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## **Metropolitan Transportation Commission Discretionary Transit Funding Methods Evaluation**

Christopher E. Ferrell

John M. Eells

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# Metropolitan Transportation Commission Discretionary Transit Funding Methods Evaluation

Christopher E. Ferrell, PhD, MUP    John M. Eells, MCP

David B. Reinke, MRP, MS    Richard Lee, PhD, MCP



# MINETA TRANSPORTATION INSTITUTE

Founded in 1991, the Mineta Transportation Institute (MTI), an organized research and training unit in partnership with the Lucas College and Graduate School of Business at San José State University (SJSU), increases mobility for all by improving the safety, efficiency, accessibility, and convenience of our nation's transportation system. Through research, education, workforce development, and technology transfer, we help create a connected world. MTI leads the [Mineta Consortium for Transportation Mobility \(MCTM\)](#) and the [Mineta Consortium for Equitable, Efficient, and Sustainable Transportation \(MCEEST\)](#) funded by the U.S. Department of Transportation, the [California State University Transportation Consortium \(CSUTC\)](#) funded by the State of California through Senate Bill I and the Climate Change and Extreme Events Training and Research (CCEETR) Program funded by the Federal Railroad Administration. MTI focuses on three primary responsibilities:

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Report 23-25

# Metropolitan Transportation Commission Discretionary Transit Funding Methods Evaluation

Christopher E. Ferrell, PhD, MUP

John M. Eells, MCP

David B. Reinke, MRP, MS

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<b>16. Abstract</b> <p>In 2021, the Santa Clara Valley Transportation Authority (VTA) approached the Mineta Transportation Institute (MTI) with a proposal to have MTI provide an evaluation of the Metropolitan Transportation Commission's (MTC's) operational discretionary funding allocation policies and methods for Bay Area transit operators. The research was done in two parts. Part 1 investigated MTC's past and current allocation methods for discretionary operational transit funding programs; Part 2 involved the evaluation of outcomes if MTC employed alternative allocation methods. After the Part 1 review of MTC's various transit funding programs, the federal pandemic relief funds and the Transportation Development Act/State Transit Assistance (TDA/STA) funding programs were selected and evaluated in Part 2 using a set of five alternative allocation metrics and compared to actual MTC allocations. Key findings include: (1) the population-based metric produced the largest increase for VTA's pandemic relief funds, with VTA receiving 221 percent more than MTC actually allocated in 2020 and 2021, but the San Francisco Municipal Transportation Agency (SFMTA) receiving 64 percent less; (2) the ridership-based metric yielded the smallest amount of VTA pandemic funding, but high ridership operators such as SFMTA would have a 41 percent increase; (3) the population-based metric produced the largest increase in STA funding to VTA but would come at the expense of other transit operators, with Sonoma County receiving 51 percent less; and (4) the ridership-based metric yielded the smallest amount of STA funds for VTA, with 50 percent less funding than actual, while high ridership operators such as SFMTA, would see a roughly 400 percent increase. Thoroughly investigating current and alternative funding allocation methods and policies is critical to understanding their effects on transit agencies and the communities they serve.</p>			
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Mineta Transportation Institute  
College of Business  
San José State University  
San José, CA 95192-0219

Tel: (408) 924-7560  
Fax: (408) 924-7565  
Email: [mineta-institute@sjsu.edu](mailto:mineta-institute@sjsu.edu)

[transweb.sjsu.edu/research/2133](http://transweb.sjsu.edu/research/2133)

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# CONTENTS

Acknowledgments .....	vi
List of Figures.....	viii
Executive Summary .....	1
1. Introduction.....	6
2. Approach .....	7
2.1 Part 1 Approach: Identification and Assessment of MTC Transit Funding Programs .....	7
2.2 Part 2 Approach: Analysis of Alternative Allocation Methods.....	8
3. Analysis Findings.....	11
3.1 Part 1: Overview and History of MTC Discretionary Transit Operational Funding Sources .....	11
4. Conclusions .....	65
4.1 Approach.....	65
4.2. Key Findings and Discussion .....	66
About the Authors.....	69
Endnotes .....	71



# LIST OF FIGURES

Figure 1. CARES Act Phase 1 Allocations to the “Big 7” Transit Operators in Dollars .....	13
Figure 2. CARES Act Phase 1 Allocations to the “Big 7” Transit Operators as a Percentage of Total Funding.....	13
Figure 3. CARES Act Phase 2 Allocations to the “Big 7” Transit Operators in Dollars .....	15
Figure 4. CARES Act Phase 2 Allocations to the “Big 7” Transit Operators as a Percentage of Total Funding.....	16
Figure 5. CARES Act Phases 1 & 2 (Total) Allocations to the “Big 7” Transit Operators in Dollars.....	17
Figure 6. CARES Act Phases 1& 2 (Total) Allocations to the “Big 7” Transit Operators as a Percentage of Total Funding .....	18
Figure 7. CRRSAA Phase 1 Allocations to the “Big 7” +WETA Transit Operators in Dollars.....	19
Figure 8. CRRSAA Phase 1 Allocations to the “Big 7” +WETA Transit Operators as a Percentage of Total Funding.....	20
Figure 9. CRRSAA Phase 2 Allocations to the “Big 7” Transit Operators in Dollars.....	21
Figure 10. CRRSAA Phase 2 Allocations to the “Big 7” Transit Operators as a Percentage of Total Funding.....	22
Figure 11. CRRSAA Phases 1 & 2 (Total) Allocations to the “Big 7” Transit Operators in Dollars .....	23
Figure 12. CRRSAA Phases 1 & 2 (Total) Allocations to the “Big 7” Transit Operators as a Percentage of Total Funding .....	24
Figure 13. ARP Phase 1 Allocations to the “Big 7” Transit Operators in Dollars .....	25
Figure 14. ARP Phase 1 Allocations to the “Big 7” Transit Operators as a Percentage of Total Funding .....	26
Figure 15. ARP Phase 2 Allocations to the “Big 7” Transit Operators in Dollars .....	27

Figure 16. ARP Phase 2 Allocations to the “Big 7” Transit Operators as a Percentage of Total Funding.....	28
Figure 17. ARP Phases 1 & 2 (Total) Allocations to the “Big 7” Transit Operators in Dollars .....	29
Figure 18. ARP Phases 1 & 2 (Total) Allocations to the “Big 7” Transit Operators as a Percentage of Total Funding .....	30
Figure 19. Total Pandemic Relief Versus Total Projected Revenue Losses from MTC to the “Big 7” and Other Transit Operators .....	31
Figure 20. Supplemental ARP Allocations to the “Big 7” Transit Operators in Dollars.....	33
Figure 21. Supplemental ARP Allocations to the “Big 7” Transit Operators as a Percentage of Total Funding .....	34
Figure 22. Typical Funding Amounts for the Bay Area from TDA/STA Before the Pandemic: FY 2018-19.....	35
Figure 23. Share of Total TDA/STA Funds for the Bay Area Going Through MTC to the Counties via STA Population-Based Funds.....	36
Figure 24. Shares of MTC’s STA Population-Based Allocations to Each Funding Category (2008-2018).....	38
Figure 25. Share of STA Population-Based Allocations to Each County and MTC (2011-2018) .....	39
Figure 26. Share of Population-Based Funds to Each County.....	40
Figure 27. Comparison of Pre- and Post-Block Grant STA Population-Based Allocations Funds from MTC to Bay Area Counties.....	41
Figure 28. Bay Area STA Population-Based Revenues for FY 2018-19.....	42
Figure 29. STA Population-Based Allocations Remain Steady After Resolution No. 4321 Implemented the Block Grant Allocation System in FY 2018-19.....	43
Figure 30. Population-Based Pandemic Relief Funds Allocations .....	45
Figure 31. Low-Income Population-Based Pandemic Relief Funds Allocations .....	47

Figure 32. Pandemic Relief Funds Ridership-Based Allocations ..... 49

Figure 33. Pandemic Relief Funds Vehicle Revenue-Hours Allocations ..... 51

Figure 34. Pandemic Relief Funds Vehicle Revenue-Miles Allocations ..... 53

Figure 35. Population-Based STA Pandemic Relief Funds Allocations ..... 55

Figure 36. Low-Income Population-Based STA Pandemic Relief Funds Allocations ..... 57

Figure 37. Ridership-Based STA Block Grant Allocations..... 59

Figure 38. STA Block Grant Allocations Vehicle Revenue-Hours Allocations..... 61

Figure 39. STA Block Grant Allocations Vehicle Revenue-Miles Allocations..... 63

# Executive Summary

In 2021, the Santa Clara Valley Transportation Authority (VTA) approached San José State University's Mineta Transportation Institute (MTI) with a proposal to have MTI provide an objective research study in two phases. Phase 1 would focus on evaluating the Metropolitan Transportation Commission's (MTC's) discretionary funding allocation policies and methods for Bay Area transit operating agencies to determine if they provide "reasonable and proportional benefits to VTA."

Phase 2 would build on the findings of Phase 1 by evaluating VTA's partnerships with peer agencies, including MTC. These investigations would focus on identifying the opportunities to improve those partnerships and on evaluating the internal controls and monitoring mechanisms VTA could employ to facilitate improvements to those relationships.

## Approach

The approach to Phase 1 of this research project was broken into two parts. The first part involved identifying and investigating MTC's past and current discretionary public transit funding programs and their methods of allocating these funds to the region.

In the second part, the funding programs and allocation methods identified and investigated in Part 1 were further evaluated to determine what the possible outcomes might be to the region's local governments and transit agencies if MTC had employed alternative allocation methods. First, different allocation methods were identified and preliminarily assessed for their potential equity outcomes.<sup>1</sup> From these methods, a set of five allocation methods were selected and applied to the Pandemic Relief and TDA/STA funding programs investigated in Part 1. These hypothetical allocations were then compared to the actual allocations done by MTC, with analysis and assessment of how these outcomes differ and the possible implications of these differences if used by MTC.

### *Part 1 Approach: Identifying and Assessing MTC's Transit Funding Programs*

In cooperation with VTA staff, the MTI team identified five guiding principles for Phase 1 of this study:

1. Objectivity
2. Facts-Based Analysis
3. Refraining from Value Judgements

4. Considering MTC Discretionary Funds Only
5. Considering Transit Operating Funds Only

Applying these guiding principles, the MTI team identified the following discretionary operating transit funding programs for further analysis:

1. Federal **Pandemic Relief Funding** Programs (CARES, CRSSAA, and ARP), allocated by MTC to Bay Area transit agencies.
2. California State **Transportation Development Act/State Transit Assistance** (TDA/STA) Funding Programs, allocated by MTC to Bay Area Counties.

*Part 2 Approach: Analysis of Alternative Allocation Methods*

Part 2 of Phase 1 investigated alternative methods of allocating the funding sources identified in Part 1 using a series of allocation metrics. The MTI team identified a candidate pool of potential metrics that could be used to allocate funds by transit operator—as appropriate for the Pandemic Relief Funds—and by county—as appropriate for the TDA/STA funding category. Therefore, each allocation method used for this analysis needed to serve either to allocate to counties or transit operators. The MTI team did not find any metrics that could easily be used for both.

The following metrics were identified and selected for use in hypothetical allocations by MTC of Pandemic Relief and TDA/STA funds to Bay Area transit operators and counties:

1. **Ridership:** Each operator’s annual ridership as a share of the Bay Area’s total annual ridership.
2. **Hours of Service:** Each operator’s total annual service-hours as a share of the Bay Area’s total annual service-hours provided.
3. **Miles of Service:** Each operator’s total annual service-miles as a share of the Bay Area’s total annual service-miles provided.
4. **Population:** Each county’s population as a share of the Bay Area’s total population.
5. **Low-Income Population:** Each county’s low-income population as a share of the Bay Area’s total low-income population.

## Key Findings and Discussion

The key findings of this Phase 1 study are presented in two parts. The first part investigated MTC's historical and current goals, policies, and methods for allocating TDA/STA and pandemic relief transit funds. Part two investigated and analyzed alternative allocation methods.

### *Part 1 Key Findings: Identifying and Assessing MTC's Transit Funding Programs*

Part 1 of Phase 1 of this study describes MTC's historical and current goals, policies, and methods for allocating pandemic and TDA/STA relief transit funds.

### Allocation Methods: Pandemic Relief Funding

As the COVID-19 pandemic unfolded at the beginning of 2020, the U.S. Congress began to formulate a series of financial relief programs to support the economy and state and local governments through the crisis. Large portions of these funds went to the nation's struggling transit operators, many of them suffering from ridership declines of 80 percent or more. Over the course of the next year-and-a-half, Congress funneled \$3.8 billion to Bay Area transit operators through MTC. These funds provided a critical lifeline to transit operators as the pandemic continued, covering roughly half of the costs of Bay Area transit operations over the first two years of the crisis. Without these funds, many of the Bay Area's transit agencies would have been irreparably harmed if not completely insolvent. As such, it is not an exaggeration to say that MTC's allocation decisions for these funds were among the most important they have ever made.

While MTC had discretionary authority to allocate these funds as they saw fit, Congress provided certain priorities for Metropolitan Planning Organizations (MPOs). These priorities, which included the need to use funds to avoid transit operator layoffs and to cover their pandemic revenue losses, presented MTC with certain challenges to effectively meet the goals inherent within them. For example, MTC needed to both estimate current ridership and forecast future ridership and fare revenues as the pandemic progressed. Related to this challenge, MTC similarly needed to estimate current pandemic-caused revenue losses and forecast future pandemic-caused revenue losses, fine-tuning their allocations to meet changing conditions as the pandemic progressed.

This ongoing effort to hit a moving target resulted in changes to MTC's policies and allocation methods as the situation continued to evolve. As a result, MTC's allocations did not always provide a perfect fit for the losses each operator actually incurred; some received less and some received more than needed. For example, while BART received \$130 million less than their projected losses, VTA received \$80 million more.<sup>2</sup>

### *Allocation Methods: TDA/STA Funding*

Prior to the Pandemic, most California local governments (primarily counties) and transit operators received much of their non-local funding for transit operations from the TDA/STA program.<sup>3</sup> In FY 2018-19, the nine-county MTC Bay Area received a total of \$667 million from this program. However, most of these funds (90%) were essentially “passed-through” from the state, through MTC, to the transit operators directly.<sup>4</sup> Therefore, these funds are not discretionary to MTC, and consequently this study did not investigate them further.

The remaining \$65 million (10% of the total TDA/STA program) that came from the STA’s so-called “Population-Based” side of the program in FY 2018-19 was effectively discretionary to MTC. MTC allocated \$20 million (30%) of Population-Based STA funds that year to its own regional transit programs (such as the Clipper universal transit fare smart card administration and development) and divided up the remaining \$45 million using a set of policies and associated calculation methods that were formalized in 2008 and revised in 2016.<sup>5</sup>

The Bay Area’s remaining \$45 million of FY 2018-19 STA Population-Based funding was allocated by MTC to each of the nine counties in the Bay Area primarily based on each county’s share of population, but with larger shares given to those counties with small transit operators. Therefore, while the county with the largest population but no small operators, Santa Clara, received roughly 10 percent of these funds, the largely rural and relatively low-population county of Sonoma with its two small operators received nine percent; almost as much money as Santa Clara.<sup>6</sup>

### *Part 2 Key Findings: Analysis of Alternative Allocation Methods*

Key findings from the application of the five hypothetical metrics to the federal pandemic relief and TDA/STA funds are reported here in reference to their actual allocations from MTC. Those metrics that produced the largest changes in funds that VTA would receive are reported.

### *Alternative Allocations: Pandemic Relief Funding*

The Mineta team used each of the five formulas listed above to perform alternative, hypothetical allocations from the \$3.8 billion Congress gave to MTC for pandemic relief funding to Bay Area transit operators.<sup>7</sup> The population- and ridership-based metrics respectively yielded the largest gains and losses for VTA compared to actuals in the five allocation scenarios.

The population-based metric produced the largest increase in VTA’s funding for pandemic relief to transit operators, with VTA receiving roughly 221 percent more funding than MTC actually allocated to them in 2020 and 2021. However, this large increase would have come at the expense of other Bay Area operators, with the San Francisco Municipal Transportation Agency

(SFMTA) receiving 64 percent less funding if the region's allocations were calculated according to population.

