



Department of
Job and Family Services

TO STRENGTHEN OHIO'S FAMILIES WITH SOLUTIONS TO TEMPORARY CHALLENGES

Profile of Unemployment

A Post-Recession Analysis



Profile of Ohio Unemployment: A Post-Recession Analysis

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Preface

Every year, the Ohio Department of Job and Family Services (ODJFS), Bureau of Labor Market Information (LMI) reports on developments in the statewide economy and workforce. This year, the *Profile of Unemployment: A Post-Recession Analysis* focuses on unemployed workers, notably who they are, how long they have been out of work, which industries and occupations they are coming from, and where the best opportunities are for reemployment.

One of the key features of the 2007-09 recession has been its depth and length. It has been almost three and a half years since Ohio payroll employment crested, and almost one and a half years since it bottomed out. From January 2008 to April 2011, Ohio lost 332,700 jobs, or about 6.1 percent of nonfarm payroll employment. The state's recovery has been a slow and fragile one; unemployment rates are higher than they have been since 1983. Long-term unemployment of this sort can have ripple effects not only on the workers themselves, but the broader economy as well.

Section I examines unemployment trends in Ohio over the last few decades, its causes, and its effects in the broader economy. Section II takes a closer look at which demographic groups are most affected by unemployment. A comparison of unemployment within economic segments—industries and occupations—follows in Section III. Section IV reviews employment projections to 2018. Finally, Section V outlines workforce initiatives to assist employers and job seekers address the current economic climate.

Through careful examination of the economic statistics in this publication, we hope that individuals; businesses; economic development corporations; labor and governmental organizations; educational institutions; and all others interested in the economy and quality of life in Ohio will be able to draw a clearer picture of the unemployment situation in the state.

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Executive Summary

- Ohio's statewide unemployment rate in 2010 was 10.1 percent, the highest it has been since 1983.
- In 2010, over 250,000 workers in Ohio had been unemployed for more than 26 weeks.
- Ohio's labor force participation rate fell from 67.0 percent in 2008 to 65.2 percent in 2010, indicative of worker discouragement. The most common reasons stated were inability to find work and a belief that there were no jobs in the area.
- Unemployment can have lingering effects on workers, such as difficulty in finding new work and reemployment at lower wages.
- Annual county unemployment rates for 2010 ranged from 7.1 percent in Delaware County to 16.4 percent in Clinton County.
- Unemployment rates tend to be higher among younger workers without a high school diploma and African Americans. Men comprise almost two thirds of the unemployed.
- Comparing industry sectors, construction; mining; leisure and hospitality; professional and business services; and manufacturing have had higher rates of displaced workers.
- Comparing occupational groups, construction and extraction; production; and transportation and material moving have had higher rates of displaced workers.
- Total nonfarm payroll employment is projected to increase 4.3 percent from 2008 to 2018, with strong growth in professional and technical services; health care and social assistance; and private educational services.
- Approximately 55.1 percent of job openings in the next ten years will require some sort of postsecondary education.
- The Ohio Department of Job and Family Services, Office of Workforce Development has a variety of programs and initiatives in place to help businesses and the unemployed, including OhioMeansJobs.com, One-Stop Centers, Rapid Response, the State Veterans' Program, the Work Opportunity Tax Credit, Apprenticeships, and National Emergency Grants.

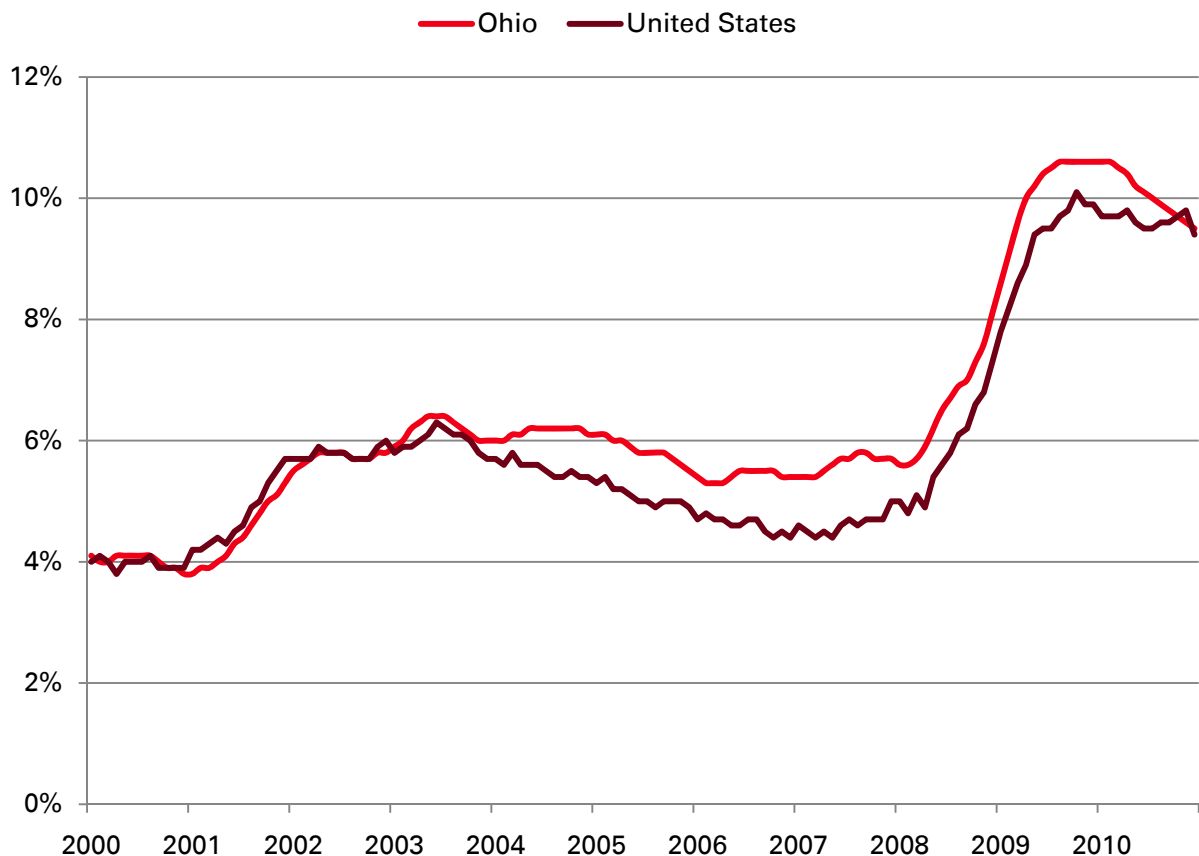
I. Joblessness in Ohio

Official statistics define unemployment as being available and looking for work, but not having done any work for pay or profit. In 2010, there were approximately 592,000 unemployed Ohioans.

The Unemployment Rate

The unemployment rate is the percentage of people in the labor force who have no work. The average unemployment rate for 2010 was 10.1 percent, the same level as 2009 and the highest it has been since 1983. Figure 1 below shows monthly unemployment rates, adjusted for seasonal variation, in Ohio and the United States since 2000. Following the last peak in unemployment in June 2003, the rate fell slowly until June 2008. By the following year, the unemployment rate had shot up to 10.3 percent. The national unemployment rate has largely followed a similar trend in the last three years, though slightly lower. The peak national unemployment rate was 10.1 percent in October 2009.

Figure 1: Seasonally Adjusted Unemployment Rates, 2000-2010



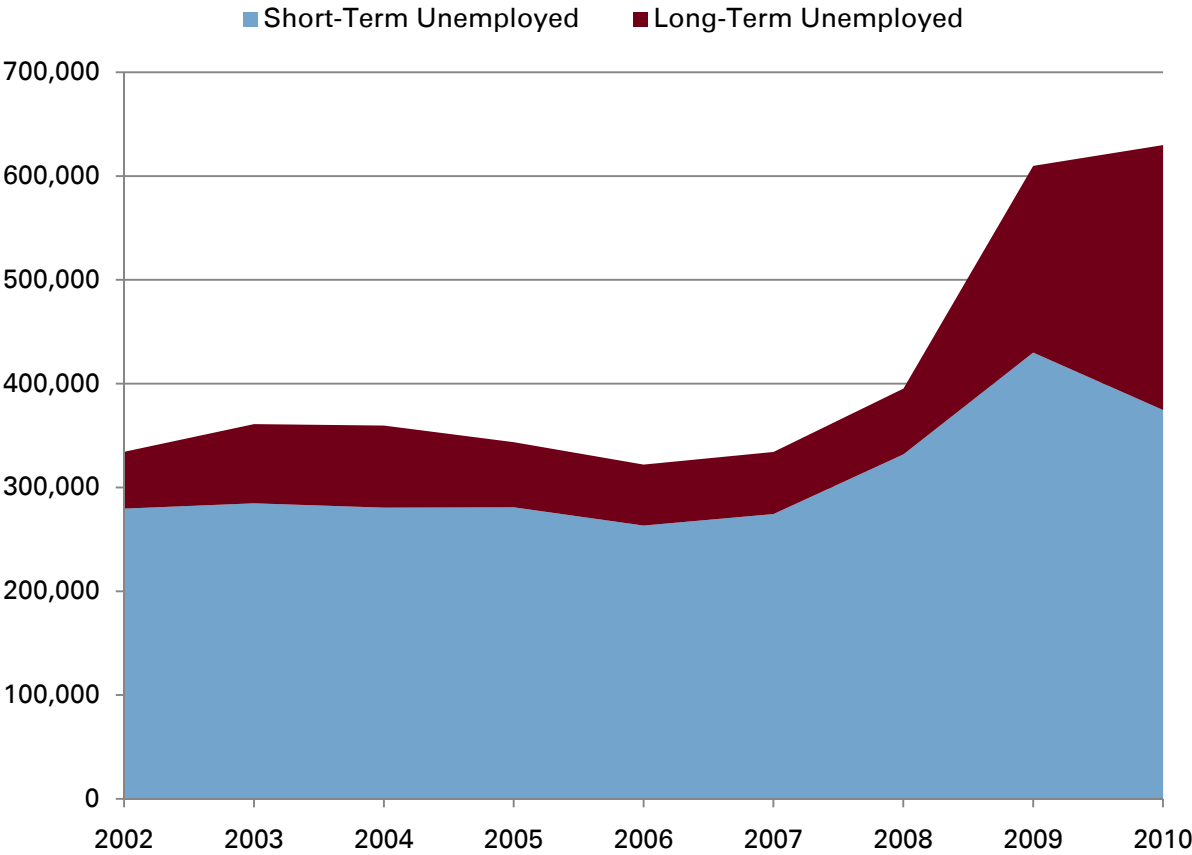
Source: U.S. Bureau of Labor Statistics [BLS], Current Population Survey; *Ibid.*, Local Area Unemployment Statistics.

The Long-Term Unemployed

One of the key features of the current recession has been its depth; the economic downturn has affected a large number of people over a long period of time. The result has been increases not only in unemployment but also long-term unemployment—defined as more than 26 weeks.

Figure 2 below shows how long-term unemployment has grown in Ohio in the last two years. From 2002 to 2008, only about 50,000 to 80,000 workers in the state were unemployed for more than six months. By 2010, over 250,000 workers were facing long jobless spells.

Figure 2: Short- and Long-Term Unemployment Estimates in Ohio, 2002-2010



Source: BLS, Current Population Survey.

