

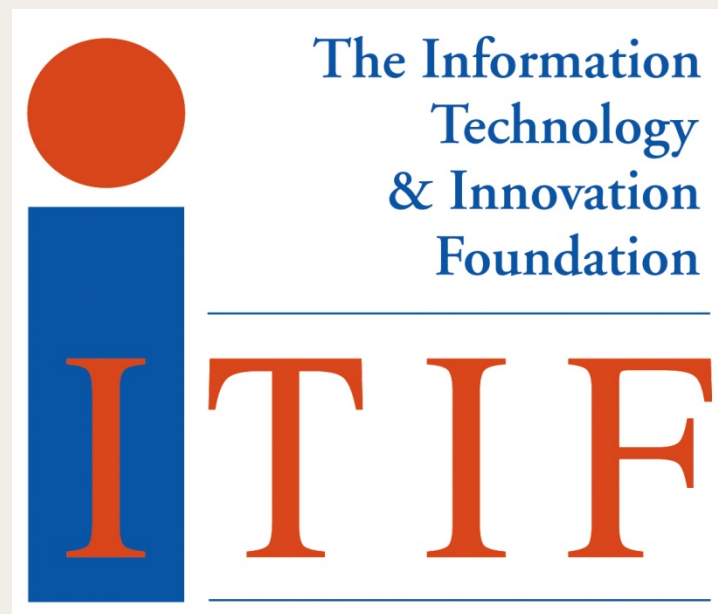
July 17, 2009

# Innovation-Based Economic Development

*Dr. Robert Atkinson  
President  
Information Technology  
and Innovation Foundation*



ITIF is public policy think tank committed to articulating and advancing a pro-productivity, pro-innovation and pro-technology public policy agenda internationally, in Washington and in the states.



## ■ Why Does Innovation Matter?

**Because economic transformation is constant and innovation is required to continually renew a region's economy.**

*The essential point to grasp is that in dealing with capitalism we are dealing with an evolutionary process... the fundamental impulse that sets and keeps the capitalist engine in motion comes from the new consumers' goods, the new methods of production or transportation, the new markets, the new forms of industrial organization that capitalist enterprise creates."*

(Joseph Schumpeter, Capitalism, Socialism and Democracy, 1942)

## ■ Innovation is Critical to Economic Success

- Generates quality jobs and rising incomes.
- Innovation in new processes boosts productivity.
- Helps the U.S., states, and regions maintain economic leadership, especially in the face of competition from low-wage regions.

## ■ Innovation Drives Regional Prosperity

**Differences in patenting intensity accounts for 30% of the variation across U.S. regions in the average wage. (Porter)**

**Patenting and R&D support greater gains in regional per-worker earnings. (Goldstein)**

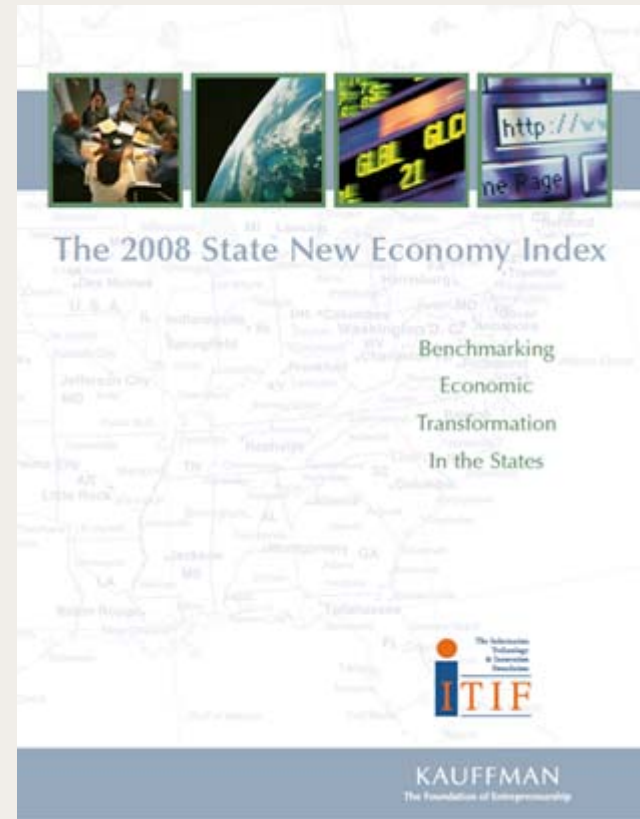
**Average wages in U.S. high-tech clusters are \$63,970 versus \$43,180 in non-high tech trade clusters.**

**Positive correlation between increases in state per-capita income between 2004 and 1999 and innovation factors:**

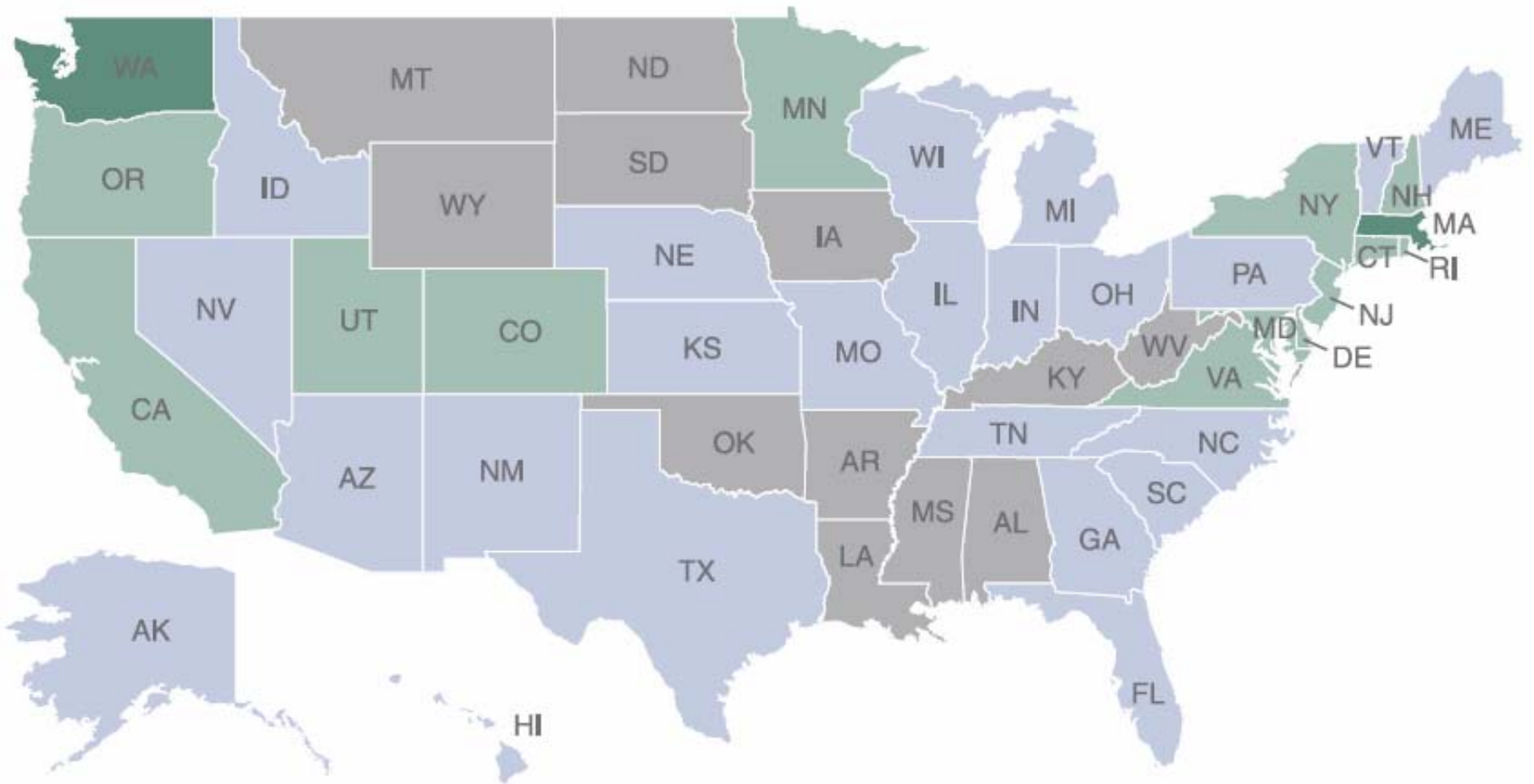
<b>High tech jobs: 0.51</b>	<b>Venture capital: 0.49</b>
<b>R&amp;D investment by industry: 0.48</b>	<b>Scientists and engineers: 0.44</b>

