The New Macomb County

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MACOMB COUNTY MICHIGAN
Mark A. Hackel
County Executive

Report developed by Deirdre Syms, director, Institutional Research, Macomb Community College, and Kurt Metzger, director, Data Driven Detroit.

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The New Macomb County.

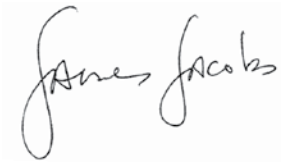
Those of us who have lived and worked in Macomb County for a long time can "feel" the change that the last decade has brought.

Macomb continues to offer the familiar appeal that generations have enjoyed: a suburban county knit together by distinct communities, high-quality affordable housing, good schools, safe neighborhoods and an abundance of recreational activities that take advantage of our waterfront. As with previous generations, the county is still heavily dependent on the automotive and manufacturing industries.

But, probing beneath the surface reveals that much has changed in Macomb County during the last decade. Profound shifts have been occurring rapidly and decisively, significantly impacting both the challenges to be navigated and opportunities to be leveraged for Macomb County and its future.

Good public policy begins with accurate knowledge. The following report emerged out of discussions in January 2011 between Macomb Community College, the Macomb County Executive's Office and Data Driven Detroit about the importance for those who drive policy and planning to have a common understanding of the Macomb County of today.

We hope that following information is helpful to all those individuals and organizations who share with us a commitment to building and sustaining an economically vibrant community positioned for a strong future.



James Jacobs, Ph.D.
President
Macomb Community College

The New Macomb County

Introduction

Macomb County has changed greatly over the past decade. Its population is now more diverse, both racially and ethnically, encompassing more non-traditional family structures. Macomb County's population is getting older and earning less. The automotive industry, the county's most powerful engine for growth, is now smaller, more high tech, requiring a smaller, more tech-savvy, better-educated workforce. The industry's wage structure has changed too. The production jobs that once sustained a large middle class, providing high pay even for low skill, have declined in number, pay less well and require higher skill. These Macomb County trends mirror those occurring nationally. All of this change is creating a New Macomb County, where economic growth and quality of life depend now more than ever before on industry diversification and highly educated residents.

The changes shaping the New Macomb County are the result of two major forces: population dynamics and the 21st century economy. They interact in important ways, which need to be channeled, so that one gains maximal benefit from the other.

The changing population dynamics include two major trends that are predicted to continue well into the future. The first is an increasing average age, attributable to greater life longevity and lower birth rates. This trend will impact demand for both private and public sector services, with the demand more heavily concentrated in the county's southern region. The second is an influx of immigrants into the county with lower-than-ideal levels of education. A large portion of the new young immigrants are more likely to be at risk of low educational achievement, putting them at high risk of unemployability and other social difficulties, including higher dependence on municipal and county services, higher likelihood of criminal activity and higher incidence of unwed births. As with the first trend, this one is also concentrated in the county's southern region.

New Macomb immigrants are joining an already insufficiently educated population, which as a whole is under-prepared for managing the second strong force of change, the 21st century economy. The New Economy is bringing in a wave of change in the nature of work, raising education and skill requirements. This wave is flowing across the nation, state and county and is expected to represent lasting change. The basic question for county leaders is, do we want to be dragged along in the undertow, or do we want to ride atop the wave?

Nationally, the workplace is becoming increasingly technically oriented, and more and more jobs are requiring post-secondary credentials. Michigan, particularly its southeast region, is still driven by the automotive industry, but its job growth is now dominated by high-skill positions. Economists and industry experts predict this trend will continue. In Macomb County, there is already a shortage of individuals with sufficient education and skill for the high-paying, high-quality jobs being offered, and there is an excess of those with low skills already competing for low-paying, low-quality jobs. County economic growth will stagnate or wither if this situation is not reversed with an increase in the proportion of well-educated residents.

The educational attainment of Macomb County residents needs to be raised to a higher level to improve the ability to succeed in the New Economy, increase opportunity for quality jobs and increase income levels. Higher educational attainment would produce significant, beneficial spillover effects by reducing many social ailments commonly tied to low education, including unemployment, poverty and broken families, among others.

The following report briefly describes the population and economic forces of change, and explains why channeling the population's educational attainment would bring economic growth countywide and increased, quality job opportunities for residents.

Population Changes in the New Macomb County

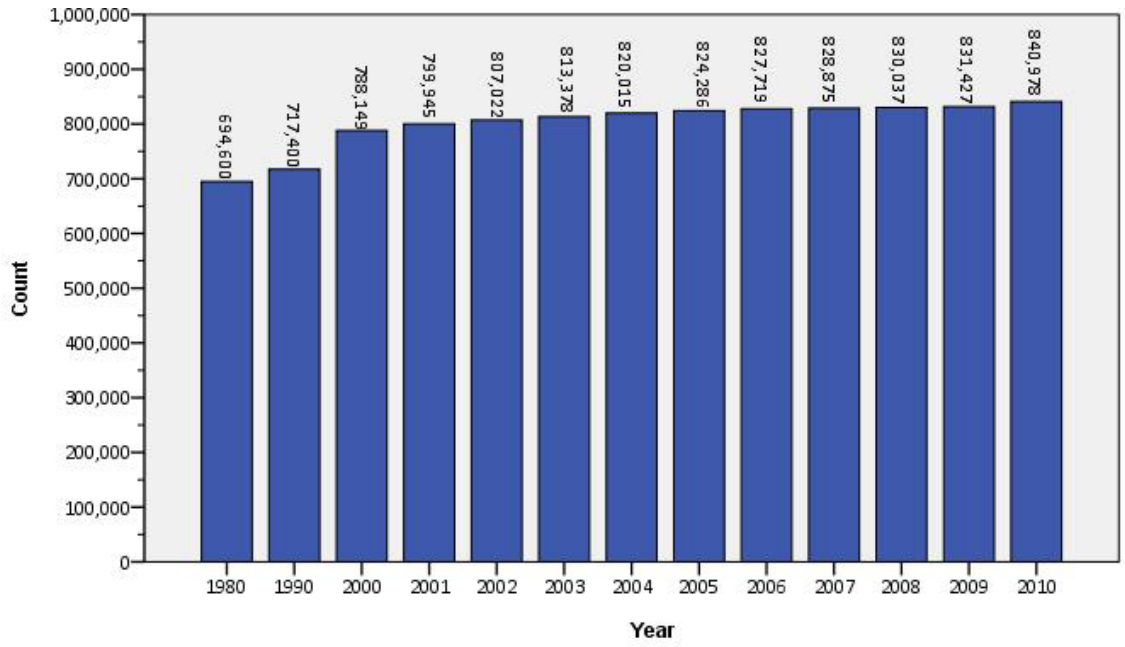
There are two long-term population trends bringing change to the county and for which advanced planning could channel their effects. The first is the aging trend: a rapidly growing senior population that will drive increasing demand for certain services in the private and public sectors.[1] The second is the immigration trend: the changing demographics of new residents through domestic and international immigration. Both trends are concentrated more in the southern than northern portion of the county and, hence, can have greater impact there.

New residents can impact public expenditures, public priorities and economic growth, the levels of which depend, in large part, on their educational attainment and workforce participation. If not planned for and managed, both population trends pose more risk for southern Macomb by taxing already strained municipal and county resources and reducing potential for economic growth.

High Growth in Macomb's Population

Macomb County has experienced steady population growth for at least three decades (Figure 1). And despite the economic downturn between 2000 and 2010, Macomb gained more population during that period than any other Michigan county.[2]

Figure 1. Population Trend in Macomb County, 1980–2010



Source: U.S. Census Bureau.

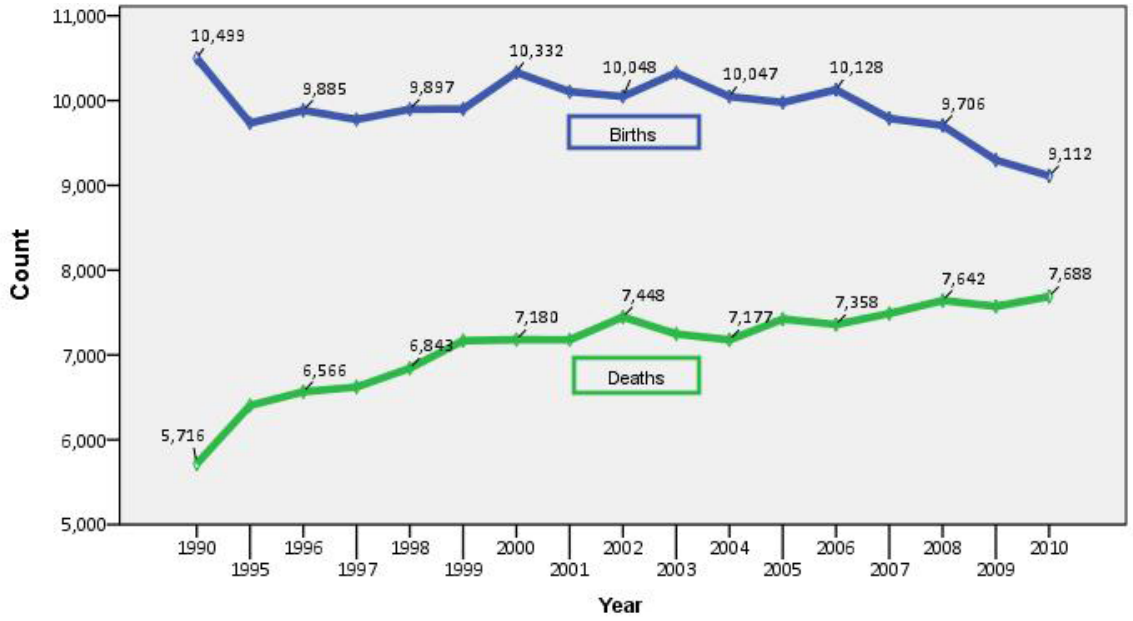
1 The fast growing senior population will increase the demand for health services, bringing increasing job opportunities for trained health care practitioners and technicians, and economic benefits to the county.

2 Macomb County's population increased by 4.6 percent between 2000 and 2005 and by 2.0 percent between 2005 and 2010.

Natural Population Changes through Births and Deaths

The late 1980s and early 1990s represented the period of greatest natural increase in Macomb. Figure 2 below shows that births were at a high point in 1990 and deaths were relatively low. During the decade of the 1990s, birthrates remained fairly steady, while the aging population brought a steady increase in the number of deaths. Since 2000, the number of deaths has remained above 7,000 per year, while the number of births has been decreasing. Overall, the 20-year trend was in the direction of slower natural population growth.

Figure 2. Macomb County Natural Population Trends, 1990–2009



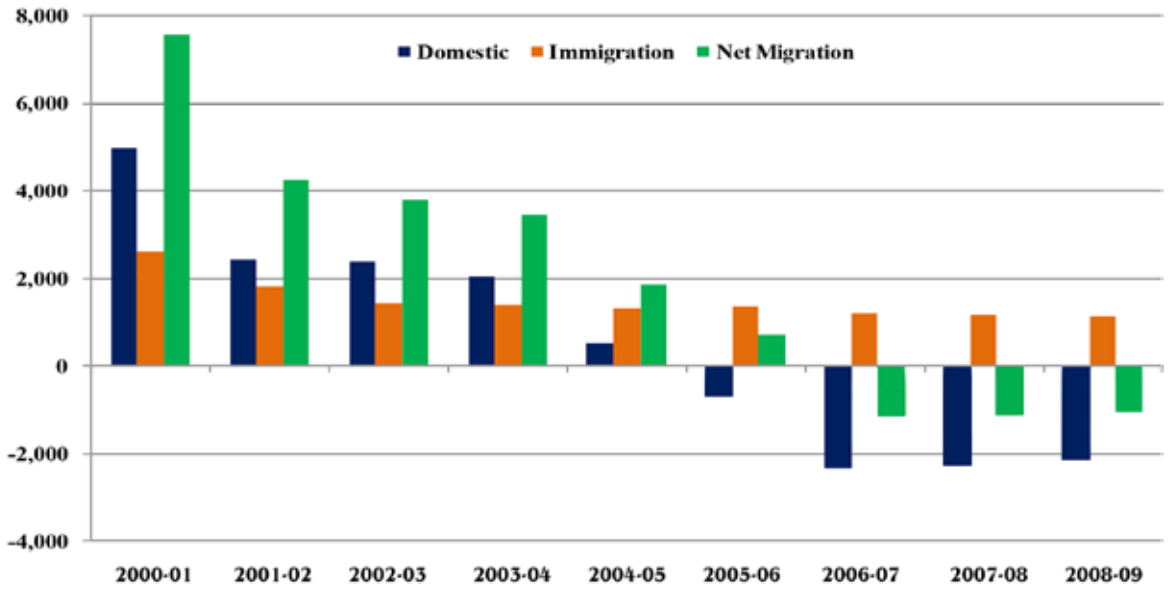
Source: Michigan Department of Community Health.

Changes through Migration

During the 1990s, Macomb County was a net out-migrant county, losing roughly 7,000 more domestic migrants than it gained. Out-migrants were mostly retirees, but also included young, college-educated individuals seeking employment opportunities elsewhere. Much of the domestic loss was regained, as roughly 6,000 international migrants chose to make Macomb their new home.

In the first half of the last decade, Macomb County outdistanced all other Michigan counties in population growth from both domestic and international migration. Between 2000 and 2006, the county added roughly 13,000 domestic migrants and 13,500 international migrants (Figure 3).[3] Most of the domestic gain was due to migration from neighboring Oakland and Wayne counties. Most of the international migration came from Iraq, Albania and Southeast Asia.

Figure 3. Migration Trends in Macomb County, 2000–2009



Source: U.S. Census Bureau.

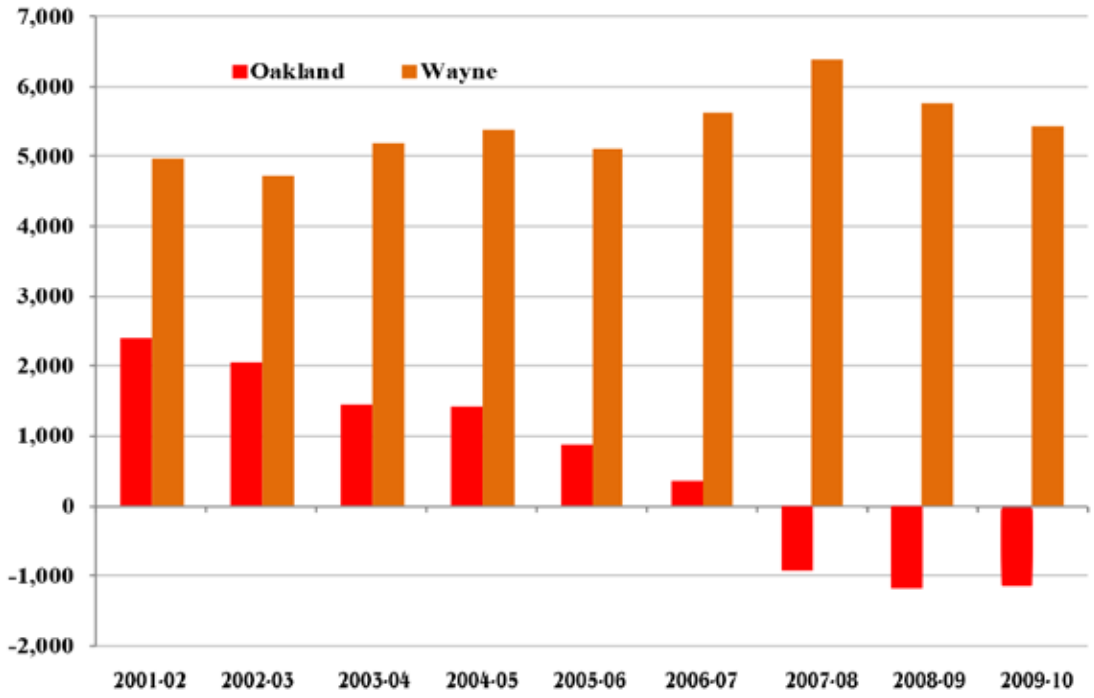
In the latter half of the decade, Southeast Michigan was the epicenter of powerful economic shocks running across the United States. In Macomb County, one result was domestic migration losses starting in 2005 and worsening through 2010 (Figure 3).

Overall, migration remained positive through 2005 as immigrants outnumbered out-migrants. But by 2007, the increase in out-migration began to overwhelm immigration. More Macomb residents were leaving for better job opportunities than new residents moving in. The result was net out-migration over the next three years. [4]

Migration from Oakland County slowed considerably in the latter half of the decade. But, due to continued worsening economic conditions in Detroit, Wayne County residents continued heavy migration into Macomb (Figure 4).

3 Data and analysis by Kurt Metzger, Data Driven Detroit.
4 Ibid.

Figure 4. Macomb County Migration Trends with Oakland and Wayne Counties, 2001–2010



Source: U.S. Census Bureau.

