TO STRENGTHEN OHIO'S FAMILIES WITH SOLUTIONS TO TEMPORARY CHALLENGES

# Ohio's Aging Labor Force:

Recent Trends in Industry Employment



## **Table of Contents**

Executive Summary	4
I. Population Trends	5
II. Labor Force Trends	7
III. Industry Sector Age Demographics	
Agriculture, Forestry, Fishing, and Hunting	
Mining	
Utilities	
Construction	
Manufacturing	
Wholesale Trade	
Retail Trade	
Transportation and Warehousing	
Information	
Finance and Insurance	
Real Estate and Rental and Leasing	
Professional, Scientific, and Technical Services	
Management of Companies and Enterprises	
Administrative Support and Waste Management Educational Services	
Health Care and Social Assistance	
Arts, Entertainment, and Recreation	
Accommodation and Food Services	
Other Services	_
Public Administration	_
IV. Conclusion	31
Appendix A: Population Projections	32
Appendix B: Labor Force Projections	33

## Table of Figures

<b>Figure</b>	1: Population Growth, 1920 to 2011	5
Figure	2: Ohio Population by Age, 2000, 2010, Projected 2020, and Projected 2030	6
<b>Figure</b>	3: Ohio Working-Age Population and Labor Force, 1998, 2008, & 2018	7
<b>Figure</b>	4: Ohio Labor Force Participation Rates by Age Group, 1998, 2008, & 2018	8
<b>Figure</b>	5: Ohio Labor Force Statistics by Gender, 1998, 2008, & 2018	9
<b>Figure</b>	6: Average Proportion of Workers 55 and Older by Industry Sector,	
	3 <sup>rd</sup> Quarter 2010 to 2 <sup>nd</sup> Quarter 2011	
<b>Figure</b>	7: Private Agriculture, Forestry, Fishing, and Hunting Employment by Age Group,	,
	1 <sup>st</sup> Quarter 2000 to 2 <sup>nd</sup> Quarter 2011	11
<b>Figure</b>	8: Private Mining Employment by Age Group,	
	1 <sup>st</sup> Quarter 2000 to 2 <sup>nd</sup> Quarter 2011	12
Figure	9: Private Utilities Employment by Age Group,	
	1 <sup>st</sup> Quarter 2000 to 2 <sup>nd</sup> Quarter 2011	13
Figure	10: Private Construction Employment by Age Group,	
	1 <sup>st</sup> Quarter 2000 to 2 <sup>nd</sup> Quarter 2011	14
Figure	11: Private Manufacturing Employment by Age Group,	
	1 <sup>st</sup> Quarter 2000 to 2 <sup>nd</sup> Quarter 2011	15
Figure	12: Private Wholesale Trade Employment by Age Group,	
	1 <sup>st</sup> Quarter 2000 to 2 <sup>nd</sup> Quarter 2011	16
Figure	13: Private Retail Trade Employment by Age Group,	
	1 <sup>st</sup> Quarter 2000 to 2 <sup>nd</sup> Quarter 2011	17
Figure	14: Private Transportation and Warehousing Employment by Age Group,	
	1 <sup>st</sup> Quarter 2000 to 2 <sup>nd</sup> Quarter 2011	18
Figure	15: Private Information Employment by Age Group,	
	1 <sup>st</sup> Quarter 2000 to 2 <sup>nd</sup> Quarter 2011	19
Figure	16: Private Finance and Insurance Employment by Age Group,	
	1 <sup>st</sup> Quarter 2000 to 2 <sup>nd</sup> Quarter 2011	20
Figure	17: Private Real Estate and Rental and Leasing Employment by Age Group,	
	1 <sup>st</sup> Quarter 2000 to 2 <sup>nd</sup> Quarter 2011	21
Figure	18: Private Professional, Scientific, and Technical Services Employment by Age	
	Group, 1 <sup>st</sup> Quarter 2000 to 2 <sup>nd</sup> Quarter 2011	22
Figure	19: Private Management of Companies and Enterprises Employment by Age	
	Group, 1 <sup>st</sup> Quarter 2000 to 2 <sup>nd</sup> Quarter 2011	
Figure	20: Private Administrative and Support and Waste Management and Remediation	
<b>-</b>	Services Employment by Age Group, 1 <sup>st</sup> Quarter 2000 to 2 <sup>nd</sup> Quarter 2011	24
Figure	21: Public and Private Educational Services Employment by Age Group,	^-
		25
Figure	22: Public and Private Health Care and Social Assistance Employment by Age	^^
<b>-</b>		26
rigure	23: Private Arts, Entertainment, and Recreation Employment by Age Group,	~~
<b>-</b>		27
rigure	24: Private Accommodation and Food Services Employment by Age Group,	22
Г:		28
rigure	25: Private Other Services Employment by Age Group,	20
	1 <sup>st</sup> Quarter 2000 to 2 <sup>nd</sup> Quarter 2011	29

Figure 26: Public Administra	ition Employment by Age Group,	
1 <sup>st</sup> Quarter 2000 to 2 <sup>nd</sup>	d Quarter 2011	.30

### **Executive Summary**

Ohio faces a significant workforce challenge that could last up to 20 years: the loss of workers born during the "baby boom." From 1946 to 1964, birth rates were high, swelling Ohio's population and, later, its workforce. The "baby bust" occurred when birth rates declined after 1964, signaling an end to the baby boom—and the beginning of the workforce challenge. The baby boom created a larger-than-average group of workers who are now approaching traditional retirement age; the baby bust gave us fewer workers to replace the baby boomers as they retire.

This report analyzed labor force and industry data to provide an up-to-date picture of Ohio's aging workforce:

- Ohio's rate of growth for the workforce is slowing. From 1998 to 2008, the workforce increased by 5.3 percent. By 2018, projected growth is only 1.6 percent.
- From 2008 to 2018, the labor force participation rate is expected to fall 1.4 percentage points to 65.8 percent.
- The aging workforce will not affect all industries equally. Some industries have more older workers than others, and they may face substantial replacement needs when those workers retire.
- Fourteen industry sectors have higher-than-average proportions of workers 55 or older.
- Industry demographics from the first quarter of 2001 to the second quarter of 2011 show the proportion of workers 45 and older has been increasing in many industries. A smaller group of industries has seen significant increases in the proportion of workers 55 and older.
- Almost 30 percent of workers in the educational services sector are 55 and older, putting them at or nearing retirement age. Many occupations in this sector require at least a bachelor's degree, making the lead time for meeting occupational education requirements significant.
- About 20 percent of workers in health care and social assistance are 55 or older. Although this proportion is lower than some other industries, it is significant because demand for workers in this sector is especially high, and many occupations in this sector require extensive post-secondary education.

The challenge of an aging workforce is twofold. The first will be to identify occupations in which a high proportion of workers are at or nearing retirement age. This is problematic because there is little demographic data available for occupations. The second challenge will be to train enough workers in a timely fashion to fill jobs as older workers retire.

## I. Population Trends

Due to low birth rates during the Great Depression, followed by the nation's involvement in World War II, the number of people born in the 1930s and early 1940s is quite small. Most individuals in this group were over 50 years old by 1992 and had exited the labor force by 2004. The end of World War II precipitated a baby boom in the United States that lasted from 1946 through 1964. During this period, there was an average of four million births every year nationwide, a level that would not be seen again until 1989.

