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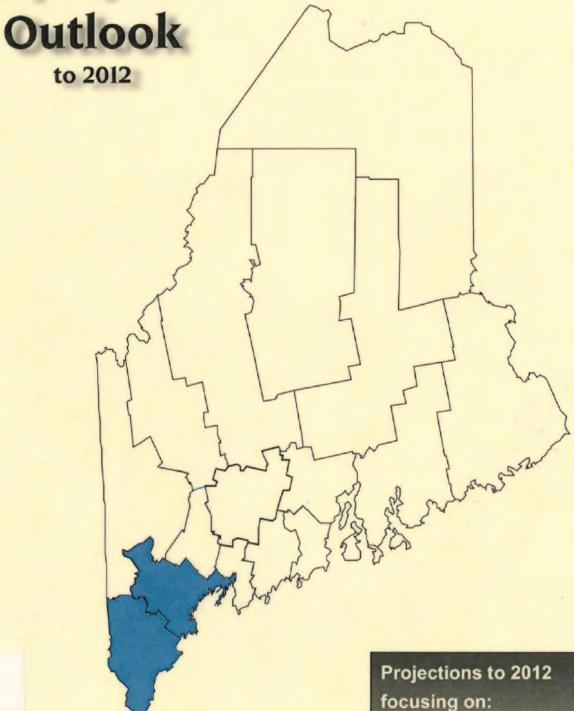
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Southern Maine Employment



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Labor Market Information

- Growing and declining industries and occupations
- Job Openings
- Education and training requirements

Southern Maine Employment Outlook

2002 to 2012

Industrial and Occupational Employment Projections
For Cumberland and York Counties

This publication is a product of the Economic and Demographic Research Group Dana Evans, State Labor Economist

Issued April 2005 Augusta, Maine

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Preface

Southern Maine Employment Outlook highlights industry and occupational employment projections for the period from 2002 to 2012. The labor market of the future is being shaped by many factors, including technological change and social and demographic trends. Labor market trends in Maine have largely followed a similar course to national trends for many years. These projections generally mirror national projections published by the U.S. Bureau of Labor Statistics for the same period.

Projection Highlights

- ☐ Employment opportunities will be concentrated in the service-providing industries.

 Education and health services, retail trade, and leisure and hospitality services are expected to create about two-thirds of all new jobs.
- ☐ The occupational structure of employment will shift along with changes in the industrial structure and technology. Many of the fastest growing occupations will be health care related, largely due to rapid growth in the number of middle age and elderly people.
- ☐ Technology will continue to impact the structure of employment and how work is done. Computers will increasingly be a part of a wide range of work processes and computer-related occupations will continue to grow faster than the average.

This monograph was produced by Glenn Mills, Senior Economic Analyst. Questions about industry trends should be directed to Glenn. Questions about occupational trends should be directed to Merrill Huhtala, Manager of the Occupational Employment Statistics Program. Glenn and Merrill can be reached at (207) 287-2271.

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Industry Employment 2002 and Projected 2012

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Employment by Industry in Southern Maine, 2002 and Projected 2012					
Technology	Average Ei	mployment	Employme	nt Change	
Industry	2002	2012	Net	Percent	
Total Employment	259,243	298,175	38,932	15.0%	
Self-Employed, Private Household, and Unpaid Family Workers	27,595	31,874	4,279	15.5%	
Wage and Salary Jobs	231,648	266,301	34,653	15.0%	
Total Private	198,196	229,531	31,335	15.8%	
Goods-Producing Industries	33,800	32,891	-909	-2.7%	
Natural Resources and Mining	497	567	70	14.1%	
Agriculture, Forestry, Fishing and Hunting	449	520	71	15.8%	
Crop production	191	219	28	14.7%	
Animal production	74	92	18	24.3%	
Forestry and logging	90	93	3	3.3%	
Fishing, hunting and trapping	50	75	25	50.0%	
Agriculture and forestry support activities	44	41	-3	-6.8%	
Mining	48	47	-1	-2.1%	
Mining, except oil and gas	48	47	-1	-2.1%	
Construction	11,213	11,603	390	3.5%	
Construction of buildings	2,785	2,877	92	3.3%	
Heavy and civil engineering construction	746	790	44	5.9%	
Specialty trade contractors	7,682	7,936	254	3.3%	
Manufacturing	22,090	20,721	-1,369	-6.2%	
Durable Goods	12,246	11,745	-501	-4.1%	
Wood product manufacturing	1,016	880	-136	-13.4%	
Nonmetallic mineral product manufacturing	479	503	24	5.0%	
Primary metal manufacturing	ND	ND	ND	ND	
Fabricated metal product manufacturing	2,324	2,247	-77	-3.3%	
Machinery manufacturing	1,225	1,211	-14	-1.1%	
Computer and electronic product manufacturing	3,356	3,338	-18	-0.5%	
Electrical equipment and appliance mfg.	493	497	4	0.8%	
Transportation equipment manufacturing	ND	ND	ND	ND	
Furniture and related product manufacturing	785	693	-92	-11.7%	
Miscellaneous manufacturing	570	543	-27	-4.7%	
Nondurable Goods	9,844	8,976	-868	-8.8%	
Food manufacturing	3,162	3,322	160	5.1%	
Beverage and tobacco product manufacturing	86	97	11	12.8%	
Textile mills	517	343	-174	-33.7%	
Textile product mills	712	638	-74	-10.4%	
Apparel manufacturing	ND	ND	ND	ND	
Leather and allied product manufacturing	653	335	-318	-48.7%	
Paper manufacturing	1,300	1,010	-290	-22.3%	
Printing and related support activities	1,232	1,229	-3	-0.2%	
Petroleum and coal products manufacturing	ND	ND	ND	ND	
Chemical manufacturing	938	946	8	0.9%	

Employment by Industry in Southern Maine, 2002 and Projected 2012						
To devite	Average E	mployment	Employme	nt Change		
Industry	2002	2012	Net	Percent		
Plastics and rubber products manufacturing	1,124	944	-180	-16.0%		
Service-Providing Industries	197,848	233,410	35,562	18.0%		
Trade, Transportation, and Utilities	48,970	56,307	7,337	15.0%		
Wholesale Trade	8,412	9,863	1,451	17.2%		
Merchant wholesalers, durable goods	4,674	5,755	1,081	23.1%		
Merchant wholesalers, nondurable goods	3,233	3,463	230	7.1%		
Electronic markets and agents and brokers	505	645	140	27.7%		
Retail Trade	34,202	39,395	5,193	15.2%		
Motor vehicle and parts dealers	3,399	4,147	748	22.0%		
Furniture and home furnishings stores	1,227	1,447	220	17.9%		
Electronics and appliance stores	987	1,243	256	25.9%		
Building material and garden supply stores	2,371	2,841	470	19.8%		
Food and beverage stores	7,269	8,485	1,216	16.7%		
Health and personal care stores	1,286	1,395	109	8.5%		
Gasoline stations	1,960	2,235	275	14.0%		
Clothing and clothing accessories stores	2,993	2,909	-84	-2.8%		
Sporting goods, hobby, book and music stores	2,514	2,851	337	13.4%		
General merchandise stores	3,653	4,008	355	9.7%		
Miscellaneous store retailers	2,640	3,177	537	20.3%		
Nonstore retailers	3,903	4,657	754	19.3%		
Transportation and Warehousing	5,580	6,328	748	13.4%		
Air transportation	118	117	-1	-0.8%		
Rail transportation	ND	ND	ND	ND		
Water transportation	72	92	20	27.8%		
Truck transportation	1,688	1,787	99	5.9%		
Transit and ground passenger transportation	502	637	135	26.9%		
Pipeline transportation	ND	ND	ND	ND		
Scenic and sightseeing transportation	63	87	24	38.1%		
Support activities for transportation	496	610	114	23.0%		
Couriers and messengers	883	1,013	130	14.7%		
Warehousing and storage	1,706	1,914	208	12.2%		
Utilities	776	721	-55	-7.1%		
Information	5,241	5,583	342	6.5%		
Publishing industries, except Internet	1,389	1,621	232	16.7%		
Motion picture and sound recording industries	285	411	126	44.2%		
Broadcasting, except Internet	947	978	31	3.3%		
Internet publishing and broadcasting	ND	ND	ND	ND		
Telecommunications	1,546	1,464	-82	-5.3%		
ISPs, search portals, and data processing	838	860	22	2.6%		
Other Information Services	ND	ND	ND	ND		
Financial Activities	17,204	19,289	2,085	12.1%		

Employment by Industry in Southern Maine, 2002 and Projected 2012					
Todayeton	Average E	mployment	Employme	nt Change	
Industry	2002	2012	Net	Percent	
Finance and Insurance	13,775	15,139	1,364	9.9%	
Credit intermediation and related activities	3,807	4,133	326	8.6%	
Securities, commodity contracts, investments	1,201	1,713	512	42.6%	
Insurance carriers and related activities	8,758	9,282	524	6.0%	
Funds, trusts, and other financial vehicles	9	11	2	22.2%	
Real Estate and Rental and Leasing	3,429	4,150	721	21.0%	
Real estate	2,038	2,427	389	19.1%	
Rental and leasing services	1,391	1,723	332	23.9%	
Professional and Business Services	23,527	27,383	3,856	16.4%	
Professional and technical services	10,510	12,192	1,682	16.0%	
Management of companies and enterprises	3,142	3,220	78	2.5%	
Administrative and support services	9,015	11,045	2,030	22.5%	
Waste management and remediation services	860	926	66	7.7%	
Education and Health Services	37,373	49,637	12,264	32.8%	
Educational services	4,063	5,150	1,087	26.8%	
Health Care and Social Assistance	33,310	44,487	11,177	33.6%	
Ambulatory health care services	9,552	13,005	3,453	36.1%	
Hospitals	10,364	12,965	2,601	25.1%	
Nursing and residential care facilities	7,549	10,052	2,503	33.2%	
Social assistance	5,845	8,465	2,620	44.8%	
Leisure and Hospitality	25,648	30,884	5,236	20.4%	
Arts, Entertainment, and Recreation	3,348	4,597	1,249	37.3%	
Performing arts and spectator sports	700	854	154	22.0%	
Museums, historical sites, zoos, and parks	168	174	6	3.6%	
Amusements, gambling, and recreation	2,480	3,569	1,089	43.9%	
Accomodation and Food Services	22,300	26,287	3,987	17.9%	
Accommodation	5,063	5,988	925	18.3%	
Food services and drinking places	17,237	20,299	3,062	17.8%	
Other Services	6,433	7,557	1,124	17.5%	
Repair and maintenance	1,816	2,206	390	21.5%	
Personal and laundry services	2,137	2,413	276	12.9%	
Membership associations and organizations	1,890	2,329	439	23.2%	
Private households	590	609	19	3.2%	
Government	33,452	36,770	3,318	9.9%	
Federal	7,801	8,365	564	7.2%	
State	4,873	5,160	287	5.9%	
Local	20,778	23,245	2,467	11.9%	

ND: Not Discloseable.

Industries Projected to Gain or Lose the Large	est Numb	er of Jobs in Southern Maine Between 2002 a	nd 2012		
Industries Expected to Gain 100 or More Jo	bs	Industries Expected to Lose Jobs			
Ambulatory health care services	3,453	Leather and allied product manufacturing	-318		
Food services and drinking places	3,062	Paper manufacturing	-290		
Social assistance	2,620	Plastics and rubber products manufacturing	-180		
Hospitals	2,601	Textile mills	-174		
Nursing and residential care facilities	2,503	Wood product manufacturing	-136		
Local Government	2,467	Furniture and related product manufacturing	-92		
Administrative and support services	2,030	Clothing and clothing accessories stores	-84		
Professional and technical services	1,682	Telecommunications	-82		
Food and beverage stores	1,216	Fabricated metal product manufacturing	-77		
Amusements, gambling, and recreation	1,089	Textile product mills	-74		
Educational services	1,087	Miscellaneous manufacturing	-27		
Merchant wholesalers, durable goods	1,081	Computer and electronic product manufacturing	-18		
Accommodation	925	Machinery manufacturing	-14		
Nonstore retailers	754	Printing and related support activities	-3		
Motor vehicle and parts dealers	748	Agriculture and forestry support activities	-3		
Federal Government	564	Air transportation	-1		
Miscellaneous store retailers	537	Mining, except oil and gas	-1		
Insurance carriers and related activities	524				
Securities, commodity contracts, investments	512				
Building material and garden supply stores	470				
Membership associations and organizations	439				
Repair and maintenance	390				
Real estate	389				
General merchandise stores	355				
Sporting goods, hobby, book and music stores	337				
Rental and leasing services	332				
Credit intermediation and related activities	326				
State Government	287				
Personal and laundry services	276				
Gasoline stations	275				
Electronics and appliance stores	256				
Specialty trade contractors	254				
Publishing industries, except Internet	232				
Merchant wholesalers, nondurable goods	230				
Furniture and home furnishings stores	220				
Warehousing and storage	208				
Food manufacturing	160				
Performing arts and spectator sports	154				
Electronic markets and agents and brokers	140				
Transit and ground passenger transportation	135				
Couriers and messengers	130				
Motion picture and sound recording industries	126				
Support activities for transportation	114				
Health and personal care stores	109				

Industries Projected to Gain or Lose Jobs at the Fastest Rate in Southern Maine Between 2002 and 2012					
Industries Expected to Gain Jobs by Ten Percent o	r More	Industries Expected to Lose Jobs			
Fishing, hunting and trapping	50.0%	Leather and allied product manufacturing	-48.7%		
Social assistance	44.8%	Textile mills	-33.7%		
Motion picture and sound recording industries	44.2%	Paper manufacturing	-22.3%		
Amusements, gambling, and recreation	43.9%	Plastics and rubber products manufacturing	-16.0%		
Securities, commodity contracts, investments	42.6%	Wood product manufacturing	-13.4%		
Scenic and sightseeing transportation	38.1%	Furniture and related product manufacturing	-11.7%		
Ambulatory health care services	36.1%	Textile product mills	-10.4%		
Nursing and residential care facilities	33.2%	Agriculture and forestry support activities	-6.8%		
Water transportation	27.8%	Telecommunications	-5.3%		
Electronic markets and agents and brokers	27.7%	Miscellaneous manufacturing	-4.7%		
Transit and ground passenger transportation	26.9%	Fabricated metal product manufacturing	-3.3%		
Educational services	26.8%	Clothing and clothing accessories stores	-2.8%		
Electronics and appliance stores	25.9%	Mining, except oil and gas	-2.1%		
Hospitals	25.1%	Machinery manufacturing	-1.1%		
Animal production	24.3%	Air transportation	-0.8%		
Rental and leasing services	23.9%	Computer and electronic product manufacturing	-0.5%		
Membership associations and organizations	23.2%	Printing and related support activities	-0.2%		
Merchant wholesalers, durable goods	23.1%				
Support activities for transportation	23.0%				
Administrative and support services	22.5%				
Funds, trusts, and other financial vehicles	22.2%				
Motor vehicle and parts dealers	22.0%				
Performing arts and spectator sports	22.0%				
Repair and maintenance	21.5%				
Miscellaneous store retailers	20.3%				
Building material and garden supply stores	19.8%				
Nonstore retailers	19.3%				
Real estate	19.1%				
Accommodation	18.3%				
Furniture and home furnishings stores	17.9%				
Food services and drinking places	17.8%				
Food and beverage stores	16.7%				
Publishing industries, except Internet	16.7%				
Professional and technical services	16.0%				
Couriers and messengers	14.7%				
Crop production	14.7%				
Gasoline stations	14.0%				
Sporting goods, hobby, book and music stores	13.4%				
Personal and laundry services	12.9%				
Beverage and tobacco product manufacturing	12.8%				
Warehousing and storage	12.2%				
Local Government	11.9%				

Occupational Employment 2002 and Projected 2012

Employment by Occupational Group in Southern Maine in 2002 and Projected 2012							
Occupational Cucus	Average Employment		Change in Employment		Average Annual Openings		
Occupational Group	2002	2012	Net	Percent	Growth	Replace- ment	Total
Total	259,243	298,175	38,932	15.0%	4,113	6,159	10,272
Management, Business and Financial Occupations	25,684	30,364	4,680	18.2%	469	462	931
Management Occupations	16,303	19,208	2,905	17.8%	291	300	591
Business and Financial Operations Occupations	9,381	11,156	1,775	18.9%	178	162	340
Professional and Related Occupations	49,291	60,478	11,187	22.7%	1,125	953	2,078
Computer and Mathematical Occupations	3,740	4,410	670	17.9%	68	50	118
Architecture and Engineering Occupations	4,883	5,246	363	7.4%	38	113	151
Life, Physical, and Social Science Occupations	1,626	2,006	380	23.4%	38	38	76
Community and Social Services Occupations	5,207	7,318	2,111	40.5%	211	100	311
Legal Occupations	2,052	2,314	262	12.8%	27	24	51
Education, Training, and Library Occupations	14,708	17,131	2,423	16.5%	243	311	554
Arts, Design, Entertainment, Sports, and Media Occupations	4,181	4,958	777	18.6%	80	79	159
Healthcare Practitioners and Technical Occupations	12,894	17,095	4,201	32.6%	420	238	658
Service Occupations	52,900	65,375	12,475	23.6%	1,248	1,529	2,777
Healthcare Support Occupations	6,901	9,488	2,587	37.5%	259	105	364
Protective Service Occupations	4,083	5,102	1,019	25.0%	102	117	219
Food Preparation and Serving Related Occupations	22,538	26,503	3,965	17.6%	397	891	1,288
Building and Grounds Cleaning and Maintenance Occupations	10,494	12,568	2,074	19.8%	207	211	418
Personal Care and Service Occupations	8,884	11,714	2,830	31.9%	283	205	488
Sales and Related Occupations	30,519	34,813	4,294	14.1%	436	965	1,401
Office and Administrative Support Occupations	41,378	43,386	2,008	4.9%	296	946	1,242
Farming, Fishing, and Forestry Occupations	1,020	1,164	144	14.1%	15	27	42
Construction and Extraction Occupations	13,761	14,882	1,121	8.1%	116	264	380
Installation, Maintenance, and Repair Occupations	10,726	12,676	1,950	18.2%	197	244	441
Production Occupations	17,449	16,943	-506	-2.9%	48	413	461
Transportation and Material Moving Occupations	16,515	18,094	1,579	9.6%	163	356	519

Details may not add to totals due to rounding.

Employment by Education/Training Requirement in Southern Maine in 2002 and Projected 2012										
Education/Training Requirement	Average Ei	nployment	Percent Emplo		Chan Emplo	ige in Syment	Average Annual Openings			
2 duction 11 aming 10 quit ement	2002	2012	2002	2012	Net	Percent	Growth	Replace- ment	Total	
Total	259,243	298,175	100.0%	100.0%	38,932	15.0%	4,113	6,159	10,272	
First Professional degree	4,462	5,398	1.7%	1.8%	936	21.0%	96	74	170	
Doctoral degree	1,367	1,837	0.5%	0.6%	470	34.4%	49	32	81	
Master's degree	4,127	5,366	1.6%	1.8%	1,239	30.0%	125	87	212	
Bachelor's degree plus work experience	12,893	15,306	5.0%	5.1%	2,413	18.7%	244	241	485	
Bachelor's degree	28,666	33,501	11.1%	11.2%	4,835	16.9%	487	563	1,050	
Associate degree	10,596	13,519	4.1%	4.5%	2,923	27.6%	297	206	503	
Postsecondary vocational award	11,319	13,471	4.4%	4.5%	2,152	19.0%	223	234	457	
Work experience in a related occupation	19,587	22,660	7.6%	7.6%	3,073	15.7%	314	404	718	
Long-term on-the-job training	19,841	22,167	7.7%	7.4%	2,326	11.7%	251	427	678	
Moderate-term on-the-job training	50,370	55,097	19.4%	18.5%	4,727	9.4%	591	1,036	1,627	
Short-term on-the-job training	96,015	109,853	37.0%	36.8%	13,838	14.4%	1,461	2,882	4,343	

Details may not add to totals due to rounding.

	Occupations with the Largest Projected Number of Annual Openings in Southern Maine Between 2002 and 2012									
SOC	Output		rage yment	Average	Annual O	penings	Education (Training Dequirement			
Code	Occupation	2002	2012	Growth	Replace- ment	Total	Education/Training Requirement			
41-2011	Cashiers	6,375	7,485	111	310	421	Short-term on-the-job training			
41-2031	Retail Salespersons	8,699	9,566	87	316	403	Short-term on-the-job training			
35-3031	Waiters and Waitresses	4,552	5,415	86	234	320	Short-term on-the-job training			
35-3021	Combined Food Preparation and Serving Workers, Including Fast Food	4,406	5,541	114	191	305	Short-term on-the-job training			
29-1111	Registered Nurses	4,698	6,265	157	98	255	Associate degree			
11-1021	General and Operations Managers	4,619	5,454	84	87	171	Bachelor's degree plus work experience			
37-2011	Janitors and Cleaners, Except Maids and Housekeeping Cleaners	4,111	4,796	69	78	147	Short-term on-the-job training			
43-9061	Office Clerks, General	4,991	5,333	34	111	145	Short-term on-the-job training			
41-1011	First-Line Supervisors/Managers of Retail Sales Workers	3,881	4,586	71	70	141	Work experience in a related occupation			
35-2021	Food Preparation Workers	2,362	2,918	56	84	140	Short-term on-the-job training			
39-9021	Personal and Home Care Aides	1,748	2,811	106	28	134	Short-term on-the-job training			
39-9011	Child Care Workers	2,684	3,277	59	73	132	Short-term on-the-job training			
37-2012	Maids and Housekeeping Cleaners	3,245	3,813	57	68	125	Short-term on-the-job training			
31-1011	Home Health Aides	1,868	2,753	89	25	114	Short-term on-the-job training			
53-3032	Truck Drivers, Heavy and Tractor-Trailer	3,751	4,281	53	61	114	Moderate-term on-the-job training			
l .	Landscaping and Groundskeeping Workers	2,237	2,870	63	49	112	Short-term on-the-job training			
	Customer Service Representatives	3,449	3,984	54	51	105	Moderate-term on-the-job training			
l	Social and Human Service Assistants	1,169	2,004	84	21	105	Moderate-term on-the-job training			
	Stock Clerks and Order Fillers	2,824		0.	105		Short-term on-the-job training			
1	Laborers and Freight, Stock, and Material Movers, Hand	3,081	3,104	2	101	103	Short-term on-the-job training			
1	Nursing Aides, Orderlies, and Attendants	2,791	3,441	65	37		Short-term on-the-job training			
41-4012	Sales Reps, Wholesale and Manufacturing, Except Technical & Scientific Products	2,227	2,646	42	59	1	Moderate-term on-the-job training			
43-3031	Bookkeeping, Accounting, and Auditing Clerks	3,892	4,068	18	73	91	Moderate-term on-the-job training			
	Teacher Assistants	2,770	3,133	36	54	90	Short-term on-the-job training			
47-2031	Carpenters	3,692	3,985	29	60	89	Long-term on-the-job training			
1	Receptionists and Information Clerks	1,663	2,121	46	41	87	Short-term on-the-job training			
l .	Cooks, Restaurant	1,774		30	55		Long-term on-the-job training			
	Maintenance and Repair Workers, General	2,010		1	39	80	Moderate-term on-the-job training			
	Automotive Service Technicians and Mechanics	1,619	1,952	33	43		Postsecondary vocational award			
25-2031	Secondary School Teachers, Except Special and Vocational	2,075		17	58	75	Bachelor's degree			
35-3022	Counter Attendants, Cafeteria, Food Concession, and Coffee Shop	808	984	18	53	71	Short-term on-the-job training			
43-6014	Secretaries, Except Legal, Medical, and Executive	3,701	3,581	0	71	71	Moderate-term on-the-job training			
43-1011	First-Line Supervisors/Managers of Office and Administrative Support Workers	2,341	2,487	15	50	65	Work experience in a related occupation			
41-3021	Insurance Sales Agents	2,382	2,427	5	57	62	Bachelor's degree			
35-9021	Dishwashers	1,457	1,573	12	49	61	Short-term on-the-job training			
39-5012	Hairdressers, Hairstylists, and Cosmetologists	1,664	1,956	29	32	61	Postsecondary vocational award			
1	Elementary School Teachers, Except Special Education	2,156	2,262	11	48	59	Bachelor's degree			
1	Bartenders	1,231		8	49	57	Short-term on-the-job training			
ĺ	Medical Assistants	635	1,088	45	12	57	Moderate-term on-the-job training			
43-3071		910	1,018	11	45		Short-term on-the-job training			

Occupations with the Largest Projected Net Job Growth in Southern Maine Between 2002 and 2012								
SOC	O	Ave Emplo	_	Net	Education/Proining Possirement			
Code	Occupation	2002	2012	Growth	Education/Training Requirement			
29-1111	Registered Nurses	4,698	6,265	1,567	Associate degree			
35-3021	Combined Food Preparation and Serving Workers, Including Fast Food	4,406	5,541	1,135	Short-term on-the-job training			
41-2011	Cashiers	6,375	7,485	1,110	Short-term on-the-job training			
39-9021	Personal and Home Care Aides			1,063	Short-term on-the-job training			
31-1011	Home Health Aides	1,868	2,753	885	Short-term on-the-job training			
11-2031	Retail Salespersons	8,699	9,566	867	Short-term on-the-job training			
5-3031	Waiters and Waitresses	4,552	5,415	863	Short-term on-the-job training			
1-1021	General and Operations Managers	4,619	5,454	835	Bachelor's degree plus work experience			
1-1093	Social and Human Service Assistants	1,169	2,004	835	Moderate-term on-the-job training			
1-1011	First-Line Supervisors/Managers of Retail Sales Workers	3,881	4,586	705	Work experience in a related occupation			
7-2011	Janitors and Cleaners, Except Maids and Housekeeping Cleaners	4,111	4,796	685	Short-term on-the-job training			
1-1012	Nursing Aides, Orderlies, and Attendants	2,791	3,441	650	Short-term on-the-job training			
7-3011	Landscaping and Groundskeeping Workers	2,237	2,870	633	Short-term on-the-job training			
9-9011	Child Care Workers	2,684	3,277	593	Short-term on-the-job training			
7-2012	Maids and Housekeeping Cleaners	3,245	3,813	568	Short-term on-the-job training			
5-2021	Food Preparation Workers	2,362	2,918	556	Short-term on-the-job training			
3-4051	Customer Service Representatives	3,449	3,984	535	Moderate-term on-the-job training			
3-3032	Truck Drivers, Heavy and Tractor-Trailer	3,751	4,281	530	Moderate-term on-the-job training			
3-4171	Receptionists and Information Clerks	1,663	2,121	458	Short-term on-the-job training			
1-9092	Medical Assistants	635	1,088	453	Moderate-term on-the-job training			
1-4012	Sales Reps, Wholesale and Manufacturing, Except Technical & Scientific Products	2,227	2,646	419	Moderate-term on-the-job training			
9-9042	Maintenance and Repair Workers, General	2,010	2,422	412	Moderate-term on-the-job training			
5-9041	Teacher Assistants	2,770	3,133	363	Short-term on-the-job training			
3-3033	Truck Drivers, Light or Delivery Services	1,895	2,252	357	Short-term on-the-job training			
3-9061	Office Clerks, General	4,991	5,333	342	Short-term on-the-job training			
9-3023	Automotive Service Technicians and Mechanics	1,619	1,952	333	Postsecondary vocational award			
3-3051	Police and Sheriff's Patrol Officers	799	1,109	310	Long-term on-the-job training			
5-2014	Cooks, Restaurant	1,774	2,075	301	Long-term on-the-job training			
7-2031	Carpenters	3,692	3,985	293	Long-term on-the-job training			
9-5012	Hairdressers, Hairstylists, and Cosmetologists	1,664	1,956	292	Postsecondary vocational award			
5-3021	Self-Enrichment Education Teachers	380	631	251	Work experience in a related occupation			
3-2011	Accountants and Auditors	1,359	1,601	242	Bachelor's degree			
3-2011	Fire Fighters	739	973	234	Long-term on-the-job training			
9-2071	Medical Records and Health Information Technicians	343	566	223	Associate degree			
3-2052	Personal Financial Advisors	391	613	222	Bachelor's degree			
5-1012	First-Line Supervisors/Managers of Food Preparation and Serving Workers	1,343	1,562	219	Work experience in a related occupation			
1-1023	Mental Health and Substance Abuse Social Workers	418	633	215	Master's degree			
1-1021	Child, Family, and School Social Workers	605	817	212	Bachelor's degree			
5-1051	Computer Systems Analysts	806	1,007	201	Bachelor's degree			
1-9111	Medical and Health Services Managers	512	710	198	Bachelor's degree plus work experience			

Occupations with the Fastest Projected Rate of Job Growth in Southern Maine Between 2002 and 2012									
soc	Occupation	Aver Emplo		Growth	Education/Training Requirement				
Code	-	2002	2012	Rate					
21-1093	Social and Human Service Assistants	1,169	2,004	71.4%	Moderate-term on-the-job training				
31-9092	Medical Assistants	635	1,088	71.3%	Moderate-term on-the-job training				
25-3021	Self-Enrichment Education Teachers	380	631	66.1%	Work experience in a related occupation				
29-2071	Medical Records and Health Information Technicians	343	566	65.0%	Associate degree				
29-1071	Physician Assistants	251	407	62,2%	Bachelor's degree				
39-9021	Personal and Home Care Aides	1,748	2,811	60.8%	Short-term on-the-job training				
31-2021	Physical Therapist Assistants	113	181	60.2%	Associate degree				
13-2052	Personal Financial Advisors	391	613	56.8%	Bachelor's degree				
31-9011	Massage Therapists	164	249	51.8%	Postsecondary vocational award				
21-1023	Mental Health and Substance Abuse Social Workers	418	633	51.4%	Master's degree				
29-2031	Cardiovascular Technologists and Technicians	79	118	49.4%	Associate degree				
19-9095	Manufactured Building and Mobile Home Installers	74	110	48.6%	Moderate-term on-the-job training				
29-1126	Respiratory Therapists	162	239	47.5%	Associate degree				
31-1011	Home Health Aides	1,868	2,753	47.4%	Short-term on-the-job training				
9-9031	Fitness Trainers and Aerobics Instructors	305	446	46.2%	Postsecondary vocational award				
7-3091	Interpreters and Translators	67	97	44.8%	Long-term on-the-job training				
9-3051	Motorboat Mechanics	150	216	44.0%	Long-term on-the-job training				
1-1022	Medical and Public Health Social Workers	243	348	43.2%	Bachelor's degree				
21-1015	Rehabilitation Counselors	415	590	42.2%	Master's degree				
9-2056	Veterinary Technologists and Technicians	190	270	42.1%	Associate degree				
9-9041	Residential Advisors	207	293	41.5%	Moderate-term on-the-job training				
1-9151	Social and Community Service Managers	408	577	41.4%	Bachelor's degree				
9-1021	First-Line Supervisors/Managers of Personal Service Workers	301	424	40.9%	Work experience in a related occupation				
5-1126	Philosophy and Religion Teachers, Postsecondary	54	76	40.7%	Doctoral degree				
9-3031	Clinical, Counseling, and School Psychologists	280	392	40.0%	Doctoral degree				
5-1081	Network Systems and Data Communications Analysts	186	260	39.8%	Bachelor's degree				
9-1123	Physical Therapists	395	550	39.2%	Master's degree				
3-3051	Police and Sheriff's Patrol Officers	799	1,109	38.8%	Long-term on-the-job training				
1-9111	Medical and Health Services Managers	512	710	38.7%	Bachelor's degree plus work experience				
3-4111	Interviewers, Except Eligibility and Loan	225	311	38.2%	Short-term on-the-job training				
9-2011	Medical and Clinical Laboratory Technologists	286	395	38,1%	Bachelor's degree				
7-3031	Public Relations Specialists	203	280	37.9%	Bachelor's degree				
5-1061	Database Administrators	131	180	37.4%	Bachelor's degree				
9-4091	Environmental Science and Protection Technicians, Including Health	83	114		Associate degree				
5-1121	Art, Drama, and Music Teachers, Postsecondary	75	103	37.3%	Master's degree				
7-2081	Environmental Engineers	86	118	37.2%	Bachelor's degree				
5-1042	Biological Science Teachers, Postsecondary	70	96		Doctoral degree				
3-3021	Detectives and Criminal Investigators	141	193		Work experience in a related occupation				
5-1194	Vocational Education Teachers, Postsecondary	128	175		Work experience in a related occupation				
1-9011	Demonstrators and Product Promoters	306	418		Moderate-term on-the-job training				

Occupations with fewer than 50 jobs in 2002 were excluded from this list.

