Delaware Competitiveness:
Creating a State Economic Strategy

Professor Michael E. Porter
Harvard Business School

March 20, 2012
The Economic Challenge for Governors in 2012

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.
Where Does Productivity Come From?

Businesses and government play different but interrelated roles in creating a productive economy

- Only **businesses** can create **jobs** and **wealth**
- **States** compete to offer the most productive environment for business
Agenda

1. How is your state doing?  State Performance Scorecard

2. Why?  Explaining your state’s performance, strengths, and weaknesses

3. Where to go from here?  Action Steps
Why?
What Drives State Productivity?

1. Quality of the Overall Business Environment
2. Cluster Development
3. Policy Coordination among Multiple Levels of Geography/Government
<table>
<thead>
<tr>
<th>Category</th>
<th>Start Position</th>
<th>Trend</th>
<th>Current Position</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Prosperity</strong>&lt;br&gt;GDP per Capita, 2000-2010</td>
<td>1</td>
<td>35</td>
<td>2</td>
</tr>
<tr>
<td><strong>Wages</strong>&lt;br&gt;Average Private Wage, 1998-2009</td>
<td>9</td>
<td>40</td>
<td>10</td>
</tr>
<tr>
<td><strong>Labor Mobilization</strong>&lt;br&gt;Proportion of Working Age Population in the Workforce, 2000-2010</td>
<td>16</td>
<td>50</td>
<td>44</td>
</tr>
<tr>
<td><strong>Labor Productivity</strong>&lt;br&gt;GDP per Workforce Participant, 2000-2010</td>
<td>1</td>
<td>9</td>
<td>1</td>
</tr>
<tr>
<td><strong>Innovation</strong>&lt;br&gt;Patents per Employee, 2000-2010</td>
<td>7</td>
<td>38</td>
<td>11</td>
</tr>
<tr>
<td><strong>Cluster Strength</strong>&lt;br&gt;Employment in Strong Clusters, 1998-2009</td>
<td>29</td>
<td>46</td>
<td>40</td>
</tr>
<tr>
<td><strong>Leading Clusters</strong>&lt;br&gt;by employment size, 2009 (national rank)</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Financial Services (26)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• #NA</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• #NA</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• #NA</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• #NA</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• #NA</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Comparative State Prosperity Performance
2000 - 2010

Source: BEA. Notes: GDP in real 2005 dollars. Growth rate is calculated as compound annual growth rate.
Comparative State Labor Mobilization Performance
1999-2010

High but declining versus U.S.

High Labor Force Participation and Participation rising versus U.S.

U.S. Labor Force Participation Rate: 64.7%

Change in Proportion of Working Age Population in the Workforce, 1999-2010

Notes: Source BLS.
Comparative State Labor Force Productivity Performance
2000-2010

U.S. GDP per Labor Force Participant
Real Growth: 0.803%

Highly productive and productivity rising versus U.S.

High but declining versus U.S.

Low and declining versus U.S.

Low but rising versus U.S.

Sources: BEA, BLS. Notes: GDP in real 2005 dollars. Growth rate is calculated as compound annual growth rate.

Copyright 2012 Professor Michael E. Porter
### Comparative State Employee Productivity Performance

**2000-2010**

**Real Growth in Gross Domestic Product per Employed Worker, 2000-2010**

**U.S. GDP per Employed Worker**
- **Real Growth: 1.42%**
- **U.S. GDP per Employed Worker: $94,315**

**Highly productive and productivity rising versus U.S.**
- Delaware
- California
- Massachusetts
- Louisiana
- Hawaii

**High but declining versus U.S.**
- New York
- Alaska

**Low and declining versus U.S.**
- North Carolina
- Maryland
- Oregon
- North Dakota

**Low but rising versus U.S.**
- South Dakota

**Sources:** BEA, BLS. Notes: GDP in real 2005 dollars. Growth rate is calculated as compound annual growth rate.
Comparative State Innovation Performance

2000 - 2010

High and declining innovation

U.S. average Patents per 10,000 Workers: 7.77

High and improving innovation rate versus U.S.

Low and declining innovation

Growth Rate of Patents per 10,000 Workers, 2000 to 2010


= 2000 patents in 2010
= 500 patents in 2010
Why?
What Drives State Productivity?

