



# The Vital Center

A FEDERAL-STATE COMPACT TO RENEW  
THE GREAT LAKES REGION



**Capitol Hill Briefings**

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## Great Lakes Economic Initiative

- Homegrown effort of region's civic, business, labor, education, political, third-sector leadership to help region transit from industrial to knowledge economy
- Identified the region's strengths and weaknesses in today's global economy
- Begun to describe national/regional policy agenda that leverages assets, ameliorates deficits
- Assert the economic importance of region to US competitiveness



# The Vital Center: Major Findings

I

The Great Lakes Region has a unique economic/social history, and plays a significant role in US economy

II

The region has assets central to U.S. competitiveness as a generator of talent & innovation, leader in global connections, platform for sustainable growth

III

Great Lakes region also faces major challenges in transitioning from industrial to knowledge economy leadership

IV

The moment is ripe for leaders in the Great Lakes Region to forge a new compact with federal government



The Great Lakes region created and dominated the agro-industrial era...raw materials, infrastructure, education, innovation created dynamic, highly interdependent economy

Great Enterprise:

- Armour
- Busch
- Carnegie
- Ford
- Heinz
- Kellogg
- Rockefeller
- Pillsbury
- Sears

Great Innovation:

- Assembly Line
- The skyscraper
- Land grant university
- The airplane
- The Internet

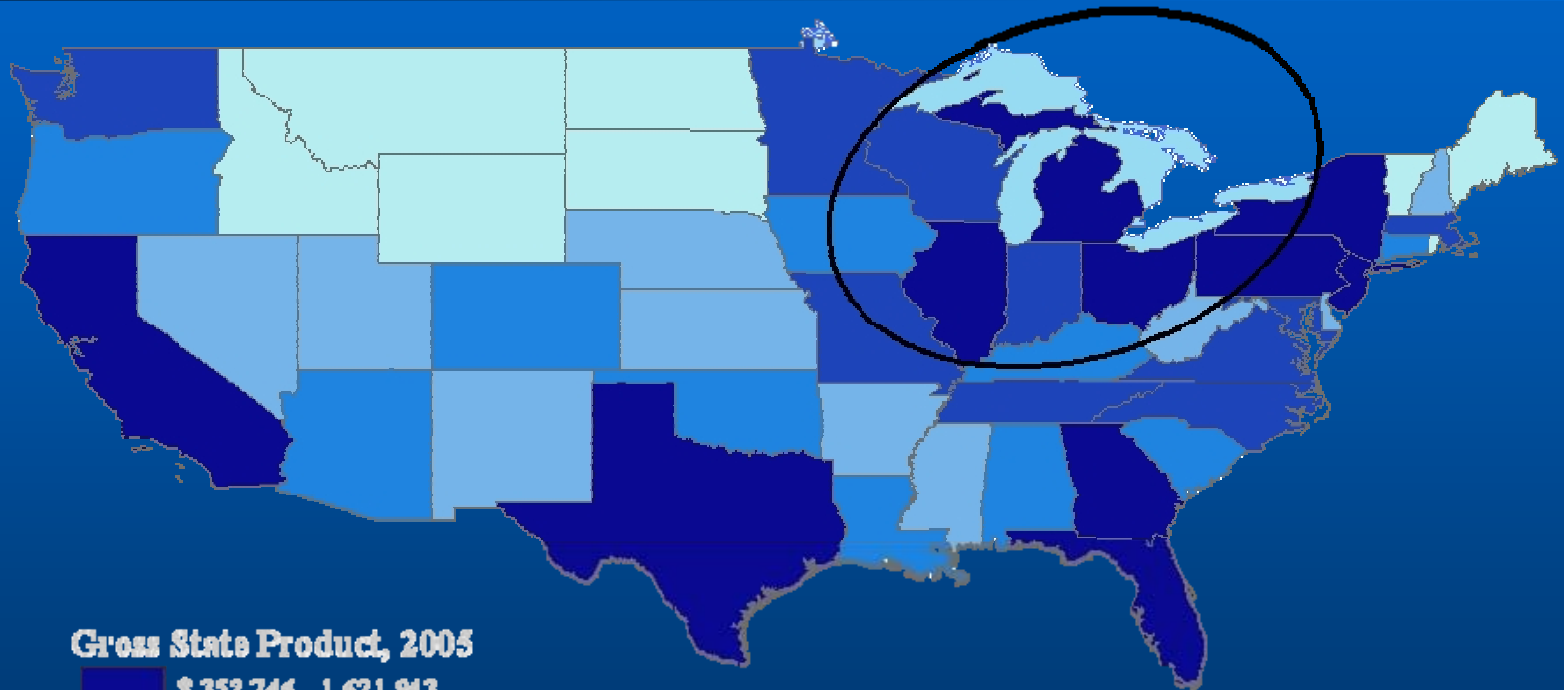




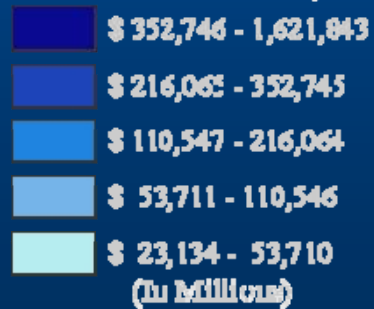
# The Great Lakes region today is an economic engine...97 million people produce 32% of U.S. GDP

Gross State Product, 2005

Source: B. Affolter-Caine, 2006



Gross State Product, 2005



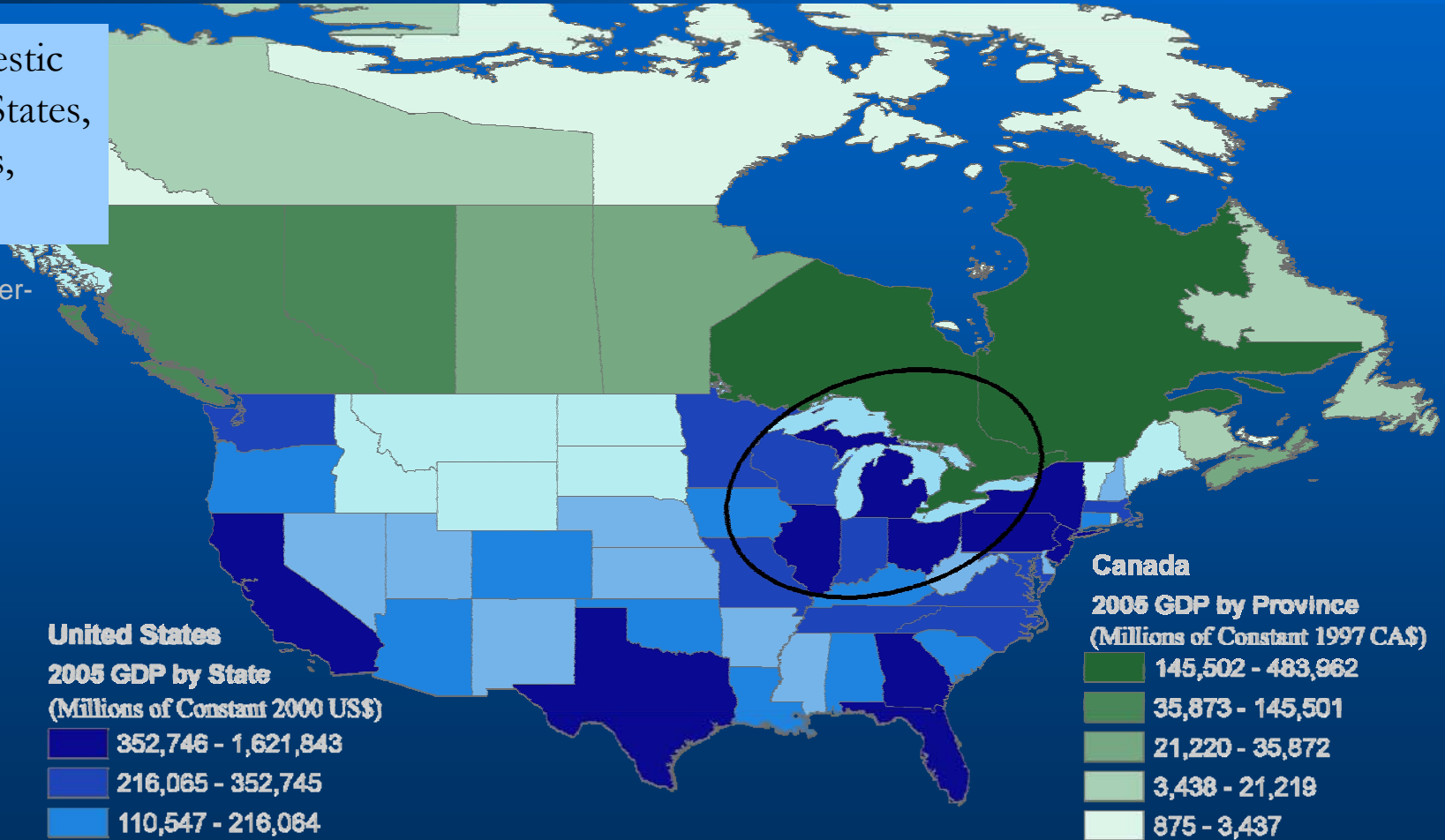
Source: U.S. Bureau of Labor Statistics, 2005