The magnitude of this spike in births can be seen in Figure 1 below. After negative population growth during the war, population increased 8.6 percent in Ohio in 1946 and 5.7 percent nationwide. Throughout nearly the entire remainder of the period of analysis, the state lagged behind the rest of the country in growth. In 2011, Ohio's population grew only about one tenth of a percent, while national population grew 0.7 percent.

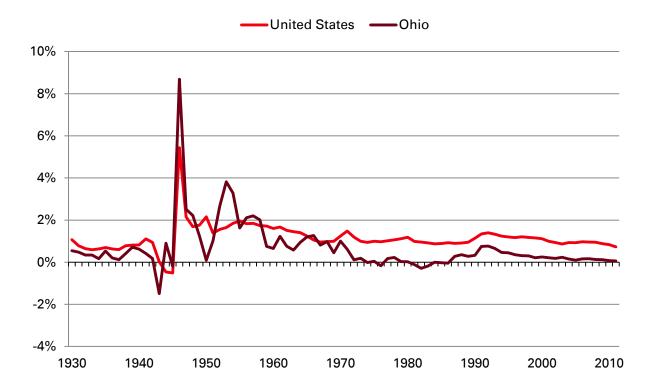


Figure 1: Population Growth, 1920 to 2011

Source: U.S. Census Bureau.

Since the baby boom, there have been two other large-scale demographic events in the United States, though nowhere near the baby boom's magnitude. The baby bust refers to a drop in births after 1964 and through the 1970s. The baby bust effect was more pronounced in Ohio during this period than nationwide, with state population growth dipping into negative territory in 1976 and the early 1980s. The baby echo refers to a modest increase in the late 1970s through the early 1990s. These are the children of women from the baby boom group.

The result of the baby boom for Ohio has been a larger-than-average group of workers who are approaching traditional retirement age. Figure 2 below breaks down Ohio's population by age group for 2000, 2010, projected 2020, and projected 2030. Baby boomers, included in the highlighted groups in this table, make up about 35 percent of the population today. The oldest of the baby boomers will be turning 74 in 2020.

Figure 27: Ohio Population by Age, 2000, 2010, Projected 2020, and Projected 2030

Age Group	2000	2010	2020 Proj.	2030 Proj.
Total	11,363.8	11,538.0	12,005.7	12,317.6
Under 5	754.0	719.1	729.7	743.5
5 to 14	1,641.3	1,519.3	1,543.5	1,591.9
15 to 24	1,552.9	1,585.3	1,669.4	1,661.7
25 to 34	1,513.1	1,414.4	1,535.3	1,529.2
35 to 44	1,802.4	1,473.0	1,504.0	1,655.4
45 to 54	1,577.3	1,738.1	1,572.4	1,465.6
55 to 64	1,013.6	1,462.2	1,575.1	1,412.4
65 to 74	788.4	853.9	1,127.4	1,274.8
75 and older	720.8	772.7	749.1	983.2
Populations are	shown in thous	sands. The hab	v boom genera	tion is

Populations are shown in thousands. The baby boom generation is included in the groups highlighted above.

Sources: U.S. Census Bureau, 2010, 2012; Ohio Department of Development, 2003.

Ohio's population breakdown is shown in greater detail in Appendix A at the end of this report. In 2000, only 22.2 percent of the state was 55 or older. By 2010, this proportion had risen to 26.8 percent. By 2020, when a larger proportion of the baby boom generation has reached retirement age, nearly 3.5 million Ohioans will be 55 or older (28.7%), according to projections from the Ohio Department of Development. By 2030, it will be 3.7 million (29.8%). Clearly, Ohio is growing older.

#### II. Labor Force Trends

There are two primary factors that determine the size of Ohio's labor force: the size of the working-age population and the labor force participation rate. The working-age population is the population 16 years and older who are not institutionalized (for example, in the hospital, military, or correctional facilities). The labor force participation rate is the proportion of the working-age population that is either working or looking for work.

Projected changes in Ohio's labor force are shown in Figure 3 below. Ohio's rate of growth for the workforce is slowing. The overall supply of workers grew from 5.7 million in 1998 to 6 million in 2008, an increase of about 303,000 (5.3%). By 2018, this number is projected to grow by another 93,000 to 6.1 million (1.6%).

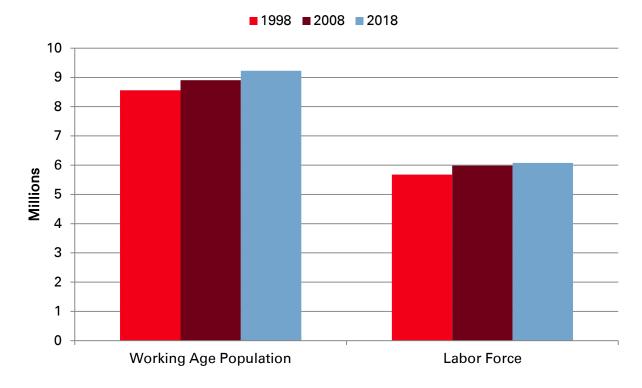


Figure 3: Ohio Working-Age Population and Labor Force, 1998, 2008, & 2018

Source: Ohio Department of Job and Family services, 2010

The slowing rate of growth in the labor force is matched by declines in the labor force participation rate, which is expected to fall 1.4 percentage points between 2008 and 2018 to 65.8 percent. Figure 4 on the next page compares participation rates across various age groups. In the next ten years, the participation rates are expected to decline in three groups: 16 to 24, 25 to 34, and 45 to 54. Workers 55 and older are expected to have higher participation rates during this period. Labor force figures are shown in greater detail in Appendix B at the end of this report.

**■**1998 **■**2008 **■**2018 100% 90% 80% 70% 60% 50% 40% 30% 20% 10% 0% Total 16-24 25-34 45-54 35-44 55-64 65+

Figure 4: Ohio Labor Force Participation Rates by Age Group, 1998, 2008, & 2018

Source: Ohio Department of Job and Family services, 2010

Labor force trends also differ by gender. Figure 5 below compares labor force participation rates between men and women. In general, men have higher participation rates than women, though this gap is shrinking. In 1998, the men's participation rate was 13.7 points higher than women. By 2008, the gap declined to 9.9 points. In 2018, the projected gap will be only 8.9 points.

Figure 5: Ohio Labor Force Statistics by Gender, 1998, 2008, & 2018

	Population 16 Civilian Labor Partic		Labor Force Participation Rate	Share of Total
		1998		
Total	8,561,000	5,678,000	66.3%	100.0%
Men	4,081,000	3,001,000	73.5%	52.9%
Women	4,480,000	2,677,000	59.8%	47.1%
		2008		
Total	8,906,000	5,981,000	67.2%	100.0%
Men	4,277,000	3,094,000	72.3%	51.7%
Women	4,630,000	2,887,000	62.4%	48.3%
		Projected 20	018	
Total	9,228,000	6,074,000	65.8%	100.0%
Men	4,469,000	3,147,000	70.4%	51.8%
Women	4,760,000	2,927,000	61.5%	48.2%

### III. Industry Sector Age Demographics

Changing participation rates and retirement patterns will not affect all industries and occupations equally. Some industries tend to have more older workers than others and therefore may face large replacement needs when those workers retire and leave the workforce.

