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Unpacking the Census

Sarah Murtaugh

University of Richmond 2023

Kyle Redican

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UNPACKING

THE

CENSUS

*2020 Decennial Census and
2016-2020 ACS Updates*

Prepared by Sarah Murtaugh, '23, with Dr. Kyle Redican,
Director, Spatial Analysis Lab, University of Richmond



UNPACKINGTHECENSUS.ORG



VIRGINIA CENTER FOR
INCLUSIVE
COMMUNITIES



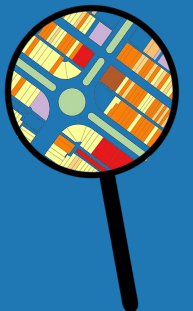
Understanding the Data

The Decennial Census and American Community Survey

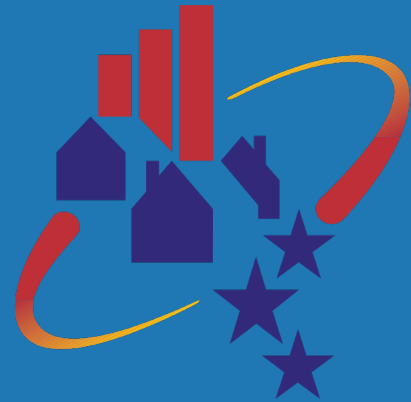
What is the Decennial Census?



- Began in 1790
- Data collected every ten years
- Counts every person living in the United States
- Asks a short set of questions such as age, sex, race, etc.



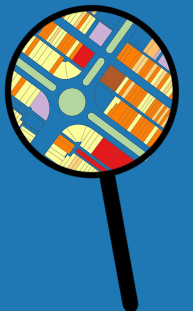
What is the American Community Survey?



AMERICAN
COMMUNITY
SURVEY

U.S. CENSUS BUREAU

- Began in 2005
- Data collected every day
- Counts a sample of people in the United States
- Asks more demographic questions



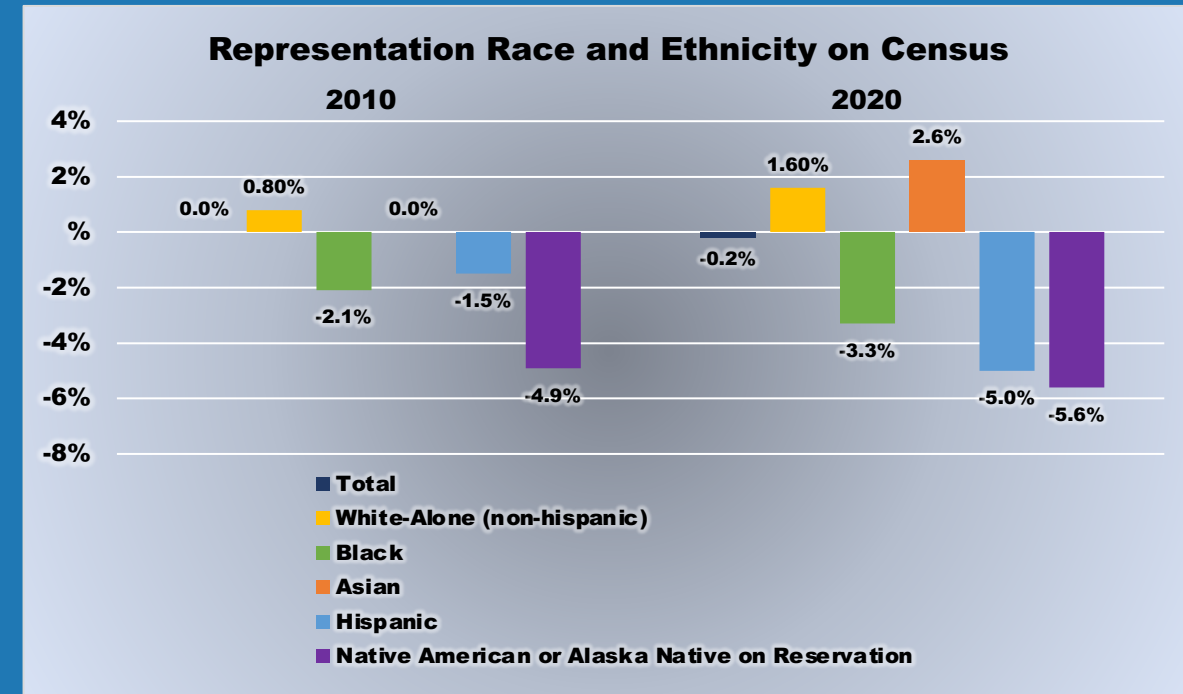
The ACS is an estimate

- Period estimates
 - Produced by combining data collected across a specific time period
- The ACS does not represent a single year.
- Shows us the characteristics of an area over the entire data collection period

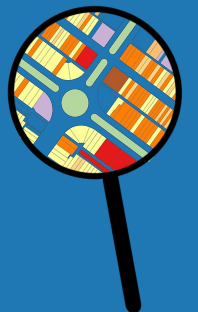


Who's left out?

- Black and Latinx populations undercounted in the Census
- White and Asian populations overcounted
- ACS experienced lower response rate than previous years
- Undocumented immigrants often fear legal ramifications



Source: Pew Research Center (June, 2022), using U.S. Census Post-Enumeration Surveys (2010, 2020)



Race and Ethnicity

- “Hispanic, Latino, or Spanish origin” is not a race
- Each person who selects “Hispanic/Latino” must also choose a “race”

→ NOTE: Please answer BOTH Question 8 about Hispanic origin and Question 9 about race. For this census, Hispanic origins are not races.

8. Is Person 1 of Hispanic, Latino, or Spanish origin?

No, not of Hispanic, Latino, or Spanish origin

Yes, Mexican, Mexican Am., Chicano

Yes, Puerto Rican

Yes, Cuban

Yes, another Hispanic, Latino, or Spanish origin — *Print origin, for example, Argentinean, Colombian, Dominican, Nicaraguan, Salvadoran, Spaniard, and so on.* ↴

9. What is Person 1's race? Mark one or more boxes.

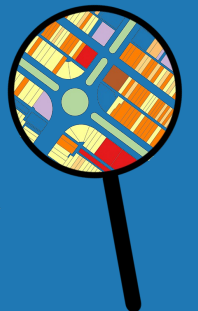
White

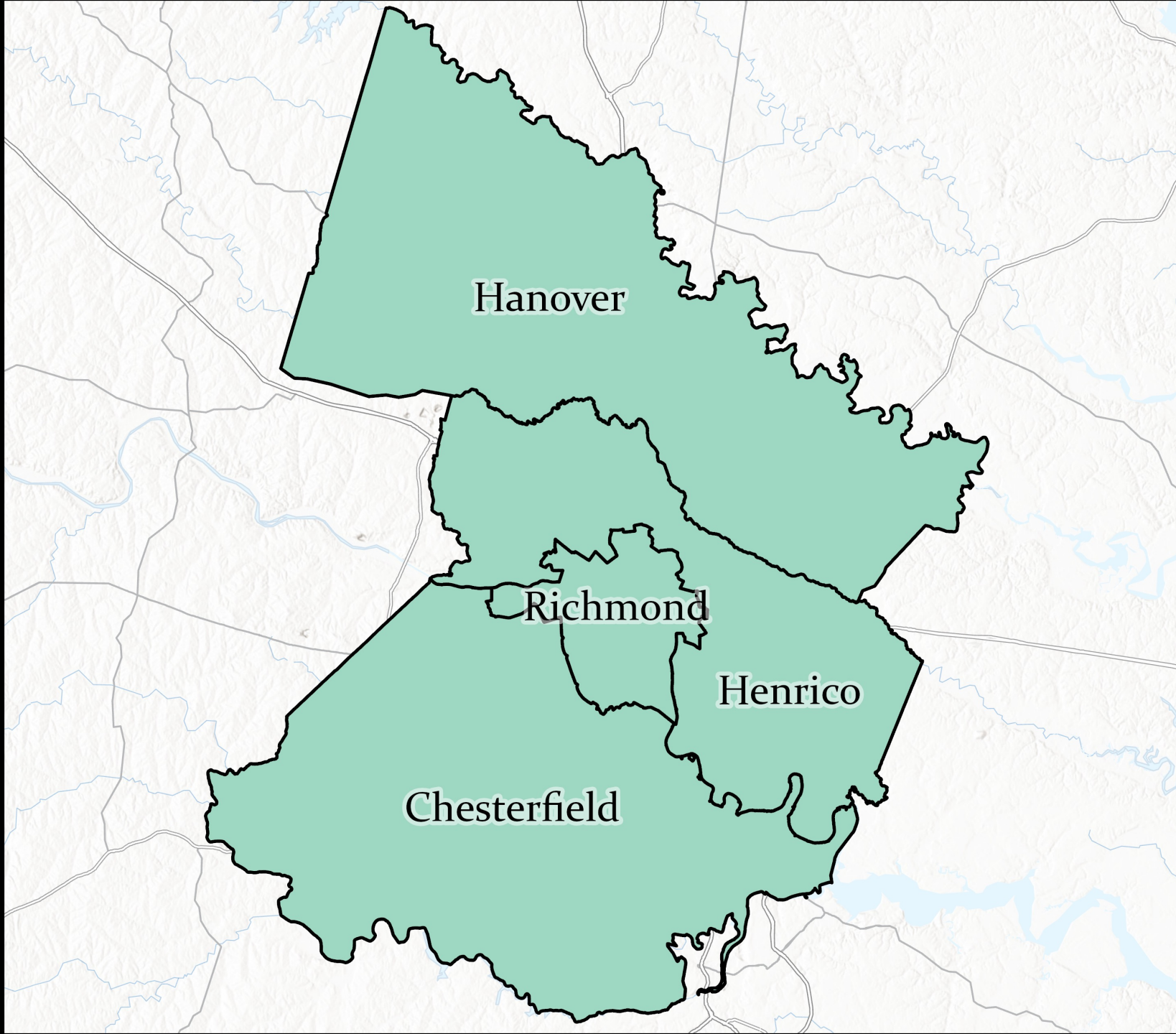
Black, African Am., or Negro

American Indian or Alaska Native — *Print name of enrolled or principal tribe.* ↴

<input type="checkbox"/> Asian Indian	<input type="checkbox"/> Japanese	<input type="checkbox"/> Native Hawaiian
<input type="checkbox"/> Chinese	<input type="checkbox"/> Korean	<input type="checkbox"/> Guamanian or Chamorro
<input type="checkbox"/> Filipino	<input type="checkbox"/> Vietnamese	<input type="checkbox"/> Samoan
<input type="checkbox"/> Other Asian — <i>Print race, for example, Hmong, Laotian, Thai, Pakistani, Cambodian, and so on.</i> ↴	<input type="checkbox"/> Other Pacific Islander — <i>Print race, for example, Fijian, Tongan, and so on.</i> ↴	

