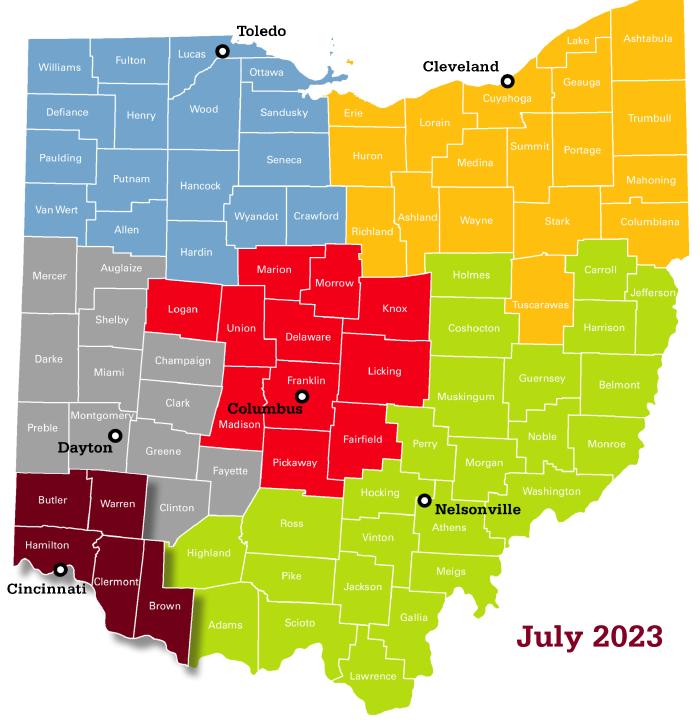


2030 Job Outlook

JobsOhio Network Southwest Ohio



2030 Job Outlook for JobsOhio Network Regions

The Ohio Department of Job and Family Services' Bureau of Labor Market Information updates employment projections every two years. The projections are widely used for studying long-range economic and employment trends, planning education and training programs, and developing career information. This edition uses employment statistics through 2020 as a foundation to project employment conditions for the 10-year period ending in 2030.

The table below summarizes 2020 employment levels and projected 2030 levels for Ohio's six JobsOhio Regions. The difference between those years represents projected new jobs due to industry growth. The number of these new jobs is expected to range from a growth of 93,045 in the Central Region to a growth of 13,641 jobs in the Southeast Region. Among the state's regions, the highest projected growth is in Central Ohio (8.0%); followed by Southwest Ohio (6.0%), West Ohio (4.1%), Southeast Ohio (4.0%), Northeast Ohio (3.0%), and Northwest Ohio (2.7%).

	2020	2030 Projected	Projected 2020-2	
JobsOhio Regions	Employment	Employment	Number	Percent
Central Ohio	1,168,921	1,261,966	93,045	8.0%
Southwest Ohio	888,939	942,233	53,294	6.0%
West Ohio	590,922	615,181	24,259	4.1%
Southeast Ohio	345,649	359,290	13,641	4.0%
Northeast Ohio	1,996,374	2,056,711	60,337	3.0%
Northwest Ohio	576,227	591,855	15,628	2.7%

Comparison of JobsOhio Regional Network: 2020-2030

Each 2030 Job Outlook report for Ohio's JobsOhio Region contains a summary of the employment outlook by industry and occupation. Typical education, work experience, and on-the-job training required for each occupation are provided. Annual openings are the result of industry growth and vacancies resulting from retirement and transfers to different occupations.

Technical Notes

Projections of employment demand were made primarily at the four-digit industry level and then aggregated to the three-digit level, based on the North American Industry Classification System (NAICS). Shift-share, time-series and regression analysis techniques were used to compare Ohio's historical regional industry employment to statewide and national industry employment, population growth and various other factors. State and local area projections are partially dependent on the outlook for specific industries nationally.

Regional staffing patterns were estimated using the Local Employment and Wage Information System, which creates wage estimates for customized geographic regions using data from the Occupational Employment and Wage Statistics (OEWS) surveys. Wage estimates are based on Ohio's OEWS surveys. Wage estimates represent May 2021.

Ohio industry staffing patterns were adjusted for expected technological change and other factors from national data provided by the U.S. Bureau of Labor Statistics (BLS). To project occupational openings, Ohio uses national separation rates calculated by the BLS caused by workers exiting the labor force due to retirement or other reasons (labor force exits) and separations caused by workers transferring to different occupations (occupational transfers). Projections of separations are combined with projections of employment change to estimate occupational openings.

Inclusion of education and training levels is made possible by the classification of the Standard Occupational Classification-based occupations into 11 distinct categories by the BLS Office of Occupational Statistics and Employment Projections.

Because it is difficult to estimate future needs with certainty, the long-term job outlook data are updated every other year. More information about projected local job growth in Ohio is available through reports published at <u>Employment Projections (ohiolmi.com</u>).

For more information, contact the Ohio Bureau of Labor Market Information at (614) 752-9494 or <u>ContactLMI@jfs.ohio.gov</u>.

		Emplo	yment*	Chang	ge in					
soc		2020	2030	Employ	ment		Annua	l Openings		Median Wage
Code	Occupational Title	Annual	Projected	2020-2030	Percent	Growth	Exits	Transfers	Total	May 2021
00-0000	Total, All Occupations	888,939	942,233	53,294	6.0%	5,329	38,372	59,776	103,477	\$22.25
11-0000	Management Occupations	51,343	55,595	4,252	8.3%	425	1,390	2,846	4,661	\$49.28
11-1011	Chief Executives	1,163	1,070	-93	-8.0%	-9	30	45	66	#
11-1021	General and Operations Managers	10,919	11,695	776	7.1%	78	226	701	1,005	\$47.59
11-1031	Legislators	261	265	4	1.5%	0	6	13	19	\$36,915 **
11-2021	Marketing Managers	1,629	1,722	93	5.7%	9	34	106	149	\$63.68
11-2022	Sales Managers	2,181	2,312	131	6.0%	13	45	142	200	\$64.04
11-2030	Public Relations and Fundraising Managers	363	392	29	8.0%	3	10	21	34	\$57.62 ^
11-3010	Administrative Services and Facilities Managers	1,964	2,097	133	6.8%	13	58	101	172	\$47.73 ^
11-3021	Computer and Information Systems Managers	2,870	3,062	192	6.7%	19	48	169	236	\$63.68
11-3031	Financial Managers	5,277	6,084	807	15.3%	81	116	285	482	\$61.55
11-3051	Industrial Production Managers	2,063	2,118	55	2.7%	6	40	99	145	\$57.40
11-3061	Purchasing Managers	500	524	24	4.8%	2	11	28	41	\$61.66
11-3071	Transportation, Storage, and Distribution Managers	908	1,012	104	11.5%	10	18	53	81	\$47.08
11-3111	Compensation and Benefits Managers	112	112	0	0.0%	0	2	6	8	\$62.12
11-3121	Human Resources Managers	819	869	50	6.1%	5	20	47	72	\$61.17
11-3131	Training and Development Managers	203	218	15	7.4%	2	5	14	21	\$57.54
11-9013	Farmers, Ranchers, and Other Agricultural Managers	4,784	4,997	213	4.5%	21	302	170	493	\$35.12 ^
11-9021	Construction Managers	1,877	2,094	217	11.6%	22	41	100	163	\$47.78
11-9031	Education Administrators, Preschool and Childcare Center/Program	326	364	38	11.7%	4	8	16	28	\$22.39
11-9032	Education Administrators, Elementary and Secondary School	1,153	1,272	119	10.3%	12	30	56	98	\$97,597 **
11-9033	Education Administrators, Postsecondary	336	335	-1	-0.3%	0	8	16	24	\$49.35
11-9039	Education Administrators, All Other	111	127	16	14.4%	2	3	6	11	\$29.67
11-9041	Architectural and Engineering Managers	1,268	1,288	20	1.6%	2	23	65	90	\$64.78
11-9051	Food Service Managers	1,788	2,058	270	15.1%	27	59	154	240	\$28.78
11-9081	Lodging Managers	134	143	9	6.7%	1	5	10	16	\$24.41
11-9111	Medical and Health Services Managers	2,368	3,068	700	29.6%	70	68	138	276	\$49.03
11-9121	Natural Sciences Managers	272	287	15	5.5%	2	6	14	22	\$61.30
11-9141	Property, Real Estate, and Community Association Managers	1,719	1,774	55	3.2%	6	66	66	138	\$28.42
11-9151	Social and Community Service Managers	843	925	82	9.7%	8	26	47	81	\$31.33
11-9198	Personal Service Managers; Entertainment & Recreation Managers, Except									
	Gambling; and Managers, All Other	2,933	3,108	175	6.0%	18	70	148	236	\$59.93 ^^^
13-0000	Business and Financial Operations Occupations	64,534	68,549	4,015	6.2%	402	1,736	3,904	6,042	\$30.91
13-1020	Buyers and Purchasing Agents	2,996	2,833	-163	-5.4%	-16	99	187	270	\$30.66
13-1031	Claims Adjusters, Examiners, and Investigators	3,145	3,004	-141	-4.5%	-14	72	160	218	\$29.60
13-1041	Compliance Officers	1,576	1,654	78	5.0%	8	39	86	133	\$35.54
13-1051	Cost Estimators	1,526	1,526	0	0.0%	0	43	92	135	\$32.20
13-1071	Human Resources Specialists	5,629	6,212	583	10.4%	58	160	394	612	\$29.11
13-1075	Labor Relations Specialists	509	451	-58	-11.4%	-6	13	32	39	\$39.14
13-1081	Logisticians	899	1,169	270	30.0%	27	22	67	116	\$37.60
13-1111	Management Analysts	6,288	6,857	569	9.1%	57	211	378	646	\$38.02

		Emplo	yment*	Chang	ge in					
soc		2020	2030	Employ	ment		Annua	al Openings		Median Wage
Code	Occupational Title	Annual	Projected	2020-2030	Percent	Growth	Exits	Transfers	Total	May 2021
13-1121	Meeting, Convention, and Event Planners	792	876	84	10.6%	8	25	61	94	\$23.27
13-1131	Fundraisers	1,035	1,116	81	7.8%	8	33	68	109	\$29.29
13-1141	Compensation, Benefits, and Job Analysis Specialists	597	646	49	8.2%	5	19	36	60	\$29.36
13-1151	Training and Development Specialists	2,636	2,928	292	11.1%	29	84	170	283	\$22.69
13-1161	Market Research Analysts and Marketing Specialists	5,829	6,977	1,148	19.7%	115	152	468	735	\$30.23
13-1198	Project Management Specialists and Business Operations Specialists, All Other	9,420	9,725	305	3.2%	30	222	469	721	\$35.90 ^^^
13-2011	Accountants and Auditors	8,842	9,293	451	5.1%	45	253	537	835	\$36.03
13-2020	Property Appraisers and Assessors	141	140	-1	-0.7%	0	5	5	10	\$30.91
13-2031	Budget Analysts	203	216	13	6.4%	1	5	11	17	\$36.76
13-2041	Credit Analysts	510	489	-21	-4.1%	-2	8	34	40	\$30.57
13-2052	Personal Financial Advisors	2,077	2,270	193	9.3%	19	49	107	175	\$41.27
13-2053	Insurance Underwriters	1,883	1,776	-107	-5.7%	-11	37	95	121	\$36.76
13-2061	Financial Examiners	809	984	175	21.6%	18	24	42	84	\$34.94
13-2072	Loan Officers	2,700	2,755	55	2.0%	6	59	148	213	\$29.60
13-2081	Tax Examiners and Collectors, and Revenue Agents	287	261	-26	-9.1%	-3	11	12	20	\$42.60
13-2082	Tax Preparers	375	385	10	2.7%	1	21	21	43	\$15.45
13-2098	Financial and Investment Analysts, Financial Risk Specialists, and Financial									
	Specialists, All Other	3,580	3,748	168	4.7%	17	64	209	290	\$35.21 ^^^
15-0000	Computer and Mathematical Occupations	35,368	38,983	3,615	10.2%	362	765	1,831	2,958	\$38.53
15-1211	Computer Systems Analysts	4,376	4,428	52	1.2%	5	86	217	308	\$47.62
15-1212	Information Security Analysts	1,062	1,343	281	26.5%	28	18	66	112	\$47.62
15-1231	Computer Network Support Specialists	1,638	1,701	63	3.9%	6	31	88	125	\$28.90
15-1232	Computer User Support Specialists	4,738	5,111	373	7.9%	37	92	261	390	\$23.07
15-1241	Computer Network Architects	995	992	-3	-0.3%	0	14	45	59	\$50.53
15-1244	Network and Computer Systems Administrators	2,823	2,908	85	3.0%	8	48	135	191	\$38.42
15-1245	Database Administrators and Architects	914	965	51	5.6%	5	22	46	73	\$47.44 ^^^
15-1251	Computer Programmers	1,574	1,405	-169	-10.7%	-17	30	68	81	\$37.89
15-1256	Software Developers and Software Quality Assurance Analysts and Testers	11,386	13,391	2,005	17.6%	200	287	608	1,095	\$49.49 ^^^
15-1257	Web Developers and Digital Interface Designers	1,021	1,122	101	9.9%	10	25	52	87	\$49.49 ^^^
15-1299	Computer Occupations, All Other	2,110	2,206	96	4.6%	10	50	106	166	\$44.97
15-2011	Actuaries	541	643	102	18.9%	10	9	23	42	\$47.88
15-2031	Operations Research Analysts	1,144	1,398	254	22.2%	25	27	55	107	\$44.44
15-2098	Data Scientists and Mathematical Science Occupations, All Other	555	692	137	24.7%	14	13	31	58	\$30.03 ^^^
17-0000	Architecture and Engineering Occupations	17,539	18,270	731	4.2%	73	416	826	1,315	\$38.12
17-1011	Architects, Except Landscape and Naval	591	610	19	3.2%	2	16	26	44	\$37.99
17-1022	Surveyors	167	174	7	4.2%	1	6	8	15	\$29.68
17-2011	Aerospace Engineers	1,351	1,348	-3	-0.2%	0	28	47	75	\$61.62
17-2031	Biomedical Engineers	129	134	5	3.9%	0	3	5	8	\$38.29
17-2041	Chemical Engineers	171	178	7	4.1%	1	3	6	10	\$45.95
17-2051	Civil Engineers	1,431	1,551	120	8.4%	12	30	74	116	\$37.99
17-2071	Electrical Engineers	1,218	1,293	75	6.2%	8	30	50	88	\$46.05

