



The Vital Center

A FEDERAL-STATE COMPACT TO RENEW
THE GREAT LAKES REGION



The Federal Reserve Bank of Chicago, Oct. 23, 2006

John Austin, Brookings Non-Resident Fellow


Britany Affolter-Caine, Doctoral Candidate, University of Michigan



What is the Great Lakes Economic Initiative?



Purpose: Improve the economic vitality of the region




Understand the history, forces and trends shaping the economic prospects of the region and its position in the global economy




Assess the region's assets, challenges and opportunities given what matters for economic growth today



Build support for effective economic growth strategies among state, regional and federal political, opinion, civic and business/labor leaders



Develop policy directions and recommendations for state, regional national leadership



Push an ongoing dialogue about economic policy to benefit the region and the country



What are our Major Findings?



The Vital Center: Major Findings

I

The Great Lakes Region has a unique, shared economic and social history

II

The region has assets central to U.S. competitiveness as a generator of talent, knowledge, innovation, and leader in global commerce and connections

III

Despite its assets, this “North Coast” region 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...dynamic, highly interdependent economy

Great Enterprise:

- Armour
- Ford
- Rockefeller
- Sears
- Heinz
- Carnegie

Great Innovation:

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

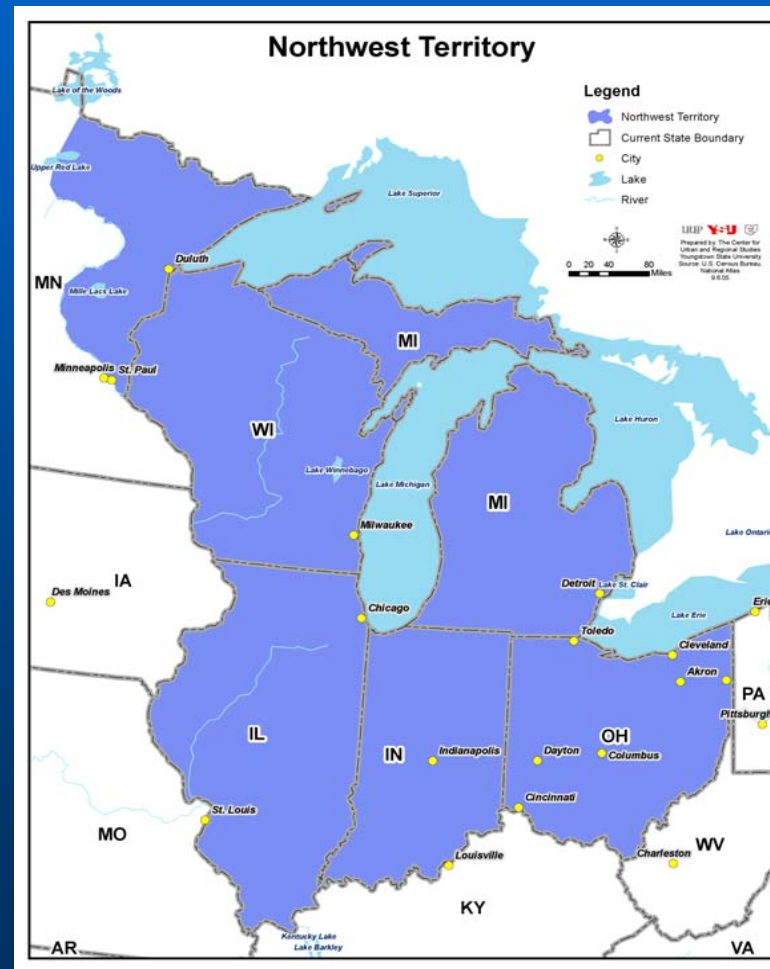


Source: B. Affolter-Caine, 2006

Shared values and political organization shaped development

The Old Northwest Territory

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



Shared Values

- Free Labor
- Education
- Local Government
- Civil Rights
- Free Land
- Religious Freedom



The region's natural bounty converted to product - a network of manufacturing communities emerged, liberally sprinkled among the most fertile farmland on earth

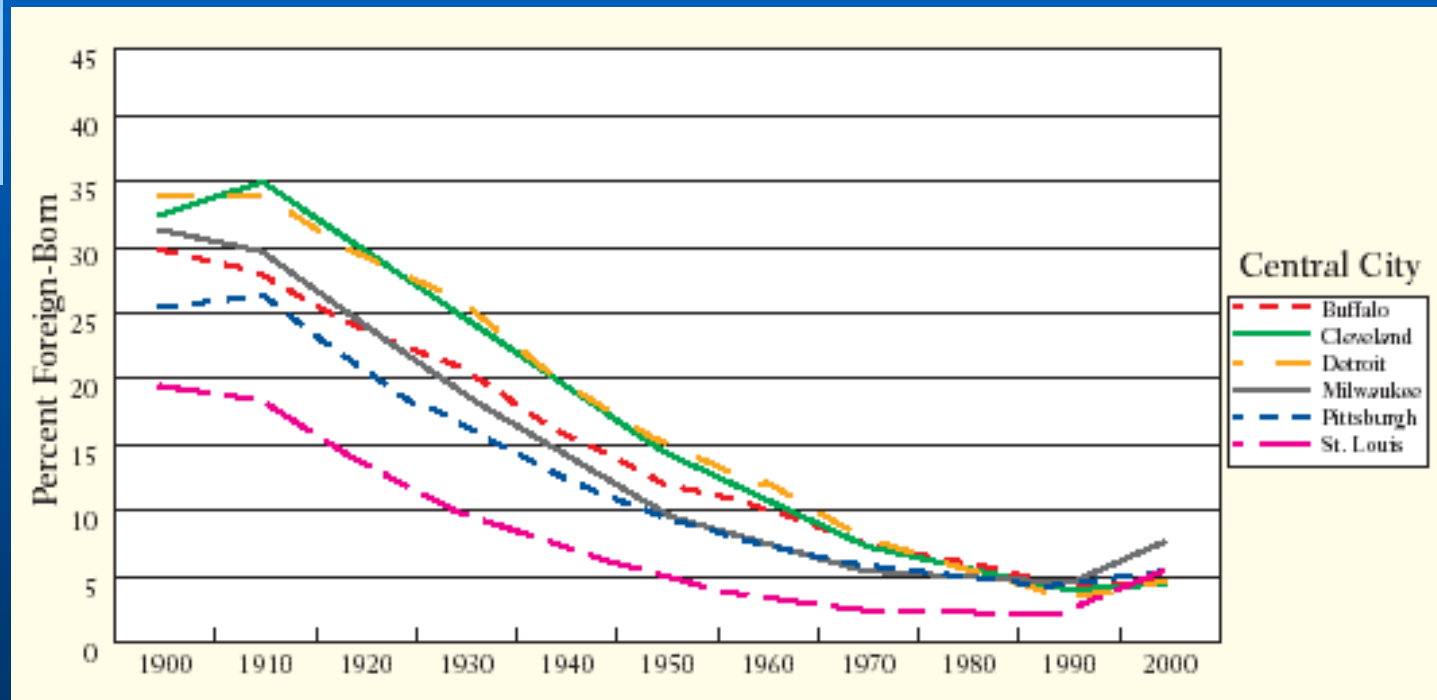
“The Midwest has been characterized by vigorous urbanization throughout its history, southern Wisconsin and Michigan, Eastern Iowa and Minnesota, northern Illinois and Indiana, and virtually all of Ohio are characterized by dense city systems.”

Page and Walker, (1991) *From Settlement to Fordism: The Agro-industrial revolution in the American Midwest*



Farms and factories brought waves of newcomers from the other parts of the country, and the world

Percent Foreign-Born Population in Former Gateways 1900-2000



Source: Brookings, U.S. Census Bureau



Gross State Product, 2005

\$252,746 - 1,631,913

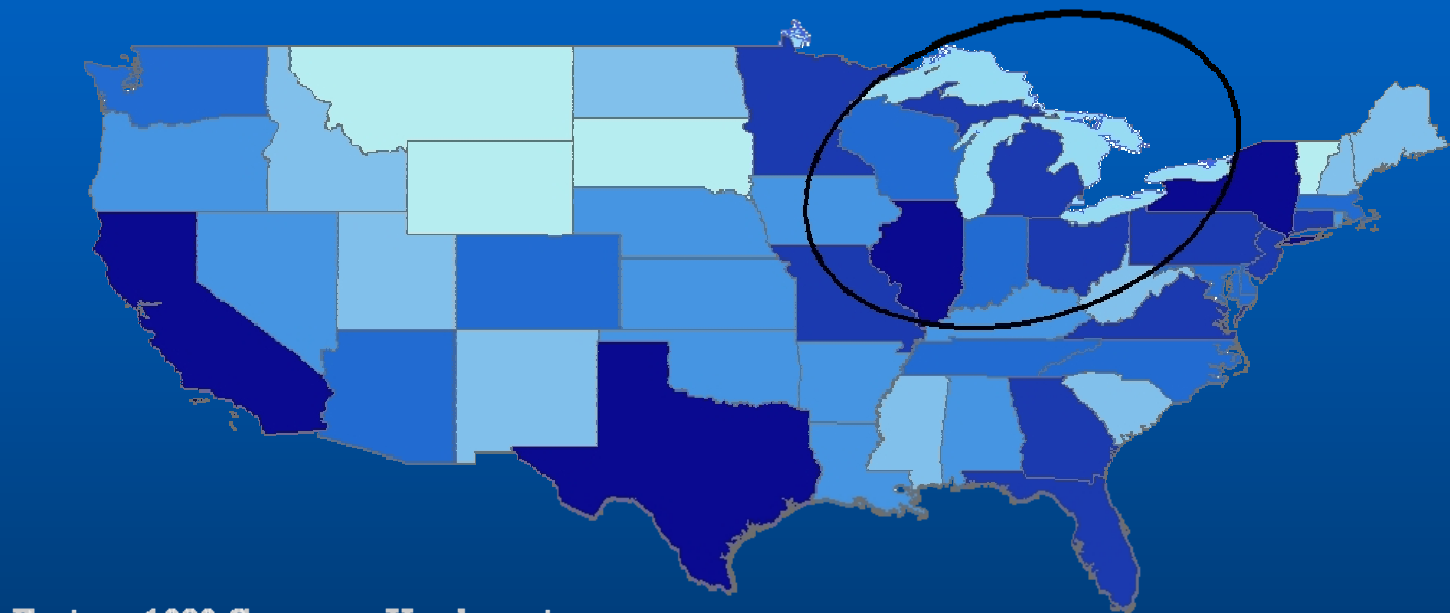
\$ 352,746 - 1,621,843
\$ 216,065 - 352,745
\$ 110,547 - 216,064
\$ 53,711 - 110,546
\$ 23,134 - 53,710 (in millions)

Source: B. Affolter-Caine, 2006



The region is home to significant corporate decision and R&D centers and has over 300 of Fortune 1000 firms

Fortune 1000
Company
Headquarters,
2004



Fortune 1000 Company Headquarters

- Greater than 60
- 26-60
- 11-25
- 5-10
- Less than 5
- No Companies

Map Source: B.
Affolter-Caine: 2006

Adapted from Missouri Department of Economic Development's Map of Fortune 1000 Company Headquarter in 2004. Industry Studies, 2000: Data Source: Fortune Magazine, 2006



Great Lakes is one of the country's emerging 'Mega-Regions, with over 40 million people living in networked metros

Major
Interstates
Linking Mega-
Regions in the
U.S.

