## **APPENDIX H**

Socioeconomic Study

## Outer Loop / KY 1065 Socioeconomic Study

Third Street Road (KY 907) to National Turnpike (KY 1020)



Jefferson County, Kentucky





## Outer Loop / KY 1065 Socioeconomic Study

# Third Street Road (KY 907) to National Turnpike (KY 1020)

**Jefferson County, Kentucky** 

September 2017

#### **Kentuckiana Regional Planning and Development Agency**

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#### INTRODUCTION

This socioeconomic study documents the identification of potential Environmental Justice populations and other potential affected populations within the defined Outer Loop/KY 1065 study area corridor from Third Street Road (KY 907) to National Turnpike (KY 1020) in Jefferson County, Kentucky (Figure 1). This report has been prepared by the Kentuckiana Regional Planning and Development Agency in support of a Kentucky Transportation Cabinet corridor study.

#### **PURPOSE**

The purpose of this study is to:

- assist the Kentucky Transportation Cabinet in carrying out its mission "To provide a safe, efficient, environmentally sound and fiscally responsible transportation system that delivers economic opportunity and enhances the quality of life in Kentucky;"
- fulfill applicable federal commitments to Environmental Justice populations and other identified populations; and
- further the goals and objectives and cooperative nature of the metropolitan transportation planning process.

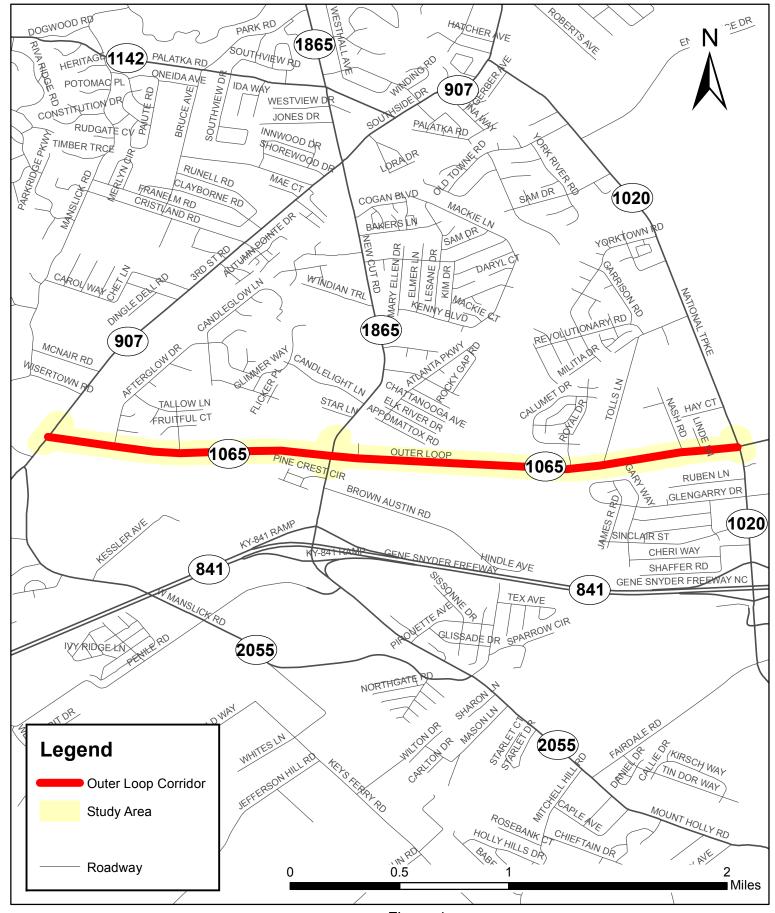
The report is focused on identifying, through demographic analysis, the extent to which potential Environmental Justice populations and other potential affected groups reside in or near the study area corridor.

#### BACKGROUND

Environmental Justice is based primarily on the principles of Title VI of the *Civil Rights Act of 1964*, wherein each Federal agency is required to ensure that no person on the grounds of race, color, or national origin, is excluded from participation in, denied the benefits of, or subjected to discrimination under any program or activity receiving federal financial assistance. In the context of transportation planning, Environmental Justice broadly refers to the goal of identifying and avoiding disproportionate adverse impacts on minority and low-income individuals and communities. For the purposes of this document, Environmental Justice has been addressed through the following:

 Executive Order 12898: Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations (February 11, 1994)

The order reads, in part: "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 programs, policies, and activities on minority populations and low-income populations."



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Figure 1

#### STUDY AREA CORRIDOR



• U.S. Department of Transportation Order 5610.2: Department of Transportation Actions to Address Environmental Justice in Minority Populations and Low-Income Populations (April 15, 1997—superseded by USDOT Order 5601.2(a))

The order reads, in part: "Planning and programming activities that have the potential to have a disproportionately high and adverse effect on human health or the environment shall include explicit consideration of the effects on minority populations and low-income populations."

 Federal Highway Administration Order 6640.23: FHWA Actions to Address Environmental Justice in Minority Populations and Low-Income Populations (December 2, 1998—cancelled by FHWA Order 6640.23A)

The order reads, in part: "...it is FHWA's continuing policy to identify and prevent discriminatory effects by actively administering its programs, policies and activities to ensure that social impacts to communities and people are recognized early and continually throughout the transportation decision making process—from early planning through implementation."

• U.S. Department of Transportation Order 5610.2(a): Department of Transportation Actions to Address Environmental Justice in Minority Populations and Low-Income Populations (May 2, 2012)

The order cancels USDOT Order 5610.2, but is, for the most part, a reaffirmation of the original order. The definitions of Minority populations have been adjusted to comply with Office of Management and Budget (OMB) race and ethnicity classification standards. The order also clarifies the distinction between a Title VI analysis and an environmental justice analysis conducted as part of a NEPA review.

• Federal Highway Administration Order 6640.23A: FHWA Actions to Address Environmental Justice in Minority Populations and Low-Income Populations (June 14, 2012)

The order cancels FHWA Order 6640.23, but is, for the most part, a reaffirmation of the original order. The governing authorities have been updated to include Executive Order 12898, DOT Order 5610.2(a), Title VI of the Civil Rights Act of 1964, Title 23 USC Section 109(h), NEPA, Title49 CFR Part 21.9(b), 23 CFR 200.9(b)(4), and the Uniform Relocation Assistance and Real Property Acquisition Act of 1970. The definitions of Minority populations have also been adjusted to comply with Office of Management and Budget (OMB) race and ethnicity classification standards.

Civil Rights Act of 1964, Title VI (42 USC § 2000d et seq):

Title VI 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.

This report attempts to apply current state of the practice procedures and data to provide the information needed to "... ensure that the interests and well-being of minority populations and low-income populations are considered and addressed during the transportation decision-making process."

