

Demography

- Formal Demography
 - Focus on the three contributors to population change: Fertility, mortality, and migration
- Social Demography
 - Focus on relationship between social, economic, and demographic factors
 - Urban demography emphasizes cities
- Applied Demography
 - Focus on using information about demographic processes in decision-making or policy-making
- Spatial Demography

U.S. Census Bureau Population Programs

- Decennial Census
- American Community Survey
- Census Population Estimates
- Census Population Projections

Decennial Census

- Mandated by Article 1, Section 2 of the U.S. Constitution
- **Counts** the population every 10 years
- Results are used for Congressional apportionment and redistricting

Decennial Census

- In Census 2000 and prior censuses two different forms were used:
 - Short form (for everyone) that asked basic questions – age, sex, race, housing tenure, etc.
 - Long form (for a sample) that asked in-depth questions – income, education, marital status, etc.
- In Census 2010 only the short form was used
 - Decennial Census no longer collects information about the social and economic characteristics of the population

Question

How often is census data taken and how can we be sure it accurately takes into account everyone in a population. What about the homeless?

American Community Survey

- Began collecting data in all areas in 2005; published first estimates for all areas in 2010
- Updates every year
- Available for small geographic areas and areas with small population
- Smaller sample size than Census Long Form
- Decennial Census **counts** the population – ACS produces **estimates** of population and housing characteristics
- The purpose of the ACS is to provide data showing how people live and the needs of the community

Data Collected by the ACS

- Characteristics of the population
 - ***Demographic***: Age, sex, race, Hispanic origin
 - ***Social***: Educational attainment and school enrollment, marital status, migration, language, ancestry, disability, and more
 - ***Economic***: Income and earnings, employment and work status, health insurance, industry/occupation, commuting, poverty and SNAP, and more
- Characteristics of housing
 - ***Ownership***: Tenure, house value, rent, and more
 - ***Dwelling***: Rooms, bedrooms, year structure built, units in structure, and more

American Community Survey

- The ACS is a dynamic survey
 - Questions are continually being added removed
 - Health insurance first asked in 2008, Bachelor's degree field of study first asked in 2009, computer ownership and internet access first asked in 2013
- The ACS is a continuous survey
 - Data is collected throughout the year
 - Produces period estimates – reflect a period of time, not a point in time
 - Different from Decennial Census (April 1st)

The ACS is a Rolling Survey

- Data are pooled across years and different estimates are available for various geographies
 - This prevents data disclosure, protecting respondent confidentiality
- 1-year estimates
 - Produced for areas with at least 65,000 people
- 3-year estimates
 - Produced for areas with at least 20,000 people
- 5-year estimates
 - Produced for all areas (to the block group level)

Limitations of the ACS

- **American Community Survey**
 - Survey data always has some margin of error
 - For small geographies, these can be quite substantial
- Pooled data can be difficult to interpret
 - This is particularly true for those variables that may reflect cyclical patterns (such as unemployment)
- Under constant threat of discontinuation
- Despite limitations, remains the foremost nationally representative survey, and is one of few sources of data for small areas

ACS Response Rates 2012

	Housing Unit Response Rate
Iowa	98.8
South Carolina	98.7
Indiana	98.6
North Dakota	98.6
Oklahoma	98.6
South Dakota	98.5
West Virginia	98.5
Wyoming	98.4
Florida	98.3
Wisconsin	98.3
Hawaii	98.2
Kansas	98.2
Minnesota	98.2
Utah	98.1
Michigan	98
Ohio	98
Virginia	98
Colorado	97.9
Nebraska	97.9
Vermont	97.9
Arkansas	97.8
North Carolina	97.7
Tennessee	97.7
Kentucky	97.6

	Group Quarters Response Rate
Rhode Island	99.5
Oklahoma	99.3
Minnesota	98.9
Montana	98.8
Wyoming	98.8
North Dakota	98.6
Iowa	98.1
Indiana	97.8
Missouri	97.8
North Carolina	97.8
Wisconsin	97.7
South Carolina	97.6
Connecticut	97.4
South Dakota	97.4
Colorado	97.2
Arkansas	97.1
Nebraska	97
Alabama	96.9
Hawaii	96.9
Tennessee	96.6
Louisiana	96.4
New Hampshire	96.4
Kentucky	96.3

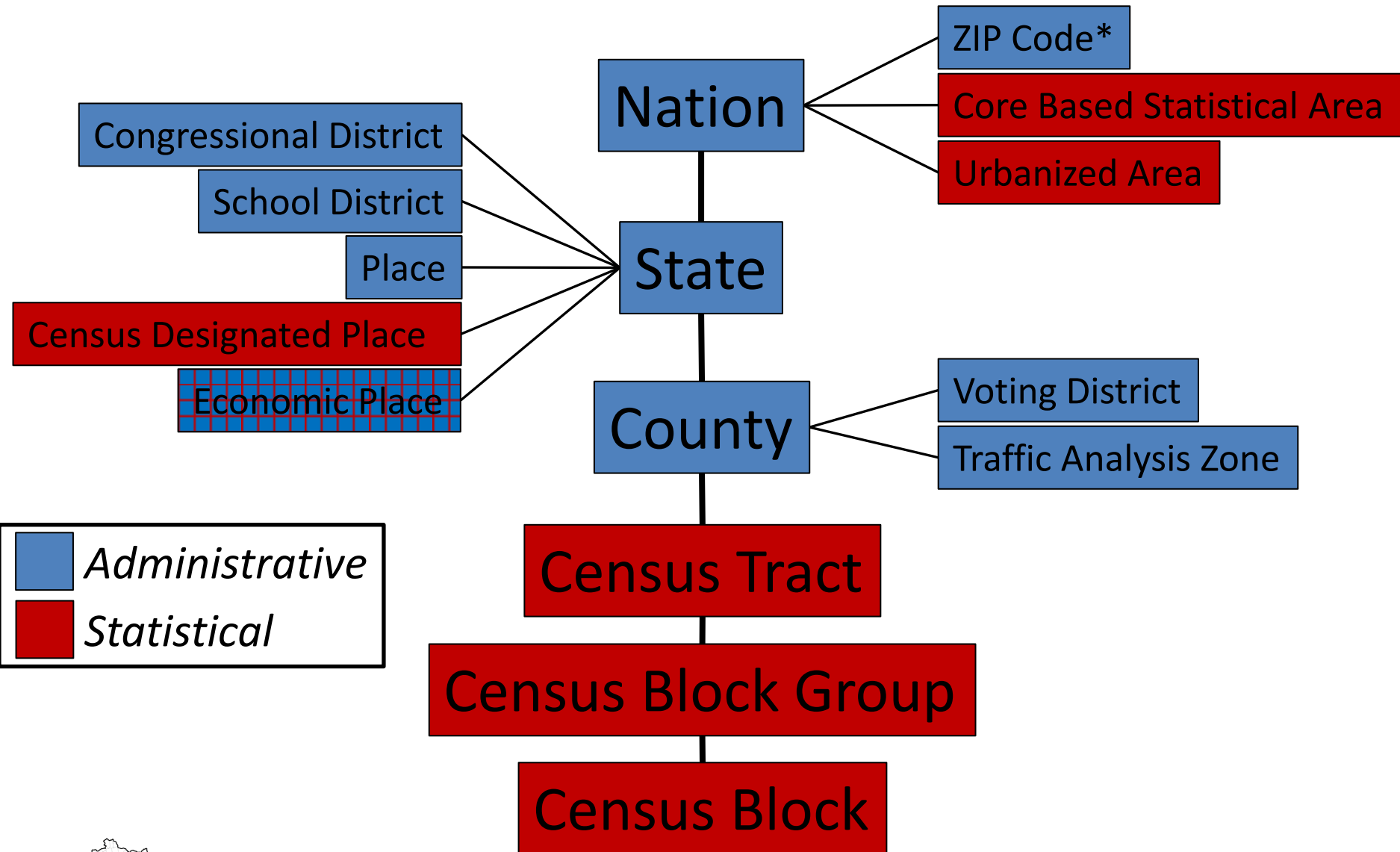
Census Population Estimates

- Demographic data published between Decennial Censuses – sometimes referred to as intercensal estimates
 - Produced annually and updated and revised when necessary
 - Derived from mathematical models of the components of population change
- Generated for the nation, states, metropolitan areas, counties, and incorporated places
- Does not include population characteristics

Census Population Projections

- Projections are predictions of what the population will look like in the future
 - Based on demographic rates (e.g., fertility, mortality, migration) in effect at the present time
 - Produced by the Census Bureau for the nation – state projections are not longer produced
- State and sub-state population projections are the responsibility of the individual state
- KSDC-produced projections for Kentucky and component counties (2015-2050) were released in 2011

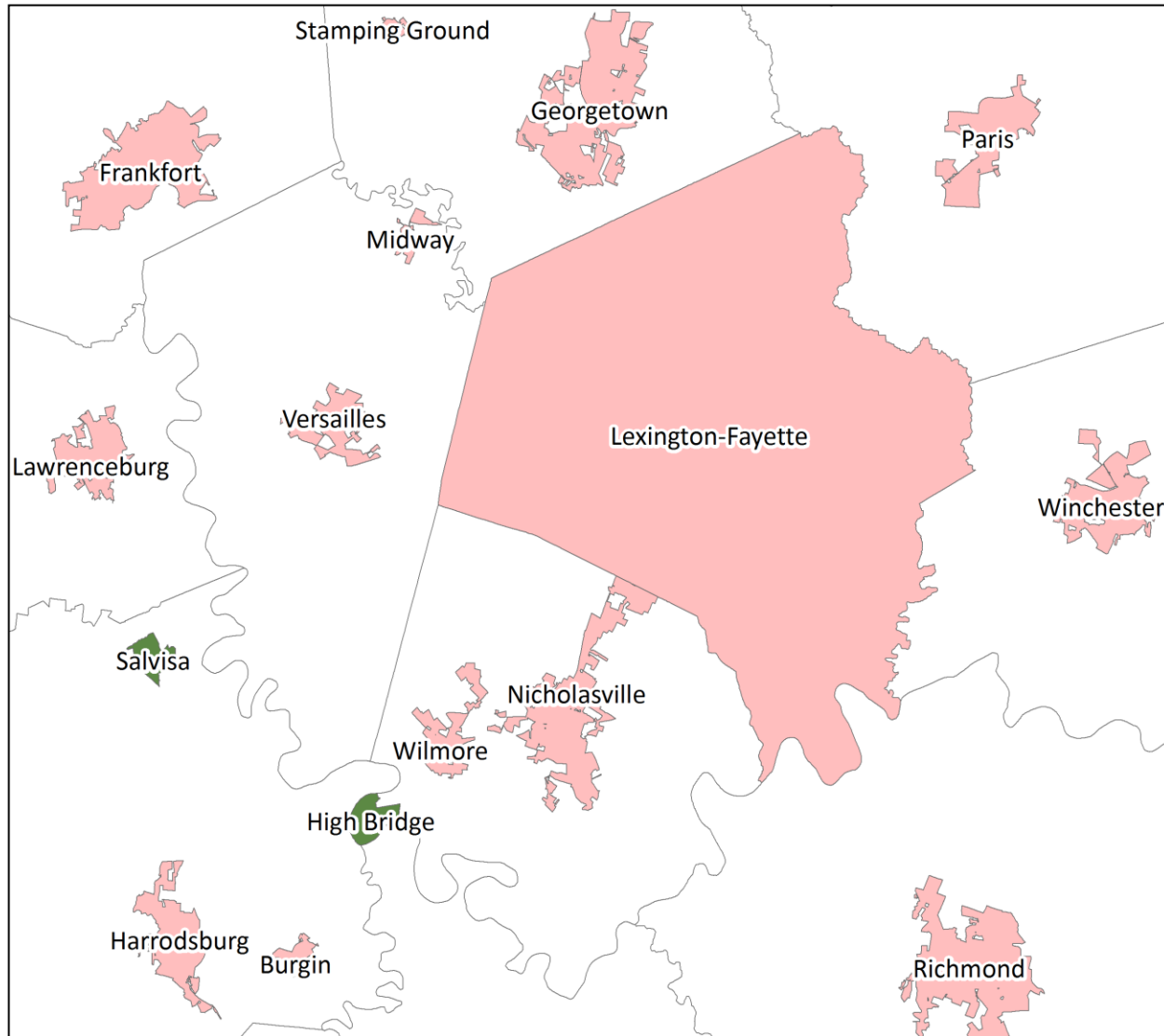
Census Geography



Place

- In Census lexicon, a place is a concentration of population that has a name, is locally recognized, and is not part of any other place
 - This is most commonly an incorporated city or town
 - Unincorporated areas are sometimes considered places, but called Census-designated places (e.g., Fort Knox)
 - Places can't cross state lines
- Generally, a place is a city

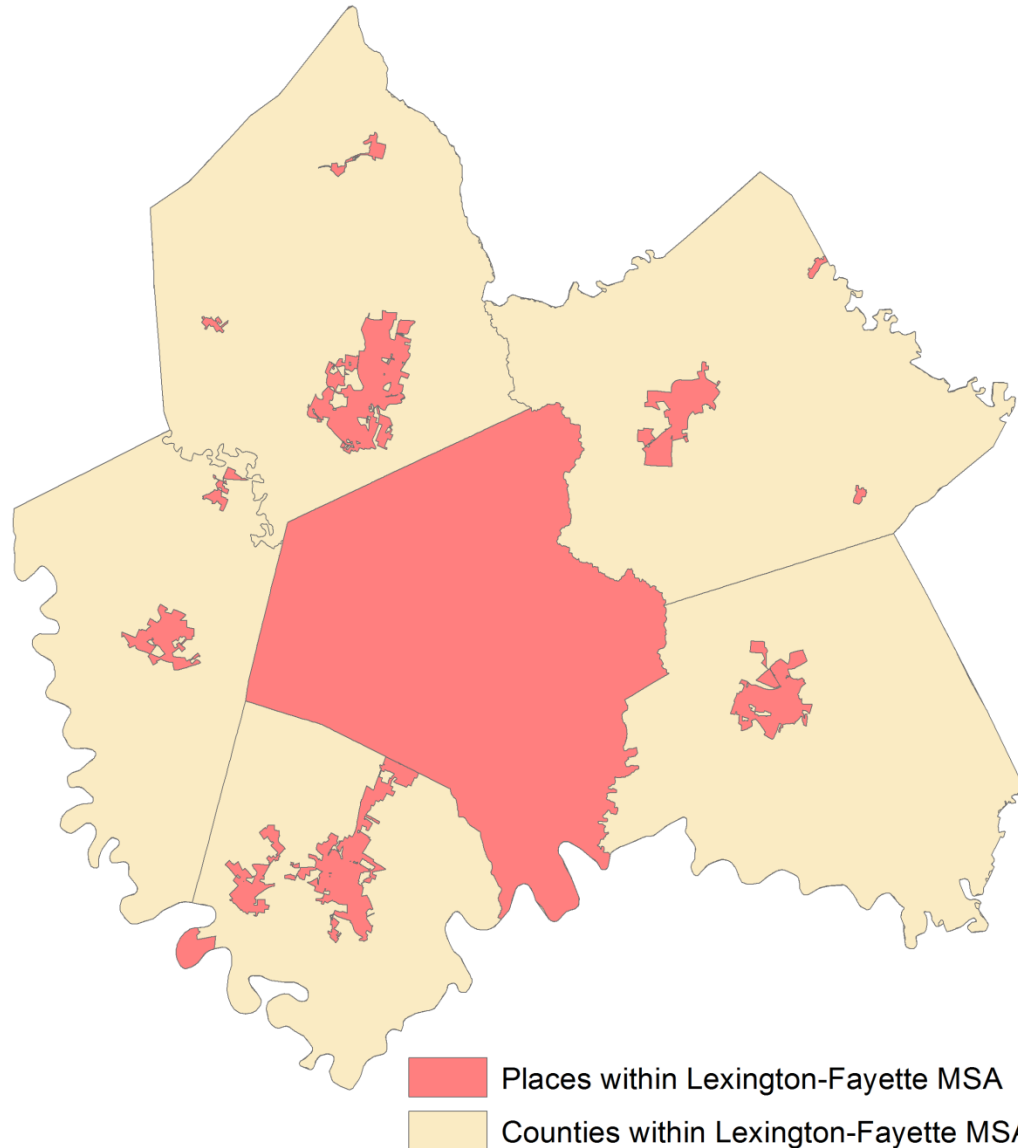
Places



Core Based Statistical Areas

- A metropolitan statistical area comprises the central county of a large urbanized area, plus adjacent counties which have a high degree of integration as measured by commuting patterns
 - Always measured at the county level – a single county or a group of counties
 - Can cross state lines
- A micropolitan statistical area is similar, except the urbanized area is smaller (<50,000 people)

