Reshaping Regional Economic Development: Clusters and Regional Strategy

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The Challenge

• The US economy is *slowly emerging* from the deepest crisis we have experienced in a generation

• However, the trajectory of the U.S. economy was already *disturbing* well before 2008 and the long term trend is continuing

• The **Midwest** is no exception
Disturbing Trends
Rolling 10-year Compound Annual Growth Rate in Total Number of U.S. Private Nonfarm Employees, 1975-2013

Disturbing Trends
Private, Nonfarm Employment by Type of Industry

INDUSTRIES SERVING LOCAL MARKETS
(CAGR= 0.89%)

INDUSTRIES EXPOSED TO INTERNATIONAL COMPETITION
(CAGR= 0.02%)

Real Hourly Wage Growth by Educational Attainment

Real GDP per Capita, 2012

**Prosperity Performance of U.S. States 2001-2012**

**Source:** BEA. Notes: GDP in real 2005 dollars. Growth rate is calculated as compound annual growth rate.
Regional Economic Development: Prevailing Approaches

"Open for Business"
- Improve the general business environment
- Attempt to match the policies of peers
- Long lists of areas for improvement, with limited progress
- Table stakes

"Big Game Hunting"
- Compete aggressively for plants and new investments
- Zero Sum
- "Winner’s curse"
- High cost, low return unless address underlying weaknesses
- Neglects the existing base

"The Next Big Thing"
- Enter new high tech/ high growth industries
- Many competing for the same industries – e.g. biotech, ‘creative class’
- Very few regions have the assets to succeed in them

"Build it and They Will Come"
- Invest in large infrastructure/ industrial zone projects
- Rarely offer a strong advantage versus other regions
- Generic infrastructure will not offset lack of skills, other weaknesses, and absence of related businesses
Towards a New Economic Development Model

• Traditional approaches to economic development are not working

• We must reshape the approach to economic development in the U.S. based on a deeper understanding of the drivers of competitiveness in the modern global economy

The New Direction

• Focus on competitiveness, not job creation per se

• Cluster-based, reflecting the core drivers of jobs and wages

• Build on existing and potential strengths, versus rely on reducing weakness

• Develop an overall strategy rather than a list of actions

• Prioritized and sequenced, not treating all weaknesses equally

• Data driven, not political or based on wishful thinking
What is Competitiveness?

A nation or region is competitive to the extent that firms operating there are able to compete successfully in the regional and global economy while maintaining or improving wages and living standards for the average citizen.

- Competitiveness depends on the long-run productivity and efficiency of a location as a place to do business
  - The productivity of existing firms and workers
  - The ability to achieve high participation of citizens in the workforce

- Competitiveness is not:
  - Low wages
  - A weak currency
  - Jobs per se
Defining the Geographic Unit for Competitiveness

- Regions are essential economic units for competitiveness
What Determines Competitiveness?

Endowments

- Endowments, including natural resources, geographical location, population, and land area, create a foundation for prosperity, but true prosperity arises from productivity in the use of endowments.
What Determines Competitiveness?

• Macroeconomic competitiveness sets the economy-wide context for productivity to emerge, but is not sufficient to ensure productivity.
• Endowments, including natural resources, geographical location, population, and land area, create a foundation for prosperity, but true prosperity arises from productivity in the use of endowments.
What Determines Competitiveness?

Microeconomic Competitiveness
- Quality of the Business Environment
- State of Cluster Development
- Sophistication of Company Operations and Strategy

Macroeconomic Competitiveness
- Sound Monetary and Fiscal Policies
- Human Development and Effective Political Institutions

Endowments

- Productivity ultimately depends on improving the **microeconomic capability** of the economy and the **sophistication of local competition** revealed at the level of firms, clusters, and regions.
- Macroeconomic competitiveness sets the **economy-wide** context for productivity to emerge, but is **not sufficient** to ensure productivity.
- Endowments, including **natural resources**, **geographical location**, **population**, and **land area**, create a foundation for prosperity, but true prosperity arises from **productivity in the use of endowments**.
Improving the Quality of the Business Environment

Context for Firm Strategy and Rivalry

- Local rules and incentives that encourage investment and productivity
  - e.g., incentives for capital investments, IP protection
- Sound corporate governance
- Open and vigorous local competition
  - Openness to competition
  - Strict competition laws

Demand Conditions

- Sophisticated and demanding local needs
  - e.g., Strict quality, safety, and environmental standards
  - Sophisticated demand in the private sector or government

Related and Supporting Industries

- Availability and quality of suppliers and supporting industries

Factor (Input) Conditions

- Improving access to high quality business inputs
  - Qualified human resources
  - Capital availability
  - Physical infrastructure
  - Scientific and technological infrastructure
  - Administrative and regulatory infrastructure

- Many things matter for competitiveness
- Successful economic development is a process of successive upgrading, in which the business environment improves to enable increasingly sophisticated ways of competing
The Composition of Regional Economies

- Serve almost exclusively the **local** market
- **Little exposure** to international or cross-regional competition for employment

**Local Clusters**

- Serve **national** and **global** markets
- **Exposed to competition** from other regions

**Traded Clusters**

Note: Cluster data includes all private, non-agricultural employment.
Clusters and Competitiveness
Massachusetts Life Sciences

