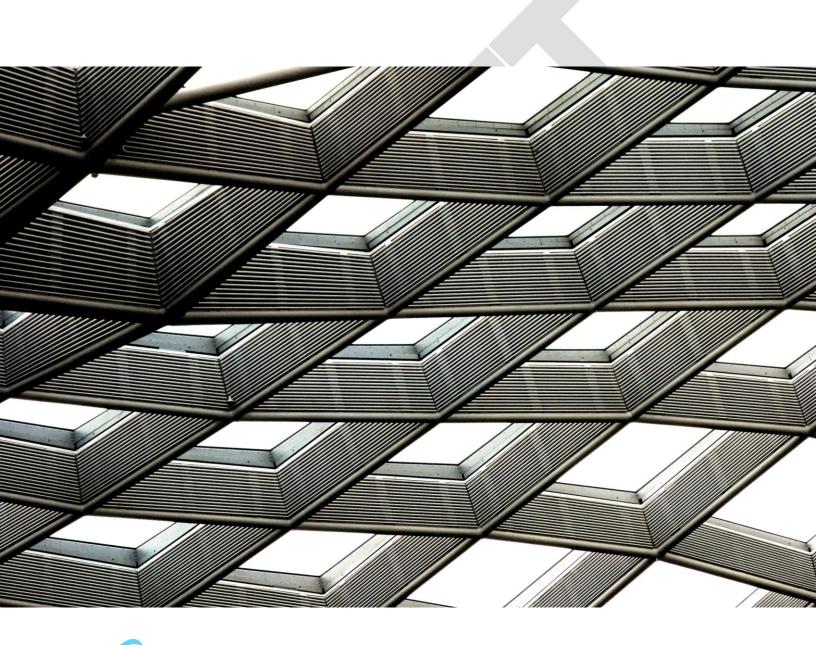
ENVIRONMENTAL JUSTICE AND TITLE VI ANALYSIS OF VISUALIZE 2045 - DRAFT

Executive Summary

December 2018





ENVIRONMENTAL JUSTICE AND TITLE VI ANALYSIS OF VISUALIZE 2045 EXECUTIVE SUMMARY

Prepared by TPB Staff December 2018

ABOUT THE TPB

The National Capital Region Transportation Planning Board (TPB) is the federally designated metropolitan planning organization (MPO) for metropolitan Washington. It is responsible for developing and carrying out a continuing, cooperative, and comprehensive transportation planning process in the metropolitan area. Members of the TPB include representatives of the transportation agencies of the states of Maryland and Virginia and the District of Columbia, 23 local governments, the Washington Metropolitan Area Transit Authority, the Maryland and Virginia General Assemblies, and nonvoting members from the Metropolitan Washington Airports Authority and federal agencies. The TPB is staffed by the Department of Transportation Planning at the Metropolitan Washington Council of Governments (COG).

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INTRODUCTION

Visualize 2045, the long-range transportation plan for the National Capital Region Transportation Planning Board (TPB), must be analyzed at the regional level for compliance with federal Environmental Justice rules and regulations. The TPB analyzed Visualize 2045 and determined that the future implementation of the Visualize 2045 constrained element would not have a disproportionate and adverse impact on low-income and minority populations. This determination is based on the finding that the identified benefits and burdens in Equity Emphasis Areas (EEAs) would not be predominately borne nor appreciably more severe or greater in magnitude than the burdens experienced by persons in the remainder of the Region. The results of this analysis meet applicable Title VI and Environmental Justice guidance, policies, and regulations, that the TPB is responsible for implementing as an agent of government that receives federal funding. The TPB is committed to further exploring this topic, through ongoing consultation with member jurisdictions, conducting additional appropriate research and analysis, and providing a forum for ensuring that equity is considered in regional long-range transportation planning.

The full documentation of the TPB's Environmental Justice and Title VI Analysis of Visualize 2045 is accessible here LINK.

Purpose and Requirements

This report summarizes the results of an equity analysis of the constrained element of Visualize 2045, the National Capital Region's long-range transportation plan, including the federally required Environmental Justice analysis. It focuses on the financially constrained element, which includes all transportation projects that are regionally significant, federally funded, or both, and are currently programmed to be completed in the region between now and 2045.

