Preparing a Benefit-Cost Analysis for a Rural TIGER Grant Application

Presented by the Office of the Assistant Secretary for Transportation Policy

United States Department of Transportation

August 31, 2011
• $527 million multimodal, merit-based competitive grant program
• $140 million for rural areas
• Up to $150 million for TIFIA payments
• Last round the average award was $13.25 million
• Geographic diversity requirement
Why Benefit-Cost Analysis (BCA)?

- President’s commitment to data-driven decision-making
- Requirement from TIGER I and II
  - No funding for projects for which \( C > B \)
- Value of BCA in project selection
  - BCA quality matters more than size of the B/C ratio
  - Focus your analysis on how it demonstrates need for your project
BCAs for Rural Projects

• Rural projects are usually smaller
  – Sophisticated statistical analysis and ridership forecasts may not be cost-effective

• A transparent, reproducible, thoughtful and reasonable BCA is possible for all projects

• No Applicant is exempt from BCA requirement

• General and more detailed BCA webinars are available
EIA vs BCA

• Economic Impact Analysis (EIA) focuses on local benefits – **this is not a BCA**
  – Ignores costs to other localities
  – Includes transfer payments as “impacts”
    • Payrolls, tax revenues, real estate investments

• BCA focuses on national benefits (including local)
  – Nets out costs to other areas
  – Includes only productivity increases resulting from job creation, increases in property values
Basic Requirements

• Project Summary
• Monetized estimates of benefits & costs
  – Year-by-year stream of benefits and costs
  – Discounted to present value (3% & 7%)
• Replicable methodology
• Demonstrate Independent Utility
• Appendix A of 8/12/11 Federal Register NOFA provides guidance
Rural Ridership

• Most benefits for any project are driven by ridership ("usership") estimates
  – Provide reasonable, multi-year forecast estimates

• Rural projects generally have lower ridership
  – Emphasize commitments by industry to expand operations if transportation facilities are improved

• Sophisticated forecasts may not be possible
  – Do what you can (e.g. sample count of usership at peak/off-peak hours with reasonably projected growth)
  – Emphasize recent increases in traffic (or increases in traffic that can confidently be forecast) that current facilities cannot accommodate.
Benefits

• Livability
• Economic Competitiveness
• Safety
• State of Good Repair
• Sustainability

Which benefits apply to your project?
Costs

• Provide costs from all sources (local, State, other Federal grants, private)
• Direct capital costs: construction, design, land acquisition
• Beyond capital costs
  – O&M, rehabilitation, life-cycle costs
  – External costs: noise, congestion, pollutants
  – Cost to users during project construction: increased delay, vehicle operating costs
• Costs of whole project should be compared with benefits of whole project (no “leveraging”)
  – Or, if TIGER funds only a part of a project, you can compare costs and benefits for TIGER-funded portion only
  – But only if that portion has independent utility
BCA Ratings

• BCAs are reviewed and rated by BCA Review team for **quality**:
  – Very Useful  – Marginally Useful
  – Useful  – Not Useful

• …and for **net benefits**
  – Benefits > Costs
  – Benefits < Costs
  – Uncertain
Lessons Learned

• **ALWAYS** document and provide reliable sources for data and calculations
  – If a number does not have a source or reproducible calculation, explain how you got it

• Be **realistic** in assumptions and estimates

• **Quantify** where you can, **Qualify** where you can’t
  – Every project has difficult-to-measure benefits & costs
  – A good qualitative analysis helps supplement understanding of the project BCA
Lessons Learned (cont’d)

• Emphasize what your area lacks and is taken for granted in more urban areas
  – e.g. sidewalks, shoulders, pavement, basic transit service

• **Prioritize** your projects
  – Focus on one or two projects where benefit/cost arguments are most compelling

• Consider the viewpoint of objective reviewers
  – Are estimates plausible and reasonable?

• Focus on overall evaluative process, **not** just B/C ratio
Notable TIGER Rural BCAs

- **Staples North/South Corridor with Railroad Overpass Project** (Staples, MN)
- **East Foster Wells Road Extension – Phase 2** (Franklin County, WA)
- **Woodside Boulevard Complete Streets Initiative** (Hailey, ID)
- **Southwest Oregon Freight Rail Revitalization Project – Rail Line Rehabilitation** (Coos Bay, OR)
BCA Resources

• August 12, 2011: Federal Register NOFA – Appendix A: Additional Information on Benefit-Cost Analysis

• August 17, 2011: TIGER Benefit/Cost Analysis Special Topics Webinar

• 2010 archived webcast for Benefit/Cost Analysis for Transportation Infrastructure: A Practitioner’s Workshop

• General inquiries about BCA to TIGERGrants@dot.gov before October 31, 2011
Additional Application Help

TIGER Website: [www.dot.gov/tiger/](http://www.dot.gov/tiger/)

Special Topics Webinars

- **August 22\(^{nd}\)**  Project Readiness/NEPA
- **August 24\(^{th}\)**  Public Private Partnerships & TIFIA
- **August 30\(^{th}\)**  MARAD Port Outreach

Archived Webinars

- **July 18\(^{th}\)**  How to Compete for TIGER
- **July 27\(^{th}\)**  “Talking Freight”
Parting Words...

• BCA is an opportunity to objectively demonstrate the need for your project
  – Highlight benefits that are well-documented and align well with program’s selection criteria

• Document, document, document

• Be realistic in your assumptions and estimates
  – Don’t forget about true costs of the project

• It is possible to produce a quality BCA no matter what the size of your project