Performance Measurement Guidance for the RAISE Discretionary Grant Program

Background

As noted in the RAISE Notice of Funding Opportunity Section F, each capital grant recipient must collect and report to the USDOT information on the project's performance based on measures the USDOT identifies related to program objectives. The program objectives are to produce a positive local or regional impact in the areas of: safety, environmental sustainability, quality of life, mobility and community connectivity, economic competitiveness and opportunity, state of good repair, partnership, and innovation. These are also the selection criteria for the competitive award process.

Purpose

This document provides consistency and guidance across the Operating Administrations (OA) and grant recipients to develop, measure, and report appropriate project performance measures. This guidance replaces previous TIGER/BUILD/RAISE program Performance Measurement Guidance. Recipients of RAISE 2021 and RAISE 2022 grants may choose to use measures from this guidance or the 2021 interim guidance. RAISE 2023 recipients are required to use this guidance. Project-level performance measures and trends may be used to inform program-level trends.

Process:

Selection of Performance Measures: The Operating Administration administering the grant will work with the grant recipient to establish two to four performance measures from the list of options in Table 1 that enable the USDOT to measure and evaluate the outcomes of the project relative to the program's objectives. The measures chosen for each project should reflect the benefits described throughout the grant application, including the merit section and the benefit-cost analysis section. Table 1 is categorized by project type for ease of navigation, but any project type may select from any of the measures that are most relevant to the purpose of the project.

Recipients should confirm they understand the methodology and the reporting frequency before selecting a performance measure. Units to report are included in Table 1. Recipients must adhere to the units and methodologies detailed in Table 1, as project performance will be aggregated for program-level assessment.

The Office of the Secretary (OST) will review and approve performance measure selection as part of the grant agreement approval process. Selected performance measures must be relevant to the benefits for which the project was awarded, as documented in fact sheets and award letters. If the recipient desires to create a new performance measure that measures unique characteristics of a project, the recipient may propose the new measure and justification to the OA and OST.

It is also important to acknowledge that some measures may be expected to move in opposite directions for different projects, depending on the purpose and nature of the project. The Baseline Report must indicate the expected trend for each performance measure.

Some performance measures may be disaggregated (e.g., by route, station, vehicle type, mode, cargo type, user characteristic, etc.) when reported, as indicated in Table 1. Disaggregated performance measures, referred to as "submeasures", should be listed in the grant agreement and

described in further detail in the Baseline Report. It is possible that some projects may report on submeasures that are intended to move in opposite directions - for example, a bypass project where volumes may be anticipated to trend differently by location. Submeasures do not count towards the minimum of two overall performance measures, and recipients are discouraged from using submeasures unless it is required to measure a project's success.

Selection of the Project Study Area:

In addition to the selection of specific measures, the grant agreement must specify the "project study area." Generally, this is the area of project improvements. Projects that have multiple independent components should ensure that all components are covered, even if it means measurement at multiple locations. However, recipients should not report data across an entire jurisdiction, broad service area, or full transportation network, unless the scope of the grant directly improves that entire area. Recipients should aim for quality and meaningfulness over sheer quantity of data reported.

There may be unique "project study areas" that better tell the success story of the grant than simply the area of project improvements. For example, some projects may include a baseline route that will not be improved and an alternative route that is being improved. A project to create a new, separated bike/ped path may report safety improvements on both the previously shared road and the new bike/ped path. A project to construct a bypass of a town may report on truck traffic reduction through the town, in addition to traffic volumes on the new bypass.

Required Reports:

The following are required reports. Grant recipients must submit all reports to the Operating Administrations via email and copy RAISEgrants@dot.gov.

Please note that a web portal is being developed for grant recipients to submit reports. Once the web portal is available, recipients will use that system to submit all reports. Instructions will be provided by Operating Administrations when appropriate. Non-compliance with the terms of performance measure reporting (related to timeliness or incomplete content) may result in a rescission of grant funding.

Baseline Report: The Baseline Report is vital for establishing a performance measure baseline for future comparison. Baseline data should be measured and reported prior to project construction (on or before the Baseline Measurement Date and the Baseline Report Date that are stated in the grant agreement). For each performance measure, the Baseline Report must:

- Describe the reason for selection of each measure;
- Detail the methodology for capturing the performance measure (referencing Table 1 guidance when possible, as well as adding detail on data sources, assumptions, and potential variability when applicable);
- Indicate the desired trend of the performance measure from the Baseline Report to the post-construction reporting (i.e., increasing or decreasing); and
- Include a discussion of local, regional, or potential external factors that may impact the performance of the project. Applicants may wish to reference contextual tools such as the USDOT's Equitable Transportation Community Explorer.

