

# Ohio Short-Term Employment Forecast

1st Quarter 2020 to 1st Quarter 2022



## Summary

In Ohio, 515,151 annual job openings are projected from first quarter 2020 to first quarter 2022. This total includes 205,988 job openings created because of workers leaving the labor force and another 337,924 job openings because of workers moving from one occupation to another. Over that same time period, employment statewide is expected to decrease by 1.0%, a loss of 57,522 jobs.

## Data Limitations

Every effort was made to ensure the accuracy of the projections, but data and forecasts are subject to error. The information in this report is best used as an indicator of employment trends, not as an exact count or prediction. It should be used in combination with other data sources and information. Employment forecasts cannot predict unforeseen events or actions. The data used in this report extended through the first quarter of 2020. The major economic effects of the COVID-19 pandemic emerged during the second quarter of 2020. Employment data for second quarter 2020 were reviewed in an attempt to account for the pandemic impact on future employment, but it was not possible to incorporate all of these events in the review because the pandemic was still active during the process.

This report provides estimates of the number of jobs, not the number of employees. It makes no distinctions for employment characteristics such as full-time, part-time, or secondary jobs.

## Occupational Openings

The method of estimating occupational openings considers three sources of change: occupational transfers, labor force exits, and industry growth. Occupational transfers occur when a worker moves from one occupation to another. This leaves an opening in the first occupation. Occupational transfers do not include workers who change jobs but stay in the same occupation because there is no impact on the overall employment within the occupation. Openings from labor force exits occur when workers leave the labor force entirely for retirement or other reasons and the worker will be replaced. The last source of job openings is industry growth. As demand for products and services changes for an industry, the number of workers in that industry can increase or decrease. Occupational job growth is the difference between the base employment and projected employment values for a period. The number of openings created by growth is often lower than openings due to labor force exits and occupational transfers.

## Key Points for End Users

Employment projections provide an idea of what is expected for workers in the future. Educators, workforce professionals, employers, job seekers, students, and others can use projections to learn about:

- Areas of the economy that are projected to have positive or negative growth indicating those areas expected to have the best employment opportunities.
- Occupations projected to have more job openings than others, informing stakeholders who prepare and train the workforce.
- Possible career pathways, as occupations with a high number of transfers may lose workers to a related occupation requiring a higher level of education or experience and increased pay.

## **Technical Notes**

The Ohio short-term industry and occupational forecasts were derived primarily from data produced by the Occupational Employment Statistics (OES) and the Quarterly Census of Employment and Wages (QCEW) programs. The forecasts were funded by a grant from the U.S. Department of Labor (DOL).

Short-term (two-year) and long-term (ten-year) employment forecasts are calculated differently and serve different purposes. The two-year forecasts reflect seasonal and business-cycle changes; the ten-year forecasts are strongly influenced by structural changes in the economy. Short-term forecasts provide more timely information; long-term forecasts are helpful for extended economic planning and evaluation.

### **Industry Employment Forecast**

The forecasting models utilized a historical monthly employment series from the QCEW program data through March 2020. Industry groups with three- or four-digit North American Industry Classification System (NAICS) codes were chosen. Trend, ordinary least squares regression, and autoregressive forecasting models were used. These methods measure the relationships between employment and one or more other economic variables, such as unemployment claims, housing valuations, average manufacturing hours, and more.

### **Occupational Employment Forecasts**

Occupational estimates were derived from an industry-occupation matrix. From a three-year OES survey cycle, industry staffing patterns were generated based on the Standard Occupational Classification (SOC) coding structure. Occupational patterns for work arrangements outside the scope of the OES program (including agriculture, private household, self-employed and unpaid family workers) were developed using U.S. national staffing patterns and U.S. Census of Agriculture information.

### **Wages**

The median wage estimates were produced using OES data, which are based on a semiannual mail survey. The survey gathers employment and wage data for specific occupations by geographic area and industry. Statewide Ohio wages were used when available.

### **Annual Openings**

To project occupational openings, Ohio uses national separation rates calculated by the Bureau of Labor Statistics (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 determine occupational openings.

## Educational and Training Classifications

DOL's educational and training classification system consists of three categories: a) typical education needed for entry, b) commonly required work experience in related occupations, and c) typical on-the-job training needed to obtain competency in the occupation. Complete definitions can be found at <https://www.bls.gov/emp/documentation/education-training-system.htm>.

For additional information or questions, visit <http://OhioLMI.com>, email [ContactLMI@jfs.ohio.gov](mailto:ContactLMI@jfs.ohio.gov), or call (888) 296-7541, option 6.

## Employment Projections Report by Major Industry

### First Quarter 2020 to First Quarter 2022

Industry Title	2020 Employment	2022 Projected	Change 2020 - 2022	
			Employment	Percent
<b>Total - All Industries</b>	<b>5,782,435</b>	<b>5,724,913</b>	<b>-57,522</b>	<b>-1.0%</b>
<b>Goods-Producing</b>	<b>1,011,590</b>	<b>994,427</b>	<b>-17,163</b>	<b>-1.7%</b>
Agriculture, Forestry, Fishing and Hunting	97,696	98,654	958	1.0%
Mining	9,934	9,656	-278	-2.8%
Construction	211,986	224,583	12,597	5.9%
Manufacturing	691,974	661,534	-30,440	-4.4%
<b>Service-Providing</b>	<b>4,525,842</b>	<b>4,486,883</b>	<b>-38,959</b>	<b>-0.9%</b>
Wholesale Trade	233,963	232,513	-1,450	-0.6%
Retail Trade	544,498	532,698	-11,800	-2.2%
Transportation and Warehousing	224,880	243,796	18,916	8.4%
Utilities	18,717	18,127	-590	-3.2%
Information	68,254	64,568	-3,686	-5.4%
Finance and Insurance	241,433	245,901	4,468	1.9%
Real Estate and Rental and Leasing	64,645	65,249	604	0.9%
Professional, Scientific, and Technical Services	271,113	272,273	1,160	0.4%
Management of Companies and Enterprises	141,263	143,867	2,604	1.8%
Administrative and Waste Services	304,229	292,361	-11,868	-3.9%
Educational Services	447,716	443,052	-4,664	-1.0%
Health Care and Social Assistance	848,724	863,565	14,841	1.7%
Arts, Entertainment, and Recreation	69,224	63,318	-5,906	-8.5%
Accommodation and Food Services	472,646	437,214	-35,432	-7.5%
Other Services (Except Government)	226,756	220,179	-6,577	-2.9%
Government	347,781	348,202	421	0.1%
<b>Self-Employed and Unpaid Family Workers</b>	<b>245,003</b>	<b>243,603</b>	<b>-1,400</b>	<b>-0.6%</b>

Source: Ohio Department of Job and Family Services, Bureau of Labor Market Information, June 2021.

# Ohio Short-Term Industry Employment\* Projections

## First Quarter 2020 to First Quarter 2022

NAICS Code	Industry Title	2020 Employment	2022 Projected	Change 2020 - 2022	
				Employment	Percent
	<b>Total - All Industries</b>	<b>5,782,435</b>	<b>5,724,913</b>	<b>-57,522</b>	<b>-1.0%</b>
	<b>Goods-Producing</b>	<b>1,011,590</b>	<b>994,427</b>	<b>-17,163</b>	<b>-1.7%</b>
	<b>Natural Resources and Mining</b>	<b>107,630</b>	<b>108,310</b>	<b>680</b>	<b>0.6%</b>
	Agriculture, Forestry, Fishing and Hunting	97,696	98,654	958	1.0%
	Mining	9,934	9,656	-278	-2.8%
	<b>Construction</b>	<b>211,986</b>	<b>224,583</b>	<b>12,597</b>	<b>5.9%</b>
236	Construction of Buildings	48,841	49,344	503	1.0%
237	Heavy and Civil Engineering Construction	24,698	25,872	1,174	4.8%
238	Specialty Trade Contractors	138,447	149,367	10,920	7.9%
	<b>Manufacturing</b>	<b>691,974</b>	<b>661,534</b>	<b>-30,440</b>	<b>-4.4%</b>
311	Food Manufacturing	59,664	60,003	339	0.6%
312	Beverage and Tobacco Product Manufacturing	9,951	10,047	96	1.0%
321	Wood Product Manufacturing	12,901	13,048	147	1.1%
322	Paper Manufacturing	20,889	21,389	500	2.4%
323	Printing and Related Support Activities	20,536	19,230	-1,306	-6.4%
325	Chemical Manufacturing	46,436	47,251	815	1.8%
326	Plastics and Rubber Products Manufacturing	57,779	54,260	-3,519	-6.1%
327	Nonmetallic Mineral Product Manufacturing	26,930	27,094	164	0.6%
331	Primary Metal Manufacturing	37,396	36,028	-1,368	-3.7%
332	Fabricated Metal Product Manufacturing	97,851	92,736	-5,115	-5.2%
333	Machinery Manufacturing	78,620	74,669	-3,951	-5.0%
334	Computer and Electronic Product Manufacturing	21,214	20,856	-358	-1.7%
335	Electrical Equipment and Appliance Mfg.	25,894	24,553	-1,341	-5.2%
336	Transportation Equipment Manufacturing	127,002	112,985	-14,017	-11.0%
337	Furniture and Related Product Manufacturing	15,437	15,406	-31	-0.2%
339	Miscellaneous Manufacturing	21,765	20,465	-1,300	-6.0%
	<b>Service-Providing</b>	<b>4,525,842</b>	<b>4,486,883</b>	<b>-38,959</b>	<b>-0.9%</b>
	<b>Trade, Transportation and Utilities</b>	<b>1,022,058</b>	<b>1,027,134</b>	<b>5,076</b>	<b>0.5%</b>
	Wholesale Trade	233,963	232,513	-1,450	-0.6%
423	Merchant Wholesalers, Durable Goods	141,311	140,826	-485	-0.3%
424	Merchant Wholesalers, Nondurable Goods	75,168	75,171	3	0.0%
425	Wholesale Electronic Markets and Agents and Brokers	17,484	16,516	-968	-5.5%
	Retail Trade	544,498	532,698	-11,800	-2.2%
441	Motor Vehicle and Parts Dealers	78,982	78,848	-134	-0.2%
442	Furniture and Home Furnishings Stores	13,234	12,234	-1,000	-7.6%
443	Electronics and Appliance Stores	15,335	14,642	-693	-4.5%
444	Building Mat./Garden Equip. and Supplies Dealers	50,497	52,775	2,278	4.5%
445	Food and Beverage Stores	98,509	97,349	-1,160	-1.2%
446	Health and Personal Care Stores	35,453	34,500	-953	-2.7%
447	Gasoline Stations	36,358	36,265	-93	-0.3%
448	Clothing and Clothing Accessories Stores	34,149	30,389	-3,760	-11.0%
451	Sporting Goods, Hobby, Book, and Music Stores	17,450	15,950	-1,500	-8.6%
452	General Merchandise Stores	107,386	102,973	-4,413	-4.1%
453	Miscellaneous Store Retailers	29,299	28,370	-929	-3.2%
454	Nonstore Retailers	27,846	28,403	557	2.0%
	Transportation and Warehousing	224,880	243,796	18,916	8.4%
481	Air Transportation	10,344	9,968	-376	-3.6%
484	Truck Transportation	70,824	72,028	1,204	1.7%
485	Transit and Ground Passenger Transport	10,898	10,688	-210	-1.9%
488	Support Activities for Transportation	22,190	21,814	-376	-1.7%
492	Couriers and Messengers	30,412	33,567	3,155	10.4%
493	Warehousing and Storage	70,514	86,030	15,516	22.0%

# Ohio Short-Term Industry Employment\* Projections

## First Quarter 2020 to First Quarter 2022

NAICS Code	Industry Title	2020 Employment	2022 Projected	Change 2020 - 2022	
				Employment	Percent
	Utilities	18,717	18,127	-590	-3.2%
	<b>Information</b>	<b>68,254</b>	<b>64,568</b>	<b>-3,686</b>	<b>-5.4%</b>
511	Publishing Industries	19,813	18,164	-1,649	-8.3%
512	Motion Picture and Sound Recording Industries	5,877	5,789	-88	-1.5%
515	Broadcasting (except Internet)	5,904	5,373	-531	-9.0%
517	Telecommunications	21,652	19,922	-1,730	-8.0%
518	Data processing, hosting and related services	8,886	9,044	158	1.8%
519	Other Information Services	6,122	6,276	154	2.5%
	<b>Financial Activities</b>	<b>306,078</b>	<b>311,150</b>	<b>5,072</b>	<b>1.7%</b>
	Finance and Insurance	241,433	245,901	4,468	1.9%
522	Credit Intermediation and Related Activities	94,726	94,331	-395	-0.4%
523	Securities, commodity contracts and investments	19,781	19,934	153	0.8%
524	Insurance Carriers and Related Activities	125,687	130,397	4,710	3.7%
	<b>Real Estate and Rental and Leasing</b>	<b>64,645</b>	<b>65,249</b>	<b>604</b>	<b>0.9%</b>
531	Real Estate	46,409	48,457	2,048	4.4%
532	Rental and Leasing Services	17,595	16,139	-1,456	-8.3%
	<b>Professional and Business Services</b>	<b>716,605</b>	<b>708,501</b>	<b>-8,104</b>	<b>-1.1%</b>
	Professional, Scientific, and Technical Services	271,113	272,273	1,160	0.4%
5411	Legal Services	31,371	31,186	-185	-0.6%
5412	Accounting and Bookkeeping Services	34,329	34,567	238	0.7%
5413	Architectural, Engineering, and Related Services	42,756	41,969	-787	-1.8%
5414	Specialized Design Services	7,061	7,328	267	3.8%
5415	Computer Systems Design and Related Services	64,638	65,000	362	0.6%
5416	Management and Technical Consulting Services	34,940	35,504	564	1.6%
5417	Scientific Research and Development Services	18,715	19,190	475	2.5%
5418	Advertising and Related Services	12,447	12,497	50	0.4%
5419	Other Professional and Technical Services	24,856	25,032	176	0.7%
	<b>Management of Companies and Enterprises</b>	<b>141,263</b>	<b>143,867</b>	<b>2,604</b>	<b>1.8%</b>
	<b>Administrative and Waste Services</b>	<b>304,229</b>	<b>292,361</b>	<b>-11,868</b>	<b>-3.9%</b>
561	Administrative and Support Services	286,572	274,200	-12,372	-4.3%
562	Waste Management and Remediation Service	17,657	18,161	504	2.9%
	<b>Education and Health Services</b>	<b>1,296,440</b>	<b>1,306,617</b>	<b>10,177</b>	<b>0.8%</b>
	Educational Services	447,716	443,052	-4,664	-1.0%
6111	Elementary and Secondary Schools	288,071	282,081	-5,990	-2.1%
6112	Junior Colleges	18,982	19,996	1,014	5.3%
6113	Colleges, Universities, and Professional Schools	97,747	97,217	-530	-0.5%
6116	Other Schools and Instruction	12,363	10,334	-2,029	-16.4%
6117	Educational Support Services	25,973	28,830	2,857	11.0%
	<b>Health Care and Social Assistance</b>	<b>848,724</b>	<b>863,565</b>	<b>14,841</b>	<b>1.7%</b>
621	Ambulatory Health Care Services	277,667	285,892	8,225	3.0%
622	Hospitals	284,947	290,695	5,748	2.0%
623	Nursing and Residential Care Facilities	165,366	163,410	-1,956	-1.2%
624	Social Assistance	120,744	123,568	2,824	2.3%
	<b>Leisure and Hospitality</b>	<b>541,870</b>	<b>500,532</b>	<b>-41,338</b>	<b>-7.6%</b>
	Arts, Entertainment, and Recreation	69,224	63,318	-5,906	-8.5%
711	Performing Arts and Spectator Sports	12,823	10,559	-2,264	-17.7%
712	Museums, Historical Sites, and Similar Institution	6,637	6,633	-4	-0.1%
713	Amusement, Gambling, and Recreation Industries	49,764	46,126	-3,638	-7.3%
	<b>Accommodation and Food Services</b>	<b>472,646</b>	<b>437,214</b>	<b>-35,432</b>	<b>-7.5%</b>
721	Accommodation	35,866	33,246	-2,620	-7.3%
722	Food Services and Drinking Places	436,780	403,968	-32,812	-7.5%

# Ohio Short-Term Industry Employment\* Projections

## First Quarter 2020 to First Quarter 2022

NAICS Code	Industry Title	2020 Employment	2022 Projected	Change 2020 - 2022	
				Employment	Percent
	<b>Other Services (Except Government)</b>	<b>226,756</b>	<b>220,179</b>	<b>-6,577</b>	<b>-2.9%</b>
811	Repair and Maintenance	49,338	49,928	590	1.2%
812	Personal and Laundry Services	55,227	51,891	-3,336	-6.0%
813	Religious, Grantmaking, Civic, Professional, and Similar Organizations	104,331	100,858	-3,473	-3.3%
814	Private Household	17,860	17,502	-358	-2.0%
	<b>Government</b>	<b>347,781</b>	<b>348,202</b>	<b>421</b>	<b>0.1%</b>
4911	Postal Service	22,654	21,191	-1,463	-6.5%
9991	Federal Government, Excluding Post Office	57,167	58,435	1,268	2.2%
9992	State Govt, excluding Education and Hospitals	52,558	51,529	-1,029	-2.0%
9993	Local Govt, excluding Education and Hospitals	215,402	217,047	1,645	0.8%
	<b>Self-Employed and Unpaid Family Workers</b>	<b>245,003</b>	<b>243,603</b>	<b>-1,400</b>	<b>-0.6%</b>

\*Industries with at least 5,000 employment.

Source: Ohio Department of Job and Family Services, Bureau of Labor Market Information, June 2021.



**Ohio Occupational Employment Projections by Major Occupational Group**  
**First Quarter 2020 to First Quarter 2022**  
**Breakdown of Annual Openings**

SOC Code	Occupational Title	Employment		Change in Employment 2020- 2022	Annual Openings			
		2020 Employment	2022 Projected		Change [1]	Exits [2]	Tranfers [3]	Total
	<b>Total, All Occupations</b>	<b>5,782,435</b>	<b>5,724,913</b>	<b>-57,522</b>	<b>-28,761</b>	<b>205,988</b>	<b>337,924</b>	<b>515,151</b>
11-0000	Management Occupations	348,351	349,880	1,529	764	10,697	17,249	28,710
13-0000	Business and Financial Operations Occupations	319,933	322,311	2,378	1,189	7,128	17,582	25,899
15-0000	Computer and Mathematical Occupations	158,189	159,415	1,226	613	160	370	1,143
17-0000	Architecture and Engineering Occupations	99,013	97,216	-1,797	-898	2,218	5,079	6,399
19-0000	Life, Physical, and Social Science Occupations	44,735	45,225	490	245	714	2,832	3,791
21-0000	Community and Social Service Occupations	106,860	109,217	2,357	1,178	3,851	7,585	12,614
23-0000	Legal Occupations	40,039	40,456	417	208	1,027	1,650	2,885
25-0000	Education, Training, and Library Occupations	328,438	324,510	-3,928	-1,964	9,190	11,828	19,054
27-0000	Arts, Design, Entertainment, Sports, and Media Occupations	89,778	87,077	-2,701	-1,350	3,622	6,139	8,411
29-0000	Healthcare Practitioners and Technical Occupations	374,602	381,496	6,894	3,447	8,420	9,796	21,663
31-0000	Healthcare Support Occupations	231,487	235,279	3,792	1,896	3,304	5,234	10,434
33-0000	Protective Service Occupations	114,388	113,203	-1,185	-592	4,424	6,375	10,207
35-0000	Food Preparation and Serving Related Occupations	488,290	456,642	-31,648	-15,824	22,088	35,162	41,426
37-0000	Building and Grounds Cleaning and Maintenance Occupations	177,355	174,961	-2,394	-1,197	9,899	13,078	21,780
39-0000	Personal Care and Service Occupations	144,216	139,854	-4,362	-2,181	9,506	11,416	18,741
41-0000	Sales and Related Occupations	524,766	512,675	-12,091	-6,046	26,890	41,016	61,860
43-0000	Office and Administrative Support Occupations	739,654	730,680	-8,974	-4,487	35,490	49,584	80,587
45-0000	Farming, Fishing, and Forestry Occupations	15,348	15,334	-14	-7	607	1,864	2,464
47-0000	Construction and Extraction Occupations	204,403	212,950	8,547	4,274	6,658	16,220	27,152
49-0000	Installation, Maintenance, and Repair Occupations	225,337	225,452	115	58	7,102	14,898	22,058
51-0000	Production Occupations	509,223	486,741	-22,482	-11,241	16,580	31,752	37,091
53-0000	Transportation and Material Moving Occupations	498,030	504,339	6,309	3,154	16,414	31,214	50,782

[1] Numeric change measures the projected annual number of job gains or losses in an occupation for the projection period.

[2] Exits are the projected number of workers leaving an occupation and exiting the labor force entirely.

[3] Transfers are the projected number of workers leaving an occupation and transferring to a different occupation.

Source: Ohio Department of Job and Family Services, Bureau of Labor Market Information, June 2021.

## Ohio's Fastest Growing Occupations\*

### First Quarter 2020 to First Quarter 2022

SOC Code <sup>1</sup>	Occupational Title	Percent Change	Total Annual Openings	Median Wage** May 2020
47-2181	Roofers	9.3%	883	\$21.80
47-3015	Helpers--Pipelayers, Plumbers, Pipefitters, and Steamfitters	8.8%	170	\$17.19
47-2021	Brickmasons and Blockmasons	7.9%	542	\$27.03
47-2042	Floor Layers, Except Carpet, Wood, and Hard Tiles	7.8%	169	\$20.91
49-9021	Heating, Air Conditioning, and Refrigeration Mechanics and Installers	7.3%	1,845	\$23.53
47-2121	Glaziers	7.1%	194	\$23.82
47-2221	Structural Iron and Steel Workers	7.1%	507	\$29.27
47-2051	Cement Masons and Concrete Finishers	7.0%	803	\$24.99
29-1071	Physician Assistants	6.7%	435	\$52.50
47-3013	Helpers--Electricians	6.6%	141	\$15.51
47-2132	Insulation Workers, Mechanical	6.5%	93	\$27.48
47-2152	Plumbers, Pipefitters, and Steamfitters	6.4%	2,144	\$28.19
53-7051	Industrial Truck and Tractor Operators	6.3%	4,984	\$18.13
49-9011	Mechanical Door Repairers	6.3%	149	\$19.76
47-2044	Tile and Marble Setters	5.9%	119	\$21.88
15-2041	Statisticians	5.8%	118	\$39.08
29-1171	Nurse Practitioners	5.7%	775	\$50.68
47-2111	Electricians	5.7%	3,987	\$25.72
21-1018	Substance Abuse, Behavioral Disorder, and Mental Health Counselors	5.7%	1,200	\$22.62
47-3019	Helpers, Construction Trades, All Other	5.3%	86	\$15.45
15-2011	Actuaries	5.2%	148	\$43.55
47-2211	Sheet Metal Workers	5.1%	596	\$26.26
21-1023	Mental Health and Substance Abuse Social Workers	5.1%	882	\$21.34
31-9092	Medical Assistants	4.8%	3,578	\$16.42
29-1223	Psychiatrists	4.7%	19	\$98.29
31-2011	Occupational Therapy Assistants	4.5%	542	\$29.34
25-1111	Criminal Justice and Law Enforcement Teachers, Postsecondary	4.5%	86	\$57,910 <sup>+</sup>
47-2081	Drywall and Ceiling Tile Installers	4.4%	169	\$24.87
29-2032	Diagnostic Medical Sonographers	4.4%	236	\$32.05
47-2131	Insulation Workers, Floor, Ceiling, and Wall	4.4%	129	\$21.85

<sup>1</sup> Occupational codes based on SOC 2010 coding structure. Detailed information - <http://www.bls.gov/soc/>

\*Based on occupations with at least 500 workers.

\*\* Wage estimates are based on Ohio's OES surveys.

+ Certain occupations only report wages at the annual level.

Source: Ohio Department of Job and Family Services, Bureau of Labor Market Information, June 2021.

## Occupations in Ohio with the Most Annual Openings

### First Quarter 2020 to First Quarter 2022

SOC Code <sup>1</sup>	Occupational Title	Total Annual Openings	Median Wage* May 2020
41-2011	Cashiers	19,537	\$10.85
53-7062	Laborers and Freight, Stock, and Material Movers, Hand	18,689	\$15.07
41-2031	Retail Salespersons	18,332	\$11.96
43-4051	Customer Service Representatives	14,142	\$17.23
43-9061	Office Clerks, General	12,715	\$16.99
35-3031	Waiters and Waitresses	12,487	\$9.56
37-2011	Janitors and Cleaners, Except Maids and Housekeeping Cleaners	10,259	\$13.28
53-3032	Heavy and Tractor-Trailer Truck Drivers	10,176	\$22.32
11-9013	Farmers, Ranchers, and Other Agricultural Managers	8,657	\$33.15
29-1141	Registered Nurses	8,435	\$32.49
43-3031	Bookkeeping, Accounting, and Auditing Clerks	6,099	\$19.44
43-6014	Secretaries, Except Legal, Medical, and Executive	6,084	\$17.84
41-4012	Sales Reps, Wholesale and Manufacturing, Ex. Tech and Scientific Products	5,807	\$29.13
49-9071	Maintenance and Repair Workers, General	5,717	\$19.97
47-2061	Construction Laborers	5,669	\$20.67
37-3011	Landscaping and Groundskeeping Workers	5,408	\$14.58
13-2011	Accountants and Auditors	5,180	\$32.62
11-1021	General and Operations Managers	5,115	\$47.84
53-7051	Industrial Truck and Tractor Operators	4,984	\$18.13
53-3033	Light Truck or Delivery Services Drivers	4,918	\$16.91
43-1011	First-Line Supervisors of Office and Administrative Support Workers	4,832	\$27.28
35-1012	First-Line Supervisors of Food Preparation and Serving Workers	4,799	\$14.84
43-4171	Receptionists and Information Clerks	4,780	\$13.84
39-9011	Childcare Workers	4,776	\$10.90
35-2014	Cooks, Restaurant	4,690	\$12.32
41-1011	First-Line Supervisors of Retail Sales Workers	4,550	\$19.18
37-2012	Maids and Housekeeping Cleaners	4,371	\$11.35
43-6013	Medical Secretaries	4,064	\$17.07
43-5071	Shipping, Receiving, and Traffic Clerks	4,055	\$16.79
47-2111	Electricians	3,987	\$25.72
35-2021	Food Preparation Workers	3,604	\$10.93

<sup>1</sup> Occupational codes based on SOC 2010 coding structure. Detailed information - <http://www.bls.gov/soc/>

\* Wage estimates are based on Ohio's OES surveys.

