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Ohio's Shifting Demographics

Ohio's population growth and composition has a variety of implications for the state, including its economic growth, its ability to attract and retain jobs and investment, and the state budget. This issue of *On the Money* will explore various past, current, and projected characteristics of Ohio's population. These include population growth, age, race and ethnicity, and household composition.

Some of these characteristics will be analyzed at a regional level using these articles' standard 13 regions comprising all 88 counties. These include Ohio's six large Metropolitan Statistical Areas (MSAs) and seven other regions including smaller MSAs and rural counties. These seven regions were configured based largely on commonality of manufacturing and agricultural characteristics. Because of space considerations, however, most of the analysis groups the MSA and non-MSA regions into two categories. The regions are mapped in Figure 1 on the next page.

Past and Projected Population Growth

The April 8, 2016, issue of *On the Money* (Vol. 131, No. 31) discussed in part recent population growth in Ohio's 12 MSAs. This discussion broadens the analysis by considering the rural regions and projected population growth. Table 1 on page 3 presents historical population totals from the U.S. Census and 2020, 2030, and 2040 national population projections from the Census Bureau and the state and county projections from Ohio Development Services Agency. The state projections were issued in 2013 based on the 2010 Census population but not on the Census Bureau's annual population estimates released subsequently.

Ohio's population is projected to increase only 2.9 percent from 2000 through 2040, less than one-tenth of the projected 35 percent growth of the U.S. Only four regions of the state are projected to enjoy positive growth through 2040: the South and East North Central regions and the Cincinnati and Columbus MSAs. Of these, the Columbus MSA is projected to grow at a rate in excess not only of the Ohio average but the U.S. average as well. Central Ohio's population growth is so far above average that it affects significantly the projected population growth of the state. For that reason, population totals and growth are shown for the state and the six large MSAs excluding Columbus. Ohio's population excluding Columbus is projected to decline 3.8 percent between 2000 and 2040, while the other five MSAs' population is projected to fall by a smaller 2.3 percent. The Columbus MSA accounted for 14.8 percent of Ohio's population in 2000, and is currently 17.4 percent. According to the projections, it will account for more than 20 percent of statewide population by 2040.

This weak population growth limits the ability of Ohio employers to access a quality workforce to enable their growth. It also restricts the growth potential of the many businesses that serve primarily a local market, including retail, restaurants, and personal and some business services. If the size of the market is not growing, neither can these businesses. Even Columbus is affected to the extent that businesses in Central Ohio serve customers in other parts of the state. However, it is also important to keep in mind that the population projections are neither predictions nor forecasts, and implicitly assume a continuation of the status quo. If conditions change, such as a change in Ohio's economic performance relative to other parts of the U.S., a change in the demand for Ohio's resources, or the development of new resources, actual population growth could be significantly different from that presented in Table 1.

Figure 1
Ohio Regions



Northwest		Toledo MSA		West North Central		Cleveland MSA		Akron MSA		
Northeast		West		Columbus MSA		East North Central		Dayton MSA		
Cincinnati MSA		South		Southeast						

Table 1
Historical and Projected Population Total and Change in Ohio Regions, 2000-2040

