Where Have All the (Good) Jobs Gone?

with apologies to Pete Seeger

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Acknowledgements and Disclaimer

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- 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 12th 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

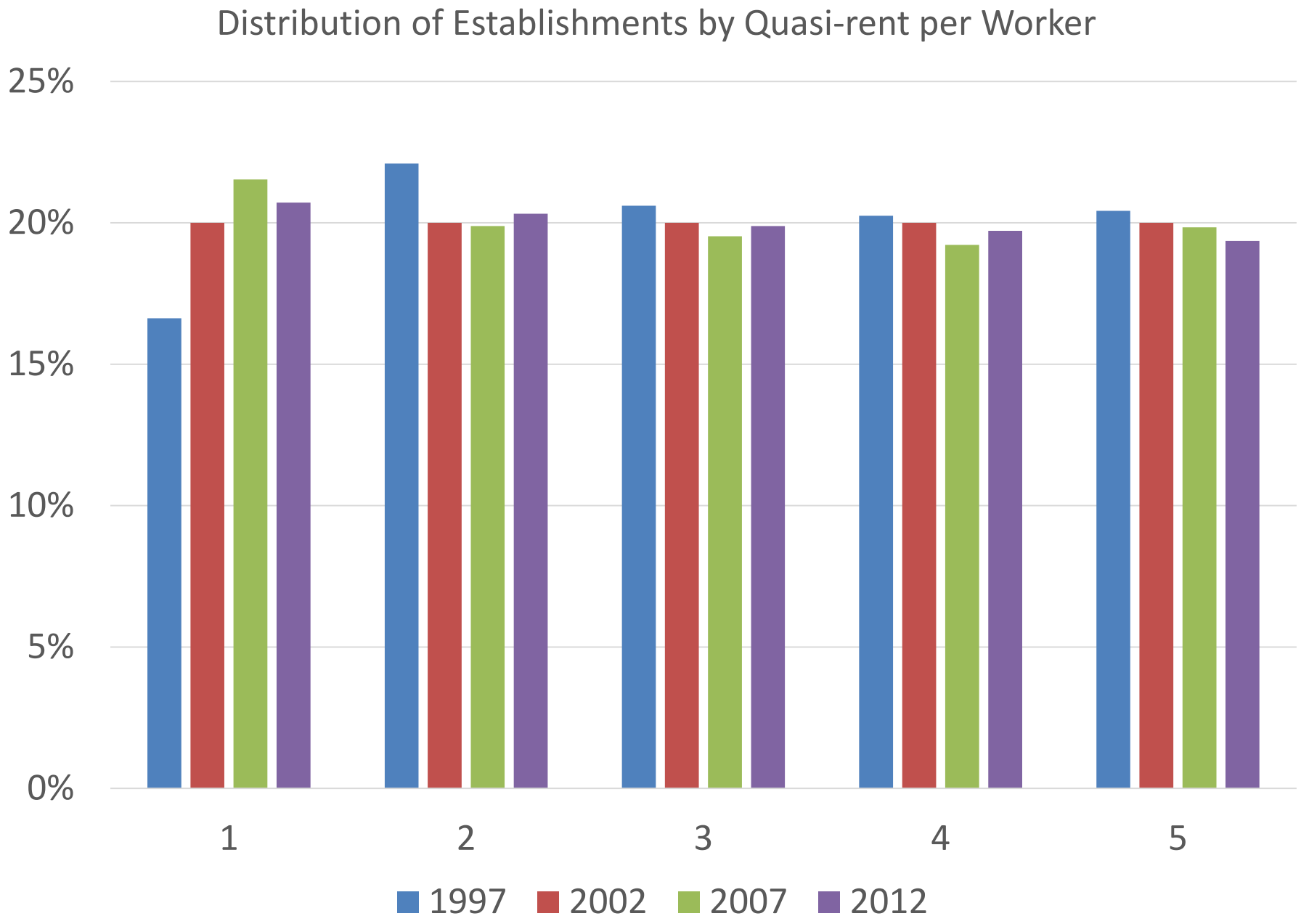
Opportunity Cost of Materials, Energy, and Other Purchased Inputs

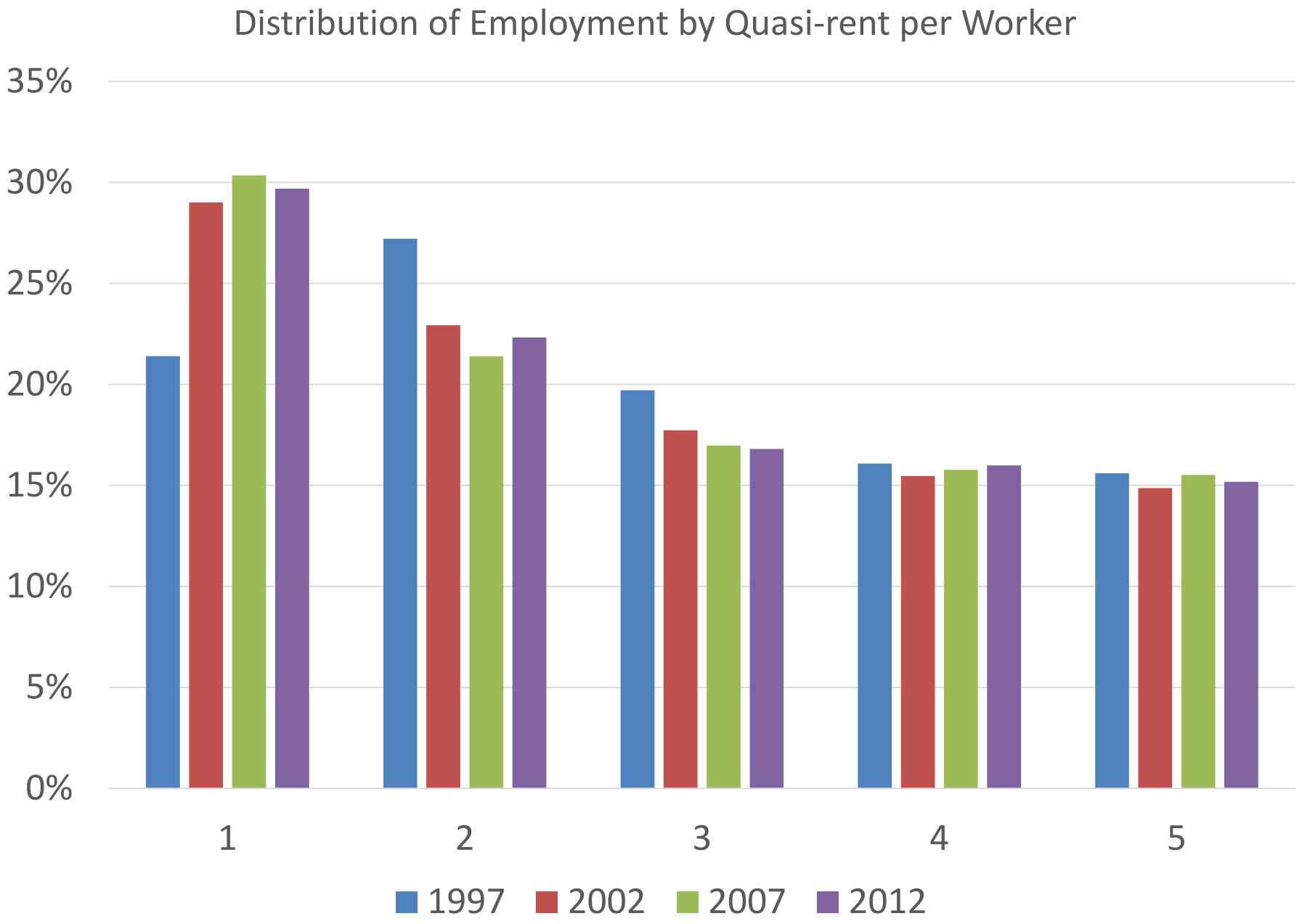
- Assumed the same for all businesses in the same NAICS sector in the relevant year
- Estimated by share of energy, material and other supplies as a proportion of gross output, say EMS_share
- Revenue (*R*) net of energy, material and other purchased inputs is

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

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

Characterizing Establishments by Quasi-rent per Worker


Distribution of Establishments by Quasi-rent per Worker
25%
20%
15%
10%
5%
0%
1
2
3
4
5
1997
2002
2007
2012


Distribution of Employment by Quasi-rent per Worker
35%
30%
25%
20%
15%
10%
5%
0%
1
2
3
4
5
1997
2002
2007
2012

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*
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		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%
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%	

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

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

FROM	TO 3		4		5		All	
	2002-2007							
	JCR	JDR	JCR	JDR	JCR	JDR	JCR	JDR
Births			5.8%		5.6%		42.1%	
1	0.2%	0.1%	0.1%	0.1%	0.1%	0.1%	2.7%	17.1%
2	0.5%	0.1%	0.2%	0.0%	0.1%	0.1%	2.3%	11.9%
3	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%	0.3%	0.4%	2.4%	7.1%
5	0.2%	0.0%	0.6%	0.1%	1.7%	0.8%	2.9%	6.7%
All	8.7%	1.4%	7.9%	1.4%	7.7%	1.7%	54.7%	51.1%
Net growth	7.3%		6.5%		6.0%		3.7%	

3	6.8%	0.3%	0.1%	0.7%	0.2%			
4	5.9%	0.1%	0.1%	0.3%	0.0%			
5	5.8%	0.2%	0.1%	0.2%	0.0%			
All	42.9%	18.7%	2.1%	11.7%	1.6%			
Net growth	-42.9%	16.5%		10.1%				

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)

	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%	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							.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 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
Births			15.1%		9.1%		6.5%							
1		14.5%	2.3%	1.6%	0.2%	0.5%	0.1%							17.1%
2		9.8%	0.7%	0.3%	1.2%	0.8%	0.3%							11.9%
3		6.8%	0.3%	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%	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 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)

	TO											
FROM	Deaths		1		2		3		4		5		All	
	JDR								*JCR*	*JDR*	*JCR*	*JDR*	*JCR*	*JDR*
Births									5.8%		5.6%		42.1%	
1	14.5%								0.1%	0.1%	0.1%	0.1%	2.7%	17.1%
2	9.8%								0.1%	0.2%	0.0%	0.1%	2.3%	11.9%
3	6.8%								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 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)

							TO							
FROM		Deaths	1		2		3							
							2002-2007							
		JDR	JCR	JDR	JCR	JDR	JCR							
Births			15.1%		9.1%		6.5%							
1														
2														
3								0.5%						[illegible]%
4								0.1%	1.0%	0.5%	0.3%	0.4%	2.4%	7.1%
5								0.0%	0.6%	0.1%	1.7%	0.8%	2.9%	6.7%
All							[illegible]	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%	

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.

FRO						TO 3		TO 4		TO 5		All	
						2002-2007							
						JCR	JDR	JCR	JDR	JCR	JDR	JCR	JDR
Bir						6.5%							
						0.1%							17.1%
						0.3%							11.9%
3		6.8%	0.3%	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%	7.9%	1.4%	7.7%	1.7%	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)

FROM	TO											
	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%	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							0%	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%
Net growth	-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)

	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%								42.1%	
1		14.5%	2.3%	1.6%	0.2%	0.5							2.7%	17.1%
2		9.8%	0.7%	0.3%	1.2%	0.8							2.3%	11.9%
3		6.8%	0.3%	0.1%	0.7%	0.2							2.4%	8.3%
4		5.9%	0.1%	0.1%	0.3%	0.0							2.4%	7.1%
5		5.8%	0.2%	0.1%	0.2%	0.0							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%	

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)

FROM	TO											
	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		14.5%	2.3%								0.1%	0.1%	2.7%	17.1%
2		9.8%	0.7%								0.0%	0.1%	2.3%	11.9%
3		6.8%	0.3%								0.1%	0.2%	2.4%	8.3%
4		5.9%	0.1%								0.3%	0.4%	2.4%	7.1%
5		5.8%	0.2%								1.7%	0.8%	2.9%	6.7%
All		42.9%	18.7%								7.7%	1.7%	54.7%	51.1%
Net growth	-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)

FROM	TO												
	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		Deaths	TO 1		2		3							
			2002-2007											
		JDR	*JCR*	*JDR*	*JCR*	*JDR*	*JCR*							*R*
Births			15.1%		9.1%		6.5%							
1		14.5%	2.3%	1.6%	0.2%	0.5%	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%	2.3%	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%	

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		Deaths	1		2								All	
							TO							
		JDR	*JCR*	*JDR*	*JCR*	*JDR*							*JCR*	*JDR*
Births			15.1%		9.1%								42.1%	
1		14.5%	2.3%	1.6%	0.2%	0.5%							2.7%	17.1%
2		9.8%	0.7%	0.3%	1.2%	0.8%							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%	

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)

FROM		TO 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		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%	0.2%	1.2%	0.8%	0.3%	0.5%	0.1%	0.2%	0.0%	0.1%	2.3%	11.9%
							%	0.9%	0.5%	0.4%	0.5%	0.1%	0.2%	2.4%	8.3%
							%	0.7%	0.1%	1.0%	0.5%	0.3%	0.4%	2.4%	7.1%
							%	0.2%	0.0%	0.6%	0.1%	1.7%	0.8%	2.9%	6.7%
							%	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

The structure of this table is the same as the one we just looked at. The top panel is 1997-2002. The middle panel is 2002-2007. The bottom panel is 2007-2012.

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**	
	1997-2002													
		JDR	*JCR*	*JDR*	*JCR*	*JDR*	*JCR*	*JDR*	*JCR*	*JDR*	*JCR*	*JDR*	*JCR*	*JDR*
					10.4%		7.3%		6.4%		6.2%		47.3%	
					0.2%	0.5%	0.1%	0.2%	0.0%	0.1%	0.0%	0.1%	1.8%	14.0%
					1.3%	0.9%	0.3%	0.5%	0.1%	0.2%	0.0%	0.1%	2.8%	14.1%
					0.9%	0.2%	1.0%	0.5%	0.3%	0.4%	0.0%	0.2%	2.7%	9.5%
					0.4%	0.0%	0.8%	0.1%	1.1%	0.4%	0.2%	0.4%	2.8%	7.5%
					0.2%	0.0%	0.3%	0.0%	0.8%	0.1%	1.8%	0.6%	3.4%	7.2%
					13.4%	1.8%	9.9%	1.4%	8.6%	1.3%	8.3%	1.4%	60.7%	52.2%
					11.6%		8.5%		7.4%		6.9%		8.5%	
	2002-2007													
					JCR	*JDR*	*JCR*	*JDR*	*JCR*	*JDR*	*JCR*	*JDR*	*JCR*	*JDR*
					9.1%		6.5%		5.8%		5.6%		42.1%	
					0.2%	0.5%	0.1%	0.2%	0.1%	0.1%	0.1%	0.1%	2.7%	17.1%
					1.2%	0.8%	0.3%	0.5%	0.1%	0.2%	0.0%	0.1%	2.3%	11.9%
					0.7%	0.2%	0.9%	0.5%	0.4%	0.5%	0.1%	0.2%	2.4%	8.3%
					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%	
	2007-2012													
		JDR	*JCR*	*JDR*	*JCR*	*JDR*	*JCR*	*JDR*	*JCR*	*JDR*	*JCR*	*JDR*	*JCR*	*JDR*
Births			12.2%		10.1%		6.5%		5.9%		5.8%		40.5%	
1		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%
2		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%
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%	8.1%
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%	7.3%
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%	7.1%
All		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%
Net growth	-36.5%		12.9%		9.7%		6.1%		5.5%		5.2%		2.9%	

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**	
			1997-2002											
		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%	
1		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%
2		11.8%	1.1%								0.0%	0.1%	2.8%	14.1%
3		8.0%	0.5%									0.2%	2.7%	9.5%
4		6.5%	0.3%									0.4%	2.8%	7.5%
5		6.3%	0.4%									0.6%	3.4%	7.2%
All		44.5%	20.5%									1.4%	60.7%	52.2%
Net growth	-44.5%		18								.9%		8.5%	
		JDR	*JCR*									*JDR*	*JCR*	*JDR*
Births			15.1%										42.1%	
1		14.5%	2.3%									0.1%	2.7%	17.1%
2		9.8%	0.7%									0.1%	2.3%	11.9%
3		6.8%	0.3%									0.2%	2.4%	8.3%
4		5.9%	0.1%									0.4%	2.4%	7.1%
5		5.8%	0.2%									0.8%	2.9%	6.7%
All		42.9%	18.7%								.7%	1.7%	54.7%	51.1%
Net growth	-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*
Births			12.2%		10.1%		6.5%		5.9%		5.8%		40.5%	
1		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%
2		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%
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%	8.1%
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%	7.3%
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%	7.1%
All		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%
Net growth	-36.5%		12.9%		9.7%		6.1%		5.5%		5.2%		2.9%	

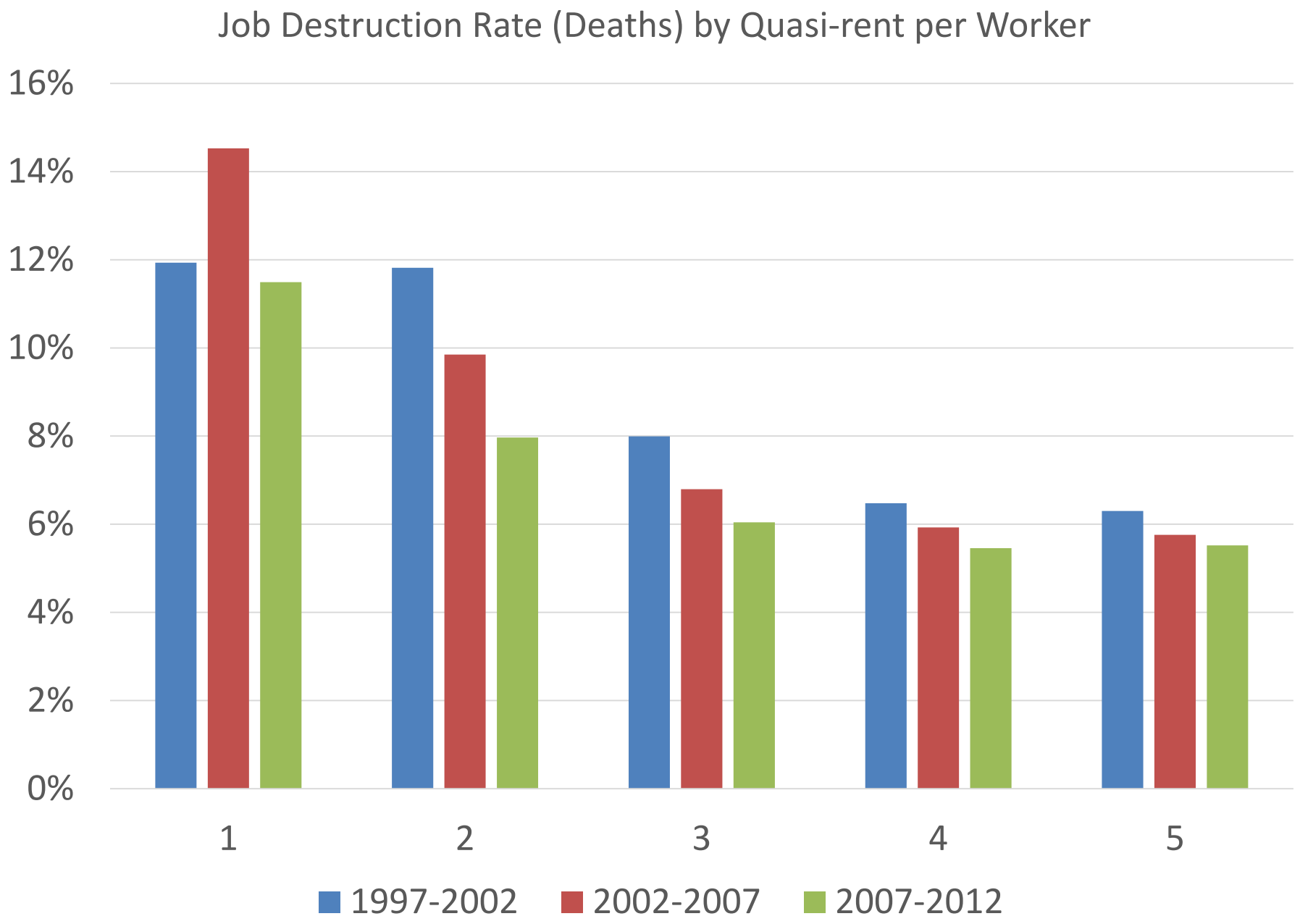
Most job creation and destruction over a five-year period comes from the birth and death of establishments. This is not a new result, but makes edited longitudinal linkage crucial.