## The 2008 State New Economy Index uses 5 groups of 29 indicators to map how well places are adapting to the New Economy:

- Knowledge Jobs
- Globalization
- Economic Dynamism
- Digital Economy
- Technological Innovation



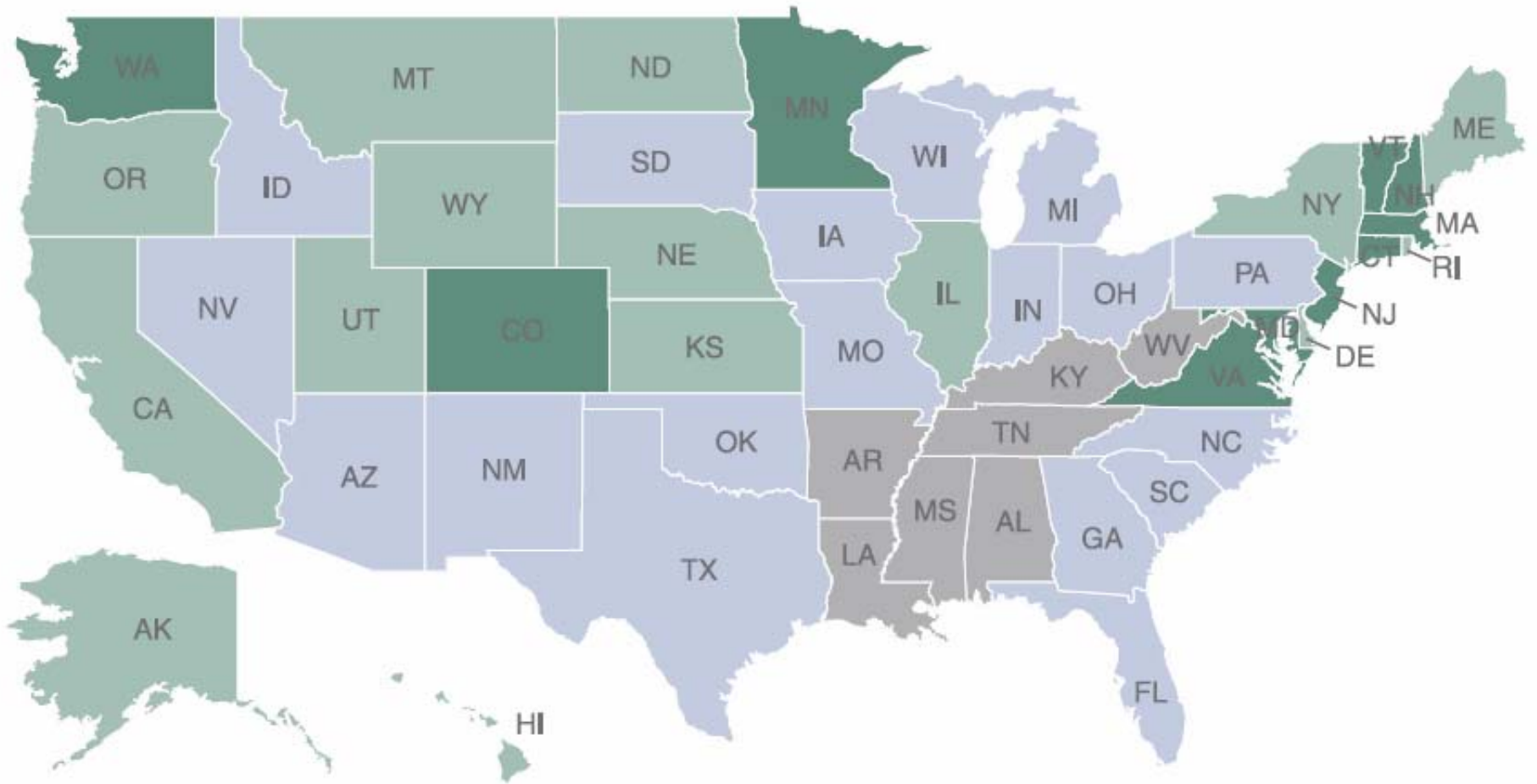
# 2008 SNEI Overall Scores



■ 100th–76th percentile  
 ■ 75th–51st percentile  
 ■ 50th–26th percentile  
 ■ 25th–1st percentile