Population totals					
	2000	2010	2020	2030	2040
US	281,424,600	308,745,538	334,503,000	359,402,000	380,219,000
Ohio	11,353,336	11,536,504	11,574,900	11,615,100	11,679,000
Northeast	1,285,042	1,241,050	1,203,300	1,171,800	1,153,100
Southeast	365,213	367,437	360,600	351,900	342,800
South	479,236	493,295	493,800	493,300	495,000
West	672,492	668,874	658,400	645,000	633,900
Northwest	192,566	187,751	182,500	175,300	172,800
West North Central	565,440	553,197	535,600	514,900	497,100
East North Central	294,154	307,847	314,100	319,500	324,700
Akron	694,975	703,200	695,600	687,900	674,900
Cincinnati	1,556,764	1,625,406	1,660,700	1,692,200	1,715,800
Cleveland	2,148,041	2,077,240	2,026,600	1,992,500	1,964,800
Columbus	1,675,226	1,901,974	2,063,200	2,216,400	2,371,600
Dayton	805,971	799,232	781,400	765,900	756,700
Toledo	618,216	610,001	599,200	588,400	575,800
Total non-MSA	3,854,143	3,819,451	3,748,300	3,671,700	3,619,500
Total MSA	7,499,193	7,717,053	7,826,500	7,943,400	8,059,500
Ohio excl. Columbus	9,678,110	9,634,530	9,511,700	9,398,700	9,307,400
MSAs excl. Columbus	5,823,967	5,815,079	5,763,300	5,727,000	5,687,900
Population changes					
	2000-2010	2010-2020	2020-2030	2030-2040	2000-2040
US	9.7%	8.3%	7.4%	5.8%	35.1%
Ohio	1.6%	0.3%	0.3%	0.6%	2.9%
Northeast	-3.4%	-3.0%	-2.6%	-1.6%	-10.3%
Southeast	0.6%	-1.9%	-2.4%	-2.6%	-6.1%
South	2.9%	0.1%	-0.1%	0.3%	3.3%
West	-0.5%	-1.6%	-2.0%	-1.7%	-5.7%
Northwest	-2.5%	-2.8%	-3.9%	-1.4%	-10.3%
West North Central	-2.2%	-3.2%	-3.9%	-3.5%	-12.1%
East North Central	4.7%	2.0%	1.7%	1.6%	10.4%
Akron	1.2%	-1.1%	-1.1%	-1.9%	-2.9%
Cincinnati	4.4%	2.2%	1.9%	1.4%	10.2%
Cleveland	-3.3%	-2.4%	-1.7%	-1.4%	-8.5%
Columbus	13.5%	8.5%	7.4%	7.0%	41.6%
Dayton	-0.8%	-2.2%	-2.0%	-1.2%	-6.1%
Toledo	-1.3%	-1.8%	-1.8%	-2.1%	-6.9%
Total non-MSA	-0.9%	-1.9%	-2.0%	-1.4%	-6.1%
Total MSA	2.9%	1.4%	1.5%	1.5%	7.5%
Ohio excl. Columbus	-0.5%	-1.3%	-1.2%	-1.0%	-3.8%
MSAs excl. Columbus	-0.2%	-0.9%	-0.6%	-0.7%	-2.3%

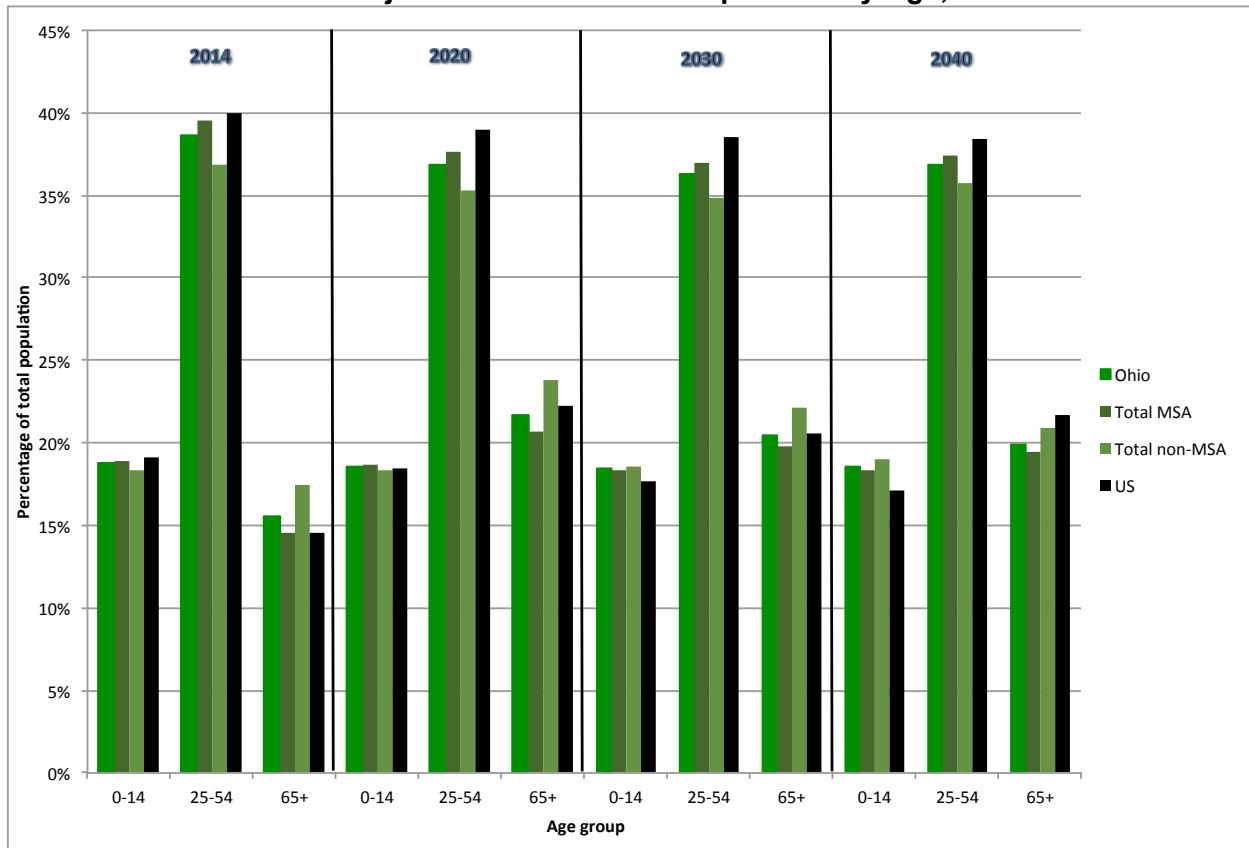
Source: U.S. Census and U.S. Population Projections, U.S. Census Bureau; Ohio Population Projections, Ohio Development Services Agency.

