

Visualize 2045

Environmental Justice Analysis

Sergio Ritacco
Transportation Planner

TPB Regional Public
Transportation Subcommittee
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Item #5



Purpose

Share the results of the Environmental Justice (EJ) analysis to determine if the planned projects of Visualize 2045 poses a disproportionately high and adverse impact on low income and minority populations of the region



Federal Requirements

- Executive Order 12898 and subsequent guidance mandate identifying and addressing “disproportionately high and adverse human health and environmental effects, including social and economic effects, of their programs, policies, and activities on minority populations and low-income populations.”
- Key activities include:
 - Through an analytical process, determine whether any disproportionate and adverse impact on low-income and minority populations based on identified benefits and burdens would occur.
 - If such impacts would occur, demonstrate how plans, programs, and projects can avoid or minimize disproportionately high and adverse effects.



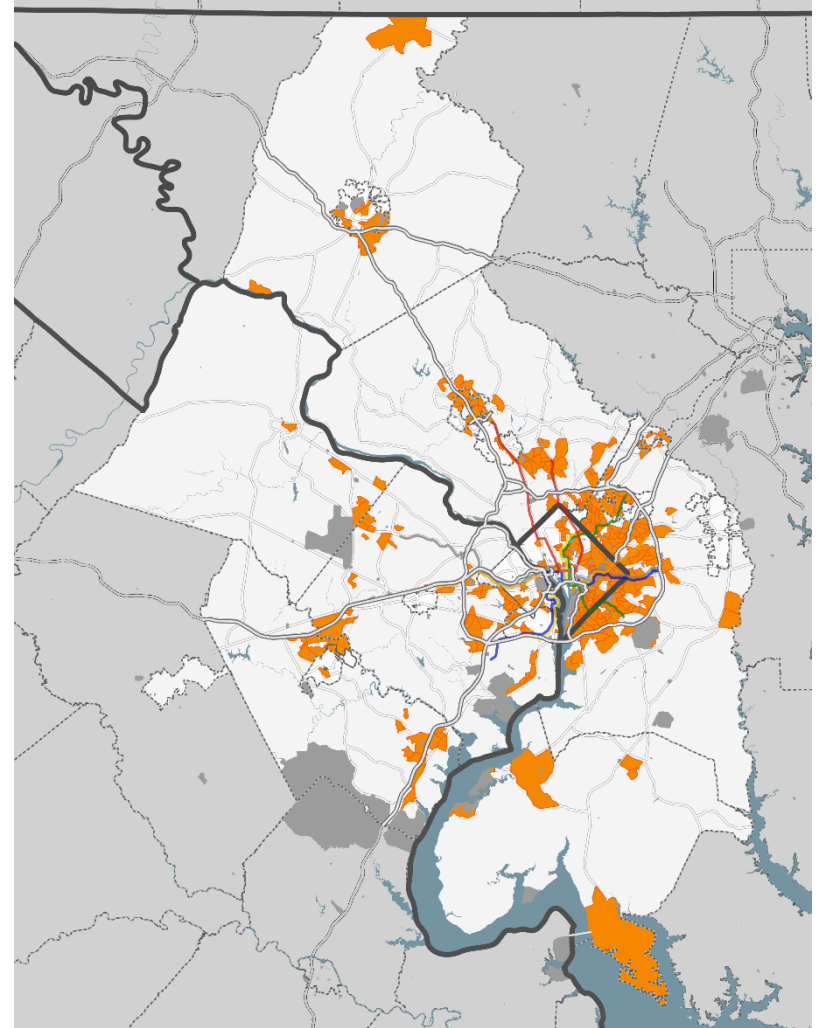
Phase 1: Identifying Equity Emphasis Areas

- **Criteria 1:** Low-Income concentration more than 1.5 times the regional average.
- **Criteria 2:** High concentrations of 2+ minority population groups or high concentrations of 1+ more minority population groups with low income at or above the regional average.