	<u>2002</u>	<u>2007</u>	<u>2008</u>
Iowa	40	38	42

# Workforce Education

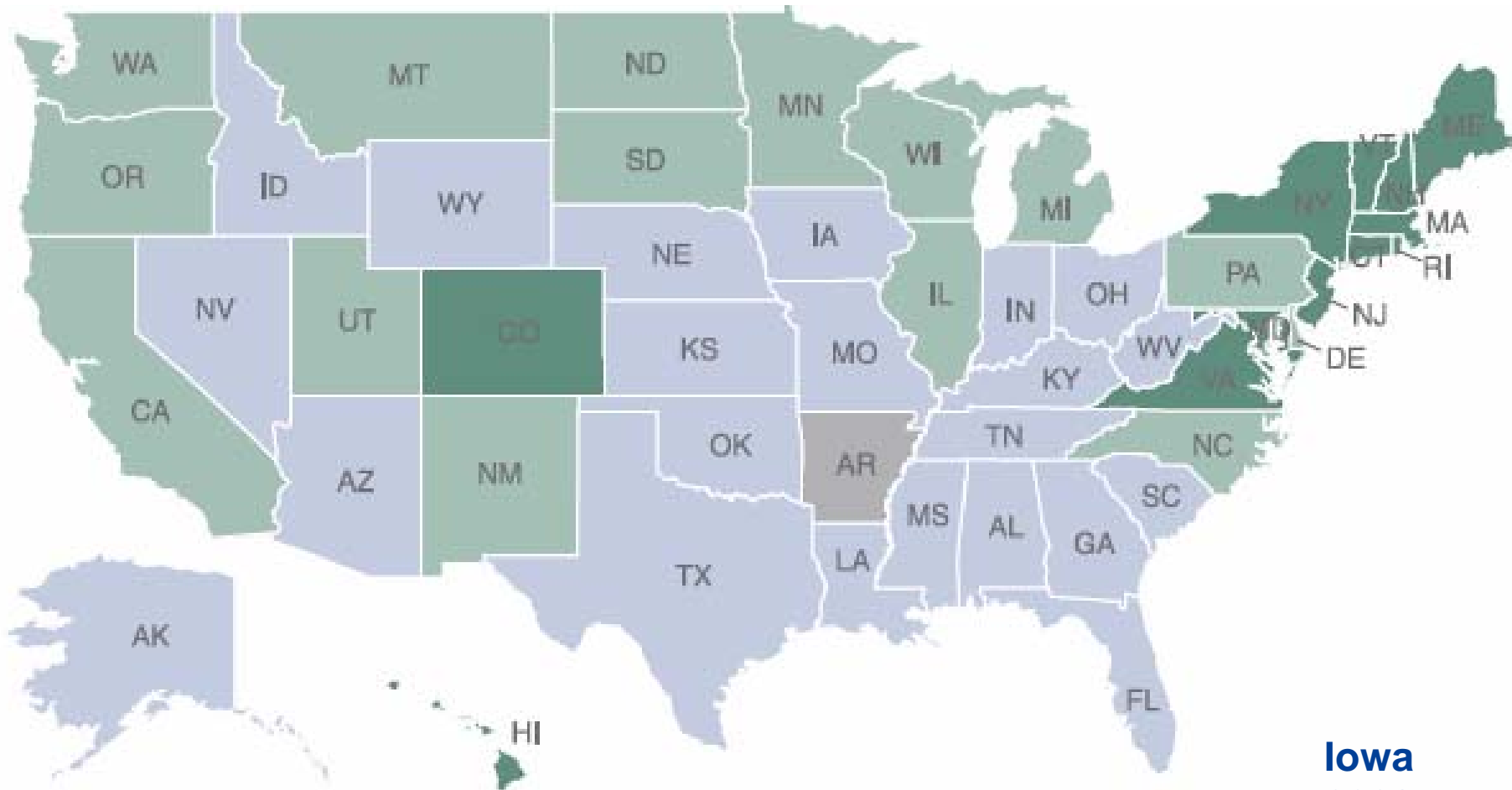


■ 100th-76th percentile ■ 75th-51st percentile ■ 50th-26th percentile ■ 25th-1st percentile