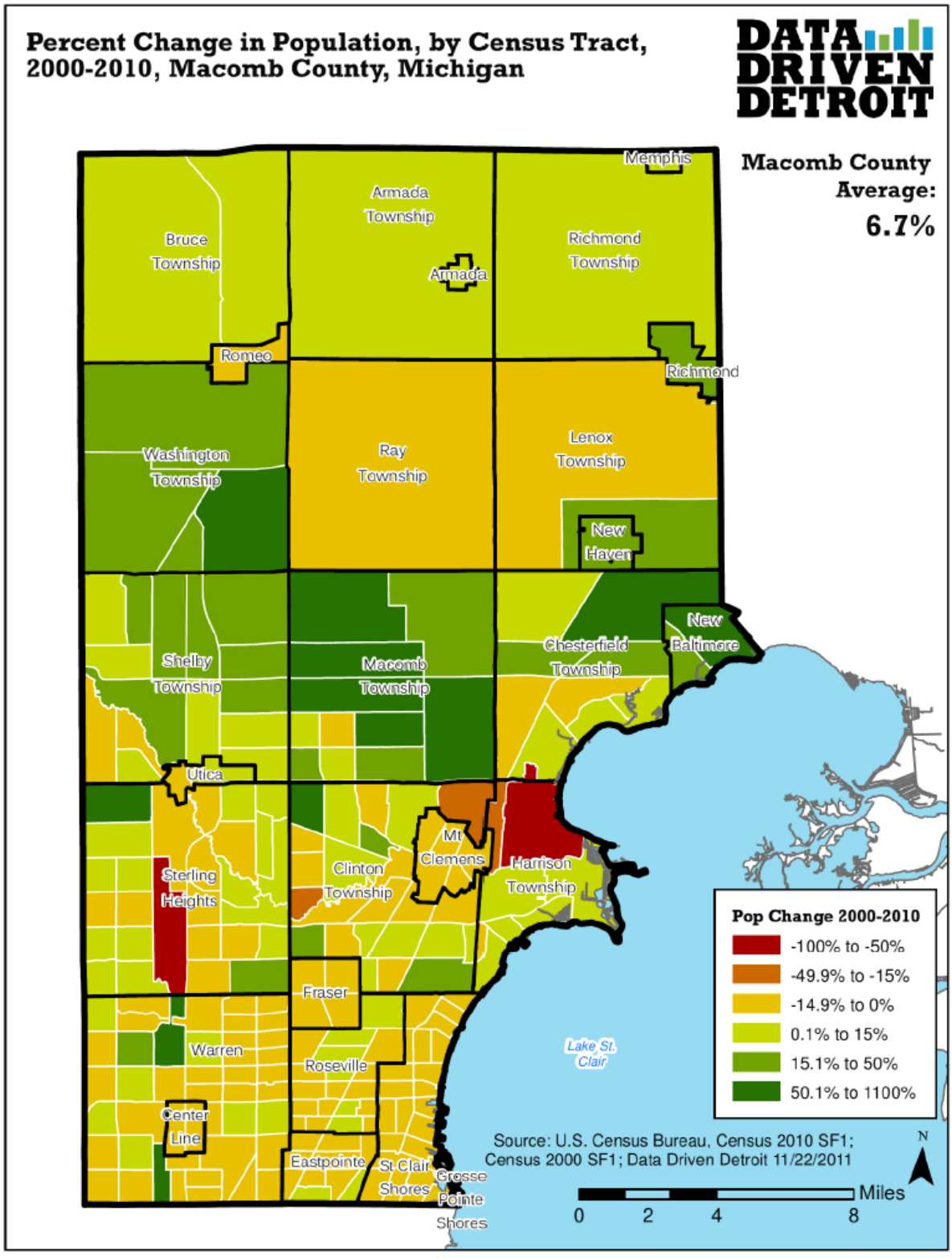
The cumulative effect of migration trends led to a large overall growth of 4.6 percent during the first half of the decade, according to an analysis of Macomb population trends by Kurt Metzger of Data Driven Detroit. Then in the second half, net out-migration combined with slower natural population increase reduced the growth rate down to two percent. Despite slowing considerably, Macomb still led all other Michigan counties in numerical growth over the decade.

Regional Variations in Population Patterns

Population change was not consistent across the county. New subdivisions and lower property taxes drove housing development and population growth north of M-59 in the townships of Macomb, Shelby and Washington, and in communities along Lake St. Clair, such as New Baltimore and Chesterfield Township. The growth was predominantly characterized by younger-than-average families, mostly from Oakland County, who found good schools and better housing values in Macomb. Their movement into the northern region of Macomb has kept school enrollment and housing occupancy higher there than in the county's southern portion.

On the county's southern end, despite new residents flowing in from Wayne County, an aging population, smaller families and manufacturing industry job losses led to both population and economic decline. The population changes can be seen at the census tract level, as Map 1 illustrates.

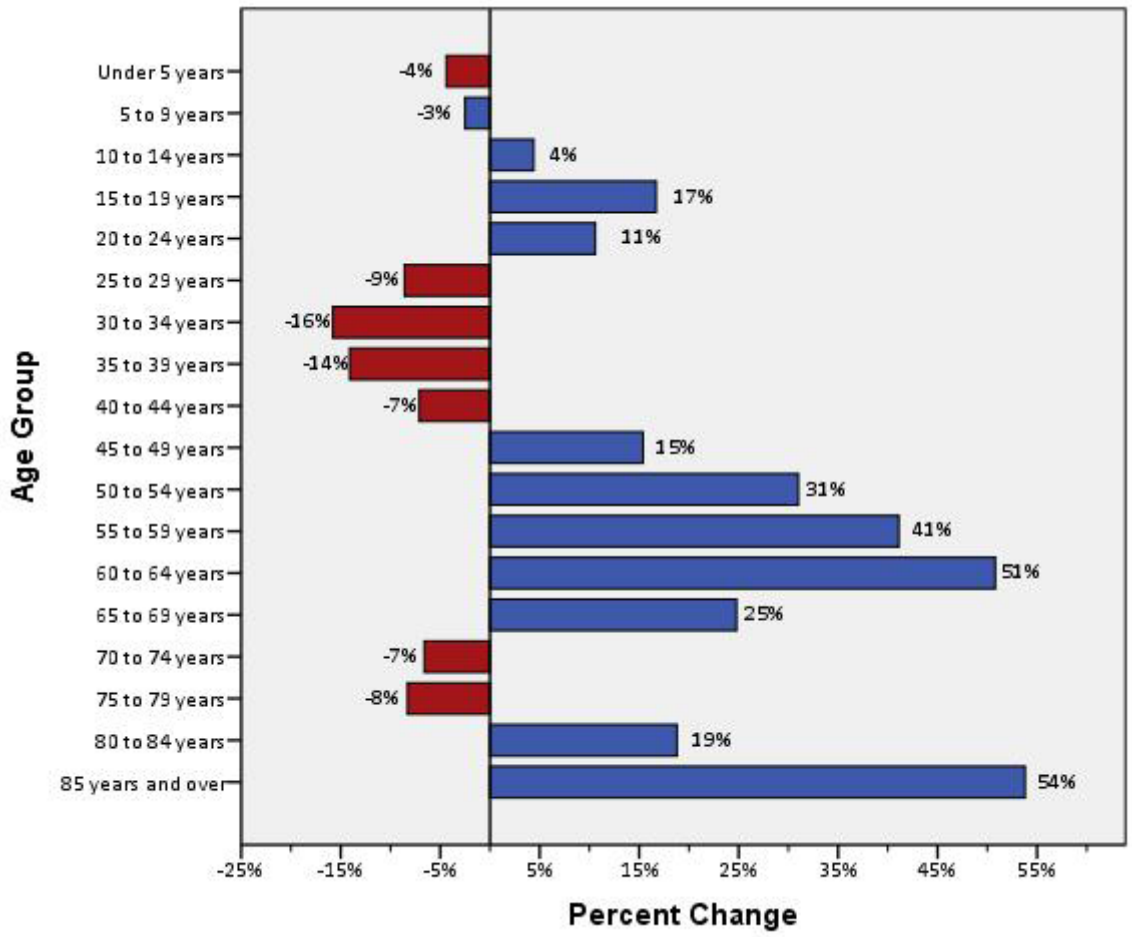
Map 1. Population Change by Census Tract in Macomb County, 2000–2010



The Aging Trend in Macomb County

Macomb County's senior population, ages 65 years and over, increased by almost 12 percent over the decade and now represents more than 14 percent of the county's total residents. Much like the rest of the nation, Macomb's population has a longer life expectancy than ever before. As a result, there are large increases in the population groups that are 85 years and over (54 percent), 80-84 years (19 percent) and 65-69 years (25 percent).[5] Figure 5 shows the population change by age groups from 2000 to 2010.

Figure 5. Age Trends in Macomb County, 2000–2010



Source: U.S. Census Bureau and Data Driven Detroit.

Note: The anomalous pattern in 70-79 year olds is an artifact of the Depression and WWII.

5 There is a gap in the trend for the age group 70–79 years. This is a result of lower births during the Depression and pre-World War II period.

In addition to longer life expectancy, the growth of Macomb County's senior population is driven by the baby boomer generation–the large wave of post WWII babies born between 1946 and 1964.[6] The baby boomers, who began to turn 65 years of age in 2011, will be joining and enlarging the senior population in Macomb over the next 18 years. Although the aging trend is nationwide, Macomb's percentage of seniors is higher than it is in neighboring counties, the state and the nation (Table 1).

Table 1. Macomb Senior Population Compared to Other Areas, 2000–2010

Geographic Area	Senior Population (65 Years and over)			Median Age (Years)		
	2000	2010	Change	2000	2010	Change
Macomb County	**13.7%**	**14.3%**	**0.6%**	**36.9**	**39.9**	**3.0**
Oakland County	11.3%	13.2%	1.9%	36.7	40.2	3.5
Wayne County	12.1%	12.7%	0.6%	34.0	37.3	3.3
Michigan	12.3%	13.8%	1.5%	35.5	38.9	3.4
United States	12.4%	13.0%	0.6%	35.3	37.2	1.9

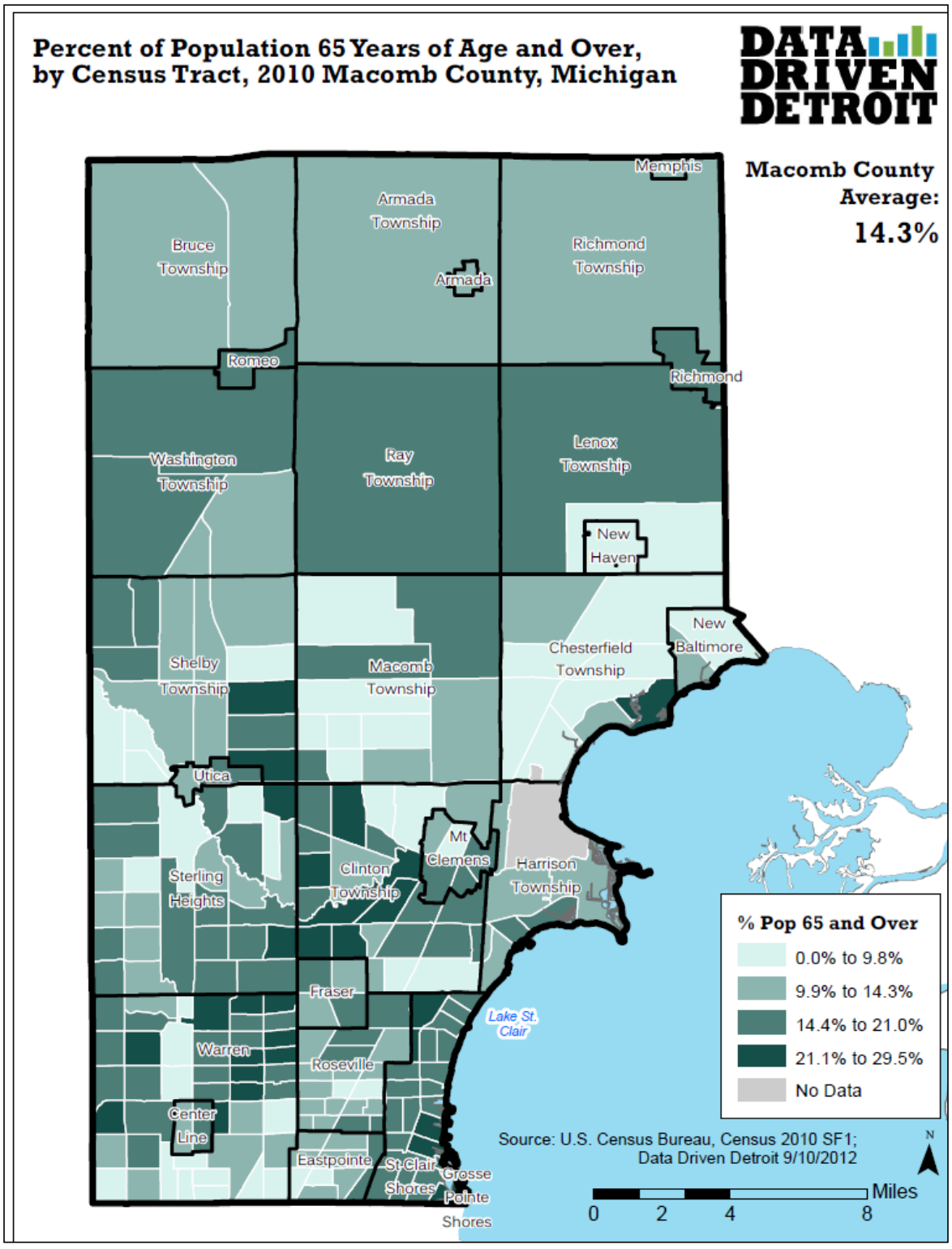
Source: U.S. Census, 2000 and 2010.

The following census tract map shows a high percentage of seniors located in southern Macomb County in the cities and townships with high population density, including Clinton, Fraser, St. Clair Shores and Warren.[7] Information for other large Macomb cities and townships is shown in the appendix, Table 10.

6 Kurt Metzger, Data Driven Detroit.

7 Although the percentage of seniors is also high in the northern townships of Bruce, Washington and Ray, these areas have significantly less population density than the southern region.

Map 2. Senior Population by Census Tract, Macomb County, 2010

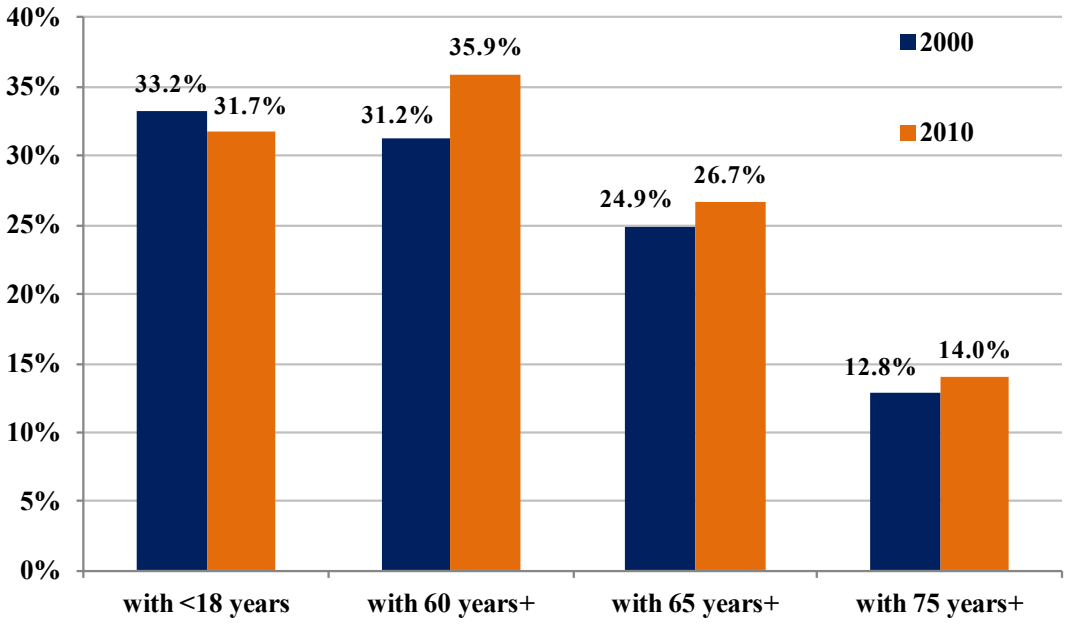


Aging Households

The 2010 Census of Macomb County illuminated the aging trend affecting households. More than one of every four households (27 percent) contained a person 65 years and over (Figure 6). This represented an increase of 15 percent over the 10-year period. And more than 36,500 households were represented by persons living alone who were 65 years of age and over.[8]

The baby boom generation has driven the share of households with persons 60 years of age and older higher than the share of households with children. Households with persons 65+ and 75+ increased in share as well. They will continue this growth, becoming a larger share of Macomb County's households.[9]

Figure 6. Households by Age of Members, 2000 and 2010



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

Aging Trends and Changing Service Demands

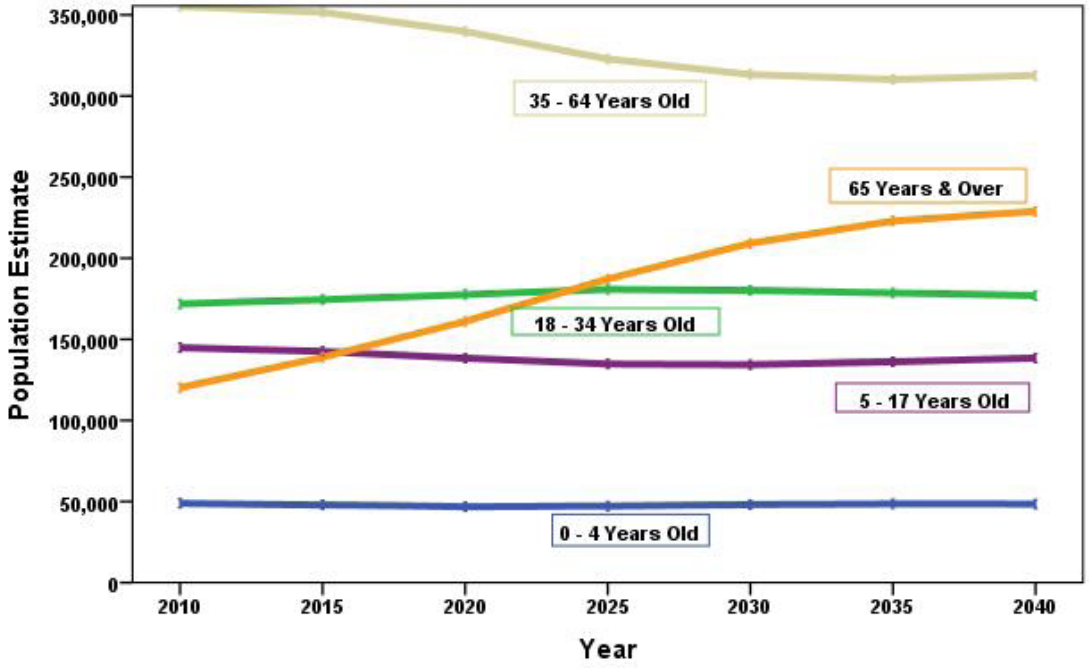
The unmistakable trend is clear. The aging of Macomb households will have wide-reaching consequences for the county's economy and government. It will significantly increase the demand for health care services, which could beneficially lead to increased employment opportunities for health practitioners. It will affect retail and service establishments, impacting their growth and employment levels. It will increase the demand for senior services while simultaneously reducing school enrollment. And, it likely will shift residents' opinions on taxation and expenditure priorities, including reduced financial support for schools.