Additional groups included in this socioeconomic study are older persons, persons with disabilities, zero vehicle households, and persons with limited English proficiency. While the above Environmental Justice orders and Title VI of the Civil Rights Act do not directly address these additional populations, they are included in this analysis per guidance issued by the Kentucky Transportation Cabinet Division of Planning and the Kentucky Transportation Cabinet Division of Environmental Analysis, and as a matter of good planning practice. These other groups are addressed though the following:

#### • Age Discrimination Act of 1975 (42 USC § 6101):

This act affirms that 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 (29 USC §794 et seq):

The act states that no qualified handicapped person shall, solely by reason of his handicap, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity that receives or benefits from federal financial assistance.

#### • Americans with Disabilities Act of 1990 (42 USC §12131 et seq):

The Americans with Disabilities Act (ADA) declares that 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 13166: Improving Access to Services for Persons With Limited English Proficiency (August 11, 2000)

The Limited English Proficiency (LEP) order directs federal agencies to evaluate services provided and implement a system that ensures LEP persons are able to meaningfully access the services provided consistent with, and without unduly burdening, the fundamental mission of each federal agency.

#### RESOURCES/REFERENCES

In addition to the orders and acts listed above, the following resources have been consulted for information and guidance in conducting this study:

- Methodology for Assessing Underserved Populations Including Environmental Justice, Title VI, Age, and Disability Considerations in Conjunction with KYTC Planning Studies – Kentucky Transportation Cabinet Division of Planning, September 2014
- KYTC Guidance for Environmental Justice Analysis Kentucky Transportation Cabinet Division of Environmental Analysis, September 2014
- Community Assessment and Outreach Program for the Louisville (KY-IN)
   Metropolitan Planning Area for Title VI/Environmental Justice and Other
   Communities of Concern Kentuckiana Regional Planning and
   Development Agency, July 2006
- Environmental Justice/Title VI Plan Kentuckiana Regional Planning and Development Agency, October 2004
- Effective Methods for Environmental Justice Assessment National Cooperative Highway Research Program (NCHRP) Report 532, September 2004
- Technical Methods to Support Analysis of Environmental Justice Issues NCHRP Project 8-36 (11), April 2002
- Community Impact Assessment: A Quick Reference for Transportation, FHWA, September 1996
- Webinar Series on Environmental Justice: Guidance for Conducting Community Impact Assessments – USDOT, December 6, 2012
- US Census Bureau, 2011-2015 American Community Survey (ACS)

#### **TERMINOLOGY**

This assessment makes use of several terms, some of which may be unique to the Environmental Justice process. Their definitions may similarly have specific application limited to these procedures. For example, according to the United States Department of Transportation and the Federal Highway Administration, the following terms and definitions shall be used:

**Minority Persons** include persons whose race can be identified as any one or more of the following categories:

- Black—persons having origins in any of the black racial groups of Africa;
- Asian-American—persons having origins in any of the original peoples of the Far East, Southeast Asia, or the Indian subcontinent;
- American Indian and Alaskan Native—persons having origins in any of the original people of North America, South America (including Central America), and who maintain cultural identification through tribal affiliation or community recognition; and
- Native Hawaiian and Other Pacific Islander—persons having origins in any of the original peoples of Hawaii, Guam, Samoa, or other Pacific Islands.

Minority populations also include persons of any race or combination of races who identify their ethnicity, culture, or origin as *Hispanic or Latino*. Hispanics are persons of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin.

**Minority Population** means 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 USDOT or FHWA program, policy, or activity.

**Persons with Low-Income** include persons whose median household income is at or below the U.S. Department of Health and Human Services (HHS) poverty guidelines (Table 1).

TABLE 1
2016 HHS Poverty Guidelines

Persons in Family	48 Contiguous States and DC	Alaska	Hawaii
1	\$11,880	\$14,840	\$13,670
2	\$16,020	\$20,020	\$18,430
3	\$20,160	\$25,200	\$23,190
4	\$24,300	\$30,380	\$27,950
5	\$28,440	\$35,560	\$32,710
6	\$32,580	\$40,740	\$37,470
7	\$36,730	\$45,920	\$42,230
8	\$40,890	\$51,120	\$47,010
For each additional person, add	\$4,160	\$5,200	\$4,780

Source: Federal Register, Vol. 81, No. 15, January 25, 2016, pp. 4036-4037

Table 1 depicts the 2016 version of the *poverty guidelines* issued annually in the *Federal Register* by the U.S. Department of Health and Human Services. The guidelines are used for administrative purposes, such as determining financial eligibility for certain federal programs, and are a simplification of Census Bureau *poverty thresholds* (Table 2). As with the guidelines, the thresholds are updated each year, but are used for statistical purposes such as estimating the number of persons in poverty.

TABLE 2
Poverty Thresholds for 2015, by Size of Family and Number of Related
Children Under 18 Years

Size	Weighted				Related Ch	ildren Unde	r 18 Years			
of Family Unit	Average Thresholds	None	One	Two	Three	Four	Five	Six	Seven	Eight or More
One person (unrelated individual)	\$12,082									
Under 65 years	\$12,331	\$12,331								
65 years and over	\$11,367	\$11,367								
Two persons	\$15,391									
Householder under 65 years	\$15,952	\$15,871	\$16,337							
Householder 65 years and over	\$14,342	\$14,326	\$16,275							
Three persons	\$18,871	\$18,540	\$19,078	\$19,096						
Four persons	\$24,257	\$24,447	\$24,847	\$24,036	\$24,120					
Five persons	\$28,741	\$29,482	\$29,911	\$28,995	\$28,286	\$27,853				
Six persons	\$32,542	\$33,909	\$34,044	\$33,342	\$32,670	\$31,670	\$31,078			
Seven persons	\$36,998	\$39,017	\$39,260	\$38,421	\$37,835	\$36,745	\$35,473	\$34,077		
Eight persons	\$41,029	\$43,637	\$44,023	\$43,230	\$42,536	\$41,551	\$40,300	\$38,999	\$38,668	
Nine or more persons	\$49,117	\$52,493	\$52,747	\$52,046	\$51,457	\$50,490	\$49,159	\$47,956	\$47,658	\$45,822

Source: U.S. Census Bureau

The U.S. Department of Health and Human Services and the Census Bureau follow different labeling practices for their respective poverty measures. The poverty guidelines are designated by the year in which they are issued, but reflect price changes through the previous calendar year; so, for example, 2016 guidelines would be applied to 2015 income to determine eligibility for programs, including Head Start, Food Stamps, or the Low-Income Home Energy Assistance Program. Conversely, the poverty thresholds are named for the year of data collection; 2015 thresholds are used to determine poverty status for 2015 populations. Regardless of the disparate naming conventions, the 2016 guidelines from HHS and the 2015 thresholds from the Census Bureau cover approximately the same year of income, 2015.