Source: Ohio Department of Job and Family Services, Bureau of Labor Market Information, June 2021.

# Ohio Occupational Employment\* Projections Report, 2020-2022

SOC Code <sup>1</sup>	Occupational Title**	Employment		Change in Employment		Annual Openings				Median Wage*** May 2020
		2020 Annual	2022 Projected	2020-2022	Percent	Change [1]	Exits [2]	Transfers [3]	Total	
00-0000	<b>Total, All Occupations</b>	<b>5,782,435</b>	<b>5,724,913</b>	<b>-57,522</b>	<b>-1.0%</b>	<b>-28,761</b>	<b>205,988</b>	<b>337,924</b>	<b>515,151</b>	<b>\$19.37</b>
11-0000	<b>Management Occupations</b>	<b>348,351</b>	<b>349,880</b>	<b>1,529</b>	<b>0.4%</b>	<b>764</b>	<b>10,697</b>	<b>17,249</b>	<b>28,710</b>	<b>\$48.35</b>
11-1011	Chief Executives	6,022	5,903	-119	-2.0%	-60	159	265	364	\$84.39
11-1021	General and Operations Managers	62,099	61,588	-511	-0.8%	-256	1,297	4,074	5,115	\$47.84
11-1031	Legislators	2,241	2,269	28	1.2%	14	57	114	185	\$20,490 **
11-2011	Advertising and Promotions Managers	329	320	-9	-2.7%	-4	6	24	26	\$53.64
11-2021	Marketing Managers	7,161	7,200	39	0.5%	20	146	491	657	\$63.86
11-2022	Sales Managers	11,395	11,384	-11	-0.1%	-6	232	779	1,005	\$58.88
11-3011	Administrative Services Managers	160	160	0	0.0%	0	4	9	13	▲
11-3021	Computer and Information Systems Managers	13,350	13,498	148	1.1%	74	230	817	1,121	\$64.14
11-3031	Financial Managers	23,103	23,821	718	3.1%	359	508	1,301	2,168	\$59.51
11-3051	Industrial Production Managers	11,988	11,629	-359	-3.0%	-180	254	608	682	\$49.58
11-3061	Purchasing Managers	2,233	2,234	1	0.0%	0	54	132	186	\$55.62
11-3071	Transportation, Storage, and Distribution Managers	5,536	5,760	224	4.0%	112	122	322	556	\$41.89
11-3111	Compensation and Benefits Managers	472	476	4	0.8%	2	12	28	42	\$58.06
11-3121	Human Resources Managers	4,365	4,384	19	0.4%	10	100	271	381	\$57.10
11-3131	Training and Development Managers	904	912	8	0.9%	4	22	58	84	\$50.87
11-9013	Farmers, Ranchers, and Other Agricultural Managers	82,311	83,185	874	1.1%	437	5,144	3,076	8,657	\$33.15
11-9021	Construction Managers	12,548	13,026	478	3.8%	239	268	651	1,158	\$44.85
11-9031	Education Administrators, Preschool and Childcare Center/Program	2,418	2,353	-65	-2.7%	-32	62	124	154	\$22.28
11-9032	Education Administrators, Elementary and Secondary School	9,579	9,458	-121	-1.3%	-60	246	493	679	\$92,590 **
11-9033	Education Administrators, Postsecondary	4,724	4,732	8	0.2%	4	122	245	371	\$47.11
11-9039	Education Administrators, All Other	1,019	1,032	13	1.3%	6	26	53	85	\$44.67
11-9041	Architectural and Engineering Managers	6,063	5,923	-140	-2.3%	-70	104	328	362	\$64.49
11-9051	Food Service Managers	12,680	11,943	-737	-5.8%	-368	374	1,036	1,042	\$25.27
11-9081	Lodging Managers	1,783	1,663	-120	-6.7%	-60	54	122	116	\$19.52
11-9111	Medical and Health Services Managers	15,475	15,920	445	2.9%	222	385	859	1,466	\$45.36
11-9121	Natural Sciences Managers	979	988	9	0.9%	4	21	66	91	\$57.75
11-9131	Postmasters and Mail Superintendents	463	426	-37	-8.0%	-18	12	22	16	\$37.57
11-9141	Property, Real Estate, and Community Association Managers	12,844	13,336	492	3.8%	246	487	520	1,253	\$23.90
11-9151	Social and Community Service Managers	5,517	5,678	161	2.9%	80	166	320	566	\$32.06
11-9161	Emergency Management Directors	347	350	3	0.9%	2	10	18	30	\$36.57
11-9171	Funeral Home Managers	436	427	-9	-2.1%	-4	2	2	0	\$58.57
11-9198	Managers, All Other	13,938	14,010	72	0.5%	36	0	0	36	\$48.76
13-0000	<b>Business and Financial Operations Occupations</b>	<b>319,933</b>	<b>322,311</b>	<b>2,378</b>	<b>0.7%</b>	<b>1,189</b>	<b>7,128</b>	<b>17,582</b>	<b>25,899</b>	<b>\$32.12</b>
13-1020	Buyers and Purchasing Agents	18,637	18,215	-422	-2.3%	-211	580	1,340	1,709	\$31.14
13-1031	Claims Adjusters, Examiners, and Investigators	14,410	14,738	328	2.3%	164	350	882	1,396	\$30.09
13-1032	Insurance Appraisers, Auto Damage	644	664	20	3.1%	10	16	40	66	\$28.12
13-1041	Compliance Officers	8,646	8,757	111	1.3%	56	242	520	818	\$31.77
13-1051	Cost Estimators	8,562	8,821	259	3.0%	130	220	638	988	\$30.92
13-1071	Human Resources Specialists	26,671	26,481	-190	-0.7%	-95	710	1,956	2,571	\$28.26
13-1075	Labor Relations Specialists	4,608	4,357	-251	-5.4%	-126	120	330	324	\$27.99
13-1081	Logisticians	7,011	7,083	72	1.0%	36	165	506	707	\$35.04
13-1111	Management Analysts	27,414	27,972	558	2.0%	279	860	1,749	2,888	\$39.72
13-1121	Meeting, Convention, and Event Planners	3,609	3,438	-171	-4.7%	-86	113	288	315	\$22.69
13-1131	Fundraisers	5,114	5,083	-31	-0.6%	-16	168	362	514	\$26.64
13-1141	Compensation, Benefits, and Job Analysis Specialists	2,956	2,997	41	1.4%	20	98	184	302	\$29.14
13-1151	Training and Development Specialists	12,456	12,583	127	1.0%	64	373	969	1,406	\$26.89

# Ohio Occupational Employment\* Projections Report, 2020-2022

SOC Code <sup>1</sup>	Occupational Title**	Employment		Change in Employment		Annual Openings				Median Wage*** May 2020
		2020 Annual	2022 Projected	2020-2022	Percent	Change [1]	Exits [2]	Tranfers [3]	Total	
13-1161	Market Research Analysts and Marketing Specialists	27,160	27,748	588	2.2%	294	646	2,160	3,100	\$29.33
13-1198	Business Operations Specialists, All Other	43,931	44,118	187	0.4%	94	0	0	94	\$35.43
13-2011	Accountants and Auditors	53,362	53,743	381	0.7%	190	1,510	3,480	5,180	\$32.62
13-2031	Budget Analysts	1,144	1,157	13	1.1%	6	28	62	96	\$36.91
13-2041	Credit Analysts	2,481	2,501	20	0.8%	10	55	169	234	\$35.75
13-2052	Personal Financial Advisors	9,426	9,569	143	1.5%	72	216	502	790	\$38.90
13-2053	Insurance Underwriters	5,389	5,520	131	2.4%	66	127	326	519	\$32.59
13-2061	Financial Examiners	3,223	3,303	80	2.5%	40	68	177	285	\$34.08
13-2071	Credit Counselors	951	962	11	1.2%	6	23	57	86	\$23.14
13-2072	Loan Officers	10,728	10,847	119	1.1%	60	258	644	962	\$31.79
13-2081	Tax Examiners and Collectors, and Revenue Agents	1,286	1,289	3	0.2%	2	50	56	108	\$31.66
13-2082	Tax Preparers	2,493	2,520	27	1.1%	14	124	162	300	\$17.88
<b>15-0000</b>	<b>Computer and Mathematical Occupations</b>	<b>158,189</b>	<b>159,415</b>	<b>1,226</b>	<b>0.8%</b>	<b>613</b>	<b>160</b>	<b>370</b>	<b>1,143</b>	<b>\$39.19</b>
15-1134	Web Developers	36	36	0	0.0%	0	0	2	2	▲
15-1211	Computer Systems Analysts	27,256	27,488	232	0.9%	116	0	0	116	\$41.54
15-1212	Information Security Analysts	3,959	3,988	29	0.7%	14	0	0	14	\$44.55
15-1221	Computer and Information Research Scientists	599	603	4	0.7%	2	0	0	2	\$53.26
15-1231	Computer Network Support Specialists	7,655	7,662	7	0.1%	4	0	0	4	\$28.99
15-1232	Computer User Support Specialists	22,192	22,235	43	0.2%	22	0	0	22	\$23.47
15-1241	Computer Network Architects	4,705	4,724	19	0.4%	10	0	0	10	\$49.63
15-1244	Network and Computer Systems Administrators	11,616	11,598	-18	-0.2%	-9	4	4	0	\$38.43
15-1245	Database Administrators	3,674	3,692	18	0.5%	9	0	0	9	\$44.26
15-1251	Computer Programmers	5,685	5,708	23	0.4%	12	0	0	12	\$40.48
15-1299	Computer Occupations, All Other	12,973	13,131	158	1.2%	79	0	0	79	\$41.28
15-2011	Actuaries	1,698	1,787	89	5.2%	44	19	85	148	\$43.55
15-2031	Operations Research Analysts	4,388	4,573	185	4.2%	92	104	187	383	\$42.05
15-2041	Statisticians	1,100	1,164	64	5.8%	32	20	66	118	\$39.08
15-2098	Data Scientists and Mathematical Science Occupations, All Other	1,427	1,444	17	1.2%	8	0	0	8	\$38.79
<b>17-0000</b>	<b>Architecture and Engineering Occupations</b>	<b>99,013</b>	<b>97,216</b>	<b>-1,797</b>	<b>-1.8%</b>	<b>-898</b>	<b>2,218</b>	<b>5,079</b>	<b>6,399</b>	<b>\$37.60</b>
17-1011	Architects, Except Landscape and Naval	3,462	3,436	-26	-0.8%	-13	82	182	251	\$41.19
17-1012	Landscape Architects	823	812	-11	-1.3%	-6	20	43	57	\$26.34
17-1021	Cartographers and Photogrammetrists	101	104	3	3.0%	2	2	5	9	\$30.79
17-1022	Surveyors	1,277	1,265	-12	-0.9%	-6	32	60	86	\$28.93
17-2011	Aerospace Engineers	3,940	3,843	-97	-2.5%	-48	82	168	202	\$56.29
17-2031	Biomedical Engineers	686	697	11	1.6%	6	14	35	55	\$41.73
17-2041	Chemical Engineers	1,389	1,416	27	1.9%	14	29	59	102	\$46.87
17-2051	Civil Engineers	7,701	7,679	-22	-0.3%	-11	157	442	588	\$38.60
17-2061	Computer Hardware Engineers	912	906	-6	-0.7%	-3	18	48	63	\$48.79
17-2071	Electrical Engineers	6,943	6,883	-60	-0.9%	-30	140	317	427	\$41.38
17-2072	Electronics Engineers, Except Computer	3,911	3,848	-63	-1.6%	-32	78	178	224	\$47.02
17-2081	Environmental Engineers	1,064	1,062	-2	-0.2%	-1	29	52	80	\$38.93
17-2111	Health and Safety Engineers, Except Mining Safety Engineers and Inspectors	494	501	7	1.4%	4	10	24	38	\$47.17
17-2112	Industrial Engineers	15,394	15,009	-385	-2.5%	-192	307	731	846	\$39.71
17-2131	Materials Engineers	2,138	2,107	-31	-1.4%	-16	44	88	116	\$41.55
17-2141	Mechanical Engineers	15,271	14,862	-409	-2.7%	-204	281	738	815	\$39.08
17-2151	Mining and Geological Engineers, Including Mining Safety Engineers	126	124	-2	-1.6%	-1	2	8	9	\$43.63
17-2171	Petroleum Engineers	773	780	7	0.9%	4	13	44	61	\$60.41
17-2199	Engineers, All Other	8,111	8,024	-87	-1.1%	-44	166	391	513	\$45.55

# Ohio Occupational Employment\* Projections Report, 2020-2022

SOC Code <sup>1</sup>	Occupational Title**	Employment		Change in Employment		Annual Openings				Median Wage*** May 2020
		2020 Annual	2022 Projected	2020-2022	Percent	Change [1]	Exits [2]	Tranfers [3]	Total	
17-3011	Architectural and Civil Drafters	3,197	3,151	-46	-1.4%	-23	106	222	305	\$25.85
17-3012	Electrical and Electronics Drafters	788	783	-5	-0.6%	-2	26	55	79	\$30.24
17-3013	Mechanical Drafters	2,071	1,975	-96	-4.6%	-48	67	141	160	\$28.37
17-3021	Aerospace Engineering and Operations Technicians	992	918	-74	-7.5%	-37	32	62	57	\$30.66
17-3022	Civil Engineering Technicians	1,805	1,809	4	0.2%	2	60	116	178	\$29.22
17-3023	Electrical and Electronics Engineering Technicians	2,983	2,906	-77	-2.6%	-38	98	190	250	\$31.36
17-3024	Electro-Mechanical Technicians	517	501	-16	-3.1%	-8	17	33	42	\$24.26
17-3025	Environmental Engineering Technicians	572	578	6	1.0%	3	19	37	59	\$24.73
17-3026	Industrial Engineering Technicians	3,354	3,215	-139	-4.1%	-70	108	212	250	\$25.04
17-3027	Mechanical Engineering Technicians	2,721	2,608	-113	-4.2%	-56	88	172	204	\$25.57
17-3031	Surveying and Mapping Technicians	1,471	1,474	3	0.2%	2	41	132	175	\$22.37
17-3098	Engineering Technicians, Except Drafters, All Other	2,561	2,516	-45	-1.8%	-22	11	12	1	\$28.47
19-0000	Life, Physical, and Social Science Occupations	44,735	45,225	490	1.1%	245	714	2,832	3,791	\$31.69
19-1012	Food Scientists and Technologists	651	661	10	1.5%	5	13	60	78	\$41.81
19-1013	Soil and Plant Scientists	338	337	-1	-0.3%	0	7	31	38	\$28.17
19-1021	Biochemists and Biophysicists	238	230	-8	-3.4%	-4	4	18	18	\$34.80
19-1022	Microbiologists	471	469	-2	-0.4%	-1	8	36	43	\$29.64
19-1023	Zoologists and Wildlife Biologists	159	159	0	0.0%	0	2	12	14	\$27.91
19-1029	Biological Scientists, All Other	462	471	9	1.9%	4	7	36	47	\$36.92
19-1031	Conservation Scientists	814	824	10	1.2%	5	16	69	90	\$27.23
19-1032	Foresters	176	175	-1	-0.6%	0	4	15	19	\$30.17
19-1041	Epidemiologists	277	278	1	0.4%	0	4	21	25	\$34.82
19-1042	Medical Scientists, Except Epidemiologists	4,363	4,443	80	1.8%	40	62	330	432	\$36.12
19-1099	Life Scientists, All Other	290	294	4	1.4%	2	4	22	28	\$36.65
19-2012	Physicists	343	353	10	2.9%	5	6	22	33	\$59.24
19-2031	Chemists	3,542	3,575	33	0.9%	16	58	262	336	\$36.13
19-2032	Materials Scientists	408	403	-5	-1.2%	-2	6	30	34	\$50.04
19-2041	Environmental Scientists and Specialists, Including Health	2,111	2,108	-3	-0.1%	-2	39	189	226	\$37.67
19-2042	Geoscientists, Except Hydrologists and Geographers	353	349	-4	-1.1%	-2	6	32	36	\$37.60
19-2043	Hydrologists	297	297	0	0.0%	0	6	26	32	\$41.73
19-2099	Physical Scientists, All Other	578	586	8	1.4%	4	8	42	54	\$47.79
19-3011	Economists	195	199	4	2.1%	2	3	12	17	\$47.16
19-3022	Survey Researchers	205	202	-3	-1.5%	-2	6	17	21	\$29.99
19-3031	Clinical, Counseling, and School Psychologists	5,906	6,094	188	3.2%	94	134	286	514	\$35.77
19-3039	Psychologists, All Other	519	535	16	3.1%	8	12	25	45	\$50.28
19-3041	Sociologists	102	102	0	0.0%	0	3	8	11	\$32.83
19-3051	Urban and Regional Planners	923	941	18	2.0%	9	15	72	96	\$36.08
19-3099	Social Scientists and Related Workers, All Other	1,712	1,736	24	1.4%	12	54	144	210	\$39.08
19-4021	Biological Technicians	5,125	5,209	84	1.6%	42	76	466	584	\$21.70
19-4031	Chemical Technicians	2,895	2,924	29	1.0%	14	56	234	304	\$24.44
19-4042	Environmental Science and Protection Technicians, Including Health	1,451	1,453	2	0.1%	1	0	0	1	\$21.92
19-4051	Nuclear Technicians	468	452	-16	-3.4%	-8	12	42	46	\$37.56
19-4061	Social Science Research Assistants	548	554	6	1.1%	3	15	50	68	\$21.22
19-4071	Forest and Conservation Technicians	299	300	1	0.3%	0	0	0	0	\$19.95
19-4092	Forensic Science Technicians	456	465	9	2.0%	4	12	42	58	\$32.40
19-4099	Life, Physical, and Social Science Technicians, All Other	1,466	1,460	-6	-0.4%	-3	40	134	171	\$26.36
19-5011	Occupational Health and Safety Specialists	4,603	4,604	1	0.0%	0	0	0	0	\$36.58
19-5012	Occupational Health and Safety Technicians	891	881	-10	-1.1%	-5	2	2	0	\$23.83

# Ohio Occupational Employment\* Projections Report, 2020-2022

SOC Code <sup>1</sup>	Occupational Title**	Employment		Change in Employment		Annual Openings				Median Wage*** May 2020
		2020 Annual	2022 Projected	2020-2022	Percent	Change [1]	Exits [2]	Transfers [3]	Total	
<b>21-0000</b>	<b>Community and Social Service Occupations</b>	<b>106,860</b>	<b>109,217</b>	<b>2,357</b>	<b>2.2%</b>	<b>1,178</b>	<b>3,851</b>	<b>7,585</b>	<b>12,614</b>	<b>\$21.70</b>
21-1012	Educational, Guidance, School, and Vocational Counselors	11,230	11,341	111	1.0%	56	366	789	1,211	\$25.98
21-1013	Marriage and Family Therapists	459	474	15	3.3%	8	15	32	55	\$22.80
21-1015	Rehabilitation Counselors	5,997	6,153	156	2.6%	78	197	425	700	\$17.02
21-1018	Substance Abuse, Behavioral Disorder, and Mental Health Counselors	8,973	9,483	510	5.7%	255	299	646	1,200	\$22.62
21-1019	Counselors, All Other	871	885	14	1.6%	7	28	62	97	\$26.33
21-1021	Child, Family, and School Social Workers	12,132	12,428	296	2.4%	148	362	836	1,346	\$22.40
21-1022	Healthcare Social Workers	7,571	7,730	159	2.1%	80	226	521	827	\$27.58
21-1023	Mental Health and Substance Abuse Social Workers	7,028	7,386	358	5.1%	179	213	490	882	\$21.34
21-1029	Social Workers, All Other	2,954	3,017	63	2.1%	32	88	204	324	\$26.48
21-1091	Health Educators	2,268	2,321	53	2.3%	26	86	174	286	\$24.07
21-1092	Probation Officers and Correctional Treatment Specialists	3,083	3,106	23	0.7%	12	68	194	274	\$24.40
21-1093	Social and Human Service Assistants	16,991	17,472	481	2.8%	240	690	1,359	2,289	\$16.66
21-1094	Community Health Workers	2,187	2,235	48	2.2%	24	82	167	273	\$18.57
21-1099	Community and Social Service Specialists, All Other	2,552	2,582	30	1.2%	15	96	194	305	\$20.75
21-2011	Clergy	17,998	18,031	33	0.2%	16	788	1,162	1,966	\$22.39
21-2021	Directors, Religious Activities and Education	2,057	2,059	2	0.1%	1	102	153	256	\$21.73
<b>23-0000</b>	<b>Legal Occupations</b>	<b>40,039</b>	<b>40,456</b>	<b>417</b>	<b>1.0%</b>	<b>208</b>	<b>1,027</b>	<b>1,650</b>	<b>2,885</b>	<b>\$34.23</b>
23-1011	Lawyers	22,371	22,564	193	0.9%	96	482	594	1,172	\$50.18
23-1012	Judicial Law Clerks	213	215	2	0.9%	1	3	6	10	\$26.39
23-1021	Administrative Law Judges, Adjudicators, and Hearing Officers	792	792	0	0.0%	0	17	21	38	\$32.48
23-1022	Arbitrators, Mediators, and Conciliators	366	378	12	3.3%	6	8	10	24	\$27.26
23-1023	Judges, Magistrate Judges, and Magistrates	2,488	2,497	9	0.4%	4	54	66	124	\$41.70
23-2011	Paralegals and Legal Assistants	10,605	10,799	194	1.8%	97	357	775	1,229	\$22.15
23-2093	Title Examiners, Abstractors, and Searchers	2,423	2,421	-2	-0.1%	-1	80	134	213	\$23.59
23-2099	Legal Support Workers, All Other	781	790	9	1.2%	4	26	44	74	\$25.33
<b>25-0000</b>	<b>Education, Training, and Library Occupations</b>	<b>328,438</b>	<b>324,510</b>	<b>-3,928</b>	<b>-1.2%</b>	<b>-1,964</b>	<b>9,190</b>	<b>11,828</b>	<b>19,054</b>	<b>\$26.62</b>
25-1011	Business Teachers, Postsecondary	3,937	4,016	79	2.0%	40	146	182	368	\$88,010 ***
25-1021	Computer Science Teachers, Postsecondary	1,117	1,131	14	1.3%	7	42	52	101	\$87,860 **
25-1022	Mathematical Science Teachers, Postsecondary	1,920	1,945	25	1.3%	12	71	88	171	\$74,740 **
25-1031	Architecture Teachers, Postsecondary	191	191	0	0.0%	0	7	9	16	\$85,400 **
25-1032	Engineering Teachers, Postsecondary	1,770	1,797	27	1.5%	14	66	82	162	\$103,600 ***
25-1042	Biological Science Teachers, Postsecondary	2,040	2,074	34	1.7%	17	76	94	187	\$79,600 **
25-1051	Atmospheric, Earth, Marine, and Space Sciences Teachers, Postsecondary	236	236	0	0.0%	0	8	11	19	\$88,710 **
25-1052	Chemistry Teachers, Postsecondary	854	854	0	0.0%	0	32	39	71	\$79,860 **
25-1053	Environmental Science Teachers, Postsecondary	109	108	-1	-0.9%	0	4	5	9	\$91,070 **
25-1054	Physics Teachers, Postsecondary	548	547	-1	-0.2%	0	20	25	45	\$90,400 ***
25-1061	Anthropology and Archeology Teachers, Postsecondary	181	181	0	0.0%	0	6	8	14	\$84,300 **
25-1062	Area, Ethnic, and Cultural Studies Teachers, Postsecondary	286	285	-1	-0.3%	0	10	13	23	\$77,370 **
25-1063	Economics Teachers, Postsecondary	466	464	-2	-0.4%	-1	17	22	38	\$104,150 **
25-1064	Geography Teachers, Postsecondary	193	191	-2	-1.0%	-1	7	9	15	\$84,520 **
25-1065	Political Science Teachers, Postsecondary	499	497	-2	-0.4%	-1	18	23	40	\$81,490 **
25-1066	Psychology Teachers, Postsecondary	1,511	1,531	20	1.3%	10	56	70	136	\$78,880 **
25-1067	Sociology Teachers, Postsecondary	529	532	3	0.6%	2	20	24	46	\$78,420 **
25-1069	Social Sciences Teachers, Postsecondary, All Other	300	308	8	2.7%	4	11	14	29	\$66,520 **
25-1071	Health Specialties Teachers, Postsecondary	10,477	10,831	354	3.4%	177	392	488	1,057	\$99,090 ***
25-1072	Nursing Instructors and Teachers, Postsecondary	3,354	3,499	145	4.3%	72	126	157	355	\$69,570 **
25-1081	Education Teachers, Postsecondary	2,813	2,804	-9	-0.3%	-4	104	129	229	\$64,720 **



