

# The Wisconsin Economy: A Comparative Look

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March 4, 2010

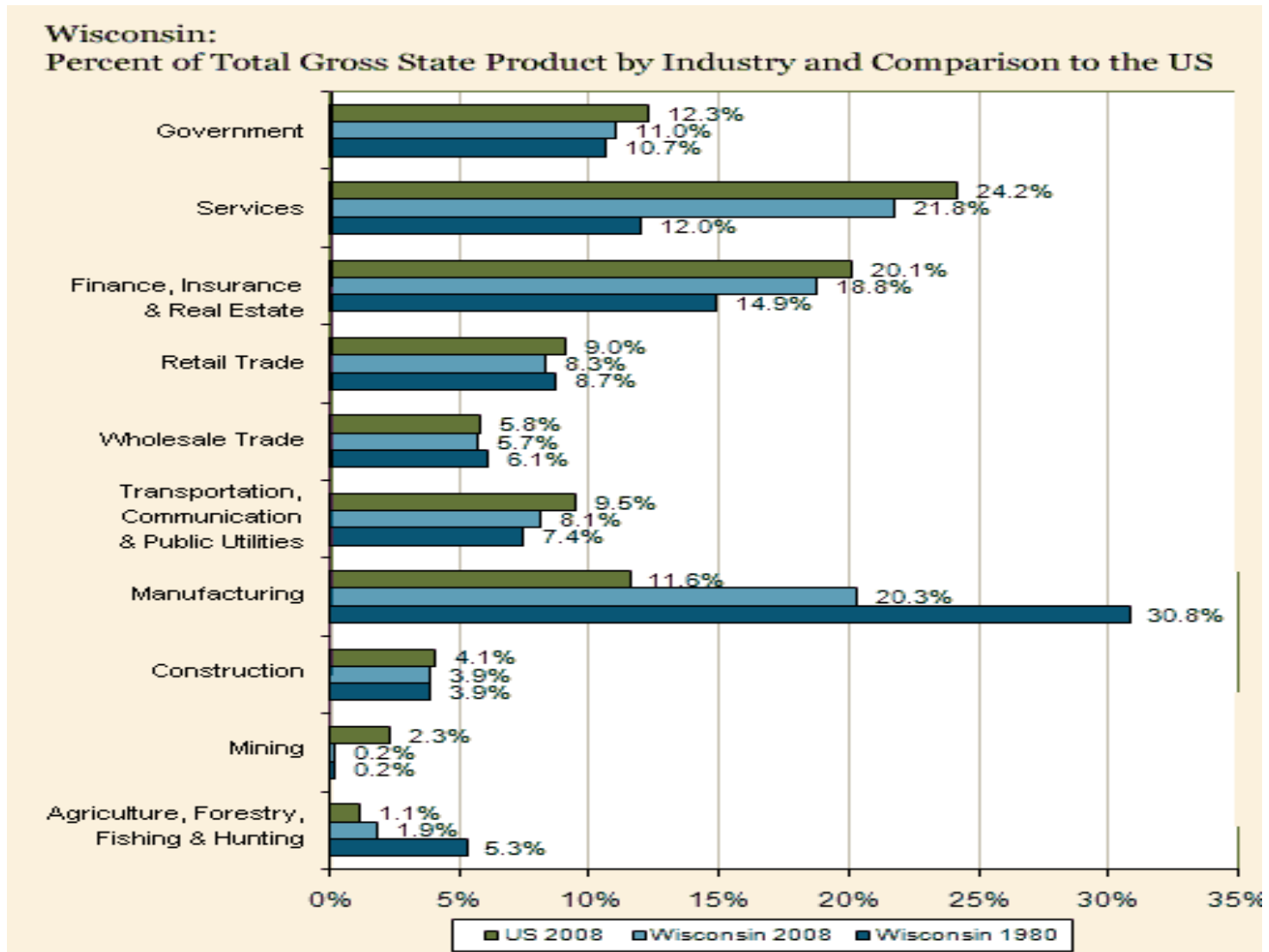
# Wisconsin's economic performance

- Part 1—reaction to the “Great Recession”
- Part 1B—employment prospects
- Part 2—longer-term issues

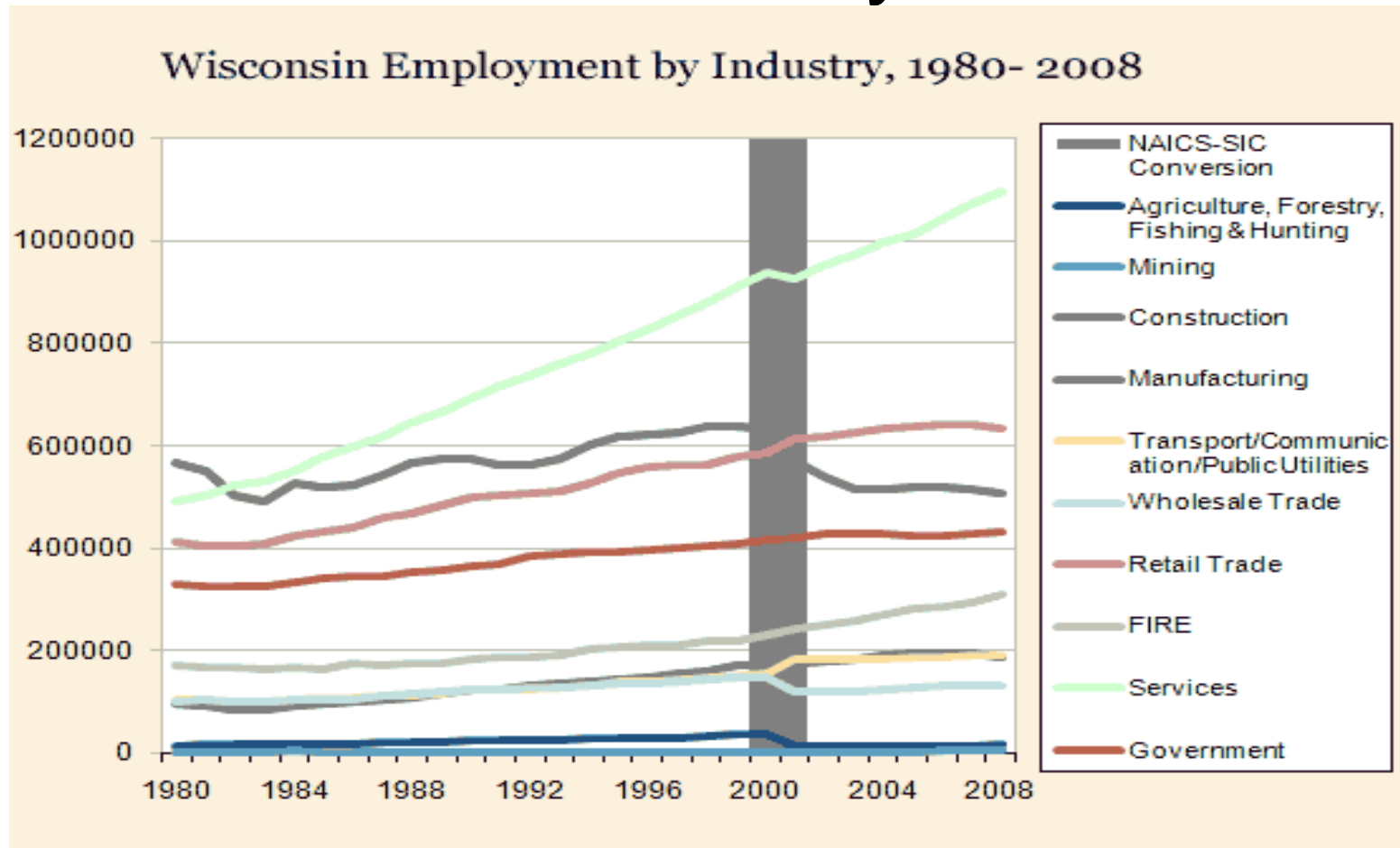
# A word about Wisconsin current performance

- In a very bad economy, Wisconsin's performance was "less bad"
- Within the Seventh Federal Reserve District Wisconsin out-performed, Illinois, Michigan and Indiana
- Why was it less bad? Certain sectors did better (less bad) than the US, particularly manufacturing
- State didn't have as far to fall as high flying regions with significant exposure to housing and commercial real estate
- A quick look at Wisconsin performance....