The 2016 HHS income guidelines and 2015 Census income thresholds are included here as examples of how the two measures of poverty compare to each other for a single year of data. The poverty data in this profile report, however, is based on 2011-2015 ACS data, and includes five years of accumulated census sample responses. As such, the poverty status of each respondent is determined using the poverty thresholds and poverty factor for the applicable month and year of response (see Appendix for methodology, thresholds, and factors).

According to the HHS, "Neither the Census Bureau nor the U.S. Department of Health and Human Services prepare tabulations of the number of people below the HHS poverty guidelines... The best approximation for the number of people below the HHS poverty guidelines in a particular area would be the number of persons below the Census Bureau poverty thresholds in that area." Therefore, the Census Bureau poverty thresholds are used for identification and analysis of potential low-income populations in this report.

**Low-Income Population** means any readily identifiable group of persons with low-income 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 USDOT or FHWA program, policy or activity.

Adverse Effects are the totality of significant individual or cumulative human health or environmental effects, including interrelated social and economic effects, which may include, but are not limited to: bodily impairment, infirmity, illness or death; air, noise, and water pollution and soil contamination; destruction or disruption of man-made or natural resources; destruction or diminution of aesthetic values; destruction or disruption of community cohesion or a community's economic vitality; destruction or disruption of the availability of public and private facilities and services; vibration; adverse employment effects; displacement of persons, businesses, farms, or nonprofit organizations; increased traffic congestion, isolation, exclusion or separation of minority or low-income individuals within a given community or from the broader community; and the denial of, reduction in, or significant delay in the receipt of, benefits of USDOT or FHWA programs, policies, or activities.

## Disproportionately High and Adverse Effect on Minority and Low-Income Populations means an adverse effect that:

- is predominately borne by a minority population and/or a low-income population; or
- 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-lowincome population.

**Programs, Policies, and/or Activities** mean all projects, programs, policies, and activities that affect human health or the environment, and which are undertaken, funded (in whole or in part), or approved by USDOT or FHWA. These include, but are not limited to, permits, licenses, and financial assistance provided by USDOT or FHWA. Interrelated projects within a system may be considered to be a single project, program, policy, or activity.

**Regulations and Guidance** means regulations, programs, policies, guidance, and procedures promulgated, issued, or approved by USDOT or FHWA.

Other terminology used in this study includes the following:

**Older Persons**, for purposes of this report, include persons age 65 and older as of the month and year of their interview or response to the American Community Survey. Basic Medicare eligibility for persons without disabilities begins at age 65, and this age also forms the lower threshold for many definitions of older/senior populations.

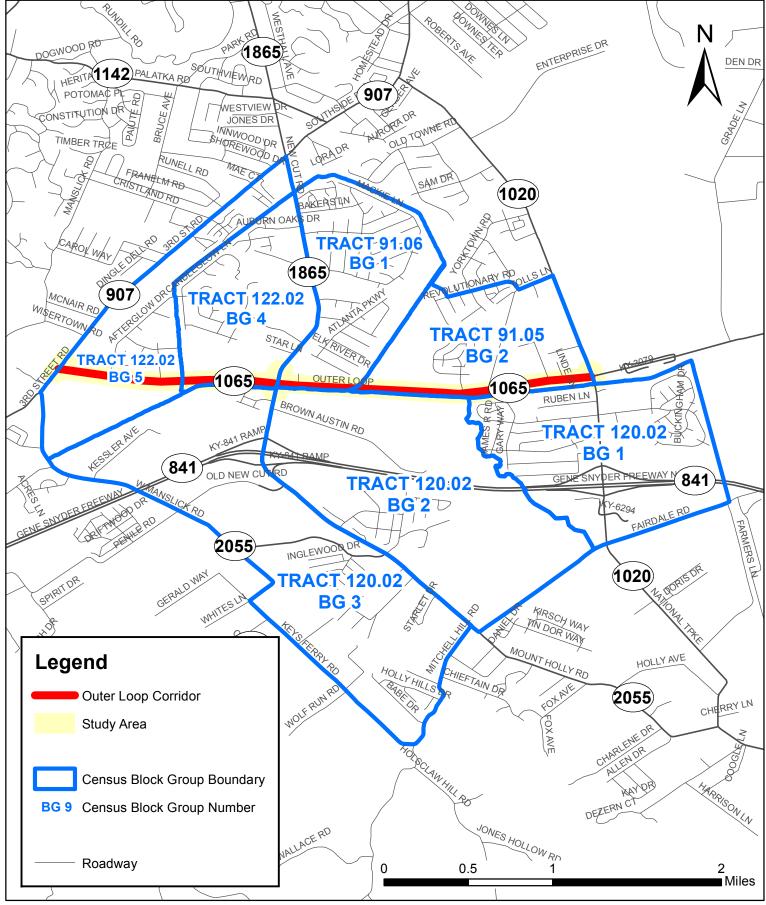
**Persons with Disabilities**, for purposes of this study, include the population age 18 and over for which the presence of any of the 6 following conditions was disclosed as of the month and year of their interview or response to the American Community Survey:

- serious hearing limitations
- serious vision limitations
- serious limitations in cognitive functioning
- serious ambulatory limitations
- · serious self-care limitations
- serious independent living limitations

**Zero Vehicle Households** are occupied housing units with zero vehicles available as of the month and year of their interview or response to the ACS.

**Persons with Limited English Proficiency (LEP)** are generally considered to be persons who reported speaking a language other than English and indicated their English-speaking ability to be something other than "Very Well" at the time of their interview or response to the American Community Survey. Responses of LEP populations may include speaking English "Well", "Not Well", or "Not at All".

**Census Block Groups** are small statistical divisions of census tracts that are used to present statistical data and control census block numbering. While block groups generally contain between 600 and 3,000 people, with an optimum size of 1,500 people, their spatial size can vary widely depending on the density of settlement. Figure 2 shows the currently defined census block groups in and around the study area.



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Figure 2

## STUDY AREA CORRIDOR CENSUS BLOCK GROUP BOUNDARIES



#### **ANALYSIS METHODOLOGY**

The procedures involved in conducting the socioeconomic study for the Outer Loop/KY 1065 corridor centered on the identification of potential Environmental Justice populations and other potential affected populations. Data from the 2011-2015 American Community Survey was used to develop demographic profile tables and maps of the potential locations of the groups of concern.

Profile tables were developed for each population of interest and for several geographic levels in and immediately adjacent to the study area. Tables showing the total number of persons by minority status, low-income status, older persons, persons with disabilities, zero vehicle households, and persons with limited English proficiency were created for several geographic areas, including the United States, Kentucky, and Jefferson County, as well as applicable census block groups.

