Virginia Department of Rail and Public Transportation

Development of Performance-Based Operating Assistance Methodology

DRAFT – January 21, 2019

Fiscal Year 2020

July 1, 2019 – June 30, 2020

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BACKGROUND AND INTRODUCTION

Virginia's Department of Rail and Transportation (DRPT) allocates operating assistance funding to transit agencies across the Commonwealth through an allocation process based on the Code of Virginia and Commonwealth Transportation Board (CTB) policy. Beginning in Fiscal Year (FY) 2020, the entirety of each transit agency's allocation will be based on a new performance-based methodology.

DRPT, working with the Virginia's Transit Service Delivery Advisory Committee (TSDAC), has developed a proposed methodology for allocating operating assistance funding to comply with a 2018 legislative mandate to base grant amounts on each agency's performance (Section 33.2-1526.1 of the *Code of Virginia*). This recommendation is subject to review and approval by the CTB.

This document describes TSDAC's approach, as part of an open and transparent process, to developing its recommendations to the CTB for a proposed methodology to allocate state operating assistance grants in Fiscal Year 2020 and future years.

POLICY CONSIDERATIONS

The performance-based allocation methodology is based on several different service delivery factors, including sizing metrics and performance metrics.

Many potential metrics were considered during several meetings of the TSDAC in 2018. The proposed methodology balances the need for reliable annual funding as well as the availability of performance data to support the six policy goals developed by TSDAC:

- Promote Fiscal Responsibility
- Support Robust Transit Service
- Improve Transit Patronage
- Incentivize Efficient Operations
- Promote Mobility
- Support Social Safety Net
- Data Exists for all Agencies

SIZING METRICS

Sizing metrics are used to base allocations on the "size" of an agency, such that agencies receive funding in proportion to the service they operate. TSDAC examined several potential sizing metrics to identify a combination that would allocate funding based on the size of transit agencies equitably, while meeting the six policy goals identified above.

As a starting point, TSDAC reviewed what other states have used, including Illinois, Kansas, Michigan, New York, Ohio, Pennsylvania, and Wisconsin. A list of potential sizing metrics was created, and compared against the policy objectives.

Table 1 - Sizing Metrics summarizes the list of sizing metrics considered. Each metric was evaluated according to whether it meets the policy objectives identified by TSDAC and whether data is readily available to measure the performance of Virginia's transit agencies based on the metric.

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Table 1 - Sizing Metrics

Sizing Metric	Promotes Fiscal Responsibility	Incentivizes Efficient Operations	Supports Robust Transit Service	Rewards Higher Patronage	Promotes Mobility	Supports Social Safety Net	Data Availability
Cost	✓	✓					✓
Net Cost	✓	✓					✓
Revenue Hours			✓		✓		✓
Revenue Miles			✓		✓		✓
Peak Vehicles			✓				
Peak Vehicle Seats			✓				
Ridership				✓	✓		✓
Passenger Miles Traveled				✓	✓		Partial

Metrics that align with the policy objectives and for which data is readily available from most agencies are highlighted in green. Metrics for which data was unavailable or only partially available were removed from further consideration. Cost was selected rather than net cost because it reflects more accurately the actual size of an agency's operations.

PERFORMANCE METRICS

Performance metrics measure the performance of a transit agency with respect to the agency's own performance and statewide trends. If an agency's performance trends better than statewide average performance, its operating assistance allocation will be adjusted upwards. Conversely, if an agency's performance is trending downward relative to the statewide average performance, its allocation will be adjusted downwards.

The proposed methodology uses a 3-year rolling average of performance metrics to minimize any year-over-year volatility. Similar to sizing metrics, TSDAC considered a large list of performance metrics, and analyzed how each aligns with the six TSDAC policy objectives.

Table 2 - Performance Metrics summarizes the list of performance metrics considered. Each metric was evaluated according to whether it meets the policy objectives identified by TSDAC and whether data is readily available to measure the performance of Virginia's transit agencies based on the metric.

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Table 2 - Performance Metrics

Performance Metric	Promotes Fiscal Responsibility	Incentivizes Efficient Operations	Supports Robust Transit Service	Rewards Higher Patronage	Promotes Mobility	Supports Social Safety Net	Data Availability
Average System Speed		✓			✓		✓
On-Time Performance		✓			✓		
Passenger Load Factor		✓		✓	✓		
Cost per Revenue Vehicle Hour	✓	✓					✓
Passengers per Revenue Vehicle Hour				✓	✓		✓
Cost per Revenue Vehicle Mile	✓	✓					✓
Passengers per Revenue Vehicle Mile				✓	✓		✓
Passenger Miles per Vehicle Revenue Mile		✓		✓	✓		
Net Cost Per Passenger	✓	✓					✓
Operating Cost per Passenger	✓	✓					✓

Metrics that align with the policy objectives and for which data is readily available from most agencies are highlighted in green. Metrics for which data was unavailable or only partially available were removed from further consideration. Cost was used rather than net cost because it reflects more accurately the actual performance of an agency's operations. Average system speed was not used because it is heavily influenced by factors outside of transit agency control such as road congestion.

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TSDAC RECOMMENDATIONS

RECOMMENDED SIZING AND PERFORMANCE METRICS

TSDAC examined the funding implications and policy objectives achieved by several scenarios, applying various combinations of sizing and performance metrics at different weights. The following metrics and weights were selected as the proposed methodology moving forward based on data availability, ability to support reliable annual funding, and consistency with the policy goals identified by TSDAC. These metrics were unanimously endorsed by TSDAC on December 3, 2018.

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

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

The proposed performance metrics and weights are:

- 20% Passengers per Revenue Vehicle Hour
- 20% Passengers per Revenue Vehicle Mile
- 20% Operating Cost per Revenue Vehicle Hour
- 20% Operating Cost per Revenue Vehicle Mile
- 20% Operating Cost per Passenger

The use of five metrics supports measurement of transit agency performance according to a variety of important factors that account for variations in the service profile of different agencies across the Commonwealth.

Additionally, two other features were incorporated into the proposed methodology, a Commuter Rail Funding Pool, and a Funding Cap.

COMMUTER RAIL POOL

Due to the unique cost structure of commuter rail compared to other transit services, commuter rail receives a unique treatment in the sizing process. The Commuter Rail Pool is established by comparing the Passenger Miles Travelled (PMT), Revenue Vehicle Hours and Revenue Vehicle Miles of Commuter Rail Agencies (currently only the Virginia Railway Express, VRE) to other transit agencies. PMT in particular reflects the fact that Commuter Rail passengers travel significantly longer distances than users of other transit modes. To support this calculation, PMT is estimated for small transit agencies that do not report PMT to the National Transit Database.

The size-weight for the Commuter Rail pool is calculated by taking the percentage of VRE's Passenger Miles Traveled, Revenue Vehicle Hours, and Revenue Vehicle Miles compared to statewide totals. Each factor is weighted at 1/3 (33.33%) and multiplied by the total amount of operating assistance available statewide.

- 33.33% Passenger Miles Traveled
- 33.33% Revenue Vehicle Hours
- 33.33% Revenue Vehicle Miles

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Funds not allocated to the Commuter Rail pool are allocated to the remainder of transit agencies on the basis of the sizing factors described below.

The Commuter Rail allocation is then adjusted by the same performance metrics as all other agencies to establish the annual allocation.

FUNDING CAP

A cap on funding allocations is used to minimize funding volatility of funding received by agency. The cap is set at 30% of an agency's latest year of operating costs. The recommended percentage is informed by the highest operating assistance grant received under the FY19 allocation methodology by Virginia transit agencies, which is generally below 30% of operating costs. After applying this cap to the operating assistance allocation, an unallocated funding pool remains. These funds are then redistributed to agencies below this cap, in proportion to their initial funding allocation.

TRANSITION RECOMMENDATION

In order to lessen the impacts of the new methodology on the predictability of agency funding, a transition methodology was proposed by TSDAC. The proposal is for the Operating Cost sizing metric to be weighted at 60% and Ridership at 20% for FY2020. TSDAC requested consideration of two years of transition, which DRPT did not concur with. For FY2021 onward, the Operating Cost sizing metric is proposed to be weighted at 50% and for Ridership at 30%, as approved by TSDAC in the Recommended Scenario.

SIZING METRICS	TRANSITION YEAR FY2020	FUTURE YEARS FY2021 ONWARD
Operating Cost	60%	50%
Ridership	20%	30%
Revenue Vehicle Hours	10%	10%
Revenue Vehicle Miles	10%	10%

APPENDIX

SCENARIOS CONSIDERED

A number of scenarios were developed to examine the implications of different combinations and weights of sizing and performance Metrics. Table 3 – Sizing Scenarios summarizes the different sizing metric combinations and weights that were analyzed for their ability to meet the policy objectives, as well as their funding implications.

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Table 3 - Sizing Scenarios

Scenario Name	Cost	Net Cost	Ridership	Passenger Miles Traveled	Revenue Miles	Revenue Hours
1. Net Cost, PMT, Revenue Miles		33%		33%	33%	
2. Net Cost, PMT, Revenue Hours		33%		33%		33%
3. Net Cost, Ridership, Revenue Miles		33%	33%		33%	
4. Net Cost, Ridership, Revenue Hours		33%	33%			33%
5. Net Cost, Ridership, PMT, Revenue Miles		25%	25%	25%	25%	
6. Ridership, Revenue Hours, Revenue Miles			33%		33%	33%
7. Net Cost, Ridership		50%	50%			
8. PMT, Revenue Hours, Revenue Miles				33%	33%	33%
9. Ridership, Revenue Miles			50%		50%	
10. Ridership, Revenue Hours			50%			50%
11. Cost, Ridership, Revenue Miles	33%		33%		33%	
12. Cost, Ridership, Revenue Hours	33%		33%			33%
13. Cost, Ridership (emphasized)	25%		75%			
14. Cost (emphasized), Ridership	75%		25%			
15. Cost, Ridership	50%		50%			
16. Ridership	100%					
17. Cost, PMT	50%			50%		
18. Cost	100%					

Table 4 – Sizing Scenarios: Policy Objective Analysis summarizes the alignment of how each sizing scenario with the policy goals identified by TSDAC. Since no specific metric supports the Social Safety Net goal, it is not included in this table.

Table 4 - Sizing Scenarios: Policy Goal Analysis

Scenario Name	Promotes Fiscal Responsibility	Incentivizes Efficient Operations	Supports Robust Transit Service	Rewards Higher Patronage	Promotes Mobility	Sum
1. Cost, Ridership, Revenue Miles	✓	✓	✓	✓	✓	5
2. Cost, Ridership, Revenue Hours	✓	✓	✓	✓	✓	5
3. Net Cost, PMT, Revenue Miles	✓	✓	✓	✓	✓	5
4. Net Cost, PMT, Revenue Hours	✓	✓	✓	✓	✓	5
5. Net Cost, Ridership, Revenue Miles	✓	✓	✓	✓	✓	5
6. Net Cost, Ridership, Revenue Hours	✓	✓	✓	✓	✓	5
7. Net Cost, Ridership, PMT, Revenue Miles	✓	✓	✓	✓	✓	5
8. Cost, Ridership (emphasized)	✓	✓		✓	✓	4
9. Cost (emphasized), Ridership	✓	✓		✓	✓	4
10. Cost, Ridership	✓	✓		✓	✓	4
11. Net Cost, Ridership	✓	✓		✓	✓	4
12. Cost, PMT	✓	✓		✓	✓	4
13. Ridership, Revenue Hours, Revenue Miles			✓	✓	✓	3
14. PMT, Revenue Hours, Revenue Miles			✓	✓	✓	3
15. Ridership, Revenue Miles			✓	✓	✓	3
16. Ridership, Revenue Hours			✓	✓	✓	3

Scenario Name	Promotes Fiscal Responsibility	Incentivizes Efficient Operations	Supports Robust Transit Service	Rewards Higher Patronage	Promotes Mobility	Sum
17. Ridership				✓	✓	2
18. Cost	✓	✓				2

Table 5 – Performance Scenarios summarizes the various performance scenarios considered.

Table 5: Performance Scenarios

Scenario Name	Passengers / Revenue Hour	Passengers / Revenue Mile	Net Cost / Passenger	Cost / Revenue Hour	Cost / Revenue Mile	Cost / Passenger
Current	25%	25%	50%			
Variation 1	25%	25%				50%
Variation 2			50%	25%	25%	
Variation 3				25%	25%	50%
Variation 4	20%	20%		20%	20%	20%

SUMMARY OF TSDAC MEETING TOPICS

AUGUST 29, 2018 WEBINAR

- Briefing on Operating Assistance – Existing Process/Formula

SEPTEMBER 7, 2018

- Outline and Key Policy Questions
- Performance Based Operating Formula

OCTOBER 3, 2018

- Outline and Key Policy Questions
- Impact of Performance Metrics on Prior Years Operating
- Operating Allocation – Best Practices
- Performance Based Operating Formula

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NOVEMBER 13, 2018

- Updated Sizing Scenarios
- Performance Metric Scenarios
- Principles for Transition Plan

DECEMBER 3, 2018

- Updated Sizing Scenarios
- Transition Plan
- Draft CTB Presentation/Policy

TSDAC PRESENTATIONS

Attached are several presentations that were developed for TSDAC's 2018 meetings. These presentations reflect the process, summarized in this document, used by TSDAC to reach the recommended performance-based allocation approach.

FY19 DATA AND ANALYSIS

The attached excel spreadsheet, titled "DRPT Operating Assistance Data Summary_PerformanceAllocations_01-07-19" summarizes the source data used for the sizing and performance metrics, and calculates estimated FY19 Performance-Based Operating Assistance allocations to Virginia transit agencies.

- The 'CommuterRailPool' tab summarizes how the commuter rail pool was calculated using Passenger Miles Traveled (PMT), Revenue Vehicle Hours (RVH), and Revenue Vehicle Miles (RVM) data.
- The 'Performance Factors' tab summarizes:
  - Sizing calculations
  - Performance metric calculations
  - Operating assistance allocation
  - Impact of capping operating assistance
  - Impact of re-allocation capped assistance

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Virginia Department of Rail & Public Transportation

Operating Assistance

Webinar Presentation

August 29, 2018

Agenda

- Background: Current Methodology
- Summary
- Next Steps

Background: Current Methodology

Current Methodology – Traditional vs. Performance Based Funding

- Virginia's transit agencies are currently allocated two forms of state operating assistance:
  - *"Traditional"*
    - Based on their operating expenses
    - $54 million allocated in FY19
  - *"Performance Based"*
    - Based on their performance compared to other agencies, on a rolling 3-year average basis
    - $36.6 million allocated in FY19

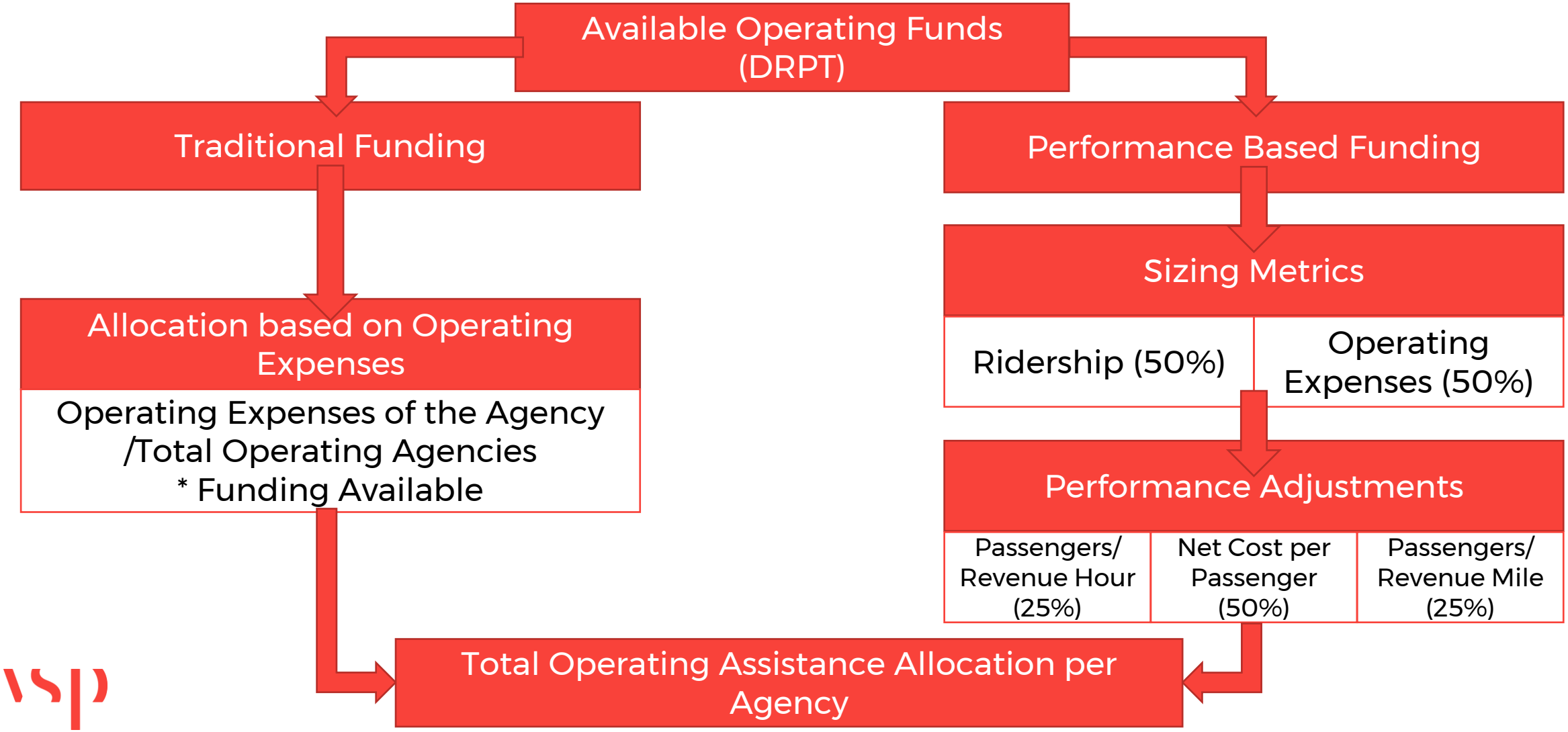
Current Methodology - Traditional Funding

- Traditional Operating Funding is allocated based on an Agency's proportion of reimbursable operating expenses relative to the total for all Virginia agencies
  - *If an agency's reimbursable operating expenses accounts for 5% of the total for all agencies, they will receive 5% of the traditionally allocated funding*
- HB 1513 of 2018 eliminated Traditional Operating funding

Current Methodology - Performance Based Funding

- Funding allocation model
  - *Size-Based Allocation:*
    - Ridership (50%)
    - Operating Expenses (50%)
  - *Performance Adjustments:*
    - Passenger per Revenue Hour (25%)
    - Passenger per Revenue Mile (25%)
    - Net Cost per Passenger (50%)

Current Operating Assistance Allocation Methodology



Performance Based Operating Assistance Allocation Example

$10 million in annual operating funding

Allocated according to Performance Based funding approach

Three Agencies

- ***Bay City:*** *Large urban agency providing light rail, bus, and demand-response transit*
- ***Capital City:*** *Medium urban agency providing bus and demand-response transit*
- ***Smallville:*** *Small rural agency providing only demand-response transit*

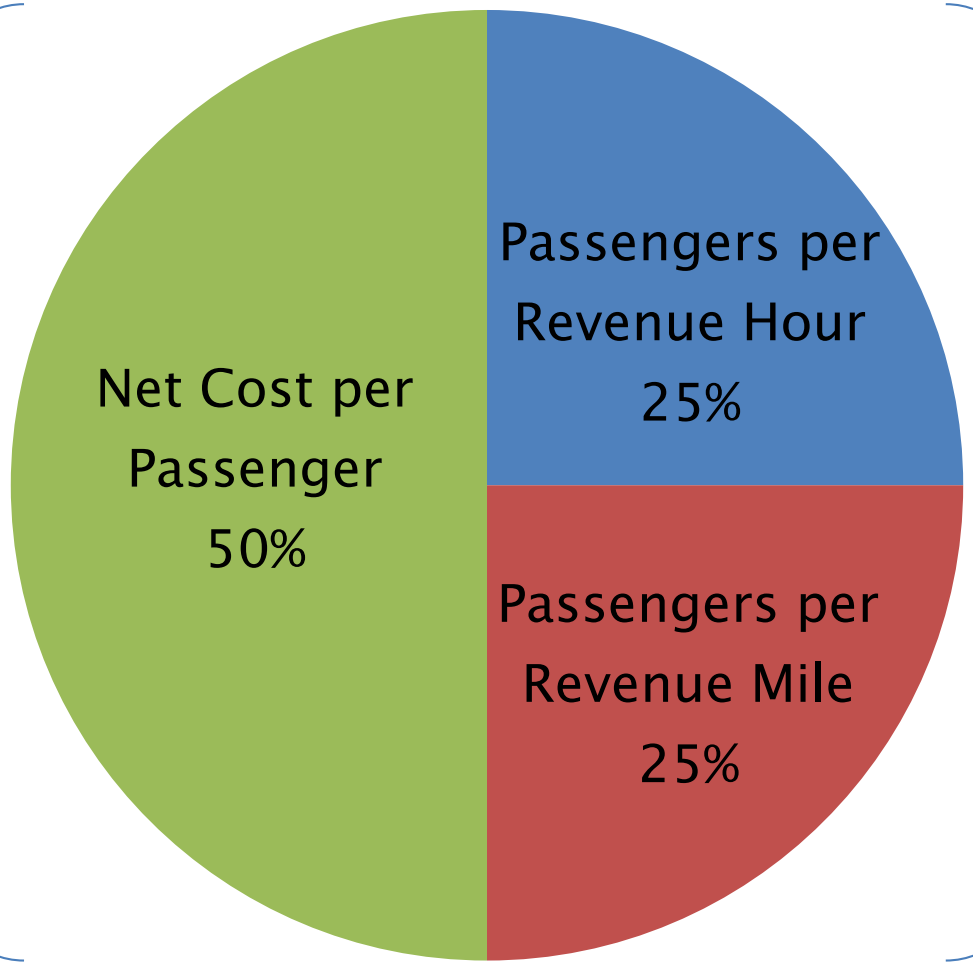
Step 1: Size-Weight Factor

Agency	Operating Cost (50%)	%	Unlinked Passenger Trips (50%)	%	Size-Weight Factor
Bay City	$100 million	66.2%	15 million	73.2%	69.7
Capital City	$50 million	33.1%	5 million	24.4%	28.8
Smallville	$1 million	0.7%	0.5 million	2.4%	1.5
TOTAL	**$151 million**	**100%**	**$20.5 million**	**100%**	**100.0**

- Allocation if based on size-weight factor:
  - **Bay City:** $6.97 million
  - **Capital City:** $2.88 million
  - **Smallville:** $0.15 million

Step 2: Performance-Adjustment Factors

Cost



Service

Example: Factor 1: Passengers per Revenue Hour

Agency	2014	2015	Trend Factor	Size-Performance Weight	Size-Performance Weight * Trend Factor	Normalized Weight
Bay City	49.5	52.0	1.02	69.7	71.1	70.4
Capital City	17.1	17.4	0.99	28.8	28.5	28.2
Smallville	1.10	1.06	0.93	1.5	1.4	1.4
WEIGHTED AVERAGE	**47.2**	**48.7**	**1.00**	**100.0**	**101.0**	**100.0**

- Statewide weighted average growth is 3.2%

Performance adjustments have limited impacts on grant amounts

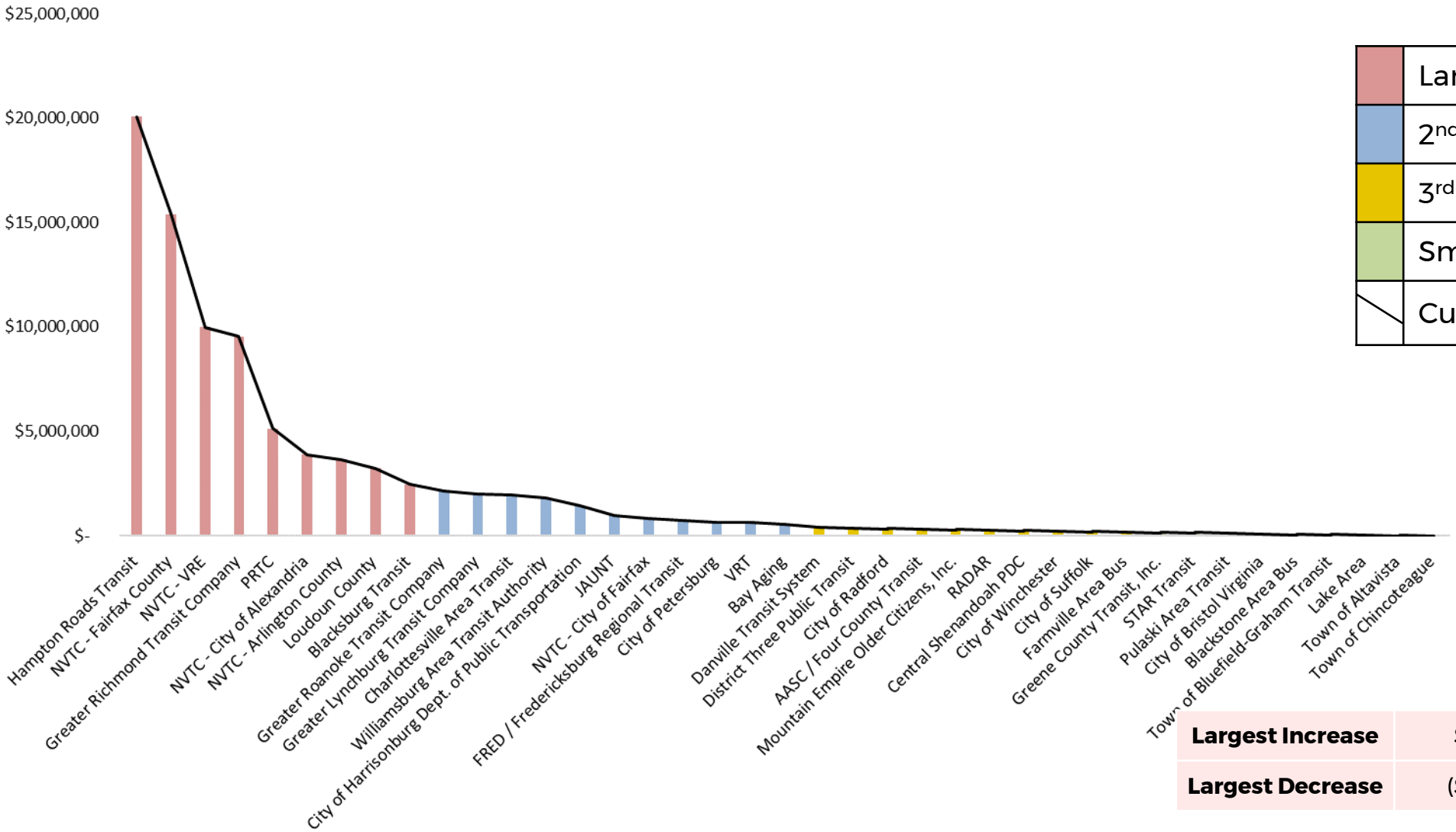
Performance Metrics

Agency	Size Weight	Passengers per Revenue Hour	Passengers per Revenue Mile	Net Cost per Passenger
Bay City	69.7	70.4	69.9	70.3
Capital City	28.8	28.2	28.5	28.1
Smallville	1.5	1.4	1.6	1.6
TOTAL	**100.0**	**100.00**	**100.00**	**100.00**

Agency	If Size-Weight Used Only	Factor 1 *$2.5M	Factor 2 *$2.5M	Factor 3 *$5M	Total Funding with Adjustments	Difference
Bay City	**$6.97**	$1.76	$1.75	$3.51	**$7.02**	**$0.05**
Capital City	**$2.88**	$0.70	$0.71	$1.41	**$2.82**	**($0.06)**
Smallville	**$0.15**	$0.04	$0.04	$0.08	**$0.16**	**$0.01**
TOTAL	**$10.00**	**$2.50**	**$2.50**	**$5.00**	**$10.00**	**$0.00**

FY19 Actual Allocations
(Traditional and Performance)

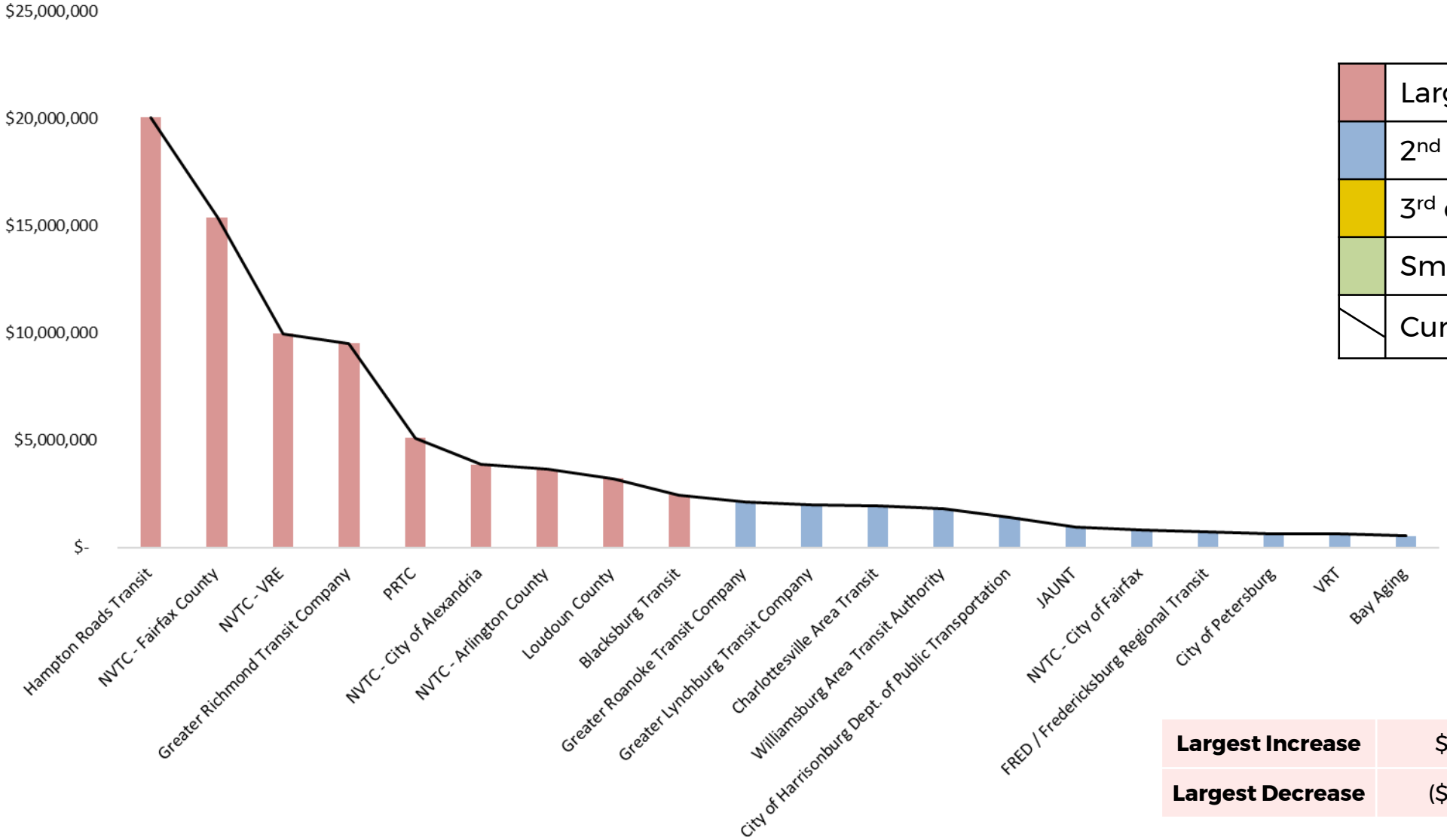
Current allocation of operating assistance to Virginia agencies



Largest quartile	
2nd quartile	
3rd quartile	
Smallest quartile	
Current Allocation	

Largest Increase	$0	0%
Largest Decrease	($0)	(0%)

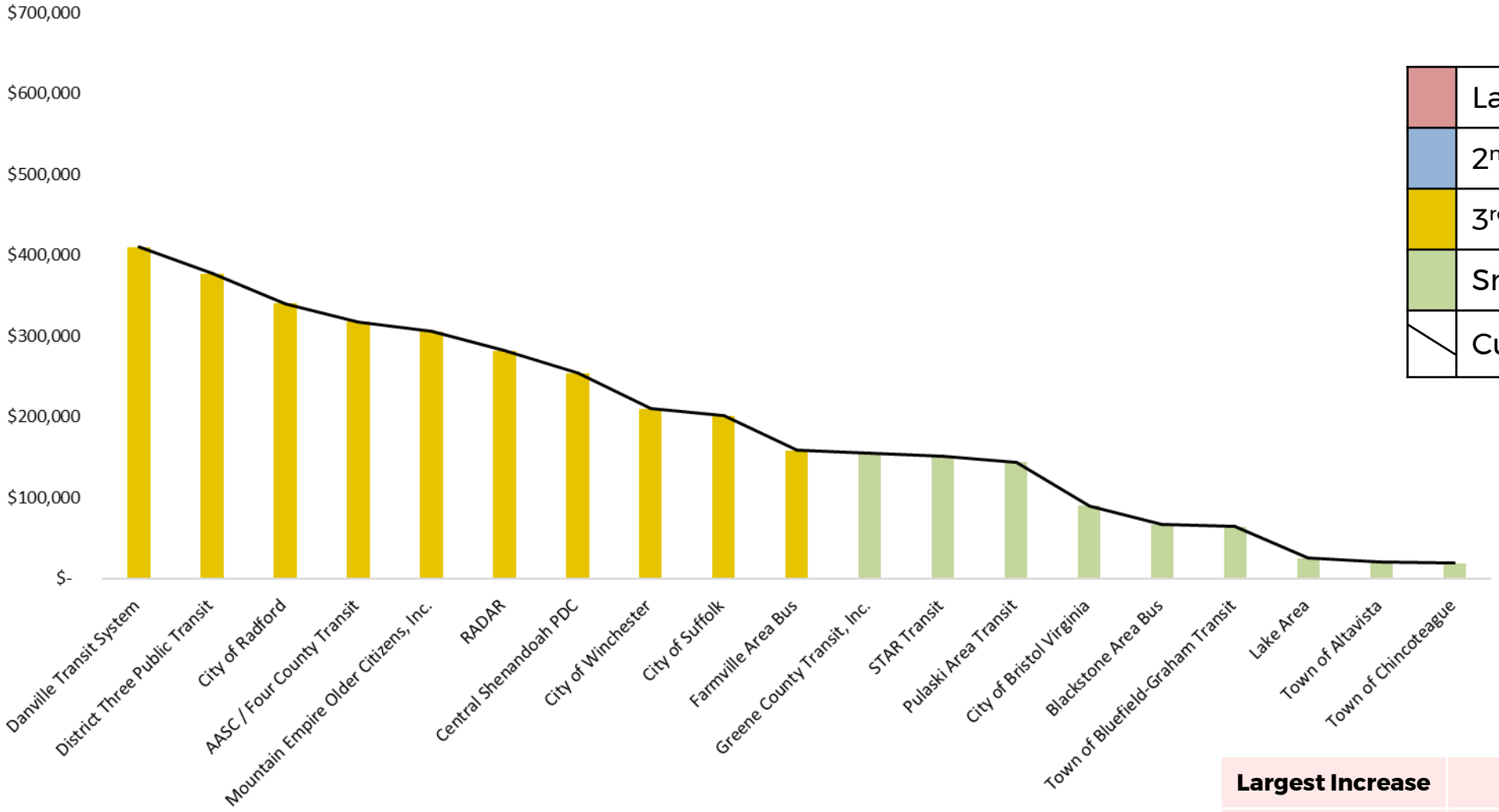
Current allocation of operating assistance to Virginia agencies: 1st and 2nd Quartile Agencies



Largest quartile	
2nd quartile	
3rd quartile	
Smallest quartile	
Current Allocation	

Largest Increase	$0	0%
Largest Decrease	($0)	(0%)

Current allocation of operating assistance to Virginia agencies: 3rd and 4th Quartile Agencies



Largest quartile	
2nd quartile	
3rd quartile	
Smallest quartile	
Current Allocation	

Largest Increase	$0	0%
Largest Decrease	($0)	(0%)

Previous Efforts: 2014 Study of Alternatives

- 2014 Study Recommendations from Working Group: no change to the sizing metrics
- The following metrics categories were reviewed:
  - Urban and/or Service Area Characteristics: size, population, density
  - Transit service characteristics: vehicle revenue miles, vehicle revenue hours, track miles, stations, peak vehicles, peak seats, seat miles
  - Service quality measures: service span, peak headway, revenue miles/urban square miles, revenue miles/capita

Summary

- Currently, operating funds are allocated based on an agency's relative:
  - *Operating Cost (traditional funding) and*
  - *Performance (**performance based funding**)*
- **Performance based funding** is based on:
  - *2 sizing metrics:*
    - Operating cost
    - Ridership
  - *These are adjusted based on 3 performance metrics:*
    - Passengers per revenue hour
    - Passengers per revenue mile
    - Net cost per passenger
- Sizing metrics have the largest impact on allocations
- Performance metrics have a marginal effect on allocations

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Next Steps

- The General Assembly has mandated that agencies be allocated state operating assistance exclusively based on performance
- WSP will present potential metrics for discussion at the TSDAC meeting on September 7th

Legislative Basis

House Bill 1513 of 2018

§ 33.2-1526.1. Use of the Commonwealth Mass Transit Fund.

A. All funds deposited pursuant to §§ 58.1-638, 58.1-638.3, 58.1-815.4, and 58.1-2289 into the Commonwealth Mass Transit Fund (the Fund), established pursuant to subdivision A 4 of § 58.1-638, shall be allocated as set forth in this section. …

C. Each year the Director of the Department of Rail and Public Transportation shall make recommendations to the Board for the allocation of funds from the Fund. Such recommendations, and the final allocations approved by the Board, shall adhere to the following:

1. ***Thirty-one percent of the funds shall be allocated to support operating costs of transit providers and shall be distributed by the Board on the basis of service delivery factors, based on effectiveness and efficiency as established by the Board. Such measures and their relative weight shall be evaluated every three years and, if redefined by the Board, shall be published and made available for public comment at least one year in advance of being applied.*** *The Washington Metropolitan Area Transit Authority(WMATA) shall not be eligible for an allocation of funds pursuant to this subdivision.*

Virginia Department of Rail and Public Transportation

Operating Assistance – Framework for Discussion

Transit Service Delivery Advisory Committee

September 7, 2018

Service Delivery Factors

Virginia Code §33.2-214.3

- DRPT with TSDAC shall develop process for distribution of statewide operating funds
- Process must include incorporation by transit systems of service delivery factors into respective TDP's.
- Prior to CTB adoption of service delivery factors, DRPT Director and TSDAC Chair shall brief House and Senate money committees regarding the findings and recommendations.

Service Delivery Factors

Virginia Code §33.2-214.3

- CTB must consult with DRPT , TSDAC, and interested stakeholders prior to redefining any component of the service delivery factors.
- 45-day public comment period required.
- Revised statewide operating allocation process must be adopted by July 1, 2019 and implemented for FY 2020-2025 SYIP

New Transit Allocation Process

Virginia Code §33.2-1526.1

- CTB must allocate 31% of Commonwealth Mass Transit Trust Fund to statewide operating.
  - 53.5% to WMATA Operating and Capital
  - 12.5% to statewide capital
  - 3% to special
- WMATA no longer eligible for statewide operating funds
- All statewide operating funds must be allocated by service delivery factors beginning with FY 2020-2025 SYIP
- Changes to factors and weights considered every 3 years, with 1-year comment period.

Things to Consider

- Mobility environment is changing – how does the program evolve?
- Importance of stability within the program
- Zero sum process – change means that some will benefit and some will not
- Today's focus - metrics

Virginia Department of Rail & Public Transportation

Operating Assistance Performance Metrics

September 7, 2018

Agenda

- Purpose
- Background
- Executive Summary
- Need for Evaluation
- Selecting an Approach
- Possible Metrics
- Rating of Metrics
- Discussion

Purpose

- Introduce potential metrics for performance-based funding allocation, and receive TSDAC feedback
- Based on feedback, apply metrics to develop scenarios summarizing funding allocation outcomes

Executive Summary: Background (Review of August 27 Webinar)

- Currently, operating assistance funds are allocated based on agency:
  - *Operating Cost (traditional funding) and*
  - *Performance (**performance-based funding**)*
- **Performance-based funding** is based on:
  - *2 sizing metrics:*
    - Operating cost
    - Ridership
  - *Adjusted based on 3 performance adjustment metrics:*
    - Passengers per revenue hour
    - Passengers per revenue mile
    - Net cost per passenger
- Sizing metrics have the largest impact on allocations
- Performance adjustment metrics have marginal effect on allocations

Need for Evaluation

- Legislation mandated that funding be allocated on the basis of agency performance
- Goals of performance-based funding allocation
  - Equitably allocate funding based on “size” of transit agency
  - Promote fiscal responsibility
  - Support robust transit service
  - Reward higher transit patronage
- TSDAC will review and select sizing metrics for performance-based allocation of operating funds
- Consider:
  - Cost Measures
  - Transit Service Measures
  - Ridership Measures
  - Service Area Characteristics

Selecting a Performance Measurement Approach

- Principles of Transit Performance Measurement:
  - Performance can be tracked over time and/or in relation to peers
  - Measures can be refined by combining various characteristics to better achieve goals
- Select an approach and metrics that fit the goals
- Difficulty benchmarking among transit agencies to measure performance
  - *"No two transit agencies are the same"*
- Determine agencies' capacity to collect data
- Minimize complexity; support transparency

Key Data Challenges with Performance Measurement

- Data Availability
  - Is the data already collected and reported?
  - If not, where will the data be sourced from?
  - What is the incremental burden of data collection and who bears it?
- Reliability, Consistency, and Timeliness of Data
  - Developing agreed-upon standards for core measures
  - Divergent data collection procedures
  - Obtaining consistent data on a regular basis over time
  - Can data be validated?

Possible Metrics for Performance Funding Allocation

- Cost Metrics
- Delivered Service Metrics
- Ridership
- Service Area Characteristics
  - Characteristics of an agency's service area, such as total size or population growth could be compared, but are not influenced by to transit service performance

Possible Metrics for Performance Funding Allocation

- Cost Metrics
  - Operating Cost
    - Expenses associated with transit agency operation, classified by function or activity, and goods and services purchased
  - Net Operating Cost
    - Operating Costs minus operating revenues (including fares)

Possible Metrics for Performance Funding Allocation

- Delivered Service Metrics
  - Revenue Vehicle Hours
    - Hours traveled by revenue vehicles (buses, etc.) while in revenue service
  - Revenue Vehicle Miles
    - Miles traveled by revenue vehicles while in revenue service
  - Peak Vehicles
    - Number of revenue vehicles simultaneously operated to meet the annual maximum service requirement
    - This is the revenue vehicle count during the peak season of the year; on the week and day that maximum service is provided, excluding atypical days and one-time special events
  - Peak Vehicle Seats
    - Total number of seats available on Peak Vehicles as defined above

Possible Metrics for Performance Funding Allocation

- Ridership
  - Unlinked Passenger Trips
    - Number of passengers who board public transportation vehicles, regardless of whether passenger is transferring from another transit vehicle
  - Passenger Miles Traveled
    - Cumulative sum of the distances traveled by each passenger

Rating of Metrics

- Metrics can be evaluated by their:
  - Alignment with Objectives
    - Metrics should measure performance in a clear way
  - Availability of Data
    - Measurable given available tools and data and/or with minimal incremental cost
  - Consistency of Data Definition
    - A clear and universal definition of the metric exists
    - Metrics that are compared across agencies should mean the same thing to each agency, and should be measured in the same way
- Ratings for Metrics are as follows:
  - *Good (**G**)*
  - *Average (**A**)*
  - *Poor (**P**)*

Possible Metrics for Performance Funding Allocation

	Alignment with Objectives	Availability of Data	Consistency of Data Definition	Overall Score
Cost				
Operating Cost	A	G	G	**G**
Net Operating Cost	A	G	G	**G**
Delivered Service Metrics				
Revenue Hours	G	G	G	**G**
Revenue Miles	G	G	G	**G**
Peak Vehicles	A	G	G	**A**
Peak Vehicle Seats	A	G	A	**A**
Ridership				
Unlinked Passenger Trips	G	G	G	**G**
Passenger Miles Traveled	G	A	A	**A**

Good	G
Average	A
Poor	P

Discussion

— Which metrics are most supportive of performance measurement goals?

— In what proportion should the metrics be applied?

Virginia Department of Rail & Public Transportation

Operating Assistance Metrics & Scenarios

Final Presentation

October 3, 2018

Agenda

- Background (Review)
- Goals & Policy Objectives
- Operating Assistance Allocation Methods Used in Other States
- Potential Sizing Metrics
- Allocation Approaches
- Allocation Scenario Results
- Recommended Approach

Background (Review from Prior Meetings)

- Currently, operating assistance funds are allocated based on agency:
  - *Operating Cost (traditional funding) and*
  - *Performance (**performance-based funding**)*
- **Performance-based funding** is based on:
  - *2 sizing metrics:*
    - Operating cost
    - Ridership
  - *Adjusted based on 3 performance adjustment metrics:*
    - Passengers per revenue hour
    - Passengers per revenue mile
    - Net cost per passenger
- Sizing metrics have the largest impact on allocations
- Performance adjustment metrics have marginal effect on allocations

Presentation Objectives

- Confirm goal and policy objectives
- Introduce allocation methods applied in other states
- Introduce potential sizing metrics and allocation approaches
- Determine recommended approach or further information needs

Goals & Policy Objectives

- Allocation Goal: Equitably allocate funding based on "size" of transit agency

- Introduced during last meeting:
  - Promote Fiscal Responsibility
  - Support Robust Transit Service
  - Improved Transit Patronage

- Suggested by TSDAC in September:
  - Incentivize Efficient Operations
  - Support Social Safety Net
  - Promote Mobility

Other States' Operating Assistance Methods and Metrics

- TSDAC requested information on transit operating funding allocation practices of other states

- In general, other states use similar sizing metrics considered here, including:
  - Operating Cost
  - Ridership
  - Revenue Miles and Hours

- Some states use population as a sizing metric, but it is not a transit performance measure

Other States' Operating Assistance Methods and Metrics

- States examined in 2014 Report to TSDAC
  - Kansas – Formula for urban areas
    - 40% Population
    - 40% Ridership
    - 20% Revenue miles
  - New York
    - Large agency funding is a budget line item; some funding dedicated
    - Small agencies receive fixed amounts per Passengers and Passenger Miles
  - Ohio – Used to use a formula – now uses past year allocations
    - Urban programs receive grants based on 50% ridership, 50% cost per hour, passenger per mile, and farebox recovery rate
  - Pennsylvania
    - Urban Formula
      - 25% Passengers
      - 10% Senior premium
      - 35% Revenue hours
      - 30% Revenue miles

Other States' Operating Assistance Methods and Metrics

- Additional states
  - Michigan
    - Local bus operating assistance levels based on population
      - Up to 60% for urban areas under 100,000
      - Up to 50% for urban areas over 100,000
  - Wisconsin
    - Four tiers of state funding based on systems' size and population
  - Illinois
    - Separate programs for Northeastern Illinois (Chicago area) and Downstate
      - Downstate pays up to 65% of eligible expenses in addition to annual general assembly appropriations
      - Dedicated funding for Northeastern Illinois

Understanding Sizing Metrics

— Sizing metrics base allocations on the “size” of the agency

— Sizing must reflect the service and span of the agency

— *They cannot be ratios such as cost / passenger mile*

9

— Sizing metrics have the largest impact on allocations

Potential Sizing Metrics

- Cost
  - Operating Cost
  - Net Operating Cost
- Delivered Service
  - Revenue Vehicle Miles
  - Revenue Vehicle Hours
  - Peak Vehicles
  - Peak Vehicle Seats
- Ridership
  - Unlinked Passenger Trips
  - Passenger Miles Traveled
- Service Area Characteristics
  - Population

Alignment of Metrics with Policy Objectives

Sizing Metric	Promotes Fiscal Responsibility	Incentivizes Efficient Operations	Supports Robust Transit Service	Rewards Higher Patronage	Promotes Mobility	Supports Social Safety Net
Cost						
Net Cost	✓	✓				
Revenue Hours			✓		✓	
Revenue Miles			✓		✓	
Peak Vehicles			✓			
Peak Vehicle Seats			✓			
Ridership				✓	✓	
Passenger Miles Traveled				✓	✓	

Alignment of Metrics with Policy Objectives: Usable Options

Sizing Metric	Promotes Fiscal Responsibility	Incentivizes Efficient Operations	Supports Robust Transit Service	Rewards Higher Patronage	Promotes Mobility	Supports Social Safety Net	Data Exists
Cost							✓
Net Cost	✓	✓					✓
Revenue Hours			✓		✓		✓
Revenue Miles			✓		✓		✓
Peak Vehicles			✓				
Peak Vehicle Seats			✓				
Ridership				✓	✓		✓
Passenger Miles Traveled				✓	✓		Partial

Allocation Approach

- The following metrics cover the policy objectives, and have data available:
  - Net Cost
  - Revenue Hours
  - Revenue Miles
  - Ridership
  - Passenger Miles Traveled

- Combinations of these metrics may cover 5 out of 6 policy objectives

Potential Allocation Scenarios

Scenario Name	Cost	Net Cost	Ridership	PMT	Rev Miles	Rev Hours
1. Net Cost, PMT, Revenue Miles		33%		33%	33%	
2. Net Cost, PMT, Revenue Hours		33%		33%		33%
3. Net Cost, Ridership, Revenue Miles		33%	33%		33%	
4. Net Cost, Ridership, Revenue Hours		33%	33%			33%
5. Net Cost, Ridership, PMT, Revenue Miles		25%	25%	25%	25%	
6. Ridership, Revenue Hours, Revenue Miles			33%		33%	33%
7. Net Cost, Ridership		50%	50%			
8. PMT, Revenue Hours, Revenue Miles				33%	33%	33%
9. Ridership, Revenue Miles			50%		50%	
10. Ridership, Revenue Hours			50%			50%
11. Cost, Ridership, Revenue Miles	33%		33%		33%	
12. Cost, Ridership, Revenue Hours	33%		33%			33%
13. Cost, Ridership (emphasized)	25%		75%			
14. Cost (emphasized), Ridership	75%		25%			
15. Cost, Ridership	50%		50%			
16. Ridership	100%					
17. Cost, PMT	50%			50%		
18. Cost	100%					

Allocation Scenarios – Alignment with Policy Objectives

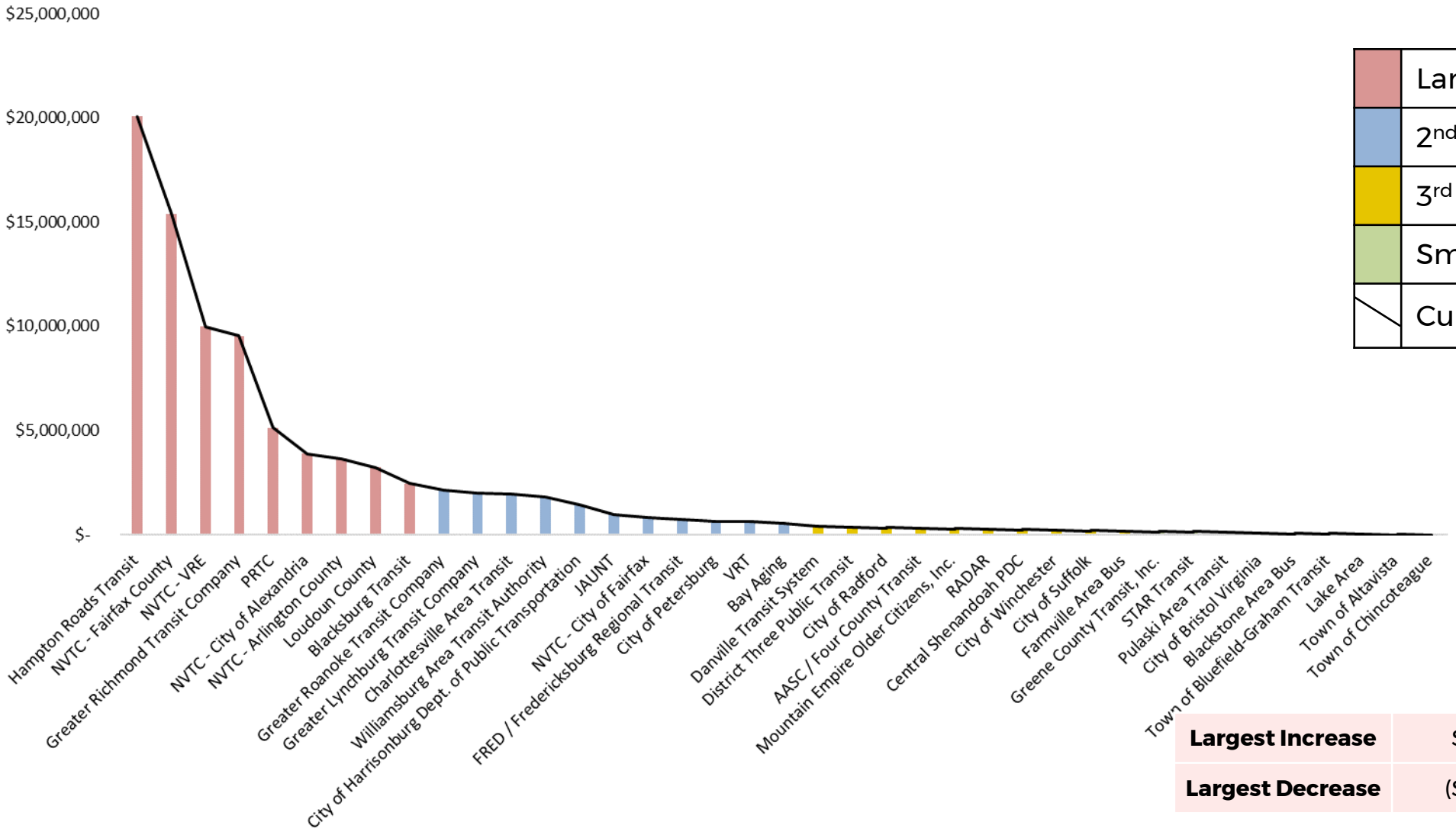
Scenario Name	Promotes Fiscal Responsib-ility	Incentivizes Efficient Operations	Supports Robust Transit Service	Rewards Higher Patronage	Promotes Mobility	Sum
1. Net Cost, PMT, Revenue Miles	✓	✓	✓	✓	✓	5
2. Net Cost, PMT, Revenue Hours	✓	✓	✓	✓	✓	5
3. Net Cost, Ridership, Revenue Miles	✓	✓	✓	✓	✓	5
4. Net Cost, Ridership, Revenue Hours	✓	✓	✓	✓	✓	5
5. Net Cost, Ridership, PMT, Revenue Miles	✓	✓	✓	✓	✓	5
6. Net Cost, Ridership	✓	✓		✓	✓	4
7. Ridership, Revenue Hours, Revenue Miles			✓	✓	✓	3
8. PMT, Revenue Hours, Revenue Miles			✓	✓	✓	3
9. Ridership, Revenue Miles			✓	✓	✓	3
10. Ridership, Revenue Hours			✓	✓	✓	3
11. Cost, Ridership, Revenue Miles			✓	✓	✓	3
12. Cost, Ridership, Revenue Hours			✓	✓	✓	3
13. Cost, Ridership (emphasized)				✓	✓	2
14. Cost (emphasized), Ridership				✓	✓	2
15. Cost, Ridership				✓	✓	2
16. Ridership				✓	✓	2
17. Cost, PMT				✓	✓	2
18. Cost						0

Featured Allocation Scenarios

Scenario Name	Net Cost	Ridership	PMT	Rev Miles	Rev Hour	Objectives
1. Net Cost, PMT, Revenue Miles	33%		33%	33%		5
2. Net Cost, Ridership, Revenue Miles	33%	33%		33%		5
3. Net Cost, Ridership, PMT, Revenue Miles	25%	25%	25%	25%		5

FY19 Actual Allocations
(Traditional and Performance)

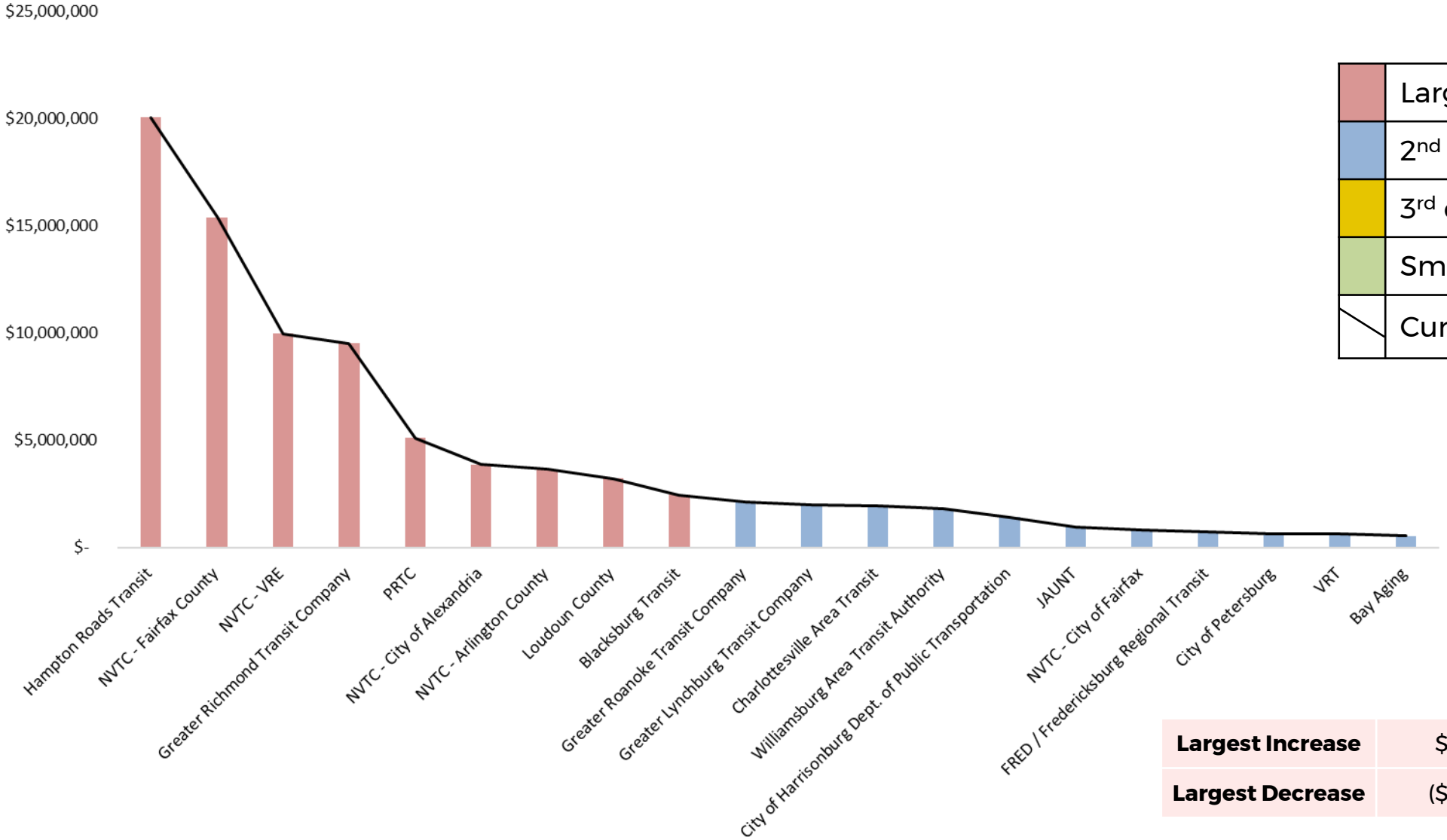
Current allocation of operating assistance to Virginia agencies



Largest quartile	
2nd quartile	
3rd quartile	
Smallest quartile	
Current Allocation	

Largest Increase	$0	0%
Largest Decrease	($0)	(0%)

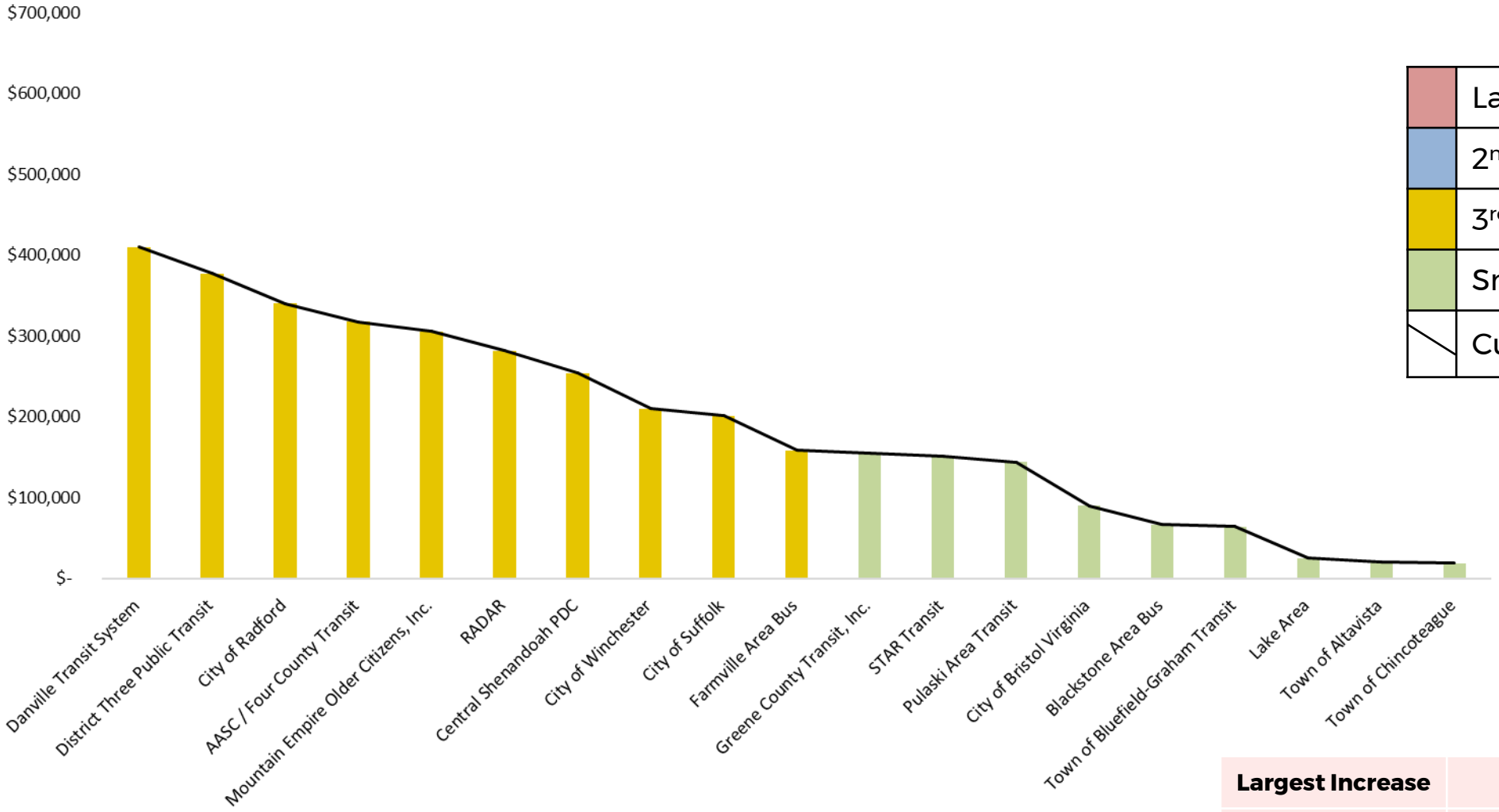
Current allocation of operating assistance to Virginia agencies: 1st and 2nd Quartile Agencies



Largest quartile	
2nd quartile	
3rd quartile	
Smallest quartile	
Current Allocation	

Largest Increase	$0	0%
Largest Decrease	($0)	(0%)

Current allocation of operating assistance to Virginia agencies: 3rd and 4th Quartile Agencies



Largest quartile	
2nd quartile	
3rd quartile	
Smallest quartile	
Current Allocation	

Largest Increase	$0	0%
Largest Decrease	($0)	(0%)

