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The Careers Project: An Economic Analysis of Ten Industry Clusters in California

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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,
Senator Loni Hancock,
Assemblymember Lori Saldaña,
Assemblymember Tom Torlakson,
Senator Mark Wyland,
former Assemblymember Greg Aghazarian,
former Assemblymember Guy Houston,
former Assemblymember Gene Mullin,
former Assemblymember Fabian Nuñez,
former Assemblymember Simon Salinas,
and former Senator Jack Scott*



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

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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, Berman 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)
Software Publishers (NAICS 511200)

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	28,240	226,740	27,970	50,400	91,680
A_MEAN	\$ 25,270	\$ 27,470	\$ 34,110	\$ 39,850	\$ 49,140	\$ 53,180	\$ 112,740	\$ 93,410	\$ 96,070	\$ 61,790
Job Zone	JZ-2	JZ-2	JZ-2	JZ-2	JZ-2	JZ-3	JZ-3	JZ-4	JZ-4	N/A
SOC-Code	41-2031	43-9061	43-4051	41-1011	49-9052	49-2022	11-1021	17-2072	15-1032	41-3099
Occupation Title	Retail salespersons	Office clerks, general	Customer service representatives	First-line supervisors/managers of retail sales workers	Telecommunications line installers and repairers	Telecommunications equipment installers and repairers, except line installers	General and operations managers	Electronics engineers, except computer	Computer software engineers, systems software	Sales representatives, services, all other
	Active Listening	Active Listening	Active Listening	Management of Personnel Resources	Installation	Installation	Active Listening	Reading Comprehension	Complex Problem Solving	Not Available
	Mathematics	Reading Comprehension	Reading Comprehension	Active Listening	Troubleshooting	Troubleshooting	Management of Personnel Resources	Complex Problem Solving	Technology Design	
	Speaking	Speaking	Monitoring	Service Orientation	Active Learning	Repairing	Time Management	Equipment Selection	Troubleshooting	
	Social Perceptiveness	Writing	Speaking	Time Management	Equipment Selection	Active Listening	Judgment and Decision Making	Troubleshooting	Critical Thinking	
	Critical Thinking	Social Perceptiveness	Time Management	Instructing	Active Listening	Reading Comprehension	Monitoring	Active Learning	Active Learning	
	Writing		Service Orientation	Monitoring	Reading Comprehension	Equipment Selection	Reading Comprehension	Critical Thinking	Programming	
	Judgment and Decision Making		Active Learning	Reading Comprehension	Critical Thinking	Active Learning	Speaking	Coordination	Reading Comprehension	
	Instructing		Learning Strategies	Judgment and Decision Making	Instructing	Speaking	Coordination	Mathematics	Systems Analysis	
	Reading Comprehension		Writing	Active Learning	Speaking	Time Management	Critical Thinking	Active Listening	Mathematics	
			Critical Thinking	Critical Thinking	Equipment Maintenance	Critical Thinking	Complex Problem Solving	Judgment and Decision Making	Operation Analysis	
Total	9	5	10	10	10	10	10	10	10	0
					44		20		20	0

Basic Information Services

List of Skills and Occupations Employed in Wired Telecommunications Carriers

Number of Occupations within JZ		0	5	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

14

California Research Bureau, California State Library

TOT_EMP	481,990	396,750	199,440	125,210	27,810	208,200	180,480	28,240	145,050
A_MEAN	\$ 25,270	\$ 27,470	\$ 34,110	\$ 39,850	\$ 57,090	\$ 35,880	\$ 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	JZ-3
SOC-Code	41-2031	43-9061	43-4051	41-1011	13-1041	43-3031	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	First-line supervisors/managers of office and administrative support workers	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	Active Listening	Installation	Active Listening
	Mathematics	Reading Comprehension	Reading Comprehension	Active Listening	Speaking	Reading Comprehension	Speaking	Troubleshooting	Speaking
	Speaking	Speaking	Monitoring	Service Orientation	Science	Time Management	Reading Comprehension	Repairing	Time Management
	Social Perceptiveness	Writing	Speaking	Time Management	Active Listening	Active Listening	Critical Thinking	Active Listening	Reading Comprehension
	Critical Thinking	Social Perceptiveness	Time Management	Instructing	Reading Comprehension	Critical Thinking	Monitoring	Reading Comprehension	Persuasion
	Writing		Service Orientation	Monitoring	Writing	Active Learning	Time Management	Equipment Selection	Service Orientation
	Judgment and Decision Making		Active Learning	Reading Comprehension	Coordination	Learning Strategies	Management of Personnel Resources	Active Learning	Negotiation
	Instructing		Learning Strategies	Judgment and Decision Making	Active Learning	Social Perceptiveness	Judgment and Decision Making	Speaking	Social Perceptiveness
	Reading Comprehension		Writing	Active Learning	Negotiation	Writing	Instructing	Time Management	Active Learning
			Critical Thinking	Critical Thinking	Learning Strategies	Speaking	Social Perceptiveness	Critical Thinking	Coordination
					Instructing				
					Judgment and Decision Making				
Total	9	5	10	10	12	10	10	10	10

Basic Information Services

Occupations Employed in Wireless Telecommunications Carriers

23,450	226,740
\$ 71,870	\$ 112,740
JZ-3	JZ-3
15-1081	11-1021
Network systems and data communications analysts	General and operations managers
Equipment Selection	Active Listening
Troubleshooting	Management of Personnel Resources
Complex Problem Solving	Time Management
Active Listening	Judgment and Decision Making
Active Learning	Monitoring
Critical Thinking	Reading Comprehension
Installation	Speaking
Reading Comprehension	Coordination
Judgment and Decision Making	Critical Thinking
Technology Design	Complex Problem Solving

10

10

60

31,930	49,790	84,550
\$ 72,680	\$ 76,970	\$ 91,590
JZ-4	JZ-4	JZ-4
15-1071	15-1051	15-1031
Network and computer systems administrators	Computer systems analysts	Computer software engineers, applications
Reading Comprehension	Active Learning	Programming
Speaking	Reading Comprehension	Critical Thinking
Active Listening	Complex Problem Solving	Complex Problem Solving
Monitoring	Critical Thinking	Active Learning
Complex Problem Solving	Active Listening	Troubleshooting
Critical Thinking	Troubleshooting	Judgment and Decision Making
Time Management	Monitoring	Technology Design
Coordination	Service Orientation	Reading Comprehension
Judgment and Decision Making	Time Management	Operations Analysis
Systems Evaluation	Quality Control Analysis	Systems Analysis

10

10

10

30

175,920	91,680	28,190
\$ 60,860	\$ 61,790	\$ 62,400
N/A	N/A	N/A
13-1199	41-3099	13-1079
Business operations specialists, all other	Sales representative s, services, all other	Human resources, training, and labor relations specialists, all other
Not Available	Not Available	Not Available

0

0

0

0

Basic Information Services

Occupations Employed in Wireless Telecommunications Carriers

16

California Research Bureau, California State Library

Number of Occupations within JZ	0	4	1	6	3	0	3	17	
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	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	0	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	

Top Third
(of 14)

Basic Information Services

List of Skills for Occupations Employed in Telecommunications Resellers

18

California Research Bureau, California State Library

TOT_EMP	481,990
A_MEAN	\$ 25,270
Job Zone	JZ-2
SOC-Code	41-2031
Occupation Title	Retail salespersons
	Active Listening
	Mathematics
	Speaking
	Social Perceptiveness
	Critical Thinking
	Writing
	Judgment and Decision Making
	Instructing
	Reading Comprehension
Total	9

9

	59,520	32,730	226,740
	\$ 50,100	\$ 57,900	\$ 112,740
	JZ-3	JZ-3	JZ-3
	15-1041	13-1023	11-1021
	Computer support specialists	Purchasing agents, except wholesale, retail, and farm products	General and operations managers
	Coordination	Speaking	Active Listening
	Reading Comprehension	Active Listening	Management of Personnel Resources
	Critical Thinking	Critical Thinking	Time Management
	Active Listening	Judgment and Decision Making	Judgment and Decision Making
	Judgment and Decision Making	Reading Comprehension	Monitoring
	Speaking	Writing	Reading Comprehension
	Active Learning	Time Management	Speaking
	Monitoring	Mathematics	Coordination
	Complex Problem Solving	Active Learning	Critical Thinking
	Instructing	Negotiation	Complex Problem Solving
Total	10	10	10

30

	124,560	49,790	50,400	35,550
	\$ 64,390	\$ 76,970	\$ 96,070	\$ 120,600
	JZ-4	JZ-4	JZ-4	JZ-4
	13-2011	15-1051	15-1032	11-3021
	Accountants and auditors	Computer systems analysts	Computer software engineers, systems software	Computer and information systems managers
	Mathematics	Active Learning	Complex Problem Solving	Reading Comprehension
	Active Listening	Reading Comprehension	Technology Design	Critical Thinking
	Critical Thinking	Complex Problem Solving	Troubleshooting	Active Listening
	Monitoring	Critical Thinking	Critical Thinking	Judgment and Decision Making
	Judgment and Decision Making	Active Listening	Active Learning	Management of Personnel Resources
	Writing	Troubleshooting	Programming	Systems Analysis
	Speaking	Monitoring	Reading Comprehension	Speaking
	Reading Comprehension	Service Orientation	Systems Analysis	Monitoring
		Time Management	Mathematics	Coordination
		Quality Control Analysis	Operation Analysis	Social Perceptiveness
Total	8	10	10	10

38

	175,920	91,680
	\$ 60,860	\$ 61,790
	N/A	N/A
	13-1199	41-3099
	Business operations specialists, all other	Sales representatives, services, all other
	Not Available	Not Available
Total	0	0

0

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	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

20

California Research Bureau, California State Library

	16,280	28,240	43,690	30,680	49,790	84,550	35,550	175,920	91,680
TOT_EMP	16,280	28,240	43,690	30,680	49,790	84,550	35,550	175,920	91,680
A_MEAN	\$ 49,140	\$ 53,180	\$ 60,630	\$ 75,230	\$ 76,970	\$ 91,590	\$ 120,600	\$ 60,860	\$ 61,790
Job Zone	JZ-2	JZ-3	JZ-3	JZ-4	JZ-4	JZ-4	JZ-4	N/A	N/A
SOC-Code	49-9052	49-2022	49-1011	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 systems analysts	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	Speaking	Active Learning	Programming	Reading Comprehension	Not Available	Not Available
	Troubleshooting	Troubleshooting	Reading Comprehension	Time Management	Reading Comprehension	Critical Thinking	Critical Thinking		
	Active Learning	Repairing	Coordination	Active Listening	Complex Problem Solving	Complex Problem Solving	Active Listening		
	Equipment Selection	Active Listening	Active Listening	Reading Comprehension	Critical Thinking	Active Learning	Judgment and Decision Making		
	Active Listening	Reading Comprehension	Monitoring	Social Perceptiveness	Active Listening	Troubleshooting	Management of Personnel Resources		
	Reading Comprehension	Equipment Selection	Social Perceptiveness	Active Learning	Troubleshooting	Judgment and Decision Making	Systems Analysis		
	Critical Thinking	Active Learning	Time Management	Critical Thinking	Monitoring	Technology Design	Speaking		
	Instructing	Speaking	Critical Thinking	Judgment and Decision Making	Service Orientation	Reading Comprehension	Monitoring		
	Speaking	Time Management	Speaking	Management of Personnel Resources	Time Management	Operations Analysis	Coordination		
	Equipment Maintenance	Critical Thinking	Complex Problem Solving	Instructing	Quality Control Analysis	Systems Analysis	Social Perceptiveness		
Total	10	10	10	10	10	10	10	0	0
	10	20		40		0			

Basic Information Services

List of Skills for Occupations Employed in Satellite Telecommunications

Number of Occupations within JZ		0	1	2	4	0	2	9
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	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	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

Top Third
(of 7)

Basic Information Services

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

22

California Research Bureau, California State Library

TOT_EMP	199,440	21,960	16,280
A_MEAN	\$ 34,110	\$ 36,420	\$ 49,140
Job Zone	JZ-2	JZ-2	JZ-2
SOC-Code	43-4051	43-5032	49-9052
Occupation Title	Customer service representatives	Dispatchers, except police, fire, and ambulance	Telecommunications line installers and repairers
	Active Listening	Active Listening	Installation
	Reading Comprehension	Judgment and Decision Making	Troubleshooting
	Monitoring	Reading Comprehension	Active Learning
	Speaking	Speaking	Equipment Selection
	Time Management	Time Management	Active Listening
	Service Orientation	Critical Thinking	Reading Comprehension
	Active Learning	Learning Strategies	Critical Thinking
	Learning Strategies	Monitoring	Instructing
	Writing	Active Learning	Speaking
	Critical Thinking	Instructing	Equipment Maintenance
Total	10	10	10

30

	208,200	59,520	180,480	28,240	43,690
	\$ 35,880	\$ 50,100	\$ 50,230	\$ 53,180	\$ 60,630
	JZ-3	JZ-3	JZ-3	JZ-3	JZ-3
	43-3031	15-1041	43-1011	49-2022	49-1011
	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
	Mathematics	Coordination	Active Listening	Installation	Management of Personnel Resources
	Reading Comprehension	Reading Comprehension	Speaking	Troubleshooting	Reading Comprehension
	Time Management	Critical Thinking	Reading Comprehension	Repairing	Coordination
	Active Listening	Active Listening	Critical Thinking	Active Listening	Active Listening
	Critical Thinking	Judgment and Decision Making	Monitoring	Reading Comprehension	Monitoring
	Active Learning	Speaking	Time Management	Equipment Selection	Social Perceptiveness
	Learning Strategies	Active Learning	Management of Personnel Resources	Active Learning	Time Management
	Social Perceptiveness	Monitoring	Judgment and Decision Making	Speaking	Critical Thinking
	Writing	Complex Problem Solving	Instructing	Time Management	Speaking
	Speaking	Instructing	Social Perceptiveness	Critical Thinking	Complex Problem Solving
Total	10	10	10	10	10

50

	49,200	91,680
	\$ 114,770	\$ 61,790
	JZ-4	N/A
	11-2022	41-3099
	Sales managers	Sales representatives, services, all other
	Active Listening	Not Available
	Speaking	
	Coordination	
	Writing	
	Critical Thinking	
	Persuasion	
	Judgment and Decision Making	
	Reading Comprehension	
	Social Perceptiveness	
	Active Learning	
Total	10	0

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	JZ-1	JZ-2	JZ-3	JZ-4	JZ-5	JZ-N/A	Number
								Top Third (of 9)
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

Basic Information Services

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

24

California Research Bureau, California State Library

TOT_EMP	13,450	396,750	20,350	199,440
A_MEAN	\$22,130	\$27,470	\$34,550	\$34,110
Job Zone	JZ-2	JZ-2	JZ-2	JZ-2
SOC-Code	53-7063	43-9061	51-5023	43-4051
Occupation Title	Machine feeders and offbearers	Office clerks, general	Printing machine operators	Customer service representatives
	Active Listening	Active Listening	Operation and Control	Active Listening
	Operation and Control	Reading Comprehension	Operation Monitoring	Reading Comprehension
	Operation Monitoring	Speaking	Troubleshooting	Monitoring
	Learning Strategies	Writing	Equipment Maintenance	Speaking
	Reading Comprehension	Social Perceptiveness	Reading Comprehension	Time Management
	Equipment Maintenance		Quality Control Analysis	Service Orientation
	Mathematics		Critical Thinking	Active Learning
	Active Learning		Equipment Selection	Learning Strategies
	Monitoring		Active Listening	Writing
	Instructing		Instructing	Critical Thinking
Total	10	5	10	10

35

	2,800	6,580	19,660
	\$38,110	\$39,320	\$59,330
	JZ-3	JZ-3	JZ-3
	43-9031	51-5022	41-3011
	Desktop publishers	Prepress technicians and workers	Advertising sales agents
	Active Listening	Active Listening	Active Listening
	Reading Comprehension	Reading Comprehension	Time Management
	Time Management	Active Learning	Speaking
	Critical Thinking	Time Management	Mathematics
	Writing	Coordination	Negotiation
	Service Orientation	Troubleshooting	Active Learning
	Active Learning	Learning Strategies	Reading Comprehension
	Speaking	Critical Thinking	Service Orientation
	Coordination	Instructing	Writing
	Equipment Selection	Speaking	Social Perceptiveness
Total	10	10	10

30

	27,080	5,170	12,080	63,700
	\$49,620	\$51,550	\$56,460	\$82,200
	JZ-4	JZ-4	JZ-4	JZ-4
	27-1024	27-3022	27-3041	13-1111
	Graphic designers	Reporters and correspondents	Editors	Management analysts
	Time Management	Writing	Reading Comprehension	Critical Thinking
	Coordination	Active Listening	Writing	Judgment and Decision Making
	Active Listening	Reading Comprehension	Active Listening	Active Listening
	Judgment and Decision Making	Time Management	Critical Thinking	Coordination
	Active Learning	Critical Thinking	Judgment and Decision Making	Time Management
	Critical Thinking	Speaking	Time Management	Instructing
	Complex Problem Solving	Active Learning	Active Learning	Monitoring
	Monitoring	Social Perceptiveness	Coordination	Quality Control Analysis
	Reading Comprehension	Coordination	Speaking	Reading Comprehension
	Speaking	Judgment and Decision Making	Monitoring	Operation and Control
Total	10	10	10	10

30

Basic Information Services

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

Number of Occupations within JZ	0	4	3	4	0	11	
Total Employment Range (2005)	N/A	13,450 - 396,750	2,800 - 19,660	5,170 - 63,700	N/A		
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	

Top Third
(of 11)

Basic Information Services

List of Skills for Occupations Employed in Software Publishers

California Research Bureau, California State Library

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

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	JZ -1	JZ -2	JZ -3	JZ -4	JZ -5	JZ-N/A	Number
Programming	0	0	0	3	0	0	0	3
Critical Thinking	0	1	4	9	0	0	0	14
Complex Problem Solving	0	0	2	5	0	0	0	7
Active Learning	0	1	3	8	0	0	0	12
Troubleshooting	0	0	1	4	0	0	0	5
Judgment and Decision Making	0	1	2	5	0	0	0	8
Technology Design	0	0	1	3	0	0	0	4
Reading Comprehension	1	2	4	9	0	0	0	16
Operations Analysis	0	0	0	4	0	0	0	4
Systems Analysis	0	0	0	2	0	0	0	2
Systems Evaluation	0	0	0	1	0	0	0	1
Quality Control Analysis	0	0	0	1	0	0	0	1
Active Listening	1	2	4	7	0	0	0	14
Mathematics	0	2	1	2	0	0	0	5
Persuasion	0	0	0	1	0	0	0	1
Learning Strategies	1	1	1	2	0	0	0	5
Negotiation	0	0	0	1	0	0	0	1
Monitoring	0	1	2	4	0	0	0	7
Coordination	1	1	2	2	0	0	0	6
Writing	0	2	2	2	0	0	0	6
Social Perceptiveness	1	1	1	2	0	0	0	5
Management of Financial Resources	0	0	0	1	0	0	0	1
Management of Personnel Resources	0	0	0	1	0	0	0	1
Time Management	0	2	2	5	0	0	0	9
Speaking	1	2	3	3	0	0	0	9
Service Orientation	0	1	1	3	0	0	0	5
Instructing	0	0	2	0	0	0	0	2
Installation	0	0	1	0	0	0	0	1
Equipment Selection	0	0	1	0	0	0	0	1
Total	6	20	40	90	0	0	0	156

Top Third
(of 16)

Basic Information Services

List of Skills for Occupations Employed in Radio and Television Broadcasting

TOT_EMP	396,750	4,020	214,050	7,010	3,680	19,660	5,950	3,870	5,990	226,740
A_MEAN	\$ 27,470	\$ 43,000	\$ 43,250	\$ 44,040	\$ 47,730	\$ 59,330	\$ 62,920	\$ 65,830	\$ 72,640	\$ 112,740
Job Zone	JZ-2	JZ-3	JZ-3	JZ-3	JZ-3	JZ-3	JZ-3	JZ-3	JZ-3	JZ-3
SOC-Code	43-9061	27-4012	43-6011	27-4011	27-3011	41-3011	27-4031	27-4014	27-4032	11-1021
Occupation Title	Office clerks, general	Broadcast technicians	Executive secretaries and administrative assistants	Audio and video equipment technicians	Radio and television announcers	Advertising sales agents	Camera operators, television, video, and motion picture	Sound engineering technicians	Film and video editors	General and operations managers
Active Listening	Operation Monitoring	Active Listening	Active Listening	Speaking	Active Listening	Active Listening	Operation and Control	Active Listening	Active Listening	
Reading Comprehension	Operation and Control	Reading Comprehension	Critical Thinking	Reading Comprehension	Time Management	Time Management	Operation Monitoring	Active Learning	Management of Personnel Resources	
Speaking	Reading Comprehension	Time Management	Troubleshooting	Time Management	Speaking	Operation and Control	Reading Comprehension	Coordination	Time Management	
Writing	Troubleshooting	Speaking	Reading Comprehension	Active Listening	Mathematics	Coordination	Troubleshooting	Equipment Selection	Judgment and Decision Making	
Social Perceptiveness	Active Listening	Writing	Active Learning	Social Perceptiveness	Negotiation	Speaking	Active Learning	Time Management	Monitoring	
	Active Learning	Critical Thinking	Equipment Maintenance	Writing	Active Learning	Reading Comprehension	Active Listening	Troubleshooting	Reading Comprehension	
	Critical Thinking	Active Learning	Operation and Control	Critical Thinking	Reading Comprehension	Critical Thinking	Critical Thinking	Speaking	Speaking	
	Coordination	Coordination	Time Management	Active Learning	Service Orientation	Operation Monitoring	Coordination	Monitoring	Coordination	
	Judgment and Decision Making	Monitoring	Speaking	Monitoring	Writing	Equipment Selection	Equipment Selection	Operation and Control	Critical Thinking	
	Monitoring	Service Orientation	Judgment and Decision Making	Coordination	Social Perceptiveness	Social Perceptiveness	Social Perceptiveness	Critical Thinking	Complex Problem Solving	
Total	5	10	10	10	10	10	10	10	10	10
	5									90

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

Number of Occupations within JZ	0	1	9	1	6	1	18	
Total Employment Range (2005)	N/A	396,750	3,680 - 226,740	14,920	5,170 - 226,740	35,620		
Average Annual Salary Range (2005)	N/A	\$ 27,470	\$43,000 - \$112,740	\$ 90,750	\$51,550 - \$114,770	\$ 125,080		Top Third (of 18)
Skill	Job Zone	JZ-1	JZ-2	JZ-3	JZ-3/4	JZ-4	JZ-5	Number
Speaking		0	1	7	1	5	0	14
Active Listening		0	1	9	1	6	1	18
Reading Comprehension		0	1	8	1	6	1	17
Time Management		0	0	7	1	5	1	14
Social Perceptiveness		0	1	4	0	4	0	9
Writing		0	1	3	1	5	0	10
Critical Thinking		0	0	8	1	6	1	16
Active Learning		0	0	7	0	5	1	13
Monitoring		0	0	5	1	1	0	7
Coordination		0	0	7	1	3	1	12
Mathematics		0	0	1	0	0	1	2
Negotiation		0	0	1	0	0	0	1
Service Orientation		0	0	2	0	0	0	2
Troubleshooting		0	0	4	0	0	0	4
Judgment and Decision Making		0	0	3	1	5	1	10
Equipment Selection		0	0	3	0	0	0	3
Operation Monitoring		0	0	3	0	0	0	3
Operation and Control		0	0	5	1	0	0	6
Persuasion		0	0	0	1	1	0	2
Management of Personnel Resources		0	0	1	1	1	0	3
Equipment Maintenance		0	0	1	0	0	0	1
Instructing		0	0	0	0	1	0	1
Operations Analysis		0	0	0	0	1	1	2
Learning Strategies		0	0	0	0	1	0	1
Complex Problem Solving		0	0	1	0	0	1	2
Total		0	5	90	12	56	10	173

Basic Information Services

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

TOT_EMP	199,440	21,960	16,280
A_MEAN	\$ 34,110	\$ 36,420	\$ 49,140
Job Zone	JZ-2	JZ-2	JZ-2
SOC-Code	43-4051	43-5032	49-9052
Occupation Title	Customer service representatives	Dispatchers, except police, fire, and ambulance	Telecommunications line installers and repairers
	Active Listening	Active Listening	Installation
	Reading Comprehension	Judgment and Decision Making	Troubleshooting
	Monitoring	Reading Comprehension	Active Learning
	Speaking	Speaking	Equipment Selection
	Time Management	Time Management	Active Listening
	Service Orientation	Critical Thinking	Reading Comprehension
	Active Learning	Learning Strategies	Critical Thinking
	Learning Strategies	Monitoring	Instructing
	Writing	Active Learning	Speaking
	Critical Thinking	Instructing	Equipment Maintenance
Total	10	10	10

30

	42,990	4,020	214,050	59,520	28,240	226,740
	\$ 35,250	\$ 43,000	\$ 43,250	\$ 50,100	\$ 53,180	\$ 112,740
	JZ-3	JZ-3	JZ-3	JZ-3	JZ-3	JZ-3
	43-3011	27-4012	43-6011	15-1041	49-2022	11-1021
	Bill and account collectors	Broadcast technicians	Executive secretaries and administrative assistants	Computer support specialists	Telecommunications equipment installers and repairers, except line installers	General and operations managers
	Active Listening	Operation Monitoring	Active Listening	Coordination	Installation	Active Listening
	Speaking	Operation and Control	Reading Comprehension	Reading Comprehension	Troubleshooting	Management of Personnel Resources
	Reading Comprehension	Troubleshooting	Time Management	Critical Thinking	Active Listening	Time Management
	Time Management	Troubleshooting	Speaking	Active Listening	Reading Comprehension	Judgment and Decision Making
	Mathematics	Active Listening	Writing	Judgment and Decision Making	Equipment Selection	Monitoring
	Social Perceptiveness	Active Learning	Critical Thinking	Speaking	Active Learning	Reading Comprehension
	Writing	Critical Thinking	Active Learning	Active Learning	Speaking	Speaking
	Active Learning	Coordination	Coordination	Monitoring	Time Management	Coordination
	Judgment and Decision Making	Judgment and Decision Making	Monitoring	Complex Problem Solving	Critical Thinking	Critical Thinking
	Critical Thinking	Monitoring	Service Orientation	Instructing	Repairing	Complex Problem Solving
Total	10	10	10	10	10	10

60

	14,920
	\$ 90,750
	JZ-3/4
	27-2012
	Producers and directors
	Active Listening
	Time Management
	Reading Comprehension
	Speaking
	Writing
	Judgment and Decision Making
	Coordination
	Critical Thinking
	Monitoring
	Operation and Control
	Management of Personnel Resources
	Persuasion
Total	12

12

Basic Information Services

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

43,690	11,600	175,920	91,680	26,990
\$ 60,630	\$ 53,580	\$ 60,860	\$ 61,790	\$ 89,260
JZ-4	N/A	N/A	N/A	N/A
49-1011	17-3029	13-1199	41-3099	17-2199
First-line supervisors/ managers of mechanics, installers, and repairers	Engineering technicians, except drafters, all other	Business operations specialists, all other	Sales representatives, services, all other	Engineers, all other
Management of Personnel Resources	Not Available	Not Available	Not Available	Not Available
Reading Comprehension				
Coordination				
Active Listening				
Monitoring				
Social Perceptiveness				
Time Management				
Critical Thinking				
Speaking				
Complex Problem Solving				
10	0	0	0	0

10

0

Basic Information Services

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

Number of Occupations within JZ	0	3	6	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		
Skill	Job Zone	JZ-1	JZ-2	JZ-3	JZ-3/4	JZ-4	JZ-5	JZ-N/A	Number
Installation		0	1	1	0	0	0	0	2
Speaking		0	3	5	1	1	0	0	10
Active Listening		0	3	6	1	1	0	0	11
Reading Comprehension		0	3	5	1	1	0	0	10
Time Management		0	2	4	1	1	0	0	8
Social Perceptiveness		0	0	1	0	1	0	0	2
Writing		0	1	2	1	0	0	0	4
Critical Thinking		0	3	6	1	1	0	0	11
Active Learning		0	3	5	0	0	0	0	8
Monitoring		0	2	4	1	1	0	0	8
Coordination		0	0	4	1	1	0	0	6
Mathematics		0	0	1	0	0	0	0	1
Service Orientation		0	1	1	0	0	0	0	2
Troubleshooting		0	1	3	0	0	0	0	4
Judgment and Decision Making		0	1	4	1	0	0	0	6
Equipment Selection		0	1	1	0	0	0	0	2
Operation Monitoring		0	0	1	0	0	0	0	1
Operation and Control		0	0	1	1	0	0	0	2
Persuasion		0	0	0	1	0	0	0	1
Management of Personnel Resources		0	0	1	1	1	0	0	3
Equipment Maintenance		0	1	0	0	0	0	0	1
Instructing		0	2	1	0	0	0	0	3
Complex Problem Solving		0	0	2	0	1	0	0	3
Learning Strategies		0	2	0	0	0	0	0	2
Repairing		0	0	1	0	0	0	0	1
Total		0	30	60	12	10	0	0	112

Top Third
(of 11)

Basic Information Services

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

5,360	84,550	27,970	50,400	35,550	30,320
\$ 88,290	\$ 91,590	\$ 93,410	\$ 96,070	\$ 120,600	\$ 123,600
JZ-4	JZ-4	JZ-4	JZ-4	JZ-4	JZ-4
11-2011	15-1031	17-2072	15-1032	11-3021	11-2021
Advertising and promotions managers	Computer software engineers, applications	Electronics engineers, except computer	Computer software engineers, systems software	Computer and information systems managers	Marketing managers
Writing	Programming	Reading Comprehension	Complex Problem Solving	Reading Comprehension	Critical Thinking
Service Orientation	Critical Thinking	Complex Problem Solving	Technology Design	Critical Thinking	Coordination
Active Listening	Complex Problem Solving	Equipment Selection	Troubleshooting	Active Listening	Social Perceptiveness
Reading Comprehension	Active Learning	Troubleshooting	Critical Thinking	Judgment and Decision Making	Reading Comprehension
Time Management	Troubleshooting	Active Learning	Active Learning	Management of Personnel Resources	Speaking
Judgment and Decision Making	Judgment and Decision Making	Critical Thinking	Programming	Systems Analysis	Writing
Speaking	Technology Design	Coordination	Reading Comprehension	Speaking	Complex Problem Solving
Critical Thinking	Reading Comprehension	Mathematics	Systems Analysis	Monitoring	Management of Personnel Resources
Persuasion	Operations Analysis	Active Listening	Mathematics	Coordination	Active Listening
Management of Financial Resources	Systems Analysis	Judgment and Decision Making	Operations Analysis	Social Perceptiveness	Monitoring
10	10	10	10	10	10

175,920	91,680	39,660	64,840
\$ 60,860	\$ 61,790	\$ 101,470	\$ 109,530
N/A	N/A	N/A	N/A
13-1199	41-3099	11-9199	11-3031
Business operations specialists, all other	Sales representatives, services, all other	Managers, all other	Financial managers
Not Available	Not Available	Not Available	Time Management
			Instructing
			Management of Personnel Resources
			Reading Comprehension
			Active Listening
0	0	0	5

Basic Information Services

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

40

California Research Bureau, California State Library

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	Job Zone	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

42

California Research Bureau, California State Library

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	Speaking	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	Troubleshooting	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	10	10	10	10	10	10	10	10	10	10	10

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, 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

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	Top Third (of 12)
Skill	Job Zone	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

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

46

California Research Bureau, California State Library

TOT_EMP	276,490	100,380	396,750	69,220	199,440	21,960	131,760
A_MEAN	\$ 23,210	\$ 27,410	\$ 27,470	\$ 32,780	\$ 34,110	\$ 36,420	\$ 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	53-7051	43-4051	43-5032	53-3032
Occupation Title	Laborers and freight, stock, and material movers, hand	Truck drivers, light or delivery services	Office clerks, general	Industrial truck and tractor operators	Customer service representatives	Dispatchers, except police, fire, and ambulance	Truck drivers, heavy and tractor-trailer
	Active Listening	Active Listening	Active Listening	Operation Monitoring	Active Listening	Active Listening	Equipment Maintenance
	Reading Comprehension	Time Management	Reading Comprehension	Active Listening	Reading Comprehension	Judgment and Decision Making	Active Listening
	Instructing	Equipment Maintenance	Speaking	Operation and Control	Monitoring	Reading Comprehension	Time Management
	Coordination	Reading Comprehension	Writing	Monitoring	Speaking	Speaking	Coordination
	Learning Strategies	Social Perceptiveness	Social Perceptiveness	Critical Thinking	Time Management	Time Management	Judgment and Decision Making
	Time Management	Coordination		Speaking	Service Orientation	Critical Thinking	Reading Comprehension
		Speaking			Active Learning	Learning Strategies	Troubleshooting
		Learning Strategies			Learning Strategies	Monitoring	Speaking
		Operation and Control			Writing	Active Learning	Mathematics
		Service Orientation			Critical Thinking	Instructing	Critical Thinking
Total	6	10	5	6	10	10	10

	208,200	26,080	21,810
	\$ 35,880	\$ 43,100	\$ 53,580
	JZ-3	JZ-3	JZ-3
	43-3031	49-3031	53-1031
Occupation Title	Bookkeeping, accounting, and auditing clerks	Bus and truck mechanics and diesel engine specialists	First-line supervisors/managers of transportation and material-moving machine and vehicle operators
	Mathematics	Equipment Maintenance	Active Listening
	Reading Comprehension	Troubleshooting	Speaking
	Time Management	Repairing	Time Management
	Active Listening	Reading Comprehension	Management of Personnel Resources
	Critical Thinking	Installation	Coordination
	Active Learning	Coordination	Critical Thinking
	Learning Strategies	Equipment Selection	Judgment and Decision Making
	Social Perceptiveness	Active Listening	Social Perceptiveness
	Writing	Judgment and Decision Making	Instructing
	Speaking	Learning Strategies	Reading Comprehension
Total	10	10	10

