



‘Healthy Water – Strong Economy’

The Benefits of Restoring the Great Lakes Ecosystem

**Michigan’s Call to Action - Office of the Great Lakes
March 5, 2008**

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Director, Great Lakes Economic Initiative
Vice-President, Michigan State Board of Education**



The Great Lakes region created and dominated the agro-industrial era, also launched the knowledge economy...large, dynamic, highly interdependent economy – built on water

Great Enterprise:

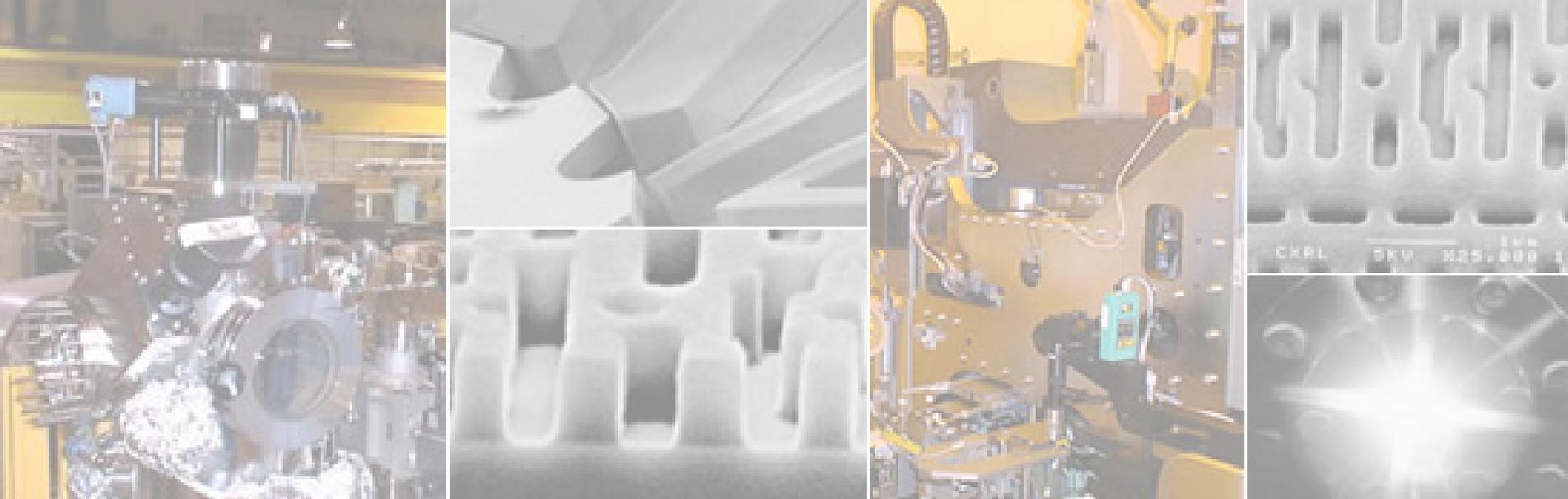
- Armour
- Ford
- Rockefeller
- Sears
- Heinz
- Carnegie
- Dow
- Pillsbury

Great Innovation:

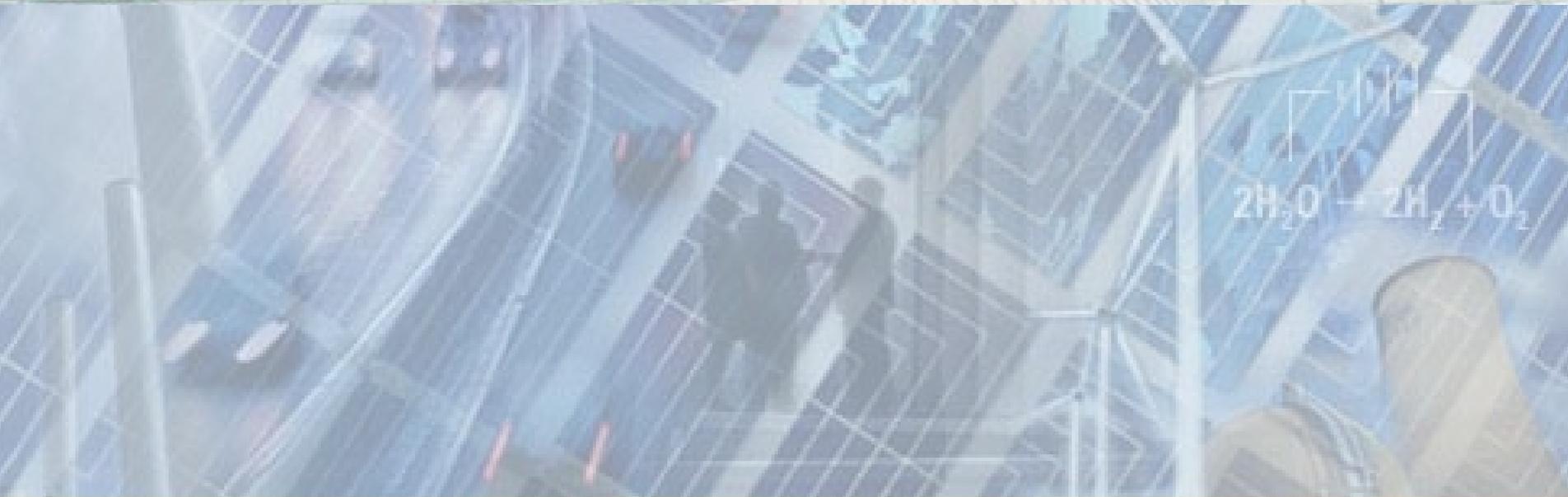
- Assembly Line
- The skyscraper
- Land grant university
- The airplane
- The Internet