The ridership-based metric yielded the smallest amount of VTA funding of the five methods tested, but there would be little or no loss of funding under this scenario since allocation by ridership would not have changed VTA's pandemic relief funding. Operators with high ridership levels, such as SFMTA, however, would have seen a roughly 41 percent increase in their pandemic relief allocations.

#### *Alternative Allocations: TDA/STA Funds*

The Mineta team used each of the five formulas listed above to perform alternative, hypothetical allocations from MTC's discretionary STA Block Grants program of \$65 million to Bay Area transit counties for transit operations. As seen for the pandemic relief funds, the population- and ridership-based metrics yielded the largest gains and losses for VTA compared to actuals in the five allocation scenarios.

The population-based metric produced the largest increase in STA funding to VTA, with VTA receiving roughly 83 percent more funding than MTC actually allocated to them in 2018/19. However, this large increase would have come at the expense of other Bay Area counties and their transit operators, with Sonoma County receiving 51 percent less funding if the region's allocations are calculated according to population.

The ridership-based metric yielded the smallest amount of VTA funding of the five methods tested. VTA would have received 50 percent less funding than they actually did in 2018/19. Also as seen above, operators with high ridership levels, such as SFMTA, would see a roughly 400 percent increase over actual funding in 2018/19 if ridership determined allocations.



# 1. Introduction

In 2021, the Santa Clara Valley Transportation Authority (VTA) approached San José State University's Mineta Transportation Institute (MTI) with a proposal to have MTI provide an objective research study in two phases. Phase 1 would be focused on evaluating the Metropolitan Transportation Commission's (MTC's) discretionary funding allocation policies and methods for Bay Area transit operating agencies.

Phase 1 was further broken down into two parts. In Part 1 of Phase 1, MTI investigated MTC's discretionary transit operating funding programs, identifying their current and past allocation goals, policies, and calculation methods. MTI presented their Part 1 findings to VTA's Governance and Audit Committee on June 2, 2022.

In Phase 1, Part 2, MTI researched, selected, and applied a series of alternative allocation calculation methods to the MTC funding programs identified in Part 1 to illustrate how these methods would affect funding levels for VTA and other Bay Area transit funding recipients.

Phase 2 would build on the findings of Phase 1 by evaluating VTA's partnerships with peer agencies, including MTC. These investigations would focus on identifying the opportunities to improve those partnerships and evaluating the internal controls and monitoring mechanisms VTA could employ to facilitate improvements to those relationships.

This report presents the findings from the Phase 1 work, which began in September of 2021.

## 2. Approach

Phase 1 of this research project was undertaken in two parts. The first part involved identifying and investigating MTC's past and current discretionary public transit funding programs and their methods of allocating these funds to the region.

In the second part, the funding programs and allocation methods identified and investigated in Part 1 were further evaluated to determine what the possible outcomes might be to the region's local governments and transit agencies if MTC had employed alternative allocation methods. First, different allocation methods were identified and preliminarily assessed for their potential equity outcomes.<sup>8</sup> From these methods, a set of five allocation methods were selected and applied to the Pandemic Relief and TDA/STA funding and programs investigated in Part 1. These hypothetical allocations were then compared to the actual allocations done by MTC, with analysis and assessment of how these outcomes differ and the possible implications of these differences if used by MTC.

### 2.1 Part 1 Approach: Identification and Assessment of MTC Transit Funding Programs

Through a series of discussions between MTI and VTA staff, the MTI team identified five guiding principles for Phase 1 of this study:

1. **Objectivity:** Provide an outside and objective view of MTC's transit funding practices.
2. **Facts-Based Analysis:** Provide an analysis of historical, existing, and possible future transit funding practices.
3. **Refraining from Value Judgements:** Refrain from making value judgements about fairness or equity in MTC's transit funding practices. Provide facts on existing practices and a range of options and outcomes for the future to help VTA's Board make judgements for themselves based on the facts.
4. **Considering MTC Discretionary Funds Only:** Focus only on those programs where MTC has discretionary authority. While MTC plays a role coordinating for many Federal and State funds that are then routed to the region's local governments and agencies, there are a select few programs where MTC has the decision-making authority to determine who gets what and how much.
5. **Considering Transit Operating Funds Only:** Focus only on operating funds due to the complex and variable nature of Federal capital funding for transit.

Applying these guiding principles, the MTI team identified the following discretionary operating transit funding programs for further analysis:

1. Federal Pandemic Relief Funding Programs (CARES, CRSSAA, and ARP), allocated by MTC to Bay Area transit agencies.
2. California State Transportation Development Act/State Transit Assistance (TDA/STA) Funding Programs, allocated by MTC to Bay Area Counties.

## 2.2 Part 2 Approach: Analysis of Alternative Allocation Methods

Part 2 of Phase 1 investigated alternative methods of allocating the funding sources identified in Part 1 using a series of allocation metrics. The MTI team identified a candidate pool of potential metrics that could be used to allocate funds by county – as appropriate for the TDA/STA funding category – and by transit operator – as appropriate for the Pandemic Relief Funds.<sup>9</sup>

### *2.2.1. Two Types of Allocation Methods: Comparing Counties to Operators is Like “Comparing Apples to Oranges”*

Allocations from MTC to different kinds of jurisdictions in the Bay Area require different allocation methods and metrics. In this study, the research team needed to compare allocations made from Pandemic Relief Funds, which were distributed mostly to transit operators, and from STA funds, which are typically distributed to counties. Direct comparisons of the outcomes of different allocation methods are difficult, since the methods and metrics used to allocate to a county are not easily used to allocate to transit operators.

There are several differences between allocations to counties and to operators that make them difficult to compare. First, there are often multiple transit operators in one county, sometimes with overlapping areas of service, making it difficult to determine how to divide funds according to population, or other demographic metrics. Similarly, transit areas of service do not typically align perfectly with municipal or county boundaries, leaving a patchwork pattern where transit operators may provide services to one part of a municipal jurisdiction and not another. There are also several regional transit operators—e.g., BART, Caltrain, SMART, and AC Transit—in the Bay Area serving multiple counties, compounding the problems just mentioned.

Finally, there are several small transit operators, typically in the North Bay, serving low-density, low-population suburban and rural areas. These small operators have fewer options to raise funds locally and typically rely on subsidy programs from the state such as STA funds, routed by MTC through the counties.

Therefore, each allocation method used for this analysis would need to serve either to allocate to counties or transit operators. The MTI team did not find any metrics that could easily be used for both.

The following metrics were identified and selected for use in hypothetical allocations by MTC of Pandemic Relief and TDA/STA funds to Bay Area transit operators and counties:

1. **Ridership:** Each operator's annual ridership as a share of the Bay Area's total annual ridership.
2. **Hours of Service:** Each operator's total annual service-hours as a share of the Bay Area's total annual service-hours provided.
3. **Miles of Service:** Each operator's total annual service-miles as a share of the Bay Area's total annual service-miles provided.
4. **Population:** Each county's population as a share of the Bay Area's total population.
5. **Low-Income Population:** Each county's low-income population as a share of the Bay Area's total low-income population.

### *2.2.2 How We Compare Counties and Operators*

Direct allocation comparisons are best done by comparing one county-based allocation to another county-based allocation for the same county, or for one operator-based allocation to another operator-based allocation for the same operator. If these direct comparisons are not possible, it is possible to roughly compare county and operator allocations in counties such as San Francisco, San Mateo, and Santa Clara that have unified, single operators serving their entire county:

1. Santa Clara Valley Transportation Authority (VTA) / Santa Clara County
2. San Francisco Municipal Transportation Agency (SFMTA) / The City and County of San Francisco
3. San Mateo County Transit District (SamTrans) / San Mateo County

In these cases, an allocation to, for instance, VTA in Santa Clara County (SCC) can be compared to an allocation to the entire county, but only with caution. Caution is important here because while VTA is the only service provider for most intra-county trips, regional operators such as Caltrain and BART also serve the county and would be left out of any allocation made to SCC unless the county made a separate allocation of these funds to these operators upon receipt from MTC. In the case of STA funds, counties such as SCC typically pass their funds on to

local operators such as VTA alone, and do not pass them on to regional operators serving their residents.

If funding that previously went to operators were now given directly to counties instead, then each county with a regional transit operator serving it would need to collaborate with other counties served by that same operator to decide what each county would contribute as “fair share” funding to that operator.

## 3. Analysis Findings

The findings for Phase 1 analysis of this research project are described below in two parts. The first part involves the identification and investigation of MTC's past and current discretionary public transit funding programs and their methods of allocating these funds to the region.

In the second part, the analysis of funding programs and allocation methods identified and investigated in Part 1 are described. This Part 2 analysis suggests the possible outcomes if the region's local governments and transit agencies if MTC had employed alternative allocation methods. The findings from the application of five allocation methods are reported as applied to the Pandemic Relief and TDA/STA funding and programs investigated in Part 1. These hypothetical allocations are then compared to the actual allocations done by MTC.

### 3.1 Part 1: Overview and History of Mtc Discretionary Transit Operational Funding Sources

The MTI team identified the following discretionary operating transit funding programs for further analysis:

1. Federal **Pandemic Relief Funding** Programs (CARES, CRSSAA, and ARP), allocated by MTC to Bay Area transit agencies.
2. California State **Transportation Development Act/State Transit Assistance (TDA/STA)** Funding Programs, allocated by MTC to Bay Area Counties.

#### *3.1.1 MTC Approach to Distributing Federal Pandemic Relief Funding*

The following Federal Pandemic Relief Funding Programs were allocated by MTC to Bay Area transit agencies:

1. The Coronavirus Aid, Relief, and Economic Security (CARES) Act of 2020
2. Coronavirus Response and Relief Supplemental Appropriations Act (CRSSAA) of 2021
3. American Rescue Plan (ARP) Act of 2021

#### *Phase 1 of MTC CARES Act Funding*

MTC distributed the Phase 1 allocation of Federal funding from the Coronavirus Aid, Relief, and Economic Security (CARES) Act in April 2020 to the Bay Area transit operators facing an immediate financial crisis. Phase 1 funds were allocated as quickly as possible to enable the transit operators to avoid layoffs and continue providing transit service to essential workers.

These Phase 1 allocations were made before reliable information was available on revenue losses from transit fares, parking fees, sales taxes, or property taxes.<sup>10</sup>

In the absence of reliable information on revenue losses, MTC used the following formula to determine the Phase 1 CARES allocations to each transit operator:

1. **1/3 of each allocation** was based on the transit operator's share of the overall Bay Area transit operating cost for 2019-2020.
2. **1/3 of each allocation** was based on the transit operator's share of the total farebox revenue for all the Bay Area transit operators for 2019-2020.
3. **1/3 of each allocation** was based on the State Transit Assistance (STA) revenue formula for each operator.<sup>11</sup>

The research focused on the "Big 7" transit operators since they carry 95 percent of the transit riders in the Bay Area.<sup>12</sup> The other 20 transit operators are relatively small and collectively carry only five percent of the transit riders.

The "Big 7" transit operators are:

1. Alameda/Contra Costa Transit (AC Transit)
2. Bay Area Rapid Transit (BART)
3. Caltrain
4. Golden Gate Bridge, Highway and Transportation District (GGBHTD)
5. San Francisco Muni (SFMTA)
6. San Mateo County Transit (SamTrans)
7. Santa Clara Valley Transportation Authority (VTA)

CARES Phase 1 Allocations to the "Big 7" Transit Operators in terms of total dollars are shown in Figure 1.

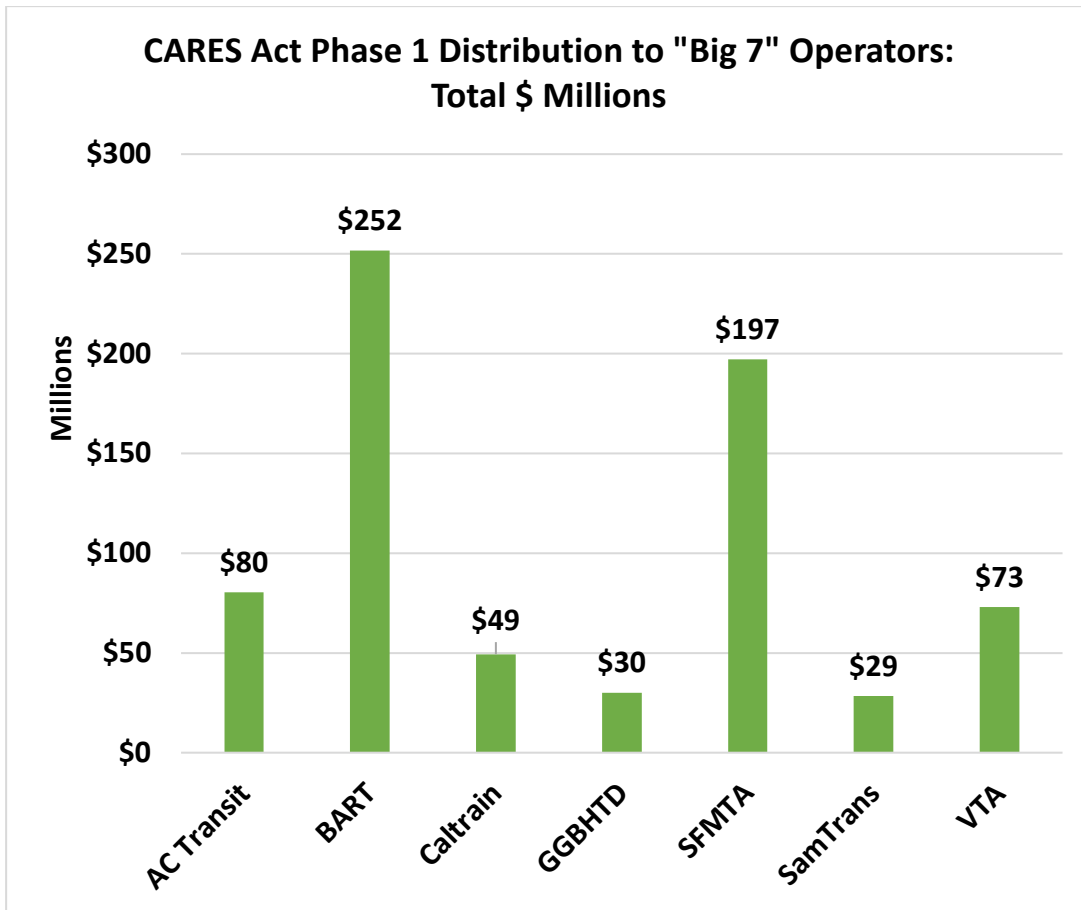


Figure 1. CARES Act Phase 1 Allocations to the “Big 7” Transit Operators in Dollars<sup>13</sup>

CARES Phase 1 Allocations to the “Big 7” Transit Operators in terms of the percentage share of the total funding pot are shown in Figure 2.