57

30

Manufacturing Value Chain – Logistics

List of Skills for Occupations Employed in General Freight Trucking

Number of Occupations within JZ		0	7	3	0	0	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

TOT_EMP	118,360	199,180	276,490	126,560	35,860	100,380	106,390	69,220	199,440	131,760	128,880	22,240	43,690
A_MEAN	\$ 18,630	\$ 24,040	\$ 23,210	\$ 25,980	\$ 27,170	\$ 27,410	\$ 28,760	\$ 32,780	\$ 34,110	\$ 38,500	\$ 36,630	\$ 41,680	\$ 60,630
Job Zone	JZ-1	JZ-1/2	JZ-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	43-5081	53-7062	43-4171	43-9021	53-3033	43-5071	53-7051	43-4051	53-3032	49-9042	53-1021	49-1011
Occupation Title	Packers and packagers, hand	Stock clerks and order fillers	Laborers and freight, stock, and material movers, hand	Receptionists and information clerks	Data entry keyers	Truck drivers, light or delivery services	Shipping, receiving, and traffic clerks	Industrial truck and tractor operators	Customer service representatives	Truck drivers, heavy and tractor-trailer	Maintenance and repair workers, general	First-line supervisors/managers of helpers, laborers, and material movers, hand	First-line supervisors/managers of mechanics, installers, and repairers
	Active Listening	Reading Comprehension	Active Listening	Active Listening	Reading Comprehension	Active Listening	Active Listening	Operation Monitoring	Active Listening	Equipment Maintenance	Equipment Maintenance	Time Management	Coordination
	Coordination	Speaking	Reading Comprehension	Speaking	Speaking	Time Management	Reading Comprehension	Active Listening	Reading Comprehension	Active Listening	Reading Comprehension	Monitoring	Critical Thinking
	Speaking	Mathematics	Instructing	Reading Comprehension	Active Listening	Equipment Maintenance	Speaking	Operation and Control	Monitoring	Time Management	Troubleshooting	Judgment and Decision Making	Management of Personnel Resources
	Learning Strategies	Instructing	Coordination	Writing	Critical Thinking	Reading Comprehension	Time Management	Monitoring	Speaking	Coordination	Active Listening	Active Listening	Active Listening
	Reading Comprehension	Active Listening	Learning Strategies	Service Orientation	Social Perceptiveness	Social Perceptiveness	Writing	Critical Thinking	Time Management	Judgment and Decision Making	Installation	Speaking	Monitoring
	Social Perceptiveness	Quality Control Analysis	Time Management	Learning Strategies	Service Orientation	Coordination	Mathematics	Speaking	Service Orientation	Reading Comprehension	Equipment Selection	Critical Thinking	Social Perceptiveness
		Coordination		Social Perceptiveness	Active Learning	Speaking	Learning Strategies		Active Learning	Troubleshooting	Critical Thinking	Management of Personnel Resources	Time Management
		Social Perceptiveness		Critical Thinking	Learning Strategies	Learning Strategies	Monitoring		Learning Strategies	Speaking	Reading Comprehension	Persuasion	Reading Comprehension
		Active Learning		Time Management	Writing	Operation and Control	Social Perceptiveness		Writing	Mathematics	Operation Monitoring	Reading Comprehension	Speaking
		Critical Thinking		Active Learning	Time Management	Service Orientation	Critical Thinking		Critical Thinking	Critical Thinking	Coordination	Service Orientation	Complex Problem Solving
Total	6	10	6	10	10	10	10	6	10	10	10	10	10
	6	10							72				30

Manufacturing Value Chain – *Logistics*

List of Skills for Occupations Employed in Warehousing and Storage

30,680	25,120	49,200
\$ 75,230	\$ 83,870	\$ 114,770
JZ-4	JZ-4	JZ-4
41-1012	11-3011	11-2022
First-line supervisors/managers of non-retail sales workers	Administrative services managers	Sales managers
Speaking	Social Perceptiveness	Active Listening
Time Management	Time Management	Speaking
Active Listening	Coordination	Coordination
Reading Comprehension	Reading Comprehension	Reading Comprehension
Social Perceptiveness	Service Orientation	Social Perceptiveness
Active Learning	Active Listening	Writing
Critical Thinking	Active Learning	Critical Thinking
Judgment and Decision Making	Instructing	Persuasion
Management of Personnel Resources	Speaking	Active Learning
Instructing	Writing	Judgment and Decision Making
10	10	10

30

18,290	175,920
\$ 38,290	\$ 60,860
N/A	N/A
49-9099	13-1199
Installation, maintenance, and repair workers, all other	Business operations specialists, all other
Not Available	Not Available
0	0

0

Manufacturing Value Chain – Logistics

List of Skills for Occupations Employed in Warehousing and Storage

Number of Occupations within JZ		1	1	8	3	3	0	2	18	
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	Job Zone	JZ-1	JZ-1/2	JZ-2	JZ-3	JZ-4	JZ-5	JZ-N/A	Number	Top Third (of 16)
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

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California Research Bureau, California State Library

TOT_EMP	6,340	276,490		15,390	199,440	14,230	11,090	180,480	43,690	17,450	5,710	5,660
A_MEAN	\$ 22,520	\$ 23,210	\$ 30,900	\$ 34,110	\$ 44,980	\$ 50,920	\$ 50,230	\$ 60,630	\$ 57,690	\$ 151,980	\$ 37,030	
Job Zone	JZ-1	JZ-2	JZ-2	JZ-2	JZ-2	JZ-2	JZ-3	JZ-3	JZ-4	JZ-4	N/A	
SOC-Code	39-6011	53-7062	43-4181	43-4051	43-5011	39-6031	43-1011	49-1011	13-1073	53-2011	53-6099	
Occupation Title	Baggage porters and bellhops	Laborers and freight, stock, and material movers, hand	Reservation and transportation ticket agents and travel clerks	Customer service representatives	Cargo and freight agents	Flight attendants	First-line supervisors/managers of office and administrative support workers	First-line supervisors/managers of mechanics, installers, and repairers	Training and development specialists	Airline pilots, copilots, and flight engineers	Transportation workers, all other	
Speaking		Active Listening	Active Listening	Active Listening	Reading Comprehension	Service Orientation	Active Listening	Coordination	Instructing	Operation Monitoring	Not Available	
Active Listening		Reading Comprehension	Speaking	Reading Comprehension	Active Listening	Active Listening	Speaking	Critical Thinking	Learning Strategies	Operation and Control		
Service Orientation		Instructing	Service Orientation	Monitoring	Critical Thinking	Social Perceptiveness	Reading Comprehension	Management of Personnel Resources	Speaking	Critical Thinking		
Social Perceptiveness		Coordination	Critical Thinking	Speaking	Speaking	Reading Comprehension	Critical Thinking	Active Listening	Active Listening	Judgment and Decision Making		
Coordination		Learning Strategies	Reading Comprehension	Time Management	Negotiation	Speaking	Monitoring	Monitoring	Reading Comprehension	Active Listening		
Critical Thinking		Time Management	Active Learning	Service Orientation	Complex Problem Solving	Critical Thinking	Time Management	Social Perceptiveness	Writing	Monitoring		
Reading Comprehension			Judgment and Decision Making	Active Learning	Time Management	Coordination	Management of Personnel Resources	Time Management	Social Perceptiveness	Complex Problem Solving		
Active Learning			Learning Strategies	Learning Strategies	Active Learning	Time Management	Judgment and Decision Making	Reading Comprehension	Time Management	Reading Comprehension		
Instructing			Social Perceptiveness	Writing	Mathematics	Judgment and Decision Making	Instructing	Speaking	Complex Problem Solving	Troubleshooting		
Learning Strategies			Instructing	Critical Thinking	Coordination	Learning Strategies	Social Perceptiveness	Complex Problem Solving	Coordination	Speaking		
Total	10	6	10	10	10	10	10	10	10	10	10	0
	10				46			20		20		0

Manufacturing Value Chain – Logistics

List of Skills for Occupations Employed in Scheduled Air Transportation

Number of Occupations within JZ		1	5	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	5,660		
Average Annual Salary Range (2005)		\$ 22,520	\$23,210 - \$50,920	\$50,230 - \$60,630	\$57,690 - \$151,980	N/A	\$37,030		
Skill	Job Zone	JZ-1	JZ-2	JZ-3	JZ-4	JZ-5	JZ-N/A	Number	Top Third (of 10)
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	96	

Manufacturing Value Chain – Logistics

List of Skills for Occupations Employed in Couriers

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California Research Bureau, California State Library

TOT_EMP	15,190	276,490	100,380	106,390	69,220	199,440	21,960	131,760
A_MEAN	\$ 22,850	\$ 23,210	\$ 27,410	\$ 28,760	\$ 32,780	\$ 34,110	\$ 36,420	\$ 38,500
Job Zone	JZ-2	JZ-2	JZ-2	JZ-2	JZ-2	JZ-2	JZ-2	JZ-2
SOC-Code	43-5021	53-7062	53-3033	43-5071	53-7051	43-4051	43-5032	53-3032
Occupation Title	Couriers and messengers	Laborers and freight, stock, and material movers, hand	Truck drivers, light or delivery services	Shipping, receiving, and traffic clerks	Industrial truck and tractor operators	Customer service representatives	Dispatchers, except police, fire, and ambulance	Truck drivers, heavy and tractor-trailer
	Reading Comprehension	Active Listening	Active Listening	Active Listening	Operation Monitoring	Active Listening	Active Listening	Equipment Maintenance
	Coordination	Reading Comprehension	Time Management	Reading Comprehension	Active Listening	Reading Comprehension	Judgment and Decision Making	Active Listening
	Time Management	Instructing	Equipment Maintenance	Speaking	Operation and Control	Monitoring	Reading Comprehension	Time Management
	Active Listening	Coordination	Reading Comprehension	Time Management	Monitoring	Speaking	Speaking	Coordination
	Instructing	Learning Strategies	Social Perceptiveness	Writing	Critical Thinking	Time Management	Time Management	Judgment and Decision Making
	Learning Strategies	Time Management	Coordination	Mathematics	Speaking	Service Orientation	Critical Thinking	Reading Comprehension
	Speaking		Speaking	Learning Strategies		Active Learning	Learning Strategies	Troubleshooting
	Service Orientation		Learning Strategies	Monitoring		Learning Strategies	Monitoring	Speaking
	Equipment Maintenance		Operation and Control	Social Perceptiveness		Writing	Active Learning	Mathematics
	Active Learning		Service Orientation	Critical Thinking		Critical Thinking	Instructing	Critical Thinking
Total	10	6	10	10	6	10	10	10

	22,240	21,810
	\$41,680	\$ 53,580
	JZ-3	JZ-3
	53-1021	53-1031
	First-line supervisors/managers of helpers, laborers, and material movers, hand	First-line supervisors/managers of transportation and material-moving machine and vehicle operators
	Time Management	Active Listening
	Monitoring	Speaking
	Judgment and Decision Making	Time Management
	Active Listening	Management of Personnel Resources
	Speaking	Coordination
	Critical Thinking	Critical Thinking
	Management of Personnel Resources	Judgment and Decision Making
	Persuasion	Social Perceptiveness
	Reading Comprehension	Instructing
	Service Orientation	Reading Comprehension
Total	10	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	Job Zone	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

TOT_EMP	276,490	100,380	396,750	21,960	131,760	208,200	65,920	26,080	21,810	226,740	91,680
A_MEAN	\$ 23,210	\$ 27,410	\$ 27,470	\$ 36,420	\$ 38,500	\$ 35,880	\$ 41,260	\$ 43,100	\$ 53,580	\$ 112,740	\$ 61,790
Job Zone	JZ-2	JZ-2	JZ-2	JZ-2	JZ-2	JZ-3	JZ-3	JZ-3	JZ-3	JZ-3	N/A
SOC-Code	53-7062	53-3033	43-9061	43-5032	53-3032	43-3031	49-3023	49-3031	53-1031	11-1021	41-3099
Occupation Title	Laborers and freight, stock, and material movers, hand	Truck drivers, light or delivery services	Office clerks, general	Dispatchers, except police, fire, and ambulance	Truck drivers, heavy and tractor-trailer	Bookkeeping, accounting, and auditing clerks	Automotive service technicians and mechanics	Bus and truck mechanics and diesel engine specialists	First-line supervisors/managers of transportation and material-moving machine and vehicle operators	General and operations managers	Sales representatives, services, all other
	Active Listening	Active Listening	Active Listening	Active Listening	Equipment Maintenance	Mathematics	Troubleshooting	Equipment Maintenance	Active Listening	Active Listening	Not Available
	Reading Comprehension	Time Management	Reading Comprehension	Judgment and Decision Making	Active Listening	Reading Comprehension	Repairing	Troubleshooting	Speaking	Coordination	
	Instructing	Equipment Maintenance	Speaking	Reading Comprehension	Time Management	Time Management	Equipment Selection	Repairing	Time Management	Critical Thinking	
	Coordination	Reading Comprehension	Writing	Speaking	Coordination	Active Listening	Active Learning	Reading Comprehension	Management of Personnel Resources	Speaking	
	Learning Strategies	Social Perceptiveness	Social Perceptiveness	Time Management	Judgment and Decision Making	Critical Thinking	Reading Comprehension	Installation	Coordination	Time Management	
	Time Management	Coordination		Critical Thinking	Reading Comprehension	Active Learning	Equipment Maintenance	Coordination	Critical Thinking	Complex Problem Solving	
		Speaking		Learning Strategies	Troubleshooting	Learning Strategies	Critical Thinking	Equipment Selection	Judgment and Decision Making	Judgment and Decision Making	
		Learning Strategies		Monitoring	Speaking	Social Perceptiveness		Active Listening	Social Perceptiveness	Management of Personnel Resources	
		Operation and Control		Active Learning	Mathematics	Writing		Judgment and Decision Making	Instructing	Monitoring	
		Service Orientation		Instructing	Critical Thinking	Speaking		Learning Strategies	Reading Comprehension	Reading Comprehension	
Total	6	10	5	10	10	10	7	10	10	10	0
					41				47		0

Manufacturing Value Chain – Logistics

List of Skills for Occupations Employed in Specialized Freight Trucking

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

Top Third
(of 10)

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

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California Research Bureau, California State Library

TOT_EMP	45,780	207,640
A_MEAN	\$21,260	\$23,360
Job Zone	JZ-1	JZ-1
SOC-Code	51-9198	37-2011
Occupation Title	Helpers--production workers	Janitors and cleaners, except maids and housekeeping cleaners
Equipment Selection	Reading Comprehension	
Active Listening	Active Listening	
Coordination	Speaking	
Instructing	Coordination	
Reading Comprehension	Equipment Selection	
Speaking	Time Management	
Quality Control Analysis	Equipment Maintenance	
	Writing	
	Instructing	
	Judgment and Decision Making	
Total	7	10

17

	13,450	8,520	95,990	4,320	48,210	69,220
	\$22,130	\$23,860	\$24,430	\$26,960	\$32,580	\$32,780
	JZ-2	JZ-2	JZ-2	JZ-2	JZ-2	JZ-2
	53-7063	51-7042	51-2092	51-7041	51-9061	53-7051
Machine feeders and offbearers	Woodworking machine setters, operators, and tenders, except sawing	Team assemblers	Sawing machine setters, operators, and tenders, wood	Inspectors, testers, sorters, samplers, and weighers	Industrial truck and tractor operators	
Active Listening	Equipment Maintenance	Learning Strategies	Operation and Control	Quality Control Analysis	Operation Monitoring	
Operation and Control	Troubleshooting	Active Listening	Equipment Maintenance	Active Listening	Active Listening	
Operation Monitoring	Equipment Selection	Quality Control Analysis	Operation Monitoring	Reading Comprehension	Operation and Control	
Learning Strategies	Instructing	Active Learning	Active Listening	Instructing	Monitoring	
Reading Comprehension	Operation and Control	Instructing	Mathematics	Operation Monitoring	Critical Thinking	
Equipment Maintenance	Operation Monitoring	Operation Monitoring	Troubleshooting	Learning Strategies	Speaking	
Mathematics	Active Listening	Equipment Selection	Critical Thinking	Mathematics		
Active Learning	Mathematics	Reading Comprehension	Repairing	Speaking		
Monitoring	Time Management	Coordination	Equipment Selection	Active Learning		
Instructing	Critical Thinking	Equipment Maintenance	Instructing	Time Management		
Total	10	10	10	10	10	6

56

	1,900	145,050
	\$51,100	\$60,660
	JZ-3	JZ-3
	49-9044	41-4012
Millwrights	Sales representatives, wholesale and manufacturing, except technical and scientific products	
Equipment Selection	Active Listening	
Repairing	Speaking	
Installation	Time Management	
Troubleshooting	Reading Comprehension	
Mathematics	Persuasion	
Active Listening	Service Orientation	
Complex Problem Solving	Negotiation	
Instructing	Social Perceptiveness	
Equipment Maintenance	Active Learning	
Coordination	Coordination	
Total	10	10

20

Manufacturing Value Chain – Production

List of Skills for Occupations Employed in Sawmills and Wood Preservation

Number of Occupations within JZ		2	6	2	0	0	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	Job Zone	JZ-1	JZ-2	JZ-3	JZ-4	JZ-5	Number
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

Top Third
(of 10)

Manufacturing Value Chain – Production

List of Skills for Occupations Employed in Computers and Peripheral Equipment

	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	41-4011	15-1031	15-1032	17-2061	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 manufacturing, technical and scientific 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	
	20		19		50					10		0

Manufacturing Value Chain – Production

List of Skills for Occupations Employed in Computers and Peripheral Equipment

Number of Occupations within JZ		0	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	95,990	24,970	48,210	199,440	9,320	39,740
A_MEAN	\$ 24,430	\$ 27,990	\$ 32,580	\$ 34,110	\$ 38,170	\$ 42,830
Job_Zone	JZ-2	JZ-2	JZ-2	JZ-2	JZ-2	JZ-2
SOC-Code	51-2092	51-2022	51-9061	43-4051	51-9141	43-5061
Occupation Title	Team assemblers	Electrical and electronic equipment assemblers	Inspectors, testers, sorters, samplers, and weighers	Customer service representatives	Semiconductor processors	Production, planning, and expediting clerks
	Learning Strategies	Quality Control Analysis	Quality Control Analysis	Active Listening	Reading Comprehension	Active Listening
	Active Listening	Troubleshooting	Active Listening	Reading Comprehension	Time Management	Reading Comprehension
	Quality Control Analysis	Equipment Selection	Reading Comprehension	Monitoring	Operation Monitoring	Coordination
	Active Learning	Instructing	Instructing	Speaking	Active Learning	Speaking
	Instructing	Time Management	Operation Monitoring	Time Management	Troubleshooting	Active Learning
	Operation Monitoring	Reading Comprehension	Learning Strategies	Service Orientation	Equipment Maintenance	Judgment and Decision Making
	Equipment Selection	Learning Strategies	Mathematics	Active Learning	Quality Control Analysis	Time Management
	Reading Comprehension	Monitoring	Speaking	Learning Strategies	Learning Strategies	Writing
	Coordination	Active Learning	Active Learning	Writing	Active Listening	Service Orientation
	Equipment Maintenance	Judgment and Decision Making	Time Management	Critical Thinking	Judgment and Decision Making	Mathematics
Total	10	10	10	10	10	10

60

TOT_EMP	59,520	63,290	22,600	32,730	226,740
A_MEAN	\$ 50,100	\$ 51,420	\$ 55,710	\$ 57,900	\$ 112,740
Job_Zone	JZ-3	JZ-3	JZ-3	JZ-3	JZ-3
SOC-Code	15-1041	51-1011	17-3023	13-1023	11-1021
Occupation Title	Computer support specialists	First-line supervisors/managers of production and operating workers	Electrical and electronic engineering technicians	Purchasing agents, except wholesale, retail, and farm products	General and operations managers
	Critical Thinking	Active Listening	Troubleshooting	Speaking	Active Listening
	Speaking	Reading Comprehension	Mathematics	Active Listening	Coordination
	Active Listening	Management of Personnel Resources	Critical Thinking	Critical Thinking	Critical Thinking
	Complex Problem Solving	Instructing	Reading Comprehension	Judgment and Decision Making	Speaking
	Reading Comprehension	Monitoring	Active Listening	Reading Comprehension	Time Management
	Active Learning	Speaking	Complex Problem Solving	Writing	Complex Problem Solving
	Coordination	Time Management	Speaking	Time Management	Judgment and Decision Making
	Instructing	Critical Thinking	Systems Analysis	Mathematics	Management of Personnel Resources
	Judgment and Decision Making	Judgment and Decision Making	Writing	Active Learning	Monitoring
	Monitoring	Coordination		Negotiation	Reading Comprehension
Total	10	10	9	10	10

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TOT_EMP	124,560	31,930	49,790
A_MEAN	\$ 64,390	\$ 72,680	\$ 76,970
Job_Zone	JZ-4	JZ-4	JZ-4
SOC-Code	13-2011	15-1071	15-1051
Occupation Title	Accountants and auditors	Network and computer systems administrators	Computer systems analysts
	Mathematics	Reading Comprehension	Active Learning
	Active Listening	Active Listening	Reading Comprehension
	Critical Thinking	Critical Thinking	Complex Problem Solving
	Monitoring	Complex Problem Solving	Critical Thinking
	Judgment and Decision Making	Speaking	Active Listening
	Reading Comprehension	Monitoring	Troubleshooting
	Speaking	Systems Evaluation	Monitoring
	Writing	Time Management	Service Orientation
		Coordination	Time Management
		Judgment and Decision Making	Quality Control Analysis
Total	8	10	10

Manufacturing Value Chain – Production

List of Skills for Occupations Employed in Semiconductor and Electronic Components

	42,950	19,090	23,220	63,700	19,000	84,550	27,970	50,400	49,200	35,550	30,320		35,620	175,920	28,190	26,990
	\$ 77,480	\$ 80,900	\$ 81,790	\$ 82,200	\$ 88,280	\$ 91,590	\$ 93,410	\$ 96,070	\$ 114,770	\$ 120,600	\$ 123,600		\$ 125,080	\$ 60,860	\$ 62,400	\$ 89,260
	JZ-4	JZ-4	JZ-4	JZ-4	JZ-4	JZ-4	JZ-4	JZ-4	JZ-4	JZ-4	JZ-4		JZ-5	N/A	N/A	N/A
	41-4011	17-2112	17-2141	13-1111	17-2071	15-1031	17-2072	15-1032	11-2022	11-3021	11-2021		11-9041	13-1199	13-1079	17-2199
Sales representatives, wholesale and manufacturing, technical and scientific products	Industrial engineers	Mechanical engineers	Management analysts	Electrical engineers	Computer software engineers, applications	Electronics engineers, except computer	Computer software engineers, systems software	Sales managers	Computer and information systems managers	Marketing managers		Engineering managers	Business operations specialists, all other	Human resources, training, and labor relations specialists, all other	Engineers, all other	
Speaking	Critical Thinking	Mathematics	Critical Thinking	Active Listening	Programming	Reading Comprehension	Complex Problem Solving	Active Listening	Critical Thinking	Active Listening		Critical Thinking	Not Available	Not Available	Not Available	
Persuasion	Active Listening	Complex Problem Solving	Judgment and Decision Making	Troubleshooting	Critical Thinking	Complex Problem Solving	Technology Design	Speaking	Active Listening	Critical Thinking		Judgment and Decision Making				
Active Listening	Time Management	Critical Thinking	Active Listening	Critical Thinking	Complex Problem Solving	Equipment Selection	Troubleshooting	Coordination	Judgment and Decision Making	Speaking		Reading Comprehension				
Time Management	Reading Comprehension	Reading Comprehension	Coordination	Reading Comprehension	Active Learning	Troubleshooting	Critical Thinking	Reading Comprehension	Management of Personnel Resources	Writing		Active Listening				
Negotiation	Complex Problem Solving	Science	Time Management	Complex Problem Solving	Troubleshooting	Active Learning	Active Learning	Social Perceptiveness	Systems Analysis	Reading Comprehension		Speaking				
Service Orientation	Mathematics	Active Listening	Instructing	Technology Design	Judgment and Decision Making	Critical Thinking	Programming	Persuasion	Coordination	Social Perceptiveness		Complex Problem Solving				
Social Perceptiveness	Writing	Judgment and Decision Making	Monitoring	Active Learning	Technology Design	Coordination	Reading Comprehension	Writing	Reading Comprehension	Coordination		Monitoring				
Reading Comprehension	Judgment and Decision Making	Time Management	Quality Control Analysis	Systems Analysis	Reading Comprehension	Mathematics	Systems Analysis	Critical Thinking	Speaking	Complex Problem Solving		Negotiation				
Critical Thinking	Speaking	Writing	Reading Comprehension	Judgment and Decision Making	Openness Analysis	Active Listening	Mathematics	Active Learning	Monitoring	Management of Personnel Resources		Social Perceptiveness				
Active Learning	Active Learning	Speaking	Operation and Control	Time Management	Systems Analysis	Judgment and Decision Making	Reasoning Analysis	Judgment and Decision Making	Social Perceptiveness	Monitoring		Writing				

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Manufacturing Value Chain – Production

List of Skills for Occupations Employed in Semiconductor and Electronic Components

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California Research Bureau, California State Library

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	Top Third (of 26)
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	

Manufacturing Value Chain – Production

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

68

California Research Bureau, California State Library

	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
	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		Critical Thinking	Time Management	
			Writing		Troubleshooting	Troubleshooting		Reading Comprehension	Critical Thinking	
			Instructing		Time Management	Critical Thinking		Operation Monitoring	Judgment and Decision	
			Judgment and Decision Making		Judgment and Decision Making	Coordination		Coordination	Coordination	
Total	0	6	10	6	10	10	6	10	10	0
			16				32		20	0

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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	
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	Top Third (of 9)
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	

Manufacturing Value Chain – Production

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

	TOT_EMP		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	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$		
Job Zone	JZ-1	JZ-1	JZ-2	JZ-2	JZ-2	JZ-2	JZ-2	JZ-2	JZ-2	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	JZ-3	JZ-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																	
Occupation Title	Packers and packagers, hand	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	Active Listening	Learning Strategies	Equipment Maintenance	Active Listening	Active Listening	Quality Control Analysis	Mathematics	Time Management	Reading Comprehension	Active Listening	Time Management	Not Available																
Coordination	Quality Control Analysis	Quality Control Analysis	Quality Control Analysis	Reading Comprehension	Active Listening	Mathematics	Reading Comprehension	Reading Comprehension	Active Listening	Active Listening	Monitoring	Active Listening	Reading Comprehension	Coordination																	
Speaking			Instructing	Instructing	Quality Control Analysis	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 Analysis		Learning Strategies	Mathematics	Speaking	Management of Personnel Resources	Writing	Time Management	Learning Strategies																	
			Speaking		Reading Comprehension	Reading Comprehension		Monitoring	Speaking		Persuasion	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	Overtime Analysis																	
Total	6	2	10	6	10	10	5	10	10	7	10	9	10	10	0	8	61	7	39	0	115										

Manufacturing Value Chain – *Production*

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

Number of Occupations within JZ	2	7	1	4	0	0	1	15	
Total Employment Range (2005)	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	\$ 32,810	\$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

Top Third
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Manufacturing Value Chain – Production

List of Skills for Occupations Employed in Animal Slaughtering and Processing

	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	Slaughterers 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	Coordination	Operation and Control		Coordination	Equipment Selection	Instructing	
	Reading Comprehension	Reading Comprehension	Speaking	Coordination		Equipment Selection	Learning Strategies	Instructing		Judgment and Decision Making	Installation	Monitoring	
	Social Perceptiveness	Speaking	Monitoring	Learning Strategies		Time Management	Time Management	Equipment Maintenance		Reading Comprehension	Critical Thinking	Speaking	
		Quality Control Analysis	Time Management	Time Management		Equipment Maintenance		Coordination		Troubleshooting	Operation Monitoring	Time Management	
			Equipment Selection	Operation and Control		Writing		Troubleshooting		Speaking	Reading Comprehension	Critical Thinking	
			Judgment and Decision Making	Equipment Maintenance		Instructing		Time Management		Mathematics	Active Listening	Judgment and Decision Making	
				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
						44				28		20	0

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	Job Zone	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
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Manufacturing Value Chain – Production

List of Skills for Occupations Employed in Electronic Instrument Manufacturing

TOT_EMP	95,990	24,970	214,050	2,140	5,910	22,600	6,360	49,790	19,090	23,220	2,260	19,000	84,550	27,970	50,400
A_MEAN	\$ 24,430	\$ 27,990	\$ 43,250	\$ 46,510	\$ 51,940	\$ 55,710	\$ 58,110	\$ 76,970	\$ 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-4	JZ-4	JZ-4	JZ-4	JZ-4	JZ-4	JZ-4	JZ-4
SOC-Code	51-2092	51-2022	43-6011	17-3024	17-3027	17-3023	17-3026	15-1051	17-2112	17-2141	17-2131	17-2071	15-1031	17-2072	15-1032
Occupation Title	Team assemblers	Electrical and electronic equipment assemblers	Executive secretaries and administrative assistants	Electro-mechanical technicians	Mechanical engineering technicians	Electrical and electronic engineering technicians	Industrial engineering technicians	Computer systems analysts	Industrial engineers	Mechanical engineers	Materials engineers	Electrical engineers	Computer software engineers, applications	Electronics engineers, except computer	Computer software engineers, systems software
	Learning Strategies	Quality Control Analysis	Active Listening	Equipment Maintenance	Reading Comprehension	Troubleshooting	Active Listening	Active Learning	Critical Thinking	Mathematics	Reading Comprehension	Active Listening	Programming	Reading Comprehension	Complex Problem Solving
	Active Listening	Troubleshooting	Reading Comprehension	Troubleshooting	Active Listening	Mathematics	Complex Problem Solving	Reading Comprehension	Active Listening	Complex Problem Solving	Active Listening	Troubleshooting	Critical Thinking	Complex Problem Solving	Technology Design
	Quality Control Analysis	Equipment Selection	Time Management	Operation Monitoring	Coordination	Critical Thinking	Critical Thinking	Complex Problem Solving	Time Management	Critical Thinking	Science	Critical Thinking	Complex Problem Solving	Equipment Selection	Troubleshooting
	Active Learning	Instructing	Speaking	Quality Control Analysis	Judgment and Decision Making	Reading Comprehension	Judgment and Decision Making	Critical Thinking	Reading Comprehension	Reading Comprehension	Critical Thinking	Reading Comprehension	Active Learning	Troubleshooting	Critical Thinking
	Instructing	Time Management	Writing	Reading Comprehension	Mathematics	Active Listening	Coordination	Active Listening	Complex Problem Solving	Science	Writing	Complex Problem Solving	Troubleshooting	Active Learning	Active Learning
	Operation Monitoring	Reading Comprehension	Critical Thinking	Instructing	Complex Problem Solving	Complex Problem Solving	Active Learning	Troubleshooting	Mathematics	Active Listening	Complex Problem Solving	Technology Design	Judgment and Decision Making	Critical Thinking	Programming
	Equipment Selection	Learning Strategies	Active Learning	Installation	Time Management	Speaking	Reading Comprehension	Monitoring	Writing	Judgment and Decision Making	Active Learning	Active Learning	Technology Design	Coordination	Reading Comprehension
	Reading Comprehension	Monitoring	Coordination	Equipment Selection	Active Learning	Systems Analysis	Instructing	Service Orientation	Judgment and Decision Making	Time Management	Troubleshooting	Systems Analysis	Reading Comprehension	Mathematics	Systems Analysis
	Coordination	Active Learning	Monitoring	Mathematics	Troubleshooting	Writing	Speaking	Time Management	Speaking	Writing	Equipment Selection	Judgment and Decision Making	Operations Analysis	Active Listening	Mathematics
	Equipment Maintenance	Judgment and Decision Making	Service Orientation	Operation and Control	Equipment Selection		Monitoring	Quality Control Analysis	Active Learning	Speaking	Time Management	Time Management	Systems Analysis	Judgment and Decision Making	Operations Analysis
Total	10	10	10	10	10	9	10	10	10	10	10	10	10	10	10

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Manufacturing Value Chain – Production

List of Skills for Occupations Employed in Electronic Instrument Manufacturing

	20,410	25,100	35,620	31,900	11,600	175,920	26,990
	\$ 100,070	\$ 97,140	\$ 125,080	\$ 25,360	\$ 53,580	\$ 60,860	\$ 89,260
	JZ-4	JZ-5	JZ-5	N/A	N/A	N/A	N/A
	17-2061	17-2011	11-9041	51-2099	17-3029	13-1199	17-2199
Computer hardware engineers	Aerospace engineers	Engineering managers	Assemblers and fabricators, all other	Engineering technicians, except drafters, all other	Business operations specialists, all other	Engineers, all other	
Complex Problem Solving	Critical Thinking	Critical Thinking	Not Available	Not Available	Not Available	Not Available	
Active Listening	Judgment and Decision Making	Judgment and Decision Making					
Critical Thinking	Time Management	Reading Comprehension					
Active Learning	Active Learning	Active Listening					
Reading Comprehension	Writing	Speaking					
Judgment and Decision Making	Monitoring	Complex Problem Solving					
Time Management	Reading Comprehension	Monitoring					
Troubleshooting	Speaking	Negotiation					
Systems Evaluation	Management of Personnel Resources	Social Perceptiveness					
Operations Analysis	Systems Evaluation	Writing					
10	10	10	0	0	0	0	0
90	20	0					

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
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Manufacturing Value Chain – Production