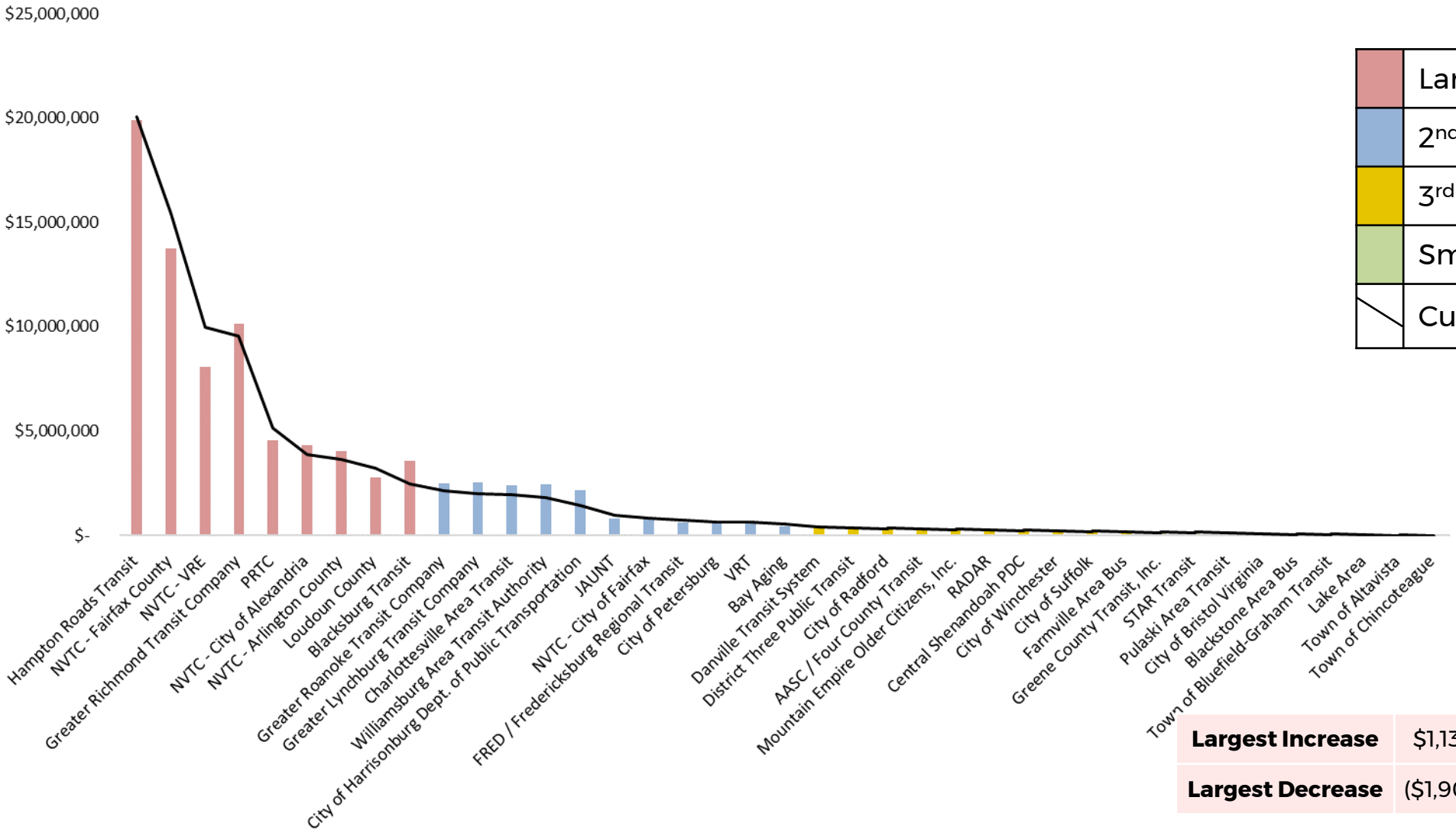
Existing Sizing

50% Operating Cost /
50% Ridership

Existing Sizing
50% Cost
50% Ridership

50% Cost / 50% Ridership – All Agencies

Line is Current Allocation Method for FY19



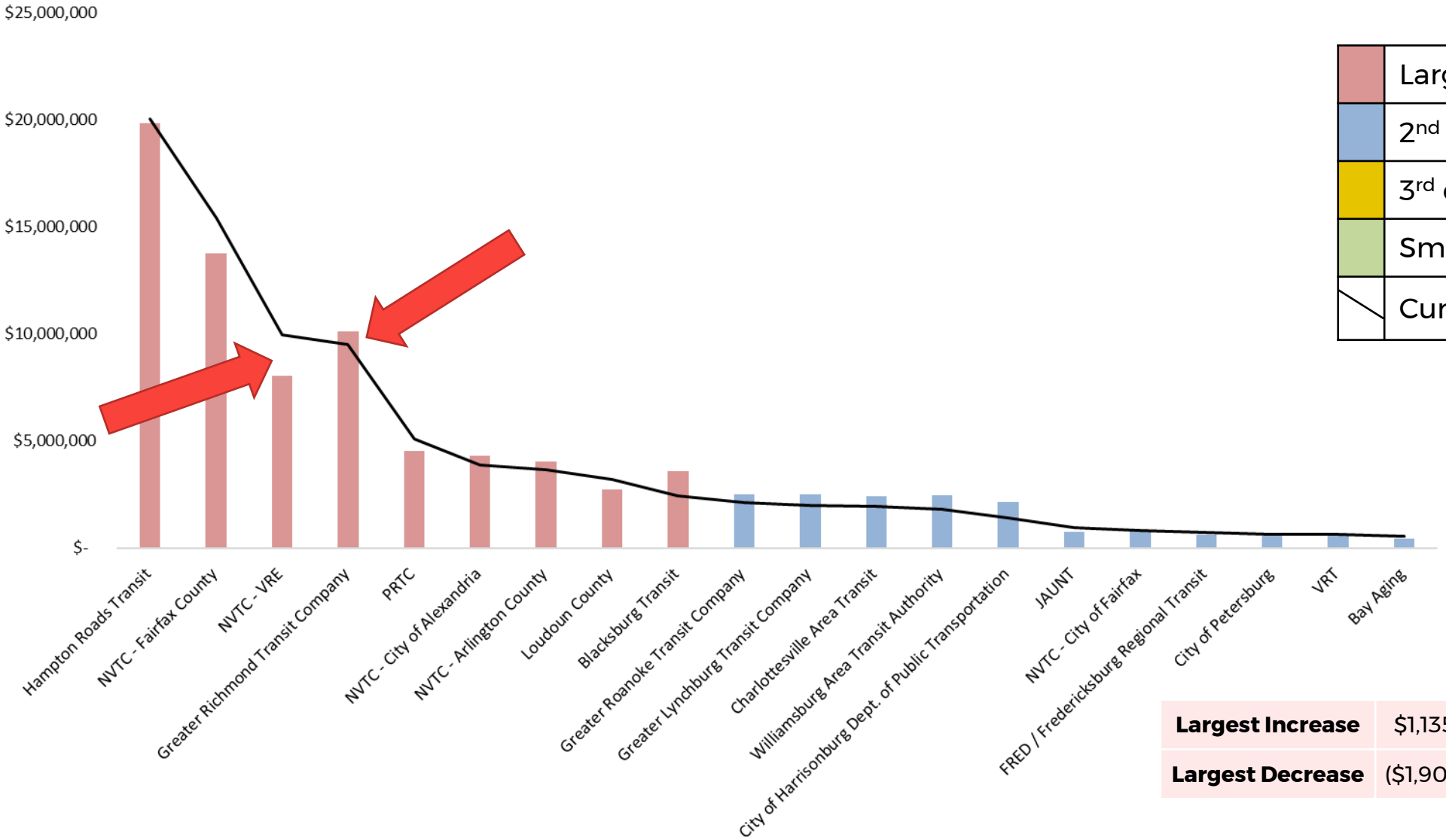
Largest quartile	
2nd quartile	
3rd quartile	
Smallest quartile	
Current Allocation	

Largest Increase	$1,135,096	53%
Largest Decrease	($1,907,678)	(23%)

Existing Sizing
50% Cost
50% Ridership

50% Cost / 50% Ridership – 1st and 2nd Quartile Agencies

Line is Current Allocation Method for FY19



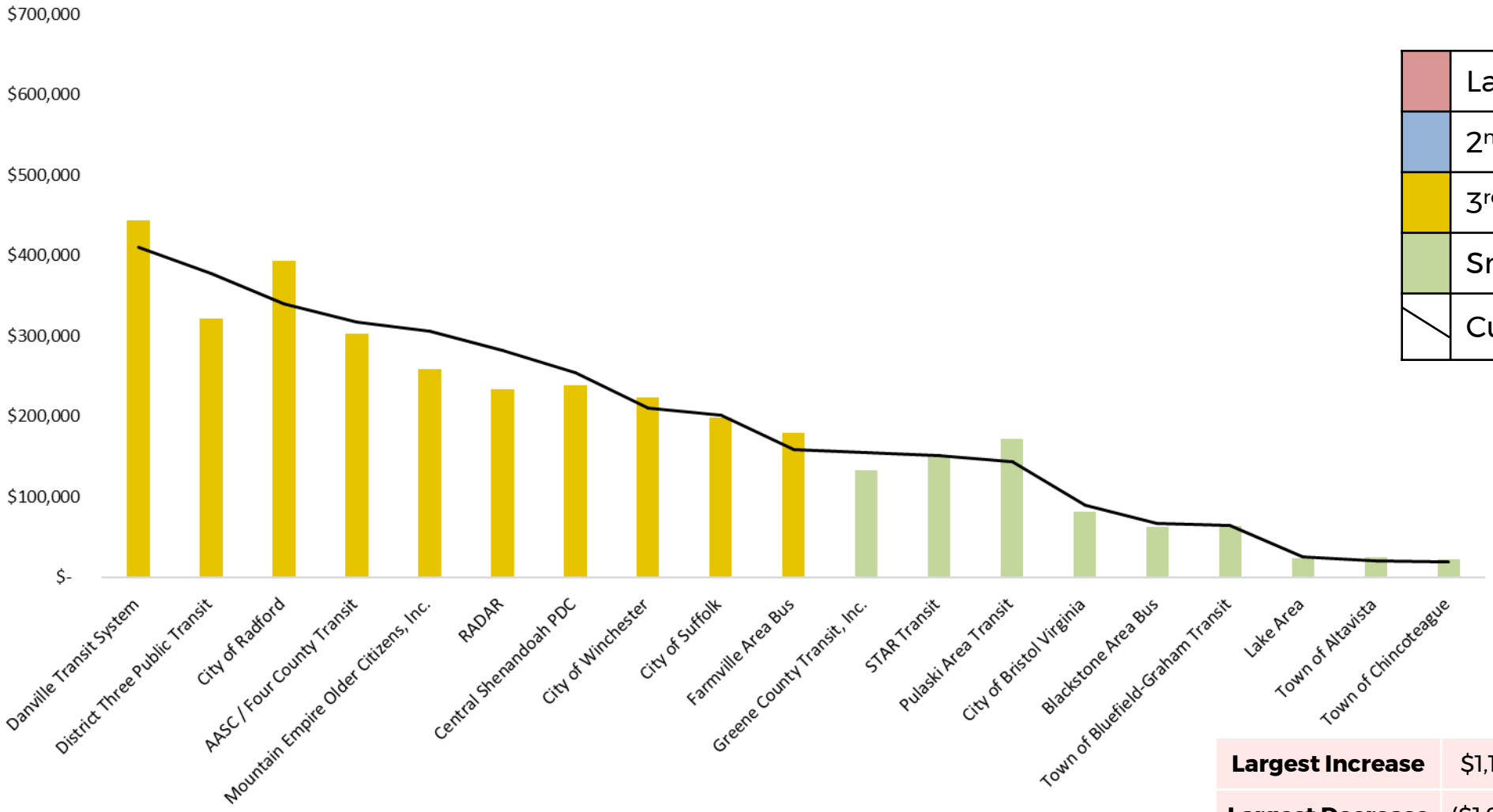
Largest quartile	
2nd quartile	
3rd quartile	
Smallest quartile	
Current Allocation	

Largest Increase	$1,135,096	53%
Largest Decrease	($1,907,678)	(23%)

Existing Sizing
50% Cost
50% Ridership

50% Cost / 50% Ridership – 3rd and 4th Quartile Agencies

Line is Current Allocation Method for FY19



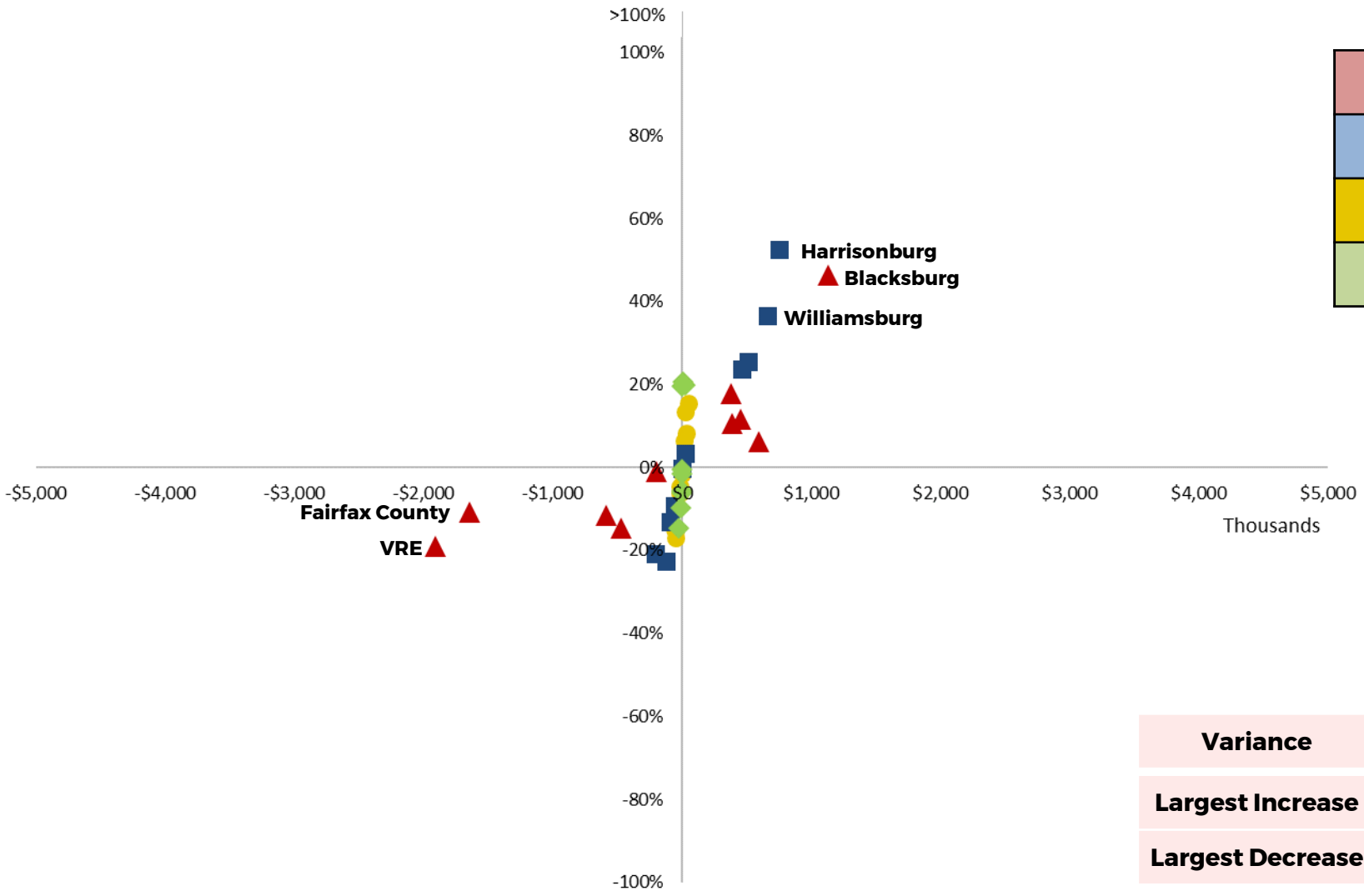
Largest quartile	
2nd quartile	
3rd quartile	
Smallest quartile	
Current Allocation	

Largest Increase	$1,135,096	53%
Largest Decrease	($1,907,678)	(23%)

Existing Sizing
50% Cost
50% Ridership

50% Cost / 50% Ridership

No Change is at Zero on the Axes



Largest quartile	
2nd quartile	
3rd quartile	
Smallest quartile	

Variance	0.032	
Largest Increase	$1,135,096	53%
Largest Decrease	($1,907,678)	(23%)

Scenarios

Featured Allocation Scenarios

Scenario Name	Net Cost	Rider ship	PMT	Rev Miles	Rev Hour	Objec tives
1. Net Cost, PMT, Revenue Miles	33%		33%	33%		5
2. Net Cost, Ridership, Revenue Miles	33%	33%		33%		5
3. Net Cost, Ridership, PMT, Revenue Miles	25%	25%	25%	25%		5

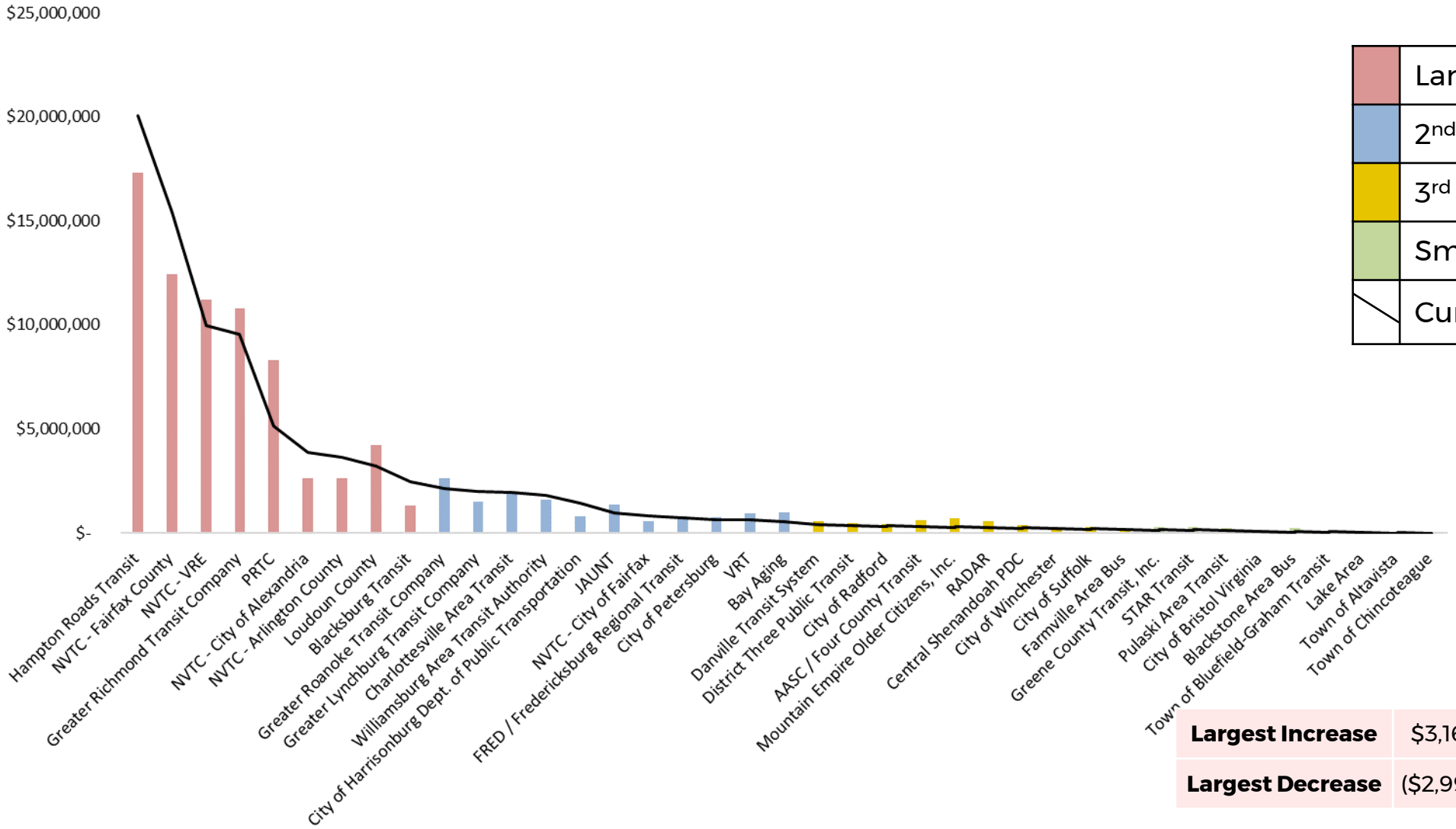
Scenario 1

33% Net Operating Cost
33% Passenger Miles Traveled
33% Revenue Vehicle Miles

Scenario 1
33% Net Cost
33% PMT
33% Rev Miles

Scenario 1 – All Agencies

Line is Current Allocation Method for FY19



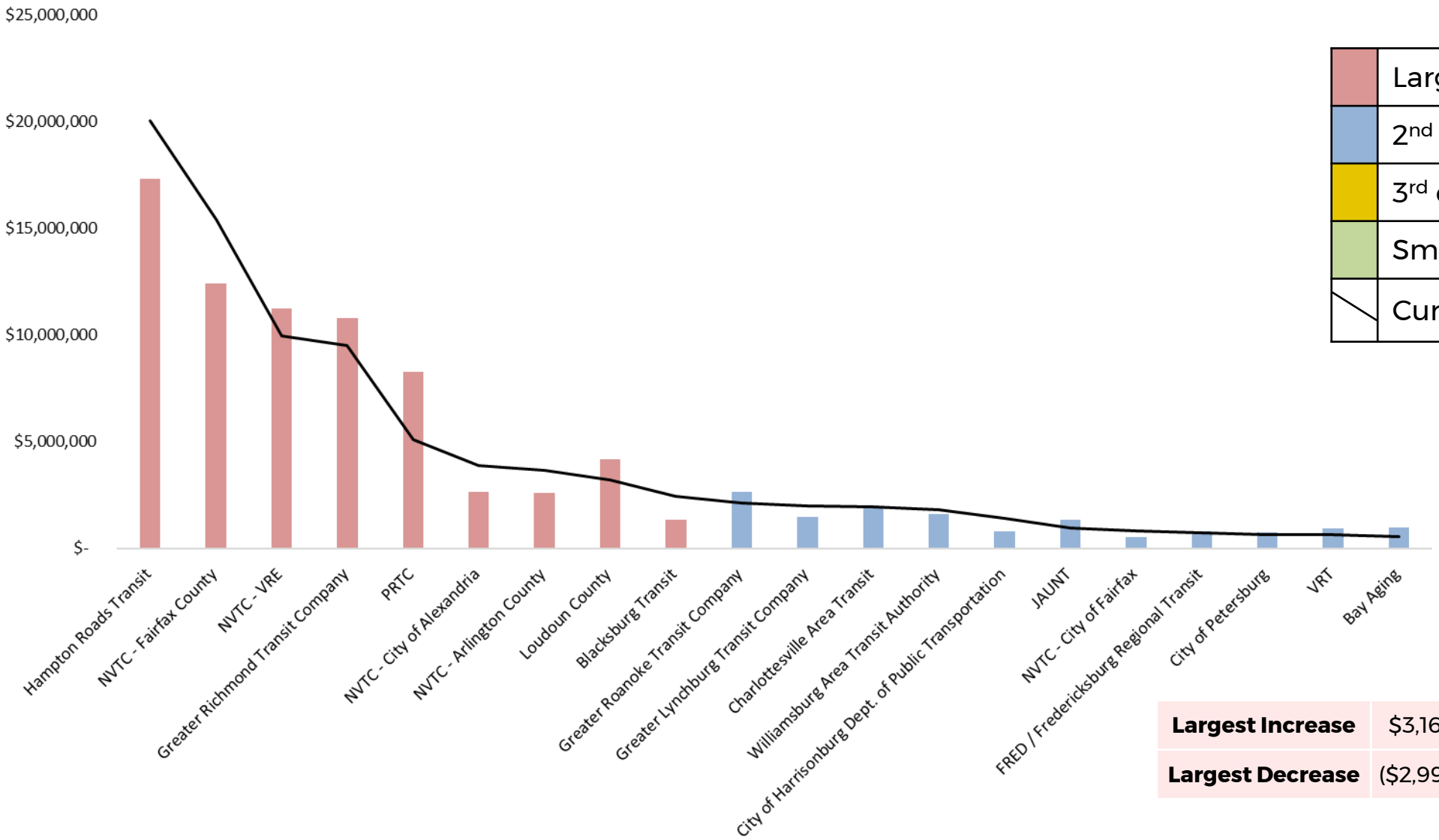
Largest quartile	
2nd quartile	
3rd quartile	
Smallest quartile	
Current Allocation	

Largest Increase	$3,163,592	257%
Largest Decrease	($2,993,878)	(45%)

Scenario 1
33% Net Cost
33% PMT
33% Rev Miles

Scenario 1 – 1st and 2nd Quartile Agencies

Line is Current Allocation Method for FY19



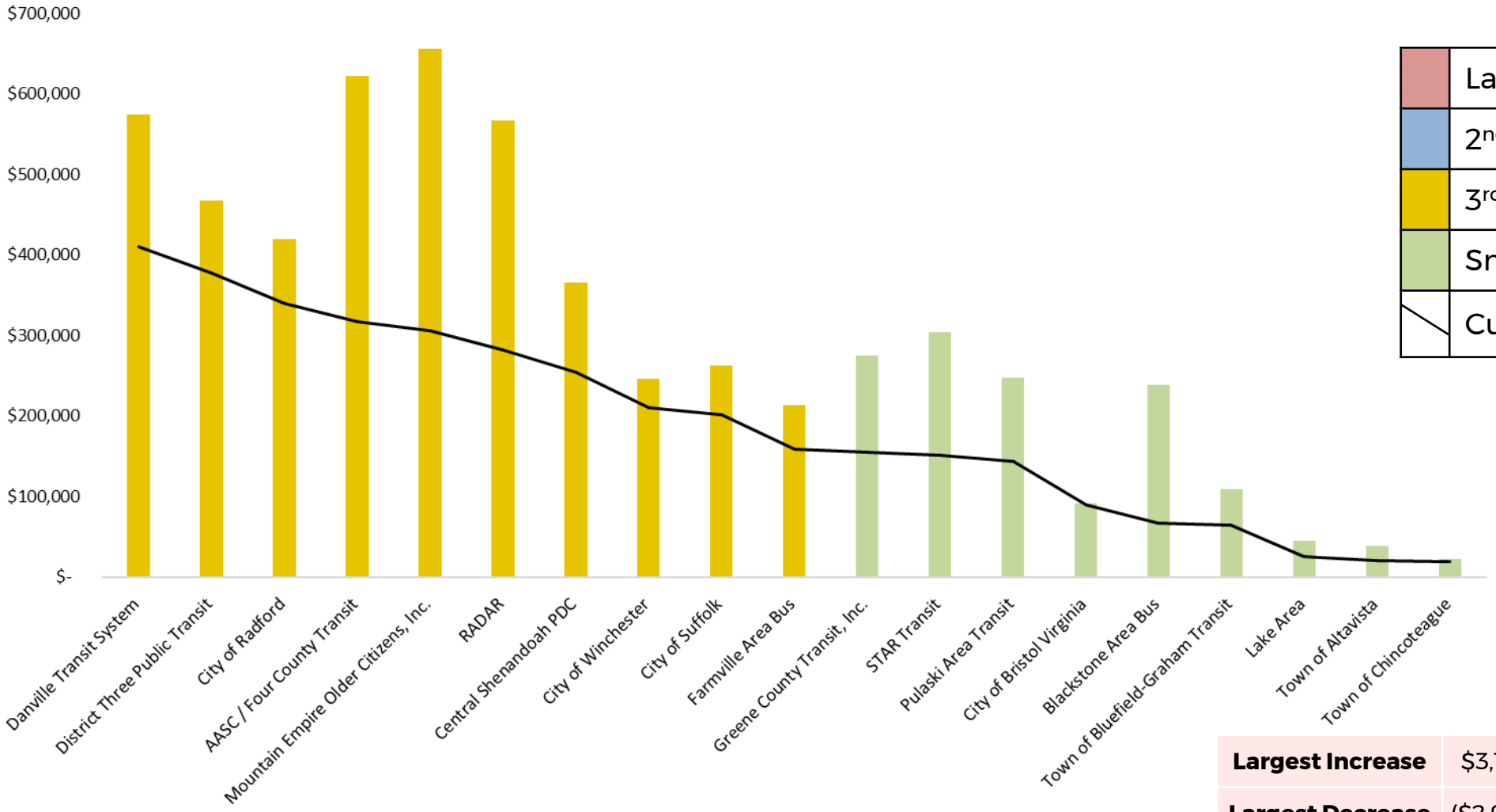
Largest quartile	
2nd quartile	
3rd quartile	
Smallest quartile	
Current Allocation	

Largest Increase	$3,163,592	257%
Largest Decrease	($2,993,878)	(45%)

Scenario 1
33% Net Cost
33% PMT
33% Rev Miles

Scenario 1 – 3rd and 4th Quartile Agencies

Line is Current Allocation Method for FY19



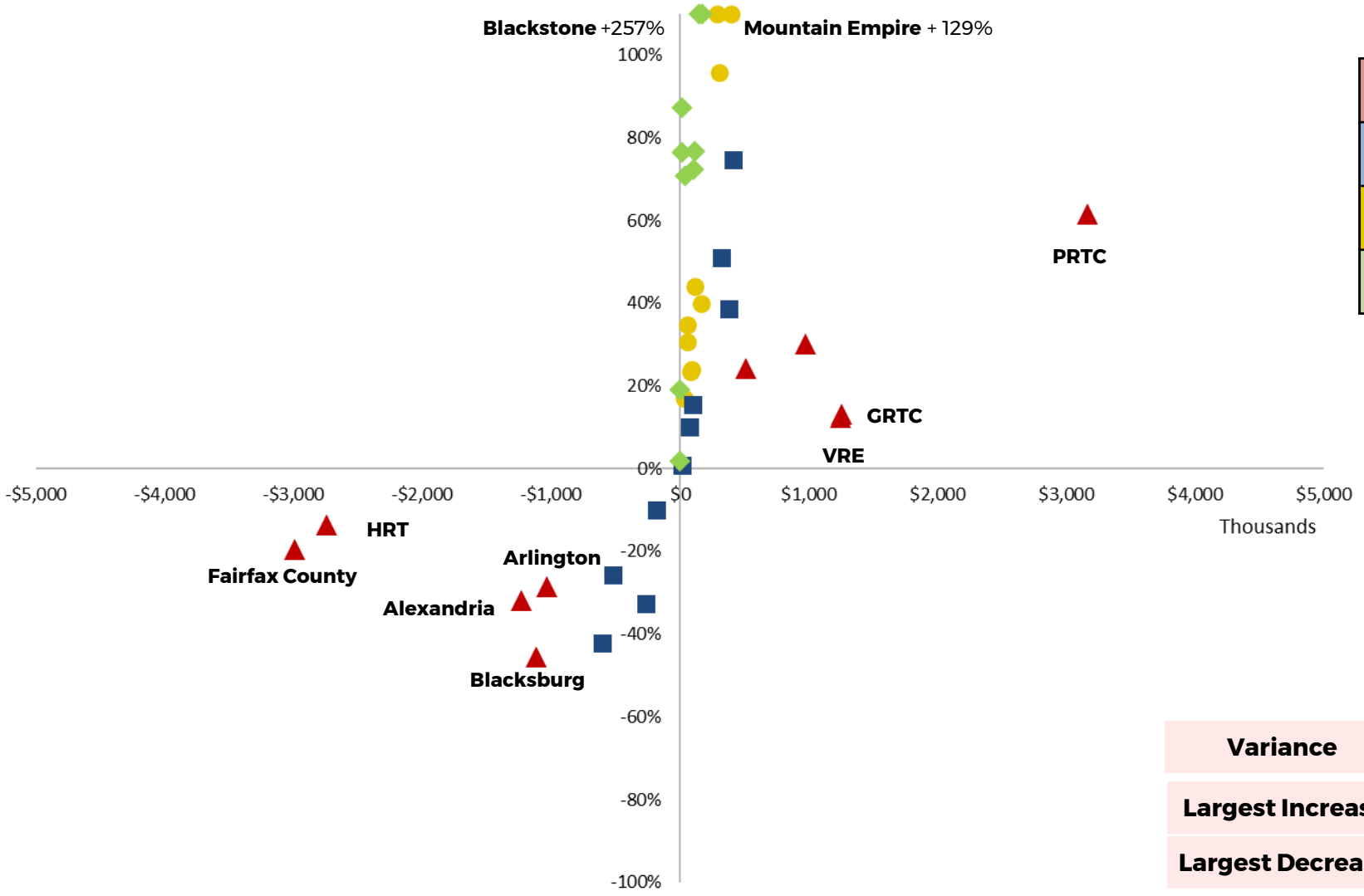
Largest quartile	
2nd quartile	
3rd quartile	
Smallest quartile	
Current Allocation	

Largest Increase	$3,163,592	257%
Largest Decrease	($2,993,878)	(45%)

Scenario 1
33% Net Cost
33% PMT
33% Rev Miles

Scenario 1

No Change is at Zero on the Axes



	Largest quartile
	2nd quartile
	3rd quartile
	Smallest quartile

Variance	0.317	
Largest Increase	$3,163,592	257%
Largest Decrease	($2,993,878)	(45%)

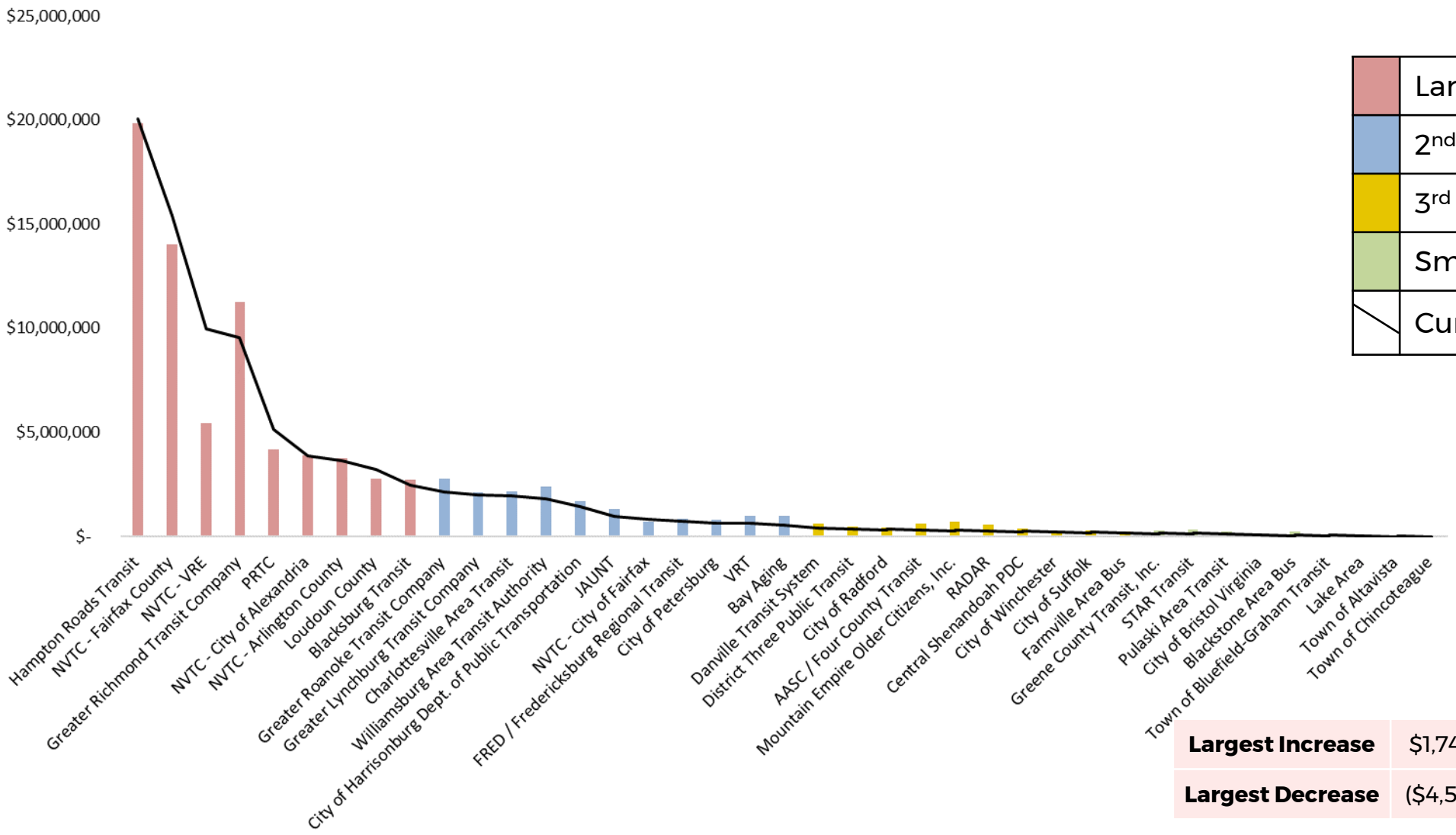
Scenario 2

33% Net Operating Cost
33% Ridership
33% Revenue Vehicle Miles

Scenario 2
33% Net Cost
33% Ridership
33% Rev Miles

Scenario 2 – All Agencies

Line is Current Allocation Method for FY19



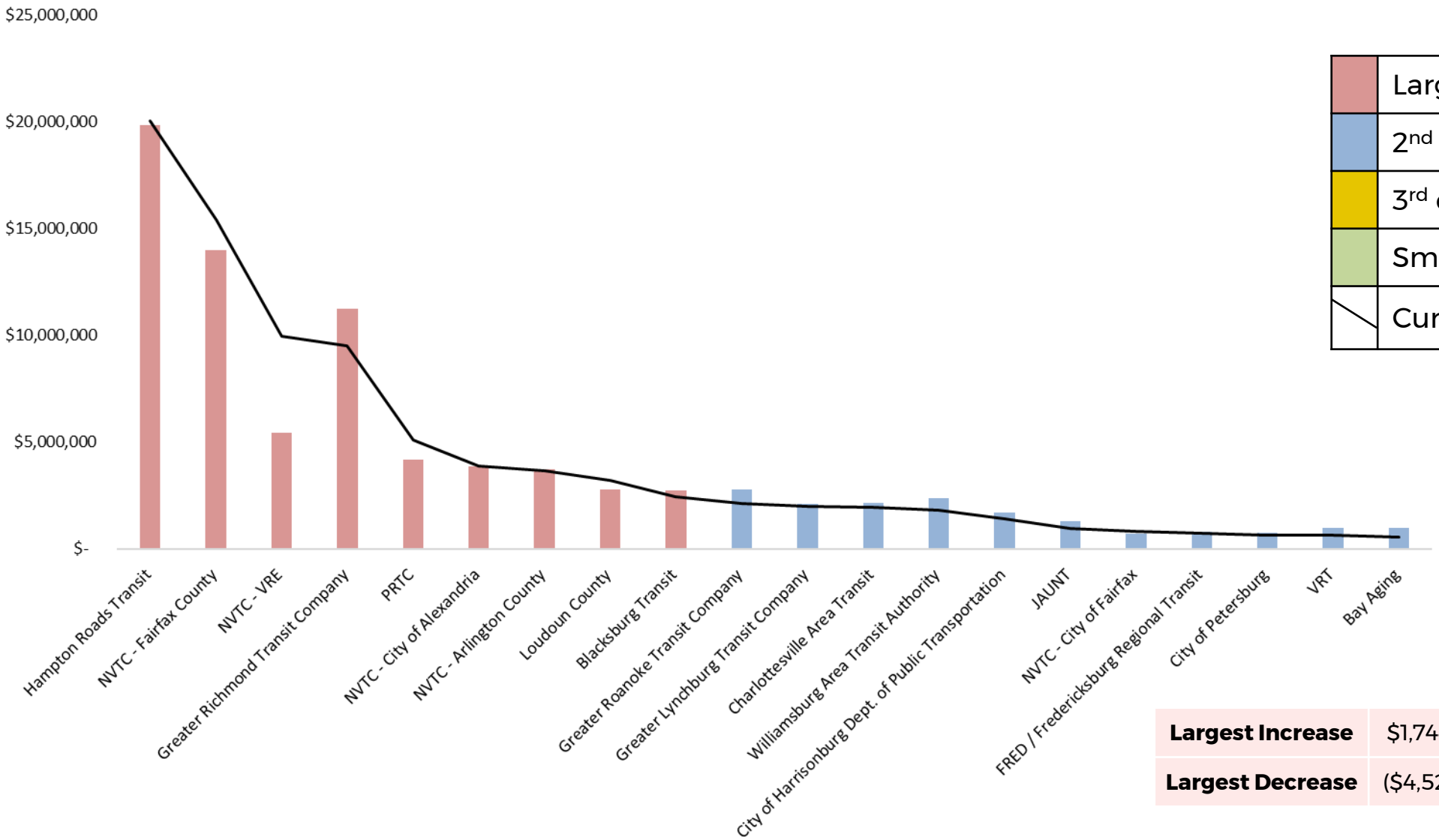
Largest quartile	
2nd quartile	
3rd quartile	
Smallest quartile	
Current Allocation	

Largest Increase	$1,744,935	259%
Largest Decrease	($4,521,174)	(45%)

Scenario 2
33% Net Cost
33% Ridership
33% Rev Miles

Scenario 2 – 1st and 2nd Quartile Agencies

Line is Current Allocation Method for FY19



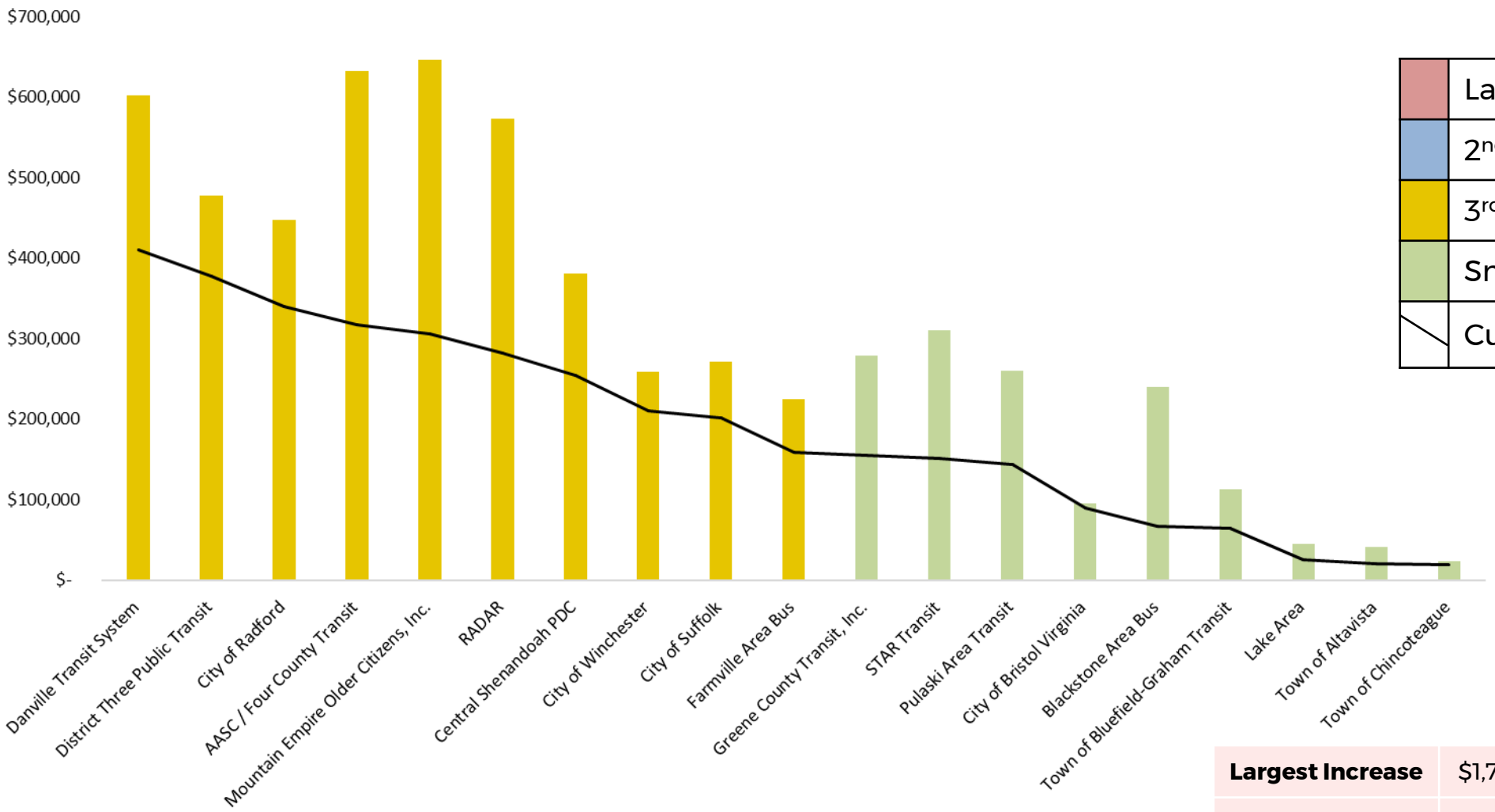
Largest quartile	
2nd quartile	
3rd quartile	
Smallest quartile	
Current Allocation	

Largest Increase	$1,744,935	259%
Largest Decrease	($4,521,174)	(45%)

Scenario 2
33% Net Cost
33% Ridership
33% Rev Miles

Scenario 2 – 3rd and 4th Quartile Agencies

Line is Current Allocation Method for FY19



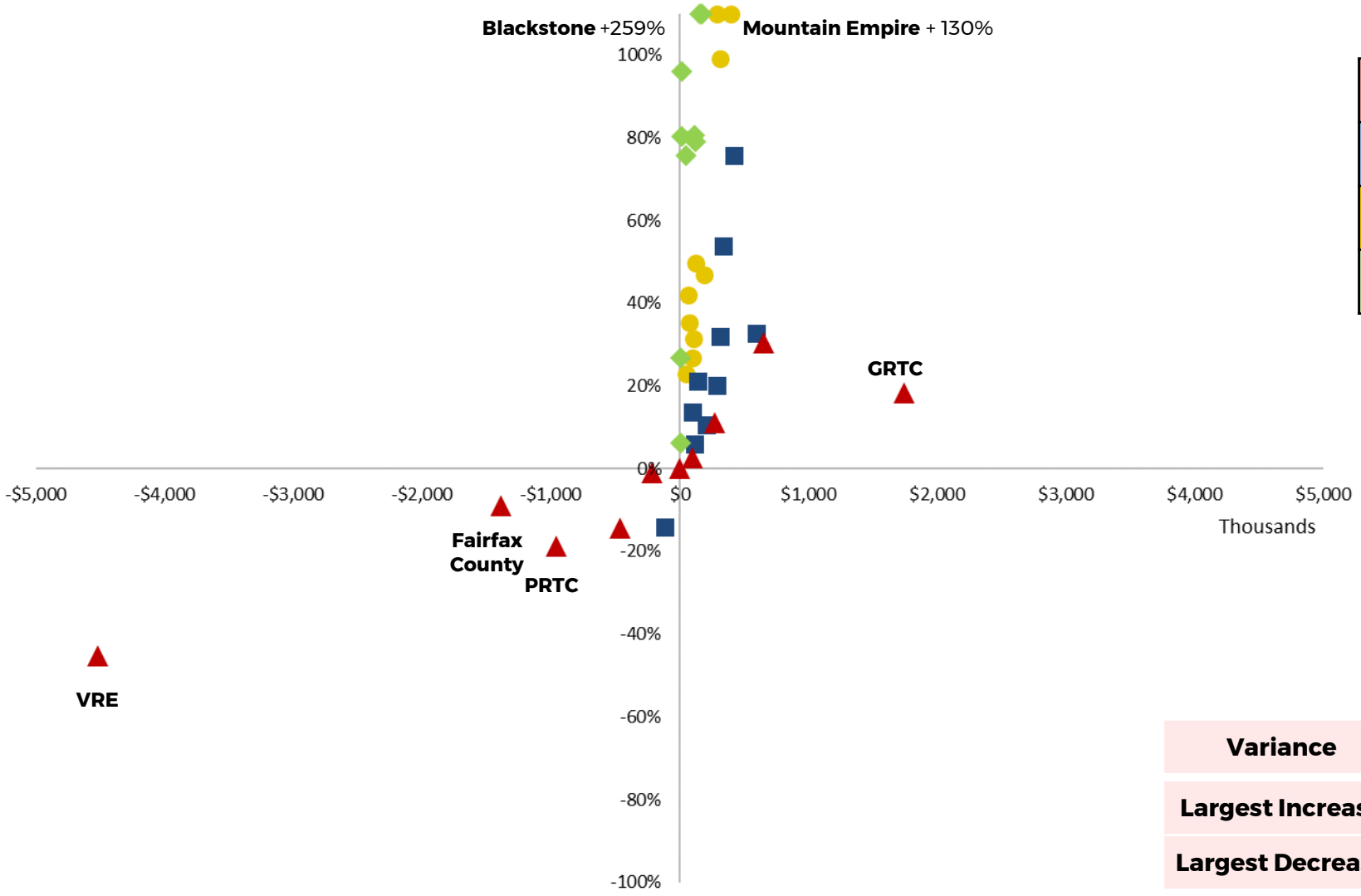
Largest quartile	
2nd quartile	
3rd quartile	
Smallest quartile	
Current Allocation	

Largest Increase	$1,744,935	259%
Largest Decrease	($4,521,174)	(45%)

Scenario 2
33% Net Cost
33% Ridership
33% Rev Miles

Scenario 2

No Change is at Zero on the Axes



Largest quartile	
2nd quartile	
3rd quartile	
Smallest quartile	

Variance	0.280	
Largest Increase	$1,744,935	259%
Largest Decrease	($4,521,174)	(45%)

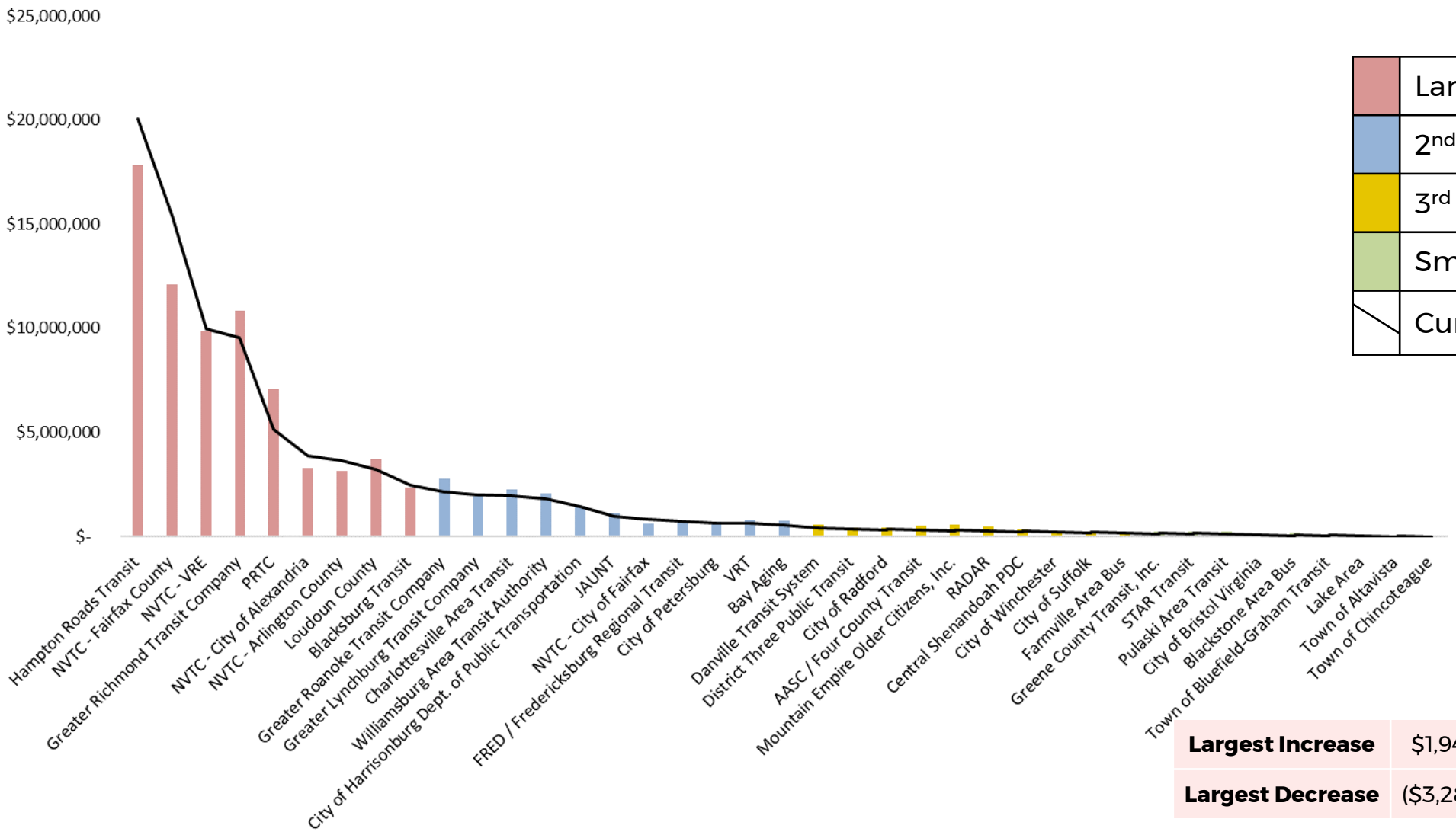
Scenario 3

25% Net Operating Cost
25% Ridership
25% Passenger Miles Traveled
25% Revenue Vehicle Miles

Scenario 3
25% Net Cost
25% Ridership
25% PMT
25% Rev Miles

Scenario 3 – All Agencies

Line is Current Allocation Method for FY19



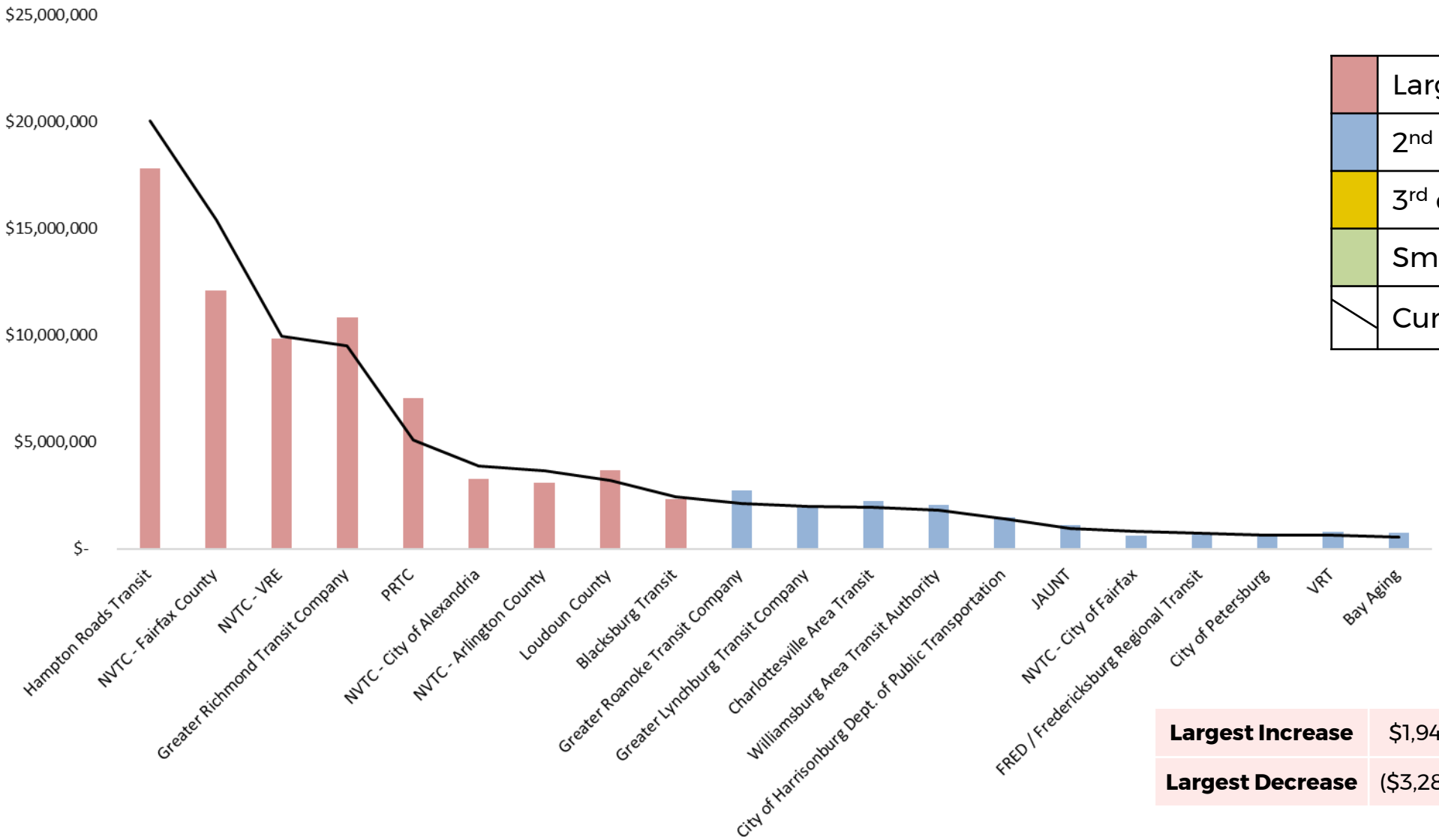
Largest quartile	
2nd quartile	
3rd quartile	
Smallest quartile	
Current Allocation	

Largest Increase	$1,949,331	187%
Largest Decrease	($3,286,153)	(24%)

Scenario 3
25% Net Cost
25% Ridership
25% PMT
25% Rev Miles

Scenario 3 – 1st and 2nd Quartile Agencies

Line is Current Allocation Method for FY19



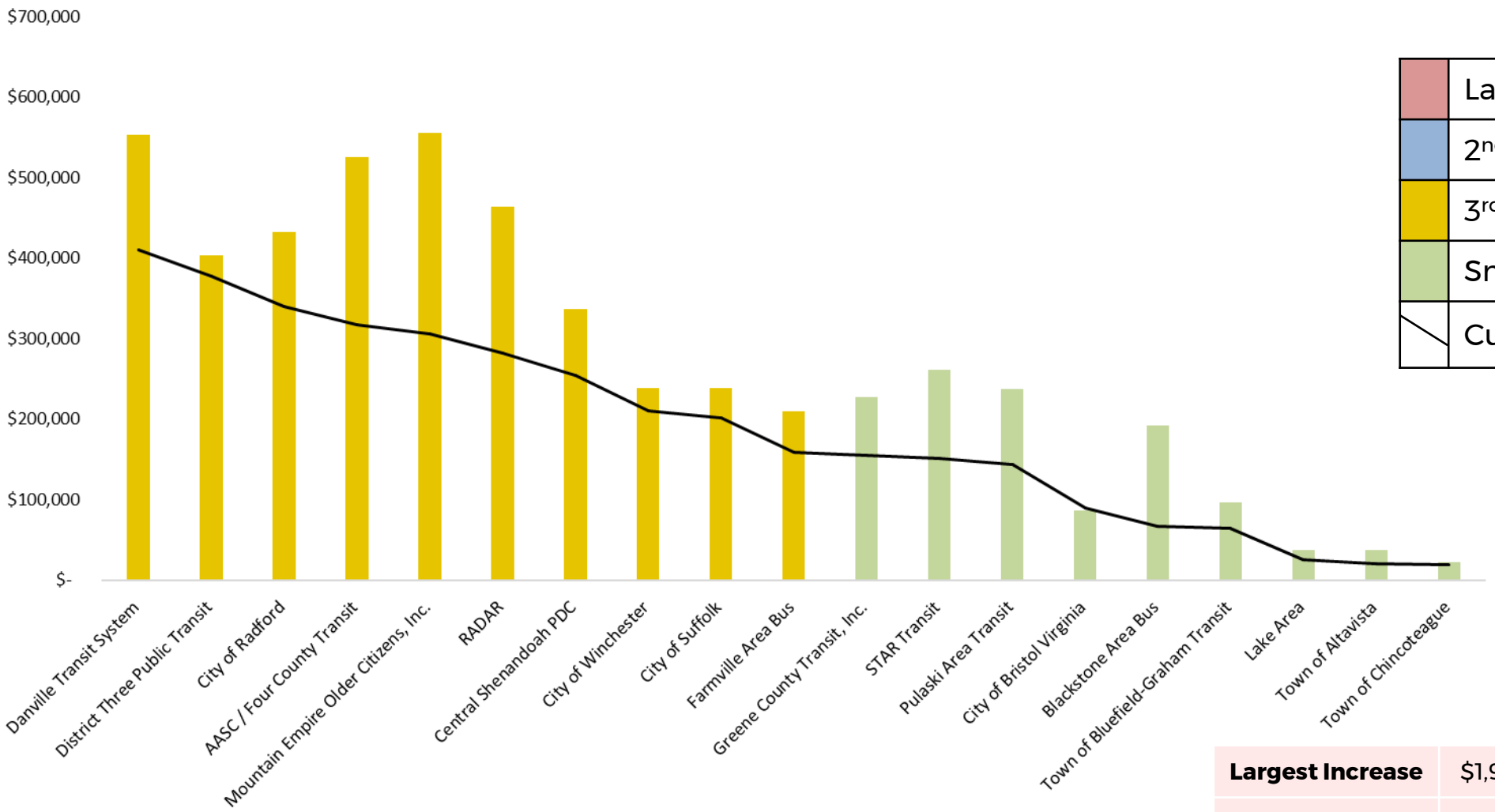
Largest quartile	
2nd quartile	
3rd quartile	
Smallest quartile	
Current Allocation	

Largest Increase	$1,949,331	187%
Largest Decrease	($3,286,153)	(24%)

Scenario 3
25% Net Cost
25% Ridership
25% PMT
25% Rev Miles

Scenario 3 – 3rd and 4th Quartile Agencies

Line is Current Allocation Method for FY19



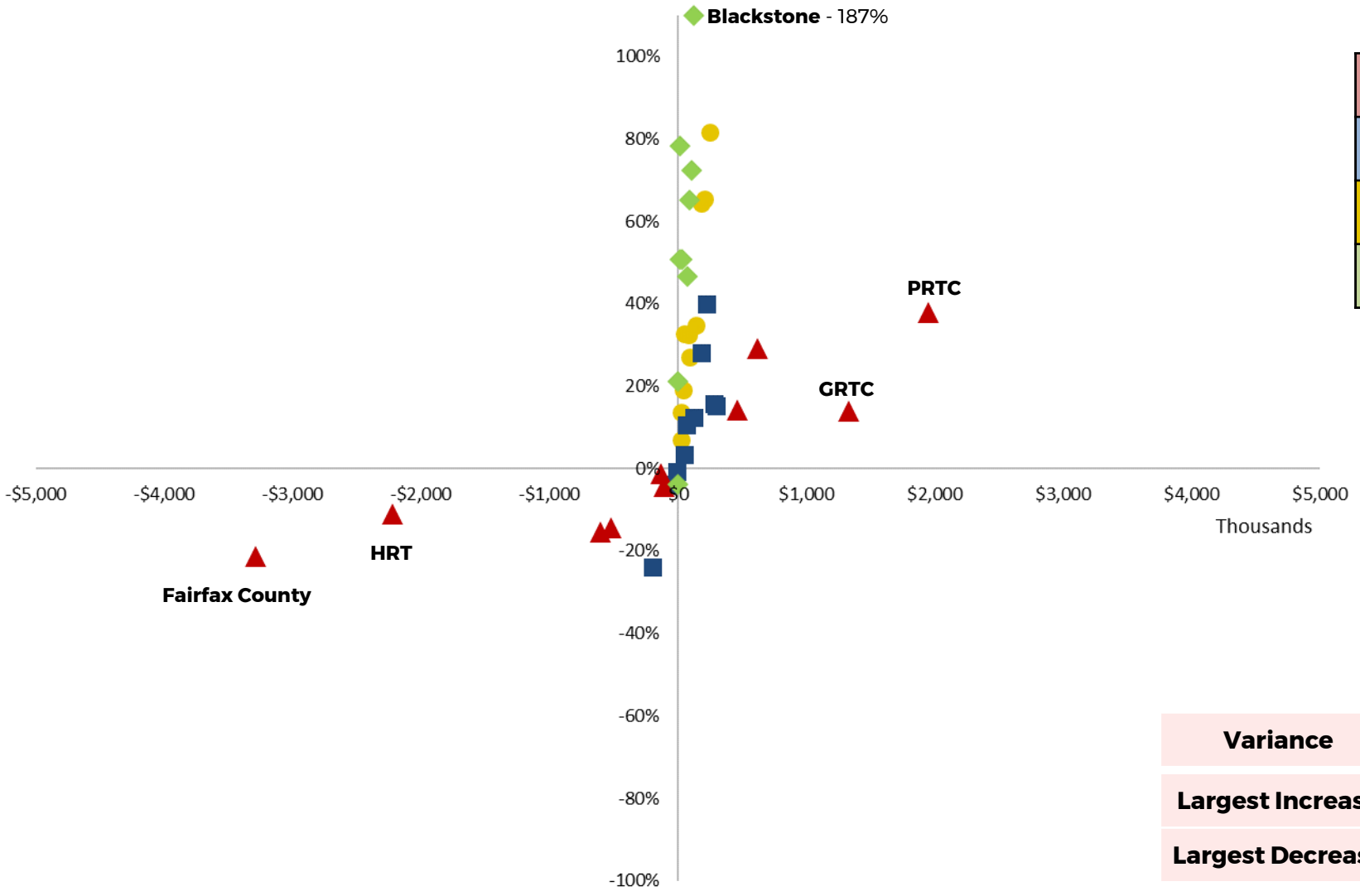
Largest quartile	
2nd quartile	
3rd quartile	
Smallest quartile	
Current Allocation	

Largest Increase	$1,949,331	187%
Largest Decrease	($3,286,153)	(24%)

Scenario 3
25% Net Cost
25% Ridership
25% PMT
25% Rev Miles

Scenario 3

No Change is at Zero on the Axes



Largest quartile	
2nd quartile	
3rd quartile	
Smallest quartile	

Variance	0.144	
Largest Increase	$1,949,331	187%
Largest Decrease	($3,286,153)	(24%)

Summary

- Graphs indicate the options most similar to the current operating assistance allocation, which weighs cost more heavily

- Two analyses are presented:
  - *Percentage change of each agency's allocation compared to current allocation*
  - *Dollar change of each agency's allocation compared to current allocation*

Conclusions and Next Steps

- Some scenarios present significant changes in funding allocation compared to the current situation
- 1 scenario addresses 5 policy objectives with funding allocation most similar to the present allocation:
  - *Net Cost, Ridership, Revenue Miles*
- Discussion:
  - *Identification of preferred scenario*
- Next Steps (future meetings):
  - *Performance adjustment*
  - *Transition funding*

Appendix

Legislative Basis

House Bill 1539 of 2018

§ 33.2-1526.1. Use of the Commonwealth Mass Transit Fund.

