

CRB

The Careers Project

An Economic Analysis of Ten Industry Clusters in California

*By Patricia L. de Cos,
Nicolina Mulcahy, and Julie Chan*

*At the Request of Senator Roy Ashburn,
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*By Patricia L. de Cos,
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Internet Access

This report is part of a series of Careers Project reports that are available through the Internet on the California State Library's home page under CRB Reports (www.library.ca.gov/crb). Other Careers Project reports include:

- *The Careers Project: School Survey of Middle and High School Principals and Counselors in California*
- *The Careers Project: Survey of Representatives of Business and Industry in California*
- *The Careers Project: Focus Group Perspectives on Provisions for Career Exploration and Development Opportunities at Selected Middle and High Schools*
- *The Careers Project: A Summary with Policy Options*

Executive Summary

The Careers Project is a study of the preparation all students in public middle and high schools receive to explore career options and the relationship between that preparation and California's state and regional economies. The California Research Bureau (CRB) undertook this research at the request of a bipartisan group of members of the California Legislature, with funding support from the James Irvine Foundation. The study consisted of three distinct phases:

1. A statewide survey of middle and high school counselors and principals.
2. An economic analysis and survey of representatives of business and industry in California.
3. School focus groups.

In each of the three study phases, the CRB research team utilized the nine economic regions defined by the California Economic Strategy Panel of the California Labor and Workforce Development Agency as a framework for capturing the diversity of the state.*

The second phase of the study involved two parts: an economic analysis of ten industry clusters and a related survey of representatives of business and industry. The information gathered from the economic analysis was used as a basis for launching a survey of representatives of business and industry. This report provides information resulting from the economic analysis for the following ten industry clusters in California:

- Basic Information Services
- Manufacturing Value Chain (including Logistics, Production, and Design)
- Health Science and Services
- Entertainment and Tourism
- Construction
- Food Chain (including Support/Production, Processing, and Distribution)
- Professional and Technical Services
- Government
- Wholesale Trade
- Retail Trade

* Please refer to Appendix 1 for a map describing the nine economic regions.

The CRB research team extracted information from the regional base reports for each of the nine economic regions of the state as defined by the Economic Strategy Panel.^{*} Using labor market information staffing projections through 2014 from the California Employment Development Department's Labor Market Information Division (LMID), our analysis identified: the fastest growing and largest employing occupations, their corresponding required job skills and their total employment and average annual salaries as of 2005.

The occupations and job skills contained within each industry differ among the industry clusters as well as the education, training, and experience that are needed to perform the jobs. The U.S. Department of Labor has grouped occupations into job zones to distinguish the level of preparation for each job. O*Net of the U.S. Department of Labor's Bureau of Labor Statistics categorizes occupations into five job zones, which consider overall experience, job training, and education requirements required to perform a specific job.[†] The CRB research team's analysis includes two separate charts for each industry sector:

- A listing of the fastest growing or largest employing occupations grouped by job zone within each industry sector including the corresponding job skills, as well as the statewide average salary and employment. Selected occupations represent different job titles and the total statewide average employment represents the number of workers employed by occupation.
- A summary chart that identifies the number of occupations by job zone for each industry sector including the annual statewide salary and employment ranges by job zone and the top third most common job skills by job zone and across all occupations in each industry sector.

Given the recent downturn in California's economy, the assumptions that were made regarding the staffing projections based on employment trends in 2004 may not reflect current employment trends. The accompanying charts, therefore, should be viewed as examples of occupations and job skills in these industries. The CRB research team used this information to query representatives of business and industry about the occupations and accompanying job skills in four industry sectors contained in this economic analysis between June and August 2008.[‡] Notably, more than half of the respondents agreed with the CRB's analysis of fastest growing and largest employing occupations and the top

^{*} California Labor and Workforce Development Agency, Economic Strategy Panel, *2006 California and Regional Economic Base Reports* (Sacramento, the Agency, 2006).

[†] Occupations in "Job Zone 1" (JZ-1) require the least amount of education, training and experience, compared to occupations in "Job Zone 5" (JZ-5), which require extensive education, training, and experience. For more information about job zones, please refer to Appendix 3.

[‡] The four industry clusters included in the survey of representatives of business and industry were Basic Information Services, Manufacturing Value Chain, Health Science and Services, and Retail Trade.

third most commonly identified job skills for the selected occupations by industry sector.*

The CRB research team also shared the information of this economic analysis with students, teachers, counselors, and principals at three middle and nine high schools in California that participated in school focus groups during the third study phase of the Careers Project. School focus group participants universally found the information in the charts to be very useful, by providing relevance to students in their education, allowing students to learn about employment trends, and observing how specific academic skills were associated with occupations in different industries.†

* California State Library, California Research Bureau, *The Careers Project: Survey of Representatives of Business and Industry in California* (Sacramento, California Research Bureau, California State Library, 2009).

† California State Library, California Research Bureau, *The Careers Project: Focus Group Perspectives on Provisions for Career Exploration and Development Opportunities at Selected Middle and High Schools in California* (Sacramento, California Research Bureau, California State Library, 2009).

Methodology and Procedures

This section describes the methodology and procedures used to develop and conduct the economic analysis.

METHODOLOGY

The CRB research team identified ten industry clusters based on the following variables: job growth, concentration, employment size, composition of economic base, and average annual wages based on information derived from the 2006 regional base reports of the Economic Strategy Panel.* The ten industry clusters included in the analysis are:

1. Basic Information Services
2. Manufacturing Value Chain (including Logistics, Production, and Design)
3. Health Science and Services
4. Entertainment and Tourism
5. Construction
6. Food Chain (including Support/Production, Processing, and Distribution)
7. Professional and Technical Services
8. Government
9. Wholesale Trade
10. Retail Trade

We identified the leading industry sectors within each of these ten industry clusters using the North American Industry Classification System (NAICS).† With input from staff of the Labor Market Information Division (LMID) of the Employment Development Department (EDD), we then selected the largest employing and fastest growing occupations within each industry sector using statewide projections of staffing patterns by applying the following three criteria to each industry's staffing pattern:

- The ten largest employing occupations.

* California Labor and Workforce Development Agency, Economic Strategy Panel, *2006 California and Regional Economic Base Reports* (Sacramento, Economic Strategy Panel, California Labor and Workforce Development Agency, 2006).

† U.S. Government, Office of Management and Budget, *North American Industry Classification System* (Maryland, Bernan Press, 1998).

- Occupations that are projected to increase by more than 50 percent from 2004-2014.
- Occupations that are projected to grow twice as fast as the average of all the occupations within each staffing pattern from 2004-2014.*

Projected changes in the staffing patterns represent job openings due to growth (or declines) and net replacements.

Some industry sectors were identified in more than one industry cluster. For example, 1) Fruit and Vegetable and Specialty Food Manufacturing and 2) Animal Slaughtering and Processing were identified in the Manufacturing Value Chain – *Production* and the Food Chain – *Processing*. Architectural and Engineering Services was identified in the Manufacturing Value Chain – *Production* and Professional and Technical Services. Scientific Research and Development Services was identified in Health Science and Services and Professional and Technical Services. Other Professional and Technical Services was identified in the Food Chain – *Support and Production* and Professional and Technical Services. Grocery Product Merchant Wholesalers was identified in the Food Chain – *Distribution* and Wholesale Trade. Machinery and Supply Merchant Wholesalers was identified in Food Chain – *Support and Production* and Wholesale Trade.

Staffing patterns for several industry sectors are not published by LMID because the relative size of the industries is small and the publishing of data relative to these industries would pose a risk of disclosing confidential employment data. In these instances, LMID staff suggested that we use larger industries that included the sectors we were interested in. For example, we used Electronic Instrument Manufacturing for Navigational, Measuring, Electromedical and Control Instruments in the Manufacturing Value Chain – *Production*. We used Agriculture, Forestry, Fishing and Hunting for 1) Support Activities for Crop Production, 2) Vegetable and Melon Farming, 3) Fruit and Tree Nut Farming, and 4) Cattle Ranching and Farming in the Food Chain – *Support and Production*. We used Other Professional and Technical Services for Veterinary Activities in the Food Chain – *Support and Production*. We used Other Food Manufacturing for Perishable Prepared Food Manufacturing in the Food Chain – *Processing*. We used Machinery and Supply Merchant Wholesalers for Professional and Commercial Equipment and Supplies Wholesalers in the Wholesale Trade industry.

For each selected occupation, the CRB research team identified the corresponding job skills, using information from O*Net of the U.S. Department of Labor’s Bureau of Labor Statistics. O*Net has developed a content model, which incorporates important work-related information including worker requirements such as job skills. Job skills are broken into two categories including basic skills and cross-functional skills. Basic skills

* While the CRB research team intended to use staffing patterns specific to the nine economic regions for selected industry sectors, only statewide staffing patterns are available on the EDD Labor Market Information Division’s website: <http://www.calmis.ca.gov/file/IOMatrix/IndList.htm#W>.

are divided further into content skills and process skills. Cross-functional skills are separated further into social skills, complex problem-solving skills, technical skills, systems skills, and resource management skills. For additional information regarding the definitions of each of these categories and the individual skills, please refer to Appendix 2.

O*Net categorizes occupations into five distinct job zones (JZ), which consider overall experience, job training, and education requirements required to perform a specific job. Occupations in “Job Zone 1” (JZ-1) require the least amount of education, training and experience, compared to occupations in “Job Zone 5” (JZ-5), which require extensive education, training, and experience. In some cases, occupations combine two job zones and might therefore be characterized by the following notation in the charts: JZ-1/2 or JZ-2/3, indicating that an occupation is between job zone one and two, or between job zone two and three, respectively. For more information about O*Net’s job zones, please refer to Appendix 3.*

The CRB research team also incorporated California-based average employment and wage information for each selected occupation using May 2006 data from Occupational Employment Statistics (OES) of the U.S. Department of Labor Bureau of Labor Statistics.[†] While the CRB research team recognizes the regional differences in salaries, OES only provides statewide or metropolitan statistical area (MSA) wage information. Since some of the industry sectors were selected for regions not represented by a MSA, we only used statewide wage information in our charts.

INSTRUCTIONS FOR INTERPRETING THE CHARTS

The CRB research team’s analysis includes two separate charts for each industry sector:

- A listing of all the fastest growing or largest employing occupations, grouped by job zone within each industry sector including the corresponding job skills as well as the statewide average salary and employment. Selected occupations represent different job titles and the total statewide average employment represents the number of workers employed by occupation.
- A summary chart that identifies the number of occupations by job zone for each industry sector including the annual statewide salary and employment ranges by job zone and the top third most common job skills by job zone and across all occupations in each industry sector.

* For some occupations, the O*Net website did not provide job skills, and provided a link to the “careeronestop: pathways to success” website, from which we found and used California-based job skill information: <http://online.onetcenter.org/link/summary/>.

[†] Refer to the U.S. Department of Labor Bureau of Labor Statistics website: http://www.bls.gov/oes/oes_dl.htm.

The top of the first chart specifies the total statewide average employment for each occupation. The second row provides the statewide average annual salary for each occupation. The third row describes the job zone category for each occupation. The occupations are grouped sequentially by job zone, beginning with job zone one (JZ-1) on the far left through job zone five (JZ-5) on the right. O*Net did not assign a job zone to some occupations, and they are identified as “JZ-N/A” in the title row.^{*} The fourth row provides the Standard Occupational Classification (SOC) number for each occupation. The fifth row specifies the occupational title for each occupation. Below the occupational titles are the corresponding job skills for each occupation. The job skills are not listed in order of importance.[†] O*Net provides job skills for nearly all occupations, but not all. Below each column, there is a number that sums the total number of job skills for each occupation. A subtotal below each job zone grouping specifies the number of job skills identified within each job zone category.

The summary chart summarizes information from the first chart. The top of each chart indicates the number of occupations found by job zone for each industry sector. The second row indicates the range of total statewide average employment by the job zone. The third row specifies the range of statewide average annual salary range by job zone. The fourth row is a title row. The reader may notice that there are some occupations that fall between job zones, as described earlier. The rows below the title row identify the job skills and the number of times a job skill was found within each job zone. Occupations without job skills are identified as “JZ-N/A” in the title row. At the far right-hand side of the second chart, the reader will see the top third most commonly identified job skills for each industry sector, which are highlighted within each job zone, with a check mark.

^{*} While some occupations do not have job skills assigned to them, the CRB research team did not want to lose important information such as their titles or total statewide employment and average annual salaries.

[†] To learn more about the rating of each job skill descriptor, please refer to the O*Net website at: <http://online.onetcenter.org/help/online/scales>.

Basic Information Services

TELECOMMUNICATIONS (NAICS 517000)

Wired Telecommunications Carriers (NAICS 517100)

Wireless Telecommunications Carriers (NAICS 517200)

Telecommunications Resellers (NAICS 517300)

Satellite Telecommunications (NAICS 517400)

Cable and Other Program Distribution (NAICS 517500)

PUBLISHING INDUSTRIES (NAICS 511000)

Newspaper, Book, and Directory Publishers (NAICS 511100)

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BROADCASTING (EXCEPT INTERNET) (NAICS 515000)

Radio and Television Broadcasting (NAICS 515100)

Cable and Other Subscription Programming (NAICS 515200)

INTERNET SERVICE PROVIDERS, WEB SEARCH PORTALS, AND DATA PROCESSING SERVICES (NAICS 518000)

ISPs and Web Search Portals (NAICS 518100)

Data Processing and Related Services (NAICS 518200)

Basic Information Services

List of Skills and Occupations Employed in Wired Telecommunications Carriers

TOT_EMP	481,990	396,750	199,440	125,210	16,280
A_MEAN	\$ 25,270	\$ 27,470	\$ 34,110	\$ 39,850	\$ 49,140
Job Zone	JZ-2	JZ-2	JZ-2	JZ-2	JZ-2
SOC-Code	41-2031	43-9061	43-4051	41-1011	49-9052
Retail salespersons	Active Listening	Office clerks, general	Customer service representatives	First-line supervisors/managers of retail sales workers	Telecommunications line installers and repairers
	Active Listening	Active Listening	Active Listening	Management of Personnel Resources	Installation
	Mathematics	Reading Comprehension	Reading Comprehension	Active Listening	Troubleshooting
	Speaking	Speaking	Monitoring	Service Orientation	Repairing
	Social Perceptiveness	Writing	Speaking	Time Management	Active Listening
	Critical Thinking	Social Perceptiveness	Time Management	Instructing	Reading Comprehension
	Writing		Service Orientation	Monitoring	Equipment Selection
	Judgment and Decision Making		Active Learning	Reading Comprehension	Active Learning
	Instructing		Learning Strategies	Judgment and Decision Making	Speaking
	Reading Comprehension		Writing	Active Learning	Coordination
			Critical Thinking	Critical Thinking	Time Management
				Equipment Selection	Active Listening
				Active Listening	Monitoring
				Equipment Selection	Reading Comprehension
				Active Listening	Speaking
				Time Management	Coordination
				Judgment and Decision Making	Critical Thinking
				Active Learning	Complex Problem Solving
				Equipment Selection	Technology Design
				Troubleshooting	Troubleshooting
				Judgment and Decision Making	Critical Thinking
				Monitoring	Active Learning
				Reading Comprehension	Programming
				Equipment Selection	Reading Comprehension
				Active Learning	Mathematics
				Coordination	Mathematics
				Time Management	Active Listening
				Critical Thinking	Judgment and Decision Making
				Complex Problem Solving	Operation Analysis
				Equipment Selection	
				Troubleshooting	
				Judgment and Decision Making	
				Monitoring	
				Reading Comprehension	
				Equipment Selection	
				Active Listening	
				Time Management	
				Judgment and Decision Making	
				Monitoring	
				Reading Comprehension	
				Equipment Selection	
				Active Learning	
				Coordination	
				Time Management	
				Critical Thinking	
				Complex Problem Solving	
				Equipment Selection	
				Troubleshooting	
				Judgment and Decision Making	
				Monitoring	
				Reading Comprehension	
				Equipment Selection	
				Active Listening	
				Time Management	
				Judgment and Decision Making	
				Monitoring	
				Reading Comprehension	
				Equipment Selection	
				Active Learning	
				Coordination	
				Time Management	
				Critical Thinking	
				Complex Problem Solving	
				Equipment Selection	
				Troubleshooting	
				Judgment and Decision Making	
				Monitoring	
				Reading Comprehension	
				Equipment Selection	
				Active Listening	
				Time Management	
				Judgment and Decision Making	
				Monitoring	
				Reading Comprehension	
				Equipment Selection	
				Active Learning	
				Coordination	
				Time Management	
				Critical Thinking	
				Complex Problem Solving	
				Equipment Selection	
				Troubleshooting	
				Judgment and Decision Making	
				Monitoring	
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				Active Learning	
				Coordination	
				Time Management	
				Critical Thinking	
				Complex Problem Solving	
				Equipment Selection	
				Troubleshooting	
				Judgment and Decision Making	
				Monitoring	
				Reading Comprehension	
				Equipment Selection	
				Active Learning	
				Coordination	
				Time Management	
				Critical Thinking	
				Complex Problem Solving	
				Equipment Selection	
				Troubleshooting	
				Judgment and Decision Making	
				Monitoring	
				Reading Comprehension	
				Equipment Selection	
				Active Learning	
				Coordination	
				Time Management	
				Critical Thinking	
				Complex Problem Solving	
				Equipment Selection	
				Troubleshooting	
				Judgment and Decision Making	
				Monitoring	
				Reading Comprehension	
				Equipment Selection	
				Active Learning	
				Coordination	
				Time Management	
				Critical Thinking	
				Complex Problem Solving	
				Equipment Selection	
				Troubleshooting	
				Judgment and Decision Making	
				Monitoring	
				Reading Comprehension	
				Equipment Selection	
				Active Learning	
				Coordination	
				Time Management	
				Critical Thinking	
				Complex Problem Solving	
				Equipment Selection	
				Troubleshooting	
				Judgment and Decision Making	
				Monitoring	
				Reading Comprehension	
				Equipment Selection	
				Active Learning	
				Coordination	
				Time Management	
				Critical Thinking	
				Complex Problem Solving	
				Equipment Selection	
				Troubleshooting	
				Judgment and Decision Making	
				Monitoring	
				Reading Comprehension	
				Equipment Selection	
				Active Learning	
				Coordination	
				Time Management	
				Critical Thinking	
				Complex Problem Solving	
				Equipment Selection	
				Troubleshooting	
				Judgment and Decision Making	
				Monitoring	
				Reading Comprehension	
				Equipment Selection	
				Active Learning	
				Coordination	
				Time Management	
				Critical Thinking	
				Complex Problem Solving	
				Equipment Selection	
				Troubleshooting	
				Judgment and Decision Making	
				Monitoring	
				Reading Comprehension	
				Equipment Selection	
				Active Learning	
				Coordination	
				Time Management	
				Critical Thinking	
				Complex Problem Solving	
				Equipment Selection	
				Troubleshooting	
				Judgment and Decision Making	
				Monitoring	
				Reading Comprehension	
				Equipment Selection	
				Active Learning	
				Coordination	
				Time Management	
				Critical Thinking	
				Complex Problem Solving	
				Equipment Selection	
				Troubleshooting	
				Judgment and Decision Making	
				Monitoring	
				Reading Comprehension	

Basic Information Services

List of Skills and Occupations Employed in Wired Telecommunications Carriers

Number of Occupations within JZ	0	5	2	2	2	0	1	10
Total Employment Range (2005)	N/A	16,280 - 481,990	28,240 - 226,740	27,970 - 50,400	N/A	91,680		
Average Annual Salary Range (2005)	N/A	\$25,270 - \$49,140	\$53,180 - \$112,740	\$93,410 - \$96,070	N/A	\$ 61,790		
Skill	Job Zone	JZ-1	JZ-2	JZ-3	JZ-4	JZ-5	JZ-N/A	Number
Installation		0	1	1	0	0	0	2
Troubleshooting		0	1	1	2	0	0	4
Repairing		0	0	1	0	0	0	1
Active Listening		0	5	2	1	0	0	8
Reading Comprehension		0	5	2	2	0	0	9
Equipment Selection		0	1	1	1	0	0	3
Active Learning		0	3	1	2	0	0	6
Speaking		0	4	2	0	0	0	6
Time Management		0	2	2	0	0	0	4
Critical Thinking		0	4	2	2	0	0	8
Instructing		0	3	0	0	0	0	3
Equipment Maintenance		0	1	0	0	0	0	1
Monitoring		0	2	1	0	0	0	3
Service Orientation		0	2	0	0	0	0	2
Writing		0	3	0	0	0	0	3
Mathematics		0	1	0	2	0	0	3
Social Perceptiveness		0	2	0	0	0	0	2
Complex Problem Solving		0	0	1	2	0	0	3
Coordination		0	0	1	1	0	0	2
Judgment and Decision		0	2	1	1	0	0	4
Management of Personnel		0	1	1	0	0	0	2
Programming		0	0	0	1	0	0	1
Systems Analysis		0	0	0	1	0	0	1
Operation Analysis		0	0	0	1	0	0	1
Learning Strategies		0	1	0	0	0	0	1
Technology Design		0	0	0	1	0	0	1
Total		0	44	20	20	0	0	84

Third
(of 9)

Basic Information Services

Occupations Employed in Wireless Telecommunications Carriers

TOT_EMP	481,990	396,750	199,440	125,210	27,810	180,480	28,240	145,050
A_MEAN	\$ 25,270	\$ 27,470	\$ 34,110	\$ 39,850	\$ 57,090	\$ 50,230	\$ 53,180	\$ 60,660
Job Zone	JZ-2	JZ-2	JZ-2	JZ-2	JZ-2/3/4/5	JZ-3	JZ-3	JZ-3
SOC-Code	41-2031	43-9061	43-4051	41-1011	13-1041	43-1011	49-2022	41-4012
Occupation Title	Retail salespersons	Office clerks, general	Customer service representatives	First-line supervisors/managers of retail sales workers	Compliance officers, except agriculture, construction, health and safety, and transportation	Bookkeeping, accounting, and auditing clerks	Telecommunications equipment installers and repairers, except line installers	Sales representatives, wholesale and manufacturing, except technical and scientific products
	Active Listening	Active Listening	Active Listening	Management of Personnel Resources	Critical Thinking	Mathematics	Installation	Active Listening
	Mathematics	Reading Comprehension	Reading Comprehension	Active Listening	Speaking	Reading Comprehension	Troubleshooting	Speaking
	Speaking	Speaking	Monitoring	Service Orientation	Science	Time Management	Repairing	Time Management
	Social Perceptiveness	Writing	Speaking	Time Management	Active Listening	Active Listening	Active Listening	Reading Comprehension
	Critical Thinking	Social Perceptiveness	Time Management	Instructing	Reading Comprehension	Critical Thinking	Reading Comprehension	Persuasion
	Writing	Service Orientation	Monitoring	Monitoring	Writing	Active Learning	Equipment Selection	Service Orientation
	Judgment and Decision Making	Active Learning	Reading Comprehension	Coordination	Coordination	Management of Personnel Resources	Active Learning	Negotiation
	Instructing	Learning Strategies	Judgment and Decision Making	Active Learning	Active Learning	Judgment and Decision Making	Speaking	Social Perceptiveness
	Reading Comprehension	Writing	Active Learning	Negotiation	Negotiation	Instructing	Time Management	Active Learning
		Critical Thinking	Critical Thinking	Learning Strategies	Learning Strategies	Social Perceptiveness	Critical Thinking	Coordination
				Instructing	Instructing			
				Judgment and Decision Making	Judgment and Decision Making			
Total	9	5	10	10	12	10	10	10

12

34

Basic Information Services

Occupations Employed in Wireless Telecommunications Carriers

Number of Occupations within JZ	0	4	1	6	3	0	3	0	3	17	Top Third (of 14)
Total Employment Range (2005)	N/A	125,210 - 481,990	27,810	23,450 - 208,200	31,930 - 226,740	N/A	28,190 - 175,920				
Average Annual Salary Range (2005)	N/A	\$25,270 - \$39,850	\$57,090	\$35,880 - \$71,870	\$72,680 - \$112,740	N/A	\$60,860 - \$62,400				
Skill	JZ-1	JZ-2	JZ-2/3/4/5	JZ-3	JZ-4	JZ-5	JZ-N/A	Number			
Active Listening	0	4	1	6	2	0	0	13	✓		
Reading Comprehension	0	4	1	6	3	0	0	14	✓		
Speaking	0	3	1	5	1	0	0	10			
Writing	0	3	1	1	0	0	0	5			
Social Perceptiveness	0	2	0	3	0	0	0	5			
Active Learning	0	2	1	4	2	0	0	9			
Complex Problem Solving	0	0	0	2	3	0	0	5			
Critical Thinking	0	3	1	5	3	0	0	12	✓		
Troubleshooting	0	0	0	2	2	0	0	4			
Monitoring	0	2	0	2	2	0	0	6			
Service Orientation	0	2	0	1	1	0	0	4			
Time Management	0	2	0	5	1	0	0	8			
Quality Control Analysis	0	0	0	1	1	0	0	1			
Learning Strategies	0	1	1	1	0	0	0	3			
Mathematics	0	1	0	1	0	0	0	2			
Judgment and Decision Making	0	2	1	3	2	0	0	8			
Instructing	0	2	1	1	0	0	0	4			
Installation	0	0	0	2	0	0	0	2			
Management of Personnel Resources	0	1	0	2	0	0	0	3			
Repairing	0	0	0	1	0	0	0	1			
Equipment Selection	0	0	0	2	0	0	0	2			
Persuasion	0	0	0	1	0	0	0	1			
Negotiation	0	0	1	1	0	0	0	2			
Coordination	0	0	1	2	1	0	0	4			
Technology Design	0	0	0	1	2	0	0	3			
Operations Analysis	0	0	0	0	1	0	0	1			
Systems Analysis	0	0	0	0	1	0	0	1			
Systems Evaluation	0	0	0	0	1	0	0	1			
Programming	0	0	0	0	1	0	0	1			
Science	0	0	1	0	0	0	0	1			
Total	0	34	12	60	30	0	0	136			

Basic Information Services

List of Skills for Occupations Employed in Telecommunications Resellers

TOT_EMP	A_MEAN	Job Zone	SOC-Code	Occupation Title	Mathematics	Reading Comprehension	Writing	Speaking	Listening	Complex Problem Solving	Critical Thinking	Judgment and Decision Making	Monitoring	Active Learning	Systems Analysis	Management of Personnel Resources	Coordination	Social Perceptiveness	9
481,990	\$ 25,270	JZ-2	41-2031	Retail salespersons	Active Listening														9
59,520	\$ 50,100	JZ-3	15-1041	Computer support specialists	Coordination	Reading Comprehension	Speaking	Active Learning	Complex Problem Solving	Critical Thinking	Active Listening	Judgment and Decision Making	Judgment and Decision Making	Reading Comprehension	Monitoring	Complex Problem Solving	Active Learning	Instructing	10
32,730	\$ 57,900	JZ-3	13-1023	Purchasing agents, except wholesale, retail, and farm products	Speaking	Active Listening	Critical Thinking	Judgment and Decision Making	Reading Comprehension	Writing	Time Management	Judgment and Decision Making	Monitoring	Reading Comprehension	Speaking	Coordination	Critical Thinking	Complex Problem Solving	10
226,740	\$ 112,740	JZ-3	11-1021	General and operations managers	Active Listening	Management of Personnel Resources	Time Management	Judgment and Decision Making	Monitoring	Reading Comprehension	Speaking	Judgment and Decision Making	Monitoring	Reading Comprehension	Speaking	Coordination	Critical Thinking	Complex Problem Solving	10
124,560	\$ 64,390	JZ-4	13-2011	Accountants and auditors	Mathematics	Active Listening	Critical Thinking	Monitoring	Judgment and Decision Making	Writing	Speaking	Active Learning	Judgment and Decision Making	Active Listening	Complex Problem Solving	Active Learning	Reading Comprehension	Monitoring	8
49,790	\$ 76,970	JZ-4	15-1051	Computer systems analysts	Active Learning	Reading Comprehension	Complex Problem Solving	Critical Thinking	Active Listening	Troubleshooting	Monitoring	Active Listening	Judgment and Decision Making	Active Learning	Complex Problem Solving	Active Learning	Reading Comprehension	Service Orientation	10
50,400	\$ 96,070	JZ-4	15-1032	Computer software engineers, systems software	Complex Problem Solving	Technology Design	Troubleshooting	Critical Thinking	Active Listening	Programming	Reading Comprehension	Active Learning	Judgment and Decision Making	Active Learning	Complex Problem Solving	Active Learning	Mathematics	Operation Analysis	10
175,920	\$ 60,860	N/A	13-1199	Business operations specialists, all other	Not Available														0
91,680	\$ 61,790	N/A	41-3099	Sales representatives, services, all other	Not Available														0
35,550	\$ 120,600	JZ-4	11-3021	Computer and information systems managers	Reading Comprehension	Critical Thinking	Active Listening	Judgment and Decision Making	Management of Personnel Resources	Systems Analysis	Speaking	Judgment and Decision Making	Management of Personnel Resources	Active Learning	Complex Problem Solving	Active Learning	Monitoring	Coordination	10
Total																			38

Basic Information Services

List of Skills for Occupations Employed in Telecommunications Resellers

Number of Occupations within JZ	0	1	3	4	0	2	10
Total Employment Range (2005)	N/A	481,990	32,730 - 226,740	49,790 - 124,560	N/A	91,680 - 175,920	
Average Annual Salary Range (2005)	N/A	\$ 25,270	\$50,100 - \$112,740	\$64,390 - \$120,600	N/A	\$60,860 - \$61,790	
Skill	JZ-1	JZ-2	JZ-3	JZ-4	JZ-5	JZ-N/A	Number
Technology Design	0	0	0	1	0	0	1
Troubleshooting	0	0	0	2	0	0	2
Critical Thinking	0	1	3	4	0	0	8
Active Learning	0	0	2	2	0	0	4
Programming	0	0	0	1	0	0	1
Reading Comprehension	0	1	3	4	0	0	8
Systems Analysis	0	0	0	2	0	0	2
Mathematics	0	1	1	2	0	0	4
Operation Analysis	0	0	0	1	0	0	1
Active Listening	0	1	3	3	0	0	7
Judgment and Decision	0	1	3	2	0	0	6
Writing	0	1	1	1	0	0	3
Speaking	0	1	3	2	0	0	6
Social Perceptiveness	0	1	0	1	0	0	2
Monitoring	0	0	2	3	0	0	5
Service Orientation	0	0	0	1	0	0	1
Time Management	0	0	2	1	0	0	3
Quality Control Analysis	0	0	0	1	0	0	1
Instructing	0	1	1	0	0	0	2
Management of Personnel Resources	0	0	1	1	0	0	2
Negotiation	0	0	1	0	0	0	1
Coordination	0	0	2	1	0	0	3
Complex Problem Solving	0	0	2	2	0	0	4
Total	0	9	30	38	0	0	77

Top Third
(of 8)

Basic Information Services

List of Skills for Occupations Employed in Satellite Telecommunications

TOT_EMP	16,280	28,240	30,680	49,790	84,550	35,550	175,920	91,680
A_MEAN	\$ 49,140	\$ 53,180	\$ 75,230	\$ 76,970	\$ 91,590	\$ 120,600	\$ 60,860	\$ 61,790
Job Zone	JZ-2	JZ-3	JZ-4	JZ-4	JZ-4	JZ-4	N/A	N/A
SOC-Code	49-9052	49-2022	41-1012	15-1051	15-1031	11-3021	13-1199	41-3099
Occupation Title	Telecommunications line installers and repairers	Telecommunications equipment installers and repairers, except line installers	First-line supervisors/managers of mechanics, installers, and repairers	First-line supervisors/managers of non-retail sales workers	Computer software engineers, applications	Computer and information systems managers	Business operations specialists, all other	Sales representatives, services, all other
	Installation	Installation	Management of Personnel Resources	Active Learning	Programming	Reading Comprehension	Not Available	Not Available
	Troubleshooting	Troubleshooting	Reading Comprehension	Reading Comprehension	Critical Thinking	Critical Thinking		
	Active Learning	Repairing	Coordination	Complex Problem Solving	Complex Problem Solving	Active Listening		
	Equipment Selection	Active Listening	Active Listening	Critical Thinking	Active Learning	Judgment and Decision Making		
	Active Listening	Reading Comprehension	Monitoring	Active Listening	Troubleshooting	Management of Personnel Resources		
	Reading Comprehension	Equipment Selection	Social Perceptiveness	Troubleshooting	Judgment and Decision Making	Systems Analysis		
	Critical Thinking	Active Learning	Time Management	Monitoring	Technology Design	Speaking		
	Instructing	Speaking	Critical Thinking	Service Orientation	Reading Comprehension	Monitoring		
	Speaking	Time Management	Speaking	Time Management	Operations Analysis	Coordination		
	Equipment Maintenance	Critical Thinking	Complex Problem Solving	Quality Control Analysis	Systems Analysis	Social Perceptiveness		
Total	10	10	10	10	10	10	0	0

0

40

20

10

Basic Information Services

List of Skills for Occupations Employed in Satellite Telecommunications

Number of Occupations within JZ	0	1	2	4	0	2	JZ-N/A	Number
Total Employment Range (2005)	N/A	16,280	28,240 - 43,690	30,680 - 84,550	N/A	91,680 - 175,920		
Average Annual Salary Range (2005)	N/A	\$ 49,140	\$53,180 - \$60,630	\$75,230 - \$120,600	N/A	\$60,860 - \$61,790		
Skill	JZ-1	JZ-2	JZ-3	JZ-4	JZ-5	JZ-N/A	Top Third (of 7)	Number
Installation	0	1	1	0	0	0		2
Troubleshooting	0	1	1	2	0	0		4
Repairing	0	0	1	0	0	0		1
Active Listening	0	1	2	3	0	0		6
Reading Comprehension	0	1	2	4	0	0		7
Equipment Selection	0	1	1	0	0	0		2
Active Learning	0	1	1	3	0	0		5
Speaking	0	1	2	2	0	0		5
Time Management	0	0	2	2	0	0		4
Critical Thinking	0	1	2	4	0	0		7
Instructing	0	1	0	1	0	0		2
Equipment Maintenance	0	1	0	0	0	0		1
Management of Personnel Resources	0	0	1	2	0	0		3
Judgment and Decision Making	0	0	0	3	0	0		3
Complex Problem Solving	0	0	1	2	0	0		3
Coordination	0	0	1	1	0	0		2
Programming	0	0	0	1	0	0		1
Technology Design	0	0	0	1	0	0		1
Operations Analysis	0	0	0	1	0	0		1
Systems Analysis	0	0	0	2	0	0		2
Monitoring	0	0	1	2	0	0		3
Service Orientation	0	0	0	1	0	0		1
Quality Control Analysis	0	0	0	1	0	0		1
Social Perceptiveness	0	0	1	2	0	0		3
Total	0	10	20	40	0	0		70

Basic Information Services

List of Skills for Occupations Employed in Cable and Other Program Distribution

TOT_EMP	199,440	21,960	16,280	208,200	59,520	180,480	28,240	43,690	49,200	91,680
A_MEAN	\$ 34,110	\$ 36,420	\$ 49,140	\$ 35,880	\$ 50,100	\$ 50,230	\$ 53,180	\$ 60,630	\$ 114,770	\$ 61,790
Job Zone	JZ-2	JZ-2	JZ-2	JZ-3	JZ-3	JZ-3	JZ-3	JZ-3	JZ-4	N/A
SOC-Code	43-4051	43-5032	49-9052	43-3031	15-1041	43-1011	49-2022	49-1011	11-2022	41-3099
Occupation Title	Customer service representatives	Dispatchers, except police, fire, and ambulance	Telecommunications line installers and repairers	Bookkeeping, accounting, and auditing clerks	Computer support specialists	First-line supervisors/managers of office and administrative support workers	Telecommunications equipment installers and repairers, except line installers	First-line supervisors/managers of mechanics, installers, and repairers	Sales managers	Sales representatives, services, and all other
	Active Listening	Active Listening	Installation	Mathematics	Coordination	Active Listening	Installation	Management of Personnel Resources	Active Listening	Not Available
	Reading Comprehension	Judgment and Decision Making	Troubleshooting	Reading Comprehension	Reading Comprehension	Speaking	Troubleshooting	Reading Comprehension	Speaking	
	Monitoring	Reading Comprehension	Active Learning	Time Management	Critical Thinking	Reading Comprehension	Repairing	Coordination	Coordination	
	Speaking	Speaking	Equipment Selection	Active Listening	Active Listening	Critical Thinking	Active Listening	Active Listening	Writing	
	Time Management	Time Management	Active Listening	Critical Thinking	Judgment and Decision Making	Monitoring	Reading Comprehension	Monitoring	Critical Thinking	
	Service Orientation	Critical Thinking	Reading Comprehension	Active Learning	Speaking	Time Management	Equipment Selection	Social Perceptiveness	Persuasion	
	Active Learning	Learning Strategies	Critical Thinking	Learning Strategies	Active Learning	Management of Personnel Resources	Active Learning	Time Management	Judgment and Decision Making	
	Learning Strategies	Monitoring	Instructing	Social Perceptiveness	Monitoring	Judgment and Decision Making	Speaking	Critical Thinking	Reading Comprehension	
	Writing	Active Learning	Speaking	Writing	Complex Problem Solving	Instructing	Time Management	Speaking	Social Perceptiveness	
	Critical Thinking	Instructing	Equipment Maintenance	Speaking	Instructing	Social Perceptiveness	Critical Thinking	Complex Problem Solving	Active Learning	
Total	10	10	10	10	10	10	10	10	10	0

30

50

10

0

Basic Information Services

List of Skills for Occupations Employed in Cable and Other Program Distribution

Number of Occupations within JZ	0	3	5	1	0	1	10
Total Employment Range (2005)	N/A	16,280 - 199,440	28,240 - 208,200	43,690 - 49,200	N/A	91,680	
Average Annual Salary Range (2005)	N/A	\$34,110 - \$49,140	\$35,880 - \$53,180	\$60,630 - \$114,770	N/A	\$ 61,790	
Skill	JZ-1	JZ-2	JZ-3	JZ-4	JZ-5	JZ-N/A	Number
Active Learning	0	3	3	1	0	0	7 ✓
Equipment Selection	0	1	1	0	0	0	2
Active Listening	0	3	5	1	0	0	9 ✓
Reading Comprehension	0	3	5	1	0	0	9 ✓
Critical Thinking	0	3	5	1	0	0	9 ✓
Instructing	0	2	2	0	0	0	4
Speaking	0	3	5	1	0	0	9 ✓
Equipment Maintenance	0	1	0	0	0	0	1
Installation	0	1	1	0	0	0	2
Writing	0	1	1	1	0	0	3
Learning Strategies	0	2	1	0	0	0	3
Time Management	0	2	4	0	0	0	6 ✓
Coordination	0	0	2	1	0	0	3
Troubleshooting	0	1	1	0	0	0	2
Monitoring	0	2	3	0	0	0	5
Service Orientation	0	1	0	0	0	0	1
Social Perceptiveness	0	0	3	1	0	0	4
Repairing	0	0	1	0	0	0	1
Judgment and Decision Making	0	1	2	1	0	0	4
Mathematics	0	0	1	0	0	0	1
Management of Personnel Resources	0	0	2	0	0	0	2
Persuasion	0	0	0	1	0	0	1
Complex Problem Solving	0	0	2	0	0	0	2
Total	0	30	50	10	0	0	90

Top Third (of 9)

Basic Information Services

List of Skills for Occupations Employed in Newspaper, Book, Directory Publishers

TOT_EMP	396,750	20,350	199,440	2,800	6,580	19,660	27,080	5,170	12,080	63,700	
A_MEAN	\$27,470	\$34,550	\$34,110	\$38,110	\$39,320	\$59,330	\$49,620	\$51,550	\$56,460	\$82,200	
Job Zone	JZ-2	JZ-2	JZ-2	JZ-3	JZ-3	JZ-3	JZ-4	JZ-4	JZ-4	JZ-4	
SOC-Code	53-7063	43-9061	51-5023	43-4051	51-5022	41-3011	27-1024	27-3022	27-3041	13-1111	
Occupation Title	Machine feeders and offbearers	Office clerks, general	Printing machine operators	Customer service representatives	Desktop publishers	Prepress technicians and workers	Advertising sales agents	Graphic designers	Reporters and correspondents	Editors	Management analysts
	Active Listening	Active Listening	Operation and Control	Active Listening	Active Listening	Active Listening	Active Listening	Time Management	Writing	Reading Comprehension	Critical Thinking
	Operation and Control	Reading Comprehension	Operation Monitoring	Reading Comprehension	Reading Comprehension	Time Management	Time Management	Coordination	Active Listening	Writing	Judgment and Decision Making
	Operation Monitoring	Speaking	Troubleshooting	Monitoring	Time Management	Speaking	Active Listening	Active Listening	Reading Comprehension	Active Listening	Active Listening
	Learning Strategies	Writing	Equipment Maintenance	Speaking	Time Management	Mathematics	Judgment and Decision Making	Judgment and Decision Making	Time Management	Critical Thinking	Coordination
	Reading Comprehension	Social Perceptiveness	Reading Comprehension	Time Management	Writing	Negotiation	Active Learning	Active Learning	Critical Thinking	Judgment and Decision Making	Time Management
	Equipment Maintenance		Quality Control Analysis	Service Orientation	Service Orientation	Active Learning	Critical Thinking	Critical Thinking	Time Management	Time Management	Instructing
	Mathematics		Critical Thinking	Active Learning	Active Learning	Reading Comprehension	Active Learning	Complex Problem Solving	Active Learning	Active Learning	Monitoring
	Active Learning		Equipment Selection	Learning Strategies	Critical Thinking	Service Orientation	Social Perceptiveness	Monitoring	Social Perceptiveness	Coordination	Quality Control Analysis
	Monitoring		Active Listening	Instructing	Instructing	Writing	Coordination	Reading Comprehension	Coordination	Speaking	Reading Comprehension
	Instructing		Instructing	Instructing	Equipment Selection	Social Perceptiveness	Speaking	Speaking	Judgment and Decision Making	Judgment and Decision Making	Operation and Control

Total 35

Total 30

Total 30

Basic Information Services

List of Skills for Occupations Employed in Newspaper, Book, Directory Publishers

Number of Occupations within JZ	JZ	JZ -1	JZ -2	JZ -3	JZ -4	JZ -5	Number
Total Employment Range (2005)	N/A	13,450 - 396,750	2,800 - 19,660	5,170 - 63,700	N/A		11
Average Annual Salary Range (2005)	N/A	\$22,130 - \$34,550	\$38,110 - \$59,330	\$49,620 - \$82,200	N/A		
Skill	JZ	JZ -1	JZ -2	JZ -3	JZ -4	JZ -5	Number
Active Listening		0	4	3	4	0	11 ✓
Time Management		0	1	3	4	0	8 ✓
Speaking		0	2	3	3	0	8
Mathematics		0	1	1	0	0	2
Negotiation		0	0	1	0	0	1
Active Learning		0	2	3	3	0	8 ✓
Reading Comprehension		0	4	3	4	0	11 ✓
Service Orientation		0	1	2	0	0	3
Writing		0	2	2	2	0	6
Social Perceptiveness		0	1	1	1	0	3
Critical Thinking		0	2	2	4	0	8 ✓
Judgment and Decision Making		0	0	0	4	0	4
Coordination		0	0	2	4	0	6
Monitoring		0	2	0	3	0	5
Operation Monitoring		0	2	0	0	0	2
Troubleshooting		0	1	1	0	0	2
Operation and Control		0	2	0	1	0	3
Equipment Maintenance		0	2	0	0	0	2
Equipment Selection		0	1	1	0	0	2
Complex Problem Solving		0	0	0	1	0	1
Learning Strategies		0	2	1	0	0	3
Quality Control Analysis		0	1	0	1	0	2
Instructing		0	2	1	1	0	4
Total		0	35	30	40	0	105

