Regional Competitiveness in a Global Economy

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The Changing Nature of Domestic and International Competition

• **Falling barriers** to trade and investment
• Globalization of **markets**
• Globalization of company **value chains**
• Increasing **knowledge and skill intensity** of competition
• Value is increasingly concentrated in **service functions**, not manufacturing activities themselves
• Shift from vertical integration to relying on **outside suppliers, partners, and institutions**
• **Rising logistical costs** due to costs of energy and emissions
• Costs in **China and India** are rising rapidly
What Determines Competitiveness?

• Competitiveness depends on the **productivity** with which a location uses its human, capital, and natural resources.
  
  – Productivity **sets the sustainable standard of living** (wages, returns on capital, returns on natural resources)
  
  – It is not **what** industries a nation competes in that matters for prosperity, but **how** it competes in those industries

• Nations and regions compete to offer the **most productive environment for business**

• The public and private sectors play **different but interrelated roles** in creating a productive economy
Innovation and Regional Performance

U.S. States

Average Wage, 2005

Note: Excludes three states (AK, ID, VT) where a single patentor accounts for more than 50% of patents and the top 5 patentors account for more than 80%.

Source: U.S. Patent and Trademark Office; CHI Research; County Business Patterns; Michael E. Porter

\[ R^2 = 0.5207 \]
Productivity and the Business Environment

Context for Firm Strategy and Rivalry

- Local \textit{rules and incentives} that encourage investment and productivity
  - e.g. intellectual property protection
- Vigorous \textit{local competition}

Factor (Input) Conditions

- Access to high quality \textit{business inputs}
  - Human resources
  - Capital access
  - Physical infrastructure
  - Information access
  - Scientific and technological infrastructure
  - Administrative infrastructure (e.g. registration, permitting)

Demand Conditions

- \textit{Sophistication} of local \textit{customers} and \textit{needs}
  - E.g. strict quality, safety, and environmental standards

Related and Supporting Industries

- Availability of \textit{suppliers} and \textit{supporting industries}

- Many things matter for competitiveness.
- Successful economic development is a process of \textit{successive upgrading}, in which the business environment improves to enable increasingly sophisticated ways of competing

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Clustering and Competitiveness
Tourism Cluster in Cairns, Australia

- Public Relations & Market Research Services
- Food Suppliers
- Property Services
- Maintenance Services

- Travel agents
- Tour operators
- Attractions and Activities e.g., theme parks, casinos, sports
- Restaurants
- Hotels
- Airlines, Cruise Ships

- Government agencies e.g. Australian Tourism Commission, Great Barrier Reef Authority
- Educational Institutions e.g. James Cook University, Cairns College of TAFE
- Industry Groups e.g. Queensland Tourism Industry Council

- Local retail, health care, and other services
- Local Transportation
- Souvenirs, Duty Free
- Banks, Foreign Exchange

Sources: HBS student team research (2003) - Peter Tynan, Chai McConnell, Alexandra West, Jean Hayden
Clusters and Competitiveness

California Wine Cluster

- Grapestock
- Fertilizer, Pesticides, Herbicides
- Grape Harvesting Equipment
- Irrigation Technology

State Government Agencies (e.g., Select Committee on Wine Production and Economy)

Growers/Vineyards

Winery/Processing Facilities

- Winemaking Equipment
- Barrels
- Bottles
- Caps and Corks
- Labels
- Public Relations and Advertising
- Specialized Publications (e.g., Wine Spectator, Trade Journal)

Educational, Research, & Trade Organizations (e.g., Wine Institute, UC Davis, Culinary Institutes)

Sources: California Wine Institute, Internet search, California State Legislature. Based on research by MBA 1997 students R. Alexander, R. Arney, N. Black, E. Frost, and A. Shivananda.

California Agricultural Cluster

Tourism Cluster

Food Cluster
Process of Cluster Development
The Australian Wine Cluster

1930
First oenology course at Roseworthy Agricultural College

1955
Australian Wine Research Institute founded

1965
Australian Wine Bureau established

1970
Winemaking school at Charles Sturt University founded

1980
Australian Wine and Brandy Corporation established

1990
Winemaker’s Federation of Australia established

1991 to Present
New organizations created for education, research, market information, and export promotions

1950s
Import of European winery technology

1960s
Recruiting of experienced foreign investors, e.g. Wolf Bass

1970s
Continued inflow of foreign capital and management

1980s
Creation of large number of new wineries

1990s
Surge in exports and international acquisitions

2005

The Process of Economic Development
Shifting Roles and Responsibilities

Old Model

- **Government** drives economic development through top-down 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

- Competitiveness is fundamentally a **bottoms-up process** in which many individuals, companies, and institutions participate

- **Every** community and cluster can take steps to enhance competitiveness
Specialization of Regional Economies
Selected U.S. Geographic Areas

