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MERIT - Operating Assistance Performance-Based Allocation Formula

FY25 Technical Guidance

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MERIT
Making Efficient and Responsible Investments in Transit

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Introduction and Overview

Virginia's Department of Rail and Public Transportation (DRPT) allocates funding for operating assistance to transit agencies across the Commonwealth through an allocation process pursuant to the *Code of Virginia* and Commonwealth Transportation Board (CTB) policy. This document describes the methodology for allocating state operating assistance.

The metrics and their weights were considered during several meetings of the Transit Service Delivery Advisory Committee (TSDAC) and CTB in 2018. The proposed methodology balances the need for reliable annual funding as well as the availability and reliability of performance data to support the six policy goals TSDAC identified:

- Promote Fiscal Responsibility
- Support Robust Transit Service
- Improve Transit Patronage
- Incentivize Efficient Operations
- Promote Mobility
- Support Social Safety Net

Operating Assistance Methodology

The performance-based operating allocation methodology distributes operating assistance based on a combination of an agency's sizing and performance factors. Sizing factors represent an agency's relative size to other agencies across the Commonwealth. Performance factors represent an agency's performance trend for a given metric relative to statewide trends for all agencies.

The data required from each agency to compute the operating allocation formula includes:

- **Operating Cost for System Sizing (Reimbursable Expenses on Application):** Most recent audited operating cost available, less depreciation, less expenses for projects funded by other DRPT programs that do not expand transit operations¹, and less non-transit related expenses. New transit service will be based on budgeted operating costs for the year of implementation until audited operating costs are available. The Finance group will be reviewing the operating expenses in each agency's financial statements and may contact you during their review.
- **Operating Cost for Performance Metric:** Total operating costs less depreciation, ineligible costs, and less non-transit related expenses. The Finance group will be reviewing the operating expenses in your financial statements and may contact you during their review.
- **Ridership:** Unlinked Passenger Trips - Number of passengers who board public transportation vehicles, regardless of whether a passenger is transferring from another transit vehicle.
- **Vehicle Revenue Hours (VRH):** Hours traveled by revenue vehicles (buses, vans, railcars, etc.) while in revenue service. For uni-directional commuter routes greater than 20 miles in length, non-revenue hours associated with deadhead trips will be considered as vehicle revenue hours for the purpose of allocating operating assistance. These non-revenue hours associated with deadhead trips should not be reported through OLGA, but provided to the DRPT Transit Program Manager in conjunction with your operating application.
- **Vehicle Revenue Miles (VRM):** Miles traveled by revenue vehicles while in revenue service. For uni-directional commuter routes greater than 20 miles in length, non-revenue miles associated with deadhead trips will be considered as vehicle revenue miles for the purpose of allocating operating assistance. These non-revenue miles associated with deadhead trips should not be reported through OLGA, but provided to the DRPT Transit Program Manager in conjunction with your operating application.

Ridership, VRH, and VRM are to be reported by each agency on a monthly basis in OLGA. All data is subject to review and validation by DRPT staff prior to the annual allocation process and will be subject to audit.

¹ Projects funded by other DRPT programs that expand transit operations will be included in the Operating Cost for System Sizing measure. This allows for agencies that expand service provision through another DRPT grant program, such as Demonstration Assistance or TRIP, to be able to count the increased cost of operations in the calculation of allocations for the next fiscal year. Projects funded through other DRPT programs that support capital purchases will continue to be reduced from this measure.

Sizing

To correlate funding allocations with the relative size of each agency, a **size-weight** factor is calculated with a combination of sizing metrics, at specific percentage weights. The size-weight for each metric is computed in the following manner:

$$\text{Agency Size-Weight} = (\text{Sum of Agency Sizing Metric} / \text{Statewide Totals}) * \text{Weight}$$

The proposed sizing metrics and weights for the sizing formula are:

- 50% Operating Cost
- 30% Ridership
- 10% Vehicle Revenue Hours
- 10% Vehicle Revenue Miles

If the statewide sum of agency size-weights does not equal 100%, then the ratios are normalized such that the statewide sum of size-weights for all agencies totals 100%.

$$\text{Agency Normalized Size-Weight} = \text{Agency Size-Weight} / \text{Sum of Statewide Size-Weights}$$

Performance Adjustments

Once the **normalized size-weight** for each agency has been determined, the size-weight is adjusted by the five **performance metrics**.

The proposed performance metrics are:

- Passengers per Vehicle Revenue Hour
- Passengers per Vehicle Revenue Mile
- Operating Cost per Vehicle Revenue Hour
- Operating Cost per Vehicle Revenue Mile
- Operating Cost per Passenger

For each performance metric, three years of historical data plus the most recent year of data is used to calculate performance trends for each agency and statewide. Each agency's three-year trend in year-over-year percentage change relative to the statewide trend is calculated. The formula for this trend is:

$$\text{Trend Factors} = 3\text{-Year Average of } (\text{Annual Change in each Agency's Performance Metric} / \text{Annual Change in Statewide Performance Metric})$$

For Passengers per Vehicle Revenue Hour and Passengers per Vehicle Revenue Mile, these **trend factors** are then multiplied by the size-weight to compute a **size-performance weight**.

$$\text{Size-Performance Weight} = \text{Agency Size-Weight} * \text{Trend Factor}$$

For Operating Cost per Vehicle Revenue Hour, Operating Cost per Vehicle Revenue Mile, and Operating Cost per Passenger, an inverse function is used, and the size-weight is multiplied by 1 divided by the trend factor, to incentivize decreasing Cost trends.

Size-Performance Weight = Agency Size-Weight * (1/Operating Cost-based Trend Factor)

All size-performance weights are then normalized such that the statewide sum of size-weights for all agencies for each metric is equal to 100%.

Agency Normalized Size-Performance Weight = Agency Size-Performance Weight / Sum of Statewide Size-Performance Weights

Funding Allocations

At this stage, each agency has 5 normalized size-performance weight factors. These factors are multiplied by their weight (20% for each performance metric), summed, and multiplied by total available funding. This sum is the agency's total operating assistance allocation.

Agency Funding Allocation = Available Funding *
 [(Passengers per VRH Normalized Size-Performance Weight * 20%) +
 (Passengers per VRM Normalized Size-Performance Weight * 20%) +
 (Operating Cost per VRH Normalized Size-Performance Weight * 20%) +
 (Operating Cost per VRM Normalized Size-Performance Weight * 20%) +
 (Operating Cost per Passenger Normalized Size-Performance Weight * 20%)]

Funding Cap

A cap on funding allocations is used to minimize the volatility of funding received by each agency. The cap is proposed to be set at 30% of an Agency's latest year of operating costs. The recommended percentage was informed by the highest operating assistance grant received under the FY 2019 allocation methodology by Virginia transit agencies, which was generally below 30% of operating costs. After applying this cap to the operating assistance allocation, an unallocated funding pool remains. These funds are redistributed to agencies below this cap proportional to their Agency Funding Allocation ensuring that all available funds are distributed annually.