

Update of ARC's Performance Measures

Transportation Equity Advisory Group

August 14, 2017

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THE ATLANTA REGION'S PLAN



TRANSPORTATION

ORIGINAL ADOPTION: February 2016

LAST UPDATED: December 2017

Regional Transportation Plan - Performance Measures

EMPHASIS AREA	MEASURE DESCRIPTION	2015 BASE	2040 NO BUILD	2040 CONSTRAINED
Mobility	Average commute travel time (minutes)	Transit - 59 Automobile - 31	Transit - 59 Automobile - 35	Transit - 60 Automobile - 34
Connectivity/ Accessibility	Worker access to employment centers within 45 minutes by car (index)	2,498,191	2,851,150	2,926,892
	Worker access to employment centers within 45 minutes by transit (index)	653,757	808,987	881,857
	Average number of jobs within 45 minutes of home for typical person	799,794	779,490	821,113
	Total number of jobs within 45 minute transit ride from ETAs	1,632,177	2,111,068	2,210,072
Economic Growth	Total congestion cost per person	\$1,403	\$2,671	\$2,095
	Commercial vehicle delay cost per mile	\$39.78	\$78.81	\$60.80
	Number of daily reliable trips	392,701	537,620	1,417,916
	Number of transit trips in PM peak period (index)	118,112	152,429	174,184
	Number of transit trips from Equitable Target Areas (index)	190,846	222,171	282,484
	Highway VMT in PM peak period	46,685,214	62,387,096	63,812,102
	Average congested speed (MPH)	General Purpose - 46.5 Managed Lanes - 54.4	General Purpose - 46.5 Managed Lanes - 54.4	General Purpose - 46.5 Managed Lanes - 54.4
Safety	Percent of all regional crashes on RTP project corridors	-	-	25%
	Percent of RTP projects that intersect with above average crash rate facilities	-	-	86%

local relevance

+

regional impact



How the Atlanta Region's Plan (Transportation) contributes to Winning the Future



Average commute travel time in minutes by auto

TODAY = 31 minutes

2040 WITH NO INVESTMENTS = 35 minutes

2040 WITH PLAN = 33 minutes

WHY THIS IS IMPORTANT

With 2.4 million new residents by 2040, it will not be affordable or politically feasible to build enough roadway capacity to keep pace if the vast majority of work trips continue to be by a single occupant vehicle. Congestion will continue to get worse even under this plan as a result.



Access to job centers within 45 minutes by car

TODAY = 1.00 (baseline index)

2040 WITH NO INVESTMENTS = 1.07

2040 WITH PLAN = 1.19

About 2.4 million new residents are expected to call the Atlanta Region home by 2040. Even without transportation investments, it's expected that more employees would be within a 45 minute drive of job centers compared to today. With the plan's investments, however, more than 300,000 workers will be within this distance versus today.



Total congestion cost per person

TODAY = \$1,403

2040 WITH NO INVESTMENTS = \$2,671

2040 WITH PLAN = \$1,916

The amount of time and gas wasted while sitting in congestion will result in a typical commute that costs almost 50% more than if there were no traffic. This is a hidden tax that we all pay and is money taken directly out of our economy that could be used more productively.

PERFORMANCE

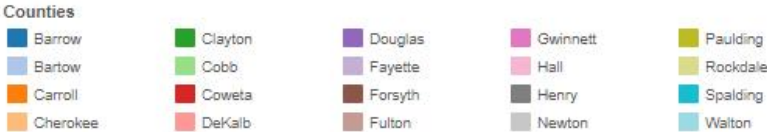
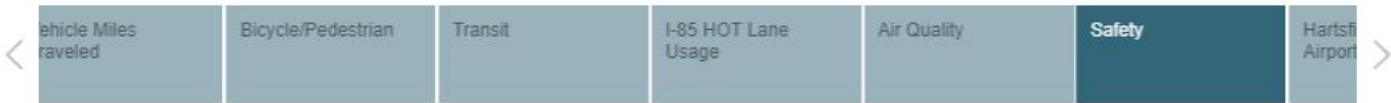
Where are we exceeding and where are we falling short?



