



**Department of
Job & Family
Services**



Ohio Job Outlook

2022-2032

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Ohio Job Outlook to 2032

Overview

Employment projections are a key product of the Ohio Department of Job and Family Services' Bureau of Labor Market Information. The bureau completes 10-year employment projections every two years and two-year employment projections annually. The projections are based on the most current data available at the time they are made; they are estimates of future employment assuming there are no changes in the current general economic trend. People who use this information include individuals planning their education, training, and careers; educational program planners developing training courses and curricula; administrators and legislators responsible for government policies; and business executives planning marketing and personnel strategies.

One key use of the long-term employment projections is in the identification of top jobs in Ohio. Statistical thresholds for wage, growth, and annual openings determine the baseline list of occupations used.¹ The list of top jobs is designed to foster cross-agency alignment and to better target job matching and career planning services through [OhioMeansJobs.com](https://ohiojobs.com).

This report presents Ohio employment projections from 2022 to 2032. It is divided into three sections. The "Ohio Population Trends" section presents population projections and historical labor force participation rates. The "Ohio Industry Employment" section presents employment projections for Ohio's goods-producing and service-providing industries. The "Ohio Occupational Employment" section presents employment projections for occupations and occupational groups.

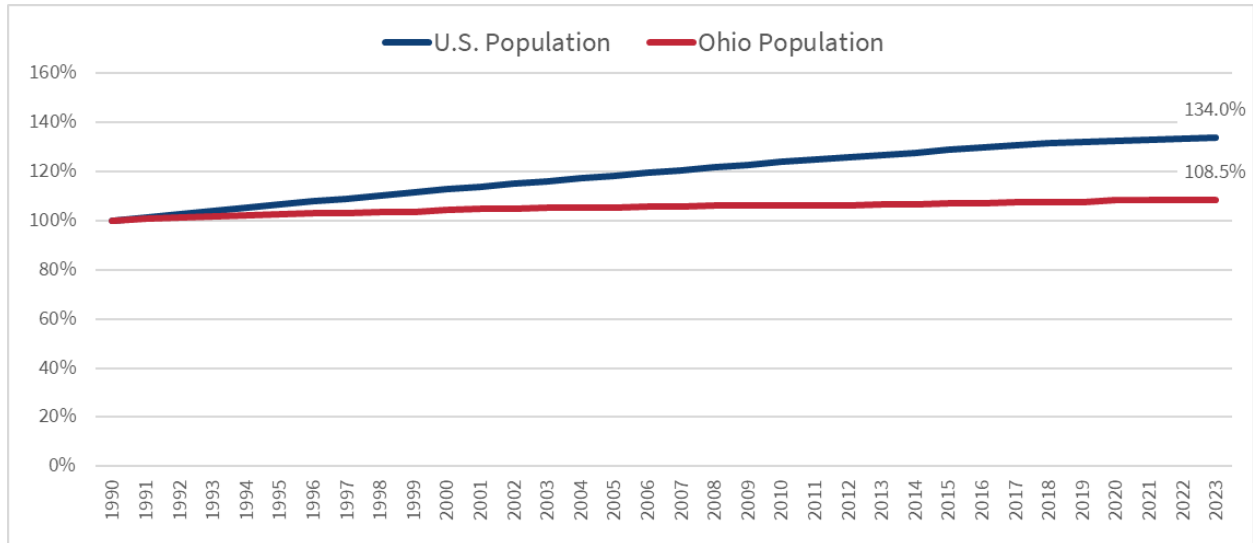
Overall, the Ohio economy is expected to add more than 58,000 jobs between 2022 and 2032, with an expected 637,000 job openings annually. The health care and social assistance services industry is expected to add the most jobs, and a large portion of job growth will come from transportation and warehousing occupations. Read more to learn about the growth expectations for Ohio's industries and occupations.

¹ Additional factors included are employment patterns for key industry clusters, employer job-forecasting survey data, and assessments by a review committee.

Ohio Population Trends

Figure 1 shows that Ohio's population grew 8.5% from 1990 to 2023 while the U.S. population grew 34.0%.

Figure 1. Population Growth as a Percentage from 1990



Source: U.S. Census Bureau and U.S. Bureau of Economic Analysis

Ohio's population is expected to decline in the coming years (Figure 2). Projected 30-year population growth rates for the U.S. are 8.8%, with the projected working age population (age 15 and older) expected to grow at a rate of 12.8%. In comparison, Ohio's total population is expected to see a decline of 5.7%, and the working-age population is expected to decline by 5.1%. The age group of 25 to 64 is expected to grow 7.3% for the entire US, and the oldest population group (65 and older) is expected to grow by 47.2%. By comparison, Ohio expects to see a decline of 4.5% for the 25 to 64 age group, and a decline of 4.3% for the 65 and older age group.

Most Ohio age cohorts are expected to decline in the next 30 years. However, Ohio's 2050 population structure would not be fundamentally different from today. In contrast to earlier decades, when the baby boomer generation was a dynamic factor in the overall population structure, today there are no other cohorts that exert such an influence.²

Figure 2. U.S. and Ohio Population Projections (in thousands)

	2020	2030	2050	% Change 2020-2050
U.S.				
Total Population	331,449	345,074	360,639	8.8%
Working-Age Population	271,187	288,374	305,806	12.8%
Age 25 to 64	171,296	174,093	183,885	7.3%
Age 65 and over	55,793	71,183	82,130	47.2%
Ohio				
Total Population	11,799	11,615	11,124	-5.7%
Working-Age Population	9,629	9,473	9,136	-5.1%
Age 25 to 64	6,066	5,551	5,792	-4.5%
Age 65 and over	2,048	2,382	1,960	-4.3%

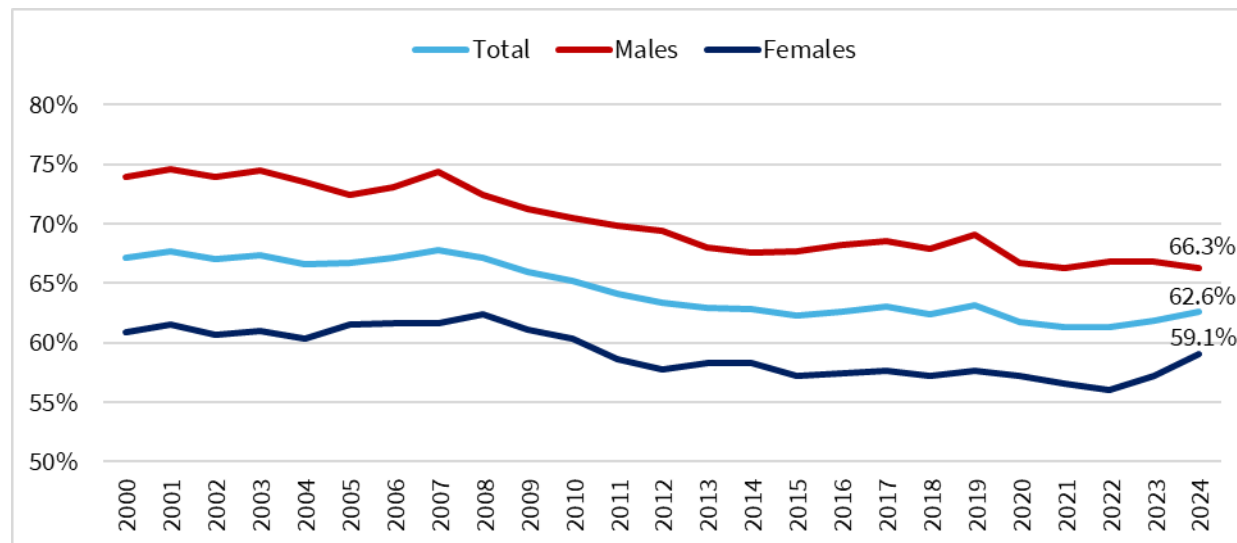
Source: Ohio Department of Development and U.S. Census Bureau

² [State-of-Ohio-Population-Projections-Report-2023.pdf](#)

Both, the working-age population and labor force participation rates are declining in Ohio. In 2000, the labor force participation rate for Ohio was 67.1%; by 2022 it had dropped to 61.3%. Since 2022, Ohio's labor force participation rate has increased, rising to 62.6% in 2024.

Figure 3 shows the labor force participation rates for men, women, and the total working-age population from 2000 to 2024.

Figure 3. Ohio Labor Force Participation Rates by Gender – 2000 to 2024



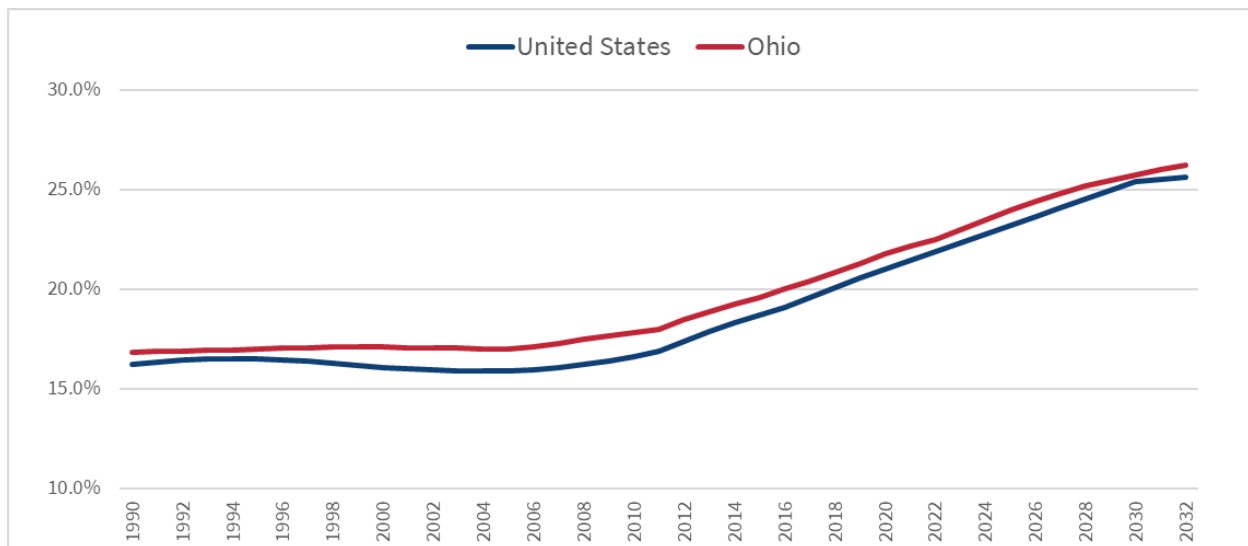
Source: Bureau of Labor Statistics

The decline in labor force participation is part of a national trend. The Great Recession (December 2007 to June 2009) may have caused a steep decline in participation rates. During the recession, some individuals were discouraged and stopped looking for work, which means they were no longer part of the labor force. Many of these individuals rejoined the labor force as the economy recovered. Other factors are driving the decline in labor force participation. The strongest factor, one that began at the height of the recession, was the beginning of retirements for the baby boom generation. In 2008 the first of the baby boomers turned 62 and became eligible for Social Security; in 2011 they turned 65, the traditional age for retirement. Nationally, about 10,000 baby boomers turn 65 each day.³ Even though they have retired, they are still part of the working age population. If they are not employed and not actively looking for work, they count against the labor force participation rate. Continuing retirements among the baby boomers will push labor force participation rates lower.

³ <http://www.pewresearch.org/daily-number/baby-boomers-retire/>

Figure 4 shows the percentage of the working-age population age 65 and older projected to 2032.

Figure 4. Percentage of Working-Age Population Age 65 and Older



Source: IHS Markit Ltd and U.S. Census

A second factor affecting participation rates is an overall decline in labor force participation among many demographic groups. For example, labor force participation among prime-age men (ages 25 to 54) has continued to decline for about 70 years since 1954.⁴

⁴ <https://data.bls.gov/timeseries/LNS11300061>

Ohio Industry Employment

This section shows projected employment changes for a variety of industry classifications. Business establishments are classified into industries according to the primary goods and services they produce or provide, using the North American Industry Classification System (NAICS). For example, factories assembling cars are classified in the motor vehicle manufacturing industry, and supermarkets are in the grocery store industry. See Appendix Table A for examples of types of businesses by NAICS classification. NAICS has several levels of classification, each giving a more detailed picture of each industry. This report presents industry employment projections at the NAICS sector and industry-group levels to illustrate expected changes.⁵

Industry Sectors

Industries are grouped into two broad categories: goods-producing, which produce physical products, and service-providing, which are all other industries. The goods-producing industry sectors are agriculture, forestry, fishing, and hunting; mining, quarrying, and oil and gas extraction; construction; and manufacturing. The service-providing industry sectors are wholesale trade; retail trade; transportation and warehousing; utilities; information; finance and insurance; real estate and rental and leasing; professional, scientific, and technical services⁶; management of companies and enterprises; administrative, support, and waste services⁷; educational services; health care and social assistance; arts, entertainment, and recreation; accommodation and food services; other services (except public administration); and government.

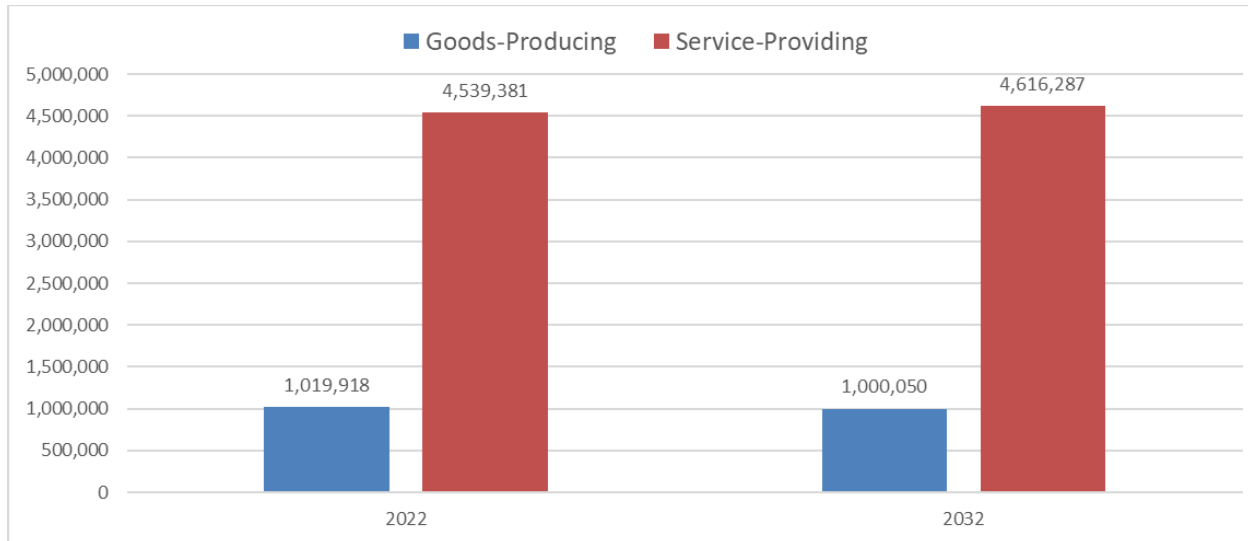
⁵ NAICS consists of the following industry levels: 20 sectors (individual two-digit NAICS); 96 subsectors (three-digit NAICS); 308 industry groups (four-digit NAICS); 689 industries (five-digit NAICS); and 1,012 detailed NAICS (six-digit NAICS).

⁶ Short title, "Professional and technical services" used in charts / tables.

⁷ Short title, "Administrative and waste services" used in charts / tables.

Figure 5 details employment projections for goods-producing and service-providing industries. Overall, the number of jobs for Ohioans is expected to rise from 5.559 million in 2022 to 5.616 million by 2032, an increase of more than 57,000 jobs. Service-providing industries are expected to add 76,906 jobs, an increase of 1.7%. Goods-producing industries are expected to lose 19,868 jobs, a decrease of 1.9%.⁸

Figure 5. Ohio Industry Employment Outlook

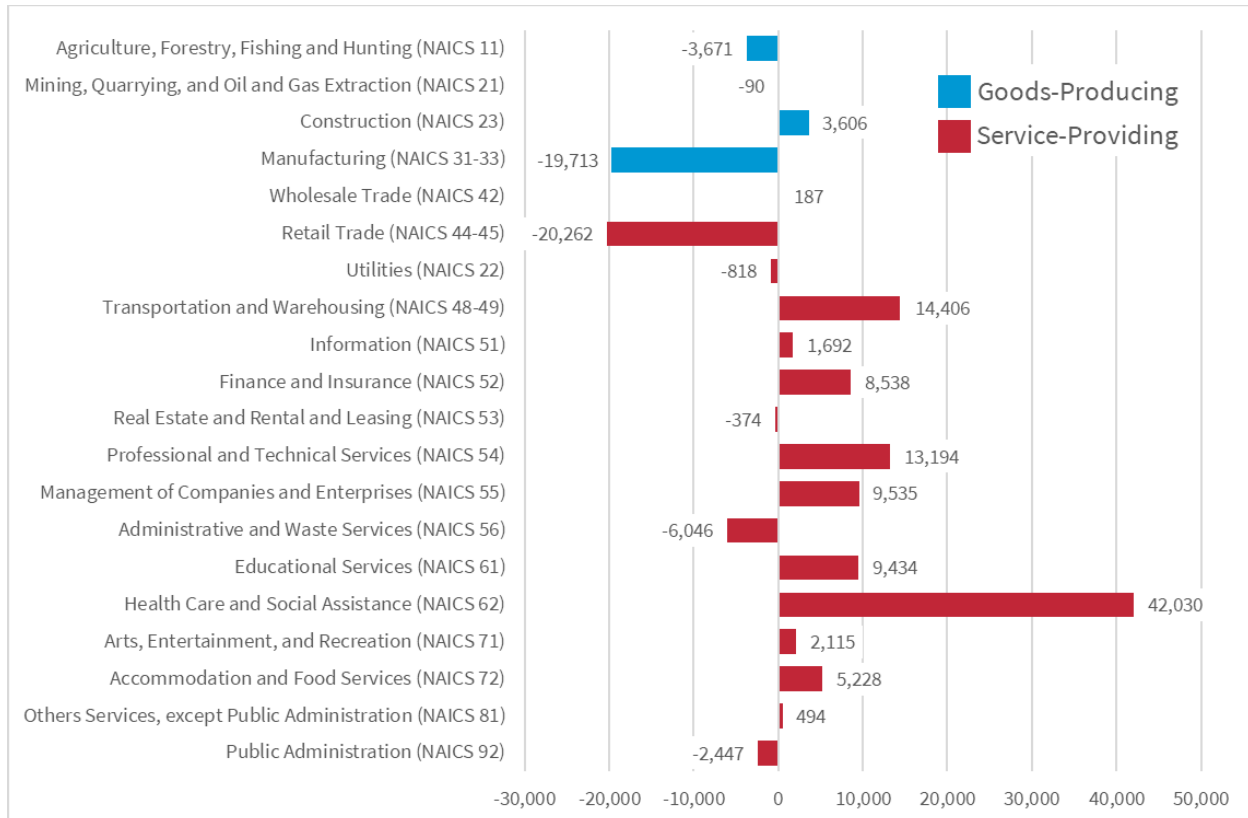


Source: Ohio Bureau of Labor Market Information

⁸ Self-employed and other workers whose jobs fall outside of traditional industry classifications are expected to gain 1,631 jobs, an increase of 0.6%.

Figure 6 shows the employment change expected for each industry sector between 2022 and 2032. Among the goods-producing sectors, construction is projected to grow by 3,606 jobs, and manufacturing is projected to shrink by 19,713 jobs. Growth among the service-providing sectors will be led by the health care and social assistance industry, which is expected to add more than 42,000 jobs, a 5.1% increase. The transportation and warehousing industry is expected to add more than 14,000 jobs, and the professional and technical services industry is expected to add more than 13,000 jobs. Retail trade is expected to shrink by more than 20,000 jobs. See Appendix Table B for industry projections by absolute and percent change.

Figure 6. Ohio Employment Outlook by Industry Sector, 2022-2032



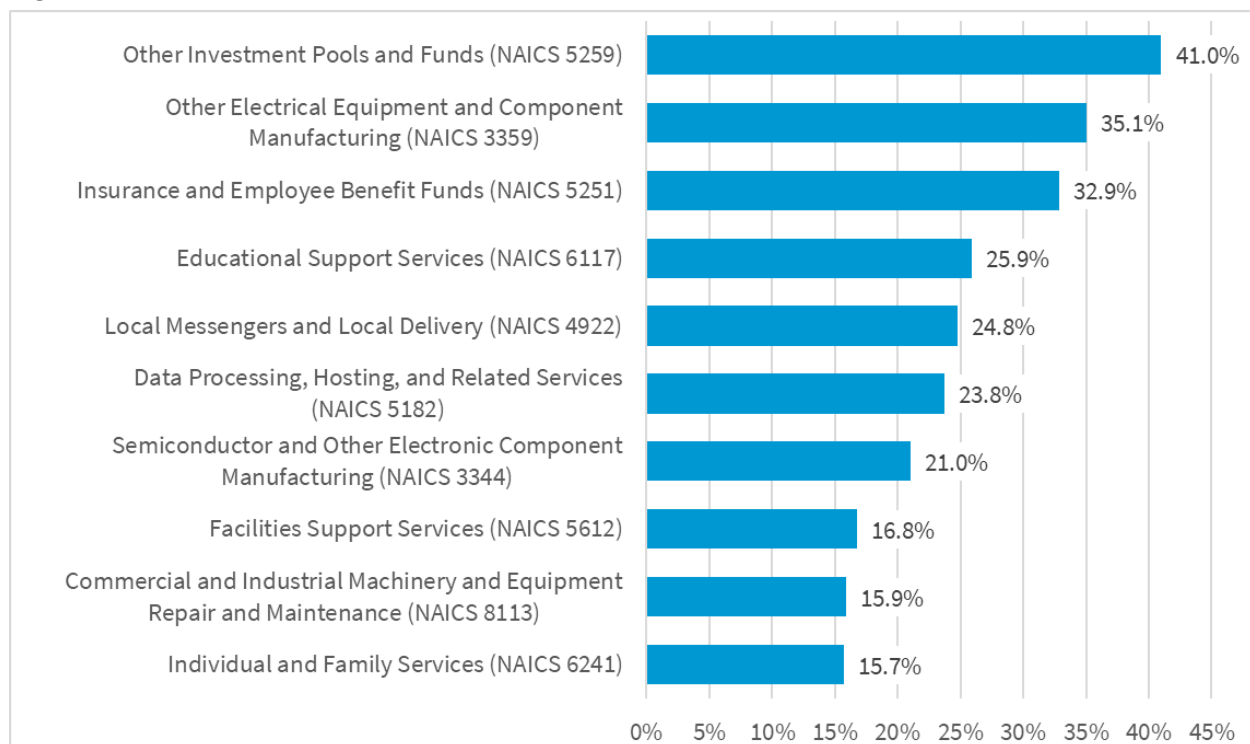
Source: Ohio Bureau of Labor Market Information

High-Growth Industry Groups: Within the sectors are industry groups of related industries; these industry groups within sectors can change in different ways. Figure 7 shows the 10 industry groups expected to grow the fastest from 2022 to 2032. Each is expected to grow between 15.7 and 41.0%.

The fastest-growing industry group is projected to be the other investment pools and funds industry (NAICS 5259), with an increase of 41.0%. This industry group is in the finance and insurance sector. Another fastest-growing industry groups in that sector is the insurance and employee benefit funds industry (NAICS 5251), with a 32.9% increase.

The manufacturing sector also has two industry groups represented in the fastest-growing list. These groups include other electrical equipment and component manufacturing (NAICS 3359), with an increase of 35.1%, and semiconductor and other electronic component manufacturing (NAICS 3344), with an increase of 21.0%. See Appendix Table C for a list of the top 30 industry groups with the fastest expected growth.

Figure 7. Top 10 Ohio Industry Groups with the Fastest Job Growth

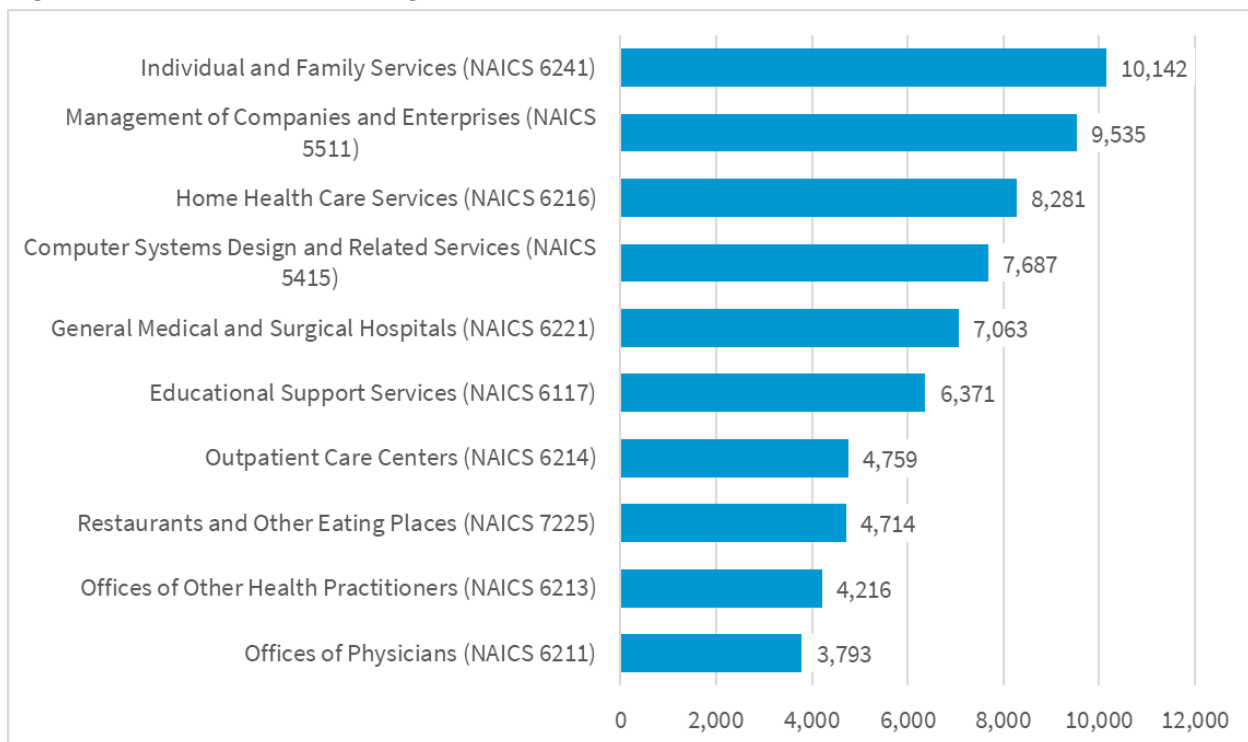


Source: Ohio Bureau of Labor Market Information

Most New Jobs: Although some industry groups are expected to experience high rates of job growth, the groups themselves may be small and, therefore, offer a smaller number of jobs. By the same token, large industry groups with lower expected percentage growths may offer many additional jobs. This is illustrated in Figure 8 by management of companies and enterprises (NAICS 5511). This industry group employed nearly 139,000 workers in 2022; it is expected to add more than 9,500 new jobs by 2032, a 6.9% increase. In contrast, educational support services (NAICS 6117), which employed more than 24,000 workers in 2022, is expected to add more than 6,000 jobs by 2032, a 25.9% increase.

The 10 industry groups projected to add the most new jobs are shown in Figure 8; they are expected to add 66,561 new jobs in Ohio by 2032. See Appendix Table D for a complete list of the top 30 private-sector industries with the most new jobs.

Figure 8. Ohio Industries Adding the Most New Jobs, 2022-2032



Source: Ohio Bureau of Labor Market Information

See Appendix Table E for a complete look at industry projections by NAICS classification levels.

Ohio Occupational Employment

The employment outlook for individual occupations is affected by the industries that employ them. Some occupations—such as registered nurses, tire builders, and structural iron workers—are highly concentrated in a few industries; demand for those occupations depends on the health of those industries. Other occupations, such as secretaries and computer systems analysts, are present in many industries; demand for those occupations is more closely tied to changes in the economy. Changes in technology, business practices, and operations affect how employers structure staffing to improve productivity. For example, technological advances will continue to reduce the need for such occupations as telephone operators, typists, travel agents, and order clerks.

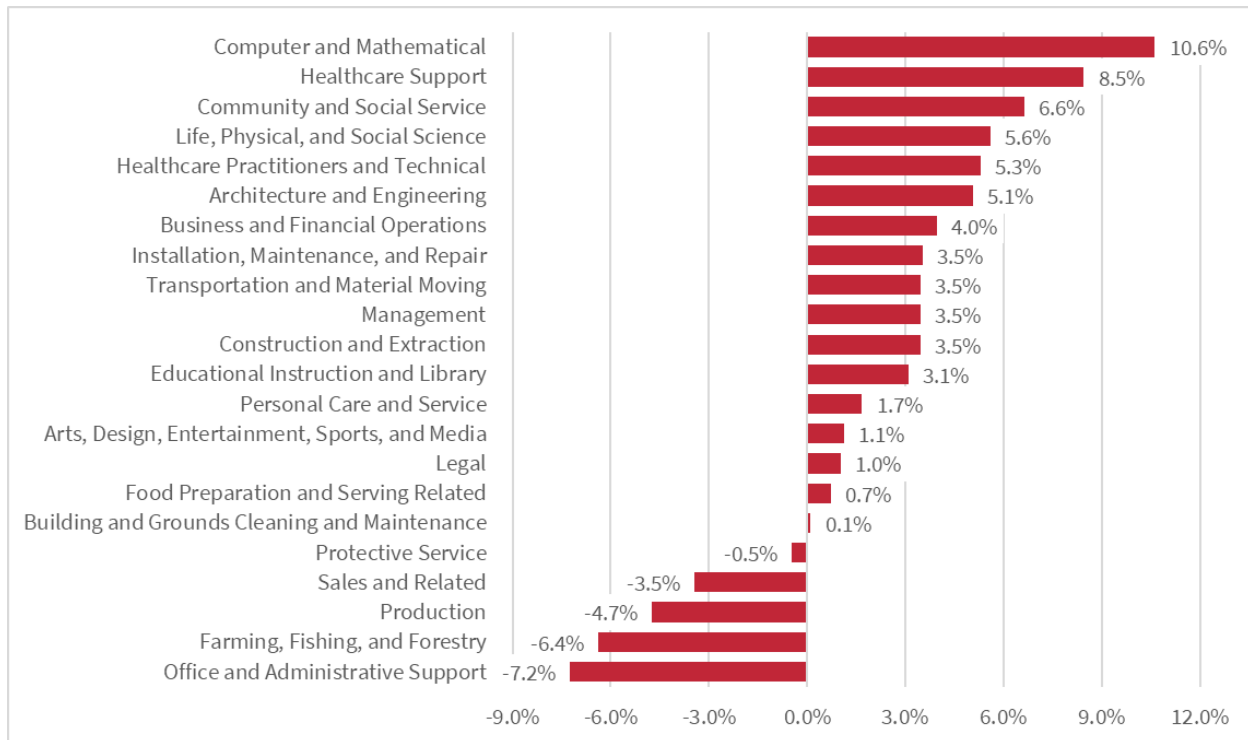
Understanding the employment outlook of occupations is important for career planning. As some occupations are expected to grow and others are expected to shrink, Ohio developed a list of [Top Jobs](#) to assist in career planning. Along with other information, the employment outlook of occupations provides the baseline data for the in-demand list using statistical thresholds for wages, annual openings, and growth. The Top Jobs list is available and utilized throughout **OhioMeansJobs.com** to better target job-matching and career-planning services provided on the website. This section presents the job outlook in Ohio by type of work, required education, and training levels.

Occupations are classified using the Standard Occupational Classification (SOC) system, which has 22 groups of occupations with related types of work. For example, one occupational group consists of managerial occupations. Within each occupational group are specific occupations, each with different requirements for knowledge, skills, abilities, and duties. Occupations are classified at the six-digit SOC level. See Appendix Table F for a comprehensive look at occupational projections by occupational group.

Ohio is expected to add nearly 59,000 jobs from 2022 to 2032, but perhaps more important to individuals searching for jobs is the expected number of annual job openings. On average, Ohio's economy is expected to have over 637,000 job openings annually. Nearly 1% of annual job openings will result from the creation of new jobs. About 41% of annual job openings will result from the need to replace workers who leave the labor force, usually upon retirement; the remaining 58% of openings will result from the need to replace workers who switch occupations.

Fastest-Growing Occupational Groups: Figure 9 shows the projected fastest-growing occupational groups. Computer and mathematical occupations are expected to grow the most, at 10.6%. The next-fastest growing occupational group is healthcare support, at 8.5%. See Appendix Table G for a list of Ohio's fastest-growing occupations.

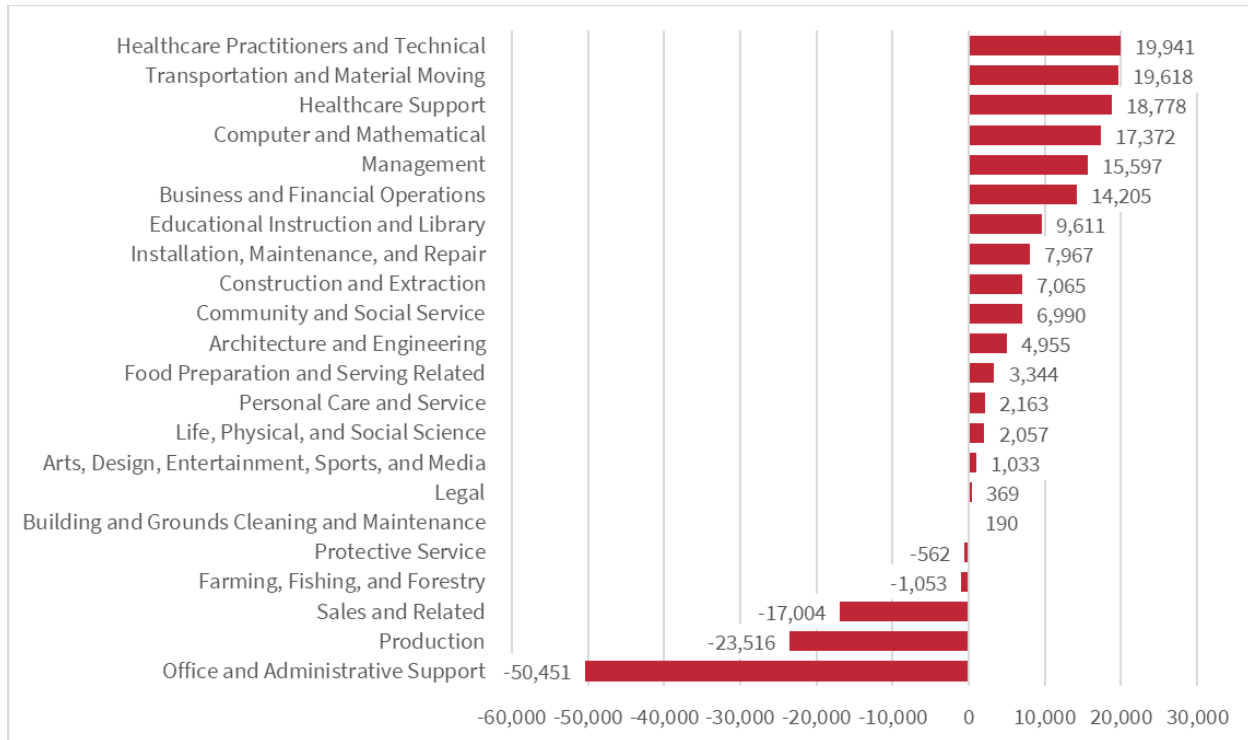
Figure 9. Ohio Rate of Employment Change by Major Occupational Group, 2022-2032



Source: Ohio Bureau of Labor Market Information

Occupational Groups with the Most New Jobs: As with industries, fast-growing occupational groups may be relatively small and may not add as many new jobs as larger groups that are growing more slowly. The healthcare practitioners and technical group is expected to add 19,941 jobs. Over three out of every 10 new jobs will be in the healthcare practitioners and technical group. Figure 10 shows the major occupational groups ranked in terms of job growth.

