

APPENDIX C:

Socioeconomic Study

US 150 Corridor Study
Boyle and Lincoln Counties

Socioeconomic Study

FINAL

August 2023

Prepared for

Kentucky Transportation Cabinet (KYTC) – Division of Planning



Prepared By

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Development
District

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Introduction

This report presents an overview of the findings for selected socioeconomic characteristics in the US 150 Corridor Study.

The information in this report outlines 2017-2021 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, region, county, 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 regarding 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 project study area is in both Boyle and Lincoln Counties and was defined by KYTC as the US 150 corridor. There are five Block Groups in this study area, however, of those, only four have residential populations within the study area. These four will be the focus of this study.

What is Environmental Justice?

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

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.

Definitions

The U.S. Census Bureau defines geographical units as:

Census Tract (CT) – A small, relatively permanent statistical subdivision of a county or statistically equivalent entity delineated for data presentation purposes by a local group of census data users or the geographic staff of a regional census center in accordance with Census Bureau guidelines. CTs generally contain between 1,000 and 8,000 people. CT boundaries are delineated with the intention of being stable over many decades, so they generally follow relatively permanent visible features. They may also follow governmental unit boundaries and other invisible features in some instances; the boundary of a state or county is always a census tract boundary.

Block Group (BG) – A statistical subdivision of a CT. A BG consists of all tabulation blocks whose numbers begin with the same digit in a CT. BGs generally contain between 300 and 3,000 people, with an optimum size of 1,500 people.

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 as a whole, the entire state and the United States.

The primary source of data for this report is the 2017-2021 US 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, county, region, state, and nation. This report uses the Socio-Economic percentages by population for the Bluegrass Area Development District (BGADD) as the reference threshold for identifying target populations. Though Federal, State and County measures will be included for a more thorough approach to the data, the Bluegrass ADD region will serve as the sole comparative threshold for this study due to the regionality of the corridor. Maps included will provide the average of the BGADD regions socio-economic data as a median threshold for easier comparison of block group data.

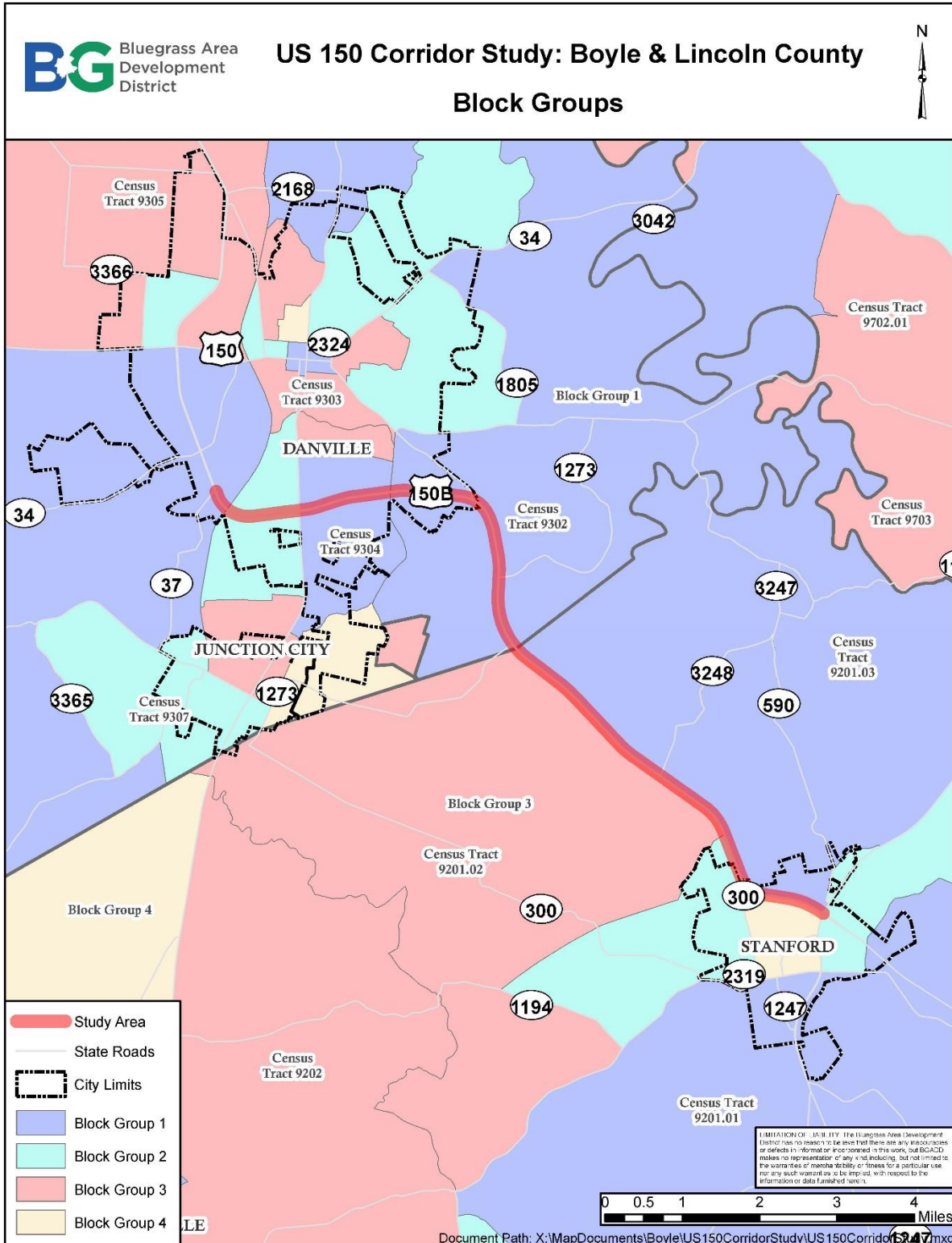
The full list of block groups with populations in the study area are as follows:

Boyle County, Kentucky	Lincoln County, Kentucky
Block Group 1; Census Tract 9305 (1-9305)	Block Group 1; Census Tract 9201.02 (1-9201)
Block Group 1; Census Tract 9304 (1-9304)	Block Group 3; Census Tract 9201.02 (3-9201)
Block Group 2; Census Tract 9304 (2-9304)	Block Group 4; Census Tract 9201.02 (4-9201)
Block Group 1; Census Tract 9302 (1-9302)	

Throughout this document, block groups will be referred to by their block group number followed by their census tract number for easier identification and succinctness. These abbreviations are listed above in the table in parenthesis.

