

2030 Job Outlook

Toledo Metropolitan Statistical Area

Fulton, Lucas, and Wood Counties



2030 Job Outlook for Ohio Metropolitan Statistical Areas

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 eight largest metropolitan statistical areas. 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 102,228 in the Columbus MSA to a growth of 5,723 jobs in the Youngstown-Warren-Boardman MSA. Among the state's largest metropolitan statistical areas, the highest projected growth is in Columbus (9.4%), followed by Cincinnati (6.0%), Dayton (4.9%), Cleveland-Elyria (4.5%), Akron (4.2%), Canton-Massillon (3.7%), Youngstown-Warren-Boardman (3.6%), and Toledo (3.5%).

Comparison of Ohio Metropolitan Statistical Areas: 2020-2030

	2020	2030 Projected	Projected 2020-2	2030
Ohio Metropolitan Statistical Areas	Employment	Employment	Number	Percent
Akron MSA	325,672	339,438	13,766	4.2%
Canton-Massillon MSA	169,284	175,464	6,180	3.7%
Cincinnati MSA	888,939	942,233	53,294	6.0%
Cleveland-Elyria MSA	1,027,279	1,073,551	46,272	4.5%
Columbus MSA	1,087,191	1,189,419	102,228	9.4%
Dayton MSA	380,258	398,981	18,723	4.9%
Toledo MSA	293,705	303,899	10,194	3.5%
Youngstown-Warren-Boardman MSA	160,838	166,561	5,723	3.6%

Each 2030 Job Outlook report for Ohio's metropolitan statistical areas 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 ContactLMI@ifs.ohio.gov.

		Emplo	yment*	Change 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
00-0000	Total, All Occupations	293,705	303,899	10,194	3.5%	1,019	13,010	19,876	33,905	\$18.38
11-0000	Management Occupations	14,441	15,317	876	6.1%	88	448	754	1,290	\$46.06
11-1011	Chief Executives	342	309	-33	-9.7%	-3	9	13	19	\$80.61
11-1021	General and Operations Managers	3,144	3,317	173	5.5%	17	64	200	281	\$38.91
11-2021	Marketing Managers	313	333	20	6.4%	2	6	20	28	\$61.07
11-2022	Sales Managers	389	408	19	4.9%	2	8	25	35	\$60.00
11-3010	Administrative Services and Facilities Managers	601	617	16	2.7%	2	17	30	49	\$47.73 ^
11-3021	Computer and Information Systems Managers	428	436	8	1.9%	1	7	25	33	\$59.24
11-3031	Financial Managers	825	959	134	16.2%	13	18	45	76	\$57.80
11-3051	Industrial Production Managers	671	714	43	6.4%	4	13	33	50	\$49.07
11-3061	Purchasing Managers	104	111	7	6.7%	1	2	6	9	\$57.40
11-3071	Transportation, Storage, and Distribution Managers	350	374	24	6.9%	2	7	20	29	\$39.50
11-3121	Human Resources Managers	154	163	9	5.8%	1	4	9	14	\$50.14
11-9021	Construction Managers	596	653	57	9.6%	6	13	32	51	\$47.08
11-9032	Education Administrators, Elementary and Secondary School	463	492	29	6.3%	3	12	22	37	\$94,120 **
11-9033	Education Administrators, Postsecondary	212	194	-18	-8.5%	-2	5	9	12	\$48.28
11-9041	Architectural and Engineering Managers	204	210	6	2.9%	1	4	10	15	\$60.82
11-9051	Food Service Managers	295	327	32	10.9%	3	10	25	38	\$23.25
11-9111	Medical and Health Services Managers	769	938	169	22.0%	17	21	43	81	\$46.24
11-9141	Property, Real Estate, and Community Association Managers	642	646	4	0.6%	0	24	24	48	\$22.71
11-9151	Social and Community Service Managers	228	247	19	8.3%	2	7	13	22	\$28.90
11-9198	Personal Service Managers; Entertainment & Recreation Managers, Except									
	Gambling; and Managers, All Other	514	529	15	2.9%	2	12	26	40	\$59.93 ^^^
13-0000	Business and Financial Operations Occupations	12,165	12,797	632	5.2%	63	332	742	1,137	\$29.60
13-1020	Buyers and Purchasing Agents	592	559	-33	-5.6%	-3	20	37	54	\$29.17
13-1031	Claims Adjusters, Examiners, and Investigators	194	184	-10	-5.2%	-1	4	10	13	\$29.11
13-1041	Compliance Officers	383	405	22	5.7%	2	10	21	33	\$29.08
13-1051	Cost Estimators	509	509	0	0.0%	0	14	31	45	\$30.37
13-1071	Human Resources Specialists	1,386	1,483	97	7.0%	10	39	95	144	\$28.15
13-1075	Labor Relations Specialists	444	408	-36	-8.1%	-4	12	28	36	\$30.17
13-1081	Logisticians	260	344	84	32.3%	8	6	20	34	\$37.04
13-1111	Management Analysts	522	548	26	5.0%	3	17	31	51	\$36.94
13-1121	Meeting, Convention, and Event Planners	158	178	20	12.7%	2	5	12	19	\$23.27
13-1131	Fundraisers	264	277	13	4.9%	1	8	17	26	\$23.76
13-1151	Training and Development Specialists	504	553	49	9.7%	5	16	32	53	\$22.99
13-1161	Market Research Analysts and Marketing Specialists	1,057	1,206	149	14.1%	15	27	83	125	\$28.74
13-1198	Project Management Specialists and Business Operations Specialists, All Other	2,371	2,452	81	3.4%	8	56	118	182	\$35.90 ^^^
13-2011	Accountants and Auditors	2,160	2,277	117	5.4%	12	62	131	205	\$30.51
13-2052	Personal Financial Advisors	178	200	22	12.4%	2	4	9	15	\$38.53
13-2072	Loan Officers	382	394	12	3.1%	1	8	21	30	\$28.90
13-2082	Tax Preparers	177	179	2	1.1%	0	10	10	20	\$14.48

		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
13-2098	Financial and Investment Analysts, Financial Risk Specialists, and Financial		-							•
	Specialists, All Other	236	247	11	4.7%	1	4	14	19	\$35.21 ^^^
15-0000	Computer and Mathematical Occupations	4,332	4,517	185	4.3%	18	90	219	327	\$30.00
15-1211	Computer Systems Analysts	391	389	-2	-0.5%	0	8	19	27	\$37.53
15-1231	Computer Network Support Specialists	532	502	-30	-5.6%	-3	10	27	34	\$21.90
15-1232	Computer User Support Specialists	661	657	-4	-0.6%	0	12	35	47	\$22.58
15-1241	Computer Network Architects	133	126	-7	-5.3%	-1	2	6	7	\$47.47
15-1244	Network and Computer Systems Administrators	484	482	-2	-0.4%	0	8	23	31	\$37.16
15-1245	Database Administrators and Architects	157	166	9	5.7%	1	4	8	13	\$47.44 ^^^
15-1251	Computer Programmers	193	170	-23	-11.9%	-2	4	8	10	\$37.26
15-1256	Software Developers and Software Quality Assurance Analysts and Testers	1,043	1,225	182	17.5%	18	26	56	100	\$49.49 ^^^
15-1257	Web Developers and Digital Interface Designers	145	148	3	2.1%	0	3	7	10	\$49.49 ^^^
15-1299	Computer Occupations, All Other	357	356	-1	-0.3%	0	8	18	26	\$33.73
15-2031	Operations Research Analysts	106	130	24	22.6%	2	2	5	9	\$35.95
17-0000	Architecture and Engineering Occupations	4,787	5,217	430	9.0%	43	121	244	408	\$36.85
17-1011	Architects, Except Landscape and Naval	138	141	3	2.2%	0	4	6	10	\$37.12
17-1022	Surveyors	128	127	-1	-0.8%	0	4	6	10	\$28.90
17-2051	Civil Engineers	546	586	40	7.3%	4	11	28	43	\$37.53
17-2071	Electrical Engineers	343	368	25	7.3%	2	8	14	24	\$45.82
17-2112	Industrial Engineers	728	883	155	21.3%	16	18	32	66	\$38.16
17-2141	Mechanical Engineers	678	760	82	12.1%	8	12	30	50	\$36.90
17-2199	Engineers, All Other	340	372	32	9.4%	3	8	15	26	\$38.41
17-3011	Architectural and Civil Drafters	237	231	-6	-2.5%	-1	7	15	21	\$28.80
17-3022	Civil Engineering Technicians	164	165	1	0.6%	0	5	10	15	\$28.00
17-3023	Electrical and Electronics Engineering Technicians	331	347	16	4.8%	2	10	21	33	\$29.68
17-3026	Industrial Engineering Technicians	171	187	16	9.4%	2	5	11	18	\$29.13
17-3031	Surveying and Mapping Technicians	150	152	2	1.3%	0	5	13	18	\$18.20
19-0000	Life, Physical, and Social Science Occupations	1,776	1,829	53	3.0%	5	39	120	164	\$30.27
19-2031	Chemists	164	172	8	4.9%	1	2	12	15	\$35.71
19-2041	Environmental Scientists and Specialists, Including Health	172	175	3	1.7%	0	3	14	17	\$39.27
19-3031	Clinical, Counseling, and School Psychologists	206	214	8	3.9%	1	6	8	15	\$38.96 ^^^
19-4031	Chemical Technicians	131	131	0	0.0%	0	2	12	14	\$23.26
19-4042	Environmental Science and Protection Technicians, Including Health	101	102	1	1.0%	0	3	10	13	\$22.58
19-5011	Occupational Health and Safety Specialists	311	319	8	2.6%	1	9	14	24	\$37.92
21-0000	Community and Social Service Occupations	5,894	6,230	336	5.7%	34	207	389	630	\$22.95
21-1012	Educational, Guidance, School, and Vocational Counselors	644	666	22	3.4%	2	21	39	62	\$28.38
21-1015	Rehabilitation Counselors	215	237	22	10.2%	2	7	13	22	\$18.33
21-1018	Substance Abuse, Behavioral Disorder, and Mental Health Counselors	488	564	76	15.6%	8	17	31	56	\$22.62
21-1021	Child, Family, and School Social Workers	478	509	31	6.5%	3	14	31	48	\$22.95
21-1022	Healthcare Social Workers	496	503	7	1.4%	1	14	32	47	\$24.62
21-1023	Mental Health and Substance Abuse Social Workers	646	708	62	9.6%	6	19	43	68	\$22.40

