

**APPENDIX D:**  
Socioeconomic Study

KY 32 Corridor – Flemingsburg Road Planning Study  
Rowan County

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Socioeconomic Report  
August 2022

Prepared for  
Kentucky Transportation Cabinet (KYTC) – Division of Planning



Prepared By:  
Gateway Area Development District



This document has been prepared in cooperation with the Kentucky Transportation Cabinet

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# Final Socioeconomic Report, KY 32 Corridor – Flemingsburg Road Planning Study

## Introduction

This report presents an overview of the findings for selected socioeconomic characteristics in the KY 32 – Flemingsburg Rd Planning Study. The purpose of the study is to determine if there are any potential adverse disproportioned effects on Environmental Justice populations regarding the implementation of potential improvement alternatives along KY 32. The study will focus on, “Flemingsburg Road” that includes the corridor between KY 377 and US 60 in Morehead, Rowan County, Kentucky.

The information in this report outlines 2016-2020 American Community Survey (ACS) statistics in and near the project area using tables, charts, and maps. The data presented in this document is intended to highlight areas of concern that will require additional analysis should any project be advanced to future phases. Statistics are provided for minority, elderly, poverty status, limited English proficiency (LEP), and disabled populations for the nation, state, counties and block groups located within the project area.

This information is intended to aid the Kentucky Transportation Cabinet (KYTC) in making informed and prudent transportation decisions in the project area, especially with regard to the requirements of *Executive Order 12898: Federal Actions to Address Environmental Justice in Minority Populations and Poverty status, Populations* (signed February 11, 1994). Executive Order 12898 states:

“...each Federal agency shall make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its policies, and activities on minority populations and poverty status, populations...”

The planning study area is composed of the following Census Tract (CT) Block Groups (BG):

- Rowan County Census Tract: 9501, Block Group 2
- Rowan County Census Tract: 9501, Block Group 4
- Rowan County Census Tract: 9502.01, Block Group 1
- Rowan County Census Tract: 9502.02, Block Group 1
- Rowan County Census Tract: 9502.02, Block Group 3
- Rowan County Census Tract: 9502.02, Block Group 4
- Rowan County Census Tract: 9503.01, Block Group 1

### What is Environmental Justice?

The U.S. Department of Transportation (DOT) outlines three primary Environmental Justice Concepts:

1. To avoid, minimize, or mitigate disproportionately high and adverse human health or environmental effects, including social and economic effects, on minority populations and poverty status, populations.
2. To ensure the full and fair participation by all potentially affected communities in the transportation decision-making process.
3. To prevent the denial of, reduction in, or significant delay in the receipt of benefits by minority population and poverty status, populations.

The U.S. DOT order defines minority as:

1. Black (a person having origins in any of the black racial groups of Africa);
2. Hispanic (a person of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin, regardless of race);
3. Asian American (a person having origins in any of the original peoples of the Far East, Southeast Asia, the Indian subcontinent, or the Pacific Islands); or
4. American Indian and Alaskan Native (a person having origins in any of the original people of North America and who maintains cultural identification through tribal affiliation or community recognition).

A minority population is “any readily identifiable groups of minority persons who live in geographic proximity, and if circumstances warrant geographically dispersed/transient persons...”

Low-income, is defined in U.S. DOT Order (5610.2) as “a person whose median household income is at or below the Department of Health and Human Services (HHS) poverty guidelines.” A low-income, population is “any readily identifiable group of low-income, persons who live in geographic proximity, and, if circumstances warrant, geographically dispersed/transient persons...”

A disproportionately high and adverse effect on a minority or low-income population means an adverse effect that:

1. Is predominately borne by a minority population and/or low-income population or
2. Will be suffered by the minority population and/or low-income population and is appreciably more severe or greater in magnitude than the adverse effect that will be suffered by the non-minority population and/or non-low-income population.

Elderly and disabled populations (also used in this analysis) are not specifically recognized under the definition of an Environmental Justice community. However, the U.S. DOT specifically encourages the early examination of potential population of the elderly, children, disabled, and other populations protected by the Title VI of the Civil Rights Act of 1964 and related nondiscrimination statuses.

Limited English proficiency (LEP) is a term used in the United States that refers to a person who is not fluent in the English language, often because it is not their native language. Both LEP and English-language learner (ELL) are terms used by the Office for Civil Rights, a sub-agency of the U.S. Department of Education.

## **Methodology**

The data was collected using the method outlined by the KYTC document “Methodology for Assessing Potential Environmental Justice Concerns for KYTC Planning Studies”. The demographics of the affected area should be defined using U.S. Census Bureau data and the percentages for minorities, poverty status, elderly, LEP, and disabled populations should be compared to the Census tracts and block groups, the county, the entire state, and the United States.

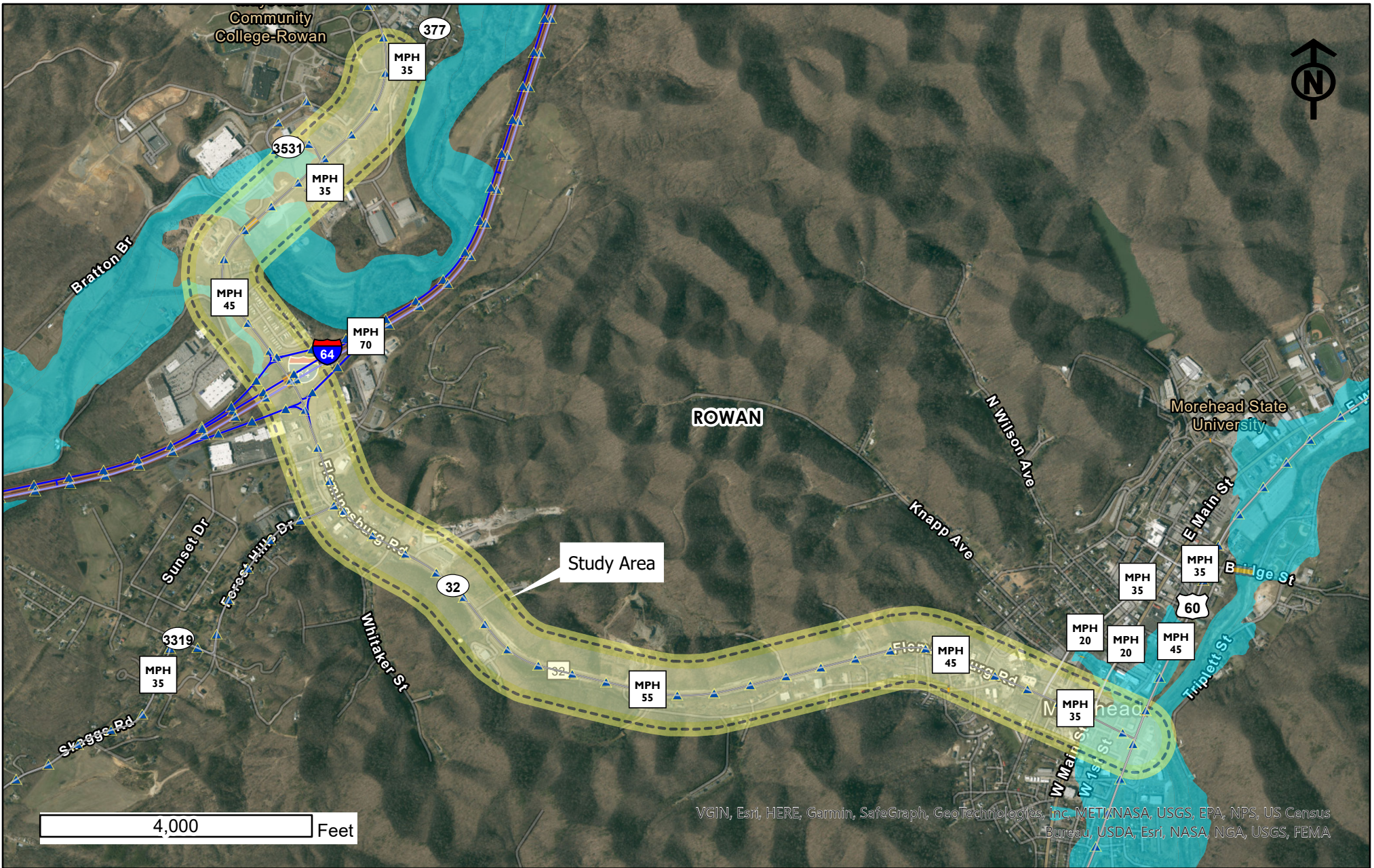
The primary source of data for this report is the 2016-2020 U.S. Census Bureau American Community Survey including tables:

- B01001 - Sex by Age
- B03002 - Hispanic or Latino Origin by Race
- B16004 - Age by Language Spoken at Home by Ability to Speak English for the Population 5 Years and Over
- B17021 - Poverty Status of Individuals in the Past 12 Months by Living Arrangement
- C21007 - Age by Veteran Status by Poverty Status in the Past 12 Months by Disability Status

The data presented in this document is intended to highlight areas of concern that will require additional analysis should any project be advanced to future phases.