Occupations with the Largest Projected Net Job Loss in Southern Maine Between 2002 and 2012										
SOC	Occupation	Ave Emplo		Net	Education/Training Requirement					
Code		2002	2012	Decline						
43-9022	Word Processors and Typists	403	230	-173	Moderate-term on-the-job training					
51-2092	Team Assemblers	1,278	1,137	-141	Moderate-term on-the-job training					
43-6014	Secretaries, Except Legal, Medical, and Executive	3,701	3,581	-120	Moderate-term on-the-job training					
43-5053	Postal Service Mail Sorters, Processors, and Processing Machine Operators	709	607	-102	Short-term on-the-job training					
43-5081	Stock Clerks and Order Fillers	2,824	2,740	-84	Short-term on-the-job training					
43-9021	Data Entry Keyers	627	544	-83	Moderate-term on-the-job training					
43-9011	Computer Operators	350	278	-72	Moderate-term on-the-job training					
51-2022	Electrical and Electronic Equipment Assemblers	441	385	-56	Short-term on-the-job training					
51-6042	Shoe Machine Operators and Tenders	90	36	-54	Moderate-term on-the-job training					
53-7063	Machine Feeders and Offbearers	410	366	-44	Short-term on-the-job training					
41-3041	Travel Agents	192	151	-41	Postsecondary vocational award					
51-7042	Woodworking Machine Setters, Operators, and Tenders, Except Sawing	261	220	-41	Moderate-term on-the-job training					
51-6031	Sewing Machine Operators	337	300	-37	Moderate-term on-the-job training					
43-4131	Loan Interviewers and Clerks	209	173	-36	Short-term on-the-job training					
51-6051	Sewers, Hand	114	78	-36	Short-term on-the-job training					
43-5052	Postal Service Mail Carriers	616	586	-30	Short-term on-the-job training					
51-7011	Cabinetmakers and Bench Carpenters	274	245	-29	Long-term on-the-job training					
51-6041	Shoe and Leather Workers and Repairers	61	32	-29	Long-term on-the-job training					
51-4072	Molding, Coremaking & Casting Machine Setters, Operators & Tenders, Metal & Plastic	153	125	-28	Moderate-term on-the-job training					
41-9041	Telemarketers	1,184	1,157	-27	Short-term on-the-job training					
51-5011	Bindery Workers	220	195	-25	Short-term on-the-job training					
51-6064	Textile Winding, Twisting, and Drawing Out Machine Setters, Operators, and	105	80	-25	Moderate-term on-the-job training					
51-4041	Machinists	992	968	-24	Long-term on-the-job training					
51-9198	HelpersProduction Workers	467	444	-23	Short-term on-the-job training					
51-4031	Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and Plastic	368	346	-22	Moderate-term on-the-job training					
43-9041	Insurance Claims and Policy Processing Clerks	910	888	-22	Moderate-term on-the-job training					
27-3010	Announcers	185	165	-20	Long-term on-the-job training					
51-7041	Sawing Machine Setters, Operators, and Tenders, Wood	142	122	-20	Moderate-term on-the-job training					
51~5022	Prepress Technicians and Workers	169	150	-19	Long-term on-the-job training					
51-4023	Rolling Machine Setters, Operators, and Tenders, Metal and Plastic	179	161	-18	Moderate-term on-the-job training					
51-4034	Lathe and Turning Machine Tool Setters, Operators, and Tenders, Metal and Plastic	129	113	-16	Moderate-term on-the-job training					
43-9051	Mail Clerks and Mail Machine Operators, Except Postal Service	406	391	-15	Short-term on-the-job training					
15-1021	Computer Programmers	467	453	-14	Bachelor's degree					
17-3013	Mechanical Drafters	138	124	-14	Postsecondary vocational award					
51-9023	Mixing and Blending Machine Setters, Operators, and Tenders	119	105	-14	Moderate-term on-the-job training					
43-9071	Office Machine Operators, Except Computer	142	128	-14	Short-term on-the-job training					
51-4111	Tool and Die Makers	129	116	-13	Long-term on-the-job training					
43-4071	File Clerks	314	302	-12	Short-term on-the-job training					
51-6063	Textile Knitting and Weaving Machine Setters, Operators, and Tenders	80	68	-12	Long-term on-the-job training					

SOC	Occupation	Ave	rage yment	Rate of	Education/Training Requirement
Code	Occupation	2002	2012	Decline	Education/11 anding Requirement
51-6042	Shoe Machine Operators and Tenders	90	36	-60.0%	Moderate-term on-the-job training
51-6041	Shoe and Leather Workers and Repairers	61	32	-47.5%	Long-term on-the-job training
43-9022	Word Processors and Typists	403	230	-42.9%	Moderate-term on-the-job training
51-6051	Sewers, Hand	114	78	-31.6%	Short-term on-the-job training
51-6064	Textile Winding, Twisting, and Drawing Out Machine Setters, Operators, and Tenders	105	80	-23.8%	Moderate-term on-the-job training
41-3041	Travel Agents	192	151	-21.4%	Postsecondary vocational award
43-9011	Computer Operators	350	278	-20.6%	Moderate-term on-the-job training
51-4072	Molding, Coremaking & Casting Machine Setters, Operators & Tenders, Metal & Plastic	153	125	-18.3%	Moderate-term on-the-job training
51-4194	Tool Grinders, Filers, and Sharpeners	55	45		Moderate-term on-the-job training
43-4131	Loan Interviewers and Clerks	209	173	-17.2%	Short-term on-the-job training
51-7042	Woodworking Machine Setters, Operators, and Tenders, Except Sawing	261	220	-15.7%	Moderate-term on-the-job training
51-6063	Textile Knitting and Weaving Machine Setters, Operators, and Tenders	80	68	-15.0%	Long-term on-the-job training
51-2021	Coil Winders, Tapers, and Finishers	75	64	-14.7%	Short-term on-the-job training
43-5053	Postal Service Mail Sorters, Processors, and Processing Machine Operators	709	607	-14.4%	Short-term on-the-job training
51-7041	Sawing Machine Setters, Operators, and Tenders, Wood	142	122	-14.1%	Moderate-term on-the-job training
43-9021	Data Entry Keyers	627	544	-13.2%	Moderate-term on-the-job training
51-2022	Electrical and Electronic Equipment Assemblers	441	385	-12.7%	Short-term on-the-job training
51-4034	Lathe and Turning Machine Tool Setters, Operators, and Tenders, Metal and Plastic	129	113	-12.4%	Moderate-term on-the-job training
51-9023	Mixing and Blending Machine Setters, Operators, and Tenders	119	105	-11.8%	Moderate-term on-the-job training
43-4021	Correspondence Clerks	60	53	-11.7%	Short-term on-the-job training
51-5011	Bindery Workers	220	195	-11.4%	Short-term on-the-job training
51-5022	Prepress Technicians and Workers	169	150	-11.2%	Long-term on-the-job training
51-2092	Team Assemblers	1,278	1,137	-11.0%	Moderate-term on-the-job training
51-6031	Sewing Machine Operators	337	300	-11.0%	Moderate-term on-the-job training
51-4035	Milling and Planing Machine Setters, Operators, and Tenders, Metal and Plastic	73	65		Moderate-term on-the-job training
27-3010	Announcers	185	165		Long-term on-the-job training
53-7063	Machine Feeders and Offbearers	410	366		Short-term on-the-job training
51-7011	Cabinetmakers and Bench Carpenters	274	245		Long-term on-the-job training
49-9044	Millwrights	108	97	-10.2%	Long-term on-the-job training
23-2093	Title Examiners, Abstractors, and Searchers	69	62	-10.1%	Moderate-term on-the-job training
17-3013	Mechanical Drafters	138	124	-10.1%	Postsecondary vocational award
51-4111	Tool and Die Makers	129	116	-10.1%	Long-term on-the-job training
51-4023	Rolling Machine Setters, Operators, and Tenders, Metal and Plastic	179	161	-10.1%	Moderate-term on-the-job training
43-9111	Statistical Assistants	70	63	-10.0%	Moderate-term on-the-job training
51-4032	Drilling and Boring Machine Tool Setters, Operators, and Tenders, Metal and Plastic	90	81	-10.0%	Moderate-term on-the-job training
43-9071	Office Machine Operators, Except Computer	142	128	-9.9%	Short-term on-the-job training
51-2023	Electromechanical Equipment Assemblers	106	96	-9.4%	Short-term on-the-job training
51-4033	Grinding/Lapping/Polishing&Buffing Machine Tool Setters/Operators/Tenders	121	110	-9.1%	Moderate-term on-the-job training
47-2043	Floor Sanders and Finishers	59	54	-8.5%	Moderate-term on-the-job training

Occupations with fewer than 50 jobs in 2002 were excluded from this list.

	La contraction of the contractio	Average Change in		Change in					
soc	Occupation	ł	rage yment		nge in oyment	Average	Annual O	penings	Education/Training Requirement
Code	O companion.	2002	2012	Net	Percent	Growth	Replace- ment	Total	Education/ I anning Requirement
	Total, All Occupations	259,243	298,175	38,932	15.0%	4,113	6,159	10,272	NA
11-0000	Management Occupations	16,303	19,208	2,905	17.8%	291	300	591	NA
11-1011	Chief Executives	916	1,054	138	15.1%	14	17	31	Bachelor's degree plus work experience
11-1021	General and Operations Managers	4,619	5,454	835	18.1%	84	87	171	Bachelor's degree plus work experience
11-1031	Legislators	143	161	18	12.6%	2	2	4	Bachelor's degree plus work experience
11-2011	Advertising and Promotions Managers	211	277	66	31.3%	7	4	11	Bachelor's degree plus work experience
11-2021	Marketing Managers	434	534	100	23.0%	10	8	18	Bachelor's degree plus work experience
11-2022	Sales Managers	520	649	129	24.8%	13	10	23	Bachelor's degree plus work experience
11-2031	Public Relations Managers	117	145	28	23.9%	3	2	5	Bachelor's degree plus work experience
11-3011	Administrative Services Managers	448	504	56	12.5%	6	9	15	Bachelor's degree plus work experience
11-3021	Computer and Information Systems Managers	498	624	126	25.3%	13	9	22	Bachelor's degree plus work experience
11-3031	Financial Managers	1,020	1,208	188	18.4%	19	15	34	Bachelor's degree plus work experience
11-3040	Human Resources Managers	368	435	67	18.2%	7	6	13	Bachelor's degree plus work experience
11-3051	Industrial Production Managers	259	262	3	1.2%	0	5	5	Bachelor's degree
11-3061	Purchasing Managers	193	213	20	10.4%	2	4	6	Bachelor's degree plus work experience
11-3071	Transportation, Storage, and Distribution Managers	210	247	37	17.6%	4	4	8	Work experience in a related occupation
11-9011	Farm, Ranch, and Other Agricultural Managers	60	80	20	33.3%	2	1	3	Bachelor's degree plus work experience
11-9012	Farmers and Ranchers	356	383	27	7.6%	3	2	5	Long-term on-the-job training
11-9021	Construction Managers	554	595	41	7.4%	4	10	14	Bachelor's degree
11-9031	Education Administrators, Preschool and Child Care Center/Program	71	83	12	16.9%	1	2	3	Bachelor's degree plus work experience
11-9032	Education Administrators, Elementary and Secondary School	448	499	51	11.4%	5	11	16	Bachelor's degree plus work experience
11-9033	Education Administrators, Postsecondary	192	236	44	22.9%	4	5	9	Bachelor's degree plus work experience
11-9039	Education Administrators, All Other	62	75	13	21.0%	1	2	3	Bachelor's degree plus work experience
11-9041	Engineering Managers	412	447	35	8.5%	4	8	12	Bachelor's degree plus work experience
11-9051	Food Service Managers	820	955	135	16.5%	14	13	27	Work experience in a related occupation
11-9061	Funeral Directors	66	81	15	22.7%	2	2	4	Associate degree
11-9081	Lodging Managers	277	298	21	7.6%	2	5:	7	Work experience in a related occupation
11-9111	Medical and Health Services Managers	512	710	198	38.7%	20	10	30	Bachelor's degree plus work experience
11-9121	Natural Sciences Managers	74	85	11	14.9%	1	1	2	Bachelor's degree plus work experience
11-9131	Postmasters and Mail Superintendents	65	61	-4	-6.2%	0	1	1	Work experience in a related occupation
11-9141	Property, Real Estate, and Community Association Managers	369	460	91	24.7%	9	7,	16	Bachelor's degree

soc	Occupation	1	rage syment		nge in oyment	Average	Annual C	penings	Education Trustains Description
Code	Оссирации	2002	2012	Net	Percent	Growth	Replace- ment	Total	Education/Training Requirement
11-9151	Social and Community Service Managers	408	577	169	41.4%	17	8	25	Bachelor's degree
11-9199	Managers, All Other	1,601	1,816	215	13.4%	22	31	53	Work experience in a related occupation
13-0000	Business and Financial Operations Occupations	9,381	11,156	1,775	18.9%	178	162	340	NA
13-1011	Agents and Business Managers of Artists, Performers, and Athletes	19	28	9	47.4%	1	0	1	Bachelor's degree plus work experience
13-1021	Purchasing Agents and Buyers, Farm Products	39	49	10	25.6%	1	1	2	Work experience in a related occupation
13-1022	Wholesale and Retail Buyers, Except Farm Products	464	500	36	7.8%	4	12	16	Work experience in a related occupation
13-1023	Purchasing Agents, Except Wholesale, Retail, and Farm Products	311	350	39	12.5%	4	8	12	Work experience in a related occupation
13-1032	Insurance Appraisers, Auto Damage	32	34	2	6.3%	0	0	0	Long-term on-the-job training
13-1041	Compliance Officers, Except Agriculture, Construction, Health & Safety & Transportation	223	262	39	17.5%	4	5	9	Long-term on-the-job training
13-1051	Cost Estimators	242	267	25	10.3%	3	5	8	Work experience in a related occupation
13-1061	Emergency Management Specialists	22	29	7	31.8%	1	1	2	Work experience in a related occupation
13-1071	Employment, Recruitment, and Placement Specialists	255	282	27	10.6%	3	4	7	Bachelor's degree
13-1072	Compensation, Benefits, and Job Analysis Specialists	170	214	44	25.9%	4	3	7	Bachelor's degree
13-1073	Training and Development Specialists	578	725	147	25.4%	15	9	24	Bachelor's degree
13-1111	Management Analysts	955	1,131	176	18.4%	18	13	31	Bachelor's degree plus work experience
13-1121	Meeting and Convention Planners	46	56	10	21.7%	1	1	2	Bachelor's degree
13-1199	Business Operations Specialists, All Other	1,382	1,814	432	31.3%	43	24	67	Bachelor's degree
13-2011	Accountants and Auditors	1,359	1,601	242	17.8%	24	26	50	Bachelor's degree
13-2021	Appraisers and Assessors of Real Estate	190	227	37	19.5%	4	4	8	Postsecondary vocational award
13-2031	Budget Analysts	81	95	14	17.3%	1	1	2	Bachelor's degree
13-2051	Financial Analysts	166	199	33	19.9%	3	2	5	Bachelor's degree
13-2052	Personal Financial Advisors	391	613	222	56.8%	22	5	27	Bachelor's degree
13-2053	Insurance Underwriters	473	501	28	5.9%	3	8	11	Bachelor's degree
13-2061	Financial Examiners	20	21	1	5.0%	0	1	1	Bachelor's degree
13-2071	Loan Counselors	21	22	1	4.8%	0	0	0	Bachelor's degree
13-2072	Loan Officers	285	323	38	13.3%	4	5	9	Bachelor's degree
13-2081	Tax Examiners, Collectors, and Revenue Agents	117	134	17	14.5%	2	3	5	Bachelor's degree
13-2082	Tax Preparers	116	133	17	14.7%	2	2	4	Moderate-term on-the-job training
13-2099	Financial Specialists, All Other	214	242	28	13.1%	3	4	7	Bachelor's degree
15-0000	Computer and Mathematical Occupations	3,740	4,410	670	17.9%	68	50	118	NA
15-1021	Computer Programmers	467	453	-14	-3.0%	0	11	11	Bachelor's degree

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soc	Occupation	I	rage yment		nge in oyment	Average	Annual C	penings	Education/Training Requirement
Code	Оссирации	2002	2012	Net	Percent	Growth	Replace- ment	Total	Education Framing Requirement
15-1031	Computer Software Engineers, Applications	621	710	89	14.3%	9	6	15	Bachelor's degree
15-1032	Computer Software Engineers, Systems Software	176	213	37	21.0%	4	2	6	Bachelor's degree
15-1041	Computer Support Specialists	781	889	108	13.8%	11	10	21	Associate degree
15-1051	Computer Systems Analysts	806	1,007	201	24.9%	20	9	29	Bachelor's degree
15-1061	Database Administrators	131	180	49	37.4%	5	1	6	Bachelor's degree
15-1071	Network and Computer Systems Administrators	348	429	81	23.3%	8	4	12	Bachelor's degree
15-1081	Network Systems and Data Communications Analysts	186	260	74	39.8%	7	2	9	Bachelor's degree
15-1099	Computer Specialists, All Other	100	136	36	36.0%	4	1	5	Associate degree
15-2031	Operations Research Analysts	51	52	1	2.0%	0	1	1	Master's degree
15-2041	Statisticians	21	24	3	14.3%	0	1	1	Master's degree
17-0000	Architecture and Engineering Occupations	4,883	5,246	363	7.4%	38	113	151	NA
17-1011	Architects, Except Landscape and Naval	243	293	50	20.6%	5	3	8	Bachelor's degree
17-1012	Landscape Architects	43	50	7	16.3%	1	1	2	Bachelor's degree
17-1021	Cartographers and Photogrammetrists	37	40	3	8.1%	0	1	1	Bachelor's degree
17-1022	Surveyors	119	122	3	2.5%	0	4	4	Bachelor's degree
17-2041	Chemical Engineers	104	111	7	6.7%	1	3	4	Bachelor's degree
17-2051	Civil Engineers	506	516	10	2.0%	1	8	9	Bachelor's degree
17-2061	Computer Hardware Engineers	10	10	0	0.0%	0	0	0	Bachelor's degree
17-2071	Electrical Engineers	292	293	1	0.3%	0	6	6	Bachelor's degree
17-2072	Electronics Engineers, Except Computer	164	179	15	9.1%	2	3	5	Bachelor's degree
17-2081	Environmental Engineers	86	118	32	37.2%	3	2	5	Bachelor's degree
17-2111	Health and Safety Engineers, Except Mining Safety Engineers and Inspectors	44	45	1	2.3%	0	1	1	Bachelor's degree
17-2112	Industrial Engineers	164	169	5	3.0%	1	4	5	Bachelor's degree
17-2121	Marine Engineers and Naval Architects	47	46	-1	-2.1%	0	2	2	Bachelor's degree
17-2131	Materials Engineers	24	23	-1	-4.2%	0	1	1	Bachelor's degree
17-2141	Mechanical Engineers	421	428	7	1.7%	1	12	13	Bachelor's degree
17-2161	Nuclear Engineers	227	254	27	11.9%	3	7	10	Bachelor's degree
17-2199	Engineers, All Other	236	264	28	11.9%	3	5	8	Bachelor's degree
17-3011	Architectural and Civil Drafters	288	294	6	2.1%	1	8	9	Postsecondary vocational award
17-3012	Electrical and Electronics Drafters	46	45	-1	-2.2%	0	1	1	Postsecondary vocational award
17-3013	Mechanical Drafters	138	124	-14	-10.1%	0	4	4	Postsecondary vocational award

soc	O	Aver Emplo	~ I		nge in oyment	Average	Annual O	penings	
Code	Occupation	2002	2012	Net	Percent	Growth	Replace- ment	Total	Education/Training Requirement
17-3022	Civil Engineering Technicians	134	140	6	4.5%	1	3	4	Associate degree
17-3023	Electrical and Electronic Engineering Technicians	351	391	40	11.4%	4	7	11	Associate degree
17-3025	Environmental Engineering Technicians	29	38	9	31.0%	1	1	2	Associate degree
17-3026	Industrial Engineering Technicians	87	86	-1	-1.1%	0	2	2	Associate degree
17-3027	Mechanical Engineering Technicians	40	38	-2	-5.0%	0	1	1	Associate degree
17-3031	Surveying and Mapping Technicians	163	200	37	22.7%	4	6	10	Moderate-term on-the-job training
17-3099	Drafters, Engineering, and Mapping Technicians, All Other	566	637	71	12.5%	7	14	21	Associate degree
19-0000	Life, Physical, and Social Science Occupations	1,626	2,006	380	23.4%	38	38	76	NA
19-1010	Agricultural and Food Scientists	53	63	10	18.9%	1	1	2	Bachelor's degree
19-1021	Biochemists and Biophysicists	27	28	1	3.7%	0	1	1	Doctoral degree
19-1022	Microbiologists	19	22	3	15.8%	0	1	1	Doctoral degree
19-1023	Zoologists and Wildlife Biologists	28	31	3	10.7%	0	1	1	Bachelor's degree
19-1031	Conservation Scientists	73	76	3	4.1%	0	2	2	Bachelor's degree
19-1032	Foresters	39	52	13	33.3%	1	1	2	Bachelor's degree
19-1042	Medical Scientists, Except Epidemiologists	27	35	8	29.6%	1	1	2	Doctoral degree
19-1099	Life Scientists, All Other	38	52	14	36.8%	1	1	2	Bachelor's degree
19-2012	Physicists	36	41	5	13.9%	1	1	2	Doctoral degree
19-2021	Atmospheric and Space Scientists	15	18	3	20.0%	0	1	1	Bachelor's degree
19-2031	Chemists	79	82	3	3.8%	0	3	3	Bachelor's degree
19-2032	Materials Scientists	13	16	3	23.1%	0	0	0	Bachelor's degree
19-2041	Environmental Scientists and Specialists, Including Health	154	203	49	31.8%	5	3	8	Master's degree
19-2042	Geoscientists, Except Hydrologists and Geographers	15	18	3	20.0%	0	0	0	Master's degree
19-2043	Hydrologists	24	30	6	25.0%	1	0	1	Master's degree
19-2099	Physical Scientists, All Other	26	27	1	3.8%	0	1	1	Bachelor's degree
19-3011	Economists	21	27	6	28.6%	1	1	2	Master's degree
19-3021	Market Research Analysts	103	122	19	18.4%	2	3	5	Master's degree
19-3022	Survey Researchers	12	14	2	16.7%	0	0	0	Master's degree
19-3031	Clinical, Counseling, and School Psychologists	280	392	112	40.0%	11	6	17	Doctoral degree
19-3032	Industrial-Organizational Psychologists	14	17	3	21.4%	0	0	0	Master's degree
19-3051	Urban and Regional Planners	34	43	9	26.5%	1	1	2	Master's degree
19-3099	Social Scientists and Related Workers, All Other	43	49	6	14.0%	1	1.	2	Master's degree

