MICHIGAN'S TRANSITION TO A KNOWLEDGE-BASED ECONOMY:
FOURTH ANNUAL PROGRESS REPORT
Executive Summary

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MICHIGAN FUTURE INC.
Helping create a prosperous Michigan

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This is Michigan Future's fourth annual report on Michigan's transition to a knowledge-based economy. How well Michigan does in this transition will, in large part, determine whether we get more prosperous or poorer. As we detailed in our A New Agenda for a New Michigan report, making this transition is now the most reliable path to prosperity.

(This complete report and appendices, the New Agenda report and the related A New Path to Prosperity? reports are available at www.michiganfuture.org)

While much of our focus is on the period from 2000-2009, for which there is detailed data, to get a sense of what has happened to the economy since the onset of the Great Recession we looked at less-precise data through May 2011. What we found is stunning. The trends that we have written about in our previous reports have accelerated in the downturn.

From the recession's start in December 2007 through May 2011, job losses in low-education attainment industries (primarily manufacturing, construction, retail, hospitality and temporary services) totaled 6,439,000 compared with a loss of 546,000 in high-education attainment industries. The low-education attainment industries nationally have had employment losses of more than 9 percent since the recession began compared to less than 1 percent in the high-education attainment industries.

Using the same database, we looked at the long-term trend. Nationally from January 1990 (also a recession year) to May 2011 low-education attainment industries employment rose 7 percent compared to 36 percent in the high-education attainment industries. So for two decades – whether the nation's economy is expanding or contracting – the American economy has been going through a profound structural transformation from an industrial to a knowledge-based economy. We are confident that long term, knowledge-based industries will continue to be where job growth is the strongest and average wages are the highest.

The inescapable conclusion is that what made Michigan prosperous in the past won't in the future. The knowledge-based economy is now the path to prosperity for Michigan.

There are some hard truths that Michiganians needs to confront:

• Michigan's prosperity last century was built primarily on good-paying, low-skill jobs. Those jobs are gone forever.

• The auto industry will never again be the major engine of prosperity in Michigan. It will be substantially smaller, employ far fewer and will pay its workers less with fewer benefits.

•The decline in autos is part of an irreversible new reality that manufacturing (work done in factories) is no longer a sustainable source of high-paid jobs. Nor is it a source of future job growth. Manufacturing makes up only 9 percent of the American workforce today. So whether it's traditional Michigan industries like autos and furniture, or new industries like alternative energy, factory jobs will not be a source of many new high-paid jobs for Michiganians.

• The other industries that are often seen as drivers of the Michigan economy – farming and tourism – are also not a source of substantial numbers of good-paying jobs. Less than 2 percent of Michiganians work on a farm and, on average, it is not high-paying industry. And tourism, although a likely source of job growth, is also a low-wage industry.

To be clear, we are not advocating that Michigan abandon these industries. They are and will be important parts of the Michigan economy, especially in rural communities, and as such deserve support. But they are not a path to high prosperity or a broad middle class. If the Michigan economy of the future is built on a base of factories, farms and tourism, we will be a low-prosperity state.

The world has changed fundamentally. We either adjust to the changes or we will continue to get poorer compared to the nation. As the data in this report makes clear, the new path to prosperity is the broad knowledge-based economy.

Obviously the Michigan economy has been dreadful for a decade, having recorded an unprecedented 10 consecutive years of job losses. The state is at the bottom of the national rankings in both employment and per capita income growth. This is largely because of the near collapse of the domestic auto industry – the engine that has driven the Michigan economy.

What we are working on at Michigan Future is what comes next. Our focus is on identifying a path to better position Michigan to succeed in the flattening world economy of the future – a path that will return Michigan to high prosperity, measured by per capita income consistently above the national average in both national economic expansions and contractions.

We collected data for the U.S., states and the 55 metropolitan areas with population of 1 million or more plus Lansing and Madison. We found that almost all states with the highest per capita income:

- Are over-concentrated compared to the nation in the proportion of wages coming from knowledge-based industries;
- Have a high proportion of adults with a four-year degree or more;
- Have a big metropolitan area with even higher per capita income than the state;
- And, in that big metropolitan area, the largest city has a high proportion of its residents with a four-year degree or more.

More specifically we found:

1. The pattern is the larger the metropolitan area, the higher the per capita income and the greater the concentration in both knowledge-based industries and college-educated adults. Maybe most surprising is that the largest metropolitan areas not only have the highest proportion of households with incomes of $75,000 or more, but also the smallest proportion of households with incomes under $25,000.

2. The pattern that we found in our previous reports that high-prosperity states have big metropolitan areas with even higher per capita income holds true. Except for Wyoming and Alaska, each of the top 10 states in per capita income includes at least one of the top 10 metropolitan areas.

So metropolitan Detroit and, to lesser degree, metropolitan Grand Rapids and metropolitan Lansing are the main drivers of a prosperous Michigan. In fact, it is hard to imagine a high-prosperity Michigan without an even higher-prosperity metropolitan Detroit.

3. It is the broad-based knowledge economy where most of the good-paying job growth is occurring in the American economy. High-education attainment industries in 2009 were 46 percent of national employment and 60 percent of the wages earned by American workers. The average wage in these industries is nearly $60,000 as compared to just above $33,000 in all other industries. Most importantly, high-education attainment industries were the only part of the economy to add jobs in America from 2001-2009. Those industries had job growth of nearly 6 percent, while low-education attainment industries experienced job loss of 6 percent.