	<b>2002</b>	<b>2007</b>	<b>2008</b>
	<b>17</b>	<b>19</b>	<b>15</b>

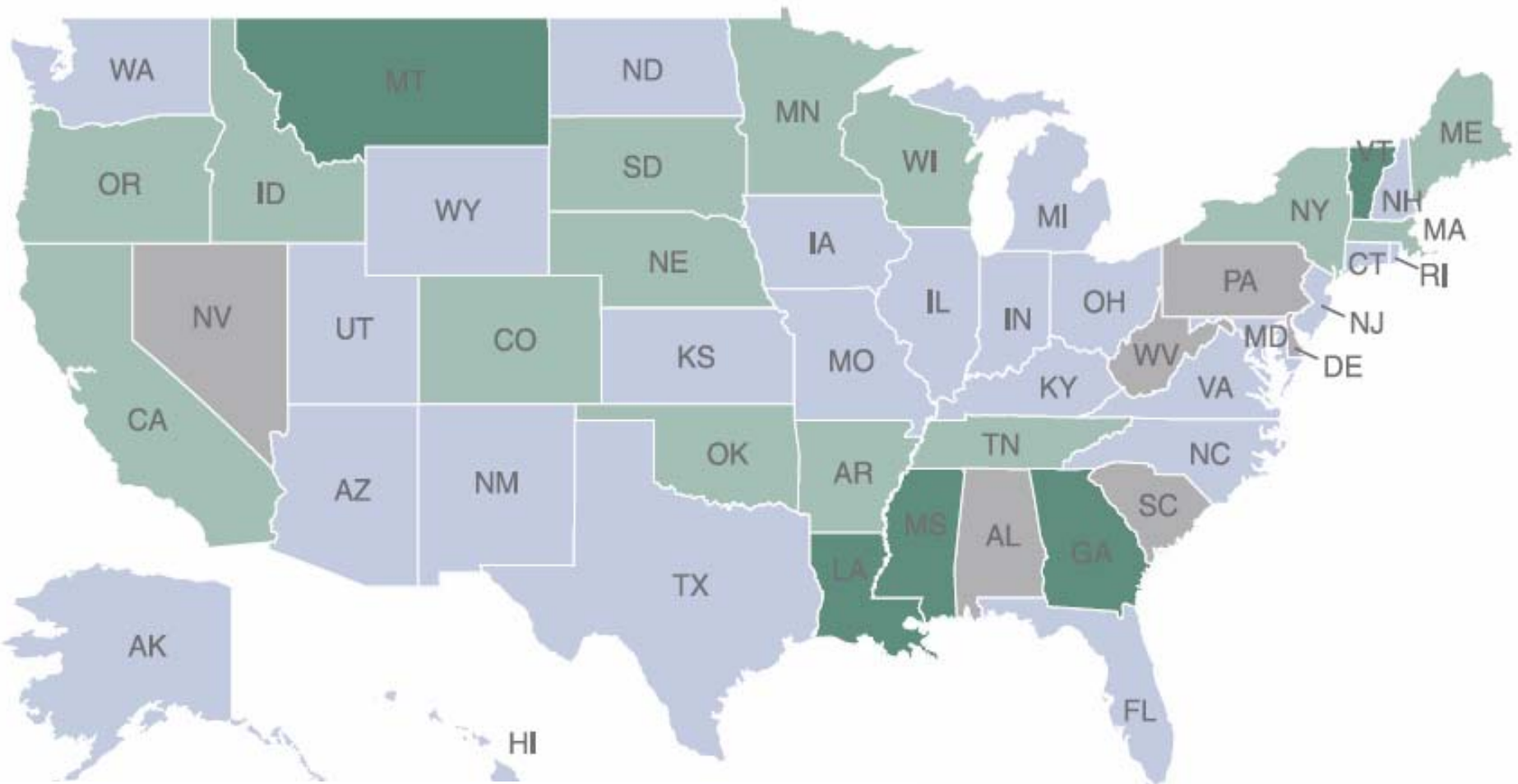


# U.S. Migration of Knowledge Workers





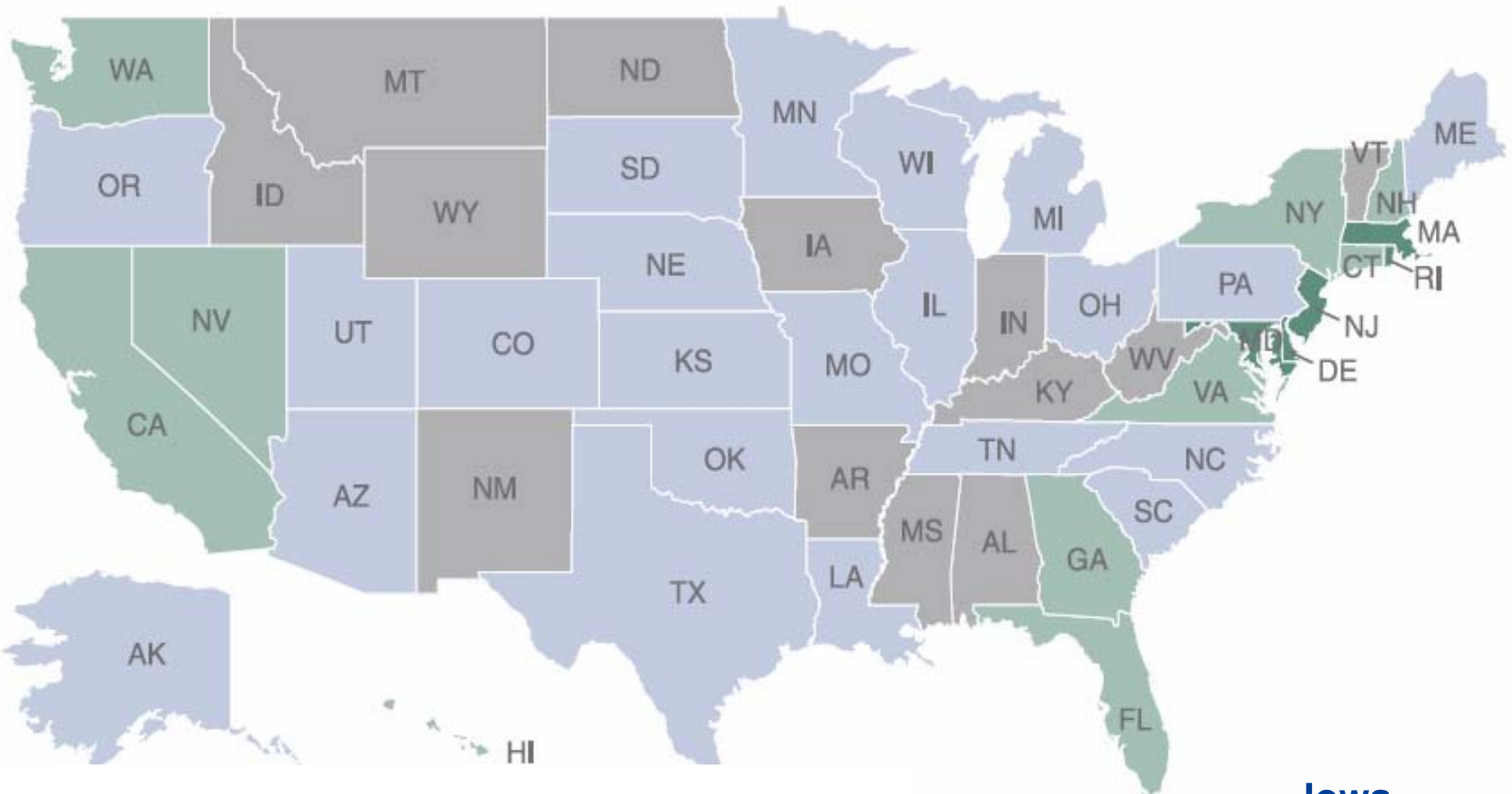
# Entrepreneurial Activity



■ 100th-76th percentile ■ 75th-51st percentile ■ 50th-26th percentile ■ 25th-1st percentile

**Iowa**  
**2007**    **2008**  
**26**        **20**

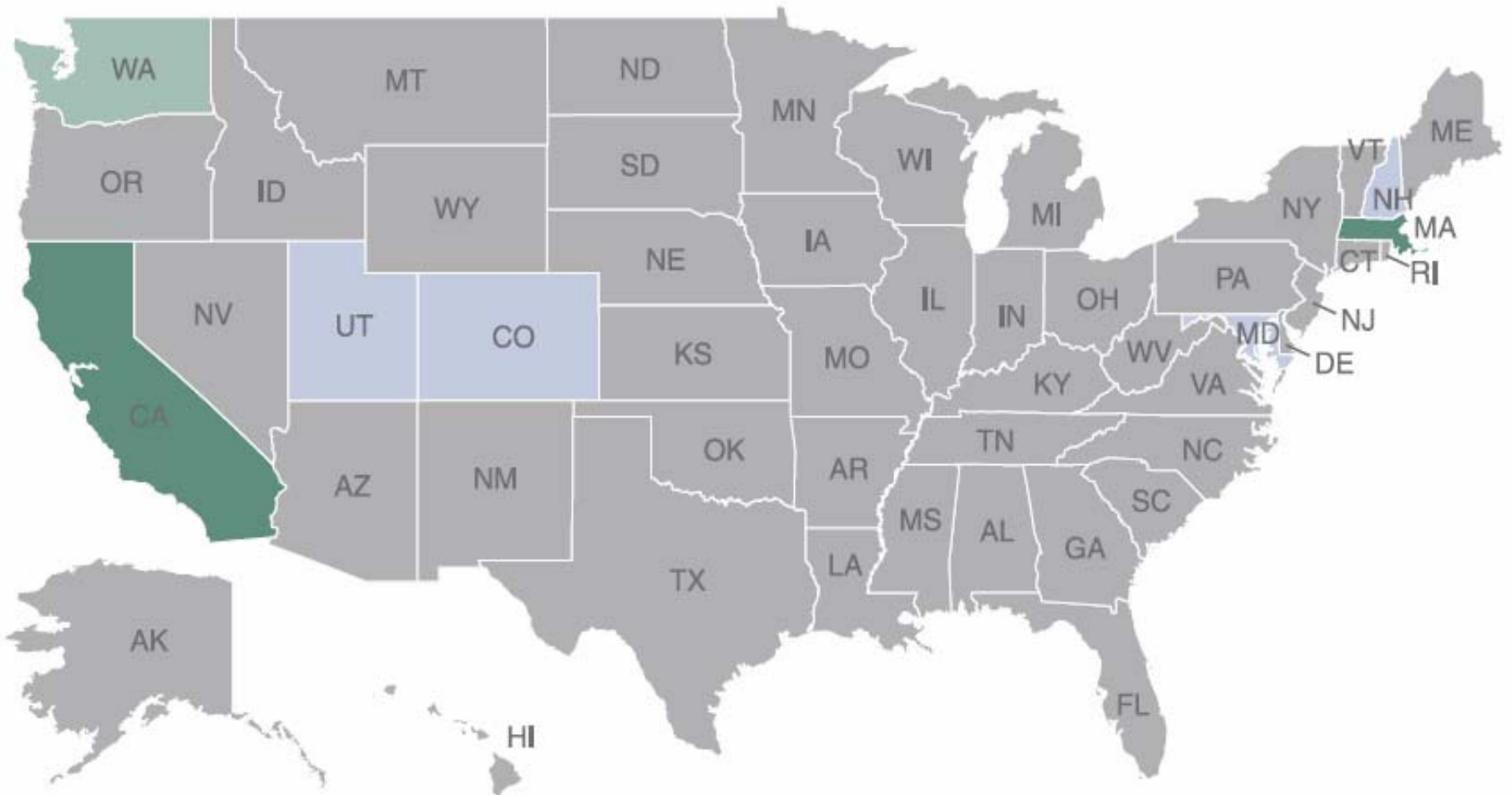
# Broadband Telecommunications



■ 100th-76th percentile ■ 75th-51st percentile ■ 50th-26th percentile ■ 25th-1st percentile

