

GLOBAL MIDWEST POLICY BRIEF

Ideas to ensure the Midwest's success in a global era

Michigan – The “Car Capital” as Crucible of Midwest Economic Transformation

by John C. Austin

Starting nearly forty years ago, the rise of the Sun Belt, new global markets, and foreign competition began to diminish the great manufacturing industries and communities of the Midwest. The term “Rust Belt” became a metaphor for the decline of the heartland’s industrial cities. This moniker hangs most vividly on the once-proud steel cities—Pittsburgh, Buffalo, Gary, Cleveland, and Youngstown. These cities, along with much of the region, were literally built by iron and steel—these industries created the iron in the bridges, rail yards, and factory behemoths that dot the Midwest landscape.

Yet trumping steel in terms of its contribution to the Midwestern economy and its iconic status in the American way of life, is the automobile. Today, as everyone knows, the domestic auto industry is in trouble, and with it, the Midwest—especially Detroit, Michigan, and the other regions that depend on it. But if cars and Detroit are the current metaphor for Midwestern collapse, they can also be the symbol for a Midwestern renaissance. Battered Motown has assets that can create a vibrant future, if it puts its past behind it. Within the wrinkled body of the auto industry are infant industries anxious to lead the way to the future. The brains, talent, and potential are there, if a little hard to see through the current

economic gloom. This policy brief will describe how we can get to this brighter future.

Motor City as Metaphor

The car industry was born in Michigan, and Detroit has long been shorthand for “car headquarters.” The car business directly or indirectly employed one in ten Americans at its peak, most in Michigan and the rest of the Midwest.

Yet changes over the last thirty years have had their impact on the industry: gas crises, climate change, growing “green” values, the hope for an energy revolution, new urbanism, global competition, the rebirth of cities, and the self-conscious rejection by many of the suburban ideal.

The last nine months has witnessed economic crisis, bailout pleas from two of the former “Big Three” automakers, (now culminating with government-sponsored bankruptcy proceedings for GM and Chrysler), the public pasting of auto execs and their corporate jets, the sacrifice of GM’s chief executive officer Rick Wagoner on the altar of “change,” even the unseating of venerable Michigan Congressman John Dingell by California’s Henry Waxman as chair of the powerful Energy Subcommittee. These events all telescope the story of Detroit over the last thirty

years: an inward-looking corporate culture that appeared resistant to change and retooled too late to undo the damage to its reputation. The aggressive resistance to fuel-economy improvements, climate change, and the “green” revolution continued until (again, too late!) the industry made a desperate bid to join the clean energy movement—politically in the form of a new embrace of renewable energy and substantively in the form of too-little, too-late product innovation such as domestic hybrids and the yet-to-be-born Chevy Volt, an extended range electric vehicle.

Tied up in this cultural and economic quandary are the lives of thousands of auto industry workers, hundreds of whom are losing their jobs every day. In 2008 the motor vehicle and parts industries employed 730,000 workers, and the “Detroit Three” were themselves responsible for employing over 230,000.¹ In Michigan alone, 57,000 workers are employed in auto assembly, with 130,000 employed in auto parts.

The economic and social fabric that built whole communities and supported generations in Michigan and the rest of the Midwest is fast unraveling. Even more galling to citizens of the region: The region’s basic utility is being questioned, mocked, and even vilified.

These hits to our reputation have ripple effects. When Detroit becomes, as it has in the last six months, a symbol of head-in-the-sand resistance to change, it freezes economic action. A Detroit corporate executive in an industry not related to autos told me recently, “No one wants to touch Detroit. We can’t raise any money.”

A region already seeing its best and brightest leave town can’t afford an economic story with the headline, “Fighting to Protect Autos from Change.” Michigan National Public Radio did a series recently titled “Careers beyond Cars” that bluntly revealed the values disconnect between the fathers of Detroit and the emerging generation. A young college graduate,

asked what she wanted in a career, wanted to be part of the solution: “I want to work on climate change and sustainability issues—I don’t think I can do that in Michigan.”

