64
2601198	Construction Managers	35	\$24.30	\$18.48	\$29.66	\$35.24	\$16.52	\$20.61	\$28.39	\$34.95	\$45.35
29-1066	Psychiatrists	35	-----	\$44.23	\$59.95	\$67.81	\$46.46	\$54.66	\$65.99	\$72.96	\$72.97

**Table 3: Occupations with 10 or More Vacancies - Page 5**

SOC Cod	SOC Occupation Title	Estimated Number of Vacancies	Average Wage Offered (nearest dime)	Occupational Employment Statistics Wage Data (aged to 2000)							
				Average Wages			Percentile Distribution				
				Entry-Level	Overall	Experienced	10th	25th	50th	75th	90th
13-2041	Credit Analysts	35	\$13.10	\$14.30	\$21.38	\$24.93	\$13.34	\$15.39	\$19.39	\$24.52	\$33.09
43-4199	Information and Record Clerks, All Other	35	-----	-----	-----	-----	-----	-----	-----	-----	-----
35-1010*	First-Line Supervisors/Managers, Food Preparation and Serving Workers	35	\$17.60	\$9.63	\$14.10	\$16.35	\$9.08	\$10.33	\$13.12	\$17.51	\$21.31
13-1051	Cost Estimators	33	\$34.10	\$15.75	\$24.14	\$28.34	\$14.37	\$18.07	\$22.24	\$29.59	\$40.91
17-1022	Surveyors	32	-----	\$13.58	\$18.67	\$21.21	\$12.39	\$14.71	\$18.11	\$22.02	\$26.34
29-1122	Occupational Therapists	32	\$13.60	\$17.50	\$23.55	\$26.57	\$16.33	\$18.97	\$22.36	\$26.84	\$37.64
49-1011	First-Line Supervisors/Managers of Mechanics, Installers, and Repairers	31	-----	\$17.63	\$24.64	\$28.15	\$16.02	\$20.05	\$24.53	\$28.18	\$34.12
2608503	Engineering Managers	31	\$30.20	\$28.67	\$39.48	\$44.88	\$27.18	\$31.63	\$38.50	\$47.77	\$56.32
25-9099	Education, Training, and Library Workers, All Other	31	-----	-----	-----	-----	-----	-----	-----	-----	-----
41-9041	Telemarketers	31	\$10.40	\$6.49	\$9.15	\$10.49	\$6.04	\$7.07	\$8.53	\$10.85	\$13.11
39-6030	Transportation Attendants	30	\$13.80	-----	-----	-----	-----	-----	-----	-----	-----
25-2022**	Middle School Teachers, Except Special and Vocational Education	30	\$14.90	\$13.64	\$18.79	\$21.37	\$12.52	\$14.63	\$17.66	\$22.24	\$26.69
31-1013	Psychiatric Aides	29	\$10.80	\$10.69	\$12.50	\$13.40	\$9.84	\$11.73	\$12.81	\$13.64	\$14.13
17-2151	Mining and Geological Engineers, Including Mining Safety Engineers	29	-----	\$24.24	\$34.11	\$39.02	\$23.31	\$26.89	\$31.91	\$40.24	\$52.94
13-1073	Training and Development Specialists	28	\$24.00	\$13.08	\$19.88	\$23.28	\$11.79	\$14.57	\$18.72	\$24.30	\$29.57
49-9043	Maintenance Workers, Machinery	27	\$14.20	\$13.60	\$18.10	\$20.35	\$12.92	\$14.76	\$17.79	\$21.22	\$24.36
29-2012	Medical and Clinical Laboratory Technicians	26	\$14.90	\$11.44	\$16.81	\$19.49	\$10.53	\$12.90	\$17.00	\$20.34	\$23.38
409743	Computer and Information Systems Managers	26	\$34.50	\$29.29	\$42.09	\$48.48	\$27.08	\$33.40	\$41.40	\$51.11	\$61.97
51-9061	Inspectors, Testers, Sorters, Samplers, and Weighers	26	\$13.50	\$8.12	\$13.33	\$15.94	\$7.30	\$9.23	\$12.28	\$16.36	\$20.81
29-2090	Miscellaneous Health Technologists and Technicians	26	\$11.40	-----	-----	-----	-----	-----	-----	-----	-----
27-3042	Technical Writers	26	-----	\$18.22	\$24.20	\$27.20	\$16.61	\$19.89	\$24.07	\$27.38	\$32.32
29-2011	Medical and Clinical Laboratory Technologists	26	\$17.50	\$14.88	\$19.69	\$22.09	\$13.76	\$16.74	\$19.56	\$22.31	\$25.90
17-2011	Aerospace Engineers	25	-----	-----	-----	-----	-----	-----	-----	-----	-----
47-2070*	Construction Equipment Operators	25	\$11.00	\$13.60	\$17.08	\$18.82	\$12.80	\$14.48	\$17.23	\$19.47	\$21.29
39-6011	Baggage Porters and Bellhops	25	\$10.00	\$5.95	\$8.28	\$9.45	\$5.79	\$6.19	\$7.34	\$9.28	\$10.51
51-9011	Chemical Equipment Operators and Tenders	25	-----	-----	-----	-----	-----	-----	-----	-----	-----
29-1051	Pharmacists	25	\$24.10	\$27.58	\$32.29	\$34.65	\$24.90	\$29.70	\$33.79	\$39.75	\$44.57
39-9031	Fitness Trainers and Aerobics Instructors	25	\$10.20	\$8.72	\$15.53	\$18.93	\$7.99	\$9.77	\$13.45	\$20.98	\$26.23
13-1030*	Claims Adjusters, Appraisers, Examiners, and Investigators	25	\$14.40	\$13.04	\$19.03	\$22.03	\$10.88	\$14.84	\$17.97	\$23.06	\$27.71
47-2031	Carpenters	24	\$12.80	\$13.86	\$16.94	\$18.49	\$12.63	\$14.77	\$16.62	\$19.25	\$21.44
29-2031	Cardiovascular Technologists and Technicians	23	-----	\$11.76	\$17.03	\$19.67	\$11.25	\$13.04	\$16.42	\$20.52	\$24.49
416683	Human Resources Managers	23	\$27.60	\$19.40	\$30.56	\$36.14	\$17.88	\$21.66	\$29.31	\$39.99	\$48.64
2645027	Property, Real Estate, and Community Association Managers	23	\$17.30	\$10.66	\$19.72	\$24.25	\$9.40	\$12.63	\$17.13	\$24.49	\$35.46