Long-term unemployment is also a problem nationally. In the second quarter of 2010, 2.9 percent of the labor force had been unemployed for a year or longer. The average jobless spell was 35 weeks in 2010.¹ Also, some employers are reluctant to hire people who have been out of work for a long time, exacerbating this trend.²

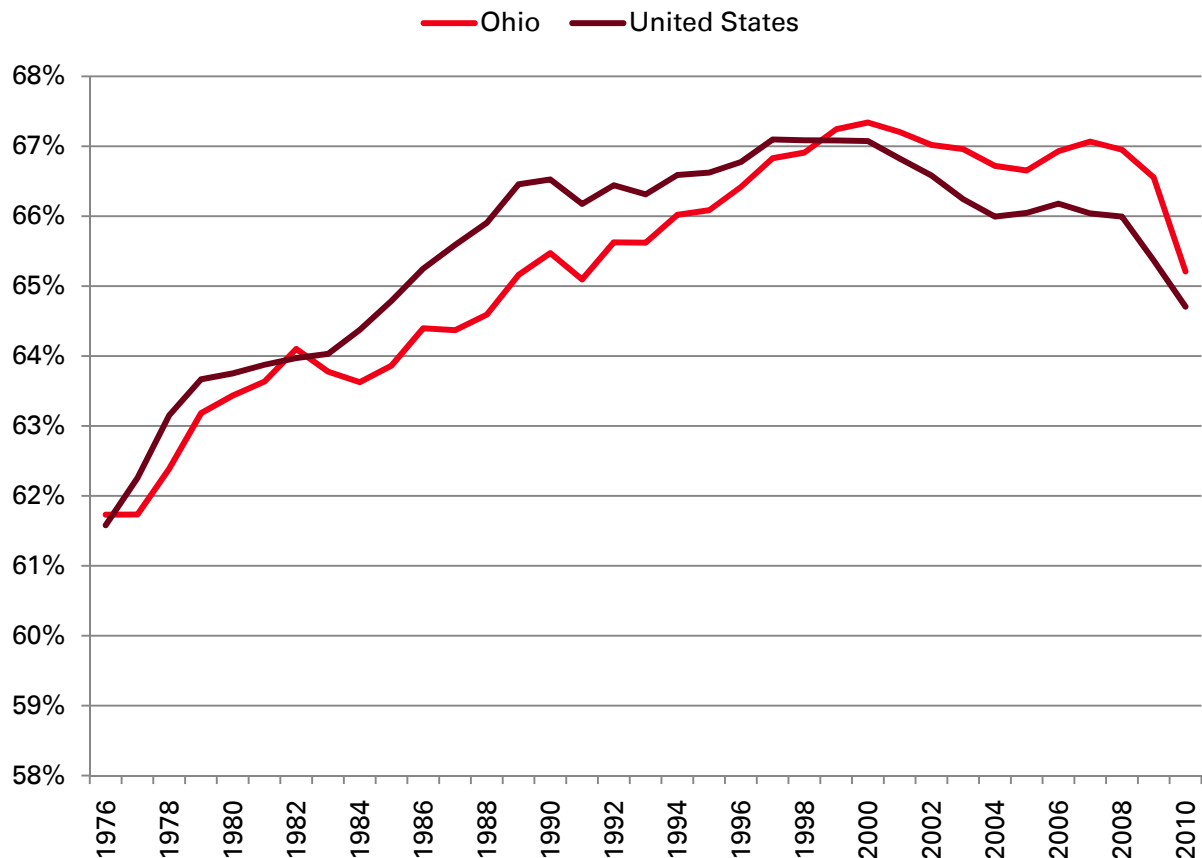
¹ Farber 2011, 28.
² BLS, "Ranks of those unemployed for a year or more up sharply," 1.

Labor Force Participation and Worker Discouragement

Under a long-term jobless spell, many people may decide to exit the labor force, or stop looking for work—a phenomenon called worker discouragement. Declines in the labor force participation rate—the proportion of the non-institutional civilian population ages 16 and older who are working or looking for work—can help determine how many Ohioans are discouraged.

Figure 3 below shows labor force participation rates in Ohio and the U.S. in the last 34 years. After a long trend of increasing participation, rates began to stagnate and fall slightly starting in 2000. During this recession, however, participation rates in Ohio dropped sharply from 67.0 percent in 2008 to 65.2 percent in 2010.

Figure 3: Labor Force Participation Rates, 1976-2010



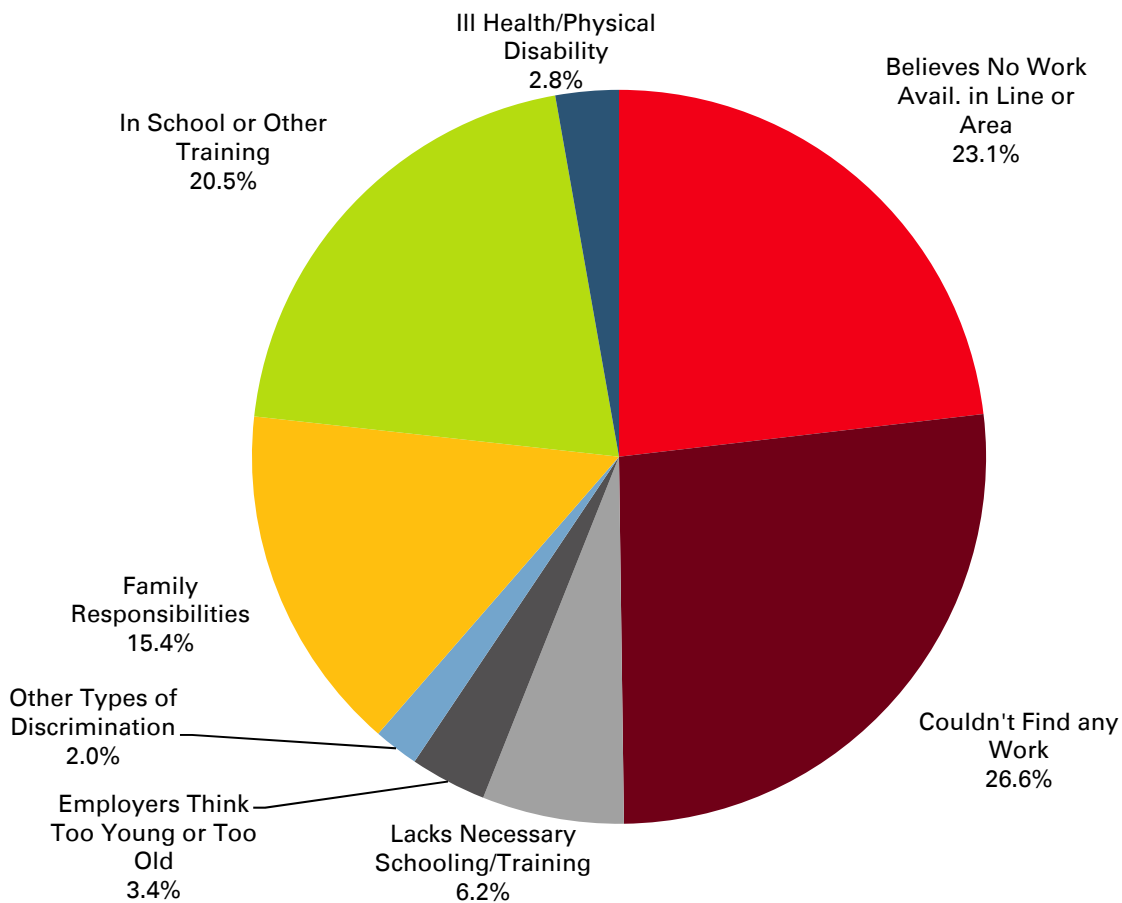
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Source: BLS, Current Population Survey; *Ibid.*, Local Area Unemployment Statistics.

Labor force participation rates for various demographic groups are shown in Appendix A at the end of this document. Labor force participation has declined in nearly all demographic groups between 2008 and 2010. The only demographic group to see a significant increase in participation was Hispanics (1.0%). The greatest decline was among women ages 16 to 19 (-6.2%).

Within the Current Population Survey, respondents gave a variety of reasons why they are not looking for work. Figure 4 below summarizes the results for discouraged workers in Ohio. (This data set does not include retirees or those who have never entered the labor force.) Nearly half of respondents claimed to have stopped looking because they could not find work (26.6%) or believed there were no jobs open in their field and area (23.1%). Another common reason is that respondents have left the labor force to return to school (20.5%). The final major reported reason for worker discouragement was family responsibilities (15.4%).

Figure 4: "What is the Main Reason You Were Not Looking for Work during the Last Four Weeks?" December 2010



Source: BLS, Current Population Survey.

Effects of Unemployment

Unemployment can have more effects than the obvious immediate financial stresses. An analysis of data from the Displaced Workers Survey, an adjunct to the monthly Current Population Survey, also identified several lingering effects when someone loses a job, even during an upturn.

There is the difficulty the unemployed can have finding new work. Of those who lost jobs between 2007 and 2009, only half had found new work by January 2010, much less than in the past.³

Of those who were let go from full-time employment, 20 percent of those who did find new work were only in part-time jobs. Similarly, this study also found that unemployment and reemployment can have a negative effect on earnings. Full-time job losers who were able to find new full-time employment earned 13 percent less on average nationally than they had before. This figure climbed to 17 percent taking into account forgone earnings increases (i.e. regular pay raises).⁴

Unemployment Rates by County

The map in Appendix B at the end of this report gives unemployment rates for 2010 for each of Ohio's 88 counties. There were only 22 counties with annual unemployment rates at or below the national rate of 9.6 percent. Many of these were located around Ohio's three largest cities—Cincinnati, Cleveland, and Columbus—though there were exceptions scattered around the southern and northwest portions of the state. Delaware County had the lowest unemployment rate that year: 7.2 percent.

Eight counties had unemployment rates above 14.0 percent, all in the southern portion of the state except Ottawa County. Clinton County had the highest unemployment rate of 2010: 16.4 percent.

· Farber 2011, 28.
· Farber 2005, 25.

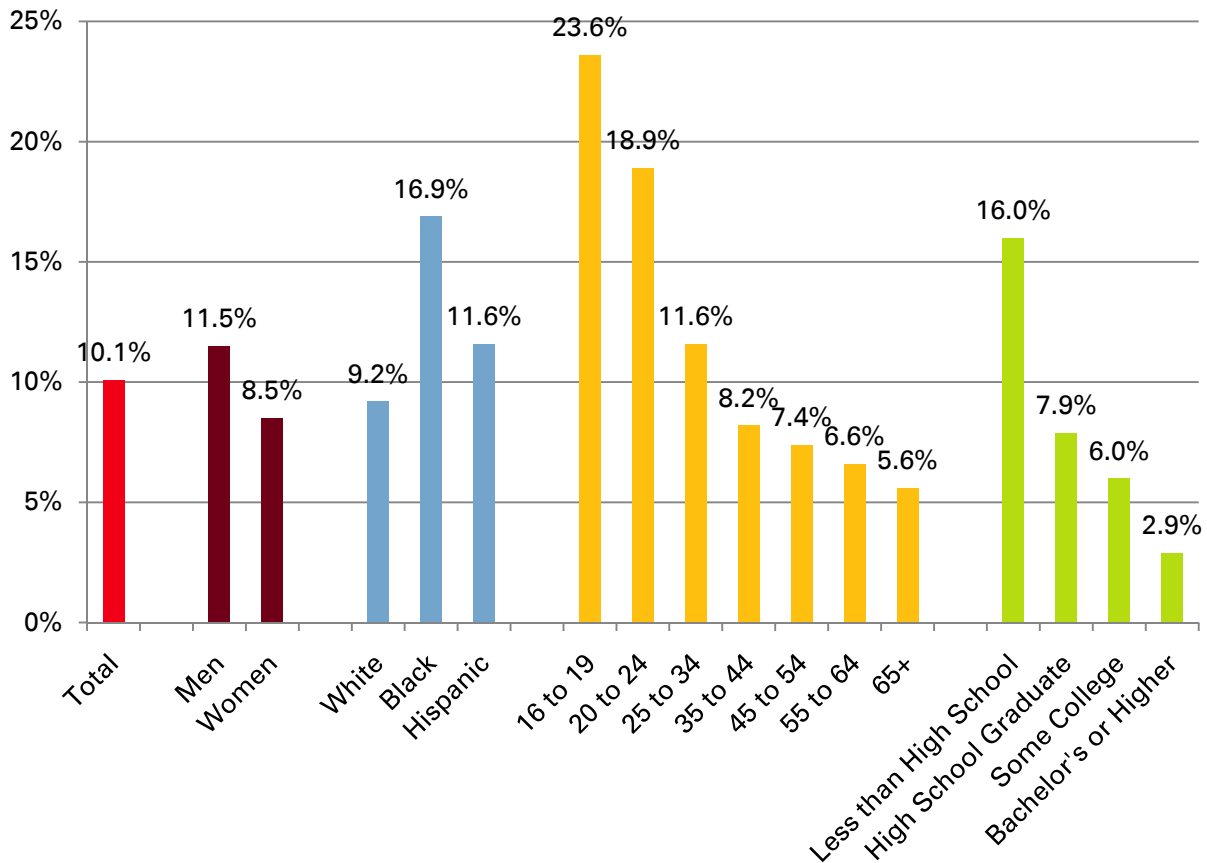
II. Demographic Comparisons

The current economic downturn has affected different portions of the population in different ways. A demographic survey of unemployment in Ohio follows in this section.