Lexington-Fayette Metropolitan Area

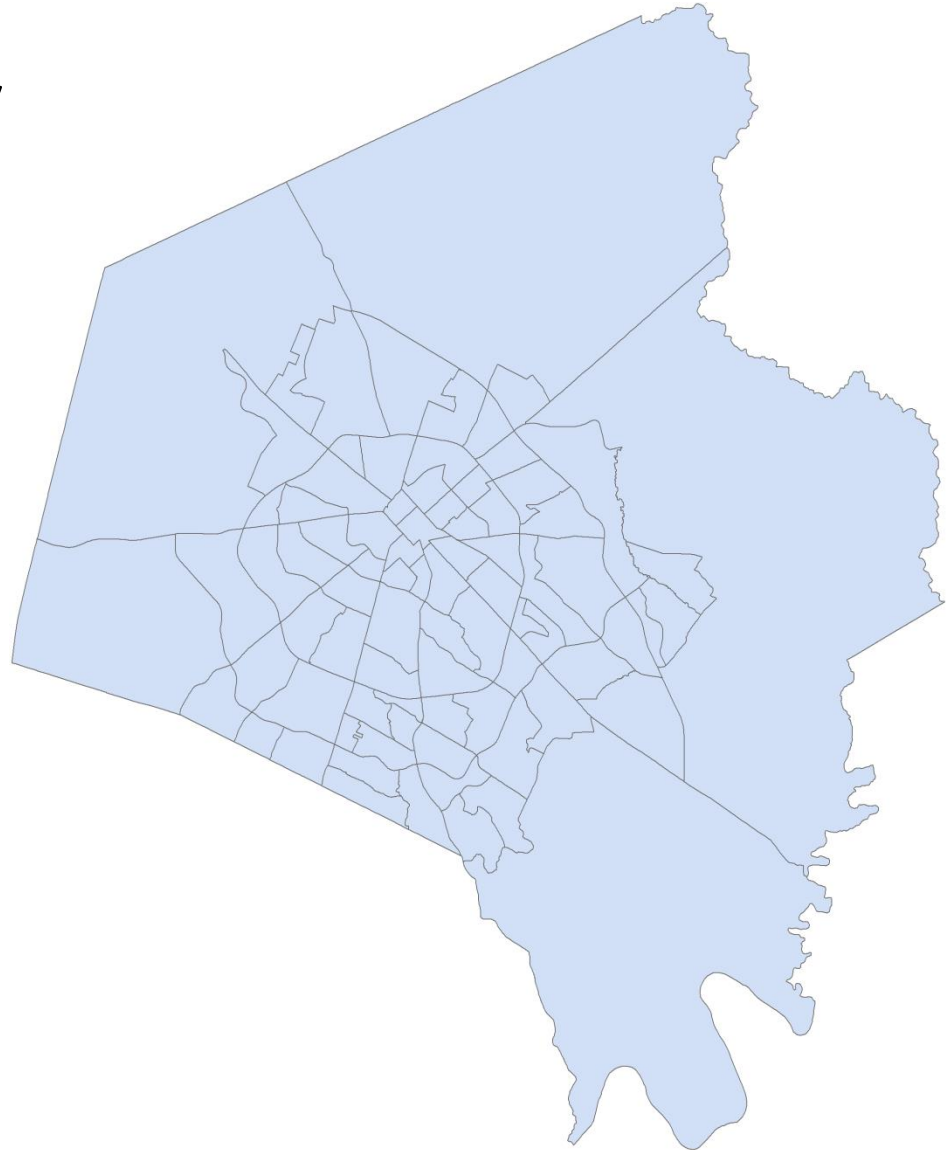


Census Tracts

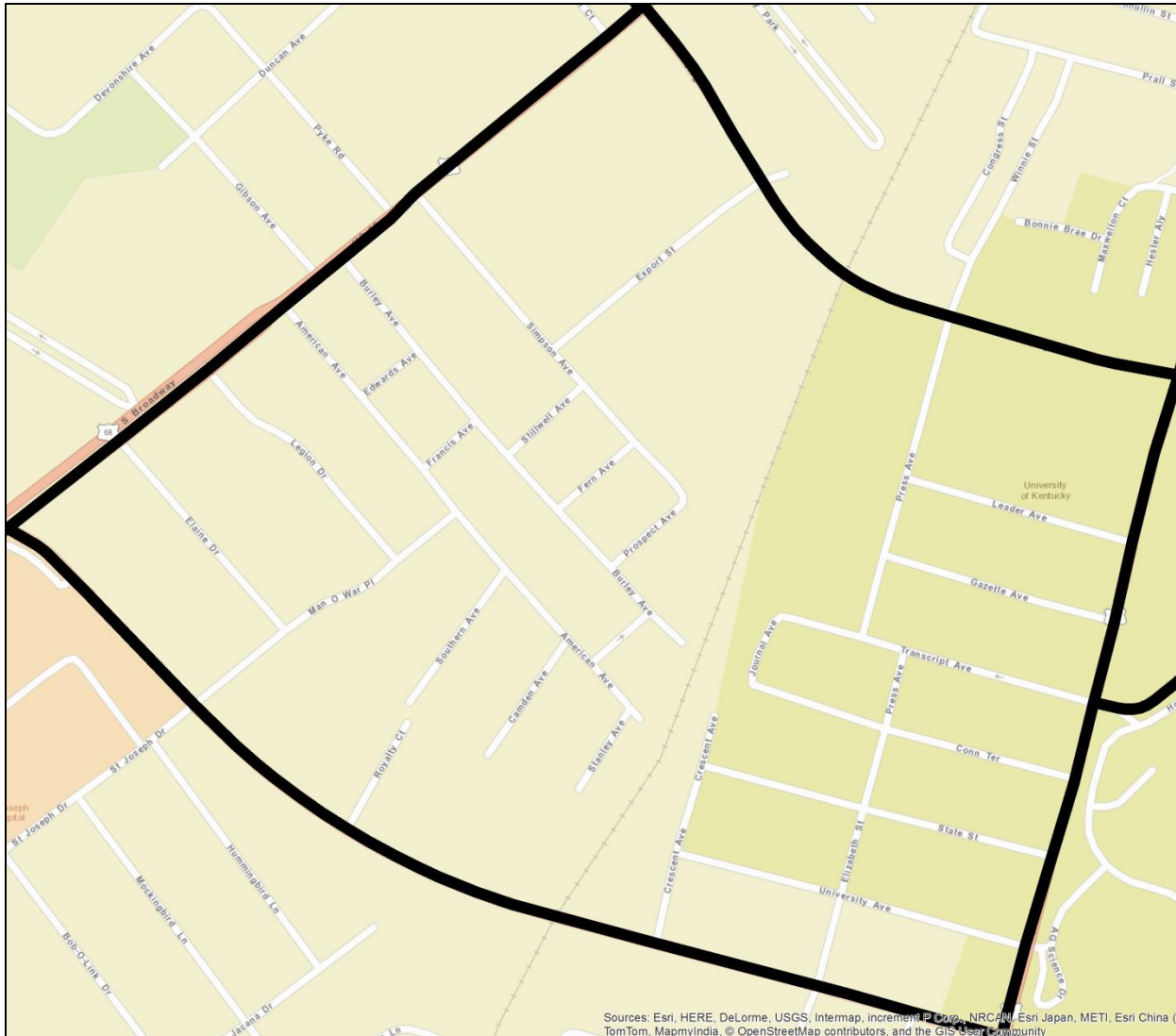
- “Neighborhood” has no Census definition
 - Many social science researchers use census tracts to proxy neighborhoods
 - Other proxies are census block groups or zip codes
- A census tract is a statistical geographic unit of approximately 1,200 to 8,000 people
- Tracts generally follow identifiable features, such as major road, rail lines, or waterways
- Tract boundaries change at each Census, complicating temporal analysis

Census Tracts

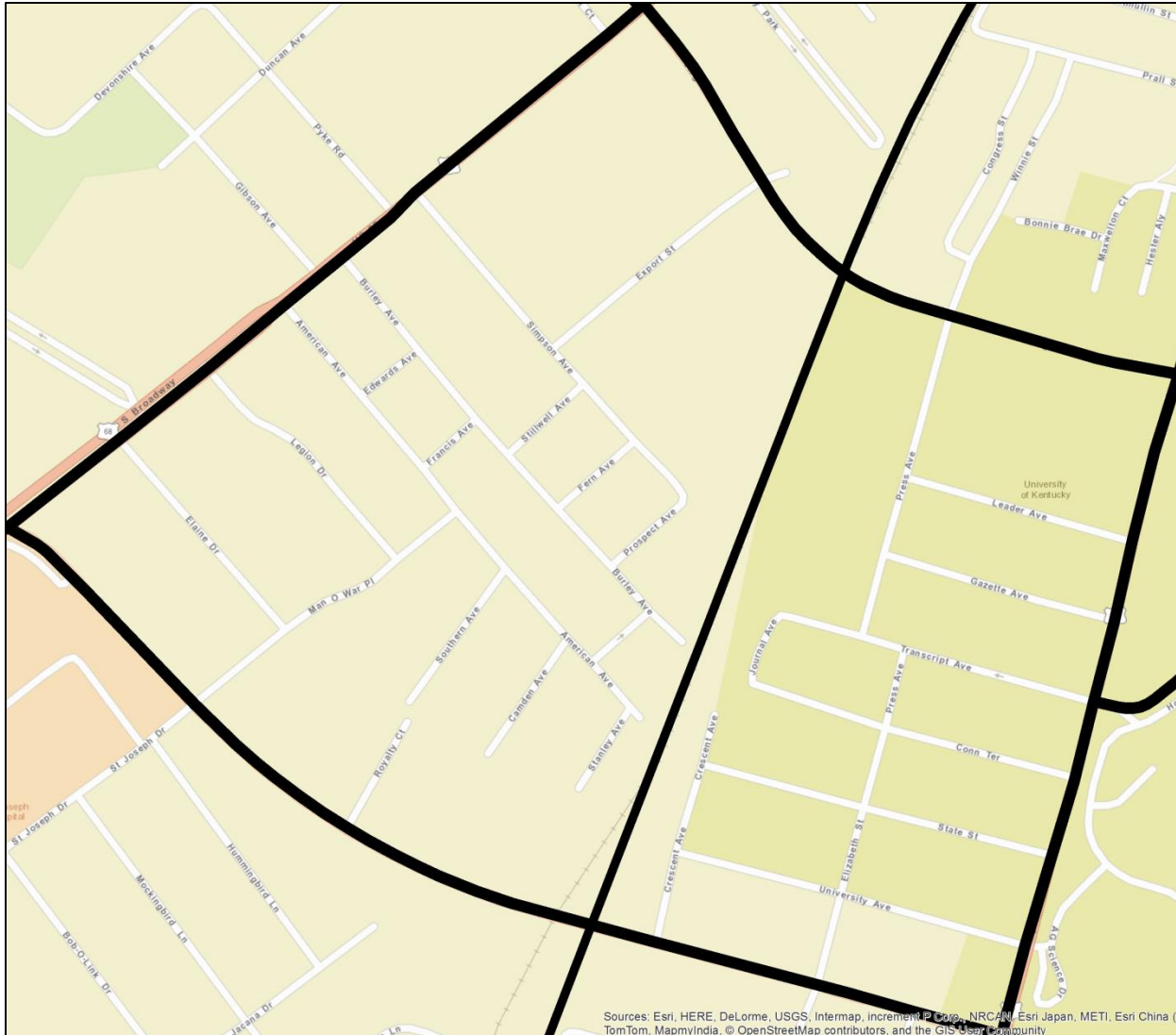
There are currently
82 census tracts in
Fayette County