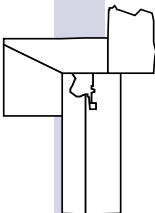


Table 3: Occupations with 10 or More Vacancies - Page 6

SOC Cod	SOC Occupation Title	Estimated Number of Vacancies	Average Wage Offered (nearest dime)	Occupational Employment Statistics Wage Data (aged to 2000)								
				Average Wages			Percentile Distribution					
				Entry-Level	Overall	Experienced	10th	25th	50th	75th	90th	
47-2152	Plumbers, Pipefitters, and Steamfitters	23	\$15.50	\$10.88	\$17.31	\$20.53	\$9.87	\$12.34	\$16.33	\$22.00	\$25.87	
21-1022	Medical and Public Health Social Workers	23	\$23.70	\$13.24	\$18.46	\$21.07	\$12.01	\$14.42	\$16.92	\$22.46	\$26.67	
13-2099	Financial Specialists, All Other	23	\$14.90	\$14.83	\$21.75	\$25.20	\$14.12	\$16.50	\$20.06	\$25.18	\$32.84	
19-3021	Market Research Analysts	22	\$17.50	\$16.55	\$27.87	\$33.53	\$14.98	\$18.18	\$25.60	\$33.09	\$42.28	
17-2112	Industrial Engineers	22	-----	\$19.78	\$26.48	\$29.82	\$18.78	\$21.35	\$25.62	\$31.13	\$35.85	
47-2161	Plasterers and Stucco Masons	22	\$12.00	\$12.11	\$14.55	\$15.77	\$11.56	\$13.02	\$14.81	\$16.08	\$16.85	
53-7061	Cleaners of Vehicles and Equipment	22	\$12.00	\$6.54	\$9.36	\$10.77	\$6.06	\$6.89	\$8.47	\$10.94	\$15.04	
39-9030*	Recreation and Fitness Workers	21	\$8.40	\$7.86	\$12.53	\$14.85	\$7.26	\$8.74	\$11.29	\$15.55	\$19.89	
19-4090*	Miscellaneous Life, Physical, and Social Science Technicians	21	-----	\$9.86	\$16.69	\$20.11	\$8.57	\$11.58	\$15.06	\$20.18	\$27.95	
13-2021	Appraisers and Assessors of Real Estate	21	-----	\$19.24	\$27.51	\$31.66	\$17.91	\$21.21	\$24.15	\$31.37	\$50.95	
43-4161	Human Resources Assistants, Except Payroll and Timekeeping	21	\$13.80	\$10.97	\$14.38	\$16.09	\$10.12	\$12.00	\$14.40	\$16.47	\$18.13	
51-6011	Laundry and Dry-Cleaning Workers	21	\$6.50	\$6.90	\$7.94	\$8.47	\$6.38	\$7.22	\$7.91	\$8.61	\$10.08	
17-2081	Environmental Engineers	21	-----	\$22.73	\$29.90	\$33.49	\$20.88	\$25.86	\$30.75	\$34.25	\$38.17	
13-2031	Budget Analysts	20	\$25.60	\$16.94	\$25.12	\$29.20	\$15.27	\$18.87	\$23.95	\$31.73	\$39.59	
17-2041	Chemical Engineers	20	-----	\$23.73	\$33.05	\$37.71	\$20.99	\$26.15	\$34.13	\$42.35	\$48.99	
51-1011	First-Line Supervisors/Managers of Production and Operating Workers	20	\$28.90	\$13.82	\$20.28	\$23.51	\$12.55	\$15.57	\$19.54	\$24.40	\$29.31	
41-1011	First-Line Supervisors/Managers of Retail Sales Workers	20	\$10.80	\$10.75	\$17.86	\$21.41	\$9.82	\$11.88	\$15.12	\$19.49	\$30.67	
51-9190*	Miscellaneous Production Workers	20	\$11.10	\$6.56	\$9.97	\$11.67	\$6.16	\$7.07	\$9.08	\$12.51	\$15.34	
2612155	Food Service Managers	19	\$22.60	\$9.81	\$15.68	\$18.63	\$9.39	\$10.36	\$14.51	\$20.01	\$25.30	
13-1041	Compliance Officers, Except Agriculture, Construction, Health and Safety, and Transportation	19	\$17.10	\$13.82	\$23.06	\$27.69	\$12.70	\$17.03	\$22.64	\$28.62	\$34.06	
53-3041	Taxi Drivers and Chauffeurs	19	\$8.50	\$6.82	\$9.07	\$10.20	\$6.12	\$7.39	\$8.76	\$10.30	\$12.05	
41-2022	Parts Salespersons	19	\$9.00	\$8.47	\$13.45	\$15.94	\$7.78	\$9.37	\$12.10	\$16.37	\$21.33	
19-1020*	Biological Scientists	19	-----	\$21.27	\$29.28	\$33.28	\$19.68	\$22.51	\$32.00	\$34.94	\$37.96	
43-9011	Computer Operators	19	-----	\$11.70	\$15.32	\$17.14	\$11.11	\$12.60	\$14.69	\$17.29	\$20.43	
27-3040*	Writers and Editors	18	\$13.90	\$16.34	\$22.67	\$25.85	\$14.96	\$17.82	\$22.27	\$26.42	\$31.85	
53-3030*	Driver/Sales Workers and Truck Drivers	18	\$7.00	\$9.56	\$13.56	\$15.56	\$9.03	\$10.28	\$12.84	\$15.70	\$19.14	
17-2131	Materials Engineers	18	-----	\$20.15	\$28.37	\$32.49	\$19.00	\$21.73	\$28.29	\$37.00	\$43.86	
13-1020*	Buyers and Purchasing Agents	17	\$12.00	\$14.22	\$20.86	\$24.18	\$13.33	\$15.54	\$18.81	\$24.09	\$34.99	
41-9099	Sales and Related Workers, All Other	17	-----	\$11.71	\$20.76	\$25.29	\$10.66	\$13.41	\$17.58	\$25.54	\$34.62	
31-9099	Healthcare Support Workers, All Other	17	-----	\$8.70	\$11.96	\$13.59	\$7.96	\$9.31	\$11.01	\$13.38	\$16.83	
47-2141	Painters, Construction and Maintenance	17	\$10.70	\$9.23	\$12.57	\$14.24	\$8.79	\$10.25	\$12.40	\$14.74	\$17.00	
29-2081	Opticians, Dispensing	17	-----	\$10.50	\$14.71	\$16.80	\$9.76	\$12.02	\$14.95	\$17.42	\$19.60	
41-9022	Real Estate Sales Agents	17	\$10.70	\$8.92	\$17.08	\$21.16	\$7.95	\$10.18	\$13.11	\$21.79	\$30.26	