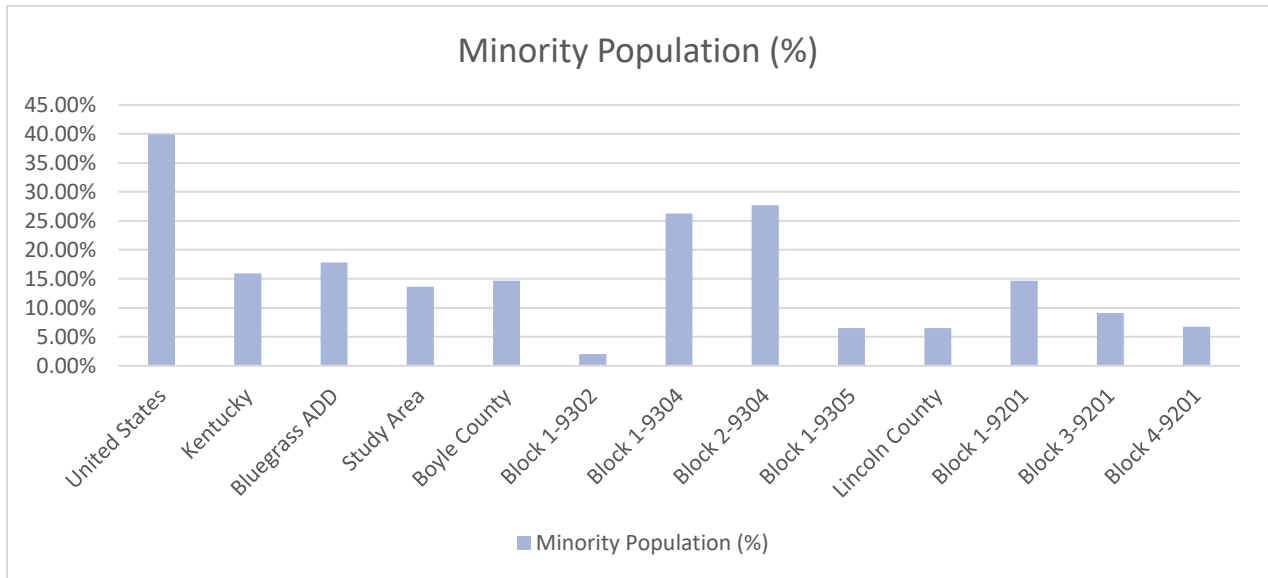
The methodologies used in this planning document are appropriate for identifying areas of concern in small urban areas and potential project corridors. However, during future phases of project development, a more detailed and robust analysis would be required for the National Environmental Policy Act (NEPA) documentation when assessing the potential for adverse and disproportionate impacts to those with disabilities, poverty status, and minority populations.