Source: B. Affolter-Caine, 2006



To “Tech Belt”



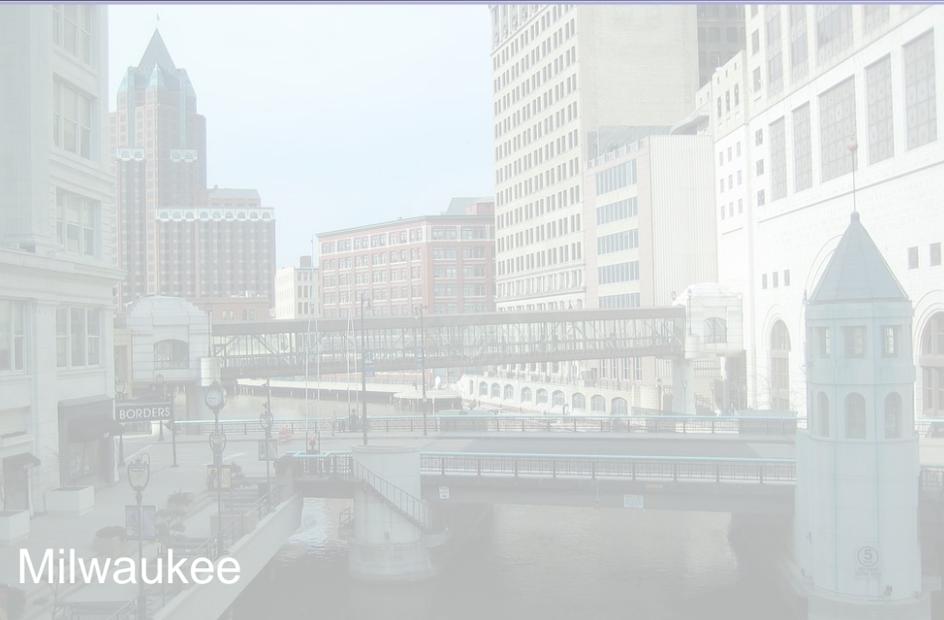
Cleveland



Minneapolis



To “Freshwater Coast”



Milwaukee



Detroit



Great Lakes Region has significant and unique economic challenges – legacies of industrial economy leadership

