Virginia Competitiveness:
Creating a State Economic Strategy
The Economic Challenge for Governors in 2012

Enhancing State Competitiveness

Achieving Fiscal Stability
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>
<th>Category</th>
<th>Start Position</th>
<th>Trend</th>
<th>Current Position</th>
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<tr>
<td><strong>Prosperity</strong></td>
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<tr>
<td>GDP per Capita, 2000-2010</td>
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<td>8 +6</td>
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<td><strong>Wages</strong></td>
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<td>Average Private Wage, 1998-2009</td>
<td>15</td>
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<td>11 +4</td>
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<td><strong>Job Creation</strong></td>
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<td><strong>Labor Mobilization</strong></td>
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<td>12 +16</td>
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<td>Proportion of Working Age Population in the Workforce, 2000-2010</td>
<td>28</td>
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<td><strong>Labor Productivity</strong></td>
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<td>GDP per Workforce Participant, 2000-2010</td>
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<td><strong>New Business Formation</strong></td>
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<td>5 +1</td>
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<tr>
<td><strong>Innovation</strong></td>
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<td>30</td>
<td>31 -1</td>
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<td>Patents per Employee, 2000-2010</td>
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<tr>
<td><strong>Cluster Strength</strong></td>
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<td>34</td>
<td>18 +16</td>
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<tr>
<td>Employment in Strong Clusters, 1998-2009</td>
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<tr>
<td><strong>Leading Clusters</strong></td>
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<tr>
<td>by employment size, 2009 (national rank)</td>
<td>• Business Services (3)</td>
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<tr>
<td></td>
<td>• Textiles (5)</td>
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<td></td>
<td>• Furniture (4)</td>
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<td></td>
<td>• Tobacco (2)</td>
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</tr>
<tr>
<td></td>
<td>• NA</td>
<td></td>
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</tbody>
</table>

**State Rank**
- **1-10**: 21-30
- **31-40**: 31-40
- **11-20**: 11-20
- **41-50**: 41-50

2012 State Competitiveness – Rich Bryden
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

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

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

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

-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.

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

U.S. GDP per Employed Worker
Real Growth: 1.42%

Highly productive and productivity rising versus U.S.

High but declining versus U.S.

U.S. GDP per Employed Worker: $94,315

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.
Comparative State Innovation Performance 2000 - 2010

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

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

- 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 Transportation

Oil Trading

Oil Refining

Oil Distribution

Gas Gathering

Gas Processing

Gas Trading

Gas Transmission

Gas Distribution

Gas Marketing

Oil Wholesale Marketing

Oil Retail Marketing

Oil & Natural Gas
Completion & Production

Oil & Natural Gas
Exploration & Development

Gas Gathering

Gas Processing

Gas Trading

Gas Transmission

Gas Distribution

Gas Marketing

Oilfield Services/Engineering & Contracting Firms

Subcontractors
(e.g., Surveying, Mud Logging, Maintenance Services)

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


U.S. Military
Climate and Geography

Hospitality and Tourism
Transportation and Logistics
Power Generation
Aerospace Vehicles and Defense
Communications Equipment
Analytical Instruments
Education and Knowledge Creation

Sporting Equipment
Information Technology
Medical Devices
Biotech / Pharmaceuticals

Bioscience Research Centers

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

Overall change in the Virginia Share of US Traded Employment: 0.47%

Virginia Overall Share of US Traded Employment: 2.99%

Employment 1998-2000
- Added Jobs
- Lost Jobs

Employees 20,000 =


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Traded Cluster Composition of the Virginia Economy (continued)

Overall change in the Virginia Share of US Traded Employment: 0.47%

Virginia Overall Share of US Traded Employment: 2.99%

Change in Virginia share of National Employment, 1998 to 2009


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Virginia Job Creation in Traded Clusters
1998 to 2009

Net traded job creation, 1998 to 2009: 119,342

* Percent change in national benchmark times starting regional employment. Overall traded job creation in the state, if it matched national benchmarks, would be 5,457.

