

Table III-1. Occupational employment and job openings data, 2006-16, and worker characteristics, 2006
(Numbers in thousands)

2006 National Employment Matrix occupation and code	Employment		Employment change, 2006-16		Annual average job open- ings due to growth and total replace- ment needs, 2006-16	Annual average job openings due to growth and net replace- ment needs, 2006-16	2006 median annual wages		Percent self-em- ployed, 2006	Unem- ployment rate	Percent part-time	Most significant source of postsecondary education or training ²	Educational attainment cluster ³	Percent of workers aged 25 to 44, by educational attainment ⁴		
	2006	2016	Numeric	Percent			Dollars	Rank						High school or less	Some college	College or higher
00-0000 Total, all occupations	150,620	166,220	15,600	10.4	26,923	5,073	\$30,400	—	8.1	—	—	—	—	37.8	29.9	32.3
11-1300 Management, business, and financial occupations	15,397	16,993	1,596	10.4	1,749	458	—	—	19.2	—	—	—	—	—	—	—
11-0000 Management occupations	8,789	9,322	533	6.1	896	237	—	—	27.6	—	—	—	—	—	—	—
11-1000 Top executives	2,187	2,222	35	1.6	137	57	—	—	4.7	—	—	—	—	—	—	—
11-1011 Chief executives	402	410	8	2.0	21	12	NA	—	22.0	VL	VL	Bachelor's or higher, plus work experience	SC/C	13.0	21.8	65.2
11-1021 General and operations managers	1,720	1,746	26	1.5	112	44	85,230	VH	.9	L	VL	Bachelor's or higher, plus work experience	SC/C	19.6	32.5	48.0
11-1031 Legislators ¹	65	65	1	1.0	3	1	15,660	VL	0.0	VL	VL	Bachelor's or higher, plus work experience	SC/C	13.0	21.8	65.2
11-2000 Advertising, marketing, promotions, public relations, and sales managers	583	651	68	11.7	65	20	—	—	3.1	—	—	—	—	—	—	—
11-2011 Advertising and promotions managers ¹	47	50	3	6.2	3	1	73,060	VH	13.4	L	VL	Bachelor's or higher, plus work experience	C	7.1	17.5	75.5
11-2020 Marketing and sales managers	486	542	57	11.6	57	16	—	—	2.2	—	—	—	—	—	—	—
11-2021 Marketing managers	167	192	24	14.4	20	6	98,720	VH	2.3	VL	VL	Bachelor's or higher, plus work experience	SC/C	9.2	22.1	68.7
11-2022 Sales managers	318	351	33	10.2	36	10	91,560	VH	2.2	VL	VL	Bachelor's or higher, plus work experience	SC/C	9.2	22.1	68.7
11-2031 Public relations managers ¹	50	58	8	16.9	6	2	82,180	VH	1.7	L	VL	Bachelor's or higher, plus work experience	C	8.7	16.3	75.0
11-3000 Operations specialties managers	1,474	1,628	154	10.5	154	47	—	—	2.6	—	—	—	—	—	—	—
11-3011 Administrative services managers	247	276	29	11.7	20	9	67,690	VH	.6	VL	VL	Bachelor's or higher, plus work experience	HS/SC/C	21.4	38.8	39.9
11-3021 Computer and information systems managers	264	307	43	16.4	31	9	101,580	VH	1.4	L	VL	Bachelor's or higher, plus work experience	SC/C	4.6	23.0	72.5
11-3031 Financial managers	506	570	64	12.6	58	14	90,970	VH	4.6	VL	VL	Bachelor's or higher, plus work experience	SC/C	12.9	27.2	59.9
11-3040 Human resources managers	136	153	17	12.5	17	4	—	—	1.4	—	—	—	—	—	—	—
11-3041 Compensation and benefits managers	49	55	6	12.0	6	2	74,750	VH	1.4	L	VL	Bachelor's or higher, plus work experience	SC/C	14.8	27.8	57.5
11-3042 Training and development managers	29	33	5	15.6	4	1	80,250	VH	1.6	L	VL	Bachelor's or higher, plus work experience	SC/C	14.8	27.8	57.5
11-3049 Human resources managers, all other	58	65	7	11.4	7	2	88,510	VH	1.3	L	VL	Bachelor's or higher, plus work experience	SC/C	14.8	27.8	57.5
11-3051 Industrial production managers	157	148	-9	-5.9	15	5	77,670	VH	2.0	L	VL	Work experience in a related occupation	HS/SC/C	25.4	31.6	43.0
11-3061 Purchasing managers	70	72	2	3.4	7	2	81,570	VH	2.7	VL	VL	Bachelor's or higher, plus work experience	SC/C	14.9	28.1	57.0
11-3071 Transportation, storage, and distribution managers	94	102	8	8.3	7	4	73,080	VH	2.6	L	VL	Work experience in a related occupation	HS/SC/C	38.5	36.4	25.1
11-9000 Other management occupations	4,545	4,821	276	6.1	539	113	—	—	49.9	—	—	—	—	—	—	—
11-9010 Agricultural managers	1,317	1,230	-87	-6.6	148	12	—	—	80.4	—	—	—	—	—	—	—
11-9011 Farm, ranch, and other agricultural managers	258	261	3	1.1	18	2	52,070	VH	0.0	VL	L	Bachelor's or higher, plus work experience	HS/SC/C	44.6	29.4	26.0
11-9012 Farmers and ranchers	1,058	969	-90	-8.5	130	10	37,130	H	100.0	VL	H	Long-term on-the-job training	HS/SC	53.6	30.4	16.0
11-9021 Construction managers	487	564	77	15.7	44	15	73,700	VH	56.3	VL	VL	Bachelor's degree	HS/SC/C	39.5	31.1	29.4
11-9030 Education administrators	443	496	53	11.9	56	18	—	—	3.3	—	—	—	—	—	—	—
11-9031 Education administrators, preschool and child care center/program	56	69	13	23.5	8	3	37,740	H	3.4	VL	L	Bachelor's or higher, plus work experience	C	6.4	15.2	78.4
11-9032 Education administrators, elementary and secondary school	226	243	17	7.6	27	8	77,740	VH	3.3	VL	L	Bachelor's or higher, plus work experience	C	6.4	15.2	78.4

See footnotes at end of table.

Table III-1. Occupational employment and job openings data, 2006-16, and worker characteristics, 2006 — Continued
(Numbers in thousands)

2006 National Employment Matrix occupation and code		Employment		Employment change, 2006-16		Annual average job open- ings due to growth and total replace- ment needs, 2006-16	Annual average job openings due to growth and net replace- ment needs, 2006-16	2006 median annual wages		Percent self-em- ployed, 2006	Unem- ployment rate	Percent part-time	Most significant source of postsecondary education or training ²	Educational attainment cluster ³	Percent of workers aged 25 to 44, by educational attainment ⁴		
		2006	2016	Numeric	Percent			Dollars	Rank						High school or less	Some college	College or higher
11-9033	Education administrators, postsecondary	131	150	19	14.2	17	6	73,990	VH	3.3	VL	L	Bachelor's or higher, plus work experience	C	6.4	15.2	78.4
11-9039	Education administrators, all other	30	33	4	12.6	4	1	66,620	VH	2.9	VL	L	Bachelor's or higher, plus work experience	C	6.4	15.2	78.4
11-9041	Engineering managers	187	201	14	7.3	7	5	105,430	VH	0.0	VL	VL	Bachelor's or higher, plus work experience	C	4.4	11.9	83.7
11-9051	Food service managers	350	368	18	5.0	59	10	43,020	H	44.8	L	L	Work experience in a related occupation	HS/SC/C	40.0	35.8	24.2
11-9061	Funeral directors.....	29	32	4	12.5	4	1	49,620	VH	19.7	VL	L	Associate degree	SC/C	8.7	50.7	40.6
11-9071	Gaming managers ¹	4	5	1	24.4	1	0	62,820	VH	16.3	H	VL	Work experience in a related occupation	HS/SC/C	33.6	42.4	24.0
11-9081	Lodging managers.....	71	80	9	12.2	6	2	42,320	H	53.0	VL	L	Work experience in a related occupation	HS/SC/C	23.2	32.2	44.6
11-9111	Medical and health services managers ...	262	305	43	16.4	32	9	73,340	VH	8.2	VL	VL	Bachelor's or higher, plus work experience	SC/C	11.4	32.0	56.6
11-9121	Natural sciences managers ¹	41	45	5	11.4	4	1	100,080	VH	.6	VL	VL	Bachelor's or higher, plus work experience	C	0.0	0.0	92.8
11-9131	Postmasters and mail superintendents ¹ ..	26	26	0	-.8	2	1	55,790	VH	0.0	L	VL	Work experience in a related occupation	SC/C	17.3	27.3	55.4
11-9141	Property, real estate, and community association managers.....	329	379	50	15.1	50	10	43,070	H	50.9	VL	H	Bachelor's degree	HS/SC/C	27.3	36.5	36.2
11-9151	Social and community service managers	130	162	32	24.7	24	6	52,070	VH	5.9	L	L	Bachelor's degree	C	8.9	19.6	71.5
11-9199	Managers, all other.....	870	930	60	6.9	104	23	82,490	VH	60.0	VL	L	Work experience in a related occupation	SC/C	17.3	27.3	55.4
13-0000	Business and financial operations occupations	6,608	7,671	1,063	16.1	853	220	—	—	8.1	—	—	—	—	—	—	—
13-1000	Business operations specialists.....	3,860	4,466	606	15.7	545	128	—	—	6.6	—	—	—	—	—	—	—
13-1011	Agents and business managers of artists, performers, and athletes.....	25	27	2	9.6	4	1	64,500	VH	55.8	H	H	Bachelor's or higher, plus work experience	SC/C	17.6	23.0	59.4
13-1020	Buyers and purchasing agents.....	460	459	-1	-.3	44	10	—	—	5.3	—	—	—	—	—	—	—
13-1021	Purchasing agents and buyers, farm products ¹	16	15	-1	-8.6	2	0	46,770	VH	5.1	L	VL	Long-term on-the-job training	HS/SC/C	35.5	42.5	0.0
13-1022	Wholesale and retail buyers, except farm products.....	157	156	0	-.1	20	4	44,640	H	12.0	L	H	Long-term on-the-job training	HS/SC/C	27.8	36.2	36.0
13-1023	Purchasing agents, except wholesale, retail, and farm products.....	287	288	0	.1	22	6	50,730	VH	1.6	L	VL	Long-term on-the-job training	HS/SC/C	21.8	35.8	42.4
13-1030	Claims adjusters, appraisers, examiners, and investigators	319	347	29	9.1	23	11	—	—	3.5	—	—	—	—	—	—	—
13-1031	Claims adjusters, examiners, and investigators	305	332	27	8.9	22	10	50,660	VH	3.5	VL	VL	Long-term on-the-job training	SC/C	18.3	35.1	46.7
13-1032	Insurance appraisers, auto damage.....	13	15	2	12.5	1	1	49,180	VH	4.1	VL	VL	Postsecondary vocational award	SC/C	18.3	35.1	46.7
13-1041	Compliance officers, except agriculture, construction, health and safety, and transportation.....	237	249	12	4.9	16	4	47,050	VH	.4	VL	VL	Long-term on-the-job training	SC/C	14.0	27.9	58.0
13-1051	Cost estimators.....	221	262	41	18.5	38	9	52,940	VH	1.1	L	VL	Bachelor's degree	HS/SC/C	27.5	40.2	32.3
13-1061	Emergency management specialists.....	12	13	1	12.3	2	0	47,410	VH	.1	L	L	Work experience in a related occupation	SC/C	18.2	33.2	48.7
13-1070	Human resources, training, and labor relations specialists	732	862	130	17.8	124	29	—	—	2.1	—	—	—	—	—	—	—
13-1071	Employment, recruitment, and placement specialists.....	197	233	36	18.4	34	8	42,420	H	2.1	L	L	Bachelor's degree	SC/C	14.1	30.4	55.5

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		2006	2016	Numeric	Percent			Dollars	Rank						High school or less	Some college	College or higher
13-1072	Compensation, benefits, and job analysis specialists.....	110	130	20	18.4	19	4	50,230	VH	2.1	L	L	Bachelor's degree	SC/C	14.1	30.4	55.5
13-1073	Training and development specialists....	210	249	38	18.3	36	8	47,830	VH	2.3	L	L	Bachelor's or higher, plus work experience	SC/C	14.1	30.4	55.5
13-1079	Human resources, training, and labor relations specialists, all other.....	214	250	35	16.5	36	8	52,270	VH	1.8	L	L	Bachelor's degree	SC/C	14.1	30.4	55.5
13-1081	Logisticians.....	83	98	14	17.3	10	3	63,430	VH	1.5	VL	VL	Bachelor's degree	SC/C	19.2	37.9	42.9
13-1111	Management analysts.....	678	827	149	21.9	126	26	68,050	VH	27.0	VL	L	Bachelor's or higher, plus work experience	C	6.6	15.9	77.5
13-1121	Meeting and convention planners ¹	51	61	10	19.9	8	2	42,180	H	5.6	L	L	Bachelor's degree	SC/C	10.6	22.0	67.4
13-1199	Business operation specialists, all other..	1,043	1,261	218	20.9	151	33	55,650	VH	.1	L	L	Bachelor's degree	SC/C	18.2	33.2	48.7
13-2000	Financial specialists.....	2,748	3,204	457	16.6	308	93	—	—	10.0	—	—	—	—	—	—	—
13-2011	Accountants and auditors.....	1,274	1,500	226	17.7	134	45	54,630	VH	9.5	VL	L	Bachelor's degree	C	3.7	17.1	79.1
13-2021	Appraisers and assessors of real estate..	101	118	17	16.9	6	4	44,460	H	32.7	VL	L	Bachelor's degree	SC/C	17.0	39.2	43.8
13-2031	Budget analysts ¹	62	66	4	7.1	6	2	61,430	VH	0.0	VL	VL	Bachelor's degree	C	4.2	17.8	78.1
13-2041	Credit analysts ¹	67	68	1	1.9	3	3	52,350	VH	0.0	VL	VL	Bachelor's degree	SC/C	14.9	25.4	59.7
13-2050	Financial analysts and advisors.....	501	655	153	30.6	53	21	—	—	14.5	—	—	—	—	—	—	—
13-2051	Financial analysts.....	221	295	75	33.8	29	9	66,590	VH	8.3	VL	L	Bachelor's degree	C	3.1	9.6	87.3
13-2052	Personal financial advisors.....	176	248	72	41.0	17	9	66,120	VH	30.9	VL	L	Bachelor's degree	C	4.2	15.2	80.5
13-2053	Insurance underwriters.....	104	111	7	6.3	7	3	52,350	VH	0.0	VL	VL	Bachelor's degree	SC/C	15.7	31.6	52.8
13-2061	Financial examiners ¹	26	28	3	10.7	2	1	65,370	VH	0.0	VL	L	Bachelor's degree	C	0.0	15.0	76.1
13-2070	Loan counselors and officers.....	406	450	44	10.8	59	9	—	—	3.0	—	—	—	—	—	—	—
13-2071	Loan counselors.....	33	35	1	4.0	4	0	35,790	H	3.8	L	VL	Bachelor's degree	SC/C	16.4	34.8	48.8
13-2072	Loan officers.....	373	415	43	11.5	54	8	51,760	VH	2.9	L	VL	Bachelor's degree	SC/C	16.4	34.8	48.8
13-2080	Tax examiners, collectors, preparers, and revenue agents.....	181	174	-7	-3.7	31	4	—	—	18.2	—	—	—	—	—	—	—
13-2081	Tax examiners, collectors, and revenue agents.....	81	82	2	2.1	4	2	45,620	H	0.0	VL	VL	Bachelor's degree	HS/SC/C	23.1	34.2	42.7
13-2082	Tax preparers.....	100	92	-8	-8.4	26	2	27,360	L	32.8	VH	H	Moderate-term on-the-job training	SC/C	14.9	30.9	54.2
13-2099	Financial specialists, all other.....	129	144	15	11.8	12	5	53,680	VH	2.5	L	L	Bachelor's degree	SC/C	16.8	33.8	49.5
15-2900	Professional and related occupations.....	29,819	34,790	4,970	16.7	3,612	1,107	—	—	6.6	—	—	—	—	—	—	—
15-0000	Computer and mathematical science occupations.....	3,313	4,135	822	24.8	393	157	—	—	3.9	—	—	—	—	—	—	—
15-1000	Computer specialists.....	3,200	4,006	807	25.2	378	152	—	—	4.0	—	—	—	—	—	—	—
15-1011	Computer and information scientists, research.....	25	31	5	21.5	3	1	93,950	VH	5.3	L	VL	Doctoral degree	SC/C	7.0	24.6	68.4
15-1021	Computer programmers.....	435	417	-18	-4.1	28	9	65,510	VH	3.9	L	VL	Bachelor's degree	SC/C	5.5	21.8	72.7
15-1030	Computer software engineers.....	857	1,181	324	37.9	92	45	—	—	2.0	—	—	—	—	—	—	—
15-1031	Computer software engineers, applications.....	507	733	226	44.6	59	30	79,780	VH	2.0	VL	VL	Bachelor's degree	C	2.2	13.0	84.8
15-1032	Computer software engineers, systems software.....	350	449	99	28.2	33	15	85,370	VH	2.1	VL	VL	Bachelor's degree	C	2.2	13.0	84.8

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		2006	2016	Numeric	Percent			Dollars	Rank						High school or less	Some college	College or higher
15-1041	Computer support specialists	552	624	71	12.9	97	24	41,470	H	1.3	L	L	Associate degree	SC/C	13.4	44.0	42.6
15-1051	Computer systems analysts	504	650	146	29.0	63	28	69,760	VH	5.8	L	VL	Bachelor's degree	SC/C	7.0	24.6	68.4
15-1061	Database administrators.....	119	154	34	28.6	8	5	64,670	VH	1.3	VL	VL	Bachelor's degree	SC/C	4.6	23.9	71.5
15-1071	Network and computer systems administrators	309	393	83	27.0	37	15	62,130	VH	.4	L	VL	Bachelor's degree	SC/C	8.3	41.5	50.2
15-1081	Network systems and data communications analysts	262	402	140	53.4	35	19	64,600	VH	17.5	L	L	Bachelor's degree	SC/C	8.1	34.8	57.1
15-1099	Computer specialists, all other	136	157	21	15.1	14	6	68,570	VH	6.6	L	VL	Associate degree	SC/C	7.0	24.6	68.4
15-2000	Mathematical science occupations.....	114	129	15	13.2	15	4	—	—	1.3	—	—	—	—	—	—	—
15-2011	Actuaries ¹	18	22	4	23.7	3	1	82,800	VH	0.0	VL	VL	Bachelor's or higher, plus work experience	C	0.0	0.0	98.9
15-2021	Mathematicians ¹	3	3	0	10.2	0	0	86,930	VH	0.0	VL	VL	Doctoral degree	C	0.0	6.1	93.3
15-2031	Operations research analysts.....	58	65	6	10.6	6	2	64,650	VH	.2	VL	VL	Master's degree	SC/C	6.6	22.7	70.7
15-2041	Statisticians ¹	22	24	2	8.5	3	1	65,720	VH	6.0	VL	L	Master's degree	C	0.0	6.1	93.3
15-2090	Miscellaneous mathematical science occupations	12	14	2	19.8	2	1	—	—	0.0	—	—	—	—	—	—	—
15-2091	Mathematical technicians ¹	1	1	0	7.9	0	0	37,880	H	0.0	VL	VL	Master's degree	C	0.0	6.1	93.3
15-2099	Mathematical scientists, all other ¹	10	13	2	21.3	2	0	63,570	VH	0.0	VL	VL	Master's degree	C	0.0	6.1	93.3
17-0000	Architecture and engineering occupations...	2,583	2,852	268	10.4	207	85	—	—	3.9	—	—	—	—	—	—	—
17-1000	Architects, surveyors, and cartographers ..	232	277	45	19.2	31	10	—	—	14.9	—	—	—	—	—	—	—
17-1010	Architects, except naval.....	160	188	28	17.5	14	6	—	—	20.0	—	—	—	—	—	—	—
17-1011	Architects, except landscape and naval	132	155	23	17.7	11	5	64,150	VH	20.3	VL	VL	Bachelor's degree	C	1.6	10.1	88.3
17-1012	Landscape architects.....	28	32	5	16.4	2	1	55,140	VH	18.5	VL	VL	Bachelor's degree	C	1.6	10.1	88.3
17-1020	Surveyors, cartographers, and photogrammetrists.....	72	89	17	23.1	17	4	—	—	3.6	—	—	—	—	—	—	—
17-1021	Cartographers and photogrammetrists..	12	15	2	20.3	3	1	48,240	VH	3.4	VL	VL	Bachelor's degree	C	0.0	17.8	81.6
17-1022	Surveyors	60	74	14	23.7	14	3	48,290	VH	3.7	VL	VL	Bachelor's degree	C	0.0	17.8	81.6
17-2000	Engineers	1,512	1,671	160	10.6	93	51	—	—	3.0	—	—	—	—	—	—	—
17-2011	Aerospace engineers ¹	90	99	9	10.2	6	3	87,610	VH	1.4	VL	VL	Bachelor's degree	C	3.3	9.9	86.8
17-2021	Agricultural engineers ¹	3	3	0	8.6	0	0	66,030	VH	0.0	L	L	Bachelor's degree	C	0.0	18.0	75.7
17-2031	Biomedical engineers ¹	14	17	3	21.1	2	1	73,930	VH	0.0	L	VL	Bachelor's degree	C	0.0	18.0	75.7
17-2041	Chemical engineers ¹	30	33	2	7.9	2	1	78,860	VH	1.9	L	VL	Bachelor's degree	C	0.0	5.9	91.4
17-2051	Civil engineers	256	302	46	18.0	16	11	68,600	VH	4.9	VL	VL	Bachelor's degree	C	2.7	10.0	87.3
17-2061	Computer hardware engineers.....	79	82	4	4.6	4	3	88,470	VH	3.6	VL	VL	Bachelor's degree	SC/C	7.2	22.8	70.0
17-2070	Electrical and electronics engineers.....	291	306	15	5.0	13	8	—	—	2.1	—	—	—	—	—	—	—
17-2071	Electrical engineers	153	163	10	6.3	7	5	75,930	VH	2.1	VL	VL	Bachelor's degree	C	2.9	16.5	80.5
17-2072	Electronics engineers, except computer	138	143	5	3.7	6	4	81,050	VH	2.2	VL	VL	Bachelor's degree	C	2.9	16.5	80.5
17-2081	Environmental engineers ¹	54	68	14	25.4	5	3	69,940	VH	2.7	VL	VL	Bachelor's degree	C	0.0	9.9	86.4

See footnotes at end of table.