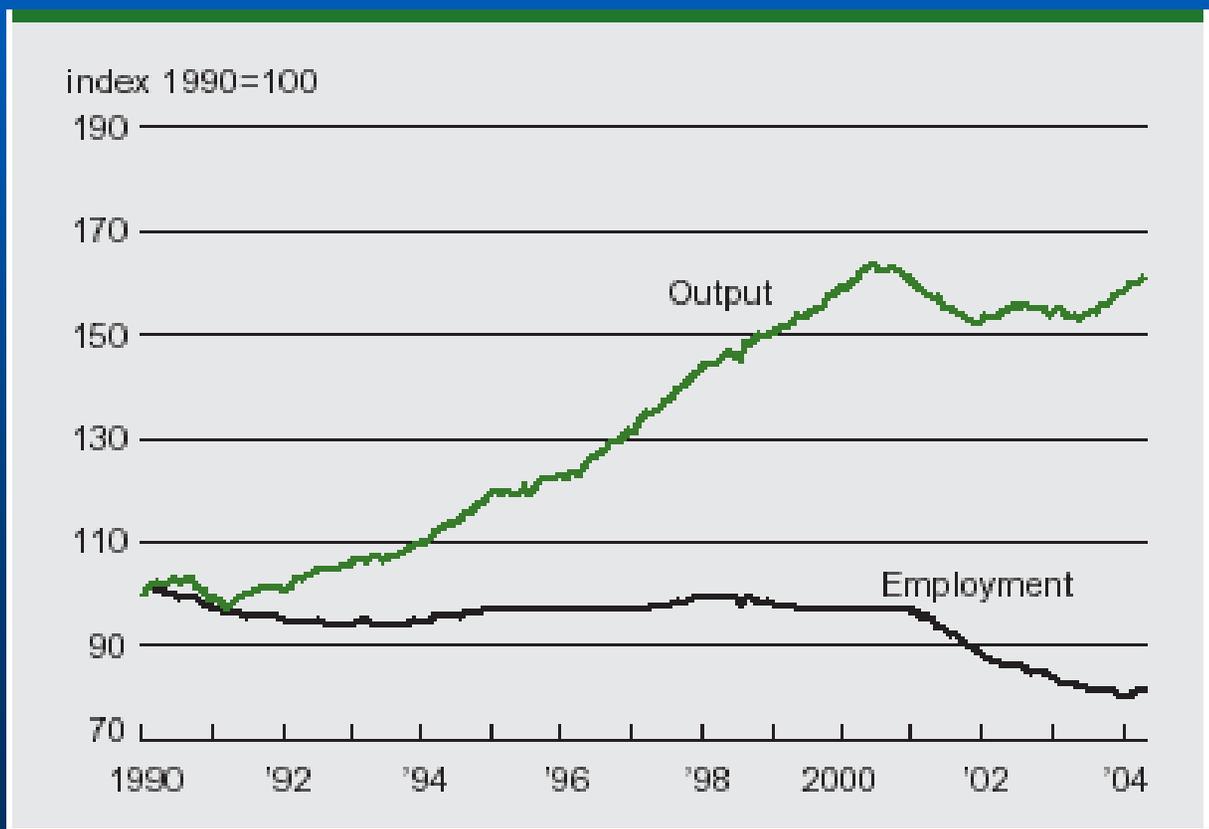
Among these are the largest concentrations of older industrial areas, many blocking valuable waterfront and urban land



Reliance on manufacturing sector – which for generations provided good jobs with little education. The sector is still very productive, but directly produces fewer jobs

Manufacturing Output and Employment

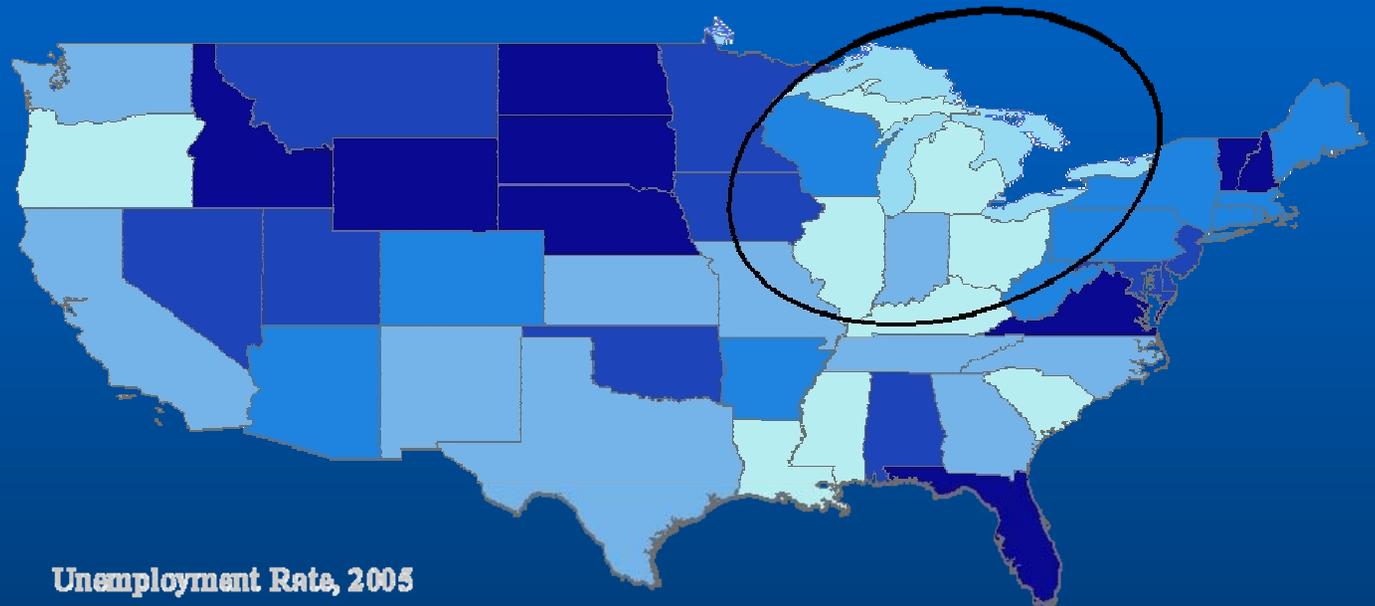
Data Source: U.S. Department of Labor, Bureau of Labor Statistics
Graph Source: William Testa, Chicago Federal Reserve Letter Challenges and Prospects Report, 2004



