

# Where Have All the (Good) Jobs Gone?

with apologies to Pete Seeger

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# Acknowledgements and Disclaimer

- I am grateful for substantial financial support from NSF, NIA, Sloan, and especially the U.S. Census Bureau.
- I am also deeply indebted to several generations of current and former students, colleagues at the Census Bureau, colleagues at Cornell, and colleagues at other NSF-Census Research Network nodes who have collaborated on various components of the research presented here.
- The statistical results presented in this address use confidential data from the Census Bureau. Tables and figures have undergone disclosure avoidance review to ensure that no confidential information is revealed.

# What is a “Good” Job?

- Old-school: high quasi-rent per worker
- New-school: high potential surplus per job
- Implemented empirically the same way:

Estimate the expected value of revenue to the business net of the cost of inputs with each input priced at its best alternative use.

Divide the result by employment.

# Why Did I Do This?

- Addressing this question uses concepts that connect many strains of labor market research.
- In the era of large private-sector collective bargaining agreements in the U.S. quasi-rents per worker (sometimes just called “profits”) were an important unifying concept. Measuring them in the context of formal bargaining created a large literature on how to think about the counterfactual opportunity cost of labor, which reached its zenith in the 1980s.
- Separate research streams beginning in the 1990s focused on using business-level micro-data and longitudinally linked employer-employee micro-data to probe both employment dynamics and wage determination.
- Macroeconomic search and matching models began to incorporate the empirical findings from the analysis of these newer data sources, and restored focus on the quasi-rent per worker, relabeled match surplus in the job, as a key “unobservable” determinant of hiring and separation outcomes.
- I’m going to borrow from all of these research strains today.

# Of Course, the Real Answer Is

- Because I was curious to see how many of the modern data tools could be marshalled to quantify the role of the economic surplus, or quasi-rent, on employment outcomes
- Focus attention on salient features from both the employer and employee perspective
- To distinguish between the size of the pie (cake in some cultures), and how big your piece is
- This talk is about the role of the size of the pie in job outcomes
- Not its distribution between the employer and the factors of production

# Date Required to Estimate Quasi-rent per Worker

- Revenue
- Employment
- Materials, energy, other purchased inputs
- Capital
- Opportunity cost of each of the inputs

# Revenue

- Net sales data from the Economic Censuses 1997, 2002, 2007, 2012 as transcribed to the Census Bureau's Business Register of the same dates
- Converted to real terms (2000 dollars)
- Private employers only
- Net sales data for single-unit employers transcribed as reported
- Net sales data for establishments of multi-unit employers estimated as part of the Economic Census

# Employment

- Taken from the Census Bureau's Business registers for 1997, 2002, 2007, and 2012
- Normally references the number of employees on payroll for the period covered by March 12<sup>th</sup> of the indicated year



# Materials, Energy, Other Purchased Inputs

- Taken from the Bureau of Economic Analysis KLEMS accounts for 1997, 2002, 2007, 2012, most recent restatement
- Total stated as a percentage of gross output

# Capital

- Total assets from a variety of IRS forms as a part of the Census Bureau's Business Registers 1997, 2002, 2007, 2012
- Data for 1997 are less complete than the data for 2002 and forward, which benefited from a major redesign of the BR
- Converted to real terms (2000 dollars)

# Opportunity Cost of Labor

- Start with total annual compensation from the Business Register 1997, 2002, 2007, 2012, converted to real terms (2000 dollars)
- Divide by employment, as measured above
- Link person, employer, personal characteristics estimated determinants of real wages from the Census Bureau's Longitudinal Employer-Household Dynamics Program fit from the universe of 1990-2011 data
- Separate employer effects for 1990-1994, 1995-1999, 2000-2004, 2005-2011
- Opportunity cost of labor is the predicted part of payroll per worker given the establishment's person effect and employee characteristics components of wages

# Opportunity Cost of Capital

- Use the book value of total assets
- Alternative use is a portfolio of real risk-free bonds (30-year inflation-indexed Treasury bonds) and the S&P 500 in the same proportions as the debt/asset ratio in the NAICS sector
- Real equity premium estimated by 40-year moving averages of the equity premium on the S&P 500
- Variety of sources for these estimates

# Opportunity Cost of Materials, Energy, and Other Purchased Inputs

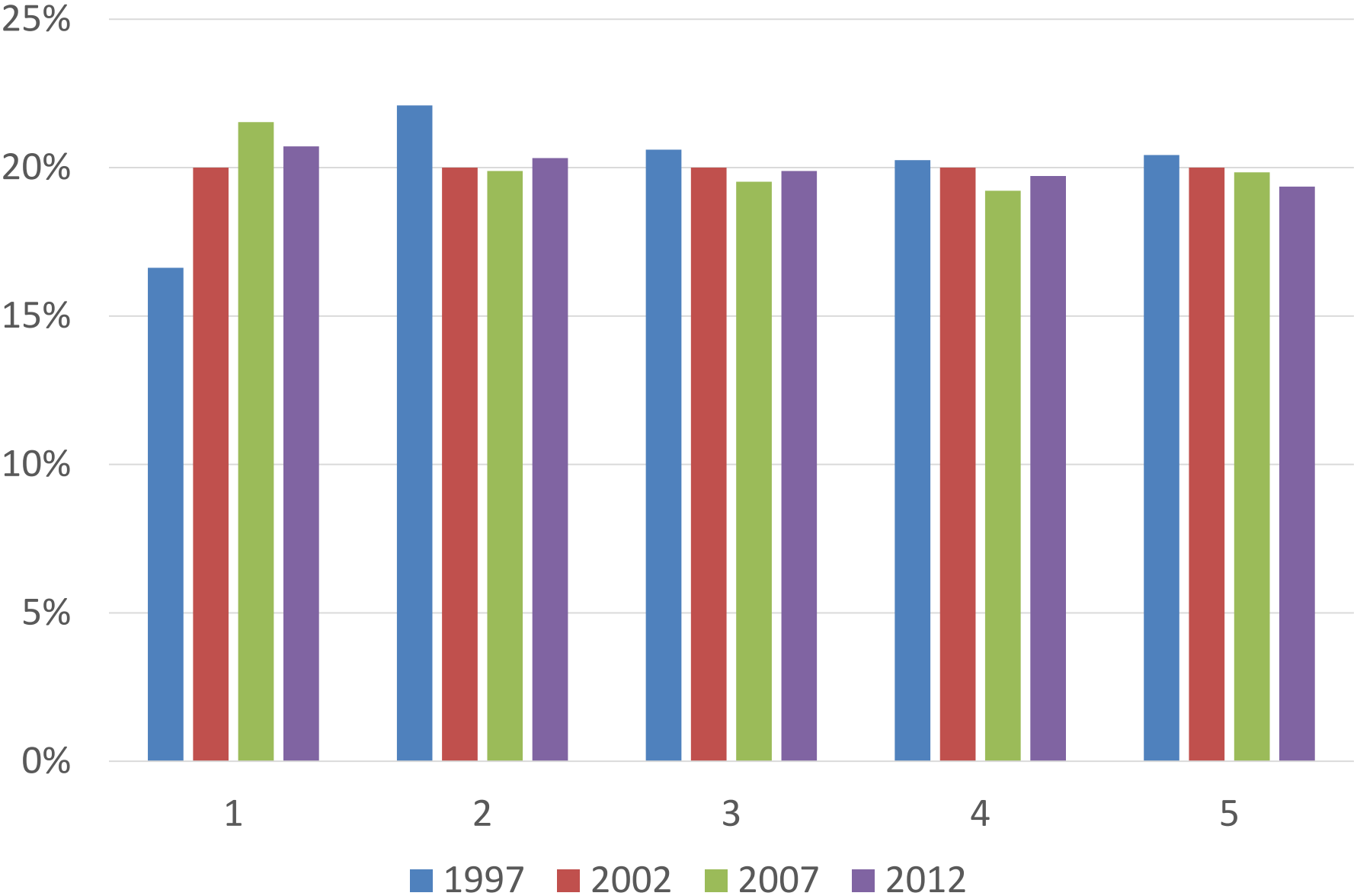
- Assumed the same for all businesses in the same NAICS sector in the relevant year
- Estimated by share of energy, material and other supplies as a proportion of gross output, say  $EMS\_share$
- Revenue ( $R$ ) net of energy, material and other purchased inputs is

$$R(1 - EMS\_share)$$

$$\frac{QR}{L} = \frac{R(1 - EMS\_share) - rK - wL}{L}$$

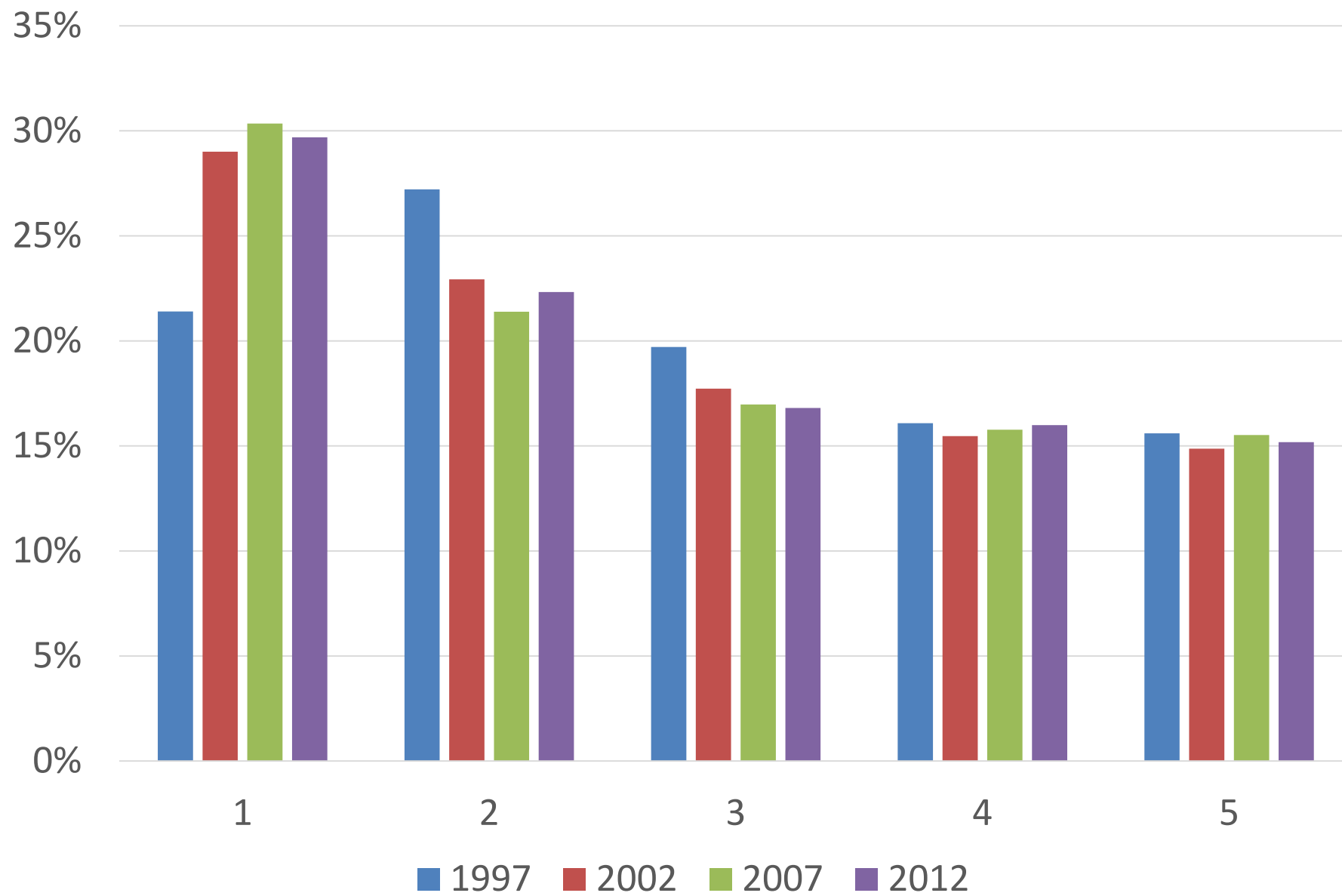
# Characterizing Establishments by Quasi-rent per Worker

Distribution of Establishments by Quasi-rent per Worker





Distribution of Employment by Quasi-rent per Worker



# Gross Creation and Destruction of Good Jobs

# Gross Job Creation and Destruction by Quasi-rent (Surplus) per Worker

*(Quasi-rent per Worker Categories Benchmarked to 2002 Quintiles)*

	TO													
FROM	Deaths	1	2	3	4	5	All							
	2002-2007													
		JDR	JCR	JDR	JCR	JDR	JCR	JDR	JCR	JDR	JCR	JDR	JCR	JDR
<b>Births</b>			15.1%		9.1%		6.5%		5.8%		5.6%		42.1%	
<b>1</b>	14.5%	2.3%	1.6%	0.2%	0.5%	0.1%	0.2%	0.1%	0.1%	0.1%	0.1%	0.1%	2.7%	17.1%
<b>2</b>	9.8%	0.7%	0.3%	1.2%	0.8%	0.3%	0.5%	0.1%	0.2%	0.0%	0.1%	0.1%	2.3%	11.9%
<b>3</b>	6.8%	0.3%	0.1%	0.7%	0.2%	0.9%	0.5%	0.4%	0.5%	0.1%	0.2%	0.2%	2.4%	8.3%
<b>4</b>	5.9%	0.1%	0.1%	0.3%	0.0%	0.7%	0.1%	1.0%	0.5%	0.3%	0.4%	0.4%	2.4%	7.1%
<b>5</b>	5.8%	0.2%	0.1%	0.2%	0.0%	0.2%	0.0%	0.6%	0.1%	1.7%	0.8%	0.8%	2.9%	6.7%
<b>All</b>	42.9%	18.7%	2.1%	11.7%	1.6%	8.7%	1.4%	7.9%	1.4%	7.7%	1.7%	1.7%	54.7%	51.1%
<b>Net growth</b>	-42.9%	16.5%		10.1%		7.3%		6.5%		6.0%		3.7%		

# Gross Job Creation and Destruction by Quasi-rent (Surplus) per Worker

(Quasi-rent per Worker Categories Benchmarked to 2002 Quintiles)

	TO													
FROM							3	4	5	All				
	2002-2007													
							JDR	JCR	JDR	JCR	JDR	JCR	JDR	
Births														
1							0.2%	0.1%	0.1%	0.1%	0.1%	2.7%	17.1%	
2							0.5%	0.1%	0.2%	0.0%	0.1%	2.3%	11.9%	
3		6.8%	0.3%	0.1%	0.7%	0.2%	0.9%	0.5%	0.4%	0.5%	0.1%	0.2%	2.4%	8.3%
4		5.9%	0.1%	0.1%	0.3%	0.0%	0.7%	0.1%	1.0%	0.5%	0.3%	0.4%	2.4%	7.1%
5		5.8%	0.2%	0.1%	0.2%	0.0%	0.2%	0.0%	0.6%	0.1%	1.7%	0.8%	2.9%	6.7%
All		42.9%	18.7%	2.1%	11.7%	1.6%	8.7%	1.4%	7.9%	1.4%	7.7%	1.7%	54.7%	51.1%
Net growth	-42.9%		16.5%		10.1%		7.3%		6.5%		6.0%		3.7%	

The establishments in these rows were alive in 2002. Categories are the 2002 quintiles of quasi-rent per worker. 2002 quintile cut-off values are used for all other years.

# Gross Job Creation and Destruction by Quasi-rent (Surplus) per Worker

*(Quasi-rent per Worker Categories Benchmarked to 2002 Quintiles)*

FROM	TO														
	Deaths	1	2	3	4	5	All								
	2002-2007														
	JDR	JCR	JDR	JCR	JDR	JCR	JDR	JCR	JDR	JCR	JDR	JCR	JDR	JCR	JDR
<b>Births</b>		15.1%		9.1%		6.5%		5.8%		5.6%		42.1%			
1						1%	0.2%	0.1%	0.1%	0.1%	0.1%	2.7%	17.1%		
2						3%	0.5%	0.1%	0.2%	0.0%	0.1%	2.3%	11.9%		
3						9%	0.5%	0.4%	0.5%	0.1%	0.2%	2.4%	8.3%		
4						7%	0.1%	1.0%	0.5%	0.3%	0.4%	2.4%	7.1%		
5						2%	0.0%	0.6%	0.1%	1.7%	0.8%	2.9%	6.7%		
All						8.7%	1.4%	7.9%	1.4%	7.7%	1.7%	54.7%	51.1%		
<b>Net growth</b>	-42.9%	16.5%	10.1%	7.3%	6.5%	6.0%	3.7%								

The establishments in this row were born between 2002 and 2007.

# Gross Job Creation and Destruction by Quasi-rent (Surplus) per Worker

*(Quasi-rent per Worker Categories Benchmarked to 2002 Quintiles)*

		TO												
FROM	Deaths	1		2		3		4		5		All		
		2002-2007												
	JDR	JCR	JDR	JCR	JDR	JCR	JDR	JCR	JDR	JCR	JDR	JCR	JDR	JCR
<b>Births</b>		15.1%		9.1%		6.5%								
<b>1</b>	14.5%	2.3%	1.6%	0.2%	0.5%	0.1%								17.1%
<b>2</b>	9.8%	0.7%	0.3%	1.2%	0.8%	0.3%								11.9%
<b>3</b>	6.8%	0.3%	0.1%	0.7%	0.2%	0.9%								8.3%
<b>4</b>	5.9%	0.1%	0.1%	0.3%	0.0%	0.7%								7.1%
<b>5</b>	5.8%	0.2%	0.1%	0.2%	0.0%	0.2%	0.0%	0.6%	0.1%	1.7%	0.8%	2.9%		6.7%
<b>All</b>	42.9%	18.7%	2.1%	11.7%	1.6%	8.7%	1.4%	7.9%	1.4%	7.7%	1.7%	54.7%		51.1%
<b>Net growth</b>	-42.9%	16.5%		10.1%		7.3%		6.5%		6.0%		3.7%		

The establishments in these columns were alive in 2007. Categories are the 2007 location of the establishment's quasi-rent per worker in the 2002 distribution.

# Gross Job Creation and Destruction by Quasi-rent (Surplus) per Worker

(Quasi-rent per Worker Categories Benchmarked to 2002 Quintiles)

FROM	Deaths	TO											
		1	2	3	4	5	All						
	JDR							JCR	JDR	JCR	JDR	JCR	JDR
<b>Births</b>								5.8%		5.6%		42.1%	
<b>1</b>	14.5%							0.1%	0.1%	0.1%	0.1%	2.7%	17.1%
<b>2</b>	9.8%							0.1%	0.2%	0.0%	0.1%	2.3%	11.9%
<b>3</b>	6.8%							0.4%	0.5%	0.1%	0.2%	2.4%	8.3%
<b>4</b>	5.9%	0.1%	0.1%	0.3%	0.0%	0.7%	0.1%	1.0%	0.5%	0.3%	0.4%	2.4%	7.1%
<b>5</b>	5.8%	0.2%	0.1%	0.2%	0.0%	0.2%	0.0%	0.6%	0.1%	1.7%	0.8%	2.9%	6.7%
<b>All</b>	42.9%	18.7%	2.1%	11.7%	1.6%	8.7%	1.4%	7.9%	1.4%	7.7%	1.7%	54.7%	51.1%
<b>Net growth</b>	-42.9%	16.5%		10.1%		7.3%		6.5%		6.0%		3.7%	

The establishments in this column died between 2002 and 2007.

# Gross Job Creation and Destruction by Quasi-rent (Surplus) per Worker

*(Quasi-rent per Worker Categories Benchmarked to 2002 Quintiles)*

FROM	Deaths	TO				2002-2007	2002-2007
		1	2	3	4		
	JDR	JCR	JDR	JCR	JDR	JCR	JCR
Births		15.1%		9.1%		6.5%	
1						0.5%	0.5%
2						0.1%	1.0%
3						0.5%	0.3%
4						0.6%	0.4%
5						0.1%	1.7%
All						1.4%	7.7%
Net growth	-42.9%	16.5%	10.1%	7.3%	6.5%	6.0%	3.7%

These columns contain the gross job creation rates between 2002 and 2007.

JCR is the ratio of total job creations in the indicated category divided by average starting (2002) and ending (2007) total employment for all establishments. The same denominator is used for all rates. Rates in this table are therefore additive.



# Gross Job Creation and Destruction by Quasi-rent (Surplus) per Worker

*(Quasi-rent per Worker Categories Benchmarked to 2002 Quintiles)*

JDR is the ratio of total job destructions in the indicated category divided by average starting (2002) and ending (2007) total employment for all establishments. The same denominator is used for all rates. Rates in this table are therefore additive.

These columns contain the gross job destruction rates between 2002 and 2007.

FROM	TO						3		4		5		All	
	2002-2007						JCR	JDR	JCR	JDR	JCR	JDR	JCR	JDR
Birth							6.5%		5.9%		5.6%		42.4%	
							0.1%							17.1%
							0.3%							11.9%
3		0.6%	0.5%	0.1%	0.7%	0.2%	0.9%							8.3%
4		5.9%	0.1%	0.1%	0.3%	0.0%	0.7%							7.1%
5		5.8%	0.2%	0.1%	0.2%	0.0%	0.2%							6.7%
All		42.9%	18.7%	2.1%	11.7%	1.6%	8.7%	1.4%	7.5%	1.4%	7.7%	1.7%	34.7%	51.1%
Net growth		-42.9%		16.5%		10.1%		7.3%		6.5%		6.0%		3.7%

# Gross Job Creation and Destruction by Quasi-rent (Surplus) per Worker

*(Quasi-rent per Worker Categories Benchmarked to 2002 Quintiles)*

		TO													
FROM	Deaths	1		2		3		4		5		All			
		2002-2007													
		JDR	JCR	JDR	JCR	JDR	JCR	JDR	JCR	JDR	JCR	JDR	JCR	JDR	
Births			15.1%		9.1%		6.5%		5.8%		5.6%		42.1%		
1							1.1%	0.2%	0.1%	0.1%	0.1%	0.1%	2.7%	17.1%	
2							0.5%	0.5%	0.1%	0.2%	0.0%	0.1%	2.3%	11.9%	
3							0.0%	0.5%	0.4%	0.5%	0.1%	0.2%	2.4%	8.3%	
4							0.7%	0.1%	1.0%	0.5%	0.3%	0.4%	2.4%	7.1%	
5							0.2%	0.0%	0.6%	0.1%	1.7%	0.8%	2.9%	6.7%	
All							3.7%	1.4%	7.9%	1.4%	7.7%	1.7%	54.7%	51.1%	
<b>Net growth</b>		-42.9%	16.5%	10.1%	7.3%	6.5%	6.0%	3.7%							

This row is the net job growth rate between 2002 and 2007.

# Gross Job Creation and Destruction by Quasi-rent (Surplus) per Worker

*(Quasi-rent per Worker Categories Benchmarked to 2002 Quintiles)*

FROM	TO														
	Deaths	1	2	3	4	5	All								
	2002-2007														
	JDR	JCR	JDR	JCR	JDR	JCR	JDR	JCR	JDR	JCR	JDR	JCR	JDR	JCR	JDR
<b>Births</b>		15.1%		9.1%										42.1%	
<b>1</b>	14.5%	2.3%	1.6%	0.2%	0.5%									2.7%	17.1%
<b>2</b>	9.8%	0.7%	0.3%	1.2%	0.8%									2.3%	11.9%
<b>3</b>	6.8%	0.3%	0.1%	0.7%	0.2%									2.4%	8.3%
<b>4</b>	5.9%	0.1%	0.1%	0.3%	0.0%									2.4%	7.1%
<b>5</b>	5.8%	0.2%	0.1%	0.2%	0.0%									2.9%	6.7%
<b>All</b>	42.9%	18.7%	2.1%	11.7%	1.6%	8.7%	1.4%	7.9%	1.4%	7.7%	1.7%	54.7%	51.1%		
<b>Net growth</b>	-42.9%	16.5%		10.1%		7.3%		6.5%		6.0%		3.7%			

Total employment in all establishments in the sample (including births and deaths) grew 3.7% between 2002 and 2007.

# Gross Job Creation and Destruction by Quasi-rent (Surplus) per Worker

*(Quasi-rent per Worker Categories Benchmarked to 2002 Quintiles)*

		TO													
FROM	Deaths	1		2		3		4		5		All			
		2002-2007													
	JDR	JCR	JDR	JCR	JDR	JCR	JDR	JCR	JDR	JCR	JDR	JCR	JDR	JCR	JDR
<b>Births</b>		15.1%		9.1%		6.5%		5.8%		5.6%				42.1%	
1	14.5%	2.3%	1.1%	1.2%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	2.7%	17.1%
2	9.8%	0.7%	0.3%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	2.3%	11.9%
3	6.8%	0.3%	0.1%	0.2%	0.1%	0.2%	0.1%	0.2%	0.1%	0.2%	0.1%	0.2%	0.1%	2.4%	8.3%
4	5.9%	0.1%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.3%	2.4%	7.1%
5	5.8%	0.2%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	1.7%	2.9%	6.7%
All	42.9%	18.7%	7.7%	7.7%	1.7%	1.7%	1.7%	1.7%	1.7%	1.7%	1.7%	1.7%	1.7%	54.7%	51.1%
<b>Net growth</b>	-42.9%	16.5%								6.0%		3.7%			

Establishments born between 2002 and 2007 created new jobs disproportionately in the low quasi-rent per worker categories. "Bad" jobs were much more likely to be created by new establishments than "good" jobs.

# Gross Job Creation and Destruction by Quasi-rent (Surplus) per Worker

*(Quasi-rent per Worker Categories Benchmarked to 2002 Quintiles)*

		TO													
FROM	Deaths	1		2		3		4		5		All			
		2002-2007													
		JDR	JCR	JDR	JCR	JDR	JCR	JDR	JCR	JDR	JCR	JDR	JCR	JDR	
Births			15.1%										5.6%		42.1%
1	14.5%	2.3%								1%	0.1%	0.1%	2.7%	17.1%	
2	9.8%	0.7%								2%	0.0%	0.1%	2.3%	11.9%	
3	6.8%	0.3%								5%	0.1%	0.2%	2.4%	8.3%	
4	5.9%	0.1%								5%	0.3%	0.4%	2.4%	7.1%	
5	5.8%	0.2%								1%	1.7%	0.8%	2.9%	6.7%	
All	42.9%	18.7%	2.1%	11.7%	1.6%	8.7%	1.4%	7.9%	1.4%	7.7%	1.7%	54.7%	51.1%		
Net growth	-42.9%	16.5%		10.1%		7.3%		6.5%		6.0%		3.7%			

But establishments that died between 2002 and 2007 were also much more likely to destroy “bad” jobs than “good” jobs.