Study Area



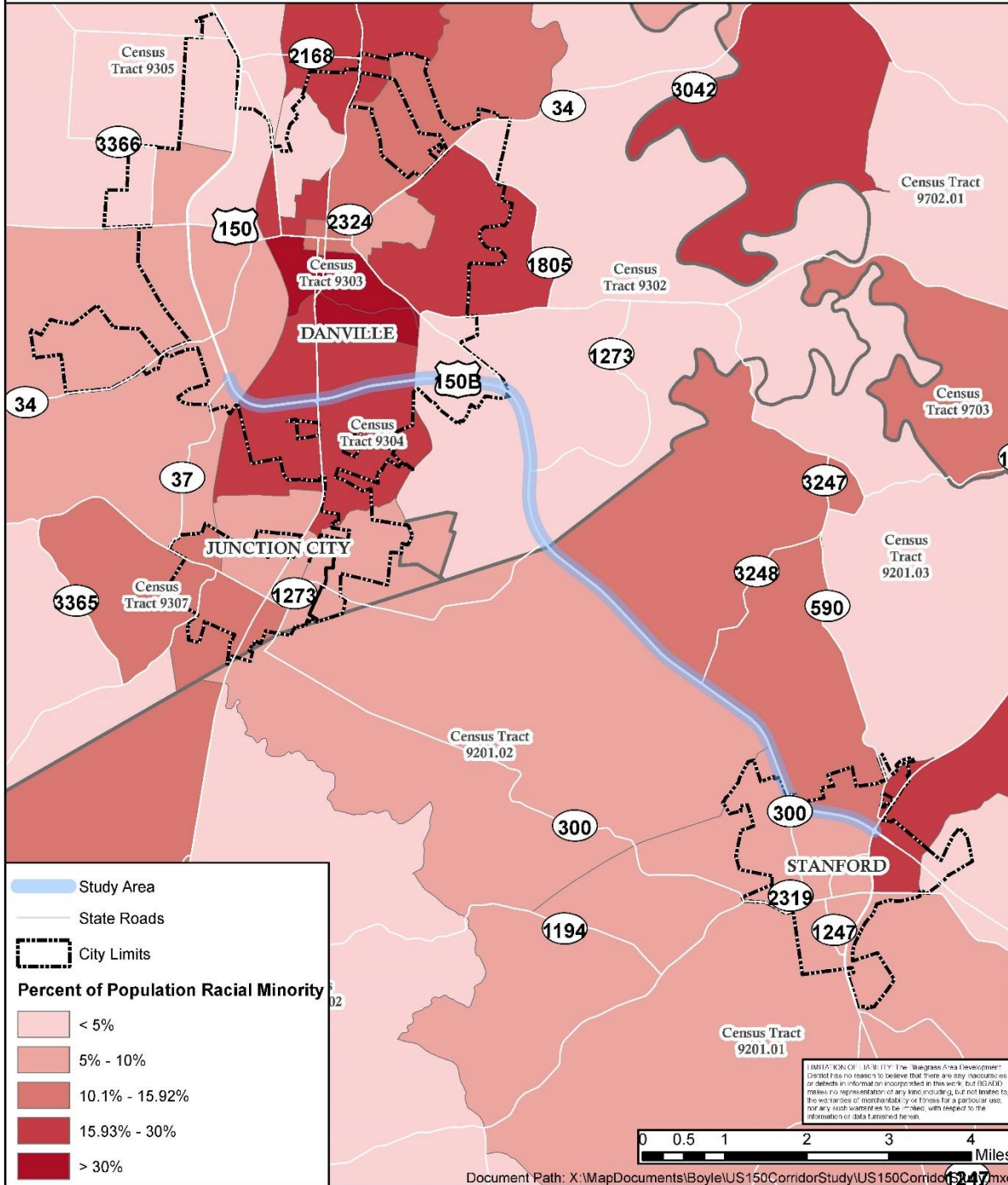
Study Findings

Populations by Persons of Racial Minority Origin

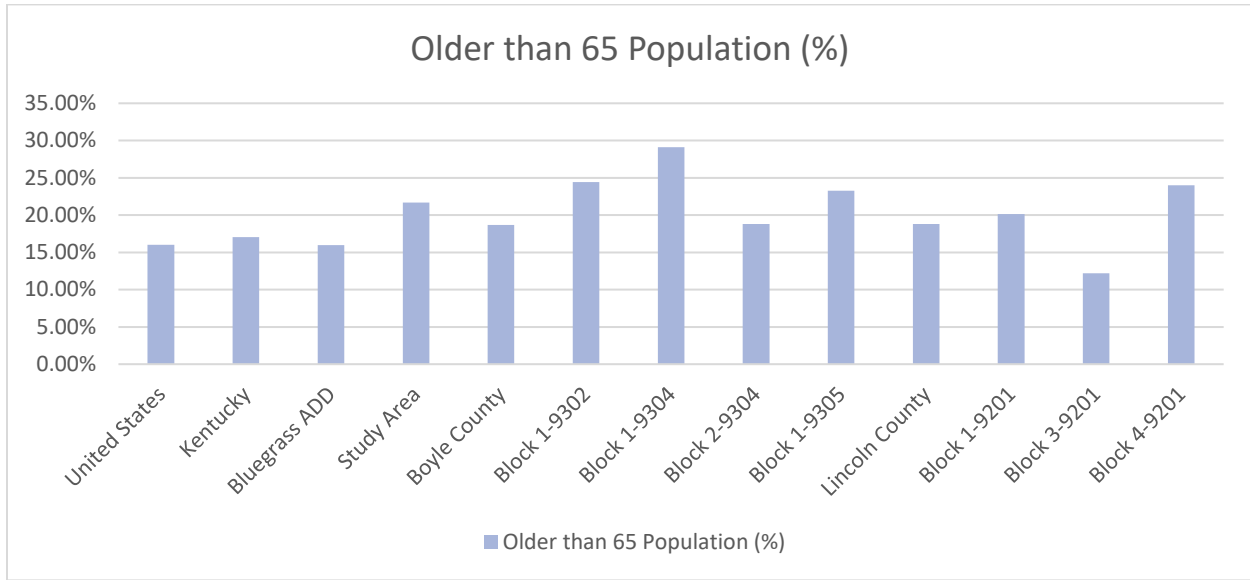


The Study Area overall displays lower percentage of racial minorities, at 13.30%, than that of the Bluegrass ADD, at 17.80%. Block Groups 1-9304 and 2-9304 are the two block groups that are higher than the BGADD Percentage at 26.24% and 27.68% respectively. It should be noted, however, that 1-9201 and 3-9201 in Lincoln County are both areas that have significantly higher minority populations than the County average.

	Total Population	Minority Population	Minority Population (%)
United States	326,569,308	130,333,811	39.91%
Kentucky	4,461,952	712,574	15.97%
Bluegrass ADD	832,909	148,258	17.80%
Study Area	9619	1,313	13.65%
Boyle County	30,614	4,497	14.69%
Block 1-9302	1670	34	2.04%
Block 1-9304	1498	393	26.24%
Block 2-9304	1611	446	27.68%
Block 1-9305	1018	66	6.48%
Lincoln County	24,275	1,585	6.53%
Block 1-9201	1008	148	14.68%
Block 3-9201	1539	140	9.10%
Block 4-9201	1275	86	6.75%