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SOC Code <sup>1</sup>	Occupational Title**	Employment		Change in Employment		Annual Openings				Median Wage*** May 2020
		2020 Annual	2022 Projected	2020-2022	Percent	Change [1]	Exits [2]	Tranfers [3]	Total	
25-1082	Library Science Teachers, Postsecondary	124	124	0	0.0%	0	4	6	10	\$63,360 <sup>++</sup>
25-1111	Criminal Justice and Law Enforcement Teachers, Postsecondary	796	832	36	4.5%	18	30	38	86	\$57,910 <sup>++</sup>
25-1112	Law Teachers, Postsecondary	515	515	0	0.0%	0	19	24	43	\$116,430 <sup>+++</sup>
25-1113	Social Work Teachers, Postsecondary	673	672	-1	-0.1%	0	24	31	55	\$72,740 <sup>++</sup>
25-1121	Art, Drama, and Music Teachers, Postsecondary	3,825	3,790	-35	-0.9%	-18	140	174	296	\$68,300 <sup>++</sup>
25-1122	Communications Teachers, Postsecondary	1,212	1,218	6	0.5%	3	44	56	103	\$70,390 <sup>++</sup>
25-1123	English Language and Literature Teachers, Postsecondary	2,501	2,523	22	0.9%	11	92	115	218	\$64,020 <sup>++</sup>
25-1124	Foreign Language and Literature Teachers, Postsecondary	1,110	1,112	2	0.2%	1	41	51	93	\$66,810 <sup>++</sup>
25-1125	History Teachers, Postsecondary	933	938	5	0.5%	2	34	43	79	\$75,920 <sup>++</sup>
25-1126	Philosophy and Religion Teachers, Postsecondary	1,101	1,107	6	0.5%	3	40	50	93	\$75,800 <sup>++</sup>
25-1192	Home Economics Teachers, Postsecondary	168	166	-2	-1.2%	-1	6	8	13	\$67,800 <sup>++</sup>
25-1193	Recreation and Fitness Studies Teachers, Postsecondary	594	595	1	0.2%	0	22	28	50	\$63,750 <sup>++</sup>
25-1194	Vocational Education Teachers, Postsecondary	2,389	2,438	49	2.1%	24	89	110	223	\$23.87
25-1199	Postsecondary Teachers, All Other	2,587	2,603	16	0.6%	8	96	119	223	\$62,630 <sup>++</sup>
25-2011	Preschool Teachers, Except Special Education	16,175	15,687	-488	-3.0%	-244	631	968	1,355	\$13.69
25-2012	Kindergarten Teachers, Except Special Education	2,676	2,626	-50	-1.9%	-25	105	161	241	\$54,570 <sup>++</sup>
25-2021	Elementary School Teachers, Except Special Education	56,467	55,397	-1,070	-1.9%	-535	1,740	2,386	3,591	\$65,210 <sup>++</sup>
25-2022	Middle School Teachers, Except Special and Career/Technical Education	30,573	30,007	-566	-1.9%	-283	942	1,292	1,951	\$64,740 <sup>++</sup>
25-2031	Secondary School Teachers, Except Special and Career/Technical Education	47,037	46,290	-747	-1.6%	-374	1,296	1,972	2,894	\$66,420 <sup>++</sup>
25-2032	Career/Technical Education Teachers, Secondary School	4,018	3,932	-86	-2.1%	-43	110	168	235	\$72,800 <sup>++</sup>
25-2052	Special Education Teachers, Kindergarten and Elementary School	7,626	7,500	-126	-1.7%	-63	250	318	505	\$58,910 <sup>++</sup>
25-2057	Special Education Teachers, Middle School	3,814	3,736	-78	-2.0%	-39	20	20	1	\$58,530 <sup>++</sup>
25-2058	Special Education Teachers, Secondary School	7,722	7,739	17	0.2%	8	0	0	8	\$56,550 <sup>++</sup>
25-2059	Special Education Teachers, All Other	1,266	1,232	-34	-2.7%	-17	42	52	77	\$40,560 <sup>++</sup>
25-3011	Adult Basic and Secondary Education and Literacy Teachers and Instructors	1,007	953	-54	-5.4%	-27	56	55	84	\$23.77
25-3021	Self-Enrichment Education Teachers	12,595	11,408	-1,187	-9.4%	-594	693	675	774	\$15.17
25-3031	Substitute Teachers	12,131	12,326	195	1.6%	98	0	0	98	\$13.83
25-3097	Teachers and Instructors, All Other, Except Substitute Teachers	9,341	9,177	-164	-1.8%	-82	534	521	973	\$39,070 <sup>++</sup>
25-4011	Archivists	168	166	-2	-1.2%	-1	8	10	17	\$25.02
25-4012	Curators	329	324	-5	-1.5%	-2	15	21	34	\$25.97
25-4013	Museum Technicians and Conservators	289	290	1	0.3%	0	13	18	31	\$20.04
25-4022	Librarians and Media Collections Specialists	4,725	4,718	-7	-0.1%	-4	2	2	0	\$24.30
25-4031	Library Technicians	4,055	4,001	-54	-1.3%	-27	359	260	592	\$15.48
25-9031	Instructional Coordinators	4,252	4,291	39	0.9%	20	178	220	418	\$30.62
25-9041	Teacher Assistants	921	922	1	0.1%	0	49	48	97	▲
25-9045	Teaching Assistants, Except Postsecondary	42,635	42,382	-253	-0.6%	-126	63	64	1	\$27,860 <sup>++</sup>
25-9099	Education, Training, and Library Workers, All Other	2,580	2,574	-6	-0.2%	-3	108	132	237	\$22.44
27-0000	Arts, Design, Entertainment, Sports, and Media Occupations	89,778	87,077	-2,701	-3.0%	-1,350	3,622	6,139	8,411	\$21.69
27-1011	Art Directors	2,447	2,394	-53	-2.2%	-26	124	140	238	\$38.11
27-1012	Craft Artists	439	414	-25	-5.7%	-12	22	24	34	\$17.50
27-1013	Fine Artists, Including Painters, Sculptors, and Illustrators	1,138	1,104	-34	-3.0%	-17	58	64	105	\$24.40
27-1014	Multimedia Artists and Animators	943	920	-23	-2.4%	-12	48	54	90	\$26.09
27-1021	Commercial and Industrial Designers	1,316	1,304	-12	-0.9%	-6	42	88	124	\$30.72
27-1022	Fashion Designers	328	334	6	1.8%	3	10	22	35	\$28.52
27-1023	Floral Designers	2,029	1,833	-196	-9.7%	-98	62	130	94	\$11.67
27-1024	Graphic Designers	9,548	9,396	-152	-1.6%	-76	308	637	869	\$23.20
27-1025	Interior Designers	2,946	2,965	19	0.6%	10	96	199	305	\$27.32
27-1026	Merchandise Displayers and Window Trimmers	6,246	6,246	0	0.0%	0	203	420	623	\$15.61



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SOC Code <sup>1</sup>	Occupational Title**	Employment		Change in Employment		Annual Openings				Median Wage*** May 2020
		2020 Annual	2022 Projected	2020-2022	Percent	Change [1]	Exits [2]	Tranfers [3]	Total	
27-1027	Set and Exhibit Designers	513	503	-10	-1.9%	-5	16	34	45	\$22.54
27-2011	Actors	645	612	-33	-5.1%	-16	24	50	58	\$22.12
27-2012	Producers and Directors	2,301	2,146	-155	-6.7%	-78	48	170	140	\$25.36
27-2021	Athletes and Sports Competitors	137	124	-13	-9.5%	-6	8	12	14	\$97,500 <sup>++</sup>
27-2022	Coaches and Scouts	14,907	14,384	-523	-3.5%	-262	828	1,310	1,876	\$26,800 <sup>++</sup>
27-2041	Music Directors and Composers	2,384	2,344	-40	-1.7%	-20	136	146	262	\$21.44
27-2042	Musicians and Singers	6,297	6,104	-193	-3.1%	-96	356	384	644	\$33.57
27-3011	Radio and Television Announcers	1,437	1,288	-149	-10.4%	-74	56	101	83	\$17.68 <sup>+</sup>
27-3023	News Analysts, Reporters, and Journalists	1,504	1,284	-220	-14.6%	-110	55	55	0	\$18.85
27-3031	Public Relations Specialists	8,261	8,200	-61	-0.7%	-30	243	612	825	\$29.68
27-3041	Editors	2,807	2,518	-289	-10.3%	-144	81	210	147	\$25.56
27-3042	Technical Writers	1,597	1,595	-2	-0.1%	-1	50	105	154	\$32.56
27-3043	Writers and Authors	3,037	2,970	-67	-2.2%	-34	128	185	279	\$25.00
27-3091	Interpreters and Translators	2,987	3,093	106	3.5%	53	135	170	358	\$20.39
27-3092	Court Reporters and Simultaneous Captioners	361	363	2	0.6%	1	0	0	1	\$27.06
27-3099	Media and Communication Workers, All Other	2,049	1,866	-183	-8.9%	-92	87	110	105	\$18.44
27-4011	Audio and Video Equipment Technicians	2,108	2,007	-101	-4.8%	-50	68	152	170	\$21.42
27-4012	Broadcast Technicians	706	661	-45	-6.4%	-22	22	50	50	\$21.74
27-4014	Sound Engineering Technicians	196	176	-20	-10.2%	-10	6	14	10	\$24.59
27-4021	Photographers	4,984	4,842	-142	-2.8%	-71	188	298	415	\$18.10
27-4031	Camera Operators, Television, Video, and Motion Picture	485	474	-11	-2.3%	-6	12	34	40	\$26.90
27-4032	Film and Video Editors	427	430	3	0.7%	2	12	30	44	\$26.98
27-4098	Lighting Technicians and Media and Communication Equipment Workers, All Other	271	260	-11	-4.1%	-6	2	3	0	\$33.74
<b>29-0000</b>	<b>Healthcare Practitioners and Technical Occupations</b>	<b>374,602</b>	<b>381,496</b>	<b>6,894</b>	<b>1.8%</b>	<b>3,447</b>	<b>8,420</b>	<b>9,796</b>	<b>21,663</b>	<b>\$30.52</b>
29-1011	Chiropractors	2,103	2,094	-9	-0.4%	-4	37	20	53	\$36.90
29-1021	Dentists, General	3,975	3,930	-45	-1.1%	-22	85	34	97	\$87.53
29-1023	Orthodontists	206	204	-2	-1.0%	-1	4	2	5	▲
29-1029	Dentists, All Other Specialists	145	147	2	1.4%	1	3	2	6	\$88.12
29-1031	Dietitians and Nutritionists	2,667	2,710	43	1.6%	22	87	82	191	\$30.33
29-1041	Optometrists	1,644	1,642	-2	-0.1%	-1	30	18	47	\$55.29
29-1051	Pharmacists	12,567	12,443	-124	-1.0%	-62	295	267	500	\$59.78
29-1071	Physician Assistants	4,720	5,036	316	6.7%	158	75	202	435	\$52.50
29-1081	Podiatrists	425	426	1	0.2%	0	10	14	24	\$72.60
29-1122	Occupational Therapists	5,794	5,926	132	2.3%	66	131	198	395	\$41.48
29-1123	Physical Therapists	8,874	9,080	206	2.3%	103	164	210	477	\$43.12
29-1124	Radiation Therapists	585	601	16	2.7%	8	9	20	37	\$40.86
29-1125	Recreational Therapists	697	695	-2	-0.3%	-1	14	19	32	\$22.94
29-1126	Respiratory Therapists	6,386	6,646	260	4.1%	130	179	165	474	\$28.55
29-1127	Speech-Language Pathologists	6,466	6,749	283	4.4%	142	130	223	495	\$36.64
29-1128	Exercise Physiologists	623	631	8	1.3%	4	14	20	38	\$24.17
29-1129	Therapists, All Other	1,035	1,055	20	1.9%	10	24	34	68	\$27.55
29-1131	Veterinarians	3,063	3,111	48	1.6%	24	58	60	142	\$48.52
29-1141	Registered Nurses	129,173	132,093	2,920	2.3%	1,460	3,625	3,350	8,435	\$32.49
29-1151	Nurse Anesthetists	2,526	2,632	106	4.2%	53	40	87	180	\$83.94
29-1161	Nurse Midwives	342	354	12	3.5%	6	7	12	25	\$47.68
29-1171	Nurse Practitioners	9,277	9,807	530	5.7%	265	188	322	775	\$50.68
29-1211	Anesthesiologists	1,174	1,213	39	3.3%	20	0	0	20	#
29-1215	Family Medicine Physicians	2,989	3,110	121	4.0%	60	0	0	60	\$85.34

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29-1216	General Internal Medicine Physicians	1,891	1,955	64	3.4%	32	0	0	32	\$92.98
29-1218	Obstetricians and Gynecologists	872	904	32	3.7%	16	0	0	16	#
29-1221	Pediatricians, General	1,886	1,947	61	3.2%	30	0	0	30	\$77.85
29-1223	Psychiatrists	817	855	38	4.7%	19	0	0	19	\$98.29
29-1228	Physicians, All Other; and Ophthalmologists, Except Pediatric	17,268	17,779	511	3.0%	256	0	0	256	#
29-1248	Surgeons, Except Ophthalmologists	1,610	1,663	53	3.3%	26	0	0	26	#
29-1292	Dental Hygienists	9,531	9,423	-108	-1.1%	-54	27	27	0	\$33.35
29-1298	Acupuncturists and Healthcare Diagnosing or Treating Practitioners, All Other	639	656	17	2.7%	8	0	0	8	\$40.56
29-2010	Clinical Laboratory Technologists and Technicians	11,433	11,699	266	2.3%	133	318	410	861	\$25.94
29-2031	Cardiovascular Technologists and Technicians	1,872	1,910	38	2.0%	19	46	57	122	\$28.41
29-2032	Diagnostic Medical Sonographers	3,022	3,155	133	4.4%	66	76	94	236	\$36.50
29-2033	Nuclear Medicine Technologists	886	907	21	2.4%	10	22	27	59	\$35.79
29-2034	Radiologic Technologists	8,547	8,753	206	2.4%	103	213	262	578	\$28.31
29-2035	Magnetic Resonance Imaging Technologists	1,396	1,430	34	2.4%	17	35	42	94	\$32.53
29-2040	Emergency Medical Technicians and Paramedics	9,294	9,424	130	1.4%	65	0	0	65	\$16.13
29-2051	Dietetic Technicians	1,394	1,387	-7	-0.5%	-4	40	72	108	\$14.77
29-2052	Pharmacy Technicians	16,334	16,312	-22	-0.1%	-11	472	844	1,305	\$14.91
29-2053	Psychiatric Technicians	1,572	1,620	48	3.1%	24	46	82	152	\$16.06
29-2055	Surgical Technologists	3,789	3,884	95	2.5%	48	111	198	357	\$23.02
29-2056	Veterinary Technologists and Technicians	3,656	3,721	65	1.8%	32	106	191	329	\$17.14
29-2057	Ophthalmic Medical Technicians	2,596	2,681	85	3.3%	42	76	136	254	\$18.09
29-2061	Licensed Practical and Licensed Vocational Nurses	41,578	41,354	-224	-0.5%	-112	1,408	1,752	3,048	\$22.33
29-2081	Opticians, Dispensing	3,317	3,295	-22	-0.7%	-11	130	131	250	\$21.02
29-2098	Healthcare Practitioners and Technical Workers, All Other	16,882	17,296	414	2.5%	207	0	0	207	\$20.49
29-9091	Athletic Trainers	1,338	1,367	29	2.2%	14	31	45	90	\$48,560 **
<b>31-0000</b>	<b>Healthcare Support Occupations</b>	<b>231,487</b>	<b>235,279</b>	<b>3,792</b>	<b>1.6%</b>	<b>1,896</b>	<b>3,304</b>	<b>5,234</b>	<b>10,434</b>	<b>\$13.43</b>
31-1014	Nursing Assistants	396	395	-1	-0.3%	0	22	23	45	▲
31-1120	Home Health and Personal Care Aides	94,929	97,524	2,595	2.7%	1,298	0	0	1,298	\$11.41
31-1131	Nursing Assistants	63,645	62,834	-811	-1.3%	-406	202	203	0	\$14.11
31-1132	Orderlies	2,426	2,481	55	2.3%	28	0	0	28	\$14.00
31-1133	Psychiatric Aides	1,033	1,068	35	3.4%	18	0	0	18	\$18.08
31-2011	Occupational Therapy Assistants	4,054	4,238	184	4.5%	92	180	270	542	\$29.34
31-2012	Occupational Therapy Aides	206	211	5	2.4%	2	9	14	25	\$15.79
31-2021	Physical Therapist Assistants	6,263	6,435	172	2.7%	86	273	514	873	\$29.19
31-2022	Physical Therapist Aides	649	663	14	2.2%	7	28	53	88	\$13.55
31-9011	Massage Therapists	3,382	3,470	88	2.6%	44	214	184	442	\$23.08
31-9091	Dental Assistants	10,784	10,697	-87	-0.8%	-44	497	706	1,159	\$19.42
31-9092	Medical Assistants	26,150	27,407	1,257	4.8%	628	1,046	1,904	3,578	\$16.42
31-9093	Medical Equipment Preparers	2,140	2,180	40	1.9%	20	106	139	265	\$17.93
31-9094	Medical Transcriptionists	1,511	1,495	-16	-1.1%	-8	91	118	201	\$18.42
31-9095	Pharmacy Aides	703	674	-29	-4.1%	-14	34	54	74	\$12.37
31-9096	Veterinary Assistants and Laboratory Animal Caretakers	3,860	3,922	62	1.6%	31	212	416	659	\$13.12
31-9097	Phlebotomists	6,211	6,457	246	4.0%	123	236	434	793	\$16.65
31-9099	Healthcare Support Workers, All Other	3,071	3,055	-16	-0.5%	-8	151	198	341	\$20.79
<b>33-0000</b>	<b>Protective Service Occupations</b>	<b>114,388</b>	<b>113,203</b>	<b>-1,185</b>	<b>-1.0%</b>	<b>-592</b>	<b>4,424</b>	<b>6,375</b>	<b>10,207</b>	<b>\$22.09</b>
33-1011	First-Line Supervisors of Correctional Officers	585	576	-9	-1.5%	-4	18	22	36	\$34.47
33-1012	First-Line Supervisors of Police and Detectives	2,601	2,630	29	1.1%	14	64	98	176	\$41.98
33-1021	First-Line Supervisors of Fire Fighting and Prevention Workers	2,245	2,271	26	1.2%	13	56	87	156	\$38.44

# Ohio Occupational Employment\* Projections Report, 2020-2022

SOC Code <sup>1</sup>	Occupational Title**	Employment		Change in Employment		Annual Openings				Median Wage*** May 2020
		2020 Annual	2022 Projected	2020-2022	Percent	Change [1]	Exits [2]	Transfers [3]	Total	
33-2011	Firefighters	18,691	18,898	207	1.1%	104	338	940	1,382	\$24.70
33-2021	Fire Inspectors and Investigators	294	298	4	1.4%	2	12	15	29	\$28.21
33-3011	Bailiffs	1,364	1,367	3	0.2%	2	52	68	122	\$23.32
33-3012	Correctional Officers and Jailers	13,912	13,639	-273	-2.0%	-136	524	690	1,078	\$23.38
33-3021	Detectives and Criminal Investigators	1,996	2,012	16	0.8%	8	42	86	136	\$37.03
33-3031	Fish and Game Wardens	141	140	-1	-0.7%	0	4	6	10	\$33.28
33-3041	Parking Enforcement Workers	121	112	-9	-7.4%	-4	2	6	4	\$19.95
33-3051	Police and Sheriff's Patrol Officers	24,300	24,556	256	1.1%	128	587	1,127	1,842	\$31.41
33-3052	Transit and Railroad Police	156	158	2	1.3%	1	4	7	12	\$38.14
33-9011	Animal Control Workers	325	326	1	0.3%	0	14	17	31	\$16.80
33-9021	Private Detectives and Investigators	1,574	1,572	-2	-0.1%	-1	53	84	136	\$24.40
33-9031	Gaming Surveillance Officers and Gaming Investigators	264	251	-13	-4.9%	-6	13	20	27	\$32.44
33-9032	Security Guards	29,244	28,325	-919	-3.1%	-460	1,468	2,236	3,244	\$14.05
33-9091	Crossing Guards	2,678	2,652	-26	-1.0%	-13	314	123	424	\$13.41
33-9092	Lifeguards, Ski Patrol, and Other Recreational Protective Service Workers	6,151	5,795	-356	-5.8%	-178	786	656	1,264	\$9.78
33-9093	Transportation Security Screeners	869	886	17	2.0%	8	36	46	90	\$21.23
33-9098	School Bus Monitors and Protective Service Workers, All Other	4,479	4,404	-75	-1.7%	-38	18	19	0	\$14.17
<b>35-0000</b>	<b>Food Preparation and Serving Related Occupations</b>	<b>488,290</b>	<b>456,642</b>	<b>-31,648</b>	<b>-6.5%</b>	<b>-15,824</b>	<b>22,088</b>	<b>35,162</b>	<b>41,426</b>	<b>\$10.32</b>
35-1011	Chefs and Head Cooks	3,470	3,266	-204	-5.9%	-102	102	339	339	\$22.52
35-1012	First-Line Supervisors of Food Preparation and Serving Workers	40,998	38,465	-2,533	-6.2%	-1,266	1,731	4,334	4,799	\$14.84
35-2011	Cooks, Fast Food	17,691	15,986	-1,705	-9.6%	-852	894	1,488	1,530	\$10.77
35-2012	Cooks, Institution and Cafeteria	20,456	19,609	-847	-4.1%	-424	1,064	1,770	2,410	\$13.58
35-2013	Cooks, Private Household	449	450	1	0.2%	0	24	40	64	\$15.69 +
35-2014	Cooks, Restaurant	41,085	39,121	-1,964	-4.8%	-982	2,128	3,544	4,690	\$12.32
35-2015	Cooks, Short Order	6,275	5,720	-555	-8.8%	-278	318	530	570	\$11.16
35-2019	Cooks, All Other	163	152	-11	-6.7%	-6	8	14	16	\$13.23
35-2021	Food Preparation Workers	24,622	23,507	-1,115	-4.5%	-558	1,764	2,398	3,604	\$10.93
35-3011	Bartenders	24,041	22,089	-1,952	-8.1%	-976	1,078	2,978	3,080	\$9.59
35-3023	Fast Food and Counter Workers	169,786	158,780	-11,006	-6.5%	-5,503	2,752	2,752	1	\$9.79
35-3031	Waiters and Waitresses	84,944	78,541	-6,403	-7.5%	-3,202	5,673	10,016	12,487	\$9.56
35-3041	Food Servers, Nonrestaurant	13,335	12,825	-510	-3.8%	-255	962	1,080	1,787	\$10.92
35-9011	Dining Room and Cafeteria Attendants and Bartender Helpers	9,586	8,896	-690	-7.2%	-345	762	818	1,235	\$9.85
35-9021	Dishwashers	14,128	13,029	-1,099	-7.8%	-550	1,010	1,144	1,604	\$10.31
35-9031	Hosts and Hostesses, Restaurant, Lounge, and Coffee Shop	15,474	14,500	-974	-6.3%	-487	1,674	1,759	2,946	\$9.70
35-9099	Food Preparation and Serving Related Workers, All Other	1,747	1,666	-81	-4.6%	-40	140	151	251	\$9.73
<b>37-0000</b>	<b>Building and Grounds Cleaning and Maintenance Occupations</b>	<b>177,355</b>	<b>174,961</b>	<b>-2,394</b>	<b>-1.3%</b>	<b>-1,197</b>	<b>9,899</b>	<b>13,078</b>	<b>21,780</b>	<b>\$13.54</b>
37-1011	First-Line Supervisors of Housekeeping and Janitorial Workers	6,301	6,216	-85	-1.3%	-42	263	447	668	\$19.74
37-1012	First-Line Supervisors of Landscaping, Lawn Service, and Groundskeeping Workers	5,527	5,473	-54	-1.0%	-27	190	409	572	\$23.27
37-2011	Janitors and Cleaners, Except Maids and Housekeeping Cleaners	80,887	80,192	-695	-0.9%	-348	4,925	5,682	10,259	\$13.28
37-2012	Maids and Housekeeping Cleaners	37,392	36,221	-1,171	-3.1%	-586	2,605	2,352	4,371	\$11.35
37-3011	Landscaping and Groundskeeping Workers	43,395	43,020	-375	-0.9%	-188	1,770	3,826	5,408	\$14.58
37-3012	Pesticide Handlers, Sprayers, and Applicators, Vegetation	840	839	-1	-0.1%	0	34	74	108	\$17.64
37-3013	Tree Trimmers and Pruners	1,113	1,112	-1	-0.1%	0	46	98	144	\$21.44
37-3019	Grounds Maintenance Workers, All Other	160	160	0	0.0%	0	6	14	20	\$20.28
<b>39-0000</b>	<b>Personal Care and Service Occupations</b>	<b>144,216</b>	<b>139,854</b>	<b>-4,362</b>	<b>-3.0%</b>	<b>-2,181</b>	<b>9,506</b>	<b>11,416</b>	<b>18,741</b>	<b>\$11.58</b>
39-1013	First-Line Supervisors of Gambling Services Workers	376	360	-16	-4.3%	-8	4	4	0	\$24.96
39-1021	First-Line Supervisors of Personal Service Workers	570	569	-1	-0.2%	0	23	32	55	▲
39-1098	First-Line Supervisors of Personal Service and EWorkers, Except Gambling Services	6,211	6,067	-144	-2.3%	-72	36	36	0	\$17.56

