Environmental Justice in NEPA Documentation Process (American FactFinder, Step-by-Step Guide)

04/03/2012

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

analysis. As a result, American Community Survey (ACS) estimates will be used for both low income and minority data.

The ACS is a nationwide survey designed to provide communities with reliable and timely demographic, social, economic, and housing data every year. The U.S. Census Bureau releases data from the ACS in the form of both single-year and multiyear estimates.

Distinguishing features of ACS 1-year, 3-year, and 5-year estimates

1-year estimates	3-year estimates	5-year estimates			
12 months of collected data	36 months of collected data	60 months of collected data			
Data for areas with populations of 65,000+	Data for areas with populations of 20,000+	Data for all areas			
Smallest sampling size	Larger sample size than 1-year	Largest Sample Size			
Less reliable than 3-year or 5-year	More reliable than 1-year; less reliable than 5-year	Most Reliable			
Most current data	Less current than 1-year estimates; more current than 5 year	Least Current			
Best used when	Best used when	Best used when			
Currency is more important than precision.	More precise than1-year, more current than 5-year.	Precision is more important than currency.			
Analyzing large populations.	Analyzing smaller populations.	Analyzing very small populations.			
	Examining smaller geographies	Evenining treats and other			
	because 1-year estimates are not available.	Examining tracts and other			
	avanable.	smaller geographies because 1- year estimates are not available.			

Source: http://www.census.gov/acs/www.guidance_for_data_users/estimates/

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.



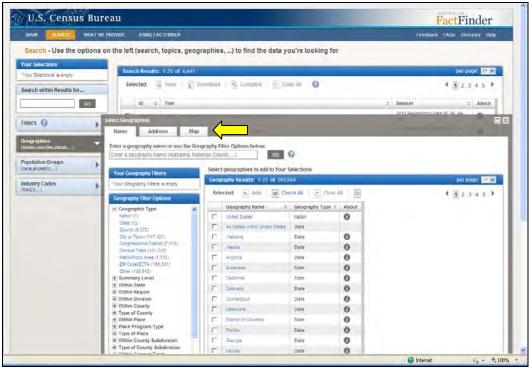
Steps 1 and 2: Navigate to the Census website

3. The American FactFinder is located at the following link http://factfinder2.census.gov



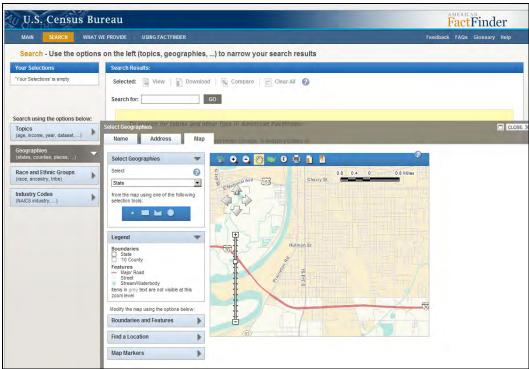
Step 3: Navigate to the American FactFinder page

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.



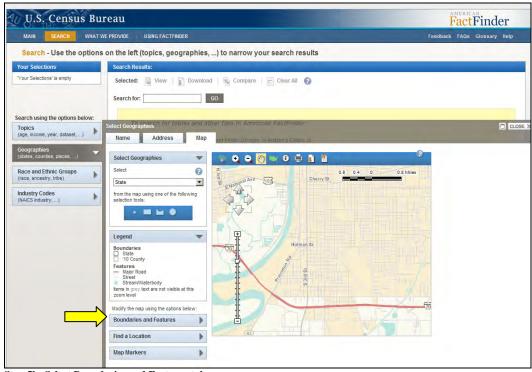
Step 4: Select the Geographies tab

- 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.



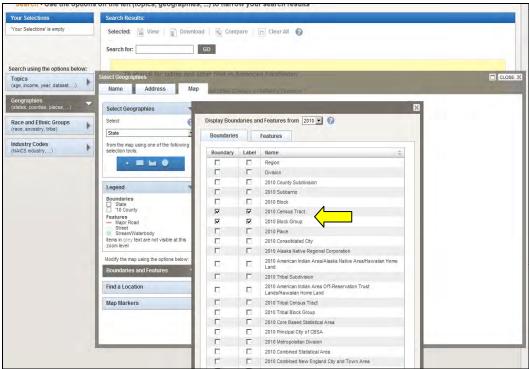
Step 5a: Navigate to your project location

b) Once the location has been obtained, select the *Boundaries and Features* tab in the lower left corner of the *Select Geographies* window.



