2008 ANALYSIS OF MICHIGAN ECONOMIC AND HOUSING MARKET CONDITIONS: CONSIDERATIONS FOR THE WESTERN WAYNE OAKLAND COUNTY ASSOCIATION OF REALTORS (WWOCAR)

Prepared for:

The Western Wayne Oakland County Association of Realtors (WWOCAR)

Dr. Chris Petras
Project Manager

Heidi McIvor
Project Supervisor

Research Associates:
Chelsey Foster
Dr. Paul Isely

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INTRODUCTION

Michigan's current economic and housing market crisis has created a sense of urgency in finding solutions to remedy the State's market instability and thus rejuvenate the State's economy. With the volatility of Michigan's current economic and housing market conditions at an all time high, the Western Wayne Oakland County Association of Realtors (WWOCAR) Board of Directors decided it was time for the organization to take a positive and proactive role in addressing economic and housing issues facing the State of Michigan. This new approach began with the WWOCAR Board of Directors voting to commission the services of Dr. Chris Petras and his research team to prepare an analytic report addressing the State's economic and housing market conditions.

The report is organized as follows: First, the document provides the reader with a brief and historical overview of Michigan's economy, including a discussion of those industries which proved critical in establishing the State's economic foundation. Industries profiled include fur trading, agriculture, mining, lumber/logging with expanded discussions of the petroleum/oil & gas industries, and manufacturing. Second, this report delves deeper into Michigan's current economic condition by analyzing key trends with regard to the State's economy since the onset of the 2001 recession. Here, we examine Michigan's manufacturing economy and compare it to that of the manufacturing economy nationally and further compare both southeast and southwest Michigan in terms of their manufacturing economies. In addition, this report generates comparisons between southeast and southwest Michigan with regard to Blue-collar wages and personal income. Personal income is analyzed in terms of contributions made by industry sectors that improve personal income levels overall. Retail sales trends in southeast Michigan and

southwest Michigan are also analyzed and compared. Employment sectors within Michigan including Non-farm, construction, manufacturing, financial, health and education are analyzed with regard to job losses and job gains in Michigan. Third, this report examines the effect of Michigan's current economic crisis on the State's housing market. Key issues analyzed include housing foreclosure rates with comparisons between Michigan and the nation overall. Housing prices are also analyzed and compared. Demand for new homes is analyzed with a focus on new home construction in Michigan. Fourth, this report identifies those industries (emerging industries) that show growth trends in Michigan. Furthermore, this report illustrates the relative value of manufactured goods from various industry sectors in Michigan and compares those outcomes to the national economy overall. Fifth, this report examines the current demographic composition of Michigan workers with a particular emphasis on employee age issues and considerations for future workforce skill requirements. Finally, we offer a summary and discussion of the findings in this report to allow interested parties an opportunity to reflect on the contents of this report and to expand the research agenda of WWOCAR.

EXECUTIVE SUMMARY

The Western Wayne Oakland County Association of Realtors (WWOCAR) commissioned this economic report to generate a baseline from which WWOCAR may begin preparing and executing a proactive educational campaign with State Legislators, the Governor, and other public officials to encourage entrepreneurship within the State for economic rejuvenation. By examining Michigan's economic history through industry sector transitions and analyzing various economic factors such as employment levels, home purchasing activity, home foreclosure activity, manufacturing/retail sales activities, and wage rates, the researchers of this report identified several key points. They are:

- Michigan's economy has endured several industry sector transitions beginning with fur trading to traditional manufacturing
- Agriculture is a mainstay in Michigan's economy and is growing with a relatively few number of workers while injecting billions into the State's economy
- Traditional manufacturing processes in Michigan are outdated and being replaced with more contemporary manufacturing processes that require fewer workers with higher job skill levels and higher wages
- The State of Michigan has not recovered from the 2001 national economic recession
- Michigan's unemployment rate has remained above the national average since 2005

- Michigan has lost 490,000 jobs since May of 2000 with southeast Michigan (Detroit-Warren-Livonia) accounting for 60 percent of the net jobs lost. The manufacturing sectors accounted for 68 percent of those total job losses with only 14 percent of the State's jobs in the manufacturing sectors. Of the 72,000 jobs lost in Michigan from April of 2007 to April of 2008, 70 percent were from the manufacturing sectors with 80 percent of those total manufacturing jobs coming from transportation equipment manufacturing sector.
- Southern states such as Alabama, Louisiana, and Mississippi have seen significant growth in automobile manufacturing jobs (tripling and doubling respectively) whereas the Midwest has seen very slow growth
- Blue-collar wages are 25 percent higher in southeast Michigan than southwest Michigan and 42 percent higher than wages earned in Birmingham, Alabama
- Since 2006, wages in southeast Michigan have grown at a slower rate than inflation whereas wages throughout the rest of the country have grown at a rate greater than inflation until the end of 2007
- From 2001 to 2006, hiring in retail sales has deteriorated and remains flat due to the slump in the manufacturing sectors
- Professional Services and Health/Education were the only industry sectors to see job increases from April 2007 to April 2008 with southeast Michigan having job losses across the board in all industry sectors except Healthcare/Education. Southwest Michigan (Grand Rapids area) has seen growth in several industry sectors that nearly offset any job losses for that area of the State

- In Michigan, Professional Services and Health/Education employment contributed the most to overall increases in personal income with nearly seven billion dollars generated from 2006 to 2007
- Southwest Michigan (Grand Rapids area) will adjust easier to the new Michigan economy due to a minimal dependence on the automotive sector while southeast Michigan (Detroit area) will struggle for some time in adjusting to the new economy
- Home foreclosures in Michigan grew 125 percent between 2005 and 2006 with the rate slowing to 25 percent from the first quarter of 2007 to the first quarter of 2008
- Home prices in Michigan began to drop at the start of the Michigan foreclosure crisis in 2006 resulting in homes priced at 2000/2001 levels
- Michigan is currently seeing a small slowdown in the number of foreclosures and overall housing slump.
- The population of Michigan continues to remain stagnate and even decrease due to the poor job market conditions within the State and thus limiting the ability of Michigan realtors to sell single family homes
- Alternative energy is a policy priority to reduce energy supply costs and stabilize energy supplies. Solar, wind, bio-fuels, and technology such as Integrated Gasification Combined Cycle (IGCC) are all under consideration as methods of generating energy supplies that are environmentally safe
- Retail Salespersons and Registered Nurses are considered the top two occupations that will see significant job openings from 2004 to 2014

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SECTION I:

From Fur Trading to Manufacturing: A Brief History of Michigan's Economy

The state of Michigan's two peninsulas and bordering Great Lakes make it one of the most readily identifiable locations on the globe. This unique geography has played a major role in the dynamics of the Michigan economy, contributing to competitive economic advantages and disadvantages for the industries that have come and gone. The strength of Michigan's economy continues to be highly dependent on its rich natural resources and the ingenuity of its people.

Fur Trade

In the mid 1600's, European explorers looking for a route to China discovered an estimated 100,000 Native Americans living in the territory between the Great Lakes. In exchange for modern tools and conveniences such as guns, knives, cooking pots, and liquor, Indians traded their animal furs and skins. Fur trade brought great wealth to many French explorers, leading them to colonize areas all over the state. By the late 1600's France had claimed ownership of the entire land mass of North America. Wars broke out between France and Great Britain, ensuing for over a half century in a great effort for world dominance and control of the lucrative North American fur trade economy. By the late 18th Century, the Great Lakes region was under British rule.

British control lasted less than 40 years, and the American flag replaced the Union Jack over Detroit in 1796 as the British retreated to Canada. In 1804, President Thomas Jefferson signed a law establishing the Michigan Territory. Less than a decade later, the War of 1812 devastated Michigan; eradicating nearly half of its population and destroying much of its vegetation (Introducing Michigan, 2008).

The 1830's brought new life to Michigan and its economy upon the completion of the Erie Canal, which allowed easy access for New England settlers seeking affordable land in the Midwest. Farms and small towns soon sprung up, and in 1837, Michigan became the 26th state in the Union. With a landscape dominated by trees and swampland, early settlers had to clear land to build their farms.

Agriculture

Many of the first European settlers tried their hands at farming with limited success. By the early 1800's, farms were scattered all over the Lower Peninsula. Farmers began to adopt new techniques to increase yields in the early 20th century. The addition of the silo to most barns allowed farmers to store large amounts of livestock feed that was not possible before (Media Center, 2008). The variation in soils, temperature, and humidity throughout the state allow for a variety of crops to be grown, making Michigan a top grower in multiple categories. While the number of farms has declined significantly, agriculture is now Michigan's second largest industry, with 53,000 farms contributing about $4.5 billion to the state's economy each year (Michigan Highlights, 2008).

Mining

Mining built many of the towns that make up Michigan's Upper Peninsula, as copper deposits produced more than any other state for the last half of the 19th Century. After the Civil War, a flood of miners came to Michigan's Keweenaw Peninsula in hopes of striking it rich with copper or other minerals. While many early inexperienced miners were unsuccessful, the few companies that prevailed used technological innovation to enhance production. In the late 1800's, Michigan produced more than 95% of the nation's copper and iron ore (Copper Mining, 2008). As many "company towns" in the Upper Peninsula were totally dependent on mining for their livelihood, the closure of

many mines shortly after World War II left some as virtual ghost towns (Wood, 2008). The last Michigan copper mine closed in 1995. However, with recent prices for some minerals skyrocketing, companies such as Kennecott Minerals Co. are evaluating the feasibility of opening new copper and nickel mines in the western Upper Peninsula (Less Cereal, 2008).