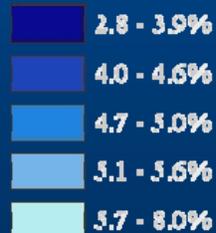


Economic restructuring means unemployment is high in the region, and many need new jobs and skills

Unemployment Rate, 2005



Unemployment Rate, 2005



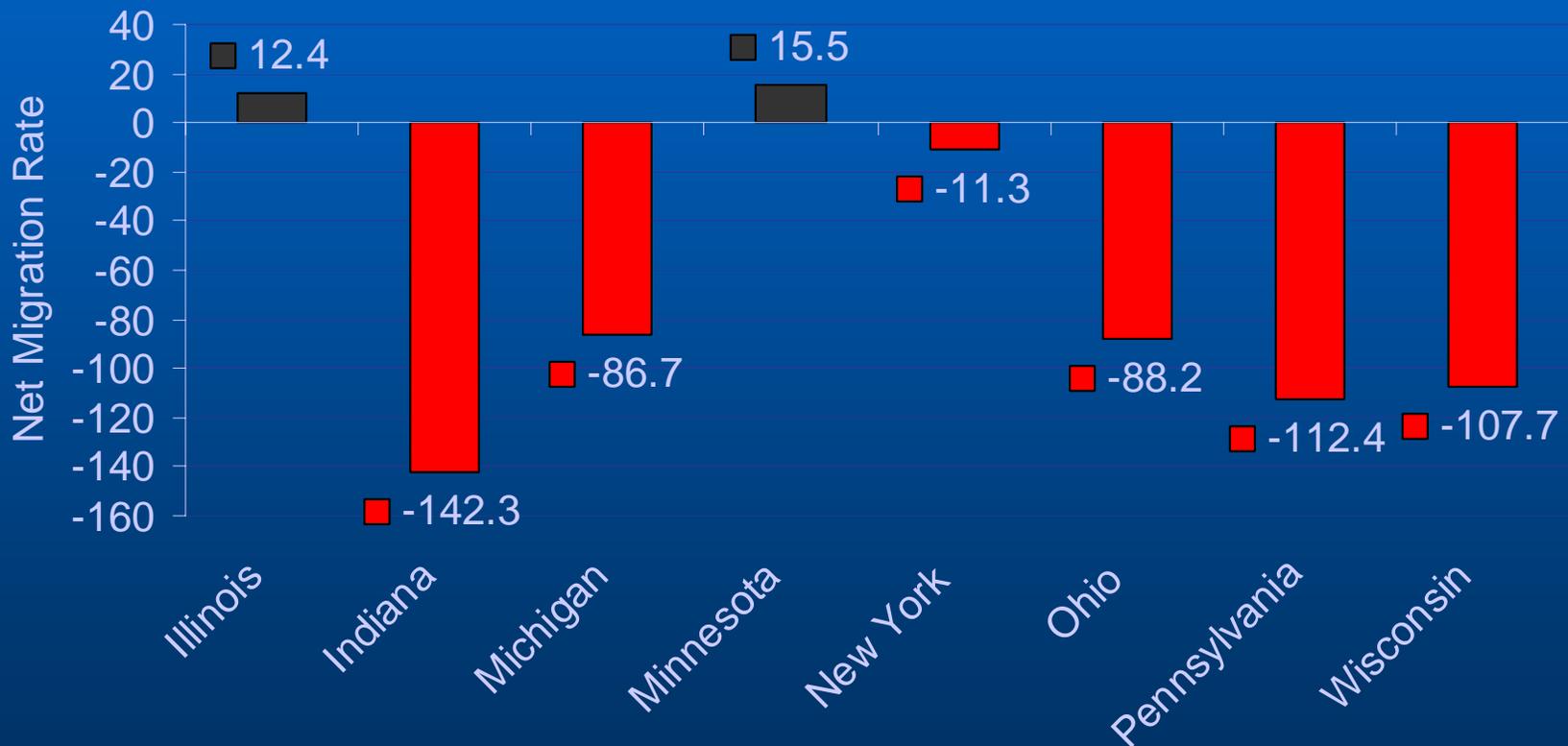
Source: U.S. Department of Commerce, Bureau of Labor Statistics

