

2030 Job Outlook

Youngstown-Warren-Boardman Metropolitan Statistical Area

Mahoning and Trumbull 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*	Chang	ge in					
soc		2020	2030	Employ	•		Annua	al Openings		Median Wage
Code	Occupational Title	Annual	Projected	2020-2030	Percent	Growth	Exits	Transfers	Total	May 2021
00-0000	Total, All Occupations	160,838	166,561	5,723	3.6%	572	7,506	11,000	19,078	\$17.23
11-0000	Management Occupations	8,196	8,716	520	6.3%	52	274	426	752	\$37.47
11-1021	General and Operations Managers	1,893	1,983	90	4.8%	9	39	120	168	\$35.85
11-2022	Sales Managers	249	256	7	2.8%	1	5	16	22	\$47.84
11-3010	Administrative Services and Facilities Managers	227	243	16	7.1%	2	7	12	21	\$47.73 ^
11-3031	Financial Managers	404	462	58	14.4%	6	9	22	37	\$55.23
11-3051	Industrial Production Managers	309	320	11	3.6%	1	6	15	22	\$45.93
11-3071	Transportation, Storage, and Distribution Managers	211	221	10	4.7%	1	4	12	17	\$35.68
11-9021	Construction Managers	311	343	32	10.3%	3	7	17	27	\$39.42
11-9032	Education Administrators, Elementary and Secondary School	351	357	6	1.7%	1	9	16	26	\$97,320 **
11-9051	Food Service Managers	333	366	33	9.9%	3	11	28	42	\$26.37
11-9111	Medical and Health Services Managers	357	461	104	29.1%	10	10	21	41	\$44.03
11-9141	Property, Real Estate, and Community Association Managers	239	235	-4	-1.7%	0	9	9	18	\$21.99
11-9151	Social and Community Service Managers	187	215	28	15.0%	3	6	11	20	\$28.99
11-9198	Personal Service Managers; Entertainment & Recreation Managers, Except									
	Gambling; and Managers, All Other	246	259	13	5.3%	1	6	12	19	\$59.93 ^^^
13-0000	Business and Financial Operations Occupations	5,429	5,678	249	4.6%	25	152	329	506	\$28.24
13-1020	Buyers and Purchasing Agents	283	266	-17	-6.0%	-2	9	18	25	\$27.50
13-1031	Claims Adjusters, Examiners, and Investigators	171	163	-8	-4.7%	-1	4	9	12	\$29.74
13-1041	Compliance Officers	149	161	12	8.1%	1	4	8	13	\$28.24
13-1051	Cost Estimators	256	257	1	0.4%	0	7	16	23	\$29.49
13-1071	Human Resources Specialists	567	615	48	8.5%	5	16	39	60	\$23.68
13-1075	Labor Relations Specialists	311	263	-48	-15.4%	-5	8	19	22	\$28.87
13-1111	Management Analysts	286	318	32	11.2%	3	10	17	30	\$36.17
13-1131	Fundraisers	148	166	18	12.2%	2	5	10	17	\$27.10
13-1151	Training and Development Specialists	214	243	29	13.6%	3	7	14	24	\$21.99
13-1161	Market Research Analysts and Marketing Specialists	356	417	61	17.1%	6	9	28	43	\$23.68
13-1198	Project Management Specialists and Business Operations Specialists, All Other	711	730	19	2.7%	2	17	35	54	\$35.90 ^^^
13-2011	Accountants and Auditors	1,064	1,118	54	5.1%	5	30	65	100	\$29.65
13-2052	Personal Financial Advisors	211	235	24	11.4%	2	5	11	18	\$37.26
13-2072	Loan Officers	140	143	3	2.1%	0	3	8	11	\$23.51
13-2082	Tax Preparers	129	134	5	3.9%	0	7	7	14	\$14.14
13-2098	Financial and Investment Analysts, Financial Risk Specialists, and Financial									
	Specialists, All Other	106	109	3	2.8%	0	2	6	8	\$35.21 ^^^
15-0000	Computer and Mathematical Occupations	1,592	1,633	41	2.6%	4	32	81	117	\$29.39
15-1211	Computer Systems Analysts	163	157	-6	-3.7%	-1	3	8	10	\$35.00
15-1231	Computer Network Support Specialists	155	158	3	1.9%	0	3	8	11	\$23.31
15-1232	Computer User Support Specialists	354	355	1	0.3%	0	7	19	26	\$20.93
15-1244	Network and Computer Systems Administrators	206	199	-7	-3.4%	-1	3	10	12	\$34.29
15-1256	Software Developers and Software Quality Assurance Analysts and Testers	332	375	43	13.0%	4	8	17	29	\$49.49 ^^^