Population by Age

The age distribution of residents impacts the need for school facilities, the availability of workforce, and the need for facilities and services for the aged. Figure 2 graphs the current and projected share of population for Ohio, the large MSAs, the non-MSA regions, and the U.S. in

three important age groups: 14 years and younger, 25 through 54 years, and 65 years and older. The younger group implies the availability of a future workforce and the need for educational facilities – including college facilities that will be required as this group moves into young adulthood. The middle group is in their prime working years, while the older group needs healthcare, services for older workers seeking to remain in the labor force and those in active retirement, assisted living facilities, transportation services, and more.

Figure 2
Current and Projected Share of Total Population by Age, 2014-2040

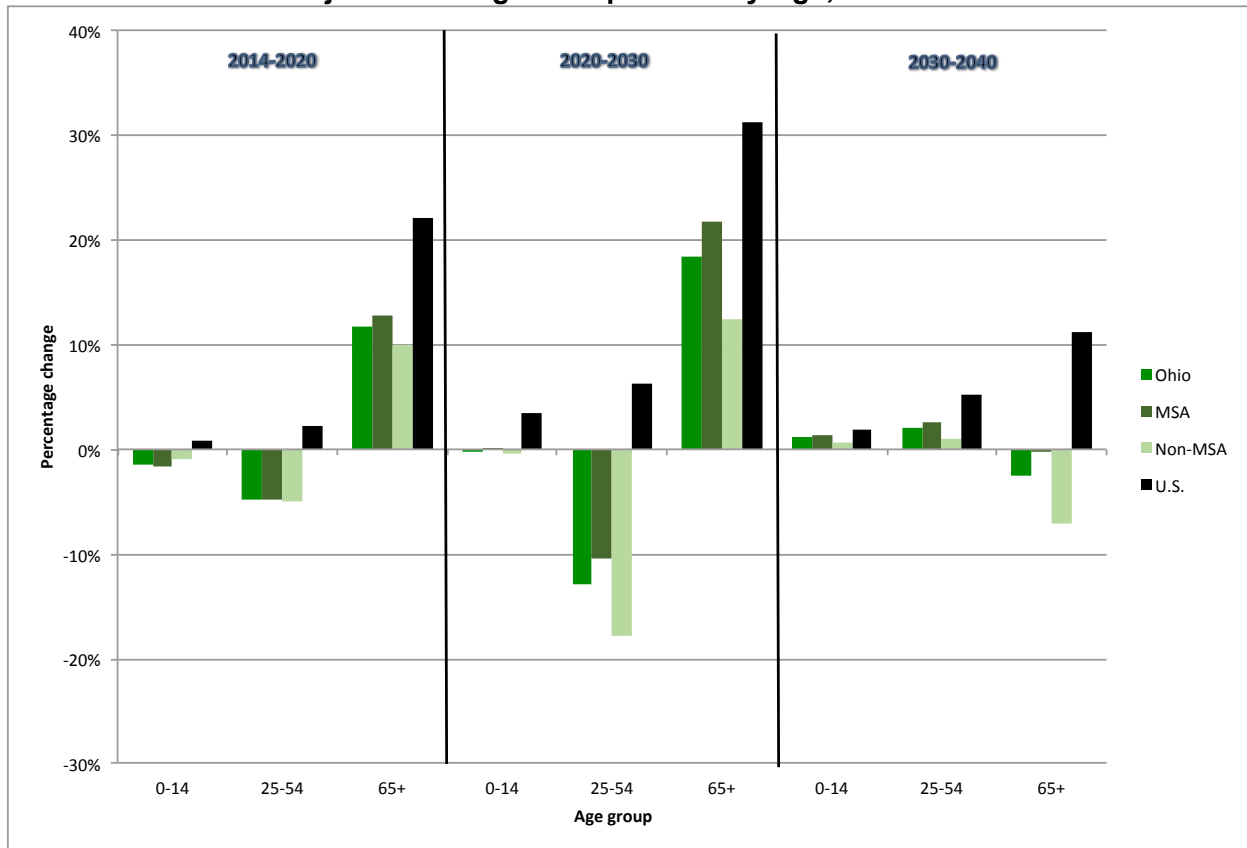


Source: American Community Survey and U.S. Population Projections, U.S. Census Bureau; Ohio Population Projections, Ohio Development Services Agency.

