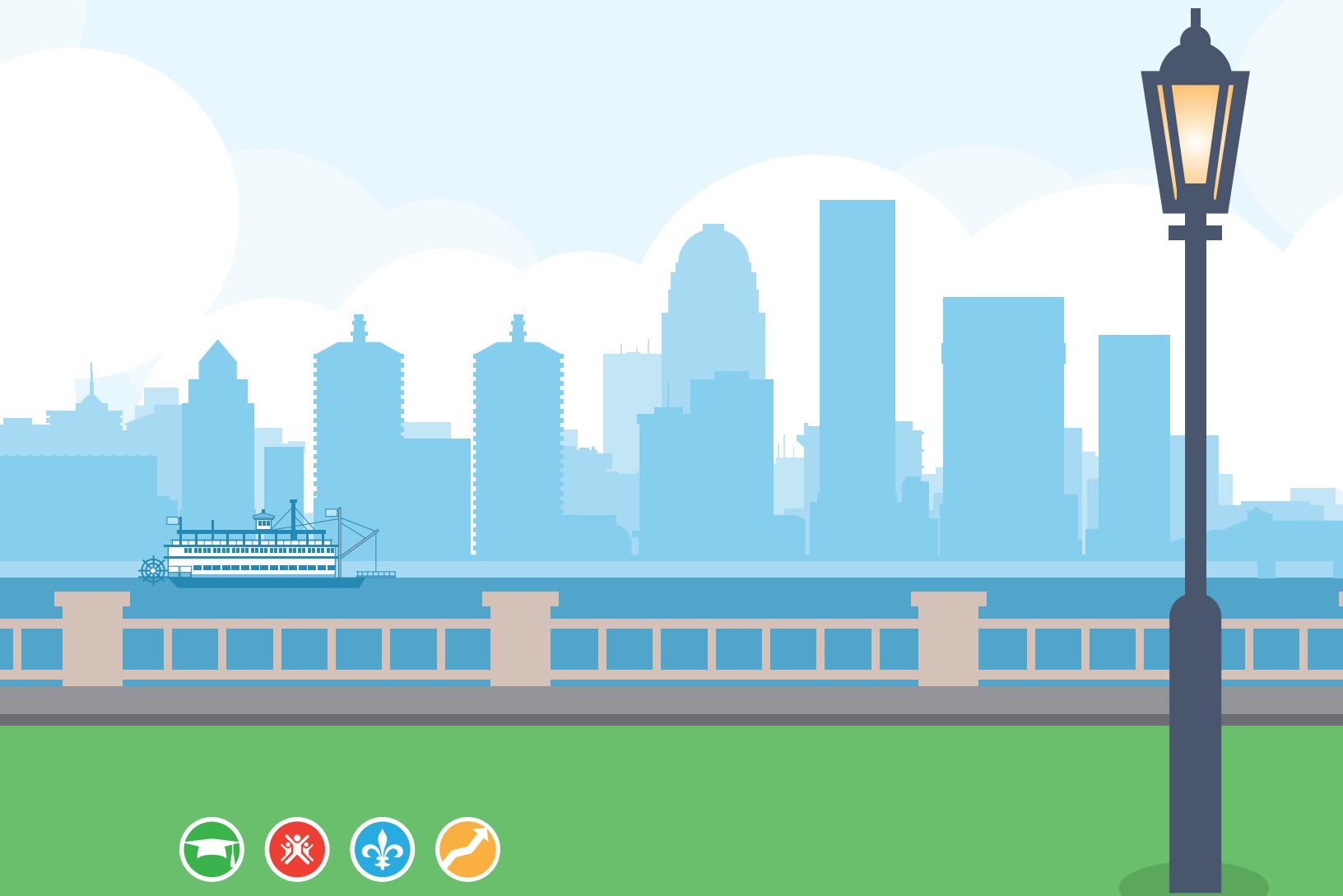


Appendix to the Greater Louisville Project 2015 Competitive City Update: **Louisville A Focus on Poverty**



Greater Louisville Project
ADVANCING A COMPETITIVE CITY

Appendix to Competitive City Update 2015: Focus on Poverty

In preparing the *Focus on Poverty* report, the Greater Louisville Project did an extensive analysis of each of the areas that constitutes multidimensional poverty. This appendix contains substantial additional information about education, jobs, health, and poverty. It also includes sections about race, considers an alternative way to define Louisville's neighborhoods, and thoroughly documents the methodology and sources used in the report.

For ease of use, the Appendix is divided into multiple sections. The table of contents lists the key tables and figures in each section. Each figure is accompanied by a short explanation and the source(s) used in its construction.

Table of Contents

Appendix A – Descriptive tables by Neighborhood

A1 – Comparing Louisville’s Poorest and Least Poor Neighborhoods to the City Average

A2.i – Indicators by Neighborhood

A2.ii – Indicators by Neighborhood

Appendix B – Imagining a Better Louisville Data

B1 – Imagining a Better Louisville

Appendix C – Education (Bachelor’s, No HS)

C1 – Map of Bachelor’s Degrees

C2.i – Ranking Graph of Bachelor’s Degrees

C2.ii – Ranking Graph of Potential Bachelor’s Degrees

C3 – Map of No High School Degree

C4.i – Ranking Graph of High School Degrees

C4.ii – Ranking Graph of Potential High School Degrees

Appendix D – Jobs (Median Earnings, Unemployment)

D1 – Map of Median Earnings

D2.i – Ranking graph of Median Earnings

D2.ii – Ranking graph of Potential Median Earnings

D3 – Map of Unemployment

D3.i – Ranking graph of Unemployment

D4.ii – Ranking graph of Potential Unemployment

Appendix E – Health (Uninsured, Life Expectancy)

E1 – Map of Uninsured

E2.i – Ranking graph of Uninsured

E2.ii – Ranking graph of Possible Uninsured

E3 – Map of Life Expectancy

Appendix F – Poverty (Low Income, Low Income Children, MPI)

F1 – Map of Low Income

F2.i – Rankings graph of low income

F2.ii – Rankings graph of potential low income

F3 – Map of Low Income Children

F4.i – Rankings graph of Low Income

F4.ii – Rankings graph of Potential Low Income Children

F5 – Map of MPI

F6 – Histogram of MPI

F7 – Rankings Graph of Concentration of MPI

F8 – Peer City Distributions of Concentrated Poverty

Appendix G – Race

G1 - Map of Percent Black

G2 – Dot Map of Race in Louisville

G3.i – Scatterplot of MPI and Percent Black (Census Tracts)

G3.ii – Scatterplot of MPI and Percent Black (Neighborhood Areas)

G4 – Lorenz Curve of Percent Black

G5 – 538 City Diversity Index

G6 – 538 Neighborhood Diversity Index

G7 – Scatterplot of City and Neighborhood Diversity

G8 – 538 Segregation Index

Appendix H – Alternate Neighborhood Areas

H1 – Comparing Louisville’s Poorest and Least Poor Neighborhoods to the City Average

H2.i – Indicators by Alternate Neighborhood Areas

H2.ii – Indicators by Alternate Neighborhood Areas

H3.i – MPI map by Alternate Neighborhood Areas (Tract Level)

H3.ii – MPI map by Alternate Neighborhood Areas

Appendix I - Methods

I1 – Neighborhood Abbreviations

I2 – Notes on the methods used in the Report

A1 - Poverty and Well-Being Indicators by Neighborhood

	Bottom 4	Louisville	Top 4
Low Income (%)	60.5	26.2	10.5
Low Income Children (%)	76.1	34.5	11.8
Unemployed (%)	23.9	9.8	4.9
Uninsured (%)	23	12.2	6.7
No HS Diploma (%)	24.2	9.8	2.7
Bachelor's Degree (%)	8.4	32.1	56.7
Median Earnings (\$)	18,800	31,600	42,800
Life Expectancy	70.2	77.8	82.1
Population	55,000	743,000	200,000

Explanation: Table A1 compares the four poorest and four least poor neighborhood areas in Louisville. The determination of poorest and least poor is made using the MPI (see figure F5). The statistics for the neighborhood areas are population-weighted averages of the census tracts that make up the neighborhood areas (all neighborhood area averages are listed in tables A2.i and A2.ii). The statistics for the poorest and least poor neighborhood areas are, in turn, a population-weighted average of the indicated neighborhood areas. The population weights are specific to the statistic at hand, meaning the weights used to calculate the percentage of low income children is based on the number of children in each census tract, while the weights for low income overall are based on the number of overall residents. The four poorest and four least poor neighborhoods are listed below.

Poorest: Russell, Portland, Phoenix Hill – Smoketown – Shelby Park, and South Central Louisville

Least Poor: Floyd's Fork, Northeast Jefferson, Highlands, St. Matthews

Sources: (The American Community Survey is abbreviated as ACS below).

Low Income: ACS Table C17002, 2009-2014

Low Income Children: ACS Table B17024, 2009-2014

Unemployed: ACS Table S2301, 2009-2014

Uninsured: ACS Table S2701, 2009-2014

No HS Diploma: ACS Table B23006, 2009-2014

No Bachelor's Degree: ACS Table B23006, 2009-2014

Median Earnings: ACS Table S2001, 2009-2014

Life Expectancy: *Louisville Metro Health Equity Report* by the Center for Health Equity, 2014

Population: ACS Table S2701, 2009-2014

Table A2.i - Indicators by Neighborhood

Neighborhood	Life Expectancy	Median Earnings (\$)	Unemployed (%)	Bachelor's Degree (%)	No High School Diploma (%)
Algonquin-Park Hill-Park Duvalle	71.5	14,700	18.6	10.5	21.1
Buechel-Newburg-Indian Trail	75.6	21,500	14.7	14.2	18.1
Butchertown-Clifton-Crescent Hill	76.4	32,500	6.5	53.0	4.9
California-Parkland	67.8	15,800	20.6	9.5	15.9
Chickasaw-Shawnee	73.4	22,100	19.8	11.9	13.1
Downtown-Old Louisville-University	73.2	15,600	13.5	28.2	14.9
Fairdale	74.8	27,400	12.0	8.5	20.5
Fern Creek	80.7	32,000	6.9	29.0	6.2
Floyd's Fork	81.5	44,200	5.4	44.3	3.4
Germantown	72.5	26,200	8.8	36.5	10.4
Highlands	80.3	38,300	4.3	69.2	1.4
Highview-Okolona	77.8	31,100	9.0	22.5	9.9
J-Town	82	37,400	5.8	45.3	6.2
Northeast Jefferson	82.4	43,600	4.8	59.0	2.8
Phoenix Hill-Smoketown-Shelby Park	69.4	18,300	24.0	15.9	23.4
Pleasure Ridge Park	77	28,900	10.0	15.0	8.2
Portland	68.3	17,100	22.7	3.6	32.1
Russell	69.5	14,200	31.7	5.2	24.3
Shively	74.5	26,200	12.5	10.9	12.7
South Central Louisville	71.5	21,200	21.2	8.8	21.5
South Louisville	76.2	25,800	11.8	16.7	16.7
Southeast Louisville	79	32,800	6.4	41.6	5.8
St. Matthews	83.6	39,700	4.4	59.4	2.1
Valley Station	76.2	28,500	8.6	12.5	12.5

Table A2.ii - Indicators by Neighborhood

Neighborhood	Uninsured (%)	Low Income (%)	Low Income Children (%)	Percent Black	Poverty Index	Population
Algonquin-Park Hill-Park Duvalle	16.6	60.6	76.7	77.8	-0.85	14,200
Buechel-Newburg-Indian Trail	19.3	41.5	56.5	42.4	-0.52	32,100
Butchertown-Clifton-Crescent Hill	11.2	26.1	31.5	8.2	0.71	21,500
California-Parkland	19.5	63.4	76.1	89.9	-0.93	9,000
Chickasaw-Shawnee	18.2	43.7	58.2	88.7	-0.52	18,600
Downtown-Old Louisville-University	18.7	52.2	53.9	31.7	-0.49	14,400
Fairdale	18.6	37.7	55.4	0.8	-0.42	14,900
Fern Creek	8.7	17.6	27.7	12.3	0.88	27,000
Floyd's Fork	6.1	8.0	8.4	7.1	1.25	45,500
Germantown	11.0	36.2	42.3	8.1	0.35	13,000
Highlands	7.2	12.4	7.7	1.8	1.24	20,300
Highview-Okolona	11.4	21.2	29.3	13.9	0.53	61,700
J-Town	9.3	13.6	17.7	13.3	0.94	52,200
Northeast Jefferson	6.5	10.4	12.3	8.3	1.24	113,300
Phoenix Hill-Smoketown-Shelby Park	20.6	68.7	84.0	60.3	-1.39	8,900
Pleasure Ridge Park	11.4	22.0	30.2	12.7	0.54	42,500
Portland	23.4	62.9	81.1	32.3	-1.67	9,700
Russell	21.7	73.6	85.2	89.7	-1.79	10,000
Shively	15.2	33.6	49.8	47.0	0.00	29,800
South Central Louisville	24.1	51.9	68.2	40.1	-1.19	26,400
South Louisville	15.3	33.9	47.0	16.5	-0.11	53,600
Southeast Louisville	10.0	21.9	32.8	11.6	0.80	54,300
St. Matthews	8.6	14.7	20.1	3.5	1.13	20,700
Valley Station	14.4	24.4	36.7	4.2	0.28	29,200

Sources: (The American Community Survey is abbreviated as ACS below).

Low Income: ACS Table C17002, 2009-2014

Low Income Children: ACS Table B17024, 2009-2014

Unemployed: ACS Table S2301, 2009-2014

Uninsured: ACS Table S2701, 2009-2014

No HS Diploma: ACS Table B23006, 2009-2014

No Bachelor's Degree: ACS Table B23006, 2009-2014

Median Earnings: ACS Table S2001, 2009-2014

Life Expectancy: Center for Health Equity

Population: ACS Table S2701, 2009-2014

Appendix B – Imagining a Better Louisville Data

B1 – Imagining a Better Louisville

	Current	Possible	Difference	Peer City Ranking	Impact
Bachelor's Degrees	32.1%	33.9%	1.8 percentage points	Up 1, to 10th	7,200 extra degrees
Median Earnings	\$31,600	\$32,500	\$900 dollars	Up 9, to 1st	\$377 million total
Uninsured	12.2%	11.4%	-0.8 percentage points	Up 1, to 4th	6,000 more insured
Life Expectancy	77.8	78.4	0.6 years	NA	416,000 extra years of life
Low Income	26.2%	23.7%	-2.5 percentage points	Up 5, to 2	18,800 fewer low income
Low Income Children	34.5%	31.5%	-3.0 percentage points	Up 6, to 2	5,200 fewer low income children
Unemployment	9.8%	8.8%	- 1 percentage point	Up 2, to 8	6,200 more employed
No HS Degree	9.8%	8.8%	- 1 percentage point	Up 2, to 3rd	4,300 extra degrees

Explanation: The above table is constructed based on imagining a Louisville where the four poorest neighborhood areas were brought up to the citywide average. To calculate the possible column, the values on each indicator for the four poorest neighborhood areas are replaced by the citywide average, and then the overall city average is recalculated.

Sources: (The American Community Survey is abbreviated as ACS below).