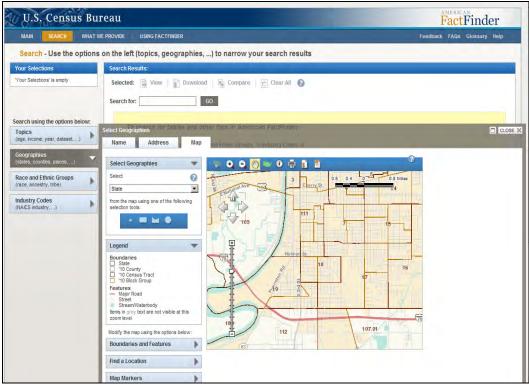
Step 5b: Select Boundaries and Features tab

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.



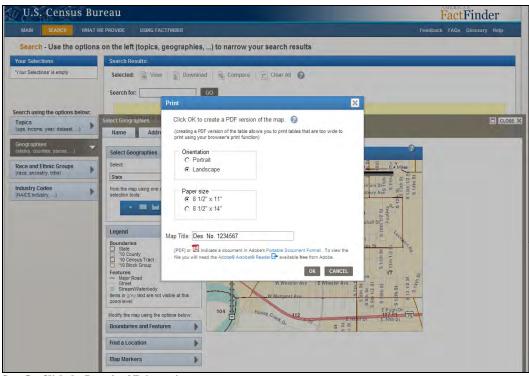
Step 5c: Select Block Groups and Census Tracts

d) The Map will now have Census Tracts and Block Groups displayed.



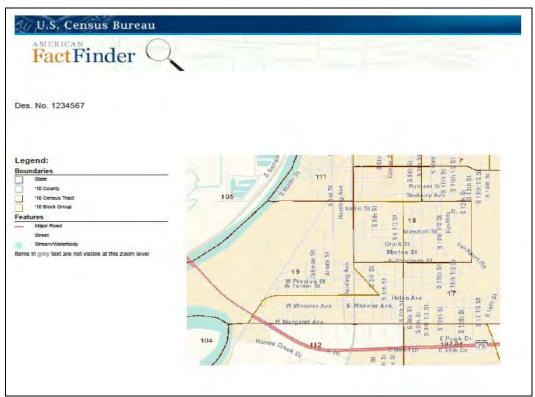
Step 5d: Census Tracts and Block Groups are now represented on the map

e) Click the Download/Print button and select PDF & Landscape for the radio buttons.



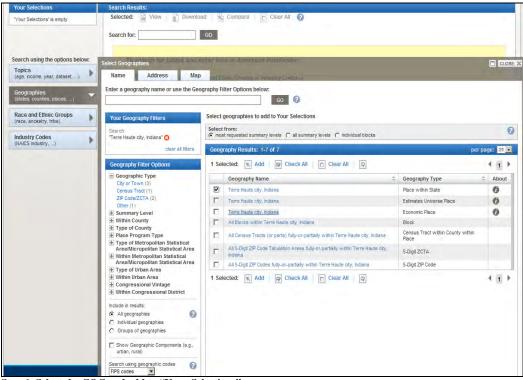
Step 5e: Click the Download/Print option

f) A map will be generated and should be included in your EJ Analysis.

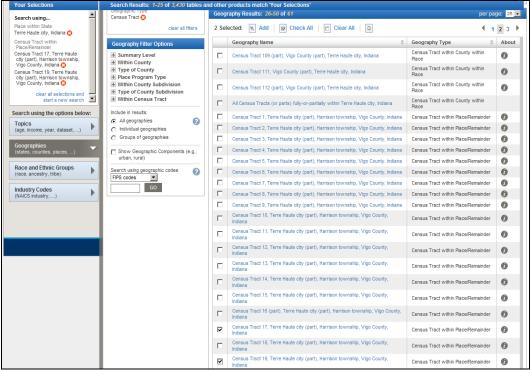


Step 5f: Provide EJ map with your EJ analysis

6. On the *Select Geographies* page, several Geography Filter options are available. Select the appropriate COC & AC and then add them to your selection. If done correctly, the COC and AC will appear in Your Selections box.