The percentage of total population in each of the three age groups in the MSAs is close to the national average. The non-MSA share in the working-age group is consistently lower than average and the older group is higher than average until 2040.

Population shares are important, but the change of the population in these age groups is more important for planning purposes. This is shown in Figure 3. Two noteworthy features of this chart are the decline in the working-age population and the increase in the older population through 2030. The 260,000 decline in the middle age group suggests that the difficulty in finding workforce is likely to be even greater than what the slow growth of the population itself would suggest. (Recall, though, that population growth can be significantly different from the projections if conditions change.)

Figure 3
Projected Change in Population by Age, 2014-2040



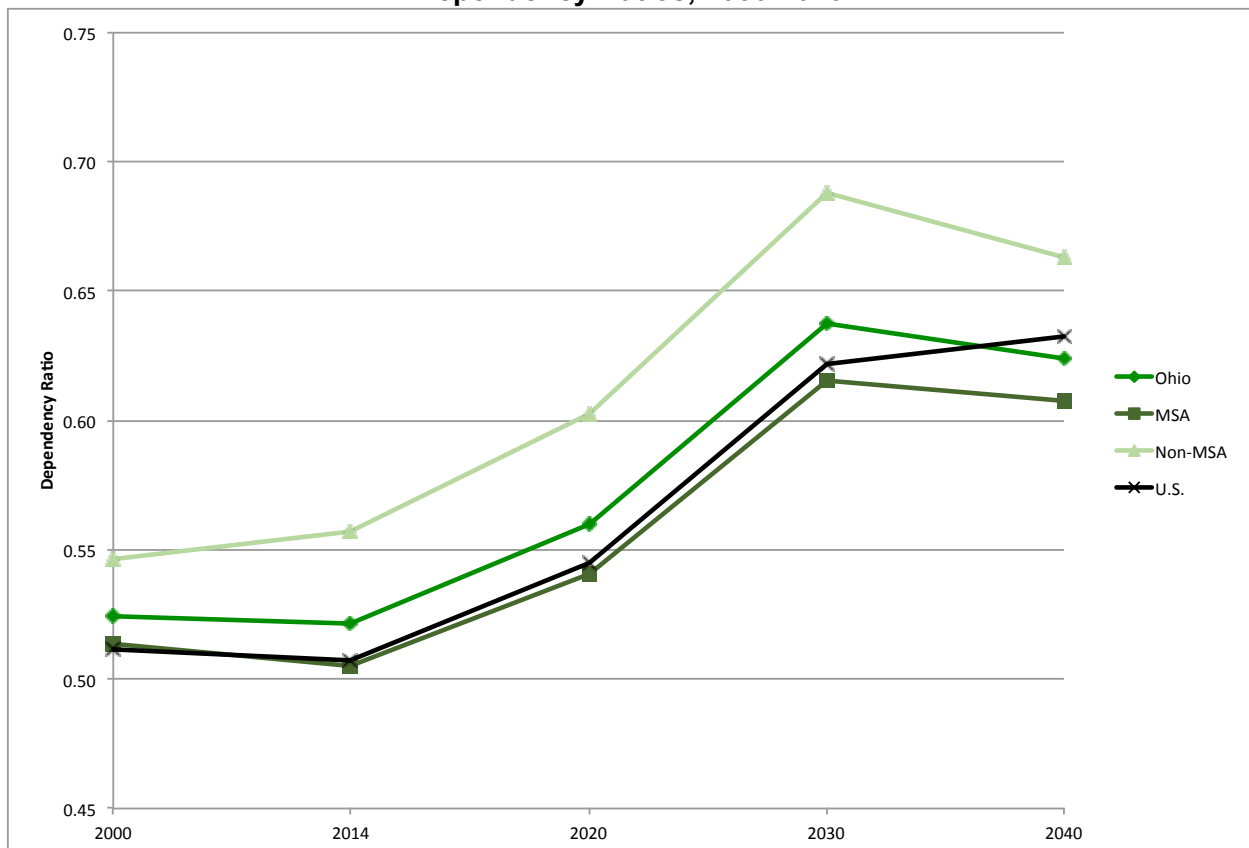
Source: American Community Survey and U.S. Population Projections, U.S. Census Bureau; Ohio Population Projections, Ohio Development Services Agency.