A. All funds deposited pursuant to §§ 58.1-638, 58.1-638.3, 58.1-815.4, and 58.1-2289 into the Commonwealth Mass Transit Fund (the Fund), established pursuant to subdivision A 4 of § 58.1-638, shall be allocated as set forth in this section. …

C. Each year the Director of the Department of Rail and Public Transportation shall make recommendations to the Board for the allocation of funds from the Fund. Such recommendations, and the final allocations approved by the Board, shall adhere to the following:

1. ***Thirty-one percent of the funds shall be allocated to support operating costs of transit providers and shall be distributed by the Board on the basis of service delivery factors, based on effectiveness and efficiency as established by the Board. Such measures and their relative weight shall be evaluated every three years and, if redefined by the Board, shall be published and made available for public comment at least one year in advance of being applied.*** *The Washington Metropolitan Area Transit Authority(WMATA) shall not be eligible for an allocation of funds pursuant to this subdivision.*

Passenger Miles Traveled (PMT) - Calculation

- Not all agencies report PMT to NTD
- To estimate PMT for non-reporting agencies, data from reporting agencies was used to calculate an average PMT per Rider value
  - *PRTC, Loudon County, and VRE were excluded because they are significant outliers*
  - *Since the most recent data was from 2016, PMT data was adjusted to a 2017 estimate based on the change in ridership for each agency from 16-17*
- The average PMT per Rider was multiplied by agencies' 2017 ridership to estimate the total PMT of non-reporting agencies

Scenario 2+
Separate funding pool for Commuter Rail

Recognizing the specific performance of commuter rail, a separate funding pool is created

- Based on share of commuter rail Passenger Miles Traveled, Revenue Vehicle Hours and Revenue Vehicle Miles relative to statewide totals
- Based on current statistics, commuter rail funding pool would equal 10.9% of total revenue available

	Percentages	Total Revenue	Commuter Rail Share
PMT	33%	. $30,198,544	$8,284,370.56
RVH	33%	$30,198,544	$471,680.47
RVM	33%	$30,198,544	$1,097,007.01
Total	100%	$90,595,632	$9,853,058.04
		Percentage Share	10.9%

- VRE allocation in FY19 was 11% of total revenue available
- Performance-adjustment factors would be applied to calculate VRE's final allocation

49

Remainder of funds distributed to all other agencies consistent with Scenario 2

— 33% Net Operating Cost

— 33% Ridership

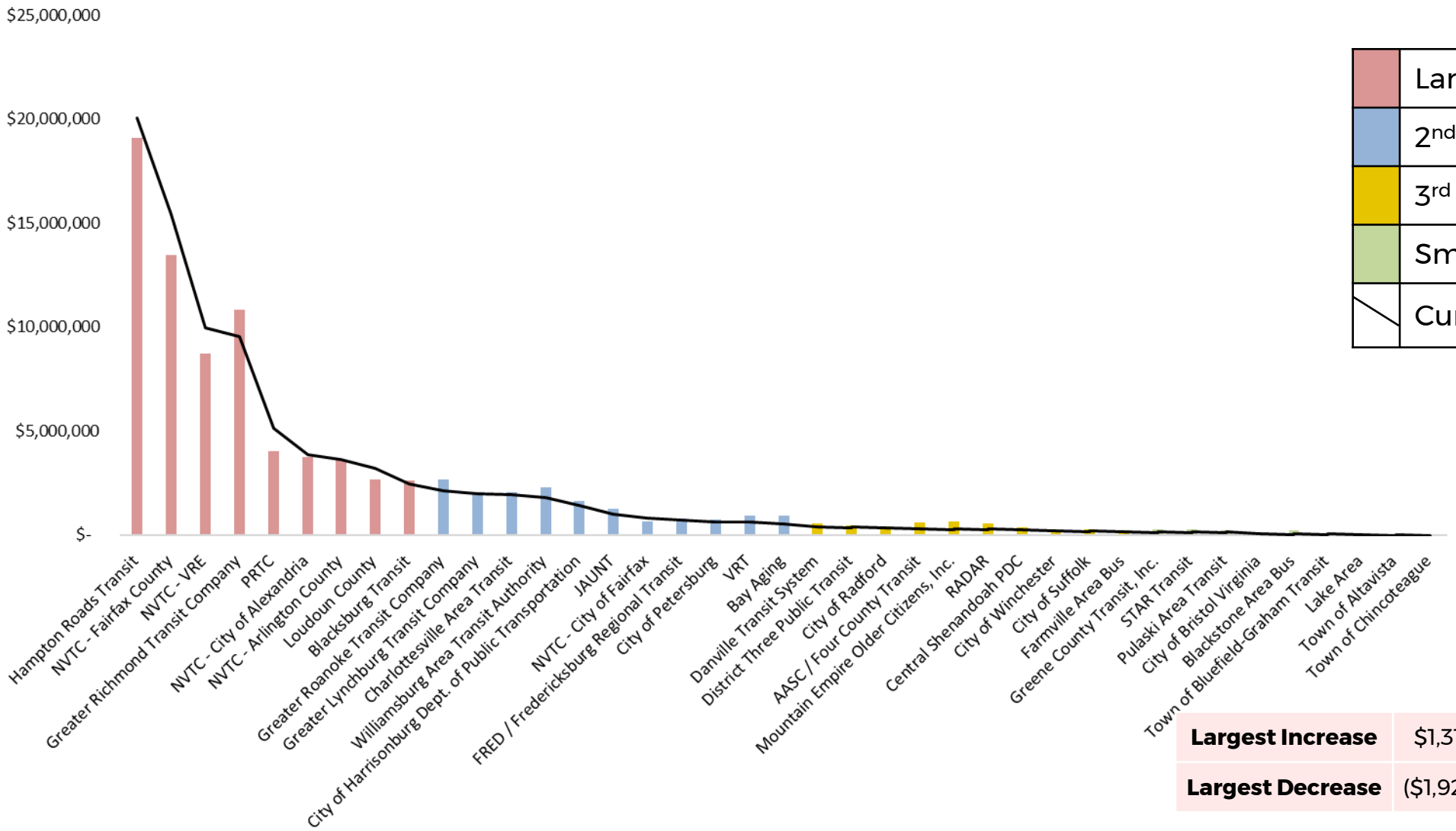
— 33% Revenue Vehicle Miles

50

Pooling Scenario
33% Net Cost
33% Ridership
33% Rev Miles

Pooling Scenario – Separate Commuter Rail Pool

Line is Current Allocation Method for FY19



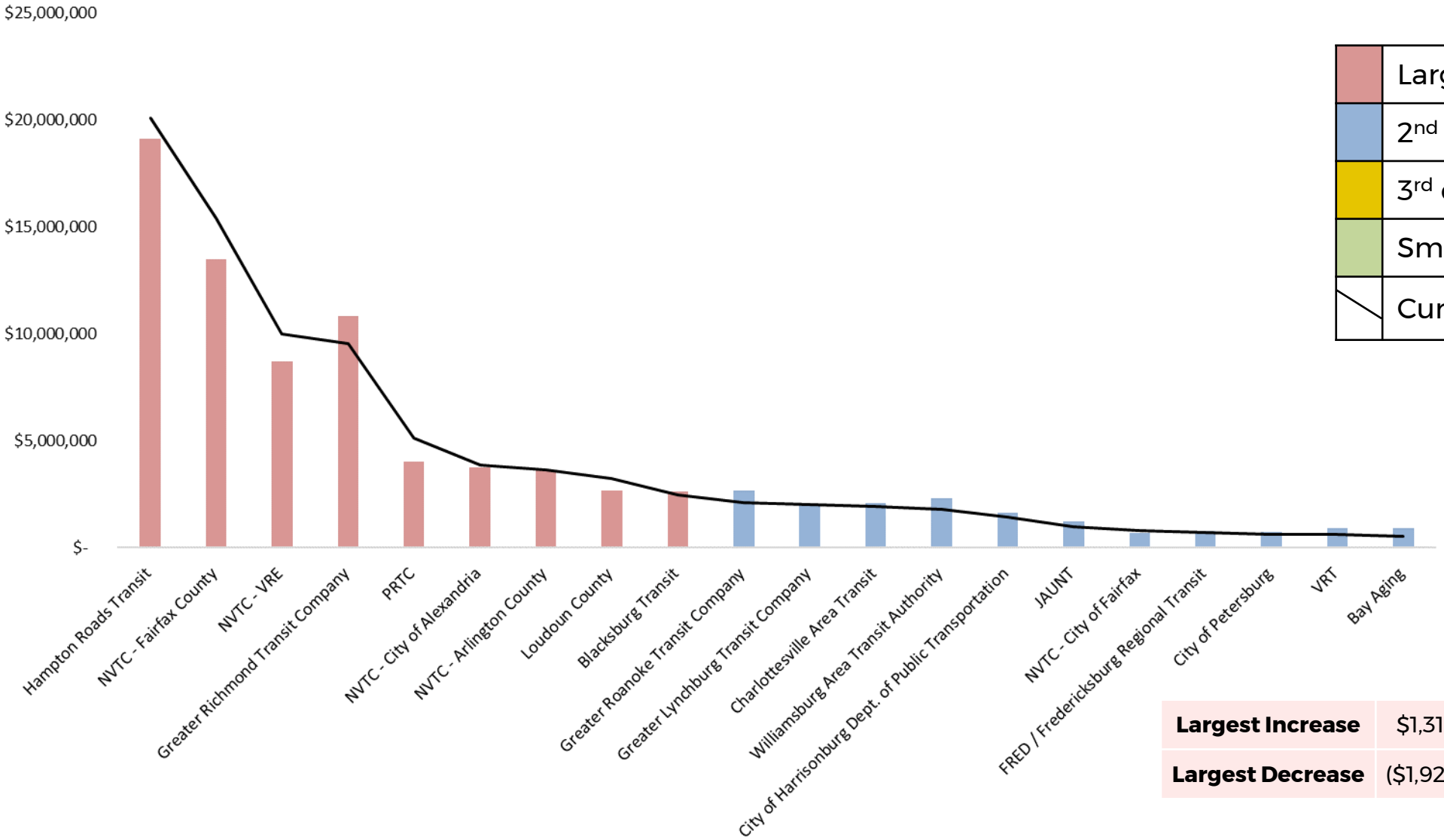
Largest quartile	
2nd quartile	
3rd quartile	
Smallest quartile	
Current Allocation	

Largest Increase	$1,316,378	246%
Largest Decrease	($1,925,023)	(22%)

Pooling Scenario
33% Net Cost
33% Ridership
33% Rev Miles

Pooling Scenario – 1st and 2nd Quartile Agencies

Line is Current Allocation Method for FY19



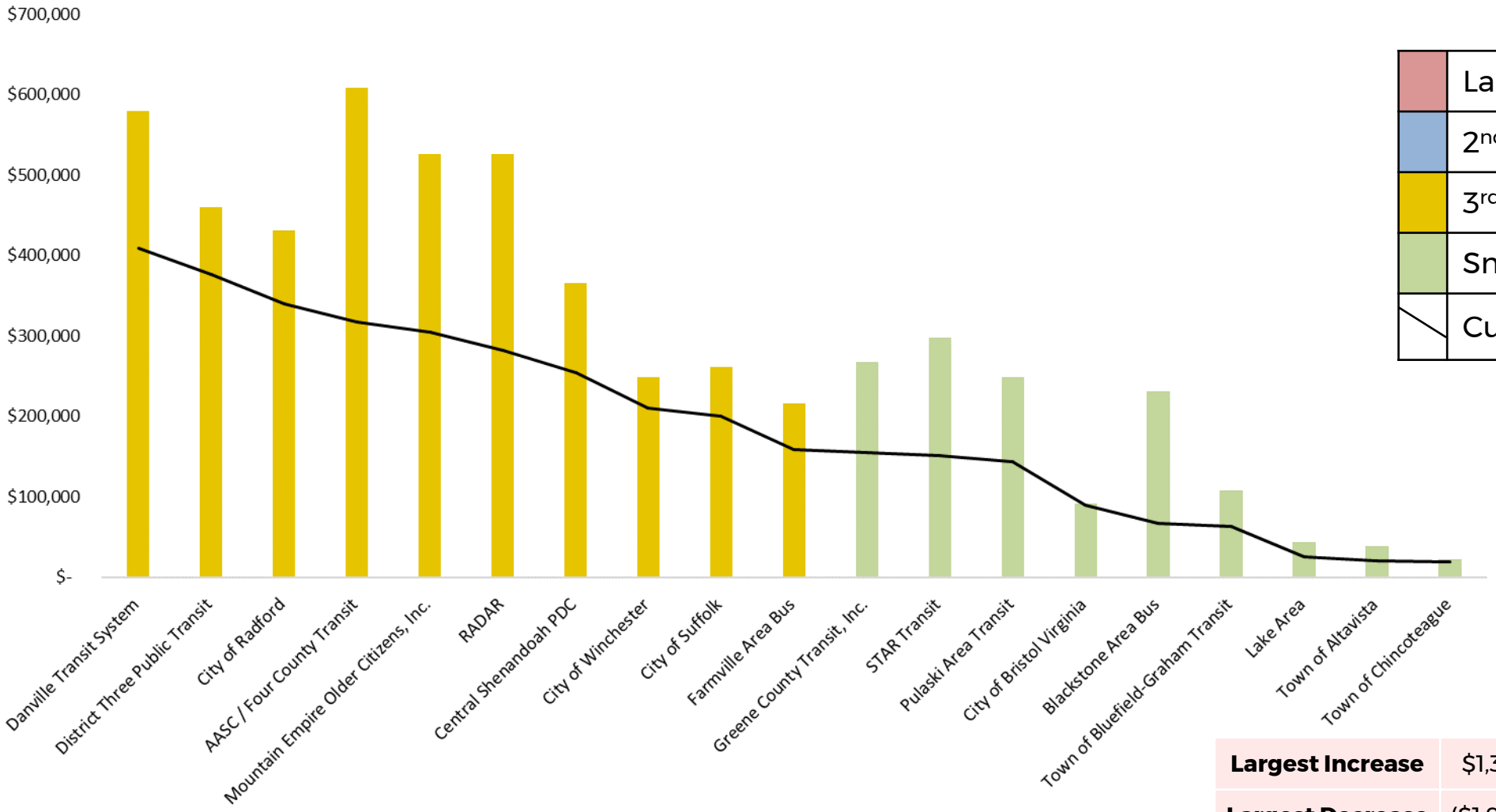
Largest quartile	
2nd quartile	
3rd quartile	
Smallest quartile	
Current Allocation	

Largest Increase	$1,316,378	246%
Largest Decrease	($1,925,023)	(22%)

Pooling Scenario
33% Net Cost
33% Ridership
33% Rev Miles

Pooling Scenario – 3rd and 4th Quartile Agencies

Line is Current Allocation Method for FY19



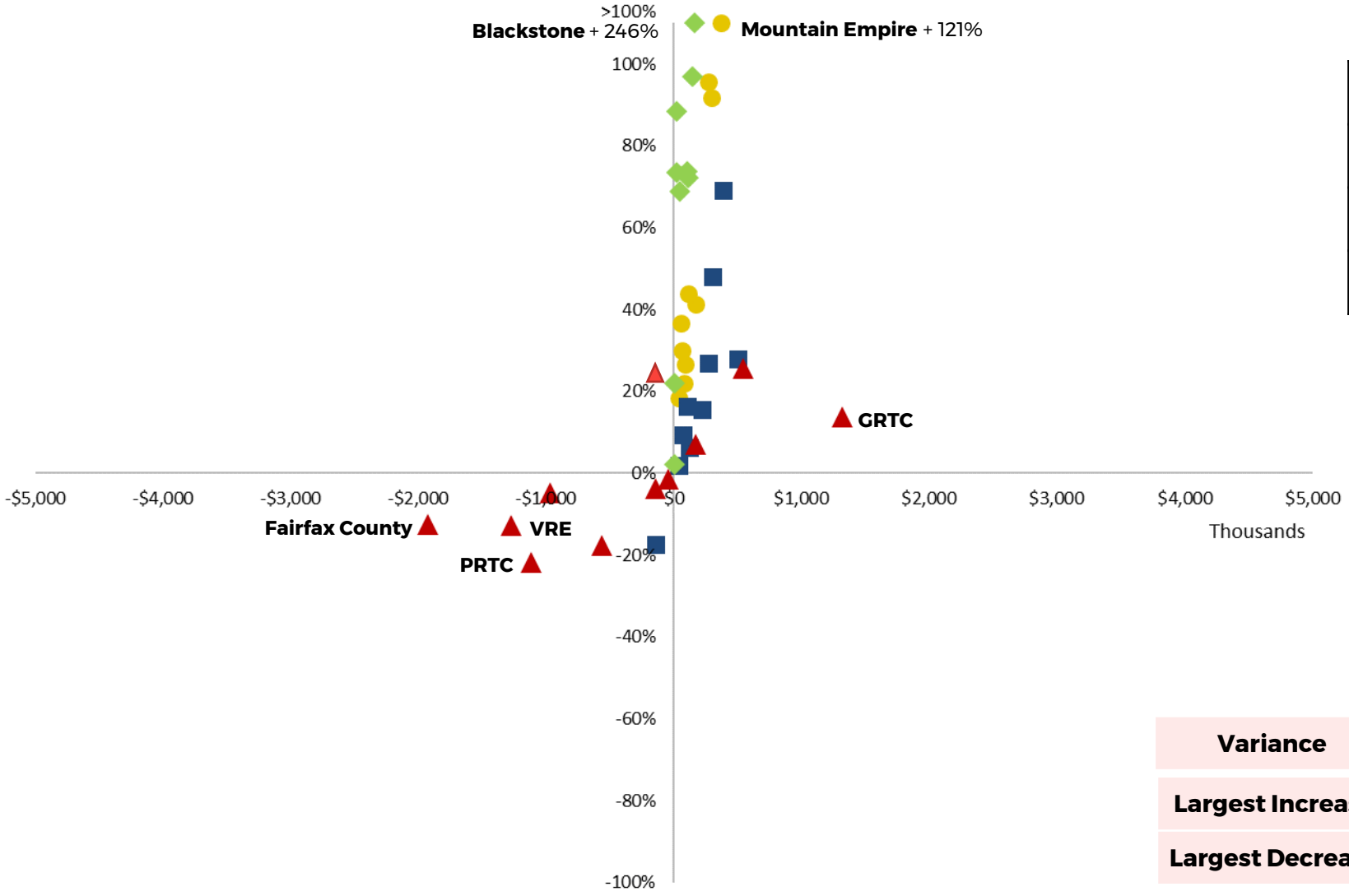
Largest quartile	
2nd quartile	
3rd quartile	
Smallest quartile	
Current Allocation	

Largest Increase	$1,316,378	246%
Largest Decrease	($1,925,023)	(22%)

Pooling Scenario
33% Net Cost
33% Ridership
33% Rev Miles

Pooling Scenario – All Agencies

No Change is at Zero on the Axes



	Largest quartile
	2nd quartile
	3rd quartile
	Smallest quartile

Variance	0.247	
Largest Increase	$1,316,378	246%
Largest Decrease	($1,925,023)	(22%)

Virginia Department of Rail & Public Transportation

Operating Assistance Sizing Metrics & Scenarios

Presentation

November 13, 2018

Agenda

- Revised Allocation Approach – TSDAC Guidance
- Allocation Scenario Results
- Next Steps

Revised Approach to Sizing Factors – TSDAC Guidance

- Using Cost instead of Net Cost
  - Net Cost punishes agencies with high farebox recovery
- Introducing Revenue Hours in addition to Revenue Miles
- Mitigating significant funding increases
  - Capping maximum operating assistance allocation as a percentage of operating costs
- Maintain approach to allocating Commuter Rail pool
  - *33% Passenger Miles Traveled, 33% Revenue Hours, 33% Revenue Miles*

Scenarios Presented in this Document

- Start with Scenario 2+ from Oct. 3 TSDAC presentation:
  - *Sizing based on Net Cost, Ridership, Revenue Miles, at 33.3% each*
  - *Corrects anomalies in the data*

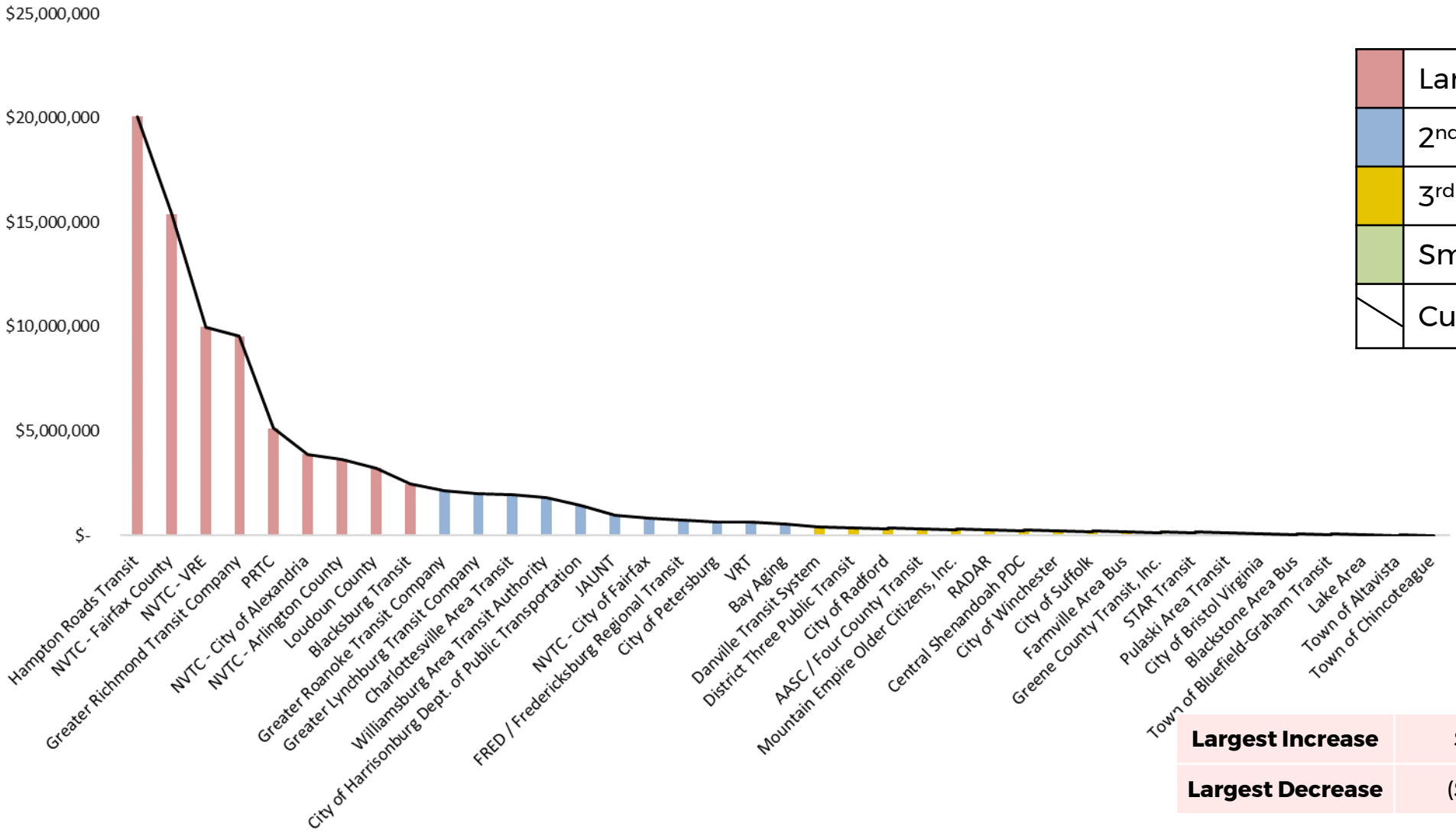
- Introduce the following variations of Scenario 2+:
  - *Scenario A: replaces **Net Cost** with **Operating Cost***
  - *Scenario B: Introduces **Revenue Hours** as a 4th metric (25% each)*
  - *Scenario C: Introduces **an alternate distribution** between **the four metrics** of Scenario B to **minimize variance**: Cost, Ridership, Revenue Hours, Revenue Miles, at 50/30/10/10%*

- Finally, a cap on the allocation of operating assistance as percentage of operating cost by transit agency is presented

4

FY19 Actual Allocations
(Traditional and Performance)

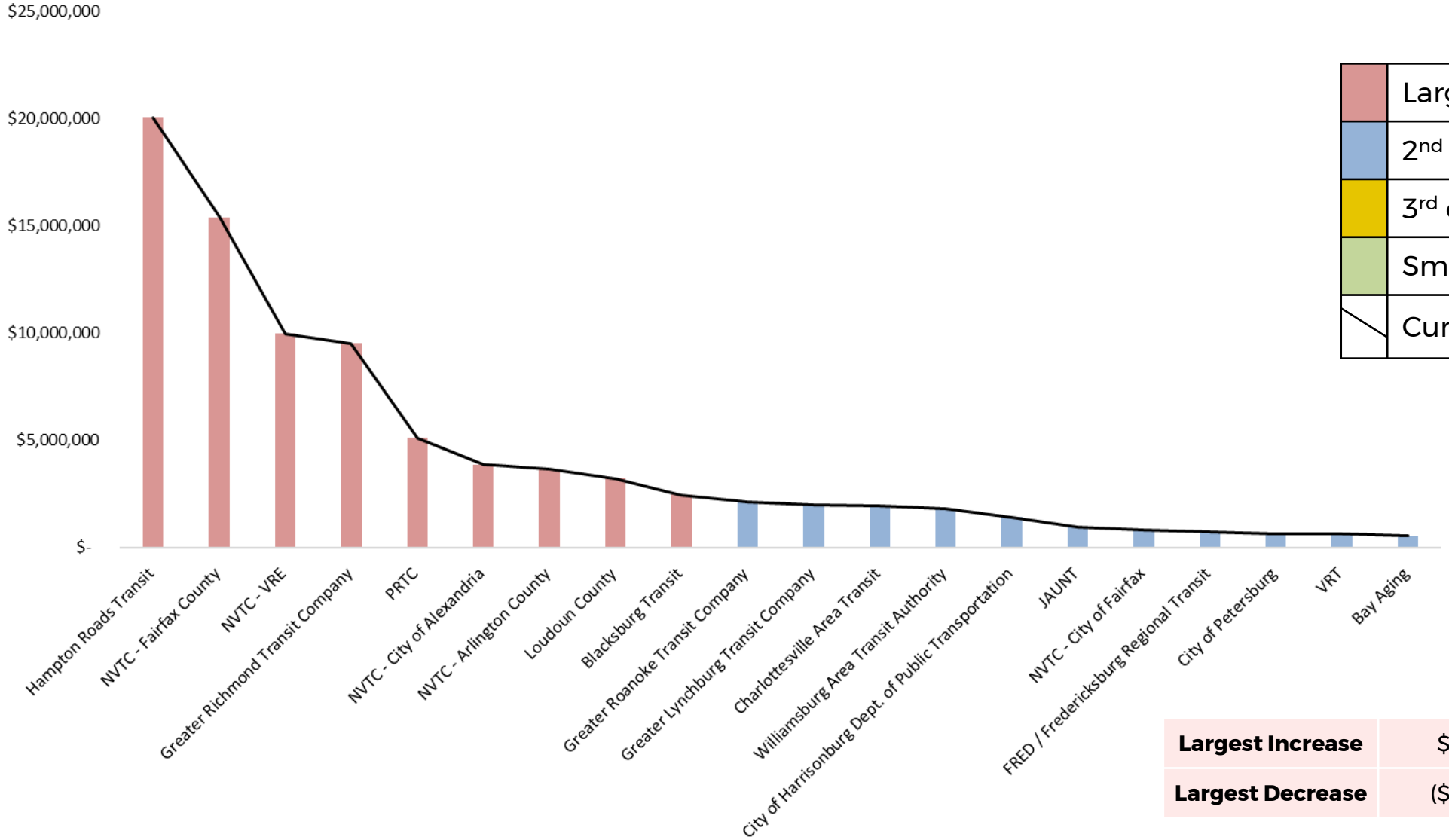
FY19 Actual Allocation of Operating Assistance to Virginia Transit Agencies



Largest quartile	
2nd quartile	
3rd quartile	
Smallest quartile	
Current Allocation	

Largest Increase	$0	0%
Largest Decrease	($0)	(0%)

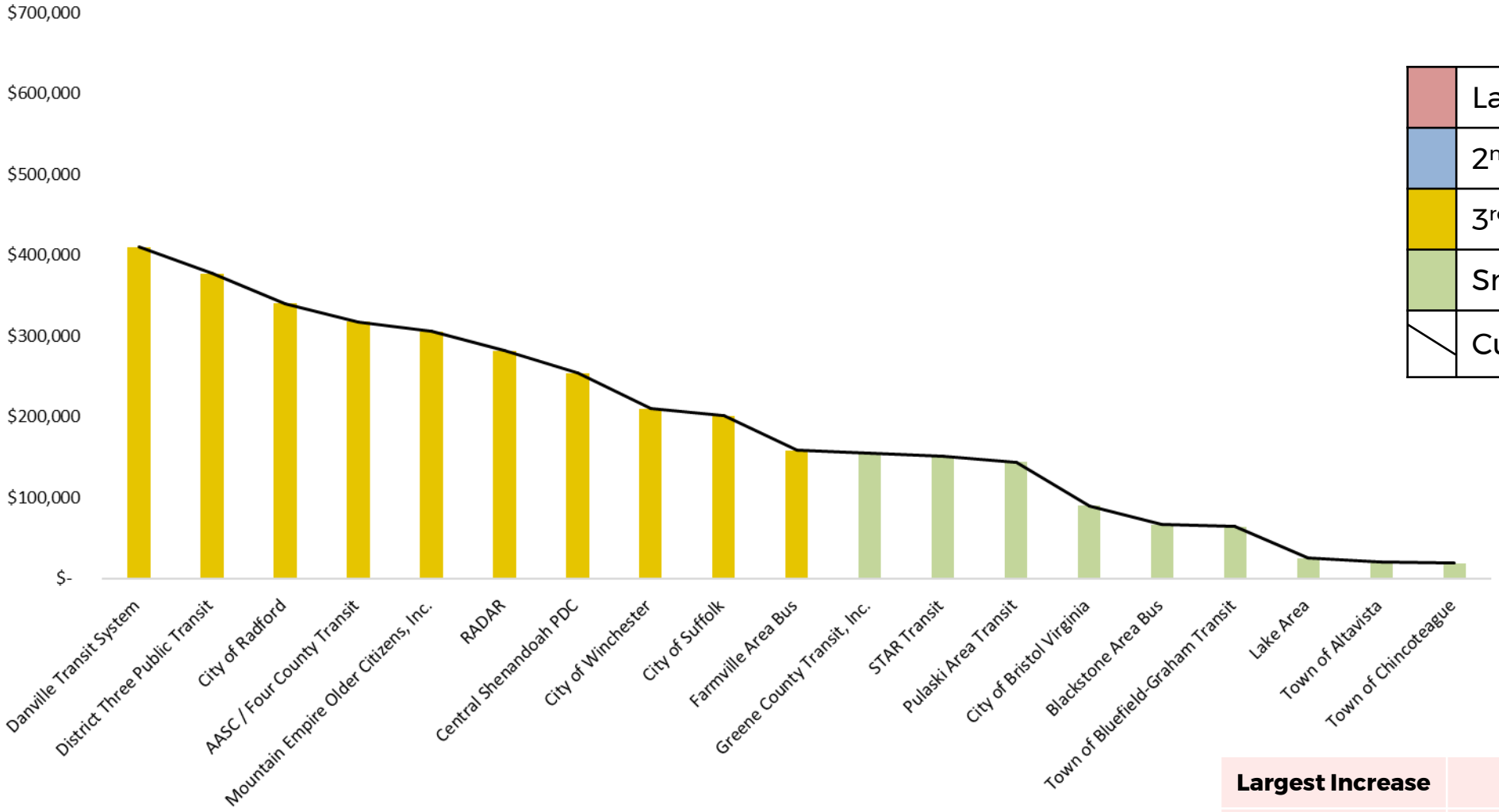
FY19 Actual Allocation of Operating Assistance: 1st and 2nd Quartile Agencies



Largest quartile	
2nd quartile	
3rd quartile	
Smallest quartile	
Current Allocation	

Largest Increase	$0	0%
Largest Decrease	($0)	(0%)

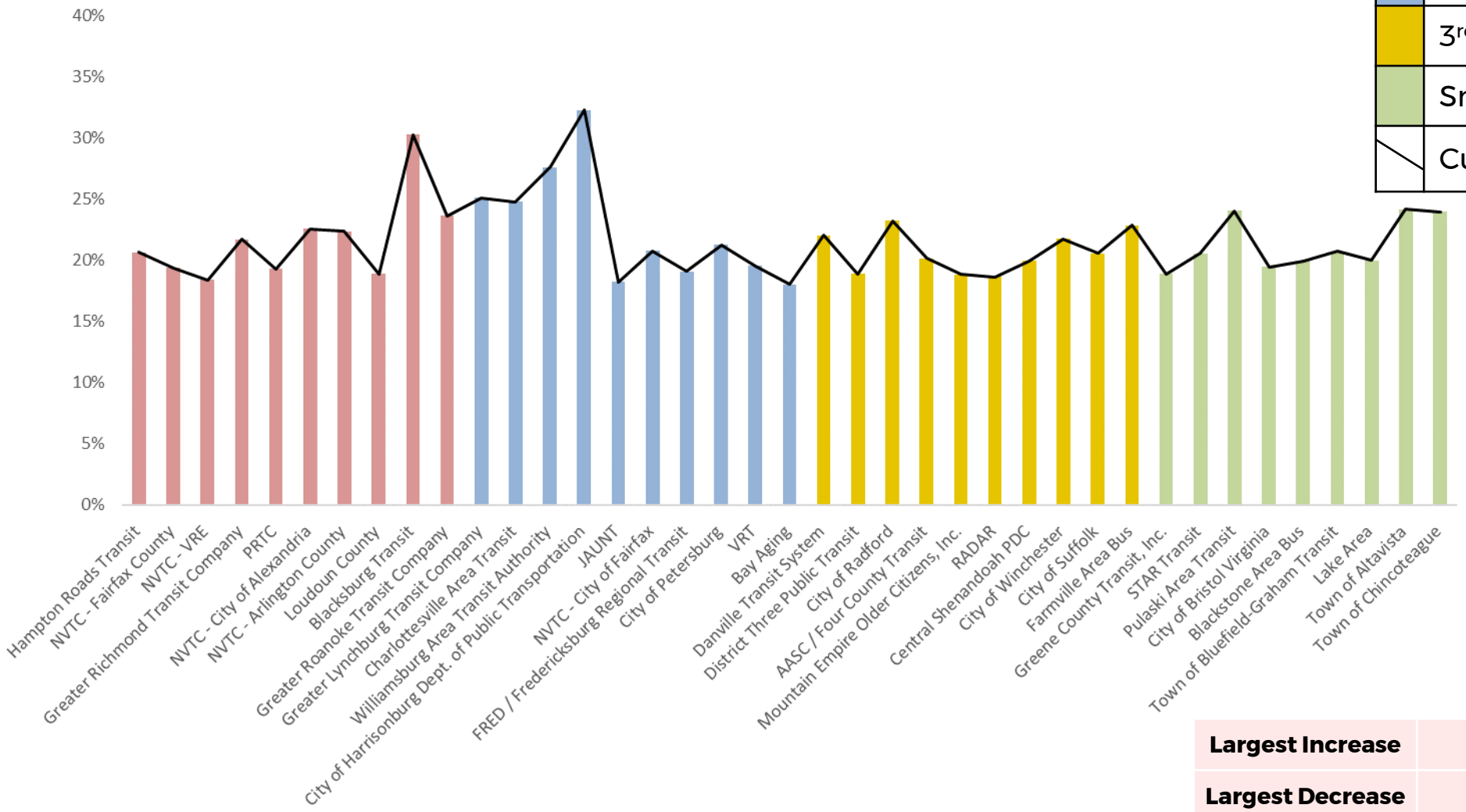
FY19 Actual Allocation of Operating Assistance: 3rd and 4th Quartile Agencies



Largest quartile	
2nd quartile	
3rd quartile	
Smallest quartile	
Current Allocation	

Largest Increase	$0	0%
Largest Decrease	($0)	(0%)

FY19 Actual Allocation of Operating Assistance as Percentage of Operating Cost by Transit Agency

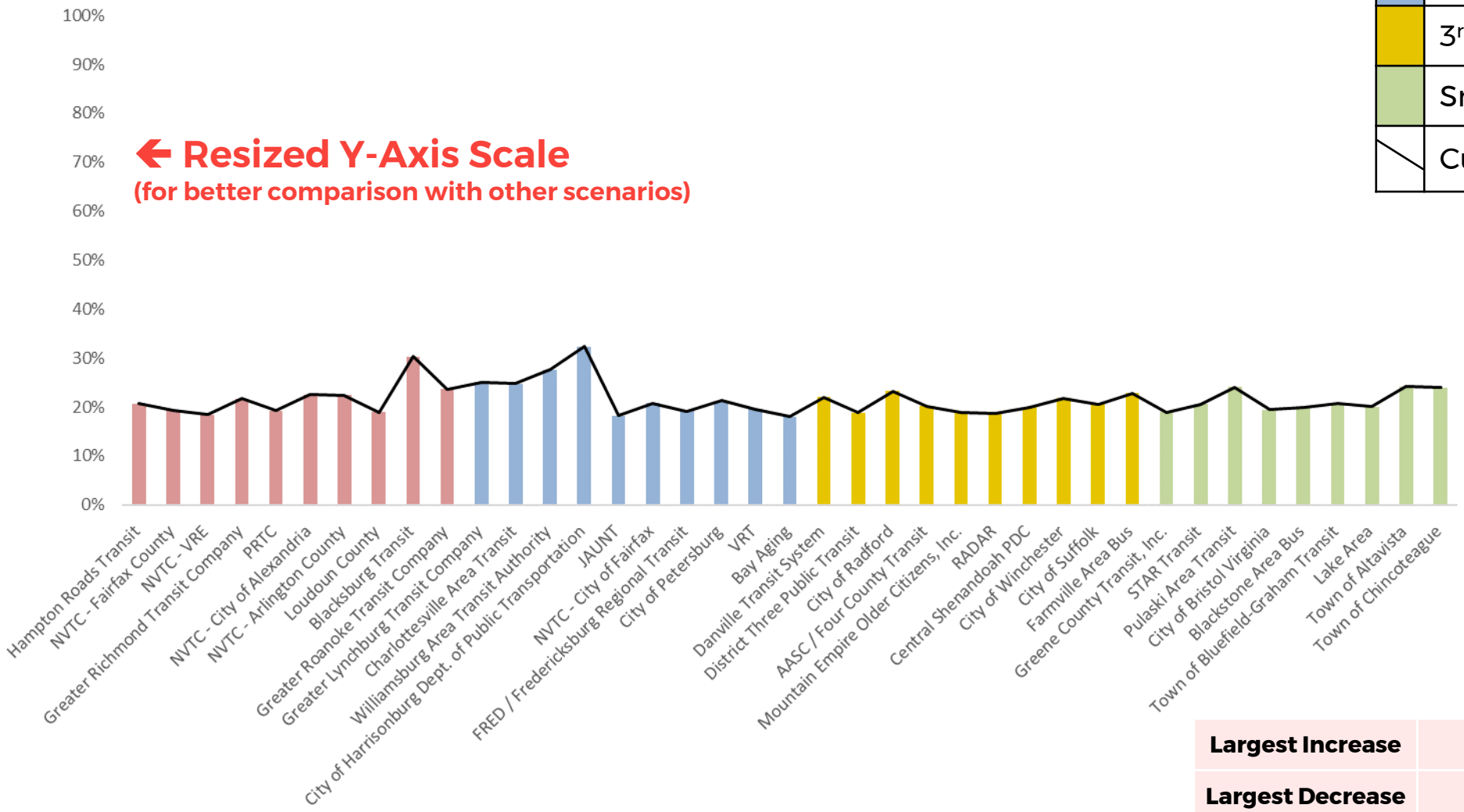


Largest quartile	
2nd quartile	
3rd quartile	
Smallest quartile	
Current Allocation	

Largest Increase	$0	0%
Largest Decrease	($0)	(0%)

FY19 Actual Allocation of Operating Assistance as Percentage of Operating Cost by Transit Agency

	Largest quartile
	2nd quartile
	3rd quartile
	Smallest quartile
	Current Allocation



Largest Increase	$0	0%
Largest Decrease	($0)	(0%)

Scenarios

Capped Allocations as a % of Agency Operating Cost

- Current FY 19 allocations range from 18% to 32% of each agency's total Operating Costs with an average of 22%

- A cap limiting state funding as a percentage of O&M costs of an agency provides for:
  - *Similar proportions of state funding across agencies*
  - *Limiting large swings in funding for individual agencies*

- 30% cap is proposed, based on high end of FY 19 allocations
  - *Only 1 agency above 30% in FY19 (Harrisonburg, 32%)*

- Funds above the cap are not automatically reallocated to other agencies – listed as "Unallocated."
  - *DRPT would develop a policy for re-allocating these funds*

Allocation Scenarios

Scenario Name	Op Cost	Net Cost	Rider-ship	PMT	Rev Hour	Rev Miles
2+ Net Cost, Ridership, Revenue Miles – 33.3%		33%	33%			33%
A. Cost, Ridership, Revenue Miles – 33.3%	33%		33%			33%
B. Cost, Ridership, Revenue Hours, Revenue Miles – 25%	25%		25%		25%	25%
C. Cost, Ridership, Revenue Hours, Revenue Miles – 50/30/10/10 %	50%		30%		10%	10%
A-Capped. Cost, Ridership, Revenue Miles – 33.3% – *Capped 30%*	33%		33%			33%
B-Capped. Cost, Ridership, Revenue Hours, Revenue Miles – 25% – *Capped 30%*	25%		25%		25%	25%
C-Capped. Cost, Ridership, Revenue Hours, Revenue Miles – 50/30/10/10 % – *Capped 30%*	50%		30%		10%	10%

All Scenarios match 5 out of the 6 policy objectives of the performance-based allocation

Scenario 2+

33% Net Operating Cost
33% Ridership
33% Revenue Vehicle Miles
Commuter Rail Pool

Recognizing the specific performance of commuter rail, a separate funding pool is created

- *Approach to commuter rail pool unchanged from Oct 3. TSDAC presentation*
- Based on share of commuter rail Passenger Miles Traveled, Revenue Vehicle Hours and Revenue Vehicle Miles relative to statewide totals
- Based on current statistics, commuter rail funding pool would equal 10.9% of total revenue available

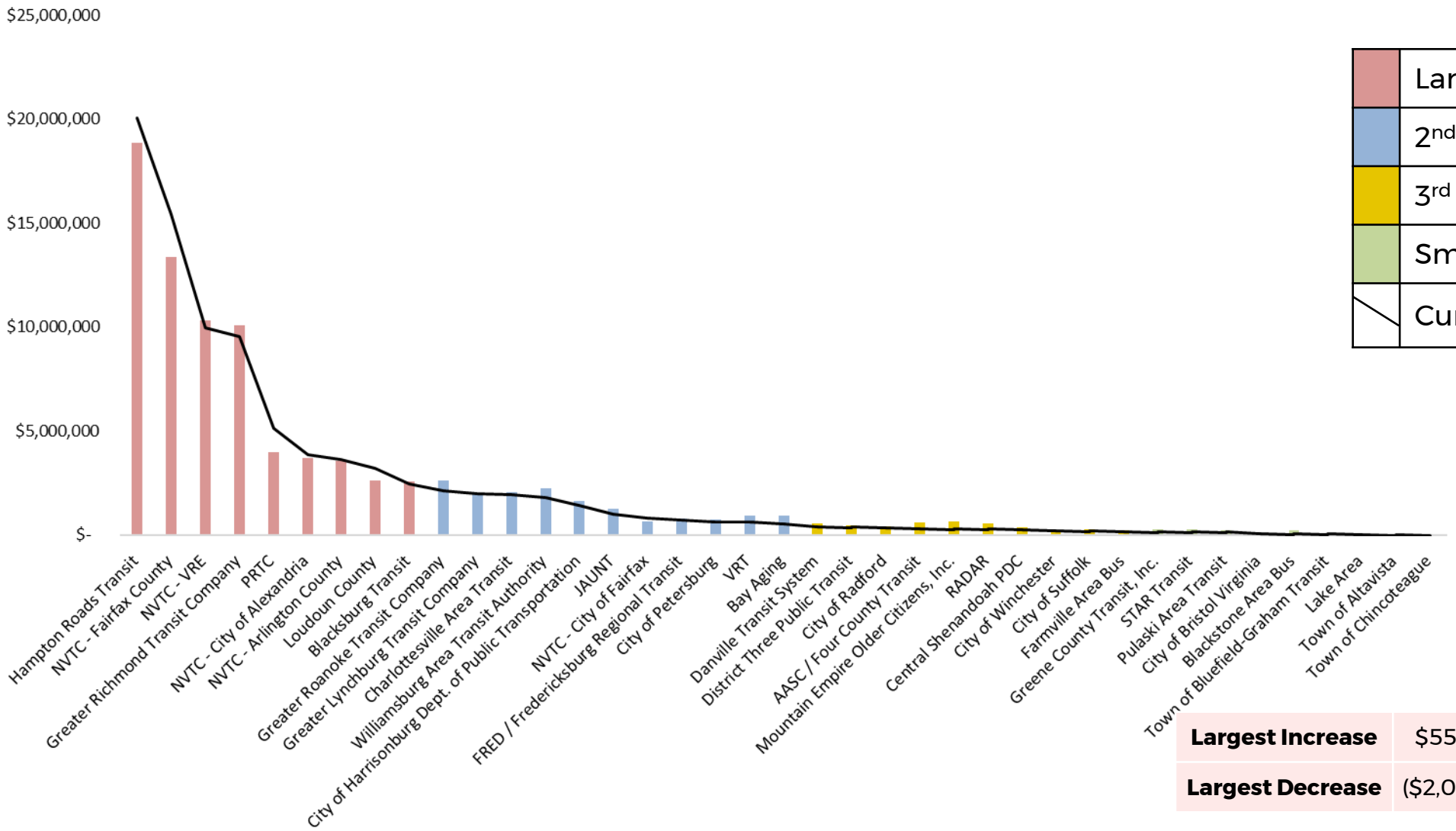
	Percentages	Total Revenue	Commuter Rail Share
PMT	33%	. $30,198,544	$8,284,370.56
RVH	33%	$30,198,544	$471,680.47
RVM	33%	$30,198,544	$1,097,007.01
Total	100%	$90,595,632	$9,853,058.04
		Percentage Share	10.9%

- VRE allocation in FY19 was 11% of total revenue available
- Performance-adjustment factors would be applied to calculate VRE's final allocation

Scenario 2+
33% Net Cost
33% Ridership
33% Rev Miles

Scenario 2+ Projected Operating Assistance Allocations by Agency

Line is Current Allocation Method for FY19



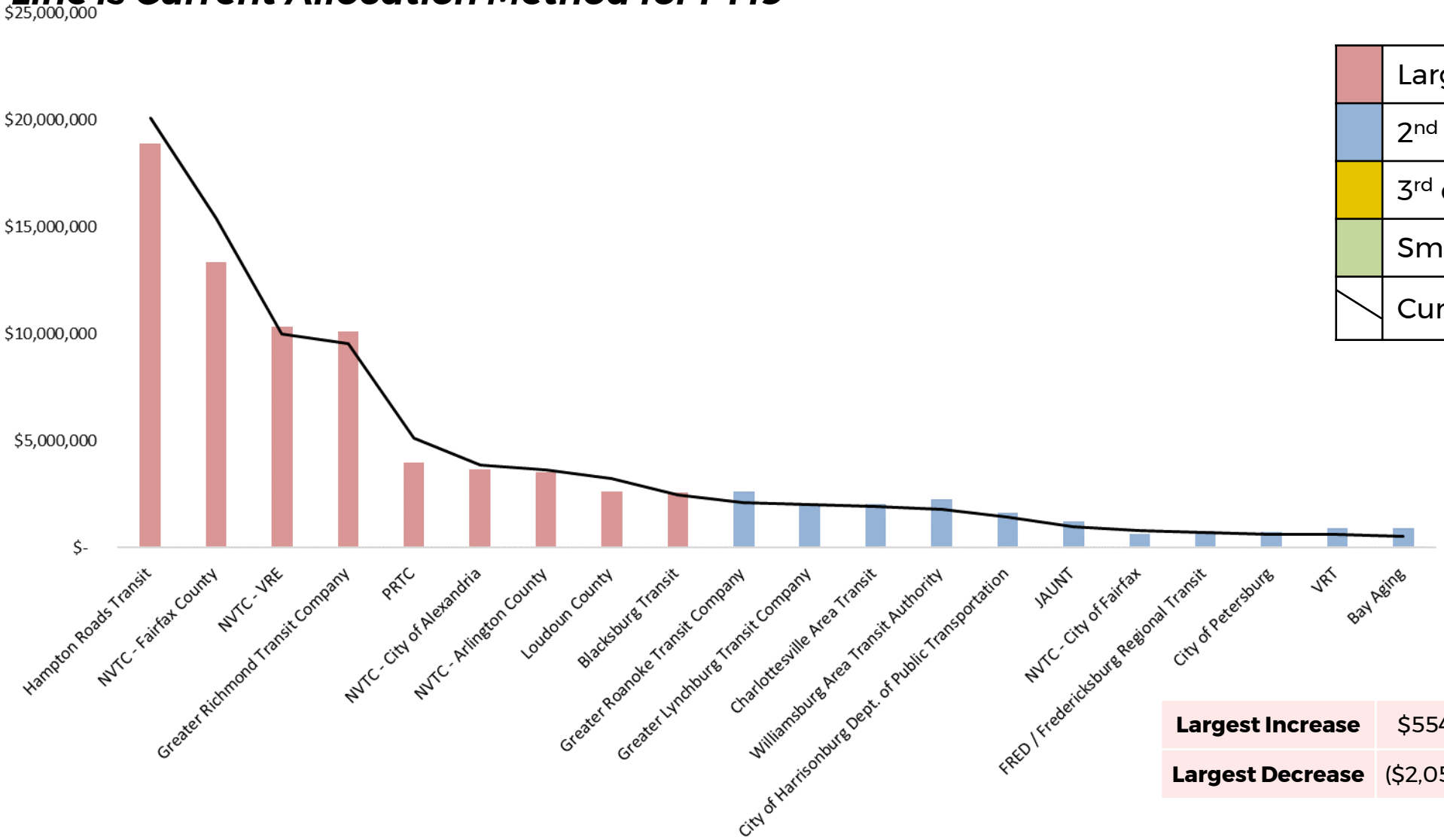
Largest quartile	
2nd quartile	
3rd quartile	
Smallest quartile	
Current Allocation	

Largest Increase	$554,606	241%
Largest Decrease	($2,055,961)	(23%)

Scenario 2+
33% Net Cost
33% Ridership
33% Rev Miles

Scenario 2+ Projected Operating Assistance Allocations: 1st and 2nd Quartile Agencies

Line is Current Allocation Method for FY19



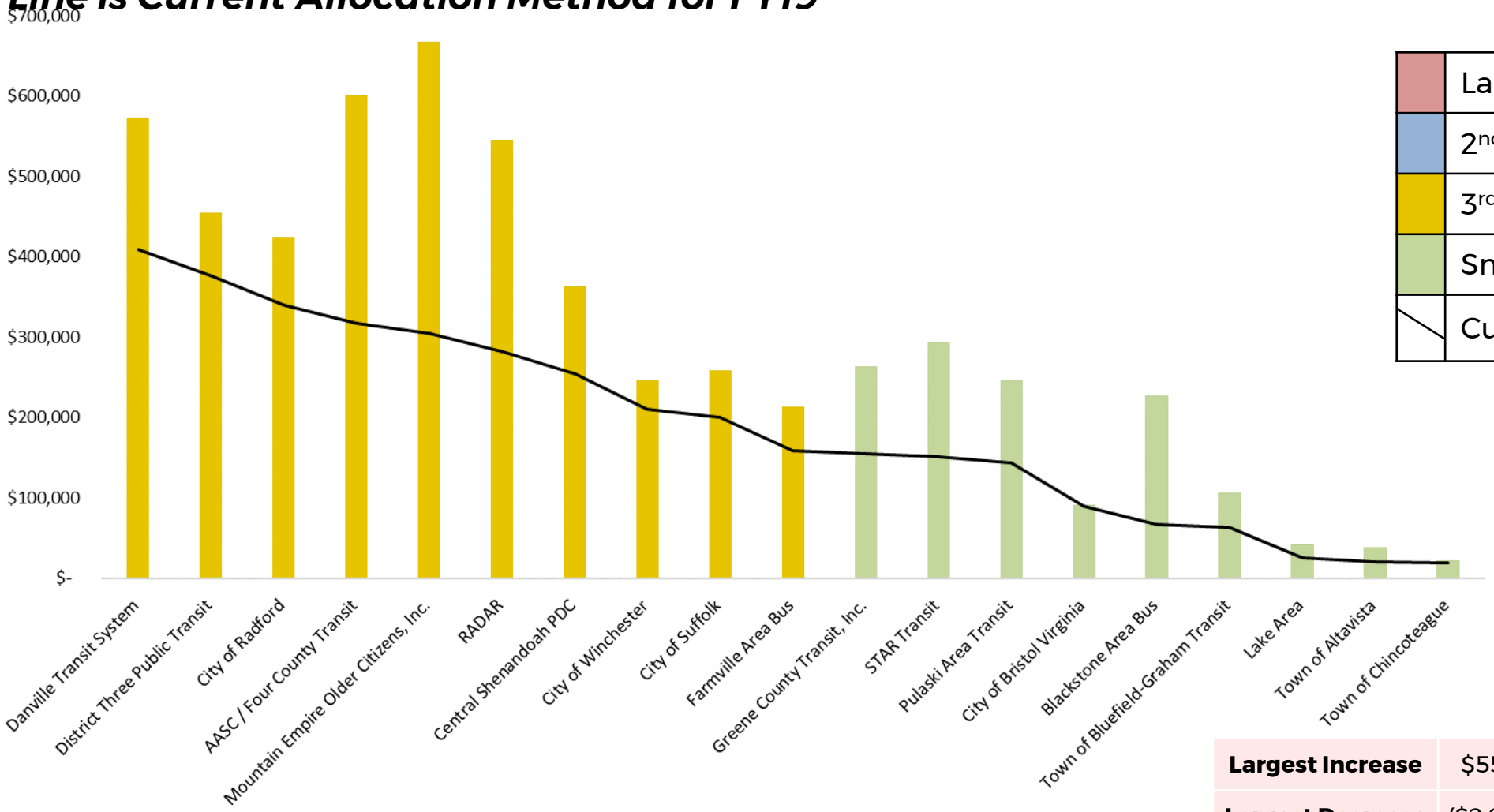
Largest quartile	
2nd quartile	
3rd quartile	
Smallest quartile	
Current Allocation	

Largest Increase	$554,606	241%
Largest Decrease	($2,055,961)	(23%)

Scenario 2+
33% Net Cost
33% Ridership
33% Rev Miles

Scenario 2+ Projected Operating Assistance Allocations: 3rd and 4th Quartile Agencies

Line is Current Allocation Method for FY19



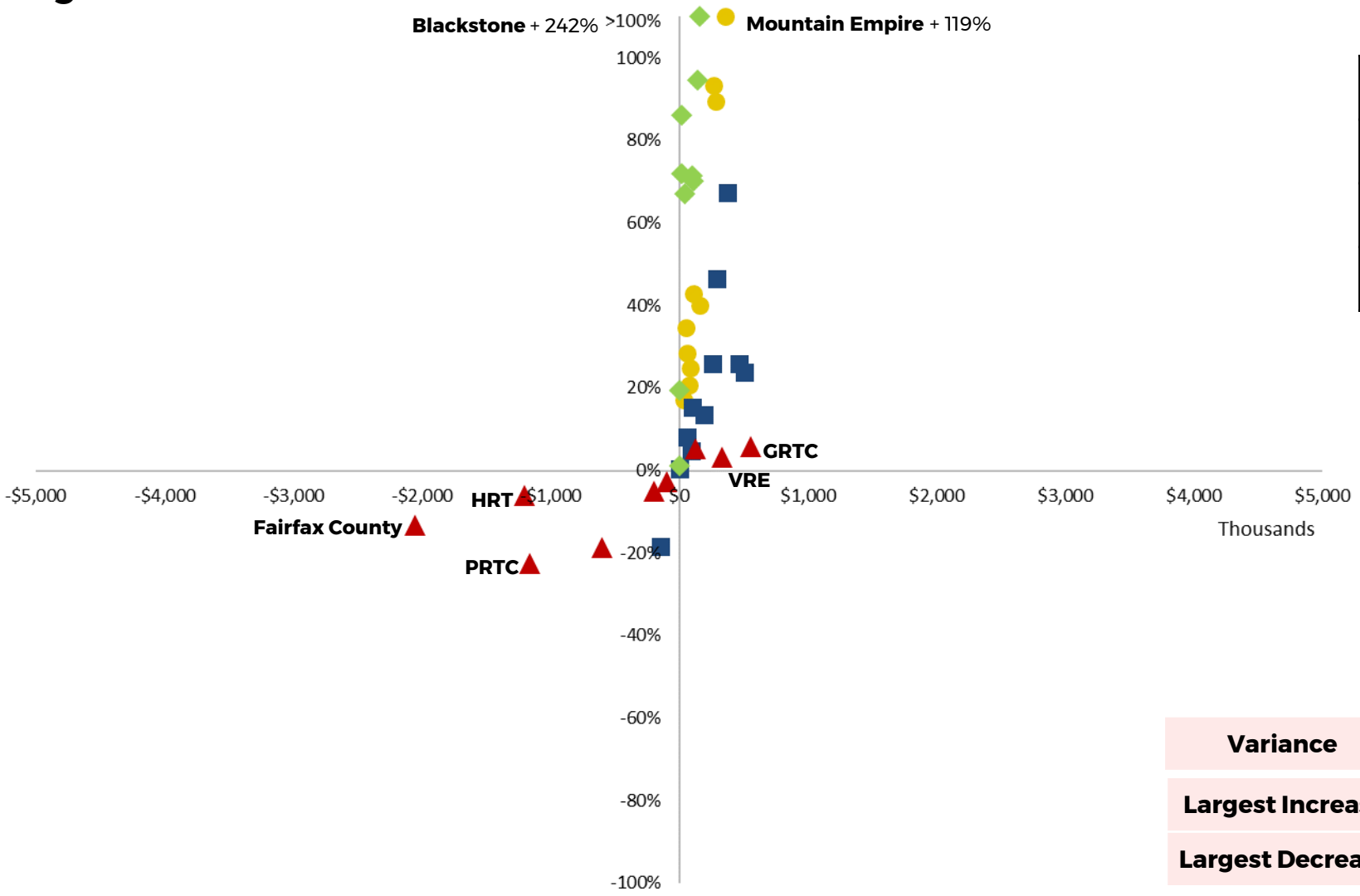
Largest quartile	
2nd quartile	
3rd quartile	
Smallest quartile	
Current Allocation	

Largest Increase	$554,606	241%
Largest Decrease	($2,055,961)	(23%)

Scenario 2+
33% Net Cost
33% Ridership
33% Rev Miles

Scenario 2+ Projected Variance from Actual FY19 Operating Assistance Allocation by Agency

No Change is at Zero on the Axes



	Largest quartile
	2nd quartile
	3rd quartile
	Smallest quartile

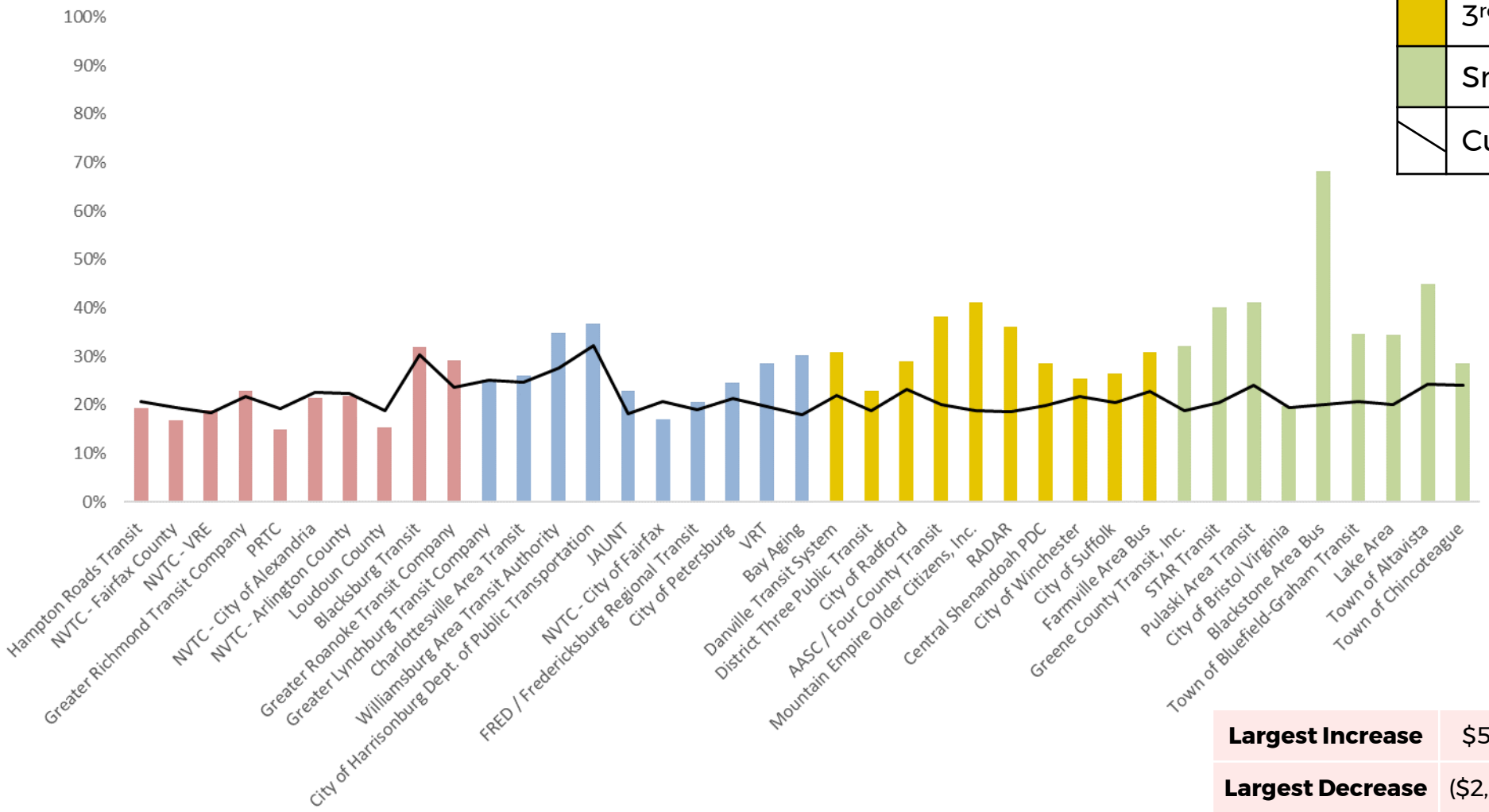
Variance	0.239	
Largest Increase	$554,606	241%
Largest Decrease	($2,055,961)	(23%)

Scenario 2+
33% Net Cost
33% Ridership
33% Rev Miles

Scenario 2+ Operating Assistance as % of Operating Cost by Agency

Line is Current Allocation Method for FY19

	Largest quartile
	2nd quartile
	3rd quartile
	Smallest quartile
	Current Allocation



Largest Increase	$554,606	241%
Largest Decrease	($2,055,961)	(23%)

Scenario A

33% Operating Cost

33% Ridership

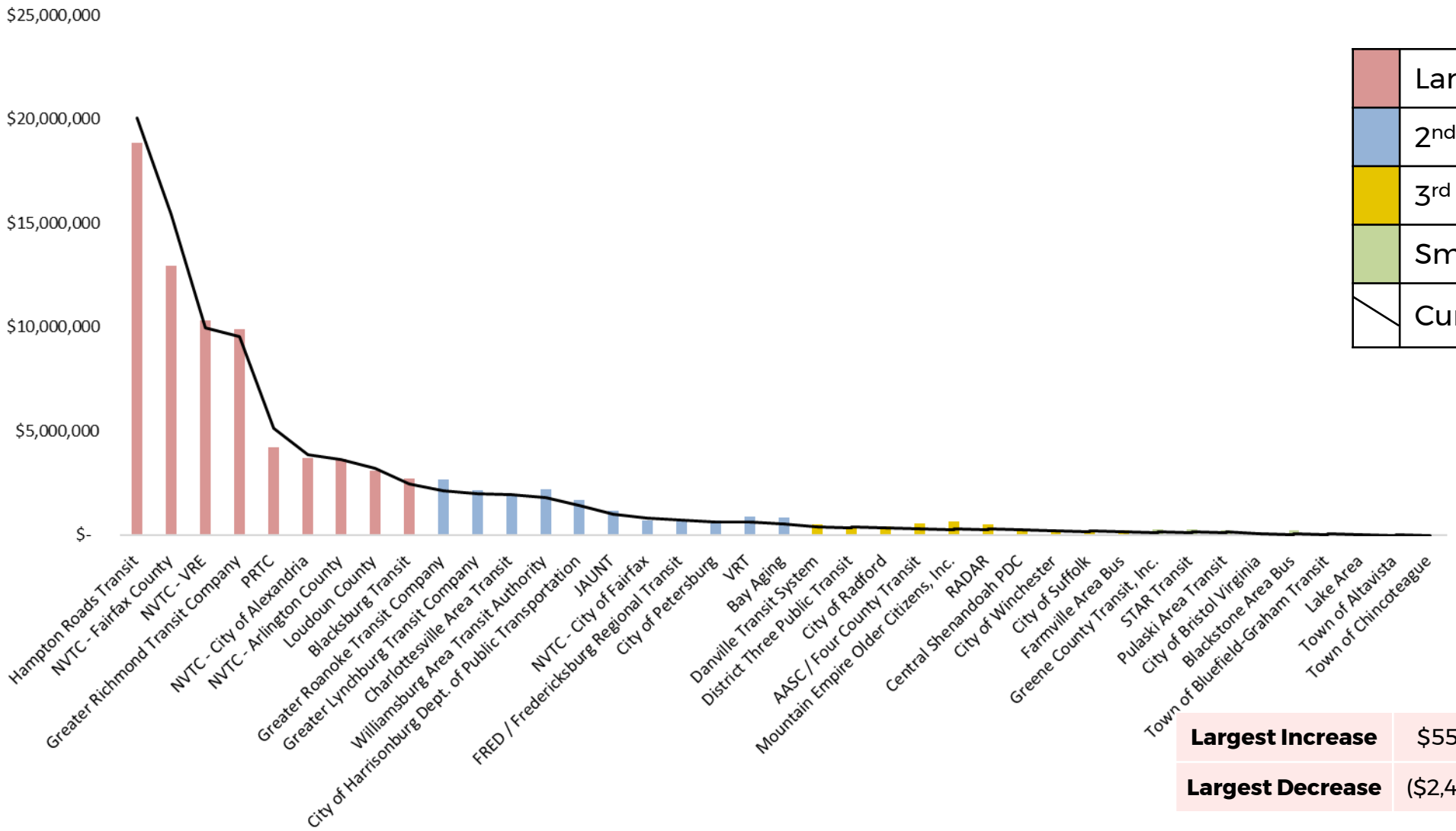
33% Revenue Vehicle Miles

Commuter Rail Pool

Scenario A
33% Cost
33% Ridership
33% Rev Miles

Scenario A Projected Operating Assistance Allocations by Agency

Line is Current Allocation Method for FY19



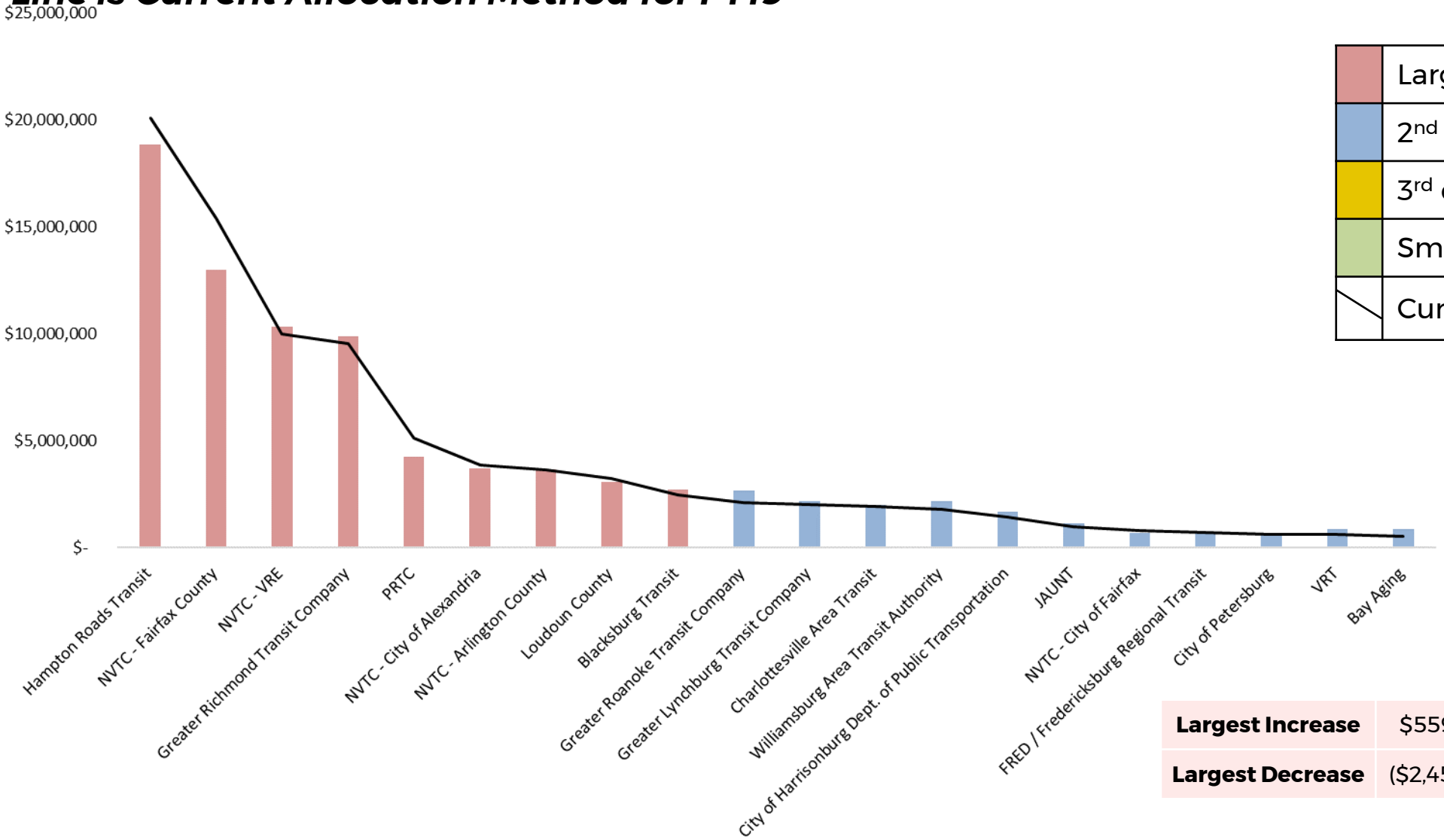
Largest quartile	
2nd quartile	
3rd quartile	
Smallest quartile	
Current Allocation	

Largest Increase	$559,292	219%
Largest Decrease	($2,455218)	(18%)