**Table 3: Occupations with 10 or More Vacancies - Page 7**

SOC Cod	SOC Occupation Title	Estimated Number of Vacancies	Average Wage Offered (nearest dime)	Occupational Employment Statistics Wage Data (aged to 2000)							
				Average Wages			Percentile Distribution				
				Entry-Level	Overall	Experienced	10th	25th	50th	75th	90th
49-9090*	Miscellaneous Installation, Maintenance, and Repair Workers	17	\$18.50	\$8.91	\$13.04	\$15.11	\$8.25	\$9.69	\$12.46	\$15.22	\$18.84
19-2021	Atmospheric and Space Scientists	16	-----	-----	-----	-----	-----	-----	-----	-----	-----
49-2099	Electrical and Electronic Equipment Mechanics, Installers, and Repairers, All Other (OES Only)	16	-----	\$17.51	\$20.18	\$21.51	\$15.85	\$18.27	\$20.11	\$21.94	\$25.32
25-9031	Instructional Coordinators	16	\$16.10	\$14.64	\$28.17	\$34.94	\$13.24	\$16.78	\$22.27	\$43.20	\$52.26
49-2094	Electrical and Electronics Repairers, Commercial and Industrial Equipment	16	\$22.40	\$13.82	\$18.68	\$21.11	\$12.57	\$14.98	\$17.57	\$22.19	\$26.25
47-2111	Electricians	16	\$17.50	\$13.99	\$21.20	\$24.80	\$12.36	\$15.86	\$22.93	\$26.06	\$27.93
21-2011	Clergy	16	-----	\$12.66	\$24.88	\$30.99	\$9.78	\$16.85	\$27.59	\$37.41	\$43.81
43-3011	Bill and Account Collectors	16	\$16.00	\$9.69	\$12.81	\$14.36	\$9.21	\$10.73	\$12.25	\$14.32	\$17.53
47-1011	First-Line Supervisors/Managers of Construction Trades and Extraction Workers	16	\$22.40	\$15.60	\$21.97	\$25.15	\$15.01	\$16.71	\$21.37	\$26.14	\$30.71
43-2021	Telephone Operators	15	-----	\$7.22	\$9.48	\$10.61	\$6.52	\$7.28	\$8.65	\$11.67	\$13.55
43-5199	Material Recording, Scheduling, Dispatching, and Distributing Workers, All Other (OES Only)	15	\$16.50	\$6.00	\$11.95	\$14.93	\$5.79	\$6.42	\$10.94	\$15.90	\$21.91
53-7199	Material Moving Workers, All Other	15	\$13.00	\$9.12	\$13.39	\$15.52	\$8.72	\$9.77	\$11.75	\$17.30	\$20.91
2634069	Medical and Health Services Managers	15	\$24.60	\$20.00	\$31.86	\$37.79	\$16.67	\$23.17	\$28.35	\$39.59	\$51.36
25-2012**	Kindergarten Teachers, Except Special Education	15	\$32,448	\$21,520	\$37,791	\$45,925	\$17,759	\$26,085	\$35,279	\$46,730	\$63,914
19-2042	Geoscientists, Except Hydrologists and Geographers	14	\$37.90	\$22.26	\$35.56	\$42.21	\$18.03	\$27.24	\$35.22	\$43.82	\$53.73
17-2001	Engineers, Non R&D (SIC 822 Only)	14	\$26.40	-----	-----	-----	-----	-----	-----	-----	-----
428005	Transportation, Storage, and Distribution Managers	14	\$19.00	\$20.09	\$28.52	\$32.73	\$18.36	\$22.19	\$26.48	\$33.60	\$42.10
15-2041	Statisticians	14	-----	\$21.59	\$27.92	\$31.09	\$19.99	\$23.25	\$26.49	\$33.29	\$40.84
27-1010*	Artists and Related Workers	14	\$12.70	\$10.01	\$16.85	\$20.26	\$9.27	\$11.01	\$15.89	\$21.43	\$26.98
13-2052	Personal Financial Advisors	14	\$14.00	\$16.37	\$32.50	\$40.56	\$14.80	\$19.39	\$28.24	\$42.03	\$72.56
19-1099	Life Scientists, All Other	14	-----	\$14.87	\$24.87	\$29.86	\$13.16	\$17.10	\$24.34	\$31.71	\$37.79
37-1011	First-Line Supervisors/Managers of Housekeeping and Janitorial Workers	14	\$14.60	\$8.55	\$12.06	\$13.83	\$7.88	\$9.18	\$10.91	\$14.78	\$17.44
43-3051	Payroll and Timekeeping Clerks	14	\$14.90	\$11.46	\$16.45	\$18.95	\$11.02	\$12.21	\$14.13	\$16.45	\$19.11
33-2021	Fire Inspectors and Investigators	14	\$8.30	\$10.84	\$24.78	\$31.74	\$9.67	\$10.94	\$29.10	\$37.99	\$43.62
47-2181	Roofers	14	\$15.00	\$9.38	\$12.83	\$14.56	\$8.47	\$10.49	\$12.79	\$14.56	\$17.50
39-9011	Child Care Workers	14	\$8.00	\$6.19	\$7.78	\$8.59	\$5.96	\$6.64	\$7.74	\$8.71	\$10.01
2604485*	Education Administrators	13	\$27.50	\$15.91	\$24.48	\$28.75	\$14.55	\$16.64	\$19.82	\$28.90	\$40.50
35-9011	Dining Room and Cafeteria Attendants and Bartender Helpers	13	\$5.20	\$5.93	\$6.72	\$7.11	\$5.76	\$5.97	\$6.33	\$7.21	\$8.88
49-3093	Tire Repairers and Changers	12	\$15.00	\$7.82	\$9.60	\$10.49	\$7.27	\$8.11	\$9.44	\$10.69	\$11.93
13-1070*	Human Resources, Training, and Labor Relations Specialists	12	\$18.50	\$13.96	\$21.00	\$24.52	\$13.07	\$15.21	\$18.29	\$24.01	\$36.28
39-9021	Personal and Home Care Aides	12	\$10.00	\$6.71	\$7.84	\$8.41	\$6.23	\$6.89	\$7.83	\$8.74	\$9.55

