FY 2018-2021 Transportation Improvement Program (TIP)
Investment Evaluation Methodology
Surface Transportation Program - Suballocated Funds

INTRODUCTION

Investments submitted for inclusion in the Transportation Improvement Program (TIP) will be evaluated in each of the six Project Priority Areas (Figure 1) based on the principles and framework identified in the region's Long Range Transportation Plan, *Connected2045*, and scored according to how well the improvement addresses those areas. Performance measures applicable to each priority area were identified through *Connected2045* and refined for incorporation in the evaluation of the improvements submitted for TIP consideration.

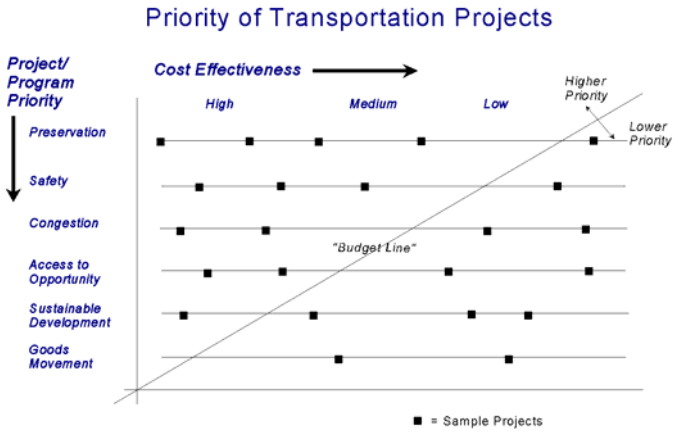

Figure 1

Performance measures are indicators of a submitted improvement's magnitude of need. These indicators along with a determination of cost effectiveness are used to select investments for inclusion in the TIP. The project evaluation framework utilized for the selection of TIP investments is described below.

STEP 1 – INVESTMENT EFFECTIVENESS

The effectiveness rating for an investment is influenced by: how well a project addresses the six priority areas (provided through the project application), the utilization of the facility being improved, the type of improvement proposed, project justification (how the project addresses a perceived need), etc. A seven-part scoring method is used to assign the ***investment effectiveness*** rating.

Part 1 (Project Points) - Each project is evaluated to determine its effectiveness in each of the priority areas based on information given by each applicant. A score of 0 to 5 points is assigned for every priority area.

Part 2 (Priority Area Weighting) - The weighting scheme was developed to reflect the importance of the priority areas: Preservation - 6, Safety - 4, Congestion - 3, Access to Opportunity - 3, Sustainable Development - 2, Goods Movement - 2.

Part 3 (Weighted Subscore) - This number is the result of multiplying the **project points** by the **priority area weighting** factor for each priority area.

Part 4 (Focus Area Weighting) - A weighting factor of 4 is assigned to the primary priority area while the other areas receive a factor of 1. For the primary priority area, the score is determined by multiplying the weighted subscore from Part 3 by the focus area weight of 4. The scores for the remaining five priority areas are determined by multiplying the weighted subscore by the focus area weight of 1.

Part 5 (Priority Area Score) - This number is the sum of each of the priority area scores from Part 4.

Part 6 (Additional Points) - Each project can earn additional points for project usage.

Usage – Points for local match are determined as follows:

Person Miles Traveled (PMT)	**Additional Points**
0-1,999	0
2,000-3,999	10
4,000-5,999	20
6,000-7,999	30
. . .	. . .
≥24,000	120

A weight is then applied to PMT based on facility type (functional classification). The weight is only applied to projects with preservation as priority area. Otherwise the weight is 1.0.

Facility Type	**Weight**
Principal Arterial	1.5
Minor Arterial	1.25
Collector/Local Road	1.0

PMT = ADT *project length*Avg. Vehicle Occupancy Rate
Total Additional Points = PMT * Facility Weight

Part 7 (Total Score) - The total score is determined by adding the final priority area score from Part 5 to the additional points the project earns.

The following table represents the maximum total possible points available in the application scoring process. The example below if for a project with a preservation as the primary priority area. Projects with other primary priority areas can only get up to 120 max add'l points.

Priority Area	*Possible Points*	*Priority Weighting*	*Weighted Subscore*	*Focus Weighting*	*Priority Area Score*	*Max. Add'l Points*	*Max. Total Points*
Preservation	5	6	30	4	120		
Safety	5	4	20	1	20		
Congestion	5	3	15	1	15		
Access to Opportunity	5	3	15	1	15		
Sustainable Development	5	2	10	1	10		
Goods Movement	5	2	10	1	10		
TOTAL PTS			**100**		**190**	**180**	**470**

STEP 2 – COST EFFECTIVENESS

The investment's ***cost effectiveness*** is calculated using a formula that uses the inputs described in STEP 1 and the annualized cost. The annualized cost takes into account the useful project life, capital recovery factor (7%) and the federal funds being requested.

$$\text{cost effectiveness} = \frac{\text{annualized federal cost (MO) or annualized total const cost (IL)}}{\text{total points}}$$

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