The tables were assembled using census data. The 2011-2015 ACS data was obtained from short form questionnaires administered over a 5-year period to an annual sample of about 3.5 million households—the data is available down to the block group level for selected variables.

Profile maps were produced for each population variable at the block group level. ESRI ArcMap software was used to combine the census data described above with the appropriate census block group boundary to map potential locations of the populations of interest.

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.

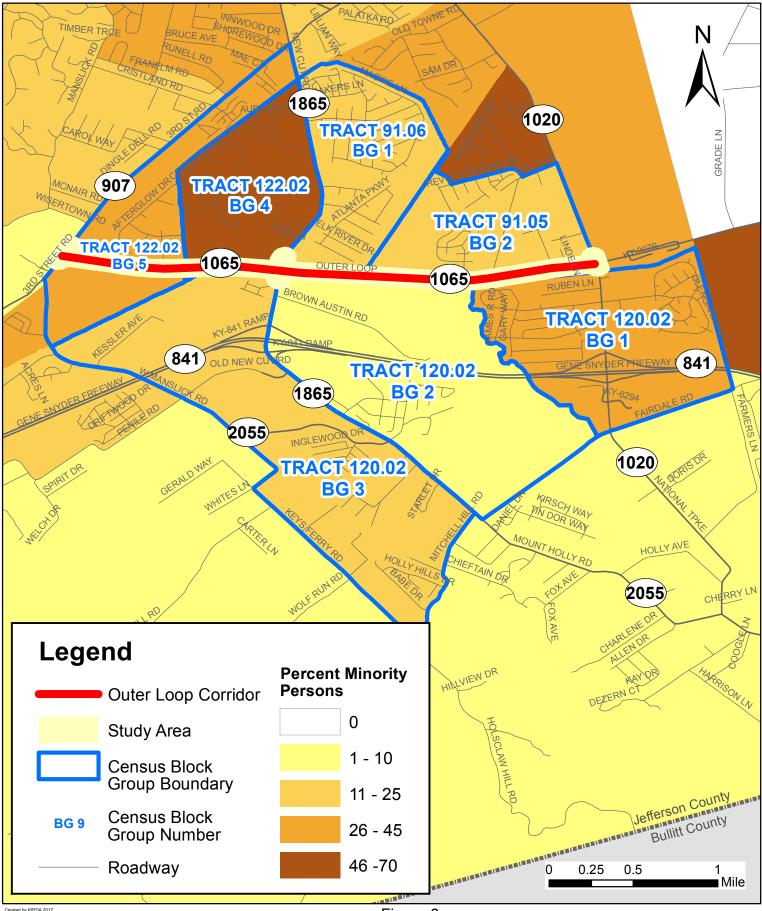
#### SOCIOECONOMIC PROFILES

This section provides an examination of the demographic characteristics of potential Environmental Justice populations and other selected groups within and surrounding the study area corridor. These profiles provide a basis for identifying the number and, where appropriate, the geographic location of potential Environmental Justice populations and other affected communities.

#### MINORITY PERSONS

The Outer Loop/KY 1065 study area corridor is primarily bordered by 7 census block groups—Block Group 2 of Tract 91.05, Block Group 1 of Tract 91.06, Block Groups 1, 2, and 3 of Tract 120.02, and Block Groups 4 and 5 of Tract 122.02. Geographic analysis of the 2011-2015 ACS data shows the block groups along the corridor to exhibit mostly medium-level potential densities of minority persons, as defined by Executive Order 12898 on Environmental Justice (Figure 3). At either end of the Outer Loop study area, three block groups have the highest percentages of minority persons—Block Group 1 of Tract 120.02 (36.7%) and Block Groups 4 (48.7%) and 5 (39.4%) of Tract 122.02. These three block groups contain areas of higher density residential land use, with a large apartment complex, townhomes, and a mobile home park within their borders.

According to the 2011-2015 ACS data, more than one-third (37%) of Americans are minority persons (Table 3). In Kentucky, this percentage is much lower—almost 14%; while Jefferson County's minority rate, at 30%, is closer to that of the United States. At the census block group level, in and along the study corridor, percentages of persons considered to be minorities range from 5.8% in Tract 120.02 Block Group 2 to 48.7% in Tract 122.02 Block Group 4. Over half of the block groups have densities of minority persons between 25 and 50 percent.



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Data Source: 2011-2015 ACS, Table B03002

Data Note: American Community Survey (ACS) data are estimates based on a survey sample. Reliabilit of ACS data can vary widely—especially for smaller geographic levels; therefore, Margins of Error (MOE from the pullcable gauge data tables should be expected to expect the deependability of the data.

Figure 3

#### PERCENT MINORITY PERSONS BY CENSUS BLOCK GROUP--2011-2015



TABLE 3 **Minority Persons—2011-2015** Outer Loop / KY 1065 Socioeconomic Study Third Street Road (KY 907) to National Turnpike (KY 1020)

Area		Tatal	Minority I	Persons
		Total Persons	Total	% Total Persons
United States		316,515,021	119,256,743	37.68
Kentucky		4,397,353	635,199	14.45
Jefferson Cour	nty	755,809	230,379	30.48
g the	Tract 91.05 Block Group 2	1,600	291	18.19
roundin	Tract 91.06 Block Group 1	3,263	824	25.25
and Sur	Tract 120.02 Block Group 1	2,548	934	36.66
rsecting an Study Area	Tract 120.02 Block Group 2	1,600	92	5.75
Census Areas Intersecting and Surrounding the Study Area	Tract 120.02 Block Group 3	1,833	195	10.64
	Tract 122.02 Block Group 4	1,251	609	48.68
Cens	Tract 122.02 Block Group 5	1,682	663	39.42