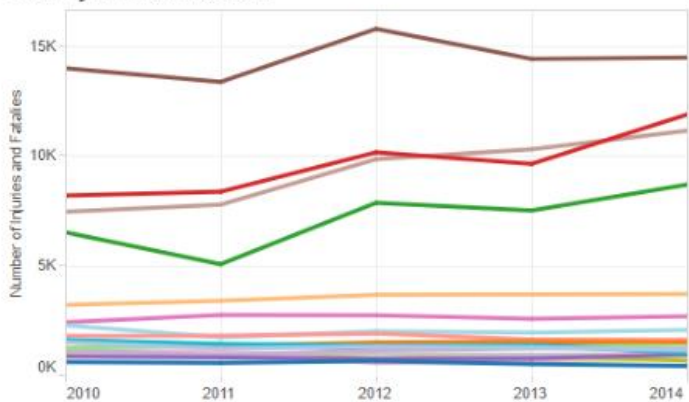
Infrastructure ▾ Community ▾ Economy ▾ Plan Documents ▾ About the Region ▾

Transportation Factbook

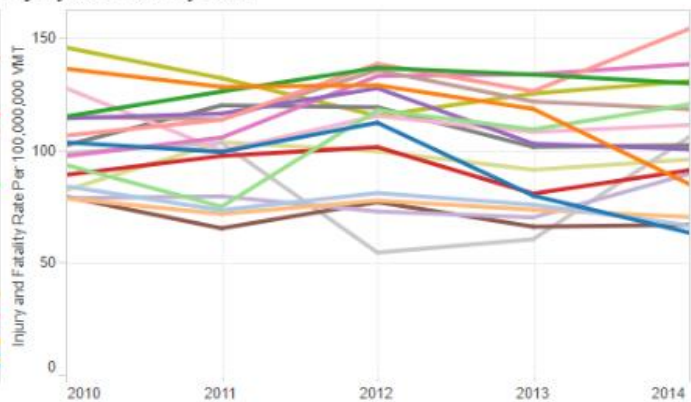
The Atlanta Regional Transportation Factbook is an interactive online resource that provides the most current data available about the Atlanta region's transportation system. This resource contains information about transportation usage and infrastructure as well as demographic data that provides a regional context. The information is updated on a regular basis as new data becomes available. Please **contact ARC** if you have any questions.



Total Injuries and Fatalities



Injury and Fatality Rate



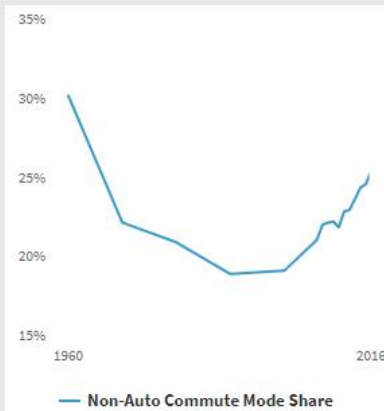
Where are we exceeding and where are we falling short?

- Data-driven portal that compiles a number of indicators, beyond the Factbook and RTP chart
 - Accessible website for agency staff, policy makers, advocates, citizens
 - Interactive visualizations
 - Explore historical trends
 - Examine intraregional differences
 - Share findings
 - **Track progress on key regional issues**
 - Continue to make informed TIP project selections

Explore trends. Visualize data.
Vital Signs takes the pulse of the Bay Area.

6% of Bay Area residents chose to work from home in 2016

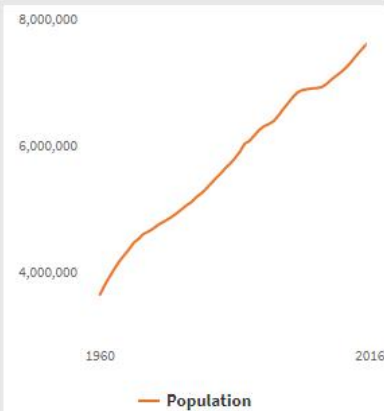
TRANSPORTATION
Commute Mode Choice



2016 6%

Continuing economic growth means drivers travel more miles on congested freeways.

LAND & PEOPLE
Population



2016 7,649,600

The region is continuing to witness steady but slow population growth.

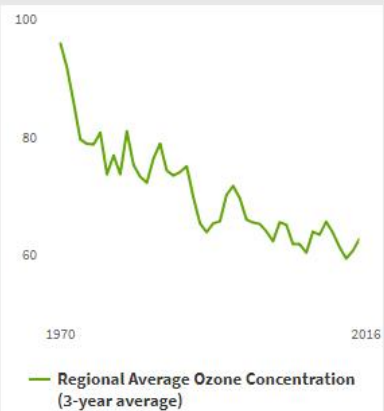
ECONOMY
Unemployment



2015 \$2,340

New renters are being impacted by list rents well above historical levels.