List of Skills for Occupations Employed in Other Wood Product Manufacturing

TOT_EMP	45,780	141,810	276,490	2,270	8,520	95,990	4,320	69,220	144,450	15,640	63,290	145,050	226,740	31,900
A_MEAN	\$ 21,260	\$ 33,980	\$ 23,210	\$ 23,650	\$ 23,860	\$ 24,430	\$ 26,960	\$ 32,780	\$ 48,440	\$ 29,360	\$ 51,420	\$ 60,660	\$ 112,740	\$ 25,360
Job Zone	JZ-1	JZ-1	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	51-9198	47-2061	53-7062	51-9123	51-7042	51-2092	51-7041	53-7051	47-2031	51-7011	51-1011	41-4012	11-1021	51-2099
Occupational Title	Helpers--production workers	Construction laborers	Laborers and freight, stock, and material movers, hand	Painting, coating, and decorating workers	Woodworking machine setters, operators, and tenders, except sawing	Team assemblers	Sawing machine setters, operators, and tenders, wood	Industrial truck and tractor operators	Carpenters	Cabinetmakers and bench carpenters	First-line supervisors/managers of production and operating workers	Sales representatives, wholesale and manufacturing, except technical and scientific products	General and operations managers	Assemblers and fabricators, all other
	Equipment Selection	Active Listening	Active Listening	Active Listening	Equipment Maintenance	Learning Strategies	Operation and Control	Operation Monitoring	Mathematics	Active Listening	Active Listening	Active Listening	Active Listening	Not Available
	Active Listening	Coordination	Reading Comprehension	Speaking	Troubleshooting	Active Listening	Equipment Maintenance	Active Listening	Time Management	Instructing	Reading Comprehension	Speaking	Coordination	
	Coordination	Equipment Selection	Instructing	Learning Strategies	Equipment Selection	Quality Control Analysis	Operation Monitoring	Operation and Control	Active Listening	Mathematics	Management of Personnel Resources	Time Management	Critical Thinking	
	Instructing	Speaking	Coordination	Monitoring	Instructing	Active Learning	Active Listening	Monitoring	Critical Thinking	Reading Comprehension	Instructing	Reading Comprehension	Speaking	
	Reading Comprehension	Instructing	Learning Strategies	Equipment Selection	Operation and Control	Instructing	Mathematics	Critical Thinking	Judgment and Decision Making	Equipment Selection	Monitoring	Persuasion	Time Management	
	Speaking	Monitoring	Time Management	Instructing	Operation Monitoring	Operation Monitoring	Troubleshooting	Speaking	Equipment Selection	Speaking	Speaking	Service Orientation	Complex Problem Solving	
	Quality Control Analysis	Equipment Maintenance		Troubleshooting	Active Listening	Equipment Selection	Critical Thinking		Coordination	Critical Thinking	Time Management	Negotiation	Judgment and Decision Making	
		Learning Strategies			Mathematics	Reading Comprehension	Reporting		Reading Comprehension	Active Learning	Critical Thinking	Social Perceptiveness	Management of Personnel Resources	
		Critical Thinking			Time Management	Coordination	Equipment Selection			Coordination	Judgment and Decision Making	Active Learning	Monitoring	
		Mathematics			Critical Thinking	Equipment Maintenance	Instructing			Quality Control Analysis	Coordination	Coordination	Reading Comprehension	
Total	7	10	6	7	10	10	10	6	8	10	10	10	10	0
		17						49	8				40	0

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
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	114

Top Third
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Manufacturing Value Chain – Production

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

	7,800	31,460	214,050	11,450	32,730	19,090	23,220	84,550	50,400	25,100	35,620	175,920	26,990	39,660	
TOT EMP	\$ 32,580	\$ 38,200	\$ 43,250	\$ 54,970	\$ 57,900	\$ 80,900	\$ 81,790	\$ 91,590	\$ 96,070	\$ 97,140	\$ 125,080	\$ 60,860	\$ 89,260	\$ 101,470	
A MEAN	JZ-2	JZ-3	JZ-3	JZ-3	JZ-3	JZ-4	JZ-4	JZ-4	JZ-4	JZ-5	JZ-5	N/A	N/A	N/A	
Job Zone	51-9061	51-2041	51-4041	43-6011	49-3011	13-1023	17-2112	17-2141	15-1031	15-1032	17-2011	11-9041	13-1199	17-2199	11-9199
SOC-Code	Inspectors, testers, sorters, samplers, and weighers	Structural metal fabricators and fitters	Machinists	Executive secretaries and administrative assistants	Aircraft mechanics and service technicians	Purchasing agents, except wholesale, retail, and farm products	Industrial engineers	Mechanical engineers	Computer software engineers, applications	Computer software engineers, systems software	Aerospace engineers	Engineering managers	Business operations specialists, all other	Engineers, all other	Managers, all other
Occupational Title	Quality Control Analysis	Active Listening	Operation Monitoring	Active Listening	Reading Comprehension	Speaking	Critical Thinking	Mathematics	Programming	Complex Problem Solving	Critical Thinking	Critical Thinking	Not Available	Not Available	Not Available
Active Listening	Time Management	Operation and Control	Reading Comprehension	Reporting	Active Listening	Active Listening	Complex Problem Solving	Critical Thinking	Technology Design	Judgment and Decision Making	Judgment and Decision Making				
Reading Comprehension	Equipment Selection	Monitoring	Time Management	Troubleshooting	Critical Thinking	Time Management	Critical Thinking	Complex Problem Solving	Troubleshooting	Time Management	Reading Comprehension				
Instructing	Quality Control Analysis	Active Listening	Speaking	Equipment Maintenance	Judgment and Decision Making	Reading Comprehension	Reading Comprehension	Active Learning	Critical Thinking	Active Learning	Active Listening				
Operation Monitoring	Mathematics	Critical Thinking	Writing	Complex Problem Solving	Reading Comprehension	Complex Problem Solving	Science	Troubleshooting	Active Learning	Writing	Speaking				
Learning Strategies	Critical Thinking	Complex Problem Solving	Critical Thinking	Equipment Selection	Writing	Mathematics	Active Listening	Judgment and Decision Making	Programming	Monitoring	Complex Problem Solving				
Mathematics	Equipment Maintenance	Coordination	Active Learning	Writing	Time Management	Writing	Judgment and Decision Making	Technology Design	Reading Comprehension	Reading Comprehension	Monitoring				
Speaking	Speaking	Equipment Maintenance	Coordination	Active Listening	Mathematics	Judgment and Decision Making	Time Management	Reading Comprehension	Systems Analysis	Speaking	Negotiation				
Active Learning	Operation Monitoring	Judgment and Decision Making	Monitoring	Critical Thinking	Active Learning	Speaking	Writing	Operations Analysis	Mathematics	Management of Personnel Resources	Social Perceptiveness				
Time Management	Reading Comprehension	Quality Control Analysis	Service Orientation	Installation	Negotiation	Active Learning	Speaking	Systems Analysis	Operational Analysis	Systems Evaluation	Writing				
Total	10	10	10	10	10	10	10	10	10	10	10	0	0	0	120
	10				50			40		20				0	

Manufacturing Value Chain – Production

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

Number of Occupations within JZ		0	1	5	4	2	3	15
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	
Skill	Job Zone	JZ-1	JZ-2	JZ-3	JZ-4	JZ-5	JZ-N/A	Number
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		0	0	0	0	1	0	1
Operation and Control		0	0	1	0	0	0	1
Social Perceptiveness		0	0	0	0	1	0	1
Science		0	0	0	1	0	0	1
Total		0	10	50	40	20	0	120

Top Third
(of 12)

Manufacturing Value Chain – Production

List of Skills for Occupations Employed in Motor Vehicle Manufacturing

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California Research Bureau, California State Library

TOT_EMP	95,990	396,750	28,800	6,830
A_MEAN	\$ 24,430	\$ 27,470	\$ 33,640	\$ 41,150
Job Zone	JZ-2	JZ-2	JZ-2	JZ-2
SOC-Code	51-2092	43-9061	51-4121	51-9122
Occupation Title	Team assemblers	Office clerks, general	Welders, cutters, solderers, and brazers	Painters, transportation equipment
	Learning Strategies	Active Listening	Reading Comprehension	Time Management
	Active Listening	Reading Comprehension	Quality Control Analysis	Equipment Maintenance
	Quality Control Analysis	Speaking	Learning Strategies	Monitoring
	Active Learning	Writing	Time Management	Equipment Selection
	Instructing	Social Perceptiveness	Active Listening	Critical Thinking
	Operation Monitoring		Mathematics	Coordination
	Equipment Selection		Equipment Selection	Judgment and Decision Making
	Reading Comprehension			Management of Material Resources
	Coordination			Active Learning
	Equipment Maintenance			Active Listening
Total	10	5	7	10

	22,240	145,050	18,960
	\$ 41,680	\$ 60,660	\$ 90,000
	JZ-3	JZ-3	JZ-3
	53-1021	41-4012	11-3051
Occupation Title	First-line supervisors/managers of helpers, laborers, and material movers, hand	Sales representatives, wholesale and manufacturing, except technical and scientific products	Industrial production managers
	Time Management	Active Listening	Monitoring
	Monitoring	Speaking	Active Listening
	Judgment and Decision Making	Time Management	Critical Thinking
	Active Listening	Reading Comprehension	Speaking
	Speaking	Persuasion	Management of Personnel Resources
	Critical Thinking	Service Orientation	Reading Comprehension
	Management of Personnel Resources	Negotiation	Time Management
	Persuasion	Social Perceptiveness	Coordination
	Reading Comprehension	Active Learning	Active Learning
	Service Orientation	Coordination	Complex Problem Solving
Total	10	10	10

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		
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)

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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

TOT_EMP	126,180	31,460	214,050	16,910	8,170	11,210	226,740	17,450	3,480	5,540	11,020	31,930	49,790	4,610
A_MEAN	\$ 24,570	\$ 38,200	\$ 43,250	\$ 48,780	\$ 53,690	\$ 61,980	\$ 112,740	\$ 57,690	\$ 65,930	\$ 68,040	\$ 70,730	\$ 72,680	\$ 76,970	\$ 79,100
Job Zone	JZ-1	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	37-3011	51-4041	43-6011	17-3011	17-3022	47-4011	11-1021	13-1073	17-1012	17-1022	13-2031	15-1071	15-1051	17-2081
Occupation Title	Landscaping and groundskeeping workers	Machinists	Executive secretaries and administrative assistants	Architectural and civil drafters	Civil engineering technicians	Construction and building inspectors	General and operations managers	Training and development specialists	Landscape architects	Surveyors	Budget analysts	Network and computer systems administrators	Computer systems analysts	Environmental engineers
Equipment Maintenance	Active Listening	Operation and Control	Active Listening	Active Listening	Mathematics	Critical Thinking	Active Listening	Instructing	Time Management	Writing	Critical Thinking	Reading Comprehension	Active Learning	Reading Comprehension
Active Listening	Operation and Control	Reading Comprehension	Coordination	Active Learning	Active Listening	Coordination	Learning Strategies	Coordination	Reading Comprehension	Reading Comprehension	Active Listening	Reading Comprehension	Speaking	
Speaking	Monitoring	Time Management	Active Learning	Reading Comprehension	Quality Control Analysis	Critical Thinking	Speaking	Active Listening	Active Listening	Speaking	Critical Thinking	Complex Problem Solving	Active Listening	
Reading Comprehension	Active Listening	Speaking	Complex Problem Solving	Critical Thinking	Speaking	Speaking	Active Listening	Reading Comprehension	Critical Thinking	Active Listening	Complex Problem Solving	Critical Thinking	Critical Thinking	
Equipment Selection	Critical Thinking	Writing	Mathematics	Speaking	Judgment and Decision Making	Time Management	Reading Comprehension	Active Learning	Speaking	Mathematics	Speaking	Active Listening	Writing	
Reasoning	Complex Problem Solving	Critical Thinking	Reading Comprehension	Time Management	Complex Problem Solving	Complex Problem Solving	Writing	Critical Thinking	Time Management	Judgment and Decision Making	Monitoring	Troubleshooting	Complex Problem Solving	
Time Management	Coordination	Active Learning	Time Management	Active Listening	Reading Comprehension	Judgment and Decision Making	Social Perceptiveness	Judgment and Decision Making	Coordination	Complex Problem Solving	Systems Evaluation	Monitoring	Judgment and Decision Making	
	Equipment Maintenance	Coordination	Critical Thinking	Complex Problem Solving	Active Learning	Management of Personnel Resources	Time Management	Writing	Judgment and Decision Making	Management of Financial Resources	Time Management	Service Orientation	Systems Analysis	
	Judgment and Decision Making	Monitoring	Judgment and Decision Making	Coordination	Systems Analysis	Monitoring	Complex Problem Solving	Complex Problem Solving	Monitoring	Monitoring	Coordination	Time Management	Active Learning	
	Quality Control Analysis	Service Orientation	Speaking	Judgment and Decision Making	Writing	Reading Comprehension	Coordination	Mathematics	Complex Problem Solving	Writing	Judgment and Decision Making	Quality Control Analysis	Monitoring	
			Writing											
Total	7	10	10	11	10	10	10	10	10	10	10	10	10	10
	7						61							

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
\$ 79,950	\$ 81,790	\$ 88,280	\$ 91,590	\$ 93,410	\$ 96,070
JZ-4	JZ-4	JZ-4	JZ-4	JZ-4	JZ-4
17-2051	17-2141	17-2071	15-1031	17-2072	15-1032
Civil engineers	Mechanical engineers	Electrical engineers	Computer software engineers, applications	Electronics engineers, except computer	Computer software engineers, systems software
Reading Comprehension	Mathematics	Active Listening	Programming	Reading Comprehension	Complex Problem Solving
Complex Problem Solving	Complex Problem Solving	Troubleshooting	Critical Thinking	Complex Problem Solving	Technology Design
Critical Thinking	Critical Thinking	Critical Thinking	Complex Problem Solving	Equipment Selection	Troubleshooting
Active Listening	Reading Comprehension	Reading Comprehension	Active Learning	Troubleshooting	Critical Thinking
Coordination	Science	Complex Problem Solving	Troubleshooting	Active Learning	Active Learning
Judgment and Decision Making	Active Listening	Technology Design	Judgment and Decision Making	Critical Thinking	Programming
Speaking	Judgment and Decision Making	Active Learning	Technology Design	Coordination	Reading Comprehension
Time Management	Time Management	Systems Analysis	Reading Comprehension	Mathematics	Systems Analysis
Writing	Writing	Judgment and Decision Making	Operations Analysis	Active Listening	Mathematics
Management of Personnel Resources	Speaking	Time Management	Systems Analysis	Judgment and Decision Making	Operations Analysis
10	10	10	10	10	10

130

11,970	35,620	61,940
\$ 75,560	\$ 125,080	\$ 132,670
JZ-5	JZ-5	JZ-5
17-1011	11-9041	23-1011
Architects, except landscape and naval	Engineering managers	Lawyers
Active Listening	Critical Thinking	Reading Comprehension
Critical Thinking	Judgment and Decision Making	Judgment and Decision Making
Complex Problem Solving	Reading Comprehension	Writing
Time Management	Active Listening	Critical Thinking
Reading Comprehension	Speaking	Active Listening
Management of Personnel Resources	Complex Problem Solving	Persuasion
Coordination	Monitoring	Time Management
Writing	Negotiation	Negotiation
Speaking	Social Perceptiveness	Speaking
Operations Analysis	Writing	Active Learning
10	10	10

30

175,920	8,070
\$ 60,860	\$ 109,820
N/A	N/A
13-1199	11-3049
Business operations specialists, all other	Human resources managers, all other
Not Available	Not Available
0	0

0

Manufacturing Value Chain – Design

List of Skills for Occupations Employed in Architectural and Engineering Services

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California Research Bureau, California State Library

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
								Top Third (of 23)
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

Manufacturing Value Chain – Design

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

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California Research Bureau, California State Library

TOT_EMP	126,180	396,750	199,440	9,830	208,200	214,050	17,060	59,520	24,070	8,170	29,620	23,450	226,740
A_MEAN	\$ 24,570	\$ 27,470	\$ 34,110	\$ 68,200	\$ 35,880	\$ 43,250	\$ 45,250	\$ 50,100	\$ 53,090	\$ 53,690	\$ 56,850	\$ 71,870	\$ 112,740
Job Zone	JZ-1	JZ-2	JZ-2	JZ-2	JZ-3	JZ-3	JZ-3	JZ-3	JZ-3	JZ-3	JZ-3	JZ-3	JZ-3
SOC-Code	37-3011	43-9061	43-4051	41-9022	43-3031	43-6011	49-9021	15-1041	23-2011	17-3022	13-1031	15-1081	11-1021
Occupation Title	Landscaping and groundskeeping workers	Office clerks, general	Customer service representatives	Real estate sales agents	Bookkeeping, accounting, and auditing clerks	Executive secretaries and administrative assistants	Heating, air conditioning, and refrigeration mechanics and installers	Computer support specialists	Paralegals and legal assistants	Civil engineering technicians	Claims adjusters, examiners, and investigators	Network systems and data communications analysts	General and operations managers
	Equipment Maintenance	Active Listening	Active Listening	Active Listening	Mathematics	Active Listening	Troubleshooting	Critical Thinking	Reading Comprehension	Mathematics	Reading Comprehension	Equipment Selection	Active Listening
	Active Listening	Reading Comprehension	Reading Comprehension	Time Management	Reading Comprehension	Reading Comprehension	Repairing	Speaking	Time Management	Active Learning	Judgment and Decision Making	Troubleshooting	Coordination
	Speaking	Speaking	Monitoring	Negotiation	Time Management	Time Management	Active Listening	Active Learning	Active Listening	Reading Comprehension	Active Listening	Complex Problem Solving	Critical Thinking
	Reading Comprehension	Writing	Speaking	Speaking	Active Listening	Speaking	Equipment Maintenance	Complex Problem Solving	Writing	Critical Thinking	Time Management	Active Listening	Speaking
	Equipment Selection	Social Perceptiveness	Time Management	Reading Comprehension	Critical Thinking	Writing	Installation	Reading Comprehension	Speaking	Speaking	Writing	Active Learning	Time Management
	Repairing		Service Orientation	Coordination	Active Learning	Critical Thinking	Social Perceptiveness	Active Learning	Active Learning	Time Management	Critical Thinking	Critical Thinking	Complex Problem Solving
	Time Management		Active Learning	Mathematics	Learning Strategies	Active Learning	Reading Comprehension	Coordination	Coordination	Active Listening		Installation	Judgment and Decision Making
			Learning Strategies	Service Orientation	Social Perceptiveness	Coordination	Operation Monitoring	Instructing	Critical Thinking	Complex Problem Solving		Reading Comprehension	Management of Personnel Resources
			Writing	Social Perceptiveness	Writing	Monitoring		Judgment and Decision Making	Monitoring	Coordination		Judgment and Decision Making	Monitoring
			Critical Thinking	Writing	Speaking	Service Orientation		Monitoring	Judgment and Decision Making	Judgment and Decision Making		Technology Design	Reading Comprehension
Total	7	5	10	10	10	10	8	10	10	10	6	10	10

7

25

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Manufacturing Value Chain – Design

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

16,750	10,100	1,000	17,450	25,360	124,560	3,480	4,450	27,950	31,930	6,670	49,790	19,090
\$ 60,580	\$ 42,780	\$ 55,810	\$ 57,690	\$ 62,290	\$ 64,390	\$ 65,930	\$ 69,490	\$ 69,540	\$ 72,680	\$ 72,910	\$ 76,970	\$ 80,900
JZ-3/4	JZ-4	JZ-4	JZ-4	JZ-4	JZ-4	JZ-4	JZ-4	JZ-4	JZ-4	JZ-4	JZ-4	JZ-4
13-1071	19-4021	19-1032	13-1073	13-1051	13-2011	17-1012	19-3051	19-3021	15-1071	27-3042	15-1051	17-2112
Employment, recruitment, and placement specialists	Biological technicians	Foresters	Training and development specialists	Cost estimators	Accountants and auditors	Landscape architects	Urban and regional planners	Market research analysts	Network and computer systems administrators	Technical writers	Computer systems analysts	Industrial engineers
Reading Comprehension	Science	Time Management	Instructing	Reading Comprehension	Mathematics	Time Management	Writing	Reading Comprehension	Reading Comprehension	Reading Comprehension	Active Learning	Critical Thinking
Service Orientation	Reading Comprehension	Coordination	Learning Strategies	Critical Thinking	Active Listening	Coordination	Active Listening	Time Management	Active Listening	Writing	Reading Comprehension	Active Listening
Speaking	Instructing	Science	Speaking	Active Listening	Critical Thinking	Active Listening	Reading Comprehension	Writing	Critical Thinking	Time Management	Complex Problem Solving	Time Management
Active Listening	Active Learning	Critical Thinking	Active Listening	Writing	Monitoring	Reading Comprehension	Critical Thinking	Active Listening	Complex Problem Solving	Active Learning	Critical Thinking	Reading Comprehension
Persuasion	Learning Strategies	Reading Comprehension	Reading Comprehension	Mathematics	Writing	Active Learning	Speaking	Coordination	Speaking	Active Listening	Active Listening	Complex Problem Solving
Negotiation	Time Management	Active Listening	Writing	Speaking	Reading Comprehension	Critical Thinking	Time Management	Active Learning	Monitoring	Learning Strategies	Troubleshooting	Mathematics
	Active Listening	Active Learning	Social Perceptiveness	Judgment and Decision Making	Speaking	Judgment and Decision Making	Judgment and Decision Making	Critical Thinking	Systems Evaluation	Critical Thinking	Monitoring	Writing
	Mathematics	Mathematics	Time Management	Active Learning	Judgment and Decision Making	Writing	Complex Problem Solving	Speaking	Time Management	Complex Problem Solving	Service Orientation	Judgment and Decision Making
	Quality Control Analysis	Speaking	Complex Problem Solving	Complex Problem Solving		Complex Problem Solving	Service Orientation	Judgment and Decision Making	Coordination	Judgment and Decision Making	Time Management	Speaking
	Speaking	Management of Financial Resources	Coordination	Persuasion		Mathematics	Coordination	Negotiation	Judgment and Decision Making	Coordination	Quality Control Analysis	Active Learning
6	10	10	10	10	8	10	10	10	10	10	10	10

Manufacturing Value Chain – Design

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

63,700	19,920	19,000	8,790	84,550	20,310	27,970	50,400	5,110	49,200	35,550	30,320	1,520
\$ 82,200	\$ 86,620	\$ 88,280	\$ 90,520	\$ 91,590	\$ 92,940	\$ 93,410	\$ 96,070	\$ 105,020	\$ 114,770	\$ 120,600	\$ 123,600	\$ 67,650
JZ-4	JZ-4	JZ-4	JZ-4	JZ-4	JZ-4	JZ-4	JZ-4	JZ-4	JZ-4	JZ-4	JZ-4	JZ-5
13-1111	13-2051	17-2071	11-3061	15-1031	11-9021	17-2072	15-1032	11-2031	11-2022	11-3021	11-2021	19-1013
Management analysts	Financial analysts	Electrical engineers	Purchasing managers	Computer software engineers, applications	Construction managers	Electronics engineers, except computer	Computer software engineers, systems software	Public relations managers	Sales managers	Computer and information systems managers	Marketing managers	Soil and plant scientists
Critical Thinking	Reading Comprehension	Active Listening	Active Listening	Programming	Critical Thinking	Reading Comprehension	Complex Problem Solving	Speaking	Active Listening	Critical Thinking	Active Listening	Science
Judgment and Decision Making	Time Management	Troubleshooting	Critical Thinking	Critical Thinking	Active Listening	Complex Problem Solving	Technology Design	Time Management	Speaking	Active Listening	Critical Thinking	Reading Comprehension
Active Listening	Active Listening	Critical Thinking	Judgment and Decision Making	Complex Problem Solving	Monitoring	Equipment Selection	Troubleshooting	Writing	Coordination	Judgment and Decision Making	Speaking	Writing
Coordination	Judgment and Decision Making	Reading Comprehension	Active Learning	Active Learning	Reading Comprehension	Troubleshooting	Critical Thinking	Active Listening	Reading Comprehension	Management of Personnel Resources	Writing	Critical Thinking
Time Management	Complex Problem Solving	Complex Problem Solving	Reading Comprehension	Troubleshooting	Speaking	Active Learning	Active Learning	Reading Comprehension	Social Perceptiveness	Systems Analysis	Reading Comprehension	Active Learning
Instructing	Mathematics	Technology Design	Management of Material Resources	Judgment and Decision Making	Time Management	Critical Thinking	Programming	Coordination	Writing	Coordination	Social Perceptiveness	Time Management
Monitoring	Critical Thinking	Active Learning	Negotiation	Technology Design	Coordination	Coordination	Reading Comprehension	Critical Thinking	Critical Thinking	Reading Comprehension	Coordination	Speaking
Quality Control Analysis	Management of Financial Resources	Systems Analysis	Mathematics	Reading Comprehension	Management of Personnel Resources	Mathematics	Systems Analysis	Persuasion	Persuasion	Speaking	Complex Problem Solving	Active Listening
Reading Comprehension	Active Learning	Judgment and Decision Making	Time Management	Operations Analysis	Writing	Active Listening	Mathematics	Service Orientation	Active Learning	Monitoring	Management of Personnel Resources	Complex Problem Solving
Operation and Control	Monitoring	Time Management	Operations Analysis	Systems Analysis	Judgment and Decision Making	Judgment and Decision Making	Operations Analysis	Social Perceptiveness	Judgment and Decision Making	Social Perceptiveness	Monitoring	Mathematics
10	10	10	10	10	10	10	10	10	10	10	10	10

Manufacturing Value Chain – Design

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

5,990	16,610	980	35,620
\$ 71,580	\$ 78,790	\$ 78,820	\$ 125,080
JZ-5	JZ-5	JZ-5	JZ-5
15-2031	19-1042	19-2043	11-9041
Operations research analysts	Medical scientists, except epidemiologists	Hydrologists	Engineering managers
Mathematics	Reading Comprehension	Science	Critical Thinking
Complex Problem Solving	Science	Reading Comprehension	Judgment and Decision Making
Critical Thinking	Active Listening	Writing	Reading Comprehension
Operations Analysis	Active Learning	Mathematics	Active Listening
Systems Analysis	Writing	Complex Problem Solving	Speaking
Reading Comprehension	Instructing	Critical Thinking	Complex Problem Solving
Active Learning	Time Management	Active Learning	Monitoring
Active Listening	Critical Thinking	Time Management	Negotiation
Judgment and Decision Making	Judgment and Decision Making	Speaking	Social Perceptiveness
Writing	Complex Problem Solving	Active Listening	Writing

10 10 10 10

50

27,810
\$ 57,090
JZ-2/3/4/5
13-1041
Compliance officers, except agriculture, construction, health and safety, and transportation
Critical Thinking
Speaking
Science
Active Listening
Reading Comprehension
Writing
Negotiation
Coordination
Active Learning
Learning Strategies
Instructing
Judgment and Decision Making

12

12

4,850	175,920	91,680	3,420	28,190	26,990	39,660
\$ 45,610	\$ 60,860	\$ 61,790	\$ 62,250	\$ 62,400	\$ 89,260	\$ 101,470
N/A	N/A	N/A	N/A	N/A	N/A	N/A
19-4099	13-1199	41-3099	19-1029	13-1079	17-2199	11-9199
Life, physical, and social science technicians, all other	Business operations specialists, all other	Sales representatives, services, all other	Biological scientists, all other	Human resources, training, and labor relations specialists, all other	Engineers, all other	Managers, all other
Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

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Manufacturing Value Chain – Design

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

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California Research Bureau, California State Library

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	Job Zone	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
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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

96

California Research Bureau, California State Library

TOT_EMP	88,390	207,640	17,640
A_MEAN	\$ 20,530	\$ 23,360	\$ 23,820
Job Zone	JZ-1	JZ-1	JZ-1
SOC-Code	37-2012	37-2011	53-3041
Occupation Title	Maids and housekeeping cleaners	Janitors and cleaners, except maids and housekeeping cleaners	Taxi drivers and chauffeurs
	Reading Comprehension	Reading Comprehension	Time Management
		Active Listening	Equipment Maintenance
		Speaking	Social Perceptiveness
		Coordination	Mathematics
		Equipment Selection	Active Listening
		Time Management	Active Learning
		Equipment Maintenance	Operation and Control
		Writing	Critical Thinking
		Instructing	
		Judgment and Decision Making	

Total 1 10 8

96.820	396,750	57,480	199,440	23,360	125,210
\$ 25,300	\$ 27,470	\$ 30,800	\$ 34,110	\$ 34,320	\$ 39,850
JZ-2	JZ-2	JZ-2	JZ-2	JZ-2	JZ-2
31-1012	43-9061	43-6013	43-4051	29-2052	41-1011
Nursing aides, orderlies, and attendants	Office clerks, general	Medical secretaries	Customer service representatives	Pharmacy technicians	First-line supervisors/managers of retail sales workers
Active Listening	Active Listening	Active Listening	Active Listening	Active Listening	Management of Personnel Resources
Complex Problem Solving	Reading Comprehension	Reading Comprehension	Reading Comprehension	Speaking	Active Listening
Speaking	Speaking	Speaking	Monitoring	Active Learning	Service Orientation
Coordination	Writing	Coordination	Speaking	Service Orientation	Time Management
Time Management	Social Perceptiveness	Critical Thinking	Time Management	Instructing	Instructing
Service Orientation		Time Management	Service Orientation	Reading Comprehension	Monitoring
Monitoring		Social Perceptiveness	Active Learning	Mathematics	Reading Comprehension
Social Perceptiveness		Writing	Learning Strategies	Time Management	Judgment and Decision Making
Critical Thinking		Service Orientation	Writing	Learning Strategies	Active Learning
Reading Comprehension			Critical Thinking	Writing	Critical Thinking

Total 10 5 9 10 10 10

58,830	26,660	56,170	29,620	14,950
\$ 30,960	\$ 32,030	\$ 45,270	\$ 56,850	\$ 58,480
JZ-3	JZ-3	JZ-3	JZ-3	JZ-3
31-9092	43-4111	29-2061	13-1031	29-2034
Medical assistants	Interviewers, except eligibility and loan	Licensed practical and licensed vocational nurses	Claims adjusters, examiners, and investigators	Radiologic technologists and technicians
Active Listening	Active Listening	Active Listening	Reading Comprehension	Active Listening
Social Perceptiveness	Reading Comprehension	Reading Comprehension	Judgment and Decision Making	Reading Comprehension
Speaking	Speaking	Time Management	Active Listening	Speaking
Critical Thinking	Service Orientation	Coordination	Time Management	Critical Thinking
Reading Comprehension	Writing	Monitoring	Writing	Writing
Active Learning	Social Perceptiveness	Critical Thinking	Critical Thinking	Time Management
Service Orientation	Learning Strategies	Social Perceptiveness		Coordination
Complex Problem Solving	Critical Thinking	Service Orientation		
Coordination	Time Management	Speaking		
Writing	Monitoring	Complex Problem Solving		

Total 10 10 10 6 7

Health Science and Services

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

10,660	234,260
\$ 59,520	\$ 75,130
JZ-3	JZ-3
29-1126	29-1111
Respiratory therapists	Registered nurses
Active Listening	Active Listening
Instructing	Reading Comprehension
Reading Comprehension	Critical Thinking
Critical Thinking	Active Learning
Monitoring	Speaking
Speaking	Coordination
Time Management	Service Orientation
Operation Monitoring	Monitoring
Active Learning	Social Perceptiveness
Troubleshooting	Writing
10	10

63

12,070
\$ 66,530
JZ-4
29-2011
Medical and clinical laboratory technologists
Speaking
Complex Problem Solving
Reading Comprehension
Monitoring
Writing
Operation Monitoring
Critical Thinking
Judgment and Decision Making
Active Listening
Active Learning
10

10

19,540	23,700	3,030
\$ 95,210	\$ 106,150	\$ 148,250
JZ-5	JZ-5	JZ-5
11-9111	29-1051	29-1065
Medical and health services managers	Pharmacists	Pediatricians, general
Active Listening	Active Listening	Critical Thinking
Reading Comprehension	Speaking	Active Listening
Critical Thinking	Reading Comprehension	Reading Comprehension
Speaking	Mathematics	Active Learning
Monitoring	Science	Social Perceptiveness
Judgment and Decision Making	Critical Thinking	Science
Time Management	Writing	Speaking
Coordination	Instructing	Coordination
Management of Personnel Resources	Social Perceptiveness	Instructing
Writing	Active Learning	Complex Problem Solving
10	10	10

30

29,690	175,920	18,800
\$ 30,490	\$ 60,860	\$ 146,200
N/A	N/A	N/A
31-9099	13-1199	29-1069
Healthcare support workers, all other	Business operations specialists, all other	Physicians and surgeons, all other
Not Available	Not Available	Not Available
0	0	0

0

Health Science and Services

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

Number of Occupations within JZ		3	6	7	1	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	
Skill	Job Zone	JZ-1	JZ-2	JZ-3	JZ-4	JZ-5	JZ-N/A	Number
Active Listening		2	6	7	1	3	0	19
Reading Comprehension		2	6	7	1	3	0	19
Critical Thinking		1	4	7	1	3	0	16
Instructing		1	2	1	0	2	0	6
Speaking		1	5	6	1	3	0	16
Time Management		2	5	5	0	1	0	13
Service Orientation		0	5	4	0	0	0	9
Monitoring		0	3	4	0	1	0	8
Social Perceptiveness		1	3	4	1	2	0	11
Writing		1	4	5	1	2	0	13
Operation Monitoring		0	0	1	1	0	0	2
Coordination		1	2	4	0	2	0	9
Judgment and Decision Making		1	1	1	1	1	0	5
Active Learning		1	3	3	1	2	0	10
Troubleshooting		0	0	1	0	0	0	1
Learning Strategies		0	2	1	0	0	0	3
Mathematics		1	1	0	0	1	0	3
Science		0	0	0	0	2	0	2
Equipment Maintenance		2	0	0	0	0	0	2
Operation and Control		1	0	0	0	0	0	1
Equipment Selection		1	0	0	0	0	0	1
Management of Personnel Resources		0	1	0	0	1	0	2
Complex Problem Solving		0	1	2	1	1	0	5
Total		19	54	63	10	30	0	176

Top Third
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Health Science and Services

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

100

California Research Bureau, California State Library

TOT_EMP	214,050	43,690	226,740
A_MEAN	\$ 43,250	\$ 60,630	\$ 112,740
Job Zone	JZ-3	JZ-3	JZ-3
SOC-Code	43-6011	49-1011	11-1021
Occupation Title	Executive secretaries and administrative assistants	First-line supervisors/managers of mechanics, installers, and repairers	General and operations managers
	Active Listening	Management of Personnel Resources	Active Listening
	Reading Comprehension	Reading Comprehension	Management of Personnel Resources
	Time Management	Coordination	Time Management
	Speaking	Active Listening	Judgment and Decision Making
	Writing	Monitoring	Monitoring
	Critical Thinking	Speaking	Reading Comprehension
	Active Learning	Time Management	Speaking
	Coordination	Critical Thinking	Coordination
	Monitoring	Complex Problem Solving	Critical Thinking
	Service Orientation	Social Perceptiveness	Complex Problem Solving
Total	10	10	10