		Emplo	yment*	Chang	ge in					
soc		2020	2030	Employ	ment		Annua	al Openings		Median Wage
Code	Occupational Title	Annual	Projected			Growth	Exits	Transfers	Total	May 2021
17-0000	Architecture and Engineering Occupations	1,171	1,213	42	3.6%	4	28	55	87	\$33.66
17-2071	Electrical Engineers	123	127	4	3.3%	0	3	5	8	\$40.57
17-2112	Industrial Engineers	132	151	19	14.4%	2	3	6	11	\$35.70
17-2131	Materials Engineers	110	115	5	4.6%	0	2	4	6	\$34.22
17-2141	Mechanical Engineers	170	177	7	4.1%	1	3	7	11	\$35.01
19-0000	Life, Physical, and Social Science Occupations	507	523	16	3.2%	2	12	31	45	\$28.68
19-3031	Clinical, Counseling, and School Psychologists	136	147	11	8.1%	1	4	6	11	\$38.96 ^^^
21-0000	Community and Social Service Occupations	4,289	4,806	517	12.1%	52	158	290	500	\$21.24
21-1012	Educational, Guidance, School, and Vocational Counselors	316	317	1	0.3%	0	10	19	29	\$27.99
21-1015	Rehabilitation Counselors	292	349	57	19.5%	6	10	19	35	\$17.48
21-1018	Substance Abuse, Behavioral Disorder, and Mental Health Counselors	590	711	121	20.5%	12	21	38	71	\$21.87
21-1021	Child, Family, and School Social Workers	457	499	42	9.2%	4	13	30	47	\$21.25
21-1022	Healthcare Social Workers	170	170	0	0.0%	0	5	11	16	\$22.73
21-1023	Mental Health and Substance Abuse Social Workers	328	432	104	31.7%	10	11	24	45	\$17.59
21-1029	Social Workers, All Other	147	155	8	5.4%	1	4	10	15	\$28.25
21-1093	Social and Human Service Assistants	755	889	134	17.8%	13	33	62	108	\$14.60
21-2011	Clergy	731	746	15	2.1%	2	30	43	75	\$22.34
23-0000	Legal Occupations	674	735	61	9.1%	6	19	27	52	\$28.72
23-1011	Lawyers	353	389	36	10.2%	4	8	9	21	\$38.68
23-2011	Paralegals and Legal Assistants	160	184	24	15.0%	2	7	12	21	\$16.82
25-0000	Education, Training, and Library Occupations	9,831	10,113	282	2.9%	28	389	446	863	\$27.98
25-1194	Vocational Education Teachers, Postsecondary	122	129	7	5.7%	1	6	6	13	\$22.87
25-2011	Preschool Teachers, Except Special Education	388	518	130	33.5%	13	19	26	58	\$12.95
25-2021	Elementary School Teachers, Except Special Education	1,811	1,827	16	0.9%	2	56	73	131	\$63,700 **
25-2022	Middle School Teachers, Except Special and Career/Technical Education	1,548	1,561	13	0.8%	1	48	62	111	\$60,750 **
25-2031	Secondary School Teachers, Except Special and Career/Technical Education	1,159	1,175	16	1.4%	2	31	47	80	\$72,380 **
25-2052	Special Education Teachers, Kindergarten and Elementary School	206	208	2	1.0%	0	7	8	15	\$70,190 **
25-2058	Special Education Teachers, Secondary School	115	119	4	3.5%	0	4	5	9	\$71,850 **
25-3021	Self-Enrichment Education Teachers	416	484	68	16.4%	7	27	24	58	\$16.35
25-3031	Substitute Teachers, Short-Term	267	280	13	4.9%	1	16	15	32	\$13.31
25-3097	Teachers and Instructors, All Other, Except Substitute Teachers	308	318	10	3.3%	1	19	17	37	\$17.94 ^^^
25-4022	Librarians and Media Collections Specialists	233	237	4	1.7%	0	12	10	22	\$21.48
25-9045	Teaching Assistants, Except Postsecondary	1,876	1,978	102	5.4%	10	86	90	186	\$26,580 **
27-0000	Arts, Design, Entertainment, Sports, and Media Occupations	1,488	1,515	27	1.8%	3	64	97	164	\$17.91
27-1024	Graphic Designers	200	190	-10	-5.0%	-1	6	12	17	\$22.18
27-1026	Merchandise Displayers and Window Trimmers	125	139	14	11.2%	1	4	8	13	\$13.63
27-2022	Coaches and Scouts	343	358	15	4.4%	2	20	28	50	\$38,500 **
27-3031	Public Relations Specialists	124	136	12	9.7%	1	3	8	12	\$22.97
29-0000	Healthcare Practitioners and Technical Occupations	11,441	12,074	633	5.5%	63	305	372	740	\$28.00
29-1051	Pharmacists	378	345	-33	-8.7%	-3	7	7	11	\$58.64

		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
29-1122	Occupational Therapists	256	299	43	16.8%	4	6	9	19	\$36.37
29-1123	Physical Therapists	371	431	60	16.2%	6	8	8	22	\$43.51
29-1126	Respiratory Therapists	236	269	33	14.0%	3	5	6	14	\$27.81
29-1127	Speech-Language Pathologists	237	306	69	29.1%	7	6	10	23	\$35.43
29-1141	Registered Nurses	3,248	3,435	187	5.8%	19	89	84	192	\$29.24
29-1171	Nurse Practitioners	350	531	181	51.7%	18	9	14	41	\$46.64
29-1228	Physicians, All Other; and Ophthalmologists, Except Pediatric	485	486	1	0.2%	0	8	6	14	\$37.45 ^^^
29-1292	Dental Hygienists	286	250	-36	-12.6%	-4	10	7	13	\$29.19
29-2010	Clinical Laboratory Technologists and Technicians	243	256	13	5.4%	1	6	9	16	\$26.94
29-2034	Radiologic Technologists	294	316	22	7.5%	2	8	13	23	\$26.92
29-2040	Emergency Medical Technicians and Paramedics	430	437	7	1.6%	1	8	20	29	\$17.76 ^
29-2052	Pharmacy Technicians	638	624	-14	-2.2%	-1	17	27	43	\$14.00
29-2055	Surgical Technologists	197	206	9	4.6%	1	6	9	16	\$21.56
29-2061	Licensed Practical and Licensed Vocational Nurses	1,740	1,736	-4	-0.2%	0	59	72	131	\$21.58
29-2081	Opticians, Dispensing	133	134	1	0.8%	0	6	5	11	\$17.95
29-2098	Medical Dosimetrists, Medical Records Specialists, and Health Technologists and									
	Technicians, All Other	348	358	10	2.9%	1	10	15	26	\$22.55 ^^^
31-0000	Healthcare Support Occupations	8,211	9,544	1,333	16.2%	133	520	548	1,201	\$13.33
31-1120	Home Health and Personal Care Aides	3,718	4,862	1,144	30.8%	114	275	243	632	\$11.60
31-1131	Nursing Assistants	2,047	1,955	-92	-4.5%	-9	128	113	232	\$13.51
31-2011	Occupational Therapy Assistants	193	256	63	32.6%	6	11	16	33	\$27.21
31-2021	Physical Therapist Assistants	232	305	73	31.5%	7	12	20	39	\$27.49
31-9091	Dental Assistants	298	264	-34	-11.4%	-3	13	20	30	\$18.08
31-9092	Medical Assistants	993	1,100	107	10.8%	11	43	78	132	\$14.14
31-9096	Veterinary Assistants and Laboratory Animal Caretakers	141	161	20	14.2%	2	7	17	26	\$13.18
31-9097	Phlebotomists	203	227	24	11.8%	2	9	16	27	\$16.77
33-0000	Protective Service Occupations	4,091	4,129	38	0.9%	4	174	241	419	\$22.43
33-3051	Police and Sheriff's Patrol Officers	1,079	1,099	20	1.9%	2	27	55	84	\$28.20
33-9032	Security Guards	793	810	17	2.1%	2	42	62	106	\$12.83
33-9091	Crossing Guards	170	203	33	19.4%	3	27	10	40	\$12.19
33-9098	School Bus Monitors and Protective Service Workers, All Other	119	124	5	4.2%	0	17	14	31	\$15.11 ^^^
35-0000	Food Preparation and Serving Related Occupations	16,357	18,804	2,447	15.0%	245	1,383	1,815	3,443	\$10.47
35-1012	First-Line Supervisors of Food Preparation and Serving Workers	1,150	1,362	212	18.4%	21	56	128	205	\$16.03
35-2012	Cooks, Institution and Cafeteria	841	839	-2	-0.2%	0	49	72	121	\$13.61
35-2014	Cooks, Restaurant	1,400	2,023	623	44.5%	62	101	146	309	\$13.16
35-3011	Bartenders	768	964	196	25.5%	20	39	105	164	\$9.43
35-3023	Fast Food and Counter Workers	7,123	7,913	790	11.1%	79	729	795	1,603	\$10.23
35-3031	Waiters and Waitresses	2,695	3,119	424	15.7%	42	213	347	602	\$9.56
35-3041	Food Servers, Nonrestaurant	380	400	20	5.3%	2	31	30	63	\$11.45
35-9011	Dining Room and Cafeteria Attendants and Bartender Helpers	238	292	54	22.7%	5	23	23	51	\$10.53