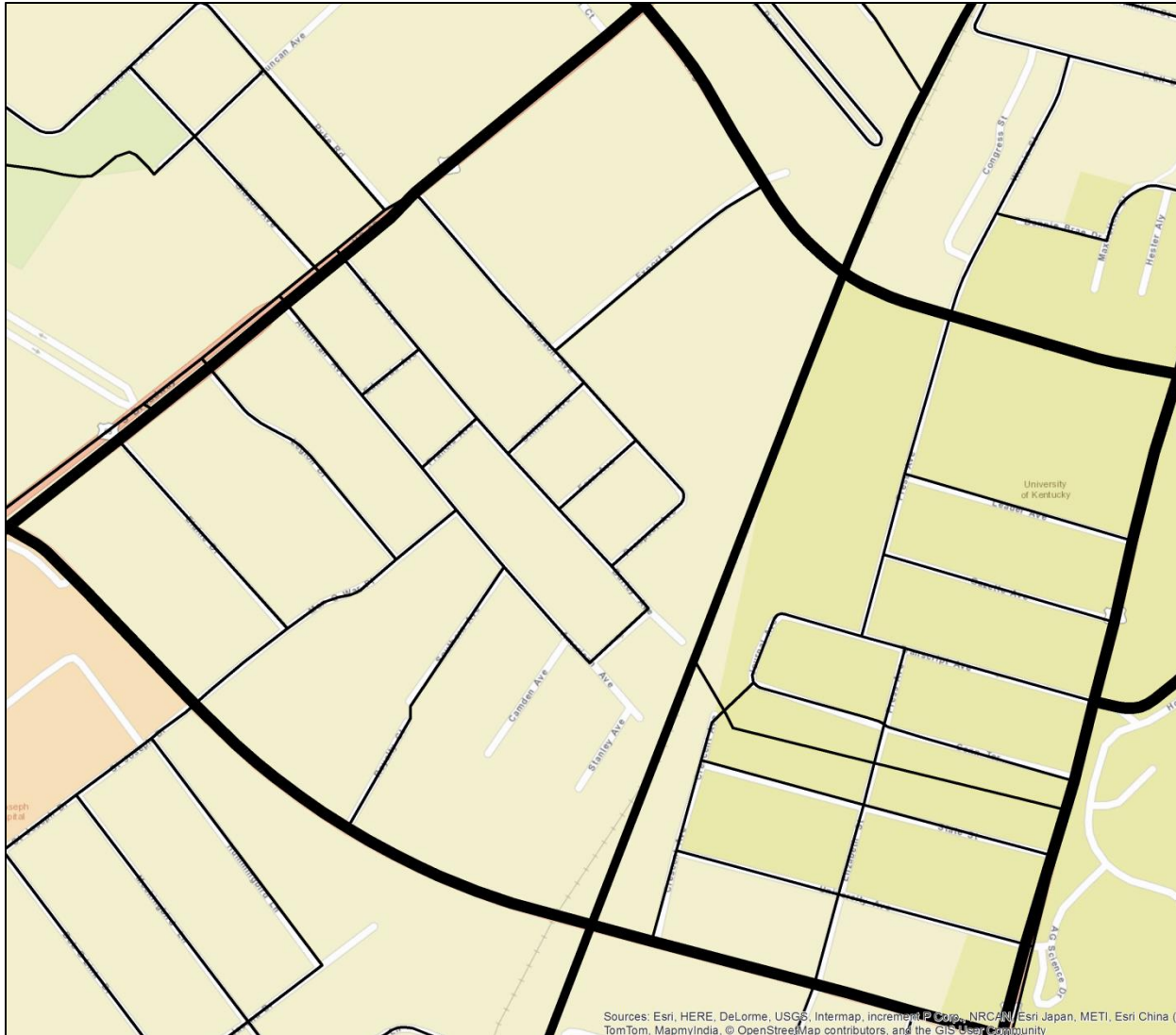
Census Tracts



Census Block Groups



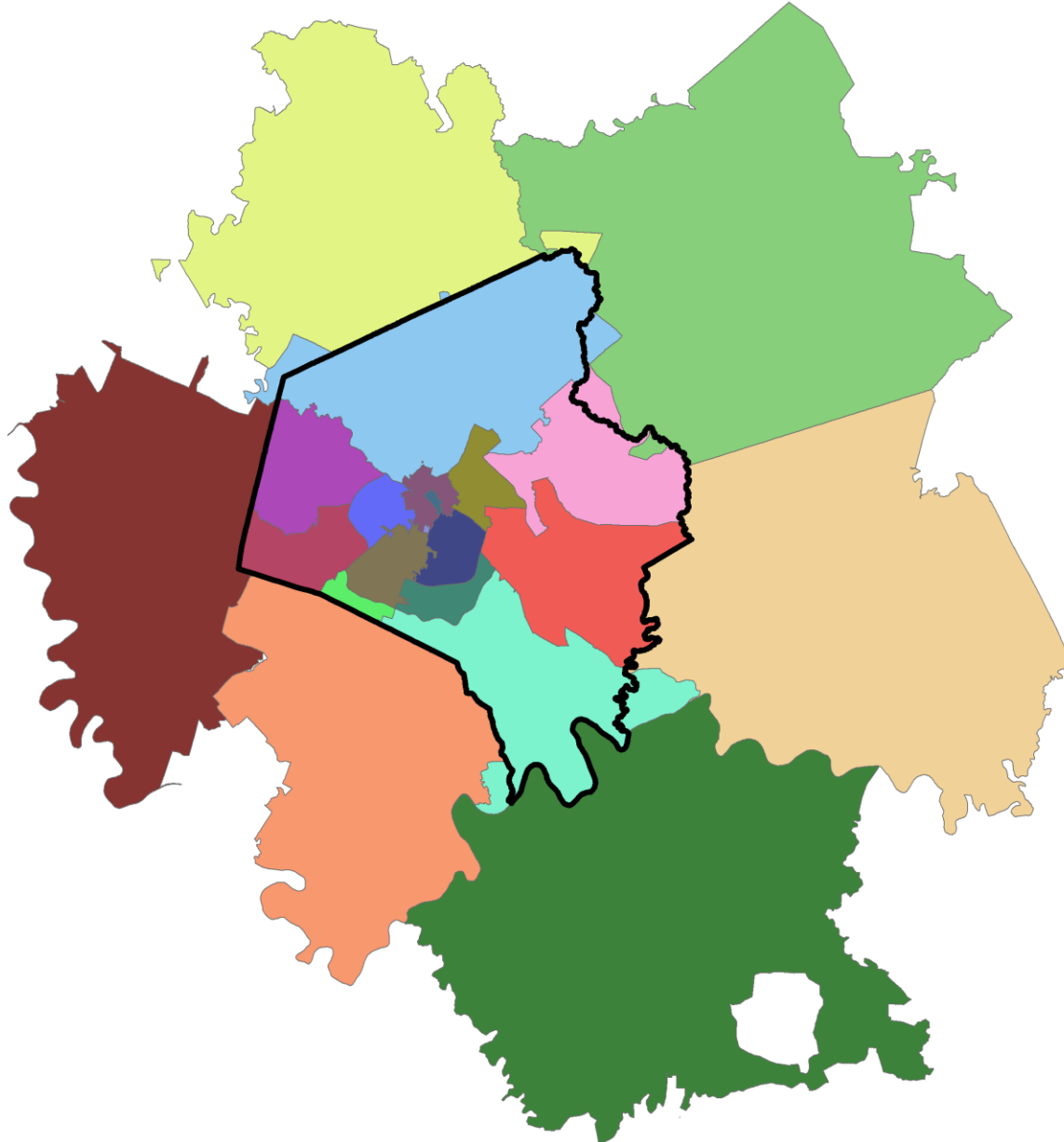
Census Blocks



The Problem with ZIP Codes

- Conceptually, ZIP codes define address points or delivery routes, not polygons
- ZIP Code Tabulation Areas (ZCTAs) were first designated by the Census Bureau in 2000 due to large user demand
 - ZCTAs do not easily conform to other statistical or administrative boundaries
 - May be discontinuous
 - Typically, larger and more heterogeneous than census tracts
 - PO Boxes and rural routes may be poorly identified

Zip Code Tabulation Areas



Data Sources

[American FactFinder](#)

Primary source of current U.S. Census data

[National Historical GIS](#)

Primary source of historical U.S. Census data

[Small Area Income and Poverty Estimates](#)

[Small Area Health Insurance Estimates](#)

[County Health Rankings](#)

[Kids Count Data Center](#)

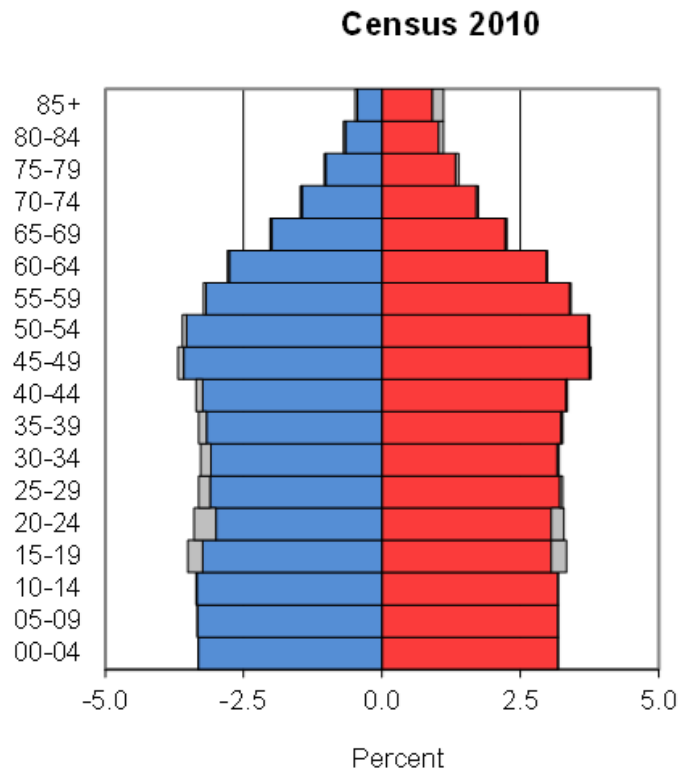
[Kentucky Health Facts](#)

Housing

- A housing unit is, essentially, an address point
 - A single family home, a condo in a duplex, a mobile home, or a unit in a large apartment building are all housing units
- Group quarters are enumerated differently – there are two types of group quartered populations
 - Institutionalized: Prisons, juvenile facilities, some senior facilities
 - Non-institutionalized: College dormitories, military installations, some senior facilities
- In general, populations in hospitals or hospice are enumerated at their usual residence

Question

Do all students coming into a state to attend college get categorized in group quarters populations or just students who live in the dorms? What are the gray areas on the population pyramids - who are they, why are they included?



Kentucky GQ 2010 Census

Group Quarters Population: 125,870
(approximately 3% of the state)

Institutionalized

Jails/Prisons	41,122	32.7%
Juvenile Corrections	2,144	1.7%
Nursing Facilities	26,044	20.7%
Other	1,469	1.2%

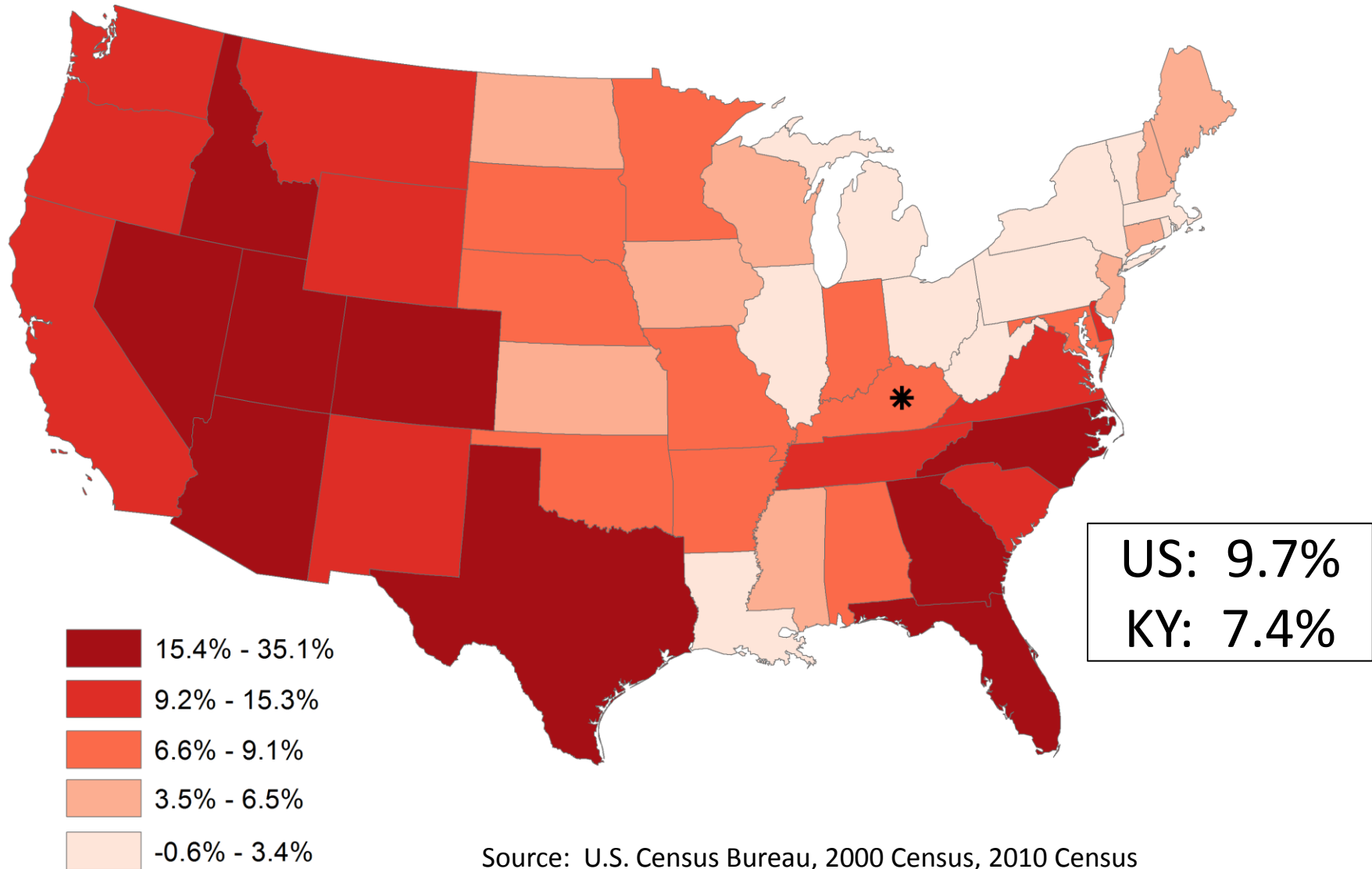
Non-Institutionalized

Colleges/Universities	36,340	28.9%
Military Facilities	5,856	4.7%
Other	12,895	10.2%

Households and Families

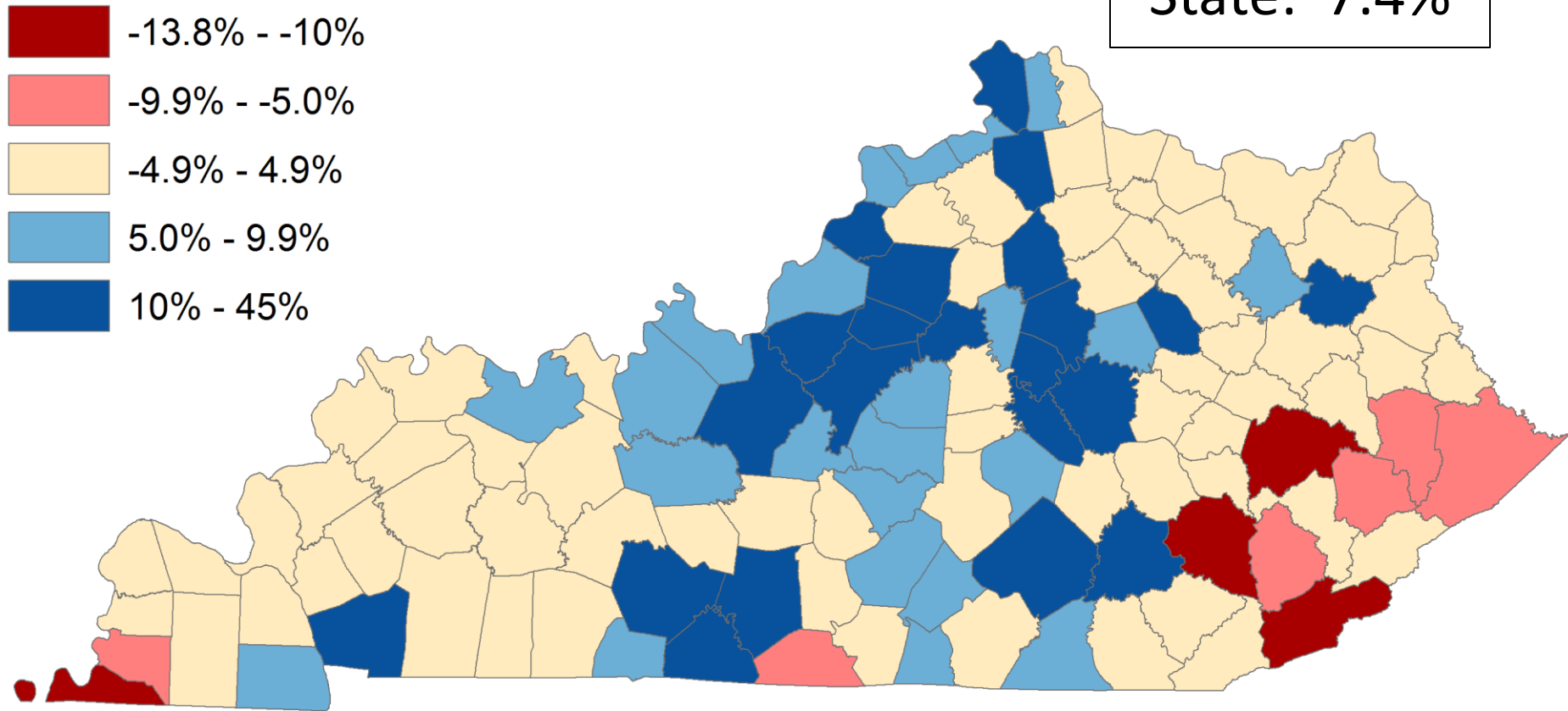
- A household is an occupied housing unit
 - Households contain 1 or more individuals
 - There may be multiple households within a single structure (e.g., apartments)
- A family is a household with at least two members, one of whom is related to the householder (by birth, marriage, or adoption)
- Other household types include unmarried partners and unrelated individuals
- Households are, naturally, made up of individuals

Population Change 2000-2010



Population Change 2000-2010

State: 7.4%



Source: U.S. Census Bureau, 2000 Census, 2010 Census

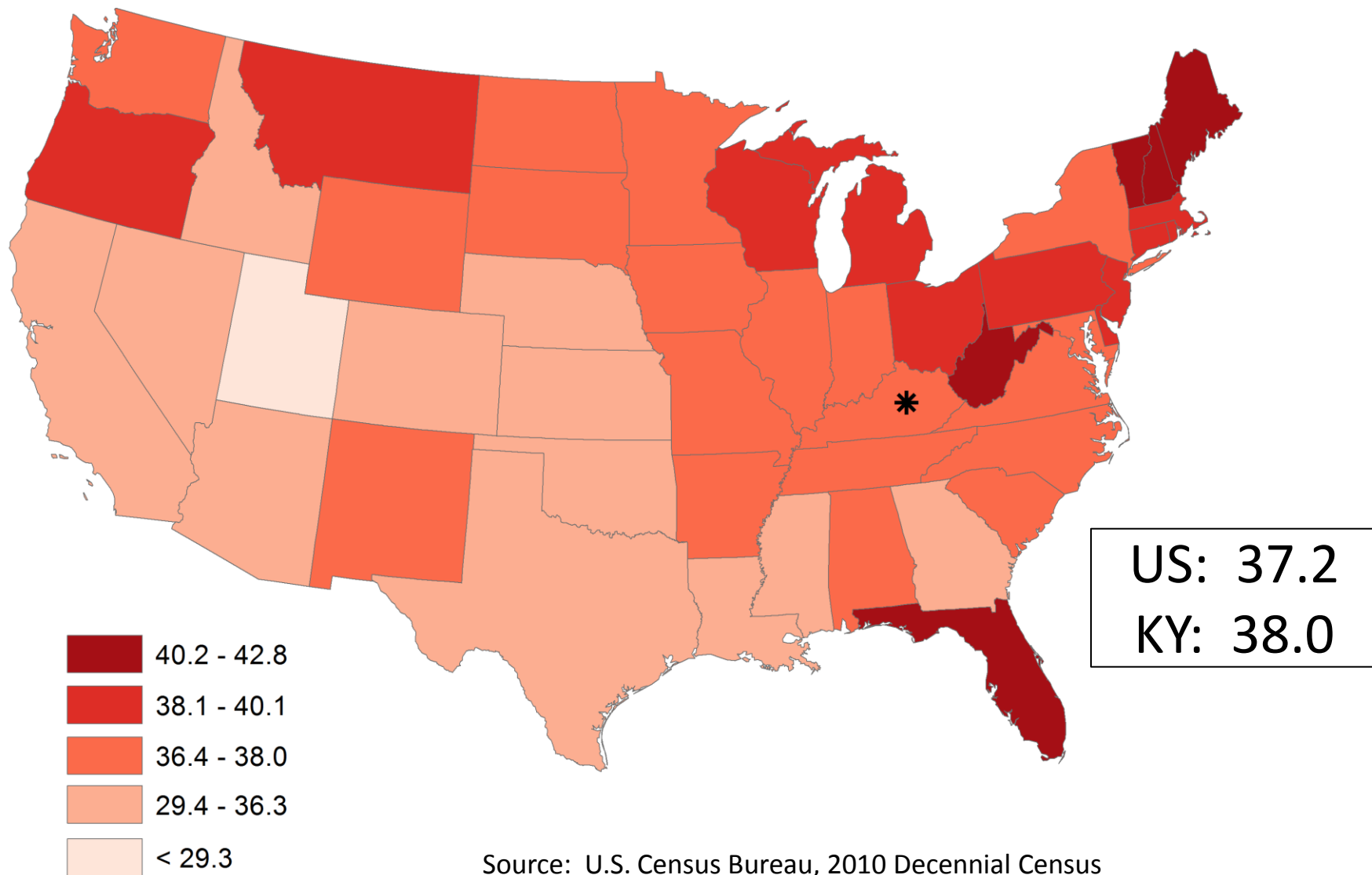
Population Change in Kentucky

- In the last few decades, interstate migration in Kentucky has followed the national trend (suburbanization)
- Although Kentucky has a more rural population (24%) than the U.S. as a whole (6.3%), this population is declining
- The majority of population growth in the state is occurring in the metro areas