# Add highly integrated economy of Ontario, and Great Lakes region is third largest “country” by GDP in world...

Gross Domestic Product by States, by Provinces, 2005

Source: B. Affolter-Caine, 2007

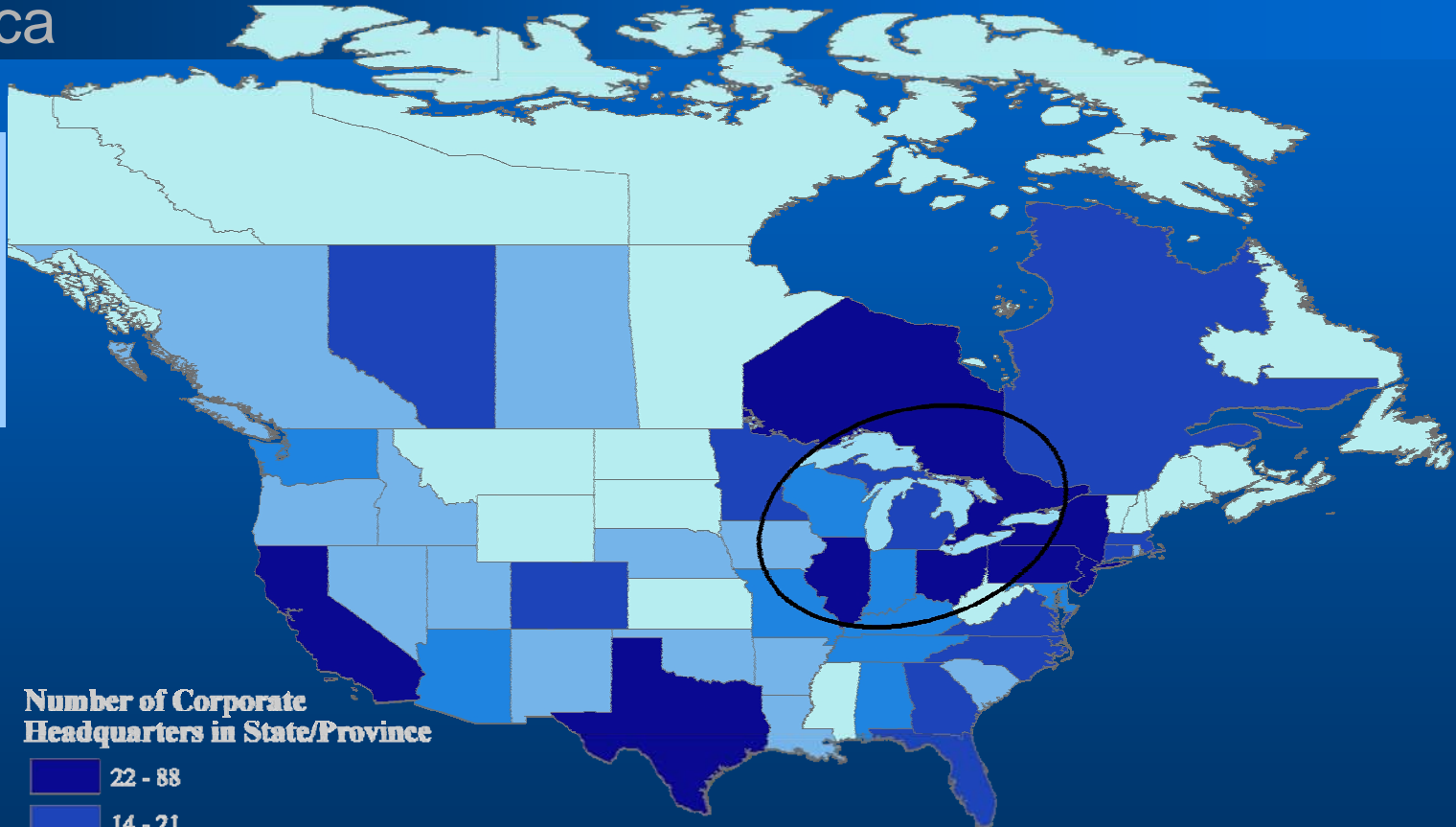




# Region is home to numerous corporate decision and R&D centers - over 300 of Fortune 1000 firms, and 30% of Forbes 2000 in North America

Forbes'  
International  
2000 Company  
Headquarters,  
2004

Map Source: B.  
Affolter-Caine: 2007



### Number of Corporate Headquarters in State/Province

22 - 88

14 - 21

6 - 13

2 - 5

0 - 1

The total number of headquarters of the world's 2000 largest corporations located in Canada and the US is 723.  
The number of these headquarters located in the Great Lakes Economic Region is 213 (excludes those located in cities outside the region, such as NYC and Philadelphia). This represents 30 percent of the total located in North America and 11 percent in the world'.

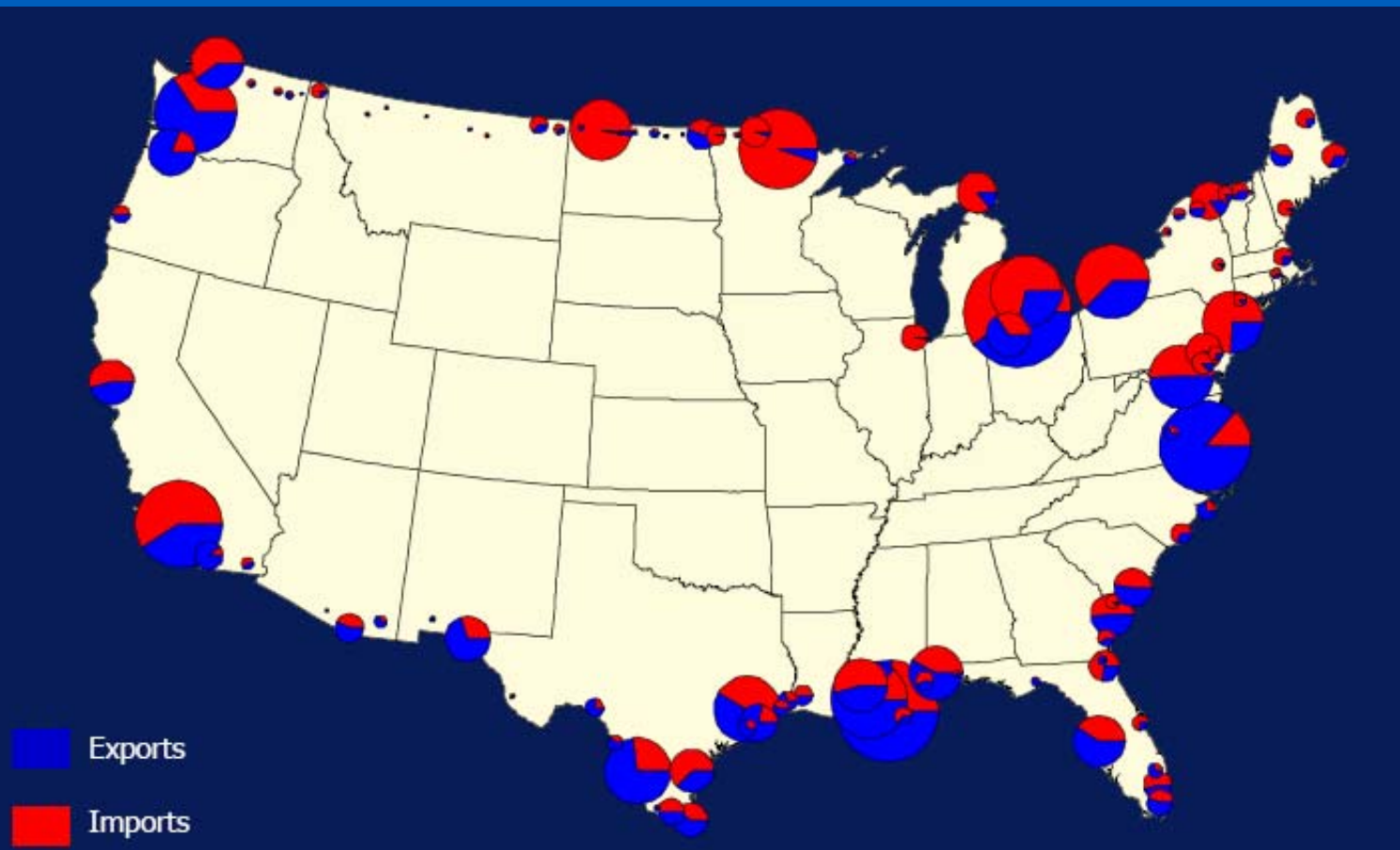
Source: Authors' analysis utilizing data from Forbes' list of the world's 2000 largest corporations.



