

# **Western Kentucky Parkway Interstate Upgrade Study**

## **SOCIOECONOMIC REPORT**

**2/1/2021**

**Prepared for and in cooperation with the  
Kentucky Transportation Cabinet (KYTC)-Division of Planning**



**Prepared by the  
Green River Area Development District (GRADD)  
and the  
Lincoln Trail Area Development District (LTADD)**



GRADD, 300 GRADD Way, Owensboro, KY 42301, 270-926-4433  
[www.gradd.com](http://www.gradd.com)

LTADD, 613 College Street Road, Elizabethtown, KY 42701, 270-769-2393  
[www.ltadd.org](http://www.ltadd.org)

## Table of Contents

Introduction .....	3
Exhibit 1: Study Area .....	4
What Is Environmental Justice.....	5
Definitions .....	6
Methodology.....	7
Census Data Analysis.....	8
Exhibit 2: Summary Table .....	8
Minority Population .....	9
Exhibit 3: Percent of Population by Persons of Minority Origin .....	10
Exhibit 4: Percent of Population by Persons of Minority Origin.....	11
Low-Income Population .....	12
Exhibit 5: Percent of Population by Below Poverty Level .....	13
Exhibit 6: Percent of Persons Living Below Poverty Level .....	14
Population Over Age 65 .....	15
Exhibit 7: Percent of Population Over 65.....	16
Exhibit 8: Percent of Population Over 65.....	17
Disabled Population .....	18
Exhibit 9: Percent of Population Claiming Disability Status.....	18
Exhibit 10: Percent of Population Claiming Disability Status.....	19
Limited English Proficiency .....	20
Exhibit 11: Percent of Households Claiming Limited English Proficiency .....	21
Exhibit 12: Percent of Households Claiming Limited English Proficiency .....	22
Conclusion.....	23

### APPENDIX A:

National, State, and Study Area Percentage Totals for the 5 Categories

### APPENDIX B:

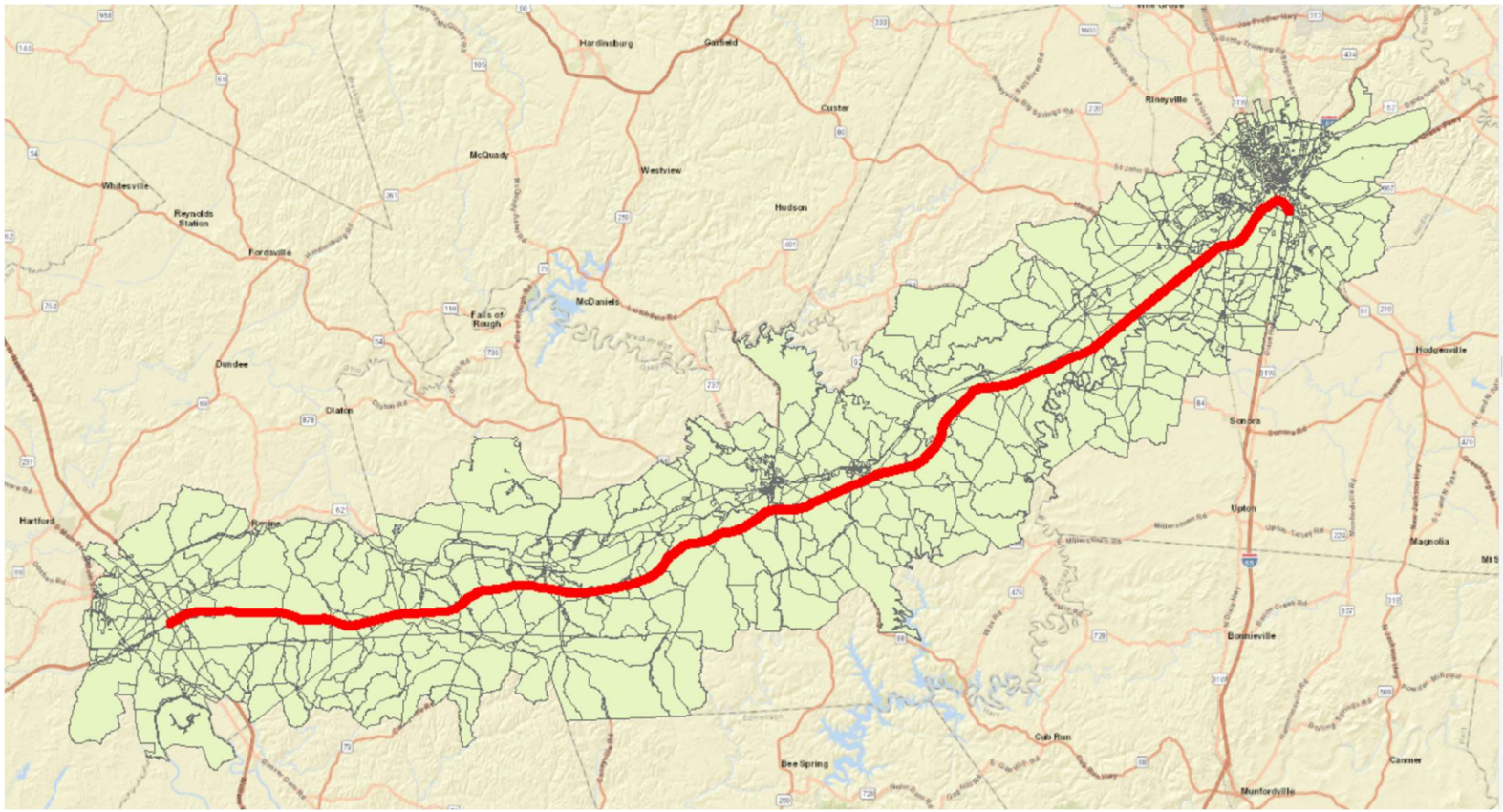
Methodology for Assessing Potential Environmental Justice Concerns for KYTC Planning Studies.

## Introduction

The Kentucky Transportation Cabinet is conducting an interstate upgrade study at the Western Kentucky Parkway in Butler, Grayson, Hardin, and Ohio Counties to **identify improvements to reduce congestion and improve safety**. This document presents an overview of selected socioeconomic characteristics in the study area, which is composed of twenty (20) census tracts and sixty (60) block groups in the Counties of Butler, Grayson, Hardin, and Ohio. (see **Exhibit 1: Study Area Map** on following page).

The purpose of the Western Kentucky Parkway Interstate Upgrade Study is to **identify short- and long-term solutions to address congestion, unreliable travel times and safety concerns**. The objective of this socioeconomic report is to assist the Kentucky Transportation Cabinet in making informed and prudent transportation decisions in the study area, especially with regard to the requirements of Executive Order 12898: Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations (signed February 11, 1994).

Data from the U.S. Census Bureau 2018 American Community Survey (ACS) was utilized for the analysis of the study area. Please see the ACS website for more information, data limitations, and an explanation of the methodology used to obtain the data (<https://www.census.gov/acs/www/>). Statistics are provided for minority, elderly, poverty status, limited English Proficiency (LEP), and disabled populations for the study area.



**Exhibit 1:** *Study Area*

## What is Environmental Justice?

The U.S. EPA Office of Environmental Justice defines Environmental Justice (EJ) as:

“The fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation and enforcement of environmental laws, regulations and policies.”

The Environmental Protection Agency (EPA) [website](#), describes fair treatment as:

“Fair treatment means that no group of people, including racial, ethnic, or socio-economic groups should bear a disproportionate share of the negative environmental consequences resulting from industrial, municipal, and commercial operations or the execution of federal, state, local and tribal programs and policies:”.

The National Environmental Justice Advisory Council (NEJAC) suggestions for meaningful public involvement include:

- 1) Encourage public participation in all aspects of environmental decision making.
- 2) Encourage active community participation.
- 3) Institutionalize public participation.
- 4) Recognize community knowledge.
- 5) Utilize cross-cultural formats and exchanges.

While exact thresholds or benchmarks have not been established, and there is no further guidance on what “elevated” percentages of disadvantaged populations mean, for the purpose of this study “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.

USDOT Order 5610.2 on EJ, issued in the April 15, 1997 Federal Register, includes the following definitions:

**Low-Income**

A person whose median household income is at or below the U.S. Department of Health and Human Services poverty guidelines.

**Minority**

A person who is:

- 1) Black (a person having origins in any 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).

**Low-Income Population**

Any readily identifiable group of low-income persons who live in geographic proximity and, if circumstances warrant, geographically dispersed/transient persons who will be similarly affected by a proposed DOT program, policy or activity.

**Minority Population**

Any readily identifiable group of minority persons who live in geographic proximity and, if circumstances warrant, geographically dispersed/transient persons (such as migrant workers or Native Americans) who will be similarly affected by a proposed DOT program, policy or activity.

**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 populations of the elderly, children, disabled, and other populations protected by Title VI of the Civil Rights Act of 1964 and related nondiscrimination statutes.

**Limited English Proficiency**

The term Limited English Proficient (LEP) refers to any person age 5 and older who reported speaking English less than "very well" as classified by the U.S. Census Bureau. The term English proficient refers to people who reported speaking English only or "very well."

## Methodology

This planning effort was conducted using methods outlined in KYTC’s “Methodology for Assessing Potential Environmental Justice Concerns for KYTC Planning Studies”, which can be found in **Appendix B**. 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 2018 US Census Bureau American Community Survey, including the following tables:

- B01001 - Sex by Age
- B02001 - Race
- C16002 - Household Language by Household Limited English-Speaking Status
- B17021 - Poverty Status of Individuals in the Past 12 Months by Living Arrangement
- B18101 – Sex by Age by Disability Status

The methodologies used in this planning document are appropriate for identifying areas of concern in project corridors. The information 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, Limited English Proficiency (LEP), and disabled population levels for the census tract/block groups within the study area, county, state, and nation. This report uses the population percentages of the Lincoln Trail Area Development District (LTADD) as the reference threshold for identifying target populations. The LTADD number was selected as the reference threshold because the majority of the study area is located within the LTADD and because the study area not located within LTADD was deemed to be statistically similar to the LTADD region. The LTADD numbers most likely provide a better snapshot of the overall population characteristics in the study area as opposed to the United States or state percentages.

## Census Data Analysis

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.

Listed below is a summary table that displays percentages in each category for the Study Area as compared to the Lincoln Trail Area Development District, State and National percentages.

**Exhibit 2 Summary Table**

	<b>Total Population</b>	<b>Minority</b>	<b>Poverty</b>	<b>Over 65</b>	<b>Disability</b>	<b>LEP*</b>
United States	322,903,030	27.3%	14.1%	15.2%	12.6%	4.4%
Kentucky	4,440,204	12.9%	17.9%	15.6%	17.4%	1.3%
Lincoln Trail ADD	273,474	9.3%	16.8%	16%	19.3%	4.4%
WK Parkway Study Area	93,853	9.2%	17.8%	15.9%	18.9%	4.8%