Age, Race, and Ethnicity

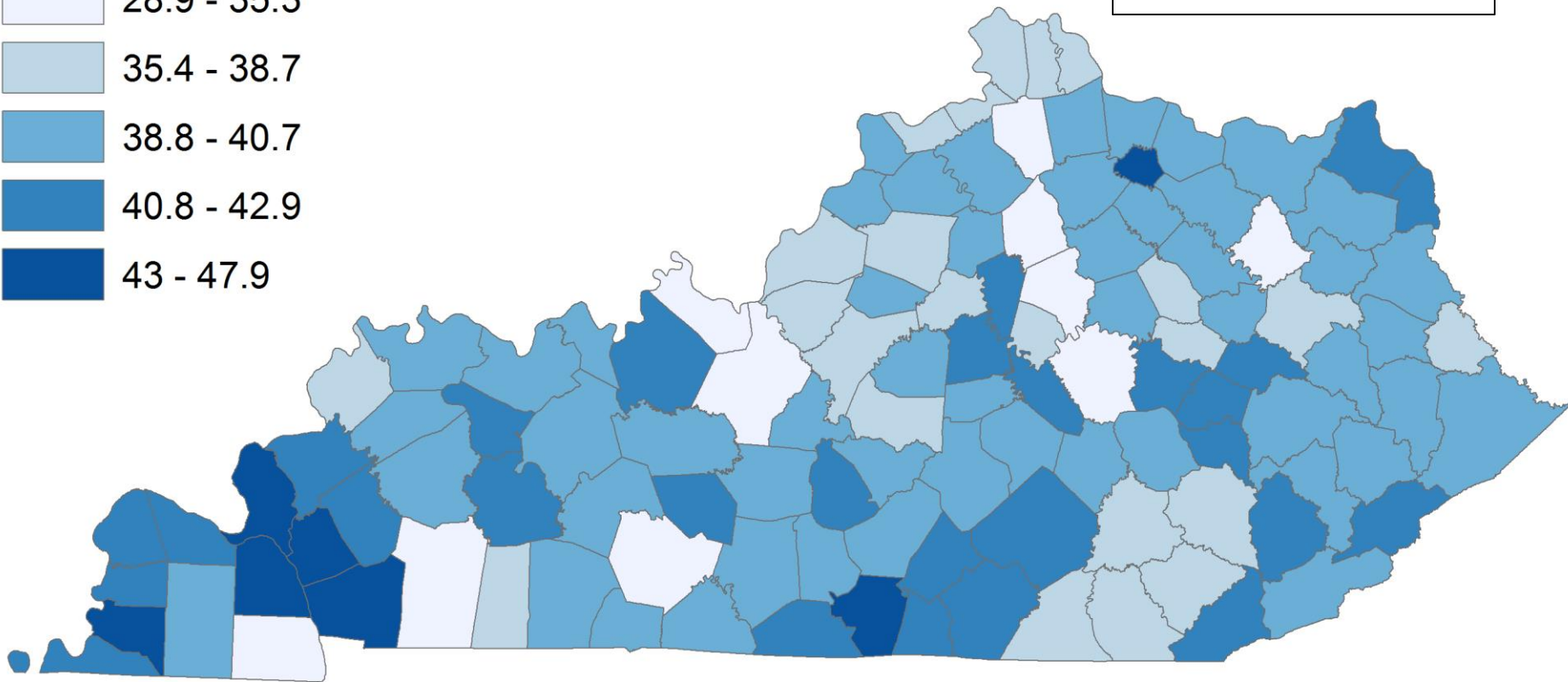
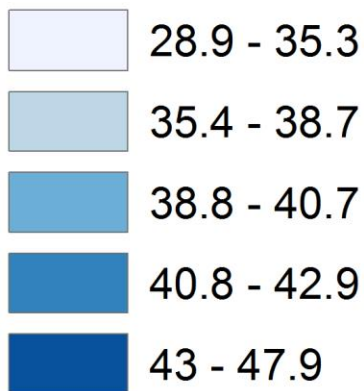
- Both the Decennial Census and the ACS ask respondents to identify their age, race, and ethnicity
- There are six racial classifications recognized by the U.S. Office of Management and Budget
 - Black, White, Asian, American Indian and Alaska Native, Native Hawaiian and OPI, combination of the above
- There are two recognized ethnic classifications
 - Hispanic and Non-Hispanic

Median Age



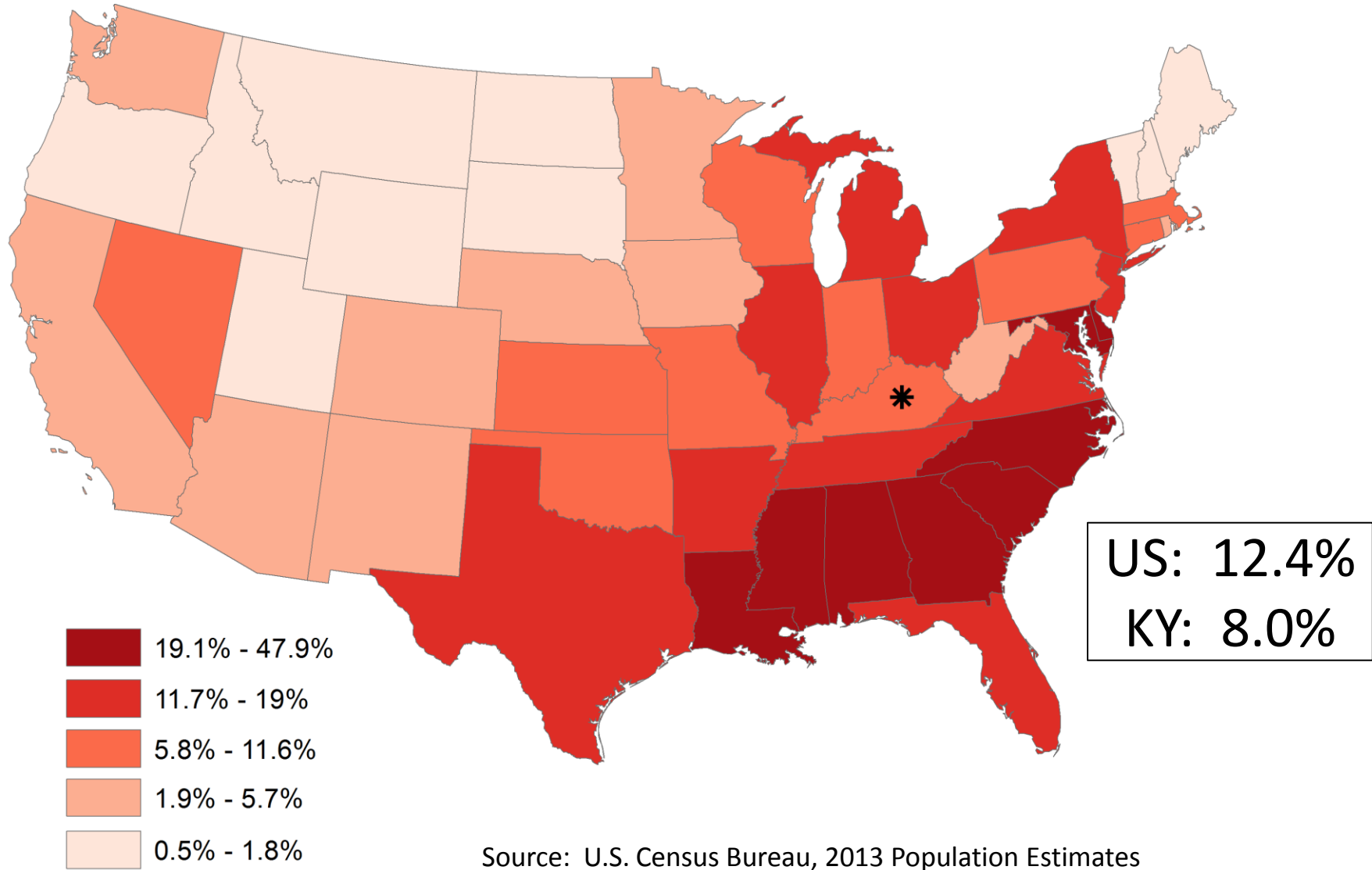
Median Age

State: 38.0



Source: U.S. Census Bureau, 2010 Decennial Census

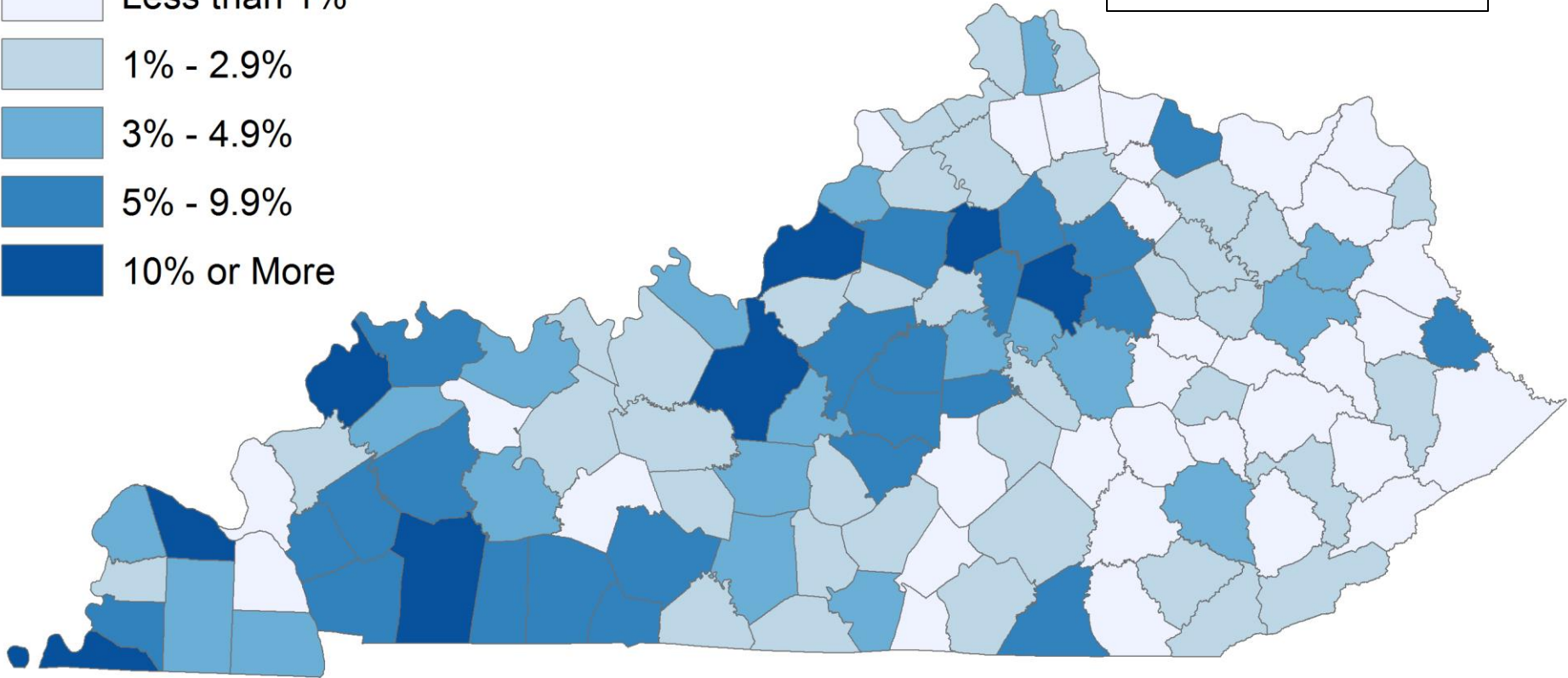
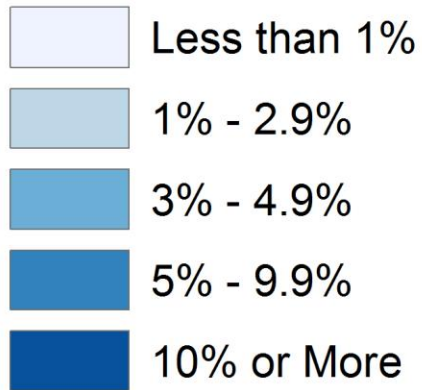
Black Population