# Structure of the state's economy



# The restructuring of the state's economy

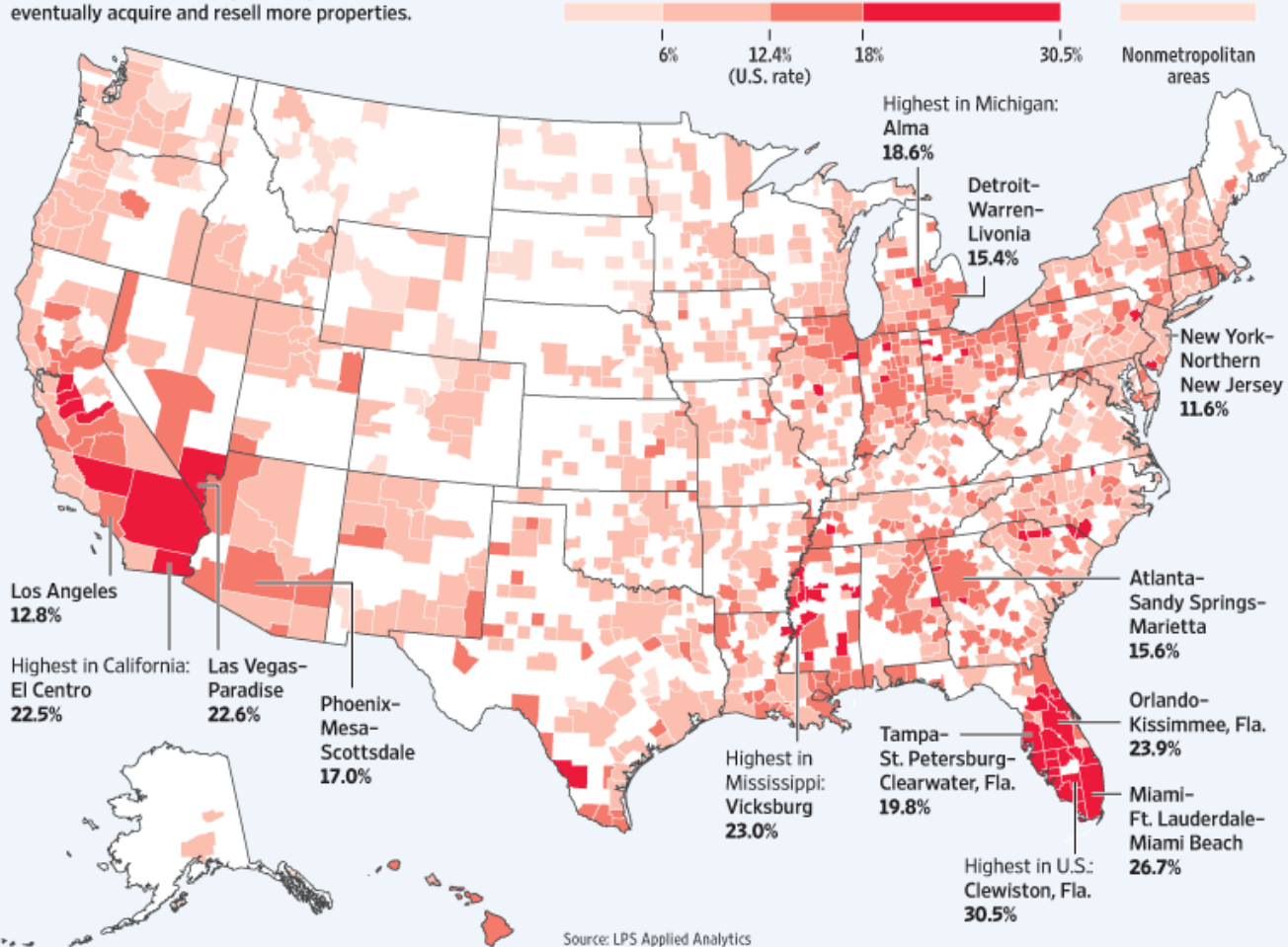


# Housing problems

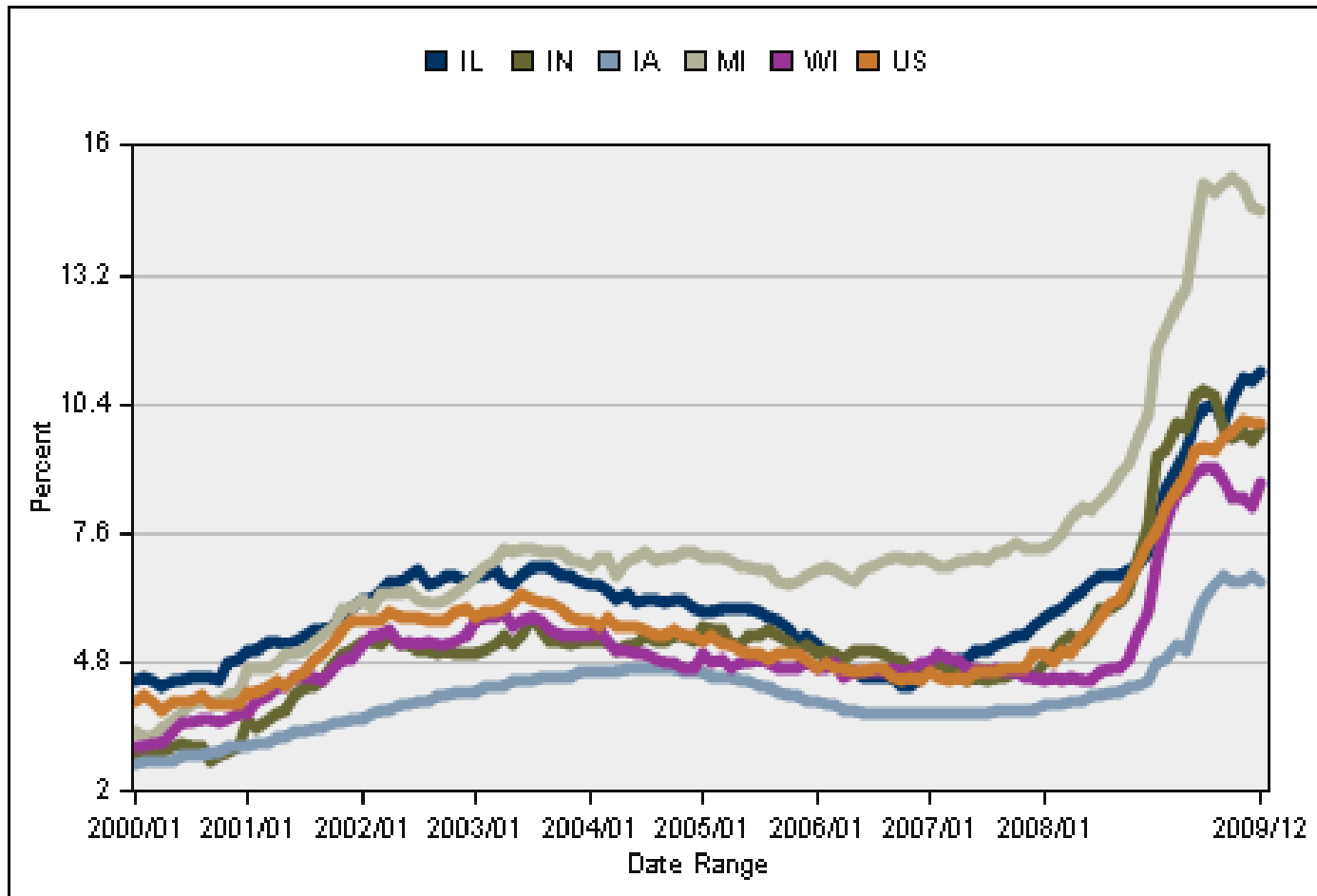
## Concentrated Risk

Areas with high rates of delinquent home loans are vulnerable to further price drops when banks eventually acquire and resell more properties.