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soc	Occupation	Ave Emplo	· I		nge in oyment	Average	Annual O	penings	Education/Training Requirement
Code	оссирации	2002	2012	Net	Percent	Growth	Replace- ment	Total	Education/Training Requirement
19-4011	Agricultural and Food Science Technicians	27	28	1	3.7%	0	1	1	Associate degree
9-4021	Biological Technicians	138	167	29	21.0%	3	2	5	Associate degree
9-4031	Chemical Technicians	28	30	2	7.1%	0	1	1	Associate degree
9-4091	Environmental Science and Protection Technicians, Including Health	83	114	31	37.3%	3	2	5	Associate degree
9-4099	Life, Physical, and Social Science Technicians, All Other	122	133	11	9.0%	1	3	4	Associate degree
1-0000	Community and Social Services Occupations	5,207	7,318	2,111	40.5%	211	100	311	NA.
21-1011	Substance Abuse and Behavioral Disorder Counselors	170	210	40	23.5%	4	4	8	Master's degree
1-1012	Educational, Vocational, and School Counselors	380	400	20	5.3%	2	9	11	Master's degree
21-1013	Marriage and Family Therapists	17	23	6	35.3%	1	0	1	Master's degree
1-1014	Mental Health Counselors	302	405	103	34.1%	10	7	17	Master's degree
1-1015	Rehabilitation Counselors	415	590	175	42.2%	18	10	28	Master's degree
1-1021	Child, Family, and School Social Workers	605	817	212	35.0%	21	10	31	Bachelor's degree
1-1022	Medical and Public Health Social Workers	243	348	105	43.2%	11	4	15	Bachelor's degree
1-1023	Mental Health and Substance Abuse Social Workers	418	633	215	51.4%	22	7	29	Master's degree
1-1091	Health Educators	134	174	40	29.9%	4	2	6	Master's degree
1-1092	Probation Officers and Correctional Treatment Specialists	73	87	14	19.2%	1	1	2	Bachelor's degree
1-1093	Social and Human Service Assistants	1,169	2,004	835	71.4%	84	21	105	Moderate-term on-the-job training
1-2011	Clergy	855	1,025	170	19.9%	17	18	35	First Professional degree
21-2021	Directors, Religious Activities and Education	91	116	25	27.5%	3	1	4	Bachelor's degree
21-9099	Counselors, Social, and Religious Workers, All Other	335	486	151	45.1%	15	6	21	Bachelor's degree
23-0000	Legal Occupations	2,052	2,314	262	12.8%	27	24	51	NA
23-1011	Lawyers	1,338	1,499	161	12.0%	16	17	33	First Professional degree
23-1021	Administrative Law Judges, Adjudicators, and Hearing Officers	25	25	0	0.0%	0	0	0	Bachelor's degree plus work experience
23-1023	Judges, Magistrate Judges, and Magistrates	15	16	1	6.7%	0	0	0	Bachelor's degree plus work experience
23-2011	Paralegals and Legal Assistants	481	560	79	16.4%	8	4	12	Associate degree
23-2091	Court Reporters	43	57	14	32.6%	1	1	2	Postsecondary vocational award
23-2092	Law Clerks	33	34	1	3.0%	0	0	0	Bachelor's degree
23-2093	Title Examiners, Abstractors, and Searchers	69	62	-7	-10.1%	0	1	1	Moderate-term on-the-job training
23-9099	Legal and Related Workers, All Other	41	54	13	31.7%	1	0	1	Bachelor's degree
25-0000	Education, Training, and Library Occupations	14,708	17,131	2,423	16.5%	243	311	554	NA
25-1011	Business Teachers, Postsecondary	135	179	44	32.6%	4	3	7	Master's degree

soc	Occupation	Avei Emplo	rage yment		nge in oyment	Average	Annual C	penings	Education/Training Decuirement
Code	Оссирации	2002	2012	Net	Percent	Growth	Replace- ment	Total	Education/Training Requirement
25-1021	Computer Science Teachers, Postsecondary	66	84	18	27.3%	2	2	4	Master's degree
25-1022	Mathematical Science Teachers, Postsecondary	89	116	27	30.3%	3	2	5	Master's degree
25-1032	Engineering Teachers, Postsecondary	50	68	18	36.0%	2	1	3	Doctoral degree
25-1042	Biological Science Teachers, Postsecondary	70	96	26	37.1%	3	2	5	Doctoral degree
25-1043	Forestry and Conservation Science Teachers, Postsecondary	16	21	5	31.3%	1	0	1	Doctoral degree
25-1051	Atmospheric, Earth, Marine, and Space Sciences Teachers, Postsecondary	46	61	15	32.6%	2	1	3	Doctoral degree
25-1052	Chemistry Teachers, Postsecondary	29	40	11	37.9%	1	1	2	Doctoral degree
25-1054	Physics Teachers, Postsecondary	28	38	10	35.7%	1	1	2	Doctoral degree
25-1061	Anthropology and Archeology Teachers, Postsecondary	10	14	4	40.0%	0	0	0	Doctoral degree
25-1062	Area, Ethnic, and Cultural Studies Teachers, Postsecondary	16	21	5	31.3%	1	0	1	Doctoral degree
25-1063	Economics Teachers, Postsecondary	21	30	9	42.9%	1	1	2	Doctoral degree
25-1065	Political Science Teachers, Postsecondary	32	44	12	37.5%	1	1	2	Doctoral degree
25-1066	Psychology Teachers, Postsecondary	44	60	16	36.4%	2	1	3	Doctoral degree
25-1067	Sociology Teachers, Postsecondary	25	33	8	32.0%	1	1	2	Doctoral degree
25-1071	Health Specialties Teachers, Postsecondary	168	222	54	32.1%	5	4	9	Master's degree
25-1072	Nursing Instructors and Teachers, Postsecondary	60	78	18	30.0%	2	1	3	Doctoral degree
25-1081	Education Teachers, Postsecondary	134	182	48	35.8%	5	3	8	Doctoral degree
25-1111	Criminal Justice and Law Enforcement Teachers, Postsecondary	11	15	4	36.4%	0	0	0	Doctoral degree
25-1112	Law Teachers, Postsecondary	16	22	6	37.5%	1	0	1	First Professional degree
25-1121	Art, Drama, and Music Teachers, Postsecondary	75	103	28	37.3%	3	2	5	Master's degree
25-1122	Communications Teachers, Postsecondary	21	28	7	33.3%	1	1	2	Doctoral degree
25-1123	English Language and Literature Teachers, Postsecondary	130	172	42	32.3%	4	3	7	Master's degree
25-1124	Foreign Language and Literature Teachers, Postsecondary	30	41	11	36.7%	1	1	2	Master's degree
25-1125	History Teachers, Postsecondary	33	46	13	39.4%	1	1	2	Doctoral degree
25-1126	Philosophy and Religion Teachers, Postsecondary	54	76	22	40.7%	2	1	3	Doctoral degree
25-1191	Graduate Teaching Assistants	324	431	107	33.0%	11	7	18	Bachelor's degree
25-1193	Recreation and Fitness Studies Teachers, Postsecondary	39	53	14	35.9%	1	1	2	Master's degree
25-1194	Vocational Education Teachers, Postsecondary	128	175	47	36.7%	5	3	8	Work experience in a related occupation
25-1199	Postsecondary Teachers, All Other	220	290	70	31.8%	7	5	12	Doctoral degree
25-2011	Preschool Teachers, Except Special Education	757	908	151	19.9%	15	9	24	Postsecondary vocational award
25-2012	Kindergarten Teachers, Except Special Education	397	465	68	17.1%	7	5	12	Bachelor's degree

SOC	Occupation	Average Change Employment Employm		-	Average Annual Openings				
Code	Оссирации	2002	2012	Net	Percent	Growth	Replace- ment	Total	Education/Training Requirement
25-2021	Elementary School Teachers, Except Special Education	2,156	2,262	106	4.9%	11	48	59	Bachelor's degree
25-2022	Middle School Teachers, Except Special and Vocational Education	1,227	1,220	-7	-0.6%	0	27	27	Bachelor's degree
25-2023	Vocational Education Teachers, Middle School	28	27	-1	-3.6%	0	1	1	Bachelor's degree plus work experience
25-2031	Secondary School Teachers, Except Special and Vocational Education	2,075	2,241	166	8.0%	17	58	75	Bachelor's degree
25-2032	Vocational Education Teachers, Secondary School	90	90	0	0.0%	0	3	3	Bachelor's degree plus work experience
25-2041	Special Education Teachers, Preschool, Kindergarten, and Elementary School	470	562	92	19.6%	9	11	20	Bachelor's degree
25-2042	Special Education Teachers, Middle School	184	221	37	20.1%	4	4	8	Bachelor's degree
25-2043	Special Education Teachers, Secondary School	235	280	45	19.1%	5	6	11	Bachelor's degree
25-3011	Adult Literacy, Remedial Education, and GED Teachers and Instructors	57	70	13	22.8%	1	1	2	Bachelor's degree
25-3021	Self-Enrichment Education Teachers	380	631	251	66.1%	25	5	30	Work experience in a related occupation
25-3999	Teachers, Primary, Secondary, and Adult, All Other	957	1,239	282	29.5%	28	12	40	Bachelor's degree
25-4010	Archivists, Curators, and Museum Technicians	52	60	8	15.4%	1	. 1	2	Master's degree
25-4021	Librarians	232	252	20	8.6%	2	6	8	Master's degree
25-4031	Library Technicians	299	351	52	17.4%	5	11	16	Short-term on-the-job training
25-9011	Audio-Visual Collections Specialists	10	12	2	20.0%	0	0	0	Moderate-term on-the-job training
25-9021	Farm and Home Management Advisors	31	32	. 1	3.2%	0	1	1	Bachelor's degree
25-9031	Instructional Coordinators	93	121	28	30.1%	3	1	4	Master's degree
25-9041	Teacher Assistants	2,770	3,133	363	13.1%	36	54	90	Short-term on-the-job training
25-9199	Library, Museum, Training, and Other Education Workers, All Other	25	32	7	28.0%	1	0	1	Bachelor's degree
27-0000	Arts, Design, Entertainment, Sports, and Media Occupations	4,181	4,958	777	18.6%	80	79	159	NA
27-1011	Art Directors	37	49	12	32.4%	1	1	2	Bachelor's degree plus work experience
27-1013	Fine Artists, Including Painters, Sculptors, and Illustrators	318	358	40	12.6%	4	7	11	Long-term on-the-job training
27-1014	Multi-Media Artists and Animators	197	201	4	2.0%	0	4	4	Bachelor's degree
27-1021	Commercial and Industrial Designers	58	54	-4	-6.9%	0	1	1	Bachelor's degree
27-1023	Floral Designers	217	254	37	17.1%	4	3	7	Moderate-term on-the-job training
27-1024	Graphic Designers	301	358	57	18.9%	6	4	10	Bachelor's degree
27-1025	Interior Designers	78	91	13	16.7%	1	1	2	Bachelor's degree
27-1026	Merchandise Displayers and Window Trimmers	116	156	40	34.5%	4	2	6	Moderate-term on-the-job training
27-1027	Set and Exhibit Designers	32	32	0	0.0%	0	0	0	Bachelor's degree
27-1099	Art and Design Workers, All Other	79	102	23	29.1%	2	1	3	Bachelor's degree
27-2011	Actors	47	54	7	14.9%	1	1	2	Long-term on-the-job training

soc	Occupation	Average Change Employment Employm		~	Average Annual Openings			1	
Code	Occupation .	2002	2012	Net	Percent	Growth	Replace- ment	Total	Education/Training Requirement
27-2012	Producers and Directors	119	137	18	15.1%	2	2	4	Bachelor's degree plus work experience
27-2021	Athletes and Sports Competitors	94	117	23	24.5%	2	2	4	Long-term on-the-job training
27-2022	Coaches and Scouts	360	438	78	21.7%	8	7	15	Long-term on-the-job training
27-2023	Umpires, Referees, and Other Sports Officials	34	52	18	52.9%	2	1	3	Long-term on-the-job training
27-2041	Music Directors and Composers	86	105	19	22.1%	2	2	4	Bachelor's degree plus work experience
27-2042	Musicians and Singers	281	351	70	24.9%	7	6	13	Long-term on-the-job training
27-2099	Entertainers and Performers, Sports and Related Workers, All Other	40	47	7	17.5%	1	1	2	Long-term on-the-job training
27-3010	Announcers	185	165	-20	-10.8%	0	5	5	Long-term on-the-job training
27-3020	News Analysts, Reporters and Correspondents	150	171	21	14.0%	2	4	6	Bachelor's degree plus work experience
27-3031	Public Relations Specialists	203	280	77	37.9%	8	3	11	Bachelor's degree
27-3041	Editors	231	264	33	14.3%	3	6	9	Bachelor's degree
27-3042	Technical Writers	58	69	11	19.0%	1	2	3	Bachelor's degree
27-3043	Writers and Authors	294	357	63	21.4%	6	5	11	Bachelor's degree
27-3091	Interpreters and Translators	67	97	30	44.8%	3	1	4	Long-term on-the-job training
27-3099	Media and Communication Workers, All Other	78	90	12	15.4%	1	1	2	Long-term on-the-job training
27-4011	Audio and Video Equipment Technicians	20	28	8	40.0%	1	1	2	Long-term on-the-job training
27-4012	Broadcast Technicians	80	90	10	12.5%	1	2	3	Associate degree
27-4014	Sound Engineering Technicians	17	18	1	5.9%	0	0	0	Postsecondary vocational award
27-4021	Photographers	172	211	39	22.7%	4	4	8	Long-term on-the-job training
27-4031	Camera Operators, Television, Video, and Motion Picture	47	51	4	8.5%	0	1	1	Moderate-term on-the-job training
27-4032	Film and Video Editors	50	65	15	30.0%	2	1	3	Bachelor's degree
27-4099	Media and Communication Equipment Workers, All Other	24	31	7	29.2%	1	1	2	Moderate-term on-the-job training
29-0000	Healthcare Practitioners and Technical Occupations	12,894	17,095	4,201	32.6%	420	238	658	NA
29-1011	Chiropractors	104	138	34	32.7%	3	2	5	First Professional degree
29-1020	Dentists	260	266	6	2.3%	1	4	5	First Professional degree
29-1031	Dietitians and Nutritionists	87	112	25	28.7%	3	2	5	Bachelor's degree
29-1041	Optometrists	64	86	22	34.4%	2	2	4	First Professional degree
29-1051	Pharmacists	333	444	111	33.3%	11	7	18	First Professional degree
29-1061	Anesthesiologists	53	69	16	30.2%	2	1	3	First Professional degree
29-1062	Family and General Practitioners	339	435	96	28.3%	10	5	15	First Professional degree
29-1063	Internists, General	123	156	33	26.8%	3	2	5	First Professional degree

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soc	Occupation	Average Chang Employment Employ		-	Average	Annual O	penings	Education/Training Requirement	
Code		2002	2012	Net	Percent	Growth	Replace- ment	Total	Education/Training Requirement
29-1064	Obstetricians and Gynecologists	58	74	16	27.6%	2	1	3	First Professional degree
29-1065	Pediatricians, General	60	77	17	28.3%	2	1	3	First Professional degree
29-1066	Psychiatrists	69	89	20	29.0%	2	1	3	First Professional degree
9-1067	Surgeons	195	252	57	29.2%	6	3	9	First Professional degree
9-1069	Physicians and Surgeons, All Other	390	488	98	25.1%	10	5	15	First Professional degree
9-1071	Physician Assistants	251	407	156	62.2%	16	4	20	Bachelor's degree
9-1081	Podiatrists	43	58	15	34.9%	2	1	3	First Professional degree
9-1111	Registered Nurses	4,698	6,265	1,567	33.4%	157	98	255	Associate degree
9-1121	Audiologists	19	26	7	36.8%	1	1	2	Master's degree
9-1122	Occupational Therapists	217	285	68	31.3%	7	3	10	Bachelor's degree
9-1123	Physical Therapists	395	550	155	39.2%	16	4	20	Master's degree
9-1124	Radiation Therapists	22	30	8	36.4%	1	1	2	Associate degree
9-1125	Recreational Therapists	61	72	11	18.0%	1	2	3	Bachelor's degree
9-1126	Respiratory Therapists	162	239	77	47.5%	8	5	13	Associate degree
9-1127	Speech-Language Pathologists	258	331	73	28.3%	7	6	13	Master's degree
9-1131	Veterinarians	162	220	58	35.8%	6	4	10	First Professional degree
9-1199	Health Diagnosing and Treating Practitioners, All Other	52	64	12	23.1%	1	1	2	Bachelor's degree
9-2011	Medical and Clinical Laboratory Technologists	286	395	109	38.1%	11	8	19	Bachelor's degree
9-2012	Medical and Clinical Laboratory Technicians	232	307	75	32.3%	8	6	14	Associate degree
9-2021	Dental Hygienists	427	582	155	36.3%	16	4	20	Associate degree
9-2031	Cardiovascular Technologists and Technicians	79	118	39	49.4%	4	2	6	Associate degree
9-2032	Diagnostic Medical Sonographers	58	76	18	31.0%	2	1	3	Associate degree
9-2033	Nuclear Medicine Technologists	24	32	8	33.3%	1	0	1	Associate degree
9-2034	Radiologic Technologists and Technicians	313	408	95	30.4%	10	6	16	Associate degree
9-2041	Emergency Medical Technicians and Paramedics	593	745	152	25.6%	15	7	22	Postsecondary vocational award
9-2051	Dietetic Technicians	54	69	15	27.8%	2	1	3	Moderate-term on-the-job training
9-2052	Pharmacy Technicians	388	521	133	34.3%	13	5	18	Moderate-term on-the-job training
9-2053	Psychiatric Technicians	99	122	23	23.2%	2	1	3	Moderate-term on-the-job training
9-2054	Respiratory Therapy Technicians	20	30	10	50.0%	1	0	1	Postsecondary vocational award
9-2055	Surgical Technologists	130	177	47	36.2%	5	2	7	Postsecondary vocational award
9-2056	Veterinary Technologists and Technicians	190	270	80	42.1%	8	3	11	Associate degree

soc	Occupation	Average Employment		Change in Employment		Average Annual Openings			
Code		2002	2012	Net	Percent	Growth	Replace- ment	Total	Education/Training Requirement
29-2061	Licensed Practical and Licensed Vocational Nurses	822	989	167	20.3%	17	18	35	Postsecondary vocational award
29-2071	Medical Records and Health Information Technicians	343	566	223	65.0%	22	5	27	Associate degree
29-2081	Opticians, Dispensing	57	76	19	33.3%	2	1	3	Long-term on-the-job training
29-2091	Orthotists and Prosthetists	10	11	1	10.0%	0	0	0	Bachelor's degree
29-9010	Occupational Health and Safety Specialists and Technicians	95	116	21	22.1%	2	2	4	Bachelor's degree
29-9091	Athletic Trainers	20	27	7	35.0%	1	0	I	Bachelor's degree
29-9199	Health Professionals and Technicians, All Other	179	225	46	25.7%	5	3	8	Postsecondary vocational award
31-0000	Healthcare Support Occupations	6,901	9,488	2,587	37.5%	259	105	364	NA
31-1011	Home Health Aides	1,868	2,753	885	47.4%	89	25	114	Short-term on-the-job training
31-1012	Nursing Aides, Orderlies, and Attendants	2,791	3,441	650	23.3%	65	37	102	Short-term on-the-job training
31-1013	Psychiatric Aides	121	153	32	26.4%	3	2	5	Short-term on-the-job training
31-2011	Occupational Therapist Assistants	34	45	11	32.4%	1	0	1	Associate degree
31-2012	Occupational Therapist Aides	26	38	12	46.2%	1	0	1	Short-term on-the-job training
31-2021	Physical Therapist Assistants	113	181	68	60.2%	7	2	9	Associate degree
31-2022	Physical Therapist Aides	45	69	24	53.3%	2	1	3	Short-term on-the-job training
31-9011	Massage Therapists	164	249	85	51.8%	9	3	12	Postsecondary vocational award
31-9091	Dental Assistants	405	550	145	35.8%	15	11	26	Moderate-term on-the-job training
31-9092	Medical Assistants	635	1,088	453	71.3%	45	12	57	Moderate-term on-the-job training
31-9093	Medical Equipment Preparers	69	85	16	23.2%	2	1	3	Short-term on-the-job training
31-9094	Medical Transcriptionists	262	345	83	31.7%	8	5	13	Postsecondary vocational award
31-9095	Pharmacy Aides	30	33	3	10.0%	0	1	1	Short-term on-the-job training
31-9096	Veterinary Assistants and Laboratory Animal Caretakers	157	207	50	31.8%	5	3	8	Short-term on-the-job training
31-9099	Healthcare Support Workers, All Other	181	251	70	38.7%	7	3	10	Short-term on-the-job training
33-0000	Protective Service Occupations	4,083	5,102	1,019	25.0%	102	117	219	NA
33-1011	First-Line Supervisors/Managers of Correctional Officers	20	25	5	25.0%	1	. 1	2	Work experience in a related occupation
33-1012	First-Line Supervisors/Managers of Police and Detectives	145	183	38	26.2%	4	5	9	Work experience in a related occupation
33-1021	First-Line Supervisors/Managers of Fire Fighting and Prevention Workers	64	84	20	31.3%	2	3	5	Work experience in a related occupation
33-1099	First-Line Supervisors/Managers, Protective Service Workers, All Other	74	80	6	8.1%	1	2	3	Work experience in a related occupation
33-2011	Fire Fighters	739	973	234	31.7%	23	21	44	Long-term on-the-job training
33-2021	Fire Inspectors and Investigators	12	13	1	8.3%	0	0	0	Work experience in a related occupation
33-2022	Forest Fire Inspectors and Prevention Specialists	12	13	1	8.3%	0	0	0	Work experience in a related occupation

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soc	Occupation	ı	rage yment		nge in oyment	Average	Annual C	penings	Education/Training Boundary
Code	Оссирации	2002	2012	Net	Percent	Growth	Replace- ment	Total	Education/Training Requirement
33-3011	Bailiffs	18	22	4	22.2%	0	0	0	Moderate-term on-the-job training
33-3012	Correctional Officers and Jailers	411	501	90	21.9%	9	9	18	Moderate-term on-the-job training
33-3021	Detectives and Criminal Investigators	141	193	52	36.9%	5	4	9	Work experience in a related occupation
33-3031	Fish and Game Wardens	23	24	1	4.3%	, 0	1	1	Long-term on-the-job training
33-3041	Parking Enforcement Workers	19	23	4	21.1%	0	0	0	Short-term on-the-job training
33-3051	Police and Sheriffs Patrol Officers	799	1,109	310	38.8%	31	21	52	Long-term on-the-job training
33-9011	Animal Control Workers	29	35	6	20.7%	1	2	3	Moderate-term on-the-job training
33-9021	Private Detectives and Investigators	86	98	12	14.0%	1	2	3	Work experience in a related occupation
33-9032	Security Guards	1,055	1,190	135	12.8%	14	23	37	Short-term on-the-job training
33-9091	Crossing Guards	174	228	54	31.0%	5	6	11	Short-term on-the-job training
33-9099	Protective Service Workers, All Other	255	298	43	16.9%	4	18	22	Short-term on-the-job training
35-0000	Food Preparation and Serving Related Occupations	22,538	26,503	3,965	17.6%	397	891	1,288	NA
35-1011	Chefs and Head Cooks	426	506	80	18.8%	8	13	21	Work experience in a related occupation
35-1012	First-Line Supervisors/Managers of Food Preparation and Serving Workers	1,343	1,562	219	16.3%	22	32	54	Work experience in a related occupation
35-2011	Cooks, Fast Food	865	935	70	8.1%	7	27	34	Short-term on-the-job training
35-2012	Cooks, Institution and Cafeteria	819	834	15	1.8%	2	25	27	Moderate-term on-the-job training
35-2014	Cooks, Restaurant	1,774	2,075	301	17.0%	30	55	85	Long-term on-the-job training
35-2015	Cooks, Short Order	736	808	72	9.8%	7	23	30	Short-term on-the-job training
35-2021	Food Preparation Workers	2,362	2,918	556	23.5%	56	84	140	Short-term on-the-job training
35-3011	Bartenders	1,231	1,311	80	6.5%	8	49	57	Short-term on-the-job training
35-3021	Combined Food Preparation and Serving Workers, Including Fast Food	4,406	5,541	1,135	25.8%	114	191	305	Short-term on-the-job training
35-3022	Counter Attendants, Cafeteria, Food Concession, and Coffee Shop	808	984	176	21.8%	18	53	71	Short-term on-the-job training
35-3031	Waiters and Waitresses	4,552	5,415	863	19.0%	86	234	320	Short-term on-the-job training
35-3041	Food Servers, Nonrestaurant	380	419	39	10.3%	4	13	17	Short-term on-the-job training
35-9011	Dining Room and Cafeteria Attendants and Bartender Helpers	646	757	111	17.2%	11	22	33	Short-term on-the-job training
35-9021	Dishwashers	1,457	1,573	116	8.0%	12	49	61	Short-term on-the-job training
35-9031	Hosts and Hostesses, Restaurant, Lounge, and Coffee Shop	694	822	128	18.4%	13	22	35	Short-term on-the-job training
35-9099	Food Preparation and Serving Related Workers, All Other	36	40	4	11.1%	0	1	1	Short-term on-the-job training
37-0000	Building and Grounds Cleaning and Maintenance Occupations	10,494	12,568	2,074	19.8%	207	211	418	NA
37-1011	First-Line Supervisors/Managers of Housekeeping and Janitorial Workers	390	457	67	17.2%	7	9	16	Work experience in a related occupation
37-1012	First-Line Supervisors/Managers of Landscaping, Lawn Service & Groundskeeping Workers	314	401	87	27.7%	9	3	12	Work experience in a related occupation

soc	Occupation	1	rage yment		nge in oyment	Average	Annual C	penings	
Code		2002	2012	Net	Percent	Growth	Replace- ment	Total	Education/Training Requirement
37-2011	Janitors and Cleaners, Except Maids and Housekeeping Cleaners	4,111	4,796	685	16.7%	69	78	147	Short-term on-the-job training
37-2012	Maids and Housekeeping Cleaners	3,245	3,813	568	17.5%	57	68	125	Short-term on-the-job training
37-2021	Pest Control Workers	55	64	9	16.4%	1	1	2	Moderate-term on-the-job training
37-3011	Landscaping and Groundskeeping Workers	2,237	2,870	633	28.3%	63	49	112	Short-term on-the-job training
37-3012	Pesticide Handlers, Sprayers, and Applicators, Vegetation	23	26	3	13.0%	0	1	1	Moderate-term on-the-job training
37-3013	Tree Trimmers and Pruners	64	75	11	17.2%	1	1	2	Short-term on-the-job training
37-9099	Building and Grounds Cleaning and Maintenance Workers, All Other	55	66	11	20.0%	1	1	2	Short-term on-the-job training
39-0000	Personal Care and Service Occupations	8,884	11,714	2,830	31.9%	283	205	488	NA
39-1021	First-Line Supervisors/Managers of Personal Service Workers	301	424	123	40.9%	12	8	20	Work experience in a related occupation
39-2011	Animal Trainers	18	17	-1	-5.6%	0	0	0	Moderate-term on-the-job training
39-2021	Nonfarm Animal Caretakers	137	182	45	32.8%	5	3	8	Short-term on-the-job training
39-3012	Gaming and Sports Book Writers and Runners	45	54	9	20.0%	1	1	2	Postsecondary vocational award
39-3021	Motion Picture Projectionists	36	42	6	16.7%	1	2	3	Short-term on-the-job training
39-3031	Ushers, Lobby Attendants, and Ticket Takers	79	104	25	31.6%	3	5	8	Short-term on-the-job training
39-3091	Amusement and Recreation Attendants	366	491	125	34.2%	13	11	24	Short-term on-the-job training
39-3199	Gaming Workers, All Other	56	61	5	8.9%	1	2	3	Moderate-term on-the-job training
39-4021	Funeral Attendants	56	74	18	32.1%	2	1	3	Short-term on-the-job training
39-5011	Barbers	201	218	17	8.5%	2	6	8	Postsecondary vocational award
39-5012	Hairdressers, Hairstylists, and Cosmetologists	1,664	1,956	292	17.5%	29	32	61	Postsecondary vocational award
39-5092	Manicurists and Pedicurists	11	14	3	27.3%	0	0	0	Postsecondary vocational award
39-5093	Shampooers	32	36	4	12.5%	0	1	1	Short-term on-the-job training
39-5094	Skin Care Specialists	58	71	13	22.4%	1	1	2	Postsecondary vocational award
39-6011	Baggage Porters and Bellhops	52	58	6	11.5%	1	1	2	Short-term on-the-job training
39-6012	Concierges	12	14	2	16.7%	0	0	0	Moderate-term on-the-job training
39-6021	Tour Guides and Escorts	101	134	33	32.7%	3	3	6	Moderate-term on-the-job training
39-9011	Child Care Workers	2,684	3,277	593	22.1%	59	73	132	Short-term on-the-job training
39-9021	Personal and Home Care Aides	1,748	2,811	1,063	60.8%	106	28	134	Short-term on-the-job training
39-9031	Fitness Trainers and Aerobics Instructors	305	446	141	46.2%	14	7	21	Postsecondary vocational award
39-9032	Recreation Workers	398	532	134	33.7%	13	9	22	Bachelor's degree
39-9041	Residential Advisors	207	293	86	41.5%	9	4	13	Moderate-term on-the-job training
39-9099	Personal Care and Service Workers, All Other	257	330	73	28.4%	7	6	13	Short-term on-the-job training

soc	Occupation	Ave Emplo	rage yment		nge in oyment	Average Annual Opening		penings	Education/Technical Description
Code	Occupation	2002	2012	Net	Percent	Growth	Replace- ment	Total	Education/Training Requirement
41-0000	Sales and Related Occupations	30,519	34,813	4,294	14.1%	436	965	1,401	NA
41-1011	First-Line Supervisors/Managers of Retail Sales Workers	3,881	4,586	705	18.2%	71	70	141	Work experience in a related occupation
41-1012	First-Line Supervisors/Managers of Non-Retail Sales Workers	740	896	156	21.1%	16	14	30	Work experience in a related occupation
41-2011	Cashiers	6,375	7,485	1,110	17.4%	111	310	421	Short-term on-the-job training
41-2021	Counter and Rental Clerks	678	844	166	24.5%	17	26	43	Short-term on-the-job training
41-2022	Parts Salespersons	559	585	26	4.7%	3	16	19	Moderate-term on-the-job training
41-2031	Retail Salespersons	8,699	9,566	867	10.0%	87	316	403	Short-term on-the-job training
41-3011	Advertising Sales Agents	323	374	51	15.8%	5	6	11	Moderate-term on-the-job training
41-3021	Insurance Sales Agents	2,382	2,427	45	1.9%	5	57	62	Bachelor's degree
41-3031	Securities, Commodities, and Financial Services Sales Agents	393	513	120	30.5%	12	5	17	Bachelor's degree
41-3041	Travel Agents	192	151	-41	-21.4%	0	4	4	Postsecondary vocational award
41-4011	Sales Representatives, Wholesale & Manufacturing, Technical & Scientific Products	550	651	101	18.4%	10	14	24	Moderate-term on-the-job training
41-4012	Sales Reps, Wholesale and Manufacturing, Except Technical & Scientific Products	2,227	2,646	419	18.8%	42	59	101	Moderate-term on-the-job training
41-9011	Demonstrators and Product Promoters	306	418	112	36.6%	11	7	18	Moderate-term on-the-job training
41-9021	Real Estate Brokers	500	603	103	20.6%	10	10	20	Work experience in a related occupation
41-9022	Real Estate Sales Agents	246	309	63	25.6%	6	5	11	Postsecondary vocational award
41-9031	Sales Engineers	79	95	16	20.3%	2	2	4	Bachelor's degree
41-9041	Telemarketers	1,184	1,157	-27	-2.3%	0	19	19	Short-term on-the-job training
41-9091	Door-To-Door Sales Workers, News and Street Vendors, and Related Workers	357	438	81	22.7%	8	8		Short-term on-the-job training
41-9099	Sales and Related Workers, All Other	831	1,048	217	26.1%	22	16	38	Moderate-term on-the-job training
43-0000	Office and Administrative Support Occupations	41,378	43,386	2,008	4.9%	296	946	1,242	NA.
43-1011	First-Line Supervisors/Managers of Office and Administrative Support Workers	2,341	2,487	146	6.2%	15	50	65	Work experience in a related occupation
43-2011	Switchboard Operators, Including Answering Service	433	427	-6	-1.4%	0	11	11	Short-term on-the-job training
43-3011	Bill and Account Collectors	728	880	152	20.9%	15	14		Short-term on-the-job training
43-3021	Billing and Posting Clerks and Machine Operators	1,019	1,112	93	9.1%	9	17	26	Moderate-term on-the-job training
43-3031	Bookkeeping, Accounting, and Auditing Clerks	3,892	4,068	176	4.5%	18	73		Moderate-term on-the-job training
43-3051	Payroll and Timekeeping Clerks	362	360	-2	-0.6%	0	10		Moderate-term on-the-job training
43-3061	Procurement Clerks	115	112	-3	-2.6%	0	3		Short-term on-the-job training
43-3071	Tellers	910	1,018	108	11.9%	11	45		Short-term on-the-job training
43-4011	Brokerage Clerks	77	75	-2	-2.6%	0	1		Moderate-term on-the-job training
43-4021	Correspondence Clerks	60	53	-7	-11.7%	0	2		Short-term on-the-job training