	10,100	9,670	2,320	2,260	3,070	84,550	27,970	50,400	5,110
	\$ 42,780	\$ 73,270	\$ 75,570	\$ 82,280	\$ 85,960	\$ 91,590	\$ 93,410	\$ 96,070	\$ 105,020
	JZ-4	JZ-4	JZ-4	JZ-4	JZ-4	JZ-4	JZ-4	JZ-4	JZ-4
	19-4021	19-2031	17-2111	17-2131	17-2031	15-1031	17-2072	15-1032	11-2031
	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 software	Computer software engineers, systems software	Public relations managers
	Science	Science	Reading Comprehension	Reading Comprehension	Science	Programming	Reading Comprehension	Complex Problem Solving	Speaking
	Reading Comprehension	Complex Problem Solving	Writing	Active Listening	Reading Comprehension	Critical Thinking	Complex Problem Solving	Technology Design	Time Management
	Instructing	Reading Comprehension	Critical Thinking	Science	Speaking	Complex Problem Solving	Equipment Selection	Troubleshooting	Writing
	Active Learning	Quality Control Analysis	Mathematics	Critical Thinking	Time Management	Active Learning	Troubleshooting	Critical Thinking	Active Listening
	Learning Strategies	Writing	Active Listening	Writing	Active Listening	Troubleshooting	Active Learning	Active Learning	Reading Comprehension
	Time Management	Time Management	Time Management	Complex Problem Solving	Judgment and Decision Making	Judgment and Decision Making	Critical Thinking	Programming	Coordination
	Active Listening	Active Listening	Speaking	Active Learning	Technology Design	Technology Design	Coordination	Reading Comprehension	Critical Thinking
	Mathematics	Active Learning	Persuasion	Troubleshooting	Complex Problem Solving	Reading Comprehension	Mathematics	Systems Analysis	Persuasion
	Quality Control Analysis	Critical Thinking	Active Learning	Equipment Selection	Critical Thinking	Operations Analysis	Active Listening	Mathematics	Service Orientation
	Speaking	Speaking	Science	Time Management	Quality Control Analysis	Systems Analysis	Judgment and Decision Making	Operations Analysis	Social Perceptiveness
Total	10	10	10	10	10	10	10	10	10

Health Science and Services

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

California Research Bureau, California State Library

820	16,610	4,310	25,100	35,620	7,030
\$ 61,310	\$ 78,790	\$ 82,090	\$ 97,140	\$ 125,080	\$ 126,540
JZ-5	JZ-5	JZ-5	JZ-5	JZ-5	JZ-5
19-1012	19-1042	19-1021	17-2011	11-9041	11-9121
Food scientists and technologists	Medical scientists, except epidemiologists	Biochemists and biophysicists	Aerospace engineers	Engineering managers	Natural sciences managers
Quality Control Analysis	Reading Comprehension	Science	Critical Thinking	Reading Comprehension	Science
Active Listening	Science	Reading Comprehension	Judgment and Decision Making	Speaking	Critical Thinking
Reading Comprehension	Active Listening	Time Management	Time Management	Active Listening	Reading Comprehension
Active Learning	Active Learning	Critical Thinking	Active Learning	Critical Thinking	Writing
Monitoring	Writing	Writing	Writing	Complex Problem Solving	Active Learning
Mathematics	Instructing	Active Learning	Monitoring	Monitoring	Mathematics
Critical Thinking	Time Management	Complex Problem Solving	Reading Comprehension	Negotiation	Time Management
Speaking	Critical Thinking	Equipment Selection	Speaking	Writing	Active Listening
Time Management	Judgment and Decision Making	Active Listening	Management of Personnel Resources	Judgment and Decision Making	Coordination
Writing	Complex Problem Solving	Learning Strategies	Systems Evaluation	Social Perceptiveness	Complex Problem Solving

10 10 10 10 10 10

175,920	26,990
\$ 60,860	\$ 89,260
N/A	N/A
13-1199	17-2199
Business operations specialists, all other	Engineers, all other
Not Available	Not Available

0 0

180

Health Science and Services

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

102

California Research Bureau, California State Library

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	Job Zone	JZ-1	JZ-2	JZ-3	JZ-4	JZ-5	JZ-N/A	Number	Top Third (of 18)
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	

Health Science and Services

List of Skills for Occupations Employed in Offices of Physicians

104

California Research Bureau, California State Library

	126,560	396,750	57,480	13,490	56,480	58,830	59,520	180,480	29,620	14,950	234,260	1,610	8,970
TOT_EMP	126,560	396,750	57,480	13,490	56,480	58,830	59,520	180,480	29,620	14,950	234,260	1,610	8,970
A_MEAN	\$ 25,980	\$ 27,470	\$ 30,800	\$ 34,200	\$ 32,810	\$ 30,960	\$ 50,100	\$ 50,230	\$ 56,850	\$ 58,480	\$ 75,130	\$ 75,140	\$ 34,230
Job Zone	JZ-2	JZ-2	JZ-2	JZ-2	JZ-2/3	JZ-3	JZ-3	JZ-3	JZ-3	JZ-3	JZ-3	JZ-3	JZ-5
SOC-Code	43-4171	43-9061	43-6013	29-2071	43-3021	31-9092	15-1041	43-1011	13-1031	29-2034	29-1111	29-2033	21-1011
Occupation Title	Receptionists and information clerks	Office clerks, general	Medical secretaries	Medical records and health information technicians	Billing and posting clerks and machine operators	Medical assistants	Computer support specialists	First-line supervisors/managers of office and administrative support workers	Claims adjusters, examiners, and investigators	Radiologic technologists and technicians	Registered nurses	Nuclear medicine technologists	Substance abuse and behavioral disorder counselors
Cashiers	Active Listening	Active Listening	Active Listening	Active Listening	Active Listening	Active Listening	Coordination	Active Listening	Reading Comprehension	Active Listening	Active Listening	Active Listening	Active Listening
Mathematics	Speaking	Reading Comprehension	Reading Comprehension	Reading Comprehension	Reading Comprehension	Social Perceptiveness	Reading Comprehension	Speaking	Active Listening	Speaking	Reading Comprehension	Operation Monitoring	Social Perceptiveness
Speaking	Reading Comprehension	Speaking	Speaking	Time Management	Writing	Speaking	Critical Thinking	Reading Comprehension	Critical Thinking	Reading Comprehension	Critical Thinking	Service Orientation	Service Orientation
Instructing	Writing	Writing	Coordination	Speaking	Mathematics	Critical Thinking	Active Listening	Critical Thinking	Time Management	Critical Thinking	Active Learning	Speaking	Speaking
Social Perceptiveness	Service Orientation	Social Perceptiveness	Critical Thinking	Monitoring	Speaking	Reading Comprehension	Judgment and Decision Making	Monitoring	Judgment and Decision Making	Time Management	Speaking	Time Management	Time Management
Service Orientation	Learning Strategies		Time Management	Complex Problem Solving	Time Management	Active Learning	Speaking	Time Management	Writing	Writing	Coordination	Critical Thinking	Critical Thinking
Learning Strategies	Social Perceptiveness		Social Perceptiveness	Coordination	Critical Thinking	Service Orientation	Active Learning	Management of Personnel Resources		Coordination	Service Orientation	Equipment Maintenance	Persuasion
Critical Thinking	Critical Thinking		Writing	Critical Thinking		Complex Problem Solving	Monitoring	Judgment and Decision Making		Monitoring	Mathematics	Reading Comprehension	Reading Comprehension
	Time Management		Service Orientation			Coordination	Complex Problem Solving	Instructing		Social Perceptiveness	Coordination	Instructing	Instructing
	Active Learning					Writing	Instructing	Social Perceptiveness		Writing	Monitoring	Writing	Writing
Total	10	5	9	8	7	10	10	10	6	7	10	10	10
	8		32		7						63		

Health Science and Services

List of Skills for Occupations Employed in Offices of Physicians

5,820	9,700
\$ 80,960	\$ 136,290
JZ-5	JZ-5
29-1071	29-1062
Physician assistants	Family and general practitioners
Active Listening	Reading Comprehension
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	Instruction
Monitoring	Judgment and Decision Making

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28,190	18,800
\$ 62,400	\$ 146,200
N/A	N/A
13-1079	29-1069
Human resources, training, and labor relations specialists, all other	Physicians and surgeons, all other
Not Available	Not Available

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140

Health Science and Services

List of Skills for Occupations Employed in Offices of Physicians

106

California Research Bureau, California State Library

Number of Occupations within JZ		1	4	1	7	0	3	2	18
Total Employment Range (2005)		356,880	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)		\$ 21,420	\$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

Top Third
(of 16)

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Health Science and Services

List of Skills for Occupations Employed in Nursing Care Facilities

TOT_EMP	62,620	108,010	88,390	207,640	126,180	18,240	46,470	96,820	21,660	56,170	234,260	35,960	10,310
A_MEAN	\$ 17,050	\$ 18,920	\$ 20,530	\$ 23,360	\$ 24,570	\$ 19,720	\$ 20,950	\$ 25,300	\$ 26,330	\$ 45,270	\$ 75,130	\$ 23,270	\$ 42,070
Job Zone	JZ-1	JZ-1	JZ-1	JZ-1	JZ-1	JZ-2	JZ-2	JZ-2	JZ-2	JZ-3	JZ-3	JZ-4	JZ-5
SOC-Code	35-9011	35-2021	37-2012	37-2011	37-3011	51-6011	31-1011	31-1012	35-2012	29-2061	29-1111	39-9032	21-1014
Occupation Title	Dining room and cafeteria attendants and bartender helpers	Food preparation workers	Maids and housekeeping cleaners	Janitors and cleaners, except maids and housekeeping cleaners	Landscaping and groundskeeping workers	Laundry and dry-cleaning workers	Home health aides	Nursing aides, orderlies, and attendants	Cooks, institution and cafeteria	Licensed practical and licensed vocational nurses	Registered nurses	Recreation workers	Mental health counselors
Speaking	Active Listening	Reading Comprehension	Reading Comprehension	Equipment Maintenance		Active Listening	Active Listening	Active Listening	Reading Comprehension	Active Listening	Active Listening	Service Orientation	Active Listening
Active Listening	Reading Comprehension		Active Listening	Active Listening		Speaking	Reading Comprehension	Complex Problem Solving	Active Listening	Reading Comprehension	Reading Comprehension	Active Listening	Social Perceptiveness
Learning Strategies	Instructing		Speaking	Speaking		Time Management	Writing	Speaking	Instructing	Time Management	Critical Thinking	Speaking	Critical Thinking
Social Perceptiveness	Speaking		Coordination	Reading Comprehension		Equipment Selection	Coordination	Coordination	Service Orientation	Coordination	Active Learning	Instructing	Service Orientation
Service Orientation	Learning Strategies		Equipment Selection	Equipment Selection		Reading Comprehension	Service Orientation	Time Management	Critical Thinking	Monitoring	Speaking	Judgment and Decision Making	Active Learning
	Service Orientation		Time Management	Reasoning		Critical Thinking	Social Perceptiveness	Service Orientation	Learning Strategies	Critical Thinking	Coordination	Time Management	Learning Strategies
	Social Perceptiveness		Equipment Maintenance	Time Management			Monitoring	Monitoring	Time Management	Social Perceptiveness	Service Orientation	Management of Personnel Resources	Speaking
	Coordination		Writing				Instructing	Social Perceptiveness	Coordination	Service Orientation	Monitoring	Social Perceptiveness	Reading Comprehension
	Mathematics		Instructing				Speaking	Critical Thinking	Mathematics	Speaking	Social Perceptiveness	Reading Comprehension	Time Management
			Judgment and Decision Making					Reading Comprehension	Monitoring	Complex Problem Solving	Writing	Critical Thinking	Monitoring
Total	5	9	1	10	7	6	9	10	10	10	10	10	10
					32				35		20	10	10

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-1	JZ-2	JZ-3	JZ-4	JZ-5	Number	Top Third (of 13)
Active Listening		4	4	2	1	1	12	√
Instructing		2	2	0	1	0	5	
Speaking		4	3	2	1	1	11	√
Coordination		2	3	2	0	0	7	
Time Management		2	3	1	1	1	8	√
Service Orientation		2	3	2	1	1	9	√
Monitoring		0	3	2	0	1	6	
Complex Problem Solving		0	1	1	0	0	2	
Social Perceptiveness		2	2	2	1	1	8	√
Critical Thinking		0	3	2	1	1	7	
Reading Comprehension		4	4	2	1	1	12	√
Writing		1	1	1	0	0	3	
Judgment and Decision Making		1	0	0	1	0	2	
Active Learning		0	0	1	0	1	2	
Mathematics		1	1	0	0	0	2	
Learning Strategies		2	1	0	0	1	4	
Equipment Selection		2	1	0	0	0	3	
Equipment Maintenance		2	0	0	0	0	2	
Management of Personnel Resources		0	0	0	1	0	1	
Repairing		1	0	0	0	0	1	
Total		32	35	20	10	10	107	

Health Science and Services

List of Skills for Occupations Employed in Offices of Dentists

110

California Research Bureau, California State Library

TOT_EMP	126,560	396,750	57,480	41,180	108,320
A_MEAN	\$25,980	\$27,470	\$30,800	\$32,170	\$33,030
Job Zone	JZ-2	JZ-2	JZ-2	JZ-2	JZ-2
SOC-Code	43-4171	43-9061	43-6013	31-9091	43-6014
Occupation Title	Receptionists and information clerks	Office clerks, general	Medical secretaries	Dental assistants	Secretaries, except legal, medical, and executive
	Active Listening	Active Listening	Active Listening	Active Listening	Active Listening
	Speaking	Reading Comprehension	Reading Comprehension	Reading Comprehension	Reading Comprehension
	Reading Comprehension	Speaking	Speaking	Speaking	Time Management
	Writing	Writing	Coordination	Coordination	Speaking
	Service Orientation	Social Perceptiveness	Critical Thinking	Social Perceptiveness	Writing
	Learning Strategies		Time Management	Equipment Maintenance	Social Perceptiveness
	Social Perceptiveness		Social Perceptiveness	Active Learning	Active Learning
	Critical Thinking		Writing	Time Management	Critical Thinking
	Time Management		Service Orientation	Equipment Selection	Monitoring
	Active Learning			Instructing	Learning Strategies
Total	10	5	9	10	10

44

208,200	214,050	180,480	22,290	
\$35,880	\$43,250	\$50,230	\$73,950	
JZ-3	JZ-3	JZ-3	JZ-3	
43-3031	43-6011	43-1011	29-2021	
Occupation Title	Bookkeeping, accounting, and auditing clerks	Executive secretaries and administrative assistants	First-line supervisors/managers of office and administrative support workers	Dental hygienists
	Mathematics	Active Listening	Active Listening	Active Listening
	Reading Comprehension	Reading Comprehension	Speaking	Speaking
	Time Management	Time Management	Reading Comprehension	Active Learning
	Active Listening	Speaking	Critical Thinking	Reading Comprehension
	Critical Thinking	Writing	Monitoring	Time Management
	Active Learning	Critical Thinking	Time Management	Critical Thinking
	Learning Strategies	Active Learning	Management of Personnel Resources	Social Perceptiveness
	Social Perceptiveness	Coordination	Judgment and Decision Making	Coordination
	Writing	Monitoring	Instructing	Instructing
	Speaking	Service Orientation	Social Perceptiveness	Writing
Total	10	10	10	10

40

124,560	
\$64,390	
JZ-4	
13-2011	
Occupation Title	Accountants and auditors
	Mathematics
	Active Listening
	Critical Thinking
	Monitoring
	Judgment and Decision Making
	Speaking
	Writing
	Reading Comprehension
Total	8

8

840	9,650	
\$127,730	\$142,190	
JZ-5	JZ-5	
29-1022	29-1021	
Occupation Title	Oral and maxillofacial surgeons	Dentists, general
	Reading Comprehension	Science
	Active Learning	Active Listening
	Active Listening	Complex Problem Solving
	Critical Thinking	Critical Thinking
	Monitoring	Reading Comprehension
	Science	Equipment Selection
	Equipment Selection	Judgment and Decision Making
	Speaking	Time Management
	Complex Problem Solving	Instructing
	Time Management	Active Learning
Total	10	10

20

112

Health Science and Services

List of Skills for Occupations Employed in Offices of Dentists

California Research Bureau, California State Library

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	Top Third (of 12)
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		0	0	1	1	1	3	
Monitoring		0	1	2	1	1	5	
Management of Personnel Resources		0	0	1	0	0	1	
Mathematics		0	0	1	1	0	2	
Total		0	44	40	8	20	112	

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

Entertainment and Tourism

List of Skills for Occupations Employed in Full-Service Restaurants

Number of Occupations within JZ		7	3	1	0	0	1	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

116

California Research Bureau, California State Library

	114,180	208,910	231,130	96,610	108,010	356,880	40,770	92,740	82,240	29,930
A_MEAN	\$ 17,030	\$ 17,920	\$ 18,030	\$ 18,200	\$ 18,920	\$ 21,420	\$ 24,690	\$ 22,520	\$ 27,560	\$ 46,260
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	35-3021	35-3031	35-3022	35-2021	41-2011	53-3031	35-2014	35-1012	11-9051
Occupation Title	Cooks, fast food	Combined food preparation and serving workers, including fast food	Waiters and waitresses	Counter attendants, cafeteria, food concession, and coffee shop	Food preparation workers	Cashiers	Driver/ sales workers	Cooks, restaurant	First-line supervisors/ managers of food preparation and serving workers	Food service managers
	Active Listening	Active Listening	Speaking	Speaking	Active Listening	Active Listening	Active Listening	Active Listening	Speaking	Active Listening
	Speaking	Speaking	Active Listening	Instructing	Reading Comprehension	Mathematics	Speaking	Reading Comprehension	Active Listening	Persuasion
	Reading Comprehension	Instructing	Service Orientation	Active Listening	Instructing	Speaking	Social Perceptiveness	Speaking	Time Management	Speaking
	Instructing	Mathematics	Social Perceptiveness	Reading Comprehension	Speaking	Instructing	Critical Thinking	Active Learning	Instructing	Time Management
	Service Orientation	Service Orientation	Coordination	Social Perceptiveness	Learning Strategies	Social Perceptiveness	Coordination	Instructing	Reading Comprehension	Monitoring
	Social Perceptiveness	Social Perceptiveness	Reading Comprehension		Service Orientation	Service Orientation	Service Orientation	Learning Strategies	Monitoring	Coordination
	Mathematics		Instructing		Social Perceptiveness	Learning Strategies	Time Management	Coordination	Mathematics	Critical Thinking
	Critical Thinking		Active Learning		Coordination	Critical Thinking	Active Learning	Social Perceptiveness	Service Orientation	Negotiation
	Learning Strategies		Critical Thinking		Mathematics		Reading Comprehension	Time Management	Social Perceptiveness	Management of Personnel Resources
	Judgment and Decision Making		Learning Strategies				Mathematics		Management of Personnel Resources	Social Perceptiveness
Total	10	6	10	5	9	8	10	9	10	10

58

10

10

Entertainment and Tourism

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

California Research Bureau, California State Library

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		Top Third (of 10)
Average Annual Salary Range (2005)		\$17,030 - \$24,690	\$22,520 - \$27,560	\$ 46,260	N/A	N/A		
Skill	Job Zone	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	√
Instructing		6	2	0	0	0	8	√
Reading Comprehension		5	2	0	0	0	7	√
Mathematics		5	1	0	0	0	6	
Time Management		1	2	1	0	0	4	
Social Perceptiveness		7	2	1	0	0	10	√
Service Orientation		6	1	0	0	0	7	√
Critical Thinking		4	0	1	0	0	5	
Active Learning		2	1	0	0	0	3	
Learning Strategies		4	1	0	0	0	5	
Negotiation		0	0	1	0	0	1	
Monitoring		0	1	1	0	0	2	
Coordination		3	1	1	0	0	5	
Persuasion		0	0	1	0	0	1	
Judgment and Decision Making		1	0	0	0	0	1	
Management of Personnel Resources		0	1	1	0	0	2	
Total		58	19	10	0	0	87	

Entertainment and Tourism

List of Skills for Occupations Employed in Specialty Food Services

118

California Research Bureau, California State Library

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

Entertainment and Tourism

List of Skills for Occupations Employed in Specialty Food Services

Number of Occupations within JZ		8	2	0	0	0	10
Total Employment Range (2005)		18,410 - 356,880	21,660 - 82,240	N/A	N/A	N/A	
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)

120

California Research Bureau, California State Library

TOT_EMP	62,620	61,400	231,130	108,010	356,880	207,640
A_MEAN	\$ 17,050	\$ 17,070	\$ 18,030	\$ 18,920	\$ 21,420	\$ 23,360
Job Zone	JZ-1	JZ-1	JZ-1	JZ-1	JZ-1	JZ-1
SOC-Code	35-9011	35-9021	35-3031	35-2021	41-2011	37-2011
Occupation Title	Dining room and cafeteria attendants and bartender helpers	Dishwashers	Waiters and waitresses	Food preparation workers	Cashiers	Janitors and cleaners, except maids and housekeeping cleaners
	Speaking	Learning Strategies	Speaking	Active Listening	Active Listening	Reading Comprehension
	Active Listening	Speaking	Active Listening	Reading Comprehension	Mathematics	Active Listening
	Learning Strategies	Active Listening	Service Orientation	Instructing	Speaking	Speaking
	Social Perceptiveness	Equipment Maintenance	Social Perceptiveness	Speaking	Instructing	Coordination
	Service Orientation	Instructing	Coordination	Learning Strategies	Social Perceptiveness	Equipment Selection
		Service Orientation	Reading Comprehension	Service Orientation	Service Orientation	Time Management
		Operation Monitoring	Instructing	Social Perceptiveness	Learning Strategies	Equipment Maintenance
		Reading Comprehension	Active Learning	Coordination	Critical Thinking	Writing
		Quality Control Analysis	Critical Thinking	Mathematics		Instructing
			Learning Strategies			Judgment and Decision Making
Total	5	9	10	9	8	10

TOT_EMP	43,990	92,740	136,680	82,240
A_MEAN	\$ 18,980	\$ 22,520	\$ 23,740	\$ 27,560
Job Zone	JZ-2	JZ-2	JZ-2	JZ-2
SOC-Code	35-3011	35-2014	33-9032	35-1012
Occupation Title	Bartenders	Cooks, restaurant	Security guards	First-line supervisors/managers of food preparation and serving workers
	Active Listening	Active Listening	Active Listening	Speaking
	Speaking	Reading Comprehension	Reading Comprehension	Active Listening
	Social Perceptiveness	Speaking	Social Perceptiveness	Time Management
	Mathematics	Active Learning	Speaking	Instructing
	Service Orientation	Instructing	Monitoring	Reading Comprehension
	Critical Thinking	Learning Strategies	Judgment and Decision Making	Monitoring
	Reading Comprehension	Coordination	Critical Thinking	Mathematics
	Learning Strategies	Social Perceptiveness		Service Orientation
	Coordination	Time Management		Social Perceptiveness
	Judgment and Decision Making			Management of Personnel Resources
Total	10	9	7	10

Entertainment and Tourism

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

Number of Occupations within JZ		6	4	0	0	0	10
Total Employment Range (2005)		61,400 - 356,880	43,990 - 136,680	N/A	N/A	N/A	
Average Annual Salary Range (2005)		\$17,050 - \$23,360	\$18,980 - \$27,560	N/A	N/A	N/A	
Skill	Job Zone	JZ-1	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

122

California Research Bureau, California State Library

TOT_EMP	13,760	356,880	276,490	26,590	11,100	5,950	23,450	5,990	226,740	14,920
A_MEAN	\$ 18,340	\$ 21,420	\$ 23,210	*	\$ 33,880	\$ 62,920	\$ 71,870	\$ 72,640	\$ 112,740	\$ 90,750
Job Zone	JZ-1	JZ-1	JZ-2	JZ-2	JZ-3	JZ-3	JZ-3	JZ-3	JZ-3	JZ-3/4
SOC-Code	39-3031	41-2011	53-7062	27-2011	25-4031	27-4031	15-1081	27-4032	11-1021	27-2012
Occupation Title	Ushers, lobby attendants, and ticket takers	Cashiers	Laborers and freight, stock, and material movers, hand	Actors	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	Speaking	Active Listening	Active Listening	Equipment Selection	Active Listening	Active Listening	Active Listening
	Speaking	Mathematics	Reading Comprehension	Active Listening	Reading Comprehension	Time Management	Troubleshooting	Instructing	Management of Personnel Resources	Time Management
	Social Perceptiveness	Speaking	Instructing	Reading Comprehension	Service Orientation	Operation and Control	Complex Problem Solving	Coordination	Time Management	Reading Comprehension
	Service Orientation	Instructing	Coordination	Social Perceptiveness	Social Perceptiveness	Coordination	Active Listening	Equipment Selection	Judgment and Decision Making	Speaking
	Coordination	Social Perceptiveness	Learning Strategies	Coordination	Speaking	Speaking	Active Learning	Time Management	Monitoring	Writing
	Mathematics	Service Orientation	Time Management	Time Management	Instructing	Reading Comprehension	Critical Thinking	Troubleshooting	Reading Comprehension	Judgment and Decision Making
	Reading Comprehension	Learning Strategies		Critical Thinking	Time Management	Critical Thinking	Installation	Speaking	Speaking	Coordination
		Critical Thinking		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	6	10	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

103

Entertainment and Tourism

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

124

California Research Bureau, California State Library

Number of Occupations within JZ	2	2	5	1	1	0	1	12	
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		Top Third (of 11)
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

Entertainment and Tourism

List of Skills for Occupations Employed in Sound Recording Industries

126

California Research Bureau, California State Library

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	Reading Comprehension	Speaking	Operation Monitoring	Management of Personnel Resources	Active Listening	
	Reading Comprehension	Speaking	Monitoring	Time Management	Time Management	Reading Comprehension	Reading Comprehension	Time Management	Critical Thinking	
	Writing	Writing	Speaking	Active Listening	Speaking	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	Service Orientation	Social Perceptiveness	Social Perceptiveness	Complex Problem Solving		
Total	10	5	10	10	10	10	10	10	8	0
			25				50		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	Job Zone	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

128

California Research Bureau, California State Library

TOT EMP	114,180	62,620	208,910	231,130	88,390	6,340	18,410	207,640	43,990	22,440	92,740	2,010	128,880	17,200	4,240
A MEAN	\$17,030	\$17,050	\$17,920	\$18,030	\$20,530	\$22,520	\$22,640	\$23,360	\$18,980	\$21,930	\$22,520	\$25,230	\$36,630	\$37,010	\$50,790
Job Zone	JZ-1	JZ-1	JZ-1	JZ-1	JZ-1	JZ-1	JZ-1	JZ-1	JZ-2	JZ-2	JZ-2	JZ-3	JZ-3	JZ-3	JZ-3
SOC-Code	35-2011	35-9011	35-3021	35-3031	37-2012	39-6011	35-3041	37-2011	35-3011	43-4081	35-2014	39-6021	49-9042	37-1011	11-9081
Occupation Title	Cooks, fast food	Dining room and cafeteria attendants and bartender helpers	Combined food preparation and serving workers, including fast food	Waiters and waitresses	Maids and housekeeping cleaners	Baggage porters and bellhops	Food servers, nonrestaurant	Janitors and cleaners, except maids and housekeeping cleaners	Bartenders	Hotel, motel, and resort desk clerks	Cooks, restaurant	Tour guides and escorts	Maintenance and repair workers, general	First-line supervisors/managers of housekeeping and janitorial workers	Lodging managers
	Active Listening	Speaking	Active Listening	Speaking	Reading Comprehension	Speaking	Active Listening	Reading Comprehension	Active Listening	Active Listening	Active Listening	Speaking	Equipment Maintenance	Reading Comprehension	Active Listening
	Speaking	Active Listening	Speaking	Active Listening		Active Listening	Service Orientation	Active Listening	Speaking	Speaking	Reading Comprehension	Active Listening	Repairing	Active Listening	Speaking
	Reading Comprehension	Learning Strategies	Instructing	Service Orientation		Service Orientation	Speaking	Speaking	Social Perceptiveness	Service Orientation	Speaking	Reading Comprehension	Troubleshooting	Instructing	Social Perceptiveness
	Instructing	Social Perceptiveness	Mathematics	Social Perceptiveness		Social Perceptiveness	Time Management	Coordination	Mathematics	Social Perceptiveness	Active Learning	Active Learning	Active Listening	Monitoring	Critical Thinking
	Service Orientation	Service Orientation	Service Orientation	Coordination		Coordination	Instructing	Equipment Selection	Service Orientation	Critical Thinking	Instructing	Social Perceptiveness	Installation	Active Learning	Reading Comprehension
	Social Perceptiveness		Social Perceptiveness	Reading Comprehension		Critical Thinking	Active Learning	Time Management	Critical Thinking	Reading Comprehension	Learning Strategies	Instructing	Equipment Selection	Speaking	Monitoring
	Mathematics			Instructing		Reading Comprehension	Reading Comprehension	Equipment Maintenance	Reading Comprehension	Instructing	Coordination	Learning Strategies	Critical Thinking	Time Management	Active Learning
	Critical Thinking			Active Learning		Active Learning	Critical Thinking	Writing	Learning Strategies	Mathematics	Social Perceptiveness	Monitoring	Reading Comprehension	Writing	Instructing
	Learning Strategies			Critical Thinking		Instructing	Social Perceptiveness	Instructing	Coordination	Coordination	Time Management	Critical Thinking	Operation Monitoring	Critical Thinking	Service Orientation
	Judgment and Decision Making			Learning Strategies		Learning Strategies	Learning Strategies	Judgment and Decision Making	Judgment and Decision Making	Monitoring		Time Management	Coordination	Learning Strategies	Time Management

Total

10

5

6

10

1

10

10

10

10

10

9

10

10

10

10

Entertainment and Tourism

List of Skills for Occupations Employed in Accommodation

63,290	23,900	31,930	32,700	39,660
\$51,420	\$57,590	\$72,680	\$170,710	\$101,470
JZ-3	JZ-4	JZ-4	JZ-5	N/A
51-1011	27-3031	15-1071	11-1011	11-9199
First-line supervisors/managers of production and operating workers	Public relations specialists	Network and computer systems administrators	Chief executives	Managers, all other
Active Listening	Writing	Reading Comprehension	Judgment and Decision Making	Not Available
Reading Comprehension	Critical Thinking	Speaking	Management of Financial Resources	
Management of Personnel Resources	Reading Comprehension	Active Listening	Coordination	
Instructing	Active Listening	Monitoring	Critical Thinking	
Monitoring	Judgment and Decision Making	Critical Thinking	Negotiation	
Speaking	Persuasion	Complex Problem Solving	Active Listening	
Time Management	Social Perceptiveness	Systems Evaluation	Monitoring	
Critical Thinking	Speaking	Coordination	Complex Problem Solving	
Judgment and Decision Making	Time Management	Time Management	Reading Comprehension	
Coordination	Coordination	Judgment and Decision Making	Speaking	
10	10	10	10	0
50	20	10	0	

Entertainment and Tourism

List of Skills for Occupations Employed in Accommodation

130

California Research Bureau, California State Library

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	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	171

Top Third
(out of 19)

Entertainment and Tourism

List of Skills for Occupations Employed in Amusement Parks and Arcades

132

California Research Bureau, California State Library

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

59

15

10

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
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	Job Zone	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

134

California Research Bureau, California State Library

TOT_EMP	62,620	61,400	231,130	207,640	43,990	11,110	2,960	92,740	136,680	2,320	600
A_MEAN	\$ 17,050	\$ 17,070	\$ 18,030	\$ 23,360	\$ 18,980	\$ 21,140	\$ 21,510	\$ 22,520	\$ 23,740	\$ 25,240	\$ 33,600
Job Zone	JZ-1	JZ-1	JZ-1	JZ-1	JZ-2	JZ-2	JZ-2	JZ-2	JZ-2	JZ-2	JZ-2
SOC-Code	35-9011	35-9021	35-3031	37-2011	35-3011	39-3011	41-2012	35-2014	33-9032	43-3041	33-9031
Occupation Title	Dining room and cafeteria attendants and bartender helpers	Dishwashers	Waiters and waitresses	Janitors and cleaners, except maids and housekeeping cleaners	Bartenders	Gaming dealers	Gaming change persons and booth cashiers	Cooks, restaurant	Security guards	Gaming cage workers	Gaming surveillance officers and gaming investigators
	Speaking	Learning Strategies	Speaking	Reading Comprehension	Active Listening	Mathematics	Mathematics	Active Listening	Active Listening	Mathematics	Active Listening
	Active Listening	Speaking	Active Listening	Active Listening	Speaking	Speaking	Active Listening	Reading Comprehension	Reading Comprehension	Active Listening	Critical Thinking
	Learning Strategies	Active Listening	Service Orientation	Speaking	Social Perceptiveness	Active Listening	Speaking	Speaking	Social Perceptiveness	Speaking	Writing
	Social Perceptiveness	Equipment Maintenance	Social Perceptiveness	Coordination	Mathematics	Service Orientation	Social Perceptiveness	Active Learning	Speaking	Reading Comprehension	Instructing
	Service Orientation	Instructing	Coordination	Equipment Selection	Service Orientation	Social Perceptiveness		Instructing	Monitoring	Service Orientation	Reading Comprehension
		Service Orientation	Reading Comprehension	Time Management	Critical Thinking	Monitoring		Learning Strategies	Judgment and Decision Making	Instructing	Learning Strategies
		Operation Monitoring	Instructing	Equipment Maintenance	Reading Comprehension	Learning Strategies		Coordination	Critical Thinking	Critical Thinking	Speaking
		Reading Comprehension	Active Learning	Writing	Learning Strategies	Coordination		Social Perceptiveness		Learning Strategies	Judgment and Decision Making
		Quality Control Analysis	Critical Thinking	Instructing	Judgment and Decision Making	Reading Comprehension		Time Management		Social Perceptiveness	Monitoring
			Learning Strategies	Judgment and Decision Making	Coordination					Time Management	Service Orientation
Total	5	9	10	10	10	9	4	9	7	10	10