Some other race — *Print race.* ↴





Hanover

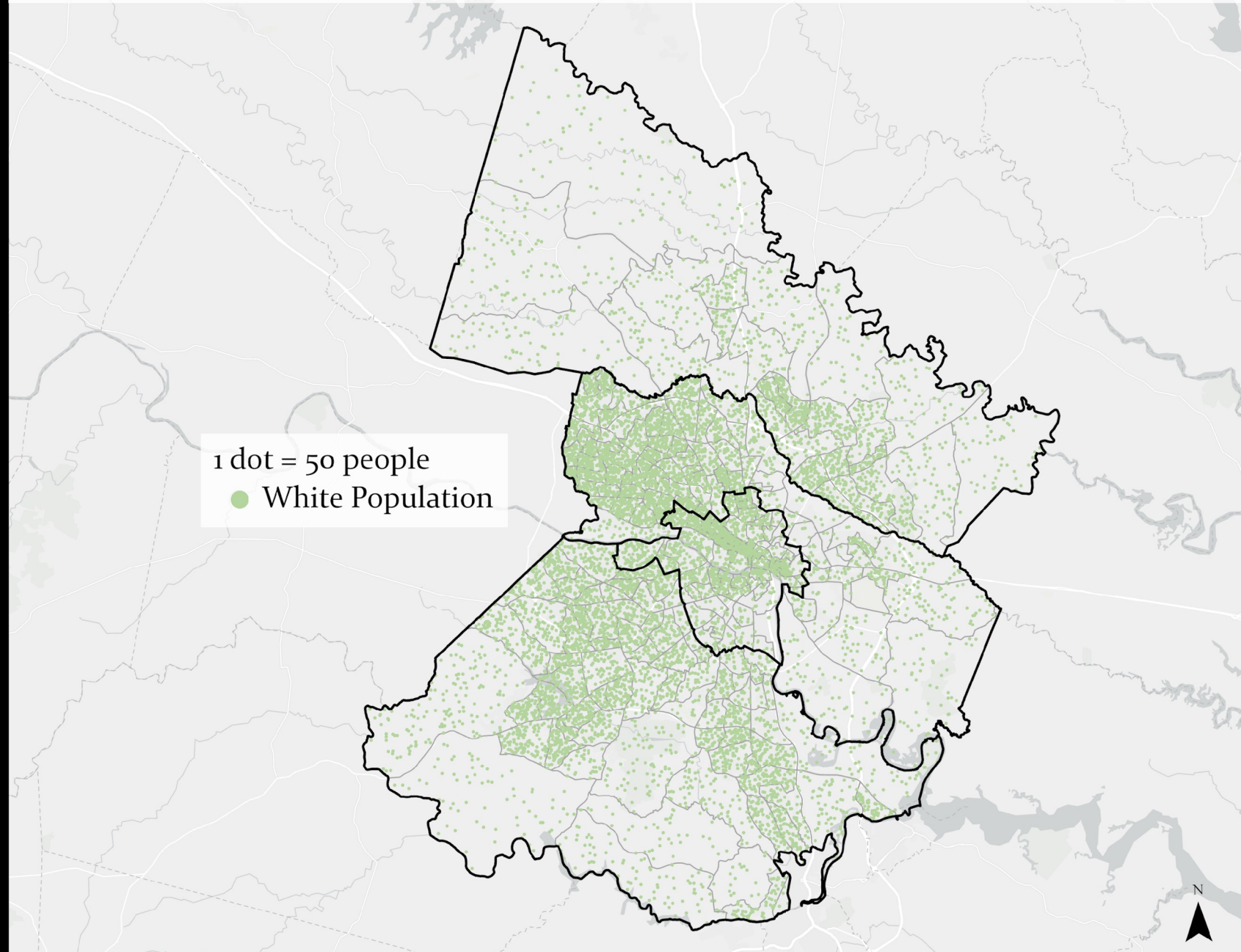
Richmond

Henrico

Chesterfield

Race in the 2020 Census

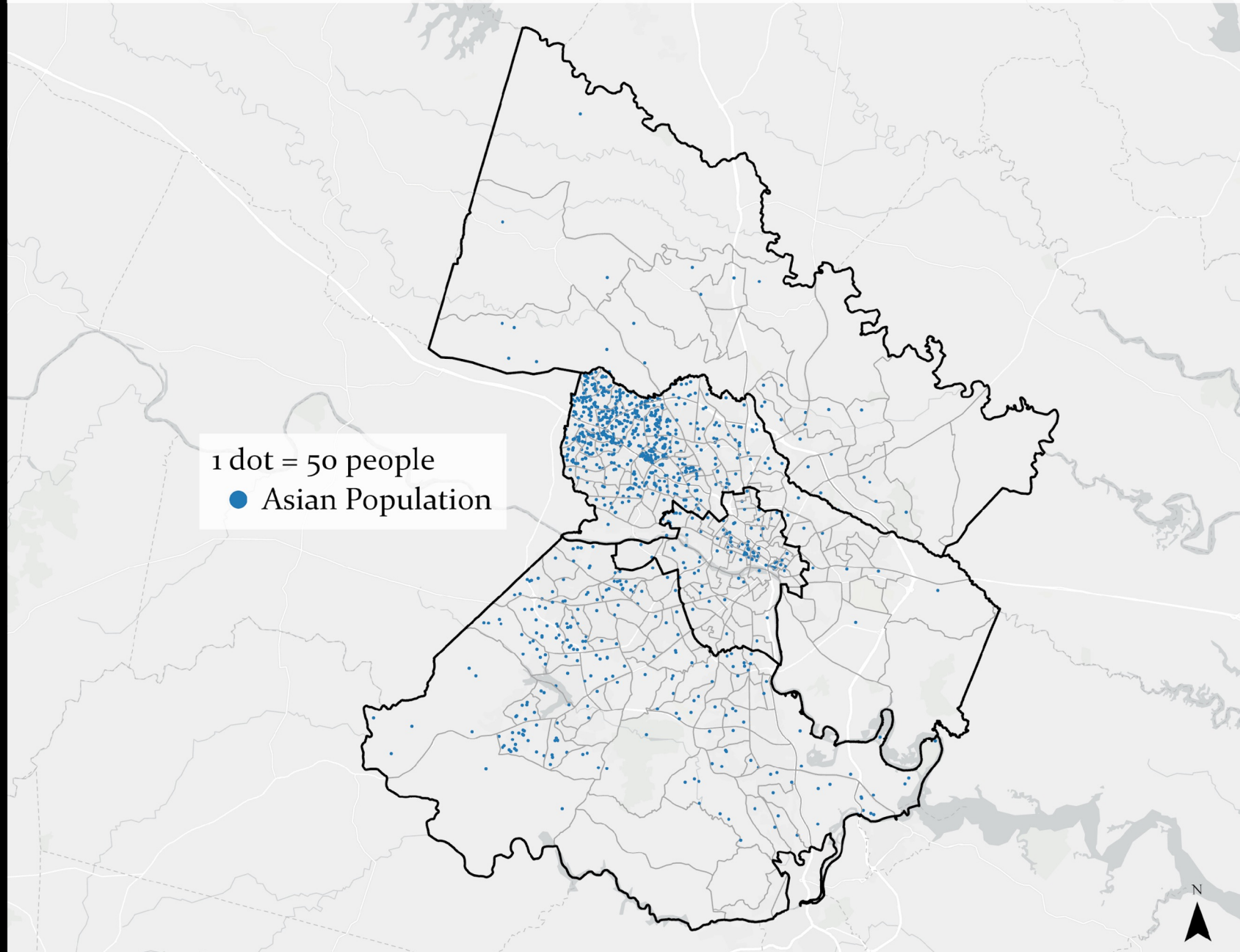
Race and Place in Richmond



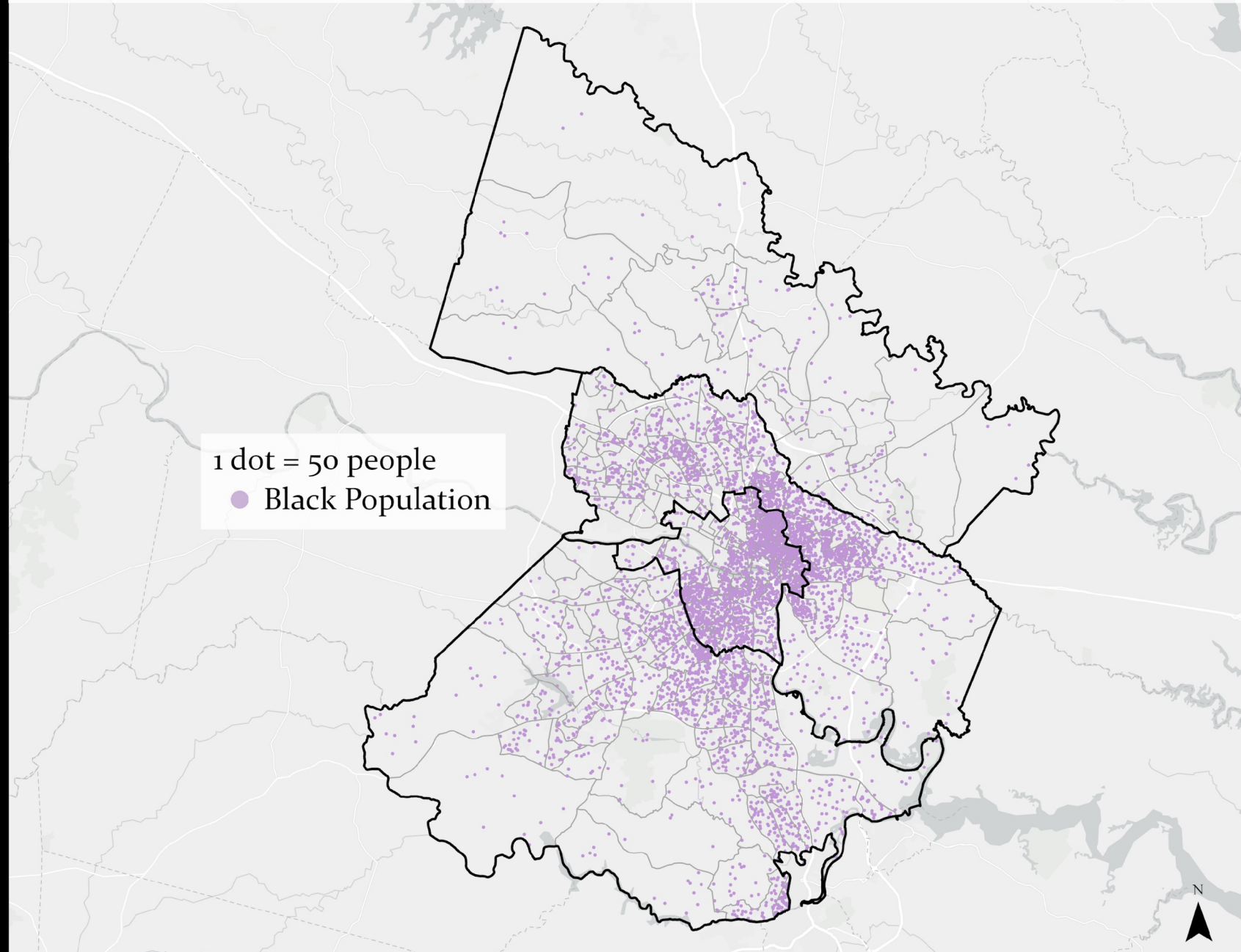
1 dot = 50 people
● White Population



Race and Place in Richmond



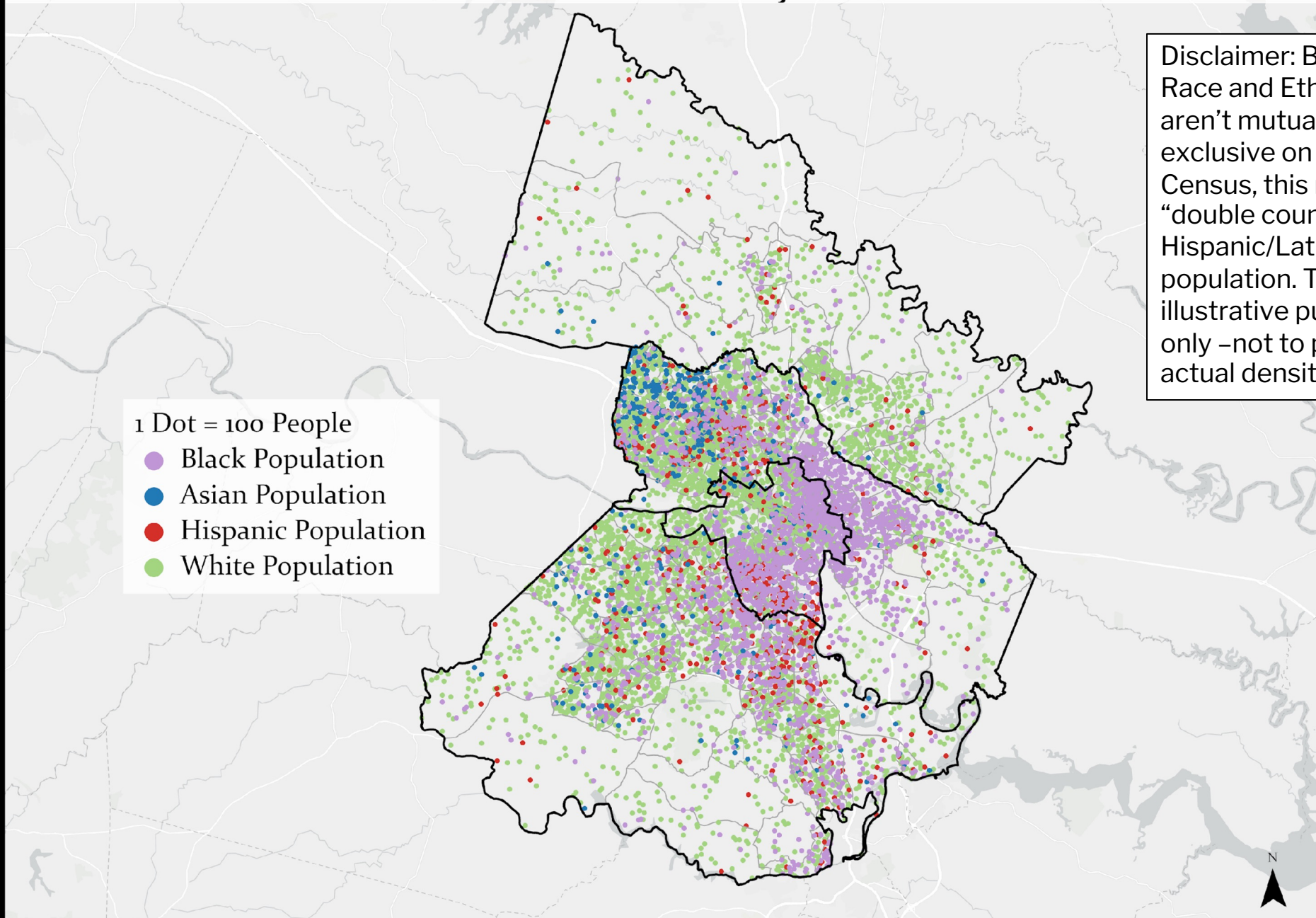
Race and Place in Richmond

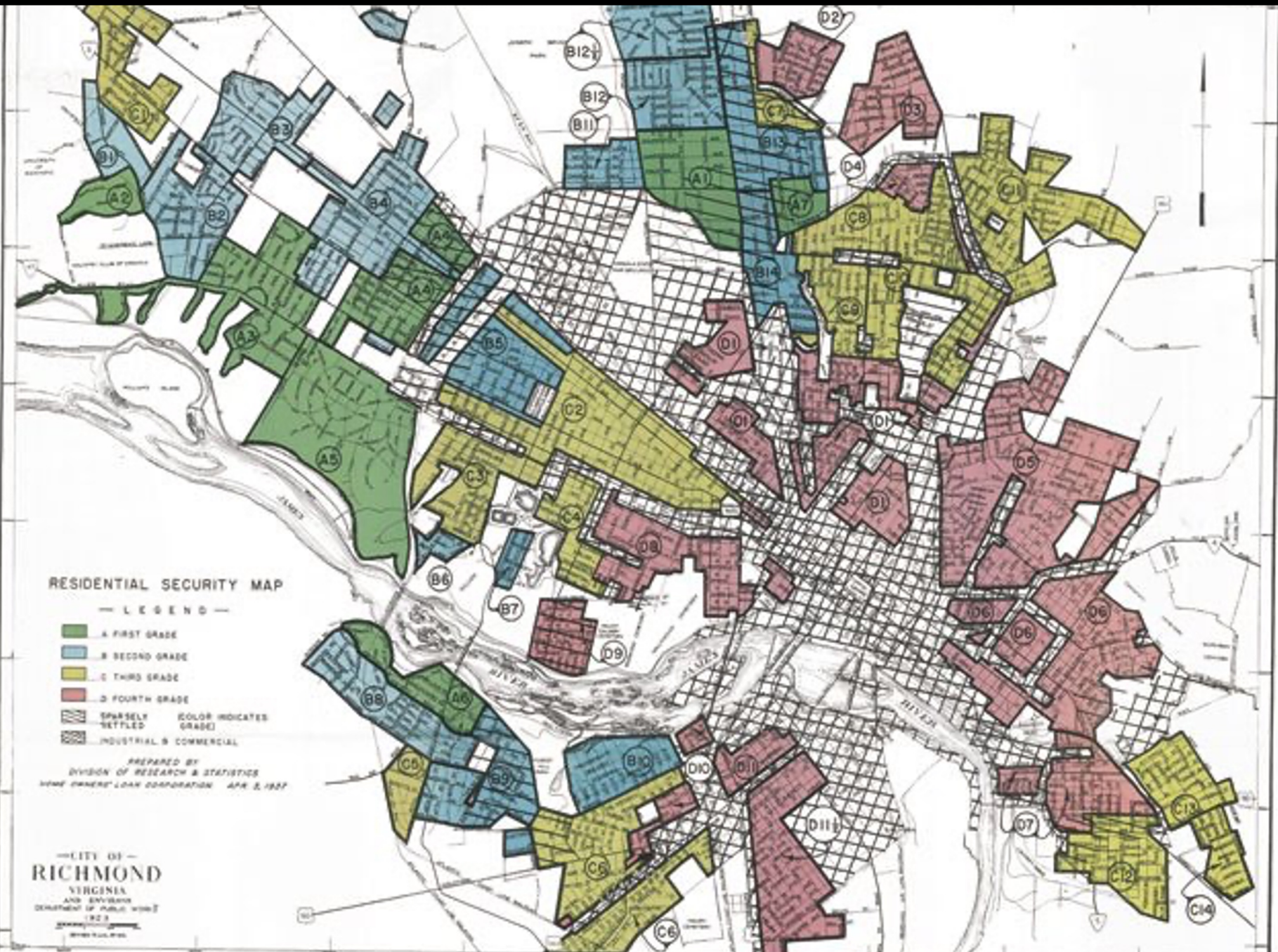


1 dot = 50 people
● Black Population



Race, Place, and Ethnicity in Richmond





RESIDENTIAL SECURITY MAP

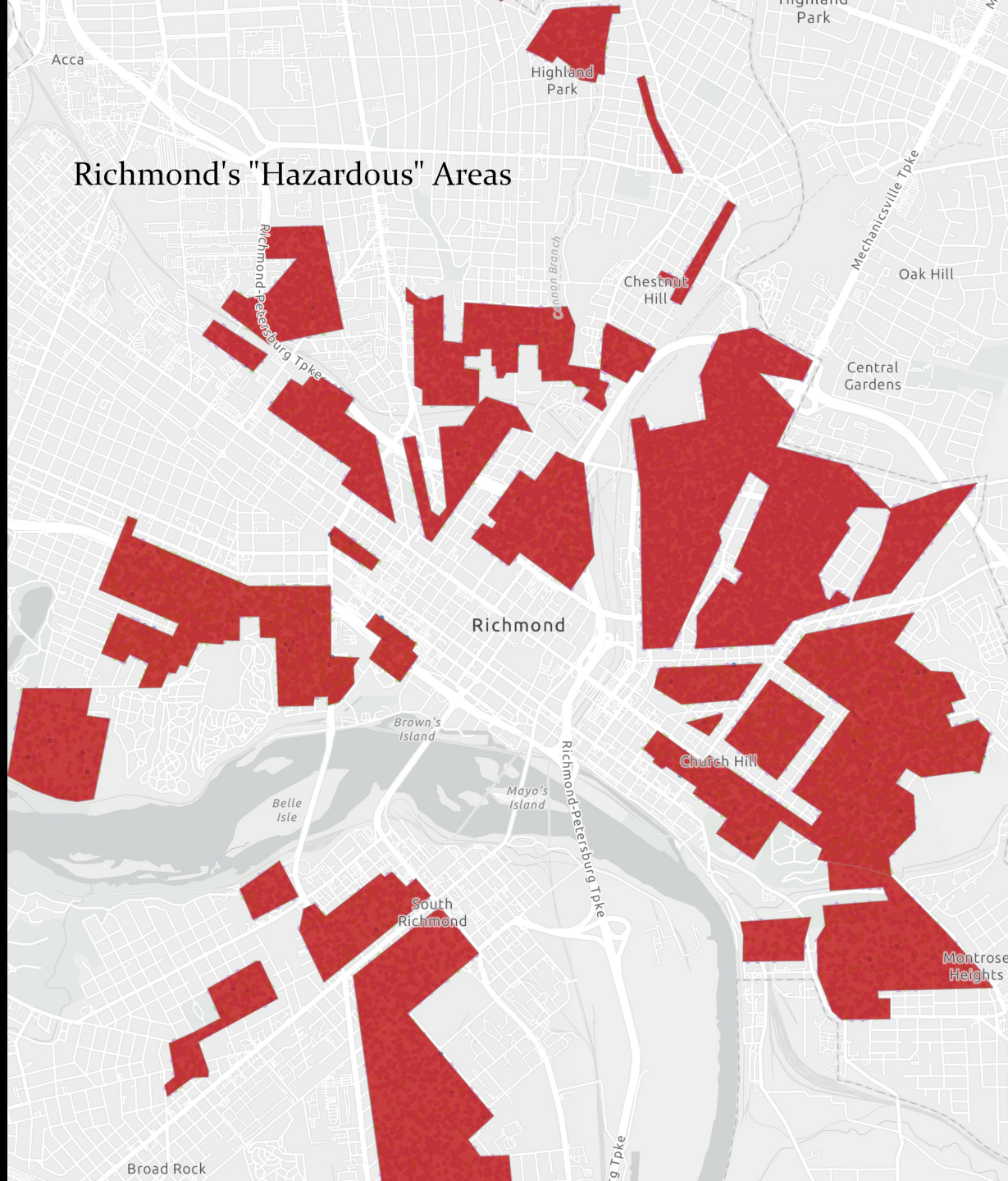
— LEGEND —

- A FIRST GRADE
- B SECOND GRADE
- C THIRD GRADE
- D FOURTH GRADE
- SPARSELY SETTLED (COLOR INDICATED GRADE)
- INDUSTRIAL & COMMERCIAL