4. Employment nationally in the high-education attainment industries is highly diversified across the economy. These industries are not narrowly focused in industries commercializing new technologies. They are concentrated in, but not limited to, five broad sectors of the economy: information; finance and insurance; professional and technical services (including management of companies); health care and education. In fact, health care and education, which dominated job growth from 2001 to 2009, account for about 42 of the employment in high-education attainment industries.

5. Our basic conclusion: What most distinguishes successful areas from Michigan is their concentrations of talent, where talent is defined as a combination of knowledge, creativity and entrepreneurship. Quite simply, in a flattening world, the places with the greatest concentrations of talent win. States and regions without concentrations of talent will have great difficulty retaining or attracting knowledge-based enterprises. They are not likely to be the place where new knowledge-based enterprises are created.

6. Michigan and its largest metropolitan areas are lagging in the transition to a knowledge-based economy. In 2009 Michigan ranked 37th in per capita income, an unprecedented drop of 19 places in a relatively short nine-year period. It ranked 30th in the share of wages from knowledge-based industries and 36th in proportion of adults with a bachelor's degree or more.

In 2009, metro Detroit ranked 41st in per capita income of the 55 metropolitan areas with populations of 1 million or more. It ranked 31st in knowledge-based industries concentration and 39th in college attainment. Metro Grand Rapids lagged even more. It ranked 54th in per capita income, 54th in knowledge-based industries concentration and 44th in college attainment. The story is basically the same for the Lansing region, which substantially trails metropolitan Madison, Wisconsin on most of our metrics.

Our best guess is that unless we substantially increase the proportion of college-educated adults – particularly in our biggest metropolitan areas – Michigan will continue to be a low-prosperity state.

7. Behind the headlines of continuous job loss, the national pattern holds true in Michigan: high-education attainment industries doing much better than low-education attainment industries. From 2001-2009 Michigan's low-education attainment industries experienced employment losses of an astonishing 23 percent. The high-education attainment industries experienced employment declines of far less, 5 percent. Michigan's high-education attainment industries decline is attributable, in large part, to the job losses in the knowledge-based portion of the automotive industry.

8. Michigan is no longer a high wage state. Historically Michigan has had high average wages in low-education attainment industries. Higher wages have been widely viewed as a competitive disadvantage for Michigan in retaining manufacturing jobs. In a big change, Michigan's average wages in low education attainment industries in 2009 has fallen to the around the national average. In the knowledge-based sectors of the economy – where most of the job growth and good-paying jobs are – Michigan has a lower average wage than the nation.

9. New to the report is data on the components that make up per capita income for the nation, states and big metros. The findings are both surprising and worrisome. Nationally employment earnings account for 72 percent of the country's personal income. Non-natural resources private sector employment earnings are 58 percent of personal income. Transfer payments are nearly 18 percent. And if you combine transfer payments and government employment earnings, you find that 31 percent of national personal income is paid for with government revenue.

When it comes to real growth from 1989 to 2009, transfer payments have been a major source of real personal income growth over the past two decades—up nearly 40 percent, nearly as large as the 45 percent growth in private sector employment earnings growth.

The Michigan data is quite troubling. Employment earnings account for 70 percent of Michigan's personal income. Non-natural resources private sector employment earnings are 57 percent of the state's personal income. Transfer payments are more than 22 percent. And if you combine transfer payments and government employment earnings, you find nearly 38 percent of Michigan's personal income is paid for with government revenue.

Most worrisome is the growth data. For two decades, the only personal income growth in Michigan came from components paid for with government revenue, overwhelmingly transfer payments. Real private sector employment earnings actually declined. Transfer payments account for 94 percent of Michigan's personal income growth from 1989-2009. For metro Detroit transfer payments are 99 percent of the growth, in metro Grand Rapids 81 percent and metro Lansing 70 percent.

To us there are two clear message from the data we have just reviewed. (1) For Michigan to return to prosperity it must focus on accelerating employment earnings, particularly form the private sector. And (2) to accomplish that the key ingredient is talent. Quite simply, in a flattening world, economic development priority one is to prepare, retain and attract talent.

Michigan has lagged in its support of the assets necessary to develop the knowledge-based economy at the needed scale. Building that economy is going to take a long time and require fundamental change. But we believe it is the only reliable path to regain high prosperity. The choice we face is do we do what is required to build those assets or do we accept being a low prosperity state?

There are no quick fixes. The Michigan economy is going to continue to lag the nation for the foreseeable future. But there is a path back to high prosperity. As laid out in the New Agenda report our framework for action is:

• Build a culture aligned with (rather than resisting) the realities of a flattening world. We need to place far higher value on learning, an entrepreneurial spirit and being welcoming to all.

- Creating places where talent – particularly mobile young talent – wants to live. This means expanded public investments in quality of place with an emphasis on vibrant central city neighborhoods.

- Ensuring the long-term success of a vibrant and agile higher-education system. This requires a renewed commitment to public investments in higher education – particularly the major research universities.

- Transforming teaching and learning so that it is aligned with the realities of a flattening world.

- Developing new private and public sector leadership that has moved beyond both a desire to recreate the old economy as well as the old fights. Michigan needs leadership that is clearly focused, at both the state and regional level, on preparing, retaining and attracting talent.