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Community Atlas

Lexington, Kentucky

Spring 2020

GEO509





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Our community mapshop ends largely where it begins -- with a recognition that we, at the University of Kentucky, must do more to educate ourselves as to the conditions of our communities.

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Spring 2020
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Healthcare Accessibility for Cardinal Valley Residents

Catherine Brown

Who Owns Woodhill?

Cee Byrd

Social Vulnerability Scores

Alexa King

Disparities in Housing Affordability in Selected Areas of Lexington

Casey Lyons

Grocery Stores and Risk During COVID-19

Chris Ortiz

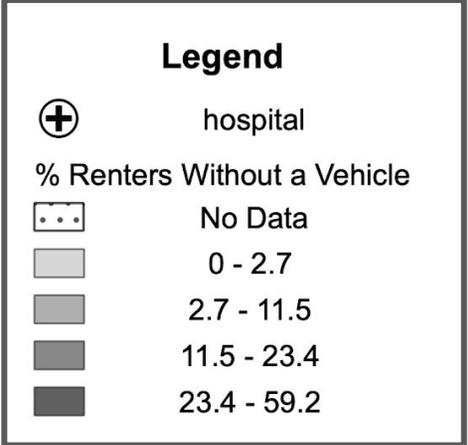
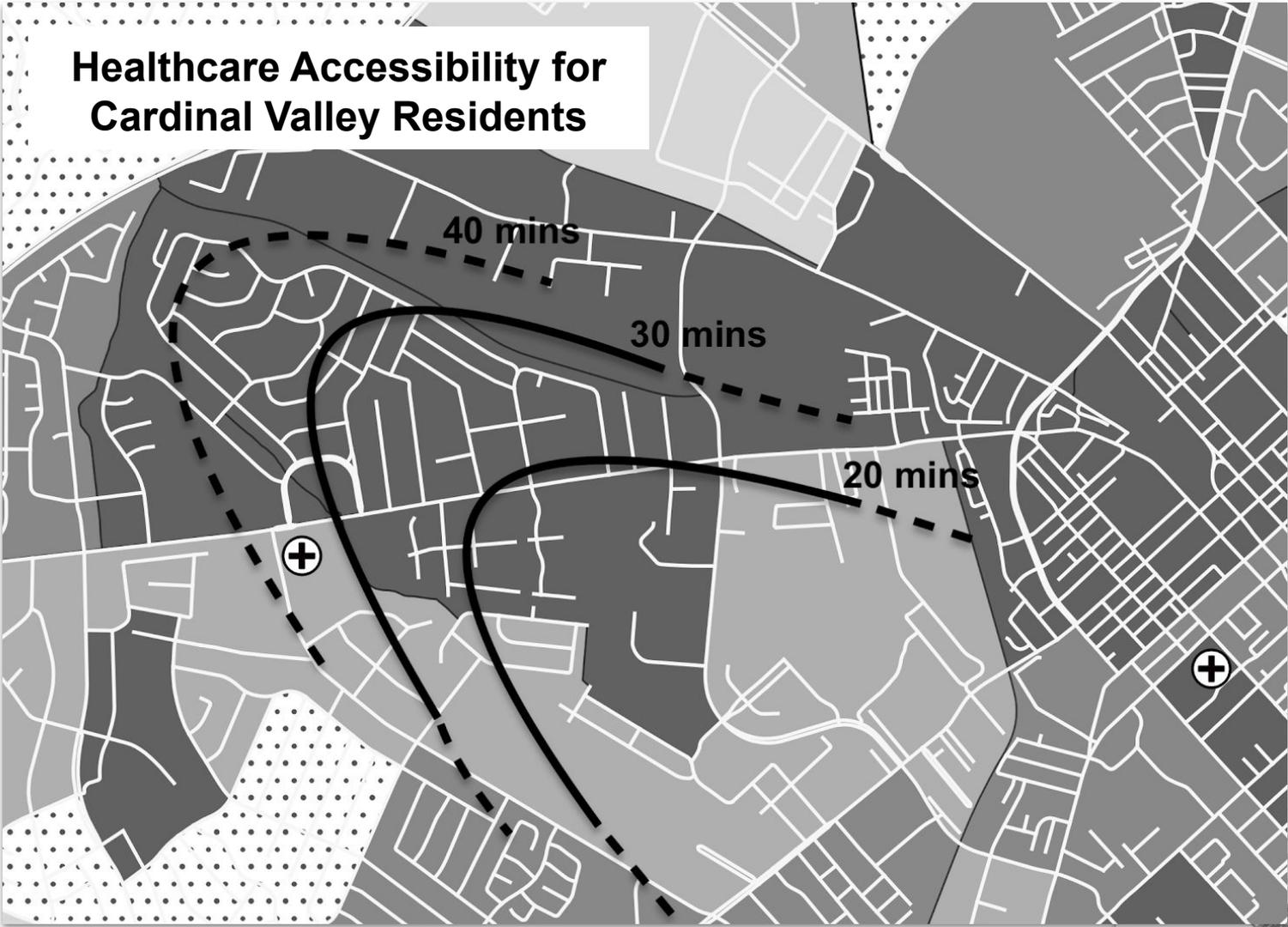
Spatiotemporal changes of racial segregation from 2012 to 2018