PREPARED BY
DIVISION OF RESEARCH & STATISTICS
HOME OWNERS' LOAN CORPORATION APR. 2, 1927

—CITY OF—
RICHMOND
VIRGINIA
AND ENVIRONS
DEPARTMENT OF PUBLIC WORKS
1928
ANNEXED TERRITORY
MAY 19, 1928

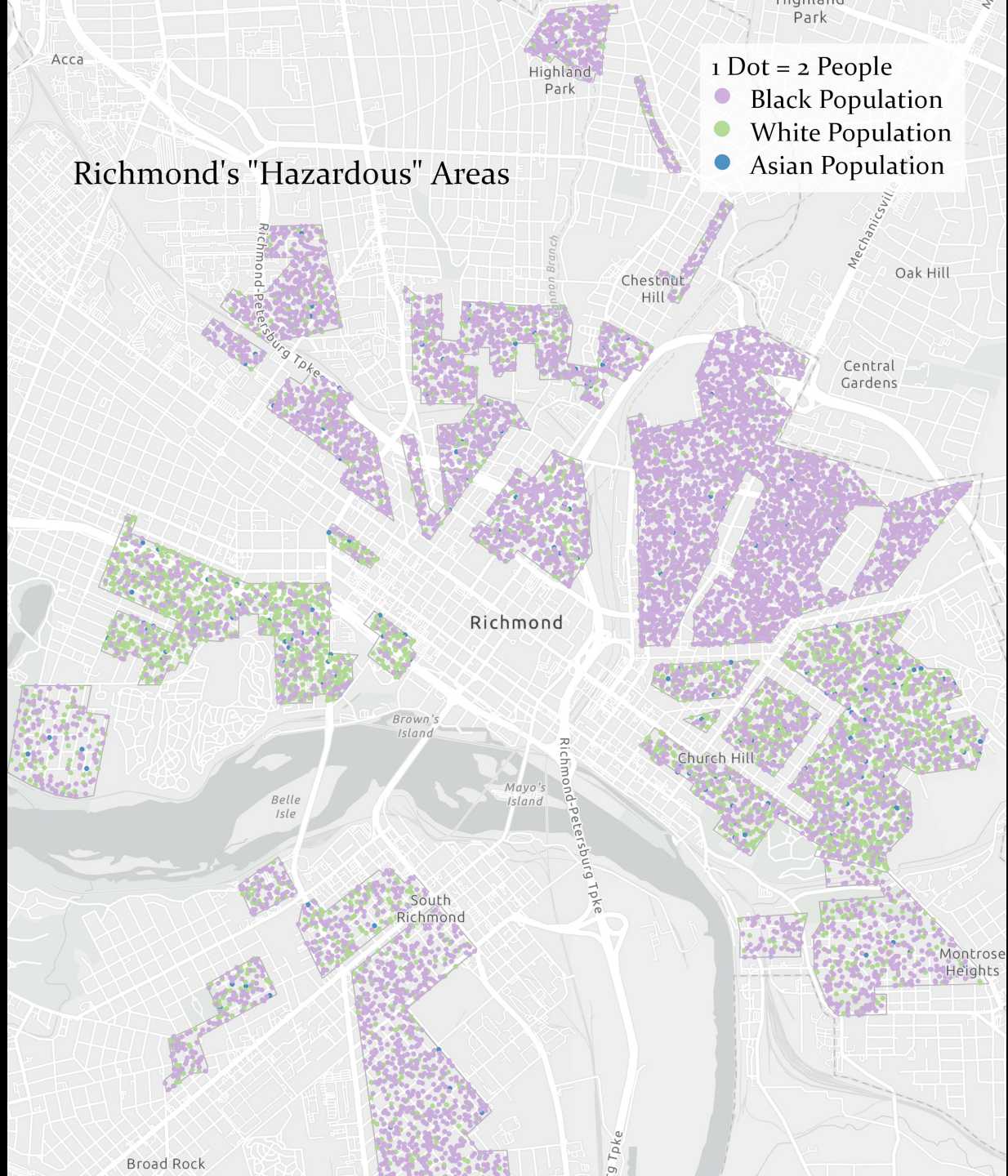
Richmond's "Hazardous" Areas



Richmond's "Hazardous" Areas

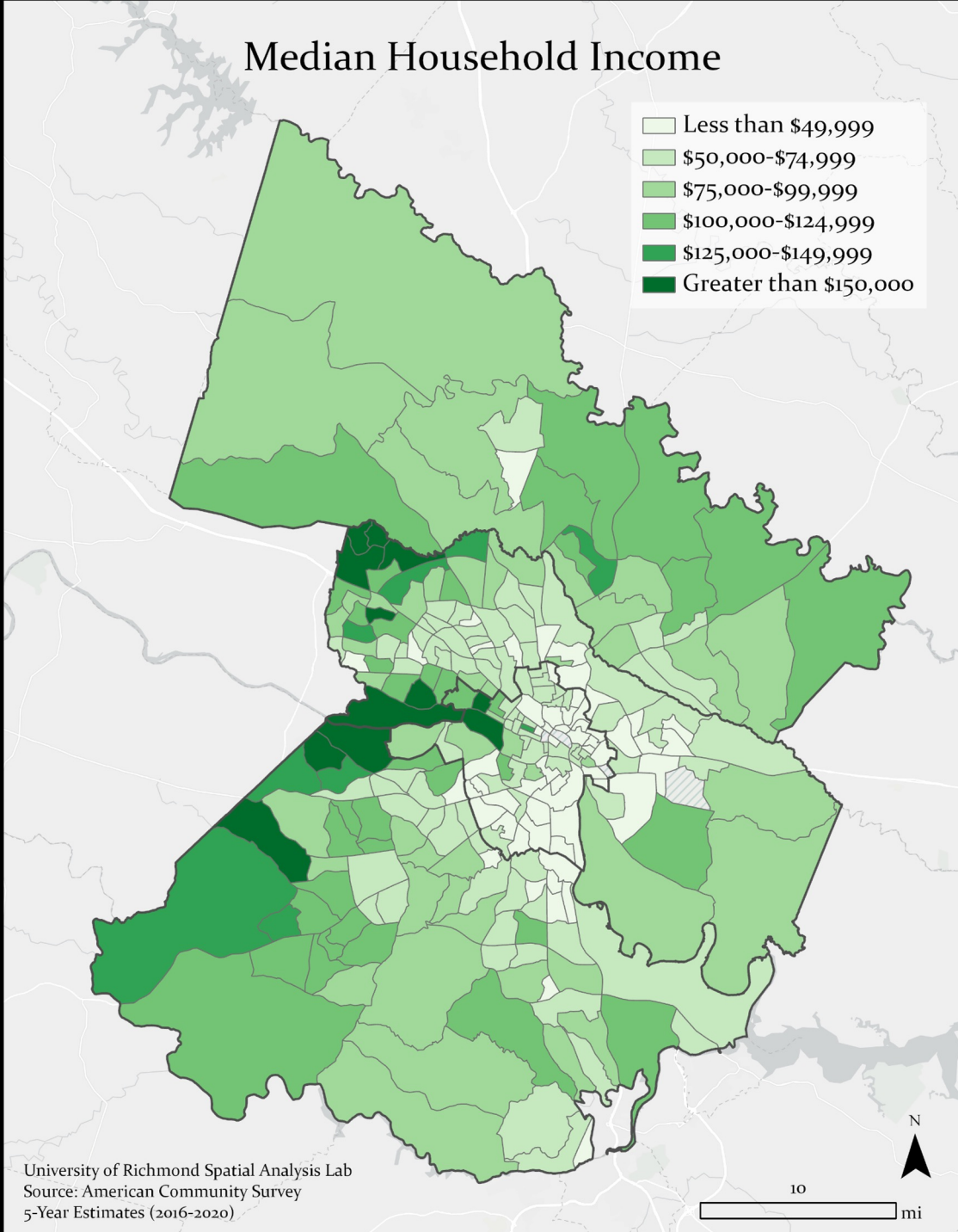
1 Dot = 2 People

- Black Population
- White Population
- Asian Population

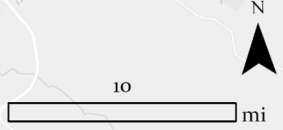


Socio-Economic Indicators in the ACS

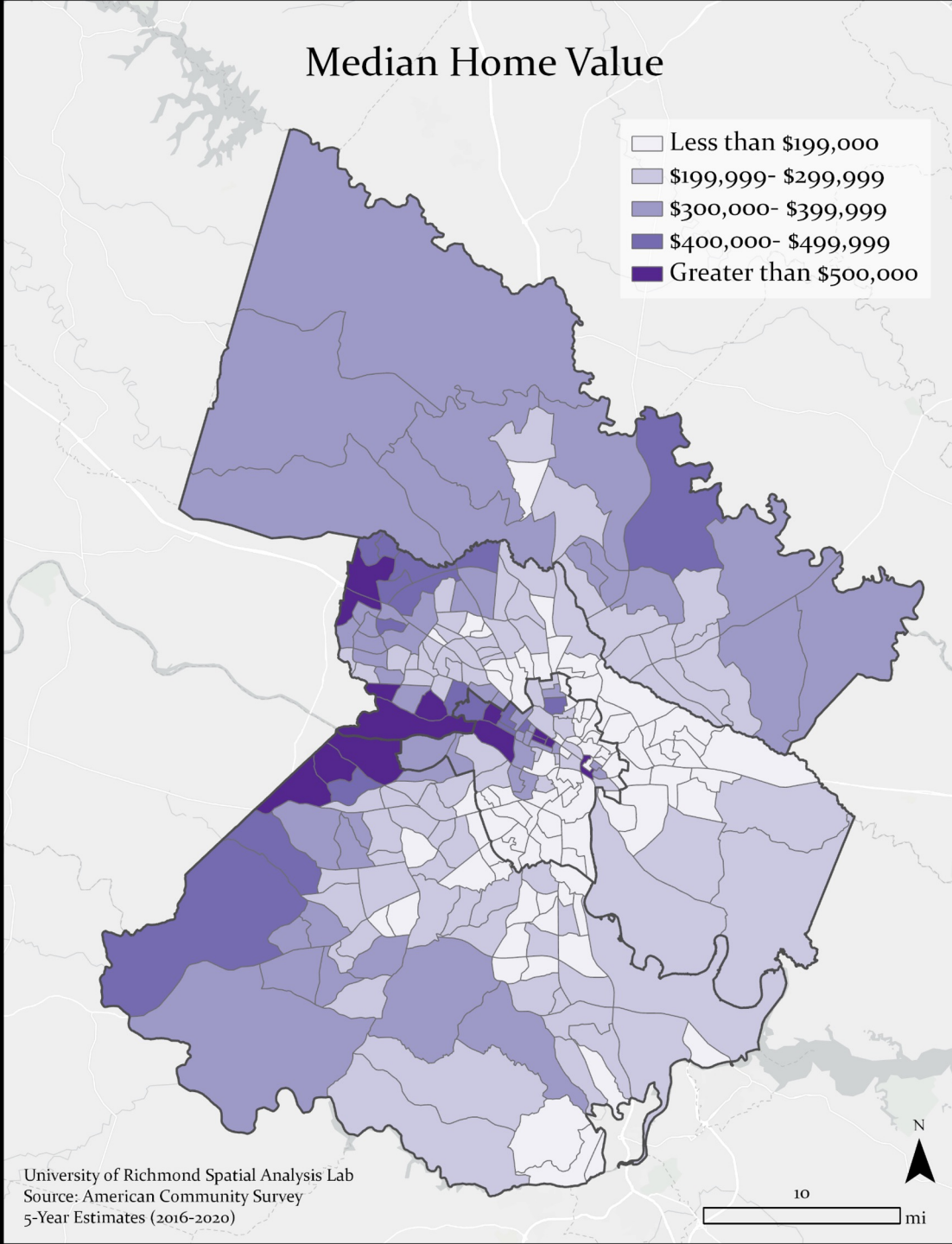
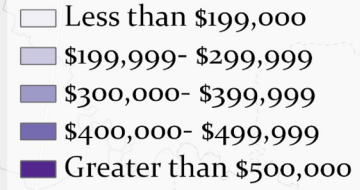
Median Household Income



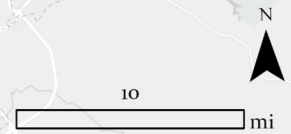
University of Richmond Spatial Analysis Lab
Source: American Community Survey
5-Year Estimates (2016-2020)



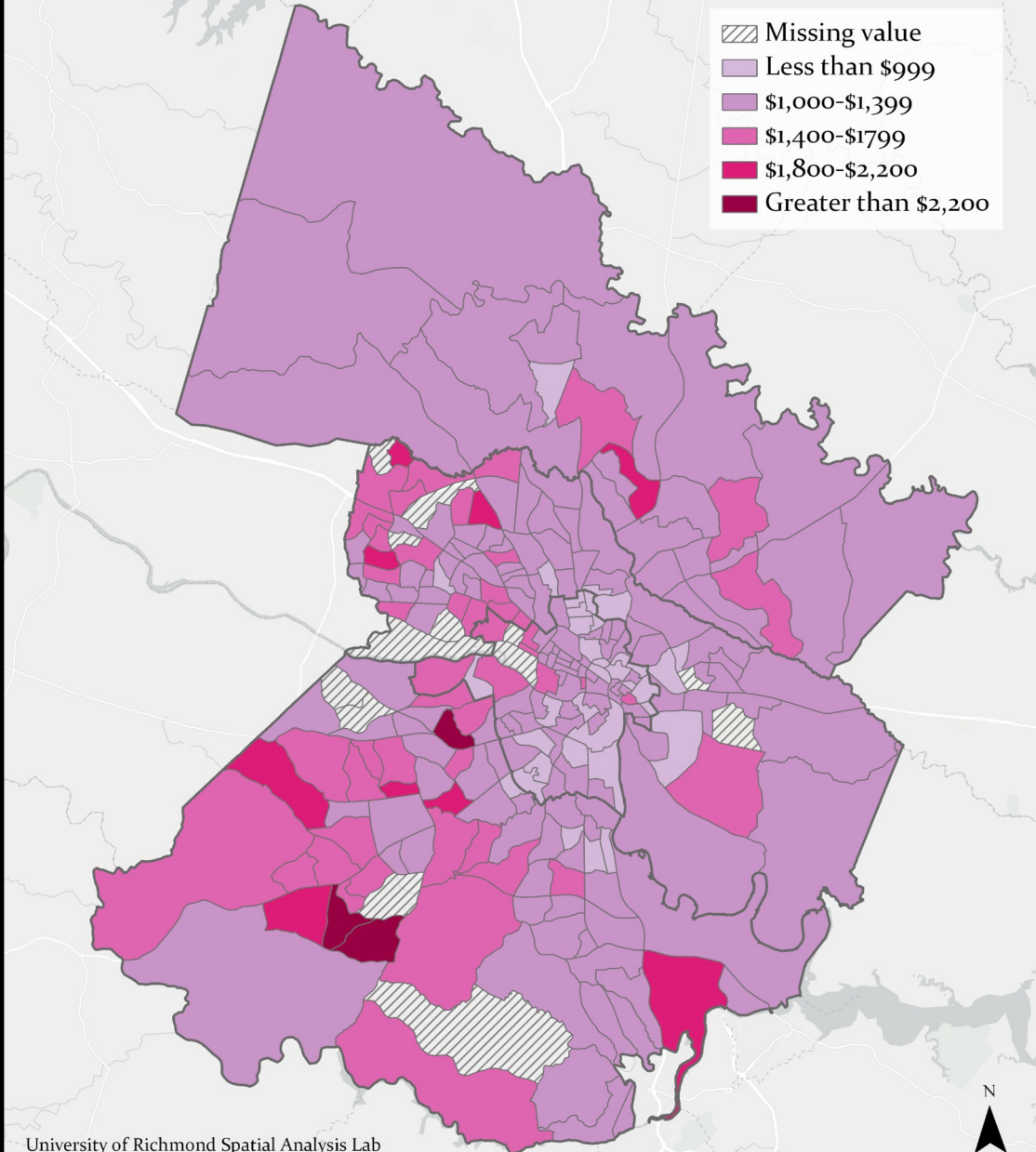
Median Home Value



University of Richmond Spatial Analysis Lab
Source: American Community Survey
5-Year Estimates (2016-2020)

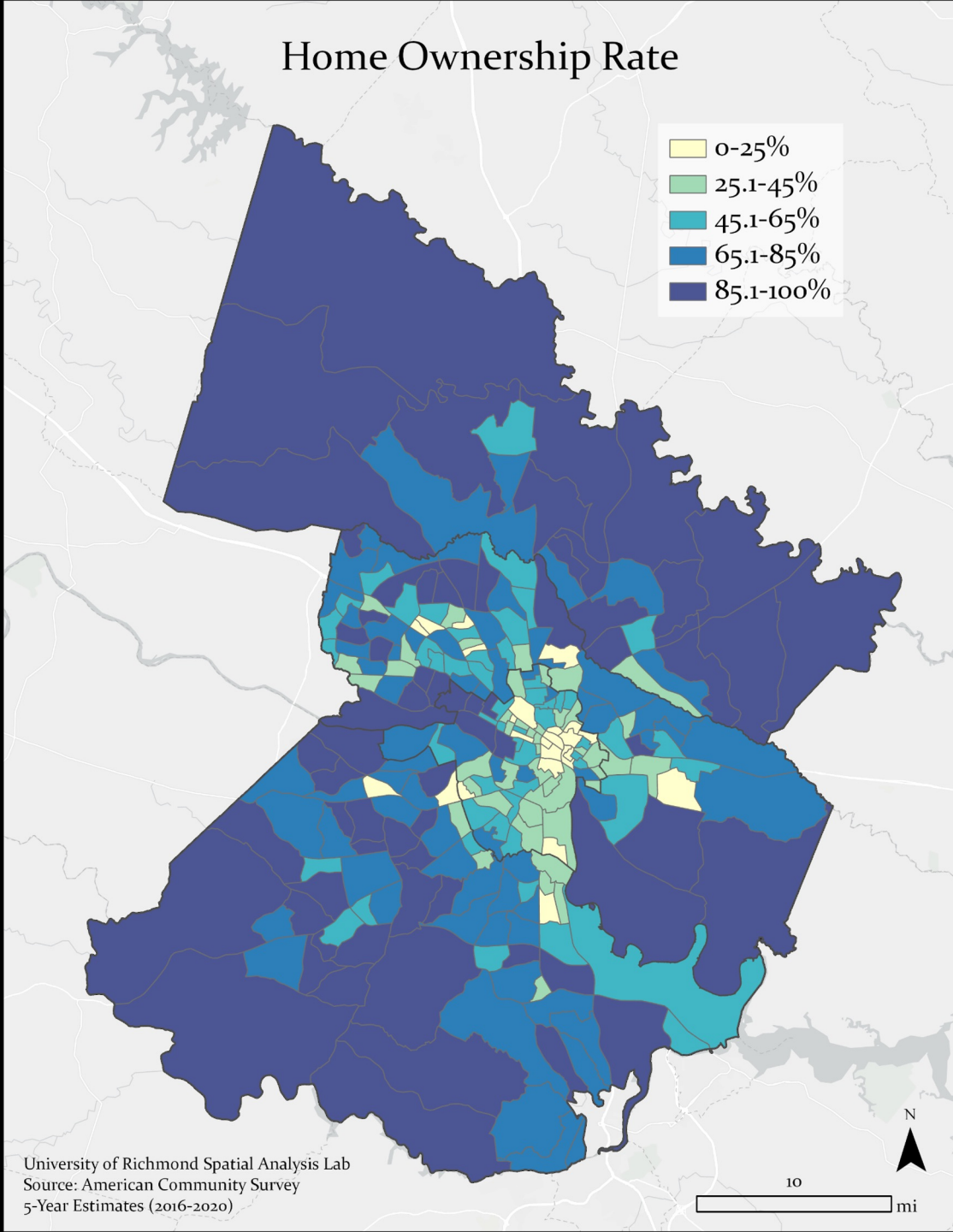
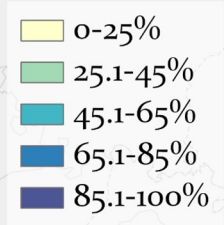


Median Gross Rent

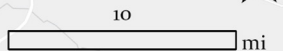


University of Richmond Spatial Analysis Lab
Source: American Community Survey
5-Year Estimates (2016-2020)

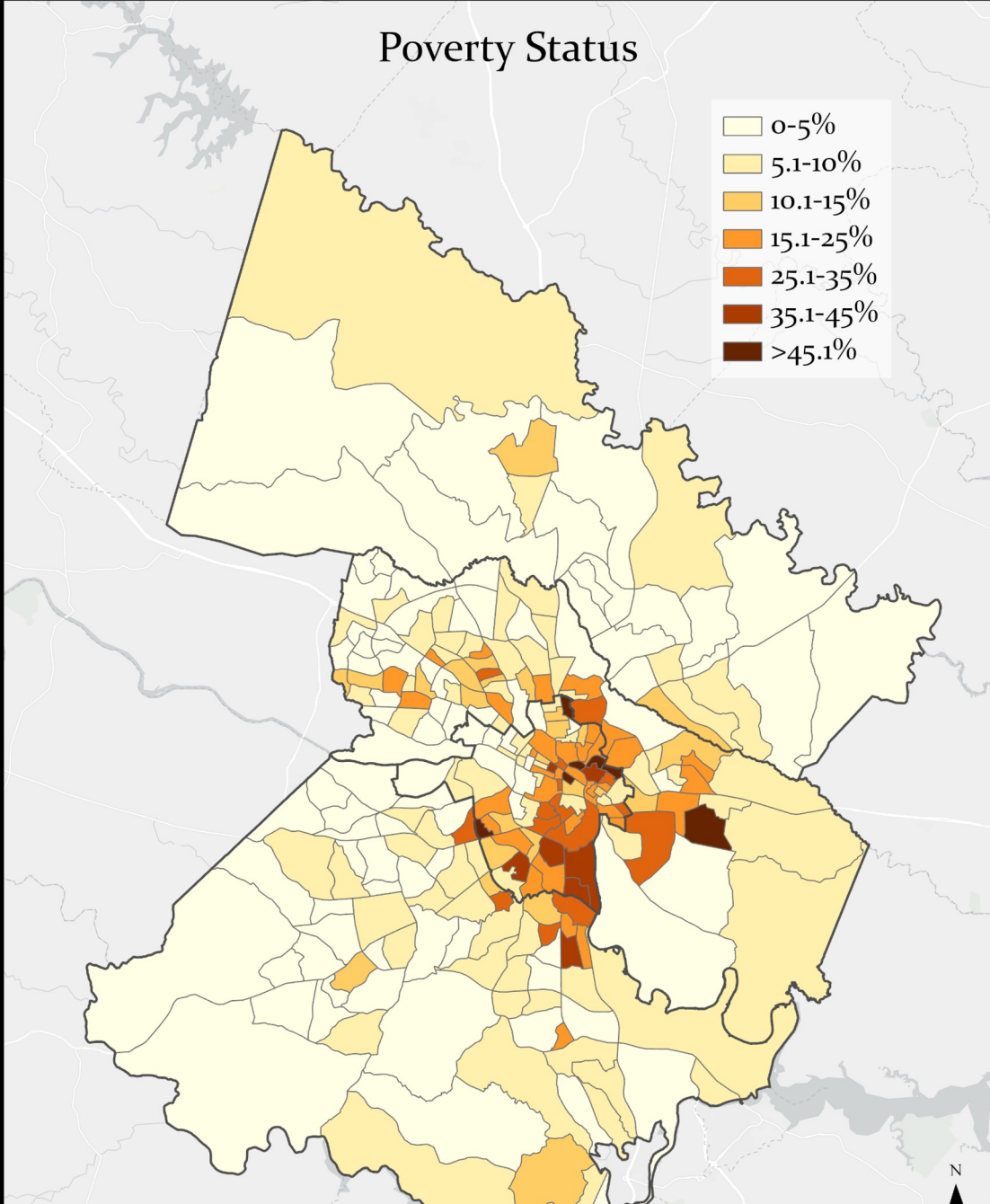
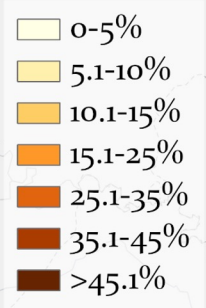
Home Ownership Rate