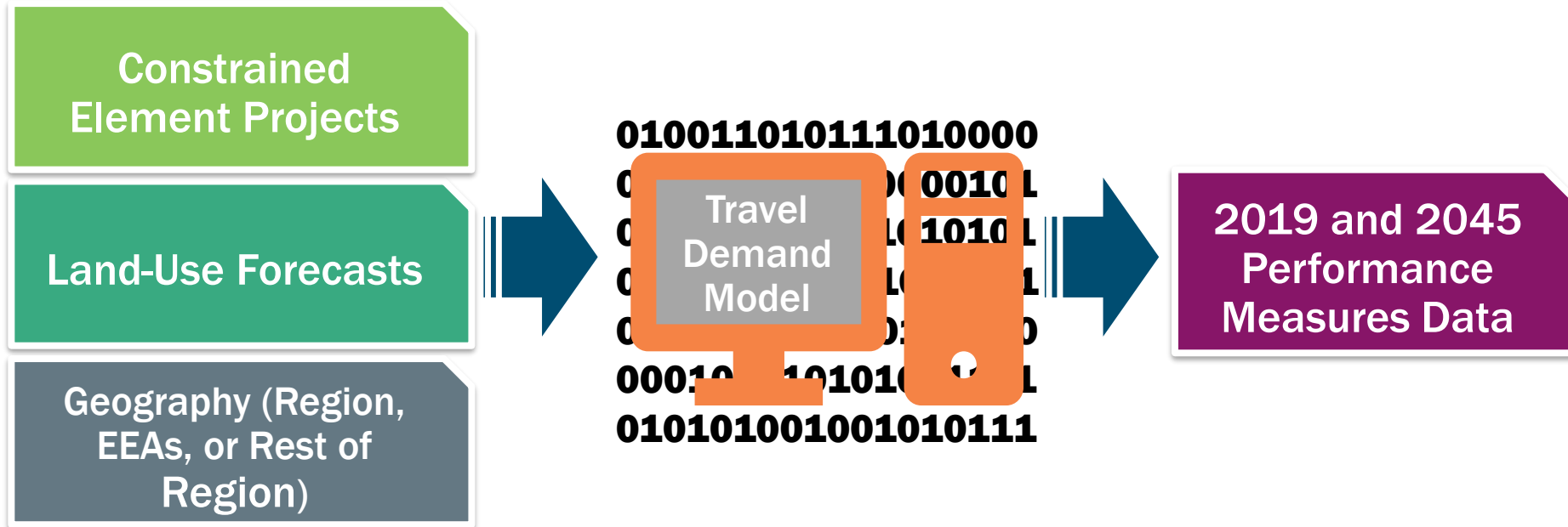
Method Approved: March 2017

Map Updated: June 2018

Interactive: <https://gis.mwcog.org/webmaps/tpb/clrp/ej/>



Environmental Justice Analysis Process



- Round 9.1 Cooperative Forecasts of Population, Households, & Employment
- Version 2.3.75 Travel Demand Model
- Analysis of TPB Planning Area during AM Peak Period