Michigan's rich geologic stores also hold salt, gypsum, sand, gravel, sandstone, limestone, coal, and brine deposits. Beyond mining, this geology spurred other industries such as the chemical production industry. Midland, Michigan-based Dow Chemical Company, one of the world's largest chemical manufacturers, began its operations after its founder discovered a wealth of brine beneath Midland County and devised a process for extracting it (Invent Now, 2008). Dow Chemical remains the second largest chemical manufacturer in the world (Hoovers, 2008).

Lumber / Logging

Figure 1 - Michigan tree cover circa 1800
(source: Center for Michigan Historical Studies - http://www.michiganepic.org)

Throughout the 19th Century, vast, untamed forests lured lumber barons to harvest the hardwoods and pines that once covered most of the state. Prior to the logging industry's arrival, it was said anecdotally that a squirrel could travel from one side of the state to the other on tree branches without ever touching the ground (Introducing Michigan, 2008).The southern half of the Lower Peninsula was covered with mostly hardwoods, while the northern portion was dominated by pines (see Figure 1). Much of the housing

built throughout the Midwest during from late 1800's to early 1900's relied on lumber supplies from Michigan (CMU, 2008). The state's waterways allowed logs to be floated, and the advent of the railroad allowed further expansion, until virtually all of the old growth forests were decimated. Thousands of Michiganians were employed by the lumber industry, and just like mining, many communities throughout the state depended on the industry as their main source of income.

Petroleum / Oil & Gas

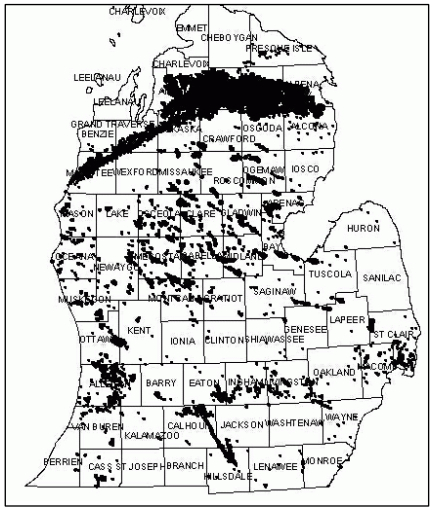


Figure 2 - Oil wells throughout Michigan's Lower Peninsula *(source: Michigan Dept. of Environmental Quality - http://www.michigan.gov/deq/0,1607,7-135-3311_4111_4231-14421--,00.html)*

In addition to lumber and mineral assets, oil and gas production has been a significant economic driver in Michigan. Over 1.34 billion barrels of oil and 5.9 trillion cubic feet of natural gas have been produced in Michigan to date (WMU, 2008). Beyond the oil companies who have profited from oil production, landowners, state and local governments have received millions in royalty payments and tax revenues each year. While oil and gas production has declined significantly, the state's natural gas storage fields are the largest in the nation, making it a significant natural gas storehouse for the northeastern United States.

With record high oil prices, companies are seeking ways to squeeze more oil out of new and existing oil wells in Michigan (see Figure 2). One such company is M&M Energy LLC, who is working to develop an energy research park that includes plans to sequester carbon dioxide into existing under producing or abandoned oil fields in some of the state's 14,000+ wells for enhanced oil recovery (M&M Energy, 2008). A recent U.S.

Department of Energy study estimates that up to 1 billion barrels of oil are recoverable in the Michigan-Illinois Basin using such technologies as carbon sequestration (Dept. of Energy, 2006). Increased oil production would be a boon for the state, promising new jobs and tax base. In a recent Detroit Free Press article, permits for drilling new wells were noted as increasing 10% from 2007-2008 (Michigan's Growing, 2008).

Manufacturing

Michigan has been known worldwide as a leading manufacturing center since the late 19th century. Before the advent of the automobile, Detroit was a center for the manufacture of cigars, ships, stoves, farm implements and railroad cars. On the south side of the state, Grand Rapids became synonymous with quality-constructed furniture, credited for its superior design and durability – an identity the city carried with it through the late 20th century (Introducing Michigan, 2008). Grand Rapids-based Steelcase, Inc. remains a global leader in the office furniture industry (About Steelcase, 2008).

The roots of automobile manufacturing can be traced back to Detroit shipbuilders built internal combustion boat engines, eventually fitting the technology into what became the horseless carriage. The plentiful supply of iron ore from the Upper Peninsula was an essential building block for the automobile manufacturing industry that soon flourished in Detroit and spread throughout the state. Mass production techniques such as the assembly line quickly made the automobile an affordable replacement to the horse and buggy for millions of Americans. Growing manufacturers such as the Ford Motor Company encouraged immigrants coming to the U.S. at Ellis Island to consider coming to Detroit to make a good living and ensure a stable workforce for the industry (Why Michigan, 2008). Despite recent downsizing of Detroit's "Big Three" automakers, Michigan manufactures

over 20% of the nation's automobiles, supporting over 700 automotive suppliers throughout the state (News & Information, 2008).

The advanced technologies and processes that made the automotive industry thrive in Michigan also were adapted by manufacturers of other products. In addition to motor vehicles, Michigan is a leading exporter of machinery, chemicals, fabricated metal products, and electronic products (News & Information, 2008). Robust economic growth throughout the late 1990's brought Michigan's unemployment rate below the national average in the early 2000's, only to endure massive job losses totaling over 218,000 in Michigan's manufacturing sector between 2000-2005 (America's Great Lakes, 2006). Despite these job losses in Michigan and throughout the Great Lakes Region, the dollar value of manufactured goods continues to grow, likely due to technology-induced productivity. New manufacturing jobs tend to be in emerging fields that are highly dependant on high skill workers.

SECTION II:

When the 2001 United States Economic Recession Hit, What Happened to Michigan?

Employment, Wages, Manufacturing/Retail Trends, and Sales Figures: Examining Michigan's Economy

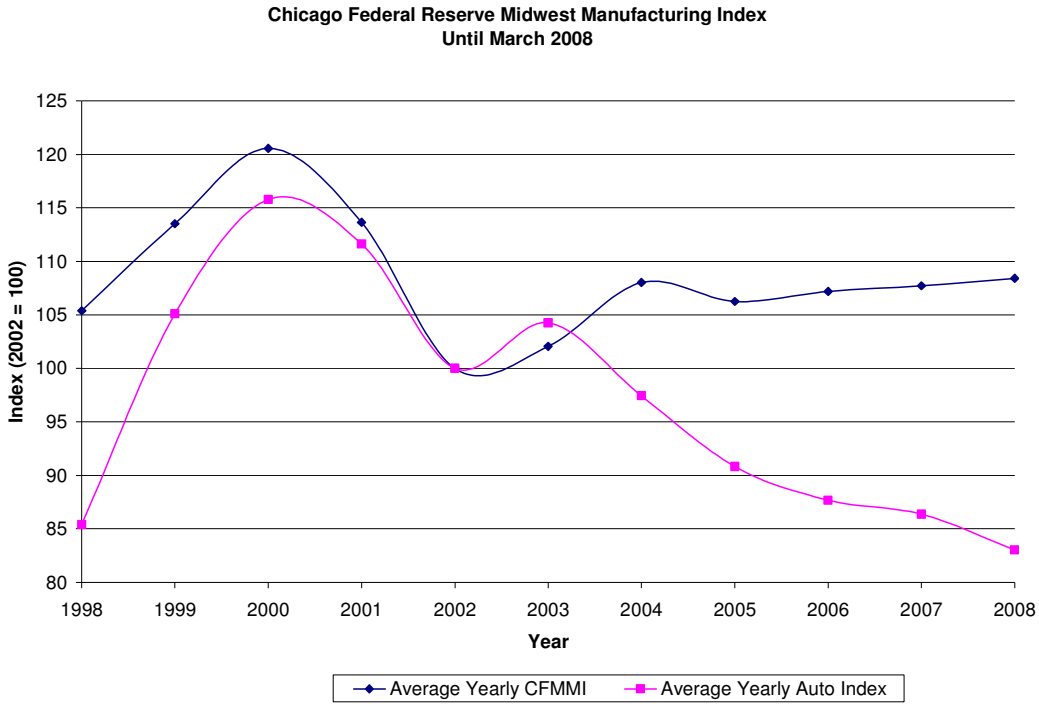
The Michigan economy has been performing below the national average since the United States recession that occurred between March 2001 and November 2001. In reality although most of the United States exited that recession in 2001 Michigan's economy never recovered as seen in numbers from the U.S. Bureau of Labor Statistics (BLS). Unemployment had dropped below 5% by the middle of 2005 for most of the United States after peaking in 2003, however Michigan's unemployment which also peaked in

2003 has remained near 7% for the last 5 years and is still at 6.9% in April of 2008 (BLS 2008). In fact, since the employment in Michigan peaked in May 2000 the economy has lost 491,000 non-farm jobs (BLS 2008).

The same BLS data shows the majority of these jobs have been lost on the southeast side of the state and from the manufacturing sector. The Detroit area has seen a disproportionate loss of jobs with the Detroit-Warren-Livonia area accounting for 60% of the jobs lost in the state, even though it supports only 46% of the total jobs in Michigan. Manufacturing has also seen large job losses accounting for 68% of the jobs lost even though only 14% of jobs currently held in Michigan are in manufacturing. Although the last 5 years have been bad for Michigan, most of this pain is being felt in the Southeast side of the state in areas highly dedicated to the automobile industry.

