Measuring Cost Effectiveness in TIP Project Selection

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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 and 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 and 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

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**Project Scoring**
- Criteria based on MPO goal areas
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**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?