

The Great Lakes

A World-Leading Bi-national Economic Region

Ontario Investment and Trade Services

Toronto, Canada

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What is this Initiative about?

- Understanding the economic history and current economic positioning of the Great Lakes bi-national region
- Identifying the region's strengths and weaknesses in today's global economy
- Articulating the economic benefits to the region, countries, and world of high road economic strategy
- Setting out the emerging policy implications for Canada and the US



Emerging Global Economic Regions

Global Cities

Population Class

- 5,000,000 and greater
- 500,000 to 1,000,000
- 1,000,000 to 5,000,000
- 250,000 to 500,000

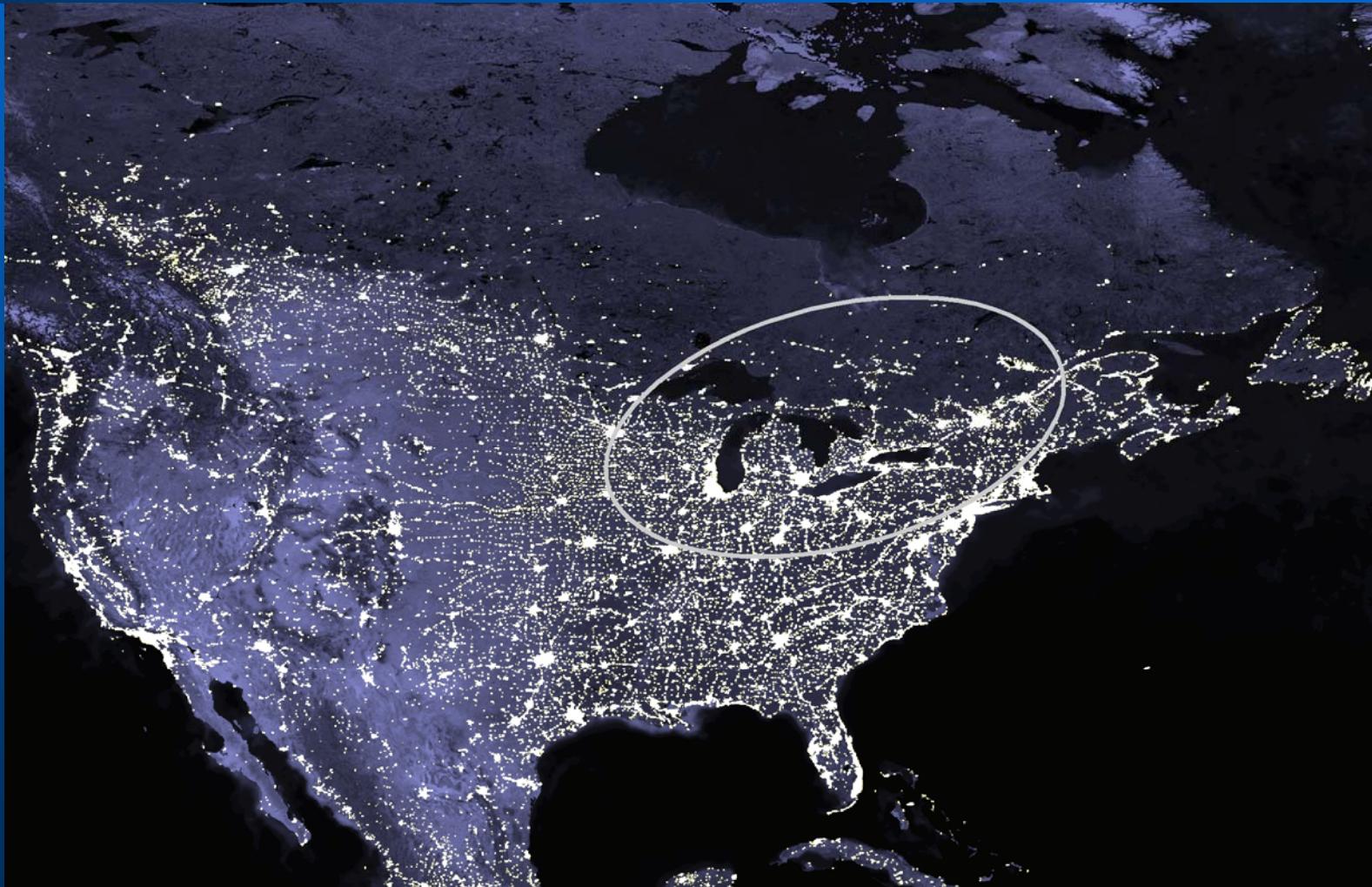


Map Source: B.
Affolter-Caine: 2007



Great Lakes Economic Region

North America
at Night



Map Source: B.
Affolter-Caine: 2007



The Arc of Development Within the US

Land of Abundant Resources, Raw Materials

Treaty of Paris 1783 – Ends Revolution, Part of Quebec to America

Northwest Ordinance, Louisiana Purchase

Water Infrastructure, canals added: Erie, Chicago Sanitary and Ship Canal (historically known as the Chicago Drainage Canal), Soo Locks, 1895

Homestead, Morrill Acts 1860s, Railroads advance,

Agro-Industrialization; Great Industries/Barons (Rockefeller, Carnegie, Ford)

Immigrants, Great Migration

Labor – Rise of Blue Collar Worker

Canada US Auto Pact (1965), NAFTA (1994)



The Arc of Development Within Canada

Pre-Confederation

- Explorers Brulé, Champlain, Hudson arrive in Great Lakes region; settlers follow
- United Empire Loyalists flock to Canada after American Revolution
- First Canadian bank established, 1817
- Welland Canal built, 1820s
- Toronto Stock Exchange created, 1861

Confederation - Ontario, Quebec join with New Brunswick and Nova Scotia to create Canada, 1867

Post-Confederation

- National Policy, 1879 put in place to build and protect Central Canada's industrial base
- Canadian Pacific Railway finished in 1885 to strengthen east-west links
- Mineral deposits discovered in northern Ontario, early 1900s
- First credit union established in Levis, Que, 1900
- Henry Ford arranges for automotive assembly in Windsor to serve British Empire, 1903
- Ontario Hydro created, 1906
- Postwar baby- and immigration-boom, 1945 - 1958
- St Lawrence Seaway completed, 1959
- Foreign Investment Review Agency, 1973; name changed to Investment Canada, 1985
- Canada-US free trade, 1989; NAFTA, 1994