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*
Births			17.0%		10.4%		7.3%		6.4%		6.2%		47.3%	
1		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%
2		11.8%	1.1%								0.0%	0.1%	2.8%	14.1%
3		8.0%	0.5%									0.2%	2.7%	9.5%
4		6.5%	0.3%									0.4%	2.8%	7.5%
5		6.3%	0.4%									0.6%	3.4%	7.2%
All		44.5%	20.5%									1.4%	60.7%	52.2%
Net growth	-44.5%		18								.9%		8.5%	
		JDR	*JCR*								R	*JDR*	*JCR*	*JDR*
Births			15.1%										42.1%	
1		14.5%	2.3%									0.1%	2.7%	17.1%
2		9.8%	0.7%									0.1%	2.3%	11.9%
3		6.8%	0.3%									0.2%	2.4%	8.3%
4		5.9%	0.1%									0.4%	2.4%	7.1%
5		5.8%	0.2%									0.8%	2.9%	6.7%
All		42.9%	18.7%								.7%	1.7%	54.7%	51.1%
Net growth	-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*
Births			12.2%		10.1%		6.5%		5.9%		5.8%		40.5%	
1		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%
2		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%
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%	8.1%
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%	7.3%
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%	7.1%
All		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%
Net growth	-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
16%
14%
12%
10%
8%
6%
4%
2%
0%
1
2
3
4
5
1997-2002
2002-2007
2007-2012

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**	
	1997-2002													
		JDR	*JCR*	*JDR*	*JCR*	*JDR*	*JCR*	*JDR*	*JCR*	*JDR*	*JCR*			
Births			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		
2		11.8%	1.1%	0.5%	1.3%	0.9%	0.3%	0.5%	0.1%	0.2%	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		
4		6.5%	0.3%	0.1%	0.4%	0.0%	0.8%	0.1%	1.1%	0.4%	0.2%	0		
5		6.3%	0.4%	0.1%	0.2%	0.0%	0.3%	0.0%	0.8%	0.1%	1.8%	0		
All		44.5%	20.5%	1.9%	13.4%	1.8%	9.9%	1.4%	8.6%	1.3%	8.3%	1		
Net growth	-44.5%		18.6%		11.6%		8.5%		7.4%		6.9%			
	2002-2007													
		JDR	*JCR*	*JDR*	*JCR*	*JDR*	*JCR*	*JDR*	*JCR*	*JDR*	*JCR*			
Births			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		
2		9.8%	0.7%	0.3%	1.2%	0.8%	0.3%	0.5%	0.1%	0.2%	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		
4		5.9%	0.1%	0.1%	0.3%	0.0%	0.7%	0.1%	1.0%	0.5%	0.3%	0		
5		5.8%	0.2%	0.1%	0.2%	0.0%	0.2%	0.0%	0.6%	0.1%	1.7%	0		
All		42.9%	18.7%	2.1%	11.7%	1.6%	8.7%	1.4%	7.9%	1.4%	7.7%	1		
Net growth	-42.9%		16.5%		10.1%		7.3%		6.5%		6.0%			
	2007-2012													
		JDR	*JCR*	*JDR*	*JCR*	*JDR*	*JCR*	*JDR*	*JCR*	*JDR*	*JCR*			
Births			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		
2		8.0%	0.4%	0.3%	0.9%	1.2%	0.2%	0.7%	0.1%	0.3%	0.0%	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%	8.1%
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%	7.3%
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%	7.1%
All		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%
Net growth	-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
18%
16%
14%
12%
10%
8%
6%
4%
2%
0%
1
2
3
4
5
1997-2002
2002-2007
2007-2012

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**			
			1997-2002											
		JDR	*JCR*	*JDR*	*JCR*	*JDR*	*JCR*	*JDR*	*JCR*	*JDR*	*JCR*	*JDR*		
Births			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%	0.1%		
2		11.8%	1.1%	0.5%	1.3%	0.9%	0.3%	0.5%	0.1%	0.2%	0.0%	0.1%		
3		8.0%	0.5%	0.1%	0.9%	0.2%	1.0%	0.5%	0.3%	0.4%	0.0%	0.2%		
4		6.5%	0.3%	0.1%	0.4%	0.0%	0.8%	0.1%	1.1%	0.4%	0.2%	0.4%		
5		6.3%	0.4%	0.1%	0.2%	0.0%	0.3%	0.0%	0.8%	0.1%	1.8%	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*		
							6.5%		5.8%		5.6%			
						0.5%	0.1%	0.2%	0.1%	0.1%	0.1%	0.1%		
						0.8%	0.3%	0.5%	0.1%	0.2%	0.0%	0.1%		
						0.2%	0.9%	0.5%	0.4%	0.5%	0.1%	0.2%		
						0.0%	0.7%	0.1%	1.0%	0.5%	0.3%	0.4%		
						0.0%	0.2%	0.0%	0.6%	0.1%	1.7%	0.8%		
						1.6%	8.7%	1.4%	7.9%	1.4%	7.7%	1.7%		
					.1%		7.3%		6.5%		6.0%			
			2007-2012											
		JDR	*JCR*	*JDR*	*JCR*	*JDR*	*JCR*	*JDR*	*JCR*	*JDR*	*JCR*	*JDR*	*JCR*	*JDR*
Births			12.2%		10.1%		6.5%		5.9%		5.8%		40.5%	
1		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%
2		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%
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%	8.1%
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%	7.3%
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%	7.1%
All		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%
Net growth	-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)

		TO													
FROM		**Deaths**		**1**		**2**		**3**		**4**		**5**		**All**	
							1997-2002								
		JDR		*JCR*	*JDR*	*JCR*	*JDR*	*JCR*	*JDR*	*JCR*	*JDR*	*JCR*			
Births				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%			
2		11.8%		1.1%	0.5%	1.3%	0.9%	0.3%	0.5%	0.1%	0.2%	0.0%			
3		8.0%		0.5%	0.1%	0.9%	0.2%	1.0%	0.5%	0.3%	0.4%	0.0%			
4		6.5%		0.3%	0.1%	0.4%	0.0%	0.8%	0.1%	1.1%	0.4%	0.2%			
5		6.3%		0.4%	0.1%	0.2%	0.0%	0.3%	0.0%	0.8%	0.1%	1.8%			
All		44.5%		20.5%	1.9%	13.4%	1.8%	9.9%	1.4%	8.6%	1.3%	8.3%			
Net growth		-44.5%		18.6%		11.6%		8.5%		7.4%		6.9			
							2002-2007								
		JDR		*JCR*	*JDR*	*JCR*	*JDR*	*JCR*	*JDR*	*JCR*	*JDR*	*JCR*			
Births				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%			
2		9.8%		0.7%	0.3%	1.2%	0.8%	0.3%	0.5%	0.1%	0.2%	0.0%			
3		6.8%		0.3%	0.1%	0.7%	0.2%	0.9%	0.5%	0.4%	0.5%	0.1%			
4		5.9%		0.1%	0.1%	0.3%	0.0%	0.7%	0.1%	1.0%	0.5%	0.3%			
5		5.8%		0.2%	0.1%	0.2%	0.0%	0.2%	0.0%	0.6%	0.1%	1.7%			
All		42.9%		18.7%	2.1%	11.7%	1.6%	8.7%	1.4%	7.9%	1.4%	7.7%			
Net growth		-42.9%		16.5%		10.1%		7.3%		6.5%		6.0			
							2007-2012								
		JDR		*JCR*	*JDR*	*JCR*	*JDR*	*JCR*	*JDR*	*JCR*	*JDR*	*JCR*			
Births				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%			
2		8.0%		0.4%	0.3%	0.9%	1.2%	0.2%	0.7%	0.1%	0.3%	0.0%			
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%	8.1%
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%	7.3%
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%	7.1%
All		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%
Net growth		-36.5%		12.9%		9.7%		6.1%		5.5%		5.2%		2.9%	

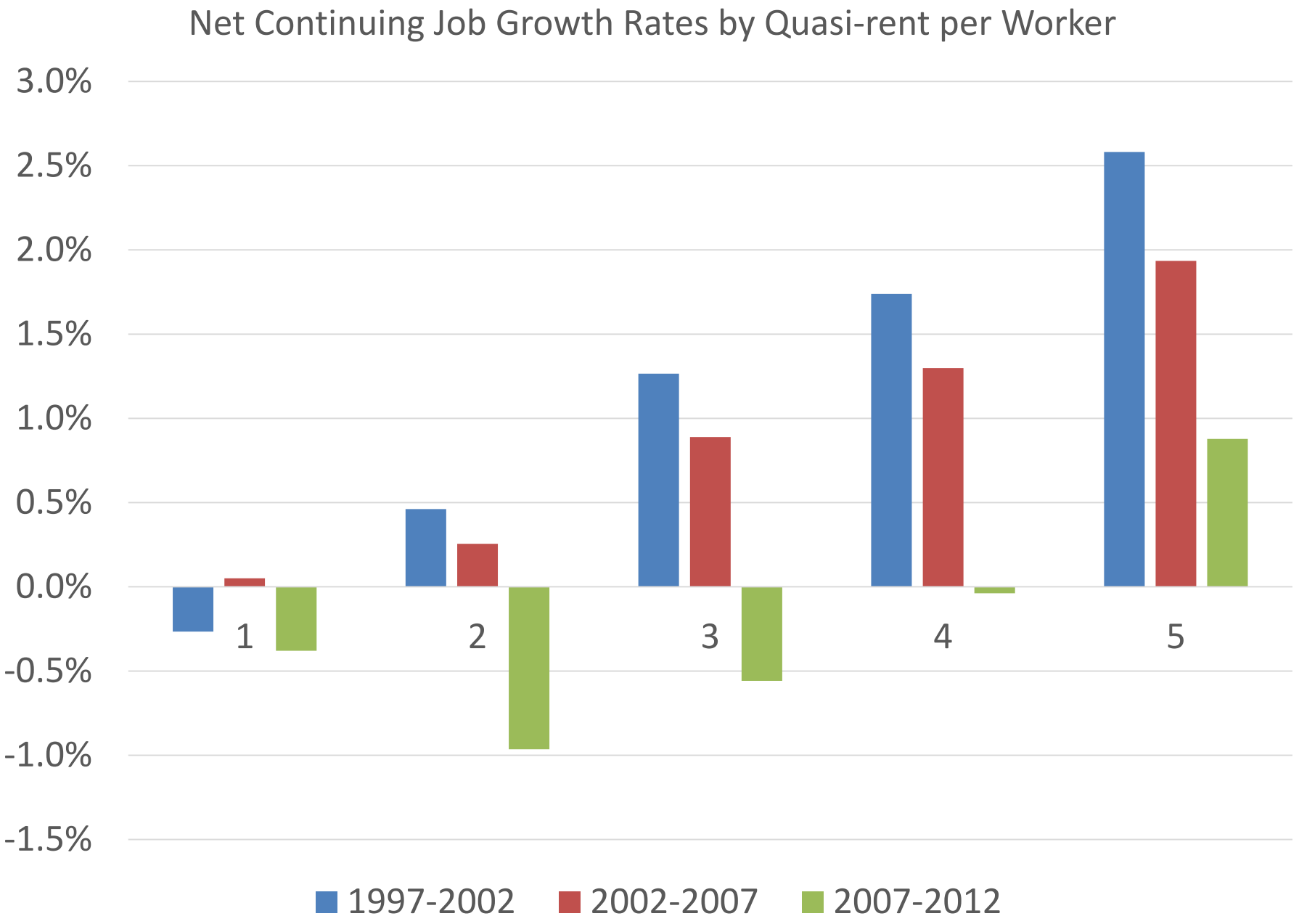
Continuing establishments that move down in the job quality distribution, create more jobs than they destroy in all five-year periods.

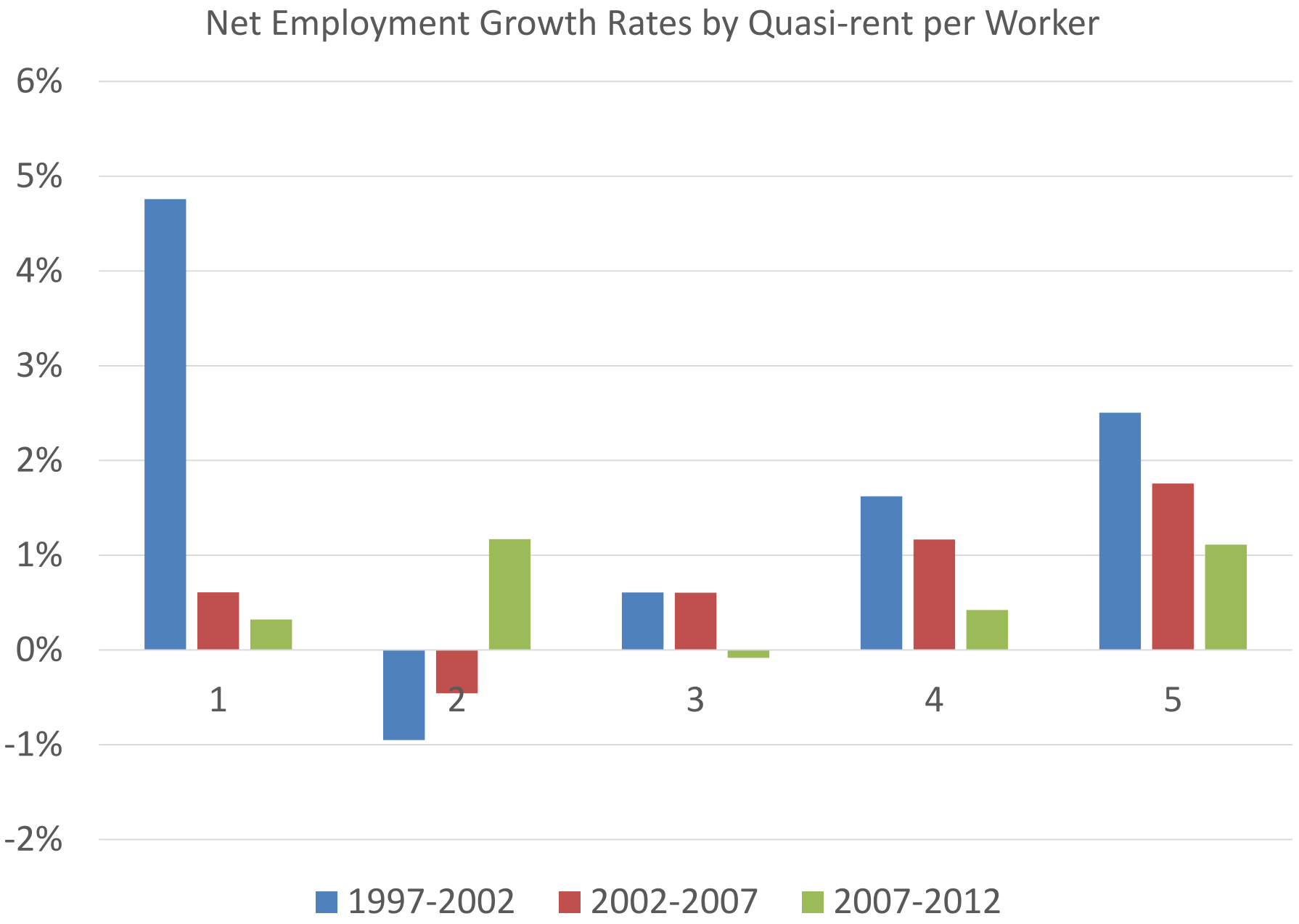
Gross Job Creation and Destruction by Quasi-rent (Surplus) per Worker

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

FROM		Deaths	1		2		3		4		5		All	
							TO							
							1997-2002							
		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%
		6.3%	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*
			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%
		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%
		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%
		6.8%	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*
			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%
		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%
		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%
All		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%
Net growth		-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
3.0%
2.5%
2.0%
1.5%
1.0%
0.5%
0.0%
-0.5%
-1.0%
-1.5%
1
2
3
4
5
1997-2002
2002-2007
2007-2012


Net Employment Growth Rates by Quasi-rent per Worker
6%
5%
4%
3%
2%
1%
0%
-1%
-2%
1
2
3
4
5
1997-2002
2002-2007
2007-2012

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)

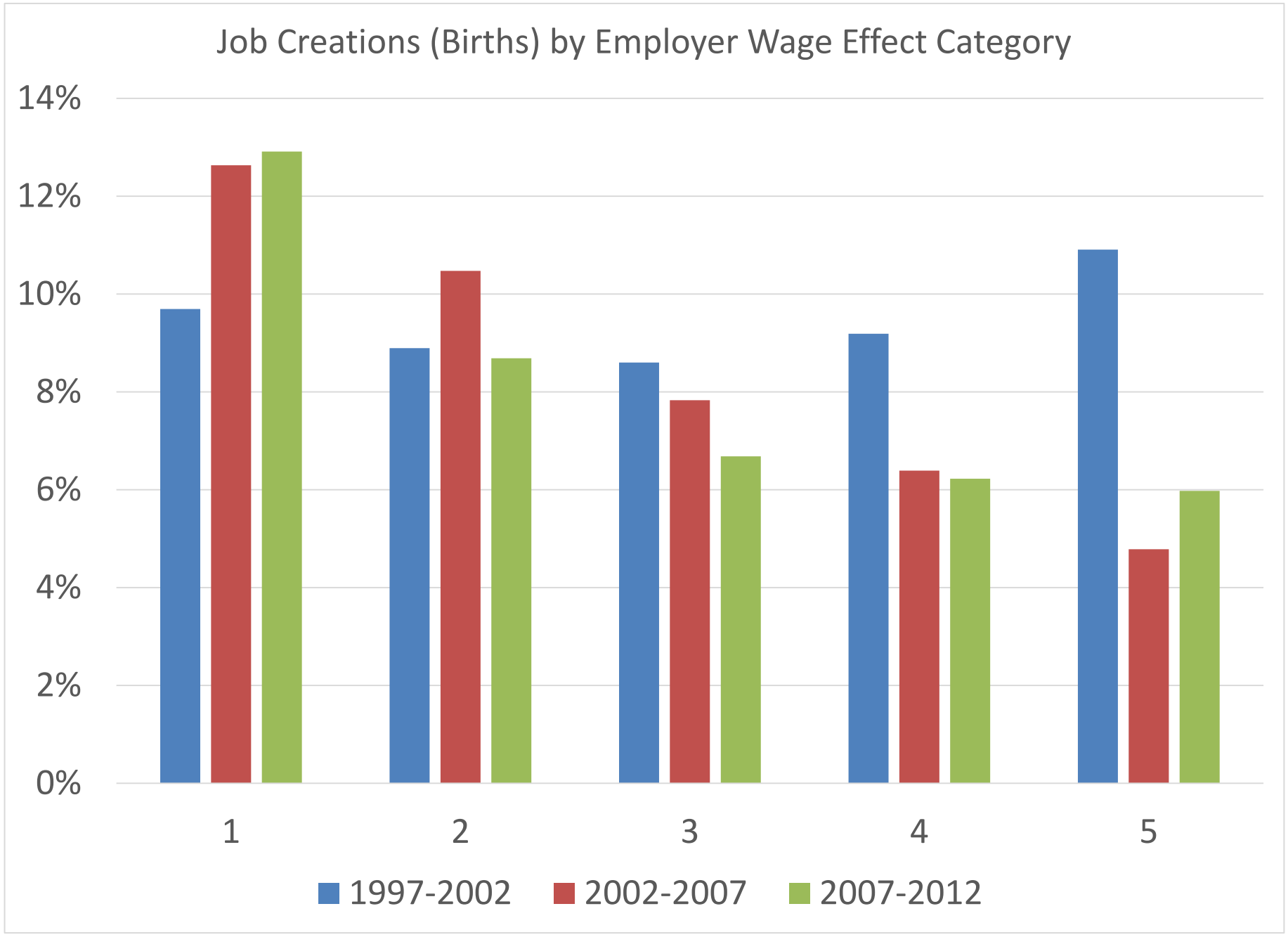
		TO											
FROM	**Deaths**	**1**		**2**		**3**		**4**		**5**		**All**	
	1997-2002												
	JDR	*JCR*	*JDR*	*JCR*	*JDR*	*JCR*	*JDR*	*JCR*	*JDR*	*JCR*	*JDR*	*JCR*	*JDR*
Births		9.7%		8.9%		8.6%		9.2%		10.9%		47.3%	
1	10.7%	1.5%	1.2%	0.3%	0.3%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%	1.9%	12.3%
2	8.9%	0.5%	0.2%	1.0%	0.7%	0.3%	0.4%	0.1%	0.2%	0.0%	0.1%	2.0%	10.5%
3	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%
4	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%
5	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%
All	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%
Net growth	-44.5%	10.4%		9.7%		9.5%		10.5%		13.0%		8.5%	
	2002-2007												
	JDR	*JCR*	*JDR*	*JCR*	*JDR*	*JCR*	*JDR*	*JCR*	*JDR*	*JCR*	*JDR*	*JCR*	*JDR*
Births		12.6%		10.5%		7.8%		6.4%		4.8%		42.1%	
1	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%
2	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%
3	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%
4	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%
5	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%
All	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%
Net growth	-42.9%	12.9%		11.2%		8.8%		7.5%		6.1%		3.7%	
	2007-2012												
	JDR	*JCR*	*JDR*	*JCR*	*JDR*	*JCR*	*JDR*	*JCR*	*JDR*	*JCR*	*JDR*	*JCR*	*JDR*
Births		12.9%		8.7%		6.7%		6.2%		6.0%		40.5%	
1	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%
2	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%
3	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%
4	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%
5	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%
All	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%
Net growth	-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)