Iowa	
2007	2008
42	46

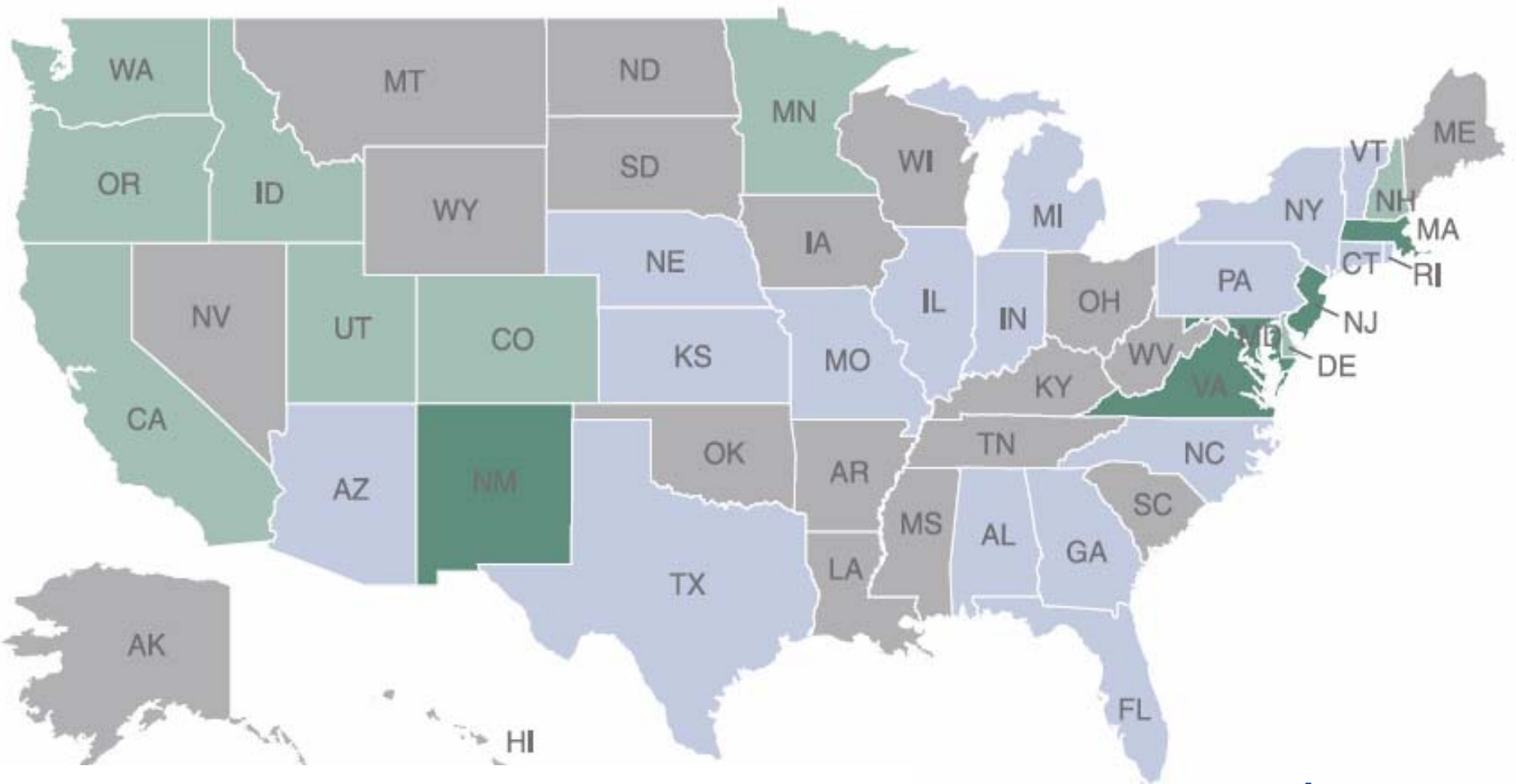
# Venture Capital



■ 100th-76th percentile ■ 75th-51st percentile ■ 50th-26th percentile ■ 25th-1st percentile

**Iowa**  
**2007**    **2008**  
**42**        **37**

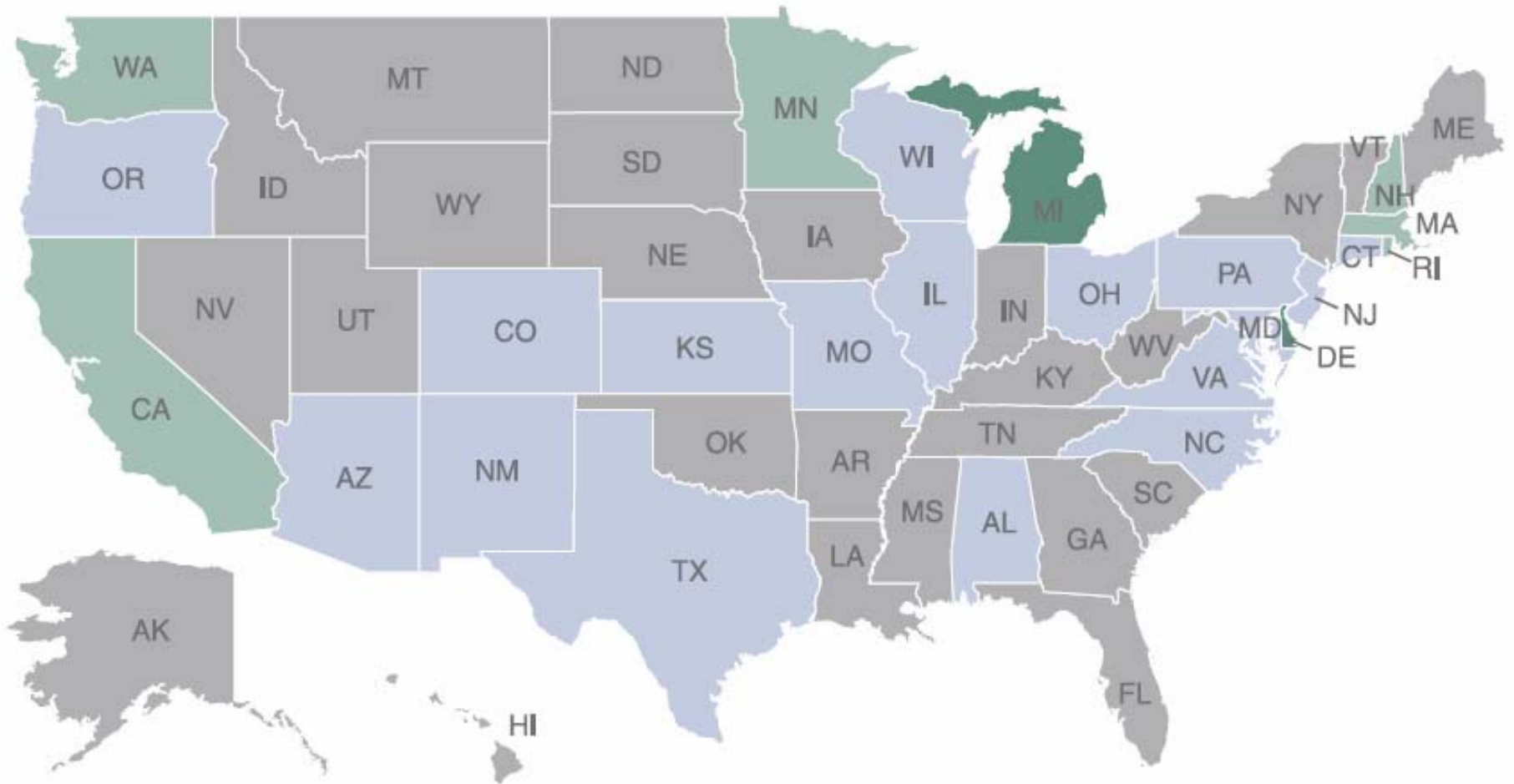
# High-Tech Jobs



100th-76th percentile
  75th-51st percentile
  50th-26th percentile
  25th-1st percentile