Unemployment Rate Comparisons

The Current Population Survey collects unemployment rates by various demographic groups in each of the states. Figure 5 below compares the 2010 total Ohio unemployment rate (10.1%) with rates by gender; race and ethnicity; age group; and educational attainment.

Figure 5: Ohio Unemployment Rates by Demographic Group, 2010



Source: BLS, Current Population Survey.

Workers ages 16 to 19 appear to have the hardest time finding work; 23.6 percent of the labor force in this group cannot find work, compared with 18.9 percent of those 20 to 24 and 11.6 percent of those 25 to 34. Workers without a high school diploma have also been strongly affected with an unemployment rate of 16.0 percent. Attaining a bachelor's degree or more brings the unemployment rate down to 2.9 percent. African American workers also appear to have a relatively high unemployment rate of 16.9 percent. (The three racial and ethnic groups shown here were the only figures available for Ohio.)

Proportions of Net Unemployed

In addition to unemployment rates, we can take a cross section of all unemployed workers in the state to get a clearer picture of who is unemployed. Figure 6 below shows various demographic groups in Ohio and how much of total unemployment they account for, compared with their relative shares of the whole population.

Figure 6: Ohio Proportions of Net Unemployment and Total Population by Demographic Group, 2010

<i>Group</i>	<i>Proportion Unemployment</i>	<i>Proportion Population</i>
Men	63.8%	48.8%
Women	36.2%	51.2%
White	73.1%	81.1%
Black	19.0%	12.0%
Hispanic	3.9%	3.1%
Asian	2.8%	1.7%
Other	1.2%	2.1%
16 to 19	11.7%	5.8%
20 to 24	17.0%	6.6%
25 to 34	23.8%	12.2%
35 to 44	16.4%	12.8%
45 to 54	19.0%	15.1%
55 to 64	10.5%	12.6%
65+	1.6%	14.1%
No High School	16.4%	N/A
High School	42.7%	N/A
Some College	20.4%	N/A
Associate	8.4%	N/A
Bachelor's	9.2%	N/A
Master's or Higher	3.0%	N/A

N/A - Data not available

Sources: BLS, Current Population Survey; U.S. Census Bureau, 2010 Decennial Census.

Although their group unemployment rate is only 9.2 percent, white workers account for almost three quarters of all unemployed in Ohio, while African Americans, Hispanics, and Asians account for 19.0, 3.9, and 2.8 percent, respectively. In terms of educational attainment, workers with only a high school diploma make up 42.7 percent of the state's unemployed, compared with only 3.0 percent with a master's degree or more.

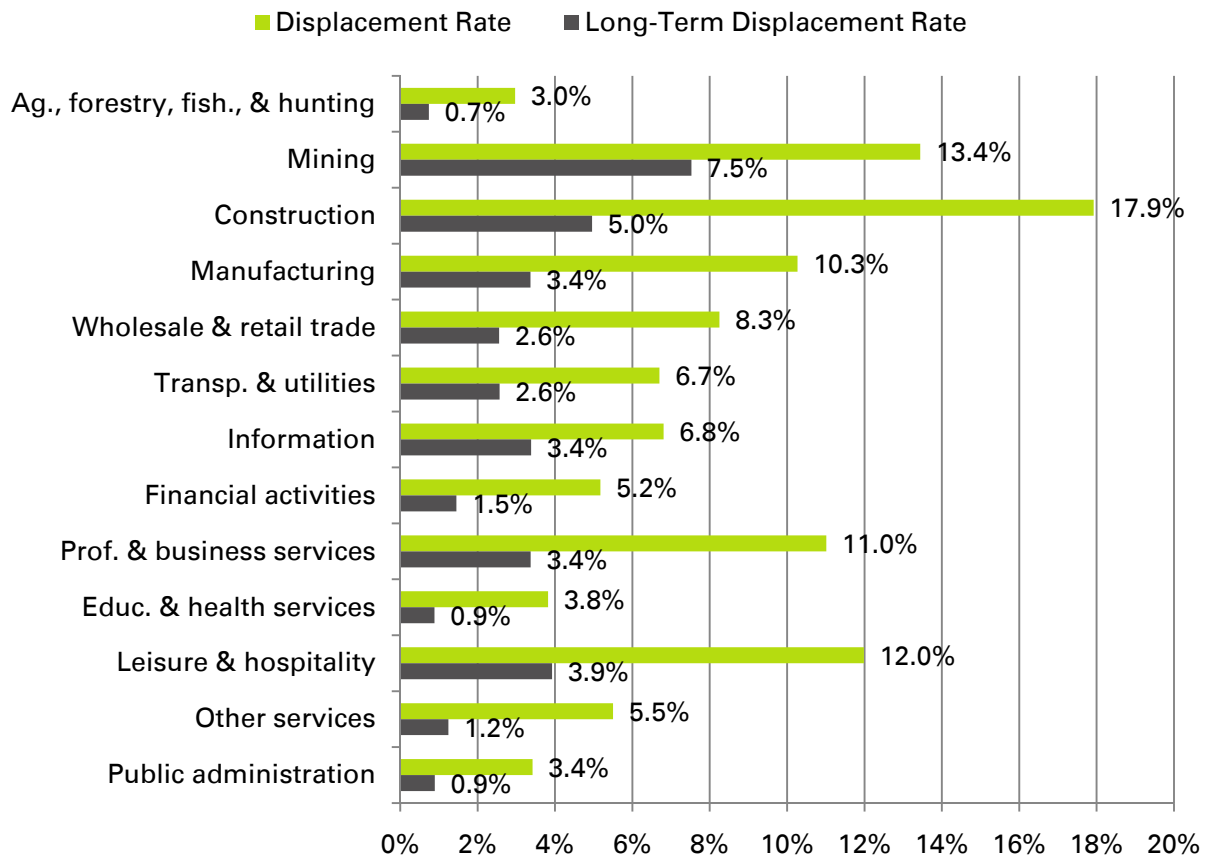
III. Economic Segment Comparisons

Just as demographic groups have been affected differently, the most recent economic downturn has hit different segments of the economy at different times and to different degrees. While it may be theoretically problematic to assign the unemployed to any specific economic sector (by definition, the unemployed are not in any industry or occupation until they are rehired, and the BLS does not publish any such statistic), it can be useful to look at their most recent jobs to determine both where most economic pain is being felt, and to get an idea what sorts of hard skills the unemployed still possess.

Industry Displacement Rates

Figure 7 below shows estimated displacement rates and long-term displacement rates, based on most recent employment, for 13 industrial supersectors. Because this economic downturn has been characterized by declines in housing, the highest rate has been in construction (17.9%). The four other industries with rates above the statewide average are mining (13.4%); leisure and hospitality (12.0%); professional and business services (11.0%); and manufacturing (10.3%).

Figure 7: Displacement Rates by Industry Supersector, 2010



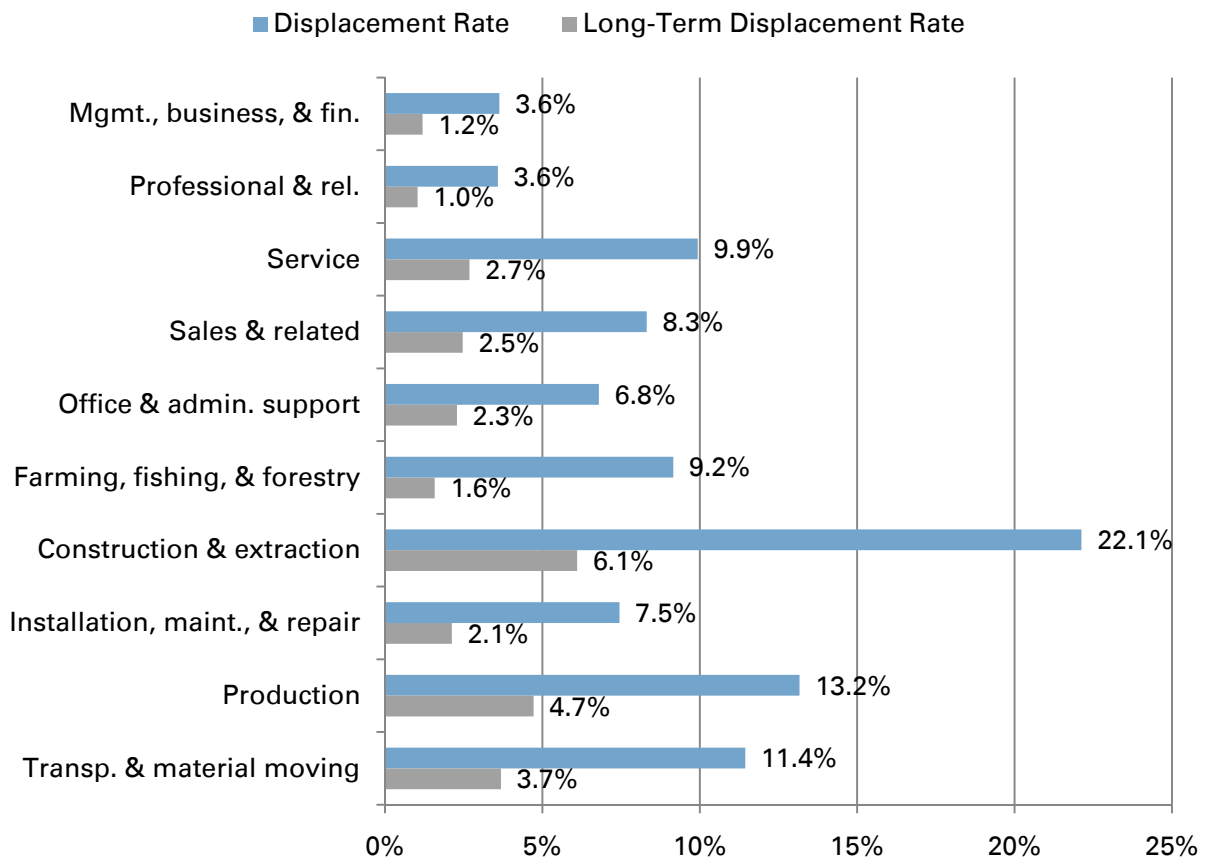
Source: BLS, Current Population Survey.

Long-term displacement, again defined as longer than 26 weeks, shows a slightly different pattern. Here, mining had the highest rate (7.5%), followed by construction (5.0%); leisure and hospitality (3.9%); information (3.4%); professional and business services (3.4%); manufacturing (3.4%); transportation and utilities (2.6%); and wholesale and retail trade (2.6%).

Occupational Displacement Rates

Figure 8 below shows estimated displacement rates and long-term displacement rates, based on most recent employment, for ten major occupational groups. Again reflecting the recession’s center on residential construction, the highest rate was in construction and extraction (22.1%). The two remaining rates above the statewide average were production (13.2%) and transportation and material moving (11.4%).