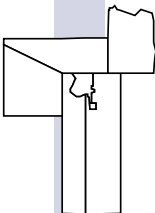




Table 3: Occupations with 10 or More Vacancies - Page 8

SOC Cod	SOC Occupation Title	Estimated Number of Vacancies	Average Wage Offered (nearest dime)	Occupational Employment Statistics Wage Data (aged to 2000)							
				Average Wages			Percentile Distribution				
				Entry-Level	Overall	Experienced	10th	25th	50th	75th	90th
31-9096	Veterinary Assistants and Laboratory Animal Caretakers	12	\$7.80	\$7.00	\$9.10	\$10.16	\$6.48	\$7.54	\$8.81	\$10.72	\$12.61
45-2092	Farmworkers and Laborers, Crop, Nursery, and Greenhouse	11	\$6.50	\$5.99	\$8.31	\$9.47	\$5.81	\$6.48	\$7.93	\$9.94	\$11.59
25-2011	Preschool Teachers, Except Special Education	11	\$13.10	\$7.36	\$9.32	\$10.29	\$6.73	\$7.68	\$8.86	\$10.52	\$12.37
35-9031	Hosts and Hostesses, Restaurant, Lounge, and Coffee Shop	11	\$8.40	\$6.45	\$8.10	\$8.92	\$6.08	\$6.85	\$7.82	\$8.75	\$11.01
35-2014	Cooks, Restaurant	11	\$12.10	\$7.18	\$9.07	\$10.02	\$6.50	\$7.47	\$8.91	\$10.39	\$12.03
51-2090*	Miscellaneous Assemblers and Fabricators	11	\$14.00	\$7.30	\$10.12	\$11.52	\$7.03	\$8.01	\$9.68	\$11.89	\$13.88
25-2010*	Preschool and Kindergarten Teachers	11	\$11.60	\$7.36	\$9.32	\$10.29	\$6.73	\$7.68	\$8.86	\$10.52	\$12.37
33-9092	Lifeguards, Ski Patrol, and Other Recreational Protective Service Workers	11	\$8.50	-----	-----	-----	-----	-----	-----	-----	-----
29-2053	Psychiatric Technicians	11	-----	\$8.07	\$11.34	\$12.98	\$7.41	\$8.88	\$10.88	\$12.74	\$15.83
29-1124	Radiation Therapists	11	-----	\$15.04	\$19.35	\$21.50	\$14.68	\$16.08	\$18.87	\$23.11	\$25.87
35-9099	Food Preparation and Serving Related Workers, All Other	11	\$10.20	\$5.97	\$10.10	\$12.16	\$5.69	\$6.21	\$7.25	\$15.08	\$19.05
43-6012	Legal Secretaries	10	-----	\$12.04	\$15.20	\$16.78	\$11.42	\$12.61	\$14.01	\$17.90	\$20.89
51-5023	Printing Machine Operators	10	\$13.80	\$10.05	\$15.33	\$17.97	\$9.27	\$11.34	\$14.94	\$18.81	\$22.82
49-9041	Industrial Machinery Mechanics	10	\$19.00	\$13.67	\$18.28	\$20.58	\$12.60	\$14.87	\$17.51	\$21.38	\$25.49
13-2050*	Financial Analysts and Advisors	10	\$15.70	\$17.52	\$30.13	\$36.44	\$16.65	\$19.59	\$24.65	\$33.88	\$66.41
43-9041	Insurance Claims and Policy Processing Clerks	10	\$15.90	\$11.40	\$17.24	\$20.16	\$10.56	\$12.72	\$15.43	\$17.82	\$30.06
31-9093	Medical Equipment Preparers	10	-----	\$9.94	\$12.63	\$13.98	\$9.49	\$10.67	\$12.16	\$13.50	\$18.25
43-4071	File Clerks	10	\$8.70	\$7.86	\$9.52	\$10.34	\$7.35	\$8.05	\$9.19	\$10.67	\$12.37
31-9094	Medical Transcriptionists	10	\$14.10	\$11.64	\$14.98	\$16.65	\$11.05	\$12.32	\$14.31	\$17.53	\$20.53
49-3040*	Heavy Vehicle and Mobile Equipment Service Technicians and Mechanics	10	\$16.00	\$13.05	\$16.84	\$18.74	\$11.87	\$14.17	\$17.00	\$19.35	\$20.97
19-2002	Physical Scientists, R&D (SIC 822 Only)	10	-----	-----	-----	-----	-----	-----	-----	-----	-----
53-1021	First-Line Supervisors/Managers of Helpers, Laborers, and Material Movers, Hand	10	-----	\$11.33	\$18.24	\$21.71	\$10.50	\$12.61	\$17.20	\$21.97	\$28.19
19-1042	Medical Scientists, Except Epidemiologists	10	\$19.70	\$19.13	\$29.99	\$35.41	\$18.13	\$20.42	\$25.61	\$34.19	\$51.76
17-3023	Electrical and Electronic Engineering Technicians	10	\$13.70	\$17.24	\$28.05	\$33.45	\$15.58	\$19.00	\$25.06	\$35.79	\$47.96

\* OES wages for general occupations are reported as the weighted average of more specific occupations

