Nebraska 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

March 28, 2012

Professor Michael E. Porter
Harvard Business School
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
# Nebraska Performance Scorecard

## Prosperity
**GDP per Capita, 2000-2010**
- **Start Position**: 21
- **Trend**: 9
- **Current Position**: 18 (+3)

## Wages
**Average Private Wage, 1998-2009**
- **Start Position**: 37
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- **Start Position**: 22
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## Labor Mobilization
**Proportion of Working Age Population in the Workforce, 2000-2010**
- **Start Position**: 2
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**GDP per Workforce Participant, 2000-2010**
- **Start Position**: 34
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## New Business Formation
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## Innovation
**Patents per Employee, 2000-2010**
- **Start Position**: 40
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## Cluster Strength
**Employment in Strong Clusters, 1998-2009**
- **Start Position**: 7
- **Trend**: 15
- **Current Position**: 5 (+2)

## Leading Clusters
**by employment size, 2009 (national rank)**
- Business Services (30)
- Processed Food (11)
- Financial Services (27)
- Heavy Machinery (9)
- Medical Devices (21)
Comparative State Prosperity Performance
2000 - 2010

High but declining versus U.S.

High and rising prosperity versus U.S.

Low and declining versus U.S.

Low but rising versus U.S.

U.S. GDP per Capita: $42,346

Real Growth in Gross Domestic Product per Capita, 2000 to 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.

Low and declining versus U.S.

U.S. Labor Force Participation Rate: 64.7%

Notes: Source BLS.

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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.

Gross Domestic Product per Labor Force Participant, 2010

Real Growth in Gross Domestic Product per Labor Force Participant, 2000-2010

Sources: BEA, BLS. Notes: GDP in real 2005 dollars. Growth rate is calculated as compound annual growth rate.
Comparative State Employee Productivity Performance
2000-2010

Sources: BEA, BLS. Notes: GDP in real 2005 dollars. Growth rate is calculated as compound annual growth rate.
Comparative State Innovation Performance
2000 - 2010

U.S. average Growth Rate of Patenting: +2.25%

High and declining innovation

High and improving innovation rate versus U.S.

Low and declining innovation

Low and improving innovation


Patents per 10,000 Workers, 2010

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
Why?
What Drives State Productivity?

1. Quality of the Overall Business Environment
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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

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

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

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

**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

**Specialized Institutions**

- 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)

**Oilfield Services/Engineering & Contracting Firms**
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
- Sporting Equipment
- San Diego
- Military
- Climate and Geography

Analytical Instruments
Power Generation
Transportation and Logistics
Hospitality and Tourism
Sporting Equipment

1910
1930
1950
1970
1990
Traded Cluster Composition of the Nebraska Economy

Overall change in the Nebraska Share of US Traded Employment: 0.07%

Nebraska Overall Share of US Traded Employment: 0.79%

Change in Nebraska share of National Employment, 1998 to 2009

-0.6% -0.4% -0.2% 0.0% 0.2% 0.4% 0.6%

-0.6% -0.4% -0.2% 0.0% 0.2% 0.4% 0.6%


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Traded Cluster Composition of the Nebraska Economy
(continued)

Nebraska Overall Share of US Traded Employment: 0.79%

Overall change in the Nebraska Share of US Traded Employment: 0.07%


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Nebraska Job Creation in Traded Clusters
1998 to 2009

Net traded job creation, 1998 to 2009: +14,376

* Indicate expected job creation given national cluster growth.

* Percent change in national benchmark times starting regional employment. Overall traded job creation in the state, if it matched national benchmarks, would be 65.

