

Table 2: WASHINGTON-ARLINGTON-ALEXANDRIA DC-VA-MD-WV METROPOLITAN STATISTICAL AREA Long-Term Occupational Projections, Separations, Openings, and Worker Characteristics, 2018 and projected 2028¹

Soccode	Occupational Title	Employment Projections				Occupational Separations, 2018-2028, annual average			Occupational			Worker Characteristics		
		2016	2026	Numeric	Percent	Exits	Transfers	Numeric Change	2018-2028	Median	Typical Education	Work Experience	Typical on-the-job	
		Change 2018-2028	Labor Force	Occupational	Annual	Openings	Annual Wage ²	Needed for Entry	in a related	Occupation	training needed to			
00-0000	Total, All Occupations	3,491,804	3,783,902	292,098	8.37	146,495	249,427	29,210	425,132	\$54,680				
11-0000	Management Occupations	309,163	336,054	26,891	8.7	8,266	18,674	2,689	29,629	\$138,170				
11-1000	Top Executives	90,093	98,669	8,576	9.52	2,042	5,980	858	8,880	N/A				
11-1011	Chief Executives	9,565	9,303	-262	-2.74	251	419	-26	644	N/A	Bachelor's degree	5 years or more	None	
11-1021	General and Operations Managers	78,333	87,048	8,715	11.13	1,734	5,447	872	8,053	\$139,600	Bachelor's degree	5 years or more	None	
11-1031	Legislators	2,195	2,318	123	5.6	57	114	12	183	\$26,530	Bachelor's degree	Less than 5 years	None	
11-2000	Advertising, Marketing, Promotions, Public Relations, & Sales Managers	31,320	35,020	3,700	11.81	694	2,208	370	3,272	N/A				
11-2011	Advertising and Promotions Managers	428	474	46	10.75	9	33	5	47	\$109,590	Bachelor's degree	Less than 5 years	None	
11-2021	Marketing Managers	7,946	9,077	1,131	14.23	173	582	113	868	\$160,870	Bachelor's degree	5 years or more	None	
11-2022	Sales Managers	10,865	12,189	1,324	12.19	234	788	132	1,154	\$155,790	Bachelor's degree	Less than 5 years	None	
11-2031	Public Relations and Fundraising Managers	12,081	13,280	1,199	9.92	278	804	120	1,202	\$160,840	Bachelor's degree	5 years or more	None	
11-3000	Operations Specialties Managers	52,444	60,500	8,056	15.36	1,199	3,277	806	5,282	N/A				
11-3011	Administrative Services Managers	6,870	7,679	809	11.78	200	406	81	687	\$115,490	Bachelor's degree	Less than 5 years	None	
11-3021	Computer and Information Systems Managers	16,312	18,925	2,613	16.02	302	1,072	261	1,635	\$164,200	Bachelor's degree	5 years or more	None	
11-3031	Financial Managers	18,671	22,260	3,589	19.22	443	1,135	359	1,937	\$152,770	Bachelor's degree	5 years or more	None	
11-3051	Industrial Production Managers	713	817	104	14.59	16	39	10	65	\$122,570	Bachelor's degree	5 years or more	None	
11-3061	Purchasing Managers	1,815	1,931	116	6.39	45	111	12	168	\$140,430	Bachelor's degree	5 years or more	None	
11-3071	Transportation, Storage, and Distribution Managers	2,698	2,837	139	5.15	60	158	14	232	\$117,300	HS diploma or equivalent	5 years or more	None	
11-3111	Compensation and Benefits Managers	307	334	27	8.79	8	19	3	30	\$142,250	Bachelor's degree	5 years or more	None	
11-3121	Human Resources Managers	3,993	4,497	504	12.62	96	263	50	409	\$149,280	Bachelor's degree	5 years or more	None	
11-3131	Training and Development Managers	1,065	1,220	155	14.55	28	74	16	118	\$140,070	Bachelor's degree	5 years or more	None	
11-9000	Other Management Occupations	135,306	141,865	6,559	4.85	4,331	7,210	656	12,197	N/A				
11-9013	Farmers, Ranchers, and Other Agricultural Managers	20,956	19,251	-1,705	-8.14	1,250	747	-170	1,827	N/A	HS diploma or equivalent	5 years or more	None	
11-9021	Construction Managers	14,135	15,533	1,398	9.89	312	756	140	1,208	\$101,890	Bachelor's degree	None	Moderate-term OJT	
11-9031	Education Administrators, Preschool and Childcare Center/Program	1,367	1,537	170	12.44	37	75	17	129	\$57,490	Bachelor's degree	Less than 5 years	None	
11-9032	Education Administrators, Elementary and Secondary School	1,298	1,472	174	13.41	36	72	17	125	\$113,190	Master's degree	5 years or more	None	
11-9033	Education Administrators, Postsecondary	2,311	2,597	286	12.38	63	127	29	219	\$98,190	Master's degree	Less than 5 years	None	
11-9039	Education Administrators, All Other	2,306	2,447	141	6.11	61	123	14	198	\$113,140	Bachelor's degree	Less than 5 years	None	
11-9041	Architectural and Engineering Managers	5,682	6,246	564	9.93	104	326	56	486	\$154,070	Bachelor's degree	5 years or more	None	
11-9051	Food Service Managers	11,162	12,253	1,091	9.77	356	985	109	1,450	\$68,710	HS diploma or equivalent	Less than 5 years	None	
11-9061	Funeral Service Managers	600	619	19	3.17	15	31	2	48	\$107,270	Associate's degree	Less than 5 years	None	
11-9071	Gaming Managers	119	128	9	7.56	3	10	1	14	N/A	HS diploma or equivalent	Less than 5 years	None	
11-9081	Lodging Managers	891	894	3	0.34	28	64	0	92	\$61,020	HS diploma or equivalent	Less than 5 years	None	
11-9111	Medical and Health Services Managers	9,334	10,544	1,210	12.96	244	544	121	909	\$116,360	Bachelor's degree	Less than 5 years	None	
11-9121	Natural Sciences Managers	3,776	3,964	188	4.98	82	260	19	361	\$137,510	Bachelor's degree	5 years or more	None	
11-9141	Property, Real Estate, and Community Association Managers	10,285	10,760	475	4.62	392	418	48	858	\$74,580	HS diploma or equivalent	Less than 5 years	None	
11-9151	Social and Community Service Managers	4,334	4,942	608	14.03	138	265	61	464	\$87,630	Bachelor's degree	Less than 5 years	None	
11-9161	Emergency Management Directors	363	381	18	4.96	11	18	2	31	\$110,140	Bachelor's degree	5 years or more	None	
11-9199	Managers, All Other	46,384	48,294	1,910	4.12	1,199	2,389	191	3,779	\$137,500	Bachelor's degree	Less than 5 years	None	
13-0000	Business and Financial Operations Occupations	329,975	359,375	29,400	8.91	9,549	23,066	2,940	35,555	\$88,690				
13-1000	Business Operations Specialists	233,609	254,225	20,616	8.83	6,780	16,907	2,062	25,749	N/A				
13-1011	Agents and Business Managers of Artists, Performers, and Athletes	360	369	9	2.5	12	30	1	43	\$64,850	Bachelor's degree	Less than 5 years	None	
13-1020	Buyers and Purchasing Agents	10,863	9,960	-903	-8.31	328	757	-90	995	\$89,770	Bachelor's degree	None	Moderate-term OJT	
13-1031	Claims Adjusters, Examiners, and Investigators	12,521	11,335	-1,186	-9.47	286	722	-119	889	\$63,260	HS diploma or equivalent	None	Long-term OJT	
13-1041	Compliance Officers	19,104	19,740	636	3.33	542	1,161	64	1,767	\$86,920	Bachelor's degree	None	Moderate-term OJT	
13-1051	Cost Estimators	4,214	4,843	629	14.93	114	332	63	509	\$76,780	Bachelor's degree	None	Moderate-term OJT	
13-1071	Human Resources Specialists	20,439	22,063	1,624	7.95	567	1,564	162	2,293	\$83,830	Bachelor's degree	None	None	
13-1075	Labor Relations Specialists	868	820	-48	-5.53	22	62	-5	79	\$79,860	Bachelor's degree	Less than 5 years	None	
13-1081	Logisticians	7,383	7,636	253	3.43	176	539	25	740	\$89,710	Bachelor's degree	None	None	
13-1111	Management Analysts	40,951	47,816	6,865	16.76	1,377	2,803	686	4,866	\$103,400	Bachelor's degree	Less than 5 years	None	

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Soccode	Occupational Title	Employment Projections				Occupational Separations, 2018-2028, annual average			Occupational			Worker Characteristics		
		2016	2026	Numeric	Percent	Exits	Transfers	Annual	2018-2028	Median	Typical Education	Work Experience	Typical on-the-job	
			Change 2018-2028					Numeric Change	Openings	Annual Wage ²	Needed for Entry	in a related Occupation	training needed to attain competency	
13-1121	Meeting, Convention, and Event Planners	6,712	7,351	639	9.52	225	575	64	864	\$65,090	Bachelor's degree	None	None	
13-1131	Fundraisers	5,849	6,605	756	12.93	205	443	76	724	\$72,250	Bachelor's degree	None	None	
13-1141	Compensation, Benefits, and Job Analysis Specialists	3,242	3,485	243	7.5	111	208	24	343	\$78,040	Bachelor's degree	Less than 5 years	None	
13-1151	Training and Development Specialists	8,469	9,969	1,500	17.71	275	714	150	1,139	\$75,510	Bachelor's degree	Less than 5 years	None	
13-1161	Market Research Analysts and Marketing Specialists	26,035	32,642	6,607	25.38	690	2,308	661	3,659	\$72,670	Bachelor's degree	None	None	
13-1199	Business Operations Specialists, All Other	66,583	69,575	2,992	4.49	1,848	4,687	299	6,834	\$95,120	Bachelor's degree	None	None	
13-2000	Financial Specialists	96,366	105,150	8,784	9.12	2,769	6,159	878	9,806	N/A				
13-2011	Accountants and Auditors	47,224	52,903	5,679	12.03	1,412	3,254	568	5,234	\$83,760	Bachelor's degree	None	None	
13-2021	Appraisers and Assessors of Real Estate	2,572	2,693	121	4.7	90	106	12	208	\$65,850	Bachelor's degree	None	Long-term OJT	
13-2031	Budget Analysts	3,404	3,494	90	2.64	85	184	9	278	\$100,050	Bachelor's degree	None	None	
13-2041	Credit Analysts	2,401	2,607	206	8.58	55	170	21	246	\$89,470	Bachelor's degree	None	None	
13-2051	Financial Analysts	10,631	11,969	1,338	12.59	217	742	134	1,093	\$89,830	Bachelor's degree	None	None	
13-2052	Personal Financial Advisors	6,672	7,374	702	10.52	159	371	70	600	\$80,720	Bachelor's degree	None	Long-term OJT	
13-2053	Insurance Underwriters	505	481	-24	-4.75	12	30	-2	40	\$68,600	Bachelor's degree	None	Moderate-term OJT	
13-2061	Financial Examiners	1,845	1,915	70	3.79	40	102	7	149	\$104,640	Bachelor's degree	None	Long-term OJT	
13-2071	Credit Counselors	422	472	50	11.85	11	27	5	43	\$55,030	Bachelor's degree	None	Moderate-term OJT	
13-2072	Loan Officers	4,129	4,386	257	6.22	102	254	26	382	\$69,660	Bachelor's degree	None	Moderate-term OJT	
13-2081	Tax Examiners and Collectors, and Revenue Agents	5,384	4,899	-485	-9.01	202	226	-48	380	\$72,510	Bachelor's degree	None	Moderate-term OJT	
13-2082	Tax Preparers	2,698	3,178	480	17.79	145	189	48	382	\$38,660	HS diploma or equivalent	None	Moderate-term OJT	
13-2099	Financial Specialists, All Other	8,479	8,779	300	3.54	240	505	30	775	\$96,980	Bachelor's degree	None	Moderate-term OJT	
15-0000	Computer and Mathematical Occupations	192,493	226,699	34,206	17.77	3,405	11,871	3,421	18,697	\$106,000				
15-1100	Computer Occupations	185,946	218,292	32,346	17.4	3,253	11,499	3,235	17,987	N/A				
15-1111	Computer and Information Research Scientists	2,535	2,836	301	11.87	38	168	30	236	\$127,670	Master's degree	None	None	
15-1121	Computer Systems Analysts	24,333	28,459	4,126	16.96	502	1,404	413	2,319	\$102,050	Bachelor's degree	None	None	
15-1122	Information Security Analysts	6,919	9,112	2,193	31.7	115	455	219	789	\$113,200	Bachelor's degree	Less than 5 years	None	
15-1131	Computer Programmers	10,297	10,009	-288	-2.8	163	549	-29	683	\$96,600	Bachelor's degree	None	None	
15-1132	Software Developers, Applications	36,186	47,919	11,733	32.42	584	2,378	1,173	4,135	\$115,360	Bachelor's degree	None	None	
15-1133	Software Developers, Systems Software	17,624	20,691	3,067	17.4	266	1,083	307	1,656	\$120,380	Bachelor's degree	None	None	
15-1134	Web Developers	6,157	7,148	991	16.1	114	392	99	605	\$89,320	Associate's degree	None	None	
15-1141	Database Administrators	3,652	4,222	570	15.61	76	203	57	336	\$97,970	Bachelor's degree	None	None	
15-1142	Network and Computer Systems Administrators	11,812	13,416	1,604	13.58	212	669	160	1,041	\$98,390	Bachelor's degree	None	None	
15-1143	Computer Network Architects	5,727	6,556	829	14.48	82	346	83	511	\$126,250	Bachelor's degree	5 years or more	None	
15-1151	Computer User Support Specialists	22,850	26,899	4,049	17.72	457	1,582	405	2,444	\$60,640	Some college, no degree	None	None	
15-1152	Computer Network Support Specialists	5,351	6,077	726	13.57	105	363	73	541	\$74,550	Associate's degree	None	None	
15-1199	Computer Occupations, All Other	32,503	34,948	2,445	7.52	541	1,907	244	2,692	\$116,990	Bachelor's degree	None	None	
15-2000	Mathematical Science Occupations	6,547	8,407	1,860	28.41	152	371	186	709	N/A				
15-2011	Actuaries	414	522	108	26.09	5	23	11	39	\$104,010	Bachelor's degree	None	Long-term OJT	
15-2021	Mathematicians	241	292	51	21.16	5	16	5	26	\$143,790	Master's degree	None	None	
15-2031	Operations Research Analysts	3,222	4,140	918	28.49	86	154	92	332	\$105,760	Bachelor's degree	None	None	
15-2041	Statisticians	2,520	3,300	780	30.95	53	170	78	301	\$106,250	Master's degree	None	None	
15-2090	Miscellaneous Mathematical Science Occupations	150	153	3	2	3	9	0	12	\$50,430	Bachelor's degree	None	None	
17-0000	Architecture and Engineering Occupations	90,102	98,756	8,654	9.6	2,238	5,172	865	8,275	\$98,990				
17-1000	Architects, Surveyors, and Cartographers	9,386	10,659	1,273	13.56	244	514	127	885	N/A				
17-1011	Architects, Except Landscape and Naval	5,600	6,413	813	14.52	143	318	81	542	\$87,470	Bachelor's degree	None	Internship/residency	
17-1012	Landscape Architects	881	956	75	8.51	22	49	8	79	\$84,730	Bachelor's degree	None	Internship/residency	
17-1021	Cartographers and Photogrammetrists	519	611	92	17.73	14	27	9	50	\$90,140	Bachelor's degree	None	None	
17-1022	Surveyors	2,386	2,679	293	12.28	64	121	29	214	\$65,590	Bachelor's degree	None	Internship/residency	
17-2000	Engineers	59,031	64,500	5,469	9.26	1,257	3,112	547	4,916	N/A				
17-2011	Aerospace Engineers	2,681	2,777	96	3.58	58	118	10	186	\$140,400	Bachelor's degree	None	None	
17-2021	Agricultural Engineers	88	91	3	3.41	2	4	0	6	N/A	Bachelor's degree	None	None	