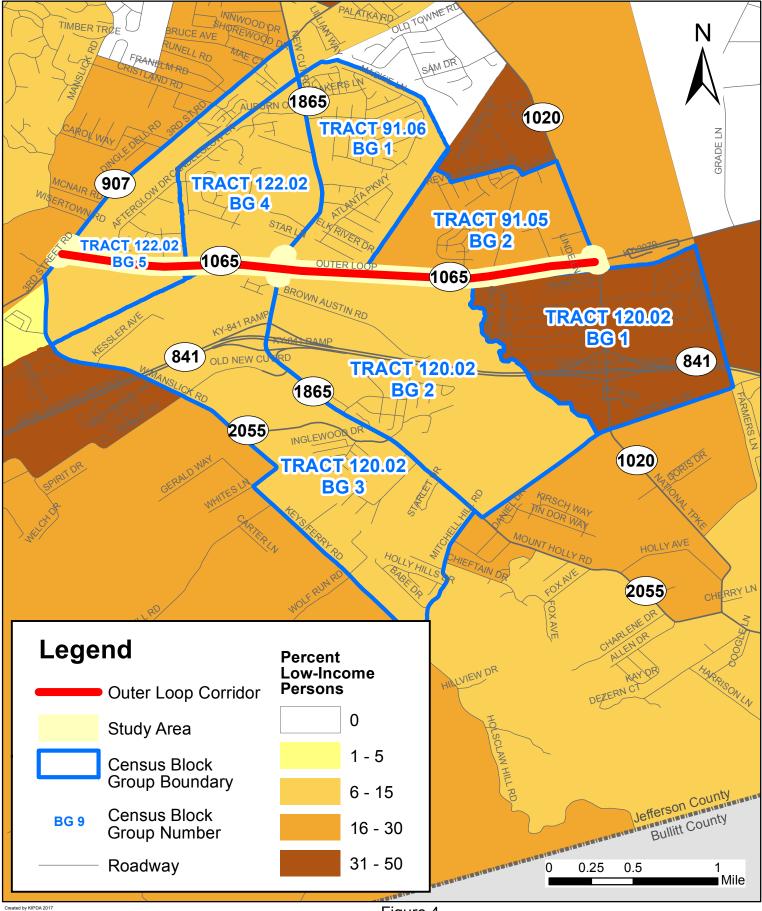
Note: Only selected Block Groups are represented.

Data Source: 2011-2015 American Community Survey, Table B03002

#### PERSONS WITH LOW INCOME

Geographic analysis of the 2011-2015 ACS data shows the corridor to have primarily lower potential densities of persons with low-income, as defined by Executive Order 12898 on Environmental Justice (Figure 4). There are two block groups with higher than average densities of persons with low-income—Tract 91.05 Block Group 2 (27.8%) and Tract 120.02 Block Group 1 (35.1%). These two areas are also the locations of higher density residential land use—Southland Mobile Home Park and Barrington Park Mobile Home Park, respectively.

According to the 2011-2015 American Community Survey, 15% of persons in the Nation are considered to be low-income, with incomes below poverty level (Table 4). Kentucky and Jefferson County exhibit poverty levels slightly higher than that of the United States trend. Kentucky's poverty rate is 19%, while Jefferson County's percentage just over 16%. Block group-level low-income percentages in the study area range from a low of 5.6% in Tract 120.02 Block Group 2 to a high of over 35% in Tract 120.02 Block Group 1. Most of the study area block group low-income densities fall below the comparative national, state, and county levels.



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Data Source: 2011-2015 ACS, Table B17021

Data Note: American Community Survey (ACS) data are estimates based on a survey sample. Reliabilit of ACS data can vary widely—especially for smaller geographic levels; therefore, Margins of Error (MOE from the pullcable gauge data tables should be expected to expect the deependability of the data.

Figure 4

#### PERCENT PERSONS WITH LOW-INCOME BY CENSUS BLOCK GROUP--2011-2015



**TABLE 4** Persons with Low-Income—2011-2015 Outer Loop / KY 1065 Socioeconomic Study Third Street Road (KY 907) to National Turnpike (KY 1020)

Area		Total Persons for Whom Poverty	Persons with Low-Income (Income Below Poverty Level in the Last 12 Months)		
		Status is Determined	Total	% Total Persons	
United States		308,619,550	47,749,043	15.47	
Kentucky		4,263,217	805,841	18.90	
Jefferson County		740,545	121,683	16.43	
ng the	Tract 91.05 Block Group 2	1,600	445	27.81	
ırroundi	Tract 91.06 Block Group 1	3,251	278	8.55	
l and Surea	Tract 120.02 Block Group 1	2,548	895	35.13	
Census Areas Intersecting and Surrounding the Study Area	Tract 120.02 Block Group 2	1,600	89	5.56	
	Tract 120.02 Block Group 3	1,833	186	10.15	
	Tract 122.02 Block Group 4	1,251	71	5.68	
Cen	Tract 122.02 Block Group 5	1,682	214	12.72	

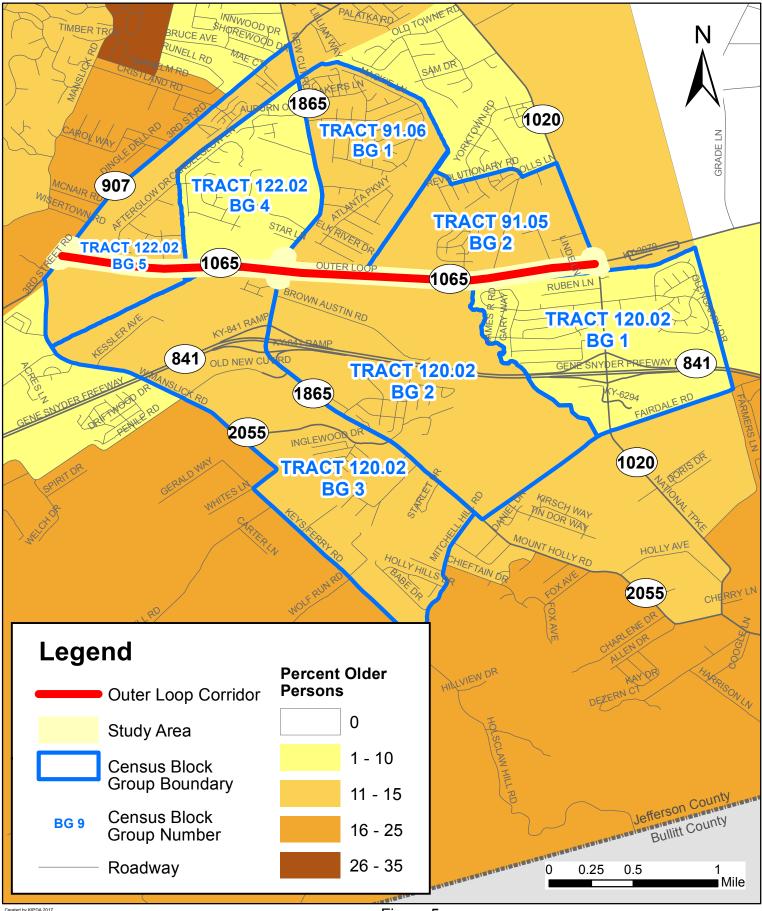
Note: Only selected Block Groups are represented.

Data Source: 2011-2015 American Community Survey, Table B17021

#### **OLDER PERSONS**

Geographic analysis of the 2011-2015 ACS block group data for persons age 65 and above reveals the potential densities of older residents in the study area to be somewhat evenly distributed along the corridor (Figure 5).

Older persons, age 65 and older, are approximately 14% of the 2011-2015 ACS population of the United States, Kentucky, and Jefferson County, respectively (Table 5). At the block group level, older persons comprise between 7% and 15% of resident estimates—with Tract 120.02 Block Group 1 exhibiting the lowest density and two areas, Tract 91.06 Block Group 1 and Tract 120.02 Block Group 3, tying for the highest density. Over half of the block groups exhibit percentages of older persons that are similar to those of the nation, state, and county.



