

# SB1140 Performance Based Operating Funding Allocation Phase 3 – 2016 and Beyond

TSDAC Meeting  
April 8, 2014

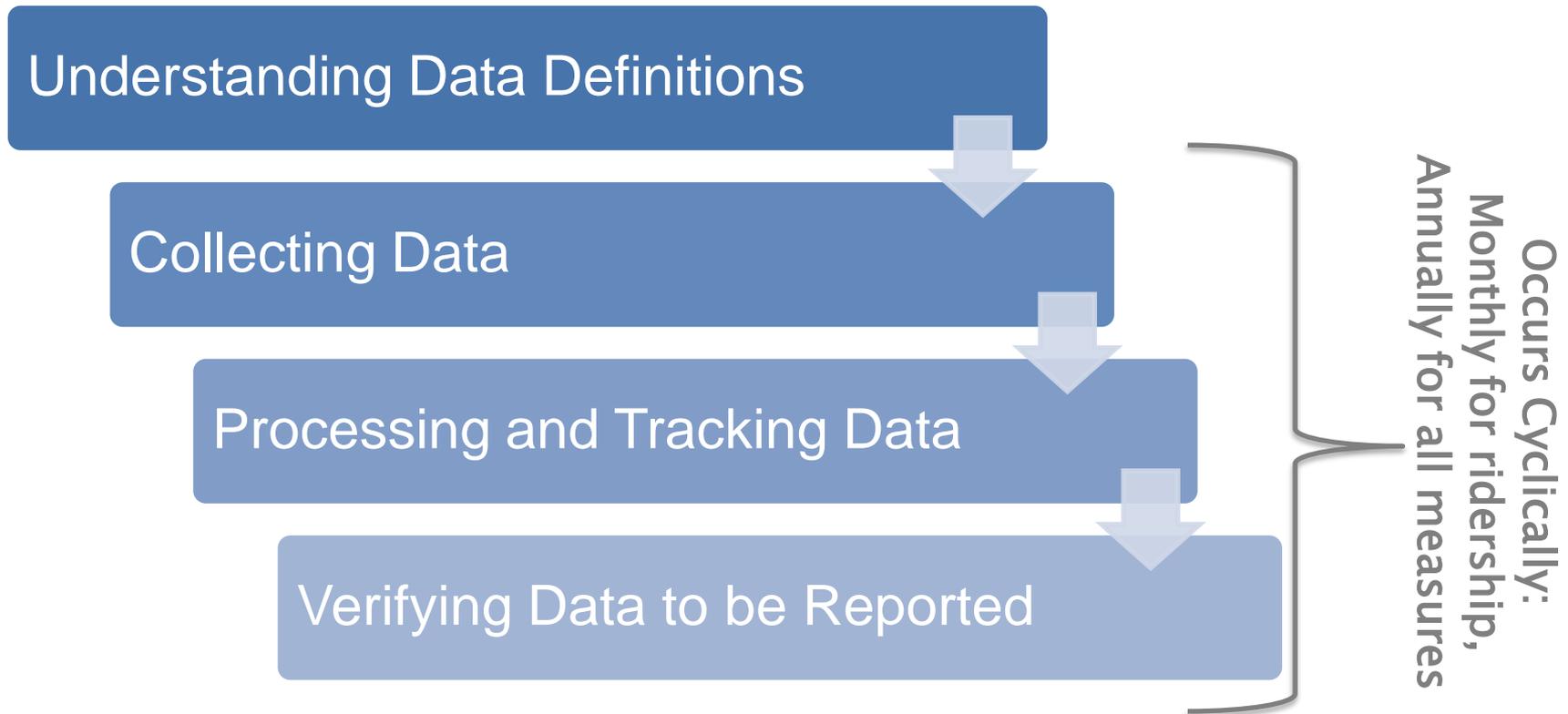


# Agenda

- Data Collection Practices
- Sizing Measures
- Exceptional Performance Measures
- Other Possible Performance Measures & Grant Opportunities
  - Congestion Mitigation
  - Fulfillment of Transit Dependent Outcomes
- Funding
- Next Steps