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Basic Information Services

List of Skills for Occupations Employed in Software Publishers

TOT_EMP	A_MEAN	Job Zone	SOC-Code	Occupation Title	Active Listening	Reading Comprehension	Speaking	Time Management	Writing	Mathematics	Learning Strategies	Social Perceptiveness	Monitoring	Critical Thinking	Coordination	Active Listening	Reading Comprehension	Critical Thinking	Complex Problem Solving	Active Learning	Judgment and Decision Making	Time Management	Writing	Monitoring	Service Orientation	Time Management	Judgment and Decision Making	Active Learning	Learning Strategies	Technology Design	Troubleshooting			
118,360	\$18,630	JZ-1	53-7064	Packers and packagers, hand	Active Listening	Coordination	Speaking	Learning Strategies	Reading Comprehension	Social Perceptiveness																								
106,390	\$28,760	JZ-2	43-5071	Shipping, receiving, and traffic clerks	Active Listening	Reading Comprehension	Speaking	Time Management	Writing	Mathematics	Learning Strategies	Social Perceptiveness	Monitoring	Critical Thinking	Coordination	Active Listening	Reading Comprehension	Critical Thinking	Complex Problem Solving	Active Learning	Judgment and Decision Making	Time Management	Writing	Monitoring	Service Orientation	Time Management	Judgment and Decision Making	Active Learning	Learning Strategies	Technology Design	Troubleshooting			
39,740	\$42,830	JZ-2	43-5061	Production, planning, and expediting clerks	Active Listening	Reading Comprehension	Speaking	Time Management	Writing	Mathematics	Learning Strategies	Social Perceptiveness	Monitoring	Critical Thinking	Coordination	Active Listening	Reading Comprehension	Critical Thinking	Complex Problem Solving	Active Learning	Judgment and Decision Making	Time Management	Writing	Monitoring	Service Orientation	Time Management	Judgment and Decision Making	Active Learning	Learning Strategies	Technology Design	Troubleshooting			
\$39,470	\$43,250	JZ-3	43-6011	Executive secretaries and administrative assistants	Active Listening	Reading Comprehension	Speaking	Time Management	Writing	Critical Thinking	Learning Strategies	Social Perceptiveness	Monitoring	Critical Thinking	Coordination	Active Listening	Reading Comprehension	Critical Thinking	Complex Problem Solving	Active Learning	Judgment and Decision Making	Time Management	Writing	Monitoring	Service Orientation	Time Management	Judgment and Decision Making	Active Learning	Learning Strategies	Technology Design	Troubleshooting			
19,060	\$214,050	JZ-3	43-6011	Human resources assistants, except payroll and timekeeping	Active Listening	Reading Comprehension	Speaking	Time Management	Writing	Critical Thinking	Learning Strategies	Social Perceptiveness	Monitoring	Critical Thinking	Coordination	Active Listening	Reading Comprehension	Critical Thinking	Complex Problem Solving	Active Learning	Judgment and Decision Making	Time Management	Writing	Monitoring	Service Orientation	Time Management	Judgment and Decision Making	Active Learning	Learning Strategies	Technology Design	Troubleshooting			
\$39,470	\$43,250	JZ-3	43-6011	Human resources assistants, except payroll and timekeeping	Active Listening	Reading Comprehension	Speaking	Time Management	Writing	Critical Thinking	Learning Strategies	Social Perceptiveness	Monitoring	Critical Thinking	Coordination	Active Listening	Reading Comprehension	Critical Thinking	Complex Problem Solving	Active Learning	Judgment and Decision Making	Time Management	Writing	Monitoring	Service Orientation	Time Management	Judgment and Decision Making	Active Learning	Learning Strategies	Technology Design	Troubleshooting			
\$19,060	\$214,050	JZ-3	43-6011	Human resources assistants, except payroll and timekeeping	Active Listening	Reading Comprehension	Speaking	Time Management	Writing	Critical Thinking	Learning Strategies	Social Perceptiveness	Monitoring	Critical Thinking	Coordination	Active Listening	Reading Comprehension	Critical Thinking	Complex Problem Solving	Active Learning	Judgment and Decision Making	Time Management	Writing	Monitoring	Service Orientation	Time Management	Judgment and Decision Making	Active Learning	Learning Strategies	Technology Design	Troubleshooting			
23,450	\$71,870	JZ-3	15-1081	Network systems and data communications analysts	Equipment Selection	Troubleshooting	Complex Problem Solving	Active Listening	Active Learning	Critical Thinking	Installation	Judgment and Decision Making	Technology Design																					
\$59,520	\$50,100	JZ-3	15-1041	Computer support specialists	Active Learning	Reading Comprehension	Complex Problem Solving	Critical Thinking	Active Listening	Active Learning	Critical Thinking	Judgment and Decision Making	Technology Design																					
214,050	\$43,250	JZ-3	43-6011	Executive secretaries and administrative assistants	Active Listening	Reading Comprehension	Speaking	Time Management	Writing	Critical Thinking	Learning Strategies	Social Perceptiveness	Monitoring	Critical Thinking	Coordination	Active Listening	Reading Comprehension	Critical Thinking	Complex Problem Solving	Active Learning	Judgment and Decision Making	Time Management	Writing	Monitoring	Service Orientation	Time Management	Judgment and Decision Making	Active Learning	Learning Strategies	Technology Design	Troubleshooting			
19,060	\$39,470	JZ-3	43-4161	Human resources assistants, except payroll and timekeeping	Active Listening	Reading Comprehension	Speaking	Time Management	Writing	Critical Thinking	Learning Strategies	Social Perceptiveness	Monitoring	Critical Thinking	Coordination	Active Listening	Reading Comprehension	Critical Thinking	Complex Problem Solving	Active Learning	Judgment and Decision Making	Time Management	Writing	Monitoring	Service Orientation	Time Management	Judgment and Decision Making	Active Learning	Learning Strategies	Technology Design	Troubleshooting			
\$19,060	\$39,470	JZ-3	43-4161	Human resources assistants, except payroll and timekeeping	Active Listening	Reading Comprehension	Speaking	Time Management	Writing	Critical Thinking	Learning Strategies	Social Perceptiveness	Monitoring	Critical Thinking	Coordination	Active Listening	Reading Comprehension	Critical Thinking	Complex Problem Solving	Active Learning	Judgment and Decision Making	Time Management	Writing	Monitoring	Service Orientation	Time Management	Judgment and Decision Making	Active Learning	Learning Strategies	Technology Design	Troubleshooting			
19,060	\$39,470	JZ-3	43-4161	Human resources assistants, except payroll and timekeeping	Active Listening	Reading Comprehension	Speaking	Time Management	Writing	Critical Thinking	Learning Strategies	Social Perceptiveness	Monitoring	Critical Thinking	Coordination	Active Listening	Reading Comprehension	Critical Thinking	Complex Problem Solving	Active Learning	Judgment and Decision Making	Time Management	Writing	Monitoring	Service Orientation	Time Management	Judgment and Decision Making	Active Learning	Learning Strategies	Technology Design	Troubleshooting			
\$19,060	\$39,470	JZ-3	43-4161	Human resources assistants, except payroll and timekeeping	Active Listening	Reading Comprehension	Speaking	Time Management	Writing	Critical Thinking	Learning Strategies	Social Perceptiveness	Monitoring	Critical Thinking	Coordination	Active Listening	Reading Comprehension	Critical Thinking	Complex Problem Solving	Active Learning	Judgment and Decision Making	Time Management	Writing	Monitoring	Service Orientation	Time Management	Judgment and Decision Making	Active Learning	Learning Strategies	Technology Design	Troubleshooting			
19,060	\$39,470	JZ-3	43-4161	Human resources assistants, except payroll and timekeeping	Active Listening	Reading Comprehension	Speaking	Time Management	Writing	Critical Thinking	Learning Strategies	Social Perceptiveness	Monitoring	Critical Thinking	Coordination	Active Listening	Reading Comprehension	Critical Thinking	Complex Problem Solving	Active Learning	Judgment and Decision Making	Time Management	Writing	Monitoring	Service Orientation	Time Management	Judgment and Decision Making	Active Learning	Learning Strategies	Technology Design	Troubleshooting			
9,700	\$70,090	JZ-4	13-1081	Logisticians	Coordination	Active Listening	Critical Thinking	Reading Comprehension	Writing	Monitoring	Service Orientation	Time Management	Judgment and Decision Making	Active Learning	Learning Strategies	Technology Design	Troubleshooting																	
8,470	\$74,760	JZ-4	27-1014	Multi-media artists and animators	Active Listening	Time Management	Reading Comprehension	Active Learning	Judgment and Decision Making	Operations Analysis	Speaking	Writing	Critical Thinking	Active Learning	Learning Strategies	Technology Design	Troubleshooting																	
8,470	\$74,760	JZ-4	27-1014	Multi-media artists and animators	Active Listening	Time Management	Reading Comprehension	Active Learning	Judgment and Decision Making	Operations Analysis	Speaking	Writing	Critical Thinking	Active Learning	Learning Strategies	Technology Design	Troubleshooting																	
35,040	\$76,270	JZ-4	15-1021	Computer programmers	Programming																													

Total

40

20

6

Basic Information Services

List of Skills for Occupations Employed in Software Publishers

49,790	42,950	19,920	84,550	50,400	35,550	4,910
\$76,970	\$77,480	\$86,620	\$91,590	\$96,070	\$120,600	\$116,470
JZ-4	JZ-4	JZ-4	JZ-4	JZ-4	JZ-4	N/A
15-1051	41-4011	13-2051	15-1031	15-1032	11-3021	15-1011
Computer systems analysts	Sales representatives, wholesale and manufacturing, technical and scientific products	Financial analysts	Computer software engineers, applications	Computer software engineers, systems software	Computer and information systems managers	Computer and information scientists, research
Active Learning	Speaking	Reading Comprehension	Programming	Complex Problem Solving	Reading Comprehension	Not Available
Reading Comprehension	Persuasion	Time Management	Critical Thinking	Technology Design	Critical Thinking	
Complex Problem Solving	Active Listening	Active Listening	Complex Problem Solving	Troubleshooting	Active Listening	
Critical Thinking	Time Management	Judgment and Decision Making	Active Learning	Critical Thinking	Judgment and Decision Making	
Active Listening	Negotiation	Complex Problem Solving	Troubleshooting	Active Learning	Management of Personnel Resources	
Troubleshooting	Service Orientation	Mathematics	Judgment and Decision Making	Programming	Systems Analysis	
Monitoring	Social Perceptiveness	Critical Thinking	Technology Design	Reading Comprehension	Speaking	
Service Orientation	Reading Comprehension	Management of Financial Resources	Reading Comprehension	Systems Analysis	Monitoring	
Time Management	Critical Thinking	Active Learning	Operations Analysis	Mathematics	Coordination	
Quality Control/Analysis	Active Learning	Monitoring	Systems Analysis	Operations Analysis	Social Perceptiveness	
10	10	10	10	10	10	0
						156
						0

Basic Information Services

List of Skills for Occupations Employed in Software Publishers

Number of Occupations within JZ	1	2	4	9	0	1	17
Total Employment Range (2005)	118,360	39,740 - 106,390	19,060 - 214,050	8,470 - 84,550	N/A	4,910	
Average Annual Salary Range (2005)	\$18,630	\$28,760 - \$42,830	\$39,470 - \$71,870	\$70,090 - \$120,600	N/A	\$116,470	
Skill	JZ -1	JZ -2	JZ -3	JZ -4	JZ -5	JZ-N/A	Number
Programming	0	0	0	3	0	0	3
Critical Thinking	0	1	4	9	0	0	14 ✓
Complex Problem Solving	0	0	2	5	0	0	7
Active Learning	0	1	3	8	0	0	12 ✓
Troubleshooting	0	0	1	4	0	0	5
Judgment and Decision Making	0	1	2	5	0	0	8
Technology Design	0	0	1	3	0	0	4
Reading Comprehension	1	2	4	9	0	0	16 ✓
Operations Analysis	0	0	0	4	0	0	4
Systems Analysis	0	0	0	2	0	0	2
Systems Evaluation	0	0	0	1	0	0	1
Quality Control Analysis	0	0	0	1	0	0	1
Active Listening	1	2	4	7	0	0	14 ✓
Mathematics	0	2	1	2	0	0	5
Persuasion	0	0	0	1	0	0	1
Learning Strategies	1	1	1	2	0	0	5
Negotiation	0	0	0	1	0	0	1
Monitoring	0	1	2	4	0	0	7
Coordination	1	1	2	2	0	0	6
Writing	0	2	2	2	0	0	6
Social Perceptiveness	1	1	1	2	0	0	5
Management of Financial Resources	0	0	0	1	0	0	1
Management of Personnel Resources	0	0	0	1	0	0	1
Time Management	0	2	2	5	0	0	9
Speaking	1	2	3	3	0	0	9
Service Orientation	0	1	1	3	0	0	5
Instructing	0	0	2	0	0	0	2
Installation	0	0	1	0	0	0	1
Equipment Selection	0	0	1	0	0	0	1
Total	6	20	40	90	0	0	156

Top Third
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Basic Information Services

List of Skills for Occupations Employed in Radio and Television Broadcasting

TOT_EMP	A_MEAN	Job Zone	SOC-Code	Occupation Title	Active Listening	Reading Comprehension	Speaking	Writing	Social Perceptiveness	Critical Thinking	Coordination	Judgment and Decision Making	Monitoring	Complex Problem Solving
396,750	27,470	JZ-2	43-9061	Office clerks, general	Active Listening	Reading Comprehension	Speaking	Writing	Social Perceptiveness	Critical Thinking	Coordination	Judgment and Decision Making	Monitoring	Complex Problem Solving
4,020	43,000	JZ-3	27-4012	Broadcast technicians	Operation and Monitoring	Operation and Control	Reading Comprehension	Active Learning	Active Listening	Reading Comprehension	Equipment Selection	Judgment and Decision Making	Time Management	Management of Personnel Resources
\$ 43,000	\$ 43,250	JZ-3	43-6011	Executive secretaries and administrative assistants	Active Listening	Reading Comprehension	Time Management	Critical Thinking	Active Learning	Active Listening	Coordination	Judgment and Decision Making	Time Management	Management of Personnel Resources
7,010	44,040	JZ-3	27-4011	Audio and video equipment technicians	Active Listening	Critical Thinking	Troubleshooting	Reading Comprehension	Active Learning	Reading Comprehension	Equipment Selection	Judgment and Decision Making	Time Management	Management of Personnel Resources
3,680	47,730	JZ-3	27-3011	Radio and television announcers	Speaking	Reading Comprehension	Time Management	Active Learning	Social Perceptiveness	Writing	Coordination	Judgment and Decision Making	Time Management	Management of Personnel Resources
19,660	59,330	JZ-3	41-3011	Advertising sales agents	Active Listening	Time Management	Speaking	Mathematics	Negotiation	Active Learning	Coordination	Judgment and Decision Making	Time Management	Management of Personnel Resources
5,950	62,920	JZ-3	27-4031	Camera operators, television, video, and motion picture	Active Listening	Time Management	Operation and Control	Coordination	Speaking	Reading Comprehension	Equipment Selection	Judgment and Decision Making	Time Management	Management of Personnel Resources
3,870	65,830	JZ-3	27-4014	Sound engineering technicians	Operation and Control	Operation and Control	Reading Comprehension	Coordination	Active Learning	Active Listening	Equipment Selection	Judgment and Decision Making	Time Management	Management of Personnel Resources
5,990	72,640	JZ-3	27-4032	Film and video editors	Active Listening	Active Learning	Coordination	Equipment Selection	Time Management	Troubleshooting	Reading Comprehension	Judgment and Decision Making	Time Management	Management of Personnel Resources
226,740	112,740	JZ-3	11-1021	General and operations managers	Active Listening	Management of Personnel Resources	Time Management	Coordination	Active Learning	Active Listening	Equipment Selection	Judgment and Decision Making	Time Management	Management of Personnel Resources
10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Total	5	5	5	5	5	5	5	5	5	5	5	5	5	5

Basic Information Services

List of Skills for Occupations Employed in Radio and Television Broadcasting

14,920	5,170	12,080	8,470	30,680	5,870	49,200	35,620
\$ 90,750	\$ 51,550	\$ 56,460	\$ 74,760	\$ 75,230	\$ 91,350	\$ 114,770	\$ 125,080
JZ-3/4	JZ-4	JZ-4	JZ-4	JZ-4	JZ-4	JZ-4	JZ-5
27-2012	27-3022	27-3041	27-1014	41-1012	27-3043	11-2022	11-9041
Producers and directors	Reporters and correspondents	Editors	Multi-media artists and animators	First-line supervisors/managers of non-retail sales workers	Writers and authors	Sales managers	Engineering managers
Active Listening	Active Listening	Reading Comprehension	Active Listening	Speaking	Active Listening	Active Listening	Reading Comprehension
Time Management	Reading Comprehension	Writing	Time Management	Time Management	Critical Thinking	Speaking	Speaking
Reading Comprehension	Time Management	Active Listening	Reading Comprehension	Active Listening	Time Management	Coordination	Active Listening
Speaking	Critical Thinking	Critical Thinking	Active Learning	Reading Comprehension	Writing	Writing	Critical Thinking
Writing	Speaking	Judgment and Decision Making	Judgment and Decision Making	Social Perceptiveness	Reading Comprehension	Critical Thinking	Complex Problem Solving
Judgment and Decision Making	Active Learning	Time Management	Operations Analysis	Active Learning	Social Perceptiveness	Persuasion	Monitoring
Coordination	Social Perceptiveness	Active Learning	Speaking	Critical Thinking		Judgment and Decision Making	Negotiation
Critical Thinking	Coordination	Coordination	Writing	Judgment and Decision Making		Reading Comprehension	Social Perceptiveness
Monitoring	Judgment and Decision Making	Speaking	Critical Thinking	Management of Personnel Resources		Social Perceptiveness	Judgment and Decision Making
Operation and Control	Writing	Monitoring	Learning Strategies	Instructing		Active Learning	Writing
Management of Personnel Resources							
Persuasion							
12	10	10	10	10	6	10	10
12						56	10

Basic Information Services

List of Skills for Occupations Employed in Radio and Television Broadcasting

Skill	Job Zone		JZ-1	JZ-2	JZ-3	JZ-3/4	JZ-4	JZ-5	Number
	Number of Occupations within JZ	Total Employment Range (2005)							
Speaking	0	1	7	1	5	14	0	18	✓
Active Listening	0	1	9	1	6	18	1	18	✓
Reading Comprehension	0	1	8	1	6	17	1	17	✓
Time Management	0	0	7	1	5	14	1	14	✓
Social Perceptiveness	0	1	4	0	4	0	0	9	
Writing	0	1	3	1	5	0	0	10	
Critical Thinking	0	0	8	1	6	16	1	16	✓
Active Learning	0	0	7	0	5	13	1	13	✓
Monitoring	0	0	5	1	1	7	0	7	
Coordination	0	0	7	1	3	12	1	12	✓
Mathematics	0	0	1	0	0	2	1	2	
Negotiation	0	0	1	0	0	1	0	1	
Service Orientation	0	0	2	0	0	2	0	2	
Troubleshooting	0	0	4	0	0	4	0	4	
Judgment and Decision Making	0	0	3	1	5	10	1	10	
Equipment Selection	0	0	3	0	0	3	0	3	
Operation Monitoring	0	0	3	0	0	3	0	3	
Operation and Control	0	0	5	1	0	6	0	6	
Persuasion	0	0	0	1	1	2	0	2	
Management of Personnel Resources	0	0	1	1	1	3	0	3	
Equipment Maintenance	0	0	1	0	0	1	0	1	
Instructing	0	0	0	0	1	1	0	1	
Operations Analysis	0	0	0	0	1	1	1	2	
Learning Strategies	0	0	0	0	1	1	0	1	
Complex Problem Solving	0	0	1	0	0	1	0	1	
Total	0	5	90	12	56	173	10	173	

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Basic Information Services

List of Skills for Occupations Employed in Cable and Other Subscription Programming

Skill	Job Zone		JZ-1	JZ-2	JZ-3	JZ-3/4	JZ-4	JZ-5	JZ-N/A	Number
	0	1								
Number of Occupations within JZ	0	3	6	1	1	1	1	0	4	15
Total Employment Range (2005)	N/A	16,280 - 199,440	4,020 - 226,740	14,920	43,690	N/A	11,600 - 175,920			
Average Annual Salary Range (2005)	N/A	\$34,110 - \$49,140	\$35,250 - \$112,740	\$ 90,750	\$ 60,630	N/A	\$53,580 - \$89,260			
Installation	0	1	1	0	0	0	0	0	0	2
Speaking	0	3	5	1	1	1	0	0	0	10
Active Listening	0	3	6	1	1	1	0	0	0	11
Reading Comprehension	0	3	5	1	1	1	0	0	0	10
Time Management	0	2	4	1	1	1	0	0	0	8
Social Perceptiveness	0	0	1	0	1	1	0	0	0	2
Writing	0	1	2	1	0	0	0	0	0	4
Critical Thinking	0	3	6	1	1	1	0	0	0	11
Active Learning	0	3	5	0	0	0	0	0	0	8
Monitoring	0	2	4	1	1	1	0	0	0	8
Coordination	0	0	4	1	1	1	0	0	0	6
Mathematics	0	0	1	0	0	0	0	0	0	1
Service Orientation	0	1	1	0	0	0	0	0	0	2
Troubleshooting	0	1	3	0	0	0	0	0	0	4
Judgment and Decision Making	0	1	4	1	0	0	0	0	0	6
Equipment Selection	0	1	1	0	0	0	0	0	0	2
Operation Monitoring	0	0	1	0	0	0	0	0	0	1
Operation and Control	0	0	1	1	0	0	0	0	0	2
Persuasion	0	0	0	1	0	0	0	0	0	1
Management of Personnel Resources	0	0	1	1	1	1	0	0	0	3
Equipment Maintenance	0	1	0	0	0	0	0	0	0	1
Instructing	0	2	1	0	0	0	0	0	0	3
Complex Problem Solving	0	0	2	0	0	1	0	0	0	3
Learning Strategies	0	2	0	0	0	0	0	0	0	2
Repairing	0	0	1	0	0	0	0	0	0	1
Total	0	30	60	12	10	0	0	0	0	112

Top Third (of 11)

Basic Information Services

List of Skills for Occupations Employed in ISPs and Web Search Portals

TOT_EMP	199,440	59,520	124,560	31,930	30,680	35,040	19,090	25,120
A_MEAN	\$ 34,110	\$ 50,100	\$ 64,390	\$ 72,680	\$ 75,230	\$ 76,270	\$ 80,900	\$ 83,870
Job Zone	JZ-2	JZ-3	JZ-4	JZ-4	JZ-4	JZ-4	JZ-4	JZ-4
SOC-Code	43-4051	15-1041	13-2011	15-1071	41-1012	15-1021	17-2112	11-3011
Occupation Title	Customer service representatives	Computer support specialists	Accountants and auditors	Network and computer systems administrators	First-line supervisors/managers of non-retail sales workers	Computer programmers	Industrial engineers	Administrative services managers
	Active Listening	Active Learning	Mathematics	Reading Comprehension	Speaking	Programming	Critical Thinking	Social Perceptiveness
	Reading Comprehension	Reading Comprehension	Active Listening	Speaking	Time Management	Critical Thinking	Active Listening	Time Management
	Monitoring	Complex Problem Solving	Critical Thinking	Active Listening	Active Listening	Complex Problem Solving	Time Management	Coordination
	Speaking	Critical Thinking	Monitoring	Monitoring	Reading Comprehension	Active Learning	Reading Comprehension	Reading Comprehension
	Time Management	Active Listening	Judgment and Decision Making	Complex Problem Solving	Social Perceptiveness	Reading Comprehension	Complex Problem Solving	Service Orientation
	Service Orientation	Coordination	Writing	Critical Thinking	Active Learning	Learning Strategies	Mathematics	Active Listening
	Active Learning	Judgment and Decision Making	Reading Comprehension	Systems Evaluation	Critical Thinking	Operations Analysis	Writing	Active Learning
	Learning Strategies	Speaking	Speaking	Coordination	Judgment and Decision Making	Active Listening	Judgment and Decision Making	Instructing
	Writing	Monitoring		Time Management	Management of Personnel Resources	Technology Design	Speaking	Speaking
	Critical Thinking	Instructing	Judgment and Decision Making	Judgment and Decision Making	Instructing	Troubleshooting	Active Learning	Writing

Total

10 20

10 10

Basic Information Services

List of Skills for Occupations Employed in ISPs and Web Search Portals

Number of Occupations within JZ	0	1	2	13	0	4	20
Total Employment Range (2005)	N/A	199,440	23,450 - 59,520	5,360 - 124,560	N/A	39,660 - 175,920	
Average Annual Salary Range (2005)	N/A	\$ 34,110	\$50,100 - \$71,870	\$57,690 - \$123,600	N/A	\$60,860 - \$109,530	
Skill	JZ-1	JZ-2	JZ-3	JZ-4	JZ-5	N/A	Number
Active Learning	0	1	2	7	0	0	10
Programming	0	0	0	3	0	0	3
Equipment Selection	0	0	1	1	0	0	2
Reading Comprehension	0	1	2	13	0	1	17
Complex Problem Solving	0	0	2	8	0	0	10
Critical Thinking	0	1	2	11	0	0	14
Active Listening	0	1	2	11	0	1	15
Troubleshooting	0	0	1	4	0	0	5
Monitoring	0	1	1	4	0	0	6
Service Orientation	0	1	0	2	0	0	3
Time Management	0	1	0	6	0	1	8
Technology Design	0	0	1	3	0	0	4
Operations Analysis	0	0	0	3	0	0	3
Systems Analysis	0	0	0	3	0	0	3
Writing	0	1	0	6	0	0	7
Speaking	0	1	1	9	0	0	11
Learning Strategies	0	1	0	2	0	0	3
Judgment and Decision Making	0	0	2	8	0	0	10
Management of Financial Resources	0	0	0	1	0	0	1
Coordination	0	0	1	6	0	0	7
Systems Evaluation	0	0	0	1	0	0	1
Installation	0	0	1	0	0	0	1
Instructing	0	0	1	3	0	1	5
Mathematics	0	0	0	4	0	0	4
Social Perceptiveness	0	0	0	5	0	0	5
Management of Personnel Resources	0	0	0	3	0	1	4
Persuasion	0	0	0	1	0	0	1
Total	0	10	20	128	0	5	163

Top Third
(of 17)

Basic Information Services

List of Skills for Occupations Employed in Data Processing and Related Services

TOT_EMP	35,860	199,440	26,660	12,160	59,520	23,450	35,040	49,790	63,700	84,550	50,400
A_MEAN	\$ 27,170	\$ 34,110	\$ 32,030	\$ 37,930	\$ 50,100	\$ 71,870	\$ 76,270	\$ 76,970	\$ 82,200	\$ 91,590	\$ 96,070
Job Zone	JZ-2	JZ-2	JZ-3	JZ-3	JZ-3	JZ-3	JZ-4	JZ-4	JZ-4	JZ-4	JZ-4
SOC-Code	43-9021	43-4051	43-4111	43-9011	15-1041	15-1081	15-1021	15-1051	13-1111	15-1031	15-1032
Occupation Title	Data entry keyers	Customer service representatives	Interviewers, except eligibility and loan	Computer operators	Computer support specialists	Network systems and data communications analysts	Computer programmers	Computer systems analysts	Management analysts	Computer software engineers, applications	Computer software engineers, systems software
	Reading Comprehension	Active Listening	Active Listening	Active Listening	Coordination	Equipment Selection	Programming	Active Learning	Critical Thinking	Programming	Complex Problem Solving
	Speaking	Reading Comprehension	Reading Comprehension	Reading Comprehension	Reading Comprehension	Troubleshooting	Critical Thinking	Reading Comprehension	Judgment and Decision Making	Critical Thinking	Technology Design
	Active Listening	Monitoring	Critical Thinking	Critical Thinking	Critical Thinking	Complex Problem Solving	Complex Problem Solving	Complex Problem Solving	Active Listening	Complex Problem Solving	Troubleshooting
	Critical Thinking	Speaking	Service Orientation	Active Learning	Active Listening	Active Listening	Active Learning	Critical Thinking	Coordination	Active Learning	Critical Thinking
	Social Perceptiveness	Time Management	Writing	Time Management	Judgment and Decision Making	Active Learning	Reading Comprehension	Active Listening	Time Management	Troubleshooting	Active Learning
	Service Orientation	Service Orientation	Social Perceptiveness	Troubleshooting	Speaking	Critical Thinking	Learning Strategies	Monitoring	Instructing	Judgment and Decision Making	Programming
	Active Learning	Active Learning	Learning Strategies	Instructing	Active Learning	Installation	Operations Analysis	Monitoring	Monitoring	Technology Design	Reading Comprehension
	Learning Strategies	Learning Strategies	Critical Thinking	Speaking	Monitoring	Reading Comprehension	Active Listening	Service Orientation	Quality Control Analysis	Reading Comprehension	Systems Analysis
	Writing	Writing	Time Management	Service Orientation	Complex Problem Solving	Judgment and Decision Making	Technology Design	Time Management	Reading Comprehension	Operations Analysis	Mathematics
	Time Management	Critical Thinking	Monitoring	Coordination	Instructing	Technology Design	Troubleshooting	Quality Control Analysis	Operation and Control	Systems Analysis	Operations Analysis

Total

20

40

Basic Information Services

List of Skills for Occupations Employed in Data Processing and Related Services

35,550	175,920	91,680
\$ 120,600	\$ 60,860	\$ 61,790
JZ-4	N/A	N/A
11-3021	13-1199	41-3099
Computer and information systems managers	Business operations specialists, all other	Sales representatives, all other services, all other
Reading Comprehension	Not Available	Not Available
Critical Thinking		
Active Listening		
Judgment and Decision Making		
Monitoring		
Systems Analysis		
Speaking		
Management of Personnel Resources		
Coordination		
Social Perceptiveness		
10	0	0
60	0	0

120

Basic Information Services

List of Skills for Occupations Employed in Data Processing and Related Services

Number of Occupations within JZ	0	2	4	6	0	2	14
Total Employment Range (2005)	N/A	35,860 - 199,440	12,160 - 59,520	35,040 - 84,550	N/A	91,680 - 175,920	
Average Annual Salary Range (2005)	N/A	\$27,170 - \$34,110	\$32,030 - \$71,870	\$76,270 - \$120,600	N/A	\$60,860 - \$61,790	
Skill	JZ-1	JZ-2	JZ-3	JZ-4	JZ-5	JZ-N/A	Number
Reading Comprehension	0	2	4	6	0	0	12 ✓
Programming	0	0	0	3	0	0	3
Active Listening	0	2	4	4	0	0	10 ✓
Troubleshooting	0	0	2	4	0	0	6
Complex Problem Solving	0	0	2	4	0	0	6
Speaking	0	2	3	1	0	0	6
Critical Thinking	0	2	4	6	0	0	12 ✓
Technology Design	0	0	1	3	0	0	4
Monitoring	0	1	2	3	0	0	6
Active Learning	0	2	3	4	0	0	9 ✓
Service Orientation	0	2	2	1	0	0	5
Social Perceptiveness	0	1	1	1	0	0	3
Time Management	0	2	2	2	0	0	6
Writing	0	2	1	0	0	0	3
Judgment and Decision Making	0	0	2	3	0	0	5
Learning Strategies	0	2	1	1	0	0	4
Operations Analysis	0	0	0	3	0	0	3
Instructing	0	0	2	1	0	0	3
Systems Analysis	0	0	0	3	0	0	3
Coordination	0	0	2	2	0	0	4
Quality Control Analysis	0	0	0	2	0	0	2
Mathematics	0	0	0	1	0	0	1
Management of Personnel Resources	0	0	0	1	0	0	1
Equipment Selection	0	0	1	0	0	0	1
Operation and Control	0	0	0	1	0	0	1
Installation	0	0	1	0	0	0	1
Total	0	20	40	60	0	0	120

Top Third
(of 12)

Manufacturing Value Chain – *Logistics*



GENERAL FREIGHT AND TRUCKING (NAICS 484100)

WAREHOUSING AND STORAGE (NAICS 493000)

SCHEDULED AIR TRANSPORTATION (NAICS 481100)

COURIERS (NAICS 492100)

SPECIALIZED FREIGHT TRUCKING (NAICS 484200)

Manufacturing Value Chain – Logistics

List of Skills for Occupations Employed in General Freight Trucking

Number of Occupations within JZ	0	7	3	JZ-4	JZ-5	10	
Total Employment Range (2005)	N/A	21,960 - 396,750	21,810 - 208,200	N/A	N/A		
Average Annual Salary Range (2005)	N/A	\$23,210 - \$38,500	\$35,880 - \$53,580	N/A	N/A		
Skill	Job Zone	JZ-1	JZ-2	JZ-3	JZ-4	JZ-5	Number
Critical Thinking		0	4	2	0	0	6
Reading Comprehension		0	6	3	0	0	9
Speaking		0	6	2	0	0	8
Writing		0	2	1	0	0	3
Active Listening		0	7	3	0	0	10
Learning Strategies		0	4	2	0	0	6
Coordination		0	3	2	0	0	5
Time Management		0	5	2	0	0	7
Social Perceptiveness		0	2	2	0	0	4
Judgment and Decision Making		0	2	2	0	0	4
Operation and Control		0	2	0	0	0	2
Active Learning		0	2	1	0	0	3
Instructing		0	2	1	0	0	3
Service Orientation		0	2	0	0	0	2
Equipment Selection		0	0	1	0	0	1
Mathematics		0	1	1	0	0	2
Equipment Maintenance		0	2	1	0	0	3
Installation		0	0	1	0	0	1
Operation Monitoring		0	1	0	0	0	1
Monitoring		0	3	0	0	0	3
Troubleshooting		0	1	1	0	0	2
Management of Personnel Resources		0	0	1	0	0	1
Repairing		0	0	1	0	0	1
Total		0	57	30	0	0	87

Top Third
(of 10)

Manufacturing Value Chain – Logistics

List of Skills for Occupations Employed in Warehousing and Storage

Number of Occupations within JZ	1	1	1	8	3	3	3	0	2	18	Top Third (of 16)
Total Employment Range (2005)	118,360	199,180	35,860 - 276,490	22,240 - 128,880	25,120 - 49,200	N/A	18,290 - 175,920				
Average Annual Salary Range (2005)	\$ 18,630	\$ 24,040	\$23,210 - \$38,500	\$36,630 - \$60,630	\$75,230 - \$114,770	N/A	\$38,290 - \$60,860				
Skill	JZ-1	JZ-1/2	JZ-2	JZ-3	JZ-4	JZ-5	JZ-N/A	Number			
Active Listening	1	1	8	3	3	0	0	16			
Active Learning	0	1	3	0	3	0	0	7			
Reading Comprehension	1	1	7	3	3	0	0	15			
Time Management	0	0	7	2	2	0	0	11			
Coordination	1	1	3	2	2	0	0	9			
Learning Strategies	1	0	6	0	0	0	0	7			
Speaking	1	1	7	2	3	0	0	14			
Operation Monitoring	0	0	1	1	0	0	0	2			
Monitoring	0	0	3	2	0	0	0	5			
Social Perceptiveness	1	1	4	1	3	0	0	10			
Judgment and Decision Making	0	0	1	1	1	0	0	3			
Critical Thinking	0	1	6	3	2	0	0	12			
Service Orientation	0	0	4	1	1	0	0	6			
Equipment Selection	0	0	0	1	0	0	0	1			
Equipment Maintenance	0	0	2	1	0	0	0	3			
Mathematics	0	1	2	0	1	0	0	4			
Troubleshooting	0	0	1	1	0	0	0	2			
Writing	0	0	4	0	2	0	0	6			
Instructing	0	1	1	0	2	0	0	4			
Installation	0	0	0	1	0	0	0	1			
Persuasion	0	0	0	1	1	0	0	2			
Management of Personnel Resources	0	0	0	2	1	0	0	3			
Operation and Control	0	0	2	0	0	0	0	2			
Complex Problem Solving	0	0	0	1	0	0	0	1			
Repairing	0	0	0	1	0	0	0	1			
Quality Control Analysis	0	1	0	0	0	0	0	1			
Total	6	10	72	30	30	0	0	148			

Manufacturing Value Chain – Logistics

List of Skills for Occupations Employed in Scheduled Air Transportation

TOT_EMP	A_MEAN	Job Zone	SOC-Code	Occupation Title	Active Listening	Reading Comprehension	Writing	Speaking	Critical Thinking	Judgment and Decision Making	Monitoring	Social Perceptiveness	Complex Problem Solving	Time Management	Teamwork	Leadership	Systems Management	Science, Technology, Engineering, and Mathematics	Other	Total
6,340	22,520	JZ-1	39-6011	Baggage porters and bellhops	Speaking	Active Listening	Service Orientation	Social Perceptiveness	Coordination	Critical Thinking	Reading Comprehension	Active Learning	Instructing	Learning Strategies						10
276,490	23,210	JZ-2	53-7062	Laborers and freight, stock, and material movers, hand	Active Listening	Reading Comprehension	Active Listening	Speaking	Coordination	Learning Strategies	Time Management									6
15,390	30,900	JZ-2	43-4181	Reservation and transportation ticket agents and travel clerks	Active Listening	Speaking	Service Orientation	Critical Thinking	Coordination	Learning Strategies	Judgment and Decision Making	Social Perceptiveness	Instructing	Learning Strategies						10
199,440	34,110	JZ-2	43-4051	Customer service representatives	Active Listening	Reading Comprehension	Monitoring	Speaking	Time Management	Service Orientation	Active Learning	Learning Strategies	Writing	Critical Thinking						10
14,230	44,980	JZ-2	43-5011	Cargo and freight agents	Reading Comprehension	Active Listening	Critical Thinking	Speaking	Negotiation	Complex Problem Solving	Time Management	Active Learning	Mathematics	Coordination	Judgment and Decision Making	Learning Strategies				10
11,090	50,920	JZ-2	39-6031	Flight attendants	Service Orientation	Active Listening	Social Perceptiveness	Reading Comprehension	Speaking	Critical Thinking	Coordination	Time Management	Judgment and Decision Making	Learning Strategies						10
180,480	50,230	JZ-3	43-1011	First-line supervisors/managers of office and administrative support workers	Active Listening	Speaking	Reading Comprehension	Critical Thinking	Monitoring	Time Management	Management of Personnel Resources	Judgment and Decision Making	Instructing	Social Perceptiveness	Complex Problem Solving	Time Management				10
43,690	60,630	JZ-3	49-1011	First-line supervisors/managers of mechanics, installers, and repairers	Coordination	Critical Thinking	Management of Personnel Resources	Active Listening	Monitoring	Social Perceptiveness	Time Management	Reading Comprehension	Speaking	Complex Problem Solving						10
17,450	57,690	JZ-4	13-1073	Training and development specialists	Instructing	Learning Strategies	Speaking	Active Listening	Reading Comprehension	Writing	Social Perceptiveness	Time Management	Complex Problem Solving	Reading Comprehension	Troubleshooting					10
5,660	\$37,030	N/A	53-6099	Transportation workers, all other	Not Available															0
																				0
																				20
																				46
																				10
																				10

Manufacturing Value Chain – Logistics

List of Skills for Occupations Employed in Scheduled Air Transportation

Number of Occupations within JZ	1	5	2	2	2	0	1	11
Total Employment Range (2005)	6,340	11,090 - 276,490	43,690 - 180,480	5,710 - 17,450	N/A	N/A	5,660	
Average Annual Salary Range (2005)	\$ 22,520	\$23,210 - \$50,920	\$50,230 - \$60,630	\$57,690 - \$151,980	N/A	N/A	\$37,030	
Skill	Job Zone	JZ-1	JZ-2	JZ-3	JZ-4	JZ-5	JZ-N/A	Number
Active Listening		1	5	2	2	0	0	10 ✓
Active Learning		1	3	0	0	0	0	4
Time Management		0	4	2	1	0	0	7 ✓
Critical Thinking		1	4	2	1	0	0	8 ✓
Reading Comprehension		1	5	2	2	0	0	10 ✓
Judgment and Decision Making		0	2	1	1	0	0	4
Coordination		1	3	1	1	0	0	6
Instructing		1	2	1	1	0	0	5
Complex Problem Solving		0	1	1	2	0	0	4
Mathematics		0	1	0	0	0	0	1
Troubleshooting		0	0	0	1	0	0	1
Learning Strategies		1	4	0	1	0	0	6
Social Perceptiveness		1	2	2	1	0	0	6
Service Orientation		1	3	0	0	0	0	4
Speaking		1	4	2	2	0	0	9 ✓
Monitoring		0	1	2	1	0	0	4
Operation Monitoring		0	0	0	1	0	0	1
Management of Personnel Resources		0	0	2	0	0	0	2
Writing		0	1	0	1	0	0	2
Negotiation		0	1	0	0	0	0	1
Operation and Control		0	0	0	1	0	0	1
Total	10	46	20	20	0	0	0	96

Top Third (of 10)

Manufacturing Value Chain – Logistics

List of Skills for Occupations Employed in Couriers

Number of Occupations within JZ	0	8	2	0	0	10
Total Employment Range (2005)	N/A	15,190 - 276,490	21,810 - 22,240	N/A	N/A	
Average Annual Salary Range (2005)	N/A	\$22,850 - \$38,500	\$41,680 - \$53,580	N/A	N/A	
Skill	JZ-1	JZ-2	JZ-3	JZ-4	JZ-5	Number
Active Listening	0	8	2	0	0	10 ✓
Writing	0	2	0	0	0	2
Critical Thinking	0	5	2	0	0	7 ✓
Speaking	0	7	2	0	0	9 ✓
Learning Strategies	0	6	0	0	0	6
Active Learning	0	3	0	0	0	3
Coordination	0	4	1	0	0	5
Time Management	0	7	2	0	0	9 ✓
Reading Comprehension	0	7	2	0	0	9 ✓
Operation and Control	0	2	0	0	0	2
Judgment and Decision Making	0	2	2	0	0	4
Social Perceptiveness	0	2	1	0	0	3
Monitoring	0	4	1	0	0	5
Operation Monitoring	0	1	0	0	0	1
Service Orientation	0	3	1	0	0	4
Mathematics	0	2	0	0	0	2
Instructing	0	3	1	0	0	4
Equipment Maintenance	0	3	0	0	0	3
Management of Personnel Resources	0	0	2	0	0	2
Troubleshooting	0	1	0	0	0	1
Persuasion	0	0	1	0	0	1
Equipment Selection	0	0	0	0	0	0
Total	0	72	20	0	0	92

Top Third (of 10)

Manufacturing Value Chain – Logistics

List of Skills for Occupations Employed in Specialized Freight Trucking

Number of Occupations within JZ	0	5	5	JZ-1	JZ-2	JZ-3	JZ-4	JZ-5	JZ-N/A	1	11	Top Third (of 10)
Total Employment Range (2005)	N/A	21,960 - 396,750	21,810 - 226,740					N/A		91,680		
Average Annual Salary Range (2005)	N/A	\$23,210 - \$38,500	\$35,880 - \$112,740					N/A		\$ 61,790		
Skill	JZ-1	JZ-2	JZ-3	JZ-4	JZ-5	JZ-6	JZ-7	JZ-8	JZ-9	JZ-10	Number	
Active Listening	0	5	3								8	✓
Reading Comprehension	0	5	5								10	✓
Writing	0	1	1								2	
Critical Thinking	0	2	4								6	
Speaking	0	4	3								7	✓
Social Perceptiveness	0	2	2								4	
Judgment and Decision Making	0	2	3								5	
Active Learning	0	1	3								4	
Learning Strategies	0	3	2								5	
Time Management	0	4	3								7	✓
Coordination	0	3	3								6	
Mathematics	0	1	1								2	
Troubleshooting	0	1	2								3	
Monitoring	0	1	1								2	
Installation	0	0	1								1	
Service Orientation	0	1	0								1	
Equipment Selection	0	0	2								2	
Instructing	0	2	1								3	
Repairing	0	0	2								2	
Management of Personnel Resources	0	0	2								2	
Equipment Maintenance	0	2	2								4	
Complex Problem Solving	0	0	1								1	
Operation and Control	0	1	0								1	
Total	0	41	47								88	

Manufacturing Value Chain – *Production*

SAWMILLS AND WOOD PRESERVATION (NAICS 321100)