Scenario A
33% Cost
33% Ridership
33% Rev Miles

Scenario A Projected Operating Assistance Allocations: 1st and 2nd Quartile Agencies

Line is Current Allocation Method for FY19



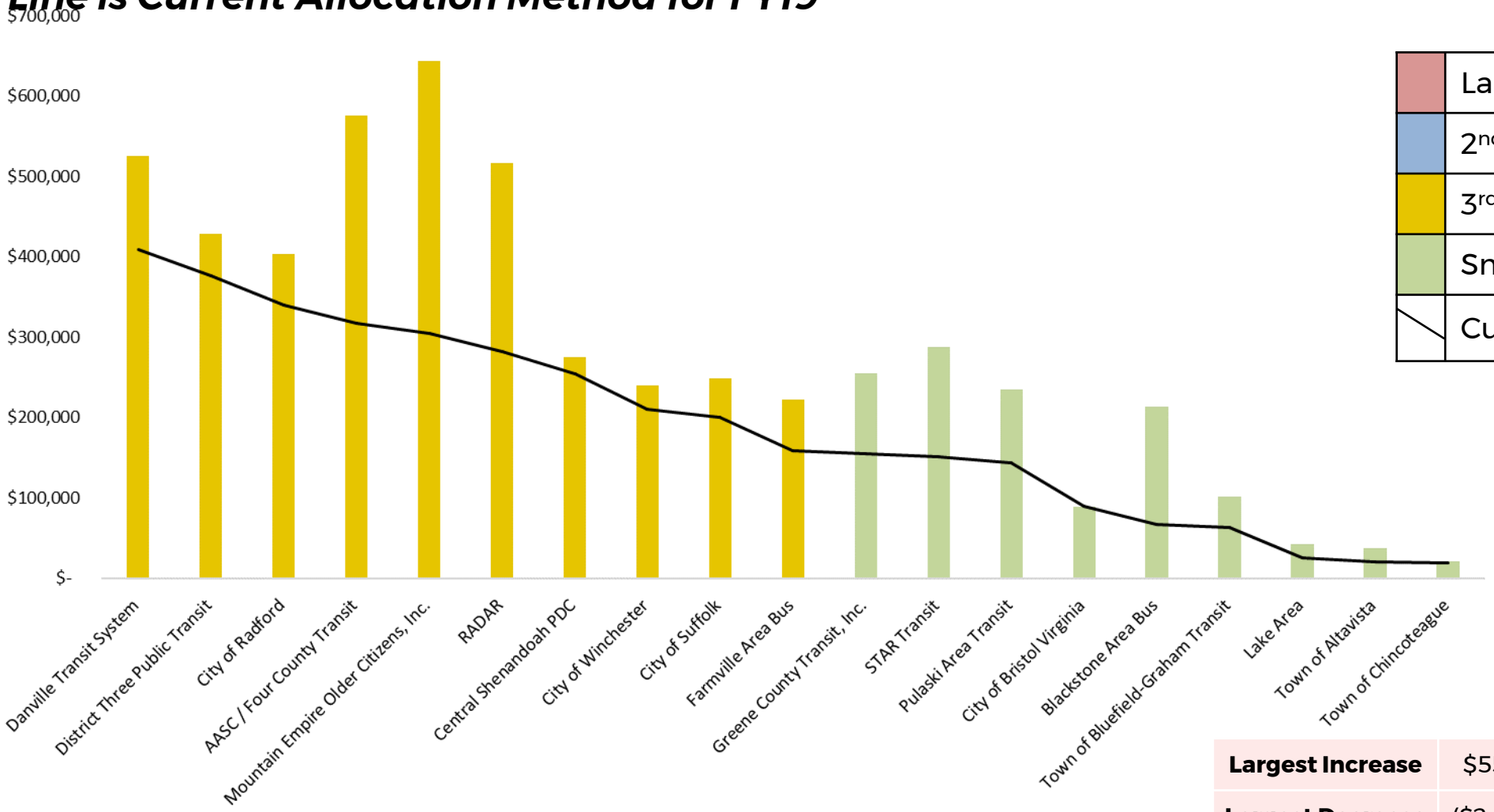
Largest quartile	
2nd quartile	
3rd quartile	
Smallest quartile	
Current Allocation	

Largest Increase	$559,292	219%
Largest Decrease	($2,455218)	(18%)

Scenario A
33% Cost
33% Ridership
33% Rev Miles

Scenario A Projected Operating Assistance Allocations: 3rd and 4th Quartile Agencies

Line is Current Allocation Method for FY19



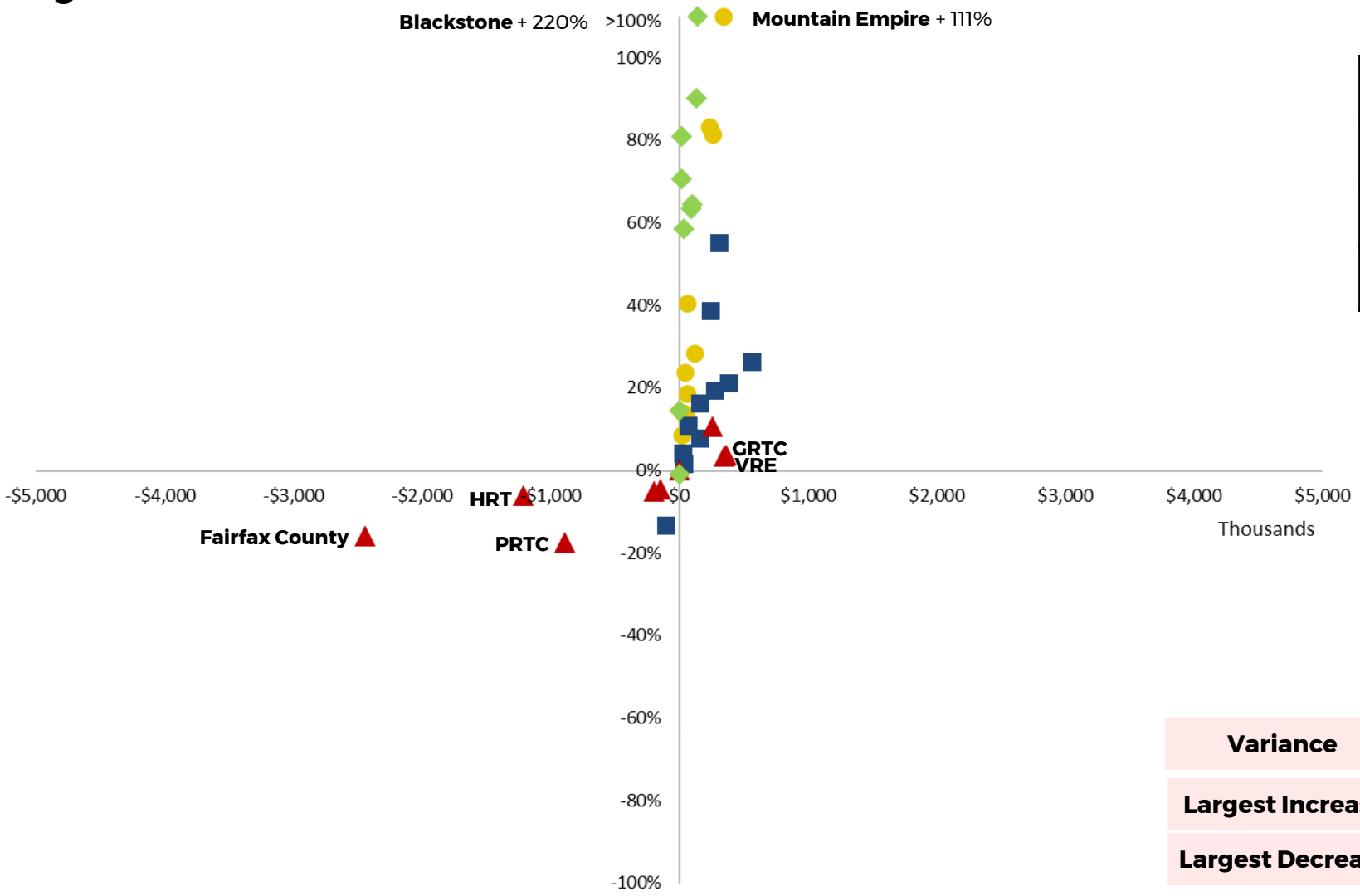
Largest quartile	
2nd quartile	
3rd quartile	
Smallest quartile	
Current Allocation	

Largest Increase	$559,292	219%
Largest Decrease	($2,455218)	(18%)

Scenario A
33% Cost
33% Ridership
33% Rev Miles

Scenario A Projected Variance from Actual FY19 Operating Assistance Allocation by Agency

No Change is at Zero on the Axes



Largest quartile	
2nd quartile	
3rd quartile	
Smallest quartile	

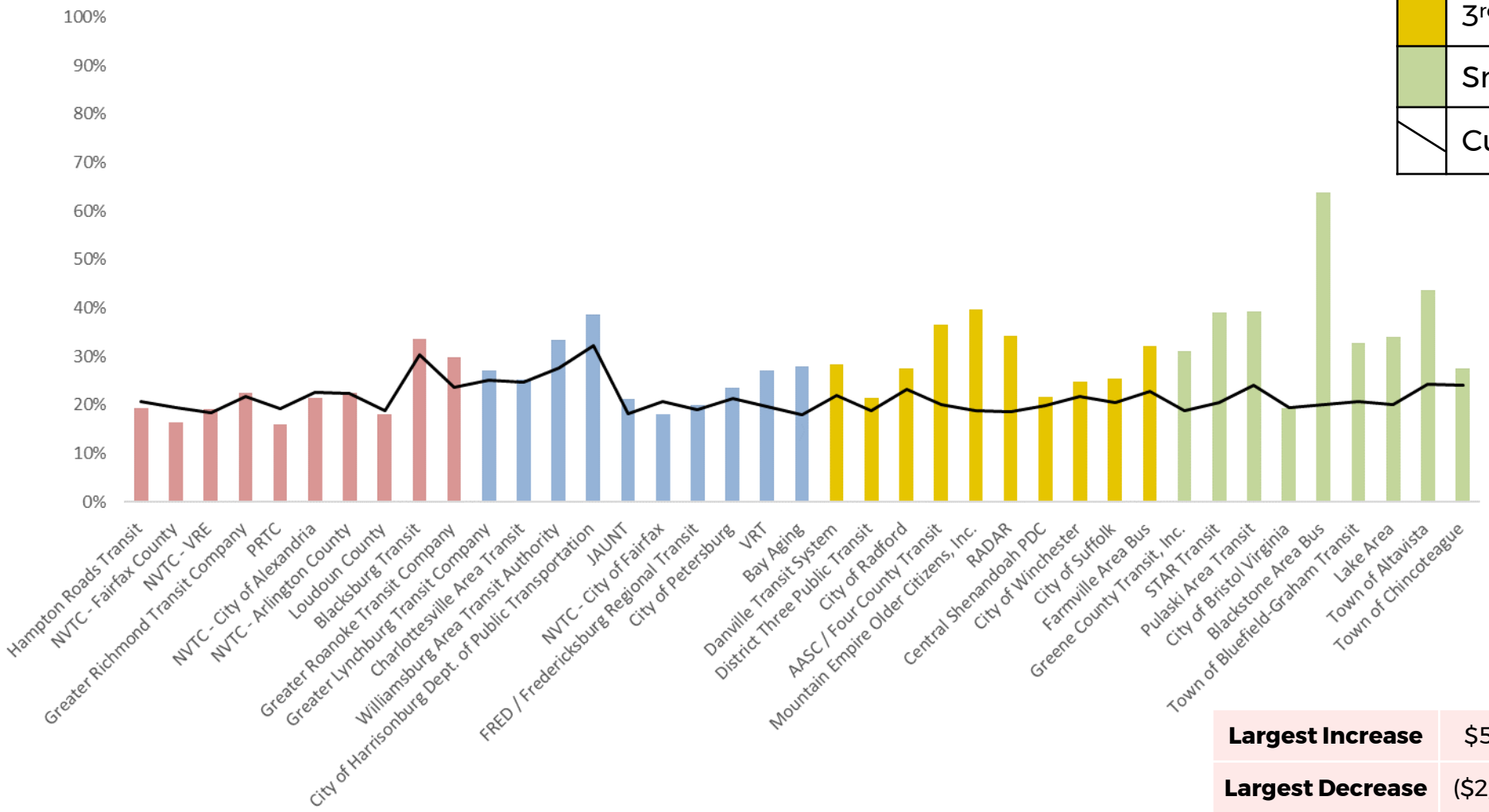
Variance	0.198	
Largest Increase	$559,292	219%
Largest Decrease	($2,455218)	(18%)

Scenario A
33% Cost
33% Ridership
33% Rev Miles

Scenario A Operating Assistance as % of Operating Cost by Agency

Line is Current Allocation Method for FY19

	Largest quartile
	2nd quartile
	3rd quartile
	Smallest quartile
	Current Allocation



Largest Increase	$559,292	219%
Largest Decrease	($2,455218)	(18%)

Scenario B

25% Operating Cost

25% Ridership

25% Revenue Vehicle Hours

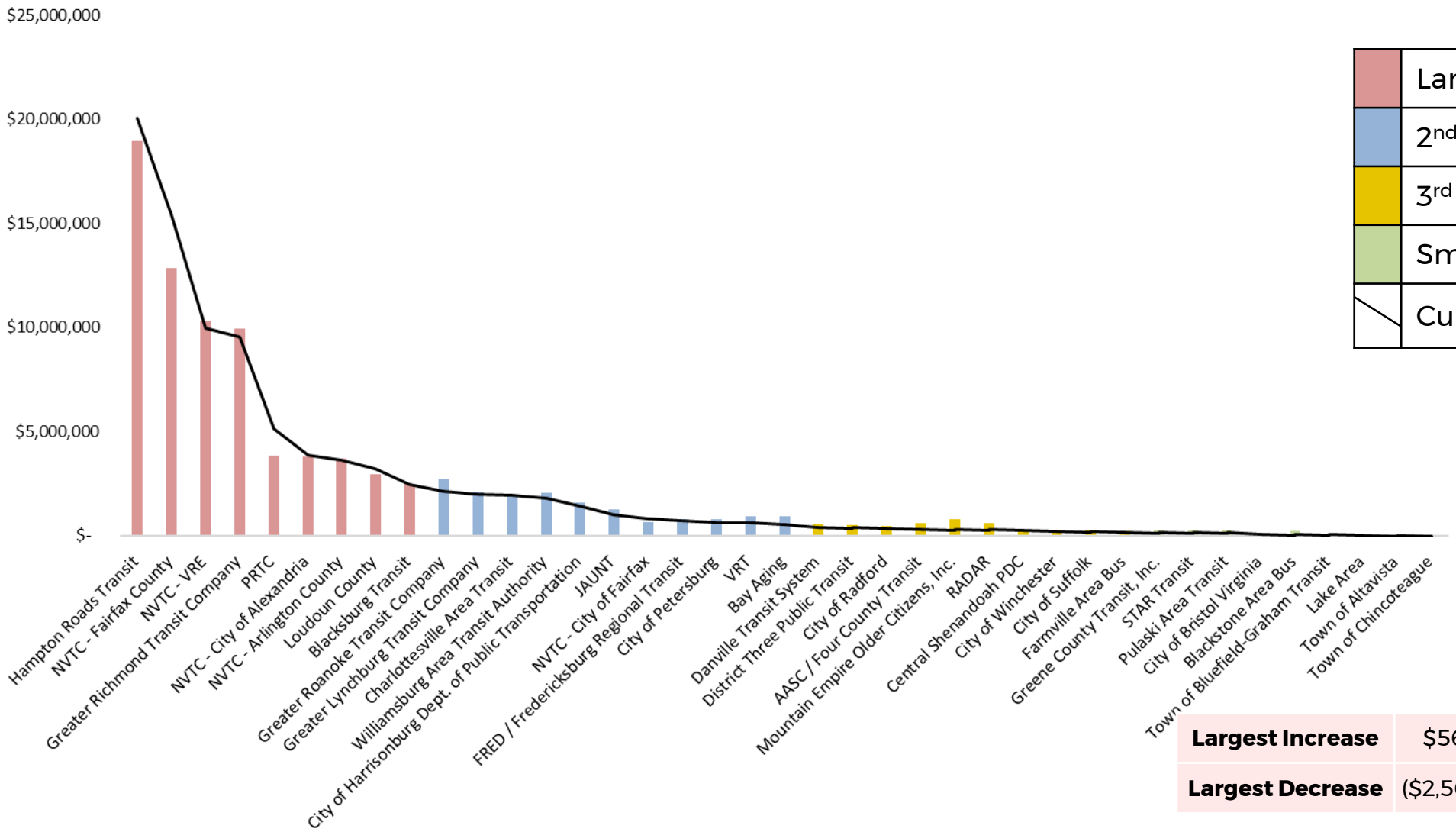
25% Revenue Vehicle Miles

Commuter Rail Pool

Scenario B
25% Cost
25% Ridership
25% Rev Hours
25% Rev Miles

Scenario B Projected Operating Assistance Allocations by Agency

Line is Current Allocation Method for FY19



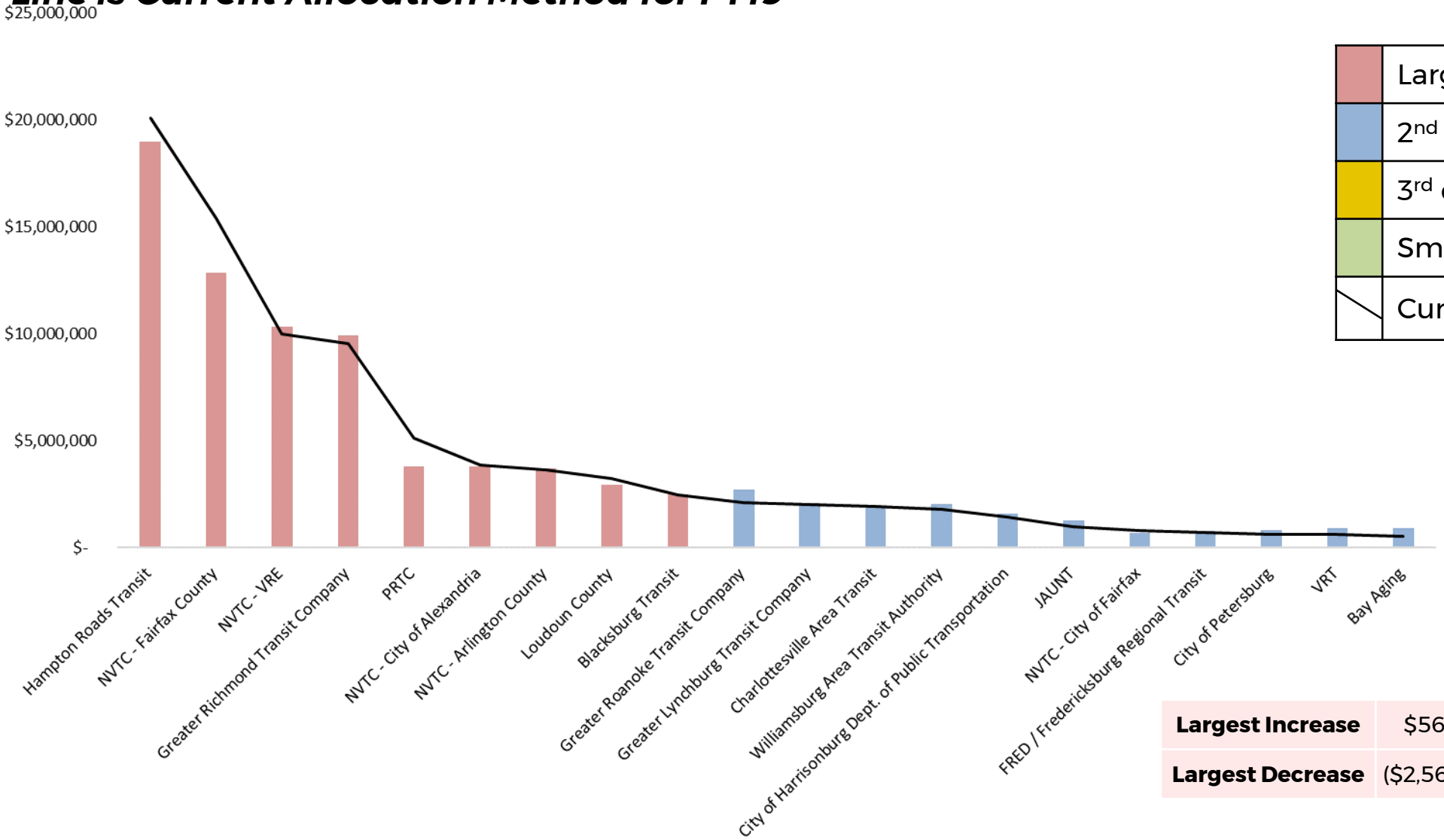
Largest quartile	
2nd quartile	
3rd quartile	
Smallest quartile	
Current Allocation	

Largest Increase	$568,811	233%
Largest Decrease	($2,565,303)	(26%)

Scenario B
25% Cost
25% Ridership
25% Rev Hours
25% Rev Miles

Scenario B Projected Operating Assistance Allocations: 1st and 2nd Quartile Agencies

Line is Current Allocation Method for FY19



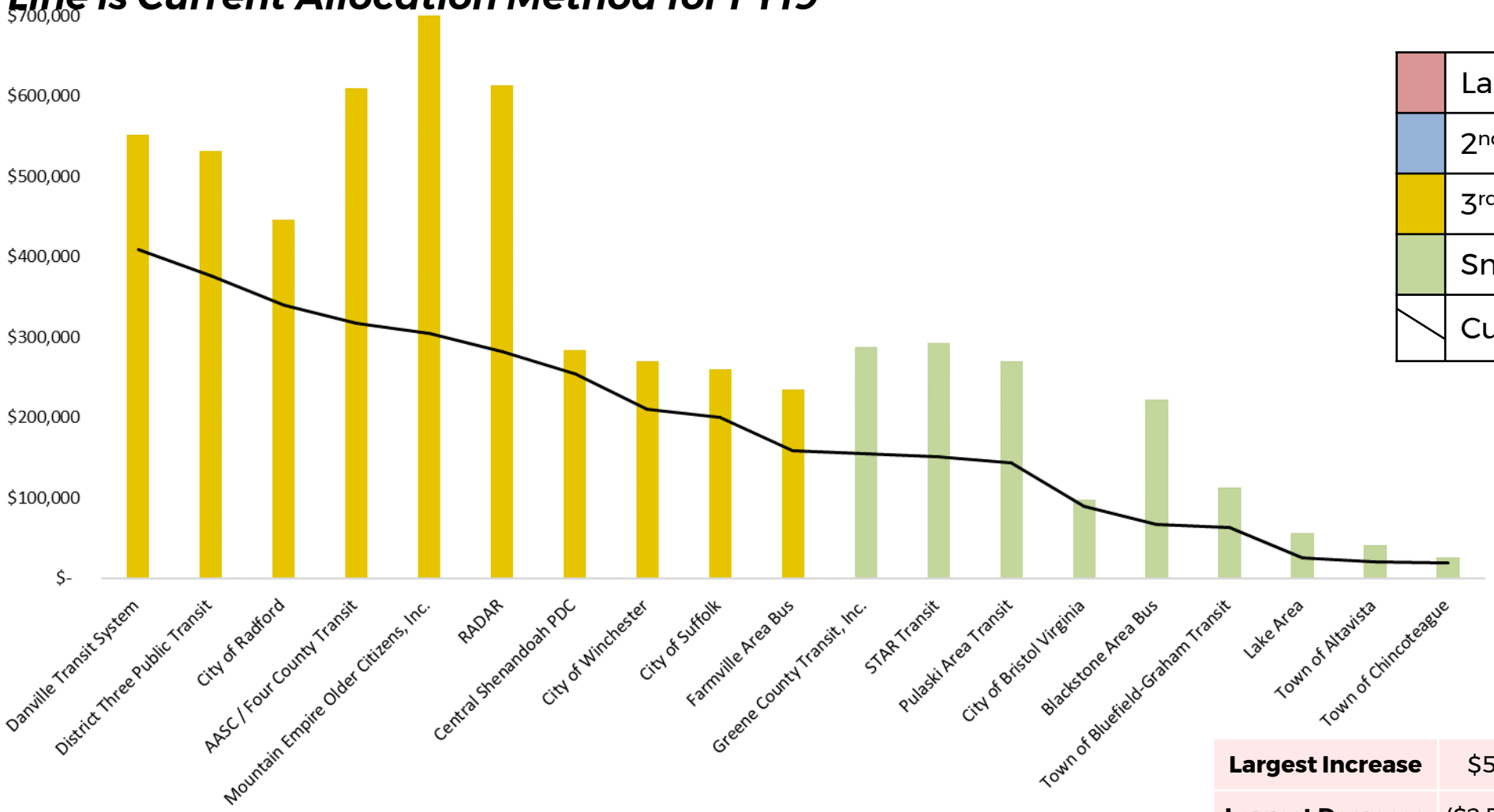
Largest quartile	
2nd quartile	
3rd quartile	
Smallest quartile	
Current Allocation	

Largest Increase	$568,811	233%
Largest Decrease	($2,565,303)	(26%)

Scenario B
25% Cost
25% Ridership
25% Rev Hours
25% Rev Miles

Scenario B Projected Operating Assistance Allocations: 3rd and 4th Quartile Agencies

Line is Current Allocation Method for FY19



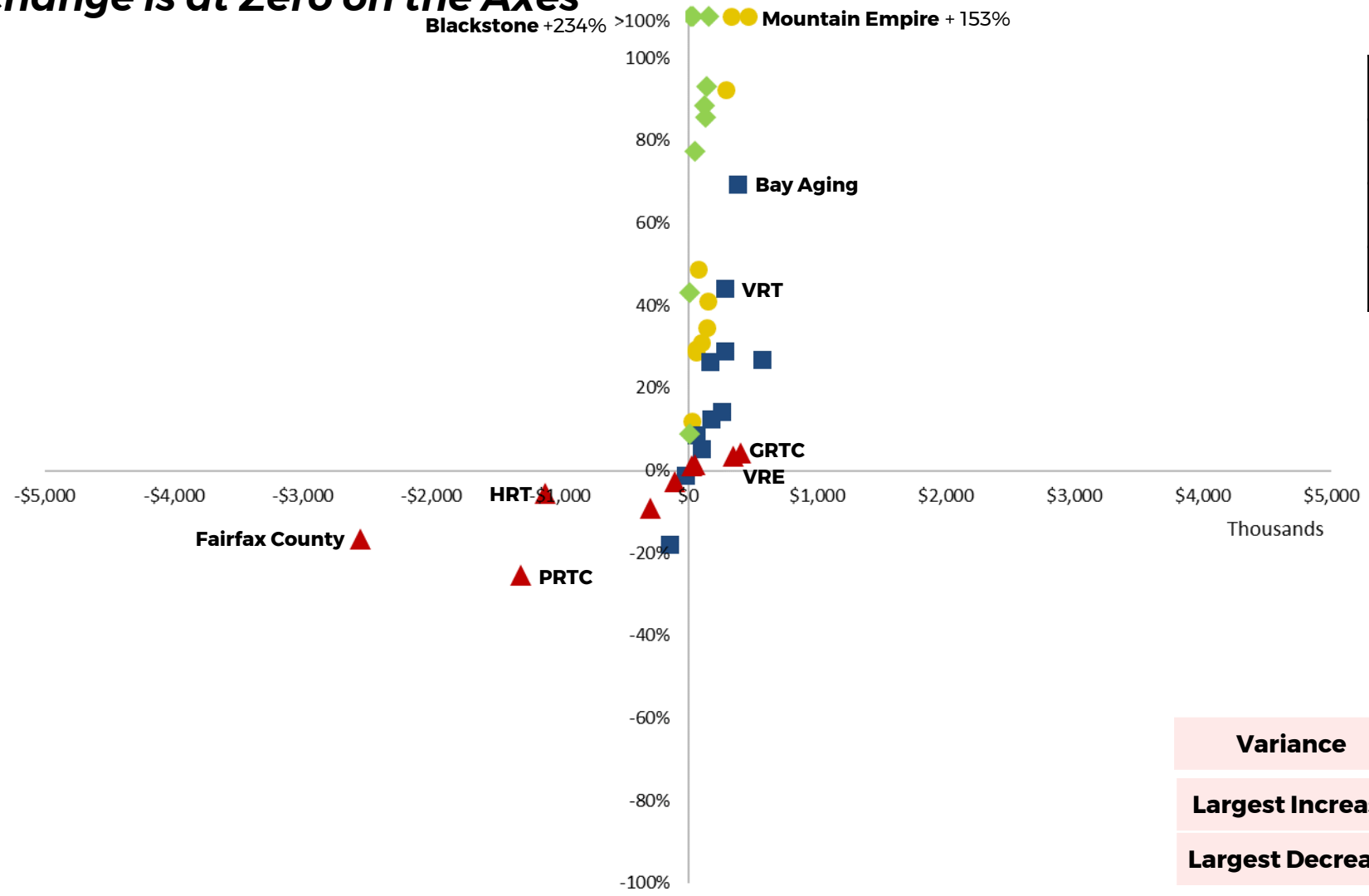
Largest quartile	
2nd quartile	
3rd quartile	
Smallest quartile	
Current Allocation	

Largest Increase	$568,811	233%
Largest Decrease	($2,565,303)	(26%)

Scenario B
25% Cost
25% Ridership
25% Rev Hours
25% Rev Miles

Scenario B Projected Variance from Actual FY19 Operating Assistance Allocation by Agency

No Change is at Zero on the Axes



	Largest quartile
	2nd quartile
	3rd quartile
	Smallest quartile

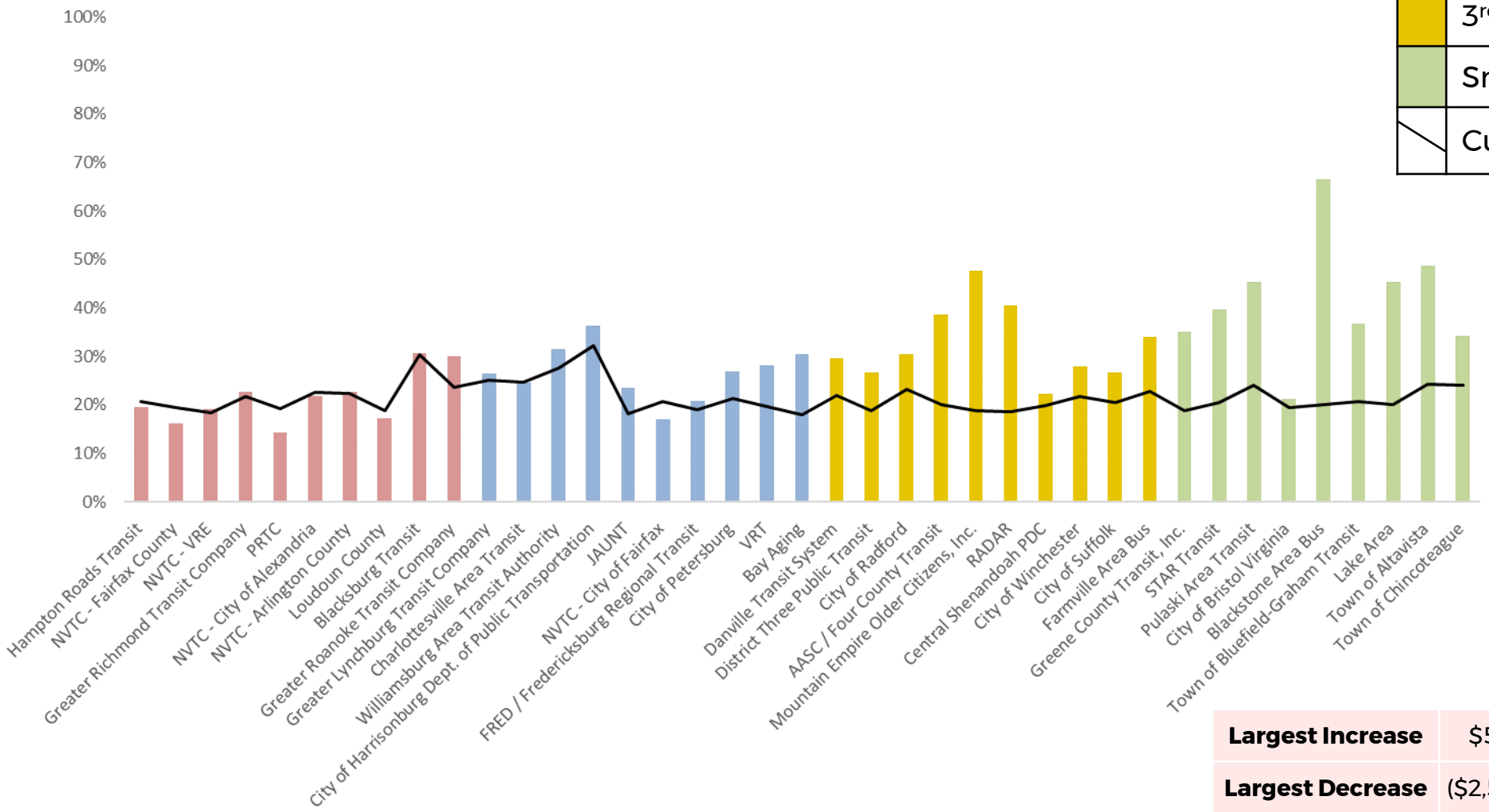
Variance	0.283	
Largest Increase	$568,811	233%
Largest Decrease	($2,565,303)	(26%)

Scenario B
25% Cost
25% Ridership
25% Rev Hours
25% Rev Miles

Scenario B Operating Assistance as % of Operating Cost by Agency

Line is Current Allocation Method for FY19

	Largest quartile
	2nd quartile
	3rd quartile
	Smallest quartile
	Current Allocation



Largest Increase	$568,811	233%
Largest Decrease	($2,565,303)	(26%)

Scenario C

50% Operating Cost

30% Ridership

10% Revenue Vehicle Hours

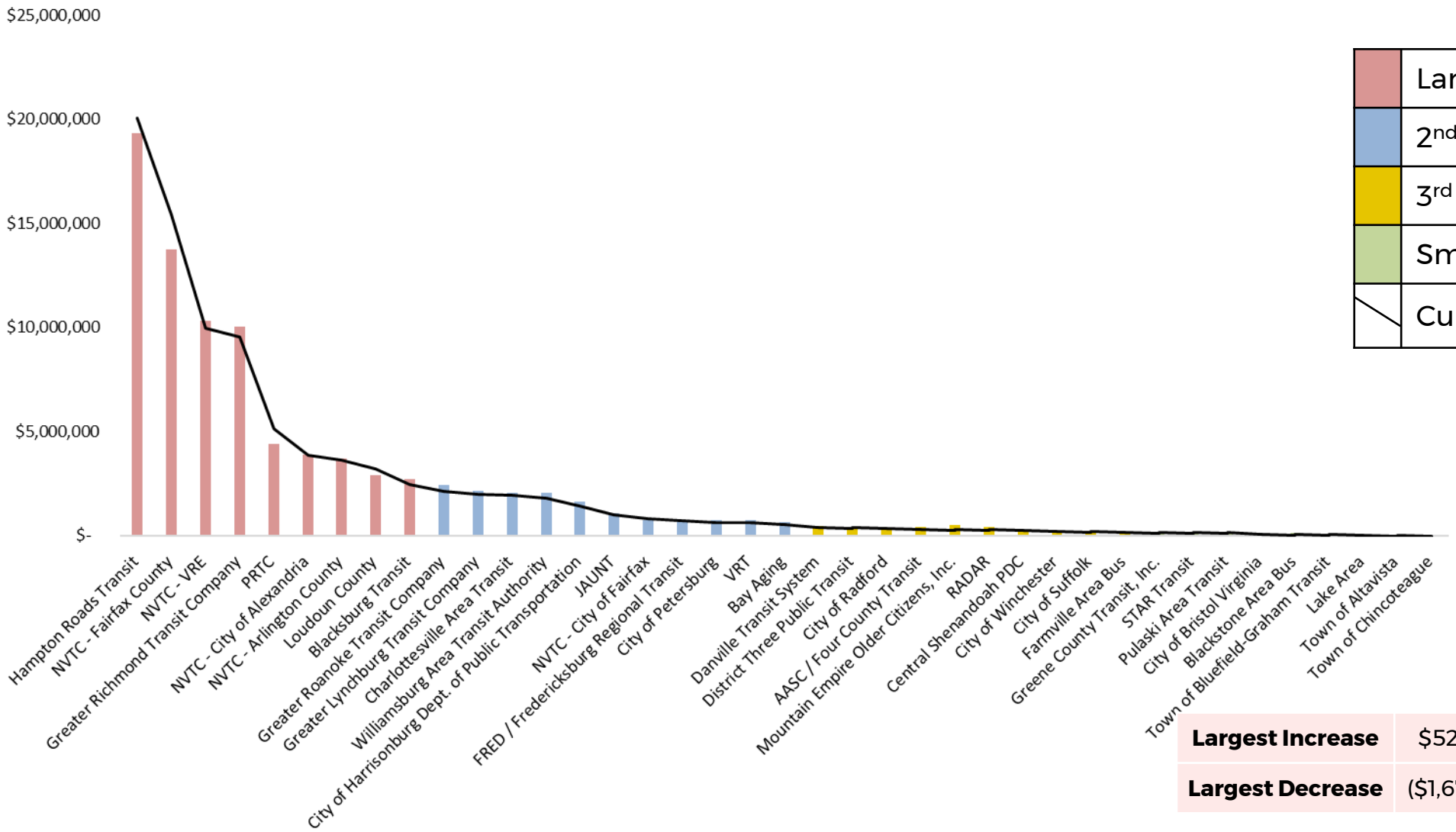
10% Revenue Vehicle Miles

Commuter Rail Pool

Scenario C
50% Cost
30% Ridership
10% Rev Hours
10% Rev Miles

Scenario C Projected Operating Assistance Allocations by Agency

Line is Current Allocation Method for FY19



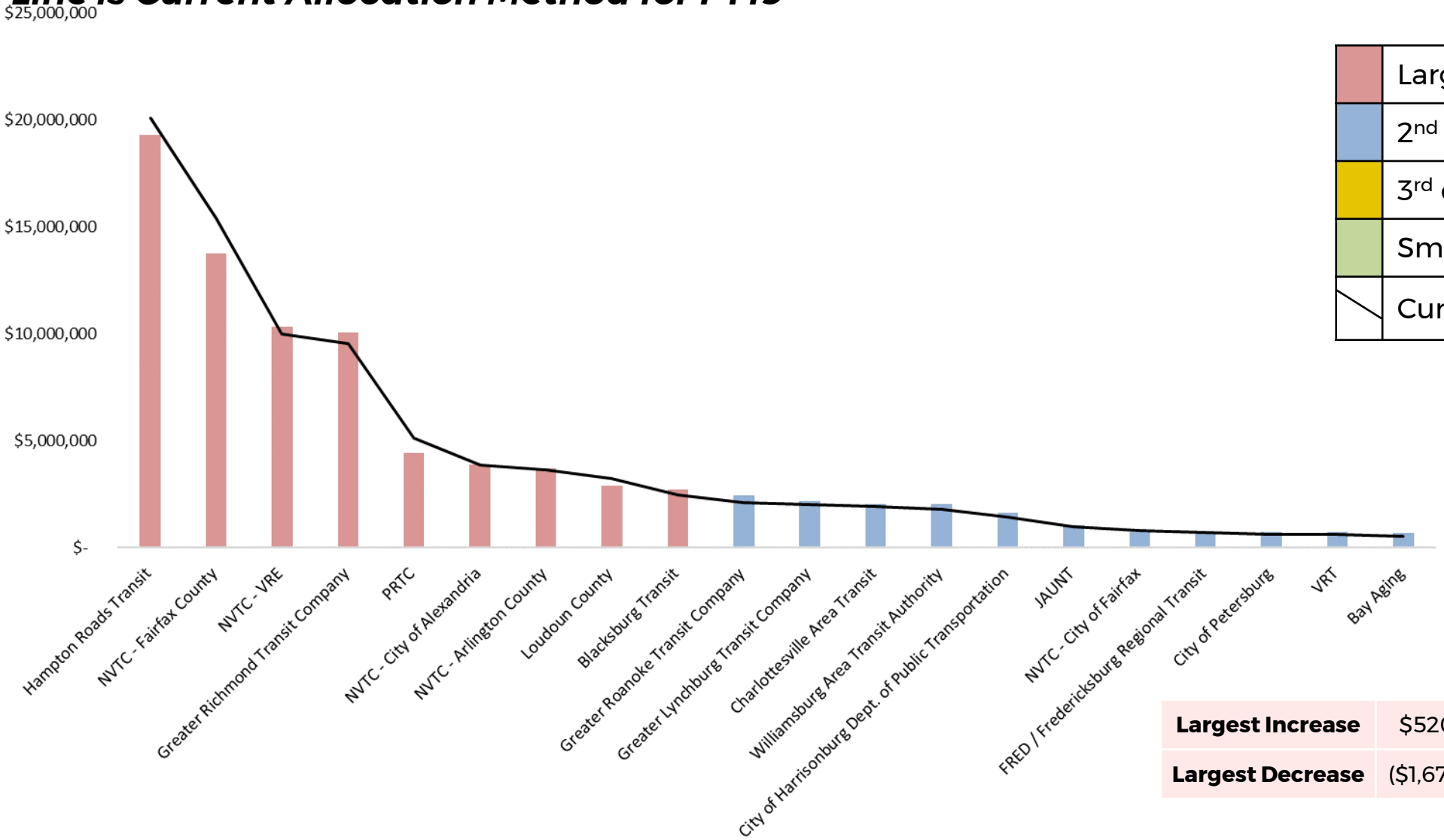
Largest quartile	
2nd quartile	
3rd quartile	
Smallest quartile	
Current Allocation	

Largest Increase	$520,752	92%
Largest Decrease	($1,671,865)	(14%)

Scenario C
50% Cost
30% Ridership
10% Rev Hours
10% Rev Miles

Scenario C Projected Operating Assistance Allocations: 1st and 2nd Quartile Agencies

Line is Current Allocation Method for FY19



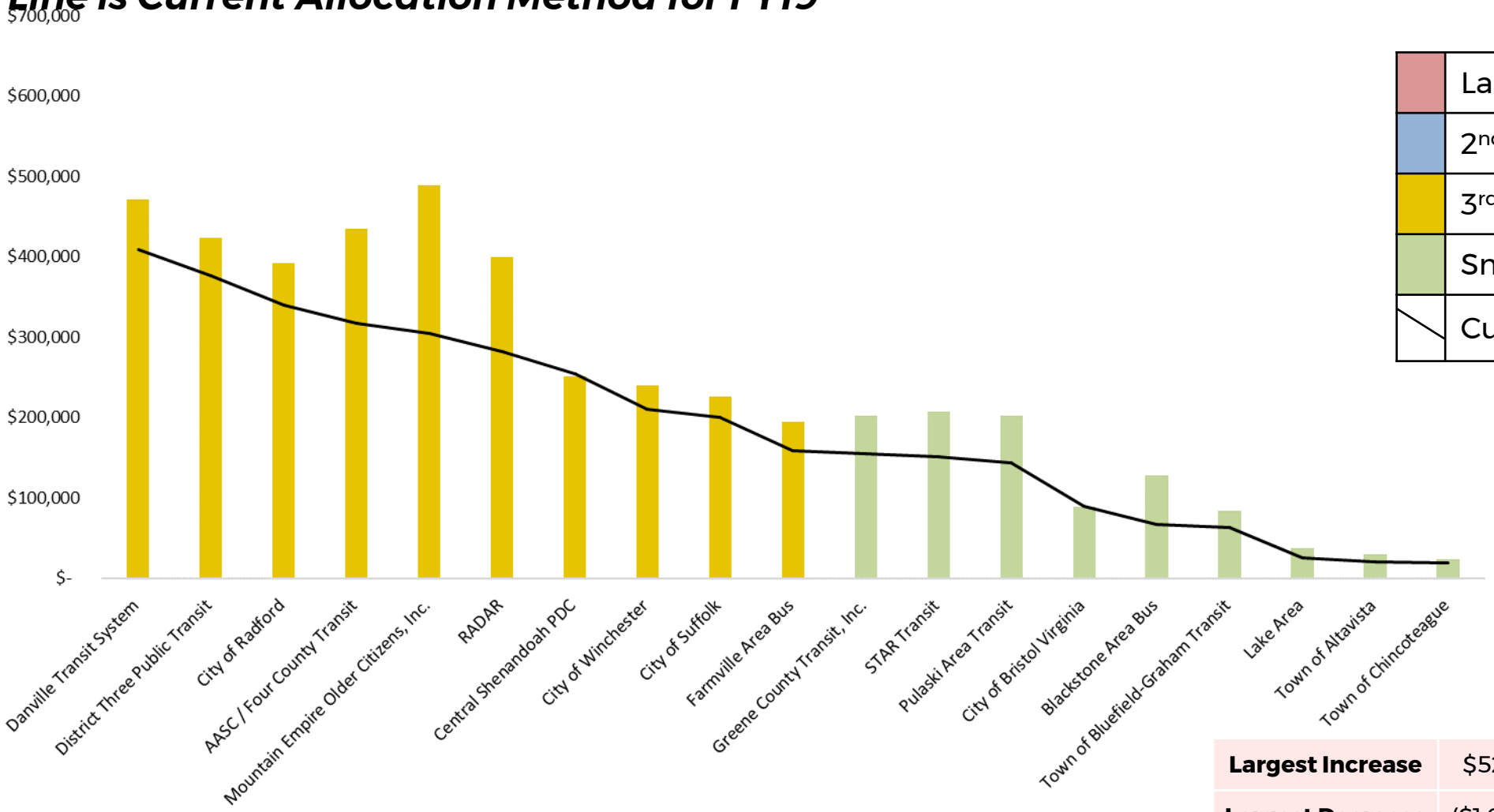
Largest quartile	
2nd quartile	
3rd quartile	
Smallest quartile	
Current Allocation	

Largest Increase	$520,752	92%
Largest Decrease	($1,671,865)	(14%)

Scenario C
50% Cost
30% Ridership
10% Rev Hours
10% Rev Miles

Scenario C Projected Operating Assistance Allocations: 3rd and 4th Quartile Agencies

Line is Current Allocation Method for FY19



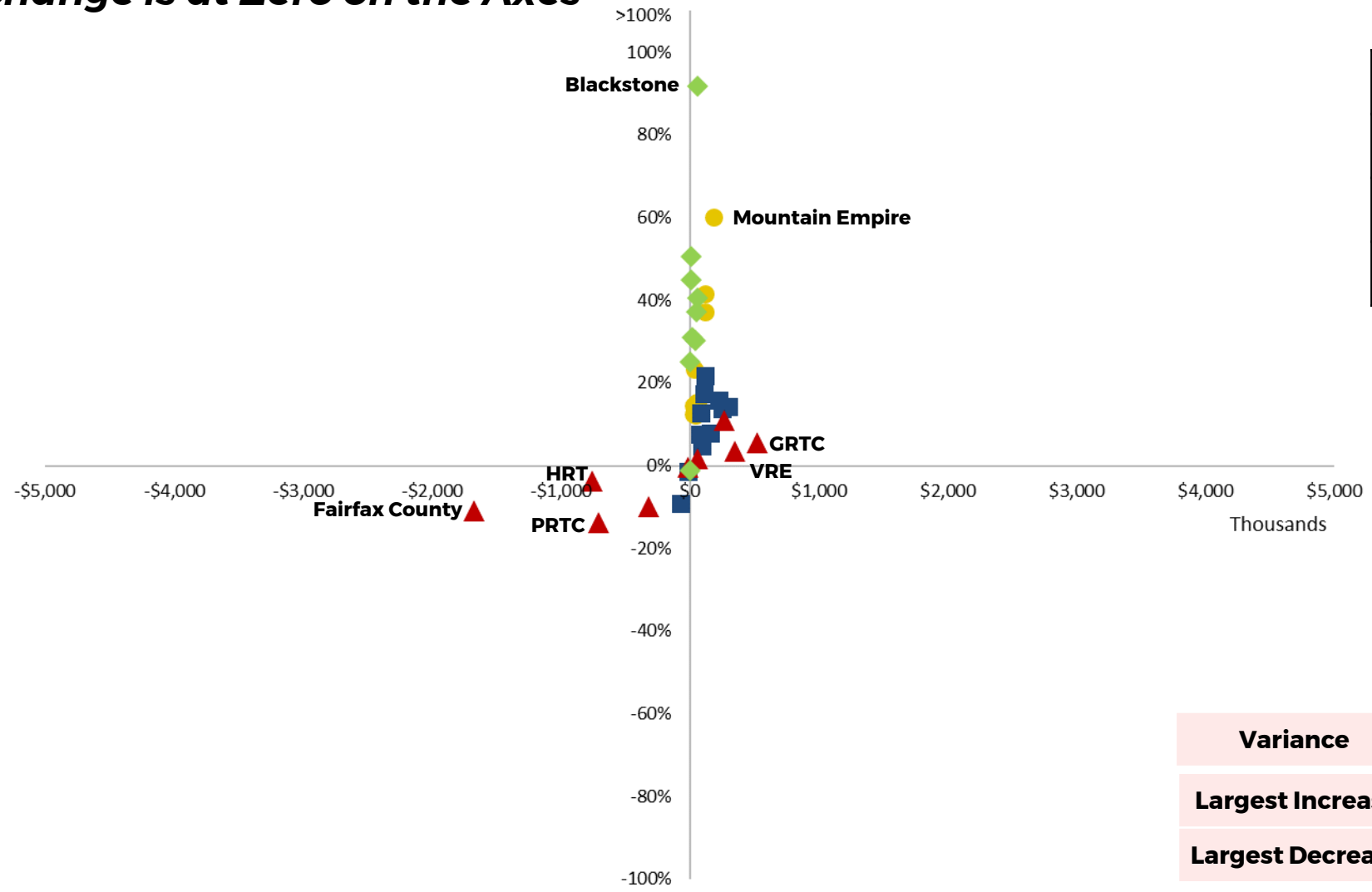
Largest quartile	
2nd quartile	
3rd quartile	
Smallest quartile	
Current Allocation	

Largest Increase	$520,752	92%
Largest Decrease	($1,671,865)	(14%)

Scenario C
50% Cost
30% Ridership
10% Rev Hours
10% Rev Miles

Scenario C Projected Variance from Actual FY19 Operating Assistance Allocation by Agency

No Change is at Zero on the Axes



	Largest quartile
	2nd quartile
	3rd quartile
	Smallest quartile

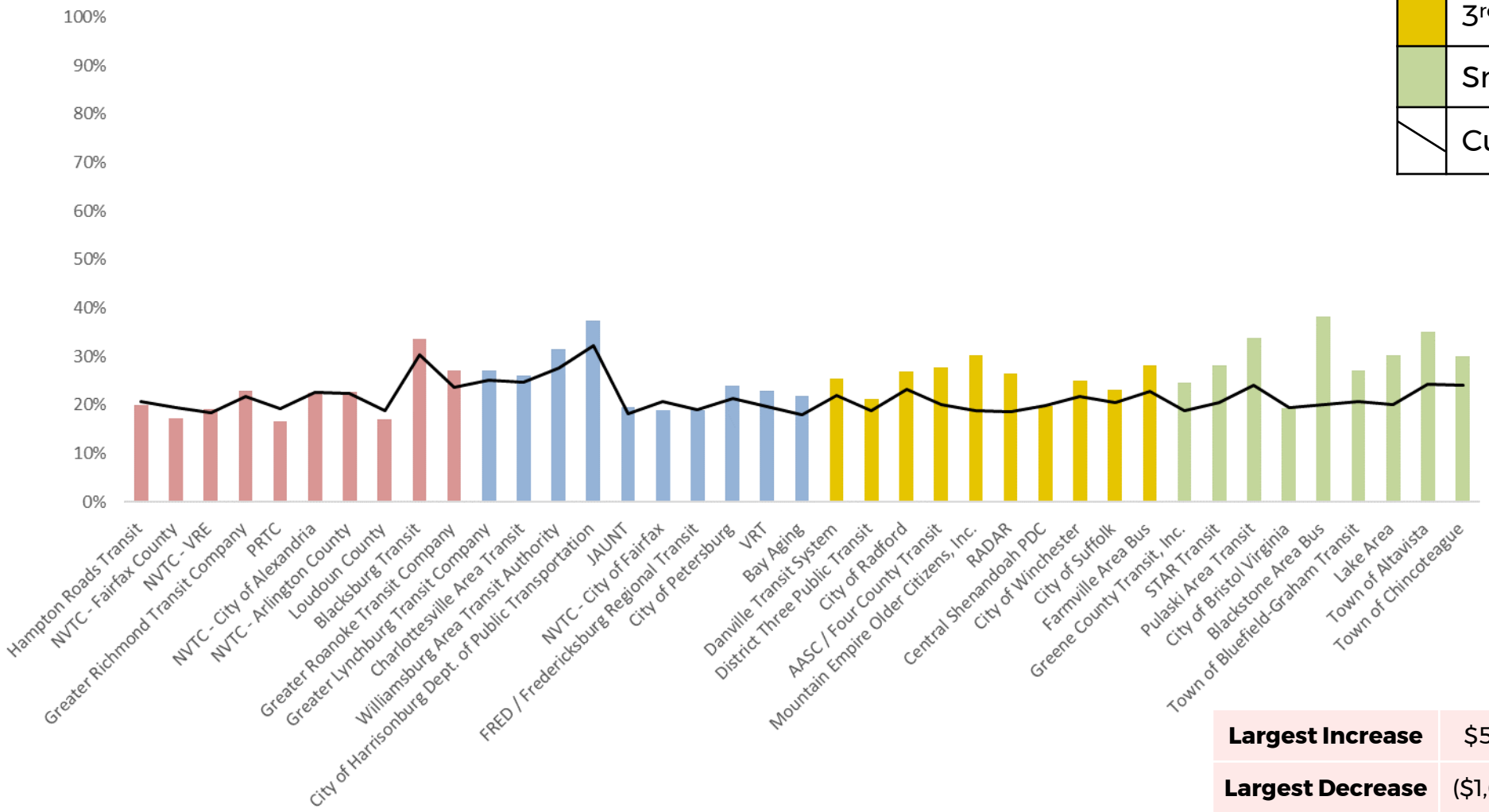
Variance	0.045	
Largest Increase	$520,752	92%
Largest Decrease	($1,671,865)	(14%)

Scenario C
50% Cost
30% Ridership
10% Rev Hours
10% Rev Miles

Scenario C Operating Assistance as % of Operating Cost by Agency

Line is Current Allocation Method for FY19

	Largest quartile
	2nd quartile
	3rd quartile
	Smallest quartile
	Current Allocation



Largest Increase	$520,752	92%
Largest Decrease	($1,671,865)	(14%)

Capped Scenarios

Scenario A - Capped

33% Operating Cost

33% Ridership

33% Revenue Vehicle Miles

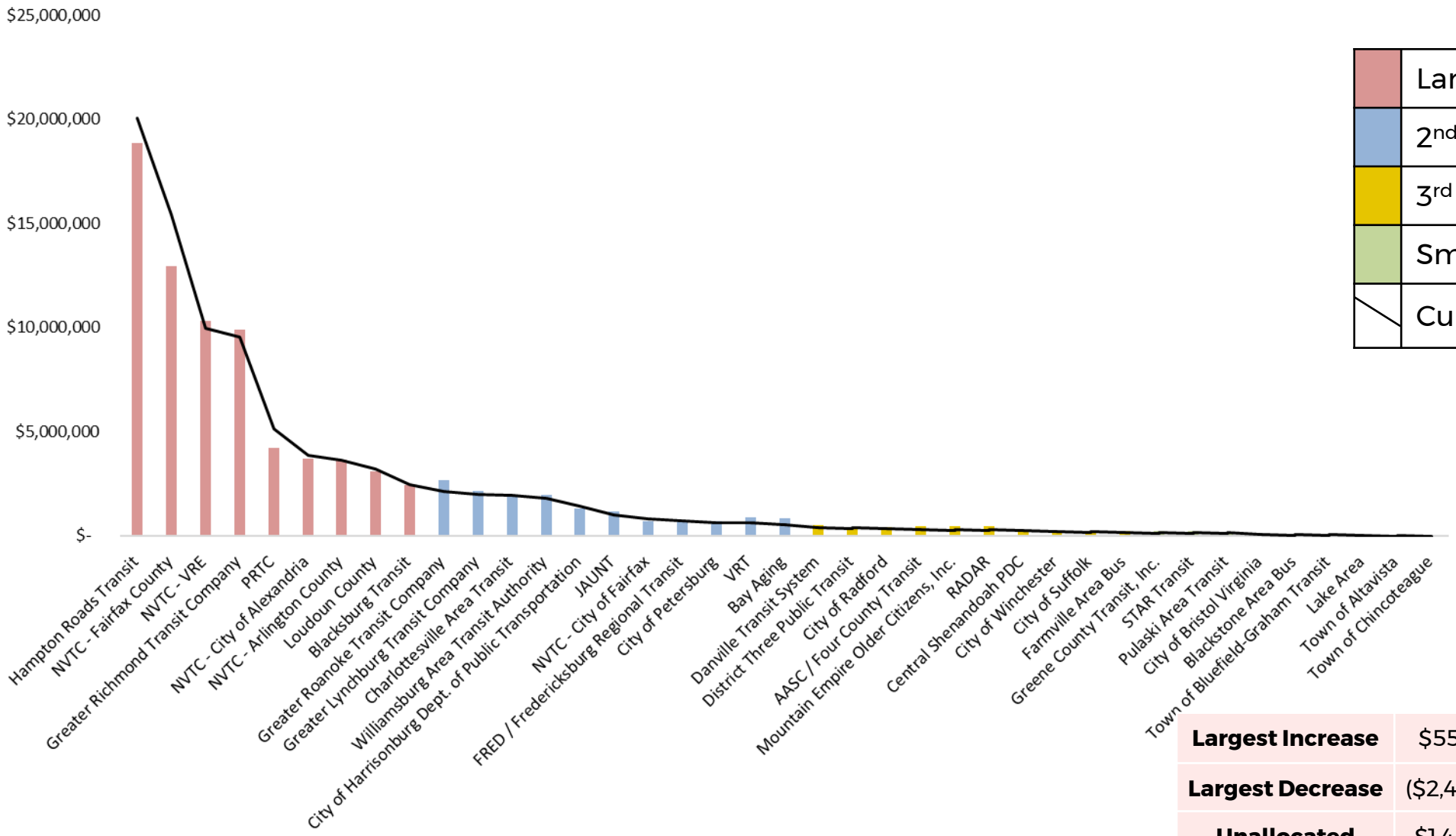
Commuter Rail Pool

30% Cap on Allocation (as % of Operating Cost)

Scenario A-Cap
33% Cost
33% Ridership
33% Rev Miles
Capped – 30%

Scenario A-Capped Projected Operating Assistance Allocations by Agency

Line is Current Allocation Method for FY19



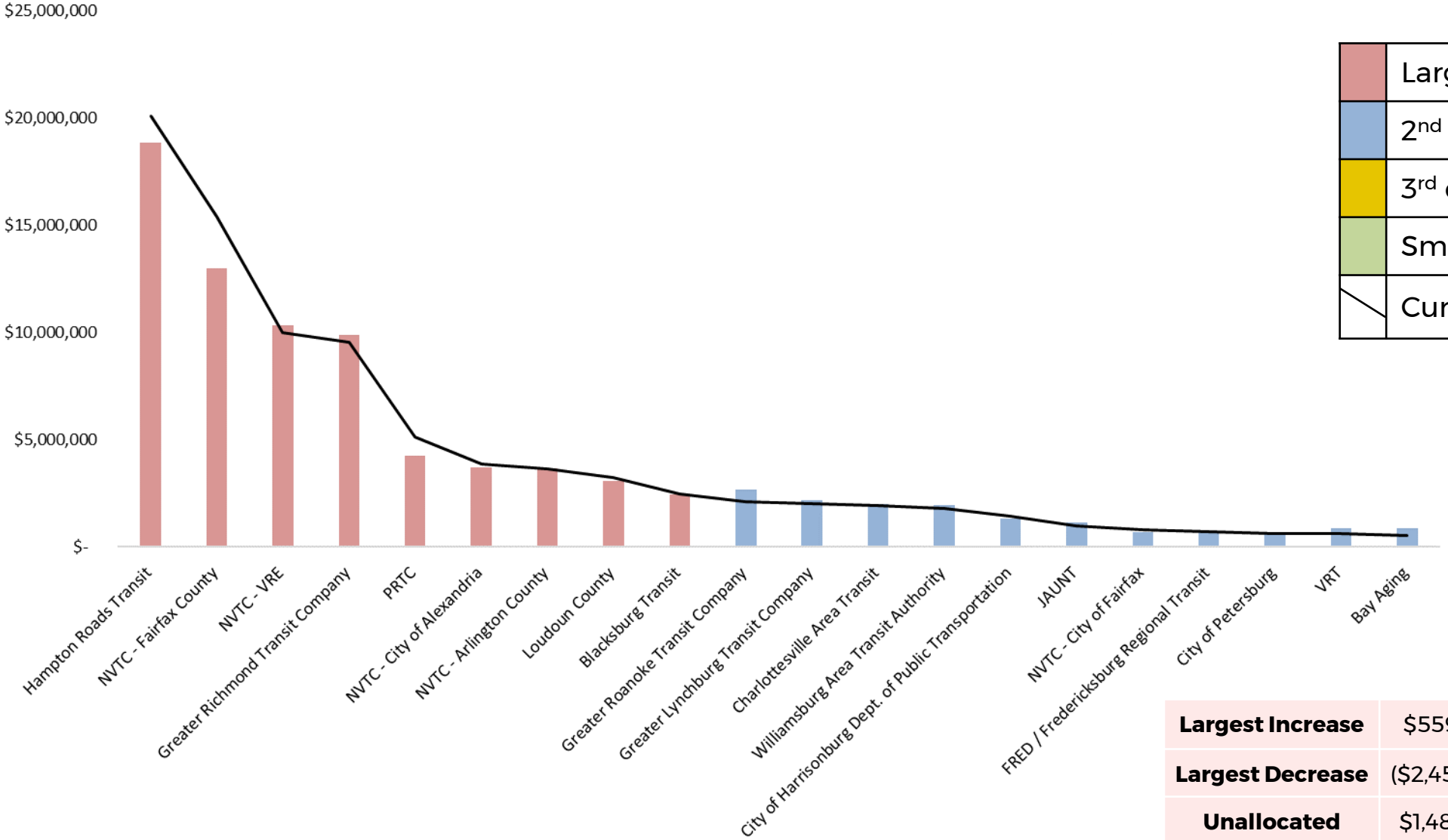
Largest quartile	
2nd quartile	
3rd quartile	
Smallest quartile	
Current Allocation	

Largest Increase	$559,292	61%
Largest Decrease	($2,455,218)	(18%)
Unallocated	$1,481,456	

Scenario A-Cap
33% Cost
33% Ridership
33% Rev Miles
Capped – 30%

Scenario A-Capped Projected Operating Assistance Allocations: 1st and 2nd Quartile Agencies

Line is Current Allocation Method for FY19



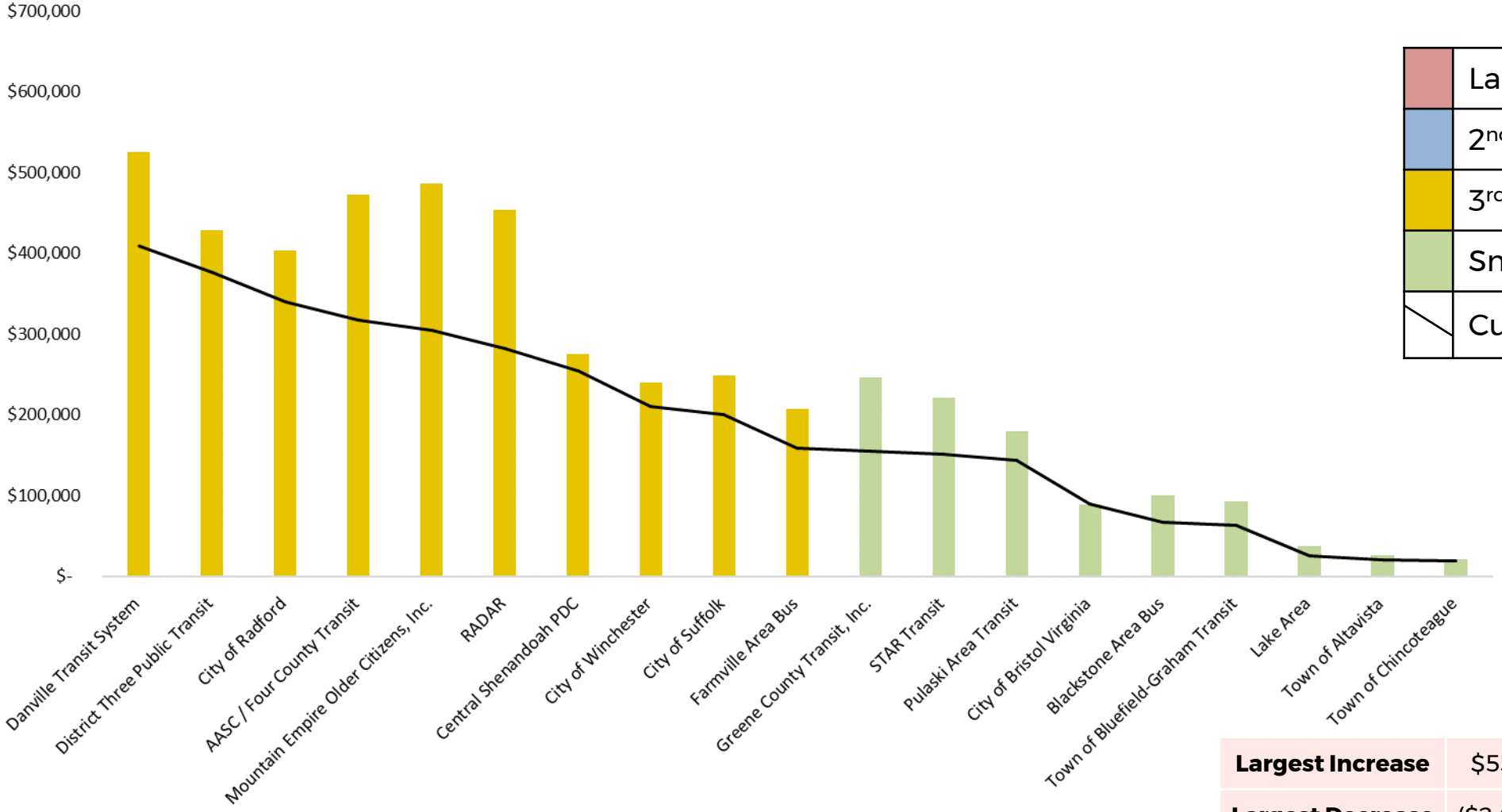
Largest quartile	
2nd quartile	
3rd quartile	
Smallest quartile	
Current Allocation	

Largest Increase	$559,292	61%
Largest Decrease	($2,455,218)	(18%)
Unallocated	$1,481,456	

Scenario A-Cap
33% Cost
33% Ridership
33% Rev Miles
Capped – 30%

Scenario A-Capped Projected Operating Assistance Allocations: 3rd and 4th Quartile Agencies