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		2016	2026	Numeric	Percent	Exits	Occupational	Annual	Numeric Change	Openings	Median	Typical Education	Work Experience	Typical on-the-job
				Change 2018-2028							Annual Wage ²	Needed for Entry	in a related Occupation	training needed to attain competency
17-2031	Biomedical Engineers	450	487	37	8.22	10	24	4	38	\$100,210	Bachelor's degree	None	None	
17-2041	Chemical Engineers	654	730	76	11.62	14	29	8	51	\$116,370	Bachelor's degree	None	None	
17-2051	Civil Engineers	16,401	18,207	1,806	11.01	353	994	181	1,528	\$92,050	Bachelor's degree	None	None	
17-2061	Computer Hardware Engineers	2,960	3,339	379	12.8	61	166	38	265	\$126,290	Bachelor's degree	None	None	
17-2071	Electrical Engineers	5,971	6,890	919	15.39	130	295	92	517	\$117,590	Bachelor's degree	None	None	
17-2072	Electronics Engineers, Except Computer	5,303	5,378	75	1.41	108	245	8	361	\$125,650	Bachelor's degree	None	None	
17-2081	Environmental Engineers	2,699	2,909	210	7.78	76	136	21	233	\$96,990	Bachelor's degree	None	None	
17-2111	Health & Safety Engineers, Except Mining Safety Engineers & Inspectors	693	768	75	10.82	15	35	8	58	\$103,430	Bachelor's degree	None	None	
17-2112	Industrial Engineers	2,371	2,850	479	20.2	53	126	48	227	\$105,010	Bachelor's degree	None	None	
17-2121	Marine Engineers and Naval Architects	335	365	30	8.96	6	15	3	24	\$102,910	Bachelor's degree	None	None	
17-2131	Materials Engineers	600	640	40	6.67	13	26	4	43	\$126,070	Bachelor's degree	None	None	
17-2141	Mechanical Engineers	8,173	9,044	871	10.66	161	422	87	670	\$109,910	Bachelor's degree	None	None	
17-2151	Mining and Geological Engineers, Including Mining Safety Engineers	140	154	14	10	3	8	1	12	\$69,550	Bachelor's degree	None	None	
17-2161	Nuclear Engineers	753	775	22	2.92	14	34	2	50	\$164,200	Bachelor's degree	None	None	
17-2171	Petroleum Engineers	369	415	46	12.47	6	22	5	33	\$96,010	Bachelor's degree	None	None	
17-2199	Engineers, All Other	8,390	8,681	291	3.47	175	414	29	618	\$140,840	Bachelor's degree	None	None	
17-3000	Drafters, Engineering Technicians, and Mapping Technicians	21,685	23,597	1,912	8.82	738	1,546	191	2,475	N/A				
17-3011	Architectural and Civil Drafters	3,397	3,666	269	7.92	117	246	27	390	\$61,780	Associate's degree	None	None	
17-3012	Electrical and Electronics Drafters	1,515	1,725	210	13.86	54	113	21	188	\$71,640	Associate's degree	None	None	
17-3013	Mechanical Drafters	682	706	24	3.52	23	48	2	73	\$56,720	Associate's degree	None	None	
17-3019	Drafters, All Other	222	253	31	13.96	8	17	3	28	\$56,530	Associate's degree	None	None	
17-3021	Aerospace Engineering and Operations Technicians	235	282	47	20	8	17	5	30	\$63,230	Associate's degree	None	None	
17-3022	Civil Engineering Technicians	3,136	3,429	293	9.34	109	211	29	349	\$56,520	Associate's degree	None	None	
17-3023	Electrical and Electronics Engineering Technicians	3,985	4,348	363	9.11	138	268	36	442	\$72,340	Associate's degree	None	None	
17-3024	Electro-Mechanical Technicians	152	175	23	15.13	5	10	2	17	\$59,860	Associate's degree	None	None	
17-3025	Environmental Engineering Technicians	610	704	94	15.41	22	42	9	73	\$55,660	Associate's degree	None	None	
17-3026	Industrial Engineering Technicians	527	567	40	7.59	18	35	4	57	\$57,960	Associate's degree	None	None	
17-3027	Mechanical Engineering Technicians	634	726	92	14.51	22	44	9	75	\$55,490	Associate's degree	None	None	
17-3029	Engineering Technicians, Except Drafters, All Other	4,485	4,678	193	4.3	152	295	19	466	\$86,720	Associate's degree	None	None	
17-3031	Surveying and Mapping Technicians	2,105	2,338	233	11.07	62	199	23	284	\$54,530	HS diploma or equivalent	None	Moderate-term OJT	
19-0000	Life, Physical, and Social Science Occupations	70,594	75,168	4,574	6.48	1,472	5,751	457	7,680	\$103,290				
19-1000	Life Scientists	17,833	18,787	954	5.35	290	1,426	95	1,811	N/A				
19-1011	Animal Scientists	62	66	4	6.45	1	6	0	7	\$126,050	Bachelor's degree	None	None	
19-1012	Food Scientists and Technologists	253	278	25	9.88	5	24	2	31	\$82,650	Bachelor's degree	None	None	
19-1013	Soil and Plant Scientists	674	732	58	8.61	14	64	6	84	\$88,440	Bachelor's degree	None	None	
19-1021	Biochemists and Biophysicists	1,285	1,453	168	13.07	21	104	17	142	\$90,850	Doctoral or professional de	None	None	
19-1022	Microbiologists	2,784	2,806	22	0.79	43	213	2	258	\$106,660	Bachelor's degree	None	None	
19-1023	Zoologists and Wildlife Biologists	1,290	1,312	22	1.71	20	99	2	121	\$106,000	Bachelor's degree	None	None	
19-1029	Biological Scientists, All Other	4,030	4,084	54	1.34	63	309	5	377	\$97,850	Bachelor's degree	None	None	
19-1031	Conservation Scientists	2,180	2,220	40	1.83	42	186	4	232	\$86,980	Bachelor's degree	None	None	
19-1032	Foresters	434	433	-1	-0.23	8	37	0	45	\$66,100	Bachelor's degree	None	None	
19-1041	Epidemiologists	240	253	13	5.42	3	18	1	22	\$91,940	Master's degree	None	None	
19-1042	Medical Scientists, Except Epidemiologists	4,337	4,867	530	12.22	64	346	53	463	\$109,890	Doctoral or professional de	None	None	
19-1099	Life Scientists, All Other	264	283	19	7.2	4	20	2	26	\$96,350	Bachelor's degree	None	None	
19-2000	Physical Scientists	14,271	15,225	954	6.68	257	1,199	95	1,551	N/A				
19-2011	Astronomers	153	158	5	3.27	3	10	0	13	\$129,840	Doctoral or professional de	None	None	
19-2012	Physicists	1,151	1,256	105	9.12	22	75	10	107	\$135,150	Doctoral or professional de	None	None	
19-2021	Atmospheric and Space Scientists	716	729	13	1.82	14	57	1	72	\$113,150	Bachelor's degree	None	None	
19-2031	Chemists	2,622	2,699	77	2.94	43	196	8	247	\$122,760	Bachelor's degree	None	None	
19-2032	Materials Scientists	194	221	27	13.92	3	15	3	21	\$80,680	Bachelor's degree	None	None	

Table 2: WASHINGTON-ARLINGTON-ALEXANDRIA DC-VA-MD-WV METROPOLITAN STATISTICAL AREA Long-Term Occupational Projections, Separations, Openings, and Worker Characteristics, 2018 and projected 2028¹

Soccode	Occupational Title	Employment Projections				Occupational Separations, 2018-2028, annual average			Occupational			Worker Characteristics		
		2016	2026	Numeric	Percent	Exits	Transfers	Annual	2018-2028	Median	Typical Education	Work Experience	Typical on-the-job	
			Change 2018-2028			Labor Force	Occupational	Numeric Change	Openings	Annual Wage ²	Needed for Entry	in a related Occupation	training needed to attain competency	
19-2041	Environmental Scientists and Specialists, Including Health	5,520	6,114	594	10.76	107	521	59	687	\$105,660	Bachelor's degree	None	None	
19-2042	Geoscientists, Except Hydrologists and Geographers	1,207	1,316	109	9.03	23	113	11	147	\$108,930	Bachelor's degree	None	None	
19-2043	Hydrologists	859	891	32	3.73	16	78	3	97	\$97,640	Bachelor's degree	None	None	
19-2099	Physical Scientists, All Other	1,849	1,841	-8	-0.43	25	134	-1	158	\$143,780	Bachelor's degree	None	None	
19-3000	Social Scientists and Related Workers	19,632	20,965	1,333	6.79	462	1,360	133	1,955	N/A				
19-3011	Economists	5,523	6,122	599	10.85	83	344	60	487	\$123,940	Master's degree	None	None	
19-3022	Survey Researchers	596	584	-12	-2.01	18	49	-1	66	\$78,880	Master's degree	None	None	
19-3031	Clinical, Counseling, and School Psychologists	3,073	3,474	401	13.05	73	156	40	269	\$79,360	Doctoral or professional de	None	Internship/residency	
19-3032	Industrial-Organizational Psychologists	51	58	7	13.73	1	3	-1	5	\$129,920	Master's degree	None	Internship/residency	
19-3039	Psychologists, All Other	1,665	1,650	-15	-0.9	37	79	2	114	\$105,040	Master's degree	None	Internship/residency	
19-3041	Sociologists	230	260	30	13.04	8	20	3	31	\$75,160	Master's degree	None	None	
19-3051	Urban and Regional Planners	1,753	1,956	203	11.58	30	142	20	192	\$86,760	Master's degree	None	None	
19-3091	Anthropologists and Archeologists	516	554	38	7.36	17	45	4	66	\$88,540	Master's degree	None	None	
19-3092	Geographers	173	170	-3	-1.73	5	14	0	19	\$89,690	Bachelor's degree	None	None	
19-3093	Historians	202	206	4	1.98	6	17	0	23	\$103,440	Master's degree	None	None	
19-3094	Political Scientists	1,949	2,051	102	5.23	62	167	10	239	\$126,060	Master's degree	None	None	
19-3099	Social Scientists and Related Workers, All Other	3,901	3,880	-21	-0.54	122	324	-2	444	\$109,890	Bachelor's degree	None	None	
19-4000	Life, Physical, and Social Science Technicians	18,858	20,191	1,333	7.07	463	1,766	133	2,362	N/A				
19-4011	Agricultural and Food Science Technicians	417	467	50	11.99	9	44	5	58	\$36,540	Associate's degree	None	Moderate-term OJT	
19-4021	Biological Technicians	3,978	4,228	250	6.28	61	370	25	456	\$55,950	Bachelor's degree	None	None	
19-4031	Chemical Technicians	1,214	1,373	159	13.1	25	104	16	145	\$45,820	Associate's degree	None	Moderate-term OJT	
19-4041	Geological and Petroleum Technicians	294	337	43	14.63	4	28	4	36	\$45,930	Associate's degree	None	Moderate-term OJT	
19-4051	Nuclear Technicians	68	76	8	11.76	2	7	1	10	N/A	Associate's degree	None	Moderate-term OJT	
19-4061	Social Science Research Assistants	3,906	4,414	508	13.01	113	380	51	544	\$53,660	Bachelor's degree	None	None	
19-4091	Environmental Science and Protection Technicians, Including Health	1,345	1,528	183	13.61	39	131	18	188	\$55,160	Associate's degree	None	None	
19-4092	Forensic Science Technicians	661	757	96	14.52	19	65	10	94	\$77,220	Bachelor's degree	None	Moderate-term OJT	
19-4093	Forest and Conservation Technicians	4,209	4,104	-105	-2.49	113	379	-10	482	N/A	Associate's degree	None	None	
19-4099	Life, Physical, and Social Science Technicians, All Other	2,766	2,907	141	5.1	77	259	14	350	\$69,020	Associate's degree	None	None	
21-0000	Community and Social Service Occupations	59,832	67,265	7,433	12.42	2,136	4,537	743	7,416	\$56,240				
21-1000	Counselors, Social Workers, & Other Community & Social Service Special	57,745	64,931	7,186	12.44	2,023	4,383	719	7,125	N/A				
21-1012	Educational, Guidance, School, and Vocational Counselors	3,942	4,638	696	17.66	139	300	70	509	\$68,030	Master's degree	None	None	
21-1013	Marriage and Family Therapists	906	1,071	165	18.21	32	69	16	117	\$54,970	Master's degree	None	Internship/residency	
21-1015	Rehabilitation Counselors	3,711	4,175	464	12.5	128	276	46	450	\$38,970	Master's degree	None	None	
21-1018	Substance Abuse, Behavioral Disorder, and Mental Health Counselors	5,435	6,469	1,034	19.02	193	416	103	712	\$53,900	Bachelor's degree	None	None	
21-1019	Counselors, All Other	654	720	66	10.09	22	48	7	77	\$37,760	Master's degree	None	None	
21-1021	Child, Family, and School Social Workers	10,863	12,014	1,151	10.6	338	779	115	1,232	\$61,880	Bachelor's degree	None	None	
21-1022	Healthcare Social Workers	2,673	3,036	363	13.58	84	194	36	314	\$60,850	Master's degree	None	Internship/residency	
21-1023	Mental Health and Substance Abuse Social Workers	2,356	2,663	307	13.03	74	171	31	276	\$57,230	Master's degree	None	Internship/residency	
21-1029	Social Workers, All Other	3,977	3,947	-30	-0.75	117	270	-3	384	\$81,270	Bachelor's degree	None	None	
21-1091	Health Educators	1,734	1,834	100	5.77	66	135	10	211	\$88,460	Bachelor's degree	None	None	
21-1092	Probation Officers and Correctional Treatment Specialists	3,711	3,865	154	4.15	83	237	15	335	\$56,720	Bachelor's degree	None	Short-term OJT	
21-1093	Social and Human Service Assistants	11,397	13,273	1,876	16.46	493	973	188	1,654	\$39,340	HS diploma or equivalent	None	Short-term OJT	
21-1094	Community Health Workers	2,250	2,561	311	13.82	90	182	31	303	\$52,610	HS diploma or equivalent	None	Short-term OJT	
21-1099	Community and Social Service Specialists, All Other	4,136	4,665	529	12.79	164	333	53	550	\$53,060	Bachelor's degree	None	None	
21-2000	Religious Workers	2,087	2,334	247	11.84	112	154	25	291	N/A				
21-2011	Clergy	677	747	70	10.34	31	46	7	84	\$37,420	Bachelor's degree	None	Moderate-term OJT	
21-2021	Directors, Religious Activities and Education	638	714	76	11.91	33	50	8	91	\$65,730	Bachelor's degree	Less than 5 years	None	
21-2099	Religious Workers, All Other	772	873	101	13.08	48	58	10	116	\$33,170	Bachelor's degree	None	None	
23-0000	Legal Occupations	75,423	85,601	10,178	13.49	2,035	3,226	1,018	6,279	\$134,790				
23-1000	Lawyers, Judges, and Related Workers	51,120	57,400	6,280	12.28	1,160	1,439	628	3,227	N/A				

Table 2: WASHINGTON-ARLINGTON-ALEXANDRIA DC-VA-MD-WV METROPOLITAN STATISTICAL AREA Long-Term Occupational Projections, Separations, Openings, and Worker Characteristics, 2018 and projected 2028¹

Soccode	Occupational Title	Employment Projections				Occupational Separations, 2018-2028, annual average			Occupational			Worker Characteristics			
		2016	2026	Change 2018-2028	Numeric	Percent	Exits	Transfers	Annual	Numeric Change	2018-2028	Median	Typical Education	Worker Experience	Typical on-the-job
												Annual Wage ²	Needed for Entry	in a related Occupation	training needed to attain competency
23-1011	Lawyers	47,753	53,974	6,221	13.03	1,092	1,346	622	3,060	\$164,200	Doctoral or professional de	None	None		
23-1012	Judicial Law Clerks	691	715	24	3.47	10	22	2	34	N/A	Doctoral or professional de	None	None		
23-1021	Administrative Law Judges, Adjudicators, and Hearing Officers	1,235	1,218	-17	-1.38	26	32	-2	56	\$134,420	Doctoral or professional de	5 years or more	Short-term OJT		
23-1022	Arbitrators, Mediators, and Conciliators	238	249	11	4.62	5	6	1	12	N/A	Bachelor's degree	Less than 5 years	Moderate-term OJT		
23-1023	Judges, Magistrate Judges, and Magistrates	1,203	1,244	41	3.41	26	32	4	62	\$156,670	Doctoral or professional de	5 years or more	Short-term OJT		
23-2000	Legal Support Workers	24,303	28,201	3,898	16.04	875	1,787	390	3,052	N/A					
23-2011	Paralegals and Legal Assistants	17,682	21,478	3,796	21.47	653	1,418	380	2,451	\$63,750	Associate's degree	None	None		
23-2091	Court Reporters	470	490	20	4.26	16	26	2	44	\$53,100	Postsecondary non-degree	None	Short-term OJT		
23-2093	Title Examiners, Abstractors, and Searchers	1,864	1,965	101	5.42	64	106	10	180	\$45,780	HS diploma or equivalent	None	Moderate-term OJT		
23-2099	Legal Support Workers, All Other	4,287	4,268	-19	-0.44	142	236	-2	376	\$107,290	Associate's degree	None	None		
25-0000	Education, Training, and Library Occupations	87,596	99,111	11,515	13.15	4,280	4,745	1,152	10,177	\$57,810					
25-1000	Postsecondary Teachers	20,441	23,860	3,419	16.73	815	1,016	342	2,173	N/A					
25-1011	Business Teachers, Postsecondary	1,095	1,358	263	24.02	45	56	26	127	\$87,180	Doctoral or professional de	None	None		
25-1021	Computer Science Teachers, Postsecondary	369	417	48	13.01	14	18	5	37	\$87,140	Doctoral or professional de	None	None		
25-1022	Mathematical Science Teachers, Postsecondary	455	511	56	12.31	18	22	6	46	\$69,000	Doctoral or professional de	None	None		
25-1031	Architecture Teachers, Postsecondary	99	111	12	12.12	4	5	1	10	\$88,240	Doctoral or professional de	None	None		
25-1032	Engineering Teachers, Postsecondary	518	608	90	17.37	21	26	9	56	\$115,520	Doctoral or professional de	None	None		
25-1041	Agricultural Sciences Teachers, Postsecondary	144	157	13	9.03	6	7	1	14	\$77,890	Doctoral or professional de	None	None		
25-1042	Biological Science Teachers, Postsecondary	629	745	116	18.44	25	32	12	69	\$82,560	Doctoral or professional de	None	None		
25-1051	Atmospheric, Earth, Marine, & Space Sciences Teachers, Postsecondary	128	143	15	11.72	5	6	2	13	\$103,390	Doctoral or professional de	None	None		
25-1052	Chemistry Teachers, Postsecondary	262	297	35	13.36	10	13	4	27	\$70,560	Doctoral or professional de	None	None		
25-1053	Environmental Science Teachers, Postsecondary	79	88	9	11.39	3	4	1	8	\$82,840	Doctoral or professional de	None	None		
25-1054	Physics Teachers, Postsecondary	178	200	22	12.36	7	9	2	18	\$121,440	Doctoral or professional de	None	None		
25-1061	Anthropology and Archeology Teachers, Postsecondary	77	87	10	12.99	3	4	1	8	\$90,170	Doctoral or professional de	None	None		
25-1062	Area, Ethnic, and Cultural Studies Teachers, Postsecondary	139	157	18	12.95	5	7	2	14	\$85,530	Doctoral or professional de	None	None		
25-1063	Economics Teachers, Postsecondary	181	205	24	13.26	7	9	2	18	\$99,620	Doctoral or professional de	None	None		
25-1064	Geography Teachers, Postsecondary	50	55	5	10	2	2	0	4	\$93,490	Doctoral or professional de	None	None		
25-1065	Political Science Teachers, Postsecondary	223	253	30	13.45	9	11	3	23	\$101,290	Doctoral or professional de	None	None		
25-1066	Psychology Teachers, Postsecondary	487	582	95	19.51	20	24	10	54	\$78,610	Doctoral or professional de	None	None		
25-1067	Sociology Teachers, Postsecondary	163	185	22	13.5	6	8	2	16	\$96,550	Doctoral or professional de	None	None		
25-1069	Social Sciences Teachers, Postsecondary, All Other	149	166	17	11.41	6	7	2	15	\$86,240	Doctoral or professional de	None	None		
25-1071	Health Specialties Teachers, Postsecondary	2,888	3,748	860	29.78	122	152	86	360	\$91,250	Doctoral or professional de	Less than 5 years	None		
25-1072	Nursing Instructors and Teachers, Postsecondary	671	874	203	30.25	28	35	20	83	\$99,720	Doctoral or professional de	Less than 5 years	None		
25-1081	Education Teachers, Postsecondary	909	1,028	119	13.09	36	44	12	92	\$61,620	Doctoral or professional de	Less than 5 years	None		
25-1082	Library Science Teachers, Postsecondary	62	69	7	11.29	2	3	1	6	N/A	Doctoral or professional de	None	None		
25-1111	Criminal Justice and Law Enforcement Teachers, Postsecondary	120	143	23	19.17	5	6	2	13	\$63,090	Doctoral or professional de	None	None		
25-1112	Law Teachers, Postsecondary	271	312	41	15.13	11	13	4	28	\$101,000	Doctoral or professional de	Less than 5 years	None		
25-1113	Social Work Teachers, Postsecondary	179	202	23	12.85	7	9	2	18	\$85,680	Doctoral or professional de	None	None		
25-1121	Art, Drama, and Music Teachers, Postsecondary	1,375	1,583	208	15.13	54	68	21	143	\$64,600	Master's degree	None	None		
25-1122	Communications Teachers, Postsecondary	345	389	44	12.75	14	17	4	35	\$65,830	Doctoral or professional de	None	None		
25-1123	English Language and Literature Teachers, Postsecondary	688	779	91	13.23	27	34	9	70	\$64,750	Doctoral or professional de	None	None		
25-1124	Foreign Language and Literature Teachers, Postsecondary	354	408	54	15.25	14	18	5	37	\$63,790	Doctoral or professional de	None	None		
25-1125	History Teachers, Postsecondary	251	284	33	13.15	10	12	3	25	\$72,770	Doctoral or professional de	None	None		
25-1126	Philosophy and Religion Teachers, Postsecondary	337	391	54	16.02	13	17	5	35	\$75,160	Doctoral or professional de	None	None		
25-1191	Graduate Teaching Assistants	1,951	2,145	194	9.94	75	94	19	188	\$46,740	Bachelor's degree	None	None		
25-1193	Recreation and Fitness Studies Teachers, Postsecondary	178	200	22	12.36	7	9	2	18	\$50,000	Doctoral or professional de	None	None		
25-1194	Vocational Education Teachers, Postsecondary	2,242	2,520	278	12.4	88	109	28	225	\$49,980	Bachelor's degree	Less than 5 years	None		
25-1199	Postsecondary Teachers, All Other	2,144	2,404	260	12.13	84	104	26	214	\$63,700	Doctoral or professional de	None	None		
25-2000	Preschool, Primary, Secondary, and Special Education School Teachers	20,629	23,671	3,042	14.75	724	1,043	304	2,071	N/A					
25-2011	Preschool Teachers, Except Special Education	4,809	5,508	699	14.54	204	314	70	588	\$34,390	Associate's degree	None	None		