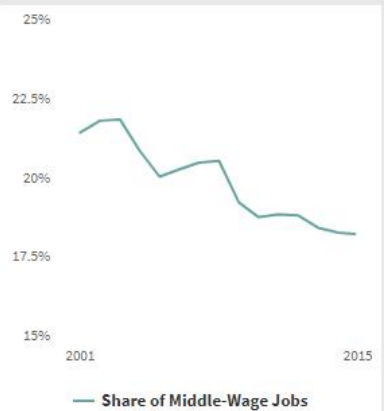
ENVIRONMENT
Ozone Concentrations



2015 370,000

The region's growing population puts more people at risk from future sea level rise.

EQUITY
Jobs by Wage Level



2015 24%

As economic conditions improve, fewer Bay Area households live in poverty.

As the region’s metropolitan planning organization, MTC sets short-range performance targets to support national transportation goals. Review the Bay Area’s federal performance targets and its progress towards meeting targets for safety, infrastructure, reliability, freight, congestion, and the environment below.

National Goal Area

All

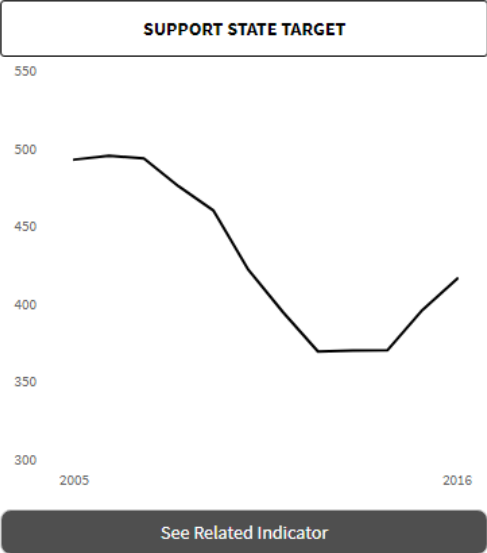
Status

All

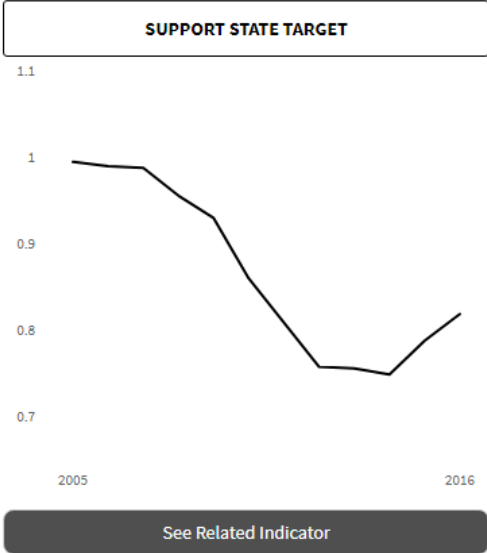
Safety

To achieve a significant reduction in fatalities and serious injuries on all public roads and public transportation systems.

Number of Fatalities



Fatalities per VMT



What performance do you want to measure?

What questions do you want to track and share?