# Gross Job Creation and Destruction by Quasi-rent (Surplus) per Worker

*(Quasi-rent per Worker Categories Benchmarked to 2002 Quintiles)*

FROM	TO													
	Deaths	1		2		3		4		5		All		
	2002-2007													
	JDR	JCR	JDR	JCR	JDR	JCR	JDR	JCR	JDR	JCR	JDR	JCR	JDR	JCR
Births														
1	14.5%	15.1%	2.3%	1.6%	0.2%	0.5%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%
2	9.8%	0.7%	0.3%	1.2%	0.8%	0.3%	0.5%	0.1%	0.2%	0.0%	0.1%	2.5%	11.9%	
3	6.8%	0.3%	0.1%	0.7%	0.2%	0.9%	0.5%	0.4%	0.5%	0.1%	0.2%	2.4%	8.3%	
4	5.9%	0.1%	0.1%	0.3%	0.0%	0.7%	0.1%	1.0%	0.5%	0.3%	0.4%	2.4%	7.1%	
5	5.8%	0.2%	0.1%	0.2%	0.0%	0.2%	0.0%	0.6%	0.1%	1.7%	0.8%	2.9%	6.7%	
All	42.9%	18.7%	2.1%	11.7%	1.6%	8.7%	1.4%	7.9%	1.4%	7.7%	1.7%	54.7%	51.1%	
Net growth	-42.9%	16.5%		10.1%		7.3%		6.5%		6.0%		3.7%		

Continuing establishments that stayed in the same quasi-rent per worker category created about twice as many jobs as they destroyed between 2002 and 2007.

# Gross Job Creation and Destruction by Quasi-rent (Surplus) per Worker

*(Quasi-rent per Worker Categories Benchmarked to 2002 Quintiles)*

FROM	TO													
	Deaths	1		2		3		4		5		All		
	JDR	JCR	JDR	JCR	JDR	JCR	JDR	JCR	JDR	JCR	JDR	JCR	JDR	
<b>Births</b>		15.1%		9.1%								42.1%		
<b>1</b>	14.5%	2.3%	1.6%	0.2%	0.5%							2.7%	17.1%	
<b>2</b>	9.8%	0.7%	0.3%	1.2%	0.8%							2.3%	11.9%	
<b>3</b>	6.8%	0.3%	0.1%	0.7%	0.2%	0.9%	0.5%	0.4%	0.5%	0.1%	0.2%	2.4%	8.3%	
<b>4</b>	5.9%	0.1%	0.1%	0.3%	0.0%	0.7%	0.1%	1.0%	0.5%	0.3%	0.4%	2.4%	7.1%	
<b>5</b>	5.8%	0.2%	0.1%	0.2%	0.0%	0.2%	0.0%	0.6%	0.1%	1.7%	0.8%	2.9%	6.7%	
<b>All</b>	42.9%	18.7%	2.1%	11.7%	1.6%	8.7%	1.4%	7.9%	1.4%	7.7%	1.7%	54.7%	51.1%	
<b>Net growth</b>	-42.9%	16.5%		10.1%		7.3%		6.5%		6.0%		3.7%		

Continuing establishments that moved to a lower quasi-rent per worker category created more jobs than they destroyed between 2002 and 2007.

# Gross Job Creation and Destruction by Quasi-rent (Surplus) per Worker

*(Quasi-rent per Worker Categories Benchmarked to 2002 Quintiles)*

		TO													
FROM	Deaths	1		2		3		4		5		All			
		2002-2007													
	JDR	JCR	JDR	JCR	JDR	JCR	JDR	JCR	JDR	JCR	JDR	JCR	JDR	JCR	JDR
Births		15.1%		9.1%		6.5%		5.8%		5.6%		42.1%			
1	14.5%	2.3%	1.6%	0.2%	0.5%	0.1%	0.2%	0.1%	0.1%	0.1%	0.1%	2.7%	17.1%		
2	0.8%	0.7%	0.3%	1.3%	0.8%	0.3%	0.5%	0.1%	0.2%	0.0%	0.1%	2.3%	11.9%		
3	0.9%	0.5%	0.4%	0.5%	0.9%	0.9%	0.5%	0.4%	0.5%	0.1%	0.2%	2.4%	8.3%		
4	0.7%	0.1%	1.0%	0.5%	0.7%	0.7%	0.1%	1.0%	0.5%	0.3%	0.4%	2.4%	7.1%		
5	0.2%	0.0%	0.6%	0.1%	0.2%	0.2%	0.0%	0.6%	0.1%	1.7%	0.8%	2.9%	6.7%		
All	8.7%	1.4%	7.9%	1.4%	8.7%	8.7%	1.4%	7.9%	1.4%	7.7%	1.7%	54.7%	51.1%		
Net g						7.3%		6.5%		6.0%		3.7%			

Continuing establishments that moved to a higher quasi-rent per worker category destroyed more jobs than they created between 2002 and 2007.



# The Quality of Jobs Created and Destroyed 1997-2012



## Gross Job Creation and Destruction by Quasi-rent (Surplus) per Worker

(Quasi-rent per Worker Categories Benchmarked to 2002 Quintiles)

FROM	TO														
	Deaths	1		2		3		4		5		All			
1997-2002															
	JDR	JCR	JDR	JCR	JDR	JCR	JDR	JCR	JDR	JCR	JDR	JCR	JDR	JCR	JDR
<b>Births</b>		17.0%		10.4%		7.3%		6.4%		6.2%		47.3%			
<b>1</b>	11.9%	1.4%	1.1%	0.2%	0.5%	0.1%	0.2%	0.0%	0.1%	0.0%	0.1%	1.8%	14.0%		
<b>2</b>	11.8%	1.1%	0.5%	1.2%	0.9%	0.2%	0.5%	0.1%	0.2%	0.0%	0.1%	2.8%	14.1%		
<b>3</b>	8.0%	0.5%									0.2%	2.7%	9.5%		
<b>4</b>	6.5%	0.3%									0.4%	2.8%	7.5%		
<b>5</b>	6.3%	0.4%									0.6%	3.4%	7.2%		
<b>All</b>	44.5%	20.5%									1.4%	60.7%	52.2%		
<b>Net growth</b>	-44.5%	18.7%								3.9%		8.5%			
2007-2012															
	JDR	JCR	JDR	JCR	JDR	JCR	JDR	JCR	JDR	JCR	JDR	JCR	JDR	JCR	JDR
<b>Births</b>		15.1%										42.1%			
<b>1</b>	14.5%	2.3%									0.1%	2.7%	17.1%		
<b>2</b>	9.8%	0.7%									0.1%	2.3%	11.9%		
<b>3</b>	6.8%	0.3%									0.2%	2.4%	8.3%		
<b>4</b>	5.9%	0.1%									0.4%	2.4%	7.1%		
<b>5</b>	5.8%	0.2%									0.8%	2.9%	6.7%		
<b>All</b>	42.9%	18.7%									1.7%	54.7%	51.1%		
<b>Net growth</b>	-42.9%	16.5%		10.1%		7.3%		6.5%		6.0%		3.7%			

Most job creation and destruction over a five-year period comes from the birth and death of establishments. This is not a new result, but makes edited longitudinal linkage crucial.

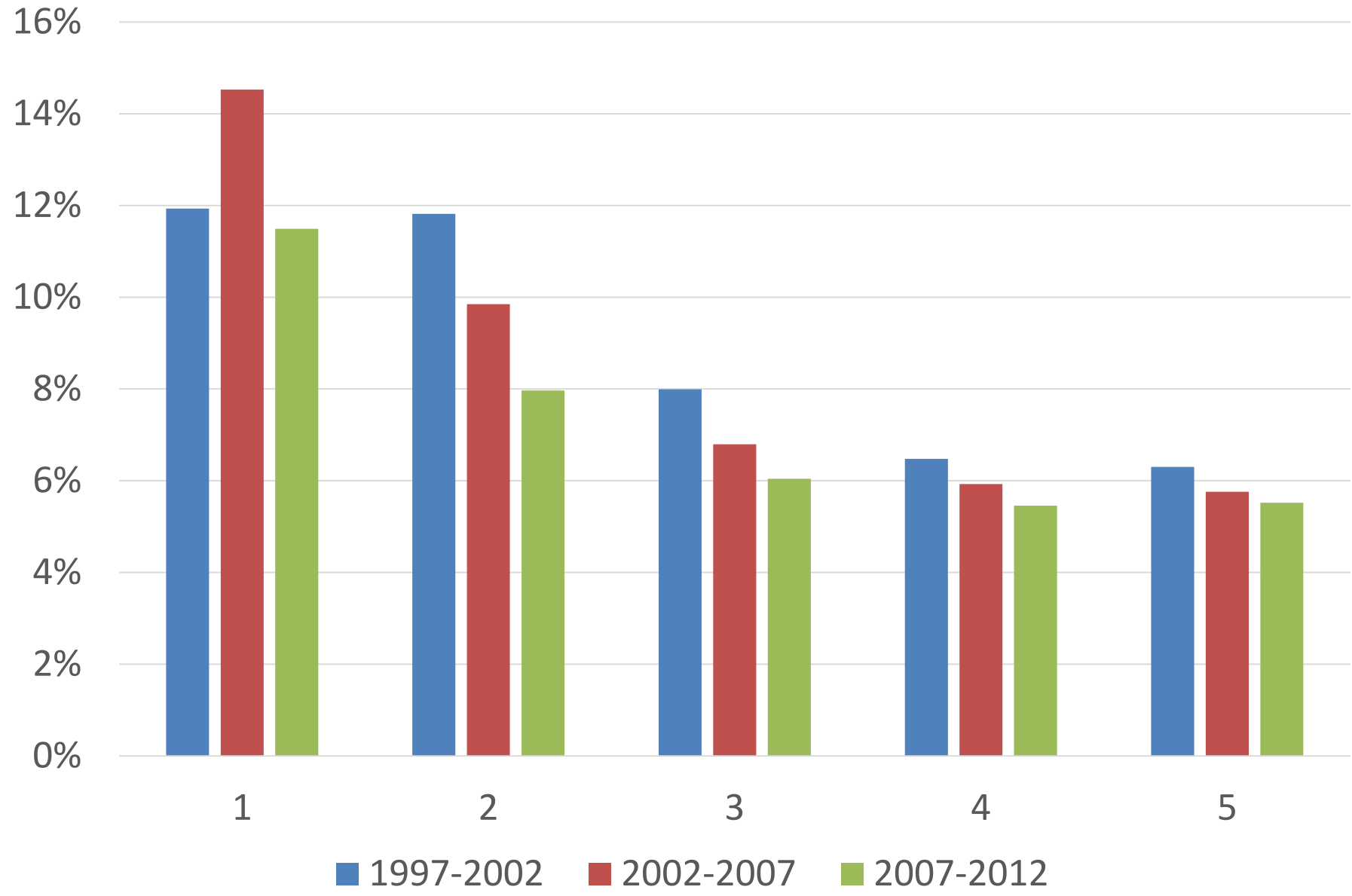
## Gross Job Creation and Destruction by Quasi-rent (Surplus) per Worker

(Quasi-rent per Worker Categories Benchmarked to 2002 Quintiles)

FROM	TO														
	Deaths	1	2	3	4	5	All								
1997-2002															
	JDR	JCR	JDR	JCR	JDR	JCR	JDR	JCR	JDR	JCR	JDR	JCR	JDR	JCR	JDR
<b>Births</b>		17.0%		10.4%		7.3%		6.4%		6.2%		47.3%			
<b>1</b>	11.9%	1.4%	1.1%	0.2%	0.5%	0.1%	0.2%	0.0%	0.1%	0.0%	0.1%	1.8%	14.0%		
<b>2</b>	11.8%	1.1%	0.5%	1.2%	0.8%	0.2%	0.5%	0.1%	0.2%	0.0%	0.1%	2.8%	14.1%		
<b>3</b>	8.0%	0.5%								0.0%	0.2%	2.7%	9.5%		
<b>4</b>	6.5%	0.3%									0.4%	2.8%	7.5%		
<b>5</b>	6.3%	0.4%									0.6%	3.4%	7.2%		
<b>All</b>	44.5%	20.5%									1.4%	60.7%	52.2%		
<b>Net growth</b>	-44.5%	18.0%								6.9%		8.5%			
2007-2012															
	JDR	JCR	JDR	JCR	JDR	JCR	JDR	JCR	JDR	JCR	JDR	JCR	JDR	JCR	JDR
<b>Births</b>		15.1%												42.1%	
<b>1</b>	14.5%	2.3%									0.1%	2.7%	17.1%		
<b>2</b>	9.8%	0.7%									0.1%	2.3%	11.9%		
<b>3</b>	6.8%	0.3%									0.2%	2.4%	8.3%		
<b>4</b>	5.9%	0.1%									0.4%	2.4%	7.1%		
<b>5</b>	5.8%	0.2%									0.8%	2.9%	6.7%		
<b>All</b>	42.9%	18.7%								1.7%	1.7%	54.7%	51.1%		
<b>Net growth</b>	-42.9%	16.5%		10.1%		7.3%		6.5%		6.0%		3.7%			
2007-2012															
	JDR	JCR	JDR	JCR	JDR	JCR	JDR	JCR	JDR	JCR	JDR	JCR	JDR	JCR	JDR
<b>Births</b>		12.2%		10.1%		6.5%		5.9%		5.8%		40.5%			
<b>1</b>	11.5%	2.5%	2.1%	0.2%	0.7%	0.1%	0.2%	0.0%	0.1%	0.0%	0.1%	2.9%	14.7%		
<b>2</b>	8.0%	0.4%	0.3%	0.9%	1.2%	0.2%	0.7%	0.1%	0.3%	0.0%	0.1%	1.6%	10.5%		
<b>3</b>	6.0%	0.1%	0.1%	0.5%	0.3%	0.6%	0.8%	0.2%	0.7%	0.0%	0.2%	1.5%	8.1%		
<b>4</b>	5.5%	0.1%	0.1%	0.2%	0.1%	0.5%	0.3%	0.8%	0.9%	0.2%	0.5%	1.8%	7.3%		
<b>5</b>	5.5%	0.2%	0.1%	0.1%	0.0%	0.2%	0.1%	0.6%	0.2%	1.3%	1.2%	2.4%	7.1%		
<b>All</b>	36.5%	15.5%	2.6%	12.0%	2.3%	8.1%	2.0%	7.6%	2.1%	7.4%	2.2%	50.7%	47.7%		
<b>Net growth</b>	-36.5%	12.9%		9.7%		6.1%		5.5%		5.2%		2.9%			

Destruction of good jobs due to establishment death has been gradually declining. Destruction of bad jobs also declined in the latest five-year period.

Job Destruction Rate (Deaths) by Quasi-rent per Worker



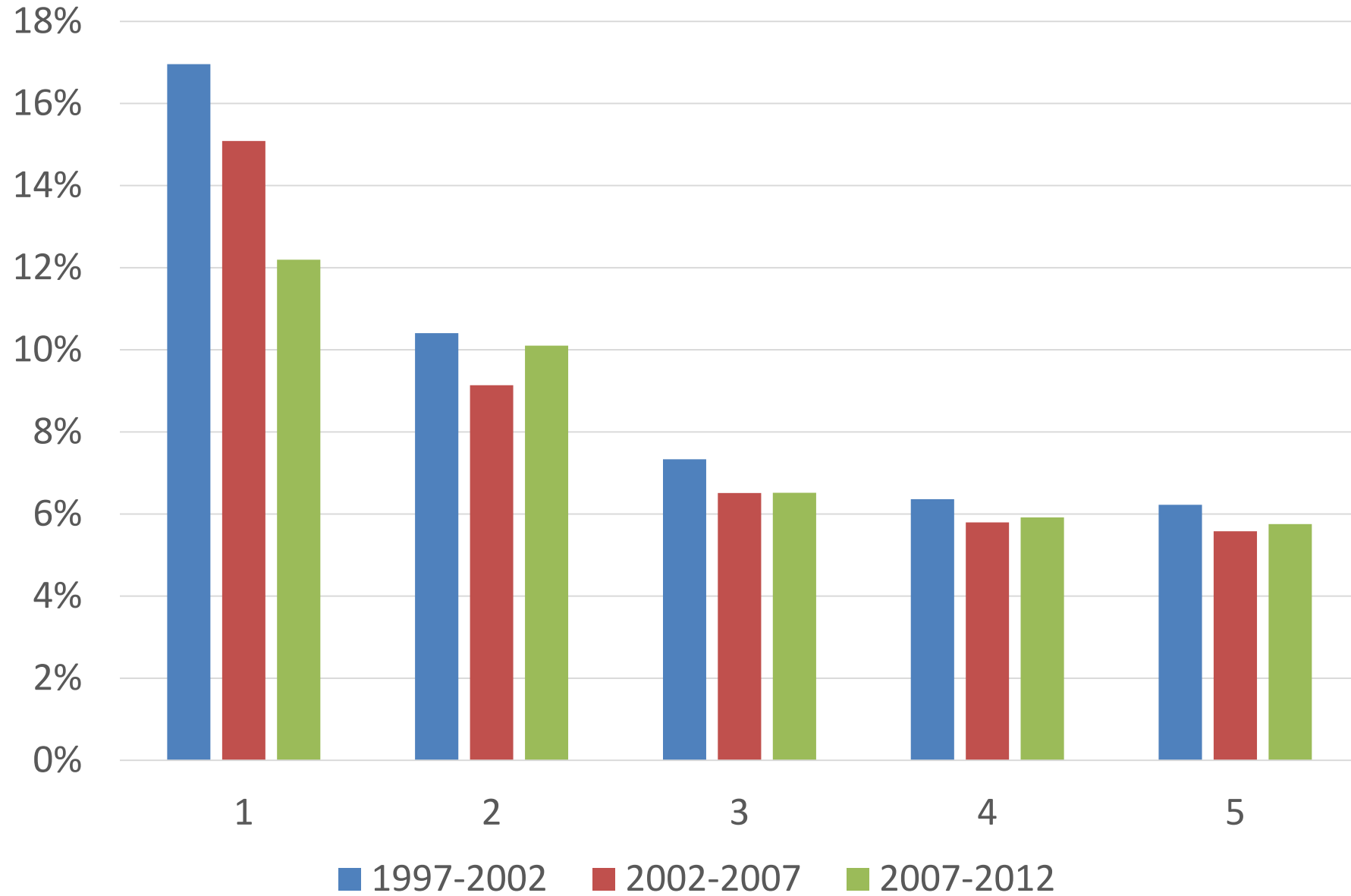
## Gross Job Creation and Destruction by Quasi-rent (Surplus) per Worker

*(Quasi-rent per Worker Categories Benchmarked to 2002 Quintiles)*

FROM	TO											
	Deaths	1		2		3		4		5		All
1997-2002												
	JDR	JCR	JDR	JCR	JDR	JCR	JDR	JCR	JDR	JCR	JDR	JCR
<b>Births</b>		17.0%		10.4%		7.3%		6.4%		6.2%		
1	11.9%	1.4%	1.1%	0.2%	0.5%	0.1%	0.2%	0.0%	0.1%	0.0%	0.0%	0.0%
2	11.8%	1.1%	0.5%	1.3%	0.9%	0.3%	0.5%	0.1%	0.2%	0.0%	0.0%	0.0%
3	8.0%	0.5%	0.1%	0.9%	0.2%	1.0%	0.5%	0.3%	0.4%	0.0%	0.0%	0.0%
4	6.5%	0.3%	0.1%	0.4%	0.0%	0.8%	0.1%	1.1%	0.4%	0.2%	0.0%	0.0%
5	6.3%	0.4%	0.1%	0.2%	0.0%	0.3%	0.0%	0.8%	0.1%	1.8%	0.0%	0.0%
<b>All</b>	44.5%	20.5%	1.9%	13.4%	1.8%	9.9%	1.4%	8.6%	1.3%	8.3%	1.0%	1.0%
<b>Net growth</b>	-44.5%	18.6%		11.6%		8.5%		7.4%		6.9%		
2002-2007												
	JDR	JCR	JDR	JCR	JDR	JCR	JDR	JCR	JDR	JCR	JDR	JCR
<b>Births</b>		15.1%		9.1%		6.5%		5.8%		5.6%		
1	14.5%	2.3%	1.6%	0.2%	0.5%	0.1%	0.2%	0.1%	0.1%	0.1%	0.0%	0.0%
2	9.8%	0.7%	0.3%	1.2%	0.8%	0.3%	0.5%	0.1%	0.2%	0.0%	0.0%	0.0%
3	6.8%	0.3%	0.1%	0.7%	0.2%	0.9%	0.5%	0.4%	0.5%	0.1%	0.0%	0.0%
4	5.9%	0.1%	0.1%	0.3%	0.0%	0.7%	0.1%	1.0%	0.5%	0.3%	0.0%	0.0%
5	5.8%	0.2%	0.1%	0.2%	0.0%	0.2%	0.0%	0.6%	0.1%	1.7%	0.0%	0.0%
<b>All</b>	42.9%	18.7%	2.1%	11.7%	1.6%	8.7%	1.4%	7.9%	1.4%	7.7%	1.0%	1.0%
<b>Net growth</b>	-42.9%	16.5%		10.1%		7.3%		6.5%		6.0%		
2007-2012												
	JDR	JCR	JDR	JCR	JDR	JCR	JDR	JCR	JDR	JCR	JDR	JCR
<b>Births</b>		12.2%		10.1%		6.5%		5.9%		5.8%		
1	11.5%	2.5%	2.1%	0.2%	0.7%	0.1%	0.2%	0.0%	0.1%	0.0%	0.0%	0.0%
2	8.0%	0.4%	0.3%	0.9%	1.2%	0.2%	0.7%	0.1%	0.3%	0.0%	0.1%	0.1%
3	6.0%	0.1%	0.1%	0.5%	0.3%	0.6%	0.8%	0.2%	0.7%	0.0%	0.2%	1.5%
4	5.5%	0.1%	0.1%	0.2%	0.1%	0.5%	0.3%	0.8%	0.9%	0.2%	0.5%	1.8%
5	5.5%	0.2%	0.1%	0.1%	0.0%	0.2%	0.1%	0.6%	0.2%	1.3%	1.2%	2.4%
<b>All</b>	36.5%	15.5%	2.6%	12.0%	2.3%	8.1%	2.0%	7.6%	2.1%	7.4%	2.2%	50.7%
<b>Net growth</b>	-36.5%	12.9%		9.7%		6.1%		5.5%		5.2%		2.9%

Creation of good jobs due to establishment birth has been fluctuating.  
 Creation of bad jobs has been declining.

Job Creation Rate (Births) by Quasi-rent per Worker



## Gross Job Creation and Destruction by Quasi-rent (Surplus) per Worker

(Quasi-rent per Worker Categories Benchmarked to 2002 Quintiles)

FROM	Deaths	TO											
		1		2		3		4		5			
1997-2002													
	JDR	JCR	JDR	JCR	JDR	JCR	JDR	JCR	JDR	JCR	JDR	JCR	JDR
<b>Births</b>		17.0%		10.4%		7.3%		6.4%		6.2%			
<b>1</b>	11.9%	1.4%	1.1%	0.2%	0.5%	0.1%	0.2%	0.0%	0.1%	0.0%	0.1%	0.0%	0.1%
<b>2</b>	11.8%	1.1%	0.5%	1.3%	0.9%	0.3%	0.5%	0.1%	0.2%	0.0%	0.1%	0.0%	0.1%
<b>3</b>	8.0%	0.5%	0.1%	0.9%	0.2%	1.0%	0.5%	0.3%	0.4%	0.0%	0.2%	0.0%	0.2%
<b>4</b>	6.5%	0.3%	0.1%	0.4%	0.0%	0.8%	0.1%	1.1%	0.4%	0.2%	0.4%	0.2%	0.4%
<b>5</b>	6.2%	0.4%	0.1%	0.2%	0.0%	0.3%	0.0%	0.8%	0.1%	1.8%	0.6%	0.2%	0.6%
				1.8%		9.9%	1.4%	8.6%	1.3%	8.3%	1.4%		
				6%		8.5%		7.4%		6.9%			
2002-2007													
	JDR	JCR	JDR	JCR	JDR	JCR	JDR	JCR	JDR	JCR	JDR	JCR	JDR
		6.5%		5.8%		5.6%							
	0.5%	0.1%	0.2%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%
	0.8%	0.3%	0.5%	0.1%	0.2%	0.0%	0.1%	0.1%	0.2%	0.0%	0.1%	0.0%	0.1%
	0.2%	0.9%	0.5%	0.4%	0.5%	0.1%	0.2%	0.4%	0.5%	0.1%	0.2%	0.1%	0.2%
	0.0%	0.7%	0.1%	1.0%	0.5%	0.3%	0.4%	1.0%	0.5%	0.3%	0.4%	0.3%	0.4%
	0.0%	0.2%	0.0%	0.6%	0.1%	1.7%	0.8%	0.6%	0.1%	1.7%	0.8%	0.3%	0.4%
	1.6%	8.7%	1.4%	7.9%	1.4%	7.7%	1.7%	7.9%	1.4%	7.7%	1.7%	7.7%	1.7%
				7.3%		6.5%		6.0%					
				.1%		7.3%		6.5%		6.0%			
2007-2012													
	JDR	JCR	JDR	JCR	JDR	JCR	JDR	JCR	JDR	JCR	JDR	JCR	JDR
<b>Births</b>		12.2%		10.1%		6.5%		5.9%		5.8%		40.5%	
<b>1</b>	11.5%	2.5%	2.1%	0.2%	0.7%	0.1%	0.2%	0.0%	0.1%	0.0%	0.1%	2.9%	14.7%
<b>2</b>	8.0%	0.4%	0.3%	0.9%	1.2%	0.2%	0.7%	0.1%	0.3%	0.0%	0.1%	1.6%	10.5%
<b>3</b>	6.0%	0.1%	0.1%	0.5%	0.3%	0.6%	0.8%	0.2%	0.7%	0.0%	0.2%	1.5%	8.1%
<b>4</b>	5.5%	0.1%	0.1%	0.2%	0.1%	0.5%	0.3%	0.8%	0.9%	0.2%	0.5%	1.8%	7.3%
<b>5</b>	5.5%	0.2%	0.1%	0.1%	0.0%	0.2%	0.1%	0.6%	0.2%	1.3%	1.2%	2.4%	7.1%
<b>All</b>	36.5%	15.5%	2.6%	12.0%	2.3%	8.1%	2.0%	7.6%	2.1%	7.4%	2.2%	50.7%	47.7%
<b>Net growth</b>	-36.5%		12.9%		9.7%		6.1%		5.5%		5.2%		2.9%

But for 2007-2012, the establishments that stayed put created more jobs than they destroyed at the extremes but destroyed more than they created in the middle.

