COUNTYWIDE PLANNING AND DEVELOPMENT

Metro Cost Benefit Analysis and Methodology

2025-0543

Planning and Programming Committee
Construction Committee
July 16, 2025

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Metro Cost Benefit Analysis (CBA) Methodology

Recommendation:

ADOPT the recommended Metro Cost Benefit Analysis Methodology

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Weighted Goals and Objectives, Project Costs

(Subject to additional validation and sensitivity analysis)

Mobility and Accessibility (40%)
- Primary benefit area focusing on travel time savings across different user groups and transportation modes
- Reliability, congestion reduction, and connectivity to jobs, housing, and opportunities

Safety and Health Benefits (15%)
- Reductions in transportation system risks across multiple modes
- Improved access to safe active transportation infrastructure and health care facilities

Environmental Sustainability (15%)
- Greenhouse gas emissions reductions, criteria pollutants, urban heat island effects, and biological impacts
- Aligns with SB 375 targets and Metro's climate goals

Long-Term Operational Sustainability (15%)
- New category addressing fiscal decisions ensuring continuity in infrastructure and service delivery
- Operational benefits, system productivity, funding sufficiency for operations and maintenance

Economic Benefits to the Region (15%)
- Regional economic output despite federal funding exclusions
- Job creation analysis, productivity improvements, and sales tax revenue potential

Costs to include (based on level of project design)
- Capital costs
- Operations and maintenance
- State of good repair

June 2025 Staff Presentation and Committee Discussions

- ❑ Adequacy of weights for priority goals (i.e., economic output, safety)
  - *Weighted goals are subject to validation and sensitivity testing to determine how weights affect projects' total performance*

- ❑ Inclusion of other goals, such as addressing homelessness and housing, and improving security and personal safety of our customers
  - *Quantitative measures of project contributions to these goals is infeasible, but qualitative information will be presented as part of the Project Profile*

- ❑ When should CBA be conducted
  - *Strategic milestone decisions in project development considering benefits relative to cost (e.g, alternatives analysis, selection of Locally Preferred Alternative, project approval, etc.)*

- ❑ How CBAs will be used to support the Decennial Review process
  - *Evaluations presented will provide information about projects' benefits related to their costs, and are not to be used in comparing projects against each other*

- ❑ Potential liability in developing a Metro CBA that may be used to challenge a CEQA/NEPA environmental assessment
  - *CBAs are used in other agencies and across the industry in addition to environmental analyses*

Strengths and Limitations of Cost Benefit Analysis

- Provides an analysis of benefits relative to costs over time
  - Net Present Value (NPV), Return on Investment (ROI), Benefit Cost Ratio (BCR), Payback Period, Internal Rate of Return (IRR)
- Not all benefits or costs are quantifiable or easily monetized
- Project Profiles to include both quantitative and qualitative assessments relative to cost
- Unsuitable for comparing projects of different modes, sizes, types
- Effective for evaluating value of a project across its project development cycle
- Analysis can be data intensive and complex
- Will start with existing state and federal guidance, and build upon existing work

Next Steps

- Apply Metro CBA to projects as they reach critical milestones
- Conduct sensitivity testing and validate the analyses
- Continue to refine the CBA methodology as a continuously evolving tool

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