Map Source: B. Affolter-Caine: 2006

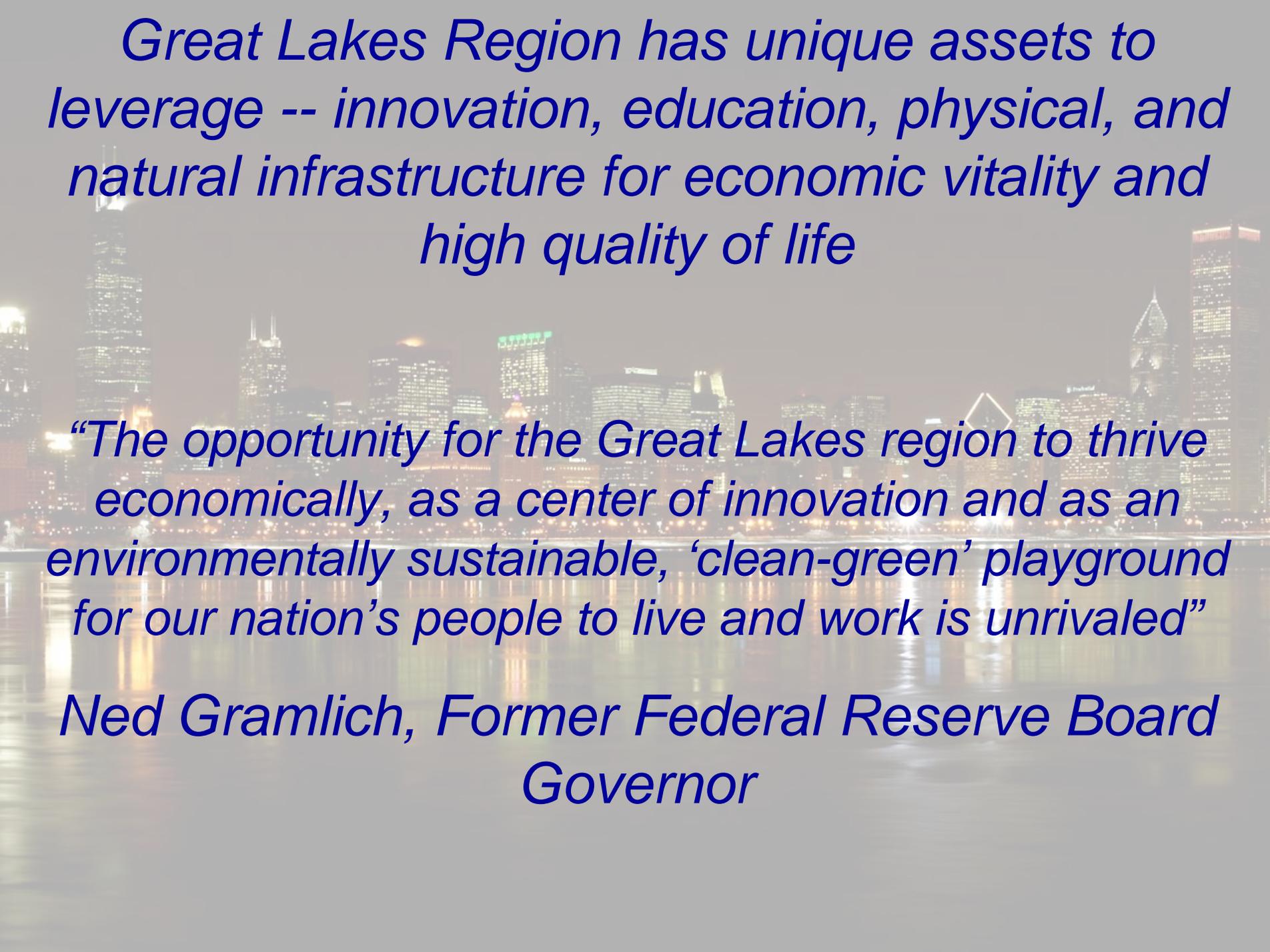


Among the states in the region, only two states escaping the “brain-drain” of college educated 25-39 year olds...