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>
</tr>
</thead>
<tbody>
<tr>
<td>Connecticut</td>
<td>+27,171</td>
<td>7,028</td>
<td>20,142</td>
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<tr>
<td>New York</td>
<td>+24,102</td>
<td>3,628</td>
<td>20,474</td>
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<td>Massachusetts</td>
<td>+16,169</td>
<td>4,391</td>
<td>11,778</td>
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<td>New Jersey</td>
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<td>California</td>
<td>+9,573</td>
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<td>Maryland</td>
<td>+6,651</td>
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<td>4,155</td>
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<td>2,960</td>
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<td>Virginia</td>
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<td>Rhode Island</td>
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<tr>
<td>Oregon</td>
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<td>-9,002</td>
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<td>Florida</td>
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<td>Wisconsin</td>
<td>-11,722</td>
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<td>-8,206</td>
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<td>Nebraska</td>
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<td>Utah</td>
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<td>Tennessee</td>
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<td>Montana</td>
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<tr>
<td>South Dakota</td>
<td>-20,968</td>
<td>289</td>
<td>-21,257</td>
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</table>

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.
## Virginia Performance Scorecard

### Prosperity
*GDP per Capita, 2000-2010*

<table>
<thead>
<tr>
<th>Start Position</th>
<th>Trend</th>
<th>Current Position</th>
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</thead>
<tbody>
<tr>
<td>14</td>
<td>12</td>
<td>8 (+6)</td>
</tr>
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</table>

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

<table>
<thead>
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<th>Start Position</th>
<th>Trend</th>
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<tbody>
<tr>
<td>15</td>
<td>3</td>
<td>11 (+4)</td>
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</tbody>
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### Job Creation

<table>
<thead>
<tr>
<th>Start Position</th>
<th>Trend</th>
<th>Current Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>33</td>
<td>19 (-11)</td>
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</table>

### Labor Mobilization
*Proportion of Working Age Population in the Workforce, 2000-2010*

<table>
<thead>
<tr>
<th>Start Position</th>
<th>Trend</th>
<th>Current Position</th>
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</thead>
<tbody>
<tr>
<td>28</td>
<td>2</td>
<td>12 (+16)</td>
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</table>

### Labor Productivity
*GDP per Workforce Participant, 2000-2010*

<table>
<thead>
<tr>
<th>Start Position</th>
<th>Trend</th>
<th>Current Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>11</td>
<td>24</td>
<td>12 (-1)</td>
</tr>
</tbody>
</table>

### New Business Formation

<table>
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<th>Start Position</th>
<th>Trend</th>
<th>Current Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>34</td>
<td>5 (+1)</td>
</tr>
</tbody>
</table>

### Innovation
*Patents per Employee, 2000-2010*

<table>
<thead>
<tr>
<th>Start Position</th>
<th>Trend</th>
<th>Current Position</th>
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</thead>
<tbody>
<tr>
<td>30</td>
<td>17</td>
<td>31 (-1)</td>
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</table>

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

<table>
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<th>Trend</th>
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<td>18 (+16)</td>
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### Leading Clusters
*by employment size, 2009 (national rank)*

- Business Services (3)
- Textiles (5)
- Furniture (4)
- Tobacco (2)
- #NA

*State Rank*:
- 1-10
- 11-20
- 21-30
- 31-40
- 41-50
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

Neighboring State

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 Virginia Metropolitan Areas

U.S. Growth Rate of Wages: 3.01%
Virginia Growth Rate of Wages: 3.68%

Danville MSA
Harrisonburg MSA
Kingsport MSA*
Blacksburg MSA
Richmond MSA
Roanoke MSA
Winchester MSA*
Washington MSA*
Rest of State
Virginia Beach MSA*
Charlottesville MSA

Average Private Wage, 2009

$25,000 $30,000 $35,000 $40,000 $45,000 $50,000 $55,000 $60,000 $65,000

Growth Rate of Private Wages, 1998-2009

2.0% 2.3% 2.5% 2.8% 3.0% 3.3% 3.5% 3.8% 4.0%

Virginia Average Private Wage: $44,799
U.S. Average Private Wage: $42,403

Source: Census CBP, authors' analysis. Note: “Bubble” size in chart is proportional to employment in 2009.

*Virginia portion only
Employment Performance in Virginia Metropolitan Areas

*Virginia portion only
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
Agenda

1. How is your state doing?  
   State Performance Scorecard

2. Why?  
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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
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.