**COMPUTER AND PERIPHERAL EQUIPMENT
MANUFACTURING (NAICS 334100)**

**SEMICONDUCTOR AND OTHER ELECTRONIC
COMPONENTS (NAICS 334400)**

**FRUIT AND VEGETABLE AND SPECIALTY FOOD
MANUFACTURING (NAICS 311400)**

CUT AND SEW APPAREL MANUFACTURING (NAICS 315200)

ANIMAL SLAUGHTERING AND PROCESSING (NAICS 311600)

**ELECTRONIC INSTRUMENT MANUFACTURING (NAICS
334500)**

OTHER WOOD PRODUCT MANUFACTURING (NAICS 321900)

**AEROSPACE PRODUCT AND PARTS MANUFACTURING
(NAICS 336400)**

MOTOR VEHICLE MANUFACTURING (NAICS 336100)

Manufacturing Value Chain – Production

List of Skills for Occupations Employed in Sawmills and Wood Preservation

Number of Occupations within JZ	JZ-1	JZ-2	JZ-3	JZ-4	JZ-5	Number	Job Zone	Top Third (of 10)	
								2	10
Total Employment Range (2005)	45,780 - 207,640	4,320 - 95,990	1,900 - 145,050	N/A	N/A				
Average Annual Salary Range (2005)	\$21,260 - \$23,360	\$22,130 - \$32,780	\$51,100 - \$60,660	N/A	N/A				
Skill	JZ-1	JZ-2	JZ-3	JZ-4	JZ-5	Number	Job Zone	2	10
Critical Thinking	0	3	0	0	0	3			
Reading Comprehension	2	3	1	0	0	6			
Coordination	2	1	2	0	0	5			
Operation Monitoring	0	6	0	0	0	6			
Operation and Control	0	4	0	0	0	4			
Time Management	1	2	1	0	0	4			
Instructing	2	5	1	0	0	8			
Equipment Maintenance	1	4	1	0	0	6			
Active Listening	2	6	2	0	0	10			
Speaking	2	2	1	0	0	5			
Mathematics	0	4	1	0	0	5			
Troubleshooting	0	2	1	0	0	3			
Equipment Selection	2	3	1	0	0	6			
Active Learning	0	3	1	0	0	4			
Quality Control Analysis	1	2	0	0	0	3			
Repairing	0	1	1	0	0	2			
Learning Strategies	0	3	0	0	0	3			
Persuasion	0	0	1	0	0	1			
Service Orientation	0	0	1	0	0	1			
Negotiation	0	0	1	0	0	1			
Social Perceptiveness	0	0	1	0	0	1			
Complex Problem Solving	0	0	1	0	0	1			
Installation	0	0	1	0	0	1			
Writing	1	0	0	0	0	1			
Judgment and Decision Making	1	0	0	0	0	1			
Monitoring	0	2	0	0	0	2			
Total	17	56	20	0	0	93			

Manufacturing Value Chain – Production

List of Skills for Occupations Employed in Computers and Peripheral Equipment

TOT_EMP	24,970	9,320	59,520	22,600	42,950	84,550	50,400	20,410	30,320	35,620	28,190
A_MEAN	\$ 27,990	\$ 38,170	\$ 50,100	\$ 55,710	\$ 77,480	\$ 91,590	\$ 96,070	\$ 100,070	\$ 123,600	\$ 125,080	\$ 62,400
Job Zone	JZ-2	JZ-2	JZ-3	JZ-3	JZ-4	JZ-4	JZ-4	JZ-4	JZ-4	JZ-5	N/A
SOC-Code	51-2022	51-9141	15-1041	17-3023	15-1031	15-1032	17-2061	11-2021	11-2021	11-9041	13-1079
Occupation Title	Electrical and electronic equipment assemblers	Semiconductor processors	Computer support specialists	Electrical and electronic engineering technicians	Sales representatives, wholesale and technical products	Computer software engineers, applications	Computer software engineers, systems software	Computer hardware engineers	Marketing managers	Engineering managers	Human resources, training, and labor relations specialists, all other
	Quality Control Analysis	Reading Comprehension	Critical Thinking	Troubleshooting	Speaking	Programming	Complex Problem Solving	Complex Problem Solving	Active Listening	Critical Thinking	Not Available
	Troubleshooting	Time Management	Speaking	Mathematics	Persuasion	Critical Thinking	Technology Design	Active Listening	Critical Thinking	Judgment and Decision Making	
	Equipment Selection	Operation Monitoring	Active Listening	Critical Thinking	Active Listening	Complex Problem Solving	Troubleshooting	Critical Thinking	Speaking	Reading Comprehension	
	Instructing	Active Learning	Complex Problem Solving	Reading Comprehension	Time Management	Active Learning	Critical Thinking	Active Learning	Writing	Active Listening	
	Time Management	Troubleshooting	Reading Comprehension	Active Listening	Negotiation	Troubleshooting	Active Learning	Reading Comprehension	Reading Comprehension	Speaking	
	Reading Comprehension	Equipment Maintenance	Active Learning	Complex Problem Solving	Service Orientation	Judgment and Decision Making	Programming	Judgment and Decision Making	Social Perceptiveness	Complex Problem Solving	
	Learning Strategies	Quality Control Analysis	Coordination	Speaking	Social Perceptiveness	Technology Design	Reading Comprehension	Time Management	Coordination	Monitoring	
	Monitoring	Learning Strategies	Instructing	Systems Analysis	Reading Comprehension	Reading Comprehension	Systems Analysis	Troubleshooting	Complex Problem Solving	Negotiation	
	Active Learning	Active Listening	Judgment and Decision Making	Writing	Critical Thinking	Operations Analysis	Mathematics	Systems Evaluation	Management of Personnel Resources	Social Perceptiveness	
	Judgment and Decision Making	Judgment and Decision Making	Monitoring		Active Learning	Systems Analysis	Operations Analysis	Operations Analysis	Monitoring	Writing	
Total	10	10	10	9	10	10	10	10	10	10	0

0

10

50

10

10

10

10

9

10

10

20

19

Manufacturing Value Chain – Production

List of Skills for Occupations Employed in Computers and Peripheral Equipment

Number of Occupations within JZ	0	2	2	2	5	1	1	11
Total Employment Range (2005)	N/A	9,320 - 24,970	22,600 - 59,520	20,410 - 84,550	35,620	28,190		
Average Annual Salary Range (2005)	N/A	\$27,990 - \$38,170	\$50,100 - \$55,710	\$77,480 - \$123,600	\$ 125,080	\$ 62,400		
Skill	Job Zone	JZ-1	JZ-2	JZ-3	JZ-4	JZ-5	JZ-N/A	Number
Active Listening		0	1	2	3	1	0	7 ✓
Active Learning		0	2	1	4	0	0	7 ✓
Reading Comprehension		0	2	2	5	1	0	10 ✓
Complex Problem Solving		0	0	2	4	1	0	7 ✓
Time Management		0	2	0	2	0	0	4
Learning Strategies		0	2	0	0	0	0	2
Critical Thinking		0	0	2	5	1	0	8 ✓
Troubleshooting		0	2	1	3	0	0	6
Writing		0	0	1	1	1	0	3
Making		0	2	1	2	1	0	6
Equipment Selection		0	1	0	0	0	0	1
Operations Analysis		0	0	0	3	0	0	3
Speaking		0	0	2	2	1	0	5
Systems Analysis		0	0	1	2	0	0	3
Service Orientation		0	0	0	1	0	0	1
Operation Monitoring		0	1	0	0	0	0	1
Monitoring		0	1	1	1	1	0	4
Instructing		0	1	1	0	0	0	2
Mathematics		0	0	1	1	0	0	2
Coordination		0	0	1	1	0	0	2
Technology Design		0	0	0	2	0	0	2
Negotiation		0	0	0	1	1	0	2
Quality Control Analysis		0	2	0	0	0	0	2
Equipment Maintenance		0	1	0	0	0	0	1
Programming		0	0	0	2	0	0	2
Social Perceptiveness		0	0	0	2	1	0	3
Persuasion		0	0	0	1	0	0	1
Systems Evaluation		0	0	0	1	0	0	1
Management of Personnel Resources		0	0	0	1	0	0	1
Total		0	20	19	50	10	0	99

Top Third (of 10)

Manufacturing Value Chain – Production

List of Skills for Occupations Employed in Semiconductor and Electronic Components

TOT_EMP	A_MEAN	Job Zone	SOC-Code	Occupation Title	10	9	10	9	10	10	8	10	10
95,990	\$ 24,430	IZ-2	51-2092	Team assemblers	Quality Control Analysis	Quality Control Analysis	Quality Control Analysis	Quality Control Analysis	Quality Control Analysis	Quality Control Analysis	Quality Control Analysis	Quality Control Analysis	Quality Control Analysis
24,970	\$ 27,990	IZ-2	51-2022	Electrical and electronic equipment assemblers	Quality Control Analysis	Quality Control Analysis	Quality Control Analysis	Quality Control Analysis	Quality Control Analysis	Quality Control Analysis	Quality Control Analysis	Quality Control Analysis	Quality Control Analysis
48,210	\$ 32,580	IZ-2	51-9061	Inspectors, testers, sorters, samplers, and weighers	Quality Control Analysis	Quality Control Analysis	Quality Control Analysis	Quality Control Analysis	Quality Control Analysis	Quality Control Analysis	Quality Control Analysis	Quality Control Analysis	Quality Control Analysis
199,440	\$ 34,110	IZ-2	43-4051	Customer service representatives	Active Listening	Reading Comprehension	Monitoring	Speaking	Time Management	Service Orientation	Active Learning	Quality Control Analysis	Time Management
9,320	\$ 38,170	IZ-2	51-9141	Semiconductor processors	Reading Comprehension	Time Management	Operation Monitoring	Active Learning	Troubleshooting	Equipment Maintenance	Quality Control Analysis	Time Management	Time Management
39,740	\$ 42,830	IZ-2	43-5061	Production, planning, and expediting clerks	Active Listening	Reading Comprehension	Coordination	Speaking	Active Learning	Judgment and Decision Making	Time Management	Writing	Service Orientation
59,520	\$ 50,100	IZ-3	15-1041	Computer support specialists	Critical Thinking	Speaking	Active Listening	Complex Problem Solving	Reading Comprehension	Active Learning	Coordination	Instructing	Judgment and Decision Making
63,290	\$ 51,420	IZ-3	51-1011	First-line supervisors/managers of production and operating workers	Active Listening	Reading Comprehension	Management of Personnel Resources	Instructing	Monitoring	Speaking	Time Management	Critical Thinking	Judgment and Decision Making
22,600	\$ 55,710	IZ-3	17-3023	Electrical and electronic engineering technicians	Troubleshooting	Mathematics	Critical Thinking	Reading Comprehension	Active Listening	Complex Problem Solving	Speaking	Time Management	Judgment and Decision Making
32,750	\$ 57,900	IZ-3	13-1023	Purchasing agents, except wholesale, retail, and farm products	Speaking	Active Listening	Critical Thinking	Judgment and Decision Making	Reading Comprehension	Writing	Time Management	Complex Problem Solving	Judgment and Decision Making
226,740	\$ 112,740	IZ-3	11-1021	General and operations managers	Active Listening	Coordination	Critical Thinking	Speaking	Time Management	Complex Problem Solving	Time Management	Management of Personnel Resources	Reading Comprehension
124,560	\$ 64,390	IZ-4	13-2011	Accountants and auditors	Mathematics	Active Listening	Critical Thinking	Monitoring	Judgment and Decision Making	Reading Comprehension	Speaking	Writing	Coordination
31,930	\$ 72,680	IZ-4	15-1071	Network and computer systems administrators	Reading Comprehension	Active Listening	Critical Thinking	Complex Problem Solving	Speaking	Monitoring	Systems Evaluation	Time Management	Time Management
49,790	\$ 76,970	IZ-4	15-1051	Computer systems analysts	Active Learning	Reading Comprehension	Complex Problem Solving	Critical Thinking	Active Listening	Troubleshooting	Monitoring	Service Orientation	Quality Control Analysis
Total					10	10	10	10	10	10	10	10	10

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Manufacturing Value Chain – Production

List of Skills for Occupations Employed in Semiconductor and Electronic Components

Occupation	Salary	Code	Description	Skills	Count	Occupation	Salary	Code	Description	Skills	Count
42,950	\$	19,090	19,090	63,700	19,000	84,550	27,970	50,400	49,200	35,550	30,320
77,480	\$	80,900	\$	82,200	\$	91,590	\$	96,070	\$	120,600	\$
JZ-4	JZ-4	JZ-4	JZ-4	JZ-4	JZ-4	JZ-4	JZ-4	JZ-4	JZ-4	JZ-4	JZ-4
41-4011		17-2112	17-2141	13-1111	17-2071	15-1031	17-2072	15-1032	11-2022	11-2021	11-2021
Sales representatives, wholesale and technical and scientific products	Industrial engineers	Mechanical engineers	Management analysts	Electrical engineers	Computer software engineers, applications	Computer software engineers, systems software	Electronics engineers, except computer	Computer software engineers, systems software	Sales managers	Computer and information systems managers	Marketing managers
Speaking	Critical Thinking	Mathematics	Critical Thinking	Active Listening	Programming	Reading Comprehension	Reading Comprehension	Complex Problem Solving	Active Listening	Critical Thinking	Active Listening
Persuasion	Active Listening	Complex Problem Solving	Judgment and Decision Making	Troubleshooting	Critical Thinking	Complex Problem Solving	Equipment Selection	Technology Design	Speaking	Active Listening	Critical Thinking
Active Listening	Time Management	Critical Thinking	Active Listening	Critical Thinking	Complex Problem Solving	Active Learning	Troubleshooting	Troubleshooting	Coordination	Judgment and Decision Making	Speaking
Time Management	Reading Comprehension	Reading Comprehension	Coordination	Reading Comprehension	Active Learning	Troubleshooting	Troubleshooting	Critical Thinking	Reading Comprehension	Management of Personnel Resources	Writing
Negotiation	Complex Problem Solving	Science	Time Management	Complex Problem Solving	Troubleshooting	Active Learning	Active Learning	Active Learning	Social Perceptiveness	Systems Analysis	Reading Comprehension
Service Orientation	Mathematics	Active Listening	Instructing	Technology Design	Judgment and Decision Making	Critical Thinking	Critical Thinking	Programming	Persuasion	Coordination	Social Perceptiveness
Social Perceptiveness	Writing	Judgment and Decision Making	Monitoring	Active Learning	Technology Design	Coordination	Coordination	Reading Comprehension	Writing	Reading Comprehension	Coordination
Reading Comprehension	Judgment and Decision Making	Time Management	Quality Control	Systems Analysis	Reading Comprehension	Mathematics	Mathematics	Systems Analysis	Critical Thinking	Speaking	Complex Problem Solving
Critical Thinking	Speaking	Writing	Reading Comprehension	Judgment and Decision Making	Operations Analysis	Active Listening	Active Listening	Mathematics	Active Learning	Monitoring	Management of Personnel Resources
Active Learning	Active Learning	Speaking	Operation and Control	Time Management	Systems Analysis	Judgment and Decision Making	Judgment and Decision Making	Operations Analysis	Judgment and Decision Making	Social Perceptiveness	Monitoring

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Manufacturing Value Chain – Production

List of Skills for Occupations Employed in Semiconductor and Electronic Components

Number of Occupations within JZ		0	6	5	14	1	3	29
Total Employment Range (2005)		N/A	9,320 - 199,440	22,600 - 226,740	19,000 - 124,560	35,620	26,990 - 175,920	
Average Annual Salary Range (2005)		N/A	\$24,430 - \$42,830	\$50,100 - \$112,740	\$64,390 - \$123,600	\$125,080	\$60,860 - \$89,260	
Skill	Job Zone	JZ-1	JZ-2	JZ-3	JZ-4	JZ-5	JZ-N/A	Number
Critical Thinking		0	1	5	14	1	0	21
Active Learning		0	6	2	8	0	0	16
Active Listening		0	5	5	12	1	0	23
Reading Comprehension		0	6	5	14	1	0	26
Time Management		0	5	3	7	0	0	15
Speaking		0	3	5	8	1	0	17
Complex Problem Solving		0	0	3	9	1	0	13
Troubleshooting		0	2	1	5	0	0	8
Judgment and Decision Making		0	3	4	10	1	0	18
Coordination		0	2	3	6	0	0	11
Equipment Selection		0	2	0	1	0	0	3
Programming		0	0	0	2	0	0	2
Operation Monitoring		0	3	0	0	0	0	3
Monitoring		0	2	3	6	1	0	12
Quality Control Analysis		0	4	0	2	0	0	6
Technology Design		0	0	0	3	0	0	3
Mathematics		0	2	2	5	0	0	9
Learning Strategies		0	5	0	0	0	0	5
Instructing		0	3	2	1	0	0	6
Service Orientation		0	2	0	2	0	0	4
Writing		0	2	2	5	1	0	10
Operations Analysis		0	0	0	2	0	0	2
Systems Analysis		0	0	1	4	0	0	5
Negotiation		0	0	1	1	1	0	3
Equipment Maintenance		0	2	0	0	0	0	2
Persuasion		0	0	0	2	0	0	2
Social Perceptiveness		0	0	0	4	1	0	5
Management of Personnel Resources		0	0	2	2	0	0	4
Systems Evaluation		0	0	0	1	0	0	1
Operation and Control		0	0	0	1	0	0	1
Science		0	0	0	1	0	0	1
Total		0	60	49	138	10	0	257

Top Third
(of 26)

Manufacturing Value Chain – Production

List of Skills for Occupations Employed in Fruit, Vegetable, and Specialty Foods Manufacturing

Number of Occupations within JZ	3	4	2	0	0	1	10
Job Zone	JZ-1	JZ-2	JZ-3	JZ-4	JZ-5	JZ-N/A	Number
Total Employment Range (2005)	10,600 - 207,640	13,120 - 276,490	63,290 - 128,880	N/A	N/A	41,970	
Average Annual Salary Range (2005)	\$18,120 - \$23,360	\$23,210 - \$32,780	\$36,630 - \$51,420	N/A	N/A	\$ 23,990	
Skill	JZ-1	JZ-2	JZ-3	JZ-4	JZ-5	JZ-N/A	Number
Active Listening	2	4	2	0	0	0	8
Active Learning	0	1	0	0	0	0	1
Reading Comprehension	2	3	2	0	0	0	7
Judgment and Decision Making	1	1	1	0	0	0	3
Coordination	2	3	2	0	0	0	7
Time Management	1	3	1	0	0	0	5
Troubleshooting	0	2	1	0	0	0	3
Equipment Maintenance	1	1	1	0	0	0	3
Equipment Selection	1	0	1	0	0	0	2
Operation Monitoring	0	2	1	0	0	0	3
Operation and Control	0	3	0	0	0	0	3
Critical Thinking	0	2	2	0	0	0	4
Speaking	2	1	1	0	0	0	4
Writing	1	0	0	0	0	0	1
Instructing	1	2	1	0	0	0	4
Installation	0	0	1	0	0	0	1
Monitoring	0	1	1	0	0	0	2
Learning Strategies	1	1	0	0	0	0	2
Mathematics	0	1	0	0	0	0	1
Social Perceptiveness	1	0	0	0	0	0	1
Quality Control Analysis	0	1	0	0	0	0	1
Repairing	0	0	1	0	0	0	1
Management of Personnel Resources	0	0	1	0	0	0	1
Total	16	32	20	0	0	0	68

Top Third (of 9)

Manufacturing Value Chain – Production

List of Skills for Occupations Employed in Cut and Sew Apparel Manufacturing

TOT_EMP	118,360	49,510	6,130	276,490	95,990	5,810	396,750	106,390	48,210	56,480	22,240	2,220	63,290	3,550	175,920
A_MEAN	\$ 18,630	\$ 19,090	\$ 21,560	\$ 23,210	\$ 24,430	\$ 27,200	\$ 27,470	\$ 28,760	\$ 32,580	\$ 32,810	\$ 41,680	\$ 46,420	\$ 51,420	\$ 68,290	\$ 60,860
Job Zone	JZ-1	JZ-1	JZ-2	JZ-2	JZ-2	JZ-2	JZ-2	JZ-2	JZ-2	JZ-2/3	JZ-3	JZ-3	JZ-3	JZ-3	N/A
SOC-Code	53-7064	51-6031	51-9031	53-7062	51-2092	51-9032	43-9061	43-5071	51-9061	43-3021	53-1021	51-6092	51-1011	27-1022	13-1199
Occupation Title	Packers and packagers, hand operators	Sewing machine operators	Cutters and trimmers, hand	Laborers and freight, stock, and material movers, hand	Team assemblers	Cutting and slicing machine setters, operators, and tenders	Office clerks, general	Shipping, receiving, and traffic clerks	Inspectors, testers, sorters, samplers, and weighers	Billing and posting clerks and machine operators	First-line supervisors/managers of helpers, laborers, and material movers, hand	Fabric and apparel patternmakers	First-line supervisors/managers of production and operating workers	Fashion designers	Business operations specialists, all other
	Active Listening	Active Listening	Active Listening	Active Listening	Learning Strategies	Equipment Maintenance	Active Listening	Active Listening	Quality Control	Mathematics	Time Management	Reading Comprehension	Active Listening	Time Management	Not Available
	Coordination	Quality Control	Quality Control	Reading Comprehension	Active Listening	Mathematics	Reading Comprehension	Active Listening	Active Listening	Active Listening	Monitoring	Active Listening	Reading Comprehension	Coordination	
	Speaking		Instructing	Instructing	Quality Control	Operation and Control	Speaking	Speaking	Reading Comprehension	Reading Comprehension	Judgment and Decision Making	Speaking	Management of Personnel Resources	Critical Thinking	
	Learning Strategies		Active Learning	Coordination	Active Learning	Troubleshooting	Writing	Time Management	Instructing	Time Management	Active Listening	Mathematics	Instructing	Active Learning	
	Reading Comprehension		Equipment Maintenance	Learning Strategies	Instructing	Instructing	Social Perceptiveness	Writing	Operation Monitoring	Critical Thinking	Speaking	Critical Thinking	Monitoring	Speaking	
	Social Perceptiveness		Operation Monitoring	Time Management	Operation Monitoring	Operation Monitoring		Mathematics	Learning Strategies	Writing	Critical Thinking	Active Learning	Speaking	Active Listening	
			Coordination		Equipment Selection	Quality Control		Learning Strategies	Mathematics	Speaking	Management of Personnel Resources	Writing	Time Management	Learning Strategies	
			Speaking		Reading Comprehension	Reading Comprehension		Monitoring	Speaking		Judgment and Decision Making	Judgment and Decision Making	Critical Thinking	Mathematics	
			Critical Thinking		Coordination	Judgment and Decision Making		Social Perceptiveness	Active Learning		Reading Comprehension	Time Management	Judgment and Decision Making	Persuasion	
			Time Management		Equipment Maintenance	Active Listening		Critical Thinking	Time Management		Service Orientation	Coordination	Coordination	Operations Analysis	
Total	6	2	10	6	10	10	5	10	10	7	10	9	10	10	0

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Manufacturing Value Chain – Production

List of Skills for Occupations Employed in Cut and Sew Apparel Manufacturing

Number of Occupations within JZ	JZ-1	JZ-2	JZ-2/3	JZ-3	JZ-4	JZ-5	JZ-N/A	Number	Top Third (of 14)
2	7	1	4	0	0	1	15		
49,510 - 118,360	5,810 - 396,750	56,480	2,220 - 63,290	N/A	N/A	175,920			
Average Annual Salary Range (2005)	\$18,630 - \$19,090	\$21,560 - \$32,580	\$41,680 - \$68,290	N/A	N/A	\$ 60,860			
Skill	Job Zone	JZ-1	JZ-2	JZ-2/3	JZ-3	JZ-4	JZ-5	JZ-N/A	Number
Active Listening		2	7	1	4	0	0	0	14 ✓
Active Learning		0	3	0	2	0	0	0	5
Learning Strategies		1	4	0	1	0	0	0	6
Reading Comprehension		1	6	1	3	0	0	0	11 ✓
Social Perceptiveness		1	2	0	0	0	0	0	3
Quality Control Analysis		1	4	0	0	0	0	0	5
Instructing		0	5	0	1	0	0	0	6
Speaking		1	4	1	4	0	0	0	10 ✓
Critical Thinking		0	2	1	4	0	0	0	7
Operation Monitoring		0	4	0	0	0	0	0	4
Judgment and Decision Making		0	1	0	3	0	0	0	4
Time Management		0	4	1	4	0	0	0	9
Coordination		1	3	0	2	0	0	0	6
Writing		0	2	1	1	0	0	0	4
Mathematics		0	3	1	2	0	0	0	6
Operation and Control		0	1	0	0	0	0	0	1
Monitoring		0	1	0	2	0	0	0	3
Persuasion		0	0	0	2	0	0	0	2
Service Orientation		0	0	0	1	0	0	0	1
Equipment Selection		0	1	0	0	0	0	0	1
Equipment Maintenance		0	3	0	0	0	0	0	3
Operations Analysis		0	0	0	1	0	0	0	1
Management of Personnel Resources		0	0	0	2	0	0	0	2
Troubleshooting		0	1	0	0	0	0	0	1
Total		8	61	7	39	0	0	0	115

Manufacturing Value Chain – Production

List of Skills for Occupations Employed in Animal Slaughtering and Processing

TOT_EMP	118,360	45,780	5,790	3,130	10,860	207,640	276,490	46,380	17,740	131,760	63,290	41,970
A_MEAN	\$ 18,630	\$ 21,260	\$ 21,300	\$ 21,890	\$ 21,950	\$ 23,360	\$ 23,210	\$ 24,730	\$ 29,500	\$ 38,500	\$ 47,190	\$ 23,990
Job Zone	JZ-1	JZ-1	JZ-1	JZ-1	JZ-1	JZ-1	JZ-2	JZ-2	JZ-2	JZ-2	JZ-3	N/A
SOC-Code	53-7064	51-9198	45-2093	51-3023	51-3022	37-2011	53-7062	51-9111	51-3021	53-3032	49-9041	51-9199
Occupation Title	Packers and packagers, hand workers	Helpers--production workers	Farmworkers, farm and ranch animals	Slaughtering and meat packers	Meat, poultry, and fish cutters and trimmers	Janitors and cleaners, except maids and housekeeping cleaners	Laborers and freight, stock, and material movers, hand	Packaging and filling machine tenders	Butchers and meat cutters	Truck drivers, heavy and tractor-trailer	Industrial machinery mechanics	Production workers, all other
	Active Listening	Equipment Selection	Instructing	Instructing	Active Listening	Reading Comprehension	Active Listening	Reading Comprehension	Active Listening	Equipment Maintenance	Repairing	Not Available
	Coordination	Active Listening	Active Listening	Monitoring	Time Management	Active Listening	Reading Comprehension	Quality Control Analysis	Service Orientation	Active Listening	Troubleshooting	
	Speaking	Coordination	Coordination	Quality Control Analysis		Speaking	Instructing	Active Listening		Time Management	Equipment Maintenance	
	Learning Strategies	Instructing	Equipment Maintenance	Equipment Maintenance	Coordination	Coordination	Coordination	Operation and Control	Instructing	Coordination	Equipment Selection	
	Reading Comprehension	Reading Comprehension	Speaking	Coordination	Equipment Selection	Equipment Selection	Learning Strategies	Instructing		Judgment and Decision Making	Installation	
	Social Perceptiveness	Speaking	Monitoring	Learning Strategies	Time Management	Time Management	Time Management	Equipment Maintenance		Reading Comprehension	Critical Thinking	
		Quality Control Analysis	Time Management	Time Management	Equipment Maintenance	Equipment Maintenance	Time Management	Coordination		Troubleshooting	Operation Monitoring	
			Equipment Selection	Operation and Control	Writing	Instructing		Troubleshooting		Speaking	Time Management	
			Judgment and Decision Making	Repairing	Instructing	Judgment and Decision Making	Time Management	Time Management		Mathematics	Reading Comprehension	
			Active Listening	Active Listening	Judgment and Decision Making	Judgment and Decision Making	Judgment and Decision Making	Judgment and Decision Making		Critical Thinking	Active Listening	
										Critical Thinking	Judgment and Decision Making	
										Coordination	Coordination	
Total	6	7	9	10	2	10	6	10	2	10	10	0

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Manufacturing Value Chain – Production

List of Skills for Occupations Employed in Animal Slaughtering and Processing

Number of Occupations within JZ	6	4	2	0	0	1	13
Total Employment Range (2005)	3,130 - 207,640	17,740 - 276,490	13,580 - 63,290	N/A	N/A	41,970	
Average Annual Salary Range (2005)	\$18,630 - \$23,360	\$23,210 - \$38,500	\$47,190 - \$51,420	N/A	N/A	\$ 23,990	
Skill	JZ-1	JZ-2	JZ-3	JZ-4	JZ-5	JZ-N/A	Number
Active Listening	6	4	2	0	0	0	12
Reading Comprehension	3	3	2	0	0	0	8
Critical Thinking	0	1	2	0	0	0	3
Time Management	4	3	1	0	0	0	8
Speaking	4	1	1	0	0	0	6
Monitoring	2	0	1	0	0	0	3
Operation Monitoring	0	0	1	0	0	0	1
Judgment and Decision Making	2	2	1	0	0	0	5
Learning Strategies	2	1	0	0	0	0	3
Active Learning	0	0	1	0	0	0	1
Troubleshooting	0	2	1	0	0	0	3
Writing	1	0	0	0	0	0	1
Coordination	5	3	1	0	0	0	9
Instructing	4	2	1	0	0	0	7
Equipment Maintenance	3	2	1	0	0	0	6
Equipment Selection	3	0	1	0	0	0	4
Mathematics	0	1	0	0	0	0	1
Installation	0	0	1	0	0	0	1
Repairing	1	0	1	0	0	0	2
Service Orientation	0	1	0	0	0	0	1
Quality Control Analysis	2	1	0	0	0	0	3
Operation and Control	1	1	0	0	0	0	2
Social Perceptiveness	1	0	0	0	0	0	1
Management of Personnel Resources	0	0	1	0	0	0	1
Total	44	28	20	0	0	0	92

Top Third (of 12)

Manufacturing Value Chain – Production

List of Skills for Occupations Employed in Electronic Instrument Manufacturing

TOT_EMP	24,970	27,990	24,970	214,050	43,250	2,140	5,910	22,600	6,360	19,090	23,220	2,260	19,000	84,550	27,970	50,400
A_MEAN	\$ 24,430	\$ 27,990	\$ 24,970	\$ 43,250	\$ 46,510	\$ 2,140	\$ 51,940	\$ 55,710	\$ 58,110	\$ 80,900	\$ 81,790	\$ 82,280	\$ 88,280	\$ 91,590	\$ 93,410	\$ 96,070
Job Zone	JZ-2	JZ-2	JZ-3	JZ-3	JZ-3	JZ-3	JZ-3	JZ-3	JZ-3	JZ-4	JZ-4	JZ-4	JZ-4	JZ-4	JZ-4	JZ-4
SOC-Code	51-2092	51-2022	17-3024	17-3027	17-3023	17-3026	17-3023	17-3023	17-3026	17-2112	17-2141	17-2131	17-2071	15-1031	17-2072	15-1032
Occupation Title	Team assemblers	Electrical and electronic equipment assemblers	Electro-mechanical technicians	Mechanical engineering technicians	Electrical and electronic engineering technicians	Industrial engineering technicians	Executive secretaries and administrative assistants	Electro-mechanical technicians	Mechanical engineers	Industrial engineers	Mechanical engineers	Materials engineers	Electrical engineers	Computer software engineers, applications	Computer software engineers, except computer software	Computer software engineers, systems software
	Learning Strategies	Quality Control Analysis	Equipment Maintenance	Reading Comprehension	Troubleshooting	Active Listening	Active Listening	Reading Comprehension	Active Listening	Critical Thinking	Mathematics	Reading Comprehension	Active Listening	Programming	Reading Comprehension	Complex Problem Solving
	Active Listening	Troubleshooting	Troubleshooting	Active Listening	Mathematics	Complex Problem Solving	Complex Problem Solving	Complex Problem Solving	Complex Problem Solving	Active Listening	Complex Problem Solving	Active Listening	Troubleshooting	Critical Thinking	Complex Problem Solving	Technology Design
	Quality Control Analysis	Equipment Selection	Operation Monitoring	Coordination	Critical Thinking	Critical Thinking	Critical Thinking	Critical Thinking	Critical Thinking	Time Management	Critical Thinking	Science	Critical Thinking	Complex Problem Solving	Equipment Selection	Troubleshooting
	Active Learning	Instructing	Quality Control Analysis	Judgment and Decision Making	Reading Comprehension	Judgment and Decision Making	Judgment and Decision Making	Reading Comprehension	Judgment and Decision Making	Reading Comprehension	Reading Comprehension	Critical Thinking	Reading Comprehension	Active Learning	Troubleshooting	Critical Thinking
	Instructing	Time Management	Reading Comprehension	Mathematics	Active Listening	Coordination	Coordination	Active Listening	Coordination	Complex Problem Solving	Science	Writing	Complex Problem Solving	Troubleshooting	Active Learning	Active Learning
	Operation Monitoring	Reading Comprehension	Instructing	Complex Problem Solving	Complex Problem Solving	Active Learning	Complex Problem Solving	Complex Problem Solving	Active Learning	Active Listening	Active Listening	Complex Problem Solving	Technology Design	Judgment and Decision Making	Critical Thinking	Programming
	Equipment Selection	Learning Strategies	Installation	Time Management	Speaking	Reading Comprehension	Reading Comprehension	Speaking	Reading Comprehension	Writing	Judgment and Decision Making	Active Learning	Active Learning	Technology Design	Coordination	Reading Comprehension
	Reading Comprehension	Monitoring	Equipment Selection	Active Learning	Systems Analysis	Instructing	Systems Analysis	Systems Analysis	Instructing	Judgment and Decision Making	Time Management	Troubleshooting	Systems Analysis	Reading Comprehension	Mathematics	Systems Analysis
	Coordination	Active Learning	Mathematics	Troubleshooting	Writing	Speaking	Writing	Writing	Speaking	Speaking	Writing	Equipment Selection	Judgment and Decision Making	Operations Analysis	Active Listening	Mathematics
	Equipment Maintenance	Judgment and Decision Making	Operation and Control	Equipment Selection	Operation and Control	Monitoring	Operation and Control	Operation and Control	Monitoring	Active Learning	Speaking	Time Management	Time Management	Systems Analysis	Judgment and Decision Making	Operations Analysis

20

49

Total

Manufacturing Value Chain – Production

List of Skills for Occupations Employed in Electronic Instrument Manufacturing

20,410	25,100	31,900	11,600	175,920	26,990
\$ 100,070	\$ 97,140	\$ 25,360	\$ 53,580	\$ 60,860	\$ 89,260
JZ-4	JZ-5	N/A	N/A	N/A	N/A
17-2061	17-2011	51-2099	17-3029	13-1199	17-2199
Computer hardware engineers	Aerospace engineers	Assemblers and fabricators, all other	Engineering technicians, except drafters, all other	Business operations specialists, all other	Engineers, all other
Complex Problem Solving	Critical Thinking	Not Available	Not Available	Not Available	Not Available
Active Listening	Judgment and Decision Making				
Critical Thinking	Time Management				
Active Learning	Active Learning				
Reading Comprehension	Writing				
Judgment and Decision Making	Monitoring				
Time Management	Reading Comprehension				
Troubleshooting	Speaking				
Systems Evaluation	Management of Personnel Resources				
Operations Analysis	Systems Evaluation				
10	10	0	0	0	0
90	20	0	0	0	0

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Manufacturing Value Chain – Production

List of Skills for Occupations Employed in Electronic Instrument Manufacturing

Number of Occupations within JZ	0	2	5	9	2	4	22	
Total Employment Range (2005)	N/A	24,970 - 95,990	2,140 - 214,050	2,260 - 84,550	25,100 - 35,620	11,600 - 175,920		
Average Annual Salary Range (2005)	N/A	\$24,430 - \$27,990	\$43,250 - \$58,110	\$76,970 - \$100,070	\$97,140 - \$125,080	\$25,360 - \$89,260		
Skill	Job Zone	JZ-1	JZ-2	JZ-3	JZ-4	JZ-5	JZ-N/A	Number
Critical Thinking		0	0	3	9	2	0	14
Active Learning		0	2	3	8	1	0	14
Active Listening		0	1	4	7	1	0	13
Judgment and Decision Making		0	1	2	6	2	0	11
Complex Problem Solving		0	0	3	9	1	0	13
Reading Comprehension		0	2	5	9	2	0	18
Time Management		0	1	2	6	1	0	10
Equipment Selection		0	2	2	2	0	0	6
Troubleshooting		0	1	3	7	0	0	11
Mathematics		0	0	3	4	0	0	7
Operations Analysis		0	0	0	3	0	0	3
Learning Strategies		0	2	0	0	0	0	2
Quality Control Analysis		0	2	1	1	0	0	4
Systems Evaluation		0	0	0	1	1	0	2
Systems Analysis		0	0	1	3	0	0	4
Writing		0	0	2	3	2	0	7
Technology Design		0	0	0	3	0	0	3
Coordination		0	1	3	1	0	0	5
Speaking		0	0	3	2	2	0	7
Monitoring		0	1	2	1	2	0	6
Operation Monitoring		0	1	1	0	0	0	2
Programming		0	0	0	2	0	0	2
Equipment Maintenance		0	1	1	0	0	0	2
Instructing		0	2	2	0	0	0	4
Science		0	0	0	2	0	0	2
Service Orientation		0	0	1	1	0	0	2
Operation and Control		0	0	1	0	0	0	1
Installation		0	0	1	0	0	0	1
Management of Personnel Resources		0	0	0	0	1	0	1
Negotiation		0	0	0	0	1	0	1
Social Perceptiveness		0	0	0	0	1	0	1
Total		0	20	49	90	20	0	179

Top Third
(of 18)

Manufacturing Value Chain – Production

List of Skills for Occupations Employed in Other Wood Product Manufacturing

Number of Occupations within JZ	2	6	1	4	0	0	1	14		
Total Employment Range (2005)	45,780 - 141,810	2,270 - 276,490	144,450	15,640 - 226,740	N/A	N/A	31,900			
Average Annual Salary Range (2005)	\$21,260 - \$33,980	\$23,210 - \$32,780	\$ 48,440	\$29,360 - \$112,740	N/A	N/A	\$ 25,360			
Skill	Job Zone	JZ-1	JZ-2	JZ-2/3	JZ-3	JZ-4	JZ-5	JZ-N/A	Number	Top Third (of 13)
Active Listening		2	6	1	4	0	0	0	13	✓
Active Learning		0	1	0	2	0	0	0	3	
Reading Comprehension		1	2	1	4	0	0	0	8	✓
Judgment and Decision Making		0	0	1	2	0	0	0	3	
Time Management		0	2	1	3	0	0	0	6	
Critical Thinking		1	3	1	3	0	0	0	8	✓
Coordination		2	2	1	4	0	0	0	9	✓
Operation Monitoring		0	4	0	0	0	0	0	4	
Operation and Control		0	3	0	0	0	0	0	3	
Equipment Selection		2	4	1	1	0	0	0	8	✓
Equipment Maintenance		1	3	0	0	0	0	0	4	
Quality Control Analysis		1	1	0	1	0	0	0	3	
Instructing		2	5	0	2	0	0	0	9	✓
Speaking		2	2	0	4	0	0	0	8	✓
Mathematics		1	2	1	1	0	0	0	5	
Learning Strategies		1	3	0	0	0	0	0	4	
Persuasion		0	0	0	1	0	0	0	1	
Monitoring		1	2	0	2	0	0	0	5	
Repairing		0	1	0	0	0	0	0	1	
Service Orientation		0	0	0	1	0	0	0	1	
Management of Personnel Resources		0	0	0	2	0	0	0	2	
Troubleshooting		0	3	0	0	0	0	0	3	
Negotiation		0	0	0	1	0	0	0	1	
Complex Problem Solving		0	0	0	1	0	0	0	1	
Social Perceptiveness		0	0	0	1	0	0	0	1	
Total	17	49	8	40	0	0	0	0	114	

Manufacturing Value Chain – Production

List of Skills for Occupations Employed in Aerospace Product and Parts Manufacturing

Skill	Number of Occupations within JZ						JZ-1	JZ-2	JZ-3	JZ-4	JZ-5	JZ-N/A	Number
	0	1	5	4	2	3							
Total Employment Range (2005)	N/A	48,210	7,800 - 214,050	19,090 - 84,550	25,100 - 35,620	26,990 - 175,920							
Average Annual Salary Range (2005)	N/A	\$ 32,580	\$35,050 - \$57,900	\$80,900 - \$96,070	\$97,140 - \$125,080	\$60,860 - \$101,470							
													Top Third (of 12)
Critical Thinking	0	0	5	4	2	0	11						
Reading Comprehension	0	1	4	4	2	0	11						
Active Listening	0	1	5	2	1	0	9						
Time Management	0	1	3	2	1	0	7						
Judgment and Decision Making	0	0	2	3	2	0	7						
Quality Control Analysis	0	1	2	0	0	0	3						
Active Learning	0	1	2	3	1	0	7						
Systems Analysis	0	0	0	2	0	0	2						
Systems Evaluation	0	0	0	0	1	0	1						
Mathematics	0	1	2	3	0	0	6						
Speaking	0	1	3	2	2	0	8						
Writing	0	0	3	2	2	0	7						
Complex Problem Solving	0	0	2	4	1	0	7						
Operations Analysis	0	0	0	2	0	0	2						
Coordination	0	0	2	0	0	0	2						
Equipment Maintenance	0	0	3	0	0	0	3						
Operation Monitoring	0	1	2	0	0	0	3						
Equipment Selection	0	0	2	0	0	0	2						
Instructing	0	1	0	0	0	0	1						
Monitoring	0	0	2	0	2	0	4						
Installation	0	0	1	0	0	0	1						
Service Orientation	0	0	1	0	0	0	1						
Negotiation	0	0	1	0	1	0	2						
Troubleshooting	0	0	1	2	0	0	3						
Programming	0	0	0	2	0	0	2						
Technology Design	0	0	0	2	0	0	2						
Learning Strategies	0	1	0	0	0	0	1						
Repairing	0	0	1	0	0	0	1						
Management of Personnel Resources													
Operation and Control	0	0	0	0	1	0	1						
Social Perceptiveness	0	0	0	0	0	1	1						
Science	0	0	0	0	1	0	1						
Total	0	10	50	40	20	0	120						

Manufacturing Value Chain – Production

List of Skills for Occupations Employed in Motor Vehicle Manufacturing

Number of Occupations within JZ	0	4	3	0	0	7	
Total Employment Range (2005)	0	6,830 - 396,750	18,960 - 145,050	0	0		
Average Annual Salary Range (2005)	N/A	\$24,430 - \$41,150	\$41,680 - \$90,000	N/A	N/A	N/A	
Skill	Job Zone	JZ-1	JZ-2	JZ-3	JZ-4	JZ-5	Number
Complex Problem Solving		0	0	1	0	0	1
Active Listening		0	4	3	0	0	7
Active Learning		0	2	2	0	0	4
Coordination		0	2	2	0	0	4
Reading Comprehension		0	3	3	0	0	6
Time Management		0	2	3	0	0	5
Service Orientation		0	0	2	0	0	2
Judgment and Decision Making		0	1	1	0	0	2
Equipment Maintenance		0	2	0	0	0	2
Equipment Selection		0	3	0	0	0	3
Management of Personnel Resources		0	0	2	0	0	2
Management of Material Resources		0	1	0	0	0	1
Learning Strategies		0	2	0	0	0	2
Monitoring		0	1	2	0	0	3
Operation Monitoring		0	1	0	0	0	1
Critical Thinking		0	1	2	0	0	3
Persuasion		0	0	2	0	0	2
Speaking		0	1	3	0	0	4
Social Perceptiveness		0	1	1	0	0	2
Quality Control Analysis		0	2	0	0	0	2
Mathematics		0	1	0	0	0	1
Instructing		0	1	0	0	0	1
Writing		0	1	0	0	0	1
Negotiation		0	0	1	0	0	1
Total	0	32	30	0	0	0	62

Top Third
(of 7)