The purpose of this report is to demonstrate the TPB has complied with regional metropolitan transportation planning requirements for metropolitan planning organizations (MPOs) by conducting and documenting the results of the Environmental Justice and Title VI analysis of the region's long-range transportation plan. This report also provides decision makers, local elected officials, and the public with additional data, tools, and findings exploring transportation equity in the National Capital Region.

An Environmental Justice analysis seeks to identify and address disproportionately high and adverse impacts of a federal agency's programs and policies on minority and low-income populations in comparison to the remainder of the population. As the federally-designated MPO for regional transportation planning in the National Capital Region, the TPB is required to prepare a long-range transportation plan, which is subject to Environmental Justice regulations. As a result, TPB conducted this Environmental Justice and Title VI analysis of Visualize 2045 to identify and consider high and adverse impacts that may disproportionately burden low-income and minority populations.

Federal guidance defines three fundamental Environmental Justice principles that are consistent with the existing Executive and United State Department of Transportation (DOT) Orders and are the guiding principles for this analysis: ii

- To avoid, minimize, or mitigate disproportionately high and adverse human health and environmental effects, including social and economic effects, on minority populations and lowincome populations.
- To ensure the full and fair participation by all potentially affected communities in the transportation decision-making process.
- To prevent the denial of, reduction in, or significant delay in the receipt of benefits by minority and low-income populations.

DOT Orders further define a "disproportionately high and adverse effect on minority and low-income populations" as an adverse effect that:

- 1. Is predominately borne by a minority population and/or a low-income population, or
- 2. 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.

Then, to meet MPO requirements, DOT guidelines suggest that the following elements be included: iii

- 1. A regional demographic profile of low-income populations and minority populations,
- 2. Documentation of public involvement activities as it relates to low-income and minority populations,
- 3. An analytical process and mapping,
- 4. Determination of any disproportionate and adverse impact on low-income and minority populations based on benefits and burdens identified in the analytical process, and
- 5. If present, a demonstration for how plans, programs, and projects can avoid or minimize disproportionately high and adverse effects.

Methodology

In 2016, TPB staff undertook a review of the state of the practice in Title VI and Environmental Justice analysis methods used by other MPOs. The major finding from the scan was that while the TPB's previous used approach was typical and compliant with the federal requirements, it could be enhanced. The review found that the Environmental Justice analyses of some MPOs first defined small geographic areas, sometimes called "Environmental Justice Areas," "EJ Areas," or "Communities of Concern," and then examined forecast travel demand measures in these smaller areas in comparison with the rest of their planning areas, herein referred to as the Rest of the Region. The review also found many MPOs use multiple transportation accessibility measures.

Based on this examination of methods and testing of alternative enhancements, TPB staff developed a revised Environmental Justice analysis methodology that was based upon an analysis of small geographies that were labeled Equity Emphasis Areas.

The revised methodology reflected two key elements:

- Phase 1: Identifying Equity Emphasis Areas defined as small geographic areas with higher than average concentrations of low-income populations, minority populations, or both.
- Phase 2: Examining the constrained element of Visualize 2045 for changes in accessibility to jobs and hospitals by different modes of transportation, identifying benefits and burdens in Equity Emphasis as-a-whole and in the Rest of the Region, and determining if a disproportionately high and significantly adverse impact on low-income and minority populations exists.

PHASE 1: IDENTIFYING EQUITY EMPHASIS AREAS

The TPB methodology, approved by the TPB at its March 2017 meeting, relies on the most recently available U.S. Census Bureau American Community Survey (ACS) data on income, race, and ethnicity to determine what Census tracts are considered Equity Emphasis Areas. Tract-level data is used to identify areas that have above average concentrations of low-income populations, minority populations, or both, compared to the TPB planning area (see Figure 1). Data from the 2012-2016 5-year American Community Survey estimates for each of the following four population groups is used:

- Low-Income: Individuals with household income less than one-and-a-half times the federal government's official poverty threshold, depending on household size. iv
- Black or African American: A person having origins in any of the Black racial groups of Africa.
- Asian: A person having origins in any of the original peoples of the Far East, Southeast Asia, or the Indian subcontinent.
- Hispanic or Latino: A person of Mexican, Puerto Rican, Cuban, South or Central American, or other Spanish culture or origin regardless of race.