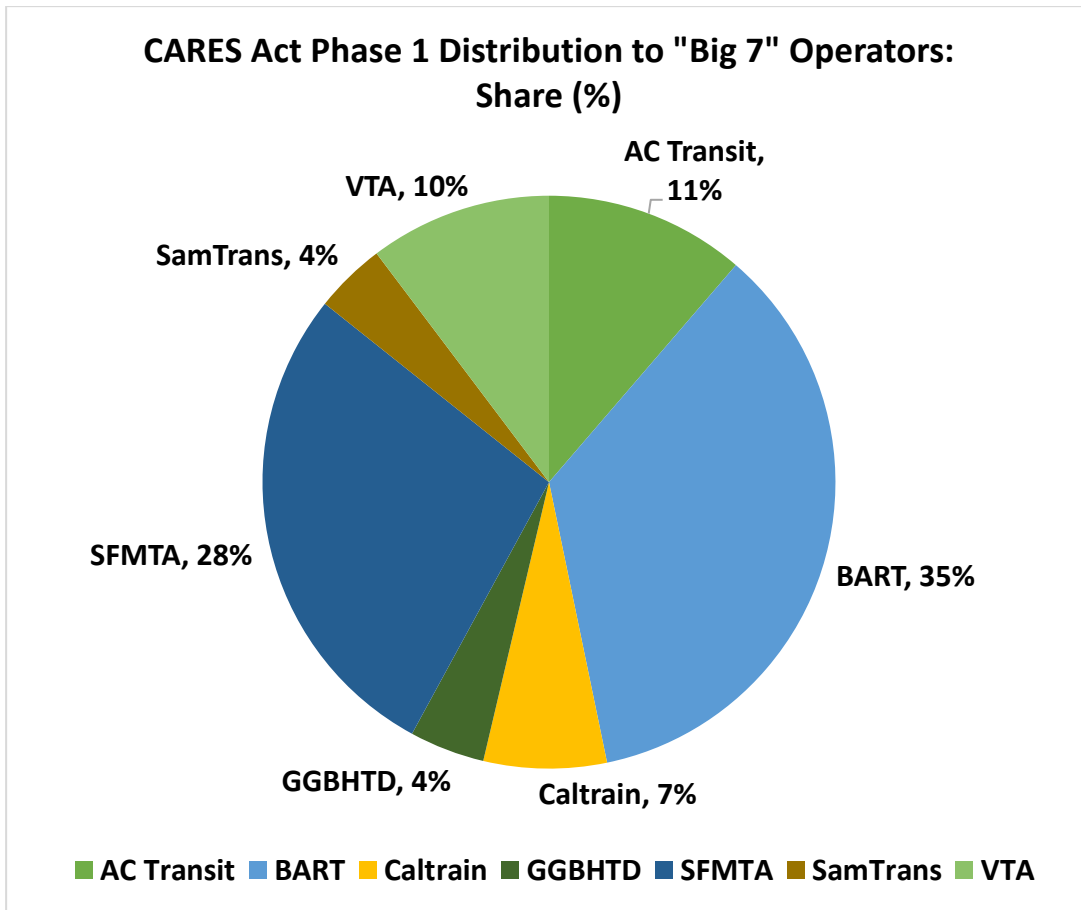


Figure 2. CARES Act Phase 1 Allocations to the “Big 7” Transit Operators as a Percentage of Total Funding<sup>14</sup>

*Phase 2 of MTC CARES Act Funding*

MTC distributed the Phase 2 allocation of CARES funding in July 2020 after:

1. Assessing each transit operator’s revenue losses during the first 4 months of the pandemic.
2. Developing preliminary forecasts for future revenue losses for each transit operator through December 2020.<sup>15</sup>

The Phase 2 allocation of CARES funding was intended to reflect each transit operator’s actual financial need more accurately by matching the total of the two CARES allocations with the total estimated financial need through December 2020.<sup>16</sup>

MTC used consistent assumptions across the board when estimating future revenue losses for each operator. These consistent assumptions covered:

1. Fare revenues
2. Sales tax revenues
3. Bridge toll revenues
4. Parking fee revenues<sup>17</sup>

MTC applied an “Equity Adjustment” to the Phase 2 allocation of CARES funding to provide additional financial support to the transit operators serving high proportions of transit-dependent riders.<sup>18</sup>

CARES Phase 2 Allocations to the “Big 7” Transit Operators in terms of total dollars are shown in Figure 3.

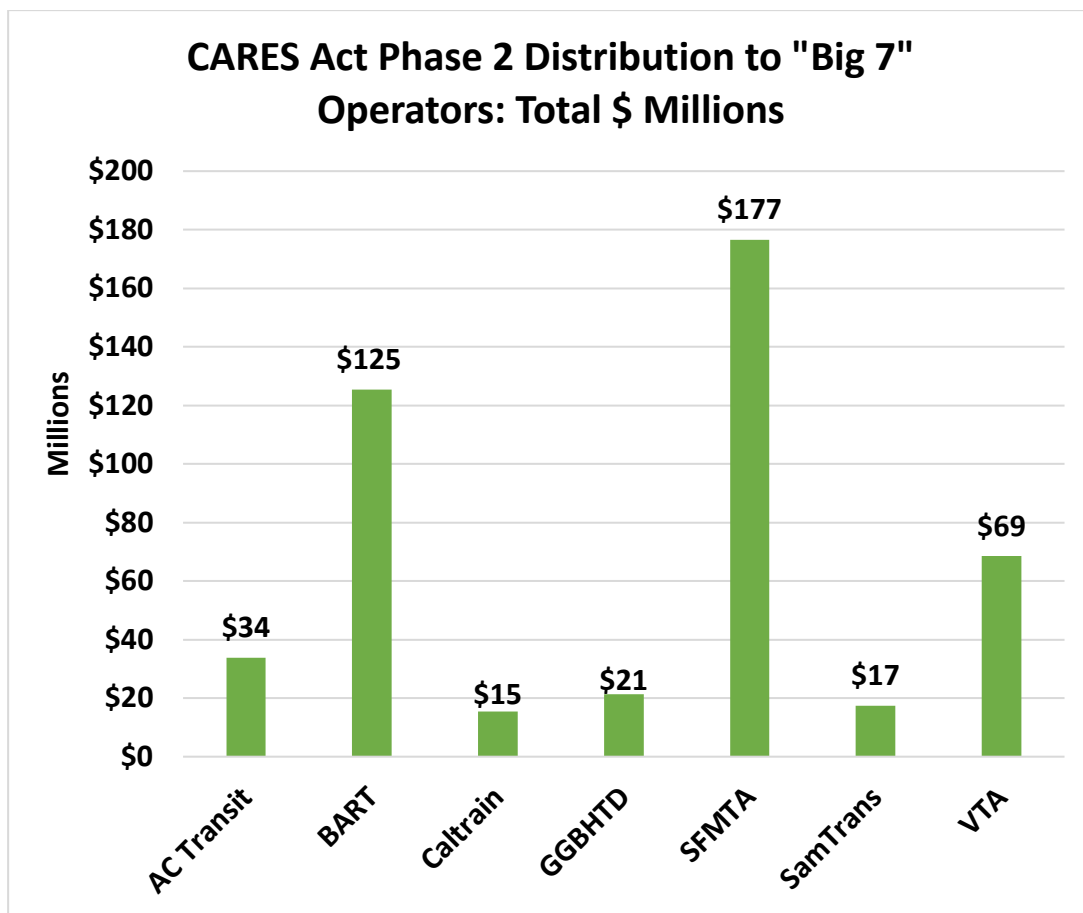


Figure 3. CARES Act Phase 2 Allocations to the “Big 7” Transit Operators in Dollars<sup>19</sup>

CARES Phase 2 Allocations to the “Big 7” Transit Operators in terms of the percentage share of the total funding pot are shown in Figure 4.

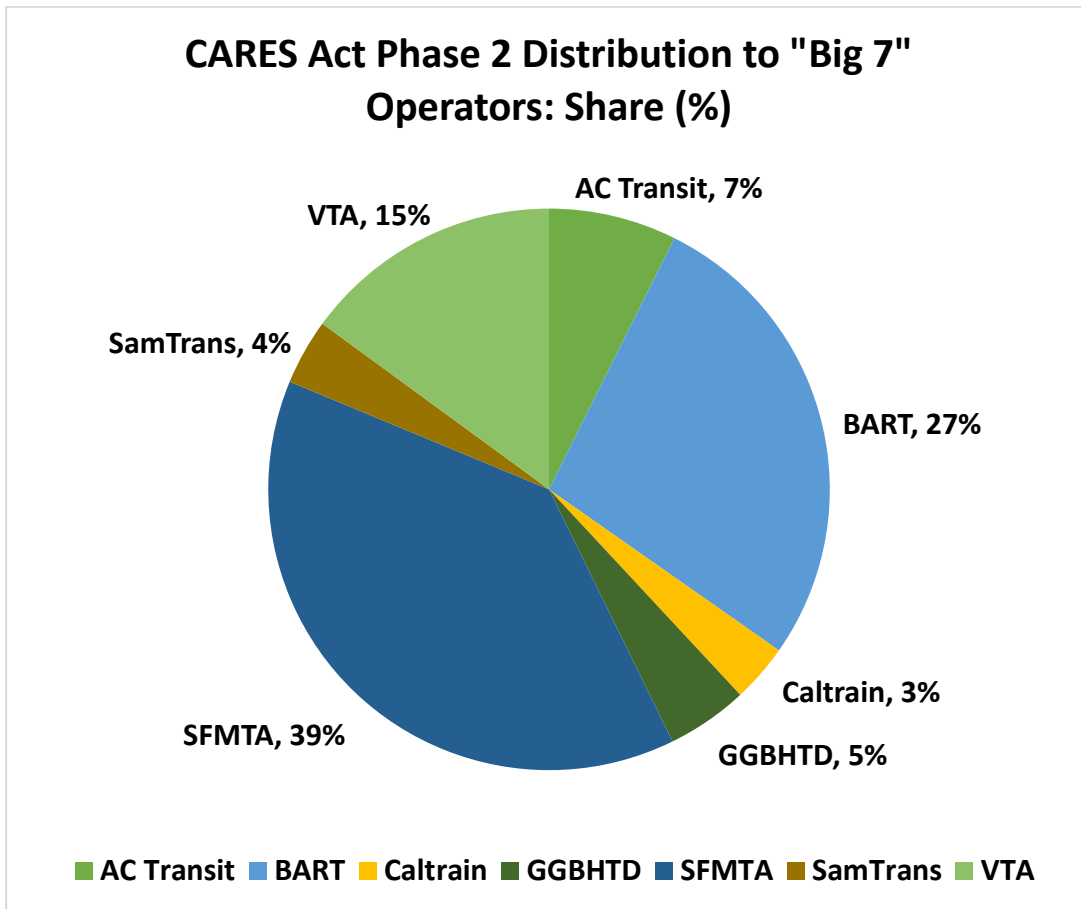


Figure 4. CARES Act Phase 2 Allocations to the “Big 7” Transit Operators as a Percentage of Total Funding<sup>20</sup>

*Total (Phases 1 & 2) MTC CARES Act Funding*

Total MTC CARES Act Allocations to the “Big 7” Transit Operators in terms of total dollars are shown in Figure 5.

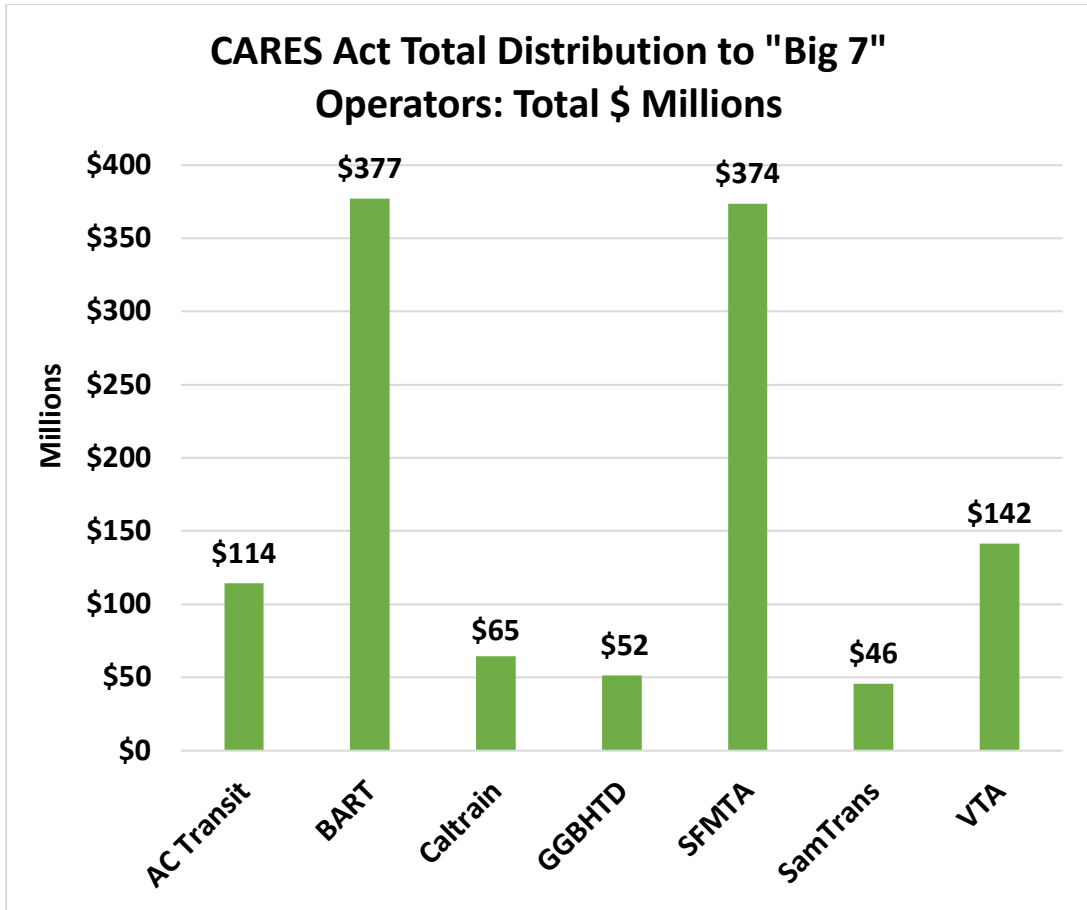


Figure 5. CARES Act Phases 1 & 2 (Total) Allocations to the “Big 7” Transit Operators in Dollars<sup>21</sup>

MTC CARES Phases 1 & 2 (total) allocations to the “Big 7” Transit Operators in terms of the percentage share of the total funding pot are shown in Figure 6.

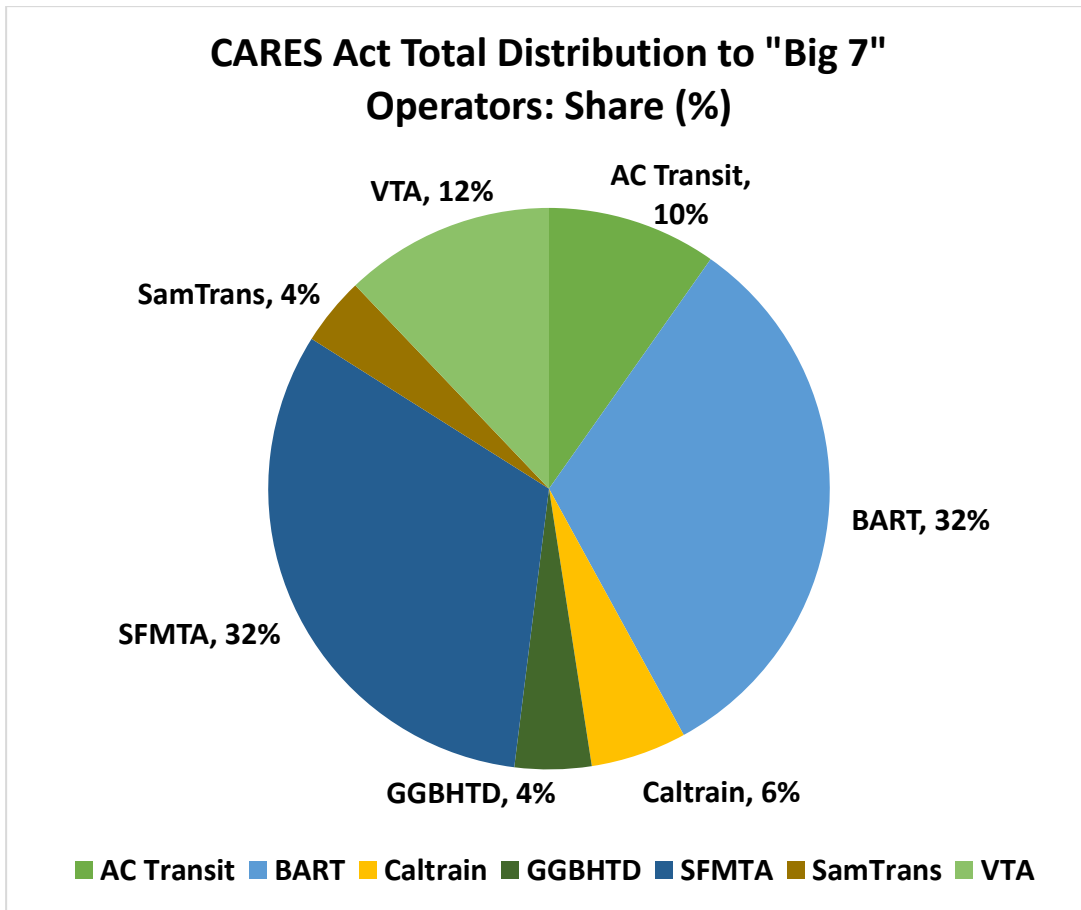


Figure 6. CARES Act Phases 1& 2 (Total) Allocations to the “Big 7” Transit Operators as a Percentage of Total Funding<sup>22</sup>

*Phase 1 of MTC CRRSAA Funding*

MTC distributed \$179.6 million in Phase 1 funding from the Coronavirus Response and Relief Supplemental Appropriations Act (CRRSAA) in January 2021 to five transit operators in the Bay Area reeling from revenue losses from steep declines in ridership. The allocations to the five transit operators were intended to cover the shortfalls in CARES funding needed to cover revenue losses through December 2020.<sup>23</sup>

MTC CRRSAA Allocations for Phase 1 to the “Big 7” Transit Operators, plus the Water Emergency Transportation Authority (WETA), in terms of total dollars are shown in Figure 7.