Shishir Sarker

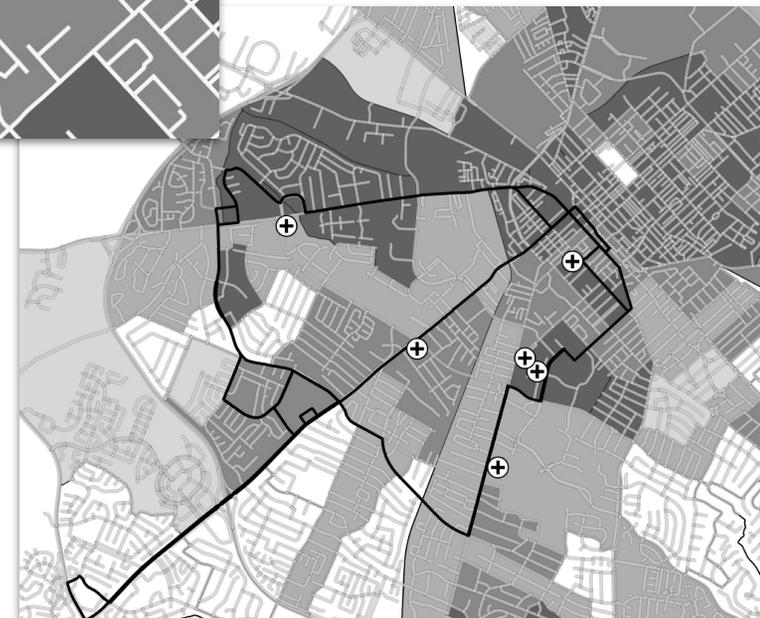
Healthcare Accessibility for Cardinal Valley Residents



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Below: This map highlights the LexTran routes available which connect Cardinal Valley to the local hospitals which offer primary and emergent care services.



The map above addresses the estimated time for a Cardinal Valley resident to reach the UK Good Samaritan Hospital when utilizing public transit. Each zone was created by determining travel time from various properties, discerning trends, and then formulating groups which encompassed a standardized interval. This does not include specific data (i.e. particular length of walk to bus stops from each parcel) which plays a vital role in overall time for each specific resident. Rather than provide quantitative data with a particular solution in mind, this map seeks to serve as a broad explanation of a need. By relating the lack of vehicle ownership with the inherent use of public transit, it is clear health care is rather inaccessible for the residents of Cardinal Valley. Through this visualization one should conclude the neighborhood is need of more resources, or rather more efficient use of the resources already available.

Who owns Woodhill, Lexington, KY?

Woodhill is a neighborhood in southeast Lexington, Kentucky, United States. Its boundaries are Richmond Road to the west, New Circle Road to the north, Palumbo Drive to the east, and Man o' War Boulevard to the south. Identified are the 3 block groups of the neighborhood.

How to identify gentrification:

- Property is being bought and sold

Houses being sold for a profit or undergoing foreclosure.