At a minimum, the Baseline Report should include a table similar to the following:

Baseline Report Table

Performance Measure	Unit Reported	Baseline Data	Expected Trend from Baseline to Post-Construction
[Performance Measure]	[Unit Listed in Table 1: RAISE Performance Measures]	[Data]	[Increasing *or* Decreasing]

Annual Post-construction Performance Reports: Post-Construction Reports should be submitted annually by January 31st to report project performance for the prior calendar year. Post-construction reporting will begin one quarter after project substantial completion and continue for three years (12 quarters). All performance measures will be reported annually.

While a project's performance must be monitored for three years after project substantial completion, most projects will need to submit four Post-Construction Reports to cover 12 consecutive quarters. For example, if a project is substantially completed in June 2025, the performance monitoring would begin in September 2025, and four Post-Construction Reports would be required to cover the 12 consecutive quarters after completion:

1. January 2026 report (covering the last quarter of 2025)
2. January 2027 report (full year)
3. January 2028 report (full year)
4. January 2029 report (first three quarters only, with an outcomes narrative)

Each Post-Construction Report should build upon previous reports by including a table with new measurement values along with previously reported values so that trends can be assessed. For example, each of the Post-Construction Reports should include the table from the Baseline Report with new data. Post-Construction Reports must include the measured data, but may also include a narrative discussion on project performance and the influence of external factors.

At a minimum, Post-Construction Reports should include a table similar to the following:

Post-Construction Report Table

Performance Measure	Unit Reported	Expected Trend from Baseline to Post-Construction	Baseline Data	Annual Report #1	Annual Report #2
[Performance Measure]	[Unit Listed in Table 1: RAISE Performance Measures]	[Increasing *or* Decreasing]	[Data]	[Data]	[Data]

Project Outcomes Narrative: The final Post-Construction Report must also include a project outcomes narrative. The project outcomes narrative should include an overview of the project's performance compared to the baseline and trend expectations. It should also include a discussion on the influence of external factors, if applicable.

Conclusion

USDOT is committed to monitoring performance of Federally funded projects, and particularly grants that were awarded on a merit basis. In addition to best practice, Federal grant performance monitoring is required under 2 CFR 200 Subpart D and supports the financial stewardship objectives of the Office of Management and Budget (OMB), the Government Accountability Office (GAO), the Justice40 initiative under Executive Order 13985, among other initiatives.

Performance data provided by grant recipients will be aggregated by the USDOT to assess overall RAISE program performance and key benefits. While performance measurement compliance is a requirement under the grant agreement, recipients should be assured that the content of post-construction performance data is for information only and will not be considered in USDOT decisions to terminate an award.

The Department seeks your feedback on the 2023 Performance Measurement Guidance update. We look forward to receiving feedback at RAISEgrants@dot.gov.

Please see the next page for Table 1: RAISE Performance Measures.

Table 1: RAISE Performance Measures

Note: These measures represent a menu of industry standard metrics that are mapped to RAISE program objectives and categorized by project type. Recipients may utilize any of the following measures that are most relevant to their project. Operating Administrations and OST will review the proposed measures to ensure alignment with the project and program objectives. If necessary, a recipient may propose alternate performance measures for review and approval.

Project Type	Performance Measure	Unit Reported	Guidance	RAISE Program Objective(s)
Multiple	Air Quality Index	Average Daily Air Quality	Air quality should be measured and reported per the U.S. Air Quality Index (AQI).	Environmental Sustainability
Multiple	Arrival by Mode	Average Number of Individuals Arriving by Mode per Day	This measure analyzes the mode of travel to a predetermined location. Reporting should identify the mode of travel (e.g. pedestrian, bicycle, transit, rail) that is being monitored. Examples of predetermined locations include jobs, healthcare, grocery stores, schools, places of worship, recreation, or parks. The predetermined locations must be within or adjacent to the project study area and a mode shift must be a primary project purpose.	Quality of Life, Mobility and Community Connectivity, Economic Competitiveness and Opportunity
Multiple	Closure from Natural Hazards	Total Hours of Facility Closure per Year	A closure is defined as when a natural hazard prevents a facility from continuing daily operations or service.	State of Good Repair
Multiple	Equitable Access to Jobs	Total Jobs Accessible within 30 Minutes of Travel	Total jobs assessable within 30 minutes of travel may be disaggregated by mode (bicycles, pedestrians, transit, or rail) that best aligns with project purpose. Reporting must be based a single location within the project study area.	Economic Competitiveness and Opportunity, Quality of Life, Mobility and Community Connectivity
Multiple	Greenhouse Gas Emissions	Total Carbon Dioxide Emissions (metric tons) per Year	Carbon dioxide emissions should be reported for the project study area based on vehicle-miles traveled (VMT) data, fuel consumption data, MOVES, or EERPAT. Recipients should cite the model, inputs, or assumptions such as VMT or locomotive fuel consumption reduction, in the reported data.	Environmental Sustainability

