Michigan Competitiveness:
Creating an Economic Strategy in a Time of Austerity

Professor Michael E. Porter
Harvard Business School

Mackinac Policy Conference
June 2, 2011

For further materials on the competitiveness of states and regions: www.isc.hbs.edu/econ-statesregions.htm
For state economic profiles: www.isc.hbs.edu/stateprofiles.htm
The Economic Challenge for States in 2011

- Achieving Fiscal Stability
- Enhancing State Competitiveness
What is Competitiveness?

- Competitiveness is the **productivity** with which a state utilizes its human, capital, and natural endowments to create value.

- Productivity determines **wages, jobs, and the standard of living**.

- It is not **what** fields a state competes in that determines its prosperity, but **how productively** it competes.

- Businesses and government play **different but interrelated roles** in creating a productive economy:
  - Only **businesses** can create **jobs** and **wealth**.
  - **States** and **regions** compete to offer the **most productive environment** for business.
# Michigan Performance Scorecard

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Prosperity</strong></td>
<td>23</td>
<td>50</td>
<td>41 (-18)</td>
</tr>
<tr>
<td>GDP per Capita, 1999-2009</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Wages</strong></td>
<td>10</td>
<td>50</td>
<td>17 (-7)</td>
</tr>
<tr>
<td>Average Private Wage, 1998-2008</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Labor Productivity</strong></td>
<td>24</td>
<td>50</td>
<td>42 (-18)</td>
</tr>
<tr>
<td>GDP per Worker, 1999-2009</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Job Creation</strong></td>
<td>27</td>
<td>46</td>
<td>48 (-21)</td>
</tr>
<tr>
<td><strong>Labor Mobilization</strong></td>
<td>26</td>
<td>49</td>
<td>43 (-17)</td>
</tr>
<tr>
<td>Labor Participation Rate, 1999-2010</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>New Business Formation</strong></td>
<td>27</td>
<td>40</td>
<td>43 (-16)</td>
</tr>
<tr>
<td><strong>Innovation</strong></td>
<td>11</td>
<td>14</td>
<td>10 (+1)</td>
</tr>
<tr>
<td>Patents per Employee, 1999-2009</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Cluster Strength</strong></td>
<td>18</td>
<td>42</td>
<td>27 (-9)</td>
</tr>
<tr>
<td>Employment in Strong Clusters, 1998-2008</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Leading Clusters</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Automotive</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Metal Manufacturing</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Plastics</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Production Technology</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Biopharmaceuticals</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*State Rank: 21-30*  *1-10*  *31-40*  *11-20*  *41-50*
Comparative State Innovation Performance 1999 - 2009

U.S. average Growth Rate of Patenting: -0.30%

High and declining innovation

High and improving innovation rate versus U.S.

Low and declining innovation

Low and improving innovation


Copyright © 2011 Professor Michael E. Porter
Why?
What Drives State Productivity?

1. Quality of the Overall Business Environment
2. Cluster Development
3. Policy Coordination among Multiple Levels of Geography/Government
Quality of the Overall Business Environment

Context for Firm Strategy and Rivalry

**Factors (Input) Conditions**

- Demand Conditions
  - Sophisticated and demanding local needs and customers
    - e.g., Strict quality, safety, and environmental standards
    - Consumer protection laws
    - Government procurement of advanced technology
    - Early demand for products and services

- Related and Supporting Industries
  - Local availability of suppliers and supporting industries

- **Rules and incentives** that encourage local competition, investment and productivity
  - e.g., tax policy that encourages investment and R&D
  - Flexible labor policies
  - Intellectual property protection
  - Antitrust enforcement

Access to high quality business inputs
- Human resources
- Capital access
- Physical infrastructure
- Administrative processes (e.g., permitting, regulatory efficiency)
- Scientific and technological infrastructure

- Many things matter for competitiveness
- Economic development is the process of improving the business environment to enable companies to compete in increasingly sophisticated ways
Improving the Business Environment

Action Items

1. Simplify and speed up regulation and permitting

2. Reduce unnecessary costs of doing business

3. Establish training programs that are aligned with the needs of the state’s businesses

4. Focus infrastructure investments on the most leveraged areas for productivity and economic growth

5. Design all policies to support emerging growth companies

6. Protect and enhance the state’s higher education and research institutions

7. Relentlessly improve the public education system, the essential foundation for productivity in the long run
Why?
What Drives State Productivity?