Populations by Adults over 65 Years of Age

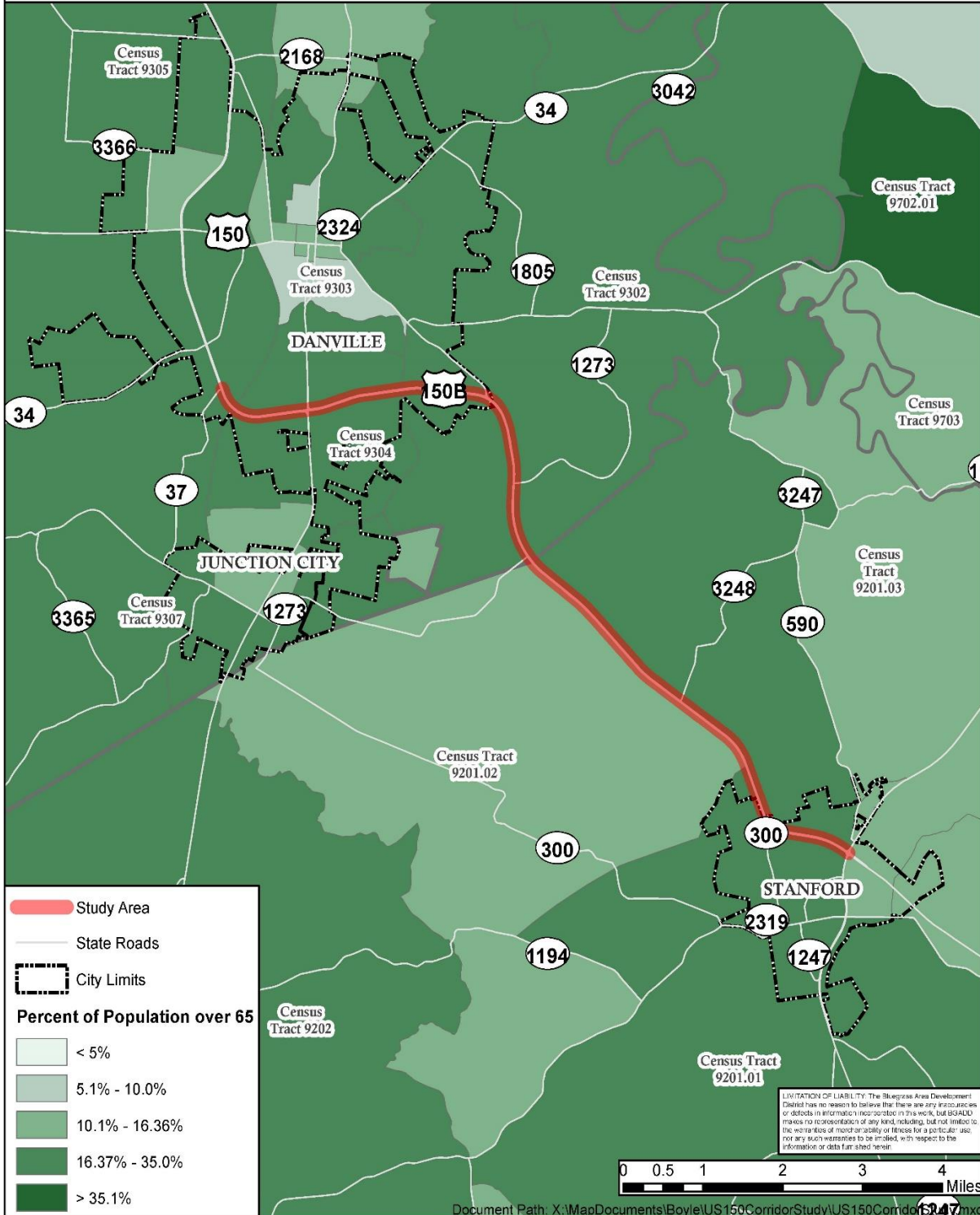


The Study Area overall displays a higher percentage of Adults over 65 years old, at 21.70%, than that of the Bluegrass ADD, at 15.98%. Six of seven block groups in the study have senior populations above the average percentage of the BGADD and the study area average is higher than the State and National averages. The most notable area of the study is Block 1-9304 at 29.10%, nearly double the percentage of the BGADD.

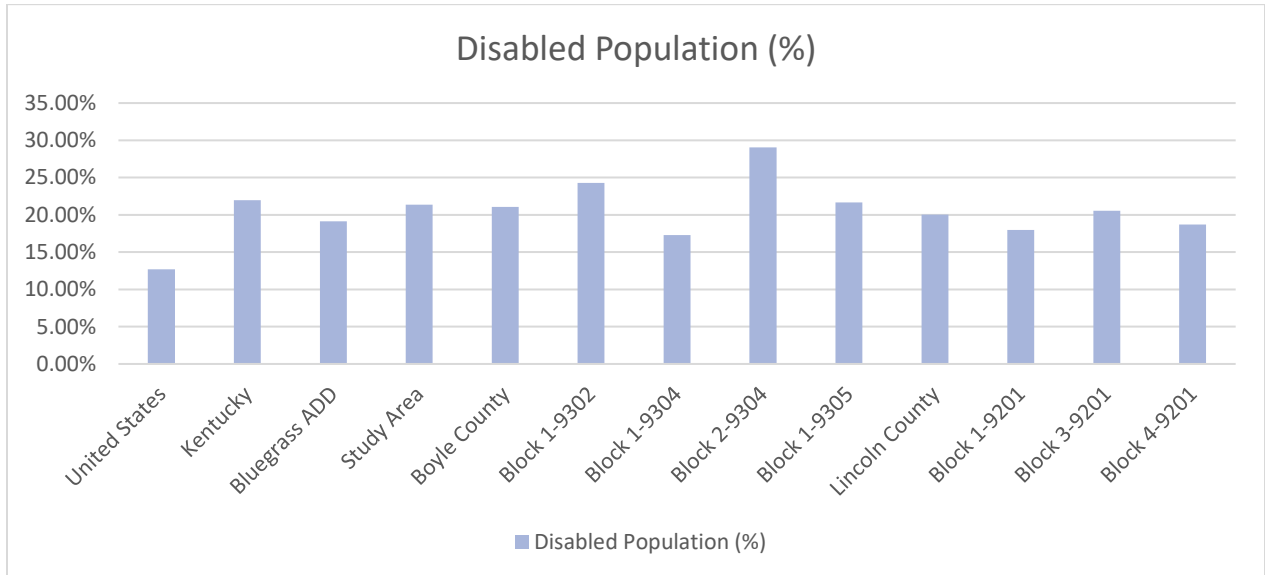
	Total Population	Over than 65 Population	Older than 65 Population (%)
United States	326,569,308	52,251,089	16.00%
Kentucky	4,461,952	713,020	17.06%
Bluegrass ADD	832,909	133,099	15.98%
Study Area	9619	2085	21.67%
Boyle County	30,614	5719	18.68%
Block 1-9302	1670	408	24.43%
Block 1-9304	1498	436	29.10%
Block 2-9304	1611	303	18.80%
Block 1-9305	1018	237	23.28%
Lincoln County	24,275	4,566	18.81%
Block 1-9201	1008	203	20.14%
Block 3-9201	1539	192	12.18%
Block 4-9201	1275	306	24.00%