Figure 8: Displacement Rates by Occupational Group, 2010

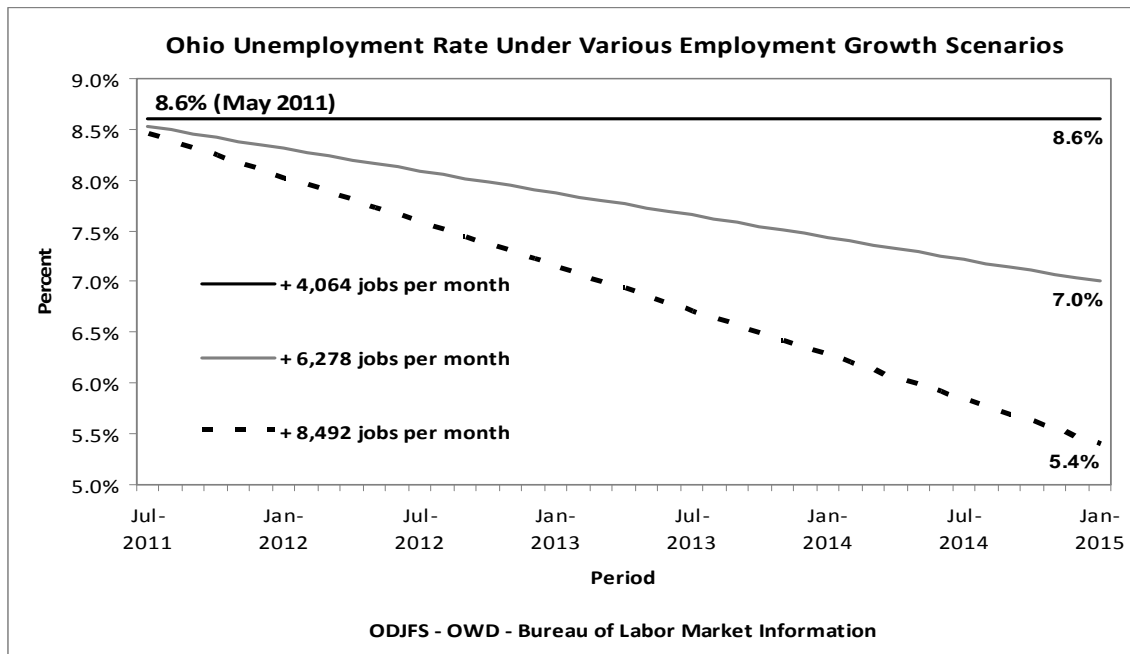


Source: BLS, Current Population Survey.

Construction and extraction also had the state’s highest long-term displacement rate (6.1%). This was followed by production (4.7%); transportation and material moving (3.7%); service occupations (2.7%); and sales and related (2.5%).

Employment Growth Scenarios

This analysis of the magnitude and length of unemployment as a product of the last recession points to the obstacles to overcome in returning to prerecession levels of workforce participation. Economic forecasts suggest slow growth scenarios, where unemployment rates do not drop to 5 or 6 percent for multiple years. The economy not only has to absorb those not working back into the economy but also those entering the labor force for the first time. The simple extrapolation below helps illustrate the issue for Ohio. From July 2010 to July 2011, Ohio had a monthly average growth in employment of 2,250 per month. As a result, Ohio's unemployment rate edged up to 9 percent in July 2011.



This chart makes the following assumptions:

- The various scenarios present the amount of job growth that must occur each month to move from the base seasonally adjusted unemployment rate of 8.6 percent in May 2011 to the January 2015 target unemployment rate.
- Ohio's working age population (16 and older) grew monthly by about 2,874 persons per month since January 2000. That growth rate was applied to the period June 2011 through January 2015 to yield the estimated working age population data.
- Ohio's labor force population ratio, the ratio of those 16 and older that are either employed or unemployed, averaged 66.7 percent since January 2000. The percentage dropped to 65.5 percent in May 2011. This chart utilizes the May 2011 rate as its base and then moves to the average rate of 66.7 percent in January 2015. This projection assumes that the number of persons in the labor force will increase as the number of jobs increase.

IV. Employment Projections to 2018

In light of this analysis, it is advantageous to know where employment options may be most prominent in the years ahead. Every two years, the Ohio Department of Job and Family Services develops long-term employment projections for various industries and occupations around the state. These projections help economic and workforce development professionals determine how best to dedicate resources by identifying which industries and occupations will grow in the coming years, presenting new employment opportunities.

Industry Employment

Figure 9 below summarizes statewide employment projections for Ohio by two-digit industry sector. In total, employment is expected to grow 4.3 percent from 2008 to 2018, reaching approximately 5.98 million jobs.

Figure 9: Long-Term Employment Projections by Industry Sector

<i>Industry Title</i>	<i>2008 Empl.</i>	<i>2018 Proj.</i>	<i>Net Growth</i>	<i>Percent Growth</i>
Total, All Industries	5,726,100	5,975,100	249,000	4.3%
Goods-Producing Industries	1,054,600	964,600	-90,000	-8.5%
Agriculture, forestry, fishing and hunting	92,500	88,800	-3,700	-4.0%
Mining	11,600	11,100	-500	-4.3%
Construction	211,500	235,700	24,200	11.4%
Manufacturing	739,000	629,100	-109,900	-14.9%
Service-Providing Industries	4,337,100	4,666,900	329,800	7.6%
Wholesale trade	236,500	240,900	4,400	1.9%
Retail trade	589,300	586,200	-3,100	-0.5%
Transportation and warehousing	188,100	206,000	17,900	9.5%
Utilities	21,700	19,400	-2,300	-10.6%
Information	86,100	80,100	-6,000	-7.0%
Finance and insurance	226,000	234,200	8,200	3.6%
Real estate and rental and leasing	63,500	67,100	3,600	5.7%
Professional and technical services	250,500	306,000	55,500	22.2%
Management of companies and enterprises	109,600	117,200	7,600	6.9%
Administrative and waste services	307,300	345,600	38,300	12.5%
Educational services	90,000	102,300	12,300	13.7%
Health care and social assistance	704,300	853,500	149,200	21.2%
Arts, entertainment and recreation	63,700	65,800	2,100	3.3%
Accommodation and food services	428,400	447,600	19,200	4.5%
Other services, except public administration	220,700	240,900	20,200	9.2%
Government	751,400	755,000	3,600	0.5%
Self-employed, private household and unpaid family workers	334,400	342,700	8,300	2.5%

Source: Ohio Department of Job and Family Services [ODJFS], *2018 Ohio Job Outlook*, 10.

The strongest growth is expected in professional and technical services (22.2%); health care and social assistance (21.2%); and private educational services (13.7%). Note also that construction, which has the state's highest industrial displacement rate, is projected to gain 24,200 jobs over the period of analysis (11.4%), possibly helping to ameliorate that sector's situation. However, mining, another sector with a high unemployment rate, will lose 500 jobs (-4.3%)⁵.

Occupational Employment

Figure 10 below shows employment projections and predicted average annual openings by major occupational group. Here, we expect strong growth in healthcare support (27.3%); computer and mathematical occupations (17.5%); and healthcare practitioners and technical (16.7%). Again looking back at groups with high unemployment, construction and extraction is expected to grow 6.0 percent in the next ten years, while production occupations will decline 10.3 percent.

Figure 10: Long-Term Employment Projections and Average Annual Openings by Major Occupational Group

<i>Occupational Group</i>	<i>2008 Empl.</i>	<i>2018 Proj.</i>	<i>Net Growth</i>	<i>Percent Growth</i>	<i>Avg. Ann. Op.</i>
Total, All Occupations	5,726,100	5,975,100	249,000	4.3%	166,269
Management	296,650	296,290	-360	-0.1%	6,453
Business and Financial Operations	240,990	266,370	25,380	10.5%	7,503
Computer and Mathematical	130,300	153,150	22,850	17.5%	4,764
Architecture and Engineering	91,550	93,670	2,120	2.3%	2,374
Life, Physical, and Social Science	41,150	45,300	4,150	10.1%	1,684
Community and Social Services	109,160	121,980	12,820	11.7%	3,629
Legal	37,460	39,250	1,790	4.8%	850
Education, Training, and Library	302,470	325,250	22,780	7.5%	9,138
Arts, Design, Entertainment, Sports, & Media	82,600	86,850	4,250	5.1%	2,632
Healthcare Practitioners and Technical	326,850	381,360	54,510	16.7%	12,217
Healthcare Support	201,960	257,080	55,120	27.3%	7,746
Protective Service	117,200	120,680	3,480	3.0%	3,795
Food Preparation and Serving Related	472,430	498,330	25,900	5.5%	18,537
Building & Grounds Cleaning & Maintenance	195,230	199,690	4,460	2.3%	3,856
Personal Care and Service	151,210	173,120	21,910	14.5%	5,872
Sales and Related	600,140	606,460	6,320	1.1%	18,807
Office and Administrative Support	892,470	916,530	24,060	2.7%	23,423
Farming, Fishing, and Forestry	15,530	14,920	-610	-3.9%	417
Construction and Extraction	216,510	229,410	12,900	6.0%	5,259
Installation, Maintenance, and Repair	224,670	225,210	540	0.2%	4,932
Production	540,890	485,180	-55,710	-10.3%	10,697
Transportation and Material Moving	438,660	439,030	370	0.1%	11,685

ODJFS, 2018 Ohio Job Outlook, D-1.

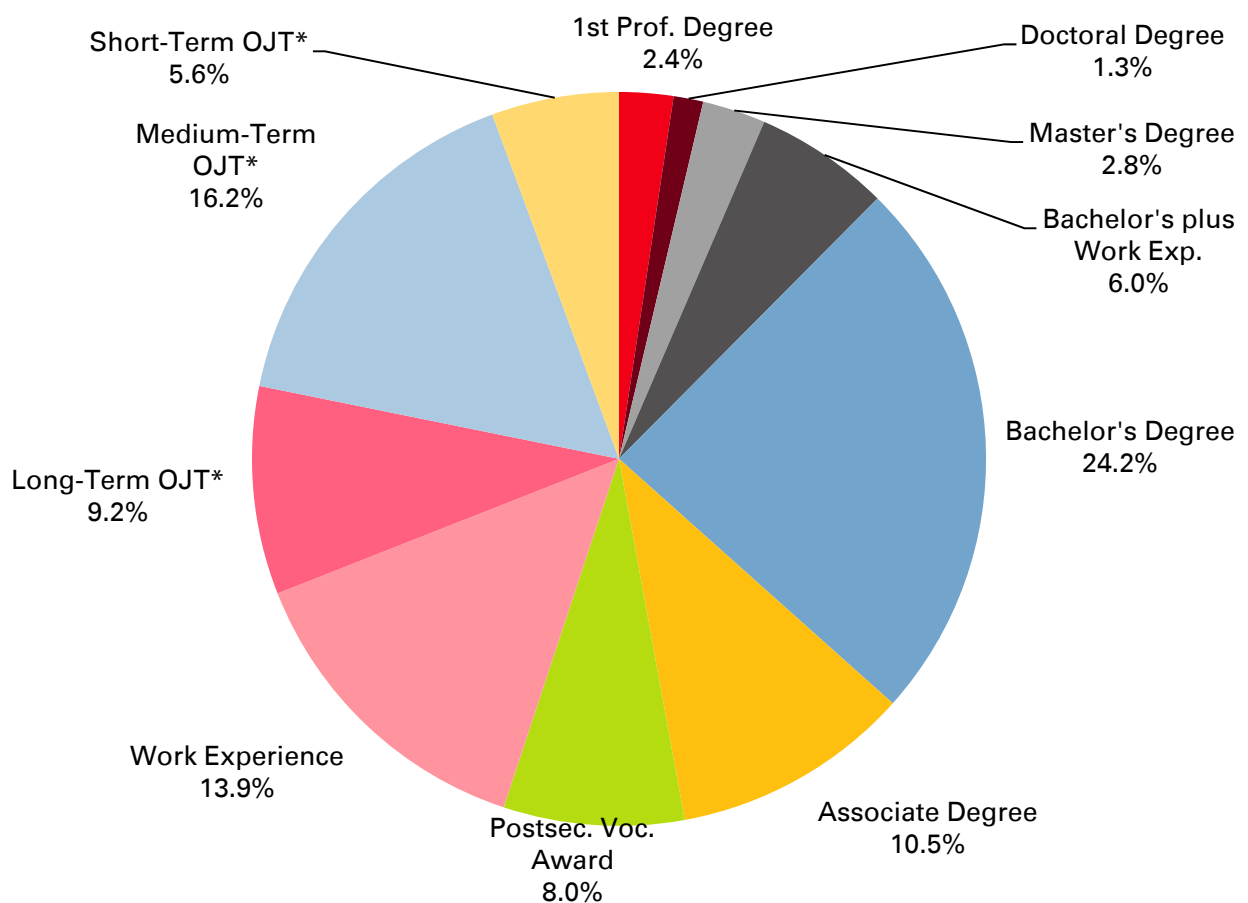
⁵There has been a recent interest and initiative to expand shale gas drilling in Ohio, which could increase employment.