Great Lakes region accounts for largest share (over 30%) of US' fast growing global export trade, and is center of world's largest bi-national trade - \$461 billion annually with Canada

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

Source: Testa, 2007







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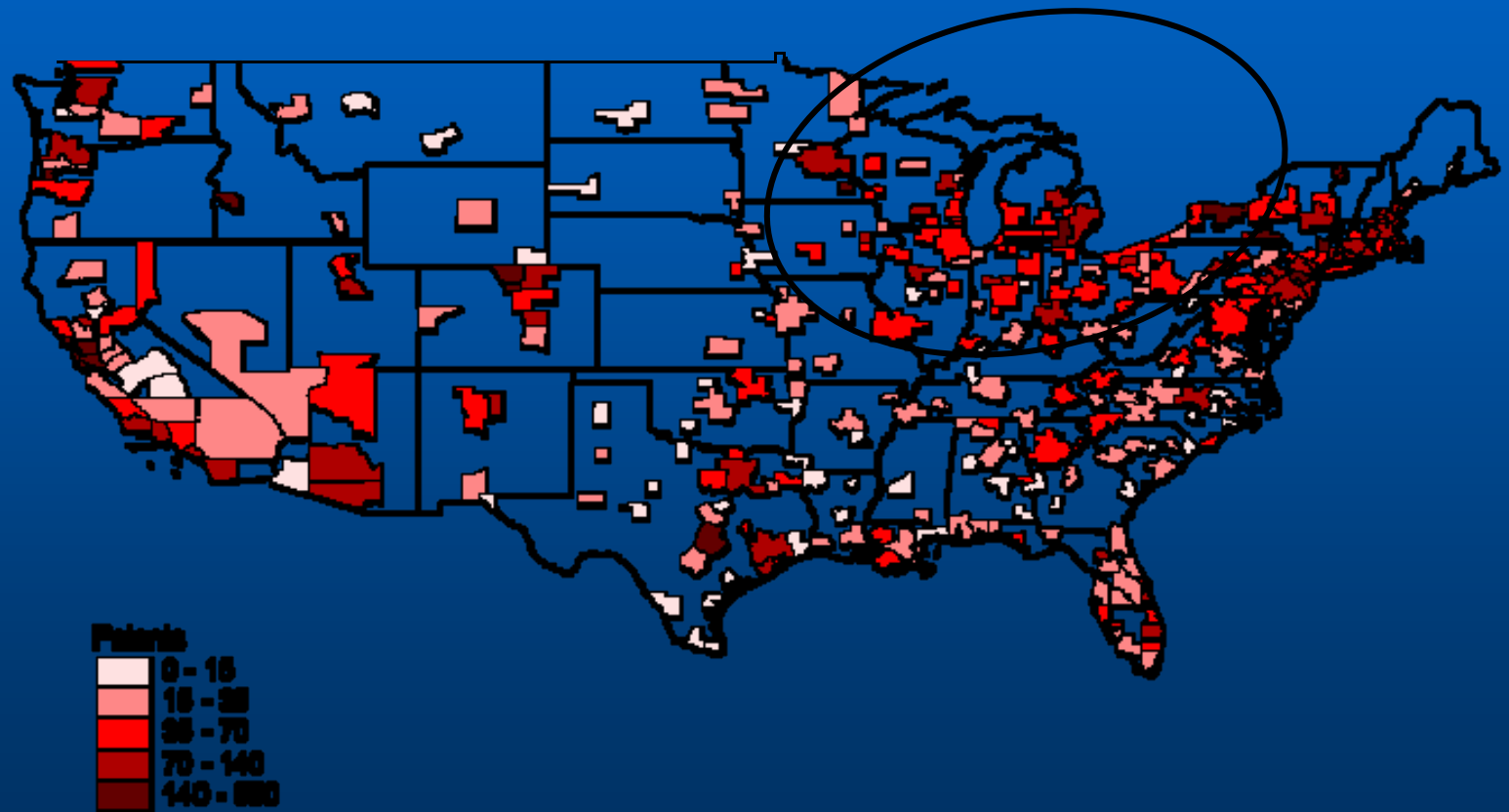
The moment is ripe for leaders in the Great Lakes Region to forge a new compact with federal government



# The Great Lakes region is one of the world's centers for new technologies and ideas, generating 32% of nation's patents

Patents per  
100,000 Jobs,  
1999

Source: A. Reamer, L. Icerman and J. Youtie,  
*Technology Transfer and Commercialization:  
Their Role in Economic  
Development, 2003*