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Soccode	Occupational Title	Employment Projections				Occupational Separations, 2018-2028, annual average			Occupational			Worker Characteristics		
		2016	2026	Numeric	Percent	Exits	Transfers	Annual	2018-2028	Median	Typical Education	Work Experience	Typical on-the-job	
			Change 2018-2028					Numeric Change	Openings	Annual Wage ²	Needed for Entry	in a related Occupation	training needed to attain competency	
25-2012	Kindergarten Teachers, Except Special Education	468	543	75	16.03	20	31	8	59	\$66,850	Bachelor's degree	None	None	
25-2021	Elementary School Teachers, Except Special Education	5,207	6,021	814	15.63	175	239	81	495	\$74,660	Bachelor's degree	None	None	
25-2022	Middle School Teachers, Except Special & Career/Technical Education	2,249	2,604	355	15.78	76	104	36	216	\$74,300	Bachelor's degree	None	None	
25-2031	Secondary School Teachers, Except Special & Career/Technical Education	4,906	5,598	692	14.11	146	222	69	437	\$75,620	Bachelor's degree	None	None	
25-2032	Career/Technical Education Teachers, Secondary School	314	357	43	13.69	9	14	4	27	\$72,610	Bachelor's degree	Less than 5 years	None	
25-2051	Special Education Teachers, Preschool	128	143	15	11.72	4	6	2	12	\$74,200	Bachelor's degree	None	None	
25-2052	Special Education Teachers, Kindergarten and Elementary School	888	1,021	133	14.98	32	40	13	85	\$71,640	Bachelor's degree	None	None	
25-2053	Special Education Teachers, Middle School	405	458	53	13.09	14	18	5	37	\$79,350	Bachelor's degree	None	None	
25-2054	Special Education Teachers, Secondary School	649	734	85	13.1	23	29	8	60	\$69,900	Bachelor's degree	None	None	
25-2059	Special Education Teachers, All Other	606	684	78	12.87	21	27	8	56	\$74,980	Bachelor's degree	None	None	
25-3000	Other Teachers and Instructors	23,765	26,566	2,801	11.79	1,453	1,416	280	3,149	N/A				
25-3011	Adult Basic & Secondary Education & Literacy Teachers & Instructors	878	856	-22	-2.51	50	49	-2	97	\$54,750	Bachelor's degree	None	None	
25-3021	Self-Enrichment Education Teachers	8,866	10,195	1,329	14.99	550	536	133	1,219	\$44,380	HS diploma or equivalent	Less than 5 years	None	
25-3097	Teachers and Instructors, All Other, Except Substitute Teachers	9,791	10,761	970	9.91	593	578	97	1,268	\$48,370	Bachelor's degree	None	None	
25-3098	Substitute Teachers	4,230	4,754	524	12.39	259	253	52	564	\$29,600	Bachelor's degree	None	None	
25-4000	Librarians, Curators, and Archivists	7,187	7,474	287	3.99	480	410	29	919	N/A				
25-4011	Archivists	277	295	18	6.5	13	18	2	33	\$70,740	Master's degree	None	None	
25-4012	Curators	303	326	23	7.59	14	20	2	36	\$77,530	Master's degree	None	None	
25-4013	Museum Technicians and Conservators	699	720	21	3	32	45	2	79	\$63,740	Bachelor's degree	None	None	
25-4021	Librarians	3,115	3,389	274	8.8	175	149	27	351	\$80,780	Master's degree	None	None	
25-4031	Library Technicians	2,793	2,744	-49	-1.75	247	178	-5	420	\$43,450	Postsecondary non-degree	None	None	
25-9000	Other Education, Training, and Library Occupations	15,574	17,540	1,966	12.62	807	860	197	1,864	N/A				
25-9011	Audio-Visual and Multimedia Collections Specialists	93	104	11	11.83	4	5	1	10	\$60,800	Bachelor's degree	Less than 5 years	None	
25-9021	Farm and Home Management Advisors	165	181	16	9.7	7	9	2	18	\$59,350	Master's degree	None	None	
25-9031	Instructional Coordinators	3,214	3,589	375	11.67	142	175	38	355	\$81,540	Master's degree	5 years or more	None	
25-9041	Teacher Assistants	9,575	10,945	1,370	14.31	544	537	137	1,218	\$30,180	Some college, no degree	None	None	
25-9099	Education, Training, and Library Workers, All Other	2,527	2,721	194	7.68	109	135	19	263	\$63,250	Bachelor's degree	None	None	
27-0000	Arts, Design, Entertainment, Sports, and Media Occupations	103,190	109,575	6,385	6.19	3,739	7,675	638	12,052	\$73,000				
27-1000	Art and Design Workers	22,664	23,344	680	3	872	1,482	68	2,422	N/A				
27-1011	Art Directors	3,166	3,208	42	1.33	163	183	4	350	\$74,960	Bachelor's degree	5 years or more	None	
27-1012	Craft Artists	220	210	-10	-4.55	11	12	-1	22	N/A	No formal educational cred	None	Long-term OJT	
27-1013	Fine Artists, Including Painters, Sculptors, and Illustrators	635	610	-25	-3.94	32	36	-2	66	\$51,550	Bachelor's degree	None	Long-term OJT	
27-1014	Multimedia Artists and Animators	1,967	1,992	25	1.27	101	114	2	217	\$65,500	Bachelor's degree	None	None	
27-1019	Artists and Related Workers, All Other	732	706	-26	-3.55	37	41	-3	75	\$96,980	No formal educational cred	None	Long-term OJT	
27-1021	Commercial and Industrial Designers	645	691	46	7.13	22	45	5	72	\$62,090	Bachelor's degree	None	None	
27-1022	Fashion Designers	270	276	6	2.22	9	18	1	28	N/A	Bachelor's degree	None	None	
27-1023	Floral Designers	1,273	1,331	58	4.56	42	88	6	136	\$30,920	HS diploma or equivalent	None	Moderate-term OJT	
27-1024	Graphic Designers	8,943	9,305	362	4.05	296	614	36	946	\$68,490	Bachelor's degree	None	None	
27-1025	Interior Designers	2,007	2,158	151	7.52	68	140	15	223	\$58,110	Bachelor's degree	None	None	
27-1026	Merchandise Displayers and Window Trimmers	2,186	2,200	14	0.64	71	148	1	220	\$29,740	HS diploma or equivalent	None	Short-term OJT	
27-1027	Set and Exhibit Designers	344	359	15	4.36	11	24	2	37	\$69,150	Bachelor's degree	None	None	
27-1029	Designers, All Other	276	298	22	7.97	9	19	2	30	\$66,000	Bachelor's degree	None	None	
27-2000	Entertainers and Performers, Sports and Related Workers	16,466	17,340	874	5.31	746	1,340	87	2,173	N/A				
27-2011	Actors	1,007	1,001	-6	-0.6	38	81	-1	118	N/A	Some college, no degree	None	Long-term OJT	
27-2012	Producers and Directors	5,107	5,533	426	8.34	116	406	43	565	\$83,490	Bachelor's degree	Less than 5 years	None	
27-2021	Athletes and Sports Competitors	73	75	2	2.74	4	7	0	11	\$38,250	No formal educational cred	None	Long-term OJT	
27-2022	Coaches and Scouts	4,686	5,330	644	13.74	283	448	64	795	\$37,270	Bachelor's degree	None	None	
27-2023	Umpires, Referees, and Other Sports Officials	429	456	27	6.29	25	40	3	68	\$26,390	HS diploma or equivalent	None	Moderate-term OJT	
27-2031	Dancers	361	362	1	0.28	22	40	0	62	N/A	No formal educational cred	None	Long-term OJT	
27-2032	Choreographers	399	393	-6	-1.5	24	44	-1	67	\$63,840	HS diploma or equivalent	5 years or more	Long-term OJT	

Table 2: WASHINGTON-ARLINGTON-ALEXANDRIA DC-VA-MD-WV METROPOLITAN STATISTICAL AREA Long-Term Occupational Projections, Separations, Openings, and Worker Characteristics, 2018 and projected 2028¹

Soccode	Occupational Title	Employment Projections				Occupational Separations, 2018-2028, annual average			Occupational			Worker Characteristics		
		2016	2026	Change 2018-2028		Exits	Transfers	Annual	2018-2028	Median	Typical Education	Work Experience	Typical on-the-job	
				Numeric	Percent			Numeric Change		Annual Wage ²	Needed for Entry	in a related Occupation	training needed to attain competency	
27-2041	Music Directors and Composers	714	674	-40	-5.6	40	43	-4	79	\$50,350	Bachelor's degree	Less than 5 years	None	
27-2042	Musicians and Singers	2,806	2,643	-163	-5.81	156	169	-16	309	N/A	No formal educational cred	None	Long-term OJT	
27-2099	Entertainers and Performers, Sports and Related Workers, All Other	884	873	-11	-1.24	38	63	-1	100	N/A	No formal educational cred	None	Short-term OJT	
27-3000	Media and Communication Workers	54,555	58,688	4,133	7.58	1,788	4,176	413	6,377	N/A				
27-3011	Radio and Television Announcers	884	880	-4	-0.45	36	66	0	102	\$54,570	Bachelor's degree	None	None	
27-3012	Public Address System and Other Announcers	100	92	-8	-8	4	7	-1	10	\$37,160	HS diploma or equivalent	None	Short-term OJT	
27-3021	Broadcast News Analysts	269	303	34	12.64	10	25	3	38	\$91,890	Bachelor's degree	None	None	
27-3022	Reporters and Correspondents	2,745	2,869	124	4.52	97	247	12	356	\$81,720	Bachelor's degree	None	None	
27-3031	Public Relations Specialists	36,787	39,936	3,149	8.56	1,133	2,852	315	4,300	\$85,640	Bachelor's degree	None	None	
27-3041	Editors	6,099	6,431	332	5.44	190	494	33	717	\$76,810	Bachelor's degree	Less than 5 years	None	
27-3042	Technical Writers	1,927	2,223	296	15.36	65	137	30	232	\$83,370	Bachelor's degree	Less than 5 years	Short-term OJT	
27-3043	Writers and Authors	3,836	3,779	-57	-1.49	162	234	-6	390	\$92,430	Bachelor's degree	None	Long-term OJT	
27-3091	Interpreters and Translators	1,465	1,688	223	15.22	70	88	22	180	\$78,800	Bachelor's degree	None	None	
27-3099	Media and Communication Workers, All Other	443	487	44	9.93	21	26	4	51	\$60,770	HS diploma or equivalent	None	Short-term OJT	
27-4000	Media and Communication Equipment Workers	9,505	10,203	698	7.34	332	678	70	1,080	N/A				
27-4011	Audio and Video Equipment Technicians	2,583	2,933	350	13.55	91	203	35	329	\$56,720	Postsecondary non-degree	None	Short-term OJT	
27-4012	Broadcast Technicians	810	901	91	11.23	28	63	9	100	\$73,040	Associate's degree	None	Short-term OJT	
27-4014	Sound Engineering Technicians	248	245	-3	-1.21	8	18	0	26	\$49,830	Postsecondary non-degree	None	Short-term OJT	
27-4021	Photographers	3,378	3,465	87	2.58	131	208	9	348	\$46,550	HS diploma or equivalent	None	Moderate-term OJT	
27-4031	Camera Operators, Television, Video, and Motion Picture	810	910	100	12.35	23	61	10	94	\$73,440	Bachelor's degree	None	None	
27-4032	Film and Video Editors	778	878	100	12.85	22	59	10	91	\$69,660	Bachelor's degree	None	None	
27-4099	Media and Communication Equipment Workers, All Other	881	854	-27	-3.06	29	64	-3	90	\$106,020	HS diploma or equivalent	None	Short-term OJT	
29-0000	Healthcare Practitioners and Technical Occupations	181,224	199,954	18,730	10.34	4,930	5,532	1,873	12,335	\$80,000				
29-1000	Health Diagnosing and Treating Practitioners	116,883	128,664	11,781	10.08	2,942	2,848	1,178	6,968	N/A				
29-1011	Chiropractors	1,063	1,069	6	0.56	19	10	1	30	\$72,690	Doctoral or professional de	None	None	
29-1021	Dentists, General	3,092	3,425	333	10.77	70	28	33	131	\$186,440	Doctoral or professional de	None	None	
29-1022	Oral and Maxillofacial Surgeons	127	140	13	10.24	3	1	1	5	N/A	Doctoral or professional de	None	Internship/residency	
29-1023	Orthodontists	144	159	15	10.42	3	1	2	6	N/A	Doctoral or professional de	None	Internship/residency	
29-1029	Dentists, All Other Specialists	444	436	-8	-1.8	10	4	-1	13	\$146,370	Doctoral or professional de	None	Internship/residency	
29-1031	Dietitians and Nutritionists	1,938	2,085	147	7.59	65	61	15	141	\$68,020	Bachelor's degree	None	Internship/residency	
29-1041	Optometrists	1,374	1,522	148	10.77	27	16	15	58	\$124,800	Doctoral or professional de	None	None	
29-1051	Pharmacists	6,801	6,784	-17	-0.25	160	145	-2	303	\$125,870	Doctoral or professional de	None	None	
29-1061	Anesthesiologists	613	677	64	10.44	11	8	6	25	N/A	Doctoral or professional de	None	Internship/residency	
29-1062	Family and General Practitioners	2,263	2,569	306	13.52	40	31	31	102	\$161,570	Doctoral or professional de	None	Internship/residency	
29-1063	Internists, General	719	769	50	6.95	12	10	5	27	\$129,380	Doctoral or professional de	None	Internship/residency	
29-1064	Obstetricians and Gynecologists	375	398	23	6.13	6	5	2	13	\$196,030	Doctoral or professional de	None	Internship/residency	
29-1065	Pediatricians, General	571	611	40	7.01	10	8	4	22	\$146,020	Doctoral or professional de	None	Internship/residency	
29-1066	Psychiatrists	556	649	93	16.73	10	8	9	27	N/A	Doctoral or professional de	None	Internship/residency	
29-1067	Surgeons	657	698	41	6.24	11	9	4	24	N/A	Doctoral or professional de	None	Internship/residency	
29-1069	Physicians and Surgeons, All Other	12,956	13,594	638	4.92	218	170	64	452	\$186,240	Doctoral or professional de	None	Internship/residency	
29-1071	Physician Assistants	2,194	2,922	728	33.18	39	106	73	218	\$108,940	Master's degree	None	None	
29-1081	Podiatrists	328	323	-5	-1.52	8	11	0	19	\$149,050	Doctoral or professional de	None	Internship/residency	
29-1122	Occupational Therapists	1,993	2,256	263	13.2	47	72	26	145	\$95,710	Master's degree	None	None	
29-1123	Physical Therapists	4,184	4,852	668	15.97	83	106	67	256	\$90,230	Doctoral or professional de	None	None	
29-1124	Radiation Therapists	257	295	38	14.79	4	9	4	17	\$86,660	Associate's degree	None	None	
29-1125	Recreational Therapists	703	777	74	10.53	15	20	7	42	\$55,070	Bachelor's degree	None	None	
29-1126	Respiratory Therapists	1,658	2,048	390	23.52	51	47	39	137	\$70,380	Associate's degree	None	None	
29-1127	Speech-Language Pathologists	2,038	2,534	496	24.34	45	77	50	172	\$92,620	Master's degree	None	Internship/residency	
29-1128	Exercise Physiologists	426	446	20	4.69	10	14	2	26	\$63,580	Bachelor's degree	None	None	
29-1129	Therapists, All Other	652	733	81	12.42	16	22	8	46	\$79,220	Bachelor's degree	None	None	

