MICHIGAN'S TRANSITION TO A KNOWLEDGE-BASED ECONOMY:
SECOND ANNUAL PROGRESS REPORT
EXECUTIVE SUMMARY

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This is Michigan Future's second 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 New Agenda for a New Michigan report, making this transition is now the most reliable path to prosperity.

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

This report covers the period from 2001-2007. It provides a complete picture of the entire national economic expansion, from the trough in 2001 through the peak in 2007. Obviously the economy has changed a great deal since 2007, from expansion to likely the most severe downturn since the Great Depression. When the next expansion begins two of the most important drivers of this expansion almost certainly will not be repeated: the housing bubble and highly leveraged financial services.

That, of course, raises the question "how relevant is the experience from 2001-2007 to the nation and Michigan of today and tomorrow?". Michigan Future will track the answer in detail in future annual reports. But to get a sense of where the economy is going in this downturn we looked at national data from the Bureau of Labor Statistics.

What we found is stunning. The trends that we have written about in our previous reports have accelerated in the downturn. From when the recession began in December 2007 through January 2009, low education attainment industries (primarily manufacturing, construction, retail and hospitality) have suffered job losses of 3,735,000, while the high education attainment industries have added 163,000 jobs. (High education attainment industries didn't peak until August 2008 and have since lost 247,000 jobs.)

Using the same data base, we looked at the long term trend. From January 1990 (also a recession year) to January 2009 low education attainment industries employment rose 15.7percent compared to 32.4 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 when the current severe downturn ends knowledge-based industries will continue to be where job growth is the strongest and average wages are the highest.

What made Michigan prosperous in the past is no longer a path to prosperity. **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. If – and it's a big if – the domestic auto industry survives the current downtown, 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 about 10 percent of the American workforce today and is declining. Its average wage nationally is about $35,000. Michigan factory work in the future will pay around the national average. 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 new high paid jobs for Michiganians.

• The other industries that are widely believed to be drivers of the Michigan economy – farming and tourism – are also not a source of lots of good-paying jobs. Less than two percent of Michiganians work on a farm and on average is not high paying. And tourism, although a likely source of job growth, is a very 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 this decade. An unprecedented eight consecutive years of job losses. At the bottom of the national rankings in both employment and per capita income. This is largely because the engine that still drives the Michigan economy is the troubled domestic auto industry.

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 states and the 54 metropolitan areas with population of one 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 (those where more than 30% of workers have a four-year degree or more)

- 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. Big metros are winning! 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, each

of the top ten states in per capita income includes at least one of the top ten metropolitan areas.

So metropolitan Detroit and metropolitan Grand Rapids and, to a far lesser degree, 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 2007 were 44 percent of national employment and 58 percent of the wages earned by American workers. The average wage in these industries is nearly $59,000 as compared to nearly $33,000 in all other industries. Most importantly, high education attainment industries accounted for 60 percent of the job growth in America from 2001-2007.

4.   Employment nationally in the high education attainment industries are highly diversified across the economy. They 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 during the 2001-2007 expansion, account for nearly 40 percent 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, nor are they likely to be the place where new knowledge-based enterprises are created.

6. Michigan and its largest metropolitan are lagging in the transition to a knowledge-based economy. In 2007 Michigan ranked 33rd in per capita income, an unprecedented drop of 17 places in a relatively short seven year period. It ranked 36th in the share of wages from knowledge-based industries and 34th in proportion of adults with a bachelors degree or more.

In 2007 metro Detroit ranked 25th in per capita income. Of 54 metropolitan areas with populations of one million or more the Detroit region ranked 37th in knowledge-based

industries concentration and 36th in college attainment. Metro Grand Rapids lagged even more. It ranked 51st in per capita income, 53rd in knowledge-based industries concentration and 44th in college attainment. The story is basically the same for the Lansing region which trails substantially metropolitan Madison 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 trend downwards in the per capita income rankings towards the bottom ten.

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 2001-2007 Michigan's low education attainment industries experienced employment losses of a nearly 11 percent. An unprecedented decline in a national expansion. The high education attainment industries experienced employment declines of just over one percent. That high education attainment industries declined is attributable to the job losses in the knowledge-based portion of the automotive industry.

To us the message from the data is that the key to economic growth 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 far more highly value 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. Which requires expanded 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. A leadership that is clearly focused, at both the state and regional level, on preparing, retaining and attracting talent.