		Emplo	yment*	Chang	ze in					
soc		2020	2030	Employ	•		Annua	l Openings		Median Wage
Code	Occupational Title	Annual	Projected	2020-2030		Growth	Exits	Transfers	Total	May 2021
35-9021	Dishwashers	403	462	59	14.6%	6	32	36	74	\$10.24
37-0000	Building and Grounds Cleaning and Maintenance Occupations	5,794	5,903	109	1.9%	11	337	424	772	\$13.29
37-1011	First-Line Supervisors of Housekeeping and Janitorial Workers	203	198	-5	-2.5%	0	9	14	23	\$17.48
37-1012	First-Line Supervisors of Landscaping, Lawn Service, and Groundskeeping Workers	122	120	-2	-1.6%	0	4	9	13	\$22.12
37-2011	Janitors and Cleaners, Except Maids and Housekeeping Cleaners	2,612	2,654	42	1.6%	4	164	184	352	\$13.24
37-2012	Maids and Housekeeping Cleaners	1,327	1,371	44	3.3%	4	92	87	183	\$10.77
37-3011	Landscaping and Groundskeeping Workers	1,295	1,334	39	3.0%	4	56	113	173	\$13.59
39-0000	Personal Care and Service Occupations	3,566	4,086	520	14.6%	52	243	290	585	\$12.37
39-3031	Ushers, Lobby Attendants, and Ticket Takers	161	209	48	29.8%	5	23	19	47	\$10.43
39-3091	Amusement and Recreation Attendants	234	294	60	25.6%	6	26	30	62	\$9.15
39-5012	Hairdressers, Hairstylists, and Cosmetologists	730	726	-4	-0.6%	0	39	40	79	\$13.12
39-5092	Manicurists and Pedicurists	185	205	20	10.8%	2	10	10	22	\$10.56
39-9011	Childcare Workers	872	965	93	10.7%	9	62	64	135	\$10.56
39-9032	Recreation Workers	395	454	59	14.9%	6	25	40	71	\$12.96
39-9041	Residential Advisors	146	208	62	42.5%	6	9	16	31	\$14.16
41-0000	Sales and Related Occupations	17,614	16,751	-863	-4.9%	-86	901	1,395	2,210	\$12.92
41-1011	First-Line Supervisors of Retail Sales Workers	1,901	1,764	-137	-7.2%	-14	65	127	178	\$17.25
41-1012	First-Line Supervisors of Non-Retail Sales Workers	259	240	-19	-7.3%	-2	7	15	20	\$34.09
41-2011	Cashiers	4,289	3,726	-563	-13.1%	-56	341	384	669	\$10.40
41-2022	Parts Salespersons	413	434	21	5.1%	2	18	32	52	\$13.93
41-2031	Retail Salespersons	4,873	4,822	-51	-1.1%	-5	271	400	666	\$11.11
41-3021	Insurance Sales Agents	470	458	-12	-2.6%	-1	16	26	41	\$21.45
41-3031	Securities, Commodities, and Financial Services Sales Agents	638	667	29	4.6%	3	14	41	58	\$21.83
41-3091	Sales Representatives of Services, Except Advertising, Insurance, Financial									
	Services, and Travel	684	723	39	5.7%	4	18	62	84	\$22.62
41-4011	Sales Representatives, Wholesale and Manufacturing, Technical and Scientific									
	Products	226	232	6	2.7%	1	7	16	24	\$29.68
41-4012	Sales Representatives, Wholesale and Manufacturing, Except Technical and									
	Scientific Products	1,521	1,563	42	2.8%	4	46	104	154	\$27.30
41-9022	Real Estate Sales Agents	221	222	1	0.5%	0	9	10	19	\$16.87
43-0000	Office and Administrative Support Occupations	19,909	18,913	-996	-5.0%	-100	940	1,187	2,027	\$17.00
43-1011	First-Line Supervisors of Office and Administrative Support Workers	1,142	1,095	-47	-4.1%	-5	42	68	105	\$23.10
43-3011	Bill and Account Collectors	156	145	-11	-7.1%	-1	6	11	16	\$16.23
43-3021	Billing and Posting Clerks	596	621	25	4.2%	2	25	37	64	\$16.74
43-3031	Bookkeeping, Accounting, and Auditing Clerks	1,723	1,645	-78	-4.5%	-8	99	86	177	\$17.67
43-3051	Payroll and Timekeeping Clerks	255	223	-32	-12.6%	-3	11	13	21	\$21.46
43-3071	Tellers	541	457	-84	-15.5%	-8	20	31	43	\$14.41
43-4031	Court, Municipal, and License Clerks	392	407	15	3.8%	2	20	20	42	\$17.61
43-4051	Customer Service Representatives	2,827	2,785	-42	-1.5%	-4	132	221	349	\$16.93
43-4071	File Clerks	154	133	-21	-13.6%	-2	8	9	15	\$13.91