Figure 6 below shows the proportion of workers in two-digit industry sectors that are 55 or older during the period from the third quarter of 2010 through the second quarter of 2011. The average across all industries in the second quarter of 2011 was about 18.2 percent. Fourteen of 19 sectors had higher-than-average proportions of workers 55 or older. The three sectors with the highest proportions of older workers were educational services (28.4%), utilities (24.4%), and mining (23.8%). Accommodation and food services, which is commonly thought of as an industry for younger adults, had the lowest proportion (7.0%).

All sectors Agriculture, Forestry, Fishing, and Hunting Mining **Utilities** Construction Manufacturing Wholesale Trade **Retail Trade** 18.0% Transportation and Warehousing Information Finance and Insurance 18.7% Real Estate and Rental and Leasing Professional, Scientific, and Technical Services 19.1% Management of Companies and Enterprises 19.3% Administrative Support and Waste Management **Educational Services** 28 4% Health Care and Social Assistance Arts, Entertainment, and Recreation 18.2% Accommodation and Food Services Other Services **Public Administration** 23.3% 5.0% 10.0% 15.0% 20.0% 25.0% 30.0%

Figure 6: Average Proportion of Workers 55 and Older by Industry Sector, 3<sup>rd</sup> Quarter 2010 through 2<sup>nd</sup> Quarter 2011

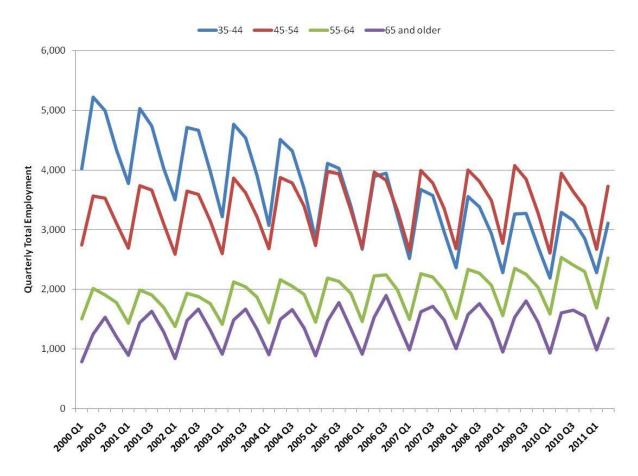
## Agriculture, Forestry, Fishing, and Hunting

Figure 7 below shows employment levels for four age groups in this sector. The sector includes employment in crop production; animal herding and slaughter; tree farms; and certain support industries.

Aside from the strong regular seasonal variations, which stem from growing seasons, the number of workers 35 to 44 has shrunk considerably over the last ten years. The lack of a correspondingly strong rise in other age groups over the period suggests that younger workers are not entering the sector as its total employment has declined.

Figure 7: Private Agriculture, Forestry, Fishing, and Hunting Employment by Age Group,

1st Quarter 2000 to 2nd Quarter 2011

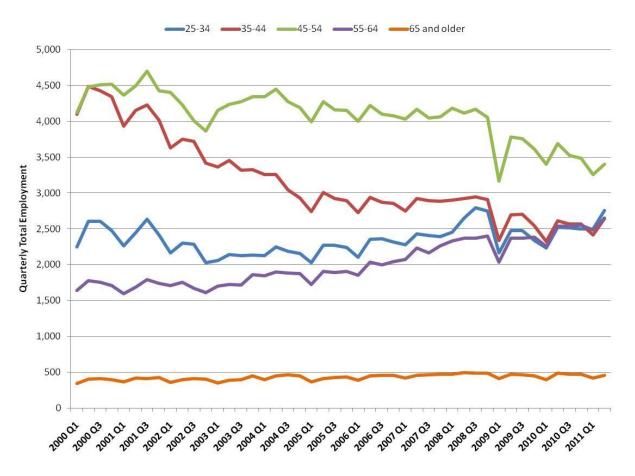


#### Mining

Figure 8 below shows employment levels for five age groups in this sector. The sector includes oil and gas extraction, mineral mining, surveying, and certain support activities.

Mining employment dropped after the recession of 2001 and had been increasing before the 2007-2009 recession. Employment among the 25-to-34 and 55-to-64 age groups increased, while employment among the 35-to-44 and 45-to-54 age groups decreased. The number of workers 65 and older has held relatively steady over the period of analysis. The data suggests that younger workers left or did not enter this sector for several years following the 2001 recession, which led to a smaller, older workforce. Employment among the 25-to-34 age group began to increase prior to the 2007-2009 recession, but the mining workforce is still biased toward those ages 45 and older.

Figure 8: Private Mining Employment by Age Group, 1st Quarter 2000 to 2nd Quarter 2011

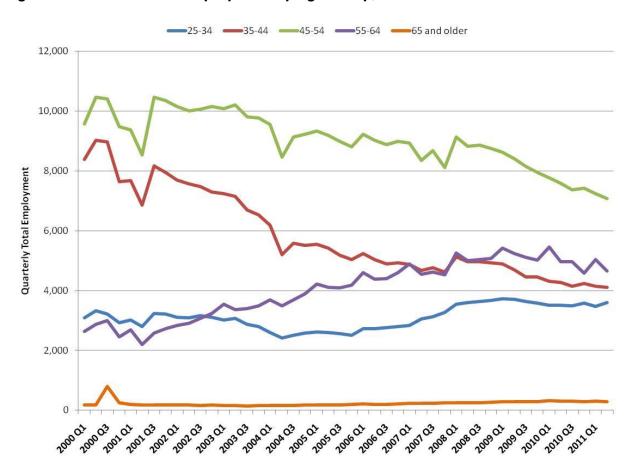


#### **Utilities**

Figure 9 below shows employment levels for five age groups in this sector. The sector includes power generation, natural gas distribution, and water and sewer systems.

There has been a downward trend in utilities employment over the last ten years. As employment declined, few younger workers entered the industry, and the workers who remained employed in the industry got older. Employment in the 25-to-34 age group began to rise a few years before the 2007-2009 recession, and has since remained flat. Employment in the 35-to-44 and 45-to-54 age groups fell significantly over the past ten years, while employment in the 55 to 64 age group increased until the 2007-2009 recession. The number of workers 65 and older has held relatively steady.

Figure 9: Private Utilities Employment by Age Group, 1st Quarter 2000 to 2nd Quarter 2011



#### Construction

Figure 10 below shows employment levels for five age groups in this sector. The sector includes building construction; heavy and civil engineering construction; and specialty contractors.

The data show a strong seasonal pattern to employment, as construction business slows during the winter months. Total annual employment in construction peaked in 2003 and began a slight decline before the 2007-2009 recession. Workers in the construction industry were getting older through this period. Even before the recession, employment in the 19-to-24, 25-to-34, and 35-to-44 age groups was declining. At the same time, employment in 45-to-54 and 55-to-64 age groups increased. Since the recession, employment among the 19-to-24 age group has declined while employment for the other age groups has been flat.