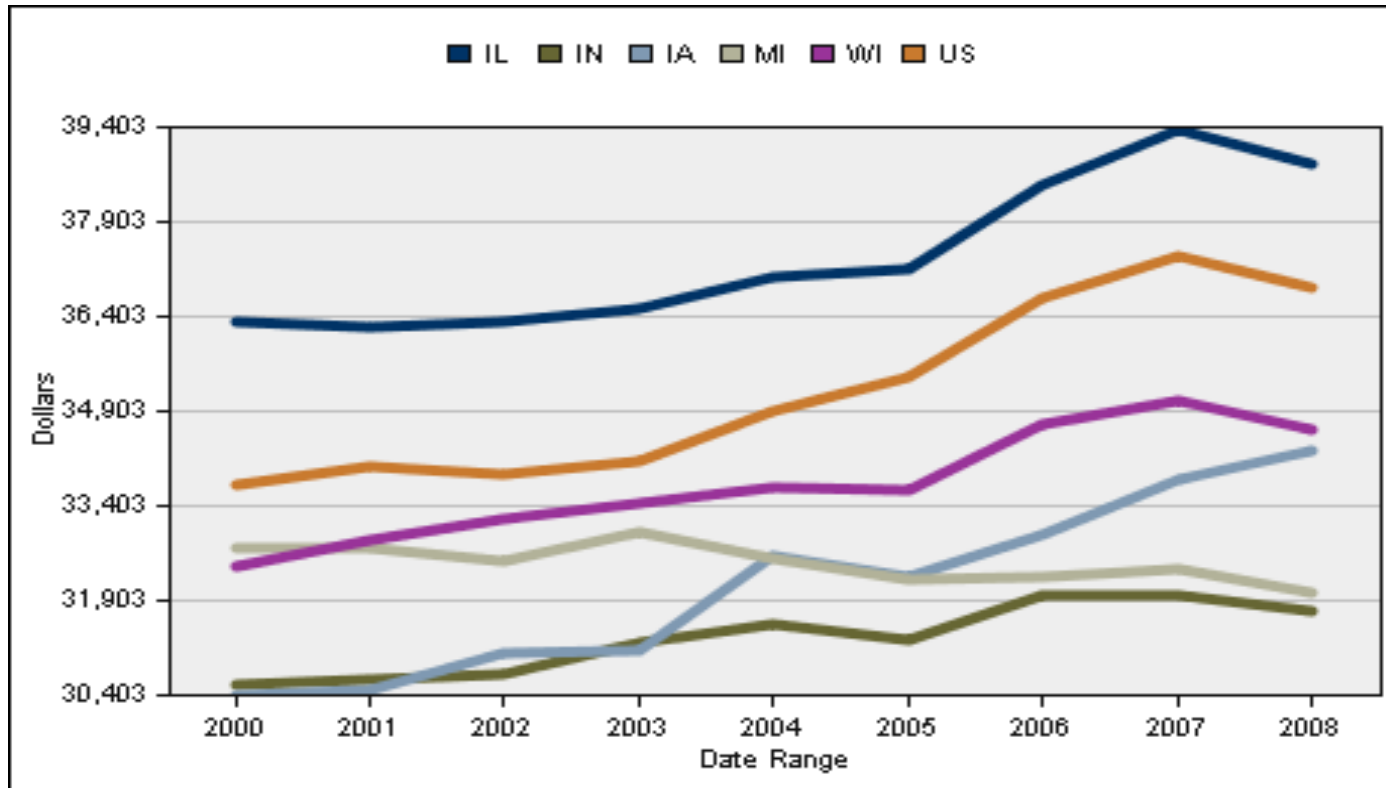
Percentage of first-lien home mortgages that are overdue or in foreclosure, by metropolitan statistical area



# Unemployment rate



# Personal income





# Wisconsin outlook

- Current indicators for employment and housing suggest state's economy has stabilized. Department of Revenue forecast suggests that total job losses will be 143,000 or 5%. However, job level will not return to pre-recession level until end of 2012. (Same pattern as US).
- Largest employment sector—Trade, Transportation and Utilities (19%) is forecasted by DOR to decline 4% in 2009 and 0.1% in 2010.
- Manufacturing has outperformed US. Job losses in Wisconsin were 0.9% (2007) and 1.7% (2008) compared to 2% and 3.3% for US. Declines for 2009 are 9.8% (WI) vs 10.6% (US) and forecasted for 2010 at 3.3% (WI) vs 4.6% (US)
- Cloud on the horizon—state budget

# Labor adjustment

- The path out of the 2001 recession was muted for labor. Private sector job growth in the 2001-2007 expansion averaged 1 million per year. In the two prior expansions job growth averaged 2.4 million and 2.2 million. (This wasn't because of slower labor force growth)
- This has translated into an absolute loss in private sector jobs for the first time since the Great Depression. By August of 2009 there were 1.3 million fewer jobs than had existed in 1999.
- More pressure on the way. BLS estimates that the US labor force will grow by 1.3 million per year between 2006 and 2016. We need to add 1.3 million jobs per year just to keep up with the labor force growth

# Is the jobless recovery the new model?

- First noticed in the 1990-91 recession. After the recovery began it took a full 11 months before job losses reversed
- Even worse in 2001 recession. A very mild recession—lasted 8 months. During the recession 1.9 million jobs were lost, **HOWEVER**, during the first 19 months of the recovery another 1.3 million jobs were lost
- Why? Business is managing its labor cost more aggressively and in some industries out-sourcing
- Structural vs cyclical unemployment

# Changing composition of losses (US BLS)

Recession	Total	Goods Producing #	Goods Producing %	Private Service #	Private Service %
July 1981- Nov. 1982	-2.626(m)	-2.566 (m)	97.7	-60 (thousand)	2.3
July 1990- March 1991	-1.168	-.955	82.6	-.203	17.4
March 2001- August 2003	-3.289	-2.704	82.2	-.585	17.8
<b>Dec. 2007- August 2009</b>	<b>-7.047</b>	<b>-3.474</b>	<b>49.2</b>	<b>-3.573</b>	<b>50.7</b>
					12

# And now for something really depressing...

- “America’s New Post-Recession Employment Arithmetic”, James Hughes and Joseph Seneca, Rutgers University
- Authors calculate that the Job “deficit” by December of 2009 will be 9.39 million (Job losses plus lack of new job creation)
- If the recovery takes hold and private sector job growth hits the average for the 1991-2001 recession (2.15 million per year) when combined with natural labor force growth we will erase these employment losses in....

# The Rutgers scenario

- AUGUST 2017!

# A word about employment

- Converse...snap back will be faster than expected
- Why? Firm behavior was different this time around. Quicker to shed labor at start of recession vs “labor hoarding”. Staff is leaner, may need to hire faster when orders pick up. (Aaronson and Brave, Chicago Fed Letter, 2009)
- Bullwhip effect for employment?

# The longer term perspective— where does Wisconsin rank?

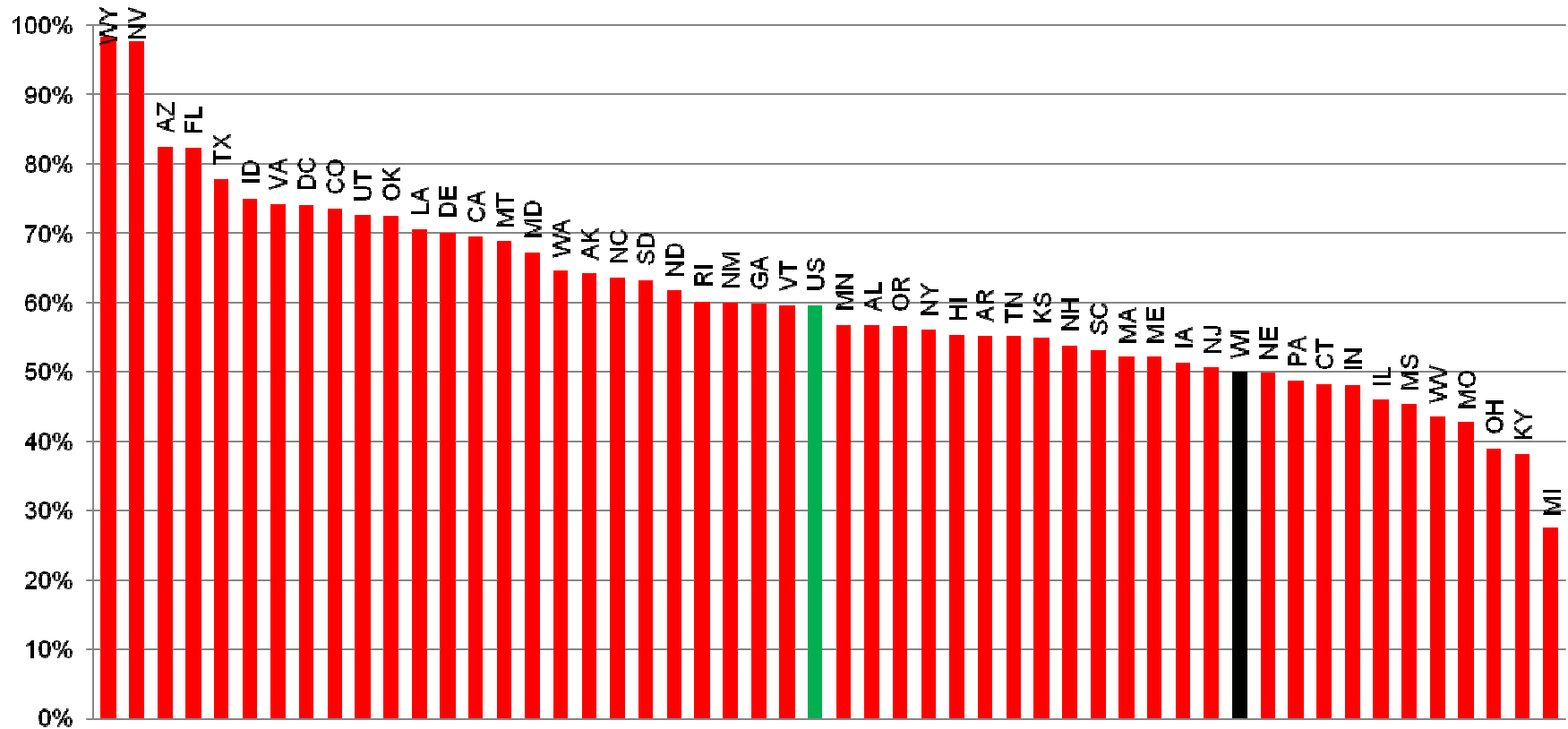
- Strengths—Higher Education, WARF, natural beauty
- Weaknesses—like the rest of the Midwest, demographics, upskilling in the face of manufacturing legacy, fiscal woes
- Measures of performance...human capital, innovation, trade
- Human capital...both producing and retaining