		Emplo	yment*	Chang	ge in					
soc		2020	2030	Employ	ment		Annua	l Openings		Median Wage
Code	Occupational Title	Annual	Projected	2020-2030	Percent	Growth	Exits	Transfers	Total	May 2021
17-2072	Electronics Engineers, Except Computer	703	735	32	4.6%	3	17	29	49	\$48.22
17-2081	Environmental Engineers	172	171	-1	-0.6%	0	4	8	12	\$45.95
17-2112	Industrial Engineers	2,999	3,327	328	10.9%	33	69	127	229	\$45.95
17-2131	Materials Engineers	277	284	7	2.5%	1	6	11	18	\$47.62
17-2141	Mechanical Engineers	2,758	2,865	107	3.9%	11	48	116	175	\$47.54
17-2199	Engineers, All Other	1,175	1,188	13	1.1%	1	25	49	75	\$47.69
17-3011	Architectural and Civil Drafters	572	554	-18	-3.2%	-2	17	36	51	\$28.81
17-3012	Electrical and Electronics Drafters	181	181	0	0.0%	0	6	12	18	\$29.78
17-3013	Mechanical Drafters	313	293	-20	-6.4%	-2	9	19	26	\$29.68
17-3022	Civil Engineering Technicians	314	321	7	2.2%	1	10	20	31	\$28.68
17-3023	Electrical and Electronics Engineering Technicians	478	475	-3	-0.6%	0	14	29	43	\$29.63
17-3026	Industrial Engineering Technicians	548	578	30	5.5%	3	17	35	55	\$28.52
17-3027	Mechanical Engineering Technicians	411	426	15	3.7%	2	13	26	41	\$28.67
17-3031	Surveying and Mapping Technicians	187	190	3	1.6%	0	7	16	23	\$22.75
17-3098	Calibration and Engineering Technologists and Technicians, Except Drafters, All									·
	Other	403	413	10	2.5%	1	12	25	38	\$29.18 ^^^
19-0000	Life, Physical, and Social Science Occupations	7,981	8,547	566	7.1%	57	170	578	805	\$30.81
19-1012	Food Scientists and Technologists	130	136	6	4.6%	1	3	11	15	\$45.47
19-1022	Microbiologists	201	212	11	5.5%	1	3	14	18	\$22.82
19-1042	Medical Scientists, Except Epidemiologists	1,087	1,261	174	16.0%	17	16	68	101	\$39.75
19-2031	Chemists	886	922	36	4.1%	4	13	67	84	\$36.06
19-2041	Environmental Scientists and Specialists, Including Health	105	110	5	4.8%	0	2	8	10	\$30.88
19-3022	Survey Researchers	101	109	8	7.9%	1	2	7	10	\$30.81
19-3031	Clinical, Counseling, and School Psychologists	774	841	67	8.7%	7	21	32	60	\$38.96 ^^^
19-3039	Psychologists, All Other	332	354	22	6.6%	2	9	13	24	\$45.78
19-3051	Urban and Regional Planners	129	133	4	3.1%	0	2	9	11	\$36.06
19-4031	Chemical Technicians	504	498	-6	-1.2%	-1	9	45	53	\$23.31
19-4042	Environmental Science and Protection Technicians, Including Health	355	375	20	5.6%	2	10	34	46	\$22.75
19-4099	Life, Physical, and Social Science Technicians, All Other	108	115	7	6.5%	1	3	10	14	\$23.99
19-5011	Occupational Health and Safety Specialists	754	790	36	4.8%	4	21	33	58	\$37.98
21-0000	Community and Social Service Occupations	18,378	19,992	1,614	8.8%	161	682	1,211	2,054	\$22.87
21-1012	Educational, Guidance, School, and Vocational Counselors	1,683	1,909	226	13.4%	23	58	106	187	\$29.79
21-1015	Rehabilitation Counselors	520	542	22	4.2%	2	17	32	51	\$18.42
21-1018	Substance Abuse, Behavioral Disorder, and Mental Health Counselors	1,373	1,677	304	22.1%	30	50	90	170	\$23.03
21-1019	Counselors, All Other	264	268	4	1.5%	0	9	16	25	\$22.42
21-1021	Child, Family, and School Social Workers	2,046	2,284	238	11.6%	24	61	137	222	\$22.75
21-1022	Healthcare Social Workers	1,340	1,477	137	10.2%	14	40	89	143	\$29.28
21-1023	Mental Health and Substance Abuse Social Workers	1,058	1,258	200	18.9%	20	32	73	125	\$18.68
21-1029	Social Workers, All Other	369	383	14	3.8%	1	10	24	35	\$28.58
21-1091	Health Educators	276	307	31	11.2%	3	10	20	33	\$29.94
21-1092	Probation Officers and Correctional Treatment Specialists	363	367	4	1.1%	0	8	22	30	\$29.09

		Emplo	yment*	Chang	Change in					
SOC		2020	2030	Employ	ment		Annua	l Openings		Median Wage
Code	Occupational Title	Annual	Projected	2020-2030	Percent	Growth	Exits	Transfers	Total	May 2021
21-1093	Social and Human Service Assistants	2,206	2,495	289	13.1%	29	94	177	300	\$17.97
21-1094	Community Health Workers	362	423	61	16.9%	6	13	27	46	\$18.51
21-2011	Clergy	5,131	5,182	51	1.0%	5	212	298	515	\$23.47
23-0000	Legal Occupations	6,193	6,511	318	5.1%	32	170	237	439	\$37.68
23-1011	Lawyers	3,944	4,144	200	5.1%	20	87	100	207	\$50.28
23-1023	Judges, Magistrate Judges, and Magistrates	244	245	1	0.4%	0	5	6	11	\$63.23
23-2011	Paralegals and Legal Assistants	1,576	1,696	120	7.6%	12	63	110	185	\$22.57
25-0000	Education, Training, and Library Occupations	47,684	53,164	5,480	11.5%	548	2,011	2,283	4,842	\$29.14
25-1032	Engineering Teachers, Postsecondary	309	322	13	4.2%	1	14	15	30	\$105,785 **
25-1042	Biological Science Teachers, Postsecondary	248	260	12	4.8%	1	11	12	24	\$81,896 **
25-1052	Chemistry Teachers, Postsecondary	113	113	0	0.0%	0	5	5	10	\$82,736 **
25-1071	Health Specialties Teachers, Postsecondary	3,377	3,978	601	17.8%	60	164	172	396	\$167,851 **
25-1072	Nursing Instructors and Teachers, Postsecondary	516	589	73	14.2%	7	25	26	58	\$76,353 **
25-1081	Education Teachers, Postsecondary	429	432	3	0.7%	0	19	20	39	\$63,942 **
25-1122	Communications Teachers, Postsecondary	161	162	1	0.6%	0	7	8	15	\$77,907 **
25-1123	English Language and Literature Teachers, Postsecondary	359	358	-1	-0.3%	0	16	17	33	\$64,005 **
25-1124	Foreign Language and Literature Teachers, Postsecondary	176	177	1	0.6%	0	8	8	16	\$63,722 **
25-1126	Philosophy and Religion Teachers, Postsecondary	120	121	1	0.8%	0	5	6	11	\$78,176 **
25-1194	Vocational Education Teachers, Postsecondary	209	212	3	1.4%	0	9	10	19	\$23.97
25-1199	Postsecondary Teachers, All Other	184	179	-5	-2.7%	0	8	8	16	\$61,590 **
25-2011	Preschool Teachers, Except Special Education	2,009	2,478	469	23.3%	47	92	131	270	\$14.04
25-2021	Elementary School Teachers, Except Special Education	6,745	7,400	655	9.7%	66	217	283	566	\$76,063 **
25-2022	Middle School Teachers, Except Special and Career/Technical Education	3,896	4,272	376	9.7%	38	125	164	327	\$61,780 **
25-2031	Secondary School Teachers, Except Special and Career/Technical Education	7,382	8,147	765	10.4%	76	206	315	597	\$77,147 **
25-2032	Career/Technical Education Teachers, Secondary School	500	548	48	9.6%	5	14	21	40	\$76,878 **
25-2052	Special Education Teachers, Kindergarten and Elementary School	935	1,032	97	10.4%	10	32	39	81	\$75,978 **
25-2057	Special Education Teachers, Middle School	545	597	52	9.5%	5	19	23	47	\$47,959 **
25-2058	Special Education Teachers, Secondary School	1,207	1,373	166	13.8%	17	42	51	110	\$62,250 **
25-3021	Self-Enrichment Education Teachers	2,594	3,136	542	20.9%	54	171	154	379	\$14.96
25-3031	Substitute Teachers, Short-Term	1,474	1,715	241	16.4%	24	95	85	204	\$14.47
25-3097	Teachers and Instructors, All Other, Except Substitute Teachers	1,277	1,478	201	15.7%	20	82	74	176	\$17.94 ^^^
25-4022	Librarians and Media Collections Specialists	517	537	20	3.9%	2	26	23	51	\$28.90
25-4031	Library Technicians	411	383	-28	-6.8%	-3	33	24	54	\$14.86
25-9045	Teaching Assistants, Except Postsecondary	7,048	7,931	883	12.5%	88	335	350	773	\$29,118 **
27-0000	Arts, Design, Entertainment, Sports, and Media Occupations	14,573	15,873	1,300	8.9%	130	594	956	1,680	\$23.81
27-1011	Art Directors	419	454	35	8.4%	4	21	23	48	\$47.66
27-1013	Fine Artists, Including Painters, Sculptors, and Illustrators	105	129	24	22.9%	2	6	6	14	\$23.77
27-1023	Floral Designers	117	89	-28	-23.9%	-3	3	6	6	\$14.24
27-1024	Graphic Designers	1,935	1,942	7	0.4%	1	59	115	175	\$24.19
27-1025	Interior Designers	959	940	-19	-2.0%	-2	29	56	83	\$28.88
27-1026	Merchandise Displayers and Window Trimmers	719	751	32	4.5%	3	22	44	69	\$17.37

		Emplo	yment*	Chang	e in					
soc		2020	2030	Employ	ment		Annua	l Openings		Median Wage
Code	Occupational Title	Annual	Projected	2020-2030	Percent	Growth	Exits	Transfers	Total	May 2021
27-1027	Set and Exhibit Designers	248	276	28	11.3%	3	8	16	27	\$14.73
27-2012	Producers and Directors	333	357	24	7.2%	2	8	22	32	\$30.13
27-2022	Coaches and Scouts	1,530	1,834	304	19.9%	30	96	135	261	\$40,423 **
27-2041	Music Directors and Composers	568	588	20	3.5%	2	34	32	68	\$28.90
27-2042	Musicians and Singers	1,573	1,665	92	5.9%	9	95	91	195	\$60.04
27-3011	Radio and Television Announcers	224	223	-1	-0.5%	0	9	12	21	\$17.91
27-3023	News Analysts, Reporters, and Journalists	189	177	-12	-6.4%	-1	5	14	18	\$23.62
27-3031	Public Relations Specialists	1,435	1,522	87	6.1%	9	37	97	143	\$30.19
27-3041	Editors	499	494	-5	-1.0%	0	16	31	47	\$24.06
27-3042	Technical Writers	294	318	24	8.2%	2	8	19	29	\$30.43
27-3043	Writers and Authors	622	662	40	6.4%	4	26	35	65	\$30.07
27-3091	Interpreters and Translators	227	283	56	24.7%	6	10	14	30	\$23.33
27-4011	Audio and Video Equipment Technicians	534	672	138	25.8%	14	16	44	74	\$19.35
27-4012	Broadcast Technicians	146	160	14	9.6%	1	4	11	16	\$18.64
27-4021	Photographers	428	557	129	30.1%	13	17	28	58	\$18.30
29-0000	Healthcare Practitioners and Technical Occupations	57,346	62,522	5,176	9.0%	518	1,540	1,797	3,855	\$30.10
29-1011	Chiropractors	202	206	4	2.0%	0	3	2	5	\$38.24
29-1021	Dentists, General	575	599	24	4.2%	2	11	5	18	\$83.89
29-1031	Dietitians and Nutritionists	504	541	37	7.3%	4	17	18	39	\$29.66
29-1041	Optometrists	303	310	7	2.3%	1	5	4	10	\$49.04
29-1051	Pharmacists	1,896	1,892	-4	-0.2%	0	35	36	71	\$62.32
29-1071	Physician Assistants	541	699	158	29.2%	16	10	24	50	\$48.57
29-1122	Occupational Therapists	873	1,001	128	14.7%	13	20	31	64	\$38.24
29-1123	Physical Therapists	1,260	1,439	179	14.2%	18	27	28	73	\$46.09
29-1126	Respiratory Therapists	1,049	1,304	255	24.3%	26	25	30	81	\$29.74
29-1127	Speech-Language Pathologists	989	1,229	240	24.3%	24	26	40	90	\$37.85
29-1131	Veterinarians	429	470	41	9.6%	4	7	7	18	\$48.30
29-1141	Registered Nurses	21,223	22,966	1,743	8.2%	174	590	556	1,320	\$36.08
29-1151	Nurse Anesthetists	417	450	33	7.9%	3	8	13	24	\$80.98
29-1171	Nurse Practitioners	1,873	2,813	940	50.2%	94	49	74	217	\$50.11
29-1181	Audiologists	181	201	20	11.1%	2	4	4	10	\$29.11
29-1211	Anesthesiologists	112	111	-1	-0.9%	0	2	1	3	#
29-1216	General Internal Medicine Physicians	220	212	-8	-3.6%	-1	4	2	5	\$36.53
29-1218	Obstetricians and Gynecologists	193	182	-11	-5.7%	-1	3	2	4	\$93.76
29-1221	Pediatricians, General	370	343	-27	-7.3%	-3	6	4	7	\$63.54
29-1223	Psychiatrists	120	138	18	15.0%	2	2	2	6	#
29-1228	Physicians, All Other; and Ophthalmologists, Except Pediatric	2,589	2,622	33	1.3%	3	42	29	74	\$37.45 ^^^
29-1292	Dental Hygienists	1,551	1,664	113	7.3%	11	58	40	109	\$37.33
29-1298	Acupuncturists and Healthcare Diagnosing or Treating Practitioners, All Other	223	220	-3	-1.4%	0	10	3	13	\$37.45 ^^^
29-2010	Clinical Laboratory Technologists and Technicians	1,746	1,932	186	10.7%	19	47	68	134	\$23.37
29-2031	Cardiovascular Technologists and Technicians	269	288	19	7.1%	2	8	12	22	\$29.69