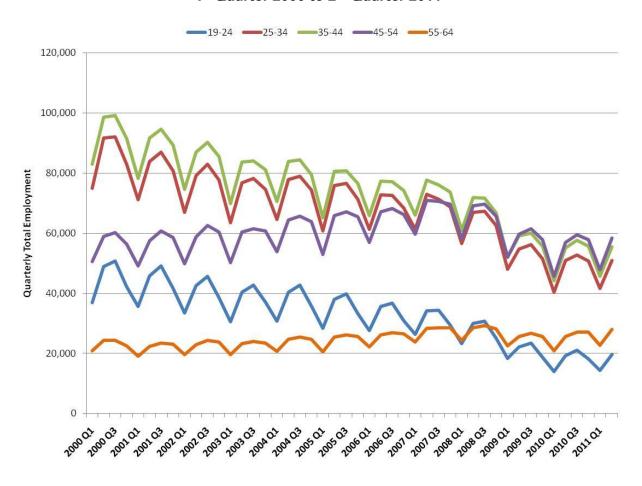


Figure 10: Private Construction Employment by Age Group,
1st Quarter 2000 to 2nd Quarter 2011

#### Manufacturing

Figure 11 below shows employment levels for four age groups in this sector. The sector covers all manufacturing, including food and beverages; textiles; paper and printing; metal refineries; and motor vehicles.

Ohio manufacturing employment has been in decline over the last decade across all age groups, with the notable exception of the 55-to-64 group, which has held relatively steady. This group, which surpassed the 25-to-34 group in the fourth quarter of 2008, also had a much smaller reaction to a downturn beginning that year.

255.34 — 35.44 — 45.54 — 55.64

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Figure 11: Private Manufacturing Employment by Age Group,

1st Quarter 2000 to 2nd Quarter 2011

#### Wholesale Trade

Figure 12 below shows employment levels for four age groups in this sector. The sector includes both traditional merchant wholesalers and electronic markets and brokers.

Employment in wholesale trade has been shifting toward older age groups. The two younger age groups shown in this chart—25-to-34 and 35-to-44—were both in decline for almost the entire period of analysis. The number of workers in the 45-to-54 age group increased until the beginning of the recession in late 2007 and then started to drop. Only the 55-to-64 group showed consistent growth over the last decade. Total annual employment in wholesale trade was relatively flat until the recession.

90,000

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Figure 12: Private Wholesale Trade Employment by Age Group,

1st Quarter 2000 to 2nd Quarter 2011

#### **Retail Trade**

Figure 13 below shows employment levels for eight age groups in this sector. The sector includes most retail shops, auto dealers, grocery stores, gas stations, department stores, mail-order houses, and vending machine operators.

Employment in retail trade declined significantly from 2001 to 2009. The majority of workers in this sector are between 25 and 54, but employment among those ages 25 to 44 declined throughout the period of analysis, while employment for the 45-to-54 age group declined only at the 2007-2009 recession. Employment for the 55-to-64 age group increased throughout the period of analysis. Workers 65 and older showed no appreciable change in the last decade. The rise in the 55-to-64 age group and corresponding declines in the 14-to-18 and 19-to-21 groups suggest that younger workers are being crowded out of this sector.

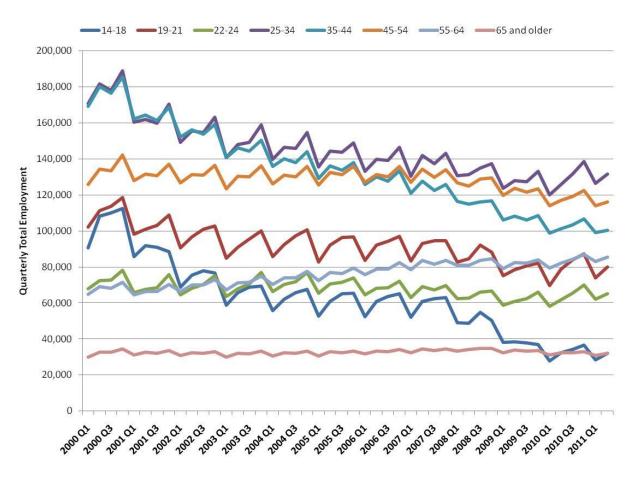


Figure 13: Private Retail Trade Employment by Age Group,

1st Quarter 2000 to 2nd Quarter 2011

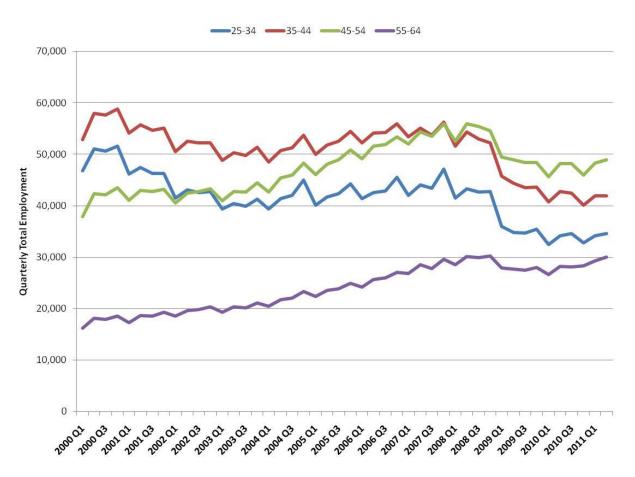
#### **Transportation and Warehousing**

Figure 14 below shows employment levels for four age groups in this sector. The sector includes air, rail, and boat transportation; trucking; buses and taxis; pipelines; logistical support; sightseeing; the post office and express delivery services; and warehousing and storage.

Employment in this sector declined from 2001 to 2003 following the 2001 recession and then increased from 2004 to 2008. Employment across all age groups dropped following the beginning of a downturn in late 2008, but the 55-to-64 group had the smallest reaction. Employment for the 55-to-64 age group increased steadily from 2000 to 2008, and declined only slightly after 2008. Over the last decade, the 45-to-54 age group has become the largest in this sector.

Figure 14: Private Transportation and Warehousing Employment by Age Group,

1st Quarter 2000 to 2nd Quarter 2011



#### Information

5.000

Figure 15 below shows employment levels for five age groups in this sector. The sector includes publishing (print and electronic), movie theaters, telecommunications, data processing, libraries, and news syndicates.

Employment in this sector declined significantly after 2000. Throughout the period of analysis, employment among 25-to-34, 35-to-44, and 45-to-54 age groups in this sector were in comparable proportions, but these groups bore the brunt of the decline. In 2000, the 22-to-24 and 55-to-64 age groups were employed in roughly equal numbers, but by 2011, the older group had become much more prevalent. This is still a sector dominated by prime-age workers, but older workers are becoming more common.

40,000
35,000
30,000
25,000
10,000

2005 O.3 .... 6 O.1

2005 0.1

Figure 15: Private Information Employment by Age Group, 1st Quarter 2000 to 2nd 2011

22-24 —25-34 —35-44 —45-54 —55-64

#### **Finance and Insurance**

Figure 16 below shows employment levels for five age groups in this sector. The sector includes commercial banks and credit unions; sales and mortgage financing; securities and commodity contract brokering; insurance carriers and brokers; pension funds; and the Federal Reserve Bank.

Total employment in the sector increased until 2006. Employment then declined until 2009, when it became volatile. The majority of workers in the finance and insurance sector are in the prime-working-age range of 25 to 54. The number of workers 45 to 54 had been rising from 2000 through 2006, but has since stabilized. The number of younger workers, 22 to 24, has been in decline. In general, it appears the majority of job losses in the last six years in this sector have been among younger workers.