Source: Robert E. Lang and Dawn Dhavale, "Beyond Megalopolis: Exploring America's New 'Megapolitan' Geography," 2005

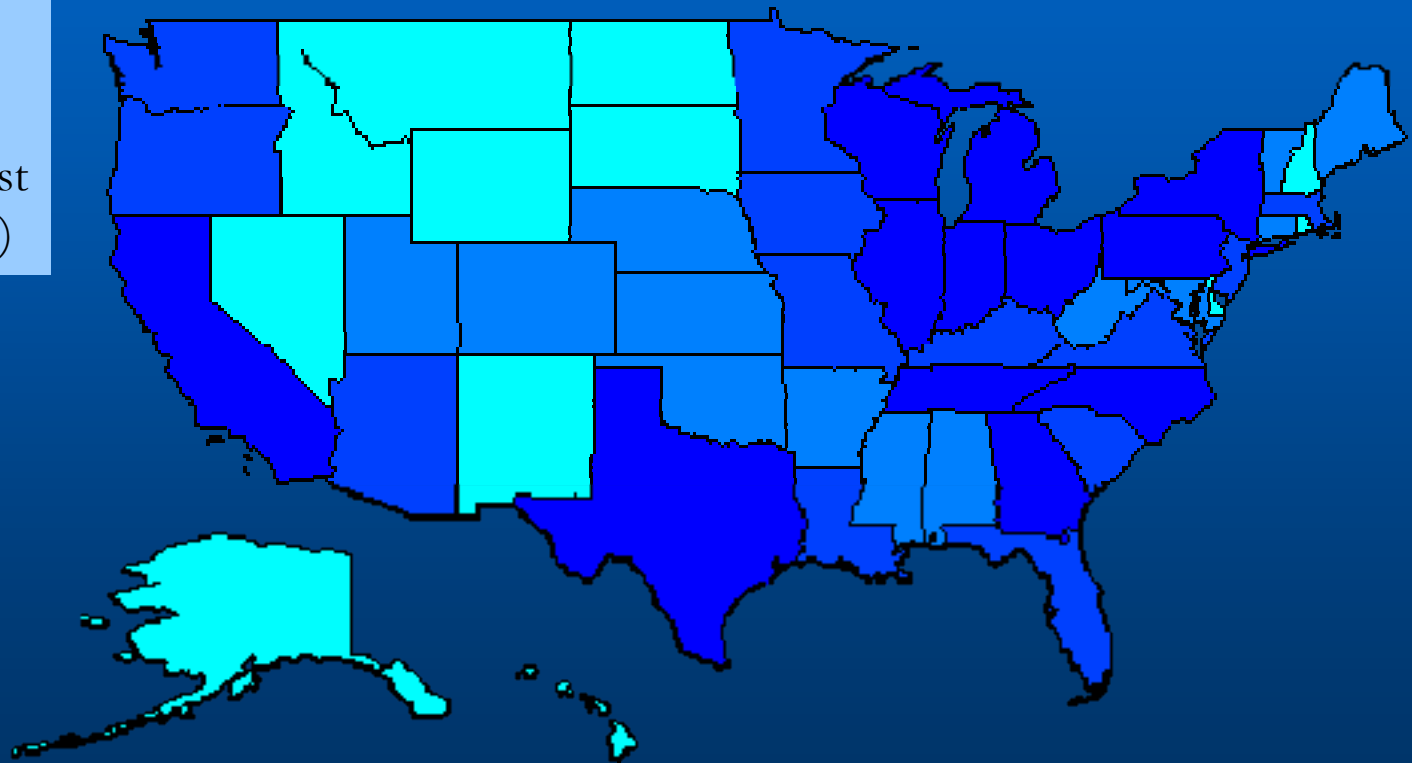




It leads U.S. participation in global trade, with over 30% of U.S. merchandise exports from Great Lakes states

North American Free Trade Agreement (NAFTA): Export Quintiles from Greatest (dark) to Lowest (light)

Source: TradeStats Express, <http://tse.export.gov> 2000





The Great Lakes region is a huge player in global trade, responsible for more than 30 percent of the U.S. merchandize exports

Source: TradeStats

Region*, with states** and export rank	Exports (in dollars)	Share of U.S. Total	Region*, with states** and export rank	Exports (in dollars)	Share of U.S. Total
U.S.	\$ 904,379,818				
Great Lakes	\$ 267,975,911	30%	West	\$ 116,818,585	13%
New York (3), Michigan (5), Illinois (6), Ohio (7), Pennsylvania (9), Indiana (11), Wisconsin (18), Kentucky (19), Minnesota (20), Missouri (25), Iowa (27), West Virginia (39)			California (2), Washington (4), Arizona (17), Oregon (22), Colorado (29), Utah (31), Nevada (35), Arkansas (37), Idaho (38), New Mexico (42), Hawaii (47), Montana (49), Wyoming (50)		
Northeast	\$ 138,464,560	15%	Midwest	\$ 189,017,819	21%
New York (3), Pennsylvania (9), Massachusetts (10), New Jersey (12), Connecticut (26), Vermont (33), New Hampshire (41), Delaware (43), Maine (44), Rhode Island (45)			Michigan (5), Illinois (6), Ohio (7), Indiana (11), Wisconsin (18), Minnesota (20), Missouri (25), Iowa (27), Kansas (30), Nebraska (40), North Dakota (46), South Dakota (48)		
South	\$ 314,783,577	35%			
Texas (1), Florida (8), Georgia (13), North Carolina (14), Louisiana (16), Tennessee (16), Kentucky (19), South Carolina (21), Virginia (23), Alabama (24), Maryland (28), Oklahoma (32), Mississippi (34), Alaska (36), West Virginia (39)					



The Vital Center: Major Findings

I

The Great Lakes Region has a unique, shared economic and social history

II

The region has assets central to U.S. competitiveness as a generator of talent, knowledge, innovation, and leader in global commerce and connections

III

Despite its assets, this “North Coast” region faces major challenges in transitioning from industrial to knowledge economy leadership

IV

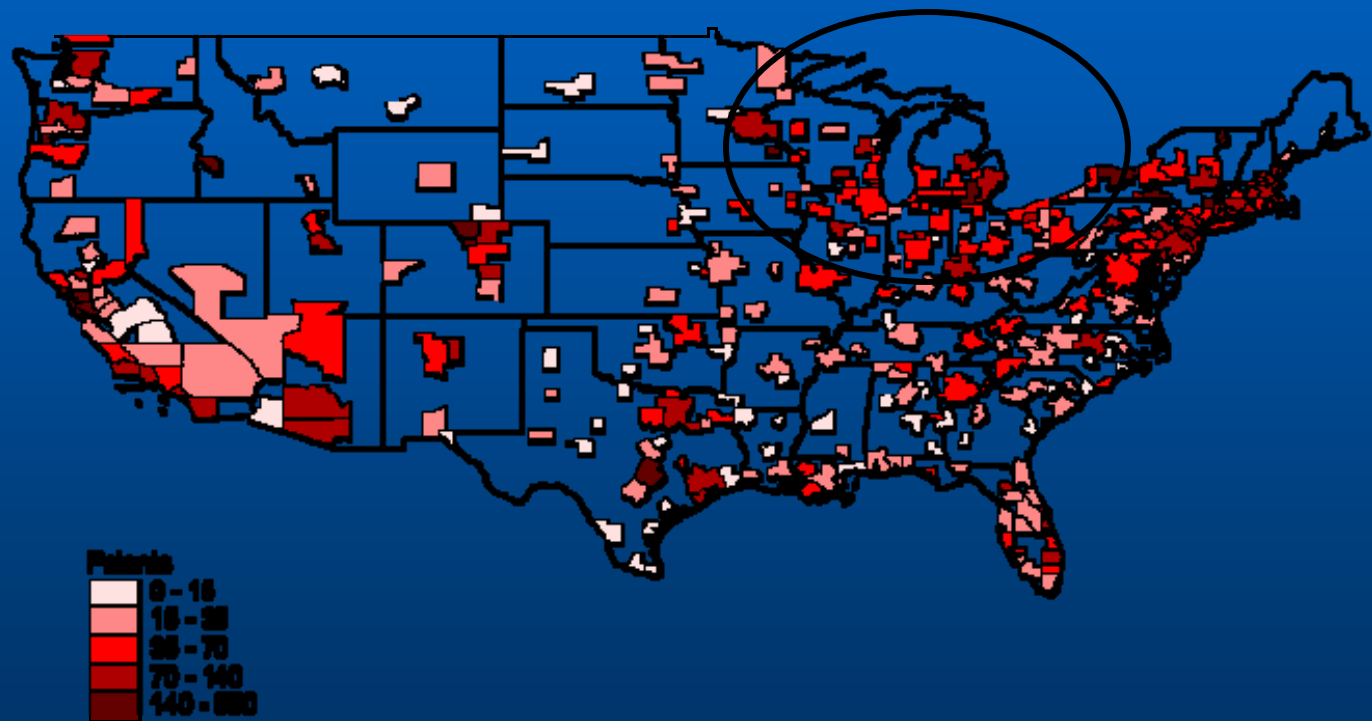
The moment is ripe for leaders in the Great Lakes Region to forge a new compact with federal government



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

Patents per
100,000 Jobs,
1999

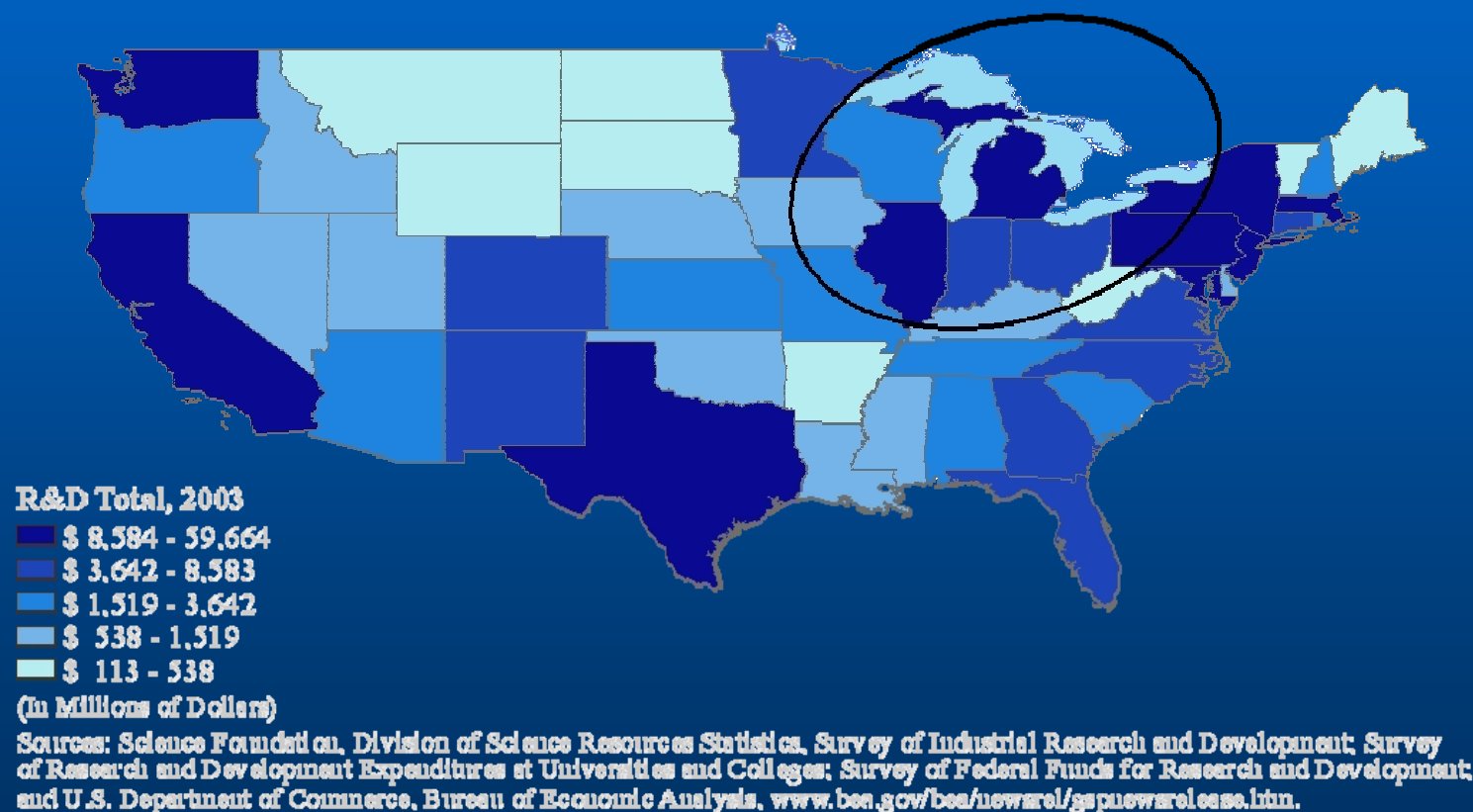
Source: A. Reamer, L.
Icerman and J. Youtie,
*Technology Transfer
and Commercialization:
Their Role in Economic
Development*, 2003





Great Lakes do a significant share (29%) of the nation's public and private research and development