Table III-1. Occupational employment and job openings data, 2006-16, and worker characteristics, 2006 — Continued
(Numbers in thousands)

2006 National Employment Matrix occupation and code		Employment		Employment change, 2006-16		Annual average job open- ings due to growth and total replace- ment needs, 2006-16	Annual average job openings due to growth and net replace- ment needs, 2006-16	2006 median annual wages		Percent self-em- ployed, 2006	Unem- ployment rate	Percent part-time	Most significant source of postsecondary education or training ²	Educational attainment cluster ³	Percent of workers aged 25 to 44, by educational attainment ⁴			
		2006	2016	Numeric	Percent			Dollars	Rank						High school or less	Some college	College or higher	
17-2110	Industrial engineers, including health and safety.....	227	270	43	19.1	12	10	—	—	.9	—	—	—	—	—	—	—	—
17-2111	Health and safety engineers, except mining safety engineers and inspectors.....	25	28	2	9.6	1	1	66,290	VH	1.1	VL	VL	Bachelor's degree	C	7.6	18.5	73.9	
17-2112	Industrial engineers.....	201	242	41	20.3	11	9	68,620	VH	.9	VL	VL	Bachelor's degree	C	7.6	18.5	73.9	
17-2121	Marine engineers and naval architects ¹ ..	9	10	1	10.9	0	0	72,990	VH	12.4	VL	VL	Bachelor's degree	C	0.0	18.1	78.1	
17-2131	Materials engineers ¹	22	22	1	4.0	1	1	73,990	VH	0.0	L	VL	Bachelor's degree	C	0.0	19.1	77.0	
17-2141	Mechanical engineers.....	226	235	9	4.2	12	6	69,850	VH	2.2	VL	VL	Bachelor's degree	C	3.5	18.3	78.2	
17-2151	Mining and geological engineers, including mining safety engineers ¹	7	8	1	10.0	0	0	72,160	VH	0.0	VL	VL	Bachelor's degree	C	0.0	17.6	79.6	
17-2161	Nuclear engineers ¹	15	16	1	7.2	1	0	90,220	VH	0.0	VL	VL	Bachelor's degree	C	3.0	14.7	82.4	
17-2171	Petroleum engineers ¹	17	18	1	5.2	1	1	98,380	VH	9.2	VL	VL	Bachelor's degree	C	0.0	17.6	79.6	
17-2199	Engineers, all other.....	170	180	9	5.5	16	3	81,660	VH	6.4	VL	VL	Bachelor's degree	C	3.0	14.7	82.4	
17-3000	Drafters, engineering, and mapping technicians.....	840	904	64	7.6	84	25	—	—	2.5	—	—	—	—	—	—	—	
17-3010	Drafters.....	253	268	15	6.0	36	9	—	—	5.3	—	—	—	—	—	—	—	
17-3011	Architectural and civil drafters.....	116	123	7	6.1	16	4	41,960	H	5.0	L	VL	Postsecondary vocational award	SC/C	13.0	62.4	24.6	
17-3012	Electrical and electronics drafters.....	35	36	1	4.1	5	1	46,830	VH	5.7	L	VL	Postsecondary vocational award	SC/C	13.0	62.4	24.6	
17-3013	Mechanical drafters.....	78	82	4	5.2	11	3	43,700	H	5.5	L	VL	Postsecondary vocational award	SC/C	13.0	62.4	24.6	
17-3019	Drafters, all other.....	25	27	3	11.0	4	1	43,060	H	5.1	L	VL	Postsecondary vocational award	SC/C	13.0	62.4	24.6	
17-3020	Engineering technicians, except drafters.....	511	545	34	6.7	40	13	—	—	.9	—	—	—	—	—	—	—	
17-3021	Aerospace engineering and operations technicians.....	9	9	1	10.4	1	0	53,300	VH	.9	L	VL	Associate degree	HS/SC	27.2	54.4	18.4	
17-3022	Civil engineering technicians.....	91	100	9	10.2	7	3	40,560	H	.9	L	VL	Associate degree	HS/SC	27.2	54.4	18.4	
17-3023	Electrical and electronic engineering technicians.....	170	177	6	3.6	13	4	50,660	VH	.9	L	VL	Associate degree	HS/SC	27.2	54.4	18.4	
17-3024	Electro-mechanical technicians.....	16	16	0	2.6	1	0	44,720	H	1.0	L	VL	Associate degree	HS/SC	27.2	54.4	18.4	
17-3025	Environmental engineering technicians.....	21	26	5	24.8	2	1	40,560	H	.8	L	VL	Associate degree	HS/SC	27.2	54.4	18.4	
17-3026	Industrial engineering technicians.....	75	82	7	9.9	6	2	46,810	VH	.8	L	VL	Associate degree	HS/SC	27.2	54.4	18.4	
17-3027	Mechanical engineering technicians.....	48	51	3	6.4	4	1	45,850	H	.8	L	VL	Associate degree	HS/SC	27.2	54.4	18.4	
17-3029	Engineering technicians, except drafters, all other.....	82	83	2	2.0	6	2	54,250	VH	.9	L	VL	Associate degree	HS/SC	27.2	54.4	18.4	
17-3031	Surveying and mapping technicians.....	76	90	15	19.4	8	3	32,340	H	4.2	H	VL	Moderate-term on-the-job training	HS/SC	42.2	51.0	6.8	
19-0000	Life, physical, and social science occupations.....	1,407	1,610	203	14.4	173	54	—	—	6.9	—	—	—	—	—	—	—	
19-1000	Life scientists.....	258	292	33	12.8	23	10	—	—	4.5	—	—	—	—	—	—	—	
19-1010	Agricultural and food scientists.....	33	36	3	9.3	2	1	—	—	16.7	—	—	—	—	—	—	—	
19-1011	Animal scientists.....	5	6	1	9.8	0	0	47,800	VH	9.0	L	L	Bachelor's degree	C	0.0	17.7	82.0	
19-1012	Food scientists and technologists.....	12	13	1	10.3	1	0	53,810	VH	16.3	L	L	Bachelor's degree	C	0.0	17.7	82.0	

See footnotes at end of table.

Table III-1. Occupational employment and job openings data, 2006-16, and worker characteristics, 2006 — Continued
(Numbers in thousands)

2006 National Employment Matrix occupation and code		Employment		Employment change, 2006-16		Annual average job open- ings due to growth and total replace- ment needs, 2006-16	Annual average job openings due to growth and net replace- ment needs, 2006-16	2006 median annual wages		Percent self-em- ployed, 2006	Unem- ployment rate	Percent part-time	Most significant source of postsecondary education or training ²	Educational attainment cluster ³	Percent of workers aged 25 to 44, by educational attainment ⁴		
		2006	2016	Numeric	Percent			Dollars	Rank						High school or less	Some college	College or higher
19-1013	Soil and plant Scientists	16	17	1	8.4	1	1	56,080	VH	19.5	L	L	Bachelor's degree	C	0.0	17.7	82.0
19-1020	Biological scientists	87	95	8	9.2	6	3	—	—	2.8	—	—	—	—	—	—	—
19-1021	Biochemists and biophysicists.....	20	23	3	15.9	2	1	76,320	VH	2.5	L	L	Doctoral degree	C	0.0	5.3	94.6
19-1022	Microbiologists.....	17	19	2	11.2	1	1	57,980	VH	2.7	L	L	Doctoral degree	C	0.0	5.3	94.6
19-1023	Zoologists and wildlife biologists	20	22	2	8.7	1	1	53,300	VH	2.6	L	L	Bachelor's degree	C	0.0	5.3	94.6
19-1029	Biological scientists, all other.....	29	30	1	3.7	2	1	60,940	VH	3.2	L	L	Doctoral degree	C	0.0	5.3	94.6
19-1030	Conservation scientists and foresters.....	33	35	2	5.3	2	1	—	—	4.0	—	—	—	—	—	—	—
19-1031	Conservation scientists ¹	20	21	1	5.3	1	1	54,970	VH	3.9	VL	VL	Bachelor's degree	C	0.0	14.0	85.7
19-1032	Foresters ¹	13	14	1	5.1	1	0	51,190	VH	4.2	VL	VL	Bachelor's degree	C	0.0	14.0	85.7
19-1040	Medical scientists	92	110	18	19.9	11	5	—	—	2.1	—	—	—	—	—	—	—
19-1041	Epidemiologists	5	5	1	13.6	1	0	56,670	VH	2.6	VL	VL	Master's degree	C	0.0	0.0	99.3
19-1042	Medical scientists, except epidemiologists.....	87	105	18	20.2	11	4	61,680	VH	2.0	VL	VL	Doctoral degree	C	0.0	0.0	99.3
19-1099	Life scientists, all other	14	16	2	15.3	2	1	56,970	VH	2.7	VL	VL	Bachelor's degree	C	0.0	0.0	99.3
19-2000	Physical scientists	267	309	42	15.7	23	11	—	—	1.8	—	—	—	—	—	—	—
19-2010	Astronomers and physicists.....	18	19	1	6.7	1	1	—	—	.8	—	—	—	—	—	—	—
19-2011	Astronomers ¹	2	2	0	5.6	0	0	95,740	VH	.4	VL	VL	Doctoral degree	C	0.0	0.0	95.2
19-2012	Physicists ¹	17	18	1	6.8	1	1	94,240	VH	.8	VL	VL	Doctoral degree	C	0.0	0.0	95.2
19-2021	Atmospheric and space scientists ¹	9	10	1	10.6	1	0	77,150	VH	0.0	VL	VL	Bachelor's degree	C	0.0	0.0	85.4
19-2030	Chemists and materials scientists	93	102	8	9.1	10	3	—	—	1.2	—	—	—	—	—	—	—
19-2031	Chemists.....	84	91	8	9.1	9	3	59,870	VH	1.2	VL	VL	Bachelor's degree	C	0.0	6.5	93.2
19-2032	Materials scientists	10	11	1	8.7	1	0	74,610	VH	1.0	VL	VL	Bachelor's degree	C	0.0	6.5	93.2
19-2040	Environmental scientists and geoscientists	123	152	30	24.2	10	6	—	—	2.2	—	—	—	—	—	—	—
19-2041	Environmental scientists and specialists, including health.....	83	104	21	25.1	7	4	56,100	VH	2.1	VL	VL	Master's degree	C	0.0	6.9	93.0
19-2042	Geoscientists, except hydrologists and geographers	31	38	7	21.9	2	1	72,660	VH	2.2	VL	VL	Master's degree	C	0.0	6.9	93.0
19-2043	Hydrologists.....	8	10	2	24.3	1	0	66,260	VH	2.4	VL	VL	Master's degree	C	0.0	6.9	93.0
19-2099	Physical scientists, all other.....	24	25	1	6.2	1	1	83,450	VH	3.4	VL	VL	Bachelor's degree	C	0.0	1.5	98.4
19-3000	Social scientists and related occupations..	530	616	86	16.3	66	16	—	—	14.7	—	—	—	—	—	—	—
19-3011	Economists ¹	15	16	1	7.5	2	1	77,010	VH	6.5	L	VL	Master's degree	C	0.0	0.0	99.7
19-3020	Market and survey researchers	261	313	51	19.6	50	7	—	—	6.6	—	—	—	—	—	—	—
19-3021	Market research analysts	234	281	47	20.1	45	6	58,820	VH	6.6	L	L	Bachelor's degree	C	4.4	13.5	82.2
19-3022	Survey researchers	27	31	4	15.9	5	1	33,360	H	6.8	L	L	Bachelor's degree	C	4.4	13.5	82.2
19-3030	Psychologists.....	166	191	25	15.3	9	5	—	—	33.7	—	—	—	—	—	—	—
19-3031	Clinical, counseling, and school psychologists	152	176	24	15.8	8	5	59,440	VH	34.2	VL	H	Doctoral degree	C	0.0	0.0	99.3
19-3032	Industrial-organizational psychologists..	2	2	0	21.3	0	0	86,420	VH	39.3	VL	H	Master's degree	C	0.0	0.0	99.3
19-3039	Psychologists, all other.....	12	13	1	7.9	1	0	76,310	VH	26.5	VL	H	Master's degree	C	0.0	0.0	99.3

See footnotes at end of table.

Table III-1. Occupational employment and job openings data, 2006-16, and worker characteristics, 2006 — Continued
(Numbers in thousands)

2006 National Employment Matrix occupation and code		Employment		Employment change, 2006-16		Annual average job open- ings due to growth and total replace- ment needs, 2006-16	Annual average job openings due to growth and net replace- ment needs, 2006-16	2006 median annual wages		Percent self-em- ployed, 2006	Unem- ployment rate	Percent part-time	Most significant source of postsecondary education or training ²	Educational attainment cluster ³	Percent of workers aged 25 to 44, by educational attainment ⁴		
		2006	2016	Numeric	Percent			Dollars	Rank						High school or less	Some college	College or higher
19-3041	Sociologists ¹	4	4	0	10.0	0	0	60,290	VH	0.0	VL	H	Master's degree	C	0.0	10.2	89.8
19-3051	Urban and regional planners ¹	34	39	5	14.5	2	1	56,630	VH	.2	VL	VL	Master's degree	C	0.0	0.0	92.2
19-3090	Miscellaneous social scientists and related workers.....	51	54	3	6.1	3	2	—	—	7.0	—	—	—	—	—	—	—
19-3091	Anthropologists and archeologists.....	6	6	1	15.0	0	0	49,930	VH	6.1	L	H	Master's degree	C	0.0	10.2	89.8
19-3092	Geographers.....	1	1	0	6.1	0	0	62,990	VH	5.3	L	H	Master's degree	C	0.0	10.2	89.8
19-3093	Historians.....	3	4	0	7.8	0	0	48,520	VH	5.2	L	H	Master's degree	C	0.0	10.2	89.8
19-3094	Political scientists.....	5	5	0	5.3	0	0	90,140	VH	7.5	L	H	Master's degree	C	0.0	10.2	89.8
19-3099	Social scientists and related workers, all other.....	36	38	2	4.7	2	1	64,920	VH	7.2	L	H	Master's degree	C	0.0	10.2	89.8
19-4000	Life, physical, and social science technicians.....	351	393	42	11.8	60	17	—	—	1.0	—	—	—	—	—	—	—
19-4011	Agricultural and food science technicians ¹	26	28	2	6.6	4	1	31,730	H	.7	H	L	Associate degree	HS/SC/C	42.7	25.6	31.6
19-4021	Biological technicians.....	79	91	13	16.0	15	4	35,710	H	0.0	H	VL	Bachelor's degree	SC/C	13.7	25.9	60.4
19-4031	Chemical technicians.....	61	65	4	5.8	4	2	39,240	H	.4	VL	VL	Associate degree	HS/SC/C	30.3	32.5	37.2
19-4041	Geological and petroleum technicians ¹ ...	12	13	1	8.6	2	1	46,160	H	0.0	H	VL	Associate degree	HS/SC/C	33.6	34.6	31.7
19-4051	Nuclear technicians ¹	7	7	0	6.7	1	0	65,500	VH	0.0	VL	VL	Associate degree	SC/C	19.4	34.9	45.7
19-4061	Social science research assistants.....	18	20	2	12.4	4	1	33,860	H	1.7	L	H	Associate degree	SC/C	19.4	34.9	45.7
19-4090	Other life, physical, and social science technicians.....	150	170	20	13.4	30	8	—	—	1.8	—	—	—	—	—	—	—
19-4091	Environmental science and protection technicians, including health.....	36	47	10	28.0	8	2	38,090	H	1.5	L	H	Associate degree	SC/C	19.4	34.9	45.7
19-4092	Forensic science technicians.....	13	17	4	30.7	3	1	45,330	H	1.3	L	H	Bachelor's degree	SC/C	19.4	34.9	45.7
19-4093	Forest and conservation technicians.....	34	33	-1	-2.0	6	1	30,880	H	1.7	L	H	Associate degree	SC/C	19.4	34.9	45.7
19-4099	Life, physical, and social science technicians, all other.....	66	73	7	9.8	13	3	37,920	H	2.2	L	H	Associate degree	SC/C	19.4	34.9	45.7
21-0000	Community and social services occupations	2,386	2,927	541	22.7	413	94	—	—	2.3	—	—	—	—	—	—	—
21-1000	Counselors, social workers, and other community and social service specialists.....	1,843	2,280	438	23.8	358	76	—	—	3.0	—	—	—	—	—	—	—
21-1010	Counselors.....	635	771	136	21.3	143	26	—	—	6.0	—	—	—	—	—	—	—
21-1011	Substance abuse and behavioral disorder counselors.....	83	112	29	34.3	21	5	34,040	H	5.8	L	H	Bachelor's degree	C	8.9	18.3	72.8
21-1012	Educational, vocational, and school counselors.....	260	292	33	12.6	54	8	47,530	VH	6.1	L	H	Master's degree	C	8.9	18.3	72.8
21-1013	Marriage and family therapists.....	25	32	7	29.8	6	1	43,210	H	6.2	L	H	Master's degree	C	8.9	18.3	72.8
21-1014	Mental health counselors.....	100	130	30	30.0	24	5	34,380	H	6.1	L	H	Master's degree	C	8.9	18.3	72.8
21-1015	Rehabilitation counselors.....	141	173	32	23.0	32	6	29,200	L	5.9	L	H	Master's degree	C	8.9	18.3	72.8
21-1019	Counselors, all other.....	27	32	5	16.6	6	1	38,210	H	5.8	L	H	Master's degree	C	8.9	18.3	72.8
21-1020	Social workers.....	595	727	132	22.2	77	26	—	—	2.8	—	—	—	—	—	—	—

See footnotes at end of table.

Table III-1. Occupational employment and job openings data, 2006-16, and worker characteristics, 2006 — Continued
(Numbers in thousands)

2006 National Employment Matrix occupation and code		Employment		Employment change, 2006-16		Annual average job open- ings due to growth and total replace- ment needs, 2006-16	Annual average job openings due to growth and net replace- ment needs, 2006-16	2006 median annual wages		Percent self-em- ployed, 2006	Unem- ployment rate	Percent part-time	Most significant source of postsecondary education or training ²	Educational attainment cluster ³	Percent of workers aged 25 to 44, by educational attainment ⁴		
		2006	2016	Numeric	Percent			Dollars	Rank						High school or less	Some college	College or higher
21-1021	Child, family, and school social workers	282	336	54	19.1	35	11	37,480	H	2.8	VL	L	Bachelor's degree	C	7.1	15.7	77.2
21-1022	Medical and public health social workers	124	154	30	24.2	16	6	43,040	H	2.6	VL	L	Bachelor's degree	C	7.1	15.7	77.2
21-1023	Mental health and substance abuse social workers.....	122	159	37	29.9	17	6	35,410	H	2.8	VL	L	Master's degree	C	7.1	15.7	77.2
21-1029	Social workers, all other	66	78	12	17.8	8	3	43,580	H	2.9	VL	L	Bachelor's degree	C	7.1	15.7	77.2
21-1090	Miscellaneous community and social service specialists.....	613	783	170	27.7	138	24	—	—	.1	—	—	—	—	—	—	—
21-1091	Health educators	62	78	16	26.2	14	2	41,330	H	.1	L	L	Bachelor's degree	SC/C	15.6	26.3	58.1
21-1092	Probation officers and correctional treatment specialists.....	94	105	10	10.9	18	2	42,500	H	.1	L	L	Bachelor's degree	SC/C	15.6	26.3	58.1
21-1093	Social and human service assistants	339	453	114	33.6	80	15	25,580	L	.1	L	L	Moderate-term on-the-job training	SC/C	15.6	26.3	58.1
21-1099	Community and social service specialists, all other.....	118	148	30	25.1	26	4	35,210	H	.1	L	L	Bachelor's degree	SC/C	15.6	26.3	58.1
21-2000	Religious workers	543	646	104	19.1	54	18	—	—	.1	—	—	—	—	—	—	—
21-2011	Clergy	404	481	76	18.9	35	13	39,680	H	.1	VL	L	Master's degree	C	8.5	16.9	74.6
21-2021	Directors, religious activities and education	99	119	20	19.7	11	4	34,260	H	0.0	VL	H	Bachelor's degree	SC/C	9.7	26.0	64.4
21-2099	Religious workers, all other	39	47	8	19.7	8	1	24,330	L	.4	VL	VH	Bachelor's degree	SC/C	15.6	28.6	55.8
23-0000	Legal occupations.....	1,222	1,367	145	11.8	93	36	—	—	18.5	—	—	—	—	—	—	—
23-1000	Lawyers, judges, and related workers.....	812	898	86	10.6	52	24	—	—	25.0	—	—	—	—	—	—	—
23-1011	Lawyers	761	844	84	11.0	49	23	102,470	VH	26.7	VL	VL	First professional degree	C	.2	.7	99.1
23-1020	Judges, magistrates, and other judicial workers.....	51	53	2	4.5	3	1	—	—	0.0	—	—	—	—	—	—	—
23-1021	Administrative law judges, adjudicators, and hearing officers ¹	15	15	0	.1	1	0	72,600	VH	0.0	VL	VL	Bachelor's or higher, plus work experience	C	.2	.7	99.1
23-1022	Arbitrators, mediators, and conciliators ¹	8	9	1	10.6	1	0	49,490	VH	0.0	VL	VL	Bachelor's or higher, plus work experience	C	.2	.7	99.1
23-1023	Judges, magistrate judges, and magistrates ¹	27	29	1	5.1	2	1	101,690	VH	0.0	VL	VL	Bachelor's or higher, plus work experience	C	.2	.7	99.1
23-2000	Legal support workers	410	469	59	14.3	41	12	—	—	5.5	—	—	—	—	—	—	—
23-2011	Paralegals and legal assistants.....	238	291	53	22.2	23	8	43,040	H	2.2	VL	L	Associate degree	SC/C	12.7	42.7	44.6
23-2090	Miscellaneous legal support workers.....	173	179	6	3.4	18	4	—	—	10.2	—	—	—	—	—	—	—
23-2091	Court reporters	19	24	5	24.5	3	1	45,610	H	7.9	L	L	Postsecondary vocational award	HS/SC/C	22.5	39.3	38.1
23-2092	Law clerks.....	37	36	0	-1.2	4	1	36,360	H	11.5	L	L	Bachelor's degree	HS/SC/C	22.5	39.3	38.1
23-2093	Title examiners, abstractors, and searchers.....	69	68	-1	-1.2	7	1	36,020	H	7.4	L	L	Moderate-term on-the-job training	HS/SC/C	22.5	39.3	38.1
23-2099	Legal support workers, all other	48	50	2	5.1	5	1	45,140	H	14.2	L	L	Moderate-term on-the-job training	HS/SC/C	22.5	39.3	38.1
25-0000	Education, training, and library occupations	9,034	10,298	1,265	14.0	1,269	305	—	—	2.4	—	—	—	—	—	—	—
25-1000	Postsecondary teachers.....	1,672	2,054	382	22.9	237	66	56,120	VH	.4	VL	VH	Doctoral degree	C	.2	5.2	94.6
25-2000	Primary, secondary, and special education teachers.....	4,413	4,963	550	12.5	504	158	—	—	.2	—	—	—	—	—	—	—
25-2010	Preschool and kindergarten teachers.....	607	750	143	23.5	106	24	—	—	1.1	—	—	—	—	—	—	—

See footnotes at end of table.

Table III-1. Occupational employment and job openings data, 2006-16, and worker characteristics, 2006 — Continued
(Numbers in thousands)

2006 National Employment Matrix occupation and code		Employment		Employment change, 2006-16		Annual average job open- ings due to growth and total replace- ment needs, 2006-16	Annual average job openings due to growth and net replace- ment needs, 2006-16	2006 median annual wages		Percent self-em- ployed, 2006	Unem- ployment rate	Percent part-time	Most significant source of postsecondary education or training ²	Educational attainment cluster ³	Percent of workers aged 25 to 44, by educational attainment ⁴		
		2006	2016	Numeric	Percent			Dollars	Rank						High school or less	Some college	College or higher
25-2011	Preschool teachers, except special education	437	552	115	26.3	78	19	22,680	L	1.1	L	H	Postsecondary vocational award	HS/SC/C	20.0	37.5	42.5
25-2012	Kindergarten teachers, except special education	170	198	28	16.3	28	6	43,580	H	1.1	L	H	Bachelor's degree	HS/SC/C	20.0	37.5	42.5
25-2020	Elementary and middle school teachers..	2,214	2,496	282	12.7	258	77	—	—	0.0	—	—	—	—	—	—	—
25-2021	Elementary school teachers, except special education	1,540	1,749	209	13.6	182	55	45,570	H	0.0	VL	L	Bachelor's degree	C	.3	5.2	94.5
25-2022	Middle school teachers, except special and vocational education	658	732	74	11.2	75	22	46,300	H	0.0	VL	L	Bachelor's degree	C	.3	5.2	94.5
25-2023	Vocational education teachers, middle school	16	15	-1	-5.1	2	0	44,240	H	0.0	VL	L	Bachelor's or higher, plus work experience	C	.3	5.2	94.5
25-2030	Secondary school teachers	1,133	1,187	54	4.8	101	40	—	—	0.0	—	—	—	—	—	—	—
25-2031	Secondary school teachers, except special and vocational education.....	1,038	1,096	59	5.6	93	37	47,740	VH	0.0	VL	L	Bachelor's degree	C	.6	3.5	95.9
25-2032	Vocational education teachers, secondary school.....	96	91	-4	-4.6	8	3	48,690	VH	0.0	VL	L	Bachelor's or higher, plus work experience	C	.6	3.5	95.9
25-2040	Special education teachers	459	530	71	15.4	39	17	—	—	.3	—	—	—	—	—	—	—
25-2041	Special education teachers, preschool, kindergarten, and elementary school .	219	262	43	19.6	20	9	46,360	VH	.3	VL	L	Bachelor's degree	C	4.5	8.3	87.2
25-2042	Special education teachers, middle school	102	118	16	15.8	9	4	47,650	VH	.3	VL	L	Bachelor's degree	C	4.5	8.3	87.2
25-2043	Special education teachers, secondary school	138	150	12	8.5	11	4	48,330	VH	.3	VL	L	Bachelor's degree	C	4.5	8.3	87.2
25-3000	Other teachers and instructors	1,078	1,214	136	12.6	243	25	—	—	18.1	—	—	—	—	—	—	—
25-3011	Adult literacy, remedial education, and GED teachers and instructors	76	87	11	14.2	17	2	43,910	H	0.0	L	VH	Bachelor's degree	SC/C	16.7	29.4	53.9
25-3021	Self-enrichment education teachers	261	322	60	23.1	64	9	33,440	H	21.5	L	VH	Work experience in a related occupation	SC/C	16.7	29.4	53.9
25-3099	Teachers and instructors, all other.....	741	805	64	8.7	161	14	28,660	L	18.8	L	VH	Bachelor's degree	SC/C	16.7	29.4	53.9
25-4000	Librarians, curators, and archivists.....	307	328	21	6.9	52	13	—	—	.4	—	—	—	—	—	—	—
25-4010	Archivists, curators, and museum technicians.....	27	33	5	18.3	4	2	—	—	1.3	—	—	—	—	—	—	—
25-4011	Archivists	6	7	1	14.4	1	0	40,730	H	1.3	L	H	Master's degree	C	5.4	8.7	85.9
25-4012	Curators.....	10	13	2	23.3	1	1	46,300	H	1.3	L	H	Master's degree	C	5.4	8.7	85.9
25-4013	Museum Technicians and Conservators	11	12	2	15.9	1	1	34,340	H	1.3	L	H	Bachelor's degree	C	5.4	8.7	85.9
25-4021	Librarians.....	158	164	6	3.6	19	5	49,060	VH	.6	VL	H	Master's degree	C	0.0	15.3	84.5
25-4031	Library technicians.....	121	132	10	8.5	29	7	26,560	L	0.0	H	VH	Postsecondary vocational award	HS/SC/C	45.9	27.6	26.5
25-9000	Other education, training, and library occupations	1,563	1,739	176	11.2	233	42	—	—	.6	—	—	—	—	—	—	—
25-9011	Audio-visual collections specialists.....	7	6	-1	-13.8	1	0	40,530	H	4.3	VL	H	Bachelor's degree	C	4.3	16.7	79.0
25-9021	Farm and home management advisors...	15	16	1	5.1	2	0	41,710	H	3.6	VL	H	Bachelor's degree	C	4.3	16.7	79.0
25-9031	Instructional coordinators	129	159	29	22.5	21	5	52,790	VH	3.1	VL	H	Master's degree	C	4.3	16.7	79.0

See footnotes at end of table.