- "Real" coffee shops open nearby

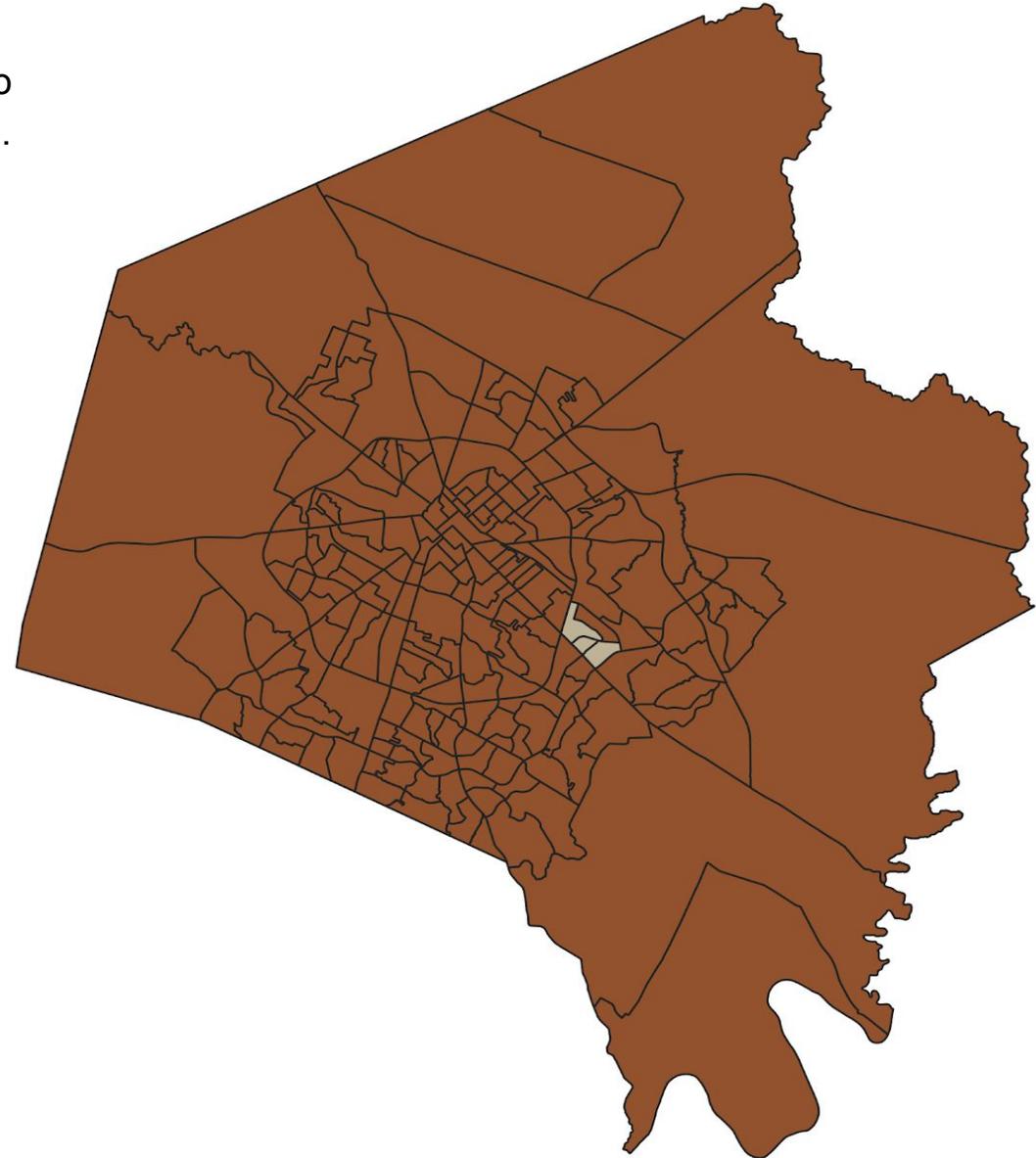
Common grounds, Starbucks, and Panera Bread Co.

- Household sizes decrease

Less families and more single-household millennials

- Changing demographics and incomes

More affluence in a community means higher cost of living and rising rent prices.



Who owns Woodhill, Lexington, KY?

Lynnwood Ct is a cul de sac located in a block group that is experiencing the most property sales and is currently the whitest block group in the neighborhood.

*395 Lynnwood Ct.
Transferred 3 times
\$47,500 in 1989
\$74,000 in 2015
\$26,500 increase

*391 Lynnwood Ct
FORECLOSURE
Transferred 7 times
2013 sold for \$57,000
(\$47,900 less than previous sale)
2014 sold for \$108,500
\$85,000 increase

*387 Lynnwood Ct.
FORECLOSURE
Transferred 9 times
Sold \$36,200.
2016 sold for \$82,900
\$46,700 increase

*383 Lynnwood Ct.
Transferred 6 times
Sold for \$72,000 in 2005
Sold for \$95,000 in 2006
\$23,000 increase

*386 Lynnwood Ct.
Transferred 6 times
Sold for \$57,000 in 2012
Sold for \$75,000 in 2015
\$18,000 increase



Coffee Shops on Richmond Road

Number of sales in the last 15 Years

By block group

0-68	211-234	344-506	506-728
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By parcel

0-1	1-2	2-3	5-9
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- Panera Bread Co. Est. 2011
- Starbucks 1 Est. 2011
- Common Grounds Coffee Est. 2019
- Starbucks 2 Est 2016

Social Vulnerability Score

Fayette County, KY



Part 1

The four indicators used in this study were chosen based on the themes of socioeconomic, minority, transportation, and household characteristics. These data sets combined create a quick look at the social vulnerability index score that neighborhoods at block group level based on a percentage range of least vulnerable and most vulnerable.