		Emplo	yment*	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
21-1029	Social Workers, All Other	124	134	10	8.1%	1	4	8	13	\$23.96
21-1091	Health Educators	164	168	4	2.4%	0	6	11	17	\$29.11
21-1092	Probation Officers and Correctional Treatment Specialists	251	251	0	0.0%	0	5	15	20	\$29.33
21-1093	Social and Human Service Assistants	1,090	1,159	69	6.3%	7	45	85	137	\$17.48
21-1094	Community Health Workers	118	131	13	11.0%	1	4	9	14	\$17.76
21-2011	Clergy	890	907	17	1.9%	2	37	52	91	\$22.42
23-0000	Legal Occupations	1,745	1,822	77	4.4%	8	47	65	120	\$30.15
23-1011	Lawyers	1,044	1,086	42	4.0%	4	23	26	53	\$47.30
23-1023	Judges, Magistrate Judges, and Magistrates	176	175	-1	-0.6%	0	4	4	8	\$60.80
23-2011	Paralegals and Legal Assistants	436	471	35	8.0%	4	18	31	53	\$17.73
25-0000	Education, Training, and Library Occupations	16,867	17,610	743	4.4%	74	656	767	1,497	\$28.44
25-1011	Business Teachers, Postsecondary	189	170	-19	-10.1%	-2	8	8	14	\$81,980 **
25-1022	Mathematical Science Teachers, Postsecondary	140	127	-13	-9.3%	-1	6	6	11	\$77,740 ††
25-1032	Engineering Teachers, Postsecondary	117	110	-7	-6.0%	-1	5	5	9	\$99,220 **
25-1071	Health Specialties Teachers, Postsecondary	621	651	30	4.8%	3	28	30	61	\$82,330 **
25-1072	Nursing Instructors and Teachers, Postsecondary	218	233	15	6.9%	2	10	10	22	\$63,900 **
25-1121	Art, Drama, and Music Teachers, Postsecondary	223	202	-21	-9.4%	-2	10	10	18	\$81,460 **
25-1194	Vocational Education Teachers, Postsecondary	246	227	-19	-7.7%	-2	11	11	20	\$24.03
25-1199	Postsecondary Teachers, All Other	134	120	-14	-10.5%	-1	6	6	11	\$63,900 **
25-2011	Preschool Teachers, Except Special Education	681	807	126	18.5%	13	30	43	86	\$13.81
25-2012	Kindergarten Teachers, Except Special Education	210	222	12	5.7%	1	9	13	23	\$60,670 ++
25-2021	Elementary School Teachers, Except Special Education	2,772	2,908	136	4.9%	14	87	114	215	\$62,200 **
25-2022	Middle School Teachers, Except Special and Career/Technical Education	1,305	1,372	67	5.1%	7	41	54	102	\$60,040 **
25-2031	Secondary School Teachers, Except Special and Career/Technical Education	3,258	3,445	187	5.7%	19	89	136	244	\$75,330 **
25-2032	Career/Technical Education Teachers, Secondary School	151	158	7	4.6%	1	4	6	11	\$75,840 **
25-2052	Special Education Teachers, Kindergarten and Elementary School	295	310	15	5.1%	2	10	12	24	\$74,560 **
25-2058	Special Education Teachers, Secondary School	694	735	41	5.9%	4	23	28	55	\$48,160 **
25-3031	Substitute Teachers, Short-Term	469	524	55	11.7%	6	30	27	63	\$14.19
25-3097	Teachers and Instructors, All Other, Except Substitute Teachers	438	467	29	6.6%	3	27	24	54	\$17.94 ^^^
25-4022	Librarians and Media Collections Specialists	315	310	-5	-1.6%	0	15	14	29	\$29.63
25-9031	Instructional Coordinators	347	365	18	5.2%	2	18	16	36	\$28.68
25-9045	Teaching Assistants, Except Postsecondary	2,019	2,167	148	7.3%	15	94	98	207	\$28,190 **
27-0000	Arts, Design, Entertainment, Sports, and Media Occupations	4,140	4,290	150	3.6%	15	174	274	463	\$21.78
27-1011	Art Directors	123	120	-3	-2.4%	0	6	6	12	\$38.78
27-1024	Graphic Designers	408	415	7	1.7%	1	13	24	38	\$23.25
27-1026	Merchandise Displayers and Window Trimmers	189	195	6	3.2%	1	6	11	18	\$14.52
27-2012	Producers and Directors	164	163	-1	-0.6%	0	4	10	14	\$23.74
27-2022	Coaches and Scouts	905	994	89	9.8%	9	54	76	139	\$36,520 **
27-2042	Musicians and Singers	333	367	34	10.2%	3	21	20	44	\$75.26
27-3023	News Analysts, Reporters, and Journalists	130	124	-6	-4.6%	-1	4	10	13	\$18.45
27-3031	Public Relations Specialists	286	343	57	19.9%	6	8	21	35	\$23.69

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soc		2020	2030	Employ	ment		Annua	l Openings		Median Wage
Code	Occupational Title	Annual	Projected	2020-2030	Percent	Growth	Exits	Transfers	Total	May 2021
27-3043	Writers and Authors	146	133	-13	-8.9%	-1	6	8	13	\$23.99
27-4021	Photographers	227	179	-48	-21.2%	-5	7	11	13	\$18.64
29-0000	Healthcare Practitioners and Technical Occupations	22,312	22,410	98	0.4%	10	570	672	1,252	\$29.58
29-1031	Dietitians and Nutritionists	164	164	0	0.0%	0	5	6	11	\$28.89
29-1041	Optometrists	139	122	-17	-12.2%	-2	2	2	2	\$49.29
29-1051	Pharmacists	1,020	944	-76	-7.5%	-8	18	19	29	\$61.00
29-1071	Physician Assistants	151	192	41	27.2%	4	3	7	14	\$60.20
29-1122	Occupational Therapists	313	321	8	2.6%	1	7	10	18	\$37.69
29-1123	Physical Therapists	436	440	4	0.9%	0	9	9	18	\$45.97
29-1126	Respiratory Therapists	400	439	39	9.8%	4	9	11	24	\$28.81
29-1127	Speech-Language Pathologists	369	416	47	12.7%	5	9	14	28	\$36.00
29-1141	Registered Nurses	7,814	7,685	-129	-1.7%	-13	207	195	389	\$34.97
29-1171	Nurse Practitioners	612	948	336	54.9%	34	16	24	74	\$49.07
29-1228	Physicians, All Other; and Ophthalmologists, Except Pediatric	1,009	1,014	5	0.5%	0	16	11	27	\$37.45 ^^^
29-1292	Dental Hygienists	501	511	10	2.0%	1	18	13	32	\$30.13
29-2010	Clinical Laboratory Technologists and Technicians	953	901	-52	-5.5%	-5	24	34	53	\$28.52
29-2031	Cardiovascular Technologists and Technicians	180	179	-1	-0.6%	0	5	8	13	\$29.25
29-2032	Diagnostic Medical Sonographers	219	229	10	4.6%	1	6	10	17	\$30.00
29-2034	Radiologic Technologists	550	523	-27	-4.9%	-3	15	23	35	\$28.52
29-2040	Emergency Medical Technicians and Paramedics	429	385	-44	-10.3%	-4	8	19	23	\$17.76 ^
29-2052	Pharmacy Technicians	1,312	1,305	-7	-0.5%	-1	36	56	91	\$14.11
29-2055	Surgical Technologists	258	250	-8	-3.1%	-1	7	11	17	\$22.67
29-2056	Veterinary Technologists and Technicians	138	113	-25	-18.1%	-2	3	5	6	\$17.62
29-2061	Licensed Practical and Licensed Vocational Nurses	1,856	1,885	29	1.6%	3	63	78	144	\$22.60
29-2081	Opticians, Dispensing	180	173	-7	-3.9%	-1	7	6	12	\$22.04
29-2098	Medical Dosimetrists, Medical Records Specialists, and Health Technologists and									
	Technicians, All Other	953	965	12	1.3%	1	26	41	68	\$22.55 ^^^
29-9098	Health Information Technologists, Medical Registrars, Surgical Assistants, &									
	Healthcare Practitioners, AO	163	159	-4	-2.5%	0	4	7	11	\$26.19 ^^^
31-0000	Healthcare Support Occupations	13,011	14,179	1,168	9.0%	117	785	846	1,748	\$14.19
31-1120	Home Health and Personal Care Aides	4,939	5,908	969	19.6%	97	347	307	751	\$11.49
31-1131	Nursing Assistants	3,639	3,590	-49	-1.4%	-5	231	205	431	\$14.21
31-2011	Occupational Therapy Assistants	187	219	32	17.1%	3	10	15	28	\$29.60
31-2021	Physical Therapist Assistants	469	532	63	13.4%	6	21	38	65	\$29.49
31-9011	Massage Therapists	235	256	21	8.9%	2	14	13	29	\$17.38
31-9091	Dental Assistants	458	470	12	2.6%	1	21	33	55	\$17.97
31-9092	Medical Assistants	1,826	2,012	186	10.2%	19	79	143	241	\$17.32
31-9093	Medical Equipment Preparers	165	157	-8	-4.9%	-1	9	11	19	\$17.57
31-9096	Veterinary Assistants and Laboratory Animal Caretakers	208	173	-35	-16.8%	-4	9	21	26	\$13.94
31-9097	Phlebotomists	572	573	1	0.2%	0	25	42	67	\$17.85
33-0000	Protective Service Occupations	5,853	5,896	43	0.7%	4	259	369	632	\$22.58