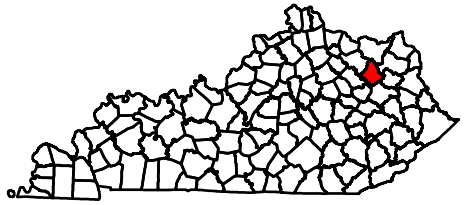
The Census tables in this report include the total number and percentages for minorities, elderly, low-income, LEP, and disabled population levels for the census tract block groups, counties, state, and nation. The project area is contained within the Gateway Area Development District.

*The methodologies used in this planning document are appropriate for identifying possible areas of concern in small urban areas and potential project corridors. However, during future phases of project development a more detailed and robust analysis would be required for the NEPA documentation when assessing the potential for adverse and disproportionate impacts to low-income and minority populations.*



# Highway 32 Corridor Improvements Study

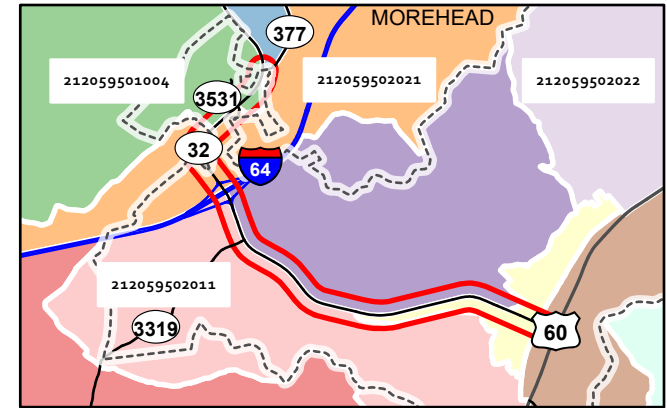
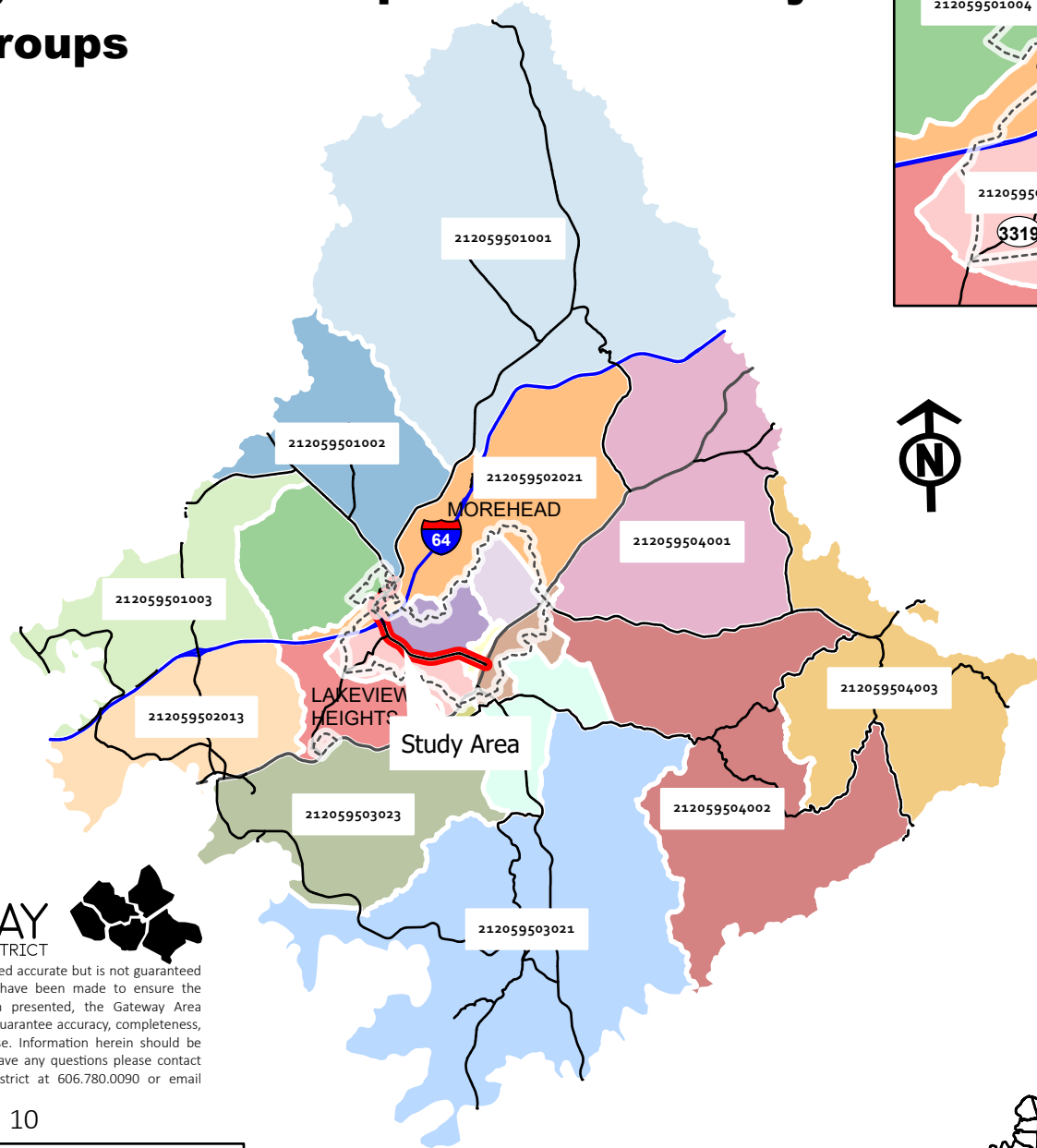
-  Study Area
-  Floodplain
-  KYTC Bridges
-  State Road Mile Points
























**GATEWAY**  
AREA DEVELOPMENT DISTRICT

All mapped information is believed accurate but is not guaranteed without error. While attempts have been made to ensure the correctness of the information presented, the Gateway Area Development District does not guarantee accuracy, completeness, or suitability for a particular use. Information herein should be independently verified. If you have any questions please contact Gateway Area Development District, 110 Lake Park Drive, Morehead, Kentucky, 40351.