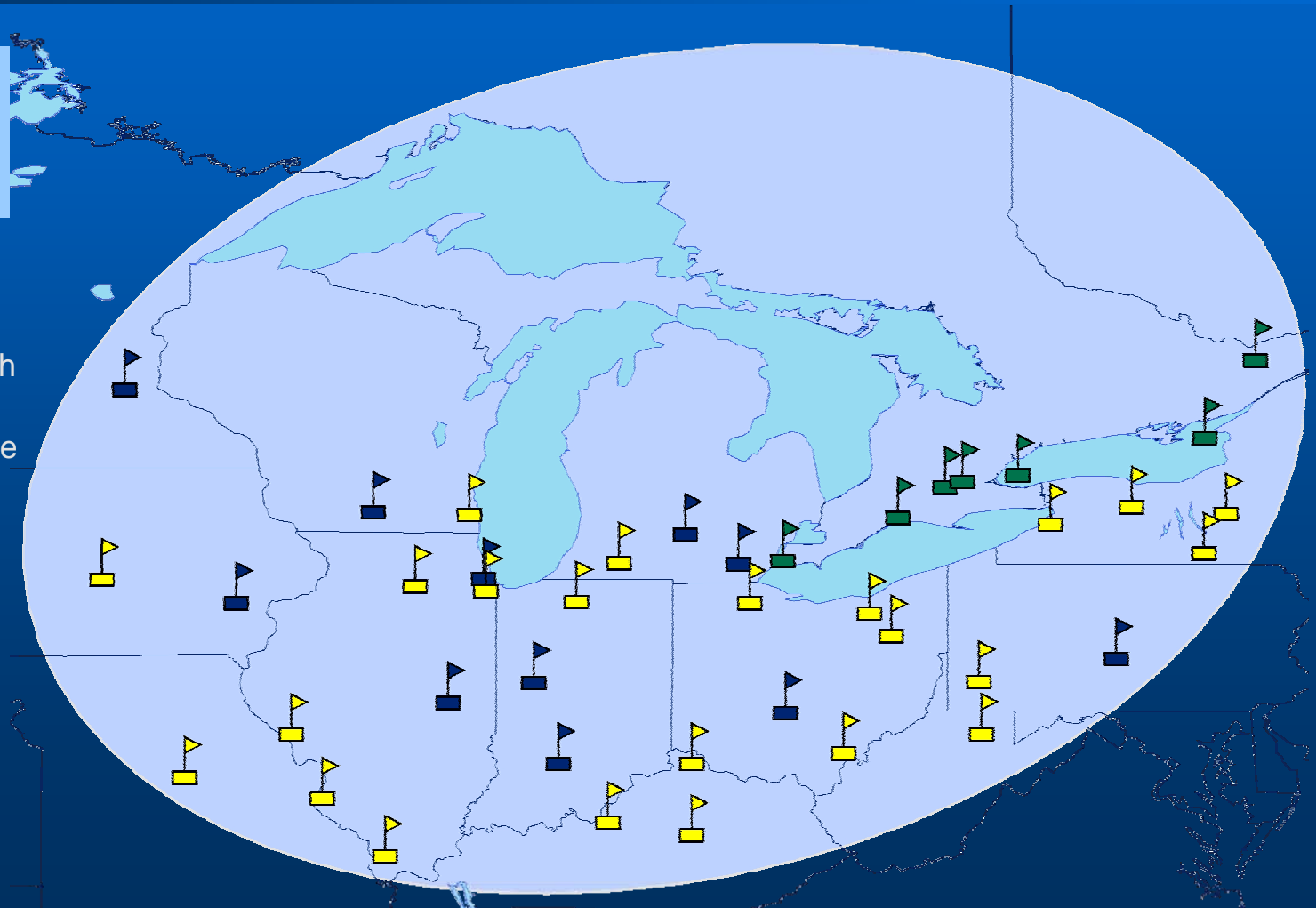


# Great Lakes region is home to the largest concentration of research universities in the world...

Research  
Universities in the  
Great Lakes Region

## Universities

-  Canadian Research
-  Research Extensive
-  CIC



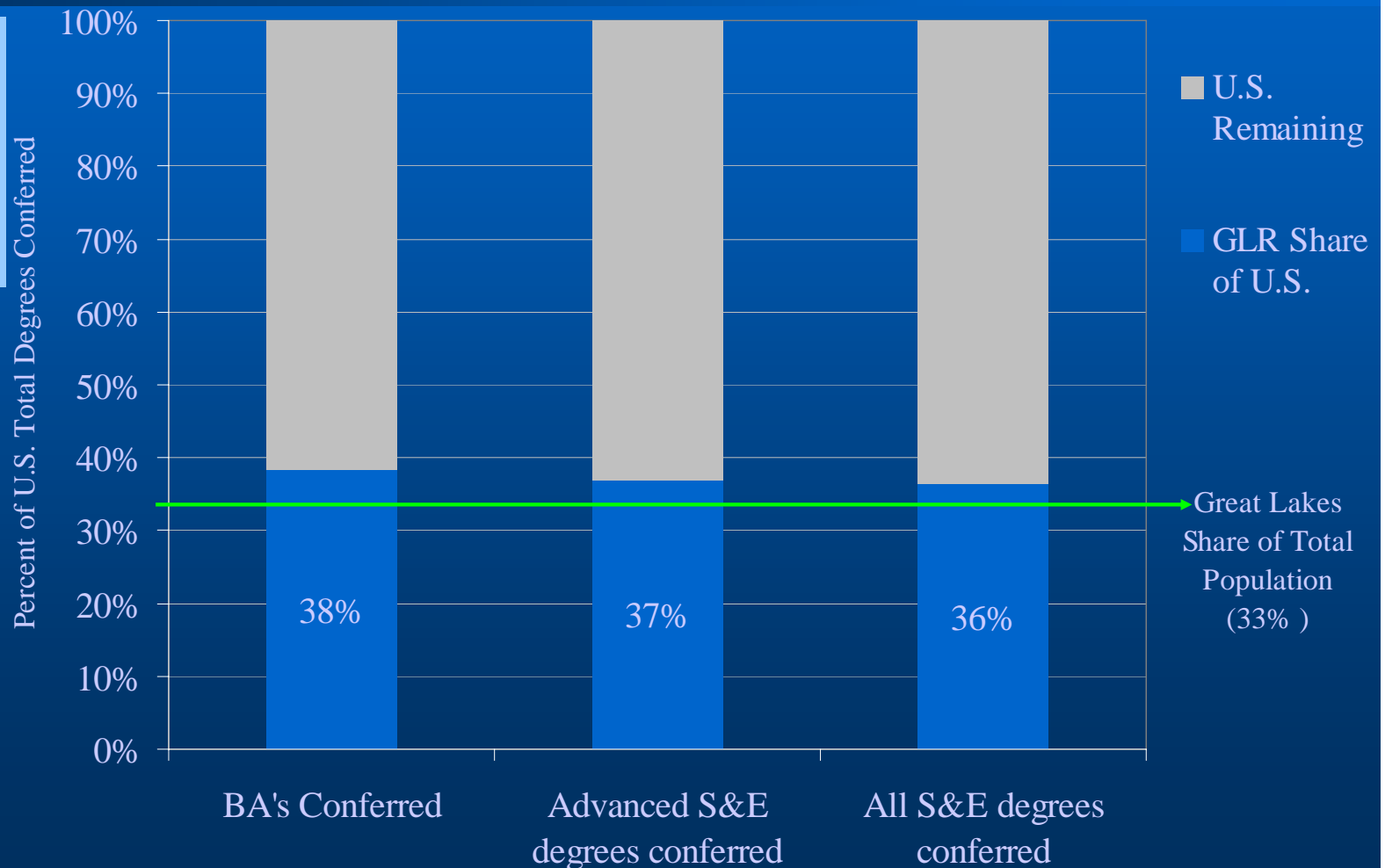
Map Source: B.  
Affolter-Caine: 2007



...that produce a huge amount of talent, particularly in advanced fields – business, sciences, and engineering

Great Lakes  
Regional Share  
of Degrees  
Conferred of  
Total U.S.

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





## 19 of 100 top universities in the world are Great Lakes institutions, more than NE/Mid-Atlantic and West

### Great Lakes' Top 100 Ranked Universities in the World

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
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

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



# Great Lakes region is home to traditional and emerging industry sectors, with scale to compete globally...

## Diversity and Scale of Traditional 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





# The region has potential leadership in emerging global industries, including next generation energy, next-generation transportation

## Energy Statistics, 2004

Source: EIA State Energy Data, 2004 Report

\*Comparison regions are those that are drawn and defined by the U.S. Census; Great Lakes states are therefore also included in these regions.

\*\*State figures include states in their entireties

Region*, with states**	Primary Source	Net Generation, 2004		Consumption, 2004	
		(MWh)	Rank	(MWh)	Rank
<b>U.S.</b>		3,970,518,778		3,536,802,678	
<b>Great Lakes</b>		<b>1,367,154,311</b>	<b>34%</b>	<b>1,153,471,436</b>	<b>33%</b>
Illinois	Coal	191,957,778	5	139,253,956	7
Indiana	Coal	127,770,396	9	103,094,263	12
Iowa	Coal	43,248,189	34	40,902,773	31
Kentucky	Coal	94,529,947	18	86,521,156	15
Michigan	Coal	118,487,269	12	106,606,040	10
Minnesota	Coal	52,364,127	25	63,340,315	24
Missouri	Coal	87,632,910	20	74,054,296	20
New York	Nuclear	137,964,794	7	145,081,709	5
Ohio	Coal	148,345,905	6	154,221,114	4
Pennsylvania	Coal	214,658,501	3	143,501,493	6
West Virginia	Coal	89,749,562	19	28,918,612	35
Wisconsin	Coal	60,444,933	23	67,975,709	21
<b>Northeast</b>		<b>549,879,552</b>	<b>14%</b>	<b>503,186,475</b>	<b>14%</b>
<b>South</b>		<b>1,703,443,847</b>	<b>43%</b>	<b>1,517,959,100</b>	<b>43%</b>
<b>West</b>		<b>770,706,184</b>	<b>19%</b>	<b>683,475,923</b>	<b>19%</b>
<b>Midwest</b>		<b>946,489,195</b>	<b>24%</b>	<b>832,181,180</b>	<b>24%</b>



# Leadership in health-care and life-sciences, thanks to top hospitals, many ranking in the top ten in their areas

Healthcare  
Rankings,  
2006

Specialty	Hospitals in the top ten	Five hospitals in the Great Lakes Region were awarded Honor Role status, of which only 14 hospitals across the country attained by being ranked highly in at least six specialties.
Cancer	2	<b>Hospitals</b>
Digestion	4	Mayo Clinic, Rochester, MN
ENT	6	Cleveland Clinic, Cleveland, OH
Endocrinology	3	Barnes-Jewish Hospital/Washington University, St. Louis
Gynecology	2	University of Michigan Hospitals and Health System, Ann Arbor, MI
Heart	3	University of Pittsburgh Medical Center
Kidney Disease	3	Source: 2006 Hospital Rankings by <i>U.S. News and World Report</i>
Neurology	3	
Ophthalmology	1	
Orthopedics	4	
Pediatrics	3	
Rehabilitation	3	
Respiratory	3	
Rheumatology	2	
Urology	2	