Low Income: ACS Table C17002, 2009-2014

Low Income Children: ACS Table B17024, 2009-2014

Unemployed: ACS Table S2301, 2009-2014

Uninsured: ACS Table S2701, 2009-2014

No HS Diploma: ACS Table B23006, 2009-2014

No Bachelor's Degree: ACS Table B23006, 2009-2014

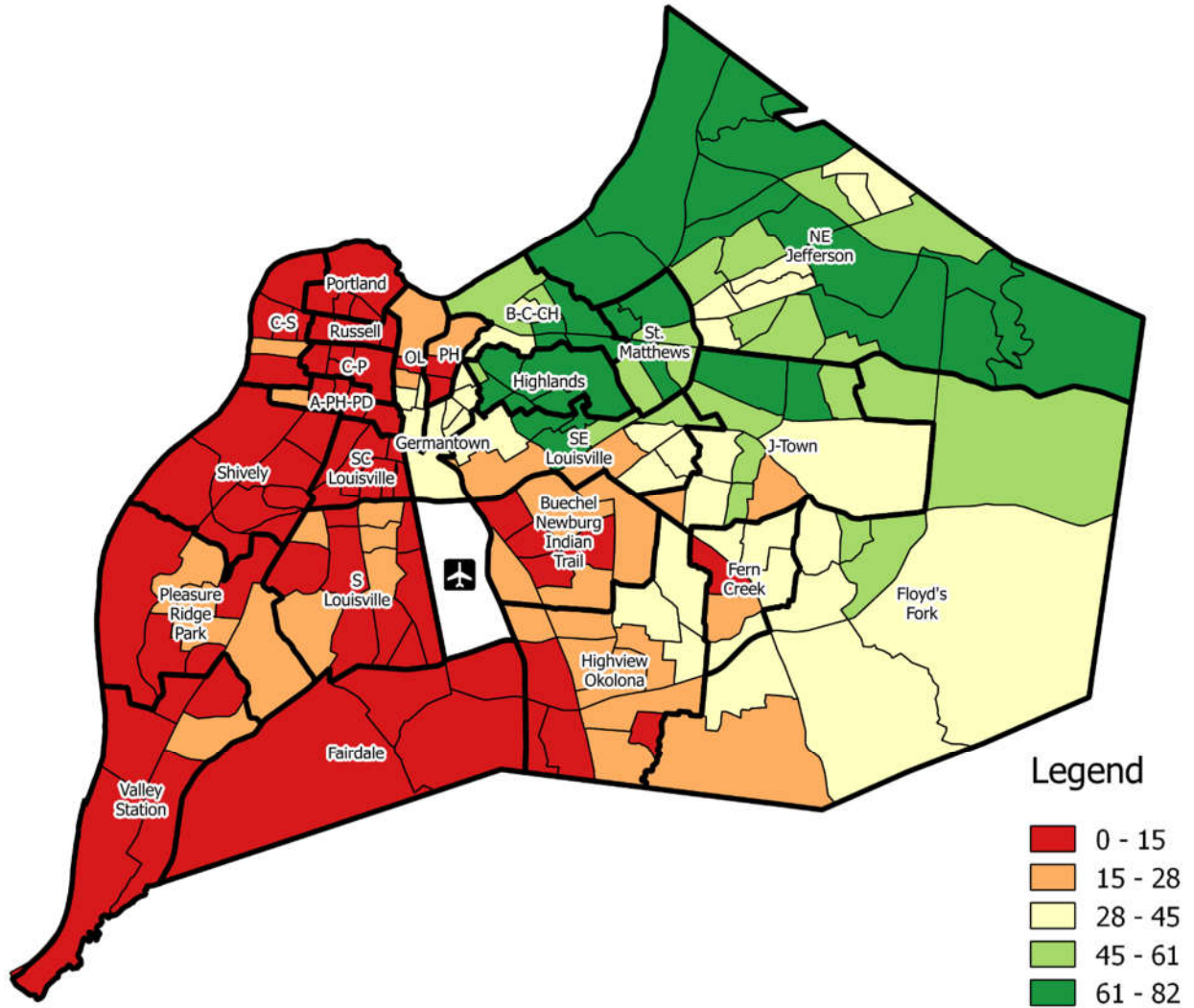
Median Earnings: ACS Table S2001, 2009-2014

Life Expectancy: *Louisville Metro Health Equity Report* by the Center for Health Equity, 2014

Population: ACS Table S2701, 2009-2014

Appendix C – Education (Bachelor's, No HS)

C1 – Map of Bachelor's Degrees

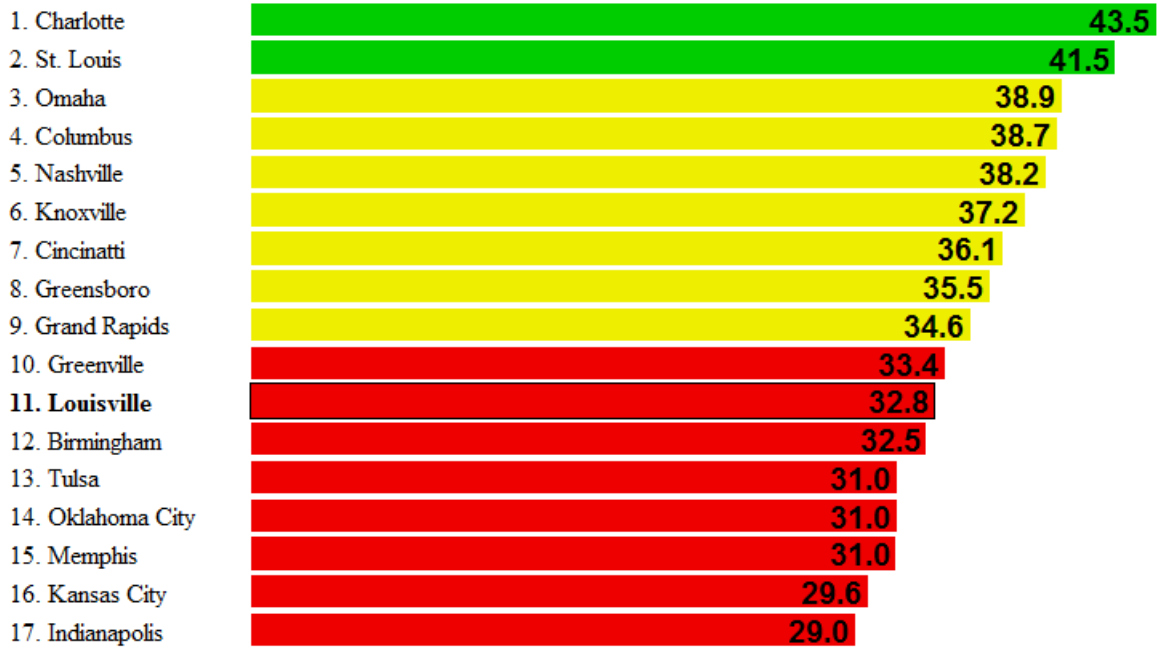


Explanation: The map uses a natural breaks algorithm to group census tracts into five categories.

Source: ACS Table B23006, 2009-2014

C2.i – Ranking Graph of Bachelor’s Degrees

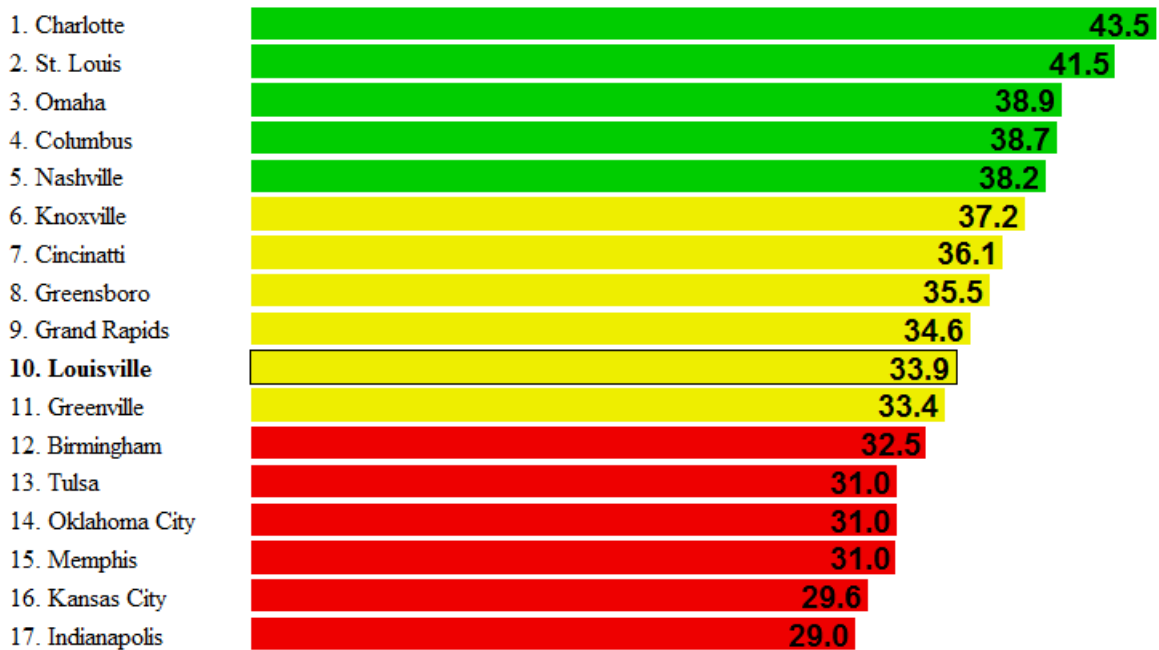
Working Age Population with a Bachelor's Degree



Percent

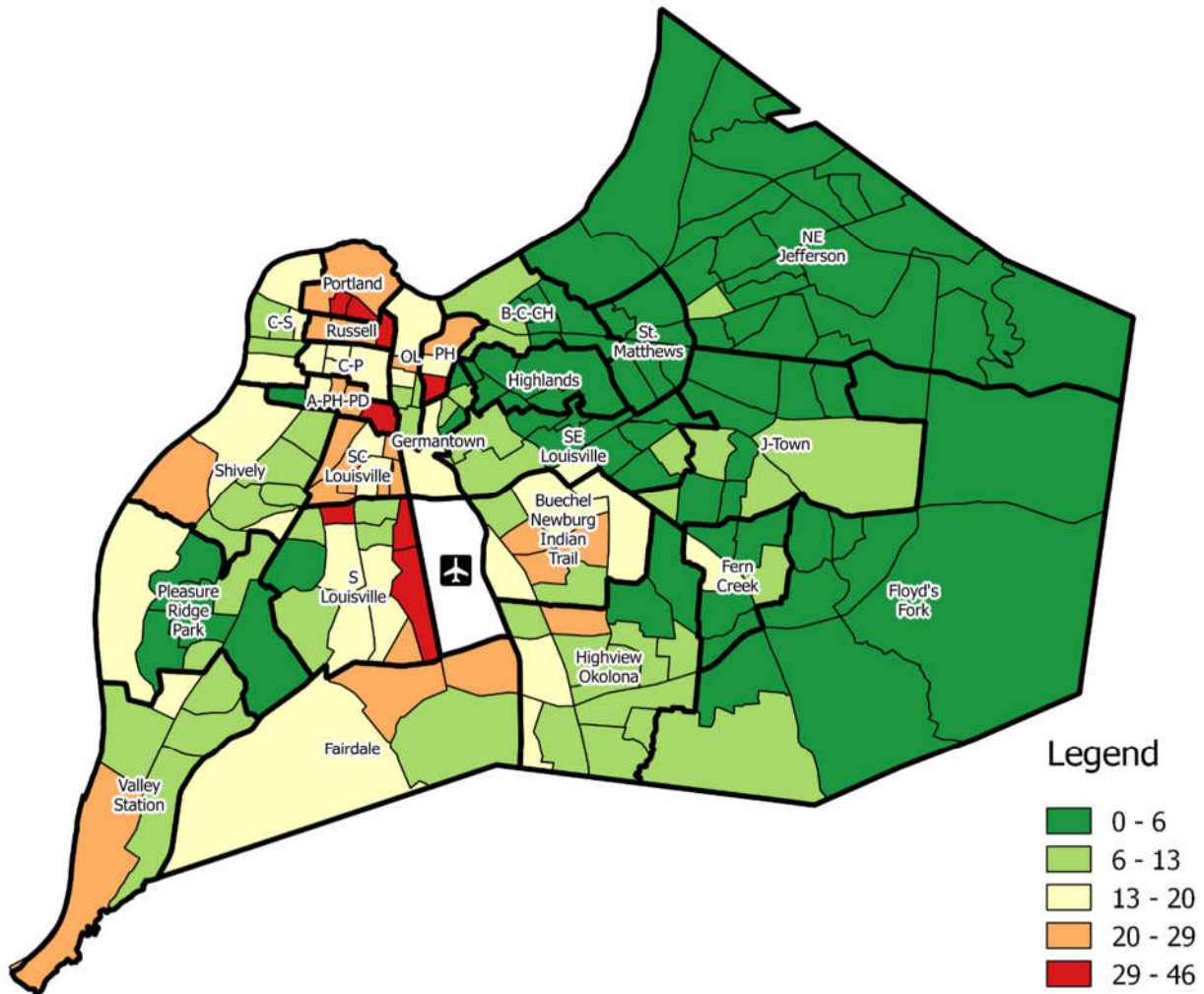
C2.ii – Ranking Graph of Potential Bachelor’s Degrees

Possible Working Age Population with a Bachelor's Degree



Percent

C3 – Map of No High School Degree



Explanation: The map uses a natural breaks algorithm to group census tracts into five categories.

Source: ACS Table B23006, 2009-2014

C4.i – Ranking Graph of High School Degrees

Percent Without a High School Degree



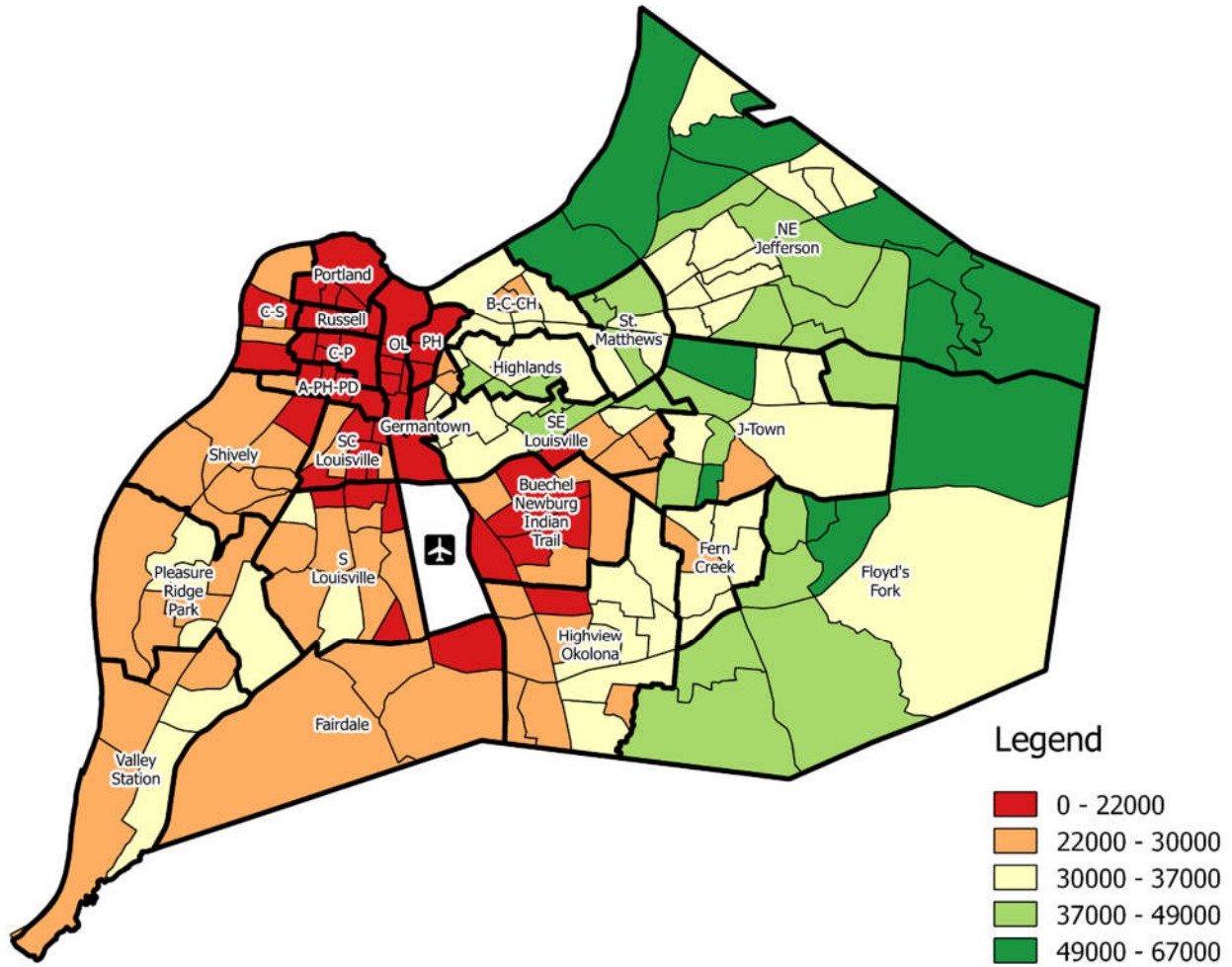
C4.ii – Ranking Graph of Potential High School Degrees

Possible Percent Without a High School Degree



Appendix D – Jobs (Median Earnings, Unemployment)

D1 – Map of Median Earnings

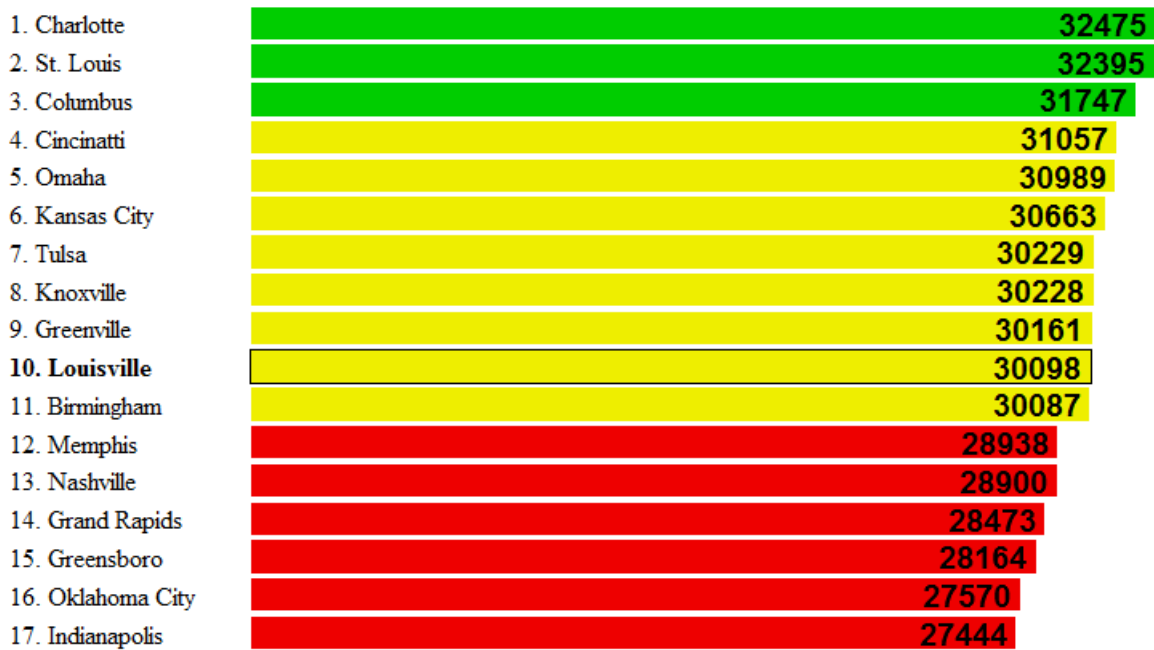


Explanation: The map uses a natural breaks algorithm to group census tracts into five categories.