The growth in the senior population, which amounts to 600,000 statewide by 2030, has implications for needed facilities and services, and also for government budgets. A 2014 analysis by the Center for Community Solutions and this author explored the impact of aging Ohioans on government budgets.¹ The study found that the inflation-adjusted income base will suffer an inflation-adjusted decline of 13.5 percent from 2010 to 2035. Sales tax revenue will barely increase over that period because older households spend less in total and because a larger share of their expenditures are on untaxed medical services. The study did not consider the impact on local government revenues, but that impact may be more serious than on the state budget. Municipal income taxes are a significant source of income for cities and villages. These taxes extend only to wage and salary income and exempt income from intangible sources, including most retirement income. Sales taxes are a primary source of income for counties and the lack of growth of these revenues will put budgets under pressure. These stagnant or declining revenues will be particularly unwelcome at both the state and local levels given the greater amount of public services that older Ohioans will require.

¹ Jon Honeck, Matt Bird, and Regionomics LLC. *Aging Ohio: The Impact of Demographic Change on State Fiscal Policy*. Cleveland: Center for Community Solutions. October 2014. http://www.communitysolutions.com/assets/docs/Major_Reports/Other_Publications/2014_ccs_crossroads_aging_final_102214.pdf

Another way to explore this same impact is through the dependency ratio. This is the ratio of the number of individuals younger than 15 and older than 64, who are usually not in the labor force, to the number between 15 and 64, who often are. The higher the dependency ratio, the fewer working-age individuals are supporting the younger and older individuals, who need services but are not contributing as much to their cost. Dependency ratios are graphed in Figure 4 for the state, the MSAs, the non-MSA regions, and the U.S. The non-MSAs' dependency ratios are consistently higher than those for the other regions. All ratios are steady through 2014 but then increase alarmingly through 2030, with the non-MSA ratio approaching 0.7 in 2030. The message of this graph is that citizen needs will be covered to a much lesser degree by tax revenues from wages and salaries than is currently the case. The state may wish to consider broadening the tax base and enacting legislation allowing local governments to diversify their sources of tax revenue.

Figure 4
Dependency Ratios, 2000-2040



Source: Calculated from data from the U.S. Census Bureau and Ohio Development Services Agency.

Race and Ethnicity

The Census and the American Community Survey allow great flexibility in individuals' identification of their race. There are five basic race categories: White; Black/African-American; American Indian or Alaska Native; Asian (including the Far East, Southeast Asia, and the Indian subcontinent); and Native Hawaiian or Pacific Islander. But people can choose any combination of these five so that they can identify their racial heritage precisely. People identify themselves as Hispanic or Latino separately, so Hispanic individuals can be of any race. This scheme

produces rich data on race, but the dozens of potential categories make for a complicated task in performing the analysis. Further, the fact that the Hispanic question is separate leads to double-counting if the Hispanic total is included with the other categories. One relatively easy solution to this problem – albeit an imperfect one – is to classify only non-Hispanics under the five race categories and include the Hispanic total separately. This avoids double-counting and creates a category, non-Hispanic White, that is commonly considered to be non-minority.

