

Feds Defining Regions, 1910-2010: Some Issues and Possible Improvements

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Washington DC



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Defining Regions

September 24, 2008
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“What is a region?”

“...I went back to Hartshorne and he tells me that a region is essentially what you want it to be.

You can have regions of all kinds and for all purposes.”

... and whatever your purpose, data users will use your regions as they wish for all kinds of unanticipated purposes.



Urban and Rural Areas



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Issues and Improvements

- ISSUE

- Very limited data available



“Most of the information is compiled either for the large and definitely un-regional State units or for the small and multitudinous (3,100) county units.” *Donald Bogue and Calvin Beale (1961)*

- QUANTUM IMPROVEMENT

- Census, BEA, and BLS can compile data for urban and rural portions of counties (2 x 3141)
- Imagine the astonishing learning opportunity:
Rural Business Patterns





Issues and Improvements

- ISSUES

- No continuum; does not correspond to the popular notion of urban-suburban-exurban-rural
- Ignorance, confusion over what is inside urban and what is outside



In order for the basic idea of area classification to function properly, it is necessary that everyone who makes use of the categories know what they mean, and in what respect one category differs from another. *Donald Bogue and Calvin Beale (1961)*

- IMPROVEMENTS

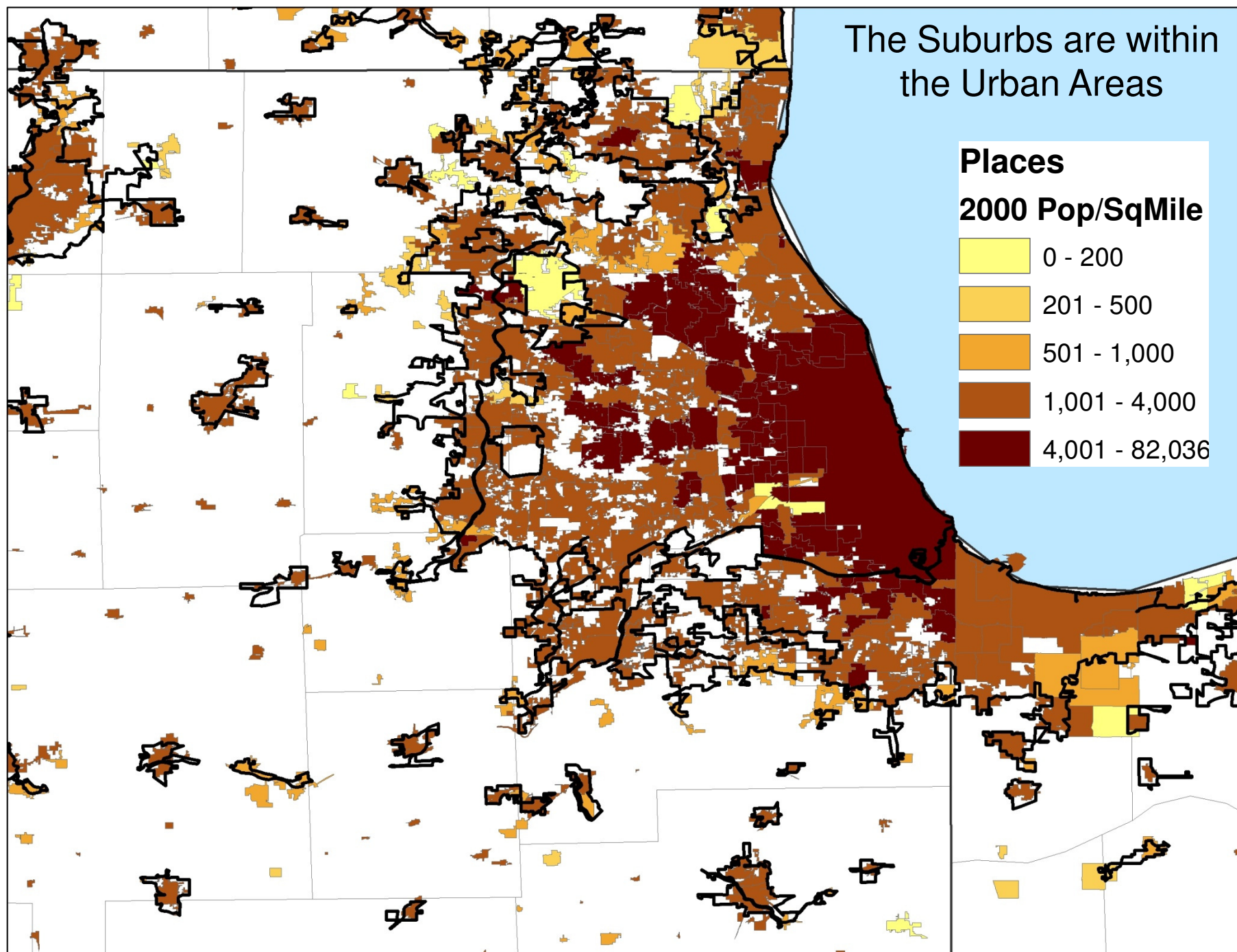
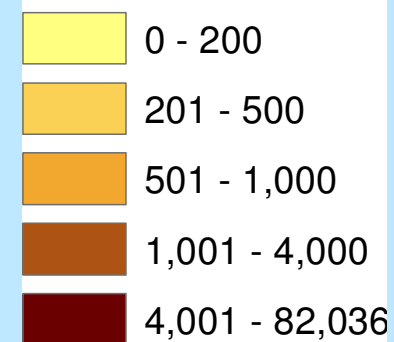
- Look inside urban areas to see whether urban includes suburban and exurban
- Explore replacing/supplementing the urban-rural distinction with more nuanced system, e.g., city-town-suburb-exurb-country



The Suburbs are within
the Urban Areas

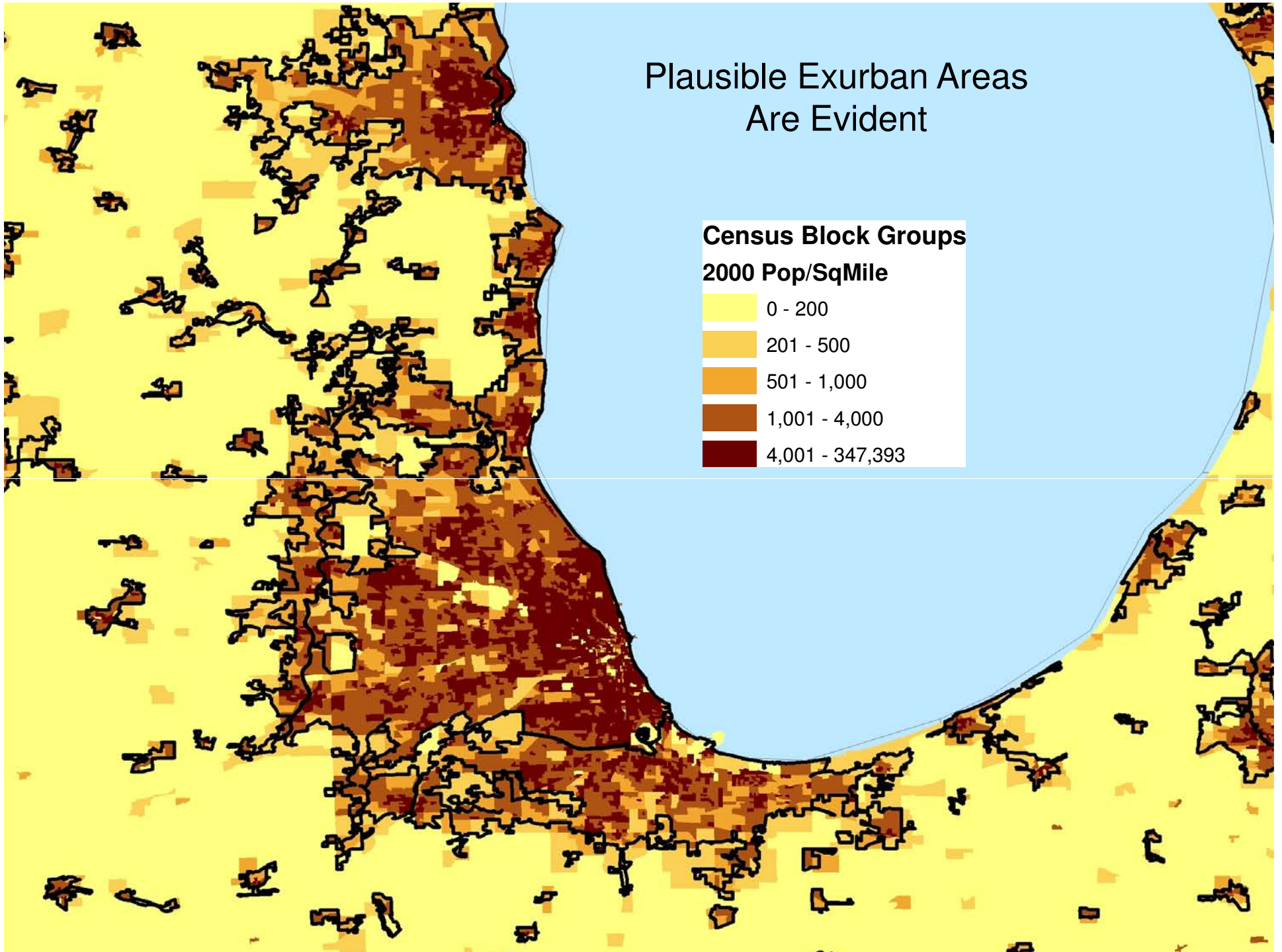
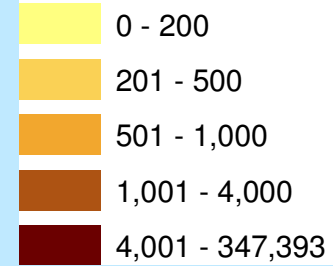
Places