# Data Collection

# Data Process and Standards Needed



**Set of uniform standards for all of the core measures will ensure accurate and consistent data are reported to DRPT for funding allocation**

# Data Collection Task Methodology

- Local agency survey – 32 out of 39 agencies responded
- Local agency interviews – 13 agencies selected for size, type of service and geographic diversity
- Best practices research:
  - Literature review
  - Interviews with states that fund transit operations and collect performance data (KS, NC, NY, OH, PA)
- Feedback from Working Group on recommendations for data standards:
  - Definitions, collection methods and processes, verification
  - Accountability policy

# Data Collection Task

## ***Findings and Recommendations***

- DRPT has established definitions for core measures
  - New definition standards are not needed

## ***Recommendation:***

- DRPT create guidance with clear definitions required for reporting
  - Consistent and available in all locations where needed by transit agencies to comply with reporting requirements
  - Clarify differences between DRPT and NTD definitions when applicable

# Data Collection Methods

## Ridership Standards

Understanding  
Data Definitions

Collecting Data

- Agencies use a variety of tools to collect data
  - Tools used by agencies based on factors including size, type of service offered, agency resources and capacity
  - Recommended standards should reflect this diversity

### ***Ridership Recommendations:***

- For agencies that operate fixed route service and use electronic methods: collect ridership data using ERFs with or without APCs
- For agencies that operate demand response service and use electronic methods: collect ridership data from the scheduling system and mobile data terminals
- For agencies that use manual methods: use a manual log, tally, or click-counter to collect ridership data

# Data Collection Methods

## Financial Data Standards

Understanding  
Data Definitions

Collecting Data

Financial Data Measures =

Operating Expense, Other Operating Revenue, Fare Revenue

### ***Operating Expense Recommendation:***

- Use existing financial or accounting systems to collect operating expenses

### ***Other Operating Revenue Recommendation:***

- Calculate revenue receipts recorded through financial or accounting systems

# Data Collection Methods

## Financial Data Standards

Understanding  
Data Definitions

Collecting Data

Financial Data Measures =

Operating Expense, Fare Revenue, Other Operating Revenue

- Fare revenue collection methods are similar to ridership when equipment has the capability to collect both ridership and fare data

### ***Fare Revenue Recommendations:***

- For fixed route service agencies that use electronic methods: use ERFs to collect fare revenue data
- For agencies that operate demand response service and use electronic methods: use payment software to collect electronically processed fare revenue
- For agencies that use manual methods (either exclusively or in addition to electronic): manually count fare revenue collected

# Data Collection Methods

## Revenue Miles/Hours Standards

Understanding  
Data Definitions

Collecting Data

### ***Recommendations:***

- For agencies that use electronic methods: use AVL systems, scheduling software, or mobile data terminals
- For agencies that use manual methods: use schedules, driver logs, and odometer readings

# Data Processing Methods Standards

Understanding  
Data  
Definitions

Collecting  
Data

Processing  
and Tracking  
Data

Components of data processing methods include:

- Use of database (whether electronic software or manual) to record, track and calculate the totals over time
- Frequency of the raw data input (via digital upload or manual transcription) to the database
- Calculation of raw data gathered into monthly or annual data for purposes reporting categories for DRPT

## ***Recommendations:***

- Raw data (for ridership, revenue miles and revenue hours) should be uploaded or transcribed to the database daily or weekly, and organized by route, driver, or vehicle. An electronic database must be used to track and calculate data.
- Financial data subject to annual audits: follow industry standards for processing and recording; no additional standards needed

# Data Verification Methods

## Ridership Standards

Understanding Data  
Definitions

Collecting Data

Processing and Tracking  
Data

Verifying Data to be  
Reported

- Components of data verification methods include:
  - Techniques used for verification
  - Frequency of verification
  - Degree of variance that automatically triggers staff review