Table III-1. Occupational employment and job openings data, 2006-16, and worker characteristics, 2006 — Continued
(Numbers in thousands)

2006 National Employment Matrix occupation and code		Employment		Employment change, 2006-16		Annual average job open- ings due to growth and total replace- ment needs, 2006-16	Annual average job openings due to growth and net replace- ment needs, 2006-16	2006 median annual wages		Percent self-em- ployed, 2006	Unem- ployment rate	Percent part-time	Most significant source of postsecondary education or training ²	Educational attainment cluster ³	Percent of workers aged 25 to 44, by educational attainment ⁴		
		2006	2016	Numeric	Percent			Dollars	Rank						High school or less	Some college	College or higher
25-9041	Teacher assistants.....	1,312	1,449	137	10.4	194	35	20,740	VL	.2	L	VH	Short-term on-the-job training	HS/SC	37.4	44.7	17.9
25-9099	Education, training, and library workers, all other	99	110	10	10.5	14	2	32,160	H	2.6	VL	H	Bachelor's degree	C	4.3	16.7	79.0
27-0000	Arts, design, entertainment, sports, and media occupations.....	2,677	2,982	305	11.4	394	97	—	—	30.3	—	—	—	—	—	—	—
27-1000	Art and design occupations	821	905	84	10.2	91	30	—	—	36.6	—	—	—	—	—	—	—
27-1010	Artists and related workers	218	253	34	15.8	30	9	—	—	62.0	—	—	—	—	—	—	—
27-1011	Art directors	78	85	7	9.0	10	3	68,100	VH	59.0	L	H	Bachelor's or higher, plus work experience	SC/C	13.6	28.5	58.0
27-1012	Craft artists	9	10	1	8.0	1	0	24,090	L	44.9	L	H	Long-term on-the-job training	SC/C	13.6	28.5	58.0
27-1013	Fine artists, including painters, sculptors, and illustrators	30	33	3	9.9	4	1	41,970	H	62.6	L	H	Long-term on-the-job training	SC/C	13.6	28.5	58.0
27-1014	Multi-media artists and animators.....	87	110	23	25.8	13	4	51,350	VH	69.7	L	H	Bachelor's degree	SC/C	13.6	28.5	58.0
27-1019	Artists and related workers, all other	14	15	1	8.4	2	0	41,990	H	40.1	L	H	Long-term on-the-job training	SC/C	13.6	28.5	58.0
27-1020	Designers	603	653	50	8.2	62	22	—	—	27.4	—	—	—	—	—	—	—
27-1021	Commercial and industrial designers	48	51	3	7.2	5	2	54,560	VH	29.8	L	H	Bachelor's degree	SC/C	13.9	31.4	54.6
27-1022	Fashion designers	20	21	1	5.0	2	1	62,610	VH	23.6	L	H	Associate degree	SC/C	13.9	31.4	54.6
27-1023	Floral designers.....	87	79	-8	-8.9	7	2	21,700	L	32.7	L	H	Moderate-term on-the-job training	SC/C	13.9	31.4	54.6
27-1024	Graphic designers	261	286	26	9.8	27	9	39,900	H	25.3	L	H	Bachelor's degree	SC/C	13.9	31.4	54.6
27-1025	Interior designers.....	72	86	14	19.5	8	3	42,260	H	26.3	L	H	Associate degree	SC/C	13.9	31.4	54.6
27-1026	Merchandise displays and window trimmers.....	87	96	9	10.7	9	3	23,820	L	28.6	L	H	Moderate-term on-the-job training	SC/C	13.9	31.4	54.6
27-1027	Set and exhibit designers	12	14	2	17.8	1	1	41,820	H	29.8	L	H	Bachelor's degree	SC/C	13.9	31.4	54.6
27-1029	Designers, all other.....	16	18	2	11.8	2	1	43,870	H	28.3	L	H	Bachelor's degree	SC/C	13.9	31.4	54.6
27-2000	Entertainers and performers, sports and related occupations	798	897	100	12.5	134	31	—	—	31.9	—	—	—	—	—	—	—
27-2010	Actors, producers, and directors.....	163	182	18	11.3	30	6	—	—	27.7	—	—	—	—	—	—	—
27-2011	Actors.....	70	78	8	11.6	21	2	NA	—	25.3	VH	H	Long-term on-the-job training	SC/C	15.6	22.3	62.1
27-2012	Producers and directors	93	103	10	11.1	9	4	56,310	VH	29.5	H	L	Bachelor's or higher, plus work experience	C	6.1	19.4	74.5
27-2020	Athletes, coaches, umpires, and related workers.....	253	291	38	15.1	60	10	—	—	23.1	—	—	—	—	—	—	—
27-2021	Athletes and sports competitors	18	21	3	19.2	4	1	41,060	H	27.0	H	VH	Long-term on-the-job training	SC/C	13.7	26.4	59.9
27-2022	Coaches and scouts.....	217	249	32	14.6	51	9	26,950	L	22.7	H	VH	Long-term on-the-job training	SC/C	13.7	26.4	59.9
27-2023	Umpires, referees, and other sports officials.....	19	22	3	16.0	4	1	22,880	L	24.0	H	VH	Long-term on-the-job training	SC/C	13.7	26.4	59.9
27-2030	Dancers and choreographers.....	40	43	2	5.9	3	2	—	—	17.1	—	—	—	—	—	—	—
27-2031	Dancers	20	22	2	9.5	1	1	NA	—	17.5	VH	VH	Long-term on-the-job training	HS/SC/C	41.2	36.4	22.4
27-2032	Choreographers.....	20	21	0	2.4	1	1	34,660	H	16.8	VH	VH	Work experience in a related occupation	HS/SC/C	41.2	36.4	22.4
27-2040	Musicians, singers, and related workers	264	293	29	10.8	33	8	—	—	47.8	—	—	—	—	—	—	—
27-2041	Music directors and composers.....	68	77	9	12.9	9	2	39,750	H	44.7	H	VH	Bachelor's or higher, plus work experience	SC/C	19.3	28.2	52.5

See footnotes at end of table.

Table III-1. Occupational employment and job openings data, 2006-16, and worker characteristics, 2006 — Continued
(Numbers in thousands)

2006 National Employment Matrix occupation and code		Employment		Employment change, 2006-16		Annual average job open- ings due to growth and total replace- ment needs, 2006-16	Annual average job openings due to growth and net replace- ment needs, 2006-16	2006 median annual wages		Percent self-em- ployed, 2006	Unem- ployment rate	Percent part-time	Most significant source of postsecondary education or training ²	Educational attainment cluster ³	Percent of workers aged 25 to 44, by educational attainment ⁴		
		2006	2016	Numeric	Percent			Dollars	Rank						High school or less	Some college	College or higher
27-2042	Musicians and singers	196	216	20	10.1	24	6	NA	—	48.9	H	VH	Long-term on-the-job training	SC/C	19.3	28.2	52.5
27-2099	Entertainers and performers, sports and related workers, all other	77	89	12	15.8	9	4	NA	—	23.3	L	H	Long-term on-the-job training	HS/SC/C	31.4	38.4	30.2
27-3000	Media and communication occupations	764	847	83	10.8	134	24	—	—	22.2	—	—	—	—	—	—	—
27-3010	Announcers	71	66	-5	-6.9	8	2	—	—	30.1	—	—	—	—	—	—	—
27-3011	Radio and television announcers	59	54	-5	-8.3	6	2	24,310	L	30.2	H	VH	Long-term on-the-job training	HS/SC/C	26.2	35.7	38.1
27-3012	Public address system and other announcers	12	12	0	-2	1	0	24,990	L	30.0	H	VH	Long-term on-the-job training	HS/SC/C	26.2	35.7	38.1
27-3020	News analysts, reporters and correspondents	67	68	1	1.7	12	2	—	—	10.7	—	—	—	—	—	—	—
27-3021	Broadcast news analysts	8	8	0	6.0	1	0	46,710	VH	11.1	L	H	Bachelor's or higher, plus work experience	C	1.3	13.6	85.1
27-3022	Reporters and correspondents	59	60	1	1.2	11	2	33,470	H	10.7	L	H	Bachelor's degree	C	1.3	13.6	85.1
27-3031	Public relations specialists	243	286	43	17.6	51	6	47,350	VH	4.9	VL	L	Bachelor's degree	C	5.3	13.9	80.8
27-3040	Writers and editors	306	336	30	9.7	52	10	—	—	35.4	—	—	—	—	—	—	—
27-3041	Editors	122	124	3	2.3	20	4	46,990	VH	13.4	H	L	Bachelor's degree	C	4.0	14.7	81.4
27-3042	Technical writers	49	59	10	19.5	7	2	58,050	VH	6.0	VH	VL	Bachelor's degree	C	7.2	18.4	74.4
27-3043	Writers and authors	135	153	17	12.8	24	4	48,640	VH	65.9	H	H	Bachelor's degree	C	3.5	12.4	84.1
27-3090	Miscellaneous media and communications workers	77	91	14	18.1	12	3	—	—	26.4	—	—	—	—	—	—	—
27-3091	Interpreters and translators	41	51	10	23.6	7	2	35,560	H	21.6	H	VH	Long-term on-the-job training	SC/C	15.9	36.3	47.8
27-3099	Media and communication workers, all other	36	40	4	11.7	5	1	42,570	H	32.1	H	VH	Long-term on-the-job training	SC/C	15.9	36.3	47.8
27-4000	Media and communication equipment occupations	294	332	38	13.0	34	11	—	—	29.7	—	—	—	—	—	—	—
27-4010	Broadcast and sound engineering technicians and radio operators	105	123	18	17.0	9	5	—	—	12.5	—	—	—	—	—	—	—
27-4011	Audio and video equipment technicians	50	62	12	24.2	5	3	34,840	H	12.8	L	L	Long-term on-the-job training	HS/SC/C	21.2	43.9	35.0
27-4012	Broadcast technicians	38	42	5	12.1	3	2	30,690	H	12.4	L	L	Associate degree	HS/SC/C	21.2	43.9	35.0
27-4013	Radio operators	2	1	0	-16.3	0	0	37,890	H	17.6	L	L	Moderate-term on-the-job training	HS/SC/C	21.2	43.9	35.0
27-4014	Sound engineering technicians	16	18	1	9.1	1	1	43,010	H	11.3	L	L	Postsecondary vocational award	HS/SC/C	21.2	43.9	35.0
27-4021	Photographers	122	135	13	10.3	16	4	26,170	L	54.3	H	H	Long-term on-the-job training	SC/C	18.7	35.6	45.7
27-4030	Television, video, and motion picture camera operators and editors	47	53	6	12.0	6	1	—	—	16.5	—	—	—	—	—	—	—
27-4031	Camera operators, television, video, and motion picture	27	30	3	11.5	3	1	40,060	H	16.9	H	H	Postsecondary vocational award	SC/C	12.8	28.7	58.4
27-4032	Film and video editors	21	23	3	12.7	3	1	46,670	VH	15.9	H	H	Bachelor's degree	SC/C	12.8	28.7	58.4
27-4099	Media and communication equipment workers, all other ¹	19	21	2	10.2	3	1	52,070	VH	0.0	H	H	Moderate-term on-the-job training	HS/SC/C	21.2	43.9	35.0
29-0000	Healthcare practitioners and technical occupations	7,198	8,620	1,423	19.8	671	279	—	—	4.5	—	—	—	—	—	—	—

See footnotes at end of table.

Table III-1. Occupational employment and job openings data, 2006-16, and worker characteristics, 2006 — Continued
(Numbers in thousands)

2006 National Employment Matrix occupation and code		Employment		Employment change, 2006-16		Annual average job open- ings due to growth and total replace- ment needs, 2006-16	Annual average job openings due to growth and net replace- ment needs, 2006-16	2006 median annual wages		Percent self-em- ployed, 2006	Unem- ployment rate	Percent part-time	Most significant source of postsecondary education or training ²	Educational attainment cluster ³	Percent of workers aged 25 to 44, by educational attainment ⁴		
		2006	2016	Numeric	Percent			Dollars	Rank						High school or less	Some college	College or higher
29-1000	Health diagnosing and treating practitioners	4,460	5,383	923	20.7	370	167	—	—	6.6	—	—	—	—	—	—	—
29-1011	Chiropractors ¹	53	60	8	14.4	3	1	65,220	VH	51.7	VL	H	First professional degree	C	0.0	0.0	97.5
29-1020	Dentists.....	161	176	15	9.1	8	5	—	—	36.5	—	—	—	—	—	—	—
29-1021	Dentists, general ¹	136	149	13	9.2	7	4	132,140	VH	36.6	VL	H	First professional degree	C	0.0	0.0	99.5
29-1022	Oral and maxillofacial surgeons ¹	8	8	1	9.1	0	0	NA	—	30.6	VL	H	First professional degree	C	0.0	0.0	99.5
29-1023	Orthodontists ¹	9	10	1	9.2	0	0	NA	—	43.3	VL	H	First professional degree	C	0.0	0.0	99.5
29-1024	Prosthodontists ¹	1	1	0	10.7	0	0	NA	—	51.3	VL	H	First professional degree	C	0.0	0.0	99.5
29-1029	Dentists, all other specialists ¹	7	7	0	6.8	0	0	91,200	VH	29.1	VL	H	First professional degree	C	0.0	0.0	99.5
29-1031	Dietitians and nutritionists.....	57	62	5	8.6	5	2	46,980	VH	7.9	VL	VH	Bachelor's degree	C	14.7	13.6	71.7
29-1041	Optometrists ¹	33	36	4	11.3	2	1	91,040	VH	25.5	VL	H	First professional degree	C	0.0	0.0	100.0
29-1051	Pharmacists.....	243	296	53	21.7	16	10	94,520	VH	.5	VL	H	First professional degree	C	0.0	2.9	97.0
29-1060	Physicians and surgeons.....	633	723	90	14.2	38	20	NA	—	14.7	VL	L	First professional degree	C	0.0	0.0	100.0
29-1071	Physician assistants.....	66	83	18	27.0	7	3	74,980	VH	1.8	VL	H	Master's degree	SC/C	7.6	25.5	66.9
29-1081	Podiatrists ¹	12	13	1	9.5	1	1	108,220	VH	23.9	VL	H	First professional degree	C	0.0	0.0	99.2
29-1111	Registered nurses.....	2,505	3,092	587	23.5	233	100	57,280	VH	.8	VL	H	Associate degree	SC/C	1.0	42.7	56.2
29-1120	Therapists.....	570	684	114	19.9	47	20	—	—	10.0	—	—	—	—	—	—	—
29-1121	Audiologists ¹	12	13	1	9.8	1	0	57,120	VH	10.2	VL	VH	First professional degree	C	0.0	0.0	91.2
29-1122	Occupational therapists.....	99	122	23	23.1	8	4	60,470	VH	8.6	VL	VH	Master's degree	C	0.0	9.0	90.3
29-1123	Physical therapists.....	173	220	47	27.1	12	7	66,200	VH	8.4	VL	H	Master's degree	C	1.8	8.8	89.3
29-1124	Radiation therapists ¹	15	18	4	24.8	1	1	66,170	VH	0.0	VL	L	Associate degree	SC/C	0.0	55.4	42.1
29-1125	Recreational therapists ¹	25	26	1	3.7	2	0	34,990	H	0.0	VL	H	Bachelor's degree	C	0.0	13.6	76.5
29-1126	Respiratory therapists.....	102	126	23	22.6	6	4	47,420	VH	1.1	VL	H	Associate degree	SC/C	1.1	71.2	27.7
29-1127	Speech-language pathologists.....	110	121	12	10.6	11	3	57,710	VH	8.8	VL	H	Master's degree	C	0.0	0.0	97.9
29-1129	Therapists, all other.....	35	38	3	10.0	6	1	42,250	H	64.5	VL	VH	Bachelor's degree	C	3.2	14.2	82.6
29-1131	Veterinarians ¹	62	84	22	35.0	5	3	71,990	VH	17.1	VL	L	First professional degree	C	0.0	0.0	99.9
29-1199	Health diagnosing and treating practitioners, all other ¹	65	73	8	11.8	3	2	61,570	VH	14.3	VL	VH	Bachelor's degree	C	0.0	0.0	93.6
29-2000	Health technologists and technicians.....	2,612	3,094	482	18.5	290	107	—	—	1.0	—	—	—	—	—	—	—
29-2010	Clinical laboratory technologists and technicians.....	319	362	43	13.6	22	9	—	—	.7	—	—	—	—	—	—	—
29-2011	Medical and clinical laboratory technologists.....	167	188	21	12.4	11	5	49,700	VH	.7	VL	L	Bachelor's degree	SC/C	14.2	35.3	50.5
29-2012	Medical and clinical laboratory technicians.....	151	174	23	15.0	11	5	32,840	H	.7	VL	L	Associate degree	SC/C	14.2	35.3	50.5
29-2021	Dental hygienists.....	167	217	50	30.1	10	8	62,800	VH	.1	VL	VH	Associate degree	SC/C	2.9	63.8	33.3
29-2030	Diagnostic related technologists and technicians.....	307	360	53	17.2	21	9	—	—	1.1	—	—	—	—	—	—	—

See footnotes at end of table.

Table III-1. Occupational employment and job openings data, 2006-16, and worker characteristics, 2006 — Continued
(Numbers in thousands)

2006 National Employment Matrix occupation and code		Employment		Employment change, 2006-16		Annual average job open- ings due to growth and total replac- ement needs, 2006-16	Annual average job openings due to growth and net replac- ement needs, 2006-16	2006 median annual wages		Percent self-em- ployed, 2006	Unem- ployment rate	Percent part-time	Most significant source of postsecondary education or training ²	Educational attainment cluster ³	Percent of workers aged 25 to 44, by educational attainment ⁴		
		2006	2016	Numeric	Percent			Dollars	Rank						High school or less	Some college	College or higher
29-2031	Cardiovascular technologists and technicians.....	45	57	12	25.5	4	2	42,300	H	1.1	VL	H	Associate degree	SC/C	7.2	67.9	24.9
29-2032	Diagnostic medical sonographers	46	54	9	19.1	3	1	57,160	VH	1.1	VL	H	Associate degree	SC/C	7.2	67.9	24.9
29-2033	Nuclear medicine technologists.....	20	23	3	14.8	1	1	62,300	VH	1.0	VL	H	Associate degree	SC/C	7.2	67.9	24.9
29-2034	Radiologic technologists and technicians	196	226	30	15.1	13	6	48,170	VH	1.1	VL	H	Associate degree	SC/C	7.2	67.9	24.9
29-2041	Emergency medical technicians and paramedics	201	240	39	19.2	20	6	27,070	L	.2	VL	L	Postsecondary vocational award	SC	18.0	68.1	13.9
29-2050	Health diagnosing and treating practitioner support technicians.....	549	692	143	26.1	100	31	—	—	.2	—	—	—	—	—	—	—
29-2051	Dietetic technicians.....	25	29	4	14.8	4	1	24,040	L	.2	VL	H	Postsecondary vocational award	HS/SC	27.0	57.0	16.0
29-2052	Pharmacy technicians	285	376	91	32.0	54	18	25,630	L	.2	VL	H	Moderate-term on-the-job training	HS/SC	27.0	57.0	16.0
29-2053	Psychiatric technicians	62	60	-2	-3.3	8	2	27,780	L	.2	VL	H	Postsecondary vocational award	HS/SC	27.0	57.0	16.0
29-2054	Respiratory therapy technicians	19	19	0	.9	3	1	39,120	H	.3	VL	H	Associate degree	HS/SC	27.0	57.0	16.0
29-2055	Surgical technologists.....	86	107	21	24.5	15	5	36,080	H	.2	VL	H	Postsecondary vocational award	HS/SC	27.0	57.0	16.0
29-2056	Veterinary technologists and technicians	71	100	29	41.0	15	5	26,780	L	.2	VL	H	Associate degree	HS/SC	27.0	57.0	16.0
29-2061	Licensed practical and licensed vocational nurses.....	749	854	105	14.0	71	31	36,550	H	1.5	L	H	Postsecondary vocational award	HS/SC	20.6	72.4	7.0
29-2071	Medical records and health information technicians ¹	170	200	30	17.8	39	8	28,030	L	.2	L	L	Associate degree	HS/SC	36.8	51.4	11.8
29-2081	Opticians, dispensing	66	72	6	8.7	3	3	30,300	L	2.4	VL	H	Long-term on-the-job training	HS/SC	28.7	56.1	15.2
29-2090	Miscellaneous health technologists and technicians.....	85	98	13	14.7	5	2	—	—	6.6	—	—	—	—	—	—	—
29-2091	Orthotists and prosthetists.....	6	6	1	11.8	0	0	58,980	VH	6.5	VL	H	Bachelor's degree	HS/SC/C	28.3	44.6	27.0
29-2099	Healthcare technologists and technicians, all other.....	79	91	12	15.0	4	2	35,140	H	6.6	VL	H	Postsecondary vocational award	HS/SC/C	28.3	44.6	27.0
29-9000	Other healthcare practitioners and technical occupations	126	143	17	13.7	10	4	—	—	1.2	—	—	—	—	—	—	—
29-9010	Occupational health and safety specialists and technicians.....	56	61	5	9.3	4	2	—	—	1.9	—	—	—	—	—	—	—
29-9011	Occupational health and safety specialists ¹	45	49	4	8.1	3	1	58,030	VH	2.4	VL	L	Bachelor's degree	C	9.4	18.3	72.4
29-9012	Occupational health and safety technicians ¹	10	12	2	14.6	1	0	42,160	H	0.0	VL	L	Bachelor's degree	C	9.4	18.3	72.4
29-9090	Miscellaneous health practitioners and technical workers.....	70	82	12	17.1	6	3	—	—	.6	—	—	—	—	—	—	—
29-9091	Athletic trainers ¹	17	21	4	24.3	2	1	36,560	H	2.4	VL	L	Bachelor's degree	C	9.4	18.3	72.4
29-9099	Healthcare practitioners and technical workers, all other ¹	53	61	8	14.8	4	2	37,200	H	0.0	VL	L	Bachelor's degree	C	9.4	18.3	72.4
31-3900	Service occupations.....	28,950	33,780	4,830	16.7	7,556	1,222	—	—	7.3	—	—	—	—	—	—	—
31-0000	Healthcare support occupations.....	3,723	4,721	997	26.8	785	140	—	—	4.2	—	—	—	—	—	—	—
31-1000	Nursing, psychiatric, and home health aides	2,296	2,944	647	28.2	554	85	—	—	2.3	—	—	—	—	—	—	—

See footnotes at end of table.