8 Data and analysis by Kurt Metzger, Data Driven Detroit.
9 Ibid.

Long-Term Population Forecast

The Southeast Michigan Council of Governments (SEMCOG) long-term population forecast for Macomb County is represented in the following figure. The data illlustrate the anticipated, rapid increase in seniors, along with the expectation of no growth in the youngest population groups, ages 0–4 years and ages 5–17 years (Figure 7).

Figure 7. Macomb County Population Forecast by Age Groups through 2040



Source: Southeast Michigan Council of Governments.

The Immigration Trend in Macomb County

Macomb is experiencing some growth in young residents, who are coming primarily from Wayne County and secondarily from abroad, especially from Iraq, Southeast Asia and Eastern Europe. Both domestic and international immigrants are important factors in Macomb County's future, in large part because the birth rate in these households is higher than the Macomb average. This trend impacts the primary school system and can increase the demand on limited municipal and county resources.

Domestic Migration

Oakland County residents relocating to Macomb County settled primarily in communities north of M-59 for good schools, new housing and lower taxes. Wayne County residents, mostly Detroiters, relocated primarily to communities on the southern end of the county (Warren, Center Line, Eastpointe, Fraser and Roseville).[10]

Wayne County migration has been driven primarily by young families who are drawn to Macomb by better schools, more municipal services, lower crime, lower taxes and relatively low housing costs. A large portion of the Wayne County immigrants are single-parent families, which, evidence suggests, can impact community expenditures on social services and affect the allocation of primary school resources.

Due to a failed public school system, many children from Detroit arrive under-prepared for Macomb's school systems. This leads to increased need for additional primary school resources at a time of strained school district budgets.

Wayne County remains a steady contributor of new Macomb residents, a trend that has led to significant demographic changes, particularly concentrated in the southern end of the county. One effect of continued Wayne County immigration into southern Macomb can be seen below in Table 2. Three large southern Macomb communities, Eastpointe, Roseville and Warren, experienced a different trend in the percentage of youth, either increasing or nearly no change, while in the remainder of the county, the percent of its younger population dropped roughly one to three percent.

Table 2. Changes in Percent of Youth, 2000–2010

Cities and Townships (10,000 People or More)	Youth Population (Under 18 Years)		
	2000	2010	Change
Macomb County	**24.1%**	**23.0%**	**-1.1%**
Chesterfield Township	29.8%	26.1%	-3.7%
Clinton Township	22.4%	20.9%	-1.5%
Eastpointe	24.5%	25.7%	1.2%
Fraser	24.2%	21.4%	-2.8%
Harrison Township	21.9%	19.2%	-2.7%
Macomb Township	30.2%	29.1%	-1.1%
Mount Clemens	21.6%	20.6%	-1.0%
Roseville	23.1%	23.0%	-0.1%
St. Clair Shores	20.2%	19.0%	-1.2%
Shelby Township	24.9%	22.7%	-2.2%
Sterling Heights	24.1%	21.7%	-2.4%
Warren	22.9%	22.7%	-0.2%
Washington Township	26.6%	25.0%	-1.6%
Oakland County	25.2%	23.5%	-1.7%
Wayne County	28.0%	25.4%	-2.6%
Michigan	26.1%	23.7%	-2.4%
United States	25.7%	24.0%	-1.7%

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

10 Kurt Metzger, Data Driven Detroit.

Racial and Ethnic Diversity

The last decade has brought greater change to Macomb County's racial and ethnic makeup than experienced in the past, and the change is occurring in Macomb at a faster rate than in the neighboring counties.

While the 1990s brought the first significant waves of African-Americans to the county, the percentage more than tripled during the most recent decade (Table 3). Almost 51,000 African-Americans moved to Macomb County between 2000 and 2010, as waves of Detroiters found better opportunities in Macomb County. The majority chose to relocate in communities in the southern end of the county, leading to significant growth in the African-American population in Warren, Eastpointe, Roseville, Sterling Heights and St. Clair Shores.

Table 3. Racial Diversity Increasing, 1990–2010

Macomb County Population	1990		2000		2010	
	Count	Percent	Count	Percent	Count	Percent
White	687,480	96%	721,882	92%	705,693	84%
African American	10,313	1%	21,151	3%	72,053	9%
Asian / Pacific Islander	8,895	1%	16,900	2%	25,076	3%
Hispanic / Latino	7,978	1%	12,435	2%	19,095	2%
Native American	2,529	0%	2,255	0%	2,351	0%
Other or Multi-racial	205	0%	13,526	2%	16,710	2%
Total	717,400	100%	788,149	100%	840,978	100%

Source: U.S. Census Bureau.

The changes in the race and ethnicity of the county can be seen most clearly in its young population. While about six percent of the county's residents 65 years of age and over are non-white, non-Hispanic, the share rises to about 24 percent for the population less than 20 years of age and 27 percent for those under 5 years. Such a pattern clearly demonstrates the increasingly diverse population that will serve as Macomb County's future resident base.[11]

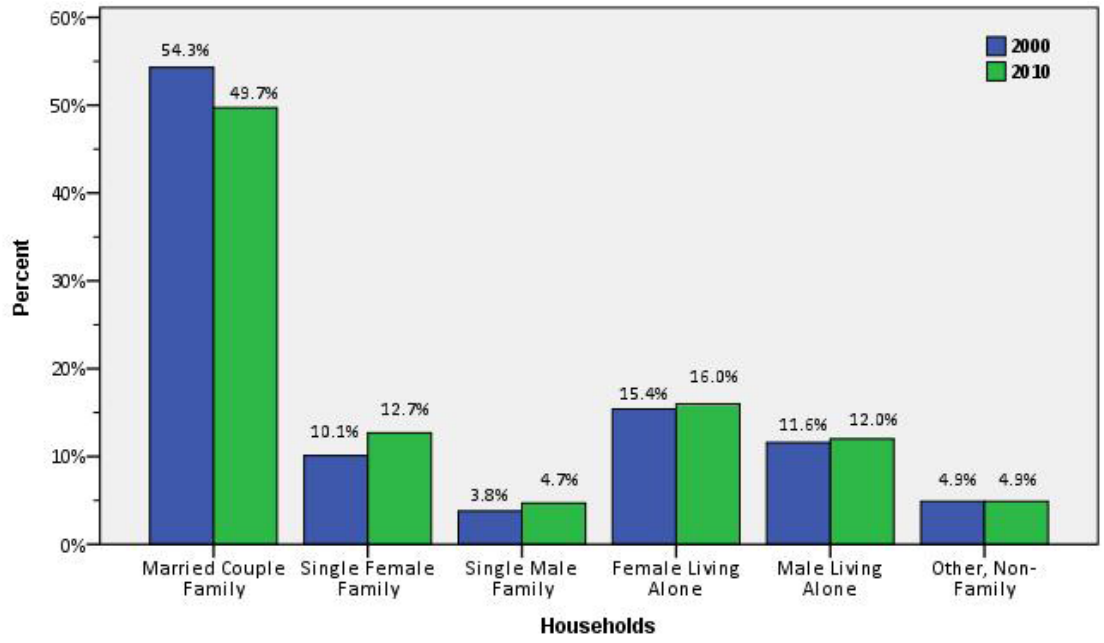
11 Data and analysis by Kurt Metzger, Data Driven Detroit.

Changing Nature of Households and Families

One of the significant trends seen in the 2010 Census is the fact that married-couple families, either with or without children, are no longer the dominant household type, falling below 50 percent for the first time in history. Macomb County's experience is following a national trend toward greater heterogeneity of marriage and household relationships, which many observers believe will alter living relations for decades to come.

As seen in Figure 8, Macomb County married-couple families fell from 54 percent of all households to just under 50 percent. The largest increase is in single-parent families, both male and female headed. This change is the result of several important underlying trends: increasing rates of divorce, increasing rates of births to unmarried women and the heavy migration of single-parent families out of Detroit.

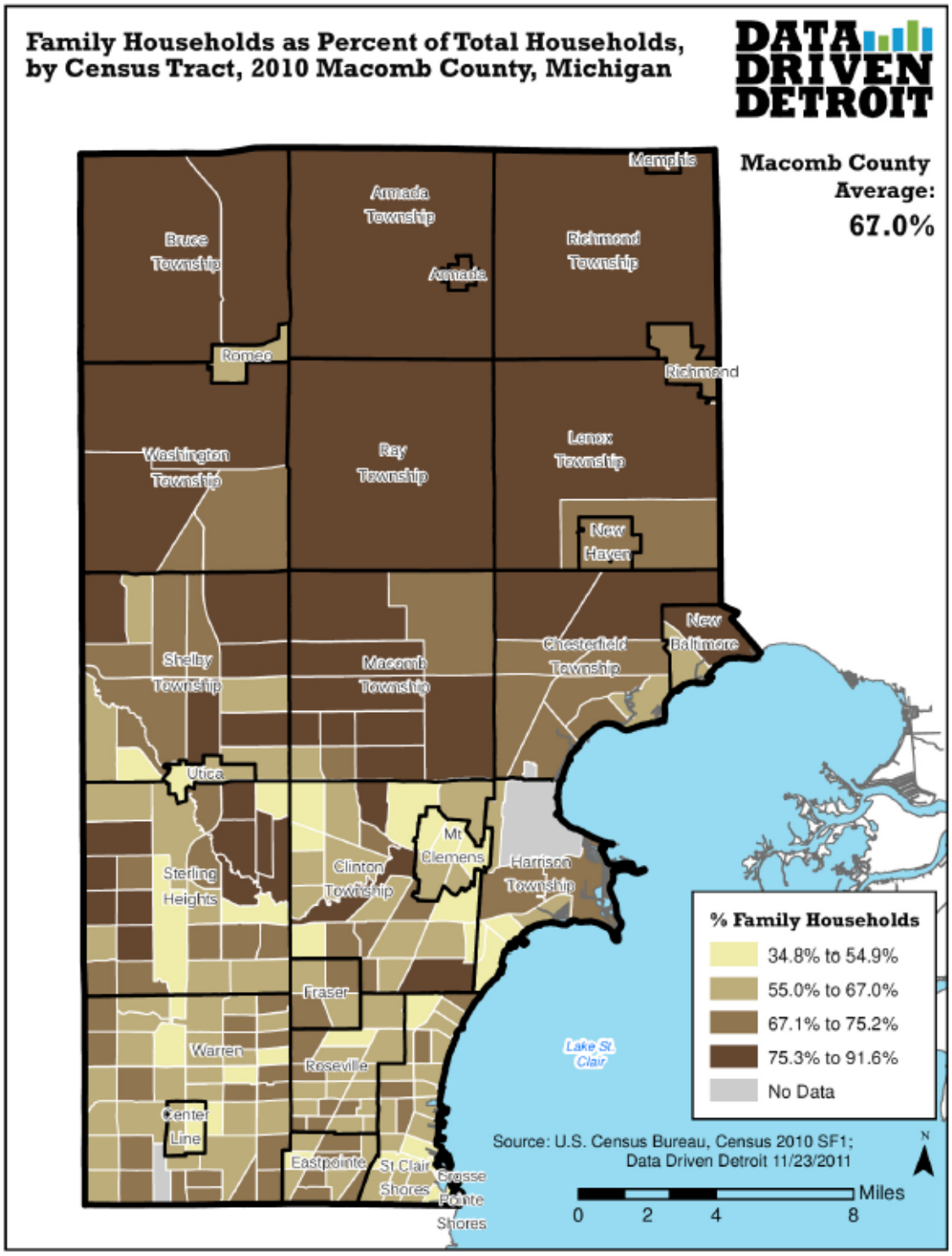
Figure 8. Macomb County Household Distribution by Type, 2000 and 2010



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

The distribution of family households is not spread evenly across the county, as can be seen in Map 3 on the next page. They are much more prevalent in the areas north of M-59.

Map 3. Family Households by Census Tract, 2010 Census



Single-Parenting Is Less Advantageous for Children, on Average

"Child well-being indicators associated with children of divorced or single parents include low measures of academic achievement (repeated grades, low marks, low class standing), increased likelihood of dropping out of high school, early childbearing, and increased levels of depression, stress and anxiety, and aggression."

U.S. Census Bureau, 2001 Report, A Child's Day: Home School and Play

Children from Single-Parent Households

A large body of scholarly research shows that children from single-parent households are at higher risk for a variety of social difficulties, including lower educational achievement, leading to a higher risk of unemployment.[12, 13]

Single parents tend to have a lower economic standard of living and, hence, reduced options for professional child care arrangements, less disposable income and less time for childhood enrichments, such as tutoring, lessons and extracurricular activities.[14]

All things being equal, a child born into a two-parent family has a greater chance of success than a child born into a single-parent family. For a child born into a single-parent family, the chance of success is higher if the mother's educational level is high.

Births to Unwed Mothers

A mother's educational attainment is a strong predictor of her likelihood of having an unwed birth. American Community Survey data over a five-year period at the county, state and national levels show a consistent pattern: as education increases, the likelihood of unwed births decreases (Figure 9). The U.S. Census Bureau analysis of national data on education, living arrangements and unwed births confirms this pattern (Table 4).[15] The data point clearly in one direction: increasing a young woman's education level can increase her employment opportunities and income level, while reducing her likelihood of having an unwed birth.

12 See a review of the research from Western Michigan University, "Academic Achievement of Children in Single-Parent Homes: A Critical Review" by Mark S. Barajas, in The Hilltop Review, Vol. 5, Issue 1, Fall 2011. See Growing Up with a Single Parent: What Hurts, What Helps, by McLanahan and Sandefur, Harvard University Press, 1994. See also the U.S. Department of Health and Human Services, Report to Congress on Out-of-Wedlock Childbearing, 1995.

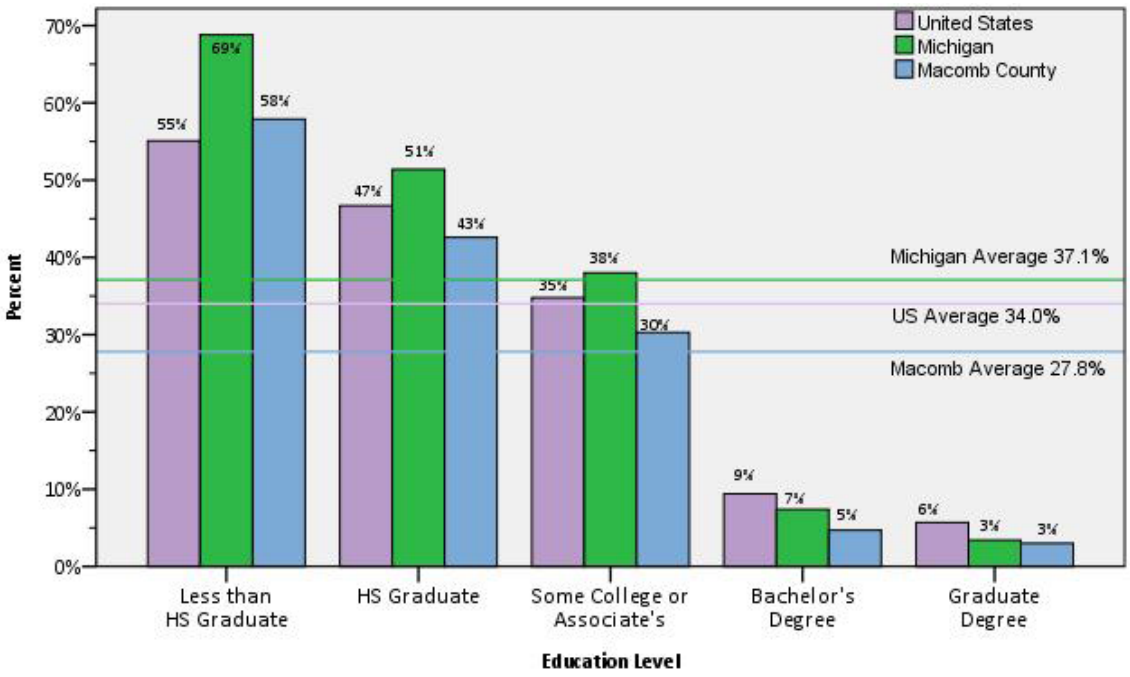
13 Boys who are raised in a household in which the father is absent are at higher risk of school dropout and later unemployment. They are also at higher risk of psychological disorders and delinquent behaviors. See Robert Wood Johnson Foundation research, "Father Absence and Child Wellbeing" by Sigle-Rushton & McLanahan, 2002. See also a review of the research from Western Michigan University, "Academic Achievement of Children in Single-Parent Homes: A Critical Review" by Mark S. Barajas, in The Hilltop Review, Vol. 5, Issue 1, Fall 2011.

14 "A Child's Day: Home, School & Play." U.S. Census, 2001, Household Economic Studies, by Fields, Smith, Bass and Lugaila.

15 The Census Bureau provided this information only at the national level. State and county level analyses are not publicly available.