Total Research and Development (Public and Private), 2003

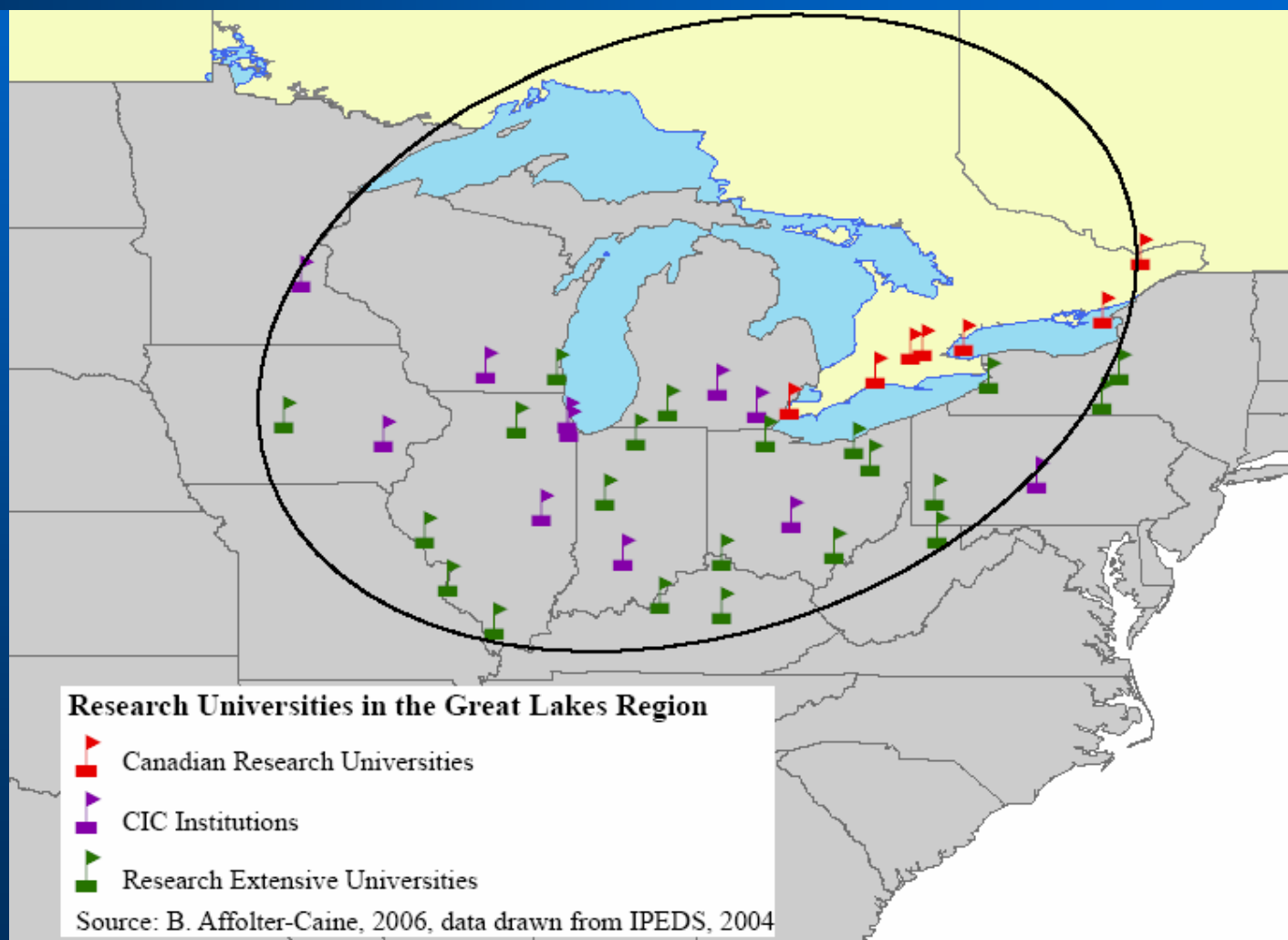


Map Source: B. Affolter-Caine: 2006



Great Lakes states are home to the largest concentration of research universities in the world...

Research
Universities in
the Great Lakes
Region, 2006



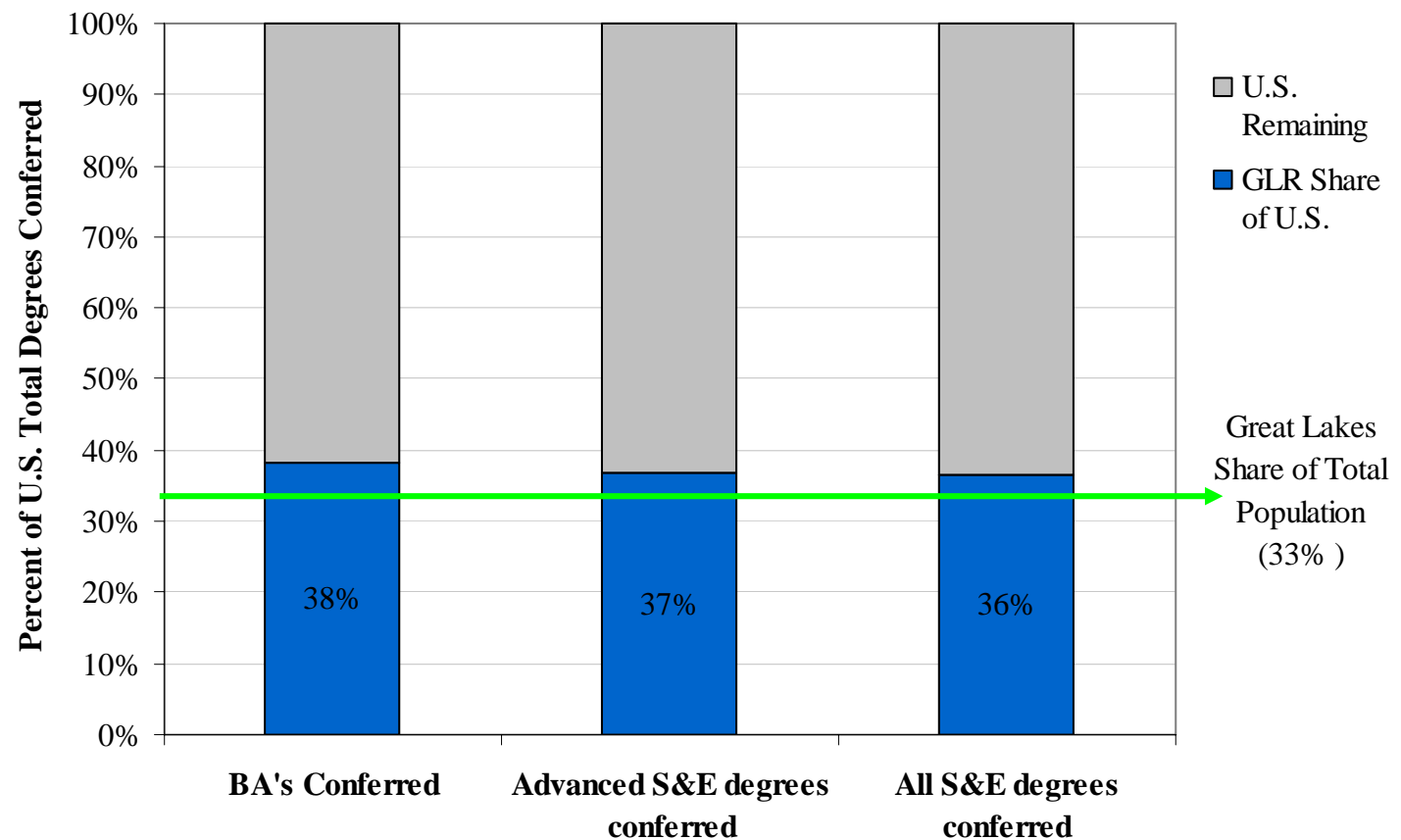
Map Source: B.
Affolter-Caine: 2006



...that produce a huge amount of talent, particularly in the 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

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
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



The region has potential leadership in emerging global industries, including 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
U.S.		3,970,518,778		3,536,802,678	
Great Lakes		1,367,154,311	34%	1,153,471,436	33%
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
Northeast		549,879,552	14%	503,186,475	14%
South		1,703,443,847	43%	1,517,959,100	43%
West		770,706,184	19%	683,475,923	19%
Midwest		946,489,195	24%	832,181,180	24%



The region is home 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	Hospitals
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	

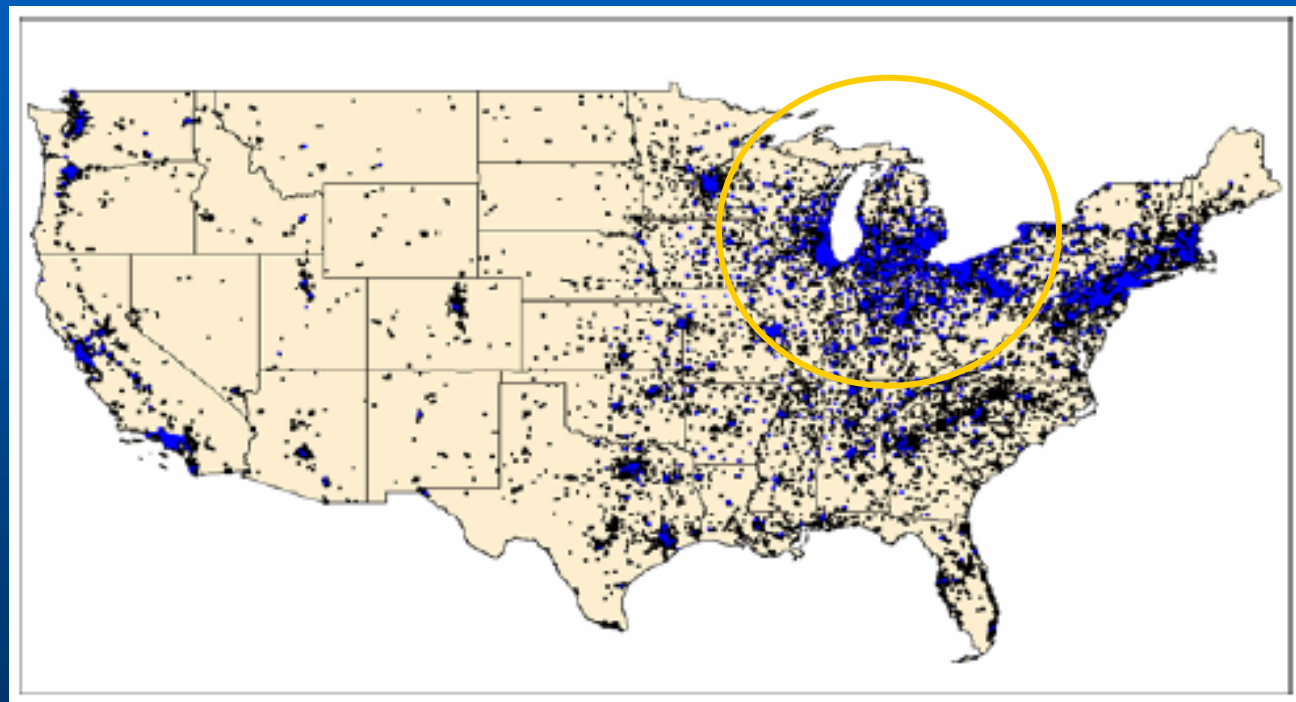
Source: 2006 Hospital Rankings by U.S. News and World Report



It excels in advanced manufacturing components, including electronics, robotics, nanotechnology, materials