Line is Current Allocation Method for FY19



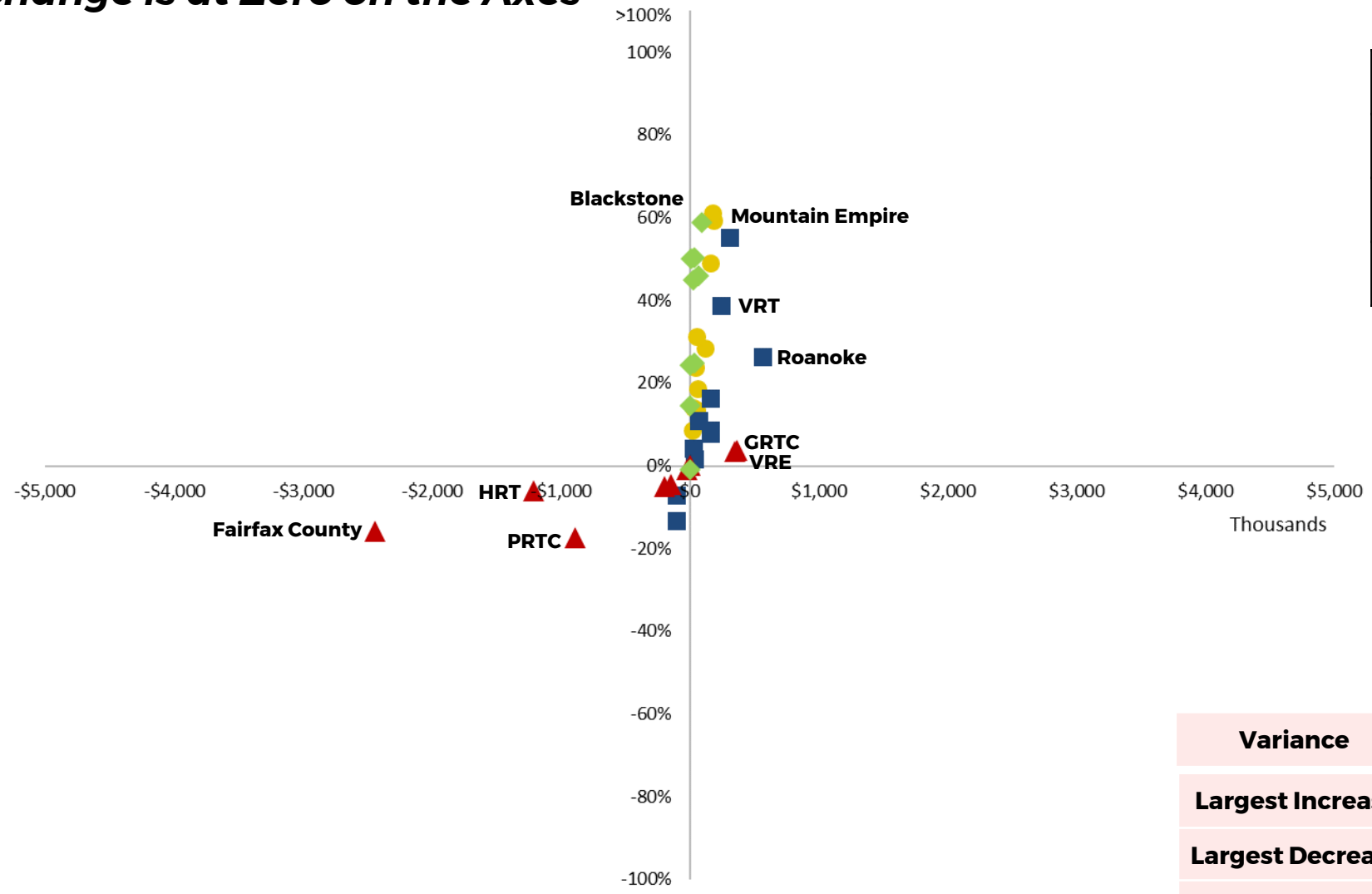
Largest quartile	
2nd quartile	
3rd quartile	
Smallest quartile	
Current Allocation	

Largest Increase	$559,292	61%
Largest Decrease	($2,455,218)	(18%)
Unallocated	$1,481,456	

Scenario A-Cap
33% Cost
33% Ridership
33% Rev Miles
Capped – 30%

Scenario A-Capped Projected Variance from Actual FY19 Operating Assistance Allocation by Agency

No Change is at Zero on the Axes



	Largest quartile
	2nd quartile
	3rd quartile
	Smallest quartile

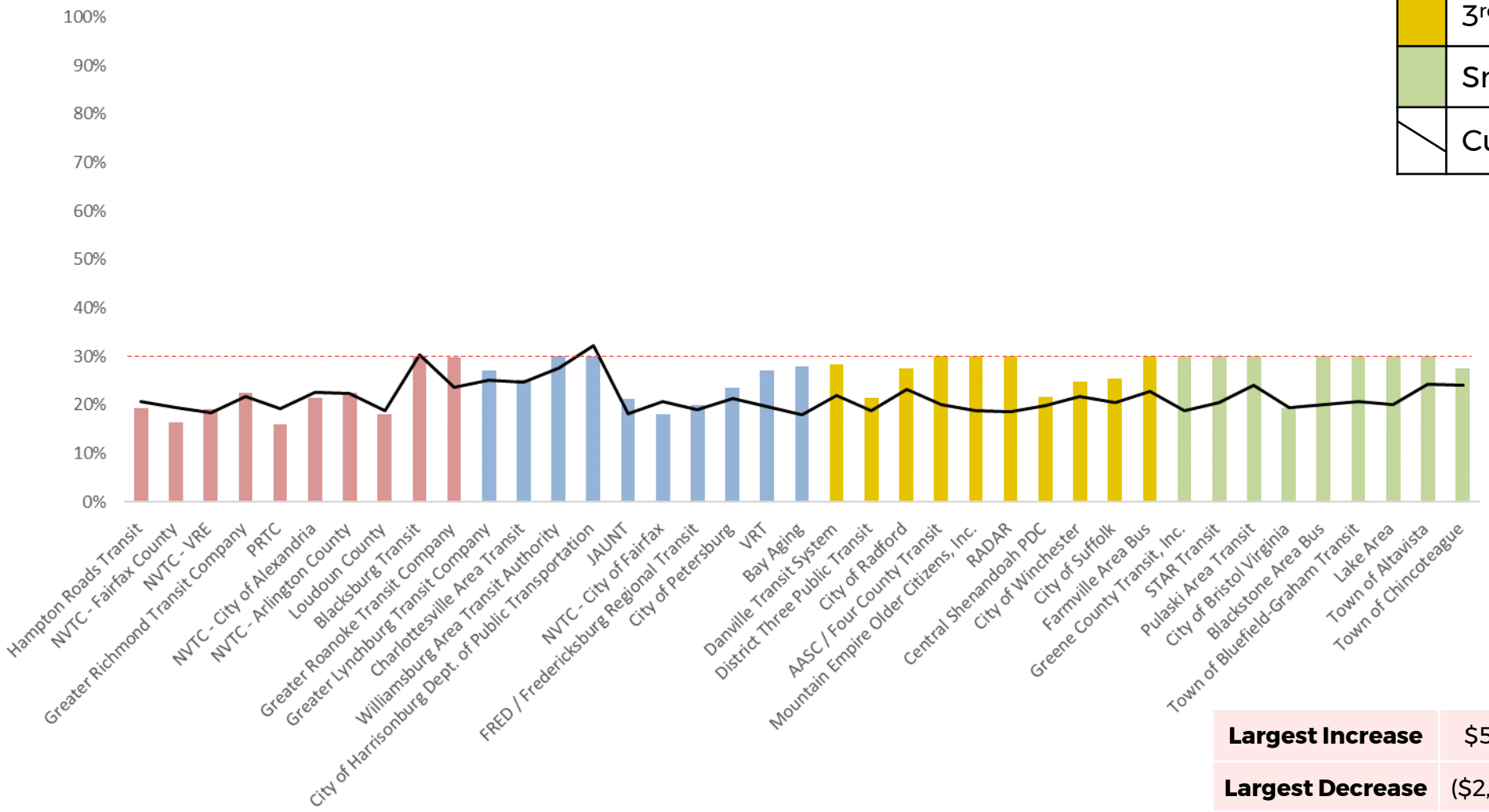
Variance	0.051	
Largest Increase	$559,292	61%
Largest Decrease	($2,455,218)	(18%)
Unallocated	$1,481,456	

Scenario A-Cap
33% Cost
33% Ridership
33% Rev Miles
Capped – 30%

Scenario A-Capped Operating Assistance as % of Operating Cost by Agency

Line is Current Allocation Method for FY19

	Largest quartile
	2nd quartile
	3rd quartile
	Smallest quartile
	Current Allocation



Largest Increase	$559,292	61%
Largest Decrease	($2,455,218)	(18%)
Unallocated	$1,481,456	

Scenario B - Capped

25% Operating Cost

25% Ridership

25% Revenue Vehicle Hours

25% Revenue Vehicle Miles

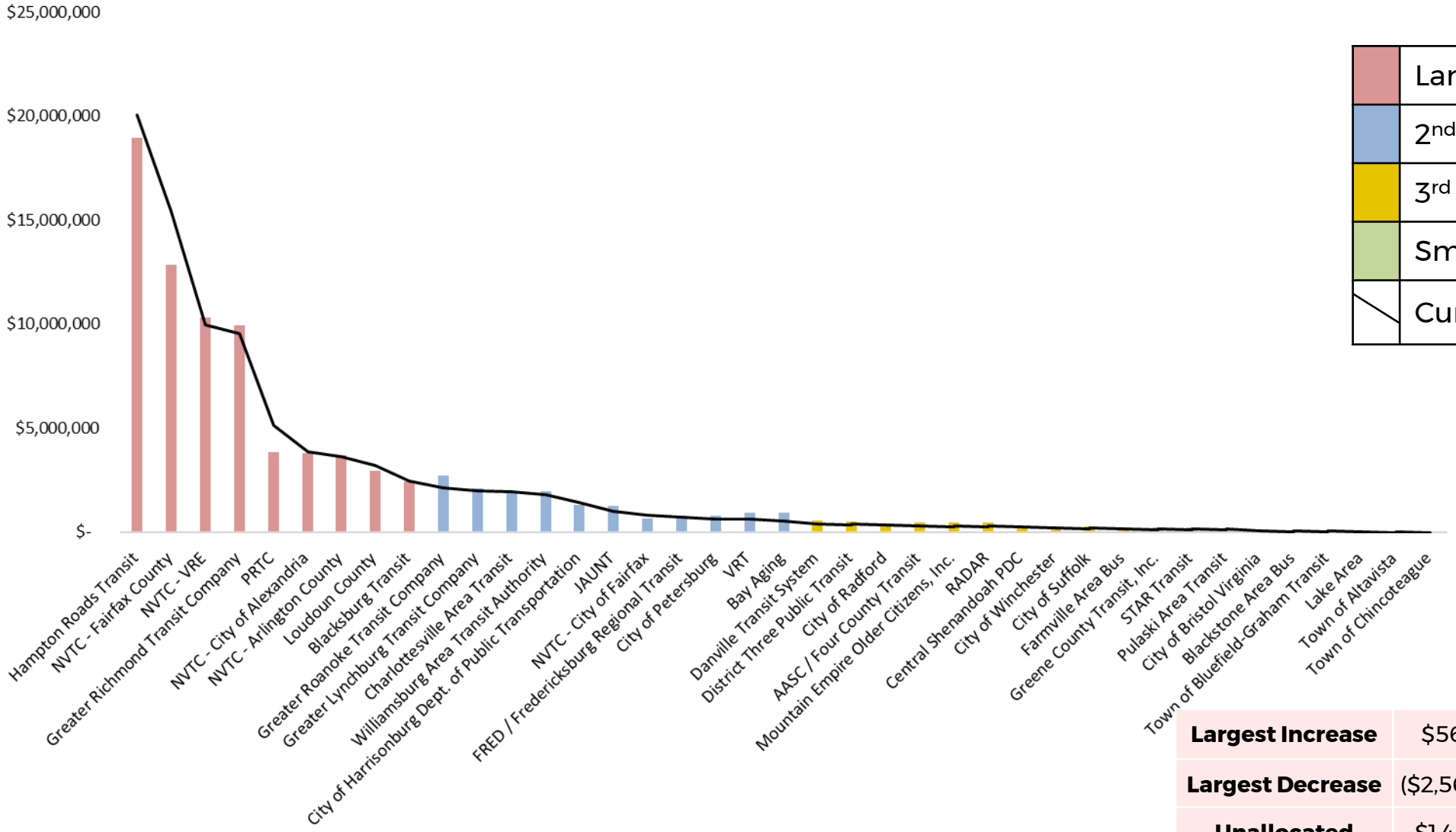
Commuter Rail Pool

30% Cap on Allocation (as % of Operating Cost)

Scenario B-Cap
25% Cost
25% Ridership
25% Rev Hours
25% Rev Miles
Capped – 30%

Scenario B-Capped Projected Operating Assistance Allocations by Agency

Line is Current Allocation Method for FY19



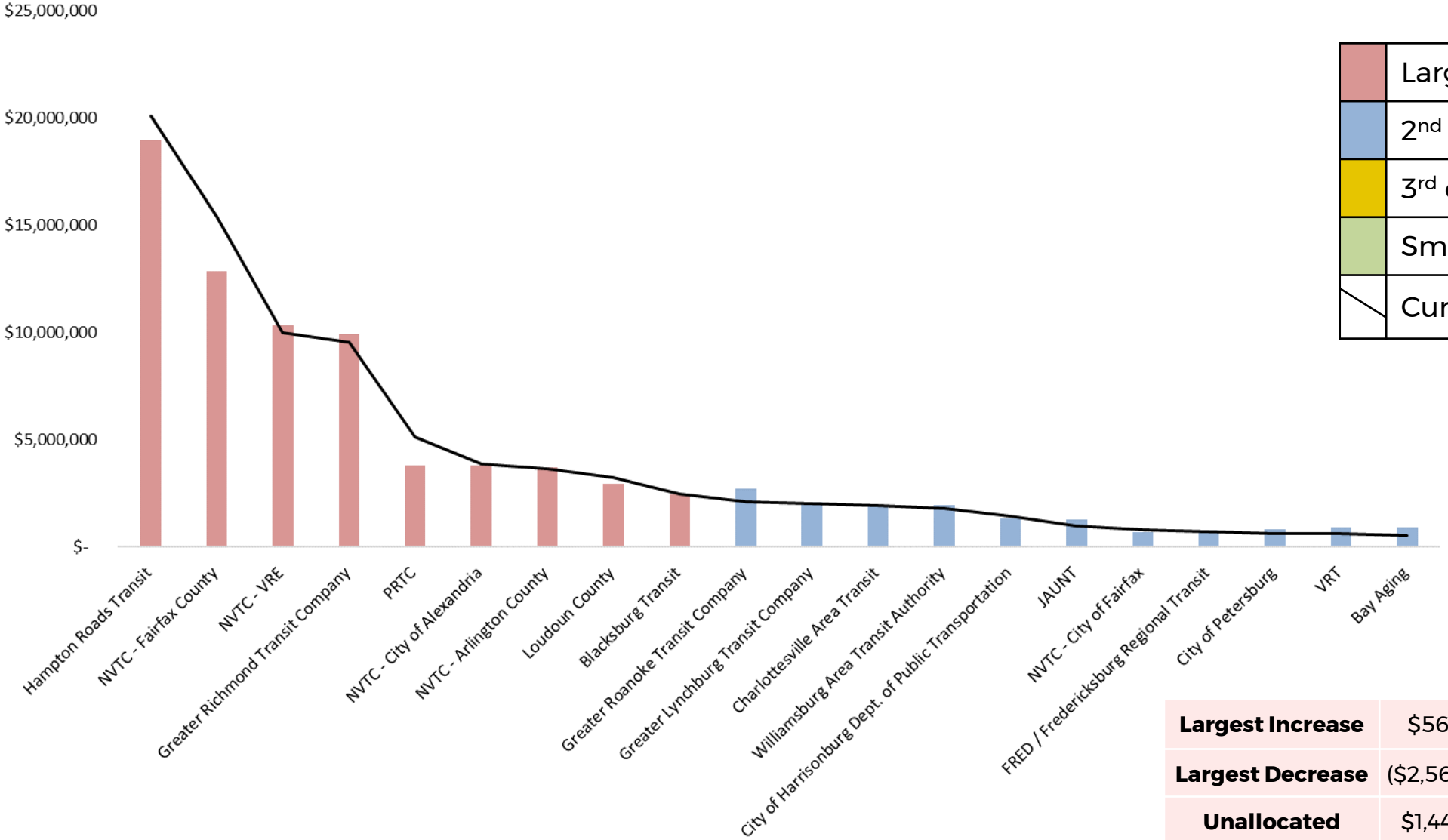
Largest quartile	
2nd quartile	
3rd quartile	
Smallest quartile	
Current Allocation	

Largest Increase	$568,811	67%
Largest Decrease	($2,565,303)	(26%)
Unallocated	$1,447,441	

Scenario B-Cap
25% Cost
25% Ridership
25% Rev Hours
25% Rev Miles
Capped – 30%

Scenario B-Capped Projected Operating Assistance Allocations: 1st and 2nd Quartile Agencies

Line is Current Allocation Method for FY19



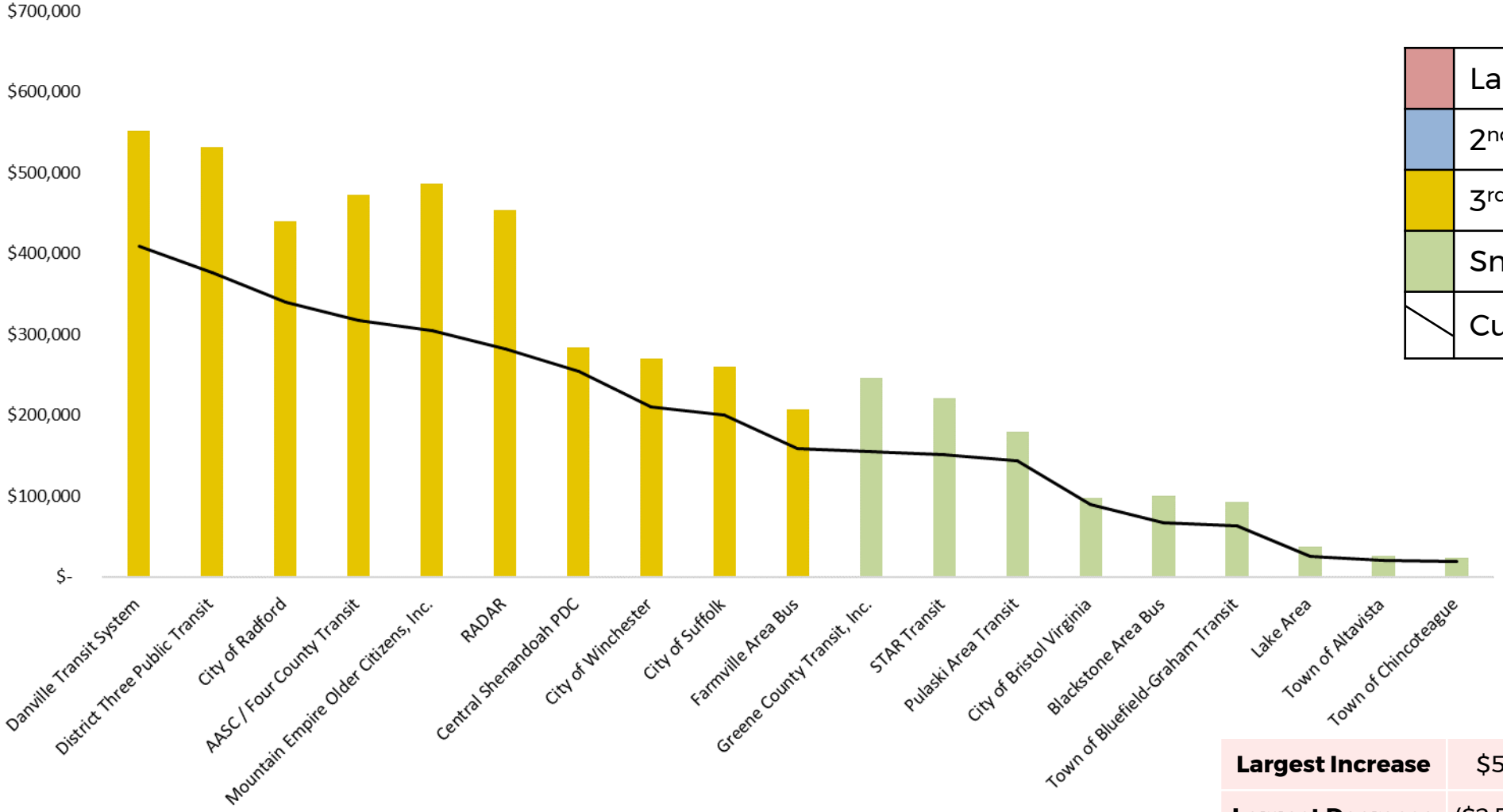
Largest quartile	
2nd quartile	
3rd quartile	
Smallest quartile	
Current Allocation	

Largest Increase	$568,811	67%
Largest Decrease	($2,565,303)	(26%)
Unallocated	$1,447,441	

Scenario B-Cap
25% Cost
25% Ridership
25% Rev Hours
25% Rev Miles
Capped – 30%

Scenario B-Capped Projected Operating Assistance Allocations: 3rd and 4th Quartile Agencies

Line is Current Allocation Method for FY19



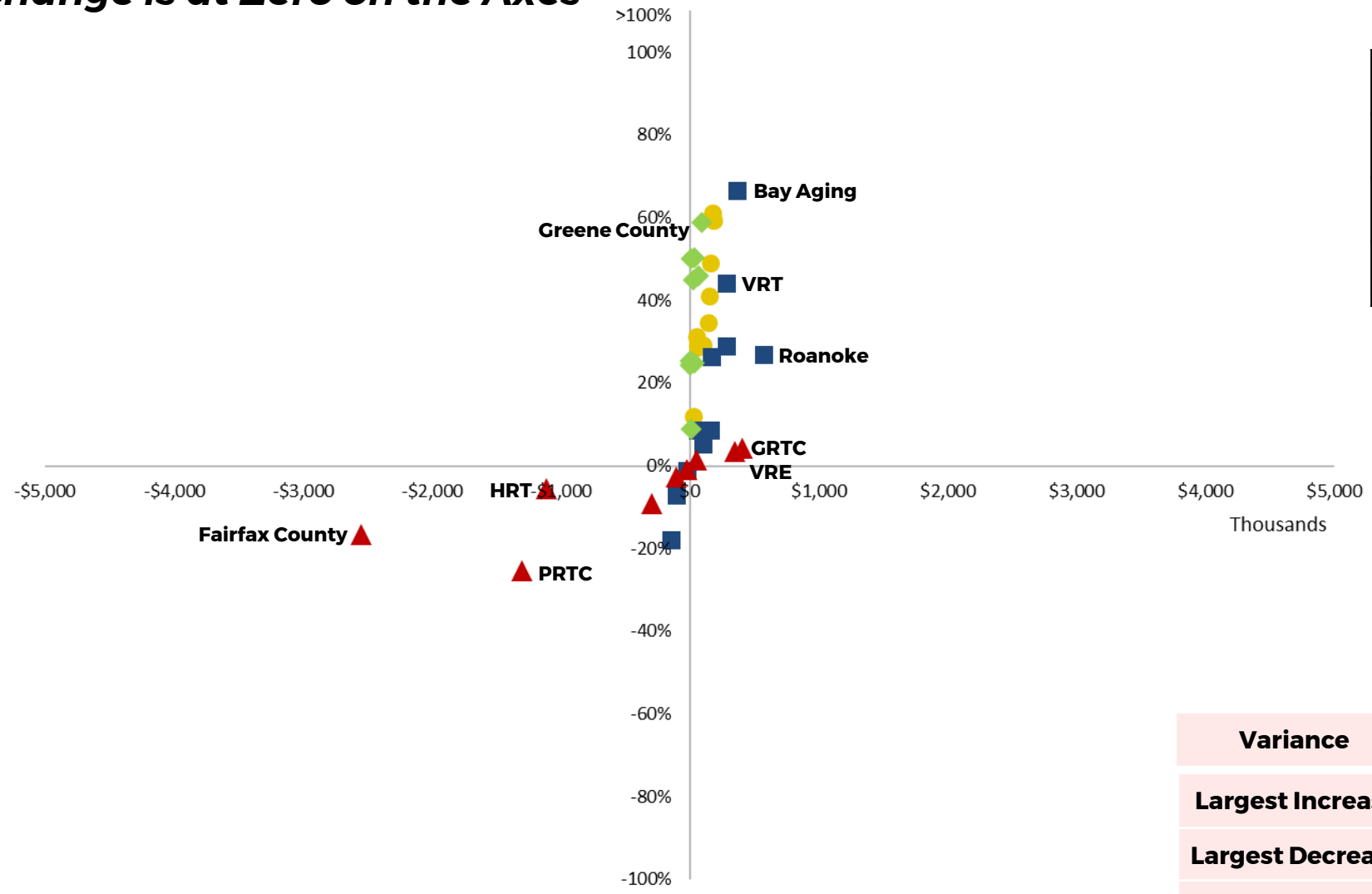
Largest quartile	
2nd quartile	
3rd quartile	
Smallest quartile	
Current Allocation	

Largest Increase	$568,811	67%
Largest Decrease	($2,565,303)	(26%)
Unallocated	$1,447,441	

Scenario B-Cap
25% Cost
25% Ridership
25% Rev Hours
25% Rev Miles
Capped – 30%

Scenario B-Capped Projected Variance from Actual FY19 Operating Assistance Allocation by Agency

No Change is at Zero on the Axes



Largest quartile	
2nd quartile	
3rd quartile	
Smallest quartile	

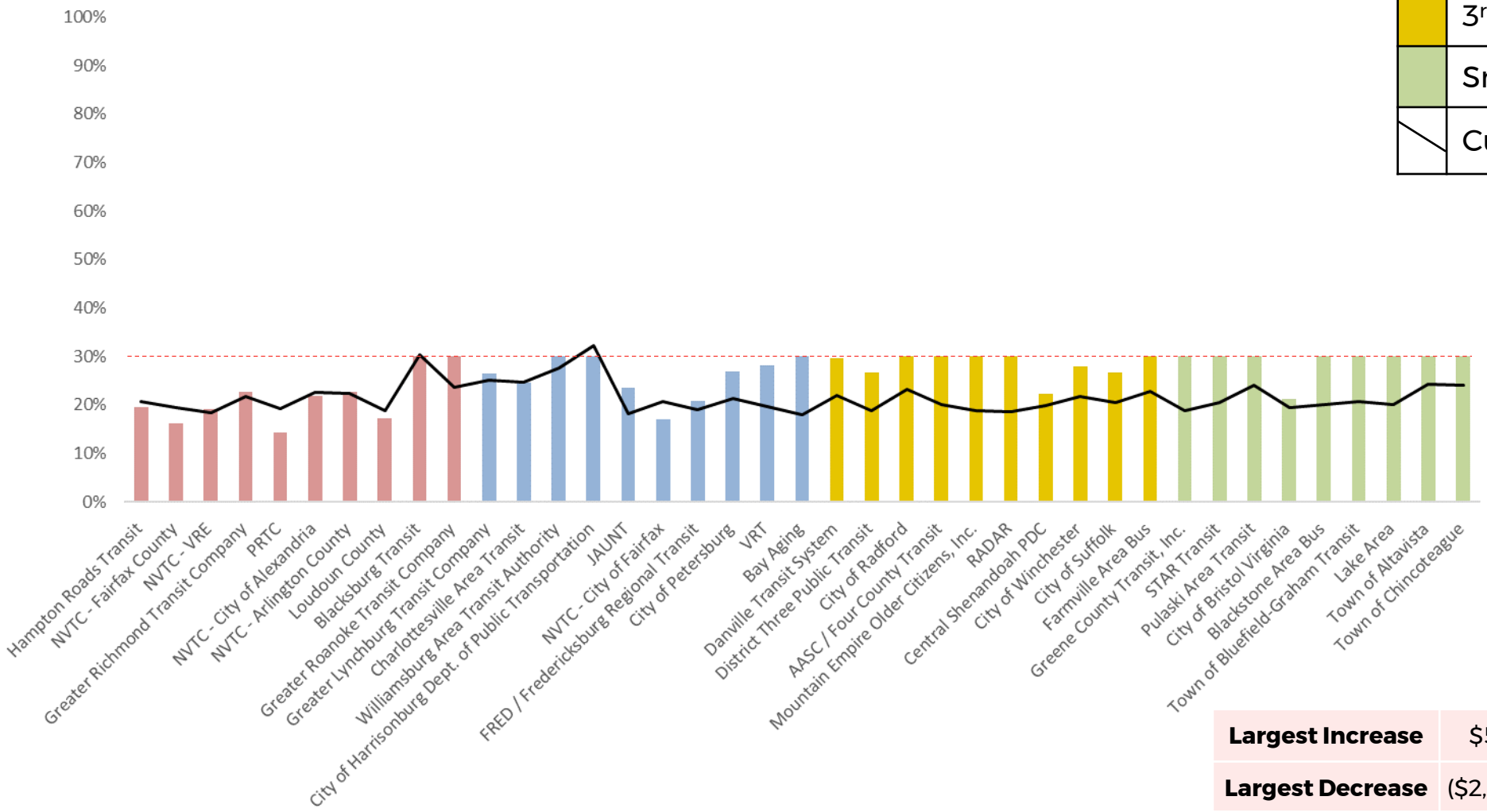
Variance	0.058	
Largest Increase	$568,811	67%
Largest Decrease	($2,565,303)	(26%)
Unallocated	$1,447,441	

Scenario B-Cap
25% Cost
25% Ridership
25% Rev Hours
25% Rev Miles
Capped – 30%

Scenario B-Capped Operating Assistance as % of Operating Cost by Agency

Line is Current Allocation Method for FY19

	Largest quartile
	2nd quartile
	3rd quartile
	Smallest quartile
	Current Allocation



Largest Increase	$568,811	67%
Largest Decrease	($2,565,303)	(26%)
Unallocated	$1,447,441	

Scenario C-Capped

50% Operating Cost

30% Ridership

10% Revenue Vehicle Hours

10% Revenue Vehicle Miles

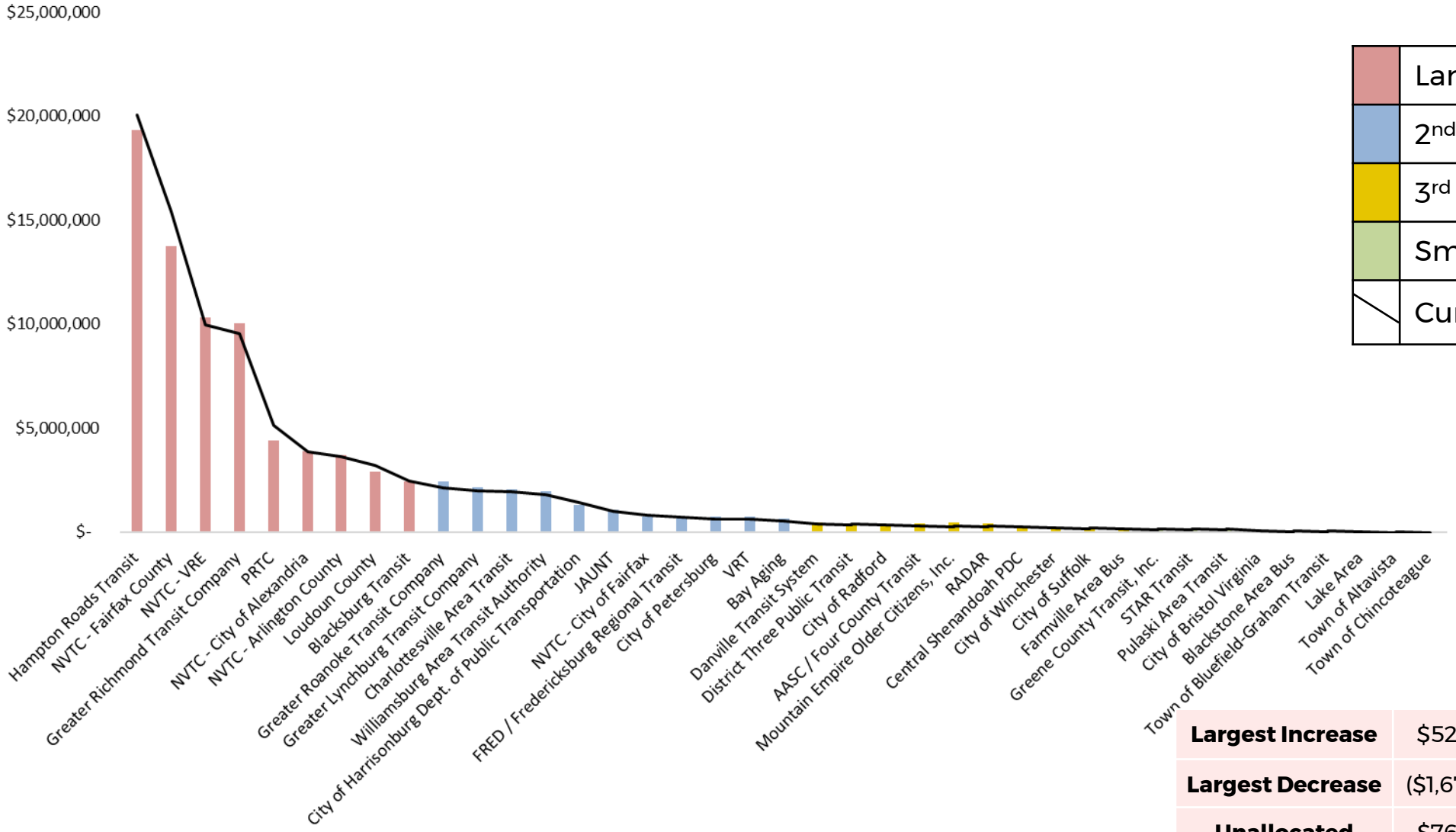
Commuter Rail Pool

30% Cap on Allocation (as % of Operating Cost)

Scenario C-Cap
50% Cost
30% Ridership
10% Rev Hours
10% Rev Miles
Capped – 30%

Scenario C-Capped Projected Operating Assistance Allocations by Agency

Line is Current Allocation Method for FY19



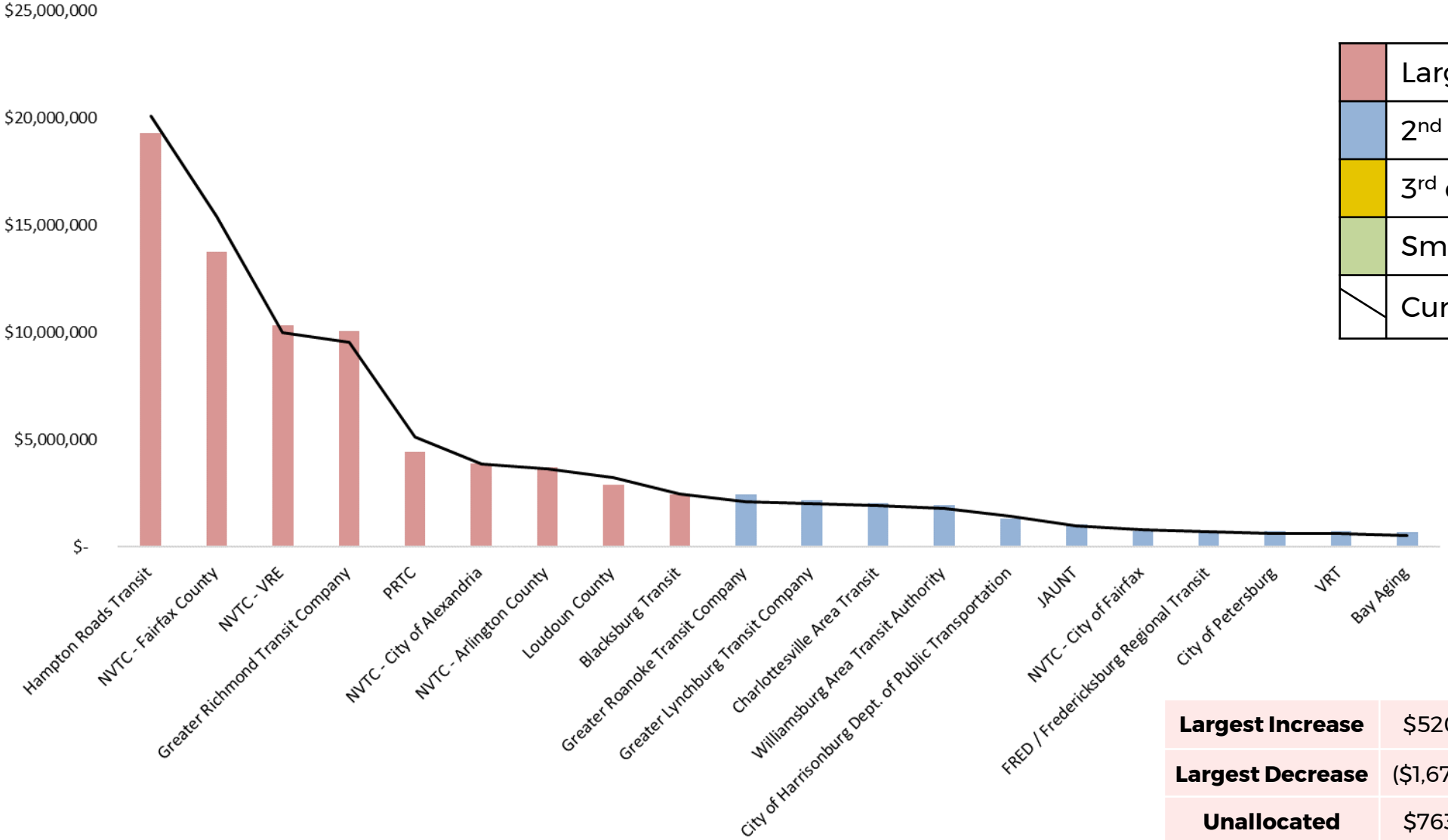
Largest quartile	
2nd quartile	
3rd quartile	
Smallest quartile	
Current Allocation	

Largest Increase	$520,752	59%
Largest Decrease	($1,671,865)	(14%)
Unallocated	$763,270	

Scenario C-Cap
50% Cost
30% Ridership
10% Rev Hours
10% Rev Miles
Capped – 30%

Scenario C-Capped Projected Operating Assistance Allocations: 1st and 2nd Quartile Agencies

Line is Current Allocation Method for FY19



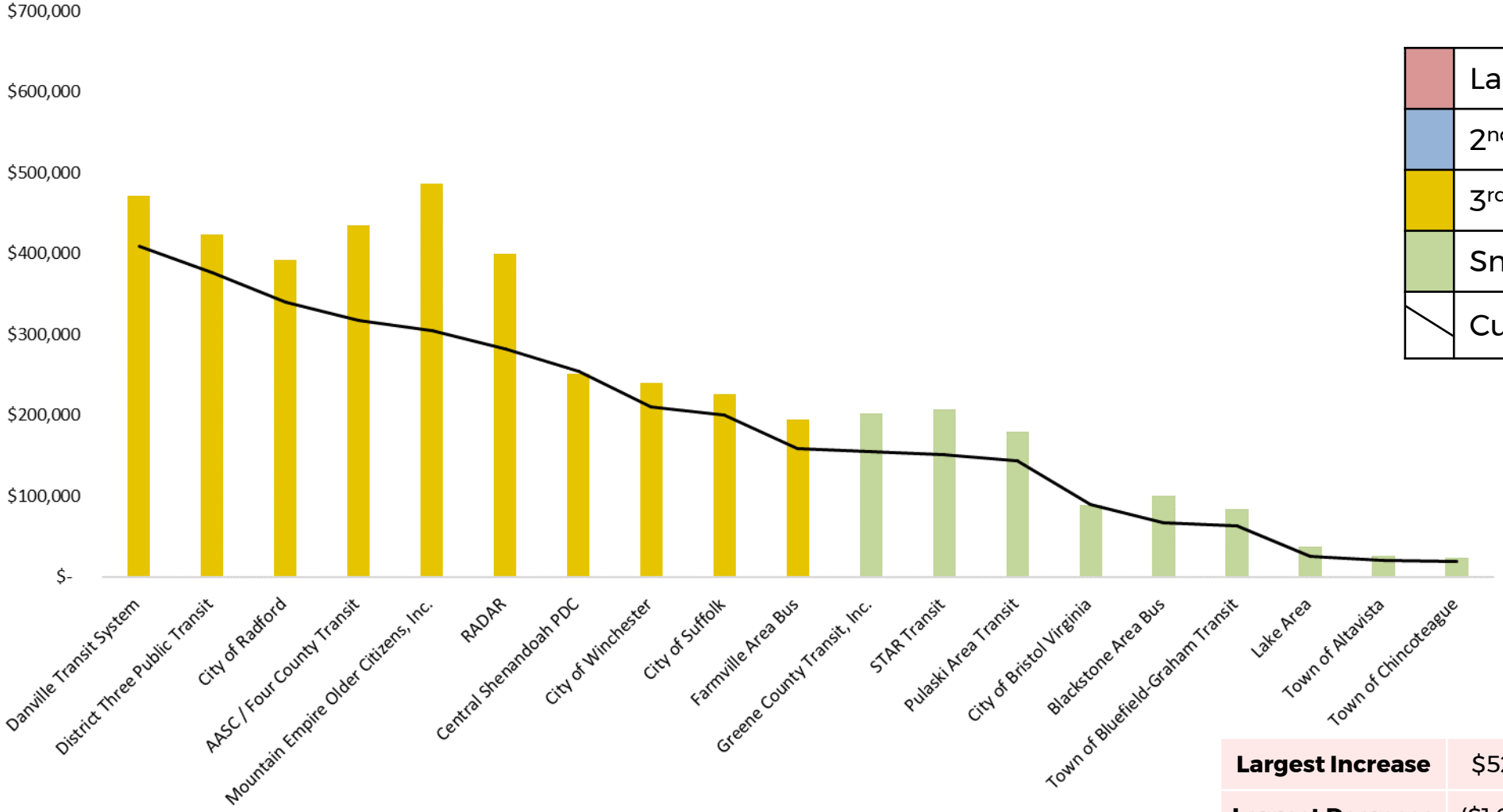
Largest quartile	
2nd quartile	
3rd quartile	
Smallest quartile	
Current Allocation	

Largest Increase	$520,752	59%
Largest Decrease	($1,671,865)	(14%)
Unallocated	$763,270	

Scenario C-Cap
50% Cost
30% Ridership
10% Rev Hours
10% Rev Miles
Capped – 30%

Scenario C-Capped Projected Operating Assistance Allocations: 3rd and 4th Quartile Agencies

Line is Current Allocation Method for FY19



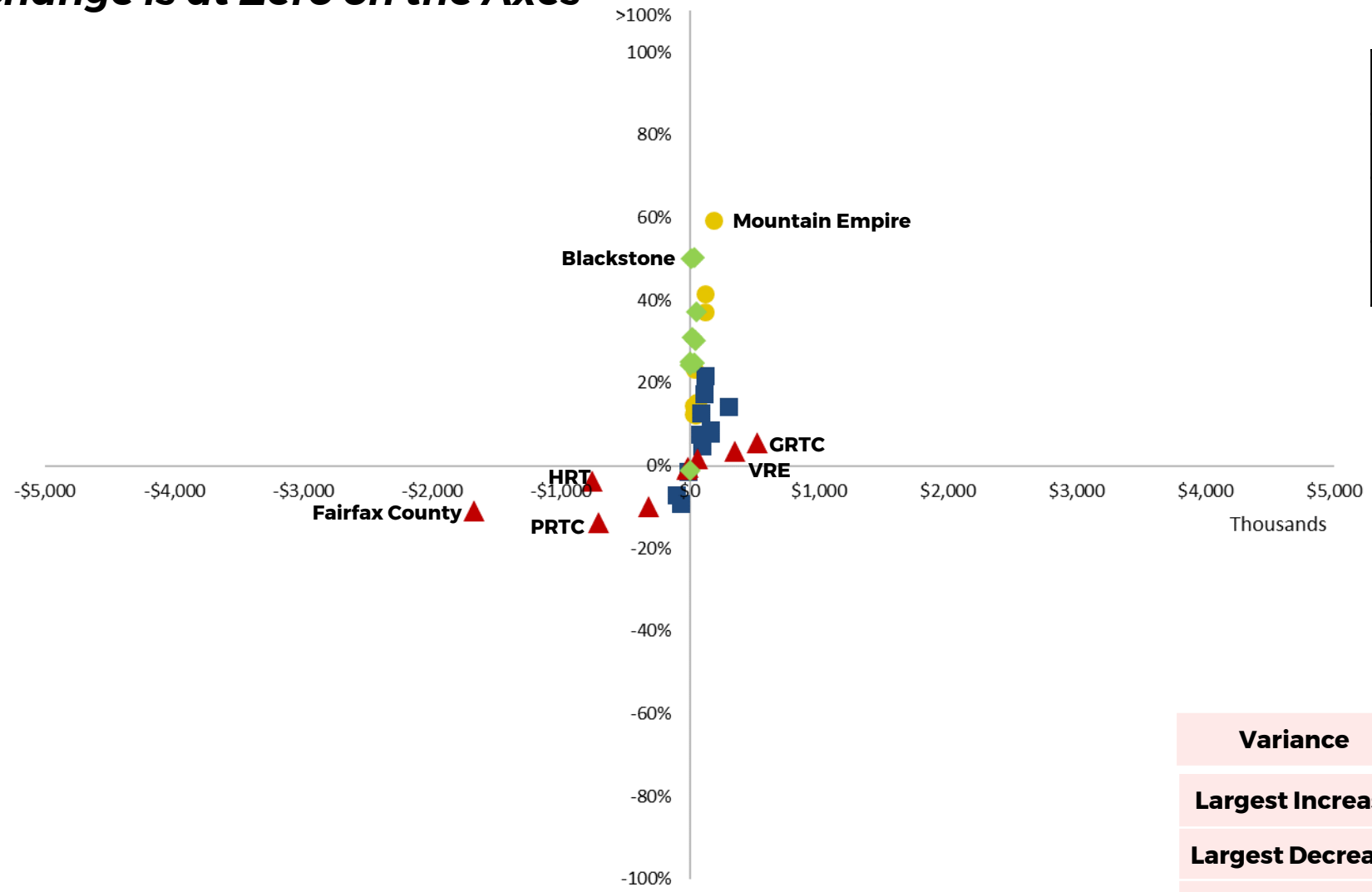
Largest quartile	
2nd quartile	
3rd quartile	
Smallest quartile	
Current Allocation	

Largest Increase	$520,752	59%
Largest Decrease	($1,671,865)	(14%)
Unallocated	$763,270	

Scenario C-Cap
50% Cost
30% Ridership
10% Rev Hours
10% Rev Miles
Capped – 30%

Scenario C-Capped Projected Variance from Actual FY19 Operating Assistance Allocation by Agency

No Change is at Zero on the Axes



Largest quartile	
2nd quartile	
3rd quartile	
Smallest quartile	

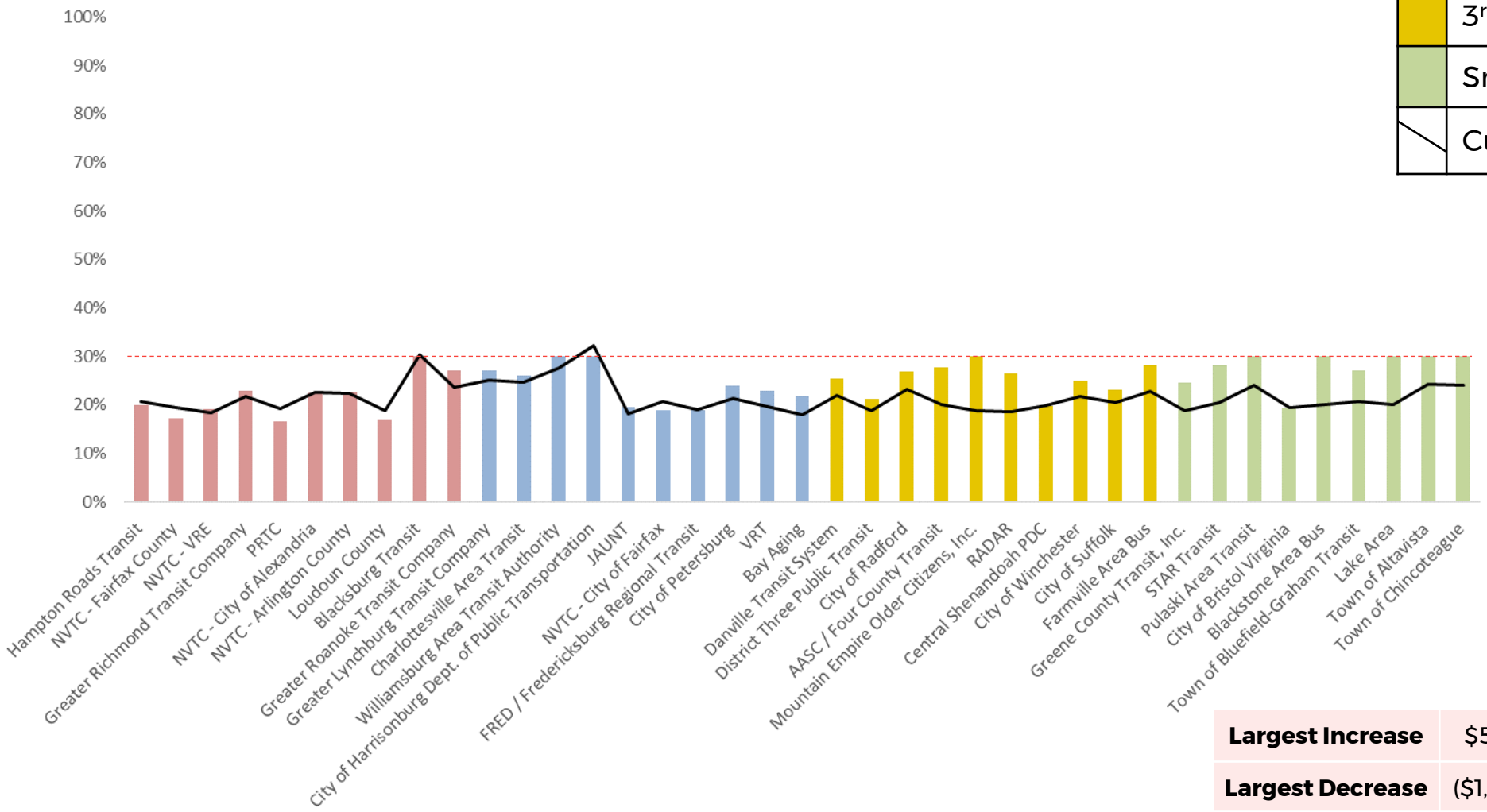
Variance	0.032	
Largest Increase	$520,752	59%
Largest Decrease	($1,671,865)	(14%)
Unallocated	$763,270	

Scenario C-Cap
50% Cost
30% Ridership
10% Rev Hours
10% Rev Miles
Capped – 30%

Scenario C-Capped Operating Assistance as % of Operating Cost by Agency

Line is Current Allocation Method for FY19

	Largest quartile
	2nd quartile
	3rd quartile
	Smallest quartile
	Current Allocation



Largest Increase	$520,752	59%
Largest Decrease	($1,671,865)	(14%)
Unallocated	$763,270	

Allocation Scenarios – Summary Results

Scenario Name	Variance	Unallocated
2+ Net Cost, Ridership, Revenue Miles – 33.3%	0.240	$0
A. Cost, Ridership, Revenue Miles – 33.3%	0.198	$0
B. Cost, Ridership, Revenue Hours, Revenue Miles – 25%	0.283	$0
C. Cost, Ridership, Revenue Hours, Revenue Miles – 50/30/10/10 %	0.045	$0
A-Capped. Cost, Ridership, Revenue Miles – 33.3% – *Capped 30%*	0.051	$1,481,456
B-Capped. Cost, Ridership, Revenue Hours, Revenue Miles – 25% – *Capped 30%*	0.058	$1,432,660
C-Capped. Cost, Ridership, Revenue Hours, Revenue Miles – 50/30/10/10 % – *Capped 30%*	0.032	$763,270

Summary

- Several changes minimize variance and prevent unintended allocation consequences
  - Applying Cost instead of Net Cost
  - Introducing Revenue Hours in addition to Revenue Miles
  - Weighting Cost more heavily
  - Introducing a cap on allocations relative to the agency's operating costs
- Scenario A-Capped and B-Capped vary less than Scenario 2+ or Scenario A and B, allocating only 25% of funds on the basis of operating costs
  - Between $1.4 and $1.5 million in unallocated funds
- Scenario C-Capped varies the least, but allocates 50% of funds on the basis of operating costs
  - $0.8 million in unallocated funds

Next Steps

- Determine preferred sizing approach
  - Apply to review performance metrics
- Introducing performance metric options
  - Comparing proposed metrics to policy objectives
- Testing performance metric scenarios

Virginia Department of Rail & Public Transportation

Operating Assistance Performance Metrics & Scenarios

Presentation

November 13, 2018

Agenda

- Potential Performance Metrics
- Performance Metrics Scenario Results
- Next Steps

Understanding Performance Metrics

- Performance metrics measure the performance of a transit agency with respect to:
  - *Agency's own performance*
  - *Statewide trends*

3

- Performance metrics are based on a 3-year rolling average to minimize volatility

- In contrast to sizing metrics, performance metrics can encompass ratios (e.g. cost per revenue vehicle hour) that do not reflect an agency's size

Current Performance Metrics Application

- 3 weighted metrics
  - *25% Passengers per Revenue Hour*
  - *25% Passengers per Revenue Mile*
  - *50% Net Cost Per Passenger*

4

- Currently applied only to performance funding share of operating assistance (approximately 1/3 of allocation)

- Future application to entire operating assistance allocation

Potential performance metrics

- Previous work has reviewed a series of potential performance metrics:
  - *Productivity:*
    - Passengers per Vehicle Revenue Hour/Mile (from OLGA)
    - Passenger Mile per Vehicle Revenue Mile (NTD only)
  - *Perceived Service Quality:*
    - On-Time Performance
    - Passenger Load Factor (potentially during peak period)

5

Additional performance metrics

- Operational performance:
  - *Cost per Revenue Vehicle Hour*
  - *Cost per Revenue Vehicle Mile*
  - *Operating Cost per Passenger (instead of Net Cost)*

Alignment of Performance Metrics with Policy Objectives

Performance Metric	Promotes Fiscal Responsibility	Incentivizes Efficient Operations	Supports Robust Transit Service	Rewards Higher Patronage	Promotes Mobility	Supports Social Safety Net
On-Time Performance		✓			✓	
Passenger Load Factor		✓		✓	✓	
Cost per Revenue Vehicle Hour	✓	✓				
Passengers per Revenue Hour				✓	✓	
Cost per Revenue Vehicle Mile	✓	✓				
Passengers per Revenue Mile				✓	✓	
Passenger Miles per Vehicle Revenue Mile		✓	✓	✓	✓	
Net Cost Per Passenger	✓	✓				
Operating Cost per Passenger	✓	✓				

Alignment of Performance Metrics with Policy Objectives: Usable Options

Performance Metric	Promotes Fiscal Responsibility	Incentivizes Efficient Operations	Supports Robust Transit Service	Rewards Higher Patronage	Promotes Mobility	Supports Social Safety Net	Data Exists for All Agencies
On-Time Performance		✓			✓		
Passenger Load Factor		✓		✓	✓		
Cost per Revenue Vehicle Hour	✓	✓					✓
Passengers per Revenue Hour				✓	✓		✓
Cost per Revenue Vehicle Mile	✓	✓					✓
Passengers per Revenue Mile				✓	✓		✓
Passenger Miles per Vehicle Revenue Mile		✓		✓	✓		
Net Cost Per Passenger	✓	✓					✓
Operating Cost per Passenger	✓	✓					✓

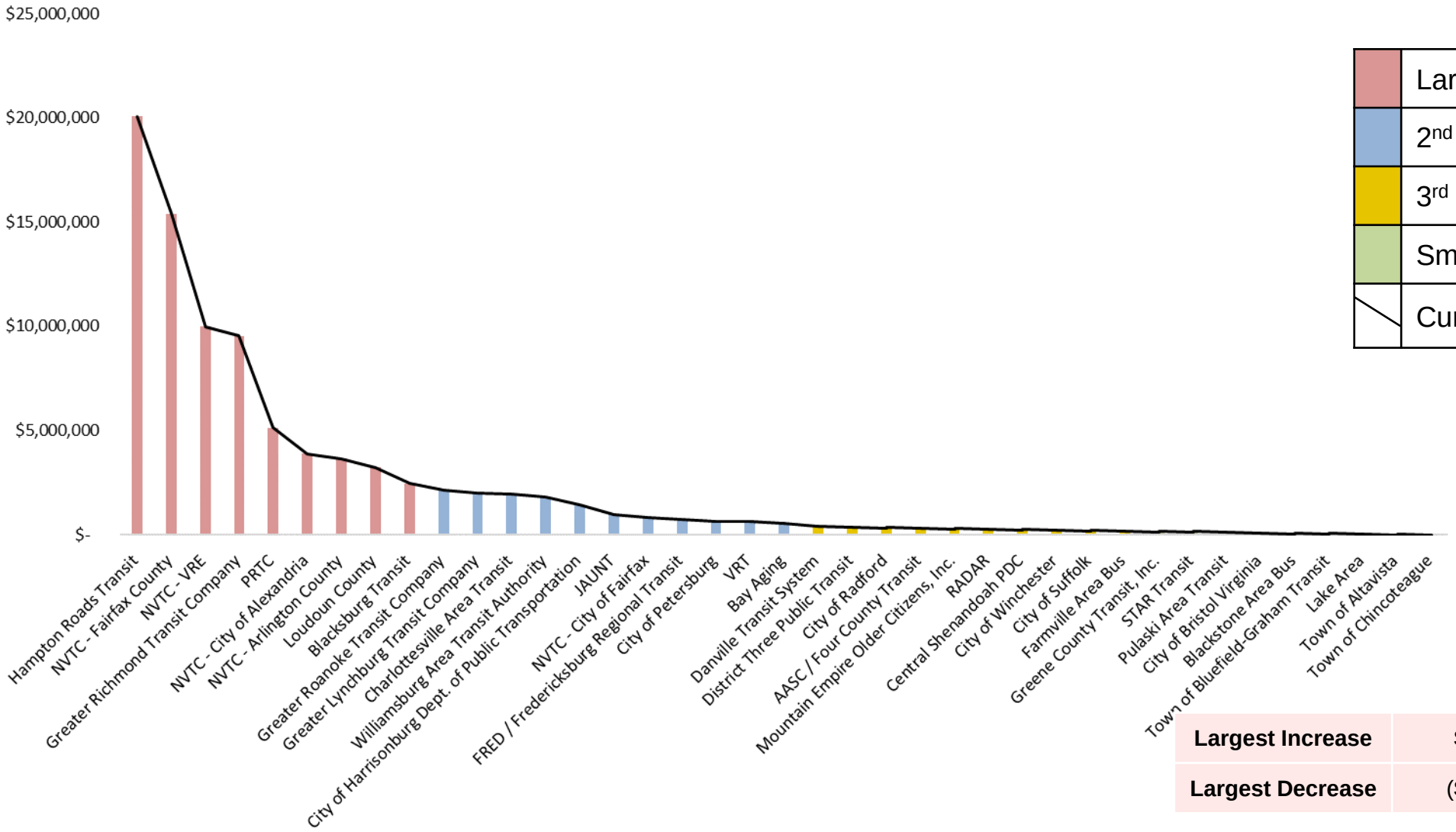
Scenarios Presented in this Document

- Start with Scenario C-Capped from TSDAC Sizing presentation:
  - *Sizing based on Operating Cost (50%), Ridership (30%), Revenue Hours and Revenue Miles (10% each)*
  - *Current performance adjustment metrics are used: Net Cost per Passenger (50%), Passengers per Revenue Hour and Passengers per Revenue Mile (25% each)*

- Introduce the following variations on performance metrics:
  - *Variation 1: replaces **Net Cost** per Passenger with **Operating Cost** per Passenger*
  - *Variation 2: replaces **Passengers** per Revenue Hour and Revenue Mile with **Cost** per Revenue Hour and Revenue Mile (25% each)*
  - *Variation 3: same as variation 2, but replaces **Net Cost** per Passenger with **Operating Cost** per Passenger*
  - *Variation 4: uses 5 metrics at 20% each (Passengers per Revenue Hour, Passengers per Revenue Mile, Cost per Revenue Hour, Cost per Revenue Mile and Operating Cost per Passenger)*

FY19 Actual Allocations
(Traditional and Performance)

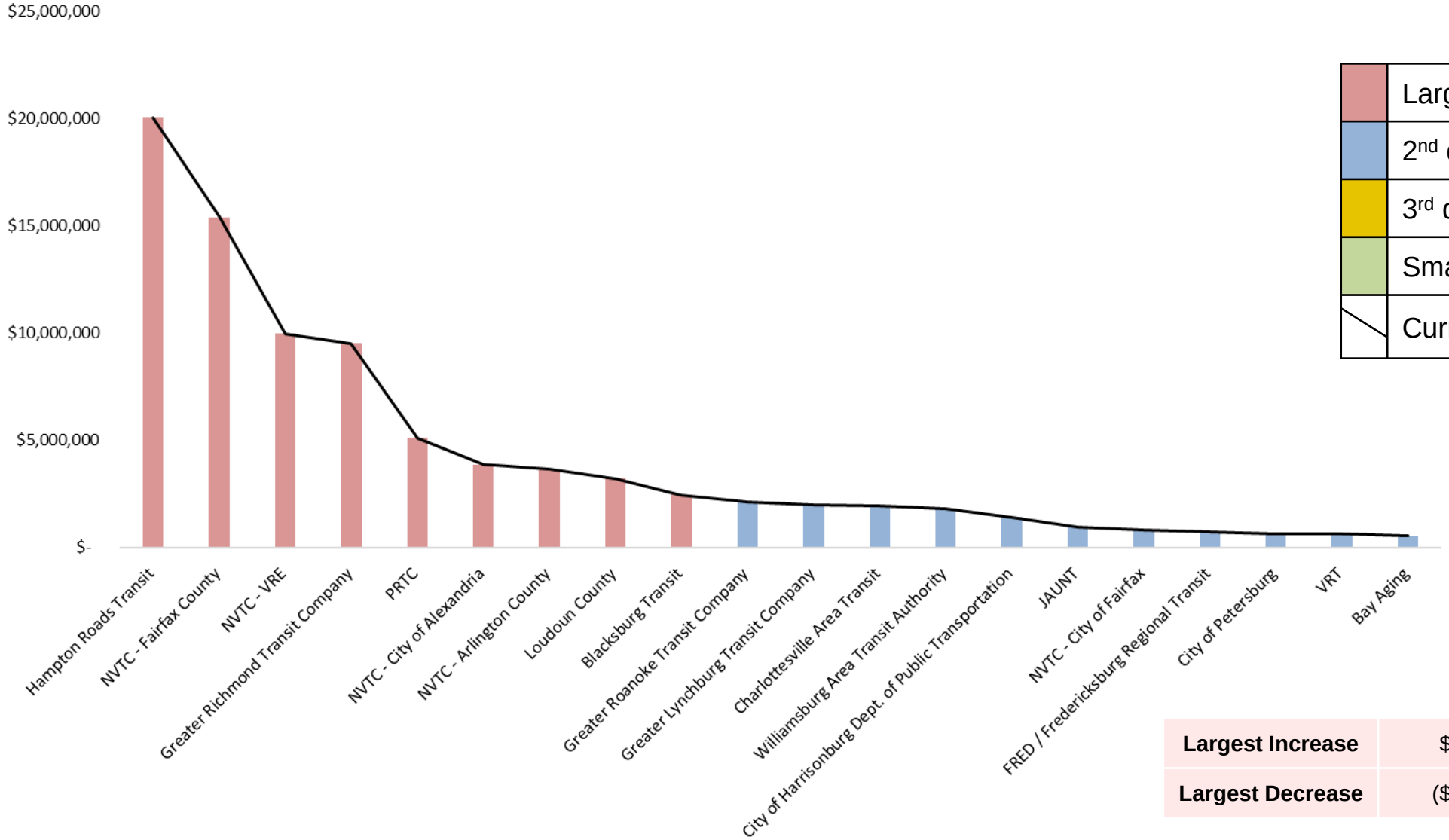
FY19 Actual Allocation of Operating Assistance to Virginia Transit Agencies



Largest quartile	
2nd quartile	
3rd quartile	
Smallest quartile	
Current Allocation	

Largest Increase	$0	0%
Largest Decrease	($0)	(0%)

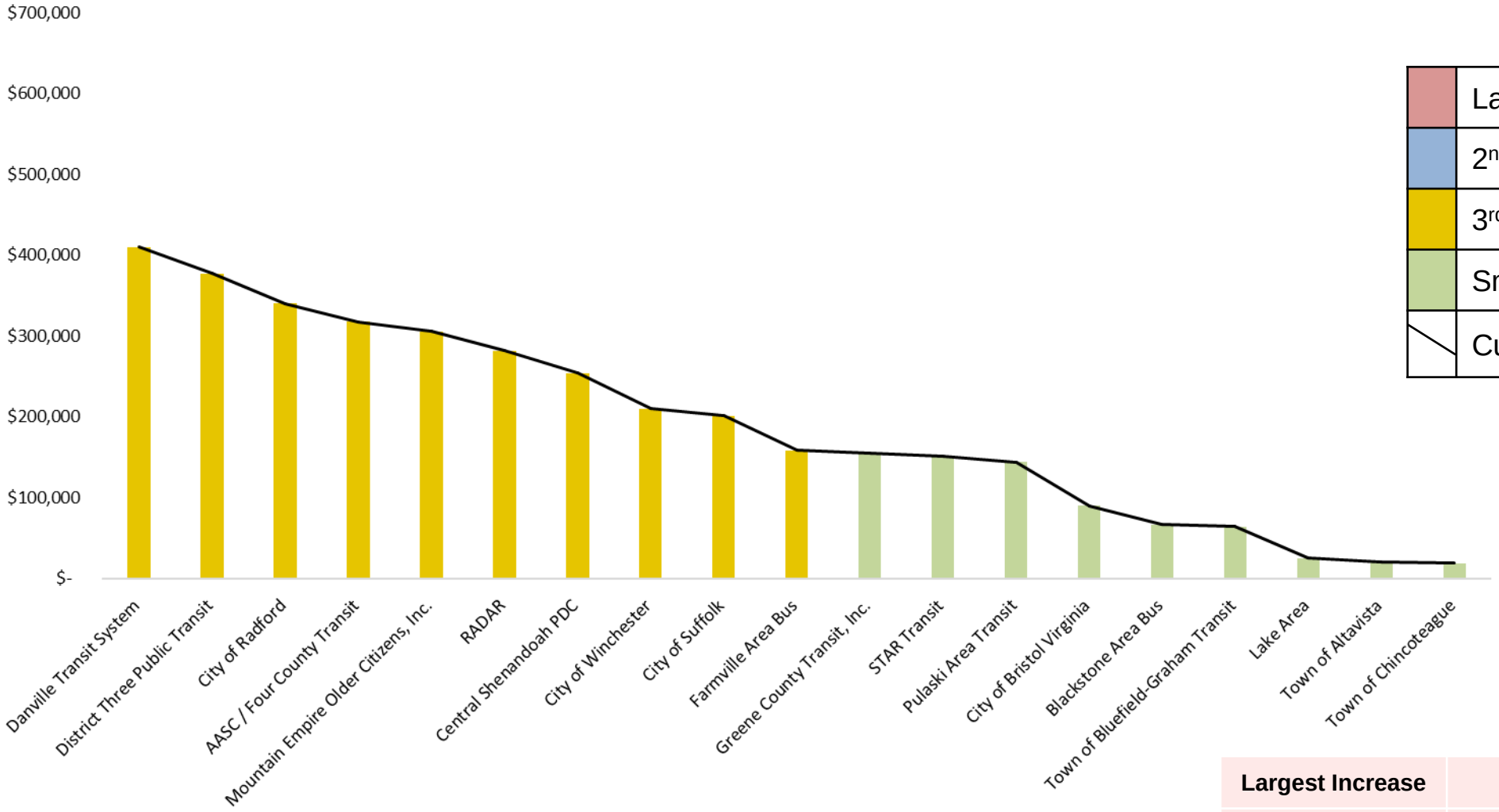
FY19 Actual Allocation of Operating Assistance: 1st and 2nd Quartile Agencies



