Research Report

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Michigan’s Demographic Outlook: Implications for the University of Michigan

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I. Michigan’s Population Growth — A Capsule Summary

Demographic trends change slowly. I will tell a story about demographic trends in Michigan with an emphasis upon their implications for the University.

Michigan was more remote than several other Northwest Territory states, so it joined the Union almost three decades after Ohio and about two decades after Indiana and Illinois. In 1825, the Erie Canal was completed in 1825 making it easier for East Coast residents and immigrants to settle here. The Census of 1830 was the first to report that Michigan had the minimum population—30,000—required for admission as a state. Michigan grew slowly in the 1840s and 1850s, but by the time of the Civil War, the infrastructure that would propel rapid growth was being developed. Federal investment in locks at Sault Ste. Marie allowed access to the iron and copper ores of the Upper Peninsula. By the time Abraham Lincoln campaigned for president, the state was well linked to the national rail network, and the long process of draining Michigan’s swamps to create farms and to access the white pine forests was underway.

The Civil War contributed importantly to the growth of Michigan. It was a modern endeavor in that the military efforts demanded manufactured products in great amounts: rails, engines and cars for train lines, guns and munitions, as well as a vast amount of food products and clothing. Michigan emerged as a leading manufacturing state in the decades following the Civil War. By 1890, the state was a center for the production of iron, steel, and wood products—especially for rail equipment, furniture and home appliances. Detroit was a major site for building ships and their steam engines, as well as a national leader in the manufacture of both pharmaceuticals and tobacco. In those decades, Michigan’s population grew about as rapidly as the nation. Many eastern seaboard states grew at higher rates, thanks to the flow of immigrants who entered this country after 1880. And several Great Plains states grew more rapidly than Michigan the frontier was settled by highly productive farmers.

In one span, from about 1905 to 1930, Michigan grew much more rapidly than other populous states. Michigan’s 19th century manufacturing industries created a skilled labor force of craftsmen and talented industrial workers and also generated the financial wealth needed to capitalize the vehicle industry that boomed here.

Figure A shows the percentage change in Michigan’s population and in the entire United States from 1860 through 2010. The green line showing the Michigan trend was far above the black line for the United States from the turn of the 20th century until the Depression decade. From 1900 to 1930, Michigan’s population grew twice as rapidly as the nation. You cannot attribute all of Michigan’s growth in this booming era to automobile production, but it was the major force as the state became axis mundi for vehicle design and manufacturing.
Figure B shows the share of total United States population living in Michigan. At the start of the Civil War, 2.8 percent of Americans lived here. As entrepreneurs capitalized upon the state’s white pine forests and mineral resources to make this a leading industrial state, the share of national population living here increased moderately to 3.2 percent in 1900 when Henry Ford was still working on his racing cars. But from 1900 to 1930, the share of national population in Michigan rose from 3.2 percent to 3.9 percent. Detroit was the nation’s most rapidly growing large city, increasing in size such that by 1930 only New York, Chicago and Philadelphia were larger. Detroit held its rank as fourth largest city until surpassed by Los Angeles in the 1950s.

Michigan and the entire United States grew at a miniscule rate during the Depression. There was virtually no net immigration from abroad and fertility rates sunk to very low levels. That changed greatly in the 1940s, especially after American families produced a totally unexpected baby boom.

Michigan grew more rapidly than the nation from 1940 through 1970. Detroit became the Arsenal of Democracy during World War II and that city’s population, demographers think, briefly exceeded two million. But it was not just Detroit that benefitted from the employment boom of the 1940s, 1950s and 1960s. Throughout Michigan, manufacturers turned out products that were necessary for World War II, but with peace came unprecedented rises in income so consumers demanded the durable goods made throughout this state.
To be sure, there were changes in the location of manufacturing in the post World War II years. Old Nineteenth Century and World War I plants, typically near the downtowns of central cities, were shut but hundreds of new plants were built in the suburban ring and in the small towns across Michigan. The post-World War II period was a tremendous one for Michigan’s economy. Real wages went up rapidly and the state gained about 850,000 jobs between 1950 and 1970; 140,000 of those in durable goods manufacturing.