TPB staff established a system for scoring each Census tract that used clear ground rules. Tracts were identified as Equity Emphasis Areas if one of two criteria are met:

- Criteria 1: Tracts must have a concentration of individuals identified as low-income more than oneand-a-half times the regional average.
- Criteria 2: Tracts must have high concentrations of two or more minority population groups or high concentrations of one or more minority population groups together with low-income concentrations at or above the regional average.

To identify tracts with above average concentrations of low-income or minority population groups, as well as to normalize and compare results across the four groups and the region, an Index Score was calculated for every tract in the region based on each group's regional concentration in each tract. Index Scores for each population group were aggregated to reach an uncapped Total Index Score for each tract. Areas with Total Index Scores greater than or equal to 4.00 are considered Equity Emphasis Areas.

The results of the Phase 1 analysis identified 351 of the 1,222 tracts analyzed in the region, or 28%, as Equity Emphasis Areas. A map of the TPB Planning Area and identified areas is presented in Figure 1. An online interactive map is available with detailed data information at gis.mwcog.org/webmaps/tpb/clrp/ej.

Equity Emphasis Areas Equity Emphasis Areas are defined as Census tracts with higher than average concentration of low-income and/or minority populations. MARYLAND Frederick County **WEST VIRGINIA VIRGINIA** City of Gaithersburg Montgomery County City of Rockville Loudoun County Fairfax County City of Fairfax Fauquier County Urbanized Area City of Manassas Park City of Manassas Prince George's County Prince William County Charles County Other Land Use (airports, cemeteries, hospitals, military installations, and shopping centers) Source: 2012-2016 American Community Survey 5-Year Estimates. Analysis by Transportation Planning Board Staff

Figure 2: Equity Emphasis Areas and the TPB Planning Area

PHASE 2: EXAMINING THE CONSTRAINED ELEMENT OF VISUALIZE 2045

Phase 2 of the Title VI and Environmental Justice analysis of the constrained element of Visualize 2045 uses output from the TPB's travel demand model, which forecasts where, when, and how people will travel around the region in coming decades. To make its predictions, the model relies on the latest regional population and job growth forecasts from the Metropolitan Washington Council of Governments, information on existing travel patterns from the TPB's 2007-2008 Regional Household Travel Survey, and the future transportation system laid out in the constrained element of Visualize 2045.

This analysis primarily compares conditions on using a variety of accessibility and mobility measures from 2019 (or Today) to a future, labelled "2045 Plan-Build" scenario, that includes the transportation projects anticipated under the plan's financially constrained element. The Full Technical Report also includes "2045 No-Build" scenario data, which represents a future in which no new transportation projects would be constructed, but anticipated population and job growth would still occur. This additional scenario allows the analysis team to better understand if the changes in accessibility and mobility measures are due to the impact of the transportation projects in the constrained element of Visualize 2045 or if they result from anticipated population and job growth. The following measures were analyzed:

Accessibility measures

- 1. Average number of jobs accessible by auto
- 2. Average number of jobs accessible by transit
- 3. Average number of jobs accessible by High Capacity Transit

Mobility Measures

- 7. Average commute time by auto
- 8. Average commute time by transit

- 4. Average number of jobs accessible by bus
- 5. Population with walkable access to High Capacity Transit
- 6. Population with walkable access to bus service
- Average travel time to closest hospital by auto
- 10.Average travel time to closest hospital by transit

With data comparing the 2019 scenario (or Today) to the 2045 Plan-Build scenario, benefits and burdens are identified for the TPB Planning Area as-a-whole, Equity Emphasis Areas, and the Rest of the Region. For the accessibility measures, a <u>benefit</u> is identified as an increase in average accessibility or an increase in the population with access to transit service between Today and 2045. Conversely, a <u>burden</u> is identified when a decrease in average accessibility or a decrease in the population with access to transit service between Today and 2045 is identified. For mobility measures, a <u>benefit</u> is identified when the average commute time or average travel time declines between Today and 2045. Finally, a <u>burden</u> is identified when the average commute time or average travel time increases between Today and 2045.

Using the results of the analysis of benefits and burdens, the final step is to determine if any of the model output results, due to the impact of the constrained element of Visualize 2045, finds a disproportionately high and adverse impact on low-income and minority populations. The impact would be considered disproportionately high and adverse when the adverse effect, or burden, is predominately borne by the Equity Emphasis Areas or will be suffered by the Equity Emphasis Areas and is appreciably more severe or greater in magnitude than the adverse effect that will be suffered by the Rest of the Region.