Manufacturing Value Chain – *Design*



**ARCHITECTURAL AND ENGINEERING SERVICES (NAICS
541300)**

**MANAGEMENT AND TECHNICAL CONSULTING SERVICES
(NAICS 541600)**

Manufacturing Value Chain – Design

List of Skills for Occupations Employed in Architectural and Engineering Services

31,810	23,220	19,000	84,550	27,970	50,400	11,970	35,620	61,940	175,920	8,070
\$ 79,950	\$ 81,790	\$ 88,280	\$ 91,590	\$ 93,410	\$ 96,070	\$ 75,560	\$ 125,080	\$ 132,670	\$ 60,860	\$ 109,820
JZ-4	JZ-4	JZ-4	JZ-4	JZ-4	JZ-4	JZ-5	JZ-5	JZ-5	N/A	N/A
17-2051	17-2141	17-2071	15-1031	17-2072	15-1032	17-1011	11-9041	23-1011	13-1199	11-3049
Civil engineers	Mechanical engineers	Electrical engineers	Computer software engineers, applications	Electronics engineers, except computer	Computer software engineers, systems software	Architects, except landscape and naval	Engineering managers	Lawyers	Business operations specialists, all other	Human resources managers, all other
Reading Comprehension	Mathematics	Active Listening	Programming	Reading Comprehension	Complex Problem Solving	Active Listening	Critical Thinking	Reading Comprehension	Not Available	Not Available
Complex Problem Solving	Complex Problem Solving	Troubleshooting	Critical Thinking	Complex Problem Solving	Technology Design	Critical Thinking	Judgment and Decision Making	Judgment and Decision Making		
Critical Thinking	Critical Thinking	Critical Thinking	Complex Problem Solving	Equipment Selection	Troubleshooting	Complex Problem Solving	Reading Comprehension	Writing		
Active Listening	Reading Comprehension	Reading Comprehension	Active Learning	Troubleshooting	Critical Thinking	Time Management	Active Listening	Critical Thinking		
Coordination	Science	Complex Problem Solving	Troubleshooting	Active Learning	Active Learning	Reading Comprehension	Speaking	Active Listening		
Judgment and Decision Making	Active Listening	Technology Design	Judgment and Decision Making	Critical Thinking	Programming	Management of Personnel Resources	Complex Problem Solving	Persuasion		
Speaking	Judgment and Decision Making	Active Learning	Technology Design	Coordination	Reading Comprehension	Coordination	Monitoring	Time Management		
Time Management	Time Management	Systems Analysis	Reading Comprehension	Mathematics	Systems Analysis	Writing	Negotiation	Negotiation		
Writing	Writing	Judgment and Decision Making	Operations Analysis	Active Listening	Mathematics	Speaking	Social Perceptiveness	Speaking		
Management of Personnel Resources	Speaking	Time Management	Systems Analysis	Judgment and Decision Making	Operations Analysis	Operations Analysis	Writing	Active Learning		
10	10	10	10	10	10	10	10	10	0	0

Manufacturing Value Chain – Design

List of Skills for Occupations Employed in Architectural and Engineering Services

Number of Occupations within JZ		1	0	6	13	3	2	25
Total Employment Range (2005)		126,180	N/A	8,170 - 226,740	3,480 - 84,550	11,970 - 61,940	8,070 - 175,920	
Average Annual Salary Range (2005)		\$ 24,570	N/A	\$38,200 - \$112,740	\$57,690 - \$96,070	\$75,560 - \$132,670	\$60,860 - \$109,820	
Skill	Job Zone	JZ-1	JZ-2	JZ-3	JZ-4	JZ-5	JZ-N/A	Number
Active Listening		1	0	6	11	3	0	21 ✓
Active Learning		0	0	4	7	1	0	12
Reading Comprehension		1	0	5	13	3	0	22 ✓
Critical Thinking		0	0	6	12	3	0	21 ✓
Judgment and Decision Making		0	0	5	10	2	0	17 ✓
Time Management		1	0	4	8	2	0	15
Complex Problem Solving		0	0	5	13	2	0	20 ✓
Mathematics		0	0	2	5	0	0	7
Speaking		1	0	5	7	3	0	16 ✓
Writing		0	0	3	7	3	0	13
Coordination		0	0	5	6	1	0	12
Operations Analysis		0	0	0	2	1	0	3
Systems Analysis		0	0	1	4	0	0	5
Systems Evaluation		0	0	0	1	0	0	1
Instructing		0	0	0	1	0	0	1
Monitoring		0	0	3	5	1	0	9
Negotiation		0	0	0	0	2	0	2
Troubleshooting		0	0	0	5	0	0	5
Management of Personnel Resources		0	0	1	1	1	0	3
Management of Financial Resources		0	0	0	1	0	0	1
Equipment Selection		1	0	0	1	0	0	2
Equipment Maintenance		1	0	1	0	0	0	2
Science		0	0	0	1	0	0	1
Technology Design		0	0	0	3	0	0	3
Social Perceptiveness		0	0	0	0	1	0	1
Programming		0	0	0	2	0	0	2
Service Orientation		0	0	1	1	0	0	2
Quality Control Analysis		0	0	2	1	0	0	3
Learning Strategies		0	0	0	1	0	0	1
Persuasion		0	0	0	0	1	0	1
Repairing		1	0	0	0	0	0	1
Operation and Control		0	0	1	0	0	0	1
Operation Monitoring		0	0	1	0	0	0	1
Total		7	0	61	130	30	0	228

Top Third
(of 23)

Manufacturing Value Chain – Design

List of Skills for Occupations Employed in Management, Scientific and Technical Consulting Services

Number of Occupations within JZ	1	3	1	9	1	24	5	7	51
Total Employment Range (2005)	126,180	9,830 - 396,750	27,810	8,170 - 226,740	16,750	1,000 - 124,560	980 - 35,620	3,420 - 175,920	
Average Annual Salary Range (2005)	\$ 24,570	\$27,470 - \$68,200	\$ 57,090	\$35,880 - \$112,740	\$ 60,580	\$42,780 - \$123,600	\$67,650 - \$125,080	\$45,610 - \$101,470	
Skill	JZ-1	JZ-2	JZ-2/3/4/5	JZ-3	JZ-3/4	JZ-4	JZ-5	JZ-N/A	Number
Critical Thinking	0	1	1	8	0	22	5	0	37
Judgment and Decision Making	0	0	1	6	0	17	3	0	27
Active Listening	1	3	1	8	1	22	5	0	41
Coordination	0	1	1	5	0	14	0	0	21
Time Management	1	2	0	6	0	16	3	0	28
Instructing	0	0	1	1	0	3	1	0	6
Monitoring	0	1	0	4	0	8	1	0	14
Quality Control Analysis	0	0	0	0	0	3	0	0	3
Reading Comprehension	1	3	1	9	1	24	5	0	44
Operation and Control	0	0	0	0	0	1	0	0	1
Speaking	1	3	1	6	1	14	3	0	29
Writing	0	3	1	4	0	12	5	0	25
Active Learning	0	1	1	7	0	15	4	0	28
Service Orientation	0	2	0	1	1	3	0	0	7
Social Perceptiveness	0	2	0	2	0	5	1	0	10
Management of Personnel Resources	0	0	0	1	0	3	0	0	4
Management of Financial Resources	0	0	0	0	0	2	0	0	2
Persuasion	0	0	0	0	1	3	0	0	4
Learning Strategies	0	1	1	1	0	3	0	0	6
Programming	0	0	0	0	0	2	0	0	2
Complex Problem Solving	0	0	0	4	0	14	5	0	23
Troubleshooting	0	0	0	2	0	5	0	0	7
Technology Design	0	0	0	1	0	3	0	0	4
Operations Analysis	0	0	0	0	0	3	1	0	4
Systems Analysis	0	0	0	0	0	4	1	0	5
Mathematics	0	1	0	2	0	10	3	0	16
Negotiation	0	1	1	0	1	2	1	0	6
Equipment Selection	1	0	0	1	0	1	0	0	3
Equipment Maintenance	1	0	0	1	0	0	0	0	2
Installation	0	0	0	2	0	0	0	0	2
Repairing	1	0	0	1	0	0	0	0	2
Science	0	0	1	0	0	2	3	0	6
Systems Evaluation	0	0	0	0	0	1	0	0	1
Management of Material Resources	0	0	0	0	0	1	0	0	1
Operation Monitoring	0	0	0	1	0	0	0	0	1
Total	7	25	12	84	6	238	50	0	422

Top Third
(of 44)

Health Science and Services



GENERAL MEDICAL AND SURGICAL HOSPITALS (NAICS 622100)

SCIENCE RESEARCH AND DEVELOPMENT SERVICES (NAICS 541700)

OFFICES OF PHYSICIANS (NAICS 621100)

NURSING CARE FACILITIES (NAICS 623100)

OFFICES OF DENTISTS (NAICS 621200)

Health Science and Services

List of Skills for Occupations Employed in General Medical and Surgical Hospitals

TOT_EMP	207,640	17,640	96,820	396,750	57,480	199,440	23,360	125,210	26,660	56,170	29,620	14,950
A_MEAN	\$ 20,530	\$ 23,360	\$ 25,300	\$ 27,470	\$ 30,800	\$ 34,110	\$ 34,320	\$ 39,850	\$ 32,030	\$ 45,270	\$ 56,850	\$ 58,480
Job Zone	JZ-1	JZ-1	JZ-2	JZ-2	JZ-2	JZ-2	JZ-2	JZ-2	JZ-3	JZ-3	JZ-3	JZ-3
SOC-Code	37-2012	37-2011	31-1012	43-9061	43-6013	43-4051	29-2052	41-1011	43-4111	29-2061	13-1031	29-2034
Occupation Title	Maids and housekeeping cleaners	Janitors and cleaners, except maids and housekeeping cleaners	Nursing aides, orderlies, and attendants	Office clerks, general	Medical secretaries	Customer service representatives	Pharmacy technicians	First-line supervisors/managers of retail sales workers	Interviewers, except eligibility and loan	Licensed practical and licensed vocational nurses	Claims adjusters, examiners, and investigators	Radiologic technologists and technicians
	Reading Comprehension	Reading Comprehension	Active Listening	Active Listening	Active Listening	Active Listening	Active Listening	Management of Personnel Resources	Active Listening	Active Listening	Reading Comprehension	Active Listening
			Complex Problem Solving	Reading Comprehension	Reading Comprehension	Reading Comprehension	Speaking	Active Listening	Social Perceptiveness	Reading Comprehension	Judgment and Decision Making	Reading Comprehension
			Speaking	Speaking	Speaking	Monitoring	Active Learning	Service Orientation	Speaking	Time Management	Active Listening	Speaking
			Coordination	Writing	Coordination	Speaking	Service Orientation	Time Management	Critical Thinking	Coordination	Time Management	Critical Thinking
			Time Management	Social Perceptiveness	Critical Thinking	Time Management	Instructing	Instructing	Writing	Monitoring	Writing	Writing
			Service Orientation		Time Management	Service Orientation	Reading Comprehension	Monitoring	Active Learning	Critical Thinking	Critical Thinking	Time Management
			Monitoring		Social Perceptiveness	Active Learning	Mathematics	Reading Comprehension	Service Orientation	Social Perceptiveness		Coordination
			Social Perceptiveness		Writing	Learning Strategies	Time Management	Judgment and Decision Making	Complex Problem Solving	Critical Thinking		
			Critical Thinking		Service Orientation	Writing	Learning Strategies	Active Learning	Coordination	Time Management		
			Reading Comprehension		Critical Thinking	Critical Thinking	Writing	Critical Thinking	Writing	Complex Problem Solving		

Total

Health Science and Services

List of Skills for Occupations Employed in General Medical and Surgical Hospitals

Skill	Job Zone	JZ-1		JZ-2		JZ-3		JZ-4		JZ-5		JZ-N/A		Number	Top Third (of 20)
		3	6	7	1	3	3	3	3	3	3	3			
Number of Occupations within JZ		3	6	7	1	3	3	3	3	3	3	3	3	23	
Total Employment Range (2005)		17,640 - 207,640	23,360 - 396,750	10,660 - 234,260	12,070	3,030 - 23,700	18,800 - 175,920								
Average Annual Salary Range (2005)		\$20,530 - \$23,820	\$25,300 - \$39,850	\$30,960 - \$75,130	\$ 66,530	\$95,210 - \$148,250	\$30,490 - \$146,200								
Active Listening		2	6	7	1	3	3	3	3	3	3	3	3	19	✓
Reading Comprehension		2	6	7	1	3	3	3	3	3	3	3	3	19	✓
Critical Thinking		1	4	7	1	3	3	3	3	3	3	3	3	16	✓
Instructing		1	2	1	0	0	0	0	0	0	0	0	0	6	
Speaking		1	5	6	1	3	3	3	3	3	3	3	3	16	✓
Time Management		2	5	5	0	1	0	0	0	0	0	0	0	13	✓
Service Orientation		0	5	4	0	0	0	0	0	0	0	0	0	9	
Monitoring		0	3	4	0	0	0	0	0	0	0	0	0	8	
Social Perceptiveness		1	3	4	1	2	0	0	0	0	0	0	0	11	
Writing		1	4	5	1	2	0	0	0	0	0	0	0	13	✓
Operation Monitoring		0	0	1	1	1	0	0	0	0	0	0	0	2	
Coordination		1	2	4	0	0	0	0	0	0	0	0	0	9	
Judgment and Decision Making		1	1	1	1	1	1	1	1	1	1	1	1	5	
Active Learning		1	3	3	1	2	0	0	0	0	0	0	0	10	
Troubleshooting		0	0	1	0	0	0	0	0	0	0	0	0	1	
Learning Strategies		0	2	1	0	0	0	0	0	0	0	0	0	3	
Mathematics		1	1	0	0	0	0	0	0	0	0	0	0	3	
Science		0	0	0	0	0	0	0	0	0	0	0	0	2	
Equipment Maintenance		2	0	0	0	0	0	0	0	0	0	0	0	2	
Operation and Control		1	0	0	0	0	0	0	0	0	0	0	0	1	
Equipment Selection		1	0	0	0	0	0	0	0	0	0	0	0	1	
Management of Personnel Resources		0	1	0	0	0	0	0	0	0	0	0	0	2	
Complex Problem Solving		0	0	1	2	1	1	1	1	1	1	1	1	5	
Total		19	54	63	10	30	30	30	30	30	30	30	30	176	

Health Science and Services

List of Skills for Occupations Employed in Scientific Research and Development Services

TOT_EMP	214,050	43,690	226,740	10,100	9,670	2,320	2,260	3,070	84,550	27,970	50,400	5,110
A_MEAN	\$ 43,250	\$ 60,630	\$ 112,740	\$ 42,780	\$ 73,270	\$ 75,570	\$ 82,280	\$ 85,960	\$ 91,590	\$ 93,410	\$ 96,070	\$ 105,020
Job Zone	JZ-3	JZ-3	JZ-3	JZ-4	JZ-4	JZ-4	JZ-4	JZ-4	JZ-4	JZ-4	JZ-4	JZ-4
SOC-Code	43-6011	49-1011	11-1021	19-4021	19-2031	17-2111	17-2131	17-2031	15-1031	17-2072	15-1032	11-2031
Occupation Title	Executive secretaries and administrative assistants	First-line supervisors/managers of mechanics, installers, and repairers	General and operations managers	Biological technicians	Chemists	Health and safety engineers, except mining safety engineers and inspectors	Materials engineers	Biomedical engineers	Computer software engineers, applications	Electronics engineers, except computer	Computer software engineers, systems software	Public relations managers
	Active Listening	Management of Personnel Resources	Active Listening	Science	Science	Reading Comprehension	Reading Comprehension	Science	Programming	Reading Comprehension	Complex Problem Solving	Speaking
	Reading Comprehension	Reading Comprehension	Management of Personnel Resources	Reading Comprehension	Complex Problem Solving	Writing	Active Listening	Reading Comprehension	Critical Thinking	Complex Problem Solving	Technology Design	Time Management
	Time Management	Coordination	Time Management	Instructing	Reading Comprehension	Critical Thinking	Science	Speaking	Complex Problem Solving	Equipment Selection	Troubleshooting	Writing
	Speaking	Active Listening	Judgment and Decision Making	Active Learning	Quality Control Analysis	Mathematics	Critical Thinking	Time Management	Active Learning	Troubleshooting	Critical Thinking	Active Listening
	Writing	Monitoring	Monitoring	Learning Strategies	Writing	Active Listening	Writing	Active Listening	Troubleshooting	Active Learning	Active Learning	Reading Comprehension
	Critical Thinking	Speaking	Reading Comprehension	Time Management	Time Management	Time Management	Complex Problem Solving	Judgment and Decision Making	Judgment and Decision Making	Critical Thinking	Programming	Coordination
	Active Learning	Time Management	Speaking	Active Listening	Active Listening	Speaking	Active Learning	Technology Design	Technology Design	Coordination	Reading Comprehension	Critical Thinking
	Coordination	Critical Thinking	Coordination	Mathematics	Active Learning	Persuasion	Troubleshooting	Complex Problem Solving	Reading Comprehension	Mathematics	Systems Analysis	Persuasion
	Monitoring	Complex Problem Solving	Critical Thinking	Quality Control Analysis	Critical Thinking	Active Learning	Equipment Selection	Critical Thinking	Operations Analysis	Active Listening	Mathematics	Service Orientation
	Service Orientation	Social Perceptiveness	Complex Problem Solving	Speaking	Science	Science	Time Management	Quality Control Analysis	Systems Analysis	Judgment and Decision Making	Operations Analysis	Social Perceptiveness

Total

Health Science and Services

List of Skills for Occupations Employed in Scientific Research and Development Services

Number of Occupations within JZ	0	0	3	9	6	2	20
Total Employment Range (2005)	N/A	N/A	43,690 - 226,740	2,260 - 84,550	820 - 35,620	26,990 - 175,920	
Average Annual Salary Range (2005)	N/A	N/A	\$43,250 - \$112,740	\$42,780 - \$105,020	\$61,310 - \$126,540	\$60,860 - \$89,260	
Skill	JZ-1	JZ-2	JZ-3	JZ-4	JZ-5	JZ-N/A	Number
Job Zone							
Reading Comprehension	0	0	3	9	6	0	18 ✓
Science	0	0	0	5	3	0	8
Active Listening	0	0	3	7	5	0	15 ✓
Active Learning	0	0	1	7	5	0	13 ✓
Writing	0	0	1	4	6	0	11
Instructing	0	0	0	1	1	0	2
Time Management	0	0	3	6	5	0	14 ✓
Critical Thinking	0	0	3	8	6	0	17 ✓
Judgment and Decision Making							
Complex Problem Solving	0	0	1	3	3	0	7
Learning Strategies	0	0	2	6	4	0	12 ✓
Mathematics	0	0	0	1	1	0	2
Quality Control Analysis	0	0	0	4	2	0	6
Speaking	0	0	0	3	1	0	4
Technology Design	0	0	3	5	3	0	11
Troubleshooting	0	0	0	3	0	0	3
Programming	0	0	0	5	0	0	5
Operations Analysis	0	0	0	1	0	0	1
Coordination	0	0	0	2	0	0	2
Monitoring	0	0	3	2	1	0	6
Service Orientation	0	0	3	0	3	0	6
Systems Analysis	0	0	1	1	0	0	2
Management of Personnel Resources	0	0	0	2	0	0	2
Persuasion	0	0	2	0	1	0	3
Systems Evaluation	0	0	0	2	0	0	2
Equipment Selection	0	0	0	2	1	0	3
Social Perceptiveness	0	0	1	1	1	0	3
Negotiation	0	0	0	0	1	0	1
Total	0	0	30	90	60	0	180

Top Third (of 18)

Health Science and Services

List of Skills for Occupations Employed in Offices of Physicians

TOT_EMP	A_MEAN	Job Zone	SOC-Code	Occupation Title	Active Listening	Reading Comprehension	Speaking	Writing	Service Orientation	Learning Strategies	Social Perceptiveness	Complex Problem Solving	Critical Thinking	Time Management	Active Learning	Coordination	Monitoring	Instruction	Writing	8
356,880	\$ 21,420	JZ-1	41-2011	Cashiers	Active Listening	Mathematics	Speaking	Instruction	Social Perceptiveness	Service Orientation	Learning Strategies	Critical Thinking								8
126,560	\$ 25,980	JZ-2	43-4171	Receptionists and information clerks	Active Listening	Speaking	Reading Comprehension	Writing	Service Orientation	Learning Strategies	Social Perceptiveness	Social Perceptiveness	Critical Thinking	Time Management	Active Learning					10
396,750	\$ 27,470	JZ-2	43-9061	Office clerks, general	Active Listening	Reading Comprehension	Speaking	Writing	Social Perceptiveness											5
57,480	\$ 30,800	JZ-2	43-6013	Medical secretaries	Active Listening	Reading Comprehension	Speaking	Writing	Critical Thinking	Time Management	Social Perceptiveness	Writing	Service Orientation							9
13,490	\$ 34,200	JZ-2	29-2071	Medical records and health information technicians	Active Listening	Reading Comprehension	Time Management	Speaking	Monitoring	Complex Problem Solving	Coordination	Critical Thinking								8
56,480	\$ 32,810	JZ-2/3	43-3021	Billing and posting clerks and machine operators	Active Listening	Reading Comprehension	Writing	Mathematics	Speaking	Time Management	Critical Thinking									7
58,830	\$ 30,960	JZ-3	31-9092	Medical assistants	Active Listening	Social Perceptiveness	Speaking	Critical Thinking	Critical Thinking	Active Listening	Judgment and Decision Making	Active Learning	Service Orientation	Complex Problem Solving	Coordination	Writing	Instruction	Social Perceptiveness	Writing	10
59,520	\$ 50,100	JZ-3	15-1041	Computer support specialists	Coordination	Reading Comprehension	Critical Thinking	Active Listening	Judgment and Decision Making	Speaking	Active Learning	Monitoring	Complex Problem Solving	Instruction						10
180,480	\$ 50,230	JZ-3	43-1011	First-line supervisors/managers of office and administrative support workers	Active Listening	Speaking	Reading Comprehension	Critical Thinking	Monitoring	Time Management	Time Management	Management of Personnel Resources	Instruction	Social Perceptiveness						10
29,620	\$ 56,850	JZ-3	13-1031	Claims adjusters, examiners, and investigators	Reading Comprehension	Active Listening	Critical Thinking	Time Management	Judgment and Decision Making	Writing	Coordination									6
14,950	\$ 58,480	JZ-3	29-2034	Radiologic technologists and technicians	Active Listening	Speaking	Reading Comprehension	Critical Thinking	Time Management	Writing	Coordination									7
234,260	\$ 75,130	JZ-3	29-1111	Registered nurses	Active Listening	Reading Comprehension	Critical Thinking	Active Learning	Speaking	Coordination	Service Orientation	Monitoring	Social Perceptiveness	Writing						10
1,610	\$ 75,140	JZ-3	29-2033	Nuclear medicine technologists	Active Listening	Operation Monitoring	Service Orientation	Speaking	Service Orientation	Time Management	Equipment Maintenance	Mathematics	Coordination	Monitoring						10
8,970	\$ 34,230	JZ-5	21-1011	Substance abuse and behavioral disorder counselors	Active Listening	Social Perceptiveness	Service Orientation	Speaking	Time Management	Critical Thinking	Persuasion	Reading Comprehension	Instruction	Writing						10

Total

8

32

7

63

Health Science and Services

List of Skills for Occupations Employed in Offices of Physicians

5,820	9,700	28,190	18,800
\$ 80,960	\$ 136,290	\$ 62,400	\$ 146,200
JZ-5	JZ-5	N/A	N/A
29-1071	29-1062	13-1079	29-1069
Physician assistants	Family and general practitioners	Human resources, training, and labor relations specialists, all other	Physicians and surgeons, all other
Active Listening	Reading Comprehension	Not Available	Not Available
Active Learning	Active Listening		
Speaking	Science		
Reading Comprehension	Critical Thinking		
Critical Thinking	Speaking		
Complex Problem Solving	Writing		
Coordination	Active Learning		
Social Perceptiveness	Complex Problem Solving		
Judgment and Decision Making	Instructing		
Monitoring	Judgment and Decision Making		
10	10	0	0
		0	140

0

20

Health Science and Services

List of Skills for Occupations Employed in Offices of Physicians

Number of Occupations within JZ	JZ-1	JZ-2	JZ-2/3	JZ-3	JZ-4	JZ-5	JZ-N/A	Number	Top Third (of 16)
1	4	1	7	0	3	2	18		
Total Employment Range (2005)	13,490 - 396,750	56,480	1,610 - 234,260	N/A	5,820 - 9,700	18,800 - 28,190			
Average Annual Salary Range (2005)	\$25,980 - \$34,200	\$ 32,810	\$30,960 - \$75,140	N/A	\$34,230 - \$136,290	\$62,400 - \$146,200			
Skill	Job Zone	JZ-1	JZ-2	JZ-2/3	JZ-3	JZ-4	JZ-5	JZ-N/A	Number
Active Listening		1	4	1	7	0	3	0	16
Social Perceptiveness		1	3	0	3	0	2	0	9
Speaking		1	4	1	6	0	3	0	15
Instructing		1	0	0	2	0	2	0	5
Reading Comprehension		0	4	1	6	0	3	0	14
Active Learning		0	1	0	3	0	2	0	6
Service Orientation		1	2	0	3	0	1	0	7
Time Management		0	3	1	4	0	1	0	9
Learning Strategies		1	1	0	0	0	0	0	2
Writing		0	3	1	4	0	2	0	10
Critical Thinking		1	3	1	7	0	3	0	15
Monitoring		0	1	0	4	0	1	0	6
Coordination		0	2	0	4	0	1	0	7
Mathematics		1	0	1	2	0	0	0	4
Management of Personnel Resources		0	0	0	1	0	0	0	1
Judgment and Decision Making		0	0	0	3	0	2	0	5
Complex Problem Solving		0	1	0	2	0	2	0	5
Science		0	0	0	0	0	1	0	1
Persuasion		0	0	0	0	0	1	0	1
Equipment Maintenance		0	0	0	1	0	0	0	1
Operation Monitoring		0	0	0	1	0	0	0	1
Total	8	32	7	63	0	30	0	140	

Health Science and Services

List of Skills for Occupations Employed in Nursing Care Facilities

Number of Occupations within JZ	5	4	2	1	1	13
Total Employment Range (2005)	62,620 - 207,640	18,240 - 96,820	56,170 - 234,260	35,960	10,310	
Average Annual Salary Range (2005)	\$17,050 - \$24,570	\$19,720 - \$26,330	\$45,270 - \$75,130	\$ 23,270	\$ 42,070	
Skill	Job Zone	JZ-2	JZ-3	JZ-4	JZ-5	Number
Active Listening		4	2	1	1	12 ✓
Instructing		2	0	1	0	5
Speaking		4	2	1	1	11 ✓
Coordination		2	2	0	0	7
Time Management		2	1	1	1	8 ✓
Service Orientation		2	2	1	1	9 ✓
Monitoring		0	2	0	1	6
Complex Problem Solving		0	1	0	0	2
Social Perceptiveness		2	2	1	1	8 ✓
Critical Thinking		0	2	1	1	7
Reading Comprehension		4	2	1	1	12 ✓
Writing		1	1	0	0	3
Judgment and Decision Making		1	0	1	0	2
Active Learning		0	1	0	1	2
Mathematics		1	0	0	0	2
Learning Strategies		2	0	0	1	4
Equipment Selection		2	0	0	0	3
Equipment Maintenance		2	0	0	0	2
Management of Personnel Resources		0	0	1	0	1
Repairing		1	0	0	0	1
Total	32	35	20	10	10	107

Top Third
(of 13)

Health Science and Services

List of Skills for Occupations Employed in Offices of Dentists

Number of Occupations within JZ	0	5	4	1	2	12	
Total Employment Range (2005)	N/A	41,180 - 396,750	22,290 - 214,050	124,560	840 - 9,650		
Average Annual Salary Range (2005)	N/A	\$25,980 - \$33,030	\$35,880 - \$73,950	\$64,390	\$127,730 - \$142,190		
Skill	Job Zone	JZ-1	JZ-2	JZ-3	JZ-4	JZ-5	Number
Active Listening		0	5	4	1	2	12 ✓
Reading Comprehension		0	5	4	1	2	12 ✓
Speaking		0	5	4	1	1	11 ✓
Coordination		0	2	2	0	0	4
Social Perceptiveness		0	5	3	0	0	8 ✓
Equipment Maintenance		0	1	0	0	0	1
Active Learning		0	3	3	0	2	8 ✓
Time Management		0	4	4	0	2	10 ✓
Equipment Selection		0	1	0	0	2	3
Instructing		0	1	2	0	1	4
Critical Thinking		0	3	4	1	2	10 ✓
Writing		0	4	3	1	0	8 ✓
Service Orientation		0	2	1	0	0	3
Learning Strategies		0	2	1	0	0	3
Science		0	0	0	0	2	2
Complex Problem Solving		0	0	0	0	2	2
Judgment and Decision Making							
Monitoring		0	0	1	1	1	3
Management of Personnel Resources		0	1	2	1	1	5
Mathematics		0	0	1	0	0	1
		0	0	1	1	1	2
Total		0	44	40	8	20	112

Top Third
(of 12)

Entertainment and Tourism

FOOD SERVICES AND DRINKING PLACES (NAICS 722000)

Full-Service Restaurants (NAICS 722100)

Limited-Service Eating Places (NAICS 722200)

Specialty Food Services (NAICS 722300)

Drinking Places (Alcoholic Beverages) (NAICS 722400)

MOTION PICTURE AND SOUND RECORDING INDUSTRIES (NAICS 512000)

Motion Picture and Video Industries (NAICS 512100)

Sound Recording Industries (NAICS 512200)

ACCOMMODATION (NAICS 721000)

AMUSEMENT, GAMBLING AND RECREATION INDUSTRIES (NAICS 713000)

Amusement Parks and Arcades (NAICS 713100)

Gambling Industries (NAICS 713200)

Other Amusement and Recreation Industries (NAICS 713900)

PERFORMING ARTS, SPECTATOR SPORTS AND RELATED INDUSTRIES (NAICS 711000)

Performing Arts Companies (NAICS 7111000)

Spectator Sports (NAICS 711200)

Independent Artists, Writers, and Performers (NAICS 711500)

MUSEUMS, PARKS, AND HISTORICAL SITES (NAICS 712000)

Entertainment and Tourism

List of Skills for Occupations Employed in Full-Service Restaurants

TOT_EMP	A_MEAN	Job Zone	SOC-Code	Occupation Title	5	6	7	8	9	10	11	12	Total
62,620	\$ 17,050	JZ-1	35-9011	Dining room and cafeteria attendants and bartender helpers	Speaking								5
61,400	\$ 17,070	JZ-1	35-9021	Dishwashers	Learning Strategies	Speaking							9
40,810	\$ 17,900	JZ-1	35-9031	Hosts and hostesses, restaurant, lounge, and coffee shop	Active Listening	Speaking							8
231,130	\$ 18,030	JZ-1	35-3031	Waiters and waitresses	Speaking	Active Listening	Service Orientation						10
108,010	\$ 18,920	JZ-1	35-2021	Food preparation workers	Active Listening	Reading Comprehension	Instructing						9
88,390	\$ 20,530	JZ-1	37-2012	Maids and housekeeping cleaners	Reading Comprehension								1
14,740	\$ 21,350	JZ-1	35-2015	Cooks, short order	Coordination								10
43,990	\$ 18,980	JZ-2	35-3011	Bartenders	Active Listening	Speaking	Social Perceptiveness	Mathematics	Service Orientation	Critical Thinking	Reading Comprehension	Judgment and Decision Making	10
92,740	\$ 22,520	JZ-2	35-2014	Cooks, restaurant	Active Listening	Reading Comprehension	Speaking	Active Learning	Instructing	Learning Strategies	Coordination	Social Perceptiveness	9
82,240	\$ 27,560	JZ-2	35-1012	First-line supervisors/managers of food preparation and serving workers	Speaking	Active Listening	Time Management	Instructing	Reading Comprehension	Monitoring	Mathematics	Service Orientation	10
29,930	\$ 46,260	JZ-3	11-9051	Food service managers	Active Listening	Persuasion	Speaking	Time Management	Monitoring	Coordination	Critical Thinking	Negotiation	10
91,680	\$ 61,790	N/A	41-3099	Sales representatives, services, all other	Not Available								0
													0
													10
													29
													52
													91

Entertainment and Tourism

List of Skills for Occupations Employed in Full-Service Restaurants

Number of Occupations within JZ	7	3	1	0	0	1	0	12
Total Employment Range (2005)	14,740 - 231,130	43,990 - 92,740	29,930	N/A	N/A	91,680		
Average Annual Salary Range (2005)	\$17,050 - \$21,350	\$18,980 - \$27,560	\$ 46,260	N/A	N/A	\$ 61,790		
Skill	Job Zone	JZ-1	JZ-2	JZ-3	JZ-4	JZ-5	JZ-N/A	Number
Speaking		6	3	1	0	0	0	10 ✓
Active Listening		6	3	1	0	0	0	10 ✓
Learning Strategies		5	2	0	0	0	0	7
Reading Comprehension		5	3	0	0	0	0	8 ✓
Coordination		4	2	1	0	0	0	7
Instructing		5	2	0	0	0	0	7
Service Orientation		6	2	0	0	0	0	8 ✓
Social Perceptiveness		4	3	1	0	0	0	8 ✓
Time Management		1	2	1	0	0	0	4
Active Learning		2	1	0	0	0	0	3
Equipment Maintenance		1	0	0	0	0	0	1
Mathematics		1	2	0	0	0	0	3
Judgment and Decision Making		1	1	0	0	0	0	2
Monitoring		0	1	1	0	0	0	2
Critical Thinking		1	1	1	0	0	0	3
Persuasion		1	0	1	0	0	0	2
Negotiation		0	0	1	0	0	0	1
Management of Personnel Resources		0	1	1	0	0	0	2
Troubleshooting		1	0	0	0	0	0	1
Quality Control Analysis		1	0	0	0	0	0	1
Operation Monitoring		1	0	0	0	0	0	1
Total		52	29	10	0	0	0	91

Top Third
(of 11)

Entertainment and Tourism

List of Skills for Occupations Employed in Limited-Service Eating Places

Number of Occupations within JZ	7	2	1	0	0	10
Total Employment Range (2005)	40,770 - 356,880	82,240 - 92,740	29,930	N/A	N/A	
Average Annual Salary Range (2005)	\$17,030 - \$24,690	\$22,520 - \$27,560	\$ 46,260	N/A	N/A	
Skill	Job Zone	JZ-2	JZ-3	JZ-4	JZ-5	Number
Active Listening	JZ-1	2	1	0	0	10
Speaking	JZ-1	2	1	0	0	10
Instructing	JZ-1	2	0	0	0	8
Reading Comprehension	JZ-1	2	0	0	0	7
Mathematics	JZ-1	1	0	0	0	6
Time Management	JZ-1	2	1	0	0	4
Social Perceptiveness	JZ-1	2	1	0	0	10
Service Orientation	JZ-1	6	0	0	0	7
Critical Thinking	JZ-1	4	1	0	0	5
Active Learning	JZ-1	2	0	0	0	3
Learning Strategies	JZ-1	4	0	0	0	5
Negotiation	JZ-1	0	1	0	0	1
Monitoring	JZ-1	0	1	0	0	2
Coordination	JZ-1	3	1	0	0	5
Persuasion	JZ-1	0	1	0	0	1
Judgment and Decision Making	JZ-1	1	0	0	0	1
Management of Personnel Resources	JZ-1	0	1	0	0	2
Total	58	19	10	0	0	87

Top Third
(of 10)

Entertainment and Tourism

List of Skills for Occupations Employed in Specialty Food Services

TOT_EMP	A_MEAN	Job Zone	SOC-Code	Occupation Title	5	6	9	5	9	6	10	8	10	10
62,620	\$ 17,050	JZ-1	35-9011	Dining room and cafeteria attendants and bartender helpers	Speaking	Active Listening	Speaking	Active Listening	Speaking	Active Listening	Active Listening	Active Listening	Active Listening	Active Listening
61,400	\$ 17,070	JZ-1	35-9021	Dishwashers	Learning Strategies	Speaking	Active Listening	Active Listening	Speaking	Active Listening	Active Listening	Active Listening	Active Listening	Active Listening
208,910	\$ 17,920	JZ-1	35-3021	Combined food preparation and serving workers, including fast food	Active Listening	Speaking	Active Listening	Active Listening	Speaking	Active Listening	Active Listening	Active Listening	Active Listening	Active Listening
231,130	\$ 18,030	JZ-1	35-3031	Waiters and waitresses	Speaking	Active Listening	Service Orientation	Service Orientation	Social Perceptiveness	Coordination	Reading Comprehension	Instructing	Active Learning	Reading Comprehension
96,610	\$ 18,200	JZ-1	35-3022	Counter attendants, cafeteria, food concession, and coffee shop	Speaking	Instructing	Active Listening	Active Listening	Reading Comprehension	Reading Comprehension	Social Perceptiveness	Service Orientation	Active Learning	Reading Comprehension
108,010	\$ 18,920	JZ-1	35-2021	Food preparation workers	Active Listening	Reading Comprehension	Instructing	Instructing	Speaking	Learning Strategies	Service Orientation	Social Perceptiveness	Instructing	Instructing
356,880	\$ 21,420	JZ-1	41-2011	Cashiers	Active Listening	Mathematics	Speaking	Speaking	Instructing	Social Perceptiveness	Service Orientation	Service Orientation	Active Learning	Reading Comprehension
18,410	\$ 22,640	JZ-1	35-3041	Food servers, nonrestaurant	Active Listening	Service Orientation	Speaking	Speaking	Time Management	Instructing	Time Management	Instructing	Reading Comprehension	Reading Comprehension
21,660	\$ 26,330	JZ-2	35-2012	Cooks, institution and cafeteria	Reading Comprehension	Active Listening	Instructing	Instructing	Time Management	Service Orientation	Critical Thinking	Learning Strategies	Time Management	Coordination
82,240	\$ 27,560	JZ-2	35-1012	First-line supervisors/managers of food preparation and serving workers	Speaking	Active Listening	Time Management	Instructing	Instructing	Reading Comprehension	Monitoring	Mathematics	Service Orientation	Social Perceptiveness
					Management of Personnel Resources									

Total

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Entertainment and Tourism

List of Skills for Occupations Employed in Specialty Food Services

Number of Occupations within JZ	JZ-1	JZ-2	JZ-3	JZ-4	JZ-5	Number	
Total Employment Range (2005)	18,410 - 356,880	21,660 - 82,240	N/A	N/A	N/A	10	
Average Annual Salary Range (2005)	\$17,050 - \$22,640	\$26,330 - \$27,560	N/A	N/A	N/A		
Skill	Job Zone	JZ-1	JZ-2	JZ-3	JZ-4	JZ-5	Number
Speaking		8	1	0	0	0	9 ✓
Active Listening		8	2	0	0	0	10 ✓
Learning Strategies		6	1	0	0	0	7 ✓
Reading Comprehension		5	2	0	0	0	7 ✓
Instructing		7	2	0	0	0	9 ✓
Service Orientation		7	2	0	0	0	9 ✓
Mathematics		3	2	0	0	0	5
Social Perceptiveness		7	1	0	0	0	8 ✓
Time Management		1	2	0	0	0	3
Critical Thinking		3	1	0	0	0	4
Coordination		2	1	0	0	0	3
Equipment Maintenance		1	0	0	0	0	1
Active Learning		2	0	0	0	0	2
Operation Monitoring		1	0	0	0	0	1
Monitoring		0	2	0	0	0	2
Quality Control Analysis		1	0	0	0	0	1
Management of Personnel Resources		0	1	0	0	0	1
Total		62	20	0	0	0	82

Top Third
(of 10)

Entertainment and Tourism

List of Skills for Occupations Employed in Drinking Places (Alcoholic Beverages)

TOT_EMP	A_MEAN	Job Zone	SOC-Code	Occupation Title	Skills	10	9	8	10
62,620	\$ 17,050	JZ-1	35-9011	Dining room and cafeteria attendants and bartender helpers	Speaking				
61,400	\$ 17,070	JZ-1	35-9021	Dishwashers	Learning Strategies				
231,130	\$ 18,030	JZ-1	35-3031	Waiters and waitresses	Speaking				
108,010	\$ 18,920	JZ-1	35-2021	Food preparation workers	Active Listening				
356,880	\$ 21,420	JZ-1	41-2011	Cashiers	Active Listening				
207,640	\$ 23,360	JZ-1	37-2011	Janitors and cleaners, except maids and housekeeping cleaners	Reading Comprehension				
43,990	\$ 18,980	JZ-2	35-3011	Bartenders	Active Listening				
92,740	\$ 22,520	JZ-2	35-2014	Cooks, restaurant	Active Listening				
136,680	\$ 23,740	JZ-2	33-9032	Security guards	Active Listening				
82,240	\$ 27,560	JZ-2	35-1012	First-line supervisors/managers of food preparation and serving workers	Speaking				
					Active Listening				
					Reading Comprehension				
					Speaking				
					Social Perceptiveness				
					Mathematics				
					Service Orientation				
					Critical Thinking				
					Reading Comprehension				
					Learning Strategies				
					Coordination				
					Social Perceptiveness				
					Time Management				
					Management of Personnel Resources				

Total

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Entertainment and Tourism

List of Skills for Occupations Employed in Drinking Places (Alcoholic Beverages)

Number of Occupations within JZ	JZ-1	JZ-2	JZ-3	JZ-4	JZ-5	Number
Total Employment Range (2005)	61,400 - 356,880	43,990 - 136,680	N/A	N/A	N/A	10
Average Annual Salary Range (2005)	\$17,050 - \$23,360	\$18,980 - \$27,560	N/A	N/A	N/A	10
Skill	Job Zone	JZ-2	JZ-3	JZ-4	JZ-5	Number
Active Listening	6	4	0	0	0	10
Speaking	6	4	0	0	0	10
Reading Comprehension	4	4	0	0	0	8
Learning Strategies	5	2	0	0	0	7
Mathematics	2	2	0	0	0	4
Social Perceptiveness	4	4	0	0	0	8
Service Orientation	5	2	0	0	0	7
Time Management	1	2	0	0	0	3
Instructing	5	2	0	0	0	7
Coordination	3	2	0	0	0	5
Active Learning	1	1	0	0	0	2
Equipment Maintenance	2	0	0	0	0	2
Monitoring	0	2	0	0	0	2
Equipment Selection	1	0	0	0	0	1
Critical Thinking	2	2	0	0	0	4
Writing	1	0	0	0	0	1
Judgment and Decision Making	1	2	0	0	0	3
Operation Monitoring	1	0	0	0	0	1
Quality Control Analysis	1	0	0	0	0	1
Management of Personnel Resources	0	1	0	0	0	1
Total	51	36	0	0	0	87

Top Third
(of 10)

Entertainment and Tourism

List of Skills for Occupations Employed in Motion Picture and Video Industries

TOT_EMP	13,760	356,880	11,100	5,950	23,450	5,990	226,740	14,920
A_MEAN	\$ 18,340	\$ 21,420	\$ 33,880	\$ 62,920	\$ 71,870	\$ 72,640	\$ 112,740	\$ 90,750
Job Zone	JZ-1	JZ-1	JZ-3	JZ-3	JZ-3	JZ-3	JZ-3	JZ-3/4
SOC-Code	39-3031	41-2011	25-4031	27-4031	15-1081	27-4032	11-1021	27-2012
Occupation Title	Ushers, lobby attendants, and ticket takers	Cashiers	Library technicians	Camera operators, television, video, and motion picture	Network systems and data communications analysts	Film and video editors	General and operations managers	Producers and directors
	Active Listening	Active Listening	Active Listening	Active Listening	Equipment Selection	Active Listening	Active Listening	Active Listening
	Speaking	Mathematics	Reading Comprehension	Time Management	Troubleshooting	Instructing	Management of Personnel Resources	Time Management
	Social Perceptiveness	Speaking	Service Orientation	Operation and Control	Complex Problem Solving	Coordination	Time Management	Reading Comprehension
	Service Orientation	Instructing	Social Perceptiveness	Coordination	Active Listening	Equipment Selection	Judgment and Decision Making	Speaking
	Coordination	Learning Strategies	Speaking	Speaking	Active Learning	Time Management	Monitoring	Writing
	Mathematics	Time Management	Instructing	Reading Comprehension	Critical Thinking	Troubleshooting	Reading Comprehension	Judgment and Decision Making
	Reading Comprehension	Critical Thinking	Time Management	Critical Thinking	Installation	Speaking	Speaking	Coordination
		Learning Strategies	Active Learning	Operation Monitoring	Reading Comprehension	Monitoring	Coordination	Critical Thinking
		Monitoring	Coordination	Equipment Selection	Judgment and Decision Making	Operation and Control	Complex Problem Solving	Monitoring
		Judgment and Decision Making	Critical Thinking	Social Perceptiveness	Technology Design	Critical Thinking	Critical Thinking	Management of Personnel Resources
								Persuasion
								Operation and Control
Total	7	8	10	10	10	10	10	12