\*Household Data



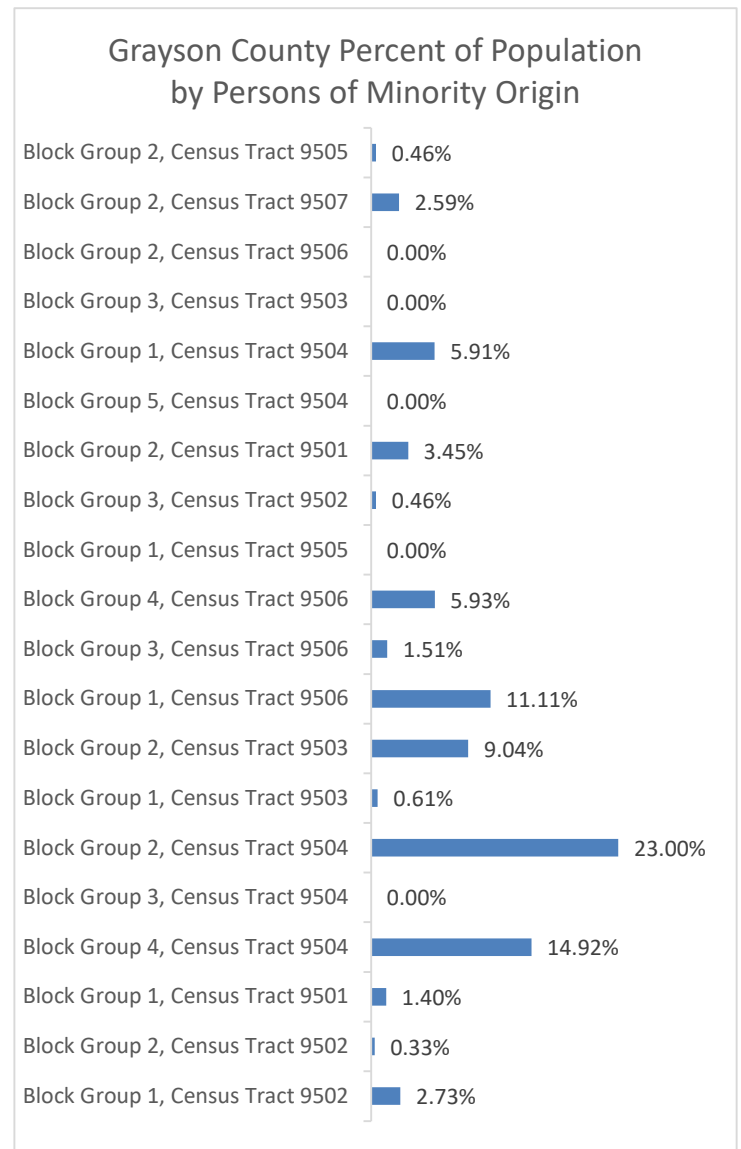
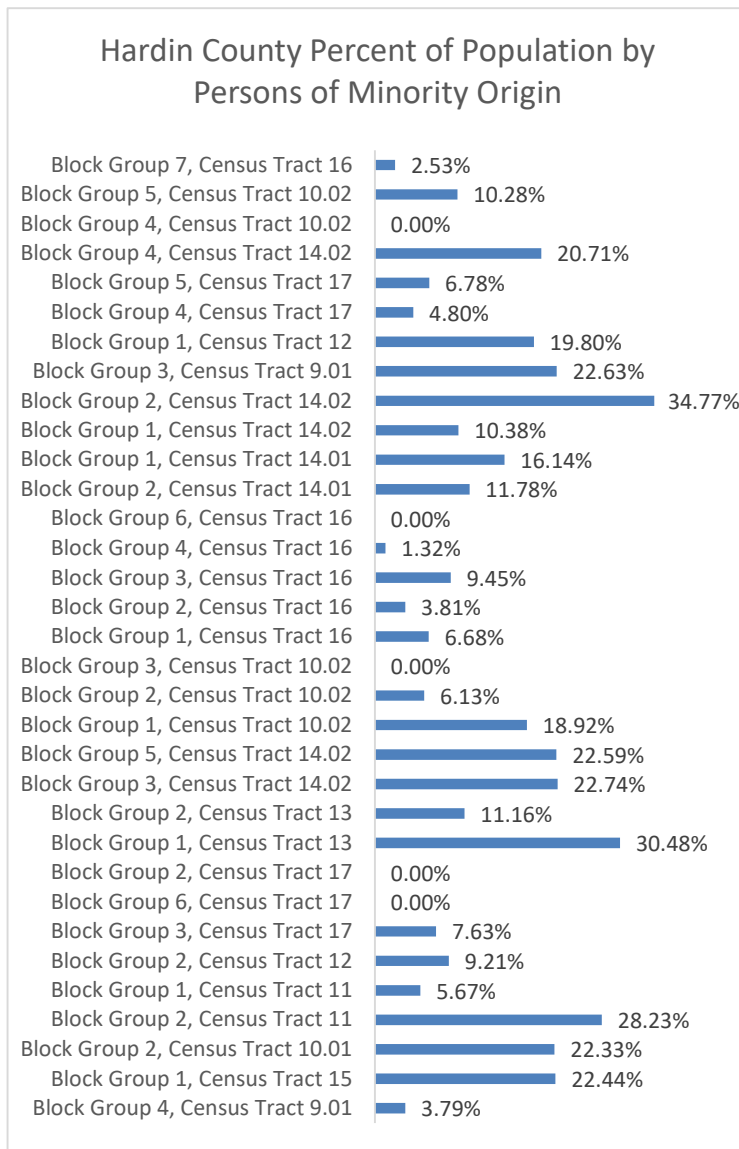
## Minority Population

*\*As Represented by Exhibit 3 and Exhibit 4*

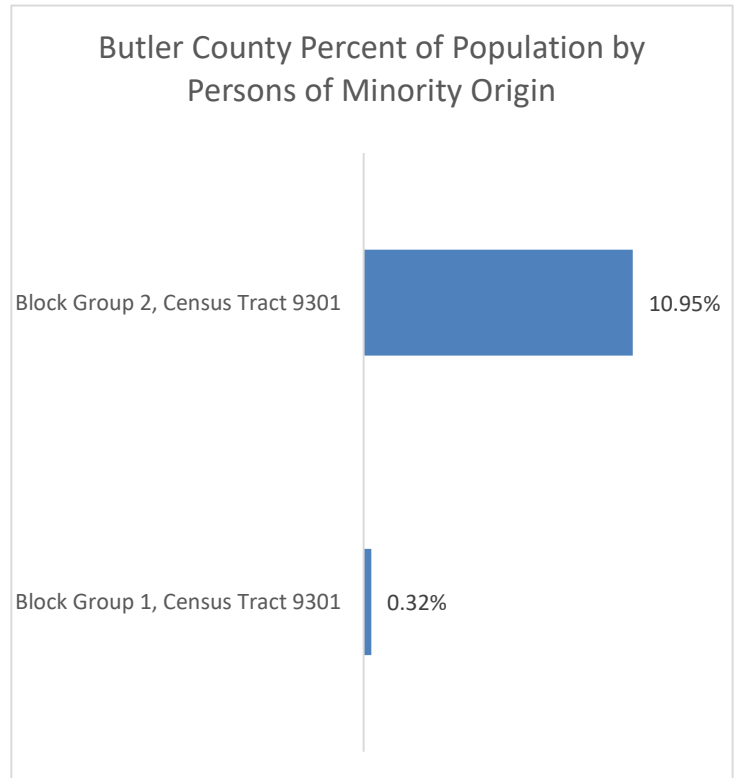
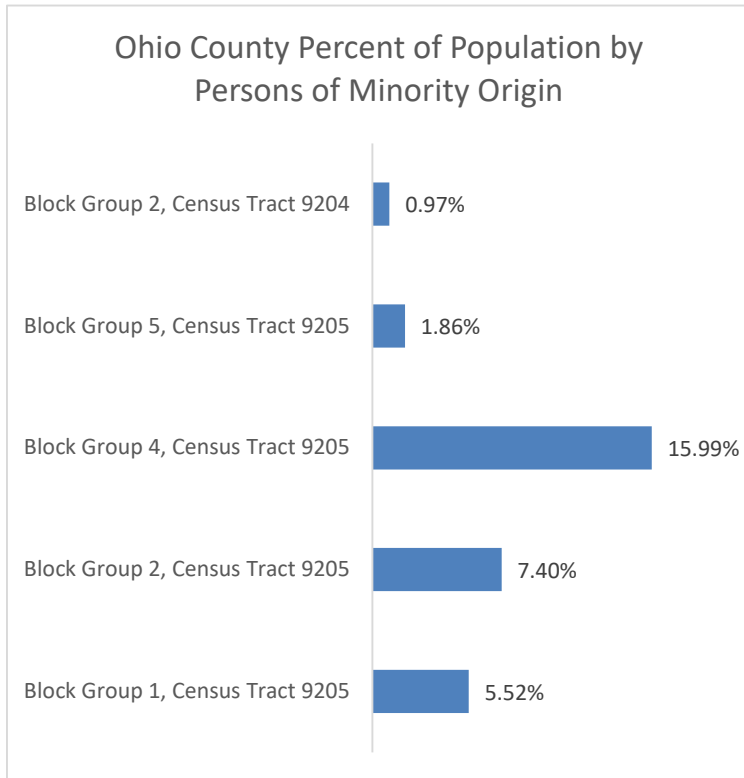
The total minority population for Lincoln Trail ADD is 9.3%. This is the established reference threshold for this category (see below). This percentage is below the state (12.9%) and the U.S. (27.3%).

For the study area, thirty-eight (38) Block Groups were identified as having populations above the established threshold of 9.3% for Lincoln Trail ADD.

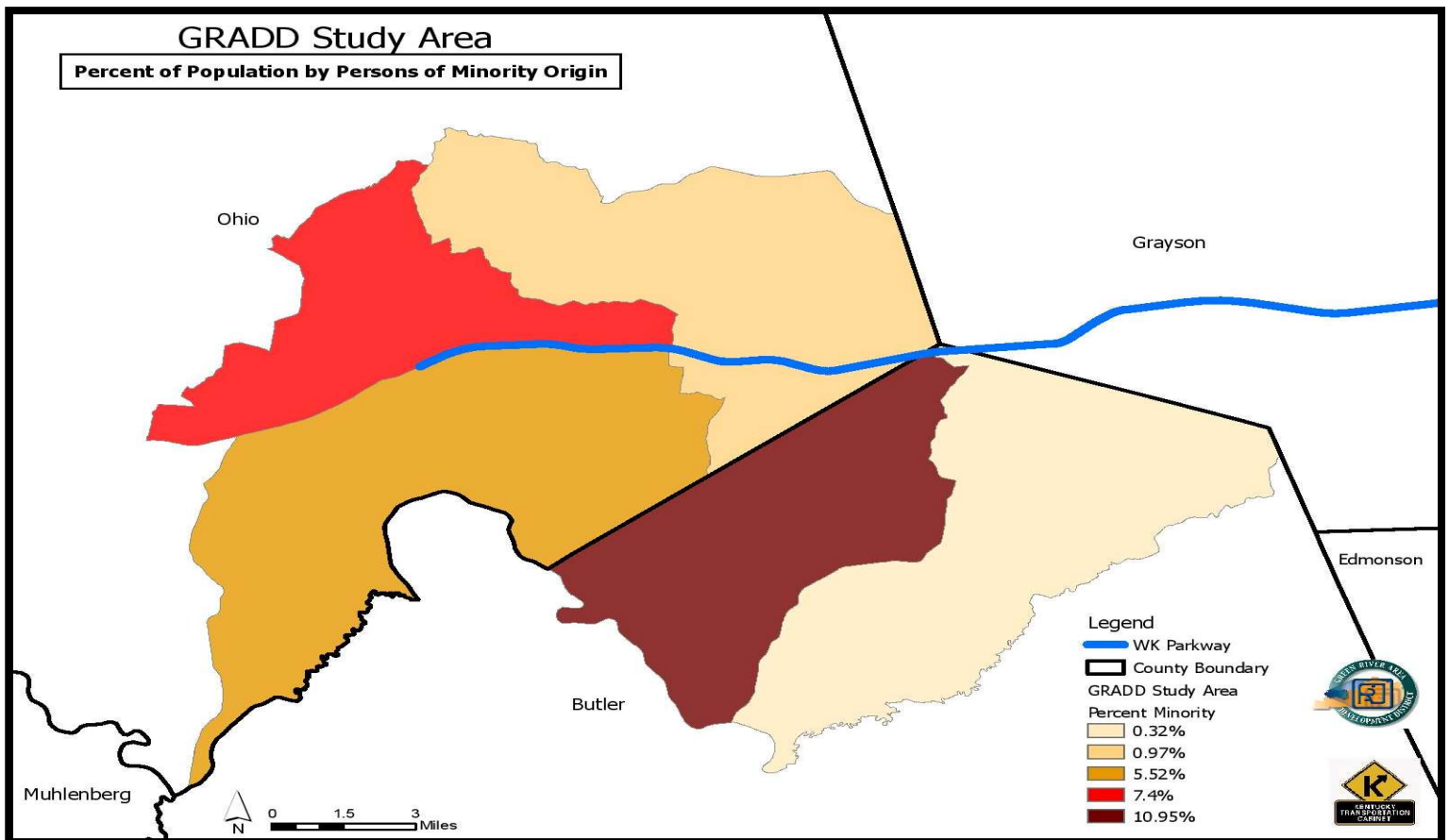
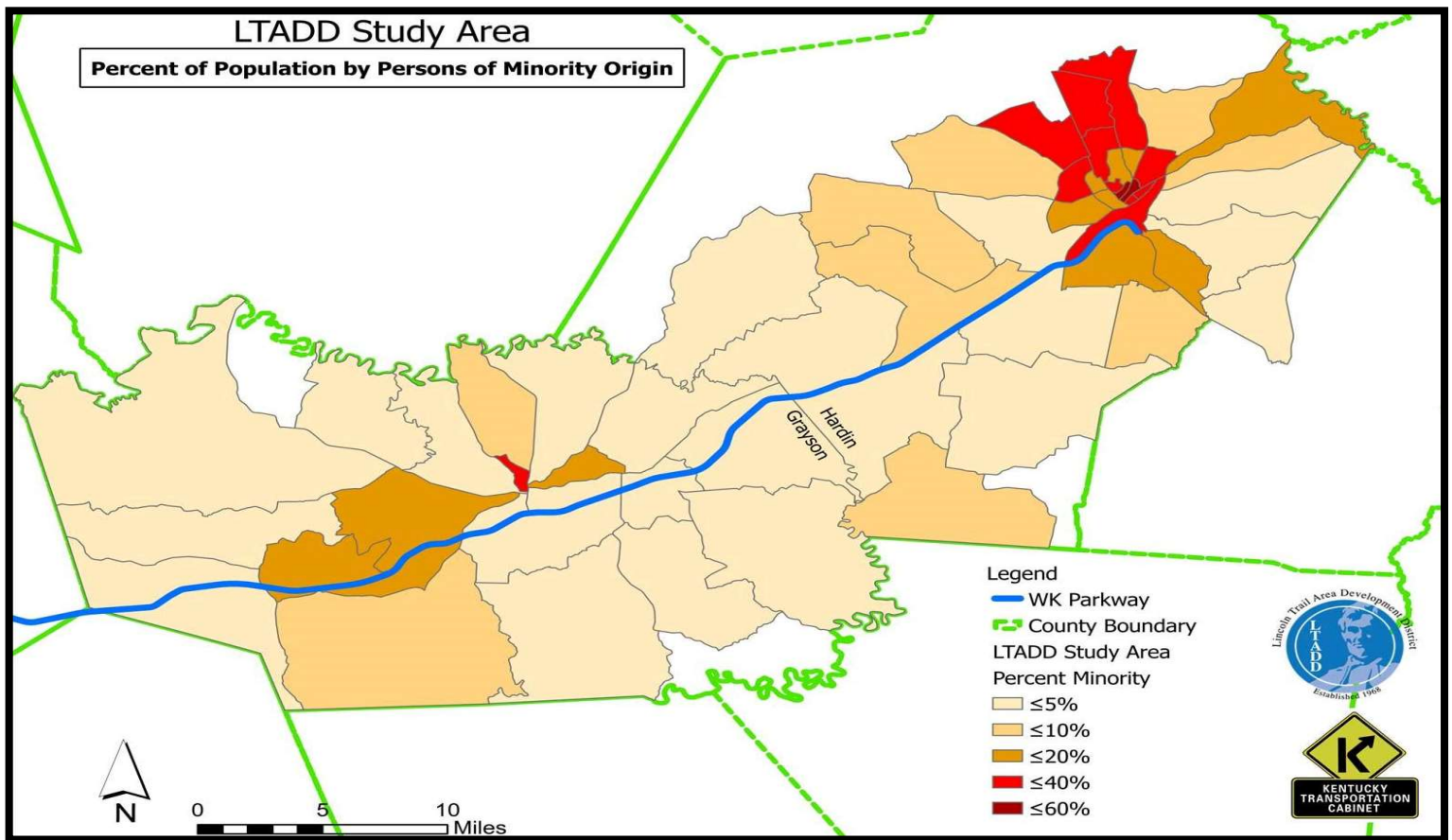
### Lincoln Trail ADD Study Area Percent of Population by Persons of Minority Origin



