MICHIGAN’S CRITICAL ASSETS
An Atlas for Regional Partnerships and Placemaking for Prosperity in the Global New Economy
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Introduction

OUR WORLD IS EVOLVING. THE BASIC ECONOMIC FRAMEWORK FOR THE PERFORMANCE OF PLACES HAS CHANGED DRASTICALLY.

Successful places in the past gained much of their strength through long-term accumulation of critical infrastructure that made them more competitive in the production of goods than other places, and much of their success emerged from their earlier comparative location advantages. They developed at locations with excellent access to raw agricultural and mineral materials (corn, wheat, timber, coal, bauxite, copper, etc.) and were located at strategic places with unique transportation/shipment access (on the Great Lakes, near deep-water harbors, on major rivers, and along major travel corridors). The Industrial Age allowed these places to blossom, making them the anchors of that era.

Capital and investments soon accumulated in these places to fund the development of manufacturing infrastructure. Production workers and skilled labor soon migrated to these places, creating a growth spiral that laid the basic foundation for decades of prosperity. Various types of social, economic, cultural and other infrastructure emerged, making these places even more relevant in the new industrial economy that propelled the U.S. into being one of the most prosperous countries in the world. The foundations laid down by earlier social and industrial visionaries and the underlying national framework of free enterprise became the global model. It also created a market and economic dynamic that supported the network of American communities, the successes of which centered around core industrial areas that carried the state and national economies.

With the expansion of the national transportation infrastructure (roads, highways, rail, ports, etc.), the reach of traditional production places expanded considerably following World War II. American metropolitan areas emerged as the powerhouses of the industrial economy. This economic-geographic model of place-performance and success carried the American economy through much of the 20th century. However, this old model began to wane toward the end of the century, as a new, more relevant model emerged out of technological advances in communications and information.

Emerging New Economy Framework for Place-Success

This industrial economic framework, considered new in the early 1900s, began to lose its luster by the late 1980s. Today, the industrial economy is now called the "Old Economy," in which place-success was based on accumulated labor, capital, raw material access, and associated management and market infrastructure. By contrast, the "New Economy" is based on a different set of fundamentals. The most important of which are its global reach and regional characteristics. What it takes for places to be successful has changed dramatically.

There are many contrasts between the Old Economy and the New Economy, particularly with respect to factors that drive success and prosperity:
While access to raw materials was a critical success factor in the Old Economy, in the New Economy, this is not necessarily so. Considering that significant value can be created by places that are well-positioned to produce new, high-value, knowledge-driven goods and services that are not necessarily natural resource exhaustive, place degradation is no longer necessary to build successful places. Indeed, while many historical production places were saddled by highly compromised and depleted environmental resources, many newly successful places also feature significant value-added environmental amenities for their residents.

While the accumulation of industrial machinery, equipment and capital were prominent features of successful places in the Old Economy, successful places are now emerging that are based on information and communications infrastructure and a strong base of knowledge accumulation.

While old successful industrial places had accumulated a significant pool of traditional skilled workers, new places are emerging where the critical essential feature of human capital is knowledge workers (people who have more than basic skills; and who leverage their creativity and imagination, not only their physical labor capabilities).

While old successful places featured well-defined traditional infrastructure (public service, transportation, roads, ports, etc.), new successful places are emerging that offer more quality-of-life assets (trail networks, parks, unique restaurants, leisure activities, etc.).

University and hospital towns are emerging as major attraction points for new economic activity. However, many traditional successful places created these assets as a result of their accumulated production capacity and stature, rather than as a deliberate economic development strategy.

Entrepreneurial and innovative capacity has become a critical element of success, in contrast to the past, when management capacity was more essential.

Places well connected to global markets now have better chances of success than places positioned to only serve local and national markets.

Social network capacity is increasingly more relevant and is spurring place-success, vis-à-vis rigid hierarchical organizational forms.

Places that can facilitate flexible production activities appear better positioned today than those geared up for mass production.