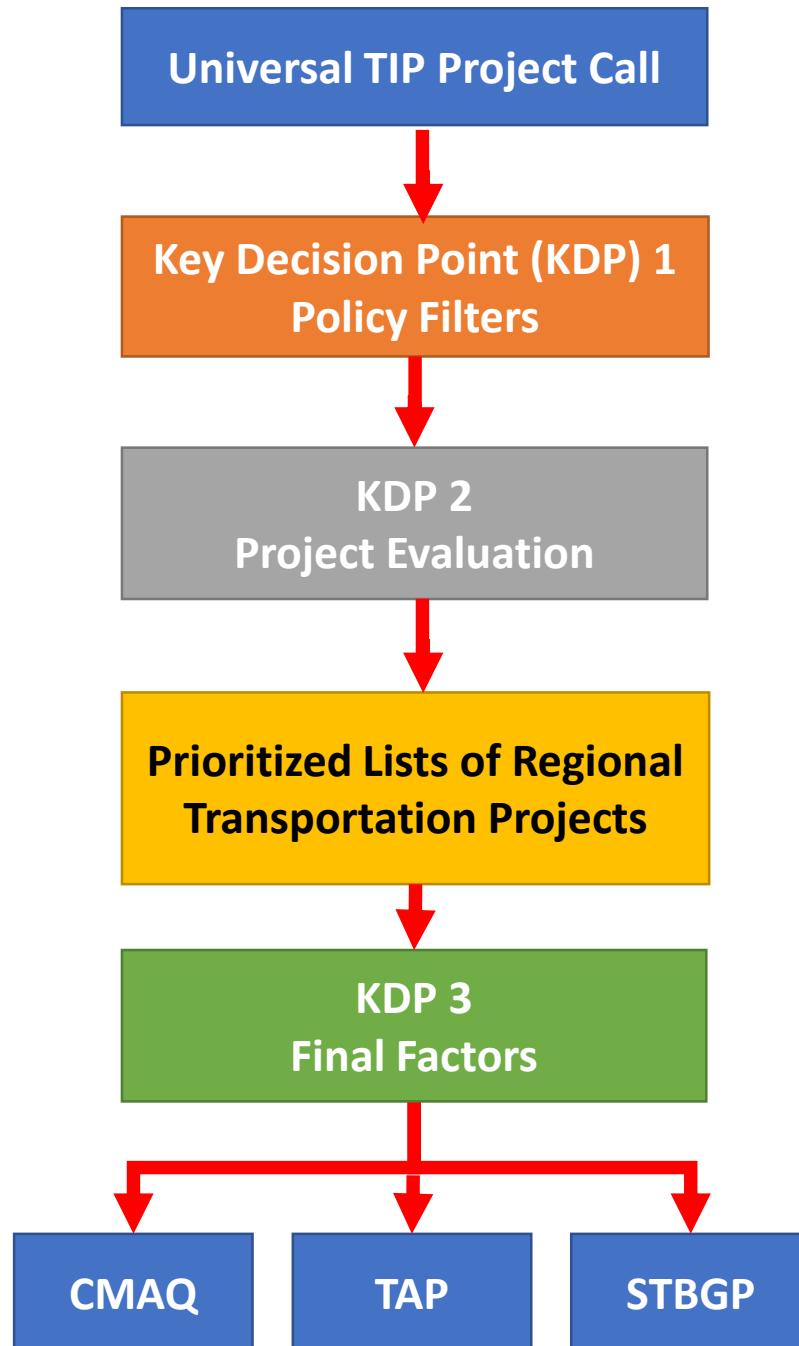
We are not limited to the RTP chart categories

- Equity:
 - Travel time savings for mobility-poor people
 - Access to essential services and amenities (not just jobs) for ETAs or by income group
 - Extent to which ETAs shoulder greatest unreliability, congestion cost, congestion speed, transfer rates
 - Percent of survey responses from ETAs
 - Transportation and housing costs as a percent of income
- Health and Safety:
 - Percent of projects that incorporate proven safety countermeasures
 - Percent of high-risk roadway network within ETAs
 - Carbon intensity in ETAs
- Environment:
 - Acreage of sensitive lands (parks, habitats, watershed protection areas) on which new transportation infrastructure is built
 - Percent of downtown area dedicated to parking

Revisions to ARC's Project Evaluation Framework

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Project Evaluation Flowchart



KDP2 - Weights

	Criteria	Bike/Ped/Trail	Roadway Asset	Roadway Expansion	Transit	Transit Asset
			Management	& TSM&O	Expansion	Management
	Asset Management & Resiliency	-	14.9 %	-	-	22.0 % / 19.2 %
	Mobility & Congestion	13.7 %	13.8 %	13.0 %	13.5 %	-
→	Safety	14.5 %	14.4 %	13.4 %	8.5 %	22.0 % / 19.2 %
→	Network Connectivity	14.4 %	12.9 %	12.4 %	13.5 %	-
+	Reliability	-	-	12.1 %	12.0 %	-
→	Multimodalism	12.6 %	11.8 %	11.3 %	10.2 %	-
→	Employment Accessibility	10.4 %	10.2 %	10.3 %	11.6 %	24.3 % / 21.2 %
	Land Use Compatibility	11.5 %	-	-	10.5 %	-
→	Social Equity	9.7 %	8.3 %	7.0 %	9.5 %	20.8 % / 18.2 %
→	Air Quality & Climate Change	6.3 %	-	7.3 %	6.5 %	0.0 % / 12.6 %
	Goods Movement	-	8.1 %	7.8 %	-	-
	Cultural & Environmental Sensitivity	6.8 %	5.5 %	5.3 %	4.1 %	11.0 % / 9.6 %