### Green River ADD Study Area Percent of Population by Persons of Minority Origin



**Exhibit 3:** *Percent of Population by Persons of Minority Origin*



**Exhibit 4: Percent of Population by Persons of Minority Origin**

## Low-Income Population

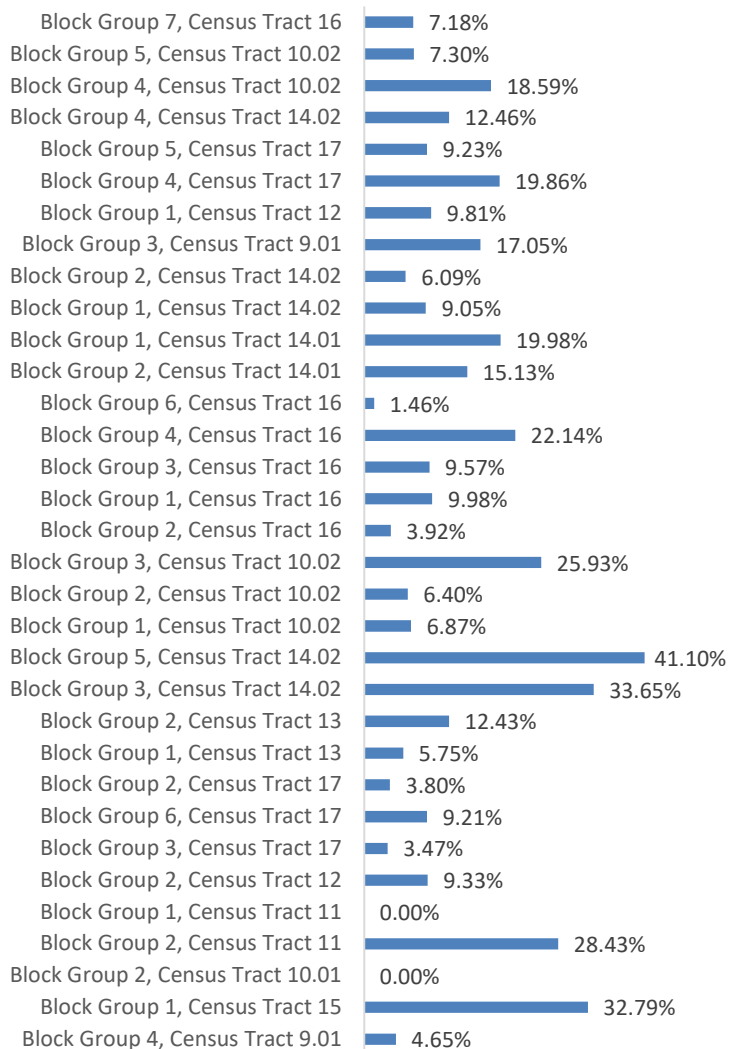
*\*As Represented by Exhibit 5 and Exhibit 6*

The percent of the population by persons living below the poverty level for Lincoln Trail ADD is 16.8%. This is the established reference threshold for this category (see below). This percentage is under the state (17.9%) and above the U.S. (14.10%).

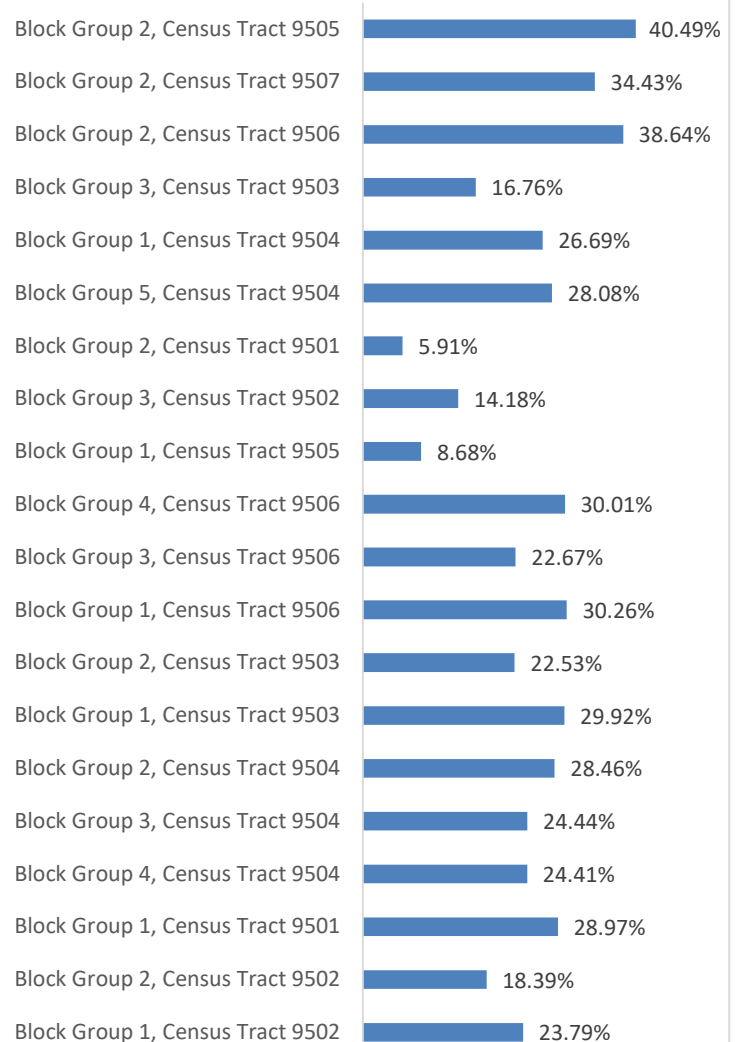
For the study area, thirty (30) Block Groups were identified as having populations above the established threshold of 16.8% for Lincoln Trail ADD.

### Lincoln Trail ADD Percent of Population by Persons Living Below the Poverty Level

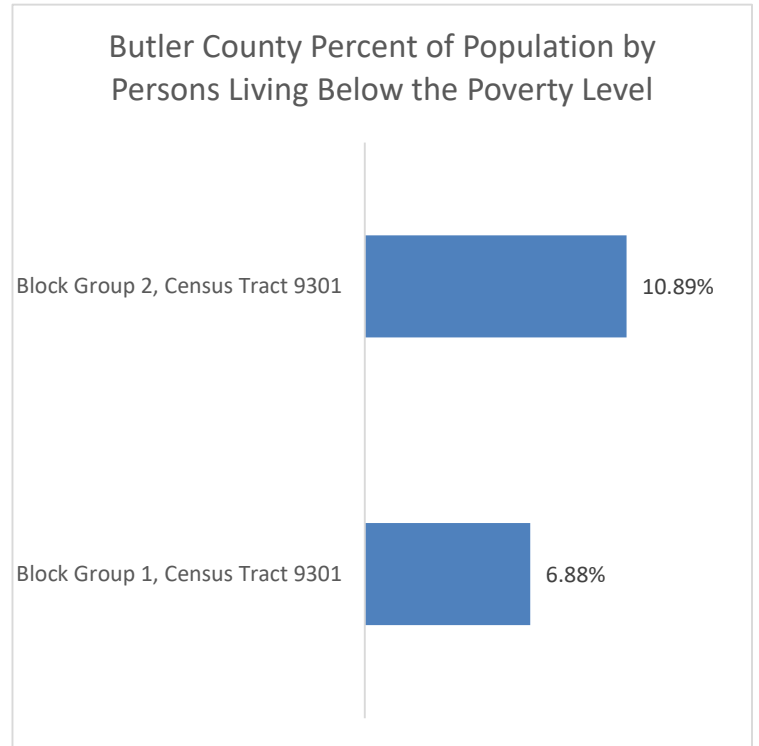
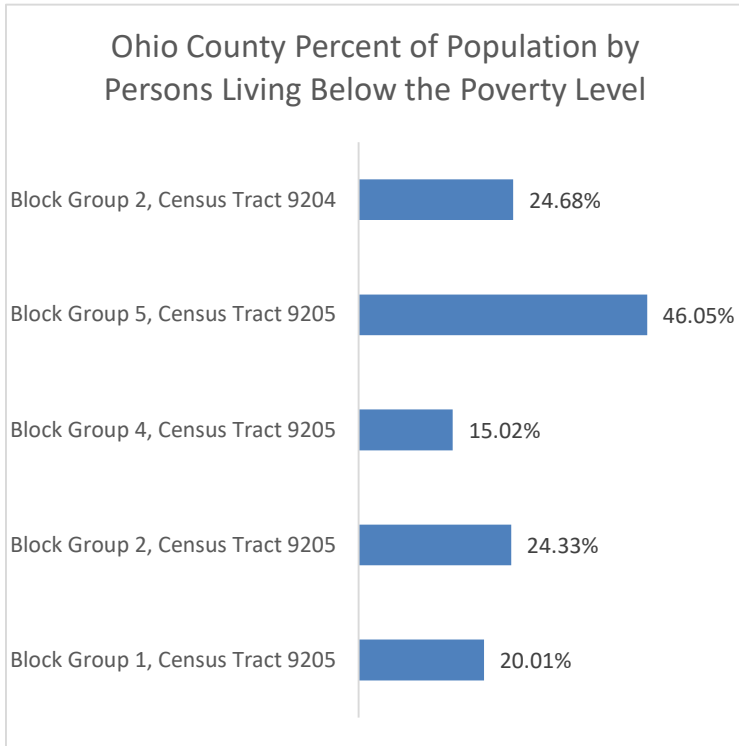
#### Hardin County Percent of Population by Persons Living Below the Poverty Level