		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
43-4081	Hotel, Motel, and Resort Desk Clerks	172	205	33	19.2%	3	11	20	34	\$10.59
43-4111	Interviewers, Except Eligibility and Loan	233	208	-25	-10.7%	-2	13	14	25	\$16.52
43-4121	Library Assistants, Clerical	111	104	-7	-6.3%	-1	10	7	16	\$11.43
43-4171	Receptionists and Information Clerks	898	889	-9	-1.0%	-1	50	62	111	\$13.63
43-5031	Police, Fire, and Ambulance Dispatchers	109	113	4	3.7%	0	4	6	10	\$20.81
43-5032	Dispatchers, Except Police, Fire, and Ambulance	136	139	3	2.2%	0	5	8	13	\$17.49
43-5052	Postal Service Mail Carriers	538	487	-51	-9.5%	-5	18	18	31	\$23.43
43-5061	Production, Planning, and Expediting Clerks	299	302	3	1.0%	0	11	20	31	\$21.83
43-5071	Shipping, Receiving, and Traffic Clerks	934	876	-58	-6.2%	-6	33	53	80	\$16.86
43-6011	Executive Secretaries and Executive Administrative Assistants	250	198	-52	-20.8%	-5	11	12	18	\$23.10
43-6012	Legal Secretaries	213	175	-38	-17.8%	-4	10	11	17	\$17.48
43-6013	Medical Secretaries	1,056	1,110	54	5.1%	5	55	60	120	\$16.06
43-6014	Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	1,895	1,651	-244	-12.9%	-24	90	99	165	\$16.73
43-9061	Office Clerks, General	3,716	3,510	-206	-5.5%	-21	197	214	390	\$16.66
45-0000	Farming, Fishing, and Forestry Occupations	343	353	10	2.9%	1	14	39	54	\$16.97
47-0000	Construction and Extraction Occupations	6,579	6,888	309	4.7%	31	198	454	683	\$22.45
47-1011	First-Line Supervisors of Construction Trades and Extraction Workers	385	406	21	5.5%	2	11	26	39	\$28.58
47-2021	Brickmasons and Blockmasons	124	117	-7	-5.7%	-1	4	7	10	\$27.26
47-2031	Carpenters	774	778	4	0.5%	0	23	48	71	\$21.77
47-2051	Cement Masons and Concrete Finishers	161	162	1	0.6%	0	4	11	15	\$22.53
47-2061	Construction Laborers	1,155	1,250	95	8.2%	10	36	81	127	\$20.52
47-2073	Operating Engineers and Other Construction Equipment Operators	368	383	15	4.1%	2	12	27	41	\$23.06
47-2111	Electricians	686	739	53	7.7%	5	21	52	78	\$27.03
47-2141	Painters, Construction and Maintenance	577	611	34	5.9%	3	18	33	54	\$22.35
47-2152	Plumbers, Pipefitters, and Steamfitters	527	545	18	3.4%	2	16	38	56	\$27.95
47-2181	Roofers	493	524	31	6.3%	3	13	36	52	\$21.70
47-2211	Sheet Metal Workers	172	176	4	2.3%	0	5	11	16	\$27.30
47-2221	Structural Iron and Steel Workers	113	121	8	7.1%	1	3	9	13	\$29.35
47-4051	Highway Maintenance Workers	311	319	8	2.6%	1	12	20	33	\$18.22
49-0000	Installation, Maintenance, and Repair Occupations	6,134	6,272	138	2.3%	14	197	382	593	\$21.49
49-1011	First-Line Supervisors of Mechanics, Installers, and Repairers	470	480	10	2.1%	1	14	28	43	\$29.40
49-3011	Aircraft Mechanics and Service Technicians	122	134	12	9.8%	1	4	7	12	\$30.72
49-3021	Automotive Body and Related Repairers	344	340	-4	-1.2%	0	11	20	31	\$18.02
49-3023	Automotive Service Technicians and Mechanics	972	947	-25	-2.6%	-2	28	65	91	\$18.02
49-3031	Bus and Truck Mechanics and Diesel Engine Specialists	355	368	13	3.7%	1	10	22	33	\$22.00
49-9041	Industrial Machinery Mechanics	415	480	65	15.7%	6	14	24	44	\$26.44
49-9043	Maintenance Workers, Machinery	122	134	12	9.8%	1	4	7	12	\$22.78
49-9051	Electrical Power-Line Installers and Repairers	163	158	-5	-3.1%	0	3	11	14	\$37.27
49-9071	Maintenance and Repair Workers, General	1,804	1,872	68	3.8%	7	65	107	179	\$18.10
49-9099	Installation, Maintenance, and Repair Workers, All Other	263	277	14	5.3%	1	10	18	29	\$20.24

		Emplo	yment*	Chang	ze in					
soc		2020	2030	Employ	•		Annua	al Openings		Median Wage
Code	Occupational Title	Annual	Projected	2020-2030		Growth	Exits	Transfers	Total	May 2021
51-0000	Production Occupations	12,517	11,968	-549	-4.4%	-55	449	861	1,255	\$17.64
51-1011	First-Line Supervisors of Production and Operating Workers	857	862	5	0.6%	0	26	58	84	\$28.13
51-2028	Electrical, Electronic, and Electromechanical Assemblers, Except Coil Winders,									·
	Tapers, and Finishers	184	184	0	0.0%	0	7	12	19	\$15.95
51-2090	Miscellaneous Assemblers and Fabricators	1,460	1,322	-138	-9.5%	-14	53	99	138	\$16.55
51-3011	Bakers	395	413	18	4.6%	2	22	30	54	\$13.15
51-3021	Butchers and Meat Cutters	171	140	-31	-18.1%	-3	6	12	15	\$13.77
51-4021	Extruding and Drawing Machine Setters, Operators, and Tenders, Metal and									
	Plastic	336	307	-29	-8.6%	-3	11	20	28	\$18.04
51-4023	Rolling Machine Setters, Operators, and Tenders, Metal and Plastic	324	298	-26	-8.0%	-3	11	19	27	\$20.14
51-4031	Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and									
	Plastic	971	897	-74	-7.6%	-7	30	64	87	\$17.82
51-4033	Grinding, Lapping, Polishing, and Buffing Machine Tool Setters, Operators, and									
	Tenders, Metal and Plastic	326	299	-27	-8.3%	-3	14	22	33	\$17.40
51-4041	Machinists	515	541	26	5.1%	3	18	36	57	\$18.64
51-4072	Molding, Coremaking, and Casting Machine Setters, Operators, and Tenders,									
	Metal and Plastic	280	258	-22	-7.9%	-2	9	18	25	\$13.87
51-4111	Tool and Die Makers	148	148	0	0.0%	0	6	9	15	\$22.11
51-4121	Welders, Cutters, Solderers, and Brazers	656	691	35	5.3%	4	18	53	75	\$18.26
51-4122	Welding, Soldering, and Brazing Machine Setters, Operators, and Tenders	127	120	-7	-5.5%	-1	3	10	12	\$17.48
51-4191	Heat Treating Equipment Setters, Operators, and Tenders, Metal and Plastic	293	251	-42	-14.3%	-4	9	18	23	\$14.48
51-4199	Metal Workers and Plastic Workers, All Other	197	179	-18	-9.1%	-2	6	13	17	\$11.40
51-5112	Printing Press Operators	144	131	-13	-9.0%	-1	5	10	14	\$18.35
51-6011	Laundry and Dry-Cleaning Workers	234	257	23	9.8%	2	16	16	34	\$10.81
51-6031	Sewing Machine Operators	297	284	-13	-4.4%	-1	18	15	32	\$12.73
51-8031	Water and Wastewater Treatment Plant and System Operators	175	163	-12	-6.9%	-1	5	10	14	\$22.69
51-9022	Grinding and Polishing Workers, Hand	153	128	-25	-16.3%	-2	5	10	13	\$18.13 †
51-9061	Inspectors, Testers, Sorters, Samplers, and Weighers	661	551	-110	-16.6%	-11	23	48	60	\$18.04
51-9111	Packaging and Filling Machine Operators and Tenders	309	318	9	2.9%	1	13	21	35	\$17.98
51-9124	Coating, Painting, and Spraying Machine Setters, Operators, and Tenders	218	224	6	2.8%	1	6	16	23	\$17.91
51-9161	Computer Numerically Controlled Tool Operators	228	221	-7	-3.1%	-1	8	17	24	\$20.98
51-9195	Molders, Shapers, and Casters, Except Metal and Plastic	164	191	27	16.5%	3	6	12	21	\$17.97
51-9199	Production Workers, All Other	140	141	1	0.7%	0	5	10	15	\$16.51
53-0000	Transportation and Material Moving Occupations	15,105	15,944	839	5.6%	84	717	1,208	2,009	\$14.73
53-1047	FirstLine Supervisors of Transportation & Material Moving Workers, Exc Aircraft									
	Cargo Handling Supervisor	788	774	-14	-1.8%	-1	28	54	81	\$22.19
53-3031	Driver/Sales Workers	1,138	1,296	158	13.9%	16	50	82	148	\$11.56
53-3032	Heavy and Tractor-Trailer Truck Drivers	2,884	2,985	101	3.5%	10	120	199	329	\$22.31
53-3033	Light Truck or Delivery Services Drivers	1,724	1,880	156	9.1%	16	74	122	212	\$16.05
53-3058	Passenger Vehicle Drivers, Except Bus Drivers, Transit and Intercity	667	801	134	20.1%	13	48	36	97	\$18.05 ^^^