# Ohio Occupational Employment\* Projections Report, 2020-2022

SOC Code <sup>1</sup>	Occupational Title**	Employment		Change in Employment		Annual Openings				Median Wage*** May 2020
		2020 Annual	2022 Projected	2020-2022	Percent	Change [1]	Exits [2]	Transfers [3]	Total	
39-2011	Animal Trainers	819	802	-17	-2.1%	-8	46	72	110	\$12.14
39-2021	Nonfarm Animal Caretakers	10,294	9,854	-440	-4.3%	-220	700	932	1,412	\$11.03
39-3011	Gaming Dealers	1,116	1,063	-53	-4.7%	-26	66	102	142	\$9.21
39-3019	Gaming Service Workers, All Other	118	110	-8	-6.8%	-4	7	10	13	\$11.77
39-3031	Ushers, Lobby Attendants, and Ticket Takers	3,415	3,272	-143	-4.2%	-72	437	376	741	\$9.86
39-3091	Amusement and Recreation Attendants	9,486	9,065	-421	-4.4%	-210	986	1,150	1,926	\$9.60
39-3093	Locker Room, Coatroom, and Dressing Room Attendants	474	439	-35	-7.4%	-18	48	56	86	\$10.81
39-3099	Entertainment Attendants and Related Workers, All Other	149	148	-1	-0.7%	0	16	18	34	\$26.43
39-4011	Embalmers	222	216	-6	-2.7%	-3	20	14	31	\$20.69
39-4021	Funeral Attendants	2,370	2,328	-42	-1.8%	-21	220	156	355	\$14.01
39-4031	Morticians, Undertakers, and Funeral Directors	1,694	1,665	-29	-1.7%	-14	85	115	186	\$27.36
39-5012	Hairdressers, Hairstylists, and Cosmetologists	29,493	28,779	-714	-2.4%	-357	1,768	1,861	3,272	\$11.37
39-5092	Manicurists and Pedicurists	2,989	2,922	-67	-2.2%	-34	164	173	303	\$10.54
39-5094	Skincare Specialists	1,426	1,410	-16	-1.1%	-8	78	83	153	\$15.52
39-6011	Baggage Porters and Bellhops	596	564	-32	-5.4%	-16	30	52	66	\$10.49
39-6012	Concierges	716	713	-3	-0.4%	-2	37	65	100	\$14.28
39-7010	Tour and Travel Guides	834	718	-116	-13.9%	-58	60	76	78	\$11.09
39-9011	Childcare Workers	36,124	35,057	-1,067	-3.0%	-534	2,632	2,678	4,776	\$10.90
39-9021	Personal Care Aides	2,745	2,736	-9	-0.3%	-4	202	180	378	▲
39-9031	Fitness Trainers and Aerobics Instructors	10,307	9,511	-796	-7.7%	-398	591	1,055	1,248	\$13.66
39-9032	Recreation Workers	14,773	14,640	-133	-0.9%	-66	877	1,566	2,377	\$11.84
39-9041	Residential Advisors	3,238	3,304	66	2.0%	33	180	317	530	\$14.80
39-9098	Crematory Operators and Personal Care and Service Workers, All Other	718	659	-59	-8.2%	-30	14	15	0	\$11.26
39-9099	Personal Care and Service Workers, All Other	1,216	1,217	1	0.1%	0	76	102	178	▲
<b>41-0000</b>	<b>Sales and Related Occupations</b>	<b>524,766</b>	<b>512,675</b>	<b>-12,091</b>	<b>-2.3%</b>	<b>-6,046</b>	<b>26,890</b>	<b>41,016</b>	<b>61,860</b>	<b>\$14.42</b>
41-1011	First-Line Supervisors of Retail Sales Workers	48,586	47,162	-1,424	-2.9%	-712	1,654	3,608	4,550	\$19.18
41-1012	First-Line Supervisors of Non-Retail Sales Workers	12,960	12,678	-282	-2.2%	-141	414	810	1,083	\$37.40
41-2011	Cashiers	114,518	111,042	-3,476	-3.0%	-1,738	10,066	11,209	19,537	\$10.85
41-2021	Counter and Rental Clerks	12,383	11,787	-596	-4.8%	-298	612	938	1,252	\$13.46
41-2031	Retail Salespersons	144,694	139,803	-4,891	-3.4%	-2,446	8,175	12,603	18,332	\$11.96
41-3011	Advertising Sales Agents	3,595	3,367	-228	-6.3%	-114	110	362	358	\$23.94
41-3021	Insurance Sales Agents	19,864	20,398	534	2.7%	267	741	1,215	2,223	\$26.65
41-3031	Securities, Commodities, and Financial Services Sales Agents	16,031	16,224	193	1.2%	96	416	1,111	1,623	\$27.46
41-3041	Travel Agents	1,589	625	-964	-60.7%	-482	241	241	0	\$17.62
41-3091	Sales Representatives, Services, Ex. Advertising, Insurance, Financial, and Travel	33,278	32,798	-480	-1.4%	-240	120	120	0	\$26.56
41-3099	Sales Representatives, Services, All Other	250	251	1	0.4%	0	8	24	32	▲
41-4011	Sales Rep., Wholesale & Mfg, Tech./Sci. Prod.	13,060	13,122	62	0.5%	31	398	975	1,404	\$43.38
41-4012	Sales Rep., Wholesale/Mfg, ex. Tech./Sci. Prod.	57,569	57,150	-419	-0.7%	-210	1,745	4,272	5,807	\$29.13
41-9011	Demonstrators and Product Promoters	1,677	1,691	14	0.8%	7	170	118	295	\$14.79
41-9021	Real Estate Brokers	1,791	1,862	71	4.0%	36	82	91	209	\$25.51
41-9022	Real Estate Sales Agents	14,199	14,757	558	3.9%	279	654	722	1,655	\$19.23
41-9031	Sales Engineers	2,020	1,992	-28	-1.4%	-14	48	174	208	\$44.18
41-9041	Telemarketers	11,365	10,889	-476	-4.2%	-238	536	1,212	1,510	\$11.43
41-9099	Sales and Related Workers, All Other	3,003	2,927	-76	-2.5%	-38	127	260	349	\$13.38
<b>43-0000</b>	<b>Office and Administrative Support Occupations</b>	<b>739,654</b>	<b>730,680</b>	<b>-8,974</b>	<b>-1.2%</b>	<b>-4,487</b>	<b>35,490</b>	<b>49,584</b>	<b>80,587</b>	<b>\$18.14</b>
43-1011	First-Line Supervisors of Office and Administrative Support Workers	47,759	47,449	-310	-0.6%	-155	1,785	3,202	4,832	\$27.28
43-2011	Switchboard Operators, Including Answering Service	2,765	2,617	-148	-5.4%	-74	154	179	259	\$14.77
43-2021	Telephone Operators	447	432	-15	-3.4%	-8	22	38	52	\$13.86

## Ohio Occupational Employment\* Projections Report, 2020-2022

SOC Code <sup>1</sup>	Occupational Title**	Employment		Change in Employment		Annual Openings				Median Wage*** May 2020
		2020 Annual	2022 Projected	2020-2022	Percent	Change [1]	Exits [2]	Tranfers [3]	Total	
43-2099	Communications Equipment Operators, All Other	103	102	-1	-1.0%	0	3	8	11	\$20.13
43-3011	Bill and Account Collectors	10,123	9,929	-194	-1.9%	-97	390	808	1,101	\$17.10
43-3021	Billing and Posting Clerks	19,859	20,240	381	1.9%	190	825	1,352	2,367	\$17.96
43-3031	Bookkeeping, Accounting, and Auditing Clerks	57,412	56,356	-1,056	-1.8%	-528	3,461	3,166	6,099	\$19.44
43-3041	Gaming Cage Workers	297	283	-14	-4.7%	-7	14	26	33	\$13.26
43-3051	Payroll and Timekeeping Clerks	5,288	5,217	-71	-1.3%	-36	247	330	541	\$22.16
43-3061	Procurement Clerks	3,183	3,143	-40	-1.3%	-20	108	220	308	\$20.11
43-3071	Tellers	17,081	16,667	-414	-2.4%	-207	827	1,206	1,826	\$15.05
43-3099	Financial Clerks, All Other	1,384	1,398	14	1.0%	7	46	104	157	\$21.90
43-4011	Brokerage Clerks	1,835	1,858	23	1.3%	12	88	104	204	\$25.57
43-4021	Correspondence Clerks	259	259	0	0.0%	0	11	19	30	\$17.47
43-4031	Court, Municipal, and License Clerks	9,834	9,937	103	1.0%	52	447	470	969	\$18.44
43-4041	Credit Authorizers, Checkers, and Clerks	1,020	1,007	-13	-1.3%	-6	32	69	95	\$17.89
43-4051	Customer Service Representatives	111,303	110,083	-1,220	-1.1%	-610	5,316	9,436	14,142	\$17.23
43-4061	Eligibility Interviewers, Government Programs	4,620	4,675	55	1.2%	28	179	262	469	\$21.99
43-4071	File Clerks	3,184	3,094	-90	-2.8%	-45	182	206	343	\$17.57
43-4081	Hotel, Motel, and Resort Desk Clerks	6,191	5,666	-525	-8.5%	-262	325	679	742	\$11.17
43-4111	Interviewers, Except Eligibility and Loan	7,110	7,144	34	0.5%	17	362	516	895	\$15.52
43-4121	Library Assistants, Clerical	4,996	4,943	-53	-1.1%	-26	395	354	723	\$11.81
43-4131	Loan Interviewers and Clerks	7,957	8,036	79	1.0%	40	298	512	850	\$19.63
43-4141	New Accounts Clerks	970	962	-8	-0.8%	-4	40	72	108	\$17.16
43-4151	Order Clerks	6,227	6,396	169	2.7%	84	264	463	811	\$16.94
43-4161	Human Resources Assistants, Except Payroll and Timekeeping	4,584	4,515	-69	-1.5%	-34	166	350	482	\$19.41
43-4171	Receptionists and Information Clerks	37,125	36,760	-365	-1.0%	-182	2,150	2,812	4,780	\$13.84
43-4181	Reservation and Transportation Ticket Agents and Travel Clerks	1,828	1,683	-145	-7.9%	-72	73	126	127	\$17.71
43-4199	Information and Record Clerks, All Other	3,207	3,245	38	1.2%	19	156	216	391	\$21.53
43-5011	Cargo and Freight Agents	3,179	3,143	-36	-1.1%	-18	112	187	281	\$20.01
43-5021	Couriers and Messengers	2,990	3,116	126	4.2%	63	120	170	353	\$14.01
43-5031	Police, Fire, and Ambulance Dispatchers	4,473	4,519	46	1.0%	23	158	268	449	\$23.01
43-5032	Dispatchers, Except Police, Fire, and Ambulance	7,336	7,361	25	0.3%	12	258	437	707	\$20.14
43-5041	Meter Readers, Utilities	2,025	1,897	-128	-6.3%	-64	83	110	129	\$21.24
43-5051	Postal Service Clerks	2,573	2,412	-161	-6.3%	-80	104	86	110	\$24.11
43-5052	Postal Service Mail Carriers	12,743	11,943	-800	-6.3%	-400	450	466	516	\$24.38
43-5053	Postal Service Mail Sorters, Processors, and Processing Machine Operators	3,648	3,386	-262	-7.2%	-131	162	130	161	\$24.11
43-5061	Production, Planning, and Expediting Clerks	20,028	19,943	-85	-0.4%	-42	662	1,420	2,040	\$23.72
43-5071	Shipping, Receiving, and Traffic Clerks	39,712	39,918	206	0.5%	103	1,330	2,622	4,055	\$16.79
43-5111	Weighers, Measurers, Checkers, and Samplers, Recordkeeping	1,674	1,734	60	3.6%	30	78	116	224	\$18.41
43-6011	Executive Secretaries and Executive Administrative Assistants	15,242	14,530	-712	-4.7%	-356	763	904	1,311	\$28.43
43-6012	Legal Secretaries	4,644	4,427	-217	-4.7%	-108	232	275	399	\$19.02
43-6013	Medical Secretaries	31,911	32,797	886	2.8%	443	1,658	1,963	4,064	\$17.07
43-6014	Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	62,789	61,094	-1,695	-2.7%	-848	3,174	3,758	6,084	\$17.84
43-9021	Data Entry Keyers	5,435	5,126	-309	-5.7%	-154	238	371	455	\$15.65
43-9022	Word Processors and Typists	1,232	1,145	-87	-7.1%	-44	72	73	101	\$19.34
43-9031	Desktop Publishers	302	286	-16	-5.3%	-8	12	22	26	\$25.49
43-9041	Insurance Claims and Policy Processing Clerks	11,678	12,034	356	3.0%	178	438	741	1,357	\$19.29
43-9051	Mail Clerks and Mail Machine Operators, Except Postal Service	3,498	3,416	-82	-2.3%	-41	166	216	341	\$15.79
43-9061	Office Clerks, General	116,552	114,346	-2,206	-1.9%	-1,103	6,454	7,364	12,715	\$16.99
43-9071	Office Machine Operators, Except Computer	2,778	2,722	-56	-2.0%	-28	165	185	322	\$15.97

# Ohio Occupational Employment\* Projections Report, 2020-2022

SOC Code <sup>1</sup>	Occupational Title**	Employment		Change in Employment		Annual Openings				Median Wage*** May 2020
		2020 Annual	2022 Projected	2020-2022	Percent	Change [1]	Exits [2]	Tranfers [3]	Total	
43-9111	Statistical Assistants	545	541	-4	-0.7%	-2	22	45	65	\$23.11
43-9199	Office and Administrative Support Workers, All Other	4,196	4,220	24	0.6%	12	177	312	501	\$19.46
45-0000	Farming, Fishing, and Forestry Occupations	15,348	15,334	-14	-0.1%	-7	607	1,864	2,464	\$15.82
45-1011	First-Line Supervisors of Farming, Fishing, and Forestry Workers	854	850	-4	-0.5%	-2	31	95	124	\$29.17
45-2011	Agricultural Inspectors	348	348	0	0.0%	0	15	36	51	\$25.43
45-2041	Graders and Sorters, Agricultural Products	753	752	-1	-0.1%	0	30	80	110	\$13.32
45-2091	Agricultural Equipment Operators	1,412	1,436	24	1.7%	12	56	176	244	\$19.54
45-2092	Farmworkers and Laborers, Crop, Nursery, and Greenhouse	9,593	9,604	11	0.1%	6	381	1,186	1,573	\$13.86
45-2093	Farmworkers, Farm, Ranch, and Aquacultural Animals	1,430	1,415	-15	-1.0%	-8	56	176	224	\$14.53
45-4022	Logging Equipment Operators	330	317	-13	-3.9%	-6	12	39	45	\$18.40
45-4023	Log Graders and Scalars	145	138	-7	-4.8%	-4	6	17	19	\$15.32
47-0000	Construction and Extraction Occupations	204,403	212,950	8,547	4.2%	4,274	6,658	16,220	27,152	\$24.31
47-1011	First-Line Supervisors of Construction Trades and Extraction Workers	15,214	15,768	554	3.6%	277	462	1,148	1,887	\$32.79
47-2011	Boilermakers	817	827	10	1.2%	5	22	60	87	\$37.62
47-2021	Brickmasons and Blockmasons	3,789	4,087	298	7.9%	149	113	280	542	\$27.03
47-2022	Stonemasons	306	323	17	5.6%	8	9	22	39	\$19.07
47-2031	Carpenters	24,872	25,483	611	2.5%	306	788	1,818	2,912	\$23.81
47-2041	Carpet Installers	809	797	-12	-1.5%	-6	23	56	73	\$18.55
47-2042	Floor Layers, Except Carpet, Wood, and Hard Tiles	1,209	1,303	94	7.8%	47	36	86	169	\$20.91
47-2044	Tile and Marble Setters	914	968	54	5.9%	27	27	65	119	\$21.88
47-2051	Cement Masons and Concrete Finishers	5,583	5,976	393	7.0%	196	169	438	803	\$24.99
47-2061	Construction Laborers	42,515	44,209	1,694	4.0%	847	1,450	3,372	5,669	\$20.67
47-2071	Paving, Surfacing, and Tamping Equipment Operators	1,170	1,213	43	3.7%	22	54	94	170	\$21.33
47-2073	Operating Engineers and Other Construction Equipment Operators	13,262	13,519	257	1.9%	128	454	1,090	1,672	\$25.59
47-2081	Drywall and Ceiling Tile Installers	1,375	1,436	61	4.4%	30	41	98	169	\$24.87
47-2082	Tapers	149	156	7	4.7%	4	4	10	18	\$27.62
47-2111	Electricians	26,994	28,533	1,539	5.7%	770	853	2,364	3,987	\$25.72
47-2121	Glaziers	1,262	1,352	90	7.1%	45	42	107	194	\$23.82
47-2131	Insulation Workers, Floor, Ceiling, and Wall	935	976	41	4.4%	20	22	87	129	\$21.85
47-2132	Insulation Workers, Mechanical	619	659	40	6.5%	20	15	58	93	\$27.48
47-2141	Painters, Construction and Maintenance	8,813	9,198	385	4.4%	192	312	600	1,104	\$20.15
47-2142	Paperhangers	238	239	1	0.4%	0	8	16	24	\$20.06
47-2151	Pipelayers	874	901	27	3.1%	14	26	72	112	\$23.18
47-2152	Plumbers, Pipefitters, and Steamfitters	14,645	15,580	935	6.4%	468	442	1,234	2,144	\$28.19
47-2161	Plasterers and Stucco Masons	187	198	11	5.9%	6	4	13	23	\$23.85
47-2181	Roofers	5,706	6,237	531	9.3%	266	153	464	883	\$21.80
47-2211	Sheet Metal Workers	4,359	4,583	224	5.1%	112	132	352	596	\$26.26
47-2221	Structural Iron and Steel Workers	3,205	3,433	228	7.1%	114	93	300	507	\$29.27
47-3011	Helpers--Brickmasons, Blockmasons, Stonemasons, and Tile and Marble Setters	463	499	36	7.8%	18	16	49	83	\$17.93
47-3012	Helpers--Carpenters	314	301	-13	-4.1%	-6	10	32	36	\$14.87
47-3013	Helpers--Electricians	818	872	54	6.6%	27	28	86	141	\$15.51
47-3014	Helpers--Painters, Paperhangers, Plasterers, and Stucco Masons	125	132	7	5.6%	4	4	13	21	\$14.05
47-3015	Helpers--Pipelayers, Plumbers, Pipefitters, and Steamfitters	922	1,003	81	8.8%	40	32	98	170	\$17.19
47-3016	Helpers--Roofers	299	331	32	10.7%	16	10	32	58	\$16.82
47-3019	Helpers, Construction Trades, All Other	512	539	27	5.3%	14	18	54	86	\$15.45
47-4011	Construction and Building Inspectors	2,897	2,919	22	0.8%	11	160	200	371	\$29.74
47-4031	Fence Erectors	769	784	15	2.0%	8	30	61	99	\$18.72
47-4041	Hazardous Materials Removal Workers	2,215	2,225	10	0.5%	5	95	184	284	\$24.01



## Ohio Occupational Employment\* Projections Report, 2020-2022

SOC Code <sup>1</sup>	Occupational Title**	Employment		Change in Employment		Annual Openings				Median Wage*** May 2020
		2020 Annual	2022 Projected	2020-2022	Percent	Change [1]	Exits [2]	Tranfers [3]	Total	
47-4051	Highway Maintenance Workers	7,481	7,527	46	0.6%	23	302	530	855	\$20.48
47-4071	Septic Tank Servicers and Sewer Pipe Cleaners	1,681	1,720	39	2.3%	20	50	143	213	\$22.33
47-4090	Miscellaneous Construction and Related Workers	816	826	10	1.2%	5	28	74	107	\$17.39
47-5012	Rotary Drill Operators, Oil and Gas	162	162	0	0.0%	0	4	18	22	\$20.69
47-5013	Service Unit Operators, Oil, Gas, and Mining	626	619	-7	-1.1%	-4	18	70	84	\$26.41
47-5022	Excavating and Loading Machine and Dragline Operators, Surface Mining	789	795	6	0.8%	3	0	0	3	\$22.12
47-5041	Continuous Mining Machine Operators	276	262	-14	-5.1%	-7	9	24	26	\$25.93
47-5051	Rock Splitters, Quarry	227	230	3	1.3%	2	8	22	32	\$16.80
47-5071	Roustabouts, Oil and Gas	589	580	-9	-1.5%	-4	16	60	72	\$17.81
47-5081	Helpers--Extraction Workers	407	412	5	1.2%	2	14	40	56	\$18.39
47-5097	Earth Drillers, Except Oil and Gas	451	461	10	2.2%	5	0	0	5	\$22.68
49-0000	Installation, Maintenance, and Repair Occupations	225,337	225,452	115	0.1%	58	7,102	14,898	22,058	\$22.77
49-1011	First-Line Supervisors of Mechanics, Installers, and Repairers	16,349	16,352	3	0.0%	2	512	988	1,502	\$33.00
49-2011	Computer, Automated Teller, and Office Machine Repairers	3,799	3,730	-69	-1.8%	-34	104	296	366	\$18.19
49-2021	Radio, Cellular, and Tower Equipment Installers and Repairers	362	364	2	0.6%	1	10	30	41	\$30.87
49-2022	Telecommunications Equipment Installers and Repairers, Except Line Installers	7,326	7,153	-173	-2.4%	-86	202	596	712	\$28.66
49-2091	Avionics Technicians	187	187	0	0.0%	0	4	9	13	\$29.53
49-2092	Electric Motor, Power Tool, and Related Repairers	790	792	2	0.3%	1	29	52	82	\$22.85
49-2093	Electrical and Electronics Installers and Repairers, Transportation Equipment	253	248	-5	-2.0%	-2	4	18	20	\$30.48
49-2094	Electrical and Electronics Repairers, Commercial and Industrial Equipment	1,703	1,672	-31	-1.8%	-16	30	118	132	\$28.28
49-2095	Electrical and Electronics Repairers, Powerhouse, Substation, and Relay	470	448	-22	-4.7%	-11	8	32	29	\$37.43
49-2096	Electronic Equipment Installers and Repairers, Motor Vehicles	233	211	-22	-9.4%	-11	6	20	15	\$20.78
49-2097	Electronic Home Entertainment Equipment Installers and Repairers	1,128	1,110	-18	-1.6%	-9	28	95	114	\$18.66
49-2098	Security and Fire Alarm Systems Installers	2,302	2,299	-3	-0.1%	-2	65	210	273	\$23.83
49-3011	Aircraft Mechanics and Service Technicians	4,313	4,251	-62	-1.4%	-31	114	236	319	\$29.96
49-3021	Automotive Body and Related Repairers	5,623	5,683	60	1.1%	30	182	361	573	\$19.08
49-3022	Automotive Glass Installers and Repairers	896	915	19	2.1%	10	22	66	98	\$19.92
49-3023	Automotive Service Technicians and Mechanics	29,739	29,619	-120	-0.4%	-60	806	2,084	2,830	\$19.52
49-3031	Bus and Truck Mechanics and Diesel Engine Specialists	9,650	9,588	-62	-0.6%	-31	268	622	859	\$22.49
49-3041	Farm Equipment Mechanics and Service Technicians	1,496	1,502	6	0.4%	3	47	102	152	\$22.20
49-3042	Mobile Heavy Equipment Mechanics, Except Engines	4,183	4,204	21	0.5%	10	131	286	427	\$26.39
49-3051	Motorboat Mechanics and Service Technicians	406	390	-16	-3.9%	-8	16	24	32	\$20.66
49-3052	Motorcycle Mechanics	731	732	1	0.1%	0	29	44	73	\$17.61
49-3053	Outdoor Power Equipment and Other Small Engine Mechanics	1,209	1,206	-3	-0.2%	-2	48	72	118	\$15.23
49-3092	Recreational Vehicle Service Technicians	485	483	-2	-0.4%	-1	14	38	51	\$18.10
49-3093	Tire Repairers and Changers	3,708	3,675	-33	-0.9%	-16	112	294	390	\$14.95
49-9011	Mechanical Door Repairers	1,245	1,323	78	6.3%	39	32	78	149	\$19.76
49-9012	Control and Valve Installers and Repairers, Except Mechanical Door	1,388	1,406	18	1.3%	9	35	84	128	\$33.83
49-9021	Heating, Air Conditioning, and Refrigeration Mechanics and Installers	13,411	14,387	976	7.3%	488	379	978	1,845	\$23.53
49-9031	Home Appliance Repairers	1,706	1,668	-38	-2.2%	-19	78	104	163	\$21.34
49-9041	Industrial Machinery Mechanics	21,430	21,135	-295	-1.4%	-148	668	1,282	1,802	\$26.81
49-9043	Maintenance Workers, Machinery	3,284	3,241	-43	-1.3%	-22	122	172	272	\$24.68
49-9044	Millwrights	2,842	2,872	30	1.1%	15	80	166	261	\$31.30
49-9051	Electrical Power-Line Installers and Repairers	3,147	3,081	-66	-2.1%	-33	76	186	229	\$36.23
49-9052	Telecommunications Line Installers and Repairers	4,949	5,022	73	1.5%	36	116	440	592	\$21.24
49-9061	Camera and Photographic Equipment Repairers	117	117	0	0.0%	0	5	7	12	\$16.22
49-9062	Medical Equipment Repairers	2,249	2,251	2	0.1%	1	97	140	238	\$24.58
49-9063	Musical Instrument Repairers and Tuners	350	326	-24	-6.9%	-12	14	21	23	\$15.97