\*\* Annual

\*\*\* OES wages reported for Colorado statewide

--- No information available



Table 4: Occupations with Fewer Than 10 Vacancies

SOC Code	SOC Occupation Title	Occupational Employment Statistics Wage Data							
		Entry-Level	Average Wages		Percentile Distribution				
			Overall	Experienced	10th	25th	50th	75th	90th
31-9090*	Miscellaneous Healthcare Support Occupations	\$9.01	\$12.00	\$13.50	\$8.45	\$9.76	\$11.65	\$13.92	\$16.19
51-4191	Heat Treating Equipment Setters, Operators, and Tenders, Metal and Plastic	\$11.30	\$15.63	\$17.78	\$10.53	\$13.02	\$16.12	\$18.75	\$20.18
49-2021	Radio Mechanics	\$15.20	\$18.42	\$20.03	\$12.63	\$17.77	\$19.10	\$20.42	\$21.24
43-5111	Weighers, Measurers, Checkers, and Samplers, Recordkeeping	\$8.05	\$11.17	\$12.72	\$7.41	\$8.96	\$11.30	\$13.16	\$15.07
29-2032	Diagnostic Medical Sonographers	\$19.87	\$23.46	\$25.27	\$18.06	\$21.82	\$24.33	\$26.44	\$27.72
11-2020*	Marketing and Sales Managers	\$23.87	\$38.57	\$45.92	\$20.90	\$27.75	\$36.01	\$48.51	\$66.82
29-2033	Nuclear Medicine Technologists	\$15.99	\$19.37	\$21.06	\$14.82	\$17.10	\$19.35	\$21.51	\$24.48
49-2011	Computer, Automated Teller, and Office Machine Repairers	\$11.73	\$15.93	\$18.04	\$11.34	\$12.70	\$15.70	\$19.35	\$21.29
43-4151	Order Clerks	\$9.45	\$13.05	\$14.85	\$9.18	\$10.38	\$12.55	\$15.33	\$17.61
43-5071	Shipping, Receiving, and Traffic Clerks	\$8.02	\$11.19	\$12.78	\$7.49	\$8.87	\$10.63	\$13.00	\$15.96
33-3012	Correctional Officers and Jailers	\$10.36	\$16.70	\$19.87	\$9.06	\$11.81	\$17.02	\$20.82	\$24.67
37-1010*	First-Line Supervisors/Managers, Building and Grounds Cleaning and Maintenance Workers	\$9.98	\$14.09	\$16.16	\$9.40	\$10.71	\$13.23	\$17.07	\$19.97
27-2099**	Entertainers and Performers, Sports and Related Workers, All Other	\$7.35	\$8.83	\$9.57	\$7.06	\$7.41	\$7.98	\$8.56	\$14.12
31-9095	Pharmacy Aides	\$7.77	\$10.04	\$11.17	\$7.35	\$8.63	\$10.19	\$11.58	\$12.92
21-1010*	Counselors	\$10.75	\$15.54	\$17.93	\$9.89	\$11.52	\$13.64	\$18.73	\$24.88
13-1071	Employment, Recruitment, and Placement Specialists	\$14.33	\$20.55	\$23.65	\$13.94	\$15.19	\$17.20	\$23.14	\$32.89
51-5011	Bindery Workers	\$6.00	\$9.74	\$11.62	\$5.82	\$6.59	\$8.66	\$12.28	\$15.18
11-9151	Social and Community Service Managers	\$10.82	\$18.69	\$22.62	\$9.29	\$13.68	\$18.17	\$23.07	\$28.22
43-4141	New Accounts Clerks	\$9.74	\$11.54	\$12.45	\$9.47	\$10.08	\$11.33	\$12.97	\$14.04
13-2061	Financial Examiners	\$19.19	\$26.36	\$29.94	\$18.33	\$20.15	\$25.18	\$32.41	\$36.82
13-2070*	Loan Counselors and Officers	\$12.10	\$22.65	\$27.93	\$10.68	\$14.70	\$20.69	\$27.73	\$37.83
49-3021	Automotive Body and Related Repairers	\$15.39	\$17.12	\$17.98	\$14.44	\$15.23	\$16.52	\$18.22	\$20.79
17-1021	Cartographers and Photogrammetrists	-----	-----	-----	-----	-----	-----	-----	-----
33-3021	Detectives and Criminal Investigators	\$21.93	\$28.65	\$32.00	\$19.87	\$24.70	\$30.12	\$33.59	\$35.66
49-2097	Electronic Home Entertainment Equipment Installers and Repairers	\$12.46	\$15.01	\$16.28	\$11.67	\$12.43	\$13.70	\$17.86	\$20.54
25-3099	Teachers and Instructors, All Other	-----	-----	-----	-----	-----	-----	-----	-----
49-9051	Electrical Power-Line Installers and Repairers	\$8.21	\$16.41	\$20.51	\$6.30	\$11.19	\$17.26	\$23.05	\$25.47
43-4131	Loan Interviewers and Clerks	\$11.51	\$15.82	\$17.98	\$10.52	\$12.94	\$15.63	\$17.85	\$21.25

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

SOC Code	SOC Occupation Title	Occupational Employment Statistics Wage Data								
		Entry-Level	Average Wages			Percentile Distribution				
			Overall	Experienced	10th	25th	50th	75th	90th	
13-2081***	Tax Examiners, Collectors, and Revenue Agents	\$16.03	\$23.62	\$27.43	\$14.66	\$17.82	\$22.83	\$28.84	-----	
43-5041	Meter Readers, Utilities	\$12.46	\$17.24	\$19.63	\$12.13	\$13.44	\$15.65	\$21.58	\$25.28	
51-9111	Packaging and Filling Machine Operators and Tenders	\$8.90	\$11.37	\$12.61	\$8.29	\$9.34	\$10.56	\$14.13	\$16.16	
29-2010*	Clinical Laboratory Technologists and Technicians	\$13.27	\$18.34	\$20.87	\$12.24	\$14.94	\$18.36	\$21.39	\$24.72	
53-3022	Bus Drivers, School	\$8.24	\$10.50	\$11.64	\$7.10	\$9.30	\$10.28	\$11.98	\$14.08	
35-2012	Cooks, Institution and Cafeteria	\$7.40	\$9.15	\$10.04	\$6.66	\$7.60	\$8.83	\$10.46	\$12.46	
25-4031	Library Technicians	\$9.18	\$12.90	\$14.76	\$8.95	\$10.37	\$12.71	\$15.47	\$17.49	
25-4021	Librarians	\$14.32	\$20.32	\$23.31	\$13.57	\$15.75	\$19.42	\$24.45	\$28.49	
25-2043**	Special Education Teachers, Secondary School	\$29,441	\$38,569	\$43,134	\$23,857	\$35,339	\$40,137	\$43,790	\$45,984	
25-2020	Elementary and Middle School Teachers	-----	-----	-----	-----	-----	-----	-----	-----	
41-9020*	Real Estate Brokers and Sales Agents	\$10.14	\$16.86	\$20.22	\$9.29	\$11.02	\$13.42	\$19.97	\$27.92	
11-9033	Education Administrators, Postsecondary	\$17.27	\$27.95	\$33.27	\$15.69	\$18.30	\$22.25	\$33.68	\$46.47	
11-9031	Education Administrators, Preschool and Child Care Center/Program	\$12.25	\$15.10	\$16.53	\$11.48	\$12.14	\$13.25	\$15.98	\$24.38	
25-3011	Adult Literacy, Remedial Education, and GED Teachers and Instructors	\$9.91	\$12.85	\$14.32	\$9.22	\$9.79	\$10.70	\$13.90	\$23.61	
21-1012	Educational, Vocational, and School Counselors	\$12.09	\$21.02	\$25.49	\$10.36	\$14.47	\$19.27	\$28.84	\$35.95	
47-2051	Cement Masons and Concrete Finishers	\$9.07	\$13.98	\$16.43	\$8.40	\$10.14	\$14.32	\$16.92	\$19.93	
27-3041	Editors	\$13.08	\$21.53	\$25.77	\$11.95	\$14.56	\$20.73	\$27.22	\$33.88	
11-2011	Advertising and Promotions Managers	\$18.32	\$32.15	\$39.08	\$15.50	\$22.18	\$29.73	\$40.77	\$57.82	
51-4031	Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and Plastic	\$8.77	\$11.91	\$13.48	\$8.06	\$9.46	\$11.38	\$13.83	\$16.57	
53-1031	First-Line Supervisors/Managers of Transportation and Material-Moving Machine and Vehicle Operators	\$13.18	\$21.05	\$24.99	\$11.76	\$14.83	\$19.34	\$25.26	\$32.96	
43-5061	Production, Planning, and Expediting Clerks	\$10.01	\$15.80	\$18.71	\$8.75	\$11.91	\$15.55	\$19.63	\$22.10	
51-8090*	Miscellaneous Plant and System Operators	\$12.93	\$16.87	\$18.83	\$12.14	\$13.62	\$15.98	\$19.37	\$22.94	
51-3022***	Meat, Poultry, and Fish Cutters and Trimmers	\$9.03	\$9.94	\$10.39	\$8.37	\$9.52	\$10.11	\$10.69	\$11.10	
47-3016***	Helpers--Roofers	\$6.69	\$8.89	\$10.00	\$6.07	\$7.25	\$9.08	\$10.50	\$11.80	
13-1023	Purchasing Agents, Except Wholesale, Retail, and Farm Products	\$15.59	\$20.78	\$23.38	\$14.61	\$17.04	\$19.54	\$23.63	\$30.53	
43-9199	Office and Administrative Support Workers, All Other	-----	-----	-----	-----	-----	-----	-----	-----	
17-2110*	Industrial Engineers, Including Health and Safety	\$19.80	\$26.73	\$30.18	\$18.64	\$21.56	\$25.80	\$31.55	\$36.77	
13-1031	Claims Adjusters, Examiners, and Investigators	\$13.06	\$19.12	\$22.15	\$10.82	\$14.90	\$18.05	\$23.18	\$27.86	