Occupational* Employment Projections Report, 2020-2030

		Employ	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
53-6031	Automotive and Watercraft Service Attendants	155	157	2	1.3%	0	7	14	21	\$13.02
53-7051	Industrial Truck and Tractor Operators	412	425	13	3.2%	1	13	32	46	\$17.13
53-7061	Cleaners of Vehicles and Equipment	447	452	5	1.1%	0	22	40	62	\$12.91
53-7062	Laborers and Freight, Stock, and Material Movers, Hand	2,756	2,989	233	8.5%	23	126	250	399	\$14.33
53-7064	Packers and Packagers, Hand	442	447	5	1.1%	0	25	36	61	\$13.09
53-7065	Stockers and Order Fillers	2,749	2,720	-29	-1.1%	-3	156	267	420	\$13.27
53-7081	Refuse and Recyclable Material Collectors	306	354	48	15.7%	5	14	30	49	\$17.96

^{*} 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
	Total, All Occupations	Needed for Entry	Occupation	Occupation	\$17.23
	Management Occupations				\$37.47
11-1021	General and Operations Managers	Bachelor's degree	5 years or more	None	\$35.85
11-2022	Sales Managers	Bachelor's degree	Less than 5 years	None	\$47.84
11-3010	Administrative Services and Facilities Managers	Bachelor's degree	Less than 5 years	None	\$47.73 ^
11-3010	Financial Managers	Bachelor's degree	5 years or more	None	\$55.23
11-3051	Industrial Production Managers	· · · · · · · · · · · · · · · · · · ·		None	\$45.93
	<u> </u>	Bachelor's degree	5 years or more		
11-3071	Transportation, Storage, and Distribution Managers	High school diploma or equivalent	5 years or more	None	\$35.68
11-9021	Construction Managers	Bachelor's degree	None	Moderate-term on-the-job training	\$39.42
11-9032	Education Administrators, Elementary and Secondary School	Master's degree	5 years or more	None	\$97,320 **
11-9051	Food Service Managers	High school diploma or equivalent	Less than 5 years	None	\$26.37
11-9111	Medical and Health Services Managers	Bachelor's degree	Less than 5 years	None	\$44.03
11-9141	Property, Real Estate, and Community Association Managers	High school diploma or equivalent	Less than 5 years	None	\$21.99
11-9151	Social and Community Service Managers	Bachelor's degree	Less than 5 years	None	\$28.99
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				\$28.24
13-1020	Buyers and Purchasing Agents	Bachelor's degree	None	Moderate-term on-the-job training	\$27.50
13-1031	Claims Adjusters, Examiners, and Investigators	High school diploma or equivalent	None	Long-term on-the-job training	\$29.74
13-1041	Compliance Officers	Bachelor's degree	None	Moderate-term on-the-job training	\$28.24
13-1051	Cost Estimators	Bachelor's degree	None	Moderate-term on-the-job training	\$29.49
13-1071	Human Resources Specialists	Bachelor's degree	None	None	\$23.68
13-1075	Labor Relations Specialists	Bachelor's degree	Less than 5 years	None	\$28.87
13-1111	Management Analysts	Bachelor's degree	Less than 5 years	None	\$36.17
13-1131	Fundraisers	Bachelor's degree	None	None	\$27.10
13-1151	Training and Development Specialists	Bachelor's degree	Less than 5 years	None	\$21.99
13-1161	Market Research Analysts and Marketing Specialists	Bachelor's degree	None	None	\$23.68
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	\$29.65
13-2052	Personal Financial Advisors	Bachelor's degree	None	Long-term on-the-job training	\$37.26
13-2072	Loan Officers	Bachelor's degree	Less than 5 years	Moderate-term on-the-job training	\$23.51
13-2082	Tax Preparers	High school diploma or equivalent	None	Moderate-term on-the-job training	\$14.14
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	ÿ			\$29.39
15-1211	Computer Systems Analysts	Bachelor's degree	None	None	\$35.00
15-1231	Computer Network Support Specialists	Associate's degree	None	None	\$23.31
15-1232	Computer User Support Specialists	Some college, no degree	None	None	\$20.93
15-1244	Network and Computer Systems Administrators	Bachelor's degree	None	None	\$34.29
15-1256	Software Developers and Software Quality Assurance Analysts and Testers	Bachelor's degree	None	None	\$49.49 ^^^
17-0000	Architecture and Engineering Occupations				\$33.66
17-2071	Electrical Engineers	Bachelor's degree	None	None	\$40.57
17-2071	Industrial Engineers	Bachelor's degree	None	None	\$35.70

			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
17-2131	Materials Engineers	Bachelor's degree	None	None	\$34.22
17-2131	Mechanical Engineers	Bachelor's degree	None	None	\$35.01
19-0000	Life, Physical, and Social Science Occupations	Dacricior 3 degree	None	None	\$28.68
19-3031	Clinical, Counseling, and School Psychologists	Doctoral or professional degree	None	Internship/residency	\$38.96 ^^^
21-0000	Community and Social Service Occupations	Doctoral of professional degree	None	internalip/residency	\$21.24
21-1012	Educational, Guidance, School, and Vocational Counselors	Master's degree	None	None	\$27.99
21-1015	Rehabilitation Counselors	Master's degree	None	None	\$17.48
21-1018	Substance Abuse, Behavioral Disorder, and Mental Health Counselors	Bachelor's degree	None	None	\$21.87
21-1021	Child, Family, and School Social Workers	Bachelor's degree	None	None	\$21.25
21-1022	Healthcare Social Workers	Master's degree	None	Internship/residency	\$22.73
21-1023	Mental Health and Substance Abuse Social Workers	Master's degree	None	Internship/residency	\$17.59
21-1029	Social Workers, All Other	Bachelor's degree	None	None	\$28.25
21-1093	Social and Human Service Assistants	High school diploma or equivalent	None	Short-term on-the-job training	\$14.60
21-2011	Clergy	Bachelor's degree	None	Moderate-term on-the-job training	\$22.34
23-0000	Legal Occupations	Duesticio: 5 deg. ee	110.10	moderate term on the job truming	\$28.72
23-1011	Lawyers	Doctoral or professional degree	None	None	\$38.68
23-2011	Paralegals and Legal Assistants	Associate's degree	None	None	\$16.82
25-0000	Education, Training, and Library Occupations				\$27.98
25-1194	Vocational Education Teachers, Postsecondary	Bachelor's degree	Less than 5 years	None	\$22.87
25-2011	Preschool Teachers, Except Special Education	Associate's degree	None	None	\$12.95
25-2021	Elementary School Teachers, Except Special Education	Bachelor's degree	None	None	\$63,700 **
25-2022	Middle School Teachers, Except Special and Career/Technical Education	Bachelor's degree	None	None	\$60,750 **
25-2031	Secondary School Teachers, Except Special and Career/Technical Education	Bachelor's degree	None	None	\$72,380 **
25-2052	Special Education Teachers, Kindergarten and Elementary School	Bachelor's degree	None	None	\$70,190 **
25-2058	Special Education Teachers, Secondary School	Bachelor's degree	None	None	\$71,850 **
25-3021	Self-Enrichment Education Teachers	High school diploma or equivalent	Less than 5 years	None	\$16.35
25-3031	Substitute Teachers, Short-Term	Bachelor's degree	None	None	\$13.31
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	\$21.48
25-9045	Teaching Assistants, Except Postsecondary	Some college, no degree	None	None	\$26,580 **
27-0000	Arts, Design, Entertainment, Sports, and Media Occupations				\$17.91
27-1024	Graphic Designers	Bachelor's degree	None	None	\$22.18
27-1026	Merchandise Displayers and Window Trimmers	High school diploma or equivalent	None	Short-term on-the-job training	\$13.63
27-2022	Coaches and Scouts	Bachelor's degree	None	None	\$38,500 **
27-3031	Public Relations Specialists	Bachelor's degree	None	None	\$22.97
29-0000	Healthcare Practitioners and Technical Occupations				\$28.00
29-1051	Pharmacists	Doctoral or professional degree	None	None	\$58.64
29-1122	Occupational Therapists	Master's degree	None	None	\$36.37
29-1123	Physical Therapists	Doctoral or professional degree	None	None	\$43.51
29-1126	Respiratory Therapists	Associate's degree	None	None	\$27.81
29-1127	Speech-Language Pathologists	Master's degree	None	Internship/residency	\$35.43
29-1141	Registered Nurses	Bachelor's degree	None	None	\$29.24
29-1171	Nurse Practitioners	Master's degree	None	None	\$46.64