Source: U.S. Census Bureau, 2013 Population Estimates

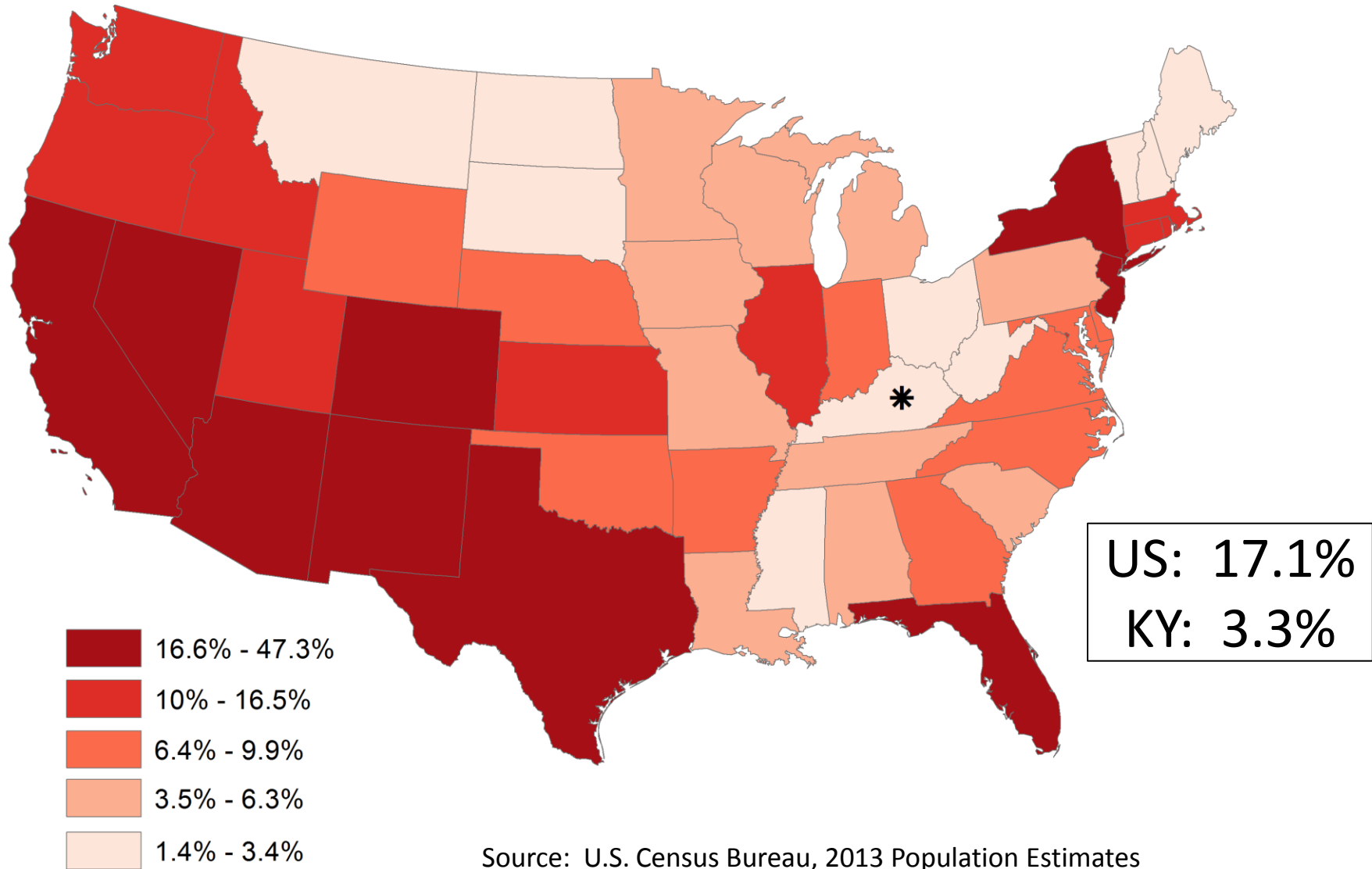
Black Population

State: 8.0%



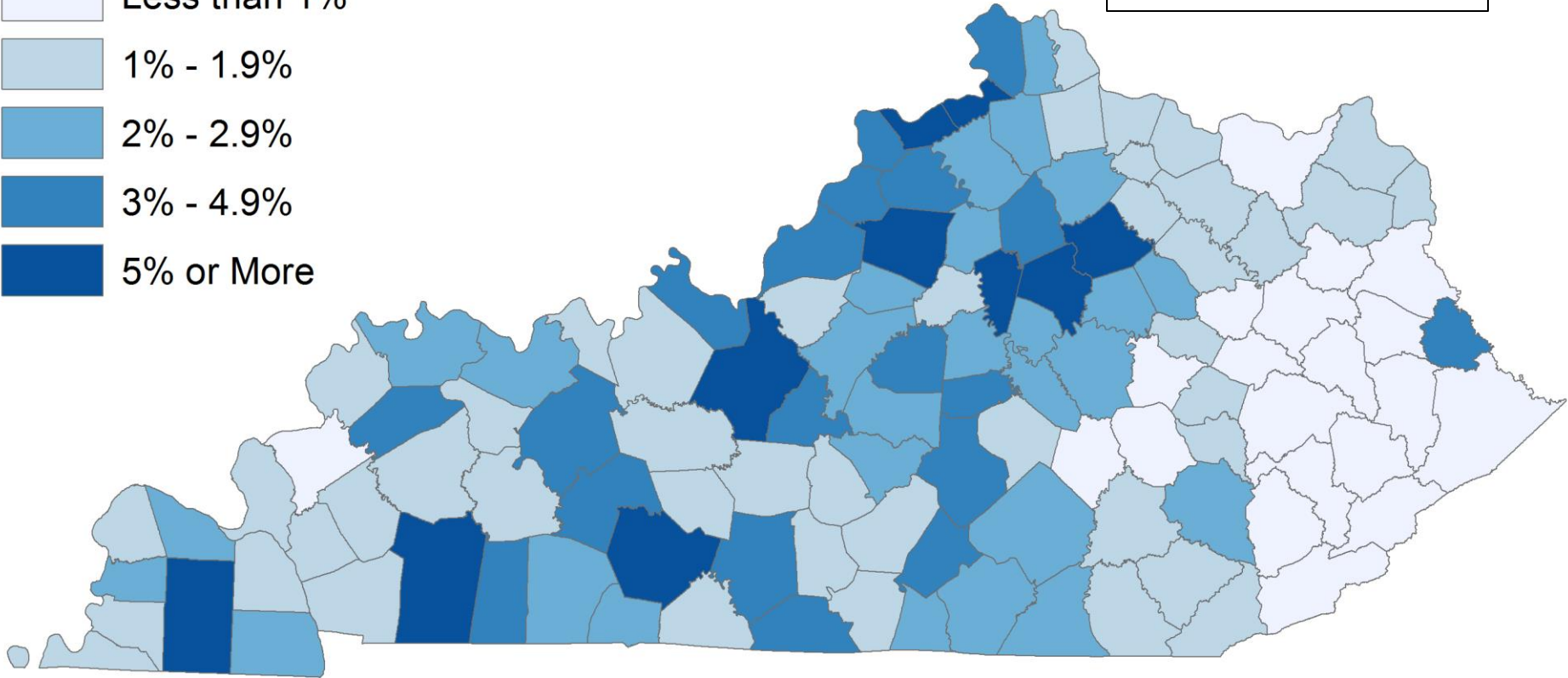
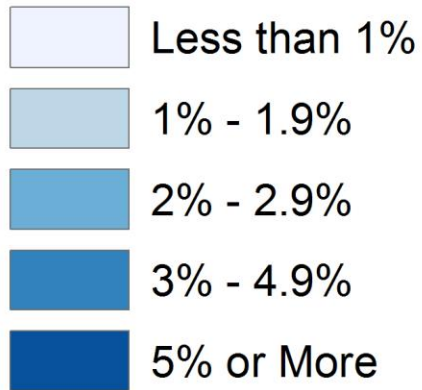
Source: U.S. Census Bureau, 2013 Population Estimates

Hispanic Population



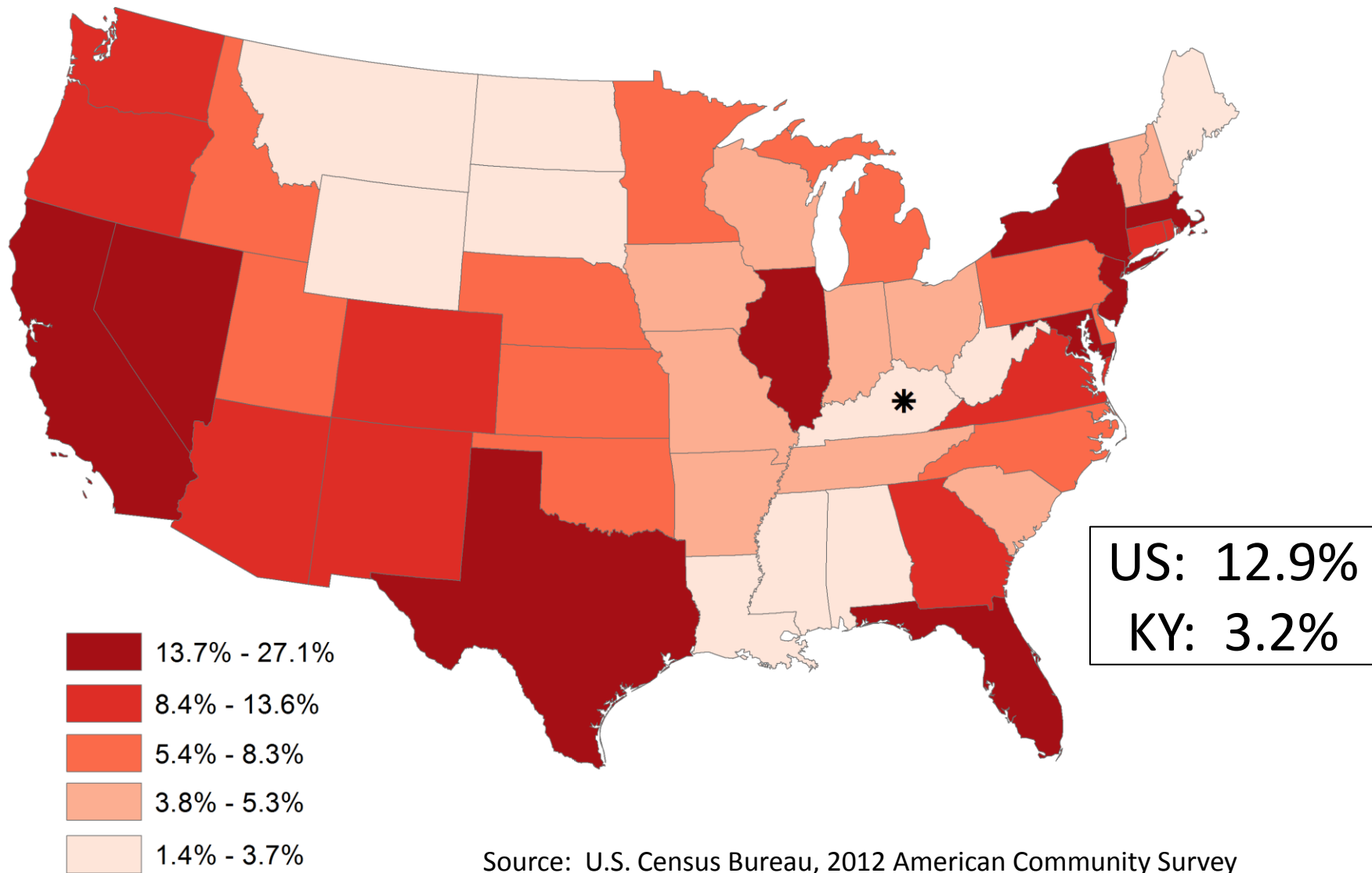
Hispanic Population

State: 3.3%



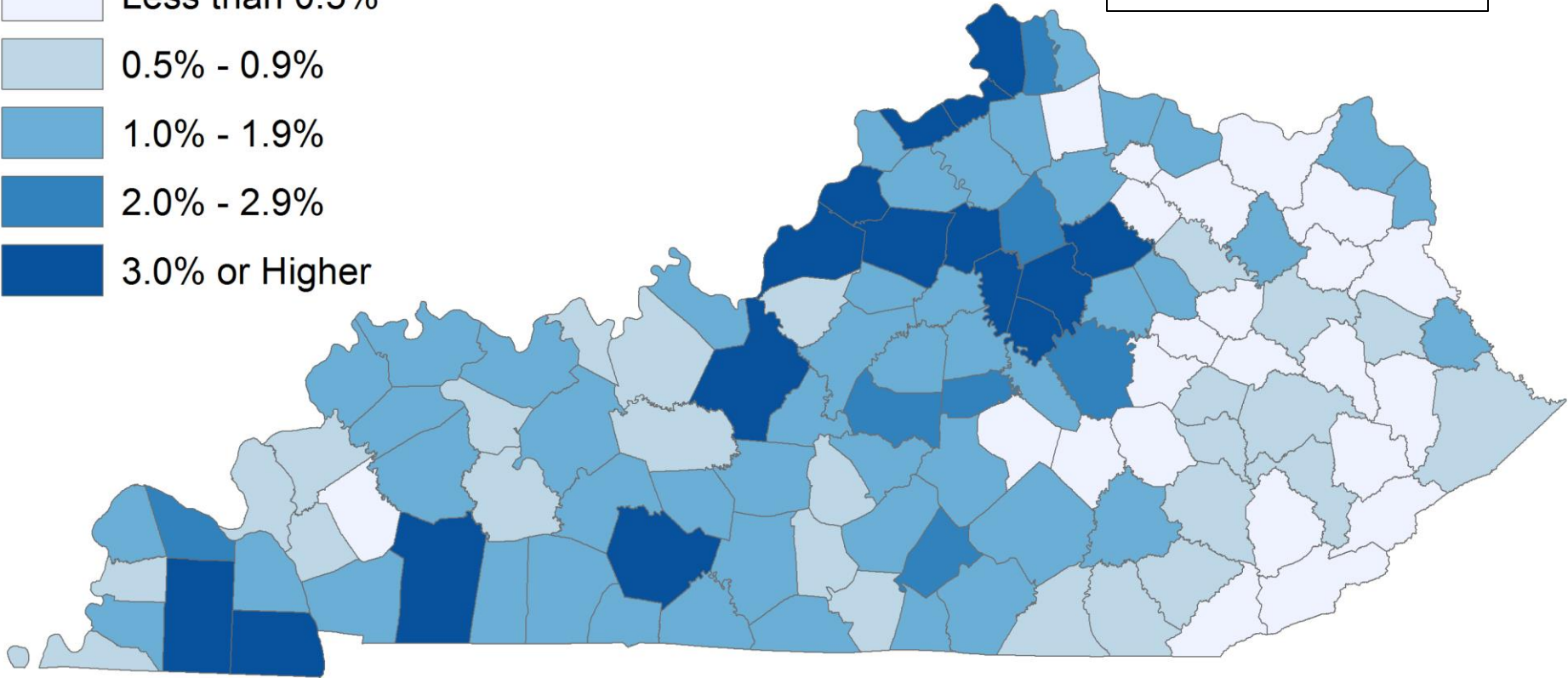
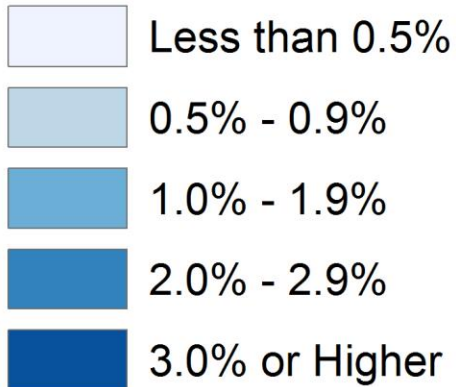
Source: U.S. Census Bureau, 2013 Population Estimates; Hispanic Leadership Network