Table III-1. Occupational employment and job openings data, 2006-16, and worker characteristics, 2006 — Continued
(Numbers in thousands)

2006 National Employment Matrix occupation and code		Employment		Employment change, 2006-16		Annual average job open- ings due to growth and total replace- ment needs, 2006-16	Annual average job openings due to growth and net replace- ment needs, 2006-16	2006 median annual wages		Percent self-em- ployed, 2006	Unem- ployment rate	Percent part-time	Most significant source of postsecondary education or training ²	Educational attainment cluster ³	Percent of workers aged 25 to 44, by educational attainment ⁴		
		2006	2016	Numeric	Percent			Dollars	Rank						High school or less	Some college	College or higher
31-1011	Home health aides.....	787	1,171	384	48.7	221	45	19,420	VL	1.9	H	H	Short-term on-the-job training	HS/SC	55.3	37.3	7.4
31-1012	Nursing aides, orderlies, and attendants.	1,447	1,711	264	18.2	321	39	22,180	L	2.4	H	H	Postsecondary vocational award	HS/SC	55.3	37.3	7.4
31-1013	Psychiatric aides.....	62	62	0	-.1	12	1	23,900	L	2.3	H	H	Short-term on-the-job training	HS/SC	55.3	37.3	7.4
31-2000	Occupational and physical therapist assistants and aides.....	140	179	39	27.9	14	6	—	—	.9	—	—	—	—	—	—	—
31-2010	Occupational therapist assistants and aides.....	33	41	8	24.5	3	1	—	—	3.3	—	—	—	—	—	—	—
31-2011	Occupational therapist assistants ¹	25	31	6	25.4	3	1	42,060	H	3.5	VL	H	Associate degree	SC	0.0	85.6	13.3
31-2012	Occupational therapist aides ¹	8	10	2	21.9	1	0	25,020	L	2.7	VL	H	Short-term on-the-job training	SC	0.0	85.6	13.3
31-2020	Physical therapist assistants and aides...	107	137	31	28.9	10	4	—	—	.2	—	—	—	—	—	—	—
31-2021	Physical therapist assistants.....	60	80	20	32.4	6	3	41,360	H	.2	VL	VH	Associate degree	SC/C	11.7	65.4	22.9
31-2022	Physical therapist aides.....	46	58	11	24.4	4	2	22,060	L	.2	VL	VH	Short-term on-the-job training	SC/C	11.7	65.4	22.9
31-9000	Other healthcare support occupations.....	1,287	1,598	311	24.2	218	49	—	—	8.1	—	—	—	—	—	—	—
31-9011	Massage therapists.....	118	142	24	20.3	9	4	33,400	H	64.0	VL	VH	Postsecondary vocational award	SC/C	18.7	49.1	32.2
31-9090	Miscellaneous healthcare support occupations.....	1,170	1,457	287	24.5	209	45	—	—	2.4	—	—	—	—	—	—	—
31-9091	Dental assistants.....	280	362	82	29.2	29	13	30,220	L	0.0	VL	VH	Moderate-term on-the-job training	HS/SC	33.6	57.5	8.9
31-9092	Medical assistants.....	417	565	148	35.4	93	20	26,290	L	0.0	L	H	Moderate-term on-the-job training	HS/SC	30.6	58.9	10.4
31-9093	Medical equipment preparers.....	45	52	6	14.2	8	1	25,950	L	2.8	L	H	Short-term on-the-job training	HS/SC	30.6	58.9	10.4
31-9094	Medical transcriptionists.....	98	112	13	13.5	18	3	29,950	L	9.7	L	H	Postsecondary vocational award	HS/SC	30.6	58.9	10.4
31-9095	Pharmacy aides.....	50	45	-6	-11.1	8	1	19,440	VL	4.2	L	H	Short-term on-the-job training	HS/SC	30.6	58.9	10.4
31-9096	Veterinary assistants and laboratory animal caretakers.....	75	86	12	15.7	14	2	19,960	VL	2.9	L	H	Short-term on-the-job training	HS/SC	30.6	58.9	10.4
31-9099	Healthcare support workers, all other....	204	236	32	15.6	38	6	26,990	L	6.6	L	H	Short-term on-the-job training	HS/SC	30.6	58.9	10.4
33-0000	Protective service occupations.....	3,163	3,616	453	14.3	466	133	—	—	.8	—	—	—	—	—	—	—
33-1000	First-line supervisors/managers, protective service workers.....	233	260	26	11.3	22	9	—	—	.6	—	—	—	—	—	—	—
33-1010	First-line supervisors/managers, law enforcement workers.....	133	146	13	10.2	14	5	—	—	0.0	—	—	—	—	—	—	—
33-1011	First-line supervisors/managers of correctional officers.....	40	45	5	12.5	4	2	52,580	VH	0.0	VL	VL	Work experience in a related occupation	HS/SC/C	25.9	49.2	24.9
33-1012	First-line supervisors/managers of police and detectives ¹	93	102	9	9.2	9	4	69,310	VH	0.0	VL	VL	Work experience in a related occupation	SC/C	17.5	49.4	33.0
33-1021	First-line supervisors/managers of fire fighting and prevention workers ¹	52	58	6	11.5	4	2	62,900	VH	0.0	VL	VL	Work experience in a related occupation	SC	18.4	64.3	17.3
33-1099	First-line supervisors/managers, protective service workers, all other.....	48	55	7	14.5	5	1	41,570	H	2.9	L	VL	Work experience in a related occupation	HS/SC/C	25.5	46.9	27.5
33-2000	Fire fighting and prevention workers.....	308	345	37	12.0	20	15	—	—	0.0	—	—	—	—	—	—	—
33-2011	Fire fighters.....	293	328	35	12.1	19	14	41,190	H	0.0	VL	VL	Long-term on-the-job training	HS/SC	22.9	58.8	18.3
33-2020	Fire inspectors.....	16	17	2	10.0	1	1	—	—	0.0	—	—	—	—	—	—	—

See footnotes at end of table.

Table III-1. Occupational employment and job openings data, 2006-16, and worker characteristics, 2006 — Continued
(Numbers in thousands)

2006 National Employment Matrix occupation and code		Employment		Employment change, 2006-16		Annual average job open- ings due to growth and total replace- ment needs, 2006-16	Annual average job openings due to growth and net replace- ment needs, 2006-16	2006 median annual wages		Percent self-em- ployed, 2006	Unem- ployment rate	Percent part-time	Most significant source of postsecondary education or training ²	Educational attainment cluster ³	Percent of workers aged 25 to 44, by educational attainment ⁴		
		2006	2016	Numeric	Percent			Dollars	Rank						High school or less	Some college	College or higher
33-2021	Fire inspectors and investigators.....	14	15	2	11.0	1	0	48,050	VH	0.0	VL	VL	Work experience in a related occupation	HS/SC/C	20.9	51.7	27.4
33-2022	Forest fire inspectors and prevention specialists	2	2	0	2.1	0	0	32,940	H	0.0	VL	VL	Work experience in a related occupation	HS/SC/C	20.9	51.7	27.4
33-3000	Law enforcement workers	1,239	1,406	167	13.5	113	47	—	—	0.0	—	—	—	—	—	—	—
33-3010	Bailiffs, correctional officers, and jailers ..	460	537	77	16.6	59	18	—	—	0.0	—	—	—	—	—	—	—
33-3011	Bailiffs	19	21	2	11.2	2	1	34,210	H	0.0	VL	VL	Moderate-term on-the-job training	HS/SC	40.1	49.2	10.6
33-3012	Correctional officers and jailers	442	516	75	16.9	57	18	35,760	H	0.0	VL	VL	Moderate-term on-the-job training	HS/SC	40.1	49.2	10.6
33-3021	Detectives and criminal investigators	106	125	18	17.3	15	4	58,260	VH	.3	VL	VL	Work experience in a related occupation	SC/C	10.2	35.4	54.4
33-3031	Fish and game wardens ¹	8	8	0	-2	1	0	43,700	H	0.0	VL	VL	Associate degree	HS/SC/C	31.8	26.1	42.1
33-3041	Parking enforcement workers ¹	11	12	1	12.3	1	0	30,160	L	0.0	VL	VL	Short-term on-the-job training	HS/SC/C	31.8	26.1	42.1
33-3050	Police officers	654	724	70	10.8	38	25	—	—	0.0	—	—	—	—	—	—	—
33-3051	Police and sheriff's patrol officers.....	648	719	70	10.8	38	24	47,460	VH	0.0	VL	VL	Long-term on-the-job training	SC/C	15.5	51.7	32.8
33-3052	Transit and railroad police ¹	6	6	0	6.4	0	0	47,080	VH	0.0	VL	VL	Long-term on-the-job training	SC/C	15.5	51.7	32.8
33-9000	Other protective service workers	1,382	1,605	223	16.1	311	61	—	—	1.6	—	—	—	—	—	—	—
33-9011	Animal control workers ¹	15	17	2	12.5	3	1	27,910	L	.1	H	H	Moderate-term on-the-job training	HS/SC	32.9	54.9	12.2
33-9021	Private detectives and investigators.....	52	61	9	18.2	7	2	33,750	H	29.7	H	L	Work experience in a related occupation	SC/C	17.7	30.2	52.0
33-9030	Security guards and gaming surveillance officers	1,049	1,227	178	17.0	224	39	—	—	.7	—	—	—	—	—	—	—
33-9031	Gaming surveillance officers and gaming investigators	9	12	3	33.6	2	0	27,130	L	.7	VH	H	Moderate-term on-the-job training	HS/SC	45.9	41.6	12.5
33-9032	Security guards.....	1,040	1,216	175	16.9	222	39	21,530	L	.7	VH	H	Short-term on-the-job training	HS/SC	45.9	41.6	12.5
33-9090	Miscellaneous protective service workers	266	299	33	12.4	76	20	—	—	0.0	—	—	—	—	—	—	—
33-9091	Crossing guards	69	71	1	1.9	4	2	21,060	VL	0.0	VH	VH	Short-term on-the-job training	HS/SC	67.1	27.9	5.0
33-9092	Lifeguards, ski patrol, and other recreational protective service workers	114	136	21	18.7	42	11	17,160	VL	0.0	VH	VH	Short-term on-the-job training	HS/SC/C	34.5	34.2	31.2
33-9099	Protective service workers, all other.....	83	93	10	12.6	29	7	26,920	L	0.0	VH	VH	Short-term on-the-job training	HS/SC/C	34.5	34.2	31.2
35-0000	Food preparation and serving related occupations	11,352	12,789	1,436	12.7	3,775	538	—	—	.9	—	—	—	—	—	—	—
35-1000	Supervisors, food preparation and serving workers.....	932	1,033	101	10.8	164	18	—	—	4.5	—	—	—	—	—	—	—
35-1011	Chefs and head cooks.....	115	124	9	7.6	9	2	34,370	H	7.2	H	L	Work experience in a related occupation	HS/SC	47.7	38.8	13.5
35-1012	First-line supervisors/managers of food preparation and serving workers	817	909	92	11.3	154	15	26,980	L	4.1	L	L	Work experience in a related occupation	HS/SC	51.3	35.2	13.5
35-2000	Cooks and food preparation workers.....	2,998	3,340	342	11.4	878	122	—	—	1.1	—	—	—	—	—	—	—
35-2010	Cooks	2,097	2,301	204	9.7	580	77	—	—	1.3	—	—	—	—	—	—	—
35-2011	Cooks, fast food.....	629	681	52	8.3	172	22	15,410	VL	1.3	VH	VH	Short-term on-the-job training	HS	76.5	18.7	4.8
35-2012	Cooks, institution and cafeteria	401	445	43	10.8	112	15	20,410	VL	1.4	VH	VH	Moderate-term on-the-job training	HS	76.5	18.7	4.8
35-2013	Cooks, private household	5	5	0	8.8	1	0	22,870	L	0.0	VH	VH	Long-term on-the-job training	HS	76.5	18.7	4.8
35-2014	Cooks, restaurant.....	850	948	98	11.5	239	33	20,340	VL	1.2	VH	VH	Long-term on-the-job training	HS	76.5	18.7	4.8

See footnotes at end of table.

Table III-1. Occupational employment and job openings data, 2006-16, and worker characteristics, 2006 — Continued
(Numbers in thousands)

2006 National Employment Matrix occupation and code		Employment		Employment change, 2006-16		Annual average job open- ings due to growth and total replace- ment needs, 2006-16	Annual average job openings due to growth and net replace- ment needs, 2006-16	2006 median annual wages		Percent self-em- ployed, 2006	Unem- ployment rate	Percent part-time	Most significant source of postsecondary education or training ²	Educational attainment cluster ³	Percent of workers aged 25 to 44, by educational attainment ⁴		
		2006	2016	Numeric	Percent			Dollars	Rank						High school or less	Some college	College or higher
35-2015	Cooks, short order.....	195	205	9	4.8	52	6	17,880	VL	1.5	VH	VH	Short-term on-the-job training	HS	76.5	18.7	4.8
35-2019	Cooks, all other.....	16	16	1	3.4	4	0	21,610	L	1.1	VH	VH	Moderate-term on-the-job training	HS	76.5	18.7	4.8
35-2021	Food preparation workers.....	902	1,040	138	15.3	298	45	17,410	VL	.8	VH	VH	Short-term on-the-job training	HS	74.1	18.5	7.4
35-3000	Food and beverage serving workers.....	6,081	6,927	846	13.9	2,210	318	—	—	.3	—	—	—	—	—	—	—
35-3011	Bartenders.....	495	551	56	11.2	88	24	16,350	VL	.6	H	VH	Short-term on-the-job training	HS/SC	41.9	40.9	17.3
35-3020	Fast food and counter workers.....	3,036	3,542	506	16.7	1,298	135	—	—	.3	—	—	—	—	—	—	—
35-3021	Combined food preparation and serving workers, including fast food.....	2,503	2,955	452	18.1	1,043	93	15,050	VL	.2	VH	VH	Short-term on-the-job training	HS/SC	71.0	23.8	5.2
35-3022	Counter attendants, cafeteria, food concession, and coffee shop.....	533	587	54	10.2	255	42	16,130	VL	.3	VH	VH	Short-term on-the-job training	HS	72.9	19.1	8.0
35-3031	Waiters and waitresses.....	2,361	2,615	255	10.8	768	154	14,850	VL	.3	VH	VH	Short-term on-the-job training	HS/SC	50.8	35.1	14.1
35-3041	Food servers, nonrestaurant.....	189	219	30	15.8	56	6	18,090	VL	1.1	H	VH	Short-term on-the-job training	HS/SC	63.8	27.3	8.9
35-9000	Other food preparation and serving related workers.....	1,341	1,488	147	11.0	524	80	—	—	.3	—	—	—	—	—	—	—
35-9011	Dining room and cafeteria attendants and bartender helpers.....	416	466	49	11.8	154	22	15,310	VL	.3	VH	VH	Short-term on-the-job training	HS	75.9	18.2	5.9
35-9021	Dishwashers.....	517	571	54	10.4	201	27	15,750	VL	.2	VH	VH	Short-term on-the-job training	HS	86.6	10.2	3.2
35-9031	Hosts and hostesses, restaurant, lounge, and coffee shop.....	351	388	37	10.4	146	28	16,170	VL	.3	VH	VH	Short-term on-the-job training	HS/SC	50.7	32.7	16.6
35-9099	Food preparation and serving related workers, all other ¹	56	64	7	13.0	23	3	17,780	VL	0.0	VH	VH	Short-term on-the-job training	HS	75.9	18.2	5.9
37-0000	Building and grounds cleaning and maintenance occupations.....	5,745	6,595	850	14.8	1,245	183	—	—	11.7	—	—	—	—	—	—	—
37-1000	Supervisors, building and grounds cleaning and maintenance workers.....	484	555	71	14.7	50	13	—	—	36.3	—	—	—	—	—	—	—
37-1011	First-line supervisors/managers of housekeeping and janitorial workers ..	282	318	36	12.7	31	8	31,290	H	30.7	L	L	Work experience in a related occupation	HS/SC	58.0	31.5	10.5
37-1012	First-line supervisors/managers of landscaping, lawn service, and groundskeeping workers.....	202	237	36	17.6	19	5	37,300	H	44.1	VL	VL	Work experience in a related occupation	HS/SC	53.7	31.3	15.0
37-2000	Building cleaning and pest control workers	3,941	4,486	544	13.8	864	130	—	—	5.7	—	—	—	—	—	—	—
37-2010	Building cleaning workers.....	3,872	4,405	533	13.8	858	127	—	—	5.6	—	—	—	—	—	—	—
37-2011	Janitors and cleaners, except maids and housekeeping cleaners.....	2,387	2,732	345	14.5	533	80	19,930	VL	4.9	H	H	Short-term on-the-job training	HS/SC	75.3	20.4	4.3
37-2012	Maids and housekeeping cleaners.....	1,470	1,656	186	12.7	322	46	17,580	VL	6.8	VH	VH	Short-term on-the-job training	HS	80.5	14.8	4.7
37-2019	Building cleaning workers, all other.....	16	18	2	15.1	4	1	25,090	L	4.7	H	H	Short-term on-the-job training	HS/SC	75.3	20.4	4.3
37-2021	Pest control workers.....	70	80	11	15.5	6	3	27,880	L	8.7	H	VL	Moderate-term on-the-job training	HS/SC	58.0	32.8	9.2
37-3000	Grounds maintenance workers.....	1,319	1,554	235	17.8	331	41	—	—	20.7	—	—	—	—	—	—	—
37-3010	Grounds maintenance workers.....	1,319	1,554	235	17.8	331	41	—	—	20.7	—	—	—	—	—	—	—
37-3011	Landscaping and groundskeeping workers.....	1,220	1,441	221	18.1	307	38	21,260	L	20.5	VH	L	Short-term on-the-job training	HS	77.5	16.7	5.8

See footnotes at end of table.

Table III-1. Occupational employment and job openings data, 2006-16, and worker characteristics, 2006 — Continued
(Numbers in thousands)

2006 National Employment Matrix occupation and code		Employment		Employment change, 2006-16		Annual average job open- ings due to growth and total replace- ment needs, 2006-16	Annual average job openings due to growth and net replace- ment needs, 2006-16	2006 median annual wages		Percent self-em- ployed, 2006	Unem- ployment rate	Percent part-time	Most significant source of postsecondary education or training ²	Educational attainment cluster ³	Percent of workers aged 25 to 44, by educational attainment ⁴		
		2006	2016	Numeric	Percent			Dollars	Rank						High school or less	Some college	College or higher
37-3012	Pesticide handlers, sprayers, and applicators, vegetation.....	31	35	4	14.0	7	1	26,700	L	20.5	VH	L	Moderate-term on-the-job training	HS	77.5	16.7	5.8
37-3013	Tree trimmers and pruners	41	45	5	11.1	10	1	28,250	L	28.9	VH	L	Short-term on-the-job training	HS	77.5	16.7	5.8
37-3019	Grounds maintenance workers, all other	28	33	5	16.6	7	1	20,420	VL	16.3	VH	L	Short-term on-the-job training	HS	77.5	16.7	5.8
39-0000	Personal care and service occupations.....	4,966	6,060	1,094	22.0	1,285	228	—	—	23.3	—	—	—	—	—	—	—
39-1000	Supervisors, personal care and service workers	268	312	43	16.2	44	10	—	—	36.8	—	—	—	—	—	—	—
39-1010	First-line supervisors/managers of gaming workers	54	64	10	18.9	7	2	—	—	29.8	—	—	—	—	—	—	—
39-1011	Gaming supervisors.....	34	42	8	23.4	5	1	41,160	H	29.2	L	L	Work experience in a related occupation	HS/SC/C	33.7	36.1	30.2
39-1012	Slot key persons	20	22	2	11.1	2	1	22,720	L	30.8	L	L	Postsecondary vocational award	HS/SC/C	33.7	36.1	30.2
39-1021	First-line supervisors/managers of personal service workers.....	215	248	33	15.5	38	8	32,800	H	38.6	VL	H	Work experience in a related occupation	HS/SC/C	37.4	36.3	26.4
39-2000	Animal care and service workers.....	200	238	39	19.3	43	7	—	—	32.8	—	—	—	—	—	—	—
39-2011	Animal trainers.....	43	53	10	22.7	7	2	26,310	L	56.9	VL	H	Moderate-term on-the-job training	HS/SC/C	48.5	27.7	23.9
39-2021	Nonfarm animal caretakers	157	185	29	18.4	36	5	18,140	VL	26.2	L	VH	Short-term on-the-job training	HS/SC	46.8	37.2	16.0
39-3000	Entertainment attendants and related workers	546	667	120	22.1	188	38	—	—	.8	—	—	—	—	—	—	—
39-3010	Gaming services workers	117	146	29	25.0	17	5	—	—	.5	—	—	—	—	—	—	—
39-3011	Gaming dealers	84	104	20	24.1	12	4	14,730	VL	.5	H	H	Postsecondary vocational award	HS/SC	45.4	43.6	11.0
39-3012	Gaming and sports book writers and runners	18	24	5	28.0	3	1	18,800	VL	.5	H	H	Short-term on-the-job training	HS/SC	45.4	43.6	11.0
39-3019	Gaming service workers, all other	15	18	4	26.2	2	1	21,890	L	.5	H	H	Moderate-term on-the-job training	HS/SC	45.4	43.6	11.0
39-3021	Motion picture projectionists ¹	11	11	-1	-8.4	3	1	17,450	VL	7.7	VH	VH	Short-term on-the-job training	HS/SC/C	24.2	46.8	29.0
39-3031	Ushers, lobby attendants, and ticket takers ¹	103	121	17	16.9	36	9	15,880	VL	0.0	VH	VH	Short-term on-the-job training	HS/SC	52.5	30.0	17.5
39-3090	Miscellaneous entertainment attendants and related workers	315	390	75	23.8	132	23	—	—	1.0	—	—	—	—	—	—	—
39-3091	Amusement and recreation attendants..	247	308	60	24.3	104	18	16,290	VL	1.0	VH	VH	Short-term on-the-job training	HS/SC/C	46.4	31.5	22.2
39-3092	Costume attendants	4	5	1	14.1	2	0	25,740	L	.8	VH	VH	Short-term on-the-job training	HS/SC/C	46.4	31.5	22.2
39-3093	Locker room, coatroom, and dressing room attendants.....	19	24	4	21.6	8	1	18,610	VL	1.3	VH	VH	Short-term on-the-job training	HS/SC/C	46.4	31.5	22.2
39-4000	Funeral service workers	42	48	6	14.3	8	2	—	—	.7	—	—	—	—	—	—	—
39-4011	Embalmers	9	10	1	14.3	2	0	37,840	H	.7	H	H	Postsecondary vocational award	HS/SC/C	37.3	33.3	29.4
39-4021	Funeral attendants.....	33	37	5	14.3	6	1	20,350	VL	.6	H	H	Short-term on-the-job training	HS/SC/C	37.3	33.3	29.4
39-5000	Personal appearance workers.....	825	942	117	14.2	100	22	—	—	46.2	—	—	—	—	—	—	—
39-5010	Barbers and cosmetologists	677	755	77	11.4	76	16	—	—	47.7	—	—	—	—	—	—	—
39-5011	Barbers	60	61	1	1.1	3	1	23,150	L	80.9	L	H	Postsecondary vocational award	HS/SC	62.0	33.9	4.1
39-5012	Hairdressers, hairstylists, and cosmetologists.....	617	694	77	12.4	73	15	21,320	L	44.5	VL	VH	Postsecondary vocational award	HS/SC	51.3	42.3	6.4

See footnotes at end of table.

Table III-1. Occupational employment and job openings data, 2006-16, and worker characteristics, 2006 — Continued
(Numbers in thousands)

2006 National Employment Matrix occupation and code		Employment		Employment change, 2006-16		Annual average job open- ings due to growth and total replace- ment needs, 2006-16	Annual average job openings due to growth and net replace- ment needs, 2006-16	2006 median annual wages		Percent self-em- ployed, 2006	Unem- ployment rate	Percent part-time	Most significant source of postsecondary education or training ²	Educational attainment cluster ³	Percent of workers aged 25 to 44, by educational attainment ⁴		
		2006	2016	Numeric	Percent			Dollars	Rank						High school or less	Some college	College or higher
39-5090	Miscellaneous personal appearance workers	148	187	39	26.6	24	5	—	—	39.5	—	—	—	—	—	—	—
39-5091	Makeup artists, theatrical and performance	2	3	1	39.8	0	0	31,820	H	39.7	VL	VH	Postsecondary vocational award	HS/SC	59.6	30.5	9.9
39-5092	Manicurists and pedicurists	78	100	22	27.6	13	3	19,190	VL	37.6	VL	VH	Postsecondary vocational award	HS/SC	59.6	30.5	9.9
39-5093	Shampooers	29	33	4	13.3	4	1	16,170	VL	45.0	VL	VH	Short-term on-the-job training	HS/SC	59.6	30.5	9.9
39-5094	Skin care specialists	38	51	13	34.3	7	2	26,170	L	38.9	VL	VH	Postsecondary vocational award	HS/SC	59.6	30.5	9.9
39-6000	Transportation, tourism, and lodging attendants.....	232	261	29	12.7	46	8	—	—	4.1	—	—	—	—	—	—	—
39-6010	Baggage porters, bellhops, and concierges	69	76	7	10.4	17	2	—	—	.3	—	—	—	—	—	—	—
39-6011	Baggage porters and bellhops.....	49	54	4	9.0	12	1	18,360	VL	.3	VL	H	Short-term on-the-job training	HS/SC	50.5	32.9	16.6
39-6012	Concierges	20	23	3	14.1	5	1	24,600	L	.3	VL	H	Moderate-term on-the-job training	HS/SC	50.5	32.9	16.6
39-6020	Tour and travel guides	45	54	9	20.1	17	3	—	—	20.8	—	—	—	—	—	—	—
39-6021	Tour guides and escorts	40	49	9	21.2	15	2	20,420	VL	20.1	VH	VH	Moderate-term on-the-job training	HS/SC/C	35.7	35.9	28.5
39-6022	Travel guides	5	5	0	10.5	2	0	28,460	L	26.3	VH	VH	Moderate-term on-the-job training	HS/SC/C	35.7	35.9	28.5
39-6030	Transportation attendants.....	118	131	13	11.2	13	3	—	—	0.0	—	—	—	—	—	—	—
39-6031	Flight attendants.....	97	107	10	10.6	11	3	53,780	VH	0.0	H	H	Long-term on-the-job training	HS/SC/C	24.7	44.4	30.8
39-6032	Transportation attendants, except flight attendants and baggage porters.....	21	24	3	14.0	2	1	20,070	VL	0.0	H	H	Short-term on-the-job training	HS/SC/C	24.7	44.4	30.8
39-9000	Other personal care and service workers..	2,853	3,593	739	25.9	856	142	—	—	21.0	—	—	—	—	—	—	—
39-9011	Child care workers.....	1,388	1,636	248	17.8	472	65	17,630	VL	34.3	H	VH	Short-term on-the-job training	HS/SC	47.7	37.8	14.5
39-9021	Personal and home care aides.....	767	1,156	389	50.6	255	52	17,770	VL	7.6	VH	VH	Short-term on-the-job training	HS/SC	58.5	31.9	9.6
39-9030	Recreation and fitness workers	555	658	104	18.7	113	21	—	—	8.1	—	—	—	—	—	—	—
39-9031	Fitness trainers and aerobics instructors	235	298	63	26.8	51	11	25,910	L	7.6	H	VH	Postsecondary vocational award	HS/SC/C	21.0	31.7	47.3
39-9032	Recreation workers.....	320	360	41	12.7	61	10	20,470	VL	8.5	H	VH	Short-term on-the-job training	HS/SC/C	21.0	31.7	47.3
39-9041	Residential advisors	57	67	11	18.5	8	3	22,670	L	4.9	H	H	Short-term on-the-job training	HS/SC/C	25.6	46.1	28.3
39-9099	Personal care and service workers, all other ¹	86	75	-11	-12.9	8	2	18,970	VL	18.8	H	VH	Short-term on-the-job training	HS/SC/C	45.6	33.2	21.2
41-0000	Sales and related occupations.....	15,985	17,203	1,218	7.6	3,855	617	—	—	11.8	—	—	—	—	—	—	—
41-1000	Supervisors, sales workers.....	2,206	2,296	91	4.1	270	52	—	—	36.9	—	—	—	—	—	—	—
41-1011	First-line supervisors/managers of retail sales workers.....	1,676	1,747	71	4.2	221	42	33,960	H	34.2	L	L	Work experience in a related occupation	HS/SC/C	38.8	36.7	24.6
41-1012	First-line supervisors/managers of non-retail sales workers.....	530	549	19	3.7	49	10	65,510	VH	45.4	VL	VL	Work experience in a related occupation	HS/SC/C	30.8	30.9	38.3
41-2000	Retail sales workers	8,719	9,263	544	6.2	2,740	393	—	—	2.4	—	—	—	—	—	—	—
41-2010	Cashiers	3,527	3,411	-116	-3.3	1,197	168	—	—	1.0	—	—	—	—	—	—	—
41-2011	Cashiers, except gaming	3,500	3,382	-118	-3.4	1,187	166	16,810	VL	1.0	VH	VH	Short-term on-the-job training	HS/SC	62.8	27.7	9.5
41-2012	Gaming change persons and booth cashiers	27	29	2	6.7	10	1	20,680	VL	1.0	VH	VH	Short-term on-the-job training	HS/SC	62.8	27.7	9.5

See footnotes at end of table.

