2018 Competitive Highway Bridge Program

Benefit-Cost Analysis for Bridge Projects
Benefit-Cost Analysis Resources

USDOT Benefit-Cost Analysis Guidance for Discretionary Grant Programs

2018 BUILD Grant Program BCA Webinars (recorded)
https://www.transportation.gov/BUILDgrants/outreach
Key Considerations for Highway Bridge BCAs

• Baselines
• Functional Issues
• Operations and Maintenance
• Posting and Detours
• Bundled Bridges
Functional Issues

- Impacts on user costs often similar to other highway improvements
  - Travel speeds
  - Vehicle operating costs
  - Safety performance

- May be due to capacity constraints, alignment deficiencies, etc.
Baselines

• What would happen in the absence of the proposed improvement
• Bridges
  • Increased user costs (functional)
  • Increasing operations and maintenance costs (structural)
  • Load posting or closure (structural)
• Should not assume the same (or more aggressive) improvement at a later date in the baseline
• Benefits are calculated as differences between the “build” case and the baseline
Operations and Maintenance

• Aging, deficient bridges may require increasing operations and maintenance expenditures to remain in service

• May include user cost impacts from temporary partial or full closures during maintenance activities
Posting and Detours

• Deficient bridges may eventually require load posting or full closure if rehabilitation or replacement needs are left unaddressed
• Can cause significant increases in user costs due to detours
• Would need info on
  • Traffic levels and mix
  • Detour lengths
  • Expected posting or closure dates under no-build baseline
• Assumptions should be consistent with NBI detour and conditions data (or explain why not)
Bundled Bridges

• Include NBI bridge identifier for each bridge
• Report results for each bridge individually as well as totaling up benefits and costs for overall project
• Present results for all bridges in a common spreadsheet if at all possible
Contact Information

Competitive Highway Bridge Program
CHBPgrant@dot.gov

Darren Timothy
Chief Economist, USDOT
darren.timothy@dot.gov

Ross Crichton
Investment & Economic Analysis Team Leader, FHWA
ross.crichton@dot.gov