Digital, information and communications infrastructure are increasingly trumping mechanization infrastructure.

The Internet is rapidly becoming the basic port of export, import and inter-place economic trade—not traditional ports (transportation terminals, warehouses and retail outlets).

Economies of scale, a major source of competitive advantage in the past, may not be so relevant today. Innovation quality and economies of scope seem more relevant.

Successful companies today tend to be the most networked, in contrast to the past, when such firms tended to go it alone.

Places that offer a dynamic, and sometimes risky, labor market seem better positioned than places that offer secure employment.

The ability to create value is perhaps more relevant today than the ability to compete on the basis of low costs and low prices.

While low-tax locations attracted cost-conscious companies in the past, place-quality seems to be an increasingly important driver of business location choices.

Places that had stable, predictable and fixed socio-economic infrastructure fared well in the past, but places that promote dynamic interactions, flexibility, adaptability and responsiveness now seem to be better positioned for success.

The nature of governance required for successful places seems to be changing, with collaboration between government, business, industry, the philanthropic community, higher education and civic organizations now becoming a critical success factor. Government working alone cannot achieve the level of success that integrated collaboration now achieves.

In essence, the foundations of prosperity are changing.
The Changing Role of Assets and Emerging Critical Assets

The underlying framework for success today is the ability to leverage the inherent assets of a place, not necessarily to produce traditional goods, but to produce high-value goods and services that are not exclusively products of a manufacturing process. In today’s world, such places as Silicon Valley; North Carolina’s Research Triangle; Salt Lake City, UT; Boise, ID; Rochester, MN; and Morgantown, WV, have emerged as rapidly growing hubs of economic activity, based on new fundamentals that are not necessarily rooted in traditional production. Each offers a great quality of life, tremendous supply of amenities, a concentration of knowledge infrastructure, a culture of innovation and tolerance, a supportive climate for entrepreneurship, the capacity to spur new technology not necessarily related to traditional goods, a buoyant service economy, and global connectivity. If the accumulation of traditional capital, skilled labor, managerial capacity and access to raw materials were the essentials of old success, while possibly necessary for place-success, they are not sufficient for prosperity in the New Economy.

The emergence of the New Economy has been well-documented in several studies and reports (for additional background: Adelaja et al., 2009). So have its promises for places that understand how to build a strong foundation for this New Economy. The asset base of a place is even more critical today for success than in the past, but even more important is how those assets are aligned and leveraged in pursuing the economic and quality-of-life goals of a place. The foundation of place-success is, therefore, more dependent on a fundamental understanding of critical assets and the development of deliberate strategies to achieve the economic goals and purposes of a place. Because each place is now in competition with almost every other place across the globe, local leaders must better understand what exists in their regions so they can be better positioned with their asset portfolio.

Purpose of This Atlas

In addition to traditional basic assets required for success in the Old Economy, the development and leveraging of New Economy assets are important in order for places to thrive in the New Economy. These critical assets include the following:
The configuration of these assets in the context of a regional vision and goals, not their presence alone, is critical to success.

In the case of Michigan, many of these assets are abundant, while some are not. Policy makers and leaders need to be aware of what the asset bases are in their region in order to be able to successfully leverage those assets.

In this Atlas, we present the geography of critical assets in Michigan, in some cases contrasting these to other parts of the country. The idea is to offer decision makers the opportunity to understand the underlying resource base available for them to draw on in developing visions and strategies for regional economic development. Out of this Atlas comes a new understanding of the configuration of critical assets within the state of Michigan. It is immediately apparent from studying this Atlas that individual townships, villages and cities do not stand alone. But these places represent part of a regional economic engine, and do not possess, by themselves, the depth or breadth of assets to be globally competitive or visible, especially in the New Economy. New regions are emerging around the world that have a distinct persona, asset configuration, economic purpose, strategy, cultural identity and global connectivity—this is Michigan’s competition.