Figure 10. Projected Employment Change by Occupational Group, 2022-2032



Source: Ohio Bureau of Labor Market Information

Occupations with the Most Annual Openings: New job growth is one component of occupational demand, but more job openings arise from transfers out of occupations and exits from the labor force. Over 99% of the job openings from 2022 to 2032 are expected to replace workers who leave the labor force or switch occupations. Even shrinking occupations have replacement needs, and they may provide substantial opportunities for employment.

Figure 11 shows the top 10 occupations projected to have the most annual openings. Of the top 10, fast food and counter workers (SOC 35-3023) leads with an expected 32,110 annual openings. Rounding out the top five are stockers and order fillers (SOC 53-7065); cashiers (SOC 41-2011); retail salespersons (SOC 41-2031); and home health and personal care aides (SOC 31-1120). See Appendix Table H for the full list of occupations with the most annual openings.

Figure 11. Occupations in Ohio with the Most Projected Annual Openings, 2022-2032

Occupational Title	Total Annual Openings	Median Wage May 2023
Fast Food and Counter Workers (SOC 35-3023)	32,110	\$13.16
Stockers and Order Fillers (SOC 53-7065)	21,055	\$17.57
Cashiers (SOC 41-2011)	20,598	\$13.27
Retail Salespersons (SOC 41-2031)	16,816	\$14.46
Home Health and Personal Care Aides (SOC 31-1120)	16,082	\$14.08
Laborers and Freight, Stock, and Material Movers, Hand (SOC 53-7062)	14,572	\$18.08
Waiters and Waitresses (SOC 35-3031)	14,001	\$13.92
Customer Service Representatives (SOC 43-4051)	12,738	\$19.17
General and Operations Managers (SOC 11-1021)	11,191	\$45.14
Janitors and Cleaners, Except Maids and Housekeeping Cleaners (SOC 37-2011)	10,987	\$16.27

Source: Ohio Bureau of Labor Market Information

Self-Employment: The number of self-employed individuals varies widely by occupation. Appendix Table I provides a list of the 60 occupations that have at least 1,000 self-employed workers. The self-employed percentages range from 1.1% for laborers and freight, stock, and material movers, hand (SOC 53-7062) to 81.3% for door-to-door sales workers, news and street vendors, and related workers (SOC 41-9091).

Figure 12 shows occupations in which more than half the people employed in that occupation are self-employed.

Figure 12. Occupations with High Self-Employment, 2022

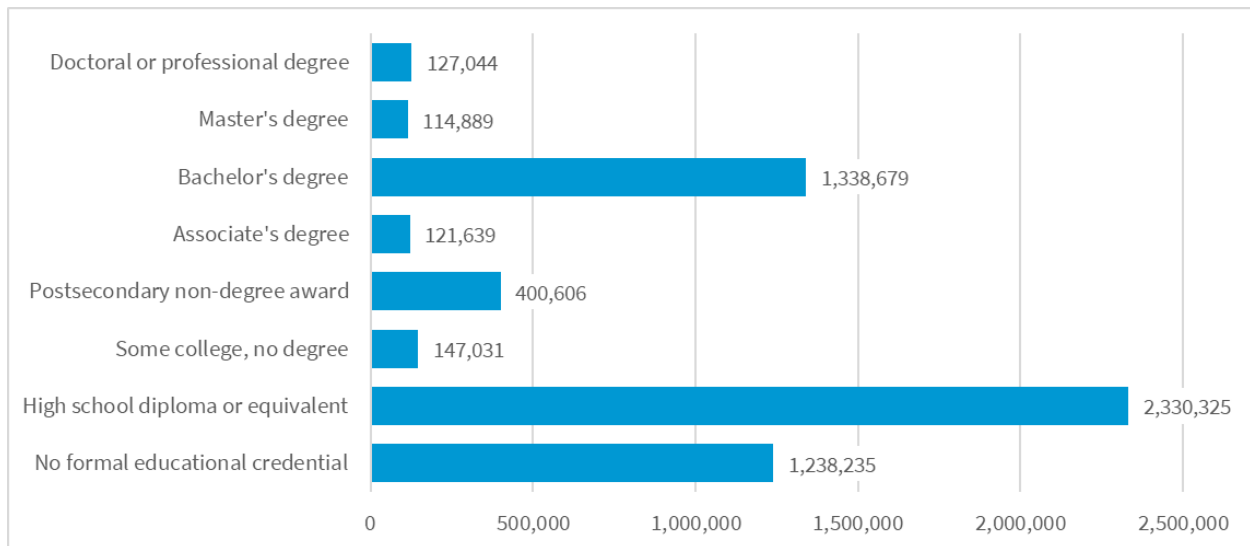
Occupational Title	2022 Employment	Self- Employed	Percent Self- Employed
Door-to-Door Sales Workers, News and Street Vendors, and Related Workers (SOC 41-9091)	2,104	1,710	81.3%
Psychologists, All Other (SOC 19-3039)	1,569	1,140	72.7%
Couriers and Messengers (SOC 43-5021)	7,078	4,738	66.9%
Writers and Authors (SOC 27-3043)	3,495	2,308	66.0%
Photographers (SOC 27-4021)	4,317	2,807	65.0%
Art Directors (SOC 27-1011)	2,359	1,397	59.2%
Real Estate Sales Agents (SOC 41-9022)	10,367	5,526	53.3%
Musicians and Singers (SOC 27-2042)	8,376	4,415	52.7%
Managers, All Other (SOC 11-9199)	16,509	8,376	50.7%

Source: Ohio Bureau of Labor Market Information

Education and Training: Each occupation has typical education levels associated with it, although in practice workers in an occupation may have a range of educational experience. Some occupations have specific requirements associated with licensure or certification. Knowledge of the typical education level associated with an occupation can be useful for career planning and job seeking.

Figure 13 shows the distribution of jobs by their typical education level in 2022. That year, over 61% of all jobs had a typical education level of a high school diploma or less. Nearly 39% of jobs had a typical education level of some form of post-secondary education, which could be anything from a certificate to an advanced degree. Over 27% of jobs had a bachelor's degree or higher as a typical education.

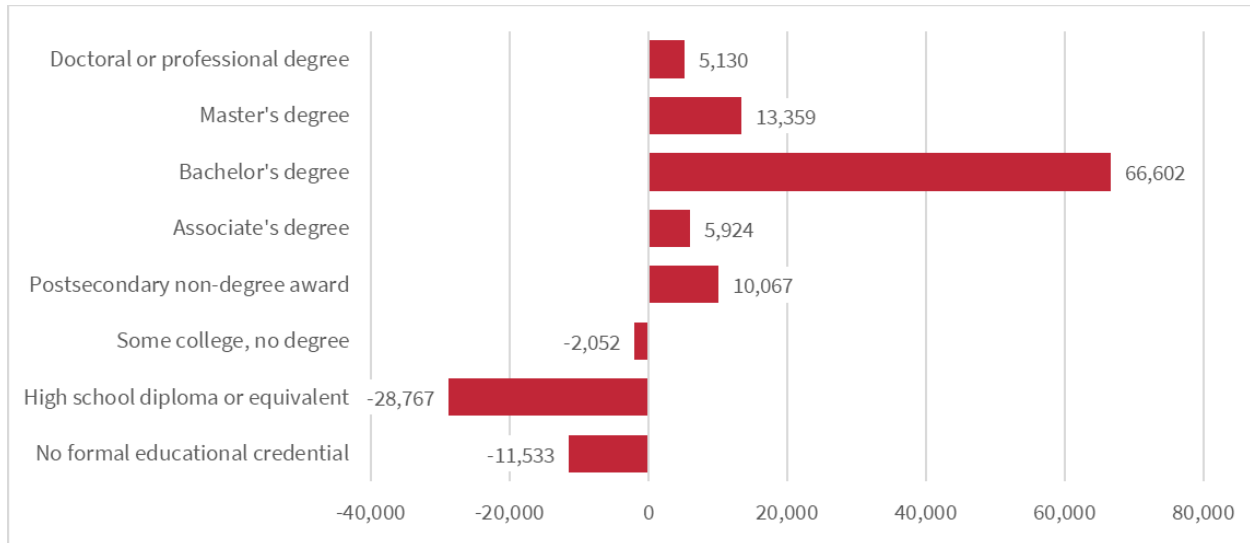
Figure 13. 2022 Employment by Typical Education Levels



Source: Ohio Bureau of Labor Market Information

Figure 14 shows projected net job growth by education level. From 2022 to 2032, the net growth of occupations typically associated with a high school diploma or less is expected to decrease 69%. For occupations typically associated with some form of post-secondary education, a net job growth of 169% is anticipated. For occupations typically associated with a bachelor's degree or higher, a net job growth of 145% is predicted.

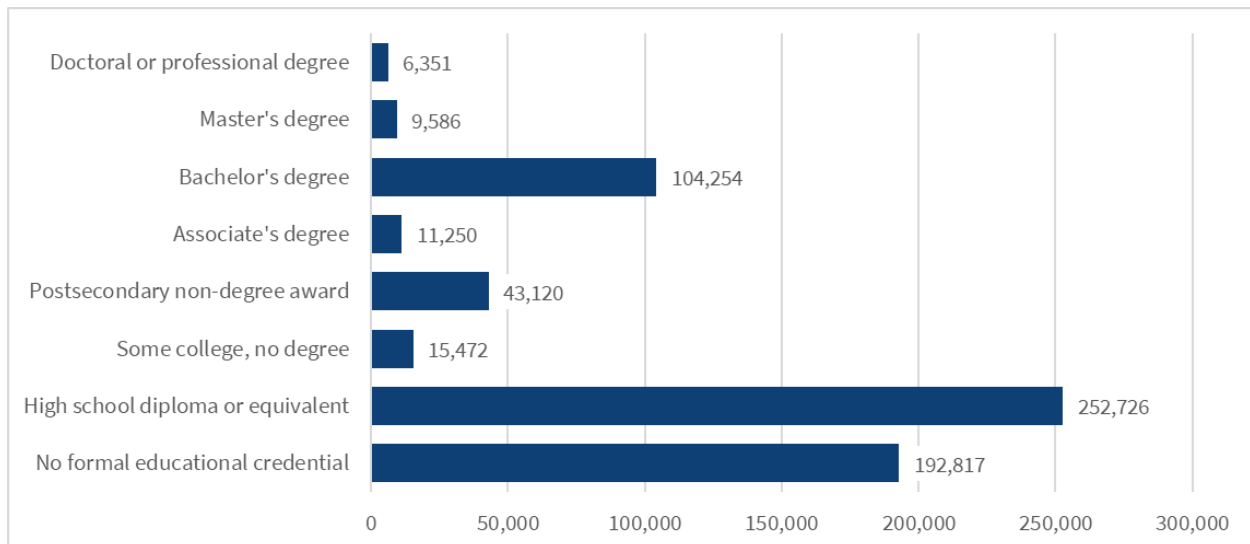
Figure 14. Projected Net Job Growth by Education Level, 2022-2032



Source: Ohio Bureau of Labor Market Information

An anticipated 70.1% of annual job openings will be in occupations associated with a high school diploma or less. See Figure 15.

Figure 15. Estimated Annual Job Openings by Education Level, 2022-2032



Source: Ohio Bureau of Labor Market Information

For detailed data regarding annual openings for occupations with employment of 100 or more, see Appendix Table J. This table also includes employment, wage, and education and training information.

Appendix Table K provides a detailed list of the educational and training classifications for all occupations.

Technical Notes

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

Industry Employment Projections

The projection models utilized a historical monthly employment series from the QCEW program data through December 2022. Industry groups with three- or four-digit North American Industry Classification System (NAICS) codes were chosen. Industry employment projections were made at the four-digit NAICS industry level using a variety of models, including single-equation regression models. These models related Ohio industry employment to national industry employment and other key economic determinants for Ohio, especially income and population.

Occupational Employment Projections

Occupational estimates were derived from an industry-occupation matrix. From a three-year OEWS 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 OEWS 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 OEWS 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 U.S. 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. For complete definitions, go to [Measures of education and training : U.S. Bureau of Labor Statistics](#).

Data Limitations

Every effort was made to ensure the accuracy of the projections, but data and projections 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.

While every attempt is made to incorporate current and near-future events, such as business closings, corporate layoffs, openings, and expansions, it's not possible to know everything that might happen. Events that may take place after the projection period or announcements concerning closings, layoffs, openings, and expansions known after projections were completed are not reflected in the projections. Also, legislative policy could cause employment to change. Events such as these will likely cause the actual employment numbers to vary significantly from these projections. 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.

For additional information or questions, visit OhioLMI.com, email ContactLMI@jfs.ohio.gov, or call (614) 752-9494.

Appendix Tables

Appendix Table A
Ohio Business Types by Industry Sector

GOODS-PRODUCING (PRIVATE)	
MINING and LOGGING	Mining and support activities, oil and gas extraction, cutting and transporting timber
CONSTRUCTION	Construction of buildings; heavy and civil engineering (bridges, roads); and specialty trade contractors (pouring concrete, site preparation, plumbing, painting, and electrical work)
MANUFACTURING	
Durable Goods	Nonmetal and metal products, machinery, computers and electronics, appliances, transportation equipment, furniture, medical, and wood products
Non-durable Goods	Food, printing, chemicals (toiletries), plastics, textiles, paper, apparel, leather, petroleum, and coal products
SERVICE-PROVIDING (PRIVATE)	
TRADE, TRANSPORTATION, and UTILITIES	
Wholesale Trade	Wholesalers of durable and nondurable goods, business to business electronic markets, and sales representatives
Retail Trade	Auto dealers, building and garden supply centers, furniture, electronic, appliance, food, health, gasoline, clothing, sporting, hobby, book, and music stores
Transportation, Warehousing and Utilities	Transportation (air, rail, water, truck, transit, pipeline, scenic, and sightseeing); private postal services, couriers, warehousing, and storage; utilities (power, natural gas distribution, water, and sewage)
INFORMATION	Publishing, motion picture, sound recording, broadcasting, phone services, data processing and hosting, news, libraries, and internet
FINANCIAL ACTIVITIES	
Finance and Insurance	Banks, securities, insurance, funds, and trusts
Real Estate, Rental, and Leasing	Real estate agents; rental and leasing of automobiles, consumer goods, and machinery
PROFESSIONAL and BUSINESS SERVICES	
Professional, Scientific, and Technical Services	Legal services, accounting, bookkeeping, architectural, engineering, design, computer system design, scientific research, advertising, marketing, photography, translation, and veterinary
Management of Companies and Enterprises	Holding companies, corporate offices, and management offices
Admin. Support and Waste Mgmt. Services	Administrative management (hotel management) and facilities support; employment placement, executive search, temporary help, and professional employer organizations; document preparation, telephone call centers, collection agencies, travel arrangement, security, pest control, janitorial, landscaping, carpet cleaning, packing and labeling, trade show organizer, and auctioneers
EDUCATIONAL and HEALTH SERVICES	
Educational Services	Private schools and universities and support services for education (college selection, test preparation, and guidance counseling)
Health Care and Social Assistance	Private ambulatory health, hospitals, nursing and residential care, and social assistance (care for children, elderly, and disabled, emergency relief, vocational and rehabilitation services)
LEISURE and HOSPITALITY	
Arts, Entertainment, and Recreation	Performing arts, spectator sports, museums, historical sites, zoos, parks, amusement, and gambling
Accommodation and Food Services	Hotels, RV parks, food, and drinking places
OTHER SERVICES	Repair (autos, electronics, machinery, and appliances); personal (hair, nail, skin, weight reduction, and tattoos); funeral homes; dry-cleaning and laundry services; pet care, parking lots, astrology, coin machines, dating, escort, future telling, life coaching, and personal fitness trainer; associations (churches, grant making, social advocacy, and unions)
GOVERNMENT (PUBLIC)	
Federal Government	Civilian federal employees including the U.S. Postal Service
State Government	Includes state universities and hospitals
Local Government	Includes local schools, community colleges, and local hospitals; township, city, and county employees such as fire fighters and park rangers

Appendix Table B
Ohio Employment Projections Report by Major Industry, 2022–2032

Industry	2022 Annual Employment	2032 Projected Employment	Change in Employment 2022-2032	Percent Change 2022-2032
Total	5,831,296	5,889,965	58,669	1.0%
Goods Producing Industries	1,019,918	1,000,050	-19,868	-2.0%
Agriculture, Forestry, Fishing, and Hunting	95,798	92,127	-3,671	-3.8%
Mining	8,610	8,520	-90	-1.1%
Construction	232,980	236,586	3,606	1.6%
Manufacturing	682,530	662,817	-19,713	-2.9%
Services Providing Industries	4,539,381	4,616,287	76,906	1.7%
Wholesale Trade	237,780	237,967	187	0.1%
Retail Trade	552,780	532,518	-20,262	-3.7%
Transportation and Warehousing	253,350	267,756	14,406	5.7%
Utilities	17,710	16,892	-818	-4.6%
Information	68,600	70,292	1,692	2.5%
Finance and Insurance	252,231	260,769	8,538	3.4%
Real Estate and Rental and Leasing	66,600	66,226	-374	-0.6%
Professional and Technical Services	283,110	296,304	13,194	4.7%
Management of Companies and Enterprises	139,120	148,655	9,535	6.9%
Administrative and Waste Services	321,430	315,384	-6,046	-1.9%
Educational Services	420,760	430,194	9,434	2.2%
Health Care and Social Assistance	817,890	859,920	42,030	5.1%
Arts, Entertainment, and Recreation	79,860	81,975	2,115	2.7%
Accommodation and Food Services	460,800	466,028	5,228	1.1%
Other Services (except Government)	221,690	222,184	494	0.2%
Government	345,670	343,223	-2,447	-0.7%
Self-Employed and Unpaid Family Workers	271,997	273,628	1,631	0.6%

Source: Ohio Department of Job and Family Services, Bureau of Labor Market Information, February 2025.

Appendix Table C
Ohio's Top 30 Industries* with the Fastest Job Growth, 2022–2032

NAICS	Industry	2022 Annual Employment	2032 Projected Employment	Change in Employment 2022-2032	Percent Change 2022-2032
3359	Other Electrical Equipment and Component Manufacturing	7,030	9,495	2,465	35.1%
6117	Educational Support Services	24,600	30,971	6,371	25.9%
4922	Local Messengers and Local Delivery	5,680	7,087	1,407	24.8%
5182	Data Processing, Hosting, and Related Services	11,890	14,714	2,824	23.8%
3344	Semiconductor and Other Electronic Component Manufacturing	8,680	10,506	1,826	21.0%
8113	Commercial and Industrial Machinery and Equipment (except Automotive and Electronic) Repair and Maintenance	10,490	12,155	1,665	15.9%
6241	Individual and Family Services	64,670	74,812	10,142	15.7%
6216	Home Health Care Services	57,740	66,021	8,281	14.3%
6214	Outpatient Care Centers	36,340	41,099	4,759	13.1%
6213	Offices of Other Health Practitioners	35,590	39,806	4,216	11.9%
8129	Other Personal Services	11,200	12,466	1,266	11.3%
5415	Computer Systems Design and Related Services	70,600	78,287	7,687	10.9%
5621	Waste Collection	6,740	7,442	702	10.4%
5611	Office Administrative Services	22,260	24,543	2,283	10.3%
5419	Other Professional, Scientific, and Technical Services	26,210	28,869	2,659	10.1%
5416	Management, Scientific, and Technical Consulting Services	38,100	41,854	3,754	9.9%
3119	Other Food Manufacturing	11,110	12,096	986	8.9%
6223	Specialty (except Psychiatric and Substance Abuse) Hospitals	8,710	9,467	757	8.7%
3250A2	Chemical Manufacturing (3255 and 3256 only)	20,320	22,073	1,753	8.6%
5629	Remediation and Other Waste Management Services	7,070	7,660	590	8.4%
5417	Scientific Research and Development Services	21,500	23,199	1,699	7.9%
7113	Promoters of Performing Arts, Sports, and Similar Events	5,730	6,154	424	7.4%
6243	Vocational Rehabilitation Services	10,790	11,582	792	7.3%
6233	Continuing Care Retirement Communities and Assisted Living Facilities for the Elderly	32,580	34,879	2,299	7.1%
6222	Psychiatric and Substance Abuse Hospitals	5,720	6,123	403	7.1%
5511	Management of Companies and Enterprises	139,120	148,655	9,535	6.9%
4885	Freight Transportation Arrangement	9,720	10,372	652	6.7%
6215	Medical and Diagnostic Laboratories	7,400	7,819	419	5.7%
3254	Pharmaceutical and Medicine Manufacturing	6,340	6,696	356	5.6%
5242	Agencies, Brokerages, and Other Insurance Related Activities	48,532	51,196	2,664	5.5%

* Industries with 5,000 or more workers.

Source: Ohio Department of Job and Family Services, Bureau of Labor Market Information, February 2025.

Appendix Table D
Ohio's Top 30 Industries with the Most New Jobs, 2022-2032

NAICS	Industry	2022 Annual Employment	2032 Projected Employment	Change in Employment 2022-2032	Percent Change 2022-2032
6241	Individual and Family Services	64,670	74,812	10,142	15.7%
5511	Management of Companies and Enterprises	139,120	148,655	9,535	6.9%
6216	Home Health Care Services	57,740	66,021	8,281	14.3%
5415	Computer Systems Design and Related Services	70,600	78,287	7,687	10.9%
6221	General Medical and Surgical Hospitals	265,750	272,813	7,063	2.7%
6117	Educational Support Services*	24,600	30,971	6,371	25.9%
6214	Outpatient Care Centers	36,340	41,099	4,759	13.1%
7225	Restaurants and Other Eating Places	395,330	400,044	4,714	1.2%
6213	Offices of Other Health Practitioners	35,590	39,806	4,216	11.9%
6211	Offices of Physicians	99,040	102,833	3,793	3.8%
5416	Management, Scientific, and Technical Consulting Services	38,100	41,854	3,754	9.9%
5182	Data Processing, Hosting, and Related Services	11,890	14,714	2,824	23.8%
5242	Agencies, Brokerages, and Other Insurance Related Activities	48,532	51,196	2,664	5.5%
5419	Other Professional, Scientific, and Technical Services	26,210	28,869	2,659	10.1%
3359	Other Electrical Equipment and Component Manufacturing*	7,030	9,495	2,465	35.1%
6233	Continuing Care Retirement Communities and Assisted Living Facilities for the Elderly	32,580	34,879	2,299	7.1%
5611	Office Administrative Services	22,260	24,543	2,283	10.3%
5220A1	Credit Intermediation and Related Activities (5221 and 5223 only)	77,480	79,750	2,270	2.9%
7139	Other Amusement and Recreation Industries	44,700	46,806	2,106	4.7%
6111	Elementary and Secondary Schools	275,890	277,879	1,989	0.7%
3344	Semiconductor and Other Electronic Component Manufacturing	8,680	10,506	1,826	21.0%
3250A2	Chemical Manufacturing (3255 and 3256 only)	20,320	22,073	1,753	8.6%
5417	Scientific Research and Development Services	21,500	23,199	1,699	7.9%
8113	Commercial and Industrial Machinery and Equipment (except Automotive and Electronic) Repair and Maintenance	10,490	12,155	1,665	15.9%
4234	Professional and Commercial Equipment and Supplies Merchant Wholesalers	30,380	32,002	1,622	5.3%
2382	Building Equipment Contractors	77,360	78,833	1,473	1.9%
4922	Local Messengers and Local Delivery	5,680	7,087	1,407	24.8%
4230A1	Merchant Wholesalers, Durable Goods (4232, 4233, 4235, 4236, 4237, and 4239 only)	61,810	63,100	1,290	2.1%
8129	Other Personal Services	11,200	12,466	1,266	11.3%
6113	Colleges, Universities, and Professional Schools	85,990	87,223	1,233	1.4%

*Industries expected to have the most new jobs and growth rates of at least 25%.

Source: Ohio Department of Job and Family Services, Bureau of Labor Market Information, February 2025.

Appendix Table E
Ohio's Industry* Employment Projections Report, 2022-2032

NAICS	Industry	2022 Annual Employment	2032 Projected Employment	Change in Employment 2022-2032	Percent Change 2022-2032
Total All Industries		5,831,296	5,889,965	58,669	1.0%
	Agriculture, Forestry, Fishing, and Hunting	95,798	92,127	-3,671	-3.8%
	Mining	8,610	8,520	-90	-1.1%
	Construction	232,980	236,586	3,606	1.6%
236	Construction of Buildings	52,250	52,789	539	1.0%
2361	Residential Building Construction	23,060	23,263	203	0.9%
2362	Nonresidential Building Construction	29,190	29,526	336	1.2%
237	Heavy and Civil Engineering Construction	29,610	30,582	972	3.3%
2371	Utility System Construction	15,790	16,041	251	1.6%
2373	Highway, Street, and Bridge Construction	11,130	11,678	548	4.9%
238	Specialty Trade Contractors	151,120	153,215	2,095	1.4%
2381	Foundation, Structure, and Building Exterior Contractors	29,390	29,620	230	0.8%
2382	Building Equipment Contractors	77,360	78,833	1,473	1.9%
2383	Building Finishing Contractors	22,010	22,170	160	0.7%
2389	Other Specialty Trade Contractors	22,360	22,592	232	1.0%
	Manufacturing	682,530	662,817	-19,713	-2.9%
311	Food Manufacturing	62,170	63,537	1,367	2.2%
3114	Fruit and Vegetable Preserving and Specialty Manufacturing	11,910	11,936	26	0.2%
3115	Dairy Product Manufacturing	8,340	8,517	177	2.1%
3116	Animal Slaughtering and Processing	11,320	11,610	290	2.6%
3118	Bakeries and Tortilla Manufacturing	12,600	12,526	-74	-0.6%
3119	Other Food Manufacturing	11,110	12,096	986	8.9%
312	Beverage and Tobacco Product Manufacturing	11,680	12,183	503	4.3%
321	Wood Product Manufacturing	13,880	13,686	-194	-1.4%
3219	Other Wood Product Manufacturing	10,670	10,539	-131	-1.2%
322	Paper Manufacturing	21,920	21,239	-681	-3.1%
3222	Converted Paper Product Manufacturing	19,650	19,492	-158	-0.8%
323	Printing and Related Support Activities	19,100	16,124	-2,976	-15.6%
324	Petroleum and Coal Products Manufacturing	4,940	5,072	132	2.7%
325	Chemical Manufacturing	48,710	50,371	1,661	3.4%
3250A1	Chemical Manufacturing (3251, 3252, 3253, and 3259 only)	22,050	21,602	-448	-2.0%
3250A2	Chemical Manufacturing (3255 and 3256 only)	20,320	22,073	1,753	8.6%
3254	Pharmaceutical and Medicine Manufacturing	6,340	6,696	356	5.6%
326	Plastics and Rubber Products Manufacturing	57,540	53,898	-3,642	-6.3%
3261	Plastics Product Manufacturing	45,030	42,406	-2,624	-5.8%
3262	Rubber Product Manufacturing	12,510	11,492	-1,018	-8.1%
327	Nonmetallic Mineral Product Manufacturing	26,530	25,878	-652	-2.5%
331	Primary Metal Manufacturing	35,200	31,737	-3,463	-9.8%
3311	Iron and Steel Mills and Ferroalloy Manufacturing	9,620	8,994	-626	-6.5%
3312	Steel Product Manufacturing from Purchased Steel	7,480	6,947	-533	-7.1%
3315	Foundries	9,660	8,361	-1,299	-13.5%
332	Fabricated Metal Product Manufacturing	96,580	95,423	-1,157	-1.2%
3320A1	Fabricated Metal Product Manufacturing (3321, 3322, 3325, 3326, and 3329 only)	32,520	30,915	-1,605	-4.9%
3320A2	Fabricated Metal Product Manufacturing (3323 and 3324 only)	28,160	29,208	1,048	3.7%
3327	Machine Shops; Turned Product; and Screw, Nut, and Bolt Manufacturing	23,750	23,861	111	0.5%

Appendix Table E – cont’d.
Ohio’s Industry* Employment Projections Report, 2022–2032

NAICS	Industry	2022 Annual Employment	2032 Projected Employment	Change in Employment 2022-2032	Percent Change 2022-2032
3328	Coating, Engraving, Heat Treating, and Allied Activities	12,150	11,439	-711	-5.9%
333	Machinery Manufacturing	77,490	77,422	-68	-0.1%
3330A1	Machinery Manufacturing (3331, 3332, 3334, and 3339 only)	49,460	50,424	964	2.0%
3335	Metalworking Machinery Manufacturing	20,400	19,438	-962	-4.7%
334	Computer and Electronic Product Manufacturing	21,210	22,458	1,248	5.9%
3344	Semiconductor and Other Electronic Component Manufacturing	8,680	10,506	1,826	21.0%
3345	Navigational, Measuring, Electromedical, and Control Instruments Manufacturing	9,990	9,855	-135	-1.4%
335	Electrical Equipment, Appliance, and Component Manufacturing	26,360	27,507	1,147	4.4%
3353	Electrical Equipment Manufacturing	7,270	7,134	-136	-1.9%
3359	Other Electrical Equipment and Component Manufacturing	7,030	9,495	2,465	35.1%
336	Transportation Equipment Manufacturing	114,660	104,739	-9,921	-8.7%
3361	Motor Vehicle Manufacturing	21,400	21,653	253	1.2%
3362	Motor Vehicle Body and Trailer Manufacturing	9,380	9,712	332	3.5%
3363	Motor Vehicle Parts Manufacturing	65,440	54,316	-11,124	-17.0%
3364	Aerospace Product and Parts Manufacturing	16,790	17,700	910	5.4%
337	Furniture and Related Product Manufacturing	15,550	14,382	-1,168	-7.5%
3370A1	Furniture and Related Product Manufacturing (3371 and 3372 only)	14,810	13,786	-1,024	-6.9%
339	Miscellaneous Manufacturing	22,090	20,724	-1,366	-6.2%
3391	Medical Equipment and Supplies Manufacturing	9,130	8,257	-873	-9.6%
3399	Other Miscellaneous Manufacturing	12,960	12,467	-493	-3.8%
	Wholesale Trade	237,780	237,967	187	0.1%
423	Merchant Wholesalers, Durable Goods	145,200	147,549	2,349	1.6%
4230A1	Merchant Wholesalers, Durable Goods (4232, 4233, 4235, 4236, 4237, and 4239 only)	61,810	63,100	1,290	2.1%
4231	Motor Vehicle and Motor Vehicle Parts and Supplies Merchant Wholesalers	17,280	17,477	197	1.1%
4234	Professional and Commercial Equipment and Supplies Merchant Wholesalers	30,380	32,002	1,622	5.3%
4238	Machinery, Equipment, and Supplies Merchant Wholesalers	35,730	34,970	-760	-2.1%
424	Merchant Wholesalers, Nondurable Goods	75,270	73,339	-1,931	-2.6%
4240A1	Merchant Wholesalers, Nondurable Goods (4244 and 4248 only)	32,670	32,791	121	0.4%
4240A2	Merchant Wholesalers, Nondurable Goods (4242 and 4246 only)	20,710	19,901	-809	-3.9%
4240A3	Merchant Wholesalers, Nondurable Goods (4241, 4247, and 4249 only)	17,760	16,774	-986	-5.6%
425	Wholesale Electronic Markets and Agents and Brokers	17,310	17,079	-231	-1.3%
	Retail Trade	552,780	532,518	-20,262	-3.7%
441	Motor Vehicle and Parts Dealers	76,150	76,597	447	0.6%
4411	Automobile Dealers	47,820	48,139	319	0.7%
4413	Automotive Parts, Accessories, and Tire Stores	23,430	23,511	81	0.4%
444	Building Material and Garden Equipment and Supplies Dealers	57,950	58,690	740	1.3%
4441	Building Material and Supplies Dealers	49,800	50,316	516	1.0%

Appendix Table E – cont’d.
Ohio’s Industry* Employment Projections Report, 2022–2032

NAICS	Industry	2022 Annual Employment	2032 Projected Employment	Change in Employment 2022-2032	Percent Change 2022-2032
4442	Lawn and Garden Equipment and Supplies Stores	8,150	8,374	224	2.8%
445	Food and Beverage Stores	101,560	98,570	-2,990	-2.9%
4450A1	Food and Beverage Stores (4451 and 4452 only)	97,350	94,415	-2,935	-3.0%
449	Furniture, Home Furnishings, Electronics, and Appliance Retailers	27,700	23,502	-4,198	-15.2%
4491	Furniture and Home Furnishings Retailers	13,610	12,958	-652	-4.8%
4492	Electronics and Appliance Retailers	14,090	10,544	-3,546	-25.2%
455	General Merchandise Retailers	115,770	111,763	-4,007	-3.5%
456	Health and Personal Care Retailers	36,580	35,316	-1,264	-3.5%
457	Gasoline Stations and Fuel Dealers	37,470	35,080	-2,390	-6.4%
4571	Gasoline Stations	35,570	33,275	-2,295	-6.5%
458	Clothing, Clothing Accessories, Shoe, and Jewelry Retailers	38,880	37,084	-1,796	-4.6%
4581	Clothing and Clothing Accessories Retailers	29,020	27,564	-1,456	-5.0%
4582	Shoe Retailers	6,520	6,357	-163	-2.5%
459	Sporting Goods, Hobby, Musical Instrument, Book, and Miscellaneous Retailers	60,720	55,916	-4,804	-7.9%
4590A1	Miscellaneous Store Retailers (4594 and 4595 Only)	21,170	18,939	-2,231	-10.5%
4591	Sporting Goods, Hobby, and Musical Instrument Retailers	17,220	16,016	-1,204	-7.0%
4599	Other Miscellaneous Retailers	17,290	17,064	-226	-1.3%
	Transportation and Warehousing	253,350	267,756	14,406	5.7%
481	Truck Transportation	11,150	10,885	-265	-2.4%
4812	Nonscheduled Air Transportation	7,330	7,731	401	5.5%
484	Truck Transportation	73,110	74,581	1,471	2.0%
485	Transit and Ground Passenger Transportation	8,930	9,760	830	9.3%
488	Support Activities for Transportation	23,280	24,425	1,145	4.9%
4881	Support Activities for Air Transportation	5,390	5,574	184	3.4%
4885	Freight Transportation Arrangement	9,720	10,372	652	6.7%
492	Couriers and Messengers	38,000	39,775	1,775	4.7%
4921	Couriers	32,320	32,688	368	1.1%
4922	Local Messengers and Local Delivery	5,680	7,087	1,407	24.8%
493	Warehousing and Storage	92,200	101,615	9,415	10.2%
	Utilities	17,710	16,892	-818	-4.6%
2211	Electric Power Generation, Transmission and Distribution	11,060	10,604	-456	-4.1%
2212	Natural Gas Distribution	5,360	4,997	-363	-6.8%
	Information	68,600	70,292	1,692	2.5%
512	Motion Picture and Sound Recording Industries	4,940	5,667	727	14.7%
5121	Motion Picture and Video Industries	4,810	5,540	730	15.2%
513	Publishing Industries	21,610	20,283	-1,327	-6.1%
516	Broadcasting and Content Providers	8,380	7,276	-1,104	-13.2%
517	Telecommunications	19,860	20,420	560	2.8%
518	Computing Infrastructure Providers, Data Processing, Web Hosting, and Related Services	11,890	14,714	2,824	23.8%
	Finance and Insurance	252,231	260,769	8,538	3.4%
522	Credit Intermediation and Related Activities	97,540	99,675	2,135	2.2%
5220A1	Credit Intermediation and Related Activities (5221 and 5223 only)	77,480	79,750	2,270	2.9%
5222	Nondepository Credit Intermediation	20,060	19,925	-135	-0.7%
523	Securities, Commodity Contracts, and Other Financial Investments and Related Activities	21,620	24,575	2,955	13.7%