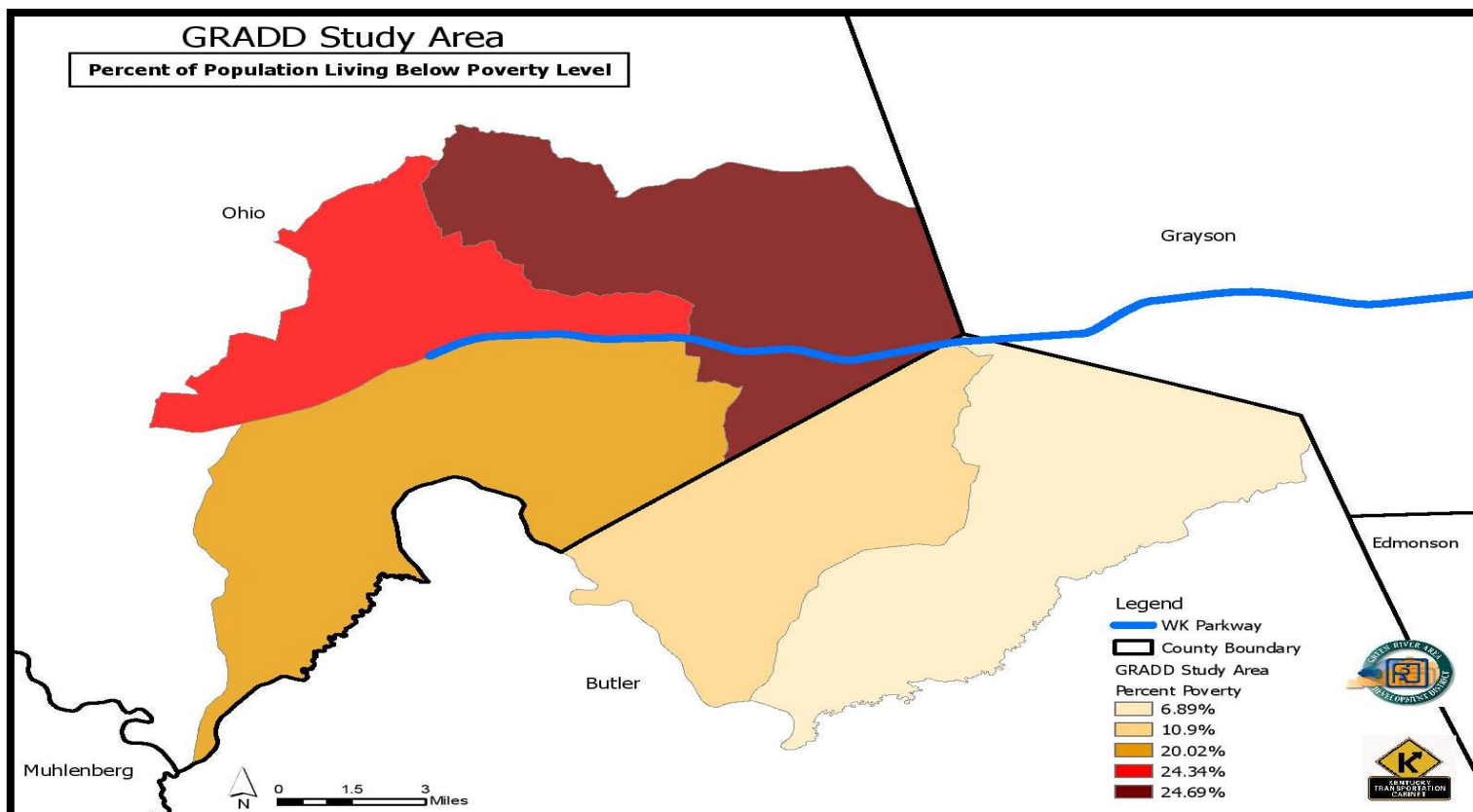
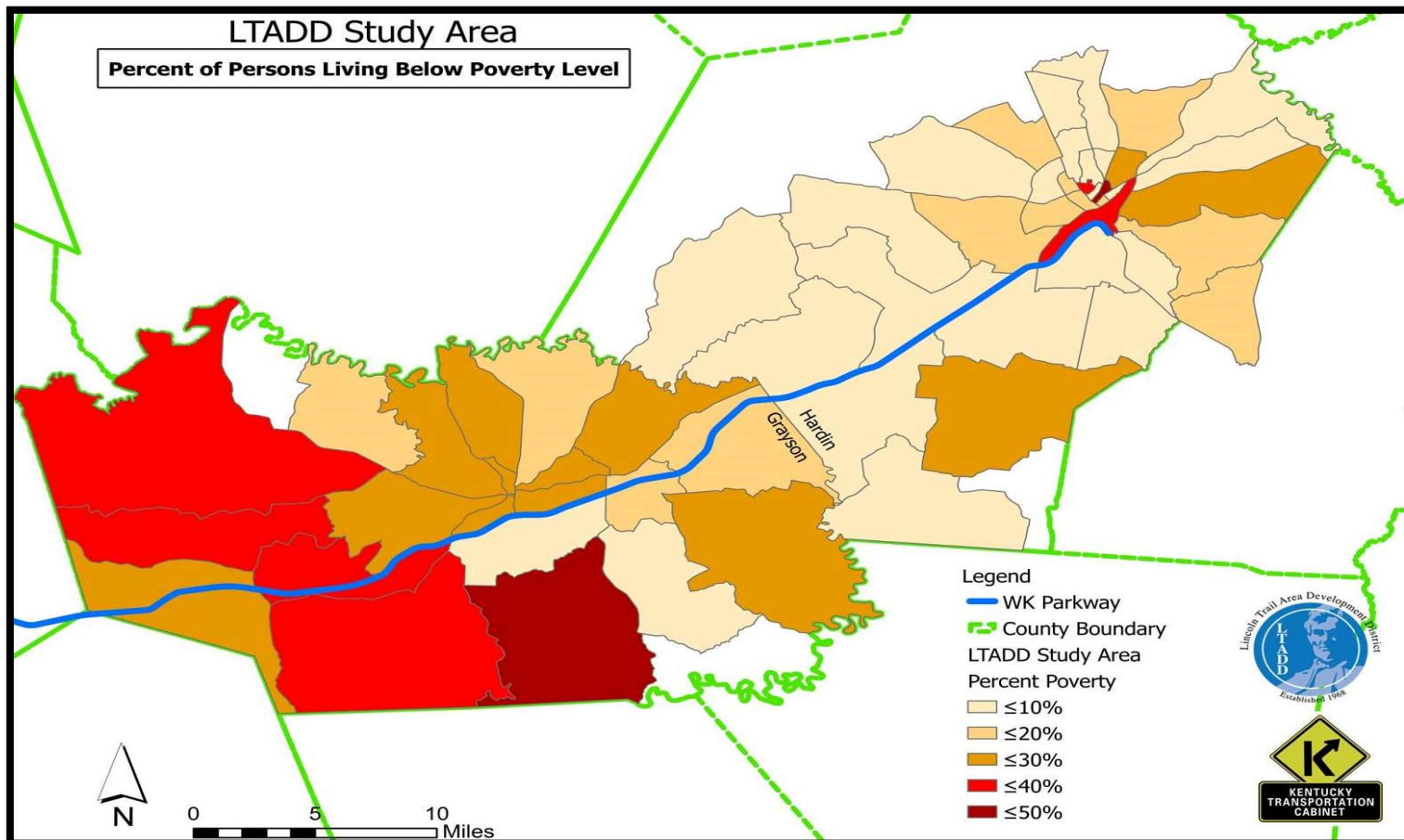
#### Grayson County Percent of Population by Persons Living Below the Poverty Level



### Green River ADD Percent of Population by Persons Living Below the Poverty Level



**Exhibit 5:** *Percent of Population by Persons Living Below the Poverty Level*



**Exhibit 6: Percent of Population by Persons Living Below the Poverty Level**



## Population Over Age 65

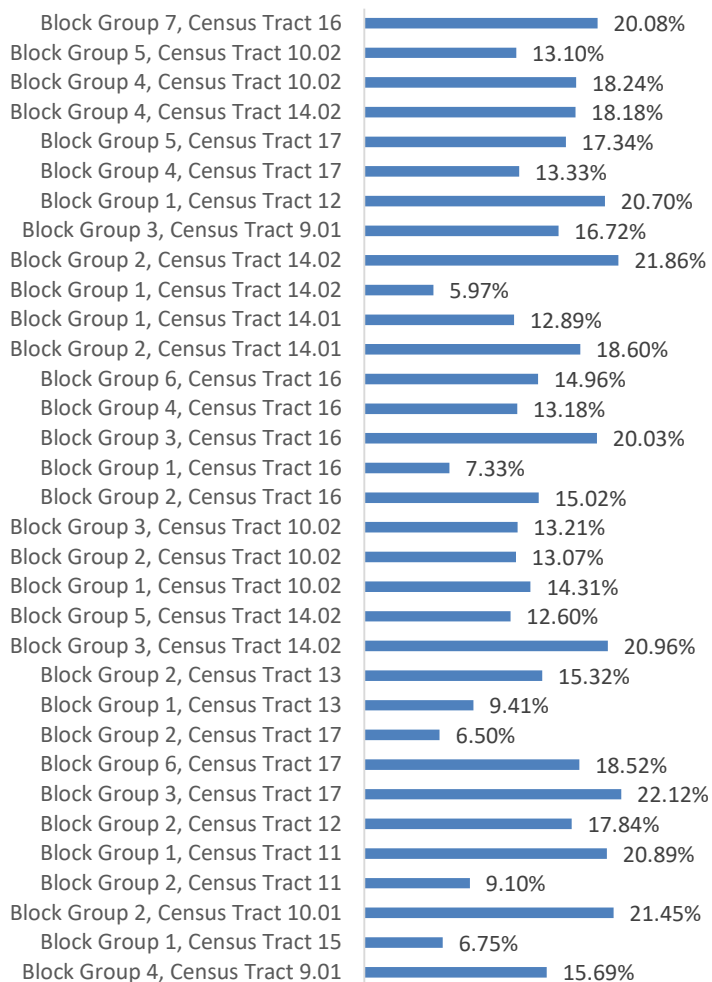
*\*As Represented by Exhibit 7 and Exhibit 8*

The total population of those over 65 years of age for Lincoln Trail ADD is 16%. This is the established reference threshold (see below) for this category. This percentage is below the state percent (15.6%), but above the U.S. (15.2%).

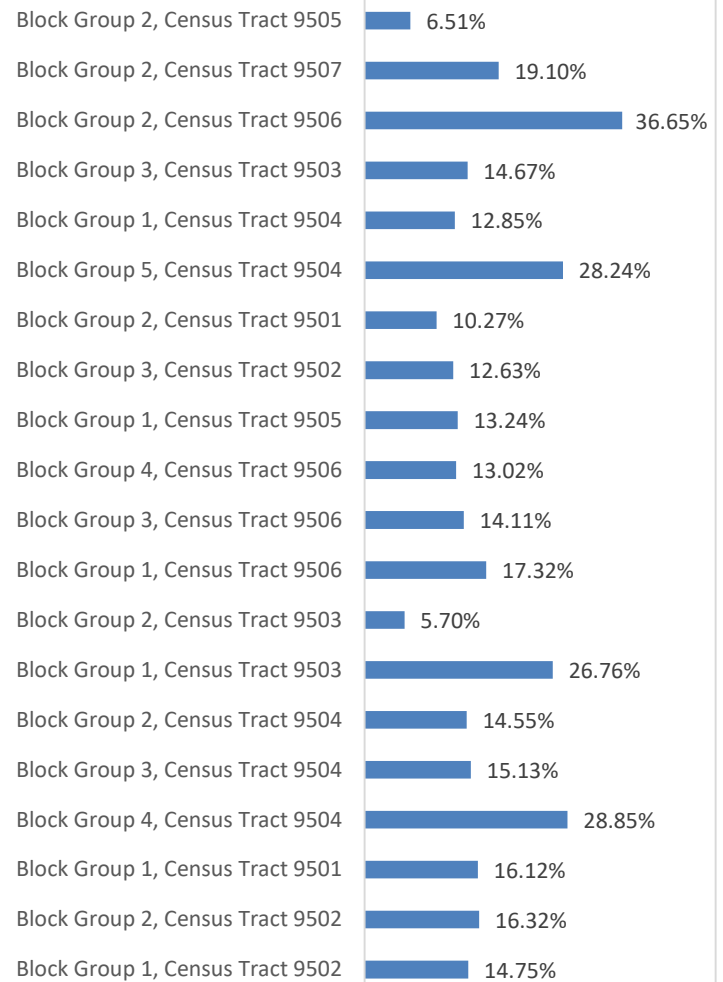
For the study area, twenty-four (24) Block Groups were identified as having populations above the established threshold of 16% for Lincoln Trail ADD.