### ***Recommendations:***

- Agencies may choose from the following options:
  - Cross-check between two or more ridership data sources, and/or
  - Staff review, using year-to-year comparison for variances, or through automated data triggers to flag anomalies
- If staff review is the only verification technique used: conduct on a frequent basis consistent with the respective recommended standard for data processing

# Data Verification Methods

## Revenue Miles/Hours Standards



### ***Recommendation:***

- Staff review, using year-to-year comparison for variances, or through automated data triggers to flag anomalies
- Conduct staff review on a frequent basis consistent with the respective recommended standard for data processing

# Data Verification Methods

## Financial Data Standards

Understanding Data  
Definitions

Collecting Data

Processing and Tracking  
Data

Verifying Data to be  
Reported

### ***Recommendations:***

- Verify financial data through the financial audit process
- Also conduct a one-time variance check before reporting to explain any variances beyond:
  - 5% threshold for any operating expense category
  - 10% threshold for fare revenue and other operating revenue

# Accountability Policy

- Annual certification with OLGA reporting
- Formatted as a contract between transit agency and DRPT with documented list of collection and verification methodologies for all core measures in allocation formula
- Certified by local agency senior staff (e.g., CFO, other senior executive staff, governing board if preferred by agency)
  - Understanding that accuracy of reported data is tied to funding
  - Understanding that agency senior staff have responsibility to assure that agency follows DRPT data standards
- Penalties enforced if state reviews reveal consistently inaccurate data reporting, or if reports are consistently delayed
  - Rescind partial awarded funding or penalties for future grants