Careers beyond Cars

The irony is that the auto-reliant Midwest has what it takes to create careers beyond cars. Detroit’s car culture—and the civic, business, and political fealty to that culture—has largely masked or ignored attributes that are enablers of economic change: an underexploited innovation infrastructure in the form of unrivaled business and university research; globe-leading, talent-generating educational institutions; sophisticated technology and manufacturing competencies; and business management capacities. These assets are coupled with a truly breathtaking natural setting that can make it a potentially attractive location for mobile talent to live and work.

Obscured by the car are a robust array of research, discovery, and innovation centers of excellence, along with a critical mass of talent and emerging technologies upon which to build a post-“autos-as-we-know-them” economy.

One-third of all of the nation’s new intellectual property is created in the Great Lakes region. In this region, a rich base of corporate research and development centers—three in ten Fortune 1000 firms and their R&D centers are headquartered in the Midwest—interacts with the world’s leading research universities.

Twenty of the top one hundred research universities in the world are in the Midwest, more than any region in the country (or on earth!). Three of the best are in Michigan: the University of Michigan, Michigan State, and Wayne State University. These universities anchor a network of fifteen Michigan public universities that collectively win \$1.5 billion in competitive federal research dollars each year. These schools are centers of talent generation, new inventions, and ideas. With just over 3 percent of the nation’s population, Michigan produces 4 percent of all U.S. patents awarded each year. Its schools

¹ Center for Automotive Research (CARs).

produce 4.6 percent of the nation's engineering talent annually and punches above its weight in science, math, business management, medicine, and other disciplines central to economic growth.

These learning centers can drive new technology development in medicine, materials, information technology, energy, and transportation. Their work can have potentially huge spillover effects on local economies, drawing talent and creating new business opportunities. It is not surprising that communities like Ann Arbor, home to the University of Michigan, are rated among the top places to live by young professionals and retirees alike.

Opportunities for new growth in Michigan beyond the auto industry are real. By building upon an existing critical mass of public and private discovery, learning, and innovation, Michigan can excel in many emerging areas of economic activity.

The creative economy. In Motown, arts, media, design, architecture, music, and film are not only alive and well, but have historic roots. In fact, Greater Detroit is an economic hothouse in these areas. Of the fifty largest metro areas in the United States, Greater Detroit has the second-highest percentage of creative workers. It is sixth in the number of designers, ninth in the total number of artists in the labor force, and eighth nationally in total arts businesses.

Health, medicine, and bioscience. Michigan already has a concentration of health, medical, and bio/life sciences firms as well as large and numerous medical research and teaching institutions and medical/health-related service complexes. Despite the auto industry's dominant role, health care is Michigan's largest private-sector employer, providing over 515,700 direct jobs. Wayne State University, Michigan State University, and the University of Michigan are top-ranked health education and research centers, with the University of Michigan ranked among the top teaching hospitals in the country. Michigan's growing bioscience sector includes 540 bioscience companies, placing it thirteenth nationally in employment in bioscience-

related occupations (FY 2006).² And, the state enjoys a fast-growing share of bioscience R&D, ranking tenth in the United States. Michigan ranks eighth in higher education degrees awarded in bioscience fields. The combination of health-, medical-, and pharmaceutical-related research and innovation makes Detroit/Ann Arbor one of only three Midwest metro regions (joined by Chicago and St. Louis) that are among the top biotech research centers in the country.³

The "green" and "blue" sustainability sectors of the future. Michigan and the Midwest have the research and discovery infrastructure to develop the industries and systems of the future needed for the sustainable production and use of clean energy and for freshwater management. New battery storage and transport technologies are being developed at the University of Michigan. Michigan State University and Michigan Tech are developing new biofuels. New wind and solar energy production as well as component manufacturing and retrofitting (aided by new renewable portfolio standards) can provide thousands of new job opportunities and mark Michigan as a leader in clean energy technology.⁴