	Largest quartile
	2nd quartile
	3rd quartile
	Smallest quartile
	Current Allocation

Largest Increase	$0	0%
Largest Decrease	($0)	(0%)

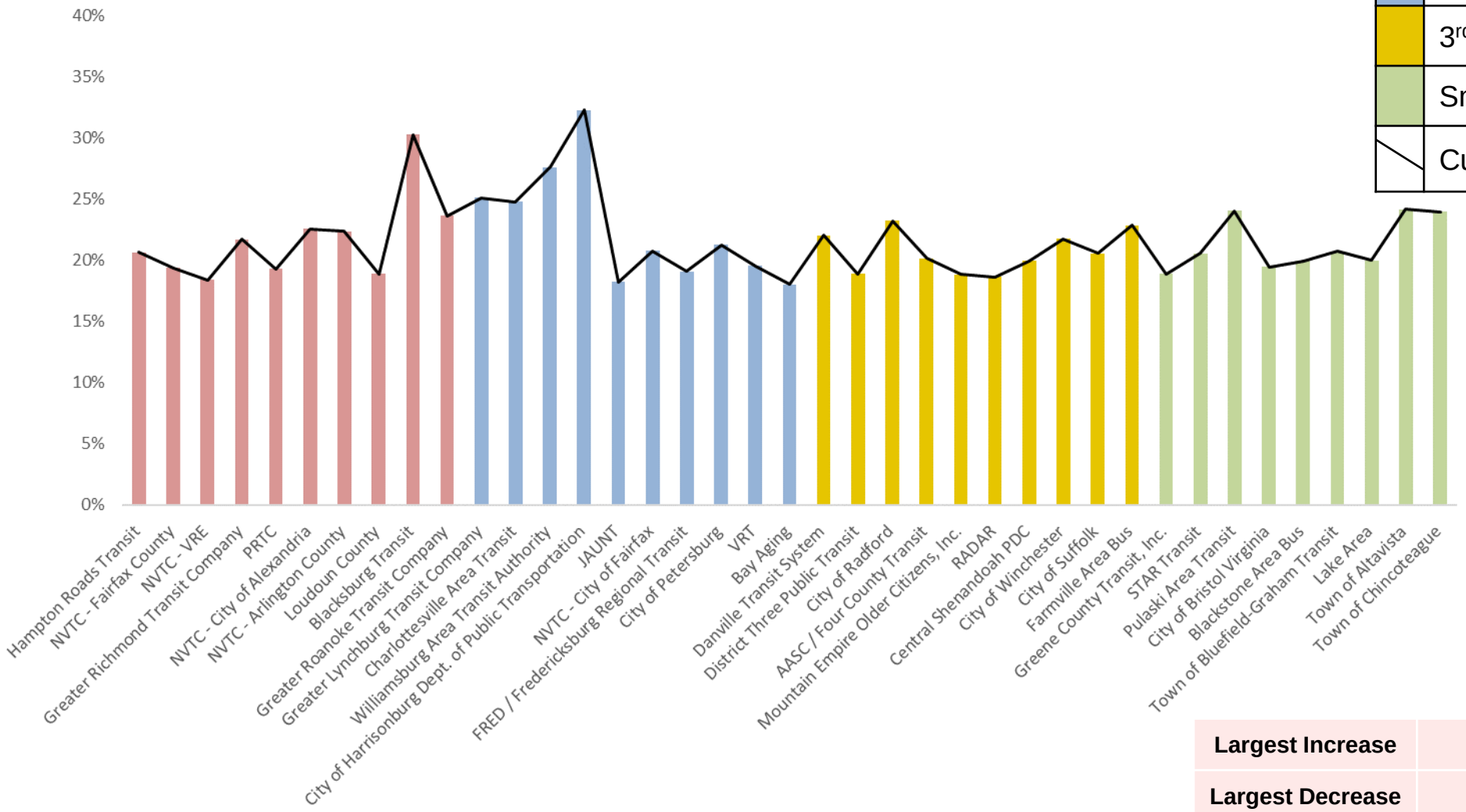
FY19 Actual Allocation of Operating Assistance: 3rd and 4th Quartile Agencies



Largest quartile	
2nd quartile	
3rd quartile	
Smallest quartile	
Current Allocation	

Largest Increase	$0	0%
Largest Decrease	($0)	(0%)

FY19 Actual Allocation of Operating Assistance as Percentage of Operating Cost by Transit Agency

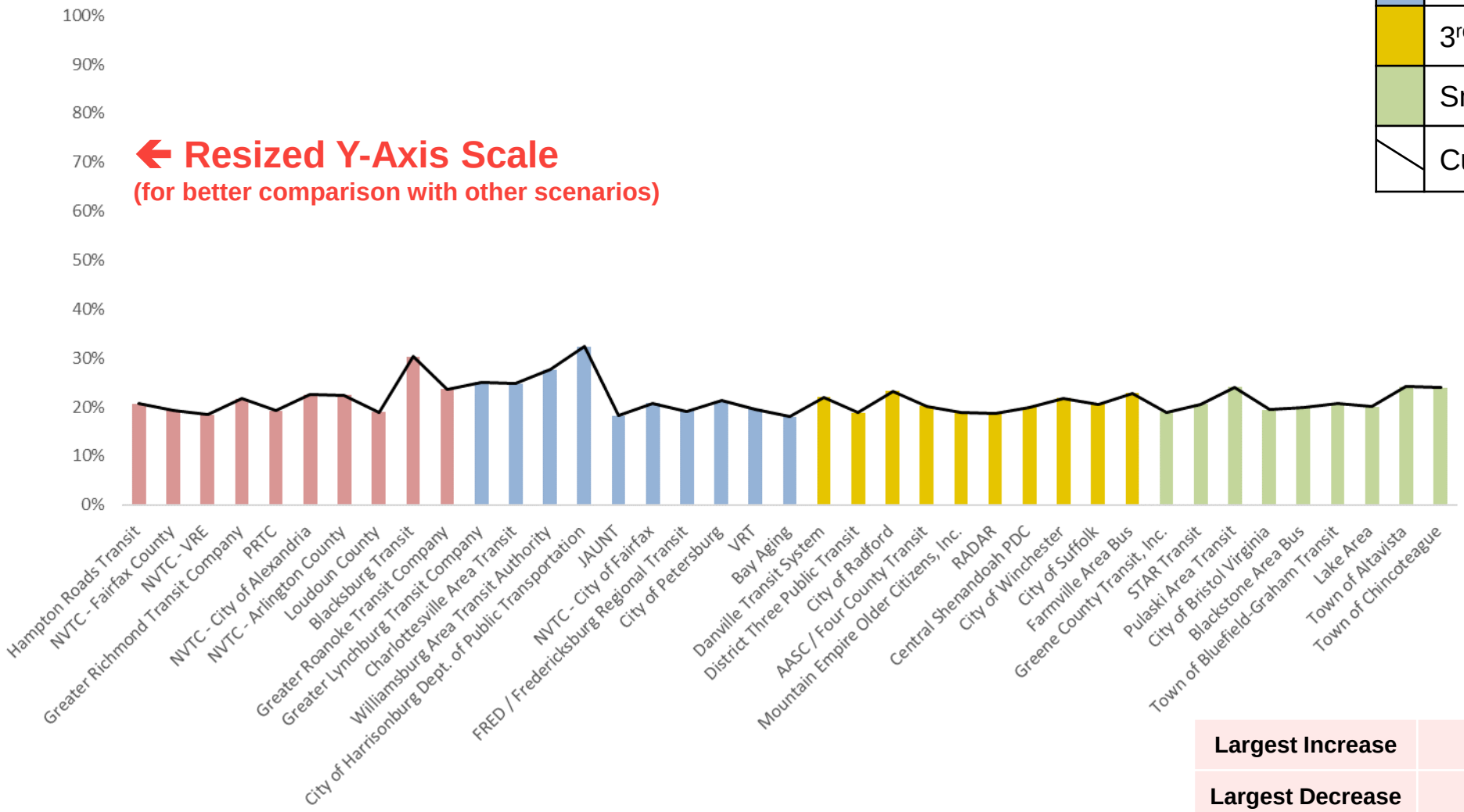


Largest quartile	
2nd quartile	
3rd quartile	
Smallest quartile	
Current Allocation	

Largest Increase	$0	0%
Largest Decrease	($0)	(0%)

FY19 Actual Allocation of Operating Assistance as Percentage of Operating Cost by Transit Agency

	Largest quartile
	2nd quartile
	3rd quartile
	Smallest quartile
	Current Allocation



Largest Increase	$0	0%
Largest Decrease	($0)	(0%)

Scenarios

Allocation Scenarios

Scenario Name	Pax / RVH	Pax / RVM	Net Cost / Pax	Cost / RVH	Cost / RVM	Cost / Pax
C-Capped	25%	25%	50%			
Variation 1	25%	25%				50%
Variation 2			50%	25%	25%	
Variation 3				25%	25%	50%
Variation 4	20%	20%		20%	20%	20%

Scenario C-Capped

Performance Metrics:

25% Pax / RVH

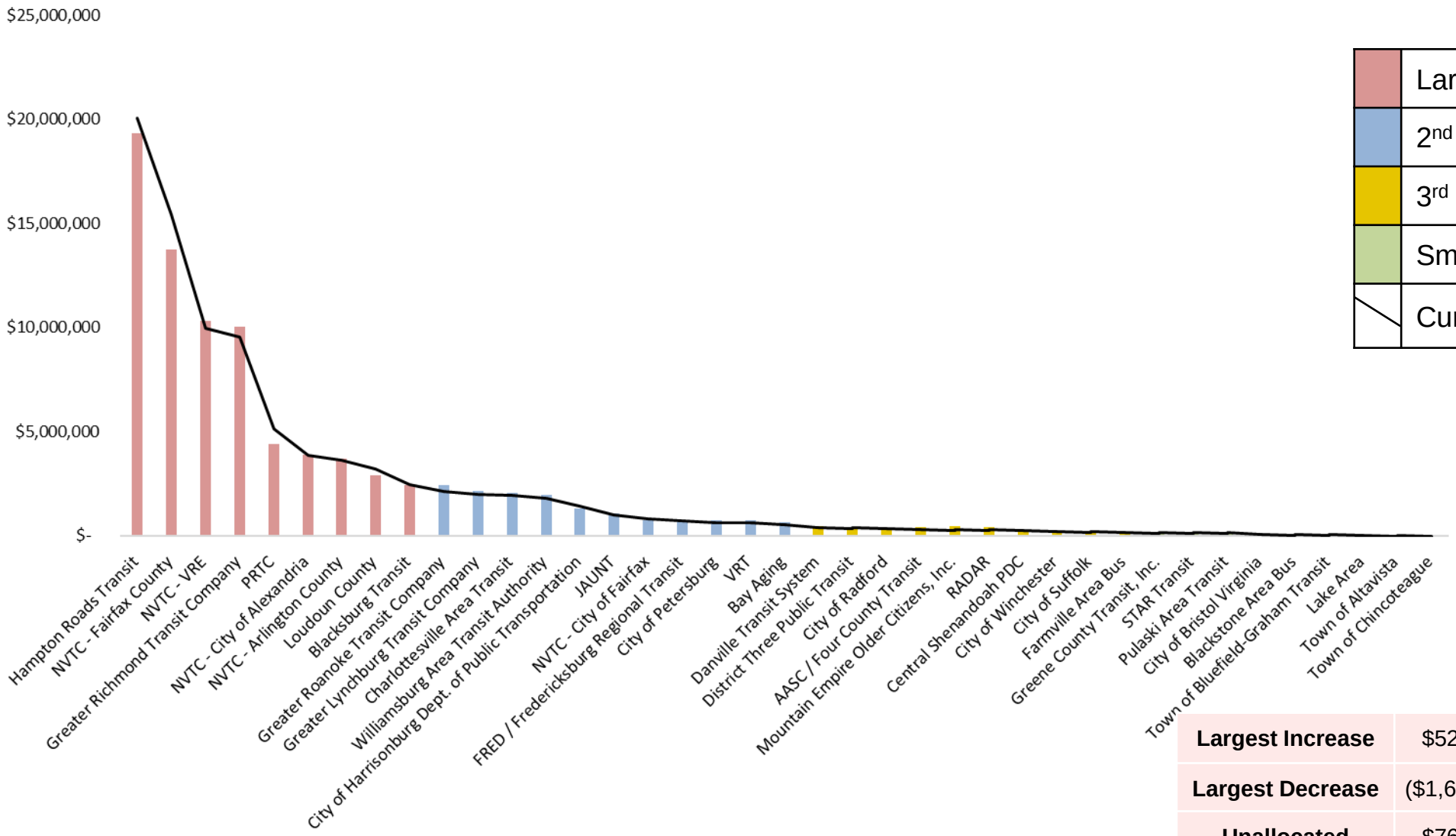
25% Pax / RVM

50 % Net Cost / Pax

Scenario C-Cap
25% Pax / RVH
25% Pax / RVM
50 % Net Cost / Pax

Scenario C-Capped Projected Operating Assistance Allocations by Agency

Line is Current Allocation Method for FY19



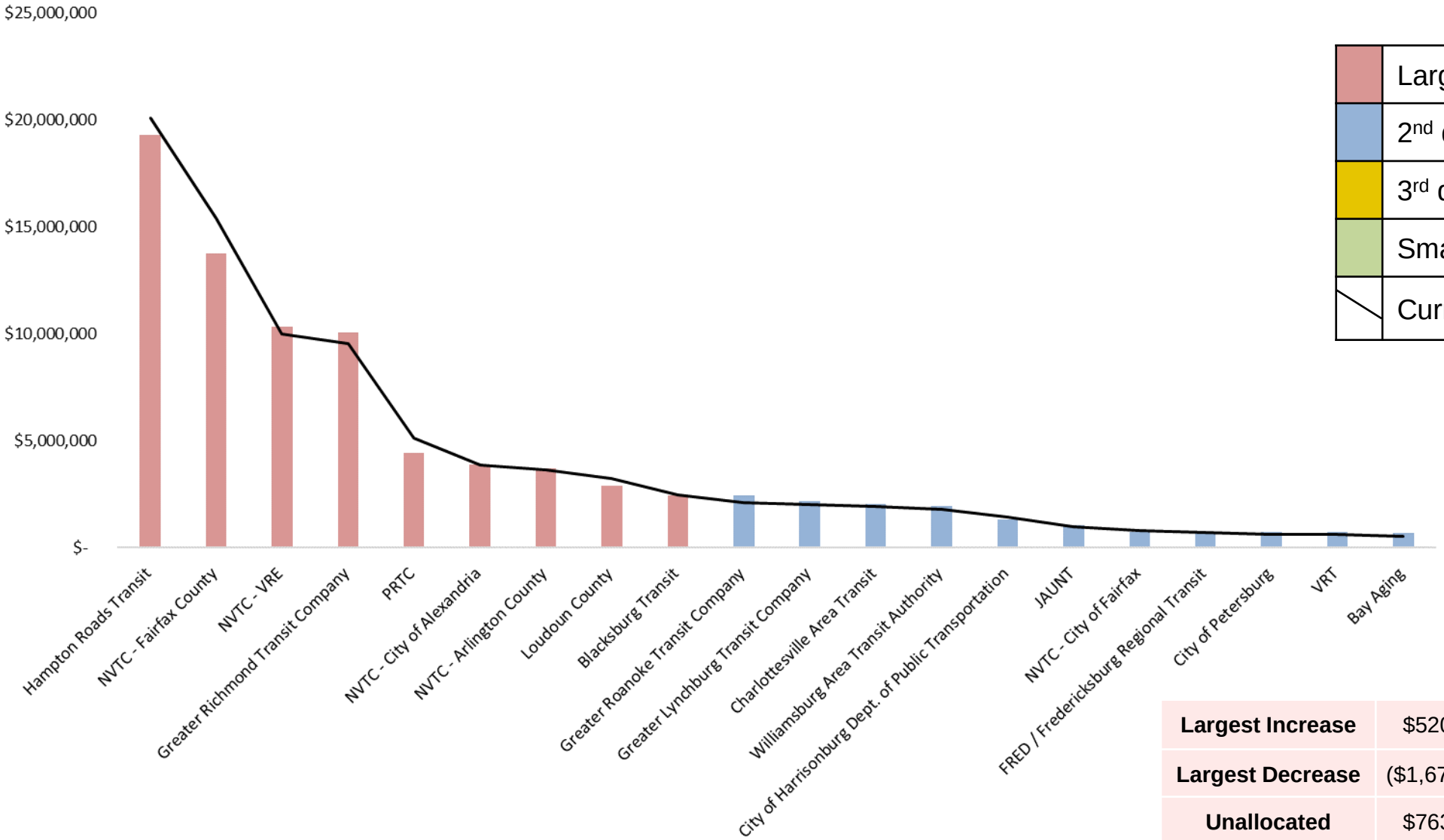
Largest quartile	
2nd quartile	
3rd quartile	
Smallest quartile	
Current Allocation	

Largest Increase	$520,752	59%
Largest Decrease	($1,671,865)	(14%)
Unallocated	$763,270	

Scenario C-Cap
25% Pax / RVH
25% Pax / RVM
50 % Net Cost / Pax

Scenario C-Capped Projected Operating Assistance Allocations: 1st and 2nd Quartile Agencies

Line is Current Allocation Method for FY19



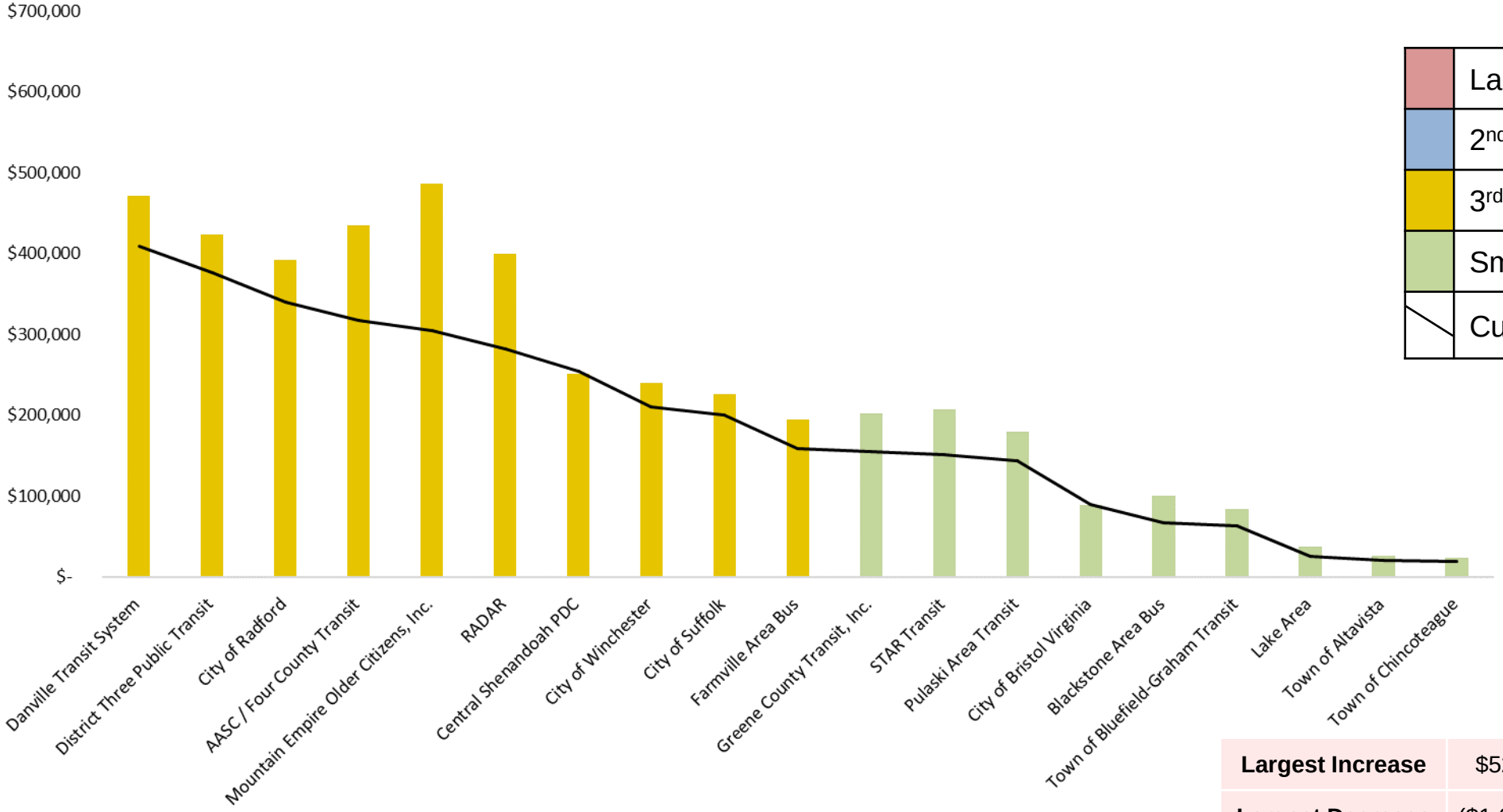
Largest quartile	
2nd quartile	
3rd quartile	
Smallest quartile	
Current Allocation	

Largest Increase	$520,752	59%
Largest Decrease	($1,671,865)	(14%)
Unallocated	$763,270	

Scenario C-Cap
25% Pax / RVH
25% Pax / RVM
50 % Net Cost / Pax

Scenario C-Capped Projected Operating Assistance Allocations: 3rd and 4th Quartile Agencies

Line is Current Allocation Method for FY19



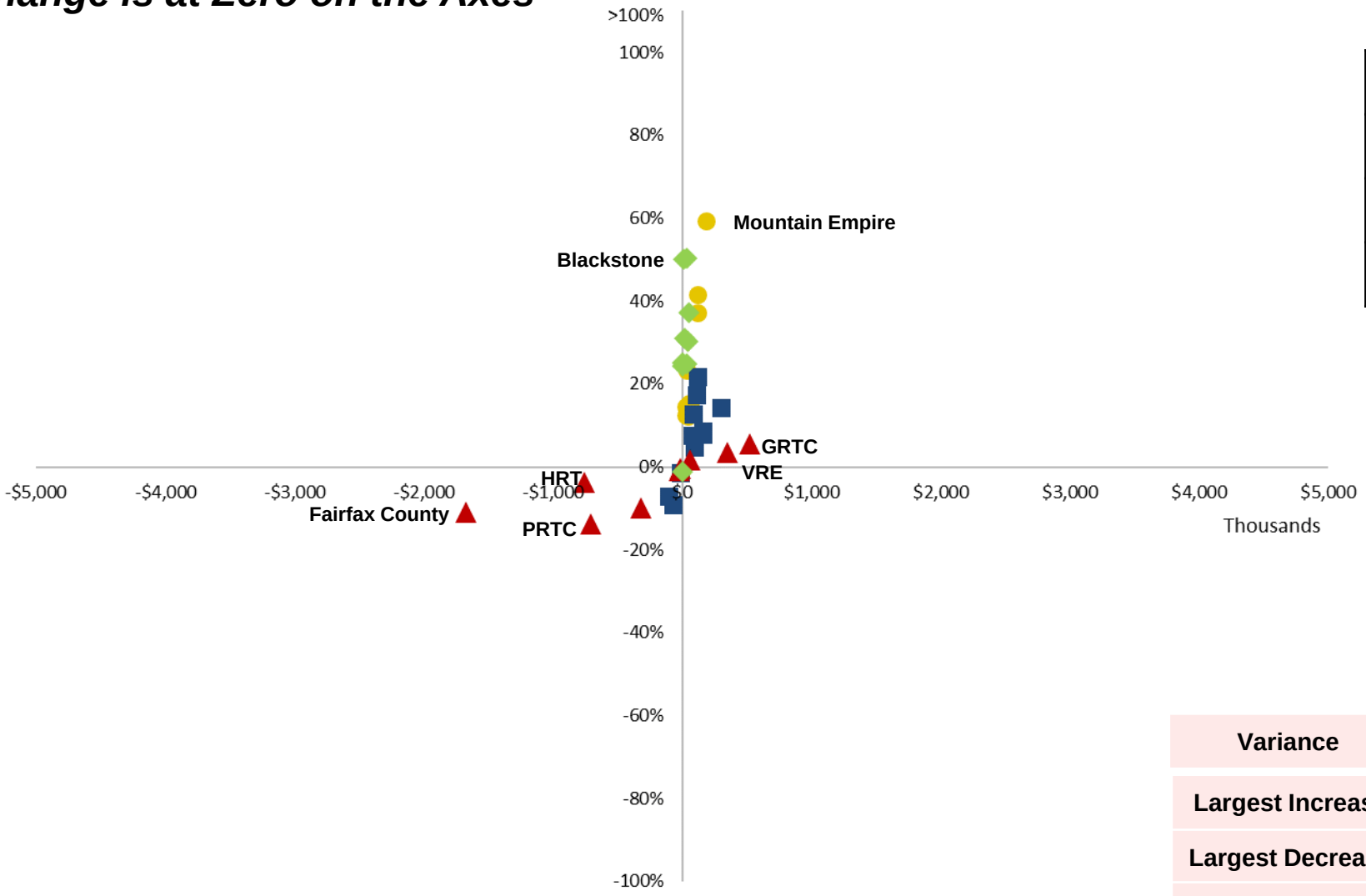
Largest quartile	
2nd quartile	
3rd quartile	
Smallest quartile	
Current Allocation	

Largest Increase	$520,752	59%
Largest Decrease	($1,671,865)	(14%)
Unallocated	$763,270	

Scenario C-Cap
25% Pax / RVH
25% Pax / RVM
50 % Net Cost / Pax

Scenario C-Capped Projected Variance from Actual FY19 Operating Assistance Allocation by Agency

No Change is at Zero on the Axes



	Largest quartile
	2nd quartile
	3rd quartile
	Smallest quartile

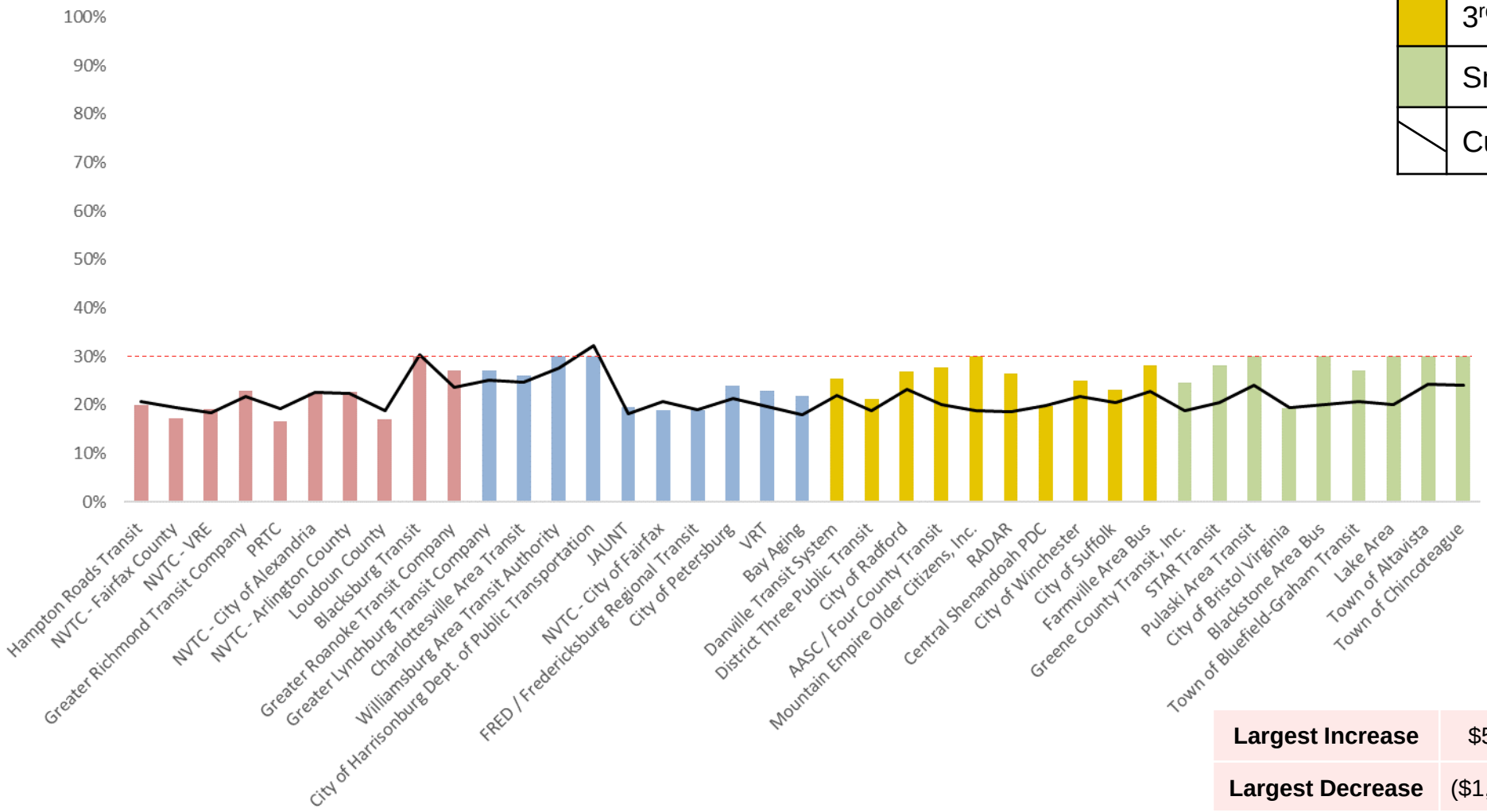
Variance	0.032	
Largest Increase	$520,752	59%
Largest Decrease	($1,671,865)	(14%)
Unallocated	$763,270	

Scenario C-Cap
25% Pax / RVH
25% Pax / RVM
50 % Net Cost / Pax

Scenario C-Capped Operating Assistance as % of Operating Cost by Agency

Line is Current Allocation Method for FY19

	Largest quartile
	2nd quartile
	3rd quartile
	Smallest quartile
	Current Allocation



Largest Increase	$520,752	59%
Largest Decrease	($1,671,865)	(14%)
Unallocated	$763,270	

Variation 1

Performance Metrics:

25% Pax / RVH

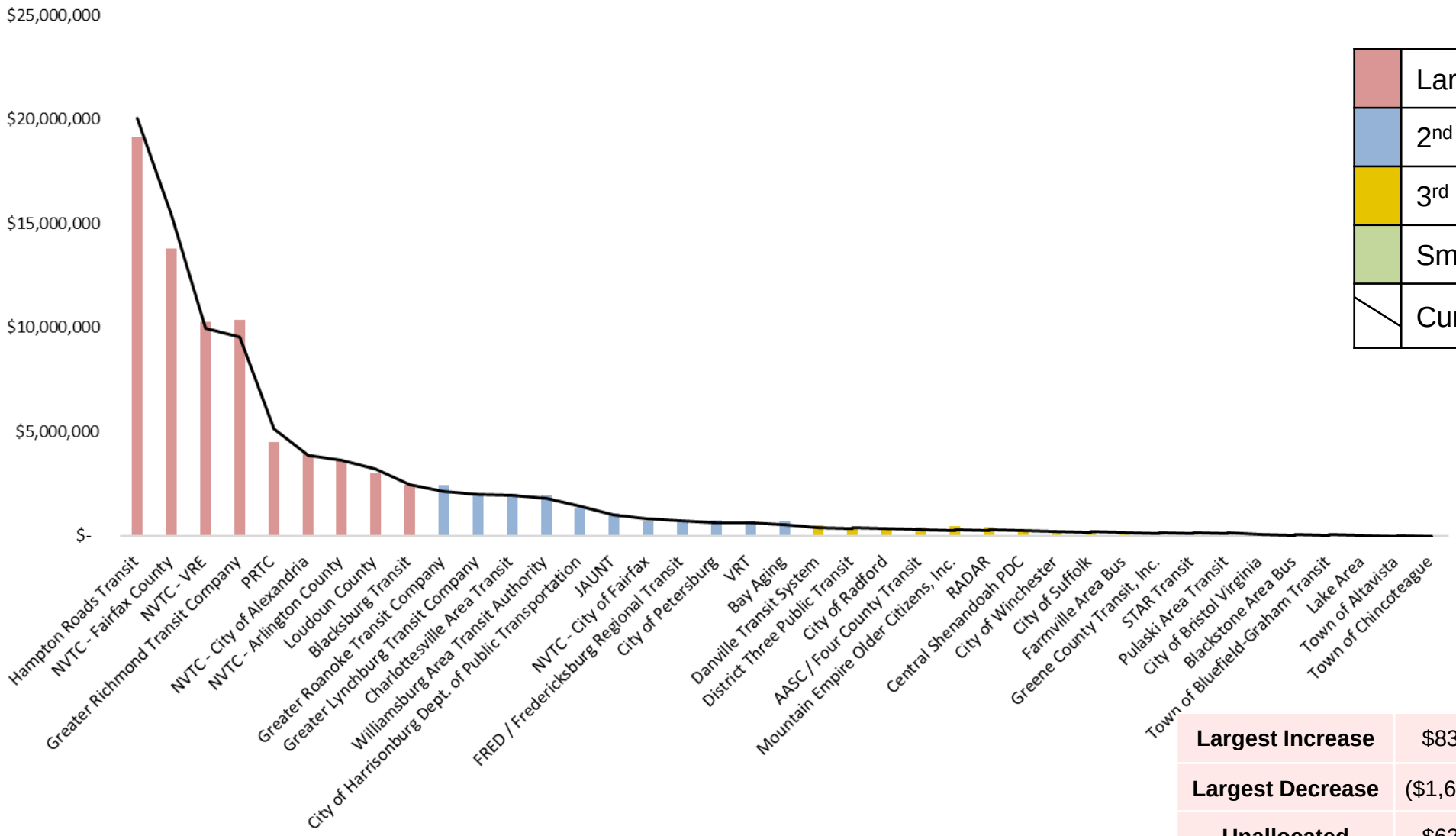
25% Pax / RVM

50 % Op Cost / Pax

Variation 1
25% Pax / RVH
25% Pax / RVM
50 % Cost / Pax

Variation 1 - Projected Operating Assistance Allocations by Agency

Line is Current Allocation Method for FY19



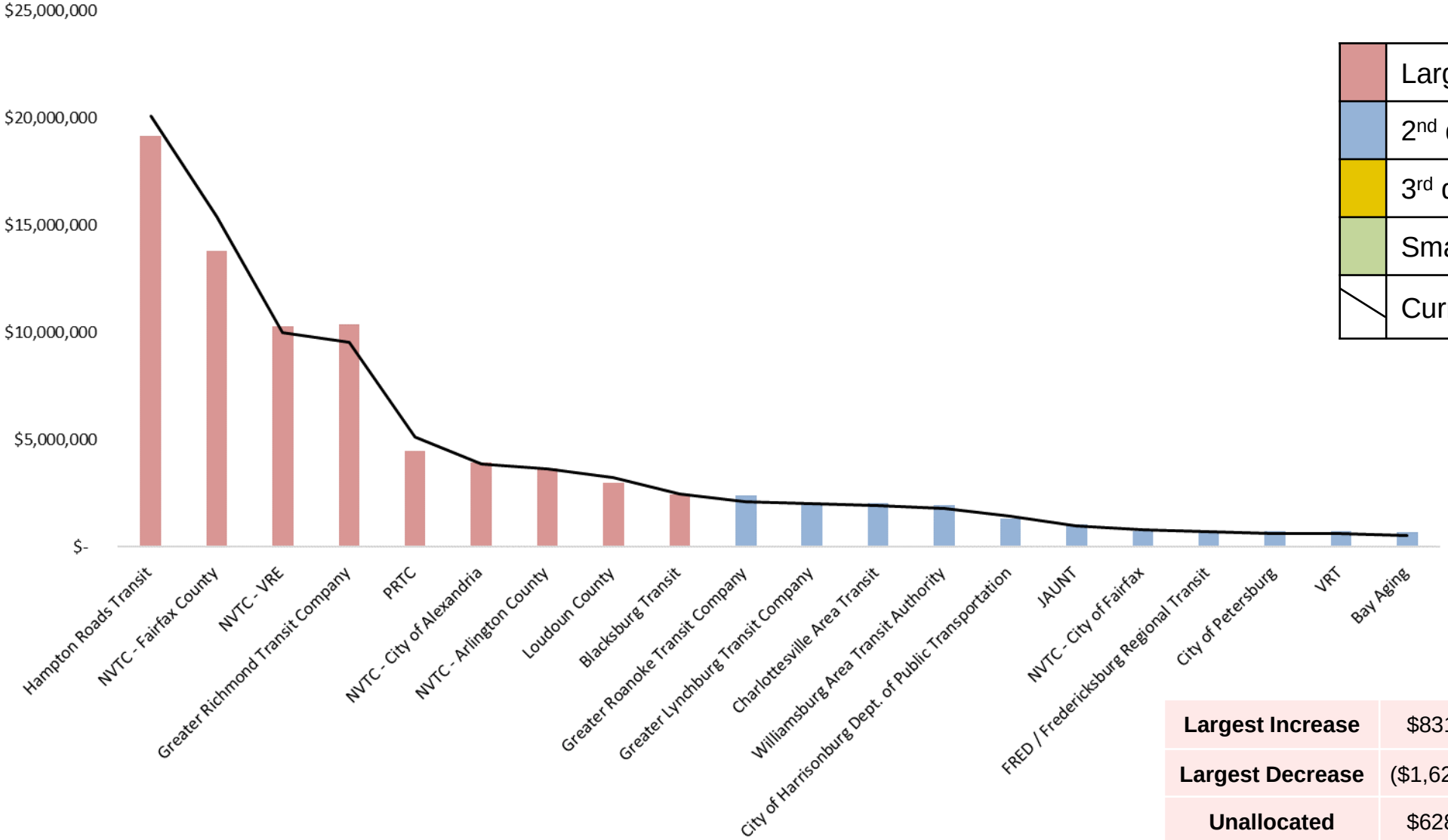
Largest quartile	
2nd quartile	
3rd quartile	
Smallest quartile	
Current Allocation	

Largest Increase	$831,747	59%
Largest Decrease	($1,629,227)	(12%)
Unallocated	$628,392	

Variation 1
25% Pax / RVH
25% Pax / RVM
50 % Cost / Pax

Variation 1 - Projected Operating Assistance Allocations: 1st and 2nd Quartile Agencies

Line is Current Allocation Method for FY19



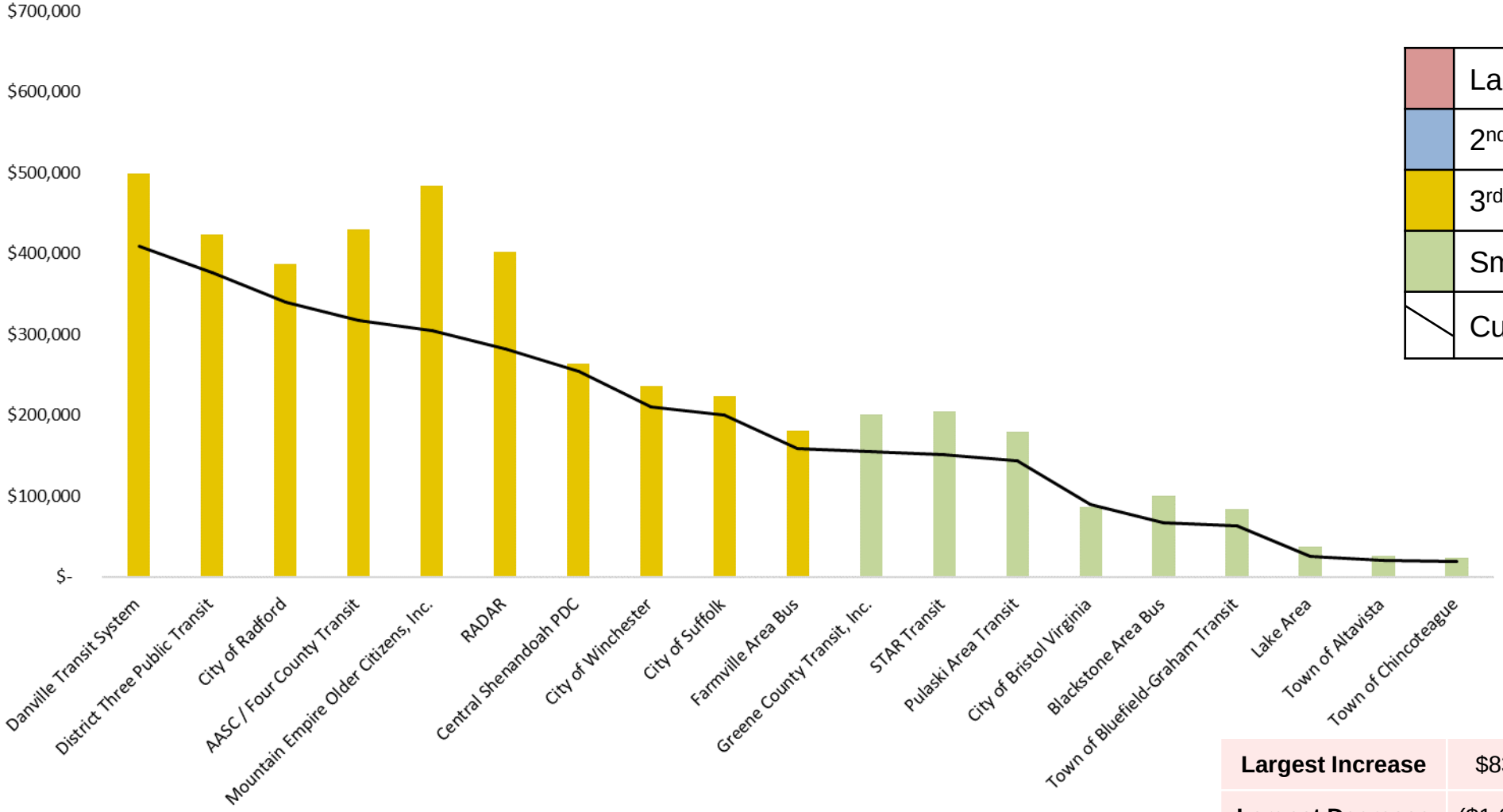
Largest quartile	
2nd quartile	
3rd quartile	
Smallest quartile	
Current Allocation	

Largest Increase	$831,747	59%
Largest Decrease	($1,629,227)	(12%)
Unallocated	$628,392	

Variation 1
25% Pax / RVH
25% Pax / RVM
50 % Cost / Pax

Variation 1 - Projected Operating Assistance Allocations: 3rd and 4th Quartile Agencies

Line is Current Allocation Method for FY19



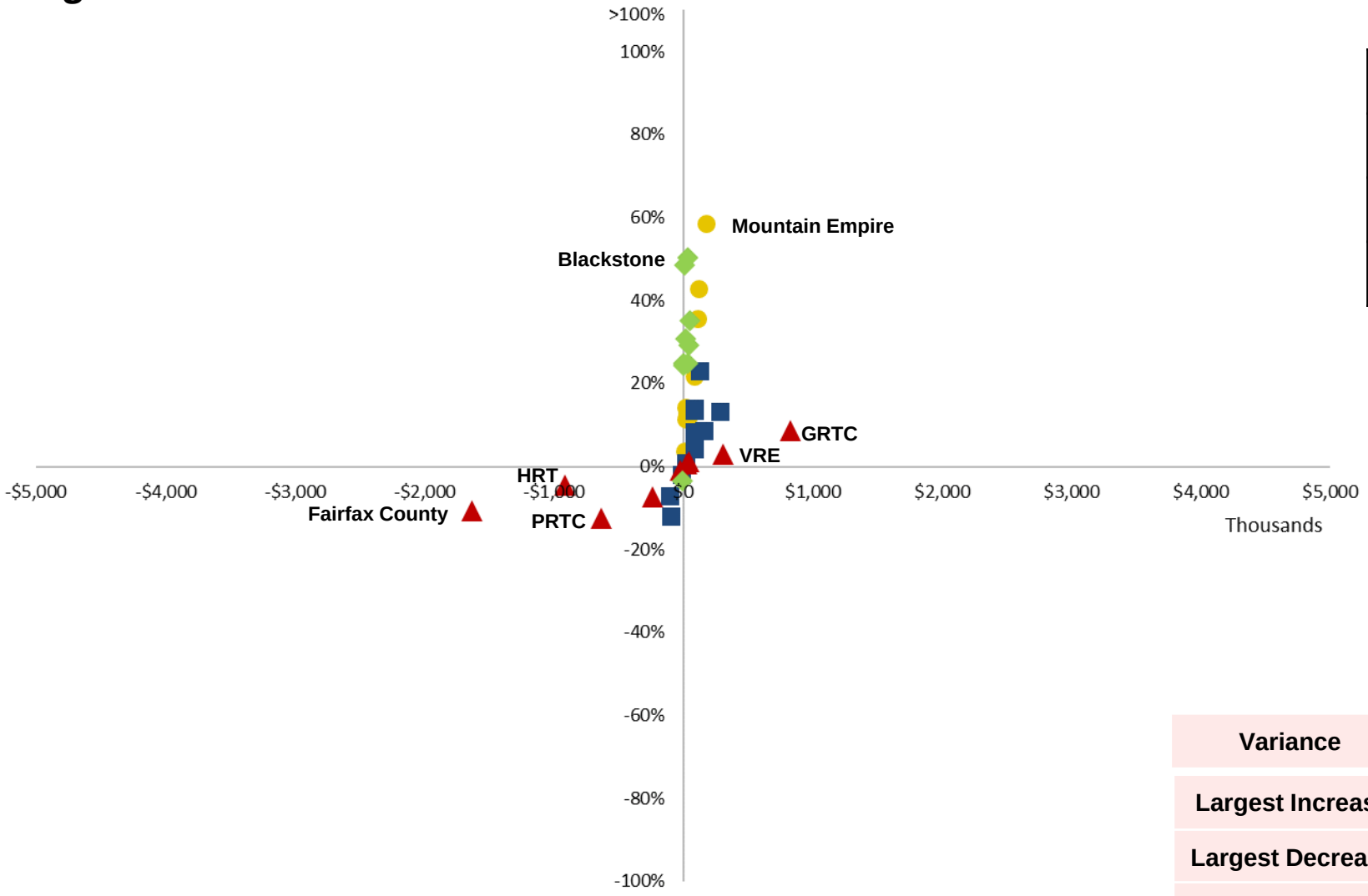
Largest quartile	
2nd quartile	
3rd quartile	
Smallest quartile	
Current Allocation	

Largest Increase	$831,747	59%
Largest Decrease	($1,629,227)	(12%)
Unallocated	$628,392	

Variation 1
25% Pax / RVH
25% Pax / RVM
50 % Cost / Pax

Variation 1 - Projected Variance from Actual FY19 Operating Assistance Allocation by Agency

No Change is at Zero on the Axes



	Largest quartile
	2nd quartile
	3rd quartile
	Smallest quartile

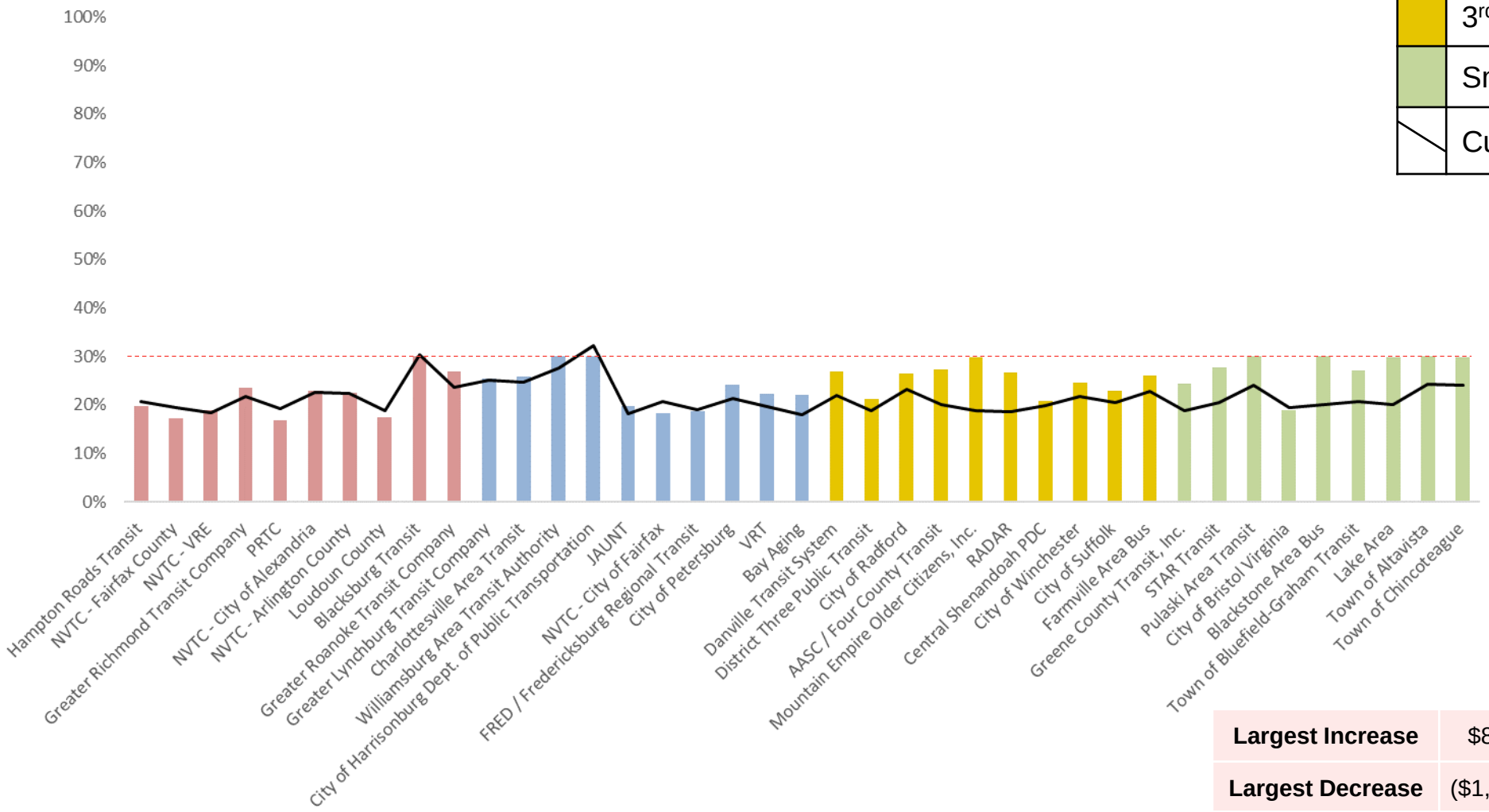
Variance	0.031	
Largest Increase	$831,747	59%
Largest Decrease	($1,629,227)	(12%)
Unallocated	$628,392	

Variation 1
25% Pax / RVH
25% Pax / RVM
50 % Cost / Pax

Variation 1 - Operating Assistance as % of Operating Cost by Agency

Line is Current Allocation Method for FY19

	Largest quartile
	2nd quartile
	3rd quartile
	Smallest quartile
	Current Allocation



Largest Increase	$831,747	59%
Largest Decrease	($1,629,227)	(12%)
Unallocated	$628,392	

Variation 2

Performance Metrics:

25% Op Cost / RVH

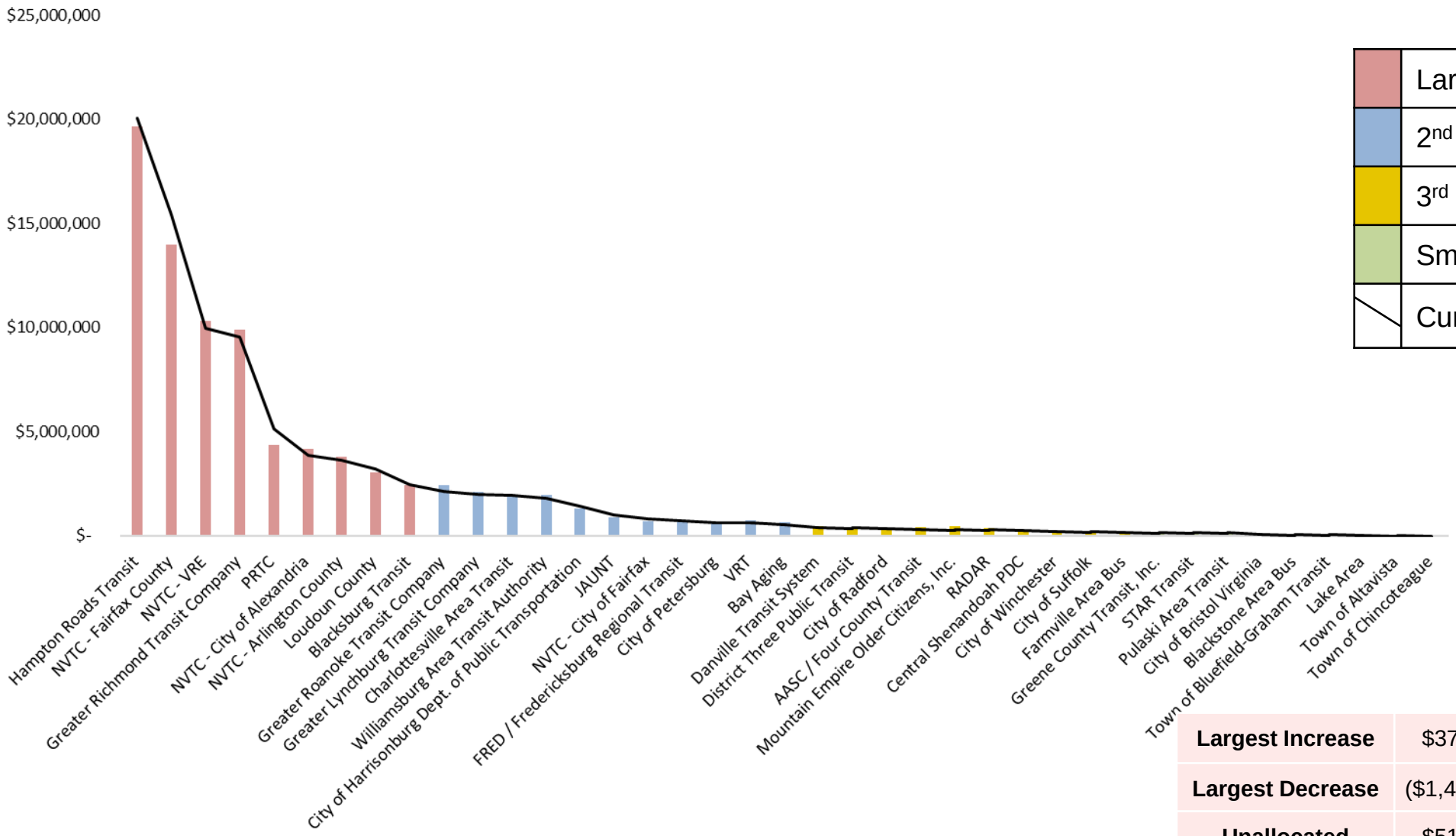
25% Op Cost / RVM

50 % Net Cost / Pax

Variation 2
25% Cost / RVH
25% Cost / RVM
50 % Net Cost / Pax

Variation 2 - Projected Operating Assistance Allocations by Agency

Line is Current Allocation Method for FY19



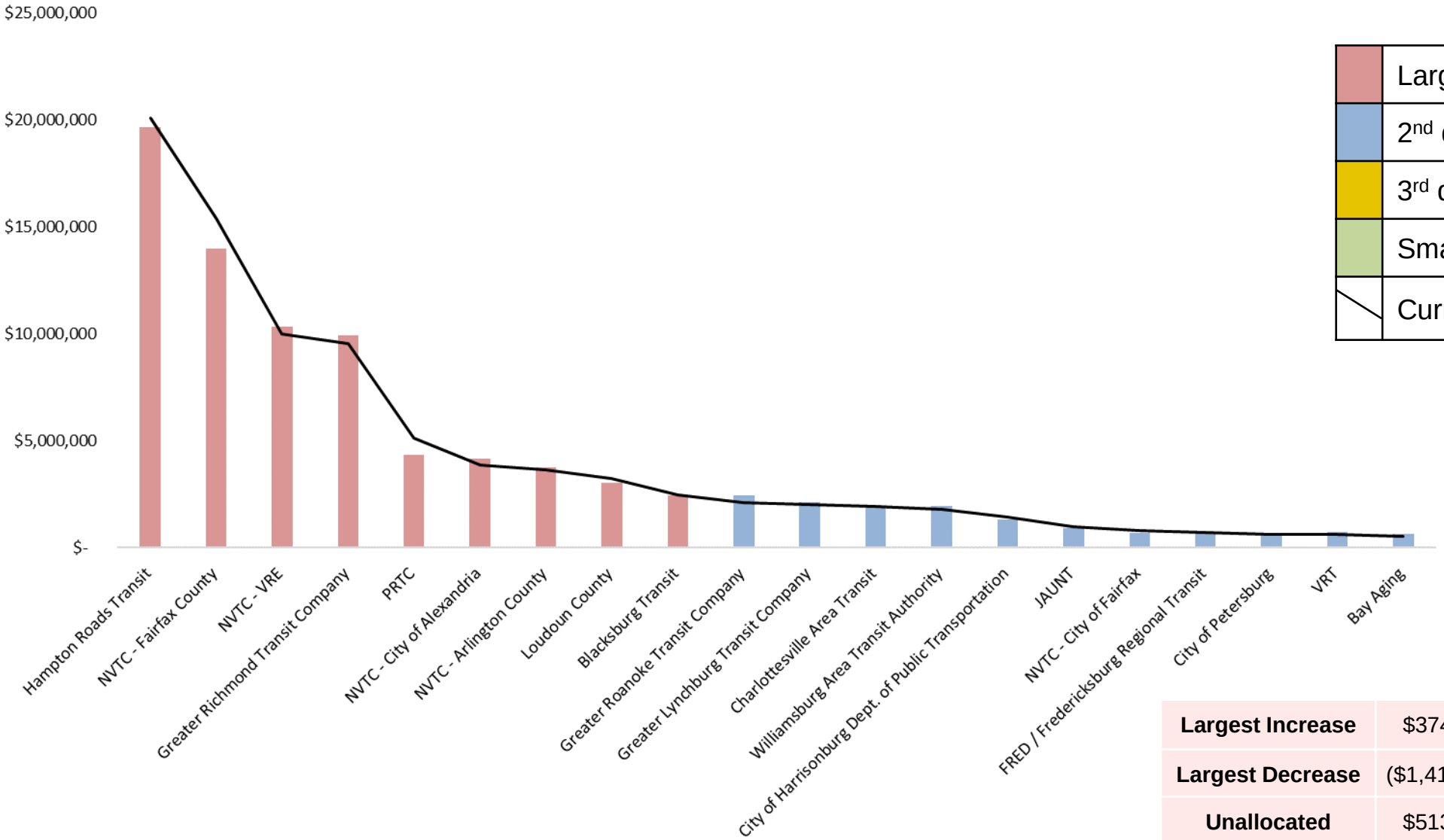
Largest quartile	
2nd quartile	
3rd quartile	
Smallest quartile	
Current Allocation	

Largest Increase	$374,691	55%
Largest Decrease	($1,417,504)	(23%)
Unallocated	$513,941	

Variation 2
25% Cost / RVH
25% Cost / RVM
50 % Net Cost / Pax

Variation 2 - Projected Operating Assistance Allocations: 1st and 2nd Quartile Agencies

Line is Current Allocation Method for FY19



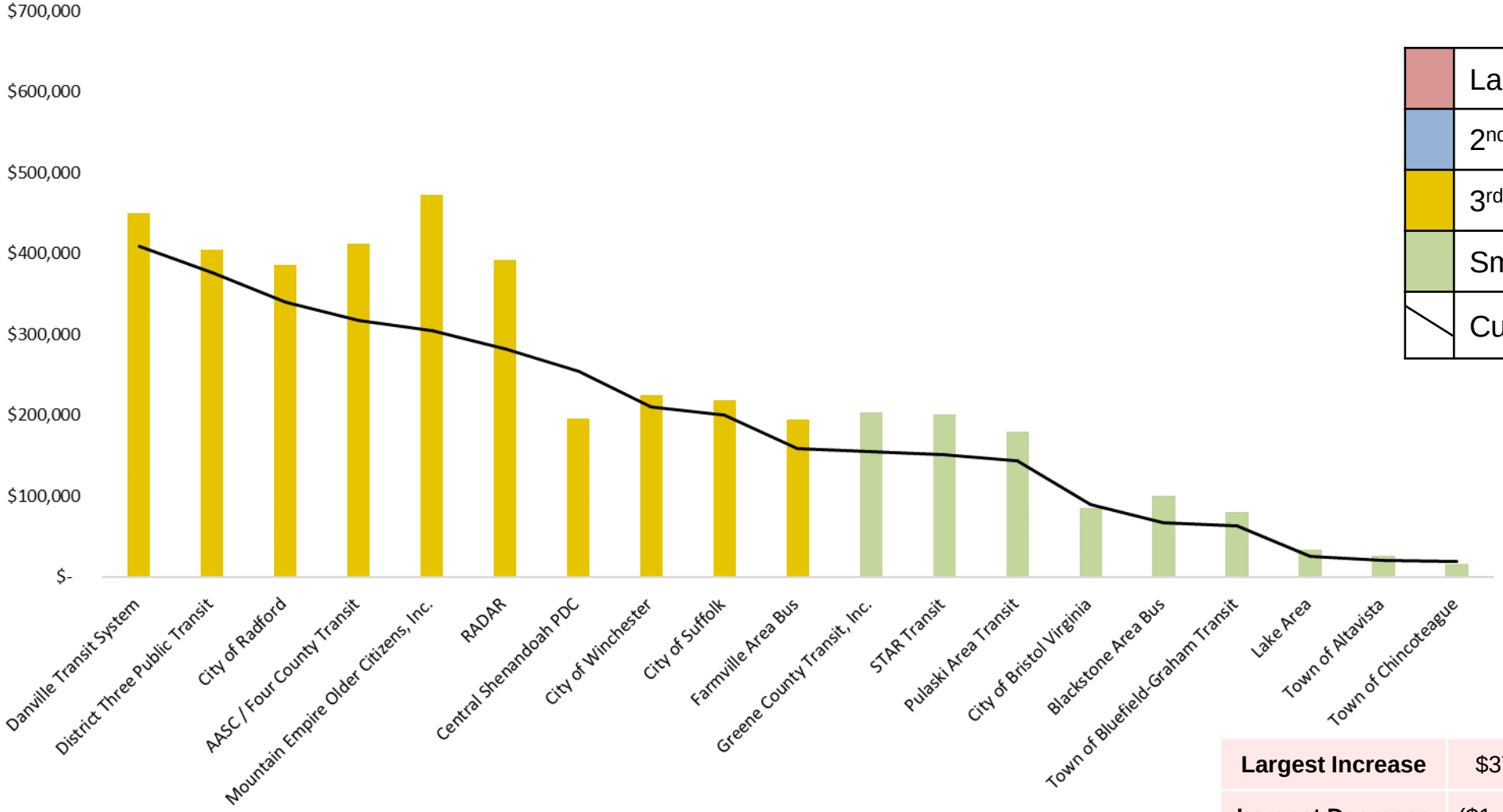
Largest quartile	
2nd quartile	
3rd quartile	
Smallest quartile	
Current Allocation	

Largest Increase	$374,691	55%
Largest Decrease	($1,417,504)	(23%)
Unallocated	$513,941	

Variation 2
25% Cost / RVH
25% Cost / RVM
50 % Net Cost / Pax

Variation 2 - Projected Operating Assistance Allocations: 3rd and 4th Quartile Agencies

Line is Current Allocation Method for FY19



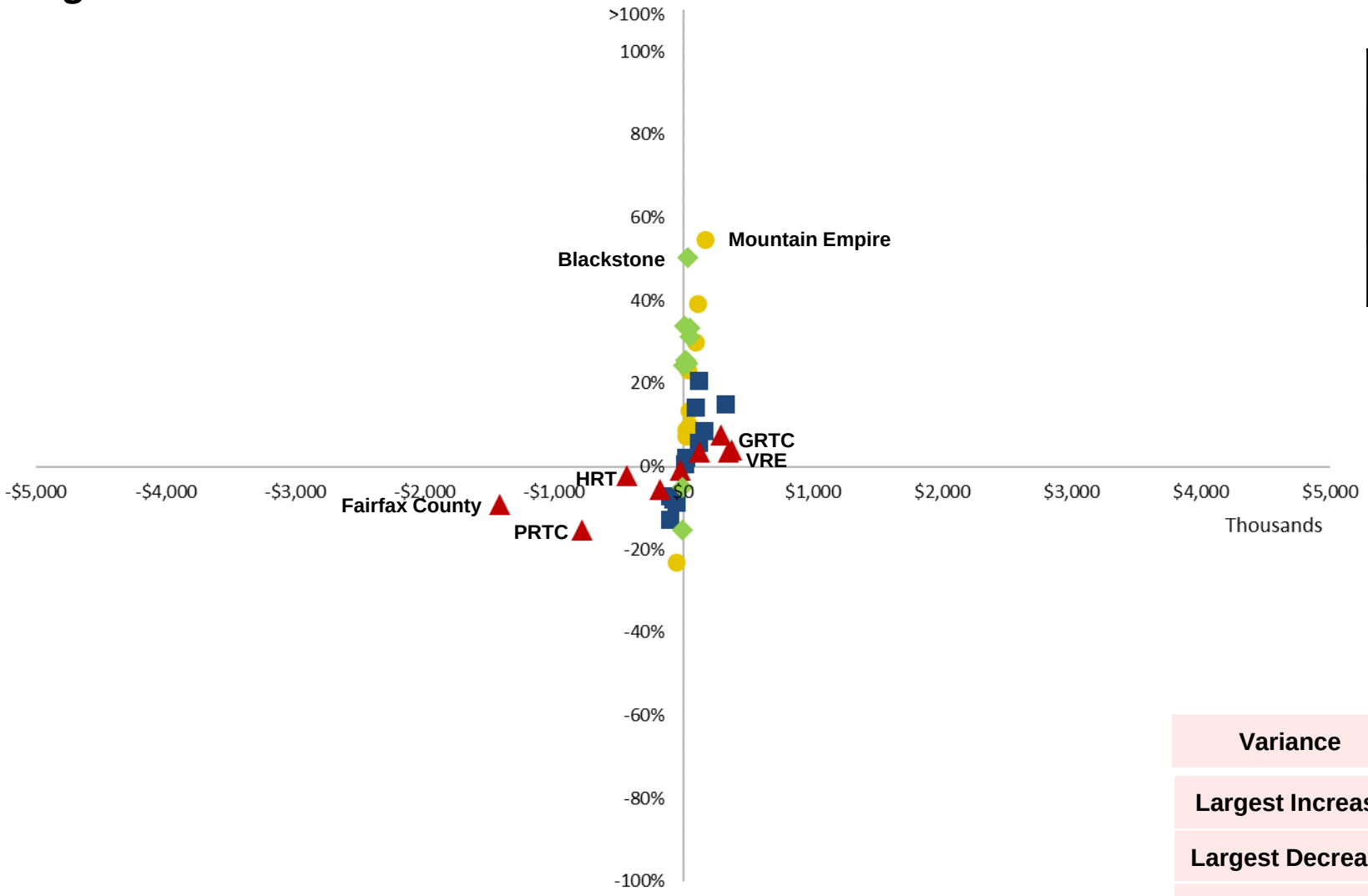
Largest quartile	
2nd quartile	
3rd quartile	
Smallest quartile	
Current Allocation	

Largest Increase	$374,691	55%
Largest Decrease	($1,417,504)	(23%)
Unallocated	$513,941	

Variation 2
25% Cost / RVH
25% Cost / RVM
50 % Net Cost / Pax

Variation 2 - Projected Variance from Actual FY19 Operating Assistance Allocation by Agency