Appendix Table E – cont’d.
Ohio’s Industry* Employment Projections Report, 2022–2032

NAICS	Industry	2022 Annual Employment	2032 Projected Employment	Change in Employment 2022-2032	Percent Change 2022-2032
524	Insurance Carriers and Related Activities	131,511	134,689	3,178	2.4%
5241	Insurance Carriers	82,979	83,493	514	0.6%
5242	Agencies, Brokerages, and Other Insurance Related Activities	48,532	51,196	2,664	5.5%
	Real Estate and Rental and Leasing	66,600	66,226	-374	-0.6%
531	Real Estate	48,500	49,437	937	1.9%
532	Rental and Leasing Services	17,460	16,214	-1,246	-7.1%
5320A1	Rental and Leasing Services (5322, 5323, and 5324 only)	10,260	8,932	-1,328	-12.9%
5321	Automotive Equipment Rental and Leasing	7,200	7,282	82	1.1%
	Professional, Scientific, and Technical Services	283,110	296,304	13,194	4.7%
5411	Legal Services	31,430	28,778	-2,652	-8.4%
5412	Accounting, Tax Preparation, Bookkeeping, and Payroll Services	31,660	31,513	-147	-0.5%
5413	Architectural, Engineering, and Related Services	44,840	45,429	589	1.3%
5414	Specialized Design Services	6,530	6,715	185	2.8%
5415	Computer Systems Design and Related Services	70,600	78,287	7,687	10.9%
5416	Management, Scientific, and Technical Consulting Services	38,100	41,854	3,754	9.9%
5417	Scientific Research and Development Services	21,500	23,199	1,699	7.9%
5418	Advertising, Public Relations, and Related Services	12,240	11,660	-580	-4.7%
5419	Other Professional, Scientific, and Technical Services	26,210	28,869	2,659	10.1%
	Management of Companies and Enterprises	139,120	148,655	9,535	6.9%
	Administrative and Support and Waste Management and Remediation Services	321,430	315,384	-6,046	-1.9%
561	Administrative and Support Services	302,580	295,146	-7,434	-2.5%
5611	Office Administrative Services	22,260	24,543	2,283	10.3%
5613	Employment Services	139,620	132,937	-6,683	-4.8%
5614	Business Support Services	24,260	21,206	-3,054	-12.6%
5616	Investigation and Security Services	24,120	24,197	77	0.3%
5617	Services to Buildings and Dwellings	73,610	72,761	-849	-1.2%
5619	Other Support Services	12,300	12,688	388	3.2%
562	Waste Management and Remediation Service	18,850	20,238	1,388	7.4%
5621	Waste Collection	6,740	7,442	702	10.4%
5622	Waste Treatment and Disposal	5,040	5,136	96	1.9%
5629	Remediation and Other Waste Management Services	7,070	7,660	590	8.4%
	Educational Services	420,760	430,194	9,434	2.2%
6111	Elementary and Secondary Schools	275,890	277,879	1,989	0.7%
6112	Junior Colleges	17,020	16,967	-53	-0.3%
6113	Colleges, Universities, and Professional Schools	85,990	87,223	1,233	1.4%
6116	Other Schools and Instruction	12,160	12,236	76	0.6%
6117	Educational Support Services	24,600	30,971	6,371	25.9%
	Health Care and Social Assistance	817,890	859,920	42,030	5.1%
621	Ambulatory Health Care Services	279,140	302,078	22,938	8.2%
6211	Offices of Physicians	99,040	102,833	3,793	3.8%
6212	Offices of Dentists	32,200	33,255	1,055	3.3%
6213	Offices of Other Health Practitioners	35,590	39,806	4,216	11.9%
6214	Outpatient Care Centers	36,340	41,099	4,759	13.1%
6215	Medical and Diagnostic Laboratories	7,400	7,819	419	5.7%
6216	Home Health Care Services	57,740	66,021	8,281	14.3%

Appendix Table E – cont’d.
Ohio’s Industry* Employment Projections Report, 2022–2032

NAICS	Industry	2022 Annual Employment	2032 Projected Employment	Change in Employment 2022-2032	Percent Change 2022-2032
6219	Other Ambulatory Health Care Services	10,830	11,245	415	3.8%
622	Hospitals	280,180	288,403	8,223	2.9%
6221	General Medical and Surgical Hospitals	265,750	272,813	7,063	2.7%
6222	Psychiatric and Substance Abuse Hospitals	5,720	6,123	403	7.1%
6223	Specialty (except Psychiatric and Substance Abuse) Hospitals	8,710	9,467	757	8.7%
623	Nursing and Residential Care Facilities	144,120	144,151	31	0.0%
6231	Nursing Care Facilities (Skilled Nursing Facilities)	79,020	76,235	-2,785	-3.5%
6232	Residential Intellectual & Developmental Disability, Mental Health, and Substance Abuse Facilities	28,800	29,428	628	2.2%
6233	Continuing Care Retirement Communities and Assisted Living Facilities for the Elderly	32,580	34,879	2,299	7.1%
624	Social Assistance	114,450	125,288	10,838	9.5%
6241	Individual and Family Services	64,670	74,812	10,142	15.7%
6242	Community Food and Housing, and Emergency and Other Relief Services	6,950	7,290	340	4.9%
6243	Vocational Rehabilitation Services	10,790	11,582	792	7.3%
6244	Child Day Care Services	32,040	31,604	-436	-1.4%
	Arts, Entertainment, and Recreation	79,860	81,975	2,115	2.7%
711	Performing Arts, Spectator Sports, and Related Industries	14,440	14,978	538	3.7%
7113	Promoters of Performing Arts, Sports, and Similar Events	5,730	6,154	424	7.4%
712	Museums, Historical Sites, and Similar Institutions	7,300	7,520	220	3.0%
713	Amusement, Gambling, and Recreation Industries	58,120	59,477	1,357	2.3%
7131	Amusement Parks and Arcades	7,330	7,509	179	2.4%
7132	Gambling Industries	6,090	5,162	-928	-15.2%
7139	Other Amusement and Recreation Industries	44,700	46,806	2,106	4.7%
	Accommodation and Food Services	460,800	466,028	5,228	1.1%
721	Accommodation, including Hotels and Motels	32,500	33,032	532	1.6%
7211	Traveler Accommodation	30,430	30,935	505	1.7%
722	Food Services and Drinking Places	428,300	432,996	4,696	1.1%
7223	Special Food Services	17,830	17,844	14	0.1%
7224	Drinking Places (Alcoholic Beverages)	15,140	15,108	-32	-0.2%
7225	Restaurants and Other Eating Places	395,330	400,044	4,714	1.2%
	Other Services (Except Government)	221,690	222,184	494	0.2%
811	Repair and Maintenance	51,870	54,398	2,528	4.9%
8111	Automotive Repair and Maintenance	34,830	35,226	396	1.1%
8113	Commercial and Industrial Machinery and Equipment (except Automotive and Electronic) Repair and Maintenance	10,490	12,155	1,665	15.9%
812	Personal and Laundry Services	51,810	51,063	-747	-1.4%
8121	Personal Care Services	24,540	23,172	-1,368	-5.6%
8122	Death Care Services	6,680	6,497	-183	-2.7%
8123	Drycleaning and Laundry Services	9,390	8,928	-462	-4.9%
8129	Other Personal Services	11,200	12,466	1,266	11.3%
813	Religious, Grantmaking, Civic, Professional, and Similar Organizations	104,130	104,043	-87	-0.1%
8131	Religious Organizations	64,450	65,248	798	1.2%
8134	Civic and Social Organizations	16,920	16,775	-145	-0.9%
8139	Business, Professional, Labor, Political, and Similar Organizations	13,140	11,986	-1,154	-8.8%

Appendix Table E – cont’d.
Ohio’s Industry* Employment Projections Report, 2022–2032

NAICS	Industry	2022 Annual Employment	2032 Projected Employment	Change in Employment 2022-2032	Percent Change 2022-2032
814	Private Households	13,880	12,680	-1,200	-8.7%
	Government	345,670	343,223	-2,447	-0.7%
	State Government, Excluding Education and Hospitals	54,090	52,181	-1,909	-3.5%
	Local Government, Excluding Education and Hospitals	211,880	212,557	677	0.3%
	Self-Employed and Unpaid Family Workers, All Jobs	271,997	273,628	1,631	0.6%

* Industries with 5,000 or more workers.

Source: Ohio Department of Job and Family Services, Bureau of Labor Market Information, February 2025.

Appendix Table F
Ohio Occupational Employment Projections by Occupational Group, 2022–2032

Occupational Title	Employment		Change in Employment		Growth	Annual Openings		
	2022 Annual	2032 Projected	2022-2032	Percent		Exits	Transfers	Total
Total, All Occupations	5,831,296	5,889,965	58,669	1.0%	5,867	260,429	370,682	636,978
Management Occupations	450,907	466,504	15,597	3.5%	1,560	14,819	22,799	39,178
Business and Financial Operations Occupations	359,167	373,372	14,205	4.0%	1,420	10,178	18,499	30,097
Computer and Mathematical Occupations	163,526	180,898	17,372	10.6%	1,737	3,611	6,052	11,400
Architecture and Engineering Occupations	97,736	102,691	4,955	5.1%	496	2,390	4,022	6,908
Life, Physical, and Social Science Occupations	36,779	38,836	2,057	5.6%	206	612	2,581	3,399
Community and Social Service Occupations	105,469	112,459	6,990	6.6%	699	3,984	5,388	10,071
Legal Occupations	36,282	36,651	369	1.0%	37	857	1,147	2,041
Education, Training, and Library Occupations	310,784	320,395	9,611	3.1%	961	12,361	14,153	27,475
Arts, Design, Entertainment, Sports, and Media Occupations	91,360	92,393	1,033	1.1%	103	3,642	5,210	8,955
Healthcare Practitioners and Technical Occupations	377,002	396,943	19,941	5.3%	1,994	11,211	10,285	23,490
Healthcare Support Occupations	222,176	240,954	18,778	8.5%	1,878	14,800	17,902	34,580
Protective Service Occupations	116,957	116,395	-562	-0.5%	-56	5,083	7,558	12,585
Food Preparation and Serving Related Occupations	463,816	467,160	3,344	0.7%	334	37,884	50,164	88,382
Building and Grounds Cleaning and Maintenance Occupations	171,774	171,964	190	0.1%	19	10,177	12,891	23,087
Personal Care and Service Occupations	128,950	131,113	2,163	1.7%	216	8,600	13,852	22,668
Sales and Related Occupations	491,850	474,846	-17,004	-3.5%	-1,700	26,409	35,699	60,408
Office and Administrative Support Occupations	697,169	646,718	-50,451	-7.2%	-5,045	32,103	41,996	69,054
Farming, Fishing, and Forestry Occupations	16,482	15,429	-1,053	-6.4%	-105	983	1,426	2,304
Construction and Extraction Occupations	204,675	211,740	7,065	3.5%	706	6,304	10,854	17,864
Installation, Maintenance, and Repair Occupations	225,321	233,288	7,967	3.5%	797	8,168	11,562	20,527
Production Occupations	496,637	473,121	-23,516	-4.7%	-2,352	19,017	32,514	49,179
Transportation and Material Moving Occupations	566,477	586,095	19,618	3.5%	1,962	27,234	44,129	73,325

Source: Ohio Department of Job and Family Services, Bureau of Labor Market Information, February 2025.

Appendix Table G
Ohio's Fastest Growing Occupations*, 2022–2032

Occupational Title	Percent Change	Total Annual Openings	Median Wage May 2023
Nurse Practitioners (SOC 29-1171)	42.6%	1,050	\$59.46
Taxi Drivers (SOC 53-3054)	37.1%	312	\$15.77
Data Scientists (SOC 15-2051)	31.5%	372	\$46.67
Information Security Analysts (SOC 15-1212)	26.7%	332	\$51.18
Physician Assistants (SOC 29-1071)	24.5%	253	\$58.74
Medical and Health Services Managers (SOC 11-9111)	24.2%	1,978	\$49.85
Speech-Language Pathologists (SOC 29-1127)	22.1%	508	\$41.61
Software Developers (SOC 15-1252)	20.7%	3,517	\$51.71
Operations Research Analysts (SOC 15-2031)	20.4%	356	\$42.75
Medical Equipment Repairers (SOC 49-9062)	19.6%	407	\$29.90
Occupational Therapy Assistants (SOC 31-2011)	19.6%	451	\$30.04
Actuaries (SOC 15-2011)	19.0%	113	\$53.96
Cooks, Restaurant (SOC 35-2014)	18.9%	8,854	\$14.89
Physical Therapist Assistants (SOC 31-2021)	18.5%	1,101	\$29.59
Veterinary Assistants and Laboratory Animal Caretakers (SOC 31-9096)	17.9%	966	\$14.77
Veterinarians (SOC 29-1131)	17.8%	155	\$50.27
Veterinary Technologists and Technicians (SOC 29-2056)	17.6%	517	\$18.18
Financial Examiners (SOC 13-2061)	16.7%	410	\$32.03
Logisticians (SOC 13-1081)	16.6%	862	\$38.47
Software Quality Assurance Analysts and Testers (SOC 15-1253)	16.5%	398	\$39.69
Health Specialties Teachers, Postsecondary (SOC 25-1071)	16.4%	643	\$105,410 ††
Industrial Machinery Mechanics (SOC 49-9041)	16.1%	1,563	\$29.75
Nursing Instructors and Teachers, Postsecondary (SOC 25-1072)	15.8%	343	\$76,640 ††
Personal Financial Advisors (SOC 13-2052)	15.0%	930	\$39.44
Substance Abuse, Behavioral Disorder, and Mental Health Counselors (SOC 21-1018)	14.3%	1,561	\$24.32
Financial Managers (SOC 11-3031)	14.2%	2,347	\$63.27
Computer Numerically Controlled Tool Programmers (SOC 51-9162)	14.2%	233	\$29.85
Film and Video Editors (SOC 27-4032)	13.8%	108	\$23.02
Occupational Health and Safety Technicians (SOC 19-5012)	13.6%	133	\$29.52
Telecommunications Equipment Installers and Repairers, Except Line Installers (SOC 49-2022)	13.2%	395	\$28.89
Home Health and Personal Care Aides (SOC 31-1120)	13.1%	16,082	\$14.08
Animal Caretakers (SOC 39-2021)	12.8%	2,374	\$13.83
Web Developers (SOC 15-1254)	12.3%	140	\$39.98
Web and Digital Interface Designers (SOC 15-1255)	12.1%	244	\$38.51
Computer and Information Systems Managers (SOC 11-3021)	12.0%	1,009	\$78.02

* Occupations with at least 500 employment.

†† Certain occupations only report wages at the annual level - for elementary and secondary teachers this typically reflects a 9 1/2-month school year.

Source: Ohio Department of Job and Family Services, Bureau of Labor Market Information, February 2025.

Appendix Table H
Occupations in Ohio with the Most Annual Openings, 2022–2032

Occupational Title	Total Annual Openings	Median Wage May 2023
Fast Food and Counter Workers (SOC 35-3023)	32,110	\$13.16
Stockers and Order Fillers (SOC 53-7065)	21,055	\$17.57
Cashiers (SOC 41-2011)	20,598	\$13.27
Retail Salespersons (SOC 41-2031)	16,816	\$14.46
Home Health and Personal Care Aides (SOC 31-1120)	16,082	\$14.08
Laborers and Freight, Stock, and Material Movers, Hand (SOC 53-7062)	14,572	\$18.08
Waiters and Waitresses (SOC 35-3031)	14,001	\$13.92
Customer Service Representatives (SOC 43-4051)	12,738	\$19.17
General and Operations Managers (SOC 11-1021)	11,191	\$45.14
Janitors and Cleaners, Except Maids and Housekeeping Cleaners (SOC 37-2011)	10,987	\$16.27
Heavy and Tractor-Trailer Truck Drivers (SOC 53-3032)	10,441	\$25.82
Office Clerks, General (SOC 43-9061)	9,167	\$19.15
Miscellaneous Assemblers and Fabricators (SOC 51-2090)	9,067	\$19.31
Cooks, Restaurant (SOC 35-2014)	8,854	\$14.89
Nursing Assistants (SOC 31-1131)	8,507	\$18.28
Farmers, Ranchers, and Other Agricultural Managers (SOC 11-9013)	8,155	\$23.62
Registered Nurses (SOC 29-1141)	7,341	\$38.44
First-Line Supervisors of Food Preparation and Serving Workers (SOC 35-1012)	6,981	\$17.58
Maintenance and Repair Workers, General (SOC 49-9071)	6,496	\$22.99
Bookkeeping, Accounting, and Auditing Clerks (SOC 43-3031)	6,287	\$22.15
Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products (SOC 41-4012)	5,991	\$33.00
Secretaries and Administrative Assistants, Except Legal, Medical, and Executive (SOC 43-6014)	5,911	\$20.36
Teaching Assistants, Except Postsecondary (SOC 25-9045)	5,551	\$35,430 ††
Landscaping and Groundskeeping Workers (SOC 37-3011)	5,493	\$17.36
Maids and Housekeeping Cleaners (SOC 37-2012)	4,614	\$13.73
Receptionists and Information Clerks (SOC 43-4171)	4,585	\$16.38
Childcare Workers (SOC 39-9011)	4,389	\$13.44
Light Truck Drivers (SOC 53-3033)	4,291	\$18.73
First-Line Supervisors of Retail Sales Workers (SOC 41-1011)	4,269	\$20.27
Industrial Truck and Tractor Operators (SOC 53-7051)	4,242	\$21.05
Accountants and Auditors (SOC 13-2011)	4,210	\$36.32
Security Guards (SOC 33-9032)	4,134	\$16.52
First-Line Supervisors of Office and Administrative Support Workers (SOC 43-1011)	4,064	\$29.39
Construction Laborers (SOC 47-2061)	4,026	\$23.40
Food Preparation Workers (SOC 35-2021)	3,850	\$13.96

†† Certain occupations only report wages at the annual level - for elementary and secondary teachers this typically reflects a 9 1/2-month school year.

Source: Ohio Department of Job and Family Services, Bureau of Labor Market Information, February 2025.

Appendix Table I
Ohio Occupations with at least 1,000 Self-Employed, 2022–2032

Occupational Title	2022 Employment	Self-Employed	Percent Self-Employed
Door-to-Door Sales Workers, News and Street Vendors, and Related Workers (SOC 41-9091)	2,104	1,710	81.3%
Psychologists, All Other (SOC 19-3039)	1,569	1,140	72.7%
Couriers and Messengers (SOC 43-5021)	7,078	4,738	66.9%
Writers and Authors (SOC 27-3043)	3,495	2,308	66.0%
Photographers (SOC 27-4021)	4,317	2,807	65.0%
Art Directors (SOC 27-1011)	2,359	1,397	59.2%
Real Estate Sales Agents (SOC 41-9022)	10,367	5,526	53.3%
Musicians and Singers (SOC 27-2042)	8,376	4,415	52.7%
Managers, All Other (SOC 11-9199)	16,509	8,376	50.7%
Hairdressers, Hairstylists, and Cosmetologists (SOC 39-5012)	24,468	11,849	48.4%
First-Line Supervisors of Landscaping, Lawn Service, and Groundskeeping Workers (SOC 37-1012)	5,795	2,487	42.9%
Motor Vehicle Operators, All Other (SOC 53-3099)	3,743	1,453	38.8%
Property, Real Estate, and Community Association Managers (SOC 11-9141)	13,820	5,215	37.7%
Massage Therapists (SOC 31-9011)	3,724	1,379	37.0%
Food Service Managers (SOC 11-9051)	18,215	6,722	36.9%
Construction Managers (SOC 11-9021)	17,027	6,139	36.1%
Painters, Construction and Maintenance (SOC 47-2141)	8,213	2,957	36.0%
First-Line Supervisors of Non-Retail Sales Workers (SOC 41-1012)	12,048	3,977	33.0%
Manicurists and Pedicurists (SOC 39-5092)	5,076	1,619	31.9%
First-line Supervisors of Personal Service Workers (SOC 39-1022)	3,655	1,045	28.6%
Chief Executives (SOC 11-1011)	6,584	1,866	28.3%
Construction Laborers (SOC 47-2061)	43,708	11,714	26.8%
First-Line Supervisors of Housekeeping and Janitorial Workers (SOC 37-1011)	6,847	1,805	26.4%
First-line Supervisors of Entertainment And Recreation Workers, Except Gambling Services (SOC 39-1014)	4,620	1,176	25.5%
Carpenters (SOC 47-2031)	21,957	5,206	23.7%
Childcare Workers (SOC 39-9011)	26,499	6,117	23.1%
First-Line Supervisors of Retail Sales Workers (SOC 41-1011)	48,869	11,205	22.9%
Animal Caretakers (SOC 39-2021)	11,832	2,703	22.8%
Landscaping and Groundskeeping Workers (SOC 37-3011)	42,072	8,853	21.0%
Self-Enrichment Teachers (SOC 25-3021)	10,417	1,928	18.5%
Graphic Designers (SOC 27-1024)	9,451	1,745	18.5%
Exercise Trainers and Group Fitness Instructors (SOC 39-9031)	9,157	1,436	15.7%
Management Analysts (SOC 13-1111)	30,900	4,497	14.6%
Automotive Service Technicians and Mechanics (SOC 49-3023)	27,119	3,713	13.7%
Personal Financial Advisors (SOC 13-2052)	11,460	1,540	13.4%
Lawyers (SOC 23-1011)	21,435	2,879	13.4%
Coaches and Scouts (SOC 27-2022)	14,942	1,996	13.4%
Insurance Sales Agents (SOC 41-3021)	17,752	1,967	11.1%
Maids and Housekeeping Cleaners (SOC 37-2012)	33,538	3,037	9.1%
Substance Abuse, Behavioral Disorder, and Mental Health Counselors (SOC 21-1018)	15,245	1,295	8.5%

Appendix Table I – cont’d.
Ohio Occupations with at least 1,000 Self-Employed, 2022–2032

Occupational Title	2022 Employment	Self- Employed	Percent Self- Employed
Heating, Air Conditioning, and Refrigeration Mechanics and Installers (SOC 49-9021)	14,677	1,136	7.7%
Cleaners of Vehicles and Equipment (SOC 53-7061)	16,408	1,264	7.7%
First-Line Supervisors of Construction Trades and Extraction Workers (SOC 47-1011)	19,709	1,496	7.6%
Electricians (SOC 47-2111)	26,411	1,828	6.9%
Driver/Sales Workers (SOC 53-3031)	33,588	2,264	6.7%
Heavy and Tractor-Trailer Truck Drivers (SOC 53-3032)	97,460	6,498	6.7%
Light Truck Drivers (SOC 53-3033)	38,167	2,544	6.7%
Buyers and Purchasing Agents (SOC 13-1020)	22,654	1,446	6.4%
Welders, Cutters, Solderers, and Brazers (SOC 51-4121)	19,539	1,202	6.2%
Clergy (SOC 21-2011)	19,567	1,198	6.1%
Janitors and Cleaners, Except Maids and Housekeeping Cleaners (SOC 37-2011)	78,971	4,372	5.5%
Bookkeeping, Accounting, and Auditing Clerks (SOC 43-3031)	61,454	3,001	4.9%
Accountants and Auditors (SOC 13-2011)	52,730	2,139	4.1%
Retail Salespersons (SOC 41-2031)	119,510	4,491	3.8%
Market Research Analysts and Marketing Specialists (SOC 13-1161)	31,799	1,153	3.6%
Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products (SOC 41-4012)	66,771	1,956	2.9%
Home Health and Personal Care Aides (SOC 31-1120)	95,523	2,384	2.5%
Miscellaneous Assemblers and Fabricators (SOC 51-2090)	97,259	1,458	1.5%
Maintenance and Repair Workers, General (SOC 49-9071)	70,105	1,025	1.5%
Laborers and Freight, Stock, and Material Movers, Hand (SOC 53-7062)	111,809	1,181	1.1%

Source: Ohio Department of Job and Family Services, Bureau of Labor Market Information, February 2025.

Appendix Table J
Ohio Occupational Employment* Projections Report, 2022–2032

Code	Occupational Title	Employment		Change in Employment		Annual Openings				Median Wage May 2023
		2022 Annual	2032 Projected	2022-2032	Percent	Growth	Exits	Transfers	Total	
00-0000	Total, All Occupations	5,831,296	5,889,965	58,669	1.0%	5,867	260,429	370,682	636,978	\$22.45
11-0000	Management Occupations	450,907	466,504	15,597	3.5%	1,560	14,819	22,799	39,178	\$48.38
11-1011	Chief Executives	6,584	5,716	-868	-13.2%	-87	174	233	320	\$84.58
11-1021	General and Operations Managers	133,154	136,762	3,608	2.7%	361	3,023	7,807	11,191	\$45.14
11-2011	Advertising and Promotions Managers	233	234	1	0.4%	0	4	15	19	\$47.80
11-2021	Marketing Managers	7,336	7,647	311	4.2%	31	152	434	617	\$63.46
11-2022	Sales Managers	15,703	16,067	364	2.3%	36	353	839	1,228	\$64.64
11-2032	Public Relations Managers	879	908	29	3.3%	3	18	43	64	\$59.80
11-2033	Fundraising Managers	844	888	44	5.2%	4	17	41	62	\$47.28
11-3012	Administrative Services Managers	7,387	7,675	288	3.9%	29	233	368	630	\$44.39
11-3013	Facilities Managers	4,346	4,481	135	3.1%	14	155	205	374	\$45.82
11-3021	Computer and Information Systems Managers	12,302	13,784	1,482	12.0%	148	227	634	1,009	\$78.02
11-3031	Financial Managers	27,099	30,958	3,859	14.2%	386	693	1,268	2,347	\$63.27
11-3051	Industrial Production Managers	13,256	13,324	68	0.5%	7	306	630	943	\$48.06
11-3061	Purchasing Managers	2,422	2,512	90	3.7%	9	62	117	188	\$61.78
11-3071	Transportation, Storage, and Distribution Managers	6,534	7,057	523	8.0%	52	177	368	597	\$43.90
11-3111	Compensation and Benefits Managers	379	384	5	1.3%	0	9	15	24	\$67.42
11-3121	Human Resources Managers	4,697	4,881	184	3.9%	18	114	244	376	\$60.18
11-3131	Training and Development Managers	703	739	36	5.1%	4	14	39	57	\$52.48
11-9013	Farmers, Ranchers, and Other Agricultural Managers	80,737	78,244	-2,493	-3.1%	-249	5,433	2,971	8,155	\$23.62
11-9021	Construction Managers	17,027	18,099	1,072	6.3%	107	424	898	1,429	\$44.74
11-9031	Education and Childcare Administrators, Preschool and Daycare	2,860	2,811	-49	-1.7%	-5	69	119	183	\$21.77
11-9032	Education Administrators, Kindergarten through Secondary	10,497	10,905	408	3.9%	41	261	449	751	\$98,710 ††
11-9033	Education Administrators, Postsecondary	5,781	5,848	67	1.2%	7	142	244	393	\$40.15
11-9039	Education Administrators, All Other	1,230	1,270	40	3.3%	4	30	52	86	\$33.63
11-9041	Architectural and Engineering Managers	6,522	6,742	220	3.4%	22	125	300	447	\$72.56
11-9051	Food Service Managers	18,215	18,048	-167	-0.9%	-17	600	1,408	1,991	\$27.05
11-9072	Entertainment And Recreation Managers, Except Gambling	791	851	60	7.6%	6	32	64	102	\$26.56
11-9081	Lodging Managers	1,745	1,859	114	6.5%	11	62	116	189	\$23.73
11-9111	Medical and Health Services Managers	19,155	23,790	4,635	24.2%	464	534	980	1,978	\$49.85
11-9121	Natural Sciences Managers	1,053	1,074	21	2.0%	2	24	54	80	\$62.61
11-9131	Postmasters and Mail Superintendents	481	448	-33	-6.9%	-3	13	22	32	\$42.68
11-9141	Property, Real Estate, and Community Association Managers	13,820	14,133	313	2.3%	31	544	526	1,101	\$23.66
11-9151	Social and Community Service Managers	5,118	5,477	359	7.0%	36	160	253	449	\$33.26
11-9161	Emergency Management Directors	298	302	4	1.3%	0	9	13	22	\$41.22
11-9171	Funeral Home Managers	1,047	1,079	32	3.1%	3	30	49	82	\$43.94
11-9199	Managers, All Other	16,509	17,250	741	4.5%	74	475	784	1,333	\$60.23
13-0000	Business and Financial Operations Occupations	359,167	373,372	14,205	4.0%	1,420	10,178	18,499	30,097	\$35.95
13-1020	Buyers and Purchasing Agents	22,654	20,723	-1,931	-8.5%	-193	791	1,245	1,843	\$31.78
13-1031	Claims Adjusters, Examiners, and Investigators	7,828	7,381	-447	-5.7%	-45	167	339	461	\$36.54
13-1032	Insurance Appraisers, Auto Damage	396	385	-11	-2.8%	-1	9	17	25	\$42.03

Appendix Table J – cont’d.
Ohio Occupational Employment* Projections Report, 2022–2032

Code	Occupational Title	Employment		Change in Employment		Annual Openings				Median Wage May 2023
		2022 Annual	2032 Projected	2022-2032	Percent	Growth	Exits	Transfers	Total	
13-1041	Compliance Officers	9,578	9,998	420	4.4%	42	320	440	802	\$35.85
13-1051	Cost Estimators	8,640	8,353	-287	-3.3%	-29	242	473	686	\$33.75
13-1071	Human Resources Specialists	33,389	34,505	1,116	3.3%	112	905	1,852	2,869	\$30.11
13-1075	Labor Relations Specialists	3,553	3,275	-278	-7.8%	-28	91	186	249	\$38.41
13-1081	Logisticians	8,113	9,456	1,343	16.6%	134	210	518	862	\$38.47
13-1082	Project Management Specialists	29,863	31,126	1,263	4.2%	126	637	1,481	2,244	\$41.89
13-1111	Management Analysts	30,900	33,063	2,163	7.0%	216	995	1,538	2,749	\$40.42
13-1121	Meeting, Convention, and Event Planners	4,164	4,229	65	1.6%	6	145	277	428	\$24.06
13-1131	Fundraisers	5,830	6,044	214	3.7%	21	160	266	447	\$25.45
13-1141	Compensation, Benefits, and Job Analysis Specialists	2,461	2,603	142	5.8%	14	68	109	191	\$35.49
13-1151	Training and Development Specialists	13,156	13,791	635	4.8%	64	355	778	1,197	\$29.58
13-1161	Market Research Analysts and Marketing Specialists	31,799	35,382	3,583	11.3%	358	881	2,011	3,250	\$31.42
13-1199	Business Operations Specialists, All Other	35,009	36,077	1,068	3.1%	107	1,052	1,908	3,067	\$34.36
13-2011	Accountants and Auditors	52,730	54,318	1,588	3.0%	159	1,553	2,498	4,210	\$36.32
13-2020	Property Appraisers and Assessors	2,272	2,366	94	4.1%	9	102	77	188	\$31.87
13-2031	Budget Analysts	762	782	20	2.6%	2	18	30	50	\$40.37
13-2041	Credit Analysts	2,649	2,578	-71	-2.7%	-7	47	131	171	\$33.65
13-2051	Financial and Investment Analysts	8,950	9,542	592	6.6%	59	176	402	637	\$40.37
13-2052	Personal Financial Advisors	11,460	13,177	1,717	15.0%	172	304	454	930	\$39.44
13-2053	Insurance Underwriters	5,483	5,143	-340	-6.2%	-34	151	226	343	\$37.11
13-2054	Financial Risk Specialists	1,825	1,951	126	6.9%	13	46	85	144	\$48.31
13-2061	Financial Examiners	4,379	5,110	731	16.7%	73	155	182	410	\$32.03
13-2071	Credit Counselors	752	772	20	2.7%	2	19	32	53	\$22.21
13-2072	Loan Officers	13,060	13,535	475	3.6%	48	324	565	937	\$30.44
13-2081	Tax Examiners and Collectors, and Revenue Agents	883	895	12	1.4%	1	28	38	67	\$33.03
13-2082	Tax Preparers	2,381	2,429	48	2.0%	5	123	144	272	\$21.76
13-2099	Financial Specialists, All Other	4,166	4,299	133	3.2%	13	102	191	306	\$40.20
15-0000	Computer and Mathematical Occupations	163,526	180,898	17,372	10.6%	1,737	3,611	6,052	11,400	\$44.29
15-1211	Computer Systems Analysts	20,806	22,057	1,251	6.0%	125	539	683	1,347	\$45.87
15-1212	Information Security Analysts	3,761	4,764	1,003	26.7%	100	74	158	332	\$51.18
15-1221	Computer and Information Research Scientists	171	195	24	14.0%	2	4	7	13	\$59.14
15-1231	Computer Network Support Specialists	8,444	8,881	437	5.2%	44	206	339	589	\$31.27
15-1232	Computer User Support Specialists	27,248	27,905	657	2.4%	66	657	1,080	1,803	\$24.75
15-1241	Computer Network Architects	4,835	4,862	27	0.6%	3	84	169	256	\$58.98
15-1242	Database Administrators	2,143	2,262	119	5.6%	12	54	67	133	\$45.44
15-1243	Database Architects	1,405	1,496	91	6.5%	9	36	44	89	\$61.17
15-1244	Network and Computer Systems Administrators	18,928	19,144	216	1.1%	22	352	643	1,017	\$46.47
15-1251	Computer Programmers	3,109	2,679	-430	-13.8%	-43	70	99	126	\$37.84
15-1252	Software Developers	45,476	54,871	9,395	20.7%	940	845	1,732	3,517	\$51.71
15-1253	Software Quality Assurance Analysts and Testers	5,027	5,858	831	16.5%	83	131	184	398	\$39.69
15-1254	Web Developers	1,895	2,129	234	12.3%	23	38	79	140	\$39.98
15-1255	Web and Digital Interface Designers	2,955	3,314	359	12.1%	36	74	134	244	\$38.51