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

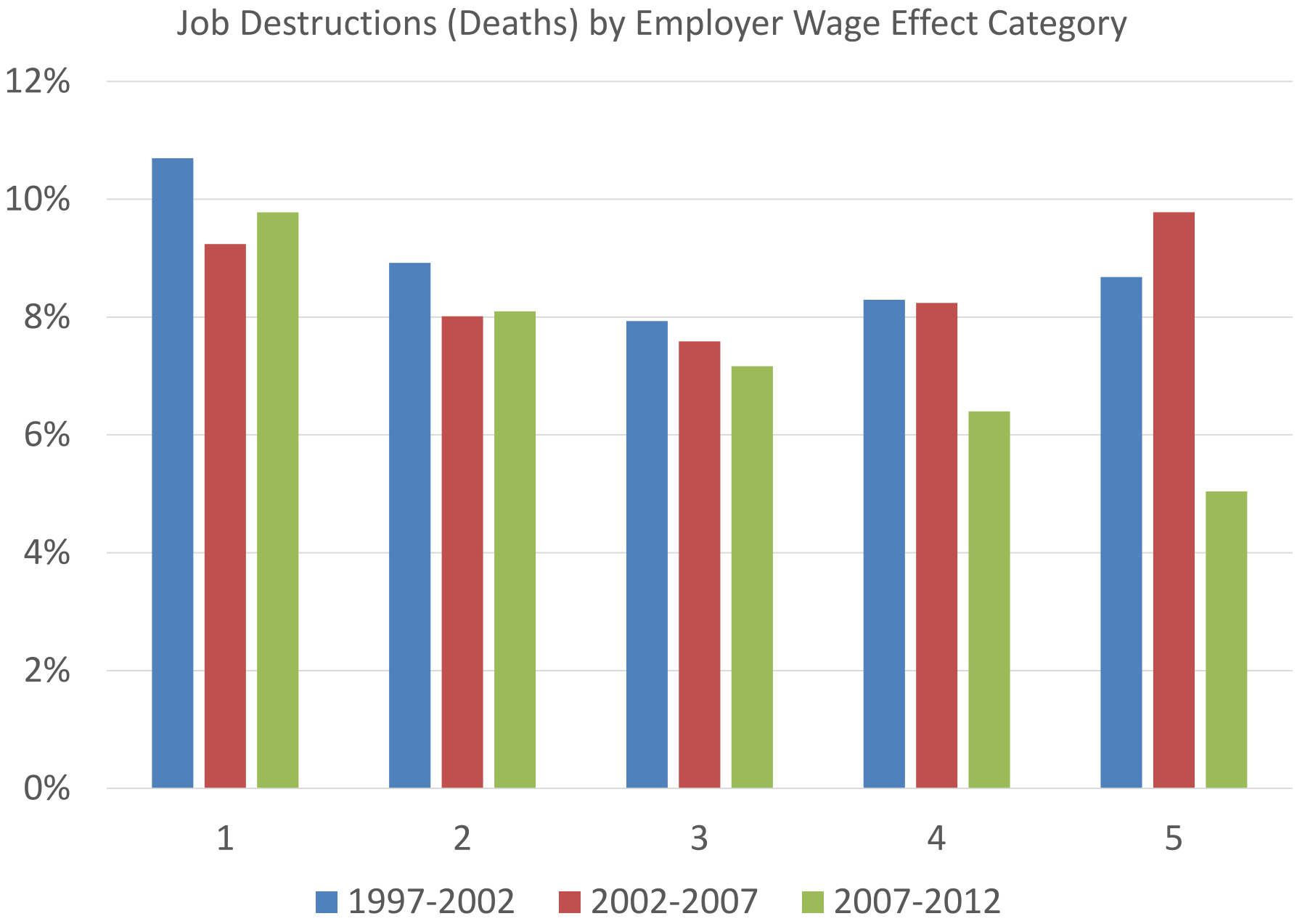

Job Creations (Births) by Employer Wage Effect Category
14%
12%
10%
8%
6%
4%
2%
0%
1
2
3
4
5
1997-2002
2002-2007
2007-2012

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												
	JDR	*JCR*	*JDR*	*JCR*	*JDR*	*JCR*	*JDR*	*JCR*	*JDR*	*JCR*	*JDR*	*JCR*	*JDR*
Births		9.7%		8.9%						10.9%		47.3%	
1	10.7%	1.5%	1.2%	0.3%	0.3%					0.0%	0.0%	1.9%	12.3%
2	8.9%	0.5%	0.2%	1.0%	0.7					0.0%	0.1%	2.0%	10.5%
3	7.9%	0.1%	0.0%	0.6%	0.3					0.2%	0.2%	2.3%	9.4%
4	8.3%	0.0%	0.0%	0.3%	0.1					0.7%	0.4%	3.1%	9.9%
5	8.7%	0.0%	0.0%	0.1%	0.0					2.8%	1.0%	4.1%	10.1%
All	44.5%	11.8%	1.5%	11.2%	1.4					14.7%	1.7%	60.7%	52.2%
Net growth	-44.5%	10.4%		9.7%						13.0%		8.5%	
	JDR	*JCR*	*JDR*	*JCR*	*JD*					*JCR*	*JDR*	*JCR*	*JDR*
Births		12.6%		10.5%						4.8%		42.1%	
1	9.2%	1.4%	1.5%	0.1%	0.2					0.0%	0.0%	1.5%	11.0%
2	8.0%	0.7%	0.4%	1.0%	0.8					0.0%	0.0%	1.9%	9.6%
3	7.6%	0.2%	0.1%	1.0%	0.6					0.0%	0.1%	2.3%	9.2%
4	8.2%	0.1%	0.0%	0.4%	0.2					0.2%	0.2%	2.9%	9.9%
5	9.8%	0.0%	0.0%	0.1%	0.1					2.2%	0.9%	4.0%	11.5%
All	42.9%	15.0%	2.1%	13.1%	1.9					7.2%	1.1%	54.7%	51.1%
Net growth	-42.9%	12.9%		11.2%						6.1%		3.7%	
	JDR	*JCR*	*JDR*	*JCR*	*JD*					*JCR*	*JDR*	*JCR*	*JDR*
Births		12.9%		8.7%						6.0%		40.5%	
1	9.8%	1.7%	2.2%	0.2%	0.4					0.0%	0.0%	2.0%	12.4%
2	8.1%	0.4%	0.3%	1.5%	1.6%				%	0.0%	0.0%	2.3%	10.7%
3	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%
4	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%
5	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%
All	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%
Net growth	-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
12%
10%
8%
6%
4%
2%
0%
1
2
3
4
5
1997-2002
2002-2007
2007-2012

Gross Job Creation and Destruction by Worker Opportunity Cost

(Worker Opportunity Cost Categories Benchmarked to 2002 Quintiles)

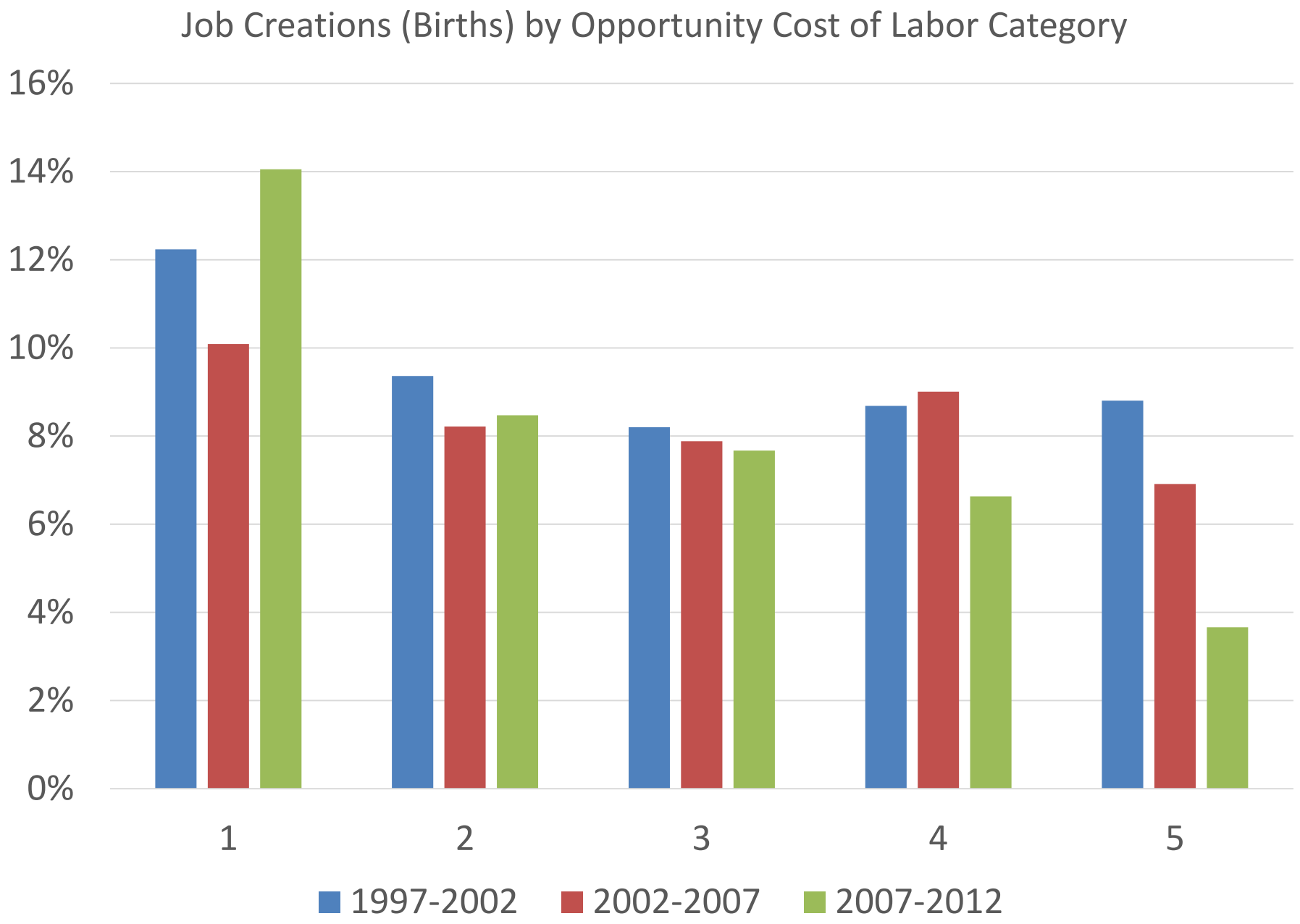
	1997-2002												
	JDR	*JCR*	*JDR*	*JCR*	*JDR*	*JCR*	*JDR*	*JCR*	*JDR*	*JCR*	*JDR*	*JCR*	*JDR*
Births		12.2%		9.4%		8.2%		8.7%		8.8%		47.3%	
1	16.6%	2.1%	1.5%	0.6%	0.9%	0.1%	0.3%	0.0%	0.1%	0.0%	0.0%	2.9%	19.3%
2	8.6%	0.5%	0.1%	1.2%	0.5%	0.7%	0.7%	0.1%	0.3%	0.0%	0.1%	2.5%	10.3%
3	7.5%	0.1%	0.0%	0.5%	0.1%	1.2%	0.4%	0.7%	0.6%	0.1%	0.1%	2.6%	8.8%
4	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%
5	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%
All	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%
Net growth	-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*
Births		10.1%		8.2%		7.9%		9.0%		6.9%		42.1%	
1	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%
2	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%
3	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%
4	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%
5	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%
All	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%
Net growth	-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*
Births		14.1%		8.5%		7.7%		6.6%		3.7%		40.5%	
1	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%
2	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%
3	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%
4	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%
5	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%
All	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%
Net growth	-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*
Births		12.2%		9.4%		8.2%		8.7%		8.8%
1	16.6%	2.1%	1.5%	0.6%	0.9%	0.1%	0.3%	0.0%	0.1%	0.0%
2	8.6%	0.5%	0.1%	1.2%	0.5%	0.7%	0.7%	0.1%	0.3%	0.0%
3	7.5%	0.1%	0.0%	0.5%	0.1%	1.2%	0.4%	0.7%	0.6%	0.1%
4	6.7%	0.1%	0.0%	0.2%	0.0%	0.5%	0.1%	1.4%	0.5%	0.5%
5	5.2%	0.0%	0.0%	0.1%	0.0%	0.2%	0.0%	0.4%	0.1%	2.1%
All	44.5%	15.0%	1.7%	12.0%	1.6%	10.8%	1.5%	11.4%	1.6%	11.5%
Net growth	-44.5%		13.3%		10.4%		9.3%		9.8%	10.2%
	2002-2007									
	JDR	*JCR*	*JDR*	*JCR*	*JDR*	*JCR*	*JDR*	*JCR*	*JDR*	*JCR*
Births		10.1%		8.2%		7.9%		9.0%		6.9%
1	11.7%	1.5%	1.2%	0.3%	0.6%	0.0%	0.2%	0.0%	0.1%	0.0%
2	8.3%	0.5%	0.1%	1.2%	0.7%	0.4%	0.6%	0.1%	0.2%	0.0%
3	7.5%	0.1%	0.0%	0.6%	0.2%	1.2%	0.6%	0.4%	0.6%	0.0%
4	7.7%	0.1%	0.0%	0.2%	0.0%	0.7%	0.2%	1.7%	0.9%	0.3%
5	7.7%	0.0%	0.0%	0.1%	0.0%	0.2%	0.0%	0.8%	0.2%	2.2%
All	42.9%	12.2%	1.4%	10.6%	1.5%	10.5%	1.6%	12.0%	2.0%	9.5%
Net growth	-42.9%		10.9%		9.1%		8.8%		10.0%	7.7%
	2007-2012									
	JDR	*JCR*	*JDR*	*JCR*	*JDR*	*JCR*	*JDR*	*JCR*	*JDR*	*JCR*
Births		14.1%		8.5%		7.7%		6.6%		3.7%
1	8.3%	1.4%	1.7%	0.0%	0.4%	0.0%	0.1%	0.0%	0.0%	0.0%
2	6.8%	1.0%	0.4%	0.7%	1.2%	0.1%	0.5%	0.0%	0.1%	0.0%
3	7.0%	0.2%	0.0%	1.0%	0.6%	0.5%	1.3%	0.1%	0.4%	0.0%
4	7.9%	0.1%	0.0%	0.3%	0.1%	1.3%	0.9%	0.7%	1.5%	0.0%
5	6.5%	0.0%	0.0%	0.1%	0.0%	0.3%	0.1%	1.3%	0.6%	1.1%
All	36.5%	16.7%	2.2%	10.7%	2.3%	9.9%	2.8%	8.6%	2.7%	4.8%
Net growth	-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.

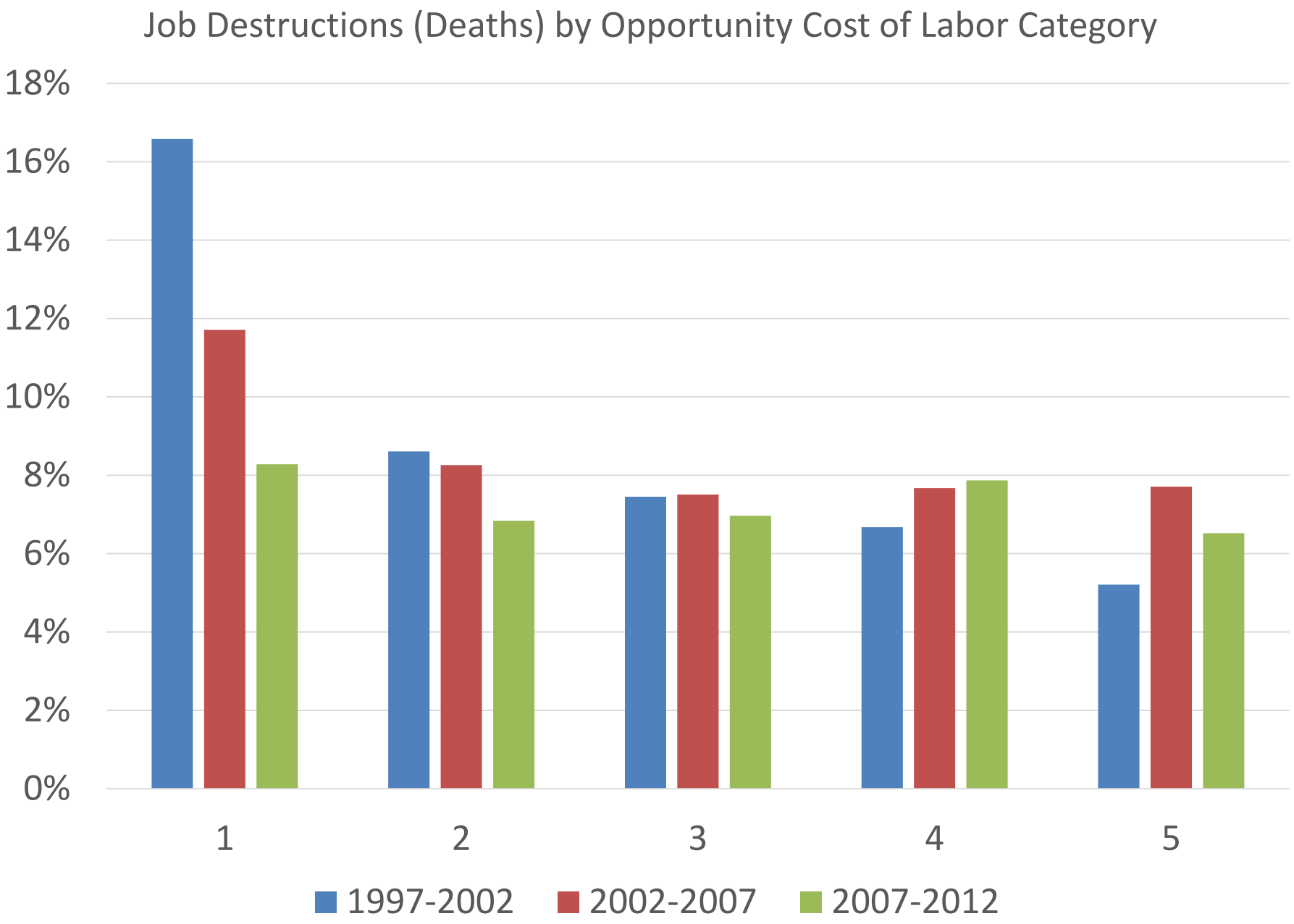

Job Creations (Births) by Opportunity Cost of Labor Category
16%
14%
12%
10%
8%
6%
4%
2%
0%
1
2
3
4
5
1997-2002
2002-2007
2007-2012

Gross Job Creation and Destruction by Worker Opportunity Cost

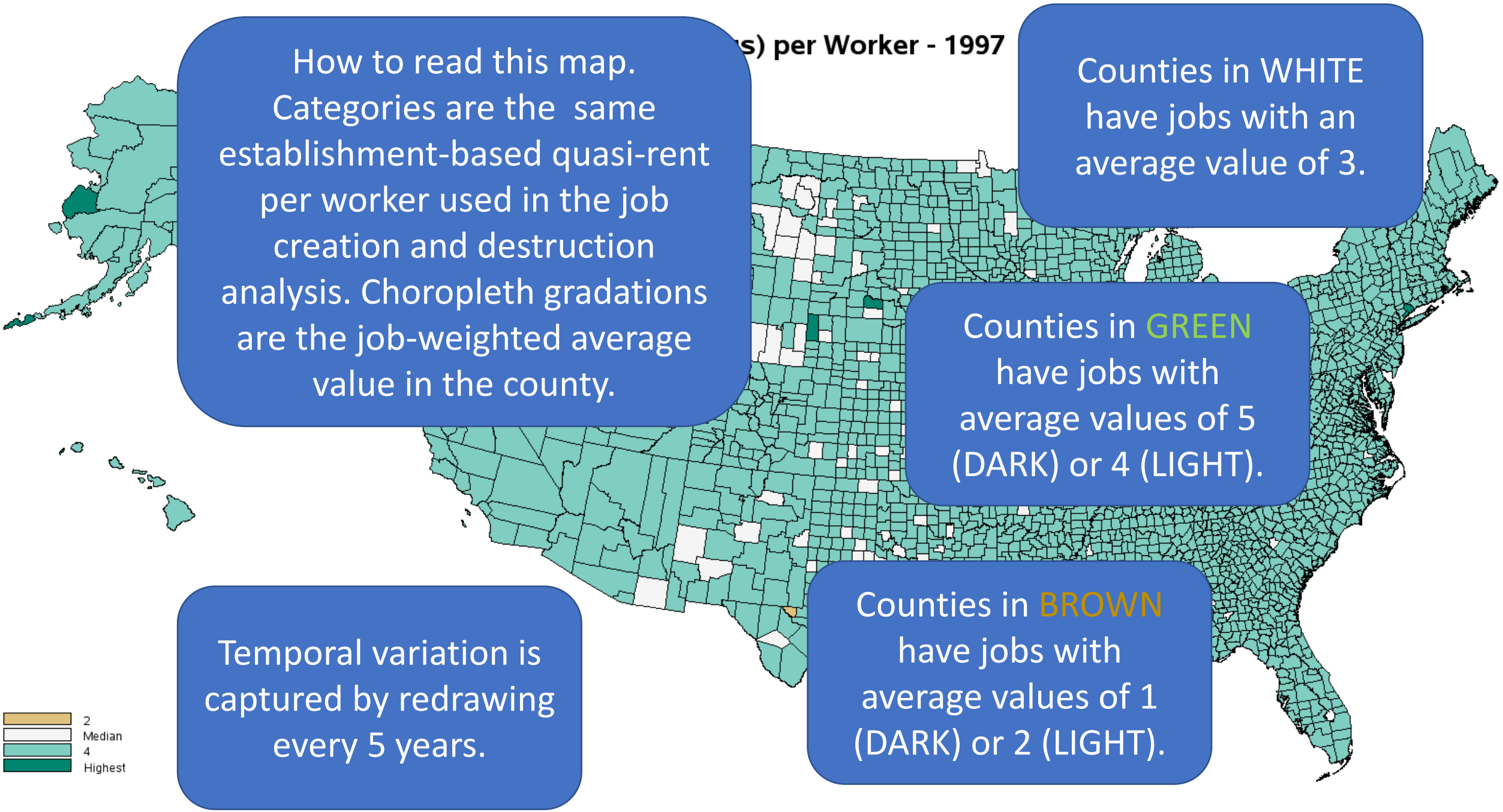
(Worker Opportunity Cost Categories Benchmarked to 2002 Quintiles)

	1997-2002											
	JDR	*JCR*	*JDR*	*JCR*	*JDR*	*JCR*	*JDR*	*JCR*	*JDR*	*JCR*	*JDR*	*JCR*	*JDR*
Births		12.2%		9.4%						8.8%		47.3%	
1	16.6%	2.1%	1.5%	0.6%					0.1%	0.0%	0.0%	2.9%	19.3%
2	8.6%	0.5%	0.1%	1.2%					0.3%	0.0%	0.1%	2.5%	10.3%
3	7.5%	0.1%	0.0%	0.5%					0.6%	0.1%	0.1%	2.6%	8.8%
4	6.7%	0.1%	0.0%	0.2%					0.5%	0.5%	0.5%	2.7%	7.8%
5	5.2%	0.0%	0.0%	0.1%					0.1%	2.1%	0.6%	2.8%	5.9%
All	44.5%	15.0%	1.7%	12.0%					1.6%	11.5%	1.3%	60.7%	52.2%
Net growth	-44.5%		13.3%		10.4					10.2%		8.5%	
	JDR	*JCR*	*JDR*	*JCR*					*JDR*	*JCR*	*JDR*	*JCR*	*JDR*
Births		10.1%		8.2%						6.9%		42.1%	
1	11.7%	1.5%	1.2%	0.3%					0.1%	0.0%	0.0%	1.9%	13.8%
2	8.3%	0.5%	0.1%	1.2%					0.2%	0.0%	0.1%	2.2%	10.0%
3	7.5%	0.1%	0.0%	0.6%					0.6%	0.0%	0.1%	2.4%	9.1%
4	7.7%	0.1%	0.0%	0.2%					0.9%	0.3%	0.4%	2.9%	9.2%
5	7.7%	0.0%	0.0%	0.1%					0.2%	2.2%	1.1%	3.2%	9.0%
All	42.9%	12.2%	1.4%	10.6%					2.0%	9.5%	1.7%	54.7%	51.1%
Net growth	-42.9%		10.9%		9.1%					7.7%		3.7%	
	JDR	*JCR*	*JDR*	*JCR*					*JDR*	*JCR*	*JDR*	*JCR*	*JDR*
Births		14.1%		8.5%						3.7%		40.5%	
1	8.3%	1.4%	1.7%	0.0%					0.0%	0.0%	0.0%	1.4%	10.5%
2	6.8%	1.0%	0.4%	0.7%					0.1%	0.0%	0.0%	1.7%	9.1%
3	7.0%	0.2%	0.0%	1.0%					0.4%	0.0%	0.1%	1.8%	9.5%
4	7.9%	0.1%	0.0%	0.3%					1.5%	0.0%	0.2%	2.4%	10.5%
5	6.5%	0.0%	0.0%	0.1%					0.6%	1.1%	0.9%	2.8%	8.1%
All	36.5%	16.7%	2.2%	10.7%					2.7%	4.8%	1.2%	50.7%	47.7%
Net growth	-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
18%
16%
14%
12%
10%
8%
6%
4%
2%
0%
1
2
3
4
5
1997-2002
2002-2007
2007-2012

Geographic Dispersion



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.