# Highway 32 Corridor Improvements Study Block Groups




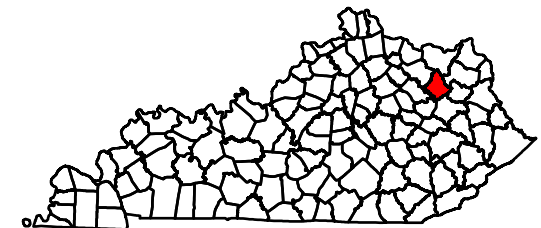
- |   |                             |   |              |
|---|-----------------------------|---|--------------|
|    | Study Area                  |    | 212059502022 |
|    | Corporate Boundary Polygons |    | 212059502023 |
| Census Block Groups   |                             |    | 212059502024 |
|    | 212059501001                |    | 212059503011 |
|    | 212059501002                |    | 212059503012 |
|    | 212059501003                |    | 212059503021 |
|    | 212059501004                |    | 212059503022 |
|    | 212059502011                |    | 212059503023 |
|    | 212059502012                |    | 212059504001 |
|  | 212059502013                |  | 212059504002 |
|  | 212059502021                |  | 212059504003 |



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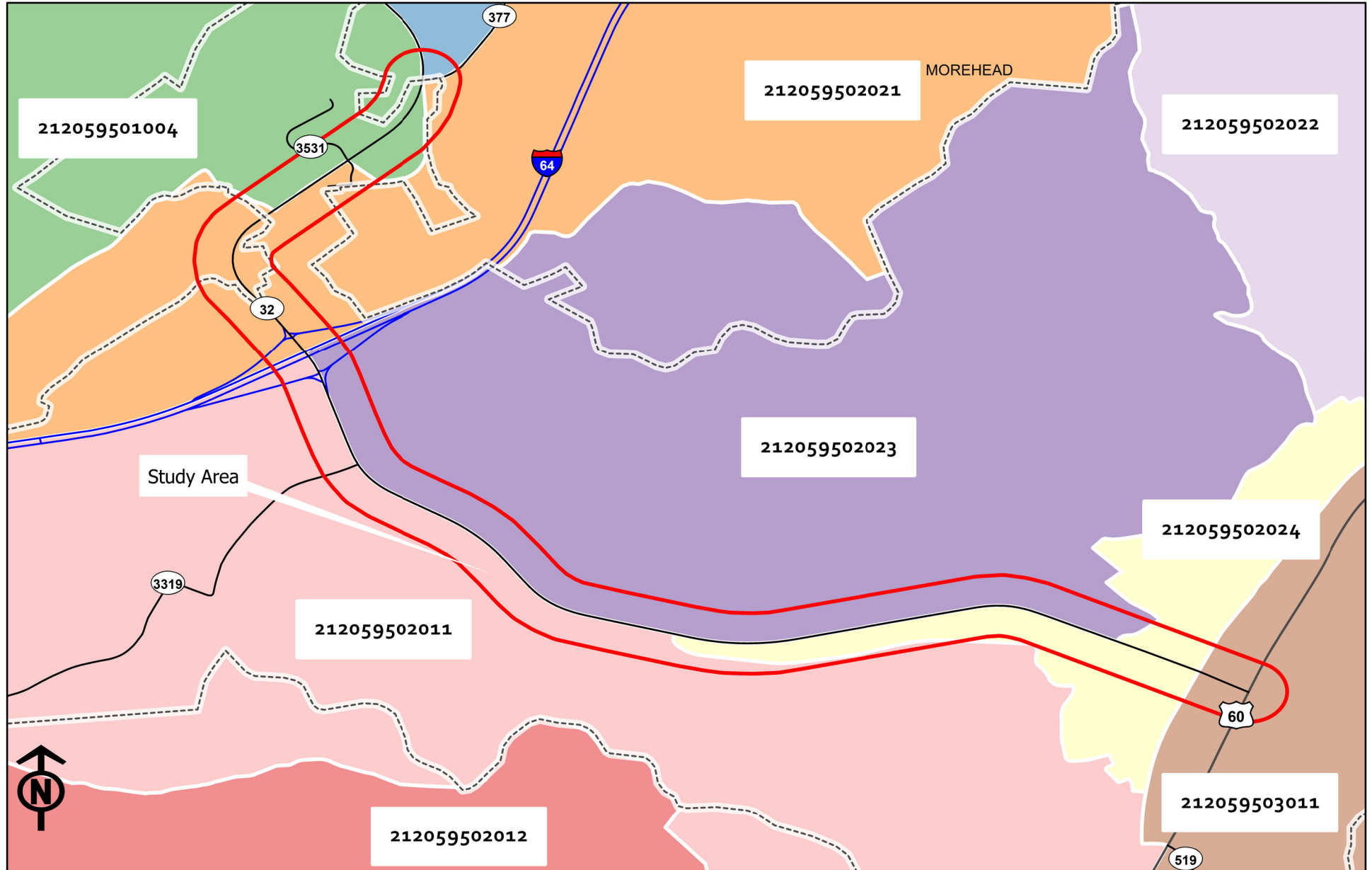
 Miles






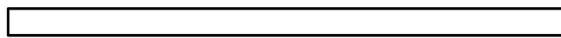
# Highway 32 Corridor Improvements Study