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Soccode	Occupational Title	Employment Projections				Occupational Separations, 2018-2028, annual average			Occupational			Worker Characteristics		
		2016	2026	Change 2018-2028		Exits	Transfers	Annual	2018-2028	Median	Typical Education	Work Experience	Typical on-the-job	
				Numeric	Percent			Numeric Change		Annual Wage ²	Needed for Entry	in a related Occupation	training needed to attain competency	
29-1131	Veterinarians	2,014	2,079	65	3.23	39	40	6	85	\$115,910	Doctoral or professional de	None	None	
29-1141	Registered Nurses	59,058	64,949	5,891	9.97	1,721	1,590	589	3,900	\$79,520	Bachelor's degree	None	None	
29-1151	Nurse Anesthetists	701	865	164	23.4	12	26	16	54	\$182,070	Master's degree	None	None	
29-1161	Nurse Midwives	109	127	18	16.51	2	4	2	8	\$97,530	Master's degree	None	None	
29-1171	Nurse Practitioners	3,073	4,046	973	31.66	70	120	97	287	\$111,850	Master's degree	None	None	
29-1181	Audiologists	185	214	29	15.68	4	4	3	11	\$88,420	Doctoral or professional de	None	None	
29-1199	Health Diagnosing and Treating Practitioners, All Other	3,608	3,602	-6	-0.17	102	65	-1	166	\$136,660	Master's degree	None	None	
29-2000	Health Technologists and Technicians	58,715	65,288	6,573	11.19	1,855	2,490	657	5,002	N/A				
29-2010	Clinical Laboratory Technologists and Technicians	6,912	7,665	753	10.89	201	259	75	535	\$57,110	Bachelor's degree	None	None	
29-2021	Dental Hygienists	4,710	5,549	839	17.81	214	130	84	428	\$92,510	Associate's degree	None	None	
29-2031	Cardiovascular Technologists and Technicians	765	856	91	11.9	20	24	9	53	\$53,890	Associate's degree	None	None	
29-2032	Diagnostic Medical Sonographers	1,086	1,368	282	25.97	30	37	28	95	\$85,490	Associate's degree	None	None	
29-2033	Nuclear Medicine Technologists	282	315	33	11.7	7	9	3	19	\$83,380	Associate's degree	None	None	
29-2034	Radiologic Technologists	4,058	4,458	400	9.86	105	129	40	274	\$72,550	Associate's degree	None	None	
29-2035	Magnetic Resonance Imaging Technologists	613	713	100	16.31	16	20	10	46	\$85,600	Associate's degree	Less than 5 years	None	
29-2041	Emergency Medical Technicians and Paramedics	4,971	5,357	386	7.77	92	251	39	382	\$48,660	Postsecondary non-degree	None	None	
29-2051	Dietetic Technicians	612	682	70	11.44	19	34	7	60	\$31,480	Associate's degree	None	None	
29-2052	Pharmacy Technicians	6,026	6,546	520	8.63	182	325	52	559	\$35,120	HS diploma or equivalent	None	Moderate-term OJT	
29-2053	Psychiatric Technicians	1,346	1,550	204	15.16	42	75	20	137	\$36,050	Postsecondary non-degree	Less than 5 years	Short-term OJT	
29-2054	Respiratory Therapy Technicians	110	50	-60	-54.55	2	4	-6	0	\$72,060	Associate's degree	None	None	
29-2055	Surgical Technologists	1,545	1,723	178	11.52	47	84	18	149	\$60,130	Postsecondary non-degree	None	None	
29-2056	Veterinary Technologists and Technicians	798	876	78	9.77	24	43	8	75	\$37,330	Associate's degree	None	None	
29-2057	Ophthalmic Medical Technicians	888	1,052	164	18.47	28	50	16	94	\$40,830	Postsecondary non-degree	None	None	
29-2061	Licensed Practical and Licensed Vocational Nurses	14,237	15,685	1,448	10.17	508	632	145	1,285	\$51,390	Postsecondary non-degree	None	None	
29-2071	Medical Records and Health Information Technicians	4,761	5,346	585	12.29	149	173	58	380	\$44,120	Postsecondary non-degree	None	None	
29-2081	Opticians, Dispensing	2,013	2,243	230	11.43	84	84	23	191	\$48,360	HS diploma or equivalent	None	Long-term OJT	
29-2091	Orthotists and Prosthetists	208	215	7	3.37	6	9	1	16	\$70,170	Master's degree	None	Internship/residency	
29-2092	Hearing Aid Specialists	40	47	7	17.5	1	2	1	4	\$37,990	HS diploma or equivalent	None	Moderate-term OJT	
29-2099	Health Technologists and Technicians, All Other	2,734	2,992	258	9.44	78	116	26	220	\$48,910	Postsecondary non-degree	None	None	
29-9000	Other Healthcare Practitioners and Technical Occupations	5,626	6,002	376	6.68	133	194	38	365	N/A				
29-9011	Occupational Health and Safety Specialists	3,210	3,396	186	5.79	76	110	19	205	\$85,390	Bachelor's degree	None	None	
29-9012	Occupational Health and Safety Technicians	599	651	52	8.68	14	21	5	40	\$59,610	HS diploma or equivalent	None	Moderate-term OJT	
29-9091	Athletic Trainers	394	469	75	19.04	10	14	8	32	\$53,850	Bachelor's degree	None	None	
29-9092	Genetic Counselors	52	68	16	30.77	1	2	2	5	\$84,690	Master's degree	None	None	
29-9099	Healthcare Practitioners and Technical Workers, All Other	1,371	1,418	47	3.43	32	46	5	83	\$106,670	Postsecondary non-degree	None	None	
31-0000	Healthcare Support Occupations	76,188	90,514	14,326	18.8	4,170	5,217	1,433	10,820	\$31,980				
31-1000	Nursing, Psychiatric, and Home Health Aides	44,115	52,481	8,366	18.96	2,596	2,816	837	6,249	N/A				
31-1011	Home Health Aides	17,817	22,695	4,878	27.38	1,089	1,181	488	2,758	\$27,920	HS diploma or equivalent	None	Short-term OJT	
31-1013	Psychiatric Aides	2,759	3,376	617	22.36	165	179	62	406	\$26,910	HS diploma or equivalent	None	Short-term OJT	
31-1014	Nursing Assistants	22,592	25,370	2,778	12.3	1,289	1,398	278	2,965	\$30,380	Postsecondary non-degree	None	None	
31-1015	Orderlies	947	1,040	93	9.82	53	58	9	120	\$29,340	HS diploma or equivalent	None	Short-term OJT	
31-2000	Occupational Therapy and Physical Therapist Assistants and Aides	2,808	3,395	587	20.9	134	240	59	433	N/A				
31-2011	Occupational Therapy Assistants	533	688	155	29.08	26	40	16	82	\$69,480	Associate's degree	None	None	
31-2012	Occupational Therapy Aides	100	112	12	12	5	7	1	13	\$30,920	HS diploma or equivalent	None	Short-term OJT	
31-2021	Physical Therapist Assistants	1,389	1,683	294	21.17	66	124	29	219	\$55,670	Associate's degree	None	None	
31-2022	Physical Therapist Aides	786	912	126	16.03	36	69	13	118	\$26,740	HS diploma or equivalent	None	Short-term OJT	
31-9000	Other Healthcare Support Occupations	29,265	34,638	5,373	18.36	1,440	2,161	537	4,138	N/A				
31-9011	Massage Therapists	2,733	3,036	303	11.09	180	156	30	366	\$39,660	Postsecondary non-degree	None	None	
31-9091	Dental Assistants	7,755	9,072	1,317	16.98	390	553	132	1,075	\$47,460	Postsecondary non-degree	None	None	
31-9092	Medical Assistants	11,101	14,146	3,045	27.43	493	898	304	1,695	\$37,420	Postsecondary non-degree	None	None	

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Soccode	Occupational Title	Employment Projections				Occupational Separations, 2018-2028, annual average			Occupational		Worker Characteristics		
		2016	2026	Numeric	Percent	Exits	Transfers	Annual	2018-2028	Median	Typical Education	Work Experience	Typical on-the-job
				Change 2018-2028				Numeric Change		Annual Wage ²	Needed for Entry	in a related Occupation	training needed to attain competency
31-9093	Medical Equipment Preparers	785	879	94	11.97	41	54	9	104	\$39,480	HS diploma or equivalent	None	Moderate-term OJT
31-9094	Medical Transcriptionists	872	854	-18	-2.06	52	68	-2	118	\$40,660	Postsecondary non-degree	None	None
31-9095	Pharmacy Aides	144	139	-5	-3.47	7	11	0	18	\$28,310	HS diploma or equivalent	None	Short-term OJT
31-9096	Veterinary Assistants and Laboratory Animal Caretakers	294	330	36	12.24	17	33	4	54	\$27,540	HS diploma or equivalent	None	Short-term OJT
31-9097	Phlebotomists	2,163	2,728	565	26.12	91	167	56	314	\$39,530	Postsecondary non-degree	None	None
31-9099	Healthcare Support Workers, All Other	3,418	3,454	36	1.05	169	222	4	395	\$44,760	HS diploma or equivalent	None	None
33-0000	Protective Service Occupations	149,015	156,539	7,524	5.05	6,362	8,905	752	16,019	\$53,560			
33-1000	Supervisors of Protective Service Workers	14,596	15,061	465	3.19	421	647	46	1,114	N/A			
33-1011	First-Line Supervisors of Correctional Officers	2,045	1,910	-135	-6.6	62	77	-14	125	\$84,570	HS diploma or equivalent	Less than 5 years	None
33-1012	First-Line Supervisors of Police and Detectives	5,744	5,965	221	3.85	142	220	22	384	\$108,100	HS diploma or equivalent	Less than 5 years	Moderate-term OJT
33-1021	First-Line Supervisors of Fire Fighting and Prevention Workers	3,004	3,159	155	5.16	76	119	16	211	\$104,620	Postsecondary non-degree	Less than 5 years	Moderate-term OJT
33-1099	First-Line Supervisors of Protective Service Workers, All Other	3,803	4,027	224	5.89	141	232	22	395	\$59,310	HS diploma or equivalent	Less than 5 years	None
33-2000	Fire Fighting and Prevention Workers	15,186	15,981	795	5.24	295	780	80	1,155	N/A			
33-2011	Firefighters	14,614	15,363	749	5.13	270	750	75	1,095	\$62,460	Postsecondary non-degree	None	Long-term OJT
33-2021	Fire Inspectors and Investigators	488	513	25	5.12	21	25	2	48	N/A	Postsecondary non-degree	5 years or more	Moderate-term OJT
33-2022	Forest Fire Inspectors and Prevention Specialists	84	105	21	25	4	5	2	11	N/A	HS diploma or equivalent	Less than 5 years	Moderate-term OJT
33-3000	Law Enforcement Workers	61,047	61,097	50	0.08	1,726	2,868	5	4,599	N/A			
33-3011	Bailiffs	803	799	-4	-0.5	30	40	0	70	\$39,160	HS diploma or equivalent	None	Moderate-term OJT
33-3012	Correctional Officers and Jailers	20,110	18,937	-1,173	-5.83	743	978	-117	1,604	\$55,840	HS diploma or equivalent	None	Moderate-term OJT
33-3021	Detectives and Criminal Investigators	9,834	9,721	-113	-1.15	208	420	-11	617	\$133,340	HS diploma or equivalent	Less than 5 years	Moderate-term OJT
33-3031	Fish and Game Wardens	249	254	5	2.01	6	12	0	18	N/A	Bachelor's degree	None	Moderate-term OJT
33-3041	Parking Enforcement Workers	306	194	-112	-36.6	6	12	-11	7	\$49,140	HS diploma or equivalent	None	Short-term OJT
33-3051	Police and Sheriff's Patrol Officers	29,615	31,056	1,441	4.87	729	1,399	144	2,272	\$71,120	HS diploma or equivalent	None	Moderate-term OJT
33-3052	Transit and Railroad Police	130	136	6	4.62	3	6	1	10	\$86,570	HS diploma or equivalent	None	Moderate-term OJT
33-9000	Other Protective Service Workers	58,186	64,400	6,214	10.68	3,920	4,610	621	9,151	N/A			
33-9011	Animal Control Workers	516	547	31	6.01	22	28	3	53	\$47,150	HS diploma or equivalent	None	Moderate-term OJT
33-9021	Private Detectives and Investigators	832	970	138	16.59	30	48	14	92	\$70,400	HS diploma or equivalent	Less than 5 years	Moderate-term OJT
33-9031	Gaming Surveillance Officers and Gaming Investigators	266	280	14	5.26	14	21	1	36	N/A	HS diploma or equivalent	Less than 5 years	Moderate-term OJT
33-9032	Security Guards	37,417	42,705	5,288	14.13	2,044	3,113	529	5,686	\$40,210	HS diploma or equivalent	None	Short-term OJT
33-9091	Crossing Guards	4,511	5,069	558	12.37	564	221	56	841	\$30,970	No formal educational cred	None	Short-term OJT
33-9092	Lifeguards, Ski Patrol, & Other Recreational Protective Service Workers	3,232	3,477	245	7.58	441	369	24	834	\$21,430	No formal educational cred	None	Short-term OJT
33-9093	Transportation Security Screeners	7,816	7,579	-237	-3.03	320	406	-24	702	\$42,060	HS diploma or equivalent	None	Short-term OJT
33-9099	Protective Service Workers, All Other	3,596	3,773	177	4.92	485	405	18	908	\$44,540	HS diploma or equivalent	None	Short-term OJT
35-0000	Food Preparation and Serving Related Occupations	261,483	290,076	28,593	10.93	18,932	28,276	2,859	50,067	\$26,370			
35-1000	Supervisors of Food Preparation and Serving Workers	23,214	25,859	2,645	11.39	998	2,632	264	3,894	N/A			
35-1011	Chefs and Head Cooks	5,001	5,601	600	12	160	533	60	753	\$57,850	HS diploma or equivalent	5 years or more	None
35-1012	First-Line Supervisors of Food Preparation and Serving Workers	18,213	20,258	2,045	11.23	838	2,098	204	3,140	\$39,060	HS diploma or equivalent	Less than 5 years	None
35-2000	Cooks and Food Preparation Workers	72,953	82,380	9,427	12.92	4,617	7,140	943	12,700	N/A			
35-2011	Cooks, Fast Food	9,013	8,345	-668	-7.41	461	767	-67	1,161	\$25,100	No formal educational cred	None	Short-term OJT
35-2012	Cooks, Institution and Cafeteria	7,982	8,680	698	8.74	442	736	70	1,248	\$33,120	No formal educational cred	None	Short-term OJT
35-2013	Cooks, Private Household	1,104	1,160	56	5.07	60	100	6	166	N/A	Postsecondary non-degree	Less than 5 years	None
35-2014	Cooks, Restaurant	29,209	35,907	6,698	22.93	1,728	2,878	670	5,276	\$28,860	No formal educational cred	Less than 5 years	Moderate-term OJT
35-2015	Cooks, Short Order	2,110	2,075	-35	-1.66	111	185	-4	292	\$26,420	No formal educational cred	None	Short-term OJT
35-2019	Cooks, All Other	429	460	31	7.23	24	39	3	66	\$30,340	No formal educational cred	None	Moderate-term OJT
35-2021	Food Preparation Workers	23,106	25,753	2,647	11.46	1,791	2,435	265	4,491	\$24,700	No formal educational cred	None	Short-term OJT
35-3000	Food and Beverage Serving Workers	117,363	129,793	12,430	10.59	9,031	13,848	1,243	24,122	N/A			
35-3011	Bartenders	22,065	24,140	2,075	9.4	1,080	2,984	208	4,272	\$26,560	No formal educational cred	None	Short-term OJT
35-3021	Combined Food Preparation and Serving Workers, Including Fast Food	39,180	46,154	6,974	17.8	3,402	4,196	697	8,295	\$24,320	No formal educational cred	None	Short-term OJT
35-3022	Counter Attendants, Cafeteria, Food Concession, and Coffee Shop	11,823	12,080	257	2.17	1,346	1,248	26	2,620	\$23,830	No formal educational cred	None	Short-term OJT
35-3031	Waiters and Waitresses	39,438	42,339	2,901	7.36	2,838	5,010	290	8,138	\$23,590	No formal educational cred	None	Short-term OJT

Table 2: WASHINGTON-ARLINGTON-ALEXANDRIA DC-VA-MD-WV METROPOLITAN STATISTICAL AREA Long-Term Occupational Projections, Separations, Openings, and Worker Characteristics, 2018 and projected 2028¹