- **Seattle-Bellevue-Everett, WA**: Aerospace Vehicles and Defense, Fishing and Fishing Products, Analytical Instruments
- **San Francisco-Oakland-San Jose Bay Area**: Communications Equipment, Agricultural Products, Information Technology
- **Los Angeles Area**: Apparel, Building Fixtures, Equipment and Services, Entertainment
- **Denver, CO**: Leather and Sporting Goods, Oil and Gas, Aerospace Vehicles and Defense
- **Wichita, KS**: Aerospace Vehicles and Defense, Heavy Machinery, Oil and Gas
- **Chicago**: Communications Equipment, Processed Food, Heavy Machinery
- **Pittsburgh, PA**: Construction Materials, Metal Manufacturing, Education and Knowledge Creation
- **Boston**: Analytical Instruments, Education and Knowledge Creation, Communications Equipment
- **Raleigh-Durham, NC**: Communications Equipment, Information Technology, Education and Knowledge Creation
- **Atlanta, GA**: Construction Materials, Transportation and Logistics, Business Services
- **San Diego**: Leather and Sporting Goods, Power Generation, Education and Knowledge Creation
- **San Francisco-Oakland-San Jose Bay Area**: Communications Equipment, Agricultural Products, Information Technology
- **Houston**: Oil and Gas Products and Services, Chemical Products, Heavy Construction Services
- **Wichita, KS**: Aerospace Vehicles and Defense, Heavy Machinery, Oil and Gas

Note: Clusters listed are the three highest ranking clusters in terms of share of national employment.
Automotive Cluster Specialization by Economic Area, 2004

Regions with high cluster specialization and high share of US employment (LQ>1.3 and top 10 employment)

Regions high cluster specialization and with moderate share (LQ>1.3 and cluster employment > 1000)

Adjacent EAs tend to specialize in the same cluster

Detroit-Warren-Flint, MI (LQ=6.63, Share=15.72%)
New York Metropolitan Area
Specialization by Traded Cluster, 1995-2005

New York Metro Overall Share of US Employment: 6.6%
Overall change in the New York Metro Share of US Employment: +0.04%

Jewelry and Precious Metals (31.7%, +7.1%)

100,000 Employees =

Note: Clusters with overlapping borders or identical shading have at least 20% overlap (by average of the proportion of tier1 industries shared in each direction.)
The Evolution of Regional Economies
San Diego

Climate and Geography

- Hospitality and Tourism
- Transportation and Logistics
- Power Generation
- Aerospace Vehicles and Defense
- Analytical Instruments

U.S. Military

- Communications Equipment
- Information Technology
- Education and Knowledge Creation
- Medical Devices
- Biotech / Pharmaceuticals

Bioscience Research Centers

Drivers of Regional Job Growth, Wages, and Patenting

- Specialization in **strong clusters**
- **Breadth** of industries within each cluster
- Positions in **related clusters**
- Presence of the same cluster in **neighboring regions**

**Not significant**

- Positions in High-Tech clusters versus other clusters

Clusters and Regional Prosperity
European Regions

GDP per Capita (PPP adjusted), 2004

Note: Strong clusters defined by LQ>2; NUTS Regions excluding Portugal and Greece.
Source: European Cluster Observatory. ISC/CSC cluster codes 1.0, dataset 20070510
Globalization and U.S. Economic Performance

• The U.S. economy has registered **remarkable economic performance**
  BUT

• The value of education and skills have **risen dramatically**

• Less skilled Americans face **more competition for work** and **restraints on wages**
  – Exacerbated by low skilled immigration

• There is a high rate of **job churn**
  – High job creation but high job loss
Strategic Position of the United States

Core Strengths

• Entrepreneurship

• Free and open competition

• Deep and efficient capital markets

• Innovation
International Patenting Output

Selected Countries

Annual U.S. patents per million population, 2006

Source: USPTO (2006)


-5% 0% 5% 10% 15% 20% 25% 30% 35%
Strategic Position of the United States

Core Strengths

• Entrepreneurship

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• Innovation

• Economic decentralization
Cluster Strength in Europe versus the United States

Source: European Clusterobservatory
Strategic Position of the United States

Core Strengths

• Entrepreneurship

• Free and open competition

• Deep and efficient capital markets

• Innovation

• Economic decentralization

• The U.S. needs to preserve, renew and reinvest in these strengths, especially in competition and trade policy, financial market regulation, and inputs to innovation.
## Strategic Position of the United States

### Core Strengths
- Entrepreneurship
- Free and open competition
- Deep and efficient capital markets
- Innovation
- Economic decentralization

### Weaknesses
- Unnecessary costs of doing business
  - Regulation and litigation
  - Corporate tax rates/complexity
  - Energy and environmental inefficiency
  - Inadequate value from high health care spending
- Weak transitional security blanket
  - Retraining effectiveness
  - Health insurance access and mobility
  - Pension security
- Distortions in the international trading system
  - IP protection
  - Access to services markets in other countries
  - Distortions and subsidies
- Diminished U.S. leadership in international economic development
- Human resource challenges
  - Training Americans vs. low skilled immigration
  - K-12 ineffectiveness
  - Access to higher education
Agenda for the United States

- Begin a fact-based dialogue on America’s challenges
- Mount a U.S. competitiveness strategy vs. quick fixes and false “solutions”
- Tackle America’s human resource weaknesses
- Address weaknesses in the U.S. business environment e.g., commit to open competition Create an effective and efficient regulatory environment
- Renew America’s innovation infrastructure
- Realign federal economic policy around regions and cluster development
Clusters and Economic Policy

- Clusters provide a framework for **implementing public policy** and **organizing public-private collaboration** to enhance competitiveness.
Agenda for the United States

• Begin a **fact-based dialogue** on America’s challenges

• Mount a U.S. competitiveness **strategy**
  – vs. quick fixes and false “solutions”

• Tackle America’s **human resource weaknesses**

• Address weaknesses in the U.S. **business environment**
  – E.g., commit to open competition
  – Create an effective and efficient regulatory environment

• Renew America’s **innovation infrastructure**

• Realign federal economic policy around **regions and cluster development**