US 150 Corridor Study: Boyle & Lincoln County

Population Age 65 Years or Older

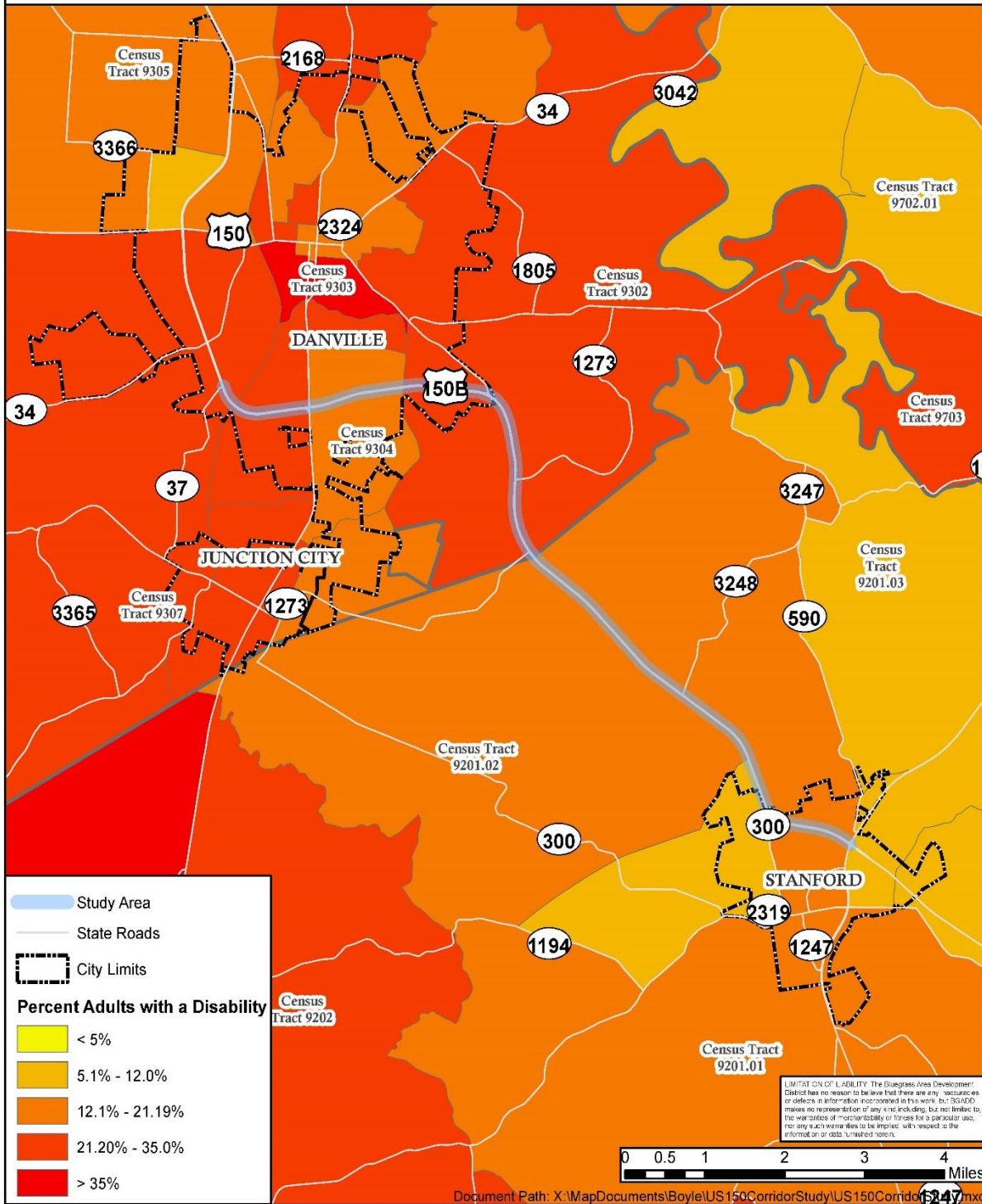


Populations by Adults with a Disability

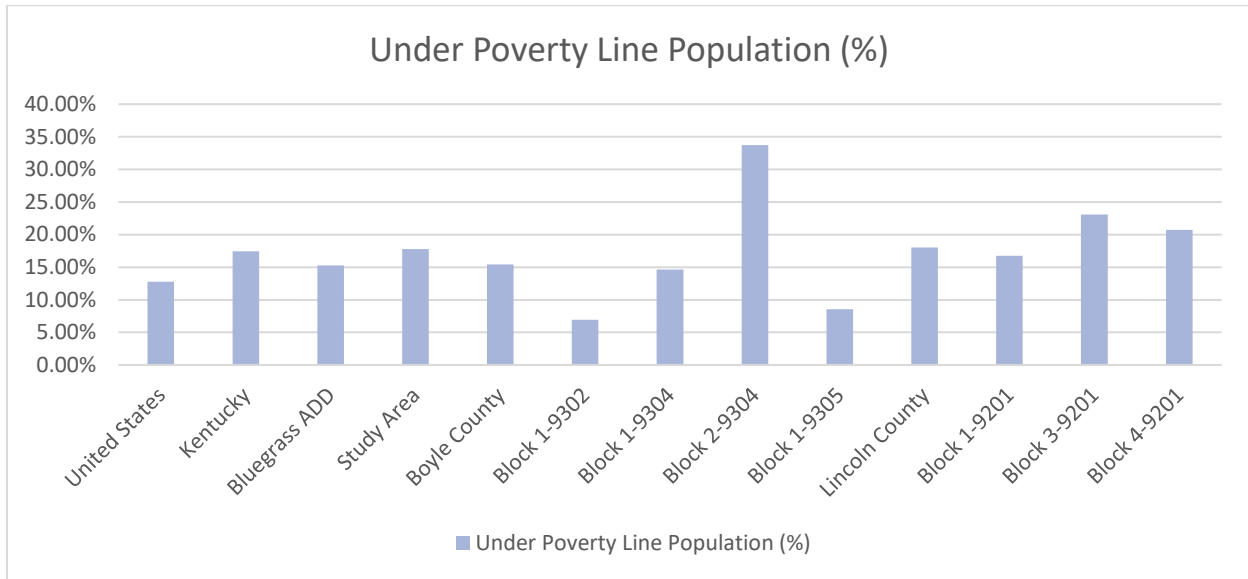


The Study Area displays a higher percentage of adult individuals with a disability, at 21.36%, than that of the Bluegrass ADD, at 19.12%. The area is lower, however, than the State population of 21.97%. Both Boyle and Lincoln counties have higher percentages of disability than the rest of the ADD, and two areas, Block 1-9302 and Block 2-9304, have notably higher disabled populations at 24.31% and 29.04% respectively.

	Total Population	Disabled Population	Disabled Population (%)
United States	326,569,308	41,474,302	12.70%
Kentucky	4,461,952	980,291	21.97%
Bluegrass ADD	832,909	159,252	19.12%
Study Area	9619	2,055	21.36%
Boyle County	30,614	6,447	21.06%
Block 1-9302	1670	406	24.31%
Block 1-9304	1498	259	17.28%
Block 2-9304	1611	468	29.04%
Block 1-9305	1018	221	21.67%
Lincoln County	24,275	4,862	20.03%
Block 1-9201	1008	181	17.99%
Block 3-9201	1539	316	20.55%
Block 4-9201	1275	239	18.71%