In this census year, demographers are often asked about the key use of the enumeration—how many congressional and Electoral College seats will the state have after its population is counted?

The size of Congress has been set at 435 since 1911. Michigan had 13 Congressmen at that time. The favorable demographic trends of the automobile era led to increases, and from 1962 through 1982, Michigan enjoyed its greatest demographic power in Washington with 19 men and women serving in Congress and casting votes in the Electoral College.
II. The Early 1970s: A Demographic Turning Point

From the late 19th century until early 1970s, Michigan's population grew more rapidly than the nation's. Since then, Michigan has grown more slowly than the rest of the nation. The gap in growth rates appears to be widening and in the two most recent years, Michigan has been one of three states losing population. Maine and Rhode Island are the others.

In October, 1973 the ministers of the oil producing nations—OPEC—announced an embargo on the export of oil to the western countries, a moderately effective embargo that lasted for six months. That is not the sole reason why Michigan’s demographic trends changed in the early 1970s, but oil prices spiked concomitantly with other major changes to fundamentally alter the state’s demographic trajectory. Durable goods manufacturing explained the high rates of population growth in Michigan for seven decades in the last century. And changes in the way manufacturing firms use the mix of labor and capital explains the slowdown of Michigan’s growth.

It is not so much that the United States is no longer an industrial nation. We remain the world’s leading industrial producer. Until the beginning of the current recession, vehicle production in the United States was approaching record levels, the nation’s steel mills turned out more metal than forty years ago and railroads handled more tonnage than during World War II. However, those industries employed about one-fifth to one-third as many workers as they did at their
employment peaks. Capital investments in technology replaced assembly line and blue collar workers. Here in Michigan a half dozen new auto plants came on line in this era—two in Detroit, two in Lansing, one in Dearborn and one in Flat Rock, and the Ford plant in Wayne is now being rebuilt at a cost of 450 million dollars. The state’s three steel mills have been modernized, making them environmentally compliant and efficient. These new factories use very little labor compared to the facilities they replaced.

A look at Figure A shows that Michigan’s population growth has been slow recently compared to the rest of the nation. Figure B reports that the share of the nation’s population living here fell from a peak of 4.4 percent in 1970 to 3.3 percent in this year’s enumeration about what it was when Ford starting producing Model T’s. Given that the size of Congress is fixed, Michigan’s power in Congress and the Electoral College declined and when our colleague, Robert Groves—now the director of the Census Bureau—announces this year’s count on December 31, Michigan will continue a four-decade trend and lose one more seat.

**FIGURE D. Michigan’s Rank among the States in Terms of Population Size: 1850 to 2010.**

Industrialization in Michigan and the vehicle industry propelled the state to become the nation’s seventh most populated at the end of World War I, as shown in Figure D. Michigan held that rank through 1970, but then Florida surpassed Michigan in population. Census 2010 will show that Georgia has more residents than Michigan and, at some early point in this decade; North Carolina will push Michigan down to rank number ten.
III. Components of Recent Population Trends in Michigan

Three components explain how rapidly a state grows or declines. First, there is natural increase; that is, the surplus of births over deaths. Birth rates in the United States and Michigan were unexpectedly high for twenty years after World War II, but then declined. Since the 1980s, birth rates have fallen slowly. The annual number of births in Michigan has fluctuated, depending upon the number of women of childbearing age. They peaked at 200,000 at the apogee of the Baby Boom and are down to 120,000 now. At present, women in Michigan are bearing just over two children in their lifetimes; that is, replacement level fertility implying that, in the long run, the population will be stable in size in the absence of migration. In the New England states, the second demographic transition is well along and fertility rates are far below replacement. A few states have relatively high fertility, including Utah, Hawaii and Idaho, but even there average family size is only about two and one-half children. Most demographers do not foresee a return to the three-child family; if anything; there is reason to think birth rates in the United States might shift to the much lower levels of southern and eastern European and Asian nations.