	<b>Iowa</b>	
<b>2002</b>	<b>28</b>	<b>2007</b>
<b>2007</b>	<b>37</b>	<b>2008</b>
<b>2008</b>	<b>37</b>	

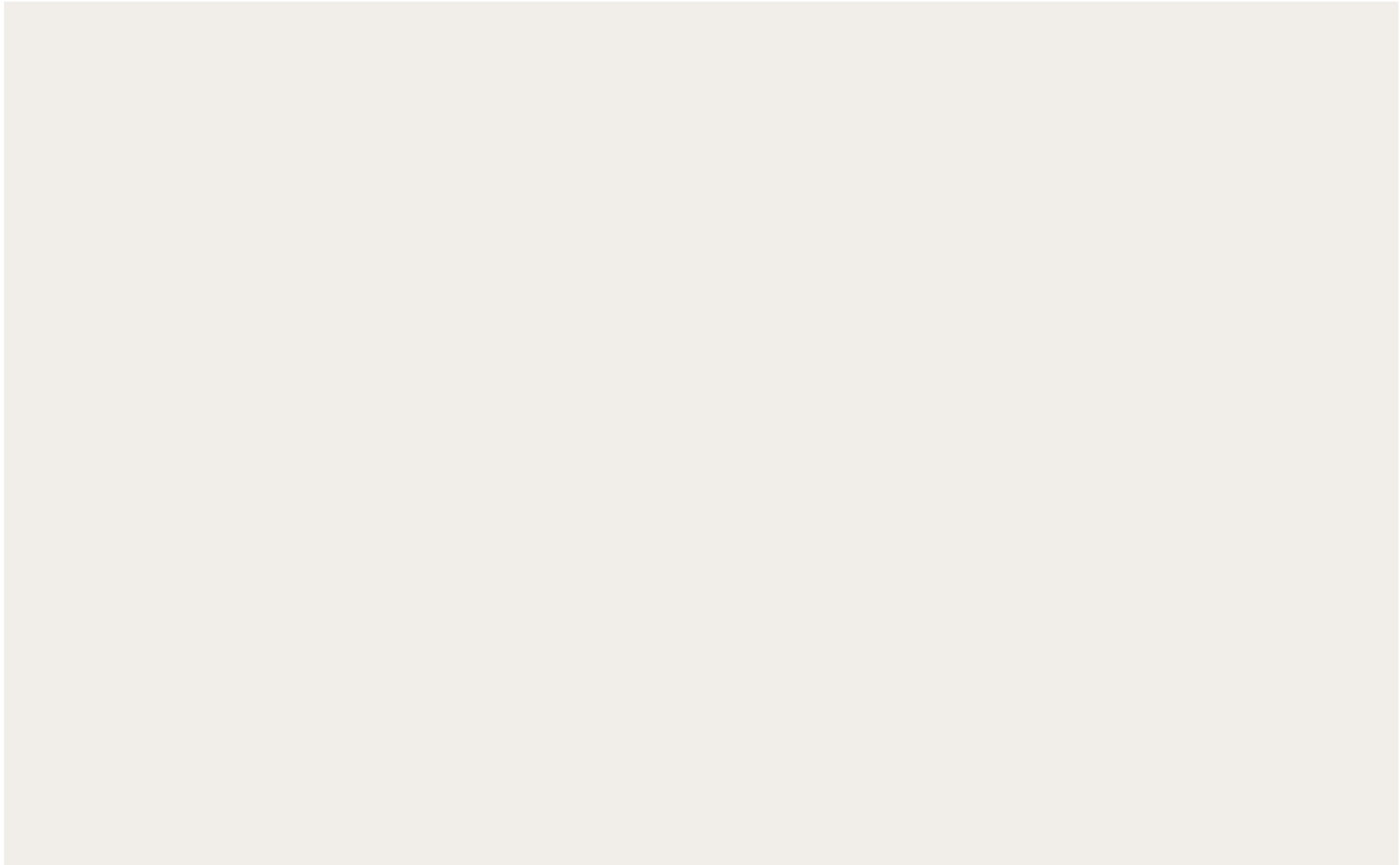
# Industry Investment in R&D



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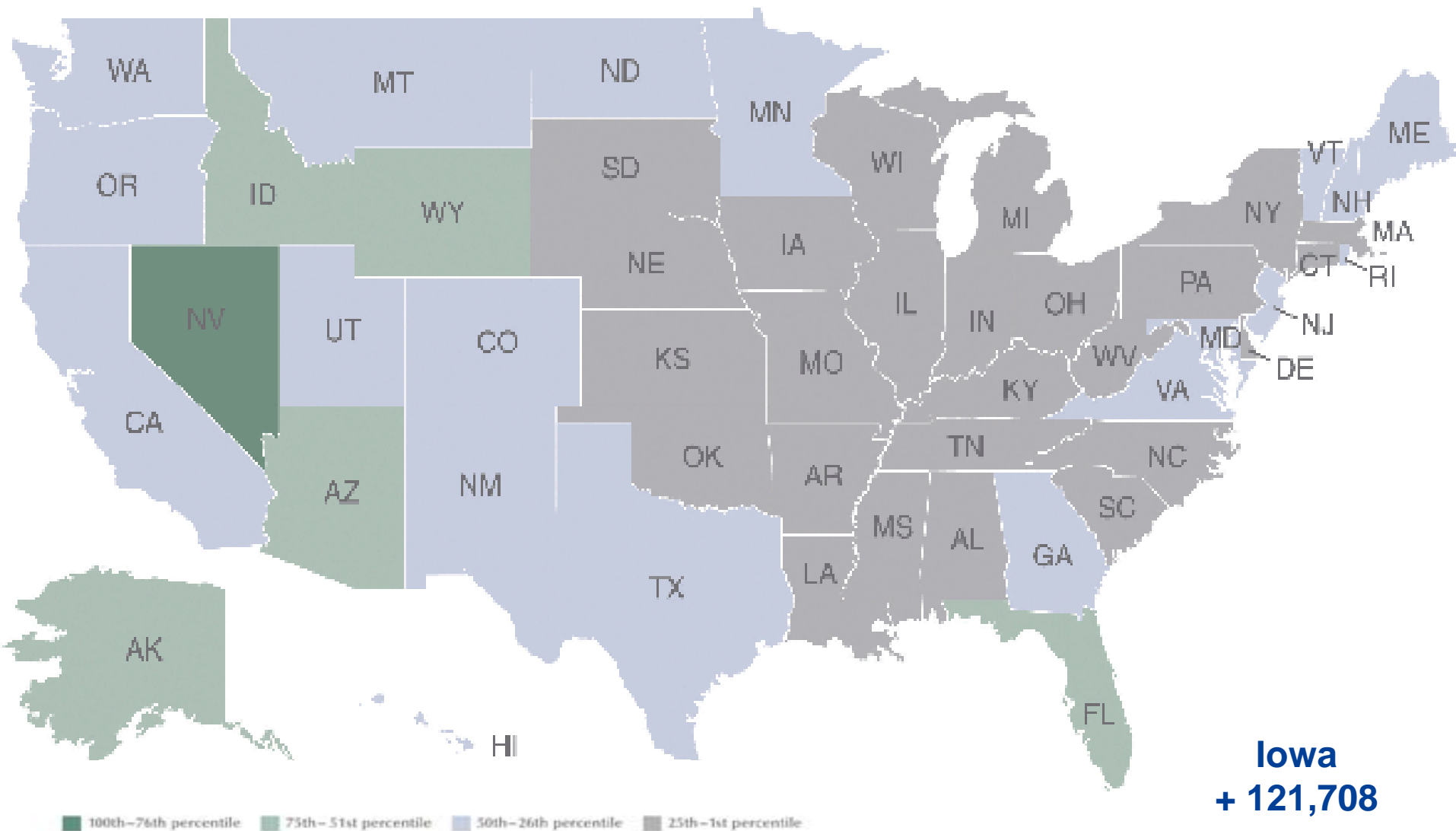
	<b>2002</b>	<b>2007</b>	<b>2008</b>
	<b>33</b>	<b>29</b>	<b>31</b>