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

Analytical Instruments Cluster

Teaching and Specialized Hospitals

Biological Products

Biopharmaceutical Products

Health and Beauty Products

Surgical Instruments and Suppliers

Medical Equipment

Dental Instruments and Suppliers

Ophthalmic Goods

Diagnostic Substances

Containers
Institutions for Collaboration
Selected Massachusetts Organizations, Life Sciences

<table>
<thead>
<tr>
<th>Life Sciences Industry Associations</th>
<th>University Initiatives</th>
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<tr>
<td>• Massachusetts Biotechnology Council</td>
<td>• Harvard Biomedical Community</td>
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<tr>
<td>• Massachusetts Medical Device Industry Council</td>
<td>• MIT Enterprise Forum</td>
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<tr>
<td>• Massachusetts Hospital Association</td>
<td>• Biotech Club at Harvard Medical School</td>
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<tr>
<td><strong>General Industry Associations</strong></td>
<td>• Technology Transfer offices</td>
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<td>• Associated Industries of Massachusetts</td>
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<tr>
<td>• Greater Boston Chamber of Commerce</td>
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<td>• High Tech Council of Massachusetts</td>
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<td><strong>Economic Development Initiatives</strong></td>
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<tr>
<td>• Massachusetts Technology Collaborative</td>
<td><strong>Informal networks</strong></td>
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<td>• Mass Biomedical Initiatives</td>
<td>• Company alumni groups</td>
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<td>• Mass Development</td>
<td>• Venture capital community</td>
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<tr>
<td>• Massachusetts Alliance for Economic Development</td>
<td>• University alumni groups</td>
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<td><strong>Joint Research Initiatives</strong></td>
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<td>• New England Healthcare Institute</td>
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<td>• Whitehead Institute For Biomedical Research</td>
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<td>• Center for Integration of Medicine and Innovative Technology (CIMIT)</td>
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Traded Cluster Composition of the Minneapolis Economy

Overall change in the Minneapolis Share of US Traded Employment: -0.055%

Minneapolis Overall Share of US Traded Employment: 1.7%

Change in Minneapolis Share of National Employment 2001-2012

Employment 2001-2012

Added Jobs

Lost Jobs

Employees 15,000 =
Strong Traded Clusters Drive Regional Performance
Research Findings

- Presence of **strong clusters**
  - **Breadth** of industries within each cluster

- **Job** growth
  - Higher **wages**
  - Higher **patenting** rates
  - Greater **new business** formation, growth and survival
  - **Resilience** in downturns

- Build on the region’s **existing** and **emerging** clusters rather than chase hot fields

## Strong Traded Clusters Drive Regional Performance

**Research Findings**

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- Build on the region’s **existing** and **emerging** clusters rather than chase hot fields
- Economic diversification usually occurs **within clusters** and **across related clusters**

What is an Economic Strategy?

Policy Improvement

- Implementing best practices in each policy area
- There are a huge number of policy areas that matter
- No region or country can (or should try to) make progress in all areas simultaneously

Economic Strategy

- An overall agenda for creating a more competitive and distinctive position for a country or region, based on its particular circumstances
Developing a Regional Economic Strategy

Regional Value Proposition

• What is a **distinctive competitive position** for the region given its location, legacy, existing strengths, and potential strengths?
  – What unique advantages as a business location?
  – For what types of activities and clusters?
  – What roles in the surrounding regions, countries, and the global economy?

Developing Unique Strengths

• What **elements of the business environment** can be unique strengths relative to peers/neighbors?
• What **existing and emerging clusters** can be built upon?

Achieving and Maintaining Parity with Peers

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

• **Priorities** and **sequencing** are fundamental to successful economic development
Clusters as a Tool for Economic Policy

- **Leverages** the power of spillovers and linkages to drive rapid economic development

- A vehicle for policies and investments that strengthen **multiple related firms/institutions** simultaneously

- Enhances the efficiency and effectiveness of **traditional economic policy** areas, such as training, R&D, export promotion, FDI attraction, etc.
Clusters provide a framework for **organizing the implementation** of many public policies and public investments directed at economic development.
Clusters as a Tool for Economic Policy

- Leverage the power of **spillovers** and **linkages** to drive rapid economic development

- A vehicle for policies and investments that strengthen **multiple related firms/institutions** simultaneously

- Enhances the efficiency and effectiveness of **traditional economic policy** areas, such as training, R&D, export promotion, FDI attraction, etc.

- A forum for **collaboration** between the private sector, trade associations, government, educational, and research institutions
  - A **mechanism** for **constructive** business-government dialog

- Brings together **firms of all sizes**, including SME’s

- Clusters initiatives are a powerful private/public vehicle to identify and get alignment on **problems** and **action recommendations**

- Cluster upgrading fosters **greater** and **more sophisticated** competition rather than distorting the market

- Sound cluster policy addresses **all existing and emerging clusters**, and does not pick winners
U.S. Cluster Mapping

- National economic initiative based at HBS and sponsored by the U.S. Department of Commerce’s Economic Development Administration. To help drive better regional economic strategy, the interactive website provides data to:

  - Help **regions** understand their current competitiveness and sources of potential differentiation
  - Help **clusters** assess their competitive position and highlight areas for potential growth
  - Help **Institutions for Collaboration** engage with peers within and beyond their home region and cluster