There are additional factors closely associated with the incidence of unwed births, including income, poverty and race, among others. Table 11 in the appendix shows the available data from the Census Bureau for Michigan, Macomb, Oakland and Wayne counties.

Figure 9. Percent of Births to Unwed Mothers, U.S., Michigan and Macomb, 2006-2010



Source: American Community Survey, 2006-2010, five-year average.

Note: The ACS margin of error for this figure is available in the appendix in Table 11.

Table 4. Unwed Births by Education and Living Arrangement, United States, 2010

Women with a Birth	Less than High School		High School Graduate		Some College		Bachelor's Degree or More	
By Living Arrangement:	**Count**	**Percent**	**Count**	**Percent**	**Count**	**Percent**	**Count**	**Percent**
Married, spouse present	242,575	39%	485,522	48%	590,384	58%	931,397	89%
Cohabiting	99,387	16%	162,856	16%	135,880	13%	53,699	5%
Not living with a spouse or partner	279,259	45%	355,475	35%	290,589	29%	58,914	6%
Total	621,221	100%	1,003,854	100%	1,016,852	100%	1,044,009	100%

Source: U.S. Census Bureau, Current Population Survey, Detailed table 8, Women 15 to 44 with a Birth in the Last Year by Living Arrangement and Educational Attainment, June 2010.

Note: This table is not available for states or counties.

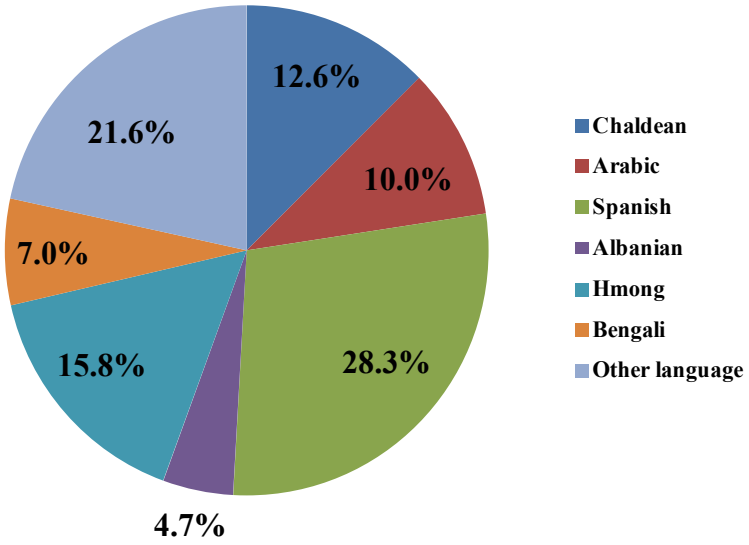
International Immigration

Macomb's international immigrants are, on the whole, as well educated and as well integrated into the job market as long-term residents. They also tend to have strong family structures that support the emotional and educational development of their children.[16] Most international immigrants have come to Macomb during early adulthood, in their 20s and 30s, bringing young children with them.[17] The impact of their immigration into Macomb is most noticeable in the primary school systems, particularly in Sterling Heights and Warren, as numbers of non-English speaking children increase.

Foreign Language Diversity in the Schools

Migration patterns have had a significant impact on the demographics of the county. The changing ethnic composition of the county is evidenced in the foreign languages spoken in schools (Figure 10). Of students reporting speaking a language other than English, Chaldean and Arabic accounted for 23 percent of the total. Spanish and Albanian accounted for another 33 percent.[18]

Figure 10. Foreign Languages Spoken in Macomb Schools, 2012



16 Census data suggest this group is not characterized by significant social difficulties such as high unemployment or high divorce rates, etc. The percent of unwed births in Macomb's large international immigrant communities is significantly lower than for the native population. See Table 11 in the appendix for information on births to unwed mothers by nativity.

17 Data and analysis by Kurt Metzger, Data Driven Detroit.

18 Ibid.

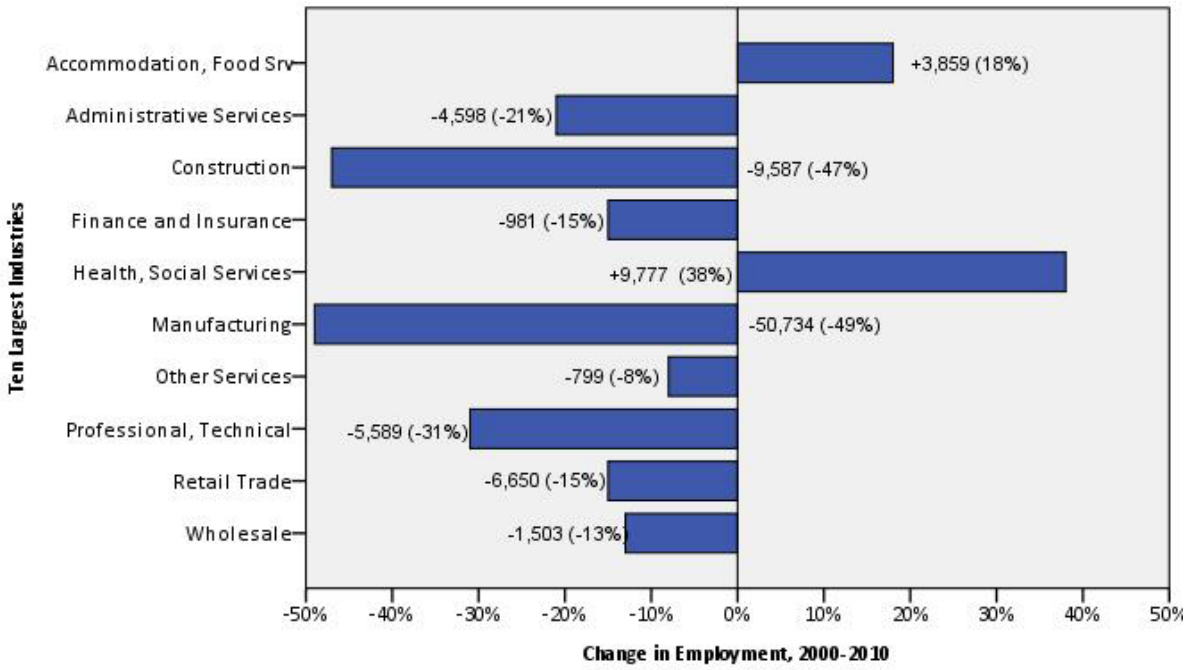
The Great Recession's Lasting Impact

While the latter part of the decade took a toll on the national economy, Michigan had already been suffering for most of it. The manufacturing industry had been contracting across the country, but nowhere more severely than in Michigan. In Macomb County, with an economy dominated by manufacturing, the contraction amounted to a devastating loss of 50,700 jobs, nearly half (49 percent) of the manufacturing sector (Figure 11). This was compounded by an additional loss in construction jobs of approximately 9,600, or close to half (47 percent) of that sector. Both sectors offered high-wage, low-skill jobs, and both had a predominately male workforce. Neither sector has substantially recovered from the recession. As a result, a large number of men remain displaced from the workforce without the education or skills to help them succeed in the New Economy.

Over the decade, the health care sector increased by roughly 10,000 jobs (38 percent), the accommodations and food sector increased by roughly 4,000 jobs (18 percent) and the education sector increased by 1,300 (98 percent).[19] But combined, the job gains in these expanding sectors were insufficient to counter the losses in manufacturing and construction.

19 The growth of the health care sector is important to the county. It has a high wage scale and strong future tied to an aging population. The sector includes social service, which too has grown, but consists of lower wage jobs. Its growth is closely tied to the increasing service demand for food, shelter, counseling and other basic needs resulting from the economic collapse. An improving economy will tend to lessen the need for social service jobs. The educational sector has grown but is not likely to continue this growth due to a decreasing student population.

Figure 11. Macomb's Top Ten Private Industries, Changes Over the Decade, 2000-2010



Source: MI Labor Market Information Division, average annual employment, 2000 and 2010.

Shrinking Household Incomes

Table 5 below shows the effect of the Great Recession on median household income at the county, state and national levels.[20] While households nationally lost approximately nine percent of their buying power, Michigan households fell 22 percent, and Macomb County households fell almost 28 percent. The losses resulted in long-lasting impacts related to personal and family tragedies of bankruptcy, home foreclosure and poverty. These rippled through cities and townships, reducing home values, tax revenues and economic growth.

Table 5. Median Household Income by Geographic Area, 1999–2010

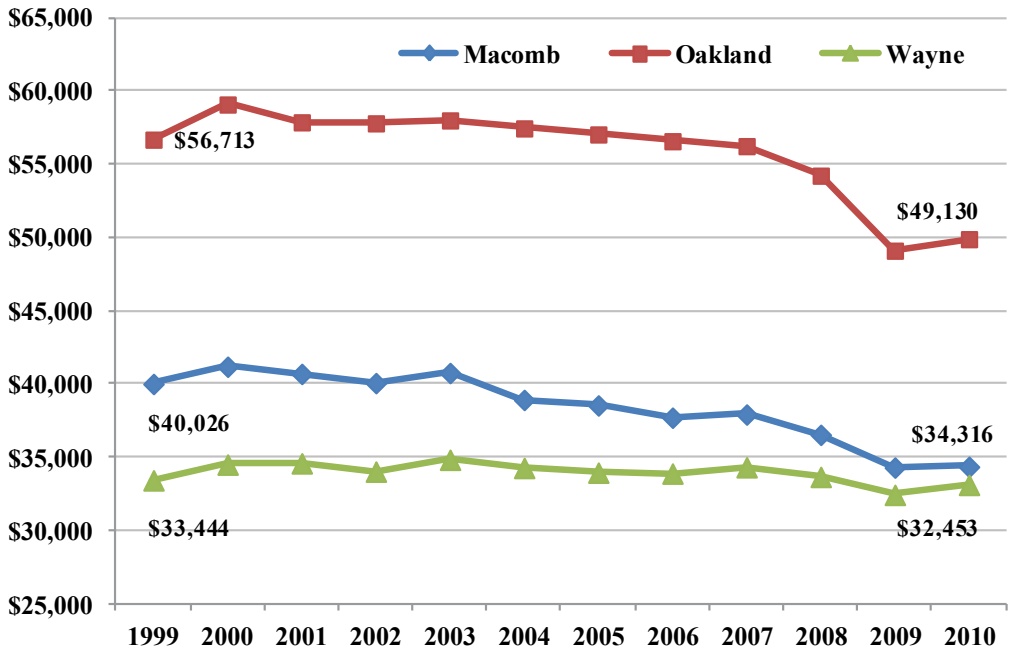
Area	Change in Median Household Income			
	1999	2010	$ Change	% Change
Macomb	**$68,178**	**$49,160**	**-$19,018**	**-27.9%**
Oakland	$81,008	$60,226	-$20,782	-25.7%
Wayne	$53,357	$39,408	-$13,949	-26.1%
Michigan	$58,449	$45,413	-$13,036	-22.3%
United States	$54,941	$50,046	-$4,895	-8.9%

Source: U.S. Census 2000 and American Community Survey 2010.

20 All 1999 monetary values are adjusted to 2010 dollars using U.S. Consumer Price Research Series Index for All Urban Consumers (CPI-U-RS) from 1999 to 2009.

A close look at per capita income for the tri-county area of Macomb, Oakland and Wayne shows that the pattern of income loss was similar in each: a reduction over the decade but with a possible bottom reached in 2009. Macomb had the largest percentage drop in per capita income, a little more than 14 percent, which brought its average down closer to Wayne County's (Figure 12).

Figure 12. Per Capita Personal Income by Geographic Area, 1999–2010

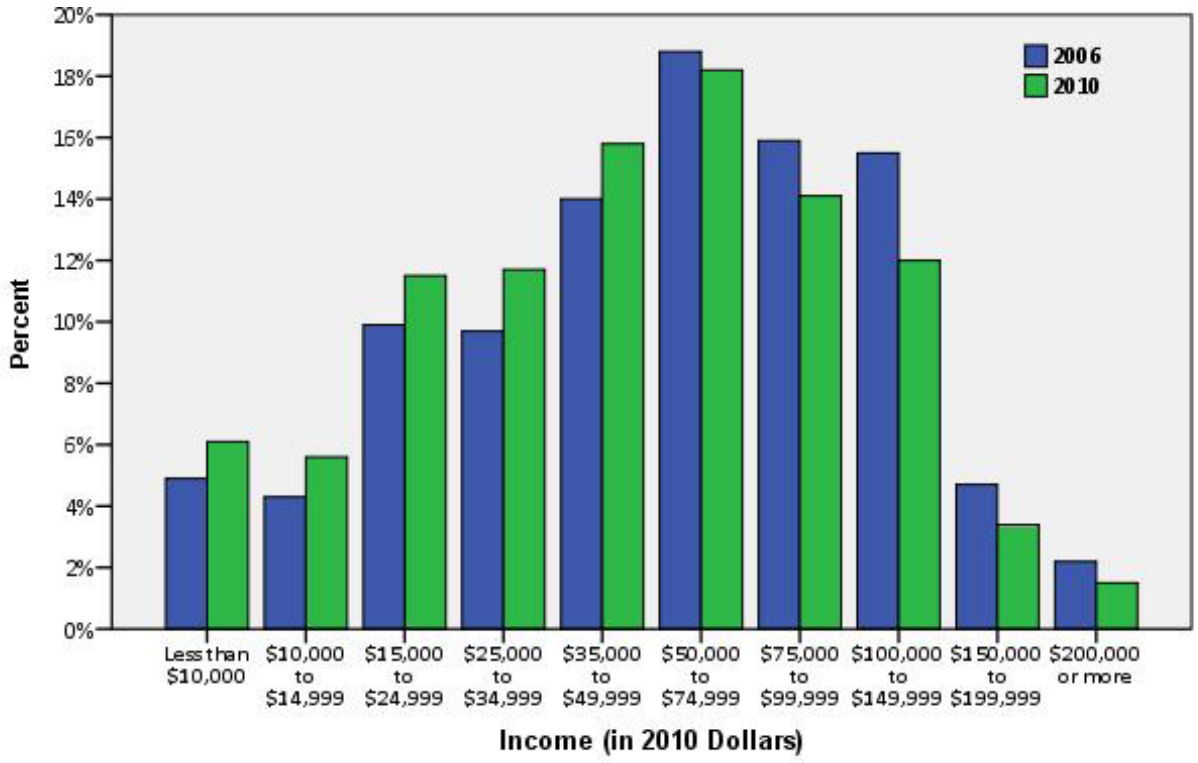


Source: Bureau of Economic Analysis.

Note: Dollars were adjusted to 2010 following the U.S. Consumer Price Index (CPI-U-RS).

Figure 13 looks at the distribution of households by income, adjusted for inflation. It shows that household income shifted down toward the lower end of the distribution, between the pre- and post-recession period, 2006–2010. The reduction was attributable to both reduced earnings and reduced labor force participation, meaning fewer households with earned income.

Figure 13. Household Income Distribution for Macomb County, 2006 and 2010

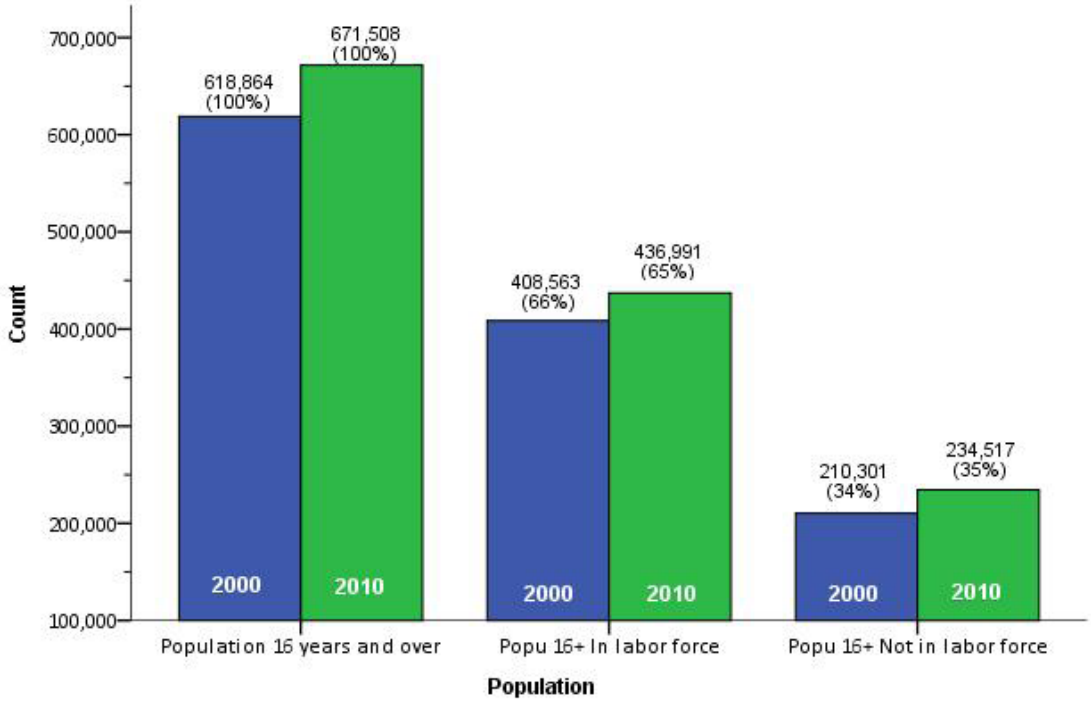


Source: 2010 Census and 2006 American Community Survey.

The Shrinking Workforce

With the near decade-long contraction of the automotive industry compounded by the industry crisis in 2008, there has been a corresponding contraction in the portion of the Macomb working age population (16 and older), dropping from 66 percent in 2000 to 65 percent by 2010 (Figure 14). Although the total working age Macomb population increased by roughly 52,600 people over the decade, only 28,400 more are in the workforce; the remaining 24,000 are not. Of those that left the workforce, some retired, having come of age or chose an early retirement; others were displaced, and lacking marketable skills never found suitable employment.[21]

Figure 14. Workforce Changes, Macomb County, Age 16 and Over, 2000–2010



Source: U.S. Census Bureau, 2000 Census and 2010 American Community Survey.