			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
29-1228	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	\$29.19
29-2010	Clinical Laboratory Technologists and Technicians	Bachelor's degree	None	None	\$26.94
29-2034	Radiologic Technologists	Associate's degree	None	None	\$26.92
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	\$14.00
29-2055	Surgical Technologists	Postsecondary non-degree award	None	None	\$21.56
29-2061	Licensed Practical and Licensed Vocational Nurses	Postsecondary non-degree award	None	None	\$21.58
29-2081	Opticians, Dispensing	High school diploma or equivalent	None	Long-term on-the-job training	\$17.95
29-2098	Medical Dosimetrists, Medical Records Specialists, and Health Technologists and			, j	·
	Technicians, All Other	Postsecondary non-degree award	None	None	\$22.55 ^^^
31-0000	Healthcare Support Occupations	, 3			\$13.33
31-1120	Home Health and Personal Care Aides	High school diploma or equivalent	None	Short-term on-the-job training	\$11.60
31-1131	Nursing Assistants	Postsecondary non-degree award	None	None	\$13.51
31-2011	Occupational Therapy Assistants	Associate's degree	None	None	\$27.21
31-2021	Physical Therapist Assistants	Associate's degree	None	None	\$27.49
31-9091	Dental Assistants	Postsecondary non-degree award	None	None	\$18.08
31-9092	Medical Assistants	Postsecondary non-degree award	None	None	\$14.14
31-9096	Veterinary Assistants and Laboratory Animal Caretakers	High school diploma or equivalent	None	Short-term on-the-job training	\$13.18
31-9097	Phlebotomists	Postsecondary non-degree award	None	None	\$16.77
33-0000	Protective Service Occupations				\$22.43
33-3051	Police and Sheriff's Patrol Officers	High school diploma or equivalent	None	Moderate-term on-the-job training	\$28.20
33-9032	Security Guards	High school diploma or equivalent	None	Short-term on-the-job training	\$12.83
33-9091	Crossing Guards	No formal educational credential	None	Short-term on-the-job training	\$12.19
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				\$10.47
35-1012	First-Line Supervisors of Food Preparation and Serving Workers	High school diploma or equivalent	Less than 5 years	None	\$16.03
35-2012	Cooks, Institution and Cafeteria	No formal educational credential	None	Short-term on-the-job training	\$13.61
35-2014	Cooks, Restaurant	No formal educational credential	Less than 5 years	Moderate-term on-the-job training	\$13.16
35-3011	Bartenders	No formal educational credential	None	Short-term on-the-job training	\$9.43
35-3023	Fast Food and Counter Workers	No formal educational credential	None	Short-term on-the-job training	\$10.23
35-3031	Waiters and Waitresses	No formal educational credential	None	Short-term on-the-job training	\$9.56
35-3041	Food Servers, Nonrestaurant	No formal educational credential	None	Short-term on-the-job training	\$11.45
35-9011	Dining Room and Cafeteria Attendants and Bartender Helpers	No formal educational credential	None	Short-term on-the-job training	\$10.53
35-9021	Dishwashers	No formal educational credential	None	Short-term on-the-job training	\$10.24
37-0000	Building and Grounds Cleaning and Maintenance Occupations				\$13.29
37-1011	First-Line Supervisors of Housekeeping and Janitorial Workers	High school diploma or equivalent	Less than 5 years	None	\$17.48
37-1012	First-Line Supervisors of Landscaping, Lawn Service, and Groundskeeping Workers	High school diploma or equivalent	Less than 5 years	None	\$22.12
37-2011	Janitors and Cleaners, Except Maids and Housekeeping Cleaners	No formal educational credential	None	Short-term on-the-job training	\$13.24
37-2012	Maids and Housekeeping Cleaners	No formal educational credential	None	Short-term on-the-job training	\$10.77
37-3011	Landscaping and Groundskeeping Workers	No formal educational credential	None	Short-term on-the-job training	\$13.59
39-0000	Personal Care and Service Occupations				\$12.37
39-3031	Ushers, Lobby Attendants, and Ticket Takers	No formal educational credential	None	Short-term on-the-job training	\$10.43