		Emplo	yment*	Chang	e in					
SOC		2020	2030	Employ	ment		Annua	l Openings		Median Wage
Code	Occupational Title	Annual	Projected	2020-2030	Percent	Growth	Exits	Transfers	Total	May 2021
29-2032	Diagnostic Medical Sonographers	490	582	92	18.8%	9	15	23	47	\$37.53
29-2033	Nuclear Medicine Technologists	104	112	8	7.7%	1	3	5	9	\$38.06
29-2034	Radiologic Technologists	1,395	1,505	110	7.9%	11	40	62	113	\$29.64
29-2035	Magnetic Resonance Imaging Technologists	274	293	19	6.9%	2	8	12	22	\$37.40
29-2040	Emergency Medical Technicians and Paramedics	1,090	1,129	39	3.6%	4	21	51	76	\$17.76 ^
29-2052	Pharmacy Technicians	2,809	2,897	88	3.1%	9	78	123	210	\$17.55
29-2055	Surgical Technologists	463	504	41	8.9%	4	13	21	38	\$22.97
29-2056	Veterinary Technologists and Technicians	498	535	37	7.4%	4	14	22	40	\$17.73
29-2057	Ophthalmic Medical Technicians	253	260	7	2.8%	1	7	11	19	\$17.75
29-2061	Licensed Practical and Licensed Vocational Nurses	5,685	5,924	239	4.2%	24	196	242	462	\$23.11
29-2081	Opticians, Dispensing	266	271	5	1.9%	0	11	9	20	\$22.69
29-2098	Medical Dosimetrists, Medical Records Specialists, and Health Technologists and									
	Technicians, All Other	2,759	3,010	251	9.1%	25	79	124	228	\$22.55 ^^^
29-9098	Health Information Technologists, Medical Registrars, Surgical Assistants, &									
	Healthcare Practitioners, AO	217	259	42	19.4%	4	6	10	20	\$26.19 ^^^
31-0000	Healthcare Support Occupations	31,981	36,145	4,164	13.0%	416	1,973	2,133	4,522	\$14.32
31-1120	Home Health and Personal Care Aides	11,216	13,567	2,351	21.0%	235	793	702	1,730	\$11.65
31-1131	Nursing Assistants	9,571	9,826	255	2.7%	26	621	549	1,196	\$14.50
31-2011	Occupational Therapy Assistants	580	740	160	27.6%	16	33	48	97	\$29.90
31-2021	Physical Therapist Assistants	732	917	185	25.3%	18	35	62	115	\$30.15
31-9011	Massage Therapists	847	1,048	201	23.7%	20	56	50	126	\$23.03
31-9091	Dental Assistants	1,626	1,739	113	7.0%	11	77	118	206	\$22.87
31-9092	Medical Assistants	3,859	4,380	521	13.5%	52	169	308	529	\$17.99
31-9093	Medical Equipment Preparers	367	397	30	8.2%	3	21	25	49	\$18.01
31-9096	Veterinary Assistants and Laboratory Animal Caretakers	935	1,013	78	8.3%	8	48	108	164	\$14.23
31-9097	Phlebotomists	995	1,182	187	18.8%	19	47	79	145	\$17.88
31-9099	Healthcare Support Workers, All Other	334	355	21	6.3%	2	19	23	44	\$18.62
33-0000	Protective Service Occupations	16,759	17,892	1,133	6.8%	113	852	1,145	2,110	\$19.45
33-1012	First-Line Supervisors of Police and Detectives	344	348	4	1.2%	0	8	14	22	\$47.53
33-1021	First-Line Supervisors of Fire Fighting and Prevention Workers	339	344	5	1.5%	0	8	14	22	\$39.45
33-1090	Miscellaneous First-Line Supervisors, Protective Service Workers	586	664	78	13.3%	8	23	36	67	\$25.23 ^
33-2011	Firefighters	2,997	3,078	81	2.7%	8	67	157	232	\$24.58
33-3011	Bailiffs	223	215	-8	-3.6%	-1	8	12	19	\$22.40
33-3012	Correctional Officers and Jailers	1,099	987	-112	-10.2%	-11	39	56	84	\$23.04
33-3021	Detectives and Criminal Investigators	269	271	2	0.7%	0	7	12	19	\$37.19
33-3051	Police and Sheriff's Patrol Officers	3,064	3,105	41	1.3%	4	77	157	238	\$36.77
33-9032	Security Guards	5,014	5,526	512	10.2%	51	279	408	738	\$13.92
33-9091	Crossing Guards	275	317	42	15.3%	4	43	15	62	\$14.01
33-9098	School Bus Monitors and Protective Service Workers, All Other	328	361	33	10.1%	3	47	38	88	\$15.11 ^^^
35-0000	Food Preparation and Serving Related Occupations	68,281	80,362	12,081	17.7%	1,208	5,628	7,575	14,411	\$11.22
35-1011	Chefs and Head Cooks	563	680	117	20.8%	12	19	61	92	\$27.08

		Emplo	yment*	Chang	e in					
soc		2020	2030	Employ	ment		Annua	l Openings		Median Wage
Code	Occupational Title	Annual	Projected	2020-2030	Percent	Growth	Exits	Transfers	Total	May 2021
35-1012	First-Line Supervisors of Food Preparation and Serving Workers	5,824	7,120	1,296	22.3%	130	289	660	1,079	\$15.37
35-2011	Cooks, Fast Food	3,464	3,399	-65	-1.9%	-6	202	294	490	\$10.99
35-2012	Cooks, Institution and Cafeteria	2,970	3,091	121	4.1%	12	178	259	449	\$14.36
35-2014	Cooks, Restaurant	5,747	8,493	2,746	47.8%	275	419	609	1,303	\$14.17
35-2021	Food Preparation Workers	5,303	5,533	230	4.3%	23	426	498	947	\$12.07
35-3011	Bartenders	3,323	4,132	809	24.4%	81	169	452	702	\$10.33
35-3023	Fast Food and Counter Workers	21,296	24,748	3,452	16.2%	345	2,232	2,434	5,011	\$10.77
35-3031	Waiters and Waitresses	11,370	13,528	2,158	19.0%	216	914	1,486	2,616	\$9.95
35-3041	Food Servers, Nonrestaurant	1,924	2,002	78	4.1%	8	155	153	316	\$13.33
35-9011	Dining Room and Cafeteria Attendants and Bartender Helpers	893	1,147	254	28.4%	25	88	88	201	\$10.95
35-9021	Dishwashers	1,557	1,840	283	18.2%	28	128	142	298	\$11.19
35-9031	Hosts and Hostesses, Restaurant, Lounge, and Coffee Shop	2,159	2,683	524	24.3%	52	287	273	612	\$10.60
35-9099	Food Preparation and Serving Related Workers, All Other	358	358	0	0.0%	0	31	31	62	\$11.05
37-0000	Building and Grounds Cleaning and Maintenance Occupations	25,676	26,115	439	1.7%	44	1,460	1,899	3,403	\$14.32
37-1011	First-Line Supervisors of Housekeeping and Janitorial Workers	1,048	1,029	-19	-1.8%	-2	45	72	115	\$18.72
37-1012	First-Line Supervisors of Landscaping, Lawn Service, and Groundskeeping Workers	824	825	1	0.1%	0	26	59	85	\$22.42
37-2011	Janitors and Cleaners, Except Maids and Housekeeping Cleaners	11,466	11,587	121	1.1%	12	719	808	1,539	\$14.16
37-2012	Maids and Housekeeping Cleaners	5,466	5,592	126	2.3%	13	376	356	745	\$12.64
37-3011	Landscaping and Groundskeeping Workers	6,532	6,730	198	3.0%	20	285	568	873	\$14.62
39-0000	Personal Care and Service Occupations	24,517	28,575	4,058	16.6%	406	1,656	2,059	4,121	\$11.70
39-2021	Nonfarm Animal Caretakers	1,989	2,677	688	34.6%	69	150	194	413	\$10.91
39-3031	Ushers, Lobby Attendants, and Ticket Takers	432	692	260	60.2%	26	71	57	154	\$10.52
39-3091	Amusement and Recreation Attendants	1,720	2,242	522	30.4%	52	193	222	467	\$10.52
39-5012	Hairdressers, Hairstylists, and Cosmetologists	4,246	4,748	502	11.8%	50	238	250	538	\$14.47
39-5092	Manicurists and Pedicurists	904	1,118	214	23.7%	21	51	54	126	\$10.99
39-5094	Skincare Specialists	253	305	52	20.6%	5	14	15	34	\$17.96
39-6012	Concierges	158	180	22	13.9%	2	9	13	24	\$13.93
39-7010	Tour and Travel Guides	209	252	43	20.6%	4	15	22	41	\$11.66
39-9011	Childcare Workers	5,949	6,203	254	4.3%	25	409	424	858	\$11.60
39-9031	Fitness Trainers and Aerobics Instructors	1,797	2,416	619	34.5%	62	123	200	385	\$14.34
39-9032	Recreation Workers	2,678	2,833	155	5.8%	16	161	262	439	\$11.70
41-0000	Sales and Related Occupations	77,963	76,977	-986	-1.3%	-99	3,767	6,027	9,695	\$14.50
41-1011	First-Line Supervisors of Retail Sales Workers	5,809	5,461	-348	-6.0%	-35	199	390	554	\$18.59
41-1012	First-Line Supervisors of Non-Retail Sales Workers	2,223	2,079	-144	-6.5%	-14	62	128	176	\$39.13
41-2011	Cashiers	14,843	13,171	-1,672	-11.3%	-167	1,192	1,341	2,366	\$11.04
41-2021	Counter and Rental Clerks	1,737	1,902	165	9.5%	16	82	125	223	\$14.32
41-2031	Retail Salespersons	20,684	20,403	-281	-1.4%	-28	1,149	1,697	2,818	\$12.86
41-3011	Advertising Sales Agents	670	640	-30	-4.5%	-3	20	61	78	\$23.14
41-3021	Insurance Sales Agents	2,708	2,836	128	4.7%	13	92	155	260	\$28.96
41-3031	Securities, Commodities, and Financial Services Sales Agents	2,676	2,871	195	7.3%	20	61	175	256	\$29.70
41-3041	Travel Agents	188	185	-3	-1.6%	0	9	12	21	\$18.45

		Emplo	yment*	Chang	ge in					
SOC		2020	2030	Employ	ment		Annua	l Openings		Median Wage
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41-3091	Sales Representatives of Services, Except Advertising, Insurance, Financial									
	Services, and Travel	6,622	7,034	412	6.2%	41	172	600	813	\$29.34
41-4011	Sales Representatives, Wholesale and Manufacturing, Technical and Scientific	,								
	Products	1,974	2,052	78	4.0%	8	60	136	204	\$47.73
41-4012	Sales Representatives, Wholesale and Manufacturing, Except Technical and									•
	Scientific Products	11,207	11,706	499	4.5%	50	339	774	1,163	\$30.10
41-9011	Demonstrators and Product Promoters	723	697	-26	-3.6%	-3	79	47	123	\$14.57
41-9022	Real Estate Sales Agents	2,242	2,351	109	4.9%	11	96	101	208	\$18.39
41-9031	Sales Engineers	616	651	35	5.7%	4	13	52	69	\$50.80
41-9041	Telemarketers	533	432	-101	-19.0%	-10	22	49	61	\$17.23
41-9099	Sales and Related Workers, All Other	516	523	7	1.4%	1	24	43	68	\$13.93
43-0000	Office and Administrative Support Occupations	117,188	112,624	-4,564	-3.9%	-456	5,451	7,178	12,173	\$18.17
43-1011	First-Line Supervisors of Office and Administrative Support Workers	8,092	7,835	-257	-3.2%	-26	296	487	757	\$29.10
43-2011	Switchboard Operators, Including Answering Service	387	282	-105	-27.1%	-10	17	20	27	\$14.26
43-3011	Bill and Account Collectors	1,194	1,045	-149	-12.5%	-15	41	79	105	\$18.10
43-3021	Billing and Posting Clerks	3,195	3,188	-7	-0.2%	-1	131	196	326	\$18.13
43-3031	Bookkeeping, Accounting, and Auditing Clerks	10,215	9,727	-488	-4.8%	-49	584	509	1,044	\$18.96
43-3051	Payroll and Timekeeping Clerks	546	476	-70	-12.8%	-7	24	28	45	\$23.12
43-3061	Procurement Clerks	459	465	6	1.3%	1	13	29	43	\$18.99
43-3071	Tellers	2,209	1,952	-257	-11.6%	-26	84	131	189	\$14.58
43-4011	Brokerage Clerks	410	389	-21	-5.1%	-2	16	26	40	\$23.17
43-4031	Court, Municipal, and License Clerks	1,233	1,258	25	2.0%	2	61	63	126	\$22.40
43-4041	Credit Authorizers, Checkers, and Clerks	101	94	-7	-6.9%	-1	4	6	9	\$23.10
43-4051	Customer Service Representatives	21,246	20,477	-769	-3.6%	-77	981	1,640	2,544	\$18.01
43-4061	Eligibility Interviewers, Government Programs	519	528	9	1.7%	1	19	27	47	\$22.40
43-4071	File Clerks	460	398	-62	-13.5%	-6	23	26	43	\$17.83
43-4081	Hotel, Motel, and Resort Desk Clerks	547	623	76	13.9%	8	34	62	104	\$11.37
43-4111	Interviewers, Except Eligibility and Loan	1,366	1,252	-114	-8.4%	-11	76	84	149	\$17.84
43-4121	Library Assistants, Clerical	821	756	-65	-7.9%	-6	70	50	114	\$13.99
43-4131	Loan Interviewers and Clerks	1,195	1,148	-47	-3.9%	-5	34	69	98	\$22.42
43-4141	New Accounts Clerks	100	89	-11	-11.0%	-1	3	6	8	\$22.04
43-4151	Order Clerks	1,112	940	-172	-15.5%	-17	44	64	91	\$22.04
43-4161	Human Resources Assistants, Except Payroll and Timekeeping	563	550	-13	-2.3%	-1	21	34	54	\$18.48
43-4171	Receptionists and Information Clerks	6,263	6,422	159	2.5%	16	354	438	808	\$14.26
43-4199	Information and Record Clerks, All Other	510	537	27	5.3%	3	21	34	58	\$22.11
43-5021	Couriers and Messengers	577	563	-14	-2.4%	-1	23	31	53	\$14.72
43-5031	Police, Fire, and Ambulance Dispatchers	457	466	9	2.0%	1	16	26	43	\$23.01
43-5032	Dispatchers, Except Police, Fire, and Ambulance	1,055	1,078	23	2.2%	2	38	60	100	\$18.73
43-5051	Postal Service Clerks	358	327	-31	-8.7%	-3	16	12	25	\$24.64
43-5052	Postal Service Mail Carriers	1,588	1,447	-141	-8.9%	-14	53	54	93	\$27.55
43-5053	Postal Service Mail Sorters, Processors, and Processing Machine Operators	1,047	907	-140	-13.4%	-14	53	32	71	\$22.73