Appendix Table J – cont’d.
Ohio Occupational Employment* Projections Report, 2022–2032

Code	Occupational Title	Employment		Change in Employment		Annual Openings				Median Wage May 2023
		2022 Annual	2032 Projected	2022-2032	Percent	Growth	Exits	Transfers	Total	
15-1299	Computer Occupations, All Other	7,000	7,695	695	9.9%	70	172	268	510	\$49.74
15-2011	Actuaries	1,617	1,925	308	19.0%	31	28	54	113	\$53.96
15-2031	Operations Research Analysts	4,026	4,848	822	20.4%	82	142	132	356	\$42.75
15-2041	Statisticians	436	554	118	27.1%	12	10	18	40	\$42.39
15-2051	Data Scientists	3,845	5,058	1,213	31.5%	121	92	159	372	\$46.67
17-0000	Architecture and Engineering Occupations	97,736	102,691	4,955	5.1%	496	2,390	4,022	6,908	\$40.20
17-1011	Architects, Except Landscape and Naval	3,472	3,658	186	5.4%	19	83	119	221	\$46.10
17-1012	Landscape Architects	532	541	9	1.7%	1	18	23	42	\$28.56
17-1021	Cartographers and Photogrammetrists	229	238	9	3.9%	1	8	8	17	\$35.70
17-1022	Surveyors	952	980	28	2.9%	3	33	32	68	\$29.05
17-2011	Aerospace Engineers	3,024	3,266	242	8.0%	24	70	99	193	\$62.85
17-2031	Bioengineers and Biomedical Engineers	390	412	22	5.6%	2	8	16	26	\$48.08
17-2041	Chemical Engineers	997	1,082	85	8.5%	8	16	37	61	\$52.13
17-2051	Civil Engineers	7,798	8,132	334	4.3%	33	150	317	500	\$40.11
17-2061	Computer Hardware Engineers	607	622	15	2.5%	2	10	21	33	\$47.64
17-2071	Electrical Engineers	6,036	6,250	214	3.5%	21	132	202	355	\$48.19
17-2072	Electronics Engineers, Except Computer	4,392	4,667	275	6.3%	28	97	149	274	\$49.85
17-2081	Environmental Engineers	1,542	1,625	83	5.4%	8	43	59	110	\$59.54
17-2111	Health and Safety Engineers, Except Mining Safety Engineers and Inspectors	470	480	10	2.1%	1	10	18	29	\$49.53
17-2112	Industrial Engineers	19,098	20,794	1,696	8.9%	170	434	748	1,352	\$46.40
17-2131	Materials Engineers	1,496	1,530	34	2.3%	3	38	51	92	\$48.86
17-2141	Mechanical Engineers	15,884	17,435	1,551	9.8%	155	322	577	1,054	\$44.41
17-2151	Mining and Geological Engineers, Including Mining Safety Engineers	148	144	-4	-2.7%	0	2	6	8	\$35.12
17-2161	Nuclear Engineers	226	229	3	1.3%	0	5	8	13	\$57.83
17-2171	Petroleum Engineers	215	222	7	3.3%	1	3	8	12	\$50.07
17-2199	Engineers, All Other	6,623	6,758	135	2.0%	14	143	233	390	\$51.15
17-3011	Architectural and Civil Drafters	2,831	2,797	-34	-1.2%	-3	81	146	224	\$28.90
17-3012	Electrical and Electronics Drafters	547	556	9	1.6%	1	19	29	49	\$38.31
17-3013	Mechanical Drafters	1,911	1,773	-138	-7.2%	-14	64	96	146	\$30.44
17-3019	Drafters, All Other	415	386	-29	-7.0%	-3	14	21	32	\$24.71
17-3021	Aerospace Engineering and Operations Technologists and Technicians	835	898	63	7.5%	6	27	46	79	\$37.25
17-3022	Civil Engineering Technologists and Technicians	1,810	1,780	-30	-1.7%	-3	56	96	149	\$29.91
17-3023	Electrical and Electronics Engineering Technologists and Technicians	2,145	2,231	86	4.0%	9	89	110	208	\$35.38
17-3024	Electro-Mechanical and Mechatronics Technologists and Technicians	1,432	1,389	-43	-3.0%	-4	44	75	115	\$28.98
17-3025	Environmental Engineering Technologists and Technicians	482	485	3	0.6%	0	15	26	41	\$24.15
17-3026	Industrial Engineering Technologists and Technicians	5,181	5,198	17	0.3%	2	161	276	439	\$28.78
17-3027	Mechanical Engineering Technologists and Technicians	2,243	2,255	12	0.5%	1	70	120	191	\$30.06
17-3028	Calibration Technologists and Technicians	506	538	32	6.3%	3	16	28	47	\$28.10
17-3029	Engineering Technologists and Technicians, Except Drafters, All Other	1,741	1,769	28	1.6%	3	54	93	150	\$29.23
17-3031	Surveying and Mapping Technicians	1,448	1,491	43	3.0%	4	55	126	185	\$23.50
19-0000	Life, Physical, and Social Science Occupations	36,779	38,836	2,057	5.6%	206	612	2,581	3,399	\$34.19

Appendix Table J – cont’d.
Ohio Occupational Employment* Projections Report, 2022–2032

Code	Occupational Title	Employment		Change in Employment		Annual Openings				Median Wage May 2023
		2022 Annual	2032 Projected	2022-2032	Percent	Growth	Exits	Transfers	Total	
19-1011	Animal Scientists	124	126	2	1.6%	0	2	8	10	\$35.23
19-1012	Food Scientists and Technologists	325	350	25	7.7%	2	4	20	26	\$26.96
19-1013	Soil and Plant Scientists	345	354	9	2.6%	1	4	21	26	\$30.14
19-1021	Biochemists and Biophysicists	275	292	17	6.2%	2	4	17	23	\$38.77
19-1022	Microbiologists	671	706	35	5.2%	4	9	42	55	\$38.71
19-1023	Zoologists and Wildlife Biologists	219	223	4	1.8%	0	3	14	17	\$29.30
19-1029	Biological Scientists, All Other	491	507	16	3.3%	2	6	30	38	\$41.68
19-1031	Conservation Scientists	461	468	7	1.5%	1	9	32	42	\$28.12
19-1032	Foresters	152	151	-1	-0.7%	0	3	10	13	\$37.59
19-1041	Epidemiologists	262	323	61	23.3%	6	2	11	19	\$32.60
19-1042	Medical Scientists, Except Epidemiologists	1,327	1,396	69	5.2%	7	11	53	71	\$39.17
19-2012	Physicists	608	639	31	5.1%	3	12	25	40	\$65.81
19-2031	Chemists	3,469	3,641	172	5.0%	17	41	210	268	\$39.46
19-2032	Materials Scientists	372	396	24	6.5%	2	4	23	29	\$45.25
19-2041	Environmental Scientists and Specialists, Including Health	2,415	2,524	109	4.5%	11	32	189	232	\$38.35
19-2042	Geoscientists, Except Hydrologists and Geographers	355	368	13	3.7%	1	4	23	28	\$37.32
19-2043	Hydrologists	329	329	0	0.0%	0	4	21	25	\$43.99
19-2099	Physical Scientists, All Other	872	897	25	2.9%	2	10	47	59	\$51.18
19-3011	Economists	203	205	2	1.0%	0	2	8	10	\$52.08
19-3022	Survey Researchers	177	170	-7	-4.0%	-1	3	12	14	\$23.54
19-3032	Industrial-Organizational Psychologists	223	230	7	3.1%	1	6	8	15	\$70.87 ^
19-3033	Clinical and Counseling Psychologists	1,981	2,072	91	4.6%	9	44	56	109	\$50.81
19-3034	School Psychologists	2,146	2,374	228	10.6%	23	30	92	145	\$45.27
19-3039	Psychologists, All Other	1,569	1,629	60	3.8%	6	43	53	102	\$56.93
19-3051	Urban and Regional Planners	792	813	21	2.7%	2	11	48	61	\$34.33
19-3099	Social Scientists and Related Workers, All Other	1,537	1,559	22	1.4%	2	23	106	131	\$44.24
19-4012	Agricultural Technicians	278	288	10	3.6%	1	6	35	42	\$21.22
19-4013	Food Science Technicians	194	203	9	4.6%	1	4	24	29	\$26.17
19-4021	Biological Technicians	1,667	1,706	39	2.3%	4	36	155	195	\$27.03
19-4031	Chemical Technicians	2,056	2,126	70	3.4%	7	33	212	252	\$25.30
19-4042	Environmental Science and Protection Technicians, Including Health	946	992	46	4.9%	5	14	91	110	\$23.31
19-4043	Geological Technicians, Except Hydrologic Technicians	174	179	5	2.9%	0	3	17	20	\$33.71
19-4061	Social Science Research Assistants	412	419	7	1.7%	1	9	43	53	\$24.00
19-4071	Forest and Conservation Technicians	302	309	7	2.3%	1	6	31	38	\$20.42
19-4092	Forensic Science Technicians	470	523	53	11.3%	5	11	51	67	\$31.28
19-4099	Life, Physical, and Social Science Technicians, All Other	1,370	1,365	-5	-0.4%	0	29	140	169	\$21.38
19-5011	Occupational Health and Safety Specialists	5,087	5,697	610	12.0%	61	98	428	587	\$37.00
19-5012	Occupational Health and Safety Technicians	1,132	1,286	154	13.6%	15	22	96	133	\$29.52
21-0000	Community and Social Service Occupations	105,469	112,459	6,990	6.6%	699	3,984	5,388	10,071	\$24.08
21-1012	Educational, Guidance, and Career Counselors and Advisors	11,203	11,676	473	4.2%	47	338	514	899	\$30.29
21-1013	Marriage and Family Therapists	245	266	21	8.6%	2	10	10	22	\$27.66
21-1015	Rehabilitation Counselors	3,373	3,634	261	7.7%	26	120	189	335	\$21.49

Appendix Table J – cont’d.
Ohio Occupational Employment* Projections Report, 2022–2032

Code	Occupational Title	Employment		Change in Employment		Annual Openings				Median Wage May 2023
		2022 Annual	2032 Projected	2022-2032	Percent	Growth	Exits	Transfers	Total	
21-1018	Substance Abuse, Behavioral Disorder, and Mental Health Counselors	15,245	17,432	2,187	14.3%	219	556	786	1,561	\$24.32
21-1019	Counselors, All Other	1,490	1,634	144	9.7%	14	58	85	157	\$21.76
21-1021	Child, Family, and School Social Workers	11,089	11,574	485	4.4%	48	358	536	942	\$23.20
21-1022	Healthcare Social Workers	7,678	8,112	434	5.7%	43	268	390	701	\$29.58
21-1023	Mental Health and Substance Abuse Social Workers	6,080	6,634	554	9.1%	55	238	231	524	\$21.71
21-1029	Social Workers, All Other	3,185	3,363	178	5.6%	18	100	165	283	\$28.87
21-1091	Health Education Specialists	1,860	1,944	84	4.5%	8	74	113	195	\$29.90
21-1092	Probation Officers and Correctional Treatment Specialists	2,788	2,839	51	1.8%	5	75	141	221	\$28.99
21-1093	Social and Human Service Assistants	13,455	14,310	855	6.4%	86	539	847	1,472	\$18.58
21-1094	Community Health Workers	1,845	2,044	199	10.8%	20	75	116	211	\$20.00
21-1099	Community and Social Service Specialists, All Other	2,045	2,128	83	4.1%	8	81	124	213	\$23.07
21-2011	Clergy	19,567	20,363	796	4.1%	80	842	883	1,805	\$26.68
21-2021	Directors, Religious Activities and Education	1,887	1,969	82	4.3%	8	82	102	192	\$21.63
21-2099	Religious Workers, All Other	2,434	2,537	103	4.2%	10	168	156	334	\$14.27
23-0000	Legal Occupations	36,282	36,651	369	1.0%	37	857	1,147	2,041	\$42.41
23-1011	Lawyers	21,435	22,077	642	3.0%	64	432	338	834	\$56.49
23-1012	Judicial Law Clerks	242	248	6	2.5%	1	6	9	16	\$26.60
23-1021	Administrative Law Judges, Adjudicators, and Hearing Officers	367	369	2	0.5%	0	7	6	13	\$35.00
23-1022	Arbitrators, Mediators, and Conciliators	158	156	-2	-1.3%	0	3	2	5	\$38.35
23-1023	Judges, Magistrate Judges, and Magistrates	2,594	2,626	32	1.2%	3	52	40	95	\$67.15
23-2011	Paralegals and Legal Assistants	8,504	8,344	-160	-1.9%	-16	264	579	827	\$25.64
23-2093	Title Examiners, Abstractors, and Searchers	2,233	2,091	-142	-6.4%	-14	68	125	179	\$23.90
23-2099	Legal Support Workers, All Other	749	740	-9	-1.2%	-1	25	46	70	\$29.43
25-0000	Educational Instruction and Library Occupations	310,784	320,395	9,611	3.1%	961	12,361	14,153	27,475	\$29.88
25-1011	Business Teachers, Postsecondary	5,059	5,320	261	5.2%	26	200	184	410	\$81,500 ††
25-1021	Computer Science Teachers, Postsecondary	836	858	22	2.6%	2	33	30	65	\$77,840 ††
25-1022	Mathematical Science Teachers, Postsecondary	1,503	1,528	25	1.7%	2	59	54	115	\$77,320 ††
25-1032	Engineering Teachers, Postsecondary	1,187	1,267	80	6.7%	8	47	44	99	\$105,590 ††
25-1042	Biological Science Teachers, Postsecondary	1,351	1,436	85	6.3%	8	54	50	112	\$77,950 ††
25-1051	Atmospheric, Earth, Marine, and Space Sciences Teachers, Postsecondary	295	298	3	1.0%	0	12	10	22	\$82,050 ††
25-1052	Chemistry Teachers, Postsecondary	677	688	11	1.6%	1	26	24	51	\$77,210 ††
25-1053	Environmental Science Teachers, Postsecondary	206	210	4	1.9%	0	8	7	15	\$82,870 ††
25-1054	Physics Teachers, Postsecondary	362	369	7	1.9%	1	14	13	28	\$92,440 ††
25-1062	Area, Ethnic, and Cultural Studies Teachers, Postsecondary	293	298	5	1.7%	0	11	10	21	\$73,430 ††
25-1063	Economics Teachers, Postsecondary	229	233	4	1.7%	0	9	8	17	\$102,500 ††
25-1064	Geography Teachers, Postsecondary	138	142	4	2.9%	0	5	5	10	\$80,500 ††
25-1065	Political Science Teachers, Postsecondary	381	386	5	1.3%	0	15	14	29	\$78,520 ††
25-1066	Psychology Teachers, Postsecondary	1,204	1,241	37	3.1%	4	47	43	94	\$80,200 ††
25-1067	Sociology Teachers, Postsecondary	394	401	7	1.8%	1	15	14	30	\$77,660 ††
25-1069	Social Sciences Teachers, Postsecondary, All Other	244	248	4	1.6%	0	10	9	19	\$66,730 ††
25-1071	Health Specialties Teachers, Postsecondary	6,647	7,740	1,093	16.4%	109	278	256	643	\$105,410 ††

Appendix Table J – cont’d.
Ohio Occupational Employment* Projections Report, 2022–2032

Code	Occupational Title	Employment		Change in Employment		Growth	Annual Openings			Median Wage May 2023
		2022 Annual	2032 Projected	2022-2032	Percent		Exits	Transfers	Total	
25-1072	Nursing Instructors and Teachers, Postsecondary	3,584	4,150	566	15.8%	57	149	137	343	\$76,640 ††
25-1081	Education Teachers, Postsecondary	1,797	1,825	28	1.6%	3	70	64	137	\$66,320 ††
25-1082	Library Science Teachers, Postsecondary	130	133	3	2.3%	0	5	5	10	\$80,430 ††
25-1111	Criminal Justice and Law Enforcement Teachers, Postsecondary	537	542	5	0.9%	0	21	19	40	\$62,670 ††
25-1112	Law Teachers, Postsecondary	416	419	3	0.7%	0	16	15	31	\$114,380 ††
25-1113	Social Work Teachers, Postsecondary	473	481	8	1.7%	1	18	17	36	\$64,400 ††
25-1121	Art, Drama, and Music Teachers, Postsecondary	3,574	3,613	39	1.1%	4	139	128	271	\$74,040 ††
25-1122	Communications Teachers, Postsecondary	1,027	1,043	16	1.6%	2	40	37	79	\$67,540 ††
25-1123	English Language and Literature Teachers, Postsecondary	1,653	1,640	-13	-0.8%	-1	64	58	121	\$66,140 ††
25-1124	Foreign Language and Literature Teachers, Postsecondary	728	720	-8	-1.1%	-1	28	26	53	\$65,590 ††
25-1125	History Teachers, Postsecondary	560	555	-5	-0.9%	0	22	20	42	\$80,100 ††
25-1126	Philosophy and Religion Teachers, Postsecondary	658	661	3	0.5%	0	26	23	49	\$78,220 ††
25-1193	Recreation and Fitness Studies Teachers, Postsecondary	544	553	9	1.7%	1	21	20	42	\$63,880 ††
25-1194	Career/Technical Education Teachers, Postsecondary	3,595	3,558	-37	-1.0%	-4	138	127	261	\$30.97
25-1199	Postsecondary Teachers, All Other	5,579	5,636	57	1.0%	6	217	199	422	\$59,510 ††
25-2011	Preschool Teachers, Except Special Education	14,998	15,769	771	5.1%	77	659	1,025	1,761	\$16.24
25-2012	Kindergarten Teachers, Except Special Education	2,249	2,281	32	1.4%	3	97	151	251	\$63,680 ††
25-2021	Elementary School Teachers, Except Special Education	47,682	48,336	654	1.4%	65	1,482	1,671	3,218	\$74,530 ††
25-2022	Middle School Teachers, Except Special and Career/Technical Education	27,101	27,495	394	1.5%	39	843	950	1,832	\$75,420 ††
25-2023	Career/Technical Education Teachers, Middle School	248	250	2	0.8%	0	8	9	17	\$62,110 ††
25-2031	Secondary School Teachers, Except Special and Career/Technical Education	55,630	56,996	1,366	2.5%	137	1,520	1,892	3,549	\$78,010 ††
25-2032	Career/Technical Education Teachers, Secondary School	4,394	4,429	35	0.8%	4	119	148	271	\$78,500 ††
25-2051	Special Education Teachers, Preschool	998	1,063	65	6.5%	6	32	38	76	\$66,770 ††
25-2052	Special Education Teachers, Kindergarten and Elementary School	7,891	7,962	71	0.9%	7	246	293	546	\$71,100 ††
25-2057	Special Education Teachers, Middle School	5,506	5,554	48	0.9%	5	171	204	380	\$65,910 ††
25-2058	Special Education Teachers, Secondary School	8,743	9,444	701	8.0%	70	282	336	688	\$74,850 ††
25-2059	Special Education Teachers, All Other	611	640	29	4.7%	3	19	23	45	\$49,940 ††
25-3011	Adult Basic Education, Adult Secondary Education, and English as a Second Language Instructors	1,149	1,004	-145	-12.6%	-14	62	67	115	\$30.18
25-3021	Self-Enrichment Teachers	10,417	10,645	228	2.2%	23	602	653	1,278	\$17.09
25-3031	Substitute Teachers, Short-Term	5,370	5,588	218	4.1%	22	313	340	675	\$17.38
25-3041	Tutors	6,356	6,529	173	2.7%	17	566	548	1,131	\$20.92
25-3099	Teachers and Instructors, All Other	1,501	1,631	130	8.7%	13	89	97	199	\$51,090 ††
25-4011	Archivists	122	128	6	4.9%	1	6	7	14	\$27.84
25-4012	Curators	345	366	21	6.1%	2	18	20	40	\$27.61
25-4013	Museum Technicians and Conservators	392	411	19	4.8%	2	21	23	46	\$22.24
25-4022	Librarians and Media Collections Specialists	4,752	4,840	88	1.9%	9	227	200	436	\$28.31
25-4031	Library Technicians	3,458	3,185	-273	-7.9%	-27	291	281	545	\$17.72
25-9031	Instructional Coordinators	5,560	5,828	268	4.8%	27	243	250	520	\$36.23
25-9044	Teaching Assistants, Postsecondary	3,458	3,525	67	1.9%	7	183	228	418	\$50,530 ††
25-9045	Teaching Assistants, Except Postsecondary	44,198	46,466	2,268	5.1%	227	2,370	2,954	5,551	\$35,430 ††

Appendix Table J – cont’d.
Ohio Occupational Employment* Projections Report, 2022–2032

Code	Occupational Title	Employment		Change in Employment		Annual Openings				Median Wage May 2023
		2022 Annual	2032 Projected	2022-2032	Percent	Growth	Exits	Transfers	Total	
25-9099	Educational Instruction and Library Workers, All Other	1,384	1,420	36	2.6%	4	60	62	126	\$22.50
27-0000	Arts, Design, Entertainment, Sports, and Media Occupations	91,360	92,393	1,033	1.1%	103	3,642	5,210	8,955	\$22.17
27-1011	Art Directors	2,359	2,417	58	2.5%	6	94	110	210	\$44.09
27-1012	Craft Artists	987	1,008	21	2.1%	2	39	46	87	\$18.35
27-1013	Fine Artists, Including Painters, Sculptors, and Illustrators	1,041	1,087	46	4.4%	5	42	49	96	\$21.68
27-1014	Special Effects Artists and Animators	452	482	30	6.6%	3	18	22	43	\$29.39
27-1019	Artists and Related Workers, All Other	208	220	12	5.8%	1	8	10	19	\$24.65
27-1021	Commercial and Industrial Designers	1,827	1,864	37	2.0%	4	43	75	122	\$31.58
27-1022	Fashion Designers	383	393	10	2.6%	1	11	23	35	\$38.22
27-1023	Floral Designers	1,992	1,638	-354	-17.8%	-35	117	102	184	\$13.84
27-1024	Graphic Designers	9,451	9,267	-184	-1.9%	-18	218	490	690	\$24.26
27-1025	Interior Designers	2,252	2,307	55	2.4%	6	96	108	210	\$24.78
27-1026	Merchandise Displayers and Window Trimmers	6,853	6,868	15	0.2%	2	292	429	723	\$16.92
27-1027	Set and Exhibit Designers	580	588	8	1.4%	1	14	29	44	\$25.30
27-1029	Designers, All Other	264	264	0	0.0%	0	7	13	20	\$26.90
27-2011	Actors	1,105	1,185	80	7.2%	8	50	72	130	\$10.36
27-2012	Producers and Directors	2,291	2,273	-18	-0.8%	-2	50	115	163	\$28.00
27-2021	Athletes and Sports Competitors	841	910	69	8.2%	7	28	76	111	\$70,280 ^^
27-2022	Coaches and Scouts	14,942	15,921	979	6.6%	98	806	1,077	1,981	\$37,060 ††
27-2023	Umpires, Referees, and Other Sports Officials	147	156	9	6.1%	1	18	14	33	\$23,130 ††
27-2041	Music Directors and Composers	2,555	2,673	118	4.6%	12	118	138	268	\$28.90
27-2042	Musicians and Singers	8,376	8,715	339	4.0%	34	512	490	1,036	\$34.37
27-2091	Disc Jockeys, Except Radio	609	643	34	5.6%	3	24	31	58	\$38.40
27-2099	Entertainers and Performers, Sports and Related Workers, All Other	323	341	18	5.6%	2	16	23	41	\$14.67
27-3011	Broadcast Announcers and Radio Disc Jockeys	786	607	-179	-22.8%	-18	36	42	60	\$18.52
27-3023	News Analysts, Reporters, and Journalists	2,243	1,901	-342	-15.2%	-34	85	112	163	\$17.94
27-3031	Public Relations Specialists	7,610	7,872	262	3.4%	26	177	437	640	\$32.88
27-3041	Editors	2,591	2,318	-273	-10.5%	-27	86	121	180	\$29.70
27-3042	Technical Writers	1,802	1,863	61	3.4%	6	48	93	147	\$30.28
27-3043	Writers and Authors	3,495	3,528	33	0.9%	3	153	172	328	\$26.95
27-3091	Interpreters and Translators	2,830	3,047	217	7.7%	22	132	140	294	\$26.02
27-3092	Court Reporters and Simultaneous Captioners	508	520	12	2.4%	1	25	21	47	\$27.21
27-3099	Media and Communication Workers, All Other	281	291	10	3.6%	1	7	17	25	\$18.96
27-4011	Audio and Video Technicians	1,426	1,460	34	2.4%	3	39	82	124	\$23.64
27-4012	Broadcast Technicians	1,072	931	-141	-13.2%	-14	27	57	70	\$27.74 ^
27-4021	Photographers	4,317	4,148	-169	-3.9%	-17	142	219	344	\$17.31
27-4031	Camera Operators, Television, Video, and Film	440	437	-3	-0.7%	0	9	25	34	\$23.48
27-4032	Film and Video Editors	1,108	1,261	153	13.8%	15	25	68	108	\$23.02
27-4099	Media and Communication Equipment Workers, All Other	633	643	10	1.6%	1	17	36	54	\$30.04
29-0000	Healthcare Practitioners and Technical Occupations	377,002	396,943	19,941	5.3%	1,994	11,211	10,285	23,490	\$37.26
29-1011	Chiropractors	1,321	1,361	40	3.0%	4	42	11	57	\$39.24

Appendix Table J – cont’d.
Ohio Occupational Employment* Projections Report, 2022–2032

Code	Occupational Title	Employment		Change in Employment		Annual Openings				Median Wage May 2023
		2022 Annual	2032 Projected	2022-2032	Percent	Growth	Exits	Transfers	Total	
29-1021	Dentists, General	3,564	3,601	37	1.0%	4	73	17	94	\$80.28
29-1022	Oral and Maxillofacial Surgeons	197	194	-3	-1.5%	0	4	1	5	# ^
29-1029	Dentists, All Other Specialists	225	226	1	0.4%	0	5	1	6	\$97.56
29-1031	Dietitians and Nutritionists	2,799	2,879	80	2.9%	8	94	90	192	\$30.87
29-1041	Optometrists	2,292	2,380	88	3.8%	9	70	12	91	\$60.89
29-1051	Pharmacists	12,308	12,622	314	2.6%	31	270	173	474	\$63.81
29-1071	Physician Assistants	3,188	3,969	781	24.5%	78	69	106	253	\$58.74
29-1081	Podiatrists	301	292	-9	-3.0%	-1	7	2	8	\$57.66
29-1122	Occupational Therapists	5,326	5,920	594	11.2%	59	138	150	347	\$43.52
29-1123	Physical Therapists	8,360	9,159	799	9.6%	80	177	138	395	\$47.33
29-1124	Radiation Therapists	850	848	-2	-0.2%	0	20	17	37	\$45.03
29-1125	Recreational Therapists	425	416	-9	-2.1%	-1	17	17	33	\$27.59
29-1126	Respiratory Therapists	5,797	6,375	578	10.0%	58	152	121	331	\$37.11
29-1127	Speech-Language Pathologists	6,335	7,737	1,402	22.1%	140	178	190	508	\$41.61
29-1128	Exercise Physiologists	783	852	69	8.8%	7	26	24	57	\$25.06
29-1129	Therapists, All Other	496	528	32	6.5%	3	16	15	34	\$26.76
29-1131	Veterinarians	3,300	3,888	588	17.8%	59	63	33	155	\$50.27
29-1141	Registered Nurses	132,055	136,425	4,370	3.3%	437	3,922	2,982	7,341	\$38.44
29-1151	Nurse Anesthetists	3,614	3,715	101	2.8%	10	70	64	144	\$94.47
29-1161	Nurse Midwives	134	135	1	0.7%	0	3	3	6	\$55.76
29-1171	Nurse Practitioners	11,075	15,795	4,720	42.6%	472	274	304	1,050	\$59.46
29-1181	Audiologists	615	662	47	7.6%	5	20	9	34	\$39.59
29-1211	Anesthesiologists	1,681	1,661	-20	-1.2%	-2	32	8	38	#
29-1212	Cardiologists	409	408	-1	-0.2%	0	8	2	10	#
29-1213	Dermatologists	345	341	-4	-1.2%	0	6	2	8	#
29-1214	Emergency Medicine Physicians	916	939	23	2.5%	2	18	5	25	#
29-1215	Family Medicine Physicians	3,947	3,973	26	0.7%	3	75	20	98	\$35.77
29-1216	General Internal Medicine Physicians	1,291	1,266	-25	-1.9%	-2	24	6	28	\$96.15
29-1217	Neurologists	230	229	-1	-0.4%	0	4	1	5	#
29-1218	Obstetricians and Gynecologists	693	676	-17	-2.5%	-2	13	3	14	\$96.15
29-1221	Pediatricians, General	1,887	1,802	-85	-4.5%	-8	35	9	36	\$82.63
29-1222	Physicians, Pathologists	281	290	9	3.2%	1	5	1	7	#
29-1223	Psychiatrists	595	629	34	5.7%	3	12	3	18	\$106.47
29-1224	Radiologists	536	532	-4	-0.7%	0	10	3	13	#
29-1229	Physicians, All Other	13,262	13,371	109	0.8%	11	252	67	330	#
29-1242	Orthopedic Surgeons, Except Pediatric	436	425	-11	-2.5%	-1	7	2	8	#
29-1249	Surgeons, All Other	531	507	-24	-4.5%	-2	8	2	8	#
29-1292	Dental Hygienists	8,429	8,798	369	4.4%	37	348	206	591	\$38.31
29-1299	Healthcare Diagnosing or Treating Practitioners, All Other	858	882	24	2.8%	2	30	18	50	\$41.67
29-2010	Clinical Laboratory Technologists and Technicians	12,800	13,064	264	2.1%	26	411	408	845	\$29.15
29-2031	Cardiovascular Technologists and Technicians	2,446	2,501	55	2.2%	6	72	72	150	\$35.70
29-2032	Diagnostic Medical Sonographers	3,567	3,993	426	11.9%	43	88	96	227	\$38.13

Appendix Table J – cont’d.
Ohio Occupational Employment* Projections Report, 2022–2032

Code	Occupational Title	Employment		Change in Employment		Annual Openings				Median Wage May 2023
		2022 Annual	2032 Projected	2022-2032	Percent	Growth	Exits	Transfers	Total	
29-2033	Nuclear Medicine Technologists	931	915	-16	-1.7%	-2	21	22	41	\$42.17
29-2034	Radiologic Technologists and Technicians	10,300	10,436	136	1.3%	14	285	245	544	\$32.48
29-2035	Magnetic Resonance Imaging Technologists	1,587	1,661	74	4.7%	7	41	42	90	\$38.11
29-2036	Medical Dosimetrists	266	272	6	2.3%	1	6	6	13	\$58.12
29-2042	Emergency Medical Technicians	5,348	5,458	110	2.1%	11	129	268	408	\$18.41
29-2043	Paramedics	3,227	3,295	68	2.1%	7	58	90	155	\$23.14
29-2051	Dietetic Technicians	1,221	1,232	11	0.9%	1	64	82	147	\$17.25
29-2052	Pharmacy Technicians	16,468	17,168	700	4.3%	70	589	955	1,614	\$18.41
29-2053	Psychiatric Technicians	1,744	1,876	132	7.6%	13	61	87	161	\$17.28
29-2055	Surgical Technologists	3,926	4,029	103	2.6%	10	105	119	234	\$28.33
29-2056	Veterinary Technologists and Technicians	4,302	5,059	757	17.6%	76	146	295	517	\$18.18
29-2057	Ophthalmic Medical Technicians	3,173	3,388	215	6.8%	22	171	219	412	\$18.86
29-2061	Licensed Practical and Licensed Vocational Nurses	37,581	38,318	737	2.0%	74	1,462	1,518	3,054	\$27.95
29-2072	Medical Records Specialists	8,233	8,725	492	6.0%	49	296	269	614	\$23.08
29-2081	Opticians, Dispensing	2,860	2,815	-45	-1.6%	-4	122	136	254	\$22.54
29-2091	Orthotists and Prosthetists	434	464	30	6.9%	3	15	17	35	\$37.61
29-2092	Hearing Aid Specialists	158	179	21	13.3%	2	6	6	14	\$28.30
29-2099	Health Technologists and Technicians, All Other	8,067	8,242	175	2.2%	18	272	307	597	\$21.19
29-9021	Health Information Technologists and Medical Registrars	1,487	1,658	171	11.5%	17	48	48	113	\$32.43
29-9091	Athletic Trainers	1,900	2,109	209	11.0%	21	61	61	143	\$57,780 ††
29-9092	Genetic Counselors	101	113	12	11.9%	1	3	3	7	\$39.52
29-9093	Surgical Assistants	736	762	26	3.5%	3	23	23	49	\$31.28
29-9099	Healthcare Practitioners and Technical Workers, All Other	1,513	1,577	64	4.2%	6	47	47	100	\$21.40
31-0000	Healthcare Support Occupations	222,176	240,954	18,778	8.5%	1,878	14,800	17,902	34,580	\$17.07
31-1120	Home Health and Personal Care Aides	95,523	108,071	12,548	13.1%	1,255	7,915	6,912	16,082	\$14.08
31-1131	Nursing Assistants	60,178	60,835	657	1.1%	66	3,590	4,851	8,507	\$18.28
31-1132	Orderlies	2,154	2,202	48	2.2%	5	108	206	319	\$17.37
31-1133	Psychiatric Aides	557	591	34	6.1%	3	28	54	85	\$17.76
31-2011	Occupational Therapy Assistants	3,059	3,658	599	19.6%	60	128	263	451	\$30.04
31-2021	Physical Therapist Assistants	6,128	7,263	1,135	18.5%	114	322	665	1,101	\$29.59
31-9011	Massage Therapists	3,724	4,002	278	7.5%	28	226	263	517	\$24.57
31-9091	Dental Assistants	11,362	11,810	448	3.9%	45	560	969	1,574	\$22.33
31-9092	Medical Assistants	22,257	24,283	2,026	9.1%	203	1,023	1,957	3,183	\$18.40
31-9093	Medical Equipment Preparers	2,885	2,976	91	3.2%	9	157	228	394	\$20.45
31-9094	Medical Transcriptionists	912	813	-99	-10.9%	-10	58	102	150	\$17.38
31-9095	Pharmacy Aides	1,450	1,397	-53	-3.7%	-5	87	160	242	\$17.54
31-9096	Veterinary Assistants and Laboratory Animal Caretakers	4,493	5,296	803	17.9%	80	241	645	966	\$14.77
31-9097	Phlebotomists	5,378	5,631	253	4.7%	25	247	445	717	\$18.32
31-9099	Healthcare Support Workers, All Other	1,382	1,422	40	2.9%	4	75	109	188	\$21.36
33-0000	Protective Service Occupations	116,957	116,395	-562	-0.5%	-56	5,083	7,558	12,585	\$23.55
33-1011	First-Line Supervisors of Correctional Officers	576	563	-13	-2.3%	-1	18	29	46	\$35.66