- So, Do These Rankings Matter?



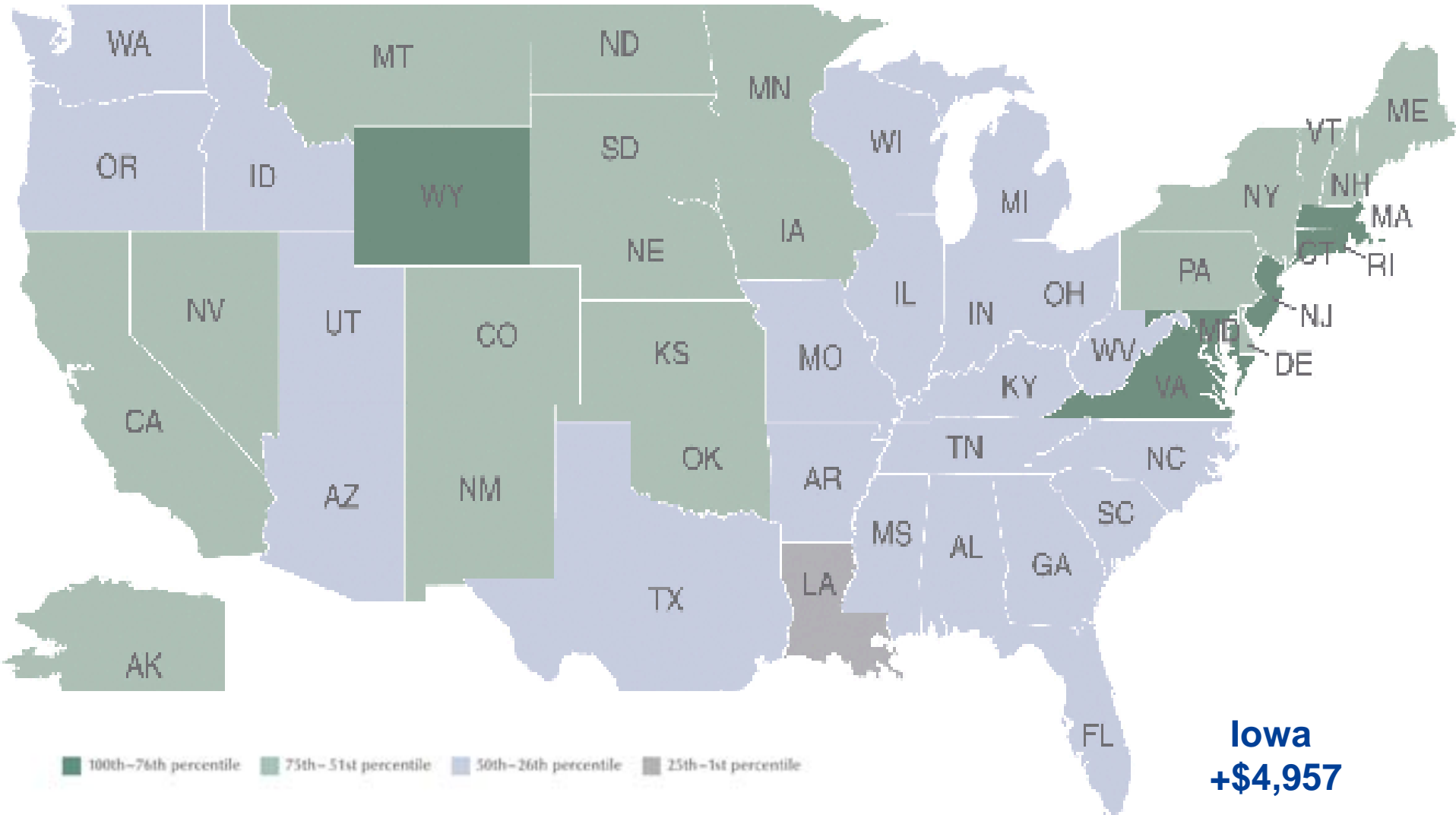
# Not for Jobs

- Employment Growth 2002-2006



# Yes for Income

- State Per Capita Income Growth 2002-2006



# ■ An Innovation Economy Requires an Innovation-Based Economic Development Policy

## ■ Embrace Innovation Economics



**Conventional economic thinking, based on neo-classical or Keynesian economics, ignores innovation.**

**Innovation economics is based on the view that:  
innovation powers growth, and  
bold public-private partnerships to spur innovation are required.**

**[www.innovationeconomics.org](http://www.innovationeconomics.org)**

## ■ Economic Development Doctrines and State Economic Development Policy

	<b>Conventional Economic Development</b>	<b>Neo- classical Business Climate</b>	<b>Neo- Keynesian Populist</b>	<b>Innovation Economics</b>
<b>Source of Growth</b>				
<b>Principal Economic Development Means</b>				
<b>Object of Policy</b>				
<b>Quality of Life</b>				
<b>Goal</b>				

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<b>Source of Growth</b>	<b>Capital investment</b>			
<b>Principal Economic Development Means</b>	<b>Drive down costs through firm-specific subsidies</b>			
<b>Object of Policy</b>	<b>Recruitment of out-of-state firms</b>			
<b>Quality of Life</b>	<b>Minor importance</b>			
<b>Goal</b>	<b>Get big</b>			

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<b>Source of Growth</b>	Capital investment	Capital investment		
<b>Principal Economic Development Means</b>	Drive down costs through firm-specific subsidies	Drive down costs through lower taxes and regulations		
<b>Object of Policy</b>	Recruitment of out-of-state firms	Recruitment of out-of-state firms		
<b>Quality of Life</b>	Minor importance	Not important		
<b>Goal</b>	Get big	Get big		