The observed configuration of Michigan’s critical assets inherently encourages better understanding of the geography of opportunities available to Michigan’s regions. It also encourages the realization that assets almost always do not respect or acknowledge governmental boundaries, and are clustered more naturally around hubs that provide the critical anchors of economic activity if well-positioned. The importance of a metropolitan area made up of one or more central cities, as well as contiguous townships, cities and villages, which are interconnected with rural communities that surround them, is critical to success in the New Economy. These metropolitan areas are the hub of a natural economic region and may have no relationship to county or state planning region boundaries. The alignment and configuration of critical assets and the clustering of these assets highlight the relevant natural economic regions that Michigan’s prosperity can be built on in the New Economy.
New Economic Geography of Place

IN THE OLD ECONOMY, INDUSTRIAL COMPLEXES WERE PEOPLE MAGNETS. ECONOMIC GROWTH STRATEGIES FOCUSED ON ATTRACTING MANUFACTURING-BASED INDUSTRIES. PLACES WITH CHEAP LAND, WILLING WORKERS, SOLID RAW MATERIAL BASE, LOW TAXES, AND SO FORTH, ATTRACTED LABOR-INTENSIVE COMPANIES, WHICH CREATED MANUFACTURING JOBS. POPULATION AND PROSPERITY FLOWED TO SUCH PLACES.

What Is Place?
According to Adelaja et al. (2010), Place (P) is the unique combination of assets of a given location, which provide it with a unique signature that defines its potential for success in the New Economy. Place, therefore, encompasses economic, social and environmental assets of a given location, which can be leveraged to attract prosperity. Place assets (or Place), therefore, determine the level of competitiveness of a given location, vis-à-vis others.

Typology of Place Assets
We provide the following typology of place assets based on the degree of mobility of those assets:

- Fixed Assets (FA) are those assets in a place or region that are inherently characteristic of Place and are not likely to change or be moved. A subset of Fixed Assets are inherently natural. Included in this category are such things as waterways, landscape, soil, topography and climate, which cannot be moved. We refer to these as Fixed Natural Assets (FNA). Also included in the FA category is a subset of built assets that are significant enough and have attained a degree of permanence that make them almost impossible to move. Such assets, which we refer to as Fixed Built Assets (FBA), include well-established universities, highways, long-standing government structures, major airports and ports.

- Quasi-Fixed Assets (QFA) are human-made improvements to the landscape, which do not rise to the level of permanence as with the former category. They include such assets as local roads, small airports, sewers, public water infrastructure, telecommunication infrastructure, parks, sidewalks and trails. They are quasi-fixed because they can be altered, improved on or removed, but only with significant effort and investment.

- Portable Assets (PA) are assets that are a function of the people and economic activities in a Place. These include such...
things as talent, creativity, knowledge, entrepreneurship and culture, which are often considered latent and have not historically been the target tools for economic development. In the New Economy, these are now key ingredients of success, as economic activity is increasingly more people-centric. As PAs are people-based, and people and their economic contributions have become more endogenous on the landscape, such assets can now move more freely around, as a result of place-quality differentials. As discussed above, they are increasingly aggregating in high-quality places.

**High-Quality Places**
Prosperity can be achieved in a combination of ways, including income growth opportunities (I), employment opportunities (E) and other elements of place-quality, which are inherently tied to place assets. A prosperous place in the New Economy is, therefore, one where the potentials for I and E are strong, and where FA, QFA and PA are of the mix that can spur dynamic improvement in all of these elements. This relationship is summarized in Equation 1:

\[
P = f(I, E, FA, QFA, PA)
\]

While assets are fundamental building blocks of prosperity, not all assets perform the same function in relation to growth in the New Economy. Quasi-Fixed Assets are a necessary precursor to highly successful places, but alone are not sufficient to define Place and drive prosperity. Quasi-Fixed Assets are an enabling...
condition for prosperity, as the types of QFA and their concentrations can largely determine whether the growth will be rooted in the New or the Old Economy, as the definition of Place is highly dependent on this asset class. Portable Assets are the sufficient condition for prosperity in the New Economy. The combination, concentration and mix of these classes are key to understanding the potential of a Place.