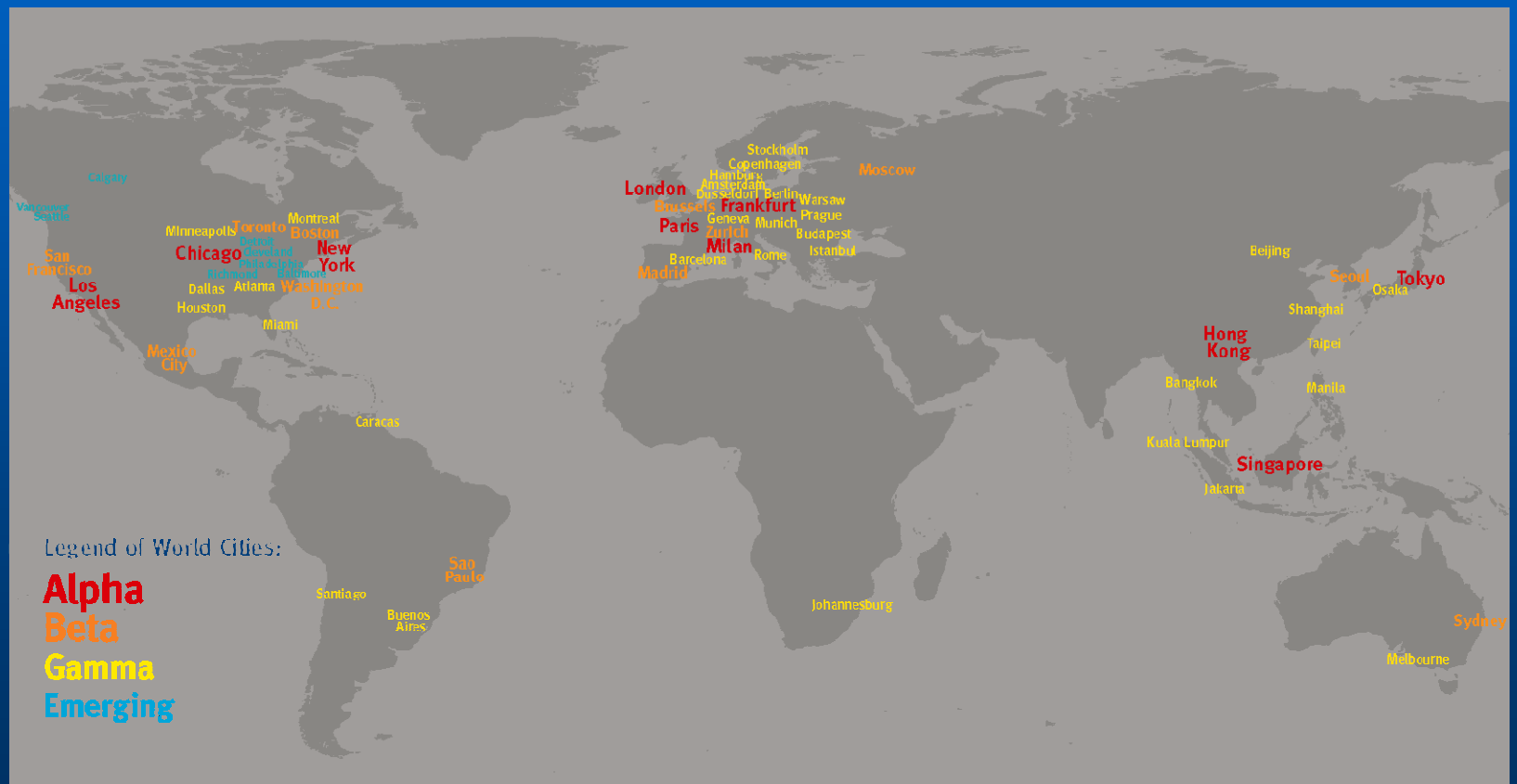
Union (blue) and
Non-Union
Plants in
Component
Manufacturing

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





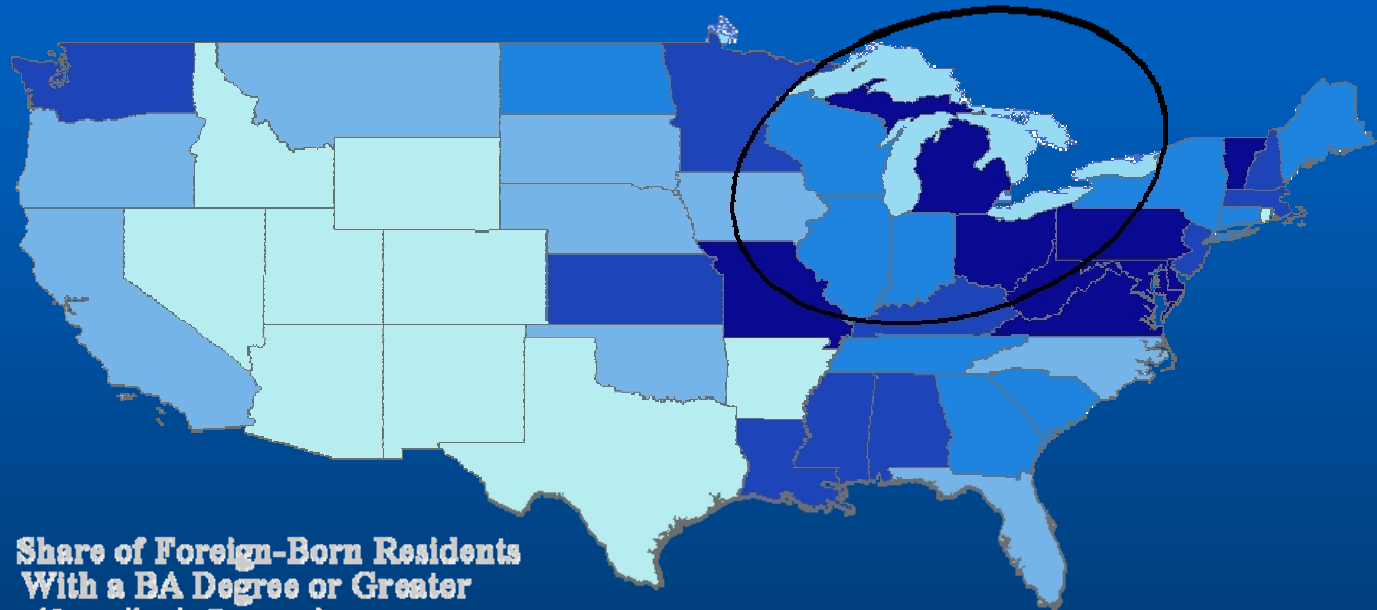
The region is home to many globally connected firms, cities, universities, and multi-national populations



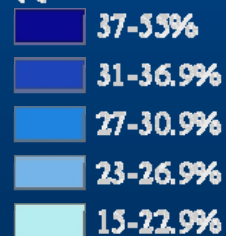


Foreign born immigrants have offset some domestic population losses, and are relatively well-educated

Share of Foreign-Born Residents with a BA Degree or Greater, 2005



Share of Foreign-Born Residents With a BA Degree or Greater (Quantiles in Percents)



Map Source: B. Affolter-Caine: 2006

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





The Vital Center: Major Findings

I

The Great Lakes Region has a unique, shared economic and social history

II

The region has assets central to U.S. competitiveness as a generator of talent, knowledge, innovation, and leader in global commerce and connections

III






Despite its assets, this “North Coast” region 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



Share of State Residents With a BA Degree or Greater

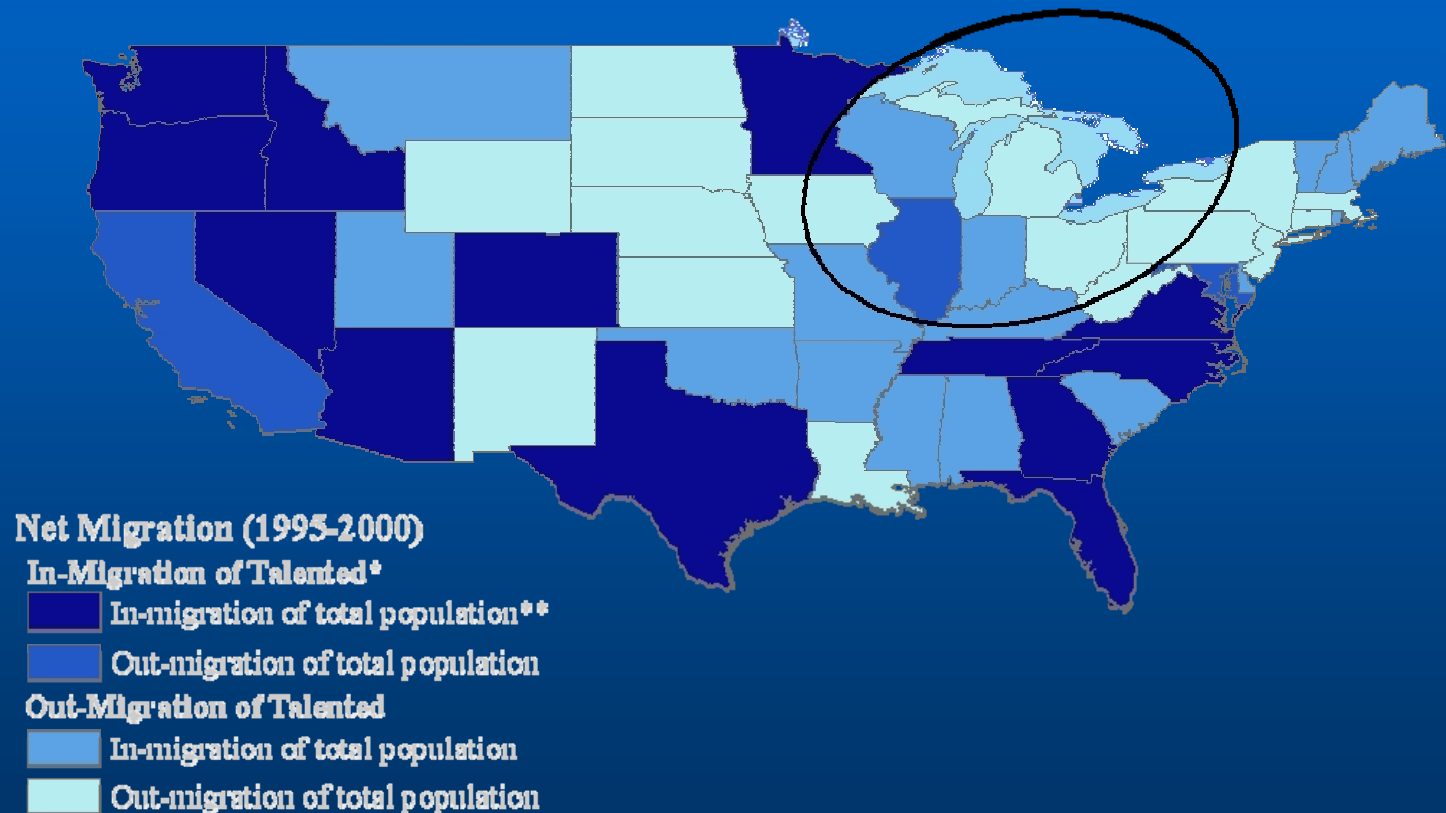
	30-48%
	27-29.9%
	25-27.9%
	23-24.9%
	16-22.9%

Map Source: B.
Affolter-Caine: 2006



Most states are losing domestic population and nearly all losing talent

Net Migration
(1995-2000)



Source: Adapted
from U.S. Census
Bureau, 2005

*Talented population includes those who in 2000 were young (aged 25-39), single and college educated (BA or greater).