Michigan’s death rates are neither unusually high nor unusually low. There has been persistent increase in the expectation of life at birth in this state and nationally since the 1960s as medical advances and the improved economic status of the older population add substantially to how long people can expect to live once they reach retirement ages.

**FIGURE E. Natural Increase (Births minus Deaths) and Net Internal Migration: Annual Estimates: 1980 to 2009**

![Graph showing natural increase and net internal migration from 1980 to 2009.](image-url)
The upper panel of Figure E shows natural increase in Michigan from 1980 to the present. In 1980, there were about 65,000 more births than deaths in the state. This has decreased in recent years, and at present, Michigan births exceed Michigan deaths by about 40,000 each year. There is a substantial aging of Michigan’s population due to low fertility and little immigration. In 1980, half of Michigan residents were under age 26 and one-half older than that age. By 2009, the median age moved up to 38 years. This aging of the population portends more deaths and fewer births in the future. West Virginia is now the only state that records more deaths than births but, in 2007, 31 of Michigan’s 83 counties were places of natural decrease: more deaths than births.

The most variable and important component in Michigan and in most states is the annual gain or loss in the exchange of population with other states. Since the 1970s, Michigan has been losing on this exchange, with the possible exception of a few prosperous years in the 1990s. The lower panel of Figure E shows the Census Bureau’s annual estimates of net change due to internal migration. Perhaps the worse recent years for the state were around 1980 when the economy was burdened by high inflation and high unemployment. At that time, Michigan was lost 150,000 or more people a year in its exchange with other states.

Once the economic recovery of the mid-1980s was underway, net out-migration slowed and, for quite a few years, natural increase more than offset internal migration, so the state grew, albeit more slowly than most states. The first decade of this century has not been a good one for the state. Net outmigration increased, almost reaching the levels of the early 1980s. And, in this era, natural increase was hardly sufficient to overcome net migration, so Michigan’s population stopped growing. In the last decade; Florida, Ohio, Texas, California and Illinois were the top destination states for those moving away while the most common origins for US residents migrating to Michigan were Ohio, Illinois, Florida, California and Indiana.

Figure E shows that Michigan lost fewer residents in 2009 to other states than in 2008. Our colleague, William Frey, has argued that this recession and the foreclosure crisis have greatly reduced internal migration. In the past, those who faced a tight job market in Michigan might have confidently moved to Florida, Texas or Nevada where the construction, retail trade and services industries were growing. That no longer seems to be a desirable option, so out-migration from Michigan may taper down.

There is one other key component of population growth: international migration. If you had to explain why the number of congressional seats in Florida went up from 15 in 1970 to 26 at present; in Texas from 23 to 32 and in California from 38 to 53, you would point to internal migration. But international migration was even more important. And New York and New Jersey minimized their loss of congressional seats because migrants from abroad boosted their populations.
Immigration from abroad has been a major and increasingly large component of the nation’s population growth since 1968. Michigan has not been a major port of entry for the new immigration stream. Indeed, with the exception of metropolitan Chicago and metropolitan Minneapolis—and the sites of the Big Ten schools - relatively few immigrants settle in the Midwest. To be sure, there are international immigrants in Michigan. About 2 percent of the state’s residents arrived from abroad in the last decade but this is far below the national figure. Census Bureau surveys show that modest numbers of immigrants arrive in Michigan from Mexico, India, China, Iraq and Canada. At present net international immigration to the United States appears to be very small due to the economic recession. One way for Michigan’s population to grow in the future would be to attract larger numbers of immigrants.

