

Long Range Transportation Plan Equity Analysis Tool

INTRODUCTION

The Miami-Dade Transportation Planning Organization (TPO) is incorporating equity metrics into its 2050 Long Range Transportation Plan (LRTP). In order to do this, the TPO developed a ground-breaking, easy to use Equity Analysis Tool to study how LRTP scenarios affect selected demographics. The results of the analysis can be viewed for all of Miami-Dade County or by Transportation Planning Area.

WHY WAS THE EQUITY TOOL DEVELOPED?

Equity is important to the TPO. Decision makers want to see the geographical distribution of transportation projects in Miami-Dade County and support the access to prosperity that transportation projects can provide. This interest in equity is shared on the Federal level. In 2021, Federal policy guidance was issued on equity. The TPO's plans and policies need to be in compliance with this guidance.

EQUITY AND THE 2021 FHWA AND FTA PLANNING EMPHASIS AREAS (PEAs)

The PEAs emphasize equity from both a Justice40 and Executive Order perspective. Justice40 encourages advancing racial equity and growth of underserved and disadvantaged communities. This will be accomplished by ensuring public involvement in the planning process and developing plans and strategies that reflect perspectives, concerns, and priorities from impacted areas.

Executive Order 13985 defines equity from a Federal viewpoint. Executive Order 14008 and M-21-28 provide a comprehensive approach to advancing environmental justice by allocating 40 percent of Federal investments to disadvantaged communities.

EQUITY AND THE BIPARTISAN INFRASTRUCTURE LAW (BIL)

The BIL provides funding to advance equitable public transportation planning and operations. The All Station Accessibility Program provides \$1.75 billion in competitive grant funding to update legacy rail fixed guideway systems to better accommodate people with disabilities. A greater Federal share is available for transportation planning activities in lower-density and lower-income portions of metropolitan areas and adjoining rural areas. Metropolitan planning organizations are encouraged to expand consideration of housing, including affordable housing, in the transit planning process. There is also increased funding to help states, transit agencies, and nonprofit organizations meet the transportation needs of older adults and people with disabilities.

HOW WAS THE EQUITY TOOL DEVELOPED?

- Federal guidance, technical research and eleven peer equity programs were evaluated.
- Potential disadvantaged community identifiers and equity performance measures were identified based on the research.
- Two 2045 LRTP Scenarios were selected for modeling and testing.
- An Excel based Equity Tool was developed.
- The two scenarios were loaded into the Equity tool, and the Equity Tool was run. The results were reported in an excel workbook format.
- A User Guide documented the equity tool development and its technical requirements so that it could be run in the future.

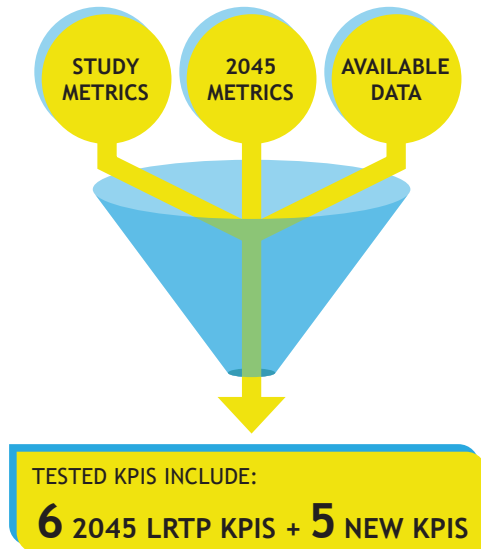


WHAT EQUITY METRICS WERE SELECTED FOR TESTING?

The equity metrics selected for testing include both 2045 LRTP metrics and metrics identified through study research, and take available data into account. Based on a comprehensive study review, new metrics were identified that analyze transportation system performance in terms of equity. The new metrics are: Person Hours Traveled, Person Miles Traveled, Transit Share and Commute Time.

TESTED INDICATORS

Vehicle Hours Traveled	2045 LRTP PERFORMANCE MEASURES (PMs)
Vehicle Miles Traveled (VMT)	
Peak Period Speed	
Lane Miles with V/C > 1.0	
Transit Trips	
Vehicle Trips	
Transit Share	NEW EQUITY METRICS (EMs)
Person Hours Traveled	
Person Miles Traveled	
Work Trip Length	
Commute Time	



KEY TAKEAWAYS

When the 2045 Beyond SMART and 2045 Cost Feasible scenarios were compared:

↓ COMMUTE TIME FOR ALL GROUPS

↓ VMT & PERSON HOURS TRAVELED FOR ALL INCOMES & AGES

↑ PERSON MILES TRAVELED FOR ALL INCOMES & AGES

↑ TRANSIT SHARE FOR THOSE EARNING UNDER \$25,000 PER YEAR

↑ TRANSIT SHARE FOR THOSE BETWEEN THE AGES OF 16 - 24

↑ ZERO CAR HOUSEHOLDS & PERSON MILES TRAVELED

↓ VMT ↑ PERSON MILES TRAVELED FOR PERSONS UNDER 150% OF FEDERAL POVERTY LEVEL