Populations Under the Poverty Line

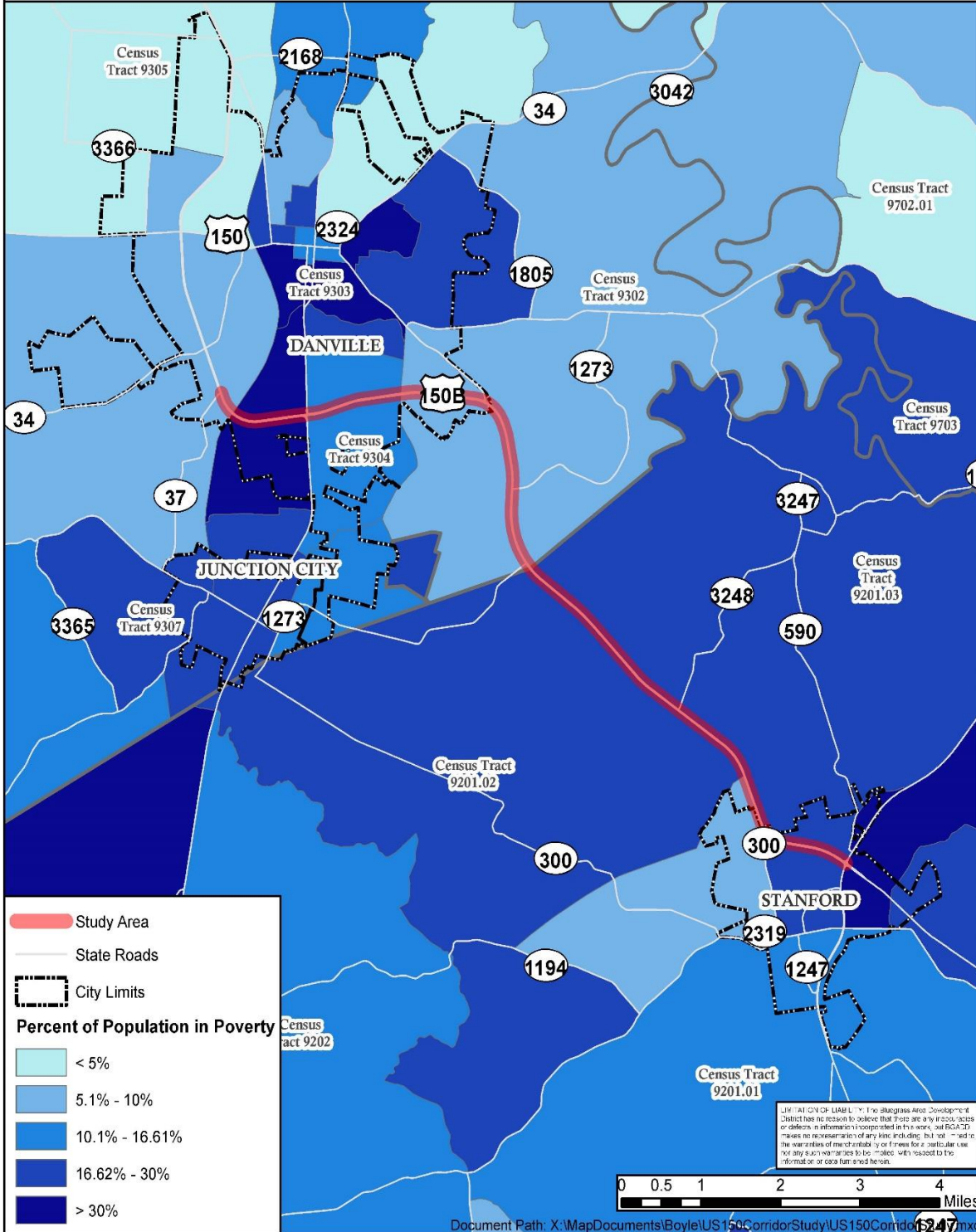


The Study Area average poverty population is higher than the National, State, and BGADD populations. Block 2-9304 has a 33.73% poverty percentage, making it a standout area for consideration during further studies. Lincoln County has Block 3-9201 and Block 4-9304, which comes in at 23.07% and 20.71% impoverished respectively. This is higher than the county percentage and the BGADD population percentage. Overall, poverty is an issue in the study area, with three standouts: Block 2-9304 of Boyle County and Blocks 3-9201 and 4-9201 of Lincoln.