## Block Groups



 Study Area

1.25

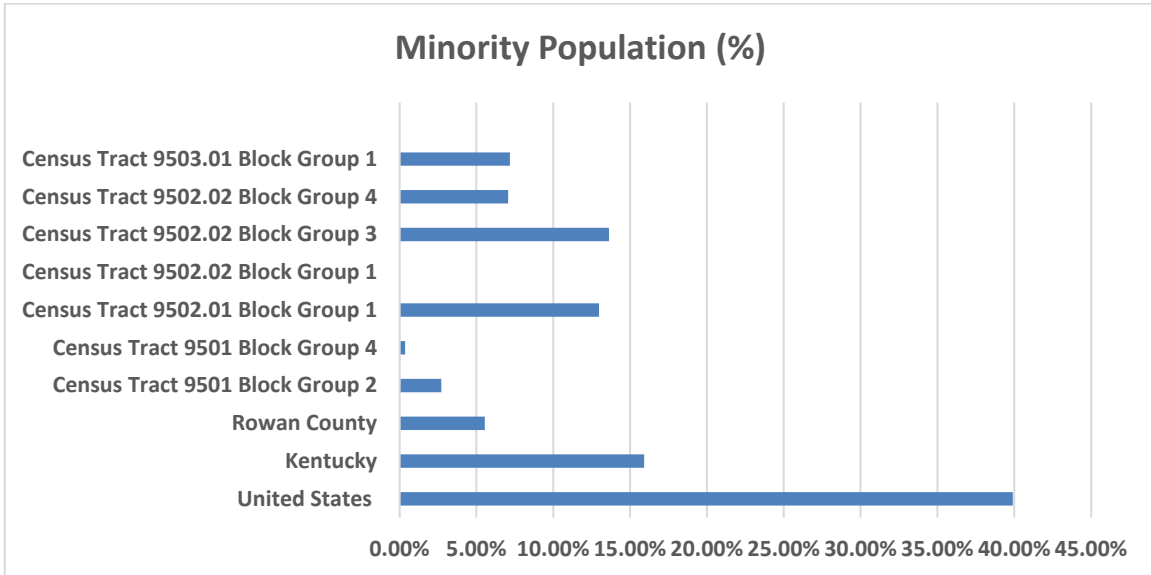
 Miles



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Study Findings

Population by Persons of Racial Minority Origin



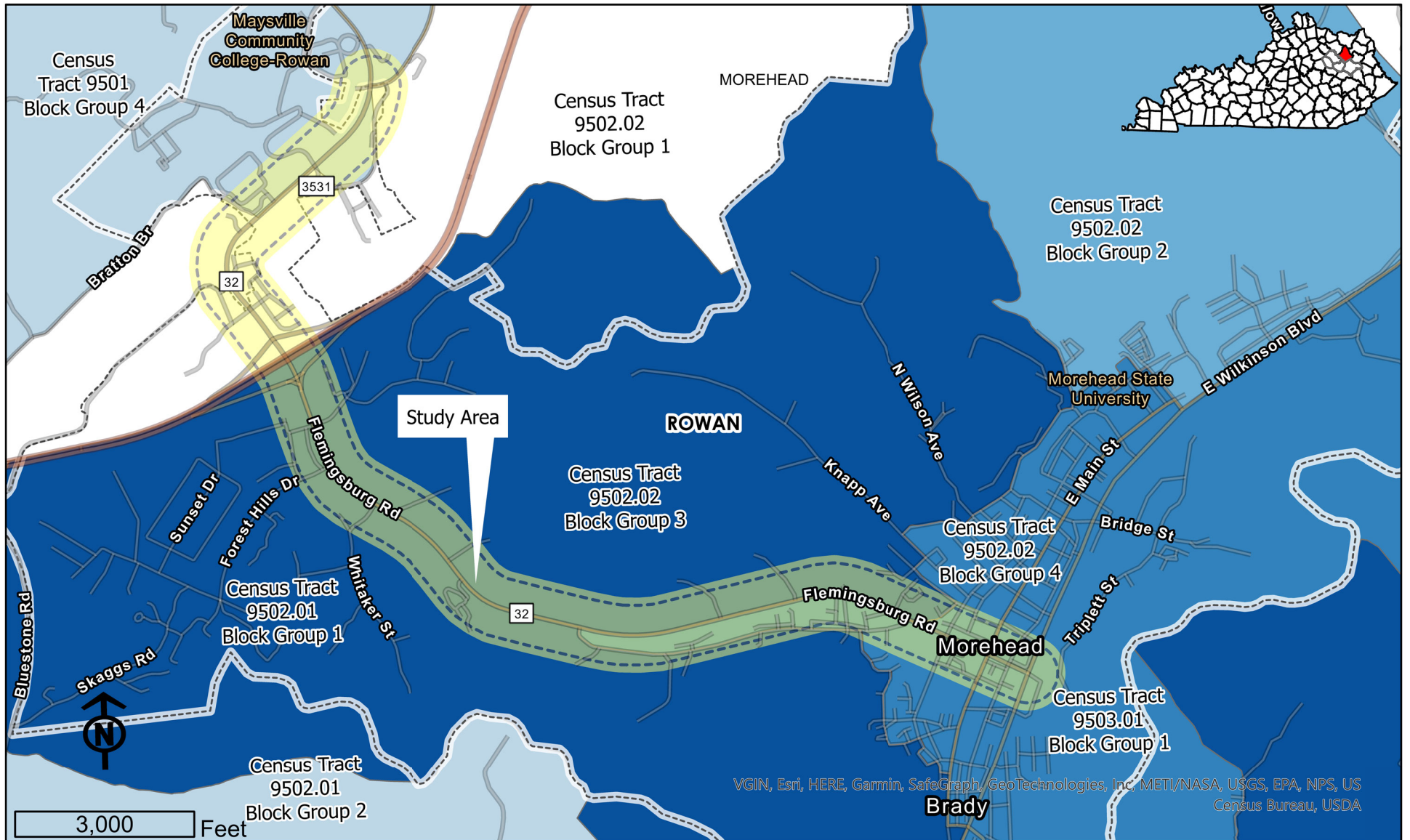
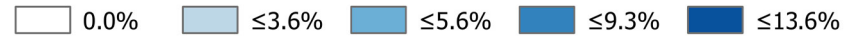
Racial minorities in the United States make up 39.91% of the population, but in Kentucky that percentage drops significantly to just 15.92%. All Census Tract Block Groups display an even lower percentage of racial minorities than that of the state respectively. In the project area, Block Group (BG) 3 of Census Tract (CT) 9502.02 has the highest minority population 13.63%. Block Group (BG) 1 of Census Tract (CT) 9502.01 has the second highest minority population in the project area at 12.98%. Block Group (BG) 1 of Census Tract (CT) 9502.02 has the lowest minority population in the project area at 0%.

	Total Population	Minority Population	Minority Population (%)
United States	326,569,308	130,317,933	39.91%
Kentucky	4,461,952	710,214	15.92%
Rowan County	24,534	1,362	5.55%
Census Tract 9501 Block Group 2	1285	35	2.72%
Census Tract 9501 Block Group 4	555	2	.36%
Census Tract 9502.01 Block Group 1	1356	176	12.98%
Census Tract 9502.02 Block Group 1	580	0	0.00%
Census Tract 9502.02 Block Group 3	2245	306	13.63%
Census Tract 9502.02 Block Group 4	2873	203	7.07%
Census Tract 9503.01 Block Group 1	1045	75	7.18%

Source: US Census Bureau, 2016-2020 American Community Survey 5-Year Estimates Table B03002

# Highway 32 Corridor Improvements Study

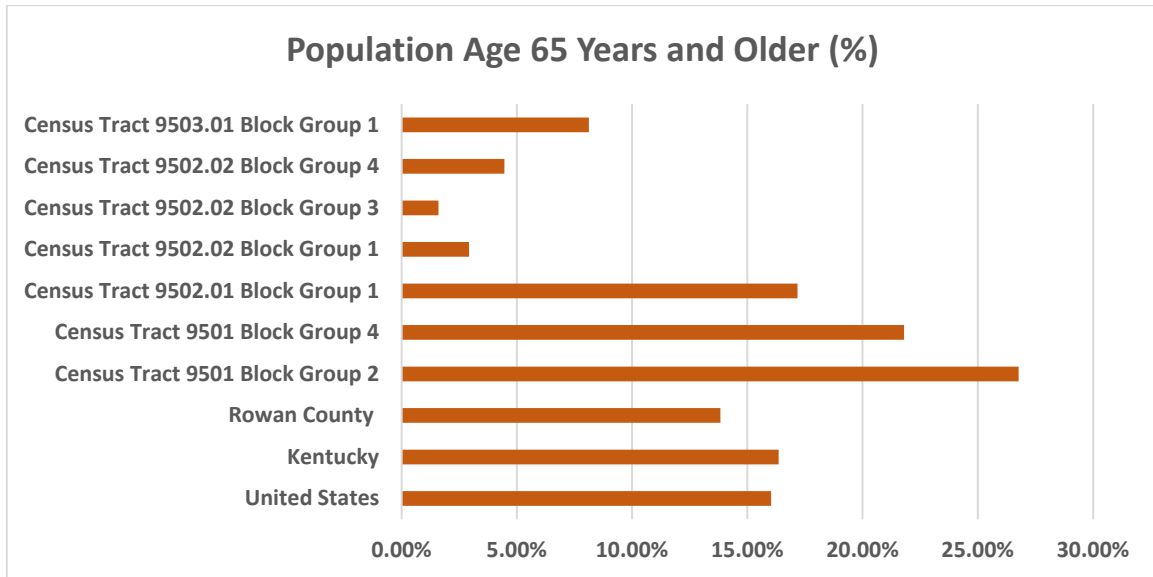
## Percent of Minority Population



Source: Kentucky State Data Center  
 2020 American Community Survey 5-Year Data (2016-2020)  
 Table B02001- Race  
 Date Modified: 8/9/2022  
 This map was produced in cooperation with the Kentucky Transportation Cabinet.



