Connecticut Competitiveness: Creating a State Economic Strategy

For further material on regional competitiveness and clusters: www.isc.hbs.edu/econ-clusters.htm
For state economic profiles: www.isc.hbs.edu/econ-statesregions.htm

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Harvard Business School

September 2011
The Economic Challenge for Governors 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
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
# Connecticut Performance Scorecard

## Prosperity
**GDP per Capita, 1999-2009**
- **Position in 1998-1999**: 3
- **Trend**: 18
- **Current Position**: 4 (-1)

## Wages
**Average Private Wage, 1998-2009**
- **Position in 1998-1999**: 2
- **Trend**: 34
- **Current Position**: 2 (+0)

## Job Creation
- **Position in 1998-1999**: 43
- **Trend**: 10
- **Current Position**: 21 (+22)

## Labor Mobilization
**Proportion of Working Age Population in the Workforce, 1999-2010**
- **Position in 1998-1999**: 29
- **Trend**: 3
- **Current Position**: 14 (+15)

## Labor Productivity
**GDP per Worker, 1999-2009**
- **Position in 1998-1999**: 3
- **Trend**: 33
- **Current Position**: 4 (-1)

## New Business Formation
- **Position in 1998-1999**: 43
- **Trend**: 23
- **Current Position**: 41 (+2)

## Innovation
**Patents per Employee, 1999-2009**
- **Position in 1998-1999**: 4
- **Trend**: 28
- **Current Position**: 8 (-4)

## Cluster Strength
**Employment in Strong Clusters, 1998-2009**
- **Position in 1998-1999**: 15
- **Trend**: 20
- **Current Position**: 16 (-1)

## Leading Clusters
by employment size, 2009
(national rank)
- Financial Services (9)
- Education and Knowledge Creation (14)
- Aerospace Vehicles and Defense (6)
- Analytical Instruments (16)
- Aerospace Engines (2)

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

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2011 – State Competitiveness – Rich Bryden

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Comparative State Prosperity Performance
1999 - 2009

U.S. GDP per Capita: $46,093

Real Growth in Gross Domestic Product per Capita, 1999 to 2009

Source: Bureau of Economic Analysis. Note: Growth rate is calculated as compound annual growth rate.
Comparative State Labor Productivity Performance 1999-2009

-0.5% 0.0% 0.5% 1.0% 1.5% 2.0% 2.5% 3.0% 3.5%

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.

Real Growth in Gross Domestic Product per Worker, 1999-2009

Gross Domestic Product per Worker, 2009

Connecticut

U.S. GDP per Worker
Real Growth: 1.09%

U.S. GDP per Worker: $92,382

Source: Bureau of Economic Analysis. Notes: Growth rate is calculated as compound annual growth rate; worker = labor force participant.
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

U.S. average Patents per 10,000 Employees: 5.96

Growth Rate of Patents per 10,000 Workers, 1999 to 2009

Why?
What Drives State Productivity?

1. Quality of the Overall Business Environment
2. Cluster Development
3. Policy Coordination among Multiple Levels of Geography/Government
Why?
What Drives State Productivity?

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

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

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

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

Teaching and Specialized Hospitals

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

Analytical Instruments Cluster
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

Equipment Suppliers

Specialized Technology Services

Subcontractors

Business Services

Specialized Institutions
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.

Clustering 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

Hospitality and Tourism

Transportation and Logistics

Power Generation

Communications Equipment

Information Technology

Aerospace Vehicles and Defense

Analytical Instruments

Education and Knowledge Creation

Medical Devices

Bioscience Research Centers

Biotech / Pharmaceuticals

Traded Cluster Composition of the Connecticut Economy

Overall change in the Connecticut Share of US Traded Employment: -0.14%

Connecticut Overall Share of US Traded Employment: 1.43%

Change in Connecticut share of National Employment, 1998 to 2009

-8.0%  -6.0%  -4.0%  -2.0%  0.0%  2.0%  4.0%  6.0%  8.0%  10.0%  12.0%

Employees 10,800 =

Traded Cluster Composition of the Connecticut Economy (continued)

Overall change in the Connecticut Share of US Traded Employment: -0.14%

Connecticut Overall Share of US Traded Employment: 1.43%

Connecticut national employment share, 2009

Connecticut Job Creation in Traded Clusters
1998 to 2009

Net traded job creation, 1998 to 2009:
-59,287

* Percent change in national benchmark times starting regional employment. Overall traded job creation in the state, if it matched national benchmarks, would be -7,727
Connecticut Wages in Traded Clusters vs. National Benchmarks

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

<table>
<thead>
<tr>
<th>State</th>
<th>State Traded Wage versus National Average</th>
<th>Cluster Mix Effect</th>
<th>Relative Cluster Wage Effect</th>
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<td>South Dakota</td>
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<td>-21,257</td>
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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.
## Connecticut Performance Scorecard

### Prosperity
**GDP per Capita, 1999-2009**
- Position in 1998-1999: 3
- Trend: 18
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### Wages
**Average Private Wage, 1998-2009**
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**by employment size, 2009**
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- Aerospace Engines (2)
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 Connecticut Metropolitan Areas

Connecticut Growth Rate of Wages: 3.44%

U.S. Growth Rate of Wages: 2.86%

Bridgeport MSA

Connecticut Average Private Wage: $53,141

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

Growth Rate of Private Wages, 1998-2009

Source: Census CBP, authors’ analysis. Note: “Bubble” size in chart is proportional to employment in 2009.
Employment Performance in Connecticut Metropolitan Areas

Growth Rate of Private Employment, 1998-2009

Connecticut Average Private Wage: $53,141

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

U.S. Growth Rate of Employment: 0.52%

Connecticut Growth Rate of Employment: -0.16%

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

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

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   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.