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<b>Source of Growth</b>	Capital investment	Capital investment	<b>Worker incomes</b>	
<b>Principal Economic Development Means</b>	Drive down costs through firm-specific subsidies	Drive down costs through lower taxes and regulations	<b>Drive up wages, foster progressive taxes and public spending</b>	
<b>Object of Policy</b>	Recruitment of out-of-state firms	Recruitment of out-of-state firms	<b>Small and socially-conscious business</b>	
<b>Quality of Life</b>	Minor importance	Not important	<b>High importance</b>	
<b>Goal</b>	Get big	Get big	<b>Get fair</b>	

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	<b>Conventional Economic Development</b>	<b>Neo-classical Business Climate</b>	<b>Neo-Keynesian Populist</b>	<b>Innovation Economics</b>
<b>Source of Growth</b>	Capital investment	Capital investment	Worker incomes	<b>Innovation and organizational learning</b>
<b>Principal Economic Development Means</b>	Drive down costs through firm-specific subsidies	Drive down costs through lower taxes and regulations	Drive up wages, foster progressive taxes and public spending	<b>Spur firm innovation through targeted supports (e.g., research, financing, skills, etc.) and incentives for firms.</b>
<b>Object of Policy</b>	Recruitment of out-of-state firms	Recruitment of out-of-state firms	Small and socially-conscious business	<b>High growth entrepreneurs and existing firms</b>
<b>Quality of Life</b>	Minor importance	Not important	High importance	<b>Moderately important to attract and retain knowledge workers.</b>
<b>Goal</b>	Get big	Get big	Get fair	<b>Get prosperous</b>

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- Its not just the number of jobs, but the quality and wage/salary level of the jobs.

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- You are competing not just with other communities in your state, or even other communities in other states, but other communities around the world.
- Regions' competitive future rest on innovation and entrepreneurship.

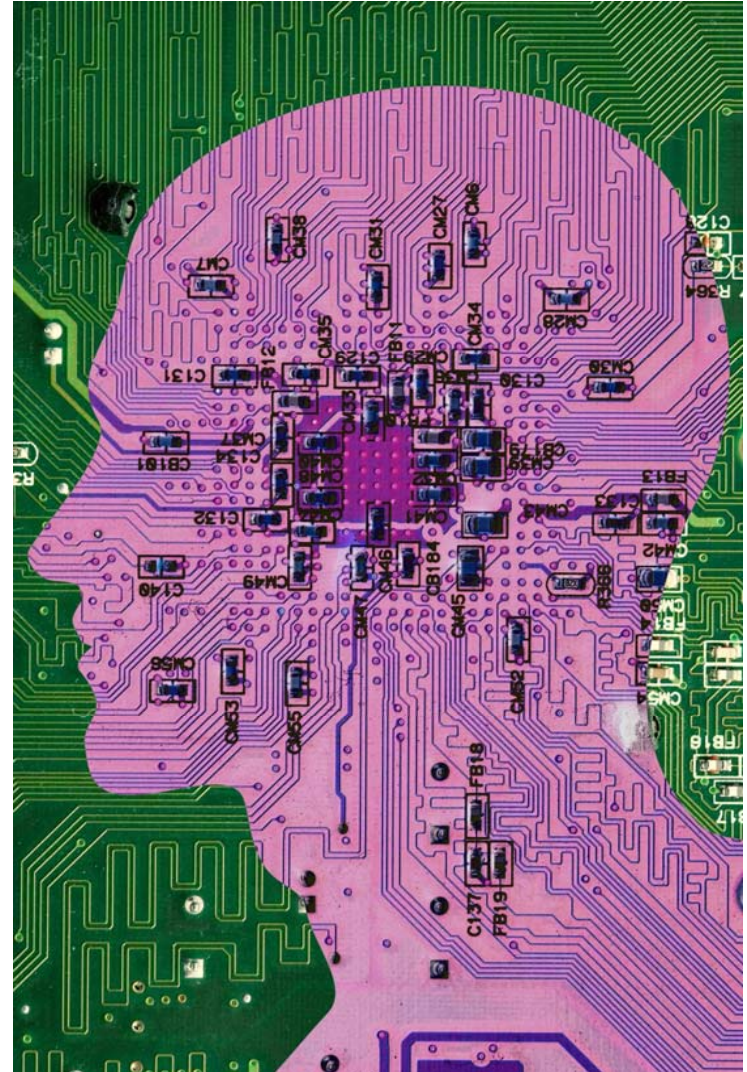
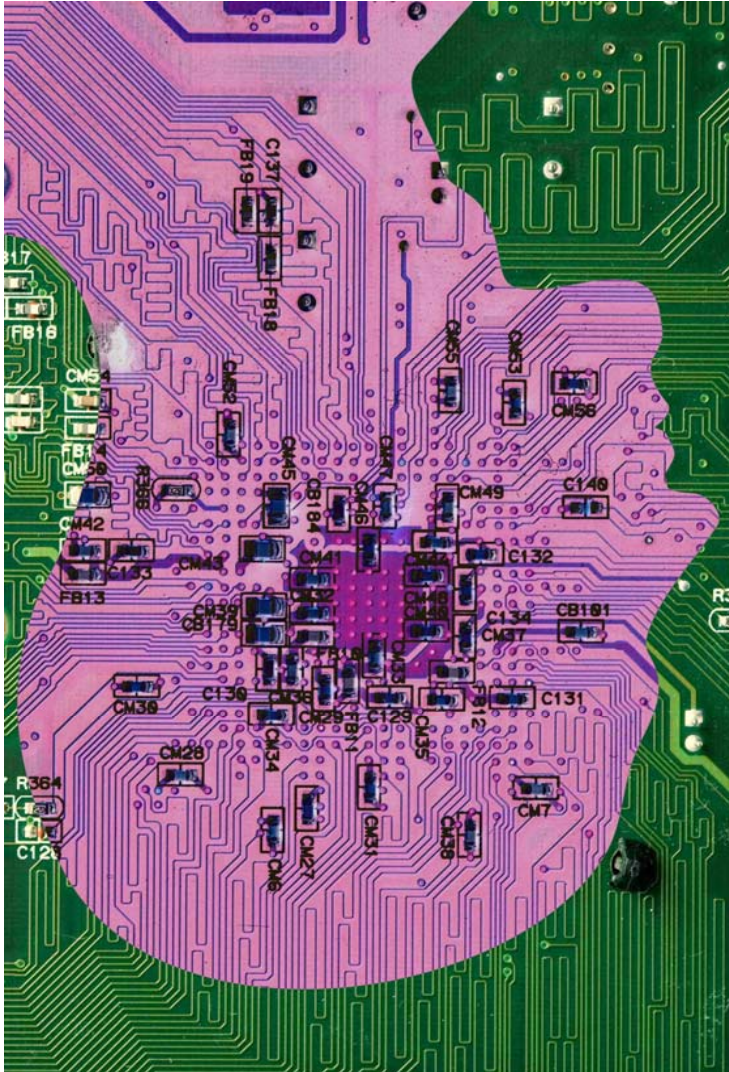
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- You are competing not just with other communities in your state, or even other communities in other states, but other communities around the world.
- Regions' competitive future rest on innovation and entrepreneurship.
- Different parts of the state will play different roles in the global economy.

- Looking backward to stop the clock doesn't work



- Looking forward to create the future does



*Thank you*

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