Appendix A. Environmental Justice Analysis
Project Memorandum
Re: KY 536 Scoping Study – Environmental Justice Analysis
Date: December 22, 2014

Introduction
This Environmental Justice Report presents a review of socioeconomic characteristics in the study area of the KY 536 Scoping Study related to environmental justice and disadvantaged populations. This report is intended to identify areas of concern that may be affected by potential projects proposed by the study and to meet federal requirements regarding consideration of environmental issues as defined in the National Environmental Policy Act (NEPA). Data from the U.S. Census Bureau 2012 American Community Survey (ACS) 5-year estimates has been 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/).

The information and results are intended to assist the Ohio Kentucky Indiana Regional Council of Governments 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). 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 programs, policies, and activities on minority populations and low-income populations...”

This report outlines 2012 ACS 5-year estimates (ACS) for the study area using tables and maps. Statistics are provided on minority, low-income, elderly, and disabled populations and households without a vehicle for the block groups within the study area, Kenton County, Kentucky and the United States.

Project Description
KY 536 in Northern Kentucky is a major east-west transportation corridor through Boone, Kenton, and Campbell counties. Efforts are underway to upgrade KY 536 as a modern, continuous corridor that will improve access, mobility and safe travel while enhancing the economic vitality of the region. A Scoping Study (this project) is underway to identify improvements for a 6.5 mile segment between KY 17 and the Kenton/Campbell County line.

The purpose of the Kenton KY 536 Scoping Study is to: be consistent with local planning initiatives; provide system linkage along the existing east-west transportation corridor; correct existing geometric roadway deficiencies; improve safety; increase roadway capacity to improve the flow of traffic; and provide roadway improvements that will accommodate economic development plans within the region.
Definition of Environmental Justice
The U.S. EPA Office of Environmental Justice (EJ) defines 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. 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.”

While exact thresholds or benchmarks have not been established, and there is no further guidance on what “elevated” percentages of disadvantaged populations means, for the purpose of this study “disproportionately high and adverse effect on a minority or low-income population” means an adverse effect that:

- Is predominately borne by a minority population and/or 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-low-income population.

Environmental Justice Populations
USDOT Order 5610.2 on EJ, issued in the April 15, 1997 Federal Register, defines what constitutes low-income and minority population.

Low-Income is defined as a person whose median household income is at or below the U.S. Department of Health and Human Services poverty guidelines.

Minority is defined as 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 is defined as 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 is defined as any readily identifiable group of minority 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.

**Disadvantaged Populations**

Elderly and disabled populations 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. Additionally, zero-car households are other populations that were examined.

**Methodology**

Data for this review was collected by using the method outlined in the OKI Title IV Program document and the OKI Participation Plan. The Participation Plan defines target groups and areas by using regional thresholds. The 2010 regional averages noted in the OKI Participation Plan are the following:

- Minority populations is 19.4 percent;
- Low income populations is 12.1 percent;
- Elderly is 12.1 percent;
- Disabled is 15.69 percent; and
- Zero-car household is 8.5 percent.

The primary source of data for this report was assembled from the American Community Survey 2008-2012 Five Year Estimate tables for environmental justice and disadvantaged populations. At the time of data collection, the 2008-2012 estimates are the most recent data that were fully available at the block group level. The ACS tables used include Minority - B03002; Elderly - S0101; Low Income - B17021; Zero-Car Household - B25044; and Disabled - C23023.

US Census block groups were used to identify target areas. For this project, a block group was identified as a target area if the population of a group exceeded the regional threshold and the block group population was equal to or greater than 250.

**Census Data Analysis and Findings**

There are eight census tracts and 11 block groups that are at least partially within the KY 536 study area. Table 1 lists the percentages of each target group by census block group.
Table 1. Target Group Populations by Block Group

<table>
<thead>
<tr>
<th>Census Tract</th>
<th>Block Group</th>
<th>Minority</th>
<th>Poverty</th>
<th>Over 60</th>
<th>Disability</th>
<th>0-car HH</th>
</tr>
</thead>
<tbody>
<tr>
<td>636.05</td>
<td>2</td>
<td>9.4%</td>
<td>2.0%</td>
<td>7.1%</td>
<td>10.7%</td>
<td>1.9%</td>
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<tr>
<td>636.05</td>
<td>4</td>
<td>0.0%</td>
<td>11.0%</td>
<td>27.8%</td>
<td>17.1%</td>
<td>1.6%</td>
</tr>
<tr>
<td>636.06</td>
<td>2</td>
<td>0.7%</td>
<td>10.1%</td>
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<td>9.4%</td>
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<tr>
<td>637.02</td>
<td>1</td>
<td>3.5%</td>
<td>11.3%</td>
<td>15.9%</td>
<td>7.5%</td>
<td>6.1%</td>
</tr>
<tr>
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<td>16.4%</td>
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<td>21.6%</td>
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<tr>
<td>658</td>
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<td>3.9%</td>
<td>24.3%</td>
<td>8.3%</td>
<td>6.5%</td>
</tr>
<tr>
<td>659</td>
<td>1</td>
<td>2.2%</td>
<td>25.9%</td>
<td>17.6%</td>
<td>15.5%</td>
<td>1.7%</td>
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<tr>
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<td>1.8%</td>
</tr>
<tr>
<td>520.01</td>
<td>1</td>
<td>6.9%</td>
<td>23.4%</td>
<td>10.3%</td>
<td>13.7%</td>
<td>2.0%</td>
</tr>
<tr>
<td>Regional Threshold</td>
<td>19.4</td>
<td>12.1</td>
<td>12.1</td>
<td>15.9</td>
<td>8.5</td>
<td></td>
</tr>
</tbody>
</table>


Note: Block groups highlighted in yellow exceed the regional threshold AND have a population equal to or greater than 250. Block groups highlighted in green exceed the regional threshold but have a population less than 250.

No block groups have a minority population above the threshold for the region.

Five of the block groups exceed the regional threshold and have a block group population greater than 250 people. These five block groups show that there are target areas for elderly populations in the study area. Also, four additional block groups exceed the regional threshold, however the total population within those block groups are less than 250 people.

Three block groups exceed the regional threshold for disabled populations, however none of these block groups have a population equal to or greater than 250 people with a disability. Therefore, no block groups are considered to be target areas for disability populations. However, these populations will still be considered and accommodated during public involvement activities.

Two of the block groups exceed the regional threshold and have more than 250 people in poverty status. Additionally, one block group exceeds the regional threshold but has a population less than 250 people with poverty status.

There are no block groups with zero-car household concentrations in the study area.

Conclusions

- EJ populations may be impacted by the improvements to KY 536 as data collection shows potential concentrations of low-income, elderly, and disabled populations.
- Public involvement efforts will be used to determine better where populations are located and the needs of these populations.
- Potential effects, both positive and negative, would be identified in comparison to non-target groups based on alternatives that are developed for the scoping study.
- Potential impacts to environmental justice populations will be evaluated for disproportionate and adverse effects.

**Sources**

US Census Bureau, 2014

American Community Survey 2008-2012 5-year estimates, 2014

Ohio Kentucky Indiana Regional Council of Governments. OKI Title VI Program. December 2013

Ohio Kentucky Indiana Regional Council of Governments. OKI Participation Plan. November 2013

Executive Order 12898: Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations
Figure 1. Elderly Population
Figure 2. Low Income Populations