# 1997–2006

## Change in Gross State Product

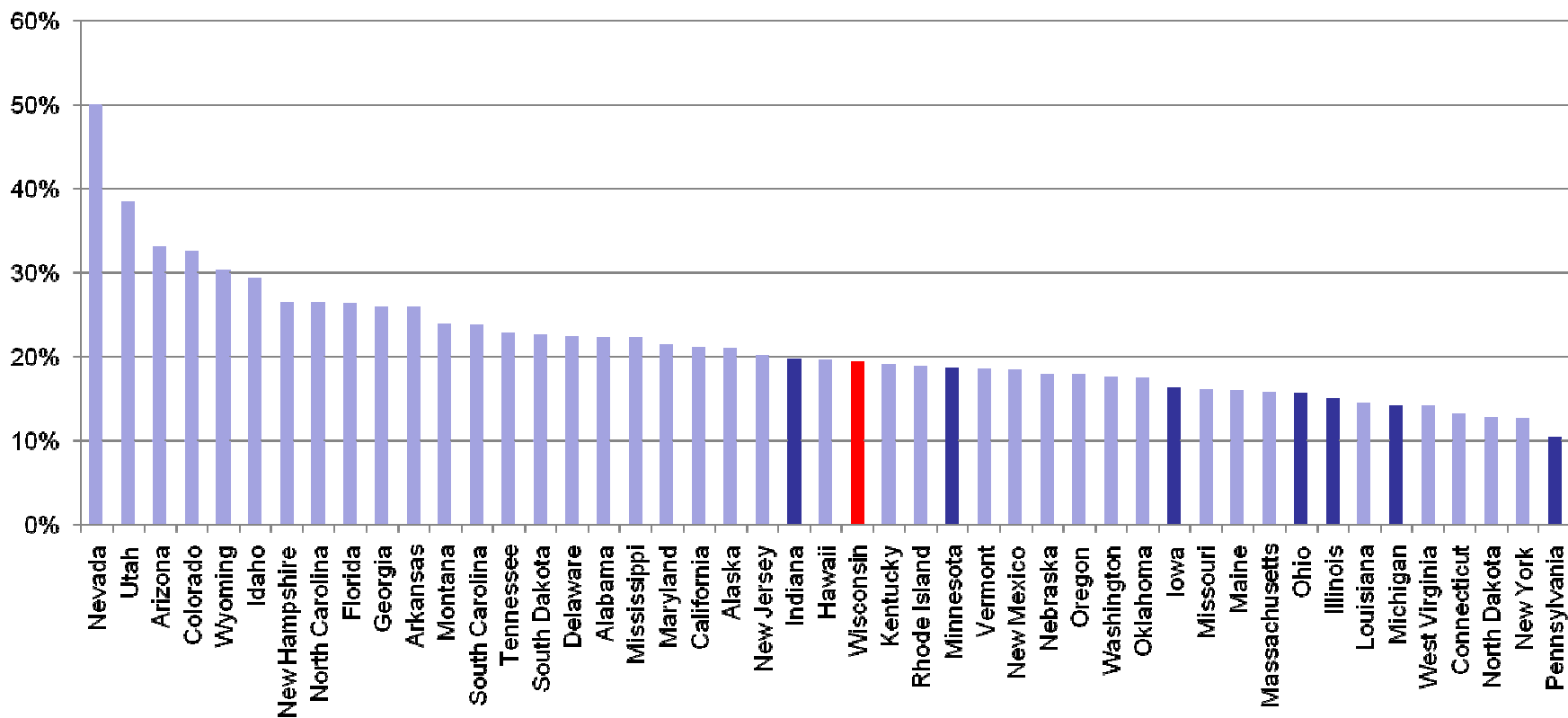
- GSP data available for various NAICS industry levels. History provided using the older SIC specification.



Source: BEA

## 2004–2014 Change in Occupations Requiring Postsecondary Training

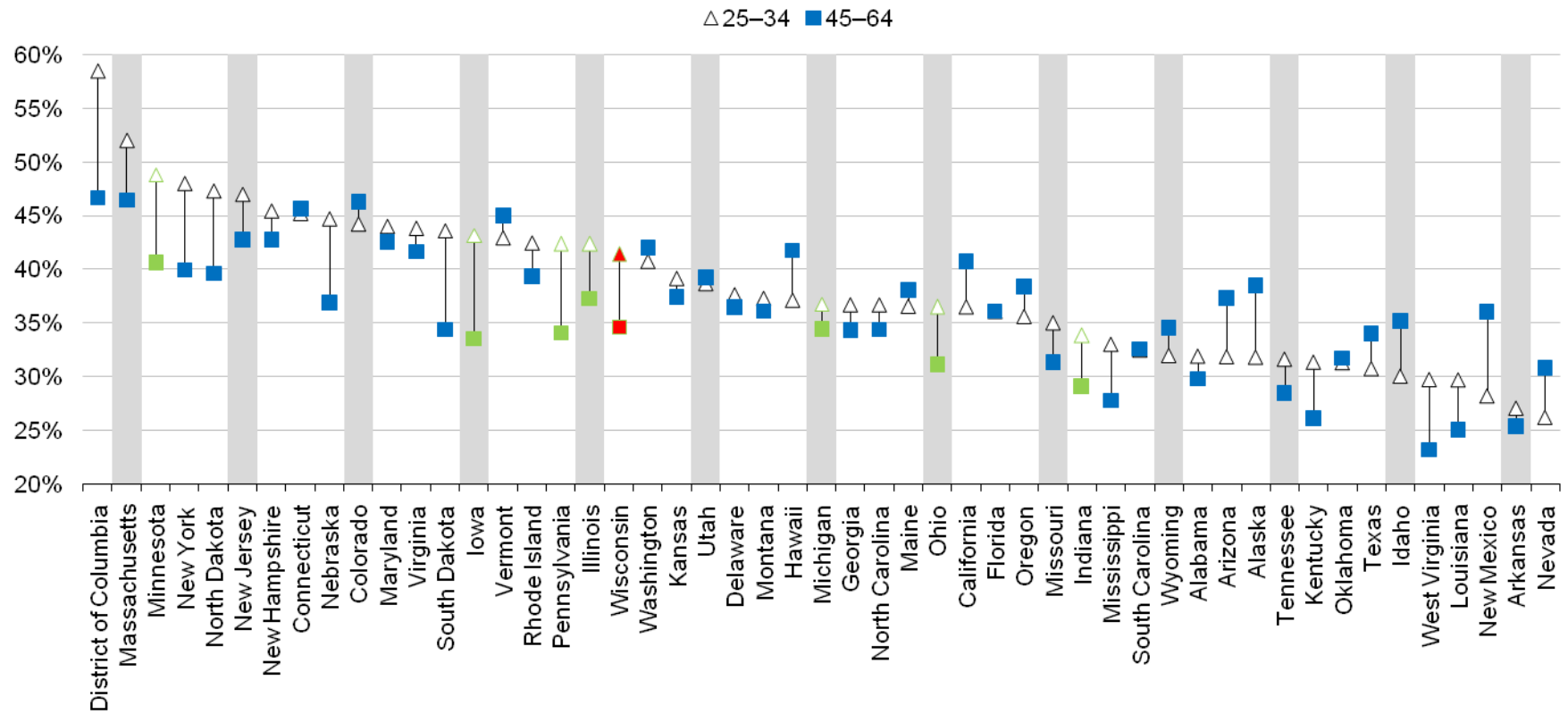
- U.S. 2006–2016 percent change is projected to be up 16%.
- Data by occupation available, but no historical series provided.
- States with unavailable data are DC, KS, TX, & VA.