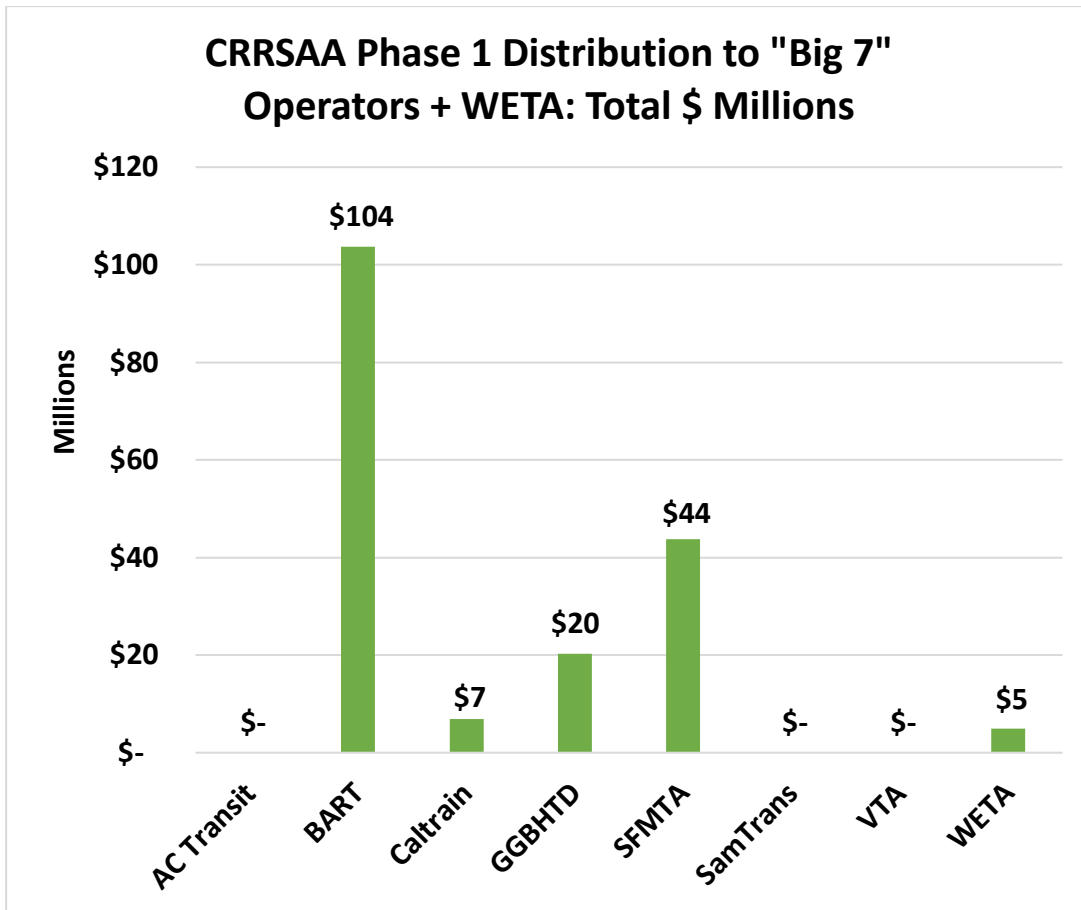


Figure 7. CRRSAA Phase 1 Allocations to the “Big 7” + WETA Transit Operators in Dollars<sup>24</sup>

MTC CRRSAA Phase 1 allocations to the “Big 7” Transit Operators, plus WETA, in terms of the percentage share of the total funding pot are shown in Figure 8.

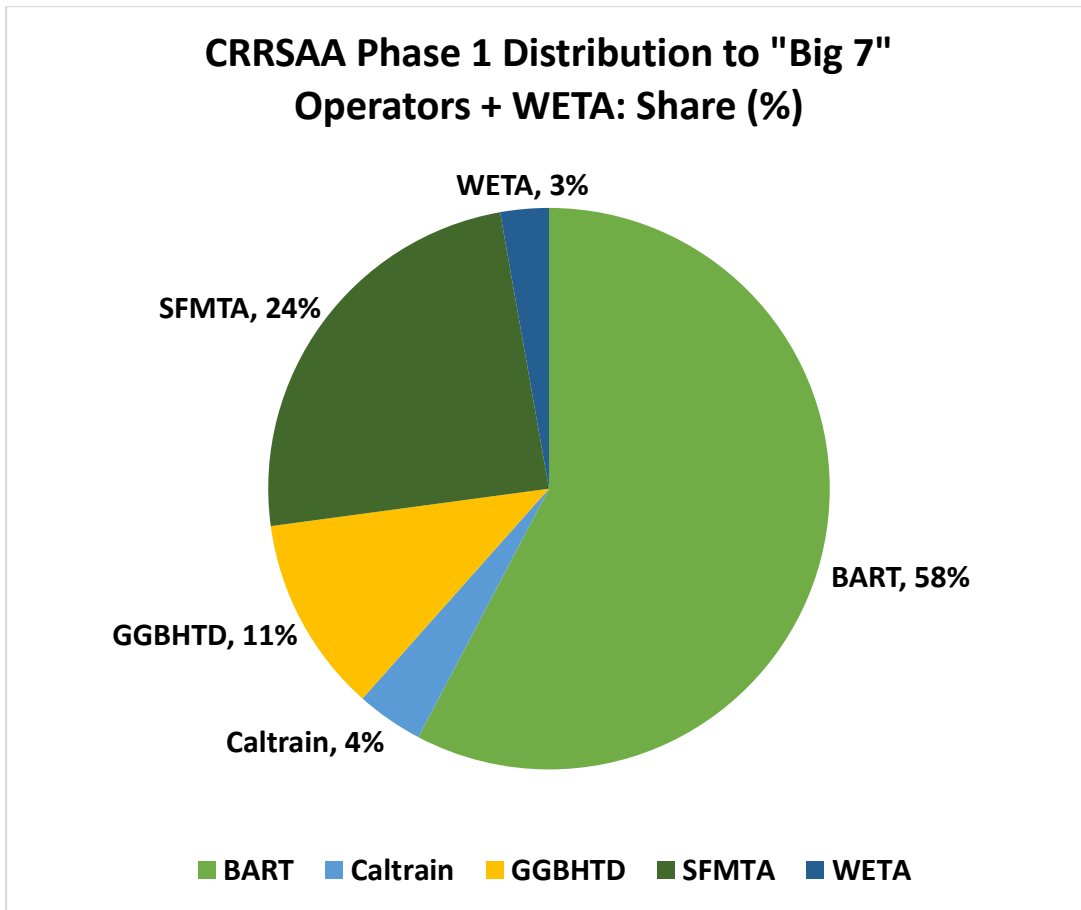


Figure 8. CRRSAA Phase 1 Allocations to the “Big 7” + WETA Transit Operators as a Percentage of Total Funding<sup>25</sup>

*Phase 2 of MTC CRRSAA Funding*

MTC distributed Phase 2 of CRRSAA Federal funding in March 2021 to provide financial relief for projected revenue losses through June 2021. Phase 2 allocations were developed to meet 3 primary objectives:

1. Prioritize the allocations to meet the actual financial needs of the 27 Bay Area transit operators through June 2021.
2. Prioritize the allocations to meet the needs of the most transit-dependent riders.
3. Compensate for the fact that many transit operators received significantly more CARES funding than their actual revenue losses warranted.
4. Calculate Phase 2 CRRSAA allocations for each transit operator to match total Federal pandemic relief funding with total estimated financial need through June 2021.<sup>26</sup>

MTC CRRSAA Allocations for Phase 2 to the “Big 7” Transit Operators in terms of total dollars are shown in Figure 9.

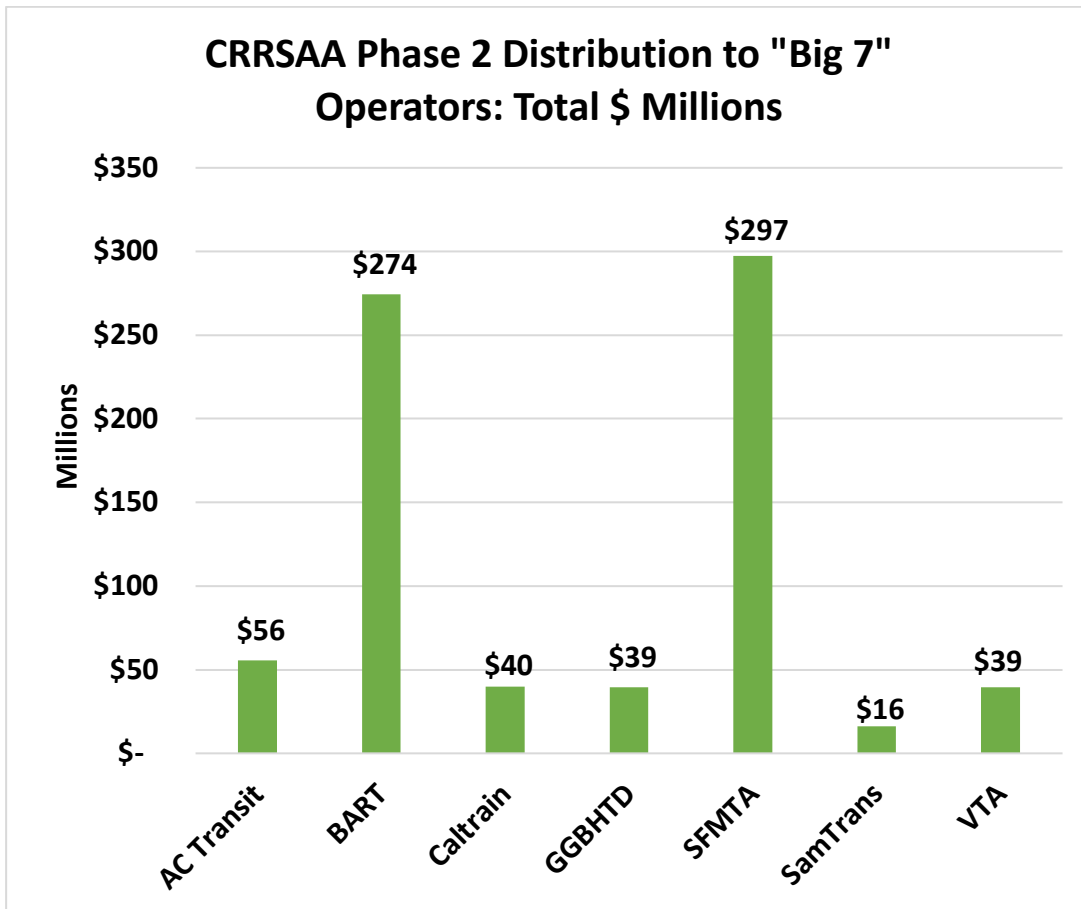


Figure 9. CRRSAA Phase 2 Allocations to the “Big 7” Transit Operators in Dollars<sup>27</sup>

MTC CRRSAA Phase 2 allocations to the “Big 7” Transit Operators in terms of the percentage share of the total funding pot are shown in Figure 10.



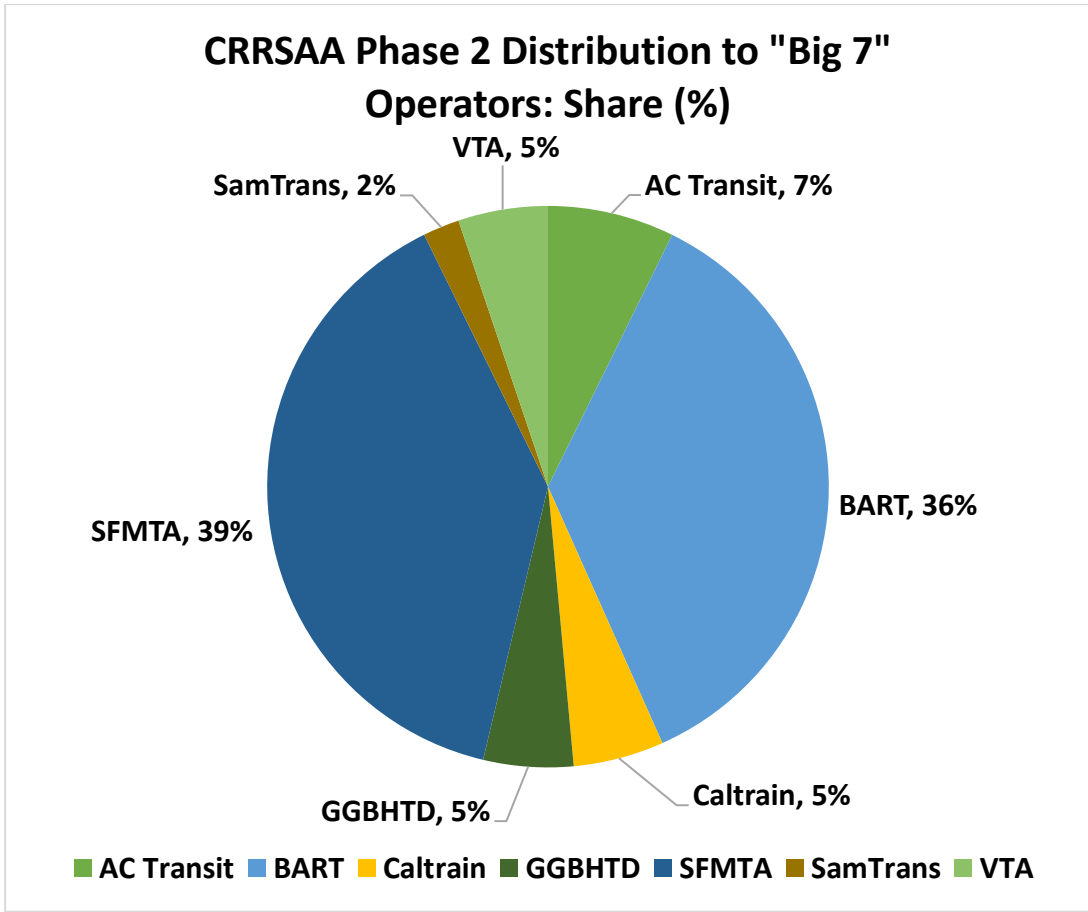


Figure 10. CRRSAA Phase 2 Allocations to the “Big 7” Transit Operators as a Percentage of Total Funding<sup>28</sup>

*Total (Phases 1 & 2) MTC CRRSAA Funding*

MTC CRRSAA Allocations for Phases 1 & 2 to the “Big 7” Transit Operators in terms of total dollars are shown in Figure 11.