Appendix Table J – cont’d.
Ohio Occupational Employment* Projections Report, 2022–2032

Code	Occupational Title	Employment		Change in Employment		Annual Openings				Median Wage May 2023
		2022 Annual	2032 Projected	2022-2032	Percent	Growth	Exits	Transfers	Total	
33-1012	First-Line Supervisors of Police and Detectives	3,641	3,719	78	2.1%	8	86	151	245	\$46.01
33-1021	First-Line Supervisors of Firefighting and Prevention Workers	2,867	2,949	82	2.9%	8	65	113	186	\$40.25
33-1091	First-line Supervisors of Security Workers	1,342	1,258	-84	-6.3%	-8	54	75	121	\$24.75
33-1099	First-Line Supervisors of Protective Service Workers, All Other	426	432	6	1.4%	1	18	25	44	\$32.92
33-2011	Firefighters	18,810	19,329	519	2.8%	52	381	1,008	1,441	\$26.46
33-2021	Fire Inspectors and Investigators	470	481	11	2.3%	1	13	25	39	\$53.10
33-3011	Bailiffs	1,535	1,493	-42	-2.7%	-4	111	68	175	\$24.66
33-3012	Correctional Officers and Jailers	13,712	12,476	-1,236	-9.0%	-124	424	729	1,029	\$27.18
33-3021	Detectives and Criminal Investigators	2,261	2,289	28	1.2%	3	55	108	166	\$38.35
33-3031	Fish and Game Wardens	151	139	-12	-7.9%	-1	6	8	13	\$35.81
33-3051	Police and Sheriff's Patrol Officers	24,327	24,835	508	2.1%	51	565	1,264	1,880	\$35.72
33-9011	Animal Control Workers	325	335	10	3.1%	1	14	19	34	\$20.27
33-9021	Private Detectives and Investigators	1,610	1,668	58	3.6%	6	53	87	146	\$25.57
33-9032	Security Guards	33,561	32,700	-861	-2.6%	-86	1,636	2,584	4,134	\$16.52
33-9091	Crossing Guards and Flaggers	1,956	2,053	97	5.0%	10	298	104	412	\$18.18
33-9092	Lifeguards, Ski Patrol, and Other Recreational Protective Service Workers	4,466	4,614	148	3.3%	15	683	629	1,327	\$11.69
33-9094	School Bus Monitors	702	768	66	9.4%	7	89	36	132	\$14.26
33-9099	Protective Service Workers, All Other	3,037	3,132	95	3.1%	10	464	427	901	\$18.81
35-0000	Food Preparation and Serving Related Occupations	463,816	467,160	3,344	0.7%	334	37,884	50,164	88,382	\$13.79
35-1011	Chefs and Head Cooks	4,508	4,659	151	3.3%	15	163	379	557	\$23.07
35-1012	First-Line Supervisors of Food Preparation and Serving Workers	46,446	48,311	1,865	4.0%	186	2,202	4,593	6,981	\$17.58
35-2011	Cooks, Fast Food	16,471	13,986	-2,485	-15.1%	-248	1,007	1,276	2,035	\$12.29
35-2012	Cooks, Institution and Cafeteria	23,123	23,382	259	1.1%	26	1,538	1,948	3,512	\$16.88
35-2014	Cooks, Restaurant	48,377	57,542	9,165	18.9%	916	3,502	4,436	8,854	\$14.89
35-2015	Cooks, Short Order	12,378	11,263	-1,115	-9.0%	-112	782	990	1,660	\$13.13
35-2021	Food Preparation Workers	22,930	21,633	-1,297	-5.7%	-130	1,865	2,115	3,850	\$13.96
35-3011	Bartenders	22,606	22,719	113	0.5%	11	1,132	2,655	3,798	\$13.19
35-3023	Fast Food and Counter Workers	137,940	138,406	466	0.3%	47	14,580	17,483	32,110	\$13.16
35-3031	Waiters and Waitresses	71,797	68,313	-3,484	-4.9%	-348	5,675	8,674	14,001	\$13.92
35-3041	Food Servers, Nonrestaurant	14,299	14,283	-16	-0.1%	-2	1,229	1,229	2,456	\$14.02
35-9011	Dining Room and Cafeteria Attendants and Bartender Helpers	12,839	13,199	360	2.8%	36	1,188	1,224	2,448	\$12.13
35-9021	Dishwashers	12,372	11,895	-477	-3.9%	-48	962	1,063	1,977	\$13.27
35-9031	Hosts and Hostesses, Restaurant, Lounge, and Coffee Shop	14,361	14,236	-125	-0.9%	-12	1,808	1,804	3,600	\$11.68
35-9099	Food Preparation and Serving Related Workers, All Other	2,074	2,147	73	3.5%	7	170	191	368	\$12.41
37-0000	Building and Grounds Cleaning and Maintenance Occupations	171,774	171,964	190	0.1%	19	10,177	12,891	23,087	\$16.69
37-1011	First-Line Supervisors of Housekeeping and Janitorial Workers	6,847	6,898	51	0.7%	5	325	484	814	\$20.53
37-1012	First-Line Supervisors of Landscaping, Lawn Service, and Groundskeeping Workers	5,795	5,813	18	0.3%	2	201	395	598	\$24.66
37-2011	Janitors and Cleaners, Except Maids and Housekeeping Cleaners	78,971	79,140	169	0.2%	17	5,150	5,820	10,987	\$16.27
37-2012	Maids and Housekeeping Cleaners	33,538	32,798	-740	-2.2%	-74	2,354	2,334	4,614	\$13.73
37-2019	Building Cleaning Workers, All Other	253	267	14	5.5%	1	17	19	37	\$12.29

Appendix Table J – cont’d.
Ohio Occupational Employment* Projections Report, 2022–2032

Code	Occupational Title	Employment		Change in Employment		Annual Openings				Median Wage May 2023
		2022 Annual	2032 Projected	2022-2032	Percent	Growth	Exits	Transfers	Total	
37-2021	Pest Control Workers	2,049	2,070	21	1.0%	2	55	198	255	\$21.91
37-3011	Landscaping and Groundskeeping Workers	42,072	42,730	658	1.6%	66	2,001	3,426	5,493	\$17.36
37-3012	Pesticide Handlers, Sprayers, and Applicators, Vegetation	572	566	-6	-1.0%	-1	22	57	78	\$22.64
37-3013	Tree Trimmers and Pruners	1,374	1,384	10	0.7%	1	40	128	169	\$22.74
37-3019	Grounds Maintenance Workers, All Other	303	298	-5	-1.7%	0	12	30	42	\$20.36
39-0000	Personal Care and Service Occupations	128,950	131,113	2,163	1.7%	216	8,600	13,852	22,668	\$14.22
39-1013	First-Line Supervisors of Gambling Services Workers	327	291	-36	-11.0%	-4	11	20	27	\$27.26
39-1014	First-line Supervisors of Entertainment And Recreation Workers, Except Gambling Services	4,620	5,027	407	8.8%	41	178	317	536	\$18.61
39-1022	First-line Supervisors of Personal Service Workers	3,655	3,875	220	6.0%	22	139	248	409	\$20.46
39-2011	Animal Trainers	773	787	14	1.8%	1	33	77	111	\$27.60
39-2021	Animal Caretakers	11,832	13,348	1,516	12.8%	152	763	1,459	2,374	\$13.83
39-3011	Gambling Dealers	743	650	-93	-12.5%	-9	38	78	107	\$17.31
39-3031	Ushers, Lobby Attendants, and Ticket Takers	3,518	3,621	103	2.9%	10	434	546	990	\$13.53
39-3091	Amusement and Recreation Attendants	13,103	13,387	284	2.2%	28	1,414	2,184	3,626	\$12.53
39-3093	Locker Room, Coatroom, and Dressing Room Attendants	313	326	13	4.2%	1	34	53	88	\$11.45
39-4021	Funeral Attendants	1,815	1,814	-1	-0.1%	0	116	164	280	\$14.74
39-4031	Morticians, Undertakers, and Funeral Arrangers	1,409	1,415	6	0.4%	1	55	102	158	\$23.82
39-5012	Hairdressers, Hairstylists, and Cosmetologists	24,468	23,529	-939	-3.8%	-94	1,293	1,789	2,988	\$16.31
39-5092	Manicurists and Pedicurists	5,076	5,009	-67	-1.3%	-7	231	332	556	\$17.47
39-5093	Shampooers	389	380	-9	-2.3%	-1	19	38	56	\$12.87
39-5094	Skincare Specialists	1,642	1,641	-1	-0.1%	0	75	153	228	\$22.13
39-6011	Baggage Porters and Bellhops	147	156	9	6.1%	1	8	15	24	\$11.35
39-6012	Concierges	354	363	9	2.5%	1	19	35	55	\$14.24
39-7010	Tour and Travel Guides	1,152	1,209	57	4.9%	6	111	163	280	\$14.18
39-9011	Childcare Workers	26,499	25,888	-611	-2.3%	-61	1,875	2,575	4,389	\$13.44
39-9031	Exercise Trainers and Group Fitness Instructors	9,157	10,060	903	9.9%	90	542	1,230	1,862	\$15.93
39-9032	Recreation Workers	10,191	10,394	203	2.0%	20	702	1,370	2,092	\$13.68
39-9041	Residential Advisors	4,180	4,384	204	4.9%	20	281	510	811	\$16.24
39-9099	Personal Care and Service Workers, All Other	2,515	2,495	-20	-0.8%	-2	154	270	422	\$14.91
41-0000	Sales and Related Occupations	491,850	474,846	-17,004	-3.5%	-1,700	26,409	35,699	60,408	\$16.70
41-1011	First-Line Supervisors of Retail Sales Workers	48,869	45,450	-3,419	-7.0%	-342	1,706	2,905	4,269	\$20.27
41-1012	First-Line Supervisors of Non-Retail Sales Workers	12,048	11,941	-107	-0.9%	-11	370	582	941	\$39.59
41-2011	Cashiers	121,727	108,722	-13,005	-10.7%	-1,300	10,488	11,410	20,598	\$13.27
41-2012	Gambling Change Persons and Booth Cashiers	280	229	-51	-18.2%	-5	23	25	43	\$14.09
41-2021	Counter and Rental Clerks	8,076	7,995	-81	-1.0%	-8	360	506	858	\$16.58
41-2022	Parts Salespersons	9,360	9,468	108	1.2%	11	396	631	1,038	\$17.21
41-2031	Retail Salespersons	119,510	116,672	-2,838	-2.4%	-284	7,454	9,646	16,816	\$14.46
41-3011	Advertising Sales Agents	2,880	2,363	-517	-18.0%	-52	86	182	216	\$23.54
41-3021	Insurance Sales Agents	17,752	19,040	1,288	7.3%	129	615	810	1,554	\$28.84
41-3031	Securities, Commodities, and Financial Services Sales Agents	13,102	14,448	1,346	10.3%	135	332	643	1,110	\$28.46
41-3041	Travel Agents	1,254	1,211	-43	-3.4%	-4	64	77	137	\$18.68

Appendix Table J – cont’d.
Ohio Occupational Employment* Projections Report, 2022–2032

Code	Occupational Title	Employment		Change in Employment		Annual Openings				Median Wage May 2023
		2022 Annual	2032 Projected	2022-2032	Percent	Growth	Exits	Transfers	Total	
41-3091	Sales Representatives of Services, Except Advertising, Insurance, Financial Services, and Travel	36,274	37,010	736	2.0%	74	891	2,591	3,556	\$28.95
41-4011	Sales Representatives, Wholesale and Manufacturing, Technical and Scientific Products	7,640	7,763	123	1.6%	12	239	435	686	\$42.79
41-4012	Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	66,771	67,821	1,050	1.6%	105	2,088	3,798	5,991	\$33.00
41-9011	Demonstrators and Product Promoters	1,622	1,536	-86	-5.3%	-9	169	114	274	\$16.59
41-9012	Models	150	165	15	10.0%	2	17	11	30	\$21.57
41-9021	Real Estate Brokers	1,260	1,297	37	2.9%	4	56	48	108	\$32.84
41-9022	Real Estate Sales Agents	10,367	10,552	185	1.8%	18	459	397	874	\$19.24
41-9031	Sales Engineers	1,782	1,848	66	3.7%	7	50	109	166	\$44.17
41-9041	Telemarketers	6,289	4,627	-1,662	-26.4%	-166	254	449	537	\$14.90
41-9091	Door-to-Door Sales Workers, News and Street Vendors, and Related Workers	2,104	1,867	-237	-11.3%	-24	151	119	246	\$13.97
41-9099	Sales and Related Workers, All Other	2,733	2,821	88	3.2%	9	142	212	363	\$18.57
43-0000	Office and Administrative Support Occupations	697,169	646,718	-50,451	-7.2%	-5,045	32,103	41,996	69,054	\$20.43
43-1011	First-Line Supervisors of Office and Administrative Support Workers	47,698	44,723	-2,975	-6.2%	-298	1,710	2,652	4,064	\$29.39
43-2011	Switchboard Operators, Including Answering Service	1,289	912	-377	-29.2%	-38	46	63	71	\$17.00
43-2021	Telephone Operators	157	125	-32	-20.4%	-3	8	10	15	\$17.49
43-3011	Bill and Account Collectors	7,863	6,865	-998	-12.7%	-100	321	421	642	\$18.89
43-3021	Billing and Posting Clerks	19,194	18,849	-345	-1.8%	-34	824	1,081	1,871	\$20.20
43-3031	Bookkeeping, Accounting, and Auditing Clerks	61,454	57,241	-4,213	-6.9%	-421	3,504	3,204	6,287	\$22.15
43-3041	Gambling Cage Workers	363	298	-65	-17.9%	-6	12	23	29	\$14.10
43-3051	Payroll and Timekeeping Clerks	5,326	4,426	-900	-16.9%	-90	227	274	411	\$24.07
43-3061	Procurement Clerks	1,967	1,810	-157	-8.0%	-16	52	121	157	\$21.88
43-3071	Tellers	15,721	13,944	-1,777	-11.3%	-178	606	878	1,306	\$17.88
43-3099	Financial Clerks, All Other	2,547	2,676	129	5.1%	13	96	182	291	\$22.58
43-4011	Brokerage Clerks	1,241	1,209	-32	-2.6%	-3	62	79	138	\$26.51
43-4021	Correspondence Clerks	338	299	-39	-11.5%	-4	14	22	32	\$19.12
43-4031	Court, Municipal, and License Clerks	9,777	10,022	245	2.5%	24	450	521	995	\$19.91
43-4041	Credit Authorizers, Checkers, and Clerks	415	401	-14	-3.4%	-1	14	20	33	\$23.77
43-4051	Customer Service Representatives	106,287	98,502	-7,785	-7.3%	-778	5,213	8,303	12,738	\$19.17
43-4061	Eligibility Interviewers, Government Programs	3,990	4,060	70	1.8%	7	137	200	344	\$23.16
43-4071	File Clerks	2,495	2,076	-419	-16.8%	-42	128	144	230	\$18.99
43-4081	Hotel, Motel, and Resort Desk Clerks	6,090	5,940	-150	-2.5%	-15	340	603	928	\$13.45
43-4111	Interviewers, Except Eligibility and Loan	7,995	6,944	-1,051	-13.1%	-105	394	490	779	\$18.29
43-4121	Library Assistants, Clerical	2,883	2,672	-211	-7.3%	-21	241	215	435	\$16.15
43-4131	Loan Interviewers and Clerks	7,450	7,366	-84	-1.1%	-8	227	382	601	\$22.53
43-4141	New Accounts Clerks	1,497	1,325	-172	-11.5%	-17	36	81	100	\$22.08
43-4151	Order Clerks	4,239	3,395	-844	-19.9%	-84	173	267	356	\$19.63
43-4161	Human Resources Assistants, Except Payroll and Timekeeping	2,780	2,627	-153	-5.5%	-15	98	195	278	\$22.03
43-4171	Receptionists and Information Clerks	36,147	35,115	-1,032	-2.9%	-103	2,098	2,590	4,585	\$16.38
43-4181	Reservation and Transportation Ticket Agents and Travel Clerks	1,332	1,162	-170	-12.8%	-17	50	79	112	\$17.63

Appendix Table J – cont’d.
Ohio Occupational Employment* Projections Report, 2022–2032

Code	Occupational Title	Employment		Change in Employment		Annual Openings				Median Wage May 2023
		2022 Annual	2032 Projected	2022-2032	Percent	Growth	Exits	Transfers	Total	
43-4199	Information and Record Clerks, All Other	2,772	2,846	74	2.7%	7	141	182	330	\$21.26
43-5011	Cargo and Freight Agents	2,572	2,740	168	6.5%	17	79	160	256	\$21.74
43-5021	Couriers and Messengers	7,078	7,789	711	10.0%	71	318	439	828	\$16.60
43-5031	Public Safety Telecommunicators	4,790	4,841	51	1.1%	5	227	283	515	\$25.31
43-5032	Dispatchers, Except Police, Fire, and Ambulance	8,086	7,987	-99	-1.2%	-10	274	454	718	\$22.22
43-5041	Meter Readers, Utilities	732	628	-104	-14.2%	-10	22	32	44	\$24.27
43-5051	Postal Service Clerks	2,476	2,306	-170	-6.9%	-17	109	95	187	\$28.88
43-5052	Postal Service Mail Carriers	12,003	11,180	-823	-6.9%	-82	403	446	767	\$27.08
43-5053	Postal Service Mail Sorters, Processors, and Processing Machine Operators	4,263	3,773	-490	-11.5%	-49	164	164	279	\$25.69
43-5061	Production, Planning, and Expediting Clerks	16,195	16,581	386	2.4%	39	545	1,043	1,627	\$24.80
43-5071	Shipping, Receiving, and Inventory Clerks	41,342	37,314	-4,028	-9.7%	-403	1,391	2,370	3,358	\$19.13
43-5111	Weighers, Measurers, Checkers, and Samplers, Recordkeeping	2,717	2,586	-131	-4.8%	-13	131	191	309	\$19.11
43-6011	Executive Secretaries and Executive Administrative Assistants	12,154	9,362	-2,792	-23.0%	-279	453	640	814	\$30.57
43-6012	Legal Secretaries and Administrative Assistants	4,924	3,591	-1,333	-27.1%	-133	294	242	403	\$22.55
43-6013	Medical Secretaries and Administrative Assistants	26,203	26,965	762	2.9%	76	1,192	1,445	2,713	\$18.40
43-6014	Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	66,324	57,940	-8,384	-12.6%	-838	3,327	3,422	5,911	\$20.36
43-9021	Data Entry Keyers	6,283	4,608	-1,675	-26.7%	-168	239	359	430	\$18.05
43-9022	Word Processors and Typists	549	343	-206	-37.5%	-21	26	26	31	\$21.10
43-9031	Desktop Publishers	303	252	-51	-16.8%	-5	11	18	24	\$21.28
43-9041	Insurance Claims and Policy Processing Clerks	17,039	16,062	-977	-5.7%	-98	597	854	1,353	\$22.43
43-9051	Mail Clerks and Mail Machine Operators, Except Postal Service	2,957	2,684	-273	-9.2%	-27	165	167	305	\$16.68
43-9061	Office Clerks, General	87,897	81,172	-6,725	-7.7%	-672	4,554	5,285	9,167	\$19.15
43-9071	Office Machine Operators, Except Computer	849	729	-120	-14.1%	-12	46	60	94	\$17.85
43-9081	Proofreaders and Copy Markers	269	256	-13	-4.8%	-1	20	20	39	\$20.82
43-9199	Office and Administrative Support Workers, All Other	7,726	7,071	-655	-8.5%	-66	286	489	709	\$15.67
45-0000	Farming, Fishing, and Forestry Occupations	16,482	15,429	-1,053	-6.4%	-105	983	1,426	2,304	\$19.44
45-1011	First-Line Supervisors of Farming, Fishing, and Forestry Workers	679	654	-25	-3.7%	-2	34	58	90	\$26.23
45-2041	Graders and Sorters, Agricultural Products	517	465	-52	-10.1%	-5	31	41	67	\$18.25
45-2091	Agricultural Equipment Operators	1,579	1,614	35	2.2%	4	100	143	247	\$23.59
45-2092	Farmworkers and Laborers, Crop, Nursery, and Greenhouse	10,087	9,248	-839	-8.3%	-84	607	867	1,390	\$16.79
45-2093	Farmworkers, Farm, Ranch, and Aquacultural Animals	1,446	1,331	-115	-8.0%	-12	87	125	200	\$15.19
45-2099	Agricultural Workers, All Other	255	254	-1	-0.4%	0	16	23	39	\$28.84
45-4022	Logging Equipment Operators	395	386	-9	-2.3%	-1	23	33	55	\$20.00
45-4023	Log Graders and Scalars	389	391	2	0.5%	0	23	33	56	\$18.56
47-0000	Construction and Extraction Occupations	204,675	211,740	7,065	3.5%	706	6,304	10,854	17,864	\$28.53
47-1011	First-Line Supervisors of Construction Trades and Extraction Workers	19,709	20,340	631	3.2%	63	599	928	1,590	\$36.30
47-2011	Boilermakers	544	489	-55	-10.1%	-6	23	26	43	\$40.89
47-2021	Brickmasons and Blockmasons	3,521	3,567	46	1.3%	5	95	164	264	\$31.12
47-2022	Stonemasons	602	566	-36	-6.0%	-4	16	27	39	\$24.54
47-2031	Carpenters	21,957	22,508	551	2.5%	55	645	1,070	1,770	\$26.21

Appendix Table J – cont’d.
Ohio Occupational Employment* Projections Report, 2022–2032

Code	Occupational Title	Employment		Change in Employment		Annual Openings				Median Wage May 2023
		2022 Annual	2032 Projected	2022-2032	Percent	Growth	Exits	Transfers	Total	
47-2041	Carpet Installers	702	642	-60	-8.5%	-6	18	29	41	\$24.68
47-2042	Floor Layers, Except Carpet, Wood, and Hard Tiles	821	907	86	10.5%	9	23	38	70	\$22.85
47-2044	Tile and Stone Setters	1,393	1,537	144	10.3%	14	40	64	118	\$23.14
47-2051	Cement Masons and Concrete Finishers	4,913	4,713	-200	-4.1%	-20	120	230	330	\$29.19
47-2061	Construction Laborers	43,708	46,414	2,706	6.2%	271	1,384	2,371	4,026	\$23.40
47-2071	Paving, Surfacing, and Tamping Equipment Operators	1,495	1,580	85	5.7%	8	47	80	135	\$29.84
47-2073	Operating Engineers and Other Construction Equipment Operators	13,693	14,131	438	3.2%	44	425	726	1,195	\$29.04
47-2081	Drywall and Ceiling Tile Installers	1,610	1,661	51	3.2%	5	40	72	117	\$28.64
47-2082	Tapers	166	164	-2	-1.2%	0	4	7	11	\$31.79
47-2111	Electricians	26,411	27,889	1,478	5.6%	148	805	1,567	2,520	\$30.46
47-2121	Glaziers	1,429	1,455	26	1.8%	3	59	76	138	\$28.14
47-2131	Insulation Workers, Floor, Ceiling, and Wall	1,059	1,078	19	1.8%	2	31	57	90	\$29.55
47-2132	Insulation Workers, Mechanical	626	634	8	1.3%	1	18	34	53	\$33.11
47-2141	Painters, Construction and Maintenance	8,213	8,586	373	4.5%	37	268	378	683	\$24.35
47-2151	Pipelayers	734	702	-32	-4.4%	-3	16	38	51	\$24.47
47-2152	Plumbers, Pipefitters, and Steamfitters	14,759	15,064	305	2.1%	30	418	830	1,278	\$31.27
47-2161	Plasterers and Stucco Masons	330	338	8	2.4%	1	8	13	22	\$31.13
47-2171	Reinforcing Iron and Rebar Workers	196	201	5	2.6%	0	5	9	14	\$28.53
47-2181	Roofers	5,692	5,855	163	2.9%	16	135	287	438	\$24.53
47-2211	Sheet Metal Workers	4,441	4,377	-64	-1.4%	-6	155	237	386	\$29.54
47-2221	Structural Iron and Steel Workers	2,892	2,934	42	1.5%	4	65	174	243	\$34.97
47-3011	Helpers--Brickmasons, Blockmasons, Stonemasons, and Tile and Marble Setters	526	458	-68	-12.9%	-7	16	37	46	\$21.29
47-3012	Helpers--Carpenters	312	298	-14	-4.5%	-1	10	23	32	\$18.41
47-3013	Helpers--Electricians	1,380	1,324	-56	-4.1%	-6	42	102	138	\$17.50
47-3014	Helpers--Painters, Paperhangers, Plasterers, and Stucco Masons	110	113	3	2.7%	0	4	8	12	\$16.88
47-3015	Helpers--Pipelayers, Plumbers, Pipefitters, and Steamfitters	563	574	11	2.0%	1	18	43	62	\$16.68
47-3016	Helpers--Roofers	115	117	2	1.7%	0	4	9	13	\$18.57 ^
47-3019	Helpers, Construction Trades, All Other	586	594	8	1.4%	1	18	44	63	\$19.13
47-4011	Construction and Building Inspectors	3,475	3,381	-94	-2.7%	-9	194	165	350	\$32.42
47-4021	Elevator and Escalator Installers and Repairers	850	872	22	2.6%	2	21	50	73	\$52.95
47-4031	Fence Erectors	1,280	1,267	-13	-1.0%	-1	30	72	101	\$25.44
47-4041	Hazardous Materials Removal Workers	1,876	1,873	-3	-0.2%	0	71	105	176	\$22.00
47-4051	Highway Maintenance Workers	5,586	5,983	397	7.1%	40	204	267	511	\$22.17
47-4061	Rail-Track Laying and Maintenance Equipment Operators	294	299	5	1.7%	0	7	15	22	\$30.39
47-4071	Septic Tank Servicers and Sewer Pipe Cleaners	1,179	1,258	79	6.7%	8	37	70	115	\$23.45
47-4090	Miscellaneous Construction and Related Workers	1,844	1,875	31	1.7%	3	57	108	168	\$21.45
47-5012	Rotary Drill Operators, Oil and Gas	123	125	2	1.6%	0	3	9	12	\$22.00
47-5013	Service Unit Operators, Oil and Gas	335	339	4	1.2%	0	9	24	33	\$21.81
47-5022	Excavating and Loading Machine and Dragline Operators, Surface Mining	903	835	-68	-7.5%	-7	39	51	83	\$23.13
47-5023	Earth Drillers, Except Oil and Gas	498	523	25	5.0%	2	23	30	55	\$23.34

Appendix Table J – cont’d.
Ohio Occupational Employment* Projections Report, 2022–2032

Code	Occupational Title	Employment		Change in Employment		Annual Openings				Median Wage May 2023
		2022 Annual	2032 Projected	2022-2032	Percent	Growth	Exits	Transfers	Total	
47-5041	Continuous Mining Machine Operators	238	239	1	0.4%	0	8	18	26	\$24.61
47-5071	Roustabouts, Oil and Gas	148	151	3	2.0%	0	4	11	15	\$26.08
49-0000	Installation, Maintenance, and Repair Occupations	225,321	233,288	7,967	3.5%	797	8,168	11,562	20,527	\$25.13
49-1011	First-Line Supervisors of Mechanics, Installers, and Repairers	18,219	18,524	305	1.7%	30	601	846	1,477	\$35.17
49-2011	Computer, Automated Teller, and Office Machine Repairers	2,431	2,258	-173	-7.1%	-17	79	152	214	\$21.33
49-2021	Radio, Cellular, and Tower Equipment Installers and Repairers	454	497	43	9.5%	4	14	31	49	\$29.81
	Telecommunications Equipment Installers and Repairers, Except Line Installers	3,473	3,930	457	13.2%	46	107	242	395	\$28.89
49-2091	Avionics Technicians	351	360	9	2.6%	1	9	18	28	\$30.63
49-2092	Electric Motor, Power Tool, and Related Repairers	467	483	16	3.4%	2	23	21	46	\$23.75
49-2093	Electrical and Electronics Installers and Repairers, Transportation Equipment	129	135	6	4.7%	1	5	6	12	\$34.62
49-2094	Electrical and Electronics Repairers, Commercial and Industrial Equipment	1,025	1,023	-2	-0.2%	0	36	48	84	\$28.77
49-2095	Electrical and Electronics Repairers, Powerhouse, Substation, and Relay	512	491	-21	-4.1%	-2	18	23	39	\$46.66
49-2096	Electronic Equipment Installers and Repairers, Motor Vehicles	237	188	-49	-20.7%	-5	8	10	13	\$22.99
49-2097	Audiovisual Equipment Installers and Repairers	700	666	-34	-4.9%	-3	18	46	61	\$20.96
49-2098	Security and Fire Alarm Systems Installers	2,286	2,336	50	2.2%	5	66	160	231	\$24.56
49-3011	Aircraft Mechanics and Service Technicians	3,515	3,551	36	1.0%	4	94	169	267	\$35.66
49-3021	Automotive Body and Related Repairers	6,769	6,738	-31	-0.5%	-3	250	294	541	\$22.72
49-3022	Automotive Glass Installers and Repairers	792	811	19	2.4%	2	23	40	65	\$23.65
49-3023	Automotive Service Technicians and Mechanics	27,119	27,566	447	1.6%	45	838	1,392	2,275	\$21.38
49-3031	Bus and Truck Mechanics and Diesel Engine Specialists	12,950	13,127	177	1.4%	18	416	646	1,080	\$26.71
49-3041	Farm Equipment Mechanics and Service Technicians	1,285	1,380	95	7.4%	10	38	69	117	\$23.21
49-3042	Mobile Heavy Equipment Mechanics, Except Engines	5,713	6,056	343	6.0%	34	169	305	508	\$29.07
49-3043	Rail Car Repairers	366	371	5	1.4%	0	11	19	30	\$26.28
49-3051	Motorboat Mechanics and Service Technicians	520	542	22	4.2%	2	29	25	56	\$22.19
49-3052	Motorcycle Mechanics	450	460	10	2.2%	1	24	22	47	\$21.02
49-3053	Outdoor Power Equipment and Other Small Engine Mechanics	1,694	1,723	29	1.7%	3	92	81	176	\$20.99
49-3091	Bicycle Repairers	200	189	-11	-5.5%	-1	9	16	24	\$17.20
49-3092	Recreational Vehicle Service Technicians	344	382	38	11.0%	4	16	29	49	\$22.90
49-3093	Tire Repairers and Changers	3,390	3,408	18	0.5%	2	155	272	429	\$17.66
49-9011	Mechanical Door Repairers	1,194	1,328	134	11.2%	13	44	58	115	\$26.67
49-9012	Control and Valve Installers and Repairers, Except Mechanical Door	959	936	-23	-2.4%	-2	33	43	74	\$35.88
49-9021	Heating, Air Conditioning, and Refrigeration Mechanics and Installers	14,677	15,623	946	6.4%	95	425	838	1,358	\$27.39
49-9031	Home Appliance Repairers	1,188	1,182	-6	-0.5%	-1	48	50	97	\$21.05
49-9041	Industrial Machinery Mechanics	15,680	18,202	2,522	16.1%	252	567	744	1,563	\$29.75
49-9043	Maintenance Workers, Machinery	2,001	2,141	140	7.0%	14	96	85	195	\$28.51
49-9044	Millwrights	2,684	2,750	66	2.5%	7	90	130	227	\$35.16
49-9051	Electrical Power-Line Installers and Repairers	3,639	3,661	22	0.6%	2	89	190	281	\$42.39
49-9052	Telecommunications Line Installers and Repairers	3,445	3,848	403	11.7%	40	111	218	369	\$25.51

Appendix Table J – cont’d.
Ohio Occupational Employment* Projections Report, 2022–2032

Code	Occupational Title	Employment		Change in Employment		Annual Openings				Median Wage May 2023
		2022 Annual	2032 Projected	2022-2032	Percent	Growth	Exits	Transfers	Total	
49-9062	Medical Equipment Repairers	3,670	4,390	720	19.6%	72	127	208	407	\$29.90
49-9063	Musical Instrument Repairers and Tuners	112	108	-4	-3.6%	0	4	6	10	\$20.93
49-9064	Watch and Clock Repairers	146	102	-44	-30.1%	-4	4	6	6	\$16.31
49-9069	Precision Instrument and Equipment Repairers, All Other	253	270	17	6.7%	2	8	14	24	\$27.37
49-9071	Maintenance and Repair Workers, General	70,105	71,439	1,334	1.9%	133	2,965	3,398	6,496	\$22.99
49-9081	Wind Turbine Service Technicians	178	230	52	29.2%	5	8	11	24	\$32.75
49-9091	Coin, Vending, and Amusement Machine Servicers and Repairers	1,836	1,752	-84	-4.6%	-8	67	118	177	\$16.49
49-9094	Locksmiths and Safe Repairers	471	399	-72	-15.3%	-7	26	24	43	\$22.44
49-9096	Riggers	121	124	3	2.5%	0	4	9	13	\$26.65
49-9098	Helpers--Installation, Maintenance, and Repair Workers	1,825	1,856	31	1.7%	3	77	108	188	\$18.27
49-9099	Installation, Maintenance, and Repair Workers, All Other	5,493	5,498	5	0.1%	0	220	308	528	\$21.20
51-0000	Production Occupations	496,637	473,121	-23,516	-4.7%	-2,352	19,017	32,514	49,179	\$21.04
51-1011	First-Line Supervisors of Production and Operating Workers	33,362	32,937	-425	-1.3%	-42	1,068	2,003	3,029	\$30.52
51-2021	Coil Winders, Tapers, and Finishers	513	441	-72	-14.0%	-7	21	29	43	\$22.82
51-2028	Electrical, Electronic, and Electromechanical Assemblers, Except Coil Winders, Tapers, and Finishers	11,881	12,335	454	3.8%	45	542	732	1,319	\$18.74
51-2031	Engine and Other Machine Assemblers	7,605	5,830	-1,775	-23.3%	-178	229	494	545	\$30.48
51-2041	Structural Metal Fabricators and Fitters	1,640	1,400	-240	-14.6%	-24	52	107	135	\$23.81
51-2051	Fiberglass Laminators and Fabricators	377	380	3	0.8%	0	15	26	41	\$17.36
51-2090	Miscellaneous Assemblers and Fabricators	97,259	88,588	-8,671	-8.9%	-867	3,576	6,358	9,067	\$19.31
51-3011	Bakers	8,582	8,866	284	3.3%	28	609	758	1,395	\$14.85
51-3021	Butchers and Meat Cutters	4,994	4,842	-152	-3.0%	-15	222	365	572	\$16.86
51-3022	Meat, Poultry, and Fish Cutters and Trimmers	3,660	3,611	-49	-1.3%	-5	164	270	429	\$17.60
51-3023	Slaughterers and Meat Packers	3,157	3,137	-20	-0.6%	-2	142	234	374	\$17.53
51-3091	Food and Tobacco Roasting, Baking, and Drying Machine Operators and Tenders	632	649	17	2.7%	2	27	59	88	\$17.64
51-3092	Food Batchmakers	7,927	8,330	403	5.1%	40	443	682	1,165	\$18.29
51-3093	Food Cooking Machine Operators and Tenders	820	817	-3	-0.4%	0	38	70	108	\$18.25
51-3099	Food Processing Workers, All Other	1,887	1,930	43	2.3%	4	66	118	188	\$16.94
51-4021	Extruding and Drawing Machine Setters, Operators, and Tenders, Metal and Plastic	4,775	4,503	-272	-5.7%	-27	148	325	446	\$19.78
51-4022	Forging Machine Setters, Operators, and Tenders, Metal and Plastic	1,179	1,008	-171	-14.5%	-17	35	77	95	\$22.40
51-4023	Rolling Machine Setters, Operators, and Tenders, Metal and Plastic	1,576	1,397	-179	-11.4%	-18	48	104	134	\$23.08
51-4031	Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and Plastic	17,920	15,598	-2,322	-13.0%	-232	627	1,053	1,448	\$19.67
51-4032	Drilling and Boring Machine Tool Setters, Operators, and Tenders, Metal and Plastic	211	168	-43	-20.4%	-4	8	12	16	\$22.81
51-4033	Grinding, Lapping, Polishing, and Buffing Machine Tool Setters, Operators, and Tenders, Metal and Plastic	7,587	6,625	-962	-12.7%	-96	279	437	620	\$19.30
51-4034	Lathe and Turning Machine Tool Setters, Operators, and Tenders, Metal and Plastic	1,484	1,312	-172	-11.6%	-17	57	90	130	\$22.18
51-4035	Milling and Planing Machine Setters, Operators, and Tenders, Metal and Plastic	1,382	1,163	-219	-15.8%	-22	52	82	112	\$21.89