Population by Persons Age 65 Years and Older



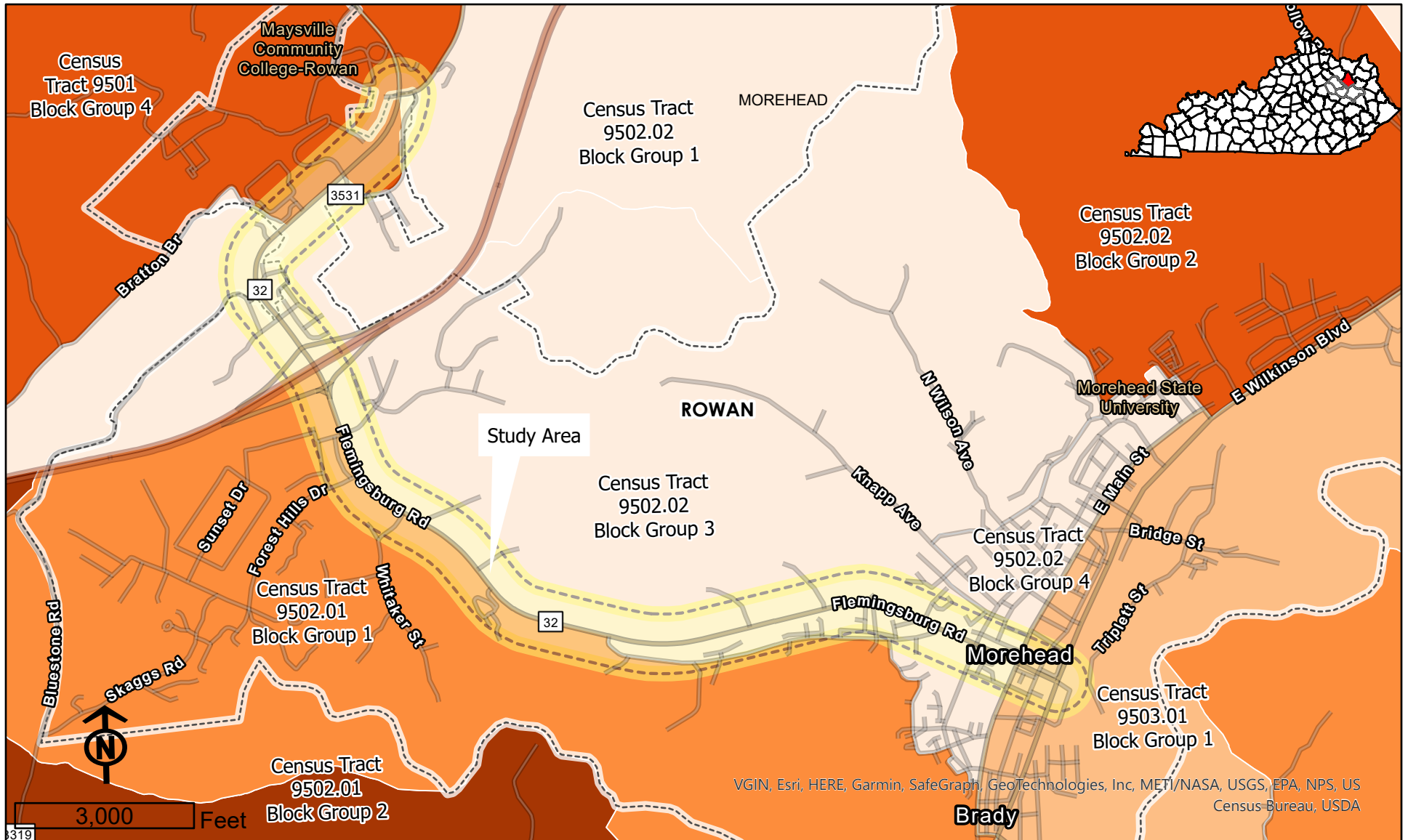
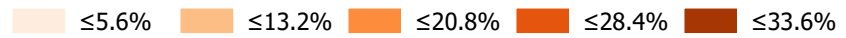
Block Group (BG) 2 of Census Tract (CT) 9501, Block Group (BG) 4 of Census Tract (CT) 9501, Block Group (BG) 1 of Census Tract (CT) 9502.01, and Block Group 1 of Census Tract (CT) 9502.01 each has a higher percentage of elderly persons when compared to the other block groups in the study area, the State of Kentucky and the Nation. Block Group (BG) 3 of Census Tract (CT) 9502.02 has a lower percentage of elderly persons than all of CTs/BGs in the study area, State, and the Nation.

	Total Population	Population Age 65 Years and Older	Population Age 65 Years and Older (%)
United States	326,569,308	52,362,817	16.03%
Kentucky	4,461,952	729,928	16.36%
Rowan County	24,534	3,392	13.83%
Census Tract 9501 Block Group 2	1285	344	26.77%
Census Tract 9501 Block Group 4	555	121	21.80%
Census Tract 9502.01 Block Group 1	1356	233	17.18%
Census Tract 9502.02 Block Group 1	580	17	2.93%
Census Tract 9502.02 Block Group 3	2245	36	1.60%
Census Tract 9502.02 Block Group 4	2873	128	4.46%
Census Tract 9503.01 Block Group 1	1045	85	8.13%

Source: US Census Bureau, 2016-2020 American Community Survey 5-Year Estimates Table B01001

# Highway 32 Corridor Improvements Study

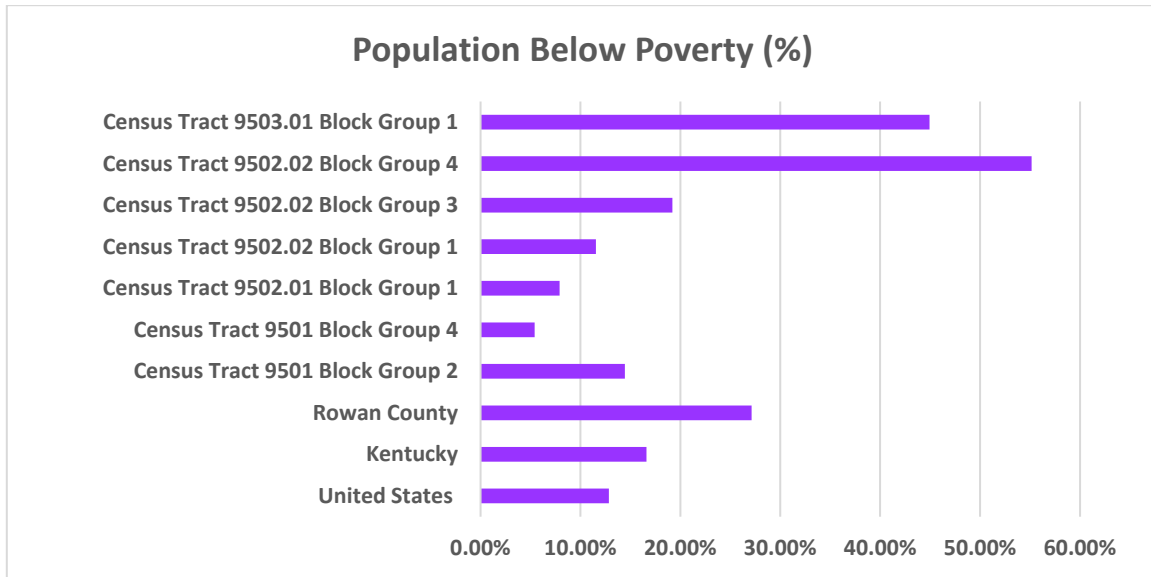
Percent of Population Age 65 and Over



Source: Kentucky State Data Center  
 2020 American Community Survey 5-Year Data (2016-2020)  
 Table B01001- Sex by Age  
 Date Modified: 8/9/2022  
 This map was produced in cooperation with the Kentucky Transportation Cabinet.



