National Capital Region
Transportation Planning Board

Methodology for Communities of Concern
9/14/2016

The proposed Communities of Concern were developed using tract-level Census data to identify communities that have concentrations of low-income populations and minority populations. The methodology used to identify these communities focuses on four population groups:

- Low-Income[1]
- African American,
- Asian, and
- Hispanic or Latino populations.

Data from the 2010-2014 American Community Survey for each of the four population groups was used. To identify concentration, the tract percent for each group was divided against its respective regional average.[2] This resulted in a tract-level Ratio of Concentration, or the number of times the regional average, for each population group. The maximum and minimum Ratio of Concentrations are provided in this summary of the 1,222 tracts analyzed in the region:

Regional Averages and Maximum and Minimum Ratios of Concentrations

	Regional Average	Tract-Level Ratio of Concentration (times regional average)		
		Min	Max	Average
Low-Income	13.80%	0.00	7.27	1.05
African American	26.20%	0.00	3.82	1.07
Asian	10.26%	0.00	5.89	0.93
Hispanic or Latino	15.24%	0.00	5.84	0.93

To identify tracts with significant concentrations of low-income and minority population groups, as well as to normalize and compare results across the four groups, an Index Score was calculated based on each groups' Ratio of Concentration for every tract in the region. Tracts must have at least one-and-a-half times the regional average of any one population group in order to be considered a "community of concern". For minority populations, the Index Score for each population group was capped at 3.00.

Index Scores for each population group were aggregated to reach an uncapped Total Index Score. Total Index Scores greater than 3.00 are considered Communities of Concern.

Rules for Ratio of Concentration and Index Scores

Ratio of Concentration	Index Score
Less than 1.50	Zero
Between 1.50 and 3.00	Low-Income: Score **twice** the Ratio of Concentration
	Minority: Score **equal** to Ratio of Concentration
Greater than 3.00	Low-Income: Score **twice** the Ratio of Concentration capped at **6.00**
	Minority: Capped at **3.00**

A greater weight was placed on low-income populations in the methodology because income is a predominate demographic factor in the ability to access transportation. Tracts with low-income concentrations greater than one-and-a-half times the regional average received a *doubled* Index Score, which was capped at 6.00. This step ensures all tracts with a concentration of low-income populations are considered Communities of Concern.

The example below shows how the methodology is applied for Tract 28.01 located in the District of Columbia.

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[1] A person is considered low-income if their household income is less than one-and-a-half times the federal government's official poverty threshold which varies by household size.

[2] Region is defined as the TPB Planning Area: http://www.mwcog.org/transportation/tpb/jurisdictions.asp.

Example of Methodology Applied to Tract 28.01 in the District of Columbia

		Low-Income	African American	Asian	Hispanic or Latino
Tract: 28.01	Tract Percent	30.88%	37.51%	3.64%	40.02%
	Regional Average	13.80%	26.20%	10.26%	15.24%
	Ratio of Concentration *(times Regional Average)*	2.24	1.43	0.36	2.63
	Index Score	4.48	0.00	0.00	2.63
	Total Index:	7.10			

In summary, the methodology identifies 27 percent of the 1,222 tracts in the region as Communities of Concern. Together these tracts account for 52 percent of Low-Income persons, 40 percent of African Americans, 22 percent of Asian populations in the region, and 44 percent of Hispanic or Latino populations.