**IV. The University of Michigan’s Crucial Number: How Many State Residents Reach Age 18 Each Year**

Undergraduate enrollment at the University of Michigan is dependent upon the number of people who reach age 18 and graduate from high school each year in this state. There is extensive demographic data telling us what happened in the recent past. The upper panel of Figure F reports how many people living in the state attained age 18 each year after 1969. This number rose to a peak of 190,000 in 1974 when children born during the Baby Boom approached the end of their teen years. That number dropped quite sharply thereafter, reflecting the decline in birth rates. However, women born in the post-World War II Baby Boom attained their childbearing ages in the 1980s and bore children at a lower rate than their mothers. Nevertheless, there were a large number of women born during the Baby Boom, so there was an echo of the Baby Boom. In Michigan, this meant that the annual population attaining age 18 rose from a low of 130,000 in the early 1990s and will peak at about 155,000 in this year and next.

The demographic numbers that may be predicted most confidently are how many will reach age 18 in the next 18 years. The first year undergraduate classes at the University of Michigan through the fall of 2028 have already been born or conceived. Their parents may not live in this state or even in this country but we know the size of the pool from which students will be selected. Projections shown in Figure F reveal a steady decrease in the number of 18 years olds in this state. There will be a decline of about one-fifth in that number, a drop from about 155,000 18 year olds in the state at present down to about 120,000 in 2026. The pool from which Michigan undergraduates will be selected will be smaller at that time than it was in the mid-1990s; indeed, smaller than at any date since the late 1960s.
These projections for Michigan assume no net internal migration. If substantial numbers of Michigan parents with children leave the state, the number of 18 year olds will decline more rapidly. If current migration trends are reversed and there is substantial migration to Michigan from other states and from abroad of parents with children, the pool of 18 years olds will decline less rapidly.

For comparative purposes, the lower half of Figure F presents similar information for rest of the nation. The scale and the numbers are different since Michigan makes up only 3 percent of the country’s total population. National trends will be similar to those in Michigan. Colleges and universities across the nation currently have a unique demographic opportunity since the number of 18 years olds is at an historic high—about 4.5 million reflecting the fact that the early 1990s were peak years for births in this nation. This number will decline in the future, although more slowly elsewhere than in Michigan.
The pool of traditional first year students requires 18 age year olds. But they need to have high school diplomas. One might speculate that demographic trend toward fewer 18 year olds will be offset by an increase in the percent of teenagers who earn the high school credentials requisite for entry to the University of Michigan or another college. We cannot be certain, but this is unlikely to happen.

A major challenge for educational statisticians is specifying accurately what percent of late teens earn high school diplomas. Official statistics published by the National Center for Educational Statistics come from an annual Census Bureau survey that asks people 18 to 24 if they have a high school diploma. Those figures show that about 85 percent of young people complete high school. That percent is almost certainly too high for a variety of reasons involving proxy reporting, the omission of incarcerated youth and ambiguity about what is a high school degree.

Quite frequently you read newspaper stories suggesting that fewer than 50 percent of the students in inner city school systems earn diplomas. Those figures are almost certainly too low since they usually relate the number of graduates in a school system in a specific year to the number of ninth graders in the same school system four years earlier. They do not take into account either migration to the suburbs or the fact that the ninth grade is the most repeated year in the elementary and secondary curriculum. Another was to estimate graduation rates is to relate the number of high school degrees granted by public high schools and the established private and parochial schools to the population reaching age 18. This strategy implies that slightly less than three quarters of teenagers earn diplomas. That is too low since it omits General Education Development degrees, other high school equivalency certificates and diplomas from home school programs.

There is consensus, I believe, that about 80 percent of youth earn a traditional high school diploma by the end of their teen years. There was little change in that percentage from the late 1960s until the last decade. The No-Child-Left-Behind Programs and the substantial increases in federal and state funding in the last decade may have produced modest increases in high school completion rates. However, two conflicting forces at work with regard to secondary education. There is an increasing emphasis upon making certain that students earn a high school diploma, but there is also a major effort to raise academic standards. In the short run future, I think we might see, at most, a modest rise in high school completion rates.