Water technology and tools to conserve, treat, measure, monitor, and smartly manage this precious, finite fuel for life are a growing \$500 billion global business. As Andrew Liveris, chief executive officer of Michigan-based Dow Chemical has said, "Water is the oil of the twenty-first century." Michigan and the rest of the Midwest are strategically located on the greatest freshwater laboratory on earth—the Great Lakes—with 90 percent of the world's fresh surface water. Innovation in water technology can have a far-reaching impact. China, with its 90-percent-polluted urban water supplies, is a market for new water conservation and retrieval technologies. So is Las

² All data from *MichBio—Summary of BioScience Performance Indicators*, 2008.

³ Cortwright and Mayer, *Signs of Life: the Growing Technology Centers in the US* (Brookings, 2002).

⁴ Hannah Adelaja and Yailu, *Projected Impacts of Renewable Portfolio Standards on Wind Industry Development in Michigan* (Land Policy Institute, 2007).

Vegas in the West and Georgia in the South, both of which are running out of water and wasting what they have.

Auto transformation. The auto industry's incredibly sophisticated set of manufacturing competencies and talent base can migrate to new product lines and entrepreneurial activity. The Michigan Economic Development Corporation (MEDC) recently identified 2,500 Michigan manufacturers larger than twenty-five employees that are largely auto-related. Many are at risk now, but other auto-related manufacturers can migrate to new product lines by learning the quality protocols, retooling, and building new supplier relationships in emerging areas such as energy components, nonauto transportation, defense and security applications, health and medical devices, and aerospace.

With the dramatic downsizing of the auto industry, talent is literally spilling out. Anecdotal reports from equipment makers as well as supplier outplacement and temporary employment firms suggest that thousands of engineers, designers, and IT professionals are in search of new careers and opportunities.

Many individuals in this pool of displaced talent could be supported with expanded entrepreneurial training, mentoring, network building, and assistance in new enterprise development. This could help unleash the intellectual property, technology, and skills that are currently embedded in auto making in new economic domains.

This picture of transition and change is familiar to other communities in the Midwest. Chicago long ago shed its meatpacking identity. Cleveland is known more today for medical innovations emerging from the Cleveland Clinic than for auto and steel making. Minneapolis is more a financial capital and medical-device center than flour-milling capital of the world—a label it once proudly wore. What's changed is that the product mix—a more diverse, knowledge-driven array of industries—has emerged to replace the single industries of the past.

Leveraging Michigan's Special Piece of Real Estate

Another latent opportunity is the Midwest's location on North America's "freshwater coast"—the 10,000-plus miles of Great Lakes shoreline, 3,200 miles of which are in Michigan. This Midwestern centerpiece is a fulcrum for economic development.

Location on the water was key to the region's development—when water was the means of transport to sell agricultural goods and raw materials to the world. Water also was a vital "input" into the great chemical, steel, paper, durable, and manufactured goods and autos produced in the Midwest.

In today's global economy, water matters less as a conduit for commerce or an exploitable resource than as an amenity. Water marks Michigan and the Great Lakes as a special place to live, work, play, and grow a business. Today's mobile knowledge workers who drive economic growth want to live near or on water that they can see, enjoy, and use for pleasure. Think of the attractive properties and consequent development along America's other great coasts—the West Coast, the Gulf Coast, and the Atlantic seaboard.

A recent Brookings Institution study of the economic impact of cleaning the Great Lakes put a solid dollar figure on this "magic." Follow-through on the \$25 billion Great Lakes Restoration Collaboration effort—by repairing areas of toxic concern and ensuring sewer systems can do their job so beaches are open—was a three-to-one payoff in terms of the jobs and economic gain for our region. The Detroit region alone stands to gain up to \$7 billion in economic benefits!