Entertainment and Tourism

List of Skills for Occupations Employed in Gambling Industries

1,660	128,880	4,850
\$ 46,180	\$ 36,630	\$ 23,710
JZ-2	JZ-3	N/A
39-1011	49-9042	39-3019
Gaming supervisors	Maintenance and repair workers, general	Gaming service workers, all other
Mathematics	Equipment Maintenance	Not Available
Instructing	Repairing	
Active Listening	Troubleshooting	
Service Orientation	Active Listening	
Monitoring	Installation	
Speaking	Equipment Selection	
Social Perceptiveness	Critical Thinking	
Critical Thinking	Reading Comprehension	
Judgment and Decision Making	Operation Monitoring	
Management of Personnel Resources	Coordination	
10	10	0
69	10	0

Entertainment and Tourism

List of Skills for Occupations Employed in Gambling Industries

Number of Occupations within JZ		4	8	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	113

Top Third
(of 13)

Entertainment and Tourism

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

138

California Research Bureau, California State Library

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	Repairing	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		Monitoring	Critical Thinking	Reading Comprehension	Active Learning	Coordination	Active Learning
	Critical Thinking	Learning Strategies	Instructing		Active Learning	Time Management	Operation Monitoring	Equipment Selection	Critical Thinking	Learning Strategies
	Learning Strategies	Service Orientation	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

37

20

30

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
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	Job Zone	JZ-1	JZ-2	JZ-3	JZ-4	JZ-5	Number
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

Top Third
(of 10)

Entertainment and Tourism

List of Skills for Occupations Employed in Performing Arts Companies

140

California Research Bureau, California State Library

TOT_EMP	26,590	481,990	126,560	396,750	108,320	1,320	8,310	2,820	20,960	226,740
A_MEAN	*	\$ 25,270	\$ 25,980	\$ 27,470	\$ 33,030	\$ 49,000	*	\$ 41,180	\$ 112,740	
Job Zone	JZ-2	JZ-2	JZ-2	JZ-2	JZ-2	JZ-2	JZ-2/3	JZ-3	JZ-3	JZ-3
SOC-Code	27-2011	41-2031	43-4171	43-9061	43-6014	49-9096	27-2042	27-2031	25-3021	11-1021
Occupation Title	Actors	Retail salespersons	Receptionists and information clerks	Office clerks, general	Secretaries, except legal, medical, and executive	Riggers	Musicians and singers	Dancers	Self-enrichment education teachers	General and operations managers
	Speaking	Active Listening	Active Listening	Active Listening	Active Listening	Equipment Selection	Active Listening	Coordination	Instructing	Active Listening
	Active Listening	Mathematics	Speaking	Reading Comprehension	Reading Comprehension	Instructing	Social Perceptiveness	Active Listening	Speaking	Management of Personnel Resources
	Reading Comprehension	Speaking	Reading Comprehension	Speaking	Time Management	Critical Thinking	Learning Strategies	Instructing	Active Listening	Time Management
	Social Perceptiveness	Social Perceptiveness	Writing	Writing	Speaking	Operation and Control	Speaking	Learning Strategies	Learning Strategies	Judgment and Decision Making
	Coordination	Critical Thinking	Service Orientation	Social Perceptiveness	Writing	Active Listening	Reading Comprehension	Monitoring	Social Perceptiveness	Monitoring
	Time Management	Writing	Learning Strategies		Learning Strategies	Quality Control Analysis	Coordination	Social Perceptiveness	Monitoring	Reading Comprehension
	Critical Thinking	Judgment and Decision Making	Social Perceptiveness		Active Learning	Speaking	Equipment Maintenance	Time Management	Coordination	Speaking
	Learning Strategies	Instructing	Critical Thinking		Critical Thinking	Judgment and Decision Making	Active Learning	Active Learning	Time Management	Coordination
	Monitoring	Reading Comprehension	Time Management		Monitoring	Reading Comprehension	Monitoring	Service Orientation	Service Orientation	Critical Thinking
	Judgment and Decision Making		Active Learning		Social Perceptiveness	Coordination		Speaking	Active Learning	Complex Problem Solving
Total	10	9	10	5	10	10	9	10	10	10

54

9

30

Entertainment and Tourism

List of Skills for Occupations Employed in Performing Arts Companies

2,180	14,920
*	\$
90,750	90,750
JZ-3/4	JZ-3/4
27-2041	27-2012
Music directors and composers	Producers and directors
Coordination	Active Listening
Instructing	Time Management
Speaking	Reading Comprehension
Monitoring	Speaking
Active Listening	Writing
Social Perceptiveness	Judgment and Decision Making
Critical Thinking	Coordination
Reading Comprehension	Critical Thinking
Writing	Monitoring
	Management of Personnel Resources
	Persuasion
	Operation and Control

9 12

21

23,900
\$
57,590
JZ-4
27-3031
Public relations specialists
Writing
Critical Thinking
Reading Comprehension
Active Listening
Judgment and Decision Making
Speaking
Time Management
Persuasion
Social Perceptiveness
Coordination

10

10

47,470	175,920
*	\$
60,860	60,860
N/A	N/A
27-2099	13-1199
Entertainers and performers, sports and related workers, all other	Business operations specialists, all other
Not Available	Not Available

0 0

0

124

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

144

California Research Bureau, California State Library

TOT_EMP	13,760	33,640	5,790	356,880	207,640
A_MEAN	\$ 18,340	\$ 18,420	\$ 21,300	\$ 21,420	\$ 23,360
Job Zone	JZ-1	JZ-1	JZ-1	JZ-1	JZ-1
SOC-Code	39-3031	39-3091	45-2093	41-2011	37-2011
Occupation Title	Ushers, lobby attendants, and ticket takers	Amusement and recreation attendants	Farmworkers, farm and ranch animals	Cashiers	Janitors and cleaners, except maids and housekeeping cleaners
	Active Listening	Active Listening	Instructing	Active Listening	Reading Comprehension
	Speaking	Speaking	Active Listening	Mathematics	Active Listening
	Social Perceptiveness	Coordination	Coordination	Speaking	Speaking
	Service Orientation	Reading Comprehension	Equipment Maintenance	Instructing	Coordination
	Coordination	Writing	Speaking	Social Perceptiveness	Equipment Selection
	Mathematics	Social Perceptiveness	Monitoring	Service Orientation	Time Management
	Reading Comprehension	Critical Thinking	Time Management	Learning Strategies	Equipment Maintenance
		Instructing	Equipment Selection	Critical Thinking	Writing
		Learning Strategies	Judgment and Decision Making		Instructing
		Service Orientation			Judgment and Decision Making
Total	7	10	9	8	10

TOT_EMP	10,600	136,680	1,550	199,440	1,150
A_MEAN	\$ 21,610	\$ 23,740	\$ 29,000	\$ 34,110	\$ 82,230
Job Zone	JZ-2	JZ-2	JZ-2	JZ-2	JZ-2
SOC-Code	39-2021	33-9032	39-2011	43-4051	27-2021
Occupation Title	Nonfarm animal caretakers	Security guards	Animal trainers	Customer service representatives	Athletes and sports competitors
	Active Listening	Active Listening	Instructing	Active Listening	Active Listening
	Time Management	Reading Comprehension	Speaking	Reading Comprehension	Coordination
	Speaking	Social Perceptiveness	Active Listening	Monitoring	Active Learning
	Social Perceptiveness	Speaking	Monitoring	Speaking	Equipment Selection
	Coordination	Monitoring	Social Perceptiveness	Time Management	Critical Thinking
	Reading Comprehension	Judgment and Decision Making	Learning Strategies	Service Orientation	Judgment and Decision Making
	Judgment and Decision Making	Critical Thinking	Judgment and Decision Making	Active Learning	Troubleshooting
	Instructing		Critical Thinking	Learning Strategies	Equipment Maintenance
			Active Learning	Writing	Time Management
			Coordination	Critical Thinking	Learning Strategies
Total	8	7	10	10	10

Entertainment and Tourism

List of Skills for Occupations Employed in Spectator Sports

14,980
\$ 37,870
JZ-3
39-1021
First-line supervisors/managers of personal service workers
Active Listening
Instructing
Service Orientation
Judgment and Decision Making
Management of Personnel Resources
Learning Strategies
Time Management
Critical Thinking
Monitoring
Active Learning

10

10

20,180
\$ 36,300
JZ-5
27-2022
Coaches and scouts
Instructing
Speaking
Active Listening
Time Management
Social Perceptiveness
Coordination
Monitoring
Active Learning
Learning Strategies
Critical Thinking

10

10

2,350
\$ 26,650
N/A
45-2099
Agricultural workers, all other
Not Available

0

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	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
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

Top Third
(of 12)

Entertainment and Tourism

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

148

California Research Bureau, California State Library

TOT_EMP	26,590	108,320	2,820	214,050	7,010	1,010	14,920	23,900	124,560
A_MEAN	*	\$ 33,030	*	\$ 43,250	\$ 44,040	\$ 72,720	\$ 90,750	\$ 57,590	\$ 64,390
Job Zone	JZ-2	JZ-2	JZ-3	JZ-3	JZ-3	JZ-3	JZ-3/4	JZ-4	JZ-4
SOC-Code	27-2011	43-6014	27-2031	43-6011	27-4011	27-1013	27-2012	27-3031	13-2011
Occupation Title	Actors	Secretaries, except legal, medical, and executive	Dancers	Executive secretaries and administrative assistants	Audio and video equipment technicians	Fine artists, including painters, sculptors, and illustrators	Producers and directors	Public relations specialists	Accountants and auditors
	Speaking	Active Listening	Coordination	Active Listening	Active Listening	Equipment Selection	Active Listening	Writing	Mathematics
	Active Listening	Reading Comprehension	Active Listening	Reading Comprehension	Critical Thinking	Active Listening	Time Management	Critical Thinking	Active Listening
	Reading Comprehension	Time Management	Instructing	Time Management	Troubleshooting	Time Management	Reading Comprehension	Reading Comprehension	Critical Thinking
	Social Perceptiveness	Speaking	Learning Strategies	Speaking	Reading Comprehension	Speaking	Speaking	Active Listening	Monitoring
	Coordination	Writing	Monitoring	Writing	Active Learning	Active Learning	Writing	Judgment and Decision Making	Judgment and Decision Making
	Time Management	Social Perceptiveness	Social Perceptiveness	Critical Thinking	Equipment Maintenance	Judgment and Decision Making	Judgment and Decision Making	Speaking	Writing
	Critical Thinking	Active Learning	Time Management	Active Learning	Operation and Control	Operations Analysis	Coordination	Time Management	Reading Comprehension
	Learning Strategies	Critical Thinking	Active Learning	Coordination	Time Management	Reading Comprehension	Critical Thinking	Persuasion	Speaking
	Monitoring	Monitoring	Service Orientation	Monitoring	Speaking	Social Perceptiveness	Monitoring	Social Perceptiveness	
	Judgment and Decision Making	Learning Strategies	Speaking	Service Orientation	Judgment and Decision Making	Management of Financial Resources	Management of Personnel Resources	Coordination	
							Persuasion		
							Operation and Control		
Total	10	10	10	10	10	10	12	10	8

20

40

12

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
	28		0

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	
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	Job Zone	JZ-1	JZ-2	JZ-3	JZ-3/4	JZ-4	JZ-5	JZ-N/A	Number
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)

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Entertainment and Tourism

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

152

California Research Bureau, California State Library

TOT_EMP	33,640	356,880	207,640
A_MEAN	\$18,420	\$21,420	\$23,360
Job Zone	JZ-1	JZ-1	JZ-1
SOC-Code	39-3091	41-2011	37-2011
Occupation Title	Amusement and recreation attendants	Cashiers	Janitors and cleaners, except maids and housekeeping cleaners
	Active Listening	Active Listening	Reading Comprehension
	Speaking	Mathematics	Active Listening
	Coordination	Speaking	Speaking
	Reading Comprehension	Instructing	Coordination
	Writing	Social Perceptiveness	Equipment Selection
	Social Perceptiveness	Service Orientation	Time Management
	Critical Thinking	Learning Strategies	Equipment Maintenance
	Instructing	Critical Thinking	Writing
	Learning Strategies		Instructing
	Service Orientation		Judgment and Decision Making
Total	10	8	10

28

	10,600	136,680	199,440
	\$21,610	\$23,740	\$34,110
	JZ-2	JZ-2	JZ-2
	39-2021	33-9032	43-4051
	Nonfarm animal caretakers	Security guards	Customer service representatives
	Active Listening	Active Listening	Active Listening
	Time Management	Reading Comprehension	Reading Comprehension
	Speaking	Social Perceptiveness	Monitoring
	Social Perceptiveness	Speaking	Speaking
	Coordination	Monitoring	Time Management
	Reading Comprehension	Judgment and Decision Making	Service Orientation
	Judgment and Decision Making	Critical Thinking	Active Learning
	Instructing		Learning Strategies
			Writing
			Critical Thinking
Total	8	7	10

25

	2,010	14,980	20,960	940
	\$25,230	\$37,870	\$41,180	\$41,730
	JZ-3	JZ-3	JZ-3	JZ-3
	39-6021	39-1021	25-3021	25-4013
	Tour guides and escorts	First-line supervisors/managers of personal service workers	Self-enrichment education teachers	Museum technicians and conservators
	Speaking	Active Listening	Instructing	Critical Thinking
	Active Listening	Judgment and Decision Making	Speaking	Active Listening
	Reading Comprehension	Active Learning	Active Listening	Judgment and Decision Making
	Active Learning	Management of Personnel Resources	Learning Strategies	Reading Comprehension
	Social Perceptiveness	Time Management	Social Perceptiveness	Time Management
	Instructing	Critical Thinking	Monitoring	Active Learning
	Learning Strategies	Service Orientation	Coordination	Equipment Selection
	Monitoring	Instructing	Time Management	Complex Problem Solving
	Critical Thinking	Learning Strategies	Service Orientation	Management of Material Resources
	Time Management	Monitoring	Active Learning	Coordination
Total	10	10	10	10

Entertainment and Tourism

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

214,050	226,740
\$43,250	\$112,740
JZ-3	JZ-3
43-6011	11-1021
Executive secretaries and administrative assistants	General and operations managers
Active Listening	Active Listening
Reading Comprehension	Management of Personnel Resources
Time Management	Time Management
Speaking	Judgment and Decision Making
Writing	Monitoring
Critical Thinking	Reading Comprehension
Active Learning	Speaking
Coordination	Critical Thinking
Monitoring	Coordination
Service Orientation	Complex Problem Solving
10	10

60

840
\$58,040
JZ-4
25-4012
Curators
Active Listening
Reading Comprehension
Speaking
Writing
Critical Thinking
Time Management
Active Learning
Instructing
Coordination
Judgment and Decision Making
10

10

13,550
\$61,070
JZ-5
25-9031
Instructional coordinators
Reading Comprehension
Active Listening
Critical Thinking
Learning Strategies
Instructing
Active Learning
Writing
Time Management
Speaking
Coordination
10

10

175,920
\$60,860
N/A
13-1199
Business operations specialists, all other
Not Available
0

0

Entertainment and Tourism

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

Number of Occupations within JZ		3	3	6	1	1	1	15	
Total Employment Range (2005)		33,640 - 356,880	10,600 - 199,440	940 - 226,740	840	13,550	175,920		
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	Top Third (of 14)
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	

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

TOT_EMP	141,810	7,850	396,750	42,270	144,450	208,200	214,050	5,010	64,980	226,740	27,950	20,310	11,970	21,520
A_MEAN	\$ 33,980	\$ 26,130	\$ 27,470	\$ 37,510	\$ 48,440	\$ 35,880	\$ 43,250	\$ 55,340	\$ 66,340	\$ 112,740	\$ 69,540	\$ 92,940	\$ 75,560	\$ 41,940
Job Zone	JZ-1	JZ-2	JZ-2	JZ-2	JZ-2/3	JZ-3	JZ-3	JZ-3	JZ-3	JZ-3	JZ-4	JZ-4	JZ-5	N/A
SOC-Code	47-2061	47-3012	43-9061	47-2141	47-2031	43-3031	43-6011	27-1025	47-1011	11-1021	19-3021	11-9021	17-1011	41-9099
Occupation Title	Construction laborers	Helpers--carpenters	Office clerks, general	Painters, construction and maintenance	Carpenters	Bookkeeping, accounting, and auditing clerks	Executive secretaries and administrative assistants	Interior designers	First-line supervisors/managers of construction trades and extraction workers	General and operations managers	Market research analysts	Construction managers	Architects, except landscape and naval	Sales and related workers, all other
Active Listening	Installation	Active Listening	Active Listening	Mathematics	Mathematics	Active Listening	Active Listening	Time Management	Active Listening	Reading Comprehension	Critical Thinking	Active Listening	Not Available	
Coordination	Mathematics	Reading Comprehension	Time Management	Time Management	Reading Comprehension	Reading Comprehension	Reading Comprehension	Coordination	Coordination	Time Management	Active Listening	Critical Thinking		
Equipment Selection	Equipment Selection	Speaking	Coordination	Critical Thinking	Time Management	Time Management	Management of Financial Resources	Instructing	Critical Thinking	Writing	Monitoring	Complex Problem Solving		
Speaking	Equipment Maintenance	Writing	Equipment Selection	Active Listening	Active Listening	Speaking	Speaking	Judgment and Decision Making	Speaking	Active Listening	Reading Comprehension	Time Management		
Instructing	Management of Material Resources	Social Perceptiveness	Monitoring	Judgment and Decision Making	Critical Thinking	Writing	Persuasion	Speaking	Time Management	Coordination	Speaking	Reading Comprehension		
Monitoring	Reading Comprehension		Instructing	Equipment Selection	Active Learning	Critical Thinking	Writing	Active Listening	Complex Problem Solving	Active Learning	Time Management	Management of Personnel Resources		
Equipment Maintenance	Troubleshooting		Speaking	Reading Comprehension	Learning Strategies	Active Learning	Time Management	Critical Thinking	Judgment and Decision Making	Critical Thinking	Coordination	Coordination		
Learning Strategies	Active Listening		Reading Comprehension	Coordination	Social Perceptiveness	Coordination	Mathematics	Equipment Selection	Management of Personnel Resources	Speaking	Management of Personnel Resources	Writing		
Critical Thinking	Coordination		Management of Material Resources		Writing	Monitoring	Active Learning	Reading Comprehension	Monitoring	Judgment and Decision Making	Writing	Speaking		
Mathematics	Time Management		Equipment Maintenance		Speaking	Service Orientation	Installation	Mathematics	Reading Comprehension	Negotiation	Judgment and Decision Making	Operations Analysis		
Total	10	10	5	10	8	10	10	10	10	10	10	10	10	0
	10	25	8	50	20	10	0							

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			
Skill	Job Zone	JZ-1	JZ-2	JZ-2/3	JZ-3	JZ-4	JZ-5	JZ-N/A	Number	Top Third (of 13)
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	

Construction

List of Skills for Occupations Employed in Building Finishing Contractors

TOT_EMP	9,510	141,810	8,380	5,810	42,270	17,740	13,640	38,140	10,660	144,450	64,980	64,840	31,900
A_MEAN	\$ 28,920	\$ 33,980	\$ 41,930	\$ 27,200	\$ 37,510	\$ 40,260	\$ 42,670	\$ 45,240	\$ 47,810	\$ 48,440	\$ 66,340	\$ 109,530	\$ 25,360
Job Zone	JZ-1	JZ-1	JZ-1	JZ-2	JZ-2	JZ-2	JZ-2	JZ-2	JZ-2	JZ-2/3	JZ-3	JZ-4/5	N/A
SOC-Code	47-3011	47-2061	47-2041	51-9032	47-2141	47-2161	47-2044	47-2081	47-2082	47-2031	47-1011	11-3031	51-2099
Occupation Title	Helpers--brickmasons, blockmasons, stonemasons, and tile and marble setters	Construction laborers	Carpet installers	Cutting and slicing machine setters, operators, and tenders	Painters, construction and maintenance	Plasterers and stucco masons	Tile and marble setters	Drywall and ceiling tile installers	Tapers	Carpenters	First-line supervisors/managers of construction trades and extraction workers	Financial managers	Assemblers and fabricators, all other
	Equipment Selection	Active Listening	Mathematics	Equipment Maintenance	Active Listening	Coordination	Mathematics	Mathematics	Equipment Selection	Mathematics	Time Management	Time Management	Not Available
	Active Listening	Coordination	Installation	Mathematics	Time Management	Instructing	Active Listening	Installation	Time Management	Time Management	Coordination	Instructing	
	Mathematics	Equipment Selection	Time Management	Operation and Control	Coordination	Active Listening	Coordination	Critical Thinking	Instructing	Critical Thinking	Instructing	Management of Personnel Resources	
	Coordination	Speaking	Instructing	Troubleshooting	Equipment Selection	Judgment and Decision Making	Judgment and Decision Making	Time Management	Coordination	Active Listening	Judgment and Decision Making	Reading Comprehension	
	Speaking	Instructing	Coordination	Instructing	Monitoring	Time Management	Equipment Selection	Active Listening	Active Listening	Judgment and Decision Making	Speaking	Active Listening	
	Equipment Maintenance	Monitoring	Equipment Selection	Operation Monitoring	Instructing	Equipment Selection	Time Management	Instructing	Monitoring	Equipment Selection	Active Listening	Management of Financial Resources	
	Active Learning	Equipment Maintenance	Judgment and Decision Making	Quality Control Analysis	Speaking	Complex Problem Solving	Critical Thinking	Coordination	Judgment and Decision Making	Reading Comprehension	Critical Thinking	Mathematics	
	Instructing	Learning Strategies	Complex Problem Solving	Reading Comprehension	Reading Comprehension	Management of Material Resources	Social Perceptiveness	Management of Personnel Resources	Management of Personnel Resources	Coordination	Equipment Selection	Critical Thinking	
	Learning Strategies	Critical Thinking	Management of Personnel Resources	Judgment and Decision Making	Management of Material Resources	Management of Personnel Resources	Complex Problem Solving	Judgment and Decision Making	Management of Material Resources		Reading Comprehension		
	Monitoring	Mathematics	Speaking	Active Listening	Equipment Maintenance	Monitoring	Monitoring	Management of Material Resources			Mathematics		
Total	10	10	10	10	10	10	10	10	9	8	10	8	0

30

59

8

10

8

0

Construction

List of Skills for Occupations Employed in Building Finishing Contractors

Number of Occupations within JZ		3	6	1	1	0	1	0	1	13
Total Employment Range (2005)		8,380 - 141,810	5,810 - 42,270	144,450	64,980	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	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
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
Instructing		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

Top Third (of 12)

Construction

List of Skills for Occupations Employed in Building Equipment Contractors

160

California Research Bureau, California State Library

TOT_EMP	207,640	141,810	7,360	5,070	17,690	16,280	144,450	208,200	29,830	17,060	48,770	13,580	60,350
A_MEAN	\$ 23,360	\$ 33,980	\$ 27,960	\$ 28,280	\$ 45,350	\$ 49,140	\$ 48,440	\$ 35,880	\$ 41,590	\$ 45,250	\$ 47,170	\$ 47,190	\$ 52,290
Job Zone	JZ-1	JZ-1	JZ-2	JZ-2	JZ-2	JZ-2	JZ-2/3	JZ-3	JZ-3	JZ-3	JZ-3	JZ-3	JZ-3
SOC-Code	37-2011	47-2061	47-3015	47-3013	47-2211	49-9052	47-2031	43-3031	47-2051	49-9021	47-2152	49-9041	47-2111
Occupation Title	Janitors and cleaners, except maids and housekeeping cleaners	Construction laborers	Helpers--pipelayers, plumbers, pipefitters, and steamfitters	Helpers--electricians	Sheet metal workers	Telecommunications line installers and repairers	Carpenters	Bookkeeping, accounting, and auditing clerks	Cement masons and concrete finishers	Heating, air conditioning, and refrigeration mechanics and installers	Plumbers, pipefitters, and steamfitters	Industrial machinery mechanics	Electricians
Reading Comprehension	Active Listening	Active Listening	Active Listening	Installation	Mathematics	Installation	Mathematics	Mathematics	Coordination	Troubleshooting	Installation	Repairing	Critical Thinking
Active Listening	Coordination	Coordination	Mathematics	Mathematics	Active Listening	Troubleshooting	Time Management	Reading Comprehension	Mathematics	Repairing	Instructing	Troubleshooting	Active Listening
Speaking	Equipment Selection	Equipment Selection	Equipment Selection	Troubleshooting	Equipment Selection	Active Learning	Critical Thinking	Time Management	Active Listening	Active Listening	Critical Thinking	Equipment Maintenance	Complex Problem Solving
Coordination	Speaking	Speaking	Installation	Active Listening	Installation	Equipment Selection	Active Listening	Active Listening	Critical Thinking	Equipment Maintenance	Active Learning	Equipment Selection	Judgment and Decision Making
Equipment Selection	Instructing	Instructing	Coordination	Speaking	Coordination	Active Listening	Judgment and Decision Making	Critical Thinking	Active Learning	Installation	Equipment Selection	Installation	Operation Monitoring
Time Management	Monitoring	Monitoring	Active Learning	Reading Comprehension	Instructing	Reading Comprehension	Equipment Selection	Active Learning	Complex Problem Solving	Social Perceptiveness	Speaking	Critical Thinking	Quality Control Analysis
Equipment Maintenance	Equipment Maintenance	Equipment Maintenance	Critical Thinking	Time Management	Writing	Critical Thinking	Reading Comprehension	Learning Strategies	Equipment Selection	Reading Comprehension	Judgment and Decision Making	Operation Monitoring	Repairing
Writing	Learning Strategies	Learning Strategies	Instructing	Complex Problem Solving	Critical Thinking	Instructing	Coordination	Social Perceptiveness	Time Management	Operation Monitoring	Quality Control Analysis	Reading Comprehension	Troubleshooting
Instructing	Critical Thinking	Critical Thinking	Learning Strategies	Critical Thinking	Reading Comprehension	Speaking	Writing	Writing	Equipment Maintenance		Time Management	Active Listening	Monitoring
Judgment and Decision Making	Mathematics	Mathematics	Speaking	Equipment Selection	Speaking	Equipment Maintenance	Coordination	Speaking	Speaking		Complex Problem Solving	Active Learning	Reading Comprehension
Total	10	10	10	10	10	10	8	10	10	8	10	10	10
	20		40				8						

Construction

List of Skills for Occupations Employed in Building Equipment Contractors

64,980	23,220	18,000	3,170
\$ 66,340	\$ 81,790	\$ 95,360	\$ 48,730
JZ-3	JZ-4	JZ-4	N/A
47-1011	17-2141	41-9031	17-3019
First-line supervisors/ managers of construction trades and extraction workers	Mechanical engineers	Sales engineers	Drafters, all other
Time Management	Mathematics	Active Listening	Not Available
Coordination	Complex Problem Solving	Operations Analysis	
Instructing	Critical Thinking	Persuasion	
Judgment and Decision Making	Reading Comprehensio n	Reading Comprehensio n	
Speaking	Science	Social Perceptiveness	
Active Listening	Active Listening	Writing	
Critical Thinking	Judgment and Decision Making	Critical Thinking	
Equipment Selection	Time Management	Judgment and Decision Making	
Reading Comprehension	Writing	Monitoring	
Mathematics	Speaking	Negotiation	
10	10	10	0
68	20	0	

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	156

Top Third
(of 16)

Construction

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

164

California Research Bureau, California State Library

TOT_EMP	9,510	141,810	7,850	20,250	10,350	5,300	4,930	144,450	29,830	63,290	145,050	64,980
A_MEAN	\$28,920	\$33,980	\$26,130	\$40,990	\$44,820	\$48,700	\$49,260	\$48,440	\$41,590	\$51,420	\$60,660	\$66,340
Job Zone	JZ-1	JZ-1	JZ-2	JZ-2	JZ-2	JZ-2	JZ-2	JZ-2/3	JZ-3	JZ-3	JZ-3	JZ-3
SOC-Code	47-3011	47-2061	47-3012	47-2181	47-2021	47-2171	47-2221	47-2031	47-2051	51-1011	41-4012	47-1011
Occupation Title	Helpers--brickmasons, blockmasons, stonemasons, and tile and marble setters	Construction laborers	Helpers--carpenters	Roofers	Brickmasons and blockmasons	Reinforcing iron and rebar workers	Structural iron and steel workers	Carpenters	Cement masons and concrete finishers	First-line supervisors/managers of production and operating workers	Sales representatives, wholesale and manufacturing, except technical and scientific products	First-line supervisors/managers of construction trades and extraction workers
	Equipment Selection	Active Listening	Installation	Coordination	Active Listening	Equipment Selection	Active Listening	Mathematics	Coordination	Active Listening	Active Listening	Time Management
	Active Listening	Coordination	Mathematics	Installation	Coordination	Active Listening	Coordination	Time Management	Mathematics	Reading Comprehension	Speaking	Coordination
	Mathematics	Equipment Selection	Equipment Selection	Speaking	Mathematics	Time Management	Time Management	Critical Thinking	Active Listening	Management of Personnel Resources	Time Management	Instructing
	Coordination	Speaking	Equipment Maintenance	Instructing	Time Management	Coordination	Active Learning	Active Listening	Critical Thinking	Instructing	Reading Comprehension	Judgment and Decision Making
	Speaking	Instructing	Management of Material Resources	Active Listening	Equipment Selection	Instructing	Equipment Selection	Judgment and Decision Making	Active Learning	Monitoring	Persuasion	Speaking
	Equipment Maintenance	Monitoring	Reading Comprehension	Active Learning	Speaking	Speaking	Mathematics	Equipment Selection	Complex Problem Solving	Speaking	Service Orientation	Active Listening
	Active Learning	Equipment Maintenance	Troubleshooting	Critical Thinking	Equipment Maintenance	Monitoring	Speaking	Reading Comprehension	Equipment Selection	Time Management	Negotiation	Critical Thinking
	Instructing	Learning Strategies	Active Listening	Judgment and Decision Making	Reading Comprehension	Active Learning	Troubleshooting	Coordination	Time Management	Critical Thinking	Social Perceptiveness	Equipment Selection
	Learning Strategies	Critical Thinking	Coordination	Mathematics	Critical Thinking	Installation	Installation		Equipment Maintenance	Judgment and Decision Making	Active Learning	Reading Comprehension
	Monitoring	Mathematics	Time Management	Monitoring	Judgment and Decision Making	Mathematics	Equipment Maintenance		Speaking	Coordination	Coordination	Mathematics
Total	10	10	10	10	10	10	10	8	10	10	10	10
		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	Top Third (of 12)
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	

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)

TOT_EMP	146,220	10,600	118,360	5,790	126,180	930	5,860	276,490	5,990	208,200	590			
A_MEAN	\$ 17,210	\$ 18,120	\$ 18,630	\$ 21,300	\$ 24,570	\$ 38,210	\$ 21,090	\$ 23,210	\$ 33,270	\$ 35,880	\$ 62,170			
Job Zone	JZ-1	JZ-1	JZ-1	JZ-1	JZ-1	JZ-1	JZ-2	JZ-2	JZ-2/3/4	JZ-3	JZ-3/4			
SOC-Code	45-2092	45-2041	53-7064	45-2093	37-3011	45-4022	45-2091	53-7062	45-1011	43-3031	11-9011			
Occupation Title	Farmworkers and laborers, crop, nursery, and greenhouse	Graders and sorters, agricultural products	Packers and packagers, hand	Farmworkers, farm and ranch animals	Landscaping and groundskeeping workers	Logging equipment operators	Agricultural equipment operators	Laborers and freight, stock, and material movers, hand	First-line supervisors/managers of farming, fishing, and forestry workers	Bookkeeping, accounting, and auditing clerks	Farm, ranch, and other agricultural managers			
Mathematics		Not Available	Active Listening	Instructing	Equipment Maintenance	Equipment Maintenance	Equipment Maintenance	Active Listening	Coordination	Mathematics	Science			
Equipment Maintenance			Coordination	Active Listening	Active Listening	Repairing	Installation	Reading Comprehension	Management of Personnel Resources	Reading Comprehension	Reading Comprehension			
Equipment Selection			Speaking	Coordination	Speaking	Operation and Control	Judgment and Decision Making	Instructing	Speaking	Time Management	Management of Financial Resources			
Troubleshooting			Learning Strategies	Equipment Maintenance	Reading Comprehension	Time Management	Reporting	Coordination	Time Management	Active Listening	Active Listening			
Reasoning			Reading Comprehension	Speaking	Equipment Selection	Operation Monitoring	Learning Strategies	Learning Strategies	Monitoring	Critical Thinking	Judgment and Decision Making			
Active Listening			Social Perceptiveness	Monitoring	Reporting	Troubleshooting	Active Listening	Time Management	Equipment Maintenance	Active Learning	Instructing			
Coordination				Time Management	Time Management	Instructing	Active Learning		Judgment and Decision Making	Learning Strategies	Time Management			
Speaking				Equipment Selection			Time Management		Active Listening	Social Perceptiveness	Coordination			
Time Management				Judgment and Decision Making			Instructing		Troubleshooting	Writing	Speaking			
							Coordination		Instructing	Speaking	Writing			
									Equipment Maintenance		Monitoring			
									Critical Thinking					
									Reading Comprehension					
Total	9	0	6	9	7	7	10	6	13	10	11			
	38						16		13		10		11	

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)