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

Context for Firm Strategy and Rivalry

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

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

- 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
Common 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
• 30% of employment

Local Clusters
• Serve almost exclusively the local market
• Not directly exposed to cross-regional competition
• 70% of employment
Example: Massachusetts Life Sciences Cluster

- **Health and Beauty Products**
- **Surgical Instruments and Suppliers**
- **Medical Equipment**
- **Dental Instruments and Suppliers**
- **Ophthalmic Goods**
- **Diagnostic Substances**
- **Containers**
- **Biological Products**
- **Biopharmaceutical Products**
- **Research Organizations**
- **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)
Example: Houston Oil and Gas Cluster

Upstream

Oil & Natural Gas Exploration & Development

Oil & Natural Gas Completion & Production

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)

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

Completion & Production

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

On average, cluster strength is much more important (78.1%) than cluster mix (21.9%) in driving regional performance in the U.S.

Clusters and Economic Diversification

Note: Clusters with overlapping borders or identical shading have at least 20% overlap (by number of industries) in both directions.
The Evolution of Regional Economies
San Diego

Climate and Geography

U.S. Military

Bioscience Research Centers

Hospitality and Tourism

Transportation and Logistics

Power Generation

Communications Equipment

Information Technology

Aerospace Vehicles and Defense

Analytical Instruments

Education and Knowledge Creation

Medical Devices

Biotech / Pharmaceuticals

Traded Cluster Composition of the Delaware Economy

Overall change in the Delaware Share of US Traded Employment: 0.03%

Delaware Overall Share of US Traded Employment: 0.33%

Change in Delaware share of National Employment, 1998 to 2009


Copyright © 2012 Professor Michael E. Porter
Traded Cluster Composition of the Delaware Economy (continued)

Overall change in the Delaware Share of US Traded Employment: 0.03%

Delaware Overall Share of US Traded Employment: 0.33%

Delaware Job Creation in Traded Clusters
1998 to 2009

Net traded job creation, 1998 to 2009: +5,360

* Percent change in national benchmark times starting regional employment. Overall traded job creation in the state, if it matched national benchmarks, would be -2,531
Delaware Wages in Traded Clusters vs. National Benchmarks

Delaware average traded wage: $58,753

U.S. average traded wage: $56,906

Productivity Depends on How a State Competes, Not What Industries It Competes In

State | State Traded Wage versus National Average | Cluster Mix Effect | Relative Cluster Wage Effect
--- | --- | --- | ---
Connecticut | +27,171 | 7,028 | 20,142
New York | +24,102 | 3,628 | 20,474
Massachusetts | +16,169 | 4,391 | 11,778
New Jersey | +13,535 | 3,761 | 9,774
California | +9,573 | 349 | 9,224
Maryland | +6,651 | 2,496 | 4,155
Washington | +5,652 | 2,692 | 2,960
Virginia | +5,319 | 1,617 | 3,702
Illinois | +2,658 | 16 | 2,642
Colorado | +1,662 | 2,416 | -754
Texas | +352 | 2,494 | -2,142
Delaware | +164 | 11,060 | -10,896
Alaska | -930 | -2,417 | 1,487
Pennsylvania | -3,970 | -995 | -2,975
Louisiana | -4,280 | 95 | -4,375
Georgia | -5,322 | -1,102 | -4,220
Minnesota | -5,576 | -425 | -5,150
New Hampshire | -6,387 | 374 | -6,761
Arizona | -7,021 | 1,149 | -8,169
Kansas | -7,705 | 2,241 | -9,946
Wyoming | -8,057 | 1,040 | -9,097
Michigan | -8,176 | -2,544 | -5,633
North Carolina | -9,245 | -4,330 | -4,915
Ohio | -9,284 | -2,495 | -6,788
Rhode Island | -9,791 | -2,290 | -7,501
Oregon | -10,359 | -1,304 | -9,056
Missouri | -10,427 | -1,425 | -9,002
Alabama | -10,934 | -3,563 | -7,371
Florida | -11,007 | -1,559 | -9,448
Wisconsin | -11,722 | -3,516 | -8,206
Nebraska | -11,777 | 241 | -12,018
Utah | -11,992 | 2,072 | -14,064
Tennessee | -12,172 | -3,156 | -9,016
Illinois | -12,554 | -4,840 | -7,714
Indiana | -12,554 | -4,840 | -7,714
Vermont | -13,368 | -1,572 | -11,796
Oklahoma | -13,572 | 497 | -14,069
Nevada | -14,277 | -2,365 | -11,911
North Dakota | -14,394 | 1,004 | -15,397
South Carolina | -15,276 | -5,067 | -10,209
Arkansas | -15,378 | -4,560 | -10,818
Hawaii | -16,043 | -12,555 | -3,487
New Mexico | -16,123 | -288 | -15,835
Kentucky | -16,215 | -5,024 | -11,191
Maine | -16,379 | -968 | -15,412
Iowa | -16,606 | -2,721 | -13,885
West Virginia | -16,645 | -3,894 | -12,751
Idaho | -18,671 | -787 | -17,884
Mississippi | -19,942 | -5,291 | -14,651
Montana | -20,073 | -2,259 | -17,815
South Dakota | -20,968 | 289 | -21,257