Outcomes

Transit

Transit 1

Transit 2

Transit 3

Trail

Trail 1

Trail 2

Trail 3

Roadway

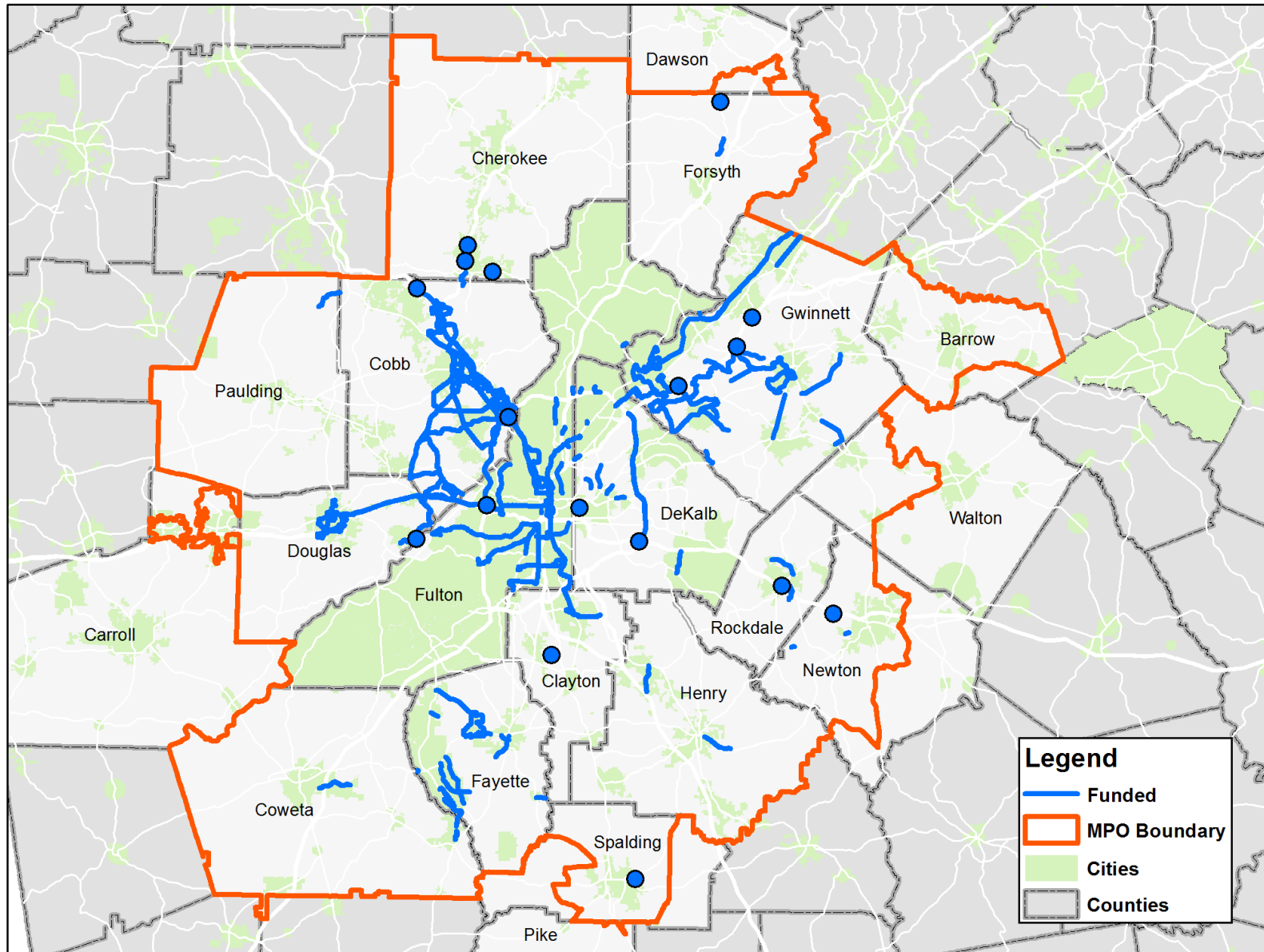
Roadway 1

Roadway 2

Roadway 3

- Technical analysis of the performance of all submitted projects
- Projects are compared against similar projects to produce lists of the best projects by type
- Used to help inform decision-making, not supplant it