# Data Standards Matrix

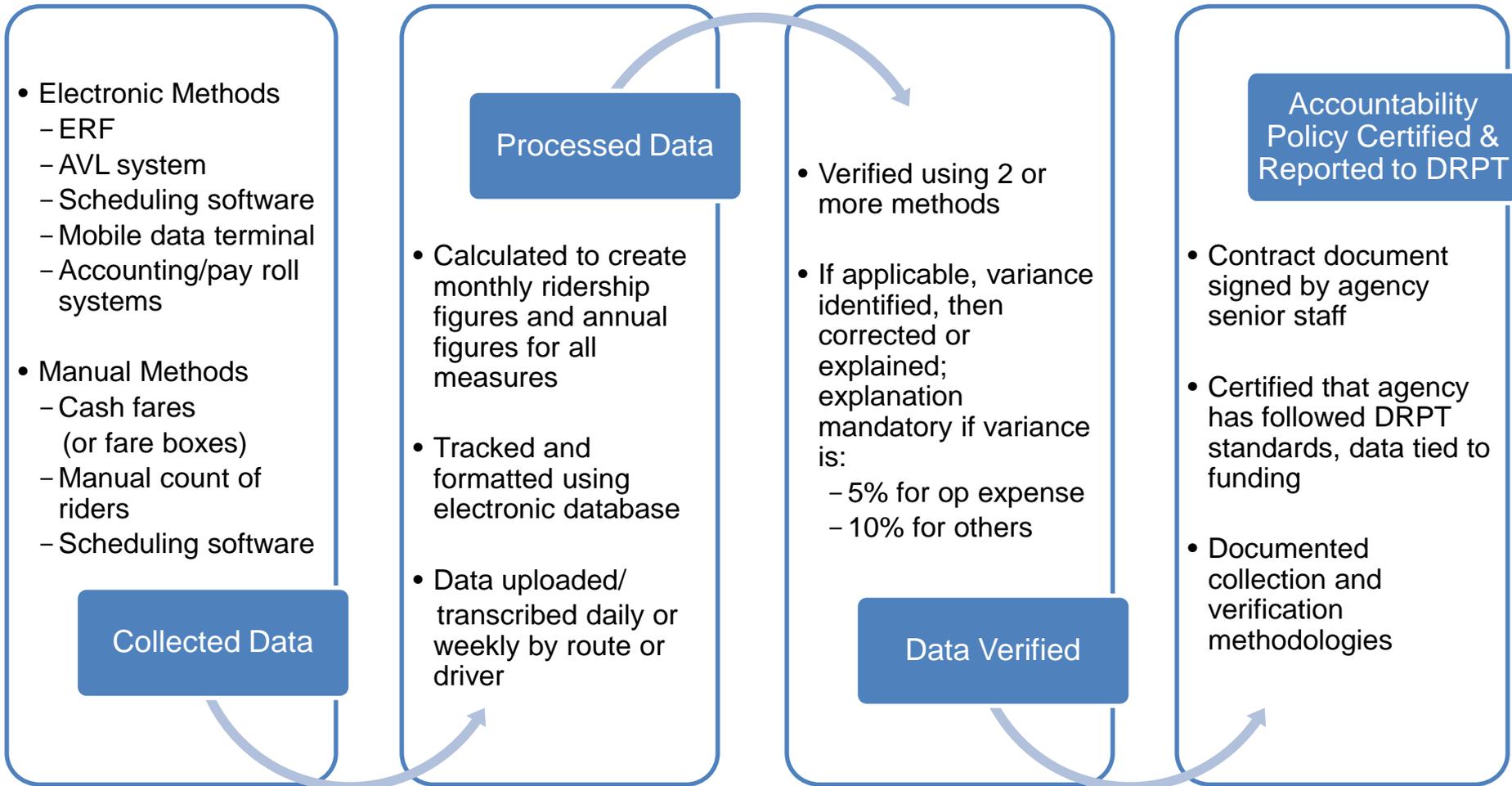
COLLECTION PROCESS



	Large City/College Town	Small/Rural
Data Definitions	Existing DRPT data definitions; DRPT to clearly document and publish definitions	
Collection Methods	<p><u>Fixed Route:</u> ERF, AVL system, scheduling software, accounting/payroll systems</p> <p><u>Demand Response:</u> Mobile data terminals, scheduling software</p>	<p><u>Fixed Route:</u> Manual: cash fareboxes, manual ridership count including free fares, scheduling software <b>Agencies to move to simple electronic systems in 3 years</b></p> <p><u>Demand Response:</u> Mobile data terminals, scheduling software</p>
Processing Methods	Electronic database (e.g., Microsoft Excel, Access) <b>DRPT to create spreadsheet templates to institute uniform calculations</b>	
Verification Methods	Staff review for anomalies (variance with past year data); cross check 2 or more sources of data <b>DRPT to incorporate automatic variance flags into OLGA</b>	

Data Collection

# Summary of Recommended Standards



Data Collection

# State Technical Assistance Recommendations

Additional state assistance will complement data standards by providing resources for agencies to implement and maintain recommendations

## ***Recommendations:***

- Host annual meeting for industry best practices/required policies, regional data summits, information exchanges
- Support development of a pilot program for agencies to acquire and assess the value of using more advanced technologies (equipment and/or software)
- Designate single DRPT staff member to provide consistency in responses to data definition inquiries

# Data Collection Task Next Steps

- Finalize recommendations for OLGA system
  - Preliminary ideas:
    - Definition document published on OLGA for core data measures
    - Searchable “Frequently Asked Questions” to help agency staff troubleshoot issues
    - Provide for agencies to attach data spreadsheets (template to be developed/provided by DRPT) to submissions
    - Provide field in OLGA to explain variance in data from year-to-year
- Development of data standards (April-May):
  - Standards language for definitions, processes, verification, accountability policy

# Sizing

# Premise

- Sizing metrics have considerable impact on operating assistance distributed by DRPT
- Examine metrics to determine if existing approach optimal or if new metrics warranted

# The Working Group

- Reviewed existing Size-Weight formula
  - Factors - Operating Cost and Unlinked Passenger Trips
  - Equal weighting of factors (50% each)
- Examined literature on potential sizing measures
- Considered:
  - Does this incentivize a higher operating cost, regardless of system efficiency?
  - Are these the best two measures for determining relative size?
  - How might one or both measures be refined to improve the formula?
  - Should these factors have equal weight?

