

Mobility Performance Measures

Development of an Operations Evaluation Tool for Florida

Purpose

Federal Highway Administration (FHWA) has developed a methodology for assessing the benefits of operations projects and for producing a benefit/cost (B/C) ratio for these projects. The operations B/C decision-support tool, called the Tool for Operations Benefit/Cost (TOPS-BC), was developed for this purpose. This spreadsheet-based tool is designed to assist practitioners in conducting benefit/cost analysis. Florida DOT desires to adapt the TOPS-BC tool for use in Florida by identifying and tailoring inputs specific to Florida. This project evaluated the tool and recommended how the tool should be used in Florida.

Results

This effort involved defining the input data needed to execute TOPS-BC. The TOPS-BC spreadsheets were thoroughly reviewed, and all parameters used as inputs to the TOPS-BC calculations were identified, including 22 cost-data items and 61 benefit data items.

Matrices were created to identify data items that required Florida specific input data, as well as data items for which it was appropriate to use national default data. These matrices also noted FDOT contact persons for each cost and benefit data item. The TOPS-BC tool was tested on Florida Interstates, resulting in the development of a Florida DOT TOPS-BC Guidebook and revised Florida specific TOPS-BC spreadsheets.

Applicability to Mobility Performance Measures Program and FDOT

The project successfully documented potential applications for TOPS-BC in Florida and step-by-step instructions for inputting data into the TOPS-BC spreadsheets. The two case studies verified that using local input data can yield reasonable analysis results. The Florida TOPS-BC Guidebook provides user tips for setting up TOPS-BC applications.

Next Steps

Multiple cost-benefit tools are in development at the national level, and some of these tools are being considered for use by FDOT. A workshop to evaluate the various cost-benefit tools will be organized. In addition, the attributes of the Florida DOT TOPS-BC tool will be presented through FDOT training efforts.