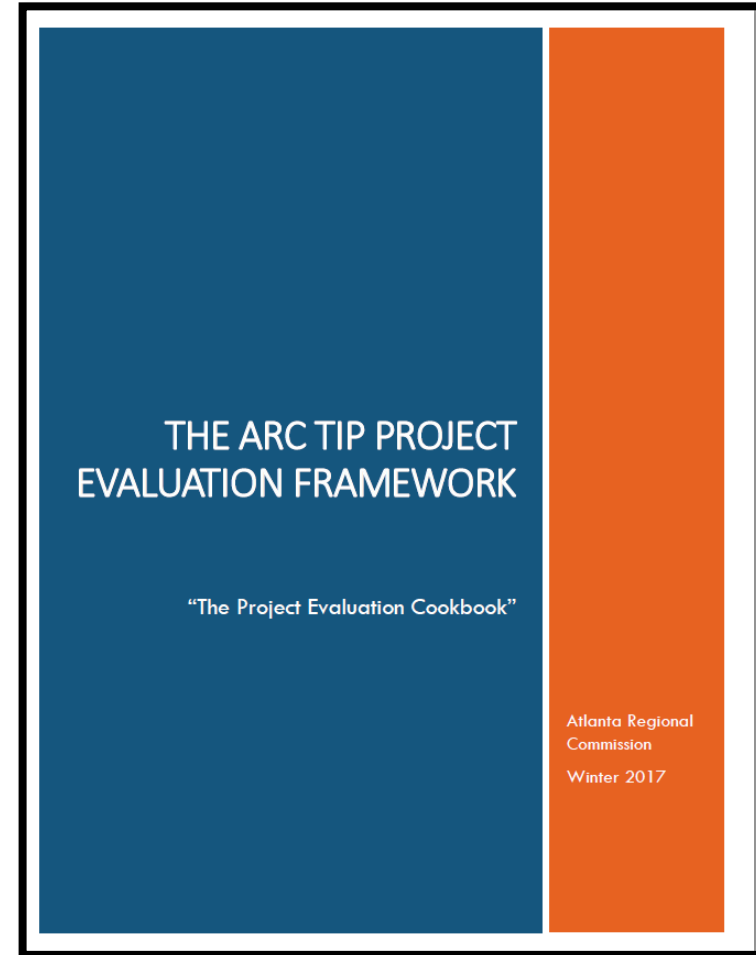
2017 TIP Solicitation Evaluation



- The selected bike, ped, trail and transit projects **reduce annual VMT by 96,307,730 miles**
- The selected projects **reduce annual VHD by 7,688,019 hours**
- **Tailpipe emissions are decreased by 19,900 tons per year**
- **52% of awarded funding serves an Equitable Target Area (ETA) community**
- By 2040, the selected transit projects support an **extra 39,000 boardings**

TIP Project Evaluation Documentation

- Guide to the TIP Project Solicitation
- Documents the decisions made by the TIP Prioritization Taskforce
- Outlines how ARC technically evaluates projects, and includes a list of measures and metrics
- Meant to be a companion document to the TIP application



<http://www.atlantaregional.org/tipsolicitation>

Revisions

- Major Revisions
 - Working on incorporating climate and extreme weather resilience into framework through vulnerable and critical resources
 - Merging Bike & Ped project types
 - Working on a scoring scheme for studies
- Smaller changes in handout to address line-item issues

Social Equity Criterion

- Existing Measure:

Measure	Metric	Nature of Metric	Sponsor Provided
Addressing Social Equity	Does project serve an ETA community?	Written; sponsor provides an assessment of how developing the project will support ETA areas.	Yes; with supplemental ARC assessment of ETA areas

- How it's Scored:

- ARC staff reads reply and then determines if the project serves an ETA need and is located within or passes through an ETA community as indicated in ARC's last ETA map
- If the answer to both questions is "Yes" the project received full credit

Social Equity Criterion

- Thoughts on Revision:
 - Use the range of ETA scores to provide relative scores instead of absolute 0 or 100 values
 - For example:

ETA Area	Score
High	100
Medium-High	75
Medium-Low	50
Low	25
Not an ETA	0

Social Equity Criterion

- Thoughts on Revision:
 - Incorporate access to jobs for ETA workers as a measure for transit projects:

Measure	Metric	Nature of Metric	Sponsor Provided	Percent of Criterion Score
Addressing Social Equity	1) Addressing Social Equity	Does project serve an ETA community?	Written; sponsor provides an assessment of how developing the project will support ETA areas.	X%
	2) Indexed change in the number of ETA workers that can access Regional Employment Centers during peak periods.	Numerical	No	Y%