Appendix Table J – cont’d.
Ohio Occupational Employment* Projections Report, 2022–2032

Code	Occupational Title	Employment		Change in Employment		Annual Openings				Median Wage May 2023
		2022 Annual	2032 Projected	2022-2032	Percent	Growth	Exits	Transfers	Total	
51-4041	Machinists	25,906	26,271	365	1.4%	36	1,021	1,560	2,617	\$24.06
51-4051	Metal-Refining Furnace Operators and Tenders	1,423	1,244	-179	-12.6%	-18	39	88	109	\$23.72
51-4052	Pourers and Casters, Metal	386	342	-44	-11.4%	-4	11	24	31	\$21.79
51-4061	Model Makers, Metal and Plastic	327	242	-85	-26.0%	-8	11	17	20	\$31.23
51-4062	Patternmakers, Metal and Plastic	302	240	-62	-20.5%	-6	11	16	21	\$26.94
51-4071	Foundry Mold and Coremakers	915	680	-235	-25.7%	-24	31	48	55	\$23.44
51-4072	Molding, Coremaking, and Casting Machine Setters, Operators, and Tenders, Metal and Plastic	14,487	13,370	-1,117	-7.7%	-112	544	836	1,268	\$19.09
51-4081	Multiple Machine Tool Setters, Operators, and Tenders, Metal and Plastic	19,120	18,728	-392	-2.1%	-39	676	1,180	1,817	\$18.68
51-4111	Tool and Die Makers	6,416	5,776	-640	-10.0%	-64	271	349	556	\$29.42
51-4121	Welders, Cutters, Solderers, and Brazers	19,539	19,883	344	1.8%	34	528	1,399	1,961	\$22.93
51-4122	Welding, Soldering, and Brazing Machine Setters, Operators, and Tenders	1,944	1,815	-129	-6.6%	-13	50	133	170	\$22.31
51-4191	Heat Treating Equipment Setters, Operators, and Tenders, Metal and Plastic	1,667	1,470	-197	-11.8%	-20	56	98	134	\$22.93
51-4193	Plating Machine Setters, Operators, and Tenders, Metal and Plastic	2,316	2,094	-222	-9.6%	-22	79	138	195	\$20.10
51-4199	Metal Workers and Plastic Workers, All Other	992	895	-97	-9.8%	-10	34	59	83	\$20.00
51-5111	Prepress Technicians and Workers	1,315	1,038	-277	-21.1%	-28	62	83	117	\$22.11
51-5112	Printing Press Operators	8,697	8,040	-657	-7.6%	-66	336	554	824	\$19.34
51-5113	Print Binding and Finishing Workers	1,315	1,084	-231	-17.6%	-23	73	67	117	\$17.63
51-6011	Laundry and Dry-Cleaning Workers	7,499	7,374	-125	-1.7%	-12	527	503	1,018	\$13.60
51-6021	Pressers, Textile, Garment, and Related Materials	1,081	887	-194	-17.9%	-19	64	54	99	\$13.87
51-6031	Sewing Machine Operators	4,271	3,901	-370	-8.7%	-37	253	210	426	\$15.36
51-6041	Shoe and Leather Workers and Repairers	267	239	-28	-10.5%	-3	11	16	24	\$14.20
51-6051	Sewers, Hand	664	625	-39	-5.9%	-4	47	39	82	\$16.77
51-6052	Tailors, Dressmakers, and Custom Sewers	1,208	1,096	-112	-9.3%	-11	84	70	143	\$17.57
51-6061	Textile Bleaching and Dyeing Machine Operators and Tenders	204	194	-10	-4.9%	-1	10	14	23	\$15.26
51-6062	Textile Cutting Machine Setters, Operators, and Tenders	296	294	-2	-0.7%	0	14	22	36	\$16.71
51-6063	Textile Knitting and Weaving Machine Setters, Operators, and Tenders	256	253	-3	-1.2%	0	13	19	32	\$17.37
51-6091	Extruding and Forming Machine Setters, Operators, and Tenders, Synthetic and Glass Fibers	597	576	-21	-3.5%	-2	36	42	76	\$27.79
51-6093	Upholsterers	1,099	1,057	-42	-3.8%	-4	56	52	104	\$19.53
51-6099	Textile, Apparel, and Furnishings Workers, All Other	463	457	-6	-1.3%	-1	28	33	60	\$17.64
51-7011	Cabinetmakers and Bench Carpenters	3,696	3,624	-72	-1.9%	-7	140	205	338	\$22.48
51-7021	Furniture Finishers	629	630	1	0.2%	0	29	35	64	\$19.88
51-7041	Sawing Machine Setters, Operators, and Tenders, Wood	2,392	2,401	9	0.4%	1	79	183	263	\$17.87
51-7042	Woodworking Machine Setters, Operators, and Tenders, Except Sawing	2,666	2,626	-40	-1.5%	-4	86	196	278	\$18.69
51-7099	Woodworkers, All Other	1,160	1,031	-129	-11.1%	-13	52	68	107	\$21.25
51-8011	Nuclear Power Reactor Operators	138	129	-9	-6.5%	-1	4	8	11	\$59.27
51-8012	Power Distributors and Dispatchers	567	520	-47	-8.3%	-5	17	32	44	\$47.60

Appendix Table J – cont’d.
Ohio Occupational Employment* Projections Report, 2022–2032

Code	Occupational Title	Employment		Change in Employment		Annual Openings				Median Wage May 2023
		2022 Annual	2032 Projected	2022-2032	Percent	Growth	Exits	Transfers	Total	
51-8013	Power Plant Operators	864	749	-115	-13.3%	-12	26	48	62	\$44.04
51-8021	Stationary Engineers and Boiler Operators	654	659	5	0.8%	0	25	41	66	\$31.27
51-8031	Water and Wastewater Treatment Plant and System Operators	4,884	4,507	-377	-7.7%	-38	153	275	390	\$26.25
51-8091	Chemical Plant and System Operators	380	379	-1	-0.3%	0	8	27	35	\$32.09
51-8092	Gas Plant Operators	567	498	-69	-12.2%	-7	12	38	43	\$26.80
51-8093	Petroleum Pump System Operators, Refinery Operators, and Gaugers	967	990	23	2.4%	2	22	69	93	\$48.38
51-8099	Plant and System Operators, All Other	353	361	8	2.3%	1	8	25	34	\$24.69
51-9011	Chemical Equipment Operators and Tenders	7,748	7,273	-475	-6.1%	-48	217	524	693	\$24.25
51-9012	Separating, Filtering, Clarifying, Precipitating, and Still Machine Setters, Operators, and Tenders	1,581	1,555	-26	-1.6%	-3	45	109	151	\$22.08
51-9021	Crushing, Grinding, and Polishing Machine Setters, Operators, and Tenders	748	717	-31	-4.1%	-3	22	50	69	\$18.06
51-9022	Grinding and Polishing Workers, Hand	854	709	-145	-17.0%	-14	23	54	63	\$18.81
51-9023	Mixing and Blending Machine Setters, Operators, and Tenders	5,451	5,751	300	5.5%	30	165	386	581	\$21.36
51-9031	Cutters and Trimmers, Hand	202	142	-60	-29.7%	-6	7	11	12	\$17.82
51-9032	Cutting and Slicing Machine Setters, Operators, and Tenders	3,067	2,994	-73	-2.4%	-7	125	190	308	\$20.47
51-9041	Extruding, Forming, Pressing, and Compacting Machine Setters, Operators, and Tenders	4,021	3,924	-97	-2.4%	-10	128	259	377	\$19.16
51-9051	Furnace, Kiln, Oven, Drier, and Kettle Operators and Tenders	1,188	1,211	23	1.9%	2	43	77	122	\$22.51
51-9061	Inspectors, Testers, Sorters, Samplers, and Weighers	31,021	29,625	-1,396	-4.5%	-140	1,194	2,271	3,325	\$21.66
51-9071	Jewelers and Precious Stone and Metal Workers	1,488	1,558	70	4.7%	7	96	90	193	\$21.80
51-9081	Dental Laboratory Technicians	1,097	953	-144	-13.1%	-14	40	72	98	\$22.55
51-9082	Medical Appliance Technicians	623	589	-34	-5.5%	-3	24	43	64	\$22.13
51-9083	Ophthalmic Laboratory Technicians	586	540	-46	-7.8%	-5	22	40	57	\$20.09
51-9111	Packaging and Filling Machine Operators and Tenders	18,884	19,434	550	2.9%	55	819	1,266	2,140	\$18.85
51-9123	Painting, Coating, and Decorating Workers	376	377	1	0.3%	0	11	24	35	\$21.61
51-9124	Coating, Painting, and Spraying Machine Setters, Operators, and Tenders	7,572	7,679	107	1.4%	11	220	485	716	\$21.33
51-9161	Computer Numerically Controlled Tool Operators	14,563	13,098	-1,465	-10.1%	-146	407	888	1,149	\$22.90
51-9162	Computer Numerically Controlled Tool Programmers	2,041	2,331	290	14.2%	29	64	140	233	\$29.85
51-9191	Adhesive Bonding Machine Operators and Tenders	829	823	-6	-0.7%	-1	34	48	81	\$22.60
51-9192	Cleaning, Washing, and Metal Pickling Equipment Operators and Tenders	866	841	-25	-2.9%	-2	32	61	91	\$18.20
51-9193	Cooling and Freezing Equipment Operators and Tenders	713	682	-31	-4.3%	-3	26	50	73	\$20.92
51-9194	Etchers and Engravers	352	336	-16	-4.5%	-2	23	18	39	\$16.75
51-9195	Molders, Shapers, and Casters, Except Metal and Plastic	3,879	3,950	71	1.8%	7	219	274	500	\$18.80
51-9196	Paper Goods Machine Setters, Operators, and Tenders	5,930	5,738	-192	-3.2%	-19	186	414	581	\$22.49
51-9197	Tire Builders	460	434	-26	-5.7%	-3	21	33	51	\$17.82
51-9198	Helpers--Production Workers	5,612	5,067	-545	-9.7%	-54	339	493	778	\$17.87
51-9199	Production Workers, All Other	7,967	7,932	-35	-0.4%	-4	296	567	859	\$17.88
53-0000	Transportation and Material Moving Occupations	566,477	586,095	19,618	3.5%	1,962	27,234	44,129	73,325	\$18.74
53-1047	FirstLine Supervisors of Transportation & Material Moving Workers, Exc Aircraft Cargo Handling Supervisor	22,923	23,600	677	3.0%	68	696	1,574	2,338	\$28.51

Appendix Table J – cont’d.
Ohio Occupational Employment* Projections Report, 2022–2032

Code	Occupational Title	Employment		Change in Employment		Annual Openings				Median Wage May 2023
		2022 Annual	2032 Projected	2022-2032	Percent	Growth	Exits	Transfers	Total	
53-2011	Airline Pilots, Copilots, and Flight Engineers	767	745	-22	-2.9%	-2	26	59	83	\$224,100 ††
53-2012	Commercial Pilots	4,504	4,750	246	5.5%	25	161	362	548	\$98,800 ††
53-2021	Air Traffic Controllers	706	724	18	2.5%	2	15	48	65	\$72.68
53-2031	Flight Attendants	1,085	1,078	-7	-0.6%	-1	66	78	143	\$65,040 ††
53-3011	Ambulance Drivers and Attendants, Except Emergency Medical Technicians	520	510	-10	-1.9%	-1	19	45	63	\$14.39
53-3031	Driver/Sales Workers	33,588	35,633	2,045	6.1%	204	1,414	2,105	3,723	\$14.54
53-3032	Heavy and Tractor-Trailer Truck Drivers	97,460	100,973	3,513	3.6%	351	4,055	6,035	10,441	\$25.82
53-3033	Light Truck Drivers	38,167	40,882	2,715	7.1%	272	1,615	2,404	4,291	\$18.73
53-3051	Bus Drivers, School	5,199	5,575	376	7.2%	38	543	260	841	\$21.95
53-3052	Bus Drivers, Transit and Intercity	5,202	5,344	142	2.7%	14	372	255	641	\$29.28
53-3053	Shuttle Drivers and Chauffeurs	8,281	9,029	748	9.0%	75	700	428	1,203	\$14.38
53-3054	Taxi Drivers	2,039	2,795	756	37.1%	76	117	119	312	\$15.77
53-3099	Motor Vehicle Operators, All Other	3,743	4,033	290	7.7%	29	287	245	561	\$15.38
53-4011	Locomotive Engineers	704	706	2	0.3%	0	19	38	57	\$37.73
53-4022	Railroad Brake, Signal, and Switch Operators and Locomotive Firers	449	454	5	1.1%	0	12	31	43	\$30.66
53-4031	Railroad Conductors and Yardmasters	779	770	-9	-1.2%	-1	16	50	65	\$29.40
53-5011	Sailors and Marine Oilers	201	192	-9	-4.5%	-1	8	14	21	\$20.84
53-5021	Captains, Mates, and Pilots of Water Vessels	261	238	-23	-8.8%	-2	10	16	24	\$42.66 ^
53-6011	Bridge and Lock Tenders	150	153	3	2.0%	0	5	9	14	\$29.83
53-6021	Parking Attendants	2,858	2,861	3	0.1%	0	156	257	413	\$14.33
53-6031	Automotive and Watercraft Service Attendants	2,767	2,733	-34	-1.2%	-3	143	273	413	\$16.61
53-6032	Aircraft Service Attendants	412	429	17	4.1%	2	22	42	66	\$17.86
53-6051	Transportation Inspectors	539	537	-2	-0.4%	0	18	31	49	\$36.50
53-7011	Conveyor Operators and Tenders	1,315	1,344	29	2.2%	3	41	81	125	\$18.61
53-7021	Crane and Tower Operators	1,979	1,982	3	0.2%	0	65	116	181	\$24.33
53-7051	Industrial Truck and Tractor Operators	42,124	43,060	936	2.2%	94	1,291	2,857	4,242	\$21.05
53-7061	Cleaners of Vehicles and Equipment	16,408	16,997	589	3.6%	59	866	1,352	2,277	\$16.33
53-7062	Laborers and Freight, Stock, and Material Movers, Hand	111,809	112,551	742	0.7%	74	5,126	9,372	14,572	\$18.08
53-7063	Machine Feeders and Offbearers	2,702	2,847	145	5.4%	14	180	204	398	\$18.71
53-7064	Packers and Packagers, Hand	22,585	22,037	-548	-2.4%	-55	1,235	1,865	3,045	\$16.89
53-7065	Stockers and Order Fillers	125,599	131,620	6,021	4.8%	602	7,605	12,848	21,055	\$17.57
53-7071	Gas Compressor and Gas Pumping Station Operators	175	171	-4	-2.3%	0	5	13	18	\$39.74
53-7072	Pump Operators, Except Wellhead Pumps	336	358	22	6.5%	2	10	26	38	\$37.56
53-7073	Wellhead Pumps	359	359	0	0.0%	0	11	27	38	\$24.30
53-7081	Refuse and Recyclable Material Collectors	5,427	5,643	216	4.0%	22	216	435	673	\$22.66
53-7121	Tank Car, Truck, and Ship Loaders	907	920	13	1.4%	1	35	61	97	\$21.48
53-7199	Material Moving Workers, All Other	273	278	5	1.8%	0	10	18	28	\$19.85

* Occupations with 100 or more workers.

†† Certain occupations only report wages at the annual level - for elementary and secondary teachers this typically reflects a 9 1/2-month school year.

^ National hourly wages.

^^ National annual wages.

Wages above max.

Source: Ohio Department of Job and Family Services, Bureau of Labor Market Information, February 2025.

Appendix Table K
Ohio Occupational Education and Training Classification, 2022-2032

Code	Occupational Title*	Typical Education Needed for Entry	Work Experience in a Related Occupation	Typical On-The-Job Training Needed to Attain Competency in the Occupation	Median Wage May 2023
00-0000	Total, All Occupations				\$22.45
11-0000	Management Occupations				\$48.38
11-1011	Chief Executives	Bachelor's degree	5 years or more	None	\$84.58
11-1021	General and Operations Managers	Bachelor's degree	5 years or more	None	\$45.14
11-2011	Advertising and Promotions Managers	Bachelor's degree	Less than 5 years	None	\$47.80
11-2021	Marketing Managers	Bachelor's degree	5 years or more	None	\$63.46
11-2022	Sales Managers	Bachelor's degree	Less than 5 years	None	\$64.64
11-2032	Public Relations Managers	Bachelor's degree	5 years or more	None	\$59.80
11-2033	Fundraising Managers	Bachelor's degree	5 years or more	None	\$47.28
11-3012	Administrative Services Managers	Bachelor's degree	Less than 5 years	None	\$44.39
11-3013	Facilities Managers	Bachelor's degree	Less than 5 years	None	\$45.82
11-3021	Computer and Information Systems Managers	Bachelor's degree	5 years or more	None	\$78.02
11-3031	Financial Managers	Bachelor's degree	5 years or more	None	\$63.27
11-3051	Industrial Production Managers	Bachelor's degree	5 years or more	None	\$48.06
11-3061	Purchasing Managers	Bachelor's degree	5 years or more	None	\$61.78
11-3071	Transportation, Storage, and Distribution Managers	High school diploma or equivalent	5 years or more	None	\$43.90
11-3111	Compensation and Benefits Managers	Bachelor's degree	5 years or more	None	\$67.42
11-3121	Human Resources Managers	Bachelor's degree	5 years or more	None	\$60.18
11-3131	Training and Development Managers	Bachelor's degree	5 years or more	None	\$52.48
11-9013	Farmers, Ranchers, and Other Agricultural Managers	High school diploma or equivalent	5 years or more	None	\$23.62
11-9021	Construction Managers	Bachelor's degree	None	Moderate-term on-the-job training	\$44.74
11-9031	Education and Childcare Administrators, Preschool and Daycare	Bachelor's degree	Less than 5 years	None	\$21.77
11-9032	Education Administrators, Kindergarten through Secondary	Master's degree	5 years or more	None	\$98,710 ††
11-9033	Education Administrators, Postsecondary	Master's degree	Less than 5 years	None	\$40.15
11-9039	Education Administrators, All Other	Bachelor's degree	Less than 5 years	None	\$33.63
11-9041	Architectural and Engineering Managers	Bachelor's degree	5 years or more	None	\$72.56
11-9051	Food Service Managers	High school diploma or equivalent	Less than 5 years	Short-term on-the-job training	\$27.05
11-9072	Entertainment And Recreation Managers, Except Gambling	Bachelor's degree	Less than 5 years	None	\$26.56
11-9081	Lodging Managers	High school diploma or equivalent	Less than 5 years	None	\$23.73
11-9111	Medical and Health Services Managers	Bachelor's degree	Less than 5 years	None	\$49.85
11-9121	Natural Sciences Managers	Bachelor's degree	5 years or more	None	\$62.61
11-9131	Postmasters and Mail Superintendents	High school diploma or equivalent	Less than 5 years	Moderate-term on-the-job training	\$42.68
11-9141	Property, Real Estate, and Community Association Managers	High school diploma or equivalent	Less than 5 years	Short-term on-the-job training	\$23.66
11-9151	Social and Community Service Managers	Bachelor's degree	Less than 5 years	None	\$33.26
11-9161	Emergency Management Directors	Bachelor's degree	5 years or more	None	\$41.22
11-9171	Funeral Home Managers	Associate's degree	Less than 5 years	None	\$43.94
11-9199	Managers, All Other	Bachelor's degree	Less than 5 years	None	\$60.23
13-0000	Business and Financial Operations Occupations				\$35.95
13-1020	Buyers and Purchasing Agents	Bachelor's degree	None	Moderate-term on-the-job training	\$31.78
13-1031	Claims Adjusters, Examiners, and Investigators	High school diploma or equivalent	None	Long-term on-the-job training	\$36.54
13-1041	Compliance Officers	Bachelor's degree	None	Moderate-term on-the-job training	\$35.85

Appendix Table K – cont’d.
Ohio Occupational Education and Training Classification, 2022-2032

Code	Occupational Title*	Typical Education Needed for Entry	Work Experience in a Related Occupation	Typical On-The-Job Training Needed to Attain Competency in the Occupation	Median Wage May 2023
13-1051	Cost Estimators	Bachelor's degree	None	Moderate-term on-the-job training	\$33.75
13-1071	Human Resources Specialists	Bachelor's degree	None	None	\$30.11
13-1075	Labor Relations Specialists	Bachelor's degree	Less than 5 years	None	\$38.41
13-1081	Logisticians	Bachelor's degree	None	None	\$38.47
13-1082	Project Management Specialists	Bachelor's degree	None	None	\$41.89
13-1111	Management Analysts	Bachelor's degree	Less than 5 years	None	\$40.42
13-1121	Meeting, Convention, and Event Planners	Bachelor's degree	None	None	\$24.06
13-1131	Fundraisers	Bachelor's degree	None	None	\$25.45
13-1141	Compensation, Benefits, and Job Analysis Specialists	Bachelor's degree	Less than 5 years	None	\$35.49
13-1151	Training and Development Specialists	Bachelor's degree	Less than 5 years	None	\$29.58
13-1161	Market Research Analysts and Marketing Specialists	Bachelor's degree	None	None	\$31.42
13-1199	Business Operations Specialists, All Other	Bachelor's degree	None	None	\$34.36
13-2011	Accountants and Auditors	Bachelor's degree	None	None	\$36.32
13-2020	Property Appraisers and Assessors	Bachelor's degree	None	Long-term on-the-job training	\$31.87
13-2031	Budget Analysts	Bachelor's degree	None	None	\$40.37
13-2041	Credit Analysts	Bachelor's degree	None	None	\$33.65
13-2051	Financial and Investment Analysts	Bachelor's degree	None	None	\$40.37
13-2052	Personal Financial Advisors	Bachelor's degree	None	Long-term on-the-job training	\$39.44
13-2053	Insurance Underwriters	Bachelor's degree	None	Moderate-term on-the-job training	\$37.11
13-2054	Financial Risk Specialists	Bachelor's degree	None	None	\$48.31
13-2061	Financial Examiners	Bachelor's degree	None	Long-term on-the-job training	\$32.03
13-2071	Credit Counselors	Bachelor's degree	None	Moderate-term on-the-job training	\$22.21
13-2072	Loan Officers	Bachelor's degree	Less than 5 years	Moderate-term on-the-job training	\$30.44
13-2081	Tax Examiners and Collectors, and Revenue Agents	Bachelor's degree	None	Moderate-term on-the-job training	\$33.03
13-2082	Tax Preparers	High school diploma or equivalent	None	Moderate-term on-the-job training	\$21.76
13-2099	Financial Specialists, All Other	Bachelor's degree	None	None	\$40.20
15-0000	Computer and Mathematical Occupations				\$44.29
15-1211	Computer Systems Analysts	Bachelor's degree	None	None	\$45.87
15-1212	Information Security Analysts	Bachelor's degree	Less than 5 years	None	\$51.18
15-1221	Computer and Information Research Scientists	Master's degree	None	None	\$59.14
15-1231	Computer Network Support Specialists	Associate's degree	None	Moderate-term on-the-job training	\$31.27
15-1232	Computer User Support Specialists	Some college, no degree	None	Moderate-term on-the-job training	\$24.75
15-1241	Computer Network Architects	Bachelor's degree	5 years or more	None	\$58.98
15-1242	Database Administrators	Bachelor's degree	None	None	\$45.44
15-1243	Database Architects	Bachelor's degree	Less than 5 years	None	\$61.17
15-1244	Network and Computer Systems Administrators	Bachelor's degree	None	None	\$46.47
15-1251	Computer Programmers	Bachelor's degree	None	None	\$37.84
15-1252	Software Developers	Bachelor's degree	None	None	\$51.71
15-1253	Software Quality Assurance Analysts and Testers	Bachelor's degree	None	None	\$39.69
15-1254	Web Developers	Bachelor's degree	None	None	\$39.98
15-1255	Web and Digital Interface Designers	Bachelor's degree	None	None	\$38.51
15-1299	Computer Occupations, All Other	Bachelor's degree	None	None	\$49.74

Appendix Table K – cont’d.
Ohio Occupational Education and Training Classification, 2022-2032

Code	Occupational Title*	Typical Education Needed for Entry	Work Experience in a Related Occupation	Typical On-The-Job Training Needed to Attain Competency in the Occupation	Median Wage May 2023
15-2011	Actuaries	Bachelor's degree	None	Long-term on-the-job training	\$53.96
15-2031	Operations Research Analysts	Bachelor's degree	None	None	\$42.75
15-2041	Statisticians	Master's degree	None	None	\$42.39
15-2051	Data Scientists	Bachelor's degree	None	None	\$46.67
17-0000	Architecture and Engineering Occupations				\$40.20
17-1011	Architects, Except Landscape and Naval	Bachelor's degree	None	Internship/residency	\$46.10
17-1012	Landscape Architects	Bachelor's degree	None	Internship/residency	\$28.56
17-1021	Cartographers and Photogrammetrists	Bachelor's degree	None	None	\$35.70
17-1022	Surveyors	Bachelor's degree	None	Internship/residency	\$29.05
17-2011	Aerospace Engineers	Bachelor's degree	None	None	\$62.85
17-2031	Bioengineers and Biomedical Engineers	Bachelor's degree	None	None	\$48.08
17-2041	Chemical Engineers	Bachelor's degree	None	None	\$52.13
17-2051	Civil Engineers	Bachelor's degree	None	None	\$40.11
17-2061	Computer Hardware Engineers	Bachelor's degree	None	None	\$47.64
17-2071	Electrical Engineers	Bachelor's degree	None	None	\$48.19
17-2072	Electronics Engineers, Except Computer	Bachelor's degree	None	None	\$49.85
17-2081	Environmental Engineers	Bachelor's degree	None	None	\$59.54
17-2111	Health and Safety Engineers, Except Mining Safety Engineers and Inspectors	Bachelor's degree	None	None	\$49.53
17-2112	Industrial Engineers	Bachelor's degree	None	None	\$46.40
17-2131	Materials Engineers	Bachelor's degree	None	None	\$48.86
17-2141	Mechanical Engineers	Bachelor's degree	None	None	\$44.41
17-2151	Mining and Geological Engineers, Including Mining Safety Engineers	Bachelor's degree	None	None	\$35.12
17-2161	Nuclear Engineers	Bachelor's degree	None	None	\$57.83
17-2171	Petroleum Engineers	Bachelor's degree	None	None	\$50.07
17-2199	Engineers, All Other	Bachelor's degree	None	None	\$51.15
17-3011	Architectural and Civil Drafters	Associate's degree	None	None	\$28.90
17-3012	Electrical and Electronics Drafters	Associate's degree	None	None	\$38.31
17-3013	Mechanical Drafters	Associate's degree	None	None	\$30.44
17-3019	Drafters, All Other	Associate's degree	None	None	\$24.71
17-3021	Aerospace Engineering and Operations Technologists and Technicians	Associate's degree	None	None	\$37.25
17-3022	Civil Engineering Technologists and Technicians	Associate's degree	None	None	\$29.91
17-3023	Electrical and Electronics Engineering Technologists and Technicians	Associate's degree	None	None	\$35.38
17-3024	Electro-Mechanical and Mechatronics Technologists and Technicians	Associate's degree	None	None	\$28.98
17-3025	Environmental Engineering Technologists and Technicians	Associate's degree	None	None	\$24.15
17-3026	Industrial Engineering Technologists and Technicians	Associate's degree	None	None	\$28.78
17-3027	Mechanical Engineering Technologists and Technicians	Associate's degree	None	None	\$30.06
17-3028	Calibration Technologists and Technicians	Associate's degree	None	None	\$28.10
17-3029	Engineering Technologists and Technicians, Except Drafters, All Other	Associate's degree	None	None	\$29.23
17-3031	Surveying and Mapping Technicians	High school diploma or equivalent	None	Moderate-term on-the-job training	\$23.50
19-0000	Life, Physical, and Social Science Occupations				\$34.19
19-1011	Animal Scientists	Bachelor's degree	None	None	\$35.23

Appendix Table K – cont’d.
Ohio Occupational Education and Training Classification, 2022-2032

Code	Occupational Title*	Typical Education Needed for Entry	Work Experience in a Related Occupation	Typical On-The-Job Training Needed to Attain Competency in the Occupation	Median Wage May 2023
19-1012	Food Scientists and Technologists	Bachelor's degree	None	None	\$26.96
19-1013	Soil and Plant Scientists	Bachelor's degree	None	None	\$30.14
19-1021	Biochemists and Biophysicists	Doctoral or professional degree	None	None	\$38.77
19-1022	Microbiologists	Bachelor's degree	None	None	\$38.71
19-1023	Zoologists and Wildlife Biologists	Bachelor's degree	None	None	\$29.30
19-1029	Biological Scientists, All Other	Bachelor's degree	None	None	\$41.68
19-1031	Conservation Scientists	Bachelor's degree	None	None	\$28.12
19-1032	Foresters	Bachelor's degree	None	None	\$37.59
19-1041	Epidemiologists	Master's degree	None	None	\$32.60
19-1042	Medical Scientists, Except Epidemiologists	Doctoral or professional degree	None	None	\$39.17
19-2012	Physicists	Doctoral or professional degree	None	None	\$65.81
19-2031	Chemists	Bachelor's degree	None	None	\$39.46
19-2032	Materials Scientists	Bachelor's degree	None	None	\$45.25
19-2041	Environmental Scientists and Specialists, Including Health	Bachelor's degree	None	None	\$38.35
19-2042	Geoscientists, Except Hydrologists and Geographers	Bachelor's degree	None	None	\$37.32
19-2043	Hydrologists	Bachelor's degree	None	None	\$43.99
19-2099	Physical Scientists, All Other	Bachelor's degree	None	None	\$51.18
19-3011	Economists	Master's degree	None	None	\$52.08
19-3022	Survey Researchers	Master's degree	None	None	\$23.54
19-3032	Industrial-Organizational Psychologists	Master's degree	None	Internship/residency	\$70.87 ^
19-3033	Clinical and Counseling Psychologists	Doctoral or professional degree	None	Internship/residency	\$50.81
19-3034	School Psychologists	Master's degree	None	Internship/residency	\$45.27
19-3039	Psychologists, All Other	Master's degree	None	Internship/residency	\$56.93
19-3051	Urban and Regional Planners	Master's degree	None	None	\$34.33
19-3099	Social Scientists and Related Workers, All Other	Bachelor's degree	None	None	\$44.24
19-4012	Agricultural Technicians	Associate's degree	None	Moderate-term on-the-job training	\$21.22
19-4013	Food Science Technicians	Associate's degree	None	Moderate-term on-the-job training	\$26.17
19-4021	Biological Technicians	Bachelor's degree	None	None	\$27.03
19-4031	Chemical Technicians	Associate's degree	None	Moderate-term on-the-job training	\$25.30
19-4042	Environmental Science and Protection Technicians, Including Health	Associate's degree	None	None	\$23.31
19-4043	Geological Technicians, Except Hydrologic Technicians	Associate's degree	None	Moderate-term on-the-job training	\$33.71
19-4061	Social Science Research Assistants	Bachelor's degree	None	None	\$24.00
19-4071	Forest and Conservation Technicians	Associate's degree	None	None	\$20.42
19-4092	Forensic Science Technicians	Bachelor's degree	None	Moderate-term on-the-job training	\$31.28
19-4099	Life, Physical, and Social Science Technicians, All Other	Associate's degree	None	None	\$21.38
19-5011	Occupational Health and Safety Specialists	Bachelor's degree	None	None	\$37.00
19-5012	Occupational Health and Safety Technicians	High school diploma or equivalent	None	Moderate-term on-the-job training	\$29.52
21-0000	Community and Social Service Occupations				\$24.08
21-1012	Educational, Guidance, and Career Counselors and Advisors	Master's degree	None	None	\$30.29
21-1013	Marriage and Family Therapists	Master's degree	None	Internship/residency	\$27.66
21-1015	Rehabilitation Counselors	Master's degree	None	None	\$21.49
21-1018	Substance Abuse, Behavioral Disorder, and Mental Health Counselors	Master's degree	None	Internship/residency	\$24.32

Appendix Table K – cont’d.
Ohio Occupational Education and Training Classification, 2022-2032