Table III-1. Occupational employment and job openings data, 2006-16, and worker characteristics, 2006 — Continued
(Numbers in thousands)

2006 National Employment Matrix occupation and code		Employment		Employment change, 2006-16		Annual average job open- ings due to growth and total replace- ment needs, 2006-16	Annual average job openings due to growth and net replace- ment needs, 2006-16	2006 median annual wages		Percent self-em- ployed, 2006	Unem- ployment rate	Percent part-time	Most significant source of postsecondary education or training ²	Educational attainment cluster ³	Percent of workers aged 25 to 44, by educational attainment ⁴		
		2006	2016	Numeric	Percent			Dollars	Rank						High school or less	Some college	College or higher
41-2020	Counter and rental clerks and parts salespersons	715	819	104	14.6	176	32	—	—	1.2	—	—	—	—	—	—	—
41-2021	Counter and rental clerks	477	586	109	22.9	124	29	19,570	VL	1.0	H	VH	Short-term on-the-job training	HS/SC	53.4	30.3	16.3
41-2022	Parts salespersons	238	233	-5	-2.2	52	3	27,430	L	1.6	H	L	Moderate-term on-the-job training	HS/SC	59.0	35.1	5.9
41-2031	Retail salespersons	4,477	5,034	557	12.4	1,367	194	19,760	VL	3.6	H	VH	Short-term on-the-job training	HS/SC/C	38.4	36.5	25.2
41-3000	Sales representatives, services	1,567	1,889	322	20.5	230	66	—	—	14.2	—	—	—	—	—	—	—
41-3011	Advertising sales agents	170	205	35	20.3	29	6	42,750	H	5.6	L	L	Moderate-term on-the-job training	SC/C	14.3	30.1	55.7
41-3021	Insurance sales agents	436	492	56	12.9	64	15	43,870	H	25.5	VL	L	Bachelor's degree	SC/C	18.4	36.4	45.2
41-3031	Securities, commodities, and financial services sales agents	320	399	79	24.8	48	16	68,500	VH	17.7	L	L	Bachelor's degree	SC/C	10.3	23.1	66.6
41-3041	Travel agents	101	102	1	1.0	13	1	29,210	L	13.4	L	H	Postsecondary vocational award	HS/SC/C	25.2	48.7	26.1
41-3099	Sales representatives, services, all other ..	540	690	151	27.9	76	28	48,100	VH	5.8	H	L	Work experience in a related occupation	SC/C	19.4	32.3	48.3
41-4000	Sales representatives, wholesale and manufacturing	1,973	2,155	182	9.2	200	62	—	—	4.0	—	—	—	—	—	—	—
41-4011	Sales representatives, wholesale and manufacturing, technical and scientific products	411	462	51	12.4	43	14	64,440	VH	4.2	VL	L	Work experience in a related occupation	HS/SC/C	20.6	28.0	51.4
41-4012	Sales representatives, wholesale and manufacturing, except technical and scientific products	1,562	1,693	131	8.4	156	48	49,610	VH	4.0	VL	L	Work experience in a related occupation	HS/SC/C	20.6	28.0	51.4
41-9000	Other sales and related workers	1,520	1,599	79	5.2	414	44	—	—	37.4	—	—	—	—	—	—	—
41-9010	Models, demonstrators, and product promoters	107	126	19	17.9	33	5	—	—	20.8	—	—	—	—	—	—	—
41-9011	Demonstrators and product promoters	105	124	19	18.0	33	5	22,150	L	20.8	VH	VH	Moderate-term on-the-job training	HS/SC/C	38.3	35.9	25.8
41-9012	Models	2	2	0	9.8	1	0	23,340	L	20.3	VH	VH	Moderate-term on-the-job training	HS/SC/C	38.3	35.9	25.8
41-9020	Real estate brokers and sales agents	564	624	60	10.7	80	15	—	—	61.0	—	—	—	—	—	—	—
41-9021	Real estate brokers	131	146	15	11.1	19	4	60,790	VH	63.5	VL	H	Work experience in a related occupation	SC/C	17.9	37.4	44.7
41-9022	Real estate sales agents	432	478	46	10.6	61	11	39,760	H	60.2	VL	H	Postsecondary vocational award	SC/C	17.9	37.4	44.7
41-9031	Sales engineers ¹	76	82	6	8.5	7	3	77,720	VH	0.0	VL	VL	Bachelor's degree	C	0.0	16.4	78.9
41-9041	Telemarketers	395	356	-39	-9.9	211	14	20,990	VL	1.1	VH	VH	Short-term on-the-job training	HS/SC	50.1	35.7	14.2
41-9090	Miscellaneous sales and related workers ..	379	412	33	8.6	83	8	—	—	52.3	—	—	—	—	—	—	—
41-9091	Door-to-door sales workers, news and street vendors, and related workers ...	200	207	7	3.7	49	3	20,190	VL	93.5	H	VH	Short-term on-the-job training	HS/SC/C	47.2	31.5	21.3
41-9099	Sales and related workers, all other	180	205	25	14.0	34	4	34,250	H	6.6	H	H	Moderate-term on-the-job training	SC/C	14.6	23.8	61.6
43-0000	Office and administrative support occupations	24,344	26,089	1,745	7.2	4,563	742	—	—	1.7	—	—	—	—	—	—	—
43-1000	Supervisors, office and administrative support workers	1,418	1,500	82	5.8	138	37	—	—	1.6	—	—	—	—	—	—	—
43-1011	First-line supervisors/managers of office and administrative support workers	1,418	1,500	82	5.8	138	37	43,510	H	1.6	L	L	Work experience in a related occupation	HS/SC/C	28.1	43.1	28.9
43-2000	Communications equipment operators	209	183	-25	-12.1	45	4	—	—	.2	—	—	—	—	—	—	—

See footnotes at end of table.

Table III-1. Occupational employment and job openings data, 2006-16, and worker characteristics, 2006 — Continued
(Numbers in thousands)

2006 National Employment Matrix occupation and code		Employment		Employment change, 2006-16		Annual average job open- ings due to growth and total replace- ment needs, 2006-16	Annual average job openings due to growth and net replace- ment needs, 2006-16	2006 median annual wages		Percent self-em- ployed, 2006	Unem- ployment rate	Percent part-time	Most significant source of postsecondary education or training ²	Educational attainment cluster ³	Percent of workers aged 25 to 44, by educational attainment ⁴		
		2006	2016	Numeric	Percent			Dollars	Rank						High school or less	Some college	College or higher
43-2011	Switchboard operators, including answering service	177	163	-15	-8.4	40	4	22,640	L	0.0	H	H	Short-term on-the-job training	HS/SC	39.2	50.7	10.1
43-2021	Telephone operators.....	27	16	-11	-39.5	4	0	34,140	H	1.5	VH	H	Short-term on-the-job training	HS/SC	40.3	48.6	11.1
43-2099	Communications equipment operators, all other ¹	4	5	0	7.4	1	0	31,680	H	0.0	H	H	Short-term on-the-job training	HS/SC/C	20.8	50.3	28.9
43-3000	Financial clerks.....	4,007	4,482	476	11.9	663	128	—	—	3.9	—	—	—	—	—	—	—
43-3011	Bill and account collectors.....	434	534	99	22.9	119	17	29,050	L	1.0	H	L	Short-term on-the-job training	HS/SC	38.4	48.2	13.3
43-3021	Billing and posting clerks and machine operators	542	566	24	4.4	82	9	28,850	L	1.6	L	L	Moderate-term on-the-job training	HS/SC	36.1	48.5	15.4
43-3031	Bookkeeping, accounting, and auditing clerks	2,114	2,377	264	12.5	287	59	30,560	L	6.6	L	H	Moderate-term on-the-job training	HS/SC	33.7	50.3	16.0
43-3041	Gaming cage workers ¹	18	20	2	11.3	4	1	23,150	L	0.0	L	H	Short-term on-the-job training	HS/SC	47.0	39.9	0.0
43-3051	Payroll and timekeeping clerks.....	214	220	7	3.1	19	6	32,400	H	1.2	L	H	Moderate-term on-the-job training	HS/SC	32.9	49.6	17.5
43-3061	Procurement clerks ¹	78	76	-2	-2.1	7	2	33,100	H	1.1	VL	VL	Moderate-term on-the-job training	HS/SC/C	28.4	47.8	23.8
43-3071	Tellers	608	689	82	13.5	146	35	22,140	L	0.0	L	VH	Short-term on-the-job training	HS/SC	38.9	44.8	16.4
43-4000	Information and record clerks	5,738	6,389	651	11.3	1,356	232	—	—	1.0	—	—	—	—	—	—	—
43-4011	Brokerage clerks ¹	73	88	15	20.0	11	4	36,390	H	0.0	L	H	Moderate-term on-the-job training	HS/SC/C	24.4	44.6	31.0
43-4021	Correspondence clerks ¹	17	20	2	12.0	4	1	28,700	L	0.0	L	L	Short-term on-the-job training	HS/SC	46.8	36.7	16.4
43-4031	Court, municipal, and license clerks.....	115	125	10	8.8	16	4	30,980	H	2.7	VL	L	Short-term on-the-job training	HS/SC/C	27.2	49.1	23.6
43-4041	Credit authorizers, checkers, and clerks ...	69	63	-6	-8.4	9	2	29,970	L	1.6	H	L	Short-term on-the-job training	HS/SC/C	35.3	36.8	27.9
43-4051	Customer service representatives.....	2,202	2,747	545	24.8	601	116	28,330	L	.4	H	H	Moderate-term on-the-job training	HS/SC/C	33.8	44.2	22.0
43-4061	Eligibility interviewers, government programs	112	116	3	3.1	11	2	37,540	H	0.0	L	VL	Moderate-term on-the-job training	SC/C	16.8	44.9	38.3
43-4071	File clerks	234	137	-97	-41.3	50	6	22,090	L	1.7	H	VH	Short-term on-the-job training	HS/SC/C	36.4	43.3	20.3
43-4081	Hotel, motel, and resort desk clerks	219	257	38	17.4	76	13	18,460	VL	.1	VH	H	Short-term on-the-job training	HS/SC	43.5	42.2	14.2
43-4111	Interviewers, except eligibility and loan	221	242	21	9.5	54	8	26,290	L	.8	VH	H	Short-term on-the-job training	HS/SC/C	28.0	48.0	24.0
43-4121	Library assistants, clerical	116	125	9	7.9	19	5	21,640	L	.3	H	VH	Short-term on-the-job training	SC/C	19.4	43.8	36.8
43-4131	Loan interviewers and clerks	256	254	-2	-.9	40	4	30,970	H	2.5	H	VL	Short-term on-the-job training	HS/SC/C	31.6	44.9	23.5
43-4141	New accounts clerks ¹	81	68	-13	-16.3	17	2	28,390	L	0.0	VL	L	Work experience in a related occupation	HS/SC/C	36.9	35.4	27.7
43-4151	Order clerks	271	205	-66	-24.3	47	6	26,340	L	1.9	H	H	Short-term on-the-job training	HS/SC	46.8	36.7	16.4
43-4161	Human resources assistants, except payroll and timekeeping	168	187	19	11.3	19	3	33,750	H	0.0	H	L	Short-term on-the-job training	HS/SC/C	25.0	46.0	29.0
43-4171	Receptionists and information clerks.....	1,173	1,375	202	17.2	334	49	22,900	L	1.4	H	VH	Short-term on-the-job training	HS/SC	41.8	45.5	12.7
43-4181	Reservation and transportation ticket agents and travel clerks	165	167	2	1.1	31	4	28,540	L	3.7	L	H	Short-term on-the-job training	HS/SC/C	28.9	42.6	28.5
43-4199	Information and record clerks, all other	245	213	-32	-12.9	18	4	31,150	H	.7	L	L	Short-term on-the-job training	HS/SC/C	26.8	52.3	20.9
43-5000	Material recording, scheduling, dispatching, and distributing occupations	4,016	3,931	-86	-2.1	758	105	—	—	1.0	—	—	—	—	—	—	—
43-5011	Cargo and freight agents.....	86	100	14	16.5	10	4	37,110	H	1.1	VL	VL	Moderate-term on-the-job training	HS/SC	42.8	41.7	15.5

See footnotes at end of table.

Table III-1. Occupational employment and job openings data, 2006-16, and worker characteristics, 2006 — Continued
(Numbers in thousands)

2006 National Employment Matrix occupation and code		Employment		Employment change, 2006-16		Annual average job open- ings due to growth and total replace- ment needs, 2006-16	Annual average job openings due to growth and net replace- ment needs, 2006-16	2006 median annual wages		Percent self-em- ployed, 2006	Unem- ployment rate	Percent part-time	Most significant source of postsecondary education or training ²	Educational attainment cluster ³	Percent of workers aged 25 to 44, by educational attainment ⁴		
		2006	2016	Numeric	Percent			Dollars	Rank						High school or less	Some college	College or higher
43-5021	Couriers and messengers ¹	134	134	0	-2	22	4	21,540	L	19.3	L	H	Short-term on-the-job training	HS/SC	46.3	41.8	11.8
43-5030	Dispatchers.....	289	306	16	5.7	47	9	—	—	1.2	—	—	—	—	—	—	—
43-5031	Police, fire, and ambulance dispatchers..	99	113	13	13.6	18	4	31,470	H	1.2	L	VL	Moderate-term on-the-job training	HS/SC	44.0	45.1	10.9
43-5032	Dispatchers, except police, fire, and ambulance.....	190	193	3	1.5	30	5	32,190	H	1.1	L	VL	Moderate-term on-the-job training	HS/SC	44.0	45.1	10.9
43-5041	Meter readers, utilities.....	47	42	-5	-10.3	7	1	30,330	L	0.0	VL	VL	Short-term on-the-job training	HS/SC	49.5	44.7	5.9
43-5050	Postal service workers.....	615	603	-12	-2.0	27	14	—	—	0.0	—	—	—	—	—	—	—
43-5051	Postal service clerks.....	80	80	1	1.2	4	2	44,800	H	0.0	VL	VL	Short-term on-the-job training	HS/SC	42.6	46.0	11.3
43-5052	Postal service mail carriers.....	338	341	4	1.0	17	10	44,350	H	0.0	VL	L	Short-term on-the-job training	HS/SC	41.8	47.7	10.6
43-5053	Postal service mail sorters, processors, and processing machine operators....	198	181	-17	-8.4	7	2	43,900	H	0.0	L	VL	Short-term on-the-job training	HS/SC	40.7	47.2	12.1
43-5061	Production, planning, and expediting clerks	293	305	12	4.2	53	9	38,620	H	1.4	L	VL	Moderate-term on-the-job training	HS/SC/C	30.0	39.7	30.3
43-5071	Shipping, receiving, and traffic clerks.....	769	797	28	3.7	139	21	26,070	L	.2	H	L	Short-term on-the-job training	HS/SC	64.3	29.6	6.1
43-5081	Stock clerks and order fillers.....	1,705	1,574	-131	-7.7	439	40	20,440	VL	.2	VH	VH	Short-term on-the-job training	HS/SC	63.2	29.1	7.7
43-5111	Weighers, measurers, checkers, and samplers, recordkeeping.....	79	70	-9	-11.3	14	2	25,370	L	.8	H	L	Short-term on-the-job training	HS/SC	54.9	32.6	12.5
43-6000	Secretaries and administrative assistants...	4,241	4,603	362	8.5	574	104	—	—	1.4	—	—	—	—	—	—	—
43-6011	Executive secretaries and administrative assistants.....	1,618	1,857	239	14.8	235	50	37,240	H	1.4	L	H	Work experience in a related occupation	HS/SC	33.0	48.7	18.3
43-6012	Legal secretaries.....	275	308	32	11.7	39	8	38,190	H	1.4	L	H	Associate degree	HS/SC	33.0	48.7	18.3
43-6013	Medical secretaries.....	408	477	68	16.7	61	13	28,090	L	1.3	L	H	Moderate-term on-the-job training	HS/SC	33.0	48.7	18.3
43-6014	Secretaries, except legal, medical, and executive.....	1,940	1,962	22	1.2	240	33	27,450	L	1.4	L	H	Moderate-term on-the-job training	HS/SC	33.0	48.7	18.3
43-9000	Other office and administrative support workers.....	4,715	5,001	286	6.1	1,027	132	—	—	1.6	—	—	—	—	—	—	—
43-9011	Computer operators.....	130	98	-32	-24.7	18	2	33,560	H	1.8	L	L	Moderate-term on-the-job training	HS/SC/C	26.8	46.4	26.8
43-9020	Data entry and information processing workers.....	492	457	-35	-7.2	111	11	—	—	4.4	—	—	—	—	—	—	—
43-9021	Data entry keyers.....	313	299	-15	-4.7	79	8	24,690	L	1.7	VH	H	Moderate-term on-the-job training	HS/SC	35.2	47.0	17.7
43-9022	Word processors and typists.....	179	158	-21	-11.6	32	3	29,430	L	9.2	H	H	Moderate-term on-the-job training	HS/SC	29.0	51.9	19.1
43-9031	Desktop publishers ¹	32	32	0	1.0	6	1	34,130	H	2.2	L	L	Postsecondary vocational award	HS/SC/C	24.7	43.3	31.9
43-9041	Insurance claims and policy processing clerks.....	254	251	-3	-1.3	42	3	31,120	H	.4	L	L	Moderate-term on-the-job training	HS/SC/C	30.5	47.5	22.0
43-9051	Mail clerks and mail machine operators, except postal service.....	152	134	-18	-11.6	28	4	23,810	L	.8	H	H	Short-term on-the-job training	HS/SC	56.2	34.6	9.2
43-9061	Office clerks, general.....	3,200	3,604	404	12.6	766	99	23,710	L	.7	H	H	Short-term on-the-job training	HS/SC	36.0	45.3	18.7
43-9071	Office machine operators, except computer	94	91	-3	-2.7	8	3	24,540	L	0.0	H	H	Short-term on-the-job training	HS/SC	48.9	37.4	13.7
43-9081	Proofreaders and copy markers ¹	18	19	1	6.4	4	0	27,450	L	1.7	H	H	Short-term on-the-job training	HS/SC/C	21.5	31.3	47.2
43-9111	Statistical assistants ¹	23	24	2	7.6	5	1	31,250	H	6.6	VL	L	Moderate-term on-the-job training	HS/SC/C	23.7	46.5	29.8

See footnotes at end of table.

Table III-1. Occupational employment and job openings data, 2006-16, and worker characteristics, 2006 — Continued
(Numbers in thousands)

2006 National Employment Matrix occupation and code		Employment		Employment change, 2006-16		Annual average job open- ings due to growth and total replace- ment needs, 2006-16	Annual average job openings due to growth and net replace- ment needs, 2006-16	2006 median annual wages		Percent self-em- ployed, 2006	Unem- ployment rate	Percent part-time	Most significant source of postsecondary education or training ²	Educational attainment cluster ³	Percent of workers aged 25 to 44, by educational attainment ⁴		
		2006	2016	Numeric	Percent			Dollars	Rank						High school or less	Some college	College or higher
43-9199	Office and administrative support workers, all other.....	320	290	-30	-9.3	39	7	27,200	L	7.4	L	L	Short-term on-the-job training	HS/SC/C	24.7	43.3	31.9
45-0000	Farming, fishing, and forestry occupations	1,039	1,010	-29	-2.8	231	25	—	—	6.5	—	—	—	—	—	—	—
45-1000	Supervisors, farming, fishing, and forestry workers.....	53	53	0	-4	12	1	36,470	H	24.8	H	L	Work experience in a related occupation	HS/SC	63.0	24.5	12.5
45-2000	Agricultural workers.....	858	838	-21	-2.4	205	21	—	—	.8	—	—	—	—	—	—	—
45-2011	Agricultural inspectors ¹	16	16	0	-1.1	4	0	38,100	H	0.0	H	VL	Work experience in a related occupation	HS/SC/C	37.6	36.5	25.9
45-2021	Animal breeders ¹	11	11	0	4.4	3	0	27,090	L	50.2	L	VH	Work experience in a related occupation	HS	86.3	9.7	4.0
45-2041	Graders and sorters, agricultural products	42	41	-1	-1.8	9	1	17,200	VL	0.0	VH	VL	Work experience in a related occupation	HS	85.2	9.7	0.0
45-2090	Miscellaneous agricultural workers.....	790	769	-20	-2.6	190	20	—	—	.2	—	—	—	—	—	—	—
45-2091	Agricultural equipment operators.....	59	56	-3	-5.0	14	1	20,230	VL	.2	VH	H	Moderate-term on-the-job training	HS	86.3	9.7	4.0
45-2092	Farmworkers and laborers, crop, nursery, and greenhouse.....	603	583	-20	-3.4	145	15	16,540	VL	.2	VH	H	Short-term on-the-job training	HS	86.3	9.7	4.0
45-2093	Farmworkers, farm and ranch animals....	107	110	3	2.7	27	3	19,060	VL	.2	VH	H	Short-term on-the-job training	HS	86.3	9.7	4.0
45-2099	Agricultural workers, all other.....	20	20	0	0.0	5	1	22,470	L	.2	VH	H	Short-term on-the-job training	HS	86.3	9.7	4.0
45-3000	Fishing and hunting workers.....	39	33	-6	-16.2	7	1	—	—	64.7	—	—	—	—	—	—	—
45-3011	Fishers and related fishing workers.....	38	32	-6	-16.1	7	1	27,250	L	65.5	VH	L	Moderate-term on-the-job training	HS/SC	66.7	22.6	10.7
45-3021	Hunters and trappers ¹	0	0	0	-19.0	0	0	26,460	L	0.0	VH	H	Moderate-term on-the-job training	HS/SC	66.7	22.6	10.7
45-4000	Forest, conservation, and logging workers..	88	87	-1	-1.4	6	2	—	—	25.1	—	—	—	—	—	—	—
45-4011	Forest and conservation workers.....	20	21	1	5.5	2	1	20,810	VL	13.9	VH	H	Moderate-term on-the-job training	HS/SC/C	63.1	14.7	22.2
45-4020	Logging workers.....	69	66	-2	-3.4	5	1	—	—	28.3	—	—	—	—	—	—	—
45-4021	Fallers.....	13	12	-1	-7.4	1	0	28,710	L	30.6	H	VL	Moderate-term on-the-job training	HS	83.5	14.2	2.2
45-4022	Logging equipment operators.....	40	40	-1	-1.3	3	1	29,700	L	28.0	H	VL	Moderate-term on-the-job training	HS	83.5	14.2	2.2
45-4023	Log graders and scalers.....	7	7	0	-5.3	0	0	29,240	L	31.6	H	VL	Moderate-term on-the-job training	HS	83.5	14.2	2.2
45-4029	Logging workers, all other.....	8	7	0	-5.9	1	0	31,870	H	23.5	H	VL	Moderate-term on-the-job training	HS	83.5	14.2	2.2
47-0000	Construction and extraction occupations	8,295	9,079	785	9.5	1,340	225	—	—	18.3	—	—	—	—	—	—	—
47-1000	Supervisors, construction and extraction workers.....	772	842	70	9.1	83	18	—	—	24.4	—	—	—	—	—	—	—
47-1011	First-line supervisors/managers of construction trades and extraction workers.....	772	842	70	9.1	83	18	53,850	VH	24.4	L	VL	Work experience in a related occupation	HS/SC	59.5	30.1	10.3
47-2000	Construction trades and related workers....	6,422	7,044	622	9.7	1,022	172	—	—	20.0	—	—	—	—	—	—	—
47-2011	Boilermakers.....	18	20	2	14.0	2	1	46,960	VH	.2	VH	VL	Long-term on-the-job training	HS/SC	75.0	25.0	0.0
47-2020	Brickmasons, blockmasons, and stonemasons.....	182	200	18	9.7	20	6	—	—	24.3	—	—	—	—	—	—	—
47-2021	Brickmasons and blockmasons.....	158	174	15	9.7	18	5	42,980	H	24.5	VH	L	Long-term on-the-job training	HS	81.7	15.0	3.3
47-2022	Stonemasons.....	24	26	2	10.0	3	1	35,960	H	22.8	VH	L	Long-term on-the-job training	HS	81.7	15.0	3.3
47-2031	Carpenters.....	1,462	1,612	150	10.3	223	35	36,550	H	31.8	VH	VL	Long-term on-the-job training	HS/SC	72.8	21.6	5.5
47-2040	Carpet, floor, and tile installers and finishers	196	203	8	3.9	20	4	—	—	42.5	—	—	—	—	—	—	—

See footnotes at end of table.