Source: ACS Table S2001, 2009-2014

D2.i – Ranking graph of Median Earnings

Median Earnings



Dollars Per Year

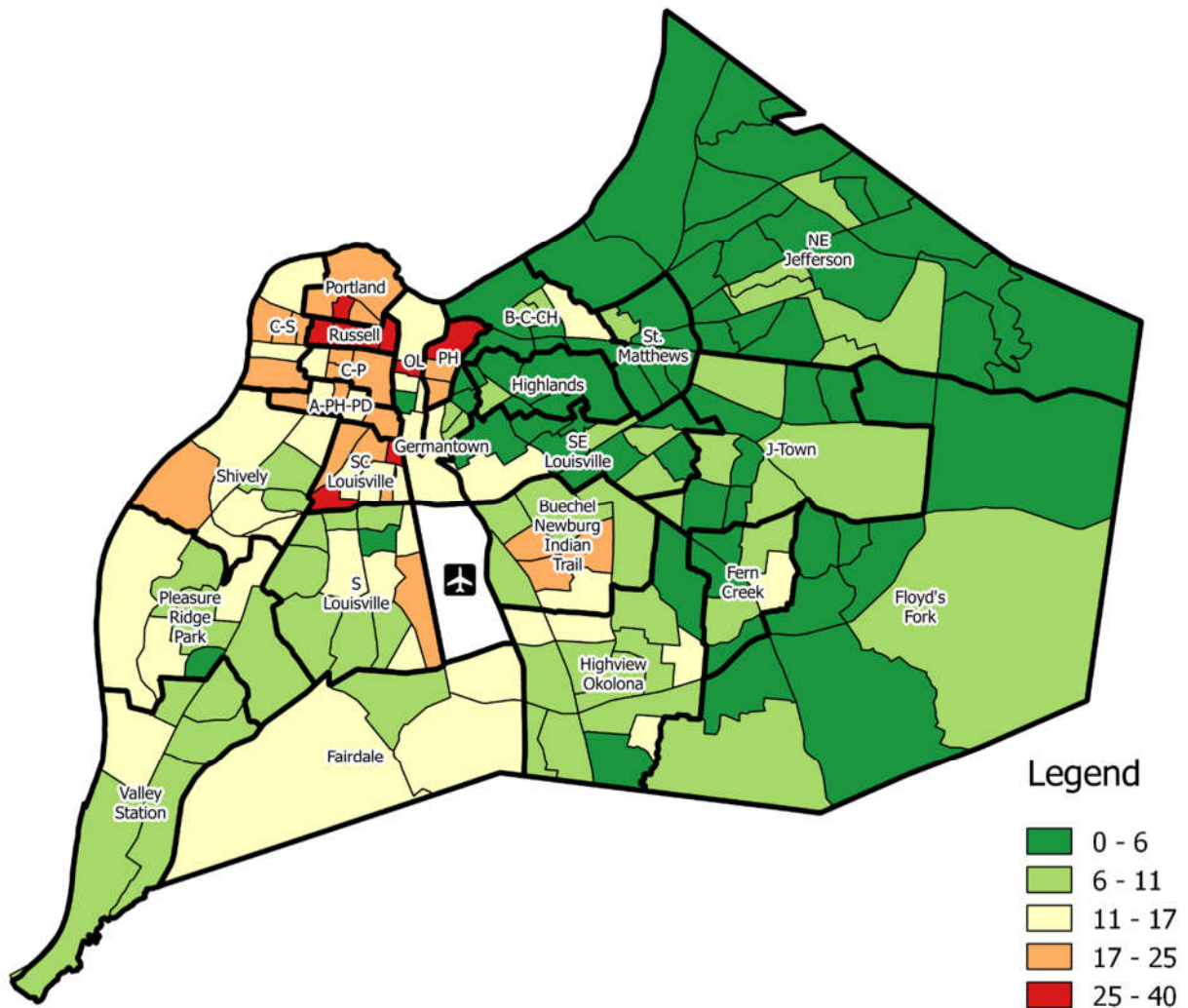
D2.ii – Ranking graph of Potential Median Earnings

Possible Median Earnings



Dollars Per Year

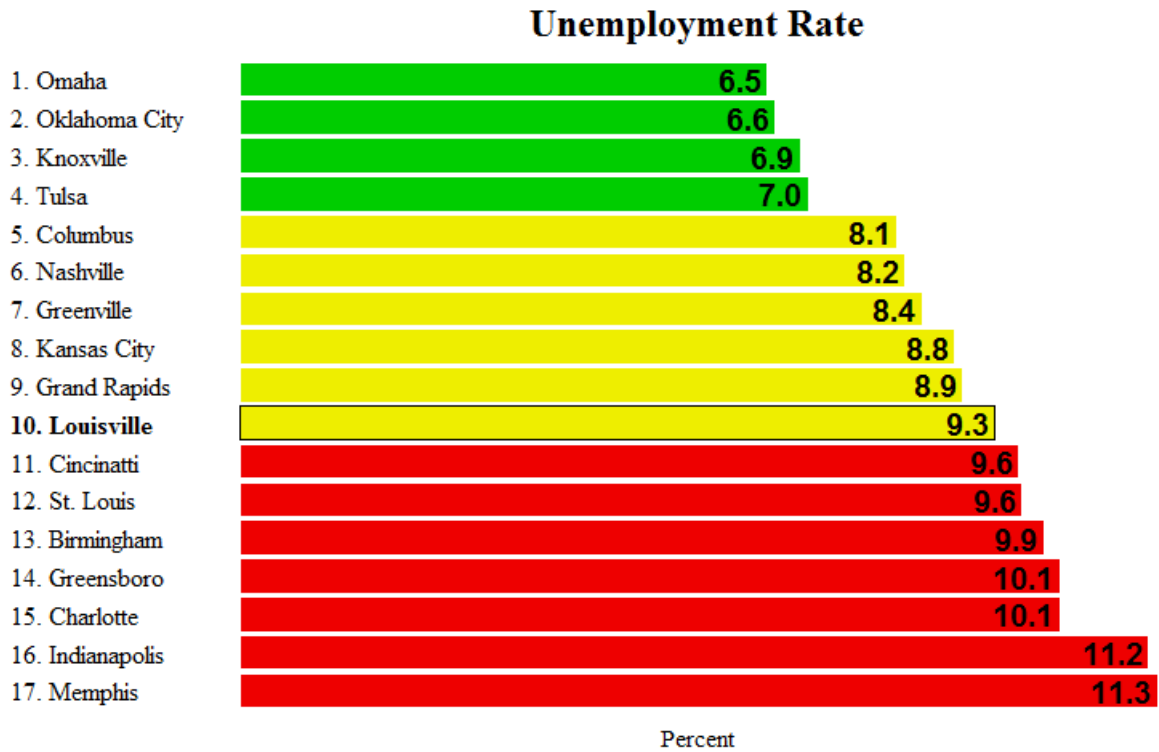
D3 – Map of Unemployment



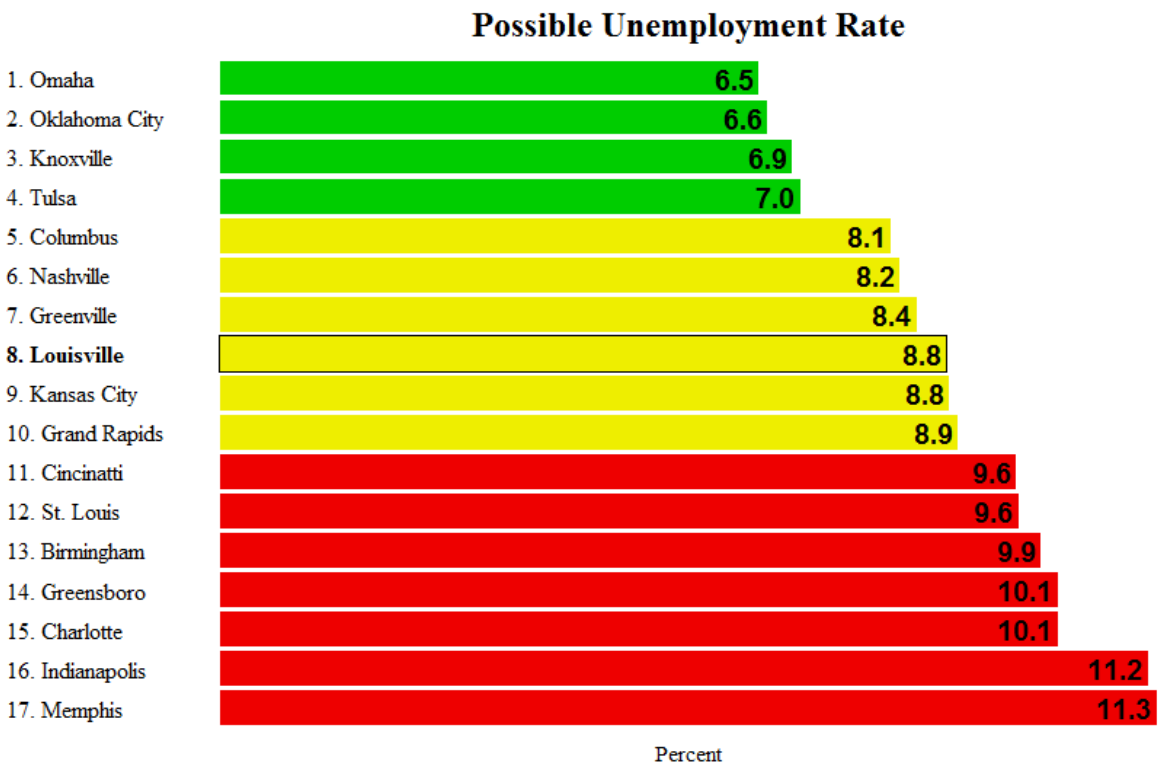
Explanation: The map uses a natural breaks algorithm to group census tracts into five categories.

Source: ACS Table S2301, 2009-2014

D3.i – Ranking graph of Unemployment

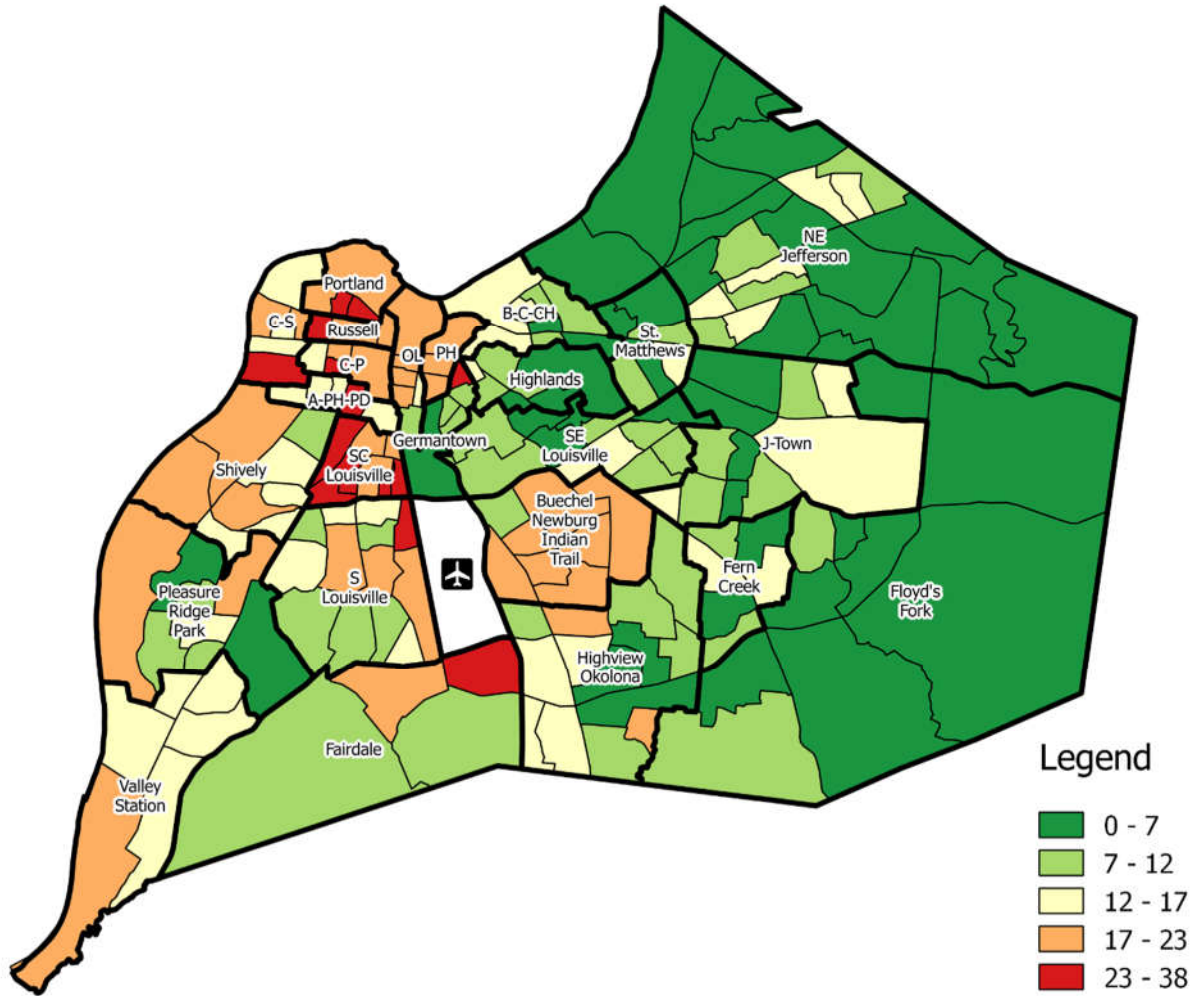


D4.ii – Ranking graph of Potential Unemployment



Appendix E – Health (Uninsured, Life Expectancy)