For 1997-2002 and 2002-2007, establishments that stayed put in the job quality distribution created more jobs than they destroyed.



## Gross Job Creation and Destruction by Quasi-rent (Surplus) per Worker

*(Quasi-rent per Worker Categories Benchmarked to 2002 Quintiles)*

FROM	TO											
	Deaths	1		2		3		4		5		All
1997-2002												
	JDR	JCR	JDR	JCR	JDR	JCR	JDR	JCR	JDR	JCR	JDR	JCR
<b>Births</b>		17.0%		10.4%		7.3%		6.4%		6.2%		
<b>1</b>	11.9%	1.4%	1.1%	0.2%	0.5%	0.1%	0.2%	0.0%	0.1%	0.0%		
<b>2</b>	11.8%	1.1%	0.5%	1.3%	0.9%	0.3%	0.5%	0.1%	0.2%	0.0%		
<b>3</b>	8.0%	0.5%	0.1%	0.9%	0.2%	1.0%	0.5%	0.3%	0.4%	0.0%		
<b>4</b>	6.5%	0.3%	0.1%	0.4%	0.0%	0.8%	0.1%	1.1%	0.4%	0.2%		
<b>5</b>	6.3%	0.4%	0.1%	0.2%	0.0%	0.3%	0.0%	0.8%	0.1%	1.8%		
<b>All</b>	44.5%	20.5%	1.9%	13.4%	1.8%	9.9%	1.4%	8.6%	1.3%	8.3%		
<b>Net growth</b>	-44.5%	18.6%		11.6%		8.5%		7.4%		6.9%		
2002-2007												
	JDR	JCR	JDR	JCR	JDR	JCR	JDR	JCR	JDR	JCR	JDR	JCR
<b>Births</b>		15.1%		9.1%		6.5%		5.8%		5.6%		
<b>1</b>	14.5%	2.3%	1.6%	0.2%	0.5%	0.1%	0.2%	0.1%	0.1%	0.1%		
<b>2</b>	9.8%	0.7%	0.3%	1.2%	0.8%	0.3%	0.5%	0.1%	0.2%	0.0%		
<b>3</b>	6.8%	0.3%	0.1%	0.7%	0.2%	0.9%	0.5%	0.4%	0.5%	0.1%		
<b>4</b>	5.9%	0.1%	0.1%	0.3%	0.0%	0.7%	0.1%	1.0%	0.5%	0.3%		
<b>5</b>	5.8%	0.2%	0.1%	0.2%	0.0%	0.2%	0.0%	0.6%	0.1%	1.7%		
<b>All</b>	42.9%	18.7%	2.1%	11.7%	1.6%	8.7%	1.4%	7.9%	1.4%	7.7%		
<b>Net growth</b>	-42.9%	16.5%		10.1%		7.3%		6.5%		6.0%		
2007-2012												
	JDR	JCR	JDR	JCR	JDR	JCR	JDR	JCR	JDR	JCR	JDR	JCR
<b>Births</b>		12.2%		10.1%		6.5%		5.9%		5.8%		
<b>1</b>	11.5%	2.5%	2.1%	0.2%	0.7%	0.1%	0.2%	0.0%	0.1%	0.0%		
<b>2</b>	8.0%	0.4%	0.3%	0.9%	1.2%	0.2%	0.7%	0.1%	0.3%	0.0%		
<b>3</b>	6.0%	0.1%	0.1%	0.5%	0.3%	0.6%	0.8%	0.2%	0.7%	0.0%	0.2%	1.5%
<b>4</b>	5.5%	0.1%	0.1%	0.2%	0.1%	0.5%	0.3%	0.8%	0.9%	0.2%	0.5%	1.8%
<b>5</b>	5.5%	0.2%	0.1%	0.1%	0.0%	0.2%	0.1%	0.6%	0.2%	1.3%	1.2%	2.4%
<b>All</b>	36.5%	15.5%	2.6%	12.0%	2.3%	8.1%	2.0%	7.6%	2.1%	7.4%	2.2%	50.7%
<b>Net growth</b>	-36.5%	12.9%		9.7%		6.1%		5.5%		5.2%		2.9%

Continuing establishments that move down in the job quality distribution, create more jobs than they destroy in all five-year periods.

## Gross Job Creation and Destruction by Quasi-rent (Surplus) per Worker

*(Quasi-rent per Worker Categories Benchmarked to 2002 Quintiles)*

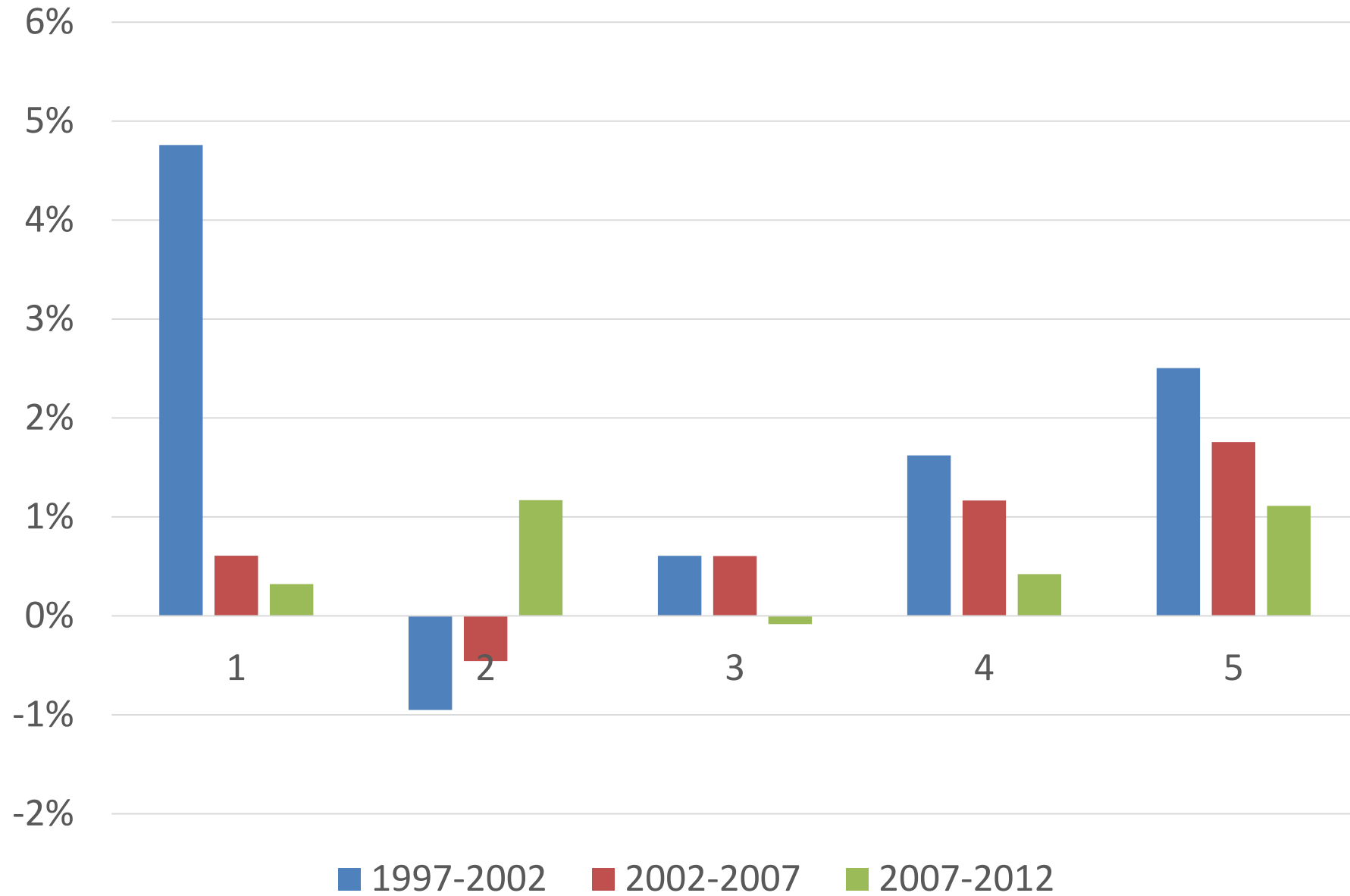
FROM	TO														
	Deaths	1		2		3		4		5		All			
	1997-2002														
	JDR	JCR	JDR	JCR	JDR	JCR	JDR	JCR	JDR	JCR	JDR	JCR	JDR	JCR	JDR
Births		17.0%		10.4%		7.3%		6.4%		6.2%		47.3%			
	11.9%	1.4%	1.1%	0.2%	0.5%	0.1%	0.2%	0.0%	0.1%	0.0%	0.1%	1.8%	14.0%		
	1.8%	1.1%	0.5%	1.3%	0.9%	0.3%	0.5%	0.1%	0.2%	0.0%	0.1%	2.8%	14.1%		
	3.0%	0.5%	0.1%	0.9%	0.2%	1.0%	0.5%	0.3%	0.4%	0.0%	0.2%	2.7%	9.5%		
	5.5%	0.3%	0.1%	0.4%	0.0%	0.8%	0.1%	1.1%	0.4%	0.2%	0.4%	2.8%	7.5%		
	5.3%	0.4%	0.1%	0.2%	0.0%	0.3%	0.0%	0.8%	0.1%	1.8%	0.6%	3.4%	7.2%		
	4.5%	20.5%	1.9%	13.4%	1.8%	9.9%	1.4%	8.6%	1.3%	8.3%	1.4%	60.7%	52.2%		
		18.6%		11.6%		8.5%		7.4%		6.9%		8.5%			
	2002-2007														
	JDR	JCR	JDR	JCR	JDR	JCR	JDR	JCR	JDR	JCR	JDR	JCR	JDR	JCR	JDR
		15.1%		9.1%		6.5%		5.8%		5.6%		42.1%			
	4.5%	2.3%	1.6%	0.2%	0.5%	0.1%	0.2%	0.1%	0.1%	0.1%	0.1%	2.7%	17.1%		
	9.8%	0.7%	0.3%	1.2%	0.8%	0.3%	0.5%	0.1%	0.2%	0.0%	0.1%	2.3%	11.9%		
	5.8%	0.3%	0.1%	0.7%	0.2%	0.9%	0.5%	0.4%	0.5%	0.1%	0.2%	2.4%	8.3%		
	5.9%	0.1%	0.1%	0.3%	0.0%	0.7%	0.1%	1.0%	0.5%	0.3%	0.4%	2.4%	7.1%		
	5.8%	0.2%	0.1%	0.2%	0.0%	0.2%	0.0%	0.6%	0.1%	1.7%	0.8%	2.9%	6.7%		
	2.9%	18.7%	2.1%	11.7%	1.6%	8.7%	1.4%	7.9%	1.4%	7.7%	1.7%	54.7%	51.1%		
		16.5%		10.1%		7.3%		6.5%		6.0%		3.7%			
	2007-2012														
	JDR	JCR	JDR	JCR	JDR	JCR	JDR	JCR	JDR	JCR	JDR	JCR	JDR	JCR	JDR
		12.2%		10.1%		6.5%		5.9%		5.8%		40.5%			
	1.5%	2.5%	2.1%	0.2%	0.7%	0.1%	0.2%	0.0%	0.1%	0.0%	0.1%	2.9%	14.7%		
	3.0%	0.4%	0.3%	0.9%	1.2%	0.2%	0.7%	0.1%	0.3%	0.0%	0.1%	1.6%	10.5%		
	5.0%	0.1%	0.1%	0.5%	0.3%	0.6%	0.8%	0.2%	0.7%	0.0%	0.2%	1.5%	8.1%		
	5.5%	0.1%	0.1%	0.2%	0.1%	0.5%	0.3%	0.8%	0.9%	0.2%	0.5%	1.8%	7.3%		
	5.5%	0.2%	0.1%	0.1%	0.0%	0.2%	0.1%	0.6%	0.2%	1.3%	1.2%	2.4%	7.1%		
<b>All</b>		36.5%		15.5%	2.6%	12.0%	2.3%	8.1%	2.0%	7.6%	2.1%	7.4%	2.2%	50.7%	47.7%
<b>Net growth</b>		-36.5%		12.9%		9.7%		6.1%		5.5%		5.2%		2.9%	

Continuing establishments that moved up in the job quality distribution always destroyed more jobs than they created.

Net Continuing Job Growth Rates by Quasi-rent per Worker



Net Employment Growth Rates by Quasi-rent per Worker



Alternatives to Quasi-rents per  
Worker to Measure Good Jobs

## Gross Job Creation and Destruction by Employer Effect in the Wage Rate

*(Employer Effect Categories Benchmarked to 2002 Quintiles)*

		TO											
FROM	Deaths	1		2		3		4		5		All	
1997-2002													
	<i>JDR</i>	<i>JCR</i>	<i>JDR</i>	<i>JCR</i>	<i>JDR</i>	<i>JCR</i>	<i>JDR</i>	<i>JCR</i>	<i>JDR</i>	<i>JCR</i>	<i>JDR</i>	<i>JCR</i>	<i>JDR</i>
<b>Births</b>		9.7%		8.9%		8.6%		9.2%		10.9%		47.3%	
<b>1</b>	10.7%	1.5%	1.2%	0.3%	0.3%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%	1.9%	12.3%
<b>2</b>	8.9%	0.5%	0.2%	1.0%	0.7%	0.3%	0.4%	0.1%	0.2%	0.0%	0.1%	2.0%	10.5%
<b>3</b>	7.9%	0.1%	0.0%	0.6%	0.3%	1.0%	0.6%	0.4%	0.4%	0.2%	0.2%	2.3%	9.4%
<b>4</b>	8.3%	0.0%	0.0%	0.3%	0.1%	0.7%	0.4%	1.4%	0.7%	0.7%	0.4%	3.1%	9.9%
<b>5</b>	8.7%	0.0%	0.0%	0.1%	0.0%	0.3%	0.1%	0.9%	0.3%	2.8%	1.0%	4.1%	10.1%
<b>All</b>	44.5%	11.8%	1.5%	11.2%	1.4%	11.0%	1.5%	12.1%	1.6%	14.7%	1.7%	60.7%	52.2%
<b>Net growth</b>	-44.5%	10.4%		9.7%		9.5%		10.5%		13.0%		8.5%	
2002-2007													
	<i>JDR</i>	<i>JCR</i>	<i>JDR</i>	<i>JCR</i>	<i>JDR</i>	<i>JCR</i>	<i>JDR</i>	<i>JCR</i>	<i>JDR</i>	<i>JCR</i>	<i>JDR</i>	<i>JCR</i>	<i>JDR</i>
<b>Births</b>		12.6%		10.5%		7.8%		6.4%		4.8%		42.1%	
<b>1</b>	9.2%	1.4%	1.5%	0.1%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.5%	11.0%
<b>2</b>	8.0%	0.7%	0.4%	1.0%	0.8%	0.2%	0.2%	0.0%	0.1%	0.0%	0.0%	1.9%	9.6%
<b>3</b>	7.6%	0.2%	0.1%	1.0%	0.6%	0.9%	0.6%	0.2%	0.2%	0.0%	0.1%	2.3%	9.2%
<b>4</b>	8.2%	0.1%	0.0%	0.4%	0.2%	1.2%	0.7%	1.1%	0.6%	0.2%	0.2%	2.9%	9.9%
<b>5</b>	9.8%	0.0%	0.0%	0.1%	0.1%	0.4%	0.2%	1.3%	0.6%	2.2%	0.9%	4.0%	11.5%
<b>All</b>	42.9%	15.0%	2.1%	13.1%	1.9%	10.5%	1.7%	9.0%	1.5%	7.2%	1.1%	54.7%	51.1%
<b>Net growth</b>	-42.9%	12.9%		11.2%		8.8%		7.5%		6.1%		3.7%	
2007-2012													
	<i>JDR</i>	<i>JCR</i>	<i>JDR</i>	<i>JCR</i>	<i>JDR</i>	<i>JCR</i>	<i>JDR</i>	<i>JCR</i>	<i>JDR</i>	<i>JCR</i>	<i>JDR</i>	<i>JCR</i>	<i>JDR</i>
<b>Births</b>		12.9%		8.7%		6.7%		6.2%		6.0%		40.5%	
<b>1</b>	9.8%	1.7%	2.2%	0.2%	0.4%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	2.0%	12.4%
<b>2</b>	8.1%	0.4%	0.3%	1.5%	1.6%	0.3%	0.5%	0.0%	0.1%	0.0%	0.0%	2.3%	10.7%
<b>3</b>	7.2%	0.1%	0.1%	0.4%	0.5%	1.1%	1.3%	0.3%	0.5%	0.0%	0.1%	1.9%	9.6%
<b>4</b>	6.4%	0.0%	0.0%	0.1%	0.1%	0.4%	0.4%	1.1%	1.2%	0.3%	0.4%	1.9%	8.5%
<b>5</b>	5.0%	0.0%	0.0%	0.1%	0.0%	0.1%	0.1%	0.3%	0.3%	1.6%	1.2%	2.2%	6.6%
<b>All</b>	36.5%	15.1%	2.6%	11.0%	2.6%	8.5%	2.4%	8.0%	2.1%	8.0%	1.6%	50.7%	47.7%
<b>Net growth</b>	-36.5%	12.6%		8.4%		6.1%		5.9%		6.4%		2.9%	

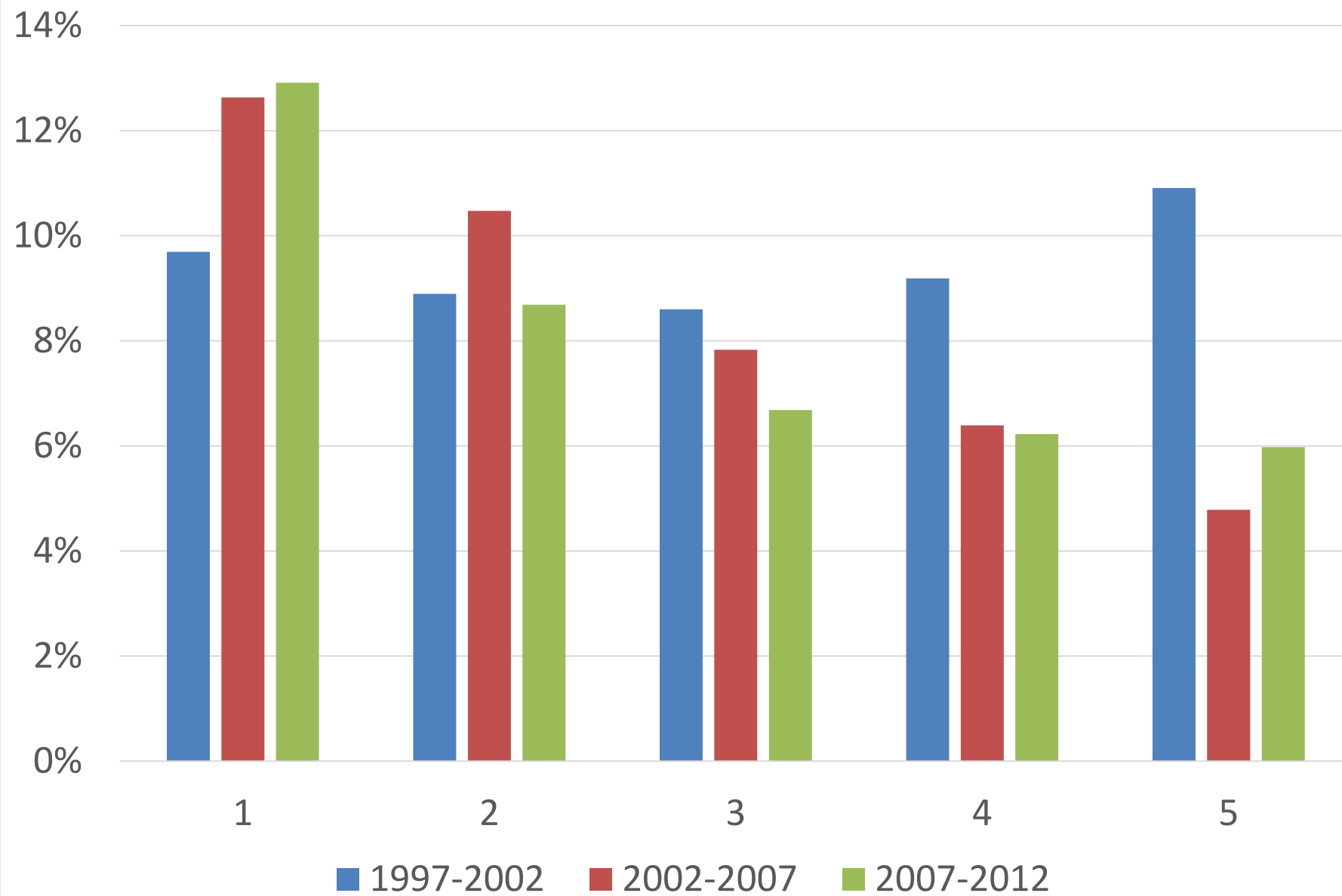
## Gross Job Creation and Destruction by Employer Effect in the Wage Rate

(Employer Effect Categories Benchmarked to 2002 Quintiles)

FROM	TO									
	Deaths	1	2	3	4	5	All	6	7	8
1997-2002										
	JDR	JCR	JDR	JCR	JDR	JCR	JDR	JCR	JDR	JCR
<b>Births</b>		9.7%		8.9%		8.6%		9.2%		10.9%
<b>1</b>	10.7%	1.5%	1.2%	0.3%	0.3%	0.1%	0.1%	0.0%	0.0%	0.0%
<b>2</b>	8.9%	0.5%	0.2%	1.0%	0.7%	0.3%	0.4%	0.1%	0.2%	0.0%
<b>3</b>	7.9%	0.1%	0.0%	0.6%	0.3%	1.0%	0.6%	0.4%	0.4%	0.2%
<b>4</b>	8.3%	0.0%	0.0%	0.3%	0.1%	0.7%	0.4%	1.4%	0.7%	0.7%
<b>5</b>	8.7%	0.0%	0.0%	0.1%	0.0%	0.3%	0.1%	0.9%	0.3%	2.8%
<b>All</b>	44.5%	11.8%	1.5%	11.2%	1.4%	11.0%	1.5%	12.1%	1.6%	14.7%
<b>Net growth</b>	-44.5%	10.4%		9.7%		9.5%		10.5%		13.0%
2002-2007										
	JDR	JCR	JDR	JCR	JDR	JCR	JDR	JCR	JDR	JCR
<b>Births</b>		12.6%		10.5%		7.8%		6.4%		4.8%
<b>1</b>	9.2%	1.4%	1.5%	0.1%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%
<b>2</b>	8.0%	0.7%	0.4%	1.0%	0.8%	0.2%	0.2%	0.0%	0.1%	0.0%
<b>3</b>	7.6%	0.2%	0.1%	1.0%	0.6%	0.9%	0.6%	0.2%	0.2%	0.0%
<b>4</b>	8.2%	0.1%	0.0%	0.4%	0.2%	1.2%	0.7%	1.1%	0.6%	0.2%
<b>5</b>	9.8%	0.0%	0.0%	0.1%	0.1%	0.4%	0.2%	1.3%	0.6%	2.2%
<b>All</b>	42.9%	15.0%	2.1%	13.1%	1.9%	10.5%	1.7%	9.0%	1.5%	7.2%
<b>Net growth</b>	-42.9%	12.9%		11.2%		8.8%		7.5%		6.1%
2007-2012										
	JDR	JCR	JDR	JCR	JDR	JCR	JDR	JCR	JDR	JCR
<b>Births</b>		12.9%		8.7%		6.7%		6.2%		6.0%
<b>1</b>	9.8%	1.7%	2.2%	0.2%	0.4%	0.0%	0.1%	0.0%	0.0%	0.0%
<b>2</b>	8.1%	0.4%	0.3%	1.5%	1.6%	0.3%	0.5%	0.0%	0.1%	0.0%
<b>3</b>	7.2%	0.1%	0.1%	0.4%	0.5%	1.1%	1.3%	0.3%	0.5%	0.0%
<b>4</b>	6.4%	0.0%	0.0%	0.1%	0.1%	0.4%	0.4%	1.1%	1.2%	0.3%
<b>5</b>	5.0%	0.0%	0.0%	0.1%	0.0%	0.1%	0.1%	0.3%	0.3%	1.6%
<b>All</b>	36.5%	15.1%	2.6%	11.0%	2.6%	8.5%	2.4%	8.0%	2.1%	8.0%
<b>Net growth</b>	-36.5%	12.6%		8.4%		6.1%		5.9%		6.4%
										2.9%

From 1997-2002  
job creation by  
establishments  
with high  
employer effects  
(high-wage firms)  
was comparable  
to low-wage  
employers.  
By 2007-2012,  
that is no longer  
true.