Environmental Justice Analysis Measures

Accessibility Measures

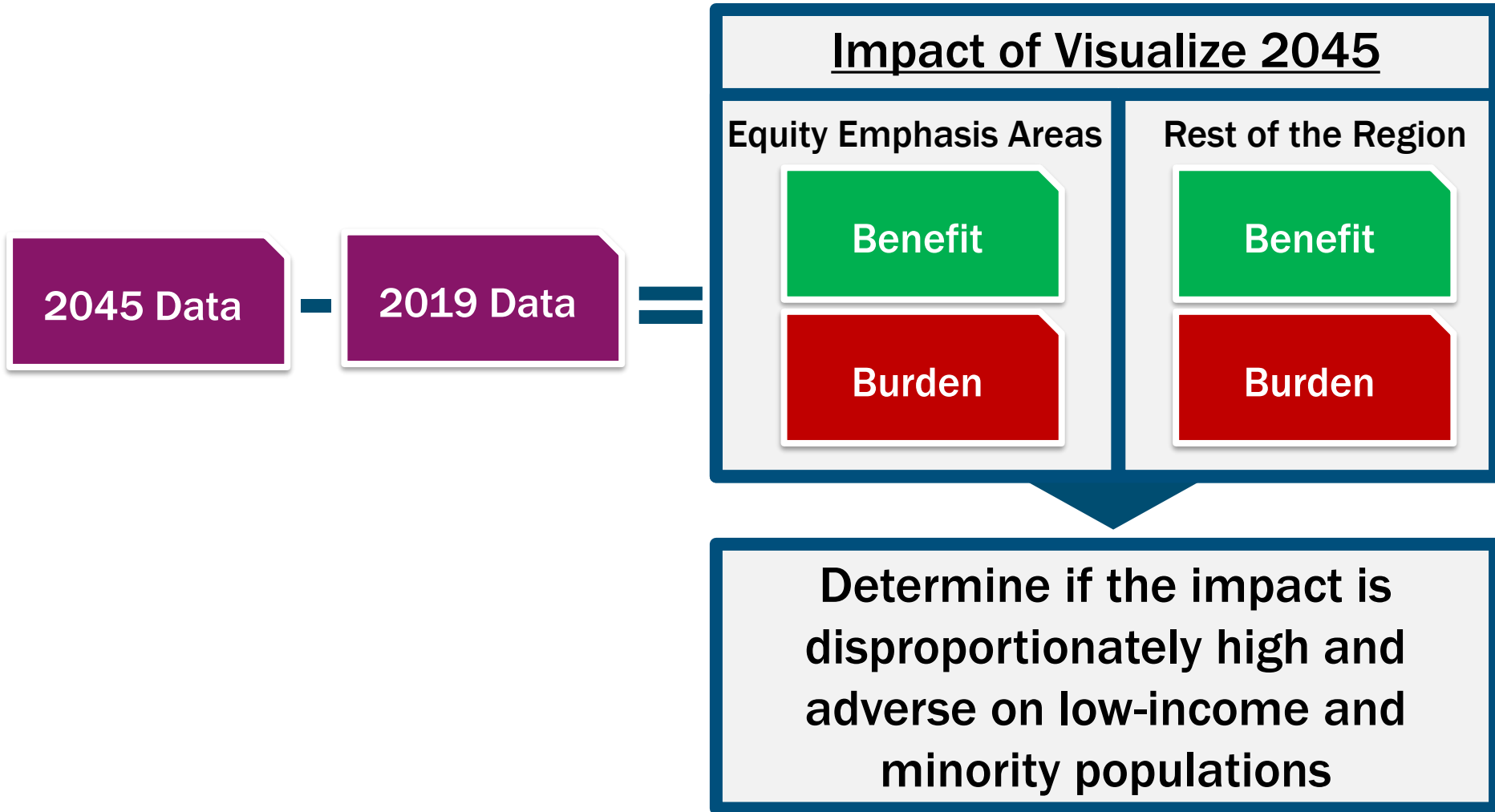
1. Average number of jobs accessible by auto
2. Average number of jobs accessible by all transit
3. Average number of jobs accessible by High Capacity Transit
4. Average number of jobs accessible by bus
5. Population with walkable access to High Capacity Transit
6. Population with walkable access to bus service

