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

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Professor Michael E. Porter
Harvard Business School

For further material on regional competitiveness and clusters:  www.isc.hbs.edu/econ-clusters.htm
For state economic profiles:  www.isc.hbs.edu/stateprofiles.htm
The Economic Challenge for Governors in 2011

- **Competitiveness** is the only way to achieve sustainable job growth, improving wages, and stable public finances.
- Creating a **clear economic strategy** for the state, that engages all stakeholders, is **even more important** in times of budget cutting and austerity.
Understanding State Economic Performance

1999 - 2009

Notes: Real GDP figures in 2005 chained US dollars from the Bureau of Economic Analysis. Growth rate is calculated as compound annual growth rate. D.C. excluded.
What is Competitiveness?

• Competitiveness is the **productivity** with which a state utilizes its human, capital, and natural resources

• Productivity determines **wages** and the **standard of living**
  – Productivity growth determines sustainable **economic growth**

• Productivity depends on **how** a state competes, not what industries it competes in

• **Innovation** in products and processes is necessary to drive productivity growth

• Only **productive businesses** can create wealth and jobs

• States compete to offer the **most productive environment** for business

• The public and private sectors play **different but interrelated roles** in creating a productive economy
## New Jersey Competitive Performance

### Prosperity

<table>
<thead>
<tr>
<th>Gross State Product per capita, 2009</th>
<th>Rank: 7</th>
</tr>
</thead>
<tbody>
<tr>
<td>• In New Jersey:</td>
<td>$55,464</td>
</tr>
<tr>
<td>• In the US:</td>
<td>$46,093</td>
</tr>
<tr>
<td>• State difference to US:</td>
<td>20.3%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Growth in Gross State Product per capita, real annual rate, 1999-2009</th>
<th>Rank: 21</th>
</tr>
</thead>
<tbody>
<tr>
<td>• In New Jersey:</td>
<td>1.15%</td>
</tr>
<tr>
<td>• In the US:</td>
<td>0.86%</td>
</tr>
</tbody>
</table>

### Productivity

<table>
<thead>
<tr>
<th>Gross State Product per labor force participant, 2009</th>
<th>Rank: 7</th>
</tr>
</thead>
<tbody>
<tr>
<td>• In New Jersey:</td>
<td>$106,667</td>
</tr>
<tr>
<td>• In the US:</td>
<td>$92,382</td>
</tr>
<tr>
<td>• State difference to US:</td>
<td>15.5%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Growth in Gross State Product per labor force participant*, 1999-2009</th>
<th>Rank: 31</th>
</tr>
</thead>
<tbody>
<tr>
<td>• In New Jersey:</td>
<td>1.06%</td>
</tr>
<tr>
<td>• In the US:</td>
<td>1.09%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Average private wage, 2008</th>
<th>Rank: 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>• In New Jersey:</td>
<td>$50,923</td>
</tr>
<tr>
<td>• In the US:</td>
<td>$42,435</td>
</tr>
<tr>
<td>• State difference to US:</td>
<td>20.0%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Private wage Growth, annual rate, 1998-2008</th>
<th>Rank: 35</th>
</tr>
</thead>
<tbody>
<tr>
<td>• In New Jersey:</td>
<td>3.15%</td>
</tr>
<tr>
<td>• In the US:</td>
<td>3.32%</td>
</tr>
</tbody>
</table>

### Innovation Output

<table>
<thead>
<tr>
<th>Patents Per 10,000 Employees, 2009</th>
<th>Rank: 13</th>
</tr>
</thead>
<tbody>
<tr>
<td>• In New Jersey:</td>
<td>7.80</td>
</tr>
<tr>
<td>• In the US:</td>
<td>6.83</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Growth in total patents, annual rate, 1998-2009</th>
<th>Rank: 44</th>
</tr>
</thead>
<tbody>
<tr>
<td>• In New Jersey:</td>
<td>-2.54%</td>
</tr>
<tr>
<td>• In the US:</td>
<td>0.23%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Traded establishment formation, annual growth rate, 1998-2008</th>
<th>Rank: 47</th>
</tr>
</thead>
<tbody>
<tr>
<td>• In New Jersey:</td>
<td>0.47%</td>
</tr>
<tr>
<td>• In the US:</td>
<td>1.79%</td>
</tr>
</tbody>
</table>

