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Regional Solicitation Before-and-After Study

TAB



Today's Talking Points

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- Peer Review
- Study Results
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- Discussion

Study Team

SRF Consulting Group, Inc. and Hoisington Koegler Group, Inc.



Marie Cote, PE | Project Principal/Manager | SRF



Lance Bernard | Deputy Project Manager | HKGi

Study Purpose

The purpose of this study is to document the regional benefits achieved through the Regional Solicitation and Highway Safety Improvement Program (HSIP) solicitations. This will be achieved by using a performance-based approach that evaluates the “before-and-after” conditions associated with a built project.

Study Process

- Peer review other Metropolitan Planning Organizations (MPOs)
- Determine the “before-and-after” conditions for built projects that have received funds dating back to 2007:
 - 45 +/- Roadway Projects
 - 25 +/- Transit Projects
 - 40 +/- Ped/Bike Projects
 - 30 +/- HSIP Projects
- Document the cumulative benefits
- Use a performance-based approach to document the benefits

Peer Review

Peer Review

Findings from this effort are intended to spark conversations about future policy decisions regarding the Metropolitan Council's Regional Solicitation process.

Peer Review

1. North Carolina Capital Area Metropolitan Planning Organization (NC CAMPO): Raleigh, NC
2. Denver Regional Council of Governments (DRCOG): Denver, CO
3. Metro Portland: Portland, OR
4. Metropolitan Transportation Commission (MTC): San Francisco, CA
5. Southeast Michigan Council of Governments (SEMCOG): Detroit, MI
6. New York Metropolitan Transportation Commission (NYMTC): New York City, NY
7. North Central Texas Council of Governments (NCTCOG): Dallas, TX
8. East-West Gateway Council of Governments (EWG COG): St. Louis, MO
9. Baltimore Metropolitan Council (BALTOMETRO): Baltimore, MD
10. Puget Sound Regional Council (PSRC): Seattle, WA

Peer Review – Key Findings

9 out of the 10 MPOs do not cap the amount of money being requested.



MPOs are programming/funding larger-scaled projects that achieve a larger regional benefit.

Peer Review – Key Findings

- **Long-Range Transportation Plan Approach:** In this approach, a larger emphasis is placed on projects that have been identified in the MPO's long-range transportation plans. In most cases, these plans have gone through an extensive process to determine regional needs based on a number of factors (e.g., congestion, safety, and multimodal goals).
- **Geographical Distribution Approach:** Several MPOs use a funding formula that allocates federal transportation funds to sub-regions or priority areas. In general, the sub-regions are responsible for developing a list of priority projects for consideration.
- **Traditional Approach:** Portland and Baltimore use a “call for proposals” process similar to the Metropolitan Council's process. Projects that are selected for funding are still closely linked to regional goals and priorities identified in their regional policy plans or long-range transportation plans.

Before & After Study

Findings will help address the study objectives:

- Review existing and proposed conditions at the time of the application submittal and compare post construction conditions to determine if the region received the level of benefits identified in the project application.
- Identify if there are specific types of projects that resulted in the highest level of safety or delay benefits per dollar invested.
- Determine if there are any scoring measure modifications or lessons learned for future solicitations.
- Identify how the Regional Solicitation and HSIP prioritization criteria can better align with new federal performance targets.

Before & After Study (Summary of Findings)

1. HSIP Safety – Items of Note

- 2007 and 2009 Findings (20 projects)
- **With these investments, crash severity has been reduced.**
 - 100 percent reduction in fatal crashes (five to zero)
 - 97 percent reduction in A injury crashes (30 down to one)
 - 68 percent reduction in B injury crashes (85 down to 27)
 - 69 percent reduction in C injury crashes (144 down to 45)

2. Roadway Congestion

- The congestion benefits in this evaluation were determined by conducting a Synchro analysis for no build (without improvement) and build (with improvement) conditions using current peak hour volumes.
- StreetLight data was sampled for its effectiveness in measuring before and after conditions.
- The 2014 Regional Solicitation application has established a new method that can be used to evaluate post construction conditions.
- **With the Regional Solicitation investments, roadway delays have been constant or reduced.**

3. Roadway Safety

- The safety benefits in this evaluation were determined by comparing the crash analysis and before condition in the application with current Minnesota Crash Mapping Analysis Tool (MnCMAT) data.
- The 2014 Regional Solicitation application established a new method for the safety measure that required the applicant to utilize the HSIP application B/C worksheet. This provides clear direction with a specific FHWA resource for crash modification factors that can be used to evaluate post construction conditions.
- **With the Regional Solicitation investments in 2007, 2009 and 2011, safety benefits were achieved.**

4. Transit

- Contacted transit providers to determine the total number of new riders.
- 1.5 million new riders (16 projects)
- This does not include new ridership associated with the Green Line or Blue Line.

5. Bike/Pedestrian Safety

- Utilized crash data provided by MnDOT for the years 2007 through 2017.
- The annual reduction was determined by calculating the average number of crashes that occurred before and after the project was built.
- **The methodology is qualitative in nature**
- The number of pedestrian and bicycle crashes has been reduced within a quarter-mile buffer of the built projects:
 - Annual reduction of 18 pedestrian and bicycle crashes.

6. Regional Bicycle Transportation Network (RBTN)

- Evaluated all projects programmed or funded.
- Approximately 73 miles of bikeway facilities have been built or programmed. 55 miles have contributed to the RBTN.
- The roadway expansion and reconstruction projects have helped build 19 miles of bikeway facilities. Approximately seven miles were part of the RBTN.
- **Overall, the projects have contributed 62 bikeway miles to the RBTN network or 4% of the overall RBTN (existing and planned - 1,453 miles).**

7. Bike/Pedestrian Connections

- Direct and indirect connections have been made to the following areas:
 - Major job or activity centers (20/58 projects or 34%)
 - Areas of concentrated poverty greater than 50 percent residents of color (10/58 projects or 17%)
 - Areas of concentrated poverty (15/58 projects or 26%)
 - Areas above the regional average for populations in poverty or populations of color (20/58 projects or 34%)

Recommendations

- Discuss the Peer Review findings and if any new approaches to the Regional Solicitation funding cycle should be considered.
- Share the “Good News” (e.g., safety benefits, RBTN, and transit ridership).
- Monitor 2014 Regional Solicitation projects to determine their benefits.
- Discuss minor modifications or better guidance for the Regional Solicitation and/or HSIP applications.
- Address data needs/gaps:
 - StreetLight Data (Origin/Destination and Speed Data)
 - RBTN Network
 - Pedestrian/Bicycle Volumes
 - Construction/Built Dates

Discussion