Michigan is close to the national average with regard to high school completion. According to the National Center for Educational Statistics measure, about 82 percent of Michigan youth graduate from high school or earn a General Educational Development certificate. That is, about 7 points below the states with the highest graduation rates—Hawaii, Massachusetts and
Maryland. And, Michigan’s rate is about 7 percentage points ahead of the states that lag in high school completion—Georgia, New Mexico and Arizona.

There is some possibility that high school completion will increase modestly in Michigan, but that change will not offset the more powerful demographic force of declining numbers of 18 year olds.

V. Michigan’s Future: Demographic and Economic Issues

It is possible to imagine an optimistic scenario in which Michigan once again gains in the exchange of population with other states and in which Michigan becomes the port of entry for many immigrants from Latin America and Asia. In that case, Michigan might grow as rapidly as the nation and retain, rather than lose, representation in Congress. Future population trends will depend almost entirely upon employment trends. With job creation comes a growing population; with job loss population declines.

Thinking about and planning for Michigan’s future should begin with a brief look at the current status of the state. The first decade of this century has been a brutal one for Michigan and there are questions about whether the state is now well prepared for growth when it comes to human capital and its economic structure. The Bureau of Labor Statistics offers a monthly estimate of non-farm payroll jobs. Their most recent estimate—for November, 2009—reports that Michigan has lost 832,000 non-farm jobs since 2000. That is, 18 percent of the jobs in this state in 2000 are now unfilled. Some will return with an economic boom, by many will not. The job loss since 2000 to the nadir of this recession may approximately equal to the gain of jobs in Michigan from 1950 to 1970.

Let’s begin by examining change in employment in the major industrial sectors. Figure G shows the percent change in jobs in Michigan and in the rest of the nation in employment in 12 major industrial sectors. These are Census Bureau employment figures, so they provide an inclusive count of jobs, but the most recent numbers refer to 2008. This figure also shows the percent of total employment in these major industrial sectors for Michigan and the rest of the nation.

There are two messages from this figure. First, in each industrial sectors job growth was slower in Michigan than in the rest of the nation, or job loss was greater. Michigan lost 22 percent of its durable goods manufacturing jobs in the first eight years of the last decade; in the rest of the nation; only 10 percent such jobs were lost. The number of jobs in hospitals and medical offices grew by 22 percent in Michigan. But in the rest of the country, the increase was 27 percent. Post-secondary education employment rose by 19 percent in Michigan, but by 24 percent in the other states.
Second, Michigan did not, in 2008, specialize in the most rapidly growing industrial sectors; that is, in professional, scientific and management services or in post-secondary education. Employment in each of those sectors grew considerably more rapidly than overall employment. The share of Michigan’s employment in the medical sector is close to the national average, but the other rapidly growing sectors are not highly represented in this state. The most distinguishing feature of Michigan’s industrial structure is employment in durable goods manufacturing.
manufacturing. Durable goods manufacturing employment here makes up twice the share of total employment as it does in the other states.

Employment decline is the pattern across Michigan this decade. Both the Census Bureau and the Bureau of Labor Statistics frequently report about the number employed in the state’s major labor market areas. Figure H shows the percent change in employment in Michigan’s nine metropolises.

(Numbers in red denote percent of employment)
This figure reveals a very high rate of job loss in the Flint and Saginaw metropolises due, in large part, to the concentration of vehicle factories in those places. There was a slow growth of employment in the Ann Arbor, Lansing and Benton Harbor metropolises. None of them had growth rates approaching the national average of a 13 percent gain in jobs from 2000 to 2008. There are no islands of prosperity and growth in Michigan that have come through the decade’s pattern of pervasive job loss.

As a consequence, there are few areas of Michigan that have grown in population since the last census. Census Bureau’s estimates of county populations are available for 2008. The map in this presentation shows the percent change in population at the county level from 2000 to 2008.