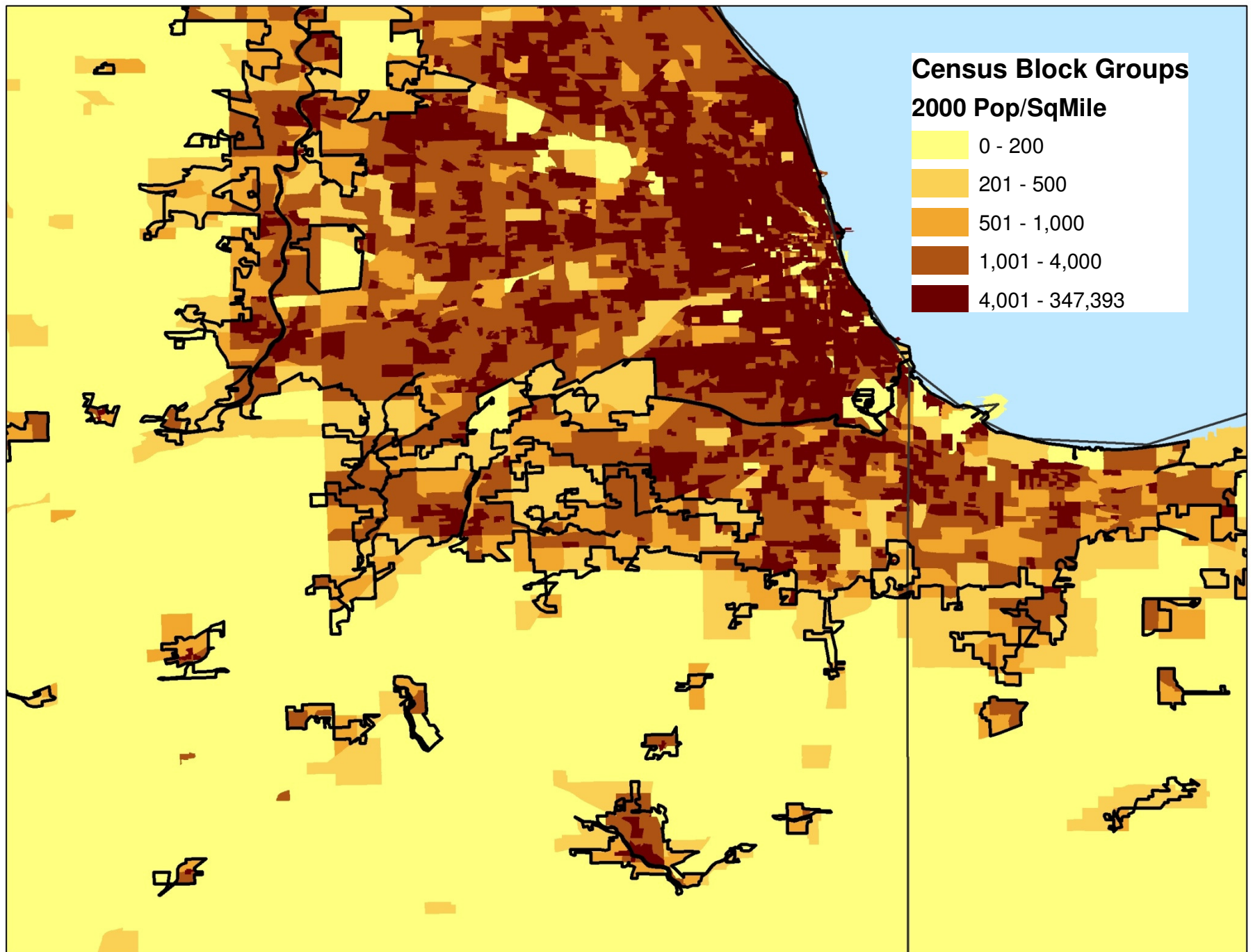
2000 Pop/SqMile



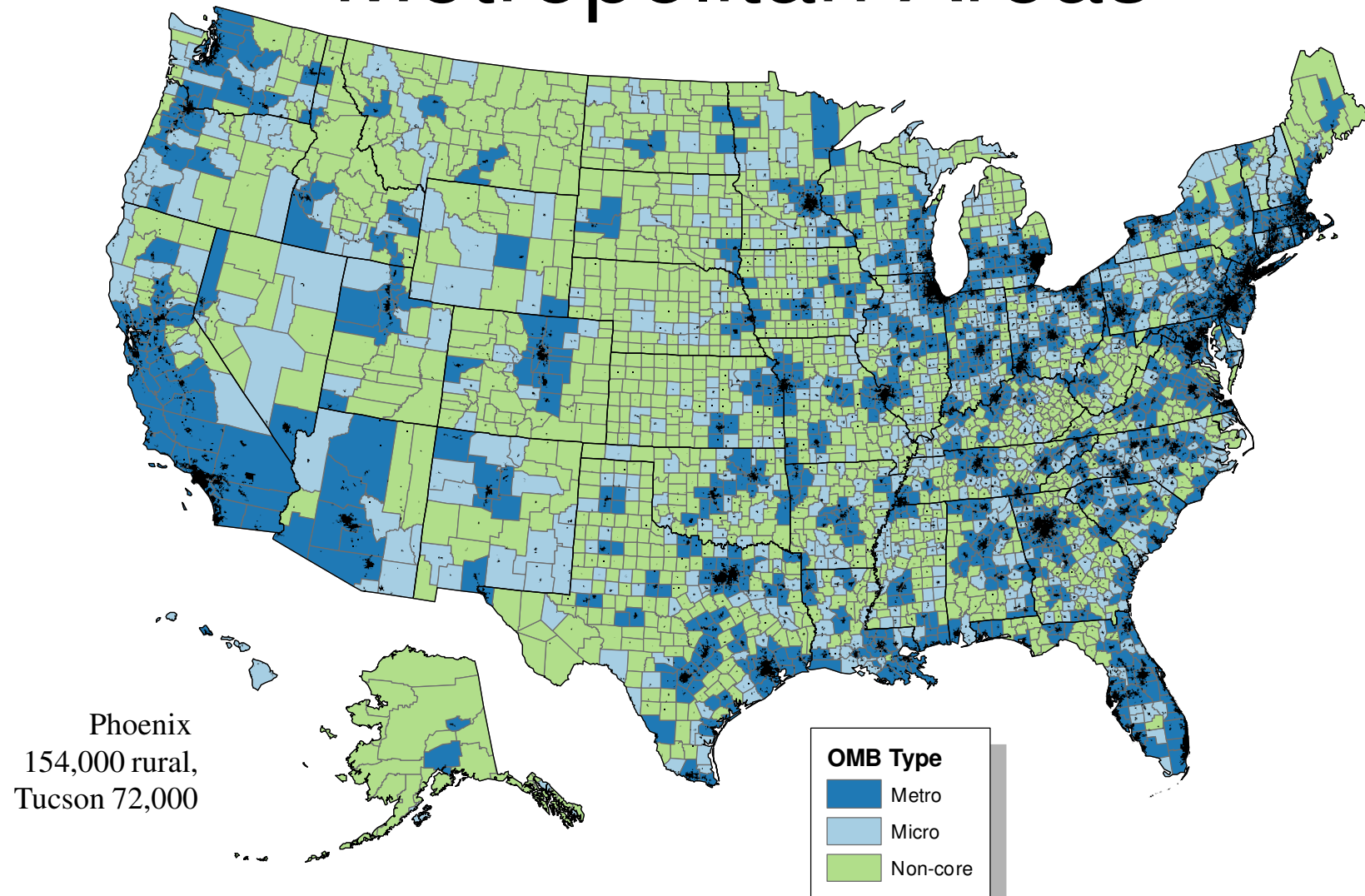
Plausible Exurban Areas Are Evident

Census Block Groups 2000 Pop/SqMile





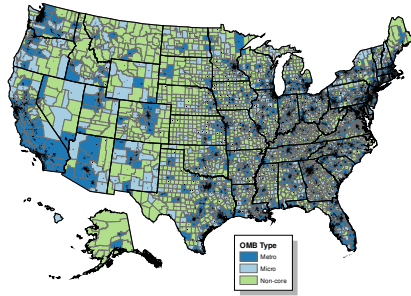
Metropolitan Areas



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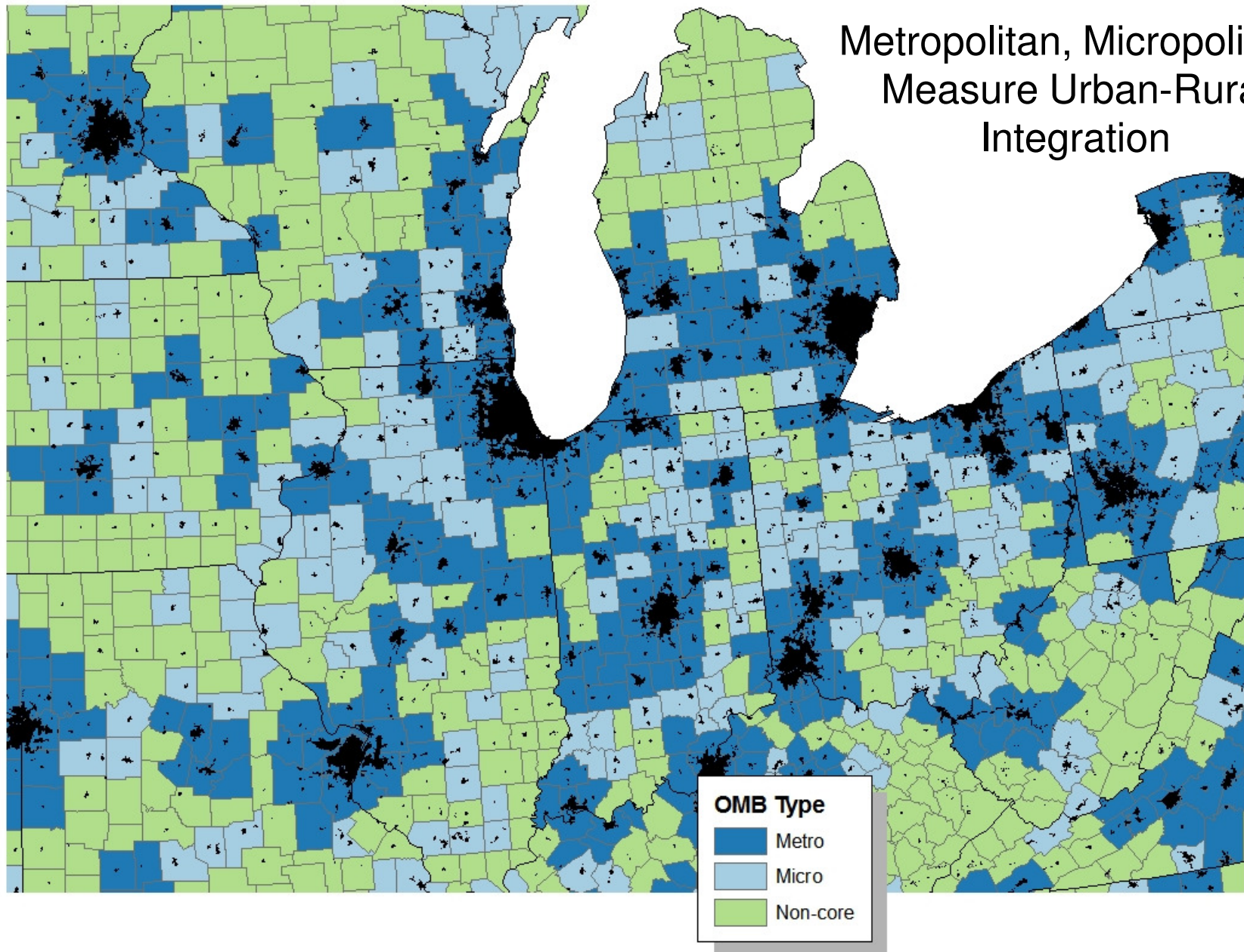


Brief History

- Chicago Plan 1909
 - 60 mile radius from the heart of Chicago
- Bureau of the Census 1910
 - Metropolitan District: 10 miles from central city boundary of cities of 200,000 or more, U.S. had 25 with >250,000 population
- Bureau of the Census 1950
 - “For many types of social and economic analysis it is necessary to consider as a unit the entire population in and around the city whose activities form an integrated social and economic system.”
 - “standard metropolitan area so that a wide variety of statistical data might be presented on a uniform basis”
- OMB 2003
 - Density determines “in” the city, commuting measures “around”



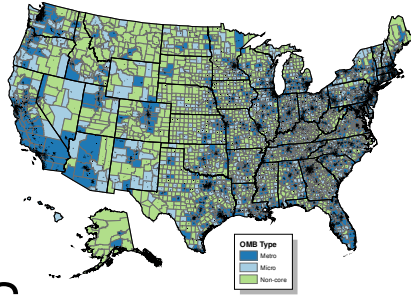
Metropolitan, Micropolitan Measure Urban-Rural Integration