soc	Occupation		rage yment		nge in Dyment	Average Annual Openings		penings		
Code		2002	2012	Net	Percent	Growth	Replace- ment	Total	Education/Training Requirement	
43-4031	Court, Municipal, and License Clerks	235	282	47	20.0%	5	5	10	Short-term on-the-job training	
43-4041	Credit Authorizers, Checkers, and Clerks	38	36	-2	-5.3%	0	1	1	Short-term on-the-job training	
43-4051	Customer Service Representatives	3,449	3,984	535	15.5%	54	51	105	Moderate-term on-the-job training	
43-4061	Eligibility Interviewers, Government Programs	141	133	-8	-5.7%	0	4	4	Moderate-term on-the-job training	
43-4071	File Clerks	314	302	-12	-3.8%	0	9	9	Short-term on-the-job training	
43-4081	Hotel, Motel, and Resort Desk Clerks	658	809	151	22.9%	15	30	45	Short-term on-the-job training	
43-4111	Interviewers, Except Eligibility and Loan	225	311	86	38.2%	9	6	15	Short-term on-the-job training	
43-4121	Library Assistants, Clerical	84	108	24	28.6%	2	3	5	Short-term on-the-job training	
43-4131	Loan Interviewers and Clerks	209	173	-36	-17.2%	0	3.	3	Short-term on-the-job training	
43-4141	New Accounts Clerks	131	148	17	13.0%	2	3	5	Work experience in a related occupation	
43-4151	Order Clerks	625	632	7	1.1%	1	14	15	Short-term on-the-job training	
43-4161	Human Resources Assistants, Except Payroll and Timekeeping	237	275	38	16.0%	4	5	9	Short-term on-the-job training	
43-4171	Receptionists and Information Clerks	1,663	2,121	458	27.5%	46	41	87	Short-term on-the-job training	
43-4181	Reservation and Transportation Ticket Agents and Travel Clerks	122	139	17	13.9%	2	3	5	Short-term on-the-job training	
43-4999	Financial, Information, and Record Clerks, All Other	431	476	45	10.4%	5	7	12	Short-term on-the-job training	
43-5011	Cargo and Freight Agents	43	48	5	11.6%	1	1	2	Moderate-term on-the-job training	
43-5021	Couriers and Messengers	117	122	5	4.3%	1	3	4	Short-term on-the-job training	
43-5031	Police, Fire, and Ambulance Dispatchers	246	300	54	22.0%	5	5	10	Moderate-term on-the-job training	
43-5032	Dispatchers, Except Police, Fire, and Ambulance	299	321	22	7.4%	2	6	8	Moderate-term on-the-job training	
43-5041	Meter Readers, Utilities	105	98	-7	-6.7%	0	3	3	Short-term on-the-job training	
43-5051	Postal Service Clerks	237	226	-11	-4.6%	0	6	6	Short-term on-the-job training	
43-5052	Postal Service Mail Carriers	616	586	-30	-4.9%	0	19	19	Short-term on-the-job training	
43-5053	Postal Service Mail Sorters, Processors, and Processing Machine Operators	709	607	-102	-14.4%	0	19	19	Short-term on-the-job training	
43-5061	Production, Planning, and Expediting Clerks	403	439	36	8.9%	4	10	14	Short-term on-the-job training	
43-5071	Shipping, Receiving, and Traffic Clerks	1,643	1,651	8	0.5%	1	34	35	Short-term on-the-job training	
43-5081	Stock Clerks and Order Fillers	2,824	2,740	-84	-3.0%	0	105	105	Short-term on-the-job training	
43-5111	Weighers, Measurers, Checkers, and Samplers, Recordkeeping	96	111	15	15.6%	2	2	4	Short-term on-the-job training	
43-5199	Material Recording, Scheduling, Dispatching, and Distributing Workers, All Other (OES Only)	19	18	-1	-5.3%	0	1	1	Short-term on-the-job training	
43-6011	Executive Secretaries and Administrative Assistants	1,920	2,056	136	7.1%	14	37	51	Moderate-term on-the-job training	
43-6012	Legal Secretaries	527	557	30	5.7%	3	10		Postsecondary vocational award	
43-6013	Medical Secretaries	845	1,036	191	22.6%	19	16		Postsecondary vocational award	

soc	Occupation	1	rage syment		nge in oyment	Average Annual Opening		penings	Education (Tracining Description
Code	Occupation	2002	2012	Net	Percent	Growth	Replace- ment	Total	Education/Training Requirement
43-6014	Secretaries, Except Legal, Medical, and Executive	3,701	3,581	-120	-3.2%	0	71	71	Moderate-term on-the-job training
43-9011	Computer Operators	350	278	-72	-20.6%	0	7	7	Moderate-term on-the-job training
43-9021	Data Entry Keyers	627	544	-83	-13.2%	0	15	15	Moderate-term on-the-job training
43-9022	Word Processors and Typists	403	230	-173	-42.9%	0	9	9	Moderate-term on-the-job training
43-9031	Desktop Publishers	54	72	18	33.3%	2	1	3	Postsecondary vocational award
43-9041	Insurance Claims and Policy Processing Clerks	910	888	-22	-2.4%	0	15	15	Moderate-term on-the-job training
43-9051	Mail Clerks and Mail Machine Operators, Except Postal Service	406	391	-15	-3.7%	0	12	12	Short-term on-the-job training
43-9061	Office Clerks, General	4,991	5,333	342	6.9%	34	111	145	Short-term on-the-job training
43-9071	Office Machine Operators, Except Computer	142	128	-14	-9.9%	0	4	4	Short-term on-the-job training
43-9081	Proofreaders and Copy Markers	63	60	-3	-4.8%	0	1	1	Short-term on-the-job training
43-9111	Statistical Assistants	70	63	-7	-10.0%	0	1	1	Moderate-term on-the-job training
43-9999	Secretaries, Administrative Assistants, and Other Office Support Workers, All Other	314	293	-21	-6.7%	0	7	7	Short-term on-the-job training
45-0000	Farming, Fishing, and Forestry Occupations	1,020	1,164	144	14.1%	15	27	42	NA
45-1011	First-Line Supervisors/Managers of Farming, Fishing, and Forestry Workers	44	56	12	27.3%	1	1	2	Work experience in a related occupation
45-2011	Agricultural Inspectors	18	23	5	27.8%	1	0	1	Work experience in a related occupation
45-2041	Graders and Sorters, Agricultural Products	52	57	5	9.6%	1	1	2	Work experience in a related occupation
45-2091	Agricultural Equipment Operators	27	31	4	14.8%	0	1	1	Moderate-term on-the-job training
45-2092	Farmworkers and Laborers, Crop, Nursery, and Greenhouse	220	273	53	24.1%	5	6	11	Short-term on-the-job training
45-2093	Farmworkers, Farm and Ranch Animals	109	140	31	28.4%	3	3	6	Short-term on-the-job training
45-3011	Fishers and Related Fishing Workers	363	387	24	6.6%	2	10	12	Moderate-term on-the-job training
45-4021	Fallers	52	53	1	1.9%	0	1	1	Moderate-term on-the-job training
45-4022	Logging Equipment Operators	97	102	5	5.2%	1	2	3	Moderate-term on-the-job training
45-4023	Log Graders and Scalers	22	20	-2	-9.1%	0	0	0	Moderate-term on-the-job training
45-9099	Farming, Fishing, and Forestry Workers, All Other	11	16	5	45.5%	1	0	1	Moderate-term on-the-job training
47-0000	Construction and Extraction Occupations	13,761	14,882	1,121	8.1%	116	264	380	NA
47-1011	First-Line Supervisors/Managers of Construction Trades and Extraction Workers	1,136	1,223	87	7.7%	9	19	28	Work experience in a related occupation
47-2011	Boilermakers	37	34	-3	-8.1%	0	1	1	Long-term on-the-job training
47-2021	Brickmasons and Blockmasons	173	183	10	5.8%	1	3	4	Long-term on-the-job training
47-2022	Stonemasons	54	56	2	3.7%	0	1	1	Long-term on-the-job training
47-2031	Carpenters	3,692	3,985	293	7.9%	29	60	89	Long-term on-the-job training
47-2041	Carpet Installers	92	101	9	9.8%	1	1	2	Moderate-term on-the-job training

soc	Occupation	Ave Emplo	_		nge in oyment	Average	Annual O	penings	
Code		2002	2012	Net	Percent	Growth	Replace- ment	Total	Education/Training Requirement
47-2043	Floor Sanders and Finishers	59	54	-5	-8.5%	0	1	1	Moderate-term on-the-job training
47-2044	Tile and Marble Setters	48	56	8	16.7%	1	1	2	Long-term on-the-job training
47-2051	Cement Masons and Concrete Finishers	238	272	34	14.3%	3	5	8	Moderate-term on-the-job training
47-2061	Construction Laborers	1,337	1,446	109	8.2%	11	18	29	Moderate-term on-the-job training
47-2071	Paving, Surfacing, and Tamping Equipment Operators	108	121	13	12.0%	1	2	3	Moderate-term on-the-job training
47-2073	Operating Engineers and Other Construction Equipment Operators	473	514	41	8.7%	4	12	16	Moderate-term on-the-job training
47-2081	Drywall and Ceiling Tile Installers	261	293	32	12.3%	3	6	9	Moderate-term on-the-job training
47-2082	Tapers	33	38	5	15.2%	1	1	2	Moderate-term on-the-job training
47-2111	Electricians	1,242	1,386	144	11.6%	14	25	39	Long-term on-the-job training
47-2121	Glaziers	35	37	2	5.7%	0	1	1	Long-term on-the-job training
47-2130	Insulation Workers	127	135	8	6.3%	1	4	5	Moderate-term on-the-job training
47-2141	Painters, Construction and Maintenance	1,095	1,187	92	8.4%	9	17	26	Moderate-term on-the-job training
47-2142	Paperhangers	63	58	-5	-7.9%	0	1	1	Moderate-term on-the-job training
47-2151	Pipelayers	91	106	15	16.5%	2	2	4	Moderate-term on-the-job training
47-2152	Plumbers, Pipefitters, and Steamfitters	887	953	66	7.4%	7	20	27	Long-term on-the-job training
47-2181	Roofers	191	199	8	4.2%	1	4	5	Moderate-term on-the-job training
47-2211	Sheet Metal Workers	370	392	22	5.9%	2	9	11	Moderate-term on-the-job training
47-2221	Structural Iron and Steel Workers	70	73	3	4.3%	0	1	1	Long-term on-the-job training
47-3011	HelpersBrickmasons, Blockmasons, Stonemasons, and Tile and Marble Setters	99	91	-8	-8.1%	0	4	4	Short-term on-the-job training
47-3012	HelpersCarpenters	191	203	12	6.3%	1	8	9	Short-term on-the-job training
47-3013	HelpersElectricians	256	253	-3	-1.2%	0	11	11	Short-term on-the-job training
47-3014	Helpers-Painters, Paperhangers, Plasterers, and Stucco Masons	31	31	0	0.0%	0	1	1	Short-term on-the-job training
47-3015	HelpersPipelayers, Plumbers, Pipefitters, and Steamfitters	86	79	-7	-8.1%	0	4	4	Short-term on-the-job training
47-3016	HelpersRoofers	31	32	1	3.2%	0	1	1	Short-term on-the-job training
47-3019	Helpers, Construction Trades, All Other	30	30	0	0.0%	0	1	1	Short-term on-the-job training
47-4011	Construction and Building Inspectors	50	62	12	24.0%	1	1	2	Work experience in a related occupation
47-4021	Elevator Installers and Repairers	122	120	-2	-1.6%	0	3	3	Long-term on-the-job training
47-4031	Fence Erectors	72	69	-3	-4.2%	0	1	1	Moderate-term on-the-job training
47-4041	Hazardous Materials Removal Workers	99	126	27	27.3%	3	3	6	Moderate-term on-the-job training
47-4051	Highway Maintenance Workers	570	664	94	16.5%	9	8	17	Moderate-term on-the-job training
47-4061	Rail-Track Laying and Maintenance Equipment Operators	20	17	-3	-15.0%	0	1	1	Moderate-term on-the-job training

soc	Occupation	l	rage yment		nge in oyment	Average Annual Opening		penings	Education/Training Description
Code		2002	2012	Net	Percent	Growth	Replace- ment	Total	Education/Training Requirement
47-4071	Septic Tank Servicers and Sewer Pipe Cleaners	32	36	4	12.5%	0	1	1	Moderate-term on-the-job training
47-4999	Construction Trades and Related Workers, All Other	70	73	3	4.3%	0	1	1	Moderate-term on-the-job training
47-5021	Earth Drillers, Except Oil and Gas	37	37	0	0.0%	0	1	1	Moderate-term on-the-job training
47-5031	Explosives Workers, Ordnance Handling Experts, and Blasters	12	13	1	8.3%	0	1	1	Moderate-term on-the-job training
49-0000	Installation, Maintenance, and Repair Occupations	10,726	12,676	1,950	18.2%	197	244	441	NA
49-1011	First-Line Supervisors/Managers of Mechanics, Installers, and Repairers	745	890	145	19.5%	15	19	34	Work experience in a related occupation
49-2011	Computer, Automated Teller, and Office Machine Repairers	319	373	54	16.9%	5	4	9	Postsecondary vocational award
49-2021	Radio Mechanics	24	18	-6	-25.0%	0	1	1	Postsecondary vocational award
49-2022	Telecommunications Equipment Installers and Repairers, Except Line Installers	407	423	16	3.9%	2	8	10	Long-term on-the-job training
49-2091	Avionics Technicians	71	82	11	15.5%	1	2	3	Postsecondary vocational award
49-2092	Electric Motor, Power Tool, and Related Repairers	84	90	6	7.1%	1	2	3	Postsecondary vocational award
49-2093	Electrical and Electronics Installers and Repairers, Transportation Equipment	69	87	18	26.1%	2	2	4	Postsecondary vocational award
49-2094	Electrical and Electronics Repairers, Commercial and Industrial Equipment	143	160	17	11.9%	2	3	5	Postsecondary vocational award
49-2095	Electrical and Electronics Repairers, Powerhouse, Substation, and Relay	32	34	2	6.3%	0	1	1	Postsecondary vocational award
49-2096	Electronic Equipment Installers and Repairers, Motor Vehicles	10	13	3	30.0%	0	0	0	Postsecondary vocational award
49-2097	Electronic Home Entertainment Equipment Installers and Repairers	79	97	18	22.8%	2	2	4	Postsecondary vocational award
49-2098	Security and Fire Alarm Systems Installers	34	40	6	17.6%	1	1	2	Postsecondary vocational award
49-3011	Aircraft Mechanics and Service Technicians	72	90	18	25.0%	2	2	4	Postsecondary vocational award
49-3021	Automotive Body and Related Repairers	327	402	75	22.9%	8	7	15	Long-term on-the-job training
49-3022	Automotive Glass Installers and Repairers	30	37	7	23.3%	1	1	2	Long-term on-the-job training
49-3023	Automotive Service Technicians and Mechanics	1,619	1,952	333	20.6%	33	43	76	Postsecondary vocational award
49-3031	Bus and Truck Mechanics and Diesel Engine Specialists	534	627	93	17.4%	9	14	23	Postsecondary vocational award
49-3041	Farm Equipment Mechanics	48	53	5	10.4%	1	1	2	Postsecondary vocational award
49-3042	Mobile Heavy Equipment Mechanics, Except Engines	256	292	36	14.1%	4	6	10	Postsecondary vocational award
49-3051	Motorboat Mechanics	150	216	66	44.0%	7	4	11	Long-term on-the-job training
49-3052	Motorcycle Mechanics	12	18	6	50.0%	1	0	1	Long-term on-the-job training
49-3053	Outdoor Power Equipment and Other Small Engine Mechanics	109	143	34	31.2%	3	3	6	Moderate-term on-the-job training
49-3091	Bicycle Repairers	94	107	13	13.8%	1	4	5	Moderate-term on-the-job training
49-3092	Recreational Vehicle Service Technicians	27	39	12	44.4%	1	1	2	Long-term on-the-job training
49-3093	Tire Repairers and Changers	125	148	23	18.4%	2	5		Short-term on-the-job training
49-9011	Mechanical Door Repairers	19	25	6	31.6%	1	1	2	Moderate-term on-the-job training

soc	Occupation	Ave Emplo	rage yment		nge in oyment	Average	Annual O	penings	
Code	Оссирации	2002	2012	Net	Percent	Growth	Replace- ment	Total	Education/Training Requirement
49-9012	Control and Valve Installers and Repairers, Except Mechanical Door	96	122	26	27.1%	3	2	5	Moderate-term on-the-job training
49-9021	Heating, Air Conditioning, and Refrigeration Mechanics and Installers	816	999	183	22.4%	18	11	29	Long-term on-the-job training
49-9031	Home Appliance Repairers	107	122	15	14.0%	2	3	5	Long-term on-the-job training
49-9041	Industrial Machinery Mechanics	310	343	33	10.6%	3	6	9	Long-term on-the-job training
49-9042	Maintenance and Repair Workers, General	2,010	2,422	412	20.5%	41	39	80	Moderate-term on-the-job training
49-9043	Maintenance Workers, Machinery	11:2	112	0	0.0%	0	3	3	Short-term on-the-job training
49-9044	Millwrights	108	97	-11	-10.2%	0	3	3	Long-term on-the-job training
49-9051	Electrical Power-Line Installers and Repairers	268	292	24	9.0%	2	9	11	Long-term on-the-job training
49-9052	Telecommunications Line Installers and Repairers	164	178	14	8.5%	1	5	6	Long-term on-the-job training
49-9062	Medical Equipment Repairers	36	43	7	19.4%	1	. 1	2	Associate degree
49-9069	Precision Instrument and Equipment Repairers, All Other	31	33	2	6.5%	0	1	1	Long-term on-the-job training
49-9091	Coin, Vending, and Amusement Machine Servicers and Repairers	94	103	9	9.6%	1	2	3	Moderate-term on-the-job training
49-9092	Commercial Divers	34	38	4	11.8%	0	1	1	Moderate-term on-the-job training
49-9093	Fabric Menders, Except Garment	42	45	3	7.1%	0	1	1	Moderate-term on-the-job training
49-9094	Locksmiths and Safe Repairers	44	50	6	13.6%	1	2	3	Moderate-term on-the-job training
49-9095	Manufactured Building and Mobile Home Installers	74	110	36	48.6%	4	2	6	Moderate-term on-the-job training
49-9096	Riggers	143	167	24	16.8%	2	3	5	Short-term on-the-job training
49-9098	HelpersInstallation, Maintenance, and Repair Workers	137	170	33	24.1%	3	5	8	Short-term on-the-job training
49-9099	Installation, Maintenance, and Repair Workers, All Other	630	742	112	17.8%	11	14	25	Moderate-term on-the-job training
51-0000	Production Occupations	17,449	16,943	-506	-2.9%	48	413	461	NA
51-1011	First-Line Supervisors/Managers of Production and Operating Workers	1,198	1,248	50	4.2%	5	25	30	Work experience in a related occupation
51-2021	Coil Winders, Tapers, and Finishers	75	64	-11	-14.7%	0	2	2	Short-term on-the-job training
51-2022	Electrical and Electronic Equipment Assemblers	441	385	-56	-12.7%	0	10	10	Short-term on-the-job training
51-2023	Electromechanical Equipment Assemblers	106	96	-10	-9.4%	0	3	3	Short-term on-the-job training
51-2031	Engine and Other Machine Assemblers	152	143	-9	-5.9%	0	4	4	Short-term on-the-job training
51-2041	Structural Metal Fabricators and Fitters	192	191	-1	-0.5%	0	5	5	Moderate-term on-the-job training
51-2091	Fiberglass Laminators and Fabricators	53	52	-1	-1.9%	0	1	1	Moderate-term on-the-job training
51-2092	Team Assemblers	1,278	1,137	-141	-11.0%	0	33	33	Moderate-term on-the-job training
51-2099	Assemblers and Fabricators, All Other	351	339	-12	-3.4%	0	9		Moderate-term on-the-job training
51-3011	Bakers	330	399	69	20.9%	7	8		Long-term on-the-job training
51-3021	Butchers and Meat Cutters	257	259	2	0.8%	0	6	6	Long-term on-the-job training