Code	Occupational Title*	Typical Education Needed for Entry	Work Experience in a Related Occupation	Typical On-The-Job Training Needed to Attain Competency in the Occupation	Median Wage May 2023
21-1019	Counselors, All Other	Master's degree	None	None	\$21.76
21-1021	Child, Family, and School Social Workers	Bachelor's degree	None	None	\$23.20
21-1022	Healthcare Social Workers	Master's degree	None	Internship/residency	\$29.58
21-1023	Mental Health and Substance Abuse Social Workers	Master's degree	None	Internship/residency	\$21.71
21-1029	Social Workers, All Other	Bachelor's degree	None	None	\$28.87
21-1091	Health Education Specialists	Bachelor's degree	None	None	\$29.90
21-1092	Probation Officers and Correctional Treatment Specialists	Bachelor's degree	None	Moderate-term on-the-job training	\$28.99
21-1093	Social and Human Service Assistants	High school diploma or equivalent	None	Short-term on-the-job training	\$18.58
21-1094	Community Health Workers	High school diploma or equivalent	None	Short-term on-the-job training	\$20.00
21-1099	Community and Social Service Specialists, All Other	Bachelor's degree	None	None	\$23.07
21-2011	Clergy	Bachelor's degree	None	Moderate-term on-the-job training	\$26.68
21-2021	Directors, Religious Activities and Education	Bachelor's degree	Less than 5 years	None	\$21.63
21-2099	Religious Workers, All Other	Bachelor's degree	None	None	\$14.27
23-0000	Legal Occupations				\$42.41
23-1011	Lawyers	Doctoral or professional degree	None	None	\$56.49
23-1012	Judicial Law Clerks	Doctoral or professional degree	None	None	\$26.60
23-1021	Administrative Law Judges, Adjudicators, and Hearing Officers	Doctoral or professional degree	5 years or more	Short-term on-the-job training	\$35.00
23-1022	Arbitrators, Mediators, and Conciliators	Bachelor's degree	Less than 5 years	Moderate-term on-the-job training	\$38.35
23-1023	Judges, Magistrate Judges, and Magistrates	Doctoral or professional degree	5 years or more	Short-term on-the-job training	\$67.15
23-2011	Paralegals and Legal Assistants	Associate's degree	None	None	\$25.64
23-2093	Title Examiners, Abstractors, and Searchers	High school diploma or equivalent	None	Moderate-term on-the-job training	\$23.90
23-2099	Legal Support Workers, All Other	Associate's degree	None	None	\$29.43
25-0000	Educational Instruction and Library Occupations				\$29.88
25-1011	Business Teachers, Postsecondary	Doctoral or professional degree	None	None	\$81,500 ††
25-1021	Computer Science Teachers, Postsecondary	Doctoral or professional degree	None	None	\$77,840 ††
25-1022	Mathematical Science Teachers, Postsecondary	Doctoral or professional degree	None	None	\$77,320 ††
25-1032	Engineering Teachers, Postsecondary	Doctoral or professional degree	None	None	\$105,590 ††
25-1042	Biological Science Teachers, Postsecondary	Doctoral or professional degree	None	None	\$77,950 ††
25-1051	Atmospheric, Earth, Marine, and Space Sciences Teachers, Postsecondary	Doctoral or professional degree	None	None	\$82,050 ††
25-1052	Chemistry Teachers, Postsecondary	Doctoral or professional degree	None	None	\$77,210 ††
25-1053	Environmental Science Teachers, Postsecondary	Doctoral or professional degree	None	None	\$82,870 ††
25-1054	Physics Teachers, Postsecondary	Doctoral or professional degree	None	None	\$92,440 ††
25-1062	Area, Ethnic, and Cultural Studies Teachers, Postsecondary	Doctoral or professional degree	None	None	\$73,430 ††
25-1063	Economics Teachers, Postsecondary	Doctoral or professional degree	None	None	\$102,500 ††
25-1064	Geography Teachers, Postsecondary	Doctoral or professional degree	None	None	\$80,500 ††
25-1065	Political Science Teachers, Postsecondary	Doctoral or professional degree	None	None	\$78,520 ††
25-1066	Psychology Teachers, Postsecondary	Doctoral or professional degree	None	None	\$80,200 ††
25-1067	Sociology Teachers, Postsecondary	Doctoral or professional degree	None	None	\$77,660 ††
25-1069	Social Sciences Teachers, Postsecondary, All Other	Doctoral or professional degree	None	None	\$66,730 ††
25-1071	Health Specialties Teachers, Postsecondary	Doctoral or professional degree	Less than 5 years	None	\$105,410 ††
25-1072	Nursing Instructors and Teachers, Postsecondary	Doctoral or professional degree	Less than 5 years	None	\$76,640 ††

Appendix Table K – cont’d.
Ohio Occupational Education and Training Classification, 2022-2032

Code	Occupational Title*	Typical Education Needed for Entry	Work Experience in a Related Occupation	Typical On-The-Job Training Needed to Attain Competency in the Occupation	Median Wage May 2023
25-1081	Education Teachers, Postsecondary	Doctoral or professional degree	Less than 5 years	None	\$66,320 ††
25-1082	Library Science Teachers, Postsecondary	Doctoral or professional degree	None	None	\$80,430 ††
25-1111	Criminal Justice and Law Enforcement Teachers, Postsecondary	Doctoral or professional degree	None	None	\$62,670 ††
25-1112	Law Teachers, Postsecondary	Doctoral or professional degree	Less than 5 years	None	\$114,380 ††
25-1113	Social Work Teachers, Postsecondary	Doctoral or professional degree	None	None	\$64,400 ††
25-1121	Art, Drama, and Music Teachers, Postsecondary	Master's degree	None	None	\$74,040 ††
25-1122	Communications Teachers, Postsecondary	Doctoral or professional degree	None	None	\$67,540 ††
25-1123	English Language and Literature Teachers, Postsecondary	Doctoral or professional degree	None	None	\$66,140 ††
25-1124	Foreign Language and Literature Teachers, Postsecondary	Doctoral or professional degree	None	None	\$65,590 ††
25-1125	History Teachers, Postsecondary	Doctoral or professional degree	None	None	\$80,100 ††
25-1126	Philosophy and Religion Teachers, Postsecondary	Doctoral or professional degree	None	None	\$78,220 ††
25-1193	Recreation and Fitness Studies Teachers, Postsecondary	Doctoral or professional degree	None	None	\$63,880 ††
25-1194	Career/Technical Education Teachers, Postsecondary	Bachelor's degree	Less than 5 years	None	\$30.97
25-1199	Postsecondary Teachers, All Other	Doctoral or professional degree	None	None	\$59,510 ††
25-2011	Preschool Teachers, Except Special Education	Associate's degree	None	None	\$16.24
25-2012	Kindergarten Teachers, Except Special Education	Bachelor's degree	None	None	\$63,680 ††
25-2021	Elementary School Teachers, Except Special Education	Bachelor's degree	None	None	\$74,530 ††
25-2022	Middle School Teachers, Except Special and Career/Technical Education	Bachelor's degree	None	None	\$75,420 ††
25-2023	Career/Technical Education Teachers, Middle School	Bachelor's degree	Less than 5 years	None	\$62,110 ††
25-2031	Secondary School Teachers, Except Special and Career/Technical Education	Bachelor's degree	None	None	\$78,010 ††
25-2032	Career/Technical Education Teachers, Secondary School	Bachelor's degree	Less than 5 years	None	\$78,500 ††
25-2051	Special Education Teachers, Preschool	Bachelor's degree	None	None	\$66,770 ††
25-2052	Special Education Teachers, Kindergarten and Elementary School	Bachelor's degree	None	None	\$71,100 ††
25-2057	Special Education Teachers, Middle School	Bachelor's degree	None	None	\$65,910 ††
25-2058	Special Education Teachers, Secondary School	Bachelor's degree	None	None	\$74,850 ††
25-2059	Special Education Teachers, All Other	Bachelor's degree	None	None	\$49,940 ††
25-3011	Adult Basic Education, Adult Secondary Education, and English as a Second Language Instructors	Bachelor's degree	None	None	\$30.18
25-3021	Self-Enrichment Teachers	High school diploma or equivalent	Less than 5 years	None	\$17.09
25-3031	Substitute Teachers, Short-Term	Bachelor's degree	None	None	\$17.38
25-3041	Tutors	Some college, no degree	None	None	\$20.92
25-3099	Teachers and Instructors, All Other	Bachelor's degree	None	None	\$51,090 ††
25-4011	Archivists	Master's degree	None	None	\$27.84
25-4012	Curators	Master's degree	None	None	\$27.61
25-4013	Museum Technicians and Conservators	Bachelor's degree	None	None	\$22.24
25-4022	Librarians and Media Collections Specialists	Master's degree	None	None	\$28.31
25-4031	Library Technicians	Postsecondary non-degree award	None	None	\$17.72
25-9031	Instructional Coordinators	Master's degree	5 years or more	None	\$36.23
25-9044	Teaching Assistants, Postsecondary	Bachelor's degree	None	None	\$50,530 ††
25-9045	Teaching Assistants, Except Postsecondary	Some college, no degree	None	None	\$35,430 ††
25-9099	Educational Instruction and Library Workers, All Other	Bachelor's degree	None	None	\$22.50

Appendix Table K – cont’d.
Ohio Occupational Education and Training Classification, 2022-2032

Code	Occupational Title*	Typical Education Needed for Entry	Work Experience in a Related Occupation	Typical On-The-Job Training Needed to Attain Competency in the Occupation	Median Wage May 2023
27-0000	Arts, Design, Entertainment, Sports, and Media Occupations				\$22.17
27-1011	Art Directors	Bachelor's degree	5 years or more	None	\$44.09
27-1012	Craft Artists	No formal educational credential	None	Long-term on-the-job training	\$18.35
27-1013	Fine Artists, Including Painters, Sculptors, and Illustrators	Bachelor's degree	None	Long-term on-the-job training	\$21.68
27-1014	Special Effects Artists and Animators	Bachelor's degree	None	None	\$29.39
27-1019	Artists and Related Workers, All Other	No formal educational credential	None	Long-term on-the-job training	\$24.65
27-1021	Commercial and Industrial Designers	Bachelor's degree	None	None	\$31.58
27-1022	Fashion Designers	Bachelor's degree	None	None	\$38.22
27-1023	Floral Designers	High school diploma or equivalent	None	Moderate-term on-the-job training	\$13.84
27-1024	Graphic Designers	Bachelor's degree	None	None	\$24.26
27-1025	Interior Designers	Bachelor's degree	None	None	\$24.78
27-1026	Merchandise Displayers and Window Trimmers	High school diploma or equivalent	None	Short-term on-the-job training	\$16.92
27-1027	Set and Exhibit Designers	Bachelor's degree	None	None	\$25.30
27-1029	Designers, All Other	Bachelor's degree	None	None	\$26.90
27-2011	Actors	Some college, no degree	None	Long-term on-the-job training	\$10.36
27-2012	Producers and Directors	Bachelor's degree	Less than 5 years	None	\$28.00
27-2021	Athletes and Sports Competitors	No formal educational credential	None	Long-term on-the-job training	\$70,280 ^^
27-2022	Coaches and Scouts	Bachelor's degree	None	None	\$37,060 ††
27-2023	Umpires, Referees, and Other Sports Officials	High school diploma or equivalent	None	Moderate-term on-the-job training	\$23,130 ††
27-2041	Music Directors and Composers	Bachelor's degree	Less than 5 years	None	\$28.90
27-2042	Musicians and Singers	No formal educational credential	None	Long-term on-the-job training	\$34.37
27-2091	Disc Jockeys, Except Radio	High school diploma or equivalent	None	Short-term on-the-job training	\$38.40
27-2099	Entertainers and Performers, Sports and Related Workers, All Other	No formal educational credential	None	Short-term on-the-job training	\$14.67
27-3011	Broadcast Announcers and Radio Disc Jockeys	Bachelor's degree	None	None	\$18.52
27-3023	News Analysts, Reporters, and Journalists	Bachelor's degree	None	None	\$17.94
27-3031	Public Relations Specialists	Bachelor's degree	None	None	\$32.88
27-3041	Editors	Bachelor's degree	Less than 5 years	None	\$29.70
27-3042	Technical Writers	Bachelor's degree	Less than 5 years	Short-term on-the-job training	\$30.28
27-3043	Writers and Authors	Bachelor's degree	None	Long-term on-the-job training	\$26.95
27-3091	Interpreters and Translators	Bachelor's degree	None	None	\$26.02
27-3092	Court Reporters and Simultaneous Captioners	Postsecondary non-degree award	None	Short-term on-the-job training	\$27.21
27-3099	Media and Communication Workers, All Other	High school diploma or equivalent	None	Short-term on-the-job training	\$18.96
27-4011	Audio and Video Technicians	Postsecondary non-degree award	None	Short-term on-the-job training	\$23.64
27-4012	Broadcast Technicians	Associate's degree	None	Short-term on-the-job training	\$27.74 ^
27-4021	Photographers	High school diploma or equivalent	None	Moderate-term on-the-job training	\$17.31
27-4031	Camera Operators, Television, Video, and Film	Bachelor's degree	None	None	\$23.48
27-4032	Film and Video Editors	Bachelor's degree	None	None	\$23.02
27-4099	Media and Communication Equipment Workers, All Other	High school diploma or equivalent	None	Short-term on-the-job training	\$30.04
29-0000	Healthcare Practitioners and Technical Occupations				\$37.26
29-1011	Chiropractors	Doctoral or professional degree	None	None	\$39.24
29-1021	Dentists, General	Doctoral or professional degree	None	None	\$80.28
29-1022	Oral and Maxillofacial Surgeons	Doctoral or professional degree	None	Internship/residency	# ^

Appendix Table K – cont’d.
Ohio Occupational Education and Training Classification, 2022-2032

Code	Occupational Title*	Typical Education Needed for Entry	Work Experience in a Related Occupation	Typical On-The-Job Training Needed to Attain Competency in the Occupation	Median Wage May 2023
29-1029	Dentists, All Other Specialists	Doctoral or professional degree	None	Internship/residency	\$97.56
29-1031	Dietitians and Nutritionists	Bachelor's degree	None	Internship/residency	\$30.87
29-1041	Optometrists	Doctoral or professional degree	None	None	\$60.89
29-1051	Pharmacists	Doctoral or professional degree	None	None	\$63.81
29-1071	Physician Assistants	Master's degree	None	None	\$58.74
29-1081	Podiatrists	Doctoral or professional degree	None	Internship/residency	\$57.66
29-1122	Occupational Therapists	Master's degree	None	None	\$43.52
29-1123	Physical Therapists	Doctoral or professional degree	None	None	\$47.33
29-1124	Radiation Therapists	Associate's degree	None	None	\$45.03
29-1125	Recreational Therapists	Bachelor's degree	None	None	\$27.59
29-1126	Respiratory Therapists	Associate's degree	None	None	\$37.11
29-1127	Speech-Language Pathologists	Master's degree	None	Internship/residency	\$41.61
29-1128	Exercise Physiologists	Bachelor's degree	None	None	\$25.06
29-1129	Therapists, All Other	Bachelor's degree	None	None	\$26.76
29-1131	Veterinarians	Doctoral or professional degree	None	None	\$50.27
29-1141	Registered Nurses	Bachelor's degree	None	None	\$38.44
29-1151	Nurse Anesthetists	Master's degree	None	None	\$94.47
29-1161	Nurse Midwives	Master's degree	None	None	\$55.76
29-1171	Nurse Practitioners	Master's degree	None	None	\$59.46
29-1181	Audiologists	Doctoral or professional degree	None	None	\$39.59
29-1211	Anesthesiologists	Doctoral or professional degree	None	Internship/residency	#
29-1212	Cardiologists	Doctoral or professional degree	None	Internship/residency	#
29-1213	Dermatologists	Doctoral or professional degree	None	Internship/residency	#
29-1214	Emergency Medicine Physicians	Doctoral or professional degree	None	Internship/residency	#
29-1215	Family Medicine Physicians	Doctoral or professional degree	None	Internship/residency	\$35.77
29-1216	General Internal Medicine Physicians	Doctoral or professional degree	None	Internship/residency	\$96.15
29-1217	Neurologists	Doctoral or professional degree	None	Internship/residency	#
29-1218	Obstetricians and Gynecologists	Doctoral or professional degree	None	Internship/residency	\$96.15
29-1221	Pediatricians, General	Doctoral or professional degree	None	Internship/residency	\$82.63
29-1222	Physicians, Pathologists	Doctoral or professional degree	None	Internship/residency	#
29-1223	Psychiatrists	Doctoral or professional degree	None	Internship/residency	\$106.47
29-1224	Radiologists	Doctoral or professional degree	None	Internship/residency	#
29-1229	Physicians, All Other	Doctoral or professional degree	None	Internship/residency	#
29-1242	Orthopedic Surgeons, Except Pediatric	Doctoral or professional degree	None	Internship/residency	#
29-1249	Surgeons, All Other	Doctoral or professional degree	None	Internship/residency	#
29-1292	Dental Hygienists	Associate's degree	None	None	\$38.31
29-1299	Healthcare Diagnosing or Treating Practitioners, All Other	Master's degree	None	None	\$41.67
29-2010	Clinical Laboratory Technologists and Technicians	Bachelor's degree	None	None	\$29.15
29-2031	Cardiovascular Technologists and Technicians	Associate's degree	None	None	\$35.70
29-2032	Diagnostic Medical Sonographers	Associate's degree	None	None	\$38.13
29-2033	Nuclear Medicine Technologists	Associate's degree	None	None	\$42.17
29-2034	Radiologic Technologists and Technicians	Associate's degree	None	None	\$32.48

Appendix Table K – cont’d.
Ohio Occupational Education and Training Classification, 2022-2032

Code	Occupational Title*	Typical Education Needed for Entry	Work Experience in a Related Occupation	Typical On-The-Job Training Needed to Attain Competency in the Occupation	Median Wage May 2023
29-2035	Magnetic Resonance Imaging Technologists	Associate's degree	Less than 5 years	None	\$38.11
29-2036	Medical Dosimetrists	Bachelor's degree	None	None	\$58.12
29-2042	Emergency Medical Technicians	Postsecondary non-degree award	None	None	\$18.41
29-2043	Paramedics	Postsecondary non-degree award	Less than 5 years	None	\$23.14
29-2051	Dietetic Technicians	Associate's degree	None	None	\$17.25
29-2052	Pharmacy Technicians	High school diploma or equivalent	None	Moderate-term on-the-job training	\$18.41
29-2053	Psychiatric Technicians	Postsecondary non-degree award	Less than 5 years	Short-term on-the-job training	\$17.28
29-2055	Surgical Technologists	Postsecondary non-degree award	None	None	\$28.33
29-2056	Veterinary Technologists and Technicians	Associate's degree	None	None	\$18.18
29-2057	Ophthalmic Medical Technicians	Postsecondary non-degree award	None	None	\$18.86
29-2061	Licensed Practical and Licensed Vocational Nurses	Postsecondary non-degree award	None	None	\$27.95
29-2072	Medical Records Specialists	Postsecondary non-degree award	None	None	\$23.08
29-2081	Opticians, Dispensing	High school diploma or equivalent	None	Long-term on-the-job training	\$22.54
29-2091	Orthotists and Prosthetists	Master's degree	None	Internship/residency	\$37.61
29-2092	Hearing Aid Specialists	High school diploma or equivalent	None	Moderate-term on-the-job training	\$28.30
29-2099	Health Technologists and Technicians, All Other	Postsecondary non-degree award	None	None	\$21.19
29-9021	Health Information Technologists and Medical Registrars	Associate's degree	None	None	\$32.43
29-9091	Athletic Trainers	Master's degree	None	None	\$57,780 ††
29-9092	Genetic Counselors	Master's degree	None	None	\$39.52
29-9093	Surgical Assistants	Postsecondary non-degree award	None	None	\$31.28
29-9099	Healthcare Practitioners and Technical Workers, All Other	Postsecondary non-degree award	None	None	\$21.40
31-0000	Healthcare Support Occupations				\$17.07
31-1120	Home Health and Personal Care Aides	High school diploma or equivalent	None	Short-term on-the-job training	\$14.08
31-1131	Nursing Assistants	Postsecondary non-degree award	None	None	\$18.28
31-1132	Orderlies	High school diploma or equivalent	None	Short-term on-the-job training	\$17.37
31-1133	Psychiatric Aides	High school diploma or equivalent	None	Short-term on-the-job training	\$17.76
31-2011	Occupational Therapy Assistants	Associate's degree	None	None	\$30.04
31-2021	Physical Therapist Assistants	Associate's degree	None	None	\$29.59
31-9011	Massage Therapists	Postsecondary non-degree award	None	None	\$24.57
31-9091	Dental Assistants	Postsecondary non-degree award	None	None	\$22.33
31-9092	Medical Assistants	Postsecondary non-degree award	None	None	\$18.40
31-9093	Medical Equipment Preparers	High school diploma or equivalent	None	Moderate-term on-the-job training	\$20.45
31-9094	Medical Transcriptionists	Postsecondary non-degree award	None	None	\$17.38
31-9095	Pharmacy Aides	High school diploma or equivalent	None	Short-term on-the-job training	\$17.54
31-9096	Veterinary Assistants and Laboratory Animal Caretakers	High school diploma or equivalent	None	Short-term on-the-job training	\$14.77
31-9097	Phlebotomists	Postsecondary non-degree award	None	None	\$18.32
31-9099	Healthcare Support Workers, All Other	High school diploma or equivalent	None	None	\$21.36
33-0000	Protective Service Occupations				\$23.55
33-1011	First-Line Supervisors of Correctional Officers	High school diploma or equivalent	Less than 5 years	None	\$35.66
33-1012	First-Line Supervisors of Police and Detectives	High school diploma or equivalent	Less than 5 years	Moderate-term on-the-job training	\$46.01
33-1021	First-Line Supervisors of Firefighting and Prevention Workers	Postsecondary non-degree award	Less than 5 years	Moderate-term on-the-job training	\$40.25
33-1091	First-line Supervisors of Security Workers	High school diploma or equivalent	Less than 5 years	None	\$24.75

Appendix Table K – cont’d.
Ohio Occupational Education and Training Classification, 2022-2032

Code	Occupational Title*	Typical Education Needed for Entry	Work Experience in a Related Occupation	Typical On-The-Job Training Needed to Attain Competency in the Occupation	Median Wage May 2023
33-1099	First-Line Supervisors of Protective Service Workers, All Other	High school diploma or equivalent	Less than 5 years	None	\$32.92
33-2011	Firefighters	Postsecondary non-degree award	None	Long-term on-the-job training	\$26.46
33-2021	Fire Inspectors and Investigators	Postsecondary non-degree award	5 years or more	Moderate-term on-the-job training	\$53.10
33-3011	Bailiffs	High school diploma or equivalent	None	Moderate-term on-the-job training	\$24.66
33-3012	Correctional Officers and Jailers	High school diploma or equivalent	None	Moderate-term on-the-job training	\$27.18
33-3021	Detectives and Criminal Investigators	High school diploma or equivalent	Less than 5 years	Moderate-term on-the-job training	\$38.35
33-3031	Fish and Game Wardens	Bachelor's degree	None	Moderate-term on-the-job training	\$35.81
33-3051	Police and Sheriff's Patrol Officers	High school diploma or equivalent	None	Moderate-term on-the-job training	\$35.72
33-9011	Animal Control Workers	High school diploma or equivalent	None	Moderate-term on-the-job training	\$20.27
33-9021	Private Detectives and Investigators	High school diploma or equivalent	Less than 5 years	Moderate-term on-the-job training	\$25.57
33-9032	Security Guards	High school diploma or equivalent	None	Short-term on-the-job training	\$16.52
33-9091	Crossing Guards and Flaggers	No formal educational credential	None	Short-term on-the-job training	\$18.18
33-9092	Lifeguards, Ski Patrol, and Other Recreational Protective Service Workers	No formal educational credential	None	Short-term on-the-job training	\$11.69
33-9094	School Bus Monitors	High school diploma or equivalent	None	Short-term on-the-job training	\$14.26
33-9099	Protective Service Workers, All Other	High school diploma or equivalent	None	Short-term on-the-job training	\$18.81
35-0000	Food Preparation and Serving Related Occupations				\$13.79
35-1011	Chefs and Head Cooks	High school diploma or equivalent	5 years or more	None	\$23.07
35-1012	First-Line Supervisors of Food Preparation and Serving Workers	High school diploma or equivalent	Less than 5 years	None	\$17.58
35-2011	Cooks, Fast Food	No formal educational credential	None	Short-term on-the-job training	\$12.29
35-2012	Cooks, Institution and Cafeteria	No formal educational credential	None	Short-term on-the-job training	\$16.88
35-2014	Cooks, Restaurant	No formal educational credential	Less than 5 years	Moderate-term on-the-job training	\$14.89
35-2015	Cooks, Short Order	No formal educational credential	None	Short-term on-the-job training	\$13.13
35-2021	Food Preparation Workers	No formal educational credential	None	Short-term on-the-job training	\$13.96
35-3011	Bartenders	No formal educational credential	None	Short-term on-the-job training	\$13.19
35-3023	Fast Food and Counter Workers	No formal educational credential	None	Short-term on-the-job training	\$13.16
35-3031	Waiters and Waitresses	No formal educational credential	None	Short-term on-the-job training	\$13.92
35-3041	Food Servers, Nonrestaurant	No formal educational credential	None	Short-term on-the-job training	\$14.02
35-9011	Dining Room and Cafeteria Attendants and Bartender Helpers	No formal educational credential	None	Short-term on-the-job training	\$12.13
35-9021	Dishwashers	No formal educational credential	None	Short-term on-the-job training	\$13.27
35-9031	Hosts and Hostesses, Restaurant, Lounge, and Coffee Shop	No formal educational credential	None	Short-term on-the-job training	\$11.68
35-9099	Food Preparation and Serving Related Workers, All Other	No formal educational credential	None	Short-term on-the-job training	\$12.41
37-0000	Building and Grounds Cleaning and Maintenance Occupations				\$16.69
37-1011	First-Line Supervisors of Housekeeping and Janitorial Workers	High school diploma or equivalent	Less than 5 years	None	\$20.53
37-1012	First-Line Supervisors of Landscaping, Lawn Service, and Groundskeeping Workers	High school diploma or equivalent	Less than 5 years	None	\$24.66
37-2011	Janitors and Cleaners, Except Maids and Housekeeping Cleaners	No formal educational credential	None	Short-term on-the-job training	\$16.27
37-2012	Maids and Housekeeping Cleaners	No formal educational credential	None	Short-term on-the-job training	\$13.73
37-2019	Building Cleaning Workers, All Other	No formal educational credential	None	Short-term on-the-job training	\$12.29
37-2021	Pest Control Workers	High school diploma or equivalent	None	Moderate-term on-the-job training	\$21.91
37-3011	Landscaping and Groundskeeping Workers	No formal educational credential	None	Short-term on-the-job training	\$17.36
37-3012	Pesticide Handlers, Sprayers, and Applicators, Vegetation	High school diploma or equivalent	None	Moderate-term on-the-job training	\$22.64

Appendix Table K – cont’d.
Ohio Occupational Education and Training Classification, 2022-2032

Code	Occupational Title*	Typical Education Needed for Entry	Work Experience in a Related Occupation	Typical On-The-Job Training Needed to Attain Competency in the Occupation	Median Wage May 2023
37-3013	Tree Trimmers and Pruners	High school diploma or equivalent	None	Short-term on-the-job training	\$22.74
37-3019	Grounds Maintenance Workers, All Other	No formal educational credential	None	Short-term on-the-job training	\$20.36
39-0000	Personal Care and Service Occupations				\$14.22
39-1013	First-Line Supervisors of Gambling Services Workers	High school diploma or equivalent	Less than 5 years	None	\$27.26
	First-line Supervisors of Entertainment And Recreation Workers, Except Gambling Services	High school diploma or equivalent	Less than 5 years	None	\$18.61
39-1014	First-line Supervisors of Personal Service Workers	High school diploma or equivalent	Less than 5 years	None	\$20.46
39-2011	Animal Trainers	High school diploma or equivalent	None	Moderate-term on-the-job training	\$27.60
39-2021	Animal Caretakers	High school diploma or equivalent	None	Short-term on-the-job training	\$13.83
39-3011	Gambling Dealers	High school diploma or equivalent	None	Short-term on-the-job training	\$17.31
39-3031	Ushers, Lobby Attendants, and Ticket Takers	No formal educational credential	None	Short-term on-the-job training	\$13.53
39-3091	Amusement and Recreation Attendants	No formal educational credential	None	Short-term on-the-job training	\$12.53
39-3093	Locker Room, Coatroom, and Dressing Room Attendants	High school diploma or equivalent	None	Short-term on-the-job training	\$11.45
39-4021	Funeral Attendants	High school diploma or equivalent	None	Short-term on-the-job training	\$14.74
39-4031	Morticians, Undertakers, and Funeral Arrangers	Associate's degree	None	Long-term on-the-job training	\$23.82
39-5012	Hairdressers, Hairstylists, and Cosmetologists	Postsecondary non-degree award	None	None	\$16.31
39-5092	Manicurists and Pedicurists	Postsecondary non-degree award	None	None	\$17.47
39-5093	Shampooers	No formal educational credential	None	Short-term on-the-job training	\$12.87
39-5094	Skincare Specialists	Postsecondary non-degree award	None	None	\$22.13
39-6011	Baggage Porters and Bellhops	High school diploma or equivalent	None	Short-term on-the-job training	\$11.35
39-6012	Concierges	High school diploma or equivalent	None	Moderate-term on-the-job training	\$14.24
39-7010	Tour and Travel Guides	High school diploma or equivalent	None	Moderate-term on-the-job training	\$14.18
39-9011	Childcare Workers	High school diploma or equivalent	None	Short-term on-the-job training	\$13.44
39-9031	Exercise Trainers and Group Fitness Instructors	High school diploma or equivalent	None	Short-term on-the-job training	\$15.93
39-9032	Recreation Workers	High school diploma or equivalent	None	Short-term on-the-job training	\$13.68
39-9041	Residential Advisors	High school diploma or equivalent	None	Short-term on-the-job training	\$16.24
39-9099	Personal Care and Service Workers, All Other	High school diploma or equivalent	None	Short-term on-the-job training	\$14.91
41-0000	Sales and Related Occupations				\$16.70
41-1011	First-Line Supervisors of Retail Sales Workers	High school diploma or equivalent	Less than 5 years	None	\$20.27
41-1012	First-Line Supervisors of Non-Retail Sales Workers	High school diploma or equivalent	Less than 5 years	None	\$39.59
41-2011	Cashiers	No formal educational credential	None	Short-term on-the-job training	\$13.27
41-2012	Gambling Change Persons and Booth Cashiers	No formal educational credential	None	Short-term on-the-job training	\$14.09
41-2021	Counter and Rental Clerks	No formal educational credential	None	Short-term on-the-job training	\$16.58
41-2022	Parts Salespersons	No formal educational credential	None	Moderate-term on-the-job training	\$17.21
41-2031	Retail Salespersons	No formal educational credential	None	Short-term on-the-job training	\$14.46
41-3011	Advertising Sales Agents	High school diploma or equivalent	None	Moderate-term on-the-job training	\$23.54
41-3021	Insurance Sales Agents	High school diploma or equivalent	None	Moderate-term on-the-job training	\$28.84
41-3031	Securities, Commodities, and Financial Services Sales Agents	Bachelor's degree	None	Moderate-term on-the-job training	\$28.46
41-3041	Travel Agents	High school diploma or equivalent	None	Moderate-term on-the-job training	\$18.68
41-3091	Sales Representatives of Services, Except Advertising, Insurance, Financial Services, and Travel	High school diploma or equivalent	None	Moderate-term on-the-job training	\$28.95

Appendix Table K – cont’d.
Ohio Occupational Education and Training Classification, 2022-2032

Code	Occupational Title*	Typical Education Needed for Entry	Work Experience in a Related Occupation	Typical On-The-Job Training Needed to Attain Competency in the Occupation	Median Wage May 2023
41-4011	Sales Representatives, Wholesale and Manufacturing, Technical and Scientific Products	Bachelor's degree	None	Moderate-term on-the-job training	\$42.79
41-4012	Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	High school diploma or equivalent	None	Moderate-term on-the-job training	\$33.00
41-9011	Demonstrators and Product Promoters	No formal educational credential	None	Short-term on-the-job training	\$16.59
41-9012	Models	No formal educational credential	None	None	\$21.57
41-9021	Real Estate Brokers	High school diploma or equivalent	Less than 5 years	None	\$32.84
41-9022	Real Estate Sales Agents	High school diploma or equivalent	None	Moderate-term on-the-job training	\$19.24
41-9031	Sales Engineers	Bachelor's degree	None	Moderate-term on-the-job training	\$44.17
41-9041	Telemarketers	No formal educational credential	None	Short-term on-the-job training	\$14.90
41-9091	Door-to-Door Sales Workers, News and Street Vendors, and Related Workers	No formal educational credential	None	Short-term on-the-job training	\$13.97
41-9099	Sales and Related Workers, All Other	High school diploma or equivalent	None	None	\$18.57
43-0000	Office and Administrative Support Occupations				\$20.43
43-1011	First-Line Supervisors of Office and Administrative Support Workers	High school diploma or equivalent	Less than 5 years	None	\$29.39
43-2011	Switchboard Operators, Including Answering Service	High school diploma or equivalent	None	Short-term on-the-job training	\$17.00
43-2021	Telephone Operators	High school diploma or equivalent	None	Short-term on-the-job training	\$17.49
43-3011	Bill and Account Collectors	High school diploma or equivalent	None	Moderate-term on-the-job training	\$18.89
43-3021	Billing and Posting Clerks	High school diploma or equivalent	None	Moderate-term on-the-job training	\$20.20
43-3031	Bookkeeping, Accounting, and Auditing Clerks	Some college, no degree	None	Moderate-term on-the-job training	\$22.15
43-3041	Gambling Cage Workers	High school diploma or equivalent	None	Short-term on-the-job training	\$14.10
43-3051	Payroll and Timekeeping Clerks	High school diploma or equivalent	None	Moderate-term on-the-job training	\$24.07
43-3061	Procurement Clerks	High school diploma or equivalent	None	Moderate-term on-the-job training	\$21.88
43-3071	Tellers	High school diploma or equivalent	None	Short-term on-the-job training	\$17.88
43-3099	Financial Clerks, All Other	High school diploma or equivalent	None	Short-term on-the-job training	\$22.58
43-4011	Brokerage Clerks	High school diploma or equivalent	None	Moderate-term on-the-job training	\$26.51
43-4021	Correspondence Clerks	High school diploma or equivalent	None	Short-term on-the-job training	\$19.12
43-4031	Court, Municipal, and License Clerks	High school diploma or equivalent	None	Long-term on-the-job training	\$19.91
43-4041	Credit Authorizers, Checkers, and Clerks	High school diploma or equivalent	None	Moderate-term on-the-job training	\$23.77
43-4051	Customer Service Representatives	High school diploma or equivalent	None	Short-term on-the-job training	\$19.17
43-4061	Eligibility Interviewers, Government Programs	High school diploma or equivalent	None	Moderate-term on-the-job training	\$23.16
43-4071	File Clerks	High school diploma or equivalent	None	Short-term on-the-job training	\$18.99
43-4081	Hotel, Motel, and Resort Desk Clerks	High school diploma or equivalent	None	Short-term on-the-job training	\$13.45
43-4111	Interviewers, Except Eligibility and Loan	High school diploma or equivalent	None	Short-term on-the-job training	\$18.29
43-4121	Library Assistants, Clerical	High school diploma or equivalent	None	Short-term on-the-job training	\$16.15
43-4131	Loan Interviewers and Clerks	High school diploma or equivalent	None	Short-term on-the-job training	\$22.53
43-4141	New Accounts Clerks	High school diploma or equivalent	None	Moderate-term on-the-job training	\$22.08
43-4151	Order Clerks	Some college, no degree	None	Short-term on-the-job training	\$19.63
43-4161	Human Resources Assistants, Except Payroll and Timekeeping	Associate's degree	None	None	\$22.03
43-4171	Receptionists and Information Clerks	High school diploma or equivalent	None	Short-term on-the-job training	\$16.38
43-4181	Reservation and Transportation Ticket Agents and Travel Clerks	High school diploma or equivalent	None	Short-term on-the-job training	\$17.63
43-4199	Information and Record Clerks, All Other	High school diploma or equivalent	None	Short-term on-the-job training	\$21.26

Appendix Table K – cont’d.
Ohio Occupational Education and Training Classification, 2022-2032

