EJ Analysis and NEPA Documentation Levels

An environmental justice analysis is required for any project that may result in a disproportionately high adverse impact on a minority or low-income population in or near the project area. The requirements for analysis depend on the level of document and the type of impacts.

1. EA and EIS level documents: Demographic data should be obtained and analyzed before and/or during the scoping stage. The information obtained should be used in coordination planning and public involvement planning.
2. CE level documents:
   a. No analysis required for projects that have fewer than two relocations or less than 0.5 acre of right of way.
   b. Full analysis for projects that have two or more relocations or 0.5 acre or more of right of way.

Potential EJ impacts are detected by locating minority populations and low-income populations in and near the project area, calculating their percentage in the area relative to a reference population, and determining whether there will be adverse impacts to them. The reference community is typically a county, city, or town and is called the community of comparison (COC). The community that overlaps the project limits is called the affected community (AC). The AC needs to be contained within the COC.

An AC has a population of concern for environmental justice if the population is more than 50 percent minority or low-income or if the percentage of low-income population or minority population in the AC is 25 percent higher than the percentage of low-income or minority population in the COC.

Any disproportionate impact on an EJ population that cannot be eliminated in design requires notification of INDOT’s Equal Opportunity division. The project will likely need to be processed as an EA.

Data Source

US Bureau of the Census decennial data for 2010 does not contain low income data. This is a result of a short questionnaire being used during the 2010 census compared to the long form questionnaire used in previous census surveys 2000, 1990, etc. This basically means that people’s incomes, education, occupation, poverty status, and disabilities were not tabulated in the 2010 census data collection. Therefore, 2010 Summary File 1 or 2 will not be utilized in the EJ
The dataset to be utilized in the EJ analysis should be the most reliable. For most projects’ ACS 5-year estimates should be used. In the event that 5-year estimates are not available, please use 3-year estimates. If 3-year estimates are not available, please use 1-year estimates.

Please note that minority and low income data is only available on the American FactFinder at the census tract level. Listed below is procedures for accessing 2010 Census data.

Procedures for utilizing 2000 Census data is available upon request. Census 2000 data should only be used in the event that 2010 Census data is not available for your geographic location.

If you have any questions concerning what dataset to use, please contact INDOT-Environmental Services, Environmental Policy Office.
Accessing Data from the Census

Data from the Census can be obtained through the following steps.

1. Open the Census website main page: http://www.census.gov/
2. Click on the graphic for Data at the top of the page and Select American FactFinder.

Steps 1 and 2: Navigate to the Census website
3. The American FactFinder is located at the following link http://factfinder2.census.gov
4. The American FactFinder page has several tools available. On the navigation bar on the left, choose *Geographies*. The *Select Geographies* window will appear allowing for Name, Address and Map searches. Please select the *Map* tab.

Step 4: Select the Geographies tab
5. The map feature will assist in the identification of the affected community (AC) and community of comparison (COC). (The COC is typically a county, city, or town and the community that overlaps the project limits is the AC.)

   a) First, locate your project area using the map tools above the map.

   ![Step 5a: Navigate to your project location](image)
b) Once the location has been obtained, select the *Boundaries and Features* tab in the lower left corner of the *Select Geographies* window.

**Step 5b: Select Boundaries and Features tab**
c) A new window will appear, please make sure that 2010 data is displayed. Under Boundaries, 2010 Census Tract and 2010 Block Group will need to be selected. (Both Boundary and Label should be checked). Click the Update button at the bottom of the window.

Step 5c: Select Block Groups and Census Tracts
d) The Map will now have Census Tracts and Block Groups displayed.
Step 5e: Click the Download/Print option
f) A map will be generated and should be included in your EJ Analysis.
Step 6: Select the COC and add to “Your Selections”
7. On the navigation bar on the left, choose *Topics*; select *Datasets* from inside the *Topics* box.

Step 7: Select the appropriate data set
8. Under *Datasets*, Select the most recent (currently 2010) *ACS 5-year estimates* (If 5 year-year estimates are not available, select 3-year or 1-year estimates as appropriate). After you have selected this dataset, the selection will now appear in Your Selections.
9. The search results for the Sample Data will then be generated. From the search results Select B03002 Hispanic or Latino Origin by Race from the table and B17001 Poverty Status in the Past 12 Months by Sex by Age. Once they have been selected click the view button at the bottom of the page.