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	SOC		ı	rage syment		nge in oyment	Average	Annual C	penings	1
1-3023 Slaughterers and Meat Packers 12 14 2 16.7% 0 0 0 Moderate-term on-the-job training 1-3024 15 15 15 15 15 15 15 1	1	Occupation	2002	2012	Net	Percent	Growth	-	Total	Education/Training Requirement
1-309 Food and Tobacec Rossing, Baking, and Drying Machine Operators and Tenders 21 23 2 9.5% 0 1 1 Short-term on-the-job training 1-3092 Food Batchmakers 140 169 29 20.7% 3 3 6 Short-term on-the-job training 1-3092 Food Gooking Machine Operators and Tenders 22 27 3 2 20.7% 3 3 6 Short-term on-the-job training 1-3092 Food Gooking Machine Operators and Tenders 22 27 3 2 20.7% 3 3 3 5 Short-term on-the-job training 1-3092 Food Gooking Machine Tool Operators, Metal and Plastic 187 182 -5 -2.7% 0 3 3 Moderate-term on-the-job training 1-3012 Munerical Tool and Process Centrol Programmers 29 95 3 3.3% 0 2 2 Long-term on-the-job training 1-3012 Munerical Tool and Process Centrol Programmers 170 161 18 10.1% 0 4 4 Moderate-term on-the-job training 1-3012 Multiple Machine Setters, Operators, and Tenders, Metal and Plastic 170 161 18 10.1% 0 9 Moderate-term on-the-job training 1-3012 Multiple Machine Tool Setters, Operators, and Tenders, Metal and Plastic 170 111 110 1-1 3-1% 0 2 Moderate-term on-the-job training 1-3012 Moderate-term on-th-job	51-3022	Meat, Poultry, and Fish Cutters and Trimmers	130	134	4	3.1%	0	3	3	Short-term on-the-job training
1-3092 Food Batchmakers 140 169 29 20.7% 3 3 6 Short-term on-the-job training 1-3093 Food Cooking Machine Operators and Tenders 22 27 5 22.7% 1 1 2 Short-term on-the-job training 1-4012 Computer-Controlled Machine Tool Operators, Metal and Plastic 182 5 2.7% 0 3 3 Moderate-term on-the-job training 1-4012 Computer-Controlled Machine Tool Operators, Metal and Plastic 190 5 3 3.3% 0 2 2 Long-term on-the-job training 1-4012 Extruding and Drawing Machine Setters, Operators, and Tenders, Metal and Plastic 179 161 1-18 -10.1% 0 4 4 Moderate-term on-the-job training 1-4022 Rolling Machine Setters, Operators, and Tenders, Metal and Plastic 179 161 1-18 -10.1% 0 4 4 Moderate-term on-the-job training 1-4023 Catting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and Plastic 190 10.0% 0 3 3 Moderate-term on-the-job training 1-4023 Catting, and Boring Machine Tool Setters, Operators, and Tenders, Metal and Plastic 120 110 -11 9-91% 0 2 2 Moderate-term on-the-job training 1-4024 Lathe and Turning Machine Tool Setters, Operators, Metal and Plastic 129 113 -16 -12.4% 0 3 3 Moderate-term on-the-job training 1-4024 Machine Setters, Operators, and Tenders, Metal and Plastic 129 113 -16 -12.4% 0 2 2 Moderate-term on-the-job training 1-4024 Machine Setters, Operators, and Tenders, Metal and Plastic 129 113 -16 -12.4% 0 2 2 Moderate-term on-the-job training 1-4024 Machine Setters, Operators, and Tenders, Metal and Plastic 129 113 -16 -12.4% 0 2 2 Moderate-term on-the-job training 1-4024 Machine Setters, Operators, and Tenders, Metal and Plastic 129 120 -2.4% 0 2 2 Moderate-term on-the-job training 1-4024 Moderate-term on-the-job training 1-4024 Moderate-term on-the-job training 1-4024 Moderate-term on-the-job training 1-4024 Moderate-term on-the-job	51-3023	Slaughterers and Meat Packers	12	14	2	16.7%	0	0	0	Moderate-term on-the-job training
1-309 Food Cooking Machine Operators and Tenders	51-3091	Food and Tobacco Roasting, Baking, and Drying Machine Operators and Tenders	21	23	2	9.5%	0	1	1	Short-term on-the-job training
	51-3092	Food Batchmakers	140	169	29	20.7%	3	3	6	Short-term on-the-job training
1-4012 Numerical Tool and Process Control Programmers 92 95 3 3.3% 0 2 2 Long-term on-the-job training 1-4021 Extruding and Drawing Machine Setters, Operators, and Tenders, Metal and Plastic 179 161 -18 -10.1% 0 4 4 Moderate-term on-the-job training 1-4021 Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and Plastic 179 161 -18 -10.1% 0 9 Moderate-term on-the-job training 1-4031 Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and Plastic 90 81 9 -10.0% 0 3 Moderate-term on-the-job training 1-4032 Original Bushine Tool Setters, Operators, and Tenders, Metal and Plastic 129 113 -16 -12.4% 0 3 Moderate-term on-the-job training 1-4034 Lathe and Turning Machine Tool Setters, Operators, and Tenders, Metal and Plastic 129 113 -16 -12.4% 0 3 Moderate-term on-the-job training 1-4034 Machine Setters, Operators, and Tenders, Metal and Plastic 73 65 8 -11.0% 0 1 Moderate-term on-the-job training 1-4034 Machine Setters, Operators, and Tenders, Metal and Plastic 73 65 8 -11.0% 0 23 Long-term on-the-job training 1-4034 Machine Setters, Operators, and Tenders, Metal and Plastic 153 125 -28 -18.3% 0 4 Moderate-term on-the-job training 1-4034 Machine Setters, Operators, and Tenders, Metal Applastic 153 125 -28 -18.3% 0 4 Moderate-term on-the-job training 1-4034 Machine Setters, Operators, and Tenders, Metal Applastic 153 125 -28 -18.3% 0 4 Moderate-term on-the-job training 1-4034 Moderate-term on-the-job training 1-40	51-3093	Food Cooking Machine Operators and Tenders	22	27	5	22.7%	1	1	2	Short-term on-the-job training
1.402 Extruding and Drawing Machine Setters, Operators, and Tenders, Metal and Plastic 40 37 3 -7.5% 0 1 1 Moderate-term on-the-job training 1.4021 Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and Plastic 179 161 -18 -10.1% 0 4 4 Moderate-term on-the-job training 1.4021 Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and Plastic 368 346 -22 -6.0% 0 9 9 Moderate-term on-the-job training 1.4022 Drilling and Boring Machine Tool Setters, Operators, and Tenders, Metal and Plastic 120 110 -11 -9.1% 0 2 2 Moderate-term on-the-job training 1.4023 Moderate-term on-the-job training 1.4024 Lathe and Turning Machine Tool Setters, Operators, Metal and Plastic 129 113 -16 -12.4% 0 3 3 Moderate-term on-the-job training 1.4024 Lathe and Turning Machine Setters, Operators, and Tenders, Metal and Plastic 73 65 -8 -11.0% 0 1 1 Moderate-term on-the-job training 1.4024 Moderate-	51-4011	Computer-Controlled Machine Tool Operators, Metal and Plastic	187	182	-5	-2.7%	0	3	3	Moderate-term on-the-job training
1.4023 Rolling Machine Setters, Operators, and Tenders, Metal and Plastic 1.4031 Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and Plastic 1.4032 Drilling and Boring Machine Tool Setters, Operators, and Tenders, Metal and Plastic 1.4033 Drilling and Boring Machine Tool Setters, Operators, and Tenders, Metal and Plastic 1.4034 Drilling and Planing Machine Tool Setters, Operators, and Tenders, Metal and Plastic 1.4035 Milling and Planing Machine Tool Setters, Operators, and Tenders, Metal and Plastic 1.4036 Milling and Planing Machine Setters, Operators, and Tenders, Metal and Plastic 1.4036 Milling and Planing Machine Setters, Operators, and Tenders, Metal and Plastic 1.4031 Moderate-term on-the-job training 1.4032 Moderate-term on-the-job training 1.4034 Machinists 1.4031 Milling and Planing Machine Setters, Operators, and Tenders, Metal and Plastic 1.4041 Machinists 1.4041 Machinists 1.4052 Molding, Coremaking & Casting Machine Setters, Operators & Tenders, Metal & Plastic 1.4072 Molding, Coremaking & Casting Machine Setters, Operators & Tenders, Metal & Plastic 1.4081 Multiple Machine Tool Setters, Operators, and Tenders, Metal and Plastic 1.4091 Multiple Machine Tool Setters, Operators, and Tenders, Metal and Plastic 1.4091 Welding, Soldering, and Brazing Machine Setters, Operators, and Tenders 1.4092 Mediang, Soldering, and Brazing Machine Setters, Operators, and Tenders 1.4093 Mediang, Soldering, and Brazing Machine Setters, Operators, and Tenders 1.4094 Mediang, Soldering, and Brazing Machine Setters, Operators, and Tenders 1.4094 Mediang, Soldering, and Brazing Machine Setters, Operators, and Tenders 1.4094 Mediang, Soldering, and Brazing Machine Setters, Operators, and Tenders 1.4094 Mediang, Soldering, and Brazing Machine Setters, Operators, and Tenders 1.4094 Mediang, Soldering, and Brazing Machine Setters, Operators, and Tenders 1.4094 Mediang, Soldering, and Brazing Machine Setters, Operators, and Tenders, Metal and Plastic 1.4094 Mediang, Soldering, and Brazing Machine	51-4012	Numerical Tool and Process Control Programmers	92	95	3	3.3%	0	2	2	Long-term on-the-job training
1-4031 Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and Plastic 90 81 -9 -10.0% 0 3 3 Moderate-term on-the-job training 1-4032 Drilling and Boring Machine Tool Setters/Operators/Tenders, Metal and Plastic 90 81 -9 -10.0% 0 3 3 Moderate-term on-the-job training 1-4034 Lather and Turning Machine Tool Setters, Operators, and Tenders, Metal and Plastic 121 110 -11 -9.1% 0 2 2 Moderate-term on-the-job training 1-4035 Moderate-term on-the-job training 1-4036 Moderate-term on-the-job training 1-4037 Moder	51-4021	Extruding and Drawing Machine Setters, Operators, and Tenders, Metal and Plastic	40	37	-3	-7.5%	0	1	1	Moderate-term on-the-job training
1-4032 Drilling and Boring Machine Tool Setters, Operators, and Tenders, Metal and Plastic 121 110 -11 -9.1% 0 2 2 Moderate-term on-the-job training 1-4034 Lathe and Turning Machine Tool Setters, Operators, and Tenders, Metal and Plastic 129 113 -16 -12.4% 0 3 3 Moderate-term on-the-job training 1-4035 Milling and Planing Machine Setters, Operators, and Tenders, Metal and Plastic 129 113 -16 -12.4% 0 3 3 Moderate-term on-the-job training 1-4036 Milling and Planing Machine Setters, Operators, and Tenders, Metal and Plastic 139 13 -16 -12.4% 0 3 3 Moderate-term on-the-job training 1-4041 Machinists 992 68 -24 -2.4% 0 23 23 Long-term on-the-job training 1-4041 Moderate-term on-the-job training 1-4041 Moderate-term on-the-job training 1-4041 Multiple Machine Setters, Operators, and Tenders, Metal & Plastic 142 139 -3 -2.1% 0 4 Moderate-term on-the-job training 1-4041 Multiple Machine Tool Setters, Operators, and Tenders, Metal & Plastic 142 139 -3 -2.1% 0 4 Moderate-term on-the-job training 1-4041 Multiple Machine Tool Setters, Operators, and Tenders 142 139 -3 -2.1% 0 4 Moderate-term on-the-job training 1-4041 Multiple Machine Setters, Operators, and Tenders 142 139 -3 -2.1% 0 3 Long-term on-the-job training 1-4041 Multiple Machine Setters, Operators, and Tenders 142 139 -3 -2.1% 0 2 Long-term on-the-job training 1-4041 144 1	51-4023	Rolling Machine Setters, Operators, and Tenders, Metal and Plastic	179	161	-18	-10.1%	0	4	4	Moderate-term on-the-job training
1-4033 Grinding/Lapping/Polishing&Buffing Machine Tool Setters/Operators/Tenders, Metal&Plastic 121 110 -11 -9.1% 0 2 2 Moderate-term on-the-job training 1-4034 Lathe and Turning Machine Setters, Operators, and Tenders, Metal and Plastic 129 113 -16 -12.4% 0 3 3 Moderate-term on-the-job training 1-4035 Milling and Planing Machine Setters, Operators, and Tenders, Metal and Plastic 73 65 -8 -11.0% 0 1 1 Moderate-term on-the-job training 1-4031 Moderate-term on-the-job training 1-4031 Moderate-term on-the-job training 1-4032 Moderate-term on-the-job training 1-4032 Moderate-term on-the-job training 1-4032 Moderate-term on-the-job training 1-4033 Moderate-term on-the-job training 1-4034 Modera	51-4031	Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and Plastic	368	346	-22	-6.0%	0	9	9	Moderate-term on-the-job training
Lathe and Turning Machine Tool Setters, Operators, and Tenders, Metal and Plastic 129 113 -16 -12.4% 0 3 3 Moderate-term on-the-job training 14015 Milling and Planing Machine Setters, Operators, and Tenders, Metal and Plastic 1401 Machinists 992 968 -24 -2.4% 0 23 23 Long-term on-the-job training 14012 Molding, Coremaking & Casting Machine Setters, Operators & Tenders, Metal & Plastic 1401 Multiple Machine Tool Setters, Operators, and Tenders, Metal and Plastic 1402 1139 -3 -2.1% 0 4 4 Moderate-term on-the-job training 14111 Tool and Die Makers 1403 116 -13 -10.1% 0 3 3 Long-term on-the-job training 14111 Welders, Cutters, Solderers, and Brazers 1404 1405 Welders, Cutters, Solderers, and Brazers 1405 1405 150 9.4% 5 15 20 Long-term on-the-job training 1412 1406 150 9.4% 5 15 20 Long-term on-the-job training 1414 150 9.5 45 -10 -18.2% 0 2 2 Moderate-term on-the-job training 1419 150 150 150 150 150 150 150 150 150 150	51-4032	Drilling and Boring Machine Tool Setters, Operators, and Tenders, Metal and Plastic	90	81	-9	-10.0%	0	3	3	Moderate-term on-the-job training
1-4035 Milling and Planing Machine Setters, Operators, and Tenders, Metal and Plastic 73 65 -8 -11.0% 0 1 1 Moderate-term on-the-job training 1-4072 Machinists 992 968 -24 -2.4% 0 23 23 Long-term on-the-job training 1-4072 Moding, Coremaking & Casting Machine Setters, Operators & Tenders, Metal & Plastic 153 125 -28 -18.3% 0 4 Moderate-term on-the-job training 1-4072 Multiple Machine Tool Setters, Operators, and Tenders, Metal and Plastic 142 139 -3 -2.1% 0 4 Moderate-term on-the-job training 1-4111 Tool and Die Makers 129 116 -13 -10.1% 0 3 3 Long-term on-the-job training 1-4121 Welding, Soldering, and Brazing Machine Setters, Operators, and Tenders 104 98 -6 -5.8% 0 3 3 Moderate-term on-the-job training 1-4122 Welding, Soldering, and Brazing Machine Setters, Operators, and Tenders 104 98 -6 -5.8% 0 2 2 Moderate-term on-the-job training 1-4194 1-419	51-4033	Grinding/Lapping/Polishing&Buffing Machine Tool Setters/Operators/Tenders, Metal&Plastic	121	110	-11	-9.1%	0	2	2	Moderate-term on-the-job training
Machinists 992 968 -24 -2.4% 0 23 23 Long-term on-the-job training 1-4072 Moddring, Coremaking & Casting Machine Setters, Operators & Tenders, Metal & Plastic 153 125 -28 -18.3% 0 4 Moderate-term on-the-job training 1-4081 Multiple Machine Tool Setters, Operators, and Tenders, Metal and Plastic 142 139 -3 -2.1% 0 4 Moderate-term on-the-job training 1-4111 Tool and Die Makers 129 116 -13 -10.1% 0 3 3 Long-term on-the-job training 1-4121 Welders, Cutters, Soldering, and Brazing Machine Setters, Operators, and Tenders 104 98 -6 -5.8% 0 3 3 Moderate-term on-the-job training 1-4121 Moderate-term on-the-job training 1-4121 Moderate-term on-the-job training 1-4122 Moderate-term on-the-job training 1-4124 Moderate-term on-the-job training 1-4124 Moderate-term on-the-job training 1-4125 Moderate-term on-the-job training 1-4126 Moderate-term on-the-job training 1-4126 Moderate-term on-the-job training 1-4127 Moderate-term on-the-job training 1-4128 Moderate-term on-the-job training 1-4129 Moderate-term	51-4034	Lathe and Turning Machine Tool Setters, Operators, and Tenders, Metal and Plastic	129	113	-16	-12.4%	0	3	3	Moderate-term on-the-job training
14072 Molding, Coremaking & Casting Machine Setters, Operators & Tenders, Metal & Plastic 153 125 -28 -18.3% 0 4 4 Moderate-term on-the-job training 14081 140	51-4035	Milling and Planing Machine Setters, Operators, and Tenders, Metal and Plastic	73	65	-8	-11.0%	0	1	1	Moderate-term on-the-job training
Multiple Machine Tool Setters, Operators, and Tenders, Metal and Plastic 142 139 -3 -2.1% 0 4 4 Moderate-term on-the-job training 1-4111 Tool and Die Makers 129 116 -13 -10.1% 0 3 3 Long-term on-the-job training 1-4121 Welders, Cutters, Solderers, and Brazers 532 582 50 9.4% 5 15 20 Long-term on-the-job training 1-4122 Welding, Soldering, and Brazing Machine Setters, Operators, and Tenders 104 98 -6 -5.8% 0 3 3 Moderate-term on-the-job training 1-4193 Plating and Coating Machine Setters, Operators, and Tenders 108 104 -4 -3.7% 0 2 2 Moderate-term on-the-job training 1-4194 Tool Grinders, Filers, and Sharpeners 55 45 -10 -18.2% 0 2 2 Moderate-term on-the-job training 1-4199 Metal Workers and Plastic Workers, All Other 112 115 3 2.7% 0 3 3 Moderate-term on-the-job training 1-5011 Bindery Workers 220 195 -25 -11.4% 0 6 6 Short-term on-the-job training 1-5021 Job Printers 50 60 10 20.0% 1 1 2 Long-term on-the-job training 1-5022 Prepress Technicians and Workers 169 150 -19 -11.2% 0 4 4 Long-term on-the-job training 1-5023 Printing Machine Operators 405 431 26 6.4% 3 9 12 Moderate-term on-the-job training 1-5024 Pressers, Textile, Garment, and Related Materials 62 63 1 1.6% 0 1 1 Short-term on-the-job training 1-6021 Pressers, Textile, Garment, and Related Materials 62 63 1 1.6% 0 1 1 Short-term on-the-job training 1-6021 Pressers, Textile, Garment, and Related Materials 337 300 -37 -11.0% 0 4 4 Moderate-term on-the-job training 1-6021 Pressers, Textile, Garment, and Related Materials 62 63 1 1.6% 0 1 1 Short-term on-the-job training 1-6021 Pressers, Textile, Garment, and Related Materials 1-6021 Pressers, Textile, Garment, and Related Materials 1-6021 Pressers, Textile, Garment, and Related Materials 1-6021	51-4041	Machinists	992	968	-24	-2.4%	0	23	23	Long-term on-the-job training
1-4111 Tool and Die Makers 129 116 -13 -10.1% 0 3 3 Long-term on-the-job training 1-4121 Welders, Cutters, Solderers, and Brazers 532 582 50 9.4% 5 15 20 Long-term on-the-job training 1-4122 Welding, Soldering, and Brazing Machine Setters, Operators, and Tenders 104 98 -6 -5.8% 0 3 3 Moderate-term on-the-job training 1-4123 Metal Workers, Filers, and Sharpeners 104 98 -6 -5.8% 0 2 2 Moderate-term on-the-job training 1-4194 Tool Grinders, Filers, and Sharpeners 55 45 -10 -18.2% 0 2 2 Moderate-term on-the-job training 1-4199 Metal Workers and Plastic Workers, All Other 112 115 3 2.7% 0 3 3 Moderate-term on-the-job training 1-5011 Bindery Workers 220 195 -25 -11.4% 0 6 6 Short-term on-the-job training 1-5021 Job Printers 50 60 10 20.0% 1 1 2 Long-term on-the-job training 1-5022 Prepress Technicians and Workers 169 150 -19 -11.2% 0 4 Long-term on-the-job training 1-5023 Printing Machine Operators 405 431 26 6.4% 3 9 12 Moderate-term on-the-job training 1-6011 Laundry and Dry-Cleaning Workers 532 584 52 9.8% 5 15 20 Moderate-term on-the-job training 1-6021 Pressers, Textile, Garment, and Related Materials 62 63 1 1.6% 0 1 1 Short-term on-the-job training 1-6031 Sewing Machine Operators 337 300 -37 -11.0% 0 4 Moderate-term on-the-job training 1-6031	51-4072	Molding, Coremaking & Casting Machine Setters, Operators & Tenders, Metal & Plastic	153	125	-28	-18.3%	0	4	4	Moderate-term on-the-job training
14121 Welders, Cutters, Solderers, and Brazers 532 582 50 9.4% 5 15 20 Long-term on-the-job training 14122 Welding, Soldering, and Brazing Machine Setters, Operators, and Tenders 104 98 -6 -5.8% 0 3 3 Moderate-term on-the-job training 14193 Plating and Coating Machine Setters, Operators, and Tenders, Metal and Plastic 108 104 -4 -3.7% 0 2 2 Moderate-term on-the-job training 14194 Tool Grinders, Filers, and Sharpeners 55 45 -10 -18.2% 0 2 2 Moderate-term on-the-job training 14199 Metal Workers and Plastic Workers, All Other 112 115 3 2.7% 0 3 3 Moderate-term on-the-job training 1-5011 Bindery Workers 220 195 -25 -11.4% 0 6 6 Short-term on-the-job training 1-5021 Job Printers 50 60 10 20.0% 1 1 2 Long-term on-the-job training 1-5022 Prepress Technicians and Workers 169 150 -19 -11.2% 0 4 Long-term on-the-job training 1-5023 Printing Machine Operators 405 431 26 6.4% 3 9 12 Moderate-term on-the-job training 1-6011 Laundry and Dry-Cleaning Workers 532 584 52 9.8% 5 15 20 Moderate-term on-the-job training 1-6021 Pressers, Textile, Garment, and Related Materials 62 63 1 1.6% 0 1 1 Short-term on-the-job training 1-6031 Sewing Machine Operators 337 300 -37 -11.0% 0 4 4 Moderate-term on-the-job training 1-6031 Sewing Machine Operators 337 300 -37 -11.0% 0 4 4 Moderate-term on-the-job training 1-6031 Sewing Machine Operators 337 300 -37 -11.0% 0 4 4 Moderate-term on-the-job training	51-4081	Multiple Machine Tool Setters, Operators, and Tenders, Metal and Plastic	142	139	-3	-2.1%	0	4	4	Moderate-term on-the-job training
1-4122 Welding, Soldering, and Brazing Machine Setters, Operators, and Tenders 104 98 -6 -5.8% 0 3 3 Moderate-term on-the-job training 1-4193 Plating and Coating Machine Setters, Operators, and Tenders, Metal and Plastic 108 104 -4 -3.7% 0 2 2 Moderate-term on-the-job training 1-4194 Tool Grinders, Filers, and Sharpeners 55 45 -10 -18.2% 0 2 2 Moderate-term on-the-job training 1-4199 Metal Workers and Plastic Workers, All Other 112 115 3 2.7% 0 3 3 Moderate-term on-the-job training 1-5011 Bindery Workers 220 195 -25 -11.4% 0 6 6 Short-term on-the-job training 1-5021 Job Printers 50 60 10 20.0% 1 1 2 Long-term on-the-job training 1-5022 Prepress Technicians and Workers 169 150 -19 -11.2% 0 4 4 Long-term on-the-job training 1-5023 Printing Machine Operators 405 431 26 6.4% 3 9 12 Moderate-term on-the-job training 1-6011 Laundry and Dry-Cleaning Workers 532 584 52 9.8% 5 15 20 Moderate-term on-the-job training 1-6021 Pressers, Textile, Garment, and Related Materials 62 63 1 1.6% 0 1 1 Short-term on-the-job training 1-6031 Sewing Machine Operators 337 300 -37 -11.0% 0 4 4 Moderate-term on-the-job training 1-6031 1-6	51-4111	Tool and Die Makers	129	116	-13	-10.1%	0	3	3	Long-term on-the-job training
Plating and Coating Machine Setters, Operators, and Tenders, Metal and Plastic 108 104 -4 -3.7% 0 2 2 Moderate-term on-the-job training 14194 Tool Grinders, Filers, and Sharpeners 55 45 -10 -18.2% 0 2 2 Moderate-term on-the-job training 14199 Metal Workers and Plastic Workers, All Other 112 115 3 2.7% 0 3 3 Moderate-term on-the-job training 15011 Bindery Workers 150 60 10 20.0% 1 1 2 Long-term on-the-job training 15022 Prepress Technicians and Workers 150 60 10 20.0% 1 1 2 Long-term on-the-job training 15023 Printing Machine Operators 150 60 431 26 6.4% 3 9 12 Moderate-term on-the-job training 15024 Laundry and Dry-Cleaning Workers 150 60 10 20.0% 1 1 1 2 Long-term on-the-job training 15025 Pressers, Textile, Garment, and Related Materials 150 60 11 1 1 2 Long-term on-the-job training 15026 6.4% 3 9 12 Moderate-term on-the-job training 15027 Fressers, Textile, Garment, and Related Materials 150 60 1 1 1 1 2 Long-term on-the-job training 15028 60 6.4% 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	51-4121	Welders, Cutters, Solderers, and Brazers	532	582	50	9.4%	5	15	20	Long-term on-the-job training
Tool Grinders, Filers, and Sharpeners	51-4122	Welding, Soldering, and Brazing Machine Setters, Operators, and Tenders	104	98	-6	-5.8%	0	3	3	Moderate-term on-the-job training
1-4199 Metal Workers and Plastic Workers, All Other 112 115 3 2.7% 0 3 3 Moderate-term on-the-job training 1-5011 Bindery Workers 220 195 -25 -11.4% 0 6 6 Short-term on-the-job training 1-5021 Job Printers 50 60 10 20.0% 1 1 2 Long-term on-the-job training 1-5022 Prepress Technicians and Workers 169 150 -19 -11.2% 0 4 4 Long-term on-the-job training 1-5023 Printing Machine Operators 405 431 26 6.4% 3 9 12 Moderate-term on-the-job training 1-6011 Laundry and Dry-Cleaning Workers 532 584 52 9.8% 5 15 20 Moderate-term on-the-job training 1-6021 Pressers, Textile, Garment, and Related Materials 62 63 1 1.6% 0 1 1 Short-term on-the-job training 1-6031 Sewing Machine Operators 337 300 -37 -11.0% 0 4 Moderate-term on-the-job training 1-6031	51-4193	Plating and Coating Machine Setters, Operators, and Tenders, Metal and Plastic	108	104	-4	-3.7%	0	2	2	Moderate-term on-the-job training
1-5011 Bindery Workers 1-5021 Job Printers 50 60 10 20.0% 1 1 2 Long-term on-the-job training 1-5022 Prepress Technicians and Workers 169 150 -19 -11.2% 0 4 Long-term on-the-job training 1-5023 Printing Machine Operators 405 431 26 6.4% 3 9 12 Moderate-term on-the-job training 1-6011 Laundry and Dry-Cleaning Workers 532 584 52 9.8% 5 15 20 Moderate-term on-the-job training 1-6021 Pressers, Textile, Garment, and Related Materials 62 63 1 1.6% 0 1 1 Short-term on-the-job training 1-6031 Sewing Machine Operators 337 300 -37 -11.0% 0 4 Moderate-term on-the-job training	51-4194	Tool Grinders, Filers, and Sharpeners	55	45	-10	-18.2%	0	2	2	Moderate-term on-the-job training
1-5021 Job Printers 1-5021 Job Printers 50 60 10 20.0% 1 1 2 Long-term on-the-job training 1-5022 Prepress Technicians and Workers 169 150 -19 -11.2% 0 4 Long-term on-the-job training 1-5023 Printing Machine Operators 1-5023 Printing Machine Operators 1-6011 Laundry and Dry-Cleaning Workers 532 584 52 9.8% 5 15 20 Moderate-term on-the-job training 1-6021 Pressers, Textile, Garment, and Related Materials 62 63 1 1.6% 0 1 Short-term on-the-job training 1-6031 Sewing Machine Operators 337 300 -37 -11.0% 0 4 Moderate-term on-the-job training	51-4199	Metal Workers and Plastic Workers, All Other	112	115	3	2.7%	0	3	3	Moderate-term on-the-job training
1-5022 Prepress Technicians and Workers 169 150 -19 -11.2% 0 4 4 Long-term on-the-job training 1-5023 Printing Machine Operators 405 431 26 6.4% 3 9 12 Moderate-term on-the-job training 1-6011 Laundry and Dry-Cleaning Workers 532 584 52 9.8% 5 15 20 Moderate-term on-the-job training 1-6021 Pressers, Textile, Garment, and Related Materials 62 63 1 1.6% 0 1 1 Short-term on-the-job training 1-6031 Sewing Machine Operators 337 300 -37 -11.0% 0 4 4 Moderate-term on-the-job training	51-5011	Bindery Workers	220	195	-25	-11.4%	0	6	6	Short-term on-the-job training
1-5023 Printing Machine Operators 405 431 26 6.4% 3 9 12 Moderate-term on-the-job training 1-6011 Laundry and Dry-Cleaning Workers 532 584 52 9.8% 5 15 20 Moderate-term on-the-job training 1-6021 Pressers, Textile, Garment, and Related Materials 62 63 1 1.6% 0 1 1 Short-term on-the-job training 1-6031 Sewing Machine Operators 337 300 -37 -11.0% 0 4 Moderate-term on-the-job training	51-5021	Job Printers	50	60	10	20.0%	1	1	2	Long-term on-the-job training
1-6011 Laundry and Dry-Cleaning Workers 532 584 52 9.8% 5 15 20 Moderate-term on-the-job training 1-6021 Pressers, Textile, Garment, and Related Materials 62 63 1 1.6% 0 1 Short-term on-the-job training 1-6031 Sewing Machine Operators 337 300 -37 -11.0% 0 4 Moderate-term on-the-job training	51-5022	Prepress Technicians and Workers	169	150	-19	-11.2%	0	4	4	Long-term on-the-job training
1-6011 Laundry and Dry-Cleaning Workers 532 584 52 9.8% 5 15 20 Moderate-term on-the-job training 1-6021 Pressers, Textile, Garment, and Related Materials 62 63 1 1.6% 0 1 Short-term on-the-job training 1-6031 Sewing Machine Operators 337 300 -37 -11.0% 0 4 Moderate-term on-the-job training	51-5023	Printing Machine Operators	405	431	26	6.4%	3	9	12	Moderate-term on-the-job training
1-6031 Sewing Machine Operators 337 300 -37 -11.0% 0 4 4 Moderate-term on-the-job training	51-6011	Laundry and Dry-Cleaning Workers	532	584	52	9.8%	5	15	l	
	51-6021	Pressers, Textile, Garment, and Related Materials	62	63	1	1.6%	0	1	1	Short-term on-the-job training
1-6041 Shoe and Leather Workers and Repairers 61 32 -29 -47.5% 0 2 2 Long-term on-the-job training	51-6031	Sewing Machine Operators	337	300	-37	-11.0%	0	4	4	Moderate-term on-the-job training
	51-6041	Shoe and Leather Workers and Repairers	61	32	-29	-47.5%	0	2	2	Long-term on-the-job training

SOC	Occupation	Aveı Emplo	٠ ١		nge in Syment	Average	Annual C	penings	1
Code	Оссирации	2002	2012	Net	Percent	Growth	Replace- ment	Total	Education/Training Requirement
51-6042	Shoe Machine Operators and Tenders	90	36	-54	-60.0%	0	1	1	Moderate-term on-the-job training
51-6051	Sewers, Hand	114	78	-36	-31.6%	0	2	2	Short-term on-the-job training
51-6052	Tailors, Dressmakers, and Custom Sewers	126	119	-7	-5.6%	0	2	2	Long-term on-the-job training
51-6061	Textile Bleaching and Dyeing Machine Operators and Tenders	22	14	-8	-36.4%	0	1	1	Moderate-term on-the-job training
51-6063	Textile Knitting and Weaving Machine Setters, Operators, and Tenders	80	68	-12	-15.0%	0	1	1	Long-term on-the-job training
51-6064	Textile Winding, Twisting, and Drawing Out Machine Setters, Operators, and Tenders	105	80	-25	-23.8%	0	2	2	Moderate-term on-the-job training
51-6092	Fabric and Apparel Patternmakers	29	26	-3	-10.3%	0	1	1	Long-term on-the-job training
51-6093	Upholsterers	72	69	-3	-4.2%	0	2	2	Long-term on-the-job training
51-6099	Textile, Apparel, and Furnishings Workers, All Other	45	32	-13	-28.9%	0	1	1	Short-term on-the-job training
51-7011	Cabinetmakers and Bench Carpenters	274	245	-29	-10.6%	0	7	7	Long-term on-the-job training
51-7021	Furniture Finishers	79	74	-5	-6.3%	0	2	2	Long-term on-the-job training
51-7041	Sawing Machine Setters, Operators, and Tenders, Wood	142	122	-20	-14.1%	0	4	4	Moderate-term on-the-job training
51-7042	Woodworking Machine Setters, Operators, and Tenders, Except Sawing	261	220	-41	-15.7%	0	7	7	Moderate-term on-the-job training
51-7099	Woodworkers, All Other	120	101	-19	-15.8%	0	4	4	Moderate-term on-the-job training
51-8012	Power Distributors and Dispatchers	48	50	2	4.2%	0	1	1	Long-term on-the-job training
51-8013	Power Plant Operators	81	83	2	2.5%	0	2	2	Long-term on-the-job training
51-8021	Stationary Engineers and Boiler Operators	84	80	-4	-4.8%	0	2	2	Long-term on-the-job training
51-8031	Water and Liquid Waste Treatment Plant and System Operators	178	207	29	16.3%	3	6	9	Long-term on-the-job training
51-8099	Plant and System Operators, All Other	10	11	1	10.0%	0	0	0	Long-term on-the-job training
51-9011	Chemical Equipment Operators and Tenders	52	49	-3	-5.8%	0	2	2	Moderate-term on-the-job training
51-9012	Separating, Filtering, Clarifying, Precipitating & Still Machine Setters, Operators & Tenders	24	24	0	0.0%	0	1	1	Moderate-term on-the-job training
51-9021	Crushing, Grinding, and Polishing Machine Setters, Operators, and Tenders	61	57	-4	-6.6%	0	2	2	Moderate-term on-the-job training
51-9022	Grinding and Polishing Workers, Hand	42	44	2	4.8%	0	1	1	Moderate-term on-the-job training
51-9023	Mixing and Blending Machine Setters, Operators, and Tenders	119	105	-14	-11.8%	0	3	3	Moderate-term on-the-job training
51-9031	Cutters and Trimmers, Hand	16	18	2	12.5%	0	0	0	Short-term on-the-job training
51-9032	Cutting and Slicing Machine Setters, Operators, and Tenders	305	307	2	0.7%	0	6	6	Moderate-term on-the-job training
51-9041	Extruding, Forming, Pressing, and Compacting Machine Setters, Operators, and Tenders	188	186	-2	-1.1%	0	5	5	Moderate-term on-the-job training
51-9051	Furnace, Kiln, Oven, Drier, and Kettle Operators and Tenders	31	28	-3	-9.7%	0	1	1	Moderate-term on-the-job training
51-9061	Inspectors, Testers, Sorters, Samplers, and Weighers	767	772	5	0.7%	1	18	19	Moderate-term on-the-job training
51-9071	Jewelers and Precious Stone and Metal Workers	93	109	16	17.2%	2	2	4	Postsecondary vocational award
51-9081	Dental Laboratory Technicians	72	76	4	5.6%	0	2	2	Long-term on-the-job training

soc		1	rage syment		nge in oyment	Average Annual Openings		penings	
Code	Occupation	2002	2012	Net	Percent	Growth	Replace- ment	Total	Education/Training Requirement
51-9082	Medical Appliance Technicians	14	16	2	14.3%	0	0	0	Long-term on-the-job training
51-9083	Ophthalmic Laboratory Technicians	28	29	1	3.6%	0	1	1	Moderate-term on-the-job training
51-9111	Packaging and Filling Machine Operators and Tenders	617	667	50	8.1%	5	12	17	Short-term on-the-job training
51-9121	Coating, Painting, and Spraying Machine Setters, Operators, and Tenders	133	126	-7	-5.3%	0	4	4	Moderate-term on-the-job training
51-9122	Painters, Transportation Equipment	103	138	35	34.0%	4	3	7	Moderate-term on-the-job training
51-9123	Painting, Coating, and Decorating Workers	53	56	3	5.7%	0	1	1	Short-term on-the-job training
51-9131	Photographic Process Workers	73	70	-3	-4.1%	0	2	2	Moderate-term on-the-job training
51-9132	Photographic Processing Machine Operators	125	120	-5	-4.0%	0	3	3	Short-term on-the-job training
51-9191	Cementing and Gluing Machine Operators and Tenders	32	25	-7	-21.9%	0	1	1	Moderate-term on-the-job training
51-9194	Etchers and Engravers	37	42	5	13.5%	1	1	2	Long-term on-the-job training
51-9195	Molders, Shapers, and Casters, Except Metal and Plastic	43	40	-3	-7.0%	0	1	1	Moderate-term on-the-job training
51-9196	Paper Goods Machine Setters, Operators, and Tenders	147	140	-7	-4.8%	0	3	3	Moderate-term on-the-job training
51-9198	HelpersProduction Workers	467	444	-23	-4.9%	0	13	13	Short-term on-the-job training
51-9199	Production Workers, All Other	746	733	-13	-1.7%	0	18	18	Moderate-term on-the-job training
53-0000	Transportation and Material Moving Occupations	16,515	18,094	1,579	9.6%	163	356	519	NA
53-1021	First-Line Supervisors/Managers of Helpers, Laborers, and Material Movers, Hand	294	342	48	16.3%	5	7	12	Work experience in a related occupation
53-1031	First-Line Supervisors/Managers of Transportation & Material-Moving Machine Operators	342	374	32	9.4%	3	8	11	Work experience in a related occupation
53-2012	Commercial Pilots	11	11	0	0.0%	0	0	0	Postsecondary vocational award
53-2021	Air Traffic Controllers	28	36	8	28.6%	1	1	2	Long-term on-the-job training
53-3011	Ambulance Drivers and Attendants, Except Emergency Medical Technicians	32	33	1	3.1%	0	0	0	Moderate-term on-the-job training
53-3021	Bus Drivers, Transit and Intercity	225	253	28	12.4%	3	5	8	Moderate-term on-the-job training
53-3022	Bus Drivers, School	609	639	30	4.9%	3	13	16	Short-term on-the-job training
53-3031	Driver/Sales Workers	694	711	17	2.4%	2	11	13	Short-term on-the-job training
53-3032	Truck Drivers, Heavy and Tractor-Trailer	3,751	4,281	530	14.1%	53	61	114	Moderate-term on-the-job training
53-3033	Truck Drivers, Light or Delivery Services	1,895	2,252	357	18.8%	36	17	53	Short-term on-the-job training
53-3041	Taxi Drivers and Chauffeurs	254	318	64	25.2%	6	2	8	Short-term on-the-job training
53-3099	Motor Vehicle Operators, All Other	221	280	59	26.7%	6	3	9	Short-term on-the-job training
53-4011	Locomotive Engineers	14	13	-1	-7.1%	0	0	0	Work experience in a related occupation
53-5011	Sailors and Marine Oilers	78	92	14	17.9%	1	3	- 1	Short-term on-the-job training
53-5021	Captains, Mates, and Pilots of Water Vessels	120	129	9	7.5%	1	3	4	Work experience in a related occupation
53-5022	Motorboat Operators	11	13	2	18.2%	0	0	0	Moderate-term on-the-job training