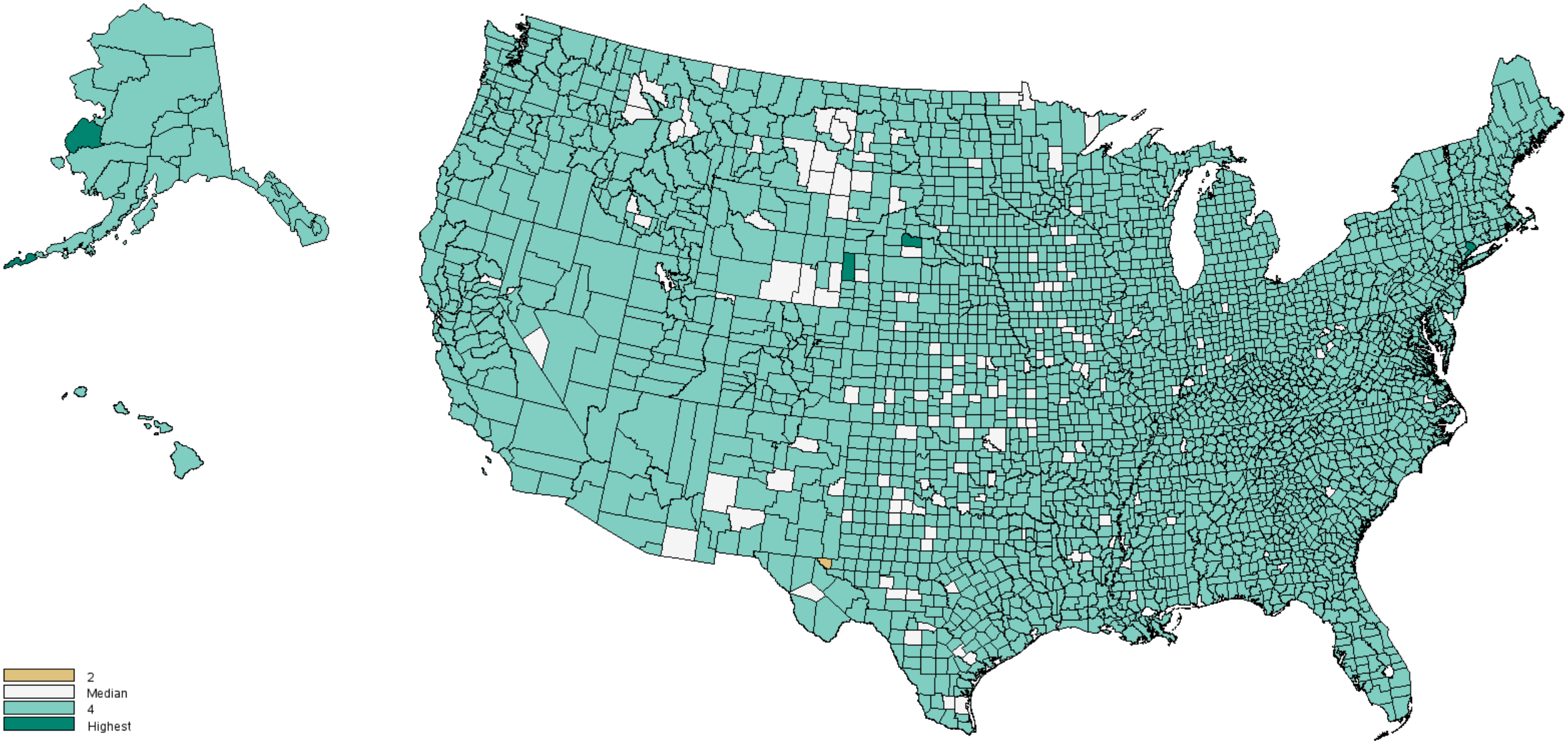
Counties in WHITE have jobs with an average value of 3.

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

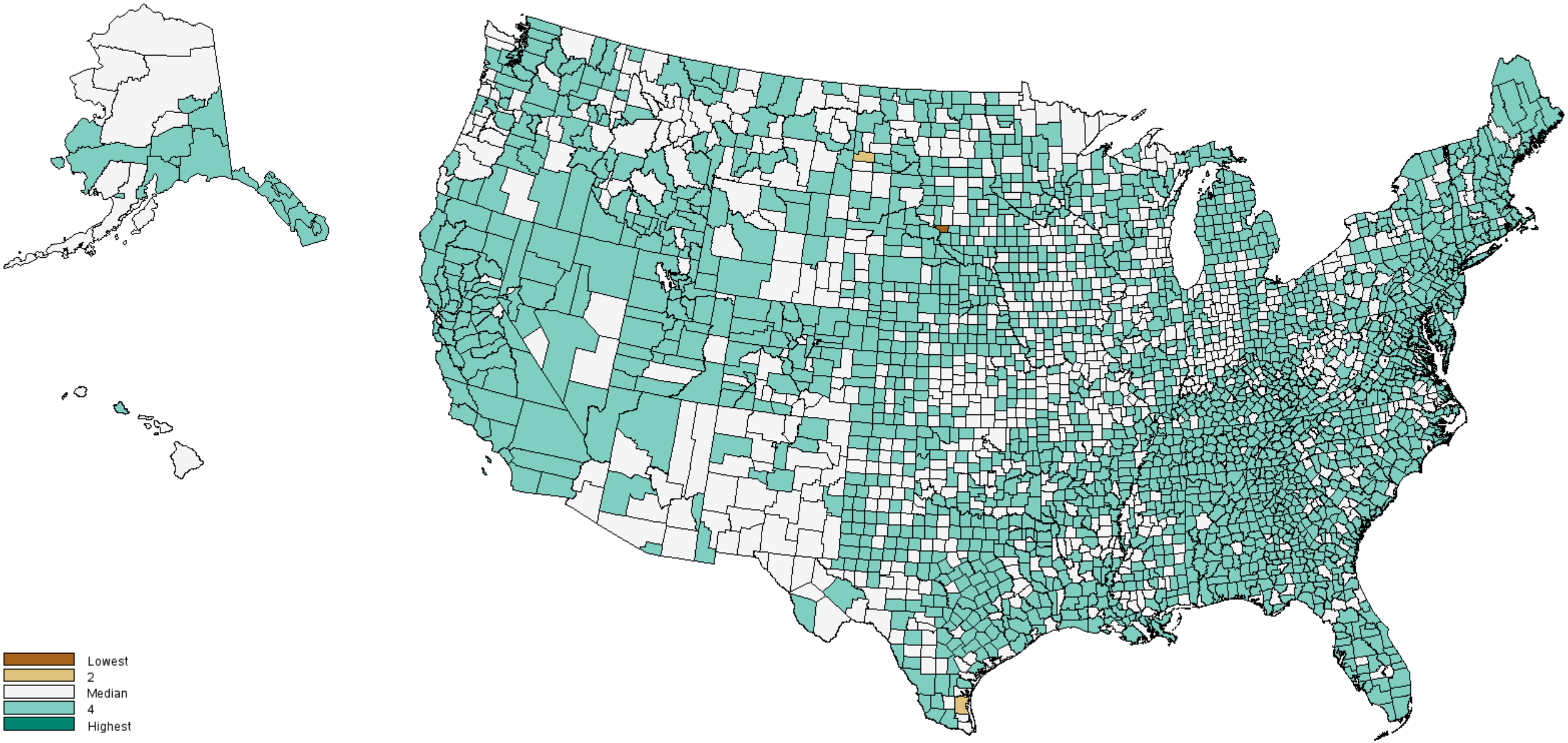
Counties in BROWN have jobs with average values of 1 (DARK) or 2 (LIGHT).

Temporal variation is captured by redrawing every 5 years.