Our argument is that Portable Assets are increasingly motivated by place-success (Place). Simply put, they more freely move from low-quality places to high-quality places in the New Economy. A region can be improved to attract Portable Assets and to enhance the economic output of the region. This can create income and employment opportunities, which further enhances Place, attracts more Portable Assets, and the cycle repeats. (The cycle is shown in Figure 3.)

High-quality places or regions need to be sufficiently rich in assets to be visible on a global scale to truly become economic engines. The best-positioned places for economic success are, therefore, places where assets are well-aligned for sustainable growth. Assets do not necessarily follow governmental or other jurisdictional boundaries, although coherent inter-place government strategies can drive the performance of successful multi-jurisdictional places. To maximize the potential for success, effective partnerships between governments and other players in a region can create the foundations for a functional economic region.

Place in Michigan

Michigan faces a challenge in regard to its Place strategies. It is clear that both income growth and employment opportunities are in decline, despite Michigan’s strong base of Fixed Assets. While Michigan’s portfolio of Quasi-Fixed Assets positioned us well in the Old Economy, it is necessary but not sufficient for success in the New Economy. We believe that our Quasi-Fixed Assets can be improved sufficiently to attract Portable Assets. We also believe that a continued downward cycle in our Portable Assets can lead to further degradation of a Place, and prosperity is diminished. (See Figure 4.)

Michigan’s grand challenge can be summed up as follows: The Fixed Assets are by definition permanent; the strategies we can work to protect or enhance these assets largely entail restoration, preservation and, in some cases, expansion. It is the Quasi-Fixed Assets that can be retooled, rebuilt and expanded upon to better suit the New Economy and to attract talented knowledge workers. While this is exceedingly difficult given our current economic condition, we believe that these improvements are necessary.

Michigan’s Critical Assets

Michigan has abundant assets of all sorts. The key in understanding assets and their relationship to growth is teasing out the difference between assets that are present and assets that, with the right strategy, can catalyze growth. The latter are critical assets.

The emerging policy frameworks and economic growth strategies for place implementation require understanding of the context of where the national and global markets are going and understanding policy drivers. For Michigan, it means changing our thinking about economic development, community planning and regionalism. We need asset-based strategies, policy tools and incentives to implement economic development. This Atlas is meant to demonstrate the assets in Michigan as one of the tools for understanding our prosperity potential.

In the remainder of this Atlas, in addition to base features and assets, we present Michigan’s critical assets in the following order:

- Green infrastructure assets,
- Quality-of-life and amenity assets,
- Knowledge assets,
- Renewable energy assets and
- New Economy-readiness assets.

These assets are contrasted, in some cases, to asset clusters nationally. Patterns and insights are also offered that could be useful as Michigan’s stakeholders explore the potential for regional partnerships for economic development in the New Economy.
The Critical Assets Atlas Maps

About the Text Accompanying the Maps
The text in this Atlas is our interpretation of the maps as they relate to Michigan's current economic development needs. You may look at these maps and come to different conclusions as to their meaning and significance to Michigan's future economic development. We encourage you to study these maps and hope you find them informative.

How the Land Policy Institute Generated the Maps
The Land Policy Institute created the maps by using the Environmental Systems Research Institute's (ESRI) suite of spatial analysis and mapping software, including ArcMap and StreetMap USA. The Environmental Systems Research Institute is a leading developer of Geographic Information System (GIS) software and technology.

Reading the Maps
The circles on the maps in the following sections represent the concentration of the particular asset portrayed (e.g., “open space,” “eating places,” “brownfields,” “new business startups,” per community). The bigger the dot, the higher the concentration. The closeness of dots is determined by the community boundaries: Where they are large and overlapping, there exists a significant cluster. Where possible, the display is normalized as a fraction of the total within the state. Therefore, in many cases, circles indicate relative concentration of assets, not necessarily the magnitude of the asset base.