Code	Occupational Title*	Typical Education Needed for Entry	Work Experience in a Related Occupation	Typical On-The-Job Training Needed to Attain Competency in the Occupation	Median Wage May 2023
43-5011	Cargo and Freight Agents	High school diploma or equivalent	None	Short-term on-the-job training	\$21.74
43-5021	Couriers and Messengers	High school diploma or equivalent	None	Short-term on-the-job training	\$16.60
43-5031	Public Safety Telecommunicators	High school diploma or equivalent	None	Moderate-term on-the-job training	\$25.31
43-5032	Dispatchers, Except Police, Fire, and Ambulance	High school diploma or equivalent	None	Moderate-term on-the-job training	\$22.22
43-5041	Meter Readers, Utilities	High school diploma or equivalent	None	Short-term on-the-job training	\$24.27
43-5051	Postal Service Clerks	No formal educational credential	None	Short-term on-the-job training	\$28.88
43-5052	Postal Service Mail Carriers	No formal educational credential	None	Short-term on-the-job training	\$27.08
43-5053	Postal Service Mail Sorters, Processors, and Processing Machine Operators	No formal educational credential	None	Short-term on-the-job training	\$25.69
43-5061	Production, Planning, and Expediting Clerks	High school diploma or equivalent	None	Moderate-term on-the-job training	\$24.80
43-5071	Shipping, Receiving, and Inventory Clerks	High school diploma or equivalent	None	Short-term on-the-job training	\$19.13
43-5111	Weighers, Measurers, Checkers, and Samplers, Recordkeeping	High school diploma or equivalent	None	Short-term on-the-job training	\$19.11
43-6011	Executive Secretaries and Executive Administrative Assistants	High school diploma or equivalent	Less than 5 years	None	\$30.57
43-6012	Legal Secretaries and Administrative Assistants	High school diploma or equivalent	None	Moderate-term on-the-job training	\$22.55
43-6013	Medical Secretaries and Administrative Assistants	High school diploma or equivalent	None	Moderate-term on-the-job training	\$18.40
43-6014	Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	High school diploma or equivalent	None	Short-term on-the-job training	\$20.36
43-9021	Data Entry Keyers	High school diploma or equivalent	None	Short-term on-the-job training	\$18.05
43-9022	Word Processors and Typists	High school diploma or equivalent	None	Short-term on-the-job training	\$21.10
43-9031	Desktop Publishers	Associate's degree	None	Short-term on-the-job training	\$21.28
43-9041	Insurance Claims and Policy Processing Clerks	High school diploma or equivalent	None	Moderate-term on-the-job training	\$22.43
43-9051	Mail Clerks and Mail Machine Operators, Except Postal Service	High school diploma or equivalent	None	Short-term on-the-job training	\$16.68
43-9061	Office Clerks, General	High school diploma or equivalent	None	Short-term on-the-job training	\$19.15
43-9071	Office Machine Operators, Except Computer	High school diploma or equivalent	None	Short-term on-the-job training	\$17.85
43-9081	Proofreaders and Copy Markers	Bachelor's degree	None	None	\$20.82
43-9199	Office and Administrative Support Workers, All Other	High school diploma or equivalent	None	Short-term on-the-job training	\$15.67
45-0000	Farming, Fishing, and Forestry Occupations				\$19.44
45-1011	First-Line Supervisors of Farming, Fishing, and Forestry Workers	High school diploma or equivalent	Less than 5 years	None	\$26.23
45-2041	Graders and Sorters, Agricultural Products	No formal educational credential	None	Short-term on-the-job training	\$18.25
45-2091	Agricultural Equipment Operators	No formal educational credential	None	Moderate-term on-the-job training	\$23.59
45-2092	Farmworkers and Laborers, Crop, Nursery, and Greenhouse	No formal educational credential	None	Short-term on-the-job training	\$16.79
45-2093	Farmworkers, Farm, Ranch, and Aquacultural Animals	No formal educational credential	None	Short-term on-the-job training	\$15.19
45-2099	Agricultural Workers, All Other	No formal educational credential	None	Short-term on-the-job training	\$28.84
45-4022	Logging Equipment Operators	High school diploma or equivalent	None	Moderate-term on-the-job training	\$20.00
45-4023	Log Graders and Scalers	High school diploma or equivalent	None	Moderate-term on-the-job training	\$18.56
47-0000	Construction and Extraction Occupations				\$28.53
47-1011	First-Line Supervisors of Construction Trades and Extraction Workers	High school diploma or equivalent	5 years or more	None	\$36.30
47-2011	Boilermakers	High school diploma or equivalent	None	Apprenticeship	\$40.89
47-2021	Brickmasons and Blockmasons	High school diploma or equivalent	None	Apprenticeship	\$31.12
47-2022	Stonemasons	High school diploma or equivalent	None	Apprenticeship	\$24.54
47-2031	Carpenters	High school diploma or equivalent	None	Apprenticeship	\$26.21
47-2041	Carpet Installers	No formal educational credential	None	Short-term on-the-job training	\$24.68

Appendix Table K – cont’d.
Ohio Occupational Education and Training Classification, 2022-2032

Code	Occupational Title*	Typical Education Needed for Entry	Work Experience in a Related Occupation	Typical On-The-Job Training Needed to Attain Competency in the Occupation	Median Wage May 2023
47-2042	Floor Layers, Except Carpet, Wood, and Hard Tiles	No formal educational credential	None	Moderate-term on-the-job training	\$22.85
47-2044	Tile and Stone Setters	No formal educational credential	None	Long-term on-the-job training	\$23.14
47-2051	Cement Masons and Concrete Finishers	No formal educational credential	None	Moderate-term on-the-job training	\$29.19
47-2061	Construction Laborers	No formal educational credential	None	Short-term on-the-job training	\$23.40
47-2071	Paving, Surfacing, and Tamping Equipment Operators	High school diploma or equivalent	None	Moderate-term on-the-job training	\$29.84
47-2073	Operating Engineers and Other Construction Equipment Operators	High school diploma or equivalent	None	Moderate-term on-the-job training	\$29.04
47-2081	Drywall and Ceiling Tile Installers	No formal educational credential	None	Moderate-term on-the-job training	\$28.64
47-2082	Tapers	No formal educational credential	None	Moderate-term on-the-job training	\$31.79
47-2111	Electricians	High school diploma or equivalent	None	Apprenticeship	\$30.46
47-2121	Glaziers	High school diploma or equivalent	None	Apprenticeship	\$28.14
47-2131	Insulation Workers, Floor, Ceiling, and Wall	No formal educational credential	None	Short-term on-the-job training	\$29.55
47-2132	Insulation Workers, Mechanical	High school diploma or equivalent	None	Apprenticeship	\$33.11
47-2141	Painters, Construction and Maintenance	No formal educational credential	None	Moderate-term on-the-job training	\$24.35
47-2151	Pipelayers	No formal educational credential	None	Short-term on-the-job training	\$24.47
47-2152	Plumbers, Pipefitters, and Steamfitters	High school diploma or equivalent	None	Apprenticeship	\$31.27
47-2161	Plasterers and Stucco Masons	No formal educational credential	None	Long-term on-the-job training	\$31.13
47-2171	Reinforcing Iron and Rebar Workers	High school diploma or equivalent	None	Apprenticeship	\$28.53
47-2181	Roofers	No formal educational credential	None	Moderate-term on-the-job training	\$24.53
47-2211	Sheet Metal Workers	High school diploma or equivalent	None	Apprenticeship	\$29.54
47-2221	Structural Iron and Steel Workers	High school diploma or equivalent	None	Apprenticeship	\$34.97
47-3011	Helpers--Brickmasons, Blockmasons, Stonemasons, and Tile and Marble Setters	No formal educational credential	None	Short-term on-the-job training	\$21.29
47-3012	Helpers--Carpenters	No formal educational credential	None	Short-term on-the-job training	\$18.41
47-3013	Helpers--Electricians	High school diploma or equivalent	None	Short-term on-the-job training	\$17.50
47-3014	Helpers--Painters, Paperhangers, Plasterers, and Stucco Masons	No formal educational credential	None	Short-term on-the-job training	\$16.88
47-3015	Helpers--Pipelayers, Plumbers, Pipefitters, and Steamfitters	High school diploma or equivalent	None	Short-term on-the-job training	\$16.68
47-3016	Helpers--Roofers	No formal educational credential	None	Short-term on-the-job training	\$18.57 ^
47-3019	Helpers, Construction Trades, All Other	No formal educational credential	None	Short-term on-the-job training	\$19.13
47-4011	Construction and Building Inspectors	High school diploma or equivalent	5 years or more	Moderate-term on-the-job training	\$32.42
47-4021	Elevator and Escalator Installers and Repairers	High school diploma or equivalent	None	Apprenticeship	\$52.95
47-4031	Fence Erectors	No formal educational credential	None	Moderate-term on-the-job training	\$25.44
47-4041	Hazardous Materials Removal Workers	High school diploma or equivalent	None	Moderate-term on-the-job training	\$22.00
47-4051	Highway Maintenance Workers	High school diploma or equivalent	None	Moderate-term on-the-job training	\$22.17
47-4061	Rail-Track Laying and Maintenance Equipment Operators	High school diploma or equivalent	None	Moderate-term on-the-job training	\$30.39
47-4071	Septic Tank Servicers and Sewer Pipe Cleaners	High school diploma or equivalent	None	Moderate-term on-the-job training	\$23.45
47-4090	Miscellaneous Construction and Related Workers	High school diploma or equivalent	None	Moderate-term on-the-job training	\$21.45
47-5012	Rotary Drill Operators, Oil and Gas	No formal educational credential	None	Moderate-term on-the-job training	\$22.00
47-5013	Service Unit Operators, Oil and Gas	No formal educational credential	None	Moderate-term on-the-job training	\$21.81
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	\$23.13
47-5023	Earth Drillers, Except Oil and Gas	High school diploma or equivalent	Less than 5 years	Long-term on-the-job training	\$23.34
47-5041	Continuous Mining Machine Operators	No formal educational credential	None	Moderate-term on-the-job training	\$24.61
47-5071	Roustabouts, Oil and Gas	No formal educational credential	None	Moderate-term on-the-job training	\$26.08

Appendix Table K – cont’d.
Ohio Occupational Education and Training Classification, 2022-2032

Code	Occupational Title*	Typical Education Needed for Entry	Work Experience in a Related Occupation	Typical On-The-Job Training Needed to Attain Competency in the Occupation	Median Wage May 2023
49-0000	Installation, Maintenance, and Repair Occupations				\$25.13
49-1011	First-Line Supervisors of Mechanics, Installers, and Repairers	High school diploma or equivalent	Less than 5 years	None	\$35.17
49-2011	Computer, Automated Teller, and Office Machine Repairers	Some college, no degree	None	Short-term on-the-job training	\$21.33
49-2021	Radio, Cellular, and Tower Equipment Installers and Repairers	Associate's degree	None	Moderate-term on-the-job training	\$29.81
49-2022	Telecommunications Equipment Installers and Repairers, Except Line Installers	Postsecondary non-degree award	None	Moderate-term on-the-job training	\$28.89
49-2091	Avionics Technicians	Postsecondary non-degree award	None	None	\$30.63
49-2092	Electric Motor, Power Tool, and Related Repairers	High school diploma or equivalent	Less than 5 years	Moderate-term on-the-job training	\$23.75
49-2093	Electrical and Electronics Installers and Repairers, Transportation Equipment	Postsecondary non-degree award	None	Long-term on-the-job training	\$34.62
49-2094	Electrical and Electronics Repairers, Commercial and Industrial Equipment	Postsecondary non-degree award	None	Long-term on-the-job training	\$28.77
49-2095	Electrical and Electronics Repairers, Powerhouse, Substation, and Relay	Postsecondary non-degree award	Less than 5 years	Moderate-term on-the-job training	\$46.66
49-2096	Electronic Equipment Installers and Repairers, Motor Vehicles	High school diploma or equivalent	None	Moderate-term on-the-job training	\$22.99
49-2097	Audiovisual Equipment Installers and Repairers	Postsecondary non-degree award	None	Short-term on-the-job training	\$20.96
49-2098	Security and Fire Alarm Systems Installers	High school diploma or equivalent	None	Moderate-term on-the-job training	\$24.56
49-3011	Aircraft Mechanics and Service Technicians	Postsecondary non-degree award	None	None	\$35.66
49-3021	Automotive Body and Related Repairers	High school diploma or equivalent	None	Long-term on-the-job training	\$22.72
49-3022	Automotive Glass Installers and Repairers	High school diploma or equivalent	None	Moderate-term on-the-job training	\$23.65
49-3023	Automotive Service Technicians and Mechanics	Postsecondary non-degree award	None	Short-term on-the-job training	\$21.38
49-3031	Bus and Truck Mechanics and Diesel Engine Specialists	High school diploma or equivalent	None	Long-term on-the-job training	\$26.71
49-3041	Farm Equipment Mechanics and Service Technicians	High school diploma or equivalent	None	Long-term on-the-job training	\$23.21
49-3042	Mobile Heavy Equipment Mechanics, Except Engines	High school diploma or equivalent	None	Long-term on-the-job training	\$29.07
49-3043	Rail Car Repairers	High school diploma or equivalent	None	Long-term on-the-job training	\$26.28
49-3051	Motorboat Mechanics and Service Technicians	High school diploma or equivalent	None	Long-term on-the-job training	\$22.19
49-3052	Motorcycle Mechanics	Postsecondary non-degree award	None	Short-term on-the-job training	\$21.02
49-3053	Outdoor Power Equipment and Other Small Engine Mechanics	High school diploma or equivalent	None	Moderate-term on-the-job training	\$20.99
49-3091	Bicycle Repairers	High school diploma or equivalent	None	Moderate-term on-the-job training	\$17.20
49-3092	Recreational Vehicle Service Technicians	High school diploma or equivalent	None	Long-term on-the-job training	\$22.90
49-3093	Tire Repairers and Changers	High school diploma or equivalent	None	Short-term on-the-job training	\$17.66
49-9011	Mechanical Door Repairers	High school diploma or equivalent	None	Moderate-term on-the-job training	\$26.67
49-9012	Control and Valve Installers and Repairers, Except Mechanical Door	High school diploma or equivalent	None	Moderate-term on-the-job training	\$35.88
49-9021	Heating, Air Conditioning, and Refrigeration Mechanics and Installers	Postsecondary non-degree award	None	Long-term on-the-job training	\$27.39
49-9031	Home Appliance Repairers	High school diploma or equivalent	None	Moderate-term on-the-job training	\$21.05
49-9041	Industrial Machinery Mechanics	High school diploma or equivalent	None	Long-term on-the-job training	\$29.75
49-9043	Maintenance Workers, Machinery	High school diploma or equivalent	None	Long-term on-the-job training	\$28.51
49-9044	Millwrights	High school diploma or equivalent	None	Apprenticeship	\$35.16
49-9051	Electrical Power-Line Installers and Repairers	High school diploma or equivalent	None	Long-term on-the-job training	\$42.39
49-9052	Telecommunications Line Installers and Repairers	High school diploma or equivalent	None	Long-term on-the-job training	\$25.51
49-9062	Medical Equipment Repairers	Associate's degree	None	Moderate-term on-the-job training	\$29.90
49-9063	Musical Instrument Repairers and Tuners	High school diploma or equivalent	None	Apprenticeship	\$20.93
49-9064	Watch and Clock Repairers	High school diploma or equivalent	None	Long-term on-the-job training	\$16.31

Appendix Table K – cont’d.
Ohio Occupational Education and Training Classification, 2022-2032

Code	Occupational Title*	Typical Education Needed for Entry	Work Experience in a Related Occupation	Typical On-The-Job Training Needed to Attain Competency in the Occupation	Median Wage May 2023
49-9069	Precision Instrument and Equipment Repairers, All Other	High school diploma or equivalent	None	Long-term on-the-job training	\$27.37
49-9071	Maintenance and Repair Workers, General	High school diploma or equivalent	None	Moderate-term on-the-job training	\$22.99
49-9081	Wind Turbine Service Technicians	Postsecondary non-degree award	None	Long-term on-the-job training	\$32.75
49-9091	Coin, Vending, and Amusement Machine Servicers and Repairers	High school diploma or equivalent	None	Short-term on-the-job training	\$16.49
49-9094	Locksmiths and Safe Repairers	High school diploma or equivalent	None	Long-term on-the-job training	\$22.44
49-9096	Riggers	High school diploma or equivalent	None	Moderate-term on-the-job training	\$26.65
49-9098	Helpers--Installation, Maintenance, and Repair Workers	High school diploma or equivalent	None	Short-term on-the-job training	\$18.27
49-9099	Installation, Maintenance, and Repair Workers, All Other	High school diploma or equivalent	None	Moderate-term on-the-job training	\$21.20
51-0000	Production Occupations				\$21.04
51-1011	First-Line Supervisors of Production and Operating Workers	High school diploma or equivalent	Less than 5 years	None	\$30.52
51-2021	Coil Winders, Tapers, and Finishers	High school diploma or equivalent	None	Moderate-term on-the-job training	\$22.82
51-2028	Electrical, Electronic, and Electromechanical Assemblers, Except Coil Winders, Tapers, and Finishers	High school diploma or equivalent	None	Moderate-term on-the-job training	\$18.74
51-2031	Engine and Other Machine Assemblers	High school diploma or equivalent	None	Moderate-term on-the-job training	\$30.48
51-2041	Structural Metal Fabricators and Fitters	High school diploma or equivalent	None	Moderate-term on-the-job training	\$23.81
51-2051	Fiberglass Laminators and Fabricators	High school diploma or equivalent	None	Moderate-term on-the-job training	\$17.36
51-2090	Miscellaneous Assemblers and Fabricators	High school diploma or equivalent	None	Moderate-term on-the-job training	\$19.31
51-3011	Bakers	No formal educational credential	None	Moderate-term on-the-job training	\$14.85
51-3021	Butchers and Meat Cutters	No formal educational credential	None	Long-term on-the-job training	\$16.86
51-3022	Meat, Poultry, and Fish Cutters and Trimmers	No formal educational credential	None	Short-term on-the-job training	\$17.60
51-3023	Slaughtering and Meat Packers	No formal educational credential	None	Short-term on-the-job training	\$17.53
51-3091	Food and Tobacco Roasting, Baking, and Drying Machine Operators and Tenders	No formal educational credential	None	Moderate-term on-the-job training	\$17.64
51-3092	Food Batchmakers	High school diploma or equivalent	None	Moderate-term on-the-job training	\$18.29
51-3093	Food Cooking Machine Operators and Tenders	High school diploma or equivalent	None	Moderate-term on-the-job training	\$18.25
51-3099	Food Processing Workers, All Other	No formal educational credential	None	Moderate-term on-the-job training	\$16.94
51-4021	Extruding and Drawing Machine Setters, Operators, and Tenders, Metal and Plastic	High school diploma or equivalent	None	Moderate-term on-the-job training	\$19.78
51-4022	Forging Machine Setters, Operators, and Tenders, Metal and Plastic	High school diploma or equivalent	None	Moderate-term on-the-job training	\$22.40
51-4023	Rolling Machine Setters, Operators, and Tenders, Metal and Plastic	High school diploma or equivalent	None	Moderate-term on-the-job training	\$23.08
51-4031	Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and Plastic	High school diploma or equivalent	None	Moderate-term on-the-job training	\$19.67
51-4032	Drilling and Boring Machine Tool Setters, Operators, and Tenders, Metal and Plastic	High school diploma or equivalent	None	Moderate-term on-the-job training	\$22.81
51-4033	Grinding, Lapping, Polishing, and Buffing Machine Tool Setters, Operators, and Tenders, Metal and Plastic	High school diploma or equivalent	None	Moderate-term on-the-job training	\$19.30
51-4034	Lathe and Turning Machine Tool Setters, Operators, and Tenders, Metal and Plastic	High school diploma or equivalent	None	Moderate-term on-the-job training	\$22.18
51-4035	Milling and Planing Machine Setters, Operators, and Tenders, Metal and Plastic	High school diploma or equivalent	None	Moderate-term on-the-job training	\$21.89
51-4041	Machinists	High school diploma or equivalent	None	Long-term on-the-job training	\$24.06
51-4051	Metal-Refining Furnace Operators and Tenders	High school diploma or equivalent	None	Moderate-term on-the-job training	\$23.72
51-4052	Pourers and Casters, Metal	High school diploma or equivalent	None	Moderate-term on-the-job training	\$21.79

Appendix Table K – cont’d.
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Code	Occupational Title*	Typical Education Needed for Entry	Work Experience in a Related Occupation	Typical On-The-Job Training Needed to Attain Competency in the Occupation	Median Wage May 2023
51-4061	Model Makers, Metal and Plastic	High school diploma or equivalent	None	Moderate-term on-the-job training	\$31.23
51-4062	Patternmakers, Metal and Plastic	High school diploma or equivalent	None	Moderate-term on-the-job training	\$26.94
51-4071	Foundry Mold and Coremakers	High school diploma or equivalent	None	Moderate-term on-the-job training	\$23.44
51-4072	Molding, Coremaking, and Casting Machine Setters, Operators, and Tenders, Metal and Plastic	High school diploma or equivalent	None	Moderate-term on-the-job training	\$19.09
51-4081	Multiple Machine Tool Setters, Operators, and Tenders, Metal and Plastic	High school diploma or equivalent	None	Moderate-term on-the-job training	\$18.68
51-4111	Tool and Die Makers	Postsecondary non-degree award	None	Long-term on-the-job training	\$29.42
51-4121	Welders, Cutters, Solderers, and Brazers	High school diploma or equivalent	None	Moderate-term on-the-job training	\$22.93
51-4122	Welding, Soldering, and Brazing Machine Setters, Operators, and Tenders	High school diploma or equivalent	None	Moderate-term on-the-job training	\$22.31
51-4191	Heat Treating Equipment Setters, Operators, and Tenders, Metal and Plastic	High school diploma or equivalent	None	Moderate-term on-the-job training	\$22.93
51-4193	Plating Machine Setters, Operators, and Tenders, Metal and Plastic	High school diploma or equivalent	None	Moderate-term on-the-job training	\$20.10
51-4199	Metal Workers and Plastic Workers, All Other	High school diploma or equivalent	None	Moderate-term on-the-job training	\$20.00
51-5111	Prepress Technicians and Workers	Postsecondary non-degree award	None	None	\$22.11
51-5112	Printing Press Operators	High school diploma or equivalent	None	Moderate-term on-the-job training	\$19.34
51-5113	Print Binding and Finishing Workers	High school diploma or equivalent	None	Moderate-term on-the-job training	\$17.63
51-6011	Laundry and Dry-Cleaning Workers	No formal educational credential	None	Short-term on-the-job training	\$13.60
51-6021	Pressers, Textile, Garment, and Related Materials	No formal educational credential	None	Short-term on-the-job training	\$13.87
51-6031	Sewing Machine Operators	No formal educational credential	None	Short-term on-the-job training	\$15.36
51-6041	Shoe and Leather Workers and Repairers	High school diploma or equivalent	None	Moderate-term on-the-job training	\$14.20
51-6051	Sewers, Hand	No formal educational credential	None	Moderate-term on-the-job training	\$16.77
51-6052	Tailors, Dressmakers, and Custom Sewers	No formal educational credential	None	Moderate-term on-the-job training	\$17.57
51-6061	Textile Bleaching and Dyeing Machine Operators and Tenders	High school diploma or equivalent	None	Short-term on-the-job training	\$15.26
51-6062	Textile Cutting Machine Setters, Operators, and Tenders	High school diploma or equivalent	None	Moderate-term on-the-job training	\$16.71
51-6063	Textile Knitting and Weaving Machine Setters, Operators, and Tenders	High school diploma or equivalent	None	Short-term on-the-job training	\$17.37
51-6091	Extruding and Forming Machine Setters, Operators, and Tenders, Synthetic and Glass Fibers	High school diploma or equivalent	None	Moderate-term on-the-job training	\$27.79
51-6093	Upholsterers	High school diploma or equivalent	None	Moderate-term on-the-job training	\$19.53
51-6099	Textile, Apparel, and Furnishings Workers, All Other	High school diploma or equivalent	None	Short-term on-the-job training	\$17.64
51-7011	Cabinetmakers and Bench Carpenters	High school diploma or equivalent	None	Moderate-term on-the-job training	\$22.48
51-7021	Furniture Finishers	High school diploma or equivalent	None	Short-term on-the-job training	\$19.88
51-7041	Sawing Machine Setters, Operators, and Tenders, Wood	High school diploma or equivalent	None	Moderate-term on-the-job training	\$17.87
51-7042	Woodworking Machine Setters, Operators, and Tenders, Except Sawing	High school diploma or equivalent	None	Moderate-term on-the-job training	\$18.69
51-7099	Woodworkers, All Other	High school diploma or equivalent	None	Moderate-term on-the-job training	\$21.25
51-8011	Nuclear Power Reactor Operators	High school diploma or equivalent	None	Long-term on-the-job training	\$59.27
51-8012	Power Distributors and Dispatchers	High school diploma or equivalent	None	Long-term on-the-job training	\$47.60
51-8013	Power Plant Operators	High school diploma or equivalent	None	Long-term on-the-job training	\$44.04
51-8021	Stationary Engineers and Boiler Operators	High school diploma or equivalent	None	Long-term on-the-job training	\$31.27
51-8031	Water and Wastewater Treatment Plant and System Operators	High school diploma or equivalent	None	Long-term on-the-job training	\$26.25
51-8091	Chemical Plant and System Operators	High school diploma or equivalent	None	Moderate-term on-the-job training	\$32.09
51-8092	Gas Plant Operators	High school diploma or equivalent	None	Long-term on-the-job training	\$26.80
51-8093	Petroleum Pump System Operators, Refinery Operators, and Gaugers	High school diploma or equivalent	None	Moderate-term on-the-job training	\$48.38

Appendix Table K – cont’d.
Ohio Occupational Education and Training Classification, 2022-2032

Code	Occupational Title*	Typical Education Needed for Entry	Work Experience in a Related Occupation	Typical On-The-Job Training Needed to Attain Competency in the Occupation	Median Wage May 2023
51-8099	Plant and System Operators, All Other	High school diploma or equivalent	None	Moderate-term on-the-job training	\$24.69
51-9011	Chemical Equipment Operators and Tenders	High school diploma or equivalent	None	Moderate-term on-the-job training	\$24.25
51-9012	Separating, Filtering, Clarifying, Precipitating, and Still Machine Setters, Operators, and Tenders	High school diploma or equivalent	None	Moderate-term on-the-job training	\$22.08
51-9021	Crushing, Grinding, and Polishing Machine Setters, Operators, and Tenders	High school diploma or equivalent	None	Moderate-term on-the-job training	\$18.06
51-9022	Grinding and Polishing Workers, Hand	No formal educational credential	None	Moderate-term on-the-job training	\$18.81
51-9023	Mixing and Blending Machine Setters, Operators, and Tenders	High school diploma or equivalent	None	Moderate-term on-the-job training	\$21.36
51-9031	Cutters and Trimmers, Hand	No formal educational credential	None	Short-term on-the-job training	\$17.82
51-9032	Cutting and Slicing Machine Setters, Operators, and Tenders	High school diploma or equivalent	None	Moderate-term on-the-job training	\$20.47
51-9041	Extruding, Forming, Pressing, and Compacting Machine Setters, Operators, and Tenders	High school diploma or equivalent	None	Moderate-term on-the-job training	\$19.16
51-9051	Furnace, Kiln, Oven, Drier, and Kettle Operators and Tenders	High school diploma or equivalent	None	Moderate-term on-the-job training	\$22.51
51-9061	Inspectors, Testers, Sorters, Samplers, and Weighers	High school diploma or equivalent	None	Moderate-term on-the-job training	\$21.66
51-9071	Jewelers and Precious Stone and Metal Workers	High school diploma or equivalent	None	Long-term on-the-job training	\$21.80
51-9081	Dental Laboratory Technicians	High school diploma or equivalent	None	Moderate-term on-the-job training	\$22.55
51-9082	Medical Appliance Technicians	High school diploma or equivalent	None	Moderate-term on-the-job training	\$22.13
51-9083	Ophthalmic Laboratory Technicians	High school diploma or equivalent	None	Moderate-term on-the-job training	\$20.09
51-9111	Packaging and Filling Machine Operators and Tenders	High school diploma or equivalent	None	Moderate-term on-the-job training	\$18.85
51-9123	Painting, Coating, and Decorating Workers	No formal educational credential	None	Moderate-term on-the-job training	\$21.61
51-9124	Coating, Painting, and Spraying Machine Setters, Operators, and Tenders	High school diploma or equivalent	None	Moderate-term on-the-job training	\$21.33
51-9161	Computer Numerically Controlled Tool Operators	High school diploma or equivalent	None	Moderate-term on-the-job training	\$22.90
51-9162	Computer Numerically Controlled Tool Programmers	Postsecondary non-degree award	None	Moderate-term on-the-job training	\$29.85
51-9191	Adhesive Bonding Machine Operators and Tenders	High school diploma or equivalent	None	Moderate-term on-the-job training	\$22.60
51-9192	Cleaning, Washing, and Metal Pickling Equipment Operators and Tenders	High school diploma or equivalent	None	Moderate-term on-the-job training	\$18.20
51-9193	Cooling and Freezing Equipment Operators and Tenders	High school diploma or equivalent	None	Moderate-term on-the-job training	\$20.92
51-9194	Etchers and Engravers	High school diploma or equivalent	None	Moderate-term on-the-job training	\$16.75
51-9195	Molders, Shapers, and Casters, Except Metal and Plastic	High school diploma or equivalent	None	Long-term on-the-job training	\$18.80
51-9196	Paper Goods Machine Setters, Operators, and Tenders	High school diploma or equivalent	None	Moderate-term on-the-job training	\$22.49
51-9197	Tire Builders	High school diploma or equivalent	None	Moderate-term on-the-job training	\$17.82
51-9198	Helpers--Production Workers	High school diploma or equivalent	None	Short-term on-the-job training	\$17.87
51-9199	Production Workers, All Other	High school diploma or equivalent	None	Moderate-term on-the-job training	\$17.88
53-0000	Transportation and Material Moving Occupations				\$18.74
53-1047	FirstLine Supervisors of Transportation & Material Moving Workers, Exc Aircraft Cargo Handling Supervisor	High school diploma or equivalent	Less than 5 years	None	\$28.51
53-2011	Airline Pilots, Copilots, and Flight Engineers	Bachelor's degree	Less than 5 years	Moderate-term on-the-job training	\$224,100 ††
53-2012	Commercial Pilots	Postsecondary non-degree award	None	Moderate-term on-the-job training	\$98,800 ††
53-2021	Air Traffic Controllers	Associate's degree	None	Long-term on-the-job training	\$72.68
53-2031	Flight Attendants	High school diploma or equivalent	Less than 5 years	Moderate-term on-the-job training	\$65,040 ††
53-3011	Ambulance Drivers and Attendants, Except Emergency Medical Technicians	High school diploma or equivalent	None	Moderate-term on-the-job training	\$14.39

Appendix Table K – cont’d.
Ohio Occupational Education and Training Classification, 2022-2032

Code	Occupational Title*	Typical Education Needed for Entry	Work Experience in a Related Occupation	Typical On-The-Job Training Needed to Attain Competency in the Occupation	Median Wage May 2023
53-3031	Driver/Sales Workers	High school diploma or equivalent	None	Short-term on-the-job training	\$14.54
53-3032	Heavy and Tractor-Trailer Truck Drivers	Postsecondary non-degree award	None	Short-term on-the-job training	\$25.82
53-3033	Light Truck Drivers	High school diploma or equivalent	None	Short-term on-the-job training	\$18.73
53-3051	Bus Drivers, School	High school diploma or equivalent	None	Short-term on-the-job training	\$21.95
53-3052	Bus Drivers, Transit and Intercity	High school diploma or equivalent	None	Moderate-term on-the-job training	\$29.28
53-3053	Shuttle Drivers and Chauffeurs	No formal educational credential	None	Short-term on-the-job training	\$14.38
53-3054	Taxi Drivers	No formal educational credential	None	Short-term on-the-job training	\$15.77
53-3099	Motor Vehicle Operators, All Other	No formal educational credential	None	Short-term on-the-job training	\$15.38
53-4011	Locomotive Engineers	High school diploma or equivalent	Less than 5 years	Moderate-term on-the-job training	\$37.73
53-4022	Railroad Brake, Signal, and Switch Operators and Locomotive Firers	High school diploma or equivalent	None	Moderate-term on-the-job training	\$30.66
53-4031	Railroad Conductors and Yardmasters	High school diploma or equivalent	None	Moderate-term on-the-job training	\$29.40
53-5011	Sailors and Marine Oilers	No formal educational credential	None	Moderate-term on-the-job training	\$20.84
53-5021	Captains, Mates, and Pilots of Water Vessels	Postsecondary non-degree award	Less than 5 years	None	\$42.66 ^
53-6011	Bridge and Lock Tenders	High school diploma or equivalent	None	Short-term on-the-job training	\$29.83
53-6021	Parking Attendants	No formal educational credential	None	Short-term on-the-job training	\$14.33
53-6031	Automotive and Watercraft Service Attendants	No formal educational credential	None	Short-term on-the-job training	\$16.61
53-6032	Aircraft Service Attendants	High school diploma or equivalent	None	Short-term on-the-job training	\$17.86
53-6051	Transportation Inspectors	High school diploma or equivalent	None	Moderate-term on-the-job training	\$36.50
53-7011	Conveyor Operators and Tenders	No formal educational credential	None	Short-term on-the-job training	\$18.61
53-7021	Crane and Tower Operators	High school diploma or equivalent	Less than 5 years	Moderate-term on-the-job training	\$24.33
53-7051	Industrial Truck and Tractor Operators	No formal educational credential	None	Short-term on-the-job training	\$21.05
53-7061	Cleaners of Vehicles and Equipment	No formal educational credential	None	Short-term on-the-job training	\$16.33
53-7062	Laborers and Freight, Stock, and Material Movers, Hand	No formal educational credential	None	Short-term on-the-job training	\$18.08
53-7063	Machine Feeders and Offbearers	No formal educational credential	None	Short-term on-the-job training	\$18.71
53-7064	Packers and Packagers, Hand	No formal educational credential	None	Short-term on-the-job training	\$16.89
53-7065	Stockers and Order Fillers	High school diploma or equivalent	None	Short-term on-the-job training	\$17.57
53-7071	Gas Compressor and Gas Pumping Station Operators	High school diploma or equivalent	None	Moderate-term on-the-job training	\$39.74
53-7072	Pump Operators, Except Wellhead Pumpers	High school diploma or equivalent	None	Moderate-term on-the-job training	\$37.56
53-7073	Wellhead Pumpers	High school diploma or equivalent	Less than 5 years	Moderate-term on-the-job training	\$24.30
53-7081	Refuse and Recyclable Material Collectors	No formal educational credential	None	Short-term on-the-job training	\$22.66
53-7121	Tank Car, Truck, and Ship Loaders	No formal educational credential	None	Short-term on-the-job training	\$21.48
53-7199	Material Moving Workers, All Other	No formal educational credential	None	Short-term on-the-job training	\$19.85

†† Certain occupations only report wages at the annual level - for elementary and secondary teachers this typically reflects a 9 1/2-month school year.

^ National hourly wages.

^^ National annual wages.

Wages above max.

Source: Ohio Department of Job and Family Services, Bureau of Labor Market Information, February 2025.

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