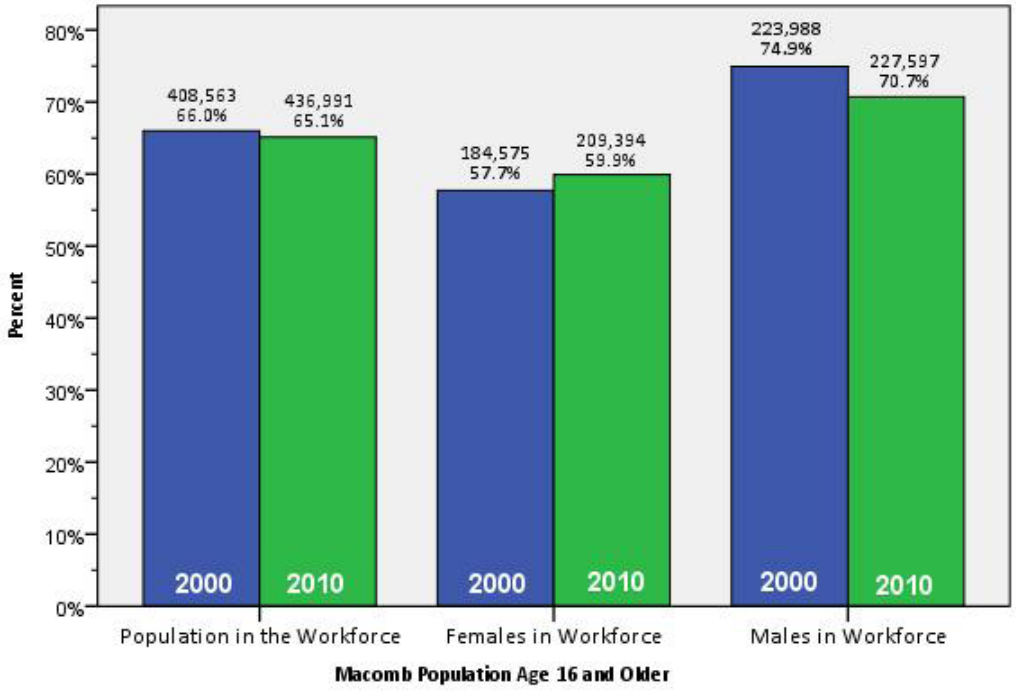
Note: The ACS margin of error for this figure is shown in the appendix in Table 12.

21 While a displaced worker is job hunting, he is counted among the unemployed. But, if he doesn't find a job and stops looking, he is no longer counted in the workforce.

Economic Contraction Affected Men and Women Differently

Figure 15 shows that roughly 20,000 men and 4,000 women have left the workforce since 2000. As of 2010, 29 percent of working age men and 40 percent of working age women were not in the workforce. More men than women dropped out of the workforce during this recession because the downturn disproportionately reduced the workforces in the traditionally male manufacturing and construction industries, but not in the traditionally female workforces in the health care, education and social services industries.

Figure 15. Males Dropped Out of the Workforce, 2000-2010

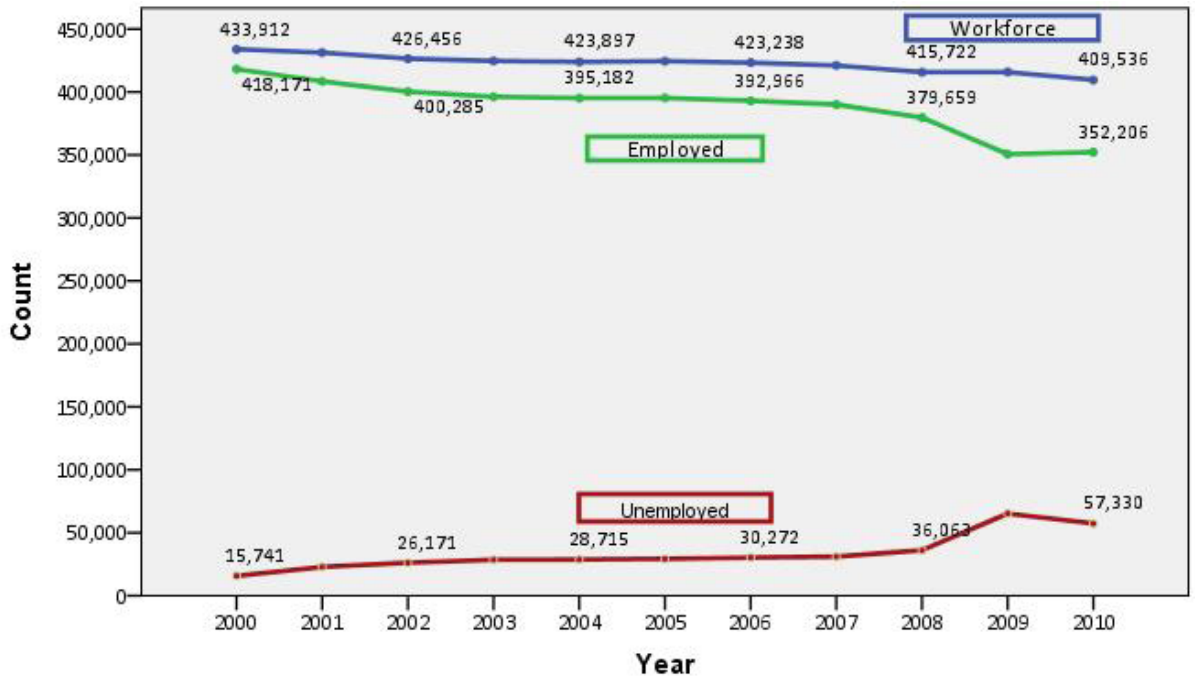


Source: U.S. Census Bureau, 2000 Census and 2010 American Community Survey.

Notes: Michigan LMI employment information by gender is not available.
Details for this figure, including the ACS margin of error, are available in the appendix in Table 12.

The workforce contraction and increase in unemployment continued fairly steadily through most of the decade, with unemployment spiking in 2008 and 2009, and remaining high through 2010 (Figure 16).

Figure 16. Macomb County's Workforce and Employment Totals, Ages 20–64, 2000–2010



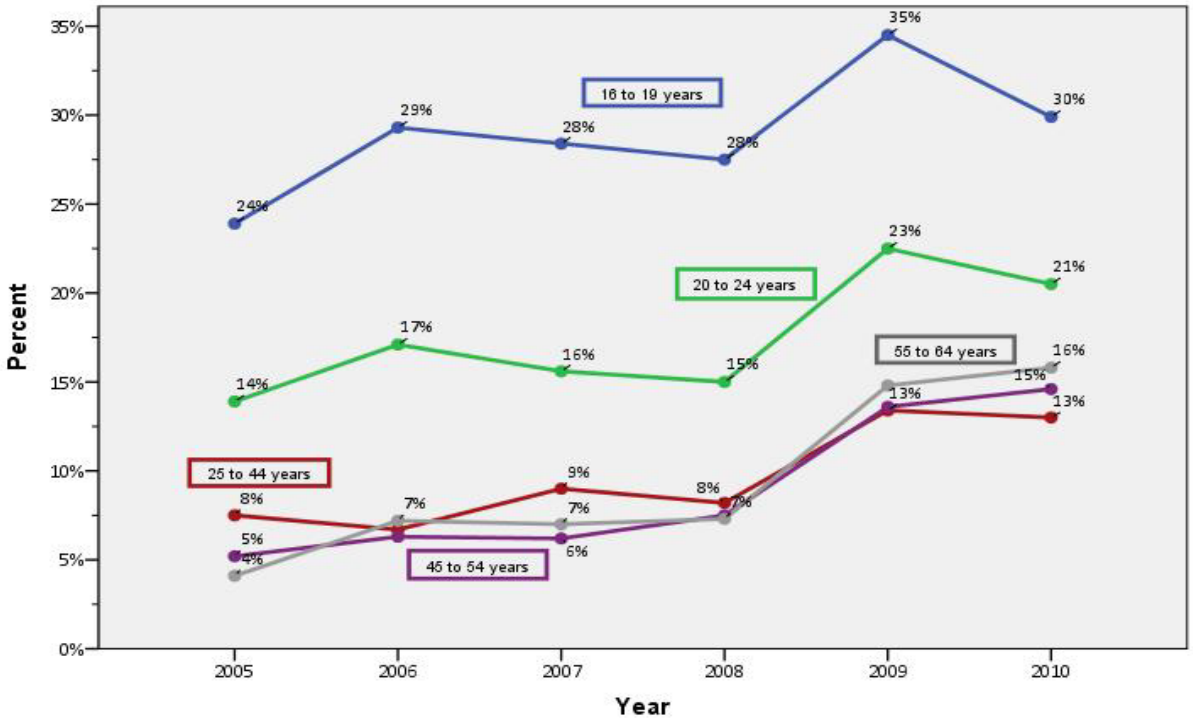
Source: MI Labor Market Information Division.

Note: MI LMI employment information is prepared for population between ages 20-64.
This differs from the ACS, which prepares it for the population between ages 16-75 and older.

Great Recession Impacted Age Groups Differently

The youngest working-age groups (16–19 years and 20–24 years) were hit harder by the economic contraction than older groups. They had a much high level of unemployment than those in their prime working years (Figure 17), and they were more likely to leave the workforce (Figure 18).

Figure 17. Macomb County Unemployment by Age Group, 2005–2010 Estimate



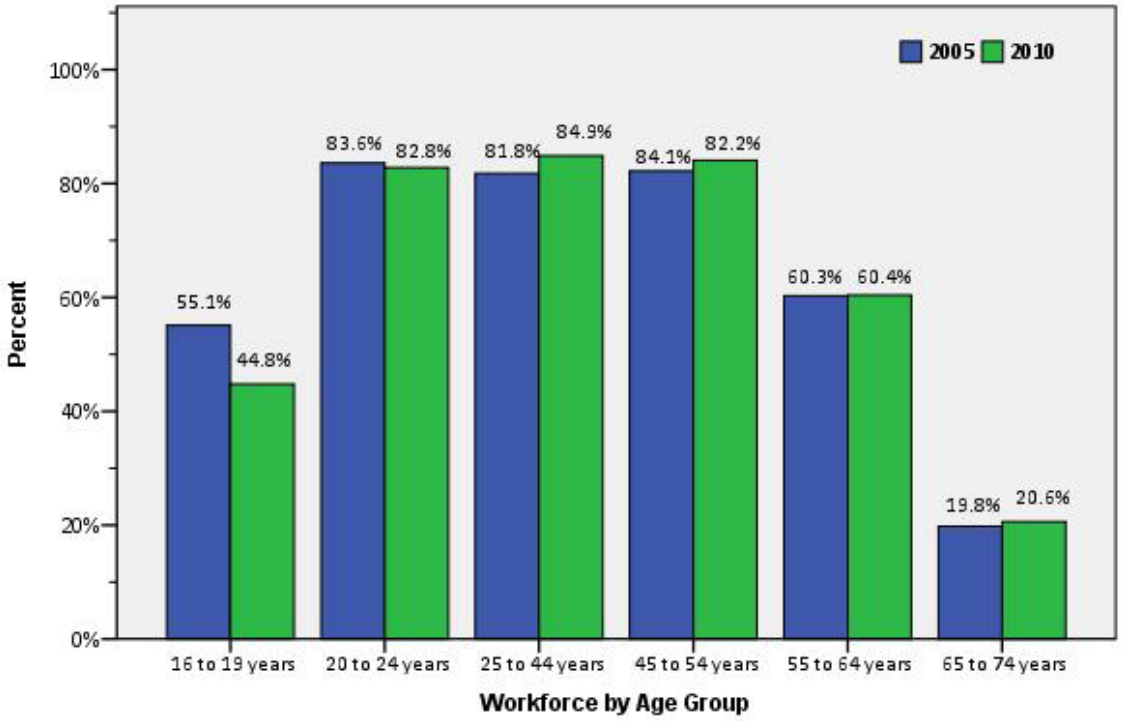
Source: American Community Surveys 2005 through 2010, one-year estimates.

Note: Details for this figure are available in the appendix in Table 13.

A contracting economy can be problematic, not only in the difficulty it brings to individuals and their families, but also because it can impart lasting changes to the composition of the workforce. Younger adults are disproportionately unemployed during economic downturns, and they are more likely to leave the area in search of employment opportunity than older adults.

Although Macomb's overall population grew over the decade, the population between the ages of 25 and 44 years old actually shrunk.[22] Roughly 24,000 in this age group left the county. Another 13,000 stayed but are no longer in the workforce. The older age groups (45-54, 55-64 and 65-74 years old) increased in population and increased their proportion in the workforce.

Figure 18. Workforce Participation by Age Group, 2005-2010



Source: American Community Surveys 2005 through 2010, one-year estimates.

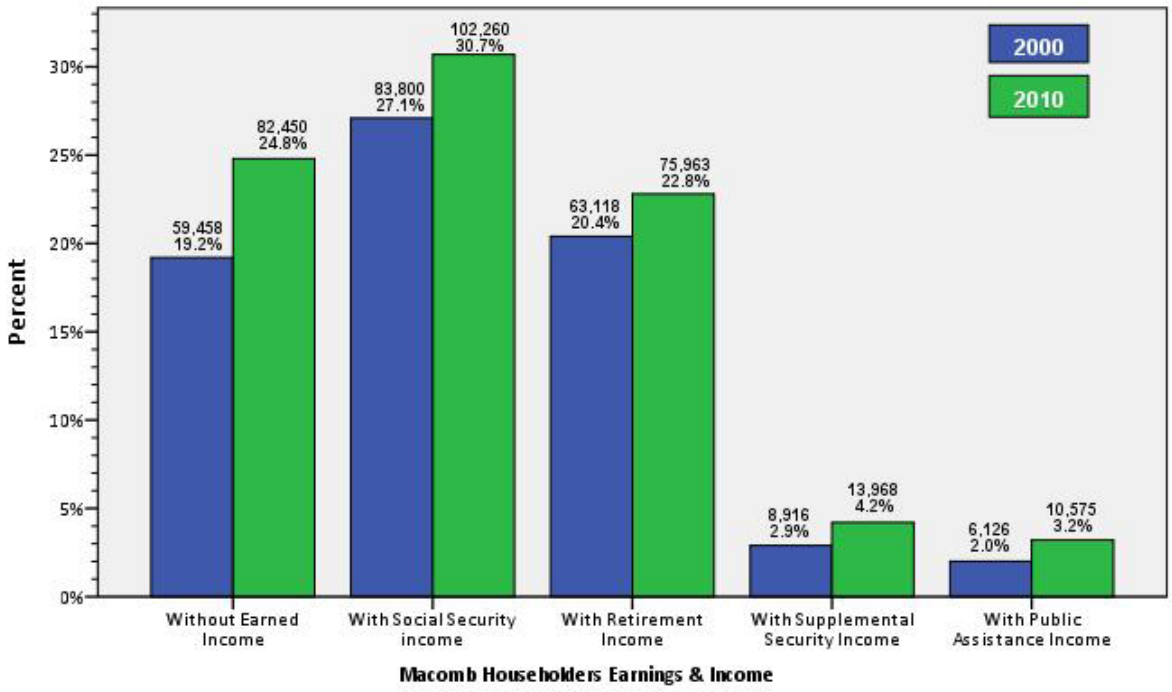
Note: Details for this chart, including the ACS margin of error, are found in the appendix in Table 14.

22 Young educated professionals leaving a distressed area in search of economic opportunity is a phenomenon often referred to as "brain drain." This trend appears to have occurred in Macomb during the Great Recession. Reversing it in the coming decade would be beneficial to spurring business development in the county.

Households with Earned Income–Contraction

Corresponding to the contracting workforce, there is now also a lower percentage of households with earned income, and higher percentages of households with Social Security and Supplemental Security Income. Census 2000 and 2010 income and earnings data show that roughly 18,500 more Macomb households are receiving Social Security benefits, 5,000 more are receiving Supplemental Security Income and 4,500 more are receiving public assistance income. Figure 19 shows this summary. Details are available in the appendix, Table 15.

Figure 19. Macomb Households with Earnings–Contraction, 2000-2010



Source: U.S. Census Bureau, 2000 Census and 2010 American Community Survey.