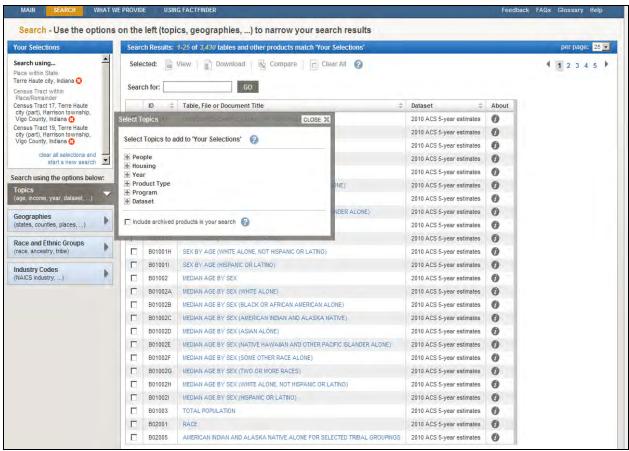


Step 6: Select the COC and add to "Your Selections"



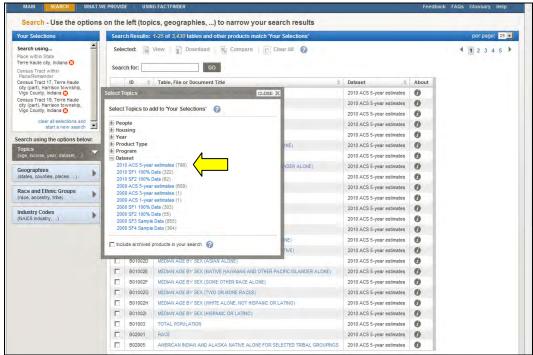
Step 6: Select the AC and add to "Your Selections"

7. On the navigation bar on the left, choose *Topics*; select *Datasets* from inside the *Topics* box.



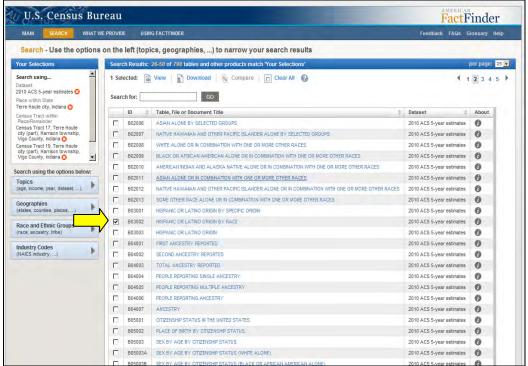
Step 7: Select the appropriate data set

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.

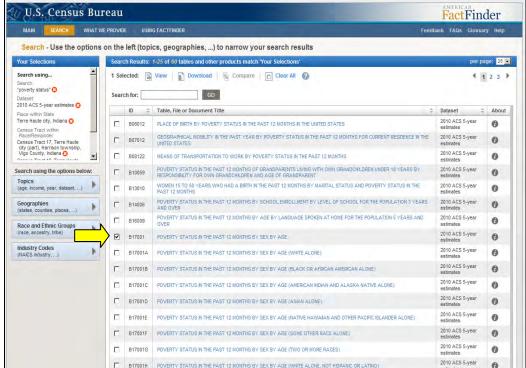


Step 8: Select ACS 5-year estimates

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.