### Lincoln Trail ADD Percent of Population by Persons 65 Years of Age and Older

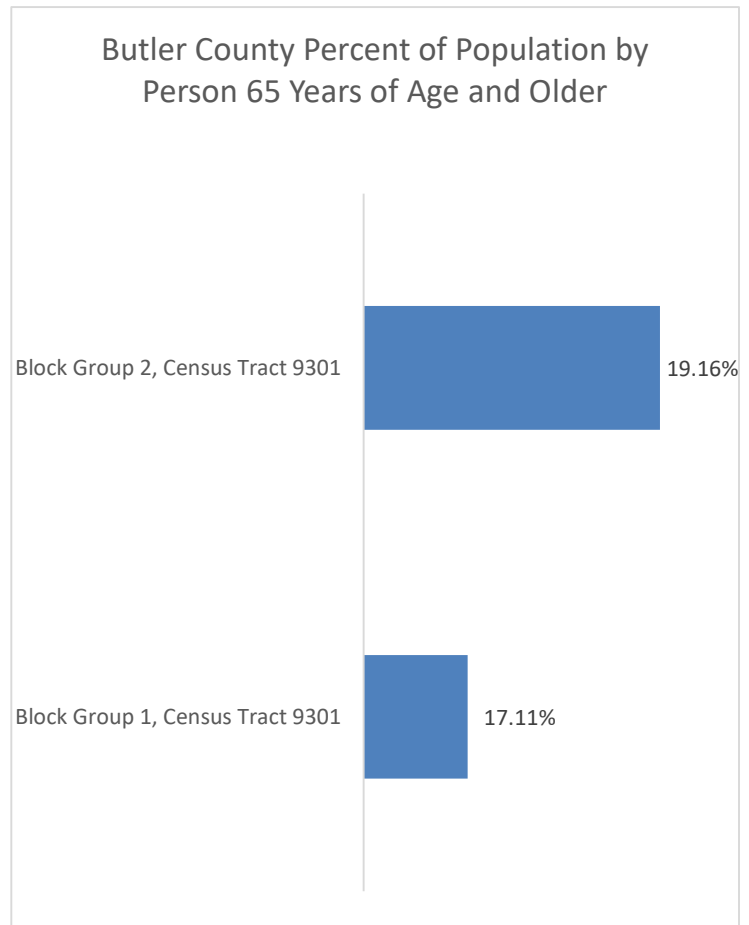
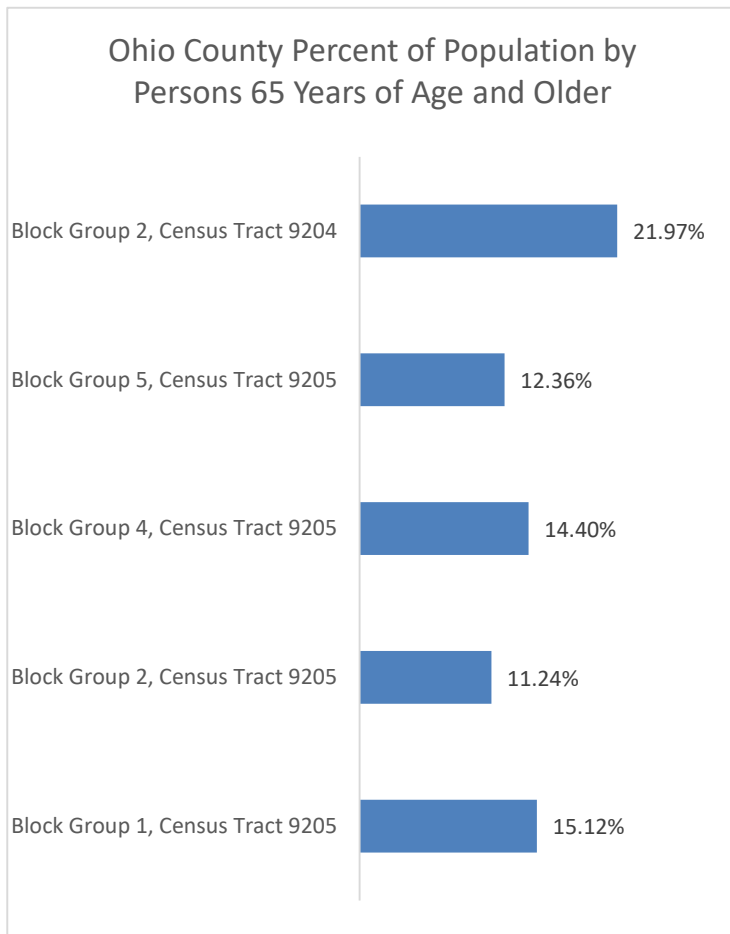
#### Hardin County Percent of Population by Persons 65 Years of Age and Older



#### Grayson County Percent of Population by Persons 65 Years of Age and Older



### Green River ADD Percent of Population by Persons 65 Years of Age and Older



**Exhibit 7:** *Percent of Population by Persons 65 Years of Age and Older*



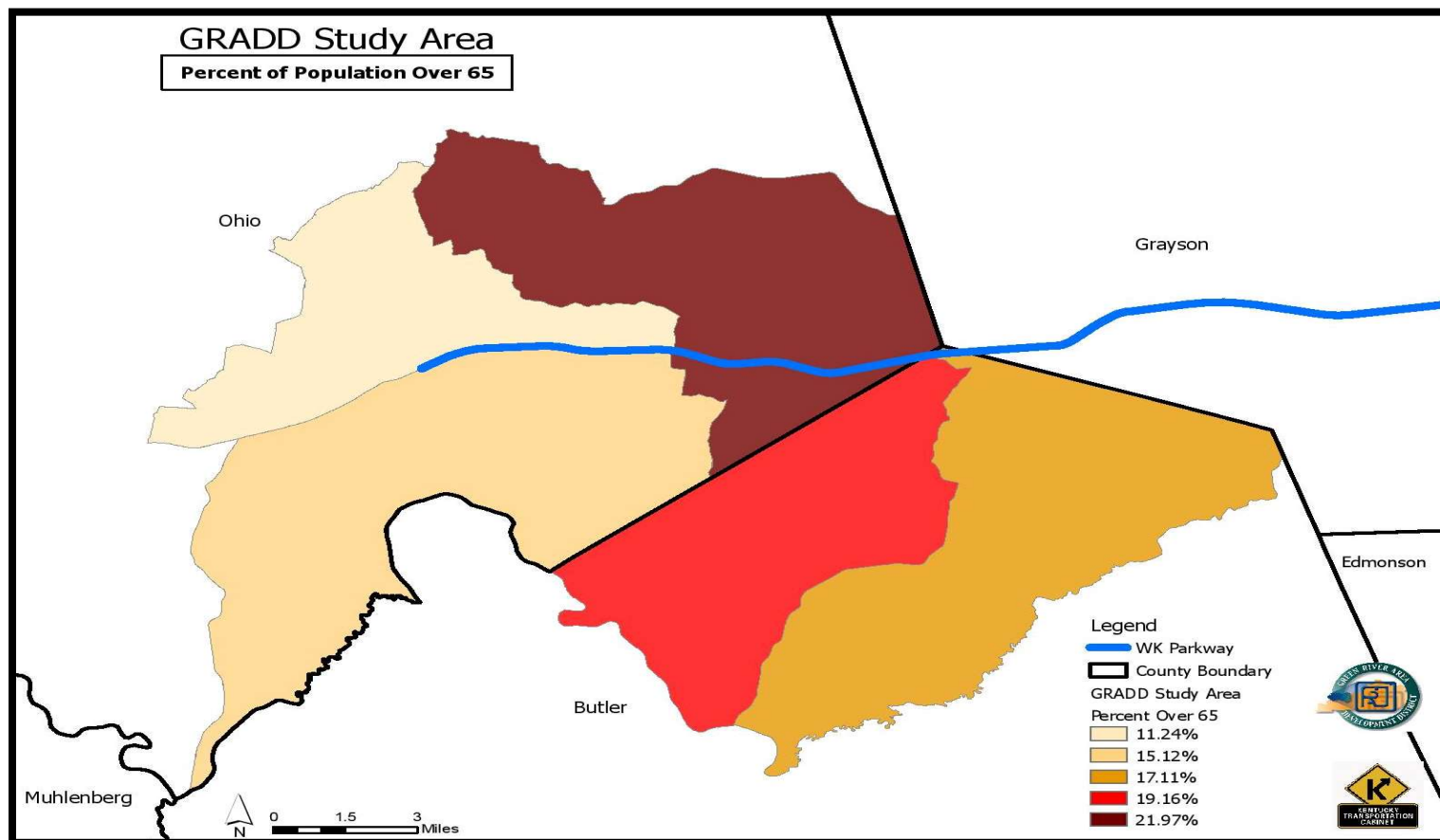
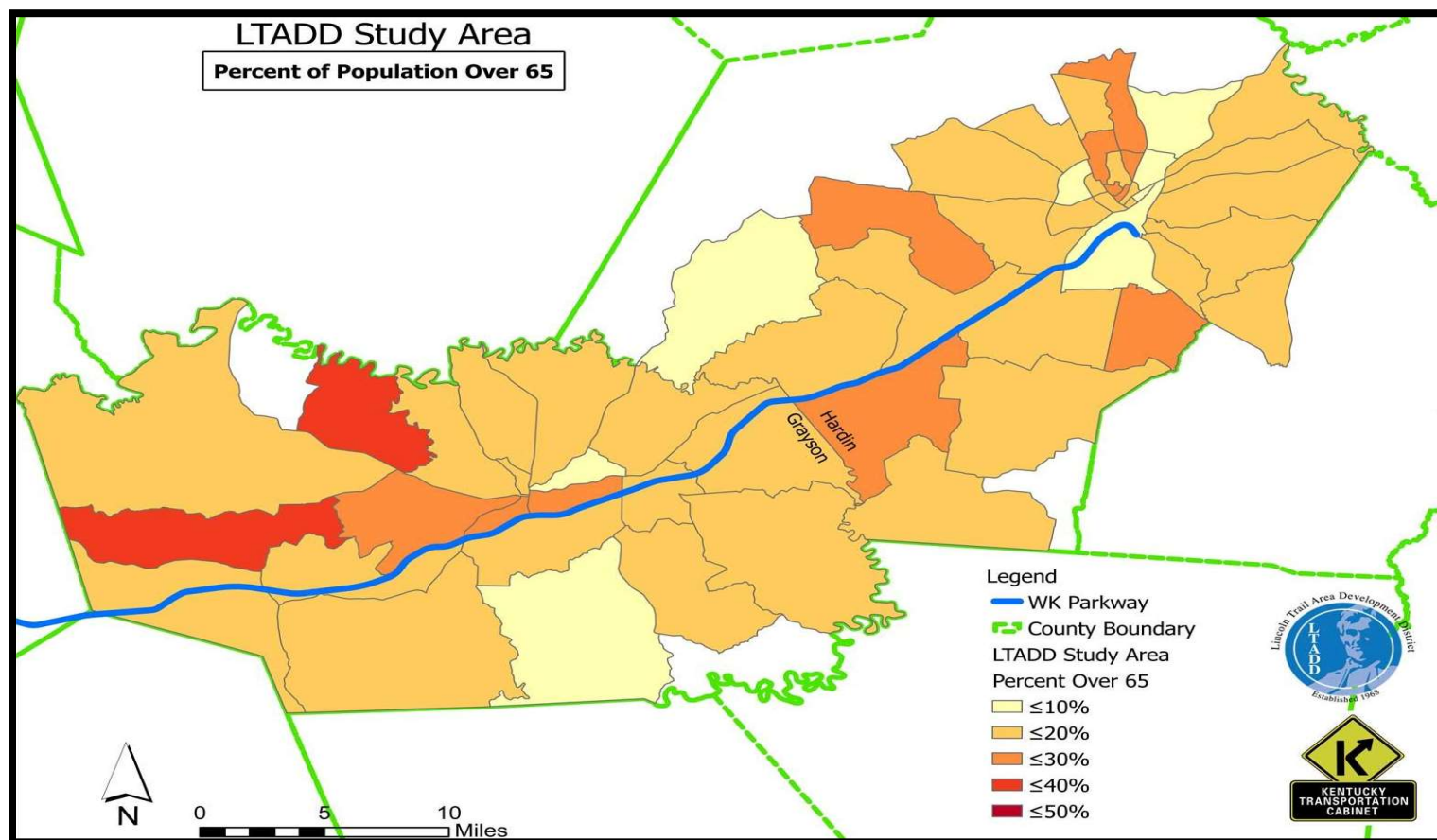