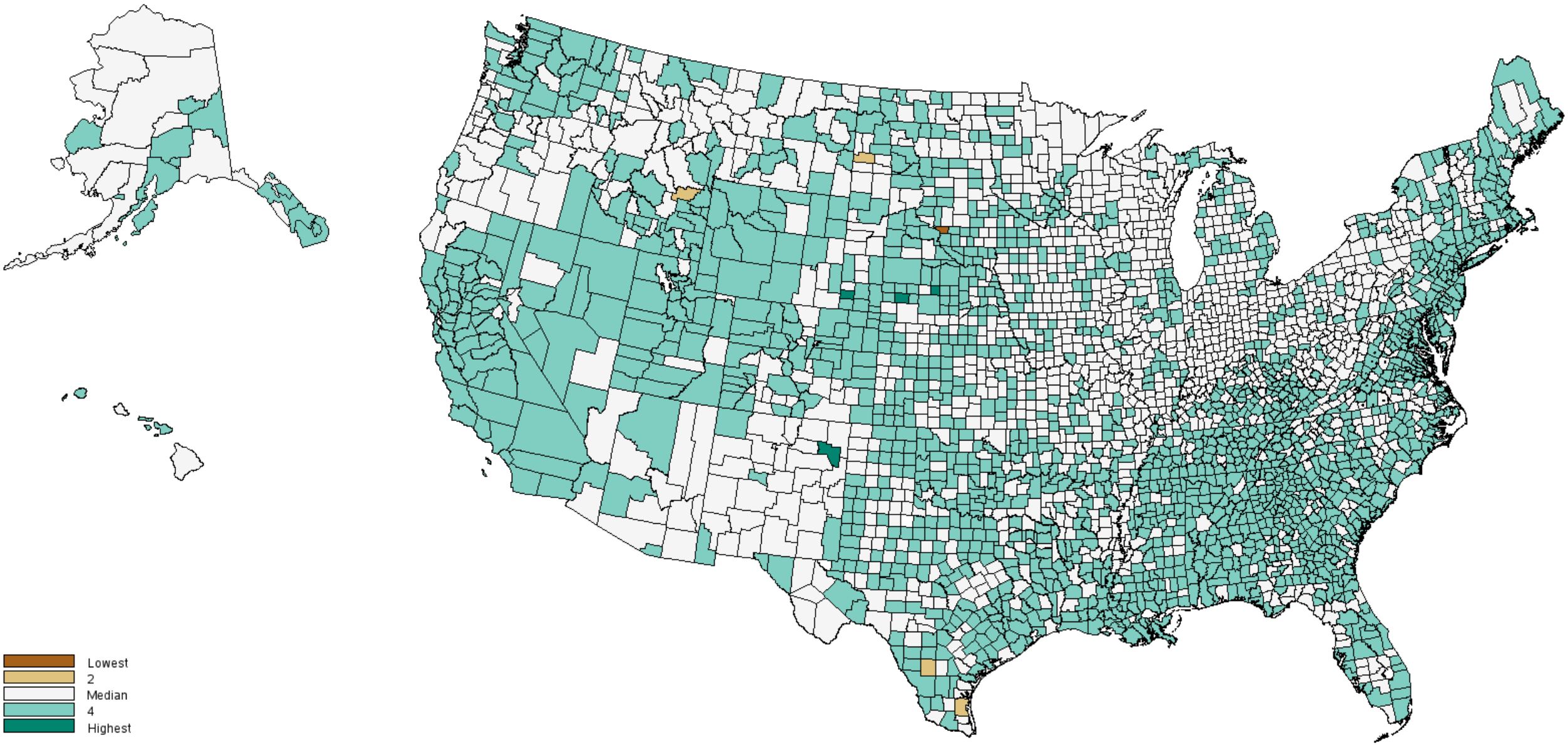
Quasi-rent (Surplus) per Worker - 1997



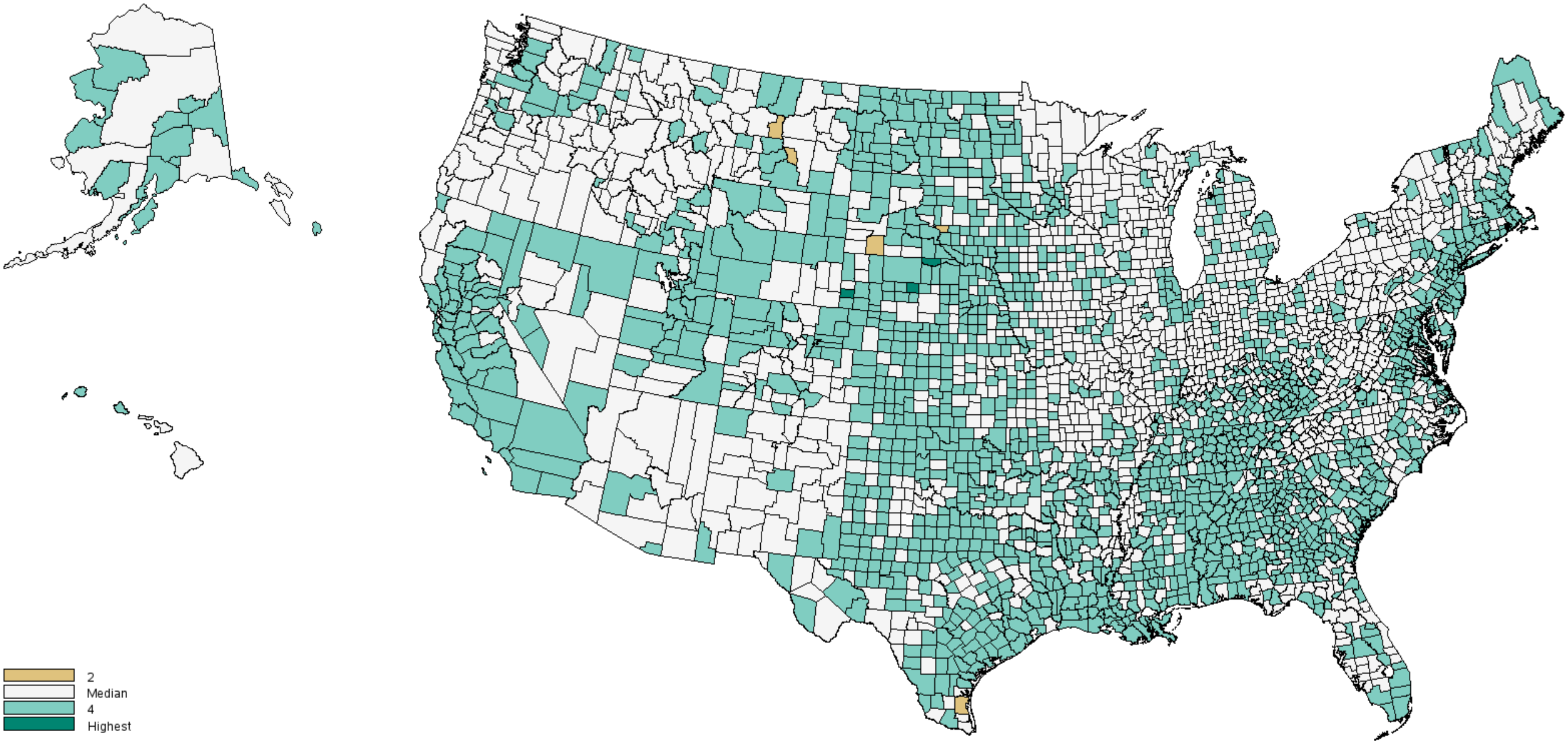
Quasi-rent (Surplus) per Worker - 2002



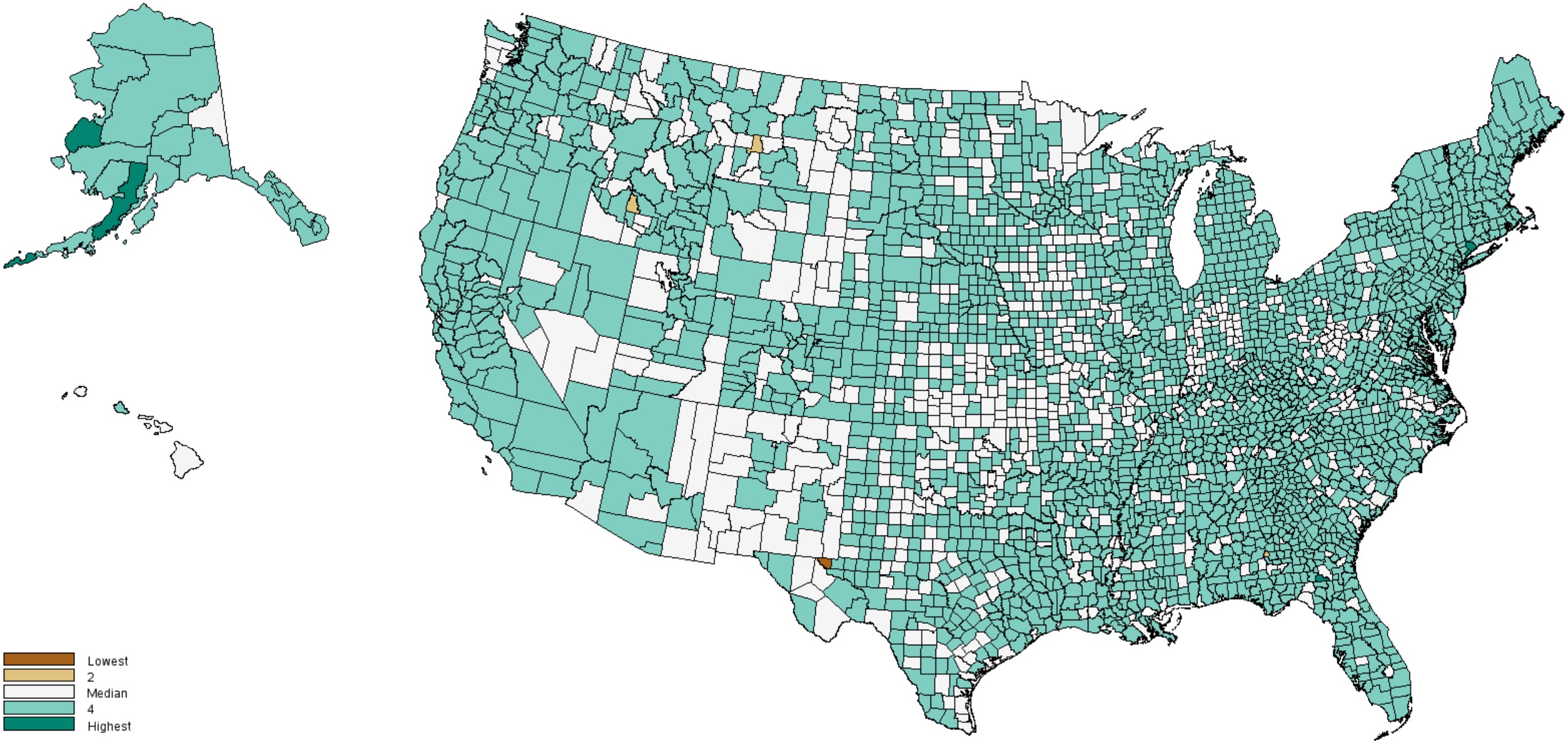
Quasi-rent (Surplus) per Worker - 2007



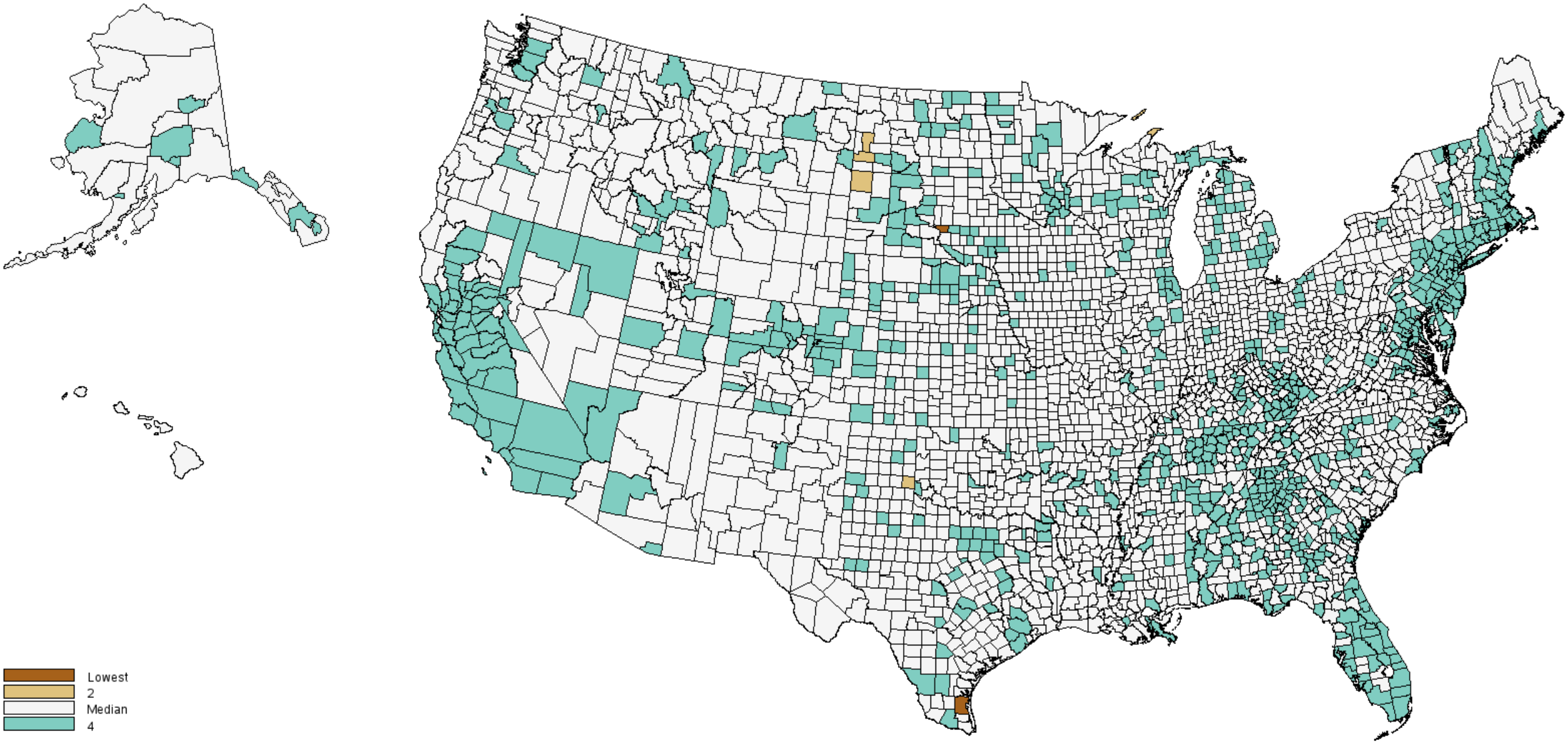
Quasi-rent (Surplus) per Worker - 2012



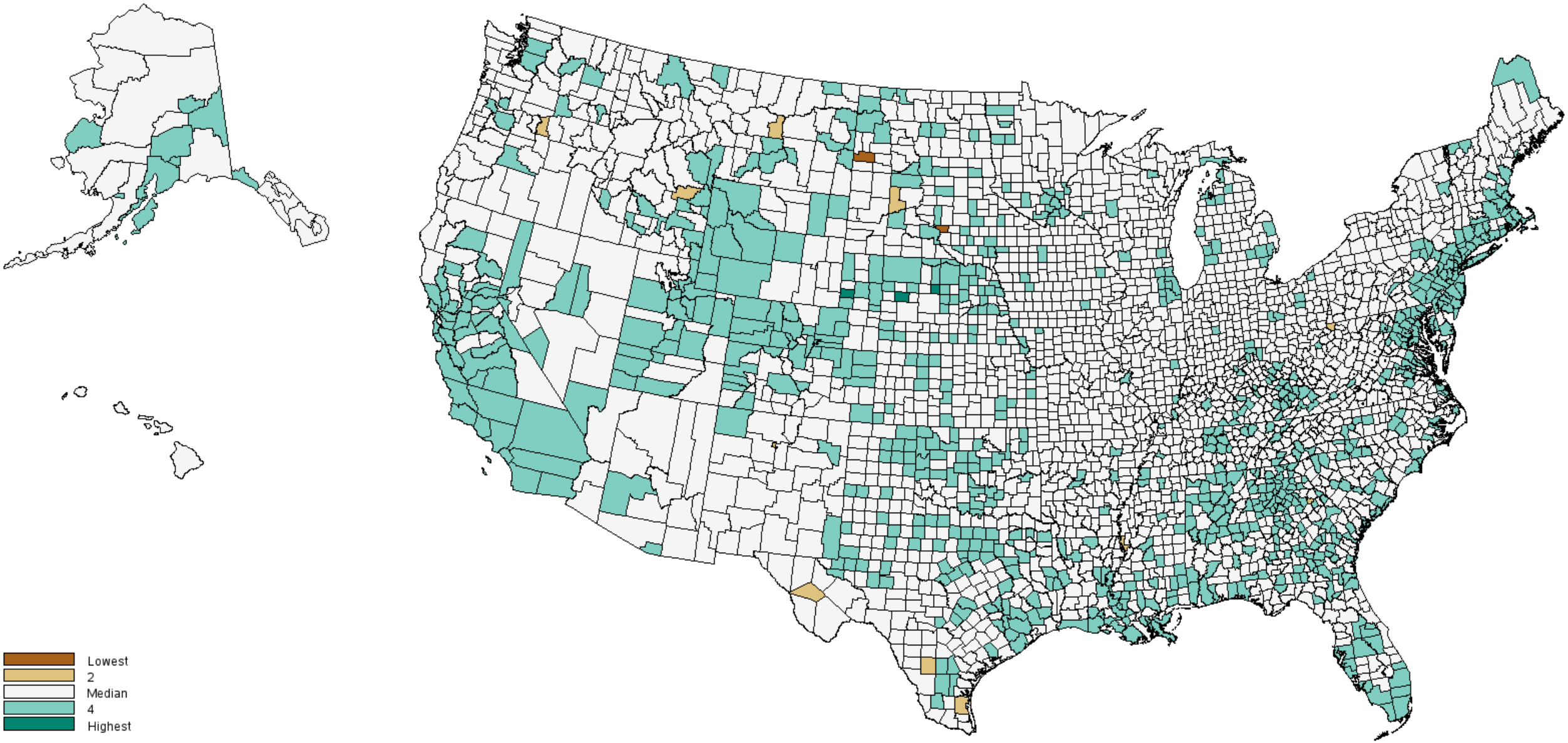
Revenue per Worker (Net of Purchased Inputs) - 1997



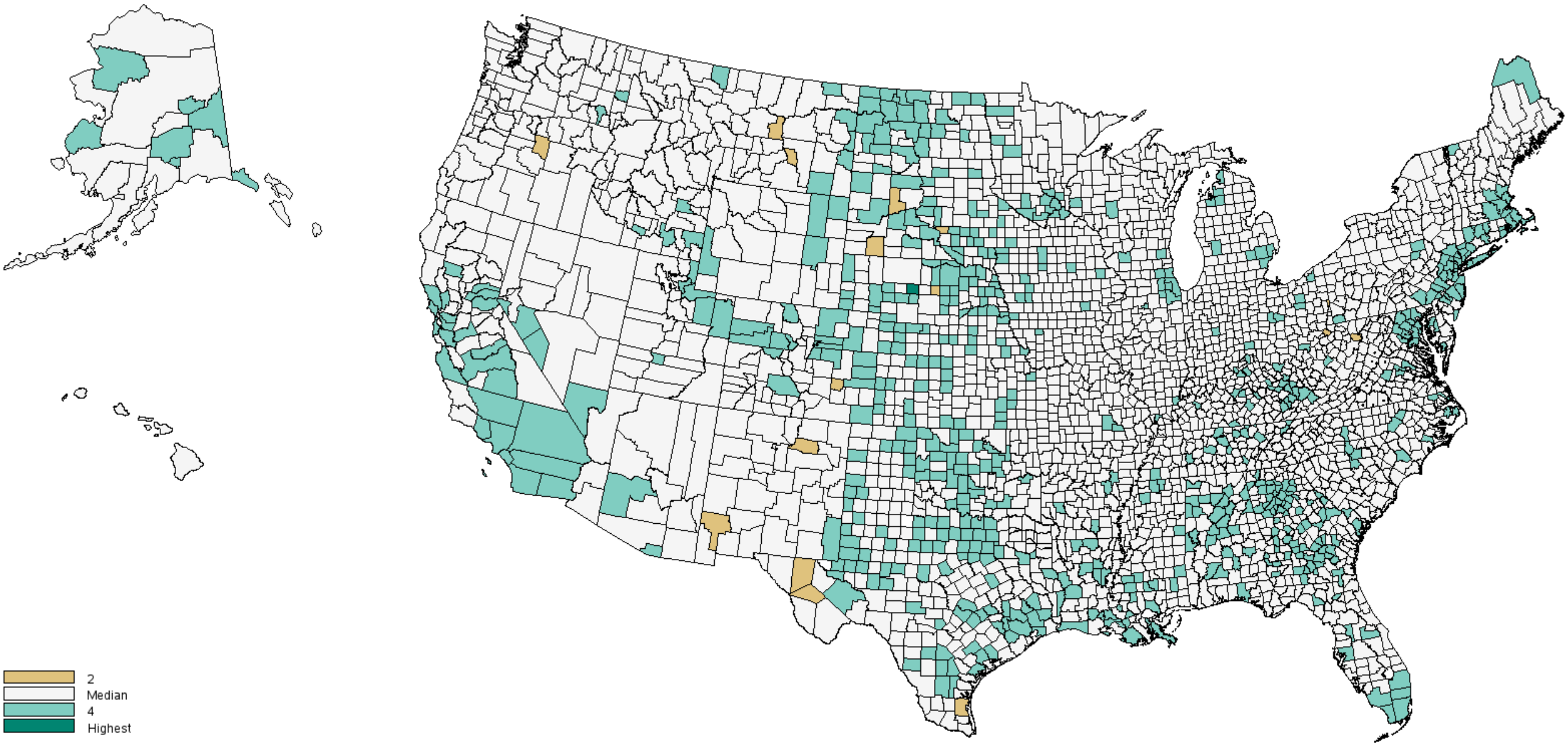
Revenue per Worker (Net of Purchased Inputs) - 2002



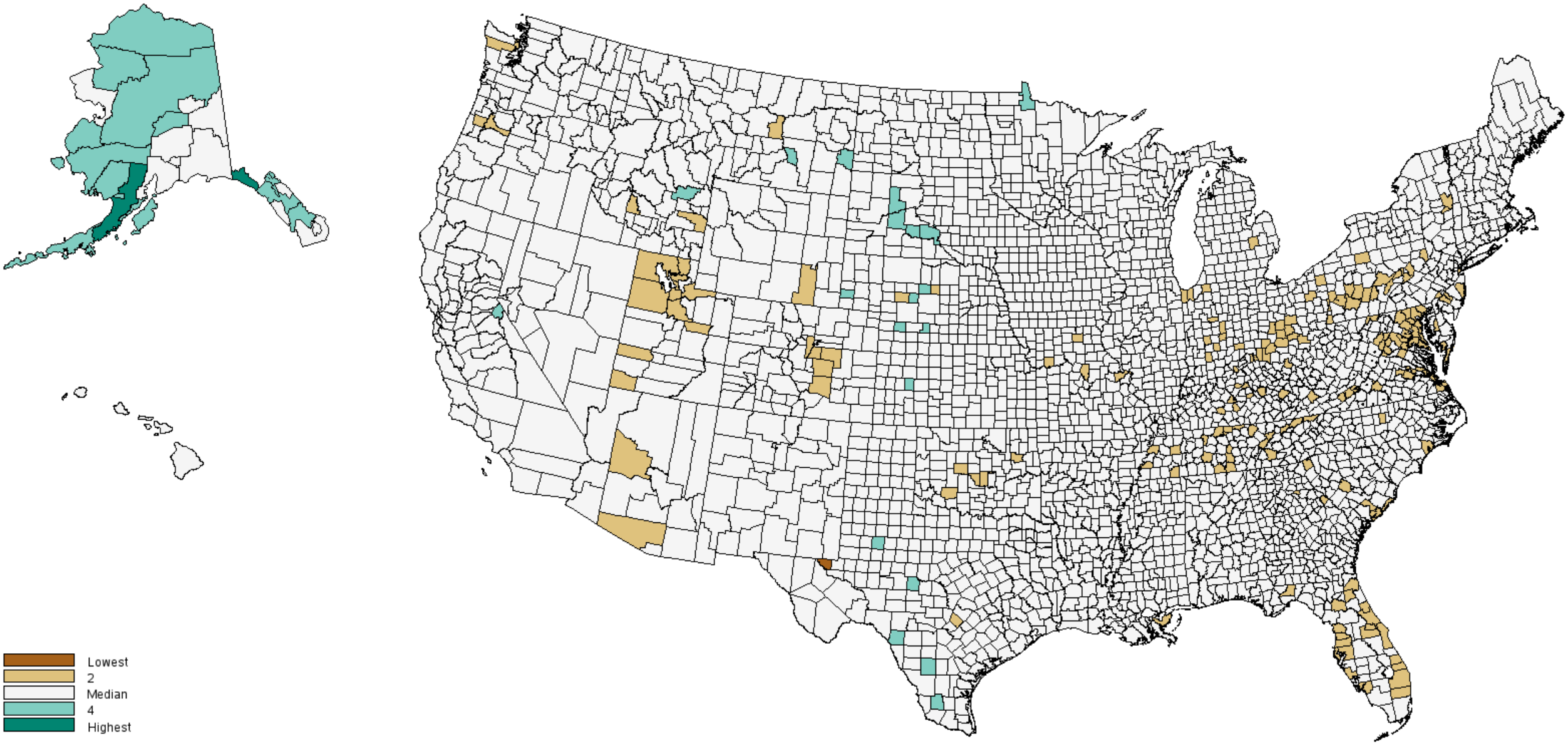
Revenue per Worker (Net of Purchased Inputs) - 2007



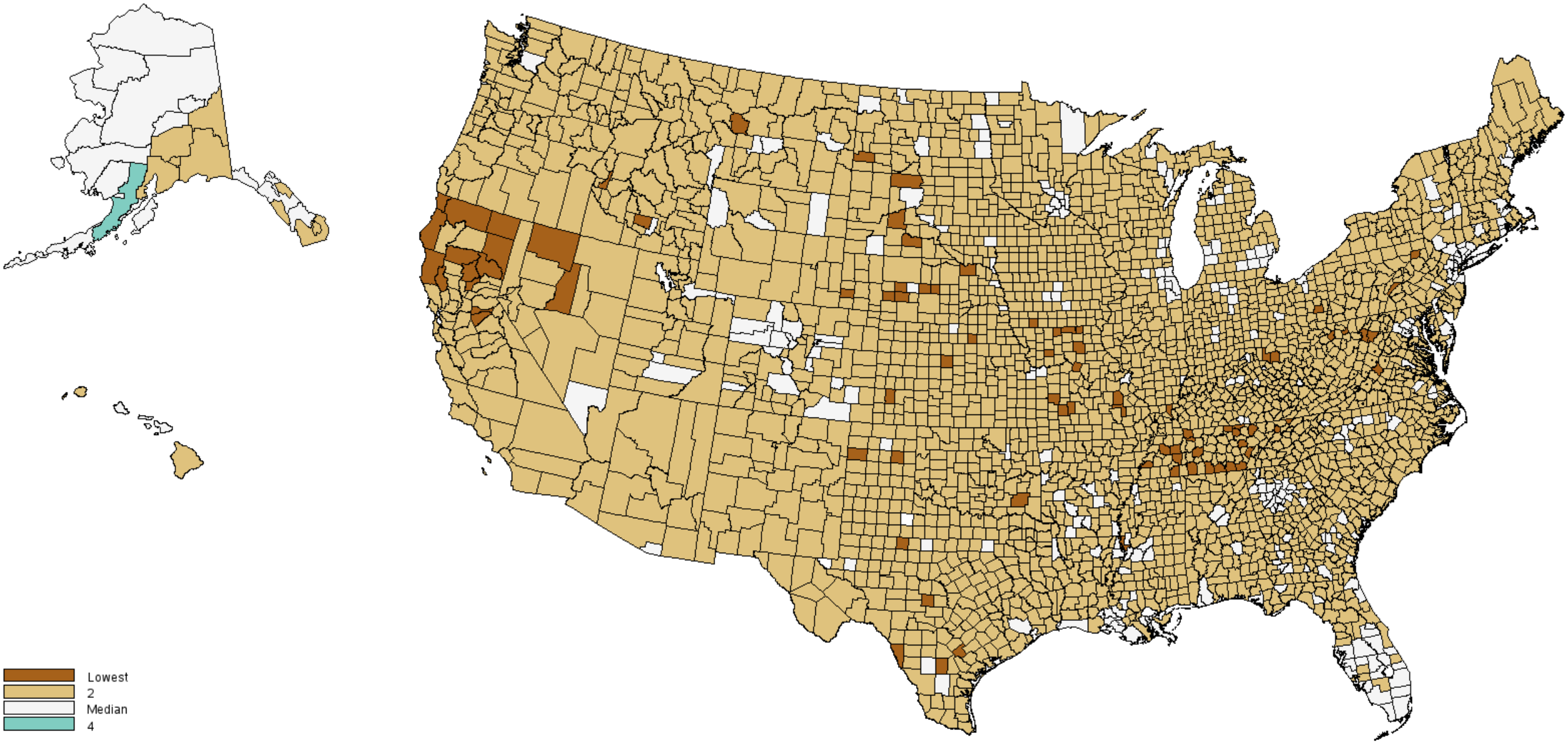
Revenue per Worker (Net of Purchased Inputs) - 2012



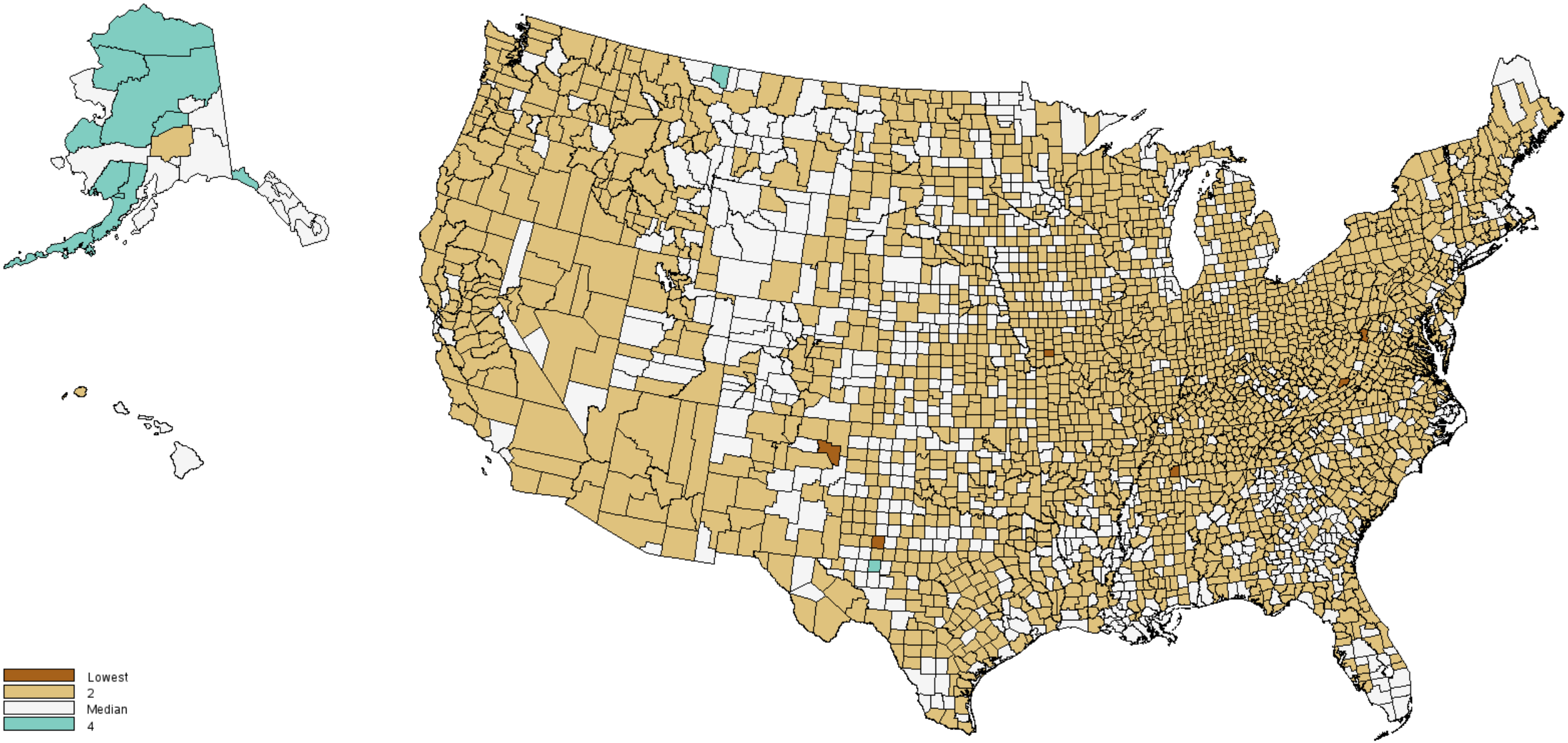
Opportunity Cost of Capital per Worker - 1997