Platform for Sustainable Growth

1/5 World's Freshwater

3,000 Miles Seaway Corridor

High Quality of Place

Water-Based Development

Natural Landscapes: Forests, Rivers and Lakes

Clean-Green Technologies

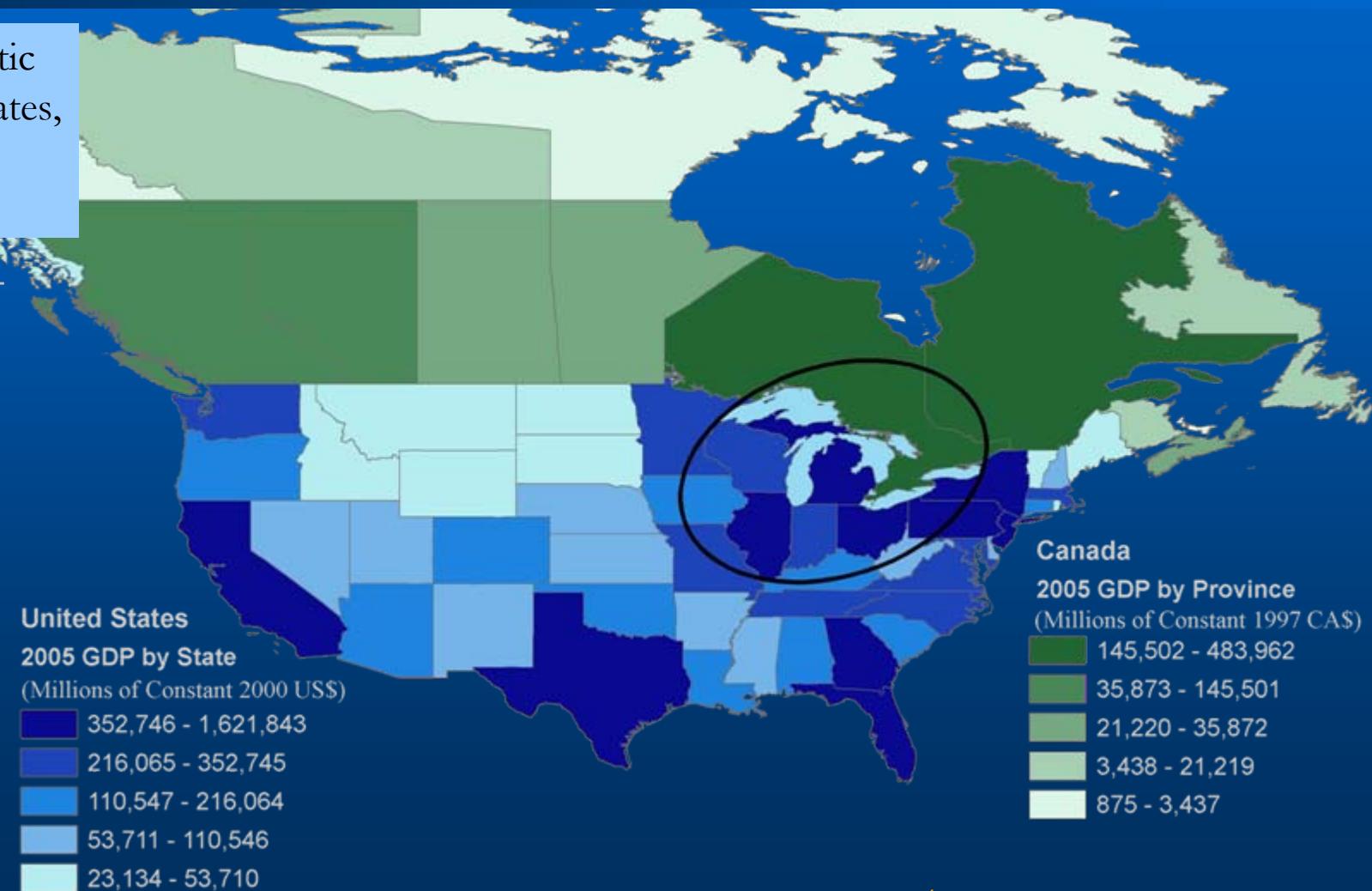
10,900 Miles of Shoreline



Canada-US Regional GDP Scale

Gross Domestic Product by States, by Provinces, 2005

Source: B. Affolter-Caine, 2007

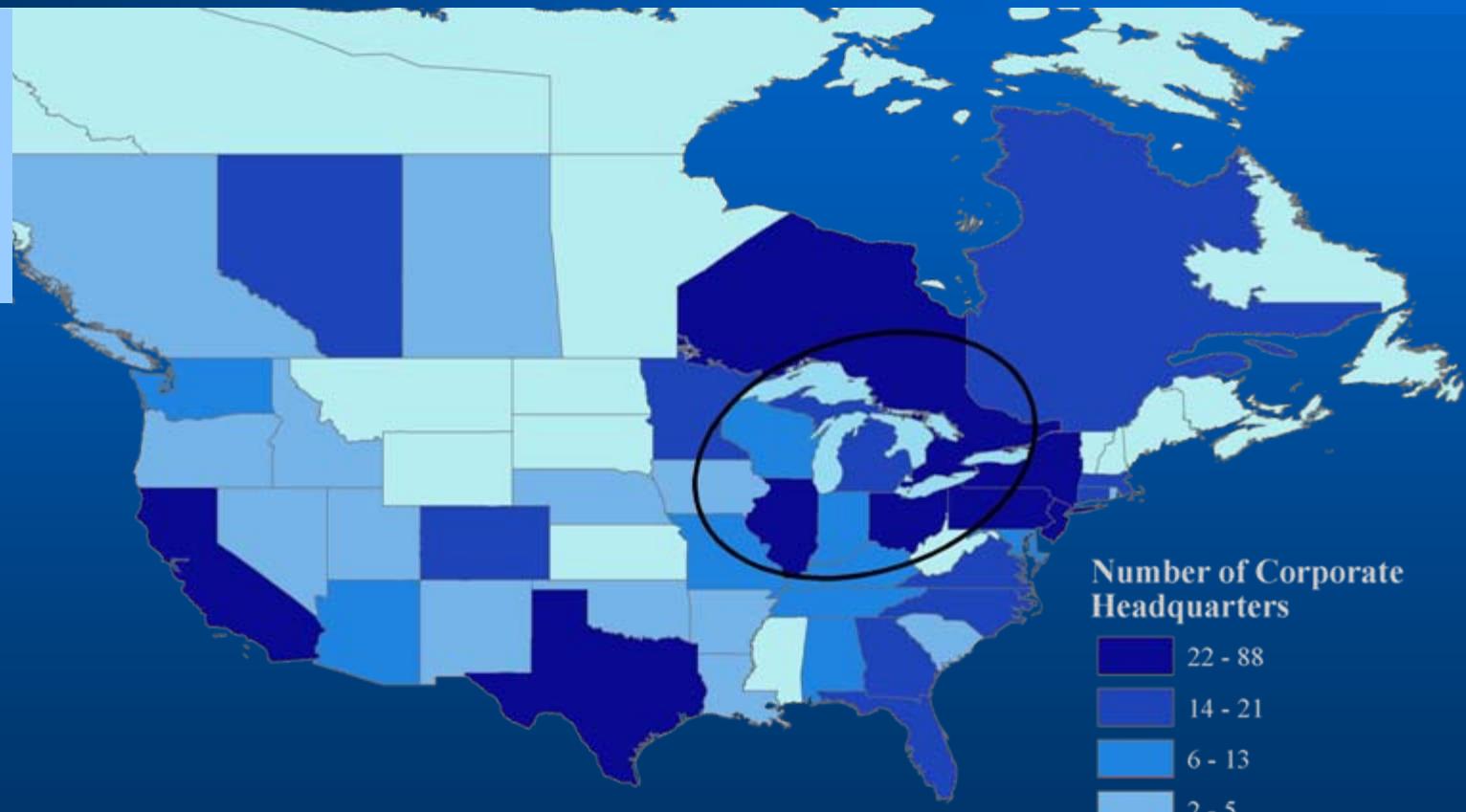




Significant Proportion of Headquarters in Region

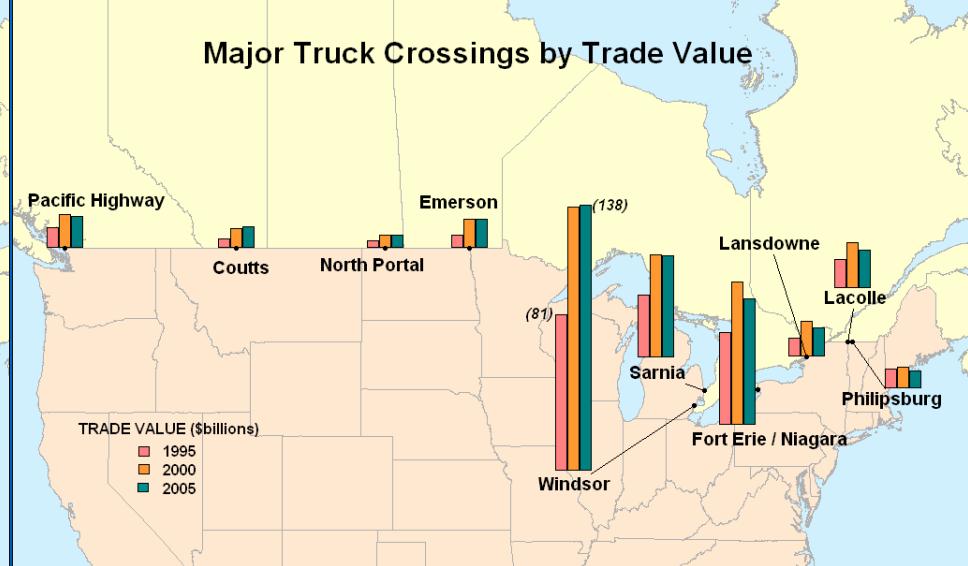
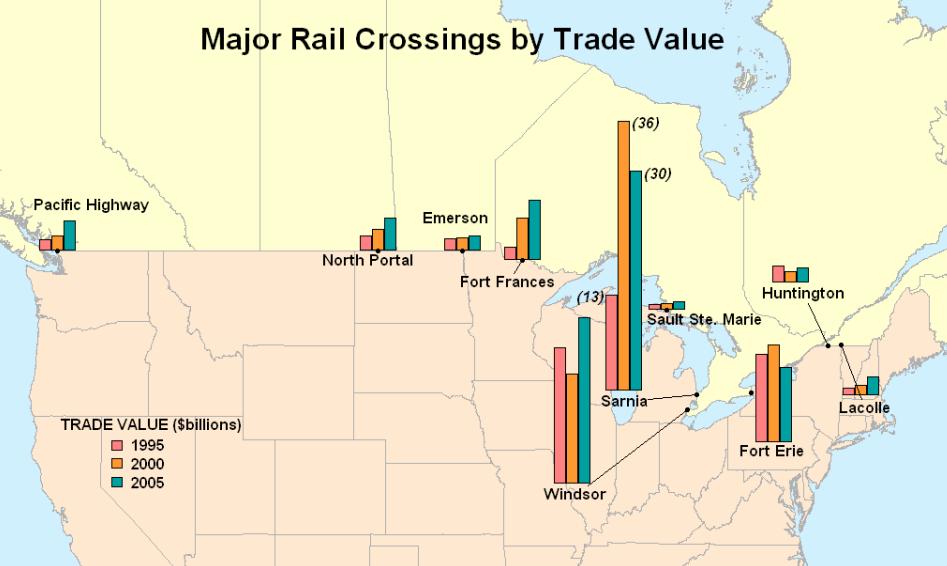
Forbes' International 2000 Company Headquarters, 2004

Map Source: B. Affolter-Caine, 2007

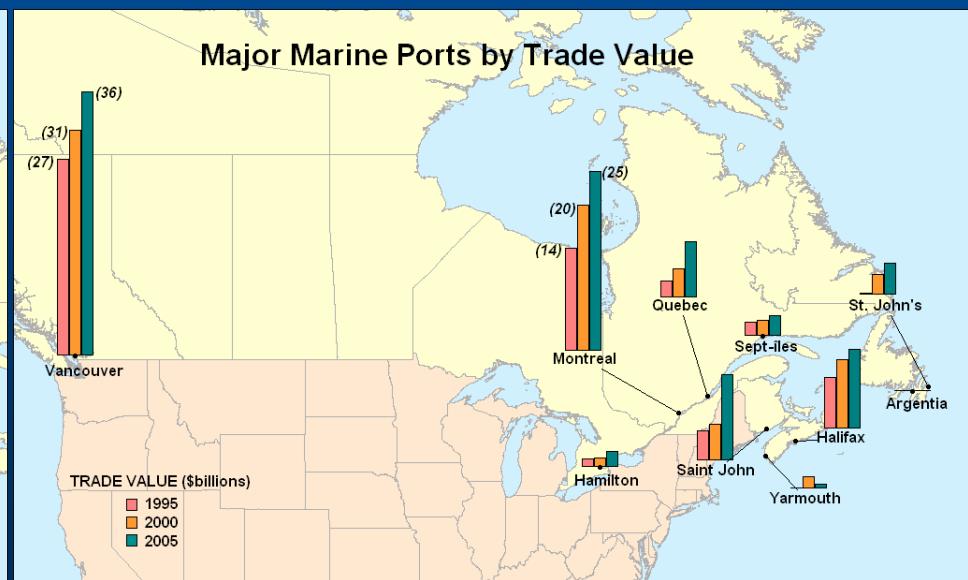
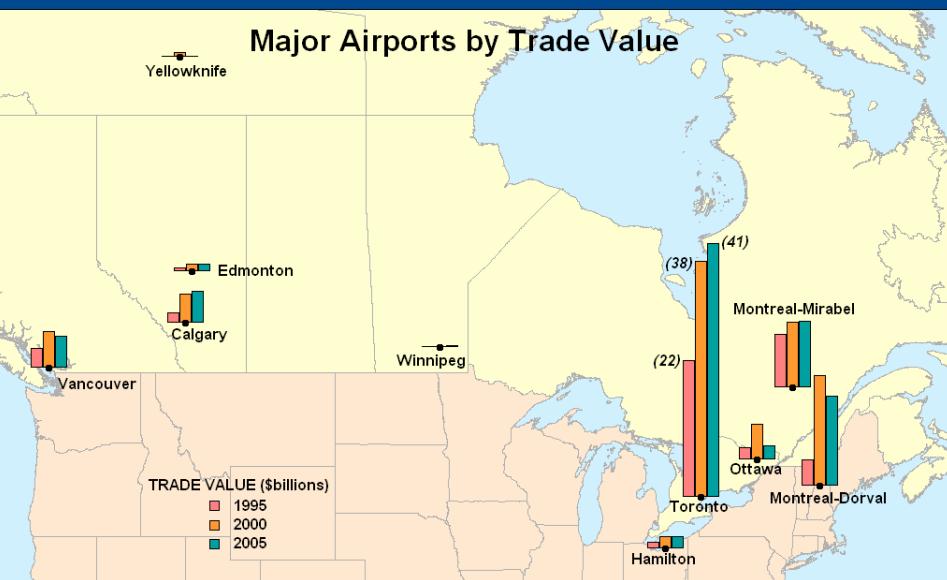


Of 2,000 headquarters, 723 in Canada and US; 213 in Great Lakes Economic Region (excluding those located in cities outside the region, such as NYC and Philadelphia) – 30 percent of North America and 11 percent of the world.

Source: Authors' analysis utilizing data from Forbes' list of the world's 2000 largest corporations.



Canada-US Largest Bi-Lateral Trade in world (\$1.8 billion/day) located in Great Lakes

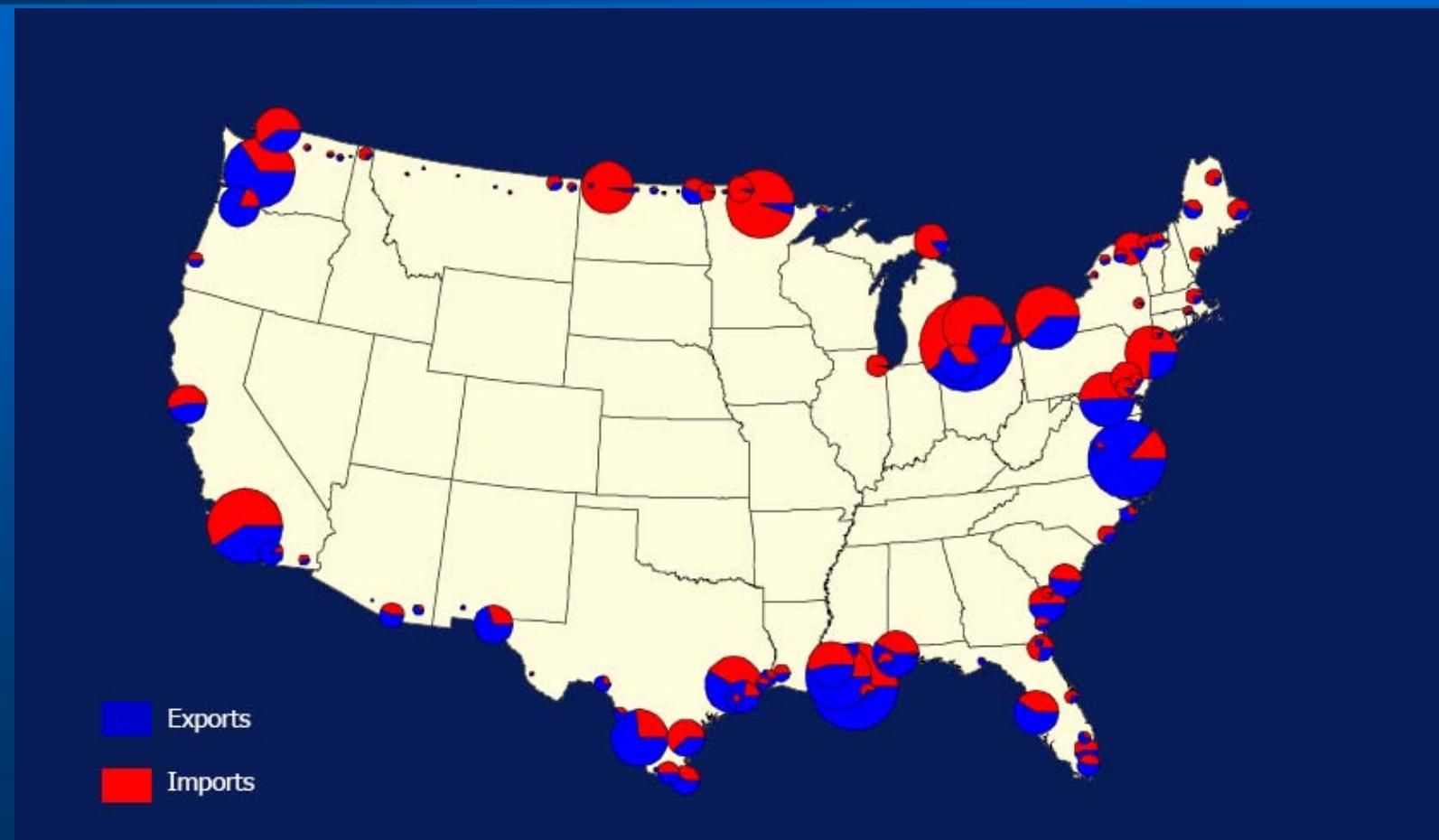




Canada-US: Gateways for International Trade

International
Freight:
Second to
None (US
exports and
imports in
tons)