Four Indicators

- ▶ No Vehicle
- ▶ Minority Population (defined by Census)
- ▶ Below Poverty
- ▶ # of Households with children 18 yrs and younger

Top 10 Vulnerable Census Tracts, Block Groups

1. Census Tract 20.01, Block Group 1
2. Census Tract 11, Block Group 4
3. Census Tract 4, Block Group 2
4. Census Tract 3, Block Group 3
5. Census Tract 2, Block Group 1
6. Census Tract 11, Block Group 1
7. Census Tract 13, Block Group 2
8. Census Tract 10, Block Group 1
9. Census Tract 19, Block Group 1
10. Census Tract 11, Block Group 2

Social Vulnerability Score

a = 1 A = lowest
b = 100 B = highest
x = sum of all normalized variables

$$V1 + V2 + V3 + V4 = X$$
$$\text{Score} = 1 + (X - A) * (b - a) / (B - A)$$

Maps by: Alexa King

Social Vulnerability Ranking



Racial Minorities



No Vehicle



Households w/ Children >18 yrs.

Below Poverty Level

Part 2

To the left is a series of four choropleth maps that illustrate the degree of vulnerability of each indicator. The percentage of vulnerability is based on the normalized raw counts of each indicator in all block groups located in the interior of New Circle road.

Racial Minorities

1. *Census Tract 11, Block Group 4*-----85.8%
2. *Census Tract 11, Block Group 1*-----77.8%
3. *Census Tract 3, Block Group 1*-----72%

No Vehicle

1. *Census Tract 2, Block Group 1*-----87%
2. *Census Tract 1.01, Block Group 1*-----80%
3. *Census Tract 4, Block Group 4*-----76%

Households w/ Children >18 yrs

1. *Census Tract 20.01, Block Group 1*--- 82.1%
2. *Census Tract 4, Block Group 2*----- 80.3%
3. *Census Tract 10, Block Group 2*----- 80.3%

Below Poverty Level

1. *Census Tract 9, Block Group 2*-----100%
2. *Census Tract 9, Block Group 3*----- 98%
3. *Census Tract 8.01, Block Group 1*---- 80.3%