University of Richmond Spatial Analysis Lab
Source: American Community Survey
5-Year Estimates (2016-2020)



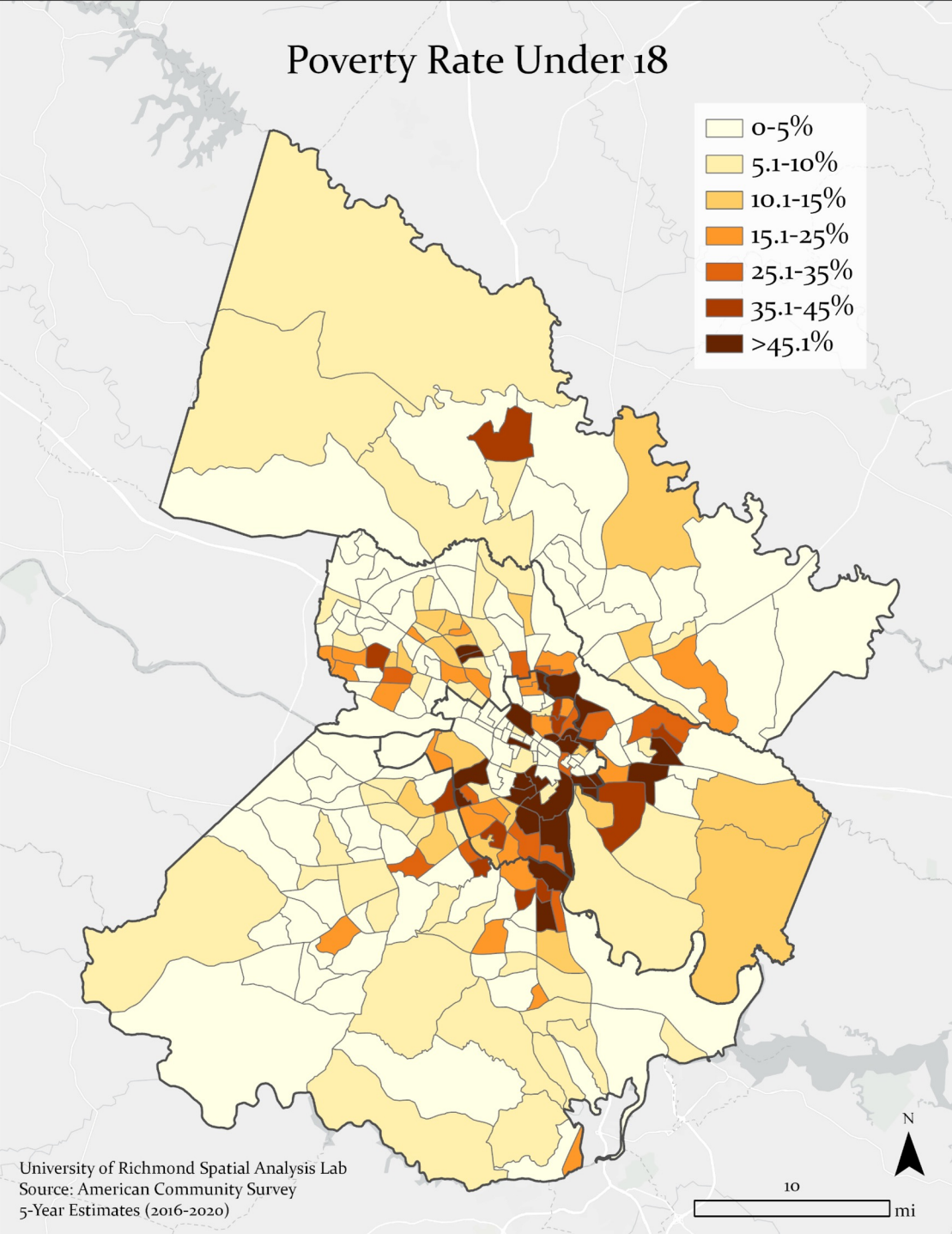
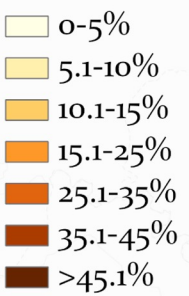
Poverty Status



University of Richmond Spatial Analysis Lab
Source: American Community Survey
5-Year Estimates (2016-2020)



Poverty Rate Under 18



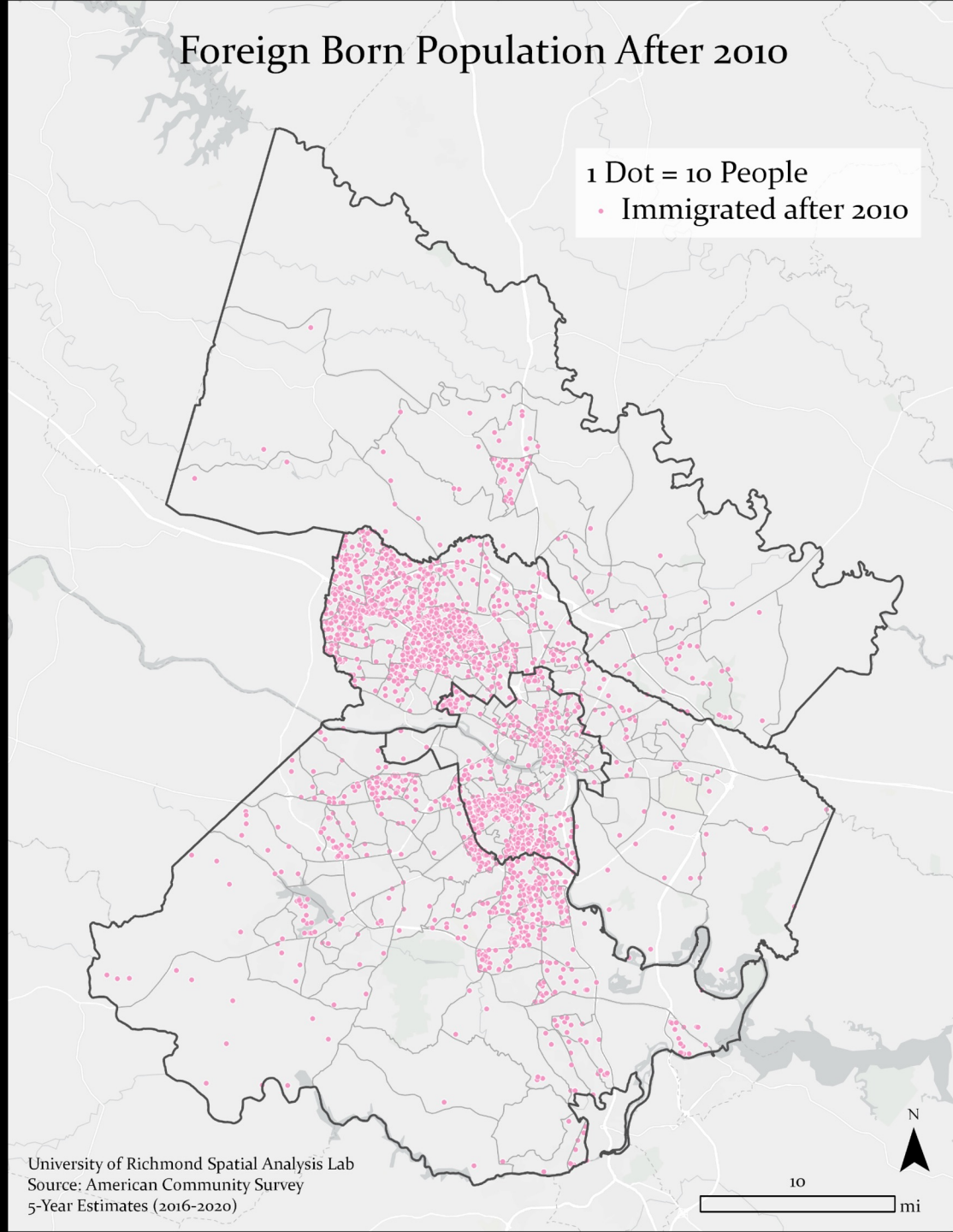
University of Richmond Spatial Analysis Lab
Source: American Community Survey
5-Year Estimates (2016-2020)

10 mi



Foreign Born Population After 2010

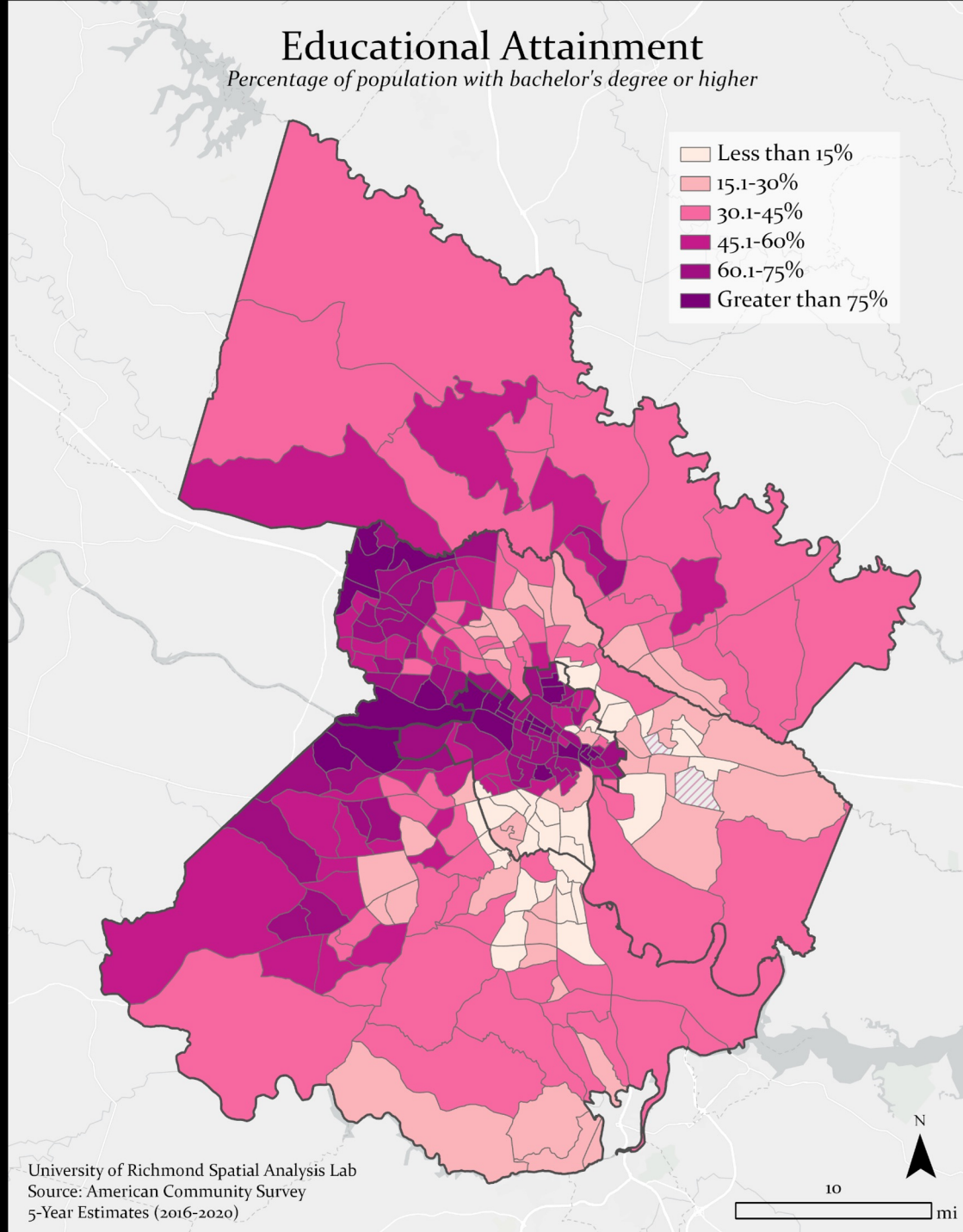
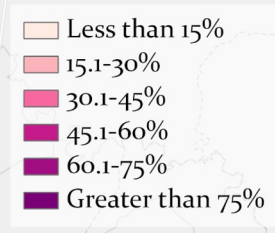
1 Dot = 10 People
• Immigrated after 2010



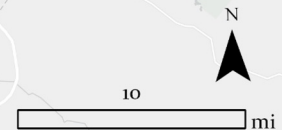
University of Richmond Spatial Analysis Lab
Source: American Community Survey
5-Year Estimates (2016-2020)

Educational Attainment

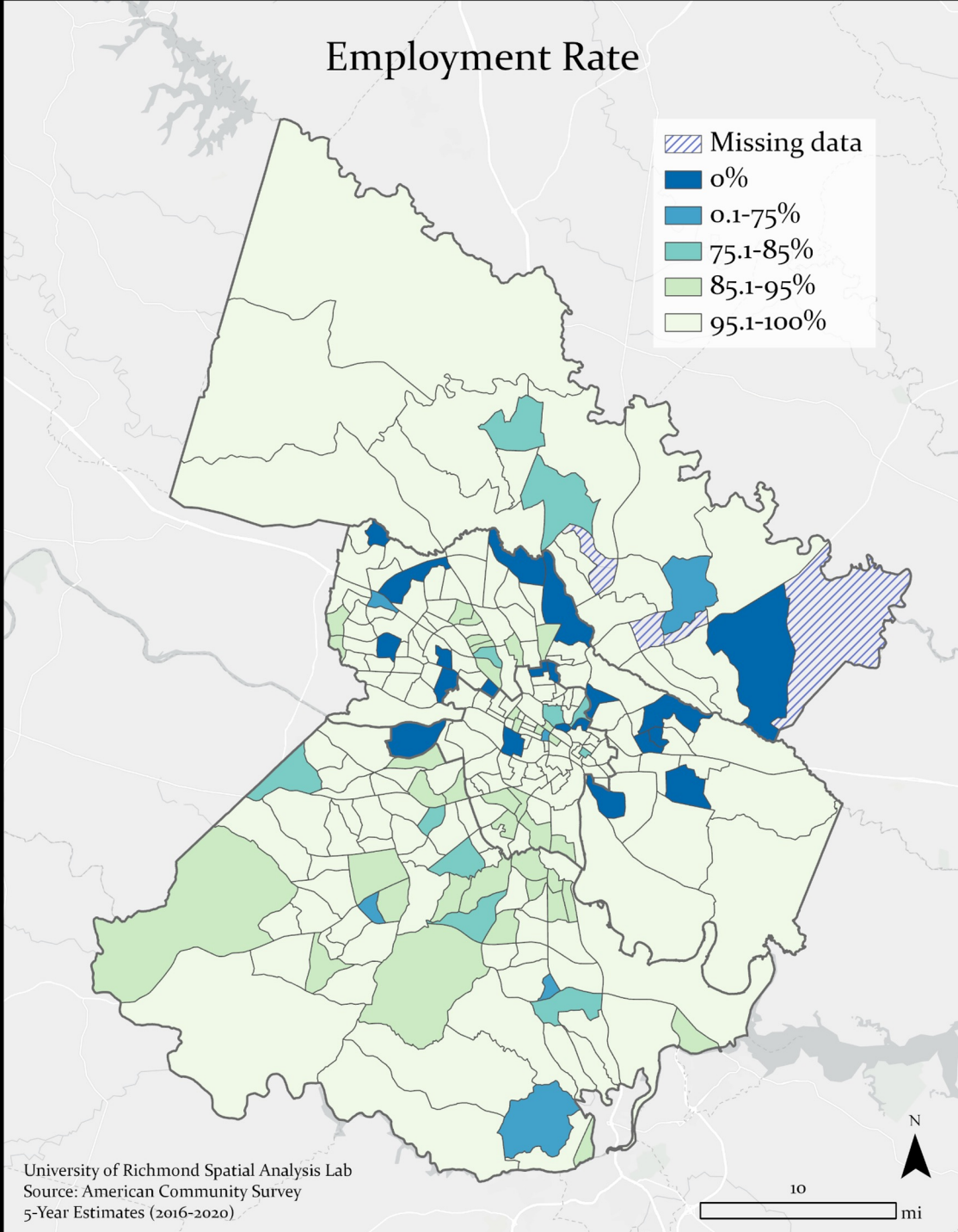
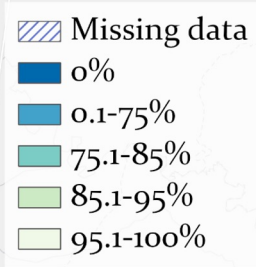
Percentage of population with bachelor's degree or higher



University of Richmond Spatial Analysis Lab
Source: American Community Survey
5-Year Estimates (2016-2020)