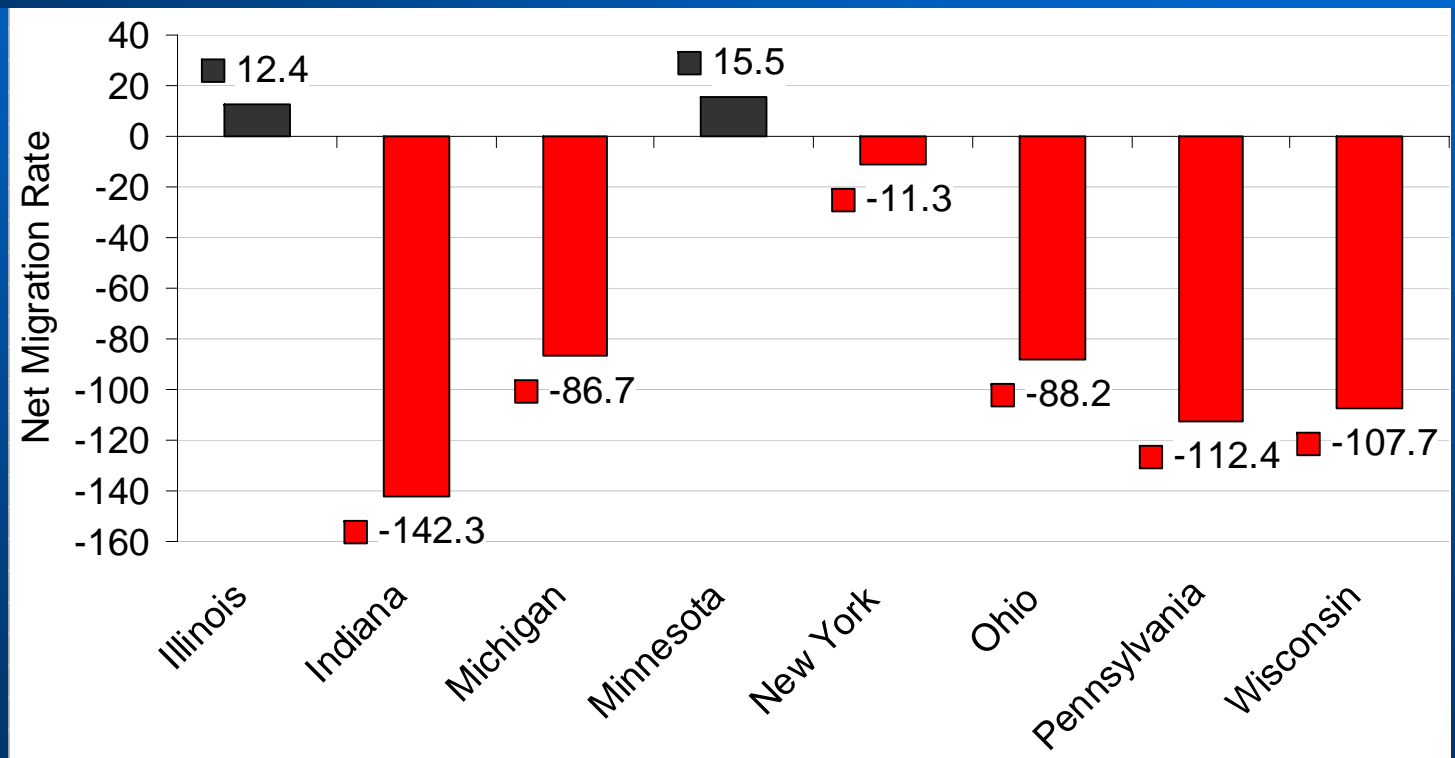
**Total population includes all individuals aged 5 or older, and excludes in-movers from abroad

Source: Adapted from U.S. Census Bureau Migration Report, 2005



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

Net Migration
Rate, 1995-2000



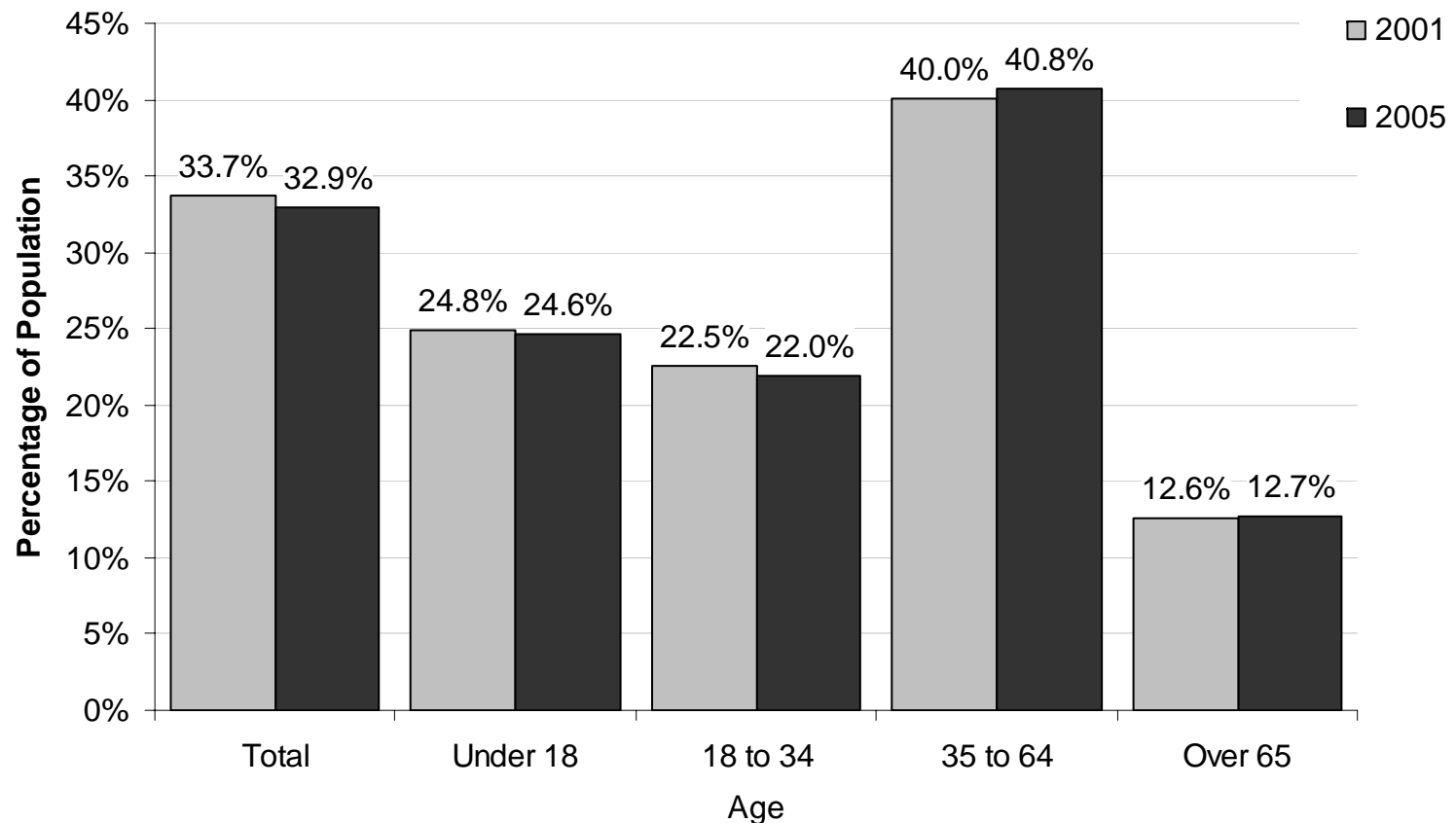
Source: U. S. Census Bureau, Census 2000, special tabulation.. The young are those who were aged 25 to 39 in 2000; the single are those who were never married, or were widowed or divorced in 2000; and the college educated are those who had at least a bachelor's degree in 2000.



...contributing to an overall population that is growing older

Population Age, 2001 and 2005

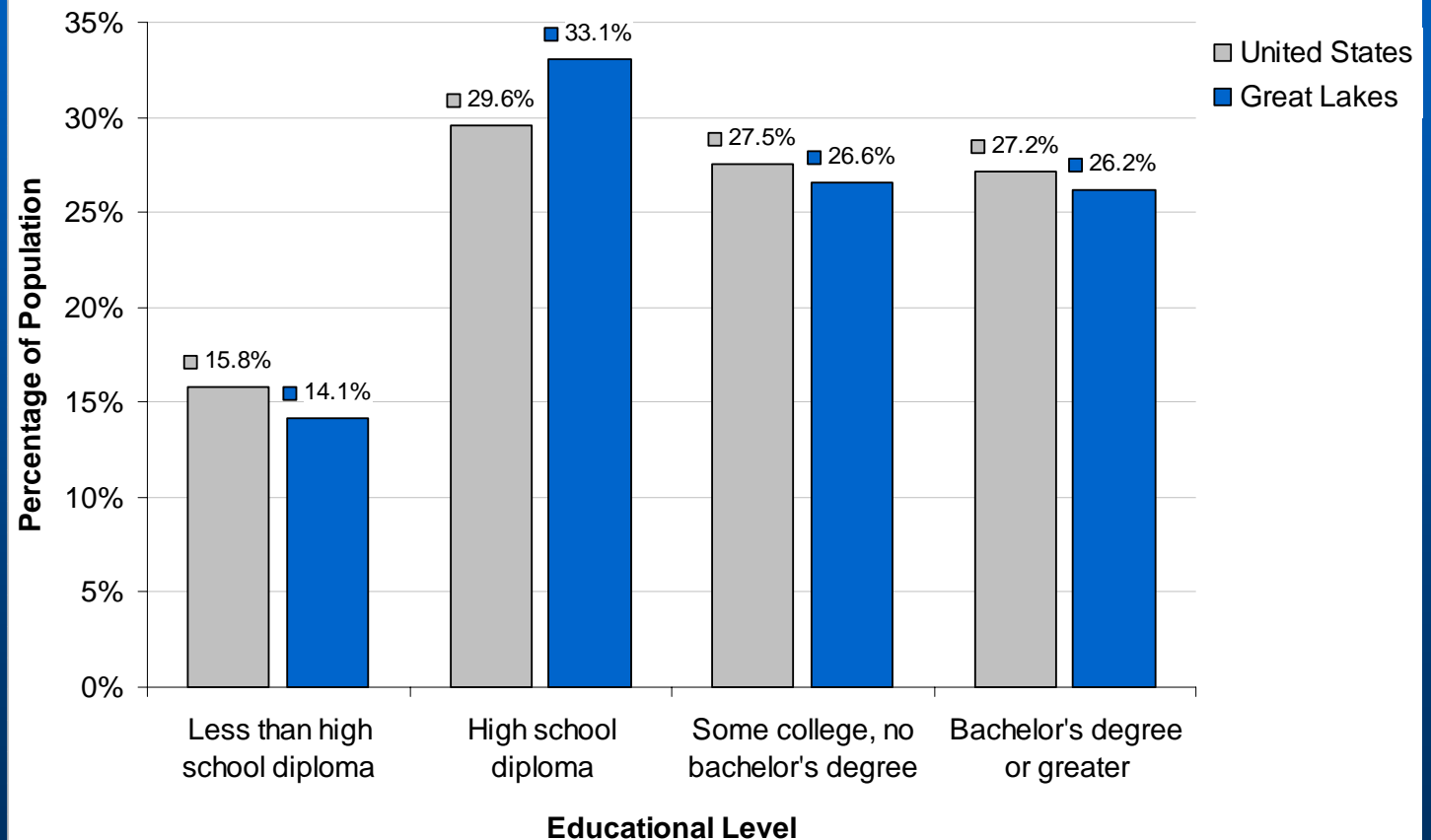
Source: U.S. Census Bureau, 2000 and 2005 American Community Surveys





The states of the region have a large number of working-age adults with only a high school diploma