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

SOC Code	SOC Occupation Title	Occupational Employment Statistics Wage Data							
		Entry-Level	Average Wages		Percentile Distribution				
			Overall	Experienced	10th	25th	50th	75th	90th
51-9198	Helpers--Production Workers	\$5.99	\$8.09	\$9.15	\$5.66	\$6.11	\$6.86	\$10.05	\$12.49
25-2032**	Vocational Education Teachers, Secondary School	\$29,974	\$42,389	\$48,596	\$28,186	\$34,098	\$42,654	\$51,447	\$56,976
39-3091	Amusement and Recreation Attendants	\$5.97	\$7.38	\$8.09	\$5.81	\$6.51	\$7.45	\$8.24	\$8.71
41-9031	Sales Engineers	\$20.08	\$33.59	\$40.35	\$17.77	\$23.58	\$32.54	\$43.84	\$57.55
43-4061	Eligibility Interviewers, Government Programs	\$11.72	\$14.17	\$15.40	\$11.17	\$12.30	\$14.10	\$16.15	\$17.38
13-2053	Insurance Underwriters	\$15.54	\$21.89	\$25.08	\$14.05	\$17.11	\$19.83	\$25.16	\$37.08
49-3020*	Automotive Technicians and Repairers	\$12.24	\$16.80	\$19.07	\$11.01	\$13.19	\$16.03	\$19.35	\$23.39
51-9022	Grinding and Polishing Workers, Hand	\$8.48	\$12.34	\$14.27	\$7.81	\$9.21	\$11.24	\$15.26	\$19.25
51-2099	Assemblers and Fabricators, All Other	\$6.87	\$9.59	\$10.94	\$6.34	\$7.41	\$8.66	\$11.04	\$14.47
49-2093	Electrical and Electronics Installers and Repairers, Transportation Equipment	\$15.48	\$18.50	\$20.00	\$10.48	\$18.20	\$19.58	\$20.95	\$21.78
51-4034	Lathe and Turning Machine Tool Setters, Operators, and Tenders, Metal and Plastic	\$12.10	\$16.15	\$18.18	\$11.71	\$12.99	\$15.39	\$18.59	\$22.03
15-2031	Operations Research Analysts	\$19.00	\$24.60	\$27.40	\$18.15	\$20.69	\$24.51	\$28.01	\$32.93
49-2095	Electrical and Electronics Repairers, Powerhouse, Substation, and Relay	-----	-----	-----	-----	-----	-----	-----	-----
53-4011***	Locomotive Engineers	\$8.72	\$15.62	\$19.06	\$7.53	\$9.33	\$15.12	\$20.21	\$25.09
47-2044	Tile and Marble Setters	\$9.94	\$16.70	\$20.08	\$6.61	\$12.63	\$19.09	\$20.74	\$21.73
19-4031	Chemical Technicians	\$15.05	\$16.72	\$17.55	\$14.24	\$15.00	\$16.26	\$17.53	\$20.91
27-3090*	Miscellaneous Media and Communication Workers	\$12.71	\$17.29	\$19.59	\$11.64	\$13.45	\$15.72	\$21.22	\$25.15
27-3031	Public Relations Specialists	\$13.28	\$20.63	\$24.30	\$11.92	\$15.46	\$19.67	\$24.64	\$33.50
27-2032***	Choreographers	\$11.56	\$17.73	\$20.82	\$11.58	\$13.40	\$17.83	\$22.16	\$25.86
39-6012	Concierges	\$9.30	\$10.08	\$10.47	\$8.84	\$9.29	\$10.04	\$10.78	\$11.87
25-1021**	Computer Science Teachers, Postsecondary	\$31,121	\$49,618	\$58,867	\$29,424	\$34,380	\$42,291	\$67,857	\$88,219
25-1011**	Business Teachers, Postsecondary	\$31,582	\$46,416	\$53,833	\$29,998	\$35,959	\$41,753	\$54,127	\$78,105
21-1099	Community and Social Service Specialists, All Other	-----	-----	-----	-----	-----	-----	-----	-----
19-4099	Life, Physical, and Social Science Technicians, All Other	\$9.74	\$16.64	\$20.09	\$8.45	\$11.48	\$14.97	\$20.14	\$28.05
19-4061	Social Science Research Assistants	-----	-----	-----	-----	-----	-----	-----	-----
19-3020*	Market and Survey Researchers	\$13.06	\$20.72	\$24.55	\$11.91	\$14.01	\$18.76	\$24.03	\$30.57
19-2099	Physical Scientists, All Other	\$23.05	\$31.71	\$36.04	\$20.51	\$27.42	\$32.24	\$37.27	\$43.52
19-2032***	Materials Scientists	\$17.89	\$26.11	\$30.23	\$16.21	\$19.18	\$24.82	\$32.18	\$37.10
43-4999	Financial, Information, and Record Clerks, All Other (OES Only)	\$9.58	\$13.61	\$15.63	\$8.47	\$10.85	\$13.12	\$16.07	\$19.35