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33-1012	First-Line Supervisors of Police and Detectives	122	121	-1	-0.8%	0	3	5	8	\$39.12
33-1021	First-Line Supervisors of Fire Fighting and Prevention Workers	176	176	0	0.0%	0	4	7	11	\$37.16
33-2011	Firefighters	901	916	15	1.7%	2	20	47	69	\$23.58
33-3012	Correctional Officers and Jailers	598	531	-67	-11.2%	-7	21	30	44	\$23.04
33-3021	Detectives and Criminal Investigators	129	127	-2	-1.6%	0	3	6	9	\$30.13
33-3051	Police and Sheriff's Patrol Officers	1,516	1,512	-4	-0.3%	0	38	77	115	\$29.17
33-9032	Security Guards	1,568	1,602	34	2.2%	3	84	123	210	\$13.88
33-9092	Lifeguards, Ski Patrol, and Other Recreational Protective Service Workers	242	301	59	24.4%	6	37	30	73	\$10.78
33-9098	School Bus Monitors and Protective Service Workers, All Other	176	189	13	7.4%	1	25	20	46	\$15.11 ^^^
35-0000	Food Preparation and Serving Related Occupations	25,313	29,034	3,721	14.7%	372	2,112	2,800	5,284	\$10.85
35-1011	Chefs and Head Cooks	115	134	19	16.5%	2	4	12	18	\$24.03
35-1012	First-Line Supervisors of Food Preparation and Serving Workers	2,535	2,990	455	18.0%	46	123	282	451	\$14.84
35-2012	Cooks, Institution and Cafeteria	1,244	1,258	14	1.1%	1	74	107	182	\$14.06
35-2014	Cooks, Restaurant	1,744	2,518	774	44.4%	77	125	182	384	\$13.83
35-2021	Food Preparation Workers	1,315	1,355	40	3.0%	4	105	123	232	\$11.72
35-3011	Bartenders	1,713	2,142	429	25.0%	43	87	234	364	\$10.24
35-3023	Fast Food and Counter Workers	10,543	11,747	1,204	11.4%	120	1,081	1,178	2,379	\$10.69
35-3031	Waiters and Waitresses	3,093	3,587	494	16.0%	49	245	399	693	\$9.85
35-3041	Food Servers, Nonrestaurant	683	672	-11	-1.6%	-1	54	53	106	\$11.63
35-9021	Dishwashers	598	667	69	11.5%	7	48	53	108	\$10.84
35-9031	Hosts and Hostesses, Restaurant, Lounge, and Coffee Shop	633	769	136	21.5%	14	83	79	176	\$10.44
37-0000	Building and Grounds Cleaning and Maintenance Occupations	9,460	9,414	-46	-0.5%	-5	540	690	1,225	\$14.04
37-2011	Janitors and Cleaners, Except Maids and Housekeeping Cleaners	4,949	4,909	-40	-0.8%	-4	308	346	650	\$13.89
37-2012	Maids and Housekeeping Cleaners	1,676	1,647	-29	-1.7%	-3	113	107	217	\$11.49
37-3011	Landscaping and Groundskeeping Workers	2,127	2,167	40	1.9%	4	92	184	280	\$14.39
39-0000	Personal Care and Service Occupations	6,189	6,864	675	10.9%	68	419	518	1,005	\$11.38
39-3091	Amusement and Recreation Attendants	637	788	151	23.7%	15	70	80	165	\$9.60
39-5012	Hairdressers, Hairstylists, and Cosmetologists	879	909	30	3.4%	3	47	50	100	\$13.43
39-5094	Skincare Specialists	113	124	11	9.7%	1	6	6	13	\$17.48
39-9011	Childcare Workers	1,764	1,777	13	0.7%	1	119	124	244	\$11.01
39-9031	Fitness Trainers and Aerobics Instructors	610	780	170	27.9%	17	41	66	124	\$14.23
39-9032	Recreation Workers	441	439	-2	-0.5%	0	26	42	68	\$13.58
41-0000	Sales and Related Occupations	24,897	23,918	-979	-3.9%	-98	1,273	1,939	3,114	\$14.02
41-1011	First-Line Supervisors of Retail Sales Workers	2,418	2,237	-181	-7.5%	-18	82	161	225	\$18.16
41-1012	First-Line Supervisors of Non-Retail Sales Workers	558	509	-49	-8.8%	-5	16	32	43	\$35.90
41-2011	Cashiers	6,492	5,621	-871	-13.4%	-87	515	580	1,008	\$10.90
41-2021	Counter and Rental Clerks	824	850	26	3.2%	3	38	58	99	\$13.86
41-2031	Retail Salespersons	6,106	6,005	-101	-1.7%	-10	339	500	829	\$13.18
41-3021	Insurance Sales Agents	1,147	1,238	91	7.9%	9	40	67	116	\$28.12
41-3031	Securities, Commodities, and Financial Services Sales Agents	794	845	51	6.4%	5	18	52	75	\$28.97

		Emplo	yment*	Change in						
soc		2020	2030	Employ			Annua	al Openings		Median Wage
Code	Occupational Title	Annual	Projected	2020-2030	Percent	Growth	Exits	Transfers	Total	May 2021
41-3091	Sales Representatives of Services, Except Advertising, Insurance, Financial									
	Services, and Travel	1,137	1,212	75	6.6%	8	30	103	141	\$23.85
41-4011	Sales Representatives, Wholesale and Manufacturing, Technical and Scientific									
	Products	263	273	10	3.8%	1	8	18	27	\$50.16
41-4012	Sales Representatives, Wholesale and Manufacturing, Except Technical and									
	Scientific Products	2,781	2,851	70	2.5%	7	83	190	280	\$28.90
41-9022	Real Estate Sales Agents	419	434	15	3.6%	2	18	19	39	\$18.20
41-9099	Sales and Related Workers, All Other	206	206	0	0.0%	0	9	17	26	\$13.63
43-0000	Office and Administrative Support Occupations	33,852	31,736	-2,116	-6.3%	-212	1,559	1,998	3,345	\$17.88
43-1011	First-Line Supervisors of Office and Administrative Support Workers	2,501	2,335	-166	-6.6%	-17	90	148	221	\$28.53
43-3011	Bill and Account Collectors	554	509	-45	-8.1%	-4	20	38	54	\$17.46
43-3021	Billing and Posting Clerks	1,220	1,211	-9	-0.7%	-1	50	75	124	\$17.91
43-3031	Bookkeeping, Accounting, and Auditing Clerks	3,058	2,899	-159	-5.2%	-16	174	152	310	\$18.45
43-3051	Payroll and Timekeeping Clerks	200	168	-32	-16.0%	-3	9	10	16	\$22.42
43-3061	Procurement Clerks	124	115	-9	-7.3%	-1	3	8	10	\$18.27
43-3071	Tellers	828	720	-108	-13.0%	-11	31	49	69	\$14.47
43-4031	Court, Municipal, and License Clerks	449	461	12	2.7%	1	22	23	46	\$21.99
43-4051	Customer Service Representatives	4,078	3,810	-268	-6.6%	-27	185	310	468	\$17.48
43-4061	Eligibility Interviewers, Government Programs	118	117	-1	-0.9%	0	4	6	10	\$22.58
43-4071	File Clerks	164	134	-30	-18.3%	-3	8	9	14	\$17.58
43-4081	Hotel, Motel, and Resort Desk Clerks	166	188	22	13.3%	2	10	19	31	\$11.06
43-4111	Interviewers, Except Eligibility and Loan	477	344	-133	-27.9%	-13	24	26	37	\$17.54
43-4121	Library Assistants, Clerical	260	236	-24	-9.2%	-2	22	16	36	\$17.45
43-4131	Loan Interviewers and Clerks	273	278	5	1.8%	0	8	16	24	\$18.19
43-4151	Order Clerks	253	202	-51	-20.2%	-5	10	14	19	\$16.97
43-4161	Human Resources Assistants, Except Payroll and Timekeeping	204	190	-14	-6.9%	-1	8	12	19	\$18.54
43-4171	Receptionists and Information Clerks	1,461	1,430	-31	-2.1%	-3	81	100	178	\$13.86
43-5021	Couriers and Messengers	371	317	-54	-14.6%	-5	14	19	28	\$14.26
43-5031	Police, Fire, and Ambulance Dispatchers	273	270	-3	-1.1%	0	10	15	25	\$22.58
43-5032	Dispatchers, Except Police, Fire, and Ambulance	335	333	-2	-0.6%	0	12	19	31	\$18.20
43-5051	Postal Service Clerks	124	112	-12	-9.7%	-1	5	4	8	\$24.16
43-5052	Postal Service Mail Carriers	743	674	-69	-9.3%	-7	25	25	43	\$25.21
43-5061	Production, Planning, and Expediting Clerks	1,216	1,276	60	4.9%	6	44	81	131	\$23.45
43-5071	Shipping, Receiving, and Traffic Clerks	1,629	1,553	-76	-4.7%	-8	58	94	144	\$17.49
43-5111	Weighers, Measurers, Checkers, and Samplers, Recordkeeping	104	110	6	5.8%	1	4	6	11	\$14.44
43-6011	Executive Secretaries and Executive Administrative Assistants	514	403	-111	-21.6%	-11	23	26	38	\$28.87
43-6012	Legal Secretaries	313	238	-75	-24.0%	-8	14	15	21	\$18.29
43-6013	Medical Secretaries	2,247	2,244	-3	-0.1%	0	114	125	239	\$17.32
43-6014	Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	2,669	2,345	-324	-12.1%	-32	128	140	236	\$17.83
43-9021	Data Entry Keyers	247	189	-58	-23.5%	-6	10	14	18	\$14.55
43-9041	Insurance Claims and Policy Processing Clerks	246	246	0	0.0%	0	9	14	23	\$18.56