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Data Source: 2011-2015 ACS, Table B01001

Data Note: American Community Survey (ACS) data are estimates based on a survey sample. Reliabilit of ACS data can vary widely—especially for smaller geographic levels; therefore, Margins of Error (MOE from the pullcable gauge data tables should be expected to expect the deependability of the data.

Figure 5

#### PERCENT OLDER PERSONS BY CENSUS BLOCK GROUP--2011-2015



**TABLE 5** Older Persons—2011-2015 Outer Loop / KY 1065 Socioeconomic Study Third Street Road (KY 907) to National Turnpike (KY 1020)

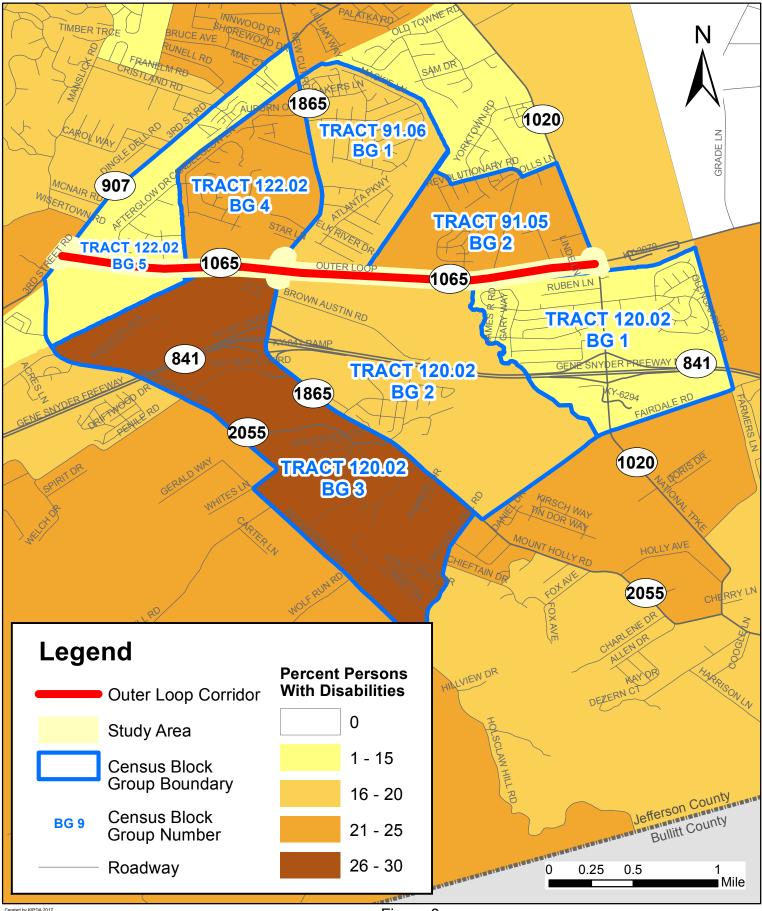
Area		Total	Older Persons (Age 65+)			
		Persons	Total	% Total Persons		
United State	S	316,515,021	44,615,477	14.10		
Kentucky		4,397,353	632,975	14.39		
Jefferson Co	ounty	755,809	106,847	14.14		
ig the	Tract 91.05 Block Group 2	1,600	176	11.00		
roundin	Tract 91.06 Block Group 1	3,263	494	15.14		
and Sur	Tract 120.02 Block Group 1	2,548	174	6.83		
Census Areas Intersecting and Surrounding the Study Area	Tract 120.02 Block Group 2	1,600	206	12.88		
	Tract 120.02 Block Group 3	1,833	278	15.17		
	Tract 122.02 Block Group 4	1,251	118	9.43		
Cens	Tract 122.02 Block Group 5	1,682	227	13.50		

Note: Only selected Block Groups are represented.
Data Source: 2011-2015 American Community Survey, Table B01001

#### PERSONS WITH DISABILITIES

A geographic analysis of 2011-2015 ACS disability data shows the corridor to have a primarily medium-level potential for persons with disabilities (Figure 6). The densities vary somewhat throughout the corridor, with the highest percentage in Tract 120.02 Block Group 3 (28.2%). This block group touches the western end of the corridor; however, due to its elongated boundary, most of its residents are located to the south of the corridor, in Fairdale, outside of the study area. The next highest densities were in Tract 91.05 Block Group 2 (23%), at the eastern end of the corridor, and in Tract 122.02 Block Group 4 (22%), at the western end of the corridor.

According to the ACS, persons with disabilities comprise 15% of the population aged 18+ in the United States (Table 6). This rate is higher, 21%, for Kentucky, and closer to 17% for Jefferson County. Persons with disabilities represent between 13% (Tract 120.02 Block Group 1) and 28% (Tract 120.02 Block Group 3) of study area resident estimates at the block group-level.



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Data Source: 2011-2015 ACS, Table C21007

Data Note: American Community Survey (ACS) data are estimates based on a survey sample. Reliabilit of ACS data can vary widely—especially for smaller geographic levels; therefore, Margins of Error (MOE Figure 6

### PERCENT PERSONS WITH DISABILITIES BY CENSUS BLOCK GROUP--2011-2015



TABLE 6
Persons with Disabilities—2011-2015
Outer Loop / KY 1065 Socioeconomic Study
Third Street Road (KY 907) to National Turnpike (KY 1020)

Area		Total Persons Age 18+	Persons with Disabilities (One or More Disabilities in the Past 12 Months)		
		101	Total	% Total Persons	
United States		235,378,737	35,484,493	15.08	
Kentucky		3,260,338	675,930	20.73	
Jefferson Cour	nty	571,333	98,593	17.26	
ig the	Tract 91.05 Block Group 2	1,202	275	22.88	
roundir	Tract 91.06 Block Group 1	2,493	406	16.29	
and Sur	Tract 120.02 Block Group 1	1,962	247	12.59	
rsecting an Study Area	Tract 120.02 Block Group 2	945	167	17.67	
Census Areas Intersecting and Surrounding the Study Area	Tract 120.02 Block Group 3	1,594	451	28.29	
	Tract 122.02 Block Group 4	845	185	21.89	
Cens	Tract 122.02 Block Group 5	1,186	176	14.84	

Note: Only selected Block Groups are represented.

Data Source: 2011-2015 American Community Survey, Table C21007

#### ZERO VEHICLE HOUSEHOLDS

Geographic analysis of the 2011-2015 ACS data for zero vehicle households yields primarily low potential densities throughout the corridor. Two exceptions to this are Tract 122.02 Block Group 5 (23.4%) at the western end of the corridor and Tract 91.05 Block Group 2 (14%) at the eastern end of the corridor. Both areas contain high density housing in the form of apartments, townhomes, and the Southland Mobile Home Park.