High Prospects and Education and Training

The complete job outlook includes projections for over 700 detailed occupations. Expected job openings cover the spectrum of wage and educational levels. However, from a career exploration point of view it may be useful to consider high prospect occupations. Of these 700 occupations, 233 have been identified as “high prospects,” meaning they have average hourly wages above the statewide average \$15.30 and at least 50 projected average annual openings. Appendix C at the end of this report contains a complete list of these high prospect occupations and their projections data.

In all, there are 71,756 average annual openings projected in high prospect occupations. Figure 11 below shows the typical required education and training levels for high prospect occupations and how many average annual openings will be available for each. Over a third of high prospect openings will require at least a bachelor’s degree. More than half will require some sort of postsecondary education. About 21.8 percent of expected openings will only require short-term or medium-term on-the-job training. (Less than one month and between one month and one year, respectively.)

Figure 11: Projected Job Openings in High Prospect Occupations by Required Education and Training



*OJT = On-the-Job Training

Source: ODJFS, “High Occupational Prospects.”

V. Workforce Programs

For the vast majority of states, the current economic climate translates into the political mantra of jobs and various policies to retain, expand and attract businesses to generate economic growth. In the case of Ohio, this is apparent in the Kasich administration's *JobsOhio* initiative. The core programs of the Ohio Department of Job and Family Services' Office of Workforce Development (OWD) have an affinity with such policy efforts.

There are two fundamental moments of truth resulting from the recession and current economic realities that cannot be ignored. First is the immediacy of the need to get more Ohioans back to work. Given that our mission is to accelerate the employment success of Ohio job seekers, OWD has been and will continue to review strategies that align with Governor Kasich's goal of creating more jobs in Ohio. This means helping people find jobs that already exist, preparing the workforce for jobs yet to come and aligning workforce strategies with business needs.

Second, the magnitude of economic losses in recent years translates into reduced federal funding and government resources. Yet, our customer base has grown, their needs are more substantial than ever and the nature of the needs have shifted or changed as the economy changed.

OWD maintains its fundamental mission but, in doing so, it must adapt to these fundamental truths. Doing so requires a realignment of organizational structure, business strategies and program policies. Although we continue to work on this realignment, there are four main strategies OWD has and will take to meet these realities. These are:

- Business structure change
- Increased and enhanced use of technology
- Program policy alignment
- Better use of information

Below are a few examples of actions steps taken under these four strategies.

Business structure change: OWD formed a Project Management Section specifically to address designing a variety of internal and external projects that align with the goals and objectives of the office and of this administration. The goal is to be flexible and adaptable to economic situations by implementing pilot programs and testing short-term strategies and innovative programs. Additionally, this section will respond to grant or other opportunities that may expand or improve our services.

Increased and enhanced use of technology: OWD has continued to implement enhancements in this area, particularly with the development of OhioMeansJobs as a central portal for jobs and talent. Most recently it has expanded into the area of providing job ad analytics, a current and new data source of information about the job market. Similarly, it will soon implement a corresponding talent or resume analytics software tool.

Program policy alignment: The objective here is to take programs that have separate funding streams or administrative authority and align their strengths to mutually support each other.

For example, OWD integrated the Labor Market Information program data with that of OhioMeansJobs to provide a seamless transition from career exploration data to immediate job opportunities.

Given the economic realities, OWD must think differently about the training opportunities it funds. OWD is emphasizing short-term training, on-the-job training (OJT) and incumbent worker training across programs or grant opportunities. Not only are these training opportunities less expensive than long-term training, but they also meet Ohio's immediate employment needs. OJTs connect job seekers directly with employers and offer the employer an incentive to hire new workers. More than 1,400 OJTs have been arranged between July 1, 2010 and September, 2011.

Better use of information: The office collects volumes of information in the day-to-day administration of its programs. OWD's objective is to utilize these data beyond merely supporting administrative functions or meeting reporting requirements of our grantors. Rather we wish to put it to strategic applications such as "telling our story" to better inform our stakeholders about the significance of our programs or as input to program policy formation. With these objectives, OWD created a Performance Management Section with the charge of shifting our performance and data reporting to a higher level of utilization.

Below is a brief description of our commitment to jobs and ways to address the profile of unemployment presented earlier. These programs all have the common imperative to incorporate the four main strategies identified above within their daily operations.

Workforce Investment and Wagner-Peyser Acts

The Workforce Investment Act (WIA) program offers employment and training services to both employers and job seekers. The goals of WIA are to:

- Increase employment, retention, and earnings;
- Increase occupational skills attainment;
- Improve the quality of the workforce;
- Enhance productivity and competitiveness; and
- Reduce welfare dependency.

WIA is comprised of three program areas—adult, dislocated worker, and youth—and focuses on three levels of service—core, intensive and training. WIA services are delivered in 31 comprehensive and 59 satellite One-Stop Centers throughout Ohio. Ohio's 20 Workforce Investment Boards ensure training and services are relevant to Ohio employers.

The federally-funded Wagner-Peyser (W-P) program, aka Labor Exchange/Employment Services, is a national public labor exchange system providing services to job seekers and to employers through One-Stop System service delivery networks. The goal of labor exchange services is to help job seekers obtain meaningful employment opportunities and to assist employers in obtaining skilled and productive employees.

W-P services for job seekers include job placement, resume preparation, testing, job-seeking skills workshops, computer-based job matching, and labor market information. Services for

employers include assistance in listing and filling job vacancies, including basic screening and referral of qualified job seekers.

Workforce Development Services

The ODJFS Office of Workforce Development (OWD) offers a variety of direct and indirect services to businesses and other employers in Ohio.

Ohio's One-Stop Centers

One-Stop Centers provide services to local businesses and underemployed or unemployed job seekers. One-Stops work with county agencies and other partners to deliver a variety of employment and training services to meet the needs of local customers.

One-Stop Centers can provide employers with employee training and talent development, employee selection support, employee recruitment, and human resource planning and management support. Business customers can expect services such as posting job vacancies, pre-screening applicants, employee assessments, opportunities for job fairs, various training options, layoff and plant closure services, and mass recruitment.

Employers can obtain additional information on One-Stop Centers and locate the One-Stop Center closest to their business at <http://jfs.ohio.gov/owd/JobSeekers/One-Stop-Services.stm>.

Layoff Aversion and Rapid Response

When businesses in Ohio are facing the possibility of layoffs or closings, the state offers a variety of services designed to help businesses avert or manage layoffs and help workers obtain new employment. When layoffs are unavoidable, the ODJFS' Rapid Response Unit provides vital help to the affected workers and their communities as well as the employer.

Local Rapid Response staff are ready to assist businesses in identifying ways to keep moving forward. This could include assistance with finances, loans or training, and other strategies, as well. Rapid Response staff can help employers avoid future layoffs, access training programs for their employees, find skilled job seekers, and learn more about employment rights and regulations. Employers can learn more at <http://www.ohioed.gov>.

Ohio Means Jobs

OhioMeansJobs.com is a window for employers to look for Ohio-based talent, post job opportunities, and integrate employment events into a single, cost-free point of contact. OhioMeansJobs.com provides Ohio-based companies access to the talents and skills of resumes belonging to Ohioans and those looking to relocate to Ohio. The site provides employers with the 'Job Post' option to list their job opportunities within the state without having to register on the site.

OhioMeansJobs.com supports job seekers with job matching capability as well as information about career choices, job fairs and training opportunities.

OhioMeansJobs.com also has a data mining tool that will scan job postings/descriptions and job seeker resumes for key words. This increases the effectiveness of the search function for both the job seeker and the employer.

Labor Market Information

Labor Market Information (LMI) can help employers recruit qualified workers, develop job descriptions, obtain affirmative action data, learn about wages in their area, and make sound economic decisions. It serves as the source for data about employment levels, unemployment rates, wages and earnings, employment projections, jobs, training resources and careers.

OhioLmi.com is a website that answers questions such as: what jobs are in demand; how much do they pay; and how many workers are unemployed. There are a variety of resources on this site that can provide information that can assist in identifying economic development prospects, planning and characterizing a community for marketing to prospective businesses and talent, and fulfilling workforce needs.

Workforce Development Programs

The ODJFS Office of Workforce Development (OWD) offers a variety of programs that support Ohio employers and underemployed or unemployed job seekers.

State Veterans' Program

The State Veterans' Program develops policies and implements programs to increase opportunities for Veterans to obtain employment and participate in job training programs, in accordance with the Jobs for Veterans Act, which focuses on alleviating unemployment and underemployment for Veterans, Transitioning Service Members and other eligible persons. The goal of the Veterans' Program is to eliminate unemployment and under-employment among Ohio's veteran population.

Disabled Veteran Outreach Program (DVOP) specialists provide intensive services to targeted Veterans to assist them in alleviating barriers to employment, to become "job ready" in order to obtain or retain employment that supports their self-sufficiency. Local Veterans' Employment Representative (LVER) staff has a primary focus on outreach to employers to develop increased hiring opportunities within the local workforce by raising awareness of the benefits of hiring veterans.

The program also has a special focus on disabled Veterans and homeless Veterans, providing intensive employment services to assist them in gaining suitable employment. State Veterans' Program services can be found at <http://jfs.ohio.gov/owd/Program/veterans-home.stm>.

Work Opportunity Tax Credit

The Work Opportunity Tax Credit (WOTC) Program is a federal tax credit that provides Ohio employers with a tax credit against their federal tax liability when they hire individuals from 9 target groups of disadvantaged job seekers.

Tax credits range from \$1,200 to \$9,000 for all WOTC target groups. Employers must apply for and receive certification from the Ohio Department of Job and Family Services to claim the tax credits on their federal tax returns. There are only two forms required to apply for these tax credits, which can be accessed at <http://jfs.ohio.gov/wotc/index.stm>.

There are no limits to the number of new hires who can qualify an employer for the tax credit. However, new hires must begin work on or after January 1, 2006, and before December 31, 2011. (per writing of this paper). For additional information on the WOTC program, employers can call 1-888-296-7541, Option # 9, or visit <http://jfs.ohio.gov/owd/Employers/WOTC-home.stm>.

Foreign Labor Certification

Foreign Labor Certification (FLC) provides a way for Ohio employers to hire foreign workers if U.S. workers are not able, willing, qualified, and available to fill job openings. The FLC program provides certain protections to ensure that job opportunities (permanent or temporary), wages, and working conditions of U.S. workers will not be adversely affected by the employment of foreign workers. Employers can access further information on the FLC program at <http://jfs.ohio.gov/owd/flc/>.

State Apprenticeship Council (SAC)

The unit that supports Ohio's SAC approves and awards nationally recognized and portable credentials for the successful completion of apprenticeship; increases opportunities for under-represented populations through the use of pre-apprenticeship models that provide disadvantaged youth and adults career pathways into the Registered Apprenticeship system; provides technical assistance to industry and small businesses with respect to the development and implementation of Registered Apprenticeship programs as a component of their workforce strategy; and reviews proposed apprenticeship training programs and recommend revisions for compliance with state and federal requirements, ensuring quality for Ohio's 10,000 private sector businesses participating in the state's apprenticeship system.

Registered Apprenticeship programs teach high-level skills for today's workplace. Ohio has more than 1,100 Registered Apprenticeship programs in fields as diverse as: aerospace, construction, energy, health care, manufacturing, and utilities. Each program includes, at minimum, 2,000 hours of structured on-the-job training and 144 hours per year of related technical instruction. Further information on Ohio's Registered Apprenticeship programs can be found at <http://jfs.ohio.gov/owd/Program/Apprenticeship-Home.stm>.

Employee Training

There are a variety of training opportunities for job seekers and incumbent workers including job readiness, occupational classroom, on-the-job, and customized. Ohio's One-Stop Centers (<http://jfs.ohio.gov/owd/JobSeekers/One-Stop-Services.stm>) work with employers and Ohio's underemployed and unemployed job seekers to assess and meet training needs. Training availability is based on need, funding, and occupational demand.