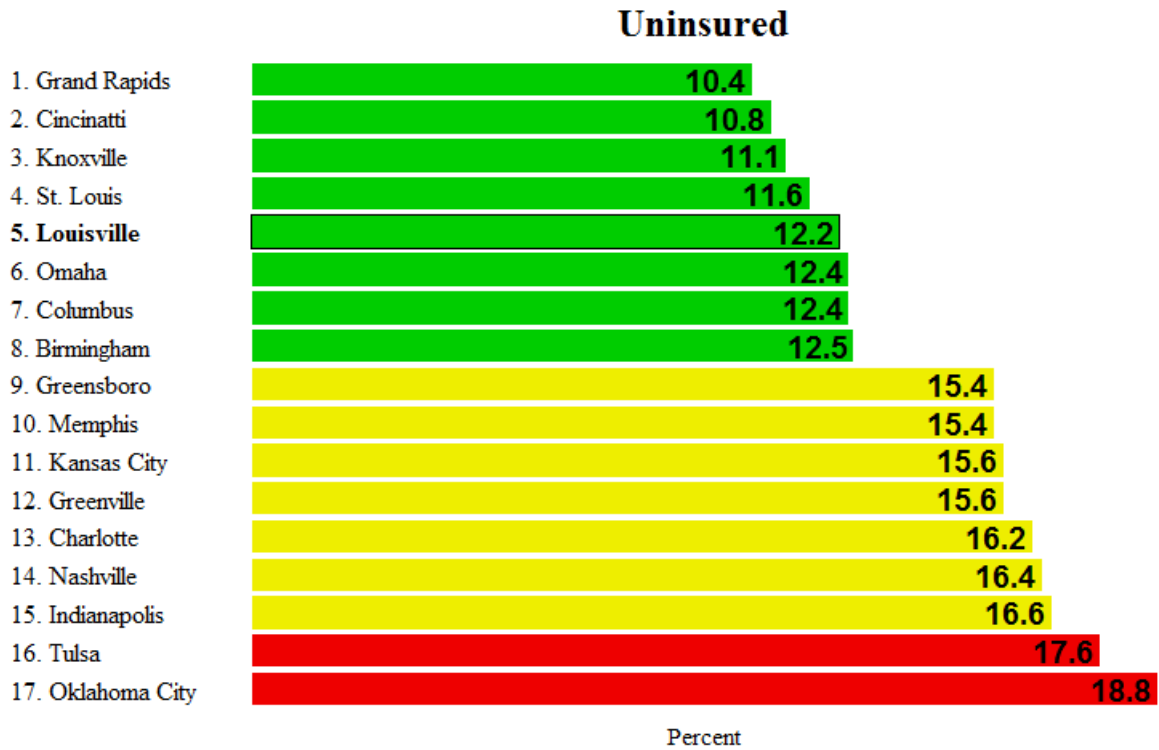
E1 – Map of Uninsured



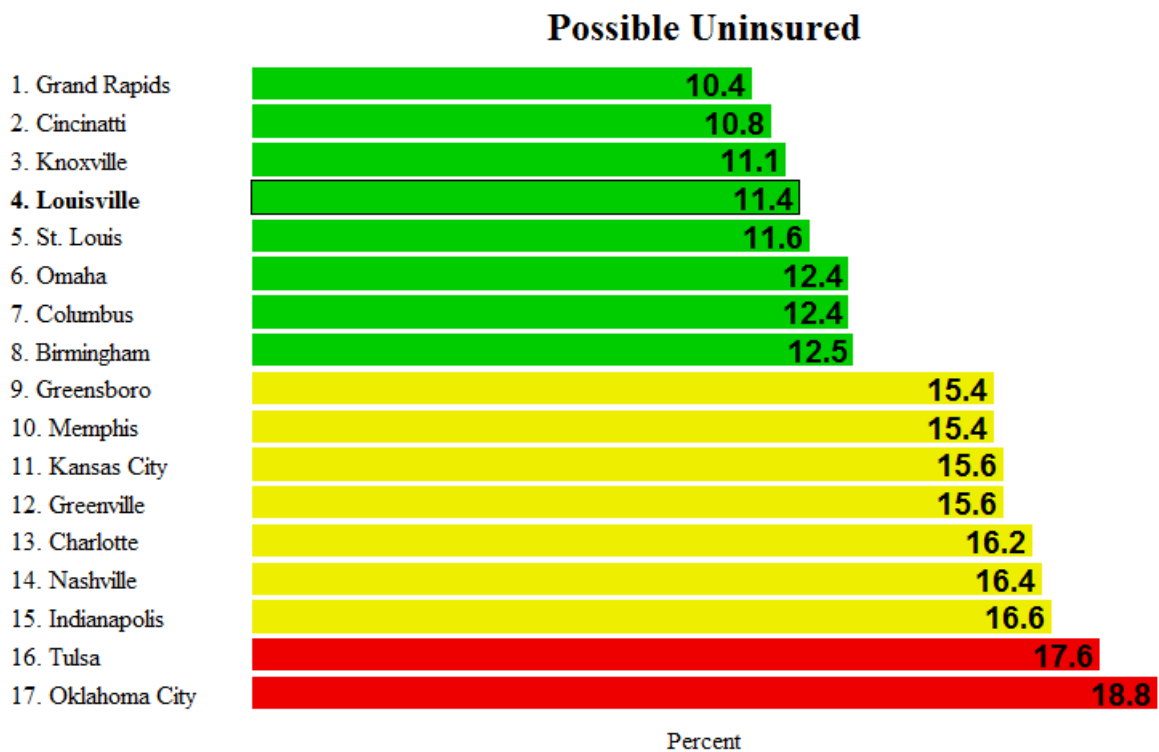
Explanation: The map uses a natural breaks algorithm to group census tracts into five categories.

Source: ACS Table S2701, 2009-2014

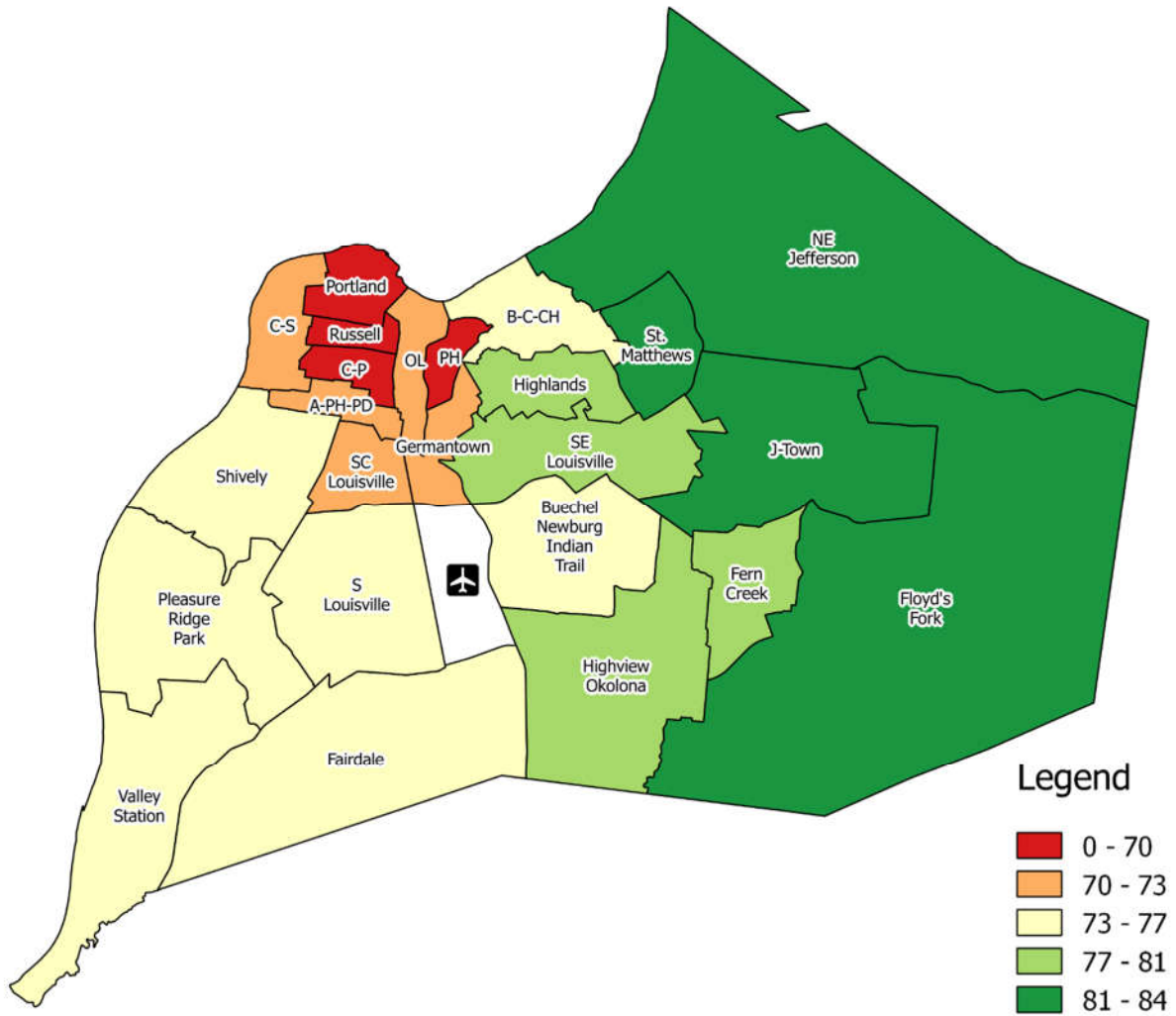
E2.i – Ranking graph of Uninsured



E2.ii – Ranking graph of Possible Uninsured



E3 – Map of Life Expectancy

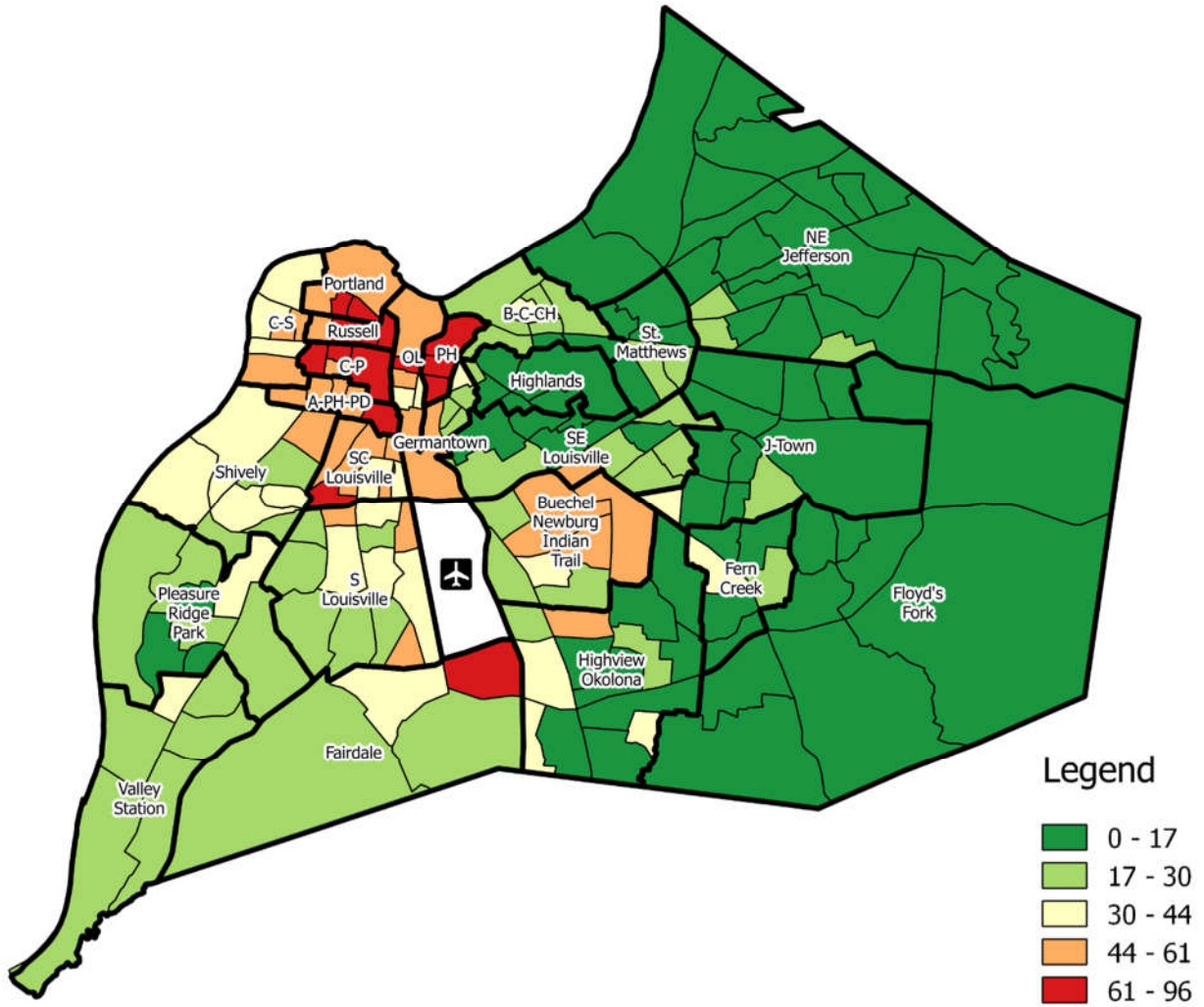


Explanation: The map uses a natural breaks algorithm to group census tracts into five categories.

Source: *Louisville Metro Health Equity Report* by the Center for Health Equity, 2014.

Appendix F – Poverty (Low Income, Low Income Children, MPI)

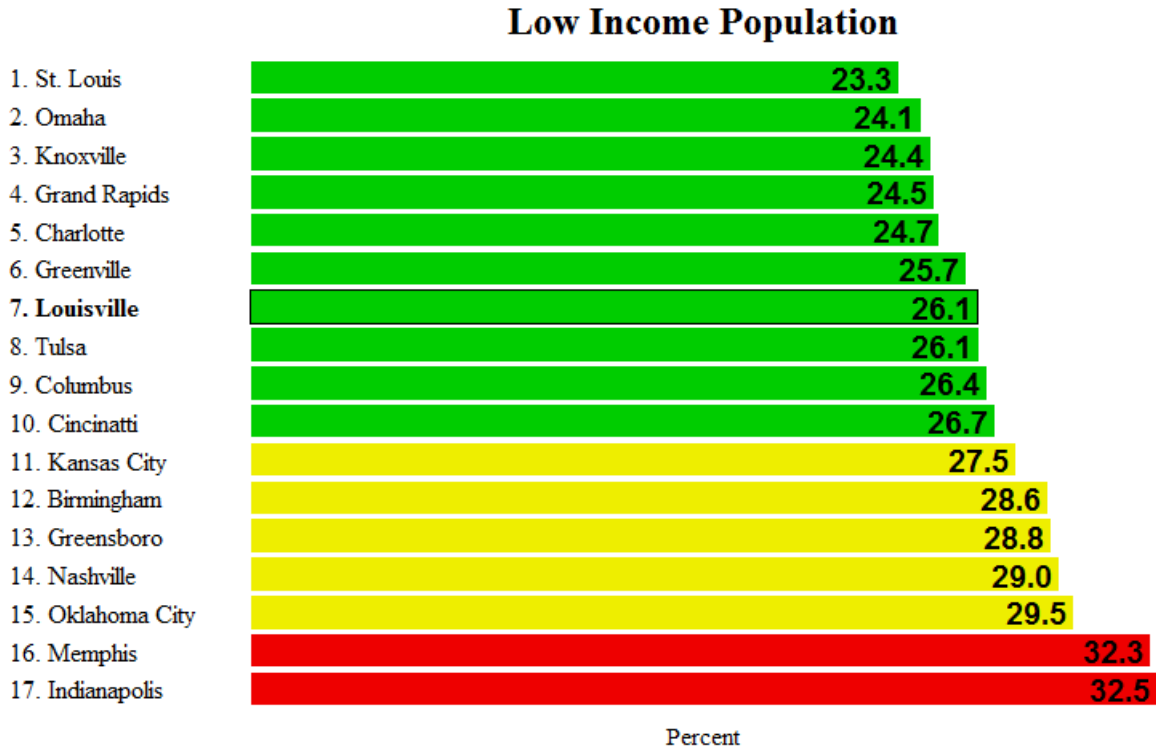
F1 – Map of Low Income



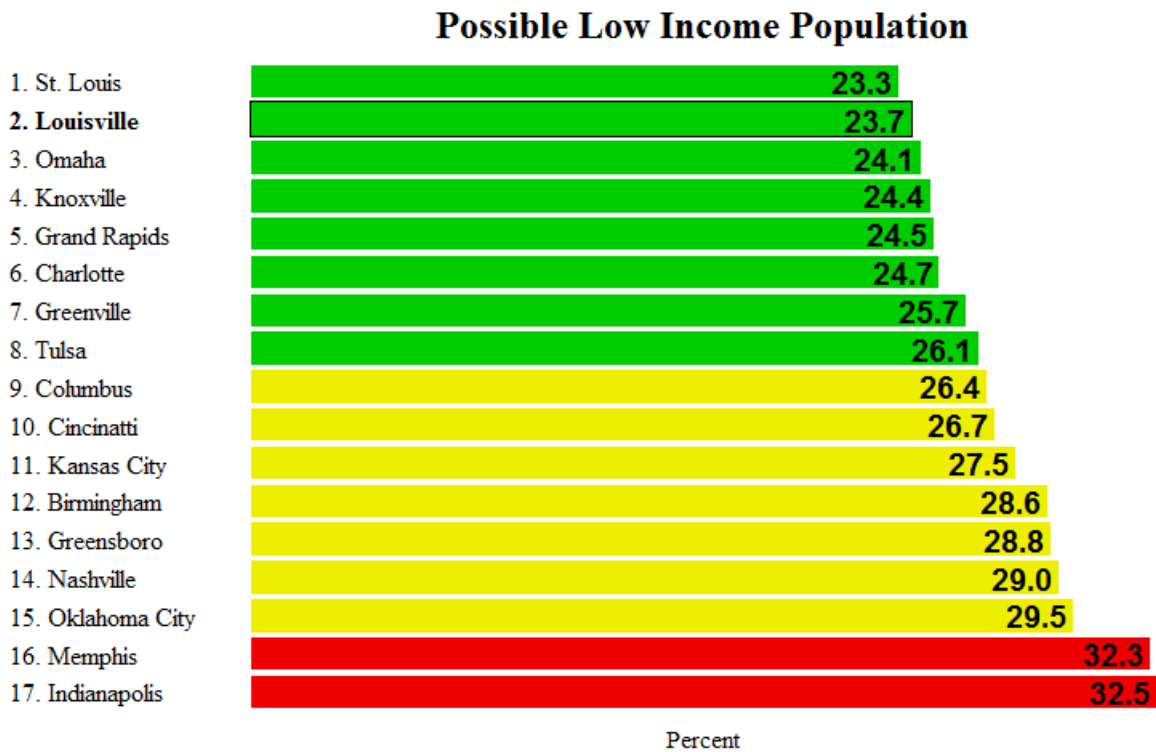
Explanation: The map uses a natural breaks algorithm to group census tracts into five categories.