In the United States, zero vehicle households comprise 9% of total households (Table 7). Kentucky's average, 8%, is slightly less than this, while Jefferson County's average (10%) is slightly more than the national average, according to the ACS. At the block group-level, zero vehicle households represent between 0% (Tract 91.06 Block Group 1 and Tract 122.02 Block Group 4) and 23% (Tract 122.02 Block Group 5) of total household estimates. With the exception of the two highest density block groups mentioned previously, the remaining areas exhibit zero-vehicle household densities less than those of the nation, state, and county.

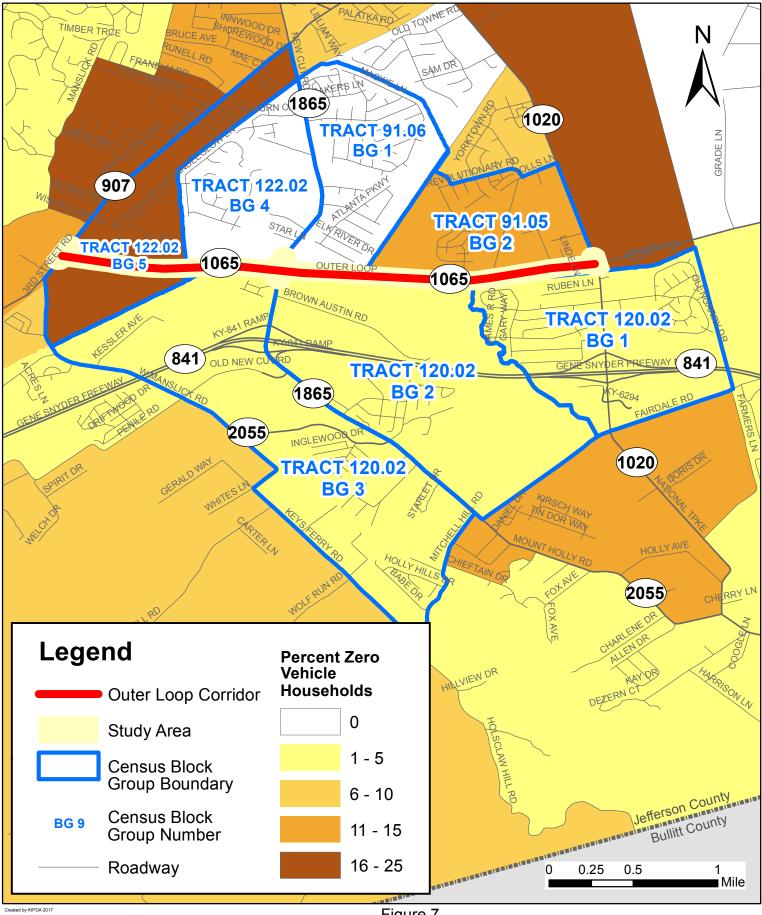


Figure 7

#### PERCENT ZERO VEHICLE HOUSEHOLDS BY CENSUS BLOCK GROUP--2011-2015



**TABLE 7** Zero Vehicle Households—2011-2015 Outer Loop / KY 1065 Socioeconomic Study Third Street Road (KY 907) to National Turnpike (KY 1020)

Area		Total	Zero Vehicle Households		
		Households	Total	% Total Households	
United States		116,926,305	10,628,474	9.09	
Kentucky		1,708,499	134,111	7.85	
Jefferson Cou	ınty	306,915	31,066	10.12	
ig the	Tract 91.05 Block Group 2	580	82	14.14	
roundin	Tract 91.06 Block Group 1	1,334	0	0.00	
Census Areas Intersecting and Surrounding the Study Area	Tract 120.02 Block Group 1	860	30	3.49	
	Tract 120.02 Block Group 2	494	17	3.44	
	Tract 120.02 Block Group 3		17	2.01	
	Tract 122.02 Block Group 4	462	0	0.00	
Cens	Tract 122.02 Block Group 5	623	146	23.43	

Note: Only selected Block Groups are represented.
Data Source: 2011-2015 American Community Survey, Table B25044

#### PERSONS WITH LIMITED ENGLISH PROFICIENCY

Geographic analysis of the 2011-2015 ACS data for persons with limited English proficiency shows the highest potential density of this population to be located in the eastern end of the study area corridor in Tract 120.02 Block Group 1 (23.8%) (Figure 8). This area has high density housing and contains the Barrington Park Mobile Home Park. The remaining densities within the corridor are at or below 7%.

Almost 9% of persons in the Nation, as surveyed by the 2011-2015 American Community Survey, are considered to be limited English proficient (Table 8). The corresponding rates for Kentucky and Jefferson County are much lower—2% and 4%, respectively. At the block group-level along the study area corridor, persons with limited English proficiency comprise between 0% (Tract 120.02 Block Group 2 and Tract 120.02 Block Group 3) and 24% (Tract 120.02 Block Group 1) of surveyed resident estimates. With the exception of Tract 120.02 Block Group 1, the remaining block group LEP rates are similar to those of Kentucky and Jefferson County.