**MAP A. Percent Change in Population of Michigan Counties: 2000 to 2008**

Green is used for counties whose population growth rate exceeded the national rate. Only four of the state’s 83 counties gained population at or above the national rate: Livingston, which has become a residential location for employees in the Ann Arbor, Detroit and Lansing metropolises; Ottawa, which is now serving as a suburban county for Holland and Grand Rapids and the resort/retirement counties: Grand Traverse and its neighbor Benzie. Another 26 counties, shown in blue, grew between 2 and 8 percent in the last decade—an increase, but
growth below the national average. The counties shown in orange and tan had near constant populations and Census 2010 will show that they either grew or declined by a very small percent. Then there are the 28 counties shown in red; counties whose populations in 2008 were at least two percent smaller than in 2000. This includes Wayne County where Detroit and inner suburbs continue to lose population; all of the counties in the Thumb, the counties along Michigan’s Sunrise Coast and all but two of counties above the Big Mac Bridge. In brief, the pattern of job loss and population stagnation or decline is widespread throughout the state.

Two other changes merit comment. During the interval since 2000, no state has suffered more than Michigan in terms of earnings and income, an important change that affects the state’s tax base and all of us who live here. Figure I shows the per capita income in 2008 for persons age 21 and over for the five most prosperous states, in the eight states I labeled “Northwest Territory/Big Ten” states and in the five least prosperous states.

**FIGURE I. Per Capita Income in 2008 for Persons Age 21 and Percent Change in Constant Dollar Per Capita Income, 1999 to 2009, for Most Prosperous States, Big Ten States and Least Prosperous States.**
Nationally, per capita income for adults was $38,000 in 2008. Residents of the most prosperous states reported much greater incomes: $56,000 for adults in the District of Columbia more than $51,000 in Connecticut. Per capita income in Michigan was about 10 percent below the national norm. Minnesota is the most prosperous of the Northwest Territory states followed by Illinois. Residents in those states average about five to seven thousand more in income than do those of us in the Wolverine State. Iowa, Indiana and Ohio lag behind Michigan. The Northwest Territory states including Michigan are more prosperous than the southern states where the smallest incomes are reported.

This figure also shows the change in the per capita income of adults since Census 2000. Nationally, per capita income in constant dollar amounts was down about two percent. Michigan had the distinction of experiencing the largest drop in income, a decline of 13 percent in per capita income in just nine years. The typical adult resident of Michigan lost one-seventh of his or her purchasing power in the last decade. Minnesota was the only Northwest Territory state that did not experience a loss of income.

A question about earnings was first asked in the Census of 1940. At that time, it appears that Michigan residents had incomes at least 10 percent above the national average. Michigan maintained its advantage and by 1970 Michigan was an economically prosperous state with incomes 15 percent above the national average. That advantage was gradually lost and by 2000, Michigan residents reported incomes close to the national average. The drop in income in Michigan during the last decade places the state about 10 percent below the national average. Michigan had a poverty rate that was substantially below the national average from 1950 through 1980. During the 1990s, the state’s poverty rate was approximately equal to the national rate. Since 2000, Michigan has had an above average poverty rate. Fourteen percent of Michigan residents were impoverished in 2008 compared to a national average of 12 percent poor. Figure J presents information about the economic status of Michigan residents and the rest of the nation from 1950 through 2008.

Income is closely linked to educational attainment in the economic system that has emerged in the last four decades. The metropolitan areas with the highest incomes—San Francisco, Washington, San Jose and Boston—are the locations with the highest proportions of adult population holding college or advanced degrees. When you compare Michigan to other states, you find that Michigan does not have an unusually well-educated population. Figure J uses a format similar to the previous figure, but refers to the population age 25 to 39 in 2008. It shows the percentage who reported a four year college education or more.
Twenty-nine percent of young adult Michigan residents held four-year college degrees. That is just below the national average of 30 percent. However, the states that ranked at the top of the income list also rank high in college attainment. In the District of Columbia, 60 percent of young adults completed college; 46 percent in Massachusetts and 40 percent in New Jersey. Michigan ranks toward the bottom of the Big Ten states in educational attainment with only Indiana having fewer college graduates among its young adult population. Indeed, the percent of young adults with college credentials is 9 points higher in Minnesota than in Michigan and 7 points greater in Illinois.
VI. Opportunities for Employment and Demographic Growth in Michigan