Although the Social Security system provides its recipients with income stability that can be beneficial in times of economic upheaval, it is not an income source that produces economic growth. A recent study by the University of Michigan's Institute for Research on Labor, Employment and the Economy showed that growth in private sector employment earnings, rather than growth in transfer payments, must occur for an area to become more prosperous.[23]

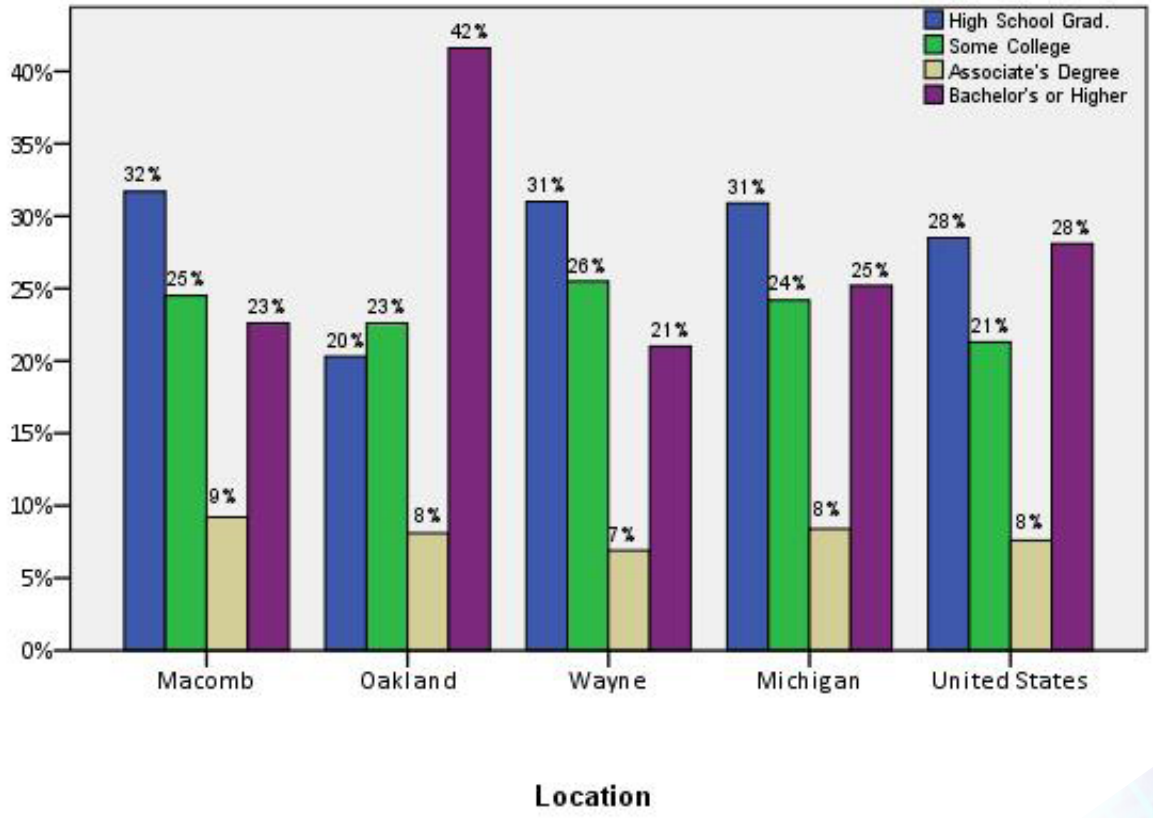
23 "Michigan's Transition to a Knowledge-Based Economy: Fourth Annual Progress Report," August 2011.

Macomb's Educational Attainment Level

Overwhelming data clearly show that educational attainment drives income. And the modern economy demands higher levels of education and skill. Yet Macomb County residents trail the region, state and nation in educational attainment. Figure 20 compares the education levels of Macomb to these areas. With the exception of Wayne County, Macomb is comparatively low in its share of college graduates.

Macomb's long history of highly paid automotive manufacturing jobs meant that the vast majority of good jobs required no more than a high school education. However, as the automobile industry has become more competitive, and profitability more difficult to achieve, lower skill jobs have been moved overseas where labor costs are lower. In addition, the domestic industry continued to decline as consumer tastes changed in favor of foreign car makers, leading to continued hemorrhaging of domestic assembly jobs. Automobile assembly is now a smaller part of Macomb's economy, and many automotive jobs are now more technologically sophisticated, thus requiring a higher level of education and training.

Figure 20. Educational Attainment of the Population 25 Years and Over, 2010

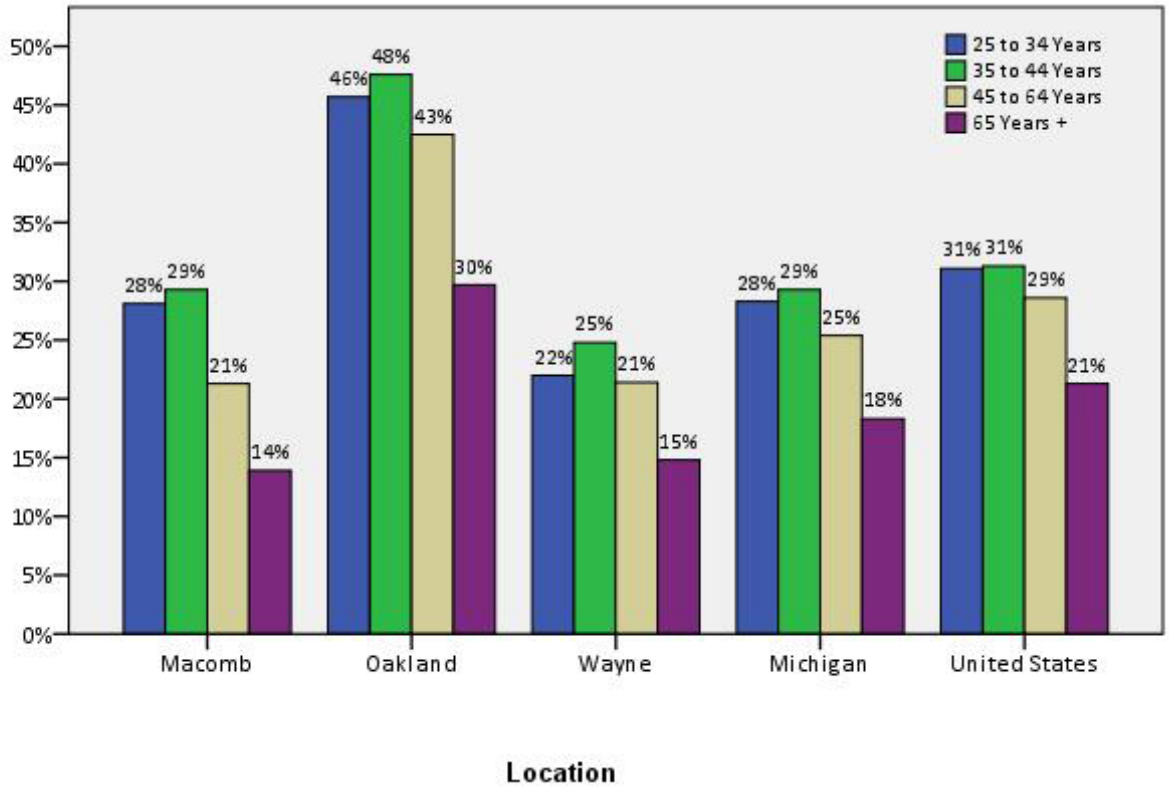


Source: 2010 American Community Survey.

Macomb County residents in the 45–64 year-old group and the 65 years and over group had the lowest college graduation rate among the comparison areas. Macomb residents 25–34 and 35–44 had rates equal to that of the state but below the national average, and significantly below the Oakland County average (Figure 21).

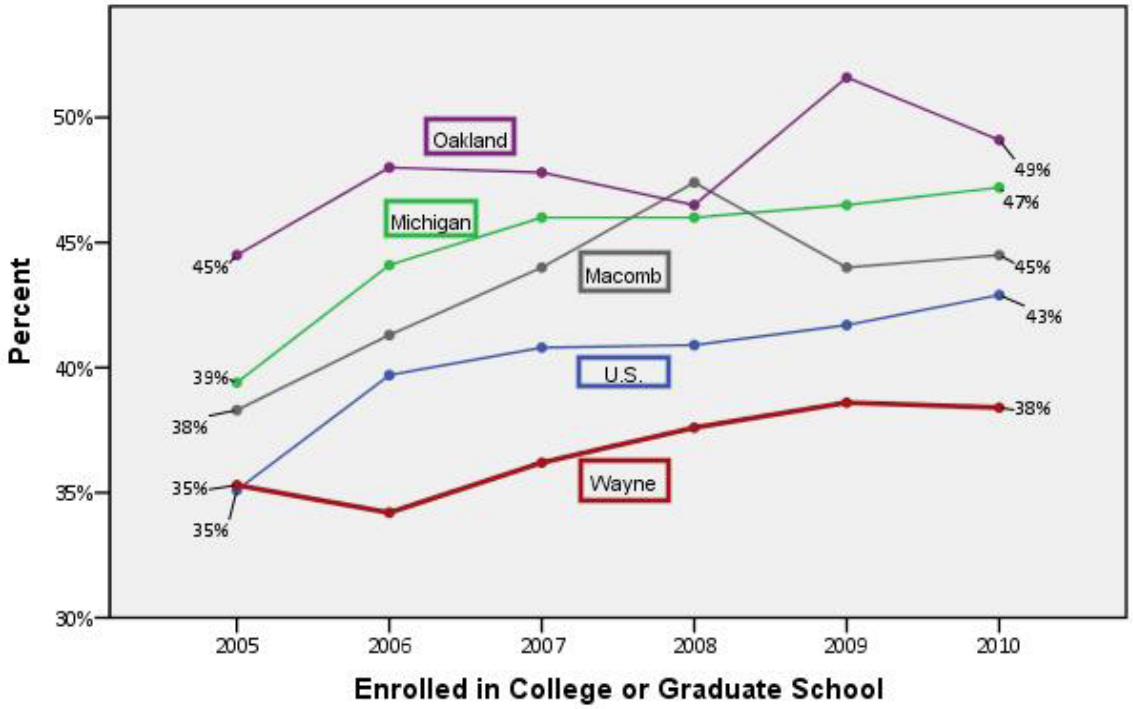
The college enrollment of young Macomb adults is not high enough (Figure 22) nor is Macomb's college graduation rate high enough to attract businesses with the high-technology or high-skill jobs that the county needs for economic growth. Income levels cannot be expected to rise if educational attainment rates remain at such low levels.

Figure 21. College Graduates by Age Group for the Population 25 Years and Over, 2010



Source: 2010 American Community Survey.

Figure 22. Macomb Percent Enrolled in College or Graduate School, Ages 18–24, 2005–2010



Source: American Community Surveys 2005 through 2010, one-year estimates .

The next section of this report briefly explains job trends, discusses the importance of education to job quality and economic growth, and argues that it is essential for the county to prepare the population for the projected growth in jobs requiring higher education.

Riding the Wave

Macomb County has tremendous opportunity for achieving economic growth by satisfying the growing need for a highly skilled workforce. Raising the education and skill level of the workforce would provide businesses the labor pool needed for growth and provide the best opportunity for drawing new business into the county. An educated workforce drives business growth more surely than any incentive or tax break that a county could offer.[24] Abundant evidence shows that a highly educated workforce brings in higher incomes, sustains higher employment levels and supports a larger workforce.

A highly skilled, highly educated workforce offers more than strong opportunity for economic growth. It has important spillover effects that can significantly improve a county's quality of life. Education produces positive effects on a community by increasing the knowledge, competencies, social and life skills of the individuals who live and work there.

Macomb County Job Growth and Increased Educational Requirement

Newly developed data mining software enabled the computerized analysis of online job postings in Macomb County for the prior five years (2007-2011).[25] It showed that, of postings with an educational requirement, roughly one-half required at least a bachelor's degree (Figure 23).[26]

But Macomb's adult population is far less educated than it needs to be to fill these openings. U.S. Census data reveals that currently only about 22 percent of Macomb adults have attained a bachelor's degree.[27]

Data Mining for Job Trends

Online job posting analysis is performed by data mining software that crawls the Web, looking at tens of thousands of real-time job postings. It parses the information about job titles, location, education and skill requirements, etc. Its strength is that it is far quicker than a human being at gathering information. Its weakness is that it lacks a human being's judgment.

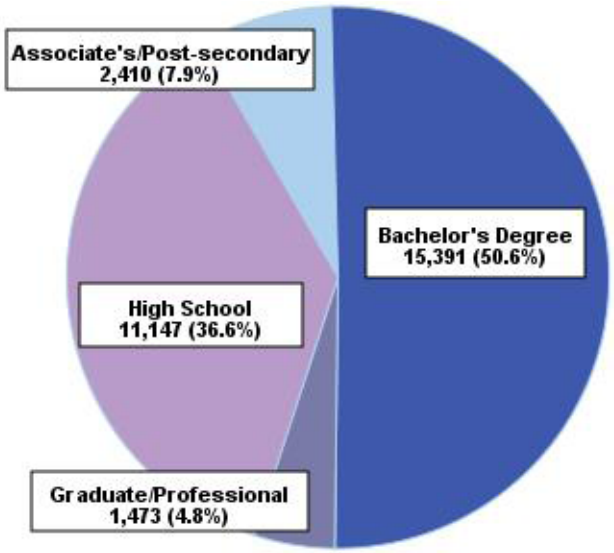
24 Bartik, Timothy J. 2009. "What Should Michigan Be Doing to Promote Long-Run Economic Development?" Upjohn Institute Working Paper No. 09-160. Kalamazoo, MI: W.E. Upjohn Institute for Employment Research.

25 The software examines job information from multiple online sources (e.g., job boards such as Monster.com, CareerBuilder and Craigslist, company websites and public agencies). Computerized software can review tens of thousands of job postings in far less time than a person can; however, it is prone to error at a higher rate than if the data were parsed and reviewed by an intelligent person. And, it cannot read job postings that are off-line. Despite errors and limitations, it can provide useful information about job trends. For this report, Labor Insight software was used.

26 This summary is for all online job postings from January 2007 to December 2011 for which the employer indicated an educational requirement. Roughly two-thirds of all the postings indicated the required educational level. For the remaining one-third, the educational requirement is not known.

27 American Community Survey, 2006-2010, adults age 25 and older, five-year estimates, 21.8%, margin of error +/- .3%.

Figure 23. Macomb County Job Demands by Educational Requirement, 2007–2011



Source: Labor Insight.

Macomb Educational Attainment Compared to the Region

The shortage in the workforce of college-educated adults is not unique to Macomb County but is more acute here than in half of the neighboring counties (Table 6). Macomb has a higher educational level than Wayne, Monroe and St. Clair, but lower than Oakland, Livingston and Washtenaw. Important to note in Table 6 is that county educational attainment levels closely coincide with unemployment levels. The pattern has long been established in Michigan and across the United States that cities and counties with higher educational attainment experience lower levels of unemployment.

Table 6. Southeast Michigan Counties, Educational Attainment and Unemployment Levels, 2006–2010

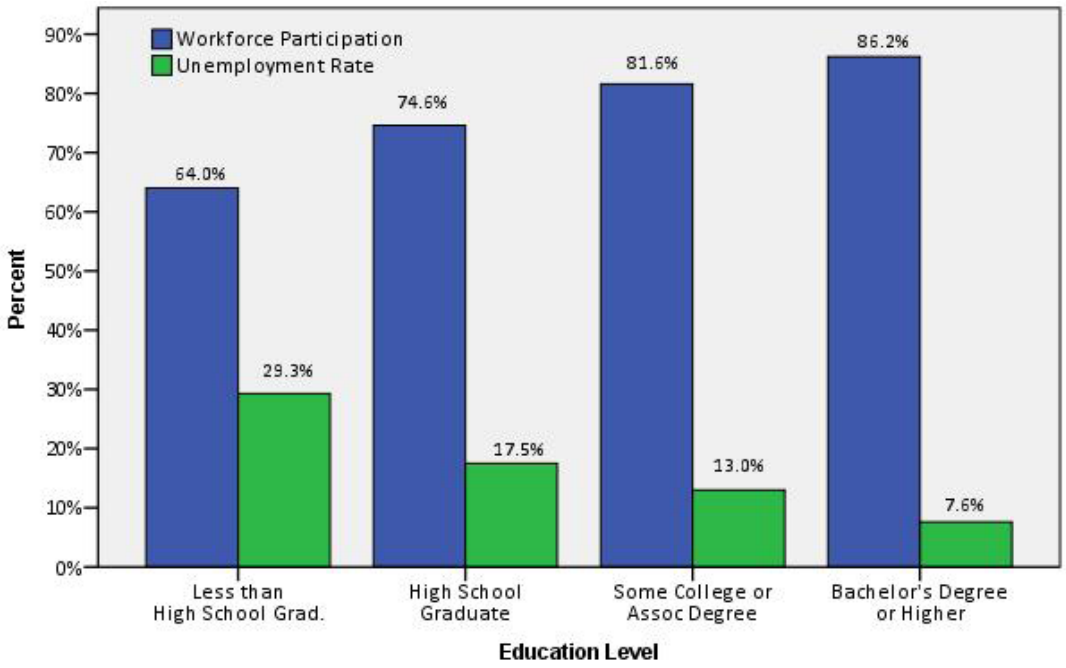
Southeast Michigan Counties	Percent Bachelor's Degree or Higher	Margin of Error	Percent Unemployed	Margin of Error
St. Clair	15.0%	+/-0.6%	13.6%	+/-.9%
Monroe	17.0%	+/-0.8%	10.4%	+/-.7%
Wayne	20.2%	+/-0.3%	16.2%	+/-.3%
Macomb	21.8%	+/-0.3%	11.7%	+/-.4%
Livingston	31.2%	+/-0.8%	8.7%	+/-.6%
Oakland	42.2%	+/-0.4%	9.1%	+/-.3%
Washtenaw	50.8%	+/-0.9%	8.0%	+/-.5%

Source: American Community Survey, 2006-10, five-year estimate.

Connection between Educational Attainment and Employability

There is a very close connection between educational attainment level and likelihood of employment. Adults with only a high school education are more likely to be unemployed than those with some college education. They are much more likely to be unemployed than those with a four-year college degree. In the Macomb labor force, nearly 30 percent of adults without a high school degree were unemployed, and roughly 18 percent with no more than a high school degree were unemployed (Figure 24).

Figure 24. Labor Force Participation and Unemployment by Education, Macomb County, 2010



Source: 2010 American Community Survey and Data Driven Detroit.

Connection between Educational Attainment and Income

The American Community Survey is conducted annually of a representative sample of households in every U.S. county. It repeatedly demonstrates the pattern that the greater the amount of education required for a job, the higher the average income earned (Table 7). The average earnings for current high-growth jobs in the region also demonstrate the connection between education and income (Table 8).

