



BUSINESS INNOVATION IN FOOD,
AGRICULTURE, NATURAL
RESOURCES, AND THE BIOECONOMY

Demographic and Economic Forces Affecting Michigan

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- Role of Animal Agriculture and Companion Animals
- Demographic Forces
- Economic Forces
- Policy Implications
- Implications for the Agri-Food System
- Comparison of Michigan to Neighboring States
 - Republicans, Indiana
 - Democrats, Minnesota and Wisconsin

- According to the American Pet Products Association there are pets in 71.4 million homes (est. 2.5 million in Michigan)
 - 525,000 birds
 - 3.3 million cats
 - 2.7 million dogs
 - 6.4 million fish
 - 476,000 reptiles
 - 556,000 small animals

Companion Animals are Big Business

- Pet industry expenses are estimated to be \$1.67 billion in Michigan
 - \$615 million in pet food purchases
 - \$412 million in vet care

Agricultural Animals

- 2009 1.07 million cattle of which 353,000 were dairy cows
- 2008 1.02 million hogs and pigs
- 2008 11.5 million chickens producing 2.6 billion eggs – 5.1 million turkeys (2007 estimate)
- 2009 78,000 sheep and lambs – 12,500 goats

Value of Production

- 2008 milk \$1.5 billion more than 22 percent of all farm receipts
- 2008 beef receipts \$395 million
- 2008 pork \$251 million
- 2008 eggs \$211 million
- 2008 sheep and lambs \$4.6 million plus \$136,00 in wool
- Total economic impact of horses estimated to be \$1 billion

Population

- Michigan's population is stagnant.
- Up only 0.7 percent from 2000, while the U.S. population increased 8.0 percent.
- Will lose 1, probably 2 congressional representatives

Immigration

- With the exception of Arabs, Michigan has not been successful in attracting immigrants
- Nationally 33.5 million U.S. residents were born in a foreign country, 11.7 percent of the total population

Population Distribution by
Race/Ethnicity

Table 1: Population Distribution by Race/Ethnicity				
State	White	Black	Hispanic	Other
Illinois	66	15	14	6
Indiana	85	9	5	2
Michigan	77	14	4	5
Minnesota	86	4	4	5
Ohio	83	11	3	3
Wisconsin	84	6	6	4
U.S.	65	12	16	7
Great Lakes Average	80	10	6	4

Race/Ethnicity

- With the exception of Illinois, the region has a disproportionate number of whites.
- The region also has a comparatively small number of Native Americans

Native Americans

Number and Percent Native American 2003		
State	Number of Native Americans	Percent of State Population
Illinois	39,000	0.3
Indiana	17,000	0.2
Michigan	60,000	0.5
Minnesota	58,000	1.1
Ohio	26,000	0.2
Wisconsin	50,000	0.9
U.S.	2,787,000	0.9
Great Lakes	250,000	0.5

- These numbers need to be interpreted carefully, many Native Americans are more than one race, actual numbers will be higher

Michigan is Obese

Table 1: Obesity Rates 2008	
State	Rate
Illinois	26.4
Indiana	26.3
Michigan	28.9
Minnesota	24.3
Ohio	28.7
Wisconsin	25.4
U.S.	26.1
Great Lakes Average	26.7

Obesity

- U.S. society has gotten heavier over time, since 2003 the number of states with an obesity rate of 25 percent or more increased from 4 to 32.
- Michigan has the 8th highest incidence of obesity.
- Minnesota and Wisconsin are the only Great Lakes States with below average rates of obesity

Michigan is Aging

Table 2: Percent of Population 65 and over 2010 and Estimate for 2030		
State	2010	2030
Illinois	12.4	18.0
Indiana	12.7	18.1
Michigan	12.8	19.5
Minnesota	12.4	18.9
Ohio	13.8	19.4
Wisconsin	13.5	21.3
U.S.	13.0	19.7
Great Lakes Average	12.9	19.2

