# Measuring Cost Effectiveness in TIP Project Selection

## February 6, 2020

## Matt Genova

### Transportation Improvement Program Manager

**Boston Region Metropolitan Planning Organization**

# Topics for Discussion Today

- **Key takeaways from Transportation for America's January 23, 2020, presentation**

- **Cost effectiveness and the project selection process**

- **Discussion**

# Key Takeaways from Transportation for America

# Key Takeaways: Virginia DOT SmartScale

**Approach:**

- **Divides project benefit score by cost and ranks projects**
- **Uses cost-effectiveness as key decision-making tool**

# Key Takeaways: Virginia DOT SmartScale

**Approach:**
- **Divides project benefit score by cost and ranks projects**
- **Uses cost-effectiveness as key decision-making tool**

**Results:**
- **VA programs a larger number of smaller-scale projects**
- **Promotes value engineering**
- **Re-scoring keeps project costs stable**

# Key Takeaways: Atlanta-Region Transit Link Authority

**Approach:**

- Divides project benefit score by cost and separates into tiers by project type
- Focus on programming Tier 1 (low cost/high benefit) and Tier 2 (low cost/benefit, high cost/benefit) projects

# Key Takeaways: Atlanta-Region Transit Link Authority

**Approach:**

- Divides project benefit score by cost and separates into tiers by project type
- Focus on programming Tier 1 (low cost/high benefit) and Tier 2 (low cost/benefit, high cost/benefit) projects

**Results:**

- Compares like projects, but illustrates overall value
- Program all project types

# Key Takeaways: Metropolitan Transportation Commission

## Approach:

- Divides project benefit score by cost and ranks for inclusion in Plan Bay Area 2040
- Focus on programming projects with cost-effectiveness scores greater than 1 <u>and</u> that help meet performance targets

# Key Takeaways: Metropolitan Transportation Commission

**Approach:**

- **Divides project benefit score by cost and ranks for inclusion in Plan Bay Area 2040**
- **Focus on programming projects with cost-effectiveness scores greater than 1 <u>and</u> that help meet performance targets**

**Results:**

- **Produced ranking of all transit projects**
- **Allowed project sponsors to make "compelling case" for inclusion if score <1, including ability to re-scope**

# Key Takeaways: General

- **There's not one correct strategy for using cost-effectiveness in project evaluations**

- **A transparent, consistent process generates buy in from stakeholders**

- **Comparing benefits to costs works best when benefits are measured in a scaled way**

# Cost Effectiveness and the Project Selection Process

# Phases of TIP Project Selection

## Policy Factors

- Eligibility for federal funding

- Approval by MassDOT Project Review Committee

- Design status (at or near 25 percent)

- Alignment with LRTP program types

- Support from a public proponent (such as a municipality, transit agency, or MassDOT)

## Project Scoring

- Criteria based on MPO goal areas

- Criteria are tailored to MPO investment programs (future)

## Final Factors

- Availability of Regional Target funds

- Readiness

- Regional distribution of funds

- Public feedback

- Relationship to regional needs and performance measures

Framework adapted from the Atlanta Regional Commission.

# Phases of TIP Project Selection

## Policy Factors

- Eligibility for federal funding
- Approval by MassDOT Project Review Committee
- Design status (at or near 25 percent)
- Alignment with LRTP program types
- Support from a public proponent (such as a municipality, transit agency, or MassDOT)

## Project Scoring

- Criteria based on MPO goal areas
- Criteria are tailored to MPO investment programs (future)

## Final Factors

- Availability of Regional Target funds
- Readiness
- Regional distribution of funds
- Public feedback
- Relationship to regional needs and performance measures
- Cost effectiveness (potential)

Framework adapted from the Atlanta Regional Commission.

# Discussion

# Questions for Discussion

## Project Programming

- What elements of these approaches would be helpful to you in making project selection decisions?

- What elements concern you?

## Project Monitoring

- Should we consider re-scoring projects with cost changes above a certain threshold?

## General

- What are the biggest barriers to implementing a cost-effectiveness approach in project decision making?

- What questions or issues do you want staff to explore further?