Source: 2006 Hospital Rankings by U.S. News and World Report

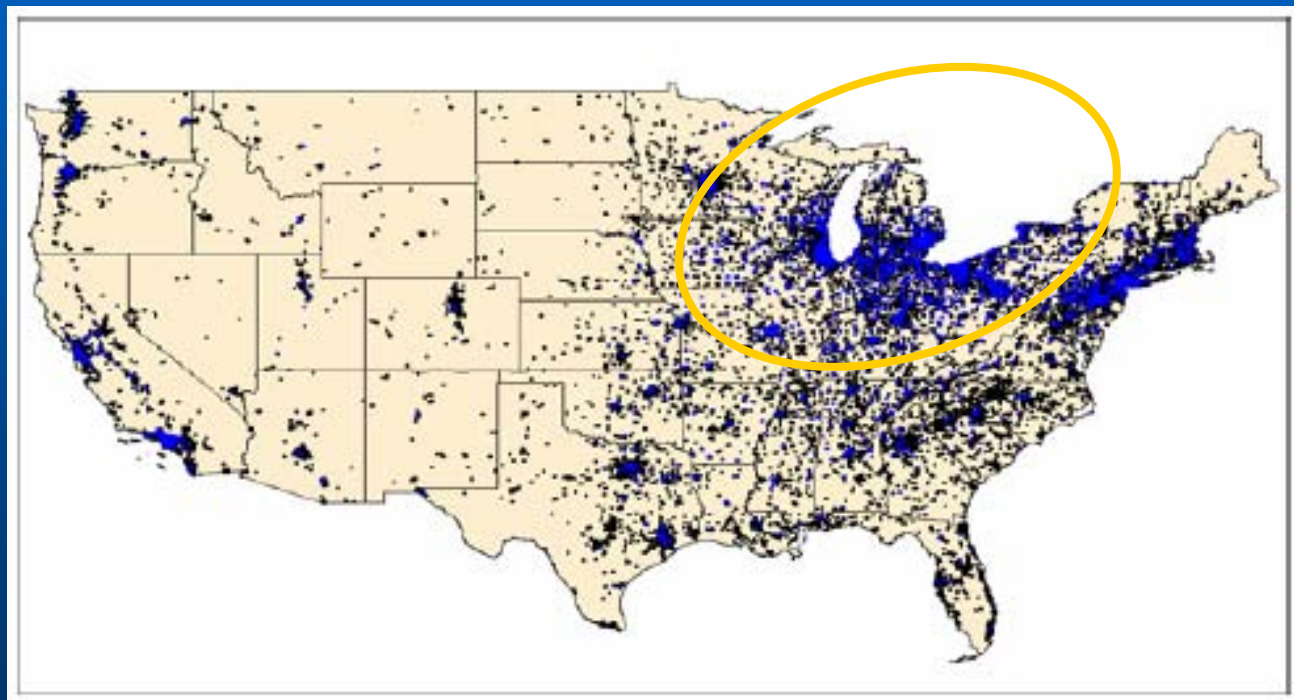




# Great Lakes excel in advanced manufacturing including next - generation electronics, robotics, nanotechnology, materials

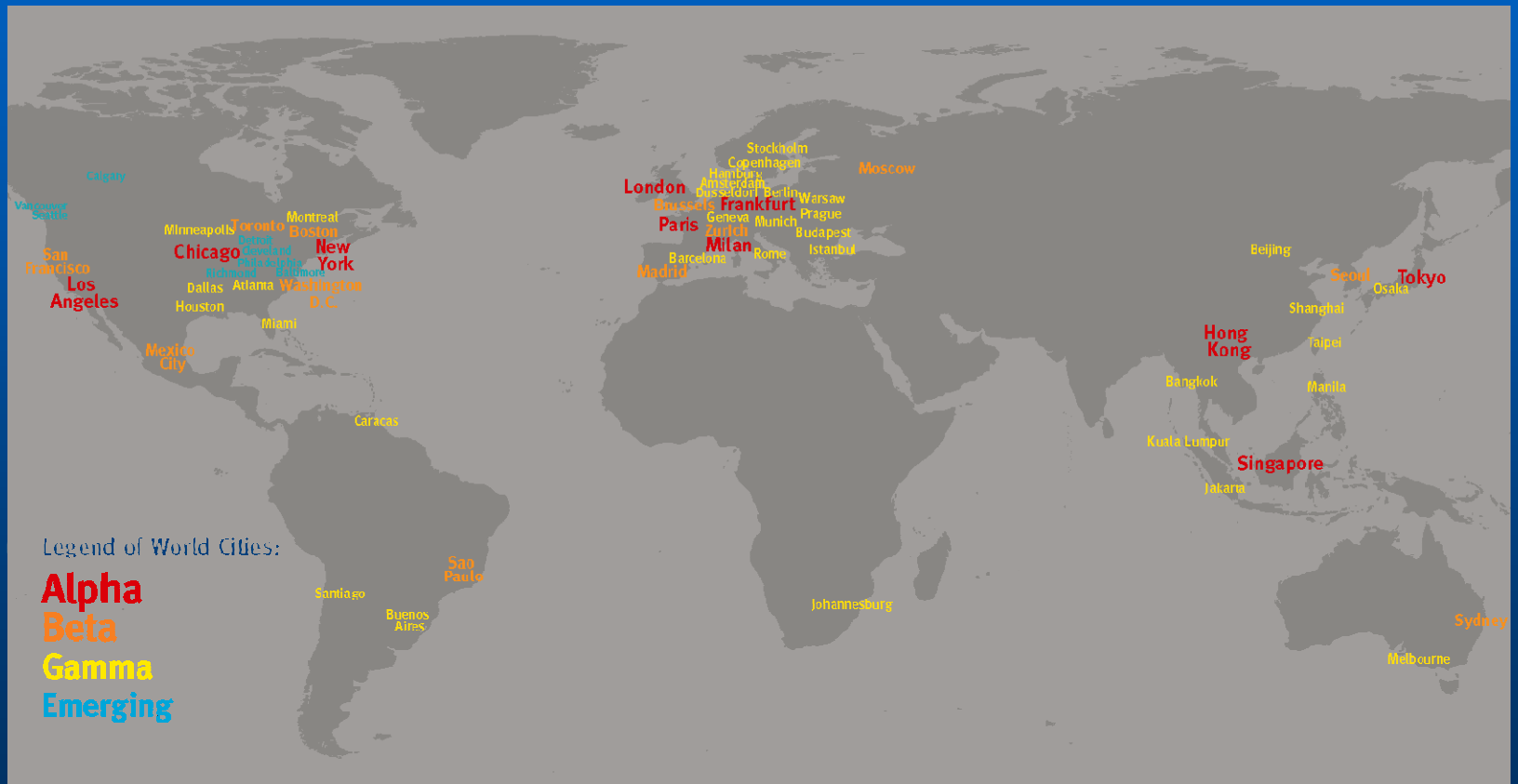
Union (blue) and Non-Union Plants in Component Manufacturing

Source: WAI analysis of proprietary AFL-CIO data on locations of unionized plants, 2005





The region is home to globally connected firms, cities, universities, and multi-national populations which lead commerce, cultural ties, and innovation on a global basis...



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

An aerial photograph of the Great Lakes basin, showing the five large lakes (Superior, Michigan, Huron, Erie, and Ontario) and the surrounding land. The water is dark blue, and the land is a mix of green and brown. The text is overlaid in a bold, red, serif font.

**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**



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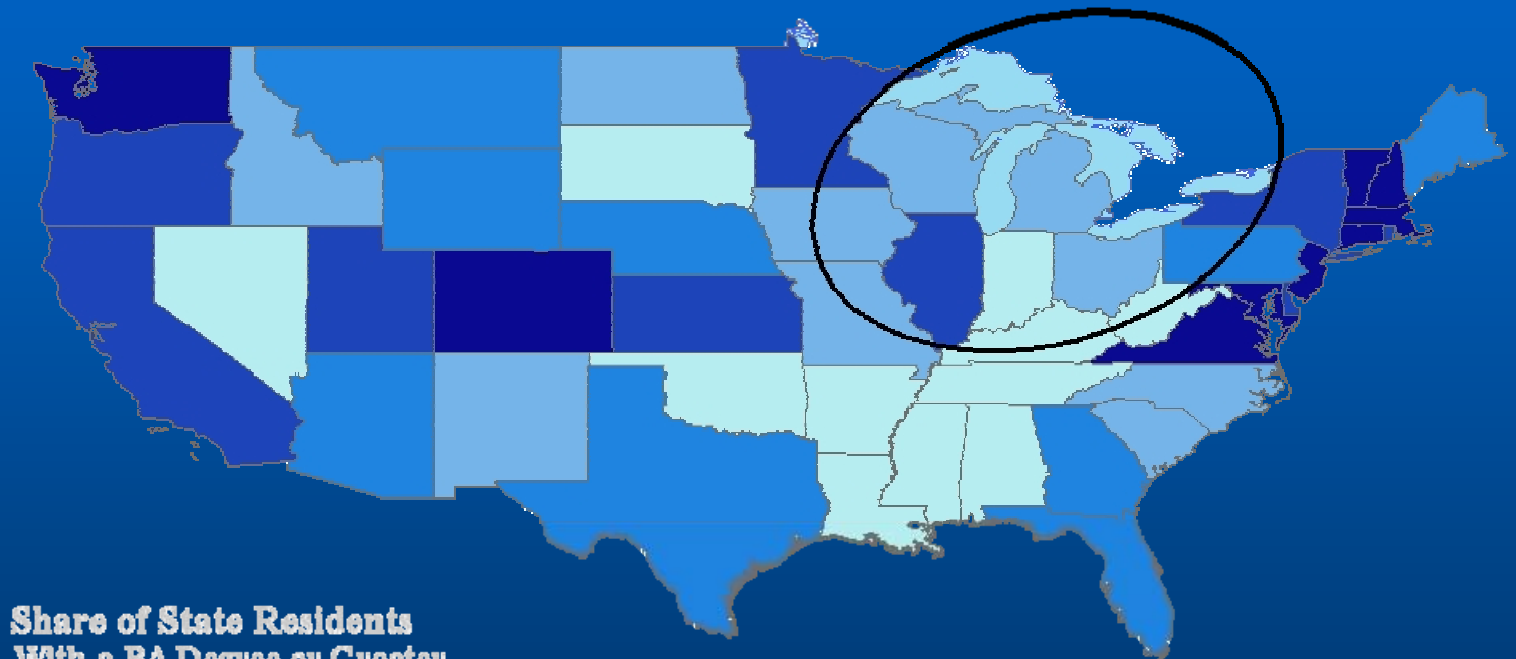
The moment is ripe for leaders in the Great Lakes Region to forge a new compact with federal government