Limitations of the Analysis

The methodology of this analysis is limited by available tools and data. When identifying tract-level areas with above average concentration of low-income, minority populations, or both, five-year U.S. Census American Community Survey is the most statistically significant. However, because data are aggregated of over a five-year period instead of reflecting the most recent year. Also, racial and ethnic groups tend to be undercounted relative to the general population. This means that Census data may underestimate the relative size of minority groups in the Washington region. The number of individuals with disabilities may also be underestimated, because the Census relies on self-reports of disability status and some individuals may be reluctant to identify themselves as having a disability.

Further, the analysis assumes that the areas identified as Equity Emphasis Areas today will be the same in 2045. However, these areas will most likely change by 2045 as land uses, housing prices, and migration patterns alter the demographic profile of the region. As it is difficult to predict where changes will occur, the current geographic distributions are assumed to remain constant through 2045.

DEMOGRAPHIC PROFILE AND REGIONAL TRAVEL INDICATORS FOR THE NATIONAL CAPITAL REGION

This section provides the regional demographic profile of traditionally disadvantaged population groups in the National Capital Region.

Two important initial components in the Environmental Justice analysis include identifying the demographic makeup of the region and comparing the geographic location of traditionally disadvantaged population groups with the location of major transportation improvements from the constrained element of Visualize 2045. This approach allows a greater understanding of how the major transportation improvements over the next 27 years may affect traditionally disadvantaged population groups. Maps detailing the location of traditionally disadvantaged population groups with overlays of the major highway, major transit, and major managed High-Occupancy Toll (HOT), High-Occupancy Vehicle (HOV), and Toll Lane Projects from the constrained element of Visualize 2045 can be found in the Full Technical Report, Appendix A.

According to the U.S. Census, the National Capital Region is home to over 5.4 million residents. Traditionally disadvantaged population groups make up important shares of the region's population. Figure 1 presents the share of the region's population which identifies as low-income, members of as a racial or ethnic minority, persons with a disability, older adults, or persons with limited English proficiency.

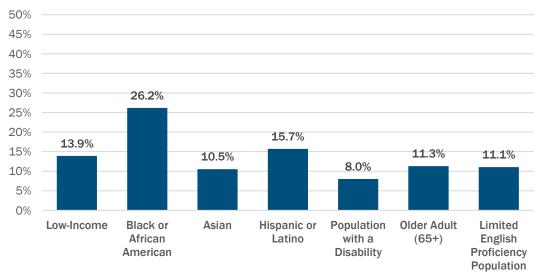


Figure 3: Demographic Profile of the National Capital Region (2017)

Source: U.S. Census, 2012-2016 American Community Survey 5-year estimate

In 2019, Round 9.1 of the Cooperative Forecast expects the region's population to be over 5.6 million residents and 3.3 million jobs. By 2045, the region is expected to add 23% more residents and 26% more jobs, to 6.9 million and 4.3 million, respectively. Equity Emphasis Areas account for 29% of the region's population and 25% of jobs. Table 1 present summary demographic data for the region, Equity Emphasis Areas, and the Rest of the Region.

Table 1: Summary Demographic Data from COG Cooperative Forecast

	2019	2045	Change	
Population				
EEAs	1,630,714	2,037,476	+406,762 (24.9%)	
Rest of the Region	4,025,831	4,925,982	+900,151 (22.4%)	
Region	5,656,545	6,963,458	+1,306,913 (23.1%)	
Jobs				
EEAs	824,410	1,050,938	+226,528 (27.5%)	
Rest of the Region	2,516,993	3,251,284	+734,291 (29.2%)	
Region	3,341,403	4,302,222	+960,819 (28.8%)	

Source: COG Round 9.1 Cooperative Forecast

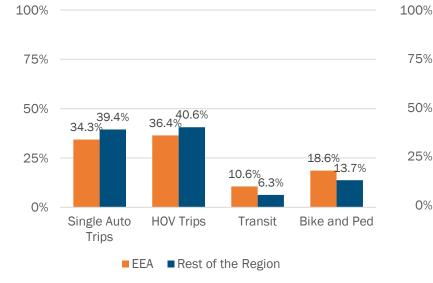
Using the Equity Emphasis Area (EEAs) geographies, the analysis identifies important differences in how low-income and racial and ethnic minorities are expected to use the region's transportation network in 2045. The analysis looks at mode share for two groups of trips – all trips and work trips only.