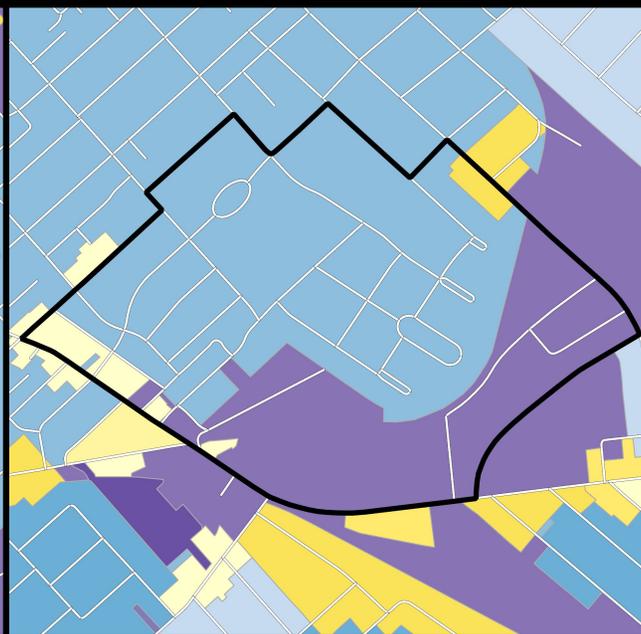
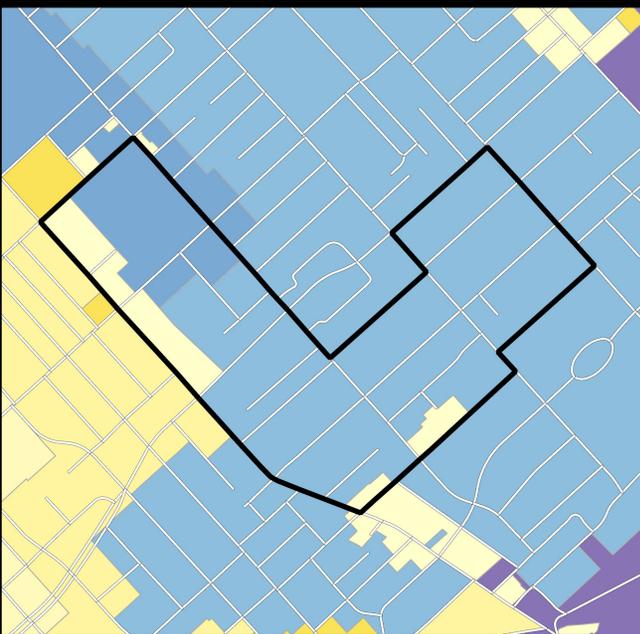
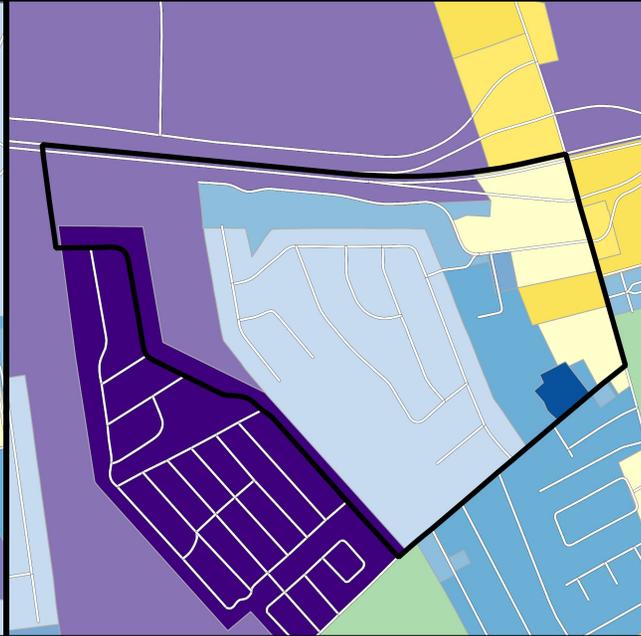
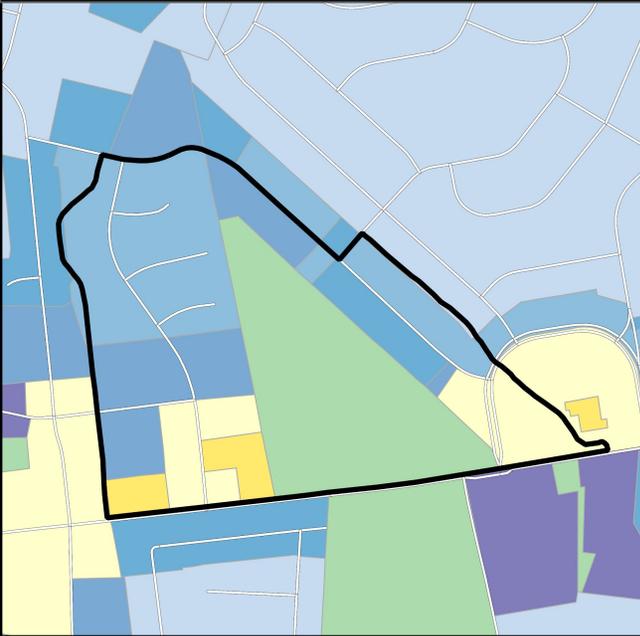
Maps by: Alexa King

Data Sources: CDC, U.S. Census Bureau, Lexington Open Portal.

Tables: Overall Social Vulnerability: 4 variables. Household Characteristic: Households by Presence of People under 18 yrs by Household Type;; ACS2018 5Y estimate; B11005. Transportation: Tenure by Vehicles Available: ACS2018 5Y estimate; B25044. Minorities : Hispanic or Latino Origin; ACS2018 5Y estimate; B03003. Minorities : Race; ACS2018 5Y estimate; B02001. Socioeconomic: Poverty Status of Individuals in the past 12 months by Household Type; ACS 2018 5Y; B17017.

Census Tract 20.01, Block Group 1

Census Tract 11, Block Group 4



Census Tract 3, Block Group 3

Census Tract 4, Block Group 2

Part 3

To the left is a series of zoning maps that depict the land uses for the top four vulnerable block groups that are located in the interior of New Circle Road. Based on my analysis, these neighborhoods all have parks within or in close proximity and have a diversity of residential typologies, businesses, and industries. These land use maps suggest that the land uses located within the neighborhoods boundaries are not substantial to these vulnerable communities.