		Emplo	yment*	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
43-9061	Office Clerks, General	5,416	5,145	-271	-5.0%	-27	288	313	574	\$17.74
43-9199	Office and Administrative Support Workers, All Other	110	113	3	2.7%	0	5	8	13	\$21.43
45-0000	Farming, Fishing, and Forestry Occupations	578	597	19	3.3%	2	25	66	93	\$16.50
47-0000	Construction and Extraction Occupations	12,003	12,547	544	4.5%	54	359	839	1,252	\$28.29
47-1011	First-Line Supervisors of Construction Trades and Extraction Workers	864	902	38	4.4%	4	25	57	86	\$30.40
47-2021	Brickmasons and Blockmasons	168	160	-8	-4.8%	-1	5	10	14	\$29.77
47-2031	Carpenters	1,446	1,471	25	1.7%	2	43	91	136	\$28.29
47-2051	Cement Masons and Concrete Finishers	334	325	-9	-2.7%	-1	8	22	29	\$28.29
47-2061	Construction Laborers	1,816	1,960	144	7.9%	14	56	128	198	\$22.69
47-2071	Paving, Surfacing, and Tamping Equipment Operators	170	172	2	1.2%	0	6	12	18	\$23.09
47-2073	Operating Engineers and Other Construction Equipment Operators	741	765	24	3.2%	2	25	54	81	\$28.78
47-2111	Electricians	1,779	1,969	190	10.7%	19	54	138	211	\$30.09
47-2141	Painters, Construction and Maintenance	759	791	32	4.2%	3	23	43	69	\$22.32
47-2151	Pipelayers	187	183	-4	-2.1%	0	5	13	18	\$22.26
47-2152	Plumbers, Pipefitters, and Steamfitters	705	732	27	3.8%	3	21	52	76	\$30.58
47-2181	Roofers	219	230	11	5.0%	1	6	16	23	\$22.84
47-2221	Structural Iron and Steel Workers	613	648	35	5.7%	4	16	48	68	\$29.50
47-4031	Fence Erectors	110	107	-3	-2.7%	0	3	8	11	\$19.33 †
47-4041	Hazardous Materials Removal Workers	129	137	8	6.2%	1	5	11	17	\$22.08
47-4051	Highway Maintenance Workers	340	340	0	0.0%	0	13	21	34	\$22.58
49-0000	Installation, Maintenance, and Repair Occupations	12,665	13,326	661	5.2%	66	412	814	1,292	\$22.87
49-1011	First-Line Supervisors of Mechanics, Installers, and Repairers	1,055	1,100	45	4.3%	4	31	64	99	\$36.26
49-2022	Telecommunications Equipment Installers and Repairers, Except Line Installers	389	388	-1	-0.3%	0	14	30	44	\$29.23
49-2094	Electrical and Electronics Repairers, Commercial and Industrial Equipment	100	108	8	8.0%	1	3	5	9	\$36.59
49-2098	Security and Fire Alarm Systems Installers	162	169	7	4.3%	1	4	13	18	\$22.66
49-3011	Aircraft Mechanics and Service Technicians	140	151	11	7.9%	1	4	8	13	\$32.89
49-3021	Automotive Body and Related Repairers	418	412	-6	-1.4%	-1	13	25	37	\$22.81
49-3023	Automotive Service Technicians and Mechanics	1,767	1,712	-55	-3.1%	-6	52	118	164	\$18.22
49-3031	Bus and Truck Mechanics and Diesel Engine Specialists	455	473	18	4.0%	2	13	29	44	\$22.90
49-3041	Farm Equipment Mechanics and Service Technicians	117	124	7	6.0%	1	4	8	13	\$18.16
49-3042	Mobile Heavy Equipment Mechanics, Except Engines	263	281	18	6.8%	2	8	18	28	\$28.77
49-9021	Heating, Air Conditioning, and Refrigeration Mechanics and Installers	456	469	13	2.9%	1	12	32	45	\$23.47
49-9041	Industrial Machinery Mechanics	1,159	1,507	348	30.0%	35	41	72	148	\$29.07
49-9043	Maintenance Workers, Machinery	156	172	16	10.3%	2	5	9	16	\$29.81
49-9044	Millwrights	324	403	79	24.4%	8	10	21	39	\$37.93
49-9051	Electrical Power-Line Installers and Repairers	214	213	-1	-0.5%	0	4	14	18	\$38.20
49-9071	Maintenance and Repair Workers, General	3,409	3,535	126	3.7%	13	122	203	338	\$22.22
49-9098	HelpersInstallation, Maintenance, and Repair Workers	119	125	6	5.0%	1	5	10	16	\$17.72
49-9099	Installation, Maintenance, and Repair Workers, All Other	514	532	18	3.5%	2	18	35	55	\$17.96
51-0000	Production Occupations	31,936	32,700	764	2.4%	76	1,189	2,288	3,553	\$18.13
51-1011	First-Line Supervisors of Production and Operating Workers	1,698	1,775	77	4.5%	8	52	117	177	\$29.94

		Emplo	yment*	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
51-2028	Electrical, Electronic, and Electromechanical Assemblers, Except Coil Winders,									
	Tapers, and Finishers	489	549	60	12.3%	6	21	33	60	\$18.09
51-2090	Miscellaneous Assemblers and Fabricators	10,325	11,110	785	7.6%	78	409	765	1,252	\$18.13
51-3011	Bakers	203	219	16	7.9%	2	12	16	30	\$13.68
51-3021	Butchers and Meat Cutters	174	158	-16	-9.2%	-2	7	12	17	\$14.23
51-3092	Food Batchmakers	454	460	6	1.3%	1	21	34	56	\$17.32
51-4021	Extruding and Drawing Machine Setters, Operators, and Tenders, Metal and									
	Plastic	150	140	-10	-6.7%	-1	5	9	13	\$17.60
51-4031	Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and									
	Plastic	1,136	1,113	-23	-2.0%	-2	36	77	111	\$18.09
51-4033	Grinding, Lapping, Polishing, and Buffing Machine Tool Setters, Operators, and									
	Tenders, Metal and Plastic	303	289	-14	-4.6%	-1	13	20	32	\$17.39
51-4041	Machinists	1,303	1,390	87	6.7%	9	45	92	146	\$22.42
51-4072	Molding, Coremaking, and Casting Machine Setters, Operators, and Tenders,									
	Metal and Plastic	1,223	1,115	-108	-8.8%	-11	38	79	106	\$14.84
51-4111	Tool and Die Makers	597	614	17	2.9%	2	22	38	62	\$28.90
51-4121	Welders, Cutters, Solderers, and Brazers	832	894	62	7.5%	6	23	68	97	\$18.14
51-4193	Plating and Coating Machine Setters, Operators, and Tenders, Metal and Plastic	122	110	-12	-9.8%	-1	4	8	11	\$17.46
51-5112	Printing Press Operators	408	357	-51	-12.5%	-5	14	27	36	\$17.89
51-6011	Laundry and Dry-Cleaning Workers	423	467	44	10.4%	4	29	30	63	\$11.15
51-8031	Water and Wastewater Treatment Plant and System Operators	192	176	-16	-8.3%	-2	5	11	14	\$23.00
51-9011	Chemical Equipment Operators and Tenders	170	159	-11	-6.5%	-1	4	13	16	\$22.95
51-9023	Mixing and Blending Machine Setters, Operators, and Tenders	387	389	2	0.5%	0	13	29	42	\$17.84
51-9032	Cutting and Slicing Machine Setters, Operators, and Tenders	139	136	-3	-2.2%	0	6	10	16	\$17.97
51-9041	Extruding, Forming, Pressing, and Compacting Machine Setters, Operators, and									
	Tenders	173	169	-4	-2.3%	0	5	13	18	\$13.86
51-9051	Furnace, Kiln, Oven, Drier, and Kettle Operators and Tenders	152	154	2	1.3%	0	5	9	14	\$22.95
51-9061	Inspectors, Testers, Sorters, Samplers, and Weighers	2,217	1,952	-265	-12.0%	-26	80	165	219	\$18.45
51-9111	Packaging and Filling Machine Operators and Tenders	781	804	23	2.9%	2	33	53	88	\$18.13
51-9124	Coating, Painting, and Spraying Machine Setters, Operators, and Tenders	200	204	4	2.0%	0	6	14	20	\$17.97
51-9161	Computer Numerically Controlled Tool Operators	853	838	-15	-1.8%	-2	29	62	89	\$20.60
51-9195	Molders, Shapers, and Casters, Except Metal and Plastic	230	265	35	15.2%	4	9	16	29	\$17.41
51-9196	Paper Goods Machine Setters, Operators, and Tenders	355	377	22	6.2%	2	16	24	42	\$18.30
51-9198	HelpersProduction Workers	434	386	-48	-11.1%	-5	19	39	53	\$17.02
51-9199	Production Workers, All Other	364	366	2	0.6%	0	12	27	39	\$13.86
53-0000	Transportation and Material Moving Occupations	29,489	31,649	2,160	7.3%	216	1,396	2,462	4,074	\$17.57
53-3031	Driver/Sales Workers	1,403	1,606	203	14.5%	20	62	102	184	\$11.19
53-3032	Heavy and Tractor-Trailer Truck Drivers	5,222	5,495	273	5.2%	27	219	363	609	\$23.42
53-3033	Light Truck or Delivery Services Drivers	2,184	2,435	251	11.5%	25	95	157	277	\$19.30
53-3058	Passenger Vehicle Drivers, Except Bus Drivers, Transit and Intercity	671	767	96	14.3%	10	47	36	93	\$18.05 ^^^
53-6021	Parking Lot Attendants	352	384	32	9.1%	3	18	38	59	\$11.62