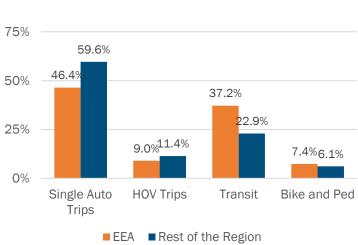
For all types of trips taken in the region, people in EEAs will be more likely to take transit or use bicycle and pedestrian facilities than people in the Rest of the Region. In contrast, people in EEAs are less likely to drive alone (Single Auto) or drive with two or more people (HOV) than people in the Rest of the Region (see Figure 2).

When work trips are isolated for 2045, the patterns in mode share are similar between the two geographies, although the differences are sharper. People in EEAs are expected to be even more likely to take transit for work trips than for all trips. Similarly, driving alone for people in the Rest of the Region is expected to be much higher for work trips than for all trips (see Figure 3). For both groups, people will be much less likely to walk, bike, or use an HOV for work trips than they will for all trips.

Figure 5: Share of All Trips for EEAs and the Rest of the Region (2045)

Figure 4: Share of Work Trips for EEAs and the Rest of the Region (2045)





ENVIRONMENTAL JUSTICE ANALYSIS RESULTS

This analysis finds that implementing the constrained element of Visualize 2045 would not have a disproportionate and adverse impact on low-income and minority populations. This determination is based on the findings from the analytical process identified in the Phase 2 methodology. Equity Emphasis Areas (EEAs) and the Rest of the Region experienced similar benefits and burdens from the impact of Visualize 2045. Burdens, therefore, would not be predominately borne nor appreciably more severe or greater in magnitude in EEAs than the burdens experienced by the Rest of the Region.

An examination of individual performance measures finds EEAs and the Rest of the Region experience similar benefits or burdens across all measures with one measure disproportionately benefiting EEAs. For seven of the ten measures, benefits are identified for EEAs and the Rest of the Region. For two measures, burdens are identified for EEAs and the Rest of the Region. For one indicator, average commute time by transit, EEAs experience a benefit while the Rest of the Region experiences a burden.

Similar Benefits for EEAs and the Rest of the Region

- 1. Average number of jobs accessible by auto
- 2. Average number of jobs accessible by transit
- 3. Average number of jobs accessible by High Capacity Transit
- 4. Average number of jobs accessible by bus
- Population with walkable access to High Capacity Transit
- 6. Population with walkable access to bus service
- 10. Average travel time to closest hospital by transit

Similar Burdens for EEAs and the Rest of the Region

- 7. Average commute time by auto
- 9. Average travel time to closest hospital by auto

Disproportionate Benefit for EEAs

8. Average commute time by transit

Disproportionate Benefit for Rest of the Region

None

For three of the six accessibility measures, the Rest of the Region's benefits were often greater and burdens less severe in percentage terms because the percentage changes will impact the smaller baseline figures in the Rest of the Region more acutely than the larger baseline accessibility figures in EEAs. Because EEAs today have better accessibility to jobs by auto and transit, it is more challenging to improve the EEA accessibility at the same rates in percentage terms as the Rest of the Region.

However, in no measure was a burden predominately borne by EEAs or appreciably more severe or greater in magnitude than the adverse effect suffered by the Rest of the Region and, as a result, this analysis demonstrates that the constrained element of Visualize 2045 does not have a disproportionately high and adverse impact on low-income and minority populations.

Reviewing the 2019 and 2045 Plan-Build transportation networks separately and not the change between scenarios, EEAs have the same or better transportation options than the Rest of the Region. EEAs are likely to have greater access to jobs and will have larger share of their populations close to transit options compared to the Rest of the Region, both Today and in the 2045 Plan-Build. Commute times and travel times to hospitals were lower for the EEA residents in all but one measure.

The following table summarizes the overall results of the ten measures. For determination, color blocking is used to identify burdens in **red** and benefits in **green**.