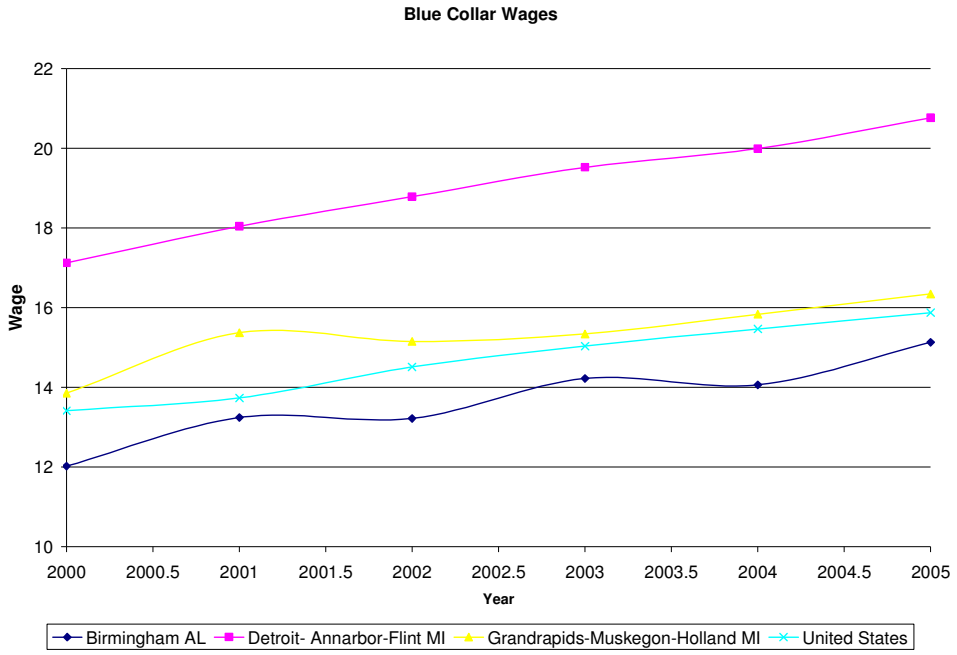
The problems in the Michigan auto industry are clearly illustrated in Graph 1, showing the Chicago Federal Reserves Midwest Manufacturing Index (Federal Reserve 2008). The index shows the level of manufacturing setting the year 2002 equal to 100. The recession in 2001 caused a drop in overall manufacturing in the Midwest, as well as, a drop in automobile related manufacturing. However, since 2003 overall manufacturing has been improving slowly in the Midwest, but automobile manufacturing has dropped below its 1998 level. According to the Bureau of Economic Analysis (BEA) numbers, the decrease in auto manufacturing in the Midwest has not been seen in the rest of the country. The largest growth in automotive output since 2002 has happened in Alabama (more than tripling), Louisiana (more than doubling), and Mississippi (more than doubling) (BEA 2008). The Deep South is gaining at the expense of the Midwest.

Graph 1



As foreign automakers have gained market share in the United States, they have looked for economical locations to locate factories. Although Michigan manufacturers have a high level of expertise in automobile manufacturing, the difference in pay between Michigan and the Deep South is large (See Graph 2 - BLS 2006). In 2005 the Blue Collar wage in East Michigan was close to 25% higher than West Michigan and the United States averages and a whopping 42% higher than the Blue Collar wage in Birmingham Alabama. Until this wage gap narrows, it will be hard to draw substantial new capital investment into East Michigan.

Graph 2



Over the last few years this wage adjustment has begun. New automotive labor contracts and buyouts of more expensive workers are resulting in the wage gap narrowing. Table 1 shows the average weekly wage (BLS 2008). Wages across the United States during 2006 grew faster on average than inflation. However, the weekly wages in Wayne County are growing slower than inflation, decreasing the purchasing power of workers in South East Michigan. Preliminary data from 2007 shows this trend continuing.

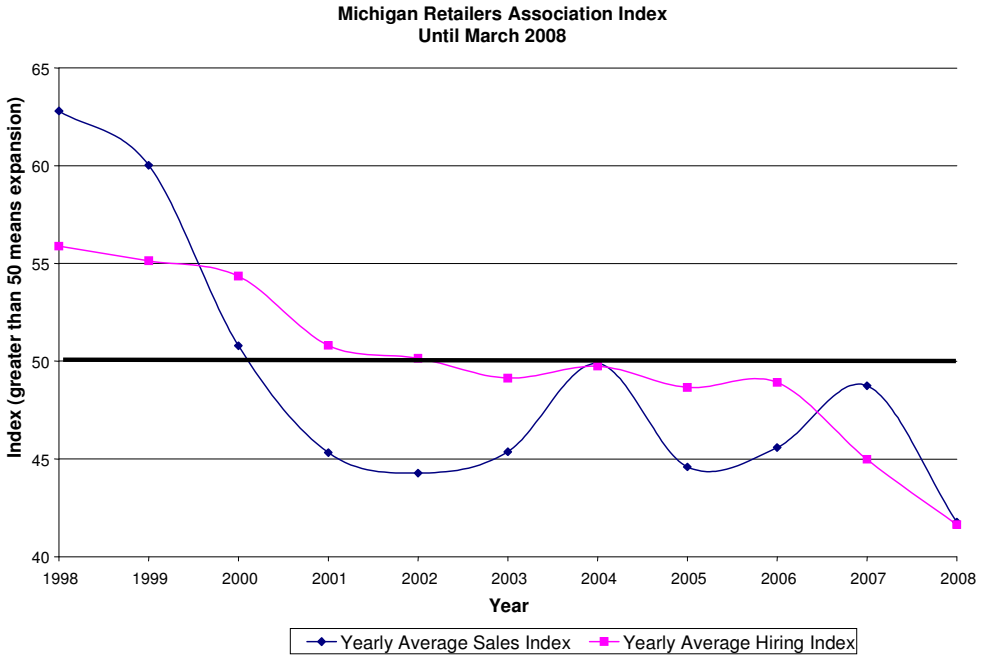
Table 1

Location	Average Weekly Wage December 2006	12 month % Change
US	$861	4.2
Michigan	$852	2.2
Wayne County	$969	1.8
Kent County	$793	3
Inflation 2.5% over period		

The problems in the manufacturing sector have spilled over into the retail sector. Retail sales have dropped and hiring plans have been curtailed according to the Michigan Retailers Association (MRA) (MRA 2008). Graph 3 shows the Michigan retail association index. The index is constructed so that any number greater than 50 means expansion. The sales index dropped below 50 during 2001 and has not been above 50 as a yearly average since that time. Between 2001 and 2006 the hiring index was close to the 50 mark, but since that time it has deteriorated.

Over the last eight years, Michigan has been in an economic slump. Auto manufacturing, the primary manufacturing industry in the state, has been contracting. The result is a 10% decrease in the total number of jobs available in the state. The drop in jobs has resulted in wages being forced down as more workers compete for each job. Eventually, the decrease in wages will cause firms to look more favorably at hiring Michigan workers, so new jobs will be created to replace the jobs lost. The wage correction process is ultimately leading to declines in other industries such as retail in the near term. A closer look at the strengths and weaknesses in Michigan over the last year will help indicate if this trend might be easing.

Graph 3



SECTION III:

The 2007 Credit Crunch: What Happened to Michigan's Economy?

Trends in Michigan Employment and Wages

The United States economy was in relatively good shape for the most of 2007, then near the end of the year problems started to increase. The credit crisis, which started with sub-prime loan problems, started to decrease economic growth. This has led the US economy to grow at less than a 1% rate for the 4th quarter of 2007 and the 1st quarter of 2008. Over the same time, retail gasoline prices have steadily climbed. From January 2007 to January 2008, the retail price of gasoline climbed 80 cents and then it climbed another 70 cents by May according to the Energy Information Administration (EIA) (EIA 2008). The combination of these two problems hit Michigan auto manufacturing particularly hard.

Looking at employment across Michigan, in Table 2 (BLS 2008), weaknesses are still seen as the total number of jobs has decreased by more than 72,000. However, more than 70% of those losses come from manufacturing and 80% of the manufacturing employment loss has come from transportation equipment manufacturing. However every sector of the economy, except for Professional/Business Services and Health/Education, has seen job losses across Michigan. The economy of Michigan continues to trend towards a service economy and away from a manufacturing based economy.