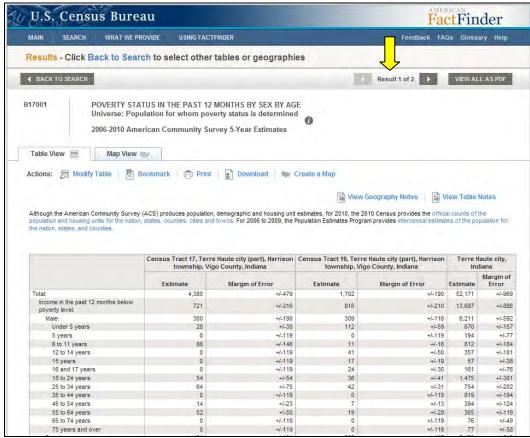


Step 9: Select B03002, Hispanic or Latino origin by race



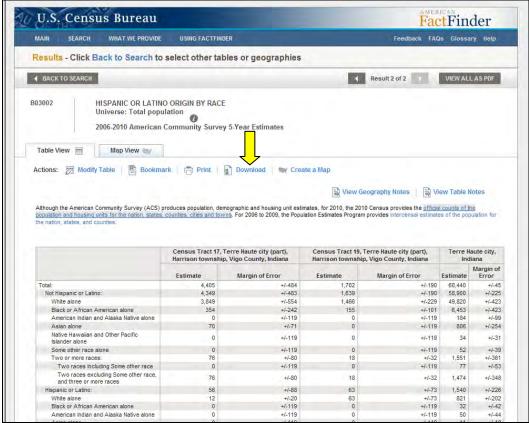
Step 9: Select B17001, Poverty Status in the past 12 months by sex by age

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.



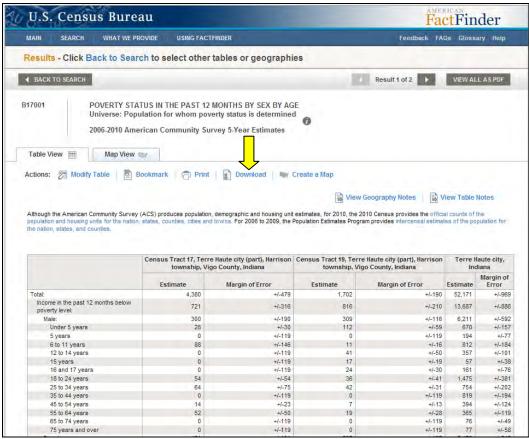
Step 10: The results appear on two separate pages

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

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.



Step 12: B17001 results

13. The pages can be printed for reference and included in the EJ Analysis.

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2006-2	010 American Community Survey												
	Supporting documentation on co												
	subject definitions, data accura-												
	statistical testing can be found	on the											
	American Community Survey w	ebsite in											
	the Data and Documentation se	ection.											
	Sample size and data quality m												
	(including coverage rates, allocation	ation											
	rates, and response rates) can	be found											
	on the American Community Su	irvey											
	website in the Methodology sec	tion.											
	0,												
	Although the American Commu												
	Survey (ACS) produces populat	ion,											
	demographic and housing unit e	estimates,											
	for 2010, the 2010 Census provi	des the											
	official counts of the population												
	housing units for the nation, sta												
	counties, cities and towns. For												
	2009, the Population Estimates												
	provides intercensal estimates												
	population for the nation, states												
	counties.	, unu											
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		Estimate		Estimate	Margin of	Estimate	Margin of	1					
Total:		4,380	+/-479	1,702	+/-190	52,171	+/-969						
Incom	ne in the past 12 months below	721	+/-316	816	+/-210	13,687	+/-886]					
Male		300	+/-190	309	+/-116	6,211	+/-592						
	der 5 years	28	+/-30	112	+/-59	670	+/-157						
	/ears	0	+/-119	0	+/-119	194	+/-77						
	o 11 years	88	+/-146	11	+/-16	812	+/-184]					
12	to 14 years	0	+/-119	41	+/-50	357	+/-101						
	years	0	+/-119	17	+/-19	57	+/-38						
	and 17 years	0	+/-119	24	+/-30	161	+/-76						
	to 24 years	54	+/-54	36	+/-41	1,475	+/-381]					
	to 34 years	64	+/-75	42	+/-31	754	+/-202						
	to 44 years	0	+/-119	0	+/-119	819	+/-194						
	to 54 years	14	+/-23	7	+/-13	394	+/-124						
		52	+/-50	19	+/-28	365	+/-119	1					
45 55	to 64 years	JZ						1					
45 55 65	to 64 years to 74 years	0	+/-119	0	+/-119	76	+/-49						
45 55 65			+/-119 +/-119	0 0 507	+/-119	76 77	+/-49						