Table 2: Summary Findings from Phase 2 of the Environmental Justice Analysis of Visualize 2045

		2019	2045 Plan-Build	Impact of Visualize 2045 Percent Change
1. Average number of jobs accessible by auto	EEAs	1,029	1,045	+1.6%
	Rest of the Region	799	853	+6.8%
2. Average number of jobs accessible by transit*	EEAs	540	738	+36.7%
	Rest of the Region	302	428	+42.0%
3. Average number of	EEAs	197	335	+70.2%
jobs accessible by High Capacity Transit**	Rest of the Region	125	203	+62.9%
4. Average number of jobs accessible by bus***	EEAs	99	145	+46.3%
	Rest of the Region	70	104	+49.4%
5. Population with walkable access to High Capacity Transit+	EEAs	648	1,119	+72.8%
	Rest of the Region	977	1,517	+55.2%
6. Population with walkable access to bus service‡	EEAs	1,492	1,872	+25.5%
	Rest of the Region	2,617	3,211	+22.7%
7. Average commute time by auto†	EEAs	42.3	47.0	+11.1%
	Rest of the Region	47.4	52.5	+10.8%
8. Average commute	EEAs	54.1	52.9	-2.2%
time by transit†	Rest of the Region	53.3	54.3	+1.9%
9. Average travel time to closest hospital by auto†	EEAs	15.3	16.7	+9.2%
	Rest of the Region	16.8	18.5	+10.1%
10. Average travel time to closest hospital by transit†	EEAs	33.9	33.6	-0.9%
	Rest of the Region	45.0	44.9	-0.2%

Notes

Figures in thousandths, unless noted.

^{*} This measure includes both walk and drive access to transit, including walking to transit and driving to a transit station nearby (commuter lots, park and ride, etc.).

^{**} This measure examines access by walking to transit and using HCT for any part of the trip (HCT-to-bus transfers are included). For this measure, HCT includes Metrorail, commuter rail, streetcar, or light rail but excludes BRT. Exclusion of BRT has a minimum impact on average accessibility.

^{***} This measure examines accessibility for transit trips that begin with walking to bus, including BRT, with no transfer to HCT.

⁺ High Capacity Transit includes Metrorail, commuter rail, streetcar, light rail, or BRT. All population and jobs in a TAZ were considered accessible to HCT if its centroid is located within 1 mile of a rail station or within ½ mile of a BRT station.

[‡] All population and jobs in a TAZ were considered accessible to bus service if its centroid was located within ½ mile of a bust stop. This measure does not include BRT.

[†] In minutes. Average commute and travel times by auto includes travel time on roadways and "terminal" time (e.g., to park the vehicle, etc.). Average commute and travel times by transit includes time it takes to reach transit and destination, including walk access time, drive access time, transfer time, and/or wait time. Hospital is defined as a facility that provides in-patient medical care, including 24-hour emergency care (including Children's Hospitals) for patients. This does not include stand-alone urgent care facilities, psychiatric hospitals, Veterans Administration hospitals, private hospitals exclusive to members, and hospitals with no emergency care.

POLICY IMPLICATIONS AND NEXT STEPS

While this environmental justice analysis was conducted to meet federal requirements on transportation equity for low-income and minority populations, it can also contribute to important and ongoing transportation policy discussions for promoting the fair and equitable treatment of all individuals, including low-income populations, racial and ethnic minorities, people with disabilities, and older adults. In the future, the TPB is committed to engaging member jurisdictions in dialogue, conducting research and analysis, and providing a forum for ensuring that equity is considered in regional long-range transportation planning. This section provides some high-level observations from this analysis that can be useful for those discussions.

Equity Emphasis Areas have strong walkable transit access, especially bus service.

In 2019, 91% of people in EEAs have walkable access to bus service and 40% have walkable access to High Capacity Transit. By 2045, with the addition of jobs, population, and transit projects, walkable bus service access will continue to be nearly ubiquitous for people in EEAs, at 92%, and growth in walkable HCT access will increase to 55%.

Figure 6: Share of population with walkable access to bus service

2019 2045

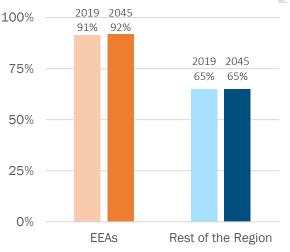
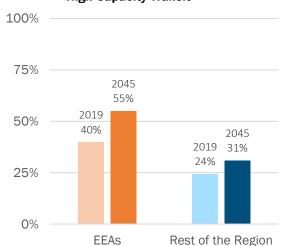


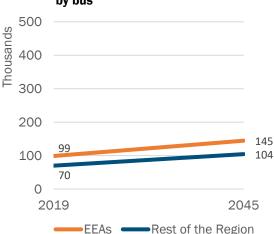
Figure 7: Share of population with access to High Capacity Transit



Jobs accessible in 45 mins by bus service only is limited...