No Change is at Zero on the Axes



	Largest quartile
	2nd quartile
	3rd quartile
	Smallest quartile

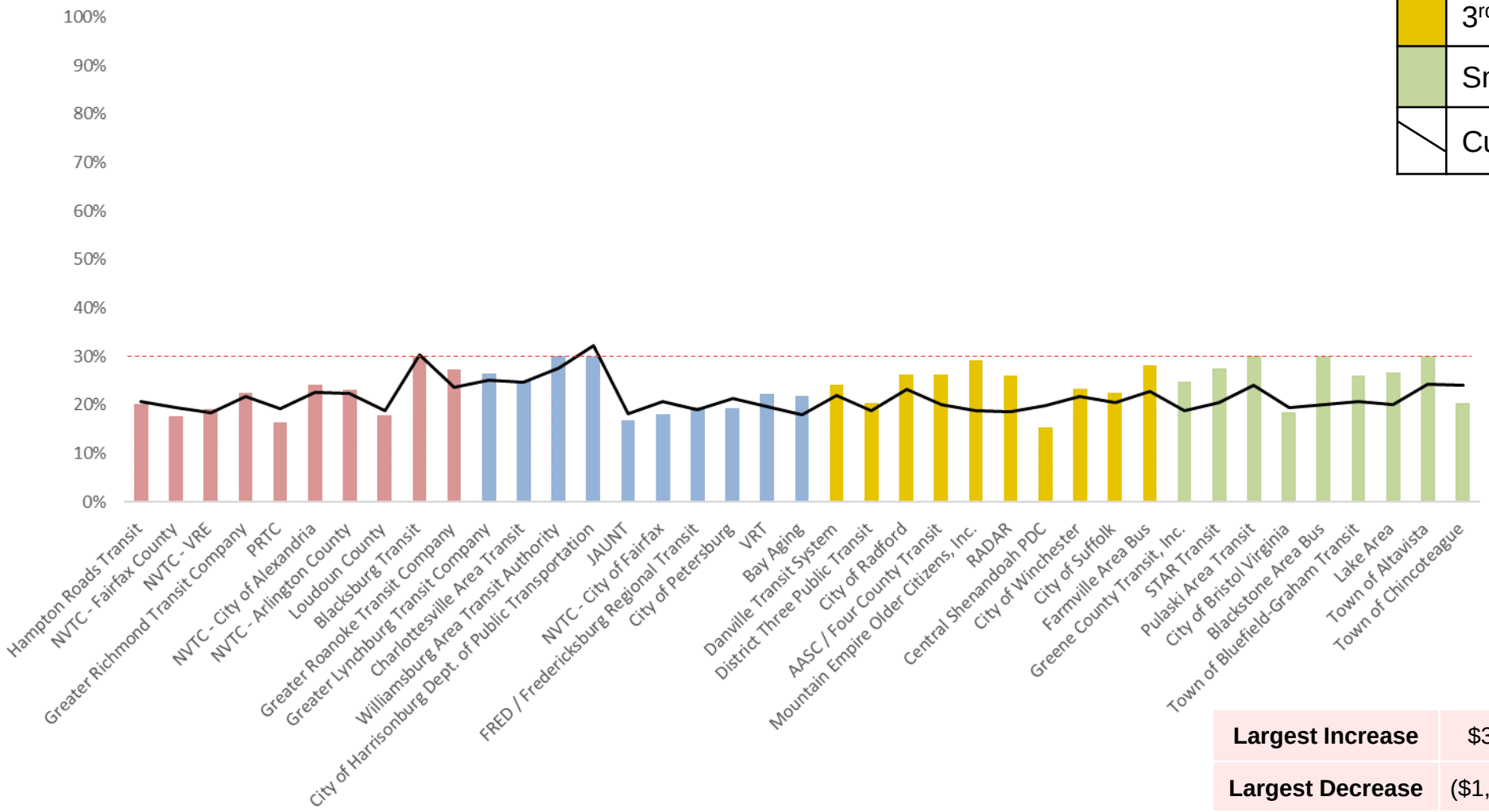
Variance	0.033	
Largest Increase	$374,691	55%
Largest Decrease	($1,417,504)	(23%)
Unallocated	$513,941	

Variation 2
25% Cost / RVH
25% Cost / RVM
50 % Net Cost / Pax

Variation 2 - Operating Assistance as % of Operating Cost by Agency

Line is Current Allocation Method for FY19

	Largest quartile
	2nd quartile
	3rd quartile
	Smallest quartile
	Current Allocation



Largest Increase	$374,691	55%
Largest Decrease	($1,417,504)	(23%)
Unallocated	$513,941	

Variation 3

Performance Metrics:

25% Op Cost / RVH

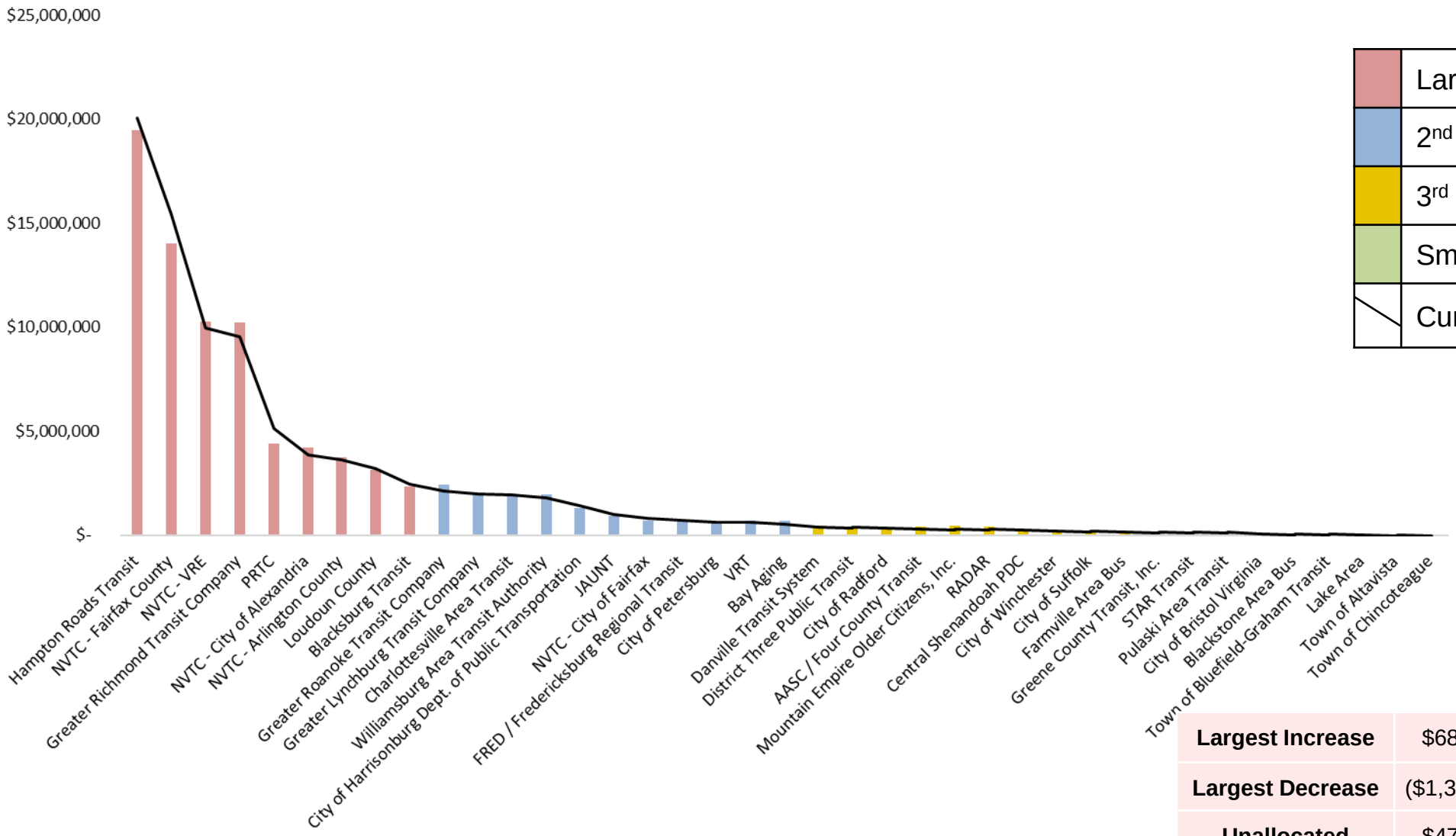
25% Op Cost / RVM

50 % Op Cost / Pax

Variation 3
25% Cost / RVH
25% Cost / RVM
50 % Cost / Pax

Variation 3 - Projected Operating Assistance Allocations by Agency

Line is Current Allocation Method for FY19



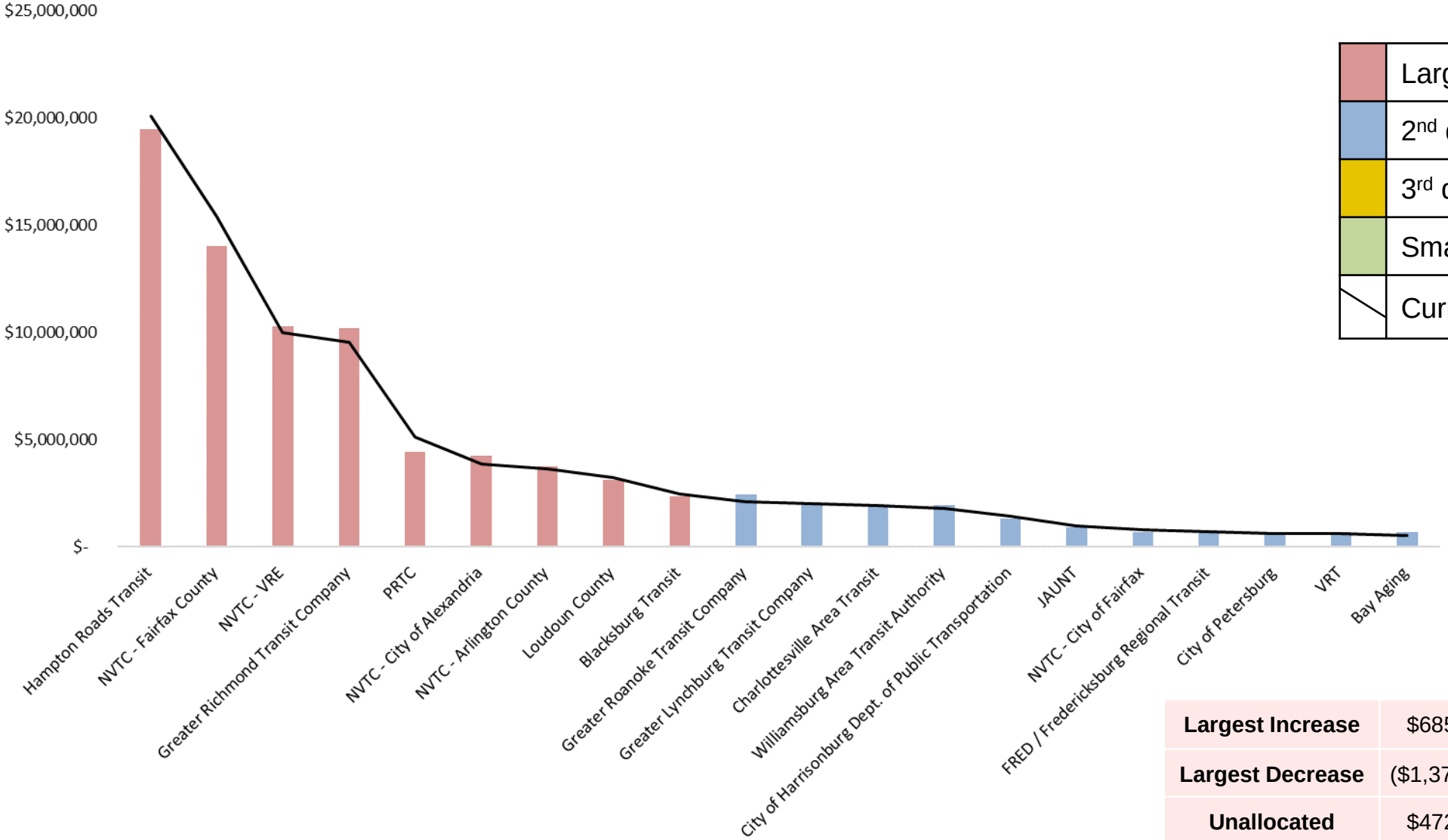
Largest quartile	
2nd quartile	
3rd quartile	
Smallest quartile	
Current Allocation	

Largest Increase	$685,685	53%
Largest Decrease	($1,374,866)	(18%)
Unallocated	$472,403	

Variation 3
25% Cost / RVH
25% Cost / RVM
50 % Cost / Pax

Variation 3 - Projected Operating Assistance Allocations: 1st and 2nd Quartile Agencies

Line is Current Allocation Method for FY19



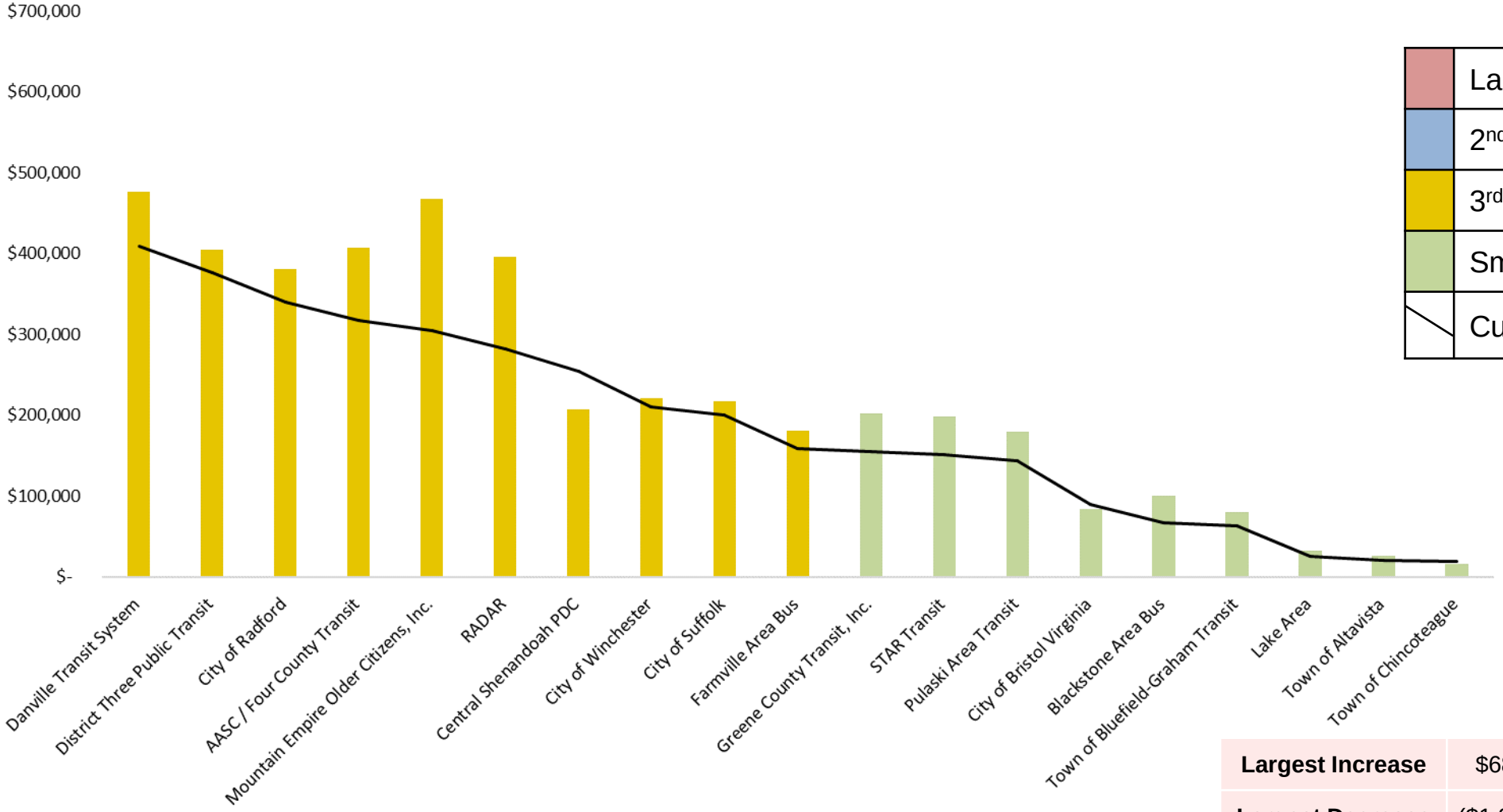
Largest quartile	
2nd quartile	
3rd quartile	
Smallest quartile	
Current Allocation	

Largest Increase	$685,685	53%
Largest Decrease	($1,374,866)	(18%)
Unallocated	$472,403	

Variation 3
25% Cost / RVH
25% Cost / RVM
50 % Cost / Pax

Variation 3 - Projected Operating Assistance Allocations: 3rd and 4th Quartile Agencies

Line is Current Allocation Method for FY19



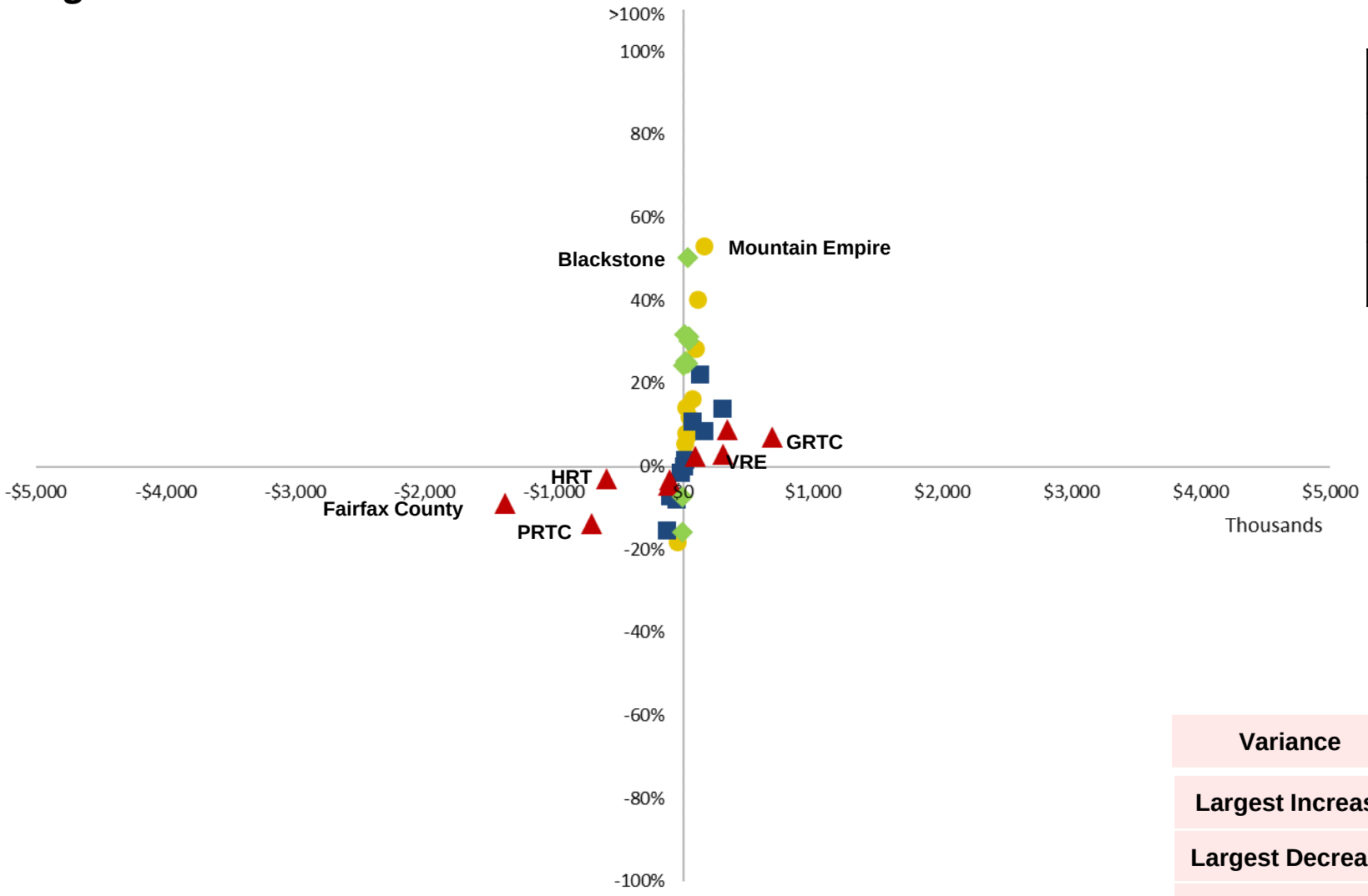
Largest quartile	
2nd quartile	
3rd quartile	
Smallest quartile	
Current Allocation	

Largest Increase	$685,685	53%
Largest Decrease	($1,374,866)	(18%)
Unallocated	$472,403	

Variation 3
25% Cost / RVH
25% Cost / RVM
50 % Cost / Pax

Variation 3 - Projected Variance from Actual FY19 Operating Assistance Allocation by Agency

No Change is at Zero on the Axes



	Largest quartile
	2nd quartile
	3rd quartile
	Smallest quartile

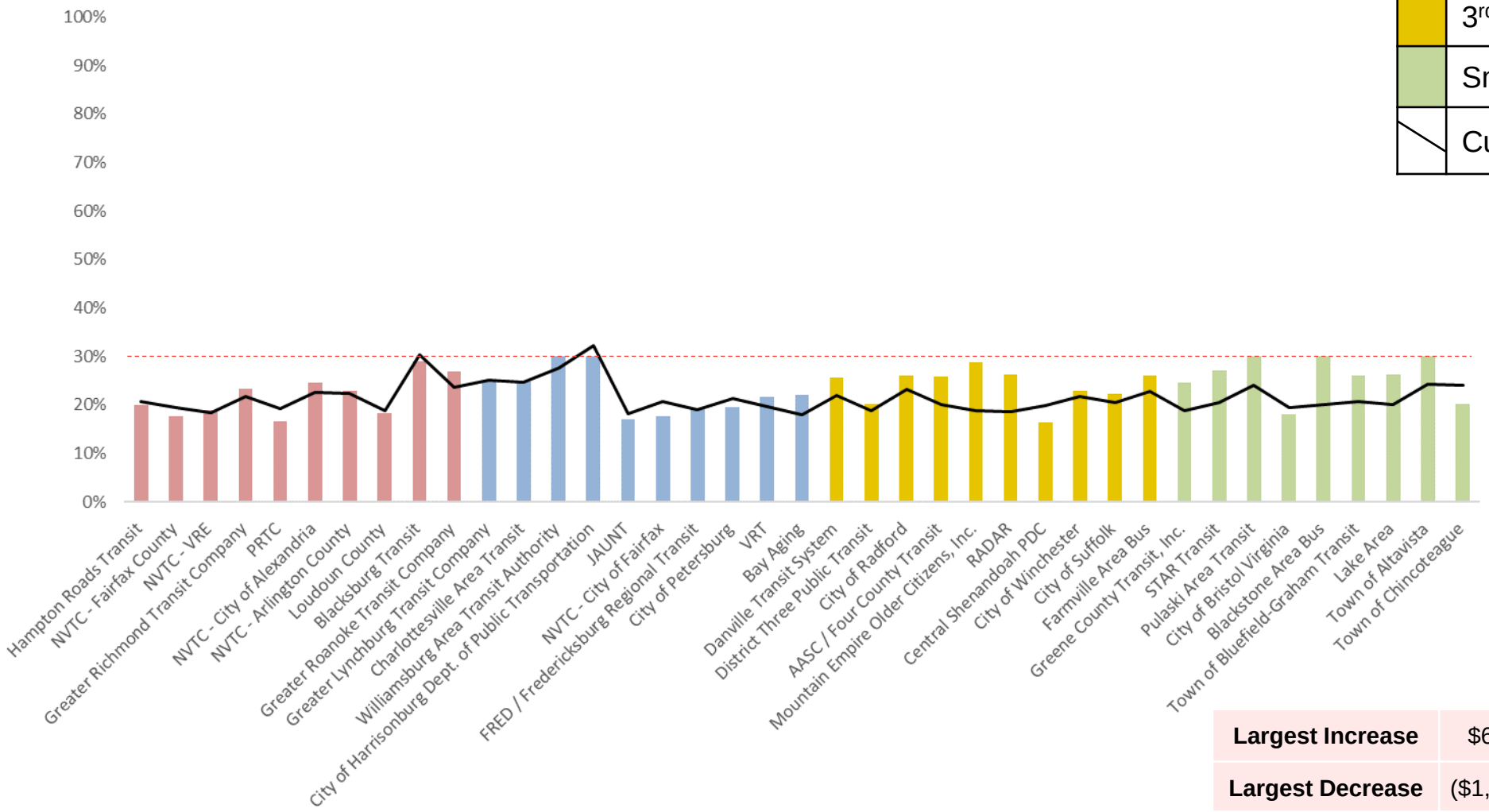
Variance	0.031	
Largest Increase	$685,685	53%
Largest Decrease	($1,374,866)	(18%)
Unallocated	$472,403	

Variation 3
25% Cost / RVH
25% Cost / RVM
50 % Cost / Pax

Variation 3 - Operating Assistance as % of Operating Cost by Agency

Line is Current Allocation Method for FY19

	Largest quartile
	2nd quartile
	3rd quartile
	Smallest quartile
	Current Allocation



Largest Increase	$685,685	53%
Largest Decrease	($1,374,866)	(18%)
Unallocated	$472,403	

Variation 4

Performance Metrics:

20% Pax / RVH

20% Pax / RVM

20% Op Cost / RVH

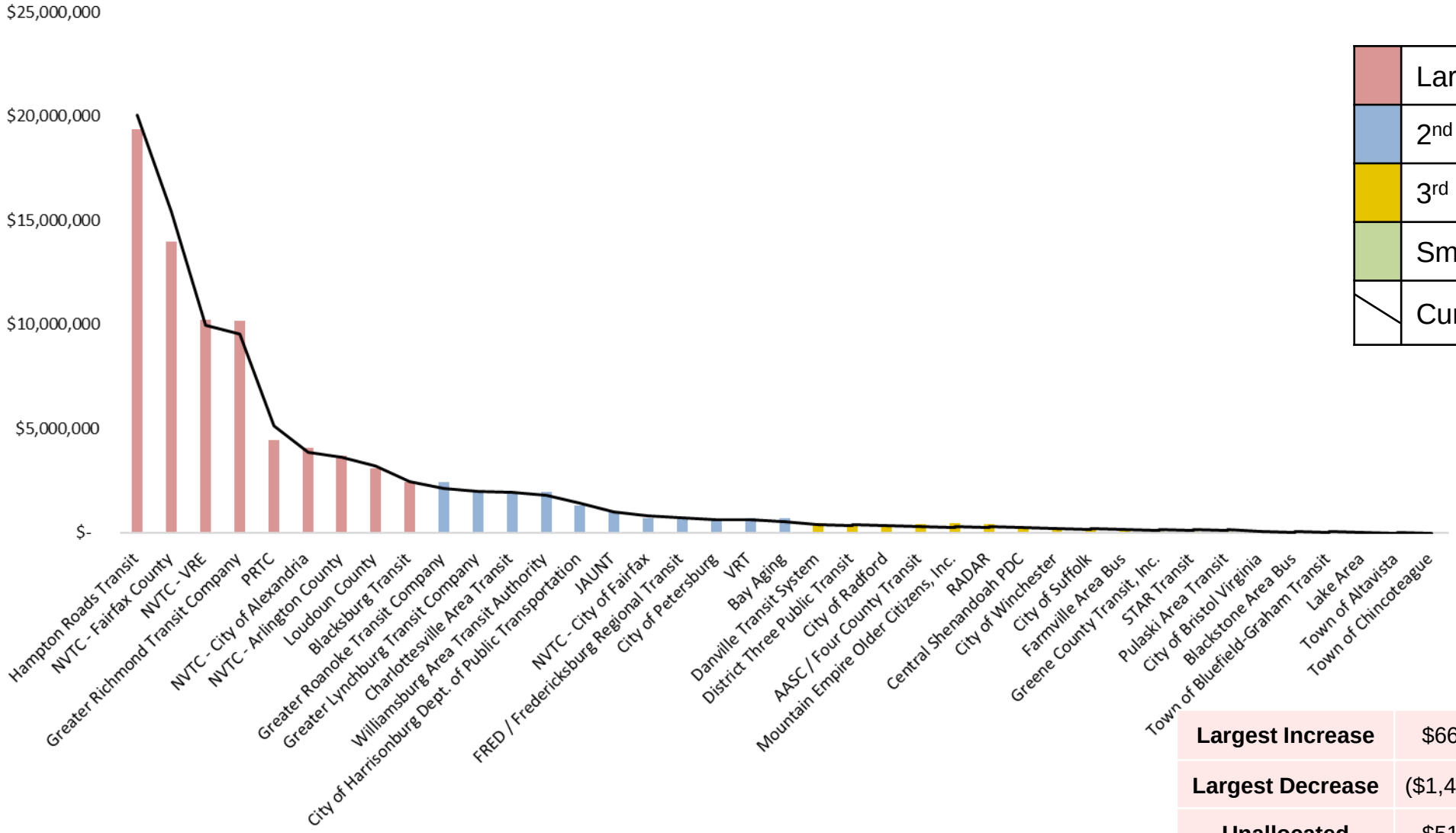
20% Op Cost / RVM

20% Op Cost / Pax

Variation 4
20% Pax / RVH
20% Pax / RVM
20% Cost / RVH
20% Cost / RVM
20% Cost / Pax

Variation 4 - Projected Operating Assistance Allocations by Agency

Line is Current Allocation Method for FY19



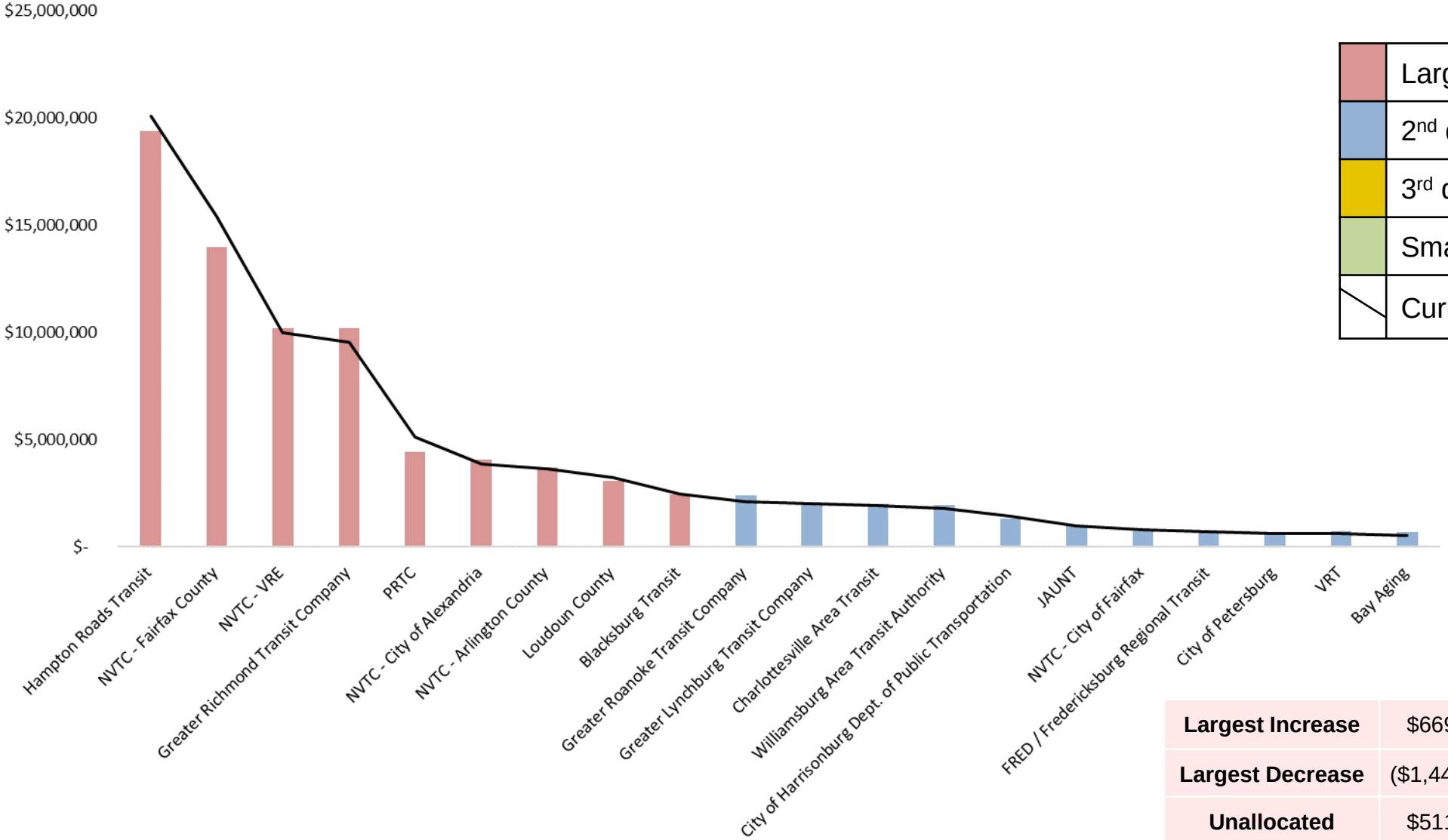
Largest quartile	
2nd quartile	
3rd quartile	
Smallest quartile	
Current Allocation	

Largest Increase	$669,357	53%
Largest Decrease	($1,443,317)	(13%)
Unallocated	$511,803	

Variation 4
20% Pax / RVH
20% Pax / RVM
20% Cost / RVH
20% Cost / RVM
20% Cost / Pax

Variation 4 - Projected Operating Assistance Allocations: 1st and 2nd Quartile Agencies

Line is Current Allocation Method for FY19



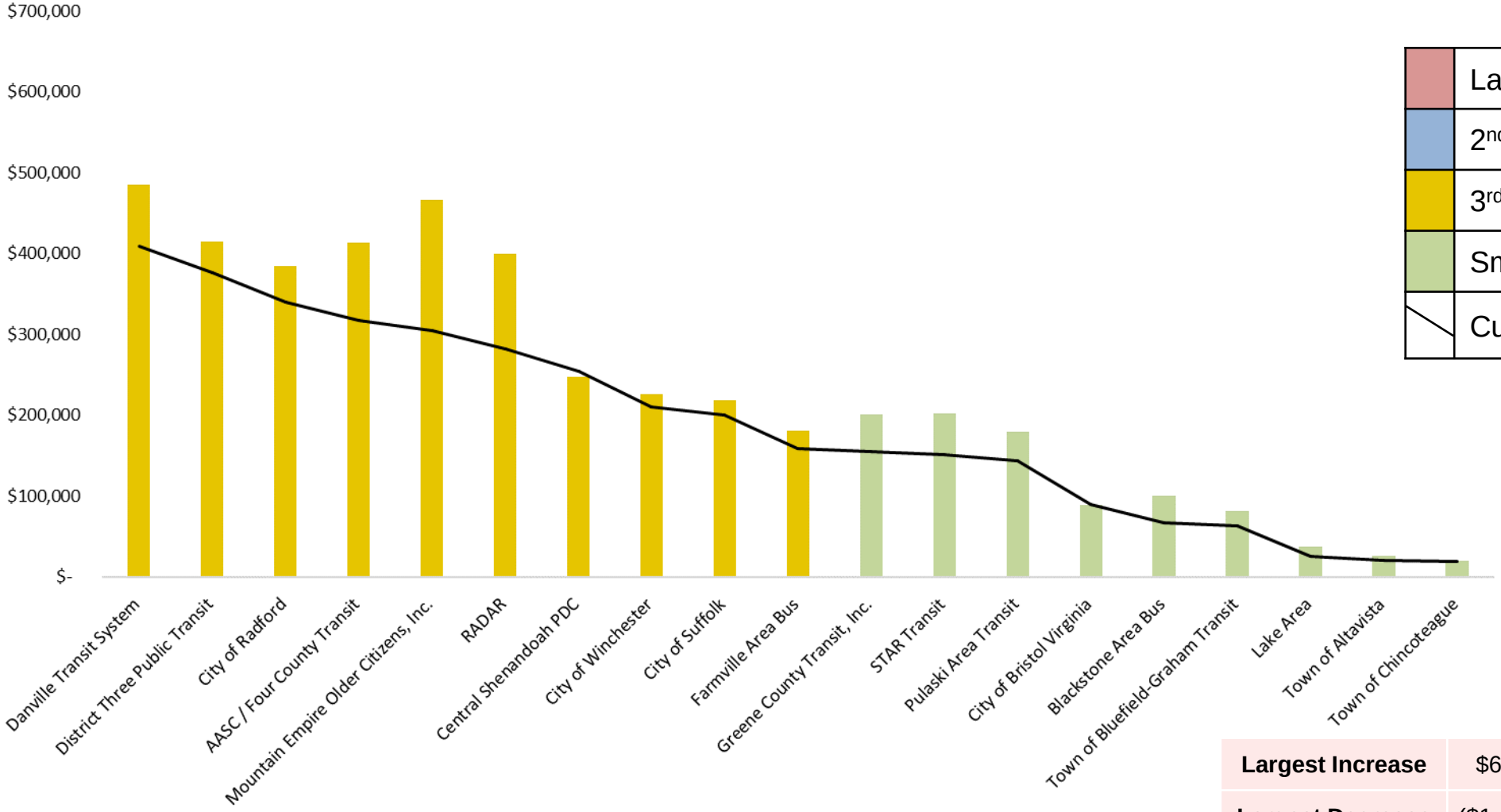
Largest quartile	
2nd quartile	
3rd quartile	
Smallest quartile	
Current Allocation	

Largest Increase	$669,357	53%
Largest Decrease	($1,443,317)	(13%)
Unallocated	$511,803	

Variation 4
20% Pax / RVH
20% Pax / RVM
20% Cost / RVH
20% Cost / RVM
20% Cost / Pax

Variation 4 - Projected Operating Assistance Allocations: 3rd and 4th Quartile Agencies

Line is Current Allocation Method for FY19



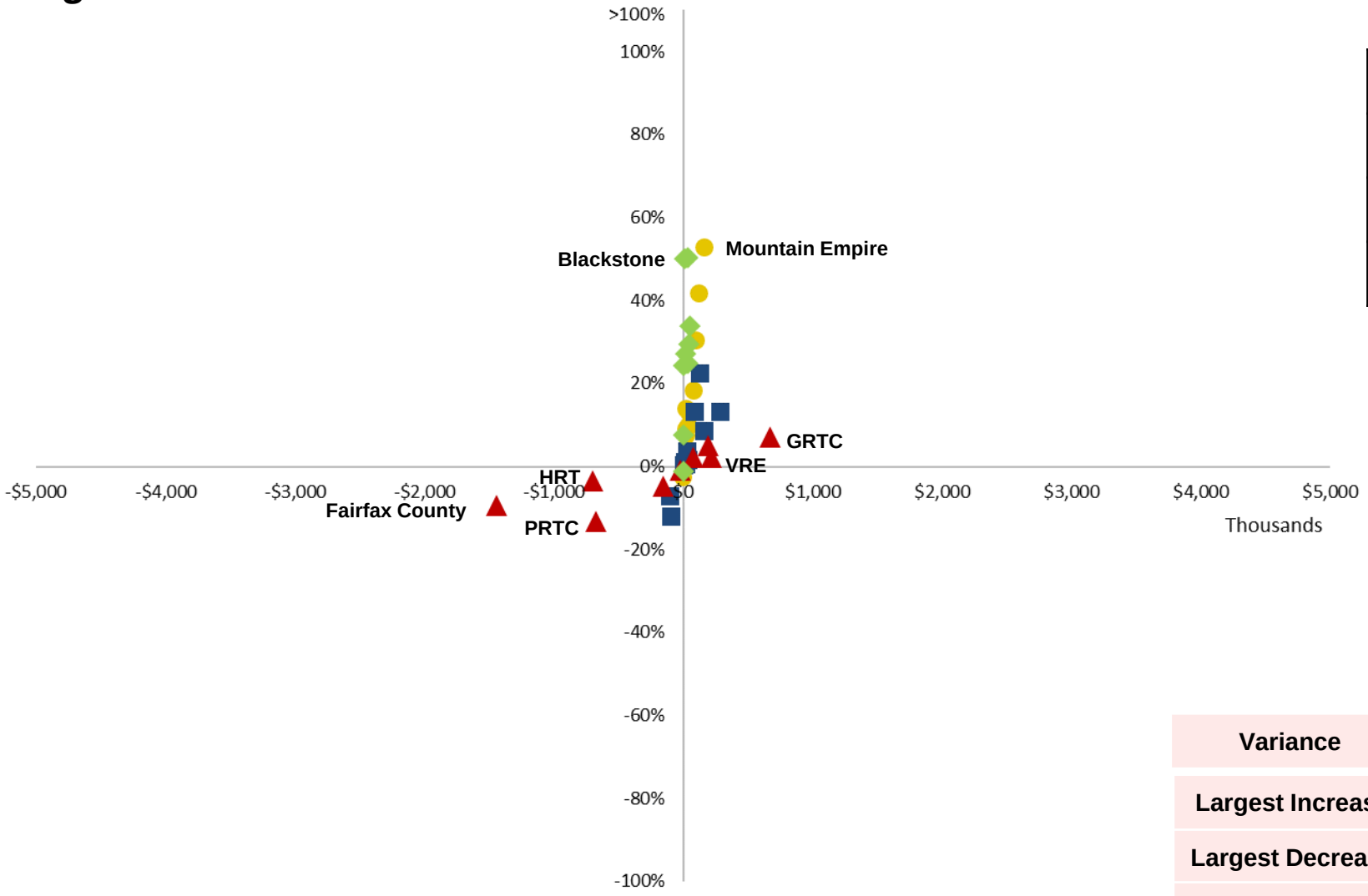
Largest quartile	
2nd quartile	
3rd quartile	
Smallest quartile	
Current Allocation	

Largest Increase	$669,357	53%
Largest Decrease	($1,443,317)	(13%)
Unallocated	$511,803	

Variation 4
20% Pax / RVH
20% Pax / RVM
20% Cost / RVH
20% Cost / RVM
20% Cost / Pax

Variation 4 - Projected Variance from Actual FY19 Operating Assistance Allocation by Agency

No Change is at Zero on the Axes



	Largest quartile
	2nd quartile
	3rd quartile
	Smallest quartile

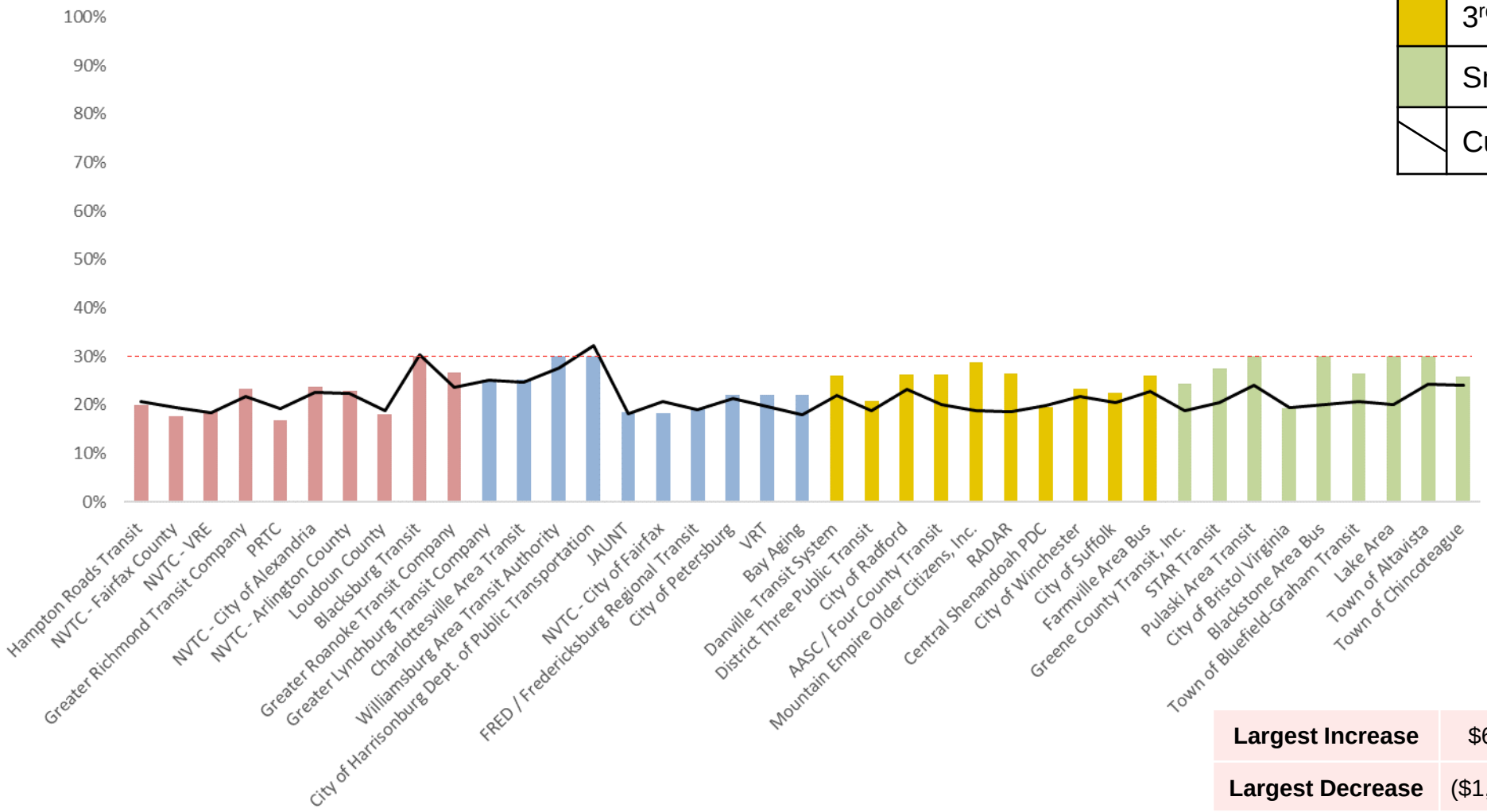
Variance	0.029	
Largest Increase	$669,357	53%
Largest Decrease	($1,443,317)	(13%)
Unallocated	$511,803	

Variation 4
20% Pax / RVH
20% Pax / RVM
20% Cost / RVH
20% Cost / RVM
20% Cost / Pax

Variation 4 - Operating Assistance as % of Operating Cost by Agency

Line is Current Allocation Method for FY19

	Largest quartile
	2nd quartile
	3rd quartile
	Smallest quartile
	Current Allocation



Largest Increase	$669,357	53%
Largest Decrease	($1,443,317)	(13%)
Unallocated	$511,803	

Allocation Scenarios – Summary Results

Scenario Name	Variance	Unallocated
C-Capped. Cost, Ridership, Revenue Hours, Revenue Miles – 50/30/10/10 % – *Capped 30%*	0.032	$763,270
Variation 1	0.031	$628,392
Variation 2	0.033	$513,941
Variation 3	0.031	$472,403
Variation 4	0.029	$511,803

Summary

- All scenarios present similar low variances (driven primarily by choice of sizing metrics)
- Variations 2, 3 and 4 present similar amounts of unallocated funds (around $500k)
- Variation 4, with 5 metrics at 20% each, presents the lowest variance
- Variation 3, which only uses cost-based performance adjustment metrics, presents the lowest amount of unallocated funds

Next Steps

— Determine preferred performance metrics approach

— Finalize overall approach

Virginia Department of Rail and Public Transportation

Principles for Transition Plan

Transit Service Delivery Advisory Committee

November 13, 2018

Policy Discussion/ Approach

- Intent:
  - To ease transition from current approach to fully performance based allocation
  - To offset changes to FY20 allocations late in the budget cycle
- Potential approach:
  - Offset ½ of the difference between FY20 and FY19
    - Unallocated balance would be insufficient to implement, would require use of operating reserve

Potential Funding for Transition Support

- Unallocated Balance
  - If capped approach is utilized
- Operating Reserve
  - $10M, FY19 SYIP

Virginia Department of Rail & Public Transportation

Operating Assistance Revised Sizing/ Performance Scenario

Presentation

December 3, 2018

Agenda

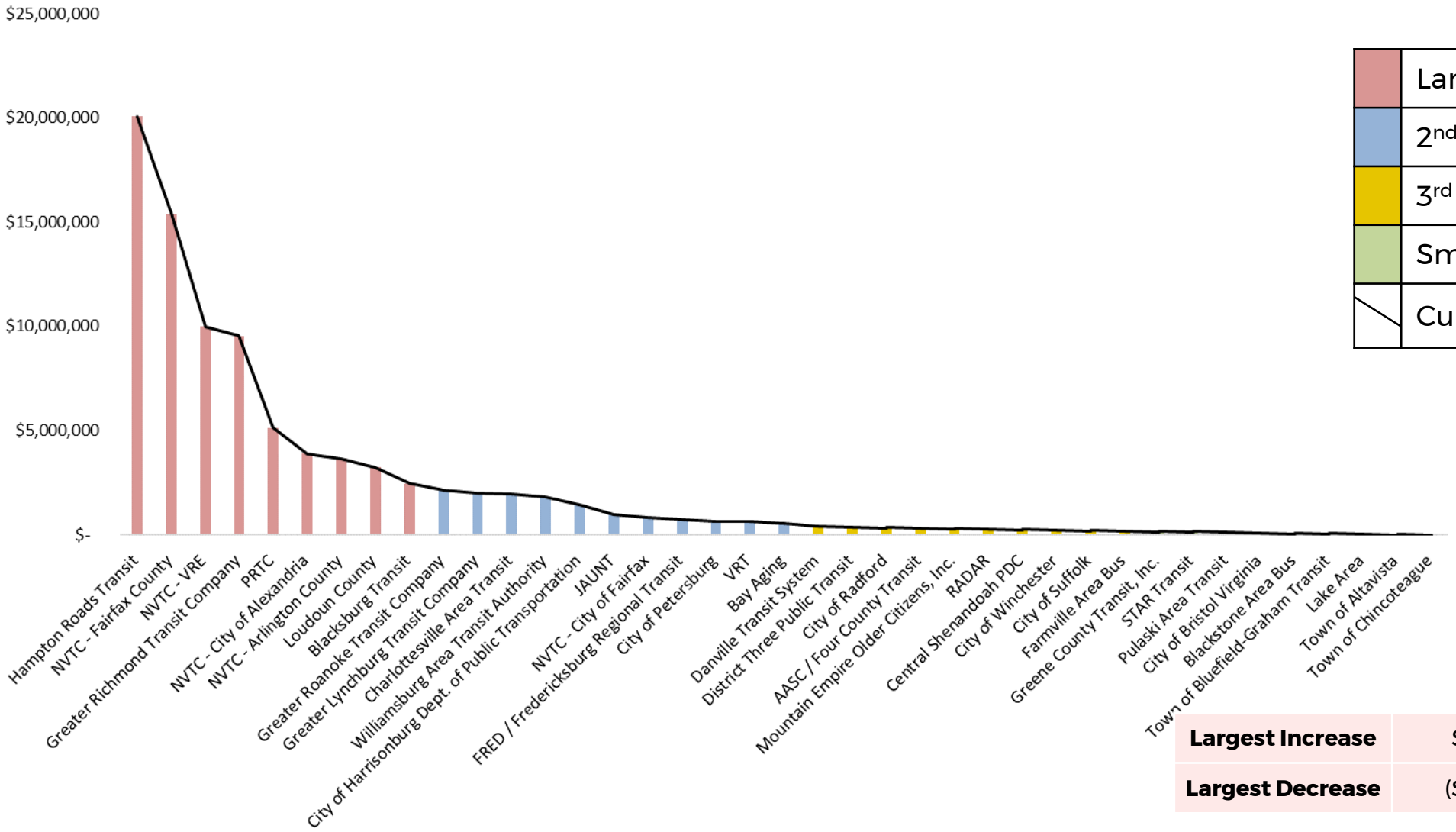
- TSDAC Discussion
- Scenarios
- Summary

TSDAC Discussion: New Scenario

- TSDAC requested new scenario at Nov. 13 meeting:
  - Analyze a Variation of the C-Capped Sizing Scenario
    - Increase Operating Cost weight from 50% to 60%
    - Reduce Ridership weight from 30% to 20%
    - Keep Revenue Vehicle Hour and Revenue Vehicle Mile at 10% each
    - Include commuter rail pool and cap assistance at 30% of operating cost
  - Couple with Variation #4 Performance Metrics Scenario
    - 5 performance metrics weighted 20% each
      - 20% Passenger Trips / Revenue Vehicle Hour (RVH)
      - 20% Passenger Trips / Revenue Vehicle Mile (RVM)
      - 20% Cost / Revenue Vehicle Hour
      - 20% Cost / Revenue Vehicle Mile
      - 20% Cost / Passenger Trip (Pax)

FY19 Actual Allocations
(Traditional and Performance)

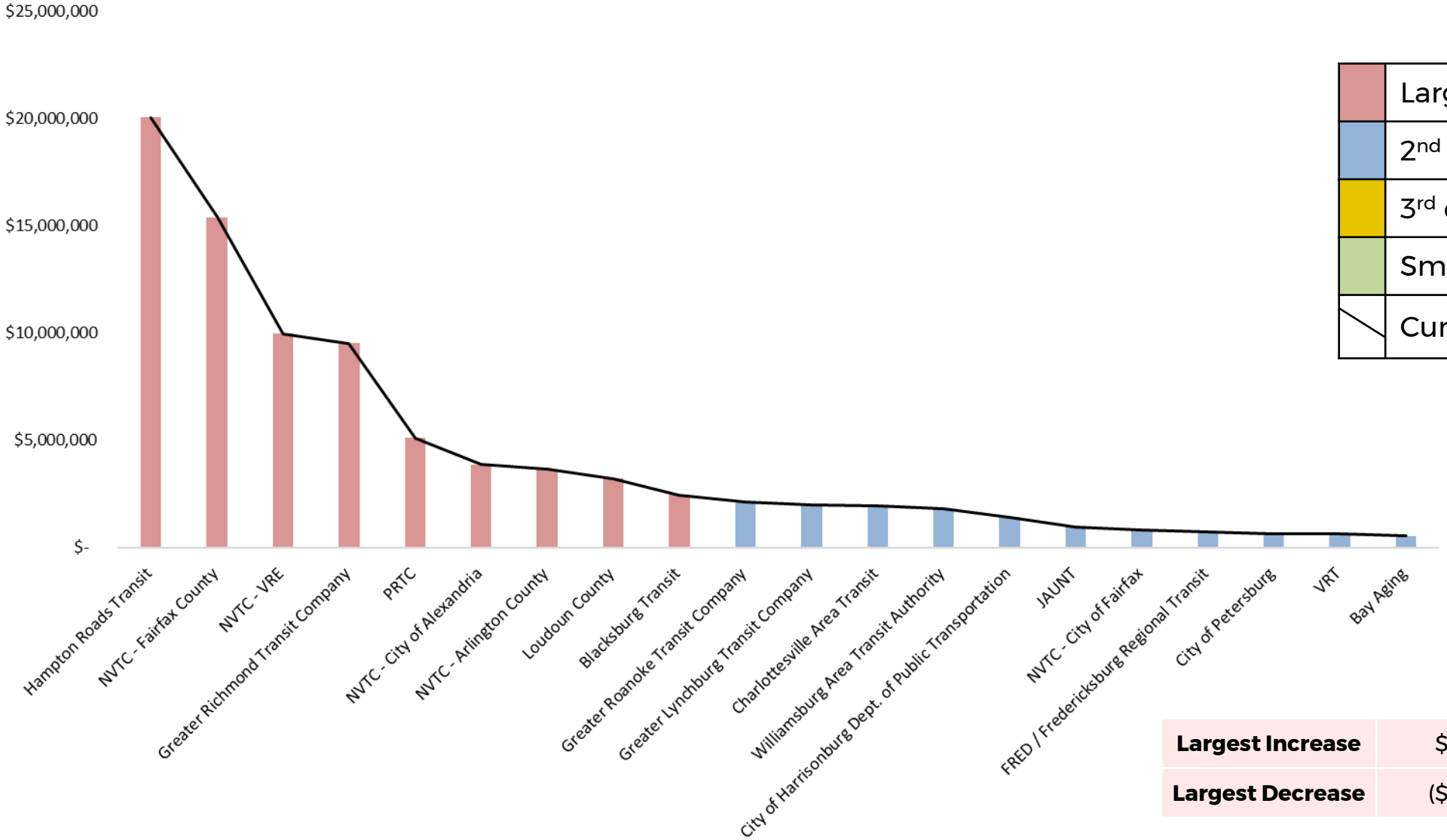
FY19 Actual Allocation of Operating Assistance to Virginia Transit Agencies



Largest quartile	
2nd quartile	
3rd quartile	
Smallest quartile	
Current Allocation	

Largest Increase	$0	0%
Largest Decrease	($0)	(0%)

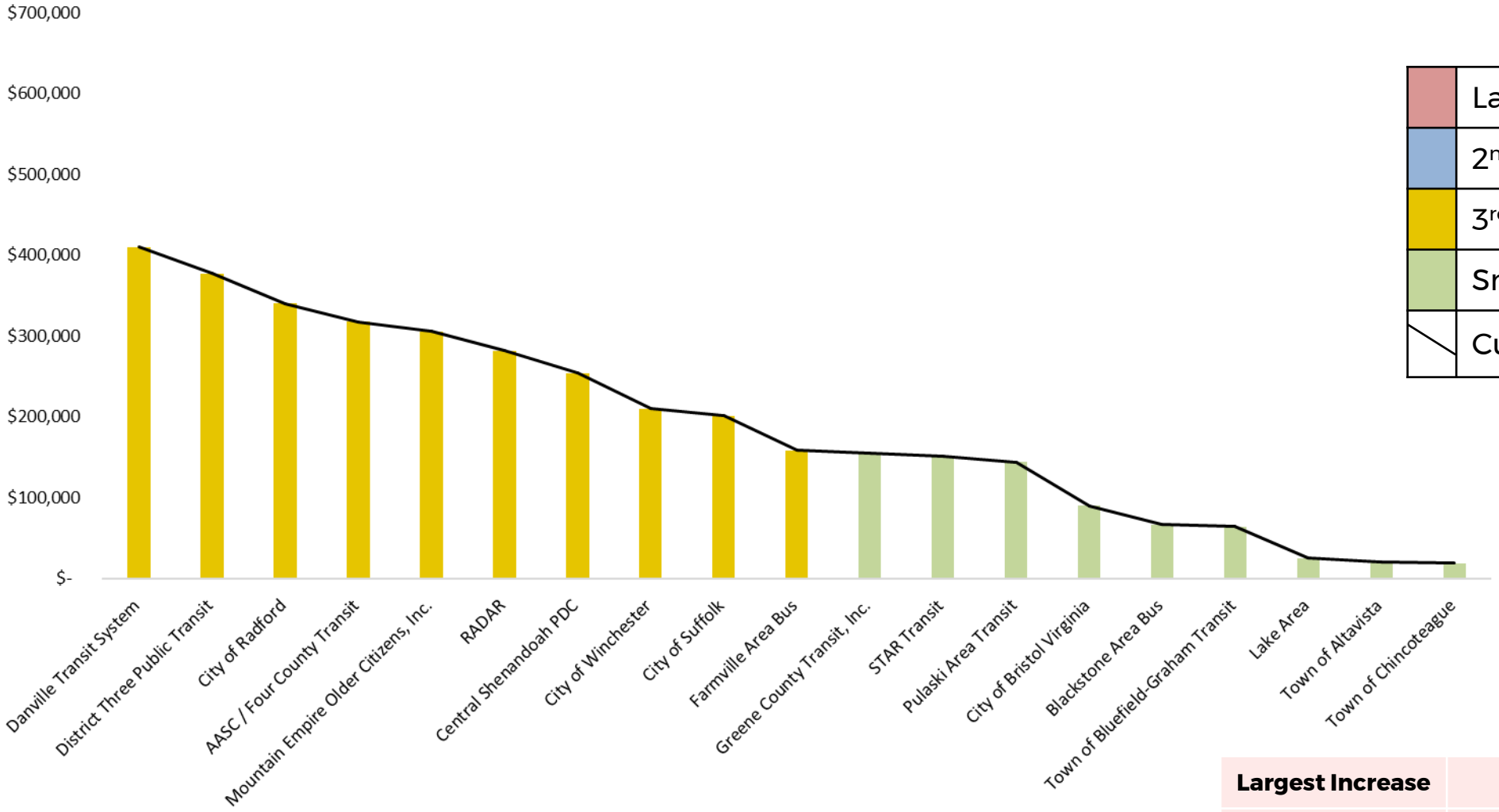
FY19 Actual Allocation of Operating Assistance: 1st and 2nd Quartile Agencies



Largest quartile	
2nd quartile	
3rd quartile	
Smallest quartile	
Current Allocation	

Largest Increase	$0	0%
Largest Decrease	($0)	(0%)

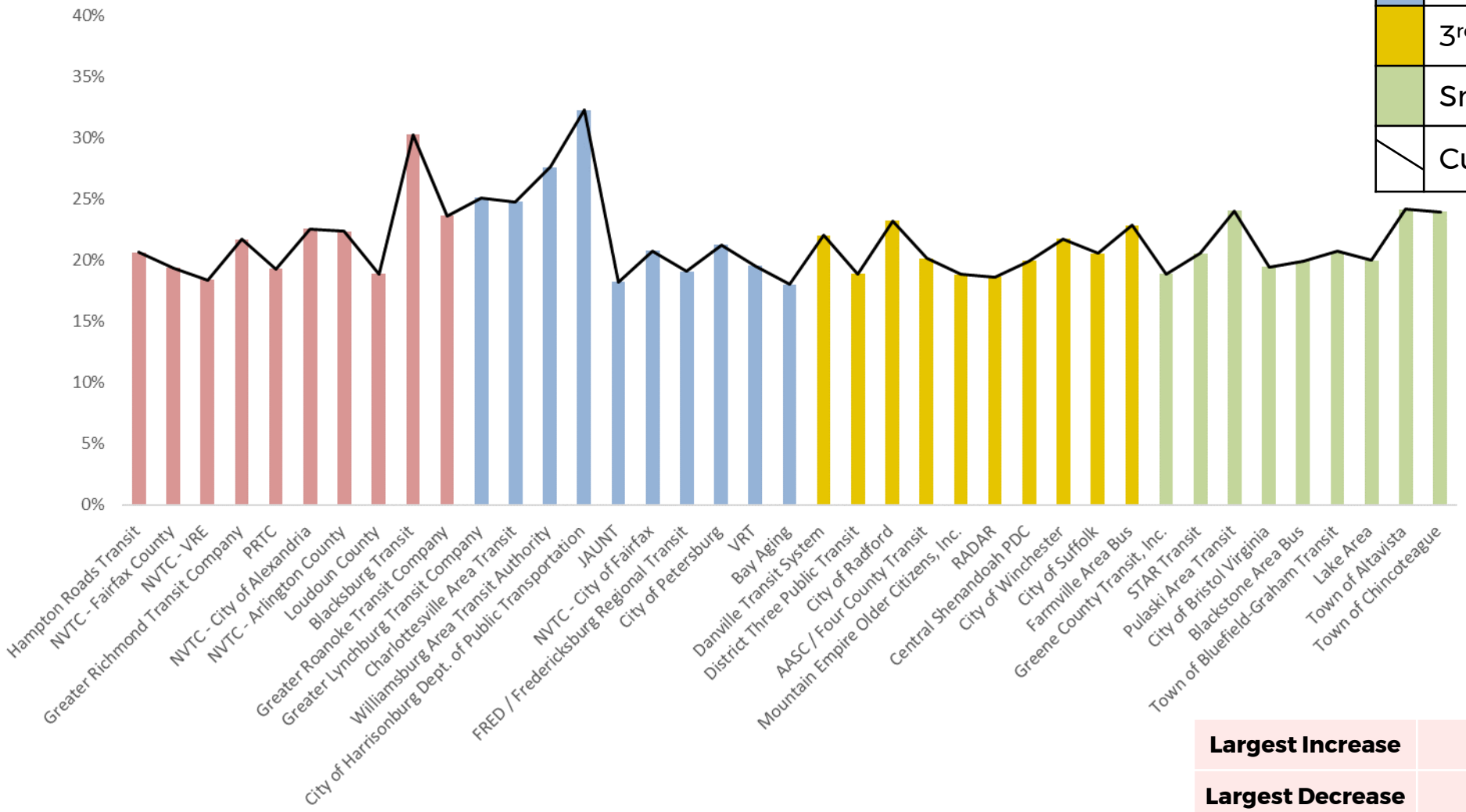
FY19 Actual Allocation of Operating Assistance: 3rd and 4th Quartile Agencies



Largest quartile	
2nd quartile	
3rd quartile	
Smallest quartile	
Current Allocation	

Largest Increase	$0	0%
Largest Decrease	($0)	(0%)

FY19 Actual Allocation of Operating Assistance as Percentage of Operating Cost by Transit Agency

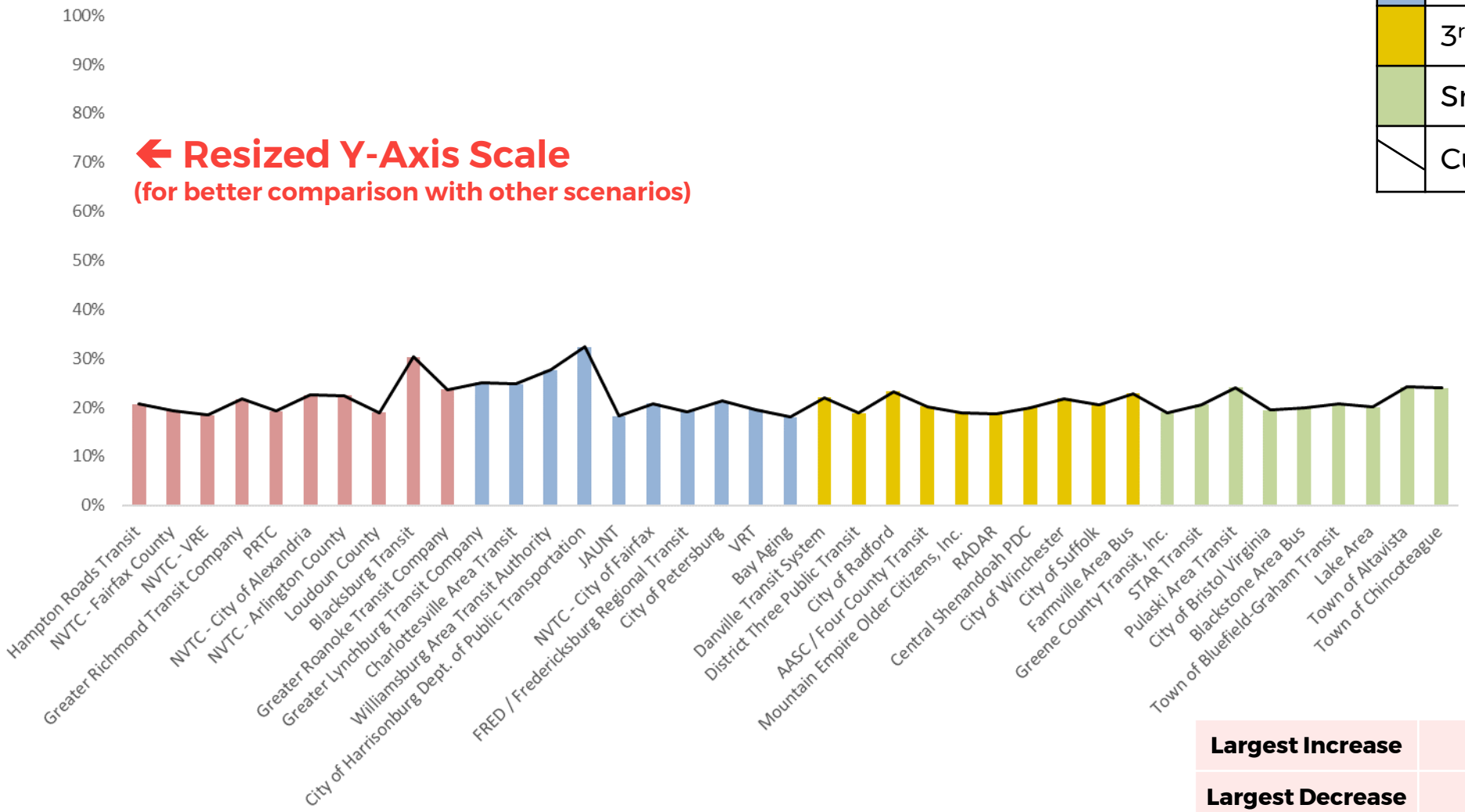


Largest quartile	
2nd quartile	
3rd quartile	
Smallest quartile	
Current Allocation	