			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
39-3091	Amusement and Recreation Attendants	No formal educational credential	None	Short-term on-the-job training	\$9.15
39-5012	Hairdressers, Hairstylists, and Cosmetologists	Postsecondary non-degree award	None	None	\$13.12
39-5092	Manicurists and Pedicurists	Postsecondary non-degree award	None	None	\$10.56
39-9011	Childcare Workers	High school diploma or equivalent	None	Short-term on-the-job training	\$10.56
39-9011	Recreation Workers	High school diploma or equivalent	None	Short-term on-the-job training	\$12.96
39-9032	Residential Advisors		None	, ,	\$12.96
		High school diploma or equivalent	none	Short-term on-the-job training	\$14.16 \$12.92
41-0000	Sales and Related Occupations	High sahaal dialama ay ay iyoloot	Lacathan Fugara	Ness	
41-1011	First-Line Supervisors of Retail Sales Workers	High school diploma or equivalent	Less than 5 years	None	\$17.25
41-1012	First-Line Supervisors of Non-Retail Sales Workers	High school diploma or equivalent	Less than 5 years	None	\$34.09
41-2011	Cashiers	No formal educational credential	None	Short-term on-the-job training	\$10.40
41-2022	Parts Salespersons	No formal educational credential	None	Moderate-term on-the-job training	\$13.93
41-2031	Retail Salespersons	No formal educational credential	None	Short-term on-the-job training	\$11.11
41-3021	Insurance Sales Agents	High school diploma or equivalent	None	Moderate-term on-the-job training	\$21.45
41-3031	Securities, Commodities, and Financial Services Sales Agents	Bachelor's degree	None	Moderate-term on-the-job training	\$21.83
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	\$22.62
41-4011	Sales Representatives, Wholesale and Manufacturing, Technical and Scientific				
	Products	Bachelor's degree	None	Moderate-term on-the-job training	\$29.68
41-4012	Sales Representatives, Wholesale and Manufacturing, Except Technical and				
	Scientific Products	High school diploma or equivalent	None	Moderate-term on-the-job training	\$27.30
41-9022	Real Estate Sales Agents	High school diploma or equivalent	None	Moderate-term on-the-job training	\$16.87
43-0000	Office and Administrative Support Occupations				\$17.00
43-1011	First-Line Supervisors of Office and Administrative Support Workers	High school diploma or equivalent	Less than 5 years	None	\$23.10
43-3011	Bill and Account Collectors	High school diploma or equivalent	None	Moderate-term on-the-job training	\$16.23
43-3021	Billing and Posting Clerks	High school diploma or equivalent	None	Moderate-term on-the-job training	\$16.74
43-3031	Bookkeeping, Accounting, and Auditing Clerks	Some college, no degree	None	Moderate-term on-the-job training	\$17.67
43-3051	Payroll and Timekeeping Clerks	High school diploma or equivalent	None	Moderate-term on-the-job training	\$21.46
43-3071	Tellers	High school diploma or equivalent	None	Short-term on-the-job training	\$14.41
43-4031	Court, Municipal, and License Clerks	High school diploma or equivalent	None	Long-term on-the-job training	\$17.61
43-4051	Customer Service Representatives	High school diploma or equivalent	None	Short-term on-the-job training	\$16.93
43-4071	File Clerks	High school diploma or equivalent	None	Short-term on-the-job training	\$13.91
43-4081	Hotel, Motel, and Resort Desk Clerks	High school diploma or equivalent	None	Short-term on-the-job training	\$10.59
43-4111	Interviewers, Except Eligibility and Loan	High school diploma or equivalent	None	Short-term on-the-job training	\$16.52
43-4121	Library Assistants, Clerical	High school diploma or equivalent	None	Short-term on-the-job training	\$11.43
43-4171	Receptionists and Information Clerks	High school diploma or equivalent	None	Short-term on-the-job training	\$13.63
43-5031	Police, Fire, and Ambulance Dispatchers	High school diploma or equivalent	None	Moderate-term on-the-job training	\$20.81
43-5032	Dispatchers, Except Police, Fire, and Ambulance	High school diploma or equivalent	None	Moderate-term on-the-job training	\$17.49
43-5052	Postal Service Mail Carriers	High school diploma or equivalent	None	Short-term on-the-job training	\$23.43
43-5061	Production, Planning, and Expediting Clerks	High school diploma or equivalent	None	Moderate-term on-the-job training	\$21.83
43-5071	Shipping, Receiving, and Traffic Clerks	High school diploma or equivalent	None	Short-term on-the-job training	\$16.86
43-6011	Executive Secretaries and Executive Administrative Assistants	High school diploma or equivalent	Less than 5 years	None	\$23.10
43-6011	Legal Secretaries	High school diploma or equivalent	None	Moderate-term on-the-job training	\$17.48
43-6012	Medical Secretaries	High school diploma or equivalent	None	Moderate-term on-the-job training	\$16.06
45-0013	ivicuicai Secietalies	riigii scriooi uipioilia or equivalent	INUITE	iviouerate-term on-the-job training	910.0D

			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
	•	•	•	· ·	
43-6014	Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	High school diploma or equivalent	None	Short-term on-the-job training	\$16.73
43-9061	Office Clerks, General	High school diploma or equivalent	None	Short-term on-the-job training	\$16.66
45-0000	Farming, Fishing, and Forestry Occupations				\$16.97
47-0000	Construction and Extraction Occupations		-		\$22.45
47-1011	First-Line Supervisors of Construction Trades and Extraction Workers	High school diploma or equivalent	5 years or more	None	\$28.58
47-2021	Brickmasons and Blockmasons	High school diploma or equivalent	None	Apprenticeship	\$27.26
47-2031	Carpenters	High school diploma or equivalent	None	Apprenticeship	\$21.77
47-2051	Cement Masons and Concrete Finishers	No formal educational credential	None	Moderate-term on-the-job training	\$22.53
47-2061	Construction Laborers	No formal educational credential	None	Short-term on-the-job training	\$20.52
47-2073	Operating Engineers and Other Construction Equipment Operators	High school diploma or equivalent	None	Moderate-term on-the-job training	\$23.06
47-2111	Electricians	High school diploma or equivalent	None	Apprenticeship	\$27.03
47-2141	Painters, Construction and Maintenance	No formal educational credential	None	Moderate-term on-the-job training	\$22.35
47-2152	Plumbers, Pipefitters, and Steamfitters	High school diploma or equivalent	None	Apprenticeship	\$27.95
47-2181	Roofers	No formal educational credential	None	Moderate-term on-the-job training	\$21.70
47-2211	Sheet Metal Workers	High school diploma or equivalent	None	Apprenticeship	\$27.30
47-2221	Structural Iron and Steel Workers	High school diploma or equivalent	None	Apprenticeship	\$29.35
47-4051	Highway Maintenance Workers	High school diploma or equivalent	None	Moderate-term on-the-job training	\$18.22
49-0000	Installation, Maintenance, and Repair Occupations				\$21.49
49-1011	First-Line Supervisors of Mechanics, Installers, and Repairers	High school diploma or equivalent	Less than 5 years	None	\$29.40
49-3011	Aircraft Mechanics and Service Technicians	Postsecondary non-degree award	None	None	\$30.72
49-3021	Automotive Body and Related Repairers	High school diploma or equivalent	None	Long-term on-the-job training	\$18.02
49-3023	Automotive Service Technicians and Mechanics	Postsecondary non-degree award	None	Short-term on-the-job training	\$18.02
49-3031	Bus and Truck Mechanics and Diesel Engine Specialists	High school diploma or equivalent	None	Long-term on-the-job training	\$22.00
49-9041	Industrial Machinery Mechanics	High school diploma or equivalent	None	Long-term on-the-job training	\$26.44
49-9043	Maintenance Workers, Machinery	High school diploma or equivalent	None	Long-term on-the-job training	\$22.78
49-9051	Electrical Power-Line Installers and Repairers	High school diploma or equivalent	None	Long-term on-the-job training	\$37.27
49-9071	Maintenance and Repair Workers, General	High school diploma or equivalent	None	Moderate-term on-the-job training	\$18.10
49-9099	Installation, Maintenance, and Repair Workers, All Other	High school diploma or equivalent	None	Moderate-term on-the-job training	\$20.24
51-0000	Production Occupations				\$17.64
51-1011	First-Line Supervisors of Production and Operating Workers	High school diploma or equivalent	Less than 5 years	None	\$28.13
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	\$15.95
51-2090	Miscellaneous Assemblers and Fabricators	High school diploma or equivalent	None	Moderate-term on-the-job training	\$16.55
51-3011	Bakers	No formal educational credential	None	Long-term on-the-job training	\$13.15
51-3021	Butchers and Meat Cutters	No formal educational credential	None	Long-term on-the-job training	\$13.77
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	\$18.04
51-4023	Rolling Machine Setters, Operators, and Tenders, Metal and Plastic	High school diploma or equivalent	None	Moderate-term on-the-job training	\$20.14
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	\$17.82
51-4033	Grinding, Lapping, Polishing, and Buffing Machine Tool Setters, Operators, and	O remain angularina di digunarian	1	2.2.2.2.2.2.2	T = 7.10E
01 1000	Tenders, Metal and Plastic	High school diploma or equivalent	None	Moderate-term on-the-job training	\$17.40
51-4041	Machinists	High school diploma or equivalent	None	Long-term on-the-job training	\$18.64
21 4041	Machinisc	ingii school diploma of equivalent	None	Long term on the job training	710.04