Educational level of Great Lakes Region, 2005

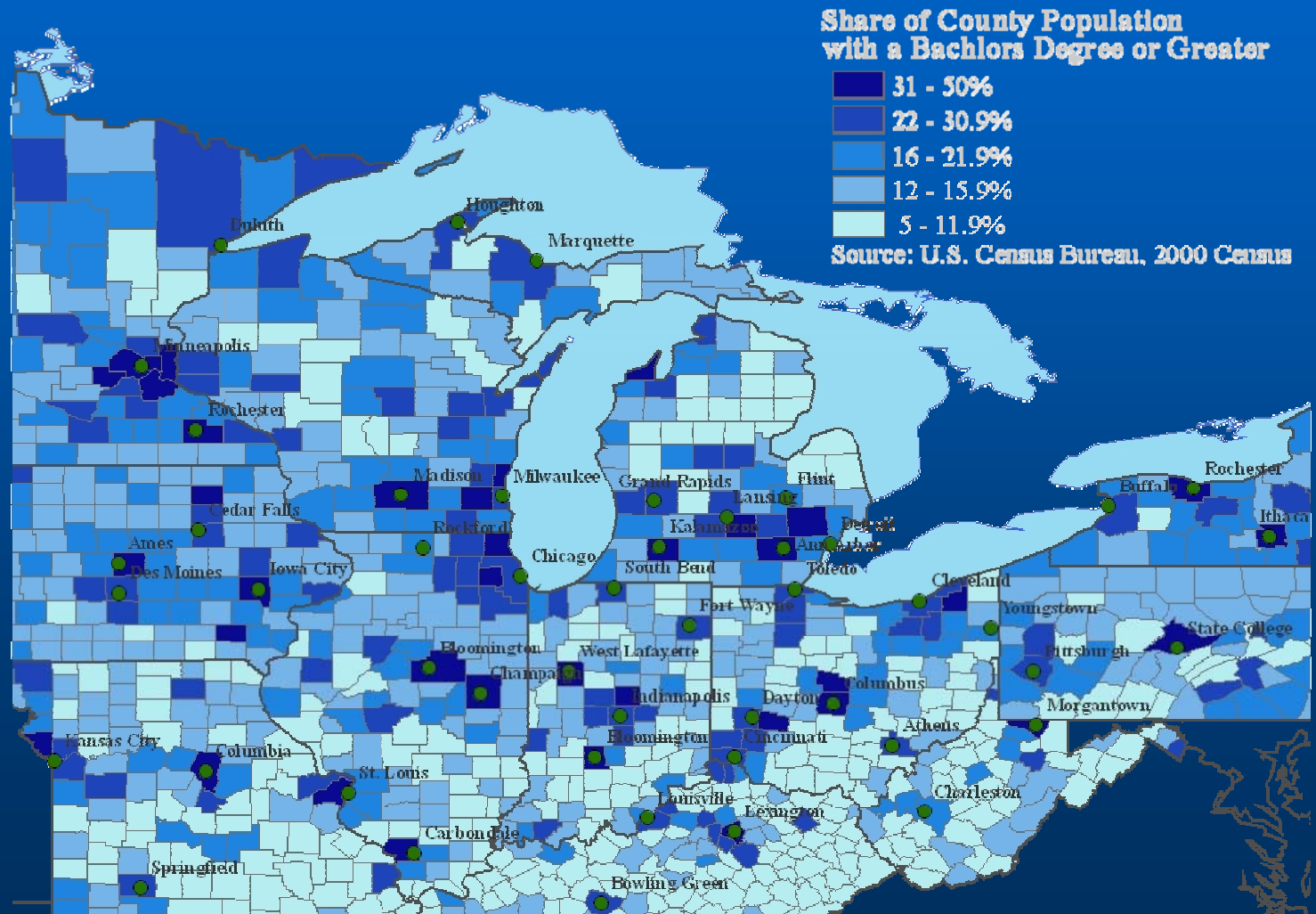


Source: U. S. Census Bureau, American Community Survey 2005



Major metros and university towns are functioning as talent magnets, while others struggle

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

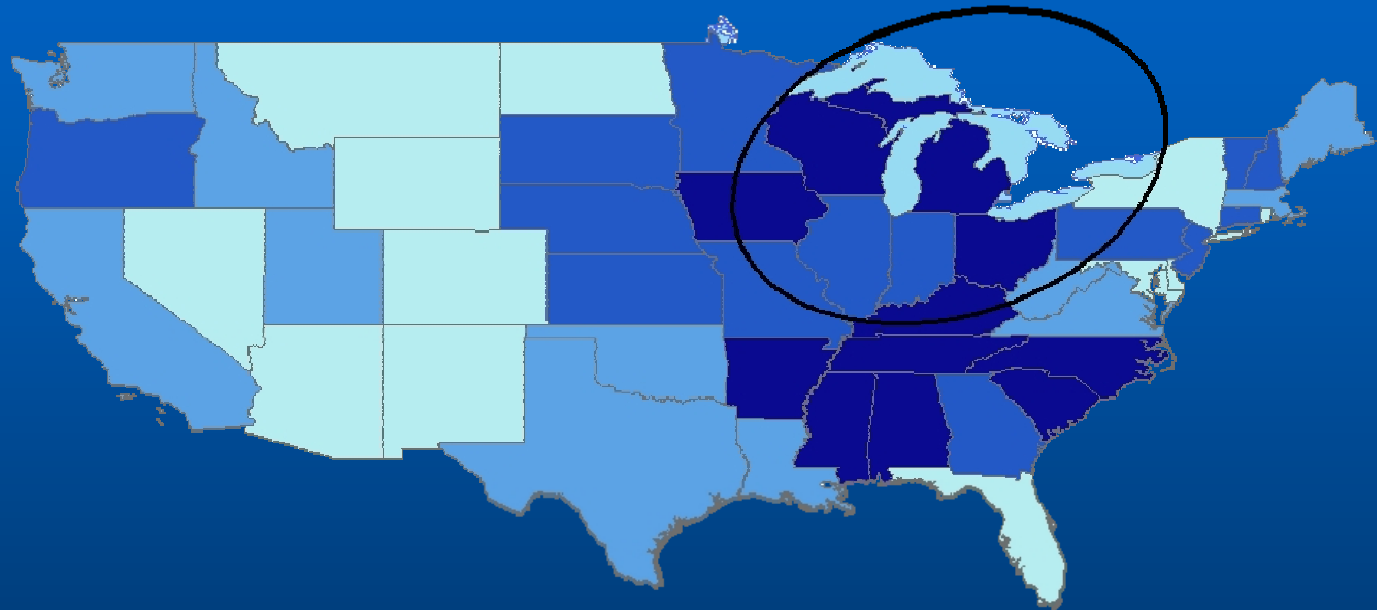


Map Source: B. Affolter-Caine: 2006

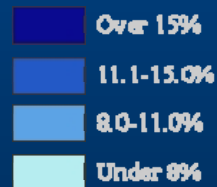


Great Lakes region remains manufacturing reliant

Manufacturing as
Percentage of
Total
Employment,
2004



Manufacturing as Percentage of Total Employment



Map Source: B.
Affolter-Caine: 2006

Adapted from Testa, W. (March, 2004). Chicago Federal Reserve Letter Challenges and Prospects Report

Data Source: U.S. Department of Commerce, Bureau of Economic Analysis, and U.S. Department of Labor, Bureau of Labor Statistics

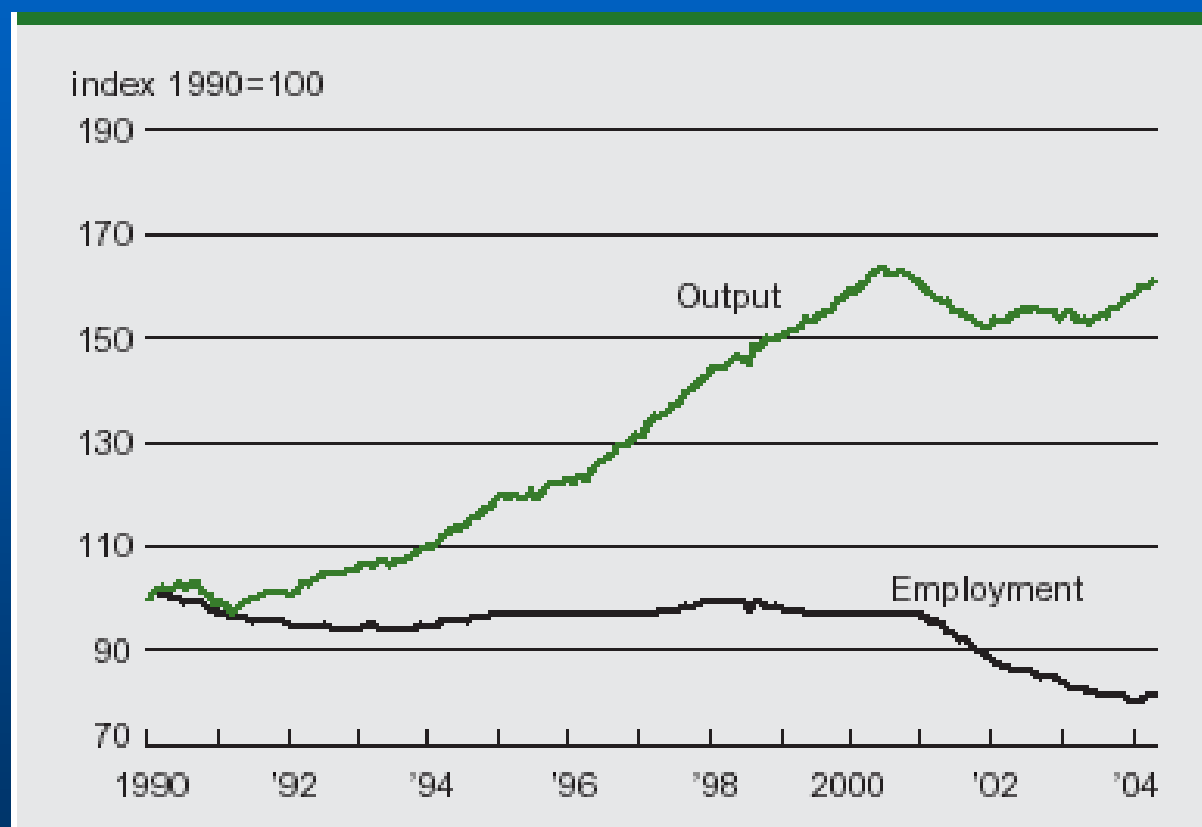


The sector is still very productive, but has far fewer jobs

Manufacturing Output and Employment

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

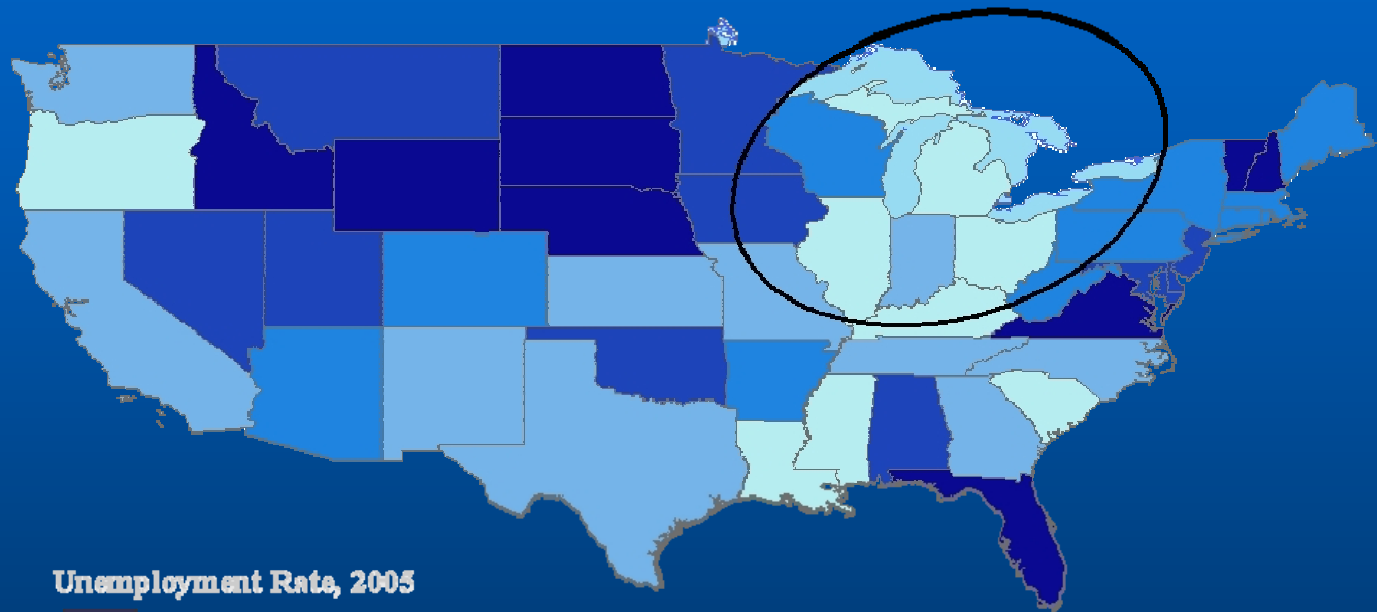
Graph Source: William Testa, Chicago Federal Reserve Letter Challenges and Prospects Report, 2004



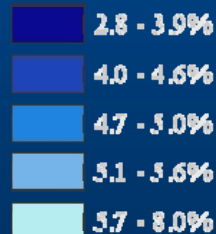


Economic restructuring means unemployment is high in the region, and many need new jobs and skills