Soccode	Occupational Title	Employment Projections				Occupational Separations, 2018-2028, annual average			Occupational			Worker Characteristics		
		2016	2026	Numeric	Percent	Exits	Transfers	Annual	Numeric Change	2018-2028	Median	Typical Education	Work Experience	Typical on-the-job
			Change 2018-2028							Openings	Annual Wage ²	Needed for Entry	in a related Occupation	training needed to attain competency
35-3041	Food Servers, Nonrestaurant	4,857	5,080	223	4.59	366	410	22	798	\$26,570	No formal educational cred	None	Short-term OJT	
35-9000	Other Food Preparation and Serving Related Workers	47,953	52,044	4,091	8.53	4,287	4,656	409	9,352	N/A				
35-9011	Dining Room and Cafeteria Attendants and Bartender Helpers	19,365	21,531	2,166	11.19	1,685	1,809	217	3,711	\$26,560	No formal educational cred	None	Short-term OJT	
35-9021	Dishwashers	18,073	18,724	651	3.6	1,369	1,551	65	2,985	\$25,780	No formal educational cred	None	Short-term OJT	
35-9031	Hosts and Hostesses, Restaurant, Lounge, and Coffee Shop	10,112	11,342	1,230	12.16	1,198	1,259	123	2,580	\$24,140	No formal educational cred	None	Short-term OJT	
35-9099	Food Preparation and Serving Related Workers, All Other	403	447	44	10.92	35	38	4	77	\$27,450	No formal educational cred	None	Short-term OJT	
37-0000	Building and Grounds Cleaning and Maintenance Occupations	139,647	154,011	14,364	10.29	8,166	10,942	1,436	20,544	\$29,370				
37-1000	Supervisors of Building & Grounds Cleaning & Maintenance Workers	12,489	13,600	1,111	8.9	504	949	111	1,564	N/A				
37-1011	First-Line Supervisors of Housekeeping and Janitorial Workers	6,918	7,543	625	9.03	304	516	62	882	\$41,500	HS diploma or equivalent	Less than 5 years	None	
37-1012	First-Line Supervisors of Landscaping, Lawn Service, & Groundskeeping Workers	5,571	6,057	486	8.72	200	432	49	681	\$52,210	HS diploma or equivalent	Less than 5 years	None	
37-2000	Building Cleaning and Pest Control Workers	91,393	100,482	9,089	9.94	6,112	6,643	909	13,664	N/A				
37-2011	Janitors and Cleaners, Except Maids and Housekeeping Cleaners	54,361	61,050	6,689	12.3	3,529	4,070	669	8,268	\$28,090	No formal educational cred	None	Short-term OJT	
37-2012	Maids and Housekeeping Cleaners	34,001	36,040	2,039	6	2,478	2,238	204	4,920	\$27,280	No formal educational cred	None	Short-term OJT	
37-2019	Building Cleaning Workers, All Other	385	441	56	14.55	25	29	6	60	\$26,350	No formal educational cred	None	Short-term OJT	
37-2021	Pest Control Workers	2,646	2,951	305	11.53	80	306	30	416	\$41,740	HS diploma or equivalent	None	Moderate-term OJT	
37-3000	Grounds Maintenance Workers	35,765	39,929	4,164	11.64	1,550	3,351	416	5,317	N/A				
37-3011	Landscaping and Groundskeeping Workers	32,266	36,025	3,759	11.65	1,399	3,023	377	4,798	\$30,670	No formal educational cred	None	Short-term OJT	
37-3012	Pesticide Handlers, Sprayers, and Applicators, Vegetation	776	860	83	10.68	34	72	8	114	\$39,090	HS diploma or equivalent	None	Moderate-term OJT	
37-3013	Tree Trimmers and Pruners	1,688	1,902	214	12.68	74	159	21	254	\$46,760	HS diploma or equivalent	None	Short-term OJT	
37-3019	Grounds Maintenance Workers, All Other	1,034	1,142	108	10.44	45	96	11	152	\$38,440	No formal educational cred	None	Short-term OJT	
39-0000	Personal Care and Service Occupations	127,801	145,330	17,529	13.72	9,328	10,998	1,753	22,079	\$26,880				
39-1000	Supervisors of Personal Care and Service Workers	7,213	7,867	654	9.07	309	494	65	868	N/A				
39-1010	First-Line Supervisors of Gaming Workers	1,083	1,177	94	8.68	52	130	9	191	N/A	HS diploma or equivalent	Less than 5 years	None	
39-1021	First-Line Supervisors of Personal Service Workers	6,130	6,690	560	9.14	257	364	56	677	\$45,560	HS diploma or equivalent	Less than 5 years	None	
39-2000	Animal Care and Service Workers	6,074	6,882	808	13.3	441	597	81	1,119	N/A				
39-2011	Animal Trainers	689	750	61	8.85	40	64	6	110	\$25,780	HS diploma or equivalent	None	Moderate-term OJT	
39-2021	Nonfarm Animal Caretakers	5,385	6,132	747	13.87	400	532	75	1,007	\$26,740	HS diploma or equivalent	None	Short-term OJT	
39-3000	Entertainment Attendants and Related Workers	10,644	11,367	723	6.79	1,174	1,282	72	2,528	N/A				
39-3011	Gaming Dealers	1,355	1,413	58	4.28	84	130	6	220	\$19,530	HS diploma or equivalent	None	Short-term OJT	
39-3012	Gaming and Sports Book Writers and Runners	103	109	6	5.83	6	10	1	17	N/A	HS diploma or equivalent	None	Short-term OJT	
39-3019	Gaming Service Workers, All Other	74	79	5	6.76	5	7	0	12	N/A	HS diploma or equivalent	None	Short-term OJT	
39-3031	Ushers, Lobby Attendants, and Ticket Takers	2,969	3,166	197	6.64	401	345	20	766	\$26,200	No formal educational cred	None	Short-term OJT	
39-3091	Amusement and Recreation Attendants	5,723	6,147	424	7.41	631	736	42	1,409	\$20,480	No formal educational cred	None	Short-term OJT	
39-3092	Costume Attendants	138	148	10	7.25	15	18	1	34	\$34,810	HS diploma or equivalent	None	Short-term OJT	
39-3093	Locker Room, Coatroom, and Dressing Room Attendants	225	245	20	8.89	25	29	2	56	\$20,940	HS diploma or equivalent	None	Short-term OJT	
39-3099	Entertainment Attendants and Related Workers, All Other	53	56	3	5.66	6	7	0	13	N/A	HS diploma or equivalent	None	Short-term OJT	
39-4000	Funeral Service Workers	412	420	8	1.94	24	28	1	53	N/A				
39-4021	Funeral Attendants	65	66	1	1.54	6	4	0	10	\$29,170	HS diploma or equivalent	None	Short-term OJT	
39-4031	Morticians, Undertakers, and Funeral Directors	344	351	7	2.03	18	24	1	43	\$59,660	Associate's degree	None	Long-term OJT	
39-5000	Personal Appearance Workers	21,089	22,547	1,458	6.91	1,278	1,361	146	2,785	N/A				
39-5011	Barbers	2,376	2,478	102	4.29	124	146	10	280	\$44,220	Postsecondary non-degree	None	None	
39-5012	Hairdressers, Hairstylists, and Cosmetologists	14,454	15,424	970	6.71	906	954	97	1,957	\$27,380	Postsecondary non-degree	None	None	
39-5091	Makeup Artists, Theatrical and Performance	119	132	13	10.92	7	7	1	15	\$86,060	Postsecondary non-degree	None	None	
39-5092	Manicurists and Pedicurists	2,066	2,204	138	6.68	118	125	14	257	\$23,310	Postsecondary non-degree	None	None	
39-5093	Shampooers	731	830	99	13.54	43	46	10	99	\$21,590	No formal educational cred	None	Short-term OJT	
39-5094	Skincare Specialists	1,343	1,479	136	10.13	78	83	14	175	\$30,560	Postsecondary non-degree	None	None	
39-6000	Baggage Porters, Bellhops, and Concierges	5,176	5,941	765	14.78	289	504	76	869	N/A				
39-6011	Baggage Porters and Bellhops	1,789	1,973	184	10.29	98	171	18	287	\$26,920	HS diploma or equivalent	None	Short-term OJT	
39-6012	Concierges	3,387	3,968	581	17.15	191	334	58	583	\$32,200	HS diploma or equivalent	None	Moderate-term OJT	
39-7000	Tour and Travel Guides	1,287	1,395	108	8.39	103	131	11	245	N/A				

Table 2: WASHINGTON-ARLINGTON-ALEXANDRIA DC-VA-MD-WV METROPOLITAN STATISTICAL AREA Long-Term Occupational Projections, Separations, Openings, and Worker Characteristics, 2018 and projected 2028¹

Soccode	Occupational Title	Employment Projections				Occupational Separations, 2018-2028, annual average			Occupational			Worker Characteristics		
		2016	2026	Numeric	Percent	Exits	Transfers	Annual	2018-2028	Median	Typical Education	Work Experience	Typical on-the-job	
			Change 2018-2028					Numeric Change	Openings	Annual Wage ²	Needed for Entry	in a related Occupation	training needed to attain competency	
39-7010	Tour and Travel Guides	1,287	1,395	108	8.39	103	131	11	245	\$27,090	HS diploma or equivalent	None	Moderate-term OJT	
39-9000	Other Personal Care and Service Workers	75,906	88,911	13,005	17.13	5,711	6,600	1,300	13,611	N/A				
39-9011	Childcare Workers	24,379	25,933	1,554	6.37	1,860	1,893	155	3,908	\$28,550	HS diploma or equivalent	None	Short-term OJT	
39-9021	Personal Care Aides	26,838	35,457	8,619	32.11	2,302	2,040	862	5,204	\$27,020	HS diploma or equivalent	None	Short-term OJT	
39-9031	Fitness Trainers and Aerobics Instructors	9,684	10,966	1,282	13.24	616	1,099	128	1,843	\$42,680	HS diploma or equivalent	None	Short-term OJT	
39-9032	Recreation Workers	8,427	9,065	638	7.57	522	931	64	1,517	\$22,200	HS diploma or equivalent	None	Short-term OJT	
39-9041	Residential Advisors	3,317	3,980	663	19.99	200	354	66	620	\$31,210	HS diploma or equivalent	None	Short-term OJT	
39-9099	Personal Care and Service Workers, All Other	3,261	3,510	249	7.64	212	284	25	521	\$19,570	HS diploma or equivalent	None	Short-term OJT	
41-0000	Sales and Related Occupations	297,344	308,311	10,967	3.69	15,583	25,448	1,097	42,128	\$30,230				
41-1000	Supervisors of Sales Workers	40,615	40,446	-169	-0.42	1,382	2,953	-17	4,318	N/A				
41-1011	First-Line Supervisors of Retail Sales Workers	32,128	32,180	52	0.16	1,111	2,424	5	3,540	\$46,370	HS diploma or equivalent	Less than 5 years	None	
41-1012	First-Line Supervisors of Non-Retail Sales Workers	8,487	8,266	-221	-2.6	271	529	-22	778	\$83,230	HS diploma or equivalent	Less than 5 years	None	
41-2000	Retail Sales Workers	156,276	160,147	3,871	2.48	10,596	14,416	387	25,399	N/A				
41-2011	Cashiers	54,765	55,137	372	0.68	4,904	5,462	37	10,403	\$23,760	No formal educational cred	None	Short-term OJT	
41-2012	Gaming Change Persons and Booth Cashiers	471	498	27	5.73	43	48	3	94	\$22,130	No formal educational cred	None	Short-term OJT	
41-2021	Counter and Rental Clerks	7,665	8,195	530	6.91	402	616	53	1,071	\$31,070	No formal educational cred	None	Short-term OJT	
41-2022	Parts Salespersons	11,959	12,615	656	5.49	503	976	66	1,545	\$29,900	No formal educational cred	None	Moderate-term OJT	
41-2031	Retail Salespersons	81,416	83,702	2,286	2.81	4,745	7,315	229	12,289	\$25,370	No formal educational cred	None	Short-term OJT	
41-3000	Sales Representatives, Services	45,367	50,178	4,811	10.6	1,477	4,168	481	6,126	N/A				
41-3011	Advertising Sales Agents	2,848	2,918	70	2.46	91	300	7	398	\$57,920	HS diploma or equivalent	None	Moderate-term OJT	
41-3021	Insurance Sales Agents	6,157	6,615	458	7.44	235	386	46	667	\$47,400	HS diploma or equivalent	None	Moderate-term OJT	
41-3031	Securities, Commodities, and Financial Services Sales Agents	7,626	8,095	469	6.15	203	541	47	791	\$65,660	Bachelor's degree	None	Moderate-term OJT	
41-3041	Travel Agents	1,428	1,592	164	11.48	88	113	16	217	\$37,830	HS diploma or equivalent	None	Moderate-term OJT	
41-3099	Sales Representatives, Services, All Other	27,308	30,958	3,650	13.37	860	2,829	365	4,054	\$67,410	HS diploma or equivalent	None	Moderate-term OJT	
41-4000	Sales Representatives, Wholesale and Manufacturing	33,201	35,188	1,987	5.98	1,040	2,546	199	3,785	N/A				
41-4011	Sales Representatives, Wholesale & Manufacturing, Technical & Scientific	11,695	12,556	861	7.36	369	903	86	1,358	\$91,920	Bachelor's degree	None	Moderate-term OJT	
41-4012	Sales Representatives, Wholesale & Manufacturing, Except Technical & Scientific	21,506	22,632	1,126	5.24	671	1,644	113	2,428	\$63,150	HS diploma or equivalent	None	Moderate-term OJT	
41-9000	Other Sales and Related Workers	21,885	22,352	467	2.13	1,088	1,364	47	2,499	N/A				
41-9011	Demonstrators and Product Promoters	1,359	1,471	112	8.24	143	99	11	253	\$28,990	No formal educational cred	None	Short-term OJT	
41-9021	Real Estate Brokers	2,785	2,882	97	3.48	128	141	10	279	\$85,060	HS diploma or equivalent	Less than 5 years	None	
41-9022	Real Estate Sales Agents	10,841	11,182	341	3.15	498	549	34	1,081	\$47,710	HS diploma or equivalent	None	Moderate-term OJT	
41-9031	Sales Engineers	1,630	1,914	284	17.42	42	154	28	224	\$129,780	Bachelor's degree	None	Moderate-term OJT	
41-9041	Telemarketers	1,983	1,737	-246	-12.41	90	203	-25	268	\$30,340	No formal educational cred	None	Short-term OJT	
41-9091	Door-to-Door Sales Workers, News & Street Vendors, & Related Workers	2,153	1,938	-215	-9.99	136	115	-22	229	\$28,180	No formal educational cred	None	Short-term OJT	
41-9099	Sales and Related Workers, All Other	1,118	1,211	93	8.32	50	102	9	161	\$36,660	HS diploma or equivalent	None	None	
43-0000	Office and Administrative Support Occupations	456,067	457,930	1,863	0.41	22,657	31,246	186	54,089	\$41,660				
43-1000	Supervisors of Office and Administrative Support Workers	29,566	30,352	786	2.66	1,124	2,015	79	3,218	N/A				
43-1011	First-Line Supervisors of Office and Administrative Support Workers	29,566	30,352	786	2.66	1,124	2,015	79	3,218	\$64,130	HS diploma or equivalent	Less than 5 years	None	
43-2000	Communications Equipment Operators	1,935	1,511	-424	-21.91	93	124	-42	175	N/A				
43-2011	Switchboard Operators, Including Answering Service	1,432	1,128	-304	-21.23	74	85	-30	129	\$32,480	HS diploma or equivalent	None	Short-term OJT	
43-2021	Telephone Operators	409	292	-117	-28.61	17	31	-12	36	\$38,340	HS diploma or equivalent	None	Short-term OJT	
43-2099	Communications Equipment Operators, All Other	94	91	-3	-3.19	3	8	0	11	\$55,170	HS diploma or equivalent	None	Short-term OJT	
43-3000	Financial Clerks	60,315	60,973	658	1.09	3,203	3,774	66	7,043	N/A				
43-3011	Bill and Account Collectors	3,624	3,638	14	0.39	141	292	1	434	\$45,730	HS diploma or equivalent	None	Moderate-term OJT	
43-3021	Billing and Posting Clerks	8,826	10,285	1,459	16.53	393	644	146	1,183	\$44,020	HS diploma or equivalent	None	Moderate-term OJT	
43-3031	Bookkeeping, Accounting, and Auditing Clerks	33,385	33,772	387	1.16	2,043	1,869	39	3,951	\$49,520	Some college, no degree	None	Moderate-term OJT	
43-3041	Gaming Cage Workers	393	422	29	7.38	19	36	3	58	\$34,210	HS diploma or equivalent	None	Short-term OJT	
43-3051	Payroll and Timekeeping Clerks	3,265	3,310	45	1.38	155	207	4	366	\$57,920	HS diploma or equivalent	None	Moderate-term OJT	
43-3061	Procurement Clerks	2,744	2,500	-244	-8.89	90	182	-24	248	\$53,150	HS diploma or equivalent	None	Moderate-term OJT	
43-3071	Tellers	7,593	6,520	-1,073	-14.13	346	505	-107	744	\$33,610	HS diploma or equivalent	None	Short-term OJT	