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Issues and Improvements

- ISSUES

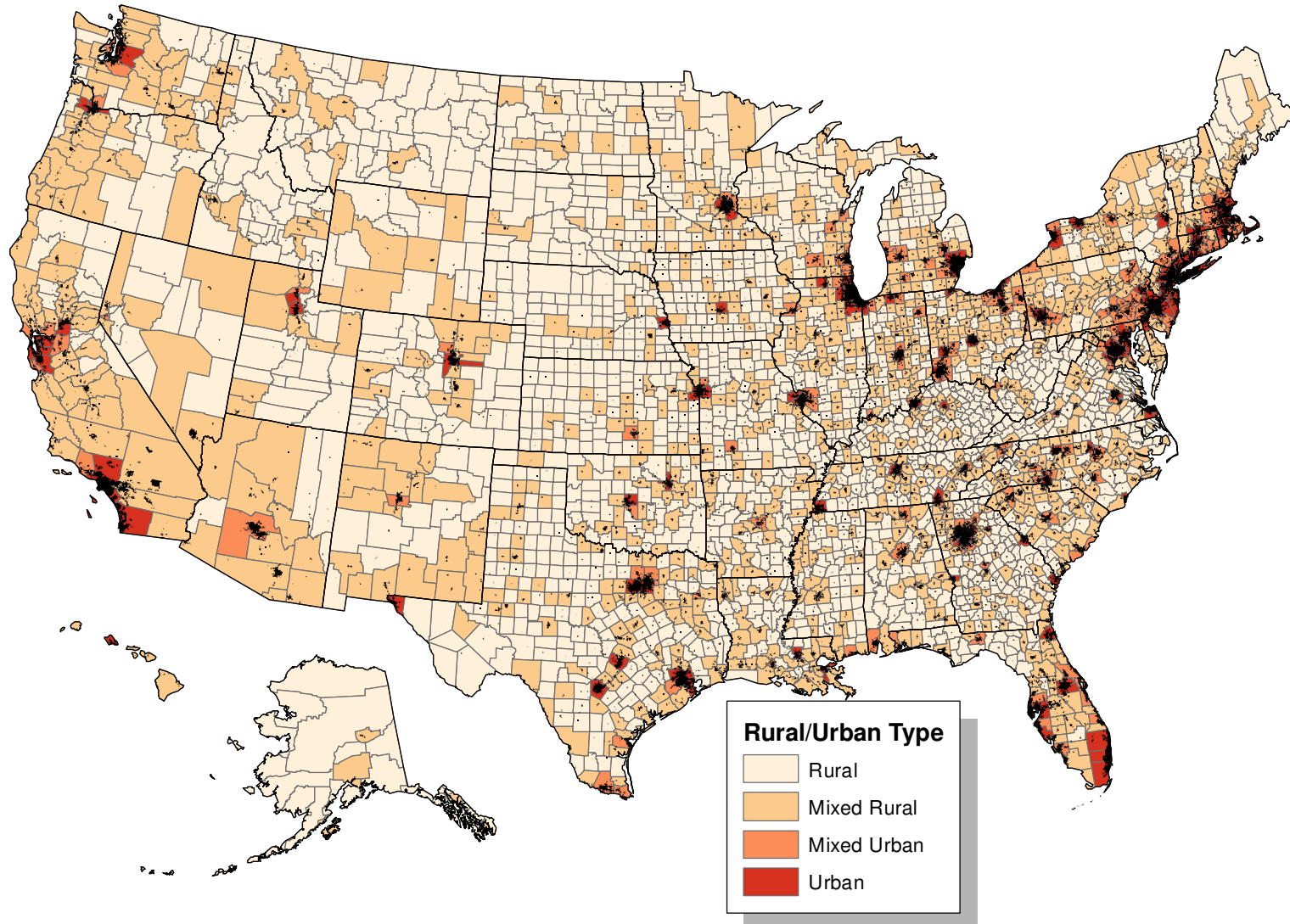
- Widespread misuse despite strong OMB warnings
- Metropolitan is not synonymous with urban, Nonmetropolitan is not rural
- Most counties mix urban and rural

- IMPROVEMENTS

- Reintroduce urban character requirements for counties? NOT
 - Changes purpose and obfuscates focus on integration
- Build a true urban-rural statistical system so users will not be tempted to substitute metro-nonmetro
- Build a parallel county system that recognizes counties are mixed
 - Rural-urban character, e.g., rural metropolitan or mixed rural metropolitan
 - Expanded Beale code
 - 248 metro counties with 2,500-19,999 urban population
 - 116 with < 2,500, including 96 with no urban population
- Try to match the world
 - Urban-suburban-exurban-rural; integrated or not
 - City, suburb, town, country; integrated or not



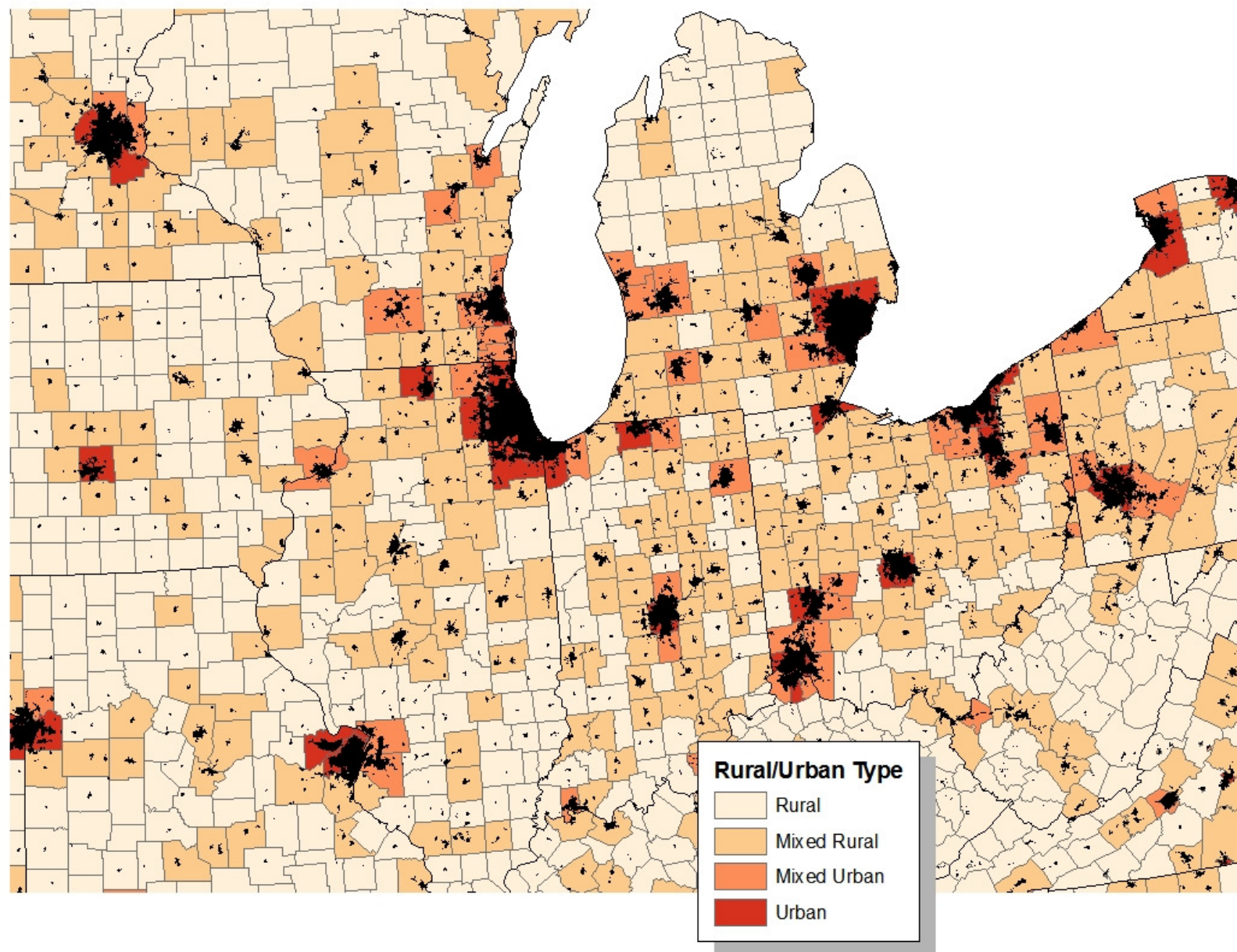
Rural-Urban Character



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Economic Areas of the U.S. (1961)

- One of the cruel “facts of life” that confronts a person who wants to obtain precise information about the economy or population of a particular region or subregion of the United States is the discovery that the prevailing statistical system is against him. Most of the information is compiled either for the large and definitely un-regional State units or for the small and multitudinous (3,100) county units.
- Routine use by the U.S. Bureau of the Census and other statistics-making agencies of a system of **areal units larger than counties and smaller than states** would promote an outpouring of information that would greatly sharpen and expand our knowledge of regional problems, interregional differences, and internal variations within regions.

64 indices=>13 economic regions, 121
economic subregions, 506 state
economic areas