This approach is shown for Ohio, the MSA and non-MSA regions, and the U.S. in Table 2. Ohio's MSAs are more racially diverse than the smaller MSA and rural regions, but they are less diverse than the U.S. Minority populations account for 24.8 percent of the total MSA population (one minus the percentage of non-Hispanic Whites) but 37.9 percent of the U.S. population. Of the individual regions, Cleveland is most diverse with a minority population of 29.2 percent. The African-American population of the large MSAs exceeds the national average, but the share of the smaller MSA/rural regions is much less, so that on balance the state's share is not significantly different from the national average. Other shares are far below average. The substantial growth of the Native Hawaiian/Pacific Islander population is a function of the small total – only 2,300 statewide.

Table 2
Racial and Ethnic Distribution, 2014, and Change from 2000

	2014				Change from 2000		
	Ohio	MSA	Non-MSA	U.S.	Ohio	MSA	Non-MSA
Total	100.0%	100.0%	100.0%	100.0%	2.1%	4.3%	-2.0%
Not Hispanic/Latino	96.5%	96.1%	97.5%	82.6%	0.5%	-3.1%	2.4%
White	80.1%	75.2%	90.3%	62.1%	-2.6%	-1.7%	-4.1%
Black/African-American	12.3%	16.0%	4.7%	12.4%	10.5%	12.4%	-1.3%
American Indian/Alaska Native	0.2%	0.2%	0.2%	0.7%	0.0%	-1.6%	3.0%
Asian	2.0%	2.6%	0.6%	5.3%	74.5%	78.2%	48.5%
Native Hawaiian/Pacific Islander	0.0%	0.0%	0.0%	0.2%	64.0%	66.2%	58.3%
2 or more races	1.9%	2.0%	1.7%	2.0%	60.2%	58.4%	64.7%
Hispanic/Latino (any race)	3.5%	3.9%	2.5%	17.4%	85.7%	90.8%	70.8%

Source: American Community Survey and 2000 Census, U.S. Census Bureau.

Living Arrangements

The way that people group themselves together in living quarters has implications for consumer demand. A household is a unit of consumption: as households become smaller, the demand for dwelling units and the goods and services to furnish and maintain those dwelling units increases.

Several introductory concepts are necessary. A household includes one or more people living in an individual dwelling unit. A family consists two or more individuals related by blood or marriage and sharing a dwelling unit. Consequently, (nearly) all families are households, but not all households are families. Nonfamily households can include roommates/housemates, boarders, or unmarried partners sharing a dwelling unit. Prisons and jails, dormitories, nursing homes, and military barracks are considered group quarters rather than dwelling units; these are discussed below.

Table 3 shows the range of households and their distribution in Ohio and nationally. This distribution is not markedly different between the large MSAs and the other regions or between Ohio and the U.S. There has been a shift to single-person households from multiple-person households and a decline in married-couple households with minor children. However, there was an increase in families consisting of single fathers and single mothers with children, in other family groupings, and in nonfamily households.