		Emplo	yment*	Chang	ge in					
soc		2020	2030	Employ	ment		Annua	l Openings		Median Wage
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43-5061	Production, Planning, and Expediting Clerks	3,274	3,455	181	5.5%	18	120	218	356	\$22.96
43-5071	Shipping, Receiving, and Traffic Clerks	6,018	5,766	-252	-4.2%	-25	215	346	536	\$17.83
43-5111	Weighers, Measurers, Checkers, and Samplers, Recordkeeping	160	174	14	8.8%	1	6	10	17	\$18.13
43-6011	Executive Secretaries and Executive Administrative Assistants	2,126	1,675	-451	-21.2%	-45	97	106	158	\$29.42
43-6012	Legal Secretaries	462	349	-113	-24.5%	-11	21	23	33	\$18.26
43-6013	Medical Secretaries	4,607	4,951	344	7.5%	34	243	267	544	\$17.83
43-6014	Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	8,513	7,713	-800	-9.4%	-80	413	453	786	\$18.18
43-9021	Data Entry Keyers	1,133	860	-273	-24.1%	-27	44	63	80	\$17.84
43-9022	Word Processors and Typists	229	148	-81	-35.4%	-8	11	10	13	\$22.78
43-9041	Insurance Claims and Policy Processing Clerks	2,037	1,985	-52	-2.6%	-5	71	118	184	\$22.87
43-9051	Mail Clerks and Mail Machine Operators, Except Postal Service	650	585	-65	-10.0%	-6	31	39	64	\$14.33
43-9061	Office Clerks, General	16,314	15,738	-576	-3.5%	-58	874	950	1,766	\$18.12
43-9071	Office Machine Operators, Except Computer	559	491	-68	-12.2%	-7	27	32	, 52	\$17.90
43-9199	Office and Administrative Support Workers, All Other	657	683	26	4.0%	3	28	46	77	\$22.04
45-0000	Farming, Fishing, and Forestry Occupations	1,160	1,176	16	1.4%	2	48	132	182	\$14.98
47-0000	Construction and Extraction Occupations	34,160	35,880	1,720	5.0%	172	1,029	2,375	3,576	\$24.00
47-1011	First-Line Supervisors of Construction Trades and Extraction Workers	2,972	3,156	184	6.2%	18	87	198	303	\$31.06
47-2021	Brickmasons and Blockmasons	869	836	-33	-3.8%	-3	27	52	76	\$29.77
47-2031	Carpenters	5,564	5,641	77	1.4%	8	164	350	522	\$23.35
47-2051	Cement Masons and Concrete Finishers	838	844	6	0.7%	1	20	55	76	\$23.29
47-2061	Construction Laborers	6,875	7,413	538	7.8%	54	211	482	747	\$22.55
47-2073	Operating Engineers and Other Construction Equipment Operators	1,802	1,894	92	5.1%	9	60	132	201	\$29.34
47-2081	Drywall and Ceiling Tile Installers	215	225	10	4.7%	1	6	12	19	\$23.35
47-2111	Electricians	4,000	4,362	362	9.1%	36	121	307	464	\$28.69
47-2121	Glaziers	277	301	24	8.7%	2	8	22	32	\$29.27
47-2131	Insulation Workers, Floor, Ceiling, and Wall	302	325	23	7.6%	2	7	21	30	\$23.31
47-2132	Insulation Workers, Mechanical	114	120	6	5.3%	1	3	8	12	\$29.44
47-2141	Painters, Construction and Maintenance	1,372	1,435	63	4.6%	6	42	78	126	\$22.62
47-2152	Plumbers, Pipefitters, and Steamfitters	2,826	2,982	156	5.5%	16	85	209	310	\$30.08
47-2181	Roofers	884	957	73	8.3%	7	23	64	94	\$23.44
47-2211	Sheet Metal Workers	972	983	11	1.1%	1	27	63	91	\$28.29
47-2221	Structural Iron and Steel Workers	489	530	41	8.4%	4	13	39	56	\$30.12
47-3011	HelpersBrickmasons, Blockmasons, Stonemasons, and Tile and Marble Setters	132	124	-8	-6.1%	-1	4	11	14	\$18.97
47-3015	HelpersPipelayers, Plumbers, Pipefitters, and Steamfitters	183	193	10	5.5%	1	6	16	23	\$17.87
47-4011	Construction and Building Inspectors	359	318	-41	-11.4%	-4	18	20	34	\$29.63
47-4021	Elevator Installers and Repairers	159	168	.=	5.7%	1	4	11	16	\$47.24
47-4051	Highway Maintenance Workers	594	601	7	1.2%	1	23	38	62	\$22.66
47-4071	Septic Tank Servicers and Sewer Pipe Cleaners	252	273	21	8.3%	2	8	22	32	\$22.66
47-4090	Miscellaneous Construction and Related Workers	113	125	12	10.6%	1	4	10	15	\$22.31
49-0000	Installation, Maintenance, and Repair Occupations	30,825	32,798	1,973	6.4%	197	998	2,012	3,207	\$23.17
49-1011	First-Line Supervisors of Mechanics, Installers, and Repairers	2,286	2,384	98	4.3%	10	68	139	217	\$31.79

		Emplo	yment*	Chang	e in					
SOC		2020	2030	Employ	ment		Annua	l Openings		Median Wage
Code	Occupational Title	Annual	Projected	2020-2030	Percent	Growth	Exits	Transfers	Total	May 2021
49-2011	Computer, Automated Teller, and Office Machine Repairers	353	333	-20	-5.7%	-2	10	26	34	\$22.28
49-2022	Telecommunications Equipment Installers and Repairers, Except Line Installers	824	857	33	4.0%	3	29	64	96	\$29.43
49-2094	Electrical and Electronics Repairers, Commercial and Industrial Equipment	173	179	6	3.5%	1	5	9	15	\$28.53
49-2098	Security and Fire Alarm Systems Installers	558	625	67	12.0%	7	14	45	66	\$23.31
49-3021	Automotive Body and Related Repairers	519	548	29	5.6%	3	17	32	52	\$22.31
49-3023	Automotive Service Technicians and Mechanics	3,806	3,799	-7	-0.2%	-1	113	258	370	\$22.50
49-3031	Bus and Truck Mechanics and Diesel Engine Specialists	1,036	1,094	58	5.6%	6	30	66	102	\$23.34
49-3042	Mobile Heavy Equipment Mechanics, Except Engines	544	580	36	6.6%	4	17	38	59	\$27.79
49-9011	Mechanical Door Repairers	149	157	8	5.4%	1	4	9	14	\$19.26
49-9012	Control and Valve Installers and Repairers, Except Mechanical Door	100	103	3	3.0%	0	2	6	8	\$31.90
49-9021	Heating, Air Conditioning, and Refrigeration Mechanics and Installers	1,864	1,976	112	6.0%	11	49	131	191	\$23.90
49-9041	Industrial Machinery Mechanics	3,202	3,823	621	19.4%	62	108	190	360	\$28.90
49-9043	Maintenance Workers, Machinery	378	426	48	12.7%	5	13	22	40	\$29.81
49-9044	Millwrights	271	306	35	12.9%	4	8	16	28	\$32.59
49-9051	Electrical Power-Line Installers and Repairers	504	508	4	0.8%	0	10	34	44	\$38.58
49-9052	Telecommunications Line Installers and Repairers	1,434	1,522	88	6.1%	9	33	125	167	\$23.04
49-9062	Medical Equipment Repairers	372	392	20	5.4%	2	17	23	42	\$28.95
49-9071	Maintenance and Repair Workers, General	8,593	9,189	596	6.9%	60	313	519	892	\$22.45
49-9091	Coin, Vending, and Amusement Machine Servicers and Repairers	143	158	15	10.5%	2	7	11	20	\$18.09
49-9098	HelpersInstallation, Maintenance, and Repair Workers	236	247	11	4.7%	1	10	20	31	\$17.63
49-9099	Installation, Maintenance, and Repair Workers, All Other	1,348	1,422	74	5.5%	7	49	92	148	\$18.39
51-0000	Production Occupations	65,486	64,664	-822	-1.3%	-82	2,441	4,631	6,990	\$18.29
51-1011	First-Line Supervisors of Production and Operating Workers	4,347	4,459	112	2.6%	11	132	296	439	\$30.03
51-2028	Electrical, Electronic, and Electromechanical Assemblers, Except Coil Winders,									
	Tapers, and Finishers	1,747	1,824	77	4.4%	8	72	114	194	\$17.52
51-2041	Structural Metal Fabricators and Fitters	180	154	-26	-14.4%	-3	4	13	14	\$21.99
51-2051	Fiberglass Laminators and Fabricators	137	140	3	2.2%	0	5	10	15	\$18.15
51-2090	Miscellaneous Assemblers and Fabricators	7,914	7,394	-520	-6.6%	-52	292	546	786	\$15.09
51-3011	Bakers	963	1,068	105	10.9%	10	57	76	143	\$14.22
51-3021	Butchers and Meat Cutters	743	685	-58	-7.8%	-6	29	53	76	\$14.45
51-3092	Food Batchmakers	1,191	1,219	28	2.4%	3	56	90	149	\$17.48
51-4021	Extruding and Drawing Machine Setters, Operators, and Tenders, Metal and									
	Plastic	515	507	-8	-1.6%	-1	18	32	49	\$18.40
51-4031	Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and									
	Plastic	1,779	1,795	16	0.9%	2	57	123	182	\$18.29
51-4033	Grinding, Lapping, Polishing, and Buffing Machine Tool Setters, Operators, and									
	Tenders, Metal and Plastic	715	674	-41	-5.7%	-4	31	48	75	\$18.27
51-4034	Lathe and Turning Machine Tool Setters, Operators, and Tenders, Metal and									
	Plastic	247	241	-6	-2.4%	-1	8	16	23	\$22.91
51-4041	Machinists	4,214	4,444	230	5.5%	23	145	294	462	\$23.04
51-4051	Metal-Refining Furnace Operators and Tenders	108	112	4	3.7%	0	2	8	10	\$22.04

		Emplo	yment*	Chang	ge in					
soc		2020	2030	Employ	ment		Annua	l Openings		Median Wage
Code	Occupational Title	Annual	Projected	2020-2030	Percent	Growth	Exits	Transfers	Total	May 2021
51-4072	Molding, Coremaking, and Casting Machine Setters, Operators, and Tenders,									
	Metal and Plastic	1,178	1,149	-29	-2.5%	-3	38	79	114	\$17.50
51-4081	Multiple Machine Tool Setters, Operators, and Tenders, Metal and Plastic	2,182	2,362	180	8.3%	18	74	154	246	\$18.15
51-4111	Tool and Die Makers	694	705	11	1.6%	1	26	44	71	\$24.61
51-4121	Welders, Cutters, Solderers, and Brazers	2,500	2,679	179	7.2%	18	68	204	290	\$22.32
51-4122	Welding, Soldering, and Brazing Machine Setters, Operators, and Tenders	169	160	-9	-5.3%	-1	4	13	16	\$18.29
51-4191	Heat Treating Equipment Setters, Operators, and Tenders, Metal and Plastic	171	169	-2	-1.2%	0	6	12	18	\$23.05
51-4193	Plating and Coating Machine Setters, Operators, and Tenders, Metal and Plastic	362	334	-28	-7.7%	-3	11	24	32	\$18.21
51-5111	Prepress Technicians and Workers	380	290	-90	-23.7%	-9	13	32	36	\$22.42
51-5112	Printing Press Operators	1,484	1,369	-115	-7.8%	-12	52	100	140	\$18.34
51-5113	Print Binding and Finishing Workers	434	333	-101	-23.3%	-10	19	24	33	\$18.09
51-6011	Laundry and Dry-Cleaning Workers	1,132	1,269	137	12.1%	14	78	81	173	\$11.56
51-6021	Pressers, Textile, Garment, and Related Materials	209	190	-19	-9.1%	-2	9	12	19	\$13.63
51-6031	Sewing Machine Operators	508	565	57	11.2%	6	32	28	66	\$14.19
51-6052	Tailors, Dressmakers, and Custom Sewers	139	126	-13	-9.4%	-1	10	7	16	\$16.90
51-7011	Cabinetmakers and Bench Carpenters	350	335	-15	-4.3%	-2	13	19	30	\$18.70
51-7021	Furniture Finishers	118	110	-8	-6.8%	-1	7	8	14	\$18.45
51-7042	Woodworking Machine Setters, Operators, and Tenders, Except Sawing	338	346	8	2.4%	1	10	25	36	\$18.09
51-8021	Stationary Engineers and Boiler Operators	141	144	3	2.1%	0	7	10	17	\$36.82
51-8031	Water and Wastewater Treatment Plant and System Operators	550	503	-47	-8.6%	-5	15	33	43	\$28.50
51-8091	Chemical Plant and System Operators	232	211	-21	-9.1%	-2	5	17	20	\$39.03
51-9011	Chemical Equipment Operators and Tenders	996	850	-146	-14.7%	-15	20	72	77	\$23.74
51-9012	Separating, Filtering, Clarifying, Precipitating, and Still Machine Setters, Operators,									
	and Tenders	322	320	-2	-0.6%	0	7	25	32	\$36.43
51-9022	Grinding and Polishing Workers, Hand	141	114	-27	-19.2%	-3	4	10	11	\$22.91
51-9023	Mixing and Blending Machine Setters, Operators, and Tenders	1,225	1,214	-11	-0.9%	-1	41	91	131	\$18.35
51-9032	Cutting and Slicing Machine Setters, Operators, and Tenders	277	267	-10	-3.6%	-1	12	21	32	\$19.47
51-9041	Extruding, Forming, Pressing, and Compacting Machine Setters, Operators, and									
	Tenders	424	444	20	4.7%	2	12	32	46	\$18.70
51-9051	Furnace, Kiln, Oven, Drier, and Kettle Operators and Tenders	185	194	9	4.9%	1	6	12	19	\$18.27
51-9061	Inspectors, Testers, Sorters, Samplers, and Weighers	4,936	4,396	-540	-10.9%	-54	179	370	495	\$20.36
51-9111	Packaging and Filling Machine Operators and Tenders	5,290	5,539	249	4.7%	25	223	359	607	\$18.10
51-9124	Coating, Painting, and Spraying Machine Setters, Operators, and Tenders	788	812	24	3.1%	2	22	57	81	\$18.32
51-9161	Computer Numerically Controlled Tool Operators	1,945	1,817	-128	-6.6%	-13	64	139	190	\$22.42
51-9162	Computer Numerically Controlled Tool Programmers	224	277	53	23.7%	5	9	18	32	\$29.84
51-9191	Adhesive Bonding Machine Operators and Tenders	291	294	3	1.0%	0	16	20	36	\$18.36
51-9192	Cleaning, Washing, and Metal Pickling Equipment Operators and Tenders	107	111	4	3.7%	0	4	8	12	\$18.18
51-9195	Molders, Shapers, and Casters, Except Metal and Plastic	257	293	36	14.0%	4	10	18	32	\$18.13
51-9196	Paper Goods Machine Setters, Operators, and Tenders	1,154	1,160	6	0.5%	1	52	77	130	\$18.51
51-9198	HelpersProduction Workers	1,619	1,482	-137	-8.5%	-14	73	146	205	\$17.75
51-9199	Production Workers, All Other	1,248	1,303	55	4.4%	6	44	94	144	\$18.63