1. Quality of the Overall Business Environment
2. Cluster Development
3. Policy Coordination among Multiple Levels of Geography/Government
What is a Cluster?

A geographically concentrated group of interconnected companies and associated institutions in a particular field

Traded Clusters
- Compete to serve national and international markets
- Can locate anywhere

Local Clusters
- Serve almost exclusively the local market
- Not exposed to cross-regional competition
Example: Massachusetts Life Sciences Cluster

Cluster Organizations
MassMedic, MassBio, others

Specialized Business Services
Banking, Accounting, Legal

Specialized Risk Capital
VC Firms, Angel Networks

Specialized Research Service Providers
Laboratory, Clinical Testing

Educational Institutions
Harvard, MIT, Tufts, Boston University, UMass

Health and Beauty Products

Surgical Instruments and Suppliers

Medical Equipment

Dental Instruments and Suppliers

Ophthalmic Goods

Diagnostic Substances

Containers

Teaching and Specialized Hospitals

Biological Products

Biopharmaceutical Products

Research Organizations

Analytical Instruments Cluster
Example: Houston Oil and Gas Cluster

Upstream

- Oil & Natural Gas Exploration & Development
  (e.g., Oil Field Chemicals, Drilling Rigs, Drill Tools)

- Oil & Natural Gas Completion & Production

- Specialized Technology Services
  (e.g., Drilling Consultants, Reservoir Services, Laboratory Analysis)

- Subcontractors
  (e.g., Surveying, Mud Logging, Maintenance Services)

- Oilfield Services/Engineering & Contracting Firms

- Business Services
  (e.g., MIS Services, Technology Licenses, Risk Management)

- Specialized Institutions
  (e.g., Academic Institutions, Training Centers, Industry Associations)

Downstream

- Oil Transportation
- Oil Trading
- Oil Refining
- Oil Distribution
- Oil Wholesale Marketing
- Oil Retail Marketing
- Gas Gathering
- Gas Processing
- Gas Trading
- Gas Transmission
- Gas Distribution
- Gas Marketing

Oil & Natural Gas
Exploration & Development

Oil & Natural Gas
Completion & Production

Specialized Technology Services
(e.g., Drilling Consultants, Reservoir Services, Laboratory Analysis)

Subcontractors
(e.g., Surveying, Mud Logging, Maintenance Services)

Business Services
(e.g., MIS Services, Technology Licenses, Risk Management)

Specialized Institutions
(e.g., Academic Institutions, Training Centers, Industry Associations)

Equipment Suppliers
(e.g., Oil Field Chemicals, Drilling Rigs, Drill Tools)
Strong Clusters Drive Regional Performance

- Specialization in strong clusters
- Breadth of industries within each cluster
- Presence of a region’s clusters in neighboring regions
- Strength in related clusters

- Job growth
- Higher wages
- Higher patenting rates
- Greater new business formation, growth and survival

Clusters and Economic Diversification

Note: Clusters with overlapping borders or identical shading have at least 20% overlap (by number of industries) in both directions.
Cluster Composition of the Michigan Economy

Overall change in Michigan’s Share of U.S. Traded Employment: -0.64%

Michigan’s Overall Share of U.S. Traded Employment: 3.07%

Employment 1998-2008
- Added Jobs
- Lost Jobs

- Automotive (16.3%, -5.5%)
- Metal Manufacturing
- Production Technology
- Plastics
- Chemical Products
- Business Services
- Biopharmaceuticals
- Aerospace Engines
- Motor Driven Products
- Power Generation and Transmission
- Textiles
- Leather and Related Products
- Forest Products

Change in Michigan’s Share of National Employment, 1998 to 2008

= 40,000 Employees in 2008

Copyright © 2011 Professor Michael E. Porter
Change in Michigan’s Share of National Employment, 1998 to 2008

Overall change in Michigan’s Share of U.S. Traded Employment: -0.64%

Michigan’s Overall Share of U.S. Traded Employment: 3.07%

Cluster Composition of the Michigan Economy (continued)