Number of Occupations within JZ		6	2	1	1	1	0	0	11
Total Employment Range (2005)		930 - 146,220	5,860 - 276,490	5,990	208,200	590	N/A	N/A	
Average Annual Salary Range (2005)		\$17,210 - \$38,210	\$21,090 - \$23,210	\$ 33,270	\$ 35,880	\$ 62,170	N/A	N/A	
Skill	Job Zone	JZ-1	JZ-2	JZ-2/3/4	JZ-3	JZ-3/4	JZ-4	JZ-5	Number
Operation and Control		1	0	0	0	0	0	0	1
Equipment Maintenance		4	1	1	0	0	0	0	6
Equipment Selection		3	0	0	0	0	0	0	3
Operation Monitoring		1	0	0	0	0	0	0	1
Repairing		3	1	1	0	0	0	0	5
Science		0	0	0	0	1	0	0	1
Reading Comprehension		2	1	1	1	1	0	0	6
Management of Financial Resources		0	0	0	0	1	0	0	1
Active Listening		4	2	1	1	1	0	0	9
Judgment and Decision Making		1	1	1	0	1	0	0	4
Troubleshooting		2	0	1	0	0	0	0	3
Installation		0	1	0	0	0	0	0	1
Coordination		3	2	1	0	1	0	0	7
Management of Personnel Resources		0	0	1	0	0	0	0	1
Speaking		4	0	1	1	1	0	0	7
Time Management		4	2	1	1	1	0	0	9
Learning Strategies		1	2	0	1	0	0	0	4
Social Perceptiveness		1	0	0	1	0	0	0	2
Monitoring		1	0	1	0	1	0	0	3
Writing		0	0	0	1	1	0	0	2
Mathematics		1	0	0	1	0	0	0	2
Critical Thinking		0	0	1	1	0	0	0	2
Active Learning		0	1	0	1	0	0	0	2
Instructing		2	2	1	0	1	0	0	6
Total		38	16	13	10	11	0	0	88

Top Third
(of 11)

Food Chain

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

170

California Research Bureau, California State Library

TOT_EMP	8,230	126,560	396,750	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	\$ 22,750	\$ 25,980	\$ 27,470	\$ 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-2	JZ-2	JZ-2	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	31-9096	43-4171	43-9061	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 assistants and laboratory animal caretakers	Receptionists and information clerks	Office clerks, general	Veterinary technologists and technicians	Interviewers, except eligibility and loan	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
Active Listening	Active Listening	Active Listening	Active Listening	Active Listening	Active Listening	Mathematics	Active Listening	Active Listening	Active Listening	Mathematics	Science	Active Listening	Not Available	Not Available	Not Available
Reading Comprehension	Speaking	Reading Comprehension	Reading Comprehension	Reading Comprehension	Reading Comprehension	Reading Comprehension	Monitoring	Speaking	Coordination	Active Listening	Judgment and Decision Making	Reading Comprehension			
Speaking	Reading Comprehension	Speaking	Speaking	Speaking	Speaking	Time Management	Persuasion	Reading Comprehension	Critical Thinking	Critical Thinking	Critical Thinking	Critical Thinking			
Active Learning	Writing	Writing	Writing	Critical Thinking	Service Orientation	Active Listening	Speaking	Critical Thinking	Speaking	Monitoring	Reading Comprehension	Complex Problem Solving			
Instructing	Service Orientation	Social Perceptiveness	Social Perceptiveness	Active Learning	Writing	Critical Thinking	Time Management	Monitoring	Time Management	Judgment and Decision Making	Writing	Speaking			
Learning Strategies	Learning Strategies			Mathematics	Social Perceptiveness	Active Learning	Coordination	Time Management	Complex Problem Solving	Speaking	Active Learning	Science			
Time Management	Social Perceptiveness			Instructing	Learning Strategies	Learning Strategies	Judgment and Decision Making	Management of Personnel Resources	Judgment and Decision Making	Writing	Time Management	Time Management			
Critical Thinking	Critical Thinking			Learning Strategies	Critical Thinking	Social Perceptiveness	Active Learning	Judgment and Decision Making	Management of Personnel Resources	Reading Comprehension	Active Listening	Judgment and Decision Making			
Mathematics	Time Management			Science	Time Management	Writing	Equipment Selection	Instructing	Monitoring		Coordination	Active Learning			
Service Orientation	Active Learning			Time Management	Monitoring	Speaking	Service Orientation	Social Perceptiveness	Reading Comprehension		Complex Problem Solving	Mathematics			
Total	10	10	5	10	10	10	10	10	10	8	10	10	0	0	0

25

60

18

10

0

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	Top Third (of 12)
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	

Food Chain

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

172

California Research Bureau, California State Library

TOT_EMP	276,490	100,380	396,750	106,390	42,580	22,150	131,760
A_MEAN	\$ 23,210	\$ 27,410	\$ 27,470	\$ 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	Reading Comprehension	Active Listening	Speaking	Active Listening
	Instructing	Equipment Maintenance	Speaking	Speaking	Speaking	Reading Comprehension	Time Management
	Coordination	Reading Comprehension	Writing	Time Management	Time Management	Time Management	Coordination
	Learning Strategies	Social Perceptiveness	Social Perceptiveness	Writing	Service Orientation	Instructing	Judgment and Decision Making
	Time Management	Coordination		Mathematics	Writing	Critical Thinking	Reading Comprehension
		Speaking		Learning Strategies	Active Learning	Service Orientation	Troubleshooting
		Learning Strategies		Monitoring	Mathematics	Social Perceptiveness	Speaking
		Operation and Control		Social Perceptiveness	Coordination	Active Learning	Mathematics
		Service Orientation		Critical Thinking	Critical Thinking	Coordination	Critical Thinking
Total	6	10	5	10	10	10	10

	208,200	128,880	145,050	226,740
	\$ 35,880	\$ 36,630	\$ 60,660	\$ 112,740
	JZ-3	JZ-3	JZ-3	JZ-3
	43-3031	49-9042	41-4012	11-1021
	Bookkeeping, accounting, and auditing clerks	Maintenance and repair workers, general	Sales representatives, wholesale and manufacturing, except technical and scientific products	General and operations managers
	Mathematics	Equipment Maintenance	Active Listening	Active Listening
	Reading Comprehension	Repairing	Speaking	Coordination
	Time Management	Troubleshooting	Time Management	Critical Thinking
	Active Listening	Active Listening	Reading Comprehension	Speaking
	Critical Thinking	Installation	Persuasion	Time Management
	Active Learning	Equipment Selection	Service Orientation	Complex Problem Solving
	Learning Strategies	Critical Thinking	Negotiation	Judgment and Decision Making
	Social Perceptiveness	Reading Comprehension	Social Perceptiveness	Management of Personnel Resources
	Writing	Operation Monitoring	Active Learning	Monitoring
	Speaking	Coordination	Coordination	Reading Comprehension
Total	10	10	10	10

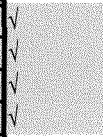
	11,800	42,950	49,200
	\$ 50,400	\$ 77,480	\$ 114,770
	JZ-4	JZ-4	JZ-4
	49-3042	41-4011	11-2022
	Mobile heavy equipment mechanics, except engines	Sales representatives, wholesale and manufacturing, technical and scientific products	Sales managers
	Troubleshooting	Speaking	Active Listening
	Repairing	Persuasion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

174

California Research Bureau, California State Library

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 Analysis	Time Management
				Active Learning
				Reading Comprehension
				Mathematics
Total	6	2	7	10

	276,490	46,380	13,120	5,810	100,380	48,210	69,220	39,740
	\$ 23,210	\$ 24,730	\$ 25,040	\$ 27,200	\$ 27,410	\$ 32,580	\$ 32,780	\$ 42,830
	JZ-2	JZ-2	JZ-2	JZ-2	JZ-2	JZ-2	JZ-2	JZ-2
	53-7062	51-9111	51-3092	51-9032	53-3033	51-9061	53-7051	43-5061
	Laborers 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 Analysis	Operation Monitoring	Active Listening
	Reading Comprehension	Quality Control Analysis	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 Analysis	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
Total	6	10	10	10	10	10	6	10

	128,880	63,290
	\$ 36,630	\$ 51,420
	JZ-3	JZ-3
	49-9042	51-1011
	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
Total	10	10

Food Chain

List of Skills for Occupations in Other Food Manufacturing

California Research Bureau, California State Library

175

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

10 10

40

32,700
\$ 170,710
JZ-5
11-1011
Chief executives
Judgment and Decision Making
Management of Financial Resources
Coordination
Critical Thinking
Negotiation
Active Listening
Monitoring
Complex Problem Solving
Reading Comprehension
Speaking

10

10

147

Food Chain

List of Skills for Occupations in Other Food Manufacturing

Number of Occupations within JZ	4	8	4	0	1	17		
Total Employment Range (2005)	40,770 - 118,360	5,810 - 276,490	63,290 - 226,740	N/A	32,700			
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	Top Third (of 17)
Active Listening		4	8	4	0	1	17	N
Time Management		1	6	3	0	0	10	
Speaking		3	4	3	0	1	11	N
Coordination		3	5	4	0	1	13	N
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	N
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	

Food Chain

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

178

California Research Bureau, California State Library

	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	
	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		Critical Thinking	Time Management		
			Writing		Troubleshooting	Troubleshooting		Reading Comprehension	Critical Thinking		
			Instructing		Time Management	Critical Thinking		Operation Monitoring	Judgment and Decision		
			Judgment and Decision Making		Judgment and Decision Making	Coordination		Coordination	Coordination		
Total	0	6	10	6	10	10	6	10	10	0	
	16			32				20		0	

Food Chain

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

Number of Occupations within 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

Top Third
(of 9)

Total 16 32 20 0 0 0 0 68

Food Chain

List of Skills for Occupations Employed in Animal Slaughtering and Processing

180

California Research Bureau, California State Library

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	Coordination	Operation and Control		Coordination	Equipment Selection	Instructing	
	Reading Comprehension	Reading Comprehension	Speaking	Coordination		Equipment Selection	Learning Strategies	Instructing		Judgment and Decision Making	Installation	Monitoring	
	Social Perceptiveness	Speaking	Monitoring	Learning Strategies		Time Management	Time Management	Equipment Maintenance		Reading Comprehension	Critical Thinking	Speaking	
		Quality Control Analysis	Time Management	Time Management		Equipment Maintenance		Coordination		Troubleshooting	Operation Monitoring	Time Management	
			Equipment Selection	Operation and Control		Writing		Troubleshooting		Speaking	Reading Comprehension	Critical Thinking	
			Judgment and Decision Making	Repairing		Instructing		Time Management		Mathematics	Active Listening	Judgment and Decision Making	
				Active Listening		Judgment and Decision Making		Judgment and Decision Making		Critical Thinking	Active Learning	Coordination	

Total

6

7

9

10

2

10

44

6

10

2

10

28

10

10

20

0

92

0

Food Chain

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	Job Zone	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)

Food Chain

List of Skills for Occupations Employed in Dairy Product Manufacturing

182

California Research Bureau, California State Library

TOT_EMP	208,910	118,360	45,780	40,770
A_MEAN	\$ 17,920	\$ 18,630	\$ 21,260	\$ 24,690
Job Zone	JZ-1	JZ-1	JZ-1	JZ-1
SOC-Code	35-3021	53-7064	51-9198	53-3031
Occupation Title	Combined food preparation and serving workers, including fast food	Packers and packagers, hand	Helpers--production workers	Driver/sales workers
	Active Listening	Active Listening	Equipment Selection	Active Listening
	Speaking	Coordination	Active Listening	Speaking
	Instructing	Speaking	Coordination	Social Perceptiveness
	Mathematics	Learning Strategies	Instructing	Critical Thinking
	Service Orientation	Reading Comprehension	Reading Comprehension	Coordination
	Social Perceptiveness	Social Perceptiveness	Speaking	Service Orientation
			Quality Control Analysis	Time Management
				Active Learning
				Reading Comprehension
				Mathematics
Total	6	6	7	10

	276,490	95,990	46,380	13,120	870	69,220	131,760	5,900
	\$ 23,210	\$ 24,430	\$ 24,730	\$ 25,040	\$ 31,130	\$ 32,780	\$ 38,500	\$ 41,420
	JZ-2	JZ-2	JZ-2	JZ-2	JZ-2	JZ-2	JZ-2	JZ-2
	53-7062	51-2092	51-9111	51-3092	51-9193	53-7051	53-3032	51-9012
	Laborers and freight, stock, and material movers, hand	Team assemblers	Packaging and filling machine operators and tenders	Food batchmakers	Cooling and freezing equipment operators and tenders	Industrial truck and tractor operators	Truck drivers, heavy and tractor-trailer	Separating, filtering, clarifying, precipitating, and still machine setters, operators, and tenders
	Active Listening	Learning Strategies	Reading Comprehension	Active Listening	Equipment Maintenance	Operation Monitoring	Equipment Maintenance	Operation Monitoring
	Reading Comprehension	Active Listening	Quality Control Analysis	Operation Monitoring	Troubleshooting	Active Listening	Active Listening	Active Listening
	Instructing	Quality Control Analysis	Active Listening	Mathematics	Repairing	Operation and Control	Time Management	Reading Comprehension
	Coordination	Active Learning	Operation and Control	Operation and Control	Operation and Control	Monitoring	Coordination	Equipment Maintenance
	Learning Strategies	Instructing	Instructing	Reading Comprehension	Operation Monitoring	Critical Thinking	Judgment and Decision Making	Troubleshooting
	Time Management	Operation Monitoring	Equipment Maintenance	Active Learning	Instructing	Speaking	Reading Comprehension	Operation and Control
		Equipment Selection	Coordination	Time Management	Active Listening		Troubleshooting	Critical Thinking
		Reading Comprehension	Troubleshooting	Troubleshooting	Active Learning		Speaking	Quality Control Analysis
		Coordination	Time Management	Critical Thinking	Quality Control Analysis		Mathematics	Repairing
		Equipment Maintenance	Judgment and Decision Making	Coordination	Critical Thinking		Critical Thinking	Speaking
Total	6	10	10	10	10	6	10	10

	128,880	63,290	18,960
	\$ 36,630	\$ 51,420	\$ 90,000
	JZ-3	JZ-3	JZ-3
	49-9042	51-1011	11-3051
	Maintenance and repair workers, general	First-line supervisors/managers of production and operating workers	Industrial production managers
	Equipment Maintenance	Active Listening	Monitoring
	Repairing	Reading Comprehension	Active Listening
	Troubleshooting	Management of Personnel Resources	Critical Thinking
	Active Listening	Instructing	Speaking
	Installation	Monitoring	Management of Personnel Resources
	Equipment Selection	Speaking	Reading Comprehension
	Critical Thinking	Time Management	Time Management
	Reading Comprehension	Critical Thinking	Coordination
	Operation Monitoring	Judgment and Decision Making	Active Learning
	Coordination	Coordination	Complex Problem Solving
Total	10	10	10

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)

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Food Chain

List of Skills for Occupations in Grocery Product Merchant Wholesalers

184

California Research Bureau, California State Library

TOT_EMP	118,360	40,770	199,180	276,490	46,380	13,120	100,380	106,390	17,740	69,220	199,440	21,960	131,760
A_MEAN	\$ 18,630	\$ 24,690	\$ 24,040	\$ 23,210	\$ 24,730	\$ 25,040	\$ 27,410	\$ 28,760	\$ 29,500	\$ 32,780	\$ 34,110	\$ 36,420	\$ 38,500
Job Zone	JZ-1	JZ-1	JZ-1/2	JZ-2	JZ-2	JZ-2	JZ-2	JZ-2	JZ-2	JZ-2	JZ-2	JZ-2	JZ-2
SOC-Code	53-7064	53-3031	43-5081	53-7062	51-9111	51-3092	53-3033	43-5071	51-3021	53-7051	43-4051	43-5032	53-3032
Occupation Title	Packers and packagers, hand	Driver/sales workers	Stock clerks and order fillers	Laborers and freight, stock, and material movers, hand	Packaging and filling machine operators and tenders	Food batchmakers	Truck drivers, light or delivery services	Shipping, receiving, and traffic clerks	Butchers and meat cutters	Industrial truck and tractor operators	Customer service representatives	Dispatchers, except police, fire, and ambulance	Truck drivers, heavy and tractor-trailer
	Active Listening	Active Listening	Active Listening	Active Listening	Reading Comprehension	Active Listening	Active Listening	Active Listening	Active Listening	Operation Monitoring	Active Listening	Active Listening	Equipment Maintenance
	Coordination	Speaking	Speaking	Reading Comprehension	Quality Control Analysis	Operation Monitoring	Time Management	Reading Comprehension	Service Orientation	Active Listening	Reading Comprehension	Judgment and Decision Making	Active Listening
	Speaking	Social Perceptiveness	Reading Comprehension	Instructing	Active Listening	Mathematics	Equipment Maintenance	Speaking		Operation and Control	Monitoring	Reading Comprehension	Time Management
	Learning Strategies	Critical Thinking	Coordination	Coordination	Operation and Control	Operation and Control	Reading Comprehension	Time Management		Monitoring	Speaking	Speaking	Coordination
	Reading Comprehension	Coordination	Social Perceptiveness	Learning Strategies	Instructing	Reading Comprehension	Social Perceptiveness	Writing		Critical Thinking	Time Management	Time Management	Judgment and Decision Making
	Social Perceptiveness	Service Orientation	Mathematics	Time Management	Equipment Maintenance	Active Learning	Coordination	Mathematics		Speaking	Service Orientation	Critical Thinking	Reading Comprehension
		Time Management	Active Learning		Coordination	Time Management	Speaking	Learning Strategies			Active Learning	Learning Strategies	Troubleshooting
		Active Learning	Instructing		Troubleshooting	Troubleshooting	Learning Strategies	Monitoring			Learning Strategies	Monitoring	Speaking
		Reading Comprehension	Quality Control Analysis		Time Management	Critical Thinking	Operation and Control	Social Perceptiveness			Writing	Active Learning	Mathematics
		Mathematics	Critical Thinking		Judgment and Decision Making	Coordination	Service Orientation	Critical Thinking			Critical Thinking	Instructing	Critical Thinking

Total

6 10

16

10

10

6

10

10

10

10

2

6

10

10

10

10

Food Chain

List of Skills for Occupations in Grocery Product Merchant Wholesalers

39,740
\$ 42,830
JZ-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
Mathematics

10

94

59,520	145,050	226,740
\$ 50,100	\$ 60,660	\$ 112,740
JZ-3	JZ-3	JZ-3
15-1041	41-4012	11-1021
Computer support specialists	Sales representatives, wholesale and manufacturing, except technical and scientific products	General and operations managers
Critical Thinking	Active Listening	Active Listening
Speaking	Speaking	Coordination
Active Listening	Time Management	Critical Thinking
Complex Problem Solving	Reading Comprehension	Speaking
Reading Comprehension	Persuasion	Time Management
Active Learning	Service Orientation	Complex Problem Solving
Coordination	Negotiation	Judgment and Decision Making
Instructing	Social Perceptiveness	Management of Personnel Resources
Judgment and Decision Making	Active Learning	Monitoring
Monitoring	Coordination	Reading Comprehension

10

10

10

30

25,120
\$ 83,870
JZ-4
11-3011
Administrative services managers
Social Perceptiveness
Time Management
Coordination
Reading Comprehension
Service Orientation
Active Listening
Active Learning
Instructing
Speaking
Writing

10

160

10

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	Top Third (of 18)
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		0	0	4	2	0	0	6	
Equipment Maintenance		0	0	3	0	0	0	3	
Quality Control Analysis		0	1	1	0	0	0	2	
Monitoring		0	0	4	2	0	0	6	
Management of Personnel Resources		0	0	0	1	0	0	1	
Operation and Control		0	0	4	0	0	0	4	
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	

Food Chain

List of Skills for Occupations Employed in Specialty Food Stores

188

California Research Bureau, California State Library

TOT_EMP	208,910	108,010	356,880	10,860	40,770
A_MEAN	\$ 17,920	\$ 18,920	\$ 21,420	\$ 21,950	\$ 24,690
Job Zone	JZ-1	JZ-1	JZ-1	JZ-1	JZ-1
SOC-Code	35-3021	35-2021	41-2011	51-3022	53-3031
Occupation Title	Combined food preparation and serving workers, including fast food	Food preparation workers	Cashiers	Meat, poultry, and fish cutters and trimmers	Driver/sales workers
	Active Listening	Active Listening	Active Listening	Active Listening	Active Listening
	Speaking	Reading Comprehension	Mathematics	Time Management	Speaking
	Instructing	Instructing	Speaking		Social Perceptiveness
	Mathematics	Speaking	Instructing		Critical Thinking
	Service Orientation	Learning Strategies	Social Perceptiveness		Coordination
	Social Perceptiveness	Service Orientation	Service Orientation		Service Orientation
		Social Perceptiveness	Learning Strategies		Time Management
		Coordination	Critical Thinking		Active Learning
		Mathematics			Reading Comprehension
					Mathematics
Total	6	9	8	2	10

	199,180
	\$ 24,040
	JZ-1/2
	43-5081
	Stock clerks and order fillers
	Reading Comprehension
	Speaking
	Mathematics
	Instructing
	Active Listening
	Quality Control Analysis
	Coordination
	Social Perceptiveness
	Active Learning
	Critical Thinking
Total	10

	481,990	100,380	82,240	17,740	125,210
	\$ 25,270	\$ 27,410	\$ 27,560	\$ 29,500	\$ 39,850
	JZ-2	JZ-2	JZ-2	JZ-2	JZ-2
	41-2031	53-3033	35-1012	51-3021	41-1011
	Retail salespersons	Truck drivers, light or delivery services	First-line supervisors/managers of food preparation and serving workers	Butchers and meat cutters	First-line supervisors/managers of retail sales workers
	Active Listening	Active Listening	Speaking	Active Listening	Management of Personnel Resources
	Mathematics	Time Management	Active Listening	Service Orientation	Active Listening
	Speaking	Equipment Maintenance	Time Management		Service Orientation
	Social Perceptiveness	Reading Comprehension	Instructing		Time Management
	Critical Thinking	Social Perceptiveness	Reading Comprehension		Instructing
	Writing	Coordination	Monitoring		Monitoring
	Judgment and Decision Making	Speaking	Mathematics		Reading Comprehension
	Instructing	Learning Strategies	Service Orientation		Judgment and Decision Making
	Reading Comprehension	Operation and Control	Social Perceptiveness		Active Learning
		Service Orientation	Management of Personnel Resources		Critical Thinking
Total	9	10	10	2	10

35

10

41

Food Chain

List of Skills for Occupations Employed in Specialty Food Stores

Number of Occupations within JZ	5	1	5	0	0	0	11	
Total Employment Range (2005)	10,860 - 356,880	199,180	17,740 - 481,990	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		
Skill	Job Zones	JZ-1	JZ-1/2	JZ- 2	JZ-3	JZ-4	JZ-5	Number
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

Top Third
(of 11)

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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

192

California Research Bureau, California State Library

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	JZ-2	JZ-2	JZ-2	JZ-3	JZ-3	JZ-3	JZ-3	JZ-3	JZ-3	JZ-4	JZ-4	JZ-4	JZ-4	JZ-4	JZ-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
		Learning Strategies	Service Orientation	Social Perceptiveness	Writing	Critical Thinking	Active Learning	Critical Thinking	Complex Problem Solving	Monitoring	Judgment and Decision Making	Learning Strategies	Troubleshooting	Active Listening	Instructing
		Mathematics	Active Learning	Writing	Mathematics	Active Learning	Coordination	Installation	Judgment and Decision Making	Systems Evaluation	Programming	Operations Analysis	Monitoring	Judgment and Decision Making	Monitoring
		Speaking	Learning Strategies	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	Writing	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	Social Perceptiveness	Service Orientation	Monitoring	Technology Design	Reading Comprehension	Judgment and Decision Making	Speaking	Troubleshooting	Quality Control Analysis	Speaking	Operation and Control

Total

5 10 10

10 10 10 10 10 10 10

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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

196

California Research Bureau, California State Library

TOT_EMP	126,180	31,460	214,050	16,910	8,170	11,210	226,740	17,450	3,480	5,540	11,020	31,930	49,790	4,610
A_MEAN	\$ 24,570	\$ 38,200	\$ 43,250	\$ 48,780	\$ 53,690	\$ 61,980	\$ 112,740	\$ 57,690	\$ 65,930	\$ 68,040	\$ 70,730	\$ 72,680	\$ 76,970	\$ 79,100
Job_Zone	JZ-1	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	37-3011	51-4041	43-6011	17-3011	17-3022	47-4011	11-1021	13-1073	17-1012	17-1022	13-2031	15-1071	15-1051	17-2081
Occupation Title	Landscaping and groundskeeping workers	Machinists	Executive secretaries and administrative assistants	Architectural and civil drafters	Civil engineering technicians	Construction and building inspectors	General and operations managers	Training and development specialists	Landscape architects	Surveyors	Budget analysts	Network and computer systems administrators	Computer systems analysts	Environmental engineers
Equipment Maintenance	Operation Monitoring	Active Listening	Active Listening	Mathematics	Critical Thinking	Active Listening		Instructing	Time Management	Writing	Critical Thinking	Reading Comprehension	Active Learning	Reading Comprehension
Active Listening	Operation and Control	Reading Comprehension	Coordination	Active Learning	Active Listening	Coordination		Learning Strategies	Coordination	Reading Comprehension	Reading Comprehension	Active Listening	Reading Comprehension	Speaking
Speaking	Monitoring	Time Management	Active Learning	Reading Comprehension	Quality Control Analysis	Critical Thinking		Speaking	Active Listening	Active Listening	Speaking	Critical Thinking	Complex Problem Solving	Active Listening
Reading Comprehension	Active Listening	Speaking	Complex Problem Solving	Critical Thinking	Speaking	Speaking		Active Listening	Reading Comprehension	Critical Thinking	Active Listening	Complex Problem Solving	Critical Thinking	Critical Thinking
Equipment Selection	Critical Thinking	Writing	Mathematics	Speaking	Judgment and Decision Making	Time Management		Reading Comprehension	Active Learning	Speaking	Mathematics	Speaking	Active Listening	Writing
Repairing	Complex Problem Solving	Critical Thinking	Reading Comprehension	Time Management	Complex Problem Solving	Complex Problem Solving		Writing	Critical Thinking	Time Management	Judgment and Decision Making	Monitoring	Troubleshooting	Complex Problem Solving
Time Management	Coordination	Active Learning	Time Management	Active Listening	Reading Comprehension	Judgment and Decision Making		Social Perceptiveness	Judgment and Decision Making	Coordination	Complex Problem Solving	Systems Evaluation	Monitoring	Judgment and Decision Making
Equipment Maintenance	Equipment Maintenance	Coordination	Critical Thinking	Complex Problem Solving	Active Learning	Management of Personnel Resources		Time Management	Writing	Judgment and Decision Making	Management of Financial Resources	Time Management	Service Orientation	Systems Analysis
	Judgment and Decision Making	Monitoring	Judgment and Decision Making	Coordination	Systems Analysis	Monitoring		Complex Problem Solving	Complex Problem Solving	Monitoring	Monitoring	Coordination	Time Management	Active Learning
	Quality Control Analysis	Service Orientation	Speaking	Judgment and Decision Making	Writing	Reading Comprehension		Coordination	Mathematics	Complex Problem Solving	Writing	Judgment and Decision Making	Quality Control Analysis	Monitoring
			Writing											
Total	7	10	10	11	10	10	10	10	10	10	10	10	10	10

7

61

Professional and Technical Services

List of Skills for Occupations Employed in Architectural and Engineering Services

198

California Research Bureau, California State Library

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	Top Third (of 23)
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	

Professional and Technical Services

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

200

California Research Bureau, California State Library

TOT_EMP	62,620	207,640
A_MEAN	\$ 17,050	\$ 23,360
Job_Zone	JZ-1	JZ-1
SOC-Code	35-9011	37-2011
Occupation Title	Dining room and cafeteria attendants and bartender helpers	Janitors and cleaners, except maids and housekeeping cleaners
	Speaking	Reading Comprehension
	Active Listening	Active Listening
	Learning Strategies	Speaking
	Social Perceptiveness	Coordination
	Service Orientation	Equipment Selection
		Time Management
		Equipment Maintenance
		Writing
		Instructing
		Judgment and Decision Making
Total	5	10

15

	276,490	11,060	396,750	2,080	199,440	10,260
	\$ 23,210	\$ 26,040	\$ 27,470	\$ 30,930	\$ 34,110	\$ 39,130
	JZ-2	JZ-2	JZ-2	JZ-2	JZ-2	JZ-2
	53-7062	41-9011	43-9061	29-2051	43-4051	29-2012
	Laborers and freight, stock, and material movers, hand	Demonstrators and product promoters	Office clerks, general	Dietetic technicians	Customer service representatives	Medical and clinical laboratory technicians
	Active Listening	Persuasion	Active Listening	Active Listening	Active Listening	Reading Comprehension
	Reading Comprehension	Speaking	Reading Comprehension	Speaking	Reading Comprehension	Active Listening
	Instructing	Active Listening	Speaking	Reading Comprehension	Monitoring	Speaking
	Coordination	Social Perceptiveness	Writing	Monitoring	Speaking	Science
	Learning Strategies	Instructing	Social Perceptiveness	Critical Thinking	Time Management	Equipment Maintenance
	Time Management	Service Orientation		Social Perceptiveness	Service Orientation	Instructing
		Time Management		Coordination	Active Learning	Time Management
		Active Learning		Judgment and Decision Making	Learning Strategies	Judgment and Decision Making
		Learning Strategies		Service Orientation	Writing	Monitoring
		Reading Comprehension		Time Management	Critical Thinking	Active Learning
Total	6	10	5	10	10	10

51

	42,990	208,200	22,990	29,830	214,050	16,910
	\$ 35,250	\$ 35,880	\$ 37,790	\$ 41,590	\$ 43,250	\$ 48,780
	JZ-3	JZ-3	JZ-3	JZ-3	JZ-3	JZ-3
	43-3011	43-3031	43-3051	47-2051	43-6011	17-3011
	Bill and account collectors	Bookkeeping, accounting, and auditing clerks	Payroll and timekeeping clerks	Cement masons and concrete finishers	Executive secretaries and administrative assistants	Architectural and civil drafters
	Active Listening	Mathematics	Time Management	Coordination	Active Listening	Active Listening
	Speaking	Reading Comprehension	Mathematics	Mathematics	Reading Comprehension	Coordination
	Reading Comprehension	Time Management	Reading Comprehension	Active Listening	Time Management	Active Learning
	Time Management	Active Listening	Active Listening	Critical Thinking	Speaking	Complex Problem Solving
	Mathematics	Critical Thinking	Speaking	Active Learning	Writing	Mathematics
	Social Perceptiveness	Active Learning	Active Learning	Complex Problem Solving	Critical Thinking	Reading Comprehension
	Writing	Learning Strategies	Judgment and Decision Making	Equipment Selection	Active Learning	Time Management
	Active Learning	Social Perceptiveness	Critical Thinking	Time Management	Coordination	Critical Thinking
	Judgment and Decision Making	Writing	Learning Strategies	Equipment Maintenance	Monitoring	Judgment and Decision Making
	Critical Thinking	Speaking	Writing	Speaking	Service Orientation	Speaking
Total	10	10	10	10	10	11

Professional and Technical Services

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

59,520	180,480	145,050	23,450	226,740
\$ 50,100	\$ 50,230	\$ 60,660	\$ 71,870	\$ 112,740
JZ-3	JZ-3	JZ-3	JZ-3	JZ-3
15-1041	43-1011	41-4012	15-1081	11-1021
Computer support specialists	First-line supervisors/managers of office and administrative support workers	Sales representatives, wholesale and manufacturing, except technical and scientific products	Network systems and data communications analysts	General and operations managers
Critical Thinking	Active Listening	Active Listening	Equipment Selection	Active Listening
Speaking	Speaking	Speaking	Troubleshooting	Coordination
Active Listening	Reading Comprehension	Time Management	Complex Problem Solving	Critical Thinking
Complex Problem Solving	Critical Thinking	Reading Comprehension	Active Listening	Speaking
Reading Comprehension	Monitoring	Persuasion	Active Learning	Time Management
Active Learning	Time Management	Service Orientation	Critical Thinking	Complex Problem Solving
Coordination	Management of Personnel Resources	Negotiation	Installation	Judgment and Decision Making
Learning Strategies	Judgment and Decision Making	Social Perceptiveness	Reading Comprehension	Management of Personnel Resources
Judgment and Decision Making	Instructing	Active Learning	Judgment and Decision Making	Monitoring
Monitoring	Social Perceptiveness	Coordination	Technology Design	Reading Comprehension
10	10	10	10	10

124,560	27,950	31,930	49,790	63,700	84,550	50,400	49,200
\$ 64,390	\$ 69,540	\$ 72,680	\$ 76,970	\$ 82,200	\$ 91,590	\$ 96,070	\$ 114,770
JZ-4	JZ-4	JZ-4	JZ-4	JZ-4	JZ-4	JZ-4	JZ-4
13-2011	19-3021	15-1071	15-1051	13-1111	15-1031	15-1032	11-2022
Accountants and auditors	Market research analysts	Network and computer systems administrators	Computer systems analysts	Management analysts	Computer software engineers, applications	Computer software engineers, systems software	Sales managers
Mathematics	Reading Comprehension	Reading Comprehension	Active Learning	Critical Thinking	Programming	Complex Problem Solving	Active Listening
Active Listening	Time Management	Active Listening	Reading Comprehension	Judgment and Decision Making	Critical Thinking	Technology Design	Speaking
Critical Thinking	Writing	Critical Thinking	Complex Problem Solving	Active Listening	Complex Problem Solving	Troubleshooting	Coordination
Monitoring	Active Listening	Complex Problem Solving	Critical Thinking	Coordination	Active Learning	Critical Thinking	Reading Comprehension
Speaking	Coordination	Speaking	Active Listening	Time Management	Troubleshooting	Active Learning	Social Perceptiveness
Reading Comprehension	Active Learning	Monitoring	Troubleshooting	Instructing	Judgment and Decision Making	Programming	Writing
Writing	Critical Thinking	Systems Evaluation	Monitoring	Monitoring	Technology Design	Reading Comprehension	Critical Thinking
Judgment and Decision Making	Speaking	Time Management	Service Orientation	Quality Control Analysis	Reading Comprehension	Systems Analysis	Persuasion
	Judgment and Decision Making	Coordination	Time Management	Reading Comprehension	Operations Analysis	Mathematics	Active Learning
	Negotiation	Judgment and Decision Making	Quality Control Analysis	Operation and Control	Systems Analysis	Operations Analysis	Judgment and Decision Making
8	10	10	10	10	10	10	10