Population by Persons Below Poverty Level



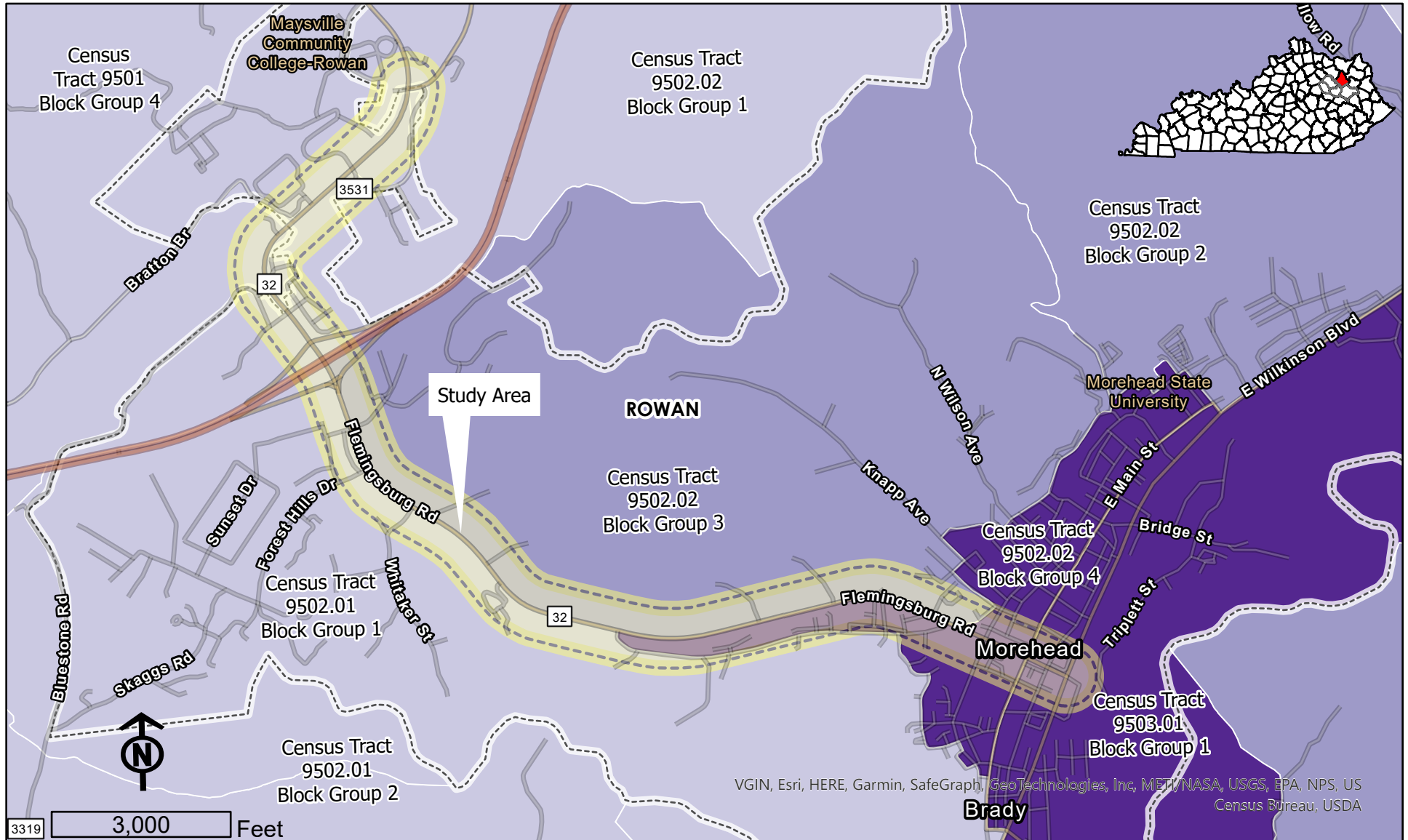
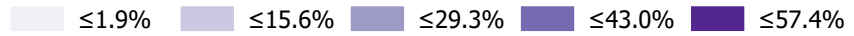
The percentage of persons living below the poverty level in Kentucky (16.61%) is higher than that of the United States 12.84%. Rowan county has higher percentage of people living below poverty level than both the state and Kentucky and the United States with 27.13%, respectively. Block Group (BG) 4 of Census Tract (CT) 9502.02 at 55.16%, Block Group (BG) 1 of Census Tract (CT) 9503.01 at 44.94%, and Block Group (BG) 3 of Census Tract (CT) 9502.02 at 19.21%, all have considerably higher percentages of poverty than that of both the State of Kentucky and United States.

	Total Population	Population Below Poverty	Population Below Poverty (%)
United States	318,564,128	40,910,326	12.84%
Kentucky	4,322,881	717,895	16.61%
Rowan County	21,559	5,850	27.13%
Census Tract 9501 Block Group 2	1225	177	14.45%
Census Tract 9501 Block Group 4	555	30	5.41%
Census Tract 9502.01 Block Group 1	1339	106	7.92%
Census Tract 9502.02 Block Group 1	580	67	11.55%
Census Tract 9502.02 Block Group 3	984	189	19.21%
Census Tract 9502.02 Block Group 4	1637	903	55.16%
Census Tract 9503.01 Block Group 1	1008	453	44.94%

Source: US Census Bureau, 2016-2020 American Community Survey 5-Year Estimates Table B17021

# Highway 32 Corridor Improvements Study

## Percent of Population with Poverty Status

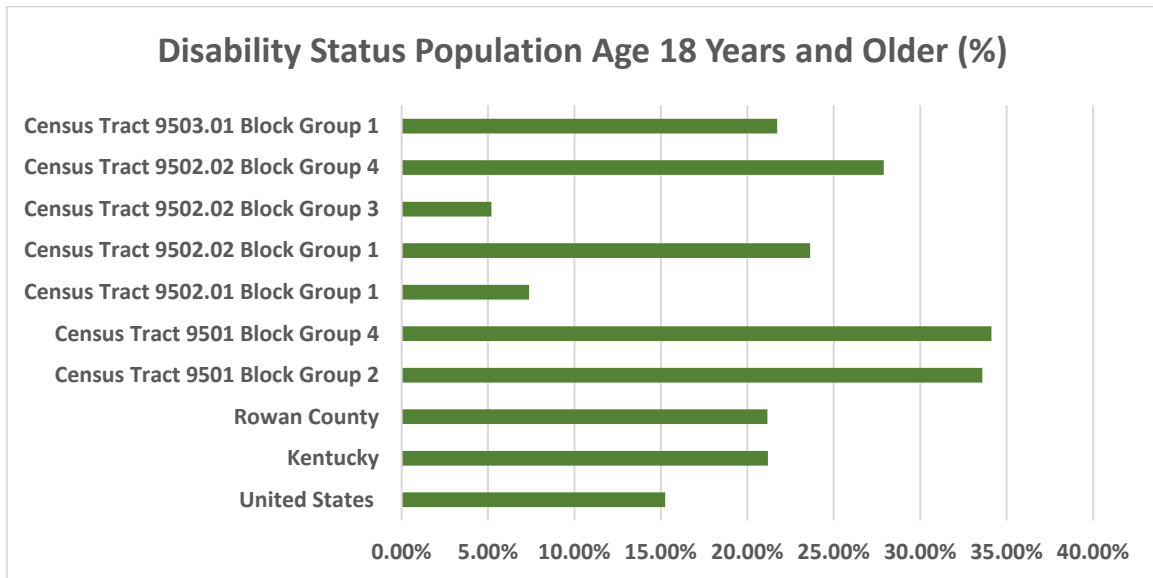


Source: Kentucky State Data Center  
 2020 American Community Survey 5-Year Data (2016-2020)  
 Table B17021- Poverty Status of Individuals in the Past 12 Months  
 Date Modified: 8/9/2022  
 This map was produced in cooperation with the Kentucky Transportation Cabinet.



VGIN, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, MET/NASA, USGS, EPA, NPS, US Census Bureau, USDA

Population by Disability Status



Kentucky had 21.19% percent of its population age 18 years and older with some type of disability. This is higher than the national percentage of 15.25%. Data shows that the disability status in the project area ranges from 5.20% to 34.12%. The population of persons over 18 years with a disability in Rowan County at 21.16% is higher than that of the national average. Block Group (BG) 4 of Census Tract (CT) 9501 at 34.12%, Block Group (BG) 2 of Census Tract (CT) 9501 at 33.59%, Block Group (BG) 4 of Census Tract (CT) 9502.02 at 27.89%, Block Group (BG) 1 of Census Tract (CT) 9502.02 at 23.64%, and Block Group (BG) 1 of Census Tract (CT) 9503.01 at 21.73%, all have considerably higher percentages of population of 18 and over with some type of disability than that of both the State of Kentucky and United States.