Occupational* Employment Projections Report, 2020-2030

		Emplo	yment*	Chang	e in					
SOC		2020	2030	Employ	ment		Annua	l Openings		Median Wage
Code	Occupational Title	Annual	Projected	2020-2030	Percent	Growth	Exits	Transfers	Total	May 2021
53-0000	Transportation and Material Moving Occupations	74,004	81,019	7,015	9.5%	702	3,595	6,143	10,440	\$17.55
53-2012	Commercial Pilots	159	167	8	5.0%	1	6	12	19	\$128,784 **
53-3031	Driver/Sales Workers	6,293	7,747	1,454	23.1%	145	288	476	909	\$14.19
53-3032	Heavy and Tractor-Trailer Truck Drivers	9,383	9,901	518	5.5%	52	395	654	1,101	\$23.52
53-3033	Light Truck or Delivery Services Drivers	5,583	6,237	654	11.7%	65	242	401	708	\$18.27
53-3058	Passenger Vehicle Drivers, Except Bus Drivers, Transit and Intercity	3,507	4,226	719	20.5%	72	255	192	519	\$18.05 ^^^
53-6021	Parking Lot Attendants	373	413	40	10.7%	4	19	41	64	\$11.26
53-6031	Automotive and Watercraft Service Attendants	748	792	44	5.9%	4	36	68	108	\$14.32
53-7021	Crane and Tower Operators	112	120	8	7.1%	1	3	9	13	\$24.05
53-7051	Industrial Truck and Tractor Operators	5,722	6,284	562	9.8%	56	181	461	698	\$18.45
53-7061	Cleaners of Vehicles and Equipment	1,893	2,035	142	7.5%	14	96	175	285	\$14.22
53-7062	Laborers and Freight, Stock, and Material Movers, Hand	14,989	16,517	1,528	10.2%	153	689	1,371	2,213	\$14.85
53-7064	Packers and Packagers, Hand	4,470	4,671	201	4.5%	20	260	370	650	\$14.42
53-7065	Stockers and Order Fillers	14,601	15,344	743	5.1%	74	852	1,460	2,386	\$14.34
53-7081	Refuse and Recyclable Material Collectors	1,087	1,207	120	11.0%	12	49	103	164	\$18.94

* Occupations with 100 or more workers.

** Certain occupations only report wages at the annual level.

^ National hourly wage.

^^ National annual wage.

^^^ National aggregate wage.

Source: Ohio Department of Job and Family Services, Bureau of Labor Market Information, June 2023.

Wage above max.

▲ Wage not available due to OES/SOC changes.

+ Statewide hourly wage.

++ Statewide annual wage.

			Work Experience in	Typical On-The-Job Training Needed	
soc		Typical Education	a Related	to Attain Competency in the	Median Wage
	Occupational Title	Needed for Entry	Occupation	Occupation	May 2021
	Total, All Occupations	Needed for Entry	Occupation	Occupation	\$22.25
11-0000	Management Occupations				\$49.28
11-1011	Chief Executives	Bachelor's degree	5 years or more	None	#
11-1021	General and Operations Managers	Bachelor's degree	5 years or more	None	\$47.59
11-1031	Legislators	Bachelor's degree	Less than 5 years	None	\$36,915 **
11-2021	Marketing Managers	Bachelor's degree	5 years or more	None	\$63.68
11-2022	Sales Managers	Bachelor's degree	Less than 5 years	None	\$64.04
11-2030	Public Relations and Fundraising Managers	Bachelor's degree	5 years or more	None	\$57.62 ^
11-3010	Administrative Services and Facilities Managers	Bachelor's degree	Less than 5 years	None	\$47.73 ^
11-3021	Computer and Information Systems Managers	Bachelor's degree	5 years or more	None	\$63.68
11-3031	Financial Managers	Bachelor's degree	5 years or more	None	\$61.55
11-3051	Industrial Production Managers	Bachelor's degree	5 years or more	None	\$57.40
11-3061	Purchasing Managers	Bachelor's degree	5 years or more	None	\$61.66
11-3071	Transportation, Storage, and Distribution Managers	High school diploma or equivalent	5 years or more	None	\$47.08
11-3111	Compensation and Benefits Managers	Bachelor's degree	5 years or more	None	\$62.12
11-3121	Human Resources Managers	Bachelor's degree	5 years or more	None	\$61.17
11-3131	Training and Development Managers	Bachelor's degree	5 years or more	None	\$57.54
11-9013	Farmers, Ranchers, and Other Agricultural Managers	High school diploma or equivalent	5 years or more	None	\$35.12 ^
11-9021	Construction Managers	Bachelor's degree	None	Moderate-term on-the-job training	\$47.78
11-9031	Education Administrators, Preschool and Childcare Center/Program	Bachelor's degree	Less than 5 years	None	\$22.39
11-9032	Education Administrators, Elementary and Secondary School	Master's degree	5 years or more	None	\$97,597 **
11-9033	Education Administrators, Postsecondary	Master's degree	Less than 5 years	None	\$49.35
11-9039	Education Administrators, All Other	Bachelor's degree	Less than 5 years	None	\$29.67
11-9041	Architectural and Engineering Managers	Bachelor's degree	5 years or more	None	\$64.78
11-9051	Food Service Managers	High school diploma or equivalent	Less than 5 years	None	\$28.78
11-9081	Lodging Managers	High school diploma or equivalent	Less than 5 years	None	\$24.41
11-9111	Medical and Health Services Managers	Bachelor's degree	Less than 5 years	None	\$49.03
11-9121	Natural Sciences Managers	Bachelor's degree	5 years or more	None	\$61.30
11-9141	Property, Real Estate, and Community Association Managers	High school diploma or equivalent	Less than 5 years	None	\$28.42
11-9151	Social and Community Service Managers	Bachelor's degree	Less than 5 years	None	\$31.33
11-9198	Personal Service Managers; Entertainment & Recreation Managers, Except				700
11 0 100	Gambling; and Managers, All Other	Bachelor's degree	Less than 5 years	None	\$59.93 ^^^
13-0000	Business and Financial Operations Occupations		í.		\$30.91
13-1020	Buyers and Purchasing Agents	Bachelor's degree	None	Moderate-term on-the-job training	\$30.66
13-1031	Claims Adjusters, Examiners, and Investigators	High school diploma or equivalent	None	Long-term on-the-job training	\$29.60
13-1041	Compliance Officers	Bachelor's degree	None	Moderate-term on-the-job training	\$35.54
13-1051	Cost Estimators	Bachelor's degree	None	Moderate-term on-the-job training	\$32.20
13-1071	Human Resources Specialists	Bachelor's degree	None	None	\$29.11
13-1075	Labor Relations Specialists	Bachelor's degree	Less than 5 years	None	\$39.14
13-1081	Logisticians	Bachelor's degree	None	None	\$37.60
13-1111	Management Analysts	Bachelor's degree	Less than 5 years	None	\$38.02
13-1121	Meeting, Convention, and Event Planners	Bachelor's degree	None	None	\$23.27
13-1131	Fundraisers	Bachelor's degree	None	None	\$29.29

			Work Experience in	Typical On-The-Job Training Needed	
soc		Typical Education	a Related	to Attain Competency in the	Median Wage
Code	Occupational Title	Needed for Entry	Occupation	Occupation	May 2021
13-1141	Compensation, Benefits, and Job Analysis Specialists	Bachelor's degree	Less than 5 years	None	\$29.36
13-1151	Training and Development Specialists	Bachelor's degree	Less than 5 years	None	\$22.69
13-1161	Market Research Analysts and Marketing Specialists	Bachelor's degree	None	None	\$30.23
13-1198	Project Management Specialists and Business Operations Specialists, All Other	Bachelor's degree	None	None	\$35.90 ^^^
13-2011	Accountants and Auditors	Bachelor's degree	None	None	\$36.03
13-2020	Property Appraisers and Assessors	Bachelor's degree	None	Long-term on-the-job training	\$30.91
13-2031	Budget Analysts	Bachelor's degree	None	None	\$36.76
13-2041	Credit Analysts	Bachelor's degree	None	None	\$30.57
13-2052	Personal Financial Advisors	Bachelor's degree	None	Long-term on-the-job training	\$41.27
13-2053	Insurance Underwriters	Bachelor's degree	None	Moderate-term on-the-job training	\$36.76
13-2061	Financial Examiners	Bachelor's degree	None	Long-term on-the-job training	\$34.94
13-2072	Loan Officers	Bachelor's degree	Less than 5 years	Moderate-term on-the-job training	\$29.60
13-2081	Tax Examiners and Collectors, and Revenue Agents	Bachelor's degree	None	Moderate-term on-the-job training	\$42.60
13-2082	Tax Preparers	High school diploma or equivalent	None	Moderate-term on-the-job training	\$15.45
13-2098	Financial and Investment Analysts, Financial Risk Specialists, and Financial				
	Specialists, All Other	Bachelor's degree	None	None	\$35.21 ^^^
15-0000	Computer and Mathematical Occupations				\$38.53
15-1211	Computer Systems Analysts	Bachelor's degree	None	None	\$47.62
15-1212	Information Security Analysts	Bachelor's degree	Less than 5 years	None	\$47.62
15-1231	Computer Network Support Specialists	Associate's degree	None	None	\$28.90
15-1232	Computer User Support Specialists	Some college, no degree	None	None	\$23.07
15-1241	Computer Network Architects	Bachelor's degree	5 years or more	None	\$50.53
15-1244	Network and Computer Systems Administrators	Bachelor's degree	None	None	\$38.42
15-1245	Database Administrators and Architects	Bachelor's degree	None	None	\$47.44 ^^^
15-1251	Computer Programmers	Bachelor's degree	None	None	\$37.89
15-1256	Software Developers and Software Quality Assurance Analysts and Testers	Bachelor's degree	None	None	\$49.49 ^^^
15-1257	Web Developers and Digital Interface Designers	Bachelor's degree	None	None	\$49.49 ^^^
15-1299	Computer Occupations, All Other	Bachelor's degree	None	None	\$44.97
15-2011	Actuaries	Bachelor's degree	None	Long-term on-the-job training	\$47.88
15-2031	Operations Research Analysts	Bachelor's degree	None	None	\$44.44
15-2098	Data Scientists and Mathematical Science Occupations, All Other	Bachelor's degree	None	None	\$30.03 ^^^
17-0000	Architecture and Engineering Occupations				\$38.12
17-1011	Architects, Except Landscape and Naval	Bachelor's degree	None	Internship/residency	\$37.99
17-1022	Surveyors	Bachelor's degree	None	Internship/residency	\$29.68
17-2011	Aerospace Engineers	Bachelor's degree	None	None	\$61.62
17-2031	Biomedical Engineers	Bachelor's degree	None	None	\$38.29
17-2041	Chemical Engineers	Bachelor's degree	None	None	\$45.95
17-2051	Civil Engineers	Bachelor's degree	None	None	\$37.99
17-2071	Electrical Engineers	Bachelor's degree	None	None	\$46.05
17-2072	Electronics Engineers, Except Computer	Bachelor's degree	None	None	\$48.22
17-2081	Environmental Engineers	Bachelor's degree	None	None	\$45.95
17-2112	Industrial Engineers	Bachelor's degree	None	None	\$45.95
17-2131	Materials Engineers	Bachelor's degree	None	None	\$47.62