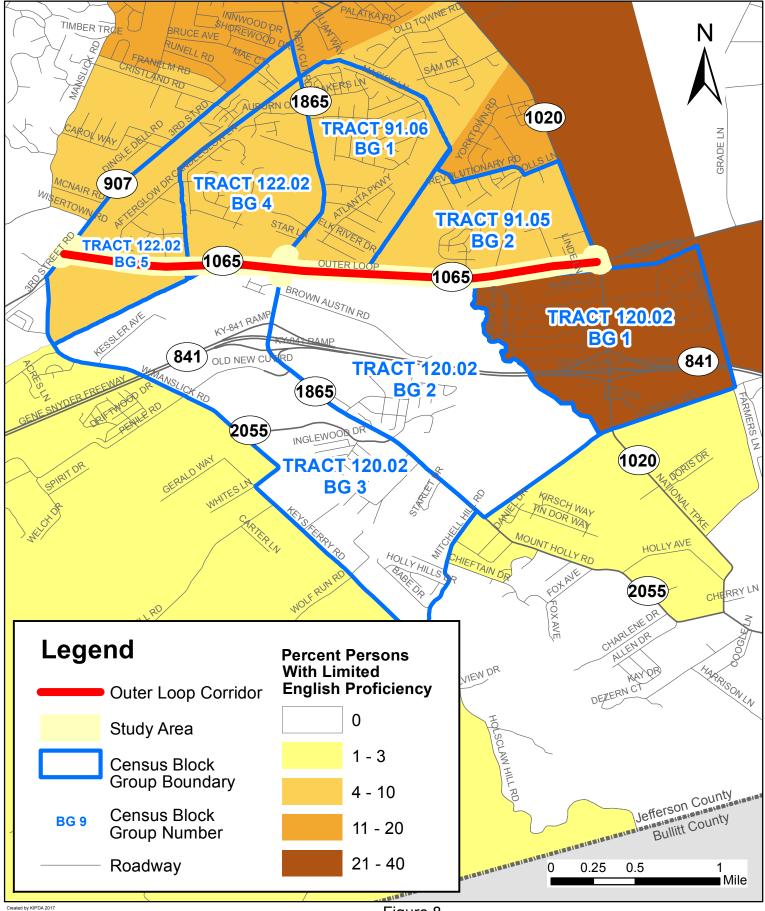


Figure 8

#### PERCENT PERSONS WITH LIMITED ENGLISH PROFICIENCY BY CENSUS BLOCK GROUP--2011-2015



**TABLE 8** Persons with Limited English Proficiency—2011-2015 Outer Loop / KY 1065 Socioeconomic Study Third Street Road (KY 907) to National Turnpike (KY 1020)

Area		Total Persons Age 5+	Persons with Limited English Proficiency (Ability to Speak English Less Than Very Well)		
		ŭ	Total	% Total Persons	
United States		296,603,003	25,410,756	8.57	
Kentucky		4,120,902	87,159	2.12	
Jefferson Cou	nty	706,605	26,018	3.68	
ng the	Tract 91.05 Block Group 2	1,600	65	4.06	
roundir	Tract 91.06 Block Group 1	3,000	158	5.27	
and Sur	Tract 120.02 Block Group 1	2,343	558	23.82	
rsecting an Study Area	Tract 120.02 Block Group 2	1,544	0	0.00	
Census Areas Intersecting and Surrounding the Study Area	Tract 120.02 Block Group 3	1,780	0	0.00	
	Tract 122.02 Block Group 4	1,198	57	4.76	
Cens	Tract 122.02 Block Group 5	1,514	113	7.46	

Note: Only selected Block Groups are represented.
Data Source: 2011-2015 American Community Survey, Table B16004

#### CONCLUSION

This socioeconomic study utilized demographic data from the 2011-2015 American Community Survey to identify the locations and magnitudes of potential Environmental Justice populations and other populations. Identification of such possible areas of concern may provide a basis for more detailed and robust analyses in future phases of project development. To briefly summarize the findings:

- The highest percentages of minority persons were found at the ends of the corridor, near the Third Street Road and New Cut Road intersections. The potential average minority concentrations in the corridor varied, with most higher than the Kentucky average, while also near or lower than the averages in the United States and Jefferson County.
- The highest concentrations of persons with low-income resided in two block groups at the far eastern end of the study area, at the New Cut Road intersection. These two block group low-income distributions were much higher than any of those found at the national, state, and county levels.
- The block group-level distribution of older persons was highest in two block groups bordering the central portion of the corridor. Each of the corridor's block groups had densities of older persons near or below national, state, and county levels. The lower percentages of older persons in the areas adjacent to the study area corridor indicate a younger resident population.
- The highest percentage of persons with disabilities was found to exist in a block group where the majority of its population resides south of KY 841.
   The next highest concentrations were found at the eastern end of the corridor and near the western end of the corridor. Most of the corridor block group distributions are similar to those of the Nation and County, while others are more in-line with the State average.
- Zero vehicle households appeared in the highest densities at the eastern and western ends of the study area corridor. The percentages for these areas were higher than those of the United States, Kentucky, and Jefferson County, while the distributions for the remaining areas were all lower than that of the Nation, State, and County.
- The highest concentration of persons with limited English proficiency was located in the easternmost part of the corridor. Beyond this one high density area, all of the remaining corridor block groups demonstrated lower average LEP population percentages than that of the Nation, with many distributions similar to state and county levels.

## **APPENDIX**

# How Poverty is Calculated in the ACS 2011-2015 ACS Poverty Factors

#### HOW POVERTY IS CALCULATED IN THE ACS

(Source: U.S. Census Bureau)

Poverty statistics presented in ACS reports and tables adhere to the standards specified by the Office of Management and Budget in Statistical Policy Directive 14. The Census Bureau uses a set of dollar value thresholds that vary by family size and composition to determine who is in poverty. Further, poverty thresholds for people living alone or with nonrelatives (unrelated individuals) and two-person families vary by age (under 65 years or 65 years and older).

A link to the *Poverty thresholds* from 1978 through 2016 (current) is found here: <a href="https://www.census.gov/topics/income-poverty/poverty/data/tables.html">https://www.census.gov/topics/income-poverty/poverty/data/tables.html</a>

If a family's total income is less than the dollar value of the appropriate threshold, then that family and every individual in it are considered to be in poverty. Similarly, if an unrelated individual's total income is less than the appropriate threshold, then that individual is considered to be in poverty. The poverty thresholds do not vary geographically. They are updated annually to allow for changes in the cost of living (inflation factor) using the Consumer Price Index (CPI).

Poverty status was determined for all people except institutionalized people, people in military group quarters, people in college dormitories, and unrelated individuals under 15 years old. These groups were excluded from the numerator and denominator when calculating poverty rates.

Since the ACS is a continuous survey, people respond throughout the year. Because the income items specify a period covering the last 12 months, the appropriate poverty thresholds are determined by multiplying the base-year poverty thresholds (1982) by the monthly inflation factor based on the 12 monthly CPIs and the base-year CPI.

#### 2011-2015 ACS Poverty Factors

ACS Interview	ACS Interview Year					
Month	2011	2012	2013	2014	2015	
January	2.25942	2.33074	2.37897	2.41382	2.45298	
February	2.26247	2.33630	2.38210	2.41696	2.45280	
March	2.26642	2.34179	2.38598	2.41922	2.45275	
April	2.27146	2.34691	2.38890	2.42226	2.45260	
May	2.27741	2.35138	2.39102	2.42618	2.45219	
June	2.28413	2.35470	2.39372	2.43046	2.45211	
July	2.29083	2.35795	2.39719	2.43464	2.45236	
August	2.29766	2.36070	2.40107	2.43866	2.45271	
September	2.30477	2.36401	2.40409	2.44209	2.45311	
October	2.31207	2.36791	2.40646	2.44544	2.45304	
November	2.31872	2.37214	2.40839	2.44880	2.45339	
December	2.32514	2.37558	2.41085	2.45146	2.45441	

Sources: American Community Survey and Puerto Rico Community Survey—2011 Subject Definitions American Community Survey and Puerto Rico Community Survey—2012 Subject Definitions American Community Survey and Puerto Rico Community Survey—2013 Subject Definitions American Community Survey and Puerto Rico Community Survey—2014 Subject Definitions American Community Survey and Puerto Rico Community Survey—2015 Subject Definitions