	Total Population Age 18 and Older	Disability Status Population Age 18 Years and Older	Disability Status Population Age 18 Years and Older (%)
United States	245,684,915	37,478,333	15.25%
Kentucky	3,330,918	705,961	21.19%
Rowan County	16,930	3,582	21.16%
Census Tract 9501 Block Group 2	1155	388	33.59%
Census Tract 9501 Block Group 4	469	160	34.12%
Census Tract 9502.01 Block Group 1	1234	91	7.37%
Census Tract 9502.02 Block Group 1	516	122	23.64%
Census Tract 9502.02 Block Group 3	788	41	5.20%
Census Tract 9502.02 Block Group 4	1359	379	27.89%
Census Tract 9503.01 Block Group 1	902	196	21.73%

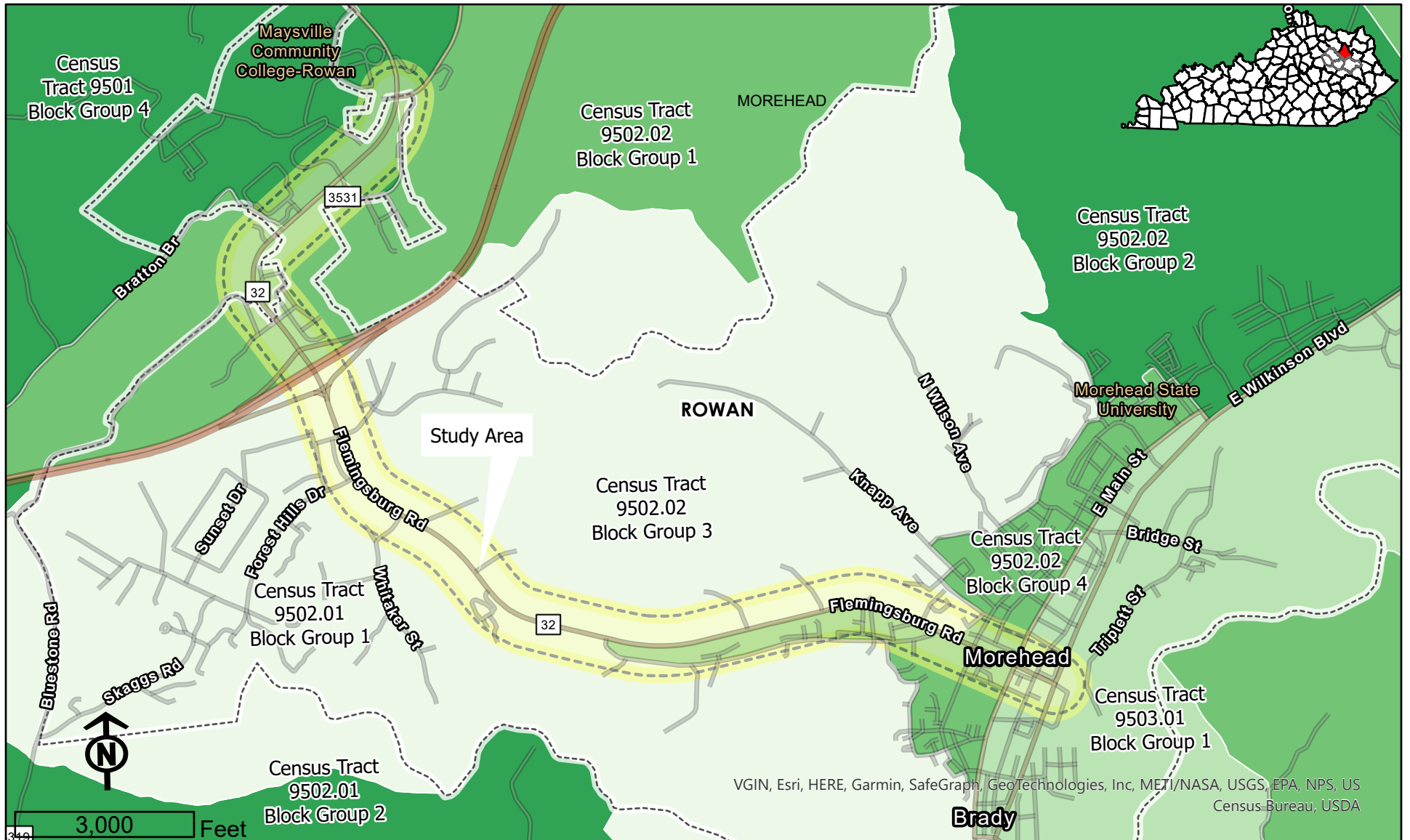
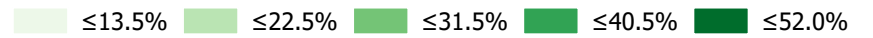
Source: US Census Bureau, 2016-2020 American Community Survey 5-Year Estimates Table C21007

Population by Persons with Limited English Proficiency



# Highway 32 Corridor Improvements Study

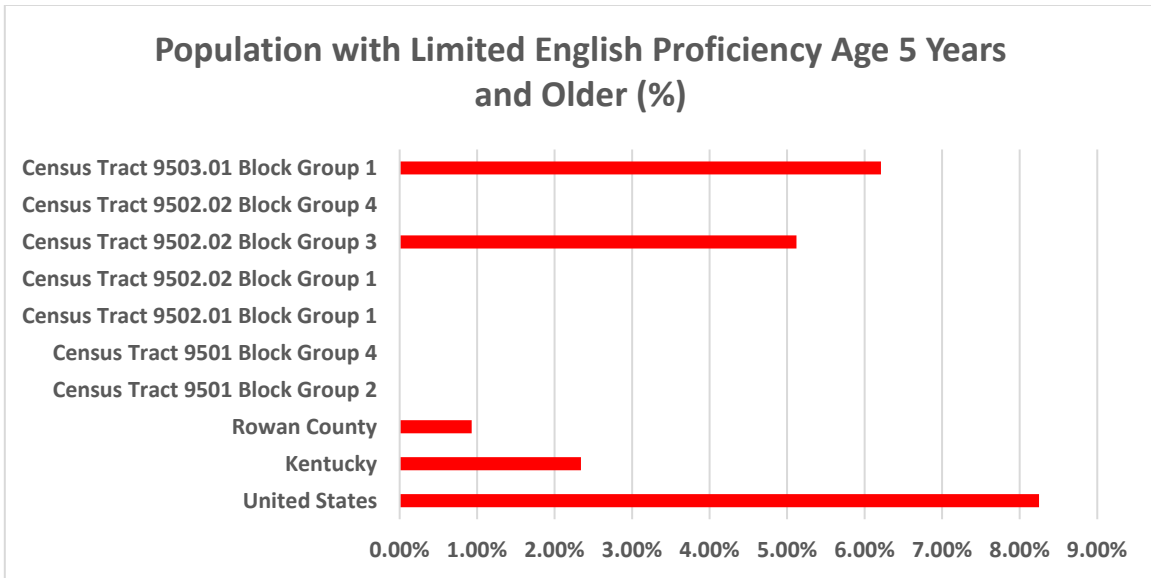
## Percent Disability Status - Age 18 Years & Older



Source: Kentucky State Data Center  
 2020 American Community Survey 5-Year Data (2016-2020)  
 Table C21007- Age by Veteran Status by Poverty Status in the Past 12 Months by Disability Status for the Civilian  
 Date Modified: 8/9/2022  
 This map was produced in cooperation with the Kentucky Transportation Cabinet.