Job Creations (Births) by Employer Wage Effect Category





## Gross Job Creation and Destruction by Employer Effect in the Wage Rate

(Employer Effect Categories Benchmarked to 2002 Quintiles)

FROM		TO												
		Deaths	1		2		3		4		5		All	
1997-2002														
		JDR	JCR	JDR	JCR	JDR	JCR	JDR	JCR	JDR	JCR	JDR	JCR	JDR
<b>Births</b>			9.7%		8.9%		8.6%		8.3%		10.9%		47.3%	
<b>1</b>		10.7%	1.5%	1.2%	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%	0.0%	0.0%	1.9%	12.3%
<b>2</b>		8.9%	0.5%	0.2%	1.0%	0.7%	0.7%	0.7%	0.7%	0.7%	0.0%	0.1%	2.0%	10.5%
<b>3</b>		7.9%	0.1%	0.0%	0.6%	0.3%	0.3%	0.3%	0.3%	0.3%	0.2%	0.2%	2.3%	9.4%
<b>4</b>		8.3%	0.0%	0.0%	0.3%	0.1%	0.1%	0.1%	0.1%	0.1%	0.7%	0.4%	3.1%	9.9%
<b>5</b>		8.7%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	2.8%	1.0%	4.1%	10.1%
<b>All</b>		44.5%	11.8%	1.5%	11.2%	1.4%	1.4%	1.4%	1.4%	1.4%	14.7%	1.7%	60.7%	52.2%
<b>Net growth</b>		-44.5%	10.4%		9.7%						13.0%		8.5%	
2003-2007														
		JDR	JCR	JDR	JCR	JDR	JCR	JDR	JCR	JDR	JCR	JDR	JCR	JDR
<b>Births</b>			12.6%		10.5%		10.5%		10.5%		4.8%		42.1%	
<b>1</b>		9.2%	1.4%	1.5%	0.1%	0.2%	0.2%	0.2%	0.2%	0.2%	0.0%	0.0%	1.5%	11.0%
<b>2</b>		8.0%	0.7%	0.4%	1.0%	0.8%	0.8%	0.8%	0.8%	0.8%	0.0%	0.0%	1.9%	9.6%
<b>3</b>		7.6%	0.2%	0.1%	1.0%	0.6%	0.6%	0.6%	0.6%	0.6%	0.0%	0.1%	2.3%	9.2%
<b>4</b>		8.2%	0.1%	0.0%	0.4%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	2.9%	9.9%
<b>5</b>		9.8%	0.0%	0.0%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	2.2%	0.9%	4.0%	11.5%
<b>All</b>		42.9%	15.0%	2.1%	13.1%	1.9%	1.9%	1.9%	1.9%	1.9%	7.2%	1.1%	54.7%	51.1%
<b>Net growth</b>		-42.9%	12.9%		11.2%						6.1%		3.7%	
2008-2012														
		JDR	JCR	JDR	JCR	JDR	JCR	JDR	JCR	JDR	JCR	JDR	JCR	JDR
<b>Births</b>			12.9%		8.7%		8.7%		8.7%		6.0%		40.5%	
<b>1</b>		9.8%	1.7%	2.2%	0.2%	0.4%	0.4%	0.4%	0.4%	0.4%	0.0%	0.0%	2.0%	12.4%
<b>2</b>		8.1%	0.4%	0.3%	1.5%	1.6%	1.6%	1.6%	1.6%	1.6%	0.0%	0.0%	2.3%	10.7%
<b>3</b>		7.2%	0.1%	0.1%	0.4%	0.5%	0.5%	0.5%	0.5%	0.5%	0.0%	0.1%	1.9%	9.6%
<b>4</b>		6.4%	0.0%	0.0%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.3%	0.4%	1.9%	8.5%
<b>5</b>		5.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	1.6%	1.2%	2.2%	6.6%
<b>All</b>		36.5%	15.1%	2.6%	11.0%	2.6%	2.6%	2.6%	2.6%	2.6%	8.0%	1.6%	50.7%	47.7%
<b>Net growth</b>		-36.5%	12.6%		8.4%		6.1%		5.9%		6.4%		2.9%	

But the destruction of high-wage jobs by death of enterprises has declined in the most recent five-year period.

# Job Destructions (Deaths) by Employer Wage Effect Category



## Gross Job Creation and Destruction by Worker Opportunity Cost

(Worker Opportunity Cost Categories Benchmarked to 2002 Quintiles)

1997-2002													
	JDR	JCR	JDR	JCR	JDR	JCR	JDR	JCR	JDR	JCR	JDR	JCR	JDR
<b>Births</b>		12.2%		9.4%		8.2%		8.7%		8.8%		47.3%	
<b>1</b>	16.6%	2.1%	1.5%	0.6%	0.9%	0.1%	0.3%	0.0%	0.1%	0.0%	0.0%	2.9%	19.3%
<b>2</b>	8.6%	0.5%	0.1%	1.2%	0.5%	0.7%	0.7%	0.1%	0.3%	0.0%	0.1%	2.5%	10.3%
<b>3</b>	7.5%	0.1%	0.0%	0.5%	0.1%	1.2%	0.4%	0.7%	0.6%	0.1%	0.1%	2.6%	8.8%
<b>4</b>	6.7%	0.1%	0.0%	0.2%	0.0%	0.5%	0.1%	1.4%	0.5%	0.5%	0.5%	2.7%	7.8%
<b>5</b>	5.2%	0.0%	0.0%	0.1%	0.0%	0.2%	0.0%	0.4%	0.1%	2.1%	0.6%	2.8%	5.9%
<b>All</b>	44.5%	15.0%	1.7%	12.0%	1.6%	10.8%	1.5%	11.4%	1.6%	11.5%	1.3%	60.7%	52.2%
<b>Net growth</b>	-44.5%	13.3%		10.4%		9.3%		9.8%		10.2%		8.5%	
2002-2007													
	JDR	JCR	JDR	JCR	JDR	JCR	JDR	JCR	JDR	JCR	JDR	JCR	JDR
<b>Births</b>		10.1%		8.2%		7.9%		9.0%		6.9%		42.1%	
<b>1</b>	11.7%	1.5%	1.2%	0.3%	0.6%	0.0%	0.2%	0.0%	0.1%	0.0%	0.0%	1.9%	13.8%
<b>2</b>	8.3%	0.5%	0.1%	1.2%	0.7%	0.4%	0.6%	0.1%	0.2%	0.0%	0.1%	2.2%	10.0%
<b>3</b>	7.5%	0.1%	0.0%	0.6%	0.2%	1.2%	0.6%	0.4%	0.6%	0.0%	0.1%	2.4%	9.1%
<b>4</b>	7.7%	0.1%	0.0%	0.2%	0.0%	0.7%	0.2%	1.7%	0.9%	0.3%	0.4%	2.9%	9.2%
<b>5</b>	7.7%	0.0%	0.0%	0.1%	0.0%	0.2%	0.0%	0.8%	0.2%	2.2%	1.1%	3.2%	9.0%
<b>All</b>	42.9%	12.2%	1.4%	10.6%	1.5%	10.5%	1.6%	12.0%	2.0%	9.5%	1.7%	54.7%	51.1%
<b>Net growth</b>	-42.9%	10.9%		9.1%		8.8%		10.0%		7.7%		3.7%	
2007-2012													
	JDR	JCR	JDR	JCR	JDR	JCR	JDR	JCR	JDR	JCR	JDR	JCR	JDR
<b>Births</b>		14.1%		8.5%		7.7%		6.6%		3.7%		40.5%	
<b>1</b>	8.3%	1.4%	1.7%	0.0%	0.4%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	1.4%	10.5%
<b>2</b>	6.8%	1.0%	0.4%	0.7%	1.2%	0.1%	0.5%	0.0%	0.1%	0.0%	0.0%	1.7%	9.1%
<b>3</b>	7.0%	0.2%	0.0%	1.0%	0.6%	0.5%	1.3%	0.1%	0.4%	0.0%	0.1%	1.8%	9.5%
<b>4</b>	7.9%	0.1%	0.0%	0.3%	0.1%	1.3%	0.9%	0.7%	1.5%	0.0%	0.2%	2.4%	10.5%
<b>5</b>	6.5%	0.0%	0.0%	0.1%	0.0%	0.3%	0.1%	1.3%	0.6%	1.1%	0.9%	2.8%	8.1%
<b>All</b>	36.5%	16.7%	2.2%	10.7%	2.3%	9.9%	2.8%	8.6%	2.7%	4.8%	1.2%	50.7%	47.7%
<b>Net growth</b>	-36.5%	14.4%		8.4%		7.1%		6.0%		3.6%		2.9%	

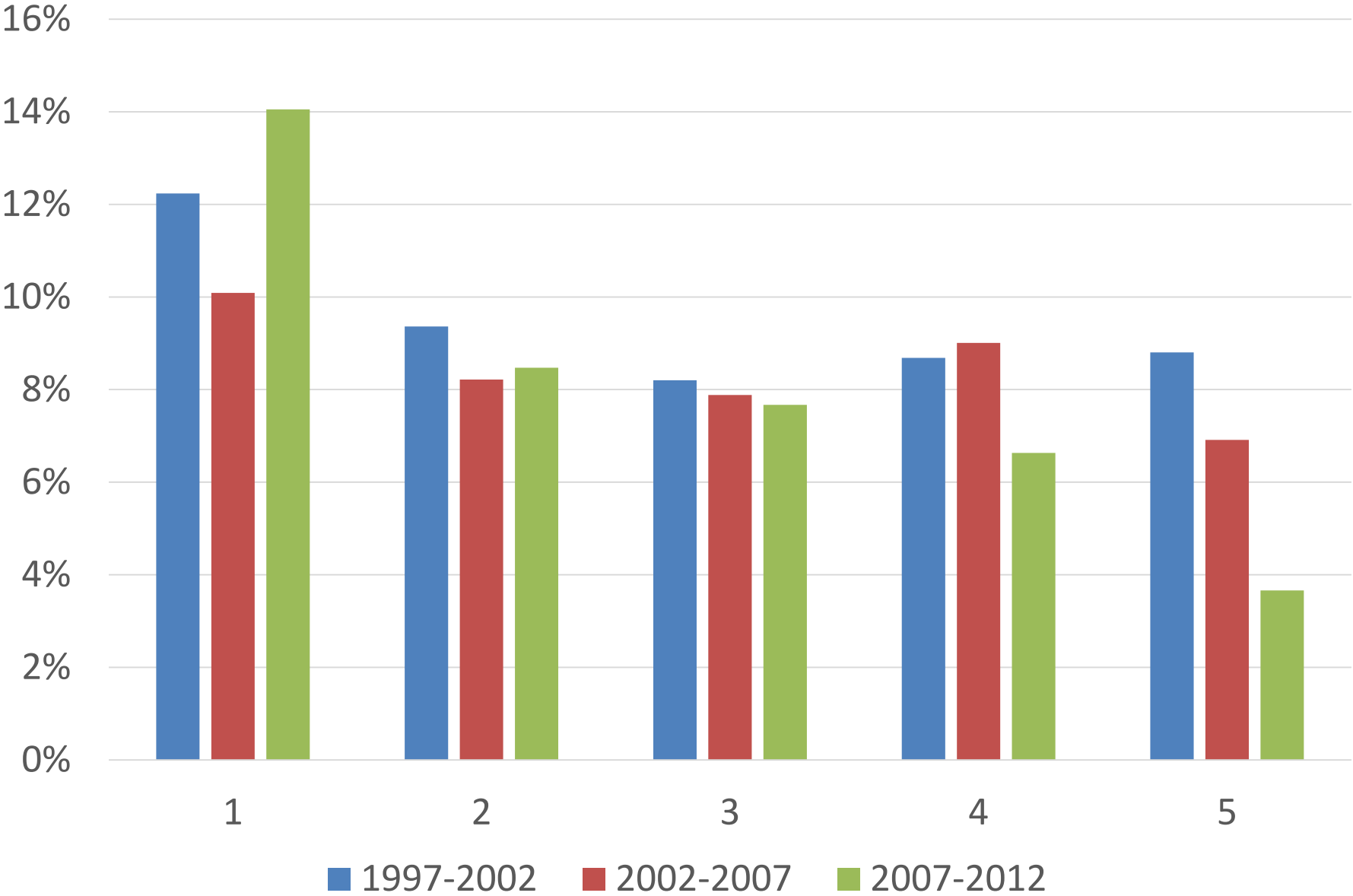
## Gross Job Creation and Destruction by Worker Opportunity Cost

(Worker Opportunity Cost Categories Benchmarked to 2002 Quintiles)

		1997-2002									
		JDR	JCR	JDR	JCR	JDR	JCR	JDR	JCR	JDR	JCR
<b>Births</b>			12.2%		9.4%		8.2%		8.7%		8.8%
<b>1</b>		16.6%	2.1%	1.5%	0.6%	0.9%	0.1%	0.3%	0.0%	0.1%	0.0%
<b>2</b>		8.6%	0.5%	0.1%	1.2%	0.5%	0.7%	0.7%	0.1%	0.3%	0.0%
<b>3</b>		7.5%	0.1%	0.0%	0.5%	0.1%	1.2%	0.4%	0.7%	0.6%	0.1%
<b>4</b>		6.7%	0.1%	0.0%	0.2%	0.0%	0.5%	0.1%	1.4%	0.5%	0.5%
<b>5</b>		5.2%	0.0%	0.0%	0.1%	0.0%	0.2%	0.0%	0.4%	0.1%	2.1%
<b>All</b>		44.5%	15.0%	1.7%	12.0%	1.6%	10.8%	1.5%	11.4%	1.6%	11.5%
<b>Net growth</b>		-44.5%	13.3%		10.4%		9.3%		9.8%		10.2%
		2002-2007									
		JDR	JCR	JDR	JCR	JDR	JCR	JDR	JCR	JDR	JCR
<b>Births</b>			10.1%		8.2%		7.9%		9.0%		6.9%
<b>1</b>		11.7%	1.5%	1.2%	0.3%	0.6%	0.0%	0.2%	0.0%	0.1%	0.0%
<b>2</b>		8.3%	0.5%	0.1%	1.2%	0.7%	0.4%	0.6%	0.1%	0.2%	0.0%
<b>3</b>		7.5%	0.1%	0.0%	0.6%	0.2%	1.2%	0.6%	0.4%	0.6%	0.0%
<b>4</b>		7.7%	0.1%	0.0%	0.2%	0.0%	0.7%	0.2%	1.7%	0.9%	0.3%
<b>5</b>		7.7%	0.0%	0.0%	0.1%	0.0%	0.2%	0.0%	0.8%	0.2%	2.2%
<b>All</b>		42.9%	12.2%	1.4%	10.6%	1.5%	10.5%	1.6%	12.0%	2.0%	9.5%
<b>Net growth</b>		-42.9%	10.9%		9.1%		8.8%		10.0%		7.7%
		2007-2012									
		JDR	JCR	JDR	JCR	JDR	JCR	JDR	JCR	JDR	JCR
<b>Births</b>			14.1%		8.5%		7.7%		6.6%		3.7%
<b>1</b>		8.3%	1.4%	1.7%	0.0%	0.4%	0.0%	0.1%	0.0%	0.0%	0.0%
<b>2</b>		6.8%	1.0%	0.4%	0.7%	1.2%	0.1%	0.5%	0.0%	0.1%	0.0%
<b>3</b>		7.0%	0.2%	0.0%	1.0%	0.6%	0.5%	1.3%	0.1%	0.4%	0.0%
<b>4</b>		7.9%	0.1%	0.0%	0.3%	0.1%	1.3%	0.9%	0.7%	1.5%	0.0%
<b>5</b>		6.5%	0.0%	0.0%	0.1%	0.0%	0.3%	0.1%	1.3%	0.6%	1.1%
<b>All</b>		36.5%	16.7%	2.2%	10.7%	2.3%	9.9%	2.8%	8.6%	2.7%	4.8%
<b>Net growth</b>		-36.5%	14.4%		8.4%		7.1%		6.0%		3.6%

From 1997-2002 newly born establishments created jobs in all opportunity cost of labor categories. By 2007-2012 lower opportunity cost of labor jobs prevailed.

# Job Creations (Births) by Opportunity Cost of Labor Category



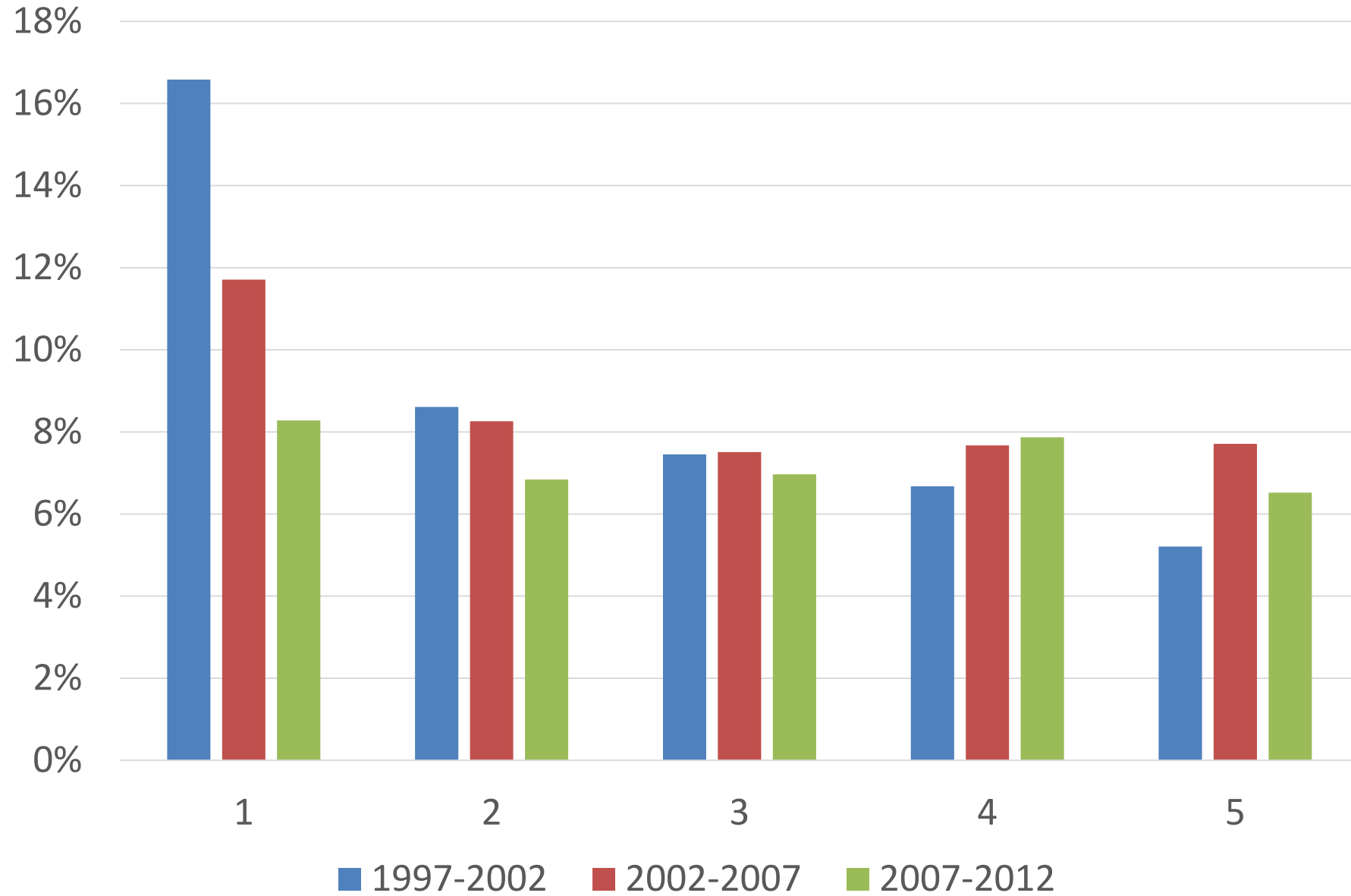
## Gross Job Creation and Destruction by Worker Opportunity Cost

(Worker Opportunity Cost Categories Benchmarked to 2002 Quintiles)

		1997-2002												
		JDR	JCR	JDR	JCR	JDR	JCR	JDR	JCR	JDR	JCR	JDR	JCR	JDR
<b>Births</b>			12.2%		9.4%						8.8%		47.3%	
<b>1</b>	16.6%	2.1%	1.5%	0.6%					0.1%	0.0%	0.0%	2.9%	19.3%	
<b>2</b>	8.6%	0.5%	0.1%	1.2%					0.3%	0.0%	0.1%	2.5%	10.3%	
<b>3</b>	7.5%	0.1%	0.0%	0.5%					0.6%	0.1%	0.1%	2.6%	8.8%	
<b>4</b>	6.7%	0.1%	0.0%	0.2%					0.5%	0.5%	0.5%	2.7%	7.8%	
<b>5</b>	5.2%	0.0%	0.0%	0.1%					0.1%	2.1%	0.6%	2.8%	5.9%	
<b>All</b>	44.5%	15.0%	1.7%	12.0%					1.6%	11.5%	1.3%	60.7%	52.2%	
<b>Net growth</b>	-44.5%	13.3%		10.4%						10.2%		8.5%		
		JDR	JCR	JDR	JCR	JDR	JCR	JDR	JCR	JDR	JCR	JDR	JCR	JDR
<b>Births</b>			10.1%		8.2%						6.9%		42.1%	
<b>1</b>	11.7%	1.5%	1.2%	0.3%					0.1%	0.0%	0.0%	1.9%	13.8%	
<b>2</b>	8.3%	0.5%	0.1%	1.2%					0.2%	0.0%	0.1%	2.2%	10.0%	
<b>3</b>	7.5%	0.1%	0.0%	0.6%					0.6%	0.0%	0.1%	2.4%	9.1%	
<b>4</b>	7.7%	0.1%	0.0%	0.2%					0.9%	0.3%	0.4%	2.9%	9.2%	
<b>5</b>	7.7%	0.0%	0.0%	0.1%					0.2%	2.2%	1.1%	3.2%	9.0%	
<b>All</b>	42.9%	12.2%	1.4%	10.6%					2.0%	9.5%	1.7%	54.7%	51.1%	
<b>Net growth</b>	-42.9%	10.9%		9.1%						7.7%		3.7%		
		JDR	JCR	JDR	JCR	JDR	JCR	JDR	JCR	JDR	JCR	JDR	JCR	JDR
<b>Births</b>			14.1%		8.5%						3.7%		40.5%	
<b>1</b>	8.3%	1.4%	1.7%	0.0%					0.0%	0.0%	0.0%	1.4%	10.5%	
<b>2</b>	6.8%	1.0%	0.4%	0.7%					0.1%	0.0%	0.0%	1.7%	9.1%	
<b>3</b>	7.0%	0.2%	0.0%	1.0%					0.4%	0.0%	0.1%	1.8%	9.5%	
<b>4</b>	7.9%	0.1%	0.0%	0.3%					1.5%	0.0%	0.2%	2.4%	10.5%	
<b>5</b>	6.5%	0.0%	0.0%	0.1%					0.6%	1.1%	0.9%	2.8%	8.1%	
<b>All</b>	36.5%	16.7%	2.2%	10.7%					2.7%	4.8%	1.2%	50.7%	47.7%	
<b>Net growth</b>	-36.5%	14.4%		8.4%						3.6%		2.9%		

By contrast, in the early periods there was a marked tendency to destroy low opportunity cost of labor jobs. By 2007-2012, dying firms destroyed jobs uniformly by opportunity cost of labor category.

Job Destructions (Deaths) by Opportunity Cost of Labor Category



# Geographic Dispersion



(s) per Worker - 1997

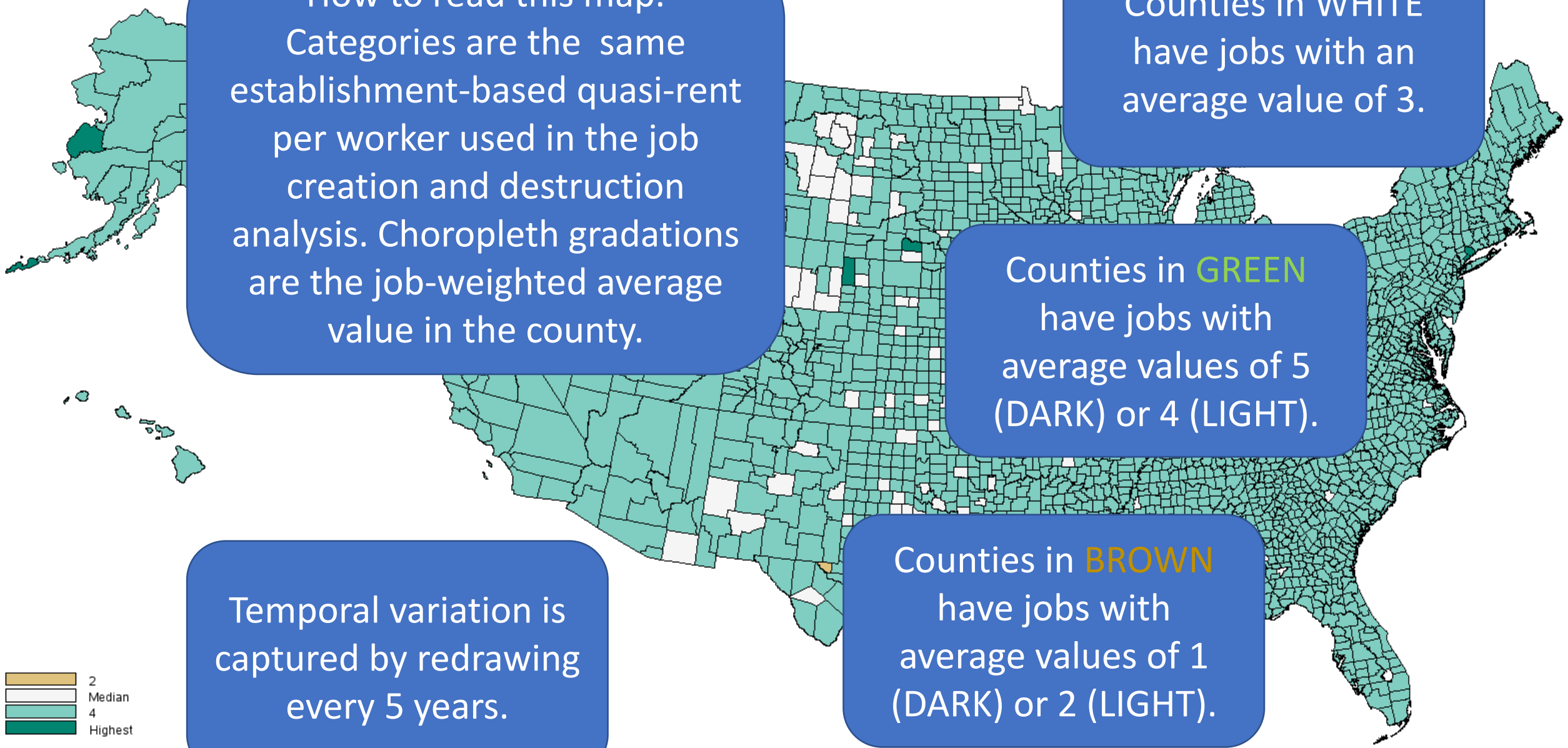
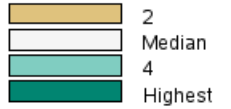
How to read this map. Categories are the same establishment-based quasi-rent per worker used in the job creation and destruction analysis. Choropleth gradations are the job-weighted average value in the county.

Counties in WHITE have jobs with an average value of 3.