Occupational* Employment Projections Report, 2020-2030

		Employment*		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
53-6031	Automotive and Watercraft Service Attendants	321	317	-4	-1.3%	0	15	28	43	\$13.65
53-7051	Industrial Truck and Tractor Operators	2,230	2,394	164	7.4%	16	70	178	264	\$18.31
53-7061	Cleaners of Vehicles and Equipment	799	833	34	4.3%	3	40	73	116	\$13.81
53-7062	Laborers and Freight, Stock, and Material Movers, Hand	6,025	6,673	648	10.8%	65	278	552	895	\$14.48
53-7064	Packers and Packagers, Hand	1,643	1,706	63	3.8%	6	95	136	237	\$14.29
53-7065	Stockers and Order Fillers	6,377	6,626	249	3.9%	25	370	634	1,029	\$14.42
53-7081	Refuse and Recyclable Material Collectors	139	160	21	15.1%	2	6	14	22	\$18.24

^{*} Occupations with 100 or more workers.

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

^{**} Certain occupations only report wages at the annual level.

[^] National hourly wage.

^{^^} National annual wage.

^{^^^} National aggregate wage.

[#] Wage above max.

[▲] Wage not available due to OES/SOC changes.

[†] Statewide hourly wage.

^{††} Statewide annual wage.

			Work Evnerience 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
00-0000	Total, All Occupations	receded for Entry	Occupation	Occupation	\$18.38
11-0000	Management Occupations				\$46.06
11-1011	Chief Executives	Bachelor's degree	5 years or more	None	\$80.61
11-1021	General and Operations Managers	Bachelor's degree	5 years or more	None	\$38.91
11-2021	Marketing Managers	Bachelor's degree	5 years or more	None	\$61.07
11-2022	Sales Managers	Bachelor's degree	Less than 5 years	None	\$60.00
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	\$59.24
11-3031	Financial Managers	Bachelor's degree	5 years or more	None	\$57.80
11-3051	Industrial Production Managers	Bachelor's degree	5 years or more	None	\$49.07
11-3061	Purchasing Managers	Bachelor's degree	5 years or more	None	\$57.40
11-3071	Transportation, Storage, and Distribution Managers	High school diploma or equivalent	5 years or more	None	\$39.50
11-3121	Human Resources Managers	Bachelor's degree	5 years or more	None	\$50.14
11-9021	Construction Managers	Bachelor's degree	None	Moderate-term on-the-job training	\$47.08
11-9032	Education Administrators, Elementary and Secondary School	Master's degree	5 years or more	None	\$94,120 **
11-9033	Education Administrators, Postsecondary	Master's degree	Less than 5 years	None	\$48.28
11-9041	Architectural and Engineering Managers	Bachelor's degree	5 years or more	None	\$60.82
11-9051	Food Service Managers	High school diploma or equivalent	Less than 5 years	None	\$23.25
11-9111	Medical and Health Services Managers	Bachelor's degree	Less than 5 years	None	\$46.24
11-9141	Property, Real Estate, and Community Association Managers	High school diploma or equivalent	Less than 5 years	None	\$22.71
11-9151	Social and Community Service Managers	Bachelor's degree	Less than 5 years	None	\$28.90
11-9198	Personal Service Managers; Entertainment & Recreation Managers, Except				
	Gambling; and Managers, All Other	Bachelor's degree	Less than 5 years	None	\$59.93 ^^^
13-0000	Business and Financial Operations Occupations				\$29.60
13-1020	Buyers and Purchasing Agents	Bachelor's degree	None	Moderate-term on-the-job training	\$29.17
13-1031	Claims Adjusters, Examiners, and Investigators	High school diploma or equivalent	None	Long-term on-the-job training	\$29.11
13-1041	Compliance Officers	Bachelor's degree	None	Moderate-term on-the-job training	\$29.08
13-1051	Cost Estimators	Bachelor's degree	None	Moderate-term on-the-job training	\$30.37
13-1071	Human Resources Specialists	Bachelor's degree	None	None	\$28.15
13-1075	Labor Relations Specialists	Bachelor's degree	Less than 5 years	None	\$30.17
13-1081	Logisticians	Bachelor's degree	None	None	\$37.04
13-1111	Management Analysts	Bachelor's degree	Less than 5 years	None	\$36.94
13-1121	Meeting, Convention, and Event Planners	Bachelor's degree	None	None	\$23.27
13-1131	Fundraisers	Bachelor's degree	None	None	\$23.76
13-1151	Training and Development Specialists	Bachelor's degree	Less than 5 years	None	\$22.99
13-1161	Market Research Analysts and Marketing Specialists	Bachelor's degree	None	None	\$28.74
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	\$30.51
13-2052	Personal Financial Advisors	Bachelor's degree	None	Long-term on-the-job training	\$38.53
13-2072	Loan Officers	Bachelor's degree	Less than 5 years	Moderate-term on-the-job training	\$28.90
13-2082	Tax Preparers	High school diploma or equivalent	None	Moderate-term on-the-job training	\$14.48
13-2098	Financial and Investment Analysts, Financial Risk Specialists, and Financial				
	Specialists, All Other	Bachelor's degree	None	None	\$35.21 ^^^

			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
15-0000	Computer and Mathematical Occupations	receded for Entry	Occupation	Occupation	\$30.00
15-1211	Computer Systems Analysts	Bachelor's degree	None	None	\$37.53
15-1231	Computer Network Support Specialists	Associate's degree	None	None	\$21.90
15-1231	Computer User Support Specialists	Some college, no degree	None	None	\$22.58
15-1232	Computer Network Architects	Bachelor's degree	5 years or more	None	\$47.47
15-1241		ÿ	None	None	\$37.16
15-1244	Network and Computer Systems Administrators Database Administrators and Architects	Bachelor's degree	None	None	\$47.44 ^^^
		Bachelor's degree			
15-1251	Computer Programmers	Bachelor's degree	None	None	\$37.26
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	\$33.73
15-2031	Operations Research Analysts	Bachelor's degree	None	None	\$35.95
17-0000	Architecture and Engineering Occupations				\$36.85
17-1011	Architects, Except Landscape and Naval	Bachelor's degree	None	Internship/residency	\$37.12
17-1022	Surveyors	Bachelor's degree	None	Internship/residency	\$28.90
17-2051	Civil Engineers	Bachelor's degree	None	None	\$37.53
17-2071	Electrical Engineers	Bachelor's degree	None	None	\$45.82
17-2112	Industrial Engineers	Bachelor's degree	None	None	\$38.16
17-2141	Mechanical Engineers	Bachelor's degree	None	None	\$36.90
17-2199	Engineers, All Other	Bachelor's degree	None	None	\$38.41
17-3011	Architectural and Civil Drafters	Associate's degree	None	None	\$28.80
17-3022	Civil Engineering Technicians	Associate's degree	None	None	\$28.00
17-3023	Electrical and Electronics Engineering Technicians	Associate's degree	None	None	\$29.68
17-3026	Industrial Engineering Technicians	Associate's degree	None	None	\$29.13
17-3031	Surveying and Mapping Technicians	High school diploma or equivalent	None	Moderate-term on-the-job training	\$18.20
19-0000	Life, Physical, and Social Science Occupations				\$30.27
19-2031	Chemists	Bachelor's degree	None	None	\$35.71
19-2041	Environmental Scientists and Specialists, Including Health	Bachelor's degree	None	None	\$39.27
19-3031	Clinical, Counseling, and School Psychologists	Doctoral or professional degree	None	Internship/residency	\$38.96 ^^^
19-4031	Chemical Technicians	Associate's degree	None	Moderate-term on-the-job training	\$23.26
19-4042	Environmental Science and Protection Technicians, Including Health	Associate's degree	None	None	\$22.58
19-5011	Occupational Health and Safety Specialists	Bachelor's degree	None	None	\$37.92
21-0000	Community and Social Service Occupations	ű			\$22.95
21-1012	Educational, Guidance, School, and Vocational Counselors	Master's degree	None	None	\$28.38
21-1015	Rehabilitation Counselors	Master's degree	None	None	\$18.33
21-1018	Substance Abuse, Behavioral Disorder, and Mental Health Counselors	Bachelor's degree	None	None	\$22.62
21-1013	Child, Family, and School Social Workers	Bachelor's degree	None	None	\$22.95
21-1022	Healthcare Social Workers	Master's degree	None	Internship/residency	\$24.62
21-1022	Mental Health and Substance Abuse Social Workers	Master's degree	None	Internship/residency	\$22.40
21-1023	Social Workers, All Other	Bachelor's degree	None	None	\$23.96
21-1029	Health Educators	Bachelor's degree	None	None	\$29.11
21-1091	Probation Officers and Correctional Treatment Specialists	· · · · · · · · · · · · · · · · · · ·			•
		Bachelor's degree	None	Short-term on-the-job training	\$29.33
21-1093	Social and Human Service Assistants	High school diploma or equivalent	None	Short-term on-the-job training	\$17.48