Source: Career Infonet

# 2005 College Attainment, by State, Younger & Older Adults

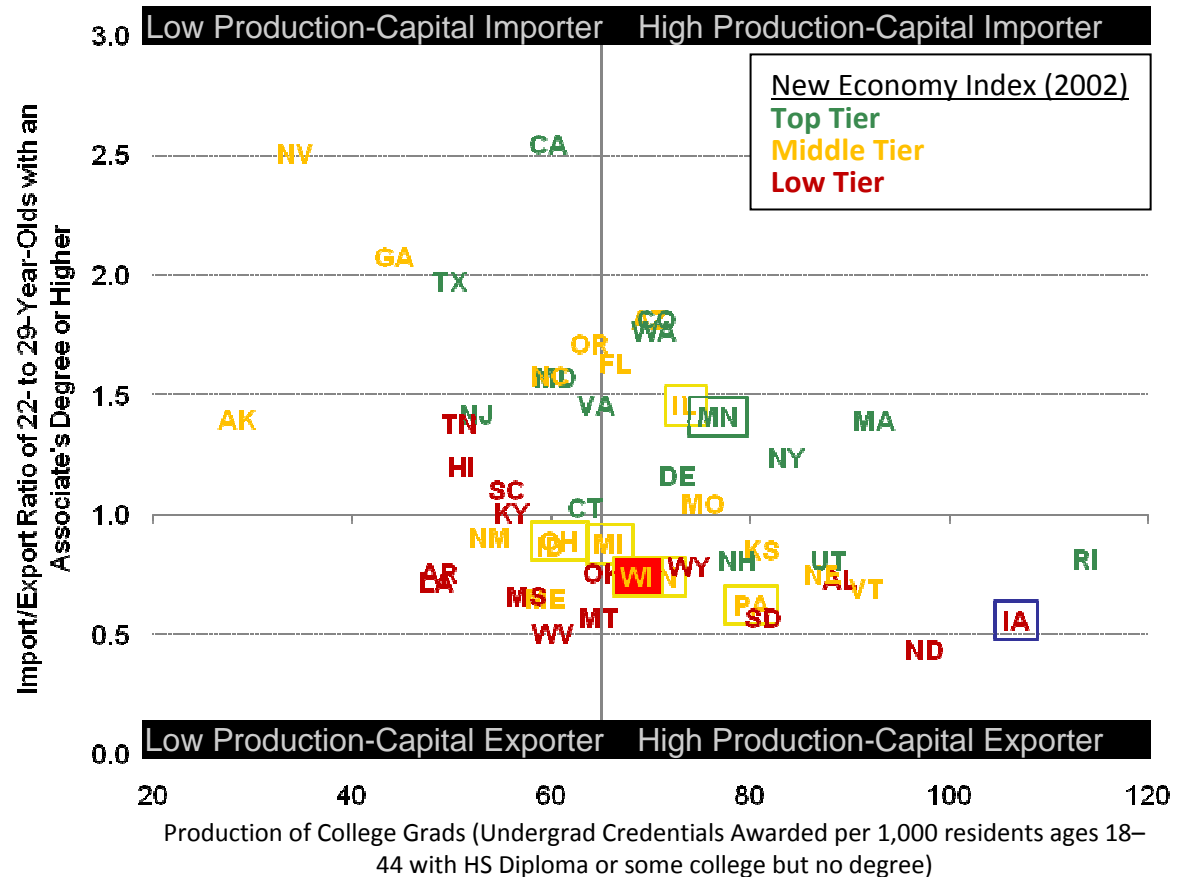
- Annual data available for age groups and their educational attainment.
- Varying levels of education are available. Depicted are ratios of adults with an associate's degree or higher over total population of that age group.



Source: Census

# Production and Retention of Graduates

- Compiled of the New Economy Index, IPEDS, ACS, and the 2000 Census, this quartile chart divides the production and retention level of educated capital.
- The New Economy Index is described in later slides. It consists of a scoring that rates each state's performance in categories that are part of the main drivers of the current economy.



Source:  
 Census/NCES/ITIF/NCHEMS

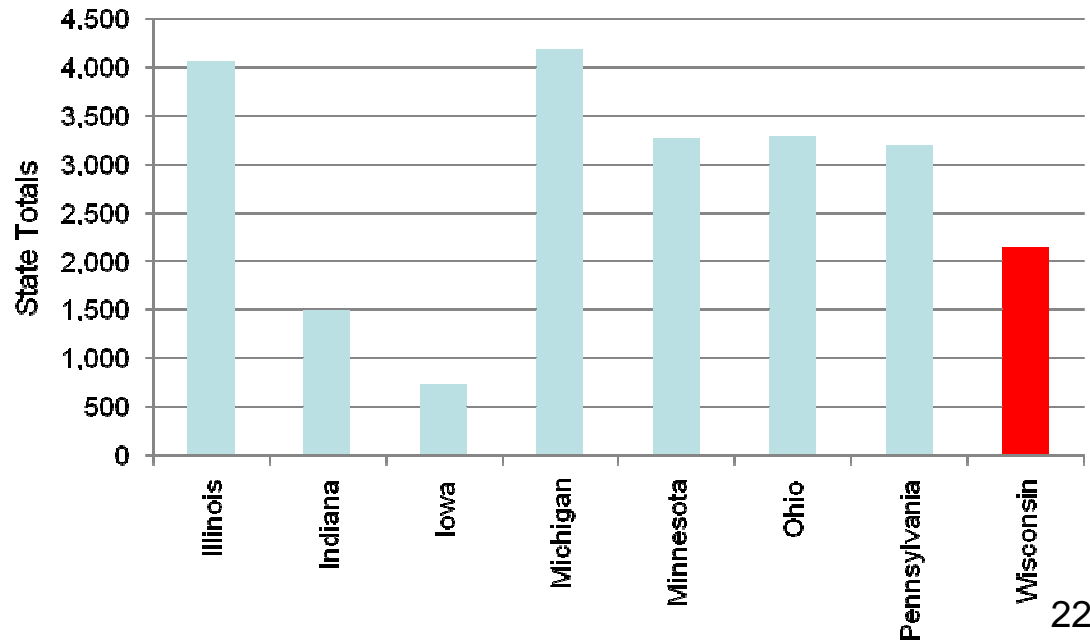
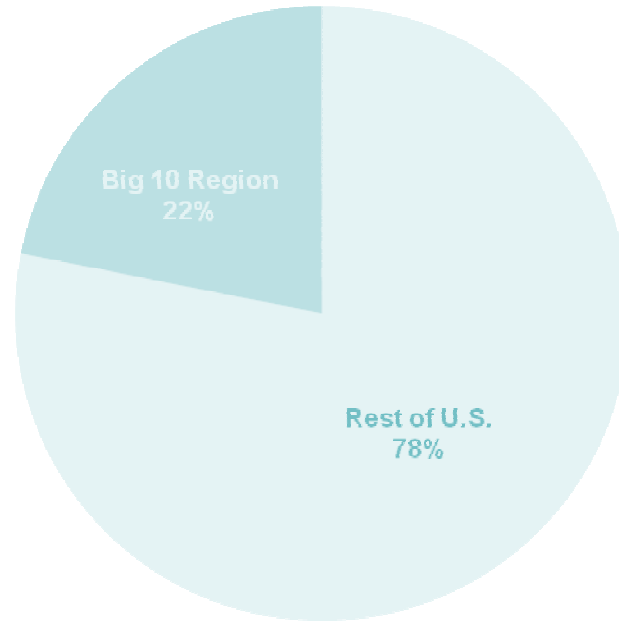
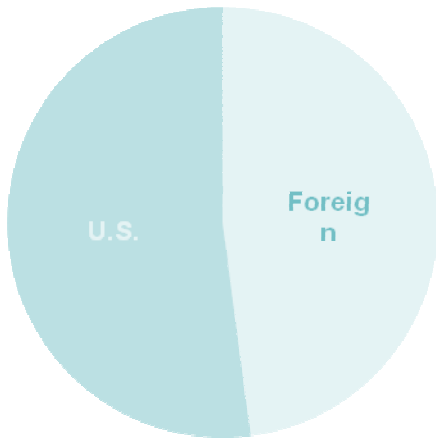
# Innovation assets

- Research is strong and commercialization is better than many Midwest states

## 2006 Patent Count

- Counts for utility patents and all patents on a yearly basis are available for U.S. states and territories as well as other countries.

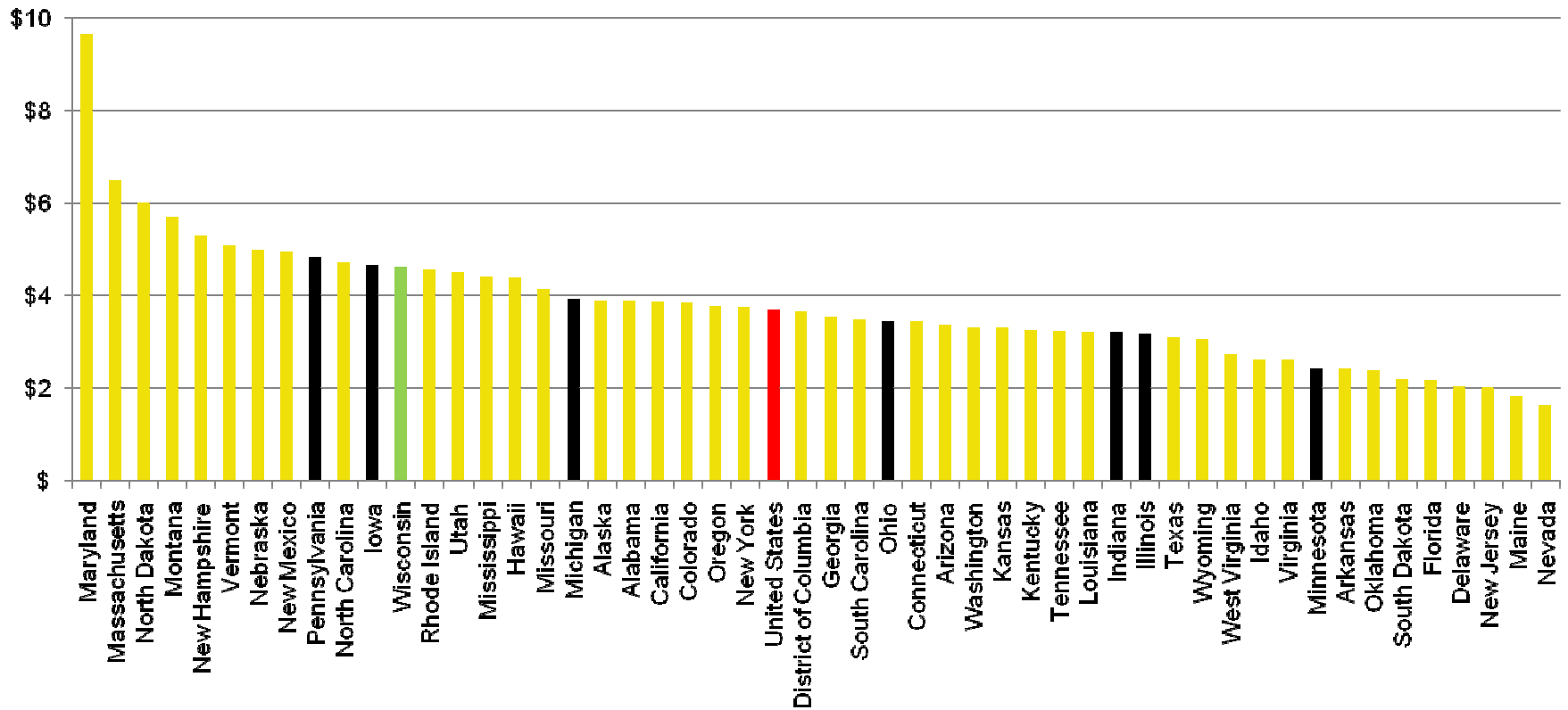
- U.S. patents total to 102,267.
- Foreign patents total to 94,169.