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Soccode	Occupational Title	Employment Projections				Occupational Separations, 2018-2028, annual average			Occupational			Worker Characteristics		
		2016	2026	Numeric	Percent	Exits	Transfers	Numeric Change	2018-2028	Median Annual Wage ²	Typical Education Needed for Entry	Work Experience in a related Occupation	Typical on-the-job training needed to attain competency	
43-3099	Financial Clerks, All Other	485	526	41	8.45	17	38		4	59	\$40,500	HS diploma or equivalent	None	Short-term OJT
43-4000	Information and Record Clerks	122,764	125,294	2,530	2.06	6,173	9,469		253	15,895	N/A			
43-4011	Brokerage Clerks	375	461	86	22.93	20	23		9	52	\$51,650	HS diploma or equivalent	None	Moderate-term OJT
43-4021	Correspondence Clerks	276	294	18	6.52	12	21		2	35	\$38,920	HS diploma or equivalent	None	Short-term OJT
43-4031	Court, Municipal, and License Clerks	6,112	6,405	293	4.79	283	297		29	609	\$41,610	HS diploma or equivalent	None	Long-term OJT
43-4041	Credit Authorizers, Checkers, and Clerks	80	79	-1	-1.25	2	5		0	7	\$41,310	HS diploma or equivalent	None	Moderate-term OJT
43-4051	Customer Service Representatives	51,088	51,483	395	0.77	2,463	4,372		40	6,875	\$37,470	HS diploma or equivalent	None	Short-term OJT
43-4061	Eligibility Interviewers, Government Programs	9,391	9,480	89	0.95	364	532		9	905	\$53,860	HS diploma or equivalent	None	Moderate-term OJT
43-4071	File Clerks	3,285	2,995	-290	-8.83	181	206		-29	358	\$37,280	HS diploma or equivalent	None	Short-term OJT
43-4081	Hotel, Motel, and Resort Desk Clerks	3,088	3,078	-10	-0.32	169	353		-1	521	\$28,630	HS diploma or equivalent	None	Short-term OJT
43-4111	Interviewers, Except Eligibility and Loan	2,796	3,022	226	8.08	148	210		23	381	\$35,860	HS diploma or equivalent	None	Short-term OJT
43-4121	Library Assistants, Clerical	2,884	2,830	-54	-1.87	227	203		-5	425	\$26,670	HS diploma or equivalent	None	Short-term OJT
43-4131	Loan Interviewers and Clerks	1,012	1,131	119	11.76	40	69		12	121	\$43,970	HS diploma or equivalent	None	Short-term OJT
43-4141	New Accounts Clerks	567	511	-56	-9.88	23	40		-6	57	\$39,960	HS diploma or equivalent	None	Moderate-term OJT
43-4151	Order Clerks	969	935	-34	-3.51	40	70		-3	107	\$33,940	Some college, no degree	None	Short-term OJT
43-4161	Human Resources Assistants, Except Payroll and Timekeeping	4,168	4,024	-144	-3.45	150	314		-14	450	\$48,910	Associate's degree	None	None
43-4171	Receptionists and Information Clerks	23,549	25,318	1,769	7.51	1,422	1,860		177	3,459	\$31,590	HS diploma or equivalent	None	Short-term OJT
43-4181	Reservation and Transportation Ticket Agents and Travel Clerks	1,331	1,567	236	17.73	60	104		24	188	\$39,850	HS diploma or equivalent	None	Short-term OJT
43-4199	Information and Record Clerks, All Other	11,793	11,681	-112	-0.95	569	788		-11	1,346	\$53,780	HS diploma or equivalent	None	Short-term OJT
43-5000	Material Recording, Scheduling, Dispatching, and Distributing Workers	60,844	65,197	4,353	7.15	2,795	4,696		435	7,926	N/A			
43-5011	Cargo and Freight Agents	1,136	1,335	199	17.52	44	73		20	137	\$31,310	HS diploma or equivalent	None	Short-term OJT
43-5021	Couriers and Messengers	2,767	2,955	188	6.79	113	160		19	292	\$34,750	HS diploma or equivalent	None	Short-term OJT
43-5031	Police, Fire, and Ambulance Dispatchers	3,683	3,894	211	5.73	133	225		21	379	\$46,870	HS diploma or equivalent	None	Moderate-term OJT
43-5032	Dispatchers, Except Police, Fire, and Ambulance	5,312	5,967	655	12.33	198	335		66	599	\$41,280	HS diploma or equivalent	None	Moderate-term OJT
43-5041	Meter Readers, Utilities	626	566	-60	-9.58	25	33		-6	52	\$48,530	HS diploma or equivalent	None	Short-term OJT
43-5061	Production, Planning, and Expediting Clerks	4,786	5,267	481	10.05	166	357		48	571	\$53,220	HS diploma or equivalent	None	Moderate-term OJT
43-5071	Shipping, Receiving, and Traffic Clerks	5,838	6,017	179	3.07	198	390		18	606	\$37,720	HS diploma or equivalent	None	Short-term OJT
43-5081	Stock Clerks and Order Fillers	36,142	38,561	2,419	6.69	1,890	3,082		242	5,214	\$26,620	HS diploma or equivalent	None	Short-term OJT
43-5111	Weighers, Measurers, Checkers, and Samplers, Recordkeeping	554	635	81	14.62	27	40		8	75	\$37,340	HS diploma or equivalent	None	Short-term OJT
43-6000	Secretaries and Administrative Assistants	92,964	88,214	-4,750	-5.11	4,643	5,497		-475	9,665	N/A			
43-6011	Executive Secretaries and Executive Administrative Assistants	18,184	15,224	-2,960	-16.28	856	1,014		-296	1,574	\$70,840	HS diploma or equivalent	Less than 5 years	None
43-6012	Legal Secretaries	9,077	8,020	-1,057	-11.64	438	519		-106	851	\$81,590	HS diploma or equivalent	None	Moderate-term OJT
43-6013	Medical Secretaries	10,264	12,306	2,042	19.89	578	685		204	1,467	\$39,800	HS diploma or equivalent	None	Moderate-term OJT
43-6014	Secretaries & Administrative Assistants, Except Legal, Medical, & Execut	55,439	52,664	-2,775	-5.01	2,770	3,280		-278	5,772	\$44,800	HS diploma or equivalent	None	Short-term OJT
43-9000	Other Office and Administrative Support Workers	87,679	86,389	-1,290	-1.47	4,626	5,671		-129	10,168	N/A			
43-9011	Computer Operators	901	731	-170	-18.87	40	60		-17	83	\$56,090	HS diploma or equivalent	None	Moderate-term OJT
43-9021	Data Entry Keyers	3,999	3,226	-773	-19.33	163	254		-77	340	\$37,780	HS diploma or equivalent	None	Short-term OJT
43-9022	Word Processors and Typists	2,209	1,443	-766	-34.68	110	112		-77	145	\$44,850	HS diploma or equivalent	None	Short-term OJT
43-9031	Desktop Publishers	291	258	-33	-11.34	12	20		-3	29	\$64,370	Associate's degree	None	Short-term OJT
43-9041	Insurance Claims and Policy Processing Clerks	3,953	4,195	242	6.12	151	255		24	430	\$43,390	HS diploma or equivalent	None	Moderate-term OJT
43-9051	Mail Clerks and Mail Machine Operators, Except Postal Service	2,268	2,116	-152	-6.7	105	137		-15	227	\$35,020	HS diploma or equivalent	None	Short-term OJT
43-9061	Office Clerks, General	65,223	65,194	-29	-0.04	3,645	4,160		-3	7,802	\$36,870	HS diploma or equivalent	None	Short-term OJT
43-9071	Office Machine Operators, Except Computer	869	783	-86	-9.9	50	56		-9	97	\$36,920	HS diploma or equivalent	None	Short-term OJT
43-9081	Proofreaders and Copy Markers	341	349	8	2.35	22	24		1	47	\$44,750	Bachelor's degree	None	None
43-9111	Statistical Assistants	1,126	1,273	147	13.06	50	99		15	164	\$52,800	Bachelor's degree	None	None
43-9199	Office and Administrative Support Workers, All Other	6,499	6,821	322	4.95	280	494		32	806	\$42,070	HS diploma or equivalent	None	Short-term OJT
45-0000	Farming, Fishing, and Forestry Occupations	4,354	4,127	-227	-5.21	167	492		-23	636	\$35,350			
45-1000	Supervisors of Farming, Fishing, and Forestry Workers	880	862	-18	-2.05	32	97		-2	127	N/A			
45-1011	First-Line Supervisors of Farming, Fishing, and Forestry Workers	880	862	-18	-2.05	32	97		-2	127	\$64,260	HS diploma or equivalent	Less than 5 years	None
45-2000	Agricultural Workers	2,316	2,298	-18	-0.78	95	260		-2	353	N/A			

Table 2: WASHINGTON-ARLINGTON-ALEXANDRIA DC-VA-MD-WV METROPOLITAN STATISTICAL AREA Long-Term Occupational Projections, Separations, Openings, and Worker Characteristics, 2018 and projected 2028¹

Soccode	Occupational Title	Employment Projections				Occupational Separations, 2018-2028, annual average			Occupational			Worker Characteristics		
		2016	2026	Numeric	Percent	Exits	Occupational	Annual	Numeric Change	2018-2028	Median	Typical Education	Work Experience	Typical on-the-job
			Change 2018-2028							Openings	Annual Wage ²	Needed for Entry	in a related Occupation	training needed to attain competency
45-2011	Agricultural Inspectors	1,049	1,027	-22	-2.1	44	107	-2	149	\$48,870	Bachelor's degree	None	Moderate-term OJT	
45-2041	Graders and Sorters, Agricultural Products	238	221	-17	-7.14	9	24	-2	31	\$26,610	No formal educational cred	None	Short-term OJT	
45-2091	Agricultural Equipment Operators	36	38	2	5.56	2	5	0	7	N/A	No formal educational cred	None	Moderate-term OJT	
45-2092	Farmworkers and Laborers, Crop, Nursery, and Greenhouse	694	703	9	1.3	28	86	1	115	\$31,480	No formal educational cred	None	Short-term OJT	
45-2093	Farmworkers, Farm, Ranch, and Aquacultural Animals	185	184	-1	-0.54	7	23	0	30	\$35,190	No formal educational cred	None	Short-term OJT	
45-2099	Agricultural Workers, All Other	101	111	10	9.9	4	13	1	18	N/A	No formal educational cred	None	Short-term OJT	
45-4000	Forest, Conservation, and Logging Workers	1,158	967	-191	-16.49	41	135	-19	157	N/A				
45-4011	Forest and Conservation Workers	356	336	-20	-5.62	13	48	-2	59	\$29,040	HS diploma or equivalent	None	Moderate-term OJT	
45-4021	Fallers	128	105	-23	-17.97	5	14	-2	17	N/A	HS diploma or equivalent	None	Moderate-term OJT	
45-4022	Logging Equipment Operators	585	464	-121	-20.68	21	63	-12	72	N/A	HS diploma or equivalent	None	Moderate-term OJT	
45-4023	Log Graders and Scalers	45	31	-14	-31.11	2	5	-1	6	N/A	HS diploma or equivalent	None	Moderate-term OJT	
45-4029	Logging Workers, All Other	44	31	-13	-29.55	2	4	-1	5	N/A	HS diploma or equivalent	None	Moderate-term OJT	
47-0000	Construction and Extraction Occupations	173,388	194,032	20,644	11.91	5,955	14,466	2,064	22,485	\$47,170				
47-1000	Supervisors of Construction and Extraction Workers	15,942	17,990	2,048	12.85	505	1,258	205	1,968	N/A				
47-1011	First-Line Supervisors of Construction Trades and Extraction Workers	15,942	17,990	2,048	12.85	505	1,258	205	1,968	\$72,240	HS diploma or equivalent	5 years or more	None	
47-2000	Construction Trades Workers	129,580	145,296	15,716	12.13	4,297	10,733	1,572	16,602	N/A				
47-2011	Boilermakers	138	154	16	11.59	4	11	2	17	\$68,710	HS diploma or equivalent	None	Apprenticeship	
47-2021	Brickmasons and Blockmasons	2,088	2,300	212	10.15	63	156	21	240	\$49,510	HS diploma or equivalent	None	Apprenticeship	
47-2022	Stonemasons	425	473	48	11.29	13	32	5	50	\$45,940	HS diploma or equivalent	None	Apprenticeship	
47-2031	Carpenters	28,322	31,265	2,943	10.39	932	2,152	294	3,378	\$47,600	HS diploma or equivalent	None	Apprenticeship	
47-2041	Carpet Installers	436	442	6	1.38	12	30	1	43	\$30,720	No formal educational cred	None	Short-term OJT	
47-2042	Floor Layers, Except Carpet, Wood, and Hard Tiles	185	193	8	4.32	5	13	1	19	N/A	No formal educational cred	None	Moderate-term OJT	
47-2043	Floor Sanders and Finishers	192	217	25	13.02	6	14	2	22	\$36,800	No formal educational cred	None	Moderate-term OJT	
47-2044	Tile and Marble Setters	906	1,040	134	14.79	28	67	13	108	\$40,900	No formal educational cred	None	Long-term OJT	
47-2051	Cement Masons and Concrete Finishers	1,216	1,398	182	14.97	38	99	18	155	\$47,460	No formal educational cred	None	Moderate-term OJT	
47-2061	Construction Laborers	25,552	28,165	2,613	10.23	898	2,089	261	3,248	\$34,750	No formal educational cred	None	Short-term OJT	
47-2071	Paving, Surfacing, and Tamping Equipment Operators	758	837	79	10.42	36	63	8	107	\$35,970	HS diploma or equivalent	None	Moderate-term OJT	
47-2072	Pile-Driver Operators	429	496	67	15.62	16	38	7	61	\$66,350	HS diploma or equivalent	None	Moderate-term OJT	
47-2073	Operating Engineers and Other Construction Equipment Operators	6,463	7,154	691	10.69	231	554	69	854	\$48,650	HS diploma or equivalent	None	Moderate-term OJT	
47-2081	Drywall and Ceiling Tile Installers	955	991	36	3.77	28	68	4	100	\$42,390	No formal educational cred	None	Moderate-term OJT	
47-2082	Tapers	95	98	3	3.16	3	7	0	10	N/A	No formal educational cred	None	Moderate-term OJT	
47-2111	Electricians	16,730	19,239	2,509	15	552	1,532	251	2,335	\$60,070	HS diploma or equivalent	None	Apprenticeship	
47-2121	Glaziers	5,535	6,393	858	15.5	194	489	86	769	\$45,660	HS diploma or equivalent	None	Apprenticeship	
47-2131	Insulation Workers, Floor, Ceiling, and Wall	629	719	90	14.31	16	61	9	86	\$37,370	No formal educational cred	None	Short-term OJT	
47-2132	Insulation Workers, Mechanical	397	433	36	9.07	10	38	4	52	\$47,940	HS diploma or equivalent	None	Apprenticeship	
47-2141	Painters, Construction and Maintenance	9,209	9,738	529	5.74	328	631	53	1,012	\$38,030	No formal educational cred	None	Moderate-term OJT	
47-2142	Paperhangers	57	59	2	3.51	2	4	0	6	N/A	No formal educational cred	None	Long-term OJT	
47-2151	Pipelayers	1,680	1,953	273	16.25	53	148	27	228	\$37,380	No formal educational cred	None	Short-term OJT	
47-2152	Plumbers, Pipefitters, and Steamfitters	16,543	19,658	3,115	18.83	529	1,478	312	2,319	\$56,220	HS diploma or equivalent	None	Apprenticeship	
47-2161	Plasterers and Stucco Masons	947	1,032	85	8.98	23	67	8	98	\$47,930	No formal educational cred	None	Long-term OJT	
47-2171	Reinforcing Iron and Rebar Workers	2,061	2,416	355	17.22	50	212	36	298	\$48,680	HS diploma or equivalent	None	Apprenticeship	
47-2181	Roofers	1,547	1,675	128	8.27	41	125	13	179	\$49,030	No formal educational cred	None	Moderate-term OJT	
47-2211	Sheet Metal Workers	2,133	2,205	72	3.38	64	171	7	242	\$54,260	HS diploma or equivalent	None	Apprenticeship	
47-2221	Structural Iron and Steel Workers	3,774	4,244	470	12.45	112	362	47	521	\$48,340	HS diploma or equivalent	None	Apprenticeship	
47-2231	Solar Photovoltaic Installers	178	309	131	73.6	8	22	13	43	N/A	HS diploma or equivalent	None	Moderate-term OJT	
47-3000	Helpers, Construction Trades	8,361	9,921	1,560	18.66	301	930	156	1,387	N/A				
47-3011	Helpers--Brickmasons, Blockmasons, Stonemasons, & Tile & Marble Sett	348	397	49	14.08	12	38	5	55	\$31,290	No formal educational cred	None	Short-term OJT	
47-3012	Helpers--Carpenters	394	454	60	15.23	14	43	6	63	\$34,030	No formal educational cred	None	Short-term OJT	
47-3013	Helpers--Electricians	1,865	2,076	211	11.31	65	201	21	287	\$32,830	HS diploma or equivalent	None	Short-term OJT	
47-3015	Helpers--Pipelayers, Plumbers, Pipefitters, and Steamfitters	5,206	6,362	1,156	22.21	190	589	116	895	\$32,850	HS diploma or equivalent	None	Short-term OJT	

Table 2: WASHINGTON-ARLINGTON-ALEXANDRIA DC-VA-MD-WV METROPOLITAN STATISTICAL AREA Long-Term Occupational Projections, Separations, Openings, and Worker Characteristics, 2018 and projected 2028¹