			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
	·	•	•	·	
21-1094 21-2011	Community Health Workers	High school diploma or equivalent	None None	Short-term on-the-job training	\$17.76 \$22.42
	Clergy	Bachelor's degree	ivone	Moderate-term on-the-job training	·
23-0000	Legal Occupations			••	\$30.15
23-1011	Lawyers	Doctoral or professional degree	None	None	\$47.30
23-1023	Judges, Magistrate Judges, and Magistrates	Doctoral or professional degree	5 years or more	Short-term on-the-job training	\$60.80
23-2011	Paralegals and Legal Assistants	Associate's degree	None	None	\$17.73
25-0000	Education, Training, and Library Occupations				\$28.44
25-1011	Business Teachers, Postsecondary	Doctoral or professional degree	None	None	\$81,980 **
25-1022	Mathematical Science Teachers, Postsecondary	Doctoral or professional degree	None	None	\$77,740 ++
25-1032	Engineering Teachers, Postsecondary	Doctoral or professional degree	None	None	\$99,220 **
25-1071	Health Specialties Teachers, Postsecondary	Doctoral or professional degree	Less than 5 years	None	\$82,330 **
25-1072	Nursing Instructors and Teachers, Postsecondary	Doctoral or professional degree	Less than 5 years	None	\$63,900 **
25-1121	Art, Drama, and Music Teachers, Postsecondary	Master's degree	None	None	\$81,460 **
25-1194	Vocational Education Teachers, Postsecondary	Bachelor's degree	Less than 5 years	None	\$24.03
25-1199	Postsecondary Teachers, All Other	Doctoral or professional degree	None	None	\$63,900 **
25-2011	Preschool Teachers, Except Special Education	Associate's degree	None	None	\$13.81
25-2012	Kindergarten Teachers, Except Special Education	Bachelor's degree	None	None	\$60,670 ++
25-2021	Elementary School Teachers, Except Special Education	Bachelor's degree	None	None	\$62,200 **
25-2022	Middle School Teachers, Except Special and Career/Technical Education	Bachelor's degree	None	None	\$60,040 **
25-2031	Secondary School Teachers, Except Special and Career/Technical Education	Bachelor's degree	None	None	\$75,330 **
25-2032	Career/Technical Education Teachers, Secondary School	Bachelor's degree	Less than 5 years	None	\$75,840 **
25-2052	Special Education Teachers, Kindergarten and Elementary School	Bachelor's degree	None	None	\$74,560 **
25-2058	Special Education Teachers, Secondary School	Bachelor's degree	None	None	\$48,160 **
25-3031	Substitute Teachers, Short-Term	Bachelor's degree	None	None	\$14.19
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	\$29.63
25-9031	Instructional Coordinators	Master's degree	5 years or more	None	\$28.68
25-9045	Teaching Assistants, Except Postsecondary	Some college, no degree	None	None	\$28,190 **
27-0000	Arts, Design, Entertainment, Sports, and Media Occupations				\$21.78
27-1011	Art Directors	Bachelor's degree	5 years or more	None	\$38.78
27-1024	Graphic Designers	Bachelor's degree	None	None	\$23.25
27-1026	Merchandise Displayers and Window Trimmers	High school diploma or equivalent	None	Short-term on-the-job training	\$14.52
27-2012	Producers and Directors	Bachelor's degree	Less than 5 years	None	\$23.74
27-2022	Coaches and Scouts	Bachelor's degree	None	None	\$36,520 **
27-2042	Musicians and Singers	No formal educational credential	None	Long-term on-the-job training	\$75.26
27-3023	News Analysts, Reporters, and Journalists	Bachelor's degree	None	None	\$18.45
27-3023	Public Relations Specialists	Bachelor's degree	None	None	\$23.69
27-3031	Writers and Authors	Bachelor's degree	None	Long-term on-the-job training	\$23.99
27-3043	Photographers	High school diploma or equivalent	None	Moderate-term on-the-job training	\$18.64
29-0000	Healthcare Practitioners and Technical Occupations	riigii scriooi dipioilia di equivaletti	INOTIC	wioderate-term on-the-job trailing	\$29.58
29-1031	Dietitians and Nutritionists	Bachelor's degree	None	Internation/residency	\$28.89
29-1031		Doctoral or professional degree		Internship/residency	\$49.29
	Optometrists		None	None	
29-1051	Pharmacists	Doctoral or professional degree	None	None	\$61.00

			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
29-1071	Physician Assistants	Master's degree	None	None	\$60.20
29-1071	Occupational Therapists	Master's degree	None	None	\$37.69
29-1122		•	None	None	\$45.97
	Physical Therapists	Doctoral or professional degree		None	
29-1126	Respiratory Therapists	Associate's degree	None		\$28.81
29-1127	Speech-Language Pathologists	Master's degree	None	Internship/residency	\$36.00
29-1141	Registered Nurses	Bachelor's degree	None	None	\$34.97
29-1171	Nurse Practitioners	Master's degree	None	None	\$49.07
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	\$30.13
29-2010	Clinical Laboratory Technologists and Technicians	Bachelor's degree	None	None	\$28.52
29-2031	Cardiovascular Technologists and Technicians	Associate's degree	None	None	\$29.25
29-2032	Diagnostic Medical Sonographers	Associate's degree	None	None	\$30.00
29-2034	Radiologic Technologists	Associate's degree	None	None	\$28.52
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	\$14.11
29-2055	Surgical Technologists	Postsecondary non-degree award	None	None	\$22.67
29-2056	Veterinary Technologists and Technicians	Associate's degree	None	None	\$17.62
29-2061	Licensed Practical and Licensed Vocational Nurses	Postsecondary non-degree award	None	None	\$22.60
29-2081	Opticians, Dispensing	High school diploma or equivalent	None	Long-term on-the-job training	\$22.04
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				\$14.19
31-1120	Home Health and Personal Care Aides	High school diploma or equivalent	None	Short-term on-the-job training	\$11.49
31-1131	Nursing Assistants	Postsecondary non-degree award	None	None	\$14.21
31-2011	Occupational Therapy Assistants	Associate's degree	None	None	\$29.60
31-2021	Physical Therapist Assistants	Associate's degree	None	None	\$29.49
31-9011	Massage Therapists	Postsecondary non-degree award	None	None	\$17.38
31-9091	Dental Assistants	Postsecondary non-degree award	None	None	\$17.97
31-9092	Medical Assistants	Postsecondary non-degree award	None	None	\$17.32
31-9093	Medical Equipment Preparers	High school diploma or equivalent	None	Moderate-term on-the-job training	\$17.57
31-9096	Veterinary Assistants and Laboratory Animal Caretakers	High school diploma or equivalent	None	Short-term on-the-job training	\$13.94
31-9097	Phlebotomists	Postsecondary non-degree award	None	None	\$17.85
33-0000	Protective Service Occupations	r ostsecondary non degree dward	TVOITE	None	\$22.58
33-1012	First-Line Supervisors of Police and Detectives	High school diploma or equivalent	Less than 5 years	Moderate-term on-the-job training	\$39.12
33-1012	First-Line Supervisors of Fire Fighting and Prevention Workers	Postsecondary non-degree award	Less than 5 years	Moderate-term on-the-job training	\$37.16
33-2011	Firefighters	Postsecondary non-degree award	None	Long-term on-the-job training	\$23.58
33-3012	Correctional Officers and Jailers	High school diploma or equivalent	None	Moderate-term on-the-job training	\$23.04
33-3012	Detectives and Criminal Investigators			, ,	\$23.04
		High school diploma or equivalent	Less than 5 years	Moderate-term on-the-job training	
33-3051	Police and Sheriff's Patrol Officers	High school diploma or equivalent	None	Moderate-term on-the-job training	\$29.17
33-9032	Security Guards	High school diploma or equivalent	None	Short-term on-the-job training	\$13.88
33-9092	Lifeguards, Ski Patrol, and Other Recreational Protective Service Workers	No formal educational credential	None	Short-term on-the-job training	\$10.78