			Work Experience in	Typical On-The-Job Training Needed	
soc		Typical Education	a Related	to Attain Competency in the	Median Wage
Code	Occupational Title	Needed for Entry	Occupation	Occupation	May 2021
17-2141	Mechanical Engineers	Bachelor's degree	None	None	\$47.54
17-2199	Engineers, All Other	Bachelor's degree	None	None	\$47.69
17-3011	Architectural and Civil Drafters	Associate's degree	None	None	\$28.81
17-3012	Electrical and Electronics Drafters	Associate's degree	None	None	\$29.78
17-3013	Mechanical Drafters	Associate's degree	None	None	\$29.68
17-3022	Civil Engineering Technicians	Associate's degree	None	None	\$28.68
17-3023	Electrical and Electronics Engineering Technicians	Associate's degree	None	None	\$29.63
17-3026	Industrial Engineering Technicians	Associate's degree	None	None	\$28.52
17-3027	Mechanical Engineering Technicians	Associate's degree	None	None	\$28.67
17-3031	Surveying and Mapping Technicians	High school diploma or equivalent	None	Moderate-term on-the-job training	\$22.75
17-3098	Calibration and Engineering Technologists and Technicians, Except Drafters, All				
	Other	Associate's degree	None	None	\$29.18 ^^^
19-0000	Life, Physical, and Social Science Occupations				\$30.81
19-1012	Food Scientists and Technologists	Bachelor's degree	None	None	\$45.47
19-1022	Microbiologists	Bachelor's degree	None	None	\$22.82
19-1042	Medical Scientists, Except Epidemiologists	Doctoral or professional degree	None	None	\$39.75
19-2031	Chemists	Bachelor's degree	None	None	\$36.06
19-2041	Environmental Scientists and Specialists, Including Health	Bachelor's degree	None	None	\$30.88
19-3022	Survey Researchers	Master's degree	None	None	\$30.81
19-3031	Clinical, Counseling, and School Psychologists	Doctoral or professional degree	None	Internship/residency	\$38.96 ^^^
19-3039	Psychologists, All Other	Master's degree	None	Internship/residency	\$45.78
19-3051	Urban and Regional Planners	Master's degree	None	None	\$36.06
19-4031	Chemical Technicians	Associate's degree	None	Moderate-term on-the-job training	\$23.31
19-4042	Environmental Science and Protection Technicians, Including Health	Associate's degree	None	None	\$22.75
19-4099	Life, Physical, and Social Science Technicians, All Other	Associate's degree	None	None	\$23.99
19-5011	Occupational Health and Safety Specialists	Bachelor's degree	None	None	\$37.98
21-0000	Community and Social Service Occupations				\$22.87
21-1012	Educational, Guidance, School, and Vocational Counselors	Master's degree	None	None	\$29.79
21-1015	Rehabilitation Counselors	Master's degree	None	None	\$18.42
21-1018	Substance Abuse, Behavioral Disorder, and Mental Health Counselors	Bachelor's degree	None	None	\$23.03
21-1019	Counselors, All Other	Master's degree	None	None	\$22.42
21-1021	Child, Family, and School Social Workers	Bachelor's degree	None	None	\$22.75
21-1022	Healthcare Social Workers	Master's degree	None	Internship/residency	\$29.28
21-1023	Mental Health and Substance Abuse Social Workers	Master's degree	None	Internship/residency	\$18.68
21-1029	Social Workers, All Other	Bachelor's degree	None	None	\$28.58
21-1091	Health Educators	Bachelor's degree	None	None	\$29.94
21-1092	Probation Officers and Correctional Treatment Specialists	Bachelor's degree	None	Short-term on-the-job training	\$29.09
21-1093	Social and Human Service Assistants	High school diploma or equivalent	None	Short-term on-the-job training	\$17.97
21-1094	Community Health Workers	High school diploma or equivalent	None	Short-term on-the-job training	\$18.51
21-2011	Clergy	Bachelor's degree	None	Moderate-term on-the-job training	\$23.47
23-0000	Legal Occupations				\$37.68
23-1011	Lawyers	Doctoral or professional degree	None	None	\$50.28
23-1023	Judges, Magistrate Judges, and Magistrates	Doctoral or professional degree	5 years or more	Short-term on-the-job training	\$63.23

			Work Experience in	Typical On-The-Job Training Needed	
soc		Typical Education	a Related	to Attain Competency in the	Median Wage
	Occupational Title	Needed for Entry	Occupation	Occupation	May 2021
23-2011	Paralegals and Legal Assistants	Associate's degree	None	None	\$22.57
25-2011	Education, Training, and Library Occupations		None	None	\$22.57 \$29.14
25-1032	Engineering Teachers, Postsecondary	Doctoral or professional degree	None	None	\$105,785 **
25-1032	Biological Science Teachers, Postsecondary	Doctoral or professional degree	None	None	\$81.896 **
25-1042		Doctoral or professional degree	None	None	\$82,736 **
25-1052	Chemistry Teachers, Postsecondary		-		
	Health Specialties Teachers, Postsecondary	Doctoral or professional degree	Less than 5 years	None	\$167,851 **
25-1072	Nursing Instructors and Teachers, Postsecondary	Doctoral or professional degree	Less than 5 years	None	\$76,353 **
25-1081	Education Teachers, Postsecondary	Doctoral or professional degree	Less than 5 years	None	\$63,942 **
25-1122	Communications Teachers, Postsecondary	Doctoral or professional degree	None	None	\$77,907 **
25-1123	English Language and Literature Teachers, Postsecondary	Doctoral or professional degree	None	None	\$64,005 **
25-1124	Foreign Language and Literature Teachers, Postsecondary	Doctoral or professional degree	None	None	\$63,722 **
25-1126	Philosophy and Religion Teachers, Postsecondary	Doctoral or professional degree	None	None	\$78,176 **
25-1194	Vocational Education Teachers, Postsecondary	Bachelor's degree	Less than 5 years	None	\$23.97
25-1199	Postsecondary Teachers, All Other	Doctoral or professional degree	None	None	\$61,590 **
25-2011	Preschool Teachers, Except Special Education	Associate's degree	None	None	\$14.04
25-2021	Elementary School Teachers, Except Special Education	Bachelor's degree	None	None	\$76,063 **
25-2022	Middle School Teachers, Except Special and Career/Technical Education	Bachelor's degree	None	None	\$61,780 **
25-2031	Secondary School Teachers, Except Special and Career/Technical Education	Bachelor's degree	None	None	\$77,147 **
25-2032	Career/Technical Education Teachers, Secondary School	Bachelor's degree	Less than 5 years	None	\$76,878 **
25-2052	Special Education Teachers, Kindergarten and Elementary School	Bachelor's degree	None	None	\$75,978 **
25-2057	Special Education Teachers, Middle School	Bachelor's degree	None	None	\$47,959 **
25-2058	Special Education Teachers, Secondary School	Bachelor's degree	None	None	\$62,250 **
25-3021	Self-Enrichment Education Teachers	High school diploma or equivalent	Less than 5 years	None	\$14.96
25-3031	Substitute Teachers, Short-Term	Bachelor's degree	None	None	\$14.47
25-3097	Teachers and Instructors, All Other, Except Substitute Teachers	Bachelor's degree	None	None	\$17.94 ^^^
25-4022	Librarians and Media Collections Specialists	Master's degree	None	None	\$28.90
25-4031	Library Technicians	Postsecondary non-degree award	None	None	\$14.86
25-9045	Teaching Assistants, Except Postsecondary	Some college, no degree	None	None	\$29,118 **
27-0000	Arts, Design, Entertainment, Sports, and Media Occupations				\$23.81
27-1011	Art Directors	Bachelor's degree	5 years or more	None	\$47.66
27-1013	Fine Artists, Including Painters, Sculptors, and Illustrators	Bachelor's degree	None	Long-term on-the-job training	\$23.77
27-1023	Floral Designers	High school diploma or equivalent	None	Moderate-term on-the-job training	\$14.24
27-1024	Graphic Designers	Bachelor's degree	None	None	\$24.19
27-1025	Interior Designers	Bachelor's degree	None	None	\$28.88
27-1026	Merchandise Displayers and Window Trimmers	High school diploma or equivalent	None	Short-term on-the-job training	\$17.37
27-1027	Set and Exhibit Designers	Bachelor's degree	None	None	\$14.73
27-2012	Producers and Directors	Bachelor's degree	Less than 5 years	None	\$30.13
27-2022	Coaches and Scouts	Bachelor's degree	None	None	\$40,423 **
27-2041	Music Directors and Composers	Bachelor's degree	Less than 5 years	None	\$28.90
27-2042	Musicians and Singers	No formal educational credential	None	Long-term on-the-job training	\$60.04
27-3011	Radio and Television Announcers	Bachelor's degree	None	None	\$17.91
27-3023	News Analysts, Reporters, and Journalists	Bachelor's degree	None	None	\$23.62
27-3031	Public Relations Specialists	Bachelor's degree	None	None	\$30.19

			Work Experience in	Typical On-The-Job Training Needed	
soc		Typical Education	a Related	to Attain Competency in the	Median Wage
	Occupational Title	Needed for Entry	Occupation	Occupation	May 2021
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27-3041	Editors	Bachelor's degree	Less than 5 years	None	\$24.06
27-3042	Technical Writers	Bachelor's degree	Less than 5 years	Short-term on-the-job training	\$30.43
27-3043	Writers and Authors	Bachelor's degree	None	Long-term on-the-job training	\$30.07
27-3091	Interpreters and Translators	Bachelor's degree	None	None	\$23.33
27-4011	Audio and Video Equipment Technicians	Postsecondary non-degree award	None	Short-term on-the-job training	\$19.35
27-4012	Broadcast Technicians	Associate's degree	None	Short-term on-the-job training	\$18.64
27-4021	Photographers	High school diploma or equivalent	None	Moderate-term on-the-job training	\$18.30
29-0000	Healthcare Practitioners and Technical Occupations				\$30.10
29-1011	Chiropractors	Doctoral or professional degree	None	None	\$38.24
29-1021	Dentists, General	Doctoral or professional degree	None	None	\$83.89
29-1031	Dietitians and Nutritionists	Bachelor's degree	None	Internship/residency	\$29.66
29-1041	Optometrists	Doctoral or professional degree	None	None	\$49.04
29-1051	Pharmacists	Doctoral or professional degree	None	None	\$62.32
29-1071	Physician Assistants	Master's degree	None	None	\$48.57
29-1122	Occupational Therapists	Master's degree	None	None	\$38.24
29-1123	Physical Therapists	Doctoral or professional degree	None	None	\$46.09
29-1126	Respiratory Therapists	Associate's degree	None	None	\$29.74
29-1127	Speech-Language Pathologists	Master's degree	None	Internship/residency	\$37.85
29-1131	Veterinarians	Doctoral or professional degree	None	None	\$48.30
29-1141	Registered Nurses	Bachelor's degree	None	None	\$36.08
29-1151	Nurse Anesthetists	Master's degree	None	None	\$80.98
29-1171	Nurse Practitioners	Master's degree	None	None	\$50.11
29-1181	Audiologists	Doctoral or professional degree	None	None	\$29.11
29-1211	Anesthesiologists	Doctoral or professional degree	None	Internship/residency	#
29-1216	General Internal Medicine Physicians	Doctoral or professional degree	None	Internship/residency	\$36.53
29-1218	Obstetricians and Gynecologists	Doctoral or professional degree	None	Internship/residency	\$93.76
29-1221	Pediatricians, General	Doctoral or professional degree	None	Internship/residency	\$63.54
29-1223	Psychiatrists	Doctoral or professional degree	None	Internship/residency	#
29-1228	Physicians, All Other; and Ophthalmologists, Except Pediatric	Doctoral or professional degree	None	Internship/residency	\$37.45 ^^^
29-1292	Dental Hygienists	Associate's degree	None	None	\$37.33
29-1298	Acupuncturists and Healthcare Diagnosing or Treating Practitioners, All Other	Master's degree	None	None	\$37.45 ^^^
29-2010	Clinical Laboratory Technologists and Technicians	Bachelor's degree	None	None	\$23.37
29-2031	Cardiovascular Technologists and Technicians	Associate's degree	None	None	\$29.69
29-2032	Diagnostic Medical Sonographers	Associate's degree	None	None	\$37.53
29-2033	Nuclear Medicine Technologists	Associate's degree	None	None	\$38.06
29-2034	Radiologic Technologists	Associate's degree	None	None	\$29.64
29-2035	Magnetic Resonance Imaging Technologists	Associate's degree	Less than 5 years	None	\$37.40
29-2040	Emergency Medical Technicians and Paramedics	Postsecondary non-degree award	None	None	\$17.76 ^
29-2052	Pharmacy Technicians	High school diploma or equivalent	None	Moderate-term on-the-job training	\$17.55
29-2055	Surgical Technologists	Postsecondary non-degree award	None	None	\$22.97
29-2056	Veterinary Technologists and Technicians	Associate's degree	None	None	\$17.73
29-2057	Ophthalmic Medical Technicians	Postsecondary non-degree award	None	None	\$17.75
29-2061	Licensed Practical and Licensed Vocational Nurses	Postsecondary non-degree award	None	None	\$23.11
23 2001		i ostaccondary non-degree award	None	None	723.11

				Typical On-The-Job Training Needed	
SOC		Typical Education	a Related	to Attain Competency in the	Median Wage
	Occupational Title	Needed for Entry	Occupation	Occupation	May 2021
29-2081	Opticians, Dispensing	High school diploma or equivalent	None	Long-term on-the-job training	\$22.69
29-2098	Medical Dosimetrists, Medical Records Specialists, and Health Technologists and				
	Technicians, All Other	Postsecondary non-degree award	None	None	\$22.55 ^^^
29-9098	Health Information Technologists, Medical Registrars, Surgical Assistants, &				
	Healthcare Practitioners, AO	Postsecondary non-degree award	None	None	\$26.19 ^^^
31-0000	Healthcare Support Occupations				\$14.32
31-1120	Home Health and Personal Care Aides	High school diploma or equivalent	None	Short-term on-the-job training	\$11.65
31-1131	Nursing Assistants	Postsecondary non-degree award	None	None	\$14.50
31-2011	Occupational Therapy Assistants	Associate's degree	None	None	\$29.90
31-2021	Physical Therapist Assistants	Associate's degree	None	None	\$30.15
31-9011	Massage Therapists	Postsecondary non-degree award	None	None	\$23.03
31-9091	Dental Assistants	Postsecondary non-degree award	None	None	\$22.87
31-9092	Medical Assistants	Postsecondary non-degree award	None	None	\$17.99
31-9093	Medical Equipment Preparers	High school diploma or equivalent	None	Moderate-term on-the-job training	\$18.01
31-9096	Veterinary Assistants and Laboratory Animal Caretakers	High school diploma or equivalent	None	Short-term on-the-job training	\$14.23
31-9097	Phlebotomists	Postsecondary non-degree award	None	None	\$17.88
31-9099	Healthcare Support Workers, All Other	High school diploma or equivalent	None	None	\$18.62
33-0000	Protective Service Occupations				\$19.45
33-1012	First-Line Supervisors of Police and Detectives	High school diploma or equivalent	Less than 5 years	Moderate-term on-the-job training	\$47.53
33-1021	First-Line Supervisors of Fire Fighting and Prevention Workers	Postsecondary non-degree award	Less than 5 years	Moderate-term on-the-job training	\$39.45
33-1090	Miscellaneous First-Line Supervisors, Protective Service Workers	High school diploma or equivalent	Less than 5 years	None	\$25.23 ^
33-2011	Firefighters	Postsecondary non-degree award	None	Long-term on-the-job training	\$24.58
33-3011	Bailiffs	High school diploma or equivalent	None	Moderate-term on-the-job training	\$22.40
33-3012	Correctional Officers and Jailers	High school diploma or equivalent	None	Moderate-term on-the-job training	\$23.04
33-3021	Detectives and Criminal Investigators	High school diploma or equivalent	Less than 5 years	Moderate-term on-the-job training	\$37.19
33-3051	Police and Sheriff's Patrol Officers	High school diploma or equivalent	None	Moderate-term on-the-job training	\$36.77
33-9032	Security Guards	High school diploma or equivalent	None	Short-term on-the-job training	\$13.92
33-9091	Crossing Guards	No formal educational credential	None	Short-term on-the-job training	\$14.01
33-9098	School Bus Monitors and Protective Service Workers, All Other	High school diploma or equivalent	None	Short-term on-the-job training	\$15.11 ^^^
35-0000	Food Preparation and Serving Related Occupations				\$11.22
35-1011	Chefs and Head Cooks	High school diploma or equivalent	5 years or more	None	\$27.08
35-1012	First-Line Supervisors of Food Preparation and Serving Workers	High school diploma or equivalent	Less than 5 years	None	\$15.37
35-2011	Cooks, Fast Food	No formal educational credential	, None	Short-term on-the-job training	\$10.99
35-2012	Cooks, Institution and Cafeteria	No formal educational credential	None	Short-term on-the-job training	\$14.36
35-2014	Cooks, Restaurant	No formal educational credential	Less than 5 years	Moderate-term on-the-job training	\$14.17
35-2021	Food Preparation Workers	No formal educational credential	None	Short-term on-the-job training	\$12.07
35-3011	Bartenders	No formal educational credential	None	Short-term on-the-job training	\$10.33
35-3023	Fast Food and Counter Workers	No formal educational credential	None	Short-term on-the-job training	\$10.77
35-3031	Waiters and Waitresses	No formal educational credential	None	Short-term on-the-job training	\$9.95
35-3041	Food Servers, Nonrestaurant	No formal educational credential	None	Short-term on-the-job training	\$13.33
35-9011	Dining Room and Cafeteria Attendants and Bartender Helpers	No formal educational credential	None	Short-term on-the-job training	\$10.95
35-9021	Dishwashers	No formal educational credential	None	Short-term on-the-job training	\$10.55
35-9031	Hosts and Hostesses, Restaurant, Lounge, and Coffee Shop	No formal educational credential	None	Short-term on-the-job training	\$10.60