Mobility Measures

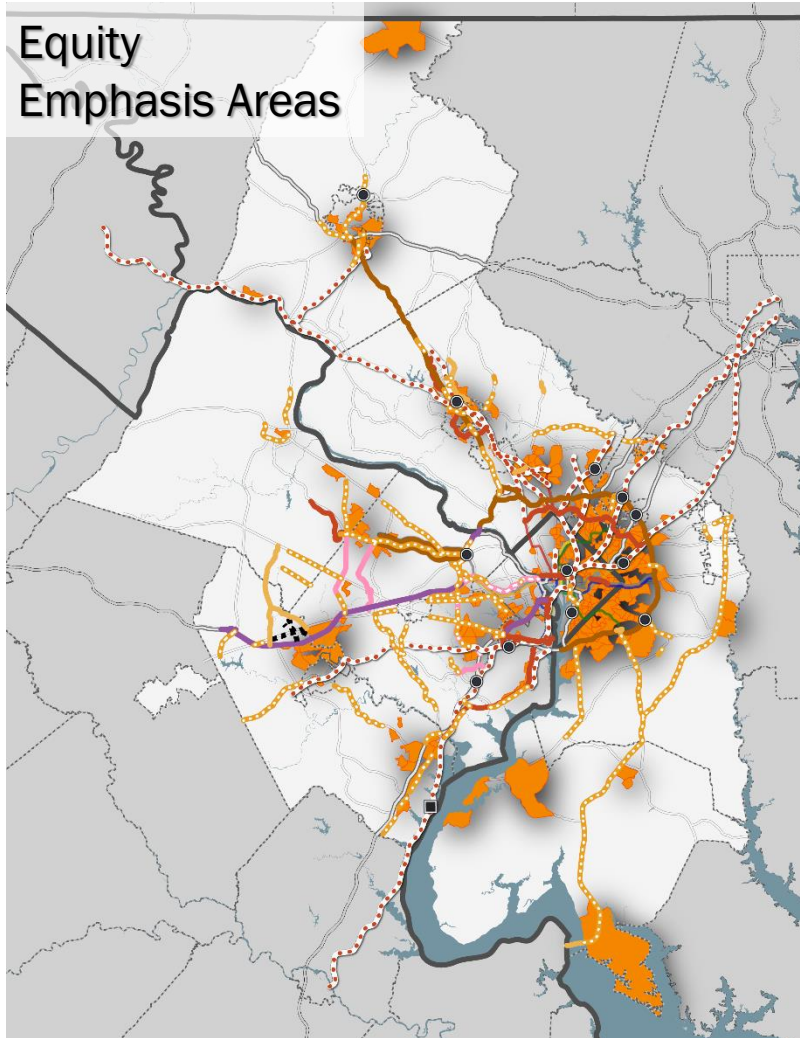
7. Average commute time by auto
8. Average commute time by transit
9. Average travel time to closest hospital by auto
10. Average travel time to closest hospital by transit