Source: U.S. Patent and Trademark Office

# 2005 Research & Development by GSP

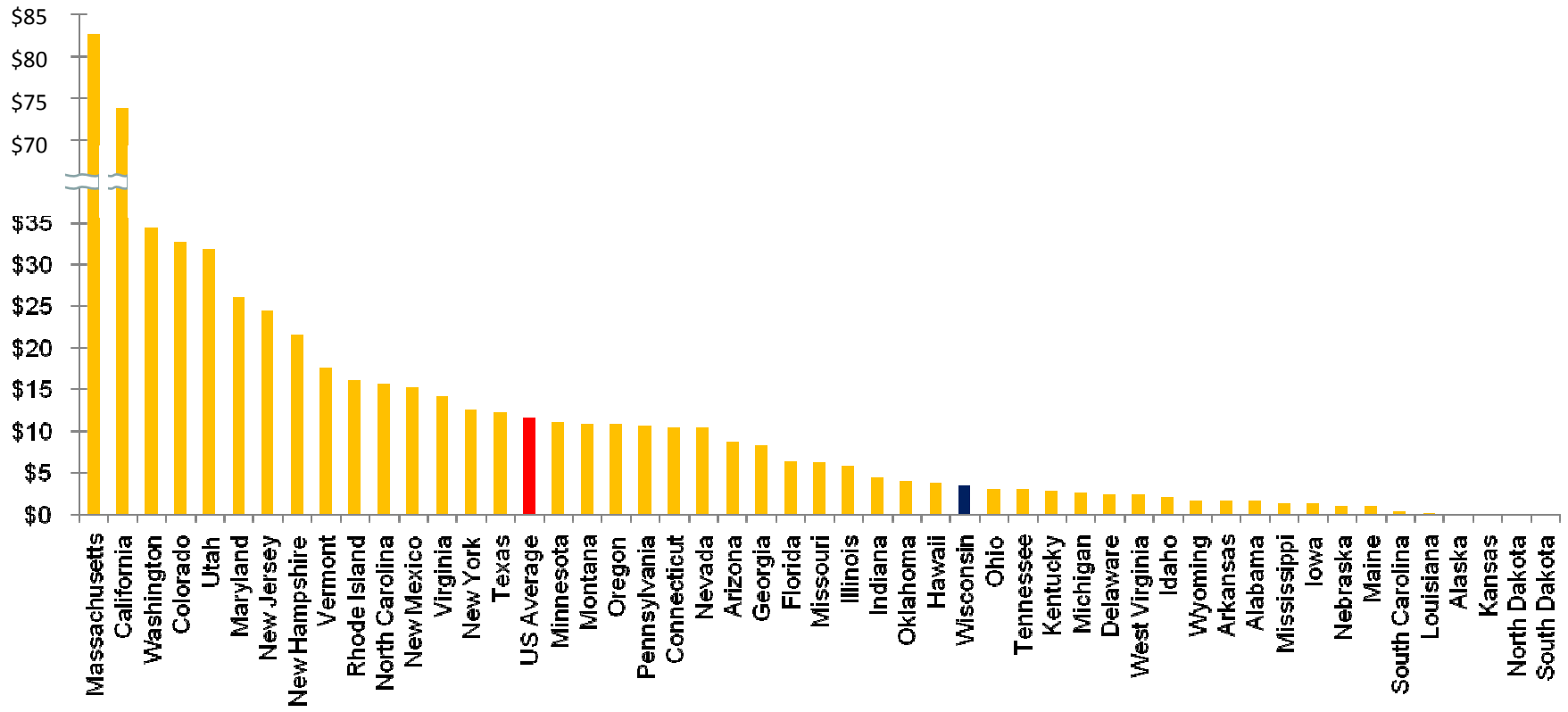
- R&D expenditures reported for the FY2005.
- Expenditures calculated as a ratio per \$1,000 GSP for 2005.



Source: NSF/BEA

# 2005 Venture Capital

- Calculations made for venture capital financing per \$1,000 GSP.

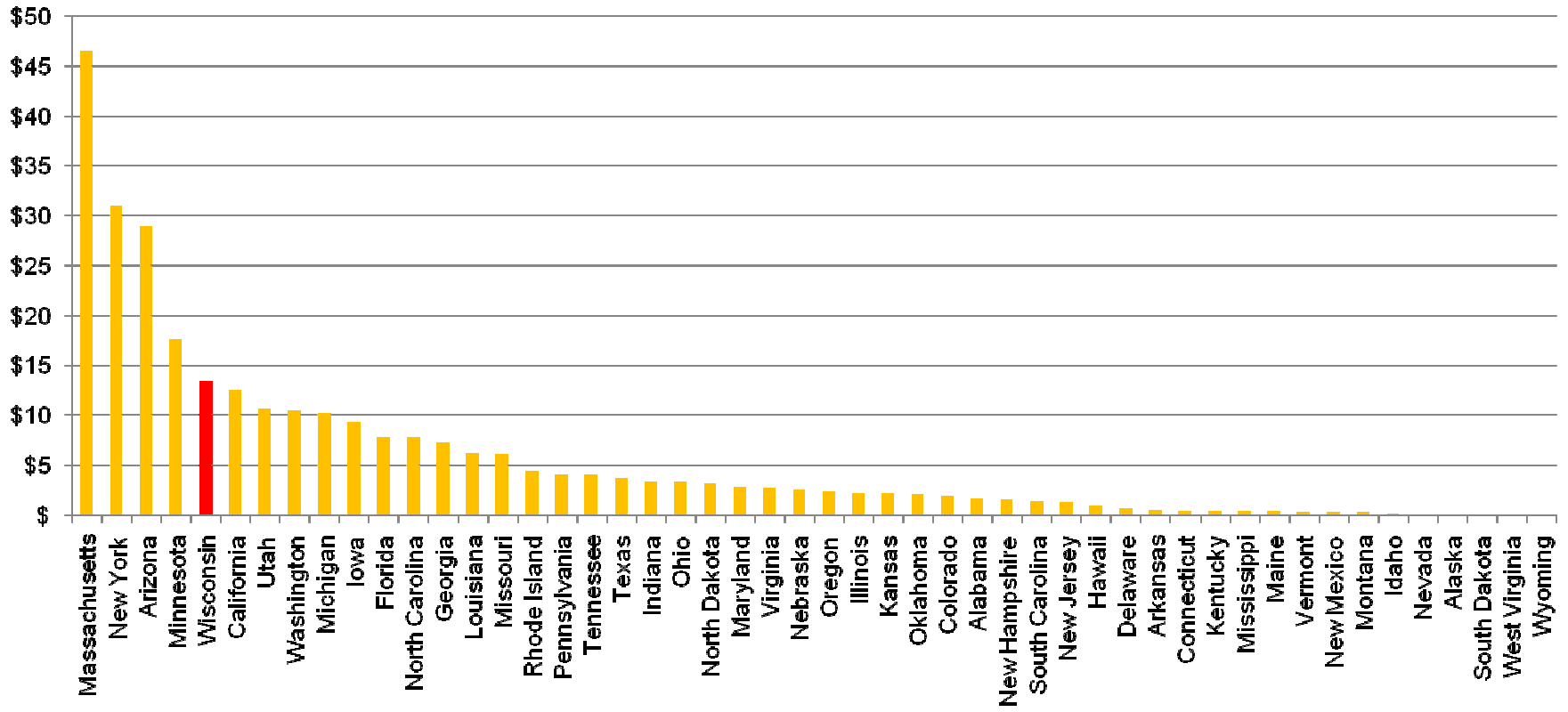


Source: Indiana Chamber



# 2004 Innovation Assets—Royalties and Licenses

- A measure in innovation assets includes the amount of license income per worker.