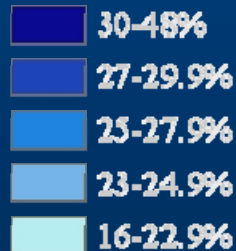
# As a legacy of factory economy many state education attainment levels lag the US and prospering states...

Share of State Population with a Bachelors' Degree or Greater, 2000

Map Source: B. Affolter-Caine, 2006



**Share of State Residents With a BA Degree or Greater (Quantiles in Percents)**



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



Among the states in the region, only two are escaping the “brain-drain” of college educated 25-39 year olds...

Net Migration Rate, 1995-2000



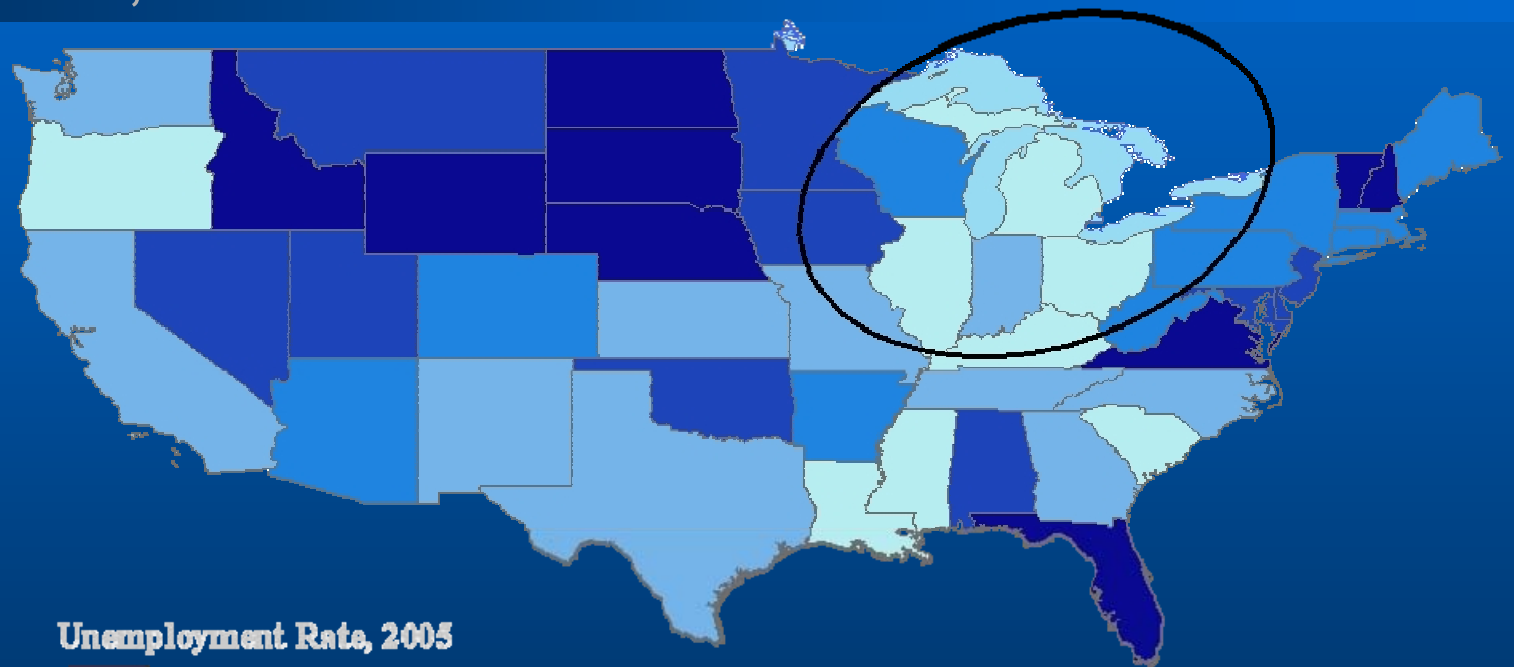
Source: U. S. Census Bureau, Census 2000, special tabulation.. The young are those who were aged 25 to 39 in 2000; the single are those who were never married, or were widowed or divorced in 2000; and the college educated are those who had at least a bachelor's degree in 2000.



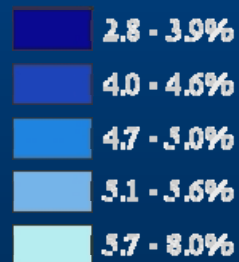
# Restructuring in manufacturing base means unemployment is high in the region, and many need new jobs, education, and skills

## Unemployment Rate, 2005

Map Source: B. Affolter-Caine: 2006



### Unemployment Rate, 2005



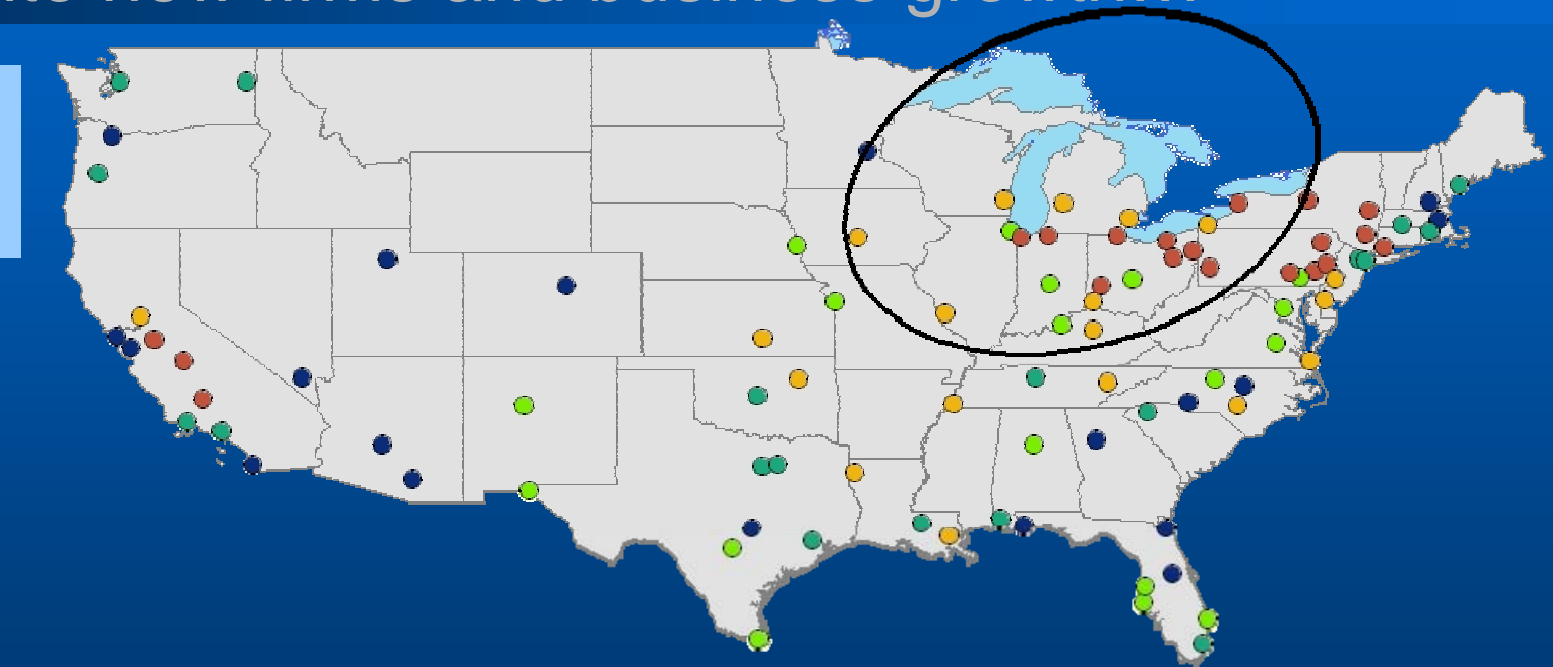
Source: U.S. Department of Commerce, Bureau of Labor Statistics



Industrial structure, brain-drain, combine with factory-town culture to slow development of new intellectual property into new firms and business growth...