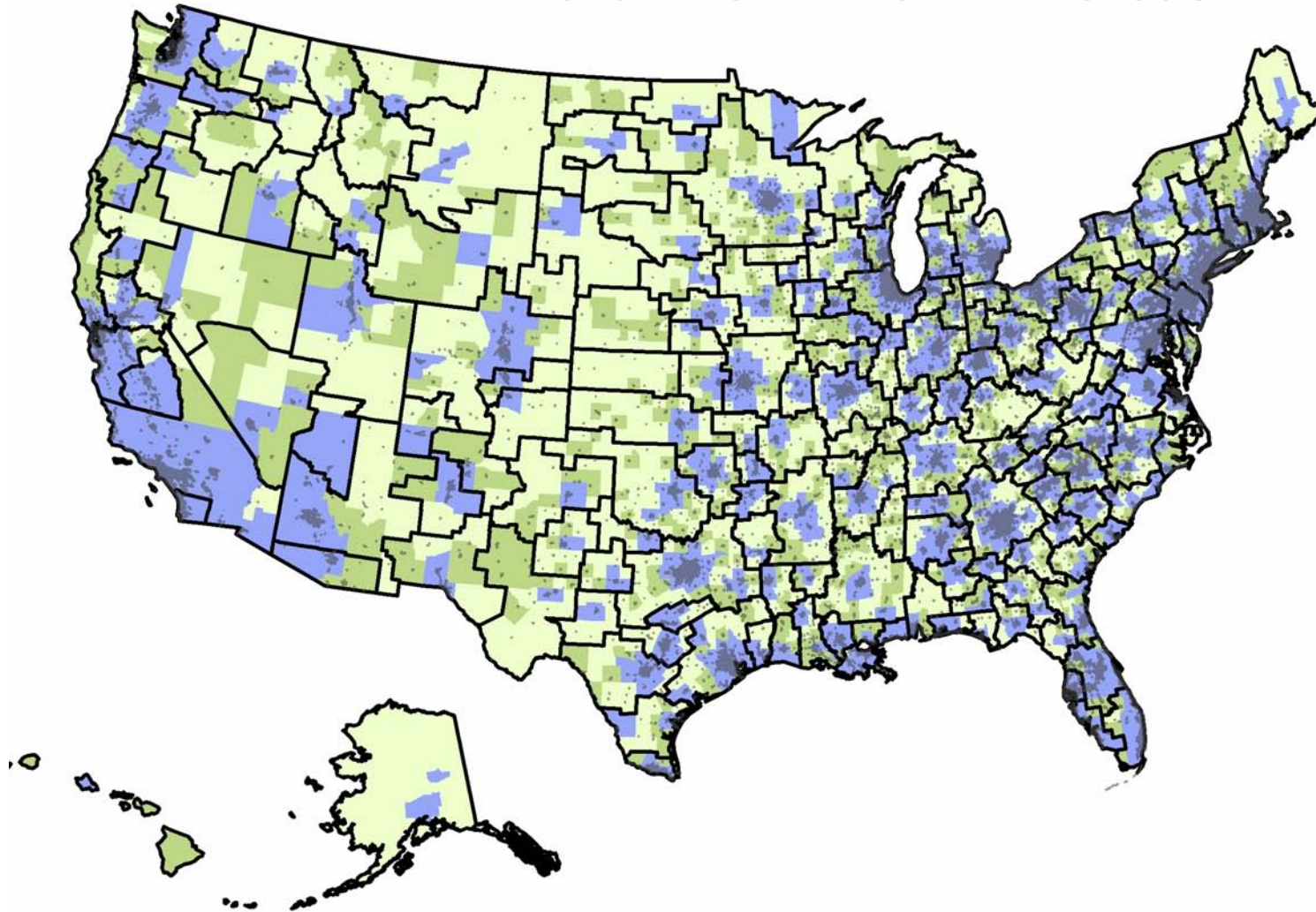


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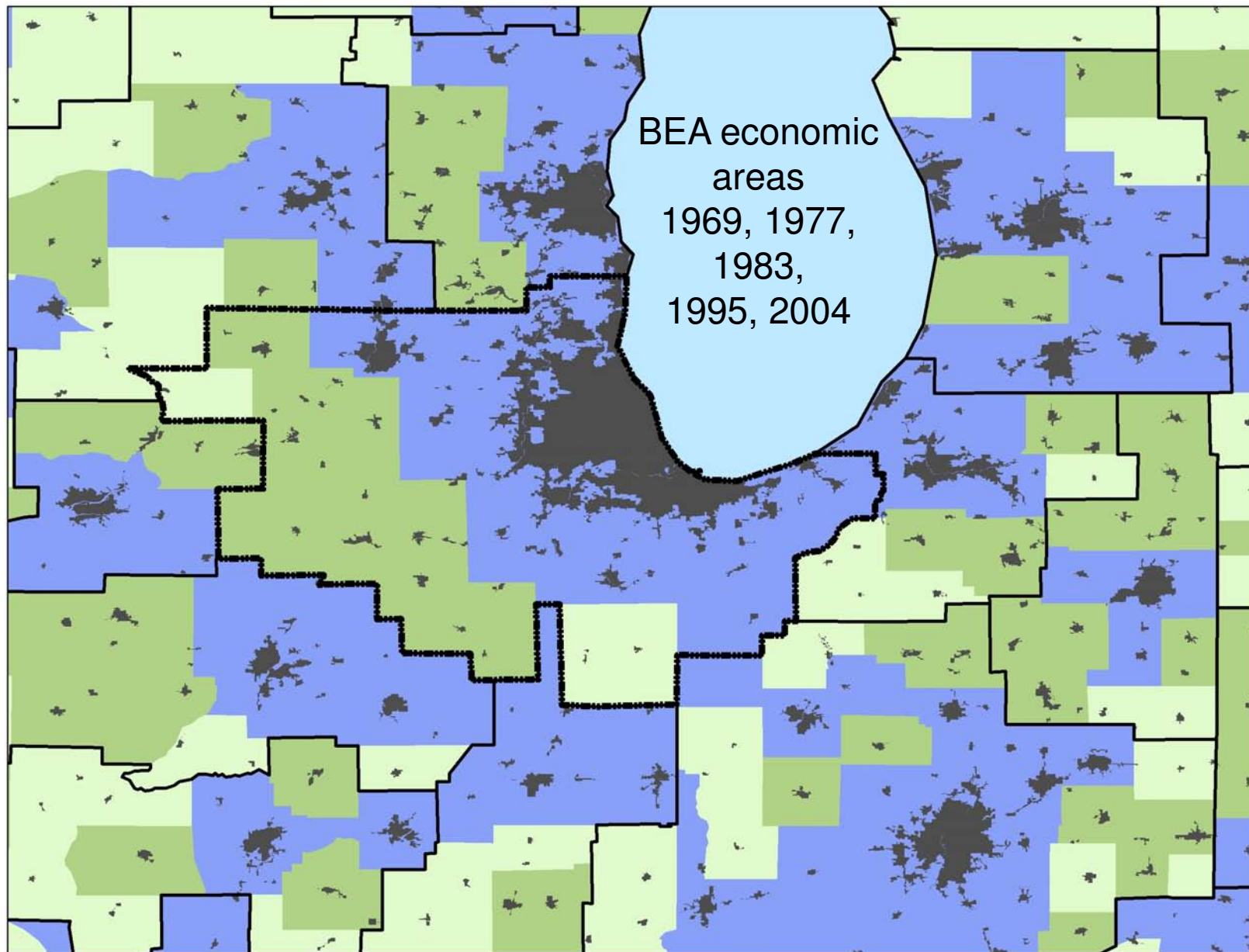
BEA Economic Areas

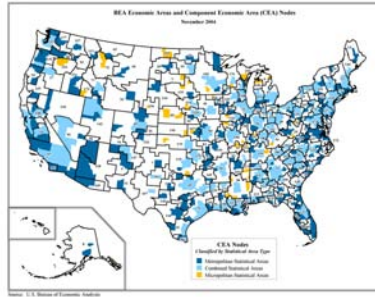


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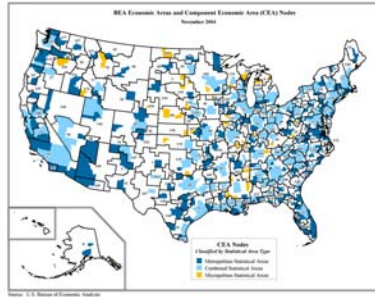




Issues and Improvements

- ISSUE
 - Mutually exclusive, but some places tied to more than one core based area
 - Real boundaries are fuzzy
- IMPROVEMENT,
 - Consider bottom up economic areas
 - Each place has its own area

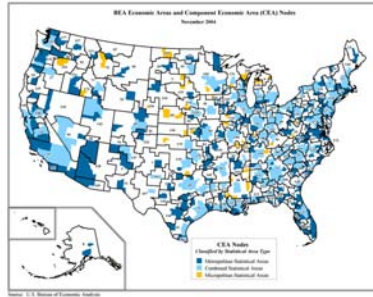




Issues and Improvements

- ISSUE
 - All inclusive, some places not tied significantly to any metro or micro, urban-centric
 - Outside boundaries
- IMPROVEMENT,
 - Consider rural economic areas
 - Change algorithm to optimal assignment, not greedy urban initiated





Issues and Improvements

- ISSUE

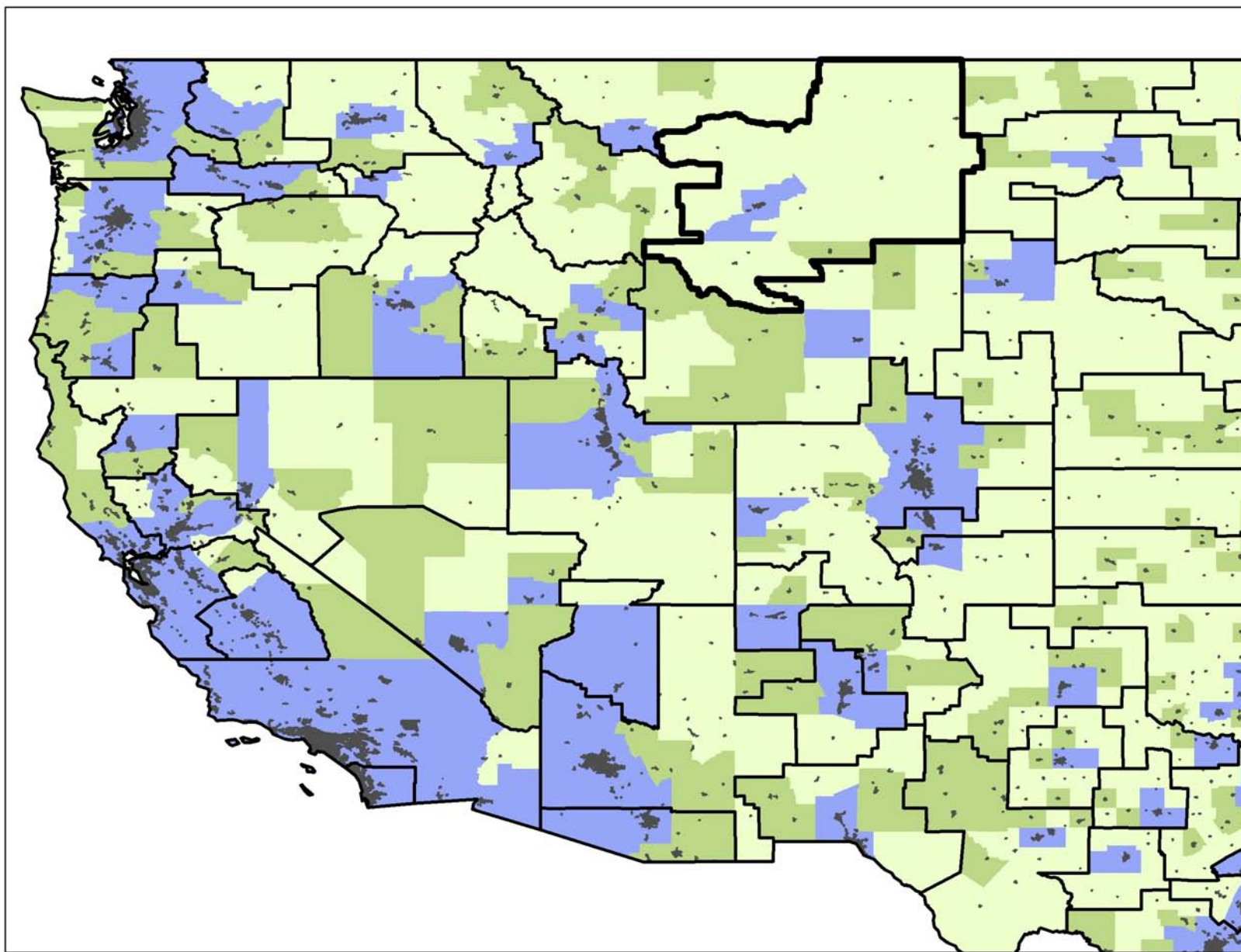
- Many regions seem meaningless

- “It becomes important that the regions be not extended over too extensive an area for the development of **a local regional consciousness** and of a capacity, in a definite regional population, to grasp the problems of the region and to desire their solution.” *Bettman (19xx)*
 - “a region is an area unified by common economic and social purposes, **large enough to permit a reasonable adjustment of necessary activities to sub-areas and small enough to develop a consciousness of community aims.**” *Hubbard and Hubbard (1929)*

- IMPROVEMENT

- Consider smaller economic areas and more of them
 - Consider bottom up economic areas; allow each place to have its own area
 - Think it through anew for next version? Purposes and uses
 - Consider homogeneous economic areas, different types of economic areas
 - Consider blend of nodal metropolitan areas and homogeneous rural areas



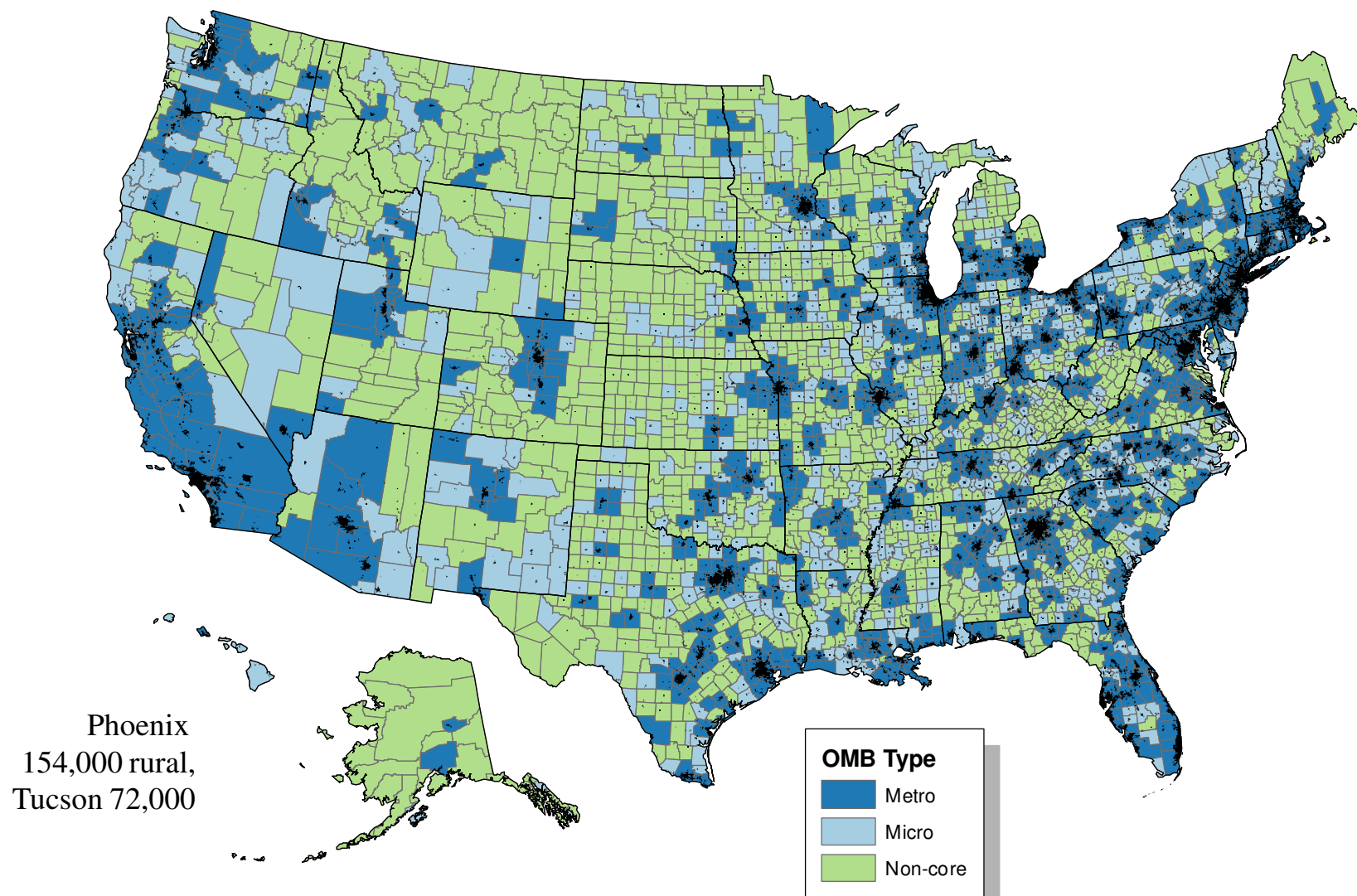


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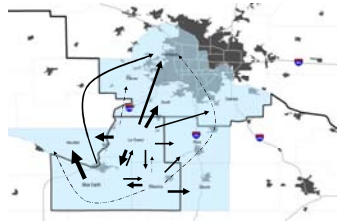
BLS Small Labor Market Areas