Unemployment
Rate, 2005



Unemployment Rate, 2005



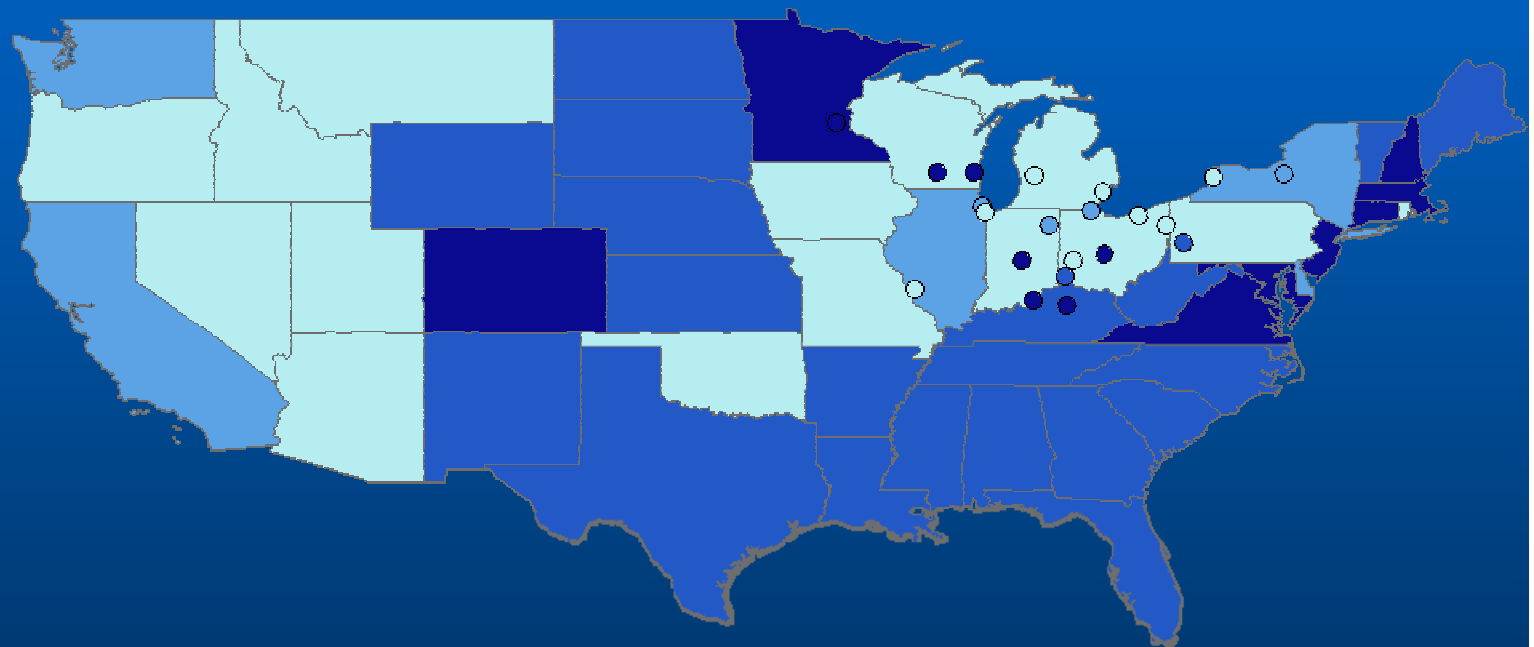
Source: U.S. Department of Commerce, Bureau of Labor Statistics

Map Source: B.
Affolter-Caine: 2006



Most states and metros in the region have not replaced factory jobs with high-paying, high-education jobs

Per Capita
Income (2001)
and Per Capita
Income Growth
(1969-2001)



Data Source: Glazer
and Grimes, 2004;
2006

Map Source: B.
Affolter-Caine, 2006

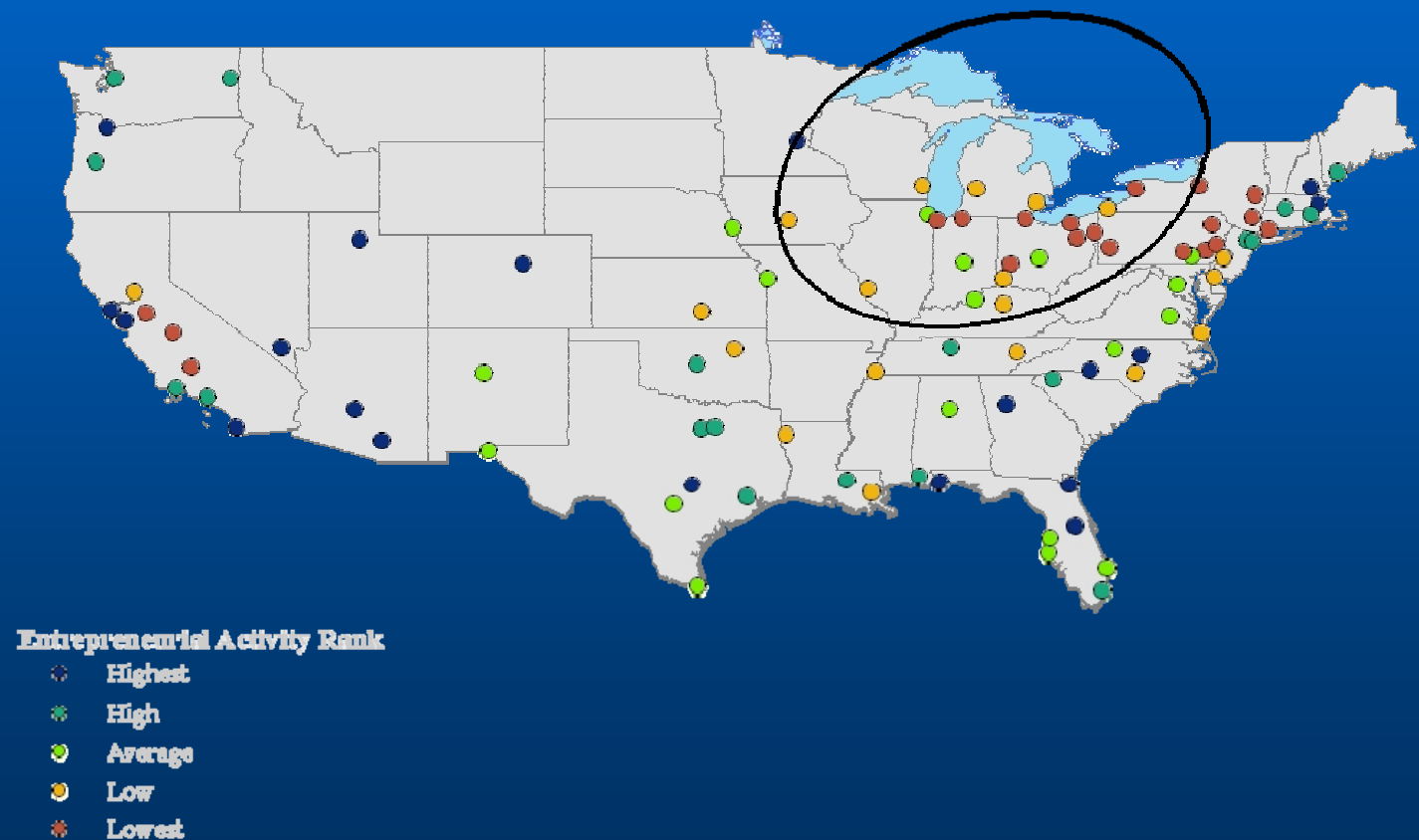
Per Capita Income (2001) and Per Capita Income Growth (1969-2001)





New knowledge is not fueling entrepreneurial activity in the region

Entrepreneurial
Activity Rank,
1990-2001



Map Source: B.
Affolter-Caine: 2006

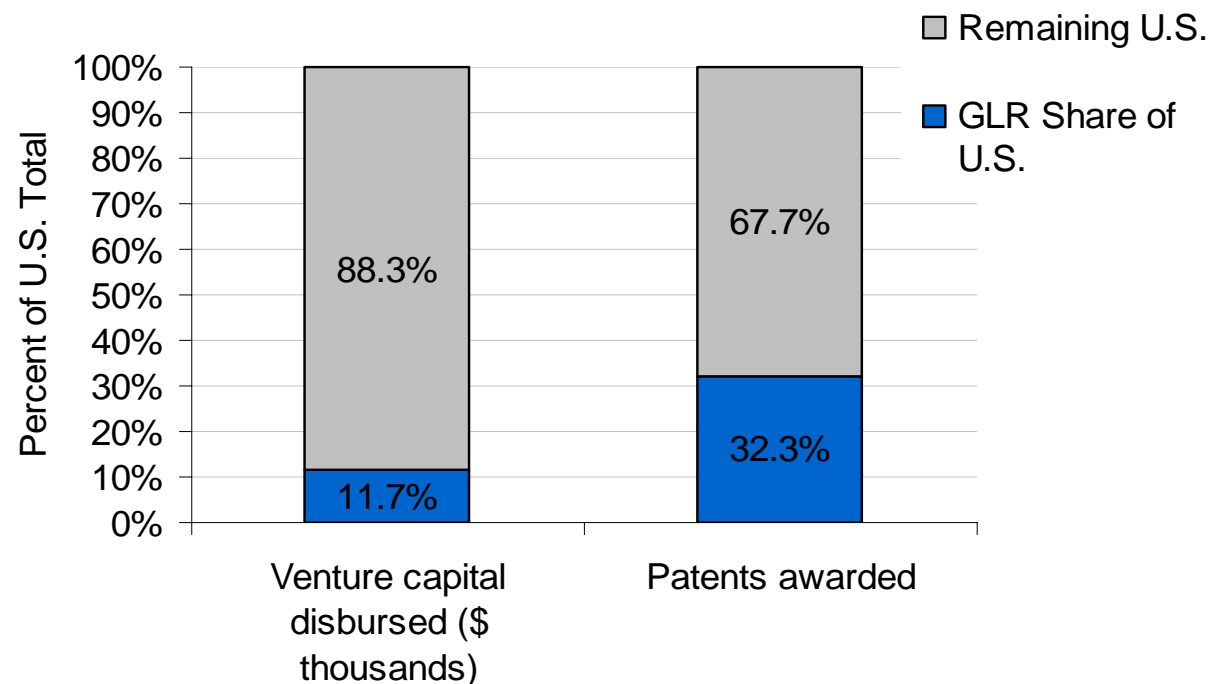
Source: Compiled from the 1990-2001 LEEM data file, U.S. Census Bureau by
Advanced Research Technologies, LLC with elimination of "Small Regions"



The region lacks culture and capital to commercialize 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

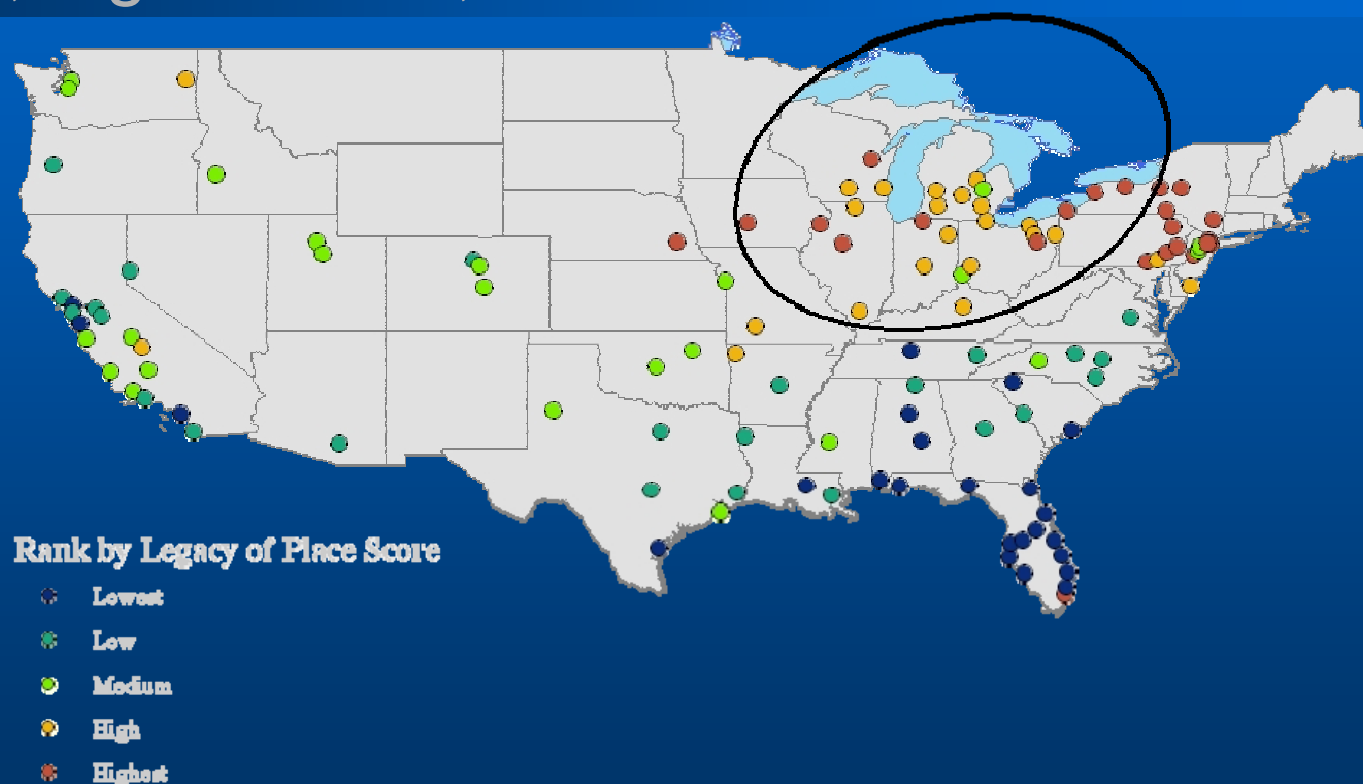


Notes: Patents issued include utility patents and other types of U.S. documents (i.e., design patents, plant patents, reissues, defensive publications, and statutory invention registrations). Origin of patent determined by residence of first-named inventor.