Neighborhoods

1. Census Tract 20.01, Block Group 1 - Cardinal Hill
2. Census Tract 11, Block Group 4 - St. Martins Village
3. Census Tract 4, Block Group 2 - Williams Wells Brown
4. Census Tract 3, Block Group 3 - Martin Luther King

Zoning

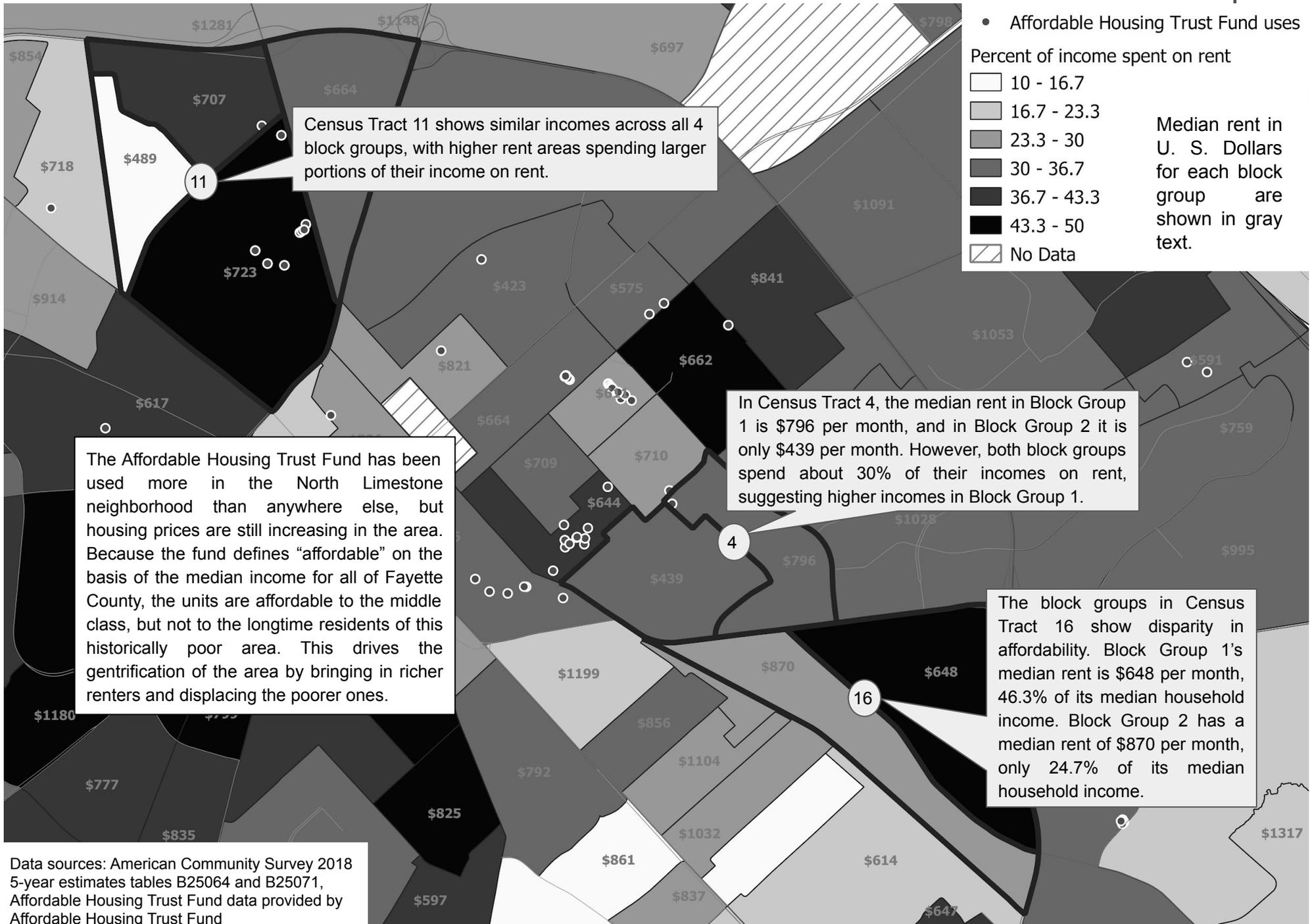
 3_3	 CC : Community Center
 4_2	 EAR-1 : Expansion Area Residential
 11_4	 EAR-2 : Expansion Area Residential
 20.01_1	 ED : Economic Development
 Streets	 I-1 : Light Industrial
 Zoning Outlines	 I-2 : Heavy Industrial
 A-R : Agriculture Rural	 M-1P : Mobile Home Park
 A-U : Agriculture Urban	 MU-2 : Mixed Use Neighborhood Corridor
 B-1 : Neighborhood Business	 MU-3 : Mixed Use Community Corridor
 B-2 : Downtown Business	 P-1 : Professional Offices
 B-2A : Downtown Frame Business	 R-1 (A-D) : Single-Family Residential
 B-2B : Lexington Center Business	 R-1T : Townhouse Residential
 B-3 : Highway Service Business	 R-2 : Two-Family Residential
 B-4 : Wholesale and Warehouse Business	 R-3 : Planned Neighborhoods
 B-5P : Interchange Service Business	 R-4 : High-Density Apartments
 B-6P : Commercial Center	 R-5 : High-Rise Apartments

Maps by: Alexa King

Data Sources: Lexington Open Portal.