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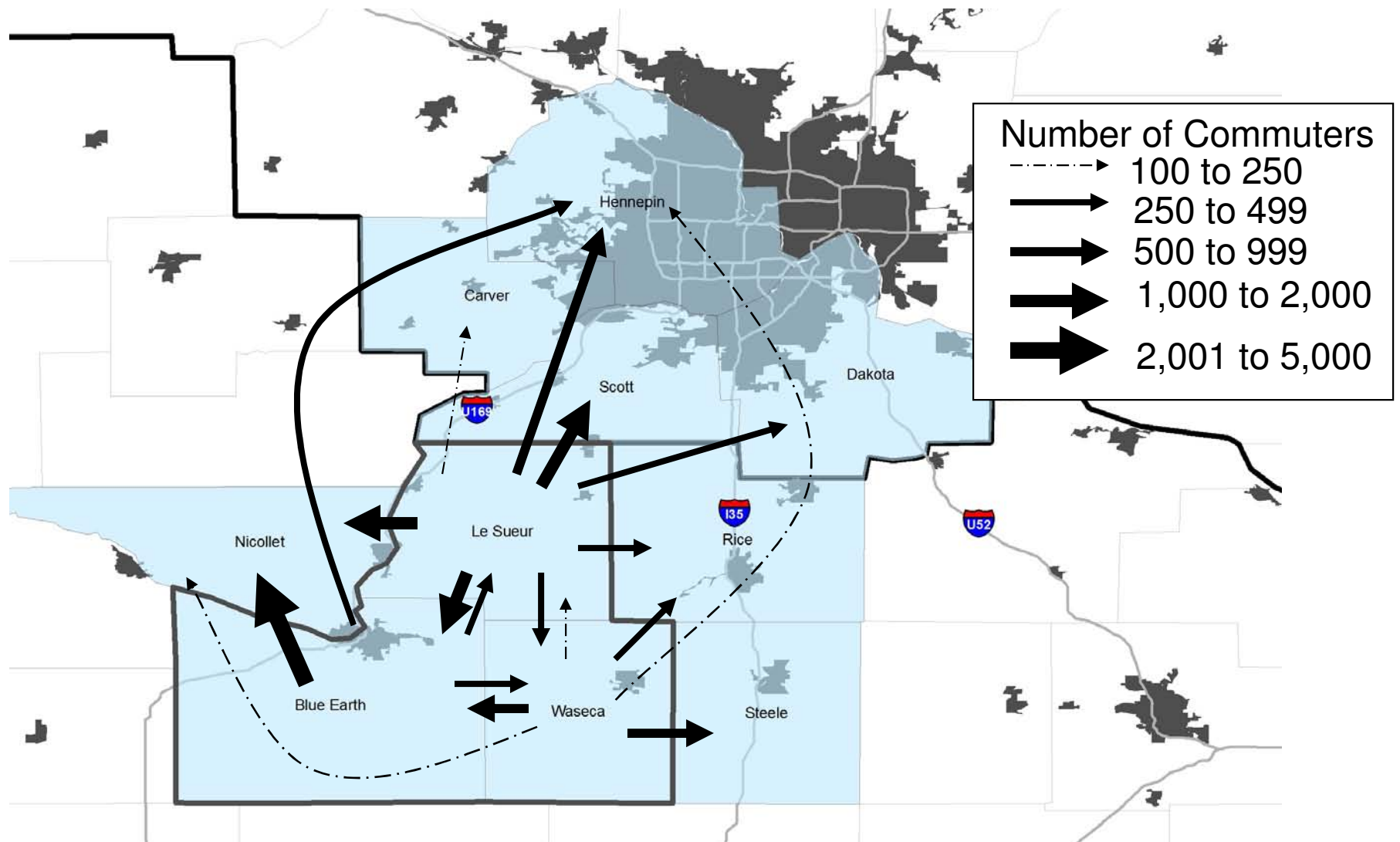
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Issues and Improvements

- ISSUE
 - Most non-core counties portrayed as single labor market areas
 - 25% criterion to link non-core counties is too high
- IMPROVEMENT
 - Recognize rural counties are not labor market areas
 - The 1,362 rural non-core counties average 30% of their residents working in another county and 21% of their jobs filled by in-commuters
 - They are porous
 - Design new criteria to link rural counties to one another





100 or more employed residents of Mankato area commute to the listed counties.



Small Labor Market Area Leakages

People who commute to work in Le Sueur County

Place of Residence	Character	OMB	Commuters	%por	%pow
Le Sueur Co. MN	Rural	Non-core	6,192	46.9%	68.3%
Nicollet Co. MN	Mixed Rural	Micro	652	3.9%	7.2%
Sibley Co. MN	Rural	Non-core	531	6.8%	5.9%
Blue Earth Co. MN	Mixed Rural	Micro	421	1.4%	4.6%
Scott Co. MN	Mixed Rural	Metro	401	0.8%	4.4%
Rice Co. MN	Mixed Rural	Micro	278	1.0%	3.1%
Waseca Co. MN	Rural	Non-core	159	1.6%	1.8%

Only 68% of the people who work in Le Sueur live there.

Work places of people who live in Le Sueur County

Place of Work	Character	OMB	Commuters	%por	%pow
Le Sueur Co. MN	Rural	Non-core	6,192	46.9%	68.3%
Scott Co. MN	Mixed Rural	Metro	1,714	13.0%	5.1%
Nicollet Co. MN	Mixed Rural	Micro	1,354	10.3%	8.7%
Blue Earth Co. MN	Mixed Rural	Micro	1,204	9.1%	3.6%
Hennepin Co. MN	Urban	Metro	713	5.4%	0.1%
Rice Co. MN	Mixed Rural	Micro	492	3.7%	1.9%
Dakota Co. MN	Urban	Metro	457	3.5%	0.3%
Waseca Co. MN	Rural	Non-core	400	3.0%	4.6%
Carver Co. MN	Mixed Rural	Metro	184	1.4%	0.6%

Only 47% of Le Sueur's employed residents work there.



The Big Federal Statistical Regions

Between State and Nation
Fewer Than Ten Rows
Meaningful



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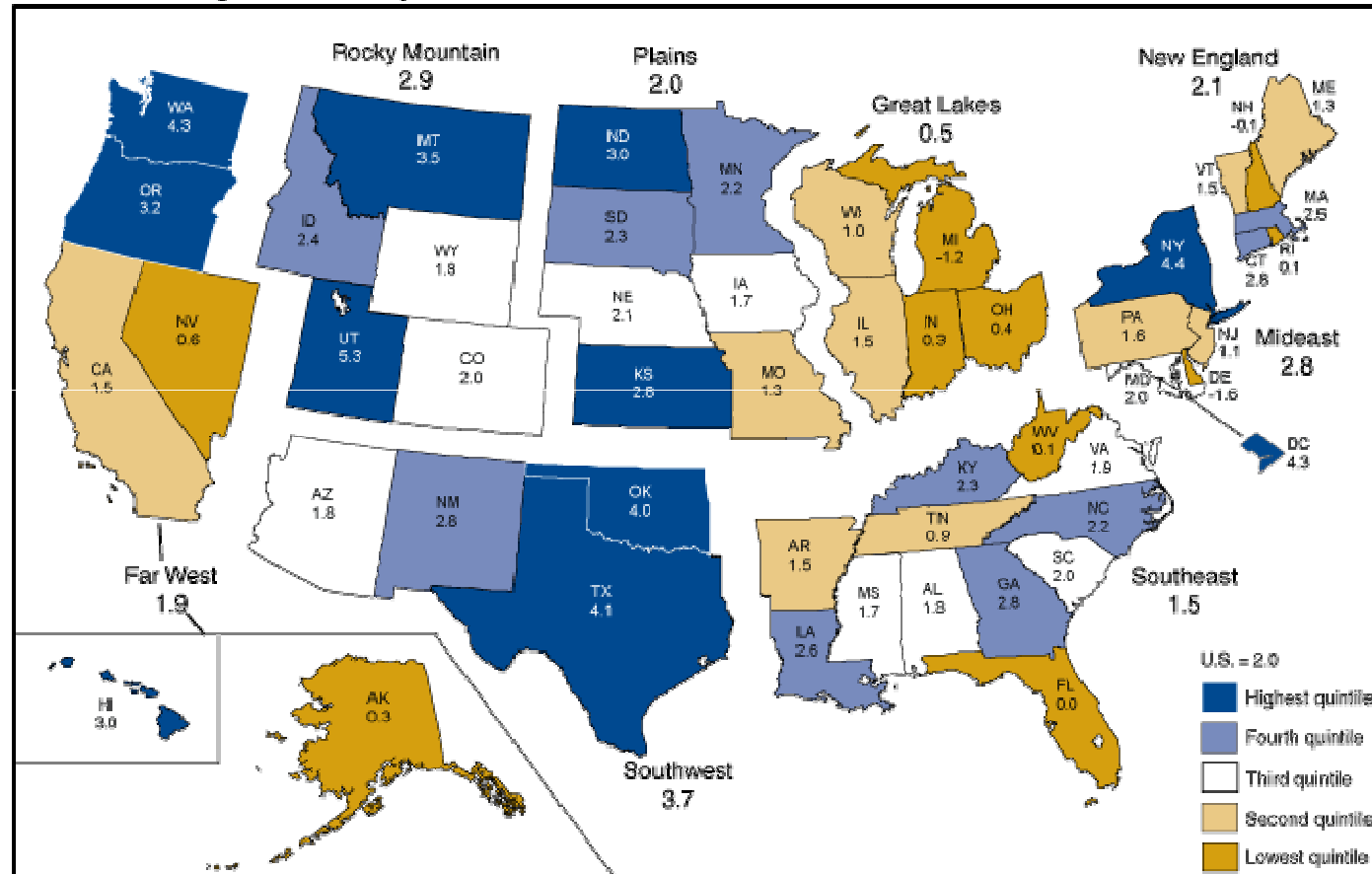
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BEA Regions