# Ohio Occupational Employment\* Projections Report, 2020-2022

SOC Code <sup>1</sup>	Occupational Title**	Employment		Change in Employment		Annual Openings				Median Wage*** May 2020
		2020 Annual	2022 Projected	2020-2022	Percent	Change [1]	Exits [2]	Transfers [3]	Total	
49-9069	Precision Instrument and Equipment Repairers, All Other	412	411	-1	-0.2%	0	18	26	44	\$27.38
49-9071	Maintenance and Repair Workers, General	58,694	58,745	51	0.1%	26	2,058	3,633	5,717	\$19.97
49-9091	Coin, Vending, and Amusement Machine Servicers and Repairers	1,498	1,354	-144	-9.6%	-72	58	108	94	\$17.74
49-9094	Locksmiths and Safe Repairers	510	481	-29	-5.7%	-14	24	30	40	\$21.40
49-9096	Riggers	213	223	10	4.7%	5	4	16	25	\$25.45
49-9098	Helpers--Installation, Maintenance, and Repair Workers	2,235	2,290	55	2.5%	28	121	168	317	\$14.43
49-9099	Installation, Maintenance, and Repair Workers, All Other	7,204	7,258	54	0.7%	27	283	494	804	\$20.57
<b>51-0000</b>	<b>Production Occupations</b>	<b>509,223</b>	<b>486,741</b>	<b>-22,482</b>	<b>-4.4%</b>	<b>-11,241</b>	<b>16,580</b>	<b>31,752</b>	<b>37,091</b>	<b>\$18.14</b>
51-1011	First-Line Supervisors of Production and Operating Workers	32,400	31,397	-1,003	-3.1%	-502	1,014	2,246	2,758	\$29.89
51-2021	Coil Winders, Tapers, and Finishers	590	541	-49	-8.3%	-24	24	40	40	\$18.62
51-2028	Electrical, electronic, electromechanical assemblers, ex winders	11,623	10,981	-642	-5.5%	-321	486	799	964	\$16.30
51-2031	Engine and Other Machine Assemblers	7,730	6,810	-920	-11.9%	-460	174	684	398	\$24.75
51-2041	Structural Metal Fabricators and Fitters	3,383	3,115	-268	-7.9%	-134	78	261	205	\$18.28
51-2051	Fiberglass Laminators and Fabricators	683	644	-39	-5.7%	-20	10	10	0	\$15.48
51-2090	Miscellaneous Assemblers and Fabricators	81,518	77,165	-4,353	-5.3%	-2,176	1,088	1,088	0	\$16.76
51-3011	Bakers	7,196	6,999	-197	-2.7%	-98	410	559	871	\$12.76
51-3021	Butchers and Meat Cutters	4,080	4,059	-21	-0.5%	-10	167	336	493	\$16.11
51-3022	Meat, Poultry, and Fish Cutters and Trimmers	2,344	2,375	31	1.3%	16	96	195	307	\$14.93
51-3023	Slaughterers and Meat Packers	4,061	4,115	54	1.3%	27	168	338	533	\$13.84
51-3091	Food and Tobacco Roasting, Baking, and Drying Machine Operators and Tenders	485	483	-2	-0.4%	-1	26	40	65	\$14.90
51-3092	Food Batchmakers	7,387	7,415	28	0.4%	14	447	650	1,111	\$15.37
51-3093	Food Cooking Machine Operators and Tenders	2,210	2,245	35	1.6%	18	143	205	366	\$17.02
51-3099	Food Processing Workers, All Other	1,989	1,991	2	0.1%	1	75	136	212	\$12.68
51-4021	Extruding and Drawing Machine S/O/T, M/P	7,388	6,916	-472	-6.4%	-236	203	690	657	\$17.48
51-4022	Forging Machine S/O/T, M/P	1,398	1,261	-137	-9.8%	-68	36	90	58	\$19.72
51-4023	Rolling Machine S/O/T, M/P	5,137	4,699	-438	-8.5%	-219	130	336	247	\$22.28
51-4031	Cutting, Punching, and Press Machine S/O/T, M/P	16,912	15,605	-1,307	-7.7%	-654	615	1,201	1,162	\$17.78
51-4032	Drilling and Boring Machine Tool S/O/T, M/P	660	596	-64	-9.7%	-32	22	44	34	\$20.36
51-4033	Grind/Lapping/Polish/Buf Mach. Tool S/O/T, M/P	6,495	6,131	-364	-5.6%	-182	266	451	535	\$17.73
51-4034	Lathe and Turning Machine Tool S/O/T, M/P	2,226	2,084	-142	-6.4%	-71	103	140	172	\$20.65
51-4041	Machinists	25,869	24,652	-1,217	-4.7%	-608	839	1,726	1,957	\$20.83
51-4051	Metal-Refining Furnace Operators and Tenders	1,627	1,577	-50	-3.1%	-25	56	132	163	\$18.10
51-4052	Pourers and Casters, Metal	754	739	-15	-2.0%	-8	26	62	80	\$18.50
51-4062	Patternmakers, Metal and Plastic	227	212	-15	-6.6%	-8	8	16	16	\$23.68
51-4071	Foundry Mold and Coremakers	2,908	2,712	-196	-6.7%	-98	86	221	209	\$16.46
51-4072	Molding, Coremaking, and Casting Machine S/O/T, M/P	16,082	14,979	-1,103	-6.9%	-552	474	1,220	1,142	\$14.92
51-4081	Multiple Machine Tool S/O/T, M/P	16,317	15,211	-1,106	-6.8%	-553	548	1,102	1,097	\$17.97
51-4111	Tool and Die Makers	6,511	6,004	-507	-7.8%	-254	230	390	366	\$24.62
51-4121	Welders, Cutters, Solderers, and Brazers	19,108	18,334	-774	-4.1%	-387	480	1,572	1,665	\$19.91
51-4122	Welding, Soldering, and Brazing Machine S/O/T	1,862	1,729	-133	-7.1%	-66	46	151	131	\$18.66
51-4191	Heat Treating Equipment S/O/T, M/P	1,838	1,686	-152	-8.3%	-76	61	123	108	\$19.54
51-4193	Plating and Coating Machine S/O/T, M/P	3,462	3,158	-304	-8.8%	-152	100	252	200	\$16.76
51-4194	Tool Grinders, Filers, and Sharpeners	439	423	-16	-3.6%	-8	30	32	54	\$18.93
51-4199	Metal Workers and Plastic Workers, All Other	1,363	1,265	-98	-7.2%	-49	46	92	89	\$17.67
51-5111	Prepress Technicians and Workers	1,710	1,588	-122	-7.1%	-61	60	141	140	\$19.43
51-5112	Printing Press Operators	8,994	8,647	-347	-3.9%	-174	335	616	777	\$18.24
51-5113	Print Binding and Finishing Workers	2,366	2,241	-125	-5.3%	-62	154	168	260	\$15.76
51-6011	Laundry and Dry-Cleaning Workers	7,864	7,195	-669	-8.5%	-334	468	536	670	\$11.40



## Ohio Occupational Employment\* Projections Report, 2020-2022

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51-6021	Pressers, Textile, Garment, and Related Materials	1,075	927	-148	-13.8%	-74	54	62	42	\$12.19
51-6031	Sewing Machine Operators	4,425	4,392	-33	-0.7%	-16	258	236	478	\$13.52
51-6041	Shoe and Leather Workers and Repairers	500	504	4	0.8%	2	35	24	61	\$13.90
51-6051	Sewers, Hand	228	215	-13	-5.7%	-6	18	12	24	\$14.35
51-6052	Tailors, Dressmakers, and Custom Sewers	1,420	1,329	-91	-6.4%	-46	113	70	137	\$14.53
51-6062	Textile Cutting Machine S/O/T	267	267	0	0.0%	0	12	13	25	\$14.23
51-6091	Extruding and Forming Machine S/O/T, Synthetic and Glass Fibers	897	862	-35	-3.9%	-18	50	70	102	\$18.62
51-6099	Textile, Apparel, and Furnishings Workers, All Other	276	271	-5	-1.8%	-2	16	22	36	\$15.52
51-7011	Cabinetmakers and Bench Carpenters	4,860	4,886	26	0.5%	13	204	301	518	\$18.20
51-7021	Furniture Finishers	979	977	-2	-0.2%	-1	48	62	109	\$15.44
51-7041	Sawing Machine S/O/T, Wood	1,153	1,142	-11	-1.0%	-6	33	100	127	\$15.30
51-7042	Woodworking Machine S/O/T, Except Sawing	3,814	3,868	54	1.4%	27	206	330	563	\$15.10
51-7099	Woodworkers, All Other	616	628	12	1.9%	6	39	38	83	\$17.20
51-8012	Power Distributors and Dispatchers	822	792	-30	-3.6%	-15	17	58	60	\$43.45
51-8013	Power Plant Operators	989	936	-53	-5.4%	-26	20	70	64	\$40.53
51-8021	Stationary Engineers and Boiler Operators	1,035	1,032	-3	-0.3%	-2	34	76	108	\$29.28
51-8031	Water and Wastewater Treatment Plant and System Operators	4,566	4,514	-52	-1.1%	-26	138	273	385	\$24.34
51-8091	Chemical Plant and System Operators	1,113	1,104	-9	-0.8%	-4	26	97	119	\$33.96
51-8092	Gas Plant Operators	408	409	1	0.2%	0	10	36	46	\$35.45
51-8093	Petroleum Pump System Operators, Refinery Operators, and Gaugers	1,054	1,046	-8	-0.8%	-4	25	92	113	\$42.77
51-9011	Chemical Equipment Operators and Tenders	6,039	6,048	9	0.1%	4	154	540	698	\$25.01
51-9012	Separating, Filtering, Clarifying, Precipitating, and Still Machine S/O/T	1,601	1,615	14	0.9%	7	41	144	192	\$27.83
51-9021	Crushing, Grinding, and Polishing Machine S/O/T	1,737	1,702	-35	-2.0%	-18	52	148	182	\$21.29
51-9022	Grinding and Polishing Workers, Hand	1,722	1,570	-152	-8.8%	-76	50	142	116	\$15.65
51-9023	Mixing and Blending Machine S/O/T	7,617	7,595	-22	-0.3%	-11	230	655	874	\$18.82
51-9031	Cutters and Trimmers, Hand	325	297	-28	-8.6%	-14	13	26	25	\$16.08
51-9032	Cutting and Slicing Machine S/O/T	2,728	2,714	-14	-0.5%	-7	112	222	327	\$17.74
51-9041	Extruding, Forming, Pressing, and Compacting Machine S/O/T	6,833	6,598	-235	-3.4%	-118	262	466	610	\$16.69
51-9051	Furnace, Kiln, Oven, Drier, and Kettle Operators and Tenders	1,911	1,895	-16	-0.8%	-8	84	118	194	\$18.77
51-9061	Inspectors, Testers, Sorters, Samplers, and Weighers	32,503	30,230	-2,273	-7.0%	-1,136	1,244	2,620	2,728	\$19.70
51-9071	Jewelers and Precious Stone and Metal Workers	722	638	-84	-11.6%	-42	41	45	44	\$20.10
51-9081	Dental Laboratory Technicians	1,220	1,231	11	0.9%	6	54	96	156	\$20.77
51-9082	Medical Appliance Technicians	849	866	17	2.0%	8	38	68	114	\$19.51
51-9083	Ophthalmic Laboratory Technicians	1,587	1,609	22	1.4%	11	71	126	208	\$18.24
51-9111	Packaging and Filling Machine Operators and Tenders	18,659	18,694	35	0.2%	18	825	1,344	2,187	\$16.42
51-9123	Painting, Coating, and Decorating Workers	373	364	-9	-2.4%	-4	11	29	36	\$15.59
51-9124	Coating, Painting, and Spraying Machine S/O/T	7,526	7,207	-319	-4.2%	-160	80	80	0	\$17.97
51-9151	Photographic Process Workers and Processing Machine Operators	394	362	-32	-8.1%	-16	17	41	42	\$13.21
51-9161	Computer Numerically Controlled Tool Operators	12,848	12,026	-822	-6.4%	-411	206	206	1	\$19.77
51-9162	Computer Numerically Controlled Tool Programmers	1,868	1,743	-125	-6.7%	-62	31	32	1	\$25.34
51-9191	Adhesive Bonding Machine Operators and Tenders	958	940	-18	-1.9%	-9	32	92	115	\$16.28
51-9192	Cleaning, Washing, and Metal Pickling Equipment Operators and Tenders	1,346	1,326	-20	-1.5%	-10	86	122	198	\$14.50
51-9193	Cooling and Freezing Equipment Operators and Tenders	1,050	1,068	18	1.7%	9	40	83	132	\$19.05
51-9194	Etchers and Engravers	631	623	-8	-1.3%	-4	32	44	72	\$14.34
51-9195	Molders, Shapers, and Casters, Except M/P	3,506	3,460	-46	-1.3%	-23	138	248	363	\$16.81
51-9196	Paper Goods Machine S/O/T	5,610	5,699	89	1.6%	44	176	437	657	\$18.53
51-9197	Tire Builders	753	701	-52	-6.9%	-26	14	60	48	\$18.33
51-9198	Helpers--Production Workers	13,188	12,884	-304	-2.3%	-152	694	1,228	1,770	\$16.24

# Ohio Occupational Employment\* Projections Report, 2020-2022

SOC Code <sup>1</sup>	Occupational Title**	Employment		Change in Employment		Annual Openings				Median Wage*** May 2020
		2020 Annual	2022 Projected	2020-2022		Change [1]	Exits [2]	Tranfers [3]	Total	
					Percent					
51-9199	Production Workers, All Other	11,087	10,803	-284	-2.6%	-142	410	857	1,125	\$16.54
53-0000	Transportation and Material Moving Occupations	498,030	504,339	6,309	1.3%	3,154	16,414	31,214	50,782	\$15.78
53-1041	Aircraft Cargo Handling Supervisors	208	206	-2	-1.0%	-1	0	0	0	\$25.80
53-1047	FL Sup of Trans/Mat.-Mov. Workers, Ex. Aircraft Cargo Handling	16,956	17,497	541	3.2%	270	0	0	270	\$25.03
53-2011	Airline Pilots, Copilots, and Flight Engineers	1,105	1,051	-54	-4.9%	-27	30	80	83	\$100,750 **
53-2012	Commercial Pilots	1,218	1,226	8	0.7%	4	34	90	128	\$101,320 **
53-2021	Air Traffic Controllers	765	783	18	2.4%	9	18	54	81	\$69.33
53-2022	Airfield Operations Specialists	152	153	1	0.7%	0	4	10	14	\$24.83
53-2031	Flight Attendants	627	597	-30	-4.8%	-15	32	37	54	\$68,880 **
53-3011	Ambulance Drivers and Attendants, Except Emergency Medical Technicians	559	560	1	0.2%	0	31	54	85	\$13.18
53-3022	Bus Drivers, School or Special Client	169	170	1	0.6%	0	13	8	21	▲
53-3031	Driver/Sales Workers	32,043	29,881	-2,162	-6.7%	-1,081	1,274	2,246	2,439	\$10.18
53-3032	Heavy and Tractor-Trailer Truck Drivers	80,443	82,290	1,847	2.3%	924	3,350	5,902	10,176	\$22.32
53-3033	Light Truck or Delivery Services Drivers	38,163	39,203	1,040	2.7%	520	1,592	2,806	4,918	\$16.91
53-3052	Bus Drivers, Transit and Intercity	4,467	4,379	-88	-2.0%	-44	22	22	0	\$23.68
53-3058	Passenger Vehicle Drivers, Except Bus Drivers, Transit and Intercity	17,564	17,522	-42	-0.2%	-21	10	10	0	\$12.98
53-3099	Motor Vehicle Operators, All Other	2,890	2,819	-71	-2.5%	-36	289	190	443	\$17.28
53-4031	Railroad Conductors and Yardmasters	1,334	1,335	1	0.1%	0	26	100	126	\$27.85
53-5011	Sailors and Marine Oilers	373	380	7	1.9%	4	12	36	52	\$19.03
53-5021	Captains, Mates, and Pilots of Water Vessels	233	234	1	0.4%	0	6	16	22	\$25.83
53-6011	Bridge and Lock Tenders	117	118	1	0.9%	0	4	8	12	\$25.97
53-6021	Parking Lot Attendants	4,963	4,579	-384	-7.7%	-192	245	484	537	\$11.20
53-6031	Automotive and Watercraft Service Attendants	3,690	3,690	0	0.0%	0	164	381	545	\$12.17
53-6041	Traffic Technicians	127	127	0	0.0%	0	4	9	13	\$25.95
53-6051	Transportation Inspectors	898	917	19	2.1%	10	28	64	102	\$28.22
53-6061	Transportation Attendants, Except Flight Attendants	259	261	2	0.8%	1	20	14	35	\$10.80
53-6098	Aircraft Service Attendants and Transportation Workers, All Other	739	723	-16	-2.2%	-8	4	4	0	\$17.33
53-7011	Conveyor Operators and Tenders	1,113	1,143	30	2.7%	15	38	96	149	\$21.54
53-7021	Crane and Tower Operators	1,792	1,786	-6	-0.3%	-3	56	152	205	\$23.72
53-7051	Industrial Truck and Tractor Operators	33,725	35,866	2,141	6.3%	1,070	1,042	2,872	4,984	\$18.13
53-7061	Cleaners of Vehicles and Equipment	12,629	12,734	105	0.8%	52	632	1,214	1,898	\$13.17
53-7062	Laborers and Freight, Stock, and Material Movers, Hand	119,114	122,882	3,768	3.2%	1,884	5,464	11,341	18,689	\$15.07
53-7063	Machine Feeders and Offbearers	1,639	1,666	27	1.6%	14	84	136	234	\$17.32
53-7064	Packers and Packagers, Hand	25,410	24,888	-522	-2.1%	-261	1,504	2,119	3,362	\$13.36
53-7065	Stockers and Order Fillers	84,138	84,121	-17	0.0%	-8	4	4	0	\$13.33
53-7071	Gas Compressor and Gas Pumping Station Operators	199	202	3	1.5%	2	6	17	25	\$37.19
53-7073	Wellhead Pumpers	250	249	-1	-0.4%	0	8	22	30	\$18.70
53-7081	Refuse and Recyclable Material Collectors	4,478	4,599	121	2.7%	60	248	379	687	\$19.46
53-7121	Tank Car, Truck, and Ship Loaders	587	594	7	1.2%	4	28	46	78	\$21.03
53-7199	Material Moving Workers, All Other	343	359	16	4.7%	8	17	28	53	\$15.32

<sup>1</sup> Occupational codes based on SOC 2010 coding structure. Detailed information - <http://www.bls.gov/soc/>

\* Occupations with 100 or more workers.

\*\* Title Abbreviations

FL = First-Line

FL Sup = First-Line Supervisors

M/P = Metal and Plastic

S/O/T = Setters, Operators, and Tenders

\*\*\* Wage estimates are based on Ohio's OES surveys.

# Wages above max.

Source: Ohio Department of Job and Family Services, Bureau of Labor Market Information, June 2021.

[1] Numeric change measures the projected annual number of job gains or losses in an occupation for the projection period.

[2] Exits are the projected number of workers leaving an occupation and exiting the labor force entirely.

[3] Transfers are the projected number of workers leaving an occupation and transferring to a different occupation.

▲ Wage data unavailable due to OES/SOC changes. <https://www.bls.gov/soc/2018/#publications>

+ National Wage

++ Certain occupations report wages at the annual level - for elementary and secondary teachers

this typically reflects the 9 1/2 month school year.

+++ Annual National Wages

## Ohio Typical Occupational\* Educational and Training Requirements

SOC Code'	Occupational Title**	Typical Education**** Required for Entry	Commonly Required Work Experience in Related Occupations	Typical On-The-Job Training to Obtain Competency	Median Wage*** May 2020
<b>00-0000</b>	<b>Total, All Occupations</b>				<b>\$19.37</b>
<b>11-0000</b>	<b>Management Occupations</b>				<b>\$48.35</b>
11-1011	Chief Executives	Bachelor's degree	5 years or more	None	\$84.39
11-1021	General and Operations Managers	Bachelor's degree	5 years or more	None	\$47.84
11-1031	Legislators	Bachelor's degree	Less than 5 years	None	\$20,490 **
11-2011	Advertising and Promotions Managers	Bachelor's degree	Less than 5 years	None	\$53.64
11-2021	Marketing Managers	Bachelor's degree	5 years or more	None	\$63.86
11-2022	Sales Managers	Bachelor's degree	Less than 5 years	None	\$58.88
11-3011	Administrative Services Managers	Bachelor's degree	Less than 5 years	None	▲
11-3021	Computer and Information Systems Managers	Bachelor's degree	5 years or more	None	\$64.14
11-3031	Financial Managers	Bachelor's degree	5 years or more	None	\$59.51
11-3051	Industrial Production Managers	Bachelor's degree	5 years or more	None	\$49.58
11-3061	Purchasing Managers	Bachelor's degree	5 years or more	None	\$55.62
11-3071	Transportation, Storage, and Distribution Managers	High school diploma or equivalent	5 years or more	None	\$41.89
11-3111	Compensation and Benefits Managers	Bachelor's degree	5 years or more	None	\$58.06
11-3121	Human Resources Managers	Bachelor's degree	5 years or more	None	\$57.10
11-3131	Training and Development Managers	Bachelor's degree	5 years or more	None	\$50.87
11-9013	Farmers, Ranchers, and Other Agricultural Managers	High school diploma or equivalent	5 years or more	None	\$33.15
11-9021	Construction Managers	Bachelor's degree	None	Moderate-term on-the-job training	\$44.85
11-9031	Education Administrators, Preschool and Childcare Center/Program	Bachelor's degree	Less than 5 years	None	\$22.28
11-9032	Education Administrators, Elementary and Secondary School	Master's degree	5 years or more	None	\$92,590 **
11-9033	Education Administrators, Postsecondary	Master's degree	Less than 5 years	None	\$47.11
11-9039	Education Administrators, All Other	Bachelor's degree	Less than 5 years	None	\$44.67
11-9041	Architectural and Engineering Managers	Bachelor's degree	5 years or more	None	\$64.49
11-9051	Food Service Managers	High school diploma or equivalent	Less than 5 years	None	\$25.27
11-9081	Lodging Managers	High school diploma or equivalent	Less than 5 years	None	\$19.52
11-9111	Medical and Health Services Managers	Bachelor's degree	Less than 5 years	None	\$45.36
11-9121	Natural Sciences Managers	Bachelor's degree	5 years or more	None	\$57.75
11-9131	Postmasters and Mail Superintendents	High school diploma or equivalent	Less than 5 years	Moderate-term on-the-job training	\$37.57
11-9141	Property, Real Estate, and Community Association Managers	High school diploma or equivalent	Less than 5 years	None	\$23.90
11-9151	Social and Community Service Managers	Bachelor's degree	Less than 5 years	None	\$32.06
11-9161	Emergency Management Directors	Bachelor's degree	5 years or more	None	\$36.57
11-9171	Funeral Home Managers	Associate's degree	Less than 5 years	None	\$58.57
11-9198	Managers, All Other	Bachelor's degree	Less than 5 years	None	\$48.76
<b>13-0000</b>	<b>Business and Financial Operations Occupations</b>				<b>\$32.12</b>
13-1020	Buyers and Purchasing Agents	Bachelor's degree	None	Moderate-term on-the-job training	\$31.14
13-1031	Claims Adjusters, Examiners, and Investigators	High school diploma or equivalent	None	Long-term on-the-job training	\$30.09
13-1032	Insurance Appraisers, Auto Damage	Postsecondary non-degree award	None	Moderate-term on-the-job training	\$28.12
13-1041	Compliance Officers	Bachelor's degree	None	Moderate-term on-the-job training	\$31.77
13-1051	Cost Estimators	Bachelor's degree	None	Moderate-term on-the-job training	\$30.92
13-1071	Human Resources Specialists	Bachelor's degree	None	None	\$28.26
13-1075	Labor Relations Specialists	Bachelor's degree	Less than 5 years	None	\$27.99
13-1081	Logisticians	Bachelor's degree	None	None	\$35.04
13-1111	Management Analysts	Bachelor's degree	Less than 5 years	None	\$39.72
13-1121	Meeting, Convention, and Event Planners	Bachelor's degree	None	None	\$22.69
13-1131	Fundraisers	Bachelor's degree	None	None	\$26.64
13-1141	Compensation, Benefits, and Job Analysis Specialists	Bachelor's degree	Less than 5 years	None	\$29.14
13-1151	Training and Development Specialists	Bachelor's degree	Less than 5 years	None	\$26.89