Table 7. Educational Attainment and Income Levels, Macomb, Michigan and U.S., 2006-2010

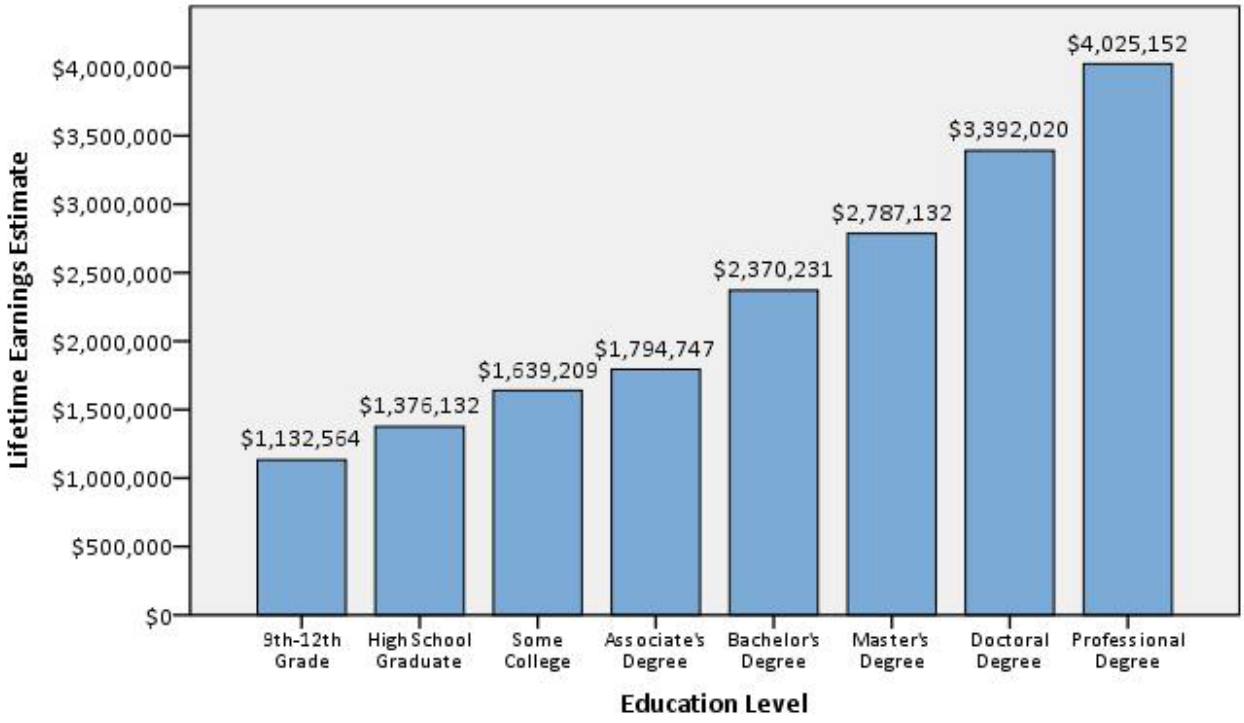
Educational Attainment	Macomb County		Michigan		United States	
	Median Income	Margin of Error	Median Income	Margin of Error	Median Income	Margin of Error
Less than High School Graduate	$20,628	+/-805	$18,007	+/-363	$19,492	+/-46
High School Graduate or GED	$28,556	+/-650	$25,862	+/-129	$27,281	+/-28
Some College or Associate's Degree	$36,714	+/-560	$31,952	+/-156	$33,593	+/-61
Bachelor's Degree	$51,780	+/-750	$47,924	+/-375	$48,485	+/-70
Graduate or Professional Degree	$69,858	+/-2,100	$66,034	+/-341	$63,612	+/-82
Median Annual Earnings, All Levels	$37,013	+/-387	$33,403	+/-173	$34,665	+/-90

Source: American Community Survey, 2006-10, five–year estimates.

Connection between Educational Attainment and Expected Lifetime Earnings

Over a lifetime, the earnings difference by educational attainment is substantial. For example, a person with a high school degree would earn a lifetime average of roughly $1.38 million, whereas a person with an associate degree would earn an average of roughly $1.8 million, 30 percent more than the high school graduate. The earnings difference becomes greater with each additional educational increment beyond a high school degree (Figure 25).

Figure 25. Expected Lifetime Earnings Based on Educational Attainment



Source: U.S. Census Bureau, American Community Survey Reports, September 2011.

Table 8. Highest Growth Jobs by Education Requirement, Detroit MSA, 2008-2018

High Growth Jobs by Education	Numeric Growth	Percent Growth	Hourly Wage
At Least a Bachelor's Degree			
Accountants and Auditors	3,090	15.9%	$33.31
Industrial Engineers	1,900	15.5%	$40.88
Computer Software Engineers, Applications	1,770	28.5%	$40.36
Physical Therapists	850	24.7%	$35.52
Network and Computer Systems Administrators	830	18.3%	$34.35
Sales Managers	760	13.0%	$56.14
Financial Analysts	670	17.6%	$37.01
Construction Managers	520	10.8%	$46.31
Computer and Information Systems Managers	500	12.9%	$56.02
Pharmacists	440	11.0%	$57.13
Average Wage with Bachelor's Degree			**$43.70**
At Least an Associate's Degree or Work Experience			
Registered Nurses	7,780	19.1%	$32.70
Nursing Aides, Orderlies and Attendants	1,620	7.9%	$22.05
Licensed Practical and Licensed Vocational Nurses	1,250	17.9%	$22.58
Dental Hygienists	1,050	26.3%	$29.29
First-Line Sup/Mgrs of Off & Admin. Support Wrkrs.	890	6.2%	$25.11
Self-Enrichment Education Teachers	780	28.3%	$17.49
Heating, A/C, Refrig., Mechanics & Installers	770	18.7%	$23.25
Insurance Sales Agents	420	9.6%	$30.24
Radiologic Technologists and Technicians	330	11.2%	$24.24
Cardiovascular Technologists and Technicians	240	20.7%	$23.56
Average Wage with Associate's Degree			**$25.05**
At Least Moderate On-the-Job Training			
Customer Service Representatives	4,020	14.4%	$17.17
Medical Assistants	2,700	25.9%	$13.64
Maintenance and Repair Workers, General	1,480	8.3%	$17.72
Dental Assistants	1,200	26.3%	$15.17
Pharmacy Technicians	1,200	24.4%	$13.47
Construction Laborers	1,140	11.5%	$17.92
Compliance Officers, Ex. Agric, Const, Health, Safety, Trans	740	21.7%	$32.10
Purchasing Agents, Except Wholesale, Retail, & Farm	560	8.9%	$33.69
Fire Fighters	440	14.1%	$23.66
Flight Attendants	300	8.2%	$26.48
Average Wage with OTJ Training			**$21.10**

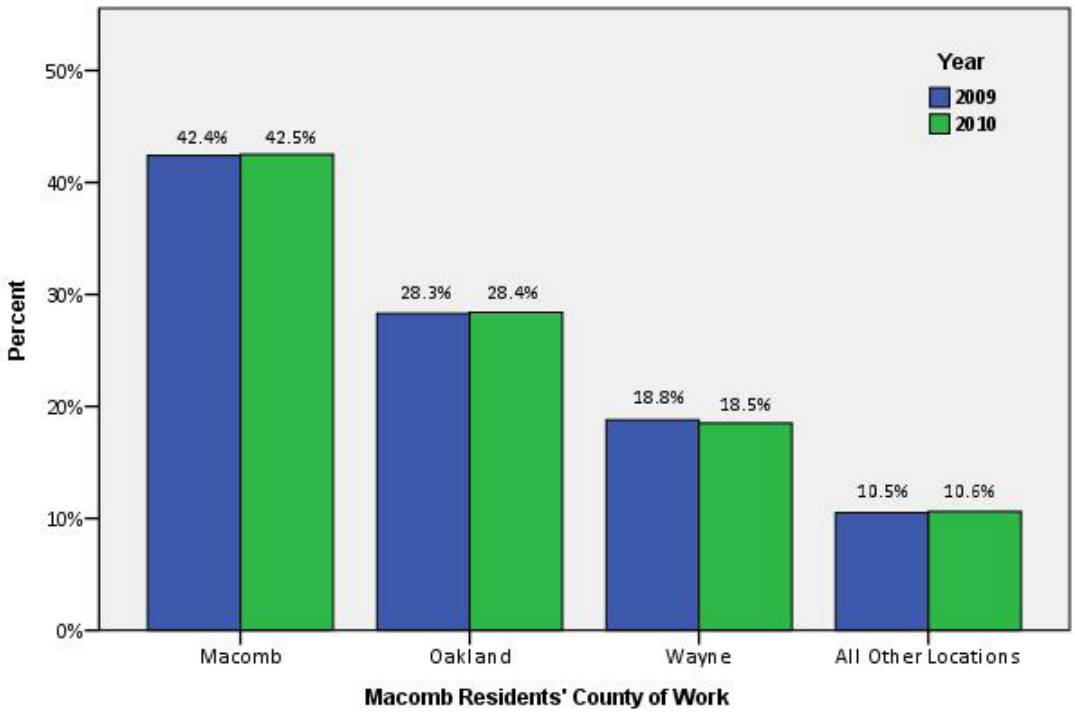
Source: Macomb-St. Clair Workforce Development Board and DTMB, Bureau of Labor Market Information and Strategic Initiatives, 2008–2018, Detroit MSA (Lapeer, Macomb, Monroe, Oakland, St. Clair and Wayne Counties).

Note: The DTMB does not produce a long-term occupational forecast exclusively for Macomb County.

Matching Macomb Residents with Macomb Jobs

In Macomb County, only 43 percent of people in the workforce who live here also work here. Roughly 28 percent of Macomb residents work in Oakland County, nearly 19 percent work in Wayne County and the remaining roughly 11 percent are spread out across other counties (Figure 26). The large share of out-commuters may be an indicator of several underlying trends, but the two most likely ones are that there are not enough jobs in the county for the residents or that available jobs and residents' skills are not well matched.

Figure 26. County of Work for Macomb County Residents, 2009 and 2010



Source: Local Employment Dynamics, U.S. Census Bureau.

A recent analysis of the U.S. Census Bureau's Local Employment Dynamics data by Kurt Metzger of Data Driven Detroit provides evidence of the mismatch between Macomb County jobs and resident skills. Roughly 46 percent of Macomb jobs are being filled by commuters from Oakland (15 percent), Wayne (14 percent), St. Clair (6 percent) and other areas (12 percent). Further, Macomb residents hold more of the low- and middle-income jobs and fewer of the high-income jobs than do non-residents.

If an insufficient number of Macomb residents are prepared for high-skill jobs, either non-residents will fill them, or, when economically feasible, businesses will move the jobs to the counties where the workforce resides. Neither of these two options is good for the economic health of the county. It is better if Macomb residents fill the high-skill, high-paying jobs available in the county.

Macomb County Path to Economic Growth

The need for a more skilled, more educated workforce crosses many economic sectors in Macomb County, but is critically tied to the automotive and health care sectors as well as heavily dependent on the professional, scientific and technical services job group. Job growth in each of these areas has the potential to bring enormous benefit to the county. In each, most of the job growth is projected to occur in the occupations requiring a college degree.

Job growth in the automotive industry is projected to be concentrated in high-skilled occupations, such as engineering and advanced manufacturing, not in low-skilled occupations, such as assembly. Job growth in the health care sector is projected for both the high-skill fields of practitioners and technicians and the low-skill fields of home health care aids and assistants. Although the health sector offers growth opportunities in both high- and low-skill occupations, only the high-skill jobs will yield both high economic benefits to the workers and high positive spillover to the county. The professional/technical services sector, although smaller than the others, offers the highest economic return to the county in terms of personal income and business growth potential.

The growth of these sectors in Macomb County will provide more economic benefit if the jobs are filled by county residents. Residents would earn higher-than-average wages and contribute higher-than-average revenue to the county.

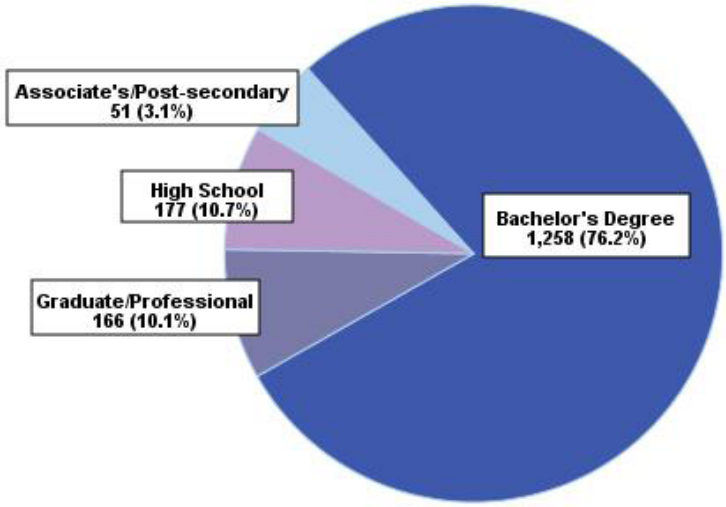
There are two additional, large economic sectors, retail service, and accommodations and food service, that are projected to grow in the county. However, their overall economic returns are substantially smaller than the other three, and the quality of jobs is lower.[28] In both the retail and food services industries, the education and skill requirements are low, and average wages are substantially lower than in the automotive, health care and professional/technical services fields. On average, retail wages are roughly one-third those of the automotive and professional fields and roughly two-thirds of the health care sector. Average wages in the food services sector are even lower. Because there is no workforce or skills shortage expected in these industries, they are not addressed in this report.

28 Job quality includes more opportunity for career advancement, greater autonomy, more interesting work, better work hours and work conditions, higher pay and better benefits.

Automotive Industry's Changing Workforce Needs

The automotive industry, the largest industry in Macomb County, is undergoing major transformation, most notable of which is an increasing need for a highly skilled, highly educated workforce. An examination of automotive industry job postings in Macomb from 2007-2011 revealed that 76 percent of postings were for jobs requiring at least a bachelor's degree (Figure 27).[29] A similar proportion (78 percent) of such postings for the same period was found across the tri-county area (Macomb, Oakland and Wayne).

Figure 27. Macomb Automotive Manufacturing Job Postings Educational Requirement, 2007-2011



Source: Labor Insight.

There is virtually unanimous agreement among industry experts, economists and other scholars that automotive industry job growth will be concentrated in engineering, advanced manufacturing, research and development. This is due largely to advanced powertrains (hybrids, plug-ins, battery electric and advanced combustion), alternative fuels (biofuels, hydrogen and solar), lightweighting materials, and electronics and software controls.[30] Job growth in the United States will not be in traditional manufacturing; it will be in the high-skilled occupations. Unskilled and "non-core" trades will continue their trend toward outsourcing.[31]

29 This summary is for all automotive industry online postings from January 2007 to December 2011, for which the education requirement level was stated. One-third of the postings had no educational requirement shown and are not included in this analysis.

30 "Driving Workforce Change," a study completed by a consortium of Indiana, Michigan and Ohio governments and universities, May 2011.

31 In a study conducted by the Center for Automotive Research, the Detroit Big Three representatives said they plan to continue outsourcing non-core trades, which are those not directly related to building vehicles, and those that are "highly-specialized and infrequently required."

The Center for Automotive Research conducted a 2008 study of the automotive industry, forecasting employment opportunities and training requirements for 2011 through 2016. [32] The study included the largest manufacturing firms, General Motors, Ford, Chrysler, Honda and Toyota, as well as many of the largest auto suppliers.[33] Study participants said the industry's educational requirements are increasing, and "math ability, technical reading skills and computer literacy were generally agreed to be the most important specific skills required for entering the skilled trades/maintenance associate workforce."

The structural changes to the industry make it extremely unlikely that there will ever be a need for the large number of unskilled workers that populated the industry a decade ago. Chrysler, Ford and GM hold roughly a 45 percent share of the car market now, down from 66 percent in 2000.[34]

The industry contraction is expected to be long term. There will not be a reemergence of abundant, high-paying production jobs to sustain a large middle class. The county can adjust best to this new condition through industry diversification and increased educational attainment of the residents.

Defense Sector Emergence

The defense sector, an important and growing segment of Macomb County's economic base, is closely tied to the success of the advanced automotive sector. Macomb's advanced automotive manufacturing and research and development talent contribute substantially to the development of military vehicles, alternative fuels, new materials, vehicular electronics, software and hardware. As with the automotive sector, the defense sector requires a workforce with higher education and specialized skills than in prior years.

A recent Intellitrends "Targeted Industries Report" for Macomb County identified the defense sector and advanced manufacturing as "key clusters" that "present unique opportunities for Macomb to differentiate itself from the region." The defense sector is an "optimum target sector" for creating interrelationships that could be cultivated and developed" and are an excellent fit for advanced automotive manufacturing "adaptation and skill transfer."[35]

> "The prospects for the region remain integrally tied to the prospects for the automotive industry."
>
> *George A. Fulton,*
> *University of Michigan,*
> *Institute for Research on Labor,*
> *Employment and the Economy*

32 "Beyond the Big Leave: The Future of U.S. Automotive Human Resources," The Center for Automotive Research, 2008.

33 The suppliers included Bosch, Continental AG, Cooper-Standard Automotive, Denso International, Johnson Controls, Siemens VDO Automotive, Valeo, Yazaki North America and others.

34 "Driving Workforce Change," a study completed by a consortium of Indiana, Michigan and Ohio governments and universities, May 2011.

35 Targeted Industries Report by Intellitrends, July 2006. They believe that, "through education and training initiatives, Macomb's greatest opportunity is to leverage its existing manufacturing base by using and adapting existing skills to new market needs…"

Globalization and its Impact on the Workforce

The wage demands of the unskilled worker in the United States far exceed those in the developing world. As a result, wherever feasible, employers have been and are expected to continue moving low-skill jobs overseas. The jobs that will remain in the U.S. are those that require high skill or cannot be outsourced due to the nature of the work. This pattern is visible in the automotive industry, which has moved production jobs overseas but maintains engineering and business jobs in the United States. The pattern is seen also in the health care industry, which, due to the nature of the work, will not move overseas.