Soccode	Occupational Title	Employment Projections				Occupational Separations, 2018-2028, annual average			Occupational			Worker Characteristics		
		2016	2026	Numeric	Percent	Exits	Transfers	Annual	Numeric Change	2018-2028	Median	Typical Education	Work Experience	Typical on-the-job
											Annual Wage ²	Needed for Entry	in a related Occupation	training needed to attain competency
47-3016	Helpers--Roofers	271	319	48	17.71	10	30	5	45	\$36,390	No formal educational cred	None	Short-term OJT	
47-3019	Helpers, Construction Trades, All Other	257	290	33	12.84	9	28	3	40	\$33,430	No formal educational cred	None	Short-term OJT	
47-4000	Other Construction and Related Workers	17,962	19,073	1,111	6.19	795	1,384	111	2,290	N/A				
47-4011	Construction and Building Inspectors	4,553	4,929	376	8.26	261	326	38	625	\$66,320	HS diploma or equivalent	5 years or more	Moderate-term OJT	
47-4021	Elevator Installers and Repairers	2,426	2,418	-8	-0.33	83	191	-1	273	\$86,080	HS diploma or equivalent	None	Apprenticeship	
47-4031	Fence Erectors	274	279	5	1.82	11	22	0	33	\$32,750	No formal educational cred	None	Moderate-term OJT	
47-4041	Hazardous Materials Removal Workers	2,918	3,181	263	9.01	130	253	None	409	\$38,660	HS diploma or equivalent	None	Moderate-term OJT	
47-4051	Highway Maintenance Workers	6,261	6,568	307	4.9	258	453	31	742	\$42,800	HS diploma or equivalent	None	Moderate-term OJT	
47-4061	Rail-Track Laying and Maintenance Equipment Operators	169	176	7	4.14	6	12	1	19	\$65,470	HS diploma or equivalent	None	Moderate-term OJT	
47-4071	Septic Tank Servicers and Sewer Pipe Cleaners	550	610	60	10.91	17	49	6	72	\$47,290	HS diploma or equivalent	None	Moderate-term OJT	
47-4090	Miscellaneous Construction and Related Workers	811	912	101	12.45	29	78	10	117	\$47,770	HS diploma or equivalent	None	Moderate-term OJT	
47-5000	Extraction Workers	1,543	1,752	209	13.55	57	160	21	238	N/A				
47-5013	Service Unit Operators, Oil, Gas, and Mining	30	31	1	3.33	1	4	0	5	N/A	No formal educational cred	None	Moderate-term OJT	
47-5021	Earth Drillers, Except Oil and Gas	227	288	61	26.87	9	25	6	40	\$47,330	HS diploma or equivalent	None	Moderate-term OJT	
47-5031	Explosives Workers, Ordnance Handling Experts, and Blasters	307	301	-6	-1.95	12	27	-1	38	\$60,160	HS diploma or equivalent	Less than 5 years	Long-term OJT	
47-5041	Continuous Mining Machine Operators	85	93	8	9.41	3	8	1	12	\$37,030	No formal educational cred	None	Moderate-term OJT	
47-5042	Mine Cutting and Channeling Machine Operators	31	34	3	9.68	1	3	0	4	N/A	HS diploma or equivalent	None	Moderate-term OJT	
47-5061	Roof Bolters, Mining	58	65	7	12.07	2	6	1	9	N/A	HS diploma or equivalent	None	Moderate-term OJT	
47-5071	Roustabouts, Oil and Gas	93	118	25	26.88	3	11	2	16	N/A	No formal educational cred	None	Moderate-term OJT	
47-5081	Helpers--Extraction Workers	76	94	18	23.68	3	8	2	13	\$30,380	HS diploma or equivalent	None	Moderate-term OJT	
47-5099	Extraction Workers, All Other	620	711	91	14.68	22	66	9	97	\$53,290	HS diploma or equivalent	None	Moderate-term OJT	
49-0000	Installation, Maintenance, and Repair Occupations	108,503	113,322	4,819	4.44	3,494	7,509	482	11,485	\$54,100				
49-1000	Supervisors of Installation, Maintenance, and Repair Workers	8,402	8,909	507	6.03	271	523	51	845	N/A				
49-1011	First-Line Supervisors of Mechanics, Installers, and Repairers	8,402	8,909	507	6.03	271	523	51	845	\$74,740	HS diploma or equivalent	Less than 5 years	None	
49-2000	Electrical & Electronic Equipment Mechanics, Installers, & Repairers	16,279	15,875	-404	-2.48	408	1,293	-40	1,661	N/A				
49-2011	Computer, Automated Teller, and Office Machine Repairers	1,476	1,625	149	10.09	43	122	15	180	\$42,120	Some college, no degree	None	Short-term OJT	
49-2021	Radio, Cellular, and Tower Equipment Installers and Repairers	284	288	4	1.41	8	24	0	32	\$57,200	Associate's degree	None	Moderate-term OJT	
49-2022	Telecommunications Equipment Installers & Repairers, Except Line Insta	5,380	5,013	-367	-6.82	145	428	-37	536	\$68,640	Postsecondary non-degree	None	Moderate-term OJT	
49-2091	Avionics Technicians	611	691	80	13.09	15	32	8	55	\$72,190	Associate's degree	None	None	
49-2092	Electric Motor, Power Tool, and Related Repairers	78	75	-3	-3.85	3	5	0	8	\$38,290	HS diploma or equivalent	Less than 5 years	Moderate-term OJT	
49-2093	Electrical & Electronics Installers & Repairers, Transportation Equipment	186	198	12	6.45	3	13	1	17	\$66,530	Postsecondary non-degree	None	Long-term OJT	
49-2094	Electrical & Electronics Repairers, Commercial & Industrial Equipment	2,261	2,281	20	0.88	40	158	2	200	\$70,370	Postsecondary non-degree	None	Long-term OJT	
49-2095	Electrical & Electronics Repairers, Powerhouse, Substation, & Relay	865	942	77	8.9	16	63	8	87	\$85,330	Postsecondary non-degree	Less than 5 years	Moderate-term OJT	
49-2096	Electronic Equipment Installers & Repairers, Motor Vehicles	2,101	1,132	-969	-46.12	42	145	None	-97	\$35,610	HS diploma or equivalent	None	Moderate-term OJT	
49-2097	Electronic Home Entertainment Equipment Installers and Repairers	247	235	-12	-4.86	6	20	-1	25	\$40,580	Postsecondary non-degree	None	Short-term OJT	
49-2098	Security and Fire Alarm Systems Installers	2,790	3,395	605	21.68	87	283	60	430	\$53,480	HS diploma or equivalent	None	Moderate-term OJT	
49-3000	Vehicle and Mobile Equipment Mechanics, Installers, and Repairers	29,481	29,958	477	1.62	857	2,041	48	2,946	N/A				
49-3011	Aircraft Mechanics and Service Technicians	3,339	3,299	-40	-1.2	89	183	-4	268	\$76,090	Postsecondary non-degree	None	None	
49-3021	Automotive Body and Related Repairers	2,854	3,082	228	7.99	95	190	23	308	\$56,220	HS diploma or equivalent	None	Long-term OJT	
49-3023	Automotive Service Technicians and Mechanics	11,421	11,225	-196	-1.72	307	795	-20	1,082	\$52,090	Postsecondary non-degree	None	Short-term OJT	
49-3031	Bus and Truck Mechanics and Diesel Engine Specialists	3,330	3,523	193	5.8	95	222	19	336	\$55,650	HS diploma or equivalent	None	Long-term OJT	
49-3041	Farm Equipment Mechanics and Service Technicians	84	82	-2	-2.38	3	6	0	9	\$45,940	HS diploma or equivalent	None	Long-term OJT	
49-3042	Mobile Heavy Equipment Mechanics, Except Engines	2,481	2,508	27	1.09	78	170	3	251	\$58,900	HS diploma or equivalent	None	Long-term OJT	
49-3043	Rail Car Repairers	151	173	22	14.57	5	11	2	18	\$68,280	HS diploma or equivalent	None	Long-term OJT	
49-3051	Motorboat Mechanics and Service Technicians	84	78	-6	-7.14	3	5	-1	7	\$49,640	HS diploma or equivalent	None	Long-term OJT	
49-3052	Motorcycle Mechanics	99	101	2	2.02	4	6	0	10	\$40,400	Postsecondary non-degree	None	Short-term OJT	
49-3053	Outdoor Power Equipment and Other Small Engine Mechanics	305	323	18	5.9	12	19	2	33	\$40,970	HS diploma or equivalent	None	Moderate-term OJT	
49-3091	Bicycle Repairers	2,301	2,584	283	12.3	74	195	28	297	\$31,040	HS diploma or equivalent	None	Moderate-term OJT	
49-3093	Tire Repairers and Changers	2,995	2,944	-51	-1.7	90	237	-5	322	\$24,170	HS diploma or equivalent	None	Short-term OJT	
49-9000	Other Installation, Maintenance, and Repair Occupations	54,341	58,580	4,239	7.8	1,958	3,652	424	6,034	N/A				

Table 2: WASHINGTON-ARLINGTON-ALEXANDRIA DC-VA-MD-WV METROPOLITAN STATISTICAL AREA Long-Term Occupational Projections, Separations, Openings, and Worker Characteristics, 2018 and projected 2028¹

Soccode	Occupational Title	Employment Projections				Occupational Separations, 2018-2028, annual average			Occupational			Worker Characteristics		
		2018-2028		Change 2018-2028		Labor Force	Occupational	Annual	Openings	Median	Typical Education	Work Experience	Typical on-the-job	
		2016	2026	Numeric	Percent	Exits	Transfers	Numeric Change	2018-2028	Annual Wage ²	Needed for Entry	in a related Occupation	training needed to attain competency	
49-9012	Control and Valve Installers and Repairers, Except Mechanical Door	619	658	39	6.3	16	38	4	58	\$67,740	HS diploma or equivalent	None	Moderate-term OJT	
49-9021	Heating, Air Conditioning, and Refrigeration Mechanics and Installers	3,990	4,470	480	12.03	115	298	48	461	\$57,380	Postsecondary non-degree	None	Long-term OJT	
49-9031	Home Appliance Repairers	354	339	-15	-4.24	16	21	-2	35	\$42,750	HS diploma or equivalent	None	Moderate-term OJT	
49-9041	Industrial Machinery Mechanics	4,255	4,563	308	7.24	138	266	31	435	\$60,050	HS diploma or equivalent	None	Long-term OJT	
49-9043	Maintenance Workers, Machinery	342	379	37	10.82	14	19	4	37	\$50,180	HS diploma or equivalent	None	Long-term OJT	
49-9044	Millwrights	89	105	16	17.98	3	6	2	11	\$45,590	HS diploma or equivalent	None	Apprenticeship	
49-9051	Electrical Power-Line Installers and Repairers	2,083	2,371	288	13.83	54	133	29	216	\$72,010	HS diploma or equivalent	None	Long-term OJT	
49-9052	Telecommunications Line Installers and Repairers	2,719	2,670	-49	-1.8	63	238	-5	296	\$70,330	HS diploma or equivalent	None	Long-term OJT	
49-9061	Camera and Photographic Equipment Repairers	41	40	-1	-2.44	2	2	0	4	\$31,180	HS diploma or equivalent	None	Long-term OJT	
49-9062	Medical Equipment Repairers	989	1,021	32	3.24	43	62	3	108	\$65,300	Associate's degree	None	Moderate-term OJT	
49-9063	Musical Instrument Repairers and Tuners	43	41	-2	-4.65	2	3	0	5	\$36,820	HS diploma or equivalent	None	Apprenticeship	
49-9069	Precision Instrument and Equipment Repairers, All Other	492	483	-9	-1.83	21	30	-1	50	\$46,520	HS diploma or equivalent	None	Long-term OJT	
49-9071	Maintenance and Repair Workers, General	30,157	32,796	2,639	8.75	1,104	1,948	264	3,316	\$46,390	HS diploma or equivalent	None	Moderate-term OJT	
49-9081	Wind Turbine Service Technicians	42	65	23	54.76	2	4	2	8	N/A	Postsecondary non-degree	None	Long-term OJT	
49-9091	Coin, Vending, and Amusement Machine Servicers and Repairers	333	332	-1	-0.3	13	25	0	38	\$35,080	HS diploma or equivalent	None	Short-term OJT	
49-9092	Commercial Divers	43	47	4	9.3	2	3	0	5	N/A	Postsecondary non-degree	None	Moderate-term OJT	
49-9094	Locksmiths and Safe Repairers	738	721	-17	-2.3	35	44	-2	77	\$58,520	HS diploma or equivalent	None	Long-term OJT	
49-9096	Riggers	373	370	-3	-0.8	8	28	0	36	\$49,620	HS diploma or equivalent	None	Moderate-term OJT	
49-9097	Signal and Track Switch Repairers	91	94	3	3.3	4	6	0	10	\$75,800	HS diploma or equivalent	None	Moderate-term OJT	
49-9098	Helpers--Installation, Maintenance, and Repair Workers	2,508	2,880	372	14.83	144	200	37	381	\$32,750	HS diploma or equivalent	None	Short-term OJT	
49-9099	Installation, Maintenance, and Repair Workers, All Other	3,998	4,096	98	2.45	158	276	10	444	\$46,100	HS diploma or equivalent	None	Moderate-term OJT	
51-0000	Production Occupations	61,798	63,589	1,791	2.9	2,881	4,516	179	7,576	\$37,130				
51-1000	Supervisors of Production Workers	3,523	3,665	142	4.03	114	253	14	381	N/A				
51-1011	First-Line Supervisors of Production and Operating Workers	3,523	3,665	142	4.03	114	253	14	381	\$65,880	HS diploma or equivalent	Less than 5 years	None	
51-2000	Assemblers and Fabricators	5,116	5,567	451	8.82	218	399	45	662	N/A				
51-2028	Electrical, Electronic, & Electromechanical Assemblers, Except Coil Wind	1,129	1,209	80	7.09	50	83	8	141	\$40,680	HS diploma or equivalent	None	Moderate-term OJT	
51-2041	Structural Metal Fabricators and Fitters	146	147	1	0.68	4	12	0	16	\$46,130	HS diploma or equivalent	None	Moderate-term OJT	
51-2098	Assemblers and Fabricators, All Other, Including Team Assemblers	3,796	4,168	372	9.8	163	301	37	501	\$30,700	HS diploma or equivalent	None	Moderate-term OJT	
51-3000	Food Processing Workers	9,819	10,483	664	6.76	533	812	66	1,411	N/A				
51-3011	Bakers	4,410	4,843	433	9.82	268	364	43	675	\$28,770	No formal educational cred	None	Long-term OJT	
51-3021	Butchers and Meat Cutters	1,385	1,456	71	5.13	58	117	7	182	\$41,500	No formal educational cred	None	Long-term OJT	
51-3022	Meat, Poultry, and Fish Cutters and Trimmers	353	384	31	8.78	15	30	3	48	\$22,990	No formal educational cred	None	Short-term OJT	
51-3023	Slaughterers and Meat Packers	38	40	2	5.26	2	3	0	5	N/A	No formal educational cred	None	Short-term OJT	
51-3092	Food Batchmakers	2,117	2,228	111	5.24	131	191	11	333	\$30,310	HS diploma or equivalent	None	Moderate-term OJT	
51-3093	Food Cooking Machine Operators and Tenders	51	53	2	3.92	3	5	0	8	\$28,210	HS diploma or equivalent	None	Moderate-term OJT	
51-3099	Food Processing Workers, All Other	1,465	1,479	14	0.96	56	101	1	158	\$23,900	No formal educational cred	None	Moderate-term OJT	
51-4000	Metal Workers and Plastic Workers	5,090	5,218	128	2.51	161	390	13	564	N/A				
51-4011	Computer-Controlled Machine Tool Operators, Metal and Plastic	92	98	6	6.52	3	7	1	11	\$41,600	HS diploma or equivalent	None	Moderate-term OJT	
51-4022	Forging Machine Setters, Operators, and Tenders, Metal and Plastic	80	64	-16	-20	2	5	-2	5	N/A	HS diploma or equivalent	None	Moderate-term OJT	
51-4031	Cutting, Punching, & Press Machine Setters, Operators, & Tenders, Meta	139	146	7	5.04	5	10	1	16	\$35,560	HS diploma or equivalent	None	Moderate-term OJT	
51-4033	Grinding, Lapping, Polishing, & Buffing Machine Tool Setters, Operators,	80	84	4	5	4	6	0	10	\$35,430	HS diploma or equivalent	None	Moderate-term OJT	
51-4041	Machinists	1,303	1,383	80	6.14	45	92	8	145	\$48,860	HS diploma or equivalent	None	Long-term OJT	
51-4061	Model Makers, Metal and Plastic	41	43	2	4.88	2	3	0	5	N/A	HS diploma or equivalent	None	Moderate-term OJT	
51-4072	Molding, Coremaking, & Casting Machine Setters, Operators, & Tenders,	321	301	-20	-6.23	10	24	-2	32	\$36,540	HS diploma or equivalent	None	Moderate-term OJT	
51-4081	Multiple Machine Tool Setters, Operators, & Tenders, Metal & Plastic	196	223	27	13.78	7	15	3	25	\$39,960	HS diploma or equivalent	None	Moderate-term OJT	
51-4111	Tool and Die Makers	129	134	5	3.88	5	8	0	13	N/A	Postsecondary non-degree	None	Long-term OJT	
51-4121	Welders, Cutters, Solderers, and Brazers	1,897	1,951	54	2.85	49	162	5	216	\$48,310	HS diploma or equivalent	None	Moderate-term OJT	
51-4122	Welding, Soldering, & Brazing Machine Setters, Operators, & Tenders	96	92	-4	-4.17	2	8	0	10	\$39,240	HS diploma or equivalent	None	Moderate-term OJT	
51-4192	Layout Workers, Metal and Plastic	183	177	-6	-3.28	6	13	-1	18	N/A	HS diploma or equivalent	None	Moderate-term OJT	
51-4193	Plating & Coating Machine Setters, Operators, & Tenders, Metal & Plasti	89	81	-8	-8.99	3	6	-1	8	\$38,730	HS diploma or equivalent	None	Moderate-term OJT	

Table 2: WASHINGTON-ARLINGTON-ALEXANDRIA DC-VA-MD-WV METROPOLITAN STATISTICAL AREA Long-Term Occupational Projections, Separations, Openings, and Worker Characteristics, 2018 and projected 2028¹