Employment and Job Openings for All Occupations in Southern Maine in 2002 and Projected 2012 (Sorted by Occupational Group)

soc	Occupation	Ave Emplo	٠ ١		nge in Dyment	Average	Annual O	penings	Education/Training Requirement
Code	оссирация	2002	2012	Net	Percent	Growth	Replace- ment	Total	Education 11 anning requirement
53-6021	Parking Lot Attendants	35	37	2	5.7%	0	1	1	Short-term on-the-job training
53-6031	Service Station Attendants	346	388	42	12.1%	4	16	20	Short-term on-the-job training
53-6051	Transportation Inspectors	60	66	6	10.0%	1	1	2	Work experience in a related occupation
53-6099	Transportation Workers, All Other	60	71	11	18.3%	1	2	3	Short-term on-the-job training
53-7011	Conveyor Operators and Tenders	68	65	-3	-4.4%	0	2	2	Short-term on-the-job training
53-7021	Crane and Tower Operators	70	84	14	20.0%	1	2	3	Moderate-term on-the-job training
53-7032	Excavating and Loading Machine and Dragline Operators	343	361	18	5.2%	2	9	11	Moderate-term on-the-job training
53-7051	Industrial Truck and Tractor Operators	1,142	1,220	78	6.8%	8	22	30	Short-term on-the-job training
53-7061	Cleaners of Vehicles and Equipment	426	484	58	13.6%	6	15	21	Short-term on-the-job training
53-7062	Laborers and Freight, Stock, and Material Movers, Hand	3,081	3,104	23	0.7%	2	101	103	Short-term on-the-job training
53-7063	Machine Feeders and Offbearers	410	366	-44	-10.7%	0	11	11	Short-term on-the-job training
53-7064	Packers and Packagers, Hand	1,429	1,579	150	10.5%	15	27	42	Short-term on-the-job training
53-7072	Pump Operators, Except Wellhead Pumpers	11	11	0	0.0%	0	0	0	Moderate-term on-the-job training
53-7081	Refuse and Recyclable Material Collectors	355	374	19	5.4%	2	9	11	Short-term on-the-job training
53-7199	Material Moving Workers, All Other	28	28	0	0.0%	0	1	1	Moderate-term on-the-job training

Details may not add to totals due to rounding and due to the suppression of confidential data.

soc	Occupation	1	rage yment		nge in oyment	Average Annual Openings		penings	Education/Training Requirement
Code	Оссирации	2002	2012	Net	Percent	Growth	Replace- ment	Total	Education/Framing Requirement
13-2011	Accountants and Auditors	1,359	1,601	242	17.8%	24	26	50	Bachelor's degree
27-2011	Actors	47	54	7	14.9%	1	1	2	Long-term on-the-job training
23-1021	Administrative Law Judges, Adjudicators, and Hearing Officers	25	25	0	0.0%	0	0	0	Bachelor's degree plus work experience
11-3011	Administrative Services Managers	448	504	56	12.5%	6	9	15	Bachelor's degree plus work experience
25-3011	Adult Literacy, Remedial Education, and GED Teachers and Instructors	57	70	13	22.8%	1	1	2	Bachelor's degree
11-2011	Advertising and Promotions Managers	211	277	66	31.3%	7	4	11	Bachelor's degree plus work experience
41-3011	Advertising Sales Agents	323	374	51	15.8%	5	6	11	Moderate-term on-the-job training
13-1011	Agents and Business Managers of Artists, Performers, and Athletes	19	28	9	47.4%	1	0	1	Bachelor's degree plus work experience
19-4011	Agricultural and Food Science Technicians	27	28	1	3.7%	0	1	1	Associate degree
19-1010	Agricultural and Food Scientists	53	63	10	18.9%	1	1	2	Bachelor's degree
45-2091	Agricultural Equipment Operators	27	31	4	14.8%	0	1	1	Moderate-term on-the-job training
45-2011	Agricultural Inspectors	18	23	5	27.8%	1	0	1	Work experience in a related occupation
53-2021	Air Traffic Controllers	28	36	8	28.6%	1	1	2	Long-term on-the-job training
49-3011	Aircraft Mechanics and Service Technicians	72	90	18	25.0%	2	2	4	Postsecondary vocational award
53-3011	Ambulance Drivers and Attendants, Except Emergency Medical Technicians	32	33	1	3.1%	0	0	0	Moderate-term on-the-job training
39-3091	Amusement and Recreation Attendants	366	491	125	34.2%	13	11	24	Short-term on-the-job training
29-1061	Anesthesiologists	53	69	16	30.2%	2	1	3	First Professional degree
33-9011	Animal Control Workers	29	35	6	20.7%	1	2	3	Moderate-term on-the-job training
39-2011	Animal Trainers	18	17	-1	-5.6%	0	0	0	Moderate-term on-the-job training
27-3010	Announcers	185	165	-20	-10.8%	0	5	5	Long-term on-the-job training
25-1061	Anthropology and Archeology Teachers, Postsecondary	10	14	4	40.0%	0	0	0	Doctoral degree
13-2021	Appraisers and Assessors of Real Estate	190	227	37	19.5%	4	4	8	Postsecondary vocational award
17-1011	Architects, Except Landscape and Naval	243	293	50	20.6%	5	3	8	Bachelor's degree
17-3011	Architectural and Civil Drafters	288	294	6	2.1%	1	8	9	Postsecondary vocational award
25-4010	Archivists, Curators, and Museum Technicians	52	60	8	15.4%	1	1	2	Master's degree
25-1062	Area, Ethnic, and Cultural Studies Teachers, Postsecondary	16	21	5	31.3%	1	0	1	Doctoral degree
27-1099	Art and Design Workers, All Other	79	102	23	29.1%	2	1	3	Bachelor's degree
27-1011	Art Directors	37	49	12	32.4%	1	1	2	Bachelor's degree plus work experience
25-1121	Art, Drama, and Music Teachers, Postsecondary	75	103	28	37.3%	3	2	5	Master's degree
51-2099	Assemblers and Fabricators, All Other	351	339	-12	-3.4%	0	9	9	Moderate-term on-the-job training
27-2021	Athletes and Sports Competitors	94	117	23	24.5%	2	2	4	Long-term on-the-job training

soc	Ownering	Ave: Emplo	rage yment		nge in oyment	Average	Annual C	penings	
Code	Occupation	2002	2012	Net	Percent	Growth	Replace- ment	Total	Education/Training Requirement
29-9091	Athletic Trainers	20	27	7	35.0%	1	0	1	Bachelor's degree
19-2021	Atmospheric and Space Scientists	15	18	3	20.0%	0	1	1	Bachelor's degree
25-1051	Atmospheric, Earth, Marine, and Space Sciences Teachers, Postsecondary	46	61	15	32.6%	2	1	3	Doctoral degree
27-4011	Audio and Video Equipment Technicians	20	28	8	40.0%	1	1	2	Long-term on-the-job training
29-1121	Audiologists	19	26	7	36.8%	1	1	2	Master's degree
25-9011	Audio-Visual Collections Specialists	10	12	2	20.0%	0	0	0	Moderate-term on-the-job training
49-3021	Automotive Body and Related Repairers	327	402	75	22.9%	8	7	15	Long-term on-the-job training
49-3022	Automotive Glass Installers and Repairers	30	37	7	23.3%	1	1	2	Long-term on-the-job training
49-3023	Automotive Service Technicians and Mechanics	1,619	1,952	333	20.6%	33	43	76	Postsecondary vocational award
49-2091	Avionics Technicians	71	82	11	15.5%	1	2	3	Postsecondary vocational award
39-6011	Baggage Porters and Bellhops	52	58	6	11.5%	1	1	2	Short-term on-the-job training
33-3011	Bailiffs	18	22	4	22.2%	0	0	0	Moderate-term on-the-job training
51-3011	Bakers	330	399	69	20.9%	7	8	15	Long-term on-the-job training
39-5011	Barbers	201	218	17	8.5%	2	6	8	Postsecondary vocational award
35-3011	Bartenders	1,231	1,311	80	6.5%	8	49	57	Short-term on-the-job training
49-3091	Bicycle Repairers	94	107	13	13.8%	1	4	5	Moderate-term on-the-job training
43-3011	Bill and Account Collectors	728	880	152	20.9%	15	14	29	Short-term on-the-job training
43-3021	Billing and Posting Clerks and Machine Operators	1,019	1,112	93	9.1%	9	17	26	Moderate-term on-the-job training
51-5011	Bindery Workers	220	195	-25	-11.4%	0	6	6	Short-term on-the-job training
19-1021	Biochemists and Biophysicists	27	28	1	3.7%	0	1	1	Doctoral degree
25-1042	Biological Science Teachers, Postsecondary	70	96	26	37.1%	3	2	5	Doctoral degree
19-4021	Biological Technicians	138	167	29	21.0%	3	2	5	Associate degree
47-2011	Boilermakers	37	34	-3	-8.1%	0	1	1	Long-term on-the-job training
43-3031	Bookkeeping, Accounting, and Auditing Clerks	3,892	4,068	176	4.5%	18	73	91	Moderate-term on-the-job training
47-2021	Brickmasons and Blockmasons	173	183	10	5.8%	1	3	4	Long-term on-the-job training
27-4012	Broadcast Technicians	80	90	10	12.5%	1	2	3	Associate degree
43-4011	Brokerage Clerks	77	75	-2	-2.6%	0	1	1	Moderate-term on-the-job training
13-2031	Budget Analysts	81	95	14	17.3%	1	1	2	Bachelor's degree
37-9099	Building and Grounds Cleaning and Maintenance Workers, All Other	55	66	11	20.0%	1	1	2	Short-term on-the-job training
49-3031	Bus and Truck Mechanics and Diesel Engine Specialists	534	627	93	17.4%	9	14	ı	Postsecondary vocational award
53-3022	Bus Drivers, School	609	639	30	4.9%	3	13	16	Short-term on-the-job training

soc	Occupation		rage yment		nge in oyment	Average	Annual O	penings	Education (Casining Description
Code	оссирания	2002	2012	Net	Percent	Growth	Replace- ment	Total	Education/Training Requirement
53-3021	Bus Drivers, Transit and Intercity	225	253	28	12.4%	3	5	8	Moderate-term on-the-job training
13-1199	Business Operations Specialists, All Other	1,382	1,814	432	31.3%	43	24	67	Bachelor's degree
25-1011	Business Teachers, Postsecondary	135	179	44	32.6%	4	3	7	Master's degree
51-3021	Butchers and Meat Cutters	257	259	2	0.8%	0	6	6	Long-term on-the-job training
51-7011	Cabinetmakers and Bench Carpenters	274	245	-29	-10.6%	0	7	7	Long-term on-the-job training
27-4031	Camera Operators, Television, Video, and Motion Picture	47	51	4	8.5%	0	1	1	Moderate-term on-the-job training
53-5021	Captains, Mates, and Pilots of Water Vessels	120	129	9	7.5%	1	3	4	Work experience in a related occupation
29-2031	Cardiovascular Technologists and Technicians	79	118	39	49.4%	4	2	6	Associate degree
43-5011	Cargo and Freight Agents	43	48	5	11.6%	1	1	2	Moderate-term on-the-job training
47-2031	Carpenters	3,692	3,985	293	7.9%	29	60	89	Long-term on-the-job training
47-2041	Carpet Installers	92	101	9	9.8%	1	1	2	Moderate-term on-the-job training
17-1021	Cartographers and Photogrammetrists	37	40	3	8.1%	0	1	1	Bachelor's degree
41-2011	Cashiers	6,375	7,485	1,110	17.4%	111	310	421	Short-term on-the-job training
47-2051	Cement Masons and Concrete Finishers	238	272	34	14.3%	3	5	8	Moderate-term on-the-job training
51-9191	Cementing and Gluing Machine Operators and Tenders	32	25	-7	-21.9%	0	1	1	Moderate-term on-the-job training
35-1011	Chefs and Head Cooks	426	506	80	18.8%	8	13	21	Work experience in a related occupation
17-2041	Chemical Engineers	104	111	7	6.7%	1	3	4	Bachelor's degree
51-9011	Chemical Equipment Operators and Tenders	52	49	-3	-5.8%	0	2	2	Moderate-term on-the-job training
19-4031	Chemical Technicians	28	30	2	7.1%	0	1	1	Associate degree
25-1052	Chemistry Teachers, Postsecondary	29	40	11	37.9%	1	1	2	Doctoral degree
19-2031	Chemists	79	82	3	3.8%	0	3	3	Bachelor's degree
11-1011	Chief Executives	916	1,054	138	15.1%	14	17	31	Bachelor's degree plus work experience
39-9011	Child Care Workers	2,684	3,277	593	22.1%	59	73	132	Short-term on-the-job training
21-1021	Child, Family, and School Social Workers	605	817	212	35.0%	21	10	31	Bachelor's degree
29-1011	Chiropractors	104	138	34	32.7%	3	2	5	First Professional degree
17-3022	Civil Engineering Technicians	134	140	6	4.5%	1	3	4	Associate degree
17-2051	Civil Engineers	506	516	10	2.0%	1	8	9	Bachelor's degree
53-7061	Cleaners of Vehicles and Equipment	426	484	58	13.6%	6	15	21	Short-term on-the-job training
21-2011	Clergy	855	1,025	170	19.9%	17	18		First Professional degree
19-3031	Clinical, Counseling, and School Psychologists	280	392	112	40.0%	11	6		Doctoral degree
27-2022	Coaches and Scouts	360	438	78	21.7%	8	7	15	Long-term on-the-job training

soc	Occupation	Ave Emplo	٠ ١		nge in oyment	Average	Annual C	penings	Education/Training Decuirement
Code	оссирации	2002	2012	Net	Percent	Growth	Replace- ment	Total	Education/Training Requirement
51-9121	Coating, Painting, and Spraying Machine Setters, Operators, and Tenders	133	126	-7	-5.3%	0	4	4	Moderate-term on-the-job training
51-2021	Coil Winders, Tapers, and Finishers	75	64	-11	-14.7%	0	2	. 2	Short-term on-the-job training
49-9091	Coin, Vending, and Amusement Machine Servicers and Repairers	94	103	9	9.6%	1	2	3	Moderate-term on-the-job training
35-3021	Combined Food Preparation and Serving Workers, Including Fast Food	4,406	5,541	1,135	25.8%	114	191	305	Short-term on-the-job training
27-1021	Commercial and Industrial Designers	58	54	-4	-6.9%	0	1	1	Bachelor's degree
49-9092	Commercial Divers	34	38	4	11.8%	0	1	1	Moderate-term on-the-job training
53-2012	Commercial Pilots	11	11	0	0.0%	o	0	0	Postsecondary vocational award
25-1122	Communications Teachers, Postsecondary	21	28	7	33.3%	1	1	2	Doctoral degree
13-1072	Compensation, Benefits, and Job Analysis Specialists	170	214	44	25.9%	4	3	7	Bachelor's degree
13-1041	Compliance Officers, Except Agriculture, Construction, Health & Safety & Transportation	223	262	39	17.5%	4	5	9	Long-term on-the-job training
11-3021	Computer and Information Systems Managers	498	624	126	25.3%	13	9	22	Bachelor's degree plus work experience
17-2061	Computer Hardware Engineers	10	10	0	0.0%	0	0	0	Bachelor's degree
43-9011	Computer Operators	350	278	-72	-20.6%	0	7	7	Moderate-term on-the-job training
15-1021	Computer Programmers	467	453	-14	-3.0%	0	11	11	Bachelor's degree
25-1021	Computer Science Teachers, Postsecondary	66	84	18	27.3%	2	2	4	Master's degree
15-1031	Computer Software Engineers, Applications	621	710	89	14.3%	9	6	15	Bachelor's degree
15-1032	Computer Software Engineers, Systems Software	176	213	37	21.0%	4	2	6	Bachelor's degree
15-1099	Computer Specialists, All Other	100	136	36	36.0%	4	1	5	Associate degree
15-1041	Computer Support Specialists	781	889	108	13.8%	11	10	21	Associate degree
15-1051	Computer Systems Analysts	806	1,007	201	24.9%	20	9	29	Bachelor's degree
49-2011	Computer, Automated Teller, and Office Machine Repairers	319	373	54	16.9%	5	4	9	Postsecondary vocational award
51-4011	Computer-Controlled Machine Tool Operators, Metal and Plastic	187	182	-5	-2.7%	0	3	3	Moderate-term on-the-job training
39-6012	Concierges	12	14	2	16.7%	0	0	0	Moderate-term on-the-job training
19-1031	Conservation Scientists	73	76	3	4.1%	0	2	2	Bachelor's degree
47-4011	Construction and Building Inspectors	50	62	12	24.0%	1	1	2	Work experience in a related occupation
47-2061	Construction Laborers	1,337	1,446	109	8.2%	11	18	29	Moderate-term on-the-job training
11-9021	Construction Managers	554	595	41	7.4%	4	10	14	Bachelor's degree
47-4999	Construction Trades and Related Workers, All Other	70	73	3	4.3%	0	1	1	Moderate-term on-the-job training
49-9012	Control and Valve Installers and Repairers, Except Mechanical Door	96	122	26	27.1%	3	2	5	Moderate-term on-the-job training
53-7011	Conveyor Operators and Tenders	68	65	-3	-4.4%	0	2	2	Short-term on-the-job training
35-2011	Cooks, Fast Food	865	935	70	8.1%	7	27		Short-term on-the-job training

soc	Occupation	l	rage yment		nge in oyment	Average	Annual C	penings	Education/Training Possivers
Code		2002	2012	Net	Percent	Growth	Replace- ment	Total	Education/Training Requirement
35-2012	Cooks, Institution and Cafeteria	819	834	15	1.8%	2	25	27	Moderate-term on-the-job training
35-2014	Cooks, Restaurant	1,774	2,075	301	17.0%	30	55	85	Long-term on-the-job training
35-2015	Cooks, Short Order	736	808	72	9.8%	7	23	30	Short-term on-the-job training
33-3012	Correctional Officers and Jailers	411	501	90	21.9%	9	9	18	Moderate-term on-the-job training
43-4021	Correspondence Clerks	60	53	-7	-11.7%	0	2	2	Short-term on-the-job training
13-1051	Cost Estimators	242	267	25	10.3%	3	5	8	Work experience in a related occupation
21-9099	Counselors, Social, and Religious Workers, All Other	335	486	151	45.1%	15	6	21	Bachelor's degree
41-2021	Counter and Rental Clerks	678	844	166	24.5%	17	26	43	Short-term on-the-job training
35-3022	Counter Attendants, Cafeteria, Food Concession, and Coffee Shop	808	984	176	21.8%	18	53	71	Short-term on-the-job training
43-5021	Couriers and Messengers	117	122	5	4.3%	1	3	4	Short-term on-the-job training
23-2091	Court Reporters	43	57	14	32.6%	1	1	2	Postsecondary vocational award
43-4031	Court, Municipal, and License Clerks	235	282	47	20.0%	5	5	10	Short-term on-the-job training
53-7021	Crane and Tower Operators	70	84	14	20.0%	1	2	3	Moderate-term on-the-job training
43-4041	Credit Authorizers, Checkers, and Clerks	38	36	-2	-5.3%	0	1	1	Short-term on-the-job training
25-1111	Criminal Justice and Law Enforcement Teachers, Postsecondary	11	15	4	36.4%	0	o	0	Doctoral degree
33-9091	Crossing Guards	174	228	54	31.0%	5	6	11	Short-term on-the-job training
51-9021	Crushing, Grinding, and Polishing Machine Setters, Operators, and Tenders	61	57	-4	-6.6%	0	2	2	Moderate-term on-the-job training
43-4051	Customer Service Representatives	3,449	3,984	535	15.5%	54	51	105	Moderate-term on-the-job training
51-9031	Cutters and Trimmers, Hand	16	18	2	12.5%	0	0	0	Short-term on-the-job training
51-9032	Cutting and Slicing Machine Setters, Operators, and Tenders	305	307	2	0.7%	0	6	6	Moderate-term on-the-job training
51-4031	Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and Plastic	368	346	-22	-6.0%	0	9	9	Moderate-term on-the-job training
43-9021	Data Entry Keyers	627	544	-83	-13.2%	0	15	15	Moderate-term on-the-job training
15-1061	Database Administrators	131	180	49	37.4%	5	1	6	Bachelor's degree
41-9011	Demonstrators and Product Promoters	306	418	112	36.6%	11	7	18	Moderate-term on-the-job training
31-9091	Dental Assistants	405	550	145	35.8%	15	11	26	Moderate-term on-the-job training
29-2021	Dental Hygienists	427	582	155	36.3%	16	4	20	Associate degree
51-9081	Dental Laboratory Technicians	72	76	4	5.6%	0	2	2	Long-term on-the-job training
29-1020	Dentists	260	266	6	2.3%	1	4	5	First Professional degree
43-9031	Desktop Publishers	54	72	18	33.3%	2	1	3	Postsecondary vocational award
33-3021	Detectives and Criminal Investigators	141	193	52	36.9%	5	4	9	Work experience in a related occupation
29-2032	Diagnostic Medical Sonographers	58	76	18	31.0%	2	1	3	Associate degree

soc	Occupation	Ave: Emplo	rage yment		nge in oyment	Average	Annual C	penings	Education
Code	Оссирация	2002	2012	Net	Percent	Growth	Replace- ment	Total	Education/Training Requirement
29-2051	Dietetic Technicians	54	69	15	27.8%	2	1	3	Moderate-term on-the-job training
29-1031	Dietitians and Nutritionists	87	112	25	28.7%	3	2	5	Bachelor's degree
35-9011	Dining Room and Cafeteria Attendants and Bartender Helpers	646	757	111	17.2%	11	22	33	Short-term on-the-job training
21-2021	Directors, Religious Activities and Education	91	116	25	27.5%	3	1	4	Bachelor's degree
35-9021	Dishwashers	1,457	1,573	116	8.0%	12	49	61	Short-term on-the-job training
43-5032	Dispatchers, Except Police, Fire, and Ambulance	299	321	22	7.4%	2	6	8	Moderate-term on-the-job training
41-9091	Door-To-Door Sales Workers, News and Street Vendors, and Related Workers	357	438	81	22.7%	8	8	16	Short-term on-the-job training
17-3099	Drafters, Engineering, and Mapping Technicians, All Other	566	637	71	12.5%	7	14	21	Associate degree
51-4032	Drilling and Boring Machine Tool Setters, Operators, and Tenders, Metal and Plastic	90	81	-9	-10.0%	0	3	3	Moderate-term on-the-job training
53-3031	Driver/Sales Workers	694	711	17	2.4%	2	11	13	Short-term on-the-job training
47-2081	Drywall and Ceiling Tile Installers	261	293	32	12.3%	3	6	9	Moderate-term on-the-job training
47-5021	Earth Drillers, Except Oil and Gas	37	37	0	0.0%	0	1	1	Moderate-term on-the-job training
25-1063	Economics Teachers, Postsecondary	21	30	9	42.9%	1	1	2	Doctoral degree
19-3011	Economists	21	27	6	28.6%	1	1	2	Master's degree
27-3041	Editors	231	264	33	14.3%	3	6	9	Bachelor's degree
11-9039	Education Administrators, All Other	62	75	13	21.0%	1	2	3	Bachelor's degree plus work experience
11-9032	Education Administrators, Elementary and Secondary School	448	499	51	11.4%	5	11	16	Bachelor's degree plus work experience
11-9033	Education Administrators, Postsecondary	192	236	44	22.9%	4	5	9	Bachelor's degree plus work experience
11-9031	Education Administrators, Preschool and Child Care Center/Program	71	83	12	16.9%	1	2	3	Bachelor's degree plus work experience
25-1081	Education Teachers, Postsecondary	134	182	48	35.8%	5	3	8	Doctoral degree
21-1012	Educational, Vocational, and School Counselors	380	400	20	5.3%	2	9	11	Master's degree
49-2092	Electric Motor, Power Tool, and Related Repairers	84	90	6	7.1%	1	2	3	Postsecondary vocational award
17-3023	Electrical and Electronic Engineering Technicians	351	391	40	11.4%	4	7	11	Associate degree
51-2022	Electrical and Electronic Equipment Assemblers	441	385	-56	-12.7%	0	10	10	Short-term on-the-job training
17-3012	Electrical and Electronics Drafters	46	45	-1	-2.2%	0	1	1	Postsecondary vocational award
49-2093	Electrical and Electronics Installers and Repairers, Transportation Equipment	69	87	18	26.1%	2	2	4	Postsecondary vocational award
49-2094	Electrical and Electronics Repairers, Commercial and Industrial Equipment	143	160	17	11.9%	2	3	5	Postsecondary vocational award
49-2095	Electrical and Electronics Repairers, Powerhouse, Substation, and Relay	32	34	2	6.3%	0	1	1	Postsecondary vocational award
17-2071	Electrical Engineers	292	293	1	0.3%	0	6	6	Bachelor's degree
49-9051	Electrical Power-Line Installers and Repairers	268	292	24	9.0%	2	9		Long-term on-the-job training
47-2111	Electricians	1,242	1,386	144	11.6%	14	25	39	Long-term on-the-job training