Foreign Born Population



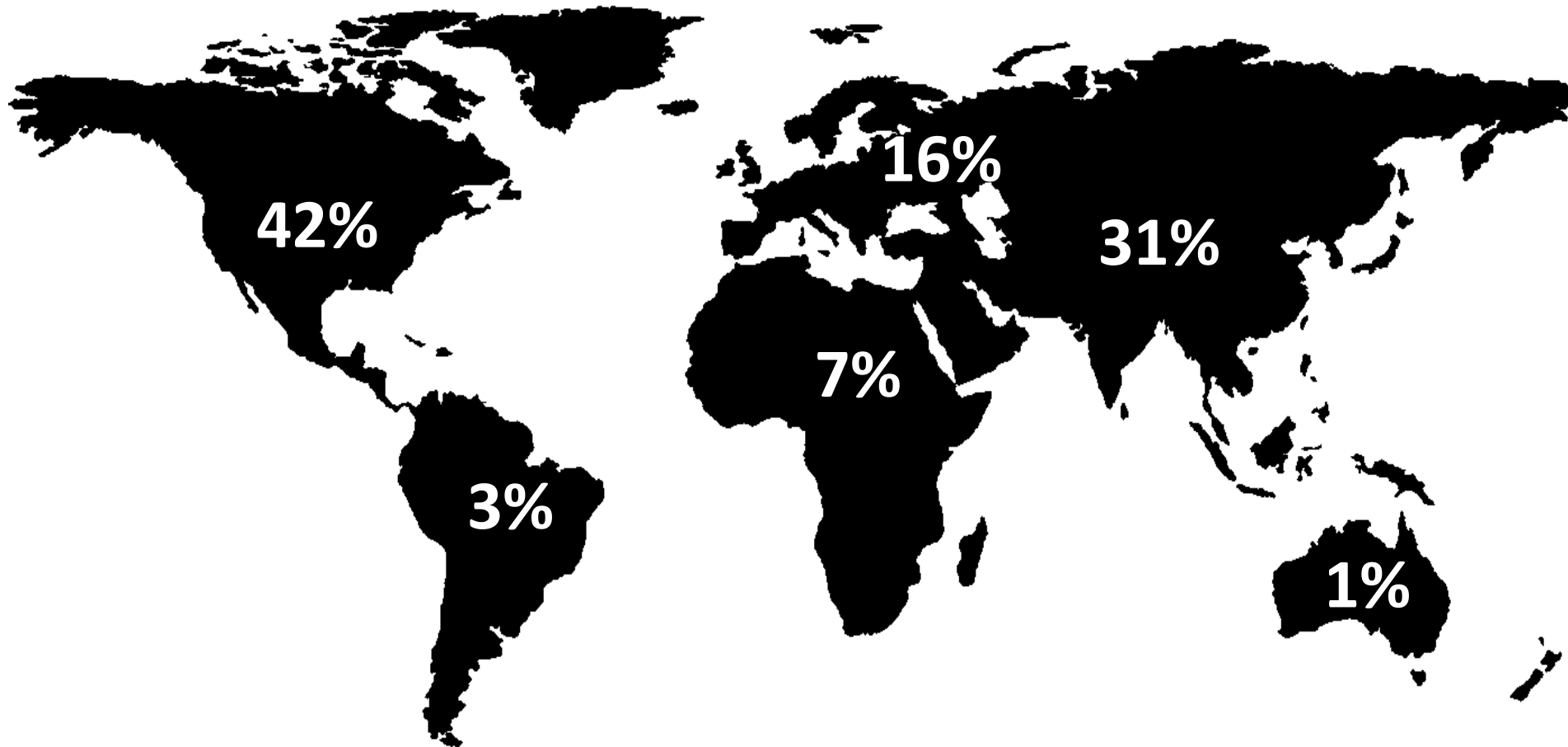
Foreign Born Population

State: 3.2%



Source: U.S. Census Bureau, 2012 American Community Survey

Foreign Born Population in Kentucky

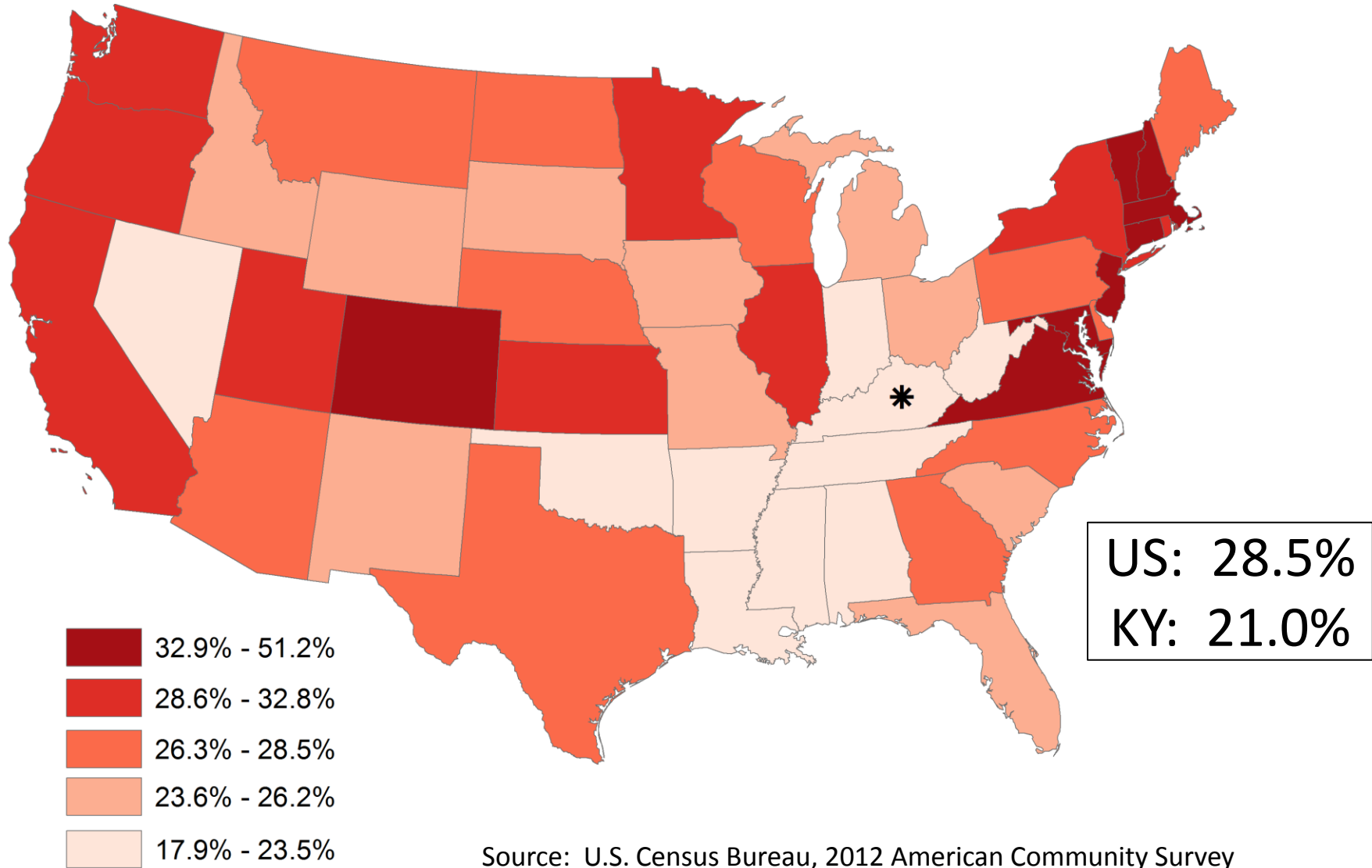


Source: U.S. Census Bureau, 2012 American Community Survey; NASA

SES Characteristics

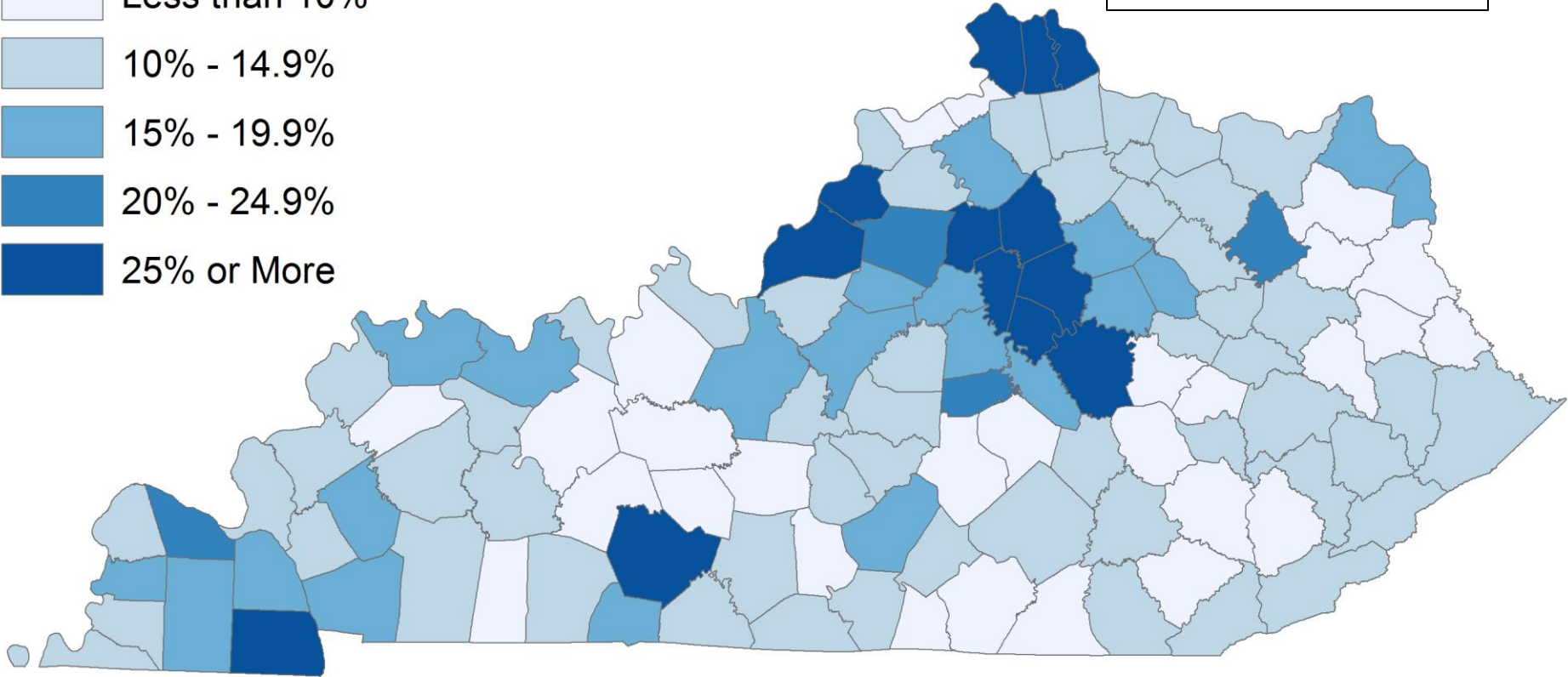
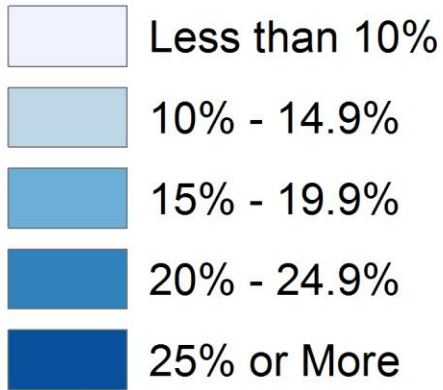
- Educational Attainment
 - Enumerated for individuals age 25 and over
- Poverty
 - Poverty is calculated based on thresholds defined by HHS
 - Thresholds originally calculated in the 1960's, updated based on CPI since then
 - No adjustment for geographic area
- Labor Force and Employment
 - Individuals in the labor force (LF) are those who are currently working or looking for work (excluding military)
 - Unemployment is calculated only for individuals in the LF
- Health Insurance Coverage

College Graduates



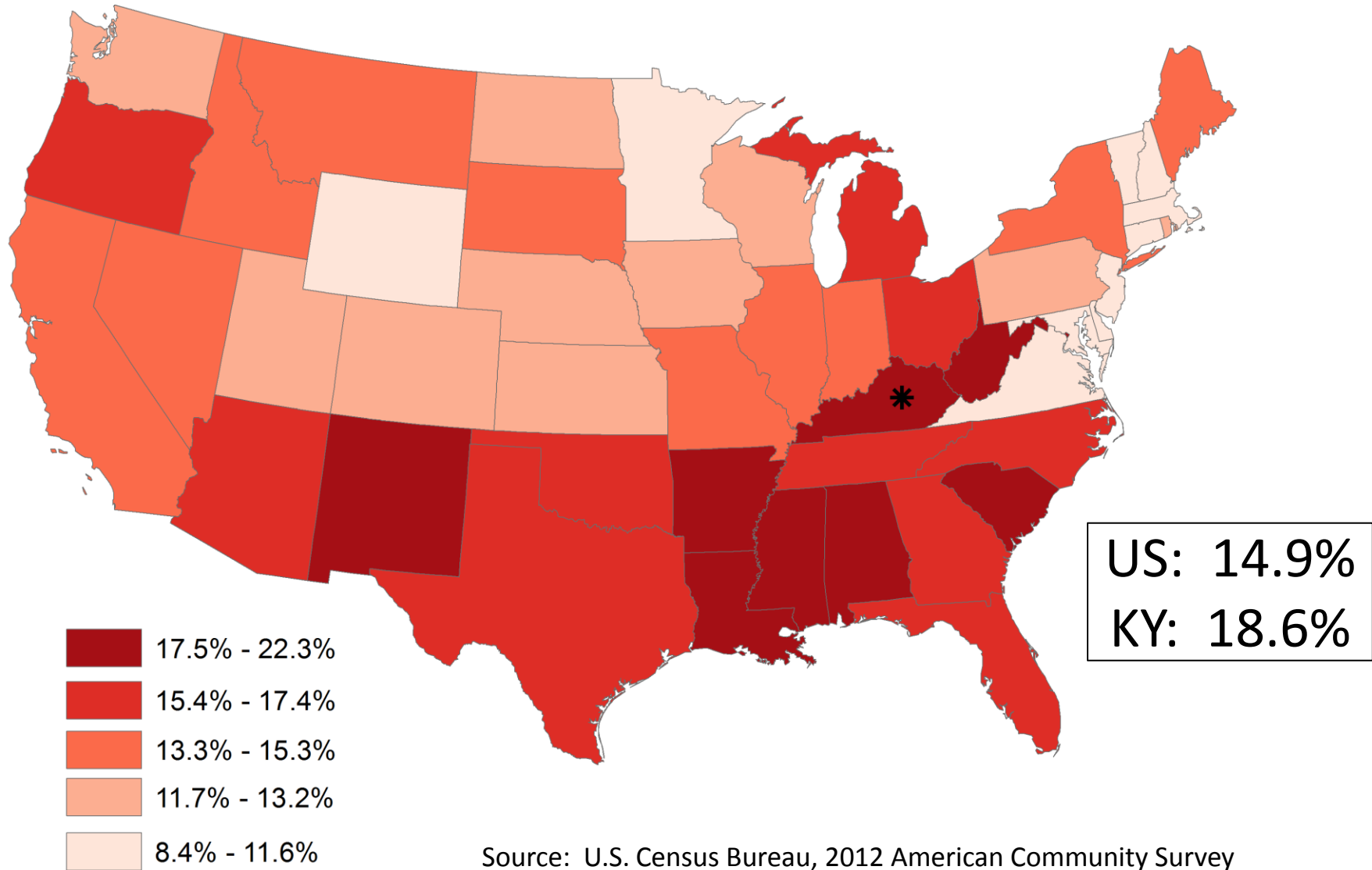
College Graduates

State: 21.0%



Source: U.S. Census Bureau, 2012 American Community Survey

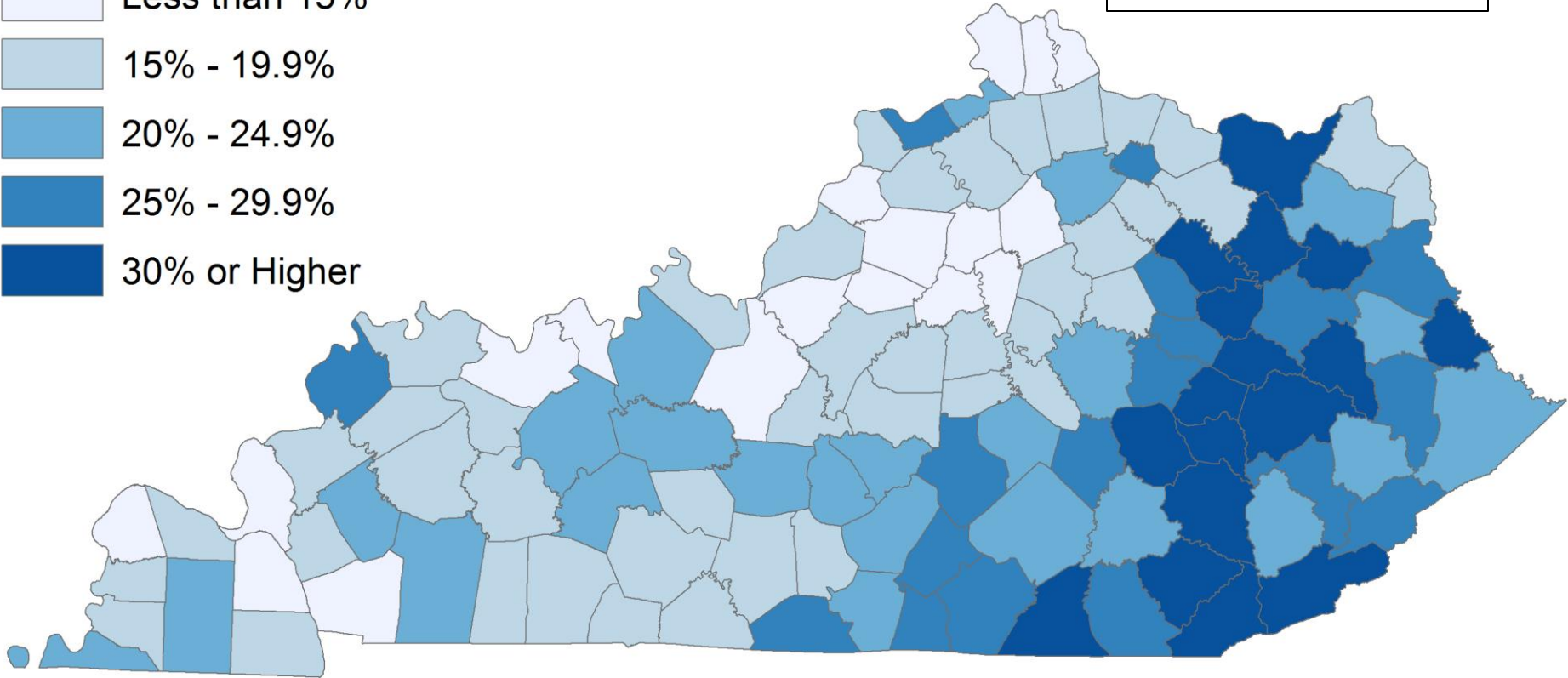
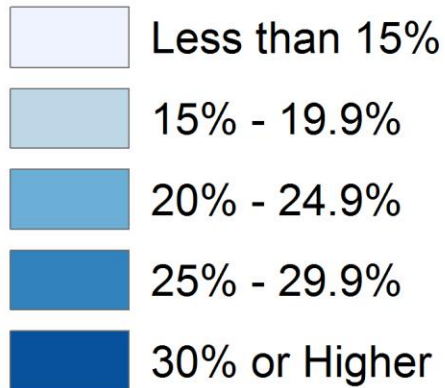
Poverty Rate