Environmental Justice Analysis



Recap of EJ Analysis Process



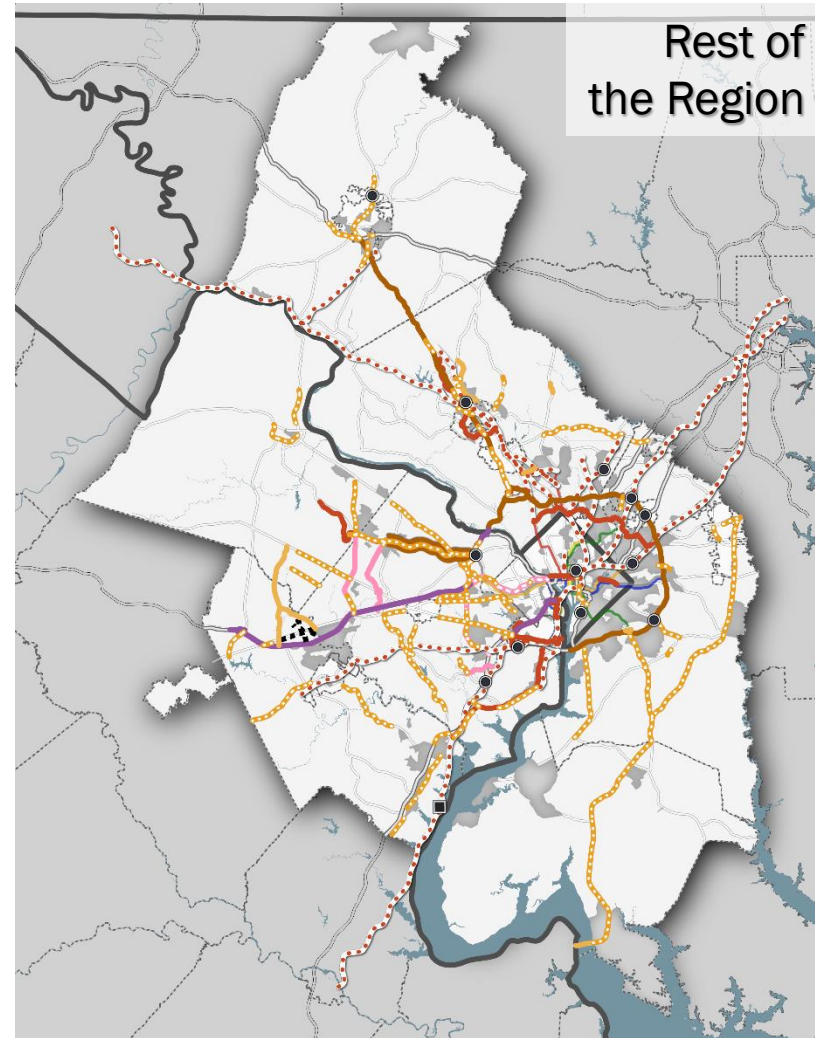
Today



2045
No-Build

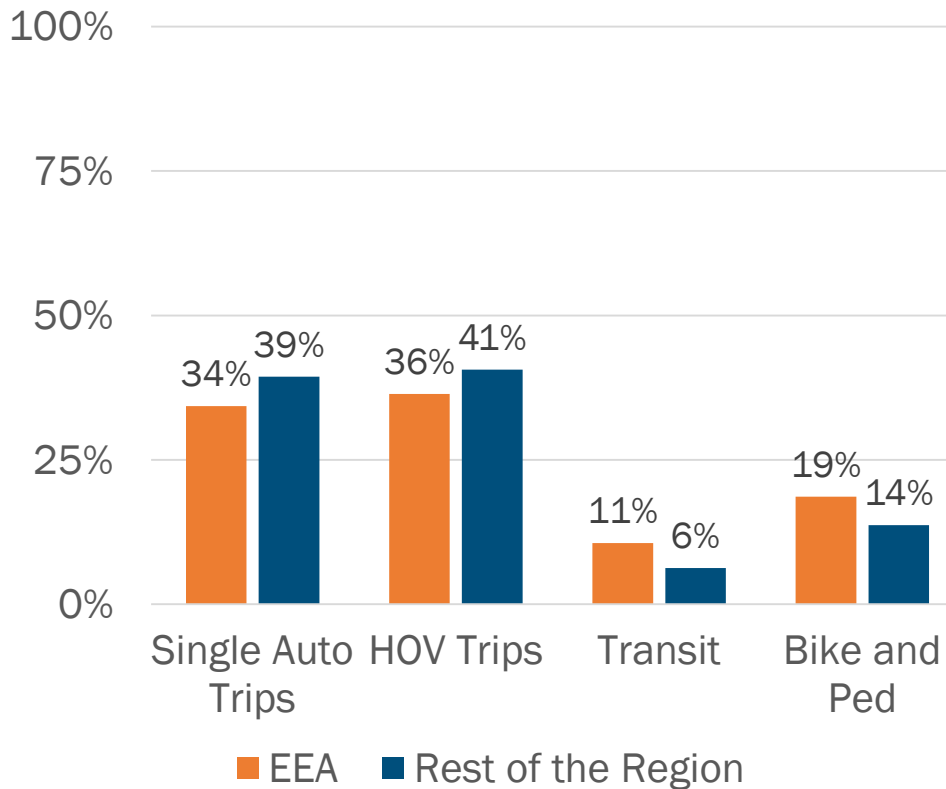


2045
Build

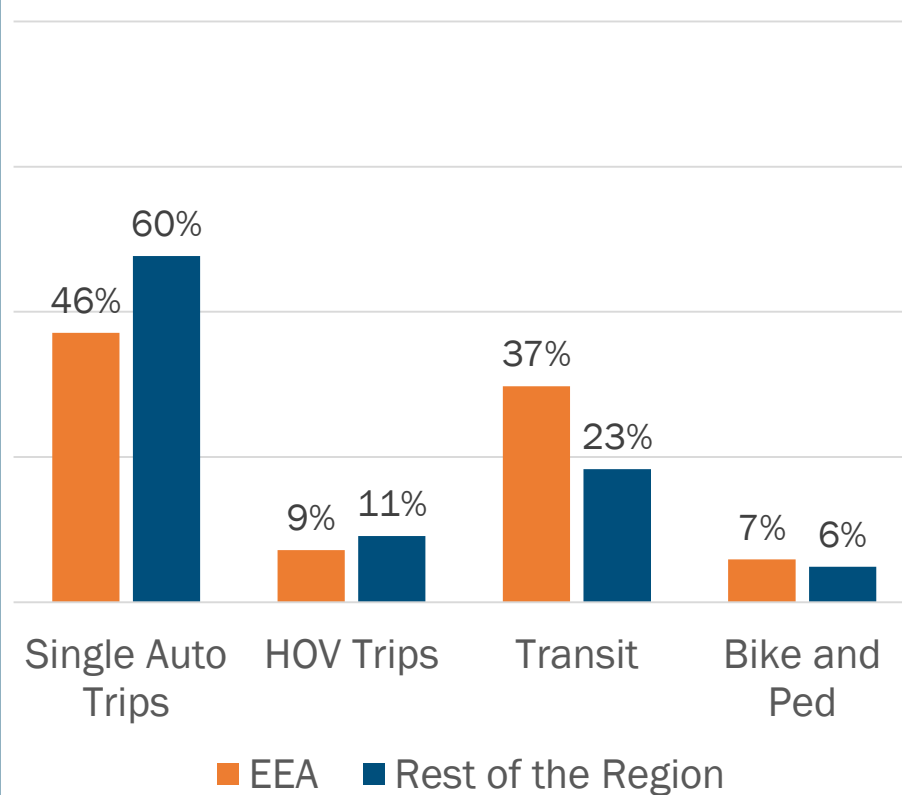


Phase 2: Summary Travel Characteristics

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



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



Phase 2 Results: Overview

Determination