			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
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	ingrisorios arpionia or equivarent	110110	oner term on the job training	\$10.85
35-1011	Chefs and Head Cooks	High school diploma or equivalent	5 years or more	None	\$24.03
35-1012	First-Line Supervisors of Food Preparation and Serving Workers	High school diploma or equivalent	Less than 5 years	None	\$14.84
35-2012	Cooks, Institution and Cafeteria	No formal educational credential	None	Short-term on-the-job training	\$14.06
35-2014	Cooks, Restaurant	No formal educational credential	Less than 5 years	Moderate-term on-the-job training	\$13.83
35-2021	Food Preparation Workers	No formal educational credential	None	Short-term on-the-job training	\$11.72
35-3011	Bartenders	No formal educational credential	None	Short-term on-the-job training	\$10.24
35-3023	Fast Food and Counter Workers	No formal educational credential	None	Short-term on-the-job training	\$10.69
35-3031	Waiters and Waitresses	No formal educational credential	None	Short-term on-the-job training	\$9.85
35-3041	Food Servers, Nonrestaurant	No formal educational credential	None	Short-term on-the-job training	\$11.63
35-9021	Dishwashers	No formal educational credential	None	Short-term on-the-job training	\$10.84
35-9031	Hosts and Hostesses, Restaurant, Lounge, and Coffee Shop	No formal educational credential	None	Short-term on-the-job training	\$10.44
37-0000	Building and Grounds Cleaning and Maintenance Occupations	ivo iorinai cadeationai eredentiai	None	Short term on the job training	\$14.04
37-2011	Janitors and Cleaners, Except Maids and Housekeeping Cleaners	No formal educational credential	None	Short-term on-the-job training	\$13.89
37-2012	Maids and Housekeeping Cleaners	No formal educational credential	None	Short-term on the job training Short-term on-the-job training	\$11.49
37-3011	Landscaping and Groundskeeping Workers	No formal educational credential	None	Short-term on the job training Short-term on-the-job training	\$14.39
39-0000	Personal Care and Service Occupations	No formal educational credential	None	Short term on the job training	\$11.38
39-3091	Amusement and Recreation Attendants	No formal educational credential	None	Short-term on-the-job training	\$9.60
39-5012	Hairdressers, Hairstylists, and Cosmetologists	Postsecondary non-degree award	None	None	\$13.43
39-5012	Skincare Specialists	Postsecondary non-degree award	None	None	\$17.48
39-3094	Childcare Workers	High school diploma or equivalent	None	Short-term on-the-job training	\$17.48
39-9011			None	,	\$11.01
39-9031	Fitness Trainers and Aerobics Instructors Recreation Workers	High school diploma or equivalent	None	Short-term on-the-job training	\$13.58
		High school diploma or equivalent	None	Short-term on-the-job training	\$13.58 \$14.02
41-0000 41-1011	Sales and Related Occupations	High cabaal diploma an aguivalent	Lacathan Fugara	None	\$1 4.02 \$18.16
41-1011	First-Line Supervisors of Retail Sales Workers First-Line Supervisors of Non-Retail Sales Workers	High school diploma or equivalent	Less than 5 years	None	\$35.90
	Cashiers	High school diploma or equivalent	Less than 5 years		· · · · · · · · · · · · · · · · · · ·
41-2011		No formal educational credential	None	Short-term on-the-job training	\$10.90
41-2021	Counter and Rental Clerks	No formal educational credential	None	Short-term on-the-job training	\$13.86
41-2031	Retail Salespersons	No formal educational credential	None	Short-term on-the-job training	\$13.18
41-3021	Insurance Sales Agents	High school diploma or equivalent	None	Moderate-term on-the-job training	\$28.12
41-3031	Securities, Commodities, and Financial Services Sales Agents	Bachelor's degree	None	Moderate-term on-the-job training	\$28.97
41-3091	Sales Representatives of Services, Except Advertising, Insurance, Financial	les to the total state of the to			¢22.05
44 4044	Services, and Travel	High school diploma or equivalent	None	Moderate-term on-the-job training	\$23.85
41-4011	Sales Representatives, Wholesale and Manufacturing, Technical and Scientific				450.46
	Products	Bachelor's degree	None	Moderate-term on-the-job training	\$50.16
41-4012	Sales Representatives, Wholesale and Manufacturing, Except Technical and				400.00
	Scientific Products	High school diploma or equivalent	None	Moderate-term on-the-job training	\$28.90
41-9022	Real Estate Sales Agents	High school diploma or equivalent	None	Moderate-term on-the-job training	\$18.20
41-9099	Sales and Related Workers, All Other	High school diploma or equivalent	None	None	\$13.63
43-0000	Office and Administrative Support Occupations				\$17.88
43-1011	First-Line Supervisors of Office and Administrative Support Workers	High school diploma or equivalent	Less than 5 years	None	\$28.53
43-3011	Bill and Account Collectors	High school diploma or equivalent	None	Moderate-term on-the-job training	\$17.46

			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
43-3021	Billing and Posting Clerks	High school diploma or equivalent	None	Moderate-term on-the-job training	\$17.91
43-3031	Bookkeeping, Accounting, and Auditing Clerks	Some college, no degree	None	Moderate-term on-the-job training	\$18.45
43-3051	Payroll and Timekeeping Clerks	High school diploma or equivalent	None	Moderate-term on-the-job training	\$22.42
43-3061	Procurement Clerks	High school diploma or equivalent	None	Moderate-term on-the-job training	\$18.27
43-3071	Tellers	High school diploma or equivalent	None	Short-term on-the-job training	\$14.47
43-4031	Court, Municipal, and License Clerks	High school diploma or equivalent	None	Long-term on-the-job training	\$21.99
43-4051	Customer Service Representatives	High school diploma or equivalent	None	Short-term on-the-job training	\$17.48
43-4061	Eligibility Interviewers, Government Programs	High school diploma or equivalent	None	Moderate-term on-the-job training	\$22.58
43-4071	File Clerks	High school diploma or equivalent	None	Short-term on-the-job training	\$17.58
43-4081	Hotel, Motel, and Resort Desk Clerks	High school diploma or equivalent	None	Short-term on-the-job training	\$11.06
43-4111	Interviewers, Except Eligibility and Loan	High school diploma or equivalent	None	Short-term on-the-job training	\$17.54
43-4121	Library Assistants, Clerical	High school diploma or equivalent	None	Short-term on-the-job training	\$17.45
43-4131	Loan Interviewers and Clerks	High school diploma or equivalent	None	Short-term on-the-job training	\$18.19
43-4151	Order Clerks	Some college, no degree	None	Short-term on-the-job training	\$16.97
43-4161	Human Resources Assistants, Except Payroll and Timekeeping	Associate's degree	None	None	\$18.54
43-4171	Receptionists and Information Clerks	High school diploma or equivalent	None	Short-term on-the-job training	\$13.86
43-5021	Couriers and Messengers	High school diploma or equivalent	None	Short-term on-the-job training	\$14.26
43-5031	Police, Fire, and Ambulance Dispatchers	High school diploma or equivalent	None	Moderate-term on-the-job training	\$22.58
43-5032	Dispatchers, Except Police, Fire, and Ambulance	High school diploma or equivalent	None	Moderate-term on-the-job training	\$18.20
43-5051	Postal Service Clerks	High school diploma or equivalent	None	Short-term on-the-job training	\$24.16
43-5052	Postal Service Mail Carriers	High school diploma or equivalent	None	Short-term on-the-job training	\$25.21
43-5061	Production, Planning, and Expediting Clerks	High school diploma or equivalent	None	Moderate-term on-the-job training	\$23.45
43-5071	Shipping, Receiving, and Traffic Clerks	High school diploma or equivalent	None	Short-term on-the-job training	\$17.49
43-5111	Weighers, Measurers, Checkers, and Samplers, Recordkeeping	High school diploma or equivalent	None	Short-term on-the-job training	\$14.44
43-6011	Executive Secretaries and Executive Administrative Assistants	High school diploma or equivalent	Less than 5 years	None	\$28.87
43-6012	Legal Secretaries	High school diploma or equivalent	None	Moderate-term on-the-job training	\$18.29
43-6013	Medical Secretaries	High school diploma or equivalent	None	Moderate-term on-the-job training	\$17.32
43-6014	Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	High school diploma or equivalent	None	Short-term on-the-job training	\$17.83
43-9021	Data Entry Keyers	High school diploma or equivalent	None	Short-term on-the-job training	\$14.55
43-9041	Insurance Claims and Policy Processing Clerks	High school diploma or equivalent	None	Moderate-term on-the-job training	\$18.56
43-9061	Office Clerks, General	High school diploma or equivalent	None	Short-term on-the-job training	\$17.74
43-9199	Office and Administrative Support Workers, All Other	High school diploma or equivalent	None	Short-term on-the-job training	\$21.43
45-0000	Farming, Fishing, and Forestry Occupations				\$16.50
47-0000	Construction and Extraction Occupations				\$28.29
47-1011	First-Line Supervisors of Construction Trades and Extraction Workers	High school diploma or equivalent	5 years or more	None	\$30.40
47-2021	Brickmasons and Blockmasons	High school diploma or equivalent	None	Apprenticeship	\$29.77
47-2031	Carpenters	High school diploma or equivalent	None	Apprenticeship	\$28.29
47-2051	Cement Masons and Concrete Finishers	No formal educational credential	None	Moderate-term on-the-job training	\$28.29
47-2061	Construction Laborers	No formal educational credential	None	Short-term on-the-job training	\$22.69
47-2071	Paving, Surfacing, and Tamping Equipment Operators	High school diploma or equivalent	None	Moderate-term on-the-job training	\$23.09
47-2073	Operating Engineers and Other Construction Equipment Operators	High school diploma or equivalent	None	Moderate-term on-the-job training	\$28.78
47-2111	Electricians	High school diploma or equivalent	None	Apprenticeship	\$30.09
47-2141	Painters, Construction and Maintenance	No formal educational credential	None	Moderate-term on-the-job training	\$22.32