SOC	O	Ave Emplo	rage yment		nge in oyment	Average	Annual O	penings	
Code	Occupation	2002	2012	Net	Percent	Growth	Replace- ment	Total	Education/Training Requirement
51-2023	Electromechanical Equipment Assemblers	106	96	-10	-9.4%	0	3	3	Short-term on-the-job training
49-2096	Electronic Equipment Installers and Repairers, Motor Vehicles	10	13	3	30.0%	0	0	0	Postsecondary vocational award
49-2097	Electronic Home Entertainment Equipment Installers and Repairers	79	97	18	22.8%	2	2	4	Postsecondary vocational award
17-2072	Electronics Engineers, Except Computer	164	179	15	9.1%	2	3	5	Bachelor's degree
25-2021	Elementary School Teachers, Except Special Education	2,156	2,262	106	4.9%	11	48	59	Bachelor's degree
47-4021	Elevator Installers and Repairers	122	120	-2	-1.6%	0	3	3	Long-term on-the-job training
43-4061	Eligibility Interviewers, Government Programs	141	133	-8	-5.7%	0	4	4	Moderate-term on-the-job training
13-1061	Emergency Management Specialists	22	29	7	31.8%	1	1	2	Work experience in a related occupation
29-2041	Emergency Medical Technicians and Paramedics	593	745	152	25.6%	15	7	22	Postsecondary vocational award
13-1071	Employment, Recruitment, and Placement Specialists	255	282	27	10.6%	3	4	7	Bachelor's degree
51-2031	Engine and Other Machine Assemblers	152	143	-9	-5.9%	0	4	4	Short-term on-the-job training
11-9041	Engineering Managers	412	447	35	8.5%	4	8	12	Bachelor's degree plus work experience
25-1032	Engineering Teachers, Postsecondary	50	68	18	36.0%	2	1	3	Doctoral degree
17-2199	Engineers, All Other	236	264	28	11.9%	3.	5	8	Bachelor's degree
25-1123	English Language and Literature Teachers, Postsecondary	130	172	42	32.3%	4	3	7	Master's degree
27-2099	Entertainers and Performers, Sports and Related Workers, All Other	40	47	7	17.5%	1	1	2	Long-term on-the-job training
17-3025	Environmental Engineering Technicians	29	38	9	31.0%	1,	1	2	Associate degree
17-2081	Environmental Engineers	86	118	32	37.2%	3	2	5	Bachelor's degree
19-4091	Environmental Science and Protection Technicians, Including Health	83	114	31	37.3%	3	2	. 5	Associate degree
19-2041	Environmental Scientists and Specialists, Including Health	154	203	49	31.8%	5	3	8	Master's degree
51-9194	Etchers and Engravers	37	42	5	13.5%	1	1	2	Long-term on-the-job training
53-7032	Excavating and Loading Machine and Dragline Operators	343	361	18	5.2%	2	9		Moderate-term on-the-job training
43-6011	Executive Secretaries and Administrative Assistants	1,920	2,056	136	7.1%	14	37	51	Moderate-term on-the-job training
47-5031	Explosives Workers, Ordnance Handling Experts, and Blasters	12	13	1	8.3%	0	1	1	Moderate-term on-the-job training
51-4021	Extruding and Drawing Machine Setters, Operators, and Tenders, Metal and Plastic	40	37	-3	-7.5%	0	1	1	Moderate-term on-the-job training
51-9041	Extruding, Forming, Pressing, and Compacting Machine Setters, Operators, and Tenders	188	186	-2	-1.1%	0	5	5	Moderate-term on-the-job training
51-6092	Fabric and Apparel Patternmakers	29	26	-3	-10.3%	0	1		Long-term on-the-job training
49-9093	Fabric Menders, Except Garment	42	45	3	7.1%	0	1		Moderate-term on-the-job training
45-4021	Fallers	52	53	1	1.9%	0	1		Moderate-term on-the-job training
29-1062	Family and General Practitioners	339	435	96	28.3%	10	5		First Professional degree
25-9021	Farm and Home Management Advisors	31	32	1	3.2%	0	1		Bachelor's degree

SOC	Occupation	Ave Emplo	rage yment		nge in oyment	Average	Annual C	penings	Education/Training Decuirement
Code	оссирации	2002	2012	Net	Percent	Growth	Replace- ment	Total	Education/Training Requirement
49-3041	Farm Equipment Mechanics	48	53	. 5	10.4%	1	1	2	Postsecondary vocational award
11-9011	Farm, Ranch, and Other Agricultural Managers	60	80	20	33.3%	2	1	3	Bachelor's degree plus work experience
11-9012	Farmers and Ranchers	356	383	27	7.6%	3	2	5	Long-term on-the-job training
45-9099	Farming, Fishing, and Forestry Workers, All Other	11	16	5	45.5%	1	0	1	Moderate-term on-the-job training
45-2092	Farmworkers and Laborers, Crop, Nursery, and Greenhouse	220	273	53	24.1%	5	6	11	Short-term on-the-job training
45-2093	Farmworkers, Farm and Ranch Animals	109	140	31	28.4%	3	3	6	Short-term on-the-job training
47-4031	Fence Erectors	72	69	-3	-4.2%	0	1	1	Moderate-term on-the-job training
51-2091	Fiberglass Laminators and Fabricators	53	52	-1	-1.9%	0	1	1	Moderate-term on-the-job training
43-4071	File Clerks	314	302	-12	-3.8%	0	9	9	Short-term on-the-job training
27-4032	Film and Video Editors	50	65	15	30.0%	2	1	3	Bachelor's degree
13-2051	Financial Analysts	166	199	33	19.9%	3	2	5	Bachelor's degree
13-2061	Financial Examiners	20	21	1	5.0%	0	1	1	Bachelor's degree
11-3031	Financial Managers	1,020	1,208	188	18.4%	19	15	34	Bachelor's degree plus work experience
13-2099	Financial Specialists, All Other	214	242	28	13.1%	3	4	7	Bachelor's degree
43-4999	Financial, Information, and Record Clerks, All Other	431	476	45	10.4%	5	7	12	Short-term on-the-job training
27-1013	Fine Artists, Including Painters, Sculptors, and Illustrators	318	358	40	12.6%	4	7	11	Long-term on-the-job training
33-2011	Fire Fighters	739	973	234	31.7%	23	21	44	Long-term on-the-job training
33-2021	Fire Inspectors and Investigators	12	13	1	8.3%	0	0	0	Work experience in a related occupation
47-1011	First-Line Supervisors/Managers of Construction Trades and Extraction Workers	1,136	1,223	87	7.7%	9	19	28	Work experience in a related occupation
33-1011	First-Line Supervisors/Managers of Correctional Officers	20	25	5	25.0%	1	1	2	Work experience in a related occupation
45-1011	First-Line Supervisors/Managers of Farming, Fishing, and Forestry Workers	44	56	12	27.3%	1	1	2	Work experience in a related occupation
33-1021	First-Line Supervisors/Managers of Fire Fighting and Prevention Workers	64	84	20	31.3%	2	3	5	Work experience in a related occupation
35-1012	First-Line Supervisors/Managers of Food Preparation and Serving Workers	1,343	1,562	219	16.3%	22	32	54	Work experience in a related occupation
53-1021	First-Line Supervisors/Managers of Helpers, Laborers, and Material Movers, Hand	294	342	48	16.3%	5	7	12	Work experience in a related occupation
37-1011	First-Line Supervisors/Managers of Housekeeping and Janitorial Workers	390	457	67	17.2%	7	9	16	Work experience in a related occupation
37-1012	First-Line Supervisors/Managers of Landscaping, Lawn Service & Groundskeeping Workers	314	401	87	27.7%	9	3	12	Work experience in a related occupation
49-1011	First-Line Supervisors/Managers of Mechanics, Installers, and Repairers	745	890	145	19.5%	15	19	34	Work experience in a related occupation
41-1012	First-Line Supervisors/Managers of Non-Retail Sales Workers	740	896	156	21.1%	16	14	30	Work experience in a related occupation
43-1011	First-Line Supervisors/Managers of Office and Administrative Support Workers	2,341	2,487	146	6.2%	15	50	65	Work experience in a related occupation
39-1021	First-Line Supervisors/Managers of Personal Service Workers	301	424	123	40.9%	12	8	20	Work experience in a related occupation
33-1012	First-Line Supervisors/Managers of Police and Detectives	145	183	38	26.2%	4	5	9	Work experience in a related occupation

soc	Occupation	1	rage yment		nge in oyment	Average	Annual O	penings	1
Code	оссирации	2002	2012	Net	Percent	Growth	Replace- ment	Total	Education/Training Requirement
51-1011	First-Line Supervisors/Managers of Production and Operating Workers	1,198	1,248	50	4.2%	5	25	30	Work experience in a related occupation
41-1011	First-Line Supervisors/Managers of Retail Sales Workers	3,881	4,586	705	18.2%	71	70	141	Work experience in a related occupation
53-1031	First-Line Supervisors/Managers of Transportation & Material-Moving Machine Operators	342	374	32	9.4%	3	8	11	Work experience in a related occupation
33-1099	First-Line Supervisors/Managers, Protective Service Workers, All Other	74	80	6	8.1%	1	2	3	Work experience in a related occupation
33-3031	Fish and Game Wardens	23	24	1	4.3%	0	1	1	Long-term on-the-job training
45-3011	Fishers and Related Fishing Workers	363	387	24	6.6%	2	10	12	Moderate-term on-the-job training
39-9031	Fitness Trainers and Aerobics Instructors	305	446	141	46.2%	14	7	21	Postsecondary vocational award
47-2043	Floor Sanders and Finishers	59	54	-5	-8.5%	0	1	1	Moderate-term on-the-job training
27-1023	Floral Designers	217	254	37	17.1%	4	3	7	Moderate-term on-the-job training
51-3091	Food and Tobacco Roasting, Baking, and Drying Machine Operators and Tenders	21	23	2	9.5%	0	1	1	Short-term on-the-job training
51-3092	Food Batchmakers	140	169	29	20.7%	3	3	6	Short-term on-the-job training
51-3093	Food Cooking Machine Operators and Tenders	22	27	5	22.7%	1	1	2	Short-term on-the-job training
35-9099	Food Preparation and Serving Related Workers, All Other	36	40	4	11.1%	0	1	1	Short-term on-the-job training
35-2021	Food Preparation Workers	2,362	2,918	556	23.5%	56	84	140	Short-term on-the-job training
35-3041	Food Servers, Nonrestaurant	380	419	39	10.3%	4	13	17	Short-term on-the-job training
11-9051	Food Service Managers	820	955	135	16.5%	14	13	27	Work experience in a related occupation
25-1124	Foreign Language and Literature Teachers, Postsecondary	30	41	11	36.7%	1	1	2	Master's degree
33-2022	Forest Fire Inspectors and Prevention Specialists	12	13	1	8.3%	0	0	0	Work experience in a related occupation
19-1032	Foresters	39	52	13	33.3%	1	1	2	Bachelor's degree
25-1043	Forestry and Conservation Science Teachers, Postsecondary	16	21	5	31.3%	1	0	1	Doctoral degree
39-4021	Funeral Attendants	56	74	18	32.1%	2	1	3	Short-term on-the-job training
11-9061	Funeral Directors	66	81	15	22.7%	2	2	4	Associate degree
51-9051	Furnace, Kiln, Oven, Drier, and Kettle Operators and Tenders	31	28	-3	-9.7%	0	1	1	Moderate-term on-the-job training
51-7021	Furniture Finishers	79	74	-5	-6.3%	0	2	2	Long-term on-the-job training
39-3012	Gaming and Sports Book Writers and Runners	45	54	9	20.0%	1	1	2	Postsecondary vocational award
39-3199	Gaming Workers, All Other	56	61	5	8.9%	1	2	3	Moderate-term on-the-job training
11-1021	General and Operations Managers	4,619	5,454	835	18.1%	84	87	171	Bachelor's degree plus work experience
19-2042	Geoscientists, Except Hydrologists and Geographers	15	18	3	20.0%	0	0	0	Master's degree
47-2121	Glaziers	35	37	2	5.7%	0	1	1	Long-term on-the-job training
45-2041	Graders and Sorters, Agricultural Products	52	57	5	9.6%	1	1	2	Work experience in a related occupation
25-1191	Graduate Teaching Assistants	324	431	107	33.0%	11	7	18	Bachelor's degree

soc	Occupation	Ave Emplo	- 1		nge in oyment	Average	Annual O	penings	
Code	Occupation	2002	2012	Net	Percent	Growth	Replace- ment	Total	Education/Training Requirement
27-1024	Graphic Designers	301	358	57	18.9%	6	4	10	Bachelor's degree
51-9022	Grinding and Polishing Workers, Hand	42	44	2	4.8%	0	1	1	Moderate-term on-the-job training
51-4033	Grinding/Lapping/Polishing&Buffing Machine Tool Setters/Operators/Tenders, Metal&Plastic	121	110	-11	-9.1%	0	2	2	Moderate-term on-the-job training
39-5012	Hairdressers, Hairstylists, and Cosmetologists	1,664	1,956	292	17.5%	29	32	61	Postsecondary vocational award
47-4041	Hazardous Materials Removal Workers	99	126	27	27.3%	3	3	6	Moderate-term on-the-job training
17-2111	Health and Safety Engineers, Except Mining Safety Engineers and Inspectors	44	45	1	2.3%	0	1	1	Bachelor's degree
29-1199	Health Diagnosing and Treating Practitioners, All Other	52	64	12	23.1%	1	1	2	Bachelor's degree
21-1091	Health Educators	134	174	40	29.9%	4	2	6	Master's degree
29-9199	Health Professionals and Technicians, All Other	179	225	46	25.7%	5	3	8	Postsecondary vocational award
25-1071	Health Specialties Teachers, Postsecondary	168	222	54	32.1%	5	4	9	Master's degree
31-9099	Healthcare Support Workers, All Other	181	251	70	38.7%	7	3	10	Short-term on-the-job training
49-9021	Heating, Air Conditioning, and Refrigeration Mechanics and Installers	816	999	183	22.4%	18	11	29	Long-term on-the-job training
47-3019	Helpers, Construction Trades, All Other	30	30	0	0.0%	0	1	1	Short-term on-the-job training
47-3011	Helpers-Brickmasons, Blockmasons, Stonemasons, and Tile and Marble Setters	99	91	-8	-8.1%	0	4	4	Short-term on-the-job training
47-3012	HelpersCarpenters	191	203	12	6.3%	1	8	9	Short-term on-the-job training
47-3013	HelpersElectricians	256	253	-3	-1.2%	0	11	11	Short-term on-the-job training
49-9098	HelpersInstallation, Maintenance, and Repair Workers	137	170	33	24.1%	3	5	8	Short-term on-the-job training
47-3014	HelpersPainters, Paperhangers, Plasterers, and Stucco Masons	31	31	0	0.0%	0	1	1	Short-term on-the-job training
47-3015	HelpersPipelayers, Plumbers, Pipefitters, and Steamfitters	86	79	-7	-8.1%	0	4	4	Short-term on-the-job training
51-9198	HelpersProduction Workers	467	444	-23	-4.9%	0	13	13	Short-term on-the-job training
47-3016	HelpersRoofers	31	32	1	3.2%	0	1	1	Short-term on-the-job training
47-4051	Highway Maintenance Workers	570	664	94	16.5%	9	8	17	Moderate-term on-the-job training
25-1125	History Teachers, Postsecondary	33	46	13	39.4%	1	1	2	Doctoral degree
49-9031	Home Appliance Repairers	107	122	15	14.0%	2	3	5	Long-term on-the-job training
31-1011	Home Health Aides	1,868	2,753	885	47.4%	89	25	114	Short-term on-the-job training
35-9031	Hosts and Hostesses, Restaurant, Lounge, and Coffee Shop	694	822	128	18.4%	13	22	35	Short-term on-the-job training
43-4081	Hotel, Motel, and Resort Desk Clerks	658	809	151	22.9%	15	30	45	Short-term on-the-job training
43-4161	Human Resources Assistants, Except Payroll and Timekeeping	237	275	38	16.0%	4	5	9	Short-term on-the-job training
11-3040	Human Resources Managers	368	435	67	18.2%	7	6		Bachelor's degree plus work experience
19-2043	Hydrologists	24	30	6	25.0%	1	0		Master's degree
17-3026	Industrial Engineering Technicians	87	86	-1	-1.1%	0	2		Associate degree

soc	Occupation		rage yment		nge in oyment	Average	Annual O	penings	Education/Training Requirement
Code		2002	2012	Net	Percent	Growth	Replace- ment	Total	Education/11aming requirement
17-2112	Industrial Engineers	164	169	5	3.0%	1	4	5	Bachelor's degree
49-9041	Industrial Machinery Mechanics	310	343	33	10.6%	3	6	9	Long-term on-the-job training
11-3051	Industrial Production Managers	259	262	3	1.2%	0	5	5	Bachelor's degree
53-7051	Industrial Truck and Tractor Operators	1,142	1,220	78	6.8%	8	22	30	Short-term on-the-job training
19-3032	Industrial-Organizational Psychologists	14	17	3	21.4%	0	0	0	Master's degree
51-9061	Inspectors, Testers, Sorters, Samplers, and Weighers	767	772	5	0.7%	1	18	19	Moderate-term on-the-job training
49-9099	Installation, Maintenance, and Repair Workers, All Other	630	742	112	17.8%	11	14	25	Moderate-term on-the-job training
25-9031	Instructional Coordinators	93	121	28	30.1%	3	1	4	Master's degree
47-2130	Insulation Workers	127	135	8	6.3%	1	4	5	Moderate-term on-the-job training
13-1032	Insurance Appraisers, Auto Damage	32	34	2	6.3%	0	0	0	Long-term on-the-job training
43-9041	Insurance Claims and Policy Processing Clerks	910	888	-22	-2.4%	0	15	15	Moderate-term on-the-job training
41-3021	Insurance Sales Agents	2,382	2,427	45	1.9%	5	57	62	Bachelor's degree
13-2053	Insurance Underwriters	473	501	28	5.9%	3	8	11	Bachelor's degree
27-1025	Interior Designers	78	91	13	16.7%	1	1	2	Bachelor's degree
29-1063	Internists, General	123	156	33	26.8%	3	2	5	First Professional degree
27-3091	Interpreters and Translators	67	97	30	44.8%	3	1	4	Long-term on-the-job training
43-4111	Interviewers, Except Eligibility and Loan	225	311	86	38.2%	9	6	15	Short-term on-the-job training
37-2011	Janitors and Cleaners, Except Maids and Housekeeping Cleaners	4,111	4,796	685	16.7%	69	78	147	Short-term on-the-job training
51-9071	Jewelers and Precious Stone and Metal Workers	93	109	16	17.2%	2	2	4	Postsecondary vocational award
51-5021	Job Printers	50	60	10	20.0%	1	1	2	Long-term on-the-job training
23-1023	Judges, Magistrate Judges, and Magistrates	15	16	1	6.7%	0	0	0	Bachelor's degree plus work experience
25-2012	Kindergarten Teachers, Except Special Education	397	465	68	17.1%	7	5	12	Bachelor's degree
53-7062	Laborers and Freight, Stock, and Material Movers, Hand	3,081	3,104	23	0.7%	2	101	103	Short-term on-the-job training
17-1012	Landscape Architects	43	50	7	16.3%	1	1	2	Bachelor's degree
37-3011	Landscaping and Groundskeeping Workers	2,237	2,870	633	28.3%	63	49	112	Short-term on-the-job training
51-4034	Lathe and Turning Machine Tool Setters, Operators, and Tenders, Metal and Plastic	129	113	-16	-12.4%	0	3	3	Moderate-term on-the-job training
51-6011	Laundry and Dry-Cleaning Workers	532	584	52	9.8%	5	15	20	Moderate-term on-the-job training
23-2092	Law Clerks	33	34	1	3.0%	0	0	0	Bachelor's degree
25-1112	Law Teachers, Postsecondary	16	22	6	37.5%	1	0	1	First Professional degree
23-1011	Lawyers	1,338	1,499	161	12.0%	16	17		First Professional degree
23-9099	Legal and Related Workers, All Other	41	54	13	31.7%	1	0	1	Bachelor's degree

soc	Occupation	Aver Emplo	rage yment		nge in Syment	Average	Annual C	penings	Education Transition Description
Code	Оссирации	2002	2012	Net	Percent	Growth	Replace- ment	Total	Education/Training Requirement
43-6012	Legal Secretaries	527	557	30	5.7%	3	10	13	Postsecondary vocational award
11-1031	Legislators	143	161	18	12.6%	2	2	4	Bachelor's degree plus work experience
25-4021	Librarians	232	252	20	8.6%	2	6	8	Master's degree
43-4121	Library Assistants, Clerical	84	108	24	28.6%	2	3	5	Short-term on-the-job training
25-4031	Library Technicians	299	351	52	17.4%	5	11	16	Short-term on-the-job training
25-9199	Library, Museum, Training, and Other Education Workers, All Other	25	32	7	28.0%	1	0	1	Bachelor's degree
29-2061	Licensed Practical and Licensed Vocational Nurses	822	989	167	20.3%	17	18	35	Postsecondary vocational award
19-1099	Life Scientists, All Other	38	52	14	36.8%	1	1	2	Bachelor's degree
19-4099	Life, Physical, and Social Science Technicians, All Other	122	133	11	9.0%	1	3	4	Associate degree
13-2071	Loan Counselors	21	22	1	4.8%	0	0	0	Bachelor's degree
43-4131	Loan Interviewers and Clerks	209	173	-36	-17.2%	0	3	3	Short-term on-the-job training
13-2072	Loan Officers	285	323	38	13.3%	4	5	9	Bachelor's degree
49-9094	Locksmiths and Safe Repairers	44	50	6	13.6%	1	2	3	Moderate-term on-the-job training
53-4011	Locomotive Engineers	14	13	-1	-7.1%	0	0	0	Work experience in a related occupation
11-9081	Lodging Managers	277	298	21	7.6%	2	5	7	Work experience in a related occupation
45-4023	Log Graders and Scalers	22	20	-2	-9.1%	0	0	0	Moderate-term on-the-job training
45-4022	Logging Equipment Operators	97	102	5	5.2%	1	2	3	Moderate-term on-the-job training
53-7063	Machine Feeders and Offbearers	410	366	-44	-10.7%	0	11	11	Short-term on-the-job training
51-4041	Machinists	992	968	-24	-2.4%	0	23	23	Long-term on-the-job training
37-2012	Maids and Housekeeping Cleaners	3,245	3,813	568	17.5%	57	68	125	Short-term on-the-job training
43-9051	Mail Clerks and Mail Machine Operators, Except Postal Service	406	391	-15	-3.7%	0	12	12	Short-term on-the-job training
49-9042	Maintenance and Repair Workers, General	2,010	2,422	412	20.5%	41	39	80	Moderate-term on-the-job training
49-9043	Maintenance Workers, Machinery	112	112	0	0.0%	0	3	3	Short-term on-the-job training
13-1111	Management Analysts	955	1,131	176	18.4%	18	13	31	Bachelor's degree plus work experience
11-9199	Managers, All Other	1,601	1,816	215	13.4%	22	31	53	Work experience in a related occupation
39-5092	Manicurists and Pedicurists	11	14	3	27.3%	0	0	0	Postsecondary vocational award
49-9095	Manufactured Building and Mobile Home Installers	74	110	36	48.6%	4	2	6	Moderate-term on-the-job training
17-2121	Marine Engineers and Naval Architects	47	46	-1	-2.1%	0	2	2	Bachelor's degree
19-3021	Market Research Analysts	103	122	19	18.4%	2	3	5	Master's degree
11-2021	Marketing Managers	434	534	100	23.0%	10	8	18	Bachelor's degree plus work experience
21-1013	Marriage and Family Therapists	17	23	6	35.3%	1	0	1	Master's degree

soc	Occupation	Ave Emplo	rage yment		nge in oyment	Average	Annual C	penings	Education/Training Possiber
Code	оссирания	2002	2012	Net	Percent	Growth	Replace- ment	Total	Education/Training Requirement
31-9011	Massage Therapists	164	249	85	51.8%	9	3	12	Postsecondary vocational award
53-7199	Material Moving Workers, All Other	28	28	0	0.0%	0	1	1	Moderate-term on-the-job training
43-5199	Material Recording, Scheduling, Dispatching, and Distributing Workers, All Other (OES Only)	19	18	-1	-5.3%	0	1	1	Short-term on-the-job training
17-2131	Materials Engineers	24	23	-1	-4.2%	0	1	1	Bachelor's degree
19-2032	Materials Scientists	13	16	3	23.1%	0	0	0	Bachelor's degree
25-1022	Mathematical Science Teachers, Postsecondary	89	116	27	30.3%	3	2	5	Master's degree
51-3022	Meat, Poultry, and Fish Cutters and Trimmers	130	134	4	3.1%	0	3	3	Short-term on-the-job training
49-9011	Mechanical Door Repairers	19	25	6	31.6%	1	1	2	Moderate-term on-the-job training
17-3013	Mechanical Drafters	138	124	-14	-10.1%	0	4	4	Postsecondary vocational award
17-3027	Mechanical Engineering Technicians	40	38	-2	-5.0%	0	1	1	Associate degree
17-2141	Mechanical Engineers	421	428	7	1.7%	1	12	13	Bachelor's degree
27-4099	Media and Communication Equipment Workers, All Other	24	31	7	29.2%	1	1	2	Moderate-term on-the-job training
27-3099	Media and Communication Workers, All Other	78	90	12	15.4%	1	1	2	Long-term on-the-job training
29-2012	Medical and Clinical Laboratory Technicians	232	307	75	32.3%	8	6	14	Associate degree
29-2011	Medical and Clinical Laboratory Technologists	286	395	109	38.1%	11	8	19	Bachelor's degree
11-9111	Medical and Health Services Managers	512	710	198	38.7%	20	10	30	Bachelor's degree plus work experience
21-1022	Medical and Public Health Social Workers	243	348	105	43.2%	11	4	15	Bachelor's degree
51-9082	Medical Appliance Technicians	14	16	2	14.3%	0	0	0	Long-term on-the-job training
31-9092	Medical Assistants	635	1,088	453	71.3%	45	12	57	Moderate-term on-the-job training
31-9093	Medical Equipment Preparers	69	85	16	23.2%	2	1	3	Short-term on-the-job training
49-9062	Medical Equipment Repairers	36	43	7	19.4%	1	1	2	Associate degree
29-2071	Medical Records and Health Information Technicians	343	566	223	65.0%	22	5	27	Associate degree
19-1042	Medical Scientists, Except Epidemiologists	27	35	8	29.6%	1	1	2	Doctoral degree
43-6013	Medical Secretaries	845	1,036	191	22.6%	19	16	35	Postsecondary vocational award
31-9094	Medical Transcriptionists	262	345	83	31.7%	8	5	13	Postsecondary vocational award
13-1121	Meeting and Convention Planners	46	56	10	21.7%	1	1	2	Bachelor's degree
21-1023	Mental Health and Substance Abuse Social Workers	418	633	215	51.4%	22	7	29	Master's degree
21-1014	Mental Health Counselors	302	405	103	34.1%	10	7	17	Master's degree
27-1026	Merchandise Displayers and Window Trimmers	116	156	40	34.5%	4	2	6	Moderate-term on-the-job training
51-4199	Metal Workers and Plastic Workers, All Other	112	115	3	2.7%	0	3	3	Moderate-term on-the-job training
43-5041	Meter Readers, Utilities	105	98	-7	-6.7%	0	3	3	Short-term on-the-job training

soc	Occupation	Ave Emplo	~ 1		nge in oyment	Average	Average Annual Openings		Education / Training Descriptment
Code	оссирации	2002	2012	Net	Percent	Growth	Replace- ment	Total	Education/Training Requirement
19-1022	Microbiologists	19	22	3:	15.8%	0	1	1	Doctoral degree
25-2022	Middle School Teachers, Except Special and Vocational Education	1,227	1,220	-7	-0.6%	0	27	27	Bachelor's degree
51-4035	Milling and Planing Machine Setters, Operators, and Tenders, Metal and Plastic	73	65	-8	-11.0%	0	1	1	Moderate-term on-the-job training
49-9044	Millwrights	108	97	-11	-10.2%	0	3	3	Long-term on-the-job training
51-9023	Mixing and Blending Machine Setters, Operators, and Tenders	119	105	-14	-11.8%	0	3	3	Moderate-term on-the-job training
49-3042	Mobile Heavy Equipment Mechanics, Except Engines	256	292	36	14.1%	4	6	10	Postsecondary vocational award
51-9195	Molders, Shapers, and Casters, Except Metal and Plastic	43	40	-3	-7.0%	0	1	1	Moderate-term on-the-job training
51-4072	Molding, Coremaking & Casting Machine Setters, Operators & Tenders, Metal & Plastic	153	125	-28	-18.3%	0	4	4	Moderate-term on-the-job training
39-3021	Motion Picture Projectionists	36	42	6	16.7%	1	2	3	Short-term on-the-job training
53-3099	Motor Vehicle Operators, All Other	221	280	59	26.7%	6	3	9	Short-term on-the-job training
49-3051	Motorboat Mechanics	150	216	66	44.0%	7	4	11	Long-term on-the-job training
53-5022	Motorboat Operators	11	13	2	18.2%	0	0	0	Moderate-term on-the-job training
49-3052	Motorcycle Mechanics	12	18	6	50.0%	1	0	1	Long-term on-the-job training
27-1014	Multi-Media Artists and Animators	197	201	4	2.0%	0	4	4	Bachelor's degree
51-4081	Multiple Machine Tool Setters, Operators, and Tenders, Metal and Plastic	142	139	-3	-2.1%	0	4	4	Moderate-term on-the-job training
27-2041	Music Directors and Composers	86	105	19	22.1%	2	2	4	Bachelor's degree plus work experience
27-2042	Musicians and Singers	281	351	70	24.9%	7	6	13	Long-term on-the-job training
11-9121	Natural Sciences Managers	74	85	11	14.9%	1	1	2	Bachelor's degree plus work experience
15-1071	Network and Computer Systems Administrators	348	429	81	23.3%	8	4	12	Bachelor's degree
15-1081	Network Systems and Data Communications Analysts	186	260	74	39.8%	7	2	9	Bachelor's degree
43-4141	New Accounts Clerks	131	148	17	13.0%	2	3	5	Work experience in a related occupation
27-3020	News Analysts, Reporters and Correspondents	150	171	21	14.0%	2	4	6	Bachelor's degree plus work experience
39-2021	Nonfarm Animal Caretakers	137	182	45	32.8%	5	3	8	Short-term on-the-job training
17-2161	Nuclear Engineers	227	254	27	11.9%	3	7	10	Bachelor's degree
29-2033	Nuclear Medicine Technologists	24	32	8	33.3%	1	0	1	Associate degree
51-4012	Numerical Tool and Process Control Programmers	92	95	3	3.3%	0	2	2	Long-term on-the-job training
31-1012	Nursing Aides, Orderlies, and Attendants	2,791	3,441	650	23.3%	65	37	102	Short-term on-the-job training
25-1072	Nursing Instructors and Teachers, Postsecondary	60	78	18	30.0%	2	1	3	Doctoral degree
29-1064	Obstetricians and Gynecologists	58	74	16	27.6%	2	1	3	First Professional degree
29-9010	Occupational Health and Safety Specialists and Technicians	95	116	21	22.1%	2	2	4	Bachelor's degree
31-2012	Occupational Therapist Aides	26	38	12	46.2%	1	0	1	Short-term on-the-job training