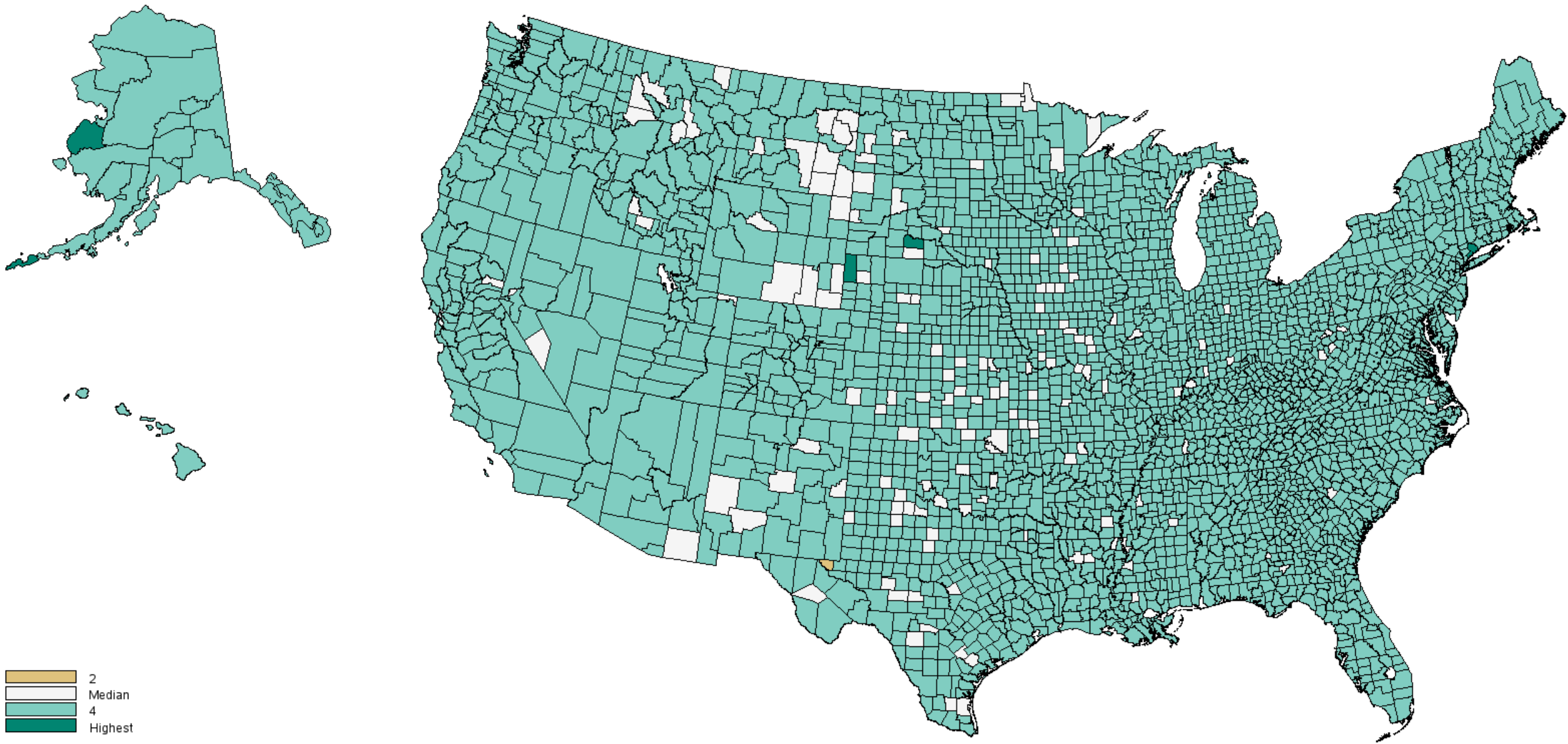
Counties in GREEN have jobs with average values of 5 (DARK) or 4 (LIGHT).

Counties in BROWN have jobs with average values of 1 (DARK) or 2 (LIGHT).

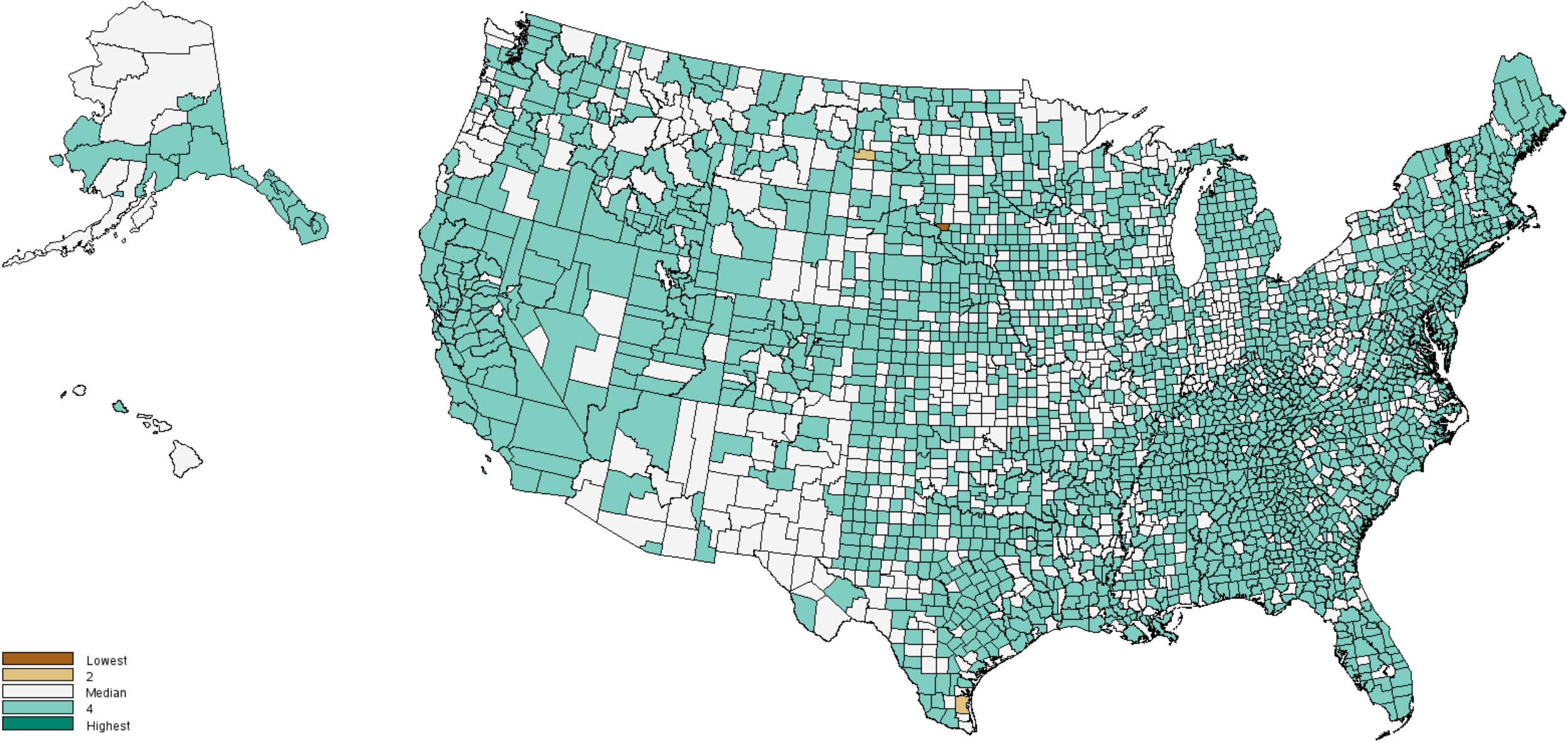
Temporal variation is captured by redrawing every 5 years.



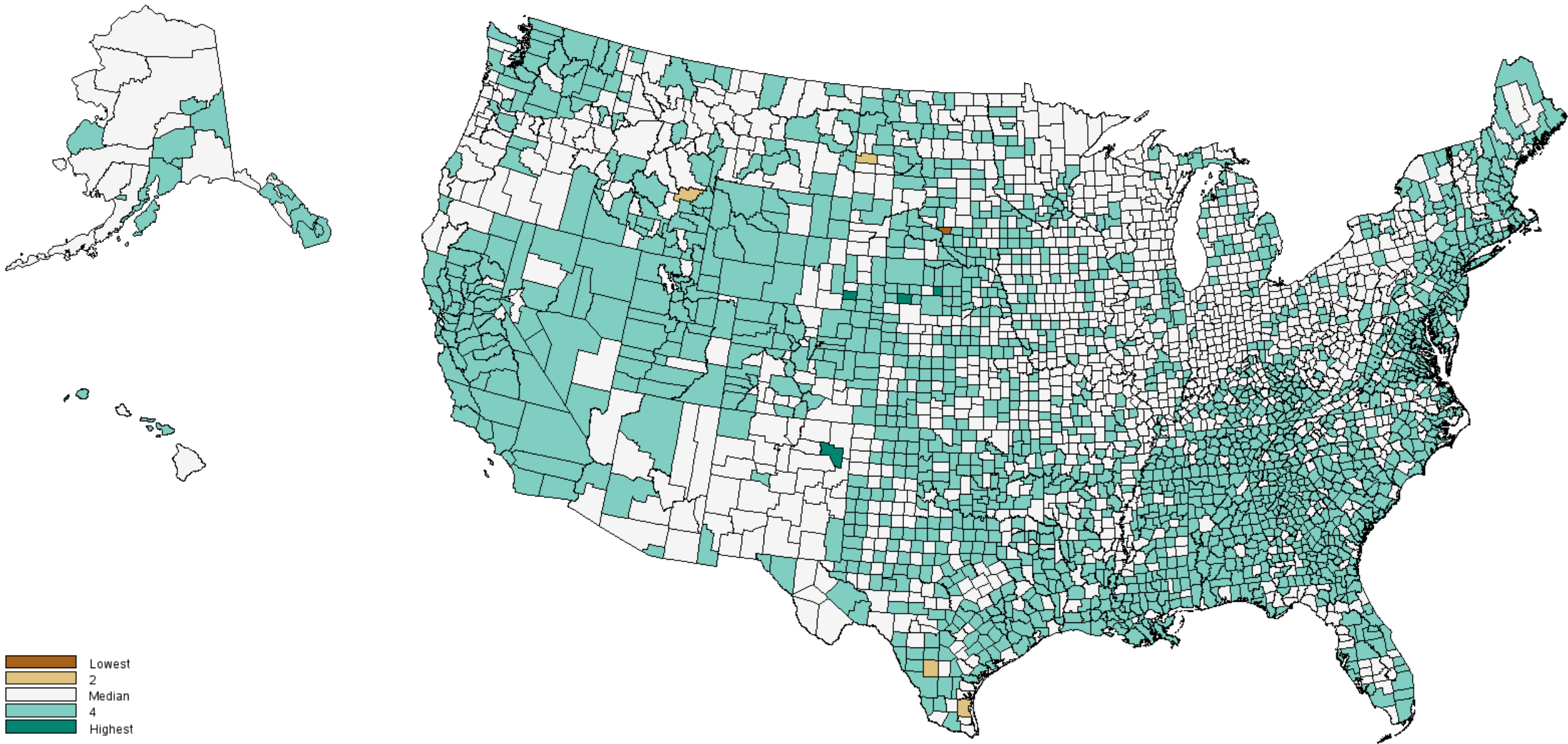
# Quasi-rent (Surplus) per Worker - 1997



# Quasi-rent (Surplus) per Worker - 2002

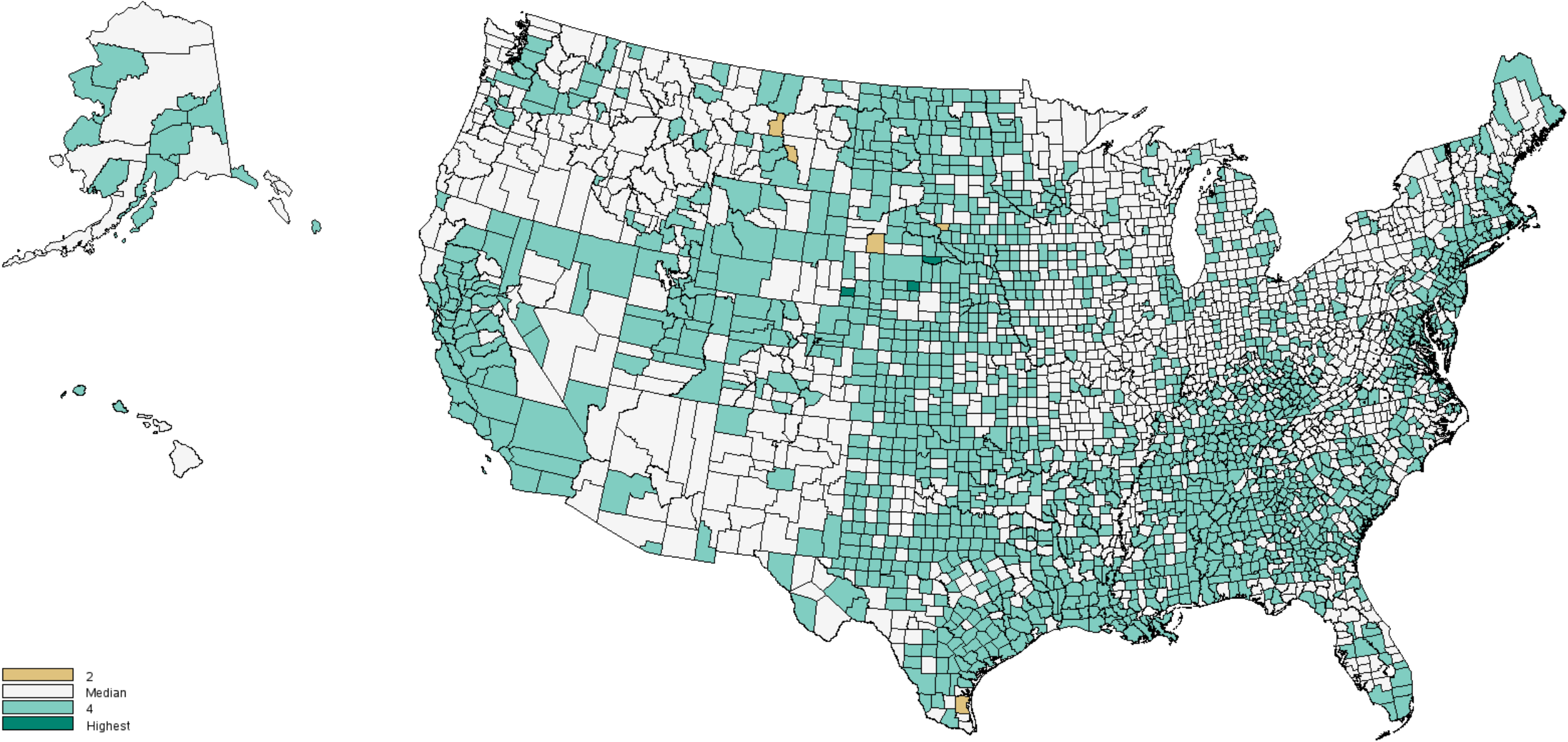


# Quasi-rent (Surplus) per Worker - 2007

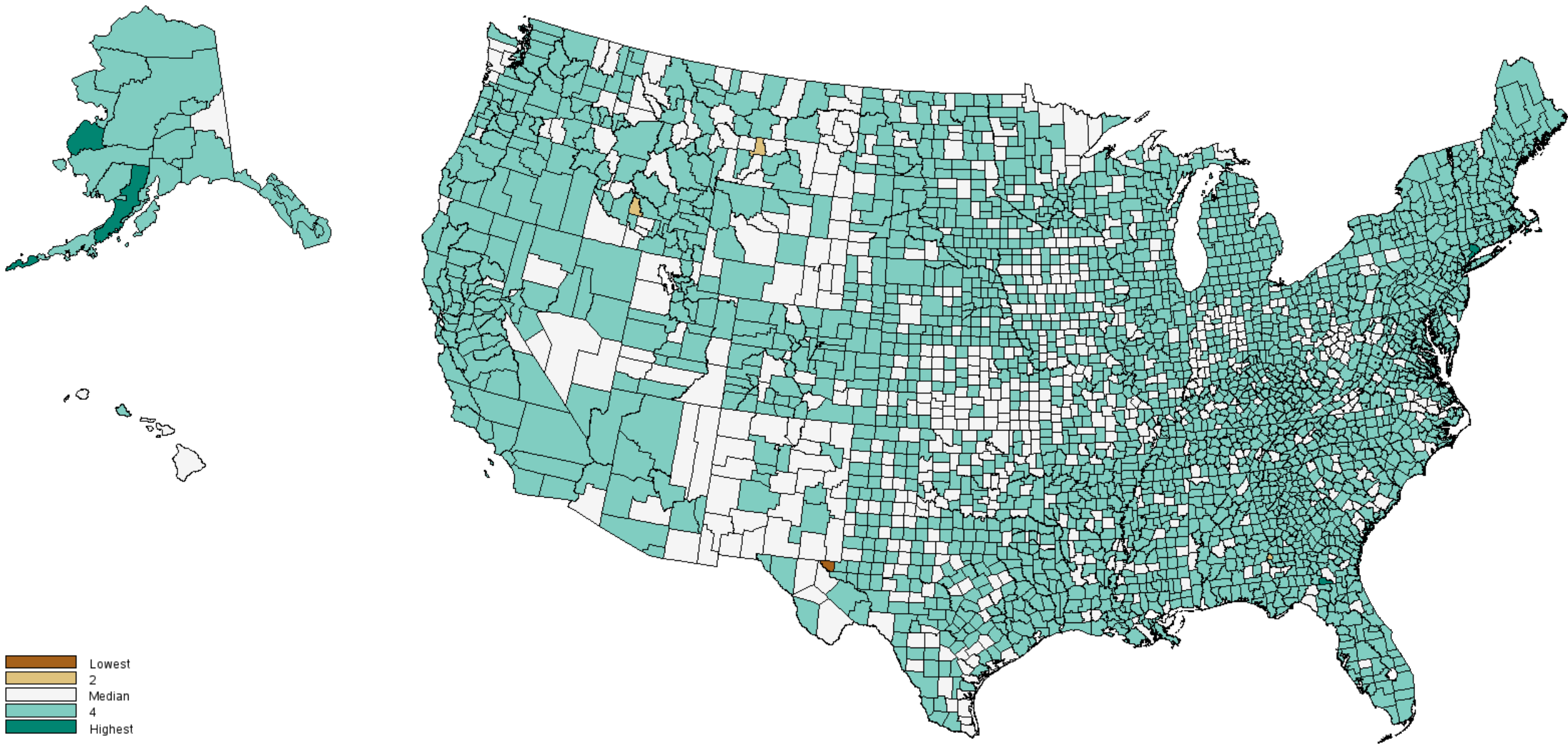




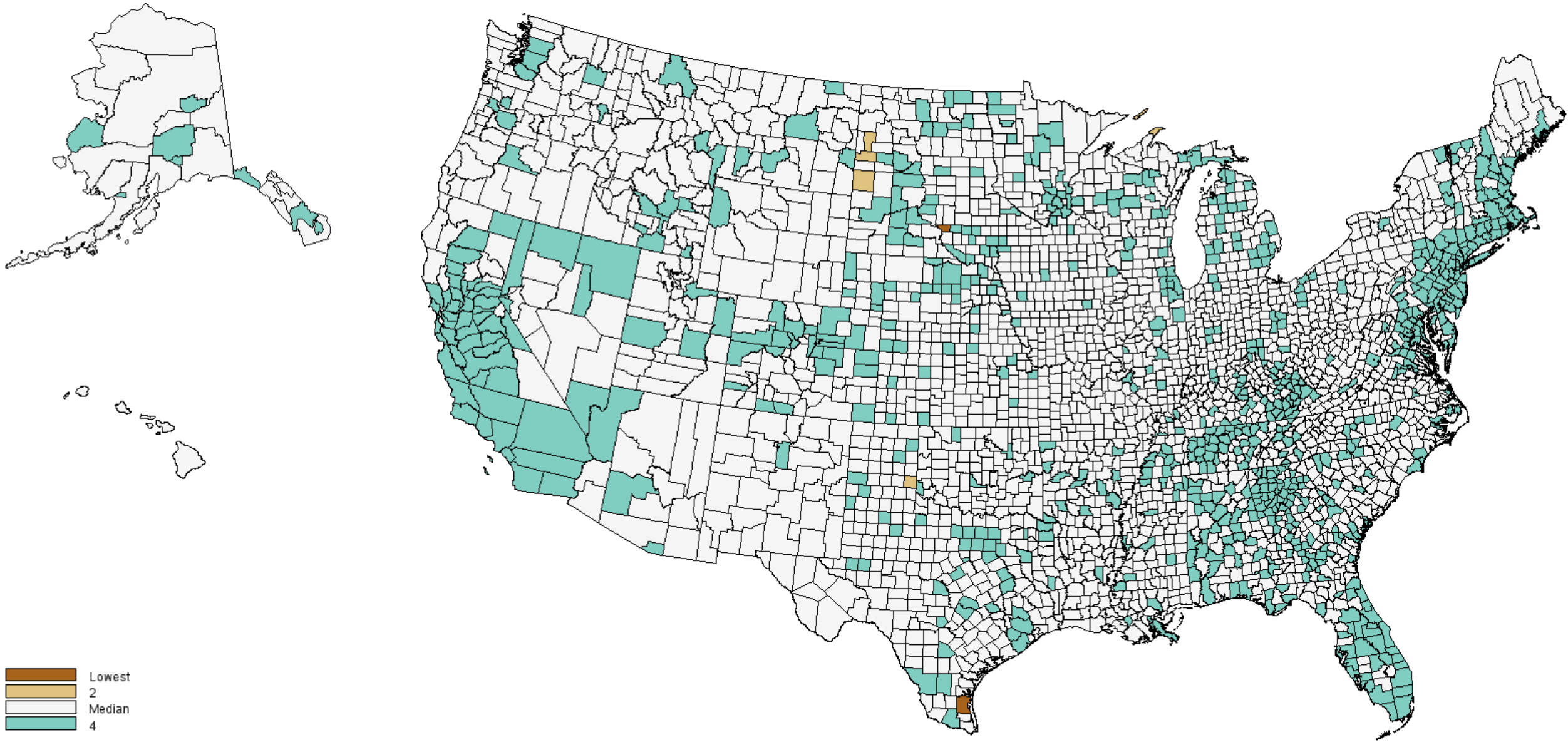
# Quasi-rent (Surplus) per Worker - 2012



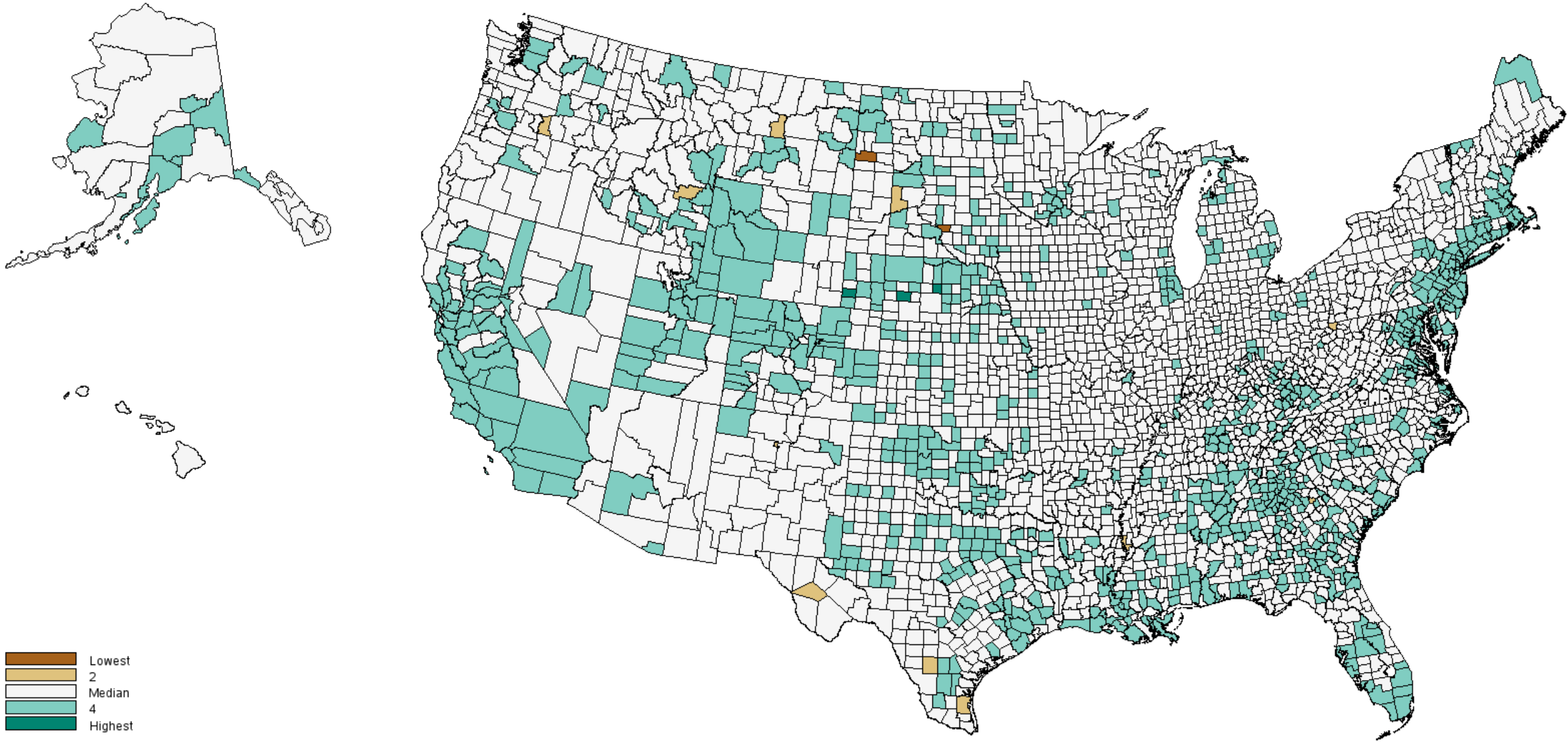
# Revenue per Worker (Net of Purchased Inputs) - 1997