Source: ACS Table C17002, 2009-2014

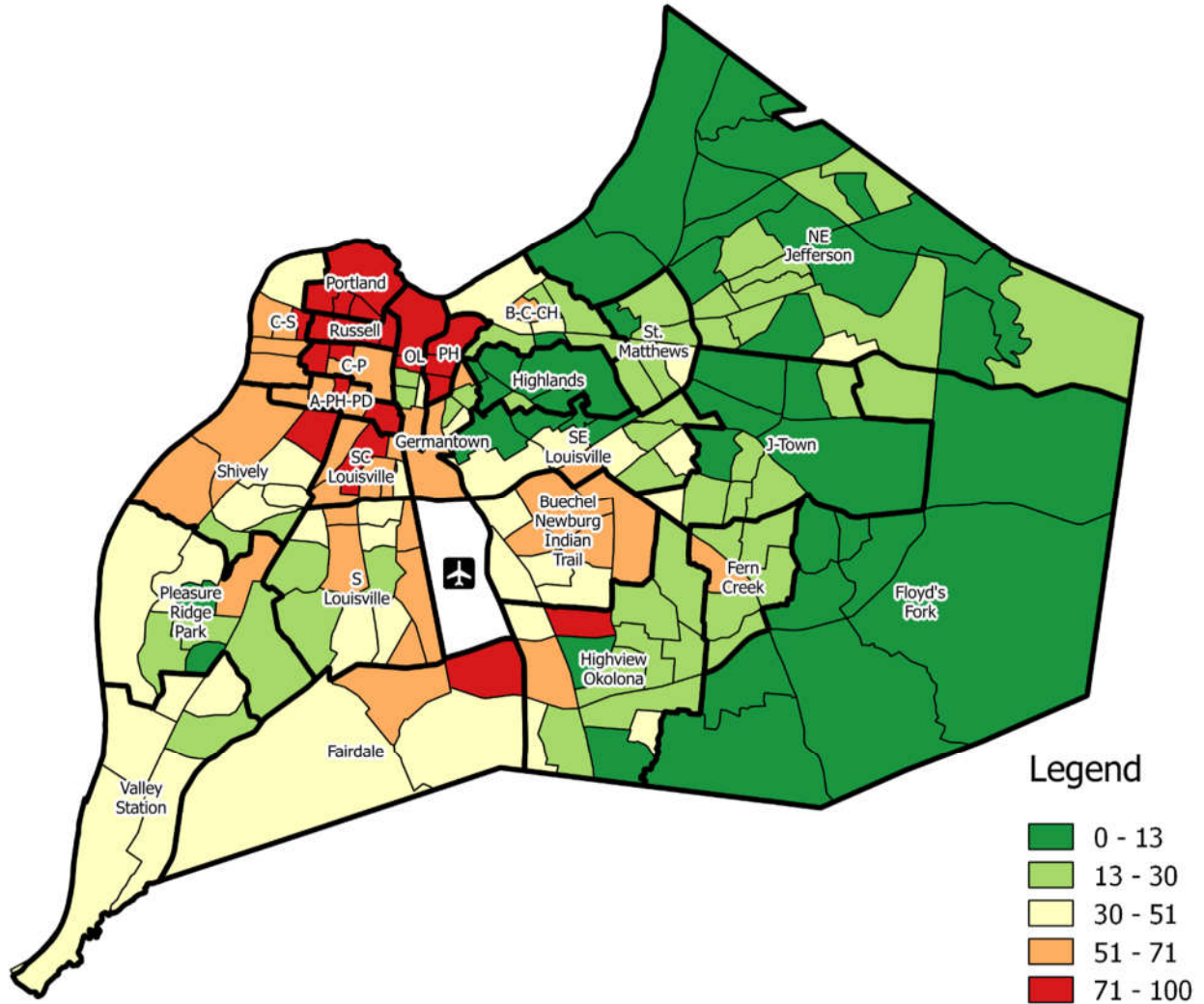
F2.i – Rankings graph of low income



F2.ii – Rankings graph of potential low income



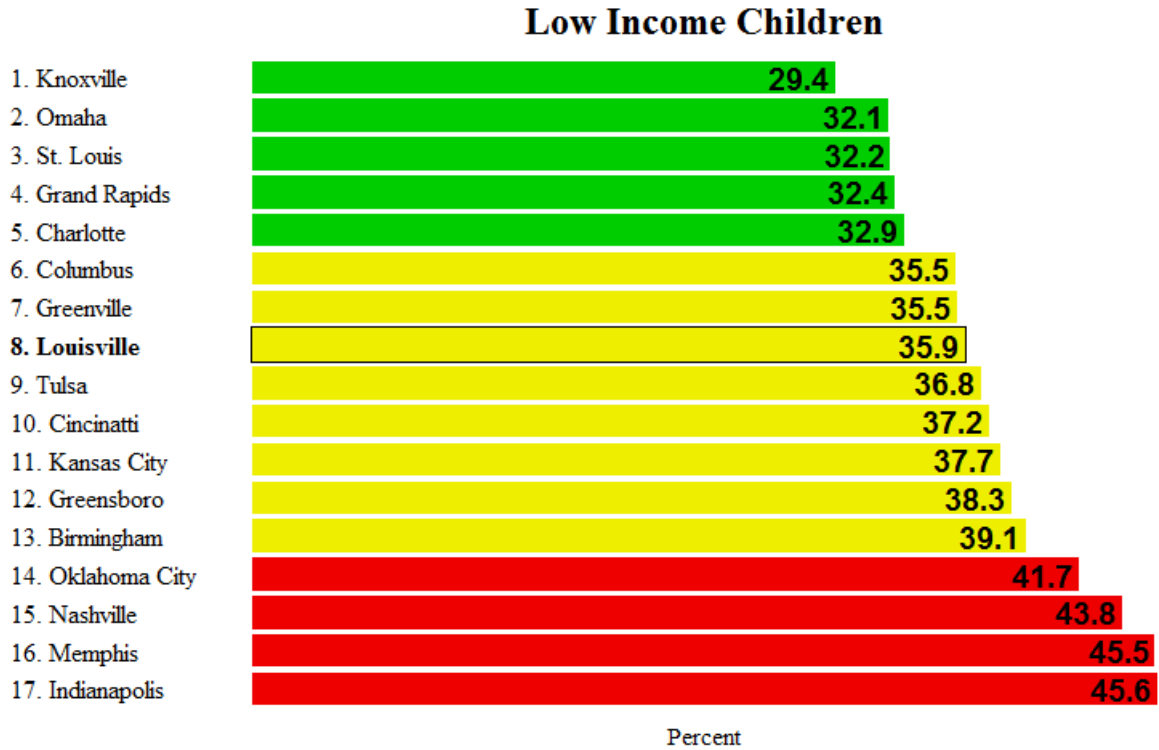
F3 – Map of Low Income Children



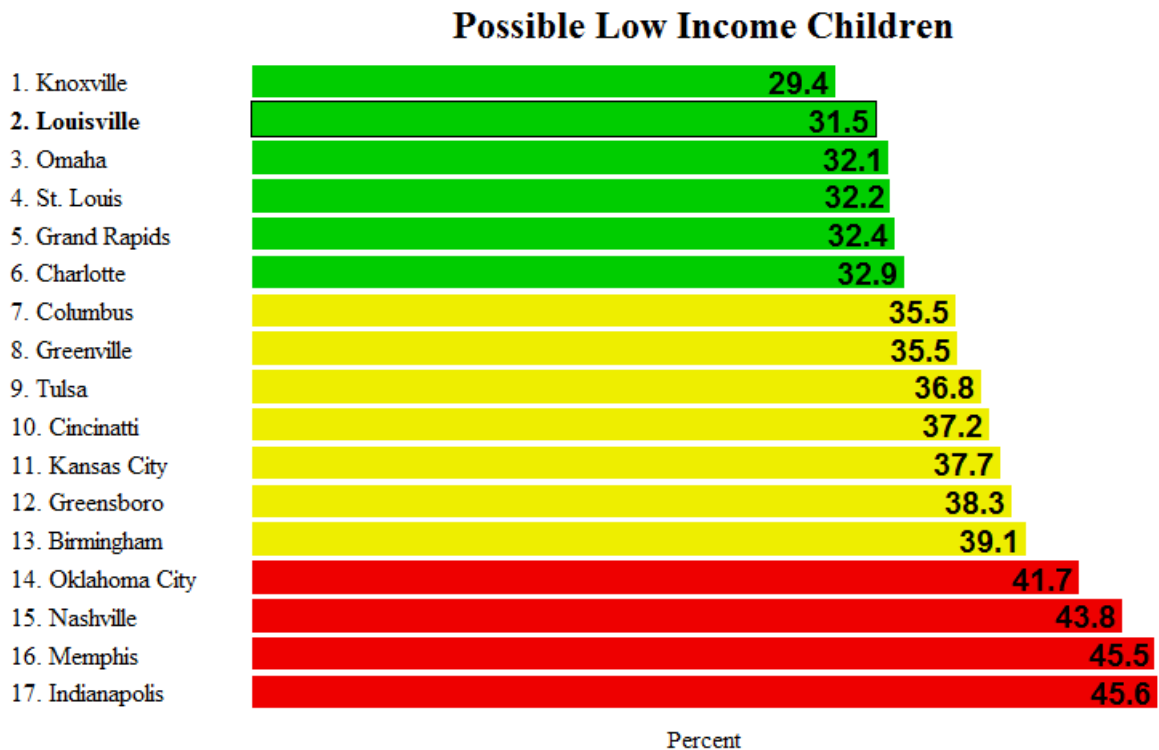
Explanation: The map uses a natural breaks algorithm to group census tracts into five categories.

Source: ACS Table B17024, 2009-2014

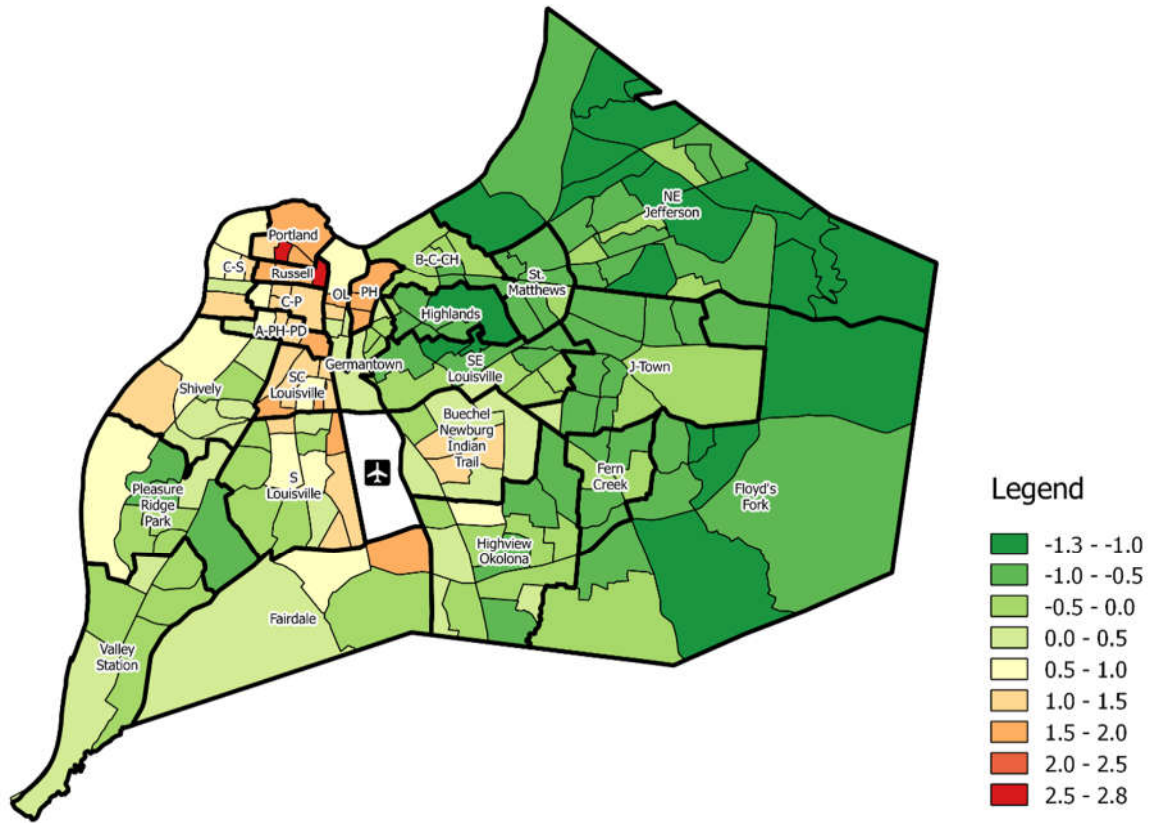
F4.i – Rankings graph of Low Income



F4.ii – Rankings graph of Potential Low Income Children



F5 – Map of MPI



Explanation: The MPI indicator was developed for this report by the Greater Louisville Project. It is designed to indicate overlapping deprivations at the neighborhood level. The four indicators used are low income (under 150% of the poverty line), low education (no high school diploma), no health insurance, and unemployment rate. To combine the indicators into a single index, a z-score is calculated for each of the four indicators, based on Louisville’s 190 census tracts of data. The MPI is the arithmetic mean of the four z-scores. A high score on the index indicates a tract that is multidimensionally poor (experiencing overlapping deprivations).

Sources:

- Low Income: ACS Table C17002, 2009-2014
- Unemployed: ACS Table S2301, 2009-2014
- Uninsured: ACS Table S2701, 2009-2014
- No HS Diploma: ACS Table B23006, 2009-2014

F6 – Histogram of MPI



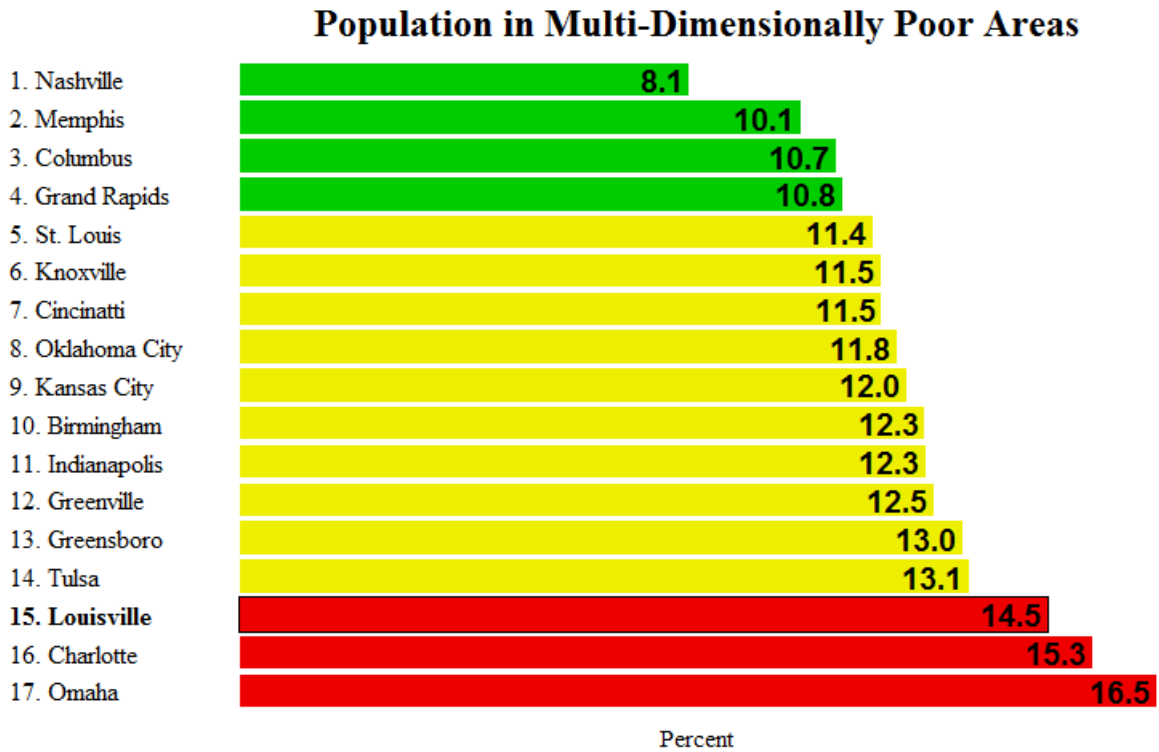
Explanation: As in the map (F5), the MPI indicator is constructed, and each census tract is placed in one of 9 discrete bins ranging from -3 to 1.5, by 0.5. The population of each bin is added to produce the above histogram. The totals, from left to right are:

5,461 0 39,642 62,758 49,347 99,657 187,615 215,509 82,876

Sources:

- Low Income: ACS Table C17002, 2009-2014
- Unemployed: ACS Table S2301, 2009-2014
- Uninsured: ACS Table S2701, 2009-2014
- No HS Diploma: ACS Table B23006, 2009-2014

F7 – Rankings Graph of Concentration of MPI

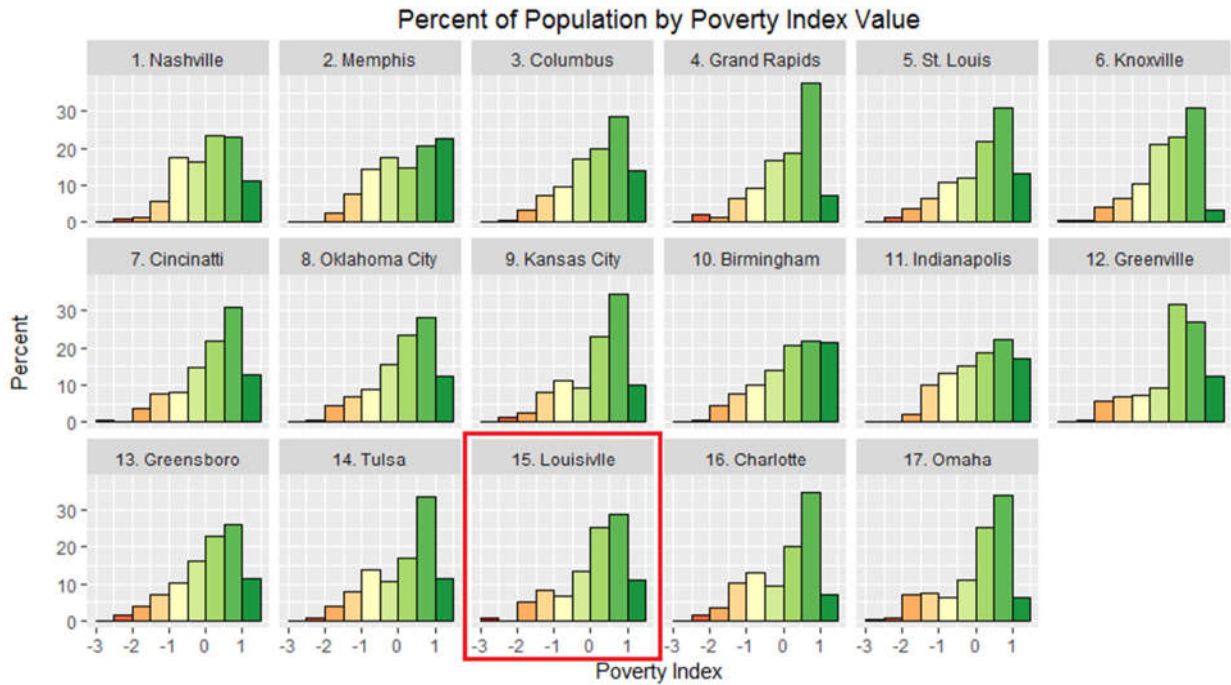


Explanation: The MPI that was constructed for Louisville (see F5) is also constructed for each of our peer cities. Poor census tracts are defined as those with an MPI above 1. The population living in a poor census tract is divided by the total population for each city.

Sources:

- Low Income: ACS Table C17002, 2009-2014
- Unemployed: ACS Table S2301, 2009-2014
- Uninsured: ACS Table S2701, 2009-2014
- No HS Diploma: ACS Table B23006, 2009-2014

F8 – Peer City Distributions of Concentrated Poverty



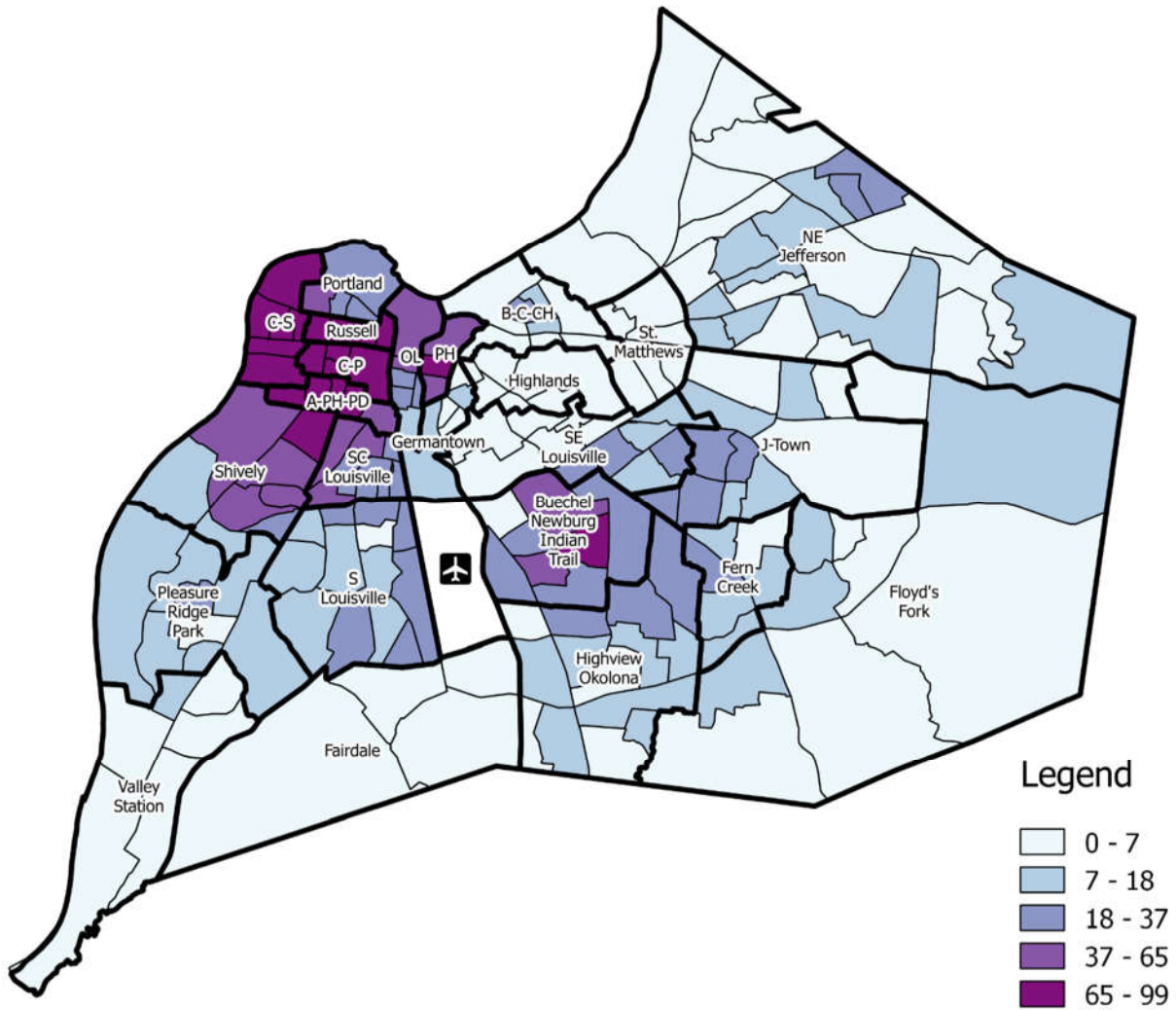
Explanation: The same histogram that was displayed for Louisville in F6 is constructed for all of Louisville’s peer cities. They are ordered by concentration of poverty (percent of population in a census tract with a score below -1)

Sources:

- Low Income: ACS Table C17002, 2009-2014
- Unemployed: ACS Table S2301, 2009-2014
- Uninsured: ACS Table S2701, 2009-2014
- No HS Diploma: ACS Table B23006, 2009-2014

Appendix G – Race

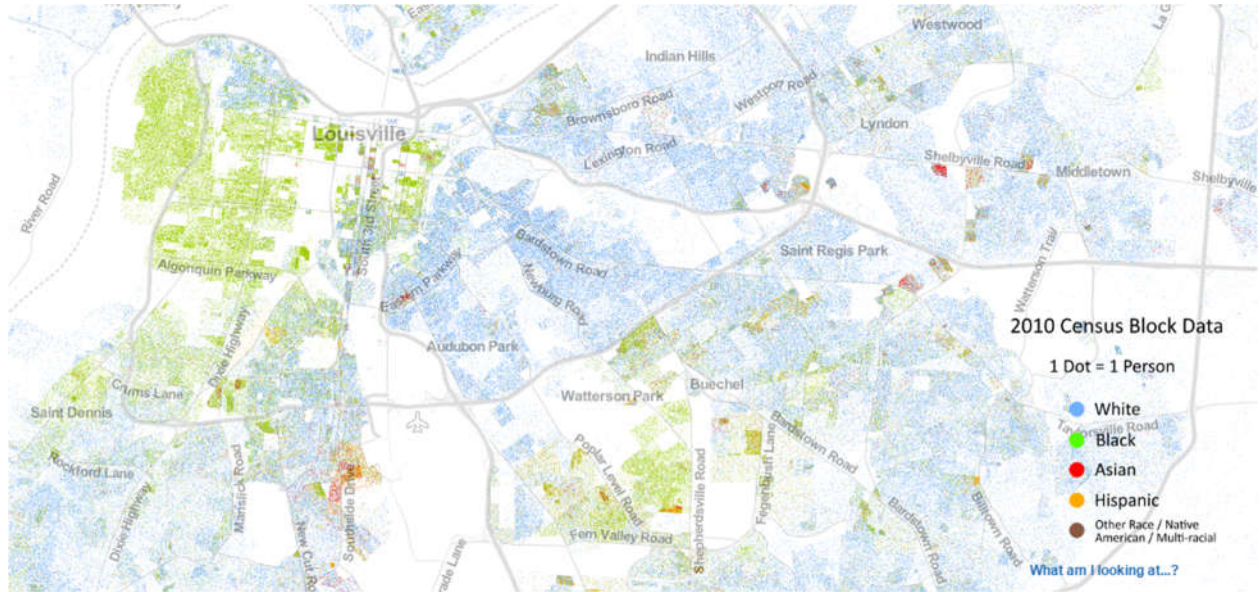
G1 - Map of Percent Black



Explanation: The map uses a natural breaks algorithm to group census tracts into five categories. A more detailed map including all races can be found in G2.

Source: ACS Table B02001, 2009-2014

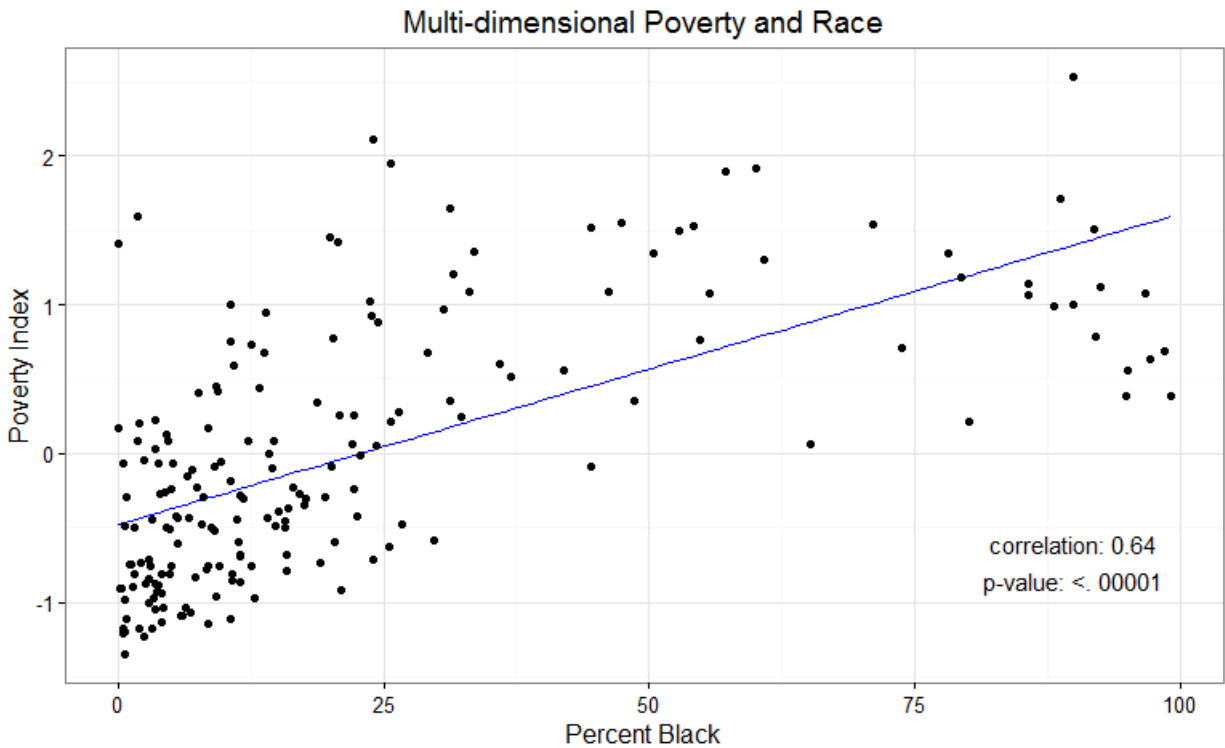
G2 – Dot Map of Race in Louisville



Explanation: Each dot on the map represents one person, coded by race as indicated in the legend.

Source: University of Virginia, <http://demographics.coopercenter.org/DotMap/>

G3.i – Scatterplot of MPI and Percent Black (Census Tracts)



Explanation: The saying “correlation is not causation” is true, but incomplete. If X and Y are correlated (and it is not a Type I error), it is appropriate to infer one of three possible causal relationships: 1) X causes Y, 2) Y causes X, or 3) Z causes X and Y.¹ At this point, either additional statistical analysis can be performed, or theoretical arguments can be applied.

In this case, we argue that X and Y are both caused by a third factor, Z. More concretely, Z is structural discrimination, past and present. The geographic relationship between race and poverty is not an accident, nor is it a simple case of one causing the other, it is the result of policy choices, business choices, and cultural choices. When those choices combine in a way that systemically disadvantages black communities, they can be grouped under the broader category structural discrimination. Because there is no quantitative measurement of structural discrimination (in part because it takes many forms), this is an argument based on history and current observation (both qualitative and quantitative).

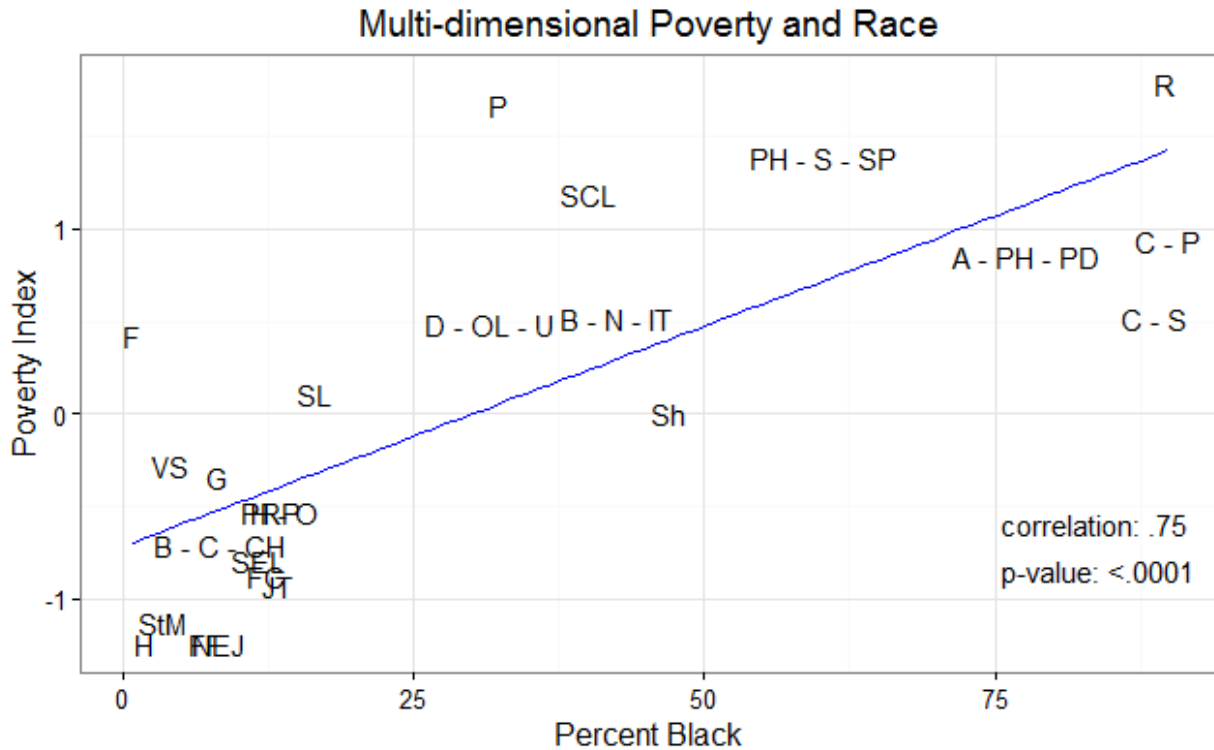
Sources:

ACS Table B02001, 2009-2014

Greater Louisville Project MPI index (see F5)

¹ Because things can have multiple causes it is possible for combinations of these three things to be true – including all three at once in some cases.