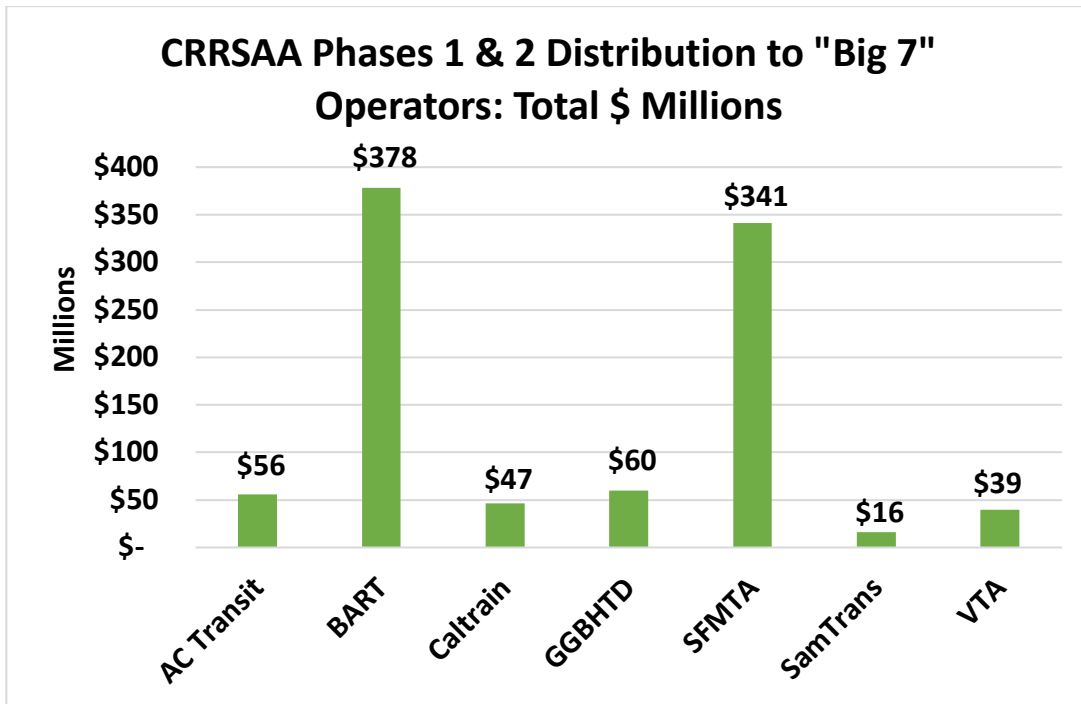


Figure 11. CRRSAA Phases 1 & 2 (Total) Allocations to the “Big 7” Transit Operators in Dollars<sup>29</sup>

MTC CRRSAA Allocations for Phases 1 & 2 to the “Big 7” Transit Operators in terms of the percentage share of the total funding pot are shown in Figure 12.

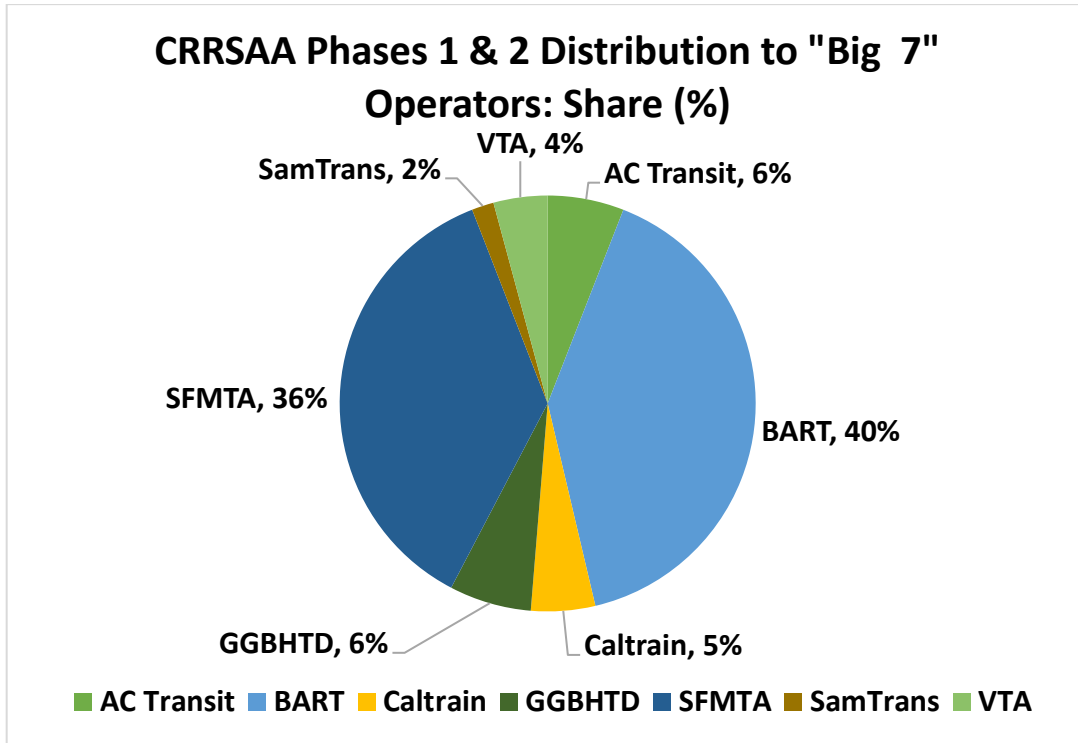


Figure 12. CRRSAA Phases 1 & 2 (Total) Allocations to the “Big 7” Transit Operators as a Percentage of Total Funding<sup>30</sup>

*MTC Approach to Distributing ARP Funds*

MTC allocated Federal funds from the American Rescue Plan (ARP) in accordance with four principles:

1. Funding from the ARP should be used to:
  - A. **Stabilize and sustain transit services** in the Bay Area through September 2021 by covering revenue losses to prevent layoffs and furloughs.
  - B. **Restore transit services** to at least meet current demand and if possible, provide additional service to meet demand expected by September 2021.
  - C. **Promote and sustain transit use** to better compete with other modes of transportation.
2. Funding from the ARP should seek to place each operator on an equal financial footing by compensating for the fact that some transit operators received more Federal funding from CARES and CRRSAA than their financial need warranted while others received less.

3. Funding from the ARP should be on a needs-based approach to covering revenue losses, which will require MTC to consider the region as a whole when distributing ARP funds rather than strictly adhering to the Federal apportionments to Federally designated urbanized areas (UZAs).
4. Funding from the ARP would be allocated in 2 phases to accommodate changing circumstances.<sup>31</sup>

*Phase 1 of MTC ARP Act Funding*

MTC ARP allocations for Phase 1 to the “Big 7” Transit Operators in terms of total dollars are shown in Figure 13.

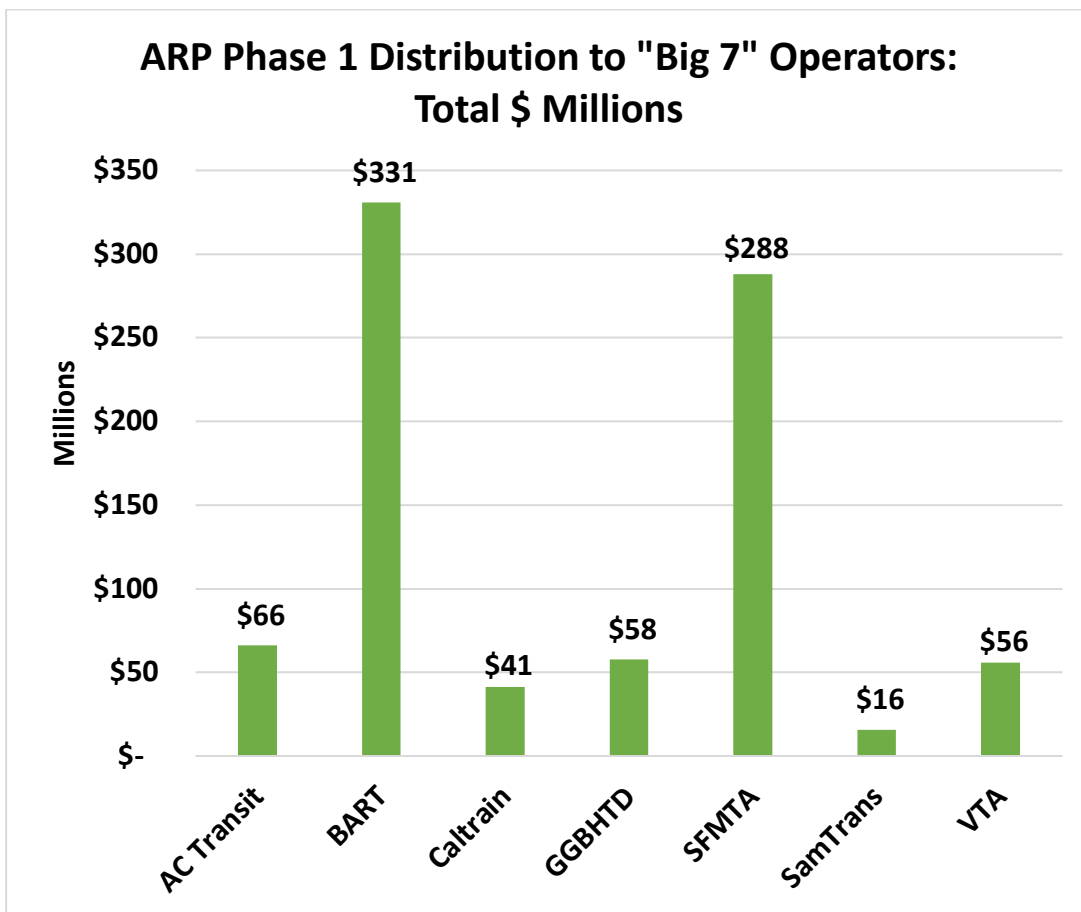


Figure 13. ARP Phase 1 Allocations to the “Big 7” Transit Operators in Dollars<sup>32</sup>

MTC ARP allocations for Phase 1 to the “Big 7” Transit Operators in terms of the percentage share of the total funding pot are shown in Figure 14.

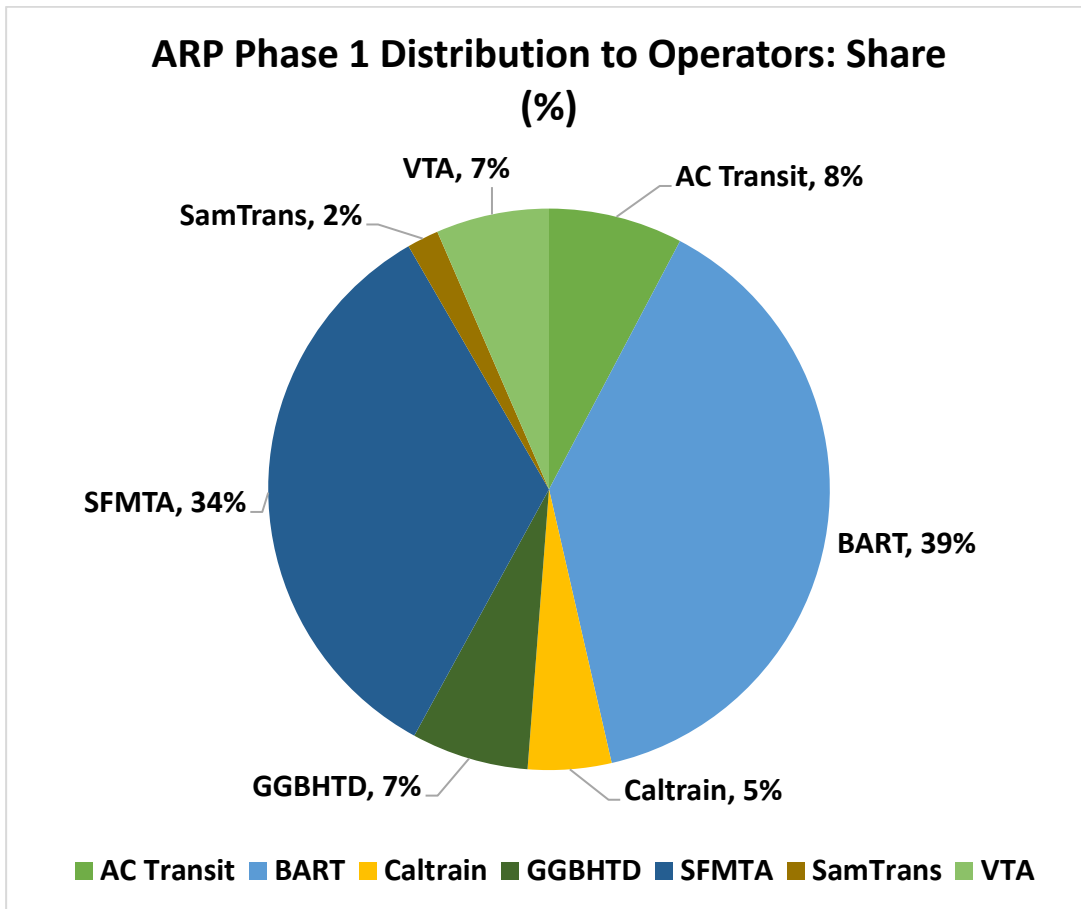


Figure 14. ARP Phase 1 Allocations to the “Big 7” Transit Operators as a Percentage of Total Funding<sup>33</sup>

*Phase 2 of MTC ARP Act Funding*

MTC ARP allocations for Phase 2 to the “Big 7” Transit Operators in terms of total dollars are shown in Figure 15.

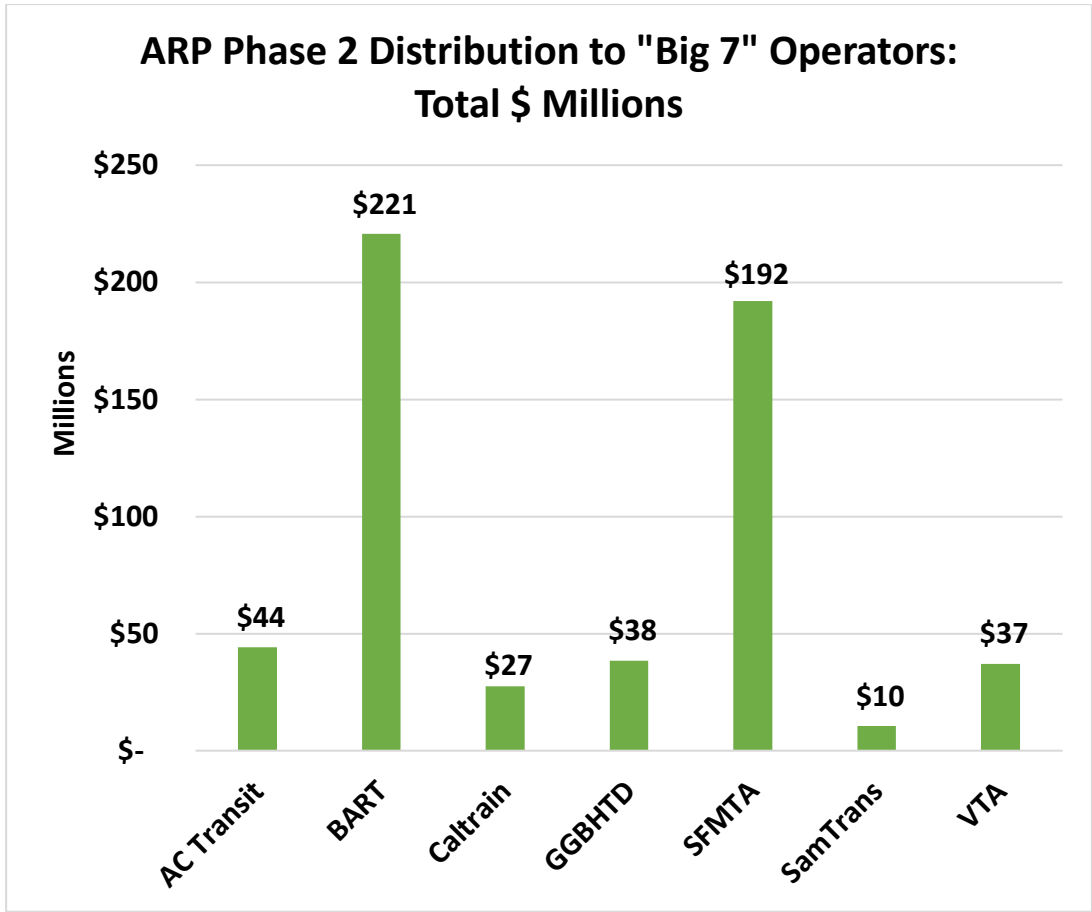


Figure 15. ARP Phase 2 Allocations to the “Big 7” Transit Operators in Dollars<sup>34</sup>

MTC ARP allocations for Phase 2 to the “Big 7” Transit Operators in terms of the percentage share of the total funding pot are shown in Figure 16.