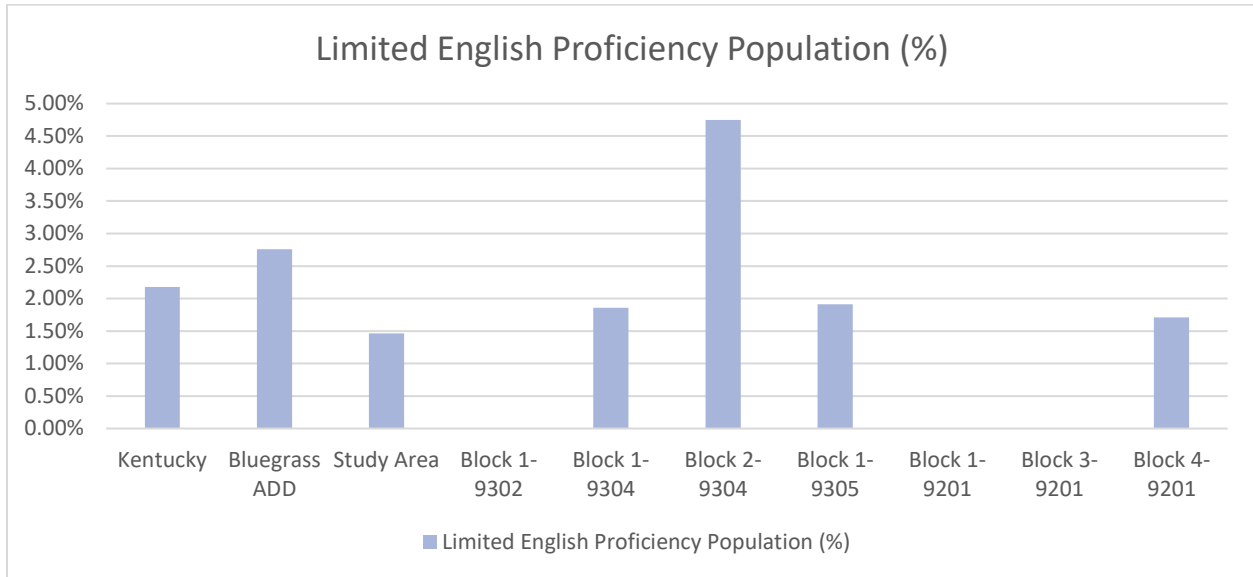
	Total Population	Under Poverty Line Population	Under Poverty Line Population (%)
United States	326,569,308	52,251,089	12.80%
Kentucky	4,461,952	713,020	17.42%
Bluegrass ADD	832,909	133,099	15.28%
Study Area	9619	2085	17.77%
Boyle County	30,614	5719	15.41%
Block 1-9302	1670	408	6.95%
Block 1-9304	1498	436	14.62%
Block 2-9304	1611	303	33.73%
Block 1-9305	1018	237	8.56%
Lincoln County	24,275	4,372	18.01%
Block 1-9201	1008	203	16.77%
Block 3-9201	1539	192	23.07%
Block 4-9201	1275	264	20.71%