National Emergency Grants

National Emergency Grants (NEG) are discretionary dollars awarded by the U.S. Department of Labor to temporarily expand employment services in a state or local area in response to significant events that cause a sudden need for increased service levels. The purpose of NEGs is to help dislocated workers and their communities recover from the effects of plant closings, mass layoffs, and disasters, especially if the usual dislocated worker funding cannot accommodate the increased demand for services.

Ohio has received NEGs to support layoffs and plant closings in the automotive industry; at the Wilmington AirPark; Masco and Severstal closings; spring floods in Eastern Ohio; and for on-the-job training for dislocated workers with prolonged unemployment. ODJFS also has received an NEG to place prolonged unemployed dislocated workers in permanent jobs by reimbursing eligible employers a percentage of the employee's wages for the costs of providing on-the-job (OJT) training to the individuals they commit to hire. Employers interested in participating in the OJT NEG can contact their local One-Stop Center. Employers can also search OhioMeansJobs.com to find eligible workers with the skills needed, and then work with their One-Stop Center to create an OJT for that worker.

Contact Information

Employers and job seekers can find additional information on Ohio's workforce development programs at <http://jfs.ohio.gov/owd/>. The website contains information on all the services and programs highlighted as well as additional programs, services, and resources to support workforce development in Ohio.

VI. Conclusions

It is human tendency to craft expectations of the future based on current or near past events. It is hard to overstate the human hardships experienced as a result of economic events of the past several years. Consumer and business confidence remains low. However, it is important to note that our economy is very dynamic and forever on the move. Free market economies have a natural tendency toward growth. Although markets may rise and fall over the short term, over time Ohio's economy has repeatedly renewed itself and grown. Government programs and policy can assist people during these changes and nudge the economy in the direction of its natural propensities. The objective of this report is to inform, at least in some small way, that process.

Technical Notes

Unemployment rates in this report come from two data programs. Official unemployment rates for Ohio and counties and labor force participation rates are from the Local Area Unemployment Statistics (LAUS) program, developed by ODJFS in cooperation with the BLS. All other unemployment data in this report, including the official U.S. unemployment rate; short-term and long-term estimates; demographic and economic breakouts; and worker survey data, are from the Current Population Survey run jointly by the BLS and U.S. Census Bureau.

Industry and occupational worker displacement rates as shown in Section III are estimates and are not subject to the same quality controls as normal unemployment rates.

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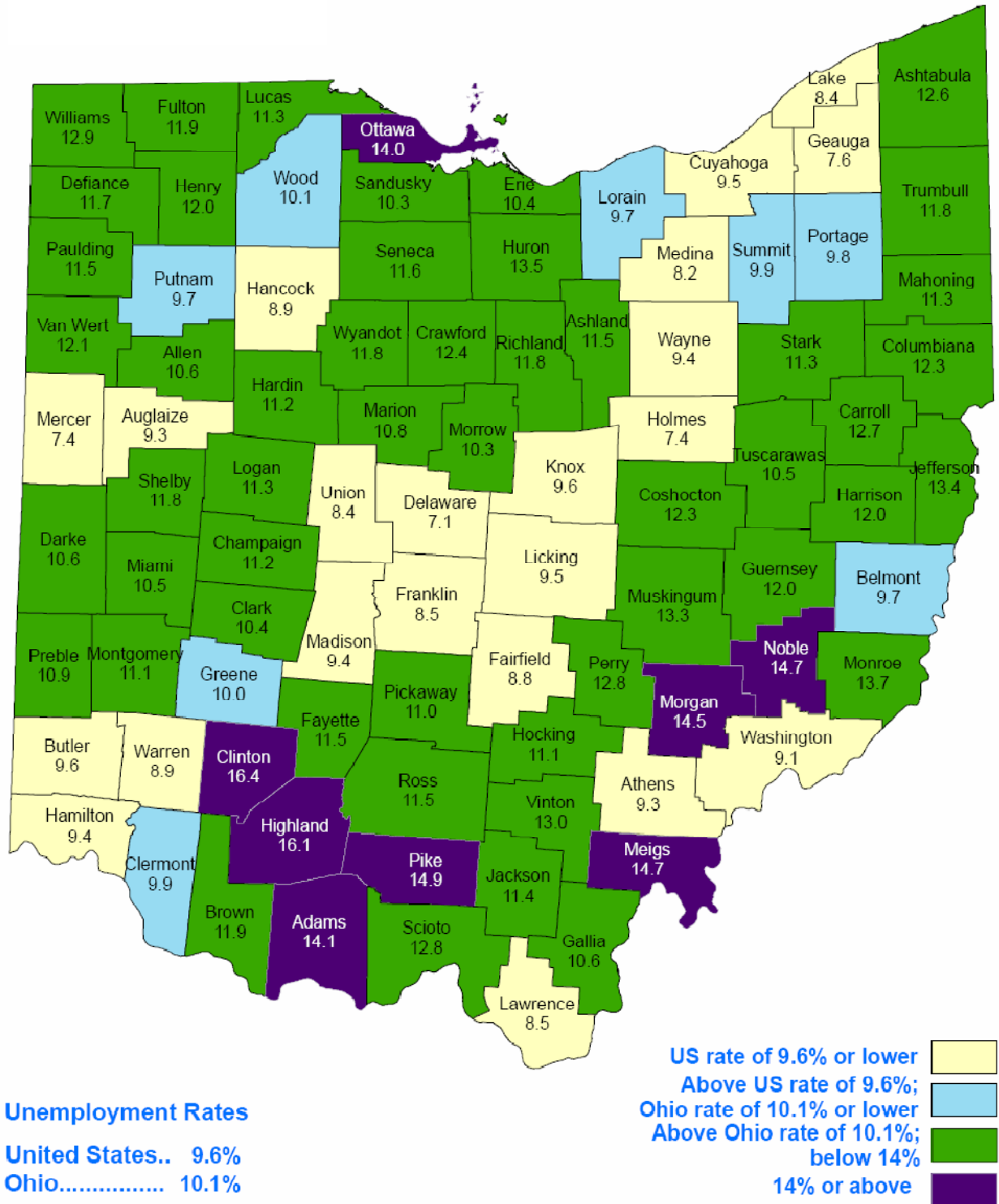
Appendix A: Labor Force Participation Rates by Demographic Group

	<i>2008</i>	<i>2009</i>	<i>2010*</i>	<i>Net Change</i>
Total	67.2%	66.0%	65.2%	-2.0%
Men	72.4%	71.3%	70.5%	-1.9%
Women	62.4%	61.1%	60.3%	-2.1%
White	67.8%	66.9%	65.9%	-1.9%
Men	73.2%	72.5%	71.3%	-1.9%
Women	62.8%	61.7%	60.9%	-1.9%
Black	62.2%	61.4%	60.6%	-1.6%
Men	64.1%	62.9%	63.8%	-0.3%
Women	60.8%	60.2%	58.0%	-2.8%
Asian	69.4%	56.8%	N/A	N/A
Men	85.2%	70.7%	N/A	N/A
Women	N/A	43.3%	N/A	N/A
Hispanic	69.5%	70.0%	70.5%	1.0%
Men	80.3%	81.3%	81.1%	0.8%
Women	57.3%	56.3%	59.4%	2.1%
16 to 19	47.3%	47.7%	43.2%	-4.1%
20 to 24	78.0%	77.3%	76.1%	-1.9%
25 to 34	84.7%	83.4%	83.3%	-1.4%
35 to 44	84.5%	83.1%	83.4%	-1.1%
45 to 54	84.3%	81.9%	79.7%	-4.6%
55 to 64	64.1%	64.6%	64.8%	0.7%
65+	16.5%	16.1%	16.0%	-0.5%
Men				
16 to 19	43.2%	46.0%	41.2%	-2.0%
20 to 24	81.9%	79.0%	79.6%	-2.3%
25 to 34	90.2%	89.5%	89.2%	-1.0%
35 to 44	91.3%	89.6%	91.0%	-0.3%
45 to 54	89.0%	85.8%	84.0%	-5.0%
55 to 64	69.0%	68.6%	66.9%	-2.1%
65+	20.4%	20.1%	19.8%	-0.6%
Women				
16 to 19	51.4%	49.3%	45.2%	-6.2%
20 to 24	74.1%	75.6%	72.3%	-1.8%
25 to 34	79.6%	77.3%	77.4%	-2.2%
35 to 44	77.8%	76.9%	76.4%	-1.4%
45 to 54	80.1%	78.0%	75.4%	-4.7%
55 to 64	59.3%	61.2%	63.0%	3.7%
65+	13.5%	13.1%	13.1%	-0.4%

*Preliminary estimates

Source: BLS, Current Population Survey.

Appendix B: 2010 Unemployment Rates by County



Source: BLS, Local Area Unemployment Statistics.

Appendix C: High Prospect Occupations

SOC	Occupational Title	2008 Empl.	2018 Proj.	Net Growth	Percent Growth	Avg. Ann. Op.	May 2009 Avg. Wages
Occupations Requiring Short-Term On-the-Job Training (up to one month)							
39-9041	Residential Advisors	2,600	2,630	30	1.2%	95	\$16.10
43-4031	Court, Municipal, and License Clerks	7,400	7,370	-30	-0.4%	210	\$16.09
43-4041	Credit Authorizers, Checkers and Clerks	3,120	2,870	-250	-8.0%	88	\$16.23
43-4131	Loan Interviewers and Clerks	8,420	8,710	290	3.4%	237	\$15.69
43-4161	Human Resources Assis., ex. Payroll & Timekcp	5,340	4,720	-620	-11.6%	151	\$17.19
43-4181	Reservation/Trans. Ticket Agents & Travel Clerks	3,010	3,010	0	0.0%	68	\$15.34
43-5051	Postal Service Clerks	2,590	2,040	-550	-21.2%	55	\$25.20
43-5052	Postal Service Mail Carriers	14,810	14,100	-710	-4.8%	462	\$23.57
45-2091	Agricultural Equipment Operators	6,660	6,290	-370	-5.6%	180	\$15.41
53-3032	Truck Drivers, Heavy and Tractor-Trailer	75,880	85,010	9,130	12.0%	2,271	\$18.84
53-7081	Refuse and Recyclable Material Collectors	6,330	6,480	150	2.4%	199	\$15.84
Occupations Requiring Moderate-Term On-the-Job Training (one to twelve months combined experience/training)							
13-2072	Loan Officers	10,870	11,670	800	7.4%	199	\$26.57
13-2082	Tax Preparers	3,340	3,300	-40	-1.2%	55	\$15.60
31-9091	Dental Assistants	9,970	12,480	2,510	25.2%	438	\$15.54
33-3012	Correctional Officers and Jailers	13,880	13,680	-200	-1.4%	308	\$18.79
41-3011	Advertising Sales Agents	5,740	5,840	100	1.7%	124	\$21.59
43-3031	Bookkeeping, Accounting, and Auditing Clerks	73,730	77,080	3,350	4.5%	1,221	\$15.87
43-3051	Payroll and Timekeeping Clerks	7,120	6,230	-890	-12.5%	169	\$16.92
43-3061	Procurement Clerks	2,980	2,980	0	0.0%	91	\$16.37
43-4011	Brokerage Clerks	1,890	1,740	-150	-7.9%	54	\$18.00
43-4051	Customer Service Representatives	83,800	93,860	10,060	12.0%	3,644	\$15.56
43-4061	Eligibility Interviewers, Government Programs	3,590	3,590	0	0.0%	84	\$18.79
43-5011	Cargo and Freight Agents	2,160	2,670	510	23.6%	101	\$17.63
43-5031	Police, Fire, and Ambulance Dispatchers	4,350	4,730	380	8.7%	128	\$17.57
43-5032	Dispatchers, except Police, Fire and Ambulance	7,250	6,800	-450	-6.2%	149	\$17.73
43-5061	Production, Planning, and Expediting Clerks	13,090	12,640	-450	-3.4%	322	\$19.52
43-9041	Insurance Claims and Policy Processing Clerks	12,550	12,560	10	0.1%	165	\$16.77
47-2051	Cement Masons and Concrete Finishers	5,290	5,630	340	6.4%	167	\$20.16
47-2061	Construction Laborers	28,050	31,690	3,640	13.0%	552	\$18.50
47-2073	Operating Engineers & Other Con. Equip. Op.	10,860	11,440	580	5.3%	244	\$23.96
47-2141	Painters, Construction and Maintenance	10,400	10,570	170	1.6%	195	\$18.99
47-2181	Roofers	5,450	5,580	130	2.4%	103	\$18.36
47-4051	Highway Maintenance Workers	10,630	10,550	-80	-0.8%	288	\$17.45
49-9042	Maintenance and Repair Workers, General	60,010	62,160	2,150	3.6%	1,139	\$17.38
51-2041	Structural Metal Fabricators and Fitters	4,040	3,650	-390	-9.7%	85	\$16.97
51-4011	Computer-Controlled Machine Tool Oper., MP	13,270	12,720	-550	-4.1%	260	\$17.14
51-4021	Extruding & Drawing Machine Setters, O/T, MP	7,020	5,820	-1,200	-17.1%	137	\$16.12
51-4191	Heat Treating Equip. Setters, O/T, MP	2,340	1,920	-420	-17.9%	106	\$16.27
51-5023	Printing Machine Operators	9,100	8,300	-800	-8.8%	191	\$16.15
51-9023	Mixing/Blending Mach. Setter/Operator/Tenders	9,010	9,670	660	7.3%	220	\$17.08
51-9061	Inspectors/Testers/Sorters/Samplers/Weighers	24,010	21,540	-2,470	-10.3%	402	\$16.76
53-3021	Bus Drivers, Transit and Intercity	5,510	5,530	20	0.4%	98	\$20.01
53-4011	Locomotive Engineers	2,610	2,660	50	1.9%	89	\$21.89
53-7032	Excavating & Loading Machine & Dragline Oper.	2,330	2,260	-70	-3.0%	68	\$16.75
Occupations Requiring Long-Term On-the-Job Training (twelve months or more combined experience/training)							
13-1022	Wholesale & Retail Buyers, ex. Farm Products	4,320	4,060	-260	-6.0%	108	\$24.48
13-1023	Purchasing Agents, ex. Whole., Retail, & Farm	12,640	13,430	790	6.3%	412	\$27.50
13-1031	Claims Adjusters, Examiners and Investigators	9,620	10,240	620	6.4%	306	\$27.94
13-1041	Compl. Off., ex. Agric, Con, Hlth/Safety, & Trans.	8,080	9,910	1,830	22.6%	269	\$25.77
27-2042	Musicians and Singers	9,050	9,680	630	7.0%	246	\$26.28
29-2081	Opticians, Dispensing	3,160	3,310	150	4.7%	79	\$16.47