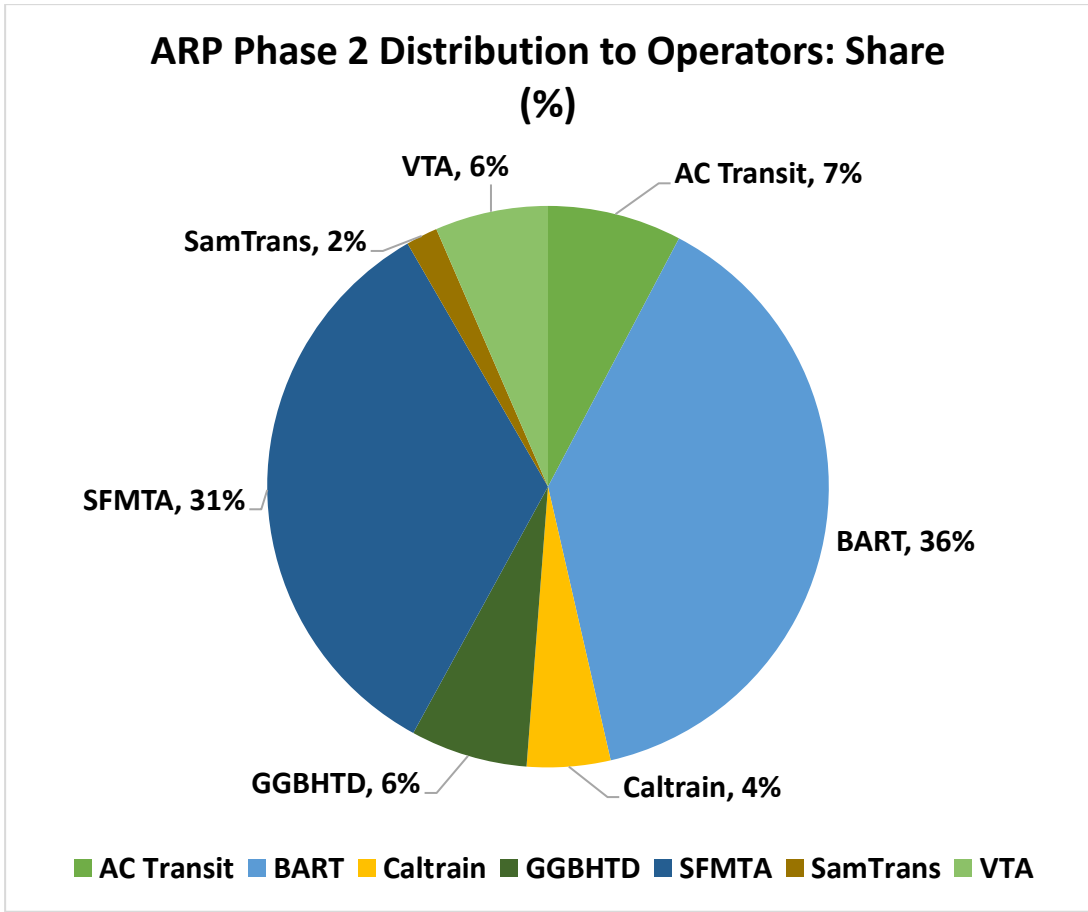


Figure 16. ARP Phase 2 Allocations to the “Big 7” Transit Operators as a Percentage of Total Funding<sup>35</sup>

*Total (Phases 1 & 2) MTC ARP Funding*

Total MTC ARP allocations for Phases 1 and 2 to the “Big 7” Transit Operators in terms of total dollars are shown in Figure 17.

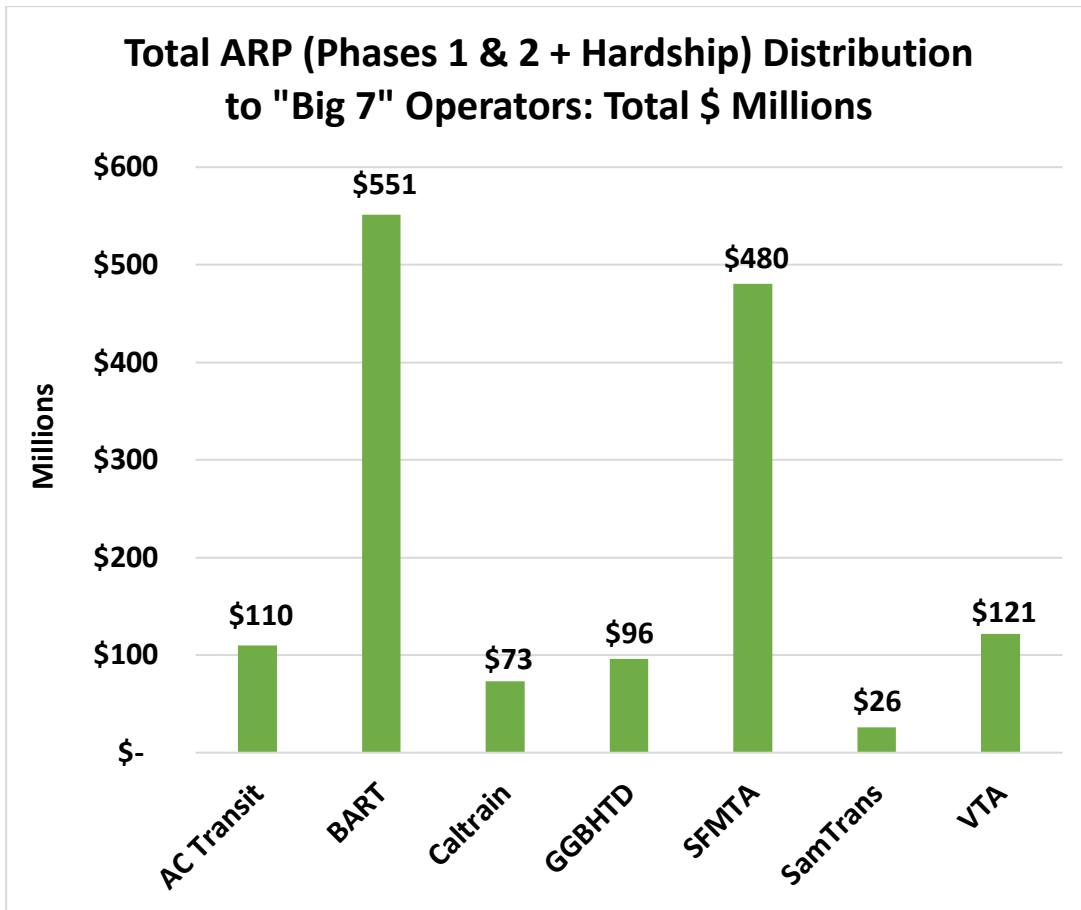


Figure 17. ARP Phases 1 & 2 (Total) Allocations to the “Big 7” Transit Operators in Dollars<sup>36</sup>

Note: The ARP Total includes Phase 1 allocations in July 2021, Phase 2 allocations in October 2021, and Special Hardship and Focused Recovery Allocations in September 2021 totaling \$37 million. VTA received a Hardship allocation of \$29 million in response to the May 26, 2021, tragedy at its Guadalupe Maintenance Facility.

Total MTC ARP allocations for Phases 1 & 2 to the “Big 7” Transit Operators in terms of the percentage share of the total funding pot are shown in Figure 18.



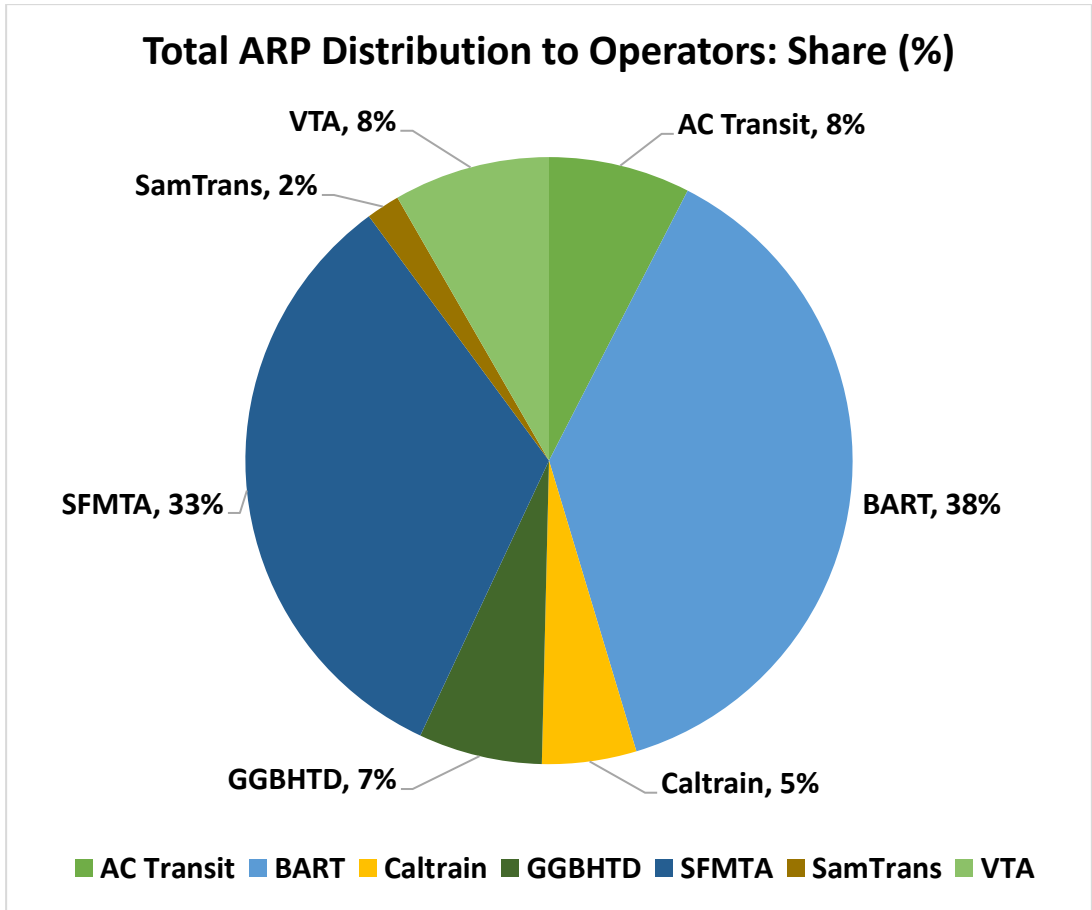


Figure 18. ARP Phases 1 & 2 (Total) Allocations to the “Big 7” Transit Operators as a Percentage of Total Funding<sup>37</sup>

Note: The ARP Total includes Phase 1 allocations in July 2021, Phase 2 allocations in October 2021, and Special Hardship and Focused Recovery Allocations in September 2021 totaling \$37 million. VTA received a Hardship allocation of \$29 million in response to the May 26, 2021, tragedy at its Guadalupe Maintenance Facility.

*Comparison of Total Pandemic Relief Funds Allocated and Total Projected Revenue Losses for Bay Area Transit Operators*

Figure 19 provides a comparison of the total Pandemic Relief Funds MTC allocated to the “Big 7” transit operators (with an eighth category for all “other” transit operators plus MTC itself) and MTC’s projected total losses during the pandemic for each operator.

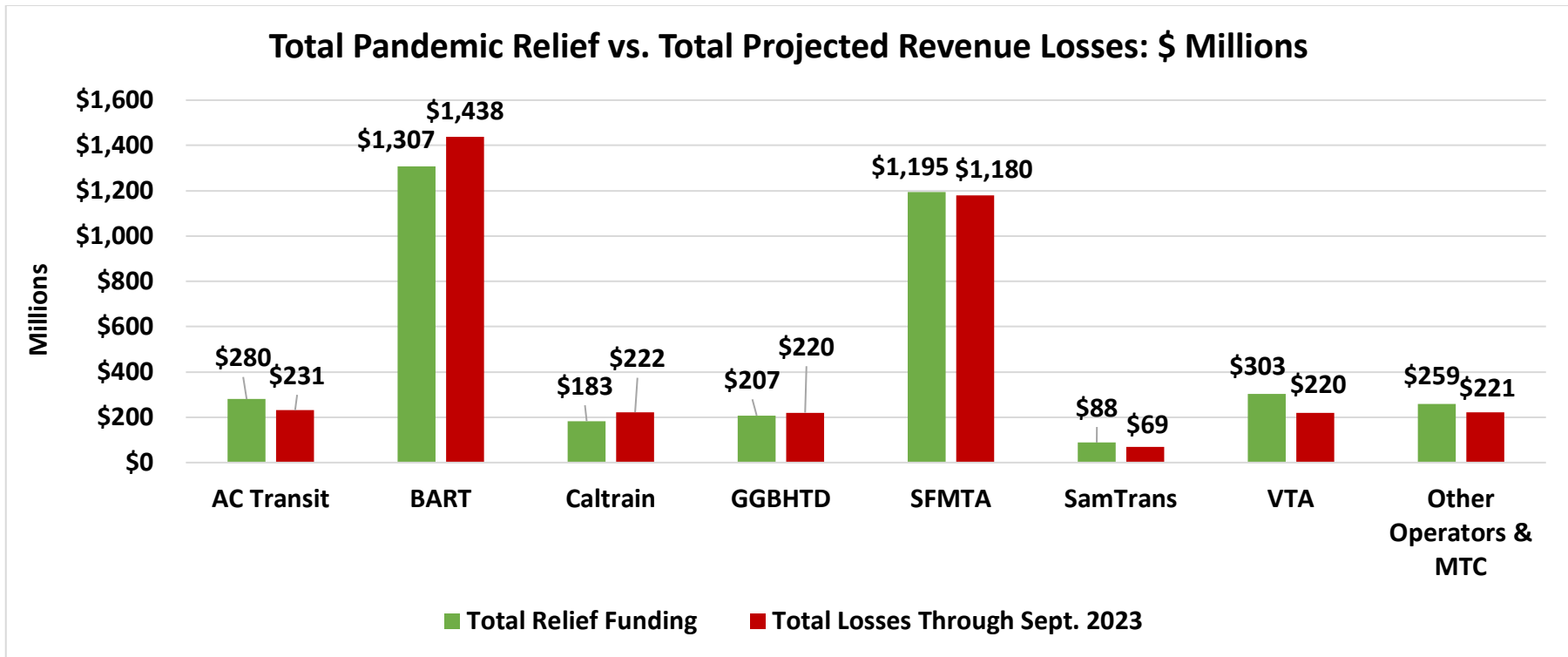


Figure 19. Total Pandemic Relief Versus Total Projected Revenue Losses from MTC to the “Big 7” and Other Transit Operators<sup>38</sup>

Note: The ARP Total includes Phase 1 allocations in July 2021, Phase 2 allocations in October 2021, and Special Hardship and Focused Recovery Allocations in September 2021 totaling \$37 million. VTA received a Hardship allocation of \$29 million in response to the May 26, 2021, tragedy at its Guadalupe Maintenance Facility.

*Biden Administration Allocation of Supplemental ARP Funds*

The Biden Administration allocated an additional \$2.2 billion in ARP funds to 35 transit operators in 18 states on March 7, 2022, to “avoid drastic service cuts and layoffs”<sup>39</sup> according to FTA Administrator Nuria Fernandez. The supplemental allocation of ARP funds included \$536 million to the following 6 transit operators in the Bay Area:

1. BART
2. Caltrain
3. SFMTA
4. GGBHTD
5. WETA
6. SMART<sup>40</sup>

Total Biden Administration Supplemental ARP allocations to the “Big 7” Transit Operators (plus Other Operators and MTC) in terms of total dollars are shown in Figure 20.