# Findings and Recommendation

- No other measure(s) were better indicators of system size than current measures (ridership and cost)
- ***The Working Group recommends to TSDAC that the current Size-Weight portion applied to allocate new operating formula funding remain unchanged***
  - This shall not preclude DRPT from reconsidering sizing formula factors should future needs arise, particularly in response to changes in operating funding allocation goals
  - Formulas to be reconsidered every 3 years by law

STRATEGIC CONSULTING SERVICES

# Exceptional Performance

# Premise

- Poorly performing agencies have more room to grow than high performers
- Statewide average growth rates may be higher due to high growth of poor performers
- High performers may be penalized for showing less than statewide average growth
- **Penalizing exceptional performers for slower improvement compared with the statewide average trend is unfair**

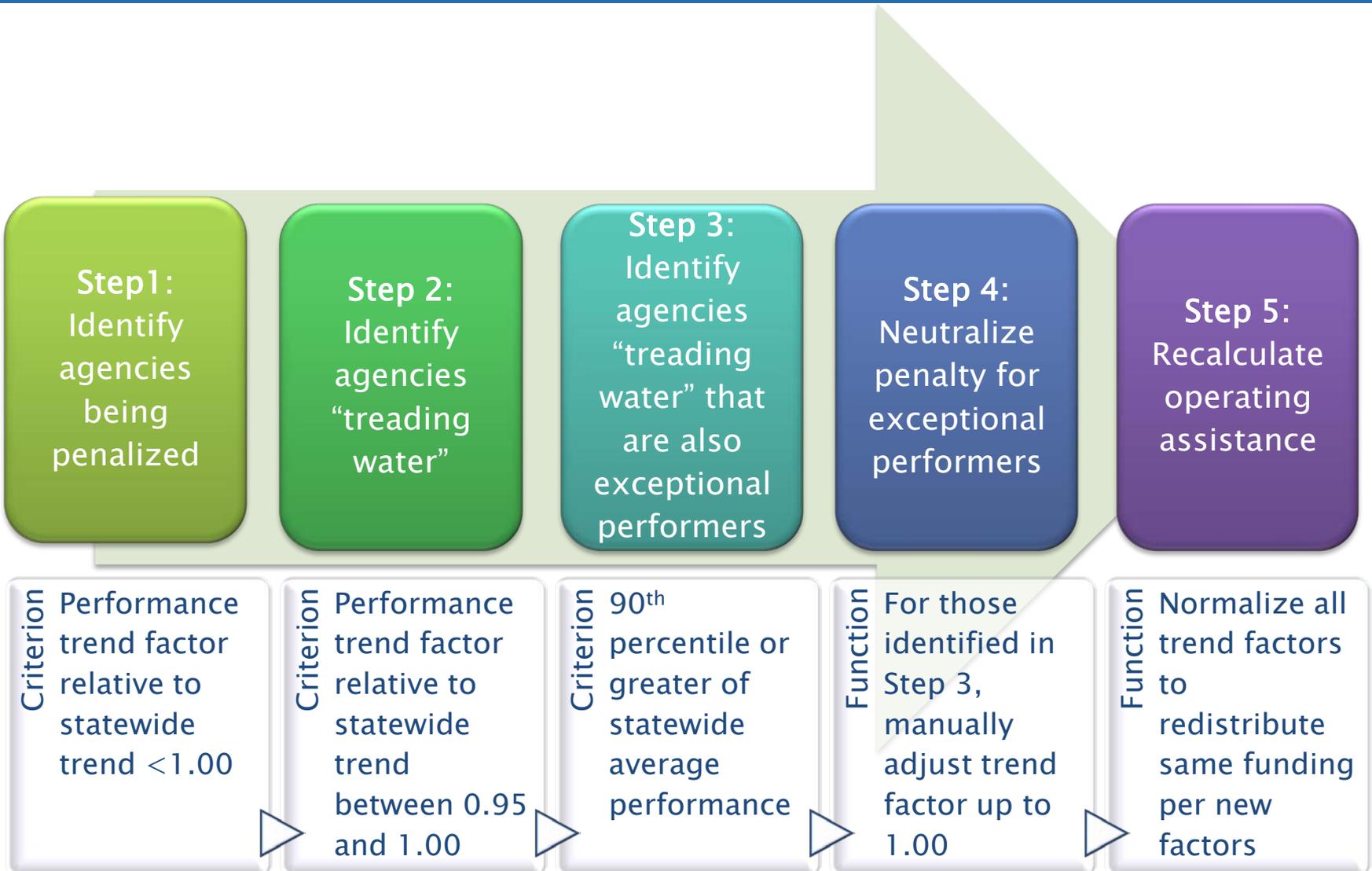
# The Working Group

- Considered:
  - TSDAC goals and premise for the measure
  - Pros and cons of various approaches
  - Level of effort for data acquisition and analysis
  - Reasonableness of outcome
- Examined:
  - Discretionary program v/s formula-based program approaches
  - Measures to be used to determine exceptional performance
  - Quantitative approaches for measuring exceptional performance

# The Working Group

- Analyzed two quantitative approaches:
  - Statewide ranking
  - Nationwide peer analysis
- Found:
  - The goal should be to prevent exceptionally performing agencies from being penalized, not additionally reward them
  - A formula-based approach is likely to be more uniform, consistent and transparent than a discretionary program
  - Performance metrics used in the operating assistance allocation formula should be used for this measure

# Quantitative Approaches Statewide Ranking



# Quantitative Approaches

## Statewide Ranking

- Findings:
  - The analysis involved a key simplifying assumption- namely exclusion of WMATA and VRE from statewide distribution.
  - The dollar impact was small enough to not provide an effective incentive for performance or guide decision making (average difference in allocation between original and modified factors is -0.12%)

# Quantitative Approaches

## Nationwide Peer Analysis

- Representative analysis using National Transit Database (NTD) data and TCRP peer selection methodology to select peers from across the country
- Findings:
  - The outcomes with alternate assumptions were significantly different