Table III-1. Occupational employment and job openings data, 2006-16, and worker characteristics, 2006 — Continued
(Numbers in thousands)

2006 National Employment Matrix occupation and code		Employment		Employment change, 2006-16		Annual average job open- ings due to growth and total replace- ment needs, 2006-16	Annual average job openings due to growth and net replace- ment needs, 2006-16	2006 median annual wages		Percent self-em- ployed, 2006	Unem- ployment rate	Percent part-time	Most significant source of postsecondary education or training ²	Educational attainment cluster ³	Percent of workers aged 25 to 44, by educational attainment ⁴		
		2006	2016	Numeric	Percent			Dollars	Rank						High school or less	Some college	College or higher
47-2041	Carpet installers.....	73	72	-1	-1.2	7	1	34,560	H	49.0	H	L	Moderate-term on-the-job training	HS	79.7	17.0	3.3
47-2042	Floor layers, except carpet, wood, and hard tiles.....	29	25	-4	-12.2	3	0	34,190	H	47.7	H	L	Moderate-term on-the-job training	HS	79.7	17.0	3.3
47-2043	Floor sanders and finishers.....	14	14	0	-1.8	1	0	28,890	L	46.6	H	L	Moderate-term on-the-job training	HS	79.7	17.0	3.3
47-2044	Tile and marble setters.....	79	91	12	15.4	9	2	36,590	H	33.8	H	L	Long-term on-the-job training	HS	79.7	17.0	3.3
47-2050	Cement masons, concrete finishers, and terrazzo workers.....	228	254	26	11.4	36	9	—	—	2.0	—	—	—	—	—	—	—
47-2051	Cement masons and concrete finishers..	222	247	25	11.4	35	9	32,650	H	2.0	VH	VL	Moderate-term on-the-job training	HS	85.6	12.3	2.0
47-2053	Terrazzo workers and finishers.....	7	8	1	10.9	1	0	31,630	H	2.3	VH	VL	Long-term on-the-job training	HS	85.6	12.3	2.0
47-2061	Construction laborers.....	1,232	1,366	134	10.9	257	23	26,320	L	16.4	VH	L	Moderate-term on-the-job training	HS	78.5	16.8	4.7
47-2070	Construction equipment operators.....	494	536	42	8.5	60	14	—	—	5.2	—	—	—	—	—	—	—
47-2071	Paving, surfacing, and tamping equipment operators.....	64	70	6	9.0	3	2	31,300	H	1.8	VH	VL	Moderate-term on-the-job training	HS	83.6	15.0	0.0
47-2072	Pile-driver operators ¹	6	6	0	8.3	1	0	46,180	H	5.0	VH	VL	Moderate-term on-the-job training	HS	77.8	19.6	2.6
47-2073	Operating engineers and other construction equipment operators.....	424	460	35	8.4	55	12	36,890	H	5.7	VH	VL	Moderate-term on-the-job training	HS	77.8	19.6	2.6
47-2080	Drywall installers, ceiling tile installers, and tapers.....	240	258	17	7.2	40	5	—	—	23.4	—	—	—	—	—	—	—
47-2081	Drywall and ceiling tile installers.....	186	199	14	7.3	31	4	36,140	H	23.0	VH	VL	Moderate-term on-the-job training	HS	85.1	12.9	2.0
47-2082	Tapers.....	54	58	4	7.1	9	1	41,280	H	24.9	VH	VL	Moderate-term on-the-job training	HS	85.1	12.9	2.0
47-2111	Electricians.....	705	757	52	7.4	79	23	43,610	H	10.7	H	VL	Long-term on-the-job training	HS/SC	50.7	42.4	6.8
47-2121	Glaziers ¹	55	62	7	11.9	6	2	34,610	H	5.3	H	VL	Long-term on-the-job training	HS/SC	71.8	25.3	0.0
47-2130	Insulation workers.....	61	66	5	8.5	12	2	—	—	1.0	—	—	—	—	—	—	—
47-2131	Insulation workers, floor, ceiling, and wall	32	35	3	8.4	7	1	30,510	L	1.3	H	VL	Moderate-term on-the-job training	HS	79.7	15.9	0.0
47-2132	Insulation workers, mechanical.....	28	31	2	8.6	6	1	36,900	H	.7	H	VL	Moderate-term on-the-job training	HS	79.7	15.9	0.0
47-2140	Painters and paperhangers.....	473	526	53	11.3	103	14	—	—	42.1	—	—	—	—	—	—	—
47-2141	Painters, construction and maintenance..	463	517	54	11.8	101	14	31,190	H	42.2	VH	L	Moderate-term on-the-job training	HS	76.4	17.3	6.3
47-2142	Paperhangers ¹	10	9	-1	-12.2	2	0	33,710	H	37.6	VH	L	Moderate-term on-the-job training	HS/SC	65.9	32.4	0.0
47-2150	Pipelayers, plumbers, pipefitters, and steamfitters.....	569	628	59	10.4	78	18	—	—	12.3	—	—	—	—	—	—	—
47-2151	Pipelayers.....	67	72	6	8.7	9	2	30,330	L	11.6	H	VL	Moderate-term on-the-job training	HS/SC	67.6	28.5	3.9
47-2152	Plumbers, pipefitters, and steamfitters....	502	555	53	10.6	69	16	42,770	H	12.3	H	VL	Long-term on-the-job training	HS/SC	67.6	28.5	3.9
47-2161	Plasterers and stucco masons.....	61	66	5	8.1	5	2	34,700	H	15.7	VH	VL	Long-term on-the-job training	HS	87.3	10.0	0.0
47-2171	Reinforcing iron and rebar workers ¹	30	34	3	11.5	5	1	38,220	H	0.0	VH	VL	Long-term on-the-job training	HS	82.6	14.7	0.0
47-2181	Roofers.....	156	179	22	14.3	38	6	32,260	H	20.1	VH	L	Moderate-term on-the-job training	HS	85.7	11.4	2.8
47-2211	Sheet metal workers.....	189	201	13	6.7	32	6	37,360	H	4.7	VH	VL	Long-term on-the-job training	HS/SC	63.4	32.4	4.2
47-2221	Structural iron and steel workers.....	72	76	4	6.0	7	3	40,480	H	5.3	VH	VL	Long-term on-the-job training	HS/SC	67.6	28.6	3.8
47-3000	Helpers, construction trades.....	448	491	43	9.6	153	16	—	—	3.1	—	—	—	—	—	—	—
47-3010	Helpers, construction trades.....	448	491	43	9.6	153	16	—	—	3.1	—	—	—	—	—	—	—

See footnotes at end of table.

Table III-1. Occupational employment and job openings data, 2006-16, and worker characteristics, 2006 — Continued
(Numbers in thousands)

2006 National Employment Matrix occupation and code		Employment		Employment change, 2006-16		Annual average job open- ings due to growth and total replace- ment needs, 2006-16	Annual average job openings due to growth and net replace- ment needs, 2006-16	2006 median annual wages		Percent self-em- ployed, 2006	Unem- ployment rate	Percent part-time	Most significant source of postsecondary education or training ²	Educational attainment cluster ³	Percent of workers aged 25 to 44, by educational attainment ⁴		
		2006	2016	Numeric	Percent			Dollars	Rank						High school or less	Some college	College or higher
47-3011	Helpers—Brickmasons, blockmasons, stonemasons, and tile and marble setters.....	65	73	7	11.0	22	2	25,350	L	3.0	VH	L	Short-term on-the-job training	HS	84.0	12.9	3.1
47-3012	Helpers—Carpenters.....	109	122	13	11.7	38	4	23,060	L	3.2	VH	L	Short-term on-the-job training	HS	84.0	12.9	3.1
47-3013	Helpers—Electricians.....	105	112	7	6.8	35	3	23,760	L	2.9	VH	L	Short-term on-the-job training	HS	84.0	12.9	3.1
47-3014	Helpers—Painters, paperhangers, plasterers, and stucco masons.....	24	24	0	-7	8	1	21,330	L	3.5	VH	L	Short-term on-the-job training	HS	84.0	12.9	3.1
47-3015	Helpers—Pipelayers, plumbers, pipefitters, and steamfitters.....	85	95	10	11.9	29	3	23,910	L	2.9	VH	L	Short-term on-the-job training	HS	84.0	12.9	3.1
47-3016	Helpers—Roofers.....	22	23	1	6.7	7	1	21,760	L	3.2	VH	L	Short-term on-the-job training	HS	84.0	12.9	3.1
47-3019	Helpers, construction trades, all other.....	38	42	5	12.6	13	1	22,760	L	3.3	VH	L	Short-term on-the-job training	HS	84.0	12.9	3.1
47-4000	Other construction and related workers.....	451	502	51	11.4	60	14	—	—	6.0	—	—	—	—	—	—	—
47-4011	Construction and building inspectors.....	110	130	20	18.2	13	4	46,570	VH	9.4	VL	VL	Work experience in a related occupation	HS/SC/C	30.5	46.4	23.0
47-4021	Elevator installers and repairers ¹	22	24	2	8.8	3	1	63,620	VH	0.0	VL	VL	Long-term on-the-job training	HS/SC	48.0	42.2	9.8
47-4031	Fence erectors ¹	32	36	3	10.6	3	1	26,400	L	23.2	VH	L	Moderate-term on-the-job training	HS	79.0	17.7	3.3
47-4041	Hazardous materials removal workers.....	39	44	4	11.2	2	1	35,450	H	1.6	VH	VL	Moderate-term on-the-job training	HS/SC	63.2	27.3	9.4
47-4051	Highway maintenance workers.....	145	158	13	8.9	25	4	31,540	H	.9	H	VL	Moderate-term on-the-job training	HS/SC	69.0	26.0	5.0
47-4061	Rail-track laying and maintenance equipment operators ¹	15	15	1	4.8	2	0	40,000	H	0.0	H	VL	Moderate-term on-the-job training	HS/SC	60.9	32.2	0.0
47-4071	Septic tank servicers and sewer pipe cleaners ¹	24	26	2	10.2	3	1	31,430	H	6.4	H	L	Moderate-term on-the-job training	HS/SC	75.1	21.1	3.8
47-4090	Miscellaneous construction and related workers.....	63	69	6	8.9	10	2	—	—	8.7	—	—	—	—	—	—	—
47-4091	Segmental pavers.....	1	1	0	10.2	0	0	28,700	L	7.8	H	L	Moderate-term on-the-job training	HS/SC	75.1	21.1	3.8
47-4099	Construction and related workers, all other.....	62	68	6	8.8	10	2	30,470	L	8.7	H	L	Moderate-term on-the-job training	HS/SC	75.1	21.1	3.8
47-5000	Extraction workers.....	202	200	-2	-8	22	5	—	—	2.3	—	—	—	—	—	—	—
47-5010	Derrick, rotary drill, and service unit operators, oil, gas, and mining.....	67	63	-4	-5.5	7	1	—	—	2.4	—	—	—	—	—	—	—
47-5011	Derrick operators, oil and gas ¹	19	18	-1	-5.8	2	0	36,240	H	2.7	VL	VL	Moderate-term on-the-job training	HS	77.1	18.9	0.0
47-5012	Rotary drill operators, oil and gas ¹	20	19	-1	-5.4	2	0	38,460	H	2.5	VL	VL	Moderate-term on-the-job training	HS	77.1	18.9	0.0
47-5013	Service unit operators, oil, gas, and mining ¹	28	26	-2	-5.4	3	0	32,910	H	2.1	VL	VL	Moderate-term on-the-job training	HS	77.1	18.9	0.0
47-5021	Earth drillers, except oil and gas.....	22	23	1	6.5	3	1	34,500	H	9.6	H	VL	Moderate-term on-the-job training	HS	77.8	17.6	0.0
47-5031	Explosives workers, ordnance handling experts, and blasters ¹	5	5	0	1.4	1	0	39,890	H	0.0	H	VL	Moderate-term on-the-job training	HS/SC	62.9	33.9	0.0
47-5040	Mining machine operators.....	21	22	1	4.3	2	1	—	—	1.6	—	—	—	—	—	—	—
47-5041	Continuous mining machine operators.....	10	11	0	4.6	1	0	40,430	H	1.9	H	VL	Moderate-term on-the-job training	HS/SC	70.5	26.6	0.0
47-5042	Mine cutting and channeling machine operators.....	8	8	0	3.8	1	0	39,990	H	1.1	H	VL	Moderate-term on-the-job training	HS/SC	70.5	26.6	0.0
47-5049	Mining machine operators, all other.....	3	3	0	4.9	0	0	37,370	H	2.1	H	VL	Moderate-term on-the-job training	HS/SC	70.5	26.6	0.0

See footnotes at end of table.

Table III-1. Occupational employment and job openings data, 2006-16, and worker characteristics, 2006 — Continued
(Numbers in thousands)

2006 National Employment Matrix occupation and code		Employment		Employment change, 2006-16		Annual average job open- ings due to growth and total replace- ment needs, 2006-16	Annual average job openings due to growth and net replace- ment needs, 2006-16	2006 median annual wages		Percent self-em- ployed, 2006	Unem- ployment rate	Percent part-time	Most significant source of postsecondary education or training ²	Educational attainment cluster ³	Percent of workers aged 25 to 44, by educational attainment ⁴		
		2006	2016	Numeric	Percent			Dollars	Rank						High school or less	Some college	College or higher
47-5051	Rock splitters, quarry.....	4	5	1	25.1	1	0	27,130	L	3.4	H	VL	Moderate-term on-the-job training	HS/SC	74.4	23.6	0.0
47-5061	Roof bolters, mining ¹	4	4	0	1.2	0	0	41,250	H	0.0	H	VL	Moderate-term on-the-job training	HS/SC	74.4	23.6	0.0
47-5071	Roustabouts, oil and gas ¹	44	43	-1	-3.2	5	1	25,700	L	.2	H	VL	Moderate-term on-the-job training	HS	77.1	18.9	0.0
47-5081	Helpers—Extraction workers ¹	25	25	0	-.2	3	1	28,680	L	0.0	H	VL	Short-term on-the-job training	HS/SC	74.4	23.6	0.0
47-5099	Extraction workers, all other.....	10	10	0	.3	1	0	35,450	H	4.6	H	VL	Moderate-term on-the-job training	HS/SC	74.4	23.6	0.0
49-0000	Installation, maintenance, and repair occupations.....	5,883	6,433	550	9.3	657	150	—	—	7.3	—	—	—	—	—	—	—
49-1000	Supervisors of installation, maintenance, and repair workers.....	465	499	34	7.3	24	14	—	—	1.5	—	—	—	—	—	—	—
49-1011	First-line supervisors/managers of mechanics, installers, and repairers...	465	499	34	7.3	24	14	53,890	VH	1.5	VL	VL	Work experience in a related occupation	HS/SC	43.2	43.6	13.2
49-2000	Electrical and electronic equipment mechanics, installers, and repairers...	661	690	29	4.4	60	17	—	—	8.5	—	—	—	—	—	—	—
49-2011	Computer, automated teller, and office machine repairers.....	175	180	5	3.0	22	3	36,480	H	19.7	H	L	Postsecondary vocational award	HS/SC/C	22.5	52.7	24.7
49-2020	Radio and telecommunications equipment installers and repairers.....	205	209	5	2.3	14	6	—	—	4.1	—	—	—	—	—	—	—
49-2021	Radio mechanics.....	7	6	0	-4.1	0	0	37,690	H	3.9	H	VL	Long-term on-the-job training	HS/SC	36.4	50.7	12.9
49-2022	Telecommunications equipment installers and repairers, except line installers....	198	203	5	2.5	14	5	52,430	VH	4.1	H	VL	Postsecondary vocational award	HS/SC	36.4	50.7	12.9
49-2090	Miscellaneous electrical and electronic equipment mechanics, installers, and repairers.....	281	301	19	6.8	24	9	—	—	4.7	—	—	—	—	—	—	—
49-2091	Avionics technicians ¹	16	17	1	8.1	1	0	46,950	VH	0.0	H	VL	Postsecondary vocational award	HS/SC	30.9	64.5	0.0
49-2092	Electric motor, power tool, and related repairers.....	25	24	-1	-4.2	3	1	32,860	H	12.5	H	L	Postsecondary vocational award	HS/SC	44.5	43.4	0.0
49-2093	Electrical and electronics installers and repairers, transportation equipment ¹ ..	21	22	1	4.3	2	1	43,110	H	0.0	H	VL	Postsecondary vocational award	HS/SC	46.4	46.0	0.0
49-2094	Electrical and electronics repairers, commercial and industrial equipment ¹	80	86	5	6.8	7	3	45,180	H	0.0	L	VL	Postsecondary vocational award	HS/SC	46.4	46.0	0.0
49-2095	Electrical and electronics repairers, powerhouse, substation, and relay ¹ ...	22	21	-1	-4.7	2	1	57,400	VH	0.0	L	VL	Postsecondary vocational award	HS/SC	46.4	46.0	0.0
49-2096	Electronic equipment installers and repairers, motor vehicles ¹	20	21	1	4.6	2	1	28,220	L	4.5	H	VL	Postsecondary vocational award	HS/SC	54.2	38.6	7.1
49-2097	Electronic home entertainment equipment installers and repairers ¹	40	41	1	3.0	3	0	29,980	L	12.3	H	VL	Postsecondary vocational award	HS/SC	44.9	44.0	11.1
49-2098	Security and fire alarm systems installers ¹	57	68	11	20.2	6	2	34,810	H	7.2	H	VL	Postsecondary vocational award	HS/SC	48.3	44.0	7.7
49-3000	Vehicle and mobile equipment mechanics, installers, and repairers.....	1,771	2,003	232	13.1	224	59	—	—	11.8	—	—	—	—	—	—	—
49-3011	Aircraft mechanics and service technicians	122	135	13	10.6	10	3	47,740	VH	.4	VL	VL	Postsecondary vocational award	HS/SC	32.9	56.6	10.5
49-3020	Automotive technicians and repairers.....	979	1,115	136	13.9	138	34	—	—	16.4	—	—	—	—	—	—	—

See footnotes at end of table.

Table III-1. Occupational employment and job openings data, 2006-16, and worker characteristics, 2006 — Continued
(Numbers in thousands)

2006 National Employment Matrix occupation and code		Employment		Employment change, 2006-16		Annual average job open- ings due to growth and total replace- ment needs, 2006-16	Annual average job openings due to growth and net replace- ment needs, 2006-16	2006 median annual wages		Percent self-em- ployed, 2006	Unem- ployment rate	Percent part-time	Most significant source of postsecondary education or training ²	Educational attainment cluster ³	Percent of workers aged 25 to 44, by educational attainment ⁴		
		2006	2016	Numeric	Percent			Dollars	Rank						High school or less	Some college	College or higher
49-3021	Automotive body and related repairers....	183	204	21	11.6	37	6	35,180	H	14.1	H	VL	Long-term on-the-job training	HS/SC	74.3	22.5	3.1
49-3022	Automotive glass installers and repairers ¹	24	28	4	18.7	3	1	30,720	H	20.7	L	VL	Long-term on-the-job training	HS/SC	75.7	22.4	0.0
49-3023	Automotive service technicians and mechanics	773	883	110	14.3	97	27	33,780	H	16.8	H	VL	Postsecondary vocational award	HS/SC	62.4	33.7	3.9
49-3031	Bus and truck mechanics and diesel engine specialists	275	306	32	11.5	25	9	37,660	H	5.8	L	VL	Postsecondary vocational award	HS/SC	65.7	31.2	3.1
49-3040	Heavy vehicle and mobile equipment service technicians and mechanics	188	206	18	9.5	15	5	—	—	4.9	—	—	—	—	—	—	—
49-3041	Farm equipment mechanics	31	31	0	1.4	2	1	29,460	L	5.6	L	VL	Long-term on-the-job training	HS/SC	61.8	35.0	3.2
49-3042	Mobile heavy equipment mechanics, except engines	131	147	16	12.3	11	4	40,440	H	5.0	L	VL	Long-term on-the-job training	HS/SC	61.8	35.0	3.2
49-3043	Rail car repairers	27	28	1	5.1	2	1	43,320	H	4.0	L	VL	Long-term on-the-job training	HS/SC	61.8	35.0	3.2
49-3050	Small engine mechanics.....	78	87	9	11.6	13	2	—	—	22.6	—	—	—	—	—	—	—
49-3051	Motorboat mechanics	24	29	5	19.0	4	1	33,210	H	22.6	H	L	Long-term on-the-job training	HS/SC	63.5	32.0	4.5
49-3052	Motorcycle mechanics	21	24	3	12.5	4	1	30,050	L	21.9	H	L	Long-term on-the-job training	HS/SC	63.5	32.0	4.5
49-3053	Outdoor power equipment and other small engine mechanics.....	33	35	2	5.5	5	1	26,910	L	23.0	H	L	Moderate-term on-the-job training	HS/SC	63.5	32.0	4.5
49-3090	Miscellaneous vehicle and mobile equipment mechanics, installers, and repairers	128	153	25	19.1	23	5	—	—	3.4	—	—	—	—	—	—	—
49-3091	Bicycle repairers	9	9	1	7.2	1	0	21,790	L	3.6	VH	L	Moderate-term on-the-job training	HS/SC	73.7	20.4	5.9
49-3092	Recreational vehicle service technicians.	14	17	3	18.2	2	1	31,510	H	3.5	VH	L	Long-term on-the-job training	HS/SC	73.7	20.4	5.9
49-3093	Tire repairers and changers.....	106	127	21	20.2	19	4	21,340	L	3.3	VH	L	Short-term on-the-job training	HS/SC	73.7	20.4	5.9
49-9000	Other installation, maintenance, and repair occupations	2,987	3,241	254	8.5	348	60	—	—	5.2	—	—	—	—	—	—	—
49-9010	Control and valve installers and repairers .	58	61	2	4.2	6	1	—	—	.3	—	—	—	—	—	—	—
49-9011	Mechanical door repairers ¹	15	18	2	14.9	2	0	31,610	H	.3	VL	VL	Moderate-term on-the-job training	HS/SC	55.1	38.0	6.9
49-9012	Control and valve installers and repairers, except mechanical door ¹	43	43	0	.3	4	1	45,440	H	.3	VL	VL	Moderate-term on-the-job training	HS/SC	55.1	38.0	6.9
49-9021	Heating, air conditioning, and refrigeration mechanics and installers	292	317	25	8.7	30	8	37,660	H	12.7	L	VL	Long-term on-the-job training	HS/SC	57.6	39.0	3.4
49-9031	Home appliance repairers	57	58	1	1.5	4	1	33,860	H	26.7	VL	L	Long-term on-the-job training	HS/SC	50.3	42.5	7.2
49-9040	Industrial machinery installation, repair, and maintenance workers	1,794	1,960	165	9.2	209	27	—	—	1.7	—	—	—	—	—	—	—
49-9041	Industrial machinery mechanics	261	284	24	9.0	23	7	41,050	H	2.5	L	VL	Long-term on-the-job training	HS/SC	55.9	38.8	5.3
49-9042	Maintenance and repair workers, general	1,391	1,531	140	10.1	166	17	31,910	H	1.5	L	VL	Moderate-term on-the-job training	HS/SC	58.3	35.6	6.1
49-9043	Maintenance workers, machinery.....	84	83	-1	-1.1	15	1	34,550	H	0.0	H	VL	Moderate-term on-the-job training	HS/SC	56.6	39.3	0.0
49-9044	Millwrights.....	55	58	3	5.8	5	1	45,630	H	3.2	H	VL	Long-term on-the-job training	HS/SC	53.9	43.3	0.0
49-9045	Refractory materials repairers, except brickmasons	3	3	0	-11.5	0	0	40,780	H	3.1	L	VL	Moderate-term on-the-job training	HS/SC	55.9	38.8	5.3

See footnotes at end of table.