Table 2

	Michigan	**Detroit-Livonia-Dearborn**	**Grand Rapids - Wyoming**
Total Employment April 2008**	4,197,200	759,700	391,500
Selected Sectoral Employment Changes April 2007 - April 2008**			
Non-Farm	-72,100	-31,700	-500
Construction*	-13,300	-1,900	-700
Manufacturing	-52,900	-19,200	-1,700
TTU	-2,900	-3,400	-1,000
Information	-500	-1,000	200
Financial	-4,800	-800	-100
Professional and Business Services	3,900	-4,200	1,400
Health/Education	9,300	1,500	1,000
Leisure and Hospitality	-2,300	-400	300

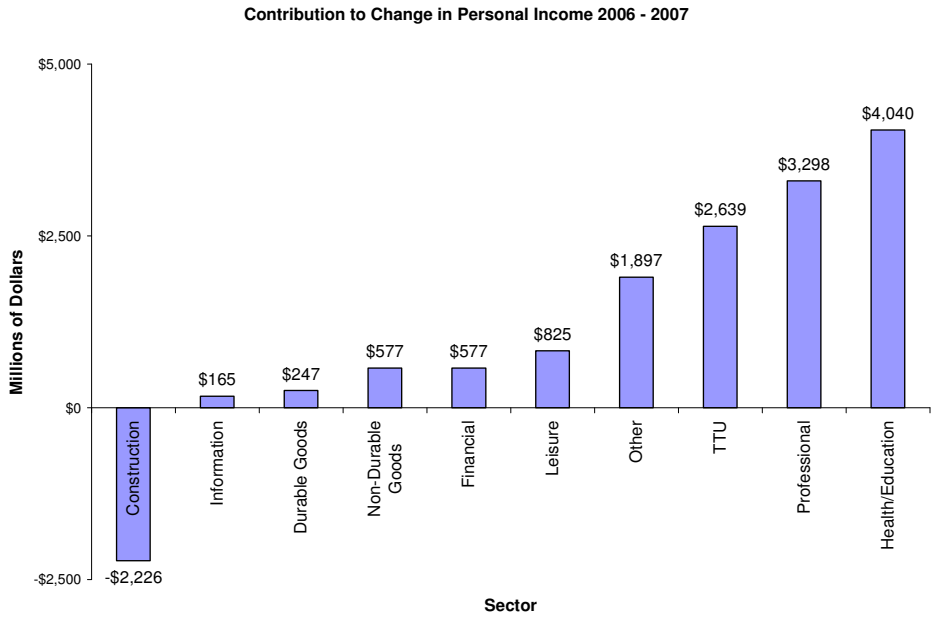
* Construction also contains Natural Resources and Mining for Detroit and Grand Rapids MSA's
** April 2008 numbers are preliminary.

There continues to be a substantial difference between the East and West sides of the state. Employment in the Grand Rapids area has essentially been flat, with losses in Construction, Manufacturing, and Trade, Transportation, and Utilities (TTU) being mostly offset by increases in Health/Education, Professional and Business Services, and Leisure and Hospitality. Employment in the Detroit area, however, has been negative,

across the board, except for a relatively small build in Health/Education employment. West Michigan is basically following the national trend whereas East Michigan continues to adjust to a smaller auto manufacturing presence.

The change in Personal Income, which is aggregated across the state has been driven by a few changes during 2006-2007. Personal Income is reported by the BEA (BEA 2008). Using the Personal Income report, the dollar change in personal income can be estimated for different sectors of the Michigan economy. Over the 2006-2007 time frames only construction decreased Personal Income. Even Durable Goods manufacturing still showed a small positive impact on the change in Personal Income. Here again the movement to a service economy can be seen with over $7 billion added to Personal Income by Professional Services and Health/Education.

Graph 4



Other than weakness in automobile manufacturing and construction, Michigan's economy is finally showing signs of improvement. The improvements are starting on the west side of the state where the economy is not as dependent on the auto sector. The

improvements will be slower to appear on the east side of the state. There is still more downward wage adjustment necessary to make east Michigan's workers competitive with workers elsewhere in the United States. As this wage adjustment continues to occur over the next several years there will be continued economic pain in East Michigan that will not be equally shared in West Michigan.

SECTION IV:

Michigan's Housing Market Feels the Impact of the 2007 Credit Crunch and Other Economic Issues

Michigan Housing Market Prior to and After 2007 Credit Crunch

The continuing weakness in the Michigan economy since the 2001 recession has led to many weaknesses in the Michigan housing market. The decreased number of jobs and lower inflation adjusted income has not only decreased the ability of the consumer to purchase housing, but also decreased the overall population in the state. Evidence of this downturn begins in 2005 and really accelerates during 2006 – long before the credit crisis affected the entire United States housing market in 2007. This can be seen in existing foreclosure data, prices, home sales, and new home permits. However, 2008 has shown a decrease in the rate of decline in the Michigan housing market, unlike the rest of the United States.

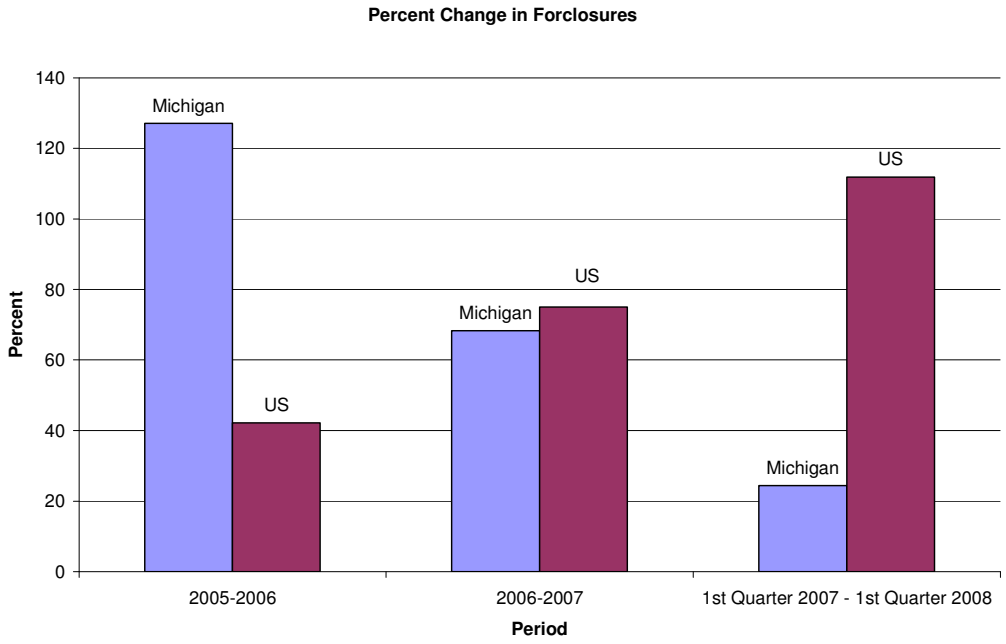
Home Foreclosures Prior to and After 2007 Credit Crunch

Foreclosures have been one of the most publicized problems in the housing market. The economic problems described earlier created a foreclosure crisis in Michigan. The strains on the job market in Michigan since 2001 finally caught up with homeowners in late

2005. Foreclosure data (Realty Trac 2008) shows the trend in Michigan foreclosures. Between 2005 and 2006 foreclosures grew by more than 125% in Michigan. However, after this major increase, the number of foreclosures has continued to grow at a much slower rate. Comparing the first quarter 2007 to the first quarter 2008, the year over year increase is now less than 25%. Amazingly comparing the fourth quarter 2007 to the first quarter 2008 there is actually a decline in foreclosures. A different pattern is seen across the rest of the United States.

The United States as a whole did not see the economic weakness seen in Michigan during 2005, 2006, and the first 3 quarters of 2007. As such, the US housing market has seen a much slower increase in foreclosures. However, where the economic weakness in Michigan had already cost troubled homeowners their houses, the same retrenchment had not occurred in the rest of the US when the credit crisis deepened in the last quarter of 2007. The result has been a dramatic percentage increase in US foreclosures that has not been matched in Michigan so far in 2008.

Graph 5

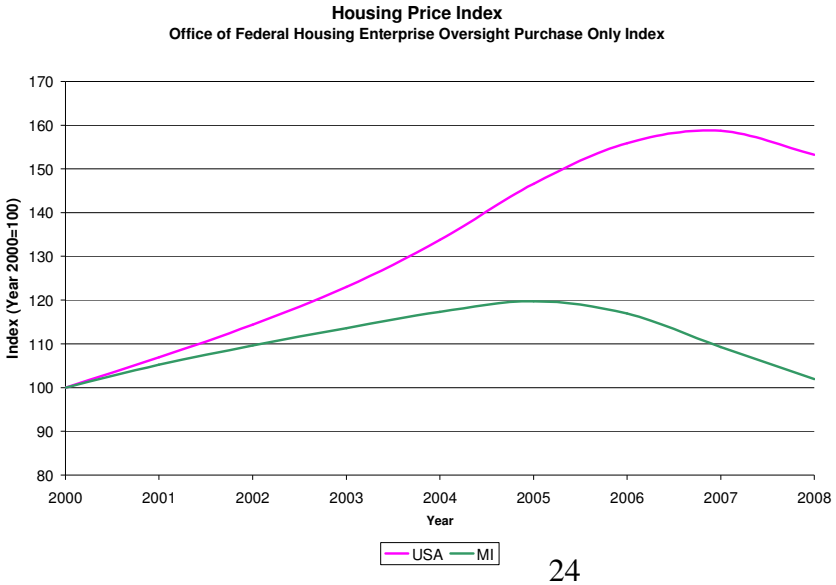


Economic Pressures on Housing Prices

Prices have also been under pressure. The drop in the Michigan housing price index began in 2006 at the same time the foreclosures were increasing. Using The Office of Federal Housing Enterprise Oversight (OFHEO) sale only price index (OFHEO 2008) the changes in housing prices can be seen in Graph 6. Unlike the standard OFHEO price index, that includes refinances, the sale only price index includes only house sales and more closely resembles the widely reported S&P Case Schiller index. This index statistically looks at only re-sales of the same house over time, so it is seen as a good measure of the change in the price of houses. The result found using this index shows that the price of houses in Michigan has dropped to the 2000-2001 price level.