Table 3
Household Distribution by Type, 2014, and Change from 2000

	2014				Change from 2000		
	Ohio	MSA	Non-MSA	U.S.	Ohio	MSA	Non-MSA
Total households:	100.0%	100.0%	100.0%	100.0%	2.8%	4.0%	0.3%
1-person household:	29.8%	30.7%	28.0%	27.6%	12.0%	12.7%	10.4%
2 or more person household:	70.2%	69.3%	72.0%	72.4%	-0.7%	0.6%	-3.1%
Family households:	64.4%	63.2%	67.0%	66.2%	-1.6%	-0.2%	-4.3%
Married-couple family:	47.1%	45.4%	50.6%	48.4%	-5.9%	-4.2%	-8.8%
With own children under 18 years	17.7%	17.8%	17.5%	19.6%	-18.8%	-15.6%	-24.9%
No own children under 18 years	29.4%	27.6%	33.1%	28.8%	4.2%	4.9%	2.9%
Other family:	17.3%	17.7%	16.5%	17.8%	12.0%	11.7%	12.6%
Male householder, no wife present:	4.4%	4.3%	4.7%	4.8%	19.2%	18.2%	21.0%
With own children under 18 years	2.3%	2.1%	2.5%	2.3%	13.4%	13.3%	13.7%
No own children under 18 years	2.2%	2.2%	2.2%	2.5%	25.7%	23.6%	30.2%
Female householder, no husband present:	12.9%	13.4%	11.8%	13.0%	9.7%	9.8%	9.6%
With own children under 18 years	7.5%	7.9%	6.7%	7.3%	6.7%	7.1%	5.6%
No own children under 18 years	5.3%	5.5%	5.0%	5.8%	14.3%	13.8%	15.4%
Nonfamily households	5.8%	6.2%	5.0%	6.2%	11.4%	9.3%	17.1%

Source: American Community Survey and 2000 Census, U.S. Census Bureau.

Table 4 shows the distribution of households by size and the change from 2000. This table echoes the growth of single-person households, with corresponding declines in larger groupings. Offsetting this trend somewhat was an increase in large households in the small MSAs and rural regions. The number of these households is small, but the 13.3 percent increase in households of seven or more translates to an increase of slightly more than 2,000 households in these regions.

Table 4
Household Distribution by Size, 2014, and Change from 2000

	2014				Change from 2000		
	Ohio	MSA	Non-MSA	U.S.	Ohio	MSA	Non-MSA
Total households:	100.0%	100.0%	100.0%	100.0%	2.8%	4.0%	0.3%
1-person household	29.8%	30.7%	28.0%	27.6%	12.0%	12.7%	10.4%
2-person household	34.5%	33.6%	36.4%	33.6%	6.3%	6.6%	5.7%
3-person household	15.2%	15.3%	15.2%	15.8%	-4.5%	-2.3%	-8.8%
4-person household	12.2%	12.4%	11.8%	13.2%	-8.9%	-5.4%	-15.5%
5-person household	5.3%	5.3%	5.4%	6.1%	-10.1%	-8.9%	-12.5%
6-person household	1.9%	1.8%	2.0%	2.3%	-3.2%	-4.9%	0.2%
7+-person household	1.0%	0.9%	1.2%	1.5%	4.9%	0.5%	13.3%

Source: American Community Survey and 2000 Census, U.S. Census Bureau.

Finally, Table 5 reveals the distribution of residents of various types of group quarters. Adult prison inmates make up a somewhat larger share of the Ohio population than is true nationally; the much higher concentration in the non-MSA regions reflects the tendency of prisons to be in less urbanized areas. Other noteworthy findings from this table are the large decline in nursing home residents as care shifts to more home-based settings, and the large increase in college dormitory residents – more than 14,000 statewide.

Table 5
Population in Group Quarters, 2010, and Change from 2000

	2010 (number per 1,000 population)				Change from 2000		
	Ohio	MSA	Non-MSA	U.S.	Ohio	MSA	Non-MSA
Population in group quarters	26.5	24.5	30.6	25.9	2.4%	3.8%	1.5%
Institutionalized population:	14.4	11.8	19.7	12.9	-3.7%	0.8%	-7.1%
Adult correctional institutions	6.6	4.8	10.3	7.3	11.2%	17.8%	5.1%
Juvenile facilities	0.4	0.4	0.5	0.5	n/a	n/a	n/a
Nursing homes	7.2	6.4	8.8	4.9	-10.9%	-11.2%	-10.4%
Other institutions	0.1	0.1	0.1	0.2	-84.8%	-83.3%	-87.5%
Noninstitutionalized population:	12.2	12.8	10.9	12.9	10.6%	11.1%	9.6%
College dormitories (includes college qtrs.. off campus)	9.2	9.6	8.4	8.2	15.6%	13.0%	22.1%
Other noninstitutional group qtrs.	3.0	3.2	2.5	4.8	-2.4%	5.5%	-18.1%

Percentage of population in group quarters is the percentage of the total population; other percentages are of the total group quarters population.

Source: 2000 and 2010 Censuses, U.S. Census Bureau.

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