Disparities in Housing Affordability In Selected Areas of Lexington

Casey Lyons
University of Kentucky



Data sources: American Community Survey 2018 5-year estimates tables B25064 and B25071, Affordable Housing Trust Fund data provided by Affordable Housing Trust Fund



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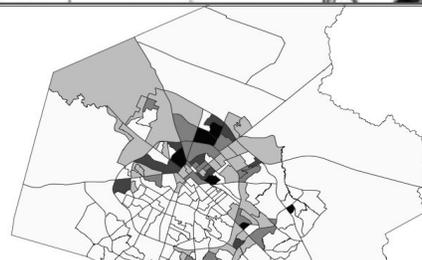
Chris Ortiz

Distance From Grocery Stores By Block Group

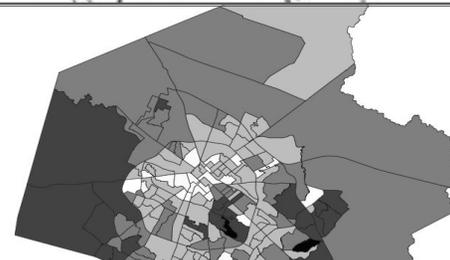
- Grocery Store
- 1/2 Mile Radius



Percent 65 and Older



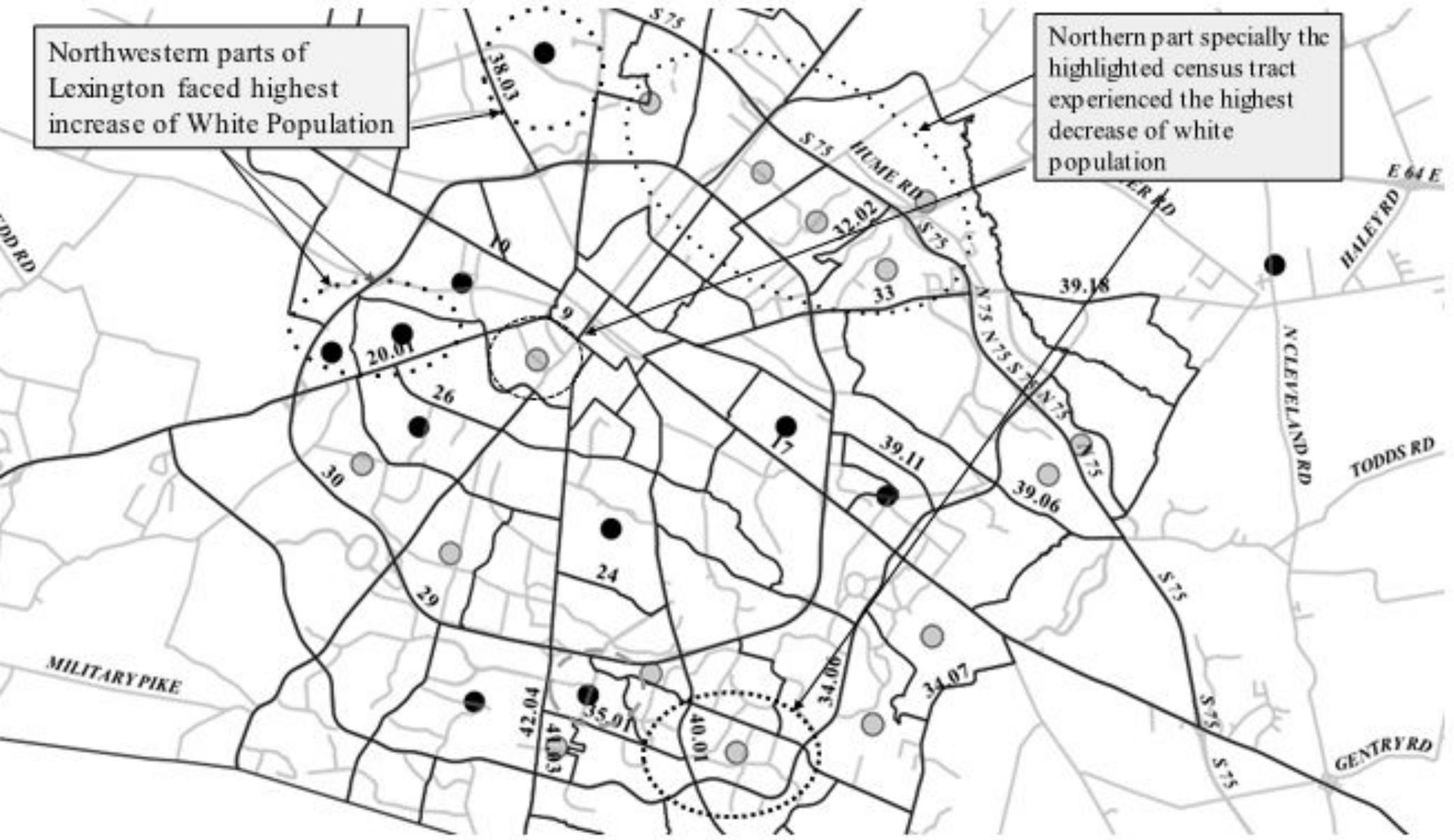
Percent African American



Median Income

Spatiotemporal changes of racial segregation from 2012 to 2018