Just as with foreclosures, the rest of the US started to see price increases slow in 2006 and 2007, but unlike Michigan did not see housing prices decline until the credit crisis took hold in late 2007. In addition, housing in the US showed a much higher appreciation than that seen in Michigan. For every $100,000 spent on an average house in the US in 2000, that same quality house would have been worth close to $160,000 in 2007, but would have been worth only $110,000 in Michigan.

Graph 6



Impacts on Home Sales

As demand for housing decreases, the quantity of houses being sold has decreased even though the price of houses has decreased. Using data from the National Association of Realtors (NAR) (NAR 2008), Graph 7 shows that percentage change in Existing Home sales. Just as with prices, Michigan saw a big change between 2005 and 2006 and then shows the rate of decline slow. However, the US average shows smaller initial declines, but then shows a much larger reaction to the credit crisis. This is further evidence that Michigan is nearing the bottom of the housing downturn even as the overall United States housing market is still contracting.

Graph 7

It is clear that there has been a substantial decrease in the demand for single family housing in Michigan. The decrease in demand has also affected the quantity of new homes being constructed. New home construction can be tracked by observing permits being taken out for new house construction. Permits for single family house construction peaked during 2004 and 2005 in Michigan when nearly 45,000 units per year were constructed (Census 2008). In 2006

the number of permits dropped to approximately 25,000 units. This trend continued in 2007 as the number of permits dropped to only 15,195 units. Home construction has reacted strongly to the changing housing market.

There are many housing effects that will be seen as a result of the economic condition in Michigan. Until the job market improves in Michigan, there will no population increases to support new housing. This will occur in West Michigan as the U.S. economy picks up from the current slowdown. However, East Michigan's job market will not improve until restructuring has completely worked through the auto manufacturing sector. In Michigan, the lower relative income will result in less income to spend on housing even when the economic situation improves. However, the lower housing prices in Michigan relative to the rest of the U.S. will help the housing sector to recover from the current crisis.

SECTION V:

The New Michigan Economy: What Does the Future Hold?

Michigan's concentration in the manufacturing sector, especially in the automobile industry, made it the envy of the world for decades. The decline of the domestic auto industry, however, has made it painfully clear that Michigan must work to diversify its economy into other sectors to remain a viable player in the global economy. Despite the decline, the automotive industry and manufacturing in general are still very large drivers of the Michigan economy. For every auto assembly worker, several other "spinoff" workers in related industries are employed. While this strong spinoff factor can be beneficial, layoffs have equally large negative impacts. Table 3 on the next page shows the relative value of manufacturing in the Michigan economy vs. the United States economy. Only 13% of U.S. economic output is attributed to manufacturing, whereas almost 21% of Michigan's economy depends on manufacturing.

TABLE 3 Value of Production in Selected Industries, as a Percentage of Total Value of Production, as a Percentage of Total Value of Production, for Michigan and the United States, 2003

INDUSTRY	MICHIGAN	UNITED STATES
Services	25.57	25.22
Manufacturing	20.71	12.84
Durable Goods	16.78	7.30
Motor Vehicle and Parts	10.16	1.12
Nondurable goods	3.93	5.53
Wholesale and Retail Trade	12.84	12.96
Real Estate, Rental, and Leasing	11.52	12.52
State and Local Government	9.06	8.72
Finance and Insurance	5.89	8.08
Construction	4.45	4.59
Information	2.72	4.52
Transportation and Warehousing	2.48	2.92
Utilities	2.20	2.03
Federal Civilian Government	1.14	2.26
Agriculture, Forestry, Fishing, and Hunting	0.50	1.04
Federal Military	0.18	1.10
Mining	0.17	1.19

Source: http://www.bea.gov/bea/regional/gsp/.

Automotive

The domestic automotive industry's recent decline in North American sales can be attributed to a number of factors: the national housing crisis, rising unemployment, record high oil prices, and fierce foreign competition. In these troubled times, opportunity for innovation is paramount. A growing number of consumers, grappling with rapidly rising prices for almost every consumer item, are looking for more efficient and/or environmentally sound products. The emerging $20 billion "green" automotive supply market is already taking shape, with companies like Green Earth Technologies, Inc., supplier of biodegradable tire-cleaning supplies, windshield rain repellents and smokeless motor oils recently opening a new manufacturing plants in Detroit area (Greene, Jay 2008).

As domestic auto manufacturers shift production to more fuel efficient vehicles, the likelihood for stability and growth may return. General Motors' plug-in electric Volt, slated for 2010 production, is being hailed as potential life-saver for the automaker, decoupling the company's fate from oil prices. Landmark labor agreements reached by Detroit automakers and the United Auto Workers union (Shea, Bill 2007), coupled with restructuring efforts and innovative new products may poise the Big Three for better days ahead.

Alternative Energy

Solar

Michigan has seen its share of alternative energy related developments in recent years, with an estimated 300 firms employing 50,000 workers in some aspect of alternative energy (Haglund, Rick 2008). Auburn Hills-based United Solar Ovonic, manufacturer of lightweight and flexible solar panels has built four manufacturing facilities in Michigan, and recently announced a fifth plant in Greenville (Michigan Governor, 2008). With global demand for solar products soaring, firms like United Solar cannot keep up with demand. Hemlock Semiconductor Corp, producer of polycrystalline silicon, a key ingredient used in the manufacture of solar panels, is in the midst of a $1 billion expansion, and is considering an additional expansion of similar magnitude (Alternative Energy, 2008). Governor Jennifer Granholm recently signed multiple bills creating incentives for Hemlock Semiconductor to continue with its next expansion in Michigan, hoping to create a solar "Silicon Valley" in the Saginaw Valley. According to the Bureau of Labor Statistics, Michigan currently has 42 solar-related firms in operation.

Biofuels

Biofuel production is another growing segment in Michigan's alternative energy arena. Seven biofuel plants are currently operating, with at least ten others either proposed or under

construction (Interactive, 2008). While the construction surge in traditional corn-based ethanol plants has slowed, new technologies are emerging that promises to more efficiently convert agricultural crops or biomass to motor fuel. The cellulosic method of ethanol production is the basis for Mascoma Corp.'s plans to build a $250 million waste wood to ethanol facility in the Upper Peninsula (Granholm Says, 2008). Michigan's large wooded areas may be a draw for other cellulosic ethanol producers if the technology proves to be successful.

Wind

Experts contend that Michigan has sufficient wind for utility scale energy production (State Energy, 2008). However, the only states that currently have significant wind farm capacity are those that have mandated renewable portfolio standards (RPS) – requiring electric utilities to purchase or produce a certain percentage of their power from renewable resources (see figure 1). Michigan does not currently have an RPS, and without such a mandate, the state's incumbent utilities, Consumers Energy and DTE Energy, arguably have little incentive to invest in more renewable resources. Recent legislation passed by both the Michigan House and Senate actually turn the clock back to give the utilities a guaranteed 90% share of the Michigan energy market (House Bill, 2008).

Alternative Energy (Other)

Beyond the well-known alternative energy sub-sectors, there are other promising technologies that seem well-suited to Michigan's assets. One such technology is gasification, which can be adapted to multiple fuel sources including coal, petroleum coke, or biomass. Specifically, the integrated gasification combined cycle (IGCC) process can separate harmful emissions before being emitted into the atmosphere, and sell them as commodities. M&M Energy LLC's proposed Great Lakes Energy & Research Park in Alma (Gratiot County) would utilize the IGCC process

to generate electricity, motor fuels, and use captured carbon dioxide – a greenhouse gas, to retrieve stranded Michigan oil from under producing oil wells (M&M Energy, 2008).

Rather than trying to target one alternative energy area, experts contend states should support all efforts that help push our nation to the forefront of alternative energy technologies. Jeffrey Immelt, CEO of General Electric (GE), recently told the National Governors Association that GE is investing in virtually every promising alternative energy technology instead of betting on just one or two.

Advanced Manufacturing

Traditional manufacturing jobs are increasingly being replaced by higher skill "advanced manufacturing" jobs. Advanced manufacturing covers a wide array of industries; by definition, it is "the use of the latest technologies—from computers to robotics, automation and new tools in the manufacture of products." (Adams, C.B., 2008)

Enhanced productivity reduces the number of workers needed, thus making it increasingly