15

16

50

12

Entertainment and Tourism

List of Skills for Occupations Employed in Motion Picture and Video Industries

8,470	47,470
\$ 74,760	*
JZ-4	N/A
27-1014	27-2099
Multi-media artists and animators	Entertainers and performers, sports and related workers, all other
Active Listening	Not Available
Time Management	
Reading Comprehension	
Active Learning	
Judgment and Decision Making	
Operations Analysis	
Speaking	
Writing	
Critical Thinking	
Learning Strategies	
10	0
10	0

Entertainment and Tourism

List of Skills for Occupations Employed in Motion Picture and Video Industries

Number of Occupations within JZ	JZ-1	JZ-2	JZ-3	JZ-3/4	JZ-4	JZ-5	JZ-N/A	Number	
Total Employment Range (2005)	13,760 - 365,880	26,590 - 276,490	5,950 - 226,740	14,920	8,470	N/A	47,470		
Average Annual Salary Range (2005)	\$18,340 - \$21,420	\$23,210	\$33,880 - \$112,740	\$90,750	\$74,760	N/A	N/A		
Skill	Job Zone	JZ-1	JZ-2	JZ-3	JZ-3/4	JZ-4	JZ-5	JZ-N/A	Number
Speaking		2	1	4	1	1	0	0	9
Active Listening		2	2	5	1	1	0	0	11
Time Management		0	2	4	1	1	0	0	8
Mathematics		2	0	0	0	0	0	0	2
Reading Comprehension		1	2	4	1	1	0	0	9
Management of Personnel Resources		0	0	1	1	0	0	0	2
Active Learning		0	0	2	0	1	0	0	3
Social Perceptiveness		2	1	2	0	0	0	0	5
Critical Thinking		1	1	5	1	1	0	0	9
Instructing		1	1	2	0	0	0	0	4
Coordination		1	2	4	1	0	0	0	8
Service Orientation		2	0	1	0	0	0	0	3
Judgment and Decision Making		0	1	2	1	1	0	0	5
Operation and Control		0	0	2	1	0	0	0	3
Operations Analysis		0	0	0	0	1	0	0	1
Learning Strategies		1	2	0	0	1	0	0	4
Monitoring		0	1	2	1	0	0	0	4
Operation Monitoring		0	0	1	0	0	0	0	1
Equipment Selection		0	0	3	0	0	0	0	3
Troubleshooting		0	0	2	0	0	0	0	2
Persuasion		0	0	0	1	0	0	0	1
Writing		0	0	0	1	1	0	0	2
Complex Problem Solving		0	0	2	0	0	0	0	2
Installation		0	0	1	0	0	0	0	1
Technology Design		0	0	1	0	0	0	0	1
Total		15	16	50	12	10	0	0	103

Top Third (of 11)

Entertainment and Tourism

List of Skills for Occupations Employed in Sound Recording Industries

TOT_EMP	126,560	396,750	199,440	208,200	214,050	180,480	3,870	226,740	124,560	175,920
A_MEAN	\$ 25,980	\$ 27,470	\$ 34,110	\$ 35,880	\$ 43,250	\$ 50,230	\$ 65,830	\$ 112,740	\$ 64,390	\$ 60,860
Job Zone	JZ-2	JZ-2	JZ-2	JZ-3	JZ-3	JZ-3	JZ-3	JZ-3	JZ-4	N/A
SOC-Code	43-4171	43-9061	43-4051	43-3031	43-6011	43-1011	27-4014	11-1021	13-2011	13-1199
Occupation Title	Receptionists and information clerks	Office clerks, general	Customer service representatives	Bookkeeping, accounting, and auditing clerks	Executive secretaries and administrative assistants	First-line supervisors/managers of office and administrative support workers	Sound engineering technicians	General and operations managers	Accountants and auditors	Business operations specialists, all other
	Active Listening	Active Listening	Active Listening	Mathematics	Active Listening	Active Listening	Operation and Control	Active Listening	Mathematics	Not available
	Speaking	Reading Comprehension	Reading Comprehension	Reading Comprehension	Speaking	Speaking	Operation Monitoring	Management of Personnel Resources	Active Listening	
	Reading Comprehension	Speaking	Monitoring	Time Management	Reading Comprehension	Reading Comprehension	Reading Comprehension	Time Management	Critical Thinking	
	Writing	Writing	Speaking	Active Listening	Critical Thinking	Critical Thinking	Troubleshooting	Judgment and Decision Making	Monitoring	
	Service Orientation	Social Perceptiveness	Time Management	Critical Thinking	Writing	Monitoring	Active Learning	Monitoring	Judgment and Decision Making	
	Learning Strategies		Service Orientation	Active Learning	Critical Thinking	Time Management	Active Listening	Reading Comprehension	Writing	
	Social Perceptiveness		Active Learning	Learning Strategies	Active Learning	Management of Personnel Resources	Coordination	Speaking	Reading Comprehension	
	Critical Thinking		Learning Strategies	Social Perceptiveness	Coordination	Judgment and Decision Making	Critical Thinking	Coordination	Speaking	
	Time Management		Writing	Writing	Monitoring	Instructing	Equipment Selection	Critical Thinking		
	Active Learning		Critical Thinking	Speaking	Social Perceptiveness	Social Perceptiveness	Social Perceptiveness	Complex Problem Solving		
Total	10	5	10	10	10	10	10	10	8	0

Entertainment and Tourism

List of Skills for Occupations Employed in Sound Recording Industries

Number of Occupations within JZ	0	3	5	1	0	1	10
Total Employment Range (2005)	N/A	126,560 - 396,750	3,870 - 226,740	124,560	N/A	175,920	
Average Annual Salary Range (2005)	N/A	\$25,980 - \$34,110	\$35,880 - \$112,740	\$64,390	N/A	\$60,860	
Skill	JZ-1	JZ-2	JZ-3	JZ-4	JZ-5	JZ-N/A	Number
Operation and Control	0	0	1	0	0	0	1
Active Listening	0	3	5	1	0	0	9
Mathematics	0	0	1	1	0	0	2
Operation Monitoring	0	0	1	0	0	0	1
Management of Personnel Resources	0	0	2	0	0	0	2
Reading Comprehension	0	3	5	1	0	0	9
Speaking	0	3	4	1	0	0	8
Time Management	0	2	4	0	0	0	6
Critical Thinking	0	2	5	1	0	0	8
Monitoring	0	1	3	1	0	0	5
Troubleshooting	0	0	1	0	0	0	1
Judgment and Decision Making	0	0	2	1	0	0	3
Writing	0	3	2	1	0	0	6
Active Learning	0	2	3	0	0	0	5
Social Perceptiveness	0	2	3	0	0	0	5
Service Orientation	0	2	1	0	0	0	3
Coordination	0	0	3	0	0	0	3
Learning Strategies	0	2	1	0	0	0	3
Equipment Selection	0	0	1	0	0	0	1
Instructing	0	0	1	0	0	0	1
Complex Problem Solving	0	0	1	0	0	0	1
Total	0	25	50	8	0	0	83

Top Third
(of 9)

Entertainment and Tourism

List of Skills for Occupations Employed in Accommodation

Number of Occupations within JZ	8	3	5	2	1	1	20	
Total Employment Range (2005)	6,340 - 231,130	22,440 - 92,740	2,010 - 128,880	23,900 - 31,930	32,700	39,660		
Average Annual Salary Range (2005)	\$17,030 - \$23,360	\$18,980 - \$22,520	\$25,230 - \$51,420	\$57,590 - \$72,680	\$170,710	\$101,470		
Skill	Job Zone	JZ-1	JZ-2	JZ-3	JZ-4	JZ-5	JZ-N/A	Number
Persuasion		0	0	0	1	0	0	1
Active Listening		7	3	5	2	1	0	18 ✓
Speaking		7	3	4	2	1	0	17 ✓
Equipment Maintenance		1	0	1	0	0	0	2
Reading Comprehension		6	3	5	2	1	0	17 ✓
Service Orientation		6	2	1	0	0	0	9
Social Perceptiveness		6	3	2	1	0	0	12 ✓
Repairing		0	0	1	0	0	0	1
Troubleshooting		0	0	1	0	0	0	1
Learning Strategies		5	2	2	0	0	0	9
Active Learning		3	1	3	0	0	0	7
Coordination		3	3	2	2	1	0	11
Mathematics		2	2	0	0	0	0	4
Critical Thinking		4	2	5	2	1	0	14 ✓
Installation		0	0	1	0	0	0	1
Instructing		6	2	4	0	0	0	12 ✓
Equipment Selection		1	0	1	0	0	0	2
Time Management		2	1	4	2	0	0	9
Monitoring		0	1	4	1	1	0	7
Judgment and Decision		2	1	1	2	1	0	7
Operation Monitoring		0	0	1	0	0	0	1
Writing		1	0	1	1	0	0	3
Management of Personnel		0	0	1	0	0	0	1
Management of Financial		0	0	0	0	1	0	1
Negotiation		0	0	0	0	1	0	1
Systems Evaluation		0	0	0	1	0	0	1
Complex Problem Solving		0	0	0	1	1	0	2
Total	62	29	50	20	10	0	0	171

Top Third
(out of 19)

Entertainment and Tourism

List of Skills for Occupations Employed in Amusement Parks and Arcades

TOT_EMP	114,180	62,620	231,130	33,640	108,010	356,880	126,180	396,750	82,240	226,740
A_MEAN	\$ 17,030	\$ 17,050	\$ 18,030	\$ 18,420	\$ 18,920	\$ 21,420	\$ 24,570	\$ 27,470	\$ 27,560	\$ 112,740
Job Zone	JZ-1	JZ-1	JZ-1	JZ-1	JZ-1	JZ-1	JZ-1	JZ-2	JZ-2	JZ-3
SOC-Code	35-2011	35-9011	35-3031	39-3091	35-2021	41-2011	37-3011	43-9061	35-1012	11-1021
Occupation Title	Cooks, fast food	Dining room and cafeteria attendants and bartender helpers	Waiters and waitresses	Amusement and recreation attendants	Food preparation workers	Cashiers	Landscaping and groundskeeping workers	Office clerks, general	First-line supervisors/managers of food preparation and serving workers	General and operations managers
	Active Listening	Speaking	Speaking	Active Listening	Active Listening	Active Listening	Equipment Maintenance	Active Listening	Speaking	Active Listening
	Speaking	Active Listening	Active Listening	Speaking	Reading Comprehension	Mathematics	Active Listening	Reading Comprehension	Active Listening	Management of Personnel Resources
	Reading Comprehension	Learning Strategies	Service Orientation	Coordination	Instructing	Speaking	Speaking	Speaking	Time Management	Time Management
	Instructing	Social Perceptiveness	Social Perceptiveness	Reading Comprehension	Speaking	Instructing	Reading Comprehension	Writing	Instructing	Judgment and Decision Making
	Service Orientation	Service Orientation	Coordination	Writing	Learning Strategies	Social Perceptiveness	Equipment Selection	Social Perceptiveness	Reading Comprehension	Monitoring
	Social Perceptiveness		Reading Comprehension	Social Perceptiveness	Service Orientation	Service Orientation	Repairing		Monitoring	Reading Comprehension
	Mathematics		Instructing	Critical Thinking	Social Perceptiveness	Learning Strategies	Time Management		Mathematics	Speaking
	Critical Thinking		Active Learning	Instructing	Coordination	Critical Thinking			Service Orientation	Coordination
	Learning Strategies		Critical Thinking	Learning Strategies	Mathematics				Social Perceptiveness	Critical Thinking
	Judgment and Decision Making		Learning Strategies	Service Orientation					Management of Personnel Resources	Complex Problem Solving
Total	10	5	10	10	9	8	7	5	10	10

10

15

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Entertainment and Tourism

List of Skills for Occupations Employed in Amusement Parks and Arcades

Number of Occupations within JZ	7	2	1	0	0	10
Job Zone	JZ-1	JZ-2	JZ-3	JZ-4	JZ-5	Number
Total Employment Range (2005)	33,640 - 356,880	82,240 - 396,750	226,740	N/A	N/A	
Average Annual Salary Range (2005)	\$17,030 - \$24,570	\$27,470 - \$27,560	\$112,740	N/A	N/A	
Skill	JZ-1	JZ-2	JZ-3	JZ-4	JZ-5	Number
Active Listening	7	2	1	0	0	10 ✓
Speaking	7	2	1	0	0	10 ✓
Reading Comprehension	5	2	1	0	0	8 ✓
Social Perceptiveness	6	2	0	0	0	8 ✓
Learning Strategies	6	0	0	0	0	6
Critical Thinking	4	0	1	0	0	5
Service Orientation	6	1	0	0	0	7 ✓
Time Management	1	1	1	0	0	3
Management of Personnel Resources	0	1	1	0	0	2
Equipment Maintenance	1	0	0	0	0	1
Mathematics	3	1	0	0	0	4
Coordination	3	0	1	0	0	4
Instructing	5	1	0	0	0	6
Judgment and Decision Making	1	0	1	0	0	2
Writing	1	1	0	0	0	2
Active Learning	1	0	0	0	0	1
Equipment Selection	1	0	0	0	0	1
Monitoring	0	1	1	0	0	2
Repairing	1	0	0	0	0	1
Complex Problem Solving	0	0	1	0	0	1
Total	59	15	10	0	0	84

Top Third
(of 10)

Entertainment and Tourism

List of Skills for Occupations Employed in Gambling Industries

Number of Occupations within JZ	4	8	1	0	0	1	0	0	1	14
Total Employment Range (2005)	61,400 - 231,130	600 - 136,680	128,880	N/A	N/A	4,850				
Average Annual Salary Range (2005)	\$17,050 - \$23,360	\$18,980 - \$46,180	\$ 36,630	N/A	N/A	\$ 23,710				
Skill	Job Zone	JZ-1	JZ-2	JZ-3	JZ-4	JZ-5	JZ-N/A	Number		
Repairing		0	0	1	0	0	0	1		
Mathematics		0	5	0	0	0	0	5		
Active Listening		4	8	1	0	0	0	13		
Speaking		4	8	0	0	0	0	12		
Instructing		3	4	0	0	0	0	7		
Reading Comprehension		3	6	1	0	0	0	10		
Social Perceptiveness		2	7	0	0	0	0	9		
Judgment and Decision Making		1	4	0	0	0	0	5		
Learning Strategies		3	5	0	0	0	0	8		
Service Orientation		3	5	0	0	0	0	8		
Coordination		2	3	1	0	0	0	6		
Monitoring		0	4	0	0	0	0	4		
Management of Personnel Resources		0	1	0	0	0	0	1		
Time Management		1	2	0	0	0	0	3		
Active Learning		1	1	0	0	0	0	2		
Equipment Selection		1	0	1	0	0	0	2		
Equipment Maintenance		2	0	1	0	0	0	3		
Writing		1	1	0	0	0	0	2		
Critical Thinking		1	5	1	0	0	0	7		
Troubleshooting		0	0	1	0	0	0	1		
Installation		0	0	1	0	0	0	1		
Operation Monitoring		1	0	1	0	0	0	2		
Quality Control Analysis		1	0	0	0	0	0	1		
Total	34	69	10	0	0	0	0	113		

Top Third
(of 13)

Entertainment and Tourism

List of Skills for Occupations Employed in Other Amusement and Recreation Industries

TOT_EMP	231,130	33,640	207,640	126,180	50,710	126,560	128,880	29,950	226,740	20,180
A_MEAN	\$ 18,030	\$ 18,420	\$ 23,360	\$ 24,570	\$ 22,030	\$ 25,980	\$ 36,630	\$ 38,840	\$ 112,740	\$ 36,300
Job Zone	JZ-1	JZ-1	JZ-1	JZ-1	JZ-2	JZ-2	JZ-3	JZ-3	JZ-3	JZ-5
SOC-Code	35-3031	39-3091	37-2011	37-3011	39-9011	43-4171	49-9042	39-9031	11-1021	27-2022
Occupation Title	Waiters and waitresses	Amusement and recreation attendants	Janitors and cleaners, except maids and housekeeping cleaners	Landscaping and groundskeeping workers	Child care workers	Receptionists and information clerks	Maintenance and repair workers, general	Fitness trainers and aerobics instructors	General and operations managers	Coaches and scouts
	Speaking	Active Listening	Reading Comprehension	Equipment Maintenance	Active Listening	Active Listening	Equipment Maintenance	Instructing	Active Listening	Instructing
	Active Listening	Speaking	Active Listening	Active Listening	Learning Strategies	Speaking	Repairing	Speaking	Management of Personnel Resources	Speaking
	Service Orientation	Coordination	Speaking	Speaking	Social Perceptiveness	Reading Comprehension	Troubleshooting	Coordination	Time Management	Active Listening
	Social Perceptiveness	Reading Comprehension	Coordination	Reading Comprehension	Instructing	Writing	Active Listening	Monitoring	Judgment and Decision Making	Time Management
	Coordination	Writing	Equipment Selection	Equipment Selection	Speaking	Service Orientation	Installation	Learning Strategies	Monitoring	Social Perceptiveness
	Reading Comprehension	Social Perceptiveness	Time Management	Time Management	Time Management	Learning Strategies	Equipment Selection	Time Management	Reading Comprehension	Coordination
	Instructing	Critical Thinking	Equipment Maintenance	Time Management	Critical Thinking	Social Perceptiveness	Critical Thinking	Service Orientation	Speaking	Monitoring
	Active Learning	Instructing	Writing	Writing	Monitoring	Critical Thinking	Reading Comprehension	Active Learning	Coordination	Active Learning
	Critical Thinking	Learning Strategies	Instructing	Instructing	Active Learning	Time Management	Operation Monitoring	Equipment Selection	Critical Thinking	Learning Strategies
	Learning Strategies	Service Orientation	Judgment and Decision Making	Judgment and Decision Making	Negotiation	Active Learning	Coordination	Social Perceptiveness	Complex Problem Solving	Critical Thinking
Total	10	10	10	7	10	10	10	10	10	10

Entertainment and Tourism

List of Skills for Occupations Employed in Other Amusement and Recreation Industries

Number of Occupations within JZ	4	2	3	0	1	10
Job Zone	JZ-1	JZ-2	JZ-3	JZ-4	JZ-5	Number
Total Employment Range (2005)	33,640 - 231,130	50,710 - 126,560	29,950 - 226,740	N/A	20,180	
Average Annual Salary Range (2005)	\$18,030 - \$24,570	\$22,030 - \$25,980	\$36,630 - \$112,740	N/A	\$ 36,300	
Skill						Top Third (of 10)
Learning Strategies	2	2	1	0	1	6
Instructing	3	1	1	0	1	6
Speaking	4	2	2	0	1	9 ✓
Reading Comprehension	4	1	2	0	0	7 ✓
Equipment Maintenance	2	0	1	0	0	3
Coordination	3	0	3	0	1	7 ✓
Active Learning	1	2	1	0	1	5
Critical Thinking	2	2	2	0	1	7 ✓
Time Management	2	2	2	0	1	7 ✓
Social Perceptiveness	2	2	1	0	1	6
Repairing	1	0	1	0	0	2
Monitoring	0	1	2	0	1	4
Service Orientation	2	1	1	0	0	4
Equipment Selection	2	0	2	0	0	4
Judgment and Decision Making	1	0	1	0	0	2
Writing	2	1	0	0	0	3
Management of Personnel Resources	0	0	1	0	0	1
Troubleshooting	0	0	1	0	0	1
Installation	0	0	1	0	0	1
Negotiation	0	1	0	0	0	1
Active Listening	4	2	2	0	1	9 ✓
Operation Monitoring	0	0	1	0	0	1
Complex Problem Solving	0	0	1	0	0	1
Total	37	20	30	0	10	97

Entertainment and Tourism

List of Skills for Occupations Employed in Performing Arts Companies

Number of Occupations within JZ	0	6	1	3	2	1	0	2	15	
Total Employment Range (2005)	N/A	1,320 - 481,990	8,310	2,820 - 226,740	2,180 - 14,920	\$ 23,900	N/A	47,470 - 175,920		
Average Annual Salary Range (2005)	N/A	\$25,270 - \$49,000	N/A	\$41,180 - \$112,740	\$90,750	\$57,590	N/A	\$60,860		
Skill	Job Zone	JZ-1	JZ-2	JZ-2/3	JZ-3	JZ-3/4	JZ-4	JZ-5	JZ-N/A	Number
Judgment and Decision Making		0	3	0	1	1	1	0	0	6
Monitoring		0	2	1	3	2	0	0	0	8
Learning Strategies		0	3	1	2	0	0	0	0	6
Active Listening		0	6	1	3	2	1	0	0	13
Active Learning		0	2	1	2	0	0	0	0	5
Critical Thinking		0	5	0	1	2	1	0	0	9
Reading Comprehension		0	6	1	1	2	1	0	0	11
Time Management		0	3	0	3	1	1	0	0	8
Social Perceptiveness		0	5	1	2	1	1	0	0	10
Speaking		0	6	1	3	2	1	0	0	13
Coordination		0	2	1	3	2	1	0	0	9
Instructing		0	2	0	2	1	0	0	0	5
Persuasion		0	0	0	0	1	1	0	0	2
Writing		0	4	0	0	2	1	0	0	7
Management of Personnel Resources		0	0	0	1	1	0	0	0	2
Service Orientation		0	1	0	2	0	0	0	0	3
Management of Financial Resources		0	0	0	0	0	0	0	0	0
Equipment Maintenance		0	0	1	0	0	0	0	0	1
Equipment Selection		0	1	0	0	0	0	0	0	1
Operation and Control		0	1	0	0	1	0	0	0	2
Mathematics		0	1	0	0	0	0	0	0	1
Complex Problem Solving		0	0	0	1	0	0	0	0	1
Quality Control Analysis		0	1	0	0	0	0	0	0	1
Total		0	54	9	30	21	10	0	0	124

Top Third
(of 13)

Entertainment and Tourism

List of Skills for Occupations Employed in Spectator Sports

TOT_EMP	A_MEAN	Job Zone	SOC-Code	Occupation Title	8	7	10	8	10	10	10	10	10
13,760	\$ 18,340	JZ-1	39-3031	Ushers, lobby attendants, and ticket takers	Active Listening	Speaking	Coordination	Coordination	Reading Comprehension	Writing	Social Perceptiveness	Reading Comprehension	Mathematics
33,640	\$ 18,420	JZ-1	39-3091	Amusement and recreation attendants	Active Listening	Speaking	Coordination	Coordination	Reading Comprehension	Writing	Social Perceptiveness	Critical Thinking	Instructing
5,790	\$ 21,300	JZ-1	45-2093	Farmworkers, farm and ranch animals	Instructing	Active Listening	Mathematics	Active Listening	Active Listening	Equipment Maintenance	Speaking	Time Management	Equipment Selection
356,880	\$ 21,420	JZ-1	41-2011	Cashiers	Active Listening	Mathematics	Active Listening	Active Listening	Active Listening	Reading Comprehension	Active Listening	Reading Comprehension	Active Listening
207,640	\$ 23,360	JZ-1	37-2011	Janitors and cleaners, except maids and housekeeping cleaners	Reading Comprehension	Active Listening	Active Listening	Active Listening	Active Listening	Reading Comprehension	Active Listening	Reading Comprehension	Active Listening
10,600	\$ 21,610	JZ-2	39-2021	Nonfarm animal caretakers	Active Listening	Time Management	Speaking	Speaking	Social Perceptiveness	Coordination	Reading Comprehension	Active Listening	Time Management
136,680	\$ 23,740	JZ-2	33-9032	Security guards	Active Listening	Reading Comprehension	Speaking	Speaking	Social Perceptiveness	Monitoring	Reading Comprehension	Active Listening	Time Management
1,550	\$ 29,000	JZ-2	39-2011	Animal trainers	Instructing	Speaking	Active Listening	Active Listening	Monitoring	Social Perceptiveness	Reading Comprehension	Active Learning	Time Management
199,440	\$ 34,110	JZ-2	43-4051	Customer service representatives	Active Listening	Reading Comprehension	Monitoring	Monitoring	Speaking	Time Management	Active Listening	Active Learning	Judgment and Decision Making
1,150	\$ 82,230	JZ-2	27-2021	Athletes and sports competitors	Active Listening	Coordination	Active Learning	Active Learning	Equipment Selection	Critical Thinking	Active Learning	Active Learning	Judgment and Decision Making

Total

Entertainment and Tourism

List of Skills for Occupations Employed in Spectator Sports

14,980	20,180	2,350
\$ 37,870	\$ 36,300	\$ 26,650
JZ-3	JZ-5	N/A
39-1021	27-2022	45-2099
First-line supervisors/managers of personal service workers	Coaches and scouts	Agricultural workers, all other
Active Listening	Instructing	Not Available
Instructing	Speaking	
Service Orientation	Active Listening	
Judgment and Decision Making	Time Management	
Management of Personnel Resources	Social Perceptiveness	
Learning Strategies	Coordination	
Time Management	Monitoring	
Critical Thinking	Active Learning	
Monitoring	Learning Strategies	
Active Learning	Critical Thinking	
10	10	0
10	10	0
		109

Entertainment and Tourism

List of Skills for Occupations Employed in Spectator Sports

Number of Occupations within JZ	5	5	1	0	1	1	0	1	13
Total Employment Range (2005)	5,790 - 356,880	1,150 - 199,440	14,980	N/A	20,180	2,350			
Average Annual Salary Range (2005)	\$18,340 - \$23,360	\$21,610 - \$82,230	\$37,870	N/A	\$36,300	\$26,650			
Skill	Job Zone	JZ-1	JZ-2	JZ-3	JZ-4	JZ-5	JZ-N/A	Number	Top Third (of 12)
Active Listening		5	5	1	0	1	0	12	✓
Speaking		5	4	0	0	1	0	10	✓
Social Perceptiveness		3	3	0	0	1	0	7	
Reading Comprehension		3	3	0	0	0	0	6	
Critical Thinking		2	4	1	0	1	0	8	✓
Judgment and Decision Making		2	4	1	0	0	0	7	
Learning Strategies		2	3	1	0	1	0	7	
Time Management		2	3	1	0	1	0	7	
Active Learning		0	3	1	0	1	0	5	
Coordination		4	3	0	0	1	0	8	✓
Service Orientation		3	1	1	0	0	0	5	
Instructing		4	2	1	0	1	0	8	✓
Mathematics		2	0	0	0	0	0	2	
Monitoring		1	3	1	0	1	0	6	
Equipment Selection		2	1	0	0	0	0	3	
Writing		2	1	0	0	0	0	3	
Equipment Maintenance		2	1	0	0	0	0	3	
Troubleshooting		0	1	0	0	0	0	1	
Management of Personnel Resources		0	0	1	0	0	0	1	
Total		44	45	10	0	10	0	109	

Entertainment and Tourism

List of Occupations Employed in Independent Artists, Writers, and Performers

3,500	47,470	175,920
\$ 102,530	* \$ 60,860	
JZ-4	N/A	N/A
13-1011	27-2099	13-1199
Agents and business managers of artists, performers, and athletes	Entertainers and performers, sports and related workers, all other	Business operations specialists, all other
Speaking	Not Available	Not Available
Reading Comprehension		
Negotiation		
Social Perceptiveness		
Time Management		
Critical Thinking		
Judgment and Decision Making		
Writing		
Coordination		
Active Listening		
10	0	0 100

0

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Entertainment and Tourism

List of Occupations Employed in Independent Artists, Writers, and Performers

Number of Occupations within JZ	0	2	4	1	3	0	2	12
Job Zone	JZ-1	JZ-2	JZ-3	JZ-3/4	JZ-4	JZ-5	JZ-N/A	Number
Total Employment Range (2005)	N/A	26,590 - 108,320	1,010 - 214,050	14,920	3,500 - 124,560	N/A	47,470 - 175,920	
Average Annual Salary Range (2005)	N/A	\$33,030	\$43,250 - \$72,720	\$90,750	\$57,590 - \$102,530	N/A	\$60,860	
Skill								
Speaking	0	2	4	1	3	0	0	10 ✓
Active Listening	0	2	4	1	3	0	0	10 ✓
Reading Comprehension	0	2	3	1	3	0	0	9 ✓
Coordination	0	1	2	1	2	0	0	6
Time Management	0	2	4	1	2	0	0	9 ✓
Critical Thinking	0	2	2	1	3	0	0	8 ✓
Active Learning	0	1	4	0	0	0	0	5
Social Perceptiveness	0	2	2	0	2	0	0	6
Writing	0	1	1	1	3	0	0	6
Judgment and Decision Making	0	1	2	1	3	0	0	7 ✓
Instructing	0	0	1	0	0	0	0	1
Learning Strategies	0	2	1	0	0	0	0	3
Monitoring	0	2	2	1	1	0	0	6
Equipment Selection	0	0	1	0	0	0	0	1
Service Orientation	0	0	2	0	0	0	0	2
Troubleshooting	0	0	1	0	0	0	0	1
Equipment Maintenance	0	0	1	0	0	0	0	1
Operation and Control	0	0	1	1	0	0	0	2
Operations Analysis	0	0	1	0	0	0	0	1
Management of Personnel Resources	0	0	0	1	0	0	0	1
Mathematics	0	0	0	0	1	0	0	1
Management of Financial Resources	0	0	1	0	0	0	0	1
Negotiation	0	0	0	0	1	0	0	1
Persuasion	0	0	0	1	1	0	0	2
Total	0	20	40	12	28	0	0	100

Top Third (of 10)

Entertainment and Tourism

List of Skills for Occupations Employed in Museums, Parks and Historical Sites

TOT_EMP	33,640	356,880	207,640	10,600	136,680	199,440	2,010	14,980	20,960	940
A_MEAN	\$18,420	\$21,420	\$23,360	\$21,610	\$23,740	\$34,110	\$25,230	\$37,870	\$41,180	\$41,730
Job Zone	JZ-1	JZ-1	JZ-1	JZ-2	JZ-2	JZ-2	JZ-3	JZ-3	JZ-3	JZ-3
SOC-Code	39-3091	41-2011	37-2011	39-2021	33-9032	43-4051	39-6021	39-1021	25-3021	25-4013
Occupation Title	Amusement and recreation attendants	Cashiers	Janitors and cleaners, except maids and housekeeping cleaners	Nonfarm animal caretakers	Security guards	Customer service representatives	Tour guides and escorts	First-line supervisors/managers of personal service workers	Self-enrichment education teachers	Museum technicians and conservators
	Active Listening	Active Listening	Reading Comprehension	Active Listening	Active Listening	Active Listening	Speaking	Active Listening	Instructing	Critical Thinking
	Speaking	Mathematics	Active Listening	Time Management	Reading Comprehension	Reading Comprehension	Active Listening	Judgment and Decision Making	Speaking	Active Listening
	Coordination	Speaking	Speaking	Speaking	Social Perceptiveness	Monitoring	Reading Comprehension	Active Learning	Active Listening	Judgment and Decision Making
	Reading Comprehension	Instructing	Coordination	Social Perceptiveness	Speaking	Speaking	Active Learning	Management of Personnel Resources	Learning Strategies	Reading Comprehension
	Writing	Social Perceptiveness	Equipment Selection	Coordination	Monitoring	Time Management	Social Perceptiveness	Time Management	Social Perceptiveness	Time Management
	Social Perceptiveness	Service Orientation	Time Management	Reading Comprehension	Judgment and Decision Making	Service Orientation	Instructing	Critical Thinking	Monitoring	Active Learning
	Critical Thinking	Learning Strategies	Equipment Maintenance	Judgment and Decision Making	Critical Thinking	Active Learning	Learning Strategies	Service Orientation	Coordination	Equipment Selection
	Instructing	Critical Thinking	Writing	Instructing		Learning Strategies	Monitoring	Instructing	Time Management	Complex Problem Solving
	Learning Strategies		Instructing			Writing	Critical Thinking	Learning Strategies	Service Orientation	Management of Material Resources
	Service Orientation	Judgment and Decision Making				Critical Thinking	Time Management	Monitoring	Active Learning	Coordination
Total	10	8	10	8	7	10	10	10	10	10

25

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Entertainment and Tourism

List of Skills for Occupations Employed in Museums, Parks and Historical Sites

Number of Occupations within JZ	JZ-1	JZ-2	JZ-3	JZ-4	JZ-5	JZ-N/A	Number	
Total Employment Range (2005)	33,640 - 356,880	10,600 - 199,440	940 - 226,740	840	13,550	175,920	1.5	
Average Annual Salary Range (2005)	\$18,420 - \$23,360	\$21,610 - \$34,110	\$25,230 - \$112,740	\$58,040	\$61,070	\$60,860		
Skill	Job Zone	JZ-1	JZ-2	JZ-3	JZ-4	JZ-5	JZ-N/A	Number
Active Listening		3	3	6	1	1	0	14 ✓
Time Management		1	2	6	1	1	0	11 ✓
Speaking		3	3	4	1	1	0	12 ✓
Social Perceptiveness		2	2	2	0	0	0	6
Coordination		2	1	4	1	1	0	9
Reading Comprehension		2	3	4	1	1	0	11 ✓
Judgment and Decision Making		1	2	3	1	0	0	7
Instructing		3	1	3	1	1	0	9
Critical Thinking		2	2	5	1	1	0	11 ✓
Mathematics		1	0	0	0	0	0	1
Active Learning		0	1	5	1	1	0	8
Service Orientation		2	1	3	0	0	0	6
Learning Strategies		2	1	3	0	1	0	7
Writing		2	1	1	1	1	0	6
Monitoring		0	2	5	0	0	0	7
Equipment Selection		1	0	1	0	0	0	2
Management of Personnel Resources		0	0	2	0	0	0	2
Equipment Maintenance		1	0	0	0	0	0	1
Complex Problem Solving		0	0	2	0	0	0	2
Management of Material Resources		0	0	1	0	0	0	1
Total		28	25	60	10	10	0	133

Top Third (of 14)

Construction



RESIDENTIAL BUILDING CONSTRUCTION (NAICS 236100)

BUILDING FINISHING CONTRACTORS (NAICS 238300)

BUILDING EQUIPMENT CONTRACTORS (NAICS 238200)

**BUILDING FOUNDATION AND EXTERIOR CONTRACTORS
(NAICS 238100)**

Construction

List of Skills for Occupations Employed in Residential Building Construction

Number of Occupations within JZ	1	3	1	5	2	1	1	14
Total Employment Range (2005)	141,810	7,850 - 396,750	144,450	5,010 - 226,740	20,310 - 27,950	11,970	21,520	
Average Annual Salary Range (2005)	\$ 33,980	\$26,130 - \$37,510	\$ 48,440	\$35,880 - \$112,740	\$69,540 - \$92,940	\$ 75,560	\$ 41,940	
Job Zone	JZ-1	JZ-2	JZ-2/3	JZ-3	JZ-4	JZ-5	JZ-N/A	Number
Mathematics	1	1	1	3	0	0	0	6
Time Management	0	2	1	5	2	1	0	11
Critical Thinking	1	0	1	4	2	1	0	9
Active Listening	1	3	1	5	2	1	0	13
Judgment and Decision Making	0	0	1	2	2	0	0	5
Equipment Selection	1	2	1	1	0	0	0	5
Reading Comprehension	0	3	1	5	2	1	0	12
Speaking	1	2	0	5	2	1	0	11
Instructing	1	1	0	1	0	0	0	3
Monitoring	1	1	0	2	1	0	0	5
Equipment Maintenance	1	2	0	0	0	0	0	3
Learning Strategies	1	0	0	1	0	0	0	2
Writing	0	1	0	3	2	1	0	7
Social Perceptiveness	0	1	0	1	0	0	0	2
Active Learning	0	0	0	3	1	0	0	4
Service Orientation	0	0	0	1	0	0	0	1
Management of Material Resources	0	2	0	0	0	0	0	2
Troubleshooting	0	1	0	0	0	0	0	1
Negotiation	0	0	0	0	1	0	0	1
Management of Personnel Resources	0	0	0	1	1	1	0	3
Management of Financial Resources	0	0	0	1	0	0	0	1
Persuasion	0	0	0	1	0	0	0	1
Installation	0	1	0	1	0	0	0	2
Complex Problem Solving	0	0	0	0	0	1	0	1
Operations Analysis	0	0	0	1	0	1	0	2
Coordination	1	2	1	3	2	1	0	10
Total	10	25	8	50	20	10	0	123

Top Third
(of 13)

Construction

List of Skills for Occupations Employed in Building Finishing Contractors

Number of Occupations within JZ	3	6	1	1	1	1	0	1	0	1	13
Total Employment Range (2005)	8,380 - 141,810	5,810 - 42,270	144,450	64,980	64,840	N/A	N/A	64,840	N/A	31,900	
Average Annual Salary Range (2005)	\$28,920 - \$41,930	\$27,200 - \$47,810	\$48,440	\$ 66,340	\$ 109,530	N/A	N/A	\$ 109,530	N/A	\$ 25,360	
Skill	Job Zone	JZ-1	JZ-2	JZ-2/3	JZ-3	JZ-4	JZ-4/5	JZ-5	JZ-N/A	Number	Top Third (of 12)
Active Listening		2	6	1	1	0	1	0	0	11	✓
Time Management		1	5	1	1	0	1	0	0	9	✓
Coordination		3	5	1	1	0	0	0	0	10	✓
Equipment Selection		3	4	1	1	0	0	0	0	9	✓
Monitoring		2	4	0	0	0	0	0	0	6	
Instruction		3	5	0	1	0	1	0	0	10	✓
Speaking		3	1	0	1	0	0	0	0	5	
Reading Comprehension		0	2	1	1	0	1	0	0	5	
Management of Material Resources		0	4	0	0	0	0	0	0	4	
Equipment Maintenance		2	2	0	0	0	0	0	0	4	
Installation		1	1	0	0	0	0	0	0	2	
Management of Personnel Resources		1	3	0	0	0	1	0	0	5	
Complex Problem Solving		1	2	0	0	0	0	0	0	3	
Critical Thinking		1	2	1	1	0	1	0	0	6	
Social Perceptiveness		0	1	0	0	0	0	0	0	1	
Judgment and Decision Making		1	5	1	1	0	0	0	0	8	✓
Mathematics		3	3	1	1	0	1	0	0	9	✓
Learning Strategies		2	0	0	0	0	0	0	0	2	
Operation and Control		0	1	0	0	0	0	0	0	1	
Operation Monitoring		0	1	0	0	0	0	0	0	1	
Management of Financial Resources		0	0	0	0	0	1	0	0	1	
Troubleshooting		0	1	0	0	0	0	0	0	1	
Quality Control Analysis		0	1	0	0	0	0	0	0	1	
Active Learning		1	0	0	0	0	0	0	0	1	
Total		30	59	8	10	0	8	0	0	115	

Construction

List of Skills for Occupations Employed in Building Equipment Contractors

Number of Occupations within JZ	2	4	1	7	2	0	1	17	
Total Employment Range (2005)	141,810 - 207,640	5,070 - 17,690	144,450	13,580 - 208,200	18,000 - 23,220	N/A	3,170		
Average Annual Salary Range (2005)	\$23,360 - \$33,980	\$27,960 - \$49,140	\$48,440	\$35,880 - \$66,340	\$81,790 - \$95,360	N/A	\$ 48,730		
Skill	Job Zone	JZ-1	JZ-2	JZ-2/3	JZ-3	JZ-4	JZ-5	JZ-N/A	Number
Installation		0	4	0	3	0	0	0	7
Active Listening		2	4	1	6	2	0	0	15
Reading Comprehension		1	3	1	5	2	0	0	12
Troubleshooting		0	2	0	3	0	0	0	5
Equipment Selection		2	4	1	4	0	0	0	11
Judgment and Decision Making		1	0	1	3	2	0	0	7
Repairing		0	0	0	3	0	0	0	3
Time Management		1	1	1	4	1	0	0	8
Active Learning		0	2	0	4	0	0	0	6
Mathematics		1	3	1	3	1	0	0	9
Complex Problem Solving		0	1	0	3	1	0	0	5
Speaking		2	4	0	4	1	0	0	11
Critical Thinking		1	4	1	6	2	0	0	14
Learning Strategies		1	1	0	1	0	0	0	3
Equipment Maintenance		2	1	0	3	0	0	0	6
Writing		1	1	0	1	2	0	0	5
Operation Monitoring		0	0	0	3	0	0	0	3
Social Perceptiveness		0	0	0	2	1	0	0	3
Instructing		2	3	0	2	0	0	0	7
Coordination		2	2	1	2	0	0	0	7
Monitoring		1	0	0	1	1	0	0	3
Science		0	0	0	0	1	0	0	1
Negotiation		0	0	0	0	1	0	0	1
Operations Analysis		0	0	0	0	1	0	0	1
Persuasion		0	0	0	0	1	0	0	1
Quality Control Analysis		0	0	0	2	0	0	0	2
Total	20	40	8	68	20	0	0	0	156

Top Third
(of 16)

Construction

List of Skills for Occupations Employed in Building Foundation and Exterior Contractors

TOT_EMP	A_MEAN	Job Zone	SOC-Code	Occupation Title	Skills	Count
9,510	\$28,920	JZ-1	47-3011	Helpers--brickmasons, blockmasons, and stonemasons, tile and marble setters	Equipment Selection Active Listening Mathematics Coordination Speaking Instructing Equipment Maintenance Active Learning Instructing Learning Strategies Critical Thinking Monitoring	10
141,810	\$33,980	JZ-1	47-2061	Construction laborers	Active Listening Coordination	10
7,850	\$26,130	JZ-2	47-3012	Helpers--carpenters	Installation Mathematics Equipment Selection Equipment Maintenance Management of Material Resources Reading Comprehension Troubleshooting Active Listening Coordination Time Management	10
20,250	\$40,990	JZ-2	47-2181	Roofers	Coordination Installation Speaking Instructing Active Listening Active Learning Critical Thinking Judgment and Decision Making Coordination Time Management	10
10,350	\$44,820	JZ-2	47-2021	Brickmasons and blockmasons	Active Listening Coordination Mathematics Time Management Equipment Selection Speaking Equipment Maintenance Reading Comprehension Critical Thinking Judgment and Decision Making Coordination Time Management	10
5,300	\$48,700	JZ-2	47-2171	Reinforcing iron and rebar workers	Equipment Selection Active Listening Time Management Coordination Instructing Speaking Monitoring Active Learning Installation Mathematics Equipment Maintenance	10
4,930	\$49,260	JZ-2	47-2221	Structural iron and steel workers	Active Listening Coordination Time Management Active Learning	10
144,450	\$48,440	JZ-2/3	47-2031	Carpenters	Mathematics Time Management Critical Thinking Active Listening Judgment and Decision Making Equipment Selection Reading Comprehension Coordination	8
29,830	\$41,590	JZ-3	47-2051	Cement masons and concrete finishers	Coordination Mathematics Active Listening Active Listening Reading Comprehension Management of Personnel Resources Critical Thinking Active Learning Complex Problem Solving Equipment Selection Time Management Equipment Maintenance Speaking	10
65,290	\$51,420	JZ-3	51-1011	First-line supervisors/managers of production and operating workers	Active Listening Reading Comprehension Management of Personnel Resources Instructing Monitoring Speaking Time Management Critical Thinking Judgment and Decision Making Coordination	10
145,050	\$60,660	JZ-3	41-4012	Sales representatives, wholesale and manufacturing, except technical and scientific products	Active Listening Speaking Time Management Reading Comprehension Persuasion Service Orientation Negotiation Social Perceptiveness Active Learning Coordination	10
64,980	\$66,340	JZ-3	47-1011	First-line supervisors/managers of trades and extraction workers	Time Management Coordination Instructing Judgment and Decision Making Speaking Active Listening Critical Thinking Equipment Selection Reading Comprehension Mathematics	10