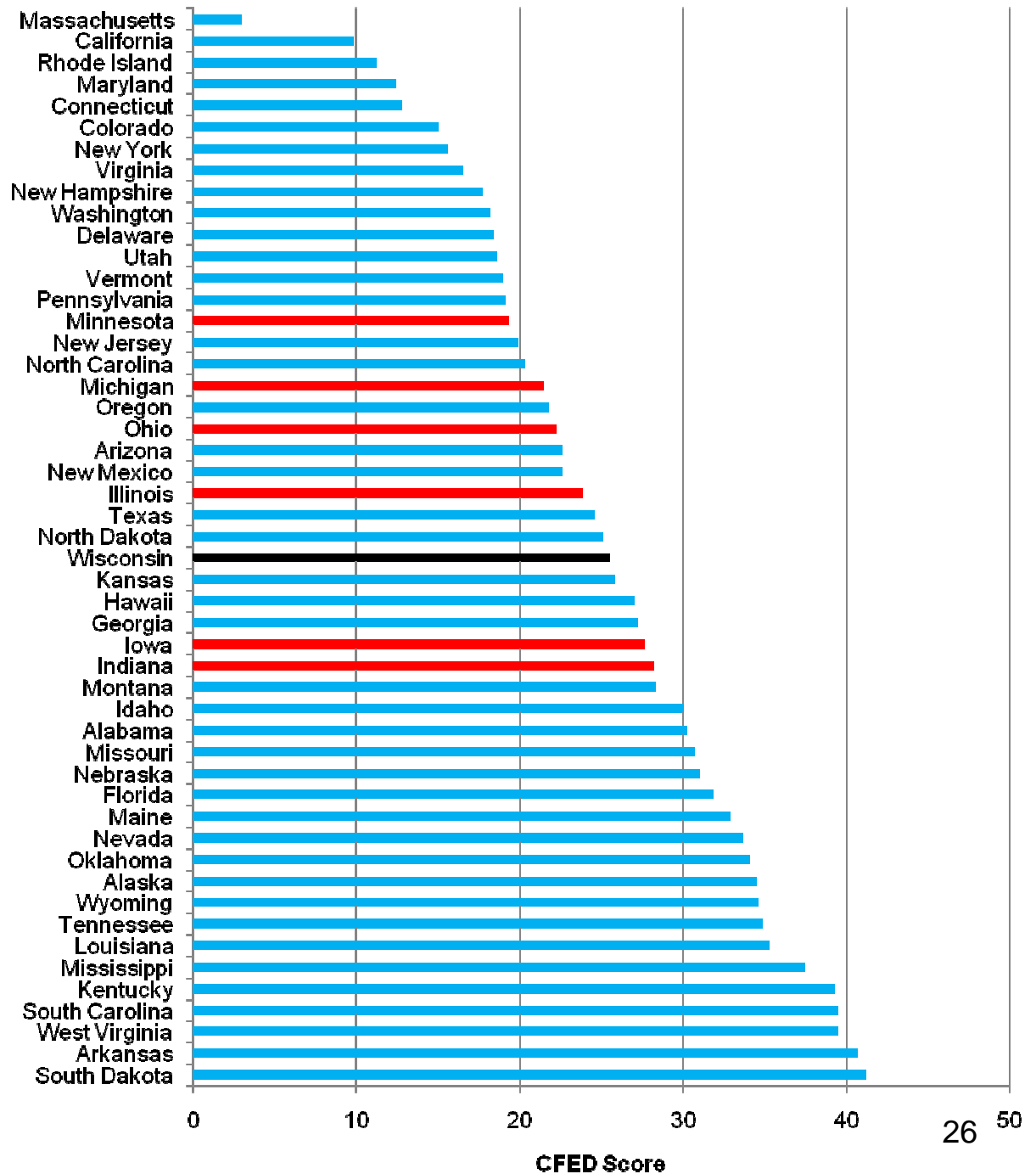
Source: CFED

# 2004 Innovation Assets

• Scores are calculated as the average rank of all the components, which in this case are:

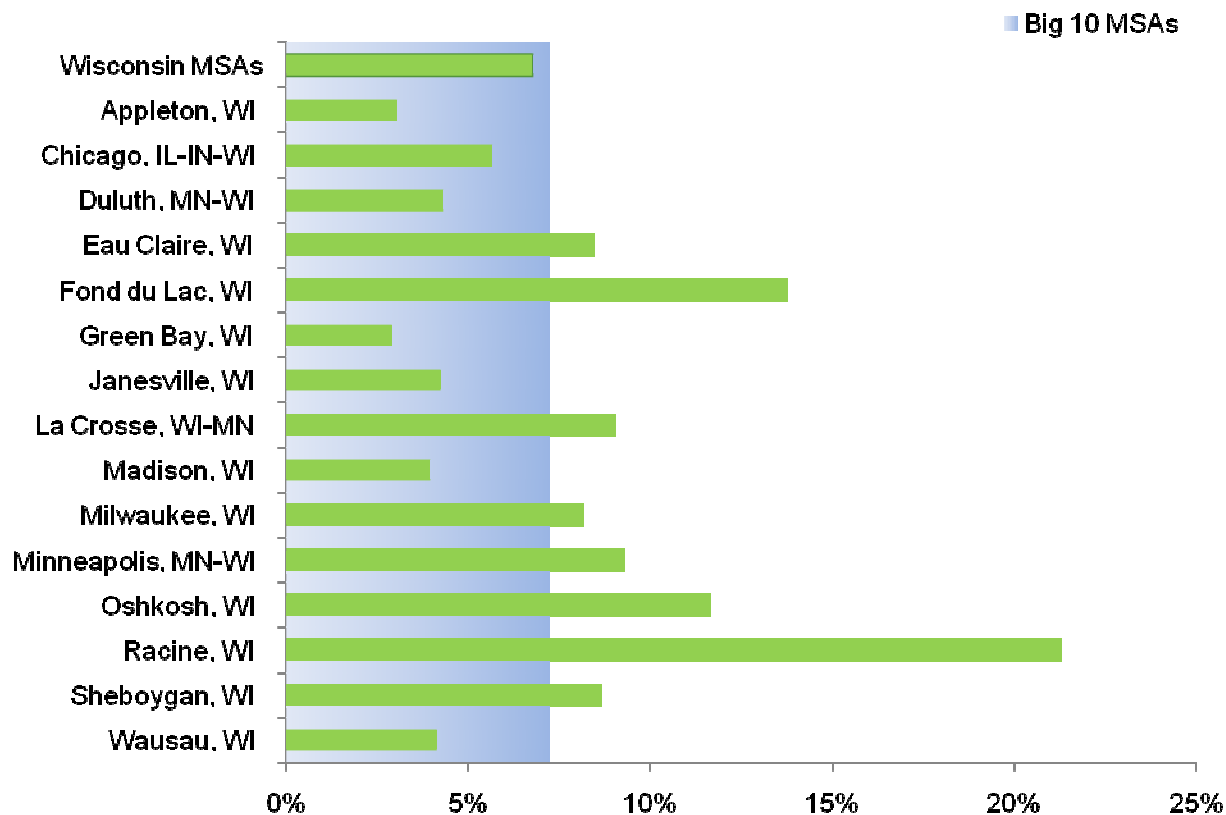
- PhD scientists and engineers per 1,000 workers;
- Grad students in science and engineering per 1 mil. population;
- Percent of households with computers;
- R&D dollars per capita at academic institutions;
- Federal R&D dollars per capita;
- Private R&D dollars per worker;
- Small Business Innovation Research grants dollars awarded per worker;
- Gross license income per worker;
- Patents issued per 1 mil. population; and
- University spin-outs per \$1 bil. university R&D spending.

• Since the score is an average rank, scores are similar to ranks where a lower score is better than having a higher score.