Project Type	Performance Measure	Unit Reported	Guidance	RAISE Program Objective(s)
Multiple	Severe Crashes	Total Severe Crashes per Year	A severe crash is defined as one that results in a K, A, or B injury code on the KABCO scale. Recommend using state or Tribal crash databases for reporting. The total for the project study area must be reported, but reporting can also be disaggregated by mode (motor vehicles, trucks, bicycles, pedestrians) that best aligns with project purpose. If the project is addressing a grade-crossing (improving or eliminating) then it should also specifically report on the number of severe crashes at the crossing(s).	Safety
Multiple	Travel Time	Average Travel Time (Minutes) per Trip	A trip is defined as the point-to-point travel between predetermined locations. Recipients may not report on both Travel Time Reliability and Travel Time to satisfy their minimum number of performance measures.	Quality of Life, Mobility and Community Connectivity
Bicycle / Pedestrian	Bicycle and Pedestrian Volumes	Average Number of Bicycles or Pedestrians per Day	Reporting can include both bicycles and pedestrians or be disaggregated by mode that best aligns with project purpose. Count collection should utilize industry standards, such as National Bicycle and Pedestrian Documentation Project methodology, Pedestrian and Bicycle Information Center resources, and protocols included in the FHWA Traffic Monitoring Guide.	Environmental Sustainability, Mobility and Community Connectivity, Quality of Life
Bicycle / Pedestrian	Level of Traffic Stress	Bicycle or Pedestrian Level of Traffic Stress Rating	Bicycle or Pedestrian Level of Traffic Stress should be measured and reported using methodology identified in the FHWA Bicycle Selection Guide page 35 (also appliable for pedestrians).	Quality of Life, Mobility and Community Connectivity
Road	Average Daily Traffic (ADT)	Average Traffic Volumes per Day	Count collection can be self-reported using industry standards, such as identified in the FHWA Traffic Data Computation Method Pocket Guide. Counts can also be reported using state or national traffic volume databases. The total for the project study area must be reported, but reporting can also be disaggregated by route. Reporting can also be disaggregated by vehicle type (motor vehicles or trucks) that best aligns with project purpose.	Mobility and Community Connectivity

Project Type	Performance Measure	Unit Reported	Guidance	RAISE Program Objective(s)
Road	Bridge Condition	Bridge Condition Rating	The Bridge Condition Rating is the lowest rating of National Bridge Inventory (NBI) condition ratings for Item 58 (Deck), Item 59 (Superstructure), Item 60 (Substructure), or Item 62 (Culvert).	State of Good Repair
Road	Pavement Condition	International Roughness Index (IRI)	The International Roughness Index (IRI) should be reported as the average for the project study area. IRI should be measured and reported using the AASHTO Standard Practice which calls for the use of a longitudinal profile measured in accordance with ASTM E-950 as a basis for estimating IRI.	State of Good Repair
Road	Travel Time Reliability	Travel Time Index	Travel Time Index is the ratio of the travel time during the peak period to the time required to make the same trip at free-flow speeds. The National Performance Management Research Data Set (NPMRDS) may be utilized. Reporting can be disaggregated by vehicle type (motor vehicle or trucks) that best aligns with project purpose. If the project is addressing a grade-crossing (improving or eliminating) it should also specifically report on travel time reliability at the crossing(s). Recipients may not report on both Travel Time Reliability and Travel Time to satisfy their minimum number of performance measures.	Quality of Life, Economic Competitiveness and Opportunity
Transit	Age of Fleet	Average Age of Active Vehicles	Vehicle age is defined as the current year minus the year of original manufacture (not the model year).	State of Good Repair
Transit	Mileage of Fleet	Average Mileage on Active Vehicles	Mileage is defined as the number of miles listed on the odometer.	State of Good Repair
Transit	On-Time Performance	Percent of On-Time Routes	An on-time route is defined as one that meets its planned service times within a threshold determined by the transit provider. The threshold must be established at the baseline and reported consistently. A two-minute on-time threshold is recommended. The overall on-time percentage for project study area must be reported, but reporting can also be disaggregated by route, station, or facility.	Quality of Life