Total

20

50

8

40

Construction

List of Skills for Occupations Employed in Building Foundation and Exterior Contractors

Number of Occupations within JZ		2	5	1	4	0	0	12
Total Employment Range (2005)		9,510 - 141,810	4,930 - 20,250	144,450	29,830 - 145,050	N/A	N/A	
Average Annual Salary Range (2005)		\$28,920 - \$33,980	\$26,130 - \$49,260	\$48,440	\$41,590 - \$66,340	N/A	N/A	
Skill	Job Zone	JZ-1	JZ-2	JZ-2/3	JZ-3	JZ-4	JZ-5	Number
Mathematics		2	5	1	2	0	0	10
Time Management		0	4	1	4	0	0	9
Critical Thinking		1	2	1	3	0	0	7
Active Listening		2	5	1	4	0	0	12
Judgment and Decision Making		0	2	1	2	0	0	5
Equipment Selection		2	4	1	2	0	0	9
Reading Comprehension		0	2	1	3	0	0	6
Coordination		2	5	1	4	0	0	12
Installation		0	4	0	0	0	0	4
Active Learning		1	3	0	2	0	0	6
Complex Problem Solving		0	0	0	1	0	0	1
Equipment Maintenance		2	3	0	1	0	0	6
Speaking		2	4	0	4	0	0	10
Instructing		2	2	0	2	0	0	6
Monitoring		2	2	0	1	0	0	5
Learning Strategies		2	0	0	0	0	0	2
Troubleshooting		0	2	0	0	0	0	2
Management of Material Resources		0	1	0	0	0	0	1
Management of Personnel Resources		0	0	0	1	0	0	1
Persuasion		0	0	0	1	0	0	1
Service Orientation		0	0	0	1	0	0	1
Negotiation		0	0	0	1	0	0	1
Social Perceptiveness		0	0	0	1	0	0	1
Total		20	50	8	40	0	0	118

Top Third (of 12)

Food Chain



SUPPORT AND PRODUCTION

Agriculture, Forestry, Fishing, and Hunting (NAICS 110000)
Other Professional and Technical Services (NAICS 541900)
Machinery and Supply Merchant Wholesalers (NAICS 423800)

PROCESSING

Other Food Manufacturing (NAICS 311900)
Fruit, Vegetable and Specialty Food Manufacturing (NAICS 311400)
Animal Slaughtering and Processing (NAICS 311600)
Dairy Product Manufacturing (NAICS 311500)

DISTRIBUTION

Grocery Product Merchant Wholesalers (NAICS 424400)
Specialty Food Stores (NAICS 445200)

Food Chain

List of Skills for Occupations Employed in Agriculture, Forestry, Fishing Hunting (for Crop Production, Vegetable and Melon Farming, Fruit and Tree Nut Farming, and Cattle Ranching and Farming)

Skill	Job Zone	Number of Occupations within IZ		IZ-1	IZ-2	IZ-2/3/4	IZ-3	IZ-3/4	IZ-4	IZ-5	Number	Top Third (of 11)
		6	2									
Total Employment Range (2005)		930 - 146,220	5,860 - 276,490	5,990	208,200	590	N/A	N/A	N/A	N/A	11	
Average Annual Salary Range (2005)		\$17,210 - \$38,210	\$21,090 - \$23,210	\$3,270	\$35,880	\$62,170	N/A	N/A	N/A	N/A		
Skill	Job Zone	IZ-1	IZ-2	IZ-2/3/4	IZ-3	IZ-3/4	IZ-4	IZ-5	Number	Top Third (of 11)		
Operation and Control		1	0	0	0	0	0	0	0	1		
Equipment Maintenance		4	1	1	0	0	0	0	0	6		
Equipment Selection		3	0	0	0	0	0	0	0	3		
Operation Monitoring		1	0	0	0	0	0	0	0	1		
Repairing		3	1	1	0	0	0	0	0	5		
Science		0	0	0	0	1	1	0	0	1		
Reading Comprehension		2	1	1	1	1	0	0	0	6		
Management of Financial Resources		0	0	0	0	1	1	0	0	1		
Active Listening		4	2	1	1	1	0	0	0	9	√	
Judgment and Decision Making		1	1	1	0	1	0	0	0	4		
Troubleshooting		2	0	1	0	0	0	0	0	3		
Installation		0	1	0	0	0	0	0	0	1		
Coordination		3	2	1	0	1	0	0	0	7		
Management of Personnel Resources		0	0	1	0	0	0	0	0	1		
Speaking		4	0	1	1	1	1	0	0	7		
Time Management		4	2	1	1	1	1	0	0	9	√	
Learning Strategies		1	2	0	1	0	0	0	0	4		
Social Perceptiveness		1	0	0	1	0	0	0	0	2		
Monitoring		1	0	1	0	1	0	0	0	3		
Writing		0	0	0	1	1	0	0	0	2		
Mathematics		1	0	0	1	0	0	0	0	2		
Critical Thinking		0	0	1	1	1	0	0	0	2		
Active Learning		0	1	0	1	1	0	0	0	2		
Instructing		2	2	1	1	0	1	0	0	6		
Total		38	16	13	10	11	0	0	0	88		

Food Chain

List of Skills for Occupations Employed in Other Professional Technical Services (for Veterinary Activities)

Number of Occupations within JZ	0	3	6	2	1	3	15	
Total Employment Range (2005)	N/A	8,230 - 396,750	6,300 - 226,740	820 - 124,560	4,100	21,520 - 175,920		
Average Annual Salary Range (2005)	N/A	\$22,750 - \$27,470	\$31,380 - \$112,740	\$64,390 - \$95,880	\$ 97,250	\$41,940 - \$101,470		
Skill	Job Zone	JZ-1	JZ-2	JZ-3	JZ-4	JZ-5	JZ-N/A	Number
Active Listening		0	3	6	2	1	0	12 ✓
Reading Comprehension		0	3	5	2	1	0	11 ✓
Speaking		0	3	6	1	1	0	11 ✓
Service Orientation		0	2	2	0	0	0	4
Writing		0	2	2	2	0	0	6
Social Perceptiveness		0	2	3	0	0	0	5
Learning Strategies		0	2	3	0	0	0	5
Critical Thinking		0	2	5	2	1	0	10 ✓
Time Management		0	2	6	1	1	0	10 ✓
Monitoring		0	0	4	1	0	0	5
Mathematics		0	1	2	1	1	0	5
Instructing		0	1	2	0	0	0	3
Science		0	0	1	1	1	0	3
Judgment and Decision Making		0	0	3	2	1	0	6
Active Learning		0	2	3	1	1	0	7
Persuasion		0	0	1	0	0	0	1
Coordination		0	0	2	1	0	0	3
Equipment Selection		0	0	1	0	0	0	1
Complex Problem Solving		0	0	1	1	1	0	3
Management of Personnel Resources		0	0	2	0	0	0	2
Total		0	25	60	18	10	0	113

Top Third
(of 12)

Food Chain

List of Skills for Occupations in Machinery Supply Merchant Wholesalers (for Farm Garden Machinery Equipment)

TOT_EMP	276,490	100,380	396,750	106,390	42,580	22,150	131,760	208,200	128,880	145,050	226,740	11,800	42,950	49,200
A_MEAN	\$ 23,210	\$ 27,410	\$ 27,470	\$ 28,760	\$ 29,810	\$ 35,190	\$ 38,500	\$ 35,880	\$ 36,630	\$ 60,660	\$ 112,740	\$ 50,400	\$ 71,480	\$ 114,770
Job Zone	JZ-2	JZ-2	JZ-2	JZ-2	JZ-2	JZ-2	JZ-2	JZ-3	JZ-3	JZ-3	JZ-3	JZ-4	JZ-4	JZ-4
SOC-Code	53-7062	53-3033	43-9061	43-5071	43-4151	41-2022	53-3032	43-3031	49-9042	41-4012	11-1021	49-3042	41-4011	11-2022
Occupation Title	Labors and freight, stock, and material movers, hand	Truck drivers, light or delivery services	Office clerks, general	Shipping, receiving, and traffic clerks	Order clerks	Parts salespersons	Truck drivers, heavy and tractor-trailer	Bookkeeping, accounting, and auditing clerks	Maintenance and repair workers, general	Sales representatives, wholesale and technical products	General and operations managers	Mobile heavy equipment mechanics, except engines	Sales representatives, wholesale and technical products	Sales managers
	Active Listening	Active Listening	Active Listening	Active Listening	Reading Comprehension	Active Listening	Equipment Maintenance	Mathematics	Equipment Maintenance	Active Listening	Active Listening	Troubleshooting	Speaking	Active Listening
	Reading Comprehension	Time Management	Reading Comprehension	Reading Comprehension	Active Listening	Speaking	Active Listening	Reading Comprehension	Repairing	Speaking	Coordination	Repairing	Persuasion	Speaking
	Instructing	Equipment Maintenance	Speaking	Speaking	Reading Comprehension	Time Management	Time Management	Time Management	Troubleshooting	Time Management	Critical Thinking	Equipment Maintenance	Active Listening	Coordination
	Coordination	Reading Comprehension	Writing	Time Management	Time Management	Time Management	Active Listening	Active Listening	Active Listening	Reading Comprehension	Speaking	Equipment Selection	Time Management	Reading Comprehension
	Learning Strategies	Social Perceptiveness	Writing	Writing	Service Orientation	Instructing	Judgment and Decision Making	Critical Thinking	Installation	Persuasion	Time Management	Installation	Negotiation	Social Perceptiveness
	Time Management	Coordination	Mathematics	Mathematics	Writing	Critical Thinking	Reading Comprehension	Active Learning	Equipment Selection	Service Orientation	Complex Problem Solving	Operation Monitoring	Service Orientation	Persuasion
		Speaking	Learning Strategies	Monitoring	Active Learning	Service Orientation	Troubleshooting	Learning Strategies	Critical Thinking	Negotiation	Judgment and Decision Making	Operation and Control	Social Perceptiveness	Monitoring
		Learning Strategies	Monitoring	Mathematics	Mathematics	Social Perceptiveness	Speaking	Social Perceptiveness	Reading Comprehension	Social Perceptiveness	Management of Personnel Resources	Complex Problem Solving	Reading Comprehension	Judgment and Decision Making
		Operation and Control	Social Perceptiveness	Coordination	Coordination	Active Learning	Mathematics	Writing	Operation Monitoring	Active Learning	Monitoring	Judgment and Decision Making	Critical Thinking	Writing
		Service Orientation	Critical Thinking	Critical Thinking	Critical Thinking	Coordination	Critical Thinking	Speaking	Coordination	Coordination	Reading Comprehension	Critical Thinking	Active Learning	Active Learning
Total	6	10	5	10	10	10	10	10	10	10	10	10	10	10

Food Chain

List of Skills for Occupations in Machinery Supply Merchant Wholesalers (for Farm Garden Machinery Equipment)

Number of Occupations within JZ	0	7	4	3	0	14
Total Employment Range (2005)	N/A	22,150 - 396,750	128,880 - 226,740	11,800 - 49,200	N/A	
Average Annual Salary Range (2005)	N/A	\$23,210 - \$38,500	\$35,880 - \$112,740	\$50,400 - \$114,770	N/A	
Skill	JZ-1	JZ-2	JZ-3	JZ-4	JZ-5	Number
Active Listening	0	7	4	2	0	13
Speaking	0	6	3	2	0	11
Time Management	0	6	3	1	0	10
Reading Comprehension	0	7	4	2	0	13
Persuasion	0	0	1	2	0	3
Service Orientation	0	3	1	1	0	5
Negotiation	0	0	1	1	0	2
Social Perceptiveness	0	4	2	2	0	8
Active Learning	0	2	2	2	0	6
Coordination	0	5	3	1	0	9
Troubleshooting	0	1	1	1	0	3
Repairing	0	0	1	1	0	2
Equipment Maintenance	0	2	1	1	0	4
Equipment Selection	0	0	1	1	0	2
Installation	0	0	1	1	0	2
Operation Monitoring	0	0	1	1	0	2
Operation and Control	0	1	0	1	0	2
Complex Problem Solving	0	0	1	1	0	2
Judgment and Decision Making	0	1	1	2	0	4
Critical Thinking	0	4	3	2	0	9
Instructing	0	2	0	0	0	2
Learning Strategies	0	3	1	0	0	4
Writing	0	3	1	1	0	5
Mathematics	0	3	1	0	0	4
Monitoring	0	1	1	1	0	3
Management of Personnel Resources	0	0	1	0	0	1
Total	0	61	40	30	0	131

Top Third
(of 14)

Food Chain

List of Skills for Occupations in Other Food Manufacturing

TOT_EMP	118,360	48,370	45,780	40,770
A_MEAN	\$ 18,630	\$ 19,970	\$ 21,260	\$ 24,690
Job Zone	JZ-1	JZ-1	JZ-1	JZ-1
SOC-Code	53-7064	53-7061	51-9198	53-3031
Occupation Title	Packers and packagers, hand	Cleaners of vehicles and equipment	Helpers-- production workers	Driver/sales workers
	Active Listening	Equipment Maintenance	Equipment Selection	Active Listening
	Coordination	Active Listening	Active Listening	Speaking
	Speaking		Coordination	Social Perceptiveness
	Learning Strategies		Instructing	Critical Thinking
	Reading Comprehension		Reading Comprehension	Coordination
	Social Perceptiveness		Speaking	Service Orientation
			Quality Control	Time Management
				Active Learning
				Reading Comprehension
				Mathematics

25

TOT_EMP	276,490	46,380	13,120	5,810	100,380	48,210	69,220	39,740
A_MEAN	\$ 23,210	\$ 24,730	\$ 25,040	\$ 27,200	\$ 27,410	\$ 32,580	\$ 32,780	\$ 42,830
Job Zone	JZ-2	JZ-2	JZ-2	JZ-2	JZ-2	JZ-2	JZ-2	JZ-2
SOC-Code	53-7062	51-9111	51-3092	51-9032	53-3033	51-9061	53-7051	43-5061
Occupation Title	Labors and freight, stock, and material movers, hand	Packaging and filling machine operators and tenders	Food batchmakers	Cutting and slicing machine setters, operators, and tenders	Truck drivers, light or delivery services	Inspectors, testers, sorters, samplers, and weighers	Industrial truck and tractor operators	Production, planning, and expediting clerks
	Active Listening	Reading Comprehension	Active Listening	Equipment Maintenance	Active Listening	Quality Control	Operation Monitoring	Active Listening
	Reading Comprehension	Quality Control	Operation Monitoring	Mathematics	Time Management	Active Listening	Active Listening	Reading Comprehension
	Instructing	Active Listening	Mathematics	Operation and Control	Equipment Maintenance	Reading Comprehension	Operation and Control	Coordination
	Coordination	Operation and Control	Operation and Control	Troubleshooting	Reading Comprehension	Instructing	Monitoring	Speaking
	Learning Strategies	Instructing	Reading Comprehension	Instructing	Social Perceptiveness	Operation Monitoring	Critical Thinking	Active Learning
	Time Management	Equipment Maintenance	Active Learning	Operation Monitoring	Coordination	Learning Strategies	Speaking	Judgment and Decision Making
		Coordination	Time Management	Quality Control	Speaking	Mathematics		Time Management
		Troubleshooting	Troubleshooting	Reading Comprehension	Learning Strategies	Speaking		Writing
		Time Management	Critical Thinking	Judgment and Decision Making	Operation and Control	Active Learning		Service Orientation
		Judgment and Decision Making	Coordination	Active Listening	Service Orientation	Time Management		Mathematics

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TOT_EMP	128,880	63,290
A_MEAN	\$ 36,630	\$ 51,420
Job Zone	JZ-3	JZ-3
SOC-Code	49-9042	51-1011
Occupation Title	Maintenance and repair workers, general	First-line supervisors/ managers of production and operating workers
	Equipment Maintenance	Active Listening
	Repairing	Reading Comprehension
	Troubleshooting	Management of Personnel Resources
	Active Listening	Instructing
	Installation	Monitoring
	Equipment Selection	Speaking
	Critical Thinking	Time Management
	Reading Comprehension	Critical Thinking
	Operation Monitoring	Judgment and Decision Making
	Coordination	Coordination

Food Chain

List of Skills for Occupations in Other Food Manufacturing

145,050	226,740	32,700
\$ 60,660	\$ 112,740	\$ 170,710
JZ-3	JZ-3	JZ-5
41-4012	11-1021	11-1011
Sales representatives, wholesale and manufacturing, except technical and scientific products	General and operations managers	Chief executives
Active Listening	Active Listening	Judgment and Decision Making
Speaking	Coordination	Management of Financial Resources
Time Management	Critical Thinking	Coordination
Reading Comprehension	Speaking	Critical Thinking
Persuasion	Time Management	Negotiation
Service Orientation	Complex Problem Solving	Active Listening
Negotiation	Judgment and Decision Making	Monitoring
Social Perceptiveness	Management of Personnel Resources	Complex Problem Solving
Active Learning	Monitoring	Reading Comprehension
Coordination	Reading Comprehension	Speaking
10	10	10
147		
10		

Food Chain

List of Skills for Occupations in Other Food Manufacturing

Number of Occupations within JZ	JZ-1	JZ-2	JZ-3	JZ-4	JZ-5	Number	
Total Employment Range (2005)	40,770 - 118,360	5,810 - 276,490	63,290 - 226,740	N/A	32,700	17	
Average Annual Salary Range (2005)	\$18,630 - \$24,690	\$23,210 - \$42,830	\$36,630 - \$112,740	N/A	\$ 170,710		
Skill	Job Zone	JZ-1	JZ-2	JZ-3	JZ-4	JZ-5	Number
Active Listening		4	8	4	0	1	17 ✓
Time Management		1	6	3	0	0	10
Speaking		3	4	3	0	1	11 ✓
Coordination		3	5	4	0	1	13 ✓
Critical Thinking		1	2	3	0	1	7
Troubleshooting		0	3	1	0	0	4
Service Orientation		1	2	1	0	0	4
Active Learning		1	3	1	0	0	5
Reading Comprehension		3	7	4	0	1	15 ✓
Learning Strategies		1	3	0	0	0	4
Instructing		1	4	1	0	0	6
Judgment and Decision Making		0	3	2	0	1	6
Social Perceptiveness		2	1	1	0	0	4
Mathematics		1	4	0	0	0	5
Equipment Maintenance		1	3	1	0	0	5
Equipment Selection		1	0	1	0	0	2
Quality Control Analysis		1	3	0	0	0	4
Operation Monitoring		0	4	1	0	0	5
Operation and Control		0	5	0	0	0	5
Persuasion		0	0	1	0	0	1
Monitoring		0	1	2	0	1	4
Installation		0	0	1	0	0	1
Repairing		0	0	1	0	0	1
Negotiation		0	0	1	0	1	2
Management of Personnel Resources		0	0	2	0	0	2
Management of Financial Resources		0	0	0	0	1	1
Complex Problem Solving		0	0	1	0	1	2
Writing		0	1	0	0	0	1
Total	25	72	40	0	10	147	

Top Third (of 17)

Food Chain

List of Skills for Occupations Employed in Fruit, Vegetable, Specialty Foods Manufacturing

TOT_EMP	10,600	118,360	207,640	276,490	46,380	13,120	69,220	128,880	63,290	41,970
A_MEAN	\$ 18,120	\$ 18,630	\$ 23,360	\$ 23,210	\$ 24,730	\$ 25,040	\$ 32,780	\$ 36,630	\$ 51,420	\$ 23,990
Job Zone	JZ-1	JZ-1	JZ-1	JZ-2	JZ-2	JZ-2	JZ-2	JZ-3	JZ-3	N/A
SOC-Code	45-2041	53-7064	37-2011	53-7062	51-9111	51-3092	53-7051	49-9042	51-1011	51-9199
Occupation Title	Graders and sorters, agricultural products	Packers and packagers, hand	Janitors and cleaners, except maids and housekeeping cleaners	Laborers and freight, stock, and material movers, hand	Packaging and filling machine operators and tenders	Food batchmakers	Industrial truck and tractor operators	Maintenance and repair workers, general	First-line supervisors/managers of production and operating workers	Production workers, all other
Skills	Not Available	Active Listening	Reading Comprehension	Active Listening	Reading Comprehension	Active Listening	Operation Monitoring	Equipment Maintenance	Active Listening	Not Available
		Coordination	Active Listening	Reading Comprehension	Quality Control Analysis	Operation Monitoring	Active Listening	Repairing	Reading Comprehension	
		Speaking	Speaking	Instructing	Active Listening	Mathematics	Operation and Control	Troubleshooting	Management of Personnel Resources	
		Learning Strategies	Coordination	Coordination	Operation and Control	Operation and Control	Monitoring	Active Listening	Instructing	
		Reading Comprehension	Equipment Selection	Learning Strategies	Instructing	Reading Comprehension	Critical Thinking	Installation	Monitoring	
		Social Perceptiveness	Time Management	Time Management	Equipment Maintenance	Active Learning	Speaking	Equipment Selection	Speaking	
			Equipment Maintenance	Coordination	Time Management	Time Management		Critical Thinking	Time Management	
			Writing	Troubleshooting	Troubleshooting	Troubleshooting		Reading Comprehension	Critical Thinking	
			Instructing	Time Management	Time Management	Critical Thinking		Operation Monitoring	Judgment and Decision	
			Judgment and Decision Making	Judgment and Decision Making	Judgment and Decision Making	Coordination		Coordination	Coordination	
Total	0	6	10	6	10	10	6	10	10	0

0

20

32

16

Food Chain

List of Skills for Occupations Employed in Fruit, Vegetable, Specialty Foods Manufacturing

Skill	Job Zone	Number of Occupations within										Top Third (of 9)
		JZ-1	JZ-2	JZ-3	JZ-4	JZ-5	JZ-N/A	Number				
JZ		3	4	2	0	0	1	10				
Total Employment Range (2005)		10,600 - 207,640	13,120 - 276,490	63,290 - 128,880	N/A	N/A	41,970					
Average Annual Salary Range (2005)		\$18,120 - \$23,360	\$23,210 - \$32,780	\$36,630 - \$51,420	N/A	N/A	\$ 23,990					
Skill	Job Zone	JZ-1	JZ-2	JZ-3	JZ-4	JZ-5	JZ-N/A	Number				
Active Listening		2	4	2	0	0	0	8	√			
Active Learning		0	1	0	0	0	0	1				
Reading Comprehension		2	3	2	0	0	0	7	√			
Judgment and Decision Making		1	1	1	0	0	0	3				
Coordination		2	3	2	0	0	0	7	√			
Time Management		1	3	1	0	0	0	5				
Troubleshooting		0	2	1	0	0	0	3				
Equipment Maintenance		1	1	1	0	0	0	3				
Equipment Selection		1	0	1	0	0	0	2				
Operation Monitoring		0	2	1	0	0	0	3				
Operation and Control		0	3	0	0	0	0	3				
Critical Thinking		0	2	2	0	0	0	4				
Speaking		2	1	1	0	0	0	4				
Writing		1	0	0	0	0	0	1				
Instructing		1	2	1	0	0	0	4				
Installation		0	0	1	0	0	0	1				
Monitoring		0	1	1	0	0	0	2				
Learning Strategies		1	1	0	0	0	0	2				
Mathematics		0	1	0	0	0	0	1				
Social Perceptiveness		1	0	0	0	0	0	1				
Quality Control Analysis		0	1	0	0	0	0	1				
Repairing		0	0	1	0	0	0	1				
Management of Personnel Resources		0	0	1	0	0	0	1				
Total		16	32	20	0	0	0	68				

Food Chain

List of Skills for Occupations Employed in Animal Slaughtering and Processing

TOT_EMP	118,360	45,780	5,790	3,130	10,860	207,640	276,490	46,380	17,740	131,760	13,580	63,290	41,970
A_MEAN	\$ 18,630	\$ 21,260	\$ 21,300	\$ 21,890	\$ 21,950	\$ 23,360	\$ 23,210	\$ 24,730	\$ 29,500	\$ 38,500	\$ 47,190	\$ 51,420	\$ 23,990
Job Zone	JZ-1	JZ-1	JZ-1	JZ-1	JZ-1	JZ-1	JZ-2	JZ-2	JZ-2	JZ-2	JZ-3	JZ-3	N/A
SOC-Code	53-7064	51-9198	45-2093	51-3023	51-3022	37-2011	53-7062	51-9111	51-3021	53-3032	49-9041	51-1011	51-9199
Occupation Title	Packers and packagers, hand	Helpers--production workers	Farmworkers, farm and ranch animals	Slaughtering and meat packers	Meat, poultry, and fish cutters and trimmers	Janitors and cleaners, except maids and housekeeping cleaners	Laborers and freight, stock, and material movers, hand	Packaging and filling machine operators and tenders	Butchers and meat cutters	Truck drivers, heavy and tractor-trailer	Industrial machinery mechanics	First-line supervisors/managers of production and operating workers	Production workers, all other
	Active Listening	Equipment Selection	Instructing	Instructing	Active Listening	Reading Comprehension	Active Listening	Reading Comprehension	Active Listening	Equipment Maintenance	Repairing	Active Listening	Not Available
	Coordination	Active Listening	Active Listening	Monitoring	Time Management	Active Listening	Reading Comprehension	Quality Control Analysis	Service Orientation	Active Listening	Troubleshooting	Reading Comprehension	
	Speaking	Coordination	Coordination	Quality Control Analysis		Speaking	Instructing	Active Listening		Time Management	Equipment Maintenance	Management of Personnel Resources	
	Learning Strategies	Instructing	Equipment Maintenance	Equipment Maintenance	Coordination	Equipment Selection	Coordination	Operation and Control		Coordination	Equipment Selection	Instructing	
	Reading Comprehension	Reading Comprehension	Speaking	Coordination	Coordination	Equipment Selection	Learning Strategies	Instructing		Judgment and Decision Making	Installation	Monitoring	
	Social Perceptiveness	Speaking	Monitoring	Learning Strategies	Time Management	Time Management	Time Management	Equipment Maintenance		Reading Comprehension	Critical Thinking	Speaking	
		Quality Control Analysis	Time Management	Time Management	Equipment Maintenance	Equipment Maintenance	Coordination	Coordination		Troubleshooting	Operation Monitoring	Time Management	
			Equipment Selection	Operation and Control	Writing	Instructing	Troubleshooting	Troubleshooting		Speaking	Reading Comprehension	Critical Thinking	
			Judgment and Decision Making	Repairing	Instructing	Judgment and Decision Making	Judgment and Decision Making	Time Management		Mathematics	Active Listening	Judgment and Decision Making	
			Active Listening	Active Listening		Judgment and Decision Making	Judgment and Decision Making			Critical Thinking	Active Learning	Coordination	
Total	6	7	9	10	2	10	6	10	2	10	10	10	0

0

20

28

44

Food Chain

List of Skills for Occupations Employed in Animal Slaughtering and Processing

Number of Occupations within JZ	6	4	2	0	0	0	1	13
Total Employment Range (2005)	3,130 - 207,640	17,740 - 276,490	13,580 - 63,290	N/A	N/A	N/A	41,970	
Average Annual Salary Range (2005)	\$18,630 - \$23,360	\$23,210 - \$38,500	\$47,190 - \$51,420	N/A	N/A	N/A	\$ 23,990	
Job Zone	JZ-1	JZ-2	JZ-3	JZ-4	JZ-5	JZ-N/A	Number	Top Third (of 12)
Active Listening	6	4	2	0	0	0	0	12 ✓
Reading Comprehension	3	3	2	0	0	0	0	8 ✓
Critical Thinking	0	1	2	0	0	0	0	3
Time Management	4	3	1	0	0	0	0	8 ✓
Speaking	4	1	1	0	0	0	0	6
Monitoring	2	0	1	0	0	0	0	3
Operation Monitoring	0	0	1	0	0	0	0	1
Judgment and Decision Making								
	2	2	1	0	0	0	0	5
Learning Strategies	2	1	0	0	0	0	0	3
Active Learning	0	0	1	0	0	0	0	1
Troubleshooting	0	2	1	0	0	0	0	3
Writing	1	0	0	0	0	0	0	1
Coordination	5	3	1	0	0	0	0	9 ✓
Instructing	4	2	1	0	0	0	0	7
Equipment Maintenance	3	2	1	0	0	0	0	6
Equipment Selection	3	0	1	0	0	0	0	4
Mathematics	0	1	0	0	0	0	0	1
Installation	0	0	1	0	0	0	0	1
Repairing	1	0	1	0	0	0	0	2
Service Orientation	0	1	0	0	0	0	0	1
Quality Control Analysis	2	1	0	0	0	0	0	3
Operation and Control	1	1	0	0	0	0	0	2
Social Perceptiveness	1	0	0	0	0	0	0	1
Management of Personnel Resources	0	0	1	0	0	0	0	1
Total	44	28	20	0	0	0	0	92

Food Chain

List of Skills for Occupations Employed in Dairy Product Manufacturing

Number of Occupations within JZ	4	8	3	0	0	15	
Total Employment Range (2005)	40,770 - 208,910	870 - 276,490	18,960 - 128,880	N/A	N/A		
Average Annual Salary Range (2005)	\$17,920 - \$24,690	\$23,210 - \$41,420	\$36,630 - \$90,000	N/A	N/A		
Skill	Job Zone	JZ-1	JZ-2	JZ-3	JZ-4	JZ-5	Number
Active Listening		4	8	3	0	0	15
Coordination		3	5	3	0	0	11
Operation Monitoring		0	5	1	0	0	6
Monitoring		0	1	2	0	0	3
Judgment and Decision Making		0	2	1	0	0	3
Operation and Control		0	5	0	0	0	5
Critical Thinking		1	5	3	0	0	9
Active Learning		1	3	1	0	0	5
Instructing		2	4	1	0	0	7
Time Management		1	4	2	0	0	7
Speaking		4	3	2	0	0	9
Quality Control Analysis		1	4	0	0	0	5
Reading Comprehension		3	6	3	0	0	12
Troubleshooting		0	5	1	0	0	6
Repairing		0	2	1	0	0	3
Equipment Maintenance		0	5	1	0	0	6
Equipment Selection		1	1	1	0	0	3
Mathematics		2	2	0	0	0	4
Social Perceptiveness		3	0	0	0	0	3
Learning Strategies		1	2	0	0	0	3
Service Orientation		2	0	0	0	0	2
Installation		0	0	1	0	0	1
Management of Personnel Resources		0	0	2	0	0	2
Complex Problem Solving		0	0	1	0	0	1
Total		29	72	30	0	0	131

Top Third
(of 15)

Food Chain

List of Skills for Occupations in Grocery Product Merchant Wholesalers

Number of Occupations within JZ	2	1	11	3	1	0	18	
Total Employment Range (2005)	40,770 - 118,360	199,180	13,120 - 276,490	59,520 - 226,740	25,120	N/A		
Average Annual Salary Range (2005)	\$18,630 - \$24,690	\$ 24,040	\$23,210 - \$42,830	\$50,100 - \$112,740	\$83,870	N/A		
Skill	Job Zone	JZ-1	JZ-1/2	JZ-2	JZ-3	JZ-4	JZ-5	Number
Active Listening		2	1	11	3	1	0	18 ✓
Reading Comprehension		2	1	9	3	1	0	16 ✓
Active Learning		1	1	4	2	1	0	9
Learning Strategies		1	0	5	0	0	0	6
Time Management		1	0	9	2	1	0	13 ✓
Speaking		2	1	7	3	1	0	14 ✓
Mathematics		1	1	4	0	0	0	6
Service Orientation		1	0	4	1	1	0	7
Persuasion		0	0	0	1	0	0	1
Judgment and Decision Making								
Equipment Maintenance		0	0	4	2	0	0	6
Quality Control Analysis		0	0	3	0	0	0	3
Monitoring		0	1	1	0	0	0	2
Management of Personnel Resources		0	0	4	2	0	0	6
Operation and Control		0	0	0	1	0	0	1
Instructing		0	1	3	1	1	0	6
Writing		0	0	3	0	1	0	4
Critical Thinking		1	1	6	2	0	0	10
Social Perceptiveness		2	1	2	1	1	0	7
Coordination		2	1	6	3	1	0	13 ✓
Troubleshooting		0	0	3	0	0	0	3
Operation Monitoring		0	0	2	0	0	0	2
Negotiation		0	0	0	1	0	0	1
Complex Problem Solving		0	0	0	2	0	0	2
Total		16	10	94	30	10	0	160

Top Third
(of 18)

Food Chain

List of Skills for Occupations Employed in Specialty Food Stores

Number of Occupations within JZ	5	1	5	0	0	0	0	11
Total Employment Range (2005)	10,860 - 356,880	199,180	17,740 - 481,990	N/A	N/A	N/A	N/A	N/A
Average Annual Salary Range (2005)	\$17,920 - \$24,690	\$ 24,040	\$25,270 - \$39,850	N/A	N/A	N/A	N/A	N/A
Skill	JZ-1	JZ-1/2	JZ-2	JZ-3	JZ-4	JZ-5	Number	Top Third (of 11)
Active Listening	5	1	5	0	0	0	11	✓
Active Learning	1	1	1	0	0	0	3	
Reading Comprehension	2	1	4	0	0	0	7	
Mathematics	4	1	2	0	0	0	7	
Coordination	2	1	1	0	0	0	4	
Critical Thinking	2	1	2	0	0	0	5	
Instructing	3	1	3	0	0	0	7	
Monitoring	0	0	2	0	0	0	2	
Service Orientation	4	0	4	0	0	0	8	✓
Speaking	4	1	3	0	0	0	8	✓
Social Perceptiveness	4	1	3	0	0	0	8	✓
Judgment and Decision Making	0	0	2	0	0	0	2	
Learning Strategies	2	0	1	0	0	0	3	
Operation and Control	0	0	1	0	0	0	1	
Time Management	2	0	3	0	0	0	5	
Equipment Maintenance	0	0	1	0	0	0	1	
Management of Personnel Resources	0	0	2	0	0	0	2	
Quality Control Analysis	0	1	0	0	0	0	1	
Writing	0	0	1	0	0	0	1	
Total	35	10	41	0	0	0	86	

Professional and Technical Services



**COMPUTER SYSTEMS DESIGN AND RELATED SERVICES
(NAICS 541500)**

**ARCHITECTURAL AND ENGINEERING SERVICES (NAICS
541300)**

**MANAGEMENT OF COMPANIES AND ENTERPRISES (NAICS
551000)**

**SCIENCE RESEARCH AND DEVELOPMENT SERVICES
(NAICS 541700)**

LEGAL SERVICES (NAICS 541100)

**OTHER PROFESSIONAL AND TECHNICAL SERVICES (NAICS
541900)**

Professional and Technical Services

List of Skills for Occupations Employed in Computer Systems Design and Related Services

TOT_EMP	396,750	48,210	199,440	42,990	19,060	214,050	59,520	23,450	226,740	31,930	11,050	35,040	49,790	23,220	63,700
A_MEAN	\$ 27,470	\$ 32,580	\$ 34,110	\$ 35,250	\$ 39,470	\$ 43,250	\$ 50,100	\$ 71,870	\$ 112,740	\$ 72,680	\$ 74,150	\$ 76,270	\$ 76,970	\$ 81,790	\$ 82,200
Job Zone	IZ-2	IZ-2	IZ-2	IZ-3	IZ-3	IZ-3	IZ-3	IZ-3	IZ-3	IZ-4	IZ-4	IZ-4	IZ-4	IZ-4	IZ-4
SOC-Code	43-9061	51-9061	43-4051	43-3011	43-4161	43-6011	15-1041	15-1081	11-1021	15-1071	15-1061	15-1021	15-1051	17-2141	13-1111
Occupation Title	Office clerks, general	Inspectors, testers, sorters, samplers, and weighers	Customer service representatives	Bill and account collectors	Human resources assistants, except payroll and timekeeping	Executive secretaries and administrative assistants	Computer support specialists	Network systems and data communications analysts	General and operations managers	Network and computer systems administrators	Database administrators	Computer programmers	Computer systems analysts	Mechanical engineers	Management analysts
	Active Listening	Quality Control Analysis	Active Listening	Active Listening	Active Listening	Active Listening	Critical Thinking	Equipment Selection	Active Listening	Reading Comprehension	Active Listening	Programming	Active Learning	Mathematics	Critical Thinking
	Reading Comprehension	Active Listening	Reading Comprehension	Speaking	Reading Comprehension	Reading Comprehension	Speaking	Troubleshooting	Coordination	Active Listening	Complex Problem Solving	Critical Thinking	Reading Comprehension	Complex Problem Solving	Judgment and Decision Making
	Speaking	Reading Comprehension	Monitoring	Reading Comprehension	Speaking	Time Management	Active Listening	Complex Problem Solving	Critical Thinking	Critical Thinking	Critical Thinking	Complex Problem Solving	Complex Problem Solving	Critical Thinking	Active Listening
	Writing	Instructing	Speaking	Time Management	Time Management	Speaking	Complex Problem Solving	Active Listening	Speaking	Complex Problem Solving	Reading Comprehension	Active Learning	Critical Thinking	Reading Comprehension	Coordination
	Social Perceptiveness	Operation Monitoring	Time Management	Mathematics	Critical Thinking	Writing	Reading Comprehension	Active Learning	Time Management	Speaking	Coordination	Reading Comprehension	Active Listening	Science	Time Management
			Service Orientation	Social Perceptiveness	Writing	Critical Thinking	Active Learning	Critical Thinking	Complex Problem Solving	Monitoring	Judgment and Decision Making	Troubleshooting	Active Listening	Instructing	
			Active Learning	Writing	Mathematics	Active Learning	Coordination	Installation	Judgment and Decision Making	Systems Evaluation	Programming	Operations Analysis	Monitoring	Judgment and Decision Making	Monitoring
			Speaking	Active Learning	Learning Strategies	Coordination	Instructing	Reading Comprehension	Management of Personnel Resources	Time Management	Writing	Active Listening	Service Orientation	Time Management	Quality Control Analysis
			Active Learning	Judgment and Decision Making	Instructing	Monitoring	Judgment and Decision Making	Judgment and Decision Making	Monitoring	Coordination	Monitoring	Technology Design	Time Management	Writing	Reading Comprehension
			Time Management	Critical Thinking	Critical Thinking	Service Orientation	Monitoring	Technology Design	Reading Comprehension	Judgment and Decision Making	Judgment and Decision Making	Troubleshooting	Quality Control Analysis	Speaking	Operation and Control

Total

25

60

Professional and Technical Services

List of Skills for Occupations Employed in Computer Systems Design and Related Services

Number of Occupations within JZ		0	3	6	12	0	3	24
Total Employment Range (2005)		N/A	48,210 - 396,750	19,060 - 226,740	2,570 - 84,550	N/A	28,190 - 175,920	
Average Annual Salary Range (2005)		N/A	\$27,470 - \$34,110	\$35,250 - \$112,740	\$72,680 - \$120,600	N/A	\$60,860 - \$62,400	
Skill	Job Zone	JZ-1	JZ-2	JZ-3	JZ-4	JZ-5	JZ-N/A	Number
Critical Thinking		0	1	6	12	0	0	19
Active Listening		0	3	6	10	0	0	19
Active Learning		0	2	4	6	0	0	12
Complex Problem Solving		0	0	3	7	0	0	10
Reading Comprehension		0	3	6	12	0	0	21
Speaking		0	3	5	6	0	0	14
Operations Analysis		0	0	0	4	0	0	4
Coordination		0	0	3	6	0	0	9
Writing		0	2	3	3	0	0	8
Mathematics		0	1	2	3	0	0	6
Systems Evaluation		0	0	0	1	0	0	1
Systems Analysis		0	0	0	3	0	0	3
Technology Design		0	0	1	3	0	0	4
Troubleshooting		0	0	1	4	0	0	5
Time Management		0	2	4	7	0	0	13
Judgment and Decision Making		0	0	4	9	0	0	13
Learning Strategies		0	2	1	2	0	0	5
Service Orientation		0	1	1	1	0	0	3
Instructing		0	1	2	1	0	0	4
Operation and Control		0	0	0	1	0	0	1
Quality Control Analysis		0	1	0	2	0	0	3
Programming		0	0	0	4	0	0	4
Monitoring		0	1	3	6	0	0	10
Operation Monitoring		0	1	0	0	0	0	1
Persuasion		0	0	0	1	0	0	1
Installation		0	0	1	0	0	0	1
Equipment Selection		0	0	1	0	0	0	1
Social Perceptiveness		0	1	2	1	0	0	4
Management of Personnel Resources		0	0	1	1	0	0	2
Management of Material Resources		0	0	0	1	0	0	1
Negotiation		0	0	0	2	0	0	2
Science		0	0	0	1	0	0	1
Total		0	25	60	120	0	0	205

Top Third
(of 21)

Professional and Technical Services

List of Skills for Occupations Employed in Architectural and Engineering Services

Number of Occupations within JZ		1	0	6	13	3	2	25
Total Employment Range (2005)		126,180	N/A	8,170 - 226,740	3,480 - 84,550	11,970 - 61,940	8,070 - 175,920	
Average Annual Salary Range (2005)		\$ 24,570	N/A	\$38,200 - \$112,740	\$57,690 - \$96,070	\$75,560 - \$132,670	\$60,860 - \$109,820	
Skill	Job Zone	JZ-1	JZ-2	JZ-3	JZ-4	JZ-5	JZ-N/A	Number
Active Listening		1	0	6	11	3	0	21
Active Learning		0	0	4	7	1	0	12
Reading Comprehension		1	0	5	13	3	0	22
Critical Thinking		0	0	6	12	3	0	21
Judgment and Decision Making		0	0	5	10	2	0	17
Time Management		1	0	4	8	2	0	15
Complex Problem Solving		0	0	5	13	2	0	20
Mathematics		0	0	2	5	0	0	7
Speaking		1	0	5	7	3	0	16
Writing		0	0	3	7	3	0	13
Coordination		0	0	5	6	1	0	12
Operations Analysis		0	0	0	2	1	0	3
Systems Analysis		0	0	1	4	0	0	5
Systems Evaluation		0	0	0	1	0	0	1
Instructing		0	0	0	1	0	0	1
Monitoring		0	0	3	5	1	0	9
Negotiation		0	0	0	0	2	0	2
Troubleshooting		0	0	0	5	0	0	5
Management of Personnel Resources		0	0	1	1	1	0	3
Management of Financial Resources		0	0	0	1	0	0	1
Equipment Selection		1	0	0	1	0	0	2
Equipment Maintenance		1	0	1	0	0	0	2
Science		0	0	0	1	0	0	1
Technology Design		0	0	0	3	0	0	3
Social Perceptiveness		0	0	0	1	1	0	2
Programming		0	0	0	2	0	0	2
Service Orientation		0	0	1	1	0	0	2
Quality Control Analysis		0	0	2	1	0	0	3
Learning Strategies		0	0	0	1	0	0	1
Persuasion		0	0	0	0	1	0	1
Repairing		1	0	0	0	0	0	1
Operation and Control		0	0	1	0	0	0	1
Operation Monitoring		0	0	1	0	0	0	1
Total		7	0	61	130	30	0	228

Top Third
(of 23)

Professional and Technical Services

List of Skills for Occupations Employed in Management of Companies and Enterprises