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

SOC Code	SOC Occupation Title	Occupational Employment Statistics Wage Data							
		Entry-Level	Average Wages		Percentile Distribution				
			Overall	Experienced	10th	25th	50th	75th	90th
17-3029	Engineering Technicians, Except Drafters, All Other								
17-2070*	Electrical and Electronics Engineers	\$21.86	\$31.20	\$35.87	\$20.17	\$23.65	\$30.92	\$38.55	\$43.64
17-3010*	Drafters	\$14.29	\$20.48	\$23.58	\$13.17	\$16.13	\$20.62	\$24.79	\$27.76
43-5051***	Postal Service Clerks	\$17.47	\$19.24	\$20.12	\$15.87	\$18.03	\$19.50	\$20.98	\$21.86
33-3050*	Police Officers	\$17.06	\$21.80	\$24.16	\$15.70	\$18.44	\$21.92	\$25.18	\$27.54
43-9031	Desktop Publishers	\$11.88	\$15.57	\$17.42	\$11.67	\$13.05	\$15.40	\$17.82	\$20.77
15-1099	Computer Specialists, All Other	\$18.56	\$26.75	\$30.84	\$16.31	\$21.36	\$26.01	\$31.68	\$37.37
21-1011	Substance Abuse and Behavioral Disorder Counselors	\$12.27	\$14.30	\$15.32	\$11.52	\$12.16	\$13.24	\$15.25	\$19.76
51-4022	Forging Machine Setters, Operators, and Tenders, Metal and Plastic	\$5.92	\$10.48	\$12.76	\$5.69	\$6.25	\$11.55	\$14.32	\$16.38
17-2031	Biomedical Engineers								
13-1032	Insurance Appraisers, Auto Damage	\$12.64	\$17.08	\$19.29	\$12.20	\$13.44	\$16.09	\$20.28	\$24.29
23-1021***	Administrative Law Judges, Adjudicators, and Hearing Officers	\$17.40	\$27.31	\$32.26	\$15.72	\$18.90	\$24.85	\$33.22	\$42.17
13-1121	Meeting and Convention Planners	\$13.85	\$19.03	\$21.62	\$12.64	\$14.85	\$18.04	\$21.89	\$26.37
53-7060*	Laborers and Material Movers, Hand	\$7.35	\$10.02	\$11.36	\$6.71	\$8.07	\$9.30	\$11.43	\$15.03
21-1019	Counselors, All Other								
39-1021	First-Line Supervisors/Managers of Personal Service Workers	\$8.17	\$12.65	\$14.89	\$7.19	\$9.17	\$10.73	\$13.78	\$21.84
37-3019	Grounds Maintenance Workers, All Other								
35-2010*	Cooks	\$6.85	\$8.37	\$9.14	\$6.31	\$7.05	\$8.12	\$9.51	\$10.99
53-6021	Parking Lot Attendants	\$6.14	\$8.23	\$9.28	\$6.00	\$6.72	\$8.18	\$9.90	\$10.97
21-1029	Social Workers, All Other								
43-5021	Couriers and Messengers	\$7.48	\$9.71	\$10.82	\$7.07	\$7.88	\$9.30	\$11.29	\$13.30
49-2020*	Radio and Telecommunications Equipment Installers and Repairers	\$17.37	\$22.47	\$25.02	\$15.20	\$20.36	\$23.90	\$26.07	\$27.35
43-5031	Police, Fire, and Ambulance Dispatchers	\$13.44	\$16.23	\$17.62	\$12.62	\$14.23	\$16.10	\$18.10	\$20.39
19-2043	Hydrologists	\$21.51	\$28.94	\$32.64	\$19.45	\$23.69	\$28.81	\$33.74	\$39.48
49-3042	Mobile Heavy Equipment Mechanics, Except Engines	\$13.40	\$17.33	\$19.30	\$12.15	\$14.57	\$17.52	\$19.93	\$21.60
49-9052	Telecommunications Line Installers and Repairers	\$9.45	\$13.69	\$15.80	\$8.94	\$10.60	\$12.07	\$16.01	\$21.25
49-2098	Security and Fire Alarm Systems Installers	\$11.64	\$16.16	\$18.42	\$11.01	\$12.97	\$15.55	\$18.22	\$23.51
43-9999	Secretaries, Administrative Assistants, and Other Office Support Workers, All Other (OES Only)	\$10.20	\$15.10	\$17.55	\$9.49	\$11.42	\$14.62	\$17.11	\$21.60

Table 4: Occupations with Fewer Than 10 Vacancies - Page 5

SOC Code	SOC Occupation Title	Occupational Employment Statistics Wage Data								
		Entry-Level	Average Wages			Percentile Distribution				
			Overall	Experienced		10th	25th	50th	75th	90th
25-4010	Archivists, Curators, and Museum Technicians	\$10.63	\$17.10	\$20.34	\$10.49	\$11.66	\$15.63	\$20.21	\$26.81	
49-3022	Automotive Glass Installers and Repairers	\$12.00	\$13.37	\$14.06	\$11.35	\$12.05	\$13.21	\$14.86	\$16.53	
51-8093	Petroleum Pump System Operators, Refinery Operators, and Gaugers	\$19.73	\$23.86	\$25.91	\$18.32	\$20.92	\$23.40	\$25.60	\$29.78	
25-1124**	Foreign Language and Literature Teachers, Postsecondary	\$25,532	\$42,441	\$50,895	\$24,820	\$27,537	\$37,604	\$53,054	\$75,392	
51-8031	Water and Liquid Waste Treatment Plant and System Operators	\$12.44	\$17.28	\$19.70	\$12.00	\$13.28	\$16.54	\$20.99	\$24.43	
41-3031	Securities, Commodities, and Financial Services Sales Agents	\$13.05	\$22.51	\$27.23	\$12.19	\$13.80	\$17.44	\$23.98	\$37.72	
49-3099	Vehicle and Mobile Equipment Mechanics, Installers, and Repairers, All Other (OES Only)	\$11.70	\$16.11	\$18.31	\$11.06	\$13.16	\$15.63	\$18.07	\$22.15	
51-2023	Electromechanical Equipment Assemblers	\$7.96	\$9.57	\$10.38	\$7.60	\$8.48	\$9.58	\$10.55	\$11.14	
49-3050*	Small Engine Mechanics	\$10.33	\$14.26	\$16.23	\$9.64	\$11.56	\$13.96	\$16.88	\$20.00	
43-9020*	Data Entry and Information Processing Workers	\$8.42	\$10.94	\$12.20	\$7.71	\$9.25	\$10.70	\$12.40	\$14.58	
43-9051	Mail Clerks and Mail Machine Operators, Except Postal Service	\$7.57	\$10.09	\$11.35	\$7.07	\$8.14	\$9.79	\$11.30	\$13.77	
17-2002	Engineers, R&D (SIC 822 Only)	-----	-----	-----	-----	-----	-----	-----	-----	
15-1023	Computer Programmers, R&D (SIC 822 Only)	-----	-----	-----	-----	-----	-----	-----	-----	
45-1011	First-Line Supervisors/Managers of Farming, Fishing, and Forestry Workers	\$13.59	\$21.87	\$26.00	\$10.28	\$16.81	\$21.58	\$26.38	\$34.22	
15-1022	Computer Programmers, Non R&D (SIC 822 Only)	-----	-----	-----	-----	-----	-----	-----	-----	
17-3027	Mechanical Engineering Technicians	\$14.79	\$18.75	\$20.73	\$14.00	\$15.66	\$18.40	\$21.37	\$24.92	
17-3019	Drafters, All Other	-----	-----	-----	-----	-----	-----	-----	-----	
27-1020*	Designers	\$10.49	\$16.13	\$18.94	\$9.40	\$11.67	\$15.15	\$19.73	\$24.23	
17-3011	Architectural and Civil Drafters	\$13.64	\$19.97	\$23.14	\$12.51	\$15.68	\$19.88	\$24.46	\$27.74	
11-9039	Education Administrators, All Other	-----	-----	-----	-----	-----	-----	-----	-----	
43-4041	Credit Authorizers, Checkers, and Clerks	\$8.45	\$13.57	\$16.13	\$7.82	\$9.03	\$12.11	\$16.24	\$20.40	
17-3022	Civil Engineering Technicians	\$13.15	\$19.53	\$22.72	\$11.46	\$14.92	\$17.88	\$23.32	\$32.12	
47-2151	Pipelayers	\$10.06	\$13.32	\$14.96	\$9.50	\$11.03	\$12.76	\$15.59	\$17.82	
39-6021	Tour Guides and Escorts	\$9.75	\$10.84	\$11.39	\$9.09	\$9.59	\$10.43	\$11.55	\$13.36	
41-9010*	Models, Demonstrators, and Product Promoters	\$7.65	\$10.53	\$11.97	\$7.31	\$7.91	\$8.90	\$11.71	\$15.94	
21-1091	Health Educators	\$13.88	\$22.81	\$27.27	\$10.90	\$17.10	\$23.86	\$28.35	\$33.47	
51-6051	Sewers, Hand	\$7.81	\$8.52	\$8.88	\$7.24	\$7.59	\$8.17	\$8.75	\$11.15	