Source: Testa,
2007

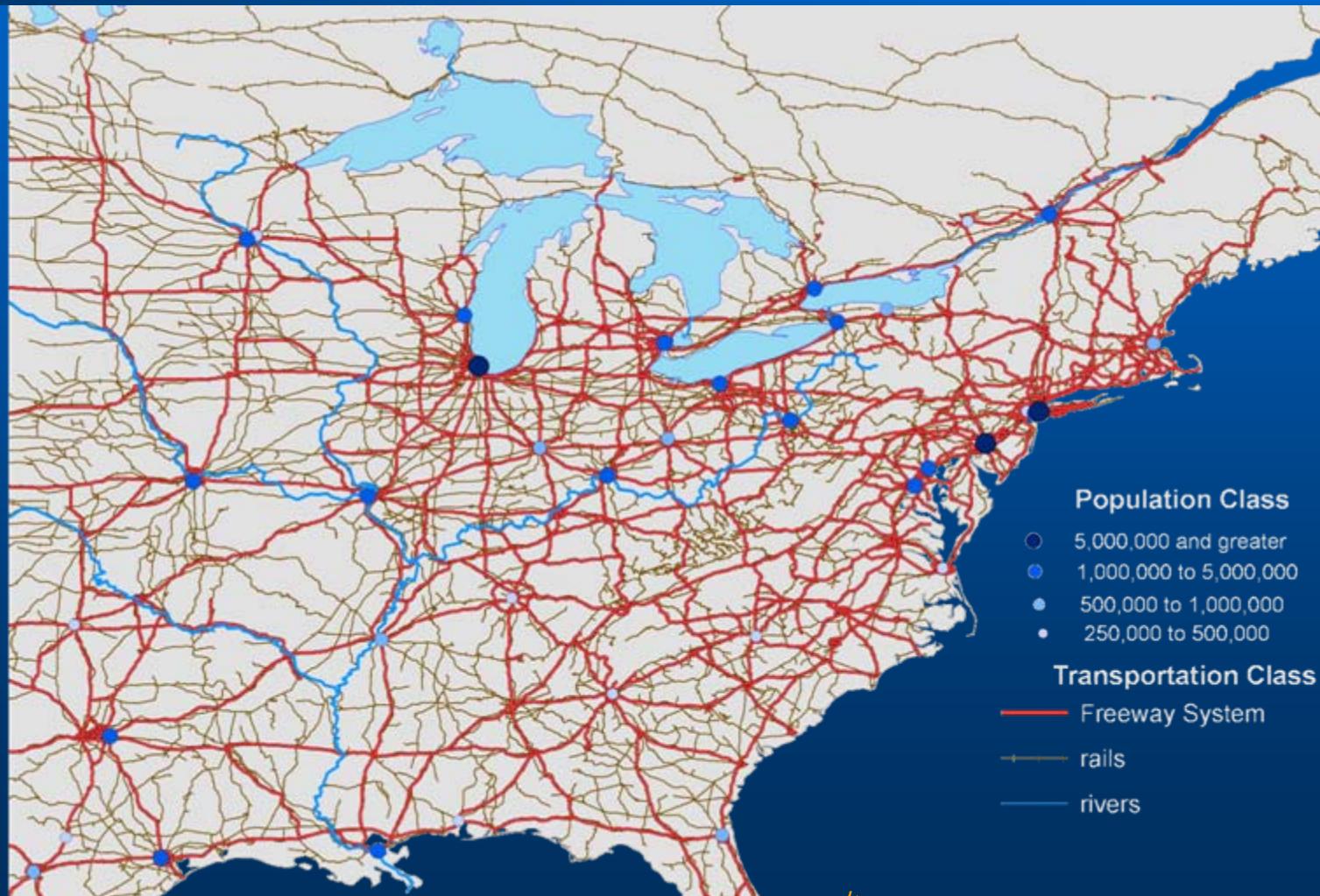




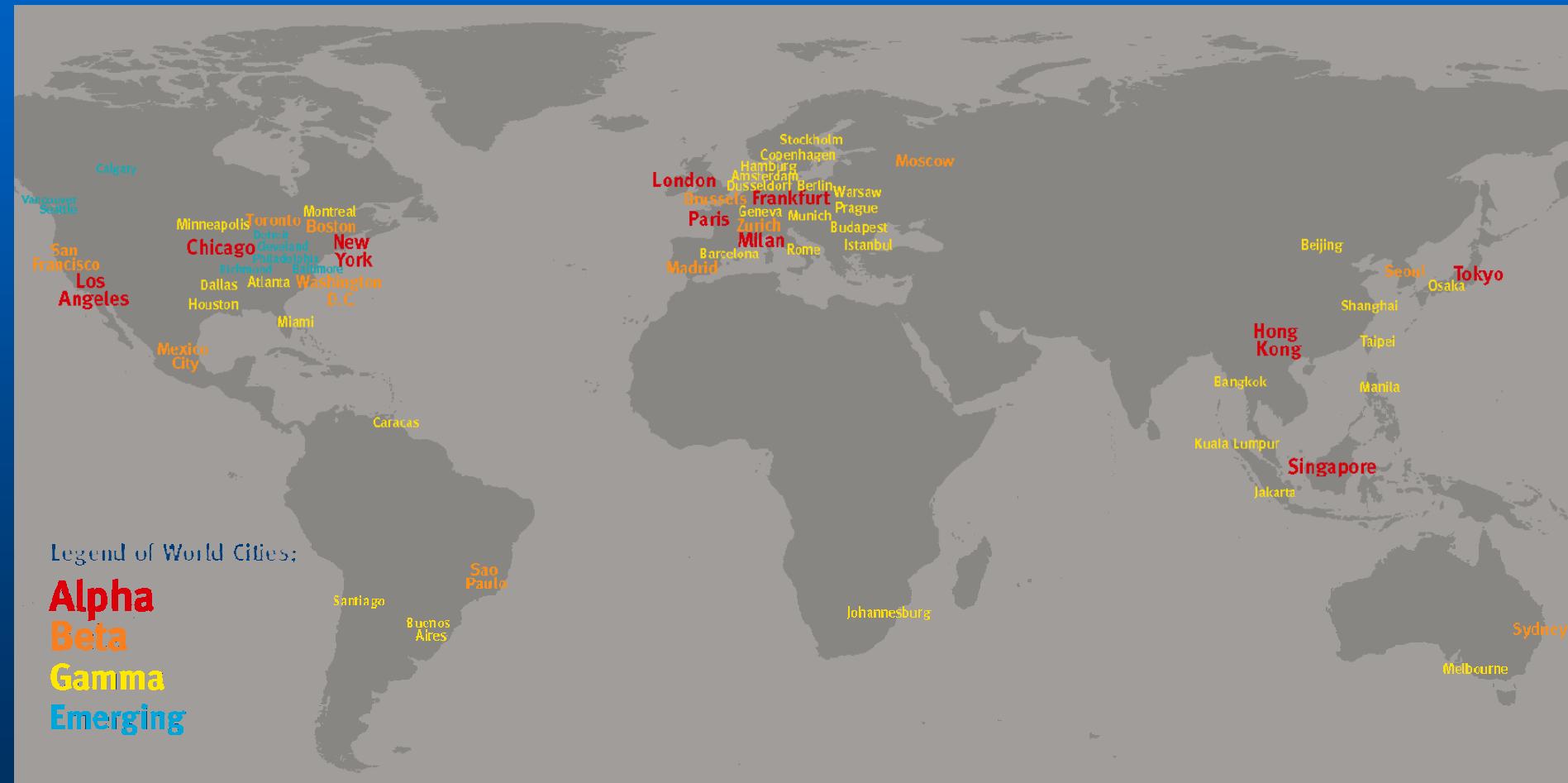
US-Canada: Significant infrastructure for Global Commerce

Population
Centres - Roads,
Waterways, Rail

Source: B. Affolter-
Caine, 2007



Canada-US Globally Engaged Supercities



Source: Yaro, *America 2050*, Regional Plan Association



Key factors that shape economic growth

Market-Structuring Policies

- Tax and regulatory environment
- Human capital markets
- Tariff and non-tariff barriers
- Financial markets
- Treatment of Intellectual Property
- Trade Policy
- Border issues/logistics
- Investment policy

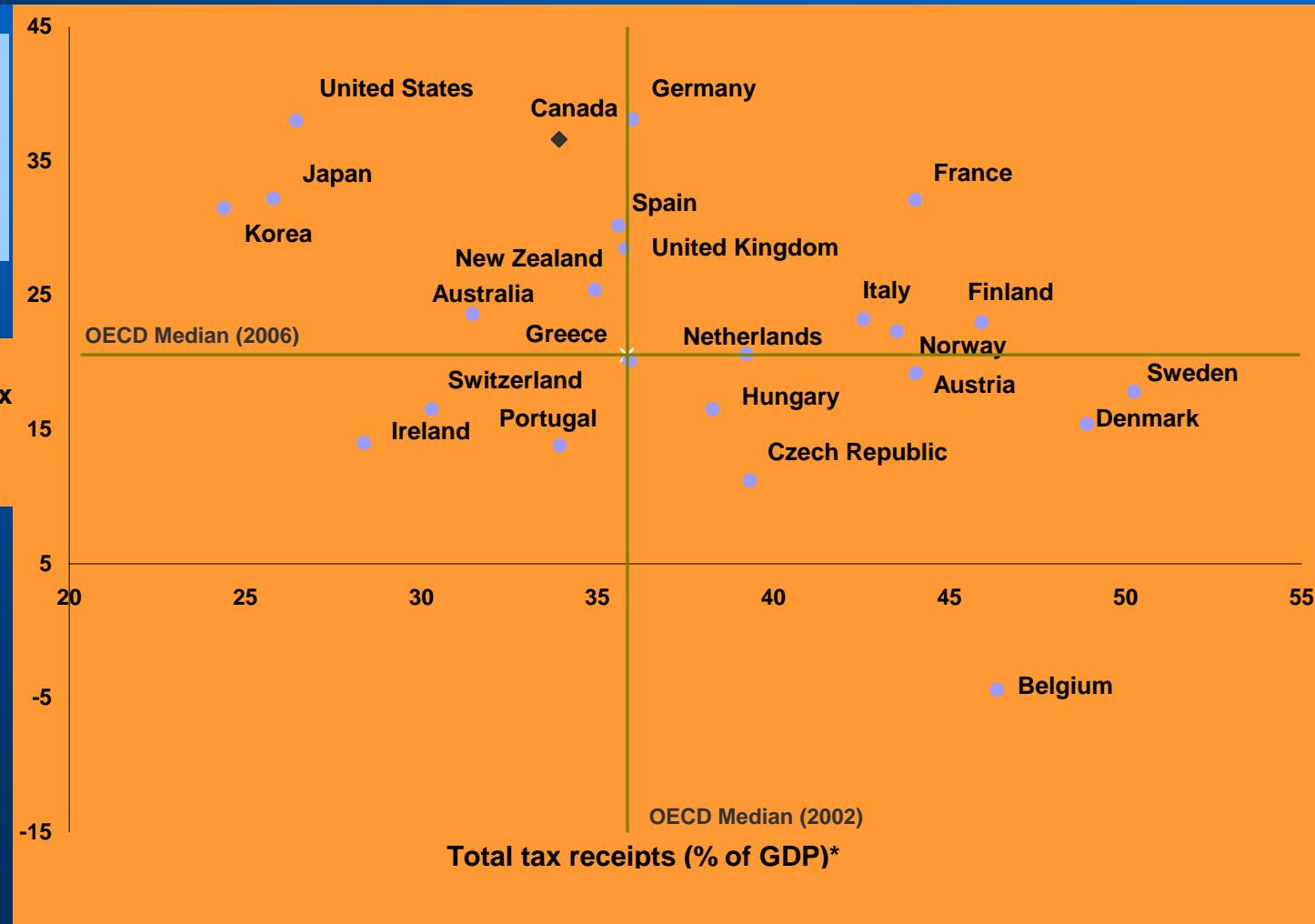


Tax and Regulatory Environment

High Taxes on
Business Investment
in Both Countries,
2006

Marginal effective tax
rate on business
investment (%)

Sources: Institute for
Competitiveness and
Prosperity based on OECD,
OECD in Figures, 2005
edition, statistics on the
member countries; Jack M.
Mintz, "The 2006 Tax
Competitiveness Report:
Proposals for Pro-Growth Tax
Reform," C.D. Howe Institute
Commentary, No. 239





Human Capital Markets

- Huge learning infrastructure
- Access issues: financial and otherwise
- Standards/credits, transferability
- Credentials, licensing, portability
- Benefits portability



Remove Non-Tariff Barriers

Continue Advances under Security and Prosperity Partnership (SPP)

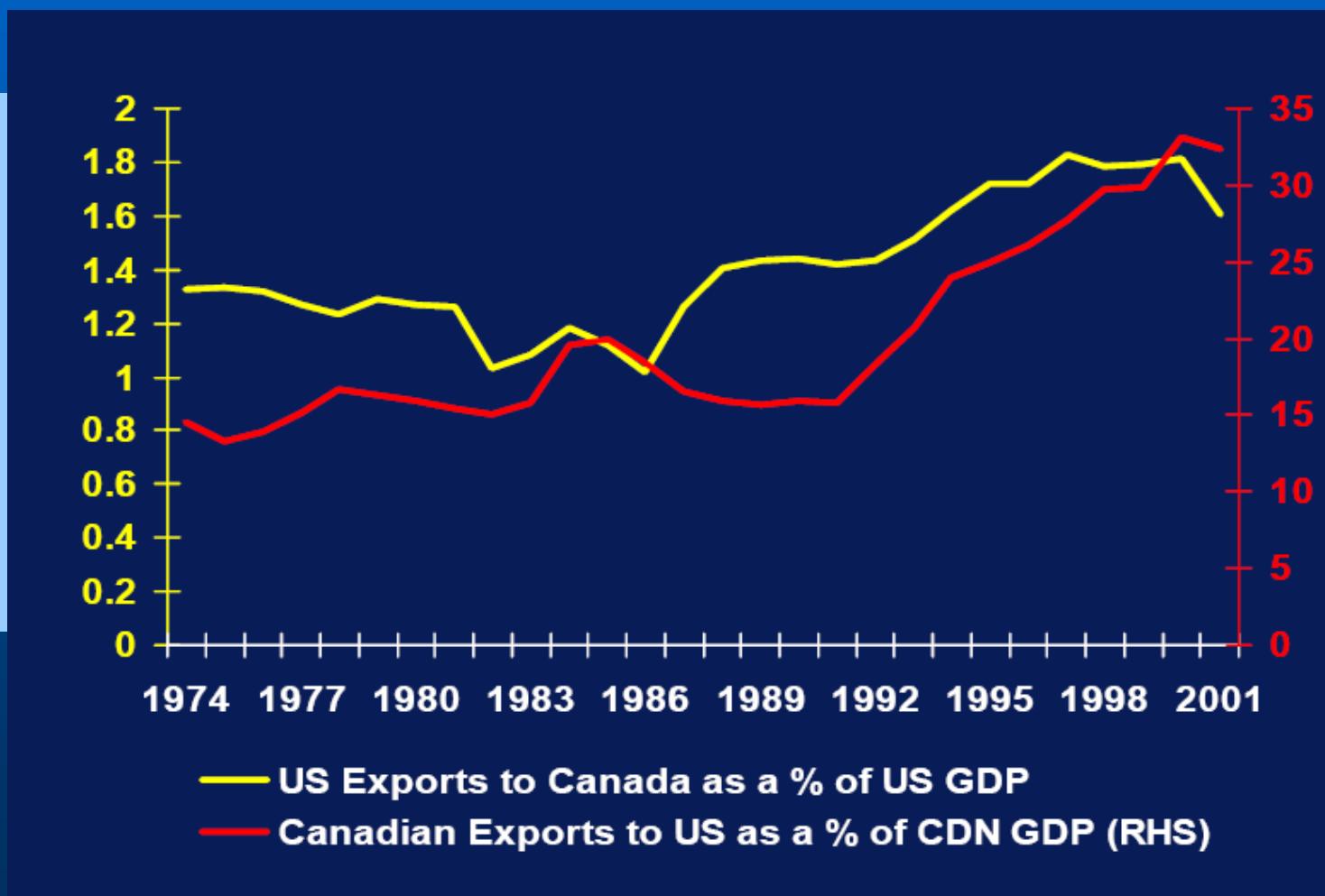
Issues

- standards: products, safety
- regulations: pipelines, energy, air travel
- information exchange/data-sharing: cargo manifests
- government procurement



Trade Policy and Border Issues/Logistics

- NAFTA
 - Increased capital flows
 - Spread technology
 - Increased productivity
 - Higher wages
 - Lower prices
 - More consumer choice





Trade Policy and Border Issues/Logistics

NAFTA Dialogue-Development Continues Security and Prosperity Partnership Process

Issues

- Overall North American Competitiveness/Council
- Sectors and specific trade impediments
- Free Trade Agreement enhancements-extensions
- Energy Security
- Smart, Secure Borders
- Border facilitation and regulations
- Emergency Management
- Avian and Pandemic Influenza