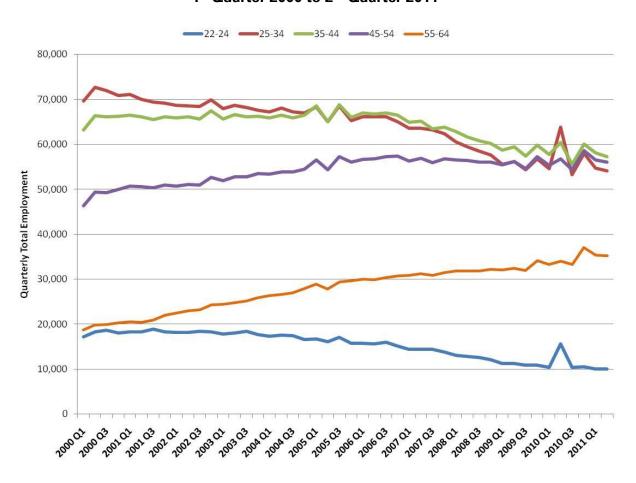


Figure 16: Private Finance and Insurance Employment by Age Group,

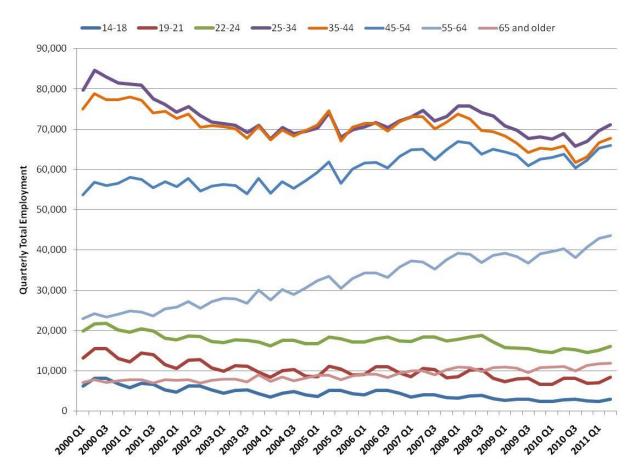
1st Quarter 2000 to 2nd Quarter 2011

#### **Real Estate and Rental and Leasing**

Figure 17 below shows employment levels for eight age groups in this sector. The sector includes realtors, property managers, landlords, appraisers, and consumer and commercial goods rental services.

Total employment in this sector declined after 2000, with the pace of the decline increasing after 2007. Employment levels on both ends of the age scale held relatively stable over the period of analysis. The 14-to-18 age group showed only a slight decline, while the 65 and older group posted a small gain. Although the 25-to-34 and 35-to-44 age groups have the highest employment in the sector, their employment has been slowly declining. The 45-to-54 and 55-to-64 age groups showed employment increases, especially the 55-to-64 group. There is a clear trend in this sector toward older workers.

Figure 17: Private Real Estate and Rental and Leasing Employment by Age Group, 1st Quarter 2000 to 2nd Quarter 2011

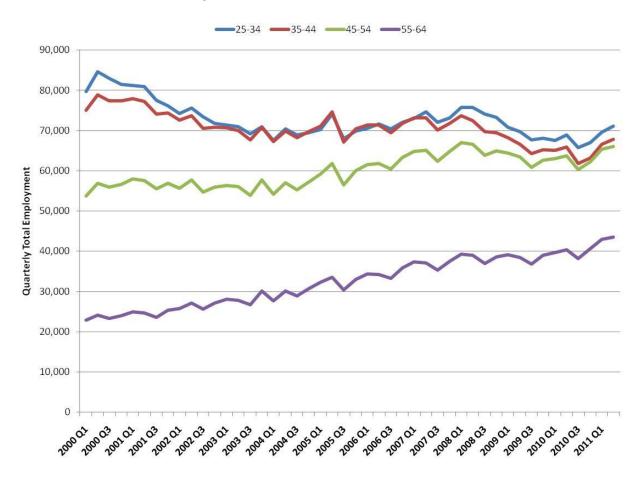


#### **Professional, Scientific, and Technical Services**

Figure 18 below shows employment levels for four age groups in this sector. The sector includes law offices; accountants; design services; management and technical consulting; research and development; and advertising.

Following the 2001 recession, total employment in the professional, scientific, and technical services sector declined until early in 2004. It then increased until mid-2008, when it declined again following the 2007-2009 recession. Employment in the sector has been increasing since late 2010. The 25-to-34 and 35-to-44 age groups have the highest employment in this sector, but they appear to have been more strongly affected by the 2007-2009 recession. Both the 45-to-54 and 55-to-64 age groups grew significantly over the period of analysis. While the sector is growing overall, a majority of the growth is in the older age groups.

Figure 18: Private Professional, Scientific, and Technical Services Employment by Age Group, 1st Quarter 2000 to 2nd Quarter 2011

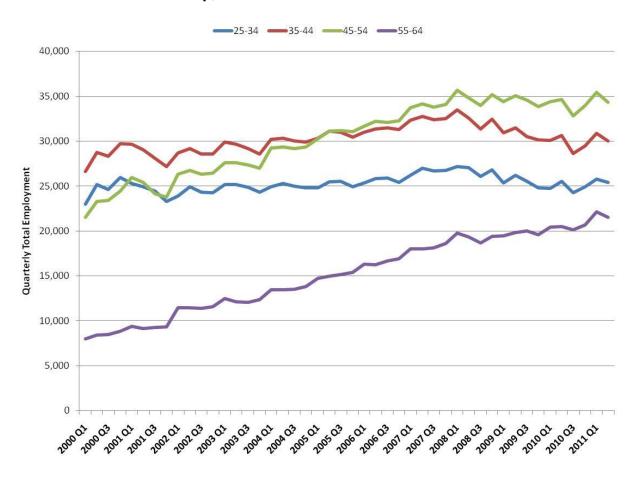


#### **Management of Companies and Enterprises**

Figure 19 below shows employment levels for four age groups in this sector. The sector includes holding companies and corporate managing offices.

Employment in the management of companies and enterprises sector increased until early 2008, when it declined with the 2007-2009 recession. Employment for the 25-to-34, 35-to-44, 45-to-54, and 55-to-64 age groups increased until 2008, although the 25-to-34 group had the weakest increase. The 55-to-64 age group was the only one not to decline after the onset of the recent recession. Although this sector is growing, its growth has primarily benefited those 35 and older.

Figure 19: Private Management of Companies and Enterprises Employment by Age Group, 1st Quarter 2000 to 2nd Quarter 2011

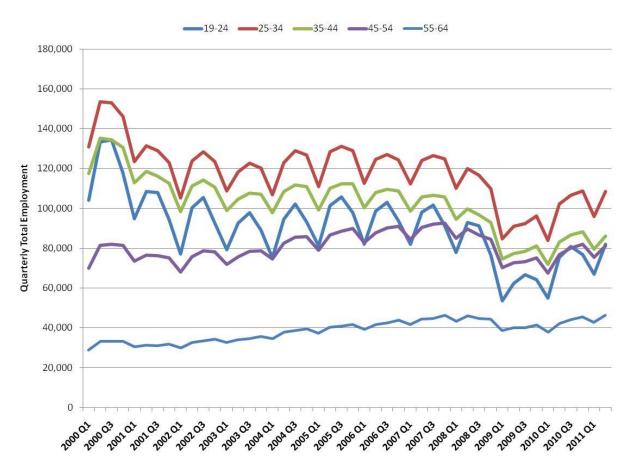


#### Administrative and Support and Waste Management and Remediation Services

Figure 20 below shows employment levels for five age groups in this sector. The sector includes facilities support, staffing agencies, call centers, collection agencies, travel agencies, private security, and hazardous material disposal.