## Ohio Typical Occupational\* Educational and Training Requirements

SOC Code'	Occupational Title**	Typical Education**** Required for Entry	Commonly Required Work Experience in Related Occupations	Typical On-The-Job Training to Obtain Competency	Median Wage*** May 2020
13-1161	Market Research Analysts and Marketing Specialists	Bachelor's degree	None	None	\$29.33
13-1198	Business Operations Specialists, All Other	Bachelor's degree	None	None	\$35.43
13-2011	Accountants and Auditors	Bachelor's degree	None	None	\$32.62
13-2031	Budget Analysts	Bachelor's degree	None	None	\$36.91
13-2041	Credit Analysts	Bachelor's degree	None	None	\$35.75
13-2052	Personal Financial Advisors	Bachelor's degree	None	Long-term on-the-job training	\$38.90
13-2053	Insurance Underwriters	Bachelor's degree	None	Moderate-term on-the-job training	\$32.59
13-2061	Financial Examiners	Bachelor's degree	None	Long-term on-the-job training	\$34.08
13-2071	Credit Counselors	Bachelor's degree	None	Moderate-term on-the-job training	\$23.14
13-2072	Loan Officers	Bachelor's degree	None	Moderate-term on-the-job training	\$31.79
13-2081	Tax Examiners and Collectors, and Revenue Agents	Bachelor's degree	None	Moderate-term on-the-job training	\$31.66
13-2082	Tax Preparers	High school diploma or equivalent	None	Moderate-term on-the-job training	\$17.88
<b>15-0000</b>	<b>Computer and Mathematical Occupations</b>				<b>\$39.19</b>
15-1134	Web Developers	Associate's degree	None	None	▲
15-1211	Computer Systems Analysts	Bachelor's degree	Bachelor's degree	None	\$41.54
15-1212	Information Security Analysts	Bachelor's degree	Less than 5 years	None	\$44.55
15-1221	Computer and Information Research Scientists	Master's degree	None	None	\$53.26
15-1231	Computer Network Support Specialists	Associate's degree	None	None	\$28.99
15-1232	Computer User Support Specialists	Some college, no degree	None	None	\$23.47
15-1241	Computer Network Architects	Bachelor's degree	5 years or more	None	\$49.63
15-1244	Network and Computer Systems Administrators	Bachelor's degree	None	None	\$38.43
15-1245	Database Administrators	Bachelor's degree	None	None	\$44.26
15-1251	Computer Programmers	Bachelor's degree	None	None	\$40.48
15-1299	Computer Occupations, All Other	Bachelor's degree	None	None	\$41.28
15-2011	Actuaries	Bachelor's degree	None	Long-term on-the-job training	\$43.55
15-2031	Operations Research Analysts	Bachelor's degree	None	None	\$42.05
15-2041	Statisticians	Master's degree	None	None	\$39.08
15-2098	Data Scientists and Mathematical Science Occupations, All Other	Bachelor's degree	None	None	\$38.79
<b>17-0000</b>	<b>Architecture and Engineering Occupations</b>				<b>\$37.60</b>
17-1011	Architects, Except Landscape and Naval	Bachelor's degree	None	Internship/residency	\$41.19
17-1012	Landscape Architects	Bachelor's degree	None	Internship/residency	\$26.34
17-1021	Cartographers and Photogrammetrists	Bachelor's degree	None	None	\$30.79
17-1022	Surveyors	Bachelor's degree	None	Internship/residency	\$28.93
17-2011	Aerospace Engineers	Bachelor's degree	None	None	\$56.29
17-2031	Biomedical Engineers	Bachelor's degree	None	None	\$41.73
17-2041	Chemical Engineers	Bachelor's degree	None	None	\$46.87
17-2051	Civil Engineers	Bachelor's degree	None	None	\$38.60
17-2061	Computer Hardware Engineers	Bachelor's degree	None	None	\$48.79
17-2071	Electrical Engineers	Bachelor's degree	None	None	\$41.38
17-2072	Electronics Engineers, Except Computer	Bachelor's degree	None	None	\$47.02
17-2081	Environmental Engineers	Bachelor's degree	None	None	\$38.93
17-2111	Health and Safety Engineers, Except Mining Safety Engineers and Inspectors	Bachelor's degree	None	None	\$47.17
17-2112	Industrial Engineers	Bachelor's degree	None	None	\$39.71
17-2131	Materials Engineers	Bachelor's degree	None	None	\$41.55
17-2141	Mechanical Engineers	Bachelor's degree	None	None	\$39.08
17-2151	Mining and Geological Engineers, Including Mining Safety Engineers	Bachelor's degree	None	None	\$43.63
17-2171	Petroleum Engineers	Bachelor's degree	None	None	\$60.41
17-2199	Engineers, All Other	Bachelor's degree	None	None	\$45.55

## Ohio Typical Occupational\* Educational and Training Requirements

SOC Code'	Occupational Title**	Typical Education**** Required for Entry	Commonly Required Work Experience in Related Occupations	Typical On-The-Job Training to Obtain Competency	Median Wage*** May 2020
17-3011	Architectural and Civil Drafters	Associate's degree	None	None	\$25.85
17-3012	Electrical and Electronics Drafters	Associate's degree	None	None	\$30.24
17-3013	Mechanical Drafters	Associate's degree	None	None	\$28.37
17-3021	Aerospace Engineering and Operations Technicians	Associate's degree	None	None	\$30.66
17-3022	Civil Engineering Technicians	Associate's degree	None	None	\$29.22
17-3023	Electrical and Electronics Engineering Technicians	Associate's degree	None	None	\$31.36
17-3024	Electro-Mechanical Technicians	Associate's degree	None	None	\$24.26
17-3025	Environmental Engineering Technicians	Associate's degree	None	None	\$24.73
17-3026	Industrial Engineering Technicians	Associate's degree	None	None	\$25.04
17-3027	Mechanical Engineering Technicians	Associate's degree	None	None	\$25.57
17-3031	Surveying and Mapping Technicians	High school diploma or equivalent	None	Moderate-term on-the-job training	\$22.37
17-3098	Engineering Technicians, Except Drafters, All Other	Associate's degree	None	None	\$28.47
<b>19-0000</b>	<b><i>Life, Physical, and Social Science Occupations</i></b>				<b>\$31.69</b>
19-1012	Food Scientists and Technologists	Bachelor's degree	None	None	\$41.81
19-1013	Soil and Plant Scientists	Bachelor's degree	None	None	\$28.17
19-1021	Biochemists and Biophysicists	Doctoral or professional degree	None	None	\$34.80
19-1022	Microbiologists	Bachelor's degree	None	None	\$29.64
19-1023	Zoologists and Wildlife Biologists	Bachelor's degree	None	None	\$27.91
19-1029	Biological Scientists, All Other	Bachelor's degree	None	None	\$36.92
19-1031	Conservation Scientists	Bachelor's degree	None	None	\$27.23
19-1032	Foresters	Bachelor's degree	None	None	\$30.17
19-1041	Epidemiologists	Master's degree	None	None	\$34.82
19-1042	Medical Scientists, Except Epidemiologists	Doctoral or professional degree	None	None	\$36.12
19-1099	Life Scientists, All Other	Bachelor's degree	None	None	\$36.65
19-2012	Physicists	Doctoral or professional degree	None	None	\$59.24
19-2031	Chemists	Bachelor's degree	None	None	\$36.13
19-2032	Materials Scientists	Bachelor's degree	None	None	\$50.04
19-2041	Environmental Scientists and Specialists, Including Health	Bachelor's degree	None	None	\$37.67
19-2042	Geoscientists, Except Hydrologists and Geographers	Bachelor's degree	None	None	\$37.60
19-2043	Hydrologists	Bachelor's degree	None	None	\$41.73
19-2099	Physical Scientists, All Other	Bachelor's degree	None	None	\$47.79
19-3011	Economists	Master's degree	None	None	\$47.16
19-3022	Survey Researchers	Master's degree	None	None	\$29.99
19-3031	Clinical, Counseling, and School Psychologists	Doctoral or professional degree	None	Internship/residency	\$35.77
19-3039	Psychologists, All Other	Master's degree	None	Internship/residency	\$50.28
19-3041	Sociologists	Master's degree	None	None	\$32.83
19-3051	Urban and Regional Planners	Master's degree	None	None	\$36.08
19-3099	Social Scientists and Related Workers, All Other	Bachelor's degree	None	None	\$39.08
19-4021	Biological Technicians	Bachelor's degree	None	None	\$21.70
19-4031	Chemical Technicians	Associate's degree	None	Moderate-term on-the-job training	\$24.44
19-4042	Environmental Science and Protection Technicians, Including Health	Associate's degree	None	None	\$21.92
19-4051	Nuclear Technicians	Associate's degree	None	Moderate-term on-the-job training	\$37.56
19-4061	Social Science Research Assistants	Bachelor's degree	None	None	\$21.22
19-4071	Forest and Conservation Technicians	Associate's degree	None	None	\$19.95
19-4092	Forensic Science Technicians	Bachelor's degree	None	Moderate-term on-the-job training	\$32.40
19-4099	Life, Physical, and Social Science Technicians, All Other	Associate's degree	None	None	\$26.36
19-5011	Occupational Health and Safety Specialists	Bachelor's degree	None	None	\$36.58
19-5012	Occupational Health and Safety Technicians	High school diploma or equivalent	None	Moderate-term on-the-job training	\$23.83

## Ohio Typical Occupational\* Educational and Training Requirements

SOC Code'	Occupational Title**	Typical Education**** Required for Entry	Commonly Required Work Experience in Related Occupations	Typical On-The-Job Training to Obtain Competency	Median Wage*** May 2020
<b>21-0000</b>	<b><i>Community and Social Service Occupations</i></b>				<b>\$21.70</b>
21-1012	Educational, Guidance, School, and Vocational Counselors	Master's degree	None	None	\$25.98
21-1013	Marriage and Family Therapists	Master's degree	None	Internship/residency	\$22.80
21-1015	Rehabilitation Counselors	Master's degree	None	None	\$17.02
21-1018	Substance Abuse, Behavioral Disorder, and Mental Health Counselors	Bachelor's degree	None	None	\$22.62
21-1019	Counselors, All Other	Master's degree	None	None	\$26.33
21-1021	Child, Family, and School Social Workers	Bachelor's degree	None	None	\$22.40
21-1022	Healthcare Social Workers	Master's degree	None	Internship/residency	\$27.58
21-1023	Mental Health and Substance Abuse Social Workers	Master's degree	None	Internship/residency	\$21.34
21-1029	Social Workers, All Other	Bachelor's degree	None	None	\$26.48
21-1091	Health Educators	Bachelor's degree	None	None	\$24.07
21-1092	Probation Officers and Correctional Treatment Specialists	Bachelor's degree	None	Short-term on-the-job training	\$24.40
21-1093	Social and Human Service Assistants	High school diploma or equivalent	None	Short-term on-the-job training	\$16.66
21-1094	Community Health Workers	High school diploma or equivalent	None	Short-term on-the-job training	\$18.57
21-1099	Community and Social Service Specialists, All Other	Bachelor's degree	None	None	\$20.75
21-2011	Clergy	Bachelor's degree	None	Moderate-term on-the-job training	\$22.39
21-2021	Directors, Religious Activities and Education	Bachelor's degree	Less than 5 years	None	\$21.73
<b>23-0000</b>	<b><i>Legal Occupations</i></b>				<b>\$34.23</b>
23-1011	Lawyers	Doctoral or professional degree	None	None	\$50.18
23-1012	Judicial Law Clerks	Doctoral or professional degree	None	None	\$26.39
23-1021	Administrative Law Judges, Adjudicators, and Hearing Officers	Doctoral or professional degree	5 years or more	Short-term on-the-job training	\$32.48
23-1022	Arbitrators, Mediators, and Conciliators	Bachelor's degree	Less than 5 years	Moderate-term on-the-job training	\$27.26
23-1023	Judges, Magistrate Judges, and Magistrates	Doctoral or professional degree	5 years or more	Short-term on-the-job training	\$41.70
23-2011	Paralegals and Legal Assistants	Associate's degree	None	None	\$22.15
23-2093	Title Examiners, Abstractors, and Searchers	High school diploma or equivalent	None	Moderate-term on-the-job training	\$23.59
23-2099	Legal Support Workers, All Other	Associate's degree	None	None	\$25.33
<b>25-0000</b>	<b><i>Education, Training, and Library Occupations</i></b>				<b>\$26.62</b>
25-1011	Business Teachers, Postsecondary	Doctoral or professional degree	None	None	\$88,010 ***
25-1021	Computer Science Teachers, Postsecondary	Doctoral or professional degree	None	None	\$87,860 **
25-1022	Mathematical Science Teachers, Postsecondary	Doctoral or professional degree	None	None	\$74,740 **
25-1031	Architecture Teachers, Postsecondary	Doctoral or professional degree	None	None	\$85,400 **
25-1032	Engineering Teachers, Postsecondary	Doctoral or professional degree	None	None	\$103,600 ***
25-1042	Biological Science Teachers, Postsecondary	Doctoral or professional degree	None	None	\$79,600 **
25-1051	Atmospheric, Earth, Marine, and Space Sciences Teachers, Postsecondary	Doctoral or professional degree	None	None	\$88,710 **
25-1052	Chemistry Teachers, Postsecondary	Doctoral or professional degree	None	None	\$79,860 **
25-1053	Environmental Science Teachers, Postsecondary	Doctoral or professional degree	None	None	\$91,070 **
25-1054	Physics Teachers, Postsecondary	Doctoral or professional degree	None	None	\$90,400 ***
25-1061	Anthropology and Archeology Teachers, Postsecondary	Doctoral or professional degree	None	None	\$84,300 **
25-1062	Area, Ethnic, and Cultural Studies Teachers, Postsecondary	Doctoral or professional degree	None	None	\$77,370 **
25-1063	Economics Teachers, Postsecondary	Doctoral or professional degree	None	None	\$104,150 **
25-1064	Geography Teachers, Postsecondary	Doctoral or professional degree	None	None	\$84,520 **
25-1065	Political Science Teachers, Postsecondary	Doctoral or professional degree	None	None	\$81,490 **
25-1066	Psychology Teachers, Postsecondary	Doctoral or professional degree	None	None	\$78,880 **
25-1067	Sociology Teachers, Postsecondary	Doctoral or professional degree	None	None	\$78,420 **
25-1069	Social Sciences Teachers, Postsecondary, All Other	Doctoral or professional degree	None	None	\$66,520 **
25-1071	Health Specialties Teachers, Postsecondary	Doctoral or professional degree	Less than 5 years	None	\$99,090 ***
25-1072	Nursing Instructors and Teachers, Postsecondary	Doctoral or professional degree	Less than 5 years	None	\$69,570 **
25-1081	Education Teachers, Postsecondary	Doctoral or professional degree	Less than 5 years	None	\$64,720 **



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25-1082	Library Science Teachers, Postsecondary	Doctoral or professional degree	None	None	\$63,360 **
25-1111	Criminal Justice and Law Enforcement Teachers, Postsecondary	Doctoral or professional degree	None	None	\$57,910 **
25-1112	Law Teachers, Postsecondary	Doctoral or professional degree	Less than 5 years	None	\$116,430 ***
25-1113	Social Work Teachers, Postsecondary	Doctoral or professional degree	None	None	\$72,740 **
25-1121	Art, Drama, and Music Teachers, Postsecondary	Master's degree	None	None	\$68,300 **
25-1122	Communications Teachers, Postsecondary	Doctoral or professional degree	None	None	\$70,390 **
25-1123	English Language and Literature Teachers, Postsecondary	Doctoral or professional degree	None	None	\$64,020 **
25-1124	Foreign Language and Literature Teachers, Postsecondary	Doctoral or professional degree	None	None	\$66,810 **
25-1125	History Teachers, Postsecondary	Doctoral or professional degree	None	None	\$75,920 **
25-1126	Philosophy and Religion Teachers, Postsecondary	Doctoral or professional degree	None	None	\$75,800 **
25-1192	Home Economics Teachers, Postsecondary	Master's degree	None	None	\$67,800 **
25-1193	Recreation and Fitness Studies Teachers, Postsecondary	Doctoral or professional degree	None	None	\$63,750 **
25-1194	Vocational Education Teachers, Postsecondary	Bachelor's degree	Less than 5 years	None	\$23.87
25-1199	Postsecondary Teachers, All Other	Doctoral or professional degree	None	None	\$62,630 **
25-2011	Preschool Teachers, Except Special Education	Associate's degree	None	None	\$13.69
25-2012	Kindergarten Teachers, Except Special Education	Bachelor's degree	None	None	\$54,570 **
25-2021	Elementary School Teachers, Except Special Education	Bachelor's degree	None	None	\$65,210 **
25-2022	Middle School Teachers, Except Special and Career/Technical Education	Bachelor's degree	None	None	\$64,740 **
25-2031	Secondary School Teachers, Except Special and Career/Technical Education	Bachelor's degree	None	None	\$66,420 **
25-2032	Career/Technical Education Teachers, Secondary School	Bachelor's degree	Less than 5 years	None	\$72,800 **
25-2052	Special Education Teachers, Kindergarten and Elementary School	Bachelor's degree	None	None	\$58,910 **
25-2057	Special Education Teachers, Middle School	Bachelor's degree	None	None	\$58,530 **
25-2058	Special Education Teachers, Secondary School	Bachelor's degree	None	None	\$56,550 **
25-2059	Special Education Teachers, All Other	Bachelor's degree	None	None	\$40,560 **
25-3011	Adult Basic and Secondary Education and Literacy Teachers and Instructors	Bachelor's degree	None	None	\$23.77
25-3021	Self-Enrichment Education Teachers	High school diploma or equivalent	Less than 5 years	None	\$15.17
25-3031	Substitute Teachers	Bachelor's degree	None	None	\$13.83
25-3097	Teachers and Instructors, All Other, Except Substitute Teachers	Bachelor's degree	None	None	\$39,070 **
25-4011	Archivists	Master's degree	None	None	\$25.02
25-4012	Curators	Master's degree	None	None	\$25.97
25-4013	Museum Technicians and Conservators	Bachelor's degree	None	None	\$20.04
25-4022	Librarians and Media Collections Specialists	Bachelor's degree	None	None	\$24.30
25-4031	Library Technicians	Postsecondary non-degree award	None	None	\$15.48
25-9031	Instructional Coordinators	Master's degree	5 years or more	None	\$30.62
25-9041	Teacher Assistants	Some college, no degree	None	None	▲
25-9045	Teaching Assistants, Except Postsecondary	Some college, no degree	None	None	\$27,860 **
25-9099	Education, Training, and Library Workers, All Other	Bachelor's degree	None	None	\$22.44
<b>27-0000</b>	<b>Arts, Design, Entertainment, Sports, and Media Occupations</b>				<b>\$21.69</b>
27-1011	Art Directors	Bachelor's degree	5 years or more	None	\$38.11
27-1012	Craft Artists	No formal educational credential	None	Long-term on-the-job training	\$17.50
27-1013	Fine Artists, Including Painters, Sculptors, and Illustrators	Bachelor's degree	None	Long-term on-the-job training	\$24.40
27-1014	Multimedia Artists and Animators	Bachelor's degree	None	None	\$26.09
27-1021	Commercial and Industrial Designers	Bachelor's degree	None	None	\$30.72
27-1022	Fashion Designers	Bachelor's degree	None	None	\$28.52
27-1023	Floral Designers	High school diploma or equivalent	None	Moderate-term on-the-job training	\$11.67
27-1024	Graphic Designers	Bachelor's degree	None	None	\$23.20
27-1025	Interior Designers	Bachelor's degree	None	None	\$27.32
27-1026	Merchandise Displayers and Window Trimmers	High school diploma or equivalent	None	Short-term on-the-job training	\$15.61

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27-1027	Set and Exhibit Designers	Bachelor's degree	None	None	\$22.54
27-2011	Actors	Some college, no degree	None	Long-term on-the-job training	\$22.12
27-2012	Producers and Directors	Bachelor's degree	Less than 5 years	None	\$25.36
27-2021	Athletes and Sports Competitors	No formal educational credential	None	Long-term on-the-job training	\$97,500 **
27-2022	Coaches and Scouts	Bachelor's degree	None	None	\$26,800 **
27-2041	Music Directors and Composers	Bachelor's degree	Less than 5 years	None	\$21.44
27-2042	Musicians and Singers	No formal educational credential	None	Long-term on-the-job training	\$33.57
27-3011	Radio and Television Announcers	Bachelor's degree	None	None	\$17.68 +
27-3023	News Analysts, Reporters, and Journalists	Postsecondary non-degree award	None	None	\$18.85
27-3031	Public Relations Specialists	Bachelor's degree	None	None	\$29.68
27-3041	Editors	Bachelor's degree	Less than 5 years	None	\$25.56
27-3042	Technical Writers	Bachelor's degree	Less than 5 years	Short-term on-the-job training	\$32.56
27-3043	Writers and Authors	Bachelor's degree	None	Long-term on-the-job training	\$25.00
27-3091	Interpreters and Translators	Bachelor's degree	None	None	\$20.39
27-3092	Court Reporters and Simultaneous Captioners	Postsecondary non-degree award	None	Short-term on-the-job training	\$27.06
27-3099	Media and Communication Workers, All Other	High school diploma or equivalent	None	Short-term on-the-job training	\$18.44
27-4011	Audio and Video Equipment Technicians	Postsecondary non-degree award	None	Short-term on-the-job training	\$21.42
27-4012	Broadcast Technicians	Associate's degree	None	Short-term on-the-job training	\$21.74
27-4014	Sound Engineering Technicians	Postsecondary non-degree award	None	Short-term on-the-job training	\$24.59
27-4021	Photographers	High school diploma or equivalent	None	Moderate-term on-the-job training	\$18.10
27-4031	Camera Operators, Television, Video, and Motion Picture	Bachelor's degree	None	None	\$26.90
27-4032	Film and Video Editors	Bachelor's degree	None	None	\$26.98
27-4098	Lighting Technicians and Media and Communication Equipment Workers, All Other	High school diploma or equivalent	None	Short-term on-the-job training	\$33.74
<b>29-0000</b>	<b>Healthcare Practitioners and Technical Occupations</b>				<b>\$30.52</b>
29-1011	Chiropractors	Doctoral or professional degree	None	None	\$36.90
29-1021	Dentists, General	Doctoral or professional degree	None	None	\$87.53
29-1023	Orthodontists	Doctoral or professional degree	None	Internship/residency	▲
29-1029	Dentists, All Other Specialists	Doctoral or professional degree	None	Internship/residency	\$88.12
29-1031	Dietitians and Nutritionists	Bachelor's degree	None	Internship/residency	\$30.33
29-1041	Optometrists	Doctoral or professional degree	None	None	\$55.29
29-1051	Pharmacists	Doctoral or professional degree	None	None	\$59.78
29-1071	Physician Assistants	Master's degree	None	None	\$52.50
29-1081	Podiatrists	Doctoral or professional degree	None	Internship/residency	\$72.60
29-1122	Occupational Therapists	Master's degree	None	None	\$41.48
29-1123	Physical Therapists	Doctoral or professional degree	None	None	\$43.12
29-1124	Radiation Therapists	Associate's degree	None	None	\$40.86
29-1125	Recreational Therapists	Bachelor's degree	None	None	\$22.94
29-1126	Respiratory Therapists	Associate's degree	None	None	\$28.55
29-1127	Speech-Language Pathologists	Master's degree	None	Internship/residency	\$36.64
29-1128	Exercise Physiologists	Bachelor's degree	None	None	\$24.17
29-1129	Therapists, All Other	Bachelor's degree	None	None	\$27.55
29-1131	Veterinarians	Doctoral or professional degree	None	None	\$48.52
29-1141	Registered Nurses	Bachelor's degree	None	None	\$32.49
29-1151	Nurse Anesthetists	Master's degree	None	None	\$83.94
29-1161	Nurse Midwives	Master's degree	None	None	\$47.68
29-1171	Nurse Practitioners	Master's degree	None	None	\$50.68
29-1211	Anesthesiologists	Doctoral or professional degree	None	Internship/residency	#
29-1215	Family Medicine Physicians	Doctoral or professional degree	None	Internship/residency	\$85.34