Table III-1. Occupational employment and job openings data, 2006-16, and worker characteristics, 2006 — Continued
(Numbers in thousands)

2006 National Employment Matrix occupation and code		Employment		Employment change, 2006-16		Annual average job open- ings due to growth and total replace- ment needs, 2006-16	Annual average job openings due to growth and net replace- ment needs, 2006-16	2006 median annual wages		Percent self-em- ployed, 2006	Unem- ployment rate	Percent part-time	Most significant source of postsecondary education or training ²	Educational attainment cluster ³	Percent of workers aged 25 to 44, by educational attainment ⁴		
		2006	2016	Numeric	Percent			Dollars	Rank						High school or less	Some college	College or higher
49-9050	Line installers and repairers	275	290	16	5.7	21	9	—	—	2.2	—	—	—	—	—	—	—
49-9051	Electrical power-line installers and repairers	112	120	8	7.2	6	4	50,780	VH	.6	H	VL	Long-term on-the-job training	HS/SC	55.9	38.2	6.0
49-9052	Telecommunications line installers and repairers	162	170	7	4.6	15	5	46,280	H	3.3	H	VL	Long-term on-the-job training	HS/SC	47.9	44.2	7.9
49-9060	Precision instrument and equipment repairers	68	77	9	12.8	4	3	—	—	16.3	—	—	—	—	—	—	—
49-9061	Camera and photographic equipment repairers ¹	4	4	0	-2.1	0	0	34,850	H	20.9	VL	L	Moderate-term on-the-job training	HS/SC	28.3	57.0	14.7
49-9062	Medical equipment repairers ¹	38	46	8	21.7	2	2	40,580	H	14.0	VL	L	Associate degree	HS/SC	28.3	57.0	14.7
49-9063	Musical instrument repairers and tuners ¹	6	6	0	2.8	0	0	29,200	L	18.4	VL	L	Long-term on-the-job training	HS/SC	28.3	57.0	14.7
49-9064	Watch repairers ¹	4	4	0	-5.1	0	0	30,900	H	20.3	VL	L	Long-term on-the-job training	HS/SC	28.3	57.0	14.7
49-9069	Precision instrument and equipment repairers, all other ¹	16	17	1	4.3	1	1	46,250	H	18.5	VL	L	Moderate-term on-the-job training	HS/SC	28.3	57.0	14.7
49-9090	Miscellaneous installation, maintenance, and repair workers	442	478	36	8.2	74	11	—	—	12.7	—	—	—	—	—	—	—
49-9091	Coin, vending, and amusement machine servicers and repairers	48	46	-1	-3.0	5	1	28,710	L	17.9	H	L	Moderate-term on-the-job training	HS/SC	62.6	29.2	8.3
49-9092	Commercial divers ¹	3	4	1	17.7	0	0	39,590	H	12.7	H	L	Postsecondary vocational award	HS/SC	61.1	30.1	8.8
49-9093	Fabric menders, except garment	2	2	0	-1.5	0	0	28,370	L	30.1	H	L	Moderate-term on-the-job training	HS/SC	61.1	30.1	8.8
49-9094	Locksmiths and safe repairers ¹	26	32	6	22.1	4	1	32,020	H	28.3	VL	L	Moderate-term on-the-job training	HS/SC	56.1	32.6	0.0
49-9095	Manufactured building and mobile home installers	12	11	0	-2.9	1	0	25,080	L	19.7	VH	L	Moderate-term on-the-job training	HS	78.9	17.0	0.0
49-9096	Riggers ¹	12	12	0	-.3	1	0	39,220	H	0.0	H	L	Short-term on-the-job training	HS/SC	76.1	20.7	0.0
49-9097	Signal and track switch repairers ¹	7	7	0	-5.1	0	0	50,150	VH	10.8	VL	VL	Moderate-term on-the-job training	HS/SC	61.1	30.1	8.8
49-9098	Helpers--Installation, maintenance, and repair workers	163	183	19	11.8	52	6	22,270	L	.1	VH	H	Short-term on-the-job training	HS	76.9	17.7	0.0
49-9099	Installation, maintenance, and repair workers, all other	168	181	13	7.5	11	2	32,940	H	21.5	H	L	Moderate-term on-the-job training	HS/SC	61.1	30.1	8.8
51-0000	Production occupations	10,675	10,147	-528	-4.9	1,433	232	—	—	3.3	—	—	—	—	—	—	—
51-1000	Supervisors, production workers	699	665	-34	-4.8	46	12	—	—	2.4	—	—	—	—	—	—	—
51-1011	First-line supervisors/managers of production and operating workers	699	665	-34	-4.8	46	12	47,300	VH	2.4	VL	VL	Work experience in a related occupation	HS/SC	52.9	32.2	14.9
51-2000	Assemblers and fabricators	2,075	1,982	-93	-4.5	403	42	—	—	1.4	—	—	—	—	—	—	—
51-2011	Aircraft structure, surfaces, rigging, and systems assemblers ¹	28	32	4	12.8	7	1	45,410	H	0.0	VL	VL	Moderate-term on-the-job training	HS/SC	58.7	35.3	0.0
51-2020	Electrical, electronics, and electromechanical assemblers	297	227	-70	-23.5	38	5	—	—	0.0	—	—	—	—	—	—	—
51-2021	Coil winders, tapers, and finishers	23	16	-7	-30.5	3	0	26,300	L	.1	VH	VL	Short-term on-the-job training	HS/SC	69.0	25.5	5.5

See footnotes at end of table.

Table III-1. Occupational employment and job openings data, 2006-16, and worker characteristics, 2006 — Continued
(Numbers in thousands)

2006 National Employment Matrix occupation and code	Employment		Employment change, 2006-16		Annual average job open- ings due to growth and total replace- ment needs, 2006-16	Annual average job openings due to growth and net replace- ment needs, 2006-16	2006 median annual wages		Percent self-em- ployed, 2006	Unem- ployment rate	Percent part-time	Most significant source of postsecondary education or training ²	Educational attainment cluster ³	Percent of workers aged 25 to 44, by educational attainment ⁴		
	2006	2016	Numeric	Percent			Dollars	Rank						High school or less	Some college	College or higher
51-2022 Electrical and electronic equipment assemblers	213	156	-57	-26.8	27	4	25,560	L	0.0	VH	VL	Short-term on-the-job training	HS/SC	69.0	25.5	5.5
51-2023 Electromechanical equipment assemblers	60	55	-5	-9.1	8	1	27,560	L	0.0	VH	VL	Short-term on-the-job training	HS/SC	69.0	25.5	5.5
51-2031 Engine and other machine assemblers ¹	45	41	-4	-8.6	9	1	33,250	H	0.0	VL	VL	Short-term on-the-job training	HS/SC	69.3	27.6	0.0
51-2041 Structural metal fabricators and fitters ¹	103	103	0	-.2	21	2	30,290	L	2.0	L	VL	Moderate-term on-the-job training	HS/SC	56.9	33.6	0.0
51-2090 Miscellaneous assemblers and fabricators	1,602	1,579	-23	-1.4	330	34	—	—	1.7	—	—	—	—	—	—	—
51-2091 Fiberglass laminators and fabricators.....	33	35	2	6.2	7	1	25,980	L	1.6	VH	VL	Moderate-term on-the-job training	HS/SC	70.8	24.5	4.7
51-2092 Team assemblers	1,274	1,275	1	.1	264	27	24,190	L	1.7	VH	VL	Moderate-term on-the-job training	HS/SC	70.8	24.5	4.7
51-2093 Timing device assemblers, adjusters, and calibrators	3	2	0	-7.6	1	0	28,830	L	2.3	VH	VL	Moderate-term on-the-job training	HS/SC	70.8	24.5	4.7
51-2099 Assemblers and fabricators, all other	292	266	-25	-8.7	58	6	26,730	L	1.6	VH	VL	Moderate-term on-the-job training	HS/SC	70.8	24.5	4.7
51-3000 Food processing occupations.....	705	764	59	8.4	106	27	—	—	1.8	—	—	—	—	—	—	—
51-3011 Bakers	149	164	15	10.0	31	5	22,030	L	4.3	H	H	Long-term on-the-job training	HS/SC	70.3	21.7	8.0
51-3020 Butchers and other meat, poultry, and fish processing workers.....	398	431	34	8.5	48	16	—	—	1.1	—	—	—	—	—	—	—
51-3021 Butchers and meat cutters.....	131	134	3	1.9	15	4	26,930	L	1.1	H	L	Long-term on-the-job training	HS	82.9	15.3	1.8
51-3022 Meat, poultry, and fish cutters and trimmers.....	144	160	16	10.9	18	6	20,370	VL	1.1	H	L	Short-term on-the-job training	HS	82.9	15.3	1.8
51-3023 Slaughterers and meat packers.....	122	138	16	12.7	16	5	21,690	L	1.2	H	L	Moderate-term on-the-job training	HS	82.9	15.3	1.8
51-3090 Miscellaneous food processing workers....	158	169	10	6.5	27	6	—	—	1.1	—	—	—	—	—	—	—
51-3091 Food and tobacco roasting, baking, and drying machine operators and tenders	19	21	2	10.8	4	1	23,510	L	0.0	H	VL	Short-term on-the-job training	HS/SC	68.6	28.0	0.0
51-3092 Food batchmakers.....	95	105	10	10.9	16	3	23,100	L	1.7	VH	H	Short-term on-the-job training	HS/SC	72.1	23.3	4.7
51-3093 Food cooking machine operators and tenders ¹	44	42	-2	-4.7	7	2	21,280	L	.2	VH	L	Short-term on-the-job training	HS/SC	69.9	25.9	0.0
51-4000 Metal workers and plastic workers	2,258	2,087	-171	-7.6	290	46	—	—	2.3	—	—	—	—	—	—	—
51-4010 Computer control programmers and operators	158	153	-6	-3.6	15	2	—	—	0.0	—	—	—	—	—	—	—
51-4011 Computer-controlled machine tool operators, metal and plastic ¹	141	136	-4	-3.0	13	2	31,670	H	0.0	H	VL	Moderate-term on-the-job training	HS/SC	49.5	44.6	5.9
51-4012 Numerical tool and process control programmers ¹	18	16	-2	-8.4	2	0	42,480	H	0.0	H	VL	Work experience in a related occupation	HS/SC	49.5	44.6	5.9
51-4020 Forming machine setters, operators, and tenders, metal and plastic.....	161	140	-20	-12.7	14	4	—	—	.7	—	—	—	—	—	—	—
51-4021 Extruding and drawing machine setters, operators, and tenders, metal and plastic ¹	94	87	-7	-7.2	8	3	28,250	L	.1	H	VL	Moderate-term on-the-job training	HS	78.7	18.2	0.0
51-4022 Forging machine setters, operators, and tenders, metal and plastic ¹	31	22	-9	-30.3	2	1	28,980	L	0.0	VH	VL	Moderate-term on-the-job training	HS/SC	72.1	26.1	0.0
51-4023 Rolling machine setters, operators, and tenders, metal and plastic ¹	36	32	-4	-11.8	3	1	31,050	H	3.1	H	VL	Moderate-term on-the-job training	HS	82.4	16.2	0.0

See footnotes at end of table.

Table III-1. Occupational employment and job openings data, 2006-16, and worker characteristics, 2006 — Continued
(Numbers in thousands)

2006 National Employment Matrix occupation and code		Employment		Employment change, 2006-16		Annual average job open- ings due to growth and total replace- ment needs, 2006-16	Annual average job openings due to growth and net replace- ment needs, 2006-16	2006 median annual wages		Percent self-em- ployed, 2006	Unem- ployment rate	Percent part-time	Most significant source of postsecondary education or training ²	Educational attainment cluster ³	Percent of workers aged 25 to 44, by educational attainment ⁴		
		2006	2016	Numeric	Percent			Dollars	Rank						High school or less	Some college	College or higher
51-4030	Machine tool cutting setters, operators, and tenders, metal and plastic.....	513	425	-88	-17.1	70	10	—	—	.8	—	—	—	—	—	—	—
51-4031	Cutting, punching, and press machine setters, operators, and tenders, metal and plastic	272	231	-40	-14.9	31	7	26,340	L	.5	VH	VL	Moderate-term on-the-job training	HS/SC	76.7	21.6	0.0
51-4032	Drilling and boring machine tool setters, operators, and tenders, metal and plastic ¹	43	33	-9	-22.2	6	1	29,870	L	0.0	H	VL	Moderate-term on-the-job training	HS/SC	71.0	0.0	0.0
51-4033	Grinding, lapping, polishing, and buffing machine tool setters, operators, and tenders, metal and plastic.....	101	85	-16	-15.7	18	1	28,080	L	1.1	H	VL	Moderate-term on-the-job training	HS/SC	72.9	24.4	0.0
51-4034	Lathe and turning machine tool setters, operators, and tenders, metal and plastic	68	52	-16	-23.3	10	1	32,160	H	2.5	H	VL	Moderate-term on-the-job training	HS/SC	76.8	22.8	0.0
51-4035	Milling and planing machine setters, operators, and tenders, metal and plastic ¹	29	23	-6	-21.0	5	0	31,570	H	0.0	VH	VL	Moderate-term on-the-job training	HS/SC	72.6	24.0	3.4
51-4041	Machinists.....	397	384	-12	-3.1	40	6	34,770	H	1.7	L	VL	Long-term on-the-job training	HS/SC	59.5	37.3	3.2
51-4050	Metal furnace and kiln operators and tenders.....	33	27	-6	-18.3	10	1	—	—	0.0	—	—	—	—	—	—	—
51-4051	Metal-refining furnace operators and tenders.....	18	15	-3	-19.0	5	0	32,640	H	0.0	H	VL	Moderate-term on-the-job training	HS/SC	76.6	20.4	0.0
51-4052	Pourers and casters, metal.....	15	12	-3	-17.4	4	0	29,570	L	0.0	H	VL	Moderate-term on-the-job training	HS/SC	76.6	20.4	0.0
51-4060	Model makers and patternmakers, metal and plastic	16	15	-1	-5.9	3	0	—	—	4.5	—	—	—	—	—	—	—
51-4061	Model makers, metal and plastic ¹	9	8	-1	-6.3	2	0	42,050	H	4.8	H	VL	Long-term on-the-job training	HS/SC	68.9	24.4	0.0
51-4062	Patternmakers, metal and plastic ¹	7	7	0	-5.5	2	0	35,380	H	4.2	H	VL	Long-term on-the-job training	HS/SC	68.9	24.4	0.0
51-4070	Molders and molding machine setters, operators, and tenders, metal and plastic	171	148	-23	-13.6	34	4	—	—	.9	—	—	—	—	—	—	—
51-4071	Foundry mold and coremakers.....	15	11	-3	-22.7	3	0	28,740	L	1.0	H	VL	Moderate-term on-the-job training	HS/SC	72.2	25.1	0.0
51-4072	Molding, coremaking, and casting machine setters, operators, and tenders, metal and plastic	157	137	-20	-12.8	31	4	25,560	L	.9	H	VL	Moderate-term on-the-job training	HS/SC	72.2	25.1	0.0
51-4081	Multiple machine tool setters, operators, and tenders, metal and plastic ¹	97	97	0	.3	16	2	30,530	L	0.0	VH	VL	Moderate-term on-the-job training	HS/SC	72.6	24.0	3.4
51-4111	Tool and die makers	101	91	-10	-9.6	5	1	44,290	H	3.6	L	VL	Long-term on-the-job training	HS/SC	42.9	52.4	4.6
51-4120	Welding, soldering, and brazing workers...	462	484	22	4.8	69	12	—	—	6.3	—	—	—	—	—	—	—
51-4121	Welders, cutters, solderers, and brazers.	409	430	21	5.1	61	11	31,400	H	6.3	H	VL	Postsecondary vocational award	HS/SC	73.4	24.7	1.9
51-4122	Welding, soldering, and brazing machine setters, operators, and tenders.....	53	54	2	3.0	8	1	30,980	H	6.7	H	VL	Postsecondary vocational award	HS/SC	73.4	24.7	1.9

See footnotes at end of table.

Table III-1. Occupational employment and job openings data, 2006-16, and worker characteristics, 2006 — Continued
(Numbers in thousands)

2006 National Employment Matrix occupation and code		Employment		Employment change, 2006-16		Annual average job open- ings due to growth and total replace- ment needs, 2006-16	Annual average job openings due to growth and net replace- ment needs, 2006-16	2006 median annual wages		Percent self-em- ployed, 2006	Unem- ployment rate	Percent part-time	Most significant source of postsecondary education or training ²	Educational attainment cluster ³	Percent of workers aged 25 to 44, by educational attainment ⁴		
		2006	2016	Numeric	Percent			Dollars	Rank						High school or less	Some college	College or higher
51-4190	Miscellaneous metalworkers and plastic workers.....	150	122	-28	-18.4	15	3	—	—	3.6	—	—	—	—	—	—	—
51-4191	Heat treating equipment setters, operators, and tenders, metal and plastic ¹	27	23	-4	-14.8	3	0	30,850	H	0.0	H	VL	Moderate-term on-the-job training	HS/SC	68.6	24.4	0.0
51-4192	Lay-out workers, metal and plastic ¹	10	8	-2	-19.8	1	0	33,600	H	0.0	H	VL	Moderate-term on-the-job training	HS/SC	72.6	24.0	3.4
51-4193	Plating and coating machine setters, operators, and tenders, metal and plastic.....	42	37	-5	-12.2	4	1	27,470	L	.1	H	VL	Moderate-term on-the-job training	HS/SC	78.6	20.7	0.0
51-4194	Tool grinders, filers, and sharpeners ¹	22	18	-4	-19.4	2	0	30,640	H	19.1	VL	L	Moderate-term on-the-job training	HS/SC	59.7	38.1	0.0
51-4199	Metal workers and plastic workers, all other.....	49	36	-12	-25.1	5	1	34,710	H	2.3	H	VL	Moderate-term on-the-job training	HS/SC	72.6	24.0	3.4
51-5000	Printing occupations.....	389	343	-46	-11.8	33	7	—	—	1.8	—	—	—	—	—	—	—
51-5010	Bookbinders and bindery workers.....	72	57	-15	-21.3	8	1	—	—	1.3	—	—	—	—	—	—	—
51-5011	Bindery workers.....	65	51	-14	-21.8	8	1	25,570	L	1.3	H	L	Short-term on-the-job training	HS/SC	70.4	22.6	7.1
51-5012	Bookbinders.....	7	6	-1	-16.9	1	0	30,260	L	1.2	H	L	Moderate-term on-the-job training	HS/SC	70.4	22.6	7.1
51-5020	Printers.....	317	286	-31	-9.7	24	6	—	—	1.9	—	—	—	—	—	—	—
51-5021	Job printers.....	48	44	-4	-9.3	2	0	32,410	H	3.3	H	L	Long-term on-the-job training	HS/SC	62.0	31.3	6.7
51-5022	Prepress technicians and workers.....	71	56	-15	-21.1	10	1	33,310	H	0.0	H	H	Postsecondary vocational award	HS/SC	45.8	38.3	15.9
51-5023	Printing machine operators.....	198	186	-11	-5.7	12	4	30,990	H	2.2	H	VL	Moderate-term on-the-job training	HS/SC	66.2	28.4	5.5
51-6000	Textile, apparel, and furnishings occupations	873	777	-97	-11.1	117	17	—	—	11.8	—	—	—	—	—	—	—
51-6011	Laundry and dry-cleaning workers.....	239	262	23	9.7	39	8	17,850	VL	8.0	H	H	Moderate-term on-the-job training	HS	79.1	15.7	5.2
51-6021	Pressers, textile, garment, and related materials.....	77	74	-3	-4.4	10	1	17,800	VL	2.9	H	H	Short-term on-the-job training	HS	87.9	9.3	2.8
51-6031	Sewing machine operators.....	233	170	-63	-27.2	36	2	18,810	VL	7.6	VH	L	Moderate-term on-the-job training	HS	82.3	13.2	4.5
51-6040	Shoe and leather workers.....	20	17	-3	-15.6	3	0	—	—	41.5	—	—	—	—	—	—	—
51-6041	Shoe and leather workers and repairers ¹	16	14	-2	-10.3	2	0	20,450	VL	52.4	VL	VL	Long-term on-the-job training	HS	78.9	0.0	0.0
51-6042	Shoe machine operators and tenders ¹	4	3	-1	-35.8	1	0	21,910	L	0.0	VH	L	Moderate-term on-the-job training	HS	82.0	0.0	0.0
51-6050	Tailors, dressmakers, and sewers.....	77	76	-2	-2.4	12	1	—	—	48.7	—	—	—	—	—	—	—
51-6051	Sewers, hand.....	23	21	-3	-12.2	3	0	20,370	VL	58.4	H	H	Short-term on-the-job training	HS/SC	62.2	23.8	14.1
51-6052	Tailors, dressmakers, and custom sewers	54	55	1	1.9	9	1	22,910	L	44.5	H	H	Long-term on-the-job training	HS/SC	62.2	23.8	14.1
51-6060	Textile machine setters, operators, and tenders.....	122	88	-34	-27.9	10	3	—	—	1.9	—	—	—	—	—	—	—
51-6061	Textile bleaching and dyeing machine operators and tenders ¹	19	14	-6	-30.2	2	0	23,290	L	0.0	VH	VL	Moderate-term on-the-job training	HS	83.5	11.8	0.0
51-6062	Textile cutting machine setters, operators, and tenders ¹	19	14	-5	-27.4	2	1	21,620	L	0.0	H	L	Moderate-term on-the-job training	HS	83.5	11.8	0.0
51-6063	Textile knitting and weaving machine setters, operators, and tenders.....	40	28	-12	-30.9	2	1	24,290	L	5.8	VH	L	Long-term on-the-job training	HS	83.9	14.0	0.0

See footnotes at end of table.