  - Changes in service or adding a new mode could complicate analysis over multiple years
  - In practice, this subjective and elaborate procedure would impose significant workload on DRPT

# Recommendation

- ***The Working Group advised against implementing this measure at this time***
  - DRPT may re-evaluate this or other measures in the future along with any potential updates to the operating assistance funding formula, or if new funding to support transit programs becomes available

# Congestion Mitigation

# Premise

- Primary goal of transit service to facilitate mobility
- Congestion threatens effectiveness of service
- No state funds targeted to address transit impacts on congestion

# The Working Group

- Considered:
  - Goal of the program (type of congestion to address)
  - Structure of prospective program (discretionary vs. formula)
  - Data required to assess problem and plan solutions
- Found:
  - Program should address transit congestion
  - General support for discretionary assistance supporting:
    - Improved service along existing corridors including additional peak vehicles, reduced headways, and improved reliability
    - Parallel or tripper service to supplement existing service
    - Additional service to address park-and-ride lot demand, including feeder service

# Congestion Mitigation Discretionary Pilot Program

- ***Recommendation: Pilot through existing Demonstration Project Assistance program***
  - Combined application for capital and operating
  - Provides seed money for additional service
  - Should favor applicants who commit to locally funding program after state funding assistance expires
- Participation open to all agencies in the Commonwealth
- Maximum state matching ratio of 80 percent (remainder local match) over 2-year period
- Allows state to learn from pilot before attempting to integrate into primary operating funding formula

# Discretionary Pilot Program Application Process

- Detail congested conditions and need for transit enhancements
  - Location of corridor and surrounding areas
  - Apply quantitative measures to describe the congestion
- Describe proposed operating solutions
  - Explain how proposed service will address transit congestion
  - Prepare plan detailing expected impact of service changes, including any forecasted ridership impacts
  - Provide scope, schedule and budget, including sources for local match and long-term funding (if applicable)
  - Detail accompanying capital investment needs
  - Summarize project readiness