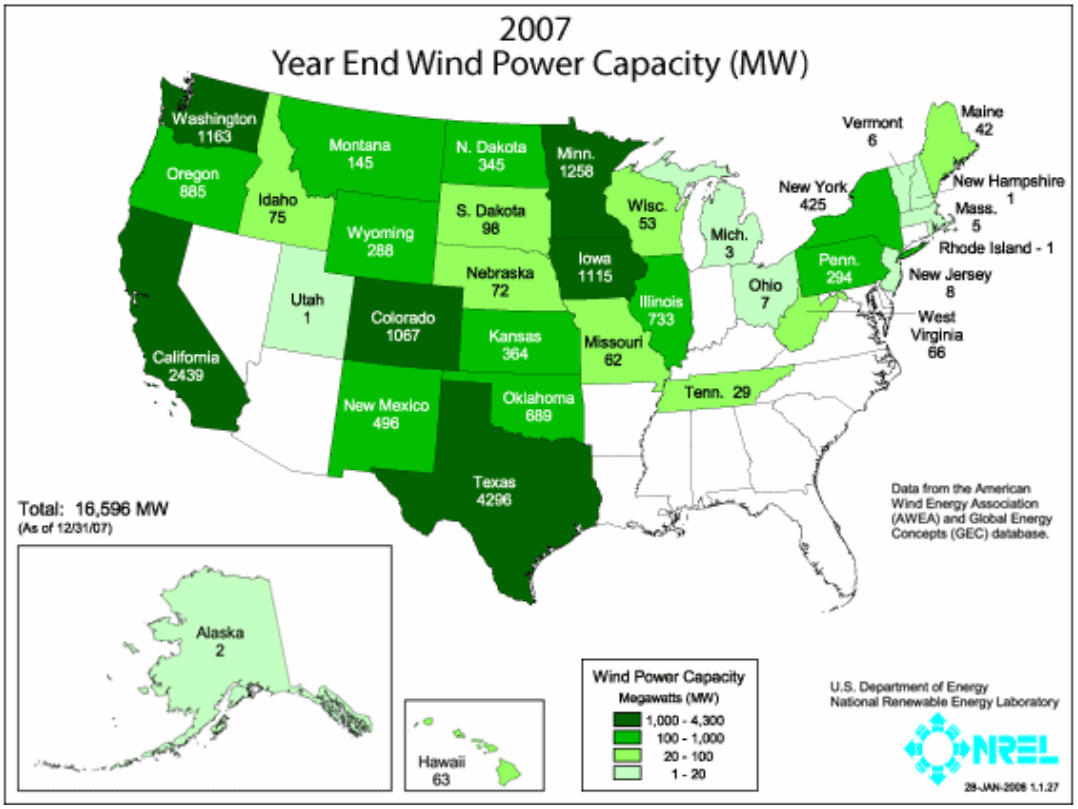


Figure 3:

difficult for displaced workers to find new employment. George Erickcek, senior regional analyst for the W.E. Upjohn Institute for Employment Research in Kalamazoo, recently told the Western Michigan Business Review, "… manufacturing will take a similar route to agriculture …it will employ fewer people, and they will require higher skills." (Stevens, Lynn, 2008) While overall manufacturing employment is expected to decline over the next few years, the demand for high-skill workers is at an all time high. The health of manufacturing depends on constant innovation and productivity enhancement. Erickcek continues, "The only way that we can survive in manufacturing is to increase productivity - that means operating more sophisticated machinery in more sophisticated systems."

Service Sector

In terms of the number of new jobs that are likely to be created into the foreseeable future, the service sector is the area that is expected to see the most growth. The Michigan Department of Labor and Economic Growth predicts the top two occupations that will see employment gains due to growth between 2004-2014 are Retail Salespersons and Registered Nurses. The top ten occupations for employment growth are shown in Figure 4 on the next page. While a significant number of new jobs will be created in the service sector, many of these jobs will require basic skills that many employers are finding new hires to be lacking. The following section will describe some of the demographics of the Michigan labor force and the job skills gaps that must be remedied for the economy to rebound.

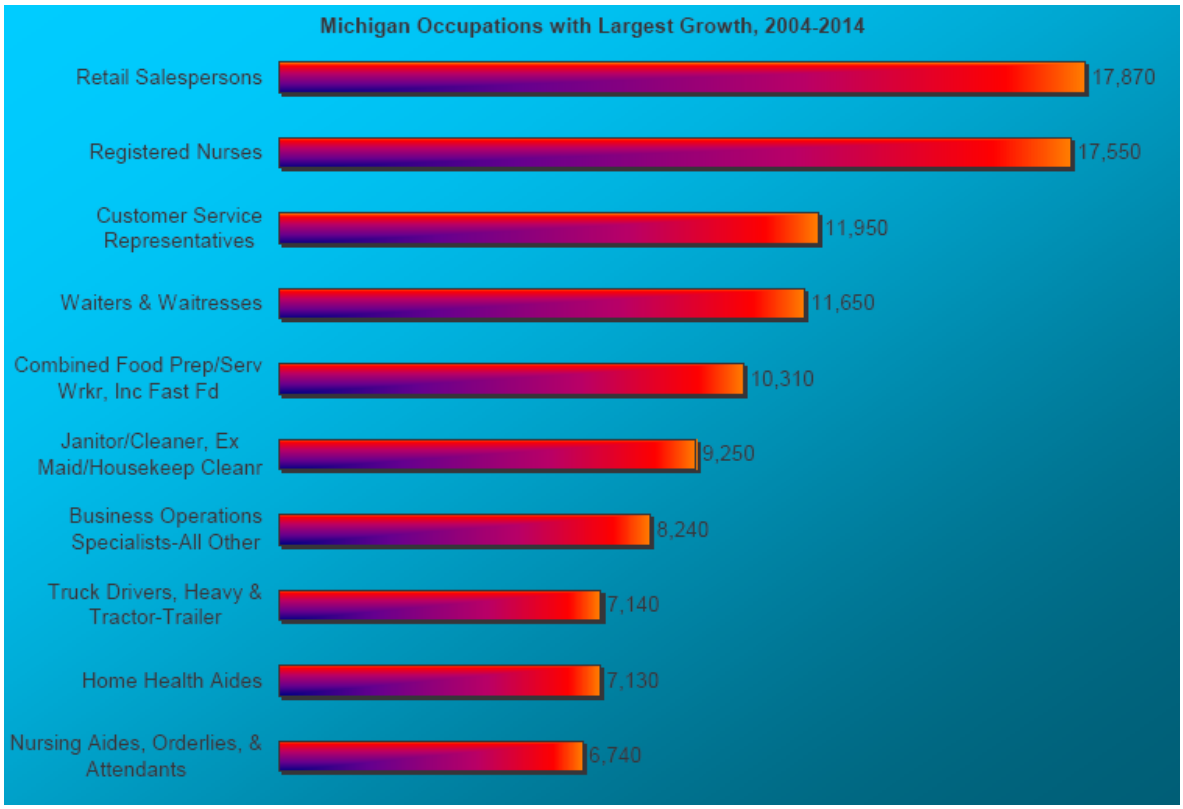


Figure 4 – Michigan Occupations Growth Projections – ***(Source: Michigan Labor Market Information - www.milmi.org)***

SECTION VI:

Michigan's New Workforce Considerations: Bridging the Gap Between Age and Job Skill Requirements

As the negative news about Michigan's labor market conditions continue to dominate the newsbeat, the story not getting enough attention is that labor shortages exist in certain industries, and severe shortages are imminent in industries that are top-heavy with near retirement age workers. As some manufacturers continue to lay off their unskilled laborers, many of the same companies are looking for new, highly skilled workers to replace them. Opportunity abounds for those with specialized skills in fast-growing fields like health care, engineering, information

technology, and advanced manufacturing (Trop, Jaclyn, 2008). Michigan must meet the challenge of preparing an able workforce to fill the jobs and job skill gaps.

Labor Demographics

Michigan's population is graying, with a median age of 37.3 years in 2007, up from 36.8 years in 2005, according to U.S. Census population estimates. The aging of Michigan residents means fewer babies are being born, slowing the state's population growth (Michigan Getting Older, 2006). While many experts say the state must do a better job of retaining young people, the numbers show that Michigan actually has recently experienced some of the lowest out-migration of any state for the 25-34 age group (Darga, Kenneth, 2007). Rather, the issue is attracting young people from other states and countries, as fewer foreign-born residents move to Michigan than in other states (Darga, Kenneth, 2007).

The aging of Michigan's population poses new challenges, but also promises significant opportunity for future jobseekers. Despite the loss of thousands upon thousands of manufacturing jobs over the last decade, the shift to higher-technology advanced manufacturing, coupled with the aging of the Michigan workforce will likely bring thousands of new job openings in the manufacturing sector. Figure 5 shows the breakdown of Michigan's nearly 640,000 manufacturing workers, with the majority falling in the 45-54 age group (U.S. Census, 2008). As these baby boom era workers begin to retire, the Michigan manufacturing job market is likely to improve dramatically for job seekers, as replacements will be sought to fill vacancies with more highly skilled workers. A recent report by the National Association of Manufactures estimates that U.S. manufacturers will need as many as 10 million new skilled workers by 2020 (Program to Promote, 2006).

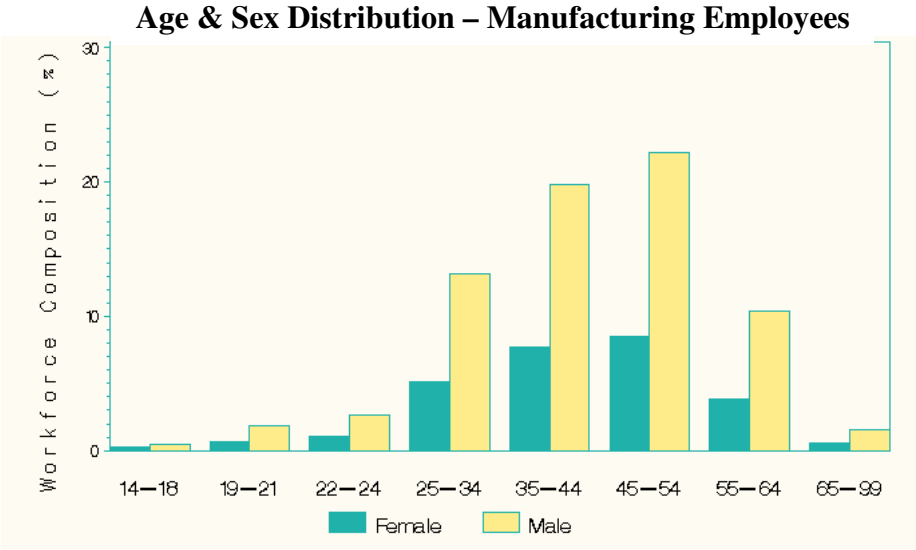


Figure 5 - Age & Sex Breakdown for Michigan Manufacturing Sector, 2nd Quarter 2007 – *(source: Michigan Labor Market Information – Local Economic Dynamics – www.milmi.org)*

Preparing a Workforce

As communities throughout the United States anticipate a shortage of skilled workers to meet the imminent demand of the manufacturing sector, workforce boards and community colleges are working to promote careers in manufacturing to high school students. The "Dream It Do It" program is an educational campaign created by the National Association of Manufacturers, utilizing interactive game-like videos to entice students to consider manufacturing careers in six states (Left for Dead, 2008). Once students have shown interest in a specific field, some companies are offering to pay for technical training. Other communities are likely to pursue efforts similar to "Dream It Do It," as the old image of unskilled manufacturing must be replaced by an exciting image of innovation and opportunity in the minds of students and parents. Adding to the challenge, younger workers make significantly less income on average than older workers (See figure 6). However, the lower cost of a technical degree vs. a 4-year degree may be attractive to students who do not want to be burdened with a mountain of student loan debt.