The region's metropolitan areas suffer from high “legacy of place” costs, including older housing and infrastructure, higher taxes, and crime

Rank of Legacy
of Place Score,
2006



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.

Map Source: B.
Affolter-Caine: 2006



The Great Lakes large metropolitan areas are among the most racially segregated in the nation

Black Racial
Segregation
Rank, 2000

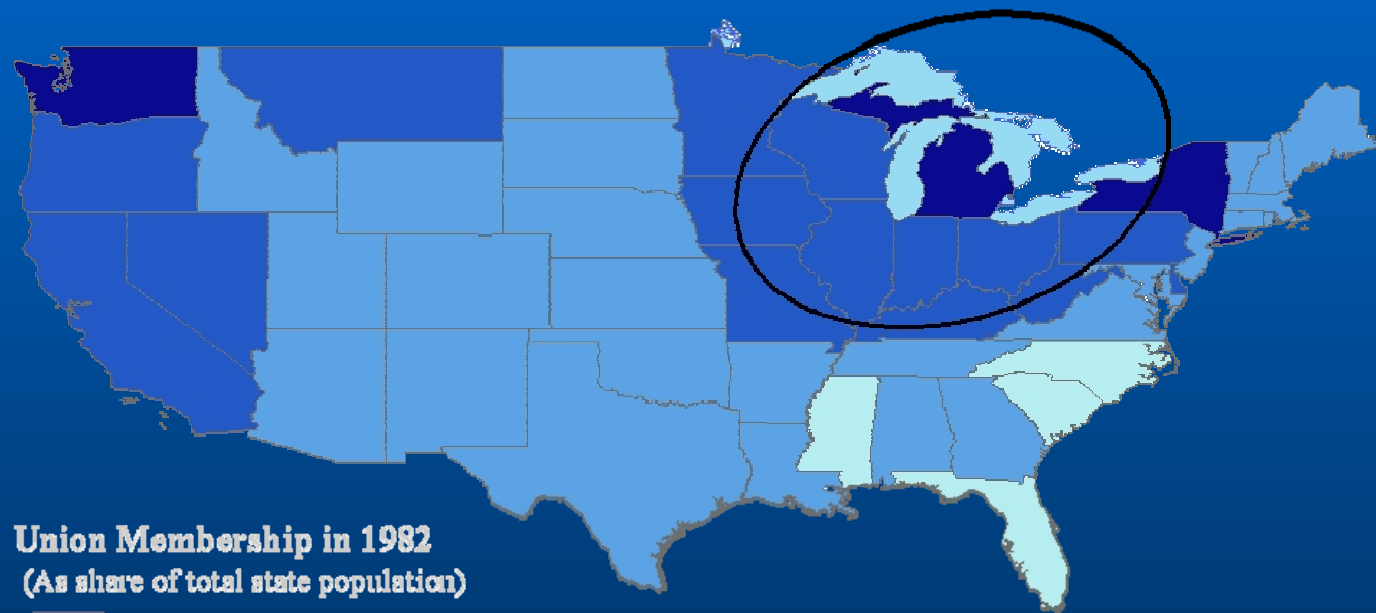
Source: Iceland, John, Daniel H. Weinberg, and Erika Steinmetz, U.S. Census Bureau, Series CENSR-3, "Racial and Ethnic Residential Segregation in the United States: 1980-2000," 2002

2000 Rank	Great Lakes Regional MSA/PMSA
1	Milwaukee-Waukesha, WI PMSA
2	Detroit, MI PMSA
3	Cleveland-Lorain-Elyria, OH PMSA
4	St. Louis, MO-IL MSA
6	Cincinnati, OH-KY-IN PMSA
7	Buffalo-Niagara Falls, NY MSA
9	Chicago, IL PMSA
13	Indianapolis, IN MSA
16	Rochester, NY MSA
17	Pittsburgh, PA MSA
22	Columbus, OH MSA
24	Minneapolis-St. Paul, MN-WI MSA

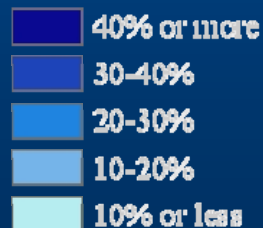


The region's industries and unions led in providing private-sector health care and pensions, today undermining competitiveness

Union
Membership in
1982



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



Map Source: B.
Affolter-Caine: 2006

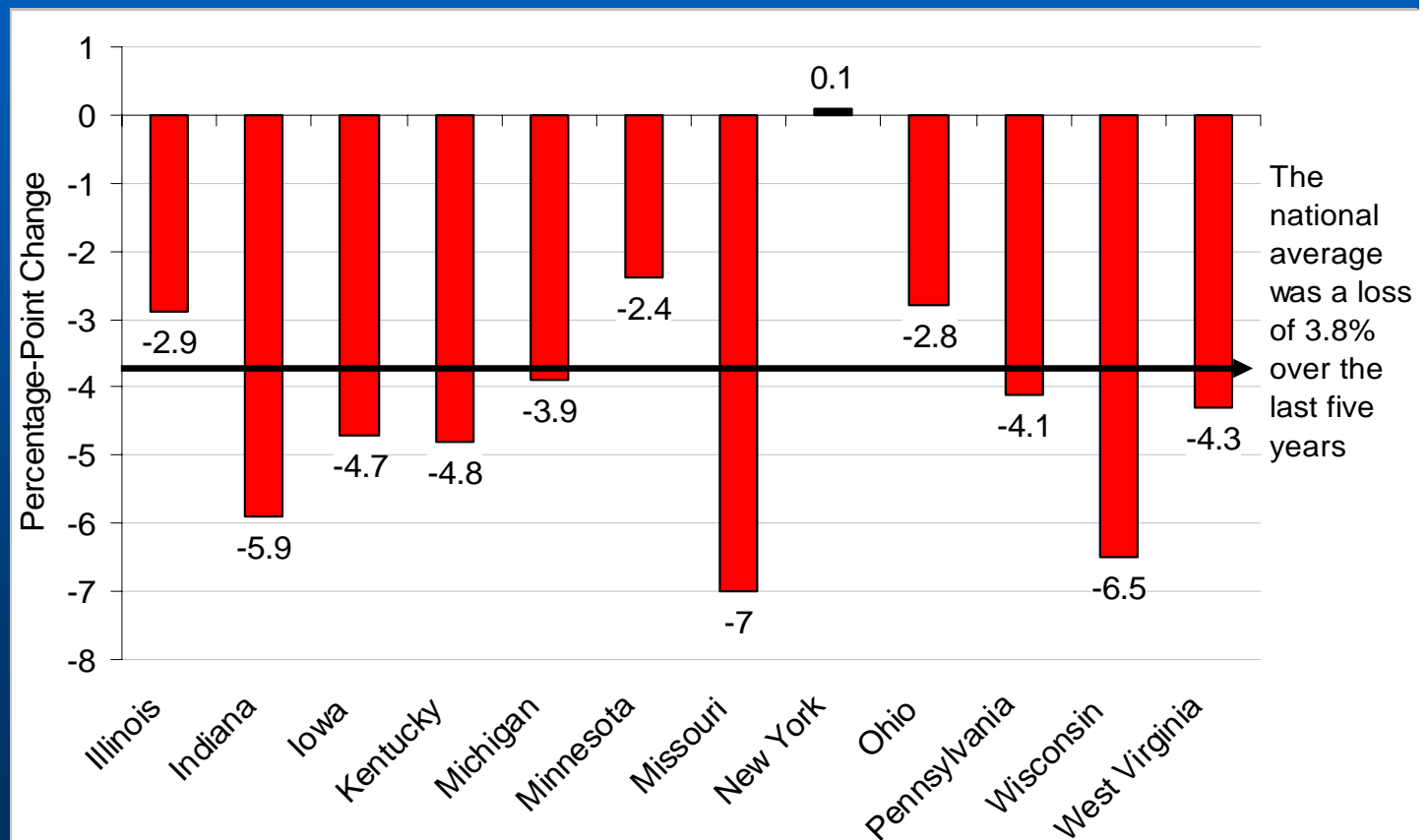
Source: Leo Troy and Neil Schefflin, *U.S. Union Sourcebook* (West Orange, NJ: Industrial Relations Data and Information Services, 1985)



Employers are shedding healthcare: 8 of the 12 Great Lakes States have experienced declines in private health coverage greater than U.S. average

Employer-Provided health Insurance Coverage, 2000-2005

Source: Gould's (2006) analysis of the March Current Population Survey, 2000-2005





The Great Lakes states are linked by common challenges and assets

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



The Vital Center: Major Findings

I

The Great Lakes Region has a unique, shared economic and social history

II

The region has assets central to U.S. competitiveness as a generator of talent, knowledge, innovation, and leader in global commerce and connections

III

Despite its assets, this “North Coast” region 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



How can the states and the federal government join together to fuel growth in the Great Lakes region?



A New Federal-State Compact For Economic Growth


- States can't do it themselves
- “Beggar thy neighbor” hurts all
- Great Lakes have regional advantages – demand regional actions to leverage assets
- Nation has huge economic and political stake in region's success



Cultivate the Region's Human Capital



Great Lakes Compact for Skill & Talent



Regional/National 21st Century Talent Production –
STEM disciplines



Passport to Higher Education



Financial Access for Higher Education Guarantee



Great Lakes Common Market for Human Capital



Fuel the Economic Engines of the Region



Emerging Economy Initiative

- More than fair share of increased, matched state/federal basic/applied R&D



Great Lakes Energy Independence Compact

- Networked National Energy Lab
- Biofuels



Great Lakes Venture Fund



North Coast Buildout



Remake the Social Compact



Health Care Reform

- State/Regional Health Insurance Pools



Portable Defined Contribution Pensions



Passport to New Skills and Credentials



Remake the Re-employment system



Strengthen Metropolitan Communities



Develop new unified transportation vision



Rebuild the region's crumbling water and sewers infrastructure



Reinvest in cities and older areas



What are Next Steps?



Great Lakes Economic Initiative – Next Steps

“The Vital Center”– Released October, 2006

- Convene/Promote with Region’s Governors, Legislators, Business-Civic Leadership
- Convene/Promote with Region’s Congressional Delegation
- Convene/Promote with Presidential Aspirants



Great Lakes Economic Initiative – Next Steps

Policy “Deep Dives”: Further case-making and policy development on recommendations and regional priorities

- “North Coast” as economic driver
- Leveraging higher education assets & building talent
- Fueling R & D in next-generation industries
- Great Lakes venture capital, new business development
- Refashioning the social welfare compact
- Strengthening regional metros and their infrastructure



Great Lakes Economic Initiative – Next Steps

National Agenda: Further development of the national agenda to inform 2008 and federal policy

www.brookings.edu/metro

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

The Brookings Institution

July 1, 2004

- Home
- News & Events
- Scholars
- Research Topics
- Programs
- Publications
- Bookstore
- Executive Education
- About Brookings

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

SEARCH BROOKINGS
 GO

Advanced Search

Metro Program

- Research by Topic
- Publications
- MetroViews
- Presentations and Events
- About Us

Metropolitan

Greater Washington Research Program

SUBSCRIBE TO:
Metro Program Listserv
Stay on top of the latest releases, events, and web features.

First name:

Last name:

Email address:

SUBSCRIBE

[Access all lists](#)