Table III-1. Occupational employment and job openings data, 2006-16, and worker characteristics, 2006 — Continued
(Numbers in thousands)

2006 National Employment Matrix occupation and code		Employment		Employment change, 2006-16		Annual average job open- ings due to growth and total replace- ment needs, 2006-16	Annual average job openings due to growth and net replace- ment needs, 2006-16	2006 median annual wages		Percent self-em- ployed, 2006	Unem- ployment rate	Percent part-time	Most significant source of postsecondary education or training ²	Educational attainment cluster ³	Percent of workers aged 25 to 44, by educational attainment ⁴		
		2006	2016	Numeric	Percent			Dollars	Rank						High school or less	Some college	College or higher
51-6064	Textile winding, twisting, and drawing out machine setters, operators, and tenders.....	43	33	-11	-24.3	4	1	23,050	L	0.0	VH	VL	Moderate-term on-the-job training	HS	80.7	18.6	0.0
51-6090	Miscellaneous textile, apparel, and furnishings workers.....	106	92	-14	-13.5	7	2	—	—	14.9	—	—	—	—	—	—	—
51-6091	Extruding and forming machine setters, operators, and tenders, synthetic and glass fibers ¹	18	15	-3	-17.6	1	0	28,670	L	0.0	H	L	Moderate-term on-the-job training	HS	75.3	14.5	10.1
51-6092	Fabric and apparel patternmakers ¹	9	7	-3	-28.6	1	0	32,730	H	6.1	L	L	Long-term on-the-job training	HS	75.3	14.5	10.1
51-6093	Upholsterers.....	55	50	-5	-9.0	3	1	27,230	L	25.5	L	L	Long-term on-the-job training	HS	77.4	19.1	0.0
51-6099	Textile, apparel, and furnishings workers, all other.....	24	21	-4	-14.8	3	1	22,950	L	5.2	VH	L	Short-term on-the-job training	HS	75.3	14.5	10.1
51-7000	Woodworkers.....	370	380	11	2.9	40	11	—	—	11.9	—	—	—	—	—	—	—
51-7011	Cabinetmakers and bench carpenters.....	149	153	4	2.8	10	5	27,010	L	14.0	L	VL	Long-term on-the-job training	HS/SC	71.7	24.2	4.1
51-7021	Furniture finishers.....	31	30	-1	-3.1	10	1	25,010	L	20.3	H	L	Long-term on-the-job training	HS/SC	71.8	22.9	0.0
51-7030	Model makers and patternmakers, wood ..	4	2	-2	-40.3	0	0	—	—	0.0	—	—	—	—	—	—	—
51-7031	Model makers, wood ¹	2	1	-1	-40.8	0	0	28,470	L	0.0	L	L	Long-term on-the-job training	HS/SC	68.5	21.3	10.2
51-7032	Patternmakers, wood ¹	2	1	-1	-39.9	0	0	31,510	H	0.0	L	L	Long-term on-the-job training	HS/SC	68.5	21.3	10.2
51-7040	Woodworking machine setters, operators, and tenders.....	165	173	9	5.4	18	5	—	—	4.8	—	—	—	—	—	—	—
51-7041	Sawing machine setters, operators, and tenders, wood.....	65	68	2	3.8	6	2	24,280	L	8.0	VH	VL	Moderate-term on-the-job training	HS	84.0	14.1	0.0
51-7042	Woodworking machine setters, operators, and tenders, except sawing.....	100	106	6	6.4	12	3	23,940	L	2.7	VH	VL	Moderate-term on-the-job training	HS	81.9	15.3	0.0
51-7099	Woodworkers, all other.....	20	21	0	1.6	2	0	22,580	L	43.0	L	L	Moderate-term on-the-job training	HS/SC	68.5	21.3	10.2
51-8000	Plant and system operators.....	325	327	2	.7	27	10	—	—	.5	—	—	—	—	—	—	—
51-8010	Power plant operators, distributors, and dispatchers.....	47	48	1	2.0	2	2	—	—	0.0	—	—	—	—	—	—	—
51-8011	Nuclear power reactor operators.....	4	4	0	10.6	0	0	69,370	VH	0.0	VL	VL	Long-term on-the-job training	HS/SC/C	36.1	43.6	20.4
51-8012	Power distributors and dispatchers.....	9	8	0	-4.9	0	0	62,590	VH	0.0	VL	VL	Long-term on-the-job training	HS/SC/C	36.1	43.6	20.4
51-8013	Power plant operators.....	35	36	1	2.7	2	1	55,000	VH	0.0	VL	VL	Long-term on-the-job training	HS/SC/C	36.1	43.6	20.4
51-8021	Stationary engineers and boiler operators	45	47	2	3.4	2	1	46,040	H	0.0	L	VL	Long-term on-the-job training	HS/SC	55.9	34.0	10.1
51-8031	Water and liquid waste treatment plant and system operators.....	111	126	15	13.8	10	3	36,070	H	1.3	VL	VL	Long-term on-the-job training	HS/SC	51.7	40.6	7.8
51-8090	Miscellaneous plant and system operators	122	106	-15	-12.6	13	3	—	—	.1	—	—	—	—	—	—	—
51-8091	Chemical plant and system operators.....	53	45	-8	-15.3	6	1	49,080	VH	.1	VL	VL	Long-term on-the-job training	HS/SC	52.2	41.1	6.7
51-8092	Gas plant operators.....	12	11	-1	-9.9	1	0	53,670	VH	.1	VL	VL	Long-term on-the-job training	HS/SC	52.2	41.1	6.7
51-8093	Petroleum pump system operators, refinery operators, and gaugers.....	42	36	-6	-13.4	4	1	52,380	VH	.1	VL	VL	Long-term on-the-job training	HS/SC	52.2	41.1	6.7
51-8099	Plant and system operators, all other.....	14	14	0	-2.5	2	0	46,270	H	.1	VL	VL	Long-term on-the-job training	HS/SC	52.2	41.1	6.7

See footnotes at end of table.

Table III-1. Occupational employment and job openings data, 2006-16, and worker characteristics, 2006 — Continued
(Numbers in thousands)

2006 National Employment Matrix occupation and code	Employment		Employment change, 2006-16		Annual average job open- ings due to growth and total replace- ment needs, 2006-16	Annual average job openings due to growth and net replace- ment needs, 2006-16	2006 median annual wages		Percent self-em- ployed, 2006	Unem- ployment rate	Percent part-time	Most significant source of postsecondary education or training ²	Educational attainment cluster ³	Percent of workers aged 25 to 44, by educational attainment ⁴			
	2006	2016	Numeric	Percent			Dollars	Rank						High school or less	Some college	College or higher	
51-9000 Other production occupations.....	2,981	2,822	-159	-5.3	370	62	—	—	3.0	—	—	—	—	—	—	—	—
51-9010 Chemical processing machine setters, operators, and tenders	97	94	-3	-3.6	3	2	—	—	1.0	—	—	—	—	—	—	—	—
51-9011 Chemical equipment operators and tenders.....	53	51	-2	-3.9	1	1	40,290	H	1.1	VL	VL	Moderate-term on-the-job training	HS/SC	52.8	33.1	14.1	
51-9012 Separating, filtering, clarifying, precipitating, and still machine setters, operators, and tenders	44	43	-1	-3.2	1	1	34,970	H	1.0	VL	VL	Moderate-term on-the-job training	HS/SC	52.8	33.1	14.1	
51-9020 Crushing, grinding, polishing, mixing, and blending workers	230	215	-16	-6.8	30	4	—	—	.8	—	—	—	—	—	—	—	—
51-9021 Crushing, grinding, and polishing machine setters, operators, and tenders.....	42	37	-5	-11.9	5	1	28,080	L	.9	H	VL	Moderate-term on-the-job training	HS/SC	75.2	20.4	4.4	
51-9022 Grinding and polishing workers, hand	45	42	-3	-7.1	6	1	23,880	L	.9	H	VL	Moderate-term on-the-job training	HS/SC	75.2	20.4	4.4	
51-9023 Mixing and blending machine setters, operators, and tenders	143	136	-7	-5.1	19	2	29,330	L	.8	H	VL	Moderate-term on-the-job training	HS/SC	75.2	20.4	4.4	
51-9030 Cutting workers.....	107	98	-9	-8.4	5	2	—	—	1.6	—	—	—	—	—	—	—	—
51-9031 Cutters and trimmers, hand	29	27	-2	-6.0	1	0	22,330	L	1.7	VH	L	Short-term on-the-job training	HS	80.7	16.0	3.3	
51-9032 Cutting and slicing machine setters, operators, and tenders	79	71	-7	-9.3	4	1	27,930	L	1.6	VH	L	Moderate-term on-the-job training	HS	80.7	16.0	3.3	
51-9041 Extruding, forming, pressing, and compacting machine setters, operators, and tenders.....	81	75	-7	-8.0	8	1	27,710	L	.5	VH	VL	Moderate-term on-the-job training	HS/SC	75.8	21.4	0.0	
51-9051 Furnace, kiln, oven, drier, and kettle operators and tenders	32	29	-3	-8.7	2	1	30,320	L	14.9	VH	VL	Moderate-term on-the-job training	HS/SC	59.4	33.8	0.0	
51-9061 Inspectors, testers, sorters, samplers, and weighers	491	457	-35	-7.0	75	7	29,420	L	1.5	H	VL	Moderate-term on-the-job training	HS/SC	53.4	33.1	13.5	
51-9071 Jewelers and precious stone and metal workers.....	52	51	-1	-2.2	7	1	29,750	L	50.6	L	L	Postsecondary vocational award	HS/SC	52.6	31.1	16.3	
51-9080 Medical, dental, and ophthalmic laboratory technicians.....	95	100	5	5.3	6	2	—	—	9.2	—	—	—	—	—	—	—	—
51-9081 Dental laboratory technicians	53	55	2	3.7	3	1	32,580	H	13.3	L	L	Long-term on-the-job training	HS/SC	42.5	46.0	11.5	
51-9082 Medical appliance technicians.....	12	13	1	9.4	1	0	31,180	H	13.3	L	L	Long-term on-the-job training	HS/SC	42.5	46.0	11.5	
51-9083 Ophthalmic laboratory technicians	29	31	2	6.6	2	1	25,460	L	0.0	L	L	Moderate-term on-the-job training	HS/SC	42.5	46.0	11.5	
51-9111 Packaging and filling machine operators and tenders.....	386	365	-21	-5.4	80	7	22,990	L	.2	VH	VL	Short-term on-the-job training	HS	80.0	15.4	4.6	
51-9120 Painting workers.....	192	184	-8	-4.2	10	4	—	—	3.8	—	—	—	—	—	—	—	—
51-9121 Coating, painting, and spraying machine setters, operators, and tenders.....	106	93	-14	-12.9	5	2	26,830	L	3.8	H	VL	Moderate-term on-the-job training	HS/SC	75.4	20.8	3.8	
51-9122 Painters, transportation equipment.....	54	59	5	8.4	3	2	35,680	H	3.8	H	VL	Moderate-term on-the-job training	HS/SC	75.4	20.8	3.8	
51-9123 Painting, coating, and decorating workers	31	32	1	3.6	2	1	22,970	L	3.7	H	VL	Short-term on-the-job training	HS/SC	75.4	20.8	3.8	
51-9130 Photographic process workers and processing machine operators	73	40	-33	-45.4	8	3	—	—	.7	—	—	—	—	—	—	—	—

See footnotes at end of table.

Table III-1. Occupational employment and job openings data, 2006-16, and worker characteristics, 2006 — Continued
(Numbers in thousands)

2006 National Employment Matrix occupation and code		Employment		Employment change, 2006-16		Annual average job open- ings due to growth and total replace- ment needs, 2006-16	Annual average job openings due to growth and net replace- ment needs, 2006-16	2006 median annual wages		Percent self-em- ployed, 2006	Unem- ployment rate	Percent part-time	Most significant source of postsecondary education or training ²	Educational attainment cluster ³	Percent of workers aged 25 to 44, by educational attainment ⁴		
		2006	2016	Numeric	Percent			Dollars	Rank						High school or less	Some college	College or higher
51-9131	Photographic process workers	24	15	-9	-36.3	3	1	23,280	L	.7	VH	H	Moderate-term on-the-job training	HS/SC	42.2	39.4	18.5
51-9132	Photographic processing machine operators	49	25	-25	-49.8	5	2	19,500	VL	.6	VH	H	Short-term on-the-job training	HS/SC	42.2	39.4	18.5
51-9141	Semiconductor processors ¹	42	37	-5	-12.9	6	1	32,860	H	0.0	VH	VL	Associate degree	HS/SC	71.9	23.3	4.8
51-9190	Miscellaneous production workers	1,102	1,078	-23	-2.1	131	27	—	—	2.6	—	—	—	—	—	—	—
51-9191	Cementing and gluing machine operators and tenders ¹	23	21	-2	-9.2	4	1	25,170	L	0.0	H	L	Moderate-term on-the-job training	HS	79.2	19.2	0.0
51-9192	Cleaning, washing, and metal pickling equipment operators and tenders ¹	16	14	-2	-9.8	3	0	22,850	L	0.0	VH	VL	Moderate-term on-the-job training	HS/SC	68.5	30.1	0.0
51-9193	Cooling and freezing equipment operators and tenders ¹	11	10	-1	-6.8	2	0	23,880	L	0.0	VH	VL	Moderate-term on-the-job training	HS/SC	71.9	23.3	4.8
51-9194	Etchers and engravers ¹	14	13	-1	-4.8	2	0	25,590	L	16.9	H	H	Long-term on-the-job training	HS/SC	58.6	24.2	0.0
51-9195	Molders, shapers, and casters, except metal and plastic ¹	56	57	1	1.3	6	1	25,010	L	24.2	H	L	Moderate-term on-the-job training	HS/SC	69.1	20.8	10.1
51-9196	Paper goods machine setters, operators, and tenders	113	93	-21	-18.2	8	3	31,490	H	0.0	H	VL	Moderate-term on-the-job training	HS/SC	71.8	23.9	0.0
51-9197	Tire builders ¹	23	20	-3	-12.0	4	1	38,120	H	0.0	VL	VL	Moderate-term on-the-job training	HS/SC	71.2	26.9	0.0
51-9198	Helpers--Production workers	542	539	-3	-5	49	13	20,740	VL	.2	VH	H	Short-term on-the-job training	HS	80.8	15.2	4.0
51-9199	Production workers, all other	305	312	7	2.3	54	7	24,890	L	3.8	VH	VL	Moderate-term on-the-job training	HS/SC	71.9	23.3	4.8
53-0000	Transportation and material moving occupations	10,233	10,695	462	4.5	1,928	295	—	—	4.7	—	—	—	—	—	—	—
53-1000	Supervisors, transportation and material moving workers	414	461	47	11.4	31	13	—	—	1.5	—	—	—	—	—	—	—
53-1011	Aircraft cargo handling supervisors	6	7	1	23.3	1	0	39,840	H	2.0	L	VL	Work experience in a related occupation	HS/SC	46.6	36.5	16.9
53-1021	First-line supervisors/managers of helpers, laborers, and material movers, hand..	182	205	23	12.5	14	6	39,570	H	1.4	L	VL	Work experience in a related occupation	HS/SC	46.6	36.5	16.9
53-1031	First-line supervisors/managers of transportation and material-moving machine and vehicle operators	226	249	23	10.2	17	7	48,330	VH	1.5	L	VL	Work experience in a related occupation	HS/SC	46.6	36.5	16.9
53-2000	Air transportation occupations	137	154	17	12.4	7	6	—	—	1.8	—	—	—	—	—	—	—
53-2010	Aircraft pilots and flight engineers	107	121	14	13.0	5	5	—	—	2.3	—	—	—	—	—	—	—
53-2011	Airline pilots, copilots, and flight engineers	79	90	10	12.9	4	3	141,090	VH	2.5	VL	L	Bachelor's degree	SC/C	5.9	20.5	73.6
53-2012	Commercial pilots	28	31	4	13.2	1	1	57,480	VH	1.9	VL	L	Postsecondary vocational award	SC/C	5.9	20.5	73.6
53-2020	Air traffic controllers and airfield operations specialists	30	33	3	10.5	1	1	—	—	0.0	—	—	—	—	—	—	—
53-2021	Air traffic controllers ¹	25	28	3	10.2	1	1	117,240	VH	0.0	L	VL	Long-term on-the-job training	SC/C	12.8	54.8	32.4
53-2022	Airfield operations specialists ¹	5	5	1	11.8	0	0	37,630	H	0.0	L	VL	Long-term on-the-job training	SC/C	12.8	54.8	32.4
53-3000	Motor vehicle operators	4,335	4,704	368	8.5	637	112	—	—	8.8	—	—	—	—	—	—	—
53-3011	Ambulance drivers and attendants, except emergency medical technicians ¹	22	26	5	21.7	4	1	20,370	VL	.1	VL	H	Moderate-term on-the-job training	HS/SC	53.2	38.2	0.0
53-3020	Bus drivers	653	721	67	10.3	87	15	—	—	1.4	—	—	—	—	—	—	—

See footnotes at end of table.

Table III-1. Occupational employment and job openings data, 2006-16, and worker characteristics, 2006 — Continued
(Numbers in thousands)

2006 National Employment Matrix occupation and code		Employment		Employment change, 2006-16		Annual average job open- ings due to growth and total replace- ment needs, 2006-16	Annual average job openings due to growth and net replace- ment needs, 2006-16	2006 median annual wages		Percent self-em- ployed, 2006	Unem- ployment rate	Percent part-time	Most significant source of postsecondary education or training ²	Educational attainment cluster ³	Percent of workers aged 25 to 44, by educational attainment ⁴		
		2006	2016	Numeric	Percent			Dollars	Rank						High school or less	Some college	College or higher
53-3021	Bus drivers, transit and intercity	198	223	25	12.5	27	5	32,090	H	1.3	L	VH	Moderate-term on-the-job training	HS/SC	60.8	34.9	4.3
53-3022	Bus drivers, school	455	497	42	9.3	60	10	24,820	L	1.4	L	VH	Moderate-term on-the-job training	HS/SC	60.8	34.9	4.3
53-3030	Driver/sales workers and truck drivers	3,356	3,614	258	7.7	491	88	—	—	9.0	—	—	—	—	—	—	—
53-3031	Driver/sales workers	445	421	-24	-5.3	58	8	20,770	VL	9.5	H	L	Short-term on-the-job training	HS/SC	70.7	25.2	4.1
53-3032	Truck drivers, heavy and tractor-trailer....	1,860	2,053	193	10.4	279	52	35,040	H	8.8	H	L	Moderate-term on-the-job training	HS/SC	70.7	25.2	4.1
53-3033	Truck drivers, light or delivery services....	1,051	1,140	89	8.4	154	28	25,300	L	9.3	H	L	Short-term on-the-job training	HS/SC	70.7	25.2	4.1
53-3041	Taxi drivers and chauffeurs.....	229	258	30	13.0	36	6	20,350	VL	29.5	H	H	Short-term on-the-job training	HS/SC	57.4	27.4	15.2
53-3099	Motor vehicle operators, all other	76	85	9	11.4	19	2	22,710	L	1.9	H	VH	Short-term on-the-job training	HS/SC	70.2	23.5	0.0
53-4000	Rail transportation occupations	125	127	2	1.4	9	5	—	—	0.0	—	—	—	—	—	—	—
53-4010	Locomotive engineers and operators	47	48	1	2.9	4	2	54,150	VH	0.0	VL	VL	Moderate-term on-the-job training	HS/SC	48.7	42.4	8.9
53-4021	Railroad brake, signal, and switch operators ¹	25	22	-3	-11.4	2	1	48,860	VH	0.0	L	VL	Moderate-term on-the-job training	HS/SC	44.9	49.8	0.0
53-4031	Railroad conductors and yardmasters ¹	40	44	4	9.1	3	2	55,530	VH	0.0	VL	VL	Moderate-term on-the-job training	HS/SC	37.7	51.7	10.6
53-4041	Subway and streetcar operators ¹	7	8	1	12.1	1	0	48,980	VH	0.0	L	VL	Moderate-term on-the-job training	HS/SC	40.4	49.1	0.0
53-4099	Rail transportation workers, all other ¹	7	6	-1	-18.7	0	0	39,150	H	0.0	L	VL	Moderate-term on-the-job training	HS/SC	40.4	49.1	0.0
53-5000	Water transportation occupations.....	84	98	14	16.1	13	4	—	—	3.1	—	—	—	—	—	—	—
53-5011	Sailors and marine oilers ¹	33	38	5	15.7	9	2	30,630	H	.1	VH	VL	Short-term on-the-job training	HS/SC	56.7	26.1	17.2
53-5020	Ship and boat captains and operators.....	37	43	6	17.3	3	2	—	—	7.0	—	—	—	—	—	—	—
53-5021	Captains, mates, and pilots of water vessels.....	34	40	6	17.9	3	1	53,430	VH	6.8	H	VL	Work experience in a related occupation	HS/SC/C	54.9	24.2	20.9
53-5022	Motorboat operators	3	3	0	10.9	0	0	32,350	H	9.1	H	VL	Moderate-term on-the-job training	HS/SC/C	54.9	24.2	20.9
53-5031	Ship engineers ¹	15	17	2	14.1	1	1	54,820	VH	0.0	VH	VL	Work experience in a related occupation	HS/SC	56.7	26.1	17.2
53-6000	Other transportation workers	312	351	39	12.6	76	14	—	—	1.6	—	—	—	—	—	—	—
53-6011	Bridge and lock tenders ¹	4	4	0	-3.2	0	0	39,010	H	0.0	L	VL	Short-term on-the-job training	HS/SC	49.8	42.7	7.4
53-6021	Parking lot attendants.....	135	152	16	12.1	44	5	17,320	VL	1.6	H	VH	Short-term on-the-job training	HS/SC	56.7	29.7	13.6
53-6031	Service station attendants	96	108	12	12.6	27	6	17,750	VL	.5	VH	H	Short-term on-the-job training	HS/SC	67.5	26.3	6.1
53-6041	Traffic technicians.....	7	8	1	9.9	0	0	37,140	H	1.5	L	VL	Short-term on-the-job training	HS/SC	49.8	42.7	7.4
53-6051	Transportation inspectors	26	31	4	16.4	2	1	50,390	VH	5.9	L	VL	Work experience in a related occupation	HS/SC	45.0	40.2	14.8
53-6099	Transportation workers, all other	44	49	6	13.3	2	1	30,180	L	1.9	L	VL	Short-term on-the-job training	HS/SC	49.8	42.7	7.4
53-7000	Material moving occupations	4,825	4,800	-25	-.5	1,155	142	—	—	1.7	—	—	—	—	—	—	—
53-7011	Conveyor operators and tenders ¹	50	46	-4	-7.3	6	1	27,220	L	0.0	H	VL	Short-term on-the-job training	HS/SC	64.3	32.3	0.0
53-7021	Crane and tower operators.....	46	48	1	2.8	3	1	39,040	H	.4	H	VL	Long-term on-the-job training	HS/SC	71.6	26.2	0.0
53-7030	Dredge, excavating, and loading machine operators	85	92	7	8.1	7	2	—	—	15.1	—	—	—	—	—	—	—
53-7031	Dredge operators.....	2	2	0	6.7	0	0	33,820	H	16.4	H	VL	Moderate-term on-the-job training	HS	78.8	17.7	3.5
53-7032	Excavating and loading machine and dragline operators.....	80	87	7	8.3	7	2	32,930	H	14.9	H	VL	Moderate-term on-the-job training	HS	78.8	17.7	3.5
53-7033	Loading machine operators, underground mining	3	3	0	4.5	0	0	37,250	H	19.4	H	VL	Moderate-term on-the-job training	HS	78.8	17.7	3.5

See footnotes at end of table.

Table III-1. Occupational employment and job openings data, 2006-16, and worker characteristics, 2006 — Continued
(Numbers in thousands)

2006 National Employment Matrix occupation and code		Employment		Employment change, 2006-16		Annual average job open- ings due to growth and total replace- ment needs, 2006-16	Annual average job openings due to growth and net replace- ment needs, 2006-16	2006 median annual wages		Percent self-em- ployed, 2006	Unem- ployment rate	Percent part-time	Most significant source of postsecondary education or training ²	Educational attainment cluster ³	Percent of workers aged 25 to 44, by educational attainment ⁴		
		2006	2016	Numeric	Percent			Dollars	Rank						High school or less	Some college	College or higher
53-7041	Hoist and winch operators ¹	3	3	0	-1.2	0	0	33,620	H	0.0	VH	VL	Moderate-term on-the-job training	HS/SC	64.3	32.3	0.0
53-7051	Industrial truck and tractor operators.....	637	624	-13	-2.0	90	16	27,270	L	.3	VH	VL	Short-term on-the-job training	HS	79.0	19.3	1.8
53-7060	Laborers and material movers, hand.....	3,766	3,741	-25	-.7	997	114	—	—	1.5	—	—	—	—	—	—	—
53-7061	Cleaners of vehicles and equipment.....	368	420	52	14.0	132	19	18,060	VL	7.4	VH	H	Short-term on-the-job training	HS	82.8	14.8	2.5
53-7062	Laborers and freight, stock, and material movers, hand.....	2,416	2,466	50	2.1	630	82	21,220	VL	1.1	VH	H	Short-term on-the-job training	HS/SC	71.6	23.8	4.5
53-7063	Machine feeders and offbearers.....	148	125	-22	-15.2	24	3	22,640	L	0.0	H	L	Short-term on-the-job training	HS/SC	72.6	23.9	0.0
53-7064	Packers and packagers, hand.....	834	730	-104	-12.4	211	10	17,650	VL	.4	VH	L	Short-term on-the-job training	HS	83.1	14.1	2.9
53-7070	Pumping station operators.....	29	25	-4	-12.9	5	1	—	—	2.6	—	—	—	—	—	—	—
53-7071	Gas compressor and gas pumping station operators.....	4	3	-1	-17.5	1	0	45,400	H	3.5	VL	VL	Moderate-term on-the-job training	HS/SC	73.2	25.2	0.0
53-7072	Pump operators, except wellhead pumpers.....	11	9	-1	-12.5	2	0	39,800	H	2.9	VL	VL	Moderate-term on-the-job training	HS/SC	73.2	25.2	0.0
53-7073	Wellhead pumpers.....	14	13	-2	-11.9	3	1	36,150	H	2.2	VL	VL	Moderate-term on-the-job training	HS/SC	73.2	25.2	0.0
53-7081	Refuse and recyclable material collectors.	136	146	10	7.4	38	5	28,970	L	6.1	VH	L	Short-term on-the-job training	HS	77.1	19.7	3.1
53-7111	Shuttle car operators ¹	3	3	0	-8.3	0	0	39,060	H	0.0	H	VL	Short-term on-the-job training	HS/SC	70.4	24.1	5.5
53-7121	Tank car, truck, and ship loaders ¹	16	18	2	9.2	5	0	31,970	H	0.0	VH	VL	Moderate-term on-the-job training	HS/SC	70.4	24.1	5.5
53-7199	Material moving workers, all other.....	54	54	0	.7	4	1	30,270	L	.9	H	VL	Moderate-term on-the-job training	HS/SC	70.4	24.1	5.5

¹ One or more Current Population Survey (CPS) proxy occupations are used to estimate CPS-based data.

² An occupation is placed into one of 11 categories that best describes the postsecondary education or training needed by most workers to become fully qualified in the occupation.

³ The job types are presented in the following categories: HS = high school occupations, HS/SC = high school/some college occupations, SC = some college occupations, HS/SC/C = high school/some college/college occupations, SC/C = some college/college occ

⁴ Based on the average of 2005-06 American Community Survey data for those who responded as currently employed and had a valid occupation code.

NOTE: Codes for describing the ranked variables are: NH = Very high, H = High, L = Low, and VL = Very low. A dash indicates data are not applicable. Quartile ranking data ranges are available at <http://www.bls.gov/emp/empqrank.htm>.