Professional and Technical Services

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

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California Research Bureau, California State Library

35,550	30,320
\$ 120,600	\$ 123,600
JZ-4	JZ-4
11-3021	11-2021
Computer and information systems managers	Marketing managers
Critical Thinking	Active Listening
Active Listening	Critical Thinking
Judgment and Decision Making	Speaking
Management of Personnel Resources	Writing
Systems Analysis	Reading Comprehension
Coordination	Social Perceptiveness
Reading Comprehension	Coordination
Speaking	Complex Problem Solving
Monitoring	Management of Personnel Resources
Social Perceptiveness	Monitoring
10	10

98

64,840
\$ 109,530
JZ-4/5
11-3031
Financial managers
Time Management
Instructing
Management of Personnel Resources
Reading Comprehension
Active Listening
Management of Financial Resources
Mathematics
Critical Thinking
8

8

16,610	61,940	32,700
\$ 78,790	\$ 132,670	\$ 170,710
JZ-5	JZ-5	JZ-5
19-1042	23-1011	11-1011
Medical scientists, except epidemiologists	Lawyers	Chief executives
Reading Comprehension	Reading Comprehension	Judgment and Decision Making
Science	Judgment and Decision Making	Management of Financial Resources
Active Listening	Writing	Coordination
Active Learning	Critical Thinking	Critical Thinking
Writing	Active Listening	Negotiation
Instructing	Persuasion	Active Listening
Time Management	Time Management	Monitoring
Critical Thinking	Negotiation	Complex Problem Solving
Judgment and Decision Making	Speaking	Reading Comprehension
Complex Problem Solving	Active Learning	Speaking
10	10	10

30

11,270	175,920	39,660
\$ 42,780	\$ 60,860	\$ 101,470
N/A	N/A	N/A
29-2099	13-1199	11-9199
Health technologists and technicians, all other	Business operations specialists, all other	Managers, all other
Not Available	Not Available	Not Available
0	0	0

0

Professional and Technical Services

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

Number of Occupations within JZ		2	6	11	10	1	3	3	36
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	
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	0	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	0	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

204

California Research Bureau, California State Library

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	820
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	\$ 61,310
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	JZ-5
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	19-1012
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	Food scientists and technologists
Active Listening	Management of Personnel Resources	Active Listening	Science	Science	Reading Comprehension	Reading Comprehension	Science	Programming	Reading Comprehension	Complex Problem Solving	Speaking	Quality Control Analysis	
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	Active Listening	
Time Management	Coordination	Time Management	Instructing	Reading Comprehension	Critical Thinking	Science	Speaking	Complex Problem Solving	Equipment Selection	Troubleshooting	Writing	Reading Comprehension	
Speaking	Active Listening	Judgment and Decision Making	Active Learning	Quality Control Analysis	Mathematics	Critical Thinking	Time Management	Active Learning	Troubleshooting	Critical Thinking	Active Listening	Active Learning	
Writing	Monitoring	Monitoring	Learning Strategies	Writing	Active Listening	Writing	Active Listening	Troubleshooting	Active Learning	Active Learning	Reading Comprehension	Monitoring	
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	Mathematics	
Active Learning	Time Management	Speaking	Active Listening	Active Listening	Speaking	Active Learning	Technology Design	Technology Design	Coordination	Reading Comprehension	Critical Thinking	Critical Thinking	
Coordination	Critical Thinking	Coordination	Mathematics	Active Learning	Persuasion	Troubleshooting	Complex Problem Solving	Reading Comprehension	Mathematics	Systems Analysis	Persuasion	Speaking	
Monitoring	Complex Problem Solving	Critical Thinking	Quality Control Analysis	Critical Thinking	Active Learning	Equipment Selection	Critical Thinking	Operations Analysis	Active Listening	Mathematics	Service Orientation	Time Management	
Service Orientation	Social Perceptiveness	Complex Problem Solving	Speaking	Speaking	Science	Time Management	Quality Control Analysis	Systems Analysis	Judgment and Decision Making	Operations Analysis	Social Perceptiveness	Writing	
Total	10	10	10	10	10	10	10	10	10	10	10	10	10

Professional and Technical Services

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

	16,610	4,310	25,100	35,620	7,030
	\$ 78,790	\$ 82,090	\$ 97,140	\$ 125,080	\$ 126,540
	JZ-5	JZ-5	JZ-5	JZ-5	JZ-5
	19-1042	19-1021	17-2011	11-9041	11-9121
Medical scientists, except epidemiologists	Biochemists and biophysicists	Aerospace engineers	Engineering managers	Natural sciences managers	
Reading Comprehension	Science	Critical Thinking	Reading Comprehension	Science	
Science	Reading Comprehension	Judgment and Decision Making	Speaking	Critical Thinking	
Active Listening	Time Management	Time Management	Active Listening	Reading Comprehension	
Active Learning	Critical Thinking	Active Learning	Critical Thinking	Writing	
Writing	Writing	Writing	Complex Problem Solving	Active Learning	
Instructing	Active Learning	Monitoring	Monitoring	Mathematics	
Time Management	Complex Problem Solving	Reading Comprehension	Negotiation	Time Management	
Critical Thinking	Equipment Selection	Speaking	Writing	Active Listening	
Judgment and Decision Making	Active Listening	Management of Personnel Resources	Judgment and Decision Making	Coordination	
Complex Problem Solving	Learning Strategies	Systems Evaluation	Social Perceptiveness	Complex Problem Solving	
	10	10	10	10	10

60

	175,920	26,990
	\$ 60,860	\$ 89,260
	N/A	N/A
	13-1199	17-2199
Business operations specialists, all other	Engineers, all other	
Not Available	Not Available	
	0	0

0

Professional and Technical Services

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

206

California Research Bureau, California State Library

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	Job Zone	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

208

California Research Bureau, California State Library

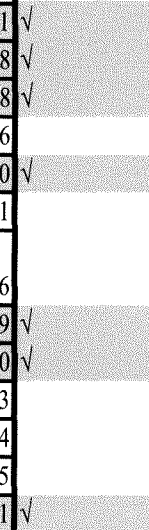
TOT_EMP	207,640	126,560	396,750	29,740	208,200	214,050	35,220	180,480	24,070	3,930	61,940
A_MEAN	\$ 23,360	\$ 25,980	\$ 27,470	\$ 25,070	\$ 35,880	\$ 43,250	\$ 47,720	\$ 50,230	\$ 53,090	\$ 41,700	\$ 132,670
Job Zone	JZ-1	JZ-2	JZ-2	JZ-3	JZ-3	JZ-3	JZ-3	JZ-3	JZ-3	JZ-4	JZ-5
SOC-Code	37-2011	43-4171	43-9061	43-4071	43-3031	43-6011	43-6012	43-1011	23-2011	23-2092	23-1011
Occupation Title	Janitors and cleaners, except maids and housekeeping cleaners	Receptionists and information clerks	Office clerks, general	File clerks	Bookkeeping, accounting, and auditing clerks	Executive secretaries and administrative assistants	Legal secretaries	First-line supervisors/managers of office and administrative support workers	Paralegals and legal assistants	Law clerks	Lawyers
	Reading Comprehension	Active Listening	Active Listening	Active Listening	Mathematics	Active Listening	Reading Comprehension	Active Listening	Reading Comprehension	Reading Comprehension	Reading Comprehension
	Active Listening	Speaking	Reading Comprehension	Speaking	Reading Comprehension	Reading Comprehension	Active Listening	Speaking	Time Management	Critical Thinking	Judgment and Decision Making
	Speaking	Reading Comprehension	Speaking	Reading Comprehension	Time Management	Time Management	Time Management	Reading Comprehension	Active Listening	Writing	Writing
	Coordination	Writing	Writing	Time Management	Active Listening	Speaking	Writing	Critical Thinking	Writing	Active Learning	Critical Thinking
	Equipment Selection	Service Orientation	Social Perceptiveness	Active Learning	Critical Thinking	Writing	Active Learning	Monitoring	Speaking	Active Listening	Active Listening
	Time Management	Learning Strategies		Coordination	Active Learning	Critical Thinking	Speaking	Time Management	Active Learning	Time Management	Persuasion
	Equipment Maintenance	Social Perceptiveness		Instructing	Learning Strategies	Active Learning	Learning Strategies	Management of Personnel Resources	Coordination	Judgment and Decision Making	Time Management
	Writing	Critical Thinking		Learning Strategies	Social Perceptiveness	Coordination	Judgment and Decision Making	Judgment and Decision Making	Critical Thinking	Complex Problem Solving	Negotiation
	Instructing	Time Management		Service Orientation	Writing	Monitoring	Coordination	Instructing	Monitoring	Social Perceptiveness	Speaking
	Judgment and Decision Making	Active Learning		Social Perceptiveness	Speaking	Service Orientation	Critical Thinking	Social Perceptiveness	Judgment and Decision Making	Persuasion	Active Learning
Total	10	10	5	10	10	10	10	10	10	10	10
	10	15						60	10	10	

Professional and Technical Services

List of Skills for Occupations Employed in Legal Services

Number of Occupations within JZ		1	2	6	1	1	11
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-1	JZ-2	JZ-3	JZ-4	JZ-5	Number
Active Listening		1	2	6	1	1	11
Active Learning		0	1	5	1	1	8
Critical Thinking		0	1	5	1	1	8
Social Perceptiveness		0	2	3	1	0	6
Time Management		1	1	6	1	1	10
Complex Problem Solving		0	0	0	1	0	1
Judgment and Decision Making		1	0	3	1	1	6
Writing		1	2	4	1	1	9
Speaking		1	2	6	0	1	10
Instructing		1	0	2	0	0	3
Learning Strategies		0	1	3	0	0	4
Coordination		1	0	4	0	0	5
Reading Comprehension		1	2	6	1	1	11
Service Orientation		0	1	2	0	0	3
Monitoring		0	0	3	0	0	3
Equipment Selection		1	0	0	0	0	1
Negotiation		0	0	0	0	1	1
Persuasion		0	0	0	1	1	2
Mathematics		0	0	1	0	0	1
Management of Personnel Resources		0	0	1	0	0	1
Equipment Maintenance		1	0	0	0	0	1
Total		10	15	60	10	10	105

Top Third
(of 11)



Professional and Technical Services

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

210

California Research Bureau, California State Library

TOT_EMP	8,230	126,560	396,750	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	\$ 22,750	\$ 25,980	\$ 27,470	\$ 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-2	JZ-2	JZ-2	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	31-9096	43-4171	43-9061	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 assistants and laboratory animal caretakers	Receptionists and information clerks	Office clerks, general	Veterinary technologists and technicians	Interviewers, except eligibility and loan	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
	Active Listening	Active Listening	Active Listening	Active Listening	Active Listening	Mathematics	Active Listening	Active Listening	Active Listening	Mathematics	Science	Active Listening	Not Available	Not Available	Not Available
	Reading Comprehension	Speaking	Reading Comprehension	Reading Comprehension	Reading Comprehension	Reading Comprehension	Monitoring	Speaking	Coordination	Active Listening	Judgment and Decision Making	Reading Comprehension			
	Speaking	Reading Comprehension	Speaking	Speaking	Speaking	Time Management	Persuasion	Reading Comprehension	Critical Thinking	Critical Thinking	Critical Thinking	Critical Thinking			
	Active Learning	Writing	Writing	Critical Thinking	Service Orientation	Active Listening	Speaking	Critical Thinking	Speaking	Monitoring	Reading Comprehension	Complex Problem Solving			
	Instructing	Service Orientation	Social Perceptiveness	Active Learning	Writing	Critical Thinking	Time Management	Monitoring	Time Management	Judgment and Decision Making	Writing	Speaking			
	Learning Strategies	Learning Strategies		Mathematics	Social Perceptiveness	Active Learning	Coordination	Time Management	Complex Problem Solving	Writing	Active Learning	Science			
	Time Management	Social Perceptiveness		Instructing	Learning Strategies	Learning Strategies	Judgment and Decision Making	Management of Personnel Resources	Judgment and Decision Making	Reading Comprehension	Time Management	Time Management			
	Critical Thinking	Critical Thinking		Learning Strategies	Critical Thinking	Social Perceptiveness	Active Learning	Judgment and Decision Making	Management of Personnel Resources	Speaking	Active Listening	Judgment and Decision Making			
	Mathematics	Time Management		Science	Time Management	Writing	Equipment Selection	Instructing	Monitoring		Coordination	Active Learning			
	Service Orientation	Active Learning		Time Management	Monitoring	Speaking	Service Orientation	Social Perceptiveness	Reading Comprehension		Complex Problem Solving	Mathematics			
Total	10	10	5	10	10	10	10	10	10	8	10	10	0	0	0

25

60

18

10

0

Government



FEDERAL GOVERNMENT (NAICS 910000)

STATE GOVERNMENT (NAICS 920000)

LOCAL GOVERNMENT (NAICS 930000)

Government

List of Skills for Occupations Employed in Federal Government

214

California Research Bureau, California State Library

TOT_EMP	27,810	5,380	940	22,600	7,460	35,570	60,460	234,260	4,930	2,210	10,870	49,790
A_MEAN	\$ 57,090	\$ 35,220	\$ 41,730	\$ 55,710	\$ 57,910	\$ 61,000	\$ 67,940	\$ 75,130	\$ 79,250	\$ 114,800	\$ 73,820	\$ 76,970
Job Zone	JZ-2/3/4/5	JZ-3	JZ-3	JZ-3	JZ-3	JZ-3	JZ-3	JZ-3	JZ-3	JZ-3	JZ-3/4	JZ-4
SOC-Code	13-1041	19-4093	25-4013	17-3023	13-2081	33-3012	33-3051	29-1111	33-1011	53-2021	33-3021	15-1051
Occupation Title	Compliance officers, except agriculture, construction, health and safety, and transportation	Forest and conservation technicians	Museum technicians and conservators	Electrical and electronic engineering technicians	Tax examiners, collectors, and revenue agents	Correctional officers and jailers	Police and sheriff's patrol officers	Registered nurses	First-line supervisors/managers of correctional officers	Air traffic controllers	Detectives and criminal investigators	Computer systems analysts
Critical Thinking	Critical Thinking	Critical Thinking	Troubleshooting	Active Listening	Active Listening	Active Listening	Active Listening	Active Listening	Speaking	Active Listening	Writing	Active Learning
Speaking	Active Listening	Active Listening	Mathematics	Mathematics	Social Perceptiveness	Critical Thinking	Reading Comprehension	Active Listening	Coordination	Judgment and Decision Making	Judgment and Decision Making	Reading Comprehension
Science	Active Learning	Judgment and Decision Making	Critical Thinking	Reading Comprehension	Speaking	Writing	Critical Thinking	Critical Thinking	Complex Problem Solving	Coordination	Coordination	Complex Problem Solving
Active Listening	Reading Comprehension	Reading Comprehension	Reading Comprehension	Active Learning	Monitoring	Speaking	Coordination	Writing	Speaking	Social Perceptiveness	Social Perceptiveness	Critical Thinking
Reading Comprehension	Speaking	Time Management	Active Listening	Speaking	Judgment and Decision Making	Social Perceptiveness	Speaking	Monitoring	Critical Thinking	Complex Problem Solving	Complex Problem Solving	Active Listening
Writing	Judgment and Decision Making	Active Learning	Complex Problem Solving	Complex Problem Solving	Critical Thinking	Service Orientation	Active Learning	Reading Comprehension	Monitoring	Instructing	Instructing	Troubleshooting
Negotiation	Science	Equipment Selection	Speaking	Service Orientation	Reading Comprehension		Service Orientation	Negotiation	Active Learning	Speaking	Speaking	Monitoring
Judgment and Decision Making	Mathematics	Complex Problem Solving	Systems Analysis	Critical Thinking	Coordination		Monitoring	Instructing	Judgment and Decision Making	Reading Comprehension	Reading Comprehension	Service Orientation
Instructing	Equipment Selection	Management of Material Resources	Writing	Instructing	Active Learning		Social Perceptiveness	Social Perceptiveness	Learning Strategies	Critical Thinking	Critical Thinking	Time Management
Coordination	Time Management	Coordination		Time Management	Negotiation		Writing	Active Learning	Instructing	Active Listening	Active Listening	Quality Control Analysis
Active Learning												
Learning Strategies												
Total	12	10	10	9	10	10	6	10	10	10	10	10

12

85

10

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	Job Zone	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

218

California Research Bureau, California State Library

TOT_EMP	126,180	396,750	69,220	199,440	23,270	39,740	26,530	27,810	2,950	19,060	180,480	21,810
A_MEAN	\$ 24,570	\$ 27,470	\$ 32,780	\$ 34,110	\$ 34,810	\$ 42,830	\$ 58,080	\$ 57,090	\$ 34,720	\$ 39,470	\$ 50,230	\$ 53,580
Job Zone	JZ-1	JZ-2	JZ-2	JZ-2	JZ-2	JZ-2	JZ-2/3	JZ-2/3/4/5	JZ-3	JZ-3	JZ-3	JZ-3
SOC-Code	37-3011	43-9061	53-7051	43-4051	43-9022	43-5061	33-2011	13-1041	19-4011	43-4161	43-1011	53-1031
Occupation Title	Landscaping and groundskeeping workers	Office clerks, general	Industrial truck and tractor operators	Customer service representatives	Word processors and typists	Production, planning, and expediting clerks	Fire fighters	Compliance officers, except agriculture, construction, health and safety, and transportation	Agricultural and food science technicians	Human resources assistants, except payroll and timekeeping	First-line supervisors/managers of office and administrative support workers	First-line supervisors/managers of transportation and material-moving machine and vehicle operators
Equipment Maintenance	Active Listening	Operation Monitoring	Active Listening	Writing	Active Listening	Equipment Maintenance	Critical Thinking	Time Management	Active Listening	Active Listening	Active Listening	
Active Listening	Reading Comprehension	Active Listening	Reading Comprehension	Active Listening	Reading Comprehension	Active Listening	Speaking	Reading Comprehension	Reading Comprehension	Speaking	Speaking	
Speaking	Speaking	Operation and Control	Monitoring	Time Management	Coordination	Judgment and Decision Making	Science	Science	Speaking	Reading Comprehension	Time Management	
Reading Comprehension	Writing	Monitoring	Speaking	Reading Comprehension	Speaking	Service Orientation	Active Listening	Active Listening	Time Management	Critical Thinking	Management of Personnel Resources	
Equipment Selection	Social Perceptiveness	Critical Thinking	Time Management	Speaking	Active Learning	Equipment Selection	Reading Comprehension	Equipment Maintenance	Critical Thinking	Monitoring	Coordination	
Reporting		Speaking	Service Orientation	Mathematics	Judgment and Decision Making	Critical Thinking	Writing	Quality Control Analysis	Writing	Time Management	Critical Thinking	
Time Management			Active Learning	Critical Thinking	Time Management	Coordination	Negotiation	Critical Thinking	Mathematics	Management of Personnel Resources	Judgment and Decision Making	
			Learning Strategies	Learning Strategies	Writing		Judgment and Decision Making		Learning Strategies	Judgment and Decision Making	Social Perceptiveness	
			Writing	Coordination	Service Orientation		Instructing		Instructing	Instructing	Instructing	
			Critical Thinking	Judgment and Decision Making	Mathematics		Coordination		Social Perceptiveness	Social Perceptiveness	Reading Comprehension	
							Active Learning					
							Learning Strategies					
Total	7	5	6	10	10	10	7	12	7	10	10	10

7

41

7

12

Government

List of Skills for Occupations Employed in State Government

35,570	60,460	234,260	4,930	7,260
\$ 61,000	\$ 67,940	\$ 75,130	\$ 79,250	\$ 94,450
JZ-3	JZ-3	JZ-3	JZ-3	JZ-3
33-3012	33-3051	29-1111	33-1011	33-1012
Correctional officers and jailers	Police and sheriff's patrol officers	Registered nurses	First-line supervisors/managers of correctional officers	First-line supervisors/managers of police and detectives
Active Listening	Active Listening	Active Listening	Speaking	Active Listening
Social Perceptiveness	Critical Thinking	Reading Comprehension	Active Listening	Coordination
Speaking	Writing	Critical Thinking	Critical Thinking	Speaking
Monitoring	Speaking	Active Learning	Writing	Monitoring
Judgment and Decision Making	Social Perceptiveness	Speaking	Monitoring	Reading Comprehension
Critical Thinking	Service Orientation	Coordination	Reading Comprehension	Writing
Reading Comprehension		Service Orientation	Negotiation	Critical Thinking
Coordination		Monitoring	Instructing	Social Perceptiveness
Active Learning		Social Perceptiveness	Social Perceptiveness	Complex Problem Solving
Negotiation		Writing	Active Learning	Management of Personnel Resources
10	6	10	10	10

17,450	10,550	11,790	49,790	31,810	23,220	50,400
\$ 57,690	\$ 59,410	\$ 69,360	\$ 76,970	\$ 79,950	\$ 81,790	\$ 96,070
JZ-4	JZ-4	JZ-4	JZ-4	JZ-4	JZ-4	JZ-4
13-1073	13-1072	21-1092	15-1051	17-2051	17-2141	15-1032
Training and development specialists	Compensation, benefits, and job analysis specialists	Probation officers and correctional treatment specialists	Computer systems analysts	Civil engineers	Mechanical engineers	Computer software engineers, systems software
Instructing	Reading Comprehension	Active Listening	Active Learning	Reading Comprehension	Mathematics	Complex Problem Solving
Learning Strategies	Active Listening	Social Perceptiveness	Reading Comprehension	Complex Problem Solving	Complex Problem Solving	Technology Design
Speaking	Critical Thinking	Writing	Complex Problem Solving	Critical Thinking	Critical Thinking	Troubleshooting
Active Listening	Writing	Monitoring	Critical Thinking	Active Listening	Reading Comprehension	Critical Thinking
Reading Comprehension	Judgment and Decision Making	Judgment and Decision Making	Active Listening	Coordination	Science	Active Learning
Writing	Service Orientation	Critical Thinking	Troubleshooting	Judgment and Decision Making	Active Listening	Programming
Social Perceptiveness	Speaking	Time Management	Monitoring	Speaking	Judgment and Decision Making	Reading Comprehension
Speaking	Time Management	Speaking	Service Orientation	Time Management	Time Management	Systems Analysis
Complex Problem Solving	Active Learning	Active Learning	Time Management	Writing	Writing	Mathematics
Coordination	Coordination	Instructing	Quality Control Analysis	Management of Personnel Resources	Speaking	Operations Analysis
10	10	10	10	10	10	10

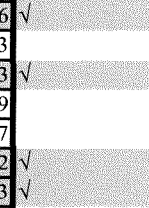
4,230	23,700	61,940
\$ 50,780	\$ 106,150	\$ 132,670
JZ-5	JZ-5	JZ-5
21-2011	29-1051	23-1011
Clergy	Pharmacists	Lawyers
Speaking	Active Listening	Reading Comprehension
Active Listening	Speaking	Judgment and Decision Making
Reading Comprehension	Reading Comprehension	Writing
Judgment and Decision Making	Mathematics	Critical Thinking
Instructing	Science	Active Learning
Social Perceptiveness	Critical Thinking	Persuasion
Time Management	Writing	Time Management
Active Learning	Instructing	Negotiation
Management of Personnel Resources	Social Perceptiveness	Speaking
Coordination	Active Learning	Active Learning
10	10	10

Government

List of Skills for Occupations Employed in State Government

Number of Occupations within JZ		1	5	1	1	9	7	3	6	33
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	
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	JZ-1	JZ-2	JZ-2/3	JZ-2/3/4/5	JZ-3	JZ-4	JZ-5	JZ-N/A	Number
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		0	2	1	1	3	4	2	0	13
Mathematics		0	2	0	0	1	2	1	0	6
Science		0	0	0	1	1	1	1	0	4
Negotiation		0	0	0	1	2	0	1	0	4
Quality Control Analysis		0	0	0	0	1	1	0	0	2
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	1	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

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Government

List of Skills for Occupations Employed in Local Government

222

California Research Bureau, California State Library

TOT_EMP	33,640	207,640	11,030	126,180
A_MEAN	\$ 18,420	\$ 23,360	\$ 24,110	\$ 24,570
Job Zone	JZ-1	JZ-1	JZ-1	JZ-1
SOC-Code	39-3091	37-2011	33-9092	37-3011
Occupation Title	Amusement and recreation attendants	Janitors and cleaners, except maids and housekeeping cleaners	Lifeguards, ski patrol, and other recreational protective service workers	Landscaping and groundskeeping workers
	Active Listening	Reading Comprehension	Active Listening	Equipment Maintenance
	Speaking	Active Listening	Monitoring	Active Listening
	Coordination	Speaking	Instructing	Speaking
	Reading Comprehension	Coordination	Social Perceptiveness	Reading Comprehension
	Writing	Equipment Selection	Service Orientation	Equipment Selection
	Social Perceptiveness	Time Management	Speaking	Repairing
	Critical Thinking	Equipment Maintenance	Critical Thinking	Time Management
	Instructing	Writing	Judgment and Decision Making	
	Learning Strategies	Instructing	Learning Strategies	
	Service Orientation	Judgment and Decision Making	Time Management	
Total	10	10	10	7

37

TOT_EMP	11,110	396,750	199,440	20,350	36,620	3,770
A_MEAN	\$ 21,140	\$ 27,470	\$ 34,110	\$ 34,550	\$ 36,430	\$ 44,780
Job Zone	JZ-2	JZ-2	JZ-2	JZ-2	JZ-2	JZ-2
SOC-Code	39-3011	43-9061	43-4051	51-5023	53-3021	47-4051
Occupation Title	Gaming dealers	Office clerks, general	Customer service representatives	Printing machine operators	Bus drivers, transit and intercity	Highway maintenance workers
	Mathematics	Active Listening	Active Listening	Operation and Control	Active Listening	Equipment Maintenance
	Speaking	Reading Comprehension	Reading Comprehension	Operation Monitoring	Operation Monitoring	Equipment Selection
	Active Listening	Speaking	Monitoring	Troubleshooting	Social Perceptiveness	Coordination
	Service Orientation	Writing	Speaking	Equipment Maintenance	Equipment Maintenance	Speaking
	Social Perceptiveness	Social Perceptiveness	Time Management	Reading Comprehension	Operation and Control	Active Listening
	Monitoring		Service Orientation	Quality Control Analysis	Reading Comprehension	Critical Thinking
	Learning Strategies		Active Learning	Critical Thinking	Coordination	Judgment and Decision Making
	Coordination		Learning Strategies	Equipment Selection	Time Management	Reading Comprehension
	Reading Comprehension		Writing	Active Listening	Speaking	Repairing
			Critical Thinking	Instructing	Critical Thinking	Active Learning
Total	9	5	10	10	10	10

54

TOT_EMP	4,930	26,530
A_MEAN	\$ 43,100	\$ 58,080
Job Zone	JZ-2/3	JZ-2/3
SOC-Code	43-4031	33-2011
Occupation Title	Court, municipal, and license clerks	Fire fighters
	Reading Comprehension	Equipment Maintenance
	Active Listening	Active Listening
	Writing	Judgment and Decision Making
	Coordination	Service Orientation
	Speaking	Equipment Selection
	Instructing	Critical Thinking
	Active Learning	Coordination
	Service Orientation	
	Time Management	
Total	9	7

16

TOT_EMP	28,580	208,200
A_MEAN	\$ 31,630	\$ 35,880
Job Zone	JZ-3	JZ-3
SOC-Code	21-1093	43-3031
Occupation Title	Social and human service assistants	Bookkeeping, accounting, and auditing clerks
	Active Listening	Mathematics
	Speaking	Reading Comprehension
	Writing	Time Management
	Reading Comprehension	Active Listening
	Social Perceptiveness	Critical Thinking
	Critical Thinking	Active Learning
	Coordination	Learning Strategies
	Service Orientation	Social Perceptiveness
	Judgment and Decision Making	Writing
	Monitoring	Speaking
Total	10	10

Government

List of Skills for Occupations Employed in Local Government

California Research Bureau, California State Library

223

	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		Installation	Service Orientation	Instructing	Critical Thinking	Judgment and Decision Making	
Reading Comprehension	Time Management	Social Perceptiveness	Coordination	Judgment and Decision Making	Judgment and Decision Making	Learning Strategies	Critical Thinking	Coordination	Active Learning		Reading Comprehension	Monitoring	Critical Thinking	Social Perceptiveness	Management of Personnel Resources	
Operation Monitoring	Service Orientation	Service Orientation	Monitoring	Coordination	Instructing	Critical Thinking	Monitoring	Active Learning	Systems Analysis		Judgment and Decision Making	Social Perceptiveness	Equipment Maintenance	Complex Problem Solving	Monitoring	
Coordination	Active Learning	Learning Strategies	Service Orientation	Critical Thinking	Social Perceptiveness	Mathematics	Judgment and Decision Making	Negotiation	Writing		Technology Design	Writing		Management of Personnel Resources	Reading Comprehension	
	10	10	10	10	10	10	10	10	10	10	6	10	10	9	10	10

Government

List of Skills for Occupations Employed in Local Government

10,060	175,920	28,190
\$ 46,950	\$ 60,860	\$ 62,400
N/A	N/A	N/A
21-1029	13-1199	13-1079
Social workers, all other	Business operations specialists, all other	Human resources, training, and labor relations specialists, all other
Not Available	Not Applicable	Not Available
0	0	0

392

0

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	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		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

Top Third
(of 41)

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

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California Research Bureau, California State Library

TOT_EMP	118,360	40,770	199,180	276,490	46,380	13,120	100,380	106,390	17,740	69,220	199,440	21,960	131,760	39,740
A_MEAN	\$ 18,630	\$ 24,690	\$ 24,040	\$ 23,210	\$ 24,730	\$ 25,040	\$ 27,410	\$ 28,760	\$ 29,500	\$ 32,780	\$ 34,110	\$ 36,420	\$ 38,500	\$ 42,830
Job Zone	JZ-1	JZ-1	JZ-1/2	JZ-2	JZ-2	JZ-2	JZ-2	JZ-2	JZ-2	JZ-2	JZ-2	JZ-2	JZ-2	JZ-2
SOC-Code	53-7064	53-3031	43-5081	53-7062	51-9111	51-3092	53-3033	43-5071	51-3021	53-7051	43-4051	43-5032	53-3032	43-5061
Occupation Title	Packers and packagers, hand	Driver/sales workers	Stock clerks and order fillers	Laborers and freight, stock, and material movers, hand	Packaging and filling machine operators and tenders	Food batchmakers	Truck drivers, light or delivery services	Shipping, receiving, and traffic clerks	Butchers and meat cutters	Industrial truck and tractor operators	Customer service representatives	Dispatchers, except police, fire, and ambulance	Truck drivers, heavy and tractor-trailer	Production, planning, and expediting clerks
	Active Listening	Active Listening	Active Listening	Active Listening	Reading Comprehension	Active Listening	Active Listening	Active Listening	Active Listening	Operation Monitoring	Active Listening	Active Listening	Equipment Maintenance	Active Listening
	Coordination	Speaking	Speaking	Reading Comprehension	Quality Control Analysis	Operation Monitoring	Time Management	Reading Comprehension	Service Orientation	Active Listening	Reading Comprehension	Judgment and Decision Making	Active Listening	Reading Comprehension
	Speaking	Social Perceptiveness	Reading Comprehension	Instructing	Active Listening	Mathematics	Equipment Maintenance	Speaking		Operation and Control	Monitoring	Reading Comprehension	Time Management	Coordination
	Learning Strategies	Critical Thinking	Coordination	Coordination	Operation and Control	Operation and Control	Reading Comprehension	Time Management		Monitoring	Speaking	Speaking	Coordination	Speaking
	Reading Comprehension	Coordination	Social Perceptiveness	Learning Strategies	Instructing	Reading Comprehension	Social Perceptiveness	Writing		Critical Thinking	Time Management	Time Management	Judgment and Decision Making	Active Learning
	Social Perceptiveness	Service Orientation	Mathematics	Time Management	Equipment Maintenance	Active Learning	Coordination	Mathematics		Speaking	Service Orientation	Critical Thinking	Reading Comprehension	Judgment and Decision Making
		Time Management	Active Learning		Coordination	Time Management	Speaking	Learning Strategies			Active Learning	Learning Strategies	Troubleshooting	Time Management
		Active Learning	Instructing		Troubleshooting	Troubleshooting	Learning Strategies	Monitoring			Learning Strategies	Monitoring	Speaking	Writing
		Reading Comprehension	Quality Control Analysis		Time Management	Critical Thinking	Operation and Control	Social Perceptiveness			Writing	Active Learning	Mathematics	Service Orientation
		Mathematics	Critical Thinking		Judgment and Decision Making	Coordination	Service Orientation	Critical Thinking			Critical Thinking	Instructing	Critical Thinking	Mathematics
Total	6	10	10	6	10	10	10	10	10	2	6	10	10	10

Wholesale Trade

List of Skills for Occupations Employed in Grocery Product Merchant Wholesalers

59,520	145,050	226,740
\$ 50,100	\$ 60,660	\$ 112,740
JZ-3	JZ-3	JZ-3
15-1041	41-4012	11-1021
Computer support specialists	Sales representatives, wholesale and manufacturing, except technical and scientific products	General and operations managers
Critical Thinking	Active Listening	Active Listening
Speaking	Speaking	Coordination
Active Listening	Time Management	Critical Thinking
Complex Problem Solving	Reading Comprehension	Speaking
Reading Comprehension	Persuasion	Time Management
Active Learning	Service Orientation	Complex Problem Solving
Coordination	Negotiation	Judgment and Decision Making
Instructing	Social Perceptiveness	Management of Personnel Resources
Judgment and Decision Making	Active Learning	Monitoring
Monitoring	Coordination	Reading Comprehension
10	10	10

30

25,120
\$ 83,870
JZ-4
11-3011
Administrative services managers
Social Perceptiveness
Time Management
Coordination
Reading Comprehension
Service Orientation
Active Listening
Active Learning
Instructing
Speaking
Writing
10