		Ave	- 1		nge in	Average	Annual O	penings	
SOC Code	Occupation	Emplo	yment	Empl	oyment	go		peinings	Education/Training Requirement
Code		2002	2012	Net	Percent	Growth	Replace- ment	Total	•
31-2011	Occupational Therapist Assistants	34	45	11	32.4%	1	0	1	Associate degree
29-1122	Occupational Therapists	217	285	68	31.3%	7	3	10	Bachelor's degree
43-9061	Office Clerks, General	4,991	5,333	342	6.9%	34	111	145	Short-term on-the-job training
43-9071	Office Machine Operators, Except Computer	142	128	-14	-9.9%	0	4	4	Short-term on-the-job training
47-2073	Operating Engineers and Other Construction Equipment Operators	473	514	41	8.7%	4	12	16	Moderate-term on-the-job training
15-2031	Operations Research Analysts	51	52	1	2.0%	0	1	1	Master's degree
51-9083	Ophthalmic Laboratory Technicians	28	29	1	3.6%	0	1	1	Moderate-term on-the-job training
29-2081	Opticians, Dispensing	57	76	19	33.3%	2	1	3	Long-term on-the-job training
29-1041	Optometrists	64	86	22	34.4%	2	2	4	First Professional degree
43-4151	Order Clerks	625	632	7	1.1%	1	14	15	Short-term on-the-job training
29-2091	Orthotists and Prosthetists	10	11	1	10.0%	0	0	0	Bachelor's degree
49-3053	Outdoor Power Equipment and Other Small Engine Mechanics	109	143	34	31.2%	3	3	6	Moderate-term on-the-job training
51-9111	Packaging and Filling Machine Operators and Tenders	617	667	50	8.1%	5	12	17	Short-term on-the-job training
53-7064	Packers and Packagers, Hand	1,429	1,579	150	10.5%	15	27	42	Short-term on-the-job training
47-2141	Painters, Construction and Maintenance	1,095	1,187	92	8.4%	9	17	26	Moderate-term on-the-job training
51-9122	Painters, Transportation Equipment	103	138	35	34.0%	4	3	7	Moderate-term on-the-job training
51-9123	Painting, Coating, and Decorating Workers	53	56	3	5.7%	0	1	1	Short-term on-the-job training
51-9196	Paper Goods Machine Setters, Operators, and Tenders	147	140	-7	-4.8%	0	3	3	Moderate-term on-the-job training
47-2142	Paperhangers	63	58	-5	-7.9%	0	1	1	Moderate-term on-the-job training
23-2011	Paralegals and Legal Assistants	481	560	79	16.4%	8	4	12	Associate degree
33-3041	Parking Enforcement Workers	19	23	4	21.1%	0	0	0	Short-term on-the-job training
53-6021	Parking Lot Attendants	35	37	2	5.7%	0	1	1	Short-term on-the-job training
41-2022	Parts Salespersons	559	585	26	4.7%	3	16	19	Moderate-term on-the-job training
47-2071	Paving, Surfacing, and Tamping Equipment Operators	108	121	13	12.0%	1	2	3	Moderate-term on-the-job training
43-3051	Payroll and Timekeeping Clerks	362	360	-2	-0.6%	0	10	10	Moderate-term on-the-job training
29-1065	Pediatricians, General	60	77	17	28.3%	2	1	3	First Professional degree
39-9021	Personal and Home Care Aides	1,748	2,811	1,063	60.8%	106	28	134	Short-term on-the-job training
39-9099	Personal Care and Service Workers, All Other	257	330	73	28.4%	7	6	13	Short-term on-the-job training
13-2052	Personal Financial Advisors	391	613	222	56.8%	22	5		Bachelor's degree
37-2021	Pest Control Workers	55	64	9	16.4%	1	1	2	Moderate-term on-the-job training
37-3012	Pesticide Handlers, Sprayers, and Applicators, Vegetation	23	26	3	13.0%	0	1		Moderate-term on-the-job training

SOC	Occupation	Ave: Emplo	~ 1		nge in syment	Average	Annual C	penings	1
Code	Оссирации	2002	2012	Net	Percent	Growth	Replace- ment	Total	Education/Training Requirement
29-1051	Pharmacists	333	444	111	33.3%	11	7	18	First Professional degree
31-9095	Pharmacy Aides	30	33	3	10.0%	0	1	1	Short-term on-the-job training
29-2052	Pharmacy Technicians	388	521	133	34.3%	13	5	18	Moderate-term on-the-job training
25-1126	Philosophy and Religion Teachers, Postsecondary	54	76	22	40.7%	2	1	3	Doctoral degree
27-4021	Photographers	172	211	39	22.7%	4	4	8	Long-term on-the-job training
51-9131	Photographic Process Workers	73	70	-3	-4.1%	0	2	2	Moderate-term on-the-job training
51-9132	Photographic Processing Machine Operators	125	120	-5	-4.0%	0	3	3	Short-term on-the-job training
19-2099	Physical Scientists, All Other	26	27	1	3.8%	0	1	1	Bachelor's degree
31-2022	Physical Therapist Aides	45	69	24	53.3%	2	1	3	Short-term on-the-job training
31-2021	Physical Therapist Assistants	113	181	68	60.2%	7	2	9	Associate degree
29-1123	Physical Therapists	395	550	155	39.2%	16	4	20	Master's degree
29-1071	Physician Assistants	251	407	156	62.2%	16	4	20	Bachelor's degree
29-1069	Physicians and Surgeons, All Other	390	488	98	25.1%	10	5	15	First Professional degree
19-2012	Physicists	36	41	5	13.9%	1	1	2	Doctoral degree
25-1054	Physics Teachers, Postsecondary	28	38	10	35.7%	1	1	2	Doctoral degree
47-2151	Pipelayers	91	106	15	16.5%	2	2	4	Moderate-term on-the-job training
51-8099	Plant and System Operators, All Other	10	11	1	10.0%	0	0	0	Long-term on-the-job training
51-4193	Plating and Coating Machine Setters, Operators, and Tenders, Metal and Plastic	108	104	-4	-3.7%	0	2	2	Moderate-term on-the-job training
47-2152	Plumbers, Pipefitters, and Steamfitters	887	953	66	7.4%	7	20	27	Long-term on-the-job training
29-1081	Podiatrists	43	58	15	34.9%	2	1	3	First Professional degree
33-3051	Police and Sheriff's Patrol Officers	799	1,109	310	38.8%	31	21	52	Long-term on-the-job training
43-5031	Police, Fire, and Ambulance Dispatchers	246	300	54	22.0%	5	5	10	Moderate-term on-the-job training
25-1065	Political Science Teachers, Postsecondary	32	44	12	37.5%	1	1	2	Doctoral degree
43-5051	Postal Service Clerks	237	226	-11	-4.6%	0	6	6	Short-term on-the-job training
43-5052	Postal Service Mail Carriers	616	586	-30	-4.9%	0	19	19	Short-term on-the-job training
43-5053	Postal Service Mail Sorters, Processors, and Processing Machine Operators	709	607	-102	-14.4%	0	19		Short-term on-the-job training
11-9131	Postmasters and Mail Superintendents	65	61	-4	-6.2%	0	1	1	Work experience in a related occupation
25-1199	Postsecondary Teachers, All Other	220	290	70	31.8%	7	5	12	Doctoral degree
51-8012	Power Distributors and Dispatchers	48	50	2	4.2%	0	1	1	Long-term on-the-job training
51-8013	Power Plant Operators	81	83	2	2.5%	0	2	2	Long-term on-the-job training
49-9069	Precision Instrument and Equipment Repairers, All Other	31	33	2	6.5%	0	1		Long-term on-the-job training

soc	Ourselles	Ave: Emplo	rage yment		nge in Dyment	Average	Annual C	penings	l ,
Code	Occupation	2002	2012	Net	Percent	Growth	Replace- ment	Total	Education/Training Requirement
51-5022	Prepress Technicians and Workers	169	150	-19	-11.2%	0	4	4	Long-term on-the-job training
25-2011	Preschool Teachers, Except Special Education	757	908	151	19.9%	15	9	24	Postsecondary vocational award
51-6021	Pressers, Textile, Garment, and Related Materials	62	63	1	1.6%	0	1	1	Short-term on-the-job training
51-5023	Printing Machine Operators	405	431	26	6.4%	3	9	12	Moderate-term on-the-job training
33-9021	Private Detectives and Investigators	86	98	12	14.0%	1	2	3	Work experience in a related occupation
21-1092	Probation Officers and Correctional Treatment Specialists	73	87	14	19.2%	1	1	2	Bachelor's degree
43-3061	Procurement Clerks	115	112	-3	-2.6%	0	3	3	Short-term on-the-job training
27-2012	Producers and Directors	119	137	18	15.1%	2	2	4	Bachelor's degree plus work experience
51-9199	Production Workers, All Other	746	733	-13	-1.7%	0	18	18	Moderate-term on-the-job training
43-5061	Production, Planning, and Expediting Clerks	403	439	36	8.9%	4	10	14	Short-term on-the-job training
43-9081	Proofreaders and Copy Markers	63	60	-3	-4.8%	0	1	1	Short-term on-the-job training
11-9141	Property, Real Estate, and Community Association Managers	369	460	91	24.7%	9	7	16	Bachelor's degree
33-9099	Protective Service Workers, All Other	255	298	43	16.9%	4	18	22	Short-term on-the-job training
31-1013	Psychiatric Aides	121	153	32	26.4%	3	2	5	Short-term on-the-job training
29-2053	Psychiatric Technicians	99	122	23	23.2%	2	1	3	Moderate-term on-the-job training
29-1066	Psychiatrists	69	89	20	29.0%	2	1	3	First Professional degree
25-1066	Psychology Teachers, Postsecondary	44	60	16	36.4%	2	1	3	Doctoral degree
11-2031	Public Relations Managers	117	145	28	23.9%	3	2	5	Bachelor's degree plus work experience
27-3031	Public Relations Specialists	203	280	77	37.9%	8	3	11	Bachelor's degree
53-7072	Pump Operators, Except Wellhead Pumpers	11	11	0	0.0%	0	0	0	Moderate-term on-the-job training
13-1021	Purchasing Agents and Buyers, Farm Products	39	49	10	25.6%	1	1	2	Work experience in a related occupation
13-1023	Purchasing Agents, Except Wholesale, Retail, and Farm Products	311	350	39	12.5%	4	8	12	Work experience in a related occupation
11-3061	Purchasing Managers	193	213	20	10.4%	2	4	6	Bachelor's degree plus work experience
29-1124	Radiation Therapists	22	30	8	36.4%	1	1	2	Associate degree
49-2021	Radio Mechanics	24	18	-6	-25.0%	0	1	1	Postsecondary vocational award
29-2034	Radiologic Technologists and Technicians	313	408	95	30.4%	10	6	16	Associate degree
47-4061	Rail-Track Laying and Maintenance Equipment Operators	20	17	-3	-15.0%	0	1	1	Moderate-term on-the-job training
41-9021	Real Estate Brokers	500	603	103	20.6%	10	10	20	Work experience in a related occupation
41-9022	Real Estate Sales Agents	246	309	63	25.6%	6	5	11	Postsecondary vocational award
43-4171	Receptionists and Information Clerks	1,663	2,121	458	27.5%	46	41	87	Short-term on-the-job training
25-1193	Recreation and Fitness Studies Teachers, Postsecondary	39	53	14	35.9%	1	1	2	Master's degree

soc	Occupation	Ave Emplo	rage syment		nge in oyment	Average	Annual C	penings	Education/Training Requirement
Code	оссирания	2002	2012	Net	Percent	Growth	Replace- ment	Total	Education/ Framing Requirement
39-9032	Recreation Workers	398	532	134	33.7%	13	9	22	Bachelor's degree
29-1125	Recreational Therapists	61	72	11	18.0%	1	2	3	Bachelor's degree
49-3092	Recreational Vehicle Service Technicians	27	39	12	44.4%	1	1	2	Long-term on-the-job training
53-7081	Refuse and Recyclable Material Collectors	355	374	19	5.4%	2	9	11	Short-term on-the-job training
29-1111	Registered Nurses	4,698	6,265	1,567	33.4%	157	98	255	Associate degree
21-1015	Rehabilitation Counselors	415	590	175	42.2%	18	10	28	Master's degree
43-4181	Reservation and Transportation Ticket Agents and Travel Clerks	122	139	17	13.9%	2	3	5	Short-term on-the-job training
39-9041	Residential Advisors	207	293	86	41.5%	9	4	13	Moderate-term on-the-job training
29-1126	Respiratory Therapists	162	239	77	47.5%	8	5	13	Associate degree
29-2054	Respiratory Therapy Technicians	20	30	10	50.0%	1	0	1	Postsecondary vocational award
41-2031	Retail Salespersons	8,699	9,566	867	10.0%	87	316	403	Short-term on-the-job training
49-9096	Riggers	143	167	24	16.8%	2	3	5	Short-term on-the-job training
51-4023	Rolling Machine Setters, Operators, and Tenders, Metal and Plastic	179	161	-18	-10.1%	0	4	4	Moderate-term on-the-job training
47-2181	Roofers	191	199	8	4.2%	1	4	5	Moderate-term on-the-job training
53-5011	Sailors and Marine Oilers	78	92	14	17.9%	1	3	4	Short-term on-the-job training
41-9099	Sales and Related Workers, All Other	831	1,048	217	26.1%	22	16	38	Moderate-term on-the-job training
41-9031	Sales Engineers	79	95	16	20.3%	2	2	4	Bachelor's degree
11-2022	Sales Managers	520	649	129	24.8%	13	10	23	Bachelor's degree plus work experience
41-4011	Sales Representatives, Wholesale & Manufacturing, Technical & Scientific Products	550	651	101	18.4%	10	14	24	Moderate-term on-the-job training
41-4012	Sales Reps, Wholesale and Manufacturing, Except Technical & Scientific Products	2,227	2,646	419	18.8%	42	59	101	Moderate-term on-the-job training
51-7041	Sawing Machine Setters, Operators, and Tenders, Wood	142	122	-20	-14.1%	0	4	4	Moderate-term on-the-job training
25-2031	Secondary School Teachers, Except Special and Vocational Education	2,075	2,241	166	8.0%	17	58	75	Bachelor's degree
43-9999	Secretaries, Administrative Assistants, and Other Office Support Workers, All Other	314	293	-21	-6.7%	0	7	7	Short-term on-the-job training
43-6014	Secretaries, Except Legal, Medical, and Executive	3,701	3,581	-120	-3.2%	0	71	71	Moderate-term on-the-job training
41-3031	Securities, Commodities, and Financial Services Sales Agents	393	513	120	30.5%	12	5	17	Bachelor's degree
49-2098	Security and Fire Alarm Systems Installers	34	40	6	17.6%	1	1	2	Postsecondary vocational award
33-9032	Security Guards	1,055	1,190	135	12.8%	14	23	37	Short-term on-the-job training
25-3021	Self-Enrichment Education Teachers	380	631	251	66.1%	25	5	30	Work experience in a related occupation
51-9012	Separating, Filtering, Clarifying, Precipitating & Still Machine Setters, Operators & Tenders	24	24	0	0.0%	0	1	1	Moderate-term on-the-job training
1	Septic Tank Servicers and Sewer Pipe Cleaners	32	36	4	12.5%	0	1		Moderate-term on-the-job training
53-6031	Service Station Attendants	346	388	42	12.1%	4	16	20	Short-term on-the-job training

soc	Occupation	Ave Emplo	- 1		nge in oyment	Average	Annual C	penings	Education/Training Requirement
Code	оссарации	2002	2012	Net	Percent	Growth	Replace- ment	Total	Education Framing Requirement
27-1027	Set and Exhibit Designers	32	32	0	0.0%	0	0	0	Bachelor's degree
51-6051	Sewers, Hand	114	78	-36	-31.6%	0	2	2	Short-term on-the-job training
51-6031	Sewing Machine Operators	337	300	-37	-11.0%	0	4	4	Moderate-term on-the-job training
39-5093	Shampooers	32	36	4	12.5%	0	1	1	Short-term on-the-job training
47-2211	Sheet Metal Workers	370	392	22	5.9%	2	9	11	Moderate-term on-the-job training
43-5071	Shipping, Receiving, and Traffic Clerks	1,643	1,651	8	0.5%	1	34	35	Short-term on-the-job training
51-6041	Shoe and Leather Workers and Repairers	61	32	-29	-47.5%	0	2	2	Long-term on-the-job training
51-6042	Shoe Machine Operators and Tenders	90	36	-54	-60.0%	0	1	1	Moderate-term on-the-job training
39-5094	Skin Care Specialists	58	71	13	22.4%	1	1	2	Postsecondary vocational award
51-3023	Slaughterers and Meat Packers	12	14	2	16.7%	0	0	0	Moderate-term on-the-job training
11-9151	Social and Community Service Managers	408	577	169	41.4%	17	8	25	Bachelor's degree
21-1093	Social and Human Service Assistants	1,169	2,004	835	71.4%	84	21	105	Moderate-term on-the-job training
19-3099	Social Scientists and Related Workers, All Other	43	49	6	14.0%	1	1	2	Master's degree
25-1067	Sociology Teachers, Postsecondary	25	33	8	32.0%	1	1	2	Doctoral degree
27-4014	Sound Engineering Technicians	17	18	1	5.9%	0	o	0	Postsecondary vocational award
25-2042	Special Education Teachers, Middle School	184	221	37	20.1%	4	4	8	Bachelor's degree
25-2041	Special Education Teachers, Preschool, Kindergarten, and Elementary School	470	562	92	19.6%	9	11	20	Bachelor's degree
25-2043	Special Education Teachers, Secondary School	235	280	45	19.1%	5	6	11	Bachelor's degree
29-1127	Speech-Language Pathologists	258	331	73	28.3%	7	6	13	Master's degree
51-8021	Stationary Engineers and Boiler Operators	84	80	-4	-4.8%	0	2	2	Long-term on-the-job training
43-9111	Statistical Assistants	70	63	-7	-10.0%	0	1	1	Moderate-term on-the-job training
15-2041	Statisticians	21	24	3	14.3%	0	1	1	Master's degree
43-5081	Stock Clerks and Order Fillers	2,824	2,740	-84	-3.0%	0	105	105	Short-term on-the-job training
47-2022	Stonemasons	54	56	2	3.7%	0	1	1	Long-term on-the-job training
47-2221	Structural Iron and Steel Workers	70	73	3	4.3%	0	1	1	Long-term on-the-job training
51-2041	Structural Metal Fabricators and Fitters	192	191	-1	-0.5%	0	5	5	Moderate-term on-the-job training
21-1011	Substance Abuse and Behavioral Disorder Counselors	170	210	40	23.5%	4	4	8	Master's degree
29-1067	Surgeons	195	252	57	29.2%	6	3	9	First Professional degree
29-2055	Surgical Technologists	130	177	47	36.2%	5	2	7	Postsecondary vocational award
19-3022	Survey Researchers	12	14	2	16.7%	0	0	0	Master's degree
17-3031	Surveying and Mapping Technicians	163	200	37	22.7%	4	6	10	Moderate-term on-the-job training

soc	Occupation	ı	rage yment		nge in oyment	Average	Annual C	penings	
Code	оссирации	2002	2012	Net	Percent	Growth	Replace- ment	Total	Education/Training Requirement
17-1022	Surveyors	119	122	3	2.5%	0	4	4	Bachelor's degree
43-2011	Switchboard Operators, Including Answering Service	433	427	-6	-1.4%	0	11	11	Short-term on-the-job training
51-6052	Tailors, Dressmakers, and Custom Sewers	126	119	-7	-5.6%	0	2	2	Long-term on-the-job training
47-2082	Tapers	33	38	5	15.2%	1	1	2	Moderate-term on-the-job training
13-2081	Tax Examiners, Collectors, and Revenue Agents	117	134	17	14.5%	2	3	5	Bachelor's degree
13-2082	Tax Preparers	116	133	17	14.7%	2	2	4	Moderate-term on-the-job training
53-3041	Taxi Drivers and Chauffeurs	254	318	64	25.2%	6	2	8	Short-term on-the-job training
25-9041	Teacher Assistants	2,770	3,133	363	13.1%	36	54	90	Short-term on-the-job training
25-3999	Teachers, Primary, Secondary, and Adult, All Other	957	1,239	282	29.5%	28	12	40	Bachelor's degree
51-2092	Team Assemblers	1,278	1,137	-141	-11.0%	0	33	33	Moderate-term on-the-job training
27-3042	Technical Writers	58	69	11	19.0%	1	2	3	Bachelor's degree
49-2022	Telecommunications Equipment Installers and Repairers, Except Line Installers	407	423	16	3.9%	2	8	10	Long-term on-the-job training
49-9052	Telecommunications Line Installers and Repairers	164	178	14	8.5%	1	5	6	Long-term on-the-job training
41-9041	Telemarketers	1,184	1,157	-27	-2.3%	0	19	19	Short-term on-the-job training
43-3071	Tellers	910	1,018	108	11.9%	11	45	56	Short-term on-the-job training
51-6061	Textile Bleaching and Dyeing Machine Operators and Tenders	22	14	-8	-36.4%	0	1	1	Moderate-term on-the-job training
51-6063	Textile Knitting and Weaving Machine Setters, Operators, and Tenders	80	68	-12	-15.0%	0	1	1	Long-term on-the-job training
51-6064	Textile Winding, Twisting, and Drawing Out Machine Setters, Operators, and Tenders	105	80	-25	-23.8%	0	2	2	Moderate-term on-the-job training
51-6099	Textile, Apparel, and Furnishings Workers, All Other	45	32	-13	-28.9%	0	1	1	Short-term on-the-job training
47-2044	Tile and Marble Setters	48	56	8	16.7%	1	1	2	Long-term on-the-job training
49-3093	Tire Repairers and Changers	125	148	23	18.4%	2	5	7	Short-term on-the-job training
23-2093	Title Examiners, Abstractors, and Searchers	69	62	-7	-10.1%	0	1	1	Moderate-term on-the-job training
51-4111	Tool and Die Makers	129	116	-13	-10.1%	0	3	3	Long-term on-the-job training
51-4194	Tool Grinders, Filers, and Sharpeners	55	45	-10	-18.2%	0	2	2	Moderate-term on-the-job training
39-6021	Tour Guides and Escorts	101	134	33	32.7%	3	3	6	Moderate-term on-the-job training
13-1073	Training and Development Specialists	578	725	147	25.4%	15	9	24	Bachelor's degree
53-6051	Transportation Inspectors	60	66	6	10.0%	1	1	2	Work experience in a related occupation
53-6099	Transportation Workers, All Other	60	71	11	18.3%	1	2	3	Short-term on-the-job training
11-3071	Transportation, Storage, and Distribution Managers	210	247	37	17.6%	4	4	8	Work experience in a related occupation
41-3041	Travel Agents	192	151	-41	-21.4%	0	4	4	Postsecondary vocational award
37-3013	Tree Trimmers and Pruners	64	75	11	17.2%	1	1	2	Short-term on-the-job training

soc	O	Ave Emplo	rage yment		nge in Dyment	Average	Annual O	penings	1
Code	Occupation	2002	2012	Net	Percent	Growth	Replace- ment	Total	Education/Training Requirement
53-3032	Truck Drivers, Heavy and Tractor-Trailer	3,751	4,281	530	14.1%	53	61	114	Moderate-term on-the-job training
53-3033	Truck Drivers, Light or Delivery Services	1,895	2,252	357	18.8%	36	17	53	Short-term on-the-job training
27-2023	Umpires, Referees, and Other Sports Officials	34	52	18	52.9%	2	1	3	Long-term on-the-job training
51-6093	Upholsterers	72	69	-3	-4.2%	0	2	2	Long-term on-the-job training
19-3051	Urban and Regional Planners	34	43	9	26.5%	1	1	2	Master's degree
39-3031	Ushers, Lobby Attendants, and Ticket Takers	79	104	25	31.6%	3	5	8	Short-term on-the-job training
29-1131	Veterinarians	162	220	58	35.8%	6	4	10	First Professional degree
31-9096	Veterinary Assistants and Laboratory Animal Caretakers	157	207	50	31.8%	5	3	8	Short-term on-the-job training
29-2056	Veterinary Technologists and Technicians	190	270	80	42.1%	8	3	11	Associate degree
25-2023	Vocational Education Teachers, Middle School	28	27	-1	-3.6%	0	1	1	Bachelor's degree plus work experience
25-1194	Vocational Education Teachers, Postsecondary	128	175	47	36.7%	5	3	8	Work experience in a related occupation
25-2032	Vocational Education Teachers, Secondary School	90	90	0	0.0%	0	3	3	Bachelor's degree plus work experience
35-3031	Waiters and Waitresses	4,552	5,415	863	19.0%	86	234	320	Short-term on-the-job training
51-8031	Water and Liquid Waste Treatment Plant and System Operators	178	207	29	16.3%	3	6	9	Long-term on-the-job training
43-5111	Weighers, Measurers, Checkers, and Samplers, Recordkeeping	96	111	15	15.6%	2	2	4	Short-term on-the-job training
51-4121	Welders, Cutters, Solderers, and Brazers	532	582	50	9.4%	5	15	20	Long-term on-the-job training
51-4122	Welding, Soldering, and Brazing Machine Setters, Operators, and Tenders	104	98	-6	-5.8%	0	3	3	Moderate-term on-the-job training
13-1022	Wholesale and Retail Buyers, Except Farm Products	464	500	36	7.8%	4	12	16	Work experience in a related occupation
51-7099	Woodworkers, All Other	120	101	-19	-15.8%	0	4	4	Moderate-term on-the-job training
51-7042	Woodworking Machine Setters, Operators, and Tenders, Except Sawing	261	220	-41	-15.7%	0	7	7	Moderate-term on-the-job training
43-9022	Word Processors and Typists	403	230	-173	-42.9%	0	9	9	Moderate-term on-the-job training
27-3043	Writers and Authors	294	357	63	21.4%	6	5	11	Bachelor's degree
19-1023	Zoologists and Wildlife Biologists	28	31	3	10.7%	0	1	1	Bachelor's degree

	Education and Training Requirement Definitions
Education/Training Requirement	Definition
First Professional degree	Completion of a 6-year academic program
Doctoral degree	Completion of a 3-year academic program beyond a bachelor's degree
Master's degree	Completion of a 1- to 2-year academic program beyond a bachelor's degree
Bachelor's degree plus work experience	Completion of a 4-year academic program or higher degree beyond high school, plus related occupational experience
Bachelor's degree	Completion of a 4-year academic program beyond high school
Associate degree	Completion of a 2-year academic program beyond high school
Post-Secondary vocational award	Completion of a vocational training program
Work experience in a related occupation	Related occupational experience leading to development of specific skills
Long-term on-the-job training	More than 1 year of on-the-job training or a combination of training and classroom instruction
Moderate-term on-the-job training	1 to 12 months of on-the-job training
Short-term on-the-job training	Up to 1 month of on-the-job training



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