35,550	30,320	64,840	16,610	61,940	32,700	11,270	175,920	39,660
\$ 120,600	\$ 123,600	\$ 109,530	\$ 78,790	\$ 132,670	\$ 170,710	\$ 42,780	\$ 60,860	\$ 101,470
JZ-4	JZ-4	JZ-4/5	JZ-5	JZ-5	JZ-5	N/A	N/A	N/A
11-3021	11-2021	11-3031	19-1042	23-1011	11-1011	29-2099	13-1199	11-9199
Computer and information systems managers	Marketing managers	Financial managers	Medical scientists, except epidemiologists	Lawyers	Chief executives	Health technologists and technicians, all other	Business operations specialists, all other	Managers, all other
Critical Thinking	Active Listening	Time Management	Reading Comprehension	Reading Comprehension	Judgment and Decision Making	Not Available	Not Available	Not Available
Active Listening	Critical Thinking	Instructing	Science	Judgment and Decision Making	Management of Financial Resources			
Judgment and Decision Making	Speaking	Management of Personnel Resources	Active Listening	Writing	Coordination			
Management of Personnel Resources	Writing	Reading Comprehension	Active Learning	Critical Thinking	Critical Thinking			
Systems Analysis	Reading Comprehension	Active Listening	Writing	Active Listening	Negotiation			
Coordination	Social Perceptiveness	Management of Financial Resources	Instructing	Persuasion	Active Listening			
Reading Comprehension	Coordination	Mathematics	Time Management	Time Management	Monitoring			
Speaking	Complex Problem Solving	Critical Thinking	Critical Thinking	Negotiation	Complex Problem Solving			
Monitoring	Management of Personnel Resources		Judgment and Decision Making	Speaking	Reading Comprehension			
Social Perceptiveness	Monitoring		Complex Problem Solving	Active Learning	Speaking			
10	10	8	10	10	10	0	0	0
98	8	30	0	0	0	0	0	313

Professional and Technical Services

List of Skills for Occupations Employed in Management of Companies and Enterprises

Number of Occupations within JZ	JZ-1	JZ-2	JZ-3	JZ-4	JZ-4/5	JZ-5	JZ-N/A	Number	
Total Employment Range (2005)	62,620 - 207,640	2,080 - 396,750	16,910 - 226,740	27,950 - 124,560	64,840	16,610 - 61,940	11,270 - 175,920	36	
Average Annual Salary Range (2005)	\$17,050 - \$23,360	\$23,210 - \$39,130	\$35,250 - \$112,740	\$64,390 - \$123,600	\$ 109,530	\$78,790 - \$170,710	\$42,780 - \$101,470		
Skill	Job Zone	JZ-1	JZ-2	JZ-3	JZ-4	JZ-4/5	JZ-5	JZ-N/A	Number
Critical Thinking		0	2	10	10	1	3	0	26
Active Listening		2	6	11	8	1	3	0	31
Active Learning		0	3	9	5	0	2	0	19
Coordination		1	2	6	6	0	1	0	16
Reading Comprehension		1	6	10	10	1	3	0	31
Writing		1	2	5	4	0	2	0	14
Time Management		1	5	9	4	1	2	0	22
Speaking		2	5	10	6	0	2	0	25
Judgment and Decision Making		1	2	7	7	0	3	0	20
Monitoring		0	3	4	6	0	1	0	14
Learning Strategies		1	3	3	3	0	0	0	7
Instructing		1	3	1	1	1	1	0	8
Service Orientation		1	3	2	1	0	0	0	7
Complex Problem Solving		0	0	5	5	0	2	0	12
Persuasion		0	1	1	1	0	1	0	4
Negotiation		0	0	1	1	0	2	0	4
Social Perceptiveness		1	3	4	3	0	0	0	11
Equipment Selection		1	0	2	0	0	0	0	3
Equipment Maintenance		1	1	1	1	0	0	0	3
Systems Analysis		0	0	0	3	0	0	0	3
Systems Evaluation		0	0	0	1	0	0	0	1
Management of Personnel Resources		0	0	2	2	1	0	0	5
Management of Financial Resources		0	0	0	0	1	1	0	2
Mathematics		0	0	5	2	1	0	0	8
Troubleshooting		0	0	1	3	0	0	0	4
Quality Control Analysis		0	0	0	2	0	0	0	2
Technology Design		0	0	1	2	0	0	0	3
Operation and Control		0	0	0	1	0	0	0	1
Programming		0	0	0	2	0	0	0	2
Installation		0	0	1	0	0	0	0	1
Science		0	1	0	0	0	1	0	2
Operations Analysis		0	0	0	2	0	0	0	2
Total	15	51	111	98	8	30	0	313	

Top Third
(of 33)

Professional and Technical Services

List of Skills for Occupations Employed in Scientific Research and Development Services

Number of Occupations within JZ	0	0	3	9	6	2	20
Total Employment Range (2005)	N/A	N/A	43,690 - 226,740	2,260 - 84,550	820 - 35,620	26,990 - 175,920	
Average Annual Salary Range (2005)	N/A	N/A	\$43,250 - \$112,740	\$42,780 - \$105,020	\$61,310 - \$126,540	\$60,860 - \$89,260	
Skill	JZ-1	JZ-2	JZ-3	JZ-4	JZ-5	JZ-N/A	Number
Reading Comprehension	0	0	3	9	6	0	18
Science	0	0	0	5	3	0	8
Active Listening	0	0	3	7	5	0	15
Active Learning	0	0	1	7	5	0	13
Writing	0	0	1	4	6	0	11
Instructing	0	0	0	1	1	0	2
Time Management	0	0	3	6	5	0	14
Critical Thinking	0	0	3	8	6	0	17
Judgment and Decision Making	0	0	1	3	3	0	7
Complex Problem Solving	0	0	2	6	4	0	12
Learning Strategies	0	0	0	1	1	0	2
Mathematics	0	0	0	4	2	0	6
Quality Control Analysis	0	0	0	3	1	0	4
Speaking	0	0	3	5	3	0	11
Technology Design	0	0	0	3	0	0	3
Troubleshooting	0	0	0	5	0	0	5
Programming	0	0	0	1	0	0	1
Operations Analysis	0	0	0	2	0	0	2
Coordination	0	0	3	2	1	0	6
Monitoring	0	0	3	0	3	0	6
Service Orientation	0	0	1	1	0	0	2
Systems Analysis	0	0	0	2	0	0	2
Management of Personnel Resources	0	0	2	0	1	0	3
Persuasion	0	0	0	2	0	0	2
Systems Evaluation	0	0	0	0	1	0	1
Equipment Selection	0	0	0	2	1	0	3
Social Perceptiveness	0	0	1	1	1	0	3
Negotiation	0	0	0	0	1	0	1
Total	0	0	30	90	60	0	180

Top Third (of 18)

Professional and Technical Services

List of Skills for Occupations Employed in Legal Services

TOT_EMP	A_MEAN	Job Zone	SOC-Code	Occupation Title	Skills	Count
207,640	23,360	JZ-1	37-2011	Janitors and cleaners, except maids and housekeeping cleaners	Reading Comprehension	10
					Active Listening	10
					Speaking	10
					Coordination	10
					Equipment Selection	10
					Time Management	10
					Equipment Maintenance	10
					Writing	10
					Instructing	10
					Judgment and Decision Making	10
126,560	25,980	JZ-2	43-4171	Receptionists and information clerks	Active Listening	10
					Speaking	10
					Reading Comprehension	10
					Writing	10
					Service Orientation	10
					Learning Strategies	10
					Social Perceptiveness	10
					Critical Thinking	10
					Time Management	10
					Active Learning	10
396,750	27,470	JZ-2	43-9061	Office clerks, general	Active Listening	5
29,740	25,070	JZ-3	43-4071	File clerks	Active Listening	10
					Speaking	10
					Reading Comprehension	10
					Time Management	10
					Active Listening	10
					Critical Thinking	10
					Active Learning	10
					Coordination	10
					Instructing	10
					Learning Strategies	10
					Social Perceptiveness	10
					Writing	10
					Service Orientation	10
					Social Perceptiveness	10
208,200	35,880	JZ-3	43-3031	Bookkeeping, accounting, and auditing clerks	Mathematics	10
					Reading Comprehension	10
					Time Management	10
					Active Listening	10
					Critical Thinking	10
					Active Learning	10
					Learning Strategies	10
					Social Perceptiveness	10
					Writing	10
					Service Orientation	10
					Speaking	10
					Active Learning	10
					Learning Strategies	10
					Social Perceptiveness	10
					Writing	10
					Service Orientation	10
					Social Perceptiveness	10
214,050	43,250	JZ-3	43-6011	Executive secretaries and administrative assistants	Active Listening	10
					Reading Comprehension	10
					Time Management	10
					Active Learning	10
					Critical Thinking	10
					Active Learning	10
					Learning Strategies	10
					Social Perceptiveness	10
					Writing	10
					Service Orientation	10
					Speaking	10
					Active Learning	10
					Learning Strategies	10
					Social Perceptiveness	10
					Writing	10
					Service Orientation	10
					Social Perceptiveness	10
35,220	47,720	JZ-3	43-6012	Legal secretaries	Reading Comprehension	10
					Active Listening	10
					Time Management	10
					Active Learning	10
					Critical Thinking	10
					Active Learning	10
					Learning Strategies	10
					Social Perceptiveness	10
					Writing	10
					Service Orientation	10
					Speaking	10
					Active Learning	10
					Learning Strategies	10
					Social Perceptiveness	10
					Writing	10
					Service Orientation	10
					Social Perceptiveness	10
180,480	50,230	JZ-3	43-1011	First-line supervisors/managers of office and administrative support workers	Active Listening	10
					Speaking	10
					Reading Comprehension	10
					Time Management	10
					Active Learning	10
					Critical Thinking	10
					Active Learning	10
					Monitoring	10
					Time Management	10
					Management of Personnel Resources	10
					Judgment and Decision Making	10
					Critical Thinking	10
					Monitoring	10
					Instructing	10
					Social Perceptiveness	10
					Judgment and Decision Making	10
24,070	53,090	JZ-3	23-2011	Paralegals and legal assistants	Reading Comprehension	10
					Time Management	10
					Active Learning	10
					Writing	10
					Speaking	10
					Active Learning	10
					Active Listening	10
					Time Management	10
					Judgment and Decision Making	10
3,930	41,700	JZ-4	23-2092	Law clerks	Reading Comprehension	10
					Critical Thinking	10
					Writing	10
					Active Learning	10
					Active Listening	10
					Time Management	10
					Judgment and Decision Making	10
					Complex Problem Solving	10
					Social Perceptiveness	10
					Persuasion	10
61,940	132,670	JZ-5	23-1011	Lawyers	Reading Comprehension	10
					Judgment and Decision Making	10
					Writing	10
					Critical Thinking	10
					Active Listening	10
					Persuasion	10
					Time Management	10
					Negotiation	10
					Speaking	10
					Active Learning	10

Professional and Technical Services

List of Skills for Occupations Employed in Legal Services

Number of Occupations within JZ	JZ-1	JZ-2	JZ-3	JZ-4	JZ-5	Number
Total Employment Range (2005)	207,640	126,560 - 396,750	24,070 - 214,050	3,930	61,940	
Average Annual Salary Range (2005)	\$ 23,360	\$25,980 - \$27,470	\$25,070 - \$53,090	\$41,700	\$132,670	
Skill	Job Zone	JZ-2	JZ-3	JZ-4	JZ-5	Number
Active Listening		1	2	6	1	11
Active Learning		0	1	5	1	8
Critical Thinking		0	1	5	1	8
Social Perceptiveness		0	2	3	1	6
Time Management		1	1	6	1	10
Complex Problem Solving		0	0	0	1	1
Judgment and Decision Making		1	0	3	1	6
Writing		1	2	4	1	9
Speaking		1	2	6	0	10
Instruction		1	0	2	0	3
Learning Strategies		0	1	3	0	4
Coordination		1	0	4	0	5
Reading Comprehension		1	2	6	1	11
Service Orientation		0	1	2	0	3
Monitoring		0	0	3	0	3
Equipment Selection		1	0	0	0	1
Negotiation		0	0	0	0	1
Persuasion		0	0	0	1	2
Mathematics		0	0	1	0	1
Management of Personnel Resources		0	0	1	0	1
Equipment Maintenance		1	0	0	0	1
Total	10	15	60	10	10	105

Top Third
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Professional and Technical Services

List of Skills for Occupations Employed in Other Professional and Technical Services

TOT_EMP	8,180	26,660	208,200	6,300	180,480	226,740	124,560	820	4,100	21,520	175,920	39,660	
A_MEAN	\$ 31,380	\$ 32,030	\$ 35,880	\$ 36,390	\$ 50,230	\$ 112,740	\$ 64,390	\$ 95,880	\$ 97,250	\$ 41,940	\$ 60,860	\$ 101,470	
Job Zone	JZ-3	JZ-3	JZ-3	JZ-3	JZ-3	JZ-3	JZ-4	JZ-4	JZ-5	N/A	N/A	N/A	
SOC-Code	29-2056	43-4111	43-3031	27-4021	43-1011	11-1021	13-2011	19-2021	29-1131	41-9099	13-1199	11-9199	
Occupation Title	Veterinary technologists and technicians	Interviewers, except eligibility and loan technicians	Bookkeeping, accounting, and auditing clerks	Photographers	First-line supervisors/managers of office and administrative support workers	General and operations managers	Accountants and auditors	Atmospheric and space scientists	Veterinarians	Sales and related workers, all other	Business operations specialists, all other	Managers, all other	
Skills	Active Listening Reading Comprehension Speaking Critical Thinking Active Learning Mathematics Instructing Learning Strategies Time Management	Active Listening Reading Comprehension Speaking Service Orientation Writing Social Perceptiveness	Mathematics Reading Comprehension Time Management Active Listening Critical Thinking Active Learning Learning Strategies Social Perceptiveness Critical Thinking Time Management	Active Listening Monitoring Persuasion Time Management Time Management Coordination Judgment and Decision Making Active Learning	Active Listening Speaking Reading Comprehension Critical Thinking Monitoring Time Management Time Management Management of Personnel Resources Judgment and Decision Making Equipment Selection	Active Listening Coordination Critical Thinking Speaking Time Management Complex Problem Solving	Mathematics Active Listening Critical Thinking Monitoring Judgment and Decision Making Writing Active Learning	Science Judgment and Decision Making Critical Thinking Reading Comprehension Writing Time Management Active Learning	Active Listening Reading Comprehension Critical Thinking Complex Problem Solving Speaking Science	Not Available Not Available Not Available Not Available Not Available Not Available Not Available	Not Available Not Available Not Available Not Available Not Available Not Available Not Available	Not Available Not Available Not Available Not Available Not Available Not Available Not Available	Not Available Not Available Not Available Not Available Not Available Not Available Not Available
Total	10	10	10	10	10	10	8	10	10	0	0	0	

Professional and Technical Services

List of Skills for Occupations Employed in Other Professional and Technical Services

Number of Occupations within JZ	0	3	6	2	1	3	15
Total Employment Range (2005)	N/A	8,230 - 396,750	6,300 - 226,740	820 - 124,560	4,100	21,520 - 175,920	
Average Annual Salary Range (2005)	N/A	\$22,750 - \$27,470	\$31,380 - \$112,740	\$64,390 - \$95,880	\$ 97,250	\$41,940 - \$101,470	
Skill	JZ-1	JZ-2	JZ-3	JZ-4	JZ-5	JZ-N/A	Number
Active Listening	0	3	6	2	1	0	12
Reading Comprehension	0	3	5	2	1	0	11
Speaking	0	3	6	1	1	0	11
Service Orientation	0	2	2	0	0	0	4
Writing	0	2	2	2	0	0	6
Social Perceptiveness	0	2	3	0	0	0	5
Learning Strategies	0	2	3	0	0	0	5
Critical Thinking	0	2	5	2	1	0	10
Time Management	0	2	6	1	1	0	10
Monitoring	0	0	4	1	0	0	5
Mathematics	0	1	2	1	1	0	5
Instructing	0	1	2	0	0	0	3
Science	0	0	1	1	1	0	3
Judgment and Decision Making	0	0	3	2	1	0	6
Active Learning	0	2	3	1	1	0	7
Persuasion	0	0	1	0	0	0	1
Coordination	0	0	2	1	0	0	3
Equipment Selection	0	0	1	0	0	0	1
Complex Problem Solving	0	0	1	1	1	0	3
Management of Personnel Resources	0	0	2	0	0	0	2
Total	0	25	60	18	10	0	113

Top Third
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Government



FEDERAL GOVERNMENT (NAICS 910000)

STATE GOVERNMENT (NAICS 920000)

LOCAL GOVERNMENT (NAICS 930000)

Government

List of Skills for Occupations Employed in Federal Government

Number of Occupations within JZ	0	0	1	9	1	2	3	9	25
Total Employment Range (2005)	N/A	N/A	27,810	940 - 234,260	10,870	27,970 - 49,790	4,910 - 61,940	2,950 - 175,920	
Average Annual Salary Range (2005)	N/A	N/A	\$ 57,090	\$35,220 - \$114,800	\$ 73,820	\$76,970 - \$93,410	\$73,120 - \$132,670	\$30,680 - \$146,200	
Skill	JZ-1	JZ-2	JZ-2/3/4/5	JZ-3	JZ-3/4	JZ-4	JZ-5	JZ-N/A	Number
Active Listening	0	0	1	9	1	2	3	0	16
Mathematics	0	0	0	3	0	1	0	0	4
Reading Comprehension	0	0	1	7	1	2	3	0	14
Active Learning	0	0	1	7	0	2	3	0	13
Speaking	0	0	1	8	1	0	2	0	12
Complex Problem Solving	0	0	0	4	1	2	1	0	8
Service Orientation	0	0	0	3	0	1	1	0	5
Critical Thinking	0	0	1	9	1	2	3	0	16
Instructing	0	0	1	3	1	0	0	0	5
Time Management	0	0	0	3	0	1	1	0	5
Monitoring	0	0	0	4	0	1	0	0	5
Social Perceptiveness	0	0	0	4	1	0	1	0	6
Writing	0	0	1	4	1	0	3	0	9
Judgment and Decision Making	0	0	1	4	1	1	3	0	10
Quality Control Analysis	0	0	0	0	0	1	0	0	1
Learning Strategies	0	0	1	1	0	0	0	0	2
Equipment Selection	0	0	0	2	0	1	0	0	3
Coordination	0	0	1	4	1	1	2	0	9
Science	0	0	1	1	0	0	0	0	2
Negotiation	0	0	1	2	0	0	1	0	4
Management of Material Resources	0	0	0	1	0	0	0	0	1
Troubleshooting	0	0	0	1	0	2	0	0	3
Persuasion	0	0	0	0	0	0	1	0	1
Operations Analysis	0	0	0	0	0	0	1	0	1
Systems Analysis	0	0	0	1	0	0	1	0	2
Total	0	0	12	85	10	20	30	0	157

Top Third
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Government

List of Skills for Occupations Employed in State Government

Number of Occupations within JZ	JZ-1	JZ-2	JZ-2/3	JZ-2/3/4/5	JZ-3	JZ-4	JZ-5	JZ-N/A	Number
Total Employment Range (2005)	126,180	23,270 - 396,750	26,530	27,810	2,950 - 234,260	10,550 - 50,400	4,230 - 61,940	2,350 - 175,920	33
Average Annual Salary Range (2005)	\$ 24,570	\$27,470 - \$42,830	\$ 58,080	\$ 57,090	\$34,720 - \$94,450	\$57,690 - \$96,070	\$50,780 - \$132,670	\$26,650 - \$101,470	
Skill	Job Zone								
Active Listening	1	5	1	1	9	6	3	0	26 ✓
Social Perceptiveness	0	1	0	0	8	2	2	0	13
Speaking	1	5	0	1	8	5	3	0	23 ✓
Monitoring	0	2	0	0	5	2	0	0	9
Writing	0	4	0	1	5	5	2	0	17
Critical Thinking	0	3	1	1	9	6	2	0	22 ✓
Reading Comprehension	1	4	0	1	8	6	3	0	23 ✓
Coordination	0	2	1	1	4	3	1	0	12
Instructing	0	0	0	1	4	2	2	0	9
Persuasion	0	0	0	0	0	0	1	0	1
Time Management	1	3	0	0	4	6	2	0	16
Management of Personnel Resources	0	0	0	0	3	1	1	0	5
Judgment and Decision Making									
Mathematics	0	2	1	1	3	4	2	0	13
Science	0	2	0	0	1	2	1	0	6
Negotiation	0	0	0	1	1	1	1	0	4
Quality Control Analysis	0	0	0	0	2	0	1	0	4
Service Orientation	0	2	1	0	2	2	0	0	7
Troubleshooting	0	0	0	0	0	2	0	0	2
Complex Problem Solving	0	0	0	0	1	5	0	0	6
Active Learning	0	2	0	1	3	4	3	0	13
Learning Strategies	0	2	0	1	1	1	0	0	5
Equipment Maintenance	1	0	1	0	0	0	0	0	3
Equipment Selection	1	0	1	0	0	0	0	0	2
Technology Design	0	0	0	0	0	1	0	0	1
Programming	0	0	0	0	0	1	0	0	1
Operations Analysis	0	0	0	0	0	1	0	0	1
Systems Analysis	0	0	0	0	0	1	0	0	1
Operation and Control	0	1	0	0	0	0	0	0	1
Operation Monitoring	0	1	0	0	0	0	0	0	1
Repairing	1	0	0	0	0	0	0	0	1
Total	7	41	7	12	83	70	30	0	250

Top Third
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Government

List of Skills for Occupations Employed in Local Government

128,880	20,960	19,450	214,050	35,220	180,480	8,250	24,070	35,570	11,210	60,460	23,450	234,260	6,510	7,260	226,740
\$ 36,630	\$ 41,180	\$ 42,080	\$ 43,250	\$ 47,720	\$ 50,230	\$ 50,800	\$ 53,090	\$ 61,000	\$ 61,980	\$ 67,940	\$ 71,870	\$ 75,130	\$ 85,670	\$ 94,450	\$ 112,740
JZ-3	JZ-3	JZ-3	JZ-3	JZ-3	JZ-3	JZ-3	JZ-3	JZ-3	JZ-3	JZ-3	JZ-3	JZ-3	JZ-3	JZ-3	JZ-3
49-9042	25-3021	43-4061	43-6011	43-6012	43-1011	51-8031	23-2011	33-3012	47-4011	33-3051	15-1081	29-1111	33-1021	33-1012	11-1021
Maintenance and repair workers, general	Self-enrichment education teachers	Eligibility interviewers, government programs	Executive secretaries and administrative assistants	Legal secretaries	First-line supervisors/managers of office and administrative support workers	Water and liquid waste treatment plant and system operators	Paralegals and legal assistants	Correctional officers and jailers	Construction and building inspectors	Police and sheriff's patrol officers	Network systems and data communications analysts	Registered nurses	First-line supervisors/managers of fire fighting and prevention workers	First-line supervisors/managers of police and detectives	General and operations managers
Equipment Maintenance	Instructing	Active Listening	Active Listening	Reading Comprehension	Active Listening	Reading Comprehension	Reading Comprehension	Active Listening	Critical Thinking	Active Listening	Equipment Selection	Active Listening	Active Listening	Active Listening	Active Listening
Repairing	Speaking	Reading Comprehension	Reading Comprehension	Active Listening	Speaking	Operation and Control	Time Management	Social Perceptiveness	Active Listening	Critical Thinking	Troubleshooting	Reading Comprehension	Judgment and Decision Making	Coordination	Coordination
Troubleshooting	Active Listening	Time Management	Time Management	Time Management	Reading Comprehension	Troubleshooting	Active Listening	Speaking	Quality Control Analysis	Writing	Complex Problem Solving	Critical Thinking	Equipment Selection	Speaking	Critical Thinking
Active Listening	Learning Strategies	Speaking	Speaking	Writing	Critical Thinking	Active Listening	Writing	Monitoring	Speaking	Speaking	Active Listening	Coordination	Speaking	Monitoring	Speaking
Installation	Social Perceptiveness	Writing	Writing	Active Learning	Monitoring	Monitoring	Speaking	Judgment and Decision Making	Judgment and Decision Making	Social Perceptiveness	Active Learning	Speaking	Service Orientation	Reading Comprehension	Time Management
Equipment Selection	Monitoring	Active Learning	Critical Thinking	Speaking	Time Management	Operation Monitoring	Active Learning	Critical Thinking	Complex Problem Solving	Service Orientation	Critical Thinking	Active Learning	Coordination	Writing	Complex Problem Solving
Critical Thinking	Coordination	Critical Thinking	Active Learning	Learning Strategies	Management of Personnel Resources	Equipment Maintenance	Coordination	Reading Comprehension	Reading Comprehension	Reading Comprehension	Installation	Service Orientation	Instructing	Critical Thinking	Judgment and Decision Making
Reading Comprehension	Time Management	Social Perceptiveness	Judgment and Decision Making	Judgment and Decision Making	Judgment and Decision Making	Learning Strategies	Coordination	Coordination	Active Learning	Monitoring	Reading Comprehension	Monitoring	Critical Thinking	Social Perceptiveness	Management of Personnel Resources
Operation Monitoring	Service Orientation	Service Orientation	Monitoring	Coordination	Instructing	Critical Thinking	Active Learning	Active Learning	Systems Analysis	Active Learning	Judgment and Decision Making	Equipment Maintenance	Complex Problem Solving	Complex Problem Solving	Monitoring
Coordination	Active Learning	Learning Strategies	Critical Thinking	Critical Thinking	Social Perceptiveness	Mathematics	Judgment and Decision Making	Negotiation	Writing	Writing	Technology Design	Writing	Management of Personnel Resources	Management of Personnel Resources	Reading Comprehension

List of Skills for Occupations Employed in Local Government

Number of Occupations within JZ	4	6	2	18	1	7	3	8	49
Total Employment Range (2005)	11,030 - 207,640	3,770 - 396,750	4,930 - 26,530	6,510 - 234,260	10,870	3,480 - 63,700	10,310 - 61,940	3,680 - 175,920	
Average Annual Salary Range (2005)	\$18,420 - \$24,570	\$21,140 - \$44,780	\$43,100 - \$58,080	\$31,630 - \$112,740	\$ 73,820	\$23,270 - \$82,200	\$42,070 - \$132,670	\$23,710 - \$62,400	
Skill	JZ-1	JZ-2	JZ-2/3	JZ-3	JZ-3/4	JZ-4	JZ-5	JZ-N/A	Number
Job Zone	Top Third (of 41)								
Judgment and Decision Making	2	1	1	9	1	6	2	0	22
Active Listening	4	6	2	18	1	7	3	0	41 ✓
Critical Thinking	2	4	1	17	1	7	3	0	35 ✓
Writing	2	2	1	10	1	4	2	0	22
Speaking	4	5	1	15	1	4	3	0	33 ✓
Social Perceptiveness	2	3	0	9	1	2	2	0	19
Reading Comprehension	3	6	1	15	1	6	3	0	35 ✓
Operation Monitoring	0	2	0	2	0	0	0	0	4
Equipment Maintenance	2	3	1	3	0	0	0	0	9
Operation and Control	0	2	0	1	0	1	0	0	4
Coordination	2	3	2	11	1	4	0	0	23
Time Management	3	2	1	8	0	7	2	0	23
Service Orientation	2	2	2	7	0	2	2	0	17
Equipment Selection	2	2	1	3	0	0	0	0	8
Instructing	3	1	1	3	1	3	0	0	12
Management of Personnel Resources	0	0	0	3	0	2	0	0	5
Learning Strategies	2	2	0	5	0	0	1	0	10
Active Learning	0	2	1	10	0	4	3	0	20
Monitoring	1	2	0	10	0	3	2	0	18
Mathematics	0	1	0	2	0	1	0	0	4
Persuasion	0	0	0	0	0	0	1	0	1
Repairing	1	1	0	1	0	0	0	0	3
Troubleshooting	0	1	0	3	0	1	0	0	5
Negotiation	0	0	0	1	0	1	1	0	3
Complex Problem Solving	0	0	0	4	1	3	0	0	8
Technology Design	0	0	0	1	0	0	0	0	1
Installation	0	0	0	2	0	0	0	0	2
Quality Control Analysis	0	1	0	1	0	2	0	0	4
Systems Analysis	0	0	0	1	0	0	0	0	1
Total	37	54	16	175	10	70	30	0	392

Wholesale Trade



GROCERY PRODUCT MERCHANT WHOLESALERS (NAICS 424400)

WHOLESALE ELECTRONIC MARKETS AND AGENTS AND BROKERS (NAICS 425000)

MACHINERY AND SUPPLY MERCHANT WHOLESALERS (NAICS 423800)

MISCELLANEOUS NONDURABLE GOODS MERCHANT WHOLESALERS (NAICS 424900)

MISCELLANEOUS DURABLE GOODS MERCHANT WHOLESALERS (NAICS 423900)

Wholesale Trade

List of Skills for Occupations Employed in Grocery Product Merchant Wholesalers

Number of Occupations within JZ	JZ-1	JZ-1/2	JZ-2	JZ-3	JZ-4	JZ-5	Number	
Total Employment Range (2005)	40,770 - 118,360	199,180	13,120 - 276,490	59,520 - 226,740	25,120	N/A	18	
Average Annual Salary Range (2005)	\$18,630 - \$24,690	\$ 24,040	\$23,210 - \$42,830	\$50,100 - \$112,740	\$83,870	N/A	18	
Skill	Job Zone	JZ-1	JZ-1/2	JZ-2	JZ-3	JZ-4	JZ-5	Number
Active Listening		2	1	11	3	1	0	18
Reading Comprehension		2	1	9	3	1	0	16
Active Learning		1	1	4	2	1	0	9
Learning Strategies		1	0	5	0	0	0	6
Time Management		1	0	9	2	1	0	13
Speaking		2	1	7	3	1	0	14
Mathematics		1	1	4	0	0	0	6
Service Orientation		1	0	4	1	1	0	7
Persuasion		0	0	0	1	0	0	1
Judgment and Decision Making								
Equipment Maintenance		0	0	4	2	0	0	6
Quality Control Analysis		0	0	3	0	0	0	3
Monitoring		0	0	1	0	0	0	2
Management of Personnel Resources		0	0	4	2	0	0	6
Operation and Control		0	0	0	1	0	0	1
Instructing		0	0	4	0	0	0	4
Writing		0	0	3	1	1	0	6
Critical Thinking		0	0	3	0	1	0	4
Social Perceptiveness		1	1	6	2	0	0	10
Coordination		2	1	2	1	1	0	7
Troubleshooting		2	1	6	3	1	0	13
Operation Monitoring		0	0	3	0	0	0	3
Negotiation		0	0	2	0	0	0	2
Complex Problem Solving		0	0	0	1	0	0	1
Total		16	10	94	30	10	0	160

Top Third
(of 18)

Wholesale Trade

List of Skills for Occupations Employed in Electronic Markets and Agents and Brokers

TOT_EMP	118,360	356,880	207,640	199,180	276,490	100,380	396,750	106,390	42,580	69,220	199,440	208,200	19,060	214,050
A_MEAN	\$ 18,630	\$ 21,420	\$ 23,360	\$ 24,040	\$ 23,210	\$ 27,410	\$ 27,470	\$ 28,760	\$ 29,810	\$ 32,780	\$ 34,110	\$ 35,880	\$ 39,470	\$ 43,250
Job Zone	JZ-1	JZ-1	JZ-1	JZ-1/2	JZ-2	JZ-2	JZ-2	JZ-2	JZ-2	JZ-2	JZ-2	JZ-3	JZ-3	JZ-3
SOC-Code	53-7064	41-2011	37-2011	43-5081	53-7062	53-3033	43-9061	43-5071	43-4151	53-7051	43-4051	43-3031	43-4161	43-6011
Occupation Title	Packers and packagers, hand	Cashiers	Janitors and cleaners, except maids and housekeeping cleaners	Stock clerks and order fillers	Laborers and freight, stock, light or material movers, hand	Truck drivers, delivery services	Office clerks, general	Shipping, receiving, and traffic clerks	Order clerks	Industrial truck and tractor operators	Customer service representatives	Bookkeeping, accounting, and auditing clerks	Human resources assistants, except payroll and timekeeping	Executive secretaries and administrative assistants
	Active Listening	Active Listening	Reading Comprehension	Active Listening	Active Listening	Active Listening	Active Listening	Active Listening	Reading Comprehension	Operation Monitoring	Active Listening	Mathematics	Active Listening	Active Listening
	Coordination	Mathematics	Active Listening	Speaking	Reading Comprehension	Time Management	Reading Comprehension	Reading Comprehension	Active Listening	Active Listening	Reading Comprehension	Reading Comprehension	Reading Comprehension	Reading Comprehension
	Speaking	Speaking	Speaking	Reading Comprehension	Instructing	Equipment Maintenance	Speaking	Speaking	Speaking	Operation and Control	Monitoring	Time Management	Speaking	Time Management
	Learning Strategies	Instructing	Coordination	Coordination	Coordination	Reading Comprehension	Writing	Time Management	Time Management	Monitoring	Speaking	Active Listening	Time Management	Speaking
	Reading Comprehension	Social Perceptiveness	Equipment Selection	Social Perceptiveness	Learning Strategies	Social Perceptiveness	Social Perceptiveness	Service Orientation	Critical Thinking	Critical Thinking	Time Management	Critical Thinking	Critical Thinking	Writing
	Social Perceptiveness	Service Orientation	Time Management	Mathematics	Time Management	Coordination		Writing	Speaking	Speaking	Service Orientation	Active Learning	Writing	Critical Thinking
		Learning Strategies	Equipment Maintenance	Active Learning	Speaking	Learning Strategies	Active Learning	Active Learning			Active Learning	Learning Strategies	Mathematics	Active Learning
		Critical Thinking	Writing	Instructing	Learning Strategies	Learning Strategies	Mathematics	Monitoring	Mathematics		Learning Strategies	Social Perceptiveness	Learning Strategies	Coordination
			Instructing	Quality Control Analysis	Operation and Control	Operation and Control	Coordination	Coordination	Coordination		Writing	Writing	Instructing	Monitoring
			Judgment and Decision Making	Critical Thinking	Service Orientation	Service Orientation	Critical Thinking	Critical Thinking	Critical Thinking		Critical Thinking	Speaking	Social Perceptiveness	Service Orientation
Total	6	8	10	10	6	10	5	10	10	6	10	10	10	10

10

24

57

Wholesale Trade

List of Skills for Occupations Employed in Electronic Markets and Agents and Brokers

Number of Occupations within JZ		3	1	7	6	8	25	
Total Employment Range (2005)		118,360 - 356,880	199,180	42,580 - 396,750	19,060 - 226,740	8,790 - 124,560		
Average Annual Salary Range (2005)		\$18,630 - \$23,360	\$ 24,040	\$23,210 - \$34,110	\$35,880 - \$112,740	\$64,390 - \$120,600		
Skill	Job Zone	JZ-1	JZ-1/2	JZ-2	JZ-3	JZ-4	JZ-5	Number
Active Listening		3	1	7	6	7	0	24 N
Reading Comprehension		2	1	6	6	8	0	23 N
Time Management		1	0	5	5	3	0	14
Speaking		3	1	6	5	5	0	20 N
Writing		1	0	4	3	3	0	11
Operation Monitoring		0	0	1	0	0	0	1
Monitoring		0	0	3	2	4	0	9
Instructing		2	1	1	1	0	0	5
Service Orientation		1	0	3	2	2	0	8
Persuasion		0	0	0	1	2	0	3
Mathematics		1	1	2	2	3	0	9
Negotiation		0	0	0	1	2	0	3
Management of Personnel Resources		0	0	0	1	1	0	2
Systems Analysis		0	0	0	0	2	0	2
Troubleshooting		0	0	0	1	2	0	3
Management of Material Resources		0	0	0	0	1	0	1
Equipment Maintenance		1	0	1	0	0	0	2
Operation and Control		0	0	2	0	0	0	2
Judgment and Decision Making		1	0	0	2	5	0	8
Critical Thinking		1	1	4	5	8	0	19 N
Learning Strategies		2	0	4	2	0	0	8
Active Learning		0	1	2	4	5	0	12
Coordination		2	1	3	3	3	0	12
Social Perceptiveness		2	1	3	3	3	0	12
Equipment Selection		1	0	0	1	0	0	2
Complex Problem Solving		0	0	0	2	3	0	5
Quality Control Analysis		0	1	0	0	1	0	2
Operations Analysis		0	0	0	0	2	0	2
Installation		0	0	0	0	1	0	1
Technology Design		0	0	0	0	1	0	2
Programming		0	0	0	0	2	0	2
Total		24	10	57	60	78	0	229

Top Third
(of 25)

Wholesale Trade

List of Skills for Occupations Employed in Machinery and Supply Merchant Wholesalers

TOT_EMP	276,490	100,380	396,750	106,390	42,580	22,150	131,760
A_MEAN	\$ 23,210	\$ 27,410	\$ 21,470	\$ 28,760	\$ 29,810	\$ 35,190	\$ 38,500
Job Zone	JZ-2	JZ-2	JZ-2	JZ-2	JZ-2	JZ-2	JZ-2
SOC Code	53-7062	53-3033	43-9061	43-5071	43-4151	41-2022	53-3032
Occupation Title	Laborers and freight, stock, and material movers, hand	Truck drivers, light or delivery services	Office clerks, general	Shipping, receiving, and traffic clerks	Order clerks	Parts salespersons	Truck drivers, heavy and tractor-trailer
	Active Listening	Active Listening	Active Listening	Active Listening	Reading Comprehension	Active Listening	Equipment Maintenance
	Reading Comprehension	Time Management	Reading Comprehension	Active Listening	Speaking	Speaking	Active Listening
	Instructing	Equipment Maintenance	Speaking	Speaking	Speaking	Reading Comprehension	Time Management
	Coordination	Reading Comprehension	Writing	Time Management	Time Management	Coordination	Coordination
	Learning Strategies	Social Perceptiveness	Social Perceptiveness	Service Orientation	Service Orientation	Instructing	Judgment and Decision Making
	Time Management	Coordination	Mathematics	Writing	Writing	Critical Thinking	Reading Comprehension
		Speaking	Learning Strategies	Active Learning	Active Learning	Service Orientation	Troubleshooting
		Learning Strategies	Monitoring	Mathematics	Mathematics	Social Perceptiveness	Speaking
		Operation and Control	Social Perceptiveness	Coordination	Coordination	Active Learning	Mathematics
		Service Orientation	Critical Thinking	Critical Thinking	Critical Thinking	Coordination	Critical Thinking

TOT_EMP	208,200	128,880	145,050	145,050	226,740
A_MEAN	\$ 35,880	\$ 36,630	\$ 60,660	\$ 60,660	\$ 112,740
Job Zone	JZ-3	JZ-3	JZ-3	JZ-3	JZ-3
SOC Code	43-3031	49-9042	41-4012	41-4012	11-1021
Occupation Title	Bookkeeping, accounting, and auditing clerks	Maintenance and repair workers, general	Sales representatives, wholesale and manufacturing, except technical and scientific products	Sales representatives, wholesale and manufacturing, technical and scientific products	General and operations managers
	Mathematics	Equipment Maintenance	Active Listening	Active Listening	Active Listening
	Reading Comprehension	Repairing	Speaking	Speaking	Coordination
	Time Management	Troubleshooting	Time Management	Time Management	Critical Thinking
	Active Listening	Active Listening	Reading Comprehension	Reading Comprehension	Speaking
	Critical Thinking	Installation	Persuasion	Persuasion	Time Management
	Active Learning	Equipment Selection	Service Orientation	Service Orientation	Complex Problem Solving
	Learning Strategies	Critical Thinking	Negotiation	Negotiation	Judgment and Decision Making
	Social Perceptiveness	Reading Comprehension	Social Perceptiveness	Social Perceptiveness	Management of Personnel Resources
	Writing	Operation Monitoring	Active Learning	Active Learning	Monitoring
	Speaking	Coordination	Coordination	Coordination	Reading Comprehension

TOT_EMP	11,800	42,950	49,200
A_MEAN	\$ 50,400	\$ 77,480	\$ 114,770
Job Zone	JZ-4	JZ-4	JZ-4
SOC Code	49-3042	41-4011	11-2022
Occupation Title	Troubleshooting	Sales representatives, wholesale and manufacturing, technical and scientific products	Sales managers
	Repairing	Speaking	Active Listening
	Equipment Maintenance	Persuasion	Speaking
	Equipment Selection	Active Listening	Coordination
	Installation	Time Management	Reading Comprehension
	Operation Monitoring	Negotiation	Social Perceptiveness
	Operation and Control	Service Orientation	Writing
	Complex Problem Solving	Social Perceptiveness	Critical Thinking
	Judgment and Decision Making	Reading Comprehension	Persuasion
	Critical Thinking	Active Learning	Judgment and Decision Making

Total

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Wholesale Trade

List of Skills for Occupations Employed in Machinery and Supply Merchant Wholesalers

Number of Occupations within JZ		JZ-1	JZ-2	JZ-3	JZ-4	JZ-5	Number
Skill	Job Zone						Top Third (of 14)
Active Listening		0	7	4	2	0	13 ✓
Reading Comprehension		0	7	4	2	0	13 ✓
Critical Thinking		0	4	3	3	0	10 ✓
Speaking		0	6	3	2	0	11 ✓
Time Management		0	6	3	1	0	10 ✓
Active Learning		0	2	2	2	0	6
Social Perceptiveness		0	4	2	2	0	8
Judgment and Decision Making		0	1	1	1	0	3
Learning Strategies		0	3	1	0	0	4
Writing		0	3	1	1	0	5
Persuasion		0	0	1	2	0	3
Coordination		0	5	3	1	0	9
Service Orientation		0	3	1	1	0	5
Repairing		0	0	1	1	0	2
Troubleshooting		0	1	1	1	0	3
Mathematics		0	3	1	1	0	5
Instructing		0	2	0	0	0	2
Equipment Maintenance		0	2	1	1	0	4
Equipment Selection		0	0	1	1	0	2
Negotiation		0	0	1	1	0	2
Installation		0	0	1	1	0	2
Monitoring		0	1	1	0	0	2
Operation Monitoring		0	0	1	1	0	2
Operation and Control		0	1	0	1	0	2
Management of Personnel Resources		0	0	1	0	0	1
Complex Problem Solving		0	0	1	1	0	2
Total		0	61	40	30	0	131

Wholesale Trade

List of Skills for Occupations Employed in Miscellaneous Nondurable Goods Merchant Wholesalers

TOT_EMP	146,220	118,360	199,180	276,490	95,990	100,380	396,750	106,390	39,740	26,080	145,050	226,740	32,700
A_MEAN	\$ 17,210	\$ 18,630	\$ 24,040	\$ 23,210	\$ 24,430	\$ 27,410	\$ 27,470	\$ 28,760	\$ 42,830	\$ 43,100	\$ 60,660	\$ 112,740	\$ 170,710
Job Zone	JZ-1	JZ-1	JZ-1/2	JZ-2	JZ-2	JZ-2	JZ-2	JZ-2	JZ-2	JZ-3	JZ-3	JZ-3	JZ-5
SOC-Code	45-2092	53-7064	43-5081	53-7062	51-2092	53-3033	43-9061	43-5071	43-5061	49-3031	41-4012	11-1021	11-1011
Occupation Title	Farmworkers and laborers, crop, nursery, and greenhouse	Packers and packagers, hand	Stock clerks and order fillers	Laborers and freight, stock, and material movers, hand	Team assemblers	Truck drivers, light or delivery services	Office clerks, general	Shipping, receiving, and traffic clerks	Production, planning, and expediting clerks	Bus and truck mechanics and diesel engine specialists	Sales representatives, wholesale and manufacturing, except technical and scientific products	General and operations managers	Chief executives
	Equipment Selection	Active Listening	Active Listening	Active Listening	Learning Strategies	Active Listening	Active Listening	Active Listening	Active Listening	Equipment Maintenance	Active Listening	Active Listening	Judgment and Decision Making
	Mathematics	Coordination	Speaking	Reading Comprehension	Active Listening	Time Management	Reading Comprehension	Reading Comprehension	Reading Comprehension	Troubleshooting	Speaking	Coordination	Management of Financial Resources
	Equipment Maintenance	Speaking	Reading Comprehension	Mathematics	Instructing	Quality Control Analysis	Active Learning	Active Learning	Active Learning	Instructing	Quality Control Analysis	Active Learning	Coordination
	Active Listening	Learning Strategies	Mathematics	Coordination	Active Learning	Active Learning	Active Learning	Active Learning	Active Learning	Coordination	Active Learning	Active Learning	Critical Thinking
	Repairing	Reading Comprehension	Active Learning	Learning Strategies	Instructing	Social Perceptiveness	Social Perceptiveness	Writing	Active Learning	Installation	Persuasion	Time Management	Negotiation
	Troubleshooting	Social Perceptiveness	Quality Control Analysis	Time Management	Operation Monitoring	Coordination	Coordination	Mathematics	Judgment and Decision Making	Coordination	Service Orientation	Complex Problem Solving	Active Listening
	Coordination	Coordination	Coordination	Equipment Selection	Equipment Selection	Speaking	Speaking	Learning Strategies	Time Management	Equipment Selection	Negotiation	Judgment and Decision Making	Monitoring
	Speaking	Social Perceptiveness	Social Perceptiveness	Reading Comprehension	Reading Comprehension	Learning Strategies	Monitoring	Monitoring	Writing	Active Listening	Social Perceptiveness	Management of Personnel Resources	Complex Problem Solving
	Time Management	Instructing	Instructing	Coordination	Coordination	Operation and Control	Social Perceptiveness	Social Perceptiveness	Service Orientation	Judgment and Decision Making	Active Learning	Monitoring	Reading Comprehension
		Critical Thinking	Critical Thinking	Equipment Maintenance	Equipment Maintenance	Service Orientation	Critical Thinking	Critical Thinking	Mathematics	Learning Strategies	Coordination	Reading Comprehension	Speaking
Total	9	6	10	6	10	10	5	10	10	10	10	10	10