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.



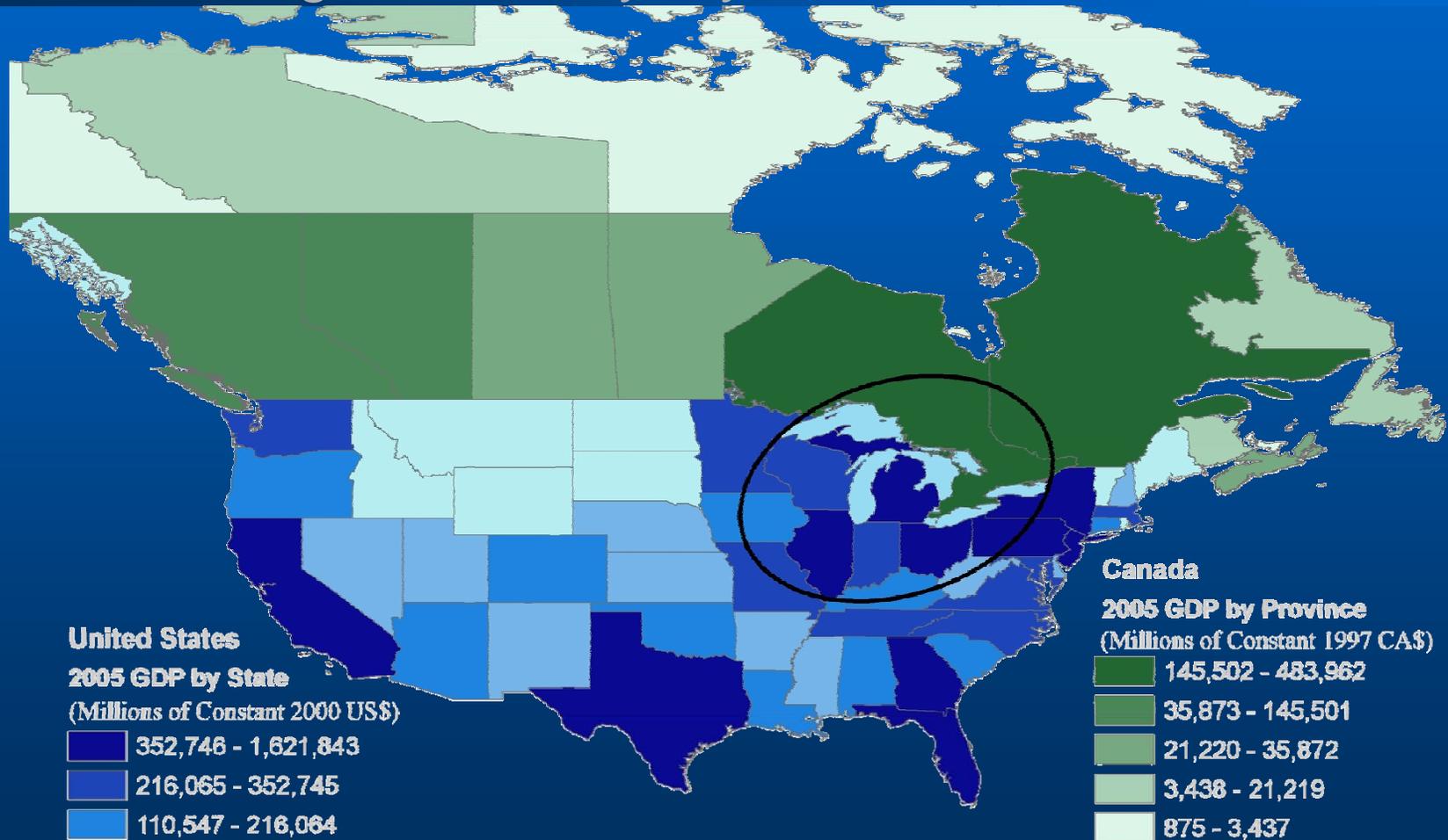
Great Lakes Region has unique assets to leverage -- innovation, education, physical, and natural infrastructure for economic vitality and high quality of life

“The opportunity for the Great Lakes region to thrive economically, as a center of innovation and as an environmentally sustainable, ‘clean-green’ playground for our nation’s people to live and work is unrivaled”

Ned Gramlich, Former Federal Reserve Board Governor



Huge marketplace and economic engine --with highly integrated economy of Ontario/Quebec, Great Lakes region is second largest "country" by GDP in world...