Planned projects of Visualize 2045 would not have a disproportionate and adverse impact on low-income and minority populations

On ten performance measures:

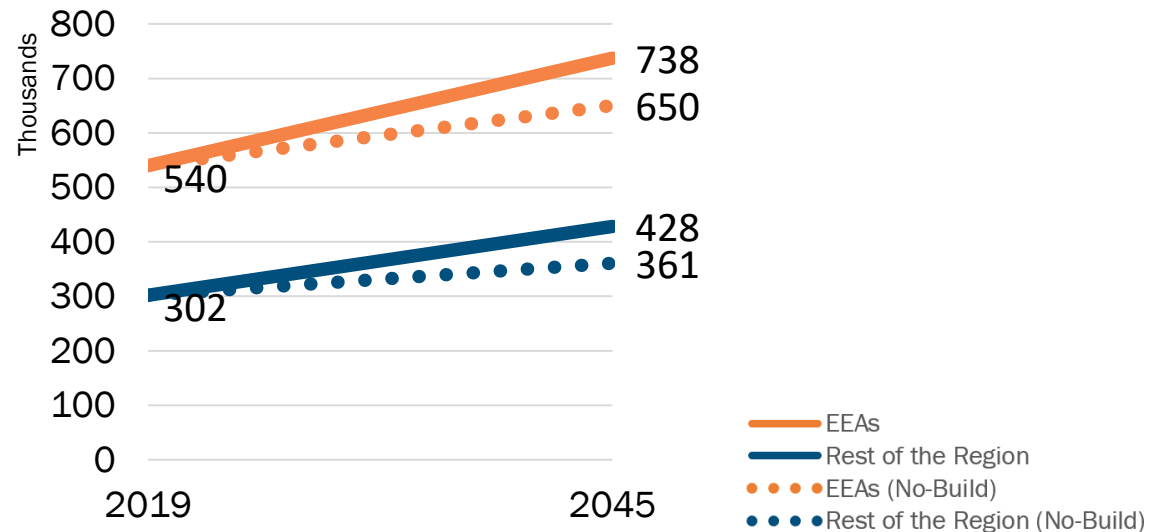
- ✓ **Seven measures:** Similar **Benefits** for EEAs and the Rest of the Region
- ✓ **One measure:** Disproportionate **Benefits** for EEAs
- **Two measures:** Similar **Burdens** for EEAs and the Rest of the Region