SOC	Occupational Title	2008 Empl.	2018 Proj.	Net Growth	Percent Growth	Avg. Ann. Op.	May 2009 Avg. Wages
Occupations Requiring Long-Term On-the-Job Training (twelve months or more combined experience/training) (con't)							
33-2011	Fire Fighters	19,730	21,630	1,900	9.6%	796	\$19.79
33-3051	Police and Sheriff's Patrol Officers	24,650	24,700	50	0.2%	641	\$25.11
47-2021	Brickmasons and Blockmasons	5,370	5,820	450	8.4%	181	\$24.04
47-2031	Carpenters	37,270	40,520	3,250	8.7%	789	\$19.39
47-2111	Electricians	26,660	27,030	370	1.4%	681	\$23.16
47-2121	Glaziers	1,890	1,970	80	4.2%	77	\$20.44
47-2152	Plumbers, Pipefitters and Steamfitters	15,780	16,500	720	4.6%	390	\$23.51
47-2211	Sheet Metal Workers	4,560	4,490	-70	-1.5%	109	\$21.78
47-2221	Structural Iron and Steel Workers	2,800	2,970	170	6.1%	63	\$25.19
49-3021	Automotive Body and Related Repairers	7,160	6,500	-660	-9.2%	185	\$18.74
49-3042	Mobile Heavy Equip. Mechanics, ex. Engines	3,710	3,900	190	5.1%	90	\$21.62
49-9041	Industrial Machinery Mechanics	15,020	15,120	100	0.7%	226	\$23.37
49-9044	Millwrights	2,740	2,400	-340	-12.4%	55	\$27.38
49-9051	Electrical Power-Line Installers and Repairers	3,900	3,800	-100	-2.6%	138	\$24.58
49-9052	Telecommunications Line Installers & Repairers	5,380	5,170	-210	-3.9%	83	\$20.54
51-4041	Machinists	32,780	29,700	-3,080	-9.4%	432	\$17.88
51-8031	Water/Liquid Waste Treatment Plant/System Op.	4,650	5,100	450	9.7%	145	\$20.03
53-7021	Crane and Tower Operators	2,320	1,960	-360	-15.5%	54	\$20.47
Occupations Requiring Work Experience in a Related Occupation							
11-3051	Industrial Production Managers	11,070	9,520	-1,550	-14.0%	388	\$44.49
11-3071	Transportation, Storage, & Distribution Managers	4,370	4,090	-280	-6.4%	120	\$41.31
11-9051	Food Service Managers	11,680	11,850	170	1.5%	244	\$22.48
25-3021	Self-Enrichment Education Teachers	7,280	9,190	1,910	26.2%	303	\$20.41
33-1012	First-Line Superv./Mgrs of Police & Detectives	3,040	3,020	-20	-0.7%	133	\$34.40
33-1021	FL Sup/Mgms of Fire Fighting & Prev. Workers	1,960	1,960	0	0.0%	99	\$31.10
33-3021	Detectives and Criminal Investigators	2,750	2,850	100	3.6%	66	\$30.87
33-9021	Private Detectives and Investigators	1,580	1,790	210	13.3%	53	\$21.03
37-1011	FL Sup/Mgms of Housekeeping & Janitorial Workers	7,140	7,300	160	2.2%	90	\$17.09
37-1012	FL Sup/Mgms of Lndscap./Lawn Ser/Groundskp	6,970	7,630	660	9.5%	142	\$20.95
39-1021	First-Line Sup/Mgms of Personal Serv. Workers	6,880	7,660	780	11.3%	265	\$17.34
41-1011	First-Line Superv./Mgms of Retail Sales Workers	58,960	58,680	-280	-0.5%	1,265	\$18.01
41-1012	First-Line Sup./Mgms of Non-Retail Sales Workers	19,070	19,250	180	0.9%	413	\$36.48
41-4011	Sales Rep., Wholesale & Mfg, Tech./Sci. Prod.	20,540	22,250	1,710	8.3%	647	\$37.37
41-4012	Sales Rep., Wholesale/Mfg, ex. Tech./Sci. Prod.	66,060	67,220	1,160	1.8%	1,646	\$28.29
43-1011	First-Line Sup/Mgms of Office & Admin. Support	47,700	50,340	2,640	5.5%	1,340	\$23.09
43-6011	Executive Secretaries & Administrative Assistants	47,800	50,600	2,800	5.9%	924	\$19.90
47-1011	First-Line Sup/Mgms of Con. Trades/Extract. Work	17,020	18,610	1,590	9.3%	488	\$28.86
47-4011	Construction and Building Inspectors	3,580	3,720	140	3.9%	88	\$23.46
49-1011	FL Sup/Mgms of Mechanics/Installers/Repairers	17,350	16,720	-630	-3.6%	454	\$28.56
51-1011	FL Sup/Mgms of Production/Operating Workers	37,380	32,870	-4,510	-12.1%	504	\$25.79
53-1021	FL Sup/Mgms of Help/Labor/Mat. Movers, Hand	8,720	8,710	-10	-0.1%	151	\$21.50
53-1031	FL Sup/Mgr of Trans/Mat.-Mov. Mach & Veh Op	9,000	8,420	-580	-6.4%	156	\$25.74
Occupations Requiring a Postsecondary Vocational Award							
17-3011	Architectural and Civil Drafters	2,850	2,900	50	1.8%	66	\$20.84
17-3013	Mechanical Drafters	3,810	3,560	-250	-6.6%	82	\$22.19
29-2055	Surgical Technologists	3,440	4,150	710	20.6%	158	\$18.59
29-2061	Licensed Practical & Licensed Vocat. Nurses	41,570	48,790	7,220	17.4%	2,022	\$19.19
41-3021	Insurance Sales Agents	27,580	29,580	2,000	7.3%	840	\$27.50
41-9022	Real Estate Sales Agents	5,620	6,460	840	14.9%	176	\$23.66
49-2011	Computer, ATM, & Office Machine Repairers	5,060	4,480	-580	-11.5%	87	\$17.83
49-2022	Telecomm. Equip. Install/Repair, ex. Line Install	6,880	6,460	-420	-6.1%	120	\$25.90
49-2094	Electrical/Electronics Repair, Comm/Indus Equip.	3,050	2,810	-240	-7.9%	53	\$23.85
49-2098	Security and Fire Alarm Systems Installers	1,980	2,200	220	11.1%	56	\$15.87
49-3023	Automotive Service Technicians and Mechanics	28,640	27,310	-1,330	-4.6%	547	\$17.35

SOC	Occupational Title	2008 Empl.	2018 Proj.	Net Growth	Percent Growth	Avg. Ann. Op.	May 2009 Avg. Wages
Occupations Requiring a Postsecondary Vocational Award (con't)							
49-3031	Bus & Truck Mechanics & Diesel Engine Spec.	13,450	13,600	150	1.1%	324	\$18.89
49-9021	Heating, AC, & Refrigeration Mechanics/Installers	11,430	14,170	2,740	24.0%	458	\$22.25
51-4121	Welders, Cutters, Solderers, and Brazers	15,660	14,250	-1,410	-9.0%	480	\$16.91
51-4122	Welding/Soldering/Brazing Machine Setters, O/T	7,320	5,970	-1,350	-18.4%	224	\$16.31
Occupations Requiring an Associate Degree							
15-1041	Computer Support Specialists	22,090	24,960	2,870	13.0%	899	\$20.07
17-3022	Civil Engineering Technicians	2,050	2,270	220	10.7%	61	\$22.40
17-3023	Electrical & Electronic Engineering Technicians	3,830	3,510	-320	-8.4%	72	\$24.90
17-3026	Industrial Engineering Technicians	3,730	3,550	-180	-4.8%	71	\$22.66
19-4031	Chemical Technicians	3,200	2,990	-210	-6.6%	64	\$20.23
19-4091	Environ. Science & Protection Tech., inc. Health	1,340	1,500	160	11.9%	74	\$18.82
23-2011	Paralegals and Legal Assistants	6,570	7,740	1,170	17.8%	192	\$21.25
27-1025	Interior Designers	1,960	2,090	130	6.6%	73	\$20.27
29-1111	Registered Nurses	118,680	139,700	21,020	17.7%	4,175	\$28.72
29-1126	Respiratory Therapists	5,310	6,160	850	16.0%	182	\$24.04
29-2012	Medical and Clinical Laboratory Technicians	4,470	4,930	460	10.3%	131	\$18.47
29-2021	Dental Hygienists	7,100	8,880	1,780	25.1%	323	\$29.82
29-2031	Cardiovascular Technologists and Technicians	2,180	2,580	400	18.3%	72	\$22.91
29-2032	Diagnostic Medical Sonographers	2,490	2,880	390	15.7%	75	\$27.37
29-2034	Radiologic Technologists and Technicians	10,140	11,310	1,170	11.5%	264	\$23.91
29-2071	Medical Records & Health Info. Technicians	6,340	7,150	810	12.8%	210	\$15.31
31-2011	Occupational Therapist Assistants	2,430	3,160	730	30.0%	108	\$24.66
31-2021	Physical Therapist Assistants	4,800	6,310	1,510	31.5%	220	\$24.61
43-6012	Legal Secretaries	8,400	9,100	700	8.3%	183	\$17.90
49-9062	Medical Equipment Repairers	1,890	2,260	370	19.6%	92	\$23.74
Occupations Requiring a Bachelor's Degree							
11-9021	Construction Managers	15,520	17,080	1,560	10.1%	277	\$47.89
11-9141	Property, Real Estate & Community Assn Mgrs	6,460	6,740	280	4.3%	139	\$31.53
11-9151	Social and Community Service Managers	4,860	5,360	500	10.3%	162	\$30.15
13-1051	Cost Estimators	10,170	12,020	1,850	18.2%	411	\$29.40
13-1071	Employment, Recruitment & Placement Specialists	7,450	9,210	1,760	23.6%	370	\$24.75
13-1072	Comp., Benefits & Job Analysis Specialists	4,330	5,040	710	16.4%	184	\$26.00
13-1073	Training and Development Specialists	9,180	10,890	1,710	18.6%	411	\$25.71
13-1081	Logisticians	4,190	4,770	580	13.8%	151	\$33.48
13-2011	Accountants and Auditors	45,900	53,230	7,330	16.0%	1,509	\$30.21
13-2051	Financial Analysts	7,310	8,280	970	13.3%	230	\$35.19
13-2052	Personal Financial Advisors	4,910	5,970	1,060	21.6%	159	\$42.64
13-2053	Insurance Underwriters	6,030	5,850	-180	-3.0%	176	\$29.20
13-2081	Tax Examiners, Collectors & Revenue Agents	2,260	2,330	70	3.1%	87	\$28.61
15-1021	Computer Programmers	14,220	13,150	-1,070	-7.5%	268	\$33.37
15-1031	Computer Software Engineers, Applications	21,470	28,140	6,670	31.1%	848	\$39.17
15-1032	Comp. Software Engineers, Systems Software	10,170	12,650	2,480	24.4%	334	\$39.97
15-1051	Computer Systems Analysts	19,140	21,770	2,630	13.7%	676	\$37.42
15-1061	Database Administrators	4,040	4,750	710	17.6%	138	\$33.36
15-1071	Network and Computer Systems Administrators	15,910	18,250	2,340	14.7%	499	\$29.96
15-1081	Network Systems & Data Comm. Analysts	11,790	16,880	5,090	43.2%	721	\$34.38
17-1011	Architects, except Landscape and Naval	3,890	4,230	340	8.7%	100	\$34.74
17-2051	Civil Engineers	6,980	8,090	1,110	15.9%	229	\$35.13
17-2071	Electrical Engineers	4,950	4,700	-250	-5.1%	114	\$35.65
17-2072	Electronics Engineers, except Computer	3,360	3,260	-100	-3.0%	77	\$41.22
17-2112	Industrial Engineers	13,170	13,550	380	2.9%	374	\$34.46
17-2131	Materials Engineers	1,780	1,940	160	9.0%	58	\$41.51
17-2141	Mechanical Engineers	13,480	13,270	-210	-1.6%	346	\$33.90
19-2031	Chemists	3,680	3,460	-220	-6.0%	122	\$32.61