Exhibit 8: Percent of Population by Persons 65 Years of Age and Older

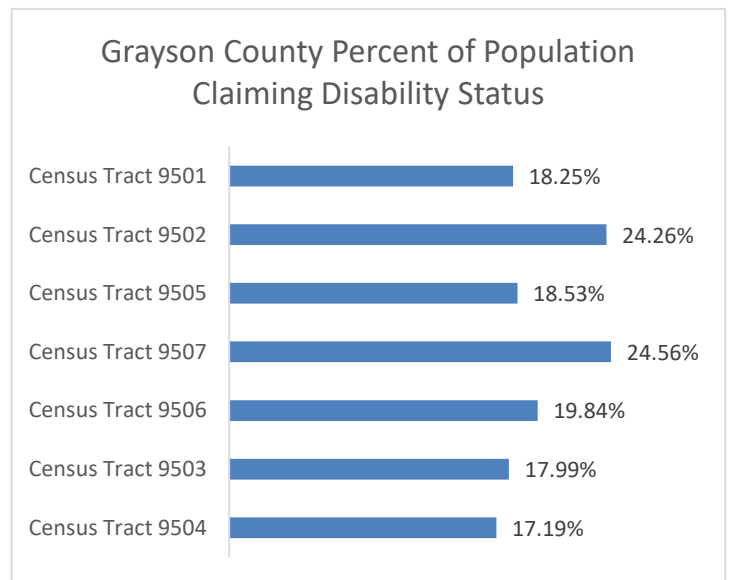
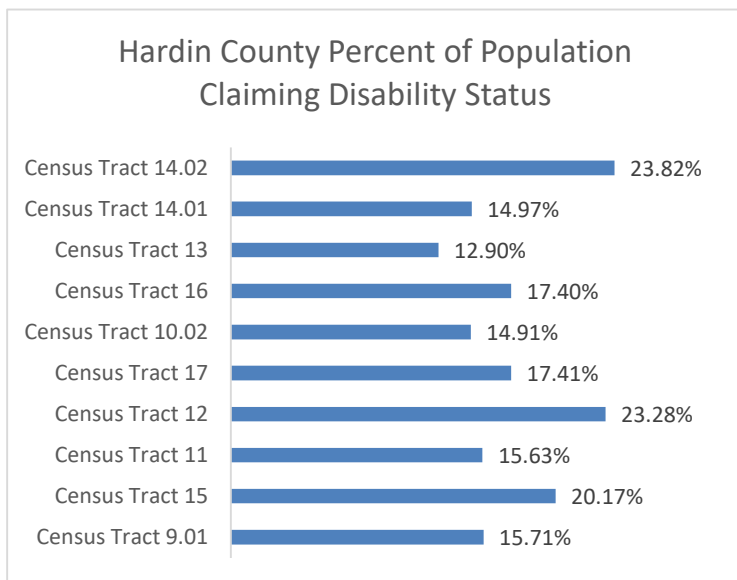
## Disabled Population

*\*As Represented by Exhibit 9 and Exhibit 10*

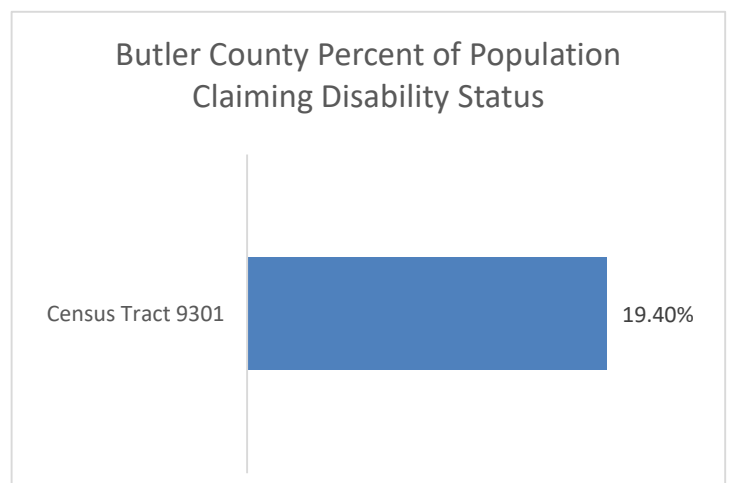
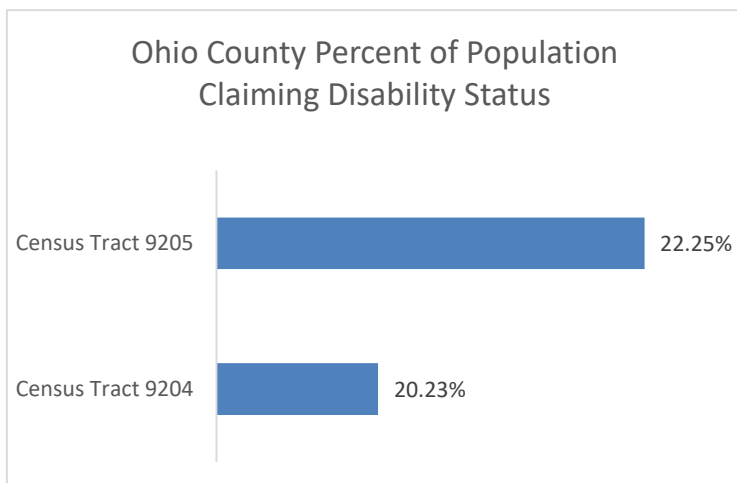
The total population claiming disability status in Lincoln Trail ADD is 19.3%. This is the established reference threshold (see below) for this category. This percentage is below the state percent (17.4%) and above the U.S. (12.6%).

For the study area, nine (9) Census Tracts were identified as having populations above the established threshold of 19.3% for Lincoln Trail ADD.

### Lincoln Trail ADD Percent of Population Claiming Disability Status



### Green River ADD Percent of Population Claiming Disability Status



**Exhibit 9: Percent of Population Claiming Disability Status**

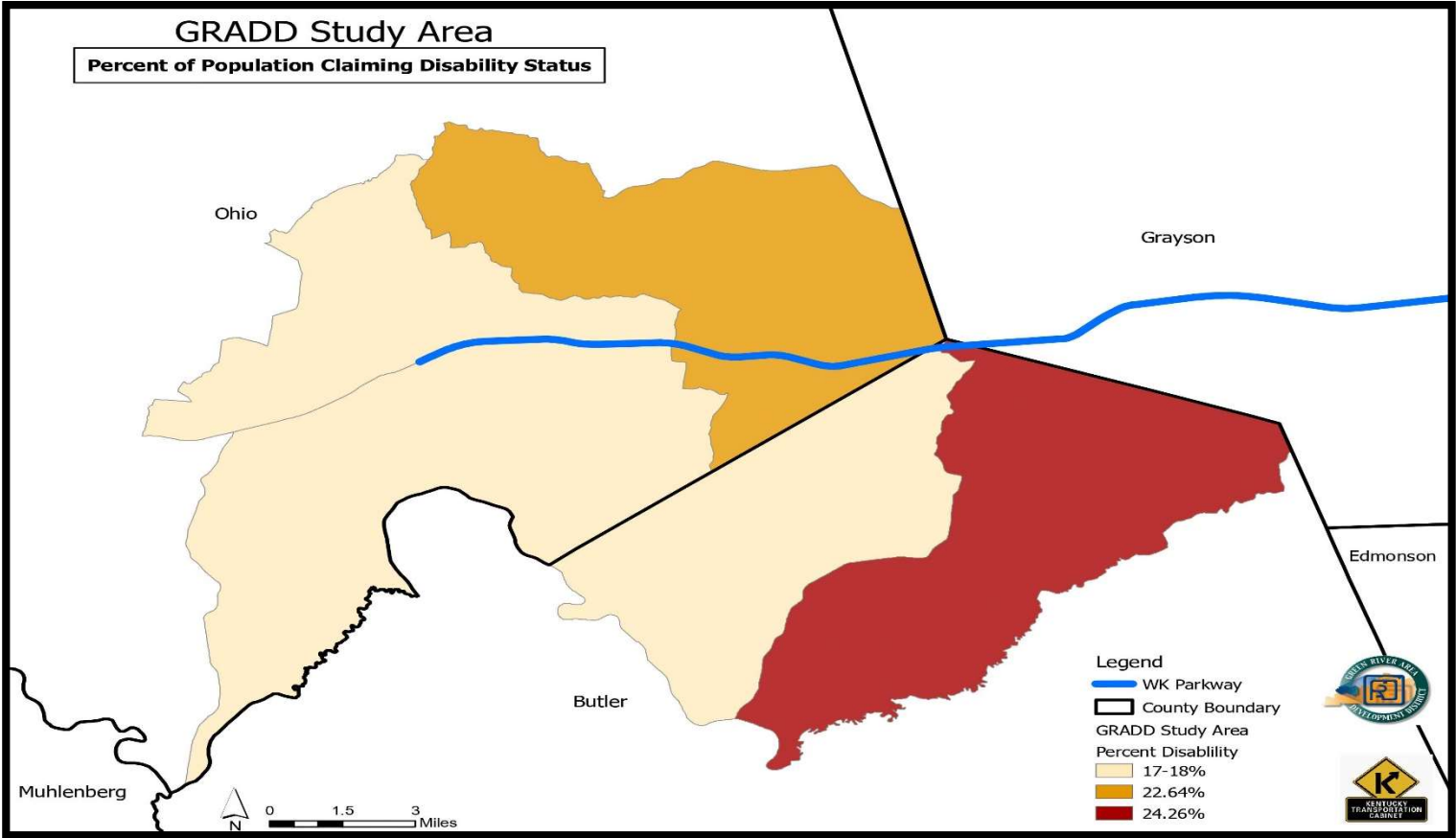
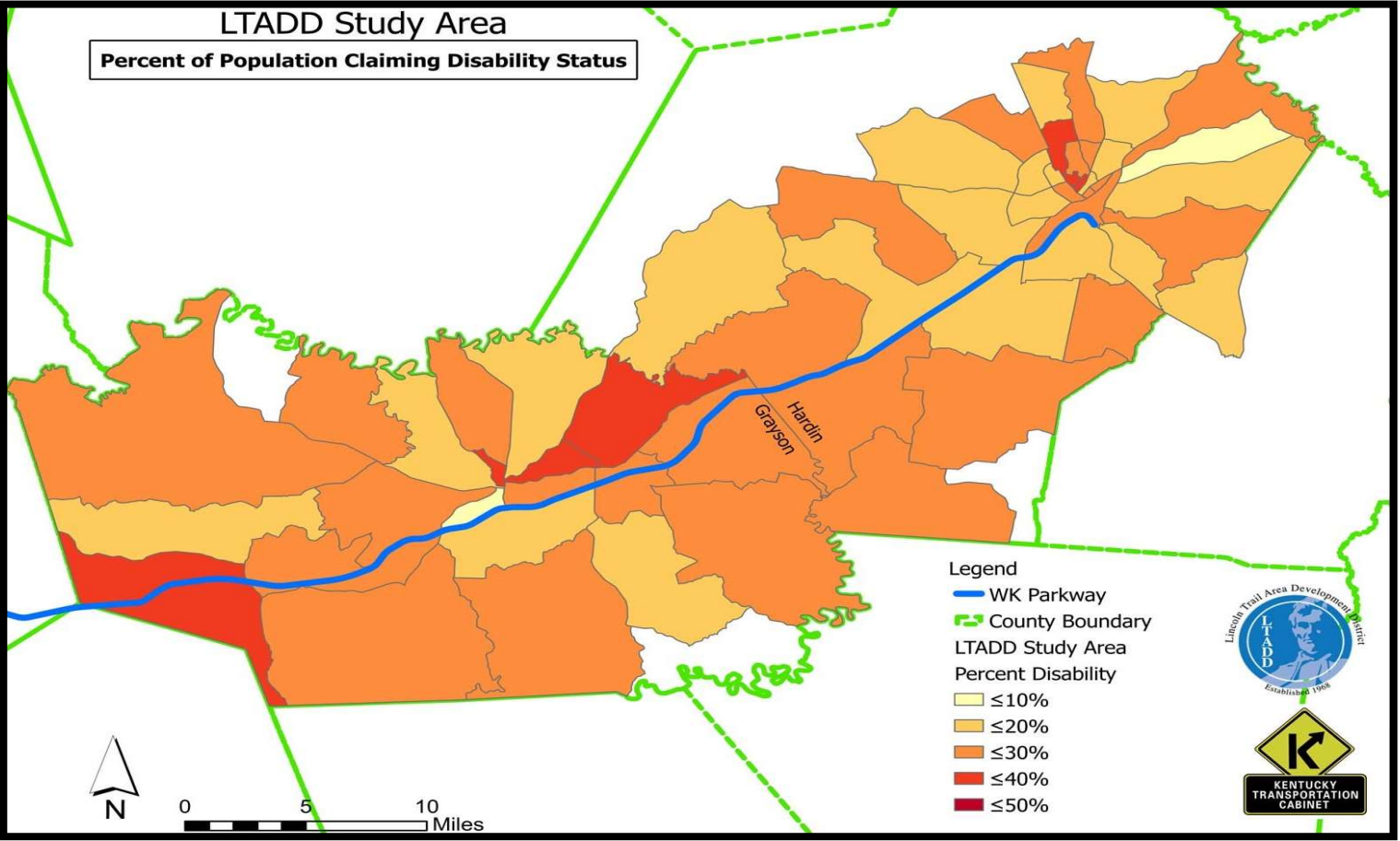