# 2005 MSA Foreign Export Intensity—Expanding Exports is a focus of White House economic policy

## Wisconsin

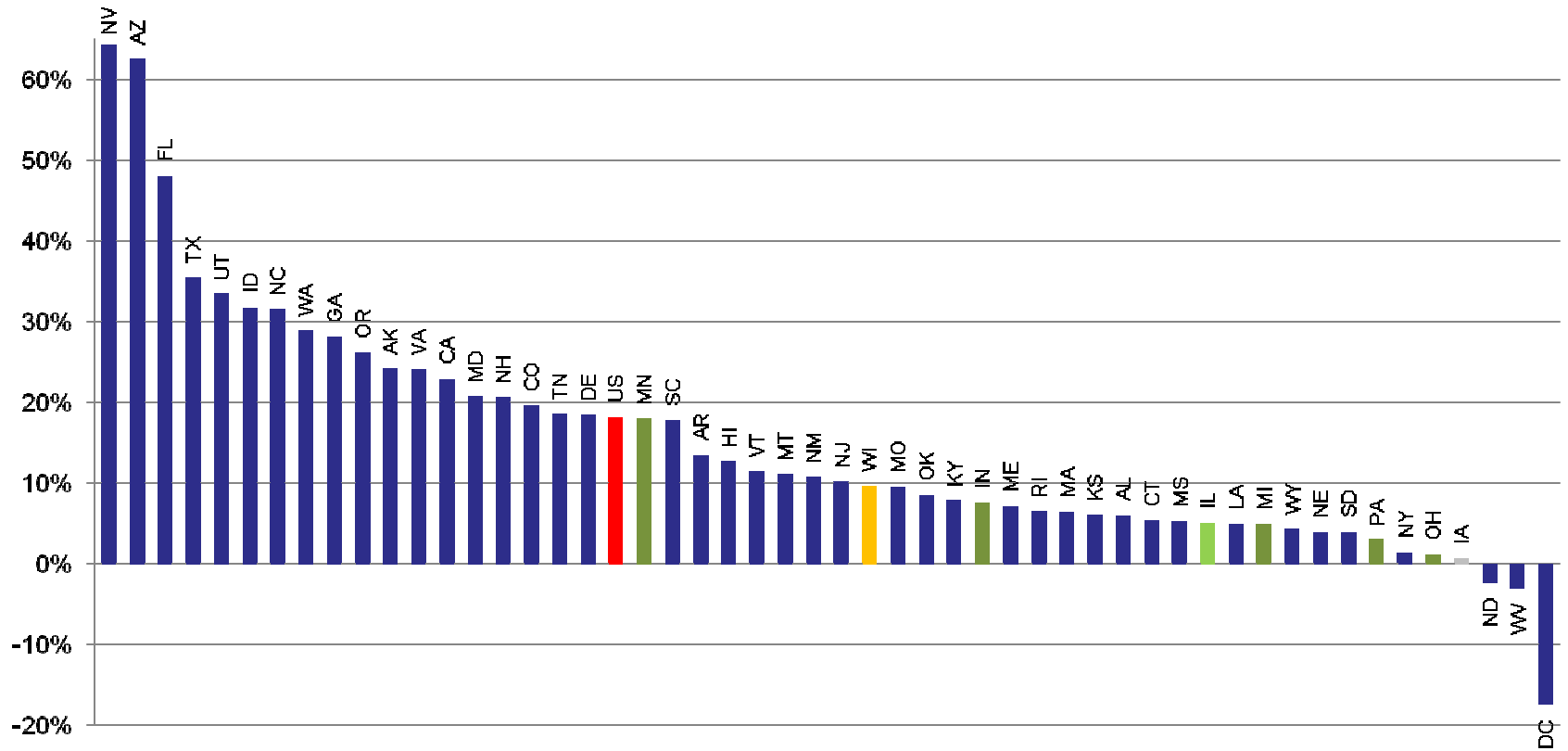


# Demographics are a challenge

- We are getting older and don't attract lots of migrants

# 2005–2025 Change using Population Projections

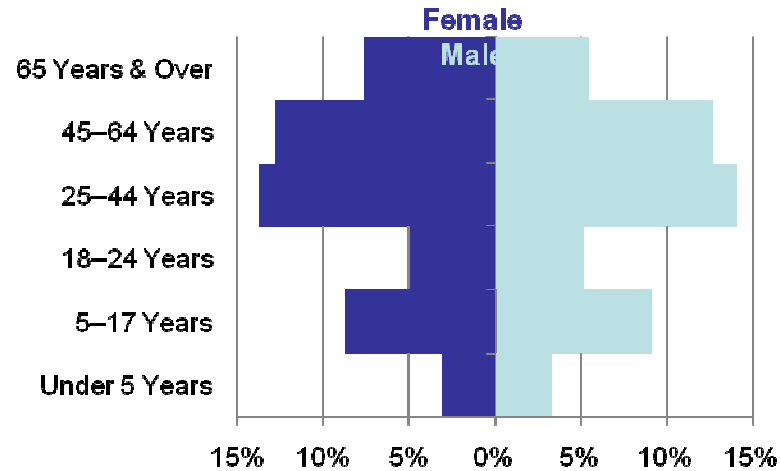
- Projections can also be divided into various age groups (such as those in previous slides).
- Calculations are percent change of 2025 population from 2005 population.



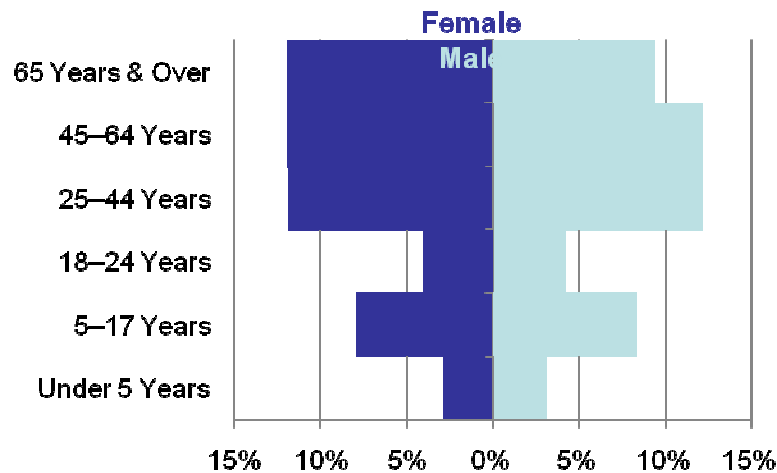
Source: NCHEMS/Census

# Population Projections— Big 10 States

## Wisconsin 2005

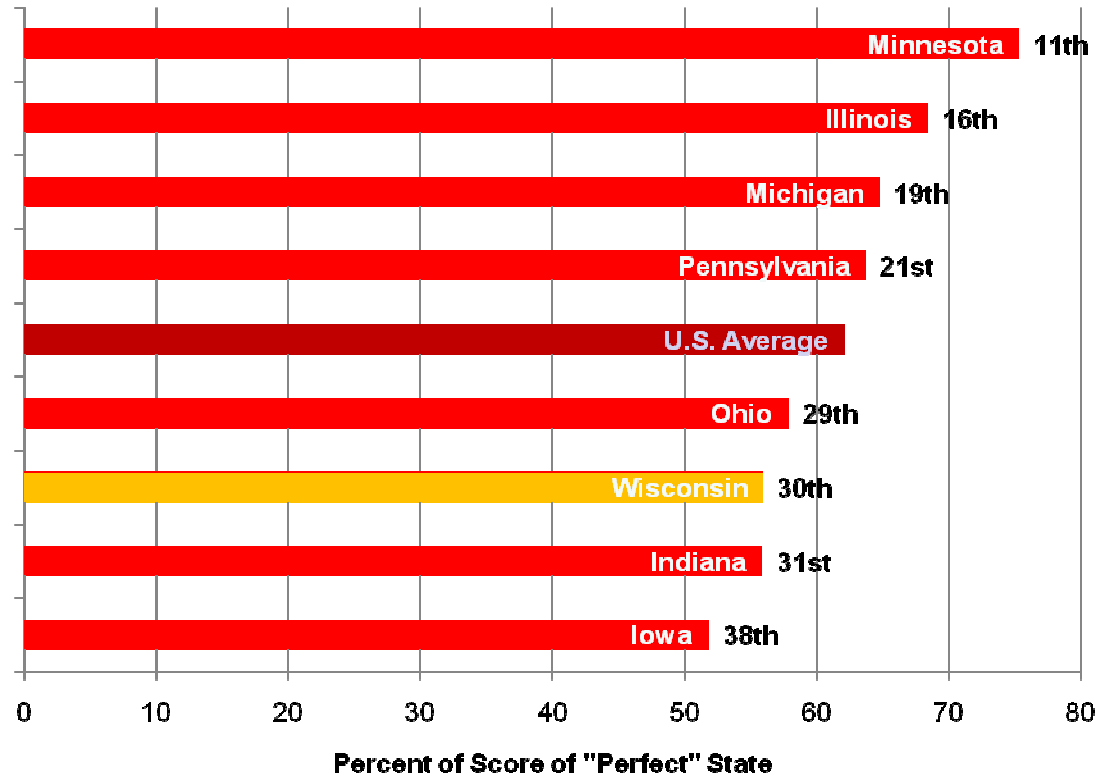


## Wisconsin 2030



# 2007 New Economy Index & Rank

- Measures the “New Economy,” which is defined as “global, entrepreneurial and knowledge-based economy in which the keys to success lie in the extent to which knowledge, technology and innovation are embedded in products and services.”
- Indexes are controlled for the size of the state.
- Overall score calculated in the chart represents the percentage of the total score of a state that was first in every category.



Source: ITIF

# Summary

- Like most states Wisconsin was hurt by the “Great Recession” however it did better than many other Midwest states. This is explained by industry mix and the absence of many of the sectors that triggered this recession
- The states long-term challenges are like the rest of the region. Need to increase production and retention of human capital, leverage research advantages and stabilize fiscal condition.