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

500			•	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
51-4072	Molding, Coremaking, and Casting Machine Setters, Operators, and Tenders,				
	Metal and Plastic	High school diploma or equivalent		Moderate-term on-the-job training	\$13.87
51-4111	Tool and Die Makers	Postsecondary non-degree award	None	Long-term on-the-job training	\$22.11
51-4121	Welders, Cutters, Solderers, and Brazers	High school diploma or equivalent	None	Moderate-term on-the-job training	\$18.26
51-4122	Welding, Soldering, and Brazing Machine Setters, Operators, and Tenders	High school diploma or equivalent	None	Moderate-term on-the-job training	\$17.48
51-4191	Heat Treating Equipment Setters, Operators, and Tenders, Metal and Plastic	High school diploma or equivalent	None	Moderate-term on-the-job training	\$14.48
51-4199	Metal Workers and Plastic Workers, All Other	High school diploma or equivalent	None	Moderate-term on-the-job training	\$11.40
51-5112	Printing Press Operators	High school diploma or equivalent	None	Moderate-term on-the-job training	\$18.35
51-6011	Laundry and Dry-Cleaning Workers	No formal educational credential	None	Short-term on-the-job training	\$10.81
51-6031	Sewing Machine Operators	No formal educational credential	None	Short-term on-the-job training	\$12.73
51-8031	Water and Wastewater Treatment Plant and System Operators	High school diploma or equivalent	None	Long-term on-the-job training	\$22.69
51-9022	Grinding and Polishing Workers, Hand	No formal educational credential	None	Moderate-term on-the-job training	\$18.13 †
51-9061	Inspectors, Testers, Sorters, Samplers, and Weighers	High school diploma or equivalent	None	Moderate-term on-the-job training	\$18.04
51-9111	Packaging and Filling Machine Operators and Tenders	High school diploma or equivalent	None	Moderate-term on-the-job training	\$17.98
51-9124	Coating, Painting, and Spraying Machine Setters, Operators, and Tenders	High school diploma or equivalent	None	Moderate-term on-the-job training	\$17.91
51-9161	Computer Numerically Controlled Tool Operators	High school diploma or equivalent	None	Moderate-term on-the-job training	\$20.98
51-9195	Molders, Shapers, and Casters, Except Metal and Plastic	High school diploma or equivalent	None	Long-term on-the-job training	\$17.97
51-9199	Production Workers, All Other	High school diploma or equivalent	None	Moderate-term on-the-job training	\$16.51
53-0000	Transportation and Material Moving Occupations				\$14.73
53-1047	FirstLine Supervisors of Transportation & Material Moving Workers, Exc Aircraft				
	Cargo Handling Supervisor	High school diploma or equivalent	Less than 5 years	None	\$22.19
53-3031	Driver/Sales Workers	High school diploma or equivalent	None	Short-term on-the-job training	\$11.56
53-3032	Heavy and Tractor-Trailer Truck Drivers	Postsecondary non-degree award	None	Short-term on-the-job training	\$22.31
53-3033	Light Truck or Delivery Services Drivers	High school diploma or equivalent	None	Short-term on-the-job training	\$16.05
53-3058	Passenger Vehicle Drivers, Except Bus Drivers, Transit and Intercity	No formal educational credential	None	Short-term on-the-job training	\$18.05 ^^^
53-6031	Automotive and Watercraft Service Attendants	No formal educational credential	None	Short-term on-the-job training	\$13.02
53-7051	Industrial Truck and Tractor Operators	No formal educational credential	None	Short-term on-the-job training	\$17.13
53-7061	Cleaners of Vehicles and Equipment	No formal educational credential	None	Short-term on-the-job training	\$12.91
53-7062	Laborers and Freight, Stock, and Material Movers, Hand	No formal educational credential	None	Short-term on-the-job training	\$14.33
53-7064	Packers and Packagers, Hand	No formal educational credential	None	Short-term on-the-job training	\$13.09
53-7065	Stockers and Order Fillers	High school diploma or equivalent	None	Short-term on-the-job training	\$13.27
53-7081	Refuse and Recyclable Material Collectors	No formal educational credential	None	Short-term on-the-job training	\$17.96

^{*} 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.

Ohio Department of Job and Family Services
Office of Workforce Development
P.O. Box 182105
30 East Broad Street
Columbus, OH 43215



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 http://OhioLMI.com or contact the Ohio Bureau of Labor Market Information at (614) 752-9494 or ContactLMI@jfs.ohio.gov.

Mike DeWine, Governor Jon Husted, Lt. Governor State of Ohio http://Ohio.gov

Matt Damschroder, Director
Ohio Department of Job and Family Services

http://jfs.ohio.gov

Office of Workforce Development http://jfs.ohio.gov/owd/

Bureau of Labor Market Information http://OhioLMI.com

This institution is an equal opportunity provider and employer.

A proud partner of the American Job Center network.

This workforce product was funded by a grant awarded by the U.S. Department of Labor's Employment and Training Administration. The product was created by the recipient and does not necessarily reflect the official position of the U.S. Department of Labor. The Department of Labor makes no guarantees, warranties, or assurances of any kind, express or implied, with respect to such information, including any information on linked sites and including, but not limited to, accuracy of the information or its completeness, timeliness, usefulness, adequacy, continued availability, or ownership. This product is copyrighted by the institution that created it. Internal use by an organization and/or personal use by an individual for non-commercial purposes is permissible. All other uses require the prior authorization of the copyright owner.