Exhibit 10: Percent of Population Claiming Disability Status

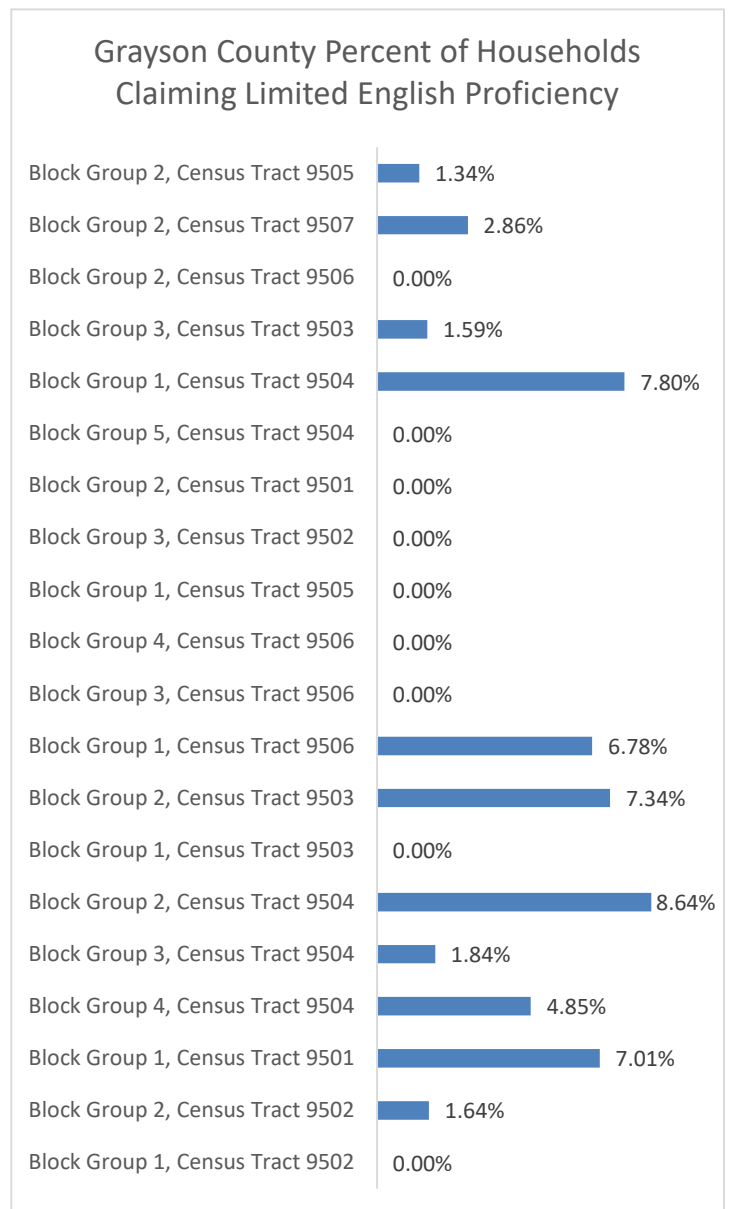
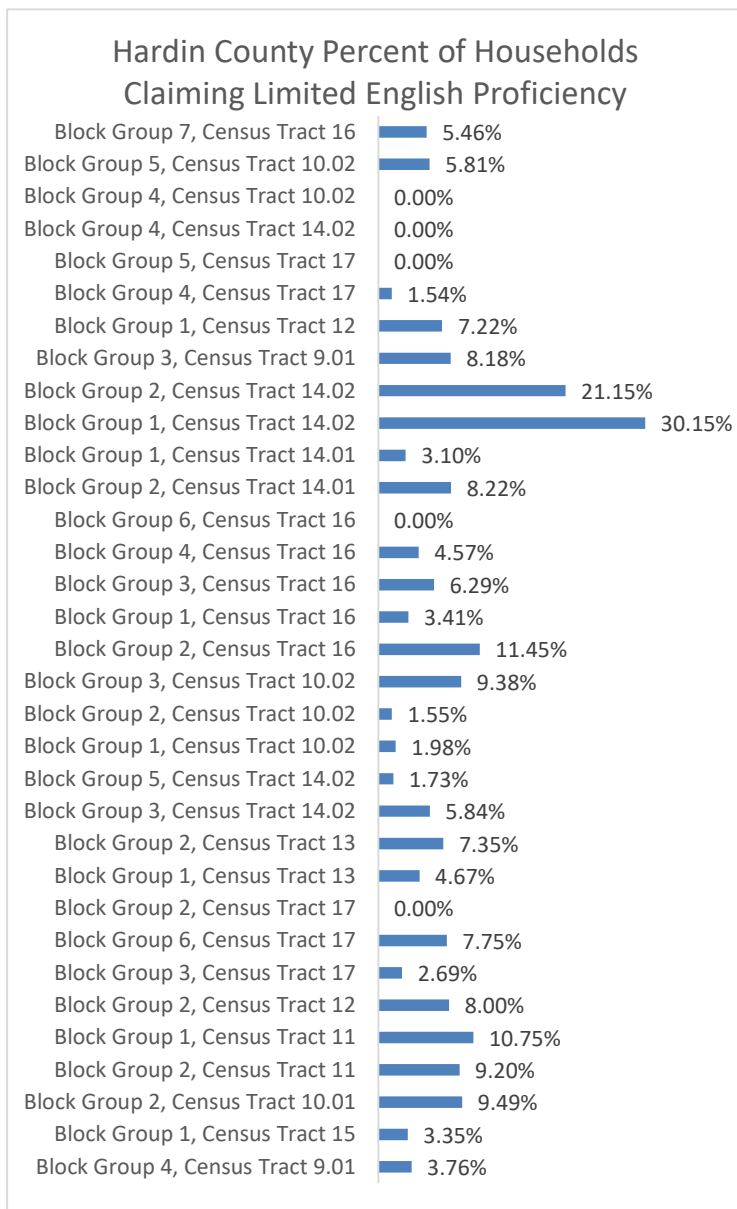
# Households Claiming Limited English Proficiency

*\*As represented by Exhibit 11 and Exhibit 12*

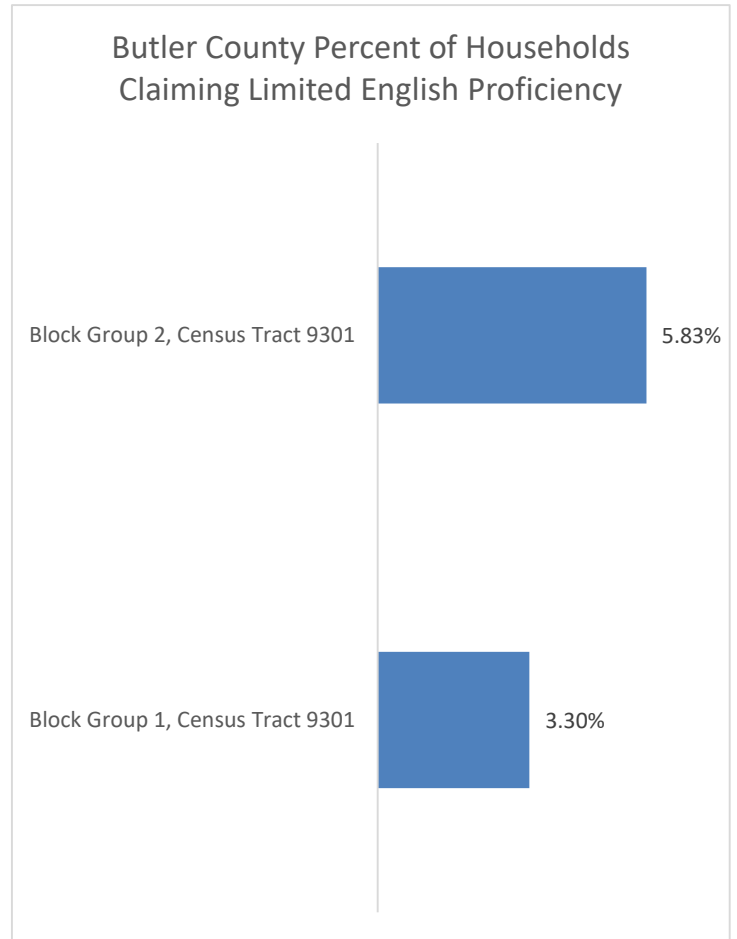
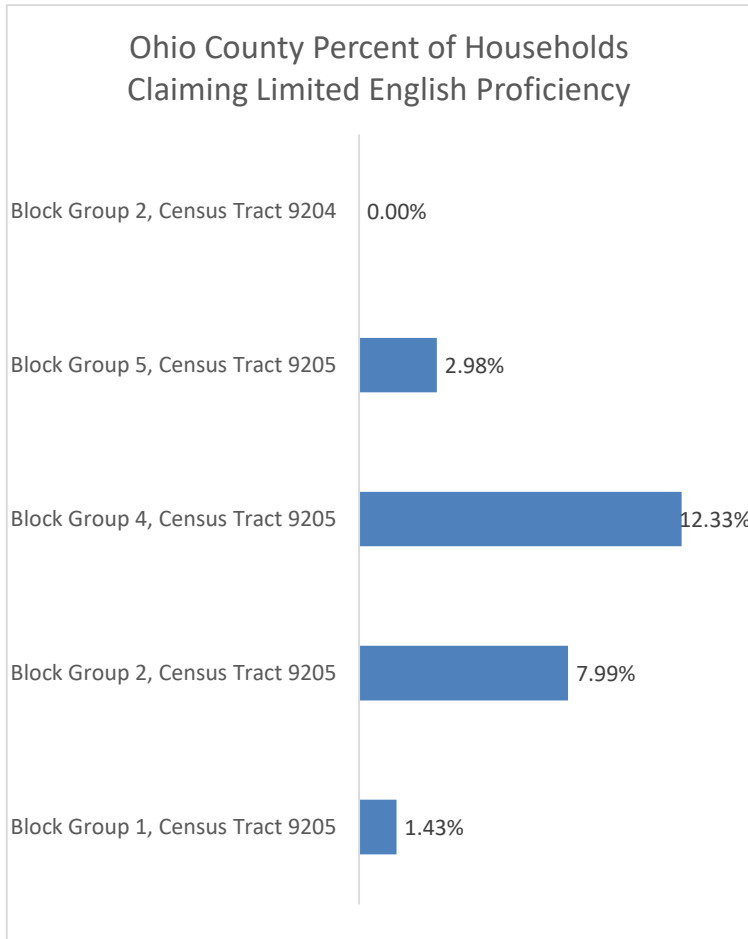
The total number of households claiming limited English proficiency in Lincoln Trail ADD is 4.4%. This is the established reference threshold (see below) for this category. This percentage is above the state percent (1.3%) and below the U.S. (4.4%).

For the study area, twenty-eight (28) Block Groups were identified as having populations above the established threshold of 4.4% for Lincoln Trail ADD.