**On average, cluster strength is much more important (78.1%) than cluster mix (21.9%) in driving regional performance in the U.S.**

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.
## Delaware Performance Scorecard

### Prosperity
- GDP per Capita, 2000-2010
  - Start Position: 1
  - Trend: 35
  - Current Position: 2

### Wages
- Average Private Wage, 1998-2009
  - Start Position: 9
  - Trend: 40
  - Current Position: 10

### Job Creation
  - Start Position: 24
  - Trend: 30
  - Current Position: 30

### Labor Mobilization
- Proportion of Working Age Population in the Workforce, 2000-2010
  - Start Position: 16
  - Trend: 50
  - Current Position: 44

### Labor Productivity
- GDP per Workforce Participant, 2000-2010
  - Start Position: 1
  - Trend: 9
  - Current Position: 1

### New Business Formation
  - Start Position: 3
  - Trend: 49
  - Current Position: 46

### Innovation
- Patents per Employee, 2000-2010
  - Start Position: 7
  - Trend: 38
  - Current Position: 11

### Cluster Strength
- Employment in Strong Clusters, 1998-2009
  - Start Position: 29
  - Trend: 46
  - Current Position: 40

### Leading Clusters
- by employment size, 2009 (national rank)
  - Financial Services (26)
  - #NA
  - #NA
  - #NA
  - #NA

---

### State Rank
- 1-10
- 11-20
- 31-40
- 41-50

Copyright © 2012 Professor Michael E. Porter
Cluster Development
Common 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

• Clusters provide 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
- Neighboring State
The economies of states are often an aggregation of distinct economic areas with differing circumstances.
Wage Performance in Delaware Metropolitan Areas

Delaware Growth Rate of Wages: 2.81%
U.S. Growth Rate of Wages: 3.01%

Philadelphia MSA*

Delaware Average Private Wage: $45,241

U.S. Average Private Wage: $42,403

Growth Rate of Private Wages, 1998-2009

2.8% 2.9% 3.0% 3.1% 3.2% 3.3%

Average Private Wage, 2009

*$Delaware portion only
Source: Census CBP, authors' analysis. Note: "Bubble" size in chart is proportional to employment in 2009.
Employment Performance in Delaware Metropolitan Areas

Growth Rate of Private Employment, 1998-2009

- Delaware Growth Rate of Employment: 0.41%
- U.S. Growth Rate of Employment: 0.52%

Average Private Wage, 2009

- Delaware Average Private Wage: $45,241
- U.S. Average Private Wage: $42,403

*Delaware portion only
Source: Census CBP, authors' analysis. Note: “Bubble” size in chart is proportional to employment in 2009.
1. **Influence** and **access** federal policies and programs

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

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

4. **Integrate** policies and infrastructure planning with neighbors
Agenda

1. How is your state doing?  
   State Performance Scorecard

2. Why?  
   Explaining your state’s performance, strengths, and weaknesses

3. Where to go from here?  
   Action Steps
Agenda

1. How is your state doing? State Performance Scorecard
2. Why? Explaining your state’s performance, strengths, and weaknesses
3. Where to go from here? Action Steps

Biggest Action Item of All
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 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 benefits*
- Improve the *efficiency of doing business*
- Harness efficiencies and coordination *across jurisdictions*, especially with neighbors
- Government and the private sector *collaborate* to build cluster strength
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
Example: Organizing for Economic Development

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**
Summary

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

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

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

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

• Economic strategy is non-partisan and about getting **results**
Next Steps

1. Reach out to your team

2. Reach out to the business community


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