Kentucky Competitiveness: Creating a State Economic Strategy

March 20, 2012

For further material on regional competitiveness and clusters: [www.isc.hbs.edu/econ-clusters.htm](http://www.isc.hbs.edu/econ-clusters.htm)
For state economic profiles: [www.isc.hbs.edu/econ-statesregions.htm](http://www.isc.hbs.edu/econ-statesregions.htm)
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
## Kentucky Performance Scorecard

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

- **Start Position**: 44
- **Trend**: 33
- **Current Position**: 43 (+1)

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

- **Start Position**: 34
- **Trend**: 36
- **Current Position**: 39 (-5)

### Job Creation

- **Start Position**: 26
- **Trend**: 29
- **Current Position**: 31 (-5)

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

- **Start Position**: 44
- **Trend**: 14
- **Current Position**: 41 (+3)

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

- **Start Position**: 38
- **Trend**: 38
- **Current Position**: 43 (-5)

### New Business Formation

- **Start Position**: 21
- **Trend**: 24
- **Current Position**: 25 (-4)

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

- **Start Position**: 41
- **Trend**: 23
- **Current Position**: 39 (+2)

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

- **Start Position**: 14
- **Trend**: 40
- **Current Position**: 23 (-9)

### Leading Clusters
**by employment size, 2009**

- **State Rank**: 21-30
- **1-10**: Green
- **31-40**: Orange
- **11-20**: Lime
- **41-50**: Red

- **State Rank**: 21-30

- **Leading Clusters**
  - Automotive (5)
  - Transportation (18)
  - Metal Manufacturing (15)
  - Plastics (12)
  - Production Technology (19)
Comparative State Prosperity Performance
2000 - 2010

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

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

Highly productive and productivity rising versus U.S.

High but declining versus U.S.

Low but rising versus U.S.

Low and declining versus U.S.

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

U.S. GDP per Labor Force Participant: $85,229

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

High but declining versus U.S.

Highly productive and productivity rising versus U.S.

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

Gross Domestic Product per Employed Worker, 2010

Low and declining versus U.S.

Low but rising versus U.S.

Real Growth in Gross Domestic Product per Employed Worker, 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

High and declining innovation

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

High and improving innovation rate versus U.S.

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

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

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

Research Organizations

Biological Products

Biopharmaceutical Products

Health and Beauty Products

Teaching and Specialized Hospitals

Surgical Instruments and Suppliers

Medical Equipment

Dental Instruments and Suppliers

Ophthalmic Goods

Diagnostic Substances

Containers

Educational Institutions
Harvard, MIT, Tufts, Boston University, UMass

Analytical Instruments Cluster

Example: Massachusetts Life Sciences 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

**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

1910
1930
1950
1970
1990

- 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
- Sport Equipment
Traded Cluster Composition of the Kentucky Economy

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

Kentucky Overall Share of US Traded Employment: 1.28%


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Traded Cluster Composition of the Kentucky Economy (continued)

Kentucky national employment share, 2009

Change in Kentucky share of National Employment, 1998 to 2009

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

Kentucky Overall Share of US Traded Employment: 1.28%

Kentucky Job Creation in Traded Clusters
1998 to 2009

Net traded job creation, 1998 to 2009: -35,259

Indicates 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 -58,039

Kentucky Wages in Traded Clusters vs. National Benchmarks

Kentucky average traded wage: $40,549

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

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.
## Kentucky Performance Scorecard

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

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<thead>
<tr>
<th>Start Position</th>
<th>Trend</th>
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### Wages
*Average Private Wage, 1998-2009*

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### Job Creation

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

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

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### New Business Formation

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

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

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

- Automotive (5)
- Transportation (18)
- Metal Manufacturing (15)
- Plastics (12)
- Production Technology (19)
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
Defining the Appropriate Economic Regions

The economies of states are often an aggregation of distinct economic areas with differing circumstances.

Wage Performance in Kentucky Metropolitan Areas

**Average Private Wage, 2009**

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

- **Kentucky Average**
  - Private Wage: $34,790

**Growth Rate of Private Wages, 1998-2009**

- **U.S. Growth Rate of Wages: 3.01%**
- **Kentucky Growth Rate of Wages: 2.84%**

**Source**: Census CBP, authors' analysis.

Note: "Bubble" size in chart is proportional to employment in 2009.

*Kentucky portion only

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Employment Performance in Kentucky Metropolitan Areas

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

Kentucky Average Private Wage: $34,790

-2.0%   -1.5%   -1.0%   -0.5%   0.0%   0.5%   1.0%   1.5%   2.0%

Growth Rate of Private Employment, 1998-2009

Kentucky Growth Rate of Employment: 0.27%

U.S. Growth Rate of Employment: 0.52%

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

*Kentucky portion only

Average Private Wage, 2009

- $28,000
- $30,000
- $32,000
- $34,000
- $36,000
- $38,000
- $40,000
- $42,000
- $44,000

Louisville MSA*
Huntington MSA*
Lexington MSA
Cincinnati MSA*
Owensboro MSA
Evansville MSA*
Bowling Green MSA
Clarksville MSA*
Elizabethtown MSA
Rest of State
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?  
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Agenda

1. How is your state doing? State Performance Scorecard
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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.