## Lincoln Trail ADD Percent of Households Claiming Limited English Proficiency



### Green River ADD Percent of Households Claiming Limited English Proficiency



**Exhibit 11:** *Percent of Households Claiming Limited English Proficiency*



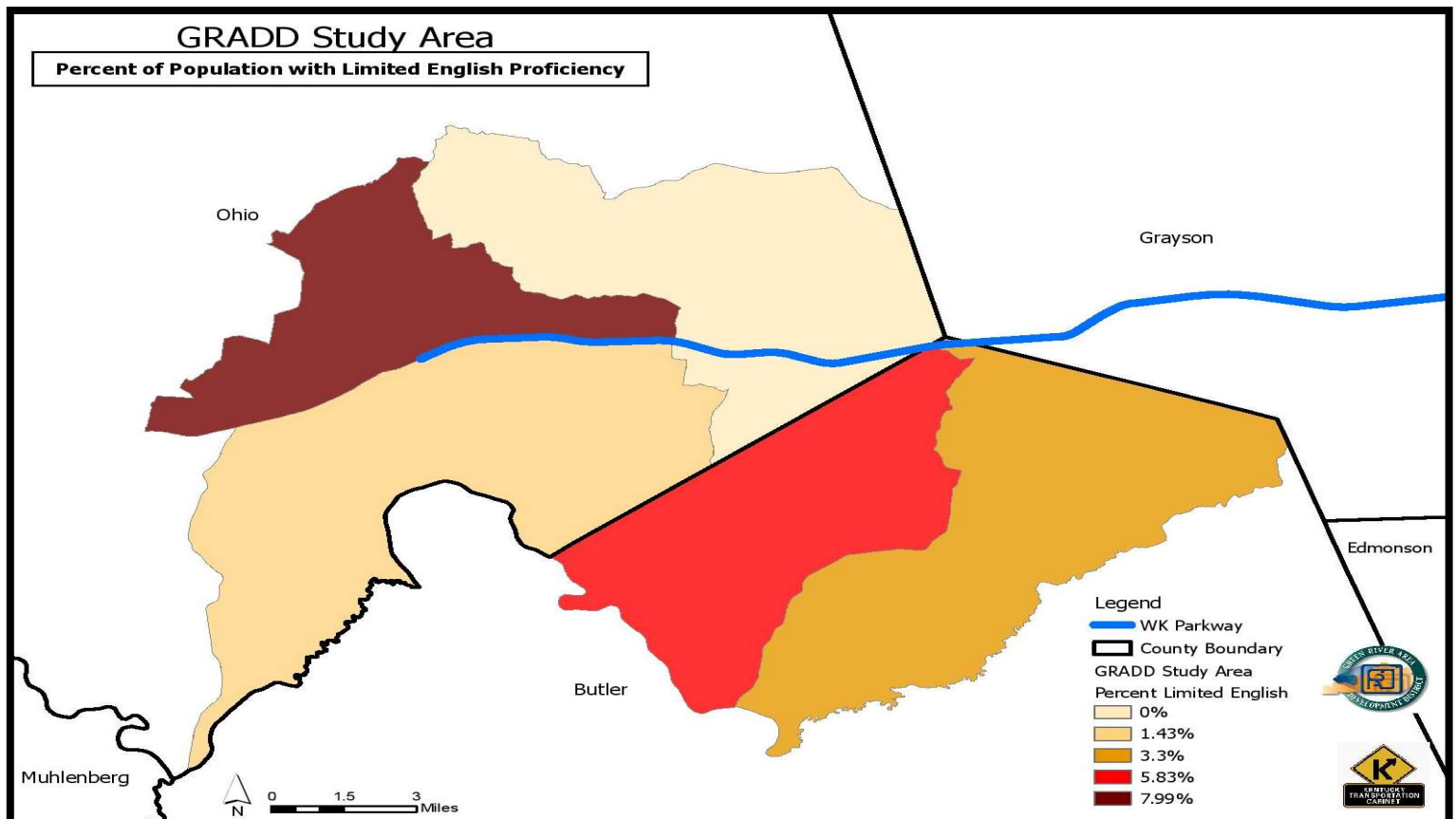
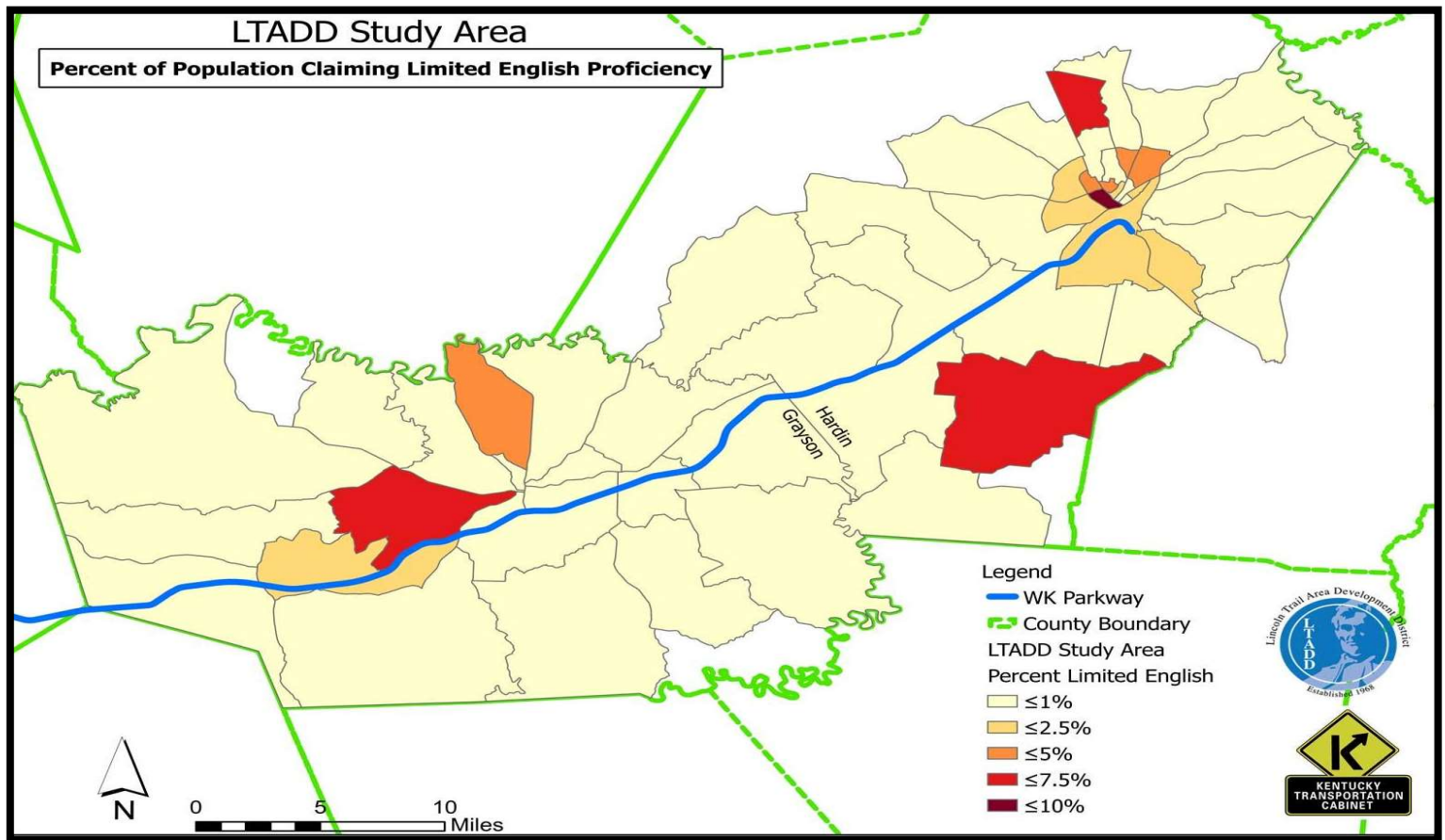


Exhibit 12: Percent of Households Claiming Limited English Proficiency

## Conclusion

In summary, five categories were examined: minority status, poverty status, persons over 65, disabled status, and households with limited English proficiency. For the first three categories of minority status, poverty status, and persons over 65, at least 92 Block Groups were identified with a percentage of the population above the LTADD reference threshold.

The category of percentage persons of minority origin was below the county, state, and national percentage.

For the category of disabled status, 9 census tracts were identified in the study area as having disabled populations above the LTADD threshold. For the category of Limited English Proficiency, 28 block groups were identified as having populations above the LTADD threshold.

Percent of population claiming disability for the study area was higher than the state and national percentage, but less than the LTADD threshold. For households claiming Limited English Proficiency, the study area average was higher than the LTADD, state, and national average.

KYTC should consider these findings carefully as any potential improvements are identified and developed.

**APPENDIX A:**

**National, State, and Study Area Percentage Totals for the 5 Categories**

	<b>Total Pop.</b>	<b>Minority</b>	<b>Poverty</b>	<b>Over 65</b>	<b>Disability</b>	<b>LEP</b>
<b>United States</b>	322,903,030	27.3%	14.1%	15.9%	12.6%	4.4%
<b>Kentucky</b>	4,440,204	12.9%	17.9%	15.6%	17.4%	1.3%
<b>Lincoln Trail ADD</b>	273,474	9.3%	16.8%	16%	19.3%	4.4%
<b>Study Area</b>	93,853	9.2%	17.8%	15.9%	18.9%	4.8%



## **APPENDIX B:**

### **Methodology for Assessing Potential Environmental Justice Concerns for KYTC Planning Studies.**

Updated: September 2014

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.

A map or shapefile of the alternatives will be provided by the consultant or KYTC to the applicable Area Development District (ADD). KYTC, in conjunction with the consultant, will review the ADD data for quality and completeness. The consultant will summarize the information provided by the ADD in the final report. The full Socioeconomic analysis should be placed in an Appendix for reference as necessary.

Maps should be included with the analysis that depict the project area in relation to the Census tracts and block groups included in the analysis.

#### **Additional Information**

The below information may be beneficial to note for future reference

- Changes due to new residential developments in the area
- Increases in Asian and/or Hispanic populations.

- Concentrations or communities that share a common religious, cultural, ethnic, or other background, e.g., Amish communities.
- Communities or neighborhoods that exhibit a high degree of community cohesion or interaction and the ability to mobilize community actions at the start of community involvement.
- Concentrations of common employment, religious centers, and/or educational institutions.

Tips:

- Only include data that is being analyzed. For instance, there is no need to define Block Groups if they are not used. Similarly, Census Tracts should only be referenced as they relate to location of Block Groups discussed.
- Choropleth maps (shaded, color gradation) should be developed based on population percentage.
- 1-page summary facing the adjacent related map is a functional, readily relatable format.
- At this stage, there is no proposed alignment; therefore, we can make no assumptions regarding adverse impacts or mitigation efforts to any populations. We can only identify potential locations of Affected Communities.

### **Applicable Laws, Acts and Executive Orders**

**Civil Rights Act of 1964, Title VI (42 USC 2000d et seq.)** -This title declares it to be the policy of the United States that discrimination on the grounds of race, color, or national origin shall not occur in connection with programs and activities receiving federal financial assistance, and authorizes and directs the appropriate federal departments and agencies to take action to carry out this policy. The Presidential Memorandum accompanying Executive Order 12898 states that in accordance with this title, each federal agency should ensure that all programs or activities receiving federal financial assistance that affect human health or the environment do not directly, or through contractual or other arrangements, use criteria, methods, or practices that discriminate on the basis of race, color, or national origin.

**Age Discrimination Act of 1975 - 42 U.S.C. 6101**, provides: No person in the United States shall, on the basis of age, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance.

**Rehabilitation Act of 1973, Section 504 - 42 U.S.C. 794, et seq.**, provides: No qualified handicapped person shall, solely by reason of his handicap, be excluded from participation in, be denied the benefits of, be subjected to discrimination under any program or activity that receives or benefits from Federal financial assistance.

**Americans With Disabilities Act of 1990 - 42 U.S.C. 12131, et seq.**, provides: No qualified individual with a disability shall, by reason of such disability, be excluded from the participation in, be denied the benefits of, or be subjected to discrimination by a department, agency, special purpose district, or other instrumentality of a State or local government.

**Executive Order #12898** - (Environmental Justice) directs federal agencies to develop strategies to address disproportionately high and adverse human health or environmental effects of their programs on minority and low-income populations.

**Executive Order #13166** - (Limited-English-Proficiency) directs federal agencies to evaluate services provided and implement a system that ensures that Limited English Proficiency persons are able to meaningfully access the services provided consistent with and without unduly burdening the fundamental mission of each federal agency.



*This document was prepared in cooperation with the  
Kentucky Transportation Cabinet, 2021.*