			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
47-2151	Pipelavers	No formal educational credential	None	Short-term on-the-job training	\$22.26
47-2152	Plumbers, Pipefitters, and Steamfitters	High school diploma or equivalent	None	Apprenticeship	\$30.58
47-2181	Roofers	No formal educational credential	None	Moderate-term on-the-job training	\$22.84
47-2221	Structural Iron and Steel Workers	High school diploma or equivalent	None	Apprenticeship	\$29.50
47-4031	Fence Erectors	No formal educational credential	None	Moderate-term on-the-job training	\$19.33 †
47-4031	Hazardous Materials Removal Workers	High school diploma or equivalent	None	Moderate-term on-the-job training	\$22.08
47-4041	Highway Maintenance Workers	High school diploma or equivalent	None	Moderate-term on-the-job training	\$22.58
49-0000	Installation, Maintenance, and Repair Occupations	riigii scriooi dipioilia oi equivalent	None	Widderate-term on-the-job training	\$22.87
49-1011	First-Line Supervisors of Mechanics, Installers, and Repairers	High school diploma or equivalent	Less than 5 years	None	\$36.26
49-2022	Telecommunications Equipment Installers and Repairers, Except Line Installers	Postsecondary non-degree award	1	Moderate-term on-the-job training	\$29.23
			None	, 	•
49-2094	Electrical and Electronics Repairers, Commercial and Industrial Equipment	Postsecondary non-degree award	None	Long-term on-the-job training	\$36.59
49-2098	Security and Fire Alarm Systems Installers	High school diploma or equivalent	None	Moderate-term on-the-job training	\$22.66
49-3011	Aircraft Mechanics and Service Technicians	Postsecondary non-degree award	None	None	\$32.89
49-3021	Automotive Body and Related Repairers	High school diploma or equivalent	None	Long-term on-the-job training	\$22.81
49-3023	Automotive Service Technicians and Mechanics	Postsecondary non-degree award	None	Short-term on-the-job training	\$18.22
49-3031	Bus and Truck Mechanics and Diesel Engine Specialists	High school diploma or equivalent	None	Long-term on-the-job training	\$22.90
49-3041	Farm Equipment Mechanics and Service Technicians	High school diploma or equivalent	None	Long-term on-the-job training	\$18.16
49-3042	Mobile Heavy Equipment Mechanics, Except Engines	High school diploma or equivalent	None	Long-term on-the-job training	\$28.77
49-9021	Heating, Air Conditioning, and Refrigeration Mechanics and Installers	Postsecondary non-degree award	None	Long-term on-the-job training	\$23.47
49-9041	Industrial Machinery Mechanics	High school diploma or equivalent	None	Long-term on-the-job training	\$29.07
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	\$37.93
49-9051	Electrical Power-Line Installers and Repairers	High school diploma or equivalent	None	Long-term on-the-job training	\$38.20
49-9071	Maintenance and Repair Workers, General	High school diploma or equivalent	None	Moderate-term on-the-job training	\$22.22
49-9098	HelpersInstallation, Maintenance, and Repair Workers	High school diploma or equivalent	None	Short-term on-the-job training	\$17.72
49-9099	Installation, Maintenance, and Repair Workers, All Other	High school diploma or equivalent	None	Moderate-term on-the-job training	\$17.96
51-0000	Production Occupations				\$18.13
51-1011	First-Line Supervisors of Production and Operating Workers	High school diploma or equivalent	Less than 5 years	None	\$29.94
51-2028	Electrical, Electronic, and Electromechanical Assemblers, Except Coil Winders,				
	Tapers, and Finishers	High school diploma or equivalent	None	Moderate-term on-the-job training	\$18.09
51-2090	Miscellaneous Assemblers and Fabricators	High school diploma or equivalent	None	Moderate-term on-the-job training	\$18.13
51-3011	Bakers	No formal educational credential	None	Long-term on-the-job training	\$13.68
51-3021	Butchers and Meat Cutters	No formal educational credential	None	Long-term on-the-job training	\$14.23
51-3092	Food Batchmakers	High school diploma or equivalent	None	Moderate-term on-the-job training	\$17.32
51-4021	Extruding and Drawing Machine Setters, Operators, and Tenders, Metal and				
	Plastic	High school diploma or equivalent	None	Moderate-term on-the-job training	\$17.60
51-4031	Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and				
	Plastic	High school diploma or equivalent	None	Moderate-term on-the-job training	\$18.09
51-4033	Grinding, Lapping, Polishing, and Buffing Machine Tool Setters, Operators, and				
	Tenders, Metal and Plastic	High school diploma or equivalent	None	Moderate-term on-the-job training	\$17.39
51-4041	Machinists	High school diploma or equivalent	None	Long-term on-the-job training	\$22.42
51-4072	Molding, Coremaking, and Casting Machine Setters, Operators, and Tenders,				
	Metal and Plastic	High school diploma or equivalent	None	Moderate-term on-the-job training	\$14.84

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
51-4111	Tool and Die Makers	Postsecondary non-degree award	None	Long-term on-the-job training	\$28.90
51-4121	Welders, Cutters, Solderers, and Brazers	High school diploma or equivalent	None	Moderate-term on-the-job training	\$18.14
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	\$17.46
51-5112	Printing Press Operators	High school diploma or equivalent	None	Moderate-term on-the-job training	\$17.89
51-6011	Laundry and Dry-Cleaning Workers	No formal educational credential	None	Short-term on-the-job training	\$11.15
51-8031	Water and Wastewater Treatment Plant and System Operators	High school diploma or equivalent	None	Long-term on-the-job training	\$23.00
51-9011	Chemical Equipment Operators and Tenders	High school diploma or equivalent	None	Moderate-term on-the-job training	\$22.95
51-9023	Mixing and Blending Machine Setters, Operators, and Tenders	High school diploma or equivalent	None	Moderate-term on-the-job training	\$17.84
51-9032	Cutting and Slicing Machine Setters, Operators, and Tenders	High school diploma or equivalent	None	Moderate-term on-the-job training	\$17.97
51-9041	Extruding, Forming, Pressing, and Compacting Machine Setters, Operators, and				
	Tenders	High school diploma or equivalent	None	Moderate-term on-the-job training	\$13.86
51-9051	Furnace, Kiln, Oven, Drier, and Kettle Operators and Tenders	High school diploma or equivalent	None	Moderate-term on-the-job training	\$22.95
51-9061	Inspectors, Testers, Sorters, Samplers, and Weighers	High school diploma or equivalent	None	Moderate-term on-the-job training	\$18.45
51-9111	Packaging and Filling Machine Operators and Tenders	High school diploma or equivalent	None	Moderate-term on-the-job training	\$18.13
51-9124	Coating, Painting, and Spraying Machine Setters, Operators, and Tenders	High school diploma or equivalent	None	Moderate-term on-the-job training	\$17.97
51-9161	Computer Numerically Controlled Tool Operators	High school diploma or equivalent	None	Moderate-term on-the-job training	\$20.60
51-9195	Molders, Shapers, and Casters, Except Metal and Plastic	High school diploma or equivalent	None	Long-term on-the-job training	\$17.41
51-9196	Paper Goods Machine Setters, Operators, and Tenders	High school diploma or equivalent	None	Moderate-term on-the-job training	\$18.30
51-9198	HelpersProduction Workers	High school diploma or equivalent	None	Short-term on-the-job training	\$17.02
51-9199	Production Workers, All Other	High school diploma or equivalent	None	Moderate-term on-the-job training	\$13.86
53-0000	Transportation and Material Moving Occupations				\$17.57
53-3031	Driver/Sales Workers	High school diploma or equivalent	None	Short-term on-the-job training	\$11.19
53-3032	Heavy and Tractor-Trailer Truck Drivers	Postsecondary non-degree award	None	Short-term on-the-job training	\$23.42
53-3033	Light Truck or Delivery Services Drivers	High school diploma or equivalent	None	Short-term on-the-job training	\$19.30
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	\$11.62
53-6031	Automotive and Watercraft Service Attendants	No formal educational credential	None	Short-term on-the-job training	\$13.65
53-7051	Industrial Truck and Tractor Operators	No formal educational credential	None	Short-term on-the-job training	\$18.31
53-7061	Cleaners of Vehicles and Equipment	No formal educational credential	None	Short-term on-the-job training	\$13.81
53-7062	Laborers and Freight, Stock, and Material Movers, Hand	No formal educational credential	None	Short-term on-the-job training	\$14.48
53-7064	Packers and Packagers, Hand	No formal educational credential	None	Short-term on-the-job training	\$14.29
53-7065	Stockers and Order Fillers	High school diploma or equivalent	None	Short-term on-the-job training	\$14.42
53-7081	Refuse and Recyclable Material Collectors	No formal educational credential	None	Short-term on-the-job training	\$18.24

^{*} Occupations with 100 or more workers.

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

 $[\]ensuremath{^{**}}$ Certain occupations only report wages at the annual level.

[^] National hourly wage.

^{^^} National annual wage.

^{^^^} National aggregate wage.

[#] Wage above max.

[▲] Wage not available due to OES/SOC changes.

[†] Statewide hourly wage.

^{††} Statewide annual wage.

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- 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.

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