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29-1216	General Internal Medicine Physicians	Doctoral or professional degree	None	Internship/residency	\$92.98
29-1218	Obstetricians and Gynecologists	Doctoral or professional degree	None	Internship/residency	#
29-1221	Pediatricians, General	Doctoral or professional degree	None	Internship/residency	\$77.85
29-1223	Psychiatrists	Doctoral or professional degree	None	Internship/residency	\$98.29
29-1228	Physicians, All Other; and Ophthalmologists, Except Pediatric	Doctoral or professional degree	None	Internship/residency	#
29-1248	Surgeons, Except Ophthalmologists	Doctoral or professional degree	None	Internship/residency	#
29-1292	Dental Hygienists	Associate's degree	None	None	\$33.35
29-1298	Acupuncturists and Healthcare Diagnosing or Treating Practitioners, All Other	Postsecondary non-degree award	None	None	\$40.56
29-2010	Clinical Laboratory Technologists and Technicians	Bachelor's degree	None	None	\$25.94
29-2031	Cardiovascular Technologists and Technicians	Associate's degree	None	None	\$28.41
29-2032	Diagnostic Medical Sonographers	Associate's degree	None	None	\$36.50
29-2033	Nuclear Medicine Technologists	Associate's degree	None	None	\$35.79
29-2034	Radiologic Technologists	Associate's degree	None	None	\$28.31
29-2035	Magnetic Resonance Imaging Technologists	Associate's degree	Less than 5 years	None	\$32.53
29-2040	Emergency Medical Technicians and Paramedics	Postsecondary non-degree award	None	None	\$16.13
29-2051	Dietetic Technicians	Associate's degree	None	None	\$14.77
29-2052	Pharmacy Technicians	High school diploma or equivalent	None	Moderate-term on-the-job training	\$14.91
29-2053	Psychiatric Technicians	Postsecondary non-degree award	Less than 5 years	Short-term on-the-job training	\$16.06
29-2055	Surgical Technologists	Postsecondary non-degree award	None	None	\$23.02
29-2056	Veterinary Technologists and Technicians	Associate's degree	None	None	\$17.14
29-2057	Ophthalmic Medical Technicians	Postsecondary non-degree award	None	None	\$18.09
29-2061	Licensed Practical and Licensed Vocational Nurses	Postsecondary non-degree award	None	None	\$22.33
29-2081	Opticians, Dispensing	High school diploma or equivalent	None	Long-term on-the-job training	\$21.02
29-2098	Healthcare Practitioners and Technical Workers, All Other	Postsecondary non-degree award	None	None	\$20.49
29-9091	Athletic Trainers	Bachelor's degree	None	None	\$48,560 **
<b>31-0000</b>	<b>Healthcare Support Occupations</b>				<b>\$13.43</b>
31-1014	Nursing Assistants	Postsecondary non-degree award	None	None	▲
31-1120	Home Health and Personal Care Aides	High school diploma or equivalent	None	Short-term on-the-job training	\$11.41
31-1131	Nursing Assistants	Postsecondary non-degree award	None	None	\$14.11
31-1132	Orderlies	High school diploma or equivalent	None	Short-term on-the-job training	\$14.00
31-1133	Psychiatric Aides	High school diploma or equivalent	None	Short-term on-the-job training	\$18.08
31-2011	Occupational Therapy Assistants	Associate's degree	None	None	\$29.34
31-2012	Occupational Therapy Aides	High school diploma or equivalent	None	Short-term on-the-job training	\$15.79
31-2021	Physical Therapist Assistants	Associate's degree	None	None	\$29.19
31-2022	Physical Therapist Aides	High school diploma or equivalent	None	Short-term on-the-job training	\$13.55
31-9011	Massage Therapists	Postsecondary non-degree award	None	None	\$23.08
31-9091	Dental Assistants	Postsecondary non-degree award	None	None	\$19.42
31-9092	Medical Assistants	Postsecondary non-degree award	None	None	\$16.42
31-9093	Medical Equipment Preparers	High school diploma or equivalent	None	Moderate-term on-the-job training	\$17.93
31-9094	Medical Transcriptionists	Postsecondary non-degree award	None	None	\$18.42
31-9095	Pharmacy Aides	High school diploma or equivalent	None	Short-term on-the-job training	\$12.37
31-9096	Veterinary Assistants and Laboratory Animal Caretakers	High school diploma or equivalent	None	Short-term on-the-job training	\$13.12
31-9097	Phlebotomists	Postsecondary non-degree award	None	None	\$16.65
31-9099	Healthcare Support Workers, All Other	High school diploma or equivalent	None	None	\$20.79
<b>33-0000</b>	<b>Protective Service Occupations</b>				<b>\$22.09</b>
33-1011	First-Line Supervisors of Correctional Officers	High school diploma or equivalent	Less than 5 years	None	\$34.47
33-1012	First-Line Supervisors of Police and Detectives	High school diploma or equivalent	Less than 5 years	Moderate-term on-the-job training	\$41.98
33-1021	First-Line Supervisors of Fire Fighting and Prevention Workers	Postsecondary non-degree award	Less than 5 years	Moderate-term on-the-job training	\$38.44

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33-2011	Firefighters	Postsecondary non-degree award	None	Long-term on-the-job training	\$24.70
33-2021	Fire Inspectors and Investigators	Postsecondary non-degree award	5 years or more	Moderate-term on-the-job training	\$28.21
33-3011	Bailiffs	High school diploma or equivalent	None	Moderate-term on-the-job training	\$23.32
33-3012	Correctional Officers and Jailers	High school diploma or equivalent	None	Moderate-term on-the-job training	\$23.38
33-3021	Detectives and Criminal Investigators	High school diploma or equivalent	Less than 5 years	Moderate-term on-the-job training	\$37.03
33-3031	Fish and Game Wardens	Bachelor's degree	None	Moderate-term on-the-job training	\$33.28
33-3041	Parking Enforcement Workers	High school diploma or equivalent	None	Short-term on-the-job training	\$19.95
33-3051	Police and Sheriff's Patrol Officers	High school diploma or equivalent	None	Moderate-term on-the-job training	\$31.41
33-3052	Transit and Railroad Police	High school diploma or equivalent	None	Moderate-term on-the-job training	\$38.14
33-9011	Animal Control Workers	High school diploma or equivalent	None	Moderate-term on-the-job training	\$16.80
33-9021	Private Detectives and Investigators	High school diploma or equivalent	Less than 5 years	Moderate-term on-the-job training	\$24.40
33-9031	Gaming Surveillance Officers and Gaming Investigators	High school diploma or equivalent	Less than 5 years	Moderate-term on-the-job training	\$32.44
33-9032	Security Guards	High school diploma or equivalent	None	Short-term on-the-job training	\$14.05
33-9091	Crossing Guards	No formal educational credential	None	Short-term on-the-job training	\$13.41
33-9092	Lifeguards, Ski Patrol, and Other Recreational Protective Service Workers	No formal educational credential	None	Short-term on-the-job training	\$9.78
33-9093	Transportation Security Screeners	High school diploma or equivalent	None	Short-term on-the-job training	\$21.23
33-9098	School Bus Monitors and Protective Service Workers, All Other	High school diploma or equivalent	None	Short-term on-the-job training	\$14.17
<b>35-0000</b>	<b>Food Preparation and Serving Related Occupations</b>				<b>\$10.32</b>
35-1011	Chefs and Head Cooks	High school diploma or equivalent	5 years or more	None	\$22.52
35-1012	First-Line Supervisors of Food Preparation and Serving Workers	High school diploma or equivalent	Less than 5 years	None	\$14.84
35-2011	Cooks, Fast Food	No formal educational credential	None	Short-term on-the-job training	\$10.77
35-2012	Cooks, Institution and Cafeteria	No formal educational credential	None	Short-term on-the-job training	\$13.58
35-2013	Cooks, Private Household	Postsecondary non-degree award	Less than 5 years	None	\$15.69 +
35-2014	Cooks, Restaurant	No formal educational credential	Less than 5 years	Moderate-term on-the-job training	\$12.32
35-2015	Cooks, Short Order	No formal educational credential	None	Short-term on-the-job training	\$11.16
35-2019	Cooks, All Other	No formal educational credential	None	Moderate-term on-the-job training	\$13.23
35-2021	Food Preparation Workers	No formal educational credential	None	Short-term on-the-job training	\$10.93
35-3011	Bartenders	No formal educational credential	None	Short-term on-the-job training	\$9.59
35-3023	Fast Food and Counter Workers	No formal educational credential	None	Short-term on-the-job training	\$9.79
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	\$10.92
35-9011	Dining Room and Cafeteria Attendants and Bartender Helpers	No formal educational credential	None	Short-term on-the-job training	\$9.85
35-9021	Dishwashers	No formal educational credential	None	Short-term on-the-job training	\$10.31
35-9031	Hosts and Hostesses, Restaurant, Lounge, and Coffee Shop	No formal educational credential	None	Short-term on-the-job training	\$9.70
35-9099	Food Preparation and Serving Related Workers, All Other	No formal educational credential	None	Short-term on-the-job training	\$9.73
<b>37-0000</b>	<b>Building and Grounds Cleaning and Maintenance Occupations</b>				<b>\$13.54</b>
37-1011	First-Line Supervisors of Housekeeping and Janitorial Workers	High school diploma or equivalent	Less than 5 years	None	\$19.74
37-1012	First-Line Supervisors of Landscaping, Lawn Service, and Groundskeeping Workers	High school diploma or equivalent	Less than 5 years	None	\$23.27
37-2011	Janitors and Cleaners, Except Maids and Housekeeping Cleaners	No formal educational credential	None	Short-term on-the-job training	\$13.28
37-2012	Maids and Housekeeping Cleaners	No formal educational credential	None	Short-term on-the-job training	\$11.35
37-3011	Landscaping and Groundskeeping Workers	No formal educational credential	None	Short-term on-the-job training	\$14.58
37-3012	Pesticide Handlers, Sprayers, and Applicators, Vegetation	High school diploma or equivalent	None	Moderate-term on-the-job training	\$17.64
37-3013	Tree Trimmers and Pruners	High school diploma or equivalent	None	Short-term on-the-job training	\$21.44
37-3019	Grounds Maintenance Workers, All Other	No formal educational credential	None	Short-term on-the-job training	\$20.28
<b>39-0000</b>	<b>Personal Care and Service Occupations</b>				<b>\$11.58</b>
39-1013	First-Line Supervisors of Gambling Services Workers	High school diploma or equivalent	Less than 5 years	None	\$24.96
39-1021	First-Line Supervisors of Personal Service Workers	High school diploma or equivalent	Less than 5 years	None	▲
39-1098	First-Line Supervisors of Personal Service and EWorkers, Except Gambling Services	High school diploma or equivalent	Less than 5 years	None	\$17.56

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39-2011	Animal Trainers	High school diploma or equivalent	None	Moderate-term on-the-job training	\$12.14
39-2021	Nonfarm Animal Caretakers	High school diploma or equivalent	None	Short-term on-the-job training	\$11.03
39-3011	Gaming Dealers	High school diploma or equivalent	None	Short-term on-the-job training	\$9.21
39-3019	Gaming Service Workers, All Other	High school diploma or equivalent	None	Short-term on-the-job training	\$11.77
39-3031	Ushers, Lobby Attendants, and Ticket Takers	No formal educational credential	None	Short-term on-the-job training	\$9.86
39-3091	Amusement and Recreation Attendants	No formal educational credential	None	Short-term on-the-job training	\$9.60
39-3093	Locker Room, Coatroom, and Dressing Room Attendants	High school diploma or equivalent	None	Short-term on-the-job training	\$10.81
39-3099	Entertainment Attendants and Related Workers, All Other	High school diploma or equivalent	None	Short-term on-the-job training	\$26.43
39-4011	Embalmers	Associate's degree	None	Long-term on-the-job training	\$20.69
39-4021	Funeral Attendants	High school diploma or equivalent	None	Short-term on-the-job training	\$14.01
39-4031	Morticians, Undertakers, and Funeral Directors	Associate's degree	None	Long-term on-the-job training	\$27.36
39-5012	Hairdressers, Hairstylists, and Cosmetologists	Postsecondary non-degree award	None	None	\$11.37
39-5092	Manicurists and Pedicurists	Postsecondary non-degree award	None	None	\$10.54
39-5094	Skincare Specialists	Postsecondary non-degree award	None	None	\$15.52
39-6011	Baggage Porters and Bellhops	High school diploma or equivalent	None	Short-term on-the-job training	\$10.49
39-6012	Concierges	High school diploma or equivalent	None	Moderate-term on-the-job training	\$14.28
39-7010	Tour and Travel Guides	High school diploma or equivalent	None	Moderate-term on-the-job training	\$11.09
39-9011	Childcare Workers	High school diploma or equivalent	None	Short-term on-the-job training	\$10.90
39-9021	Personal Care Aides	High school diploma or equivalent	None	Short-term on-the-job training	▲
39-9031	Fitness Trainers and Aerobics Instructors	High school diploma or equivalent	None	Short-term on-the-job training	\$13.66
39-9032	Recreation Workers	High school diploma or equivalent	None	Short-term on-the-job training	\$11.84
39-9041	Residential Advisors	High school diploma or equivalent	None	Short-term on-the-job training	\$14.80
39-9098	Crematory Operators and Personal Care and Service Workers, All Other	High school diploma or equivalent	None	Short-term on-the-job training	\$11.26
39-9099	Personal Care and Service Workers, All Other	High school diploma or equivalent	None	Short-term on-the-job training	▲
<b>41-0000</b>	<b>Sales and Related Occupations</b>				<b>\$14.42</b>
41-1011	First-Line Supervisors of Retail Sales Workers	High school diploma or equivalent	Less than 5 years	None	\$19.18
41-1012	First-Line Supervisors of Non-Retail Sales Workers	High school diploma or equivalent	Less than 5 years	None	\$37.40
41-2011	Cashiers	No formal educational credential	None	Short-term on-the-job training	\$10.85
41-2021	Counter and Rental Clerks	No formal educational credential	None	Short-term on-the-job training	\$13.46
41-2031	Retail Salespersons	No formal educational credential	None	Short-term on-the-job training	\$11.96
41-3011	Advertising Sales Agents	High school diploma or equivalent	None	Moderate-term on-the-job training	\$23.94
41-3021	Insurance Sales Agents	High school diploma or equivalent	None	Moderate-term on-the-job training	\$26.65
41-3031	Securities, Commodities, and Financial Services Sales Agents	Bachelor's degree	None	Moderate-term on-the-job training	\$27.46
41-3041	Travel Agents	High school diploma or equivalent	None	Moderate-term on-the-job training	\$17.62
41-3091	Sales Representatives, Services, Ex. Advertising, Insurance, Financial, and Travel	High school diploma or equivalent	None	Moderate-term on-the-job training	\$26.56
41-3099	Sales Representatives, Services, All Other	High school diploma or equivalent	None	Moderate-term on-the-job training	▲
41-4011	Sales Rep., Wholesale & Mfg, Tech./Sci. Prod.	Bachelor's degree	None	Moderate-term on-the-job training	\$43.38
41-4012	Sales Rep., Wholesale/Mfg, ex. Tech./Sci. Prod.	High school diploma or equivalent	None	Moderate-term on-the-job training	\$29.13
41-9011	Demonstrators and Product Promoters	No formal educational credential	None	Short-term on-the-job training	\$14.79
41-9021	Real Estate Brokers	High school diploma or equivalent	Less than 5 years	None	\$25.51
41-9022	Real Estate Sales Agents	High school diploma or equivalent	None	Moderate-term on-the-job training	\$19.23
41-9031	Sales Engineers	Bachelor's degree	None	Moderate-term on-the-job training	\$44.18
41-9041	Telemarketers	No formal educational credential	None	Short-term on-the-job training	\$11.43
41-9099	Sales and Related Workers, All Other	High school diploma or equivalent	None	None	\$13.38
<b>43-0000</b>	<b>Office and Administrative Support Occupations</b>				<b>\$18.14</b>
43-1011	First-Line Supervisors of Office and Administrative Support Workers	High school diploma or equivalent	Less than 5 years	None	\$27.28
43-2011	Switchboard Operators, Including Answering Service	High school diploma or equivalent	None	Short-term on-the-job training	\$14.77
43-2021	Telephone Operators	High school diploma or equivalent	None	Short-term on-the-job training	\$13.86

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43-2099	Communications Equipment Operators, All Other	High school diploma or equivalent	None	Short-term on-the-job training	\$20.13
43-3011	Bill and Account Collectors	High school diploma or equivalent	None	Moderate-term on-the-job training	\$17.10
43-3021	Billing and Posting Clerks	High school diploma or equivalent	None	Moderate-term on-the-job training	\$17.96
43-3031	Bookkeeping, Accounting, and Auditing Clerks	Some college, no degree	None	Moderate-term on-the-job training	\$19.44
43-3041	Gaming Cage Workers	High school diploma or equivalent	None	Short-term on-the-job training	\$13.26
43-3051	Payroll and Timekeeping Clerks	High school diploma or equivalent	None	Moderate-term on-the-job training	\$22.16
43-3061	Procurement Clerks	High school diploma or equivalent	None	Moderate-term on-the-job training	\$20.11
43-3071	Tellers	High school diploma or equivalent	None	Short-term on-the-job training	\$15.05
43-3099	Financial Clerks, All Other	High school diploma or equivalent	None	Short-term on-the-job training	\$21.90
43-4011	Brokerage Clerks	High school diploma or equivalent	None	Moderate-term on-the-job training	\$25.57
43-4021	Correspondence Clerks	High school diploma or equivalent	None	Short-term on-the-job training	\$17.47
43-4031	Court, Municipal, and License Clerks	High school diploma or equivalent	None	Long-term on-the-job training	\$18.44
43-4041	Credit Authorizers, Checkers, and Clerks	High school diploma or equivalent	None	Moderate-term on-the-job training	\$17.89
43-4051	Customer Service Representatives	High school diploma or equivalent	None	Short-term on-the-job training	\$17.23
43-4061	Eligibility Interviewers, Government Programs	High school diploma or equivalent	None	Moderate-term on-the-job training	\$21.99
43-4071	File Clerks	High school diploma or equivalent	None	Short-term on-the-job training	\$17.57
43-4081	Hotel, Motel, and Resort Desk Clerks	High school diploma or equivalent	None	Short-term on-the-job training	\$11.17
43-4111	Interviewers, Except Eligibility and Loan	High school diploma or equivalent	None	Short-term on-the-job training	\$15.52
43-4121	Library Assistants, Clerical	High school diploma or equivalent	None	Short-term on-the-job training	\$11.81
43-4131	Loan Interviewers and Clerks	High school diploma or equivalent	None	Short-term on-the-job training	\$19.63
43-4141	New Accounts Clerks	High school diploma or equivalent	None	Moderate-term on-the-job training	\$17.16
43-4151	Order Clerks	Some college, no degree	None	Short-term on-the-job training	\$16.94
43-4161	Human Resources Assistants, Except Payroll and Timekeeping	Associate's degree	None	None	\$19.41
43-4171	Receptionists and Information Clerks	High school diploma or equivalent	None	Short-term on-the-job training	\$13.84
43-4181	Reservation and Transportation Ticket Agents and Travel Clerks	High school diploma or equivalent	None	Short-term on-the-job training	\$17.71
43-4199	Information and Record Clerks, All Other	High school diploma or equivalent	None	Short-term on-the-job training	\$21.53
43-5011	Cargo and Freight Agents	High school diploma or equivalent	None	Short-term on-the-job training	\$20.01
43-5021	Couriers and Messengers	High school diploma or equivalent	None	Short-term on-the-job training	\$14.01
43-5031	Police, Fire, and Ambulance Dispatchers	High school diploma or equivalent	None	Moderate-term on-the-job training	\$23.01
43-5032	Dispatchers, Except Police, Fire, and Ambulance	High school diploma or equivalent	None	Moderate-term on-the-job training	\$20.14
43-5041	Meter Readers, Utilities	High school diploma or equivalent	None	Short-term on-the-job training	\$21.24
43-5051	Postal Service Clerks	High school diploma or equivalent	None	Short-term on-the-job training	\$24.11
43-5052	Postal Service Mail Carriers	High school diploma or equivalent	None	Short-term on-the-job training	\$24.38
43-5053	Postal Service Mail Sorters, Processors, and Processing Machine Operators	High school diploma or equivalent	None	Short-term on-the-job training	\$24.11
43-5061	Production, Planning, and Expediting Clerks	High school diploma or equivalent	None	Moderate-term on-the-job training	\$23.72
43-5071	Shipping, Receiving, and Traffic Clerks	High school diploma or equivalent	None	Short-term on-the-job training	\$16.79
43-5111	Weighers, Measurers, Checkers, and Samplers, Recordkeeping	High school diploma or equivalent	None	Short-term on-the-job training	\$18.41
43-6011	Executive Secretaries and Executive Administrative Assistants	High school diploma or equivalent	Less than 5 years	None	\$28.43
43-6012	Legal Secretaries	High school diploma or equivalent	None	Moderate-term on-the-job training	\$19.02
43-6013	Medical Secretaries	High school diploma or equivalent	None	Moderate-term on-the-job training	\$17.07
43-6014	Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	High school diploma or equivalent	None	Short-term on-the-job training	\$17.84
43-9021	Data Entry Keyers	High school diploma or equivalent	None	Short-term on-the-job training	\$15.65
43-9022	Word Processors and Typists	High school diploma or equivalent	None	Short-term on-the-job training	\$19.34
43-9031	Desktop Publishers	Associate's degree	None	Short-term on-the-job training	\$25.49
43-9041	Insurance Claims and Policy Processing Clerks	High school diploma or equivalent	None	Moderate-term on-the-job training	\$19.29
43-9051	Mail Clerks and Mail Machine Operators, Except Postal Service	High school diploma or equivalent	None	Short-term on-the-job training	\$15.79
43-9061	Office Clerks, General	High school diploma or equivalent	None	Short-term on-the-job training	\$16.99
43-9071	Office Machine Operators, Except Computer	High school diploma or equivalent	None	Short-term on-the-job training	\$15.97

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43-9111	Statistical Assistants	Bachelor's degree	None	None	\$23.11
43-9199	Office and Administrative Support Workers, All Other	High school diploma or equivalent	None	Short-term on-the-job training	\$19.46
<b>45-0000</b>	<b>Farming, Fishing, and Forestry Occupations</b>				<b>\$15.82</b>
45-1011	First-Line Supervisors of Farming, Fishing, and Forestry Workers	High school diploma or equivalent	Less than 5 years	None	\$29.17
45-2011	Agricultural Inspectors	Bachelor's degree	None	Moderate-term on-the-job training	\$25.43
45-2041	Graders and Sorters, Agricultural Products	No formal educational credential	None	Short-term on-the-job training	\$13.32
45-2091	Agricultural Equipment Operators	No formal educational credential	None	Moderate-term on-the-job training	\$19.54
45-2092	Farmworkers and Laborers, Crop, Nursery, and Greenhouse	No formal educational credential	None	Short-term on-the-job training	\$13.86
45-2093	Farmworkers, Farm, Ranch, and Aquacultural Animals	No formal educational credential	None	Short-term on-the-job training	\$14.53
45-4022	Logging Equipment Operators	High school diploma or equivalent	None	Moderate-term on-the-job training	\$18.40
45-4023	Log Graders and Scalers	High school diploma or equivalent	None	Moderate-term on-the-job training	\$15.32
<b>47-0000</b>	<b>Construction and Extraction Occupations</b>				<b>\$24.31</b>
47-1011	First-Line Supervisors of Construction Trades and Extraction Workers	High school diploma or equivalent	5 years or more	None	\$32.79
47-2011	Boilermakers	High school diploma or equivalent	None	Apprenticeship	\$37.62
47-2021	Brickmasons and Blockmasons	High school diploma or equivalent	None	Apprenticeship	\$27.03
47-2022	Stonemasons	High school diploma or equivalent	None	Apprenticeship	\$19.07
47-2031	Carpenters	High school diploma or equivalent	None	Apprenticeship	\$23.81
47-2041	Carpet Installers	No formal educational credential	None	Short-term on-the-job training	\$18.55
47-2042	Floor Layers, Except Carpet, Wood, and Hard Tiles	No formal educational credential	None	Moderate-term on-the-job training	\$20.91
47-2044	Tile and Marble Setters	No formal educational credential	None	Long-term on-the-job training	\$21.88
47-2051	Cement Masons and Concrete Finishers	No formal educational credential	None	Moderate-term on-the-job training	\$24.99
47-2061	Construction Laborers	No formal educational credential	None	Short-term on-the-job training	\$20.67
47-2071	Paving, Surfacing, and Tamping Equipment Operators	High school diploma or equivalent	None	Moderate-term on-the-job training	\$21.33
47-2073	Operating Engineers and Other Construction Equipment Operators	High school diploma or equivalent	None	Moderate-term on-the-job training	\$25.59
47-2081	Drywall and Ceiling Tile Installers	No formal educational credential	None	Moderate-term on-the-job training	\$24.87
47-2082	Tapers	No formal educational credential	None	Moderate-term on-the-job training	\$27.62
47-2111	Electricians	High school diploma or equivalent	None	Apprenticeship	\$25.72
47-2121	Glaziers	High school diploma or equivalent	None	Apprenticeship	\$23.82
47-2131	Insulation Workers, Floor, Ceiling, and Wall	No formal educational credential	None	Short-term on-the-job training	\$21.85
47-2132	Insulation Workers, Mechanical	High school diploma or equivalent	None	Apprenticeship	\$27.48
47-2141	Painters, Construction and Maintenance	No formal educational credential	None	Moderate-term on-the-job training	\$20.15
47-2142	Paperhangers	No formal educational credential	None	Long-term on-the-job training	\$20.06
47-2151	Pipelayers	No formal educational credential	None	Short-term on-the-job training	\$23.18
47-2152	Plumbers, Pipefitters, and Steamfitters	High school diploma or equivalent	None	Apprenticeship	\$28.19
47-2161	Plasterers and Stucco Masons	No formal educational credential	None	Long-term on-the-job training	\$23.85
47-2181	Roofers	No formal educational credential	None	Moderate-term on-the-job training	\$21.80
47-2211	Sheet Metal Workers	High school diploma or equivalent	None	Apprenticeship	\$26.26
47-2221	Structural Iron and Steel Workers	High school diploma or equivalent	None	Apprenticeship	\$29.27
47-3011	Helpers--Brickmasons, Blockmasons, Stonemasons, and Tile and Marble Setters	No formal educational credential	None	Short-term on-the-job training	\$17.93
47-3012	Helpers--Carpenters	No formal educational credential	None	Short-term on-the-job training	\$14.87
47-3013	Helpers--Electricians	High school diploma or equivalent	None	Short-term on-the-job training	\$15.51
47-3014	Helpers--Painters, Paperhangers, Plasterers, and Stucco Masons	No formal educational credential	None	Short-term on-the-job training	\$14.05
47-3015	Helpers--Pipelayers, Plumbers, Pipefitters, and Steamfitters	High school diploma or equivalent	None	Short-term on-the-job training	\$17.19
47-3016	Helpers--Roofers	No formal educational credential	None	Short-term on-the-job training	\$16.82
47-3019	Helpers, Construction Trades, All Other	No formal educational credential	None	Short-term on-the-job training	\$15.45
47-4011	Construction and Building Inspectors	High school diploma or equivalent	5 years or more	Moderate-term on-the-job training	\$29.74
47-4031	Fence Erectors	No formal educational credential	None	Moderate-term on-the-job training	\$18.72
47-4041	Hazardous Materials Removal Workers	High school diploma or equivalent	None	Moderate-term on-the-job training	\$24.01