Shishir Sarker



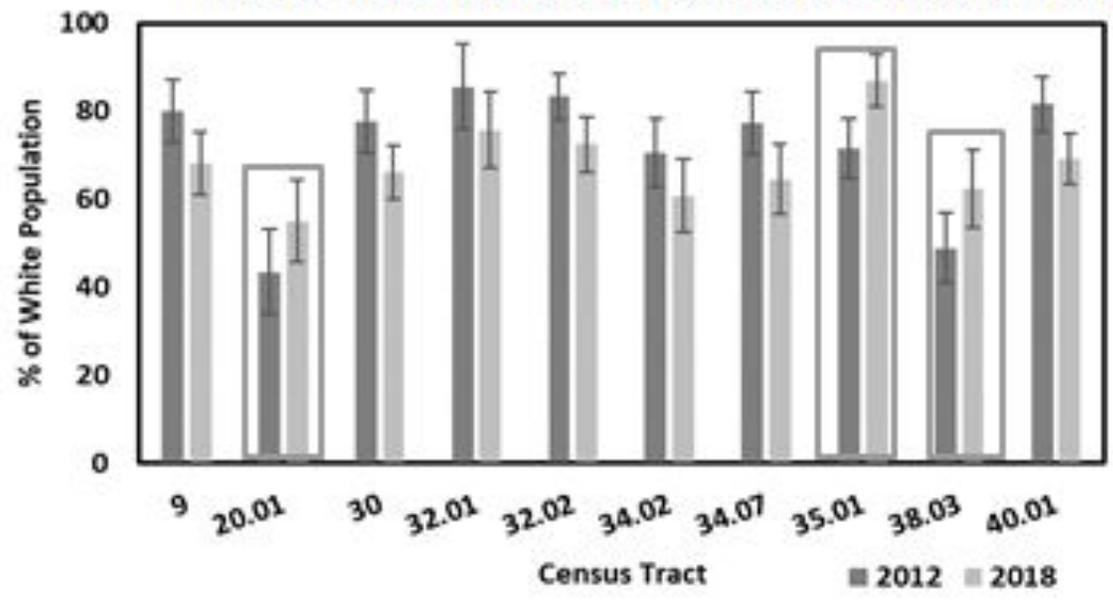
Northwestern parts of Lexington faced highest increase of White Population

Northern part specially the highlighted census tract experienced the highest decrease of white population

Change in white population (>10%), inclusive of margin of error, 2012-2018

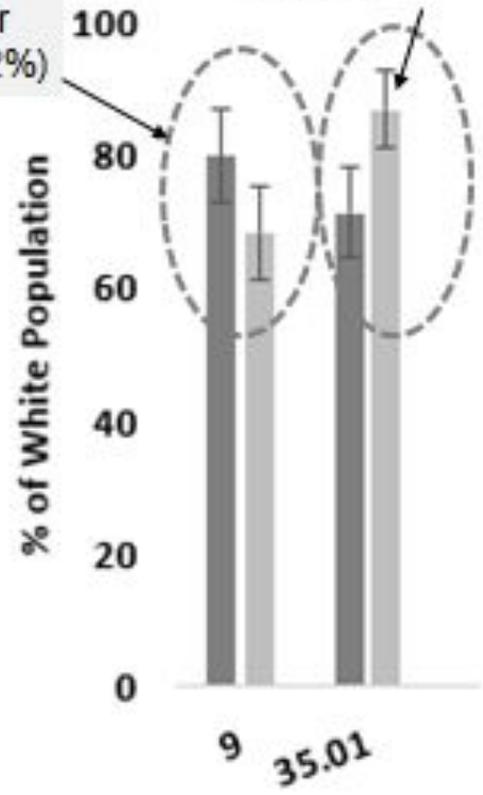
- Increase
- Decrease

Change in white population, inclusive of margin of error, 2012-2018



Low estimate margin of error difference (0.2%)

High estimate margin of error difference (-0.2%)



Change in black population, inclusive of margin of error, 2012-2018

