Nevada 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

Professor Michael E. Porter
Harvard Business School

August 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
<table>
<thead>
<tr>
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<tbody>
<tr>
<td>Prosperity GDP per Capita</td>
<td>9</td>
<td>48</td>
<td>20 -11</td>
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<td>Wages Average Private Wage</td>
<td>26</td>
<td>31</td>
<td>26 +0</td>
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<tr>
<td>Job Creation Private Employment Growth</td>
<td>1</td>
<td>50</td>
<td>50 -49</td>
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<td>Labor Mobilization Proportion of Working Age Population in the Workforce</td>
<td>16</td>
<td>26</td>
<td>19 -3</td>
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<tr>
<td>Labor Productivity GDP per Worker</td>
<td>12</td>
<td>47</td>
<td>17 -5</td>
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<tr>
<td>New Business Formation Traded Cluster Establishment Growth</td>
<td>1</td>
<td>50</td>
<td>40 -39</td>
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<tr>
<td>Innovation Patents per Employee</td>
<td>37</td>
<td>11</td>
<td>32 +5</td>
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<tr>
<td>Cluster Strength Employment in Strong Clusters</td>
<td>1</td>
<td>30</td>
<td>3 -2</td>
</tr>
</tbody>
</table>

Leading Clusters by employment size, 2009 (national rank)
- Business Services (35)
- Hospitality and Tourism (26)
- Transportation and Logistics (28)
- Entertainment (19)
- Leather and Related Products (5)
Comparative State Prosperity Performance
1999 - 2009

Source: Bureau of Economic Analysis. Note: Growth rate is calculated as compound annual growth rate.
Comparative State Labor Mobilization Performance
1999-2010

Proportion of Working Age Population in the Workforce, 2010

High but declining versus U.S.

Low and declining versus U.S.

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

Low but rising versus U.S.

Notes: Source BLS.
Comparative State Labor Productivity Performance
1999-2009

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

High but declining versus U.S.

Highly productive and productivity rising versus U.S.

Low and declining versus U.S.

Low but rising versus U.S.

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


High and declining innovation
- Arkansas (-6.9%, 1.34)
- Idaho (-6.0%, 0.76)
- Louisiana (-6.0%, 1.34)
- Montana (-5.7%, 1.58)

High and improving innovation rate versus U.S.
- California (+9.8%, 13.53)
- Oregon (+4.9%, 10.31)

Low and declining innovation
- Alaska (1.5%, 1.77)
- Delaware (1.3%, 1.30)
- Idaho (0.7%, 0.76)
- New Mexico (-5.7%, 1.58)

Low and improving innovation
- Connecticut (+0.8%, 1.06)
- Florida (+0.8%, 1.06)
- Georgia (+0.8%, 1.06)
- Hawaii (+0.8%, 1.06)
- Illinois (+0.8%, 1.06)

U.S. average Growth Rate of Patenting: -0.30%
U.S. average Patents per 10,000 Employees: 5.96
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

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)

Specialized Institutions

(e.g., Academic Institutions, Training Centers, Industry Associations)

Downstream

Oil & Natural Gas Transportation

Oil & Natural Gas Trading

Oil & Natural Gas Refining

Oil & Natural Gas Distribution

Oil & Natural Gas Wholesale Marketing

Oil & Natural Gas Retail Marketing

Gas Gathering

Gas Processing

Gas Trading

Gas Transmission

Gas Distribution

Gas Marketing

Business Services

(e.g., MIS Services, Technology Licenses, Risk Management)
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

1910: Bioscience Research Centers
1930: Aerospace Vehicles and Defense
1950: Transportation and Logistics
1970: Communications Equipment
1990: Information Technology

- Hospitality and Tourism
- Sporting Equipment
- Power Generation
- Medical Devices
- Biotech / Pharmaceuticals
- Education and Knowledge Creation
- Analytical Instruments
Traded Cluster Composition of the Nevada Economy

Overall change in the Nevada Share of US Traded Employment: 0.16%

Sports, Recreational and Children's Goods
(1.00%, 1.49%)

Leather and Related Products
(3.12%, 5.51%)

Transportation and Logistics

Heavy Construction Services

Nevada Overall Share of US Traded Employment: 0.62%

Hospitality and Tourism

Business Services

Financial Services

Aerospace Engines

Jewelry and Precious Metals

Entertainment
(-0.48%, 1.72%)

Power Generation and Transmission
(-0.24%, 0.53%)

Building Fixtures, Equipment, and Services

Chemical Products

Production Technology

Medical Devices

Prefabricated Enclosures

Analytical Instruments

Education and Knowledge Creation

Distribution Services

Processing

Plastics

Processed Food

Lighting and Electrical Equipment

Biopharmaceuticals

Aerospace Vehicles and Defense

Textiles

Motor Driven Products

Aircraft

Motor Vehicles

Healthcare Equipment

Communication Equipment

Data Processing

Software

Publishing and Printing

Information Technology

Forest Products

Construction Materials

Sports, Recreational and Children's Goods

Prefabricated Enclosures

Employees 7,000 =

2011 – State Competitiveness – Rich Bryden
Nevada Job Creation in Traded Clusters
1998 to 2009

Indicates expected job creation given national cluster growth.*

Net traded job creation, 1998 to 2009:
+44,173

* Percent change in national benchmark times starting regional employment. Overall traded job creation in the state, if it matched national benchmarks, would be +11,040

Nevada 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>Oregon</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.
### Nevada Performance Scorecard

#### Prosperity
*GDP per Capita, 1999-2009*

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#### Wages
*Average Private Wage, 1998-2009*

| 26 | 31 | 26 +0 |

#### Job Creation

| 1   | 50 | 50 -49 |

#### Labor Mobilization
*Proportion of Working Age Population in the Workforce, 1999-2010*

| 16  | 26 | 19 -3 |

#### Labor Productivity
*GDP per Worker, 1999-2009*

| 12  | 47 | 17 -5 |

#### New Business Formation

| 1   | 50 | 40 -39 |

#### Innovation
*Patents per Employee, 1999-2009*

| 37  | 11 | 32 +5 |

#### Cluster Strength
*Employment in Strong Clusters, 1998-2009*

| 1   | 30 | 3 -2 |

#### Leading Clusters
*by employment size, 2009 (national rank)*

- Business Services (35)
- Hospitality and Tourism (26)
- Transportation and Logistics (28)
- Entertainment (19)
- Leather and Related Products (5)
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

Aligning Economic Policy and Clusters

- Business Attraction
- Education and Workforce Training
- Export Promotion
- Science and Technology Investments (e.g., centers, university departments)
- Natural Resource Protection
- Standard Setting / Certification Organizations
- Specialized Physical Infrastructure
- Environmental Improvement

- 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
The economies of states are often an aggregation of distinct economic areas with differing circumstances.
Wage Performance in Nevada Metropolitan Areas

Growth Rate of Private Wages, 1998-2009

U.S. Average Private Wage: $42,403
Nevada Average Private Wage: $37,554

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

Growth Rate of Private Wages, 1998-2009

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

Nevada Average Private Wage: $37,554

Reno MSA

Las Vegas MSA

Rest of State

Carson City MSA

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
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
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1. How is your state doing?  State Performance Scorecard

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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.