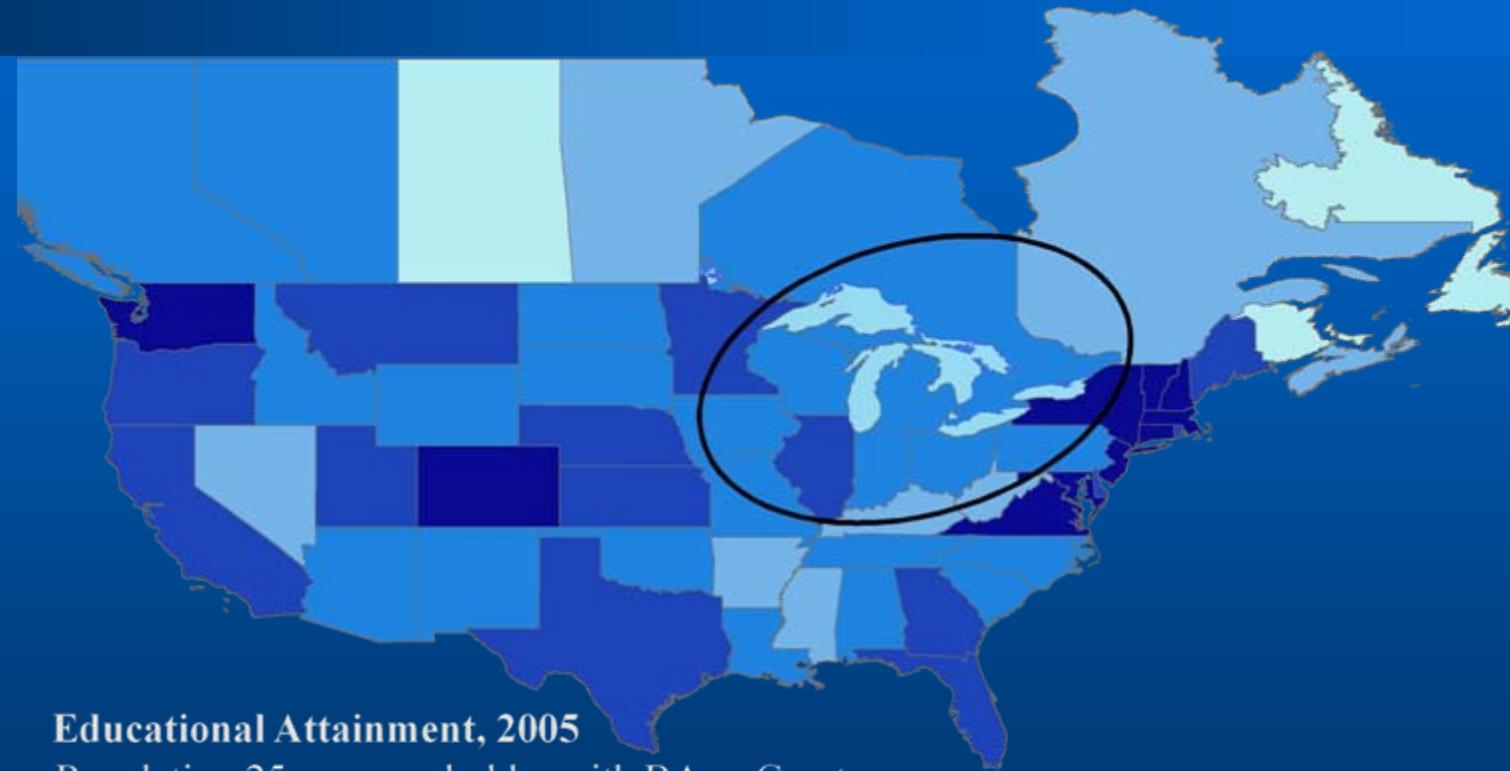


Talent/Human Capital

Educational Attainment for Persons 25 Years of Age and Older, 2005

Data Source: StatCan, 2006; NSF, 2006

Map Source: B. Affolter-Caine, July, 2006



Population 25 years and older with BA or Greater

> 30 %
25 - 30 %
20 - 25 %
15 - 20 %
< 15 %



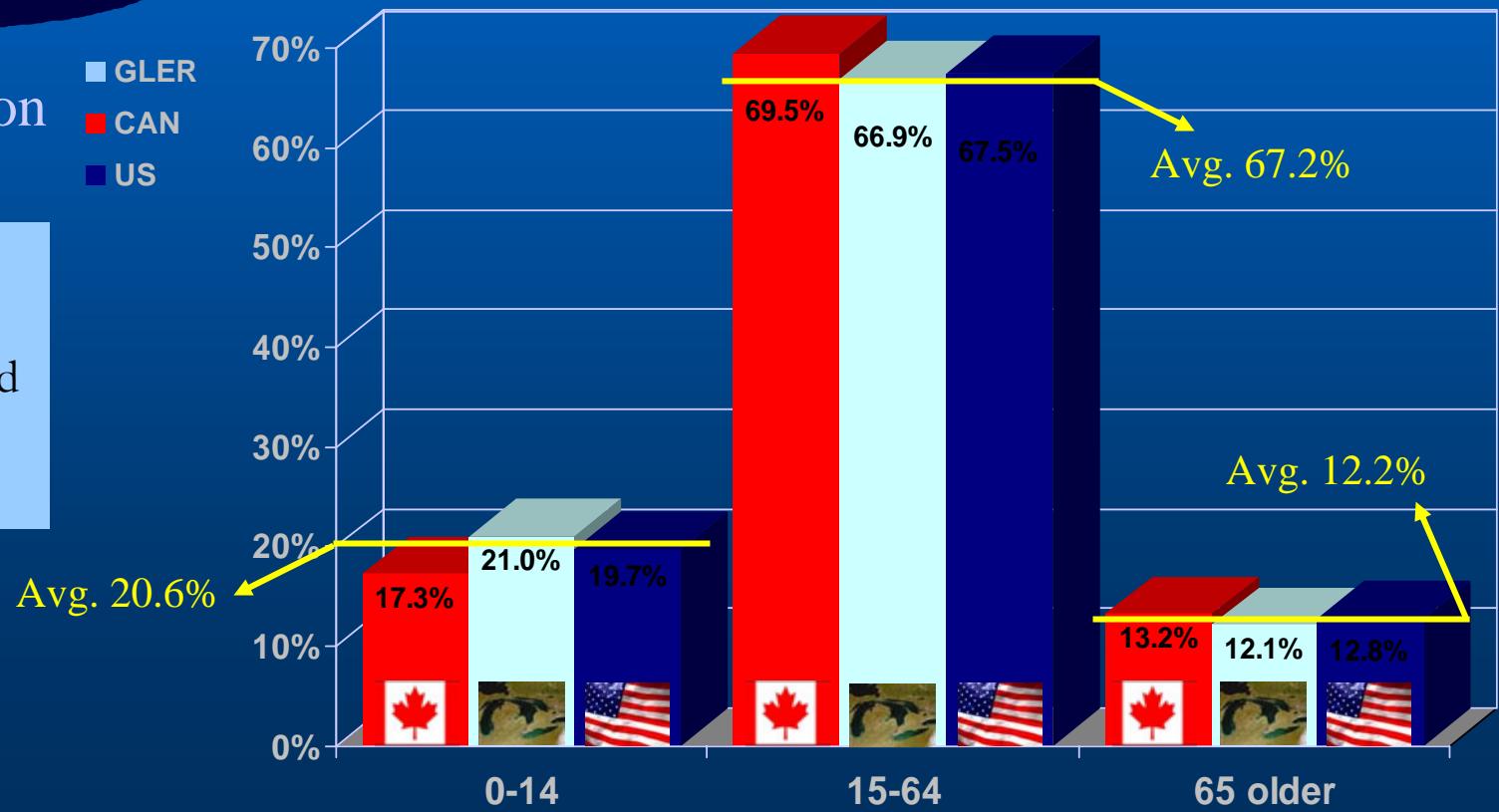
Demographics



Shares of Population by Nation/Region and by Age Group, 2005

Source: Authors' analysis of US Census and StatCan data, 2007

Percent of People within Geography by Age Group

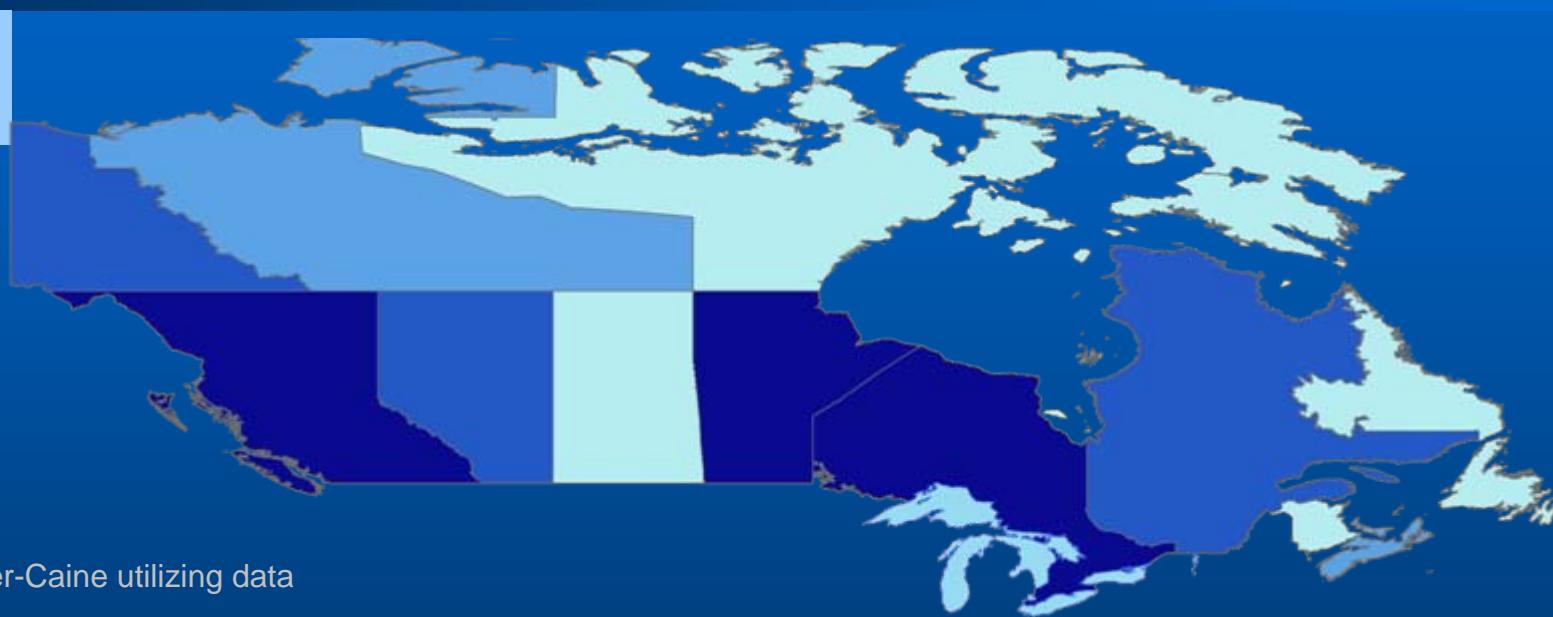
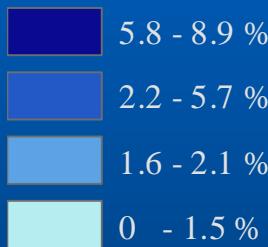




A key driver to Canada's growth is immigration

Net Immigration
2005-2006

Quartiles



Map Source: B. Affolter-Caine utilizing data
from StatCan, 2007

- More than 52% of immigrants, around 133,100, chose Ontario as their new place of residence. This was the lowest proportion since 1993/1994. The province's attraction for immigrants has been declining since the turn of the millennium.
- The second most popular destination for immigrants was British Columbia, which jumped into second place, passing Quebec for the first time since 2000/2001.
- Quebec received 42,000 immigrants, and for the first time since the beginning of the 1990s surpassed the 40,000 mark for a third consecutive year.