10

30

51

10

15

Wholesale Trade

List of Skills for Occupations Employed in Miscellaneous Nondurable Goods Merchant Wholesalers

Number of Occupations within IZ	2	1	6	3	0	1	13
Job Zone	JZ-1	JZ-1/2	JZ-2	JZ-3	JZ-4	JZ-5	Number
Total Employment Range (2005)	118,360 - 146,220	199,180	39,740 - 396,750	26,080 - 226,740	N/A	32,700	
Average Annual Salary Range (2005)	\$17,210 - \$18,630	\$ 24,040	\$23,210 - \$42,830	\$43,100 - \$112,740	N/A	\$ 170,710	
Skill	JZ-1	JZ-1/2	JZ-2	JZ-3	JZ-4	JZ-5	Number
Active Listening	2	1	6	3	0	1	13
Equipment Selection	1	0	1	1	0	0	3
Speaking	2	1	4	2	0	1	10
Reading Comprehension	1	1	6	3	0	1	12
Learning Strategies	1	0	4	1	0	0	6
Active Learning	0	1	2	1	0	0	4
Judgment and Decision Making	0	0	1	2	0	1	4
Equipment Maintenance	1	0	2	1	0	0	4
Time Management	1	0	4	2	0	0	7
Critical Thinking	0	1	1	1	0	1	4
Coordination	2	1	4	3	0	1	11
Social Perceptiveness	1	1	3	1	0	0	6
Operation and Control	0	0	1	0	0	0	1
Operation Monitoring	0	0	1	0	0	0	1
Management of Personnel Resources	0	0	0	1	0	0	1
Management of Financial Resources	0	0	0	0	0	1	1
Service Orientation	0	0	2	1	0	0	3
Persuasion	0	0	0	1	0	0	1
Instructing	0	1	2	0	0	0	3
Monitoring	0	0	1	1	0	1	3
Quality Control Analysis	0	1	1	0	0	0	2
Negotiation	0	0	0	1	0	1	2
Writing	0	0	3	0	0	0	3
Mathematics	1	1	2	0	0	0	4
Troubleshooting	1	0	0	1	0	0	2
Repairing	1	0	0	1	0	0	2
Complex Problem Solving	0	0	0	1	0	1	2
Installation	0	0	0	1	0	0	1
Total	15	10	51	30	0	10	116

Top Third (of 13)

Wholesale Trade

List of Skills for Occupations Employed in Miscellaneous Durable Goods Merchant Wholesalers

TOT_EMP	A_MEAN	Job Zone	SOC-Code	Occupation Title	Active Listening	Reading Comprehension	Speaking	Writing	Mathematics	Quality Control Analysis	Service Orientation	Monitoring	Time Management	Coordination	Judgment and Decision Making	Critical Thinking	Active Learning	Equipment Maintenance	Team assemblers	Order clerks	Customer service representatives	Truck drivers, heavy and tractor-trailer	First-line supervisors/managers of transportation and material-moving machine and vehicle operators	
207,640	23,360	JZ-1	37-2011	Janitors and cleaners, except maids and housekeeping cleaners	Reading Comprehension	Active Listening	Speaking	Writing	Equipment Selection	Time Management	Equipment Maintenance	Instructing	Judgment and Decision Making	10										
199,180	24,040	JZ-1/2	43-5081	Stock clerks and order fillers	Active Listening	Speaking	Reading Comprehension	Mathematics	Active Learning	Quality Control Analysis	Coordination	Social Perceptiveness	Instructing	Critical Thinking	10									
276,490	23,210	JZ-2	53-7062	Laborers and freight, stock, and material movers, hand	Active Listening	Reading Comprehension	Instructing	Coordination	Learning Strategies	Time Management	Equipment Maintenance	Time Management	Equipment Maintenance	6										
95,990	24,430	JZ-2	51-2092	Team assemblers	Learning Strategies	Active Listening	Quality Control Analysis	Active Learning	Instructing	Active Learning	Instructing	Operation Monitoring	Equipment Selection	Reading Comprehension	Coordination	Judgment and Decision Making	10							
46,380	24,730	JZ-2	51-9111	Packaging and filling machine operators and tenders	Reading Comprehension	Quality Control Analysis	Active Listening	Operation and Control	Instructing	Equipment Maintenance	Coordination	Troubleshooting	Time Management	10										
396,750	27,470	JZ-2	43-9061	Office clerks, general	Active Listening	Reading Comprehension	Speaking	Writing	Social Perceptiveness					5										
106,390	28,760	JZ-2	43-5071	Shipping, receiving, and traffic clerks	Active Listening	Reading Comprehension	Speaking	Writing	Mathematics					10										
42,580	29,810	JZ-2	43-4151	Order clerks	Reading Comprehension	Active Listening	Speaking	Service Orientation	Writing					10										
48,210	32,580	JZ-2	51-9061	Inspectors, testers, sorters, samplers, and weighers	Quality Control Analysis	Active Listening	Reading Comprehension	Monitoring	Operation Monitoring	Learning Strategies	Mathematics	Speaking	Time Management	10										
199,440	34,110	JZ-2	43-4051	Customer service representatives	Active Listening	Reading Comprehension	Monitoring	Time Management	Judgment and Decision Making					10										
131,760	38,500	JZ-2	53-3032	Truck drivers, heavy and tractor-trailer	Equipment Maintenance	Active Listening	Time Management	Coordination	Judgment and Decision Making					10										
208,200	35,880	JZ-3	43-3031	Bookkeeping, accounting, and auditing clerks	Mathematics	Active Listening	Reading Comprehension	Time Management	Active Listening	Critical Thinking	Active Learning	Learning Strategies	Social Perceptiveness	Writing	Speaking	Reading Comprehension	10							
21,810	55,580	JZ-3	53-1031	First-line supervisors/managers of transportation and material-moving machine and vehicle operators	Active Listening	Speaking	Time Management	Management of Personnel Resources	Coordination					10										

Total

10

10

10

10

10

10

10

10

10

10

10

10

81

Wholesale Trade

List of Skills for Occupations Employed in Miscellaneous Durable Goods Merchant Wholesalers

145,050	226,740	49,200	32,700
\$ 60,660	\$ 112,740	\$ 114,770	\$ 170,710
JZ-3	JZ-3	JZ-4	JZ-5
41-4012	11-1021	11-2022	11-1011
Sales representatives, wholesale and manufacturing, except technical and scientific products	General and operations managers	Sales managers	Chief executives
Active Listening	Active Listening	Active Listening	Judgment and Decision Making
Speaking	Coordination	Speaking	Management of Financial Resources
Time Management	Critical Thinking	Coordination	Coordination
Reading Comprehension	Speaking	Reading Comprehension	Critical Thinking
Persuasion	Time Management	Social Perceptiveness	Negotiation
Service Orientation	Complex Problem Solving	Writing	Active Listening
Negotiation	Judgment and Decision Making	Critical Thinking	Monitoring
Social Perceptiveness	Management of Personnel Resources	Persuasion	Complex Problem Solving
Active Learning	Monitoring	Active Learning	Reading Comprehension
Coordination	Reading Comprehension	Judgment and Decision Making	Speaking
10	10	10	10
10	10	10	10
40	10	10	10
			161

Wholesale Trade

List of Skills for Occupations Employed in Miscellaneous Durable Goods Merchant Wholesalers

Number of Occupations within JZ	JZ-1	JZ-1/2	JZ-2	JZ-3	JZ-4	JZ-5	Number	
Total Employment Range (2005)	207,640	199,180	42,580 - 396,750	21,810 - 226,740	49,200	32,700	17	
Average Annual Salary Range (2005)	\$ 23,360	\$ 24,040	\$23,210 - \$38,500	\$35,880 - \$112,740	\$114,770	\$ 170,710		
Skill	Job Zone	JZ-1	JZ-1/2	JZ-2	JZ-3	JZ-4	JZ-5	Number
Active Listening		1	1	9	4	1	1	17
Mathematics		0	1	4	1	1	0	7
Reading Comprehension		1	1	9	4	1	1	17
Speaking		1	1	6	4	1	1	14
Time Management		1	0	7	4	0	0	12
Learning Strategies		0	0	5	1	0	0	6
Critical Thinking		0	1	4	3	1	1	10
Judgment and Decision Making								
		1	0	2	2	0	1	6
Writing		1	0	4	1	1	0	7
Active Learning		0	1	4	2	1	0	8
Coordination		1	1	5	3	1	1	12
Social Perceptiveness		0	1	2	3	1	0	7
Persuasion		0	0	0	1	1	0	2
Service Orientation		0	0	2	1	0	0	3
Troubleshooting		0	0	2	0	0	0	2
Quality Control Analysis		0	1	3	0	0	0	4
Management of Personnel Resources		0	0	0	2	0	0	2
Instructing		1	1	4	1	0	0	7
Negotiation		0	0	0	1	0	1	2
Equipment Maintenance		1	0	3	0	0	0	4
Operation and Control		0	0	1	0	0	0	1
Monitoring		0	0	2	1	0	1	4
Management of Financial Resources		0	0	0	0	0	1	1
Operation Monitoring		0	0	2	0	0	0	2
Equipment Selection		1	0	1	0	0	0	2
Complex Problem Solving		0	0	0	1	0	1	2
Total	10	10	81	40	10	10	10	161

Top Third
(of 17)

Retail Trade



GROCERY STORES (NAICS 445100)

**BUILDING MATERIAL AND SUPPLIES DEALERS (NAICS
4441)**

DEPARTMENT STORES (NAICS 452100)

AUTOMOBILE DEALERS (NAICS 441100)

GASOLINE STATIONS (NAICS 447000)

Retail Trade

List of Skills for Occupations Employed in Grocery Stores

TOT_EMP	A_MEAN	Job Zone	SOC-Code	Occupation Title	Active Listening	Reading Comprehension	Speaking	Instructing	Mathematics	Service Orientation	Social Perceptiveness	Learning Strategies	Critical Thinking	Writing	Complex Problem Solving	Judgment and Decision Making	Management of Personnel Resources	Monitoring	Reading Comprehension	
208,910	\$ 17,920	JZ-1	35-3021	Combined food preparation and serving workers, including fast food workers	Active Listening	Speaking	Instructing	Mathematics	Service Orientation	Social Perceptiveness										
118,360	\$ 18,630	JZ-1	53-7064	Packers and packagers, hand	Active Listening	Coordination	Speaking	Learning Strategies	Reading Comprehension	Social Perceptiveness										
108,010	\$ 18,920	JZ-1	35-2021	Food preparation workers	Active Listening	Reading Comprehension	Instructing	Speaking	Learning Strategies	Social Perceptiveness										
356,880	\$ 21,420	JZ-1	41-2011	Cashiers	Active Listening	Mathematics	Speaking	Instructing		Social Perceptiveness										
10,860	\$ 21,950	JZ-1	51-3022	Meat, poultry, and fish cutters and trimmers	Active Listening	Time Management														
199,180	\$ 24,040	JZ-1/2	43-5081	Stock clerks and order fillers	Reading Comprehension	Speaking	Mathematics	Instructing	Active Listening	Active Learning	Critical Thinking	Quality Control Analysis	Coordination	Social Perceptiveness						
18,200	\$ 25,310	JZ-2	51-3011	Bakers	Instructing	Judgment and Decision Making	Time Management	Active Listening	Reading Comprehension	Speaking	Quality Control Analysis	Mathematics	Monitoring	Coordination						
17,740	\$ 29,500	JZ-2	51-3021	Butchers and meat cutters	Active Listening	Service Orientation														
23,360	\$ 34,320	JZ-2	29-2052	Pharmacy technicians	Active Listening	Speaking	Active Learning	Service Orientation	Service Orientation	Reading Comprehension	Mathematics	Time Management	Learning Strategies	Writing						
125,210	\$ 39,850	JZ-2	41-1011	First-line supervisors/retail sales workers	Management of Personnel Resources	Active Listening	Service Orientation	Time Management	Instructing	Monitoring	Reading Comprehension	Judgment and Decision Making	Active Learning	Critical Thinking						
226,740	\$ 112,740	JZ-3	11-1021	General and operations managers	Active Listening	Coordination	Critical Thinking	Speaking	Time Management	Complex Problem Solving	Judgment and Decision Making	Management of Personnel Resources	Monitoring	Reading Comprehension						
23,700	\$ 106,150	JZ-5	29-1051	Pharmacists	Active Listening	Speaking	Reading Comprehension	Mathematics	Science	Critical Thinking	Writing	Instructing	Social Perceptiveness	Active Learning						

Total

31

10

32

10

10

Retail Trade

List of Skills for Occupations Employed in Grocery Stores

Number of Occupations within JZ	5	1	4	1	0	1	0	1	12
Total Employment Range (2005)	10,860 - 356,880	199,180	17,740 - 125,210	226,740	N/A	23,700			
Average Annual Salary Range (2005)	\$17,920 - \$21,950	\$ 24,040	\$25,310 - \$39,850	\$ 112,740	N/A	\$ 106,150			
Job Zone	JZ-1	JZ-1/2	JZ-2	JZ-3	JZ-4	JZ-5	Number	Top Third (of 12)	
Active Listening	5	1	4	1	0	1	12	✓	
Mathematics	3	1	2	0	0	1	7		
Speaking	4	1	2	1	0	1	9	✓	
Social Perceptiveness	4	1	0	0	0	1	6		
Critical Thinking	1	1	1	1	0	1	5		
Writing	0	0	1	0	0	1	2		
Judgment and Decision Making	0	0	2	1	0	0	3		
Instructing	3	1	3	0	0	1	8	✓	
Reading Comprehension	2	1	3	1	0	1	8	✓	
Service Orientation	3	0	3	0	0	0	6		
Learning Strategies	3	0	1	0	0	0	4		
Active Learning	0	1	2	0	0	1	4		
Monitoring	0	0	2	1	0	0	3		
Time Management	1	0	3	1	0	0	5		
Management of Personnel Resources	0	0	1	1	0	0	2		
Coordination	2	1	1	1	0	0	5		
Science	0	0	0	0	0	1	1		
Quality Control Analysis	0	1	1	0	0	0	2		
Complex Problem Solving	0	0	0	1	0	0	1		
Total	31	10	32	10	0	10	93		

Retail Trade

List of Skills for Occupations Employed in Building Material and Supplies Dealers

Number of Occupations within JZ	2	1	9	JZ-2	JZ-1/2	JZ-2/3	JZ-3	JZ-4	JZ-5	Number
Total Employment Range (2005)	207,640 - 356,880	199,180	7,180 - 481,990	144,450	17,060 - 226,740	17,450	N/A			17
Average Annual Salary Range (2005)	\$21,420 - \$23,360	\$ 24,040	\$23,210 - \$46,900	\$ 48,440	\$43,100 - \$112,740	\$57,690	N/A			
Skill	Job Zone	JZ-1	JZ-1/2	JZ-2	JZ-2/3	JZ-3	JZ-4	JZ-5	Number	Top Third (of 17)
Active Listening		2	1	9	1	3	1	0	17	✓
Mathematics		1	1	4	1	0	0	0	7	
Speaking		2	1	7	0	1	1	0	12	✓
Social Perceptiveness		1	1	3	0	1	1	0	7	
Critical Thinking		1	1	7	1	1	0	0	11	✓
Writing		1	0	3	0	0	1	0	5	
Judgment and Decision Making		1	0	4	1	2	0	0	8	
Instructing		2	1	4	0	0	1	0	8	
Reading Comprehension		1	1	8	1	3	1	0	15	✓
Service Orientation		1	0	3	0	0	0	0	4	
Learning Strategies		1	0	4	0	1	1	0	7	
Active Learning		0	1	2	0	0	0	0	3	
Monitoring		0	0	4	0	1	0	0	5	
Time Management		1	0	6	1	1	1	0	10	
Management of Personnel Resources		0	0	1	0	1	0	0	2	
Equipment Maintenance		1	0	2	0	2	0	0	5	
Operation and Control		0	0	2	0	0	0	0	2	
Operation Monitoring		0	0	1	0	1	0	0	2	
Equipment Selection		1	0	1	1	1	0	0	4	
Coordination		1	1	4	1	2	1	0	10	
Troubleshooting		0	0	1	0	2	0	0	3	
Installation		0	0	1	0	2	0	0	3	
Repairing		0	0	0	0	2	0	0	2	
Quality Control Analysis		0	1	0	0	0	0	0	1	
Complex Problem Solving		0	0	0	0	1	1	0	2	
Total	18	10	81	8	28	10	0	10	155	

Retail Trade

List of Skills for Occupations Employed in Department Stores

TOT_EMP	A_MEAN	Job Zone	SOC-Code	Occupation Title	6	7	9	10	10	10	10	10
208,910	\$ 17,920	JZ-1	35-3021	Combined food preparation and serving workers, including fast food	Active Listening							
356,880	\$ 21,420	JZ-1	41-2011	Cashiers	Active Listening							
199,180	\$ 24,040	JZ-1/2	43-5081	Stock clerks and order fillers	Reading Comprehension							
276,490	\$ 23,210	JZ-2	53-7062	Laborers and freight, stock, and material movers, hand	Active Listening	Active Listening						
136,680	\$ 23,740	JZ-2	33-9032	Security guards	Active Listening	Active Listening						
481,990	\$ 25,270	JZ-2	41-2031	Retail salespersons	Active Listening	Mathematics						
106,390	\$ 28,760	JZ-2	43-5071	Shipping, receiving, and traffic clerks	Active Listening	Active Listening						
199,440	\$ 34,110	JZ-2	43-4051	Customer service representatives	Active Listening	Active Listening						
125,210	\$ 39,850	JZ-2	41-1011	First-line supervisors/managers of retail sales workers	Management of Personnel Resources	Active Listening						
276,490	\$ 23,210	JZ-2	53-7062	Laborers and freight, stock, and material movers, hand	Reading Comprehension	Reading Comprehension						
136,680	\$ 23,740	JZ-2	33-9032	Security guards	Reading Comprehension	Reading Comprehension						
481,990	\$ 25,270	JZ-2	41-2031	Retail salespersons	Speaking	Speaking						
106,390	\$ 28,760	JZ-2	43-5071	Shipping, receiving, and traffic clerks	Speaking	Speaking						
199,440	\$ 34,110	JZ-2	43-4051	Customer service representatives	Monitoring	Monitoring						
125,210	\$ 39,850	JZ-2	41-1011	First-line supervisors/managers of retail sales workers	Service Orientation	Service Orientation						
276,490	\$ 23,210	JZ-2	53-7062	Laborers and freight, stock, and material movers, hand	Instructing	Coordination						
136,680	\$ 23,740	JZ-2	33-9032	Security guards	Instructing	Coordination						
481,990	\$ 25,270	JZ-2	41-2031	Retail salespersons	Speaking	Social Perceptiveness						
106,390	\$ 28,760	JZ-2	43-5071	Shipping, receiving, and traffic clerks	Speaking	Time Management						
199,440	\$ 34,110	JZ-2	43-4051	Customer service representatives	Monitoring	Speaking						
125,210	\$ 39,850	JZ-2	41-1011	First-line supervisors/managers of retail sales workers	Time Management	Time Management						
276,490	\$ 23,210	JZ-2	53-7062	Laborers and freight, stock, and material movers, hand	Learning Strategies	Learning Strategies						
136,680	\$ 23,740	JZ-2	33-9032	Security guards	Learning Strategies	Learning Strategies						
481,990	\$ 25,270	JZ-2	41-2031	Retail salespersons	Critical Thinking	Critical Thinking						
106,390	\$ 28,760	JZ-2	43-5071	Shipping, receiving, and traffic clerks	Writing	Writing						
199,440	\$ 34,110	JZ-2	43-4051	Customer service representatives	Time Management	Time Management						
125,210	\$ 39,850	JZ-2	41-1011	First-line supervisors/managers of retail sales workers	Instructing	Instructing						
276,490	\$ 23,210	JZ-2	53-7062	Laborers and freight, stock, and material movers, hand	Time Management	Judgment and Decision Making						
136,680	\$ 23,740	JZ-2	33-9032	Security guards	Judgment and Decision Making	Judgment and Decision Making						
481,990	\$ 25,270	JZ-2	41-2031	Retail salespersons	Critical Thinking	Judgment and Decision Making						
106,390	\$ 28,760	JZ-2	43-5071	Shipping, receiving, and traffic clerks	Mathematics	Learning Strategies						
199,440	\$ 34,110	JZ-2	43-4051	Customer service representatives	Active Learning	Active Learning						
125,210	\$ 39,850	JZ-2	41-1011	First-line supervisors/managers of retail sales workers	Reading Comprehension	Reading Comprehension						
276,490	\$ 23,210	JZ-2	53-7062	Laborers and freight, stock, and material movers, hand								
136,680	\$ 23,740	JZ-2	33-9032	Security guards								
481,990	\$ 25,270	JZ-2	41-2031	Retail salespersons								
106,390	\$ 28,760	JZ-2	43-5071	Shipping, receiving, and traffic clerks								
199,440	\$ 34,110	JZ-2	43-4051	Customer service representatives								
125,210	\$ 39,850	JZ-2	41-1011	First-line supervisors/managers of retail sales workers								
199,180	\$ 24,040	JZ-1/2	43-5081	Stock clerks and order fillers								
276,490	\$ 23,210	JZ-2	53-7062	Laborers and freight, stock, and material movers, hand								
136,680	\$ 23,740	JZ-2	33-9032	Security guards								
481,990	\$ 25,270	JZ-2	41-2031	Retail salespersons								
106,390	\$ 28,760	JZ-2	43-5071	Shipping, receiving, and traffic clerks								
199,440	\$ 34,110	JZ-2	43-4051	Customer service representatives								
125,210	\$ 39,850	JZ-2	41-1011	First-line supervisors/managers of retail sales workers								
276,490	\$ 23,210	JZ-2	53-7062	Laborers and freight, stock, and material movers, hand								
136,680	\$ 23,740	JZ-2	33-9032	Security guards								
481,990	\$ 25,270	JZ-2	41-2031	Retail salespersons								
106,390	\$ 28,760	JZ-2	43-5071	Shipping, receiving, and traffic clerks								
199,440	\$ 34,110	JZ-2	43-4051	Customer service representatives								
125,210	\$ 39,850	JZ-2	41-1011	First-line supervisors/managers of retail sales workers								
199,180	\$ 24,040	JZ-1/2	43-5081	Stock clerks and order fillers								
276,490	\$ 23,210	JZ-2	53-7062	Laborers and freight, stock, and material movers, hand								
136,680	\$ 23,740	JZ-2	33-9032	Security guards								
481,990	\$ 25,270	JZ-2	41-2031	Retail salespersons								
106,390	\$ 28,760	JZ-2	43-5071	Shipping, receiving, and traffic clerks								
199,440	\$ 34,110	JZ-2	43-4051	Customer service representatives								
125,210	\$ 39,850	JZ-2	41-1011	First-line supervisors/managers of retail sales workers								
199,180	\$ 24,040	JZ-1/2	43-5081	Stock clerks and order fillers								
276,490	\$ 23,210	JZ-2	53-7062	Laborers and freight, stock, and material movers, hand								
136,680	\$ 23,740	JZ-2	33-9032	Security guards								
481,990	\$ 25,270	JZ-2	41-2031	Retail salespersons								
106,390	\$ 28,760	JZ-2	43-5071	Shipping, receiving, and traffic clerks								
199,440	\$ 34,110	JZ-2	43-4051	Customer service representatives								
125,210	\$ 39,850	JZ-2	41-1011	First-line supervisors/managers of retail sales workers								
199,180	\$ 24,040	JZ-1/2	43-5081	Stock clerks and order fillers								
276,490	\$ 23,210	JZ-2	53-7062	Laborers and freight, stock, and material movers, hand								
136,680	\$ 23,740	JZ-2	33-9032	Security guards								
481,990	\$ 25,270	JZ-2	41-2031	Retail salespersons								
106,390	\$ 28,760	JZ-2	43-5071	Shipping, receiving, and traffic clerks								
199,440	\$ 34,110	JZ-2	43-4051	Customer service representatives								
125,210	\$ 39,850	JZ-2	41-1011	First-line supervisors/managers of retail sales workers								
199,180	\$ 24,040	JZ-1/2	43-5081	Stock clerks and order fillers								
276,490	\$ 23,210	JZ-2	53-7062	Laborers and freight, stock, and material movers, hand								
136,680	\$ 23,740	JZ-2	33-9032	Security guards								
481,990	\$ 25,270	JZ-2	41-2031	Retail salespersons								
106,390	\$ 28,760	JZ-2	43-5071	Shipping, receiving, and traffic clerks								
199,440	\$ 34,110	JZ-2	43-4051	Customer service representatives								
125,210	\$ 39,850	JZ-2	41-1011	First-line supervisors/managers of retail sales workers								
199,180	\$ 24,040	JZ-1/2	43-5081	Stock clerks and order fillers								
276,490	\$ 23,210	JZ-2	53-7062	Laborers and freight, stock, and material movers, hand								
136,680	\$ 23,740	JZ-2	33-9032	Security guards								
481,990	\$ 25,270	JZ-2	41-2031	Retail salespersons								
106,390	\$ 28,760	JZ-2	43-5071	Shipping, receiving, and traffic clerks								
199,440	\$ 34,110	JZ-2	43-4051	Customer service representatives								
125,210	\$ 39,850	JZ-2	41-1011	First-line supervisors/managers of retail sales workers								
199,180	\$ 24,040	JZ-1/2	43-5081	Stock clerks and order fillers								
276,490	\$ 23,210	JZ-2	53-7062	Laborers and freight, stock, and material movers, hand								
136,680	\$ 23,740	JZ-2	33-9032	Security guards								
481,990	\$ 25,270	JZ-2	41-2031	Retail salespersons								
106,390	\$ 28,760	JZ-2	43-5071	Shipping, receiving, and traffic clerks								
199,440	\$ 34,110	JZ-2	43-4051	Customer service representatives								
125,210	\$ 39,850	JZ-2	41-1011	First-line supervisors/managers of retail sales workers								
199,180	\$ 24,040	JZ-1/2	43-5081	Stock clerks and order fillers								
276,490	\$ 23,210	JZ-2	53-7062	Laborers and freight, stock, and material movers, hand								
136,680	\$ 23,740	JZ-2	33-9032	Security guards								
481,990	\$ 25,270	JZ-2	41-2031	Retail salespersons								
106,390	\$ 28,760	JZ-2	43-5071	Shipping, receiving, and traffic clerks								
199,440	\$ 34,110	JZ-2	43-4051	Customer service representatives								
125,210	\$ 39,850	JZ-2	41-1011	First-line supervisors/managers of retail sales workers								
199,180	\$ 24,040	JZ-1/2	43-5081	Stock clerks and order fillers								
276,490	\$ 23,210	JZ-2	53-7062	Laborers and freight, stock, and material movers, hand								
136,680	\$ 23,740	JZ-2	33-9032	Security guards								
481,990	\$ 25,270	JZ-2	41-2031	Retail salespersons								
106,390	\$ 28,760	JZ-2	43-5071	Shipping, receiving, and traffic clerks								
199,440	\$ 34,110	JZ-2	43-4051	Customer service representatives								
125,210	\$ 39,850	JZ-2	41-1011	First-line supervisors/managers of retail sales workers								
199,180	\$ 24,040	JZ-1/2	43-5081	Stock clerks and order fillers								
276,490	\$ 23,210	JZ-2	53-7062	Laborers and freight, stock, and material movers, hand								
136,680	\$ 23,740	JZ-2	33-9032	Security guards								

Retail Trade

List of Skills for Occupations Employed in Department Stores

Number of Occupations within JZ	2	1	6	1	0	0	10
Total Employment Range (2005)	208,910 - 356,880	199,180	106,390 - 481,990	180,480	N/A	N/A	N/A
Average Annual Salary Range (2005)	\$17,920 - \$21,420	\$ 24,040	\$23,210 - \$39,850	\$ 50,230	N/A	N/A	N/A
Skill	Job Zone	JZ-1	JZ-2	JZ-3	JZ-4	JZ-5	Number
Active Listening		2	1	6	1	0	10 ✓
Mathematics		2	1	2	0	0	5
Speaking		2	1	4	1	0	8 ✓
Social Perceptiveness		2	1	3	1	0	7 ✓
Critical Thinking		1	1	5	1	0	8 ✓
Writing		0	0	3	0	0	3
Judgment and Decision Making		0	0	3	1	0	4
Instructing		2	1	3	1	0	7 ✓
Reading Comprehension		0	1	6	1	0	8 ✓
Service Orientation		2	0	2	0	0	4
Learning Strategies		1	0	3	0	0	4
Active Learning		0	1	2	0	0	3
Monitoring		0	0	4	1	0	5
Time Management		0	0	4	1	0	5
Management of Personnel Resources		0	0	1	1	0	2
Coordination		0	1	1	0	0	2
Quality Control Analysis		0	1	0	0	0	1
Total		14	10	52	10	0	86

Top Third
(of 10)

Retail Trade

List of Skills for Occupations Employed in Automobile Dealers

Number of Occupations within JZ	JZ-1	JZ-2	JZ-3	JZ-4	JZ-5	Number	
Total Employment Range (2005)	48,370 - 356,880	22,150 - 481,990	3,070 - 208,200	5,130 - 49,200	N/A		
Average Annual Salary Range (2005)	\$19,970 - \$26,630	\$25,270 - \$39,850	\$30,440 - \$41,260	\$87,300 - \$114,770	N/A		
Skill	Job Zone	JZ-1	JZ-2	JZ-3	JZ-4	JZ-5	Number
Active Listening		4	4	3	2	0	13 ✓
Mathematics		2	1	2	0	0	5
Speaking		3	3	3	2	0	11 ✓
Social Perceptiveness		1	3	2	1	0	7
Critical Thinking		1	3	3	2	0	9
Writing		0	2	2	2	0	6
Judgment and Decision Making		0	2	0	2	0	4
Instructing		1	3	1	0	0	5
Reading Comprehension		2	4	4	2	0	12 ✓
Troubleshooting		0	0	2	0	0	2
Repairing		1	0	2	0	0	3
Equipment Selection		1	0	2	0	0	3
Active Learning		0	2	3	2	0	7
Equipment Maintenance		2	0	1	0	0	3
Service Orientation		1	2	0	0	0	3
Coordination		0	1	1	2	0	4
Monitoring		0	1	0	0	0	1
Management of Personnel Resources		0	1	0	0	0	1
Persuasion		0	0	0	1	0	1
Learning Strategies		1	0	2	0	0	3
Time Management		1	2	2	0	0	5
Installation		0	0	1	0	0	1
Complex Problem Solving		0	0	1	1	0	2
System Analysis		0	0	0	1	0	1
Total	21	34	37	20	0	0	112

Top Third (of 14)

Retail Trade

List of Skills for Occupations Employed in Gasoline Stations

Number of Occupations within JZ	7	1	3	0	0	0	11	
Total Employment Range (2005)	8,730 - 356,880	125,210	65,920 - 226,740	N/A	N/A	N/A		
Average Annual Salary Range (2005)	\$17,920 - \$23,360	\$ 39,850	\$55,880 - \$112,740	N/A	N/A	N/A		
Job Zone	JZ-1	JZ-2	JZ-3	JZ-4	JZ-5	Number	Top Third (of 11)	
Active Listening	7	1	2	0	0	10	√	
Mathematics	4	0	1	0	0	5		
Speaking	6	0	2	0	0	8	√	
Instructing	6	1	0	0	0	7		
Social Perceptiveness	4	0	1	0	0	5		
Service Orientation	5	1	0	0	0	6		
Learning Strategies	4	0	1	0	0	5		
Critical Thinking	3	1	3	0	0	7		
Judgment and Decision Making	1	1	1	0	0	3		
Time Management	2	1	2	0	0	5		
Management of Personnel Resources	0	1	1	0	0	2		
Equipment Maintenance	3	0	1	0	0	4		
Troubleshooting	1	0	1	0	0	2		
Repairing	0	0	1	0	0	1		
Equipment Selection	1	0	1	0	0	2		
Coordination	3	0	1	0	0	4		
Writing	1	0	1	0	0	2		
Active Learning	1	1	2	0	0	4		
Reading Comprehension	3	1	3	0	0	7		
Monitoring	0	1	1	0	0	2		
Complex Problem Solving	0	0	1	0	0	1		
Total	55	10	27	0	0	92		

Appendix 2: O*Net Job Skills*

In order to successfully attain and hold a job, an individual must demonstrate a variety of characteristics, knowledge, and skills. These requirements are summarized by occupation on O*Net. In this analysis, knowledge represents the acquisition of facts and principles, and experience lays the foundation for establishing procedures to work with that knowledge. These procedures are more commonly known as skills. Skills may be further divided into basic skills and cross-functional skills. Basic skills, such as reading, facilitate the acquisition of new knowledge while cross-functional skills, such as problem solving, extend across a number of activities.

Basic Skills are defined as “Developed capacities that facilitate learning or the more rapid acquisition of knowledge.” They are broken down into content and process skills.

Content Skills – Background structures needed to work with and acquire more specific skills in a variety of different domains.

- **Reading Comprehension** – Understanding written sentences and paragraphs in work related documents.
- **Active Listening** – Giving full attention to what other people are saying, taking time to understand the points being made, asking questions as appropriate, and not interrupting at inappropriate times.
- **Writing** – Communicating effectively in writing as appropriate for the needs of the audience.
- **Speaking** – Talking to others to convey information effectively.
- **Mathematics** – Using mathematics to solve problems.
- **Science** – Using scientific rules and methods to solve problems.

Process Skills – Procedures that contribute to the more rapid acquisition of knowledge and skill across a variety of domains.

- **Critical Thinking** – Using logic and reasoning to identify the strengths and weaknesses of alternative solutions, conclusions or approaches to problems.
- **Active Learning** – Understanding the implications of new information for both current and future problem solving and decision making.
- **Learning Strategies** – Selecting and using training/instructional methods and procedures appropriate for the situation when learning or teaching new things.
- **Monitoring** – Monitoring/Assessing performance of yourself, other individuals, or organizations to make improvements or take corrective action.

* This information is taken directly from O*Net of the U.S. Department of Labor and can be viewed at: http://www.onetcenter.org/dl_files/ContentModel_DetailedDesc.pdf.

Cross-Functional Skills are defined as “Developed capacities that facilitate performance of activities that occur across jobs.” They are broken down into categories including social, complex problem solving, technical, systems, and resource management skills.

Social Skills – Developed capacities used to work with people to achieve goals.

- **Social Perceptiveness** – Being aware of others' reactions and understanding why they react as they do.
- **Coordination** – Adjusting actions in relation to others' actions.
- **Persuasion** – Persuading others to change their minds or behavior.
- **Negotiation** – Bringing others together and trying to reconcile differences.
- **Instructing** – Teaching others how to do something.
- **Service Orientation** – Actively looking for ways to help people.

Complex Problem Solving Skills – Developed capacities used to solve novel, ill-defined problems in complex, real-world settings.

- **Complex Problem Solving** – Identifying complex problems and reviewing related information to develop and evaluate options and implement solutions.

Technical Skills – Developed capacities used to design, set up, operate, and correct malfunctions involving application of machines or technological systems.

- **Operations Analysis** – Analyzing needs and product requirements to create a design.
- **Technology Design** – Generating or adapting equipment and technology to serve user needs.
- **Equipment Selection** – Determining the kind of tools and equipment needed to do a job.
- **Installation** – Installing equipment, machines, wiring, or programs to meet specifications.
- **Programming** – Writing computer programs for various purposes.
- **Operation Monitoring** – Watching gauges, dials, or other indicators to make sure a machine is working properly.
- **Operation and Control** – Controlling operations of equipment or systems.
- **Equipment Maintenance** – Performing routine maintenance on equipment and determining when and what kind of maintenance is needed.
- **Troubleshooting** – Determining causes of operating errors and deciding what to do about it.
- **Repairing** – Repairing machines or systems using the needed tools.
- **Quality Control Analysis** – Conducting tests and inspections of products, services, or processes to evaluate quality or performance.

Systems Skills – Developed capacities used to understand, monitor, and improve sociotechnical systems.”

- ***Judgment and Decision Making*** – Considering the relative costs and benefits of potential actions to choose the most appropriate one.
- ***Systems Analysis*** – Determining how a system should work and how changes in conditions, operations, and the environment will affect outcomes.
- ***Systems Evaluation*** – Identifying measures or indicators of system performance and the actions needed to improve or correct performance, relative to the goals of the system.

Resource Management Skills – Developed capacities used to allocate resources efficiently.

- ***Time Management*** – Managing one's own time and the time of others.
- ***Management of Financial Resources*** – Determining how money will be spent to get the work done, and accounting for these expenditures.
- ***Management of Material Resources*** – Obtaining and seeing to the appropriate use of equipment, facilities, and materials needed to do certain work.
- ***Management of Personnel Resources*** – Motivating, developing, and directing people as they work, identifying the best people for the job.

Appendix 3: O*Net Job Zones*

Overview

A Job Zone is a group of occupations that are similar in these ways:

- how most people get into the work.
- how much overall experience people need to do the work.
- how much education people need to do the work.
- how much on-the-job training people need to do the work.

The five Job Zones are:

- Job Zone 1 - occupations that need little or no preparation
- Job Zone 2 - occupations that need some preparation
- Job Zone 3 - occupations that need medium preparation
- Job Zone 4 - occupations that need considerable preparation
- Job Zone 5 - occupations that need extensive preparation

Job Zone One: Little or No Preparation Needed

Overall Experience No previous work-related skill, knowledge, or experience is needed for these occupations. For example, a person can become a cashier even if he/she has never worked before.

Job Training Employees in these occupations need anywhere from a few days to a few months of training. Usually, an experienced worker could show you how to do the job.

Job Zone Examples These occupations involve following instructions and helping others. Examples include taxi drivers, amusement and recreation attendants, counter and rental clerks, cashiers, and waiters/waitresses.

SVP Range[†] (Below 4.0)

Education These occupations may require a high school diploma or GED certificate. Some may require a formal training course to obtain a license.

* This information is taken directly from O*Net of the U.S. Department of Labor and can be viewed at: <http://online.onetcenter.org/help/online/zones>.

[†] SVP is the Specific Vocational Preparation. Refer to Appendix 4 for more information regarding SVP.

Job Zone Two: Some Preparation Needed

Overall Experience Some previous work-related skill, knowledge, or experience may be helpful in these occupations, but usually is not needed. For example, a teller might benefit from experience working directly with the public, but an inexperienced person could still learn to be a teller with little difficulty.

Job Training Employees in these occupations need anywhere from a few months to one year of working with experienced employees.

Job Zone Examples These occupations often involve using your knowledge and skills to help others. Examples include sheet metal workers, forest fire fighters, customer service representatives, pharmacy technicians, salespersons (retail), and tellers.

SVP Range (4.0 to < 6.0)

Education These occupations usually require a high school diploma and may require some vocational training or job-related course work. In some cases, an associate's or bachelor's degree could be needed.

Job Zone Three: Medium Preparation Needed

Overall Experience Previous work-related skill, knowledge, or experience is required for these occupations. For example, an electrician must have completed three or four years of apprenticeship or several years of vocational training, and often must have passed a licensing exam, in order to perform the job.

Job Training Employees in these occupations usually need one or two years of training involving both on-the-job experience and informal training with experienced workers.

Job Zone Examples These occupations usually involve using communication and organizational skills to coordinate, supervise, manage, or train others to accomplish goals. Examples include funeral directors, electricians, forest and conservation technicians, legal secretaries, interviewers, and insurance sales agents.

SVP Range (6.0 to < 7.0)

Education Most occupations in this zone require training in vocational schools, related on-the-job experience, or an associate's degree. Some may require a bachelor's degree.

Job Zone Four: Considerable Preparation Needed

Overall Experience A minimum of two to four years of work-related skill, knowledge, or experience is needed for these occupations. For example, an accountant must complete four years of college and work for several years in accounting to be considered qualified.

Job Training Employees in these occupations usually need several years of work-related experience, on-the-job training, and/or vocational training.

Job Zone Examples Many of these occupations involve coordinating, supervising, managing, or training others. Examples include accountants, human resource managers, computer programmers, teachers, chemists, and police detectives.

SVP Range (7.0 to < 8.0)

Education Most of these occupations require a four-year bachelor's degree, but some do not.

Job Zone Five: Extensive Preparation Needed

Overall Experience Extensive skill, knowledge, and experience are needed for these occupations. Many require more than five years of experience. For example, surgeons must complete four years of college and an additional five to seven years of specialized medical training to be able to do their job.

Job Training Employees may need some on-the-job training, but most of these occupations assume that the person will already have the required skills, knowledge, work-related experience, and/or training.

Job Zone Examples These occupations often involve coordinating, training, supervising, or managing the activities of others to accomplish goals. Very advanced communication and organizational skills are required. Examples include librarians, lawyers, aerospace engineers, physicists, school psychologists, and surgeons.

SVP Range (8.0 and above)

Education A bachelor's degree is the minimum formal education required for these occupations. However, many also require graduate school. For example, they may require a master's degree, and some require a Ph.D., M.D., or J.D. (law degree).

Appendix 4: O*Net Specific Vocational Preparation*

Specific Vocational Preparation is a component of Worker Characteristics information found in the *Dictionary of Occupational Titles* (U.S. Department of Labor, 1991).[†]

Specific Vocational Preparation, as defined in Appendix C of the *Dictionary of Occupational Titles*, is the amount of time required by a typical worker to learn the techniques, acquire the information, and develop the facility needed for average performance in a specific job-worker situation.

This training may be acquired in a school, work, military, institutional, or vocational environment. It does not include the orientation time required of a fully qualified worker to become accustomed to the special conditions of any new job. Specific vocational training includes: vocational education, apprenticeship training, in-plant training, on-the-job training, and essential experience in other jobs.

Specific vocational training includes training given in any of the following circumstances:

1. Vocational education (high school, commercial or shop training, technical school, art school, and that part of college training which is organized around a specific vocational objective)
2. Apprenticeship training (for apprenticeable jobs only)
3. In-plant training (organized classroom study provided by an employer)
4. On-the-job training (serving as learner or trainee on the job under the instruction of a qualified worker)
5. Essential experience in other jobs (serving in less responsible jobs, which lead to the higher-grade job, or serving in other jobs which qualify).

*This information is taken directly from O*Net of the U.S. Department of Labor and can be viewed at: <http://online.onetcenter.org/help/online/svp>.

[†] U.S. Department of Labor, *Dictionary of Occupational Titles* (Rev. 4th ed.), (Washington, DC: U.S. Government Printing Office, 1991).

The following is an explanation of the various levels of specific vocational preparation:

Level Time*

1. Short demonstration only
2. Anything beyond short demonstration up to and including 1 month
3. Over 1 month up to and including 3 months
4. Over 3 months up to and including 6 months
5. Over 6 months up to and including 1 year
6. Over 1 year up to and including 2 years
7. Over 2 years up to and including 4 years
8. Over 4 years up to and including 10 years
9. Over 10 years

* Note: The levels of this scale are mutually exclusive and do not overlap.