# Revenue per Worker (Net of Purchased Inputs) - 2002

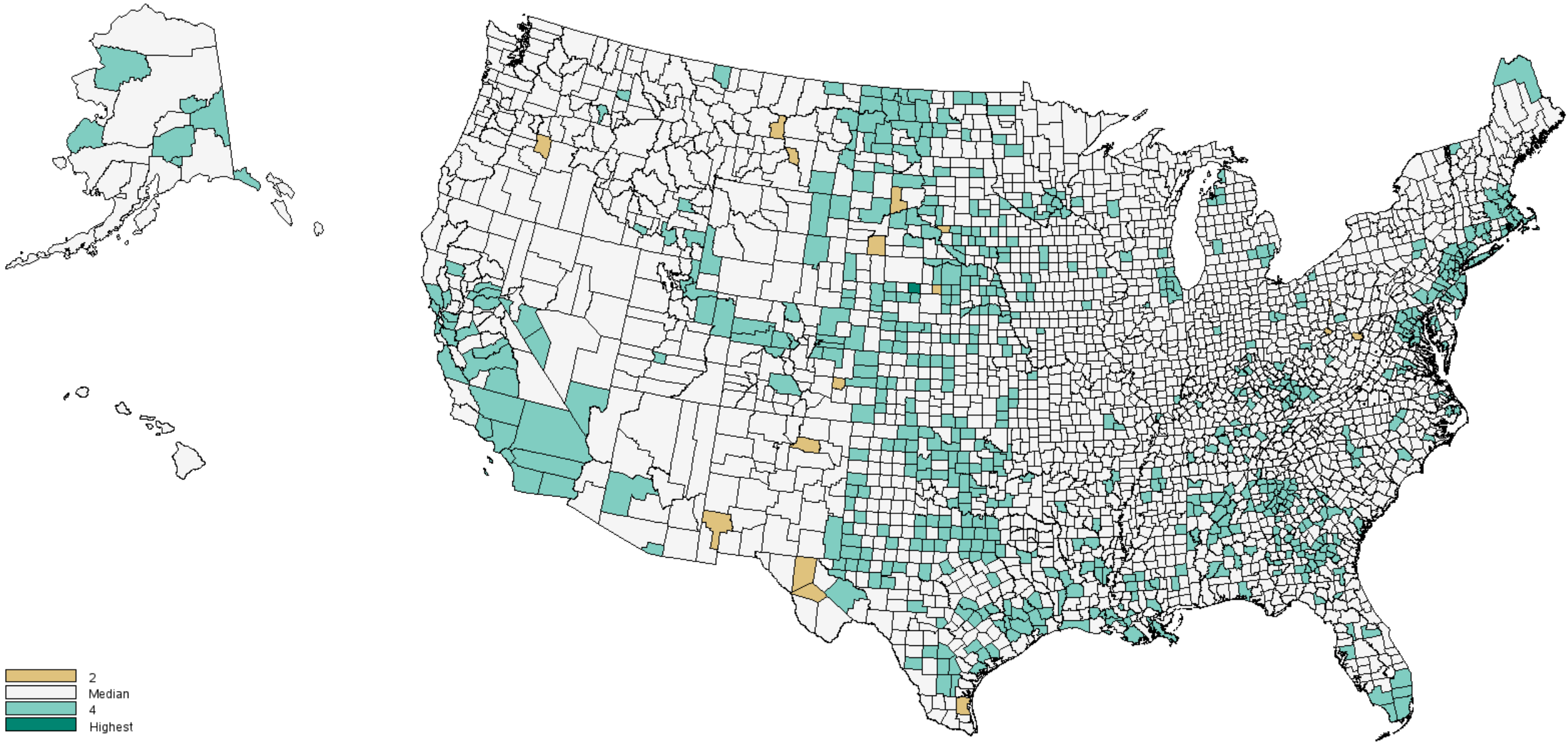


# Revenue per Worker (Net of Purchased Inputs) - 2007

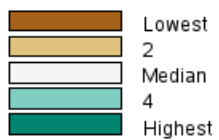
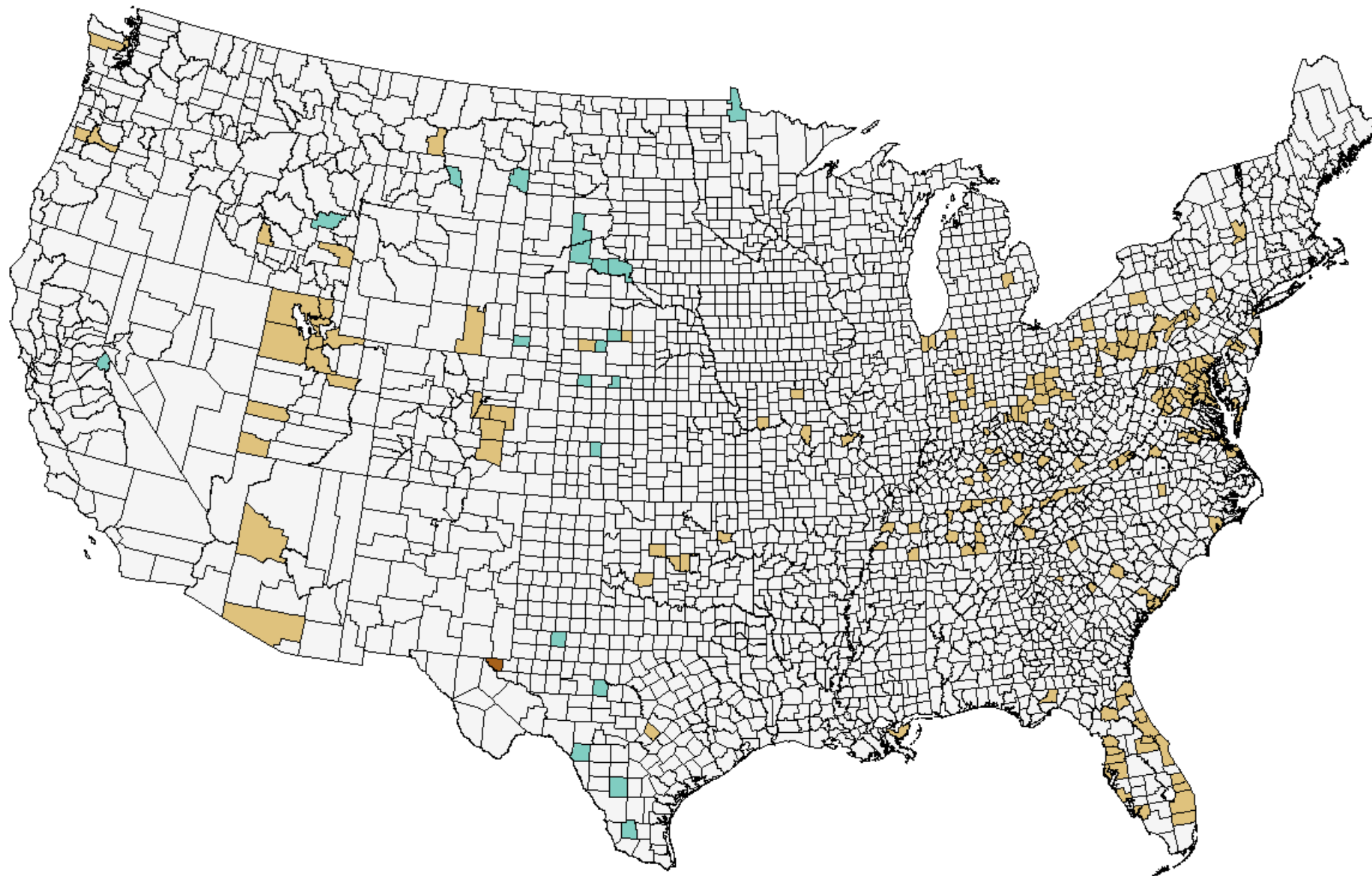
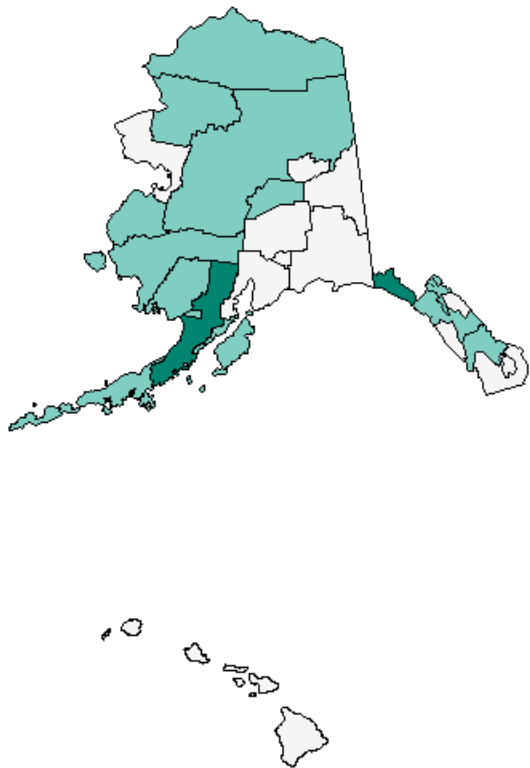




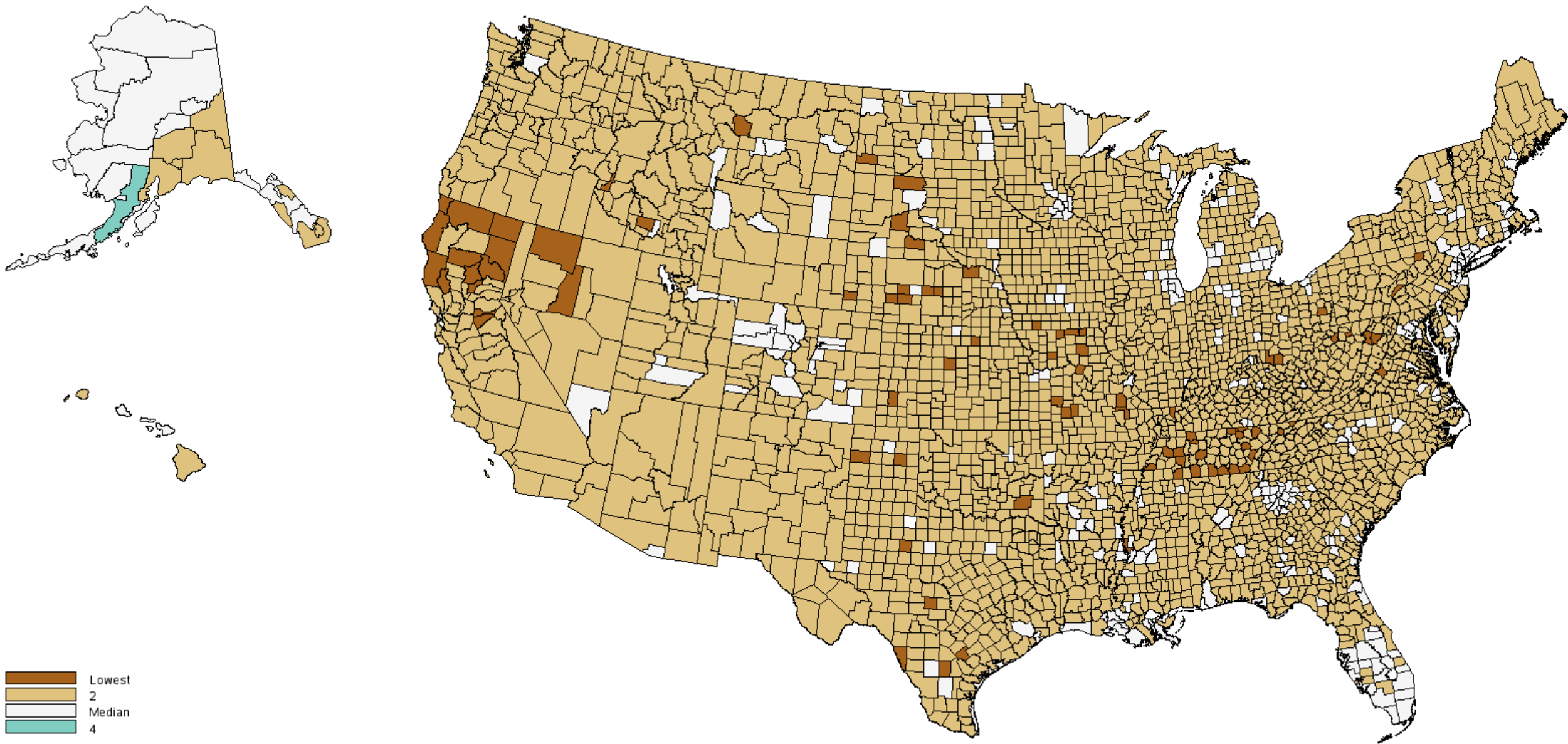
# Revenue per Worker (Net of Purchased Inputs) - 2012



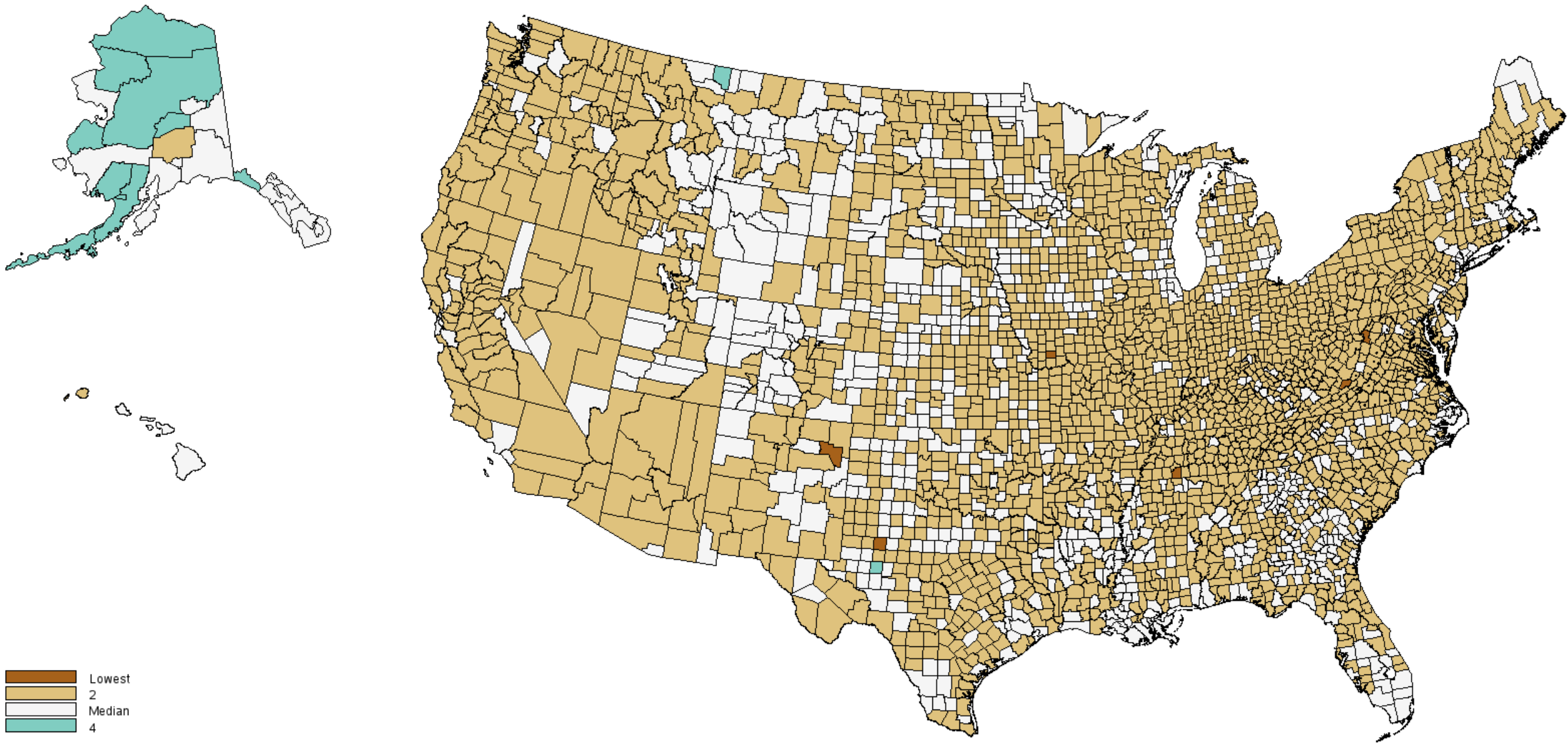
# Opportunity Cost of Capital per Worker - 1997



# Opportunity Cost of Capital per Worker - 2002

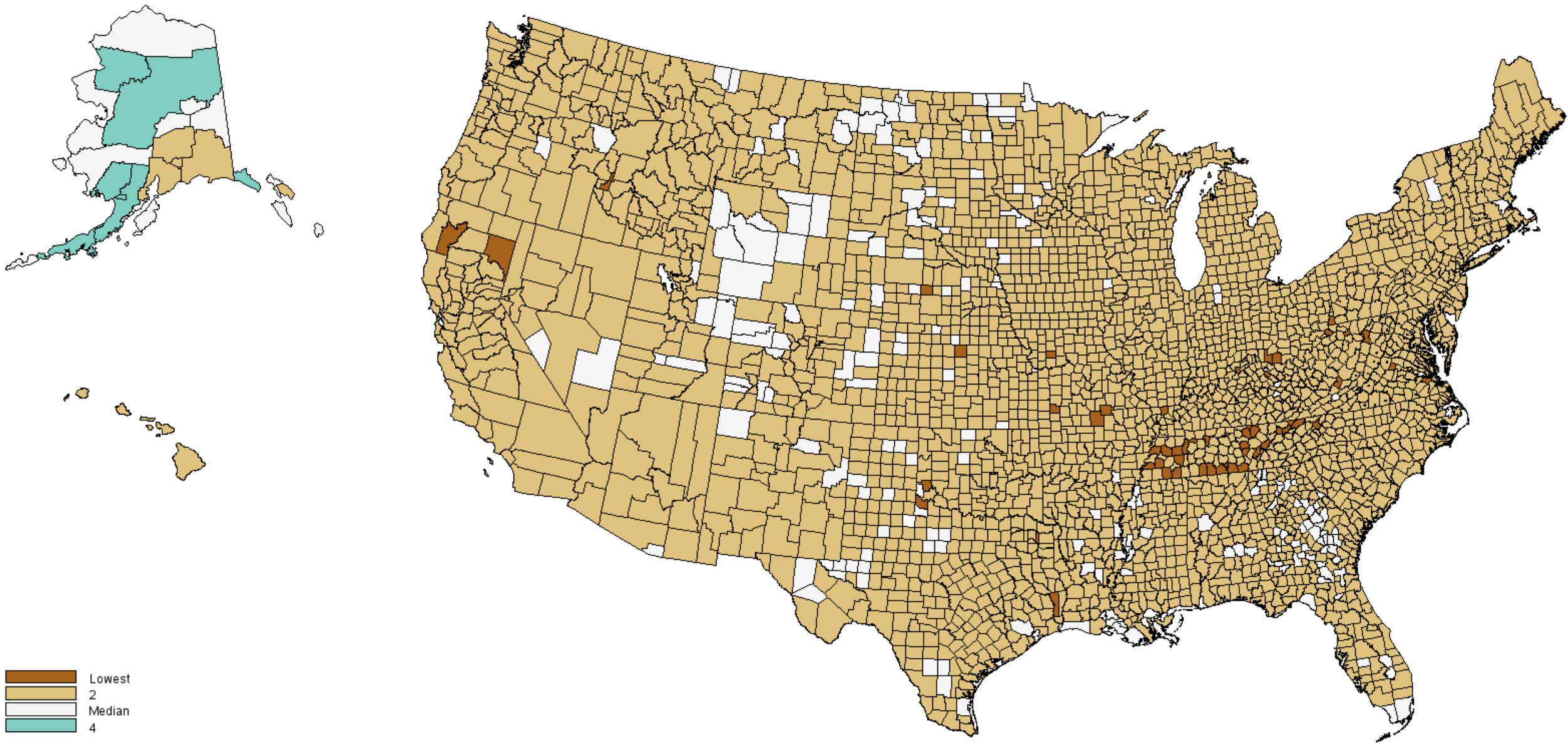


# Opportunity Cost of Capital per Worker - 2007

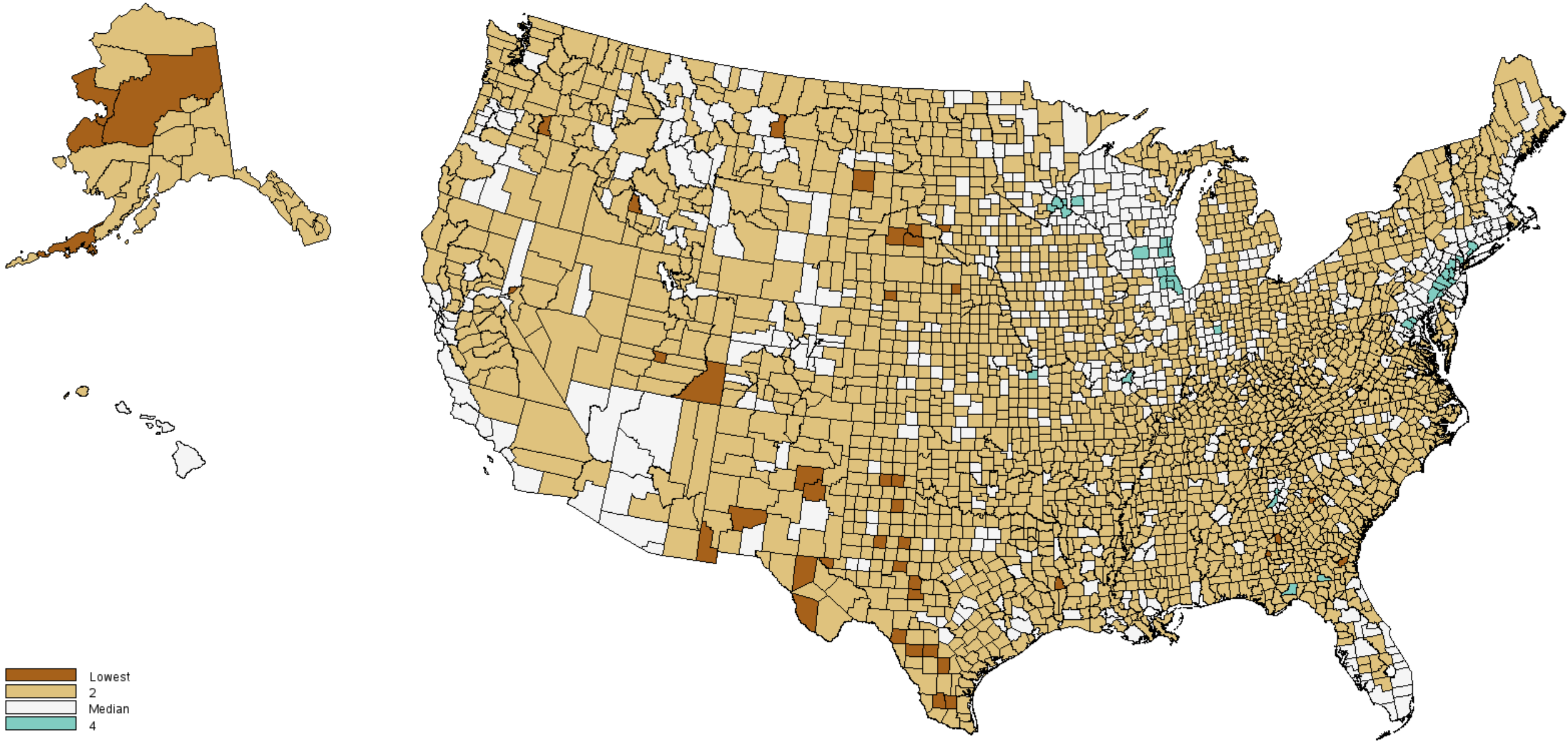




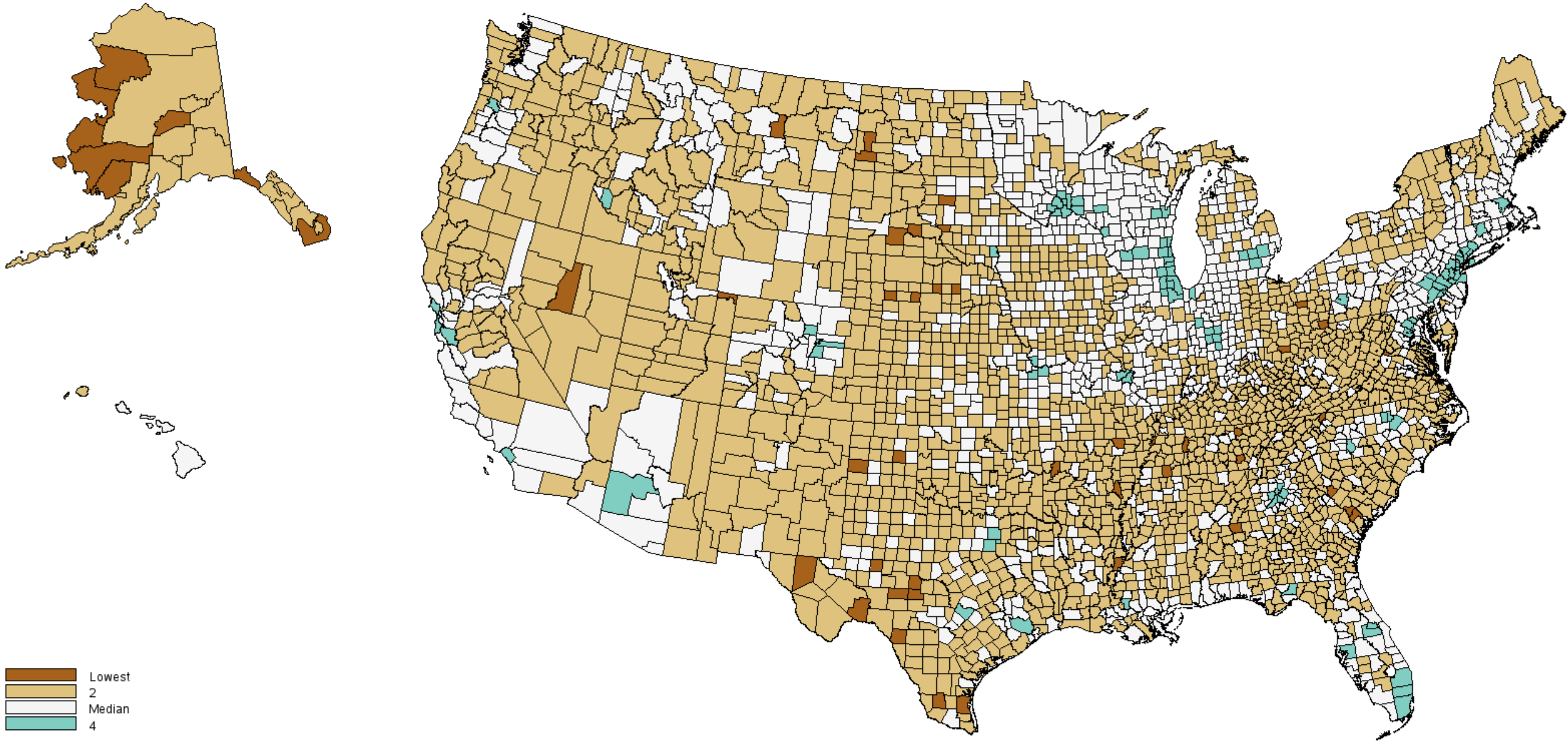
# Opportunity Cost of Capital per Worker - 2012