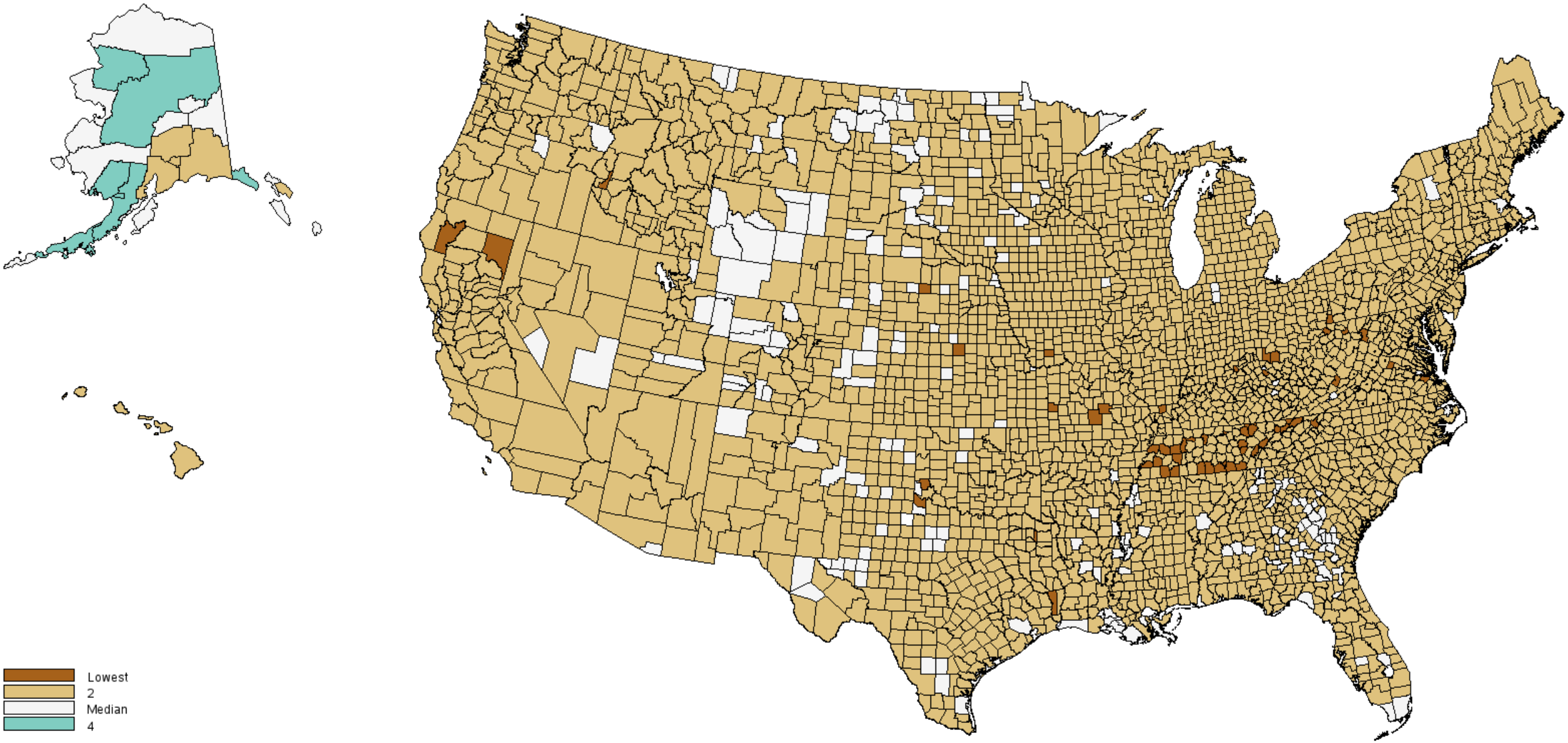
Opportunity Cost of Capital per Worker - 2002



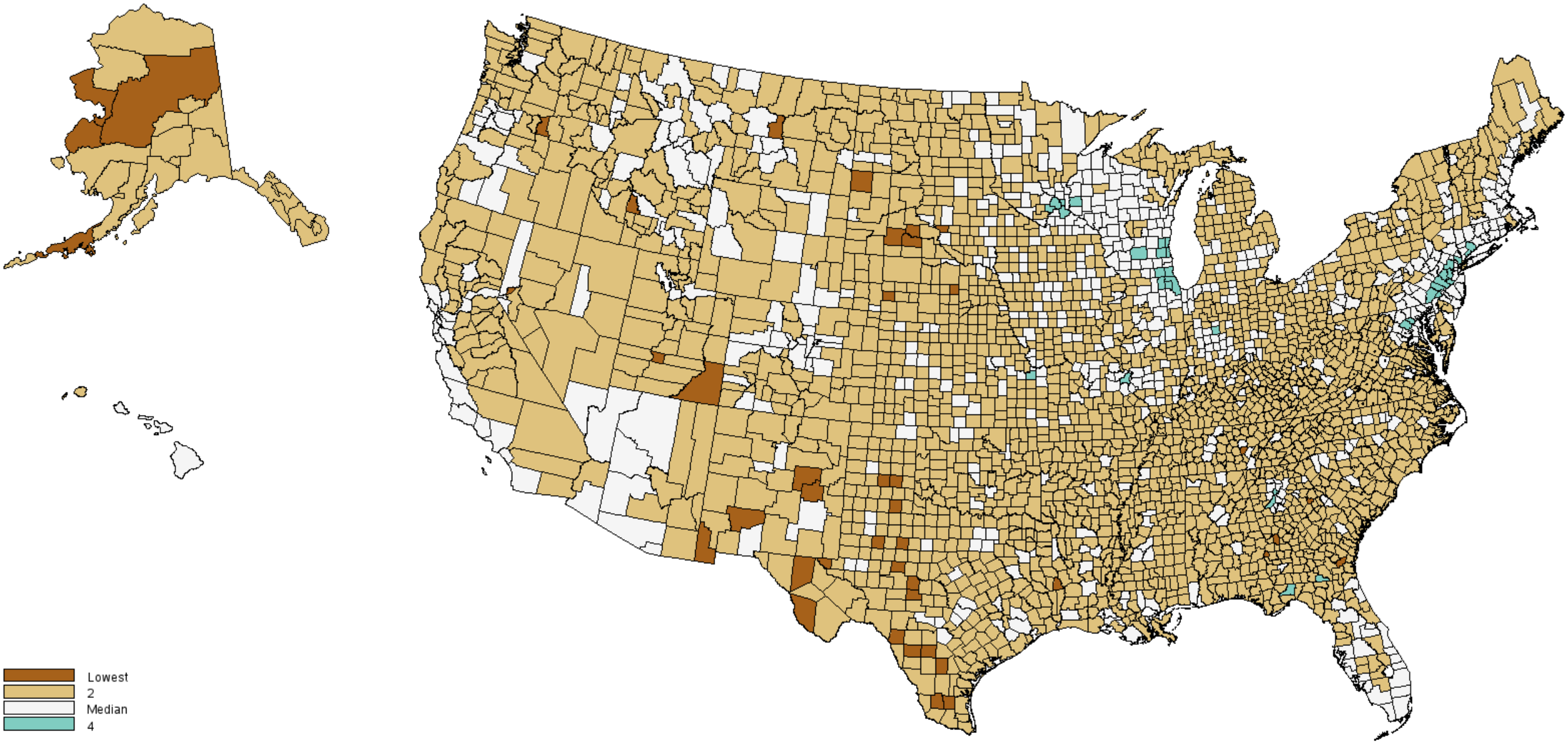
Opportunity Cost of Capital per Worker - 2007



Opportunity Cost of Capital per Worker - 2012



Opportunity Cost of Labor per Worker - 1997



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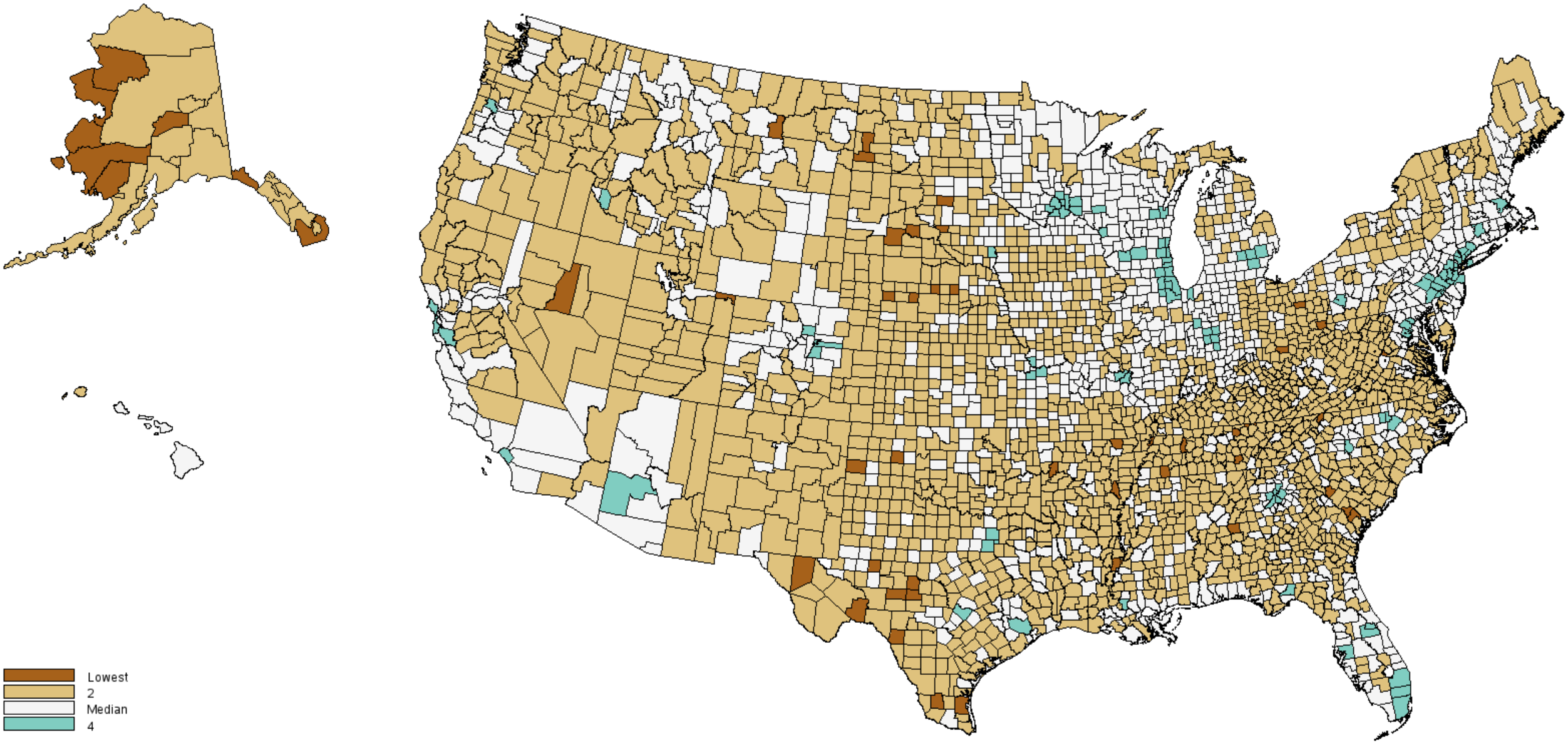
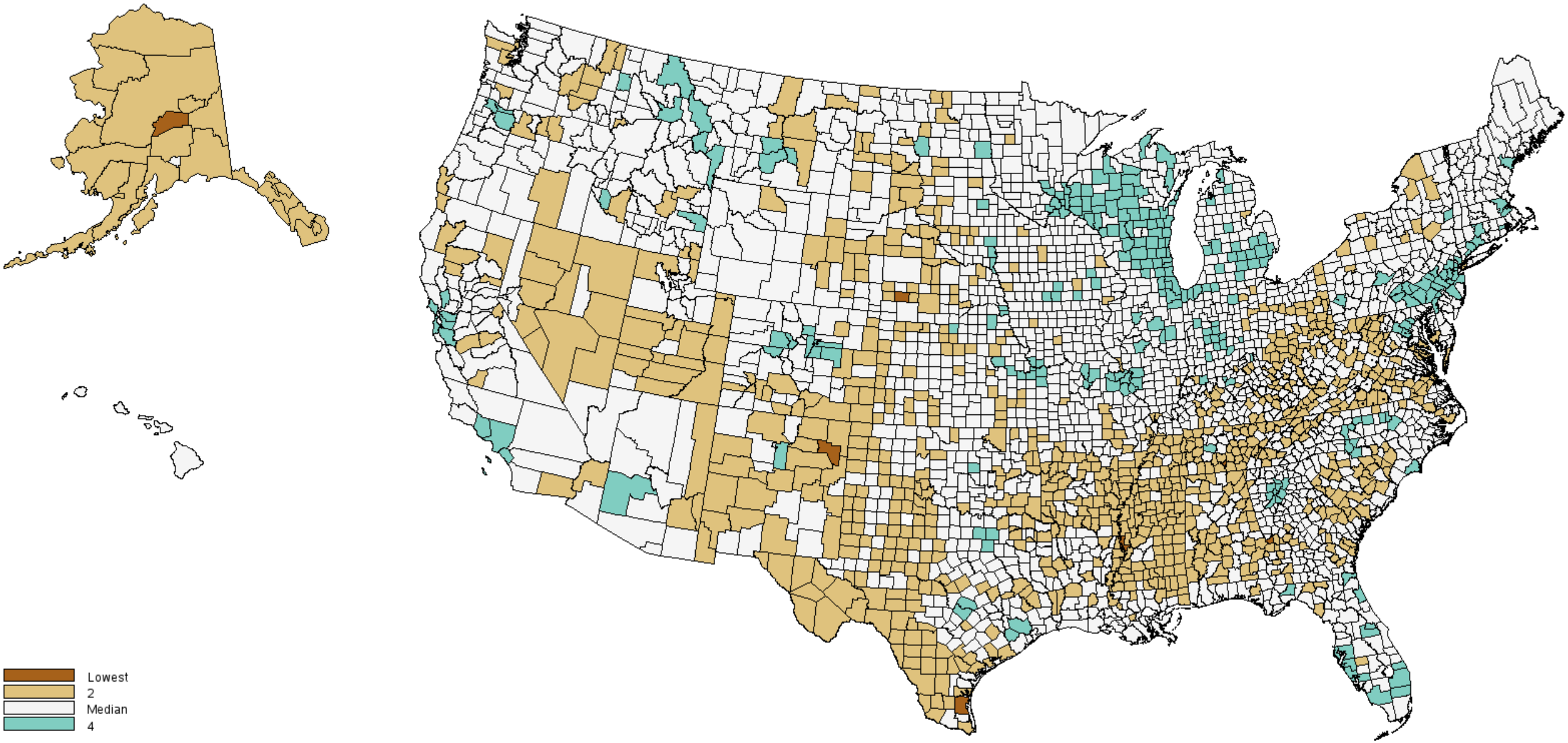
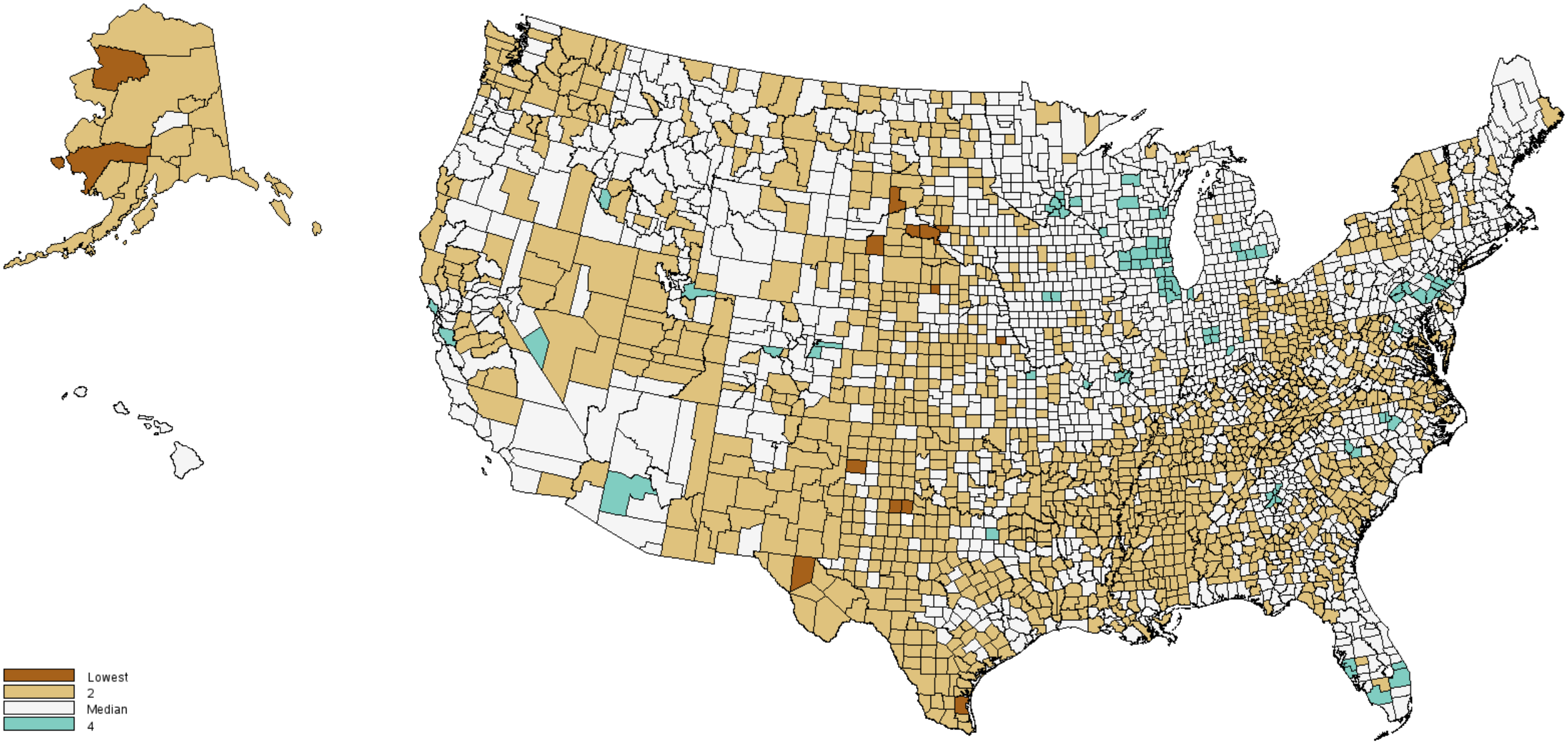