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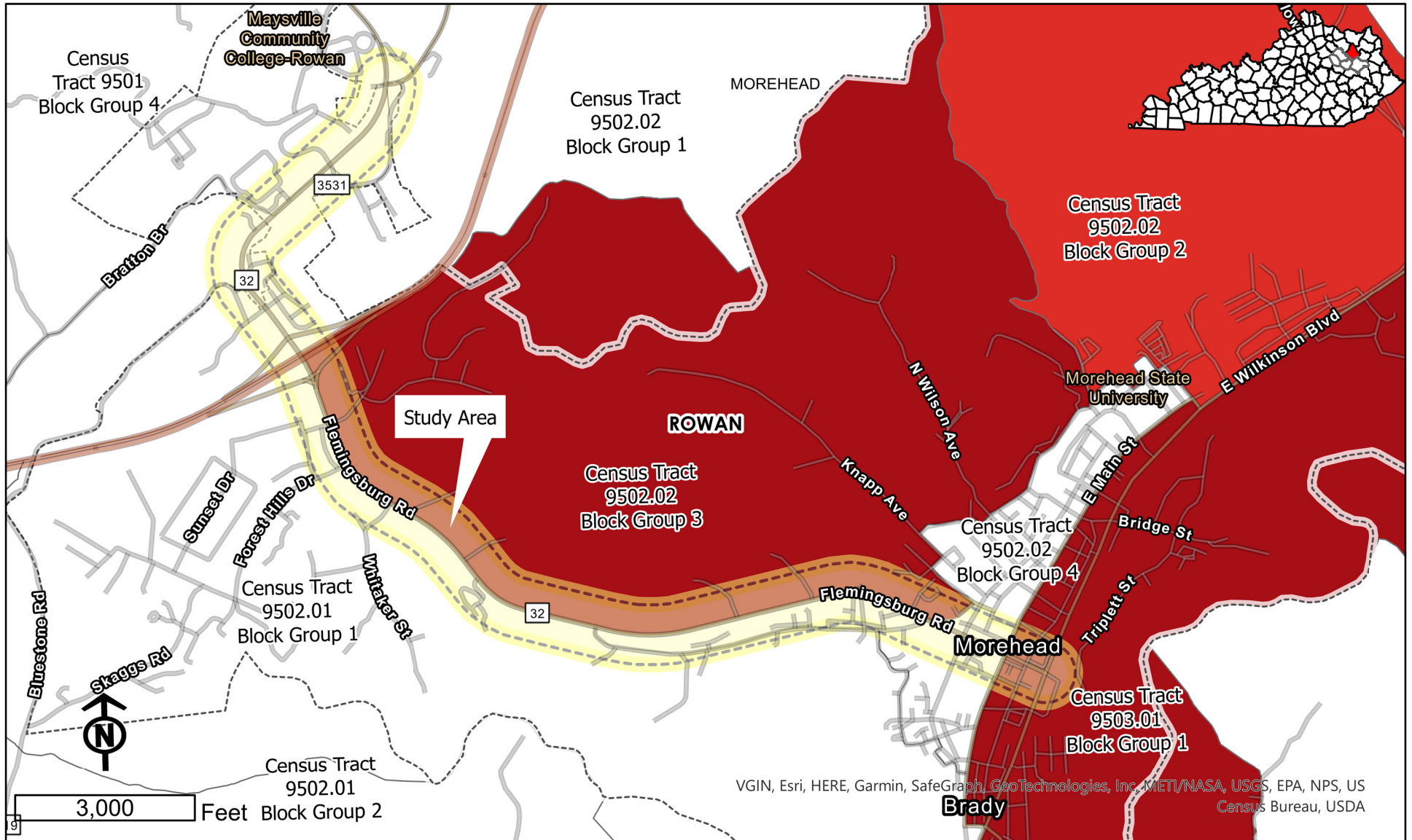
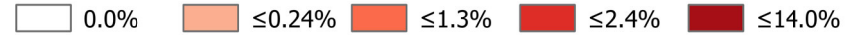
Persons with Limited English Proficiency (LEP) in the United States make up 8.25% of the population, but in Kentucky that percentage decreases to just 2.34%. Rowan County has a much lower percentage of Persons with Limited English Proficiency (LEP) that that of both the State of Kentucky and the United States with 0.93%. Block Group (BG) 1 of Census Tract 9503.01 and Block Group (BG) 3 of Census Tract 9502.02 have the highest percentage of persons with limited English proficiency in the study area with 6.21% and 5.12%, both of which are also higher than the State of Kentucky’s population at 2.34%.

	Total Population Age 5 Years and Older	Population with Limited English Proficiency Age 5 Years and Older	Population with Limited English Proficiency Age 5 Years and Older (%)
United States	306,919,116	25,312,024	8.25%
Kentucky	4,188,377	97,819	2.34%
Rowan County	23,190	216	0.93%
Census Tract 9501 Block Group 2	1265	0	0.00%
Census Tract 9501 Block Group 4	515	0	0.00%
Census Tract 9502.01 Block Group 1	1334	0	0.00%
Census Tract 9502.02 Block Group 1	580	0	0.00%
Census Tract 9502.02 Block Group 3	2167	111	5.12%
Census Tract 9502.02 Block Group 4	2793	0	0.00%
Census Tract 9503.01 Block Group 1	1031	64	6.21%

Source: US Census Bureau, 2016-2020 American Community Survey 5-Year Estimates Table B16004

# Highway 32 Corridor Improvements Study

Percent of Population Age 5 and Over Speaking English Less Than "Very Well"



VGIN, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA

Source: Kentucky State Data Center  
 2020 American Community Survey 5-Year Data (2016-2020)  
 Table B16004- Age by Language Spoken at Home by Ability to Speak English for the Populations 5 Years and Over  
 Date Modified: 8/9/2022  
 This map was produced in cooperation with the Kentucky Transportation Cabinet.



## Conclusion

### Population by Persons of Racial Minority Origin

Block Group (BG) 3 of Census Tract (CT) 9502.02: highest minority population in study area.

Block Group (BG) 1 of Census Tract (CT) 9502.01: second highest minority population in study area.

Block Group (BG) 1 of Census Tract (CT) 9502.02: lowest minority population in study area.

### Population by Persons Age 65 Years and Older

Block Group (BG) 2 of Census Tract (CT) 9501, Block Group (BG) 4 of Census Tract (CT) 9501, and Block Group (BG) 1 of Census Tract (CT) 9502.01: higher population of elderly persons than the State of Kentucky and the Nation.

Block Group (BG) 3 of Census Tract (CT) 9502.02: lowest population of elderly in study area and lower than that of Rowan, Kentucky, and the US percentages.

### Population by Persons Below Poverty Level

Block Group (BG) 4 of Census Tract (CT) 9502.02, Block Group (BG) 1 of Census Tract (CT) 9503.01, and Block Group (BG) 3 of Census Tract (CT) 9502.02: have poverty levels higher than both Kentucky and the Nation.

### Population by Disability Status

Block Group (BG) 4 of Census Tract (CT) 9501, Block Group (BG) 2 of Census Tract (CT) 9501, Block Group (BG) 4 of Census Tract (CT) 9502.02, Block Group (BG) 1 of Census Tract (CT) 9502.02, and Block Group (BG) 1 of Census Tract (CT) 9503.01: all have higher disability status population of age 18 and over than both Kentucky and the Nation.

Block Group (BG) 3 of Census Tract (CT) 9502.02: lowest disability status population age 18 and over with 5.20%.

### Persons with Limited English Proficiency

Block Group (BG) 1 of Census Tract 9503.01 and Block Group (BG) 3 of Census Tract (CT) 9502.02: highest percentages of persons with limited English proficiency in the study area with 6.21% and 5.12%.

During future phases of project development, a more detailed and robust analysis would be required for the NEPA documentation when assessing the potential for adverse and disproportionate impacts to those with disabilities, poverty status, and minority populations.

## Appendix: Methodology from KYTC

### METHODOLOGY FOR ASSESSING UNDERSERVED POPULATIONS INCLUDING ENVIRONMENTAL JUSTICE, TITLE VI, AGE AND DISABILITY IN PLANNING STUDIES Updated May 2022

#### Cover Page

**Title:** Insert specific study type/area

**Subtitle:** Socioeconomic Study

**Date:**

**Author:**

#### Analysis

Environmental Justice refers to the fair treatment of all people regardless of race, color, national origin or income. Specifically, agencies must demonstrate meaningful involvement with the above stated groups with respect to development, implementation and enforcement of environmental laws, regulations and policies. Environmental Justice analysis is undertaken for any study that may result in impacts on a minority and/or low income population that has a federal nexus (funding or approval).

Additionally KYTC works to identify potential populations of the Elderly, Disabled, Limited English Proficiency and Limited Transportation Options that may be impacted in or near the Affected Community (AC) should highway improvements take place in the future.

Examples of these studies include, but are not limited to:

- Corridor Studies
- Traffic Studies
- Small Urban Area Studies
- Feasibility Studies
- Interchange Justification Studies
- Interchange Modification Reports

Affected Community with potential environmental justice impacts are determined by locating populations of minority, low-income, elderly, disabled, and limited English proficiency and calculating their percentage in the area relative to a reference community of comparison (COC).

Communities of comparison:

- The county percentage
- Kentucky percentage
- Block groups within reasonable proximity of the study area
- United States
- ADD Region

The demographics of the study area should be defined using block group data accessed via the American Community Survey 5 year data. KYTC will work in conjunction with the State Data Center to provide pertinent spatial data on a yearly basis for the following, as the update schedule allows:

- Minority
- Low-income
- Elderly
- Disabled populations
- Limited English Proficiency