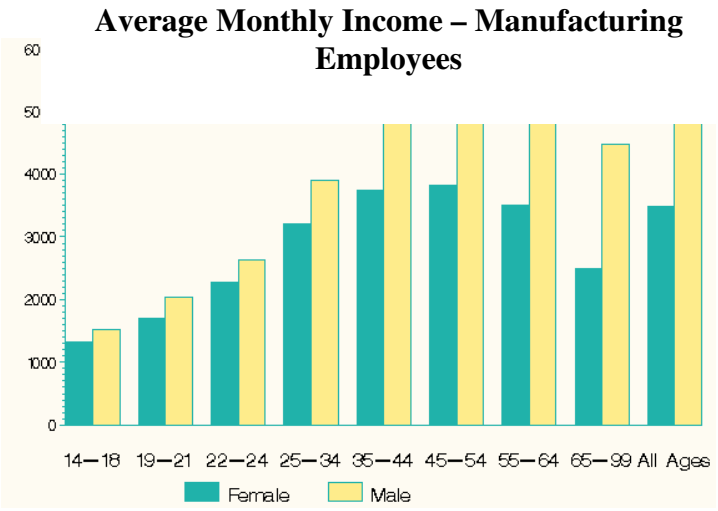


Figure 6 - Average Monthly Earnings by Age and Sex, Michigan Manufacturing sector

(source: Michigan Labor Market Information – Local Economic Dynamics – www.milmi.org)

Other High Tech Fields

Healthcare is one sector that has already experienced rapid growth and promises to fuel Michigan job growth into the foreseeable future, aided by the aging of the state's population. Health care employment in Michigan grew by 100,000 since 2000 (Michigan has Survived, 2008). The age and sex distribution of employees in the health care sector, similar to manufacturing show a significant number of workers in the 45-54 age group, who will soon retire, opening thousands of jobs to younger jobseekers (See Figure 7). The discrepancy in income between younger and older workers in healthcare is much larger than in manufacturing, but the income generating potential is much greater in healthcare.

Age & Sex Distribution – Health Care/Social Assistance Employees

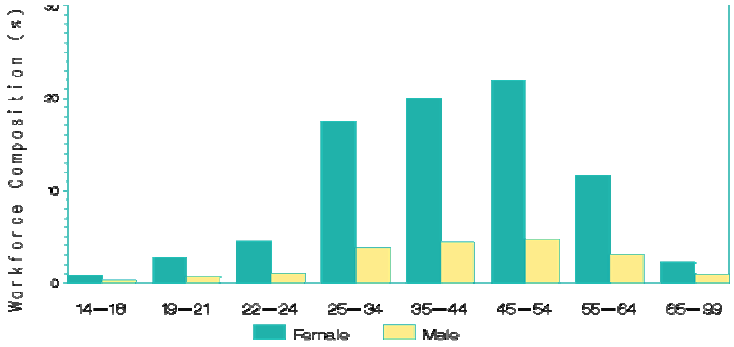


Figure 7 - Employee Earnings by Age & Sex, Michigan Health Care/Social Assistance Sector

(source: Michigan Labor Market Information – Local Economic Dynamics – www.milmi.org)

Education and Job Skills Gap

Experts agree that most high tech jobs of the future will require basic knowledge in math and science. Overall employment growth in Michigan between 2004-2014 is expected to require about 50% of new employees to require postsecondary education (See Figure 8). Recommendations on how to remedy the skilled labor shortage is a topic of much debate. IT career author Matt Moran cautions against more stringent government mandates for high school math and science curriculum -- instead encouraging expanded internship programs to cultivate talent (High-Tech Jobs). Michigan's recently revised high school graduation requirements are considered to be some of the toughest in the nation, requiring four years of math (including Algebra I and Algebra II) and three years of science (Martin, Tim, 2008).

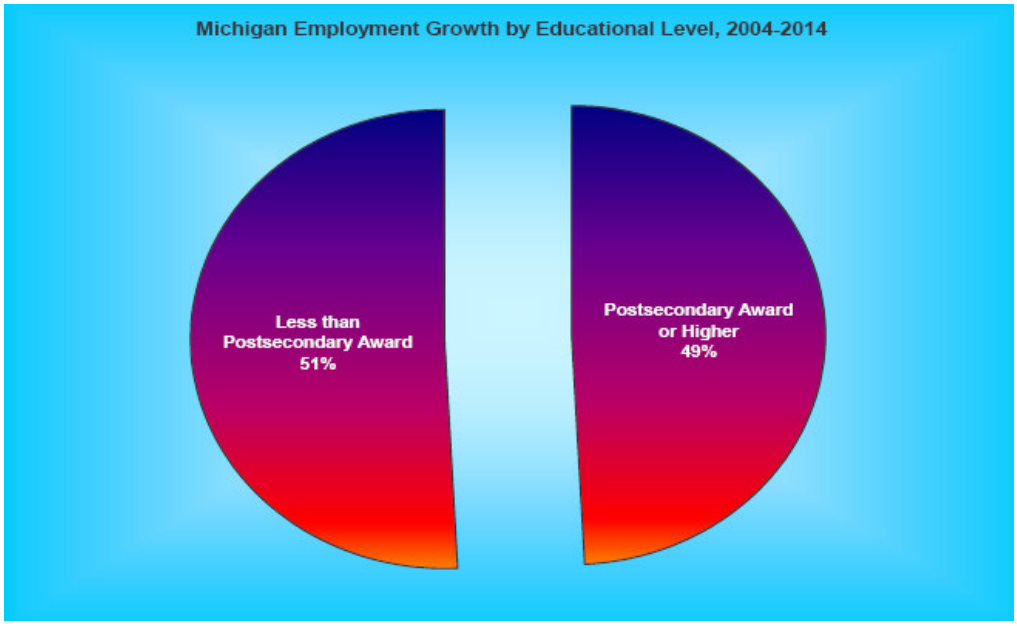


Figure 8 – Michigan Employment Growth Projections – *(source: Michigan Labor Market Information -www.milmi.org)*

Despite stronger graduation requirements, some employers are still having difficulty finding the employees that fit their job skill needs. One initiative meant to better match jobseekers with potential employers is the National Career Readiness Certificate (NCRC) workforce

credentialing program, backed by ACT, the standardized achievement examination administrator for college admission (National Career, 2008). Rather than measuring job-specific knowledge, NCRC uses examinations to measure base skills – enabling an employer to determine whether a job applicant could be easily trained for a specific job (The New Exit Exam, 2008). Students can hone these basic skills to become more marketable hires without trying to predict in which specific industry sector they will eventually be employed.

Certificate	WorkKeys Scores
Gold	5s and above
Silver	4s and above
Bronze	3s and above

Figure 9 - National Career Readiness Certificate Levels –
(source: http://www.act.org/certificate/)

The National Career Readiness Certificate has been embraced by 16 states since 2004, and many intermediate school districts are now requiring all graduates to complete the examination (The New Exit Exam, 2008). The tests measure competency in three categories: Applied Mathematics, Locating Information, and Reading for Information. Test takers are awarded a gold, silver, or bronze certificate in each of the three categories. Economic development officials see the NCRC initiative as a way to measure regional workforce abilities – a new tactic for attracting employers to invest in their communities (see Figure 9).

Conclusion

Michigan is in the midst of a major transformation from an industrial economy dependant on the automotive industry and traditional manufacturing, to one that is more diverse, and knowledge-based. Manufacturing will continue to be a significant player in the Michigan economy, but it will continue to transform into a more advanced field. Young Michigan jobseekers will likely be in higher demand as top-heavy industries shed retirement age workers, and service sector

demand grows to accommodate the needs of those same retirees. The 21st century economy will require more specialized knowledge and basic skills than ever before. We must prepare our children; Michigan's future depends on it.