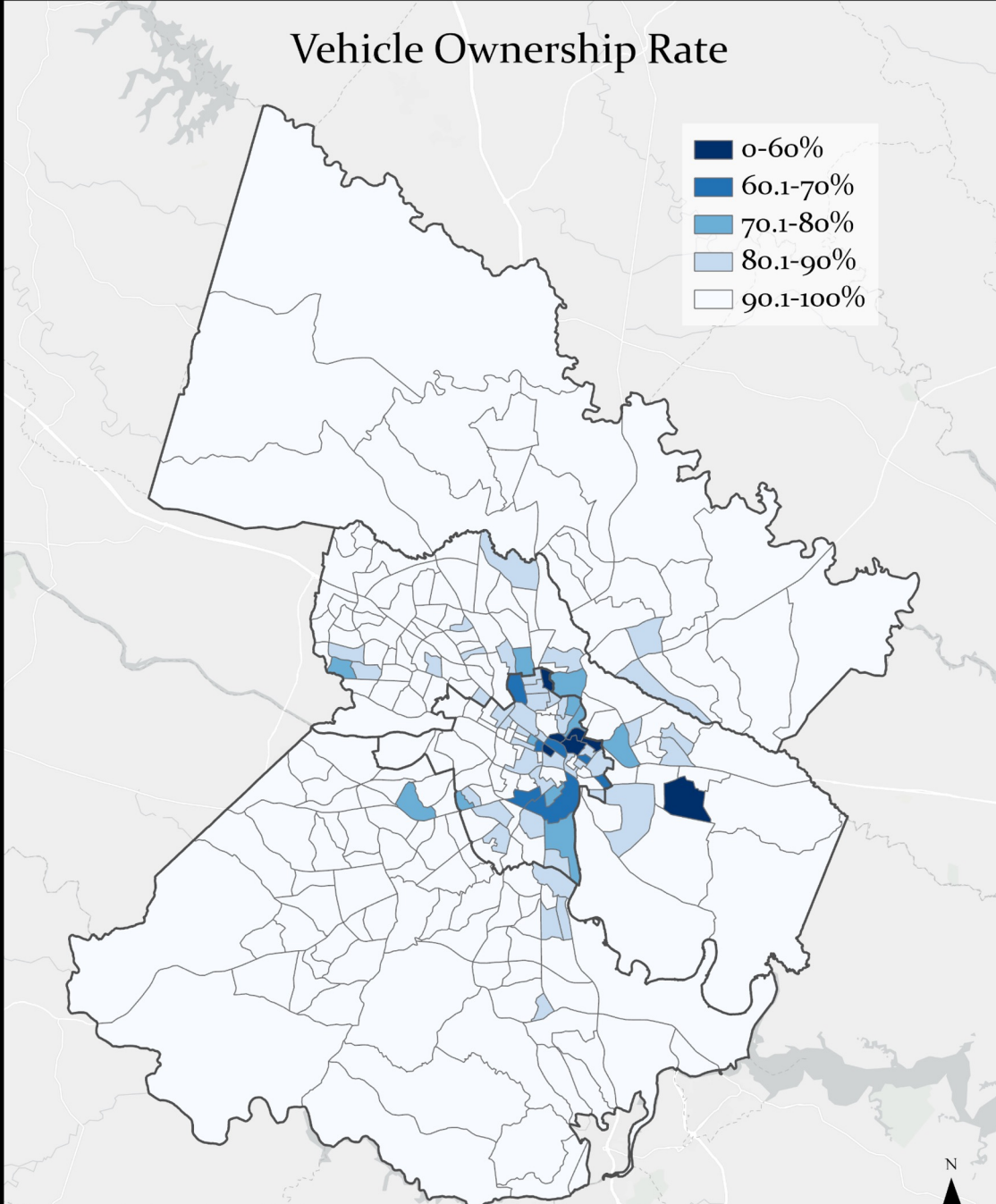
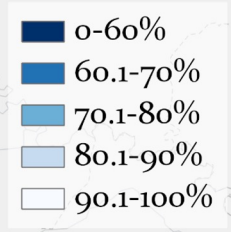


Employment Rate

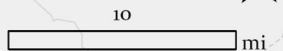


University of Richmond Spatial Analysis Lab
Source: American Community Survey
5-Year Estimates (2016-2020)

Vehicle Ownership Rate

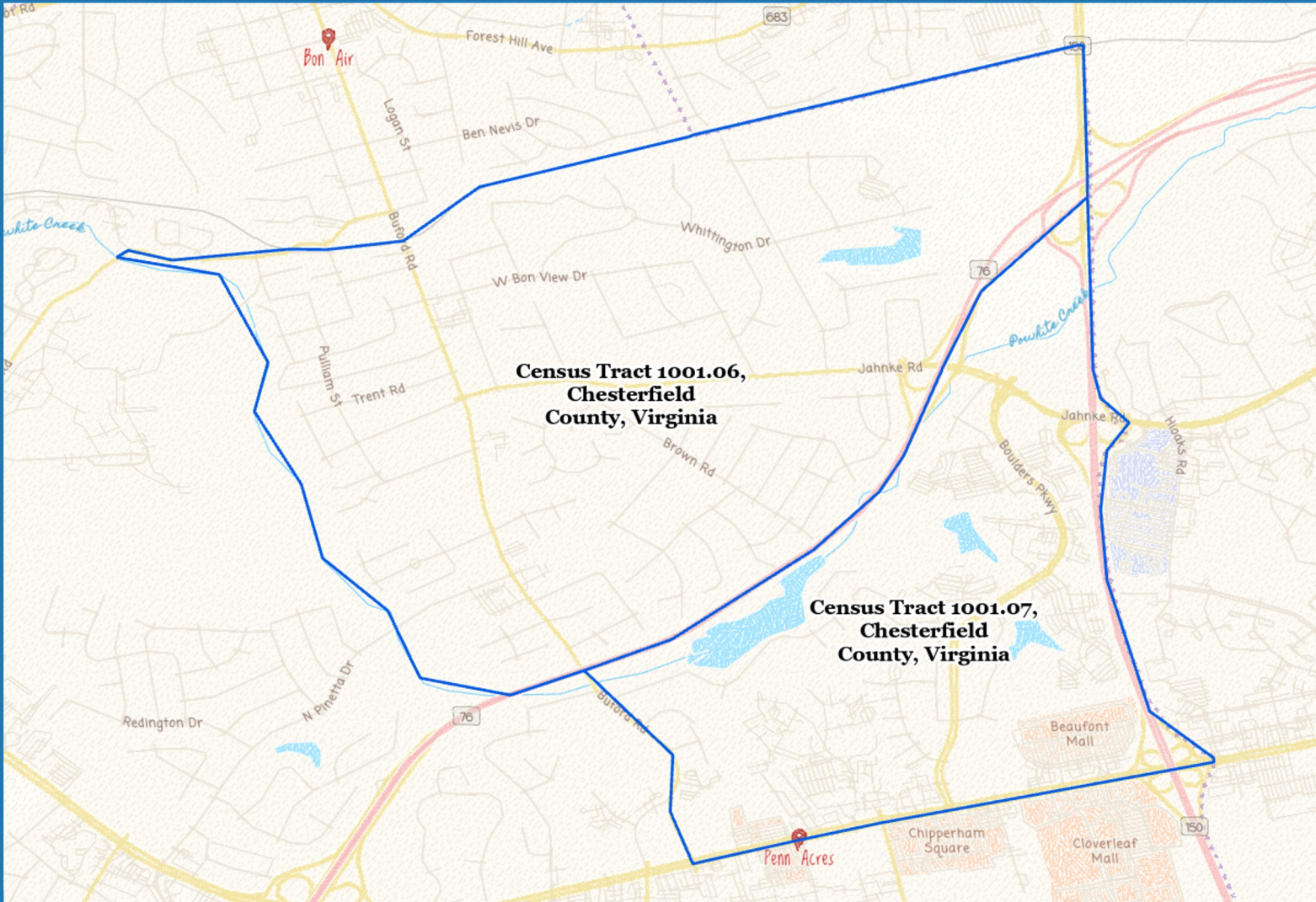


University of Richmond Spatial Analysis Lab
Source: American Community Survey
5-Year Estimates (2016-2020)





Tale of Two Tracts



Census Tract 1001.06 (One of the highest SEP Tracts)

- 3,867 people
- ~13.78% Non-White
- ~92.04% Home Ownership
- MHI= \$116,061
- MHV= \$294,500

All RVA Census Tracts

- Average ~3,901 people per tract
- ~ 45.4% Non-White
- Average 64.7% Home Ownership
- Average MHI = ~\$72,054
- Average MHV = ~\$220,450

Census Tract 1001.07 (One of the lowest SEP Tracts)

- 2,467 people
- ~77.42% Non-White
- 13.2% Home Ownership
- MHI = \$44,951
- MHV = \$170,000

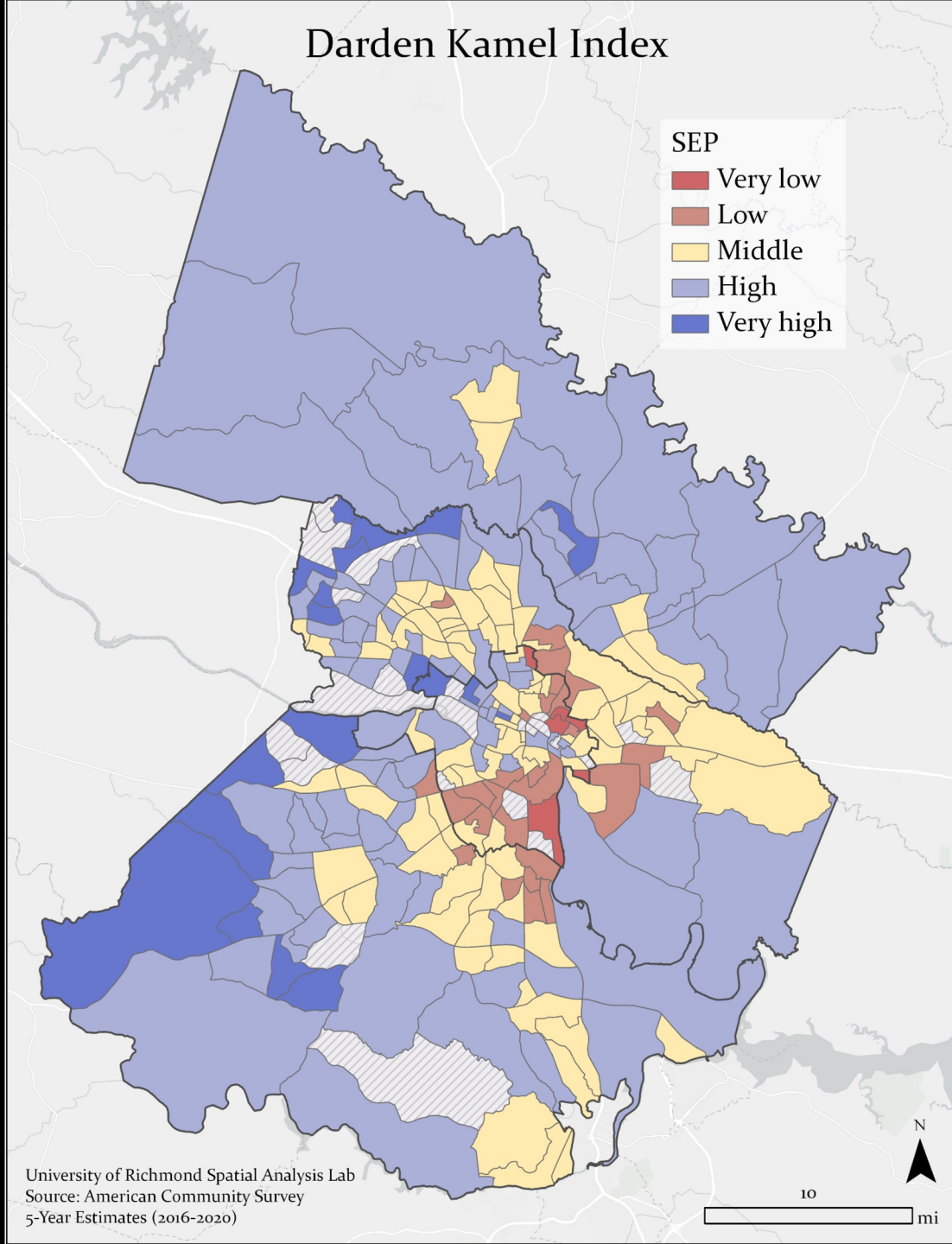
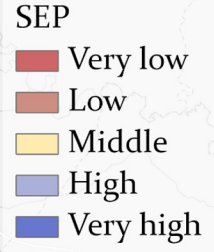
Darden Kamel Index

- Combining Census Data together makes it a lot more interesting and than just by itself
- Darden and Kamel (2000) provided 9 variables that represented Socio-economic Position from Census Data
- Get the z-scores for all the variables and then add them up to get that single value
- Larger Values = Higher Socio-economic Position
- Lower (and negative) Values = Lower Socio-economic Position

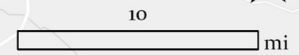
Darden-Kamel Index Variables

- 1) Median Household Income (\$)
- 2) Median Home Value (\$)
- 3) Median Gross Rent (\$)
- 4) Percentage (25+) of Bachelor's Degree or higher (%)
- 5) Percentage of Managerial Occupations (%)
- 6) Percentage Home Ownership (%)
- 7) Percentage Vehicle Ownership (%)
- 8) Percentage Above Poverty (%)
- 9) Percentage of Labor Force Employed (%)

Darden Kamel Index

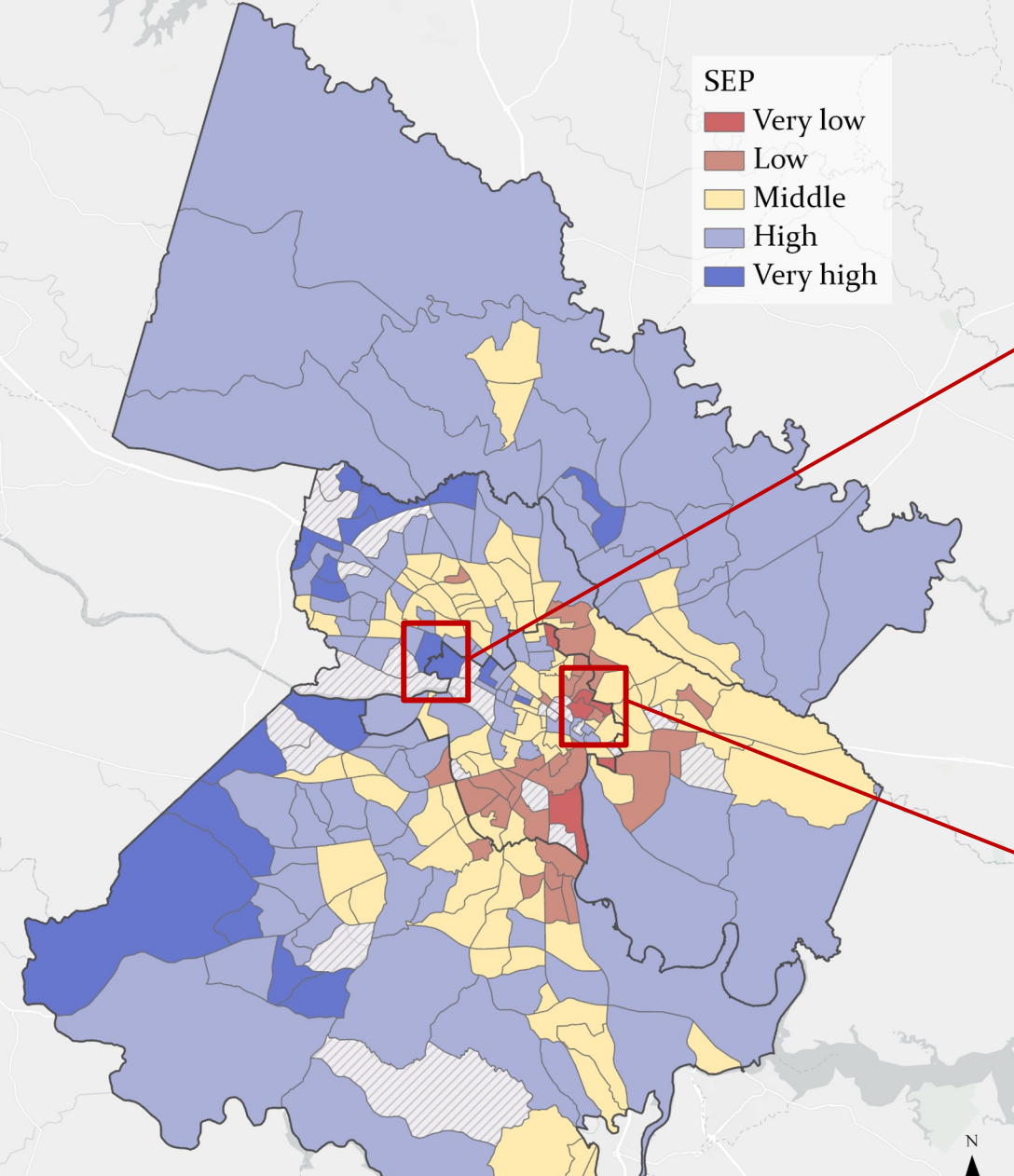


University of Richmond Spatial Analysis Lab
Source: American Community Survey
5-Year Estimates (2016-2020)

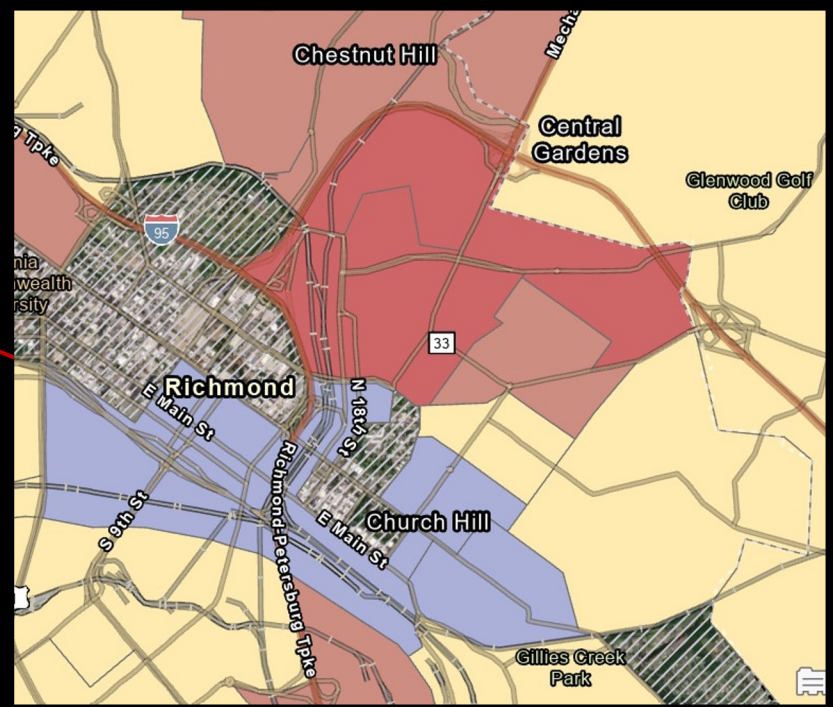
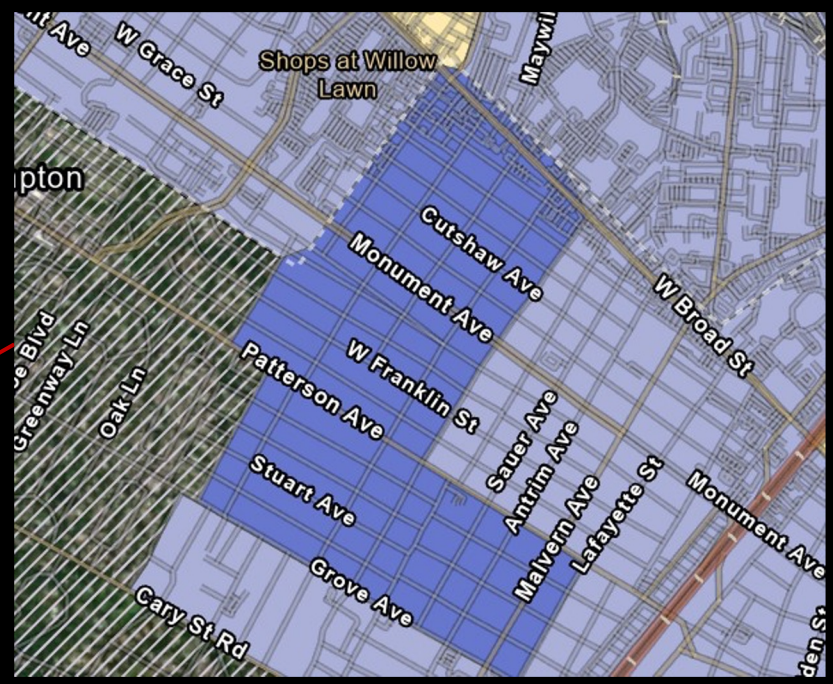
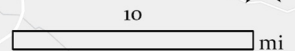