Source: U.S. Census Bureau, 2012 American Community Survey

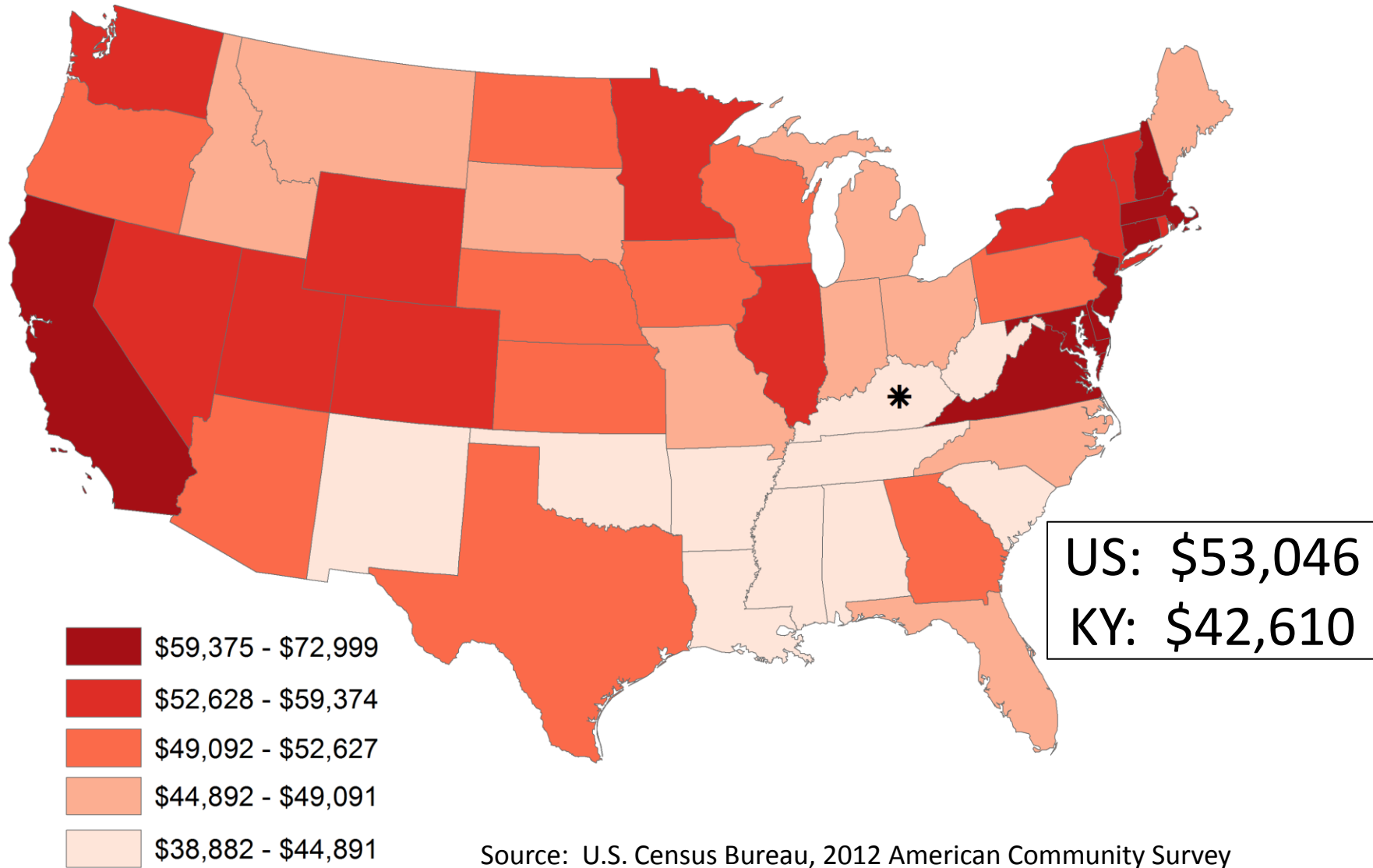
Poverty Rate

State: 18.6%



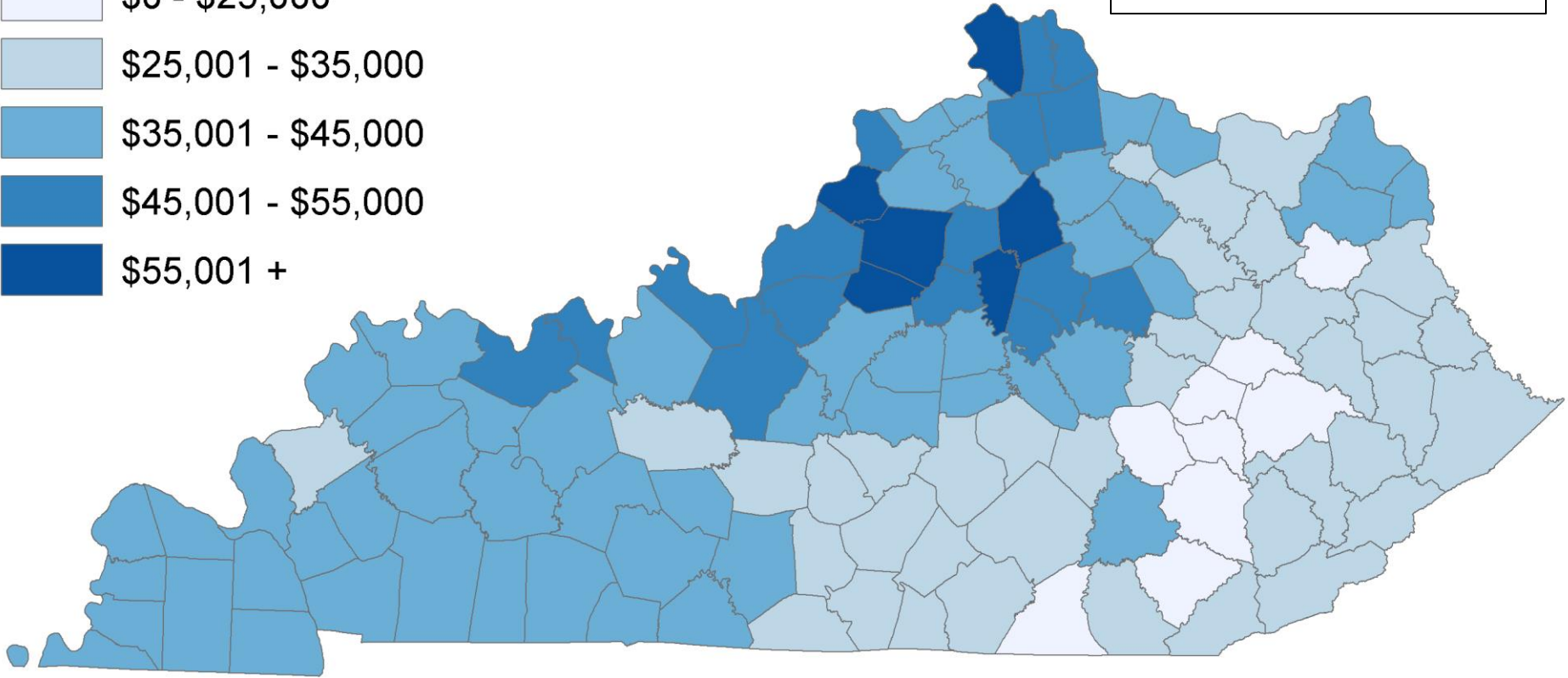
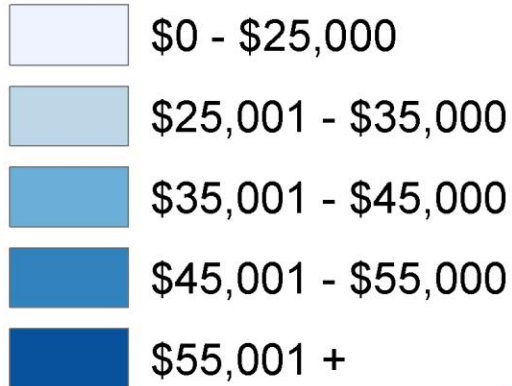
Source: U.S. Census Bureau, 2012 American Community Survey

Median Household Income



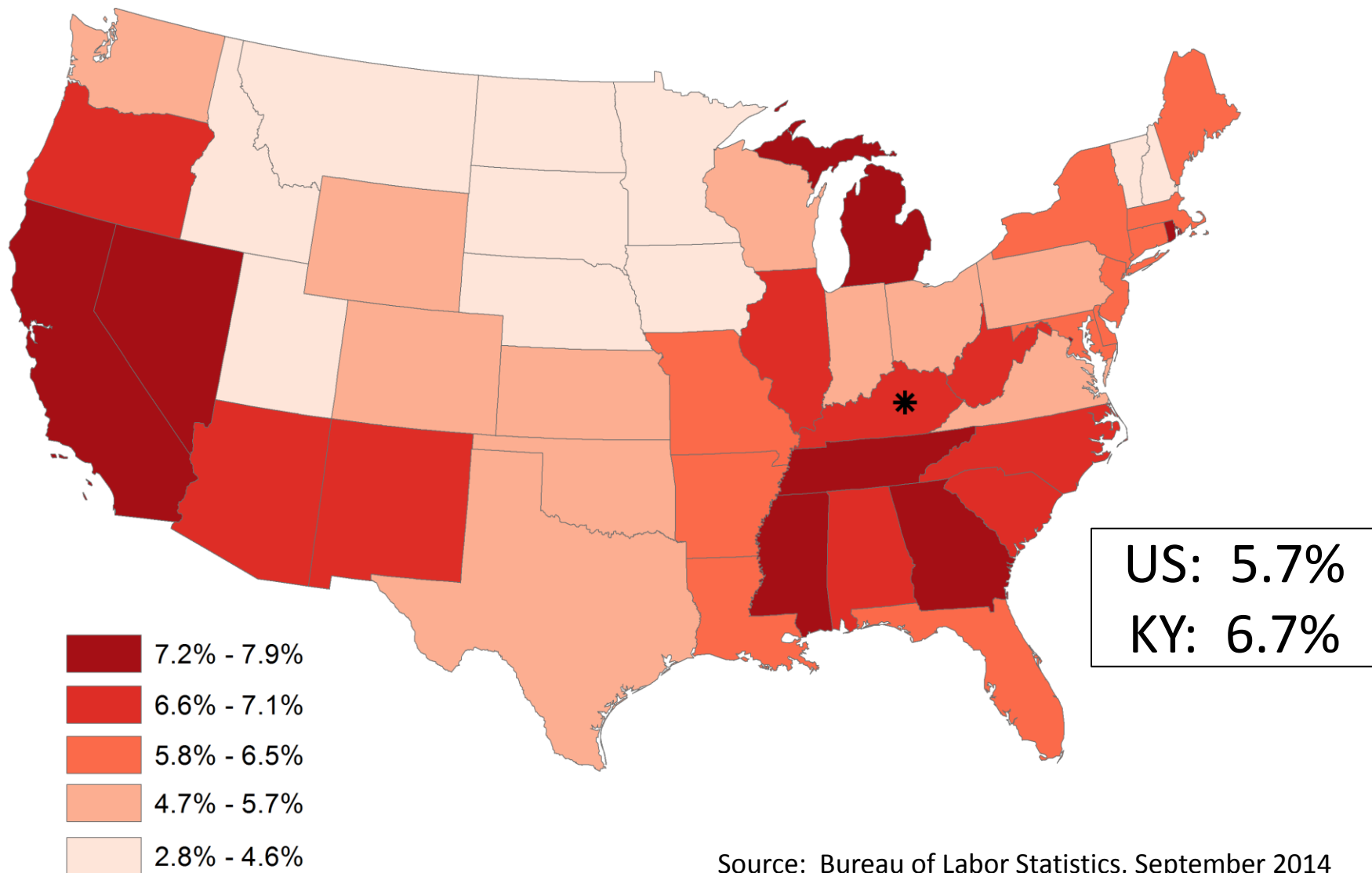
Median Household Income

State: \$42,610



Source: U.S. Census Bureau, 2012 American Community Survey

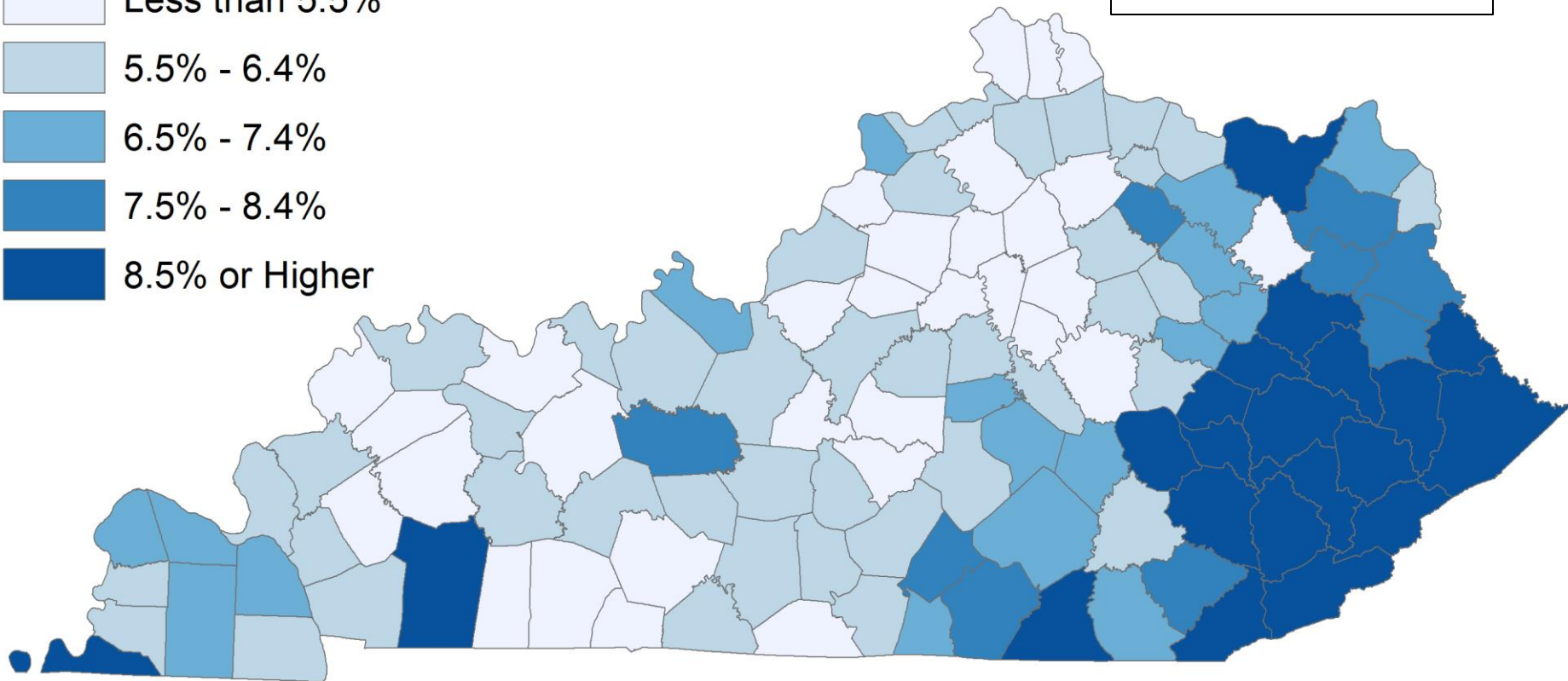
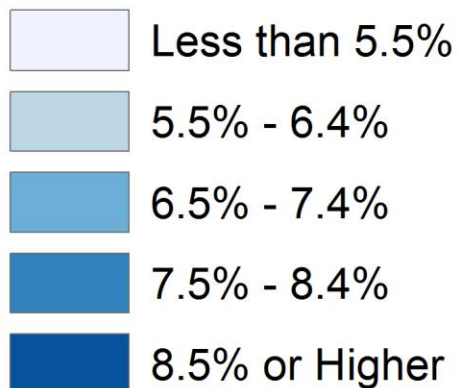
Unemployment