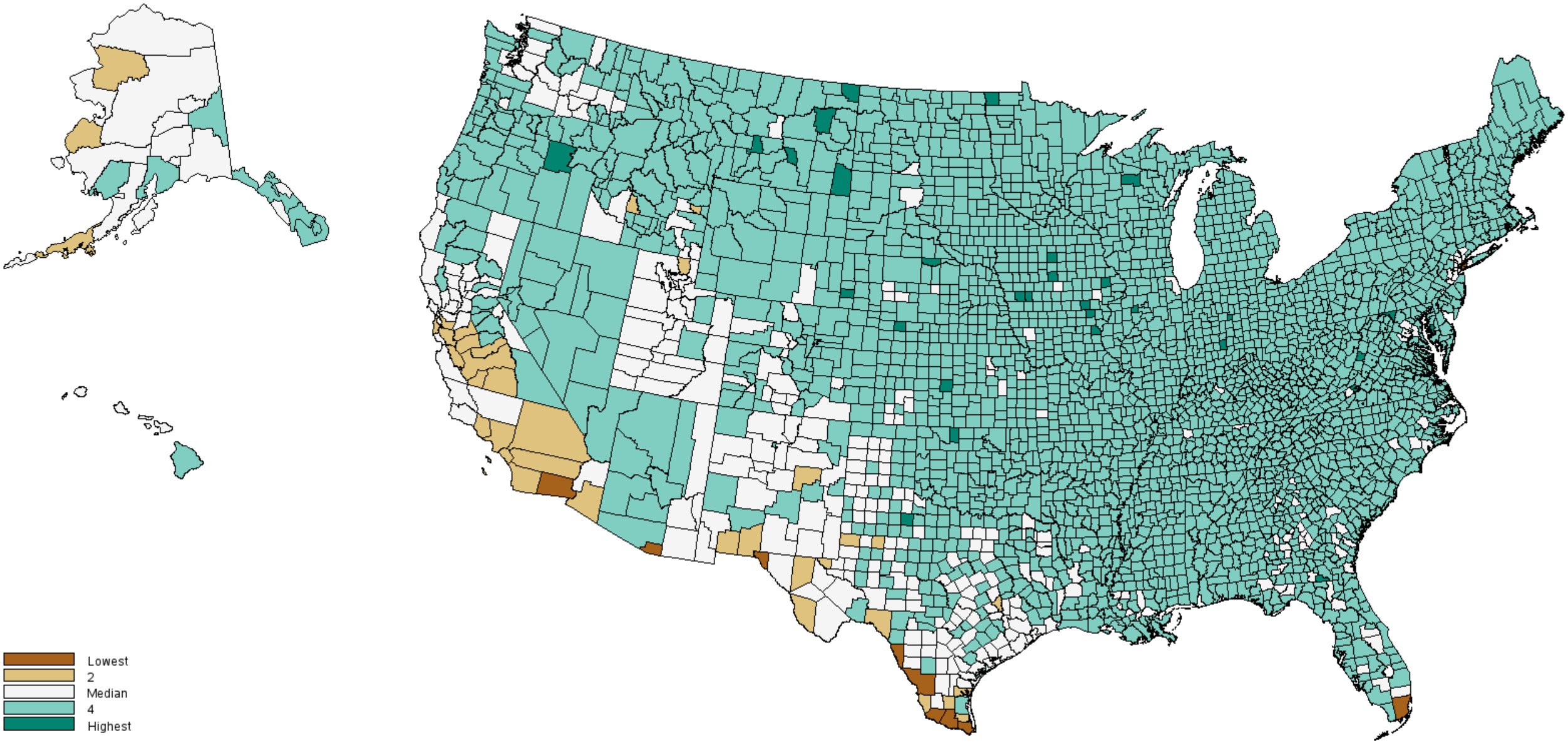
Opportunity Cost of Labor per Worker - 2007



Opportunity Cost of Labor per Worker - 2012



Observable Characteristics Component of the Wage Rate - 1997



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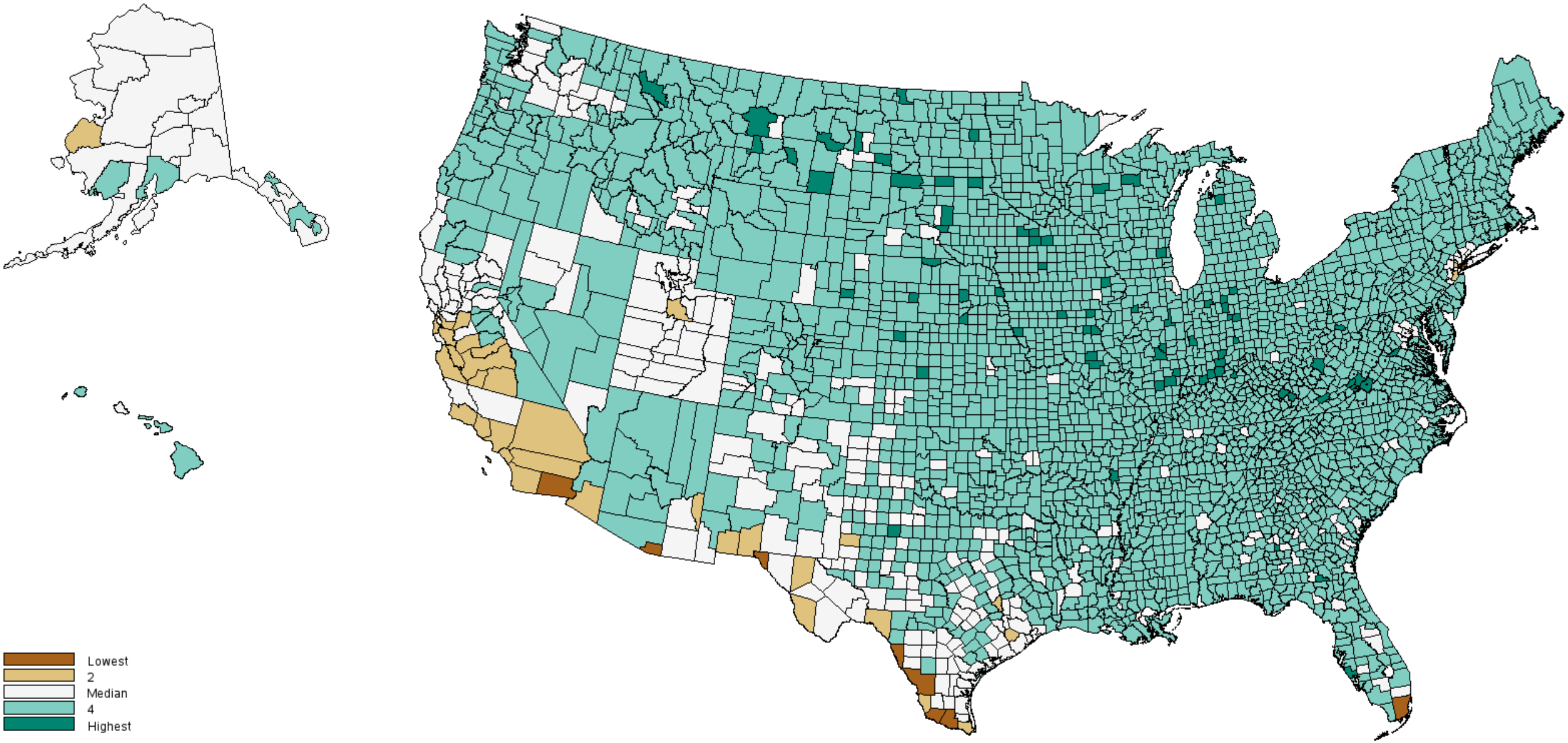

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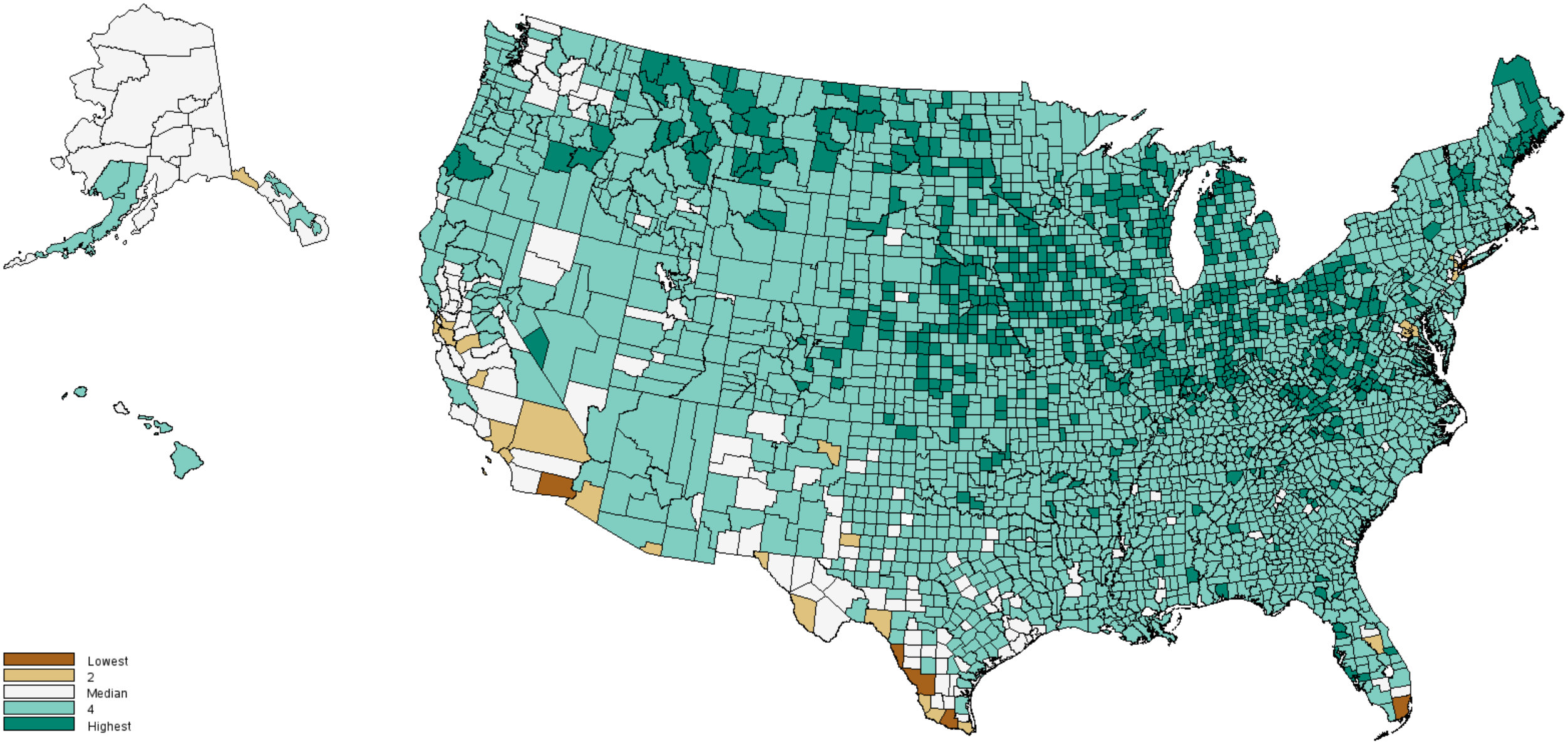

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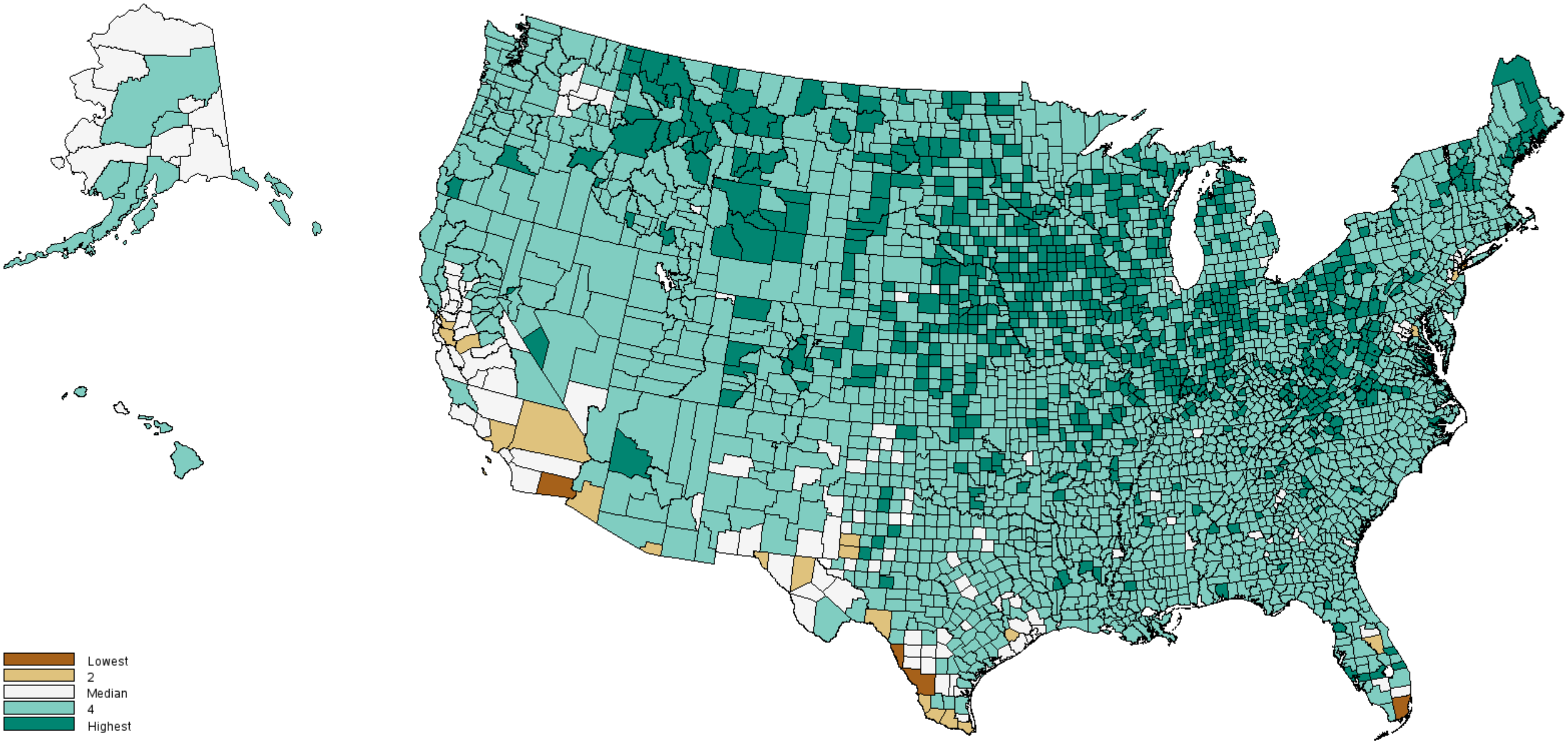
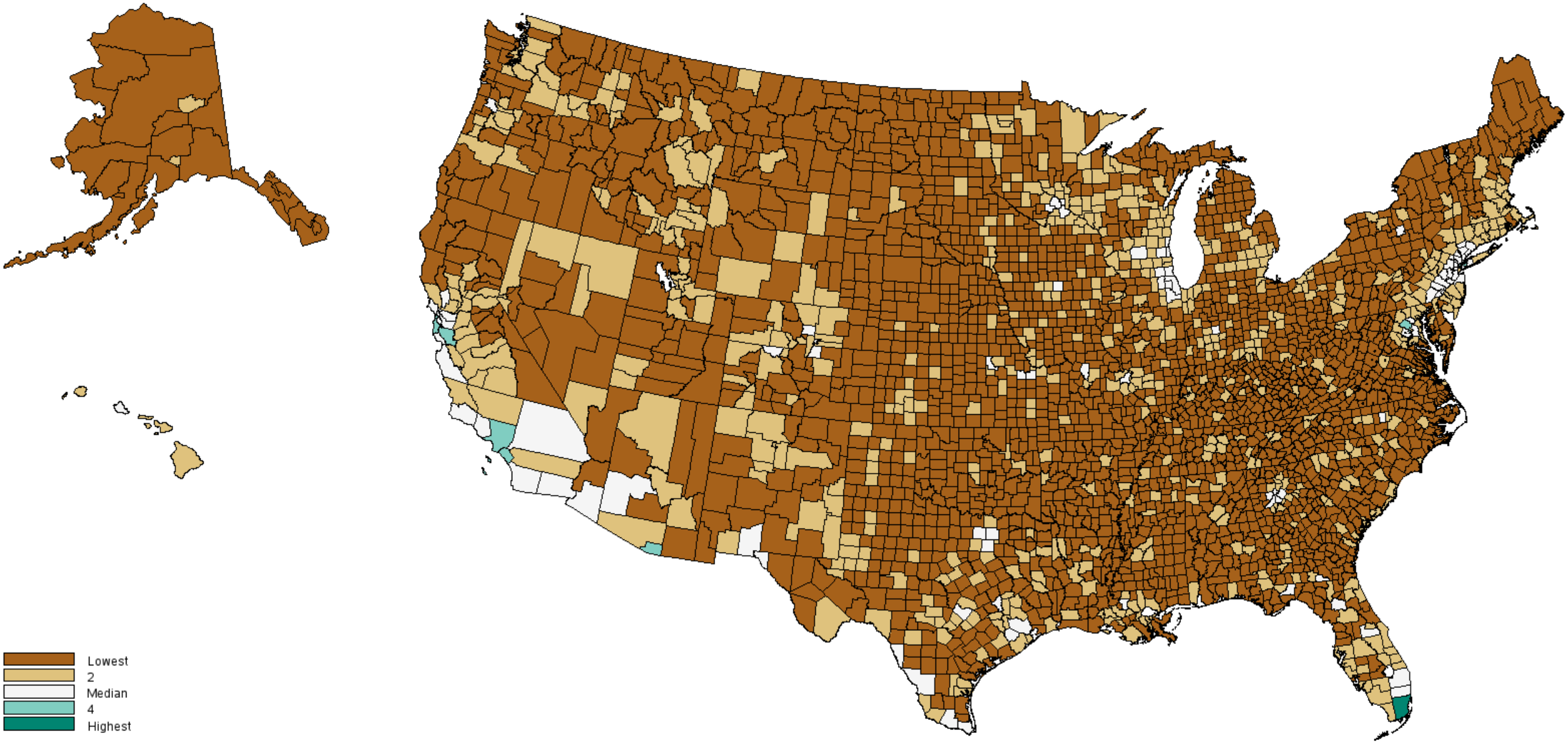


Individual Heterogeneity Component of the Wage Rate - 1997



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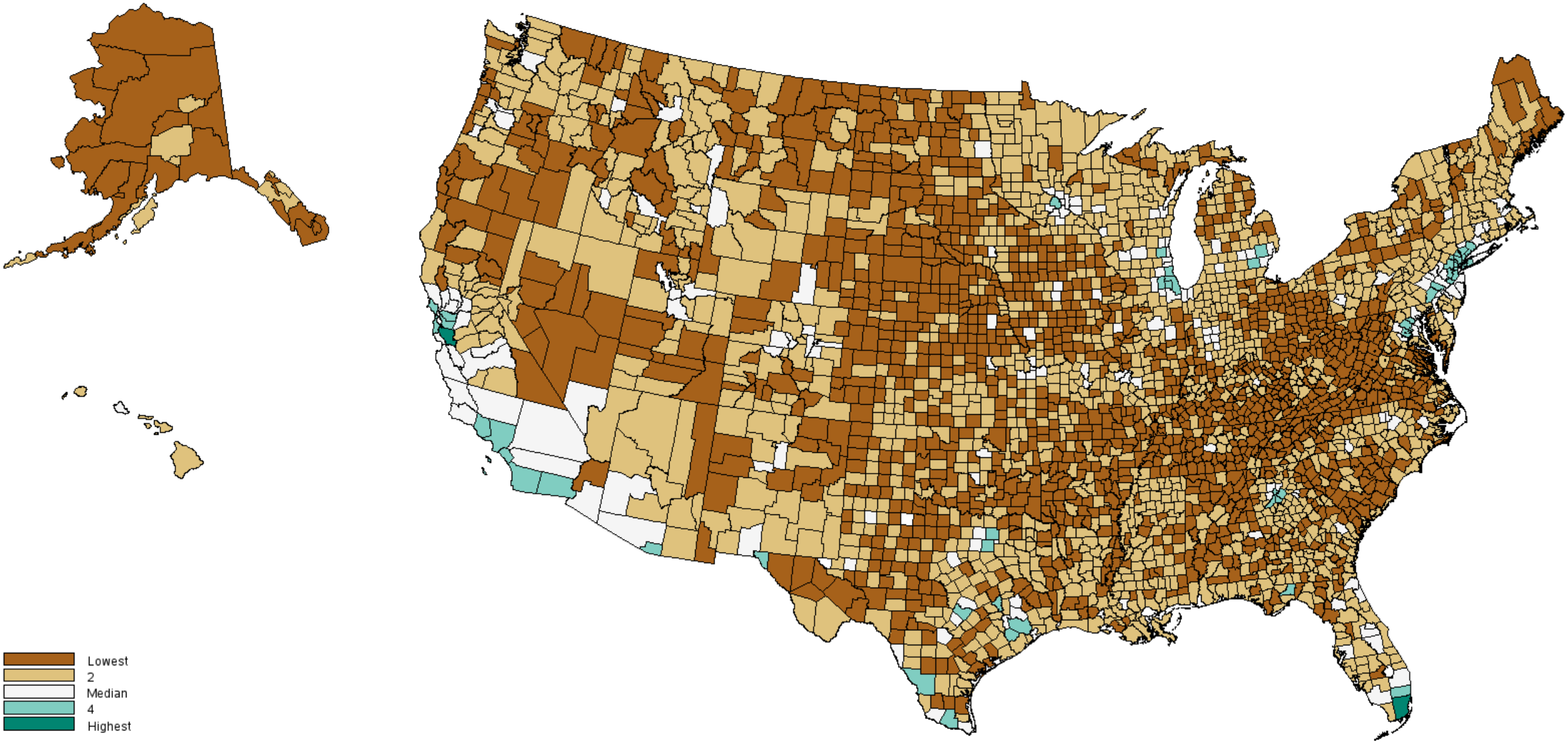