10

Wholesale Trade

List of Skills for Occupations Employed 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		0	0	4	2	0	0	6
Equipment Maintenance		0	0	3	0	0	0	3
Quality Control Analysis		0	1	1	0	0	0	2
Monitoring		0	0	4	2	0	0	6
Management of Personnel Resources		0	0	0	1	0	0	1
Operation and Control		0	0	4	0	0	0	4
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)

Wholesale Trade

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

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California Research Bureau, California State Library

TOT_EMP	118,360	356,880	207,640
A_MEAN	\$ 18,630	\$ 21,420	\$23,360
Job Zone	JZ-1	JZ-1	JZ-1
SOC-Code	53-7064	41-2011	37-2011
Occupation Title	Packers and packagers, hand	Cashiers	Janitors and cleaners, except maids and housekeeping cleaners
	Active Listening	Active Listening	Reading Comprehension
	Coordination	Mathematics	Active Listening
	Speaking	Speaking	Speaking
	Learning Strategies	Instructing	Coordination
	Reading Comprehension	Social Perceptiveness	Equipment Selection
	Social Perceptiveness	Service Orientation	Time Management
		Learning Strategies	Equipment Maintenance
		Critical Thinking	Writing
			Instructing
			Judgment and Decision Making
Total	6	8	10

24

	199,180
	\$ 24,040
	JZ-1/2
	43-5081
Occupation Title	Stock clerks and order fillers
	Active Listening
	Speaking
	Reading Comprehension
	Coordination
	Social Perceptiveness
	Mathematics
	Active Learning
	Instructing
	Quality Control Analysis
	Critical Thinking
Total	10

10

	276,490	100,380	396,750	106,390	42,580	69,220	199,440
	\$ 23,210	\$ 27,410	\$ 27,470	\$ 28,760	\$ 29,810	\$ 32,780	\$ 34,110
	JZ-2	JZ-2	JZ-2	JZ-2	JZ-2	JZ-2	JZ-2
	53-7062	53-3033	43-9061	43-5071	43-4151	53-7051	43-4051
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	Industrial truck and tractor operators	Customer service representatives
	Active Listening	Active Listening	Active Listening	Active Listening	Reading Comprehension	Operation Monitoring	Active Listening
	Reading Comprehension	Time Management	Reading Comprehension	Reading Comprehension	Active Listening	Active Listening	Reading Comprehension
	Instructing	Equipment Maintenance	Speaking	Speaking	Speaking	Operation and Control	Monitoring
	Coordination	Reading Comprehension	Writing	Time Management	Time Management	Monitoring	Speaking
	Learning Strategies	Social Perceptiveness	Social Perceptiveness	Writing	Service Orientation	Critical Thinking	Time Management
	Time Management	Coordination		Mathematics	Writing	Speaking	Service Orientation
		Speaking		Learning Strategies	Active Learning		Active Learning
		Learning Strategies		Monitoring	Mathematics		Learning Strategies
		Operation and Control		Social Perceptiveness	Coordination		Writing
		Service Orientation		Critical Thinking	Critical Thinking		Critical Thinking
Total	6	10	5	10	10	6	10

57

	208,200	19,060	214,050
	\$ 35,880	\$ 39,470	\$ 43,250
	JZ-3	JZ-3	JZ-3
	43-3031	43-4161	43-6011
Occupation Title	Bookkeeping, accounting, and auditing clerks	Human resources assistants, except payroll and timekeeping	Executive secretaries and administrative assistants
	Mathematics	Active Listening	Active Listening
	Reading Comprehension	Reading Comprehension	Reading Comprehension
	Time Management	Speaking	Time Management
	Active Listening	Time Management	Speaking
	Critical Thinking	Critical Thinking	Writing
	Active Learning	Writing	Critical Thinking
	Learning Strategies	Mathematics	Active Learning
	Social Perceptiveness	Learning Strategies	Coordination
	Writing	Instructing	Monitoring
	Speaking	Social Perceptiveness	Service Orientation
Total	10	10	10

Wholesale Trade

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

145,050	23,450	226,740
\$ 60,660	\$ 71,870	\$ 112,740
JZ-3	JZ-3	JZ-3
41-4012	15-1081	11-1021
Sales representatives, wholesale and manufacturing, except technical and scientific products	Network systems and data communications analysts	General and operations managers
Active Listening	Equipment Selection	Active Listening
Speaking	Troubleshooting	Coordination
Time Management	Complex Problem Solving	Critical Thinking
Reading Comprehension	Active Listening	Speaking
Persuasion	Active Learning	Time Management
Service Orientation	Critical Thinking	Complex Problem Solving
Negotiation	Installation	Judgment and Decision Making
Social Perceptiveness	Reading Comprehension	Management of Personnel Resources
Active Learning	Judgment and Decision Making	Monitoring
Coordination	Technology Design	Reading Comprehension
10	10	10

124,560	11,050	49,790	42,950	8,790	84,550	49,200	35,550
\$ 64,390	\$ 74,150	\$ 76,970	\$ 77,480	\$ 90,520	\$ 91,590	\$ 114,770	\$ 120,600
JZ-4	JZ-4	JZ-4	JZ-4	JZ-4	JZ-4	JZ-4	JZ-4
13-2011	15-1061	15-1051	41-4011	11-3061	15-1031	11-2022	11-3021
Accountants and auditors	Database administrators	Computer systems analysts	Sales representatives, wholesale and manufacturing, technical and scientific products	Purchasing managers	Computer software engineers, applications	Sales managers	Computer and information systems managers
Mathematics	Active Listening	Active Learning	Speaking	Active Listening	Programming	Active Listening	Critical Thinking
Active Listening	Complex Problem Solving	Reading Comprehension	Persuasion	Critical Thinking	Critical Thinking	Speaking	Active Listening
Critical Thinking	Critical Thinking	Complex Problem Solving	Active Listening	Judgment and Decision Making	Complex Problem Solving	Coordination	Judgment and Decision Making
Monitoring	Reading Comprehension	Critical Thinking	Time Management	Active Learning	Active Learning	Reading Comprehension	Management of Personnel Resources
Judgment and Decision Making	Coordination	Active Listening	Negotiation	Reading Comprehension	Troubleshooting	Social Perceptiveness	Systems Analysis
Writing	Judgment and Decision Making	Troubleshooting	Service Orientation	Management of Material Resources	Judgment and Decision Making	Writing	Coordination
Reading Comprehension	Programming	Monitoring	Social Perceptiveness	Negotiation	Technology Design	Critical Thinking	Reading Comprehension
Speaking	Writing	Service Orientation	Reading Comprehension	Mathematics	Reading Comprehension	Persuasion	Speaking
	Monitoring	Time Management	Critical Thinking	Time Management	Operations Analysis	Active Learning	Monitoring
	Speaking	Quality Control Analysis	Active Learning	Operations Analysis	Systems Analysis	Judgment and Decision Making	Social Perceptiveness
8	10	10	10	10	10	10	10

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	0	25	
Total Employment Range (2005)		118,360 - 356,880	199,180	42,580 - 396,750	19,060 - 226,740	8,790 - 124,560	N/A		
Average Annual Salary Range (2005)		\$18,630 - \$23,360	\$ 24,040	\$23,210 - \$34,110	\$35,880 - \$112,740	\$64,390 - \$120,600	N/A		
Skill	Job Zone	JZ-1	JZ-1/2	JZ-2	JZ-3	JZ-4	JZ-5	Number	Top Third (of 25)
Active Listening		3	1	7	6	7	0	24	√
Reading Comprehension		2	1	6	6	8	0	23	√
Time Management		1	0	5	5	3	0	14	
Speaking		3	1	6	5	5	0	20	√
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	√
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	1	0	0	1	
Technology Design		0	0	0	1	1	0	2	
Programming		0	0	0	0	2	0	2	
Total		24	10	57	60	78	0	229	

Wholesale Trade

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

236

California Research Bureau, California State Library

TOT_EMP	276,490	100,380	396,750	106,390	42,580	22,150	131,760
A_MEAN	\$ 23,210	\$ 27,410	\$ 27,470	\$ 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	Reading Comprehension	Active Listening	Speaking	Active Listening
	Instructing	Equipment Maintenance	Speaking	Speaking	Speaking	Reading Comprehension	Time Management
	Coordination	Reading Comprehension	Writing	Time Management	Time Management	Time Management	Coordination
	Learning Strategies	Social Perceptiveness	Social Perceptiveness	Writing	Service Orientation	Instructing	Judgment and Decision Making
	Time Management	Coordination		Mathematics	Writing	Critical Thinking	Reading Comprehension
		Speaking		Learning Strategies	Active Learning	Service Orientation	Troubleshooting
		Learning Strategies		Monitoring	Mathematics	Social Perceptiveness	Speaking
		Operation and Control		Social Perceptiveness	Coordination	Active Learning	Mathematics
		Service Orientation		Critical Thinking	Critical Thinking	Coordination	Critical Thinking
Total	6	10	5	10	10	10	10

TOT_EMP	208,200	128,880	145,050	226,740
A_MEAN	\$ 35,880	\$ 36,630	\$ 60,660	\$ 112,740
Job Zone	JZ-3	JZ-3	JZ-3	JZ-3
SOC-Code	43-3031	49-9042	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	General and operations managers
	Mathematics	Equipment Maintenance	Active Listening	Active Listening
	Reading Comprehension	Repairing	Speaking	Coordination
	Time Management	Troubleshooting	Time Management	Critical Thinking
	Active Listening	Active Listening	Reading Comprehension	Speaking
	Critical Thinking	Installation	Persuasion	Time Management
	Active Learning	Equipment Selection	Service Orientation	Complex Problem Solving
	Learning Strategies	Critical Thinking	Negotiation	Judgment and Decision Making
	Social Perceptiveness	Reading Comprehension	Social Perceptiveness	Management of Personnel Resources
	Writing	Operation Monitoring	Active Learning	Monitoring
	Speaking	Coordination	Coordination	Reading Comprehension
Total	10	10	10	10

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	Mobile heavy equipment mechanics, except engines	Sales representatives, wholesale and manufacturing, technical and scientific products	Sales managers
	Troubleshooting	Speaking	Active Listening
	Repairing	Persuasion	Speaking
	Equipment Maintenance	Active Listening	Coordination
	Equipment Selection	Time Management	Reading Comprehension
	Installation	Negotiation	Social Perceptiveness
	Operation Monitoring	Service Orientation	Writing
	Operation and Control	Social Perceptiveness	Critical Thinking
	Complex Problem Solving	Reading Comprehension	Persuasion
	Judgment and Decision Making	Critical Thinking	Active Learning
	Critical Thinking	Active Learning	Judgment and Decision Making
Total	10	10	10

Wholesale Trade

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

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	Job Zone	JZ-1	JZ-2	JZ-3	JZ-4	JZ-5	Number
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

Top Third
(of 14)

Wholesale Trade

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

238

California Research Bureau, California State Library

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	Instructing	Quality Control Analysis	Equipment Maintenance	Speaking	Speaking	Coordination	Repairing	Time Management	Critical Thinking	Coordination
	Active Listening	Learning Strategies	Mathematics	Coordination	Active Learning	Reading Comprehension	Writing	Time Management	Speaking	Reading Comprehension	Reading Comprehension	Speaking	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		Mathematics	Judgment and Decision Making	Coordination	Service Orientation	Complex Problem Solving	Active Listening
	Coordination		Coordination		Equipment Selection	Speaking		Learning Strategies	Time Management	Equipment Selection	Negotiation	Judgment and Decision Making	Monitoring
	Speaking		Social Perceptiveness		Reading Comprehension	Learning Strategies		Monitoring	Writing	Active Listening	Social Perceptiveness	Management of Personnel Resources	Complex Problem Solving
	Time Management		Instructing		Coordination	Operation and Control		Social Perceptiveness	Service Orientation	Judgment and Decision Making	Active Learning	Monitoring	Reading Comprehension
			Critical Thinking		Equipment Maintenance	Service Orientation		Critical Thinking	Mathematics	Learning Strategies	Coordination	Reading Comprehension	Speaking
Total	9	6	10	6	10	10	5	10	10	10	10	10	10

15

10

51

30

10

Wholesale Trade

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

Number of Occupations within JZ		2	1	6	3	0	1	13
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	Job Zone	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

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
40	10	10	

Wholesale Trade

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

242

California Research Bureau, California State Library

Number of Occupations within JZ		1	1	9	4	1	1	17
Total Employment Range (2005)		207,640	199,180	42,580 - 396,750	21,810 - 226,740	49,200	32,700	
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	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

244

California Research Bureau, California State Library

TOT_EMP	208,910	118,360	108,010	356,880	10,860	199,180	18,200	17,740	23,360	125,210	226,740	23,700
A_MEAN	\$ 17,920	\$ 18,630	\$ 18,920	\$ 21,420	\$ 21,950	\$ 24,040	\$ 25,310	\$ 29,500	\$ 34,320	\$ 39,850	\$ 112,740	\$ 106,150
Job Zone	JZ-1	JZ-1	JZ-1	JZ-1	JZ-1	JZ-1/2	JZ-2	JZ-2	JZ-2	JZ-2	JZ-3	JZ-5
SOC-Code	35-3021	53-7064	35-2021	41-2011	51-3022	43-5081	51-3011	51-3021	29-2052	41-1011	11-1021	29-1051
Occupation Title	Combined food preparation and serving workers, including fast food	Packers and packagers, hand	Food preparation workers	Cashiers	Meat, poultry, and fish cutters and trimmers	Stock clerks and order fillers	Bakers	Butchers and meat cutters	Pharmacy technicians	First-line supervisors/managers of retail sales workers	General and operations managers	Pharmacists
Active Listening	Active Listening	Active Listening	Active Listening	Active Listening	Active Listening	Reading Comprehension	Instructing	Active Listening	Active Listening	Management of Personnel Resources	Active Listening	Active Listening
Speaking	Speaking	Coordination	Reading Comprehension	Mathematics	Time Management	Speaking	Judgment and Decision Making	Service Orientation	Speaking	Active Listening	Coordination	Speaking
Instructing	Instructing	Speaking	Instructing	Speaking		Mathematics	Time Management		Active Learning	Service Orientation	Critical Thinking	Reading Comprehension
Mathematics	Mathematics	Learning Strategies	Speaking	Instructing		Instructing	Active Listening		Service Orientation	Time Management	Speaking	Mathematics
Service Orientation	Service Orientation	Reading Comprehension	Learning Strategies	Social Perceptiveness		Active Listening	Reading Comprehension		Instructing	Instructing	Time Management	Science
Social Perceptiveness	Social Perceptiveness	Social Perceptiveness	Service Orientation	Service Orientation		Active Learning	Speaking		Reading Comprehension	Monitoring	Complex Problem Solving	Critical Thinking
			Social Perceptiveness	Learning Strategies		Critical Thinking	Quality Control Analysis		Mathematics	Reading Comprehension	Judgment and Decision Making	Writing
			Coordination	Critical Thinking		Quality Control Analysis	Mathematics		Time Management	Judgment and Decision Making	Management of Personnel Resources	Instructing
			Mathematics			Coordination	Monitoring		Learning Strategies	Active Learning	Monitoring	Social Perceptiveness
						Social Perceptiveness	Coordination		Writing	Critical Thinking	Reading Comprehension	Active Learning
Total	6	6	9	8	2	10	10	2	10	10	10	10

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	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	
Skill	Job Zone	JZ-1	JZ-1/2	JZ-2	JZ-3	JZ-4	JZ-5	Number
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

Top Third
(of 12)

Retail Trade

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

TOT_EMP	356,880	207,640	199,180	276,490	481,990	100,380	106,390	69,220	21,960	131,760	125,210	7,180	144,450	26,080
A_MEAN	\$ 21,420	\$ 23,360	\$ 24,040	\$ 23,210	\$ 25,270	\$ 27,410	\$ 28,760	\$ 32,780	\$ 36,420	\$ 38,500	\$ 39,850	\$ 46,900	\$ 48,440	\$ 43,100
Job Zone	JZ-1	JZ-1	JZ-1/2	JZ-2	JZ-2	JZ-2	JZ-2	JZ-2	JZ-2	JZ-2	JZ-2	JZ-2	JZ-2/3	JZ-3
SOC-Code	41-2011	37-2011	43-5081	53-7062	41-2031	53-3033	43-5071	53-7051	43-5032	53-3032	41-1011	47-2121	47-2031	49-3031
Occupation Title	Cashiers	Janitors and cleaners, except maids and housekeeping cleaners	Stock clerks and order fillers	Laborers and freight, stock, and material movers, hand	Retail salespersons	Truck drivers, light or delivery services	Shipping, receiving, and traffic clerks	Industrial truck and tractor operators	Dispatchers, except police, fire, and ambulance	Truck drivers, heavy and tractor-trailer	First-line supervisors/managers of retail sales workers	Glaziers	Carpenters	Bus and truck mechanics and diesel engine specialists
	Active Listening	Reading Comprehension	Reading Comprehension	Active Listening	Active Listening	Active Listening	Active Listening	Operation Monitoring	Active Listening	Equipment Maintenance	Management of Personnel Resources	Active Listening	Mathematics	Equipment Maintenance
	Mathematics	Active Listening	Speaking	Reading Comprehension	Mathematics	Time Management	Reading Comprehension	Active Listening	Judgment and Decision Making	Active Listening	Active Listening	Mathematics	Time Management	Troubleshooting
	Speaking	Speaking	Mathematics	Instructing	Speaking	Equipment Maintenance	Speaking	Operation and Control	Reading Comprehension	Time Management	Service Orientation	Reading Comprehension	Critical Thinking	Repairing
	Instructing	Coordination	Instructing	Coordination	Social Perceptiveness	Reading Comprehension	Time Management	Monitoring	Speaking	Coordination	Time Management	Installation	Active Listening	Reading Comprehension
	Social Perceptiveness	Equipment Selection	Active Listening	Learning Strategies	Critical Thinking	Social Perceptiveness	Writing	Critical Thinking	Time Management	Judgment and Decision Making	Instructing	Equipment Selection	Judgment and Decision Making	Installation
	Service Orientation	Time Management	Active Learning	Time Management	Writing	Coordination	Mathematics	Speaking	Critical Thinking	Reading Comprehension	Monitoring	Speaking	Equipment Selection	Coordination
	Learning Strategies	Equipment Maintenance	Critical Thinking		Judgment and Decision Making	Speaking	Learning Strategies		Learning Strategies	Troubleshooting	Reading Comprehension	Coordination	Reading Comprehension	Equipment Selection
	Critical Thinking	Writing	Quality Control Analysis		Instructing	Learning Strategies	Monitoring		Monitoring	Speaking	Judgment and Decision Making	Critical Thinking	Coordination	Active Listening
		Instructing	Coordination		Reading Comprehension	Operation and Control	Social Perceptiveness		Active Learning	Mathematics	Active Learning	Writing		Judgment and Decision Making
		Judgment and Decision Making	Social Perceptiveness			Service Orientation	Critical Thinking		Instructing	Critical Thinking	Critical Thinking	Service Orientation		Learning Strategies
Total	8	10	10	6	9	10	10	6	10	10	10	10	8	10

18

10

81

8

Retail Trade

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

17,060	226,740
\$ 45,250	\$ 112,740
JZ-3	JZ-3
49-9021	11-1021
Heating, air conditioning, and refrigeration mechanics and installers	General and operations managers
Troubleshooting	Active Listening
Repairing	Coordination
Active Listening	Critical Thinking
Equipment Maintenance	Speaking
Installation	Time Management
Social Perceptiveness	Complex Problem Solving
Reading Comprehension	Judgment and Decision Making
Operation Monitoring	Management of Personnel Resources
	Monitoring
	Reading Comprehension

8 10

28

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
Coordination

10

10

155

Retail Trade

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

248

California Research Bureau, California State Library

Number of Occupations within JZ	2	1	9	1	3	1	0	17	
Total Employment Range (2005)	207,640 - 356,880	199,180	7,180 - 481,990	144,450	17,060 - 226,740	17,450	N/A		
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
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	155

Top Third
(of 17)

Retail Trade

List of Skills for Occupations Employed in Department Stores

250

California Research Bureau, California State Library

TOT_EMP	208,910	356,880	199,180	276,490	136,680	481,990	106,390	199,440	125,210	180,480
A_MEAN	\$ 17,920	\$ 21,420	\$ 24,040	\$ 23,210	\$ 23,740	\$ 25,270	\$ 28,760	\$ 34,110	\$ 39,850	\$ 50,230
Job Zone	JZ-1	JZ-1	JZ-1/2	JZ-2	JZ-2	JZ-2	JZ-2	JZ-2	JZ-2	JZ-3
SOC-Code	35-3021	41-2011	43-5081	53-7062	33-9032	41-2031	43-5071	43-4051	41-1011	43-1011
Occupation Title	Combined food preparation and serving workers, including fast food	Cashiers	Stock clerks and order fillers	Laborers and freight, stock, and material movers, hand	Security guards	Retail salespersons	Shipping, receiving, and traffic clerks	Customer service representatives	First-line supervisors/managers of retail sales workers	First-line supervisors/managers of office and administrative support workers
	Active Listening	Active Listening	Reading Comprehension	Active Listening	Active Listening	Active Listening	Active Listening	Active Listening	Management of Personnel Resources	Active Listening
	Speaking	Mathematics	Speaking	Reading Comprehension	Reading Comprehension	Mathematics	Reading Comprehension	Reading Comprehension	Active Listening	Speaking
	Instructing	Speaking	Mathematics	Instructing	Social Perceptiveness	Speaking	Speaking	Monitoring	Service Orientation	Reading Comprehension
	Mathematics	Instructing	Instructing	Coordination	Speaking	Social Perceptiveness	Time Management	Speaking	Time Management	Critical Thinking
	Service Orientation	Social Perceptiveness	Active Listening	Learning Strategies	Monitoring	Critical Thinking	Writing	Time Management	Instructing	Monitoring
	Social Perceptiveness	Service Orientation	Active Learning	Time Management	Judgment and Decision Making	Writing	Mathematics	Service Orientation	Monitoring	Time Management
		Learning Strategies	Critical Thinking		Critical Thinking	Judgment and Decision Making	Learning Strategies	Active Learning	Reading Comprehension	Management of Personnel Resources
		Critical Thinking	Quality Control Analysis			Instructing	Monitoring	Learning Strategies	Judgment and Decision Making	Judgment and Decision Making
			Coordination			Reading Comprehension	Social Perceptiveness	Writing	Active Learning	Instructing
			Social Perceptiveness				Critical Thinking	Critical Thinking	Critical Thinking	Social Perceptiveness
Total	6	8	10	6	7	9	10	10	10	10

14

10

52

10

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		
Average Annual Salary Range (2005)	\$17,920 - \$21,420	\$ 24,040	\$23,210 - \$39,850	\$ 50,230	N/A	N/A		
Skill	Job Zone	JZ-1	JZ1/-2	JZ-2	JZ-3	JZ-4	JZ-5	Number
Active Listening		2	1	6	1	0	0	10
Mathematics		2	1	2	0	0	0	5
Speaking		2	1	4	1	0	0	8
Social Perceptiveness		2	1	3	1	0	0	7
Critical Thinking		1	1	5	1	0	0	8
Writing		0	0	3	0	0	0	3
Judgment and Decision Making		0	0	3	1	0	0	4
Instructing		2	1	3	1	0	0	7
Reading Comprehension		0	1	6	1	0	0	8
Service Orientation		2	0	2	0	0	0	4
Learning Strategies		1	0	3	0	0	0	4
Active Learning		0	1	2	0	0	0	3
Monitoring		0	0	4	1	0	0	5
Time Management		0	0	4	1	0	0	5
Management of Personnel Resources		0	0	1	1	0	0	2
Coordination		0	1	1	0	0	0	2
Quality Control Analysis		0	1	0	0	0	0	1
Total		14	10	52	10	0	0	86

Top Third
(of 10)

Retail Trade

List of Skills for Occupations Employed in Automobile Dealers

252

California Research Bureau, California State Library

TOT_EMP	48,370	356,880	126,180	69,810
A_MEAN	\$ 19,970	\$ 21,420	\$ 24,570	\$ 26,630
Job Zone	JZ-1	JZ-1	JZ-1	JZ-1
SOC-Code	53-7061	41-2011	37-3011	41-2021
Occupation Title	Cleaners of vehicles and equipment	Cashiers	Landscaping and groundskeeping workers	Counter and rental clerks
	Equipment Maintenance	Active Listening	Equipment Maintenance	Active Listening
	Active Listening	Mathematics	Active Listening	Reading Comprehension
		Speaking	Speaking	Speaking
		Instructing	Reading Comprehension	Mathematics
		Social Perceptiveness	Equipment Selection	
		Service Orientation	Repairing	
		Learning Strategies	Time Management	
		Critical Thinking		

Total 2 8 7 4

21

	481,990	396,750	22,150	125,210
	\$ 25,270	\$ 27,470	\$ 35,190	\$ 39,850
	JZ-2	JZ-2	JZ-2	JZ-2
	41-2031	43-9061	41-2022	41-1011
	Retail salespersons	Office clerks, general	Parts salespersons	First-line supervisors/managers of retail sales workers
	Active Listening	Active Listening	Active Listening	Management of Personnel Resources
	Mathematics	Reading Comprehension	Speaking	Active Listening
	Speaking	Speaking	Reading Comprehension	Service Orientation
	Social Perceptiveness	Writing	Time Management	Time Management
	Critical Thinking	Social Perceptiveness	Instructing	Instructing
	Writing		Critical Thinking	Monitoring
	Judgment and Decision Making		Service Orientation	Reading Comprehension
	Instructing		Social Perceptiveness	Judgment and Decision Making
	Reading Comprehension		Active Learning	Active Learning
			Coordination	Critical Thinking

Total 9 5 10 10

34

	3,070	208,200	19,060	65,920
	\$ 30,440	\$ 35,880	\$ 39,470	\$ 41,260
	JZ-3	JZ-3	JZ-3	JZ-3
	49-2096	43-3031	43-4161	49-3023
	Electronic equipment installers and repairers, motor vehicles	Bookkeeping, accounting, and auditing clerks	Human resources assistants, except payroll and timekeeping	Automotive service technicians and mechanics
	Repairing	Mathematics	Active Listening	Troubleshooting
	Installation	Reading Comprehension	Reading Comprehension	Repairing
	Equipment Selection	Time Management	Speaking	Equipment Selection
	Active Learning	Active Listening	Time Management	Active Learning
	Active Listening	Critical Thinking	Critical Thinking	Reading Comprehension
	Troubleshooting	Active Learning	Writing	Equipment Maintenance
	Reading Comprehension	Learning Strategies	Mathematics	Critical Thinking
	Coordination	Social Perceptiveness	Learning Strategies	
	Speaking	Writing	Instructing	
	Complex Problem Solving	Speaking	Social Perceptiveness	

Total 10 10 10 7

37

	5,130	49,200
	\$ 87,300	\$ 114,770
	JZ-4	JZ-4
	11-3041	11-2022
	Compensation and benefits managers	Sales managers
	Critical Thinking	Active Listening
	Speaking	Speaking
	Judgment and Decision Making	Coordination
	Reading Comprehension	Reading Comprehension
	Active Listening	Social Perceptiveness
	Complex Problem Solving	Writing
	Active Learning	Critical Thinking
	Writing	Persuasion
	Coordination	Active Learning
	System Analysis	Judgment and Decision Making

Total 10 10

20

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Retail Trade

List of Skills for Occupations Employed in Automobile Dealers

Number of Occupations within JZ	4	4	4	2	0	14	
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	112

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Retail Trade

List of Skills for Occupations Employed in Gasoline Stations

254

California Research Bureau, California State Library

TOT_EMP	208,910	231,130	108,010	48,370	356,880	8,730	207,640
A_MEAN	\$ 17,920	\$ 18,030	\$ 18,920	\$ 19,970	\$ 21,420	\$ 22,870	\$ 23,360
Job Zone	JZ-1	JZ-1	JZ-1	JZ-1	JZ-1	JZ-1	JZ-1
SOC-Code	35-3021	35-3031	35-2021	53-7061	41-2011	53-6031	37-2011
Occupation Title	Combined food preparation and serving workers, including fast food	Waiters and waitresses	Food preparation workers	Cleaners of vehicles and equipment	Cashiers	Service station attendants	Janitors and cleaners, except maids and housekeeping cleaners
	Active Listening	Speaking	Active Listening	Equipment Maintenance	Active Listening	Active Listening	Reading Comprehension
	Speaking	Active Listening	Reading Comprehension	Active Listening	Mathematics	Speaking	Active Listening
	Instructing	Service Orientation	Instructing		Speaking	Service Orientation	Speaking
	Mathematics	Social Perceptiveness	Speaking		Instructing	Critical Thinking	Coordination
	Service Orientation	Coordination	Learning Strategies		Social Perceptiveness	Mathematics	Equipment Selection
	Social Perceptiveness	Reading Comprehension	Service Orientation		Service Orientation	Time Management	Time Management
		Instructing	Social Perceptiveness		Learning Strategies	Troubleshooting	Equipment Maintenance
		Active Learning	Coordination		Critical Thinking	Instructing	Writing
		Critical Thinking	Mathematics			Equipment Maintenance	Instructing
		Learning Strategies				Learning Strategies	Judgment and Decision Making
Total	6	10	9	2	8	10	10

55

TOT_EMP	125,210
A_MEAN	\$ 39,850
Job Zone	JZ-2
SOC-Code	41-1011
Occupation Title	First-line supervisors/managers of 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
Total	10

10

TOT_EMP	208,200	65,920	226,740
A_MEAN	\$ 35,880	\$ 41,260	\$ 112,740
Job Zone	JZ-3	JZ-3	JZ-3
SOC-Code	43-3031	49-3023	11-1021
Occupation Title	Bookkeeping, accounting, and auditing clerks	Automotive service technicians and mechanics	General and operations managers
	Mathematics	Troubleshooting	Active Listening
	Reading Comprehension	Repairing	Coordination
	Time Management	Equipment Selection	Critical Thinking
	Active Listening	Active Learning	Speaking
	Critical Thinking	Reading Comprehension	Time Management
	Active Learning	Equipment Maintenance	Complex Problem Solving
	Learning Strategies	Critical Thinking	Judgment and Decision Making
	Social Perceptiveness		Management of Personnel Resources
	Writing		Monitoring
	Speaking		Reading Comprehension
Total	10	7	10

27

Retail Trade

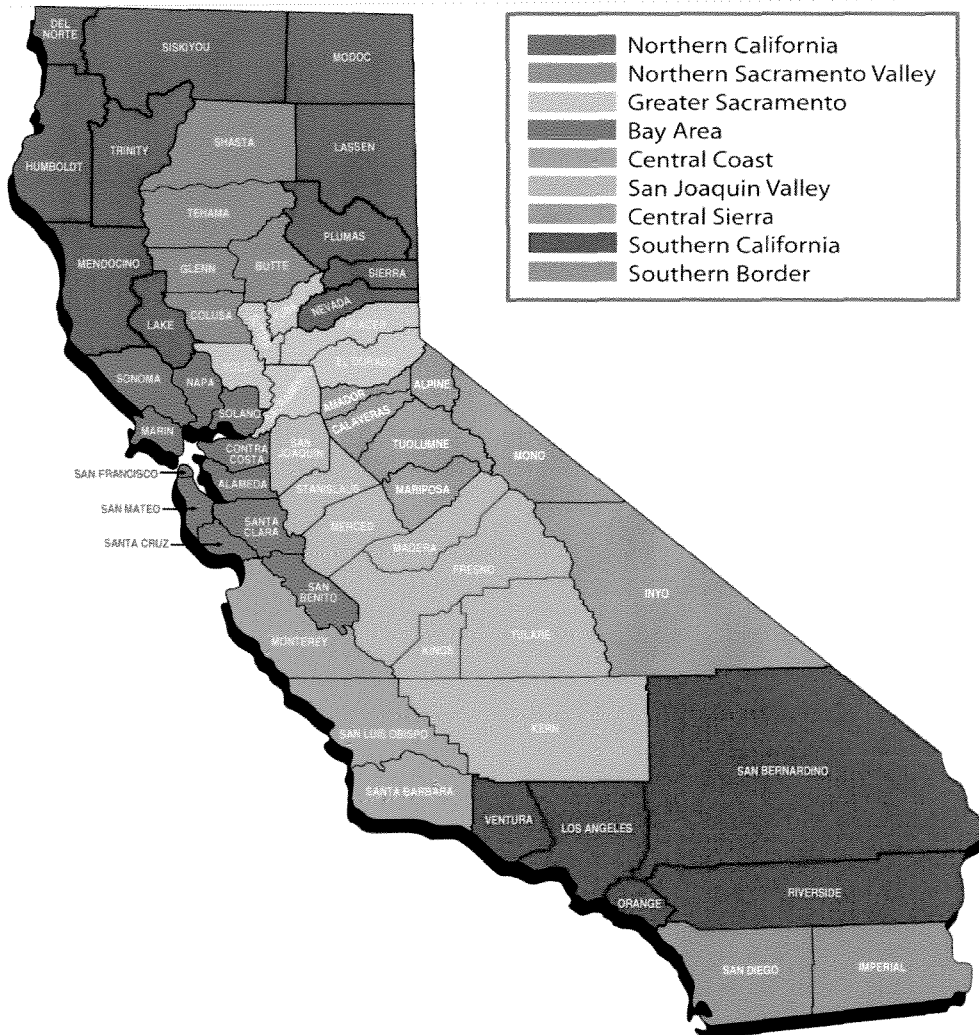
List of Skills for Occupations Employed in Gasoline Stations

Number of Occupations within JZ		7	1	3	0	0	11
Total Employment Range (2005)		8,730 - 356,880	125,210	65,920 - 226,740	N/A	N/A	
Average Annual Salary Range (2005)		\$17,920 - \$23,360	\$ 39,850	\$35,880 - \$112,740	N/A	N/A	
Skill	Job Zone	JZ-1	JZ-2	JZ-3	JZ-4	JZ-5	Number
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

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Appendix 1: California Map of Nine Economic Regions*

California Economic Strategy Panel Regions



* California Labor and Workforce Development Agency, Economic Strategy Panel, *California Economic Regions*. See: http://www.labor.ca.gov/panel/pdf/CESP_Regions_100606.pdf.

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 These occupations involve following instructions and helping others.

Examples 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.