Darden Kamel Index

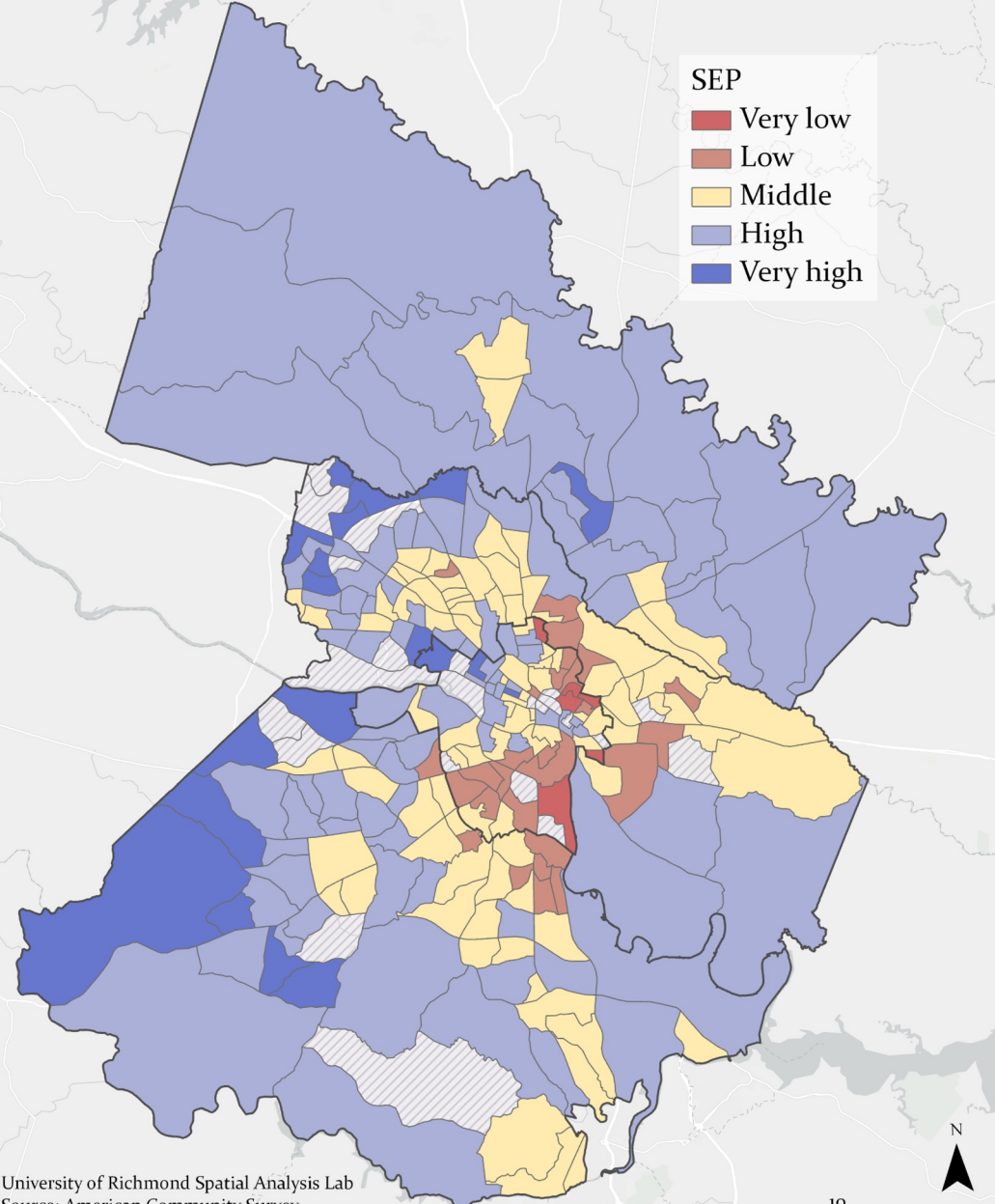
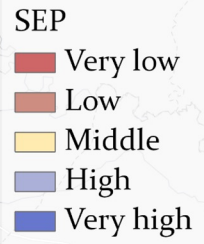
- SEP
- Very low
 - Low
 - Middle
 - High
 - Very high



University of Richmond Spatial Analysis Lab
Source: American Community Survey
5-Year Estimates (2016-2020)



Darden Kamel Index



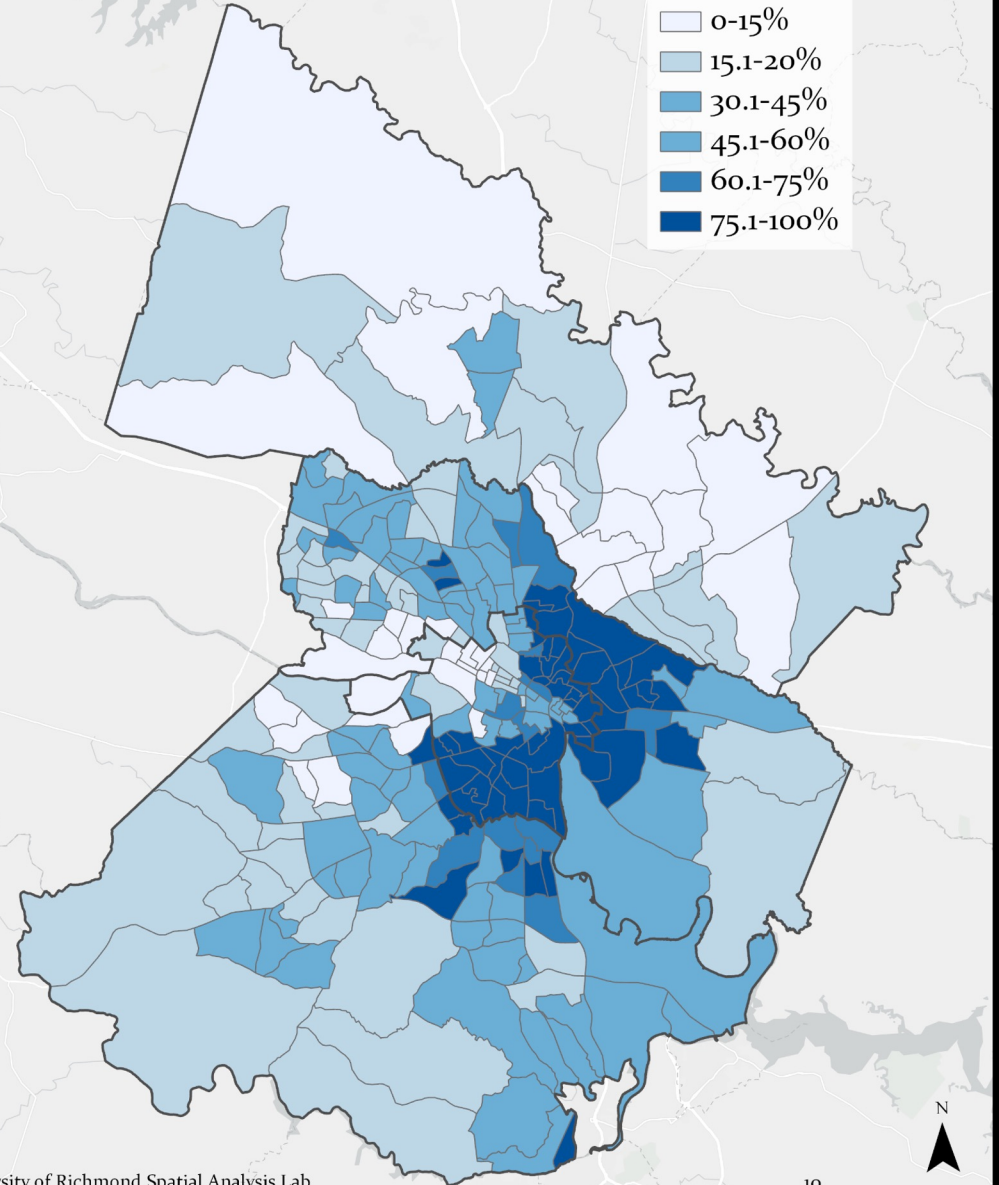
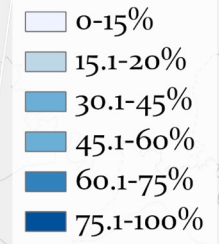
University of Richmond Spatial Analysis Lab
Source: American Community Survey
5-Year Estimates (2016-2020)

10



mi

Non-White Population



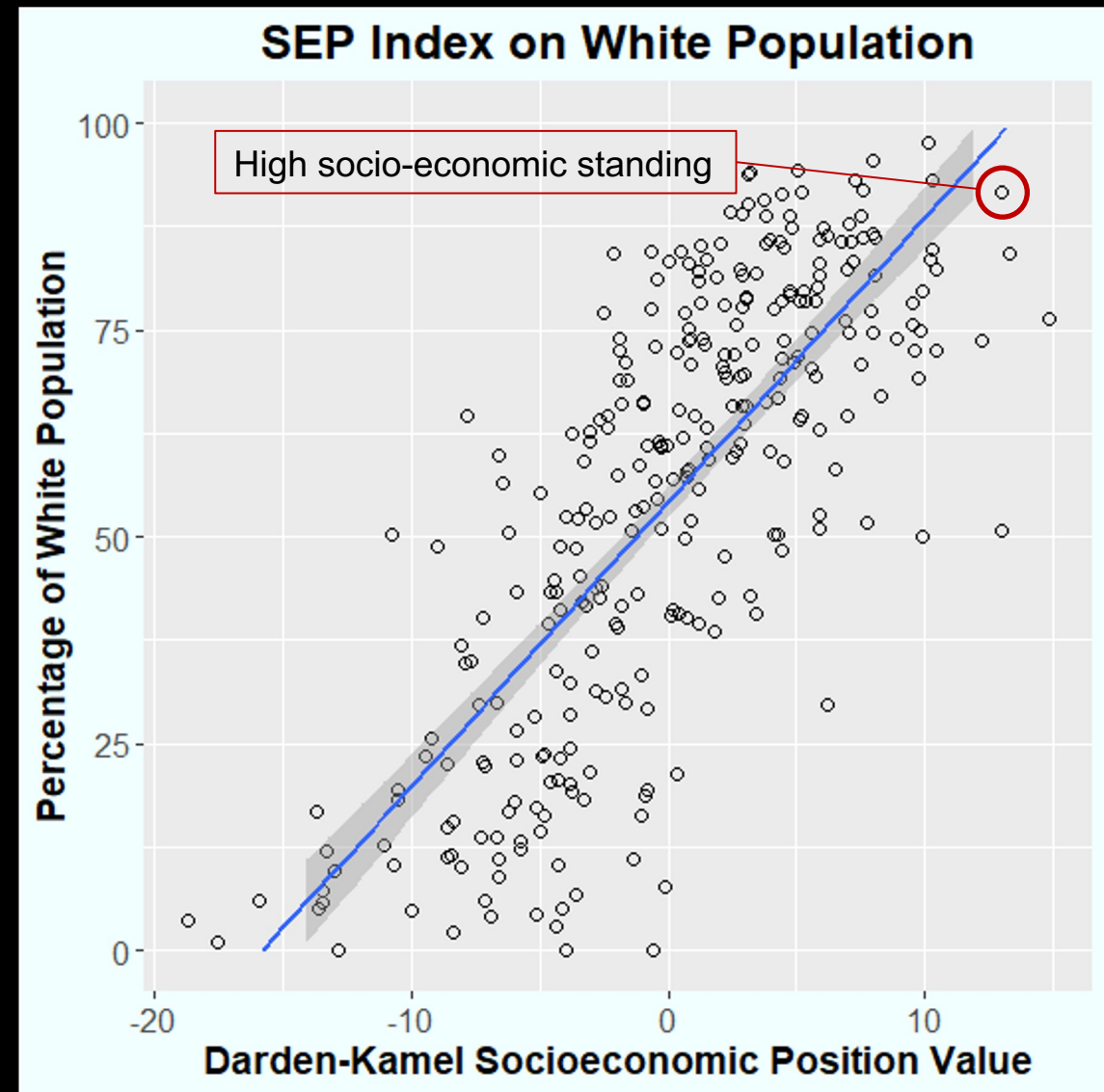
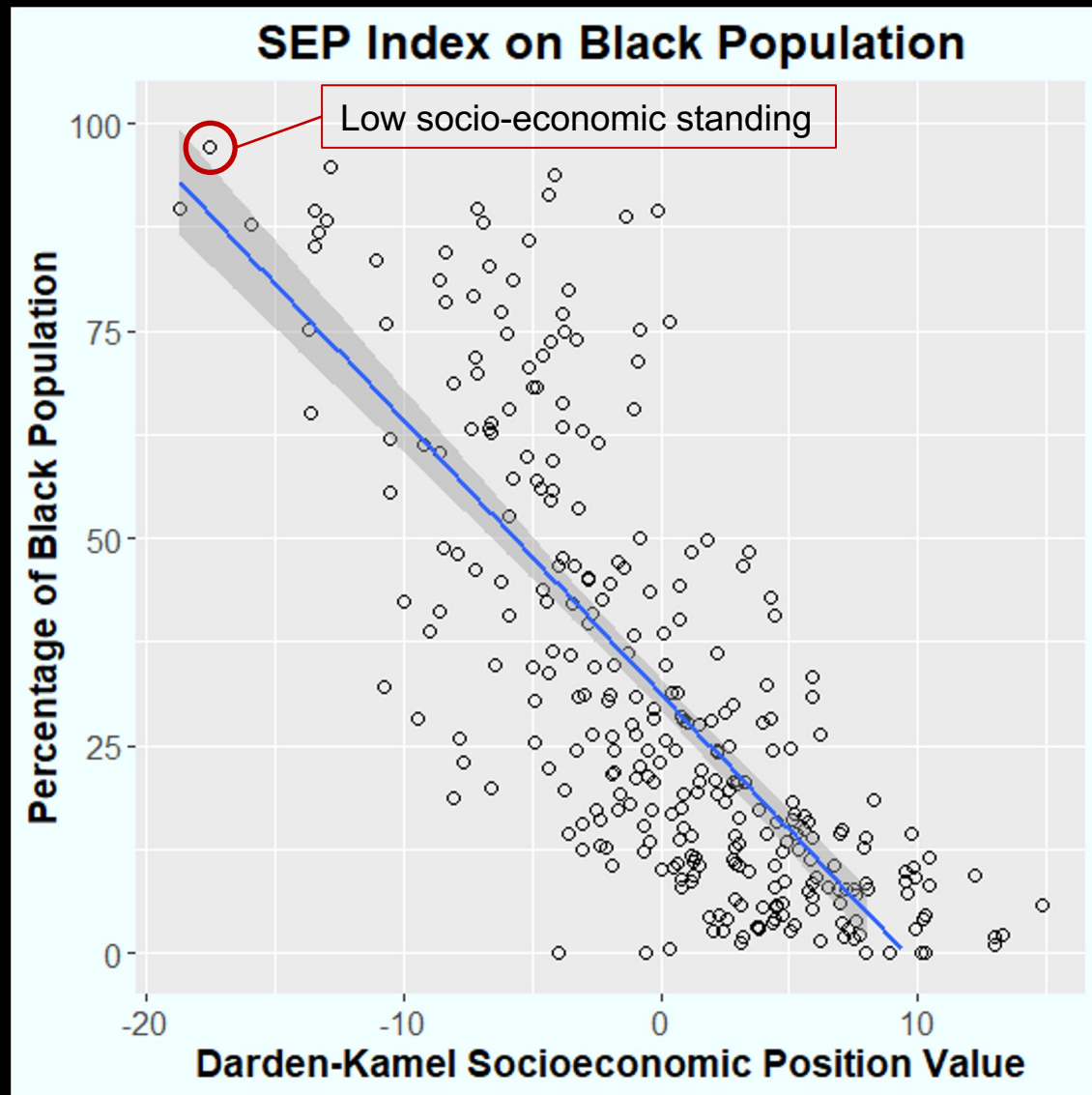
University of Richmond Spatial Analysis Lab
Source: U.S. Decennial Census 2020