### Cluster

<table>
<thead>
<tr>
<th>Share of State Traded Employment in Strong Clusters, 2008</th>
<th>Rank: 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>• In New Jersey:</td>
<td>68.5%</td>
</tr>
<tr>
<td>• In the US:</td>
<td>41.8%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Change in Share of National Employment in Strong Clusters, 1998-2008</th>
<th>Rank: 37</th>
</tr>
</thead>
<tbody>
<tr>
<td>• In New Jersey:</td>
<td>-0.23%</td>
</tr>
<tr>
<td>• In the US:</td>
<td>-0.06%</td>
</tr>
</tbody>
</table>

### Labor Mobilization

<table>
<thead>
<tr>
<th>Labor Force Participation, 2009</th>
<th>Rank: 21</th>
</tr>
</thead>
<tbody>
<tr>
<td>• In New Jersey:</td>
<td>67.2</td>
</tr>
<tr>
<td>• In the US:</td>
<td>65.4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Employment, 2010 (December)</th>
<th>Rank: 10</th>
</tr>
</thead>
<tbody>
<tr>
<td>• In New Jersey:</td>
<td>4,079,180</td>
</tr>
<tr>
<td>% of US:</td>
<td>2.93%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Employment growth, annual rate, 2000-2010 (December)</th>
<th>Rank: 38</th>
</tr>
</thead>
<tbody>
<tr>
<td>• In New Jersey:</td>
<td>-0.12%</td>
</tr>
<tr>
<td>• In the US:</td>
<td>0.11%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Unemployment, 2010 (December)</th>
<th>Rank: 29</th>
</tr>
</thead>
<tbody>
<tr>
<td>• In New Jersey:</td>
<td>9.1%</td>
</tr>
<tr>
<td>• In the US:</td>
<td>9.4%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Change in Unemployment, 2000-2010 (December)</th>
<th>Rank: 35</th>
</tr>
</thead>
<tbody>
<tr>
<td>• In New Jersey:</td>
<td>5.4%</td>
</tr>
<tr>
<td>• In the US:</td>
<td>5.5%</td>
</tr>
</tbody>
</table>

### Population

<table>
<thead>
<tr>
<th>Population, 2009</th>
<th>Rank: 11</th>
</tr>
</thead>
<tbody>
<tr>
<td>• In New Jersey:</td>
<td>8,707,707</td>
</tr>
<tr>
<td>% of US:</td>
<td>2.84%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Population growth, annual rate, 1999-2009</th>
<th>Rank: 39</th>
</tr>
</thead>
<tbody>
<tr>
<td>• In New Jersey:</td>
<td>0.41%</td>
</tr>
<tr>
<td>• In the US:</td>
<td>0.96%</td>
</tr>
</tbody>
</table>
What Drives State Productivity?

- Quality of the Overall Business Environment
- State of Cluster Development
- Policy Coordination among Multiple Geographic Levels
Quality of the Business Environment

Context for Firm Strategy and Rivalry

Factor (Input) Conditions

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

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

Factor (Input) Conditions

- 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
- Successful economic development is a process of improving the business environment to enable increasingly sophisticated ways of competing
Improving Productivity in the Business Environment

Key Issues for States

• Simplify and speed up regulation and permitting

• Reduce unnecessary costs of doing business

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

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

• Design all policies to support small growth businesses

• Protect and enhance the state’s higher education and research institutions

• Relentlessly improve of the public education system, the essential foundation
Improving Productivity in the Business Environment

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Composition of Regional Economies, U.S. 2008

Local Clusters
- Serve almost exclusively the local market
- Limited exposure to cross-regional competition for employment

- 71.7% of employment
- 61.8% of income
- 3.5% of patents

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

- 27.4% of employment
- 37.3% of income
- 96.4% of patents

Resource-based Clusters
- Location determined by resource location
- <1% of income, employment, patents outside of agriculture

Note: Cluster data includes all private, non-agricultural employment.
State of Cluster Development
Massachusetts Life Sciences

- 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

Cluster Organizations
MassMedic, MassBio, others

Specialized Services
- Banking, Accounting, Legal
- VC Firms, Angel Networks
- Laboratory, Clinical Testing