G3.ii – Scatterplot of MPI and Percent Black (Neighborhood Areas)



Explanation: A list of neighborhood abbreviations can be found in table I1. The saying “correlation is not causation” is true, but incomplete. If X and Y are correlated (and it is not a Type I error), it is appropriate to infer one of three possible causal relationships: 1) X causes Y, 2) Y causes X, or 3) Z causes X and Y.² At this point, either additional statistical analysis can be performed, or theoretical arguments can be applied.

In this case, we argue that X and Y are both caused by a third factor, Z. More concretely, Z is structural discrimination, past and present. The geographic relationship between race and poverty is not an accident, nor is it a simple case of one causing the other, it is the result of policy choices, business choices, and cultural choices. When those choices combine in a way that systemically disadvantages black communities, they can be grouped under the broader category structural discrimination. Because there is no quantitative measurement of structural discrimination (in part because it takes many forms), this is an argument based on history and current observation (both qualitative and quantitative).

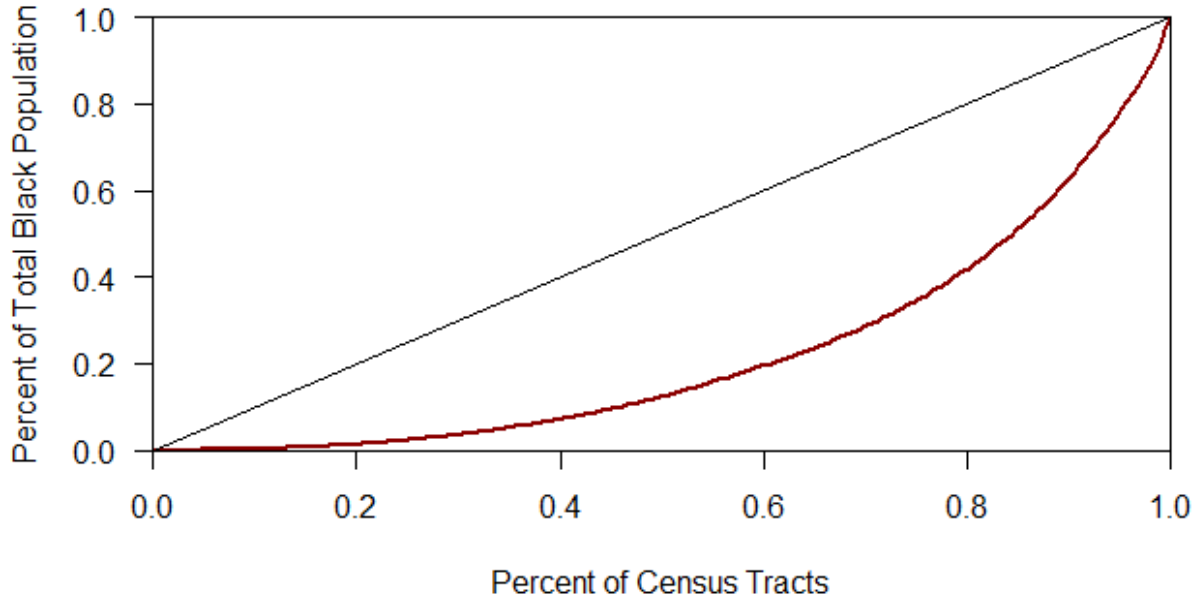
Sources:

ACS Table B02001, 2009-2014

Greater Louisville Project MPI index (see F5)

² Because things can have multiple causes it is possible for combinations of these three things to be true – including all three at once in some cases.

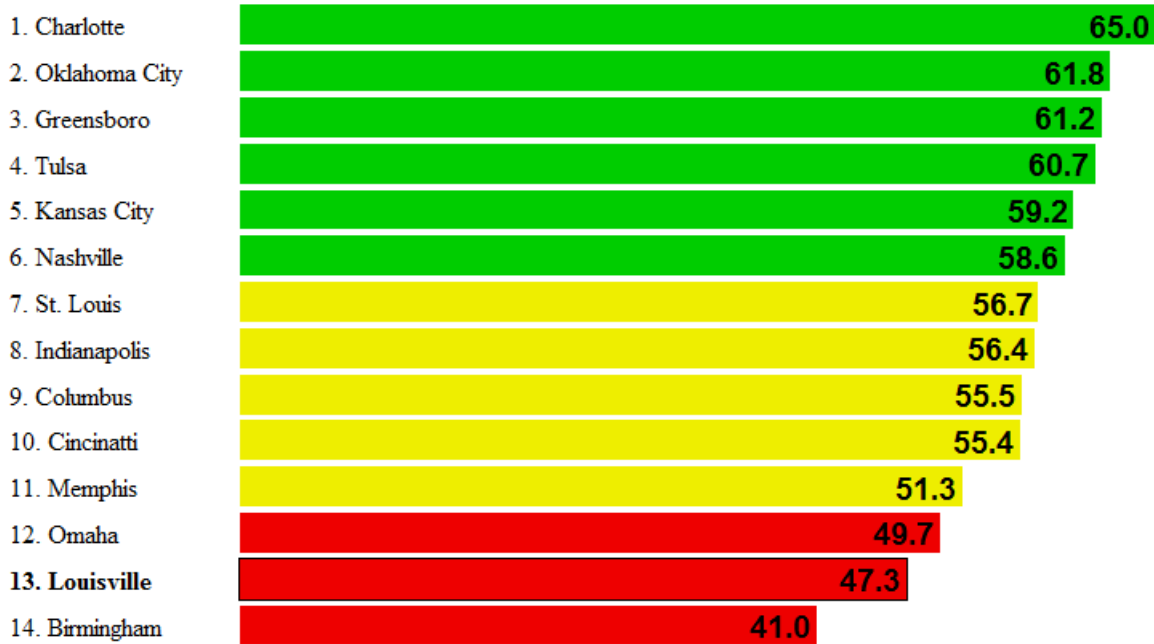
Lorenz Curve of Racial Segregation



Explanation: A Lorenz curve is a visualization of inequality, and is used to calculate the popular Gini coefficient. In this case, imagine the census tracts lined up along the x-axis from fewest black residents to most black residents. The y-axis displays the percent of the citywide population of black residents that live in that percentage of census tracts. The diagonal black line depicts a scenario in which black residents are evenly distributed, e.g. 20% of census tracts contain 20% of black residents. The red line shows Louisville’s actual distribution, in which 20% of census tracts contain under 2% of black residents.

Sources: ACS Table B02001, 2009-2014

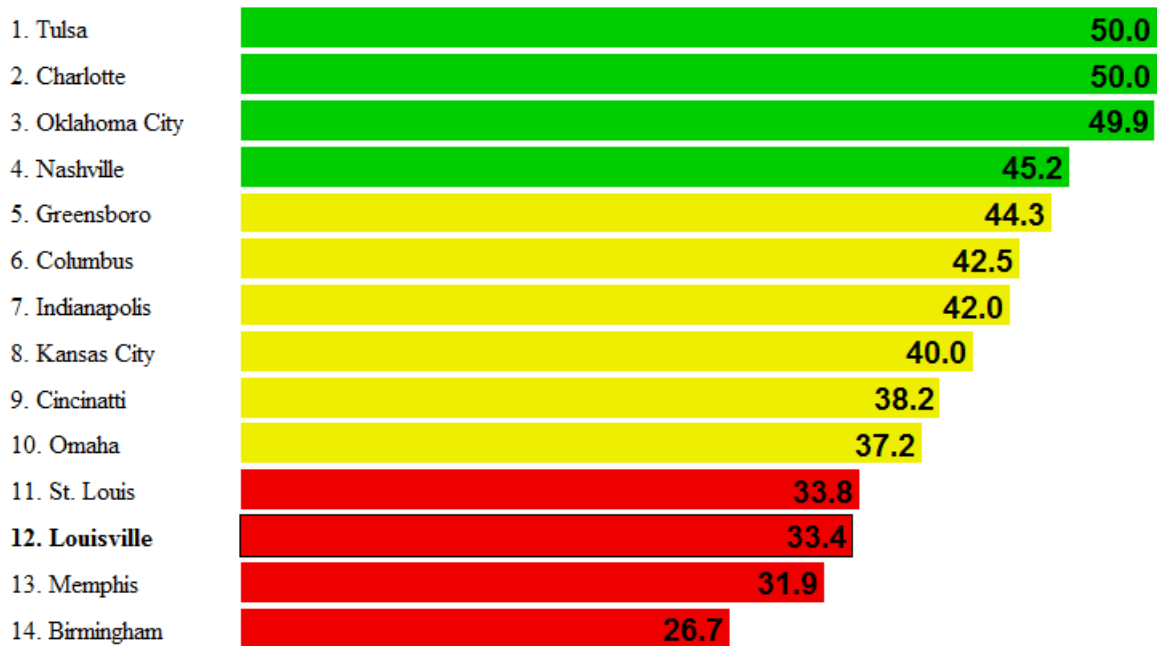
City Diversity Index



Explanation: One way to measure racial segregation in cities is to compare diversity at the city level to diversity at the neighborhood level. Using data from the data journalism site 538, we can compare Louisville to our peer cities. This diversity index accounts covers the five racial categories available from the Census Bureau: White, Black, Hispanic, Asian, and other.

Source: Data for Grand Rapids, Greenville, and Knoxville were not available. Data is from: “The Most Diverse Cities are Often the Most Segregated” by Nate Silver. Accessed at <http://fivethirtyeight.com/features/the-most-diverse-cities-are-often-the-most-segregated/> on 7/30/16.

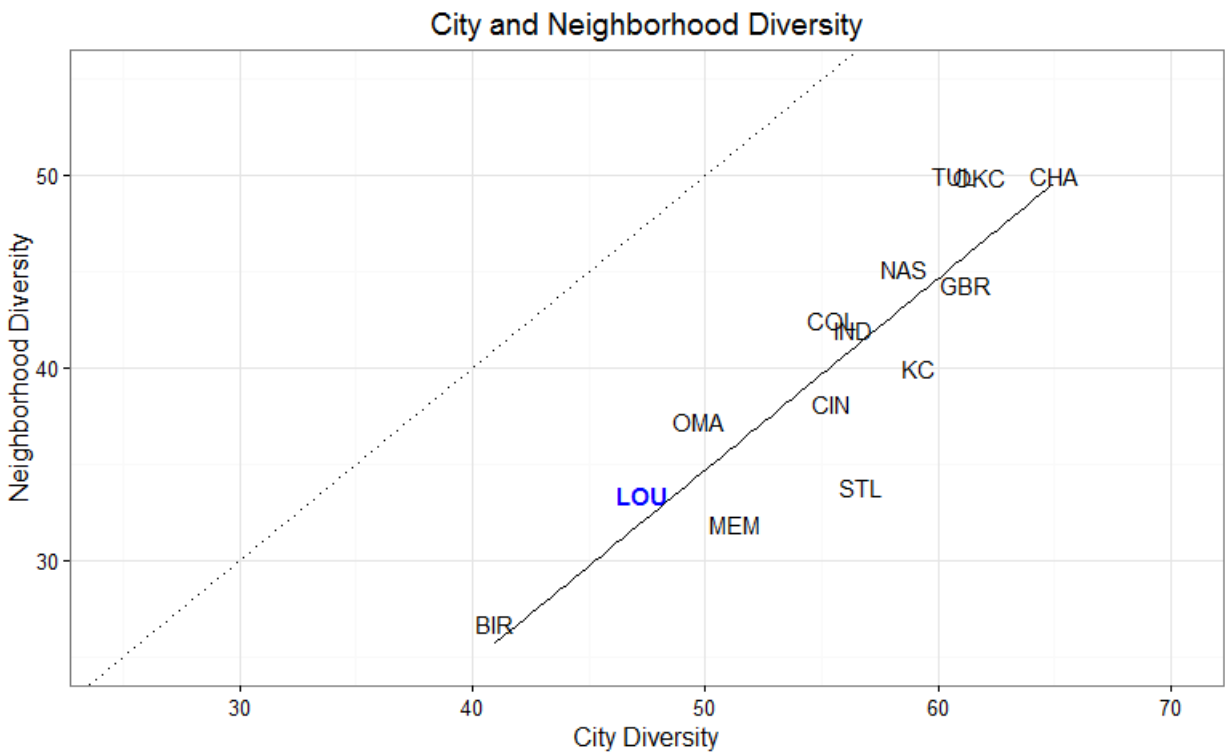
Neighborhood Diversity Index



Explanation: One way to measure racial segregation in cities is to compare diversity at the city level to diversity at the neighborhood level. Using data from the data journalism site 538, we can compare Louisville to our peer cities. This diversity index accounts covers the five racial categories available from the Census Bureau: White, Black, Hispanic, Asian, and other.

Source: Data for Grand Rapids, Greenville, and Knoxville were not available. Data is from: “The Most Diverse Cities are Often the Most Segregated” by Nate Silver. Accessed at <http://fivethirtyeight.com/features/the-most-diverse-cities-are-often-the-most-segregated/> on 7/30/16.

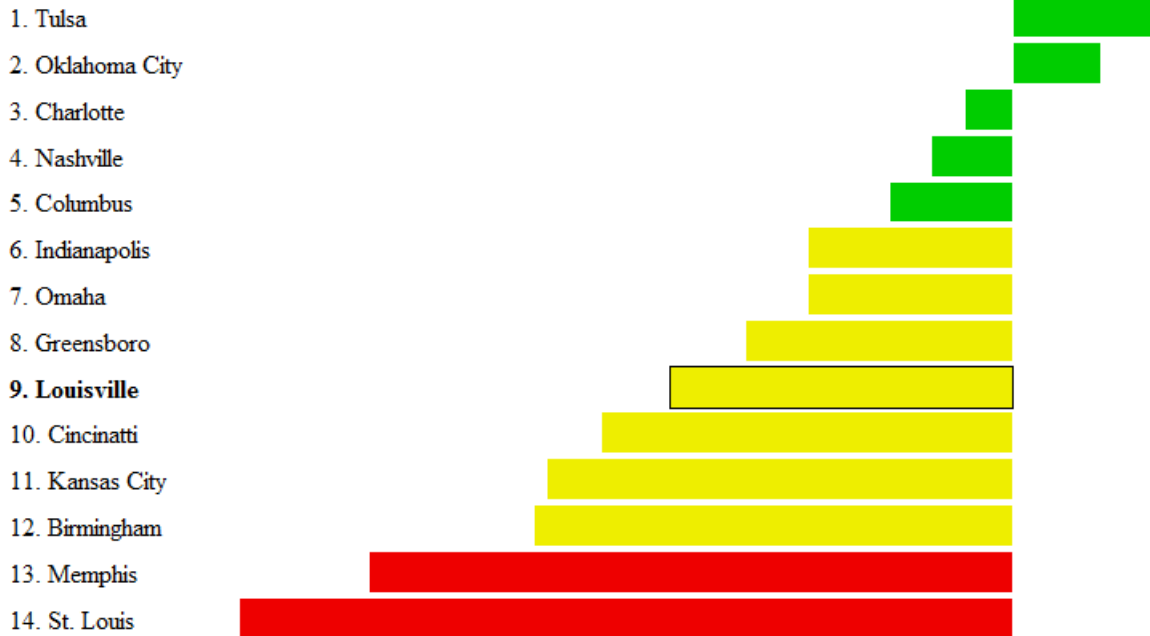
G7 – Scatterplot of City and Neighborhood Diversity



Explanation: A city that is diverse at the city level but not at the neighborhood level is segregated. We are able to compare city and neighborhood diversity by plotting the cities in two-dimensional space. The dotted diagonal line represents a city whose neighborhoods are just as diverse as its overall population. Notably, Louisville and its peers all fall well short of full integration. It is impossible for neighborhoods to be more diverse than the overall city, so not surprisingly, there is a positive relationship between being a diverse overall city and having diverse neighborhoods.

Source: Data for Grand Rapids, Greenville, and Knoxville were not available. Data is from: "The Most Diverse Cities are Often the Most Segregated" by Nate Silver. Accessed at <http://fivethirtyeight.com/features/the-most-diverse-cities-are-often-the-most-segregated/> on 7/30/16.

Segregation Index



Explanation: In order to evaluate cities on their progress towards integrated neighborhoods, 538 compares neighborhood integration levels by measuring them against cities that have similar diversity scores at the city level. In general, Louisville’s peer cities are doing poorly at neighborhood integration relative to other cities of their overall diversity levels. Only Tulsa and Oklahoma City are above average.