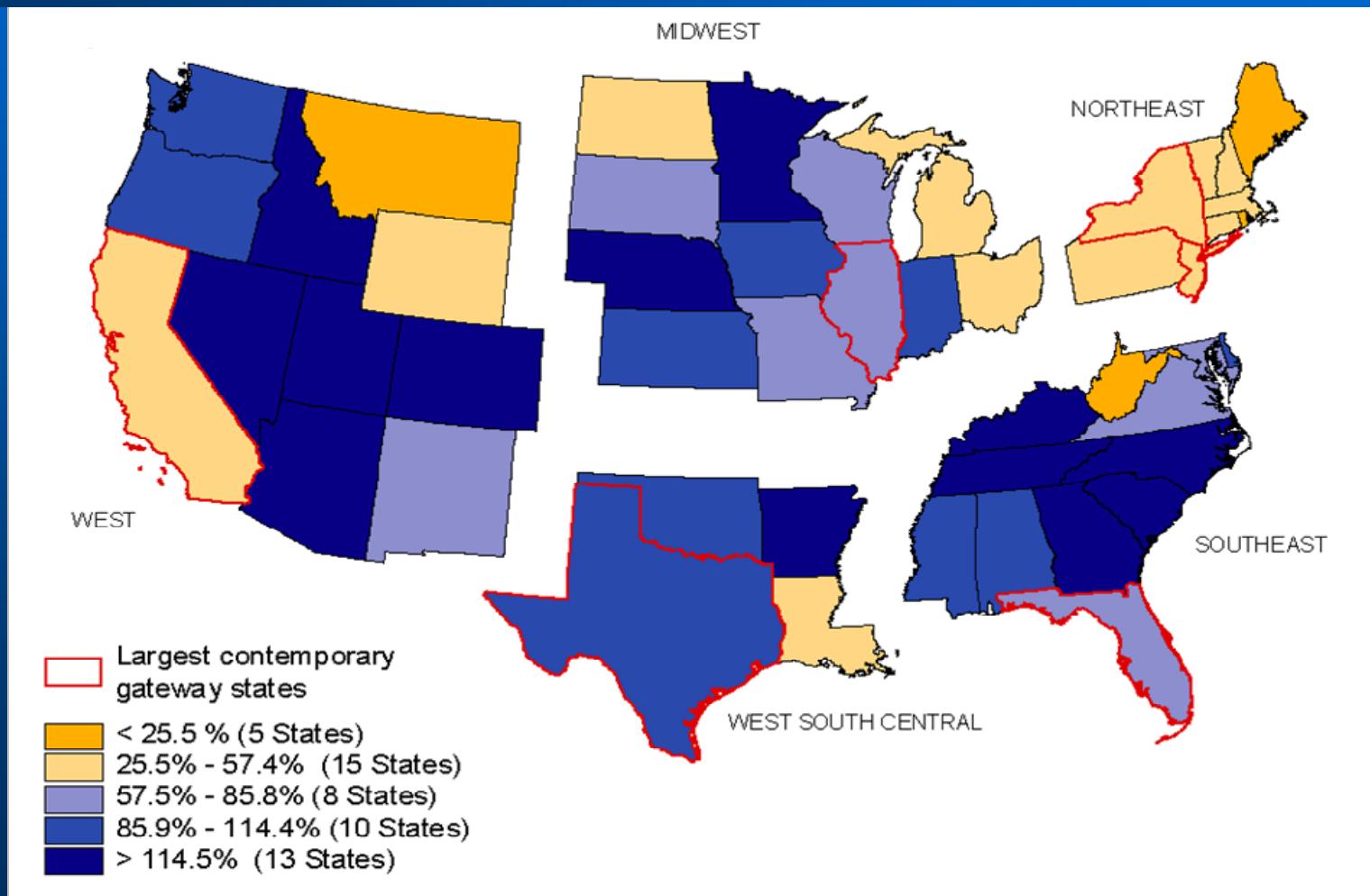
Source: StatCan, *The Daily*, 27.9.06

METROPOLITAN POLICY PROGRAM



Immigrants: US also benefits from in-migration

Percent change
in foreign-born
population by
states



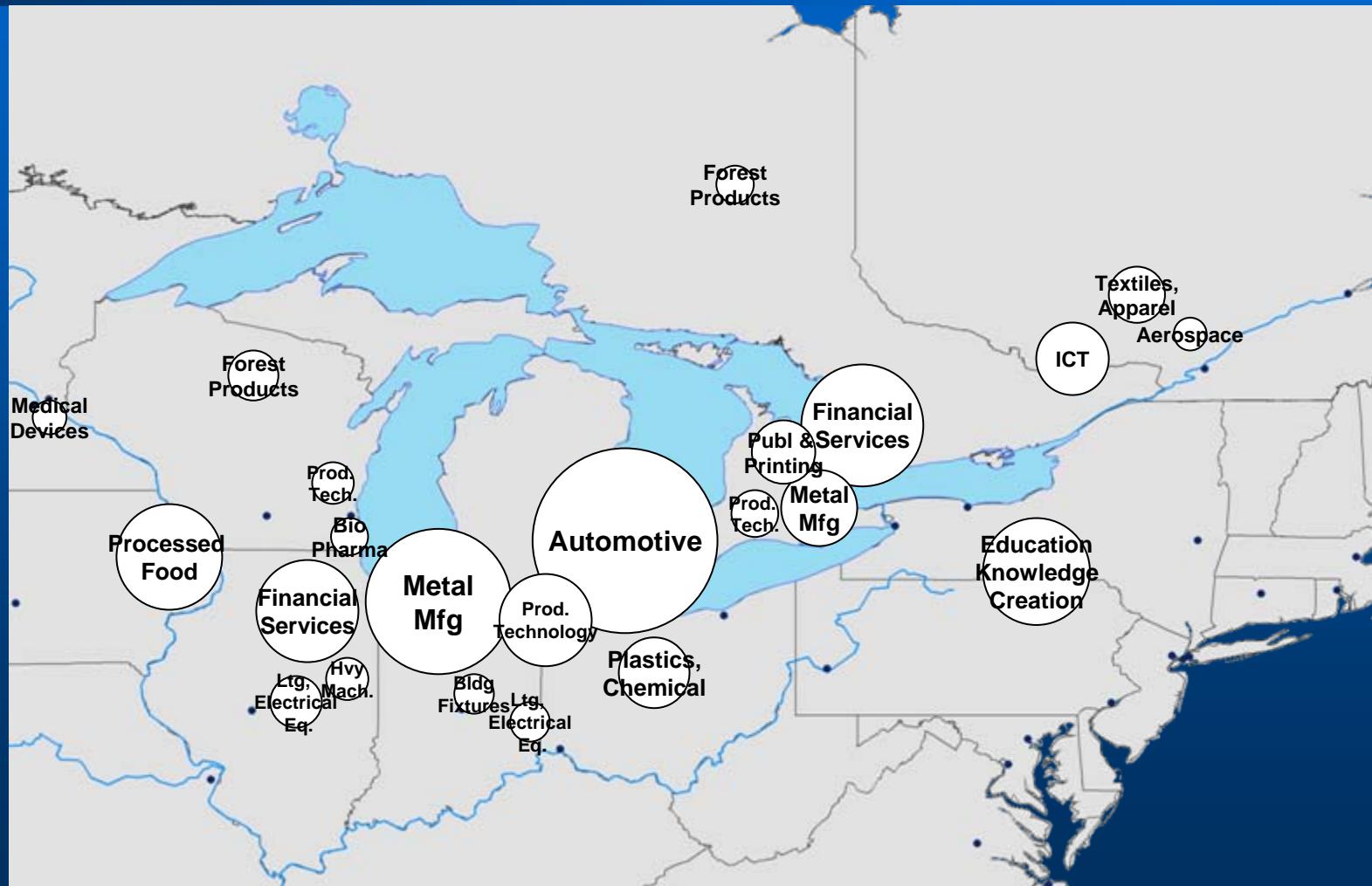


Key Cluster/Sectors of Regional Agglomeration

Diversity of Traditional Manufacturing and Emerging Clusters

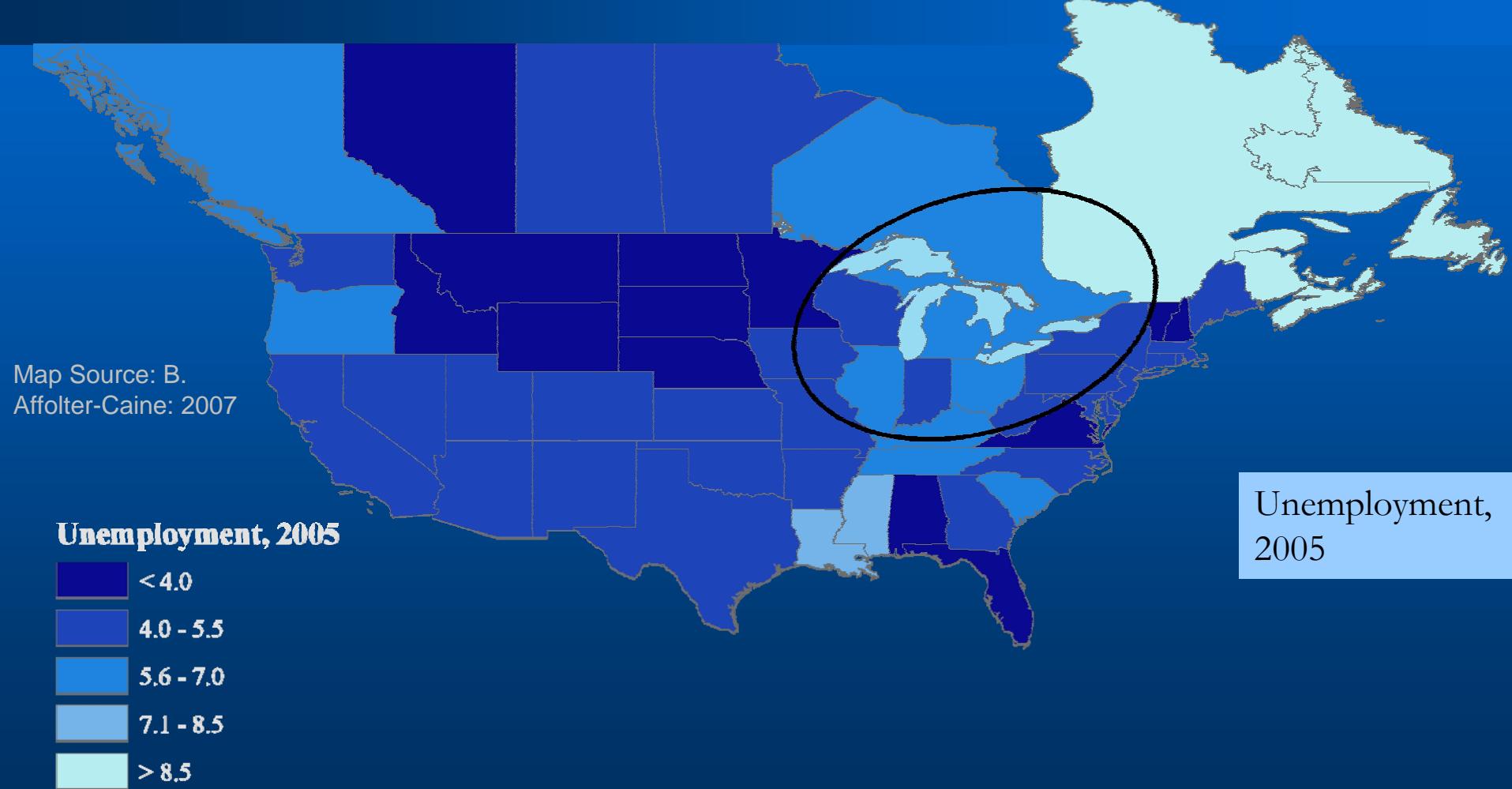
Note: State/Province employment >20,000 and LQ>2

Source: Institute for Competitiveness & prosperity based on Institute for Strategy and Competitiveness, Cluster Mapping Project



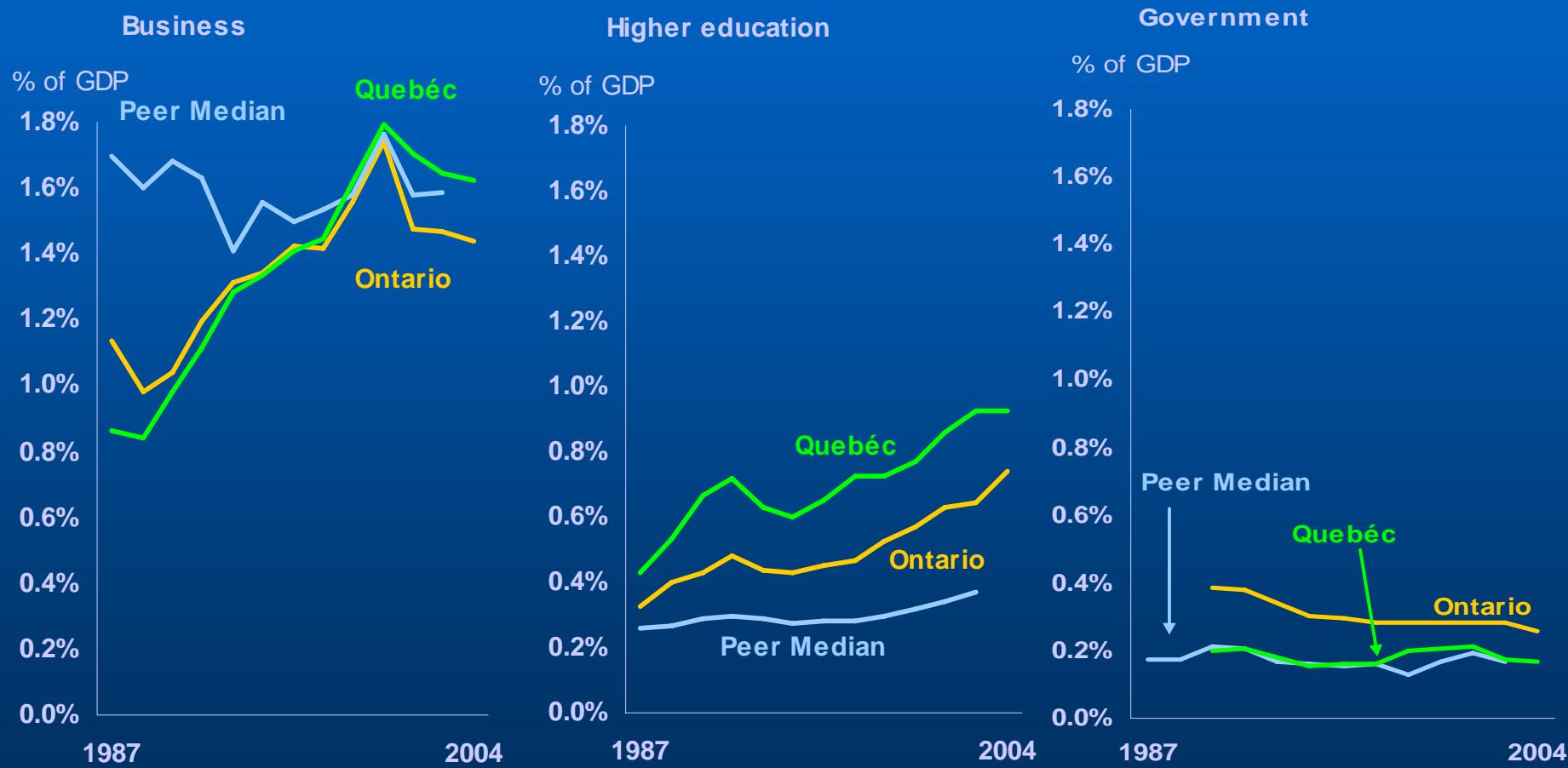


Labour





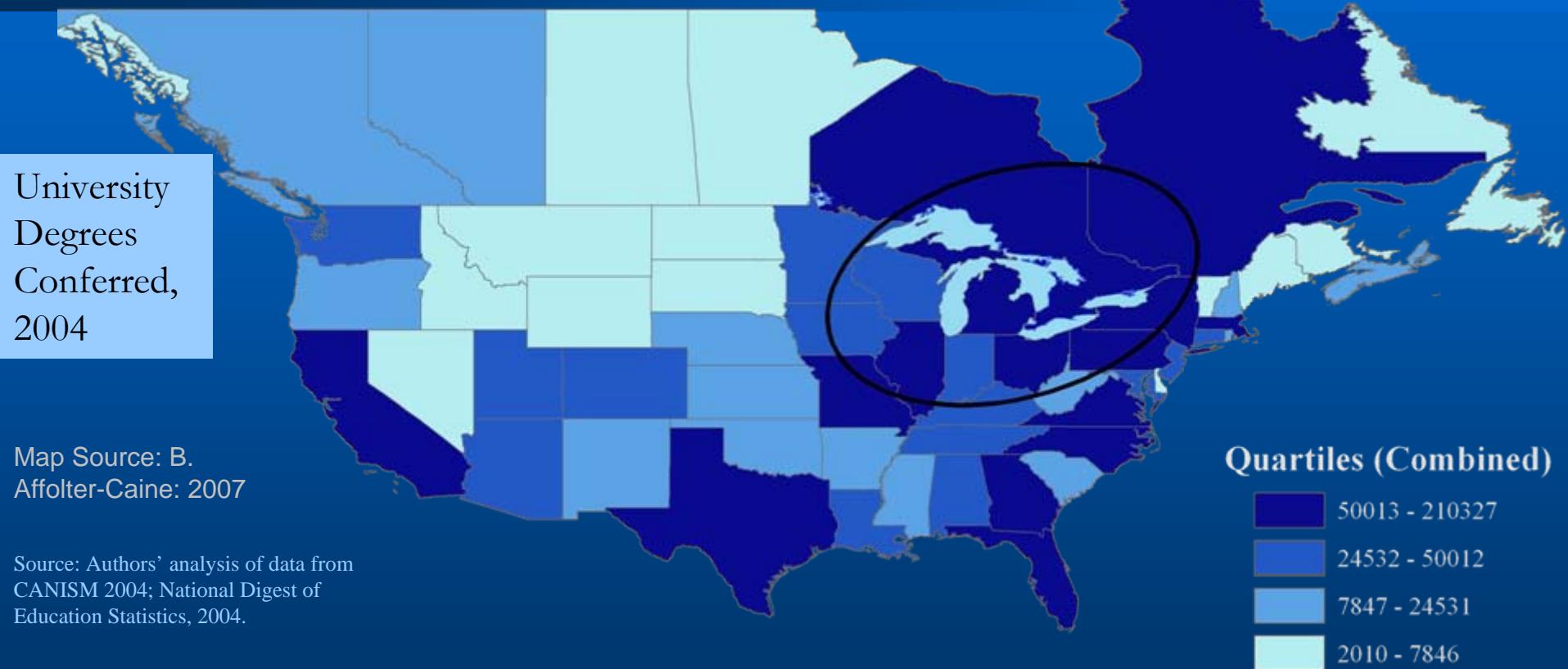
Innovation: Metrics: State/Province R&D by State



* Peer States/Provinces are as follows: California, Florida, Georgia, Illinois, Indiana, Massachusetts, Michigan, New Jersey, New York, North Carolina, Ohio, Pennsylvania, Texas, Virginia, Quebec, Ontario



Talent Generation



Of the 2,298,977 university degrees conferred in Canada and the US, 944,677 degrees were conferred in the Great Lakes Economic Region - or 41.1 percent of all degrees conferred in 2004. This is a greater proportion than compared to the GLER's share of total 2005 population - 35.9 percent.