Nebraska Wages in Traded Clusters vs. National Benchmarks

Nebraska average traded wage: $42,504

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

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

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

<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>
</tr>
</thead>
<tbody>
<tr>
<td>Connecticut</td>
<td>+27,171</td>
<td>7,028</td>
<td>20,142</td>
</tr>
<tr>
<td>New York</td>
<td>+24,102</td>
<td>3,628</td>
<td>20,474</td>
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<tr>
<td>Massachusetts</td>
<td>+16,169</td>
<td>4,391</td>
<td>11,778</td>
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<tr>
<td>New Jersey</td>
<td>+13,535</td>
<td>3,761</td>
<td>9,774</td>
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<tr>
<td>California</td>
<td>+9,573</td>
<td>349</td>
<td>9,224</td>
</tr>
<tr>
<td>Maryland</td>
<td>+6,651</td>
<td>2,496</td>
<td>4,155</td>
</tr>
<tr>
<td>Washington</td>
<td>+5,652</td>
<td>2,692</td>
<td>2,960</td>
</tr>
<tr>
<td>Virginia</td>
<td>+5,319</td>
<td>1,617</td>
<td>3,702</td>
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<tr>
<td>Illinois</td>
<td>+2,658</td>
<td>16</td>
<td>2,642</td>
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<tr>
<td>Colorado</td>
<td>+1,662</td>
<td>2,416</td>
<td>-754</td>
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<td>Texas</td>
<td>+352</td>
<td>2,494</td>
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<td>Delaware</td>
<td>+164</td>
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<td>Alaska</td>
<td>-930</td>
<td>-2,417</td>
<td>1,487</td>
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<td>Pennsylvania</td>
<td>-3,970</td>
<td>-995</td>
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<td>Louisiana</td>
<td>-4,280</td>
<td>95</td>
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<td>Georgia</td>
<td>-5,322</td>
<td>-1,102</td>
<td>-4,220</td>
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<td>Minnesota</td>
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<td>-425</td>
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<td>New Hampshire</td>
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<td>374</td>
<td>-6,761</td>
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<td>Arizona</td>
<td>-7,021</td>
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<td>-8,169</td>
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<td>Kansas</td>
<td>-7,705</td>
<td>2,241</td>
<td>-9,946</td>
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<td>Wyoming</td>
<td>-8,057</td>
<td>1,040</td>
<td>-9,097</td>
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<tr>
<td>Michigan</td>
<td>-8,176</td>
<td>-2,544</td>
<td>-5,633</td>
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<tr>
<td>North Carolina</td>
<td>-9,245</td>
<td>-4,330</td>
<td>-4,915</td>
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<tr>
<td>Ohio</td>
<td>-9,284</td>
<td>-2,495</td>
<td>-6,788</td>
</tr>
<tr>
<td>Rhode Island</td>
<td>-9,791</td>
<td>-2,290</td>
<td>-7,501</td>
</tr>
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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.
# Nebraska Performance Scorecard

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*by employment size, 2009 (national rank)*

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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

*Source: Porter/Stern/Delgado (2010), Porter (2003)*
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
  - State
  - Neighboring State
- Neighboring State
The economies of states are often an aggregation of distinct economic areas with differing circumstances.
Wage Performance in Nebraska Metropolitan Areas

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

Nebraska Average Private Wage: $35,246

Nebraska Growth Rate of Wages: 3.08%

U.S. Growth Rate of Wages: 3.01%

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

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

**Nebraska Average**
- Private Wage: $35,246

- **Omaha MSA**
- **Lincoln MSA**
- **Sioux City MSA**
- **Rest of State**

**Growth Rate of Private Employment, 1998-2009**
- **U.S. Growth Rate of Employment:** 0.52%
- **Nebraska Growth Rate of Employment:** 0.72%

Source: Census CBP, authors' analysis. Note: “Bubble” size in chart is proportional to employment in 2009.
Geographic and Governmental Influences on Productivity

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

- Nation
- State
- Metropolitan Areas
- Rural Regions
- Neighboring State

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Biggest Action Item of All
Create an Economic Strategy

- Define the Value Proposition
  - 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?

- 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?

<table>
<thead>
<tr>
<th>Tactical (Zero Sum Competition)</th>
<th>Strategic (Positive Sum Competition)</th>
</tr>
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<tbody>
<tr>
<td>Focus on attracting <strong>new</strong> investments</td>
<td>Also support greater local investment by <strong>existing</strong> companies</td>
</tr>
<tr>
<td>Compete for <strong>every</strong> plant</td>
<td>Reinforce areas of <strong>specialization</strong> and emerging cluster strength</td>
</tr>
<tr>
<td>Offer <strong>generalized</strong> tax breaks</td>
<td>Provide state support for training, infrastructure, and institutions with <strong>enduring benefits</strong></td>
</tr>
<tr>
<td>Provide <strong>subsidies</strong> to lower / offset business costs</td>
<td>Improve the <strong>efficiency of doing business</strong></td>
</tr>
<tr>
<td>Every city and sub-region <strong>for itself</strong></td>
<td>Harness efficiencies and coordination <strong>across jurisdictions</strong>, especially with neighbors</td>
</tr>
<tr>
<td><strong>Government</strong> drives investment attraction</td>
<td><strong>Government</strong> and the private sector <strong>collaborate</strong> to build cluster strength</td>
</tr>
</tbody>
</table>
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.