Source: Data for Grand Rapids, Greenville, and Knoxville were not available. Data is from: “The Most Diverse Cities are Often the Most Segregated” by Nate Silver. Accessed at <http://fivethirtyeight.com/features/the-most-diverse-cities-are-often-the-most-segregated/> on 7/30/16.

Appendix H – Alternate Neighborhood Areas

H1 – Comparing Louisville’s Poorest and Least Poor Neighborhoods to the City Average

	Bottom 4	Louisville	Top 4
Low Income	53.5%	26.1%	9.9%
Unemployed	19.7%	9.7%	4.7%
Uninsured	19.7%	12.2%	5.8%
No HS Education	18.6%	9.7%	2.2%
Bachelor’s Degree	10.2%	32.4%	60.4%
Median Earnings	\$19,745	\$31,600	\$44,900
Life Expectancy	NA	NA	NA
Population	117,000	740,000	103,000

Explanation: This is the same as Table A1, but with an alternate definition of neighborhood areas (see map in H3.i).

Sources:

Low Income: ACS Table C17002, 2009-2014

Low Income Children: ACS Table B17024, 2009-2014

Unemployed: ACS Table S2301, 2009-2014

Uninsured: ACS Table S2701, 2009-2014

No HS Diploma: ACS Table B23006, 2009-2014

No Bachelor’s Degree: ACS Table B23006, 2009-2014

Median Earnings: ACS Table S2001, 2009-2014

Population: ACS Table S2701, 2009-2014

H2.i – Indicators by Alternate Neighborhood Areas

Neighborhood	Life Expectancy	Median Earnings (\$)	Unemployed (%)	Bachelor's Degree (%)	No High School Diploma (%)
Central Bardstown	NA	\$31,300	7.7	29.2	7.6
Central Preston	NA	\$27,200	11.2	19.9	13.4
Central Taylorsville	NA	\$37,000	5.6	41.5	6.7
Downtown	NA	\$16,500	22.3	18.2	18.8
East Core	NA	\$41,000	5.0	64.4	1.9
East Metro	NA	\$39,100	5.0	56.6	3.3
Iroquois Park	NA	\$25,800	11.5	17.0	16.2
Jefferson Forest	NA	\$28,200	10.3	8.6	18.2
McNeely Lake	NA	\$34,100	8.7	22.2	8.8
North Floyd's Fork	NA	\$45,100	4.8	55.3	2.8
Northeast Core	NA	\$31,500	5.9	49.4	5.5
Northeast Metro	NA	\$53,200	3.8	72.3	1.9
Northwest Core	NA	\$18,400	24.4	6.8	22.9
Parklands of Floyd's Fork	NA	\$44,600	5.3	48.3	2.2
Riverport	NA	\$26,400	14.5	8.4	16.8
South-Central Dixie	NA	\$29,200	9.3	15.3	8.3
Southeast Core	NA	\$36,600	6.3	54.9	4.0
Southwest Core	NA	\$23,400	16.2	10.4	16.8
University	NA	\$17,700	13.8	28.3	17.0
West Core	NA	\$16,500	19.1	11.2	16.8

H2.ii – Indicators by Alternate Neighborhood Areas

Neighborhood	Uninsured (%)	Low Income (%)	Low Income Children (%)	Percent Black	Poverty Index	Population
Central Bardstown	11.7	26.0	37.1	24.6	-0.30	14,200
Central Preston	13.7	27.0	38.0	21.2	0.16	32,100
Central Taylorsville	9.1	14.3	18.3	11.4	-0.69	21,500
Downtown	21.0	67.4	89.8	56.2	1.69	9,000
East Core	7.0	13.6	15.8	2.7	-1.00	18,600
East Metro	7.7	12.0	15.0	8.1	-0.93	14,400
Iroquois Park	15.0	33.8	46.6	16.2	0.43	14,900
Jefferson Forest	15.7	30.9	45.2	2.2	0.44	27,000
McNeely Lake	11.4	16.1	20.2	8.0	-0.36	45,500
North Floyd's Fork	6.6	9.6	12.4	12.0	-1.04	13,000
Northeast Core	12.5	27.6	35.5	10.3	-0.38	20,300
Northeast Metro	3.1	6.1	5.2	3.1	-1.33	61,700
Northwest Core	20.4	58.5	75.3	70.3	1.78	52,200
Parklands of Floyd's Fork	3.9	5.6	3.5	5.3	-1.22	113,300
Riverport	18.2	32.2	43.6	21.0	0.70	8,900
South-Central Dixie	11.5	21.5	31.0	10.2	-0.27	42,500
Southeast Core	8.9	17.1	21.1	2.8	-0.73	9,700
Southwest Core	19.9	44.0	61.2	47.1	1.01	10,000
University	15.5	50.9	57.1	26.1	0.81	29,800
West Core	18.3	58.1	72.9	85.3	1.24	26,400

Sources: (The American Community Survey is abbreviated as ACS below).

Low Income: ACS Table C17002, 2009-2014

Low Income Children: ACS Table B17024, 2009-2014

Unemployed: ACS Table S2301, 2009-2014

Uninsured: ACS Table S2701, 2009-2014

No HS Diploma: ACS Table B23006, 2009-2014

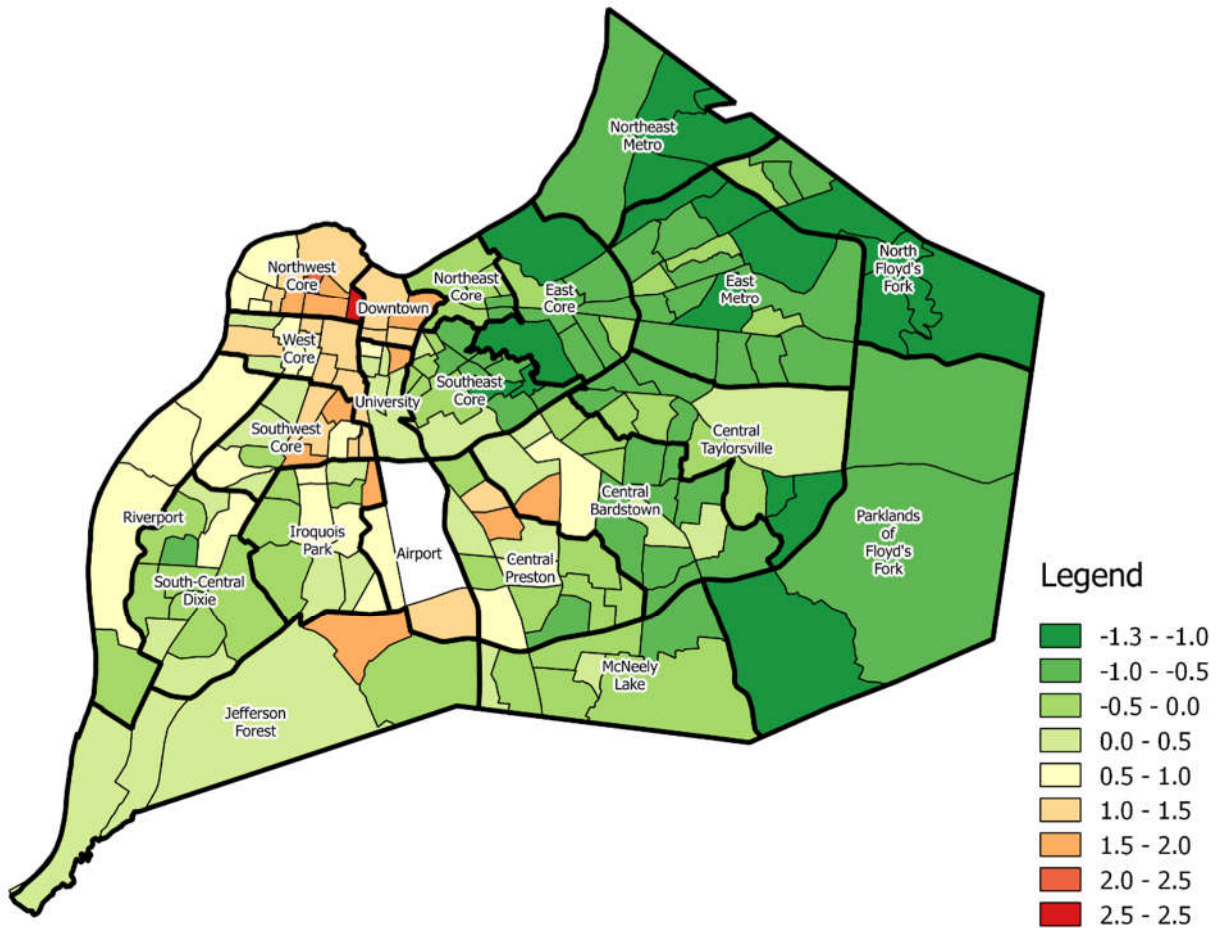
No Bachelor's Degree: ACS Table B23006, 2009-2014

Median Earnings: ACS Table S2001, 2009-2014

Life Expectancy: Center for Health Equity

Population: ACS Table S2701, 2009-2014

H3.i – MPI map by Alternate Neighborhood Areas (Tract Level)



Explanation: This is the same as map F5, but with alternate neighborhood areas.

Sources:

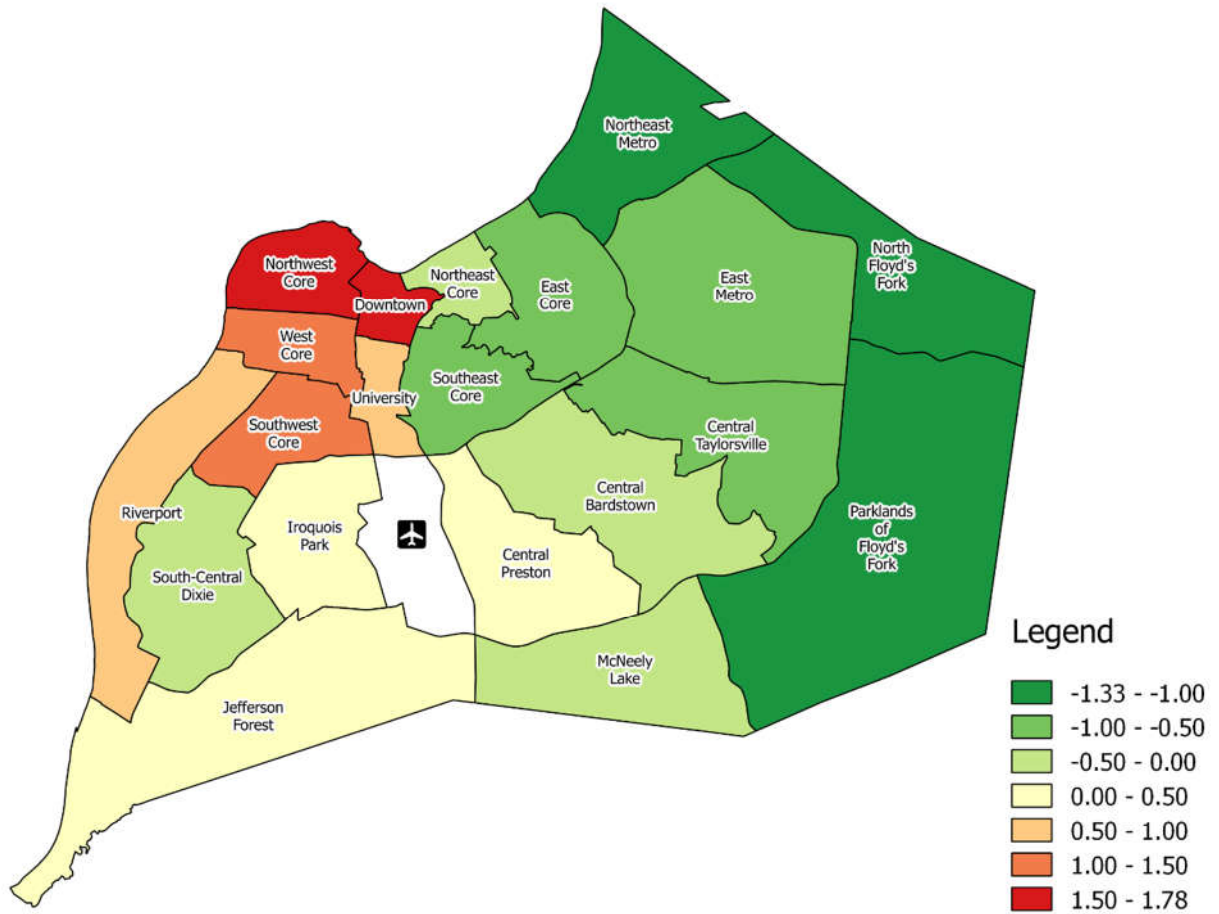
Low Income: ACS Table C17002, 2009-2014

Unemployed: ACS Table S2301, 2009-2014

Uninsured: ACS Table S2701, 2009-2014

No HS Diploma: ACS Table B23006, 2009-2014

H3.ii – MPI map by Alternate Neighborhood Areas



Explanation: This is the MPI, but instead of displaying at the census tract level, it is aggregated up to the neighborhood areas using a population-weighted average of the census tracts in each neighborhood area.

Sources:

- Low Income: ACS Table C17002, 2009-2014
- Unemployed: ACS Table S2301, 2009-2014
- Uninsured: ACS Table S2701, 2009-2014
- No HS Diploma: ACS Table B23006, 2009-2014

Appendix I - Methods

I1 – Neighborhood Abbreviations

Neighborhood	Abbreviation	Shorter Abbreviation
Algonquin-Park Hill-Park Duvalle	A-PH-PD	A - PH - PD
Buechel-Newburg-Indian Trail	Buechel Newburg Indian Trail	B - N - IT
Butchertown-Clifton-Crescent Hill	B-C-CH	B - C - CH
California-Parkland	C-P	C - P
Chickasaw-Shawnee	C-S	C - S
Downtown-Old Louisville-University	OL	D - OL - U
Fairdale	Fairdale	F
Fern Creek	Fern Creek	FC
Floyd's Fork	Floyd's Fork	FF
Germantown	Germantown	G
Highlands	Highlands	H
Highview-Okolona	Highview Okolona	H - O
J-Town	J-Town	JT
Northeast Jefferson	NE Jefferson	NEJ
Phoenix Hill-Smoketown-Shelby Park	PH	PH - S - SP
Pleasure Ridge Park	Pleasure Ridge Park	PRP
Portland	Portland	P
Russell	Russell	R
Shively	Shively	Sh
South Central Louisville	SC Louisville	SCL
South Louisville	S Louisville	SL
Southeast Louisville	SE Louisville	SEL
St. Matthews	St. Matthews	StM
Valley Station	Valley Station	VS

I2 – Notes on the methods used in the report

Neighborhood Areas: The statistics for the neighborhood areas are population-weighted averages of the census tracts that make up the neighborhood areas (all neighborhood area averages are listed in tables A2.i and A2.ii). The statistics for the poorest and least poor neighborhood areas are, in turn, a population-weighted average of the indicated neighborhood areas. The population weights are specific to the statistic at hand, meaning the weights used to calculate the percentage of low income children is based on the number of children in each census tract, while the weights for low income overall are based on the number of overall residents.

Construction of the MPI: The MPI indicator was developed for this report by the Greater Louisville Project. It is designed to indicate overlapping deprivations at the neighborhood level. The four indicators used are low income (under 150% of the poverty line), low education (no high school diploma), no health insurance, and unemployment rate. To combine the indicators into a single index, a z-score is

calculated for each of the four indicators, based on Louisville's 190 census tracts of data. The MPI is the arithmetic mean of the four z-scores. A high score on the index indicates a tract that is multidimensionally poor (experiencing overlapping deprivations).

Concentration of Poverty: The concentration of poverty percentage is based on the MPI index described above. Poor census tracts are defined as those with an MPI above 1. The population living in a poor census tract is divided by the total population for each city.

Imagining a Better Louisville: The calculations are based on imagining a Louisville where the four poorest neighborhood areas were brought up to the citywide average. To calculate the possible gains, the values on each indicator for the four poorest neighborhood areas is compared to the citywide average. The difference between the citywide average and the current neighborhood areas average is then multiplied by the number of people affected by that statistic (e.g. number of children for low-income children, number of working-age adults for bachelor's degree, etc.) to yield the possible improvement.

Sources used in the report:

Low Income: ACS Table C17002, 2009-2014

Low Income Children: ACS Table B17024, 2009-2014

Unemployed: ACS Table S2301, 2009-2014

Uninsured: ACS Table S2701, 2009-2014

No HS Diploma: ACS Table B23006, 2009-2014

No Bachelor's Degree: ACS Table B23006, 2009-2014

Median Earnings: ACS Table S2001, 2009-2014

Life Expectancy: *Louisville Metro Health Equity Report* by the Center for Health Equity, 2014

Population: ACS Table S2701, 2009-2014

Percent Black: ACS Table B02001, 2009-2014

Brookings framework for the MPI is based on the Brookings Report, "Five Evils: Multidimensional poverty and race in America" <https://www.brookings.edu/interactives/five-evils-multidimensional-poverty-and-race-in-america/>