Step 9: Select B03002, Hispanic or Latino origin by race

Step 9: Select B17001, Poverty Status in the past 12 months by sex by age
10. Both B03002 and B17001 data tables are then generated. Please note that the data is presented on two separate pages and will need to be downloaded separately.
11. The B03002 table will require most of the data elements (Please note “Two or more races” data is needed, however the breakdown of the “Two or more races” is not). Click the download button. A spreadsheet can be generated in Microsoft Excel format by selecting the appropriate button.

![Step 11: B03002 results](image-url)
12. For B17001 table will need to be modified. The “Total” and “Income in the past 12 months below poverty level” are the only two values needed. Click the download button. A spreadsheet can be generated in Microsoft Excel format by selecting the appropriate button.
13. The pages can be printed for reference and included in the EJ Analysis.

Step 13: Results can be exported into excel as illustrated above
Calculations for Demographic Analysis

The Excel files can be used to analyze the Census data.

1. Load the Census data into Excel. Excel has formula options and can be used to conduct the necessary calculations. (See below)

2. Add together any tracts or block groups as necessary to create the AC. Label the COC and the AC.

3. Calculate percentages: Create rows or columns to perform the following calculations:
   a. Percent Minority: Use Hispanic or Latino Origin by Race (B03002); calculate non-white as proxy for minority.

   \[
   \text{Percent Minority} = \frac{(\text{Total population} - \text{Not Hispanic or Latino: White alone})}{\text{Total population}}
   \]

   b. Percent Low Income: Use number associated with “Income in the past 12 months below poverty level” (B17001)

   \[
   \text{Percent Low Income} = \frac{\text{(Income in the past 12 months below poverty level)}}{\text{Total population}}
   \]

4. Calculate 125 percent of COC for minority and low-income to set the threshold of an EJ population. Record this value in the table and perform the comparison.
Interpreting the Demographic Analysis

Determine whether the percent of the population that is minority or low-income is elevated in the affected communities. Elevated means that the concentration of these individuals in the AC is greater than 50% or if the AC is 25 percent higher than the COC.

If you find that you have an EJ population that is 50% or more in the AC, you must count it as an elevated population regardless of the percentage above or below the COC.

If you find no indications of EJ populations, you can stop the analysis and describe what you did in the remarks section.

If you do find one or more EJ populations, you will need to determine whether or not the adverse impacts disproportionately impact the EJ population relative to the non-EJ populations.
References and Notes for EJ in the NEPA process

   - Identification sequence: identify impacts, determine if adverse, identify population
   - Population analysis:
     a. identify community of comparison (COC) as the smallest governmental or geopolitical unit that encompasses the impact footprint of each resource,
     b. identify census tracts that lie within or partially within the impact footprint
     c. compare the percent M and LI between the affected census tracts and the COC
     d. \( \geq 50 \) percent minority is automatic EJ impact
     e. Census tracts \( \leq 50 \) percent and \( < \) COC is interpreted as no EJ concern.
     f. Census tracts > COC is interpreted as an EJ impact.
     g. E and f are subject to ground-truthing to resolve ambiguity in special distribution of populations of interest within the census tracts.

   - Demographic analysis may not be warranted if an agency action will not cause adverse environmental impacts.
   - A minority population exists if greater than 50 percent of affected population or if the percent minority is “meaningfully greater” than the general population.
   - Consider the relative risk, significance, and cumulativeness of environmental and human health impacts.

   - Identification sequence: identify populations, apply disproportionate test.
   - EJ issue exists if percent LI or percent M is 25 percent higher in the affected area than in the reference population.
   - Includes analysis questions for specific impacts:
     o Bodily impairment, infirmity, illness, or death
     o Air, noise, and water pollution and soil contamination
     o Destruction or disruption of man-made or natural resources
     o Destruction or diminution of aesthetic values
     o Destruction or disruption of a community’s economic vitality or community cohesion
     o Destruction or disruption of the availability of public or private facilities and services
     o Vibration
     o Adverse employment effects
     o Displacement of persons, businesses, farms, or nonprofit organizations
     o Increased traffic congestion and Isolation
     o Exclusion or separation of minority or low-income individuals within a given community or from the broader community
     o The denial or, reduction in, or significant delay in the receipt of, benefits