Source: Bureau of Labor Statistics, September 2014

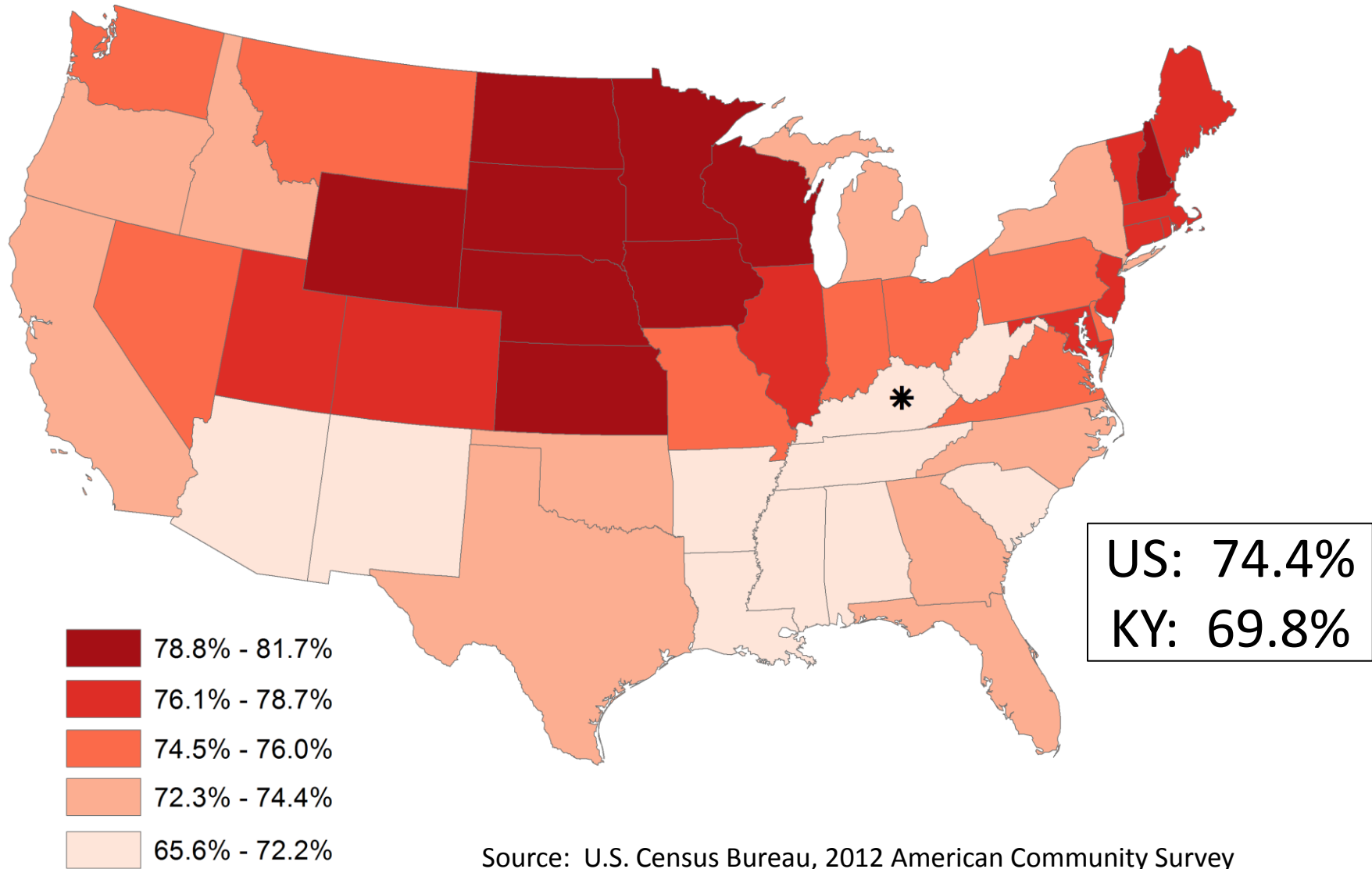
Unemployment

State: 6.7%



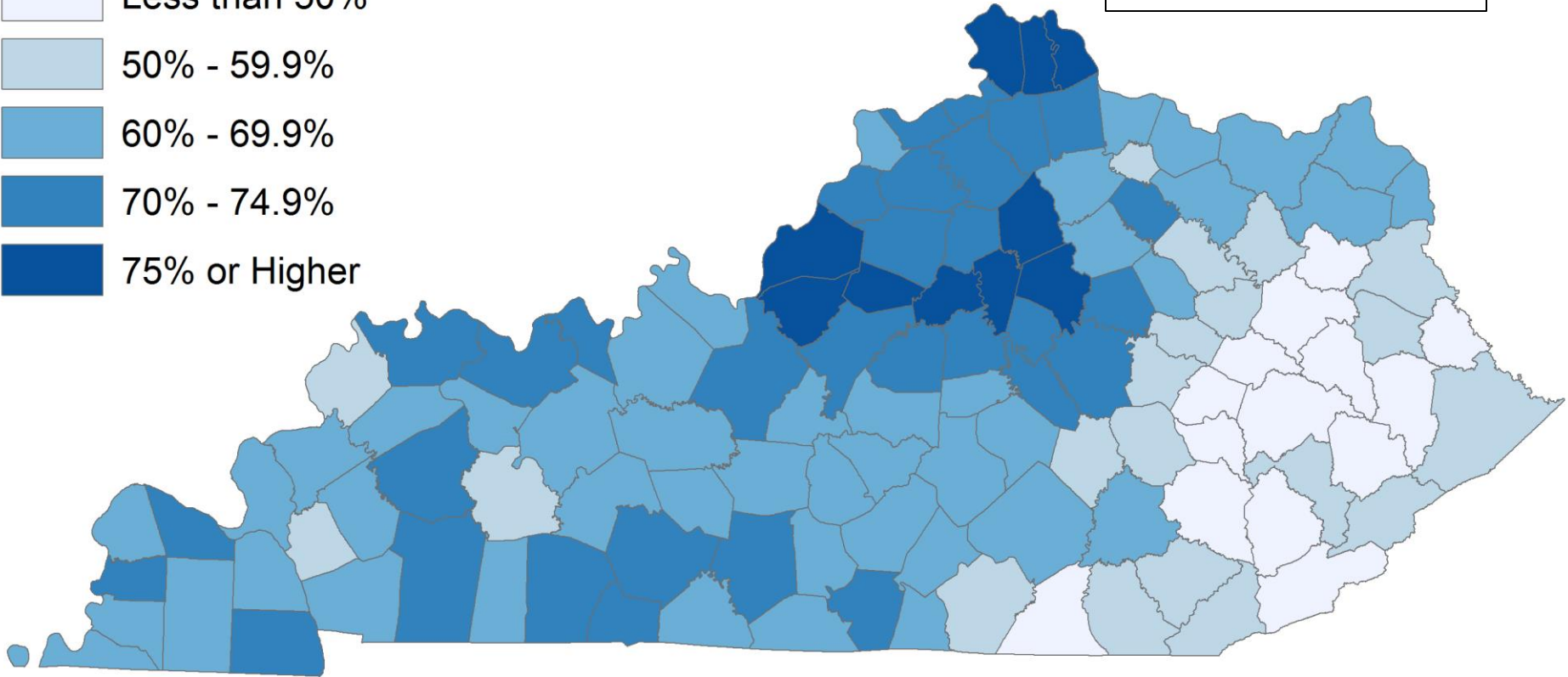
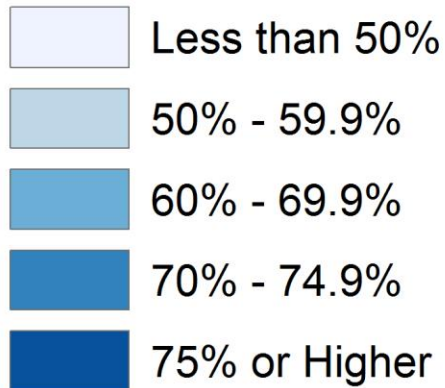
Source: Bureau of Labor Statistics, September 2014

Labor Force Participation



Labor Force Participation

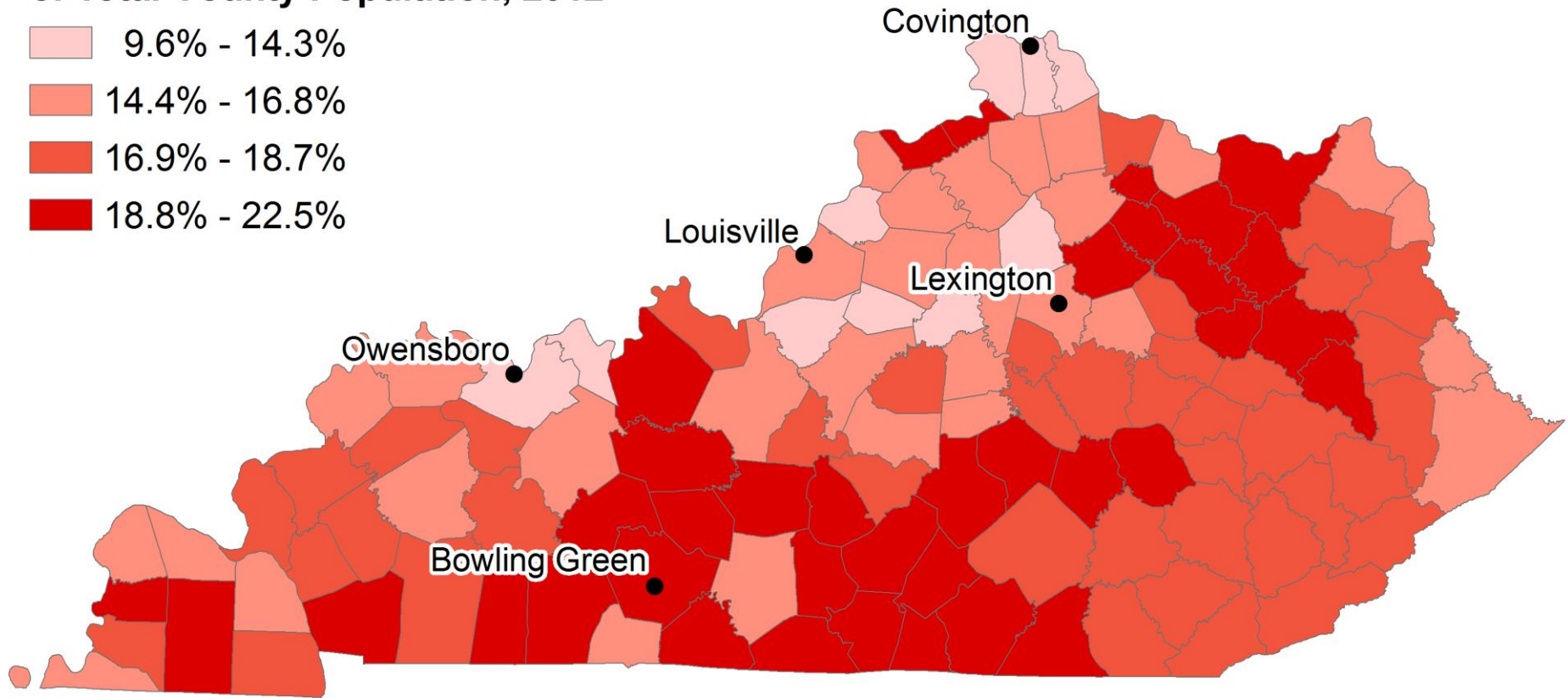
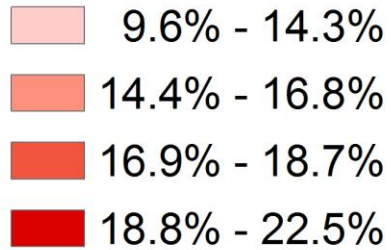
State: 69.8%



Source: U.S. Census Bureau, 2012 American Community Survey

Uninsurance Rate

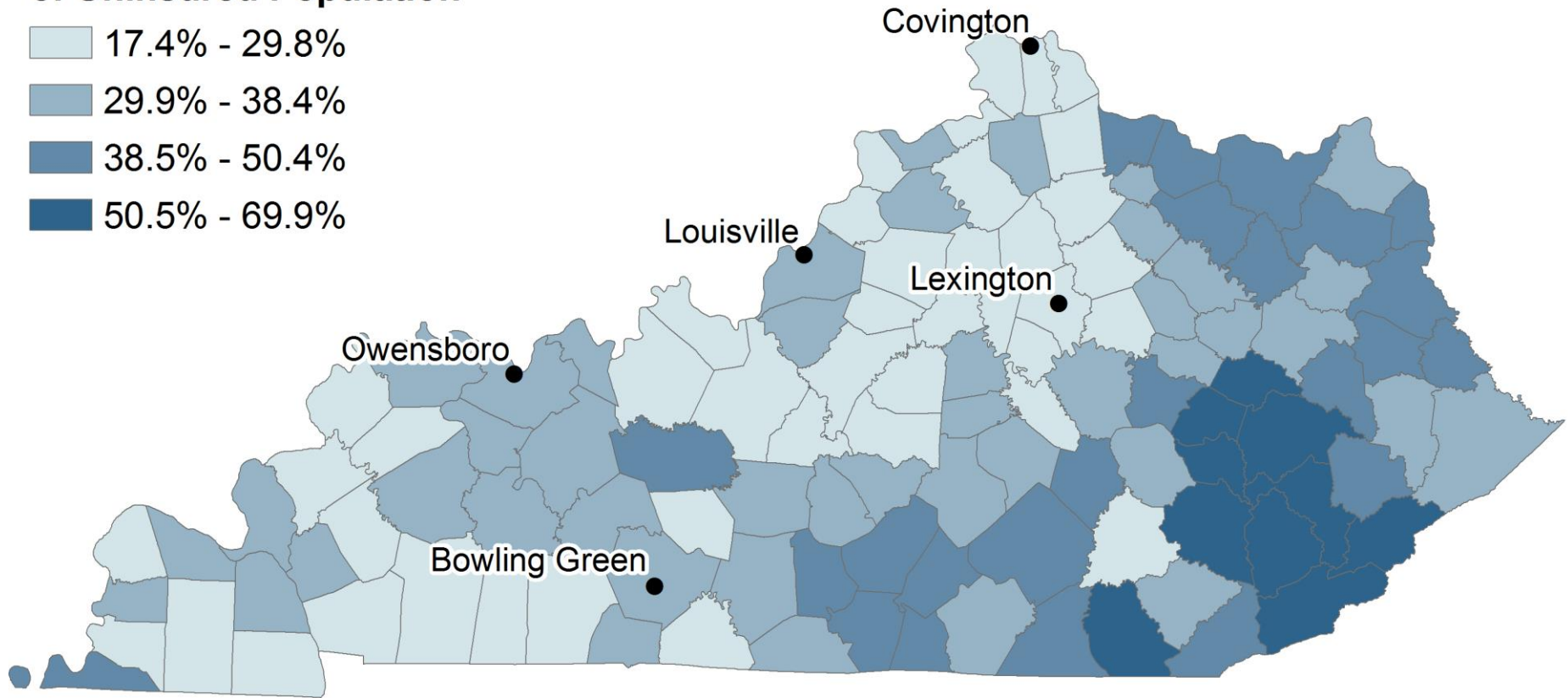
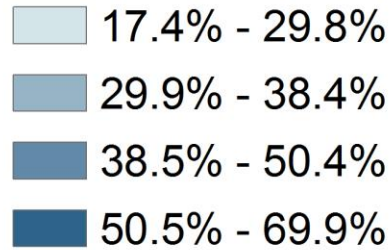
**Total Uninsured as Percentage
of Total County Population, 2012**



Source: U.S. Census Bureau, Small Area Health Insurance Estimates, 2012

New Enrollees (kynect and Medicaid)

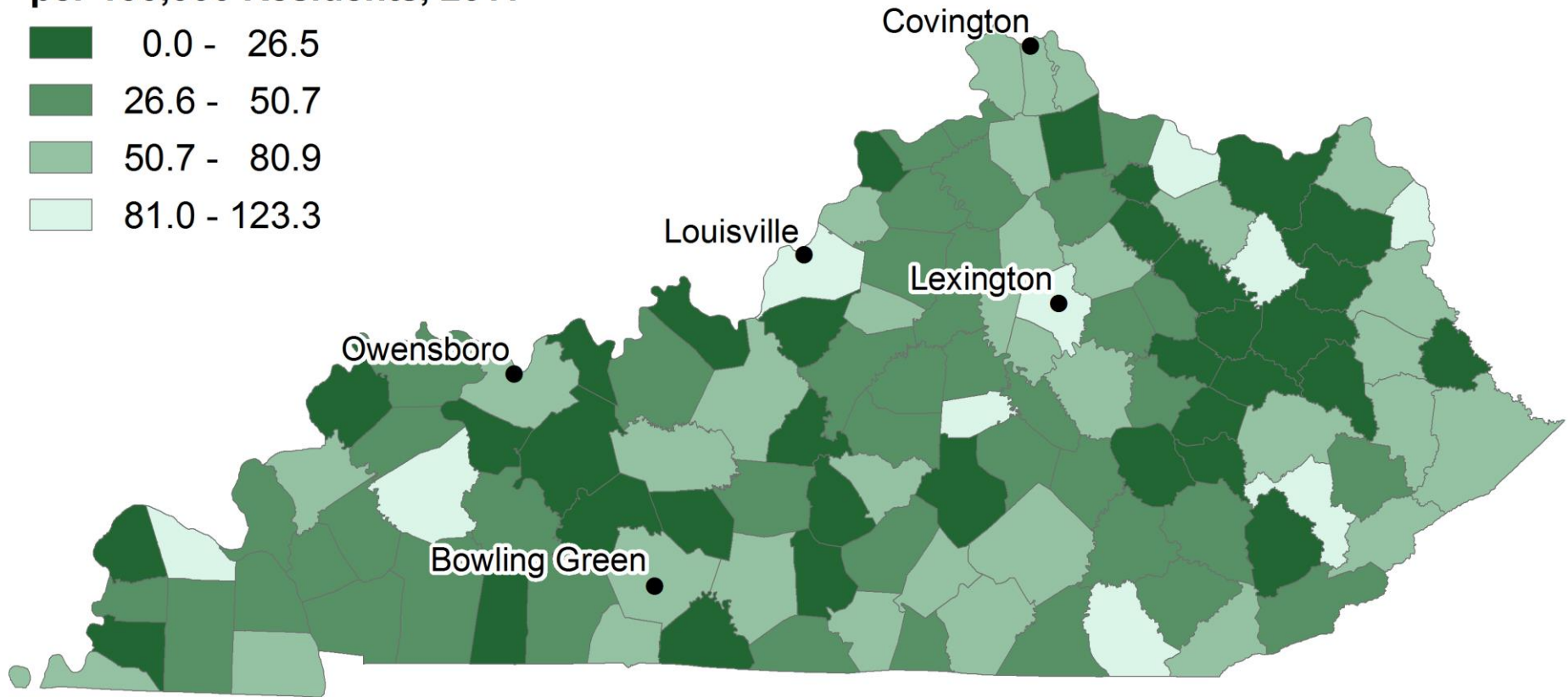
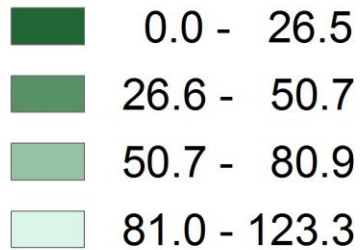
Total Enrollees as Percentage of Uninsured Population



Sources: Kentucky Cabinet for Health and Family Services; U.S. Census Bureau, Small Area Health Insurance Estimates, 2012

Primary Care Physicians per Capita

Total Primary Care Physicians
per 100,000 Residents, 2011



Source: County Health Rankings; HRSA Area Resource File; U.S. Census Bureau Population Estimates

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