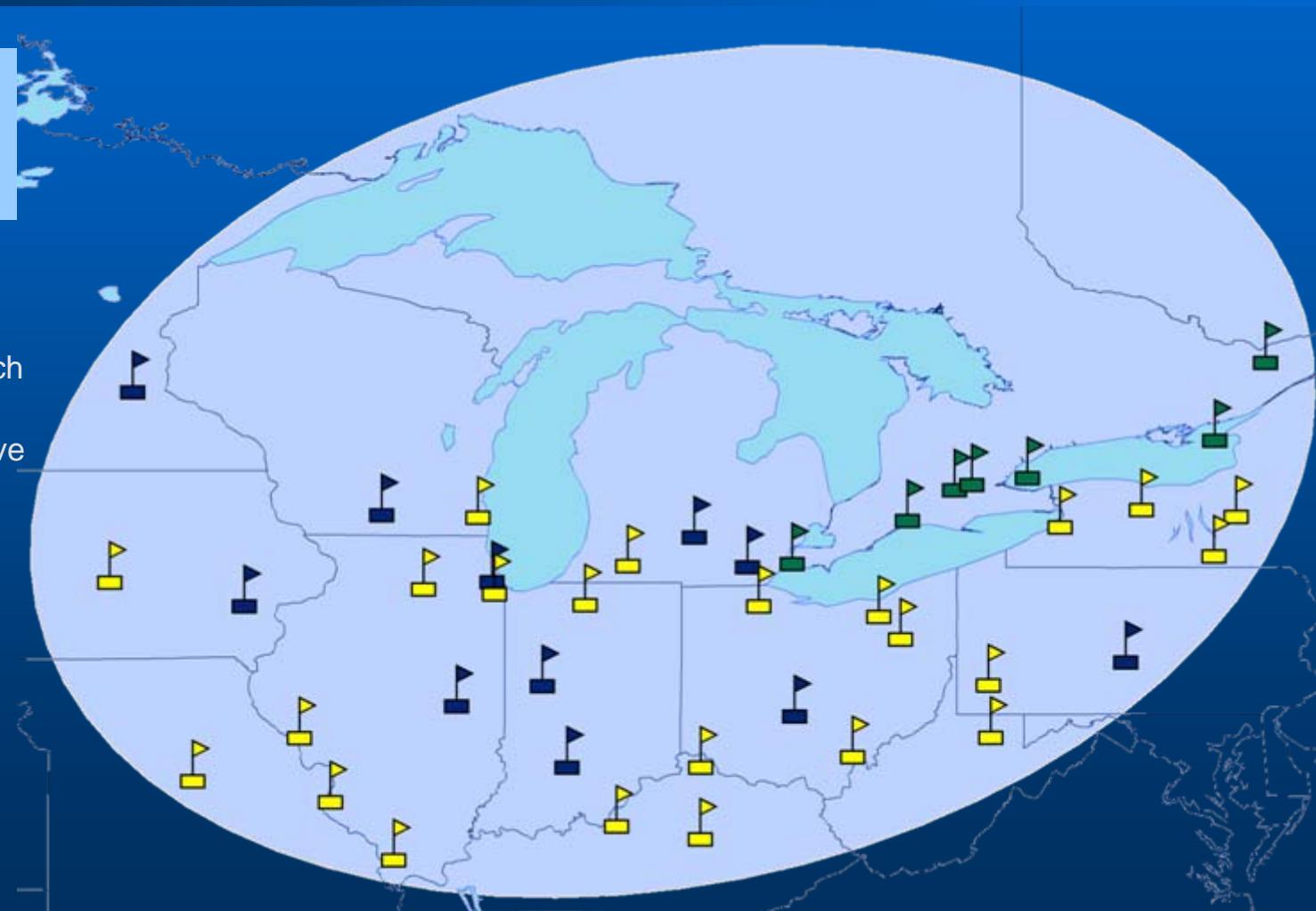
Great Lakes region is home to the largest concentration of research universities in the world...

Research
Universities in the
Great Lakes Region

Universities

- Canadian Research
- Research Extensive
- CIC

Map Source: B.
Affolter-Caine: 2007





20 of 100 top universities in the world are located in the Great Lakes Region

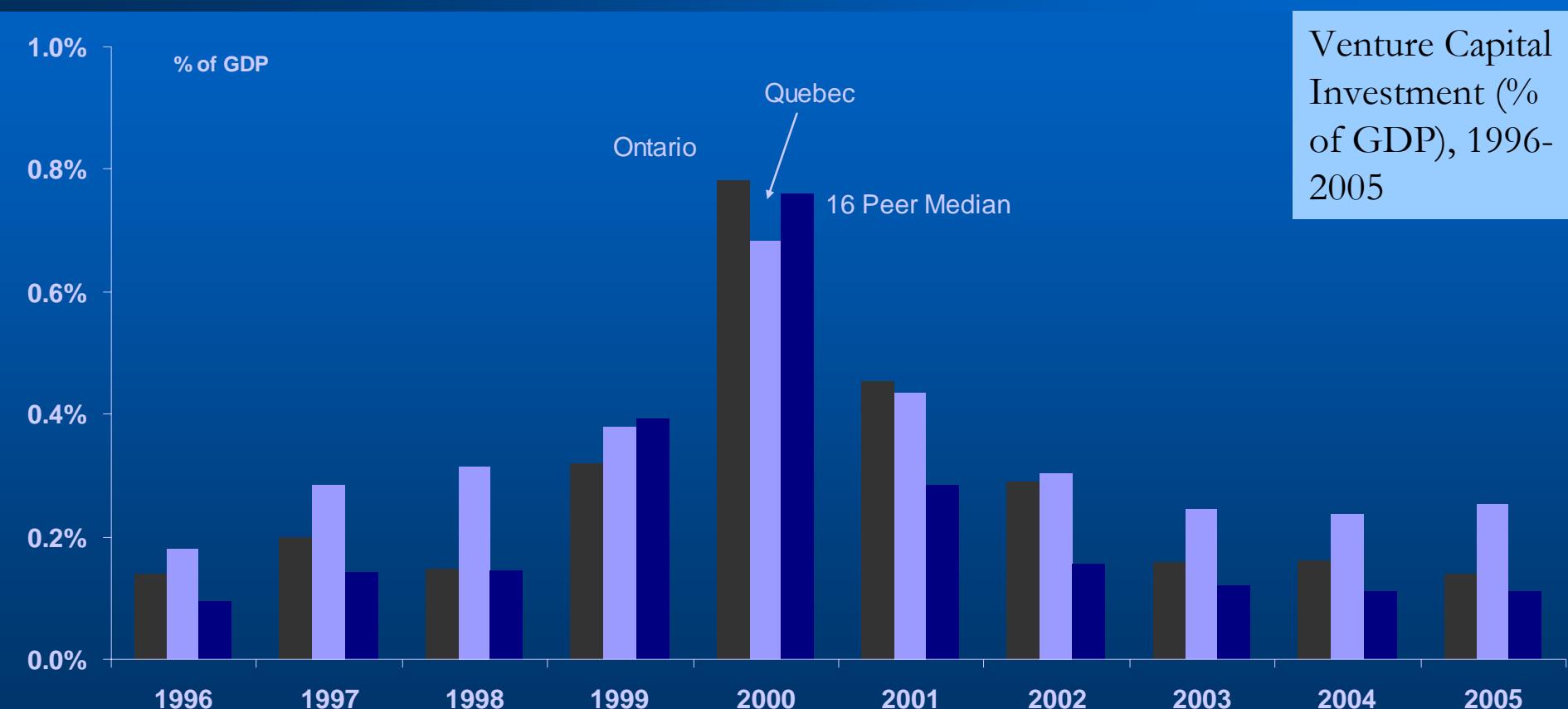
Great Lakes' Top 100 Ranked Universities in the World

Source: Institute of Higher Education, Shanghai Jiao Tong University, 2005

Institution	Location	Rank
University of Chicago	Chicago, Illinois	9
Cornell University	Ithaca, New York	12
University of Wisconsin - Madison	Madison, Wisconsin	16
University of Michigan	Ann Arbor, Michigan	21
University of Toronto	Toronto, Ontario	24
University of Illinois - Urbana Champaign	Urbana-Champaign, Illinois	25
Washington University	St. Louis, Missouri	28
Northwestern University	Evanston, Illinois	31
University of Minnesota	Minneapolis-St. Paul, Minnesota	32
Pennsylvania State University	University Park, Pennsylvania	39
University of Pittsburgh	Pittsburgh, Pennsylvania	43
Carnegie Mellon University	Pittsburgh, Pennsylvania	54
McGill University	Montreal, Quebec	62
Ohio State University	Columbus, Ohio	63
University of Rochester	Rochester, New York	65
Case Western Reserve University	Cleveland, Ohio	69
Purdue University	West Lafayette, Indiana	75
Michigan State University	Lansing, Michigan	77
Indiana University	Bloomington, Indiana	87
McMaster University	Hamilton, Ontario	90



Commercializations/Entrepreneurship



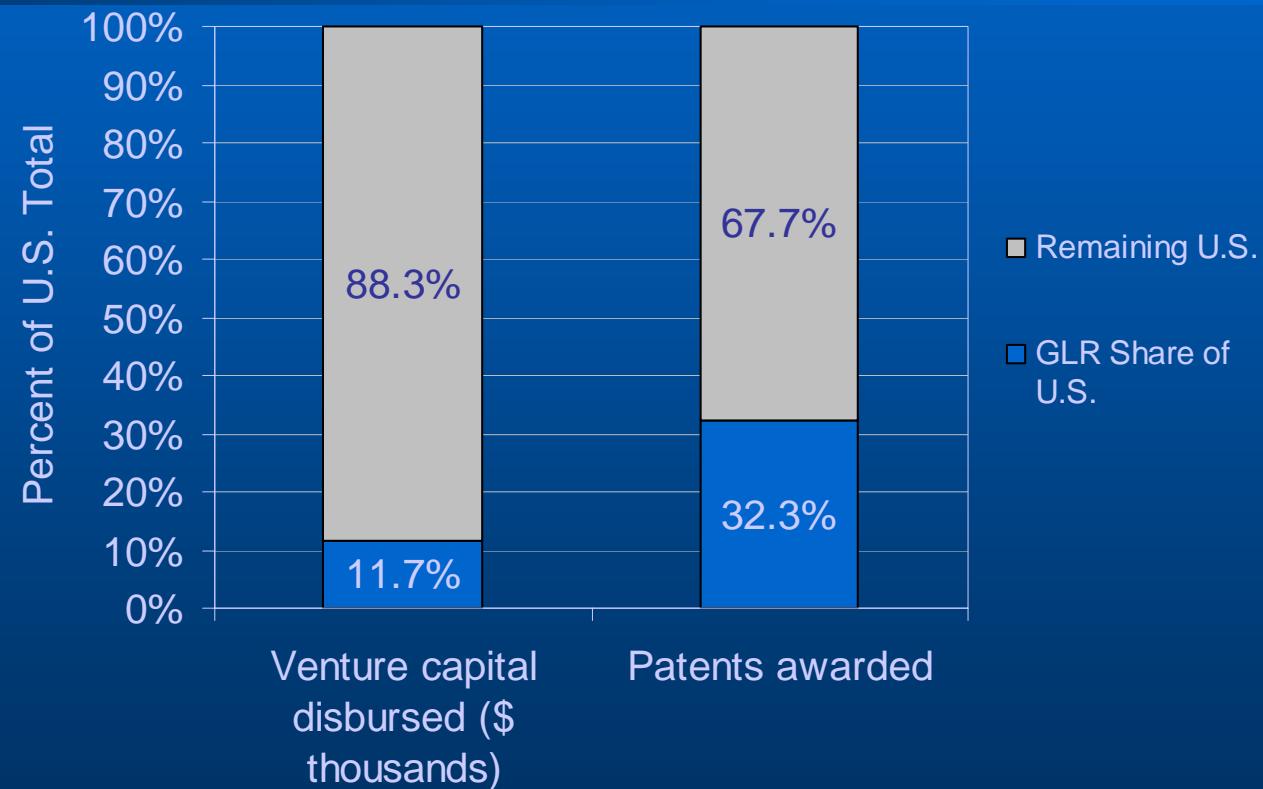
Note: Location of portfolio company receiving investment.

Source: Institute for Competitiveness and Prosperity based on data from Thomson Macdonald, VC Reporter (Canadian data); Venture Economics, Venture Xpert (US data)



The US Great Lakes States Lack Culture and Capital

Great Lakes Share of
Venture Capital and
Awarded Patents
Compared to U.S.