Soccode	Occupational Title	Employment Projections				Occupational Separations, 2018-2028, annual average			Occupational			Worker Characteristics		
		2016	2026	Numeric	Percent	Exits	Occupational	Annual	Numeric Change	2018-2028	Median	Typical Education	Work Experience	Typical on-the-job
											Annual Wage ²	Needed for Entry	in a related	training needed to
51-4194	Tool Grinders, Filers, and Sharpeners	108	107	-1	-0.93	8	8	0	16	N/A	HS diploma or equivalent	None	Moderate-term OJT	
51-4199	Metal Workers and Plastic Workers, All Other	223	211	-12	-5.38	8	15	-1	22	\$38,700	HS diploma or equivalent	None	Moderate-term OJT	
51-5100	Printing Workers	2,761	2,451	-310	-11.23	117	187	-31	273	N/A				
51-5111	Prepress Technicians and Workers	185	163	-22	-11.89	6	15	-2	19	\$57,650	Postsecondary non-degree	None	None	
51-5112	Printing Press Operators	1,877	1,697	-180	-9.59	68	125	-18	175	\$45,110	HS diploma or equivalent	None	Moderate-term OJT	
51-5113	Print Binding and Finishing Workers	699	591	-108	-15.45	43	47	-11	79	\$42,790	HS diploma or equivalent	None	Moderate-term OJT	
51-6000	Textile, Apparel, and Furnishings Workers	11,409	11,570	161	1.41	780	694	16	1,490	N/A				
51-6011	Laundry and Dry-Cleaning Workers	3,425	3,622	197	5.75	219	251	20	490	\$23,380	No formal educational cred	None	Short-term OJT	
51-6021	Pressers, Textile, Garment, and Related Materials	428	362	-66	-15.42	21	25	-7	39	\$21,690	No formal educational cred	None	Short-term OJT	
51-6031	Sewing Machine Operators	917	943	26	2.84	54	50	3	107	\$26,050	No formal educational cred	None	Short-term OJT	
51-6041	Shoe and Leather Workers and Repairers	1,315	1,466	151	11.48	97	66	15	178	\$33,060	HS diploma or equivalent	None	Moderate-term OJT	
51-6051	Sewers, Hand	105	99	-6	-5.71	8	5	-1	12	N/A	No formal educational cred	None	Moderate-term OJT	
51-6052	Tailors, Dressmakers, and Custom Sewers	3,757	3,540	-217	-5.78	300	186	-22	464	\$30,400	No formal educational cred	None	Moderate-term OJT	
51-6093	Upholsterers	342	347	5	1.46	14	21	0	35	\$35,830	HS diploma or equivalent	None	Moderate-term OJT	
51-6099	Textile, Apparel, and Furnishings Workers, All Other	1,044	1,118	74	7.09	61	85	7	153	\$29,740	HS diploma or equivalent	None	Short-term OJT	
51-7000	Woodworkers	4,209	4,073	-136	-3.23	192	260	-14	438	N/A				
51-7011	Cabinetmakers and Bench Carpenters	2,392	2,318	-74	-3.09	99	146	-7	238	\$47,060	HS diploma or equivalent	None	Moderate-term OJT	
51-7021	Furniture Finishers	1,240	1,195	-45	-3.63	61	77	-4	134	\$33,000	HS diploma or equivalent	None	Short-term OJT	
51-7031	Model Makers, Wood	35	35	0	0	2	2	0	4	N/A	HS diploma or equivalent	None	Moderate-term OJT	
51-7041	Sawing Machine Setters, Operators, and Tenders, Wood	88	76	-12	-13.64	2	7	-1	8	\$27,720	HS diploma or equivalent	None	Moderate-term OJT	
51-7042	Woodworking Machine Setters, Operators, and Tenders, Except Sawing	46	42	-4	-8.7	2	4	0	6	\$27,090	HS diploma or equivalent	None	Moderate-term OJT	
51-7099	Woodworkers, All Other	383	382	-1	-0.26	24	23	0	47	N/A	HS diploma or equivalent	None	Moderate-term OJT	
51-8000	Plant and System Operators	7,536	7,488	-48	-0.64	221	496	-5	712	N/A				
51-8011	Nuclear Power Reactor Operators	107	97	-10	-9.35	2	7	-1	8	N/A	HS diploma or equivalent	None	Long-term OJT	
51-8012	Power Distributors and Dispatchers	197	187	-10	-5.08	4	14	-1	17	\$63,270	HS diploma or equivalent	None	Long-term OJT	
51-8013	Power Plant Operators	386	377	-9	-2.33	8	28	-1	35	\$93,530	HS diploma or equivalent	None	Long-term OJT	
51-8021	Stationary Engineers and Boiler Operators	1,273	1,403	130	10.21	44	98	13	155	\$69,660	HS diploma or equivalent	None	Long-term OJT	
51-8031	Water and Wastewater Treatment Plant and System Operators	4,908	4,754	-154	-3.14	147	291	-15	423	\$53,090	HS diploma or equivalent	None	Long-term OJT	
51-8091	Chemical Plant and System Operators	52	60	8	15.38	1	5	1	7	\$58,660	HS diploma or equivalent	None	Moderate-term OJT	
51-8092	Gas Plant Operators	64	65	1	1.56	2	6	0	8	\$79,830	HS diploma or equivalent	None	Long-term OJT	
51-8093	Petroleum Pump System Operators, Refinery Operators, and Gaugers	146	144	-2	-1.37	3	13	0	16	N/A	HS diploma or equivalent	None	Moderate-term OJT	
51-8099	Plant and System Operators, All Other	403	401	-2	-0.5	10	35	0	45	\$68,140	HS diploma or equivalent	None	Moderate-term OJT	
51-9000	Other Production Occupations	12,335	13,074	739	5.99	546	1,025	74	1,645	N/A				
51-9011	Chemical Equipment Operators and Tenders	52	58	6	11.54	1	5	1	7	\$37,580	HS diploma or equivalent	None	Moderate-term OJT	
51-9012	Separating, Filtering, Clarifying, Precipitating, & Still Machine Setters, Op	60	67	7	11.67	2	6	1	9	\$41,030	HS diploma or equivalent	None	Moderate-term OJT	
51-9021	Crushing, Grinding, & Polishing Machine Setters, Operators, & Tenders	71	74	3	4.23	2	6	0	8	\$37,210	HS diploma or equivalent	None	Moderate-term OJT	
51-9023	Mixing and Blending Machine Setters, Operators, and Tenders	94	104	10	10.64	3	8	1	12	\$33,310	HS diploma or equivalent	None	Moderate-term OJT	
51-9032	Cutting and Slicing Machine Setters, Operators, and Tenders	43	53	10	23.26	2	4	1	7	\$39,910	HS diploma or equivalent	None	Moderate-term OJT	
51-9041	Extruding, Forming, Pressing, & Compacting Machine Setters, Operators	31	36	5	16.13	1	2	0	3	\$28,330	HS diploma or equivalent	None	Moderate-term OJT	
51-9051	Furnace, Kiln, Oven, Drier, and Kettle Operators and Tenders	177	182	5	2.82	8	11	0	19	\$39,960	HS diploma or equivalent	None	Moderate-term OJT	
51-9061	Inspectors, Testers, Sorters, Samplers, and Weighers	4,188	3,786	-402	-9.6	158	333	-40	451	\$46,710	HS diploma or equivalent	None	Moderate-term OJT	
51-9071	Jewelers and Precious Stone and Metal Workers	399	407	8	2.01	24	27	1	52	\$37,370	HS diploma or equivalent	None	Long-term OJT	
51-9081	Dental Laboratory Technicians	275	293	18	6.55	13	22	2	37	\$45,890	HS diploma or equivalent	None	Moderate-term OJT	
51-9082	Medical Appliance Technicians	62	69	7	11.29	3	5	1	9	\$45,010	HS diploma or equivalent	None	Moderate-term OJT	
51-9083	Ophthalmic Laboratory Technicians	256	285	29	11.33	12	21	3	36	\$41,190	HS diploma or equivalent	None	Moderate-term OJT	
51-9111	Packaging and Filling Machine Operators and Tenders	2,636	2,759	123	4.67	119	194	12	325	\$28,460	HS diploma or equivalent	None	Moderate-term OJT	
51-9121	Coating, Painting, & Spraying Machine Setters, Operators, & Tenders	114	116	2	1.75	4	9	0	13	\$35,710	HS diploma or equivalent	None	Moderate-term OJT	
51-9122	Painters, Transportation Equipment	177	191	14	7.91	6	14	1	21	\$56,810	HS diploma or equivalent	None	Moderate-term OJT	
51-9123	Painting, Coating, and Decorating Workers	38	38	0	0	1	3	0	4	\$41,830	No formal educational cred	None	Moderate-term OJT	
51-9151	Photographic Process Workers and Processing Machine Operators	68	65	-3	-4.41	3	7	0	10	\$39,280	HS diploma or equivalent	None	Short-term OJT	

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Soccode	Occupational Title	Employment Projections				Occupational Separations, 2018-2028, annual average			Occupational			Worker Characteristics		
		2016	2026	Numeric	Percent	Exits	Occupational	Annual	Numeric Change	2018-2028	Median	Typical Education	Work Experience	Typical on-the-job
											Annual Wage ²	Needed for Entry	in a related Occupation	training needed to attain competency
51-9194	Etchers and Engravers	96	103	7	7.29	5	7	1	13	\$40,060	HS diploma or equivalent	None	Moderate-term OJT	
51-9195	Molders, Shapers, and Casters, Except Metal and Plastic	203	250	47	23.15	9	16	5	30	\$33,360	HS diploma or equivalent	None	Long-term OJT	
51-9196	Paper Goods Machine Setters, Operators, and Tenders	38	42	4	10.53	1	3	0	4	\$31,690	HS diploma or equivalent	None	Moderate-term OJT	
51-9198	Helpers--Production Workers	1,659	2,294	635	38.28	105	186	64	355	\$25,070	HS diploma or equivalent	None	Short-term OJT	
51-9199	Production Workers, All Other	1,541	1,742	201	13.04	61	128	20	209	\$33,300	HS diploma or equivalent	None	Moderate-term OJT	
53-0000	Transportation and Material Moving Occupations	136,624	148,563	11,939	8.74	6,748	11,162	1,194	19,104	\$36,050				
53-1000	Supervisors of Transportation and Material Moving Workers	6,102	6,890	788	12.91	206	487	79	772	N/A				
53-1011	Aircraft Cargo Handling Supervisors	94	95	1	1.06	3	7	0	10	\$51,060	HS diploma or equivalent	Less than 5 years	None	
53-1048	First-Line Supervisors of Transportation & Material Moving Workers, Exc	6,008	6,795	787	13.1	203	480	79	762	\$62,440	HS diploma or equivalent	Less than 5 years	None	
53-2000	Air Transportation Workers	5,954	5,966	12	0.2	164	415	1	580	N/A				
53-2011	Airline Pilots, Copilots, and Flight Engineers	652	637	-15	-2.3	18	48	-2	64	N/A	Bachelor's degree	Less than 5 years	Moderate-term OJT	
53-2012	Commercial Pilots	770	863	93	12.08	23	60	9	92	\$75,740	HS diploma or equivalent	None	Moderate-term OJT	
53-2021	Air Traffic Controllers	3,734	3,615	-119	-3.19	87	256	-12	331	\$144,780	Associate's degree	None	Long-term OJT	
53-2022	Airfield Operations Specialists	217	225	8	3.69	5	15	1	21	\$66,960	HS diploma or equivalent	None	Long-term OJT	
53-2031	Flight Attendants	581	626	45	7.75	32	36	4	72	N/A	HS diploma or equivalent	Less than 5 years	Moderate-term OJT	
53-3000	Motor Vehicle Operators	60,675	66,985	6,310	10.4	3,277	4,169	631	8,077	N/A				
53-3011	Ambulance Drivers & Attendants, Except Emergency Medical Technician	168	180	12	7.14	10	17	1	28	\$28,620	HS diploma or equivalent	None	Moderate-term OJT	
53-3021	Bus Drivers, Transit and Intercity	6,287	7,309	1,022	16.26	528	330	102	960	\$42,070	HS diploma or equivalent	None	Moderate-term OJT	
53-3022	Bus Drivers, School or Special Client	4,711	5,396	685	14.54	392	246	68	706	\$39,500	HS diploma or equivalent	None	Short-term OJT	
53-3031	Driver/Sales Workers	4,367	4,471	104	2.38	182	320	10	512	\$27,100	HS diploma or equivalent	None	Short-term OJT	
53-3032	Heavy and Tractor-Trailer Truck Drivers	20,196	21,214	1,018	5.04	852	1,502	102	2,456	\$45,500	Postsecondary non-degree	None	Short-term OJT	
53-3033	Light Truck or Delivery Service Drivers	14,902	16,118	1,216	8.16	638	1,125	122	1,885	\$35,610	HS diploma or equivalent	None	Short-term OJT	
53-3041	Taxi Drivers and Chauffeurs	8,468	10,699	2,231	26.35	515	524	223	1,262	\$30,450	No formal educational cred	None	Short-term OJT	
53-3099	Motor Vehicle Operators, All Other	1,576	1,598	22	1.4	161	106	2	269	\$50,570	No formal educational cred	None	Short-term OJT	
53-4000	Rail Transportation Workers	611	640	29	4.75	20	42	3	65	N/A				
53-4011	Locomotive Engineers	54	55	1	1.85	2	4	0	6	\$78,910	HS diploma or equivalent	Less than 5 years	Moderate-term OJT	
53-4021	Railroad Brake, Signal, and Switch Operators	42	42	0	0	1	3	0	4	\$62,320	HS diploma or equivalent	None	Moderate-term OJT	
53-4031	Railroad Conductors and Yardmasters	177	187	10	5.65	4	14	1	19	\$68,740	HS diploma or equivalent	None	Moderate-term OJT	
53-4041	Subway and Streetcar Operators	331	349	18	5.44	14	21	2	37	N/A	HS diploma or equivalent	None	Moderate-term OJT	
53-5000	Water Transportation Workers	1,476	1,543	67	4.54	43	126	7	176	N/A				
53-5011	Sailors and Marine Oilers	588	614	26	4.42	18	57	3	78	\$27,860	No formal educational cred	None	Moderate-term OJT	
53-5021	Captains, Mates, and Pilots of Water Vessels	559	600	41	7.33	15	40	4	59	\$63,080	Postsecondary non-degree	Less than 5 years	None	
53-5022	Motorboat Operators	45	46	1	2.22	1	3	0	4	\$50,850	Postsecondary non-degree	Less than 5 years	None	
53-5031	Ship Engineers	284	283	-1	-0.35	9	27	0	36	N/A	Postsecondary non-degree	Less than 5 years	None	
53-6000	Other Transportation Workers	18,711	19,024	313	1.67	947	1,818	31	2,796	N/A				
53-6011	Bridge and Lock Tenders	261	256	-5	-1.92	9	18	0	27	N/A	HS diploma or equivalent	None	Short-term OJT	
53-6021	Parking Lot Attendants	15,402	15,441	39	0.25	792	1,564	4	2,360	\$26,600	No formal educational cred	None	Short-term OJT	
53-6031	Automotive and Watercraft Service Attendants	699	777	78	11.16	33	76	8	117	\$26,030	No formal educational cred	None	Short-term OJT	
53-6041	Traffic Technicians	262	278	16	6.11	9	19	2	30	\$53,770	HS diploma or equivalent	None	Moderate-term OJT	
53-6051	Transportation Inspectors	1,180	1,169	-11	-0.93	36	83	-1	118	\$81,550	HS diploma or equivalent	None	Moderate-term OJT	
53-6061	Transportation Attendants, Except Flight Attendants	664	853	189	28.46	59	40	19	118	\$39,500	HS diploma or equivalent	None	Short-term OJT	
53-6099	Transportation Workers, All Other	243	250	7	2.88	9	17	1	27	\$50,430	HS diploma or equivalent	None	Short-term OJT	
53-7000	Material Moving Workers	43,095	47,515	4,420	10.26	2,090	4,105	442	6,637	N/A				
53-7011	Conveyor Operators and Tenders	119	124	5	4.2	4	10	0	14	\$30,340	No formal educational cred	None	Short-term OJT	
53-7021	Crane and Tower Operators	2,073	2,280	207	9.99	68	185	21	274	\$73,750	HS diploma or equivalent	Less than 5 years	Moderate-term OJT	
53-7032	Excavating and Loading Machine and Dragline Operators	423	473	50	11.82	16	37	5	58	\$47,730	HS diploma or equivalent	Less than 5 years	Moderate-term OJT	
53-7033	Loading Machine Operators, Underground Mining	31	34	3	9.68	1	3	0	4	N/A	No formal educational cred	None	Short-term OJT	
53-7051	Industrial Truck and Tractor Operators	3,128	3,483	355	11.35	99	273	36	408	\$42,110	No formal educational cred	None	Short-term OJT	
53-7061	Cleaners of Vehicles and Equipment	5,622	6,199	577	10.26	294	566	58	918	\$24,570	No formal educational cred	None	Short-term OJT	
53-7062	Laborers and Freight, Stock, and Material Movers, Hand	22,843	25,571	2,728	11.94	1,093	2,269	273	3,635	\$27,950	No formal educational cred	None	Short-term OJT	

Table 2: WASHINGTON-ARLINGTON-ALEXANDRIA DC-VA-MD-WV METROPOLITAN STATISTICAL AREA Long-Term Occupational Projections, Separations, Openings, and Worker Characteristics, 2018 and projected 2028¹

Soccode	Occupational Title	Employment Projections				Occupational Separations, 2018-2028, annual average			Worker Characteristics				
		Employment		Change 2018-2028		Labor Force	Occupational	Annual	Occupational	Median	Typical Education	Work Experience	Typical on-the-job
		2016	2026	Numeric	Percent	Exits	Transfers	Numeric Change	2018-2028	Annual Wage ²	Needed for Entry	in a related Occupation	training needed to attain competency
53-7063	Machine Feeders and Offbearers	143	146	3	2.1	7	12	0	19	\$29,890	No formal educational cred	None	Short-term OJT
53-7064	Packers and Packers, Hand	3,822	3,991	169	4.42	234	329	17	580	\$24,170	No formal educational cred	None	Short-term OJT
53-7072	Pump Operators, Except Wellhead Pumpers	33	36	3	9.09	1	3	0	4	N/A	HS diploma or equivalent	None	Moderate-term OJT
53-7081	Refuse and Recyclable Material Collectors	4,554	4,860	306	6.72	256	393	31	680	\$40,280	No formal educational cred	None	Short-term OJT
53-7199	Material Moving Workers, All Other	213	225	12	5.63	10	17	1	28	\$26,160	No formal educational cred	None	Short-term OJT

Notes: ¹WASHINGTON-ARLINGTON-ALEXANDRIA DC-VA-MD-WV METROPOLITAN STATISTICAL AREA Industry and Occupational Projections, 2018 - 2028

²Bureau of Labor Statistics, Occupational Employment Statistics (OES), May 2018 OES survey.

N/A - not available

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