Embracing Globalization and the World

Michigan must embrace, not hide from globalization and the emerging world economy. Detroit, like its more successful sister cities Chicago and Toronto, must accelerate its movement towards a truly global future.

New people, ideas, relationships, and resources, encouraged by a global outlook, are central to growing the regional economy, increasing innovation and entrepreneurship, attracting new talent, and transforming an insular culture in Michigan. Michigan must lay the groundwork and make the connections to facilitate global commerce. It must also welcome immigrants and their ideas and talents to enrich the region.

Detroit's very existence is due to its location as a hub for global commerce, from its founding as a French trading post to its growth as a center of manufacturing. This history helped Detroit flourish once as a global integration center. Its future is conditioned on the degree to which it can reanimate itself as the global entrepôt.

The region is a major transit center, with global air connections at the North American juncture of freightways, railways, roadways, and waterways. Its location along key international transportation routes, combined with critical expertise in transport, can position the region as one of the great global supply-chain hubs. Yet much work remains to be done. While the Detroit region has the busiest border, it also has some of the most antiquated and substandard border-crossing infrastructure in North America. According to a 2007 study by the Brookings Institution, *The Vital Connection*, the largest binational trading relationship on earth (the \$500 billion annual U.S.–Canada trade) is disproportionately concentrated in southeast Michigan and reliant on the Detroit–Windsor and Port Huron–Sarnia crossings, the former of which is notoriously out of date.

Today, global economic integration is less about putting materials and products together and more about putting people and minds together. Michigan needs to awaken again to the economic power of new people, new ideas, and new talent.

Immigrants coming to Michigan are better educated and skilled than the general population.⁵ They are 50

⁵ Census Bureau: 5% PUMS File.

percent more likely to have a bachelor's degree or higher level of education. Thirty-seven percent of all immigrants in Michigan have such education, compared to only 25 percent of Michigan natives.

Immigrants to Michigan have been central to the growth and excellence of Michigan institutions and firms. Hospitals, universities, engineering firms, technology firms, biomedical research institutes, and other enterprises have relied upon immigrants. One-third of all new technology firms in Michigan were started by foreign-born immigrants⁶—the third-highest rate of immigrant high-tech startups in the nation.

Michigan: Recipe for Renewal

The collapse of the auto-based economy is real and painful, but the seeds for renewal are sown. Michigan's economic renewal requires the embrace of changes sweeping the world economy and polity.

- We must fuel the research, education, and discovery institutions for which Michigan is known and translate their discoveries into new products, enterprises, and entrepreneurship in Michigan.
- We must enhance the characteristics that make Michigan a special place to live and work by cleaning up the mess we made during our industrial era and exposing again the building blocks of a new “clean” economy: greenways, waterfronts, forests, clean lakes and streams, and less car-dependent development, including new rail and transit connections.
- We must not put our head in the sand, but open new doors to the world in trade, commerce, learning, exchange, and immigration.

⁶ Vivek Wadhwa, Master of Engineering Management Program, Duke University, and AnnaLee Saxenian, School of Information, U.C. Berkeley, “America's New Immigrant Entrepreneurs” (January 4, 2007).

To alter our reputation from “resisting” to “embracing” change, Michigan must become a leader in helping America meet its climate-change and energy challenges. This would, in turn, communicate a new attitude and sense of values about Detroit. Michigan can’t be so desperate to protect the great car economy of the past that we scare off the young people who want to work on the challenges of today and tomorrow.

This is not a zero-sum game of fighting over a shrinking economic pie, but a chance to bake a new pie, with spicier ingredients. It was done in the region once before, when immigrants from around the country and world worked together to remake Michigan and the Midwest.

About the Author

John Austin is the popularly elected vice-president of Michigan’s State Board of Education. He is also a nonresident senior fellow with the Brookings Institution, codirects their Great Lakes Economic Initiative, and wrote the Brookings report, “The Vital Center.” Mr. Austin is a member of the Global Midwest Initiative Steering Committee of The Chicago Council on Global Affairs.

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