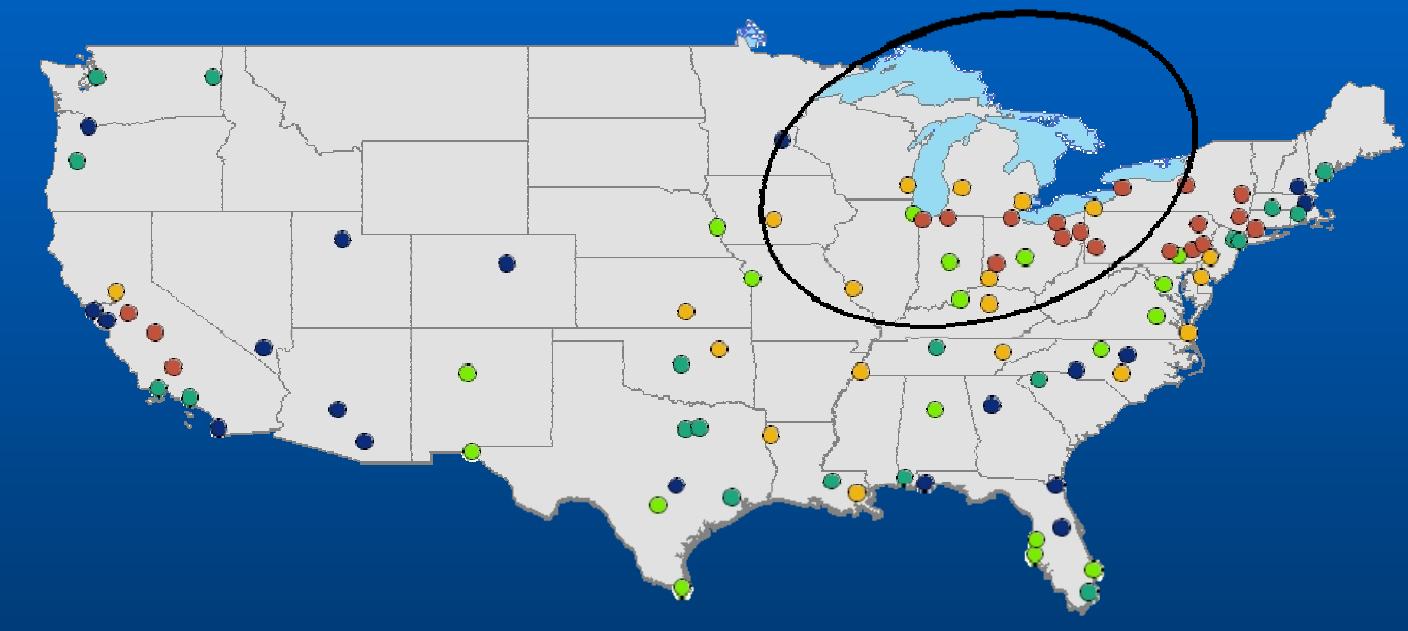
Source: U.S. Census Bureau,
2000 and 2005 American
Community Survey

Notes: Patents issued include utility patents and other types of U.S. documents (i.e., design patents, plant patents, reissues, defensive publications, and statutory invention registrations). Origin of patent determined by residence of first-named inventor.



US Entrepreneurial Index

Entrepreneurial
Activity Rank,
1990-2001



Entrepreneurial Activity Rank

- Highest
- High
- Average
- Low
- Lowest

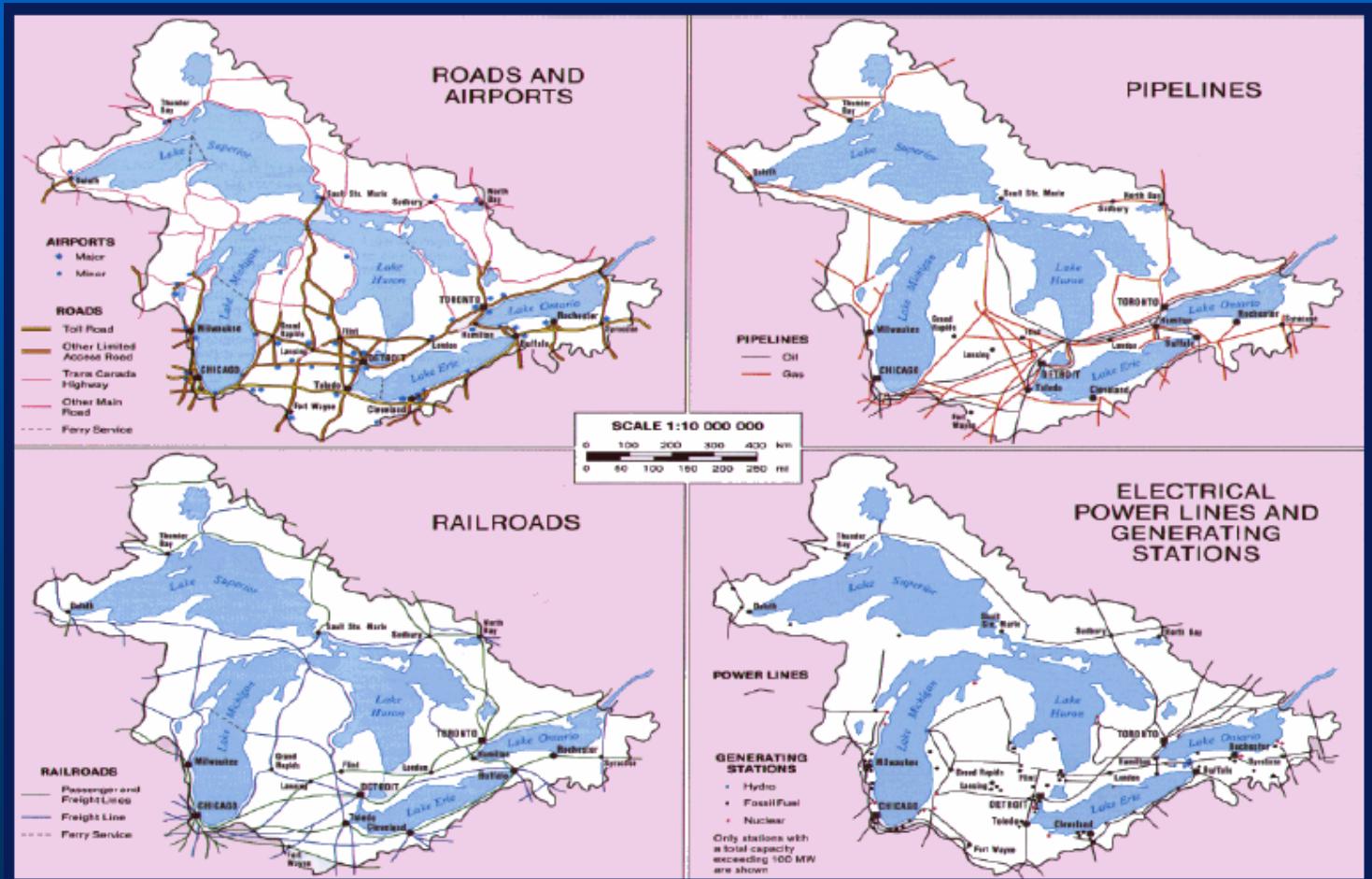
Source: Compiled from the 1990-2001 LBEM data file, U.S. Census Bureau by Advanced Research Technologies, LLC with elimination of "Small Regions"