No changes
since 1959

Chart 1. Percent Change in Real GDP by State, 2006-2007



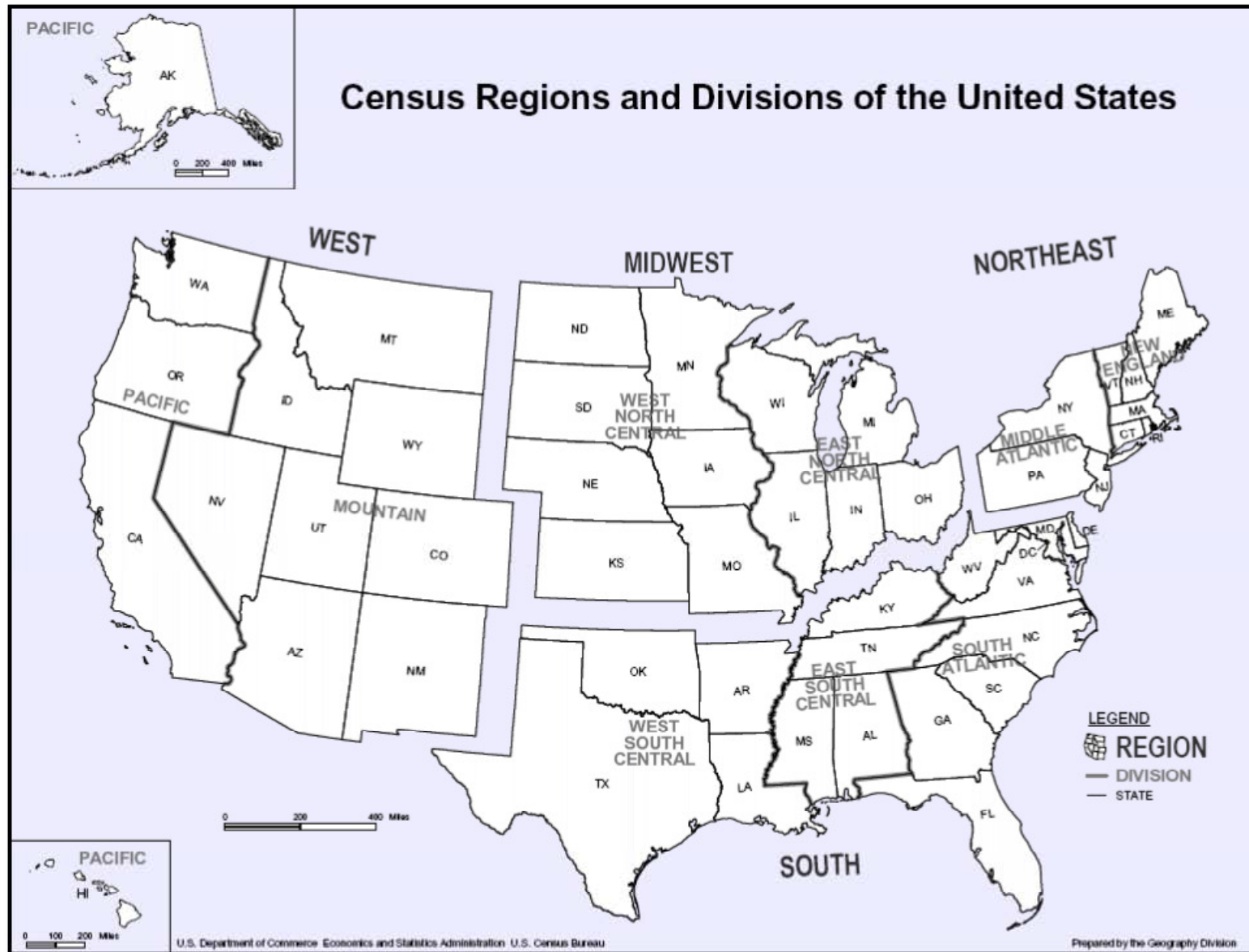
U.S. Bureau of Economic Analysis



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Farm Resource Regions

Basin and Range

- Largest share of nonfamily farms, smallest share of U.S. cropland.
- 4% of farms, 4% of value of production, 4% of cropland.
- Cattle, wheat, and sorghum farms.

Northern Great Plains

- Largest farms and smallest population.
- 5% of farms, 6% of production value, 17% of cropland.
- Wheat, cattle, sheep farms.

Heartland

- Most farms (22%), highest value of production (23%), and most cropland (27%).
- Cash grain and cattle farms.

Northern Crescent

- Most populous region.
- 15% of farms, 15% of value of production, 9% of cropland.
- Dairy, general crop, and cash grain farms.

Eastern Uplands

- Most small farms of any region.
- 15% of farms, 5% of production value, and 6% of cropland.
- Part-time cattle, tobacco, and poultry farms.

Fruitful Rim

- Largest share of large and very large family farms and nonfamily farms.
- 10% of farms, 22% of production value, 8% of cropland.
- Fruit, vegetable, nursery, and cotton farms.

Prairie Gateway

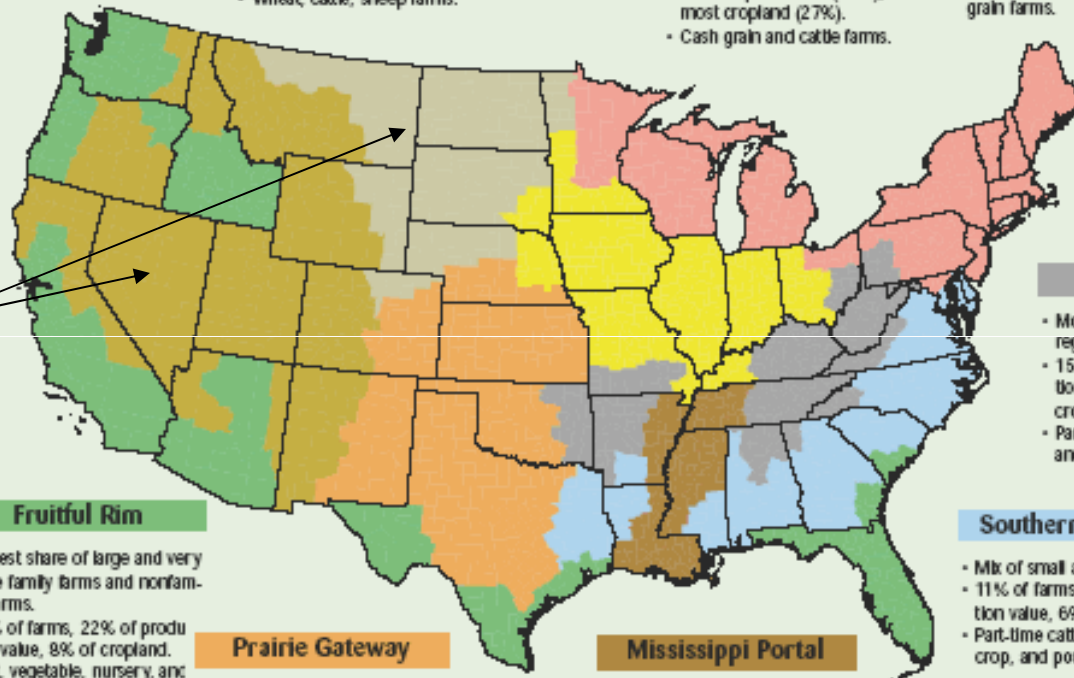
- Second in wheat, oat, barley, rice, and cotton production.
- 13% of farms, 12% of production value, 17% of cropland.
- Cattle, wheat, sorghum, cotton, and rice farms.

Mississippi Portal

- Higher proportions of both small and larger farms than elsewhere.
- 5% of farms, 4% of value, 5% of cropland.
- Cotton, rice, poultry, and hog farms.

Southern Seaboard

- Mix of small and larger farms.
- 11% of farms, 9% of production value, 6% of cropland.
- Part-time cattle, general field crop, and poultry farms.



BEA
economic
areas,
2012?

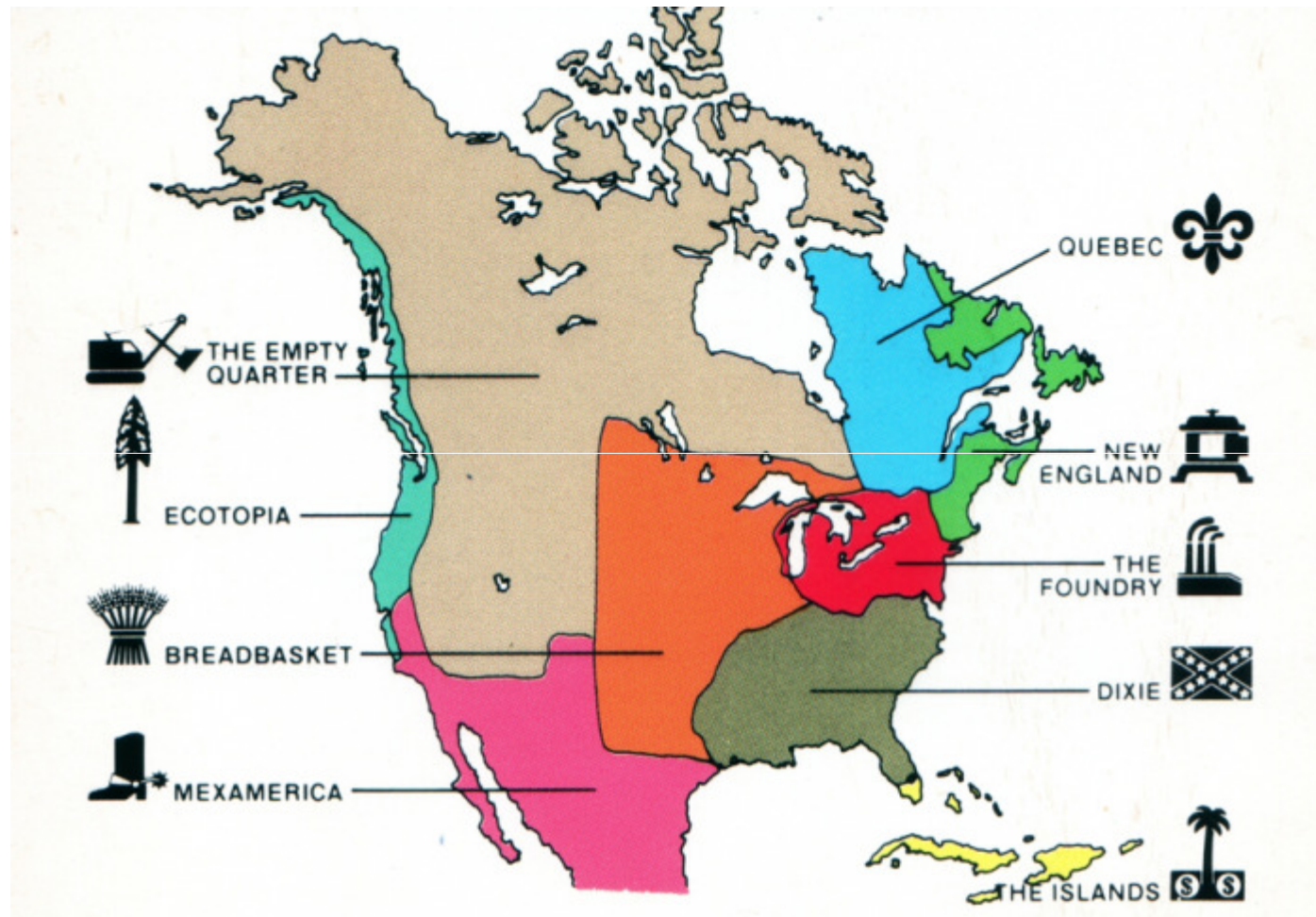


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Nine Nations of North America



Joel Garreau



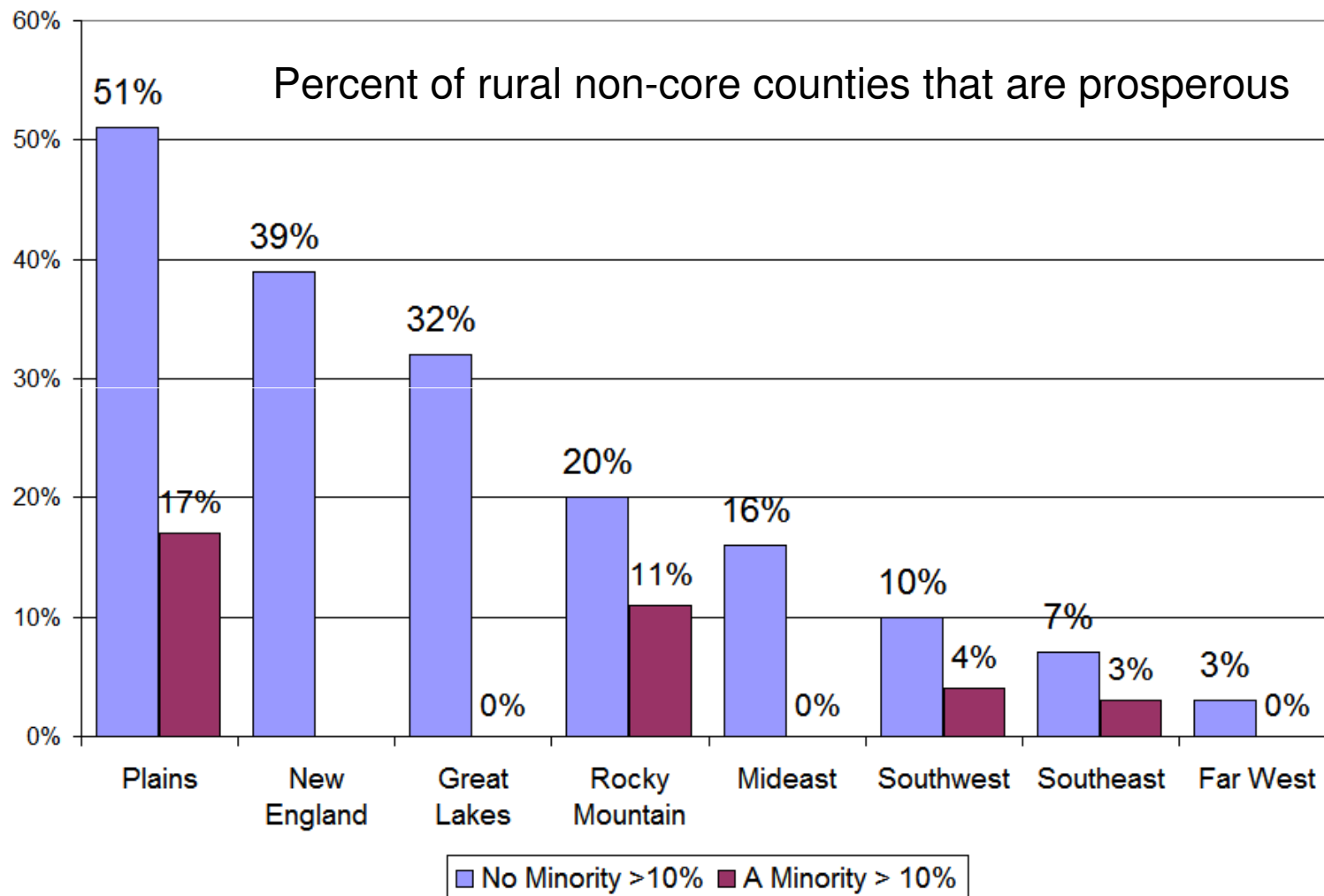
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I like the eight BEA regions. An illustration why:

Both Region and Race Matter

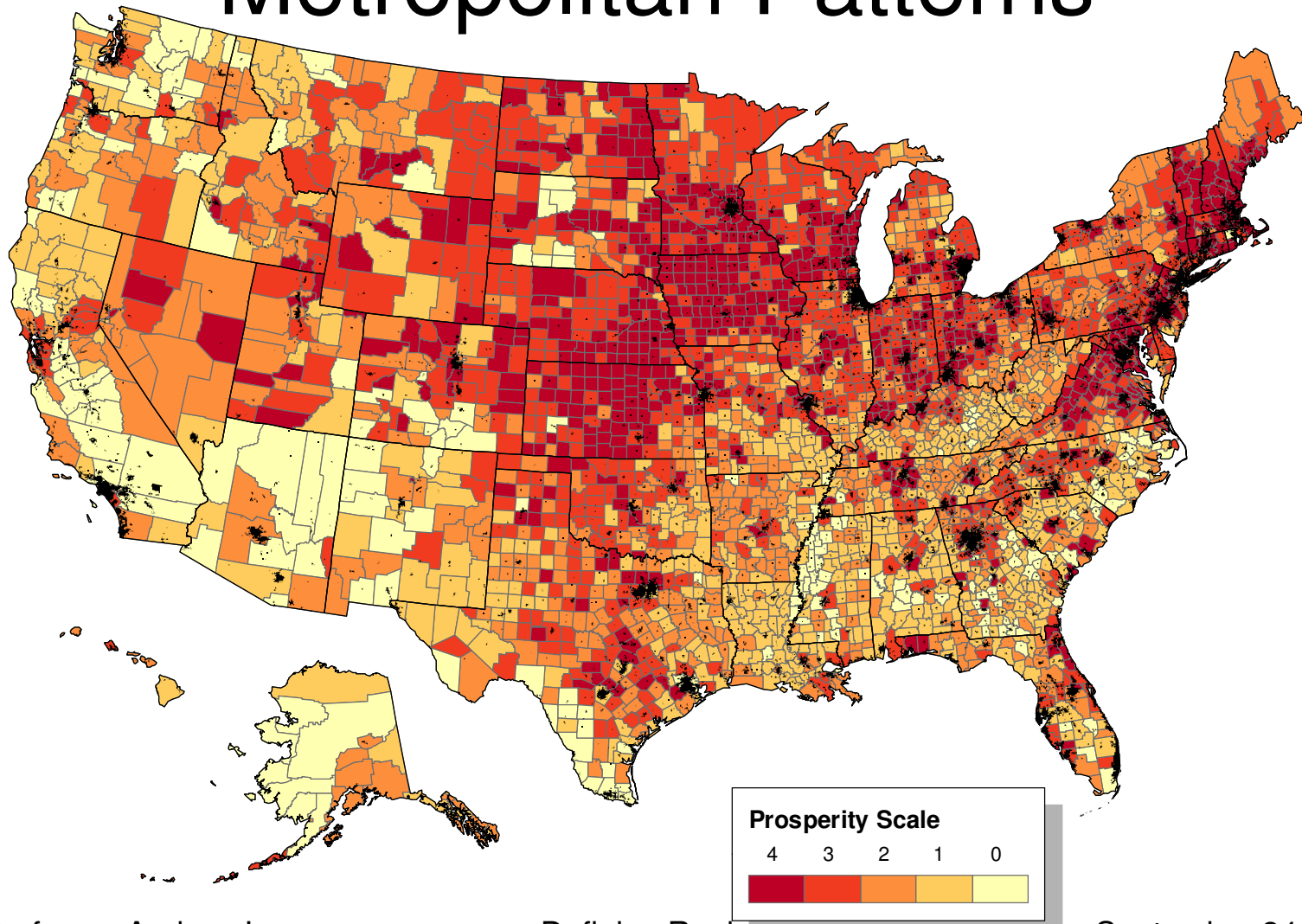


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Prosperity Has Regional and Metropolitan Patterns

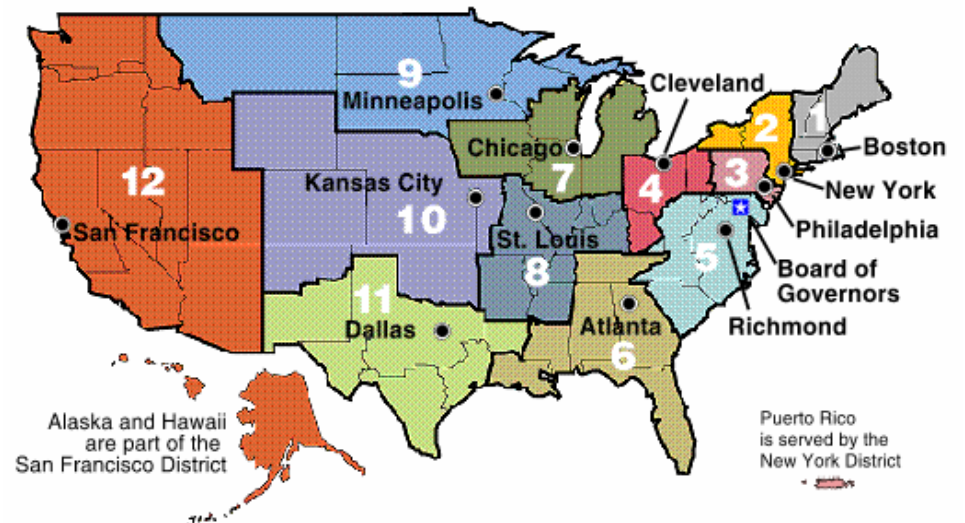
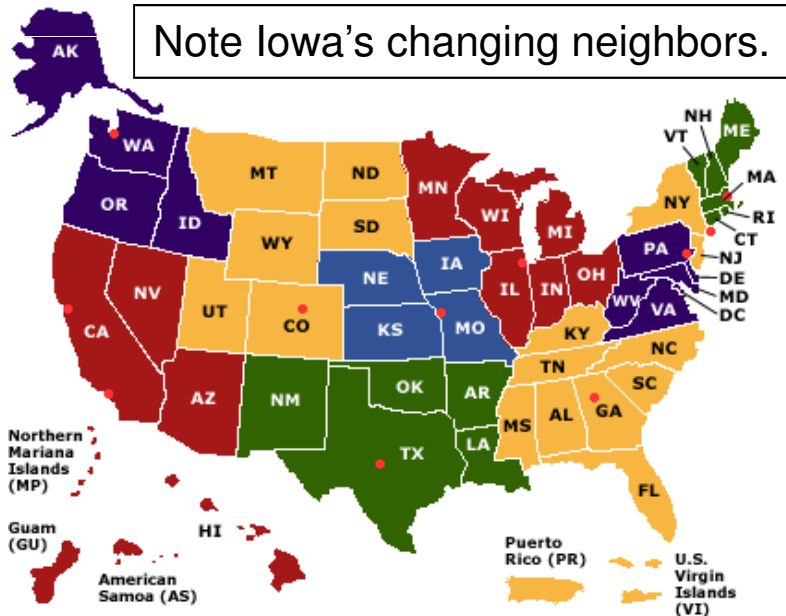
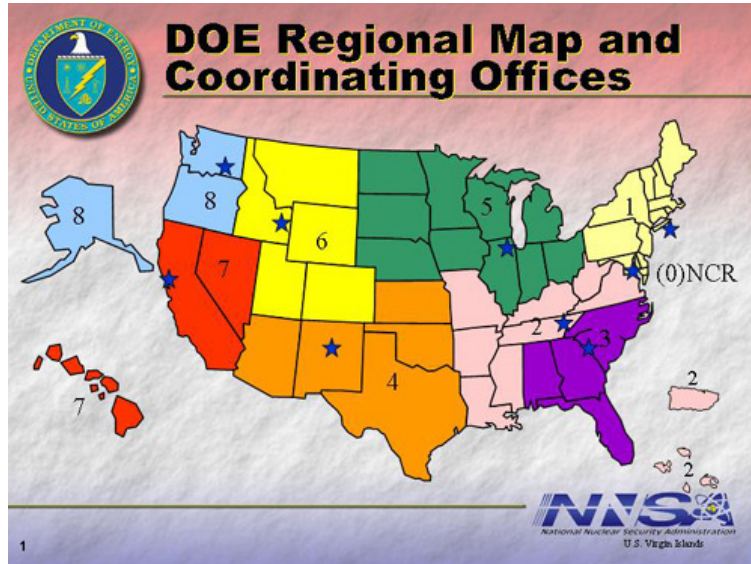


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Federal Administrative Regions



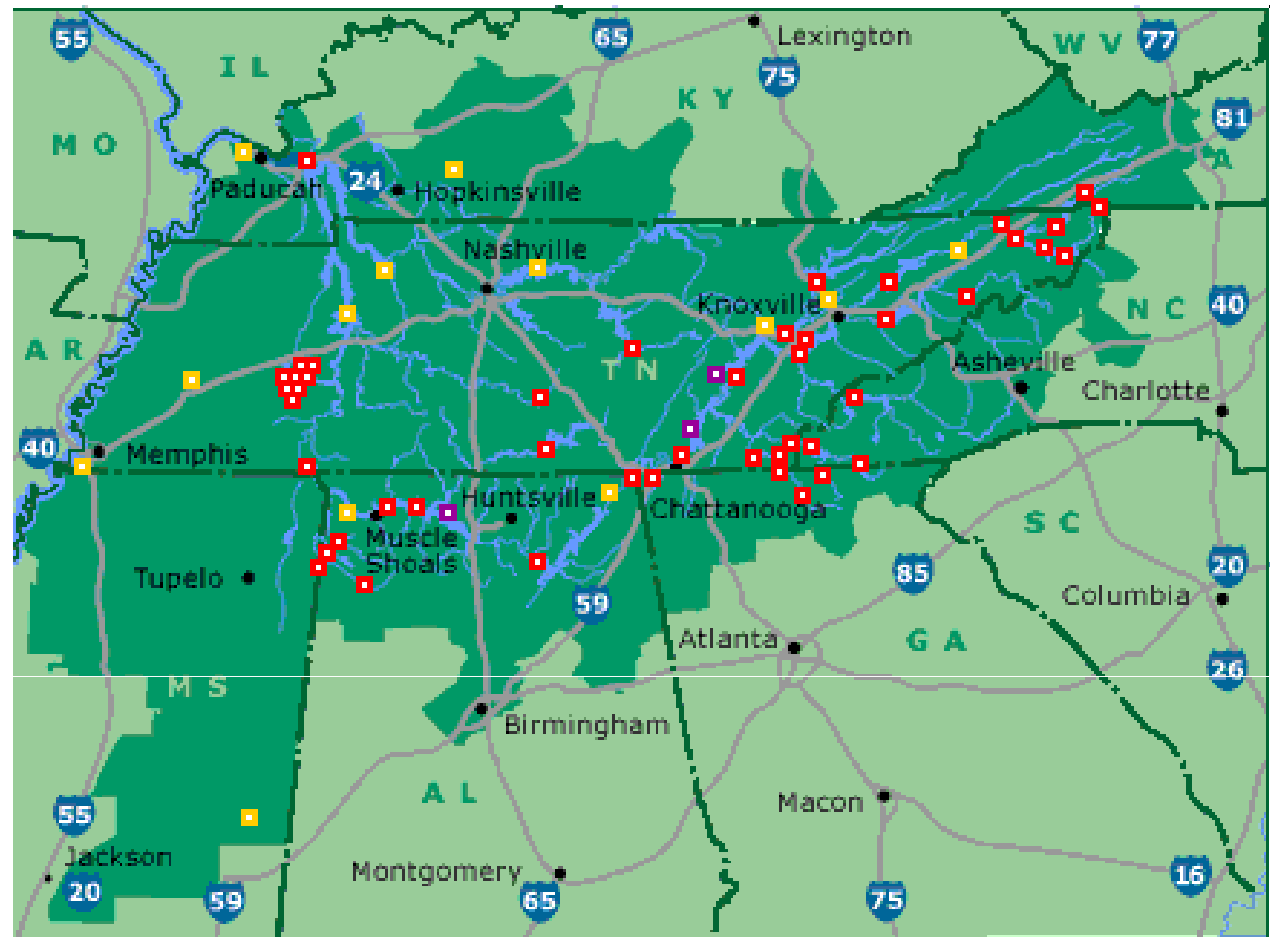
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Federal Action Regions from the 1930's