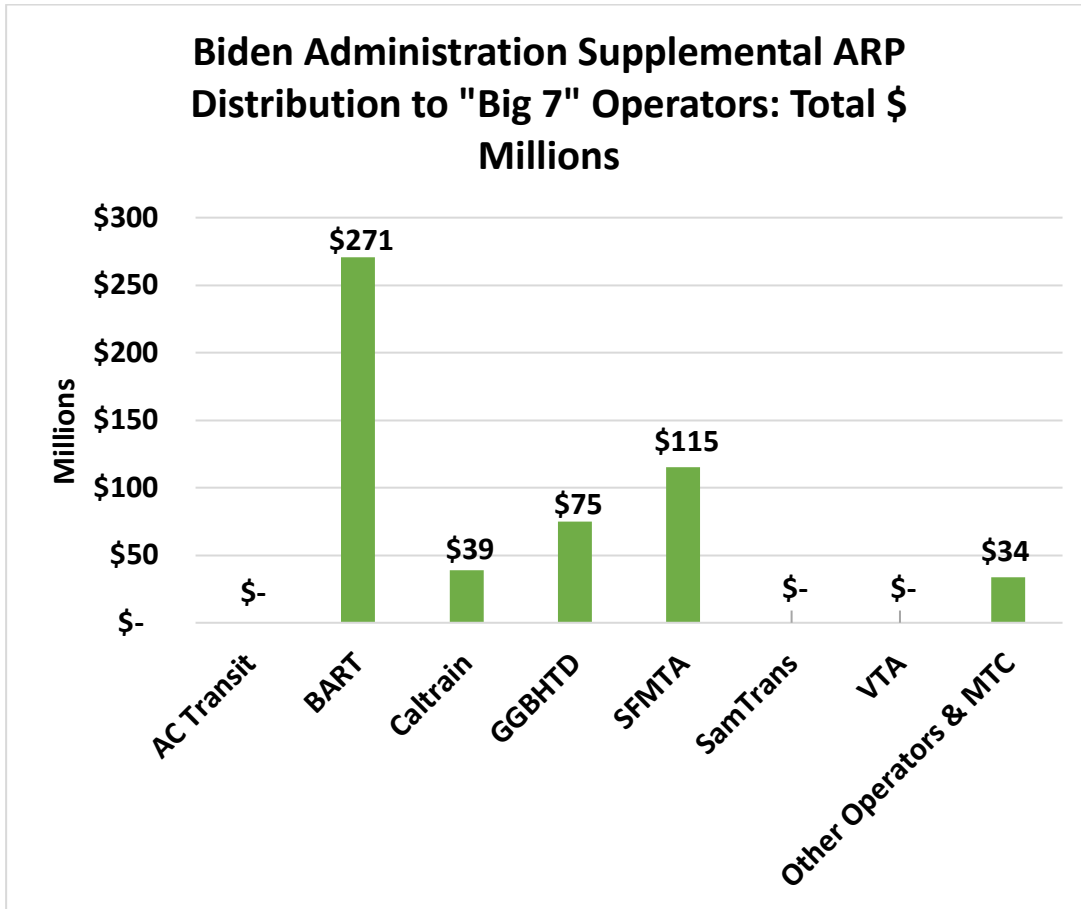


Figure 20. Supplemental ARP Allocations to the “Big 7” Transit Operators in Dollars<sup>41</sup>

Total Biden Administration Supplemental ARP allocations to the “Big 7” Transit Operators (plus Other Operators and MTC) in terms of the percentage share of the total funding pot are shown in Figure 21.

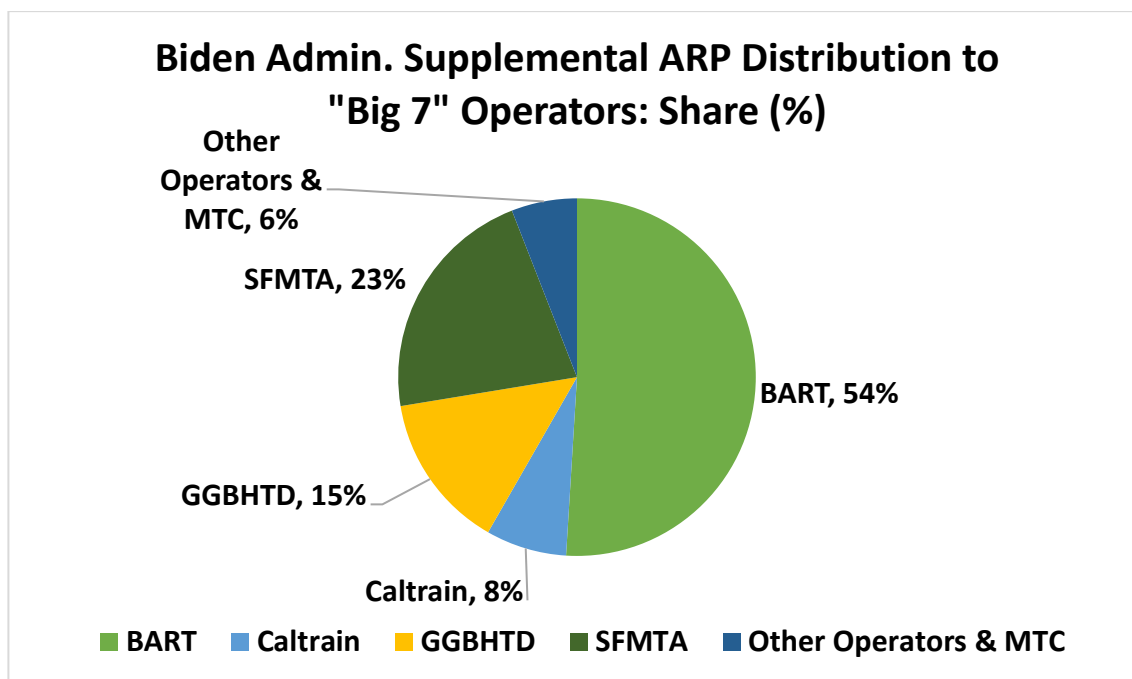


Figure 21. Supplemental ARP Allocations to the “Big 7” Transit Operators as a Percentage of Total Funding<sup>42</sup>

*MTC Approach to Distributing California’s Transportation Development Act (TDA)/State Transit Assistance (STA) Funding*

There are three parts to this funding program: TDA, STA Revenue-Based, and STA Population-Based funds. First, TDA funds are return-to-source, so while the state collects a ¼-cent sales tax from each county, they then return these funds to each county, routing them through MTC in the case of the nine counties of the Bay Area. Therefore, while MTC plays the role of pass-through agency for these funds, except for taking a relatively small percentage “off-the-top” for their own operations, MTC does not have any meaningful discretionary power over the vast majority of TDA funds.<sup>43</sup>

STA funds are collected by the state using statewide fuel sales taxes. STA funds consist of two component funding programs. STA Revenue-Based funds are allocated by the state (through MTC for Bay Area) to the region’s transit operators based on their annual revenues. Like the TDA program, STA Revenue-Based funds are not discretionary for MTC.<sup>44</sup>

Population-Based STA funds are allocated by the state to MTC based on the region’s population. This funding program is discretionary for MTC, and therefore, is the subject of our investigations. Funding amounts for TDA/STA vary from year to year depending on retail sales by county and on statewide fuel sales.<sup>45</sup>

Overall, before the pandemic in FY 2018-19 the Bay Area received the following allocations for TDA/STA funds (see Figure 22):

1. \$422 million in TDA funds (63% of total TDA/STA funds)
2. \$180 million in STA Revenue-Based funds (27% of total TDA/STA funds)
3. \$65 million in discretionary STA Population-Based funds (10% of total TDA/STA funds).

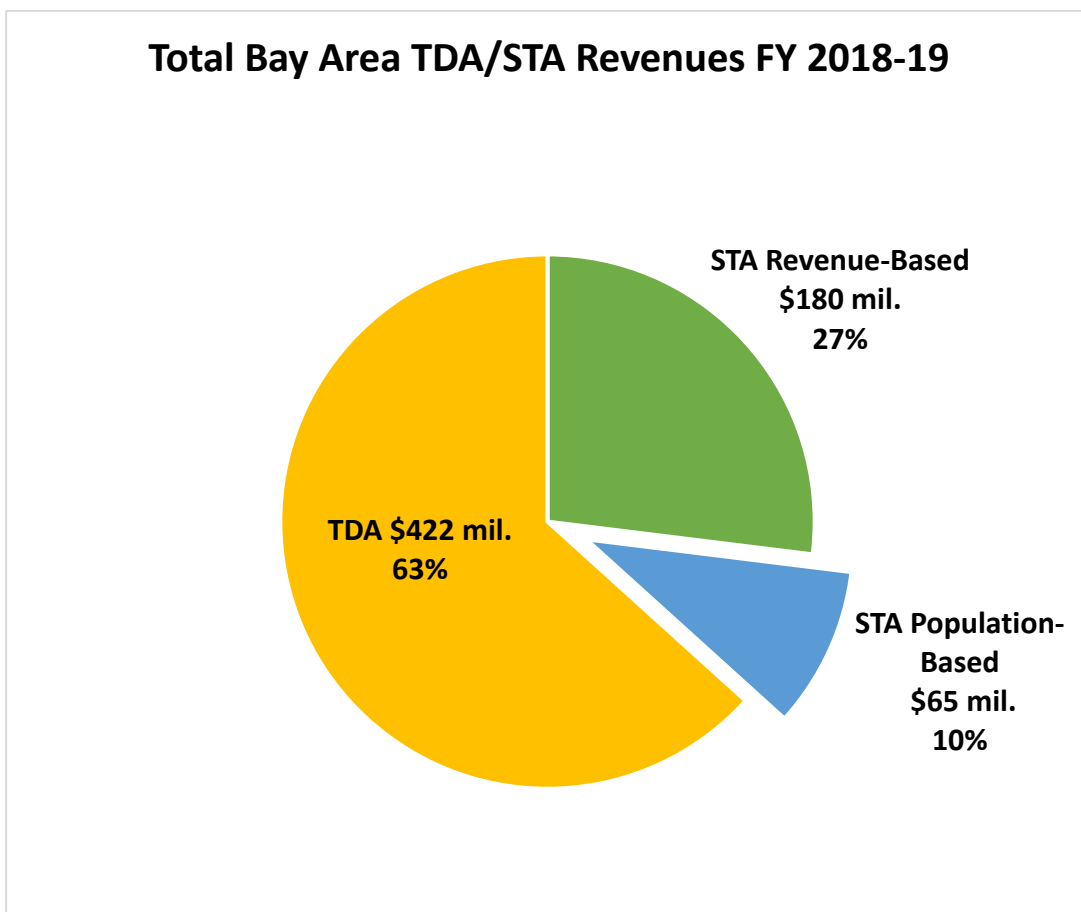


Figure 22. Typical Funding Amounts for the Bay Area from TDA/STA before the Pandemic: FY 2018-19<sup>46</sup>

### Share of Total Bay Area TDA/STA Revenues for FY 2018-19

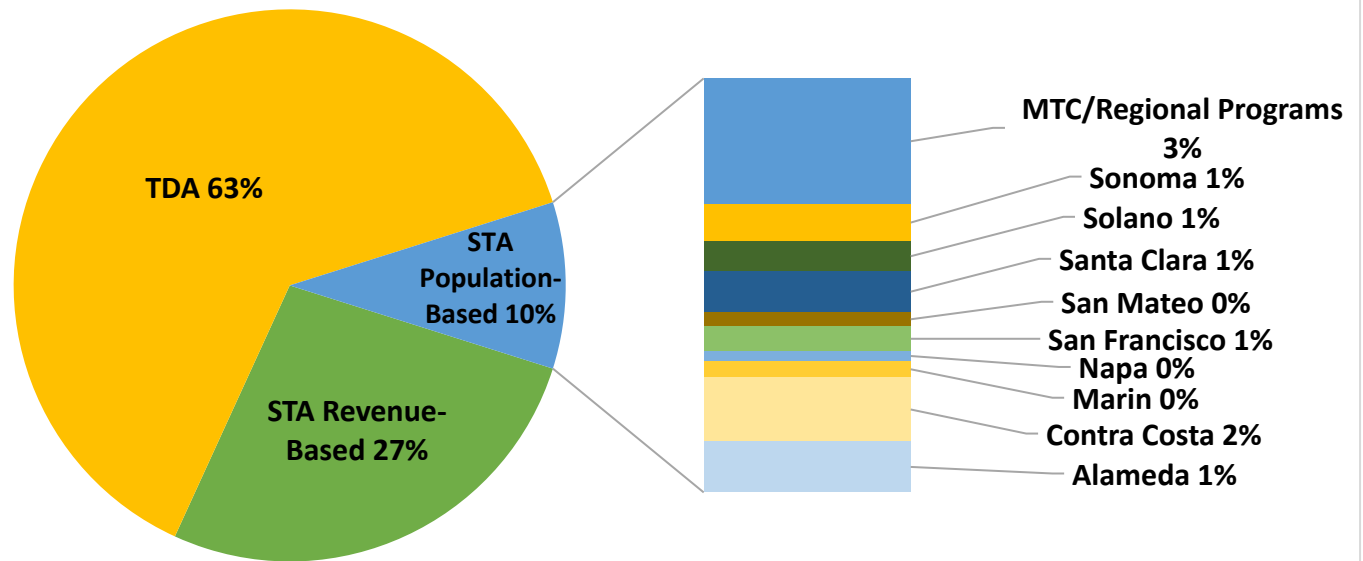


Figure 23. Share of Total TDA/STA Funds for the Bay Area Going Through MTC to the Counties via STA Population-Based Funds<sup>47</sup>

*A Brief History of MTC's Approach to Allocating STA Population-Based Funds*

MTC's approach to allocating discretionary STA Population-Based funds changed from a "prescriptive" system used from 2008 to 2018, to a "local control" system relying on "block grants" to the counties starting in 2018.<sup>48</sup>

*MTC Resolution No. 3837 ("Prescriptive" System)*

In 2008 MTC's Commission adopted Resolution 3837 authorizing staff to distribute STA Population-Based funds to the region's counties using fixed percentages in four funding categories:

1. **Northern Counties/Small Operators:** 28.3% went to northern counties (Marin, Sonoma, Napa, and Solano) and small operators in Contra Costa and Alameda Counties (Livermore/Amador Valley Transit Authority, Union City Transit, Contra Costa County Transit Authority, Eastern Contra Costa Transit Authority, and WestCAT).
2. **Regional Paratransit:** 15.6% went to fund paratransit services to meet the region's Americans with Disabilities Act (ADA) requirements.
3. **MTC Regional Coordination:** 26.9% went to MTC projects and programs that enhanced regional transit coordination such as Clipper, 511, and transit connectivity.
4. **Lifeline Transportation Program:** 29.2% went to "lifeline" projects and services intended to improve mobility options for low-income Bay Area residents.<sup>49</sup>

As seen in Figure 24, from 2008 to 2018 MTC allocated STA Population-Based funds to Bay Area counties according to a combination of fixed percentages to each of the four funding categories above, and population-based allocations to each county within each category.



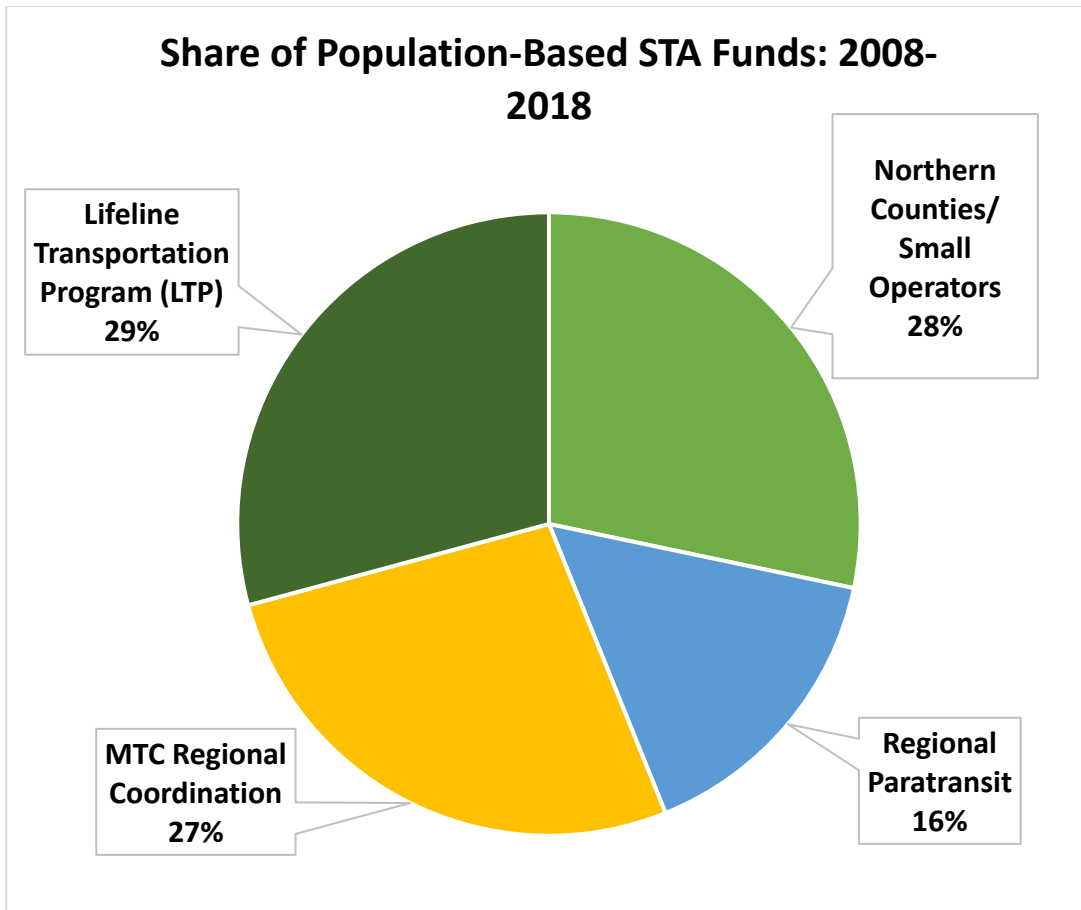


Figure 24. Shares of MTC’s STA Population-Based Allocations to Each Funding Category (2008-2018)<sup>50</sup>

Over the course of this period from 2008, when Resolution No. 3837 was instituted, to 2018 when its successor policy was instituted, Figure 25 shows that the overall allocations by MTC to each county remained largely the same proportionally.