Entrepreneurial Activity Rank, 1990-2001

Map Source: B. Affolter-Caine: 2006



**Entrepreneurial Activity Rank**

- Highest
- High
- Average
- Low
- Lowest

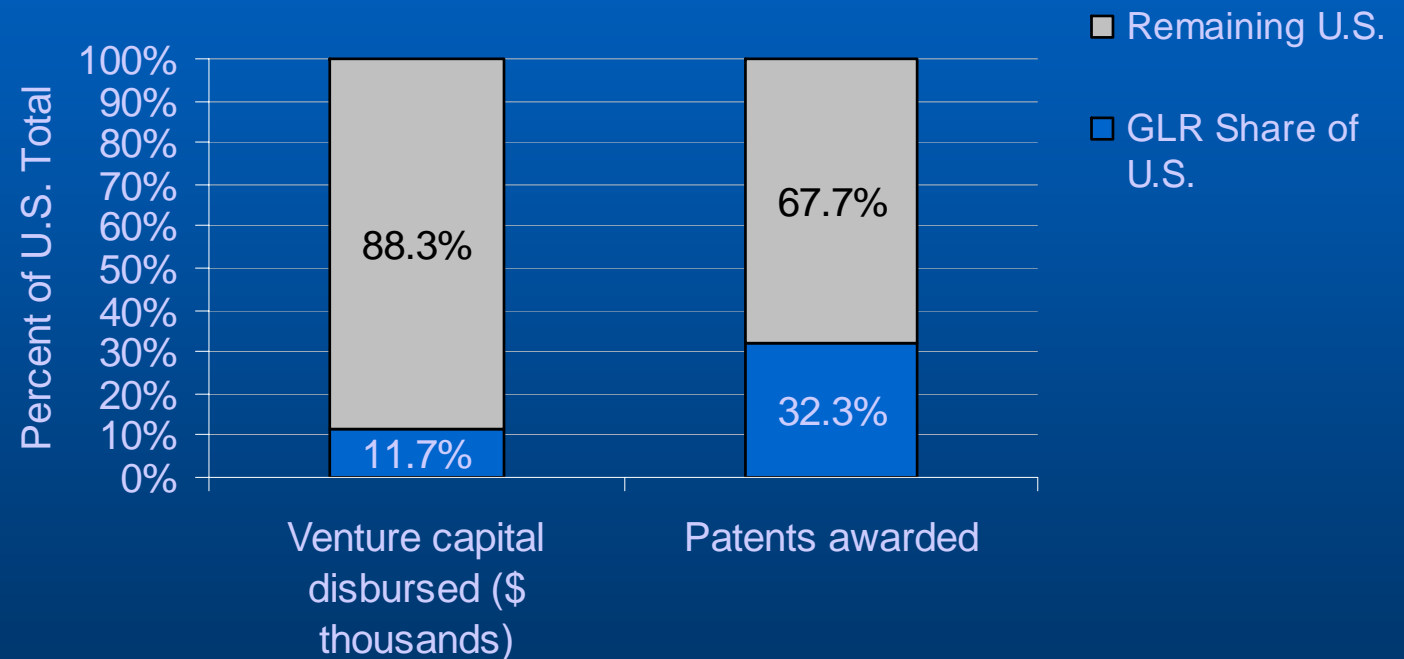
Source: Compiled from the 1990-2001 LEEM data file, U.S. Census Bureau by Advanced Research Technologies, LLC with elimination of "Small Regions"





# The region also lacks venture capital to commercialize its new ideas

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



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

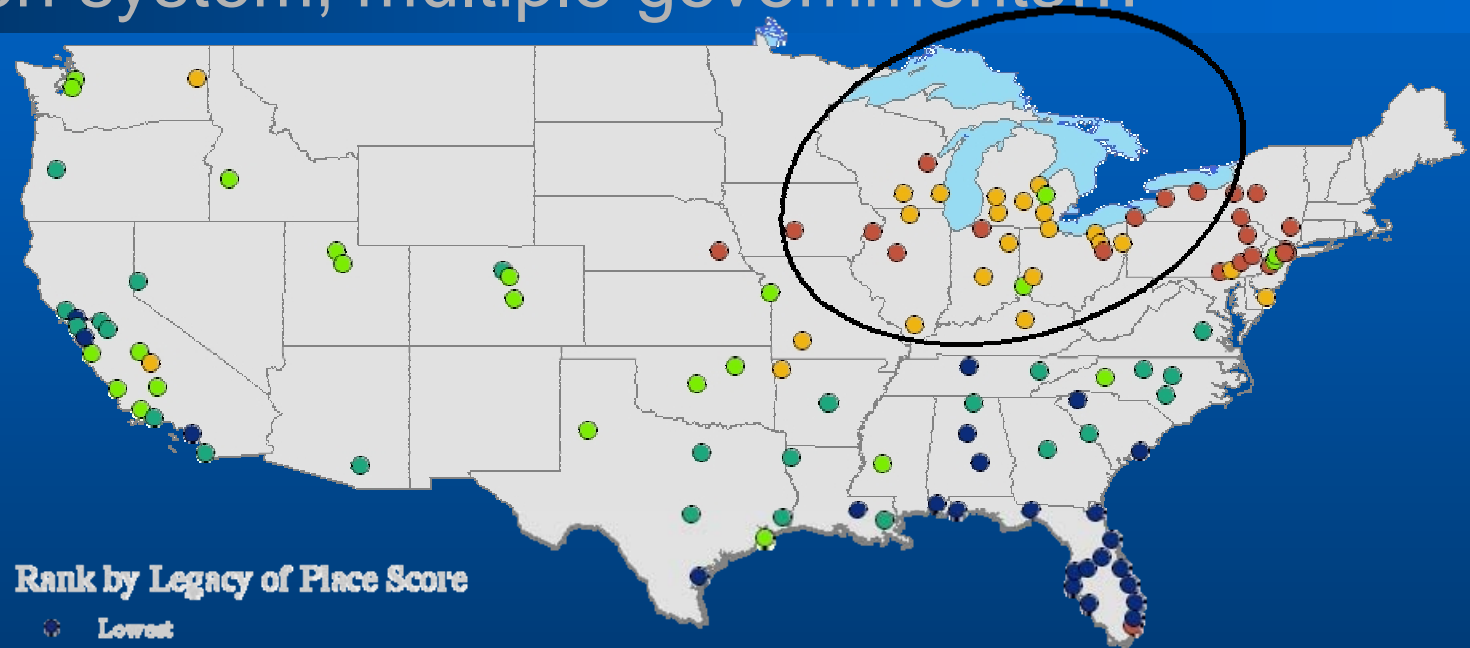
Notes: Patents issued include utility patents and other types of U.S. documents (i.e., design patents, plant patents, reissues, defensive publications, and statutory invention registrations). Origin of patent determined by residence of first-named inventor.



The region's metros suffer from high "legacy of place" costs, including older housing, aging sewers, dated transportation system, multiple governments...