Employment in this sector declined significantly after the 2001 recession and it remained relatively flat until 2008, when employment again declined. Employment trends in this industry sector show a strong seasonal component, which is more pronounced in the 19-to-24 age group. Prior to the 2007-2009 recession, there was a slight employment increase for workers in the 45-to-54 and 55-to-64 age groups. Those two groups had a smaller reaction to the drop in employment in late 2008. Although there appears to be a slight increase in the proportion of older workers, this sector is dominated by the 25-to-34 age group.

Figure 20: Private Administrative and Support and Waste Management and Remediation Services Employment by Age Group, 1<sup>st</sup> Quarter 2000 to 2<sup>nd</sup> Quarter 2011

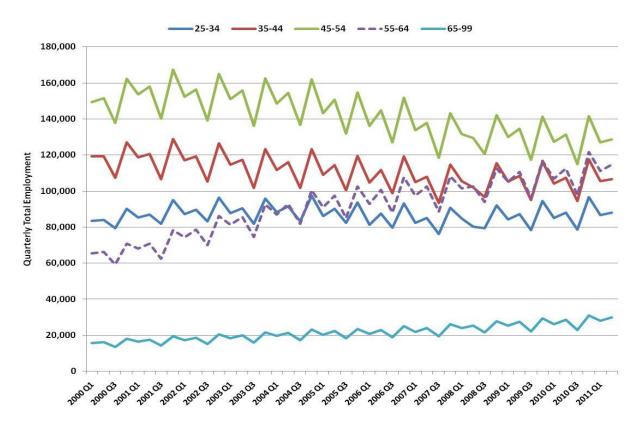


#### **Educational Services**

Figure 21 below shows employment levels for five age groups in this sector. These statistics include public and private elementary and secondary schools; colleges and universities; trade schools; and private tutoring.

There is a very strong semi-annual seasonal component to employment across all age groups, peaking in the second and fourth quarters of each year. Total employment peaked in 2004, declined before the recession, then slowly increased after 2007. Employment in the 25-to-34 age group mirrored total employment. Employment for the 35-to-44 age group peaked in 2001, declined until 2007, and has since risen slightly. The 45-to-54 age group has the largest share of employment in this sector, but it also showed the largest decline. Employment for the 45-to-54 age group peaked in 2001 and then declined through 2009. During the same period, the 55-to-64 age group showed strong growth. The 65 and older group also grew during the entire period, although its growth was not as strong as for the 55-to-64 age group. From the fourth quarter of 2001 to the fourth quarter of 2010, the percentage of those 55 and older increased from 17.7 percent to 28.3 percent. More than a quarter of those in the educational services sector are near or at traditional retirement age. Staffing patterns for educational services show that more than half of the workers in this sector are employed in education, training, and library occupations, most of which require significant post-secondary education.

Figure 21: Public and Private Educational Services Employment by Age Group,
1st Quarter 2000 to 2nd Quarter 2011

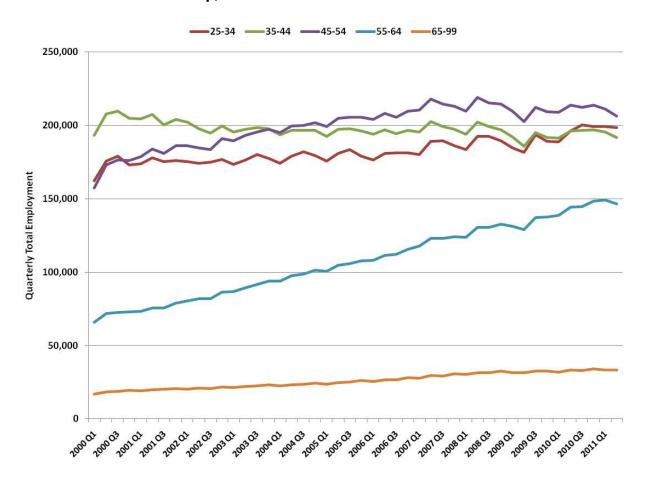


#### **Health Care and Social Assistance**

Figure 22 below shows employment levels for five age groups for this sector. The sector includes doctors' and dentists' offices; ambulance services; medical laboratories; blood banks; hospitals; nursing homes; food pantries; emergency shelters; and day care.

The health care and social assistance sector has had strong employment growth over the last ten years, although employment became more volatile with the 2007-2009 recession. There has been a slight increase in the number of workers 25 to 34, a slight decline among workers 35 to 44, and a moderate increase in employment among those 45 to 54. As the chart indicates, the majority of growth in the sector has come in the form of workers 55 to 64 years old. There has been a slight increase in workers 65 and older as well. Through the period of analysis, the percentage of workers 55 and older increased from about 12 percent to more than 20 percent. This is a substantial workforce liability, with one in five workers near or at traditional retirement ages. Many occupations in this sector require substantial post-secondary education, which may make it difficult to meet possible sudden increases in demand.

Figure 22: Public and Private Health Care and Social Assistance Employment by Age Group, 1st Quarter 2000 to 2nd Quarter 2011



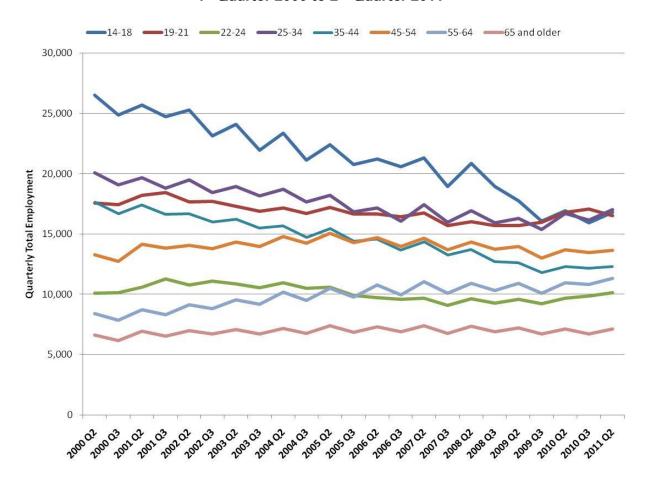
#### Arts, Entertainment, and Recreation

Figure 23 below shows employment levels for eight age groups in this sector. The sector includes fine arts, professional sports teams, museums, amusement parks, casinos, and athletic centers.

Employment in arts, entertainment, and recreation is highly seasonal, with peaks in the second and third quarters. A large number of the industry's workers are 14 to 18, a group that is available for such seasonal work. Annual employment in this sector has declined, and the 14-to-18 age group lost the most workers. Employment in other age groups declined or stayed flat, except for the 55-to-64 age group, which gradually increased employment over the period.