			Work Experience in	Typical On-The-Job Training Needed	
soc		Typical Education	a Related	to Attain Competency in the	Median Wage
	Occupational Title	Needed for Entry	Occupation	Occupation	May 2021
35-9099	Food Preparation and Serving Related Workers, All Other	No formal educational credential	None	Short-term on-the-job training	\$11.05
37-0000	Building and Grounds Cleaning and Maintenance Occupations		None		\$14.32
37-1011	First-Line Supervisors of Housekeeping and Janitorial Workers	High school diploma or equivalent	Less than 5 years	None	\$18.72
37-1012	First-Line Supervisors of Landscaping, Lawn Service, and Groundskeeping Workers	High school diploma or equivalent	Less than 5 years	None	\$22.42
37-2011	Janitors and Cleaners, Except Maids and Housekeeping Cleaners	No formal educational credential	None	Short-term on-the-job training	\$14.16
37-2012	Maids and Housekeeping Cleaners	No formal educational credential	None	Short-term on-the-job training	\$12.64
37-3011	Landscaping and Groundskeeping Workers	No formal educational credential	None	Short-term on-the-job training	\$14.62
39-0000	Personal Care and Service Occupations				\$11.70
39-2021	Nonfarm Animal Caretakers	High school diploma or equivalent	None	Short-term on-the-job training	\$10.91
39-3031	Ushers, Lobby Attendants, and Ticket Takers	No formal educational credential	None	Short-term on-the-job training	\$10.52
39-3091	Amusement and Recreation Attendants	No formal educational credential	None	Short-term on-the-job training	\$10.52
39-5012	Hairdressers, Hairstylists, and Cosmetologists	Postsecondary non-degree award	None	None	\$14.47
39-5092	Manicurists and Pedicurists	Postsecondary non-degree award	None	None	\$10.99
39-5094	Skincare Specialists	Postsecondary non-degree award	None	None	\$17.96
39-6012	Concierges	High school diploma or equivalent	None	Moderate-term on-the-job training	\$13.93
39-7010	Tour and Travel Guides	High school diploma or equivalent	None	Moderate-term on-the-job training	\$11.66
39-9011	Childcare Workers	High school diploma or equivalent	None	Short-term on-the-job training	\$11.60
39-9031	Fitness Trainers and Aerobics Instructors	High school diploma or equivalent	None	Short-term on-the-job training	\$14.34
39-9032	Recreation Workers	High school diploma or equivalent	None	Short-term on-the-job training	\$11.70
41-0000	Sales and Related Occupations		None		\$14.50
41-1011	First-Line Supervisors of Retail Sales Workers	High school diploma or equivalent	Less than 5 years	None	\$18.59
41-1012	First-Line Supervisors of Non-Retail Sales Workers	High school diploma or equivalent	Less than 5 years	None	\$39.13
41-2011	Cashiers	No formal educational credential	None	Short-term on-the-job training	\$11.04
41-2021	Counter and Rental Clerks	No formal educational credential	None	Short-term on-the-job training	\$14.32
41-2031	Retail Salespersons	No formal educational credential	None	Short-term on-the-job training	\$12.86
41-3011	Advertising Sales Agents	High school diploma or equivalent	None	Moderate-term on-the-job training	\$23.14
41-3021	Insurance Sales Agents	High school diploma or equivalent	None	Moderate-term on-the-job training	\$28.96
41-3031	Securities, Commodities, and Financial Services Sales Agents	Bachelor's degree	None	Moderate-term on-the-job training	\$29.70
41-3041	Travel Agents	High school diploma or equivalent	None	Moderate-term on-the-job training	\$18.45
41-3091	Sales Representatives of Services, Except Advertising, Insurance, Financial				
	Services, and Travel	High school diploma or equivalent	None	Moderate-term on-the-job training	\$29.34
41-4011	Sales Representatives, Wholesale and Manufacturing, Technical and Scientific				<i><i><i>q</i>=0.01</i></i>
	Products	Bachelor's degree	None	Moderate-term on-the-job training	\$47.73
41-4012	Sales Representatives, Wholesale and Manufacturing, Except Technical and				7 ···· 2
	Scientific Products	High school diploma or equivalent	None	Moderate-term on-the-job training	\$30.10
41-9011	Demonstrators and Product Promoters	No formal educational credential	None	Short-term on-the-job training	\$14.57
41-9022	Real Estate Sales Agents	High school diploma or equivalent	None	Moderate-term on-the-job training	\$18.39
41-9031	Sales Engineers	Bachelor's degree	None	Moderate-term on-the-job training	\$50.80
41-9041	Telemarketers	No formal educational credential	None	Short-term on-the-job training	\$17.23
41-9099	Sales and Related Workers, All Other	High school diploma or equivalent	None	None	\$13.93
43-0000	Office and Administrative Support Occupations				\$18.17
43-1011	First-Line Supervisors of Office and Administrative Support Workers	High school diploma or equivalent	Less than 5 years	None	\$29.10
43-2011	Switchboard Operators, Including Answering Service	High school diploma or equivalent	None	Short-term on-the-job training	\$14.26

			Work Experience in	Typical On-The-Job Training Needed	
soc		Typical Education	a Related	to Attain Competency in the	Median Wage
Code	Occupational Title	Needed for Entry	Occupation	Occupation	May 2021
43-3011	Bill and Account Collectors	High school diploma or equivalent	None	Moderate-term on-the-job training	\$18.10
43-3021	Billing and Posting Clerks	High school diploma or equivalent	None	Moderate-term on-the-job training	\$18.13
43-3031	Bookkeeping, Accounting, and Auditing Clerks	Some college, no degree	None	Moderate-term on-the-job training	\$18.96
43-3051	Payroll and Timekeeping Clerks	High school diploma or equivalent	None	Moderate-term on-the-job training	\$23.12
43-3061	Procurement Clerks	High school diploma or equivalent	None	Moderate-term on-the-job training	\$18.99
43-3071	Tellers	High school diploma or equivalent	None	Short-term on-the-job training	\$14.58
43-4011	Brokerage Clerks	High school diploma or equivalent	None	Moderate-term on-the-job training	\$23.17
43-4031	Court, Municipal, and License Clerks	High school diploma or equivalent	None	Long-term on-the-job training	\$22.40
43-4041	Credit Authorizers, Checkers, and Clerks	High school diploma or equivalent	None	Moderate-term on-the-job training	\$23.10
43-4051	Customer Service Representatives	High school diploma or equivalent	None	Short-term on-the-job training	\$18.01
43-4061	Eligibility Interviewers, Government Programs	High school diploma or equivalent	None	Moderate-term on-the-job training	\$22.40
43-4071	File Clerks	High school diploma or equivalent	None	Short-term on-the-job training	\$17.83
43-4081	Hotel, Motel, and Resort Desk Clerks	High school diploma or equivalent	None	Short-term on-the-job training	\$11.37
43-4111	Interviewers, Except Eligibility and Loan	High school diploma or equivalent	None	Short-term on-the-job training	\$17.84
43-4121	Library Assistants, Clerical	High school diploma or equivalent	None	Short-term on-the-job training	\$13.99
43-4131	Loan Interviewers and Clerks	High school diploma or equivalent	None	Short-term on-the-job training	\$22.42
43-4141	New Accounts Clerks	High school diploma or equivalent	None	Moderate-term on-the-job training	\$22.04
43-4151	Order Clerks	Some college, no degree	None	Short-term on-the-job training	\$22.04
43-4161	Human Resources Assistants, Except Payroll and Timekeeping	Associate's degree	None	None	\$18.48
43-4171	Receptionists and Information Clerks	High school diploma or equivalent	None	Short-term on-the-job training	\$14.26
43-4199	Information and Record Clerks, All Other	High school diploma or equivalent	None	Short-term on-the-job training	\$22.11
43-5021	Couriers and Messengers	High school diploma or equivalent	None	Short-term on-the-job training	\$14.72
43-5031	Police, Fire, and Ambulance Dispatchers	High school diploma or equivalent	None	Moderate-term on-the-job training	\$23.01
43-5032	Dispatchers, Except Police, Fire, and Ambulance	High school diploma or equivalent	None	Moderate-term on-the-job training	\$18.73
43-5052	Postal Service Clerks	High school diploma or equivalent	None	Short-term on-the-job training	\$24.64
43-5052	Postal Service Genes	High school diploma or equivalent	None	Short-term on-the-job training	\$27.55
43-5053	Postal Service Mail Sorters, Processors, and Processing Machine Operators	High school diploma or equivalent	None	Short-term on-the-job training	\$22.73
43-5061	Production, Planning, and Expediting Clerks	High school diploma or equivalent	None	Moderate-term on-the-job training	\$22.96
43-5071	Shipping, Receiving, and Traffic Clerks	High school diploma or equivalent	None	Short-term on-the-job training	\$17.83
43-5111	Weighers, Measurers, Checkers, and Samplers, Recordkeeping	High school diploma or equivalent	None	Short-term on-the-job training	\$18.13
43-6011	Executive Secretaries and Executive Administrative Assistants	High school diploma or equivalent	Less than 5 years	None	\$29.42
43-6012	Legal Secretaries	High school diploma or equivalent	None	Moderate-term on-the-job training	\$18.26
43-6013	Medical Secretaries	High school diploma or equivalent	None	Moderate-term on-the-job training	\$17.83
43-6014	Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	High school diploma or equivalent	None	Short-term on-the-job training	\$18.18
43-9021	Data Entry Keyers	High school diploma or equivalent	None	Short-term on-the-job training	\$17.84
43-9022	Word Processors and Typists	High school diploma or equivalent	None	Short-term on-the-job training	\$22.78
43-9041	Insurance Claims and Policy Processing Clerks	High school diploma or equivalent	None	Moderate-term on-the-job training	\$22.87
43-9051	Mail Clerks and Mail Machine Operators, Except Postal Service	High school diploma or equivalent	None	Short-term on-the-job training	\$14.33
43-9061	Office Clerks, General	High school diploma or equivalent	None	Short-term on-the-job training	\$18.12
43-9071	Office Machine Operators, Except Computer	High school diploma or equivalent	None	Short-term on-the-job training	\$17.90
43-9199	Office and Administrative Support Workers, All Other	High school diploma or equivalent	None	Short-term on-the-job training	\$22.04
45-0000	Farming, Fishing, and Forestry Occupations				\$14.98
	Construction and Extraction Occupations				\$24.00