Rank of Legacy of Place Score, 2006

Map Source: B. Affolter-Caine: 2006



Rank by Legacy of Place Score

- Lowest
- Low
- Medium
- High
- Highest

Source: Eberts & Erickson, 2006

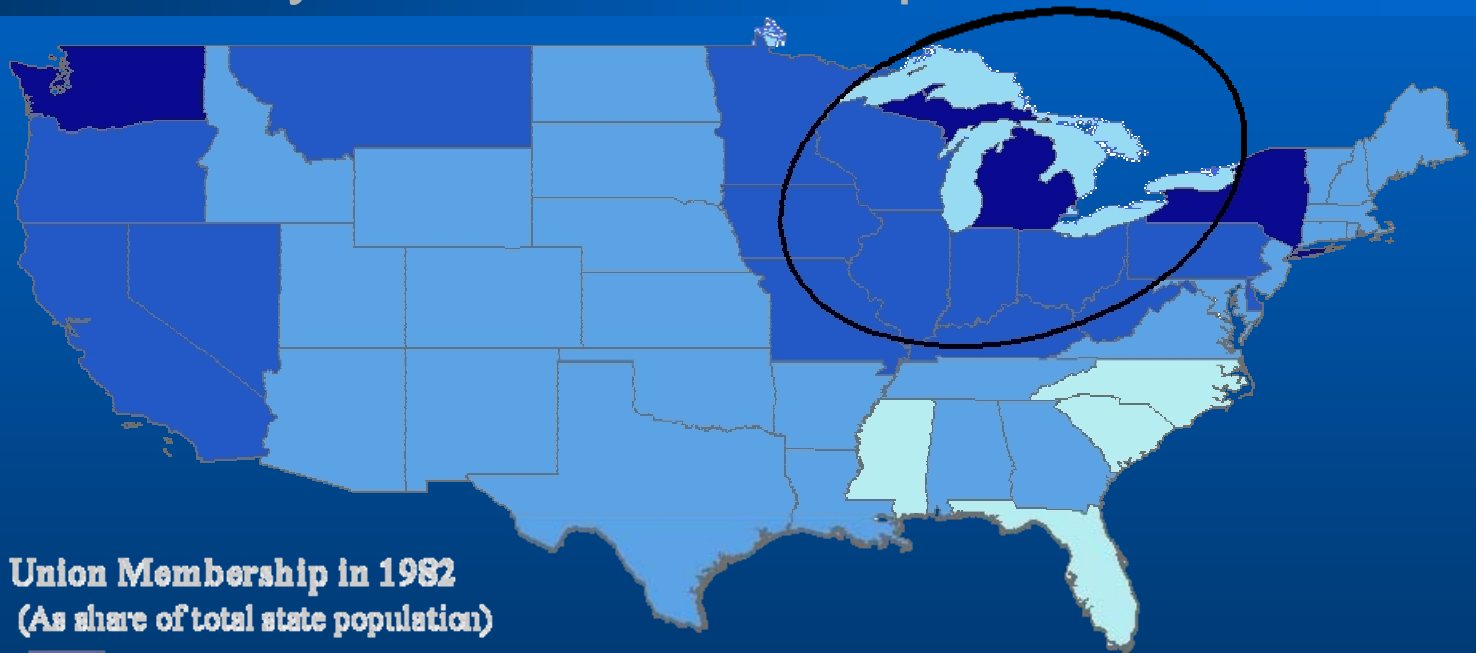
\*Legacy of place takes into account the costs associated with a declining industrial base, an older infrastructure, high unemployment, a lower educational attainment among population, a disproportionate need of human services, and a tax base insufficient to support the demand for services.



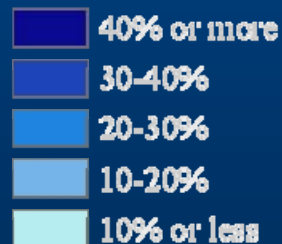
The region's industries and unions led in fashioning the employment "compact" of employer-health care and pensions, which today undermines competitiveness..

### Union Membership in 1982

Map Source: B. Affolter-Caine: 2006



**Union Membership in 1982**  
(As share of total state population)



Source: Leo Troy and Neil Schefflin, *U.S. Union Sourcebook* (West Orange, NJ: Industrial Relations Data and Information Services, 1985)



# The Great Lakes states are linked by common challenges and assets in today's global economy

## Challenges


- Scattered cities/factory towns with mature products
- Social compact costs & rigidity (health care, pensions, retraining)
- Economic nostalgia culture
- Low education levels (with some talent magnets)
- Lag in entrepreneurship
- Brain drain
- Aging population
- Legacy of place costs: old, beat up, segregated

## Assets


- Economic/population size – growing, huge market
- Advanced manufacturing & global industry/talent clusters
- Decision/R&D centers in key global sectors
- Research, knowledge, talent producer
- “North Coast” recreation, tourism and quality of life advantages
- Global cities, firms and universities
- Water, other infrastructure for sustainable growth



But have not leveraged their economic and political clout to insist on a unified federal-state agenda for action:



States moving policy change—but can't do it all themselves



Great Lakes have unique economic importance to US competitiveness:

- Talent generator to compete with China/world
- Innovation infrastructure to produce needed technologies (e.g. energy, transportation)
- “North Coast” is a platform for sustainable development
- Opportunity for economic integration with Canada
- Leadership to remake the social compact



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## A Federal State Compact to Renew the Great Lakes Region



Cultivate the Region's Human Capital



Fuel the Economic Engines of the Region



Remake the Social Compact



Strengthen Metropolitan Communities



## Cultivate the Region's Human Capital




Great Lakes States Help Lead National STEM Education Efforts



Great Lakes Build Human Capital “Common Market”  
“High-Quality – Low-Cost” Education for All

- In-state tuition across region
- Portable credits, standards, credentials, pensions
- Bi-national planning with Canada



Create Federal/State/Individual *Passport to Higher Education* – Lifelong Learning Partnership Program





## Fuel the Economic Engines of the Region

### Expand/Leverage National Basic and Applied R&D

#### Innovation Infrastructure To Build New Technologies

- Feds Increase non-defense R&D through NSF, NIH etc.
- Great Lakes States match investments give “bang for buck” and get more than their fair share

### Deliver Energy Independence

#### Energy/Transport R&D Infrastructure to Build Green Industry

- Federal Energy Investments in Networked Regional Energy Lab – Building on Argonne Lab, research university infrastructure
- Great Lakes States prioritize next energy, transport, renewables & biofuels as budget, research and economic development priorities

### Create Great Lakes Regional Venture Fund



## Build Out the “North Coast” As Economic Engine

### Great Lakes States Policies/Programs for “North Coast” Economic Development

- Cross-state public access & preservation enhancements
- Cross-state promotion and marketing of natural assets
- Water-based commercial/residential development
- Recreation/natural resource-based economic development
- Enhance Fed-State-Canadian compacts on pollutants
- Bi-National planning & coordination

### Great Lakes and Federal Follow-through on \$20 Billion Great Lakes Restoration Compact

- Clean and keep clean Great Lakes – update sewer systems, ameliorate waste sites, etc.



## Partner with Great Lakes Leadership to Remake the Social Compact



Create State/Regional Portable Defined Contribution Pension Plans

- Transportable across states



Re-make Reemployment System To Foster Learning & Flexibility


- Passport to Higher Education voucher program
- Unemployment system to support retraining



Regional Health Care Plans To Provide Low-Cost Access To Health Care




# Strengthen Metropolitan Communities



## Develop new unified transportation vision

- Connect metros with rail
- Multi-modal integration: ports, freight hubs, air, road, rail, transit, pedestrian
- Enhanced regional planning, “fix it” first
- Bi-national planning - collaboration



## Rebuild the region’s crumbling water and sewers infrastructure

- Federal planning and commitment, regional planning/focus



## Reinvest in cities and older areas

- Waterways, brownfields, mixed use, greenways, housing policy change



# What are Next Steps?



## Great Lakes Economic Initiative – Next Steps



### ***The Vital Center***– Released October, 2006

Part of Brookings *Opportunity '08* Agenda – February 28, 2007

- Build network of interested stakeholders
- Convene/Promote with Region's Governors, Mayors, Legislators, Business-Civic Leadership
- Convene/Promote with Region's Congressional Delegation
- Convene/Promote with Presidential Aspirants



### ***Great Lakes Bi-National Heartland***- coming summer 2007

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



## Great Lakes Economic Initiative – Next Steps



### *Work with you to put detail on the policy agendas*

- “North Coast” as economic driver: study + plan
- Extending the Midwestern Higher Education Compact
- Inform Federal strategy for R&D, new technologies
- Design of a Great Lakes Venture Fund
- Support Development of Passport to Higher Education  
Lifelong Learning Program
- Design state/regional pension/health care programs
- Federal infrastructure, transportation, housing policy  
rework

# [www.brookings.edu/metro](http://www.brookings.edu/metro)

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July 1, 2004

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## METROPOLITAN POLICY PROGRAM

Brookings > Metropolitan Policy

*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

METROVIEW  
**Deficits by Design Plague Metro**  
by Robert Puentes  
*The Washington Times*  
June 21, 2004

News Index

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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