I mentioned the possibility of a rosy scenario for Michigan. Looking at current demographic and economic trends in the state, there may be eight prospects for growth. Perhaps this decade’s stagnation in population and decline in income may turn around. Michigan is competing with other states for employment but trends here – and elsewhere – depend upon many factors that no state controls including macroeconomic policies, the strategies of the Federal Research Board, how the Chinese value their currency, consumer tastes, federal mandates about health care and the value of the dollar.
The Innovative and High Tech Sector of the Vehicle Industry

Vehicle production is likely to increase in the United States and around the world. Gradual changes will alter what we drive and how vehicles are propelled. Michigan has a specialization in research and innovation concerning vehicles. Presumably, this will continue. Many foreign producers already have research and engineering shops in southeast Michigan. New firms, including Fiat, Tata, Tesla, Fisker, Zhejiang Geely, and BYD entered the United States market or hope to do so this year. Tesla had an engineering and design facility in Michigan, but closed it. Quite likely, tax credits and the intellectual synergies associated with a specialization in automotive technology may lead to an eventual expansion of high tech employment. Mitsubishi/Daimler built a very efficient new engine plant in Dundee and GM just completed a modern battery plant in Brownstown Township. The state also now has an array of recently built or modernized efficient auto production plants and steel mills. With economic growth, the state might retain its role as a center for both the assembly and design of vehicles.

The Medical Sector

Medical sector employment in Michigan now exceeds employment in the vehicle industry by 175,000 workers. Indeed, one major reason that the state has not lost more jobs is that medical sector employment has been growing rapidly, almost rapidly enough to replace the loss of auto industry jobs. It seems highly likely that employment in this sector will grow, albeit at a slower pace than in the past. Detroit is home to the nation’s largest medical school and both the Henry Ford and Detroit Medical Center complexes. Ann Arbor has a large medical school with numerous biomedical research programs and start-up firms. Michigan State is moving two of their medical schools to Grand Rapids to establish and expand a major heath complex there. Oakland University hopes to open a new medical school by 2010. A significant component of the growth and prosperity of the Minneapolis area results from the design and production of medical devices. Innovative entrepreneurs in Michigan may be able to capitalize upon the intellectual resources of the state’s medical schools and hospital systems to design new medical devices, new software and new pharmaceuticals, leading to a substantial growth of employment in this sector.

Energy

Almost every state has a commission, advisory board or legislative committee seeking to capitalize upon local resources to make the state a booming center for new energy technologies. At this point it is not clear that any state has a head start in this competition. Michigan has a plant now converting cattle manure into fertilizer and energy, is making some progress in wind energy, and in the Detroit area, there are two plants producing energy from burning urban waste, a strategy used effectively in Denmark. Federal regulators have approved
the construction of a new nuclear plant in Michigan, and last fall, a Detroit consortium that included the major universities sought federal funds to build on Zug Island the world’s largest facility to test blades and turbines needed for generating electricity from wind. Michigan lost out to South Carolina, but that endeavor may continue. Entrepreneurs may be able to make Michigan a center for energy innovation and technology. The Marathon refinery in southwest Detroit will soon complete a 1.5 billion dollar renovation increasing capacity and minimizing environmental impact.

*Promoting the Immigration of Capital and Individuals*

Economic globalization encouraged many foreign investors to locate research and production facilities in the United States. The Indian firm, Essar Global, is spending 1.6 billion to build a greenfield steel mill in Minnesota’s Iron Range. The Russian conglomerate, Servasteel, successfully modernized Ford’s Rouge Steel plant. Bringing jobs to Michigan will likely involving recruiting investments from firms and entrepreneurs in Europe, Asia the Mideast and Brazil.