# Discretionary Pilot Program Evaluation Criteria

- Ranking based on:
  - Extent to which proposed service is anticipated to address transit congestion
  - Completeness and quality of proposal
  - Estimated total capital and operating costs
  - Project readiness
  - Commitment of local funds
- Selection based on available funding for top-ranked proposals

# Discretionary Pilot Program Monitoring

- Annual documentation of ridership, other performance measures to gauge success of the program
  - Apply applicable transit congestion measures to track performance
- Extent of local funding support
- Track for two years beyond completion of program
  - Provides baseline for consideration of continuation of pilot

# Fulfillment of Transit Dependent Outcomes

# Premise

- Primary goal of transit service to facilitate mobility
- Persons dependent on transit are presently underserved throughout the Commonwealth
- No state funds targeted to address mobility needs of transit dependent persons

# The Working Group

- Considered:
  - Goal of the program and definition of transit dependent persons
  - Structure of prospective program (discretionary vs. formula)
  - Data required to assess problem and plan solutions
  - Consistency with federal Title VI and Environmental Justice guidelines
- Found:
  - General support for discretionary assistance for:
    - New/improved service for persons dependent on transit
    - Transit service in areas without existing service
    - Fare reduction or taxi vouchers program for persons dependent on transit

# Definition of Transit Dependent Persons

- Transit dependent persons are reliant on transit for their mobility and may identify with the following characteristics:
  - Zero-vehicle household
  - Disability
  - Below 50 percent of median family income level
  - Elderly (over 65 years of age) and youth (below driving age)
- Consider impacts on Title VI protected classes, which prohibits discrimination on the basis of
  - Race
  - Color
  - National Origin

# Transit Dependent Outcomes

## Discretionary Pilot Program

- ***Recommendation: Pilot through existing Demonstration Project Assistance program***
- Application, evaluation, and monitoring similar to parameters of Congestion Mitigation program
- Participation open to all agencies in the Commonwealth
- Maximum state matching ratio of 80% (20% local match) over 2-year period
- Allows state to learn from pilot before attempting to integrate into primary operating funding formula

# Funding Options

# Funding Options

- **Revise Performance-Based Funding Allocation Formula**
  - Formula not appropriate for congestion, transit dependent needs
  - Requires CTB action to re-allocate funding
- **Reapportion Mass Transit Fund Revenues**
  - Reallocates existing funding
  - Requires CTB, general assembly action
  - Earliest possible action is 2016 legislative session
- **Apply Existing Special Program Funds**
  - Demonstration Program provides existing grant vehicle
  - Availability of funding is constrained
- **Request new funding**
  - Likelihood limited given recently enacted new money

# Demonstration Project Assistance Program

- ***Recommendation: Use Demonstration Program to administer Congestion Mitigation and Transit Dependent Objectives pilot discretionary grant programs***
- Flexible program that invests in projects to:
  - Improve the efficiency of public transportation providers in all functional areas
  - Offer creative approaches to identify and access public transportation markets
  - Increase private sector involvement in all areas of public transportation
  - Raise the utilization and productivity of existing public transportation services
  - Supports safety and security investments

# Other Options

- VDOT Flex Funds
  - Transportation Efficiency Improvement Fund previously supported TDM, TMP, but may be re-allocated given new funds
- Federal Funds
  - Surface Transportation Program and Congestion Mitigation and Air Quality Improvement (CMAQ) Program
  - Generally committed to existing projects, often highway
- House Bill 2
  - Requires evaluation to prioritize allocation of funds
  - Funds may support TDM and operational improvements
  - Transit must compete with highway projects for funding

# Next Steps

- Receive comments from TSDAC on today's presentation
- Hold TSDAC Working Group webinar to discuss performance data standards
- Prepare Draft Report of TSDAC Performance Based Operating Assistance Implementation Plan, Phase III findings and submit to TSDAC Working Group for review and comment
- Finalize TSDAC Performance Based Operating Assistance Implementation Plan, Phase III Study Report

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