Phase 2: Accessibility Results

Measure 2: Average number of jobs accessible by all transit (thousands)

	Today	Plan Build 2045	No-Build 2045
EEAs	540	738 +36.7%	650 +20.5%
Rest of the Region	302	428 +42.0%	361 +19.5%



Phase 2: Accessibility Results

Measure 3: Average number of jobs accessible by High Capacity Transit (thousands)*

	Today	Plan Build 2045	No-Build 2045
EEAs	197	335 +70.2%	280 +42.0%
Rest of the Region	125	203 +62.9%	173 +38.6%

Measure 4: Average number of jobs accessible by bus (thousands)*

	Today	Plan Build 2045	No-Build 2045
EEAs	99	145 +46.3%	129 +30.9%
Rest of the Region	70	104 +49.4%	89 +27.8%

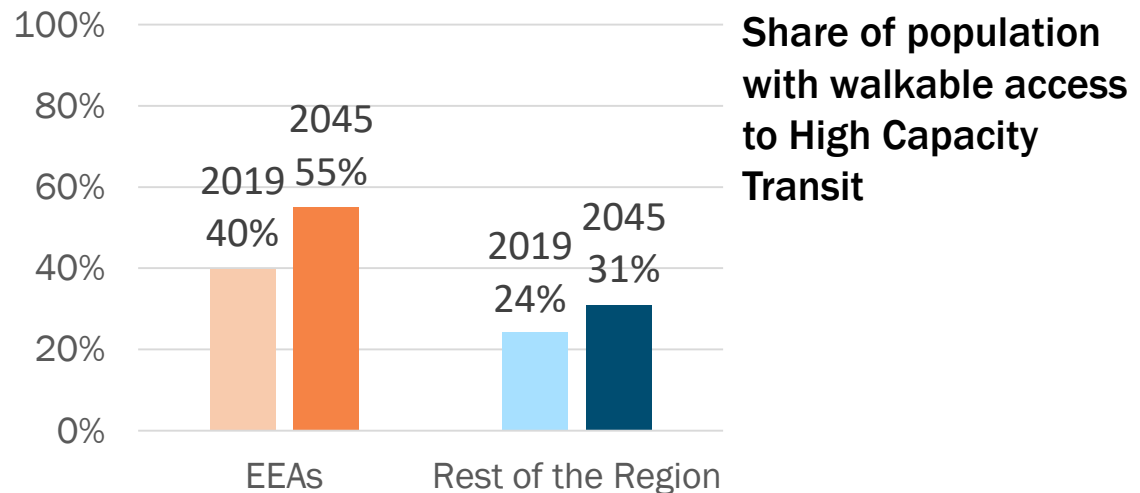
*Measure 3 and 4 focus specifically on walk access to High Capacity Transit and Bus