Map Source: B.
Affolter-Caine: 2006



Infrastructure

Airports, Roads,
Pipelines, Rails,
and Power



Map Source: World
Business Chicago,
2007



Infrastructure

International
Truck Travel for
Border Crossings,
1998





Infrastructure

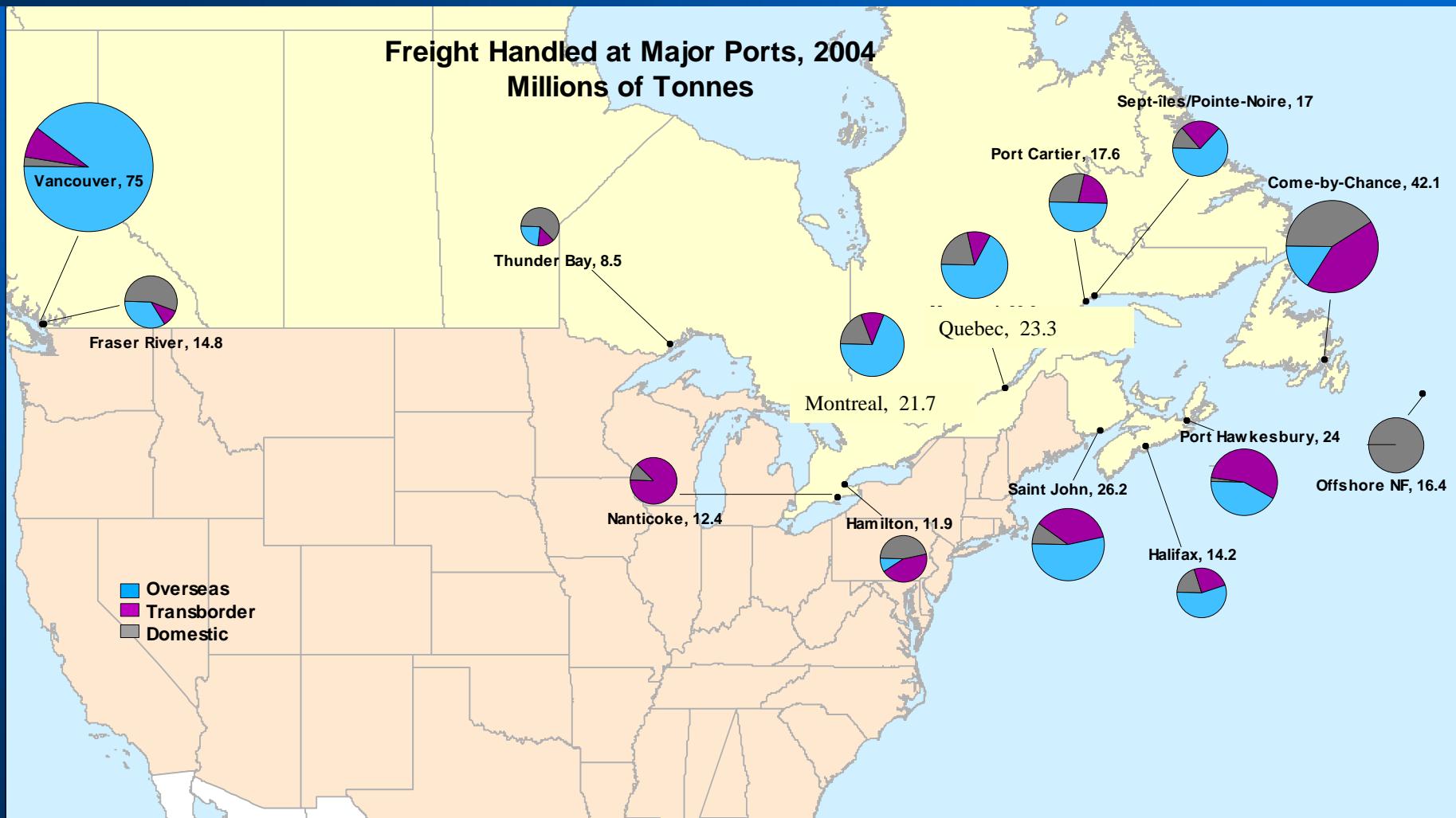
St. Lawrence
Seaway



Map Source: Port
Partners



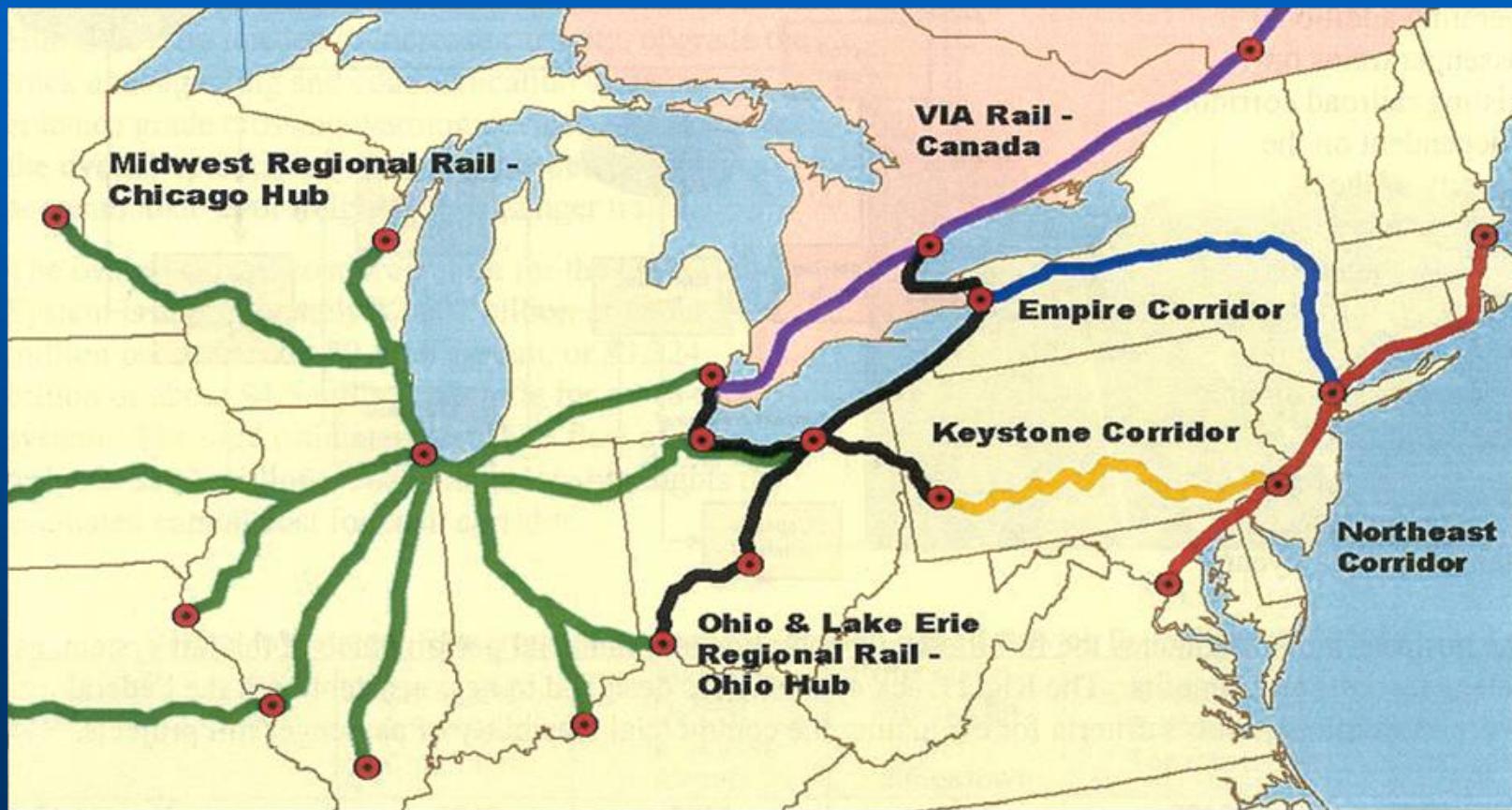
Infrastructure





Infrastructure

Regional
High Speed
Rail Plan

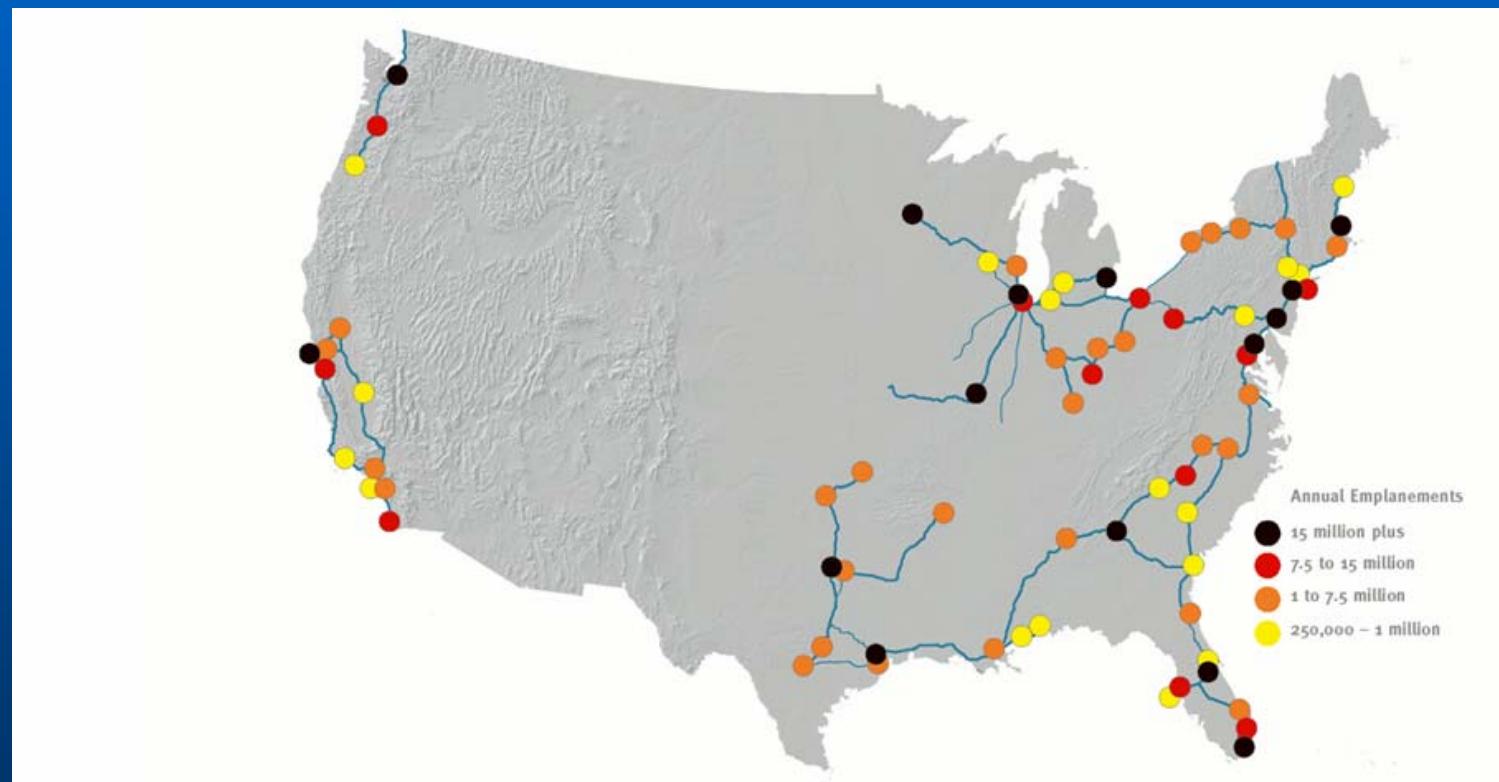


Map Source:
Youngstown State
University, Center
for Urban and
Regional Studies,
2005

Infrastructure

Airports Within
10 Miles of
Planned or
Potential HSR

Source: Yaro, *America 2050*, Regional Plan Association



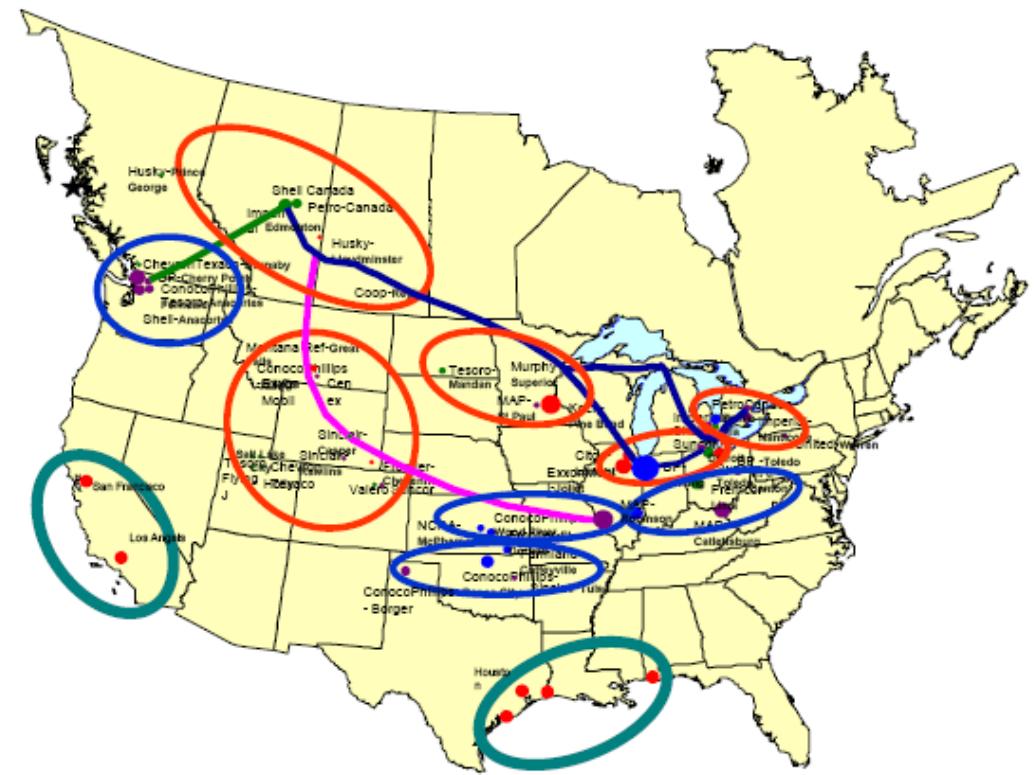
Infrastructure

Northern American Oil Markets

Core Markets

Extended Markets

New Markets



Map Source:
CAPP



Infrastructure

Export Pipelines





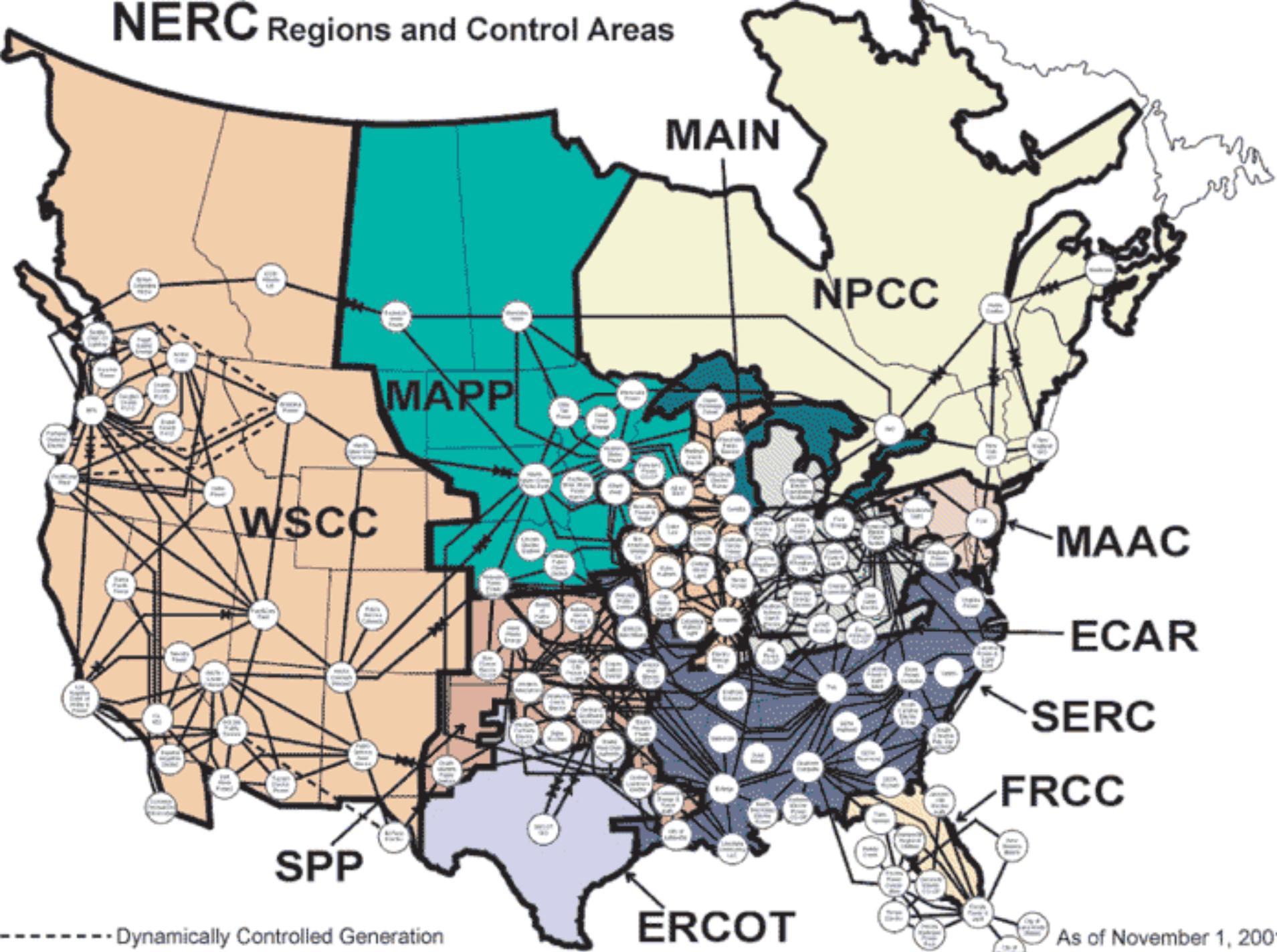
Crude Oil Transportation Infrastructure

- Main lines of the Western Sedimentary Basin
- Non-Western Sedimentary Basin lines
- - - Crude Oil Pipeline (Proposed)



Map Source: Centre for Energy, Canada

NERC Regions and Control Areas





Integration issues

- Integration Issues (Between)
 - “Cross Border Regions are A New Economic Nucleus”
Senator Jeremiah Grafstein
 - Issues:
 - Open Border/Border Management
 - Transactions Costs
 - Transportation Infrastructure
 - Governance: Issues don’t match jurisdictions, differing federal systems
 - Effective vehicles for regional planning/advocacy



Inclusion Issues

- Inclusion Issues (Within)
 - First Nation/Native Americans
 - Immigrants
 - Race



Policy Implications

Directions

- Greater strengthening Canada-US regional economy
- Region has shared assets/opportunities, as well as challenges to overcome
- Region has opportunity to be a leading and thriving bi-national economy – show the way towards **economic interdependence**



Direction of Policy Recommendations

Improved Market Structures

- Standards, non-tariff barriers
- Credentials, other human capital issues
- Trade
- Procurement
- Finance, etc.

Human Capital

Educate the talent

Environment
Develop the “Fresh Water Coast of the Americas”

Innovation Engines
R&D, Commercialization
Energy, ICT and Other Sectors

Infrastructure
Border Crossings, inter-modal rail, road, etc.



What are Next Steps?



Great Lakes Economic Initiative – Products - Next Steps

The Vital Center – Released October, 2006

- Convene/Promote with Region's Governors, Mayors, Legislators, Business-Civic Leaders. Presidential Aspirants

Preserving the Vital Center - Renewing the Economy of the Industrial Heartland

- Brookings Opportunity '08 - Agenda for the Next President
Released with ABC News – February 28, 2007

Great Lakes Bi-National Heartland- summer 2007

- Analysis and Policy Directions for Enhancing Economic
Competitiveness of US-Canada Great Lakers Region –



Great Lakes Economic Initiative – Products & Next Steps

“North Coast” as Economic Engine

Economic Impact of follow-through on Great Lakes Restoration Compact – coming September 2007

Additional policy development and research

around major areas of US and bi-national policy development

John Austin, jcaustin@umich.edu, 734-763-2249

The screenshot shows the Brookings Institution's Metropolitan Policy Program website. The top navigation bar includes links for Home, News & Events, Scholars, Research Topics, Programs, Publications, Bookstore, Executive Education, and About Brookings. The main content area features an announcement about the Urban Center becoming the Metropolitan Program, a news item from The Washington Times, and sections on Metropolitan Growth and Immigration. The right sidebar contains a search bar, links for the Metro Program, and a form for subscribing to the Metro Program listerv. An orange arrow points to the 'SUBSCRIBE TO:' section.

METROPOLITAN POLICY PROGRAM

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Redefining the challenges facing metropolitan America and promoting innovative solutions to help communities grow in more inclusive, competitive, and sustainable ways.

ANNOUNCEMENT

Urban Center Becomes Metropolitan Program

In a major promotion, the Center on Urban and Metropolitan Policy this month became the Brookings Metropolitan Policy Program—and the first new Brookings department established since 1948. The new status reflects the rising importance of metropolitan issues to the domestic and global challenges Brookings seeks to address.

► [read an open letter from Brookings President Strobe Talbott](#)

METROPOLITAN GROWTH

Mechanisms for Market-Based Land Use Control

Using case studies and a national survey, this paper examines transfers of development rights (TDRs) and other market-based land preservation techniques like mitigation banking and density transfer fees.

IMMIGRATION

Washington Goes Polyglot

Metro Washington's "limited English proficient" (LEP) population

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