Largest Increase	$0	0%
Largest Decrease	($0)	(0%)

FY19 Actual Allocation of Operating Assistance as Percentage of Operating Cost by Transit Agency

	Largest quartile
	2nd quartile
	3rd quartile
	Smallest quartile
	Current Allocation



Largest Increase	$0	0%
Largest Decrease	($0)	(0%)

Scenarios

Allocation Scenarios

Sizing Factors

Scenarios	Op Cost	Net Cost	Rider-ship	PMT	Rev Hour	Rev Miles
C-Capped	50%		30%		10%	10%
Variation 4	50%		30%		10%	10%
New Scenario	**60%**		**20%**		**10%**	**10%**

Performance Metrics

Scenarios	Pax / RVH	Pax / RVM	Net Cost / Pax	Cost / RVH	Cost / RVM	Cost / Pax
C-Capped	25%	25%	50%			
Variation 4	20%	20%		20%	20%	20%
New Scenario	**20%**	**20%**		**20%**	**20%**	**20%**

C-Capped Scenario

Sizing Factors:
50% Operating Cost
30% Ridership
10% Revenue Hours
10% Revenue Miles

Performance Metrics:
25% Pax / RVH
25% Pax / RVM
50% Net Cost / Pax

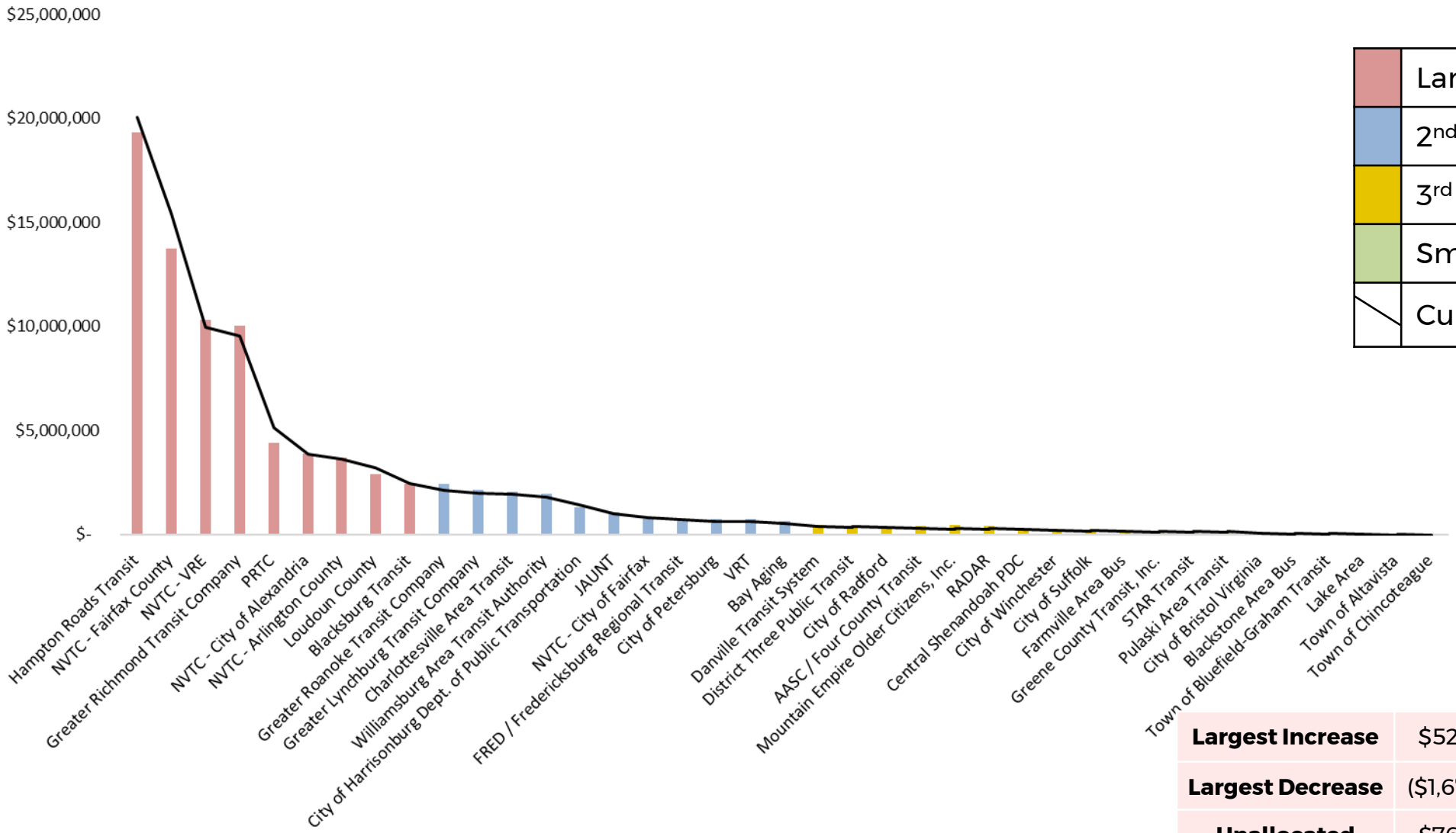
Commuter Rail Pool & Capped 30%

Sizing:
50% Op Cost
30% Ridership
10% RVH
10% RVM

Performance:
25% Pax / RVH
25% Pax / RVM
50% Net Cost / Pax

Scenario C-Capped Projected Operating Assistance Allocations by Agency

Line is Current Allocation Method for FY19



Largest quartile	
2nd quartile	
3rd quartile	
Smallest quartile	
Current Allocation	

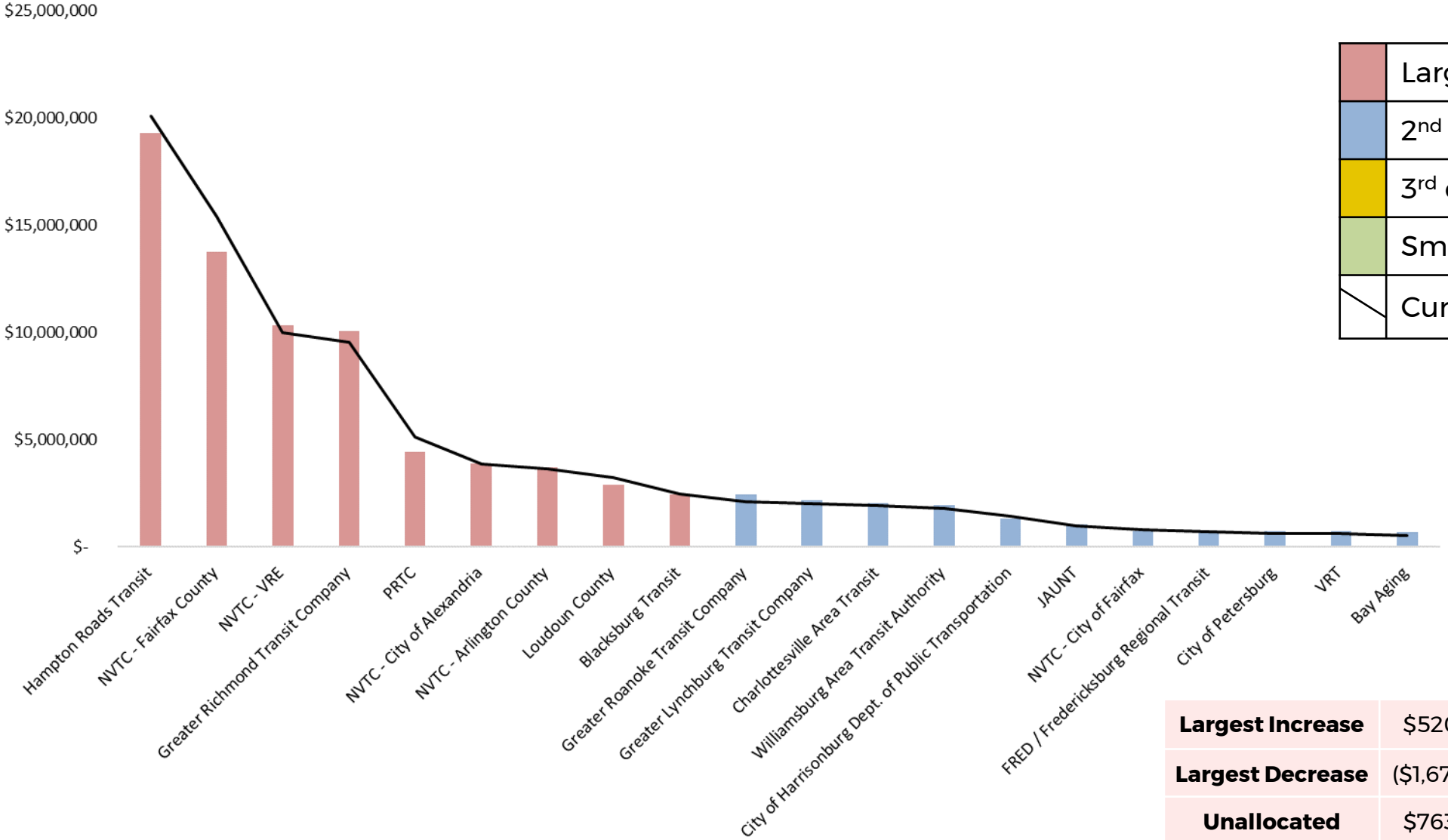
Largest Increase	$520,752	59%
Largest Decrease	($1,671,865)	(14%)
Unallocated	$763,270	

Sizing:
50% Op Cost
30% Ridership
10% RVH
10% RVM

Performance:
25% Pax / RVH
25% Pax / RVM
50% Net Cost / Pax

Scenario C-Capped Projected Operating Assistance Allocations: 1st and 2nd Quartile Agencies

Line is Current Allocation Method for FY19



Largest quartile	
2nd quartile	
3rd quartile	
Smallest quartile	
Current Allocation	

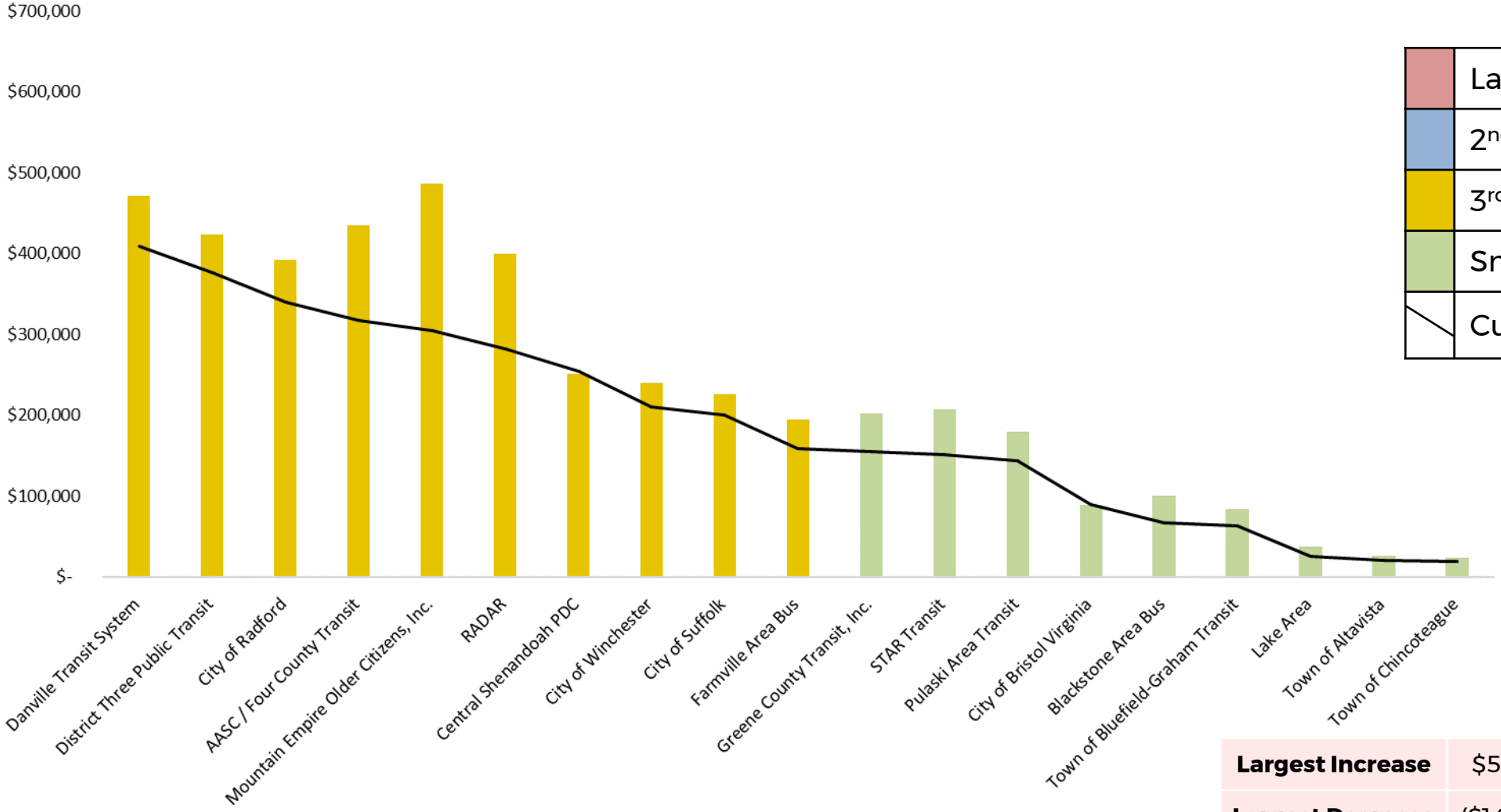
Largest Increase	$520,752	59%
Largest Decrease	($1,671,865)	(14%)
Unallocated	$763,270	

Sizing:
50% Op Cost
30% Ridership
10% RVH
10% RVM

Performance:
25% Pax / RVH
25% Pax / RVM
50% Net Cost / Pax

Scenario C-Capped Projected Operating Assistance Allocations: 3rd and 4th Quartile Agencies

Line is Current Allocation Method for FY19



Largest quartile	
2nd quartile	
3rd quartile	
Smallest quartile	
Current Allocation	

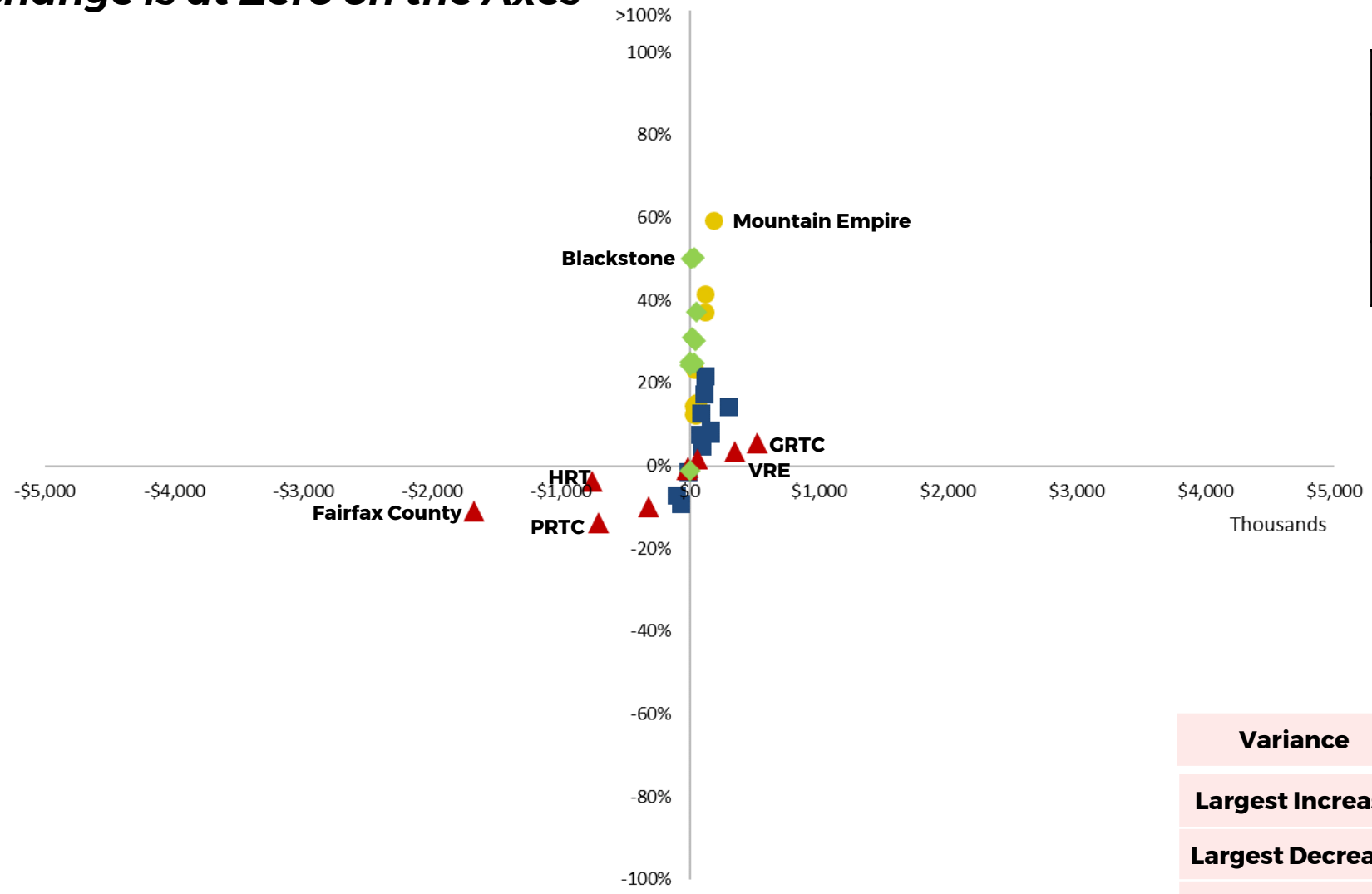
Largest Increase	$520,752	59%
Largest Decrease	($1,671,865)	(14%)
Unallocated	$763,270	

Sizing:
50% Op Cost
30% Ridership
10% RVH
10% RVM

Performance:
25% Pax / RVH
25% Pax / RVM
50% Net Cost / Pax

Scenario C-Capped Projected Variance from Actual FY19 Operating Assistance Allocation by Agency

No Change is at Zero on the Axes



Largest quartile	
2nd quartile	
3rd quartile	
Smallest quartile	

Variance	0.032	
Largest Increase	$520,752	59%
Largest Decrease	($1,671,865)	(14%)
Unallocated	$763,270	

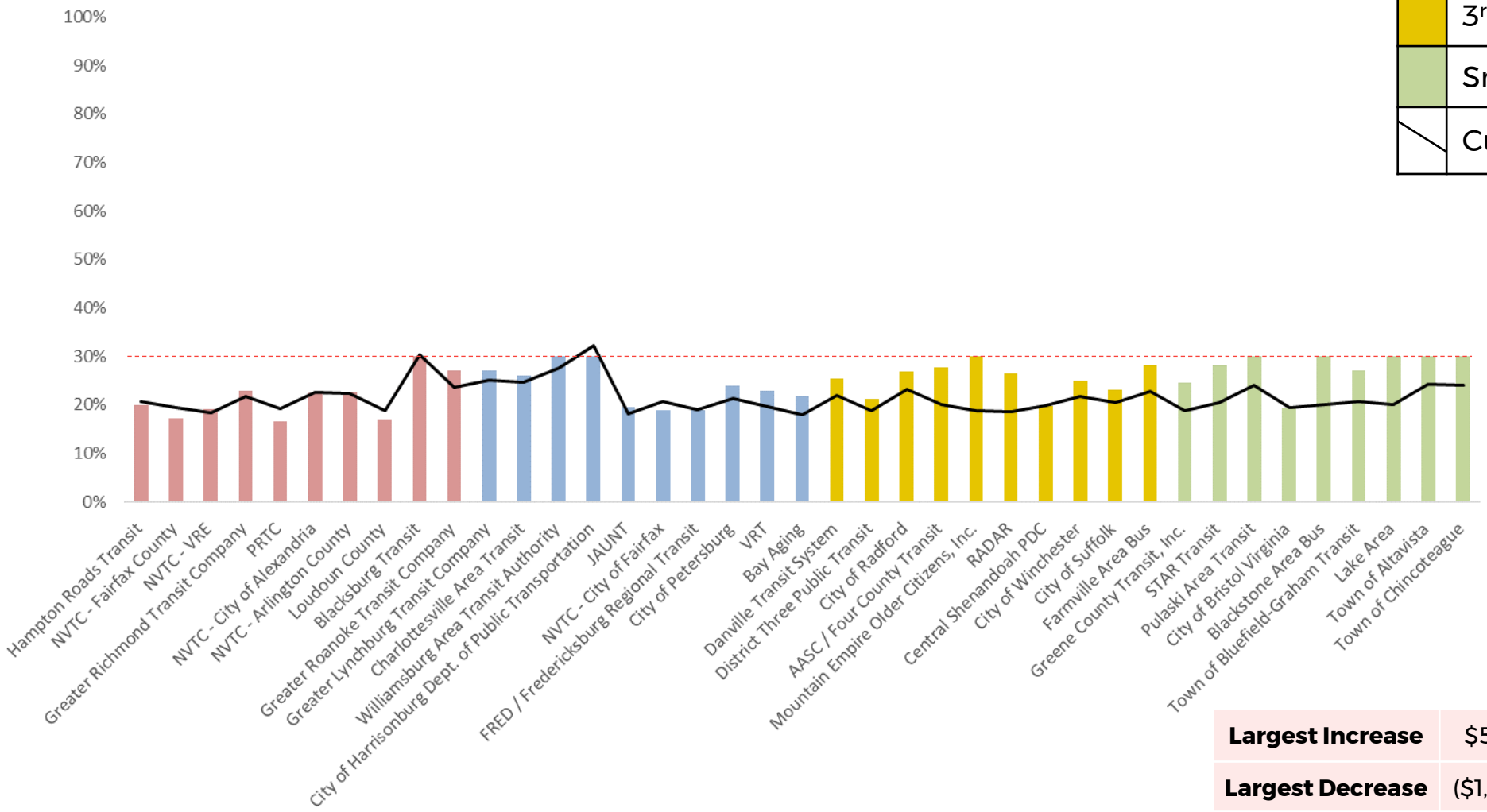
Sizing:
50% Op Cost
30% Ridership
10% RVH
10% RVM

Performance:
25% Pax / RVH
25% Pax / RVM
50% Net Cost / Pax

Scenario C-Capped Operating Assistance as % of Operating Cost by Agency

Line is Current Allocation Method for FY19

	Largest quartile
	2nd quartile
	3rd quartile
	Smallest quartile
	Current Allocation



Largest Increase	$520,752	59%
Largest Decrease	($1,671,865)	(14%)
Unallocated	$763,270	

Variation 4 Scenario

Sizing Factors:
50% Operating Cost
30% Ridership
10% Revenue Hours
10% Revenue Miles

Performance Metrics:
20% Pax / RVH
20% Pax / RVM
20% Op Cost / RVH
20% Op Cost / RVM
20% Op Cost / Pax

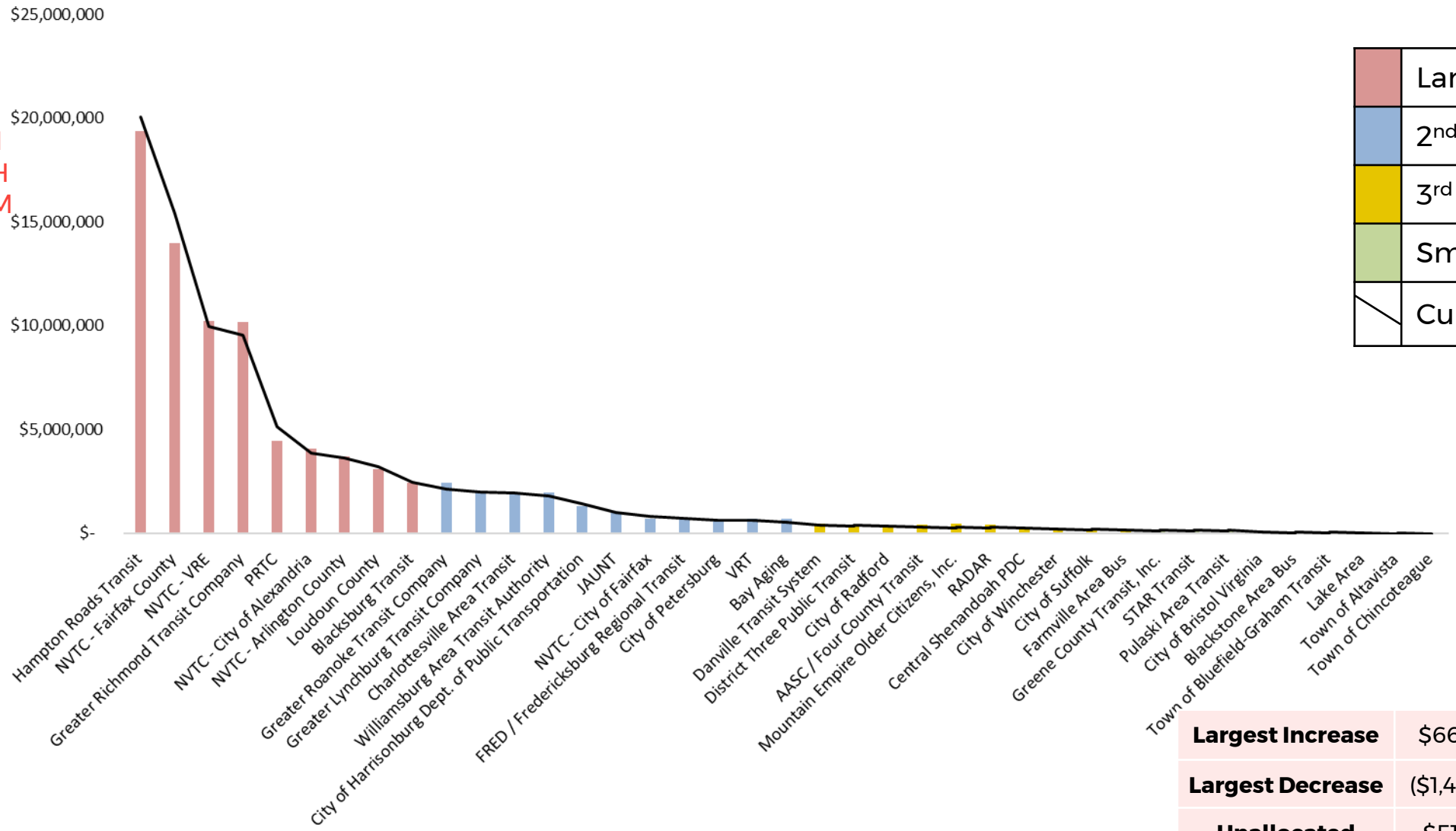
Commuter Rail Pool & Capped 30%

Sizing:
50% Op Cost
30% Ridership
10% RVH
10% RVM

Performance:
20% Pax / RVH
20% Pax / RVM
20% Cost / RVH
20% Cost / RVM
20% Cost / Pax

Variation 4 - Projected Operating Assistance Allocations by Agency

Line is Current Allocation Method for FY19



Largest quartile	
2nd quartile	
3rd quartile	
Smallest quartile	
Current Allocation	

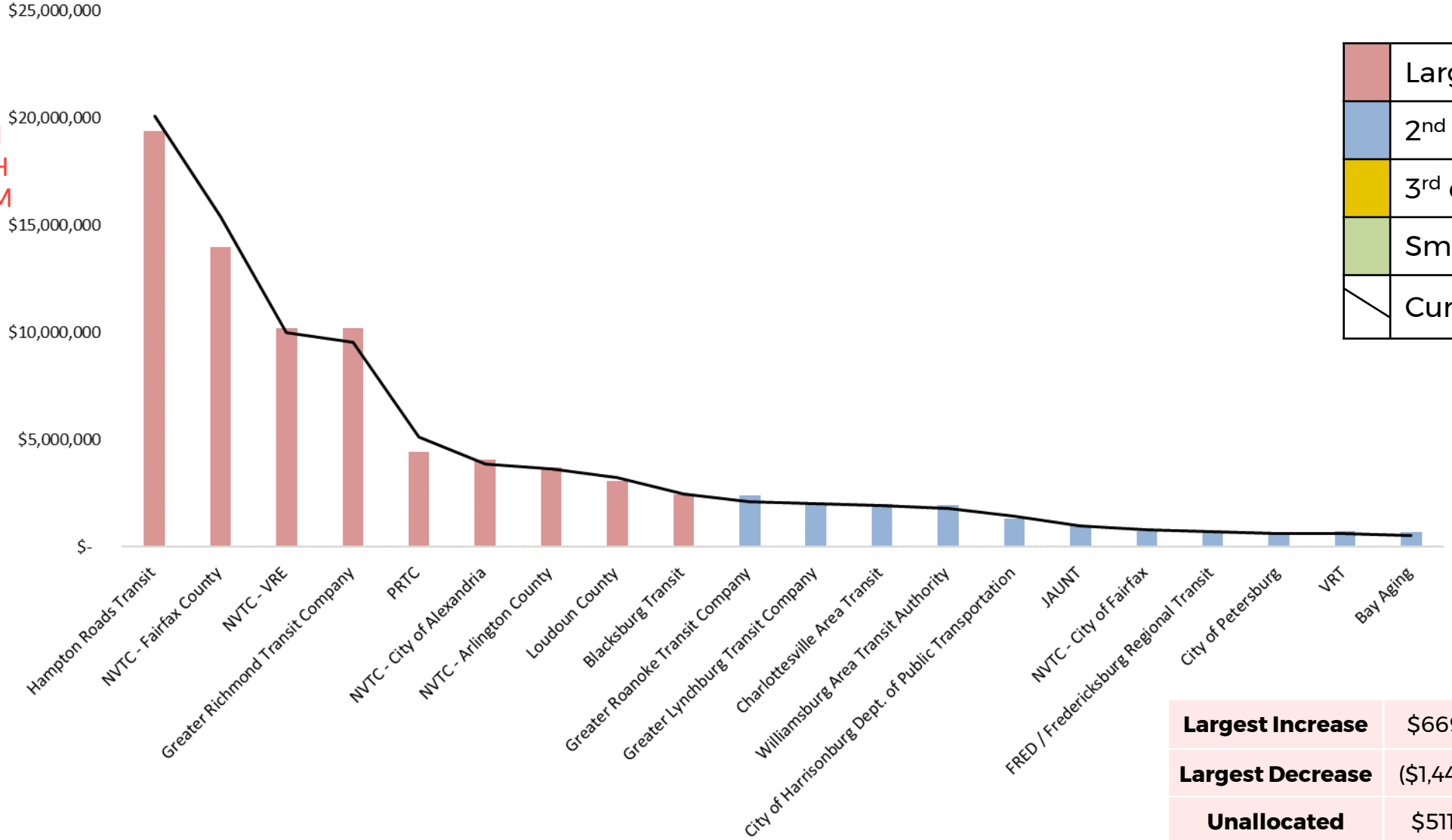
Largest Increase	$669,357	53%
Largest Decrease	($1,443,317)	(13%)
Unallocated	$511,803	

Sizing:
50% Op Cost
30% Ridership
10% RVH
10% RVM

Performance:
20% Pax / RVH
20% Pax / RVM
20% Cost / RVH
20% Cost / RVM
20% Cost / Pax

Variation 4 - Projected Operating Assistance Allocations: 1st and 2nd Quartile Agencies

Line is Current Allocation Method for FY19



Largest quartile	
2nd quartile	
3rd quartile	
Smallest quartile	
Current Allocation	

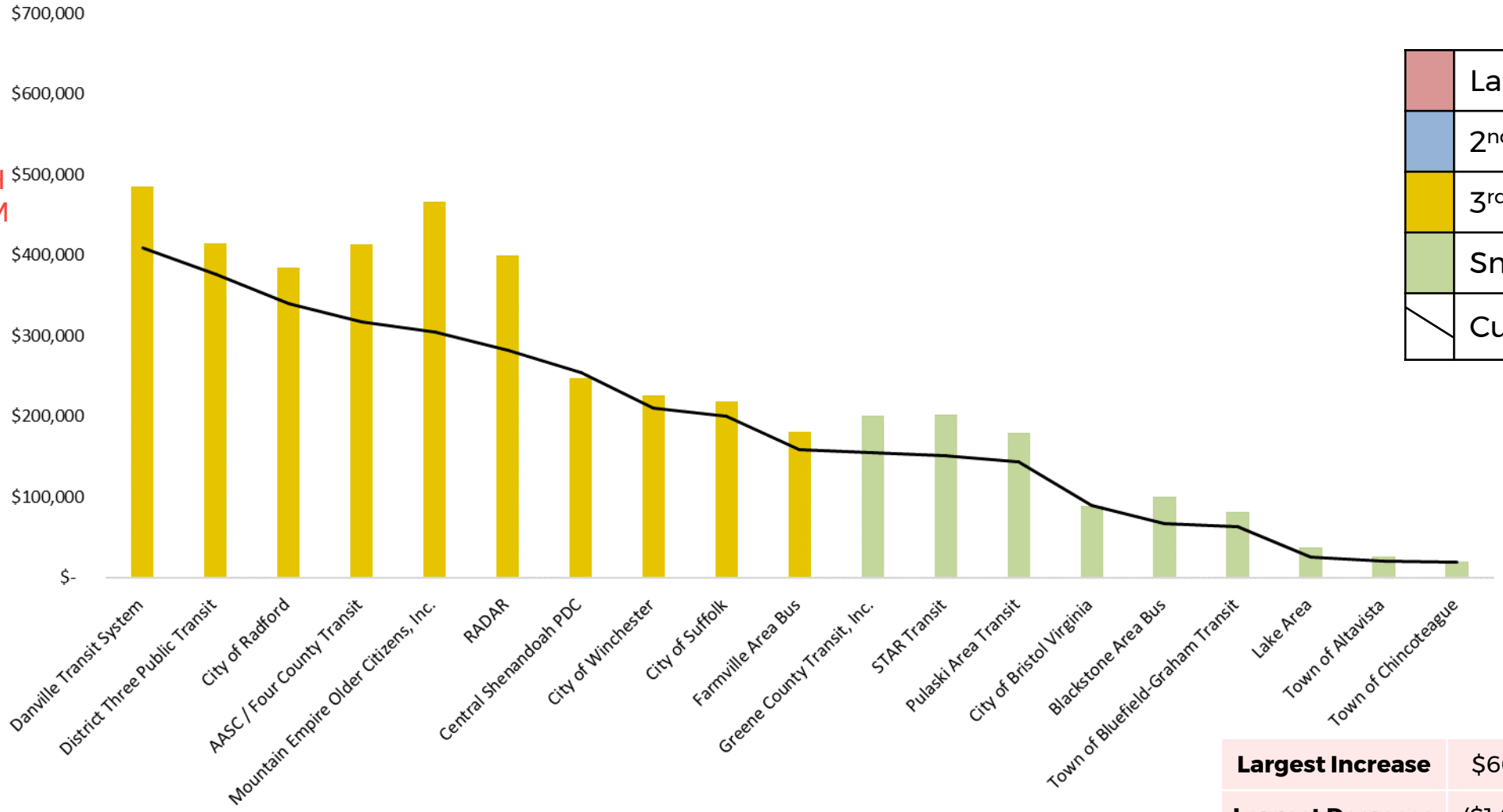
Largest Increase	$669,357	53%
Largest Decrease	($1,443,317)	(13%)
Unallocated	$511,803	

Sizing:
50% Op Cost
30% Ridership
10% RVH
10% RVM

Performance:
20% Pax / RVH
20% Pax / RVM
20% Cost / RVH
20% Cost / RVM
20% Cost / Pax

Variation 4 - Projected Operating Assistance Allocations: 3rd and 4th Quartile Agencies

Line is Current Allocation Method for FY19



Largest quartile	
2nd quartile	
3rd quartile	
Smallest quartile	
Current Allocation	

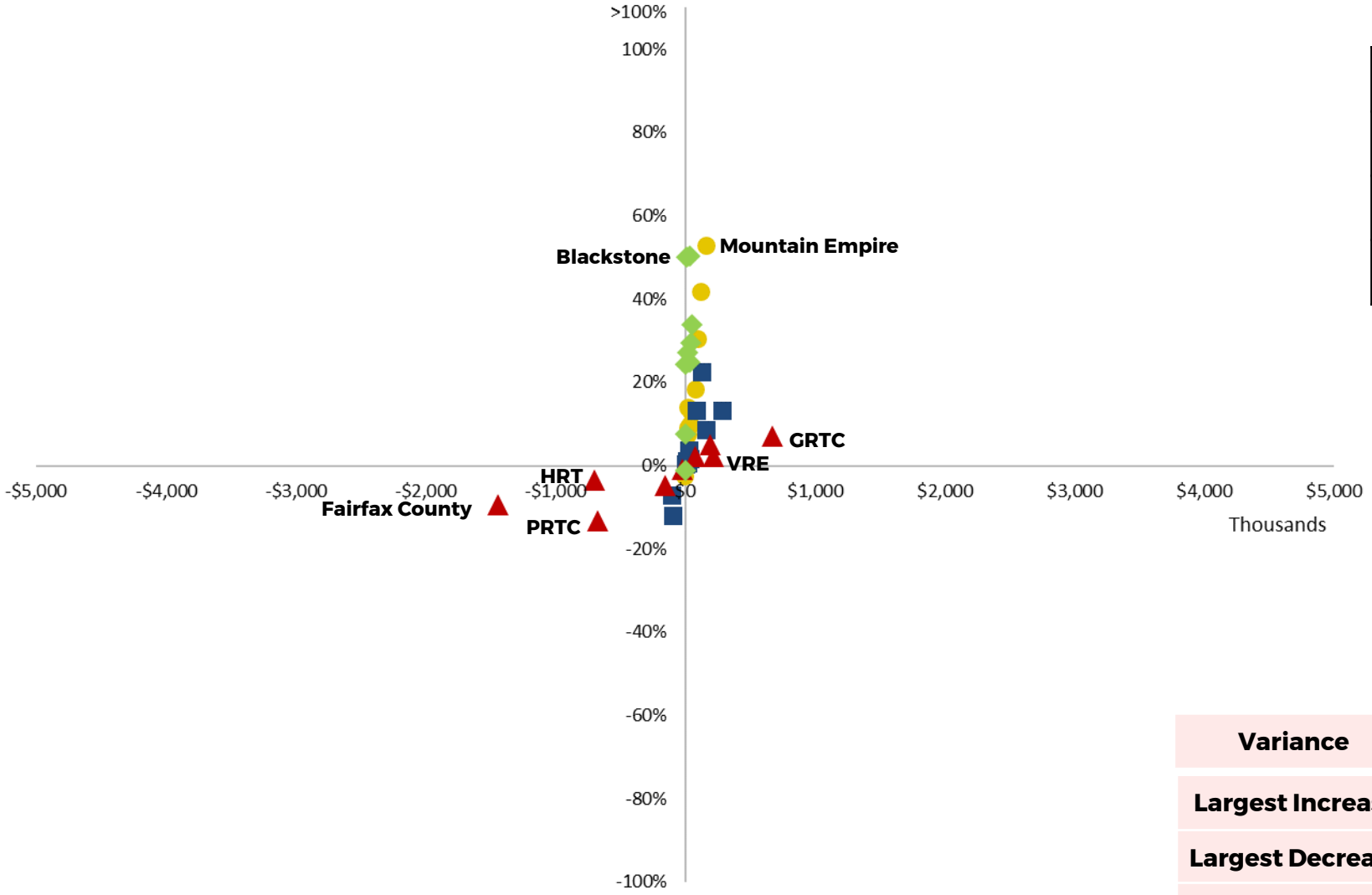
Largest Increase	$669,357	53%
Largest Decrease	($1,443,317)	(13%)
Unallocated	$511,803	

Sizing:
50% Op Cost
30% Ridership
10% RVH
10% RVM

Performance:
20% Pax / RVH
20% Pax / RVM
20% Cost / RVH
20% Cost / RVM
20% Cost / Pax

Variation 4 - Projected Variance from Actual FY19 Operating Assistance Allocation by Agency

No Change is at Zero on the Axes



Largest quartile	
2nd quartile	
3rd quartile	
Smallest quartile	

Variance	0.029	
Largest Increase	$669,357	53%
Largest Decrease	($1,443,317)	(13%)
Unallocated	$511,803	

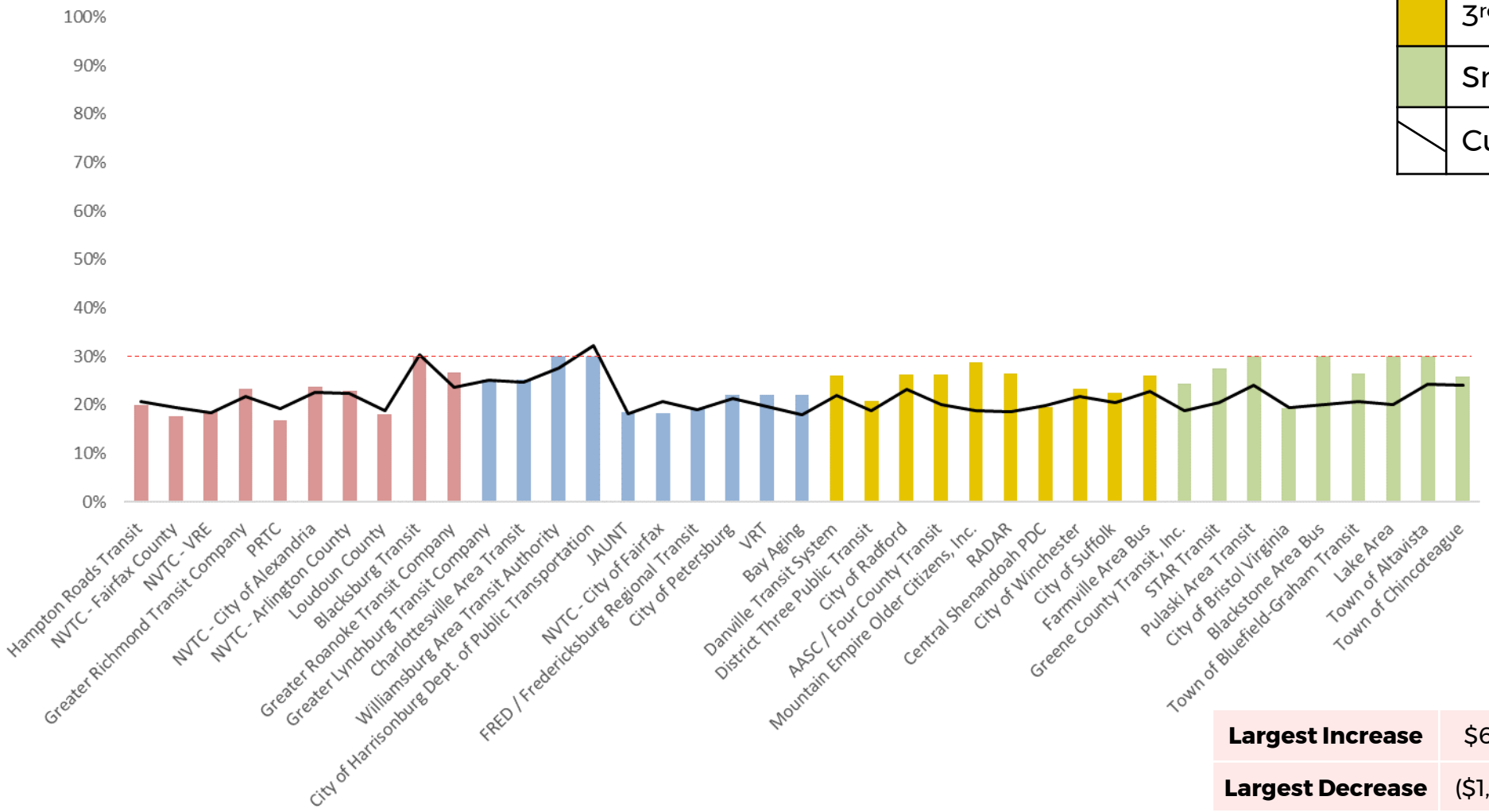
Sizing:
50% Op Cost
30% Ridership
10% RVH
10% RVM

Performance:
20% Pax / RVH
20% Pax / RVM
20% Cost / RVH
20% Cost / RVM
20% Cost / Pax

Variation 4 - Operating Assistance as % of Operating Cost by Agency

Line is Current Allocation Method for FY19

	Largest quartile
	2nd quartile
	3rd quartile
	Smallest quartile
	Current Allocation



Largest Increase	$669,357	53%
Largest Decrease	($1,443,317)	(13%)
Unallocated	$511,803	

New Scenario

Sizing Factors:
60% Operating Cost
20% Ridership
10% Revenue Hours
10% Revenue Miles

Performance Metrics:
20% Pax / RVH
20% Pax / RVM
20% Op Cost / RVH
20% Op Cost / RVM
20% Op Cost / Pax

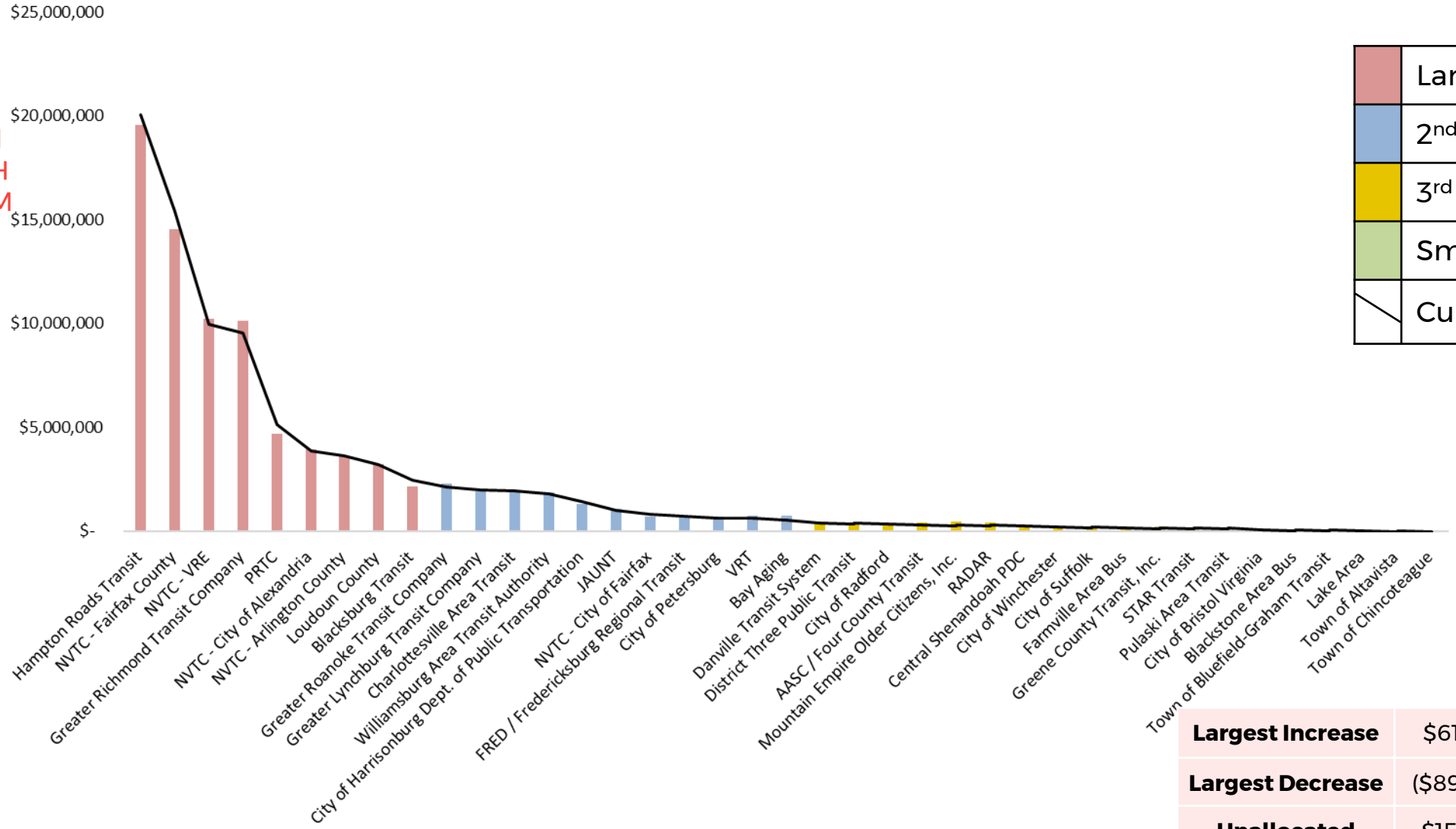
Commuter Rail Pool & Capped 30%

Sizing:
60% Op Cost
20% Ridership
10% RVH
10% RVM

Performance:
20% Pax / RVH
20% Pax / RVM
20% Cost / RVH
20% Cost / RVM
20% Cost / Pax

New Scenario Projected Operating Assistance Allocations by Agency

Line is Current Allocation Method for FY19



Largest quartile	
2nd quartile	
3rd quartile	
Smallest quartile	
Current Allocation	

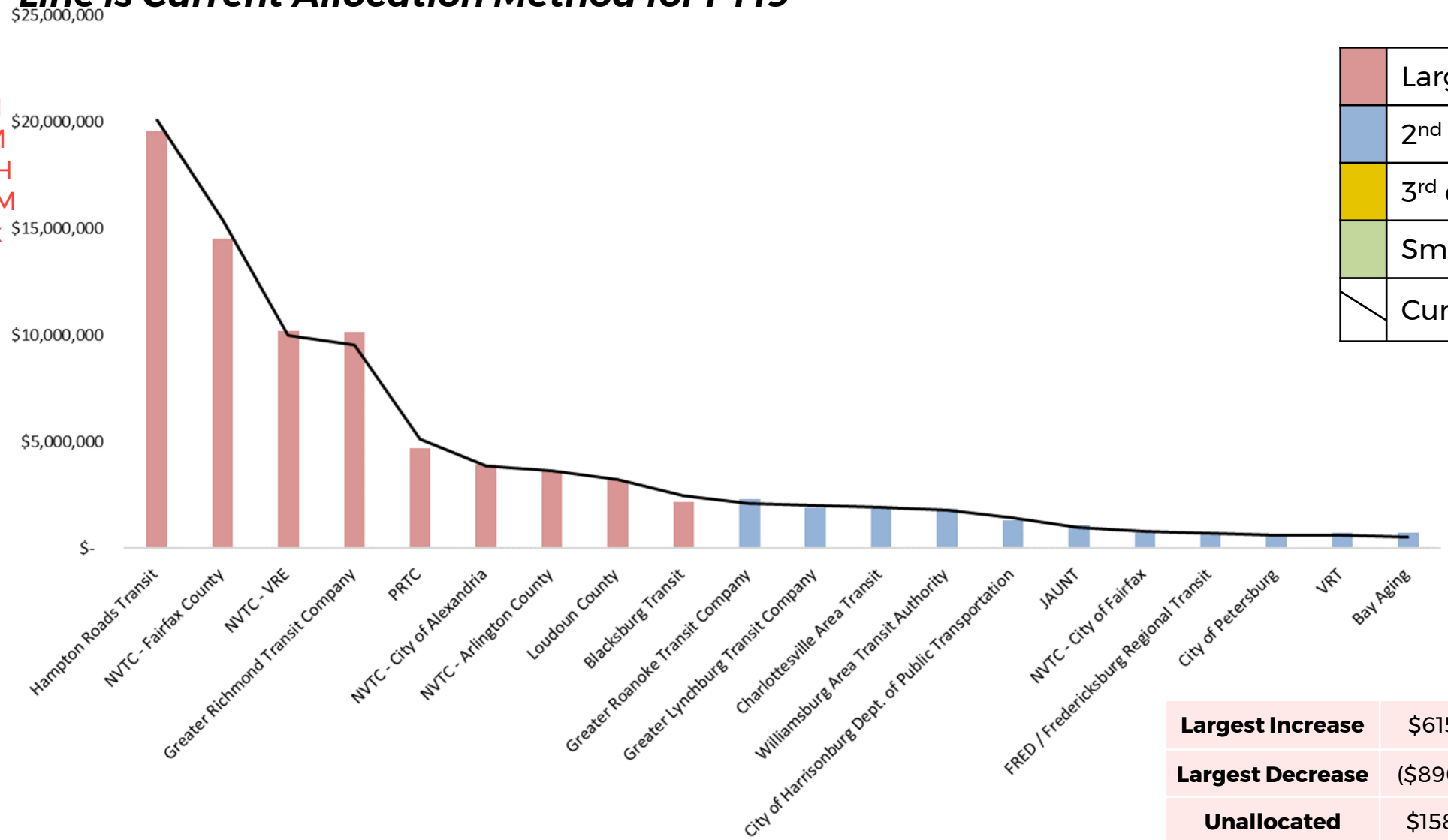
Largest Increase	$615,591	59%
Largest Decrease	($890,210)	(12%)
Unallocated	$158,293	

Sizing:
60% Op Cost
20% Ridership
10% RVH
10% RVM

New Scenario Projected Operating Assistance Allocations: 1st and 2nd Quartile Agencies

Line is Current Allocation Method for FY19

Performance:
20% Pax / RVH
20% Pax / RVM
20% Cost / RVH
20% Cost / RVM
20% Cost / Pax



Largest quartile	
2nd quartile	
3rd quartile	
Smallest quartile	
Current Allocation	

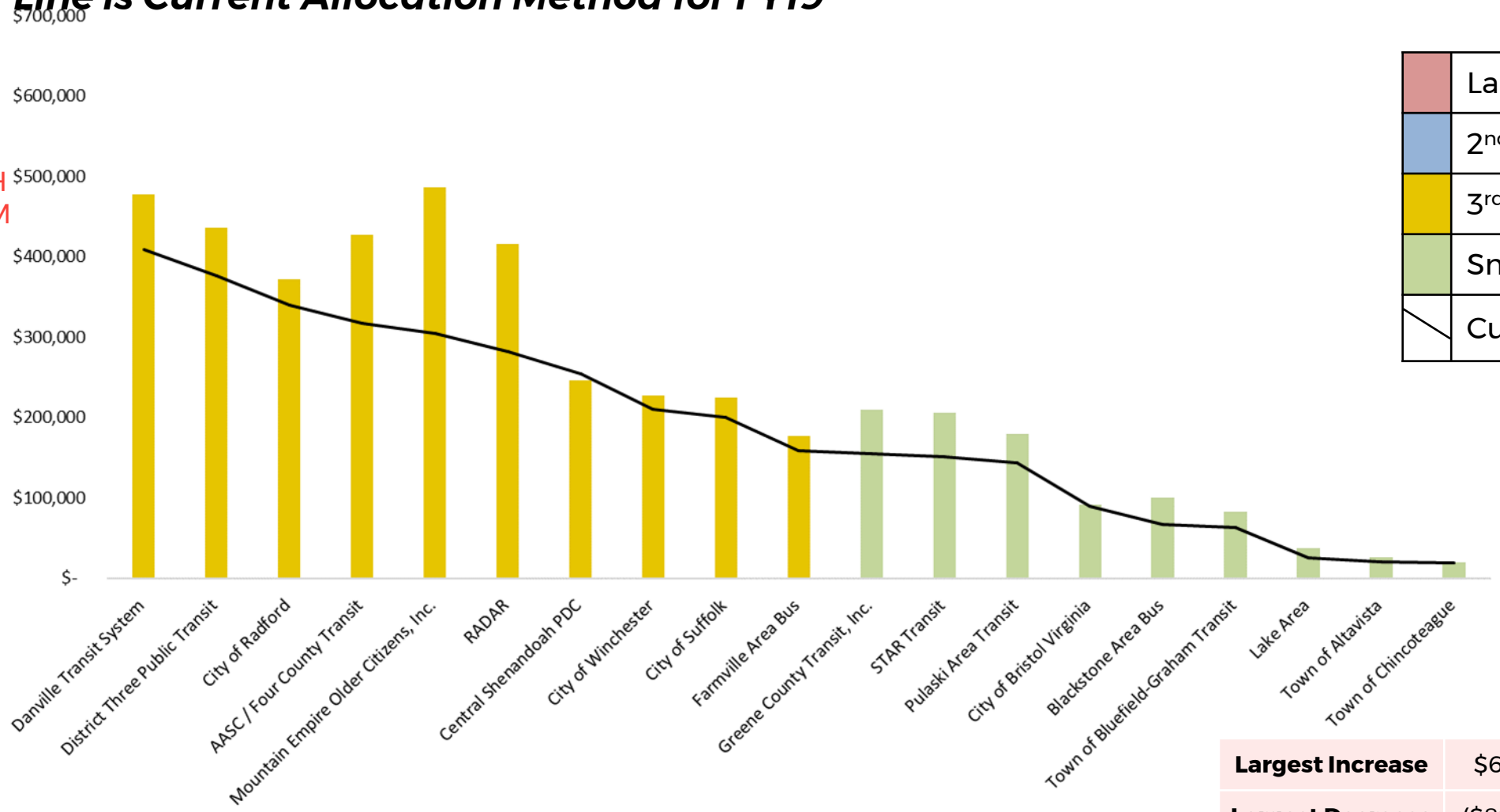
Largest Increase	$615,591	59%
Largest Decrease	($890,210)	(12%)
Unallocated	$158,293	

Sizing:
60% Op Cost
20% Ridership
10% RVH
10% RVM

Performance:
20% Pax / RVH
20% Pax / RVM
20% Cost / RVH
20% Cost / RVM
20% Cost / Pax

New Scenario Projected Operating Assistance Allocations: 3rd and 4th Quartile Agencies

Line is Current Allocation Method for FY19



Largest quartile	
2nd quartile	
3rd quartile	
Smallest quartile	
Current Allocation	

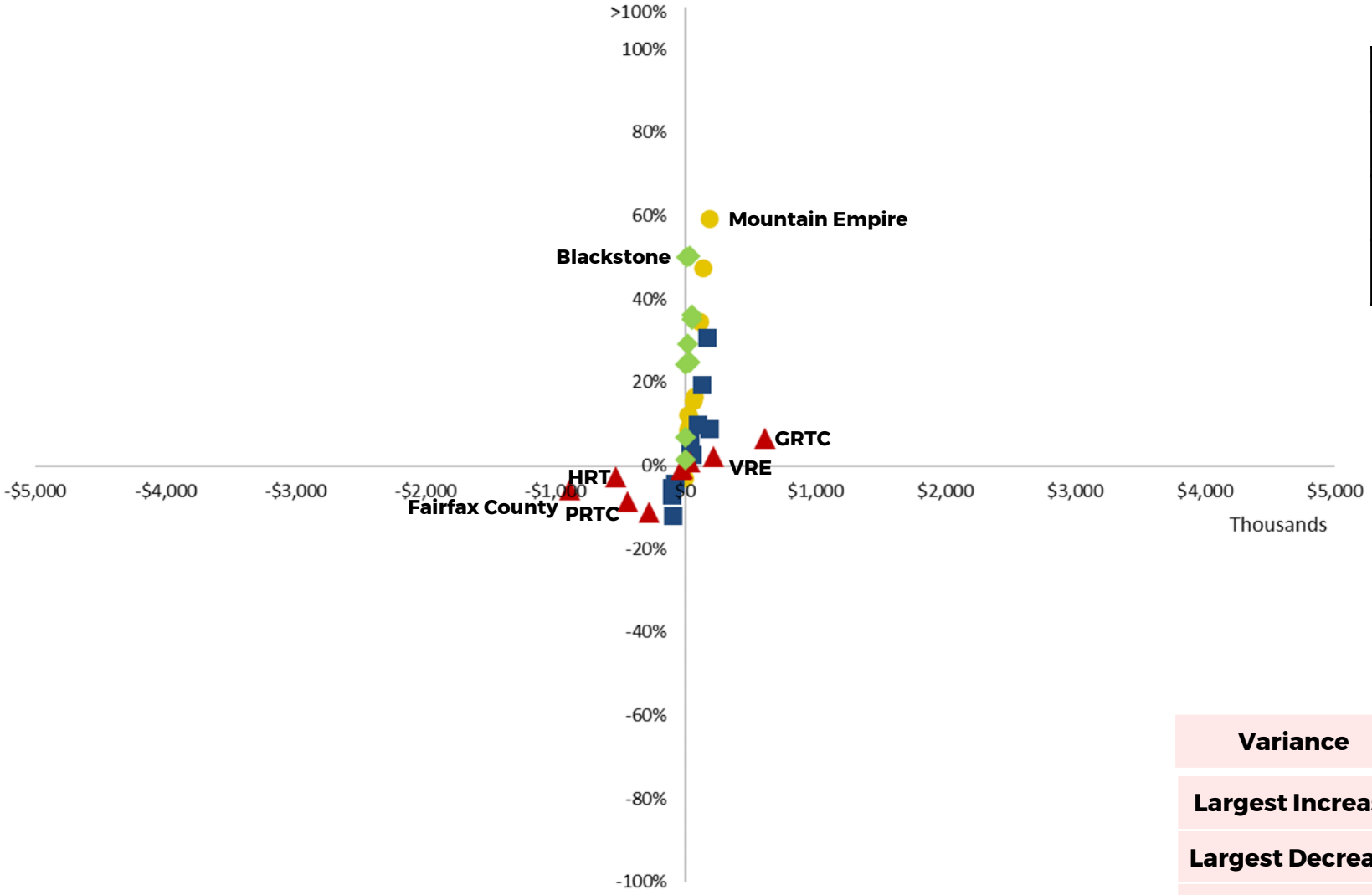
Largest Increase	$615,591	59%
Largest Decrease	($890,210)	(12%)
Unallocated	$158,293	

Sizing:
60% Op Cost
20% Ridership
10% RVH
10% RVM

Performance:
20% Pax / RVH
20% Pax / RVM
20% Cost / RVH
20% Cost / RVM
20% Cost / Pax

New Scenario Projected Variance from Actual FY19 Operating Assistance Allocation by Agency

No Change is at Zero on the Axes



Largest quartile	
2nd quartile	
3rd quartile	
Smallest quartile	

Variance	0.034	
Largest Increase	$615,591	59%
Largest Decrease	($890,210)	(12%)
Unallocated	$158,293	

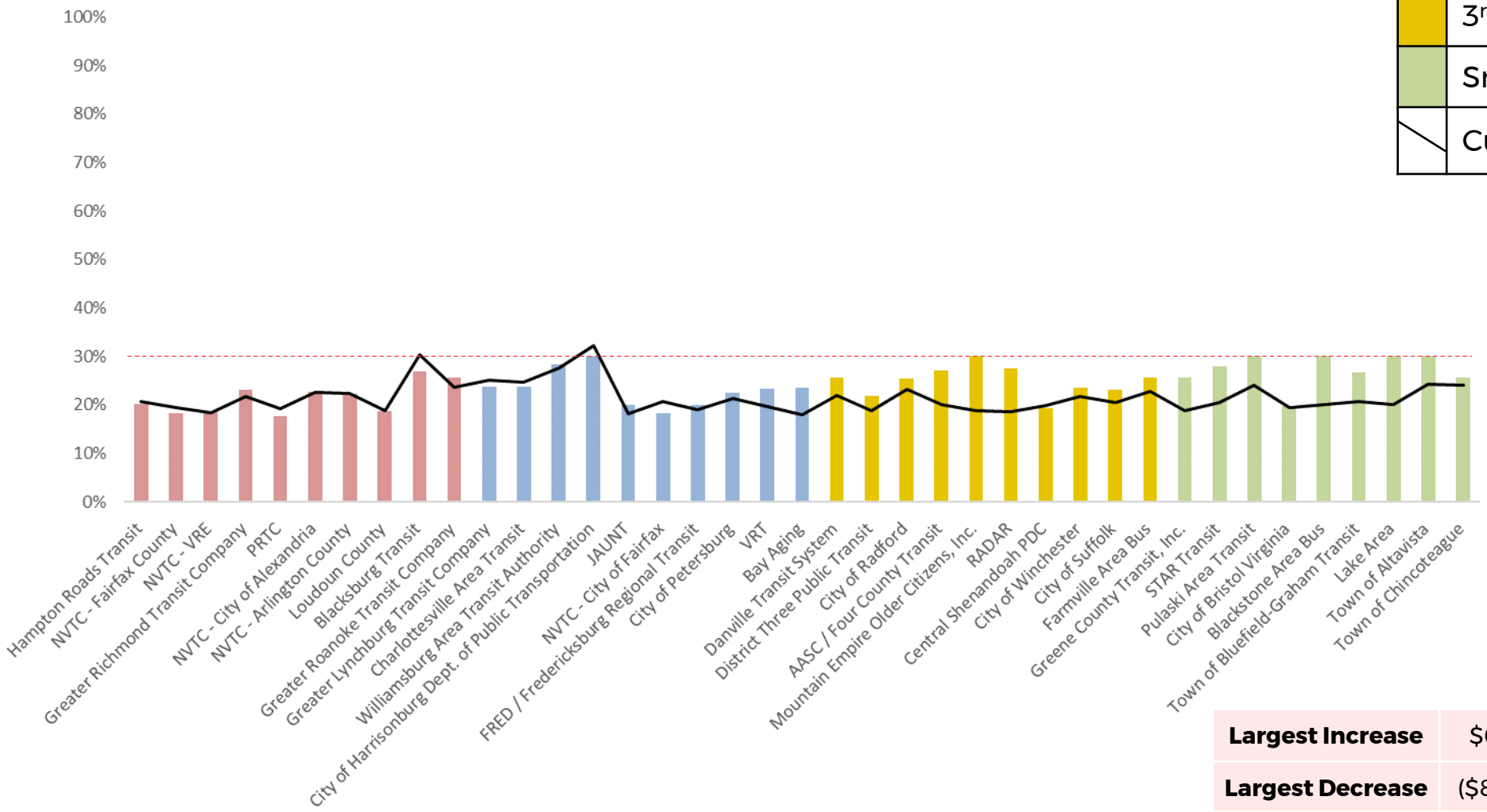
Sizing:
60% Op Cost
20% Ridership
10% RVH
10% RVM

Performance:
20% Pax / RVH
20% Pax / RVM
20% Cost / RVH
20% Cost / RVM
20% Cost / Pax

New Scenario Operating Assistance as % of Operating Cost by Agency

Line is Current Allocation Method for FY19

	Largest quartile
	2nd quartile
	3rd quartile
	Smallest quartile
	Current Allocation



Largest Increase	$615,591	59%
Largest Decrease	($890,210)	(12%)
Unallocated	$158,293	

Allocation Scenarios – Summary Results

Scenario Name	Variance	Unallocated
C-Capped	0.032	$763,270
Variation 4	0.029	$511,803
New Scenario	0.034	$158,293

Summary

- The New Scenario requested by TSDAC performs as expected and yields:
  - *Low unallocated funds (< $200k)*
  - *Only 6 agencies are capped at 30%*

- As such, this variation could help mitigate any negative impacts of transition to the new performance-based model for agencies poised to lose funding