10

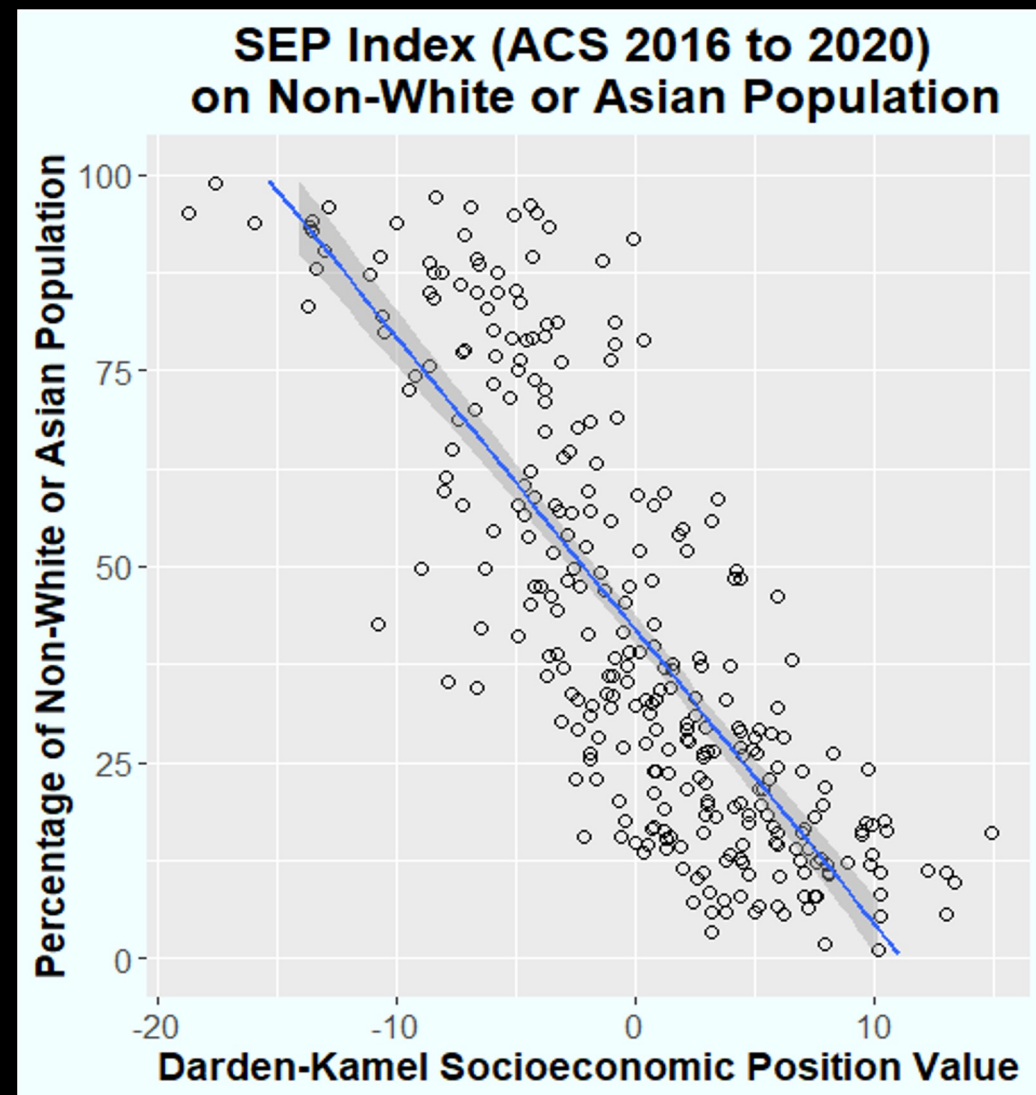
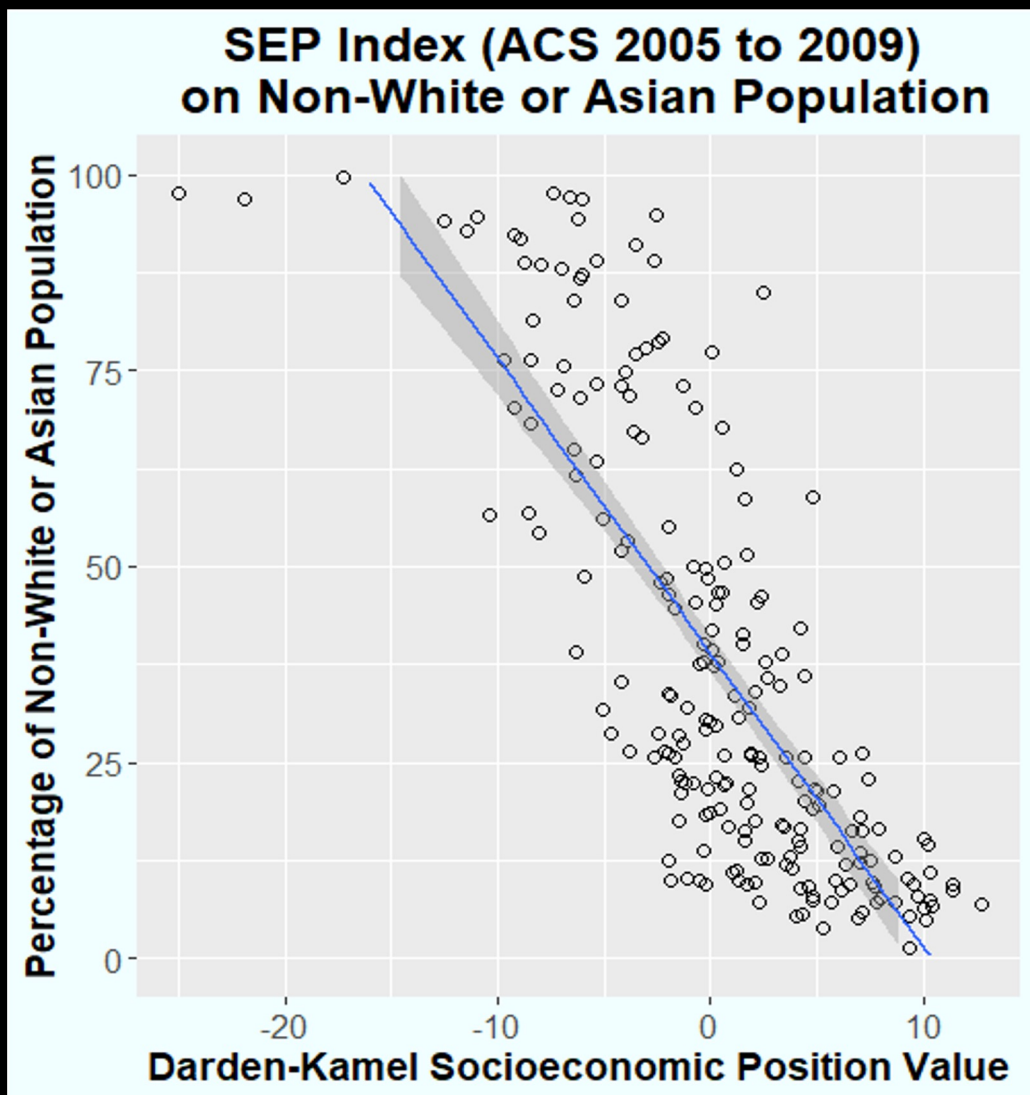


mi

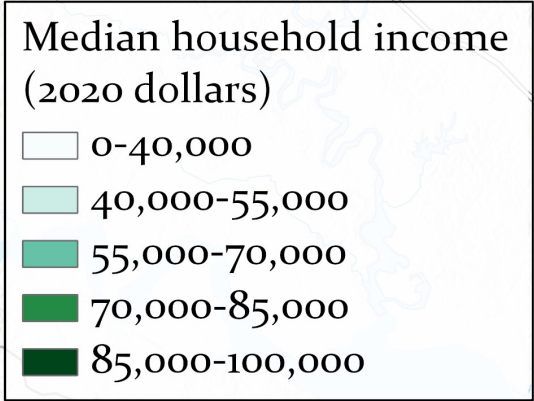
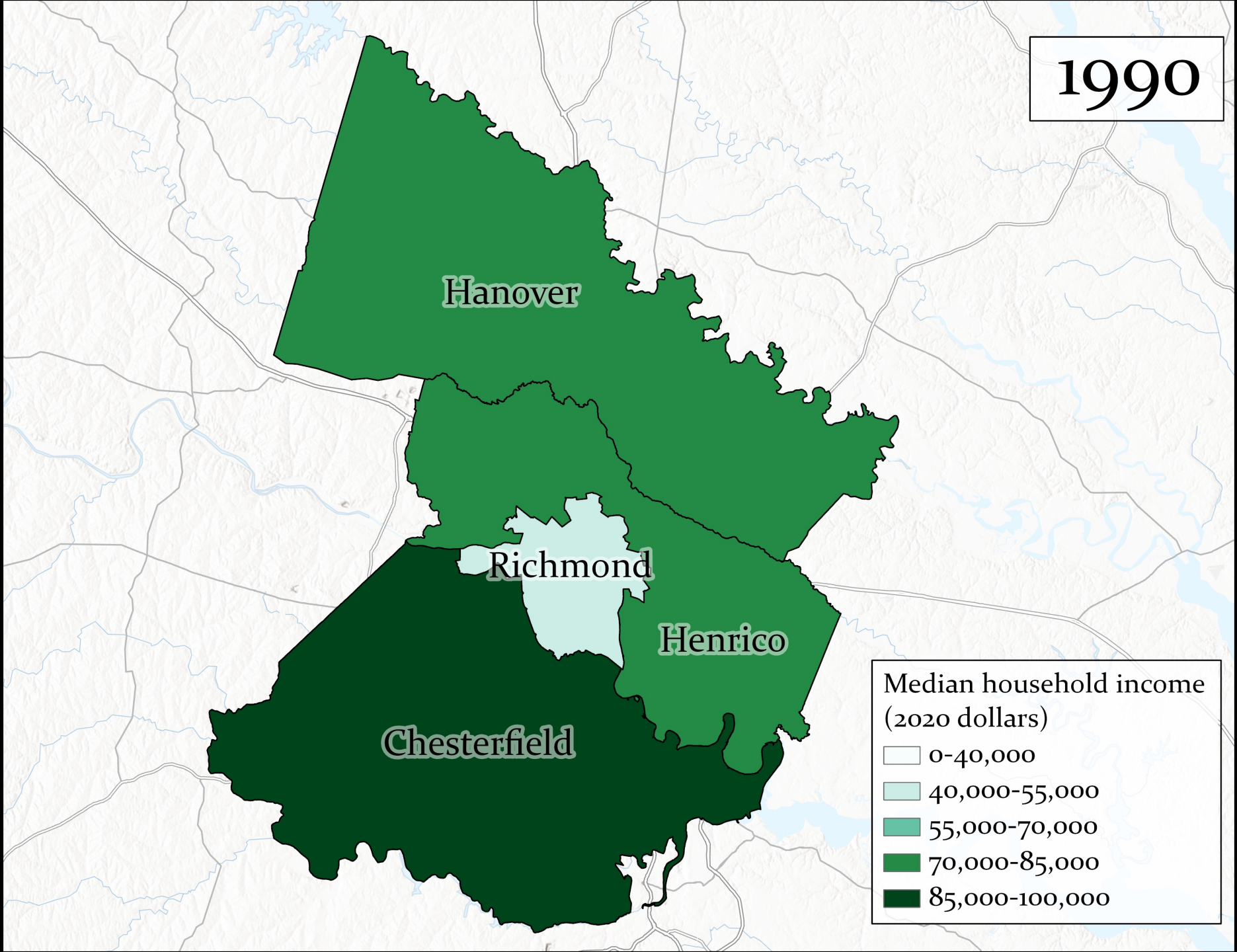
Indices and Race



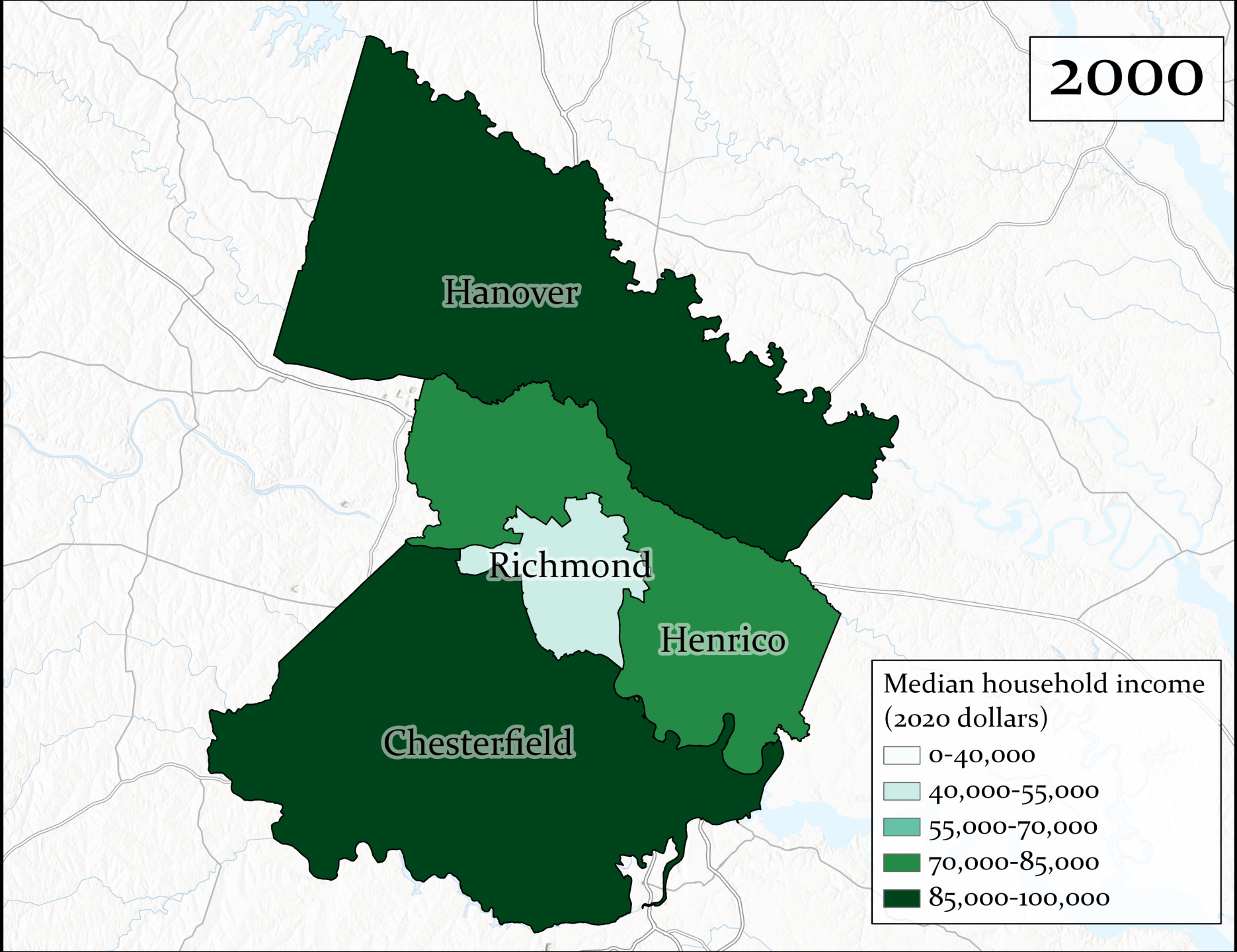
Indices Temporal Comparison



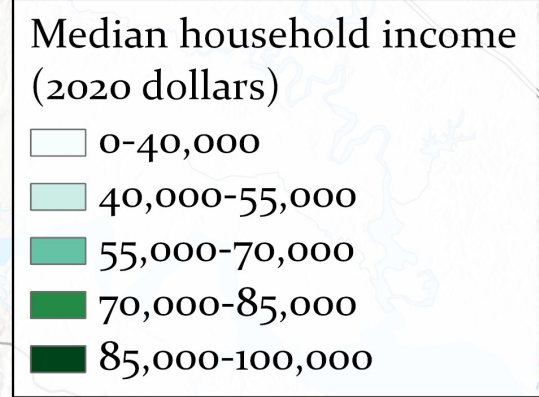
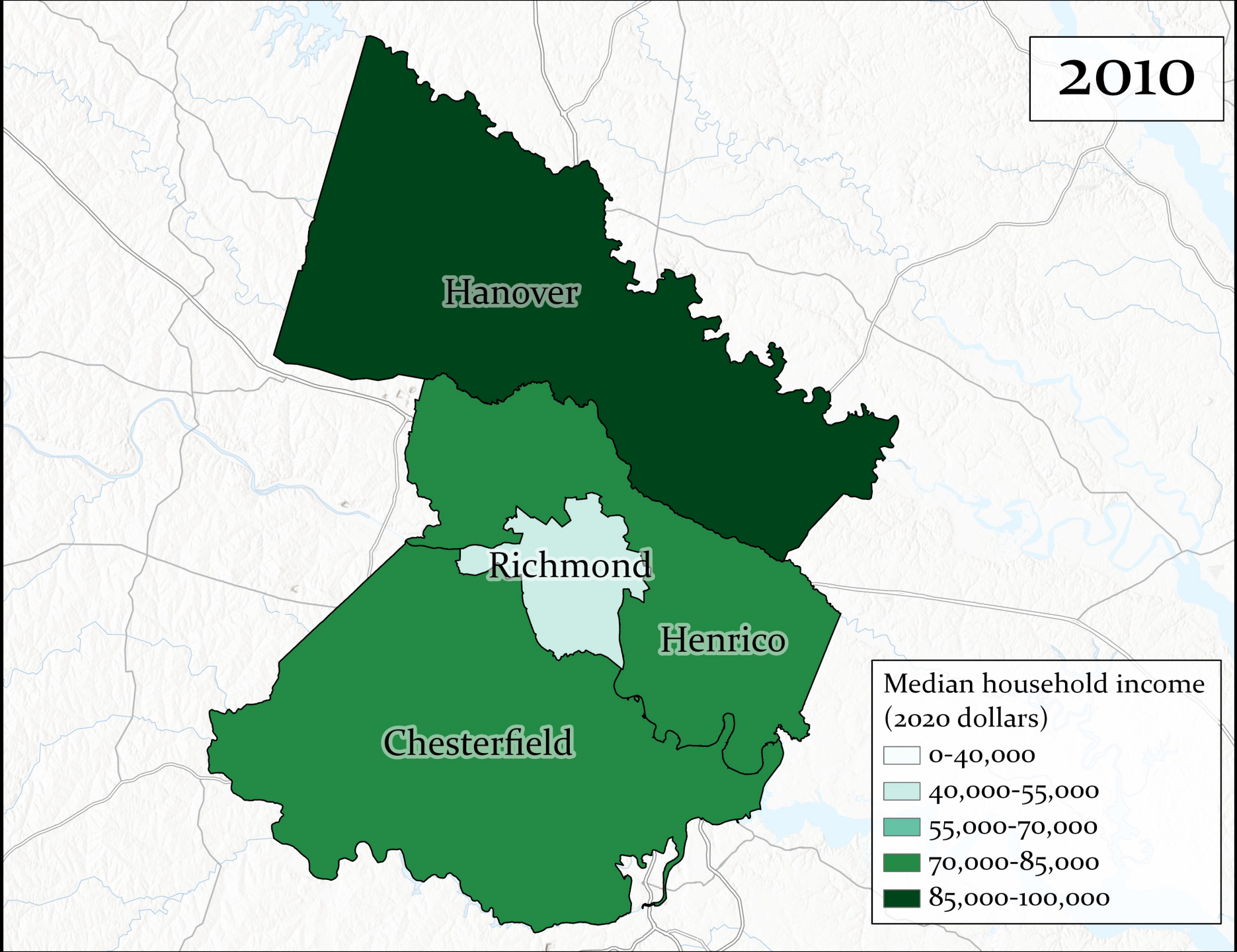
1990