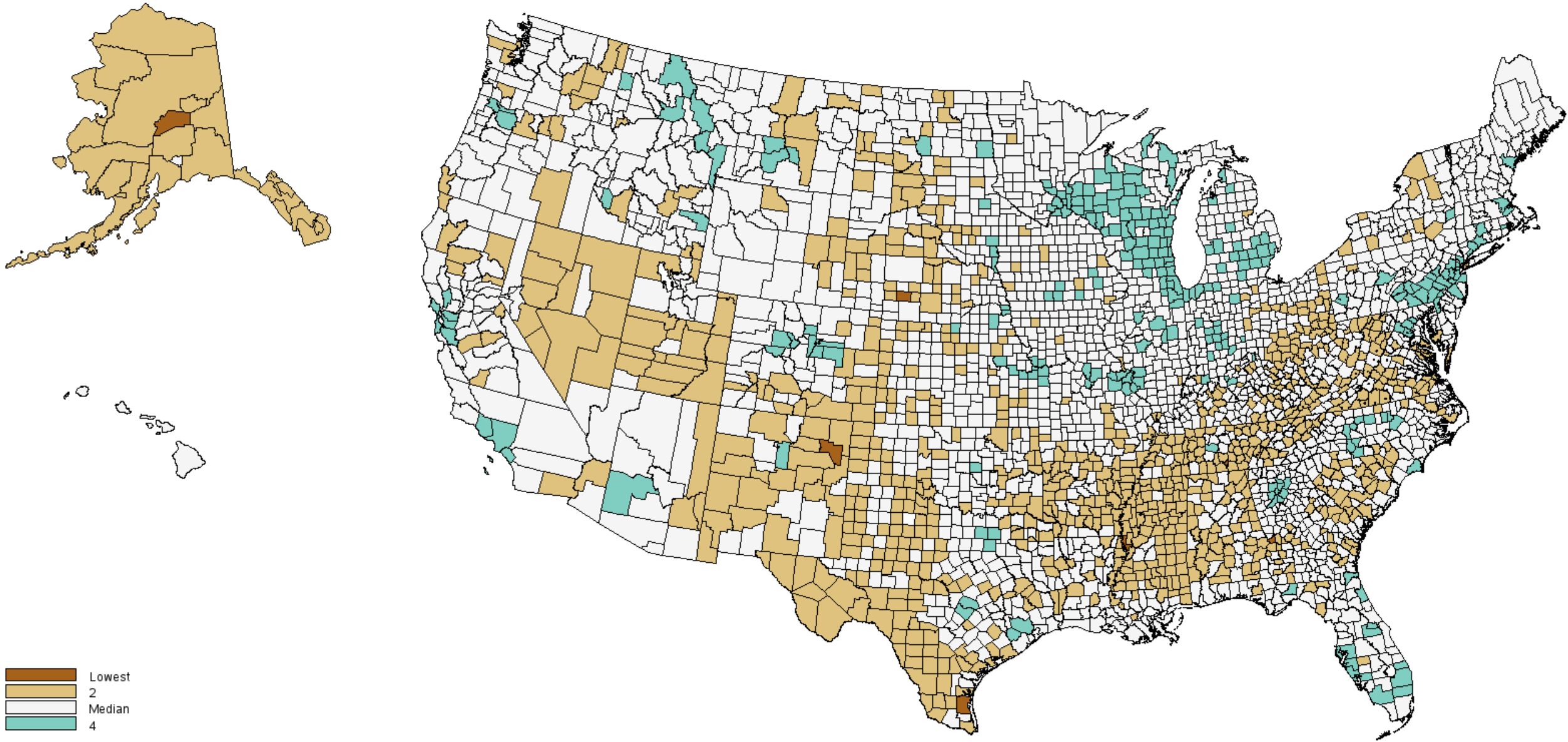
# Opportunity Cost of Labor per Worker - 1997



# Opportunity Cost of Labor per Worker - 2002

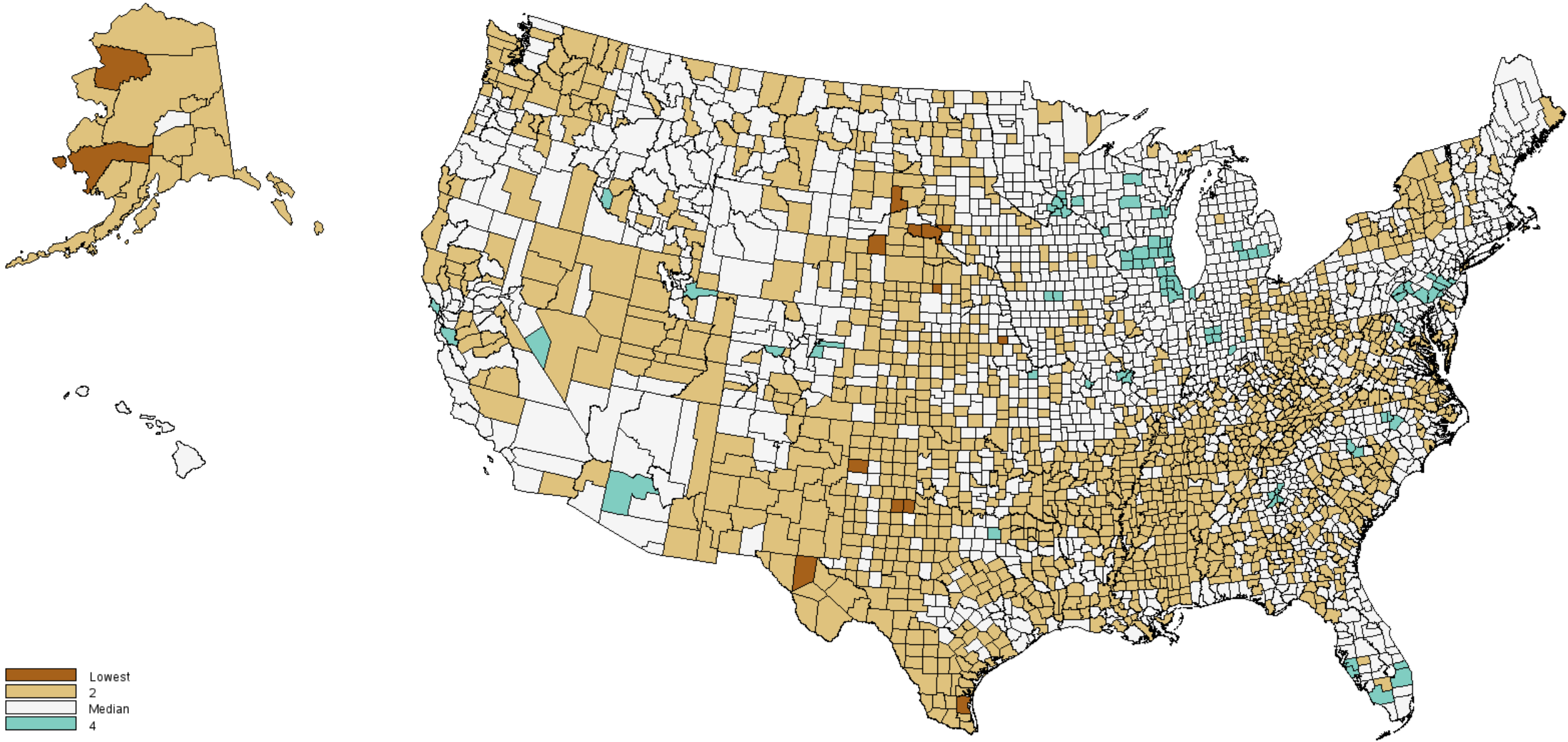


# Opportunity Cost of Labor per Worker - 2007

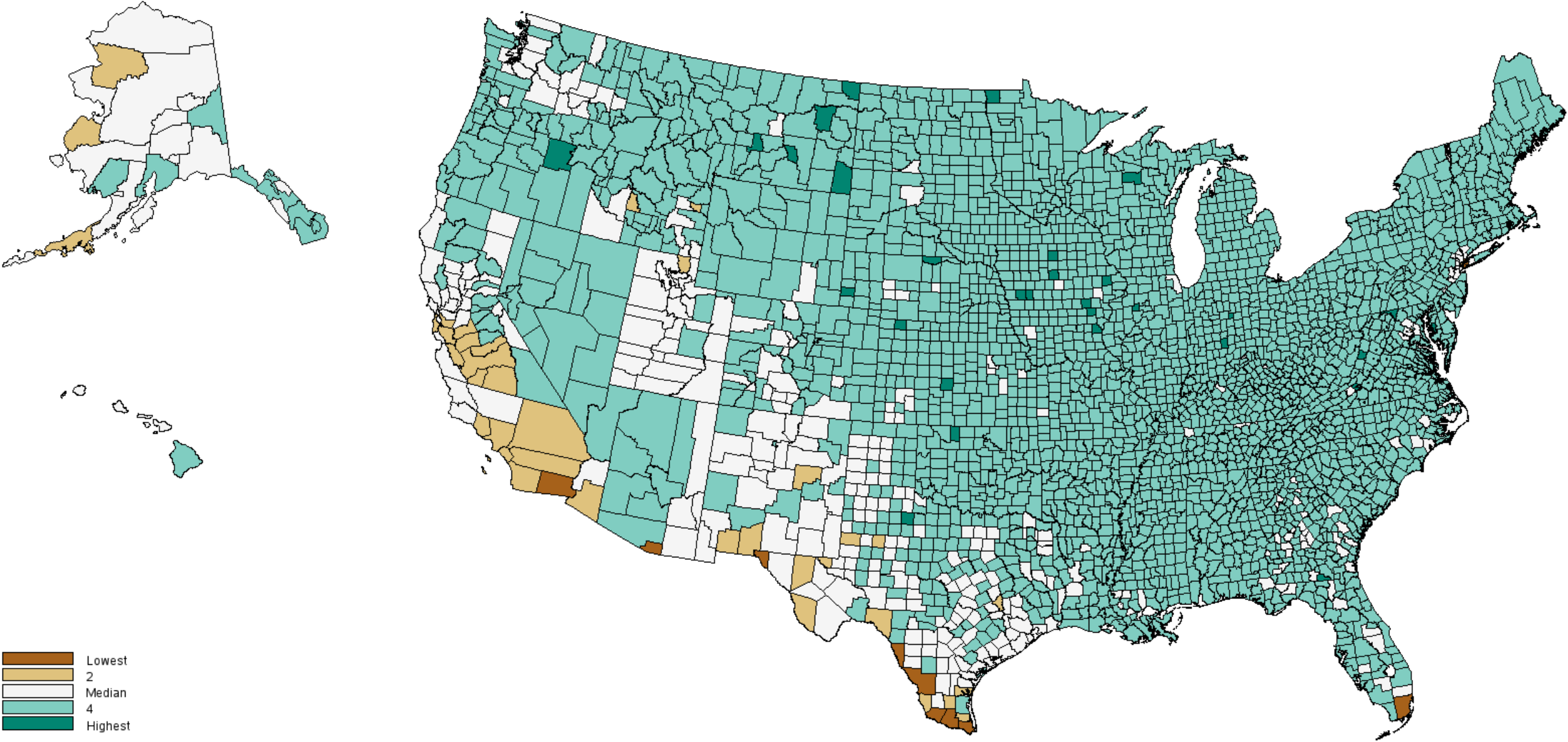




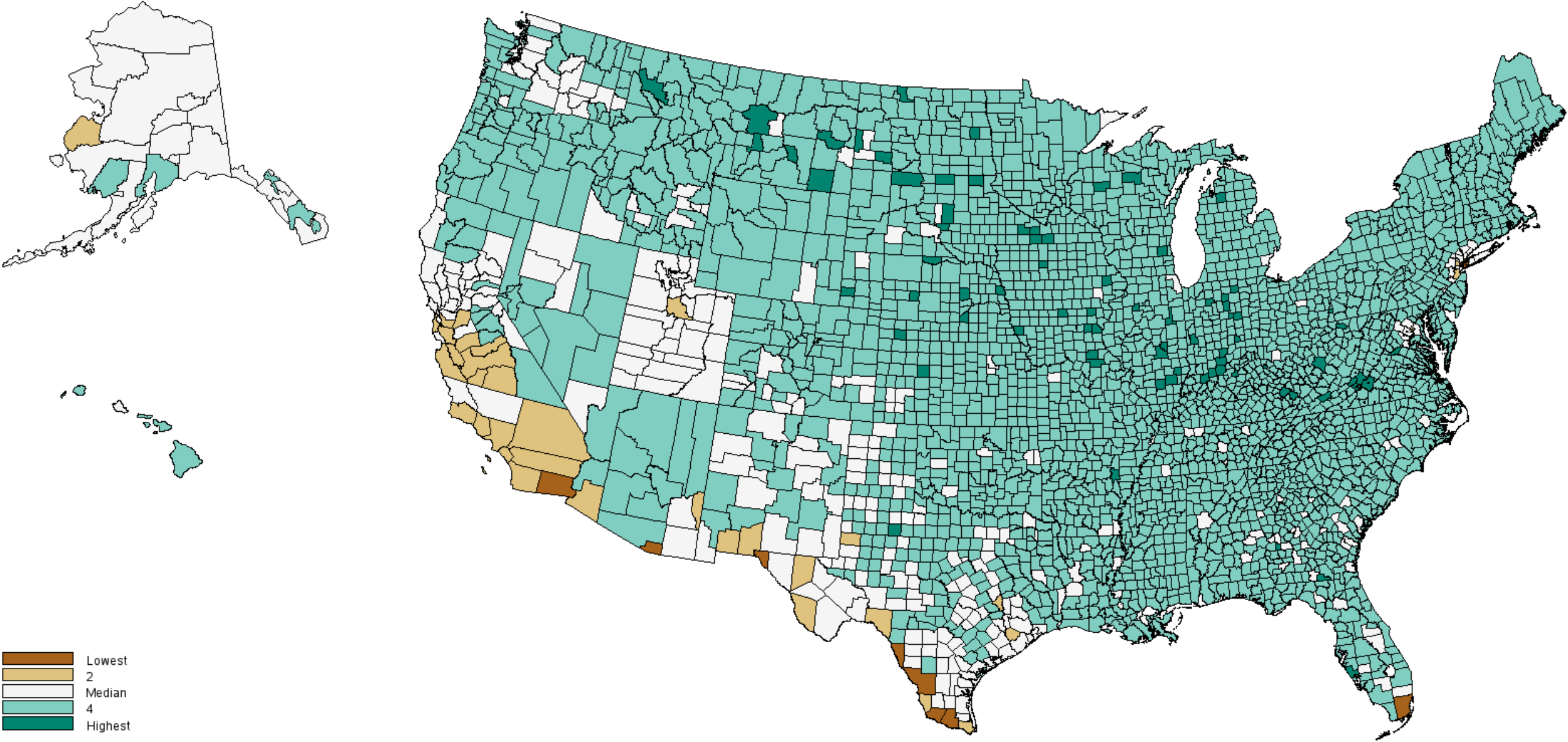
# Opportunity Cost of Labor per Worker - 2012



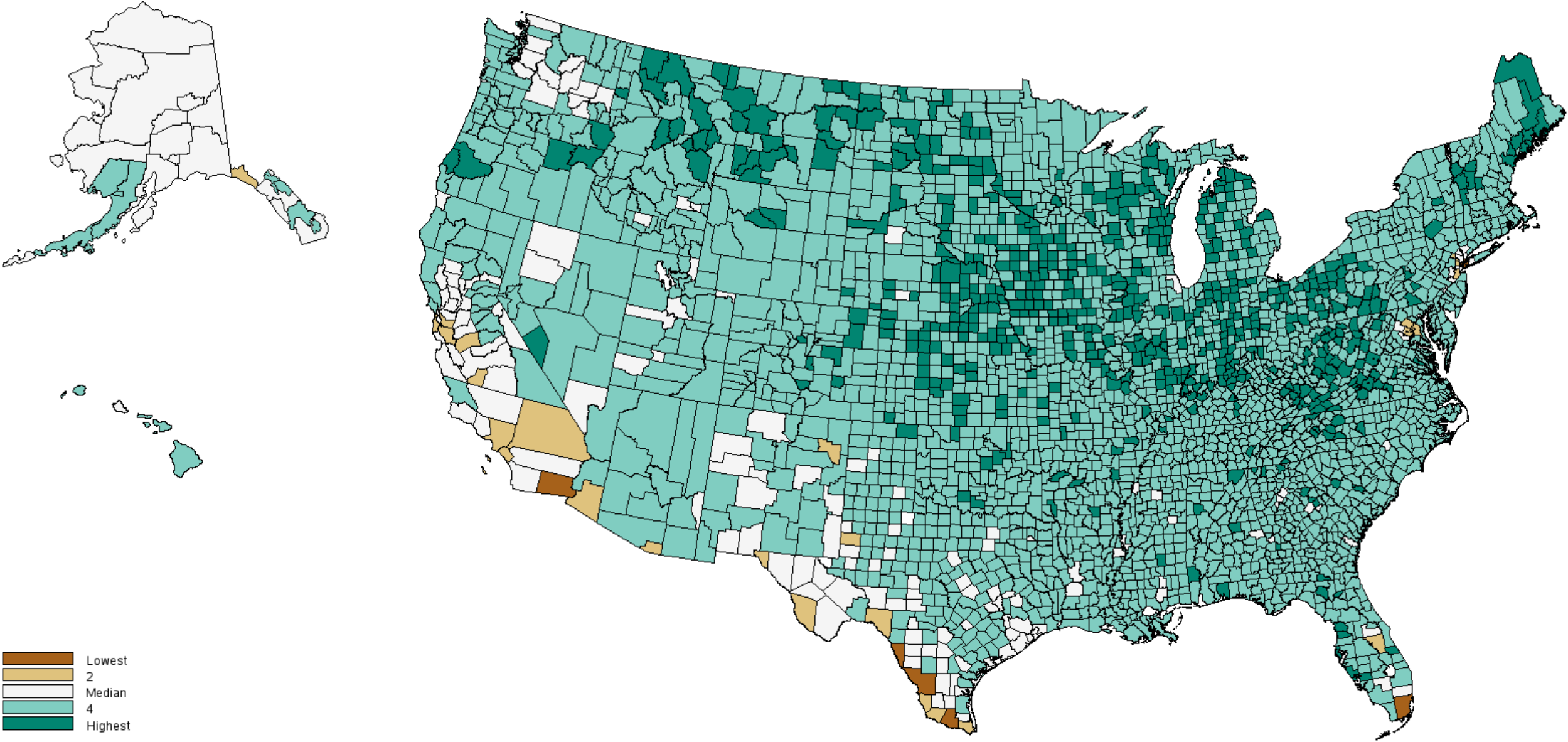
# Observable Characteristics Component of the Wage Rate - 1997



# Observable Characteristics Component of the Wage Rate - 2002

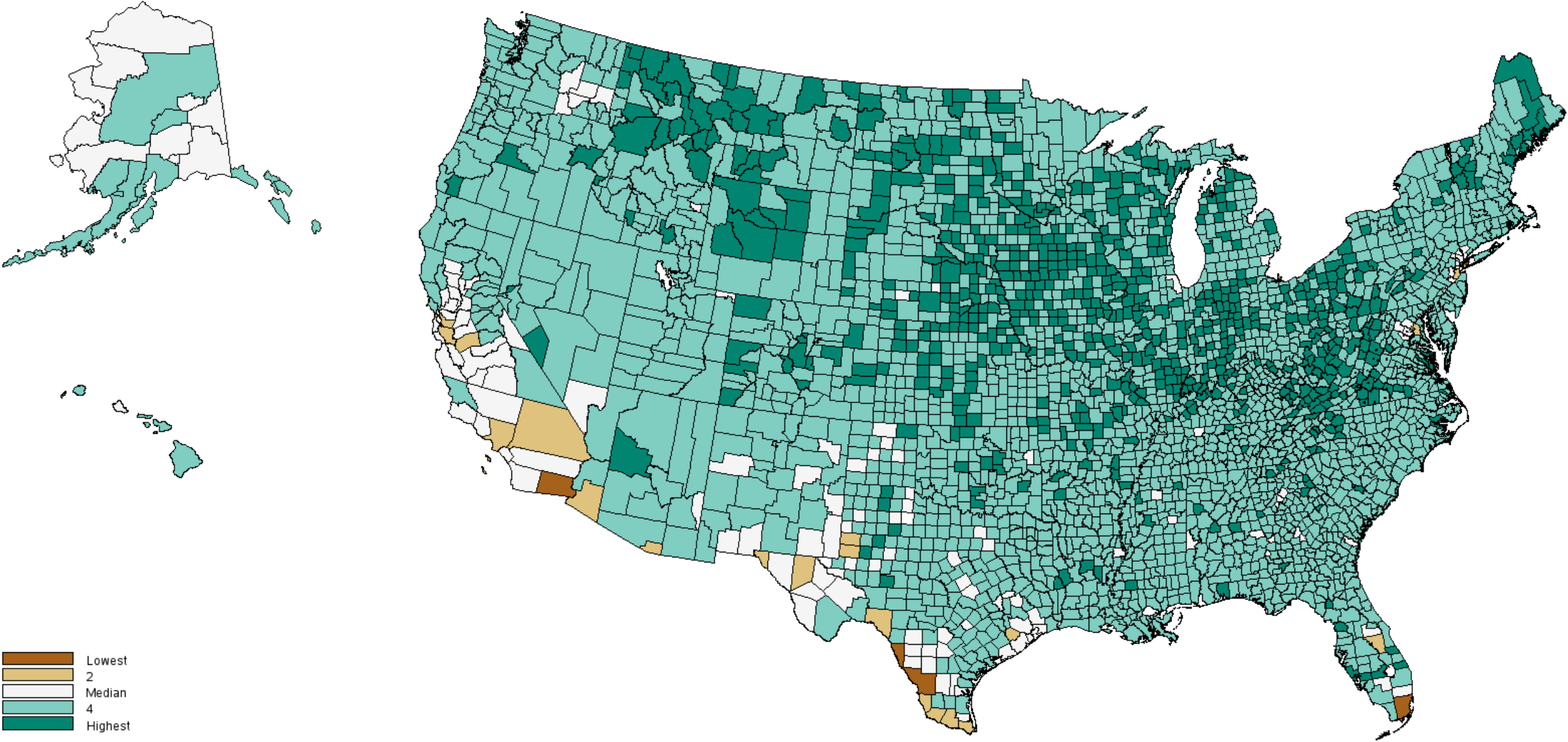


# Observable Characteristics Component of the Wage Rate - 2007

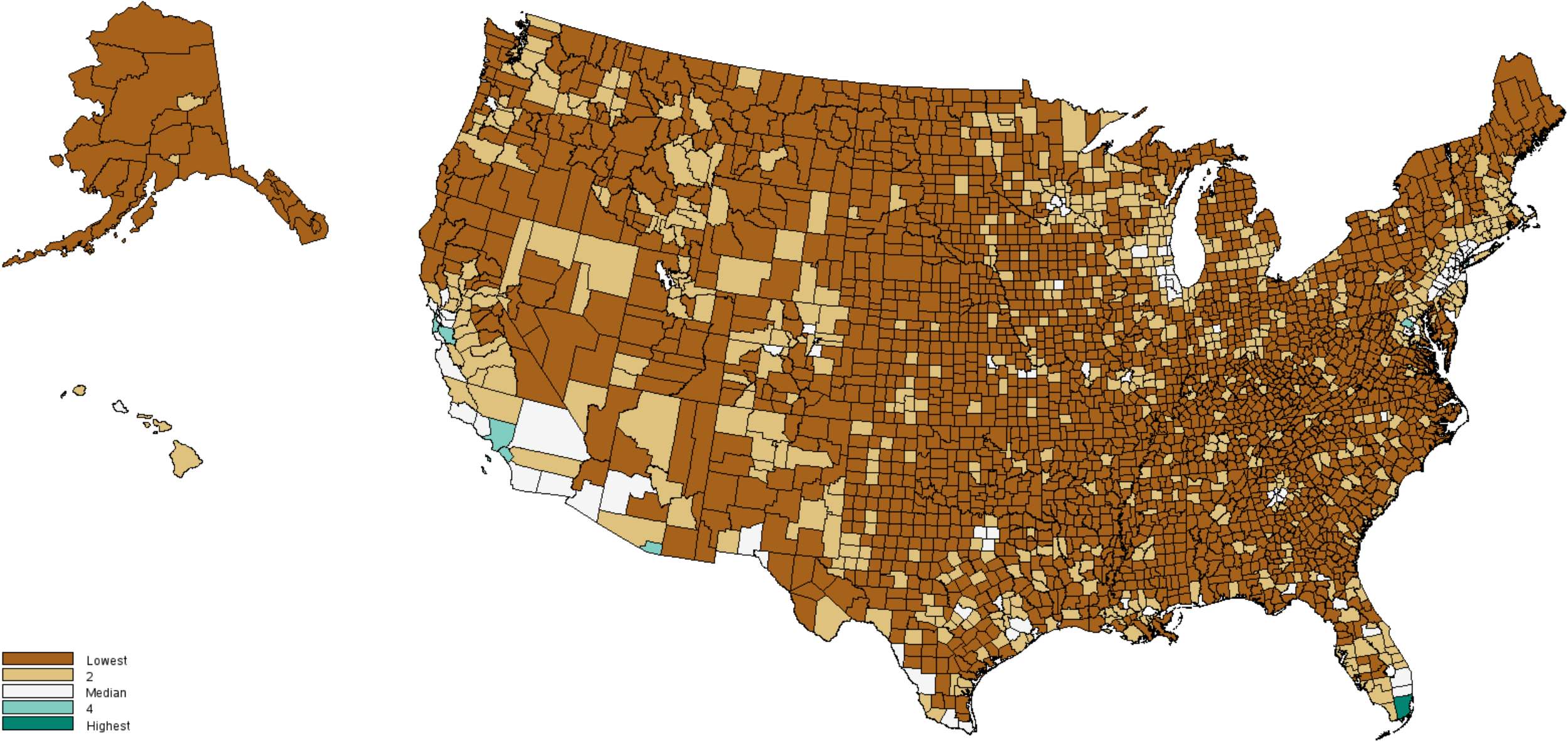




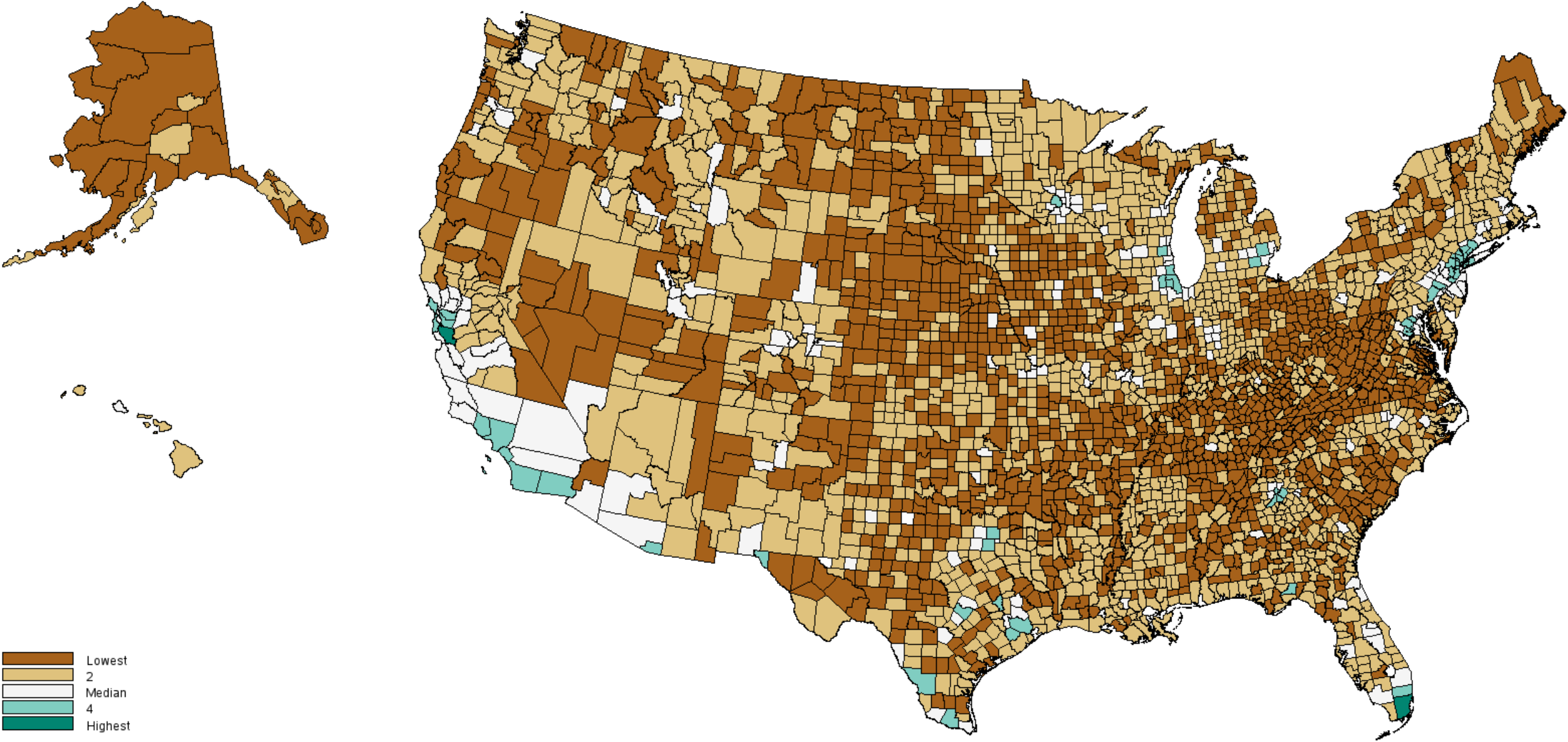
# Observable Characteristics Component of the Wage Rate - 2012