US 150 Corridor Study: Boyle & Lincoln County

Population Below Poverty

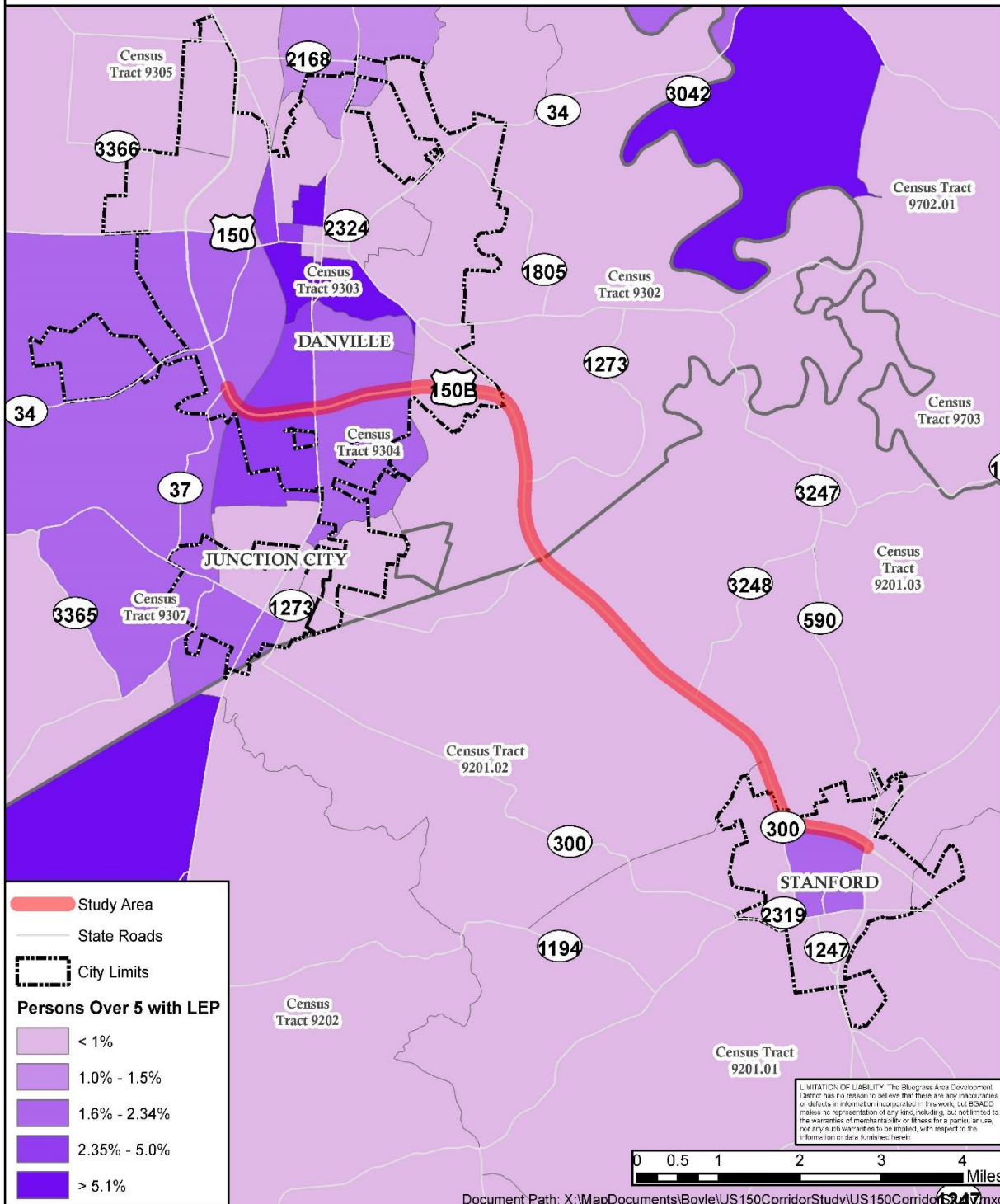


Populations by Persons over 5 Years of Age with Limited English Proficiency



The Study Area contains a lower LEP population (1.46%) than the BGADD (2.76%) and the State (2.18%). Block 2-9304 has a 4.75% LEP population, meaning this area is home to a significant population of LEP residents.

	Total Population	Limited English Proficiency Population	Limited English Proficiency Population (%)
United States	326,569,308	70,865,540	21.70%
Kentucky	4,461,952	97,271	2.18%
Bluegrass ADD	832,909	22,988	2.76%
Study Area	9619	141	1.46%
Boyle County	30,614	585	1.91%
Block 1-9302	1670	0	0.00%
Block 1-9304	1498	28	1.86%
Block 2-9304	1611	77	4.75%
Block 1-9305	1018	19	1.91%
Lincoln County	24,275	541	2.23%
Block 1-9201	1008	0	0.00%
Block 3-9201	1539	0	0.00%
Block 4-9201	1275	22	1.71%



Conclusion

The Study Area consisted of seven census block located along the US 150 corridor and data used is from the 2021 American Community Survey data set.

Minority populations for the study area (13.65%) were less than that of the Bluegrass Region (17.80%). Boyle County has two areas, Block 1-9304 and Block 2-9304, that have notably higher minority populations. These areas are both located on the southernmost portion of Danville near where the study begins. It should be noted that this project would impact some of the largest minority populations in the county.

The population of persons age 65 and older in the study area (21.67%) are higher than in the Bluegrass Region (15.98%). All but one of the census blocks studied have higher 65+ populations than the BGADD and State Percentages. This lets us know that the study area is home to a sizeable elderly population, particularly block 1-9304, which has a 65+ population of 29.10%.

The population of persons with a disability in the study area (21.36%) were higher than that of the regional (19.12%) and five of seven block groups have a higher percentage of disabled persons than the BGADD percentage. It should also be noted that two of those block groups (1-9302 and 2-9304) surpassed the State population of 21.97%.

Populations of persons living under the poverty line were greater in the Study Area. Two blocks in Boyle county (2-9304 and 1-9305) have high percentages of individuals living under the poverty line. 2-9304 has a 33.77% rate of impoverished residents, making it the most impoverished portion of the study area. Lincoln County has a higher instance of poverty than the BGADD and two of its three blocks in the study area are well above the BGADD percentage.

Persons over 5 years of age with LEP were found in higher concentration than the BGADD and State populations in one block, block 2-9304, was found to have a higher LEP percentage than its neighboring block.

Block 2-9304 has high LEP, Minority, Poverty, and disability populations. This area must be considered in any future development planning.

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

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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