SOC	Occupational Title	2008 Empl.	2018 Proj.	Net Growth	Percent Growth	Avg. Ann. Op.	May 2009 Avg. Wages
Occupations Requiring a Bachelor's Degree (con't)							
19-3021	Market Research Analysts	8,780	10,780	2,000	22.8%	436	\$30.21
19-4021	Biological Technicians	2,340	2,610	270	11.5%	109	\$17.89
21-1011	Substance Abuse & Behavioral Dis. Counselors	2,340	2,750	410	17.5%	88	\$19.29
21-1021	Child, Family and School Social Workers	10,700	11,530	830	7.8%	352	\$18.39
21-1022	Medical and Public Health Social Workers	6,400	7,670	1,270	19.8%	288	\$21.88
21-1091	Health Educators	1,860	2,020	160	8.6%	55	\$20.63
21-1092	Probation Officers & Correct. Treatment Spec.	3,270	3,550	280	8.6%	97	\$22.63
21-2021	Directors, Religious Activities and Education	6,620	7,450	830	12.5%	217	\$19.69
25-2012	Kindergarten Teachers, ex. Special Education	4,010	4,410	400	10.0%	121	\$47,530**
25-2021	Elementary School Teachers, ex.Special Ed.	41,380	44,720	3,340	8.1%	1,275	\$51,970**
25-2022	Middle School Teachers, ex. Special & Voc. Ed.	19,090	20,540	1,450	7.6%	579	\$50,620**
25-2031	Secondary Sch. Teachers, ex. Spec. & Voc. Ed.	51,920	53,590	1,670	3.2%	1,676	\$54,530**
25-2041	Special Ed. Teachers, Pre./Kinder./Elem. Sch.	7,270	8,110	840	11.6%	273	\$49,900**
25-2042	Special Education Teachers, Middle School	5,350	5,900	550	10.3%	194	\$50,280**
25-2043	Special Education Teachers, Secondary School	9,070	9,580	510	5.6%	286	\$53,800**
25-3011	Adult Literacy, Remedial Ed., & GED Teachers	3,120	3,370	250	8.0%	73	\$23.27
27-1021	Commercial and Industrial Designers	1,790	1,760	-30	-1.7%	55	\$27.67
27-1024	Graphic Designers	10,430	11,090	660	6.3%	386	\$20.39
27-3022	Reporters and Correspondents	2,330	2,130	-200	-8.6%	64	\$17.26
27-3031	Public Relations Specialists	6,900	8,030	1,130	16.4%	276	\$25.22
27-3041	Editors	4,840	4,520	-320	-6.6%	127	\$21.98
27-3043	Writers and Authors	2,550	2,840	290	11.4%	82	\$24.70
29-1031	Dietitians and Nutritionists	2,480	2,530	50	2.0%	88	\$24.68
29-2011	Medical and Clinical Laboratory Technologists	5,900	6,150	250	4.2%	137	\$24.98
29-9011	Occupational Health and Safety Specialists	2,280	2,380	100	4.4%	86	\$31.21
29-9091	Athletic Trainers	870	1,180	310	35.6%	60	\$42,860**
41-3031	Securities/Commodities/Fin. Serv. Sales Agents	12,940	13,570	630	4.9%	460	\$32.31
41-9031	Sales Engineers	2,470	2,520	50	2.0%	94	\$37.90
53-2011	Airline Pilots, Copilots & Flight Engineers	2,190	2,310	120	5.5%	86	\$99,810**
Occupations Requiring Work Experience plus a Bachelor's or Higher Degree							
11-2021	Marketing Managers	3,960	4,160	200	5.1%	105	\$54.80
11-2022	Sales Managers	11,890	12,900	1,010	8.5%	357	\$53.10
11-3011	Administrative Services Managers	9,350	9,950	600	6.4%	256	\$48.99
11-3021	Computer and Information Systems Managers	9,760	10,990	1,230	12.6%	282	\$53.76
11-3031	Financial Managers	15,860	16,220	360	2.3%	321	\$53.10
11-3061	Purchasing Managers	2,400	2,250	-150	-6.3%	68	\$43.09
11-9011	Farm, Ranch, and Other Agricultural Managers	3,560	3,660	100	2.8%	82	\$28.44
11-9031	Education Admin., Pre & Child Care Center/Prog.	2,150	2,400	250	11.6%	89	\$21.42
11-9032	Education Admin., Elem. & Secondary School	7,710	7,810	100	1.3%	241	\$87,510**
11-9033	Education Administrators, Postsecondary	2,390	2,310	-80	-3.3%	72	\$51.34
11-9041	Engineering Managers	6,240	6,070	-170	-2.7%	127	\$52.52
11-9111	Medical and Health Services Managers	12,610	14,270	1,660	13.2%	406	\$39.96
11-1021	General and Operations Managers	31,370	28,620	-2,750	-8.8%	909	\$54.48
13-1111	Management Analysts	23,230	25,230	2,000	8.6%	599	\$37.46
25-2032	Vocational Education Teachers, Secondary Sch.	4,520	4,620	100	2.2%	142	\$59,350**
27-1011	Art Directors	2,830	3,130	300	10.6%	93	\$39.77
27-2012	Producers and Directors	1,760	1,730	-30	-1.7%	55	\$28.14
27-2041	Music Directors and Composers	2,050	2,270	220	10.7%	63	\$23.53
Occupations Requiring a Master's Degree							
19-2041	Environmental Scientists/Specialists, inc. Health	2,200	2,370	170	7.7%	80	\$31.25
21-1012	Educational, Vocational, & School Counselors	10,950	11,590	640	5.8%	286	\$27.53
21-1014	Mental Health Counselors	4,110	5,080	970	23.6%	180	\$20.99
21-1015	Rehabilitation Counselors	4,540	4,910	370	8.1%	129	\$19.71
21-1023	Mental Health & Substance Abuse Social Work.	4,990	5,860	870	17.4%	212	\$17.85

SOC	Occupational Title	2008 Empl.	2018 Proj.	Net Growth	Percent Growth	Avg. Ann. Op.	May 2009 Avg. Wages
Occupations Requiring a Master's Degree (con't)							
25-4021	Librarians	6,260	6,260	0	0.0%	165	\$26.41
25-9031	Instructional Coordinators	6,380	7,420	1,040	16.3%	244	\$29.73
29-1071	Physician Assistants	1,910	2,550	640	33.5%	99	\$40.33
29-1122	Occupational Therapists	4,270	5,130	860	20.1%	164	\$35.85
29-1123	Physical Therapists	7,650	9,440	1,790	23.4%	271	\$36.22
29-1127	Speech-Language Pathologists	5,090	5,860	770	15.1%	170	\$37.13
Occupations Requiring a Doctoral Degree							
19-1042	Medical Scientists, except Epidemiologists	1,780	2,290	510	28.7%	87	\$32.99
19-3031	Clinical, Counseling and School Psychologists	4,510	4,730	220	4.9%	150	\$38.69
25-1011	Business Teachers, Postsecondary	3,180	3,420	240	7.5%	80	\$66,770**
25-1032	Engineering Teachers, Postsecondary	2,090	2,250	160	7.7%	53	\$88,930**
25-1071	Health Specialties Teachers, Postsecondary	6,410	6,880	470	7.3%	159	\$84,210**
25-1072	Nursing Instructors and Teachers, Postsecondary	2,780	2,970	190	6.8%	67	\$63,110**
25-1081	Education Teachers, Postsecondary	2,680	2,880	200	7.5%	67	\$58,000**
25-1121	Art, Drama, and Music Teachers, Postsecondary	4,570	4,910	340	7.4%	114	\$63,820**
25-1123	English Language/Literature Teachers, Postsecondary	2,890	3,110	220	7.6%	72	\$62,820**
25-1194	Vocational Education Teachers, Postsecondary	3,320	3,570	250	7.5%	83	\$23.06
Occupations Requiring a First Professional Degree							
23-1011	Lawyers	19,860	20,750	890	4.5%	460	\$50.73
29-1011	Chiropractors	2,060	2,440	380	18.4%	74	\$48.53
29-1021	Dentists, General	4,010	4,250	240	6.0%	135	\$77.04
29-1041	Optometrists	1,140	1,410	270	23.7%	65	\$61.08
29-1051	Pharmacists	11,720	13,310	1,590	13.6%	419	\$49.21
29-1061	Anesthesiologists	1,340	1,620	280	20.9%	52	\$110.00
29-1062	Family and General Practitioners	5,050	6,140	1,090	21.6%	198	\$78.79
29-1063	Internists, General	2,080	2,450	370	17.8%	74	\$79.99
29-1065	Pediatricians, General	1,600	1,880	280	17.5%	56	\$69.55
29-1067	Surgeons	2,120	2,570	450	21.2%	82	\$110.72
29-1131	Veterinarians	2,070	2,630	560	27.1%	92	\$43.55

High prospect occupations are those with average hourly wages of \$15.30 or more, and at least 50 projected average annual openings.

**Annual earnings, typically 9½ months for teachers

Abbreviations:

FL Sup/Mgrs First-Line Supervisors/Managers
M/P Metal and plastic
O/T Operators and tenders
S/O/T Setters, operators, and tenders

Source: ODJFS, "High Occupational Prospects."

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Acknowledgements: Labor Market Analyst Jonathan Calig was the primary author of *Profile of Employment*. Labor Market Analyst Dolores Cambambia was instrumental in providing data. This report was published by the Bureau of Labor Market Information, Keith Ewald, Bureau Chief. For further information, visit <http://OhioLMI.com> or call the Ohio Bureau of Labor Market Information at 1-888-296-7541 or 614-752-9494.

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(11/2011)

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