**Table 4: Occupations with Fewer Than 10 Vacancies - Page 6**

SOC Code	SOC Occupation Title	Occupational Employment Statistics Wage Data							
		Entry-Level	Average Wages		Percentile Distribution				
			Overall	Experienced	10th	25th	50th	75th	90th
19-2001	Physical Scientists, Non R&D (SIC 822 Only)	-----	-----	-----	-----	-----	-----	-----	-----
19-2031	Chemists	\$14.53	\$25.50	\$30.98	\$13.29	\$16.17	\$24.55	\$34.06	\$42.74
51-9123	Painting, Coating, and Decorating Workers	\$7.98	\$11.22	\$12.82	\$7.25	\$9.00	\$11.27	\$13.32	\$15.69

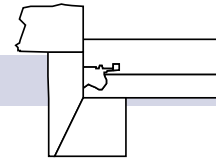
\* OES wages for general occupations are reported as the weighted average of more specific occupations

\*\* Annual

\*\*\* OES wages reported for Colorado statewide

--- No information available





## Methodology

### *Survey Instrument and Redesign*

The Job Vacancy Survey was initiated in Denver and five other metropolitan areas across the nation as pilot studies 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 the first two DMR pilot studies, the survey instrument was evaluated and redesigned. 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 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 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.

**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.

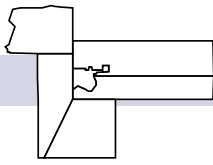
**E**—“Is medical insurance offered?” In addition, the revised survey prompted for the portion (if any) that the firm contributed. To better understand the relationship between types of positions, pay, vacancies, and the existence of medical insurance, it was important to note to what degree the firm 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 Denver Metro Region and characteristics of those vacancies. Firms were ordered into groups, or stratifications by employment size, county, and industry, and the resulting percentages of vacancies for each category were used to estimate total job vacancies for each group. The list of Denver Metro firms used for this survey, with their contact information, staff size and industry classification was obtained from the American Labor Market Information System (ALMIS) database. For technical reasons information about employers in the Government sector was obtained from the ES-202 database.

The survey was conducted by telephone. In some cases copies of the survey form were faxed to employers upon request. A sample of the survey form can be found in the *Appendix* section of this report.

### Stratifications

Employers in Agriculture and Mining were not stratified by county, as there are not enough firms in either of these sectors to draw conclusions from the survey data at that level of detail. Also, a sample was selected for employers with fewer than 5 employees without any county or industry stratifications.

For each of the six counties firms within the remaining industry divisions with 5 to 249 employees were grouped as follows:

- ◆ 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

The lists of small to mid-sized employers were randomized and a sample of sufficient size to achieve a predictable level of accuracy for the estimates of job vacancies was taken. Attempts were made to contact all large employers.

## Data Editing

After data collection was completed, a few measures were taken to prepare data for analysis.

### Data Cleaning

Whenever necessary, data was modified to ensure consistency among vacancies. Follow up phone calls were made as required to verify and/or clarify responses.

### Occupational Coding

Job title and descriptions were used to match the vacancy with the appropriate SOC occupational title<sup>1</sup>. In some cases a second interview with the employer was necessary to decide on a specific occupational title.

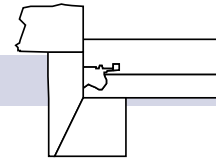
### Wage Conversion

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.

<sup>1</sup>See SOC Occupation Codes in Definitions Section





## 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, bachelor's, and graduate degrees all are examples of programs of work.

### Medical Insurance Premium

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

### Mid-Point

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

### Permanent and Temporary Employment

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

### Sample Frame

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

### Sign-on Bonus

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

### SOC

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

Internet: [http://stats.bls.gov/soc/soc\\_home.htm](http://stats.bls.gov/soc/soc_home.htm).

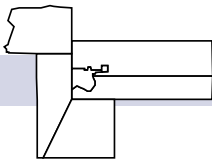
Source: *Occupational Outlook Handbook, 2000-01 Edition*, U.S. Department Of Labor, Bureau of Labor Statistics, January 2000.

### 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



### Denver Metro Job Vacancy Survey

Survey ID: 208005011

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 (877) 222-0921. This number is toll-free.

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

Adams      Arapahoe      Boulder      Denver      Douglas      Jefferson

#### Part A: About Your Firm

1. Who may we contact regarding job vacancies at your location and at other Denver Metro 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 Denver Metro area: \_\_\_\_\_
5. Do you have any job vacancies for which your firm is actively recruiting?
 

Yes       No
6. Would you like to be notified when the survey results are released?
 

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 job sites in different metro counties, please make copies before you begin filling out the form and list vacancies by county. 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 ➔





**Colorado Department of Labor and Employment  
Labor Market Information  
Two Park Central, Suite 300  
1515 Arapahoe Street  
Denver CO 80202-2117**

**Official Business  
M303101000**

**Special Standard Mail**