Figure 23: Private Arts, Entertainment, and Recreation Employment by Age Group,

1st Quarter 2000 to 2nd Quarter 2011



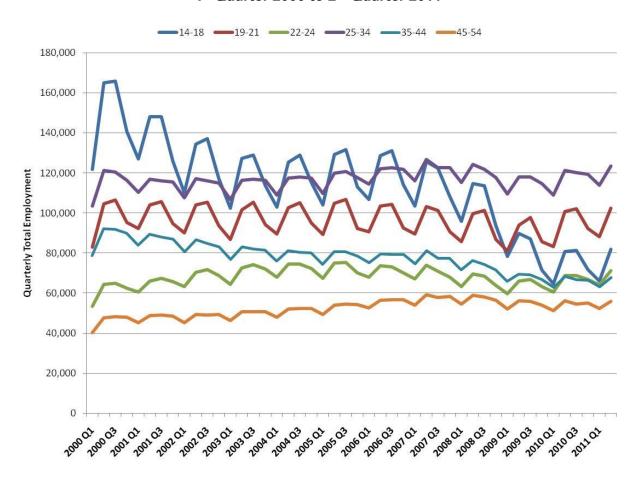
#### **Accommodation and Food Services**

Figure 24 below shows employment levels for six age groups in this sector. The sector includes hotels, RV camps, restaurants, bars, and caterers.

Employment in accommodation and food services declined after the 2001 recession, stayed stable through 2007, and then declined again with the 2007-2009 recession. This industry sector has an especially strong seasonal pattern to employment, peaking in the second and third quarters. The number of workers ages 14 to 18 had the greatest decline over the last decade, but the 35-to-44 age group also slipped.

Figure 24: Private Accommodation and Food Services Employment by Age Group,

1st Quarter 2000 to 2nd Quarter 2011



#### Other Services, except Public Administration

Figure 25 below shows employment levels for six age groups in this sector. The sector includes repair shops; barbers and salons; funeral homes; dry cleaners; coin laundries; religious organizations; civic, social, professional, or political organizations; and private households.

Employment in this sector declined steadily over the period, with a steeper decline following the 2007-2009 recession. Employment among all age groups declined, except for the 55-to-64 age group, which increased slightly over the period. The long-term decline in employment has affected older workers less than younger ones.

10,000 10

Figure 25: Private Other Services Employment by Age Group, 1st Quarter 2000 to 2nd Quarter 2011

#### **Public Administration**

Figure 26 below shows employment levels for five age groups in this sector. The sector includes executive, legislative, and other general government support; justice, public order and safety activities; human resource programs; environmental quality programs; housing programs, urban planning, and community development and economic programs.

Employment in public administration has a seasonal factor, with employment peaking in the second and third quarters. Employment in public administration declined after 2002; it stayed relatively steady until 2009, when it began to decline again. Employment among the 25-to-34 and the 35-to-44 age groups declined through the period. The 45-to-54 age group began declining slightly in 2009. Employment in the 55-to-64 age group increased steadily and significantly through the period, and employment for those 65 and older increased slightly. In 2001, those 55 and older accounted for about 13 to 14 percent of the public administration workforce. By late 2010, the proportion had risen to about 24 percent. Almost a quarter of the workforce in public administration are near or at traditional retirement ages.

25-34 -35-44 -45-54 -55-64 -65-99 70,000 60,000 50,000 Quarterly Total Employment 40,000 30,000 20,000 10.000 2004 03 2005 0.1 2005 03 2006 0.1 2007 03 2008 03 2004.01 2007 02 2008 02

Figure 26: Public Administration Employment by Age Group,

1st Quarter 2000 to 2nd Quarter 2011

#### IV. Conclusion

The baby boom that followed World War II, from 1946 to 1964, swelled the American workforce. The baby boom generation has begun to reach traditional retirement age, and this poses problems for the workforce. The baby boom was followed by a baby bust period of lower birth rates. As baby boomers retire, fewer workers from the baby bust period are available to fill vacated jobs.

The Ohio data from the Census Bureau's Quarterly Workforce Indicators suggests that the national recession that began in 2007 may have increased the proportion of older workers in some industry sectors. In those sectors, older workers remained in the workforce at higher rates, possibly to recoup financial losses.<sup>1</sup> This may have been an advantage for some industries because they were able to retain experienced workers longer, but it also may have made it more difficult for younger workers to enter the workforce. A similar problem happened during the Great Depression.<sup>2</sup>

Two industry sectors stand out as particularly problematic. Almost three of every 10 workers in educational services is near or at retirement age. Many of these workers are in local public schools systems. If those workers begin to retire quickly, school systems could find themselves competing for qualified workers. The second sector is health care and social assistance, which has about 20 percent of its workforce near or at retirement age. Although this percentage is less than in some other industries, demand for health care workers has been especially high because the industry is still expanding. Loss of older workers could increase demand and potentially lead to worker shortages in occupations with extensive education requirements. In addition, aging Baby Boomers' health care needs are leading to higher service demands in that industry.

An aging workforce poses challenges, but those challenges can be managed with appropriate strategy. The first step is to identify the most critical occupations at risk for large-scale retirements. The next step is to ensure that sufficient education and training programs exist to accommodate potential replacement workers. A thorough examination of data is essential, as is a continued collaboration and coordination between workforce professionals, educational institutions, training programs and employers.

<sup>&</sup>lt;sup>1</sup> Howe, N. (2012). What makes the Boomers the Boomers? Governing, <a href="http://www.governing.com/generations/government-management/gov-what-makes-boomers.html">http://www.governing.com/generations/government-management/gov-what-makes-boomers.html</a>. lbid.