Older Population

- Michigan is similar to national trends
- The major outlier in the region is Wisconsin which is expected to be older
- However, are both older and younger people leaving the state?
- An older population will put more pressure on the state's budget

ManceSSION

- Both Economic and Demographic
- In the third quarter of 2009, 15.3 percent of men were unemployed and 10.0 percent of women.
- In 2002, 64 percent of college students were women, this trend has continued if not accelerated
- Manufacturing employment has declined faster than employment in other areas

Michigan is Poorer than Most

Table 4: Poverty Rate 2006-2008

State	Percent Below Poverty
Illinois	12.1
Indiana	12.7
Michigan	14.0
Minnesota	9.7
Ohio	13.2
Wisconsin	10.7
U.S.	13.2
Great Lakes Average	12.1

Poverty

- Michigan's incidence of poverty is higher than the regional and national average. 16th nationwide.
- Minnesota and to a lesser extent Wisconsin are considerably lower than others in the region.

Regional Education

Table 5: Educational Attainment 2000 and 2007

State	2000			2007		
	High School	Bachelors	Advanced Degree	High School	Bachelors	Advanced Degree
Illinois	81.4	26.1	9.5	85.7	29.5	11.0
Indiana	82.1	19.4	7.2	85.5	22.1	7.9
Michigan	83.4	21.8	8.1	87.4	24.7	9.5
Minnesota	87.9	27.4	8.3	91.0	31.0	10.0
Ohio	83.0	21.1	7.4	87.1	24.1	8.8
Wisconsin	85.1	22.4	7.2	89.0	25.4	8.5
U.S.	80.4	24.4	8.9	84.5	27.5	10.1
Great Lakes Average	83.8	23.0	8.0	87.6	26.1	9.3

Educational Attainment

- Michigan is slightly above the national average in terms of high school graduates
- The state is somewhat below the national average in terms of people with bachelors and advanced degrees
- Michigan matches the region in terms of high school grads and people with advanced degrees somewhat lower in terms of bachelors degrees
- Michigan's educational attainment is not a bad as often believed

Unemployment

**Table 6: Unemployment Rate March 2010
(Seasonally Adjusted)**

State	Unemployment Rate
Illinois	11.5
Indiana	10.6
Michigan	14.1
Minnesota	7.4
Ohio	11.0
Wisconsin	8.8
U.S.	9.7
Great Lakes Average	10.6

- Michigan has the highest unemployment rate in the nation
- With the exception of Wisconsin and Minnesota all the states in the Great Lakes region are above the national average

Other Depressing Aspects of the Economy

- Median household income (adjusted for inflation) has declined since 1999.
- U.S. household wealth declined by 22 percent between 2007 and 2009.
- The U.S. economy needs to add 10 million new jobs to drop the unemployment rate to 5 percent, 1.5 million jobs just to stay even
- The situation in the EU could plunge the world back into a recession

Good News?

- The World Economy is recovering, Canada, China, India
- However the situation in Europe may end the recovery
- What is the shape of the recovery, V, W, U or L
- In the U.S. not a V most likely a U or an L

The Fundamental Problem

	Number (Millions)
Population	
Total Number	10.0
Less Persons less than 18	2.4
Less Persons 65 and older	1.3
Less unemployed or out of labor force	2.2
People employed	4.1

What Does this Mean?

- Can 41 percent support 59 percent?
- The tax base has declined
- Demand for government support has increased while the percentage of people who pay for it has decreased

Policy Implications

- An aging and fatter population will put additional pressure on government services
- High rates of poverty also puts additional pressure on social services
- But the tax base has declined – income and property taxes

Taxes and Spending

- Cut spending – this has been the most common policy response
- Raise taxes
 - increase tax rates (e.g. progressive income tax)
 - increase tax base (e.g. sales tax on services, taxes on pensions, reduced homestead exemptions)

Implications for the Agri-Food System

- Value has become a more important driver
- Interest in ethnic foods – esp. restaurants
- Functional Foods – for fat and old people
- The budget problem will increase the pressure to use fee revenue for MDA services

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