Health Care Sector Job Growth

The health care sector of the economy employs the largest number of people in the southeast Michigan region. And it is projected to have one of the two largest percent increases (16.6 percent) in employment through 2018 (Table 9).[36] The trend will likely continue well beyond 2018, driven by the health care needs of a burgeoning senior population, which is projected to double over a 30-year period (2005-2035).[37]

Table 9. Top Ten Occupation Groups with Expected Growth, 2008-2018

Top Ten Occupation Groups	Detroit Metropolitan Area Employment Projections			
	2008	2018	Increase	Percent
Healthcare Practitioners & Technical	113,600	132,510	18,910	16.6%
Business and Financial Operations	113,260	126,790	13,530	11.9%
Office and Administrative Support	304,950	315,460	10,510	3.4%
Food Preparation & Serving Related	153,570	163,850	10,280	6.7%
Computer and Mathematical	58,260	67,930	9,670	16.6%
Personal Care and Services	73,600	83,010	9,410	12.8%
Sales and Related	216,160	224,220	8,060	3.7%
Education, Training, and Library	101,550	108,420	6,870	6.8%
Community and Social Services	33,460	37,460	4,000	11.9%
Protective Services	39,050	42,350	3,300	8.4%
All Occupations	2,032,350	2,144,830	112,480	5.5%

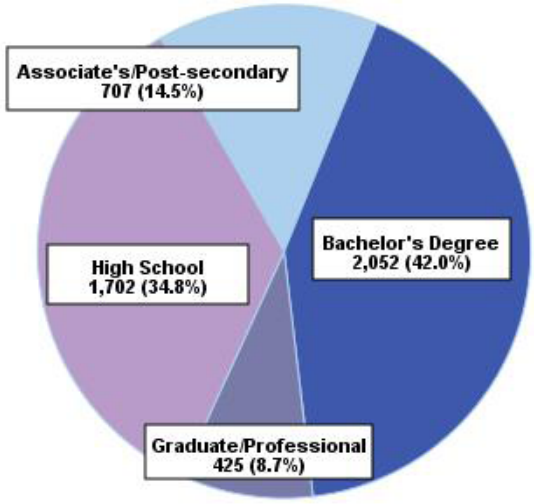
Source: Michigan Department of Technology Management & Budget.
Detroit Area Composition: Lapeer, Macomb, Monroe, Oakland, St. Clair and Wayne Counties.

36 Computer and mathematical occupations are important to the Macomb County economy and are also growing rapidly (16.6 percent), although they have a smaller magnitude than the health care occupations. Michigan DTMB, Bureau of Labor Market Information & Strategic Initiatives, industry employment forecasts for the Detroit area, 2008-18.

37 George A. Fulton, Roads to Renewal Summit, Chicago, April 15, 2009.

In Macomb County, the health care sector is currently the top sector for job growth. Roughly 27 percent of all Macomb job postings in the last five years were in this sector. And the dominant job growth (42 percent) is for those requiring a college degree (Figure 28).

Figure 28. Macomb County Health Care Job Postings Educational Requirement, 2007-2011

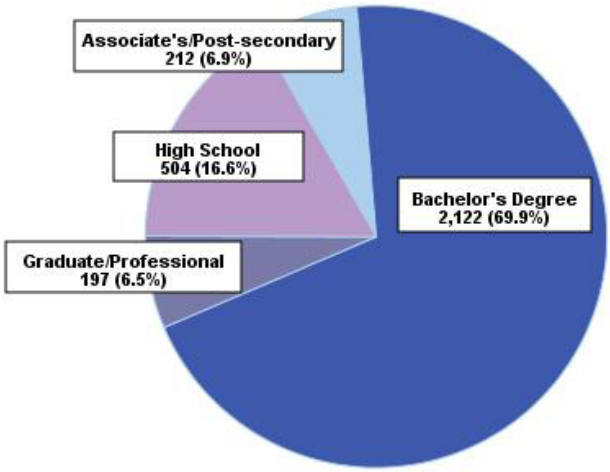


Source: Labor Insight.

Professional, Science and Technical Services Job Group

Although this job group offers smaller numbers of job opportunities than manufacturing, health care and other growing sectors of the economy, it is a heavyweight in driving economic development and is critically tied to growth in the advanced manufacturing, automotive and defense sectors. According to Michigan's Bureau of Labor Market Information and Strategic Initiatives, occupations in this job group are currently in high demand, and continual growth is expected.[38]

Figure 29. Macomb Professional, Science and Technical, Job Postings by Educational Requirement, 2007-2011



Source: Labor Insight

Advanced manufacturing job growth will be concentrated in the fields of science, technology, engineering and mathematics (STEM). Professional, science and technical job growth will include business professionals (e.g., accounting and finance) and IT professionals, among others. Both job groups have high potential to draw new businesses and new residents into the county.[39] If the county doesn't produce enough STEM professionals for the jobs that are open, Macomb employers may find it economically beneficial to move to another county.

38 "Michigan Economic and Workforce Indicators," Summer 2012, found at www.michigan.gov/lmi.

39 The IT job group tends to draw in younger professionals who are more inclined than older professionals to choose this career field. Growth in this field and this demographic would bring multiple benefits to the county.

Retaining Young Talent in the County

Preparing more of our youth for occupations in the professional job group would increase their chances of economic success and would be enormously beneficial to the county. The professional job group drives innovation, start ups and brings in new businesses.

Jobs in the professional, science and technical group bring economic growth. And growth helps to retain and attract young professionals who are more likely than their elders to seek opportunities in emerging fields, such as alternative energy. Macomb has a strategic advantage in developing the alternative energy sector.[40] Lake St. Clair has rich wind power potential, and Macomb's vast productive farmland offers opportunities for biofuels development.

Higher economic growth, retaining young talent and developing new economic sectors can be better achieved by increasing Macomb's educational attainment level.

40 Imagine Macomb, Targeted Industries Initiative. www.MacombBusiness.com

Conclusion

Although Macomb's population continues to grow, its economic growth could be stifled by a growing proportion of seniors and large proportion of residents who are insufficiently prepared for the 21st century workplace. Coupled with wage reductions, higher unemployment and a smaller workforce, Macomb's household incomes have dropped. Family structures that are less favorable for child well-being are becoming more common, increasing the risk of unfavorable prospects for many children. But, these risks can be mitigated by increasing their parents' education. Higher education is associated with lower incidents of unemployment, unwed birth, single parenthood, divorce and criminal activity. A more educated population requires fewer municipal and county services.

In the New Macomb County, long-term job trends are clear: large employers offering high wages for a high school educated worker are gone. A college education is now necessary for most high-quality jobs. The need for higher educational attainment is also clear: raising the education level of Macomb residents is essential to prepare them for better quality jobs, increasing their personal income. Their economic success will spill over, providing additional public benefits to the county, including higher contributions to public revenue.

In the New Macomb County, the aging trend can lead to economic development if the increased demand for more health, social and transportation services is met with an increased supply of well-trained workers and increased availability of public revenue.

The immigration wave from Wayne County can be better managed by raising immigrants' education level, which will increase their opportunity to benefit from the New Economy and reduce their risk of poverty and unemployment. Because Wayne County immigration is concentrated in southern Macomb communities, a failure of community leadership to work to increase the education of the new immigrants could lead to a large increase in the demand for county and municipal services at a time when these public resources are becoming increasingly strained.

Early planning and action can channel these forces of change and bring a higher quality of life to the residents and the region. Failure to plan and act, and failure to push for increased educational opportunity could mean a grim future for the New Macomb.

Appendix

Table 10. Changes in Senior Population, Macomb County Areas, 2000 and 2010

Cities & Townships (Population 10,000 or More)	Senior Percent of Total Population			Median Age (Years)		
	2000	2010	Change	2000	2010	Change
Macomb County	**13.7%**	**14.3%**	**0.6%**	**36.9**	**39.9**	**3.0**
Chesterfield Township	6.6%	9.4%	2.8%	32.7	38.2	5.5
Clinton Township	14.3%	16.2%	1.9%	37.3	40.7	3.4
Eastpointe	16.5%	11.3%	-5.2%	36.6	36.3	-0.3
Fraser	15.4%	16.2%	0.8%	38.6	42.9	4.3
Harrison Township	10.9%	13.7%	2.8%	37.9	43.5	5.6
Macomb Township	7.4%	9.3%	1.9%	33.6	37.4	3.8
Mount Clemens	13.4%	13.0%	-0.4%	36.4	38.3	1.9
Roseville	15.4%	13.1%	-2.3%	36.2	37.9	1.7
St. Clair Shores	21.8%	19.2%	-2.6%	42.0	44.2	2.2
Shelby Township	10.5%	14.5%	4.0%	36.6	41.0	4.4
Sterling Heights	11.8%	15.2%	3.4%	37.0	40.4	3.4
Warren	17.3%	16.1%	-1.2%	37.9	39.4	1.5
Washington Township	8.9%	14.1%	5.2%	37.0	41.3	4.3
Michigan	12.3%	13.8%	1.5%	35.5	38.9	3.4
United States	12.4%	13.0%	0.6%	35.3	37.2	1.9

Source: U.S. Census, 2000 and 2010, DP-1.

Table 11. Unwed Women with a Birth, Michigan and Tri-County Area, 2006-2010

Percent of Women with a Birth Who Were Unmarried	Michigan		Macomb County		Oakland County		Wayne County	
	Estimate	MOE	Est.	MOE	Est.	MOE	Est.	MOE
Women (age 15 - 50 years)	37.1%	+/-0.9	27.8%	+/-3.0	24.0%	+/-2.3	51.3%	+/-1.8
Race								
White	28.7%	+/-1.0	22.5%	+/-2.9	18.0%	+/-2.6	28.4%	+/-3.1
Black or African American	73.6%	+/-1.7	71.0%	+/-9.0	61.5%	+/-7.3	75.4%	+/-2.3
Nativity								
Native	39.7%	+/-1.0	30.6%	+/-3.3	26.7%	+/-2.5	56.6%	+/-1.9
Foreign born	15.0%	+/-2.5	7.9%	+/-5.6	12.8%	+/-4.6	18.0%	+/-5.7
Educational Attainment								
Less than high school graduate	68.8%	+/-2.4	57.9%	+/-12.4	57.4%	+/-10.5	73.5%	+/-3.5
High school grad. (or equiv.)	51.4%	+/-2.3	42.6%	+/-6.2	38.3%	+/-8.4	62.8%	+/-4.1
Some college or associate's	38.0%	+/-1.6	30.3%	+/-5.3	35.9%	+/-5.6	48.8%	+/-3.1
Bachelor's degree	7.4%	+/-1.0	4.7%	+/-2.6	9.1%	+/-2.9	13.9%	+/-4.4
Graduate or professional	3.4%	+/-1.0	3.0%	+/-2.7	2.1%	+/-1.4	6.4%	+/-3.5
Poverty Status								
Below 100 % of poverty level	72.9%	+/-1.7	70.3%	+/-6.8	69.3%	+/-8.3	79.7%	+/-2.7
100 to 199 % of poverty level	40.3%	+/-1.9	42.2%	+/-8.2	37.9%	+/-8.2	52.7%	+/-4.3
200 % or more above	15.5%	+/-0.9	10.0%	+/-2.3	11.4%	+/-2.0	24.8%	+/-2.6
Public Assistance Income								
Received public assistance	80.4%	+/-2.1	80.7%	+/-11.4	71.6%	+/-12.8	89.1%	+/-3.4

Source: American Community Survey (ACS), 2006-10, five-year estimates.

Note: The ACS margin of error (MOE) is shown beside each estimate.

Table 12. Macomb County Workforce Size and Gender Changes Over the Decade, 2000-2010

Macomb County Changes	2000		2010			
	Estimate	Percent	Estimate	Est. MOE	Percent	Pct. MOE
Population 16 years and over	618,864	100.0%	671,508	+/-1,415	100.0%	(X)
Workforce						
Population 16+ In labor force	408,563	66.0%	436,991	+/-4,914	65.1%	+/-0.7
Population 16+ Not in labor force	210,301	34.0%	234,517	+/-4,787	34.9%	+/-0.7
By Gender						
Females 16 years and over	319,956	100.0%	349,539	+/-1,095	100.0%	(X)
Females In labor force	184,575	57.7%	209,394	+/-3,547	59.9%	+/-1.0
Females Not in labor force	135,381	42.3%	140145	(X)	40.1%	(X)
Males 16 years & older (est.)	298,908	100.0%	321969	(X)	100.0%	(X)
Males In labor force (est.)	223,988	74.9%	227597	(X)	70.7%	(X)
Males Not in labor force (est.)	74,920	25.1%	94372	(X)	29.3%	(X)

Source: U.S. Bureau of the Census, 2000 Census and 2010 American Community Survey.

Notes: There were not identical 2000 and 2010 Census files with economic data for Macomb County.
For the above, 2000 Census and 2010 ACS data were used.
(X) means the margin of error (MOE) is not available or not appropriate.
Male population has been estimated based on the female estimate.

Table 13. Macomb Unemployment by Age Group, 2005–2010

Year	Estimated Unemployment by Age Group							All Ages, Estimated Percent Unemployed
	16 to 19 Years	20 to 24 Years	25 to 44 Years	45 to 54 Years	55 to 64 Years	65 to 74 Years	75 Years and over	
2005	23.9%	13.9%	7.5%	5.2%	4.1%	8.5%	6.1%	8.0%
2006	29.3%	17.1%	6.7%	6.3%	7.2%	6.9%	13.9%	9.0%
2007	28.4%	15.6%	9.0%	6.2%	7.0%	6.0%	4.4%	9.7%
2008	27.5%	15.0%	8.2%	7.5%	7.3%	4.5%	11.3%	9.4%
2009	34.5%	22.5%	13.4%	13.6%	14.8%	11.8%	12.9%	15.4%
2010	29.9%	20.5%	13.0%	14.6%	15.8%	18.7%	17.2%	15.5%

Source: American Community Surveys 2005 through 2010, one-year estimates.

Table 14. Macomb Workforce Participation by Age Group, 2005–2010

Macomb Work-Age Population	2005				2010			
	Pop 16 & Over		Workforce		Pop 16 & Over		Workforce	
	Estimate	MOE	Estimate	MOE	Estimate	MOE	Estimate	MOE
Population 16 years and over	647,988	+/-1,122	65.9%	+/-0.8	671,508	+/-1,415	65.1%	+/-0.7
16 to 19 years	41,362	+/-1,386	55.1%	+/-4.9	44,220	+/-1,492	44.8%	+/-3.6
20 to 24 years	48,688	+/-842	83.6%	+/-3.0	50,022	+/-803	82.8%	+/-2.7
25 to 44 years	243,195	+/-832	81.8%	+/-1.3	219,486	+/-669	84.9%	+/-1.3
45 to 54 years	121,456	+/-590	82.2%	+/-1.5	132,695	+/-593	84.1%	+/-1.5
55 to 64 years	86,916	+/-417	60.3%	+/-2.5	104,057	+/-402	60.4%	+/-2.2
65 to 74 years	51,503	+/-548	19.8%	+/-2.4	62,114	+/-550	20.6%	+/-2.7
75 years and over	54,868	+/-474	4.5%	+/-1.2	58,914	+/-463	3.6%	+/-1.0

Source: American Community Surveys 2005 and 2010 one-year estimates.

Note: The ACS margin of error (MOE) is shown beside each estimate.

Table 15. Macomb County Income and Earnings Changes over the Decade, 2000–2010

Macomb County Changes	2000		2010			
	Estimate	Percent	Estimate	Est. MOE	Percent	Pct. MOE
Number of Households	309,675	100.0%	332,628	+/-2,861	100.0%	(X)
Income & Earnings						
Median household income (current year dollars)	52,102	(X)	49,160	+/-1,229	(X)	(X)
With earnings	250,217	80.8%	250,011	+/-3,892	75.2%	+/-0.9
With Social Security income	83,800	27.1%	102,260	+/-2,812	30.7%	+/-0.9
With retirement income	63,118	20.4%	75,963	+/-2,680	22.8%	+/-0.8
With Supplemental Security Income	8,916	2.9%	13,968	+/-1,852	4.2%	+/-0.6
With public assistance income	6,126	2.0%	10,575	+/-1,319	3.2%	+/-0.4

Source: U.S. Bureau of the Census, 2000 Census and 2010 American Community Survey.

Notes: 2000 and 2010 Census lacked identical economic data files for Macomb County.
For the above table, 2000 Census and 2010 ACS were used.
(X) means the margin of error (MOE) is not available or not appropriate.
Male population has been estimated based on the female estimate.

Table 16. College Enrollment, Ages 18-24, U.S., Mich and Tri-County, 2005-2010

Enrolled in College or Graduate School, Ages 18-24	Macomb		Oakland		Wayne		Michigan		U.S.	
	Est.	MOE	Est.	MOE	Est.	MOE	Est.	MOE	Est.	MOE
2005	38.3%	+/-3.6	44.5%	+/-2.9	35.3%	+/-2.7	39.4%	+/-0.9	35.1%	+/-0.2
2006	41.3%	+/-3.0	48.0%	+/-2.4	34.2%	+/-1.7	44.1%	+/-0.7	39.7%	+/-0.2
2007	44.0%	+/-3.1	47.8%	+/-2.6	36.2%	+/-2.0	46.0%	+/-0.7	40.8%	+/-0.1
2008	47.4%	+/-2.6	46.5%	+/-3.2	37.6%	+/-2.0	46.0%	+/-0.8	40.9%	+/-0.2
2009	44.0%	+/-3.0	51.6%	+/-2.9	38.6%	+/-2.0	46.5%	+/-0.8	41.7%	+/-0.2
2010	44.5%	+/-3.3	49.1%	+/-2.7	38.4%	+/-1.9	47.2%	+/-0.8	42.9%	+/-0.2

Source: American Community Surveys 2005 through 2010, one-year estimates.
Note: The ACS margin of error (MOE) is shown beside each estimate.

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