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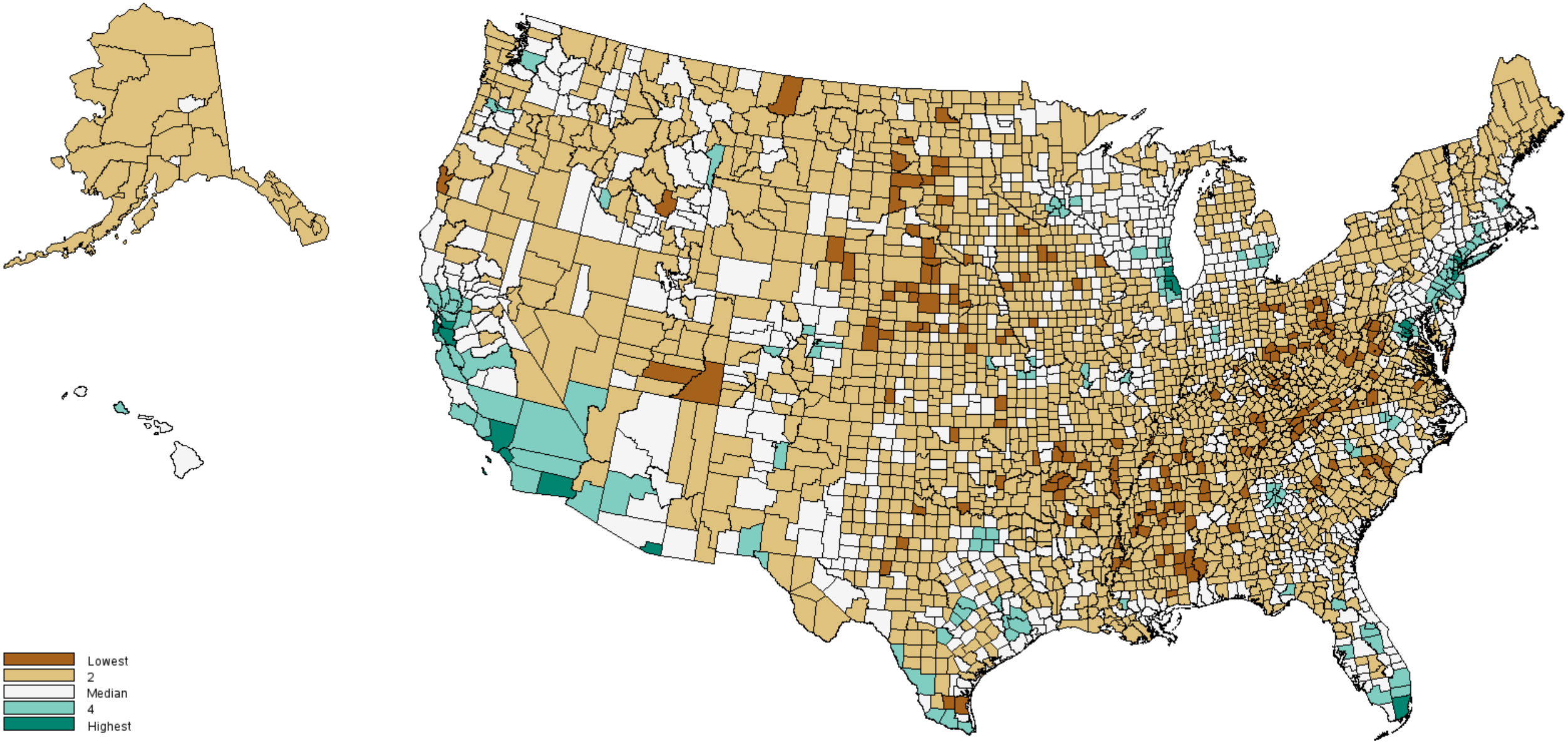

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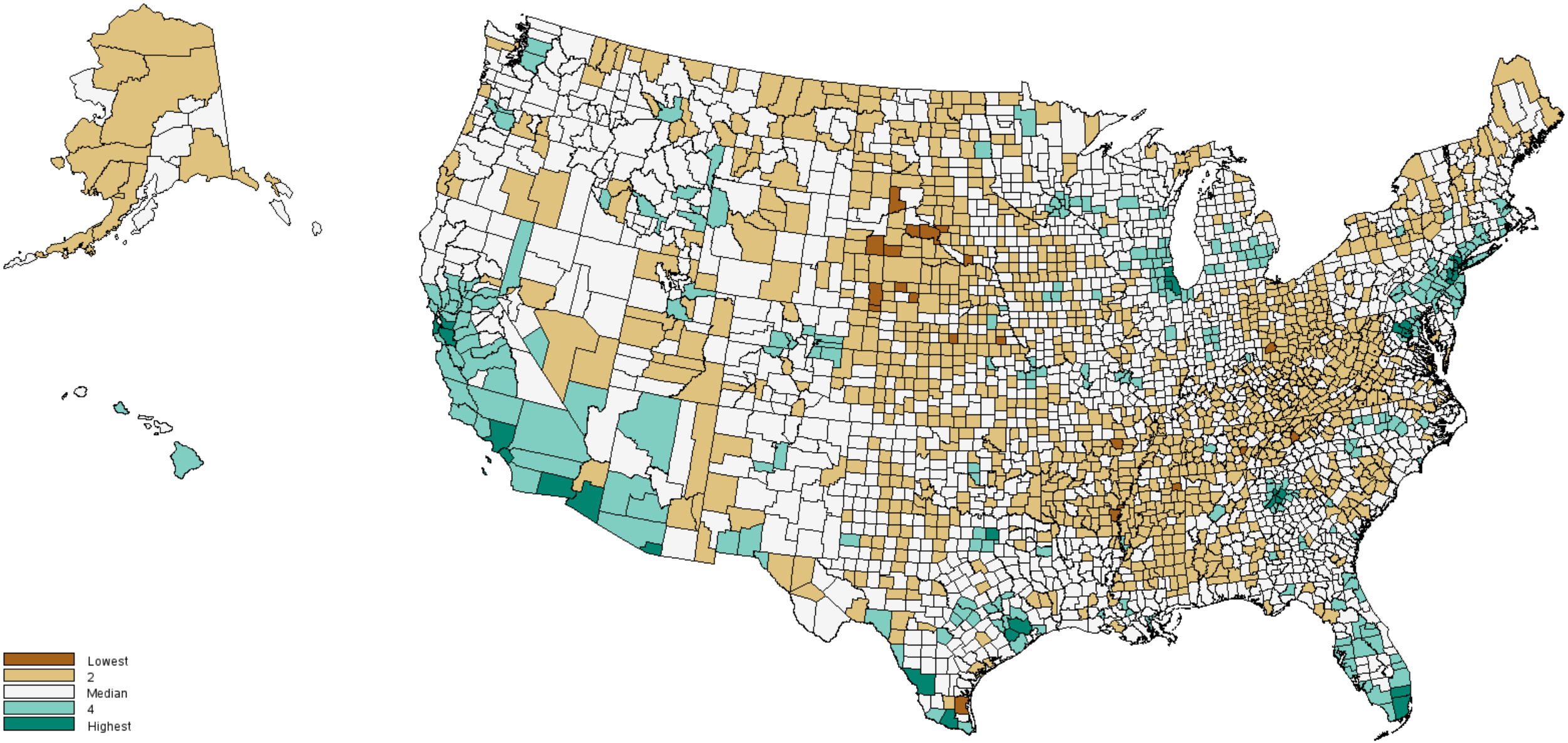
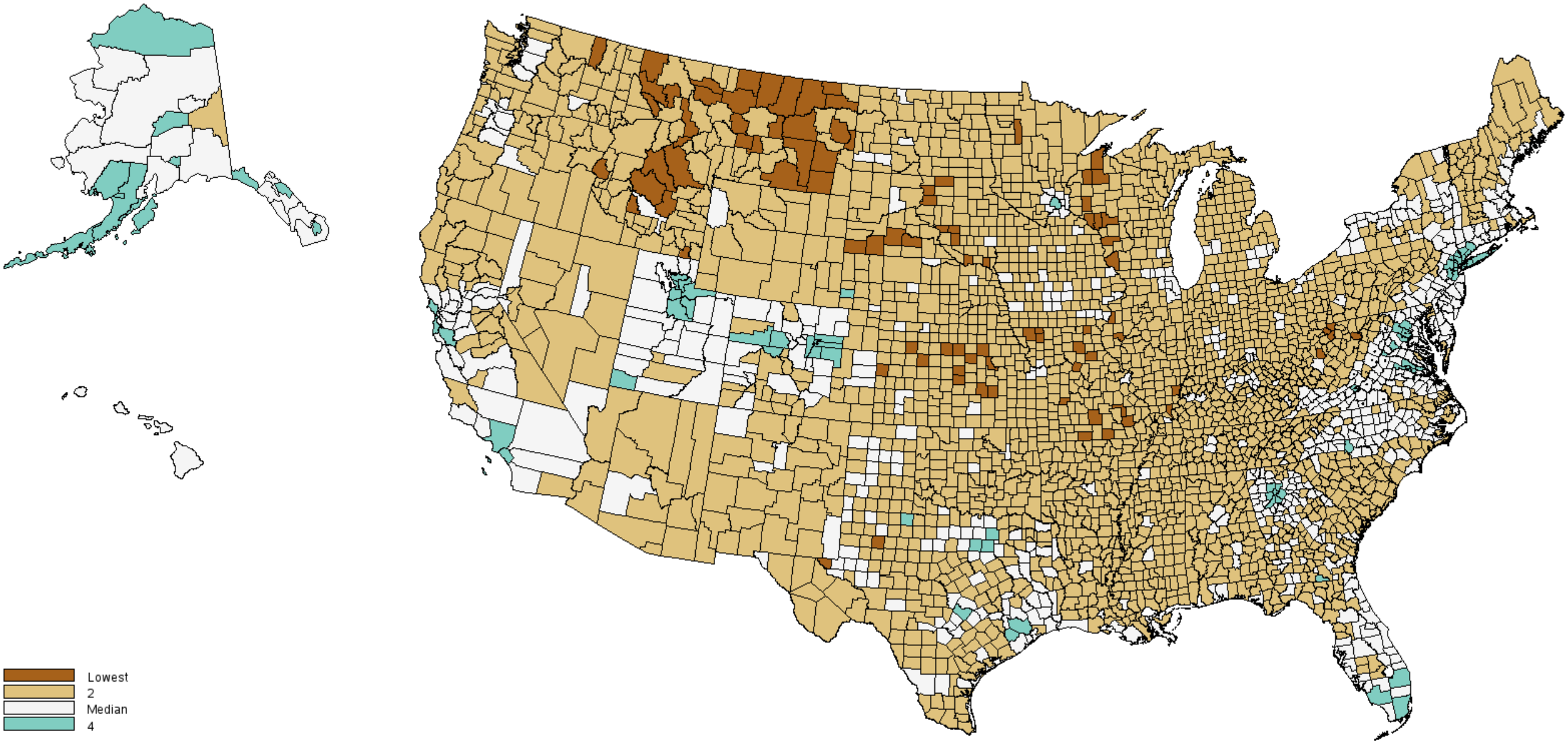
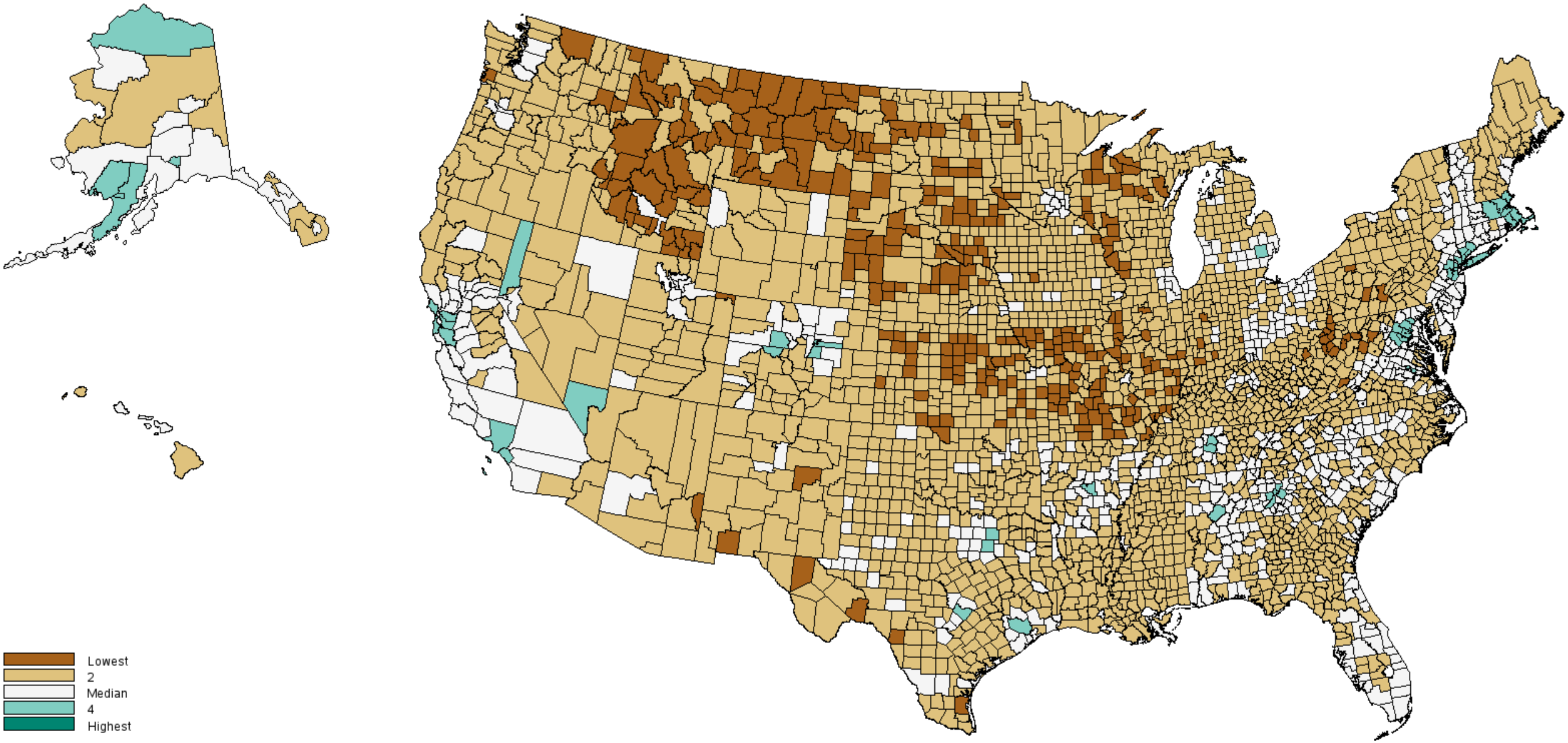


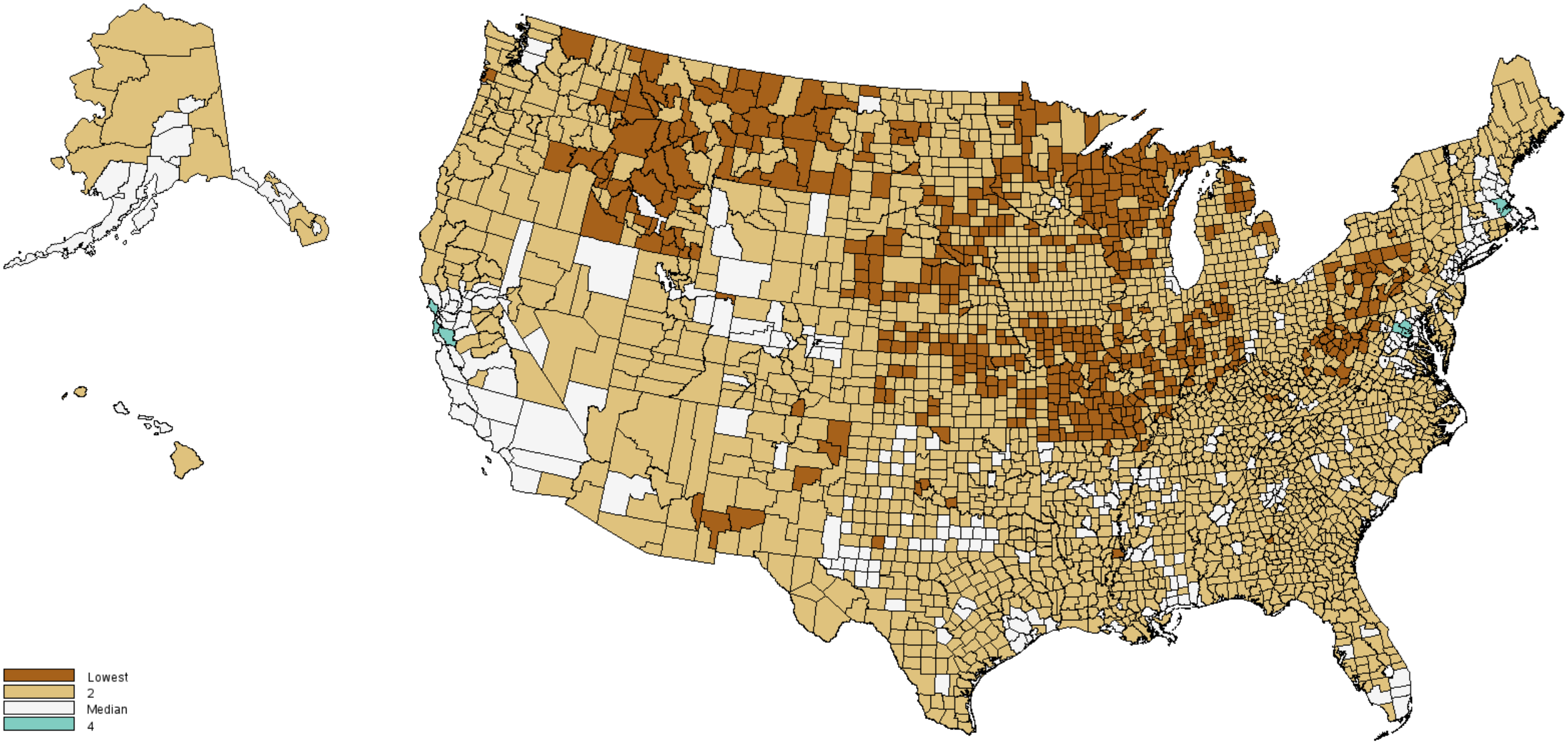
Employer Heterogeneity Component of the Wage Rate - 1997



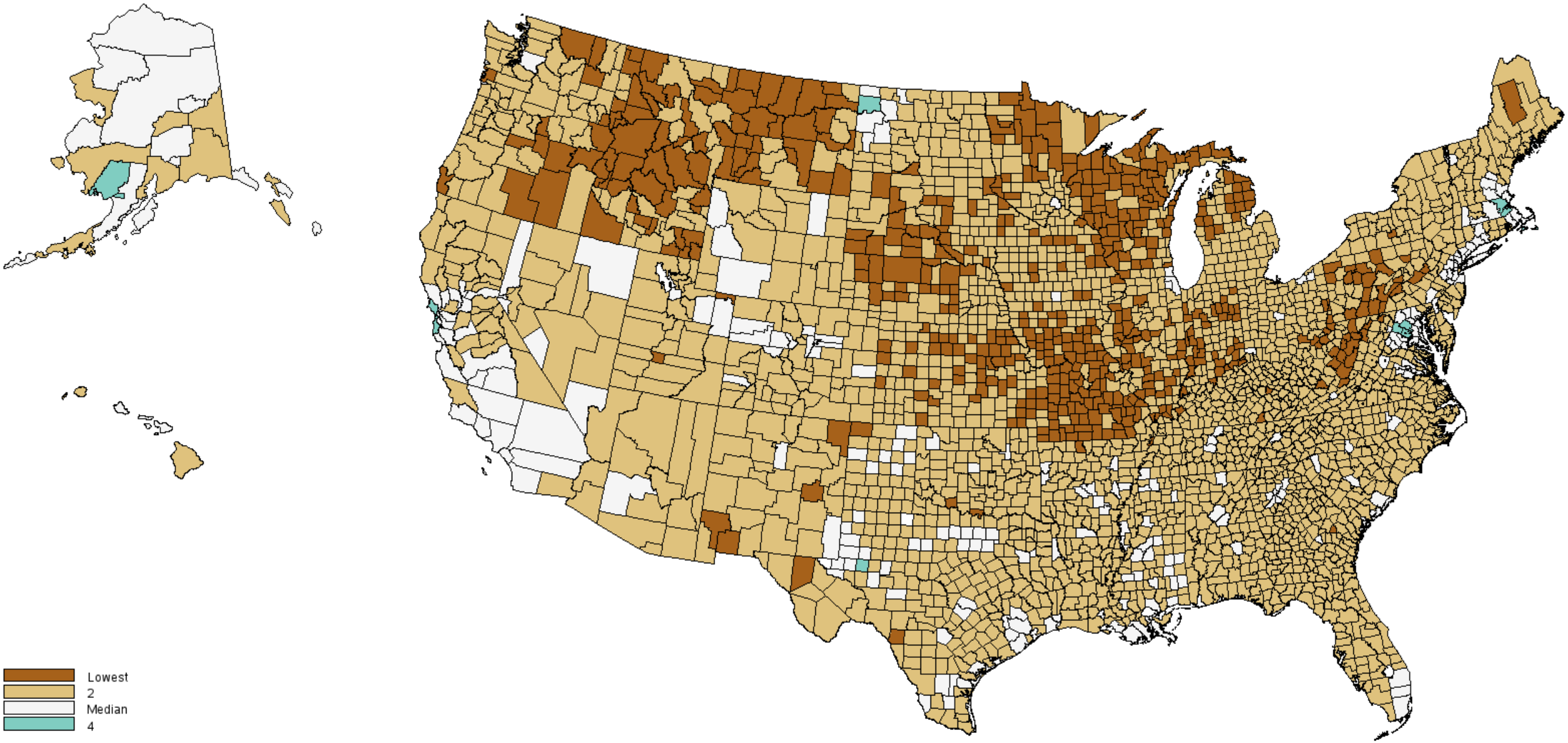
Employer Heterogeneity Component of the Wage Rate - 2002



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