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47-4051	Highway Maintenance Workers	High school diploma or equivalent	None	Moderate-term on-the-job training	\$20.48
47-4071	Septic Tank Servicers and Sewer Pipe Cleaners	High school diploma or equivalent	None	Moderate-term on-the-job training	\$22.33
47-4090	Miscellaneous Construction and Related Workers	High school diploma or equivalent	None	Moderate-term on-the-job training	\$17.39
47-5012	Rotary Drill Operators, Oil and Gas	No formal educational credential	None	Moderate-term on-the-job training	\$20.69
47-5013	Service Unit Operators, Oil, Gas, and Mining	No formal educational credential	None	Moderate-term on-the-job training	\$26.41
47-5022	Excavating and Loading Machine and Dragline Operators, Surface Mining	High school diploma or equivalent	Less than 5 years	Moderate-term on-the-job training	\$22.12
47-5041	Continuous Mining Machine Operators	No formal educational credential	None	Moderate-term on-the-job training	\$25.93
47-5051	Rock Splitters, Quarry	No formal educational credential	None	Short-term on-the-job training	\$16.80
47-5071	Roustabouts, Oil and Gas	No formal educational credential	None	Moderate-term on-the-job training	\$17.81
47-5081	Helpers--Extraction Workers	High school diploma or equivalent	None	Moderate-term on-the-job training	\$18.39
47-5097	Earth Drillers, Except Oil and Gas	High school diploma or equivalent	None	Moderate-term on-the-job training	\$22.68
<b>49-0000</b>	<b>Installation, Maintenance, and Repair Occupations</b>				<b>\$22.77</b>
49-1011	First-Line Supervisors of Mechanics, Installers, and Repairers	High school diploma or equivalent	Less than 5 years	None	\$33.00
49-2011	Computer, Automated Teller, and Office Machine Repairers	Some college, no degree	None	Short-term on-the-job training	\$18.19
49-2021	Radio, Cellular, and Tower Equipment Installers and Repairers	Associate's degree	None	Moderate-term on-the-job training	\$30.87
49-2022	Telecommunications Equipment Installers and Repairers, Except Line Installers	Postsecondary non-degree award	None	Moderate-term on-the-job training	\$28.66
49-2091	Avionics Technicians	Associate's degree	None	None	\$29.53
49-2092	Electric Motor, Power Tool, and Related Repairers	High school diploma or equivalent	Less than 5 years	Moderate-term on-the-job training	\$22.85
49-2093	Electrical and Electronics Installers and Repairers, Transportation Equipment	Postsecondary non-degree award	None	Long-term on-the-job training	\$30.48
49-2094	Electrical and Electronics Repairers, Commercial and Industrial Equipment	Postsecondary non-degree award	None	Long-term on-the-job training	\$28.28
49-2095	Electrical and Electronics Repairers, Powerhouse, Substation, and Relay	Postsecondary non-degree award	Less than 5 years	Moderate-term on-the-job training	\$37.43
49-2096	Electronic Equipment Installers and Repairers, Motor Vehicles	High school diploma or equivalent	None	Moderate-term on-the-job training	\$20.78
49-2097	Electronic Home Entertainment Equipment Installers and Repairers	Postsecondary non-degree award	None	Short-term on-the-job training	\$18.66
49-2098	Security and Fire Alarm Systems Installers	High school diploma or equivalent	None	Moderate-term on-the-job training	\$23.83
49-3011	Aircraft Mechanics and Service Technicians	Postsecondary non-degree award	None	None	\$29.96
49-3021	Automotive Body and Related Repairers	High school diploma or equivalent	None	Long-term on-the-job training	\$19.08
49-3022	Automotive Glass Installers and Repairers	High school diploma or equivalent	None	Moderate-term on-the-job training	\$19.92
49-3023	Automotive Service Technicians and Mechanics	Postsecondary non-degree award	None	Short-term on-the-job training	\$19.52
49-3031	Bus and Truck Mechanics and Diesel Engine Specialists	High school diploma or equivalent	None	Long-term on-the-job training	\$22.49
49-3041	Farm Equipment Mechanics and Service Technicians	High school diploma or equivalent	None	Long-term on-the-job training	\$22.20
49-3042	Mobile Heavy Equipment Mechanics, Except Engines	High school diploma or equivalent	None	Long-term on-the-job training	\$26.39
49-3051	Motorboat Mechanics and Service Technicians	High school diploma or equivalent	None	Long-term on-the-job training	\$20.66
49-3052	Motorcycle Mechanics	Postsecondary non-degree award	None	Short-term on-the-job training	\$17.61
49-3053	Outdoor Power Equipment and Other Small Engine Mechanics	High school diploma or equivalent	None	Moderate-term on-the-job training	\$15.23
49-3092	Recreational Vehicle Service Technicians	High school diploma or equivalent	None	Long-term on-the-job training	\$18.10
49-3093	Tire Repairers and Changers	High school diploma or equivalent	None	Short-term on-the-job training	\$14.95
49-9011	Mechanical Door Repairers	High school diploma or equivalent	None	Moderate-term on-the-job training	\$19.76
49-9012	Control and Valve Installers and Repairers, Except Mechanical Door	High school diploma or equivalent	None	Moderate-term on-the-job training	\$33.83
49-9021	Heating, Air Conditioning, and Refrigeration Mechanics and Installers	Postsecondary non-degree award	None	Long-term on-the-job training	\$23.53
49-9031	Home Appliance Repairers	High school diploma or equivalent	None	Moderate-term on-the-job training	\$21.34
49-9041	Industrial Machinery Mechanics	High school diploma or equivalent	None	Long-term on-the-job training	\$26.81
49-9043	Maintenance Workers, Machinery	High school diploma or equivalent	None	Long-term on-the-job training	\$24.68
49-9044	Millwrights	High school diploma or equivalent	None	Apprenticeship	\$31.30
49-9051	Electrical Power-Line Installers and Repairers	High school diploma or equivalent	None	Long-term on-the-job training	\$36.23
49-9052	Telecommunications Line Installers and Repairers	High school diploma or equivalent	None	Long-term on-the-job training	\$21.24
49-9061	Camera and Photographic Equipment Repairers	High school diploma or equivalent	None	Long-term on-the-job training	\$16.22
49-9062	Medical Equipment Repairers	Associate's degree	None	Moderate-term on-the-job training	\$24.58
49-9063	Musical Instrument Repairers and Tuners	High school diploma or equivalent	None	Apprenticeship	\$15.97

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49-9069	Precision Instrument and Equipment Repairers, All Other	High school diploma or equivalent	None	Long-term on-the-job training	\$27.38
49-9071	Maintenance and Repair Workers, General	High school diploma or equivalent	None	Moderate-term on-the-job training	\$19.97
49-9091	Coin, Vending, and Amusement Machine Servicers and Repairers	High school diploma or equivalent	None	Short-term on-the-job training	\$17.74
49-9094	Locksmiths and Safe Repairers	High school diploma or equivalent	None	Long-term on-the-job training	\$21.40
49-9096	Riggers	High school diploma or equivalent	None	Moderate-term on-the-job training	\$25.45
49-9098	Helpers--Installation, Maintenance, and Repair Workers	High school diploma or equivalent	None	Short-term on-the-job training	\$14.43
49-9099	Installation, Maintenance, and Repair Workers, All Other	High school diploma or equivalent	None	Moderate-term on-the-job training	\$20.57
<b>51-0000</b>	<b>Production Occupations</b>				<b>\$18.14</b>
51-1011	First-Line Supervisors of Production and Operating Workers	High school diploma or equivalent	Less than 5 years	None	\$29.89
51-2021	Coil Winders, Tapers, and Finishers	High school diploma or equivalent	None	Moderate-term on-the-job training	\$18.62
51-2028	Electrical, electronic, electromechanical assemblers, ex winders	High school diploma or equivalent	None	Moderate-term on-the-job training	\$16.30
51-2031	Engine and Other Machine Assemblers	High school diploma or equivalent	None	Moderate-term on-the-job training	\$24.75
51-2041	Structural Metal Fabricators and Fitters	High school diploma or equivalent	None	Moderate-term on-the-job training	\$18.28
51-2051	Fiberglass Laminators and Fabricators	High school diploma or equivalent	None	Moderate-term on-the-job training	\$15.48
51-2090	Miscellaneous Assemblers and Fabricators	High school diploma or equivalent	None	Moderate-term on-the-job training	\$16.76
51-3011	Bakers	No formal educational credential	None	Long-term on-the-job training	\$12.76
51-3021	Butchers and Meat Cutters	No formal educational credential	None	Long-term on-the-job training	\$16.11
51-3022	Meat, Poultry, and Fish Cutters and Trimmers	No formal educational credential	None	Short-term on-the-job training	\$14.93
51-3023	Slaughterers and Meat Packers	No formal educational credential	None	Short-term on-the-job training	\$13.84
51-3091	Food and Tobacco Roasting, Baking, and Drying Machine Operators and Tenders	No formal educational credential	None	Moderate-term on-the-job training	\$14.90
51-3092	Food Batchmakers	High school diploma or equivalent	None	Moderate-term on-the-job training	\$15.37
51-3093	Food Cooking Machine Operators and Tenders	High school diploma or equivalent	None	Moderate-term on-the-job training	\$17.02
51-3099	Food Processing Workers, All Other	No formal educational credential	None	Moderate-term on-the-job training	\$12.68
51-4021	Extruding and Drawing Machine S/O/T, M/P	High school diploma or equivalent	None	Moderate-term on-the-job training	\$17.48
51-4022	Forging Machine S/O/T, M/P	High school diploma or equivalent	None	Moderate-term on-the-job training	\$19.72
51-4023	Rolling Machine S/O/T, M/P	High school diploma or equivalent	None	Moderate-term on-the-job training	\$22.28
51-4031	Cutting, Punching, and Press Machine S/O/T, M/P	High school diploma or equivalent	None	Moderate-term on-the-job training	\$17.78
51-4032	Drilling and Boring Machine Tool S/O/T, M/P	High school diploma or equivalent	None	Moderate-term on-the-job training	\$20.36
51-4033	Grind/Lapping/Polish/Buf Mach. Tool S/O/T, M/P	High school diploma or equivalent	None	Moderate-term on-the-job training	\$17.73
51-4034	Lathe and Turning Machine Tool S/O/T, M/P	High school diploma or equivalent	None	Moderate-term on-the-job training	\$20.65
51-4041	Machinists	High school diploma or equivalent	None	Long-term on-the-job training	\$20.83
51-4051	Metal-Refining Furnace Operators and Tenders	High school diploma or equivalent	None	Moderate-term on-the-job training	\$18.10
51-4052	Pourers and Casters, Metal	High school diploma or equivalent	None	Moderate-term on-the-job training	\$18.50
51-4062	Patternmakers, Metal and Plastic	High school diploma or equivalent	None	Moderate-term on-the-job training	\$23.68
51-4071	Foundry Mold and Coremakers	High school diploma or equivalent	None	Moderate-term on-the-job training	\$16.46
51-4072	Molding, Coremaking, and Casting Machine S/O/T, M/P	High school diploma or equivalent	None	Moderate-term on-the-job training	\$14.92
51-4081	Multiple Machine Tool S/O/T, M/P	High school diploma or equivalent	None	Moderate-term on-the-job training	\$17.97
51-4111	Tool and Die Makers	Postsecondary non-degree award	None	Long-term on-the-job training	\$24.62
51-4121	Welders, Cutters, Solderers, and Brazers	High school diploma or equivalent	None	Moderate-term on-the-job training	\$19.91
51-4122	Welding, Soldering, and Brazing Machine S/O/T	High school diploma or equivalent	None	Moderate-term on-the-job training	\$18.66
51-4191	Heat Treating Equipment S/O/T, M/P	High school diploma or equivalent	None	Moderate-term on-the-job training	\$19.54
51-4193	Plating and Coating Machine S/O/T, M/P	High school diploma or equivalent	None	Moderate-term on-the-job training	\$16.76
51-4194	Tool Grinders, Filers, and Sharpeners	High school diploma or equivalent	None	Moderate-term on-the-job training	\$18.93
51-4199	Metal Workers and Plastic Workers, All Other	High school diploma or equivalent	None	Moderate-term on-the-job training	\$17.67
51-5111	Prepress Technicians and Workers	Postsecondary non-degree award	None	None	\$19.43
51-5112	Printing Press Operators	High school diploma or equivalent	None	Moderate-term on-the-job training	\$18.24
51-5113	Print Binding and Finishing Workers	High school diploma or equivalent	None	Moderate-term on-the-job training	\$15.76
51-6011	Laundry and Dry-Cleaning Workers	No formal educational credential	None	Short-term on-the-job training	\$11.40

## Ohio Typical Occupational\* Educational and Training Requirements

SOC Code'	Occupational Title**	Typical Education**** Required for Entry	Commonly Required Work Experience in Related Occupations	Typical On-The-Job Training to Obtain Competency	Median Wage*** May 2020
51-6021	Pressers, Textile, Garment, and Related Materials	No formal educational credential	None	Short-term on-the-job training	\$12.19
51-6031	Sewing Machine Operators	No formal educational credential	None	Short-term on-the-job training	\$13.52
51-6041	Shoe and Leather Workers and Repairers	High school diploma or equivalent	None	Moderate-term on-the-job training	\$13.90
51-6051	Sewers, Hand	No formal educational credential	None	Moderate-term on-the-job training	\$14.35
51-6052	Tailors, Dressmakers, and Custom Sewers	No formal educational credential	None	Moderate-term on-the-job training	\$14.53
51-6062	Textile Cutting Machine S/O/T	High school diploma or equivalent	None	Moderate-term on-the-job training	\$14.23
51-6091	Extruding and Forming Machine S/O/T, Synthetic and Glass Fibers	High school diploma or equivalent	None	Moderate-term on-the-job training	\$18.62
51-6099	Textile, Apparel, and Furnishings Workers, All Other	High school diploma or equivalent	None	Short-term on-the-job training	\$15.52
51-7011	Cabinetmakers and Bench Carpenters	High school diploma or equivalent	None	Moderate-term on-the-job training	\$18.20
51-7021	Furniture Finishers	High school diploma or equivalent	None	Short-term on-the-job training	\$15.44
51-7041	Sawing Machine S/O/T, Wood	High school diploma or equivalent	None	Moderate-term on-the-job training	\$15.30
51-7042	Woodworking Machine S/O/T, Except Sawing	High school diploma or equivalent	None	Moderate-term on-the-job training	\$15.10
51-7099	Woodworkers, All Other	High school diploma or equivalent	None	Moderate-term on-the-job training	\$17.20
51-8012	Power Distributors and Dispatchers	High school diploma or equivalent	None	Long-term on-the-job training	\$43.45
51-8013	Power Plant Operators	High school diploma or equivalent	None	Long-term on-the-job training	\$40.53
51-8021	Stationary Engineers and Boiler Operators	High school diploma or equivalent	None	Long-term on-the-job training	\$29.28
51-8031	Water and Wastewater Treatment Plant and System Operators	High school diploma or equivalent	None	Long-term on-the-job training	\$24.34
51-8091	Chemical Plant and System Operators	High school diploma or equivalent	None	Moderate-term on-the-job training	\$33.96
51-8092	Gas Plant Operators	High school diploma or equivalent	None	Long-term on-the-job training	\$35.45
51-8093	Petroleum Pump System Operators, Refinery Operators, and Gaugers	High school diploma or equivalent	None	Moderate-term on-the-job training	\$42.77
51-9011	Chemical Equipment Operators and Tenders	High school diploma or equivalent	None	Moderate-term on-the-job training	\$25.01
51-9012	Separating, Filtering, Clarifying, Precipitating, and Still Machine S/O/T	High school diploma or equivalent	None	Moderate-term on-the-job training	\$27.83
51-9021	Crushing, Grinding, and Polishing Machine S/O/T	High school diploma or equivalent	None	Moderate-term on-the-job training	\$21.29
51-9022	Grinding and Polishing Workers, Hand	No formal educational credential	None	Moderate-term on-the-job training	\$15.65
51-9023	Mixing and Blending Machine S/O/T	High school diploma or equivalent	None	Moderate-term on-the-job training	\$18.82
51-9031	Cutters and Trimmers, Hand	No formal educational credential	None	Short-term on-the-job training	\$16.08
51-9032	Cutting and Slicing Machine S/O/T	High school diploma or equivalent	None	Moderate-term on-the-job training	\$17.74
51-9041	Extruding, Forming, Pressing, and Compacting Machine S/O/T	High school diploma or equivalent	None	Moderate-term on-the-job training	\$16.69
51-9051	Furnace, Kiln, Oven, Drier, and Kettle Operators and Tenders	High school diploma or equivalent	None	Moderate-term on-the-job training	\$18.77
51-9061	Inspectors, Testers, Sorters, Samplers, and Weighers	High school diploma or equivalent	None	Moderate-term on-the-job training	\$19.70
51-9071	Jewelers and Precious Stone and Metal Workers	High school diploma or equivalent	None	Long-term on-the-job training	\$20.10
51-9081	Dental Laboratory Technicians	High school diploma or equivalent	None	Moderate-term on-the-job training	\$20.77
51-9082	Medical Appliance Technicians	High school diploma or equivalent	None	Moderate-term on-the-job training	\$19.51
51-9083	Ophthalmic Laboratory Technicians	High school diploma or equivalent	None	Moderate-term on-the-job training	\$18.24
51-9111	Packaging and Filling Machine Operators and Tenders	High school diploma or equivalent	None	Moderate-term on-the-job training	\$16.42
51-9123	Painting, Coating, and Decorating Workers	No formal educational credential	None	Moderate-term on-the-job training	\$15.59
51-9124	Coating, Painting, and Spraying Machine S/O/T	High school diploma or equivalent	None	Moderate-term on-the-job training	\$17.97
51-9151	Photographic Process Workers and Processing Machine Operators	High school diploma or equivalent	None	Short-term on-the-job training	\$13.21
51-9161	Computer Numerically Controlled Tool Operators	High school diploma or equivalent	None	Moderate-term on-the-job training	\$19.77
51-9162	Computer Numerically Controlled Tool Programmers	Postsecondary non-degree award	None	Moderate-term on-the-job training	\$25.34
51-9191	Adhesive Bonding Machine Operators and Tenders	High school diploma or equivalent	None	Moderate-term on-the-job training	\$16.28
51-9192	Cleaning, Washing, and Metal Pickling Equipment Operators and Tenders	High school diploma or equivalent	None	Moderate-term on-the-job training	\$14.50
51-9193	Cooling and Freezing Equipment Operators and Tenders	High school diploma or equivalent	None	Moderate-term on-the-job training	\$19.05
51-9194	Etchers and Engravers	High school diploma or equivalent	None	Moderate-term on-the-job training	\$14.34
51-9195	Molders, Shapers, and Casters, Except M/P	High school diploma or equivalent	None	Long-term on-the-job training	\$16.81
51-9196	Paper Goods Machine S/O/T	High school diploma or equivalent	None	Moderate-term on-the-job training	\$18.53
51-9197	Tire Builders	High school diploma or equivalent	None	Moderate-term on-the-job training	\$18.33
51-9198	Helpers--Production Workers	High school diploma or equivalent	None	Short-term on-the-job training	\$16.24



## Ohio Typical Occupational\* Educational and Training Requirements

SOC Code <sup>1</sup>	Occupational Title**	Typical Education**** Required for Entry	Commonly Required Work Experience in Related Occupations	Typical On-The-Job Training to Obtain Competency	Median Wage*** May 2020
51-9199	Production Workers, All Other	High school diploma or equivalent	None	Moderate-term on-the-job training	\$16.54
<b>53-0000</b>	<b>Transportation and Material Moving Occupations</b>				<b>\$15.78</b>
53-1041	Aircraft Cargo Handling Supervisors	High school diploma or equivalent	Less than 5 years	None	\$25.80
53-1047	FL Sup of Trans/Mat.-Mov. Workers, Ex. Aircraft Cargo Handling	High school diploma or equivalent	Less than 5 years	None	\$25.03
53-2011	Airline Pilots, Copilots, and Flight Engineers	Bachelor's degree	Less than 5 years	Moderate-term on-the-job training	\$100,750 **
53-2012	Commercial Pilots	High school diploma or equivalent	None	Moderate-term on-the-job training	\$101,320 **
53-2021	Air Traffic Controllers	Associate's degree	None	Long-term on-the-job training	\$69.33
53-2022	Airfield Operations Specialists	High school diploma or equivalent	None	Long-term on-the-job training	\$24.83
53-2031	Flight Attendants	High school diploma or equivalent	Less than 5 years	Moderate-term on-the-job training	\$68,880 **
53-3011	Ambulance Drivers and Attendants, Except Emergency Medical Technicians	High school diploma or equivalent	None	Moderate-term on-the-job training	\$13.18
53-3022	Bus Drivers, School or Special Client	High school diploma or equivalent	None	Short-term on-the-job training	▲
53-3031	Driver/Sales Workers	High school diploma or equivalent	None	Short-term on-the-job training	\$10.18
53-3032	Heavy and Tractor-Trailer Truck Drivers	Postsecondary non-degree award	None	Short-term on-the-job training	\$22.32
53-3033	Light Truck or Delivery Services Drivers	High school diploma or equivalent	None	Short-term on-the-job training	\$16.91
53-3052	Bus Drivers, Transit and Intercity	High school diploma or equivalent	None	Moderate-term on-the-job training	\$23.68
53-3058	Passenger Vehicle Drivers, Except Bus Drivers, Transit and Intercity	No formal educational credential	None	Short-term on-the-job training	\$12.98
53-3099	Motor Vehicle Operators, All Other	No formal educational credential	None	Short-term on-the-job training	\$17.28
53-4031	Railroad Conductors and Yardmasters	High school diploma or equivalent	None	Moderate-term on-the-job training	\$27.85
53-5011	Sailors and Marine Oilers	No formal educational credential	None	Moderate-term on-the-job training	\$19.03
53-5021	Captains, Mates, and Pilots of Water Vessels	Postsecondary non-degree award	Less than 5 years	None	\$25.83
53-6011	Bridge and Lock Tenders	High school diploma or equivalent	None	Short-term on-the-job training	\$25.97
53-6021	Parking Lot Attendants	No formal educational credential	None	Short-term on-the-job training	\$11.20
53-6031	Automotive and Watercraft Service Attendants	No formal educational credential	None	Short-term on-the-job training	\$12.17
53-6041	Traffic Technicians	High school diploma or equivalent	None	Moderate-term on-the-job training	\$25.95
53-6051	Transportation Inspectors	High school diploma or equivalent	None	Moderate-term on-the-job training	\$28.22
53-6061	Transportation Attendants, Except Flight Attendants	High school diploma or equivalent	None	Short-term on-the-job training	\$10.80
53-6098	Aircraft Service Attendants and Transportation Workers, All Other	High school diploma or equivalent	None	Short-term on-the-job training	\$17.33
53-7011	Conveyor Operators and Tenders	No formal educational credential	None	Short-term on-the-job training	\$21.54
53-7021	Crane and Tower Operators	High school diploma or equivalent	Less than 5 years	Moderate-term on-the-job training	\$23.72
53-7051	Industrial Truck and Tractor Operators	No formal educational credential	None	Short-term on-the-job training	\$18.13
53-7061	Cleaners of Vehicles and Equipment	No formal educational credential	None	Short-term on-the-job training	\$13.17
53-7062	Laborers and Freight, Stock, and Material Movers, Hand	No formal educational credential	None	Short-term on-the-job training	\$15.07
53-7063	Machine Feeders and Offbearers	No formal educational credential	None	Short-term on-the-job training	\$17.32
53-7064	Packers and Packagers, Hand	No formal educational credential	None	Short-term on-the-job training	\$13.36
53-7065	Stockers and Order Fillers	High school diploma or equivalent	None	Short-term on-the-job training	\$13.33
53-7071	Gas Compressor and Gas Pumping Station Operators	High school diploma or equivalent	None	Moderate-term on-the-job training	\$37.19
53-7073	Wellhead Pumps	High school diploma or equivalent	Less than 5 years	Moderate-term on-the-job training	\$18.70
53-7081	Refuse and Recyclable Material Collectors	No formal educational credential	None	Short-term on-the-job training	\$19.46
53-7121	Tank Car, Truck, and Ship Loaders	No formal educational credential	None	Short-term on-the-job training	\$21.03
53-7199	Material Moving Workers, All Other	No formal educational credential	None	Short-term on-the-job training	\$15.32

<sup>1</sup> Occupational codes based on SOC 2010 coding structure. Detailed information - <http://www.bls.gov/soc/>

\* Occupations with 100 or more workers.

\*\* Title Abbreviations

FL = First-Line

FL Sup = First-Line Supervisors

M/P = Metal and Plastic

S/O/T = Setters, Operators, and Tenders

# Wages above max.

Source: Ohio Department of Job and Family Services, Bureau of Labor Market Information, June 2021.

\*\*\* Wage estimates are based on Ohio's OES surveys.

\*\*\*\* Education, experience and training levels associated with occupations were based on national data provided by the BLS.

▲ Wage data unavailable due to OES/SOC changes. <https://www.bls.gov/soc/2018/#publications>

+ National Wage

++ Certain occupations report wages at the annual level - for elementary and secondary teachers

this typically reflects the 9 1/2 month school year.

+++ Annual National Wages

## **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 Bureau Chief Byron Archer. For further information, visit [OhioLMI.com](http://OhioLMI.com) or call the Ohio Bureau of Labor Market Information at **1-888-296-7541** option 6, or **(614) 752-9494**.

**Mike DeWine, Governor**  
**Jon Husted, Lt. Governor**  
State of Ohio  
[Ohio.gov](http://Ohio.gov)

**Matt Damschroder, Director**  
Ohio Department of Job and Family Services  
[jfs.ohio.gov](http://jfs.ohio.gov)

Office of Workforce Development  
[jfs.ohio.gov/owd/](http://jfs.ohio.gov/owd/)

Bureau of Labor Market Information  
[OhioLMI.com](http://OhioLMI.com)

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