Project Type	Performance Measure	Unit Reported	Guidance	RAISE Program Objective(s)
Transit	Operating and Maintenance Costs	Total Costs by Category per Year	Report operating and/or maintenance costs for only the project study area. Costs must be disaggregated by any of the following: - Cost of operating such as fuel and oil - Maintenance costs for services, parts, or supplies	State of Good Repair
Transit	Passenger Miles Traveled	Total Passenger Miles Traveled per Year	Passenger Miles Traveled (PMT) is the sum of the distances each passenger traveled during the year. The total for the project study area must be reported, but reporting can also be disaggregated by route, station, or facility. Reporting can also be disaggregated by rider characteristic to the extent that it is voluntarily reported by riders and aligns with a specific project purpose. See the latest NTD Reporting Policy Manual for additional guidance.	Mobility and Community Connectivity, Quality of Life
Transit	Reportable Events	Total Number of Reportable Events per Year	A safety or security event as defined per the conditions listed in the National Transit Database (NTD) Glossary.	Safety
Transit	Revenue Vehicle Breakdowns	Total Number of Revenue Vehicle Breakdowns per Year	A revenue vehicle is defined as the floating and rolling stock used to provide revenue service for passengers. A breakdown is defined as a service interruption.	State of Good Repair
Transit	Unlinked Passenger Trips (Ridership)	Total Boardings per Year	Unlinked Passenger Trips (UPT) are the number of boardings on a public transportation vehicle during the year. The total for the project study area must be reported, but reporting can also be disaggregated by route, station, or facility. Reporting can also be disaggregated by rider characteristic to the extent that it is voluntarily reported by riders and aligns with a specific project purpose. See the latest NTD Reporting Policy Manual for additional guidance.	Mobility and Community Connectivity, Quality of Life
Rail	Cargo Volume	Total Gross Tons of Freight Moved per Year	Gross tons are defined as freight cargo minus tare weight of the rail cars. When applicable, report the gross tonnage disaggregated by type of intermodal transport (transload to truck or maritime facility). This information can be summarized quarterly, but only reported on an annual basis.	Economic Competitiveness and Opportunity

Project Type	Performance Measure	Unit Reported	Guidance	RAISE Program Objective(s)
Rail	Defects	Total Number of Defects per Year	A defect is defined in 49 C.F.R. 213.	State of Good Repair
Rail	Reportable Events	Total Number of Reportable Events per Year	A reportable event is defined as a safety or security event occurring in the project study area (e.g. railyard, facility) that results in one or more of the following conditions: - A fatality confirmed within 30 days of the event - An injury requiring immediate medical attention away from the scene for one or more person - Property damage equal to or exceeding $25,000 - Collisions involving vehicles or derailments of locomotives - An evacuation for life safety reasons	Safety
Rail	Ridership	Average Daily Ridership	Ridership is defined as passenger boardings or alightings at a specific station.	Mobility and Community Connectivity, Quality of Life
Rail	Slow Order Miles	Total Slow Order Miles Imposed per Year	A slow order mile is defined as an imposed speed restriction due to track condition.	State of Good Repair
Maritime	Cargo Dwell Time	Average Cargo Dwell Time (Hours per Ton or TEU)	Cargo dwell time is defined as the time between cargo arrival and departure (by vessel, truck, or rail).	Economic Competitiveness and Opportunity, Mobility and Community Connectivity

Project Type	Performance Measure	Unit Reported	Guidance	RAISE Program Objective(s)
Maritime	Cargo Volume	Total Tons of Cargo Moved per Year (TEUs or Short Tons)	Cargo volume measures the movement of freight through the project study area. When applicable, report the total cargo volume and the volume disaggregated by type of freight (i.e. containers in TEU and bulk in tons) or type of intermodal transport (truck or rail).	Economic Competitiveness and Opportunity
Maritime	Cold-Ironing Time	Total Time Vessels are Connected to Shorepower (Hours)	Cold-ironing is defined as the total time all vessels are connected to shorepower instead of idling.	Environmental Sustainability
Maritime	Reportable Events	Total Number of Reportable Events per Year	A reportable event is defined as a safety or security event occurring in the project study area (terminal, berth, etc.) that results in one or more of the following conditions: - A fatality confirmed within 30 days of the event - An injury requiring immediate medical attention away from the scene for one or more person - Property damage equal to or exceeding $25,000 - Collisions involving vehicles or vessels - An evacuation for life safety reasons	Safety, Quality of Life
Maritime	Truck Turn Time	Average Truck Turn Time (Minutes)	Amount of time from truck gate entry to truck gate exit.	Economic Competitiveness and Opportunity, Environmental Sustainability
Maritime	Vessel Calls	Total Vessel Calls per Year	Measures the number of vessels calling to the project study area. Must be reported in total and disaggregated by any of the following where applicable: vessel type (e.g. container, bulk, ro-ro, LNG), freight capacity, vessel length, or other.	Economic Competitiveness and Opportunity

Project Type	Performance Measure	Unit Reported	Guidance	RAISE Program Objective(s)
Maritime	Vessel Turn Time	Average Vessel Turn Time (Hours)	The time between a vessel first reporting at the port to the time it departs, including berth waiting time and servicing time.	Economic Competitiveness and Opportunity