## **Appendix A: Population Projections**

Age Group	2000 Number	) Share	2010 Number	) Share	2020 P Number	roj. Share	2030 P Number	roj. Share
Group	Ivumber	Silare	Number	Total	Nulliber	Silare	Number	Silare
Total	11,363,844	100.0%	11,537,968	100.0%	12,005,730	100.0%	12,317,610	100.0%
0-5	754,003	6.6%	719,052	6.2%	729,650	6.1%	743,460	6.0%
5-9	811,497	7.1%	745,793	6.5%	742,440	6.2%	768,920	6.2%
10-14	829,812	7.3%	773,481	6.7%	801,050	6.7%	822,970	6.7%
15-19	818,449	7.2%	819,942	7.1%	862,860	7.2%	866,770	7.0%
20-24	734,401	6.5%	765,374	6.6%	806,490	6.7%	794,930	6.5%
25-29	729,766	6.4%	719,690	6.2%	768,760	6.4%	733,840	6.0%
30-34	783,303	6.9%	694,694	6.0%	766,580	6.4%	795,320	6.5%
35-39	879,447	7.7%	712,577	6.2%	749,820	6.2%	849,440	6.9%
40-44	922,934	8.1%	760,390	6.6%	754,130	6.3%	805,930	6.5%
45-49	839,074	7.4%	850,496	7.4%	794,810	6.6%	745,210	6.0%
50-54	738,258	6.5%	887,645	7.7%	777,610	6.5%	720,430	5.8%
55-59	556,283	4.9%	791,042	6.9%	801,790	6.7%	729,700	5.9%
60-64	457,348	4.0%	671,178	5.8%	773,330	6.4%	682,690	5.5%
65-69	401,363	3.5%	481,114	4.2%	635,860	5.3%	670,970	5.4%
70-74	387,068	3.4%	372,827	3.2%	491,510	4.1%	603,790	4.9%
75-79	326,118	2.9%	296,824	2.6%	316,370	2.6%	447,860	3.6%
80-84	216,822	1.9%	243,852	2.1%	217,060	1.8%	304,140	2.5%
85+	177,898	1.6%	231,997	2.0%	215,620	1.8%	231,240	1.9%
				Men				
Total	5,518,220	48.6%	5,633,699	48.8%	5,874,130	48.9%	6,037,370	49.0%
0-5	384,681	3.4%	366,546	3.2%	374,130	3.1%	381,230	3.1%
5-9	414,553	3.6%	381,573	3.3%	380,310	3.2%	393,900	3.2%
10-14	425,853	3.7%	395,435	3.4%	411,730	3.4%	423,100	3.4%
15-19	417,359	3.7%	419,405	3.6%	441,000	3.7%	442,980	3.6%
20-24	366,347	3.2%	385,373	3.3%	407,070	3.4%	405,290	3.3%
25-29	363,649	3.2%	358,517	3.1%	374,680	3.1%	361,070	2.9%
30-34	390,191	3.4%	345,813	3.0%	376,990	3.1%	393,530	3.29
35-39	433,789	3.8%	353,561	3.1%	369,020	3.1%	424,190	3.49
40-44	454,827	4.0%	377,447	3.3%	376,750	3.1%	407,650	3.3%
45-49	413,158	3.6%	418,211	3.6%	409,720	3.4%	373,610	3.0%
50-54	361,253	3.2%	435,007	3.8%	397,460	3.3%	361,020	2.9%
55-59	267,486	2.4%	385,514	3.3%	397,310	3.3%	372,940	3.0%
60-64	215,468	1.9%	323,142	2.8%	373,270	3.1%	340,780	2.8%
65-69	183,199	1.6%	224,937	1.9%	298,050	2.5%	318,670	2.6%
70-74	169,130	1.5%	167,902	1.5%	217,710	1.8%	271,050	2.29
75-79	130,752	1.2%	126,555	1.1%	127,370	1.1%	185,710	1.5%
80-84	77,963	0.7%	95,740	0.8%	76,680	0.6%	110,940	0.9%
85+	48,562	0.4%	73,021	0.6%	64,890	0.5%	69,710	0.69
				Women				
Total	5,845,624	51.4%	5,904,269	51.2%	6,131,600	51.1%	6,280,250	51.0%
0-5	369,322	3.2%	352,506	3.1%	355,520	3.0%	362,230	2.9%
5-9	396,944	3.5%	364,220	3.2%	362,130	3.0%	375,020	3.0%
10-14	403,959	3.6%	378,046	3.3%	389,310	3.2%	399,870	3.2%
15-19	401,090	3.5%	400,537	3.5%	421,860	3.5%	423,790	3.4%
20-24	368,054	3.2%	380,001	3.3%	399,420	3.3%	389,630	3.29
25-29	366,117	3.2%	361,173	3.1%	394,080	3.3%	372,780	3.0%
30-34	393,112	3.5%	348,881	3.0%	389,590	3.2%	401,790	3.3%
35-39	445,658	3.9%	359,016	3.1%	380,800	3.2%	425,250	3.5%
40-44	468,107	4.1%	382,943	3.3%	377,380	3.1%	398,280	3.29
45-49	425,916	3.7%	432,285	3.7%	385,090	3.1%	371,600	3.0%
50-54	377,005	3.7 %	452,285	3.7%	380,150	3.2%	359,410	2.9%
55-59	288,797	2.5%	405,528	3.5%	404,490	3.4%	356,760	2.99
60-64	241,880	2.1%	348,036	3.0%	400,060	3.3%	341,910	2.89
65-69	218,164	1.9%	256,177	2.2%	337,810	2.8%	352,300	2.99
	217,938	1.9%	204,925	1.8%	273,800	2.3%	332,740	2.79
70-74						4 00/	000 450	2.19
70-74 75-79	195,366	1.7%	170,269	1.5%	189,000	1.6%	262,150	
70-74		1.7% 1.2%	170,269 148,112	1.5% 1.3%	189,000	1.6%	193,190	1.69

## Appendix B: Labor Force Projections

Age			stimate		2008 Estimate				2018 Projected			
Group	NI Civ.	Civilian Labor Force			NI Civ. Civilian Labor Force				NI Civ.	Civilian Labor Force		
	Pop. 16+	Number	Share	LFPR	Pop. 16+	Number	Share	LFPR	Pop. 16+	Number	Share	LFPR*
						Total						
Total	8,561	5,678	100.0%	66.3%	8,906	5,981	100.0%	67.2%	9,228	6,074	100.0%	65.8%
16-24	1,344	923	16.3%	68.7%	1,460	923	15.4%	63.2%	1,297	795	13.1%	61.3%
16-19	637	367	6.5%	57.6%	702	332	5.6%	47.3%	585	257	4.2%	43.9%
20-24	707	556	9.8%	78.6%	758	591	9.9%	78.0%	712	538	8.9%	75.6%
25-34	1,605	1,372	24.2%	85.5%	1,364	1,155	19.3%	84.7%	1,528	1,293	21.3%	84.6%
35-44	1,770	1,513	26.6%	85.5%	1,538	1,300	21.7%	84.5%	1,482	1,298	21.4%	87.6%
45-54	1,435	1,177	20.7%	82.0%	1,798	1,517	25.4%	84.4%	1,502	1,233	20.3%	82.1%
55-64	855	555	9.8%	64.9%	1,331	852	14.2%	64.0%	1,533	1,043	17.2%	68.0%
65+	1,452	139	2.4%	9.6%	1,415	233	3.9%	16.5%	1,887	411	6.8%	21.8%
						Men						
Total	4,081	3,001	100.0%	73.5%	4,277	3,094	100.0%	72.3%	4,469	3,147	100.0%	70.4%
16-24	665	465	15.5%	69.9%	732	462	14.9%	63.1%	661	405	12.9%	61.3%
16-19	308	179	6.0%	58.1%	358	155	5.0%	43.3%	299	119	3.8%	39.8%
20-24	357	286	9.5%	80.1%	374	307	9.9%	82.1%	362	286	9.1%	79.0%
25-34	776	734	24.5%	94.6%	660	596	19.3%	90.3%	778	681	21.6%	87.5%
35-44	870	810	27.0%	93.1%	770	703	22.7%	91.3%	744	699	22.2%	94.0%
45-54	702	631	21.0%	89.9%	850	757	24.5%	89.1%	747	642	20.4%	85.9%
55-64	456	289	9.6%	63.4%	658	454	14.7%	69.0%	741	527	16.7%	71.1%
65+	611	72	2.4%	11.8%	607	124	4.0%	20.4%	797	192	6.1%	24.1%
						Women						
Total	4,480	2,677	100.0%	59.8%	4,630	2,887	100.0%	62.4%	4,760	2,927	100.0%	61.5%
16-24	678	457	17.1%	67.4%	728	461	16.0%	63.3%	637	390	13.3%	61.2%
16-19	329	188	7.0%	57.1%	345	177	6.1%	51.3%	287	138	4.7%	48.1%
20-24	349	269	10.0%	77.1%	383	284	9.8%	74.2%	350	252	8.6%	72.0%
25-34	830	638	23.8%	76.9%	703	560	19.4%	79.7%	749	611	20.9%	81.6%
35-44	900	703	26.3%	78.1%	769	598	20.7%	77.8%	737	599	20.5%	81.3%
45-54	734	545	20.4%	74.3%	948	760	26.3%	80.2%	754	591	20.2%	78.4%
55-64	498	266	9.9%	53.4%	673	399	13.8%	59.3%	791	517	17.7%	65.4%
65+	840	67	2.5%	8.0%	808	109	3.8%	13.5%	1,090	219	7.5%	20.1%

Office of Workforce Development P.O. Box 1618 Columbus, OH 43216-1618



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