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)

	Α	В	С	D	Е	F	G	Н
1		ysis of Two Census Tracts in Terre Haute, Vigo County, Indiana	C	U	L .	'	G	- 11
2	rigure I. Alia	yala of two census fructs in ferre flucte, vigo county, incidina						
3			COC	AC1	AC2			
4			000	AUT	HOZ			
-								
5			Terre Haute city, Indiana	Census Tract 17, Vigo County, Indiana	Census Tract 19, Vigo County, Indiana			
6								
7		LOW-INCOME						
8	B17001001	Population for whom poverty status is determined: Total	52,171	4,380	1,702			
	B17001002	Population for whom poverty status is determined: Income in past 12 months below poverty						
9		level	13,687	721	816			
10								
11		Percent Low-income	26.2%	16.5%	47.9%			
12		125 Percent of COC	32.8%	AC <125% COC	AC <125% COC			
13		Potential Low-income EJ Impact?		No	Yes			
14		Totoliaa 2011 illoonio 20 illipaoti			100			
15		MINORITY						
16	B03002001	Total population: Total	60.440	4405	1702			
17		Total population: Not Hispanic or Latino	58,900	4349	1639			
18		Total population: Not Hispanic or Latino; White alone	49.820	3849	1466			
19		Total population: Not Hispanic or Latino; Black or African American alone	6.453	354	155			
20		Total population: Not Hispanic or Latino: American Indian and Alaska Native alone	184	0	0			
21	B03002006	Total population: Not Hispanic or Latino; Asian alone	806	70	0			
22	B03002007	Total population: Not Hispanic or Latino; Native Hawaiian and Other Pacific Islander alone	34	0	0			
23	B03002008	Total population: Not Hispanic or Latino; Some other race alone	52	0	0			
24		Total population: Not Hispanic or Latino; Two or more races	1,551	76	18			
25		Total population: Hispanic or Latino	1,540	56	63			
26	B03002011	Total population: Hispanic or Latino, White alone	821	12	63			
27	B03002012	Total population: Hispanic or Latino; Black or African American alone	32	0	0			
28		Total population: Hispanic or Latino; American Indian and Alaska Native alone	50	0	0			
29	B03002014	Total population: Hispanic or Latino; Asian alone	11	0	0			
30	B03002015	Total population: Hispanic or Latino; Native Hawaiian and Other Pacific Islander alone	0	0	0			
31	B03002016	Total population: Hispanic or Latino; Some other race alone	491	0	0			
32	B03002017	Total population: Hispanic or Latino; Two or more races	135	44	0			
33								
34		Number Non-white/minority (P007001-P007003)	10,620	556	236			
35		Percent Non-white/Minority	17.6%	12.6%	13.9%			
36		125 Percent of COC	22.0%	AC <125% COC	AC <125% COC			
37		Potential Minority EJ Impact?		No	No			
38								
39								

- 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.

Percent Minority = (Total population - Not Hispanic or Latino: White alone) / Total population)

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

Percent Low Income= (Income in the past 12 months below poverty level / 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

- 1. USAF. 1997. Guide for Environmental Justice Analysis with Environmental Impact Analysis Process (http://www.afcee.af.mil/shared/media/document/AFD-070830-060.pdf)
 - 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. >=50 percent minority is automatic EJ impact
 - e. Census tracts <= 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.
- 2. CEQ. 1997. Environmental Justice: Guidance under the National Environmental Policy Act (http://ceq.hss.doe.gov/nepa/regs/ej/justice.pdf)
 - 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.
- ODOT. 2002. Guidance and Best Practices for Incorporating Environmental Justice into Ohio Transportation Planning and Environmental Processes.
 (http://www.dot.state.oh.us/Divisions/TransSysDev/Environment/NEPA policy issues/ENVIRO NMENTAL_JUSTICE/Documents/EJ_Book_Complete.pdf)
 - 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
 - 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
- 4. US Census Bureau. 2010. A Compass for Understanding and Using American Community Survey Data http://www.census.gov/acs/www/Downloads/handbooks/ACSGeneralHandbook.pdf