SUMMARY AND DISCUSSION

This report identified some very important issues that the State and its residents face in the future when solving Michigan's economic issues. By examining Michigan's economic history and analyzing economic trends within the State such as employment, wages, and manufacturing and retail sales, along with analyzing trends in housing prices, purchases, and foreclosures, this report notes the following key areas of concern:

- ✓ While the majority of the nation recovered from the 2001 United States recession, the State of Michigan never has
- ✓ While the national unemployment rate has dropped and stayed below five-percent since 2005, the State of Michigan's unemployment rate has remained at approximately seven-percent for the last five years
- ✓ Michigan's employment rate peaked in May of 2000. Since then, the State has lost approximately 490,000 jobs
- ✓ The southeast (Detroit-area) side of Michigan has accounted for 60 percent of the jobs lost in Michigan since May of 2000 with manufacturing accounting for 68 percent of the loss in jobs. This when considering only 14 percent of the jobs in Michigan are manufacturing jobs
- ✓ Automobile manufacturing jobs have grown significantly in the southern portion of the United States. While the Midwest has seen slow growth in automobile manufacturing jobs since 2002, southern states such as Alabama, Louisiana, and Mississippi have seen a tripling and doubling of automobile jobs respectively

- ✓ Blue-collar wages in southeast Michigan are 25 percent higher than those of Blue-collar wages in southwest Michigan. Of note is that average Blue-collar wages in southeast Michigan are 42 percent higher than those in Birmingham, Alabama
- ✓ During 2006, wages in southeast Michigan began to grow at a rate slower than inflation whereas wages in the rest of country continued to grow faster than the rate of inflation until the end of 2007
- ✓ From 2001 to 2006, hiring in retail sales have deteriorated and have since remained flat. This is attributed to the slump in manufacturing sector
- ✓ From April of 2007 to April of 2008, the State of Michigan lost 72,000 jobs with 70 percent of those losses coming from the manufacturing sector and 80 percent of the manufacturing jobs specifically lost in transportation equipment manufacturing areas
- ✓ The only sectors to see job increases from April 2007 to April 2008 were the Professional/Business Services and Health/Education areas
- ✓ From April 2007 to April 2008, southeast Michigan (Detroit-area) has seen job losses across the board in all sectors except Healthcare/Education while southwest Michigan (Grand Rapids-area) has experienced gains in many sectors that nearly offset the loses in employment
- ✓ When comparing Michigan's sectors of employment between 2006 and 2007, the service economy contributed the most to increases in Personal Income with Professional Services and Health/Education adding seven billion dollars to Personal Income overall

- ✓ Southwest Michigan (Grand Rapids-area) will adjust easier to the new Michigan economy due to its minimal dependence on the automobile sector, whereas southeast Michigan (Detroit-area) will struggle for some time adjusting to the new economy
- ✓ Between 2005 and 2006 home foreclosures in Michigan grew more than 125 percent with the rate slowing to 25 percent from the first quarter of 2007 to the first quarter of 2008
- ✓ Home prices began to drop at the start of the Michigan foreclosure crisis in 2006 resulting in 2008 homes priced at 2000/2001 levels
- ✓ When comparing appreciation values, for every $100,000 spent on the average house in the United States in 2000, that same quality house would be worth close to $160,000 in 2007. However, that same house would have been worth only $110,000 in Michigan
- ✓ While slow to recovery, Michigan is seeing a slowdown in the number of foreclosures and overall housing slump. However, until the southeast side of Michigan (Detroit-area) retools its automobile manufacturing sectors, wages will continue to fall and thus hinder new home purchase abilities
- ✓ Michigan's population growth will remain stagnate or decrease if the job market doesn't improve and therefore limit the ability of Michigan realtors to sell single family homes
- ✓ Michigan's automobile manufacturing sectors have begun retooling with shifts in production to more fuel-efficient vehicles
- ✓ Alternative energy is a policy priority to reduce energy supply costs. Solar, Wind, Bio-fuels, and technology such as Integrated Gasification Combined Cycle (IGCC) are all

under consideration as methods of generating new energy supplies that are environmental friendly

- ✓ Advanced manufacturing jobs will begin to replace traditional manufacturing jobs with decreases in the number of employees hired and higher job skill requirements for those hired
- ✓ Retail Salespersons and Registered Nurses are considered the top two occupations that will see significant job openings from 2004 to 2014. Thus, a reminder that Michigan's economy may shift more toward the service sector and health professions

What can the Western Wayne Oakland County Association of Realtors learn from these findings?

First, Michigan's economy is changing at a slow rate due to the retooling and transitioning from years of traditional manufacturing sector practices and policies. Therefore any upswings in the economy may be short-lived or non-existent for some time. This is especially true with regard to the southeast side (Detroit-area) of the State. Until new jobs are created through emerging sectors such as Professional Services/Health Care/Education, State Legislators and the Governor must decide whether or not to facilitate these emerging sectors with positive economic development legislation and policies and whether or not to encourage and nurture entrepreneurship in areas such as alternative energy. The new automobile manufacturing industry will employ fewer people with higher level job skills. Therefore, WWOCAR's Member-clients consisting of a base of traditional automotive workers will shift to a more contemporary base of automobile workers who are higher-skilled and higher-paid. Furthermore, WWOCAR should prepare for new home buyers employed in Professional Services, Healthcare/Education sectors, which represent two of the fastest growing areas of the economy. These industry sectors will

consist of new home buyers and may require new ways of financing new home purchases.

Second, Michigan's economy is not going to rejuvenate until more jobs are created and more people move to the State. Michigan has suffered significant job losses with relatively little job creation to offset those job losses. The southeast side of the State (Detroit-Warren-Livonia) has been hit particularly hard and therefore job creation is an important start to rejuvenating the southeast Michigan-area economy. Advocating for new jobs within the State, particularly with regard to the southeast side of the State, is important because many of the job losses are in WWOCAR's backyard. WWOCAR, through its Board and Government Affairs Department should consider meeting with business leaders and organizations from various industry sectors identified in this report and establish a dialogue to facilitate new business development in Michigan. WWOCAR has a significant stake in rejuvenating Michigan's economy. Without jobs there are no people, and without people there are no home buyers.

Third, with wages remaining below the rate of inflation and reduced to make the State of Michigan more competitive, WWOCAR can expect prospective home buyers to find it difficult to finance the purchase of a new home. Therefore, WWOCAR must consider how to facilitate the purchase of a new home and perhaps generate suggestions for less expensive housing options.

Fourth, while Michigan has seen its foreclosure rate fall somewhat when compared to the United States overall, WWOCAR must address the issue of housing prices and their inability to rise as the economy remains in a slump. While artificially lower home prices are great for home buyers, they are not reflective of the true market value. Therefore, revenues generated from property taxes to support local government services will remain volatile for local governments seeking revenue to support local government services such as police and fire protection. There are simply

not enough people migrating to Michigan for work which leaves houses vacant and sales tough for realtors.

In summary, WWOCAR has a significant stake in the rejuvenation of Michigan's economy. Given southeast Michigan (WWOCAR's backyard) has been the hardest hit during the State's economic crisis, WWOCAR's Members will need to focus on identifying prospective home buyers from emerging sectors within Michigan's economy (Professional Services, Healthcare, Education, and Alternative Energy). However, without legislative and regulatory support for these sectors by the Governor and State Legislature, many economic development opportunities in these areas may be lost. The State of Michigan needs to encourage entrepreneurship, new business development, and create an economic environment friendly to innovation and business opportunities. The future of Michigan's economy rests in the hands of its people through various organizations such as WWOCAR, therefore it is important that WWOCAR establish itself as a voice for its Members and Member clients in promoting a positive and proactive economic development agenda for the State of Michigan

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APPENDIX

WESTERN WAYNE OAKLAND COUNTY ASSOCIATION OF REALITORS (WWOCAR) RESEARCH REPORT TEAM

ECONOMIC REPORT TEAM:

Dr. Chris Petras is a political/public policy consultant and has served as an Adjunct/Visiting Professor at Michigan universities including Western Michigan University, Central Michigan University, and Grand Valley State University. His specialization and work in the area of public policy includes program development and appropriations in the areas of transportation (road\bridge and highway funding), education, public safety, healthcare, and energy policy. Dr. Petras has served as Project Manager for public policy projects including the development of integrated technology programs for local governments and the assessment of energy policy with suggested advocacy strategy (all receiving newspaper and television news coverage). In addition, Dr. Petras has advised local governments on new business recruitment recommendations for economic development projects nationally. Dr. Petras is Executive Producer of "The Political Update" television news show that profiles policy decision-makers such as Members of Congress, U.S. Ambassadors, and State Legislators on their insights and thoughts on current policy issues impacting the State of Michigan and nation overall. Dr. Petras has also managed and/or advised the campaigns of successfully elected officials in Michigan.

Dr. Paul Isely is an Associate Professor of Economics in the Seidman College of Business at Grand Valley State University. Dr. Isely teaches economics courses specializing in environmental economics, business cycles and growth, and statistical modeling using housing data. He has published several articles and reports focusing on areas such as West Michigan's economy and relationship to the national and State economy and renewable energy sources and traditional energy. Dr. Isely has also researched and published on the topic of business and government relations.

Chelsey Foster serves as Project Manager for Greater Gratiot Development, Inc. His areas of specialization include collaborative economic development with an emphasis on rural economies. Mr. Foster is a Certified Economic Development Finance Professional through the National Development Council. He has managed large grant projects (over $200,000) which have result in over $10 million in private investment to create and retain over 200 jobs in Central-rural Michigan.

Heidi McIvor is a business/entrepreneurship and hotel/tourism consultant. She has advised various national and international businesses including a lobbying firm on business issues such as increasing market exposure, positioning in the market place and preparing many business plans. Ms. McIvor's international experience includes teaching English in Seoul, South Korea to business executives and working for a premier hotel located in Guam and representing them at an international trade show in Japan.