Considering the significant geographic reach of bus service in the region and the high degree of walkable access to such service in EEAs, TPB staff analyzed job access by bus service now and in 2045. For 2019, the average number of jobs accessible is 99,000 for EEAs and by 2045 with the addition of population, jobs, and bus service improvements, an additional 46,000 jobs will be accessible by bus – a 46.3% increase. These EEA figures are higher than for the Rest of the Region.

Figure 8: Average number of jobs accessible by bus

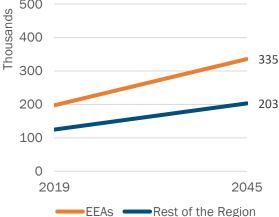


...until connected with High Capacity Transit.

Isolating for the impact of high-quality transportation services that require significant infrastructure investment, this measure focuses on HCT trips where one walks to access HCT directly or transfers to HCT from a bus trip accessed by walking to a nearby bus stop. For 2019, the average job access is 197,000 for EEAs and 125,000 for the Rest of the Region. By 2045, with the addition of population, jobs, and HCT service improvements. EEAs and the Rest of the Region will be able to access 138,000 and 78,000 more jobs, a 70.2% and 62.9% increase, respectively.

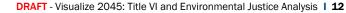
by HCT 500 400

Figure 9: Average number of jobs accessible



Equity Emphasis Areas are likely to change

The analysis assumes that the areas identified as Equity Emphasis Areas today will be the same in 2045. These areas will most likely change by 2045 as land use, housing prices, and migration patterns alter the demographic profile of the region. As it is difficult to predict where changes will occur, the current geographic distributions are assumed to remain constant through 2045. As a result, it will be important for policy makers and future analysis to monitor how accessibility and mobility measures shift based on these assumptions.



Endnotes

¹ For a full map of the National Capital Region and the TPB member jurisdictions, see mwcog.org/transportation/about-tpb/jurisdictions/

U.S. Department of Transportation. April 1997. "Environmental Justice in Minority Populations and Low-Income Populations." Order 5610.2.

United States Federal Highway Administration. 1998. "FHWA Actions to Address Environmental Justice in Minority Populations and Low-Income Populations." Order 6640.23.

United States Environmental Protection Agency. August 4, 2011. "Memorandum of Understanding on Environmental Justice and Executive Order 12898."

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United States Federal Highway Administration. June 14, 2012. "FHWA Actions to Address Environmental Justice in Minority Populations and Low-Income Populations." Order 6640.23A.

United States Federal Transit Administration. August 12, 2012. "Environmental Justice Policy Guidance for Federal Transit Administration Recipients." FTA C 4703.1. Docket No. FTA-2011-0055.

- iii United States Federal Highway Administration. April 1, 2015. "Environmental Justice Reference Guide." Pg. 26.
- ^{iv} For example, income less than \$36,509 for a family of four would be considered low-income. For more info see: https://www.census.gov/data/tables/time-series/demo/income-poverty/historical-poverty-thresholds.html
- ^v The region includes 1,231 tracts. Nine tracts were excluded for having no to very little population.
- vi The results of this analysis use MWCOG's Round 9.1 Cooperative Land-Use Forecasts and TPB's Version 2.3.75 Travel Demand Model. These findings are based on regional model estimates that come with a degree of uncertainty.
- vii American Indian and Alaskan Native, Native Hawaiian and Pacific Islander, Other, or Two or More Races populations were not included in this analysis because data showed these populations representing less than 1% of the Washington region. Population with a Disability is a person with any form of disability, including sensory, physical, mental, self-care, going outside the home, and employment disability. Older Adult refers to a person over the age of 65. Limited English Proficiency is a person who speaks English less than "very well."

Executive Order 12898. February 11, 1994. "Federal Actions To Address Environmental Justice in Minority Populations and Low-Income Populations." Federal Register, Vol. 59, No. 32.