United States
2005 GDP by State
(Millions of Constant 2000 US\$)

Dark Purple	352,746 - 1,621,843
Medium Purple	216,065 - 352,745
Blue	110,547 - 216,064
Light Blue	53,711 - 110,546
Very Light Blue	23,134 - 53,710

Canada
2005 GDP by Province
(Millions of Constant 1997 CA\$)

Dark Green	145,502 - 483,962
Medium Green	35,873 - 145,501
Light Green	21,220 - 35,872
Very Light Green	3,438 - 21,219
White	875 - 3,437

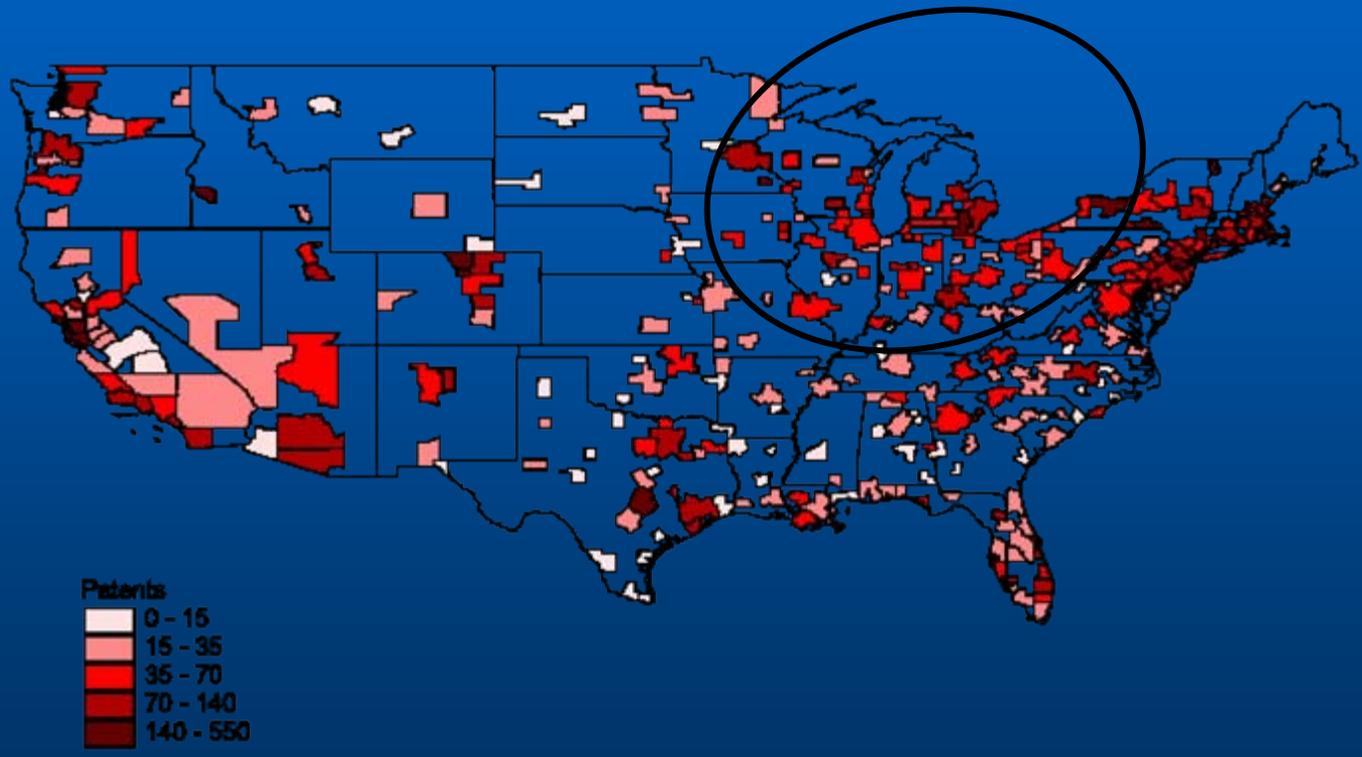
Map Source: B. Affolter-Caine: 2007



The Great Lakes region is a world center for developing new technologies and ideas – generating one-third of the nation's new intellectual property...