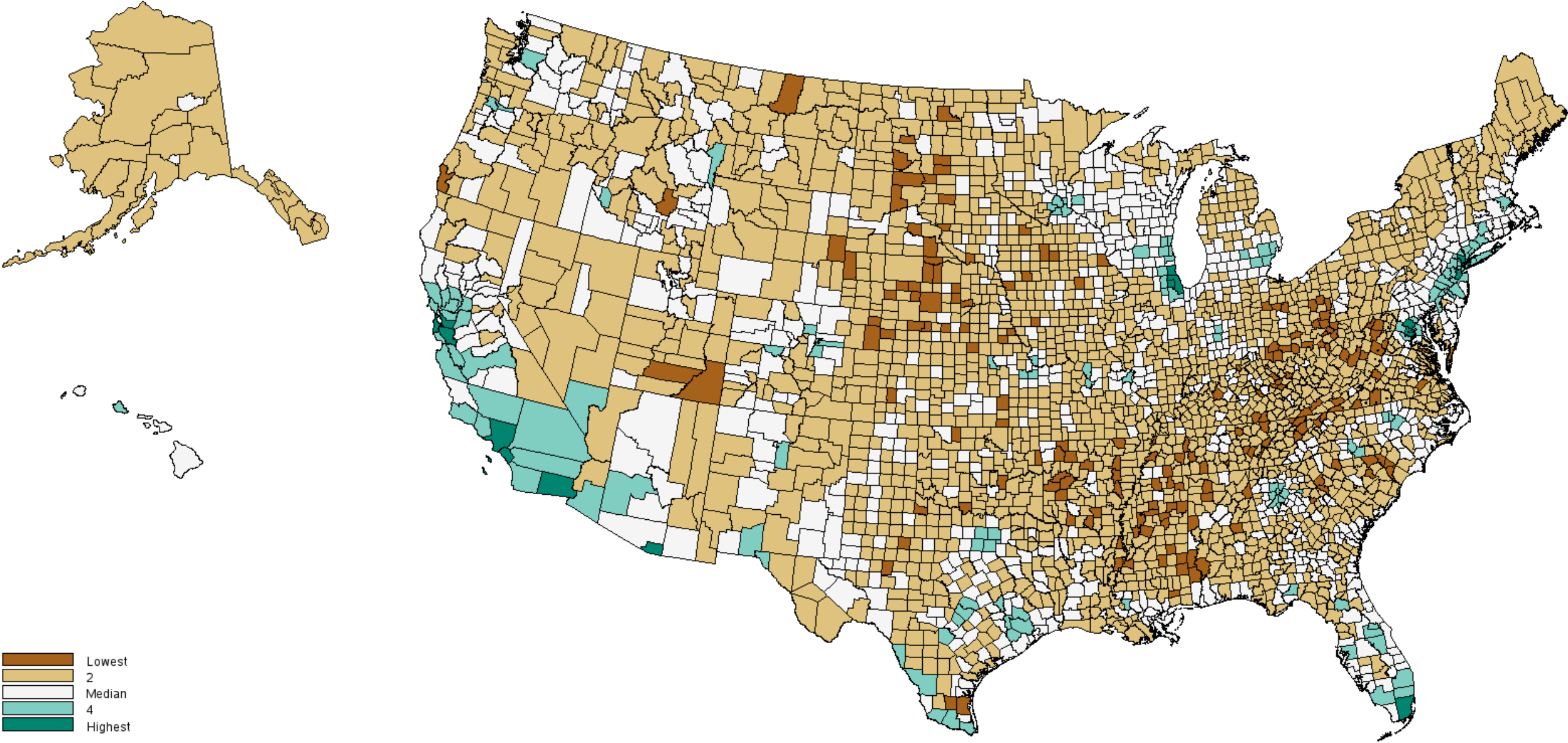
# Individual Heterogeneity Component of the Wage Rate - 1997



# Individual Heterogeneity Component of the Wage Rate - 2002

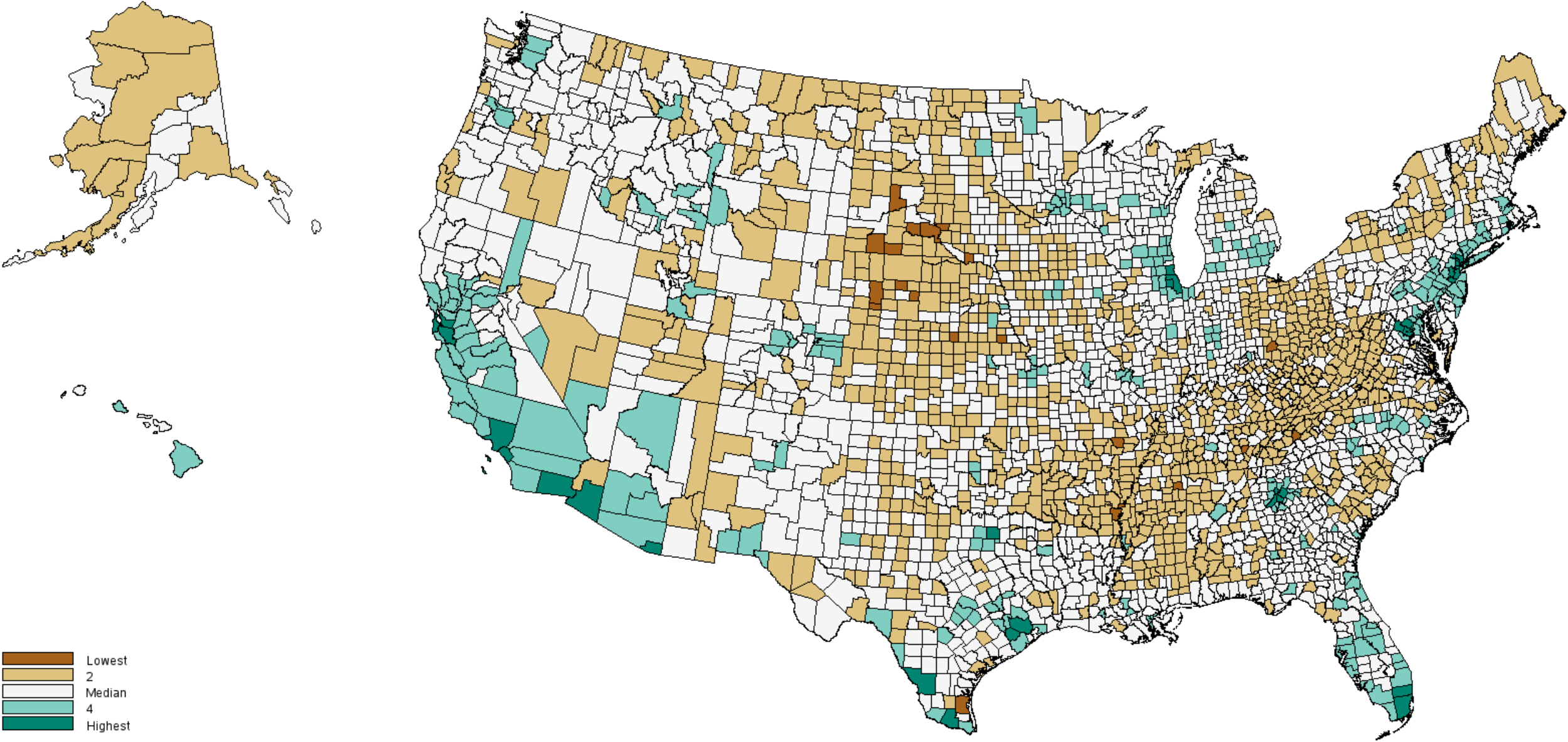


# Individual Heterogeneity Component of the Wage Rate - 2007

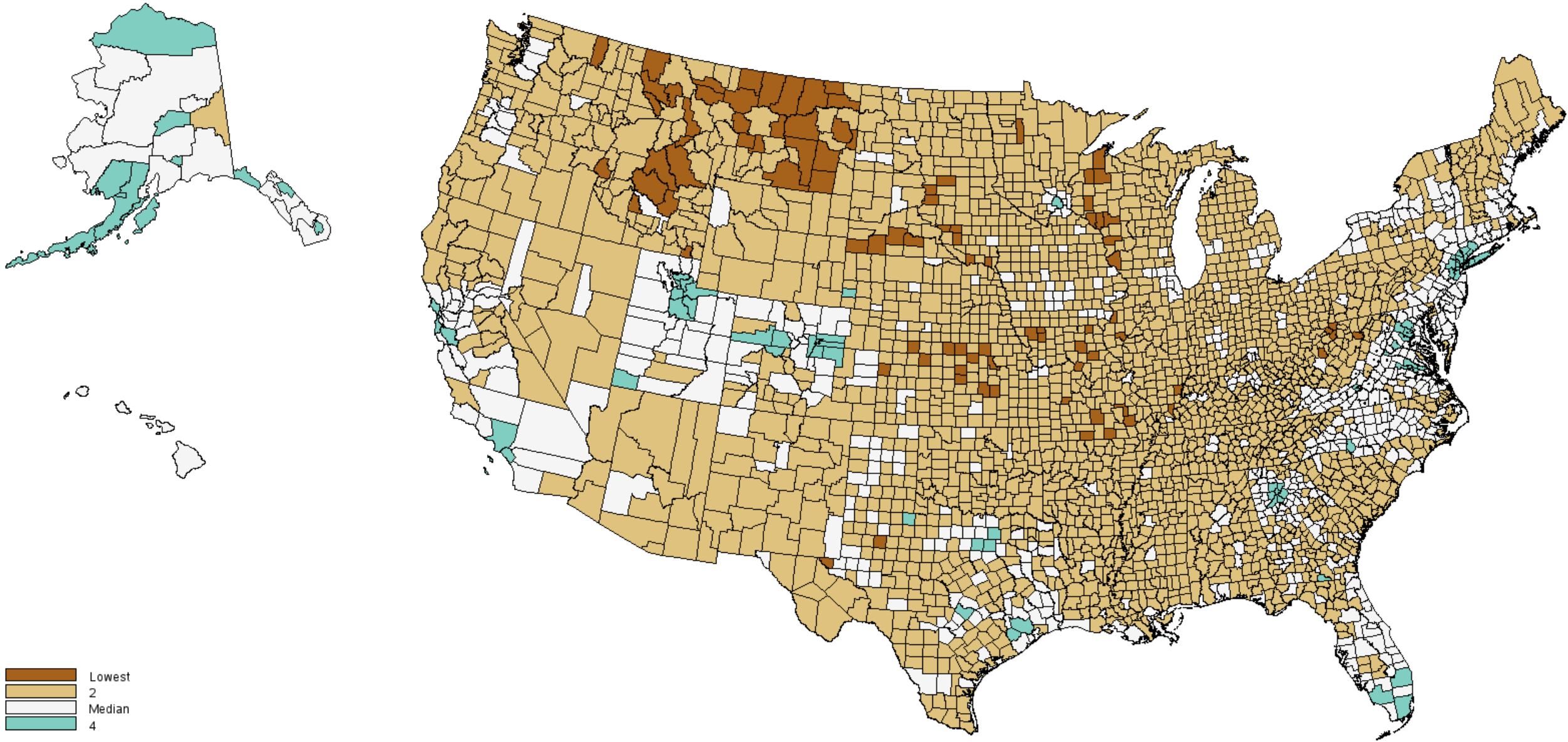




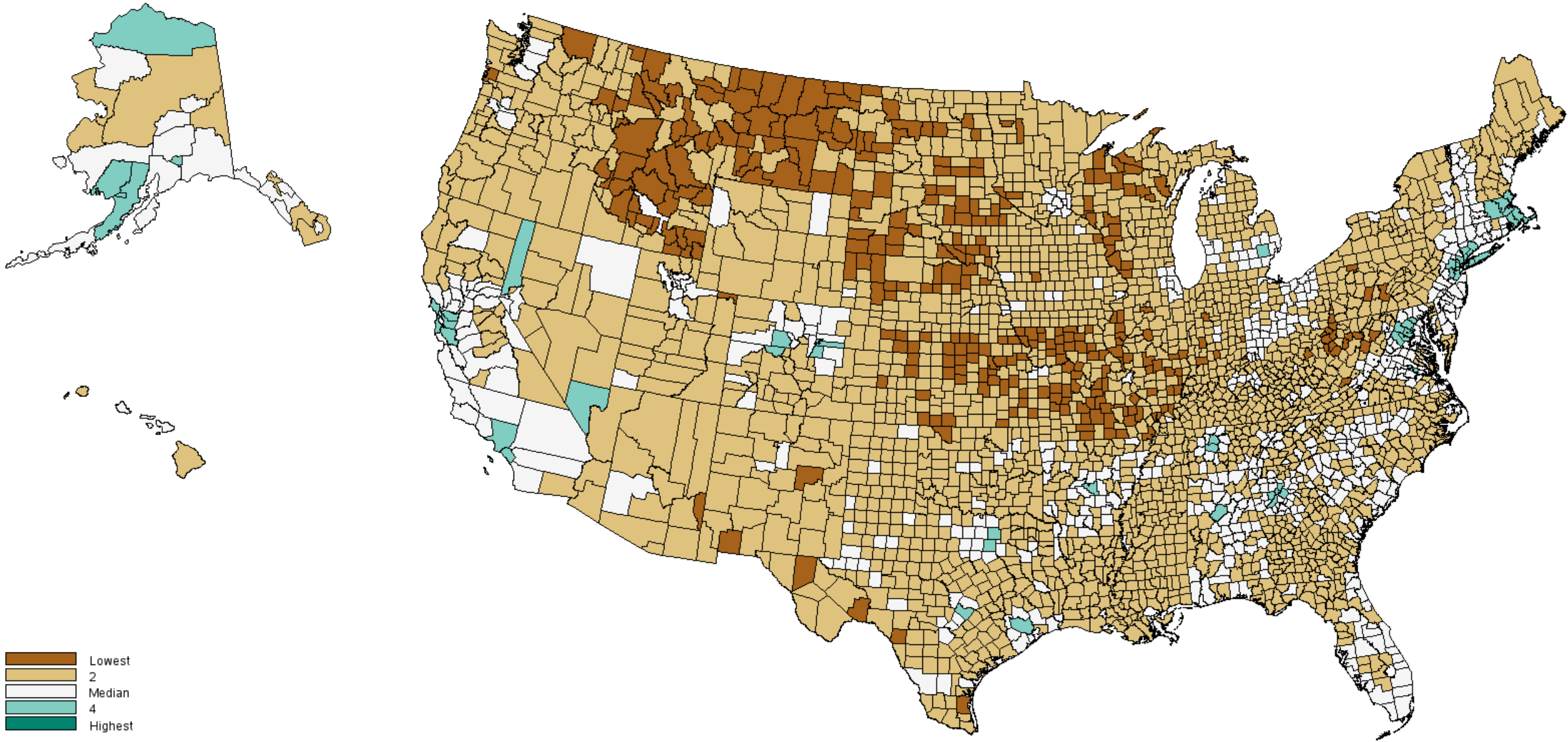
# Individual Heterogeneity Component of the Wage Rate - 2012



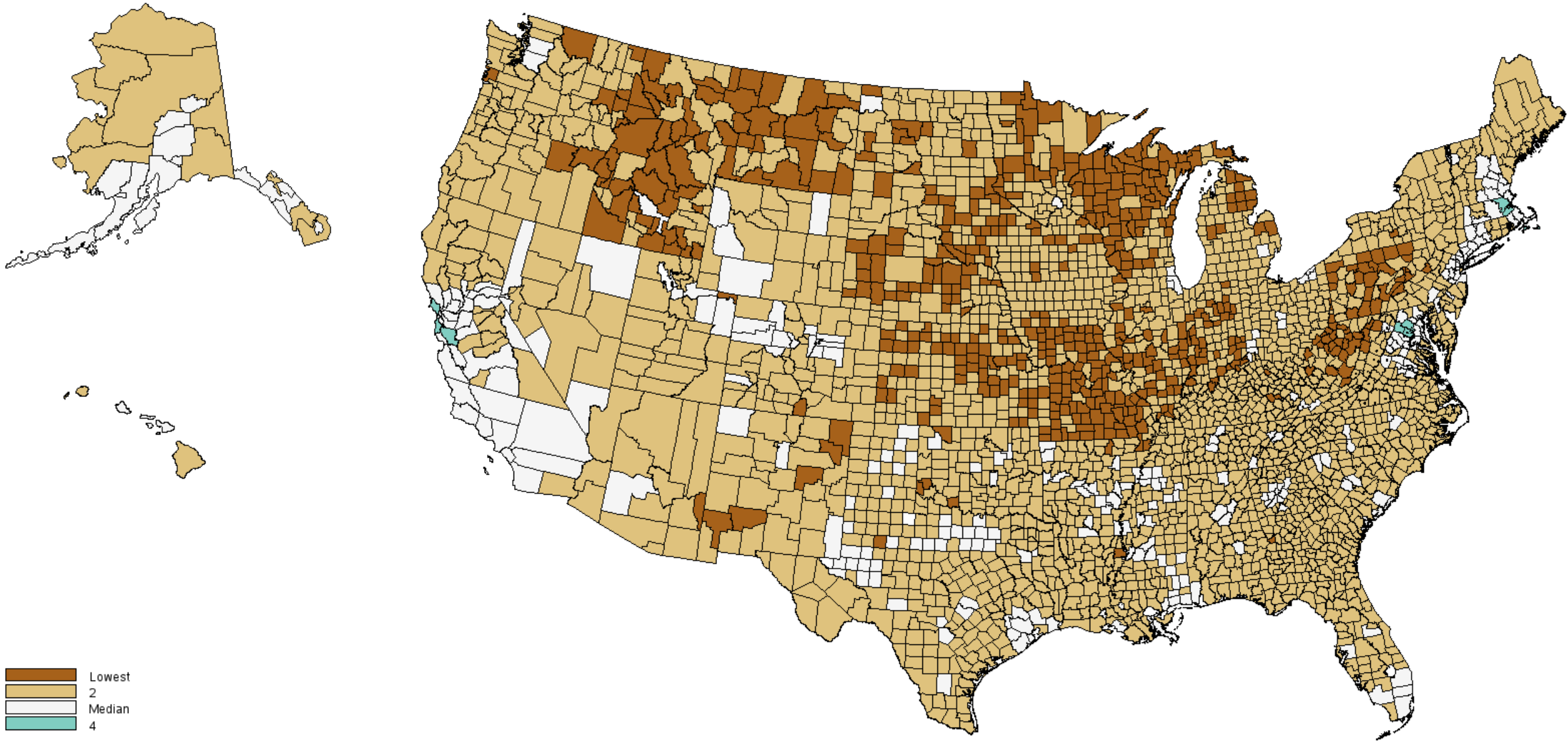
# Employer Heterogeneity Component of the Wage Rate - 1997



# Employer Heterogeneity Component of the Wage Rate - 2002

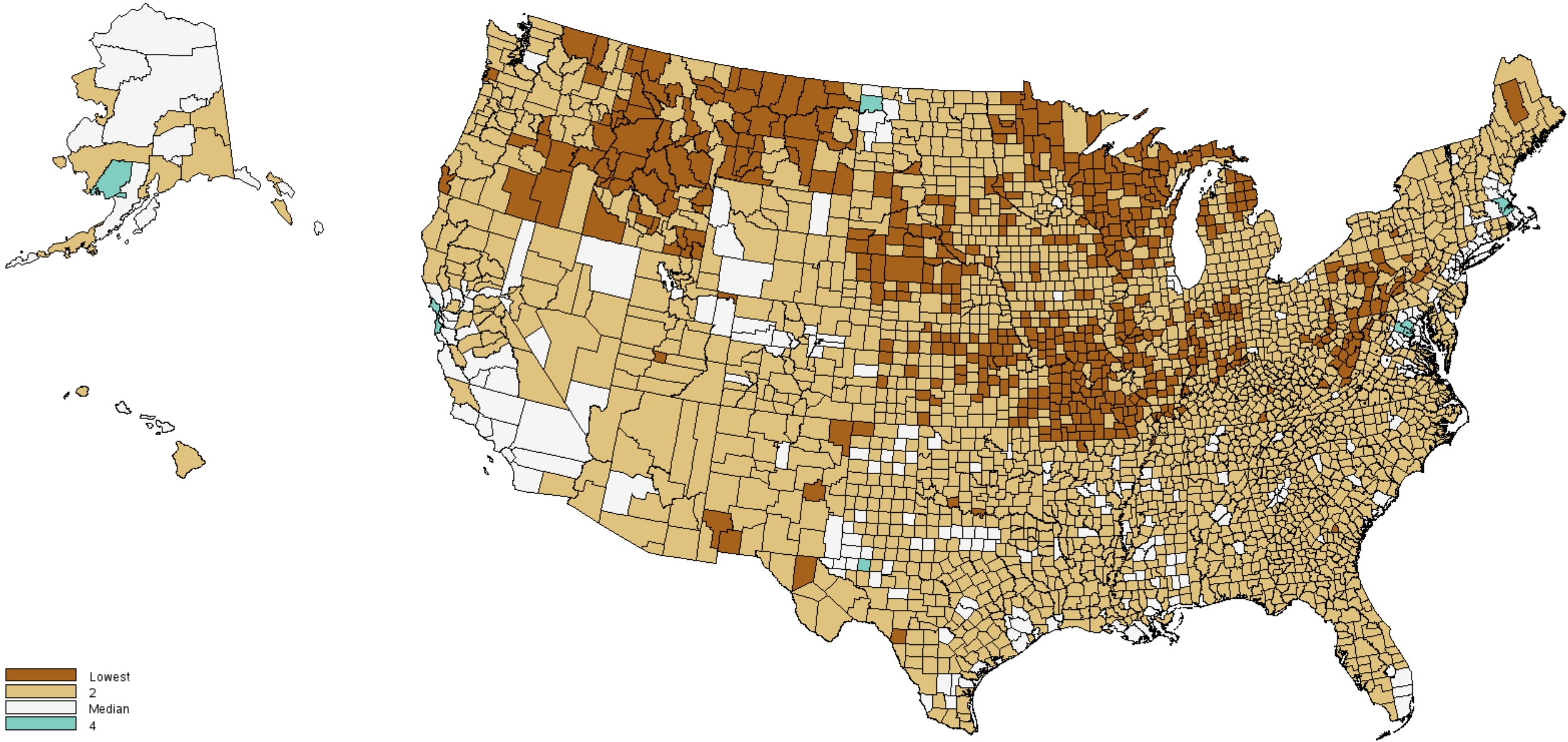


# Employer Heterogeneity Component of the Wage Rate - 2007





# Employer Heterogeneity Component of the Wage Rate - 2012



So, Where Did All the Good Jobs  
Go?

Good and bad jobs are recycled back into the economy.

Good jobs are created at a slower rate than bad jobs, but they are also destroyed at a slower rate.

Over the years 1997-2012, net employment growth in jobs with low quasi-rents per worker (bad jobs) has declined dramatically.

Over the same period, net employment growth in jobs with high quasi-rents per worker (good) jobs has declined less steeply and is now greater than the net growth in employment in low quasi-rent per worker (bad) jobs.

There are substantially more good jobs in 2012 than there were in 1997, but they hold a smaller proportion of the workforce.

Good jobs tend to be geographically clustered in larger urban areas, and there is some evidence of increased clustering by 2012.

Thank you