Copyright © 2011 Professor Michael E. Porter
LQ, or Location Quotient, measures the state’s share in cluster employment relative to its overall share of U.S. employment. An LQ > 1 indicates an above average employment share in a cluster.
Cluster Development

Action Items

1. Build on the state’s **existing and emerging clusters** rather than chase “hot” fields

2. Pursue economic diversification **within clusters** and **across related clusters**

3. Create a private sector-led **cluster upgrading program** with matching support for participating private sector cluster organizations
   - Government should **listen** and **remove obstacles** to cluster improvement

4. **Align** other state economic policies and programs with clusters

Clustering provides a framework for organizing the implementation of many public policies and public investments to achieve greater effectiveness.
Why?
What Drives State Productivity?

1. Quality of the Overall Business Environment
2. Cluster Development
3. Policy Coordination among Multiple Levels of Geography/Government
Geographic and Governmental Influences on Productivity

- Nation
- State
- Metropolitan Areas
- Rural Regions
- Neighboring State
Michigan’s Economic Performance in Metropolitan Areas

Growth Rate of Average Wages, 1998-2008

Source: Census CBP private employment; author’s analysis. Note: “Bubble” size in chart proportional to employment in 2008. *includes Cass County, Michigan

Michigan’s Average Wage: $40,650
U.S. Average Wage: $42,434

Growth Rate of Average Wages, 1998-2008

Michigan’s Average Wage Growth Rate: +2.16%
U.S. Average Wage Growth Rate: +3.32%

Source: Census CBP private employment; author’s analysis. Note: “Bubble” size in chart proportional to employment in 2008. *includes Cass County, Michigan

Copyright 2011 © Professor Michael E. Porter
Geographic and Governmental Influences on Productivity

1. **Influence** and access federal policies and programs

2. Work with each metro area in develop a prioritized strategic agenda

3. **Connect** rural regions with proximate urban areas

4. **Integrate** policies and infrastructure planning with neighbors
Create an Economic Strategy

- What is the **distinctive competitive position** of the state or region given its location, legacy, existing strengths, and potential strengths?
  - What unique value as a business location?
  - For what types of activities and clusters?

**Define the Value Proposition**

**Develop Unique Strengths**

- What **elements of the business environment** can be unique strengths relative to peers/neighbors?
- What **existing and emerging clusters** represent local strengths?

**Achieve and Maintain Parity with Peers**

- What **weaknesses** must be addressed to remove key constraints and achieve parity with peer locations?

- Economic strategy requires **setting priorities** and **moving beyond** long lists of separate recommendations.
How Should States and Regions Compete for Investment?

Tactical (Zero Sum Competition)

- Focus on attracting **new** investments
- Compete for **every** plant
- Offer **generalized** tax breaks
- Provide **subsidies** to lower / offset business costs
- Every city and sub-region **for itself**
- **Government** drives investment attraction

Strategic (Positive Sum Competition)

- Also support greater local investment by **existing** companies
- Reinforce areas of **specialization** and emerging cluster strength
- Provide state support for training, infrastructure, and institutions with **enduring local benefits**
- Improve the **efficiency of doing business**
- Harness efficiencies and coordination **across jurisdictions**
- Government and the private sector **collaborate** to build cluster strength

The same principles apply to municipal competition **within** states
Harnessing the New Process of Economic Development

Competitiveness is the result of both **top-down** and **bottom-up processes** in which many companies and institutions take responsibility.

**Old Model**

- **Government** drives economic development through policy decisions and incentives

**New Model**

- Economic development is a **collaborative process** involving government at multiple levels, companies, teaching and research institutions, and private sector organizations
Summary

• The goal of economic strategy is to enhance **productivity**. This is the only way to create jobs, rising wages, and wealth in the long run

• Improving **productivity** and **innovation** must be the guiding principles for every state policy choice

• Improving productivity often does not require new public resources, but **using existing resources better**

• Improving productivity demands that leaders **mobilize the private sector**, not rely on government alone

• Economic strategy is non-partisan and about getting **results**
Take advantage of Harvard Business School data and tools to support this effort.

• For further materials on the competitiveness of states and regions: www.isc.hbs.edu/econ-statesregions.htm

• For state economic profiles: www.isc.hbs.edu/stateprofiles.htm

• For the U.S. Cluster Mapping Project: data.isc.hbs.edu/isc/