			Work Experience in	Typical On-The-Job Training Needed	
soc		Typical Education	a Related	to Attain Competency in the	Median Wage
Code	Occupational Title	Needed for Entry	Occupation	Occupation	May 2021
47-1011	First-Line Supervisors of Construction Trades and Extraction Workers	High school diploma or equivalent	5 years or more	None	\$31.06
47-2021	Brickmasons and Blockmasons	High school diploma or equivalent	None	Apprenticeship	\$29.77
47-2031	Carpenters	High school diploma or equivalent	None	Apprenticeship	\$23.35
47-2051	Cement Masons and Concrete Finishers	No formal educational credential	None	Moderate-term on-the-job training	\$23.29
47-2061	Construction Laborers	No formal educational credential	None	Short-term on-the-job training	\$22.55
47-2073	Operating Engineers and Other Construction Equipment Operators	High school diploma or equivalent	None	Moderate-term on-the-job training	\$29.34
47-2081	Drywall and Ceiling Tile Installers	No formal educational credential	None	Moderate-term on-the-job training	\$23.35
47-2111	Electricians	High school diploma or equivalent	None	Apprenticeship	\$28.69
47-2121	Glaziers	High school diploma or equivalent	None	Apprenticeship	\$29.27
47-2131	Insulation Workers, Floor, Ceiling, and Wall	No formal educational credential	None	Short-term on-the-job training	\$23.31
47-2132	Insulation Workers, Mechanical	High school diploma or equivalent	None	Apprenticeship	\$29.44
47-2141	Painters, Construction and Maintenance	No formal educational credential	None	Moderate-term on-the-job training	\$22.62
47-2152	Plumbers, Pipefitters, and Steamfitters	High school diploma or equivalent	None	Apprenticeship	\$30.08
47-2181	Roofers	No formal educational credential	None	Moderate-term on-the-job training	\$23.44
47-2211	Sheet Metal Workers	High school diploma or equivalent	None	Apprenticeship	\$28.29
47-2221	Structural Iron and Steel Workers	High school diploma or equivalent	None	Apprenticeship	\$30.12
47-3011	HelpersBrickmasons, Blockmasons, Stonemasons, and Tile and Marble Setters	No formal educational credential	None	Short-term on-the-job training	\$18.97
47-3015	HelpersPipelayers, Plumbers, Pipefitters, and Steamfitters	High school diploma or equivalent	None	Short-term on-the-job training	\$17.87
47-4011	Construction and Building Inspectors	High school diploma or equivalent	5 years or more	Moderate-term on-the-job training	\$29.63
47-4021	Elevator Installers and Repairers	High school diploma or equivalent	None	Apprenticeship	\$47.24
47-4051	Highway Maintenance Workers	High school diploma or equivalent	None	Moderate-term on-the-job training	\$22.66
47-4071	Septic Tank Servicers and Sewer Pipe Cleaners	High school diploma or equivalent	None	Moderate-term on-the-job training	\$22.66
47-4090	Miscellaneous Construction and Related Workers	High school diploma or equivalent	None	Moderate-term on-the-job training	\$22.31
49-0000	Installation, Maintenance, and Repair Occupations				\$23.17
49-1011	First-Line Supervisors of Mechanics, Installers, and Repairers	High school diploma or equivalent	Less than 5 years	None	\$31.79
49-2011	Computer, Automated Teller, and Office Machine Repairers	Some college, no degree	None	Short-term on-the-job training	\$22.28
49-2022	Telecommunications Equipment Installers and Repairers, Except Line Installers	Postsecondary non-degree award	None	Moderate-term on-the-job training	\$29.43
49-2094	Electrical and Electronics Repairers, Commercial and Industrial Equipment	Postsecondary non-degree award	None	Long-term on-the-job training	\$28.53
49-2098	Security and Fire Alarm Systems Installers	High school diploma or equivalent	None	Moderate-term on-the-job training	\$23.31
49-3021	Automotive Body and Related Repairers	High school diploma or equivalent	None	Long-term on-the-job training	\$22.31
49-3023	Automotive Service Technicians and Mechanics	Postsecondary non-degree award	None	Short-term on-the-job training	\$22.50
49-3031	Bus and Truck Mechanics and Diesel Engine Specialists	High school diploma or equivalent	None	Long-term on-the-job training	\$23.34
49-3042	Mobile Heavy Equipment Mechanics, Except Engines	High school diploma or equivalent	None	Long-term on-the-job training	\$27.79
49-9011	Mechanical Door Repairers	High school diploma or equivalent	None	Moderate-term on-the-job training	\$19.26
49-9012	Control and Valve Installers and Repairers, Except Mechanical Door	High school diploma or equivalent	None	Moderate-term on-the-job training	\$31.90
49-9021	Heating, Air Conditioning, and Refrigeration Mechanics and Installers	Postsecondary non-degree award	None	Long-term on-the-job training	\$23.90
49-9041	Industrial Machinery Mechanics	High school diploma or equivalent	None	Long-term on-the-job training	\$28.90
49-9043	Maintenance Workers, Machinery	High school diploma or equivalent	None	Long-term on-the-job training	\$29.81
49-9044	Millwrights	High school diploma or equivalent	None	Apprenticeship	\$32.59
49-9051	Electrical Power-Line Installers and Repairers	High school diploma or equivalent	None	Long-term on-the-job training	\$38.58
49-9052	Telecommunications Line Installers and Repairers	High school diploma or equivalent	None	Long-term on-the-job training	\$23.04
49-9062	Medical Equipment Repairers	Associate's degree	None	Moderate-term on-the-job training	\$28.95
49-9071	Maintenance and Repair Workers, General	High school diploma or equivalent	None	Moderate-term on-the-job training	\$22.45

			Work Experience in	Typical On-The-Job Training Needed	
soc		Typical Education	a Related	to Attain Competency in the	Median Wage
	Occupational Title	Needed for Entry	Occupation	Occupation	May 2021
49-9091	Coin, Vending, and Amusement Machine Servicers and Repairers	High school diploma or equivalent	None	Short-term on-the-job training	\$18.09
49-9091	HelpersInstallation, Maintenance, and Repair Workers	High school diploma or equivalent	None	Short-term on-the-job training	\$17.63
49-9099	Installation, Maintenance, and Repair Workers, All Other	High school diploma or equivalent	None	Moderate-term on-the-job training	\$18.39
51-0000	Production Occupations		None	Noderate term on the job training	\$18.29
51-1011	First-Line Supervisors of Production and Operating Workers	High school diploma or equivalent	Less than 5 years	None	\$30.03
51-2028	Electrical, Electronic, and Electromechanical Assemblers, Except Coil Winders,		Less than 5 years	None	\$30.03
51-2020	Tapers, and Finishers	High school diploma or equivalent	None	Moderate-term on-the-job training	\$17.52
51-2041	Structural Metal Fabricators and Fitters	High school diploma or equivalent	None	Moderate-term on-the-job training	\$21.99
51-2051	Fiberglass Laminators and Fabricators	High school diploma or equivalent	None	Moderate-term on-the-job training	\$18.15
51-2090	Miscellaneous Assemblers and Fabricators	High school diploma or equivalent	None	Moderate-term on-the-job training	\$15.09
51-2030	Bakers	No formal educational credential	None	Long-term on-the-job training	\$13.03
51-3021	Butchers and Meat Cutters	No formal educational credential	None	Long-term on-the-job training	\$14.45
51-3092	Food Batchmakers	High school diploma or equivalent	None	Moderate-term on-the-job training	\$17.48
51-4021	Extruding and Drawing Machine Setters, Operators, and Tenders, Metal and		None		Ş17.40
51-4021	Plastic	High school diploma or aquivalant	None	Moderate term on the job training	\$18.40
51-4031	Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and	High school diploma or equivalent	None	Moderate-term on-the-job training	\$10.40
51-4051	Plastic	High school diploma or equivalent	None	Moderate-term on-the-job training	\$18.29
51-4033	Grinding, Lapping, Polishing, and Buffing Machine Tool Setters, Operators, and		None		Ş10.2 <i>9</i>
51-4055	Tenders, Metal and Plastic	High school diploma or equivalent	None	Moderate-term on-the-job training	\$18.27
51-4034	Lathe and Turning Machine Tool Setters, Operators, and Tenders, Metal and		None		\$10.27
51-4054	Plastic	High school diploma or equivalent	None	Moderate-term on-the-job training	\$22.91
51-4041	Machinists	High school diploma or equivalent	None	Long-term on-the-job training	\$23.04
51-4041	Metal-Refining Furnace Operators and Tenders	High school diploma or equivalent	None	Moderate-term on-the-job training	\$22.04
51-4051	Molding, Coremaking, and Casting Machine Setters, Operators, and Tenders,		None		322.04
51-4072	Metal and Plastic	High school diploma or equivalent	None	Moderate-term on-the-job training	\$17.50
51-4081	Multiple Machine Tool Setters, Operators, and Tenders, Metal and Plastic	High school diploma or equivalent	None	Moderate-term on-the-job training	\$18.15
51-4111	Tool and Die Makers	Postsecondary non-degree award	None	Long-term on-the-job training	\$24.61
51-4121	Welders, Cutters, Solderers, and Brazers	High school diploma or equivalent	None	Moderate-term on-the-job training	\$22.32
51-4122	Welding, Soldering, and Brazing Machine Setters, Operators, and Tenders	High school diploma or equivalent	None	Moderate-term on-the-job training	\$18.29
51-4191	Heat Treating Equipment Setters, Operators, and Tenders, Metal and Plastic	High school diploma or equivalent	None	Moderate-term on-the-job training	\$23.05
51-4193	Plating and Coating Machine Setters, Operators, and Tenders, Metal and Plastic	High school diploma or equivalent	None	Moderate-term on-the-job training	\$18.21
51-5111	Prepress Technicians and Workers	Postsecondary non-degree award	None	None	\$22.42
51-5112	Printing Press Operators	High school diploma or equivalent	None	Moderate-term on-the-job training	\$18.34
51-5113	Print Binding and Finishing Workers	High school diploma or equivalent	None	Moderate-term on-the-job training	\$18.09
51-6011	Laundry and Dry-Cleaning Workers	No formal educational credential	None	Short-term on-the-job training	\$11.56
51-6021	Pressers, Textile, Garment, and Related Materials	No formal educational credential	None	Short-term on-the-job training	\$13.63
51-6031	Sewing Machine Operators	No formal educational credential	None	Short-term on-the-job training	\$14.19
51-6052	Tailors, Dressmakers, and Custom Sewers	No formal educational credential	None	Moderate-term on-the-job training	\$16.90
51-7011	Cabinetmakers and Bench Carpenters	High school diploma or equivalent	None	Moderate-term on-the-job training	\$18.70
51-7011	Furniture Finishers	High school diploma or equivalent	None	Short-term on-the-job training	\$18.45
51-7021	Woodworking Machine Setters, Operators, and Tenders, Except Sawing	High school diploma or equivalent	None	Moderate-term on-the-job training	\$18.09
51-8021	Stationary Engineers and Boiler Operators	High school diploma or equivalent	None	Long-term on-the-job training	\$36.82
51-8021	Water and Wastewater Treatment Plant and System Operators	High school diploma or equivalent	None	Long-term on-the-job training	\$28.50
21-0021	water and wastewater meatment riant and system Operators	Then sensor diploma of equivalent	None	Long-term on-the-job training	720.JU

Occupational* Education and Training Classifications, Projections Report, 2020-2030

soc		Typical Education	Work Experience in a Related	Typical On-The-Job Training Needed to Attain Competency in the	Median Wage
Code	Occupational Title	Needed for Entry	Occupation	Occupation	May 2021
51-8091	Chemical Plant and System Operators	High school diploma or equivalent	None	Moderate-term on-the-job training	\$39.03
51-9011	Chemical Equipment Operators and Tenders	High school diploma or equivalent	None	Moderate-term on-the-job training	\$23.74
51-9012	Separating, Filtering, Clarifying, Precipitating, and Still Machine Setters, Operators,				
	and Tenders	High school diploma or equivalent	None	Moderate-term on-the-job training	\$36.43
51-9022	Grinding and Polishing Workers, Hand	No formal educational credential	None	Moderate-term on-the-job training	\$22.91
51-9023	Mixing and Blending Machine Setters, Operators, and Tenders	High school diploma or equivalent	None	Moderate-term on-the-job training	\$18.35
51-9032	Cutting and Slicing Machine Setters, Operators, and Tenders	High school diploma or equivalent	None	Moderate-term on-the-job training	\$19.47
51-9041	Extruding, Forming, Pressing, and Compacting Machine Setters, Operators, and				
	Tenders	High school diploma or equivalent	None	Moderate-term on-the-job training	\$18.70
51-9051	Furnace, Kiln, Oven, Drier, and Kettle Operators and Tenders	High school diploma or equivalent	None	Moderate-term on-the-job training	\$18.27
51-9061	Inspectors, Testers, Sorters, Samplers, and Weighers	High school diploma or equivalent	None	Moderate-term on-the-job training	\$20.36
51-9111	Packaging and Filling Machine Operators and Tenders	High school diploma or equivalent	None	Moderate-term on-the-job training	\$18.10
51-9124	Coating, Painting, and Spraying Machine Setters, Operators, and Tenders	High school diploma or equivalent	None	Moderate-term on-the-job training	\$18.32
51-9161	Computer Numerically Controlled Tool Operators	High school diploma or equivalent	None	Moderate-term on-the-job training	\$22.42
51-9162	Computer Numerically Controlled Tool Programmers	Postsecondary non-degree award	None	Moderate-term on-the-job training	\$29.84
51-9191	Adhesive Bonding Machine Operators and Tenders	High school diploma or equivalent	None	Moderate-term on-the-job training	\$18.36
51-9192	Cleaning, Washing, and Metal Pickling Equipment Operators and Tenders	High school diploma or equivalent	None	Moderate-term on-the-job training	\$18.18
51-9195	Molders, Shapers, and Casters, Except Metal and Plastic	High school diploma or equivalent	None	Long-term on-the-job training	\$18.13
51-9196	Paper Goods Machine Setters, Operators, and Tenders	High school diploma or equivalent	None	Moderate-term on-the-job training	\$18.51
51-9198	HelpersProduction Workers	High school diploma or equivalent	None	Short-term on-the-job training	\$17.75
51-9199	Production Workers, All Other	High school diploma or equivalent	None	Moderate-term on-the-job training	\$18.63
53-0000	Transportation and Material Moving Occupations				\$17.55
53-2012	Commercial Pilots	High school diploma or equivalent	None	Moderate-term on-the-job training	\$128,784 **
53-3031	Driver/Sales Workers	High school diploma or equivalent	None	Short-term on-the-job training	\$14.19
53-3032	Heavy and Tractor-Trailer Truck Drivers	Postsecondary non-degree award	None	Short-term on-the-job training	\$23.52
53-3033	Light Truck or Delivery Services Drivers	High school diploma or equivalent	None	Short-term on-the-job training	\$18.27
53-3058	Passenger Vehicle Drivers, Except Bus Drivers, Transit and Intercity	No formal educational credential	None	Short-term on-the-job training	\$18.05 ^^^
53-6021	Parking Lot Attendants	No formal educational credential	None	Short-term on-the-job training	\$11.26
53-6031	Automotive and Watercraft Service Attendants	No formal educational credential	None	Short-term on-the-job training	\$14.32
53-7021	Crane and Tower Operators	High school diploma or equivalent	Less than 5 years	Moderate-term on-the-job training	\$24.05
53-7051	Industrial Truck and Tractor Operators	No formal educational credential	None	Short-term on-the-job training	\$18.45
53-7061	Cleaners of Vehicles and Equipment	No formal educational credential	None	Short-term on-the-job training	\$14.22
53-7062	Laborers and Freight, Stock, and Material Movers, Hand	No formal educational credential	None	Short-term on-the-job training	\$14.85
53-7064	Packers and Packagers, Hand	No formal educational credential	None	Short-term on-the-job training	\$14.42
53-7065	Stockers and Order Fillers	High school diploma or equivalent	None	Short-term on-the-job training	\$14.34
53-7081	Refuse and Recyclable Material Collectors	No formal educational credential	None	Short-term on-the-job training	\$18.94

* Occupations with 100 or more workers.

** Certain occupations only report wages at the annual level.

^ National hourly wage.

^^ National annual wage.

^^^ National aggregate wage.

Source: Ohio Department of Job and Family Services, Bureau of Labor Market Information, June 2023.

Wage above max.

▲ Wage not available due to OES/SOC changes. † Statewide hourly wage.

++ Statewide annual wage.



Bureau of Labor Market Information Business Principles for Workforce Development

- Partner with the workforce and economic development community.
- Develop and deploy new information solution tools and systems for the workforce and economic development community.
- Provide products and services that are customer- and demand-driven.
- Be known as an important and reliable source for information solutions that support workforce development goals and outcomes.

Acknowledgments: The Workforce Research Section produced this report under the direction of Labor Market Bureau Chief, Byron Archer. To view other publications, access data or provide feedback, visit <u>http://OhioLMI.com</u> or contact the Ohio Bureau of Labor Market Information at (614) 752-9494 or <u>ContactLMI@jfs.ohio.gov</u>.

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