Specialized Business Services

Specialized Risk Capital

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

Analytical Instruments Cluster
State of Cluster Development
Houston Oil and Gas

Upstream

Oil & Natural Gas Exploration & Development

Oil & Natural Gas Completion & Production

Downstream

Oil Transportation

Oil Trading

Oil Refining

Oil Distribution

Gas Gathering

Gas Processing

Gas Trading

Gas Transmission

Gas Distribution

Gas Marketing

Oilfield Services/Engineering & Contracting Firms

Equipment Suppliers
(e.g. Oil Field Chemicals, Drilling Rigs, Drill Tools)

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)
Strong Clusters Drive Regional Performance

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

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

Impact of Cluster Mix and Cluster Strength on Average Traded Wages
U.S. States, 2008

On average, the cluster strength effect is responsible for 76.3% of the difference in traded wages across states.
Composition of the South Carolina Economy
Specialization by Traded Cluster, 1998 to 2008

Overall change in the South Carolina Share of US Traded Employment: -0.22%

South Carolina Overall Share of US Traded Employment: 1.44%

Change in South Carolina's share of National Employment, 1998 to 2008


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Related Clusters and Economic Diversification

Note: Clusters with overlapping borders or identical shading have at least 20% overlap (by number of industries) in both directions.
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.
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- Higher **patenting** rates
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- Build on the state’s **existing and emerging** clusters in the state rather than chase hot fields
- Economic diversification usually occurs **within clusters and across related clusters**

The Evolution of Regional Economies
San Diego

Climate and Geography
- Hospitality and Tourism
- Transportation and Logistics

U.S. Military
- Aerospace Vehicles and Defense
- Power Generation
- Communications Equipment
- Analytical Instruments

Bioscience Research Centers
- Education and Knowledge Creation
- Information Technology
- Medical Devices
- Biotech / Pharmaceuticals

1910
1930
1950
1970
1990
What Drives State Productivity?

- Quality of the Overall Business Environment
- State of Cluster Development
- Policy Coordination among Multiple Geographic Levels
Geographic Influences on Competitiveness

- Nation
- Neighboring States
- State
- Metropolitan Areas
- Rural Regions
Defining the State’s Economic Regions
Massachusetts in BEA Economic Areas

Source: U.S. Bureau of Economic Analysis
Geographic Influences on Competitiveness

- **Influence** and **access** federal policies and programs
- Integrate policies and infrastructure with neighbors
- Assist each metro area in developing its own strategy
- Connect rural regions with urban areas
Creating a State Economic Strategy

State Value Proposition

- What can be the **distinctive competitive position** of the state given its assets, location and potential strengths?

Developing Unique Strengths

- What elements of the business environment can be **distinctive strengths** relative to peers?
- What **strong** or **emerging clusters** can be built upon?

Achieving and Maintaining Parity with Peers

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

- State economic strategy requires **setting priorities** and **moving beyond** long lists of discrete recommendations
How Should States Compete with Each Other?

**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 benefits**
- Improve the **efficiency of doing business**
- Harness efficiencies and coordination **across jurisdictions**
- **Government and the private sector** **collaborate** to build cluster strength
The Shifting Process of Economic Development

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

- Competitiveness is the result of both top-down and bottom-up processes in which many companies and institutions take responsibility
Clustering provides a framework for organizing the implementation of many public policies and public investments directed at economic development to achieve greater effectiveness.
Organizing for Economic Development
South Carolina Council on Competitiveness

South Carolina Council on Competitiveness
- Chaired by a business leader and reporting to the governor
- Convenes working groups, provides direction and strength, holds working groups accountable

Executive Committee

Coordinating Staff

Cluster Committees
- Automotive
- Hydrogen / Fuel Cells
- Textiles
- Apparel
- Agriculture
- Travel and Tourism

Task Forces
- Cluster Activation
- Research / Investment
- Distressed / Disadvan. Areas
- Education / Workforce
- Start-ups / Local Firms
- Measuring Progress

- Effective economic policy also requires coordination within government
Concluding Remarks

• The goal of economic strategy is to enhance productivity and thus fundamental **competitiveness**. This is the only way to create jobs in the long run.

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

• Improving competitiveness does not require new resources, but **using existing resources better**.

• Improving state competitiveness will require governors to **mobilize the private sector**, not rely on government alone.

• Economic strategy is not about ideology, but getting **results**.

• The prosperity of the **U.S. economy** will depend more on the success of states in improving competitiveness than what happens in Washington.