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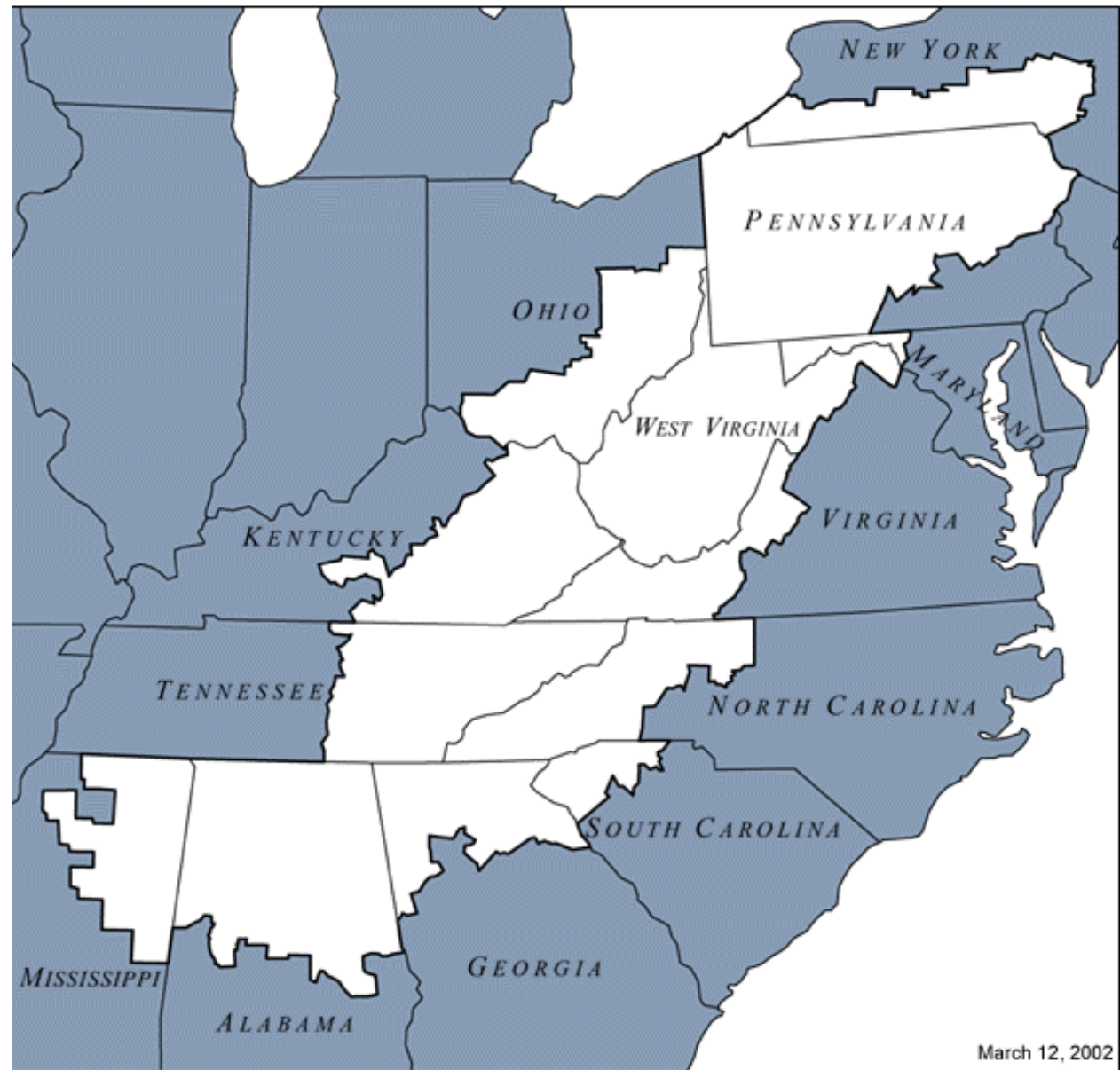
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The Appalachian Region

The
Surviving
Action
Region of
1965



Its kin come and go



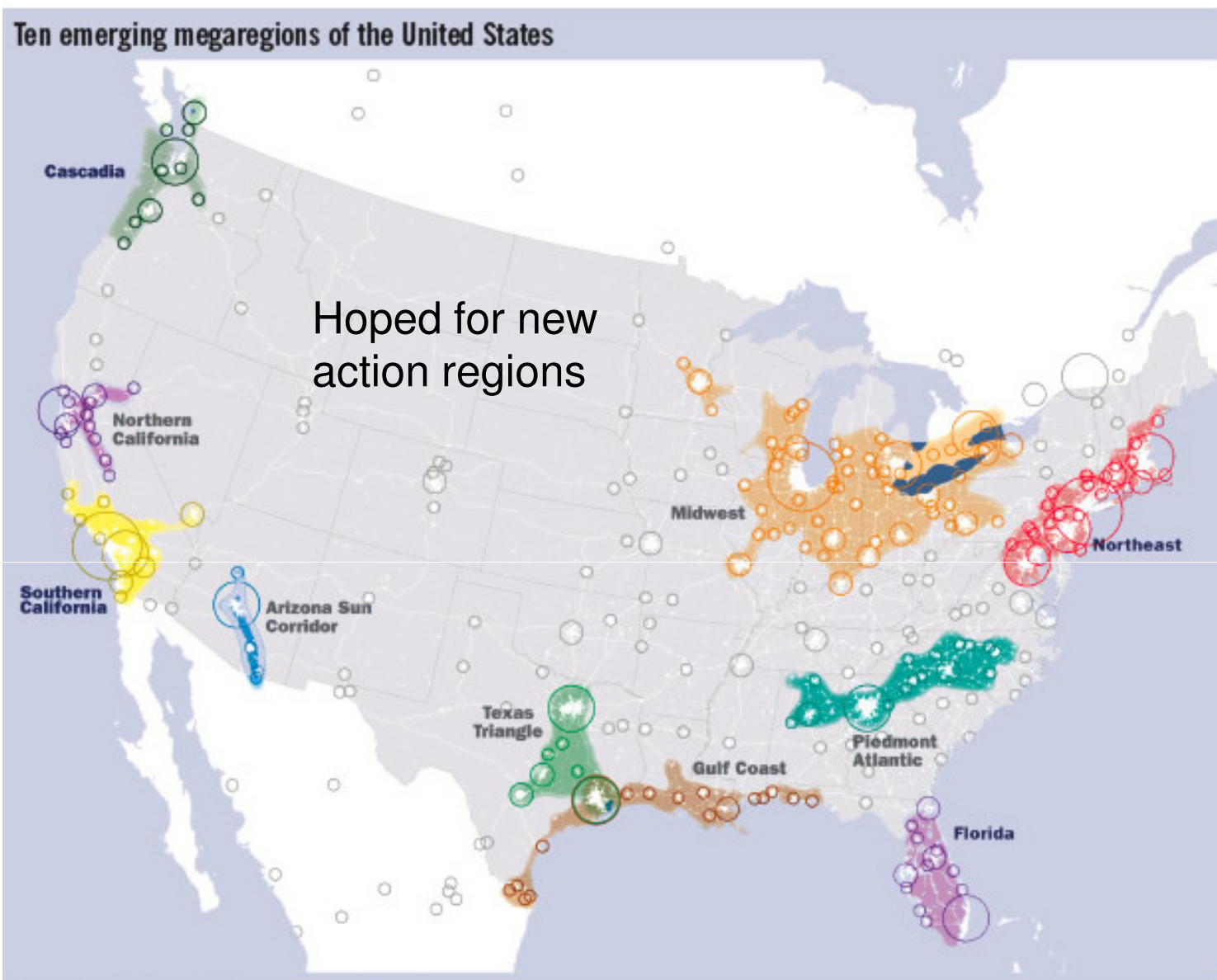
Source: Appalachian Regional Commission



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Source: Regional Plan Association, America 2050



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Conurbations

- Each new idea for which we have not yet a word deserves one. Some name, then, for these city-regions, these town aggregates, is wanted.
- Constellations we cannot call them;
- conglomerations is, alas nearer the mark at present, but it may sound unappreciative;
- What of "Conurbations?"



Geddes, Cities in Evolution (1915)

- The present Greater New York, now linked up, on both sides, by colossal systems of communications above and below its dividing waters, is also rapidly increasing its links with Philadelphia itself no mean city and with minor ones without number in every direction possible.
- For many years past it has paid to have tramway lines continuously along the roads all the way from New York to Boston, so that, taking these growths altogether, the expectation is not absurd that the not very distant future will see practically [one vast city-line along the Atlantic Coast for five hundred miles](#), and stretching back at many points; with a total of, it may be, well-nigh as many millions of population.
- Again, the [Great Lakes](#), with the immense resources and communications which make them a Nearctic Mediterranean, have a future, which its exponents claim may become world-metropolitan in its magnitude.
- Even of [Texas](#) which Europeans, perhaps even Americans, are apt to forget has an agricultural area comparable to that of France and Germany put together, and a better average climate it has been claimed that with intensive culture it might well-nigh feed a population comparable to that of the civilised world.



Six Mega-Regions are Poised for Rail Corridor Development



Amtrak is ready!



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Conclusion



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Classifying Regions (1977)

Four types of regions, four human purposes

1. Referential (description)

- The Great Plains

2. Appraisive (evaluation)

- Appalachia

3. Prescriptive (rules of action)

- Yosemite National Park

4. Optative (aspirations)

- Appalachia, Buffalo Commons, Silicon X

And the 10 megaregions are all four of these!



What is a
suburb?

Why Do Economic Regions Matter?

- Mental constructs shape the way we think and act and are shaped by the way we think. Our definitions create our perceptions.
- BEA Economic Areas too large, BLS Small Labor Markets too small, ERS codes that ignore half the rural people are the canaries.
- Think again, think freshly and creatively
 - What do we want from our landscape? Why do we only understand it and express it in terms of the city and relationships to cities?
 - What makes the journey to work the fundamental delineator of economic regions?
 - What are the lost alternatives? What of space made irrelevant?
 - What do our new data capabilities enable us to do to close the gap between too large and too small?



Have We Changed Enough within the Statistics Community?

- “First, we may conceive a metropolitan region as an area containing a dominant central city exercising a progressively diminishing influence upon a territory the outer boundaries of which are indeterminate.
- Second, we may think of a metropolitan region as an area containing a central city exercising a dominant influence over a territory the periphery of which is marked by the zone where the dominance of another competing metropolitan region becomes apparent.
- Third, we may visualize metropolitan regions as more or less arbitrarily fixed areas into which the country as a whole has been divided for various administrative purposes.” *Louis Wirth (1943)*

Can we do better than we are?
What can we visualize?