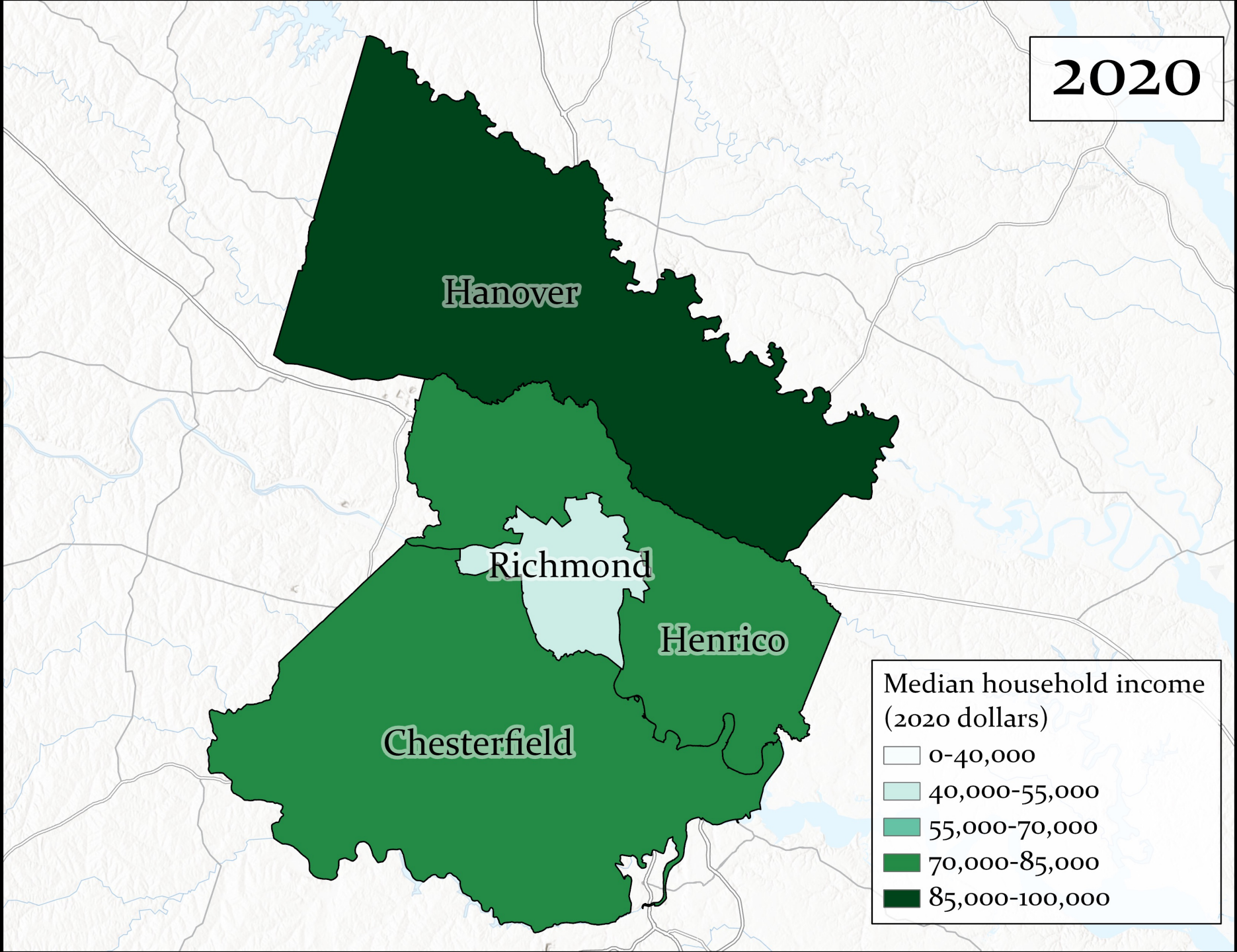
2000



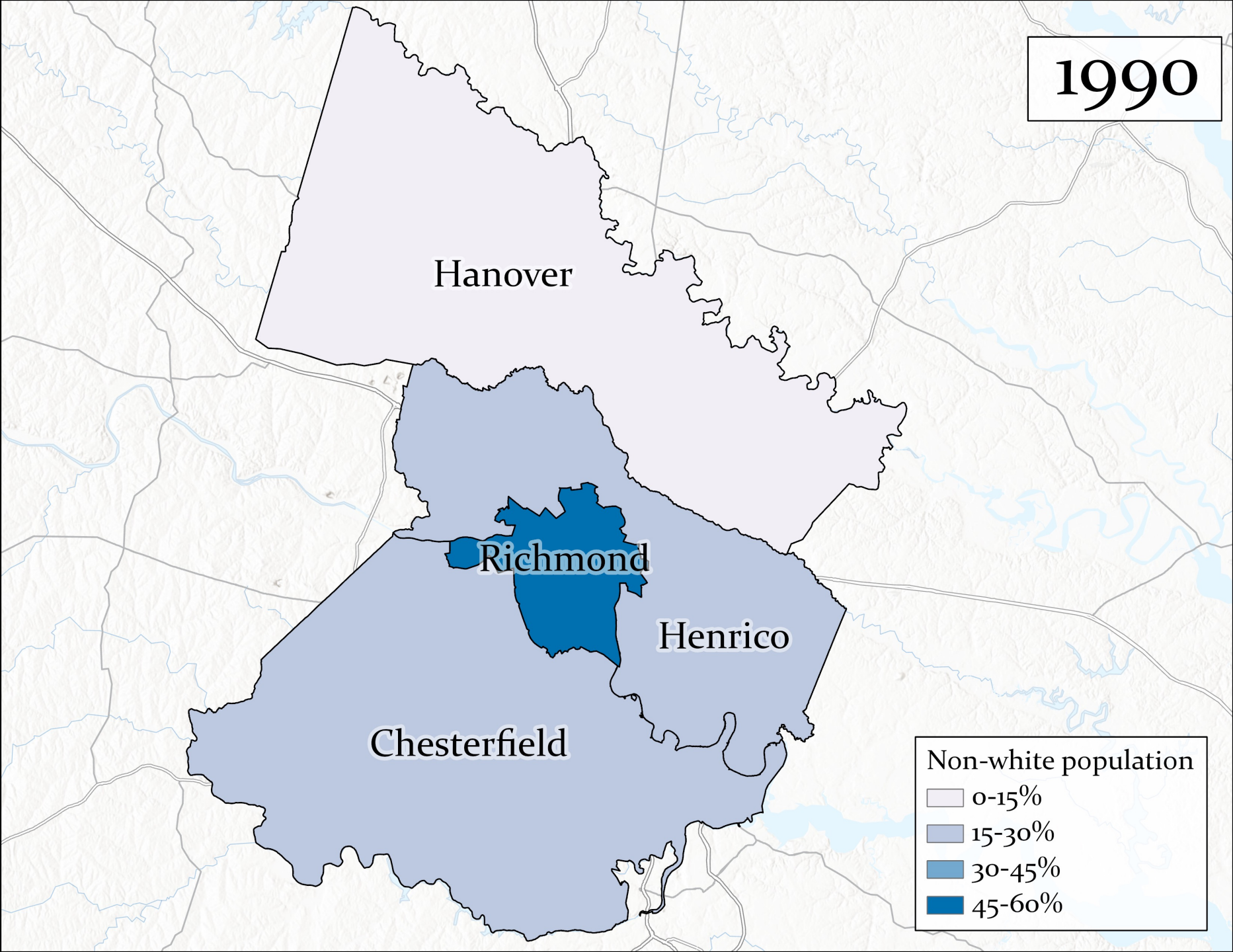
2010



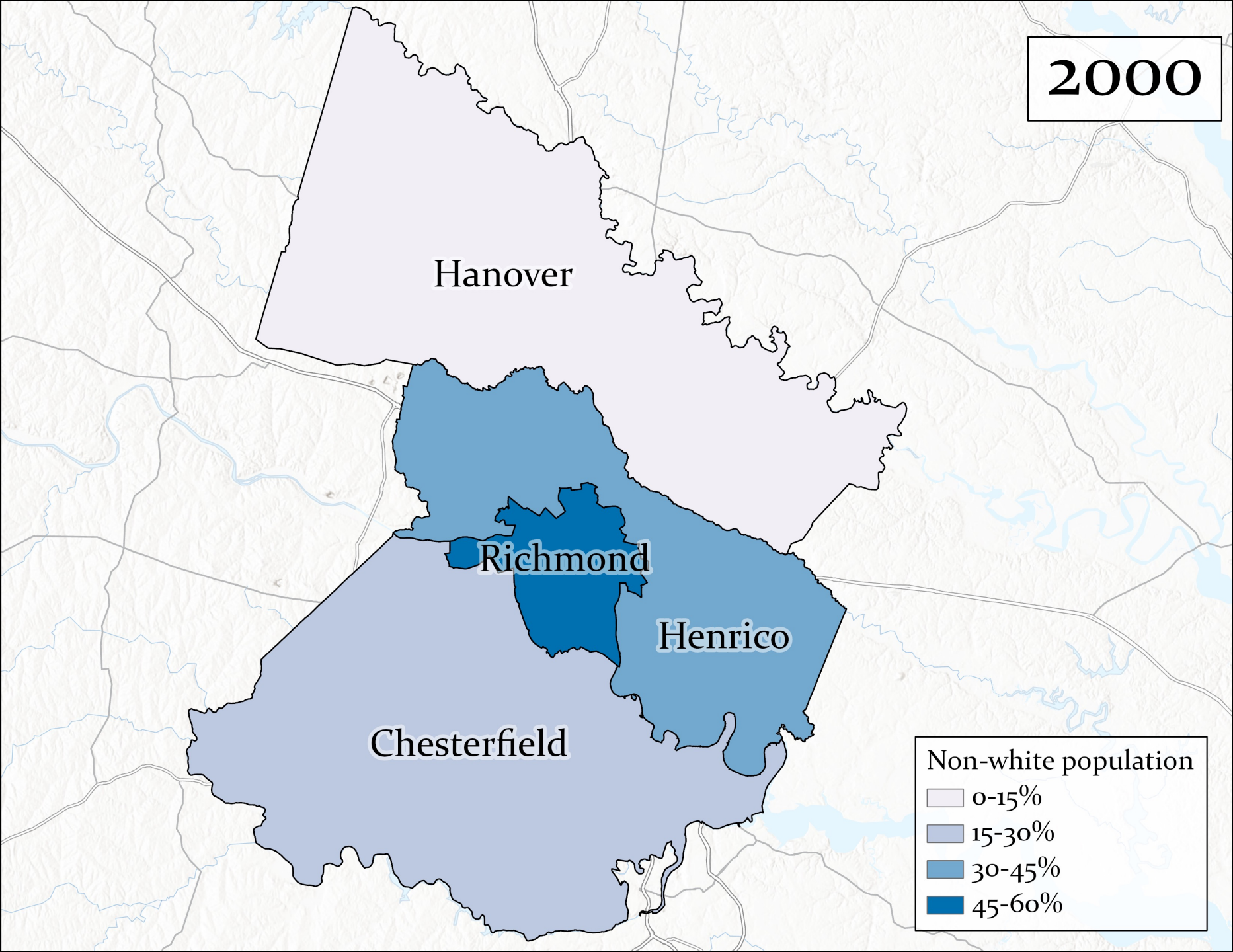
2020



1990



2000

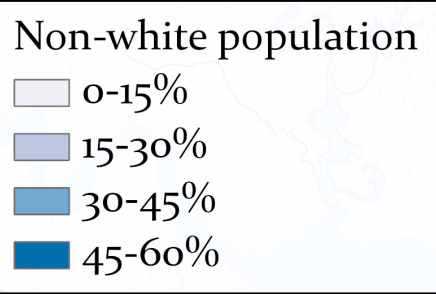


Hanover

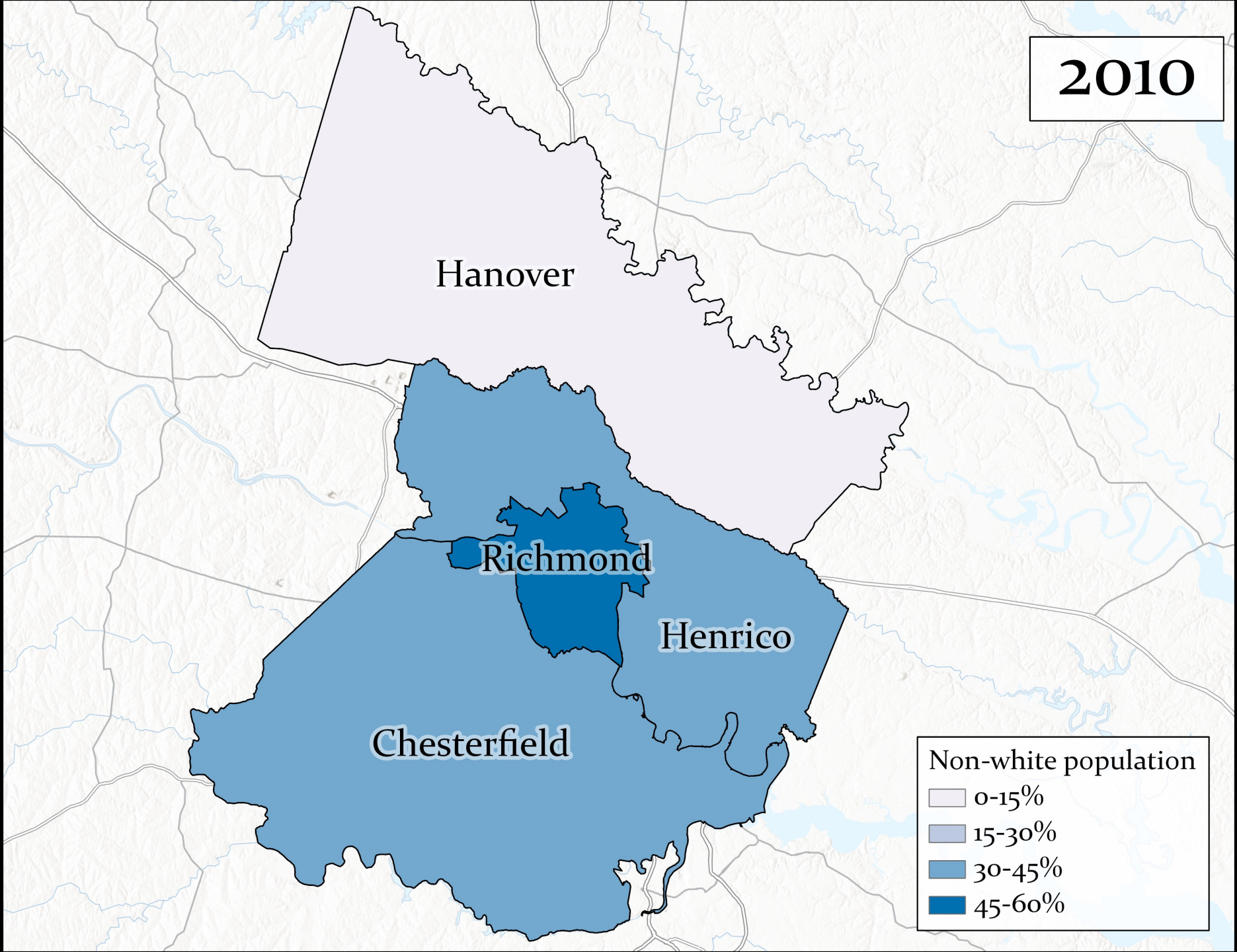
Richmond

Henrico

Chesterfield



2010

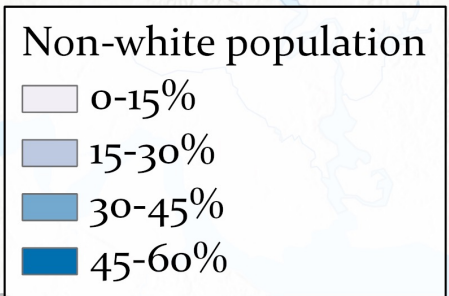


Hanover

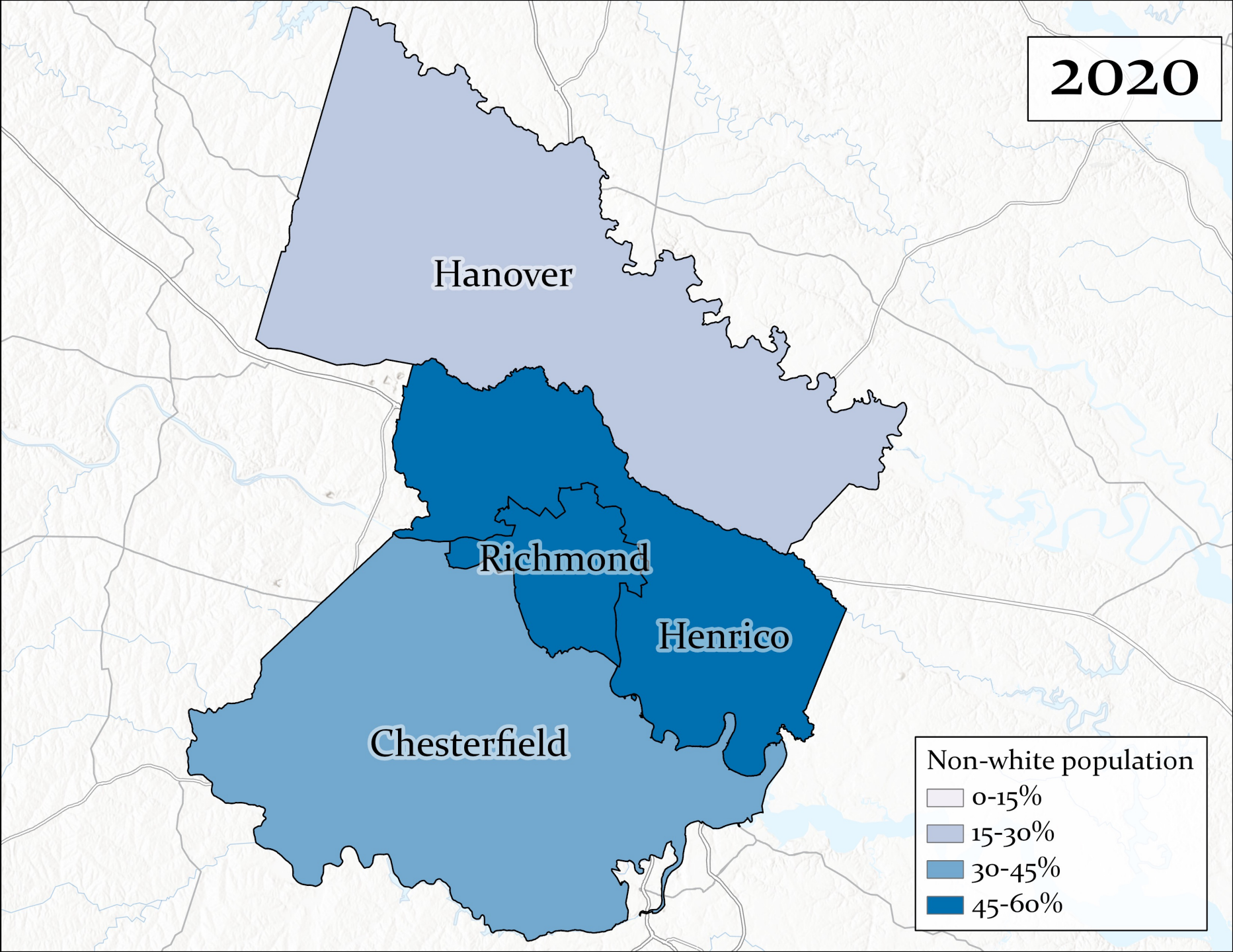
Richmond

Henrico

Chesterfield



2020

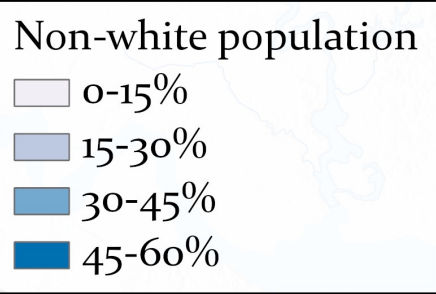


Hanover

Richmond

Henrico

Chesterfield





“Knowledge can make a difference. You need to first know if you’re completely oblivious to something, if it’s out of your realm of thinking. You can’t fix something you’re not aware of.”

John V. Moeser

Thank you!



VIRGINIA CENTER FOR
INCLUSIVE
COMMUNITIES