Phase 2: Accessibility Results

Measure 5: Population with walkable access to High Capacity Transit (thousands)

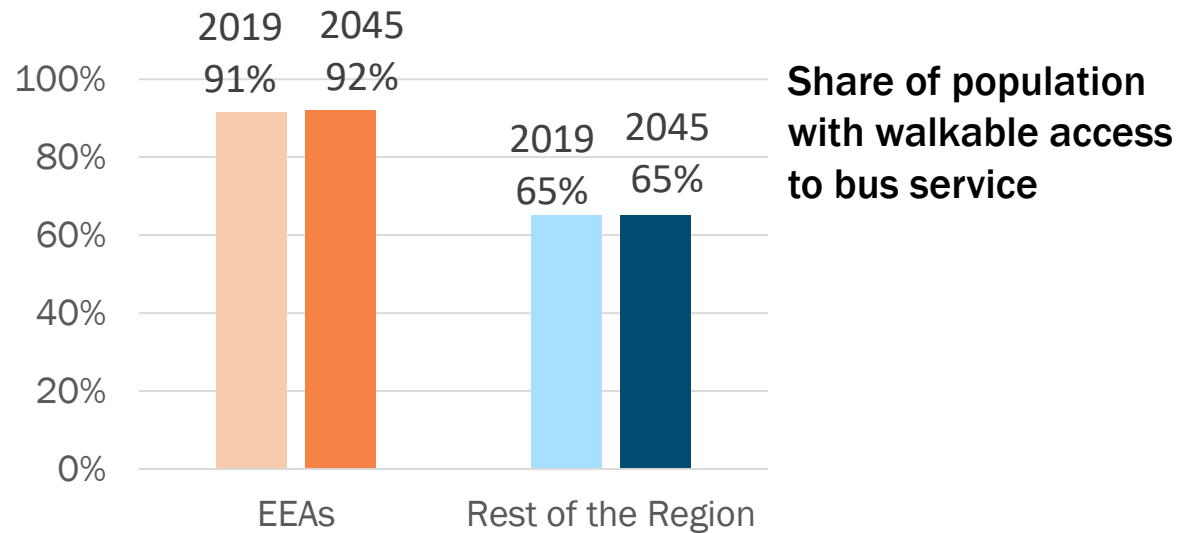
	Today	Plan Build 2045	No-Build 2045
EEAs	648	1,119 +72.8%	872 +34.7%
Rest of the Region	977	1,517 +55.2%	1,309 +33.9%



Phase 2: Accessibility Results

Measure 6: Population with walkable access to bus service (thousands)

	Today	Plan Build 2045	No-Build 2045
EEAs	1,492	1,872 +25.5%	1,871 +25.4%
Rest of the Region	2,617	3,211 +22.7%	3,193 +22.0%



Qualifiers for Findings

- Regional-level analysis whose findings are not applicable to particular EEA(s) or attributable to specific project, corridor, or sub-area
- Current location of EEAs remain unchanged in 2045
- Location and number of Hospitals remain unchanged in 2045
- This analysis does not consider more qualitative aspects like:
 1. Safety and comfort
 2. Reliability
 3. Availability of information and ease of use
 4. Language barriers
- Analysis does not examine the availability or quality of off-peak service



Policy Observations

- ✓ Visualize 2045 complies with and passes federal EJ determination
- ✓ Parity between EEAs and Rest of the Region on most performance measures
- Opportunities exists for improved outcomes:
 1. EEA's advantage of access to more jobs by auto compared to Rest of Region is forecast to narrow
 2. No. of jobs accessible in EEAs by Bus only travel is half that accessible by High Capacity Transit
 3. Walk access to High Capacity Transit in EEAs and Rest of the Region is half that to Bus



Sergio Ritacco

Transportation Planner

(202) 962-3232

sritacco@mwkog.org

visualize2045.org

Metropolitan Washington Council of Governments

777 North Capitol Street NE, Suite 300

Washington, DC 20002