Michigan’s population has grown slowly compared to many other states because the state attracts no more than modest numbers of international migrants. The current recession has greatly dampened the international flow but immigration may resume, probably at a lower level. There is a long tradition for states in this country to recruit immigrants from abroad by establishing offices abroad. In today’s technology, this means having websites that point out the benefits of migrating to a state, as well as information about how to do so. Michigan has not been a leader in recruiting immigrants from abroad.

*Promoting Northern Michigan as a Tourist and Retirement Area*

Rapid population growth this decade in Grand Traverse and Benzie counties is explained by tourism and retirement. While there is some promotion of tourism in Michigan, it is modest. Most of the counties of the northern Lower Peninsula are classified as recreation counties by the United States Department of Agriculture. They merited that designation since they have numerous lakes or long shore lines, are popular vacation areas with both summer and winter appeal and have many second homes, some of them suitable to conversion for full time occupancy. These Michigan counties have an asset that recreation counties in other states lack: they are on or close to a major interstate highway that links them to some of the nation’s biggest population centers. Few rural counties have grown in recent decades but many of those that have are those classified as retirement or recreation counties by the Department of Agriculture. Northern Michigan counties may be poised for growth if they can capitalize upon their accessibility, their natural amenities and their housing stock.
Promoting Metropolitan Detroit as a Tourist and Convention Location

Downtown developers in Detroit successfully attracted residents and activities to the core area of that city with new stadia, casinos, hotels, night clubs, restaurants and office buildings. The city and metropolitan area, however, has much more to offer since they are home to one of the nation’s most inclusive art galleries, a marvelous array of unique architectural achievements, many smaller museums, a spectacularly redeveloped riverfront. And in the suburban ring: Greenfield Village, the Henry Ford Museum and the Cranbrook Community. Further promotion might make Detroit a popular convention and regional tourist location. One can imagine advertising metropolitan Detroit as a place to stop for a day or two when flying from the East to the West Coast.

Agriculture

Agricultural employment is a small fraction of Michigan’s total – about 2 percent of total jobs, but it has increased in recent years. A variety of large greenhouses grow the specialized and seasonal plants sold by the large retailers throughout the Midwest. More important have been the benefits of the North American Free Trade agreement for Michigan farmers. The Mexican market is large one and, for the most part, Mexican farms—except those focused upon fruits and vegetables sold the States and Canada—are labor intensive. Farm products shipped from United States farms, including those in Michigan, have kept food costs low for Mexico’s millions of urban consumers. Current trade agreements ensure that Michigan farmers have access to the large Mexican market.

Extension of the Greater Chicago Metropolitan Area into Southwestern Michigan

New Hampshire has grown recently, not so much because many new jobs were located there, but rather because the Atlantic Coast of that state has been incorporated into the growing Boston metropolis. The Pennsylvania Dutch cities in eastern Pennsylvania stagnated for decades after their manufacturing plants closed, but have grown recently. This is because they are close to the growing New York-Northern New Jersey metropolis.

Chicago has been among the more rapidly growing Midwestern metropolises for several decades because of its emergence as a center for the trading of options, its role as an international convention and tourist site and its specialization in higher education and medical sectors. Its population has spread across northern Illinois and Indiana. It is now challenging to forecast future trends in suburbanization, but southwestern Michigan, thanks to its attractive Lake Michigan coast and reasonable land prices may become a growing component of the Chicago metropolis. Efficient commuter rail links the Michigan-Indiana border at Michigan City to downtown Chicago, a link that might be extended toward Benton Harbor and Muskegon at reasonable cost.
The Population Studies Center (PSC) at the University of Michigan is one of the oldest population centers in the United States. Established in 1961 with a grant from the Ford Foundation, the Center has a rich history as the main workplace for an interdisciplinary community of scholars in the field of population studies.

Currently PSC is one of five centers within the University of Michigan's Institute for Social Research. The Center receives core funding from both the Eunice Kennedy Shriver National Institute of Child Health and Human Development (R24) and the National Institute on Aging (P30).

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