Patents per
100,000 Jobs,
1999

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

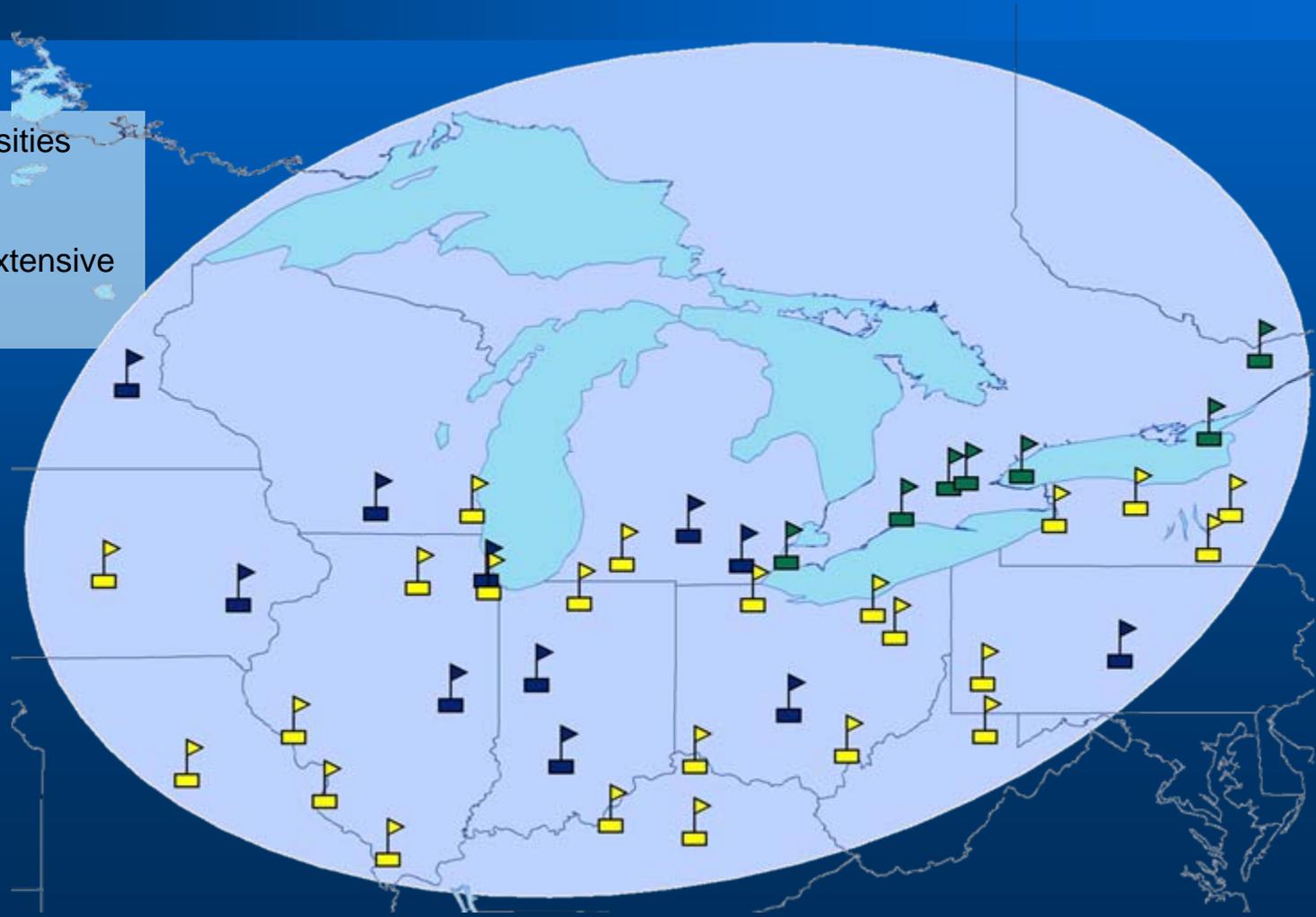




Region is also home to the largest network of learning institutions and most powerful educational infrastructure on earth...

GLER Research Universities

- Canadian
- Research Extensive
- CIC



Map Source: B. Affolter-Caine: 2007