### Share of Total Population-Based State Transit Assistance (STA) Funds from MTC to Bay Area Counties: 2011 - 2018

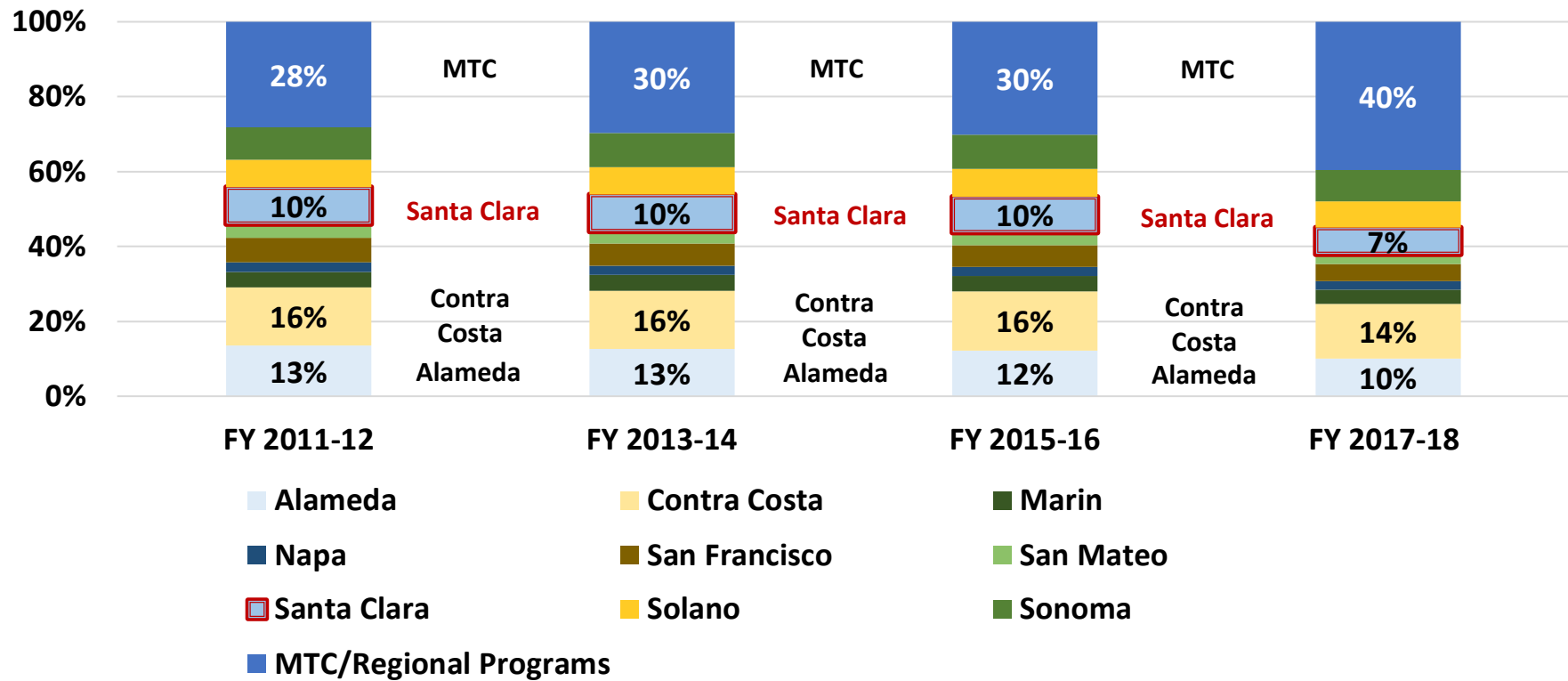


Figure 25. Share of STA Population-Based Allocations to Each County and MTC (2011-2018)<sup>51</sup>

*MTC Resolution No. 4321 (“Local Control” or “Block Grant” System)*

In 2018 MTC adopted Resolution 4321 authorizing distribution of STA Population-Based funds as fixed percentage “Block Grants” after MTC’s Regional Coordination share (30%) is taken “off-the-top”, instead of the four fixed funding categories used previously. As seen in Figure 26, Block Grants maintain roughly the same shares of funding each county received under the four fixed funding category Resolution No. 3837 system.

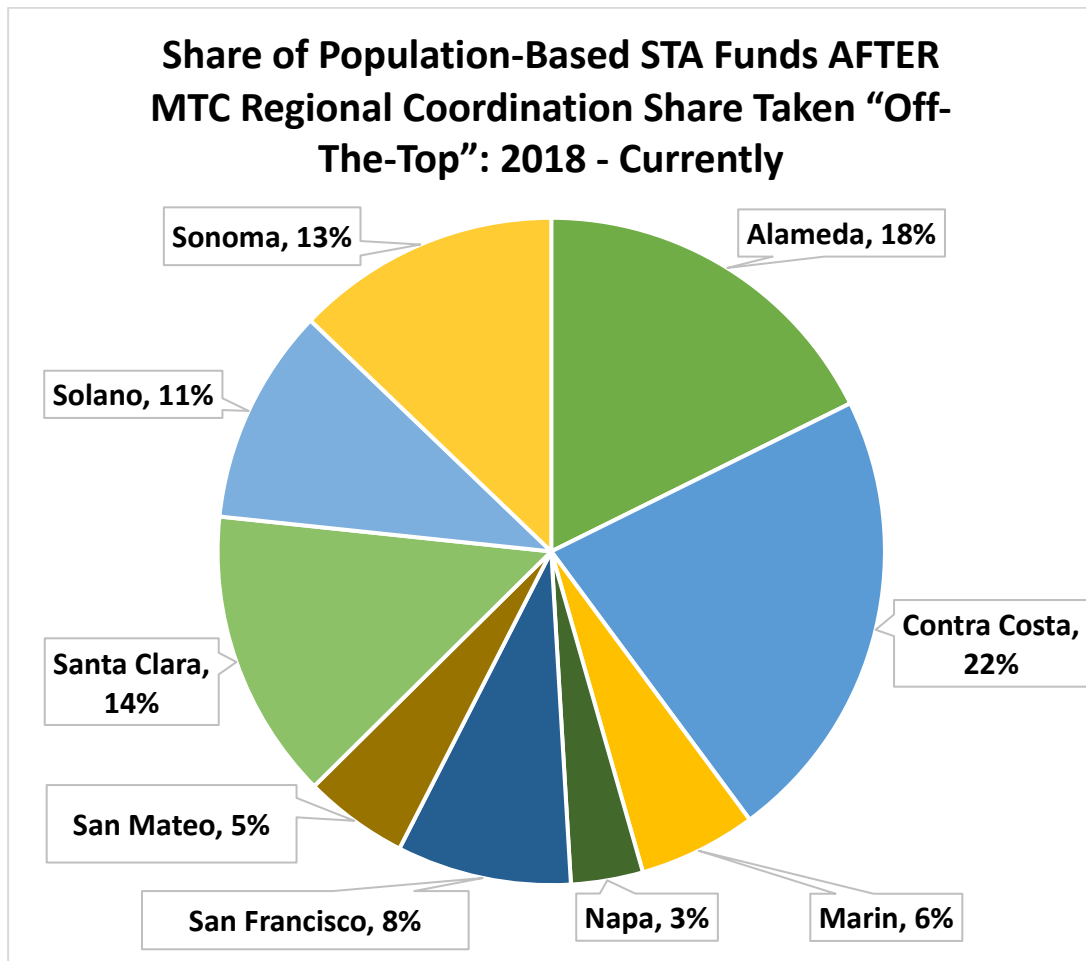


Figure 26. Share of Population-Based Funds to Each County<sup>52</sup>

As shown in Figure 27, MTC calculated these fixed allocation percentages so each county would get roughly the same share in their Block Grant that they received in the past under the old “prescriptive” Resolution No. 3837 system.

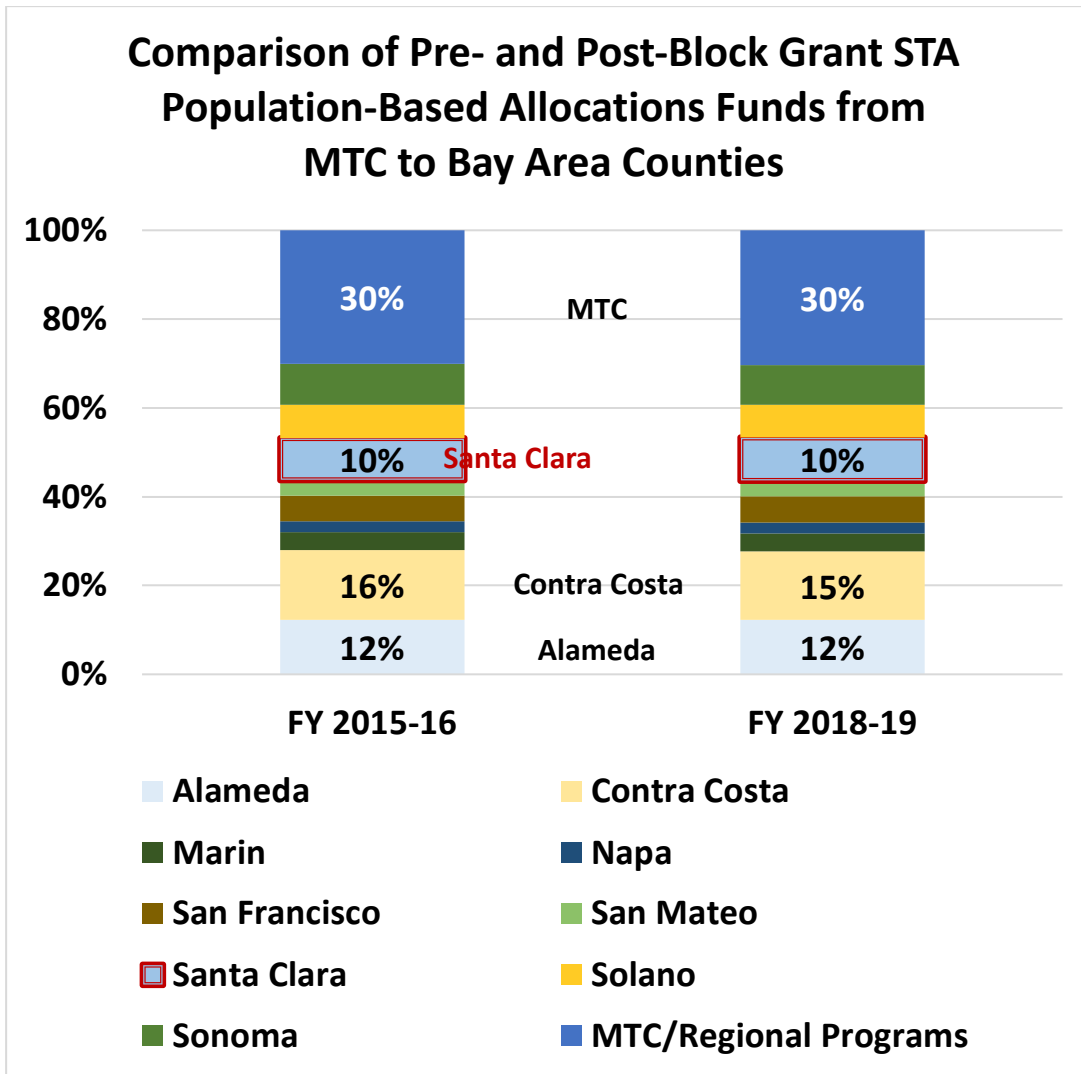


Figure 27. Comparison of Pre- and Post-Block Grant STA Population-Based Allocations Funds from MTC to Bay Area Counties<sup>53</sup>

This effort to continue using the same shares as the old “prescriptive” system was done in part to maintain funding for the small transit operators.

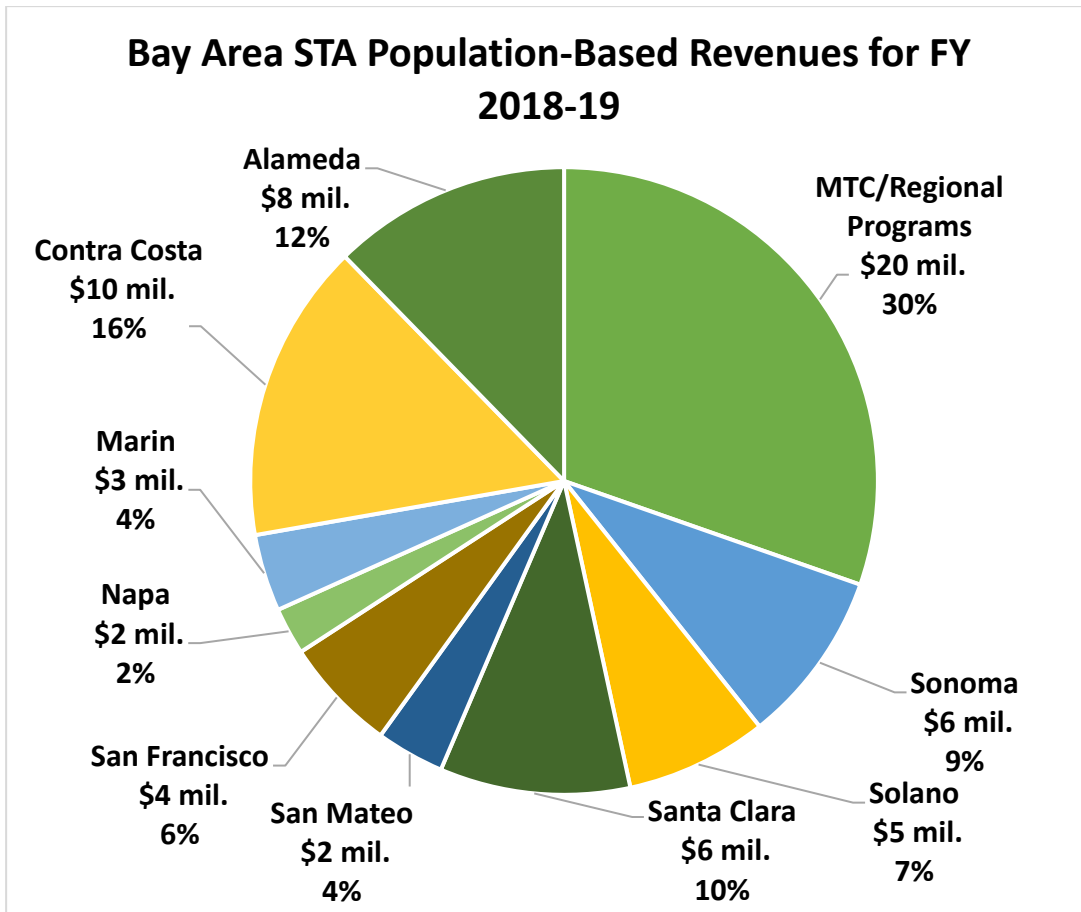


Figure 28. Bay Area STA Population-Based Revenues for FY 2018-19<sup>54</sup>

As such, the Block Grant allocations maintained relatively high shares for the counties with small operators compared to larger population counties such as Santa Clara which do not have small operators. For example, Contra Costa’s 16 percent is well above the 10 percent share allocated to Santa Clara County in FY 2018-19, and Sonoma’s 9 percent share is nearly the same as Santa Clara County, despite SCC’s much larger population.

Since 2018 (when Resolution No. 4321 was instituted) the overall allocations by MTC to each county remained largely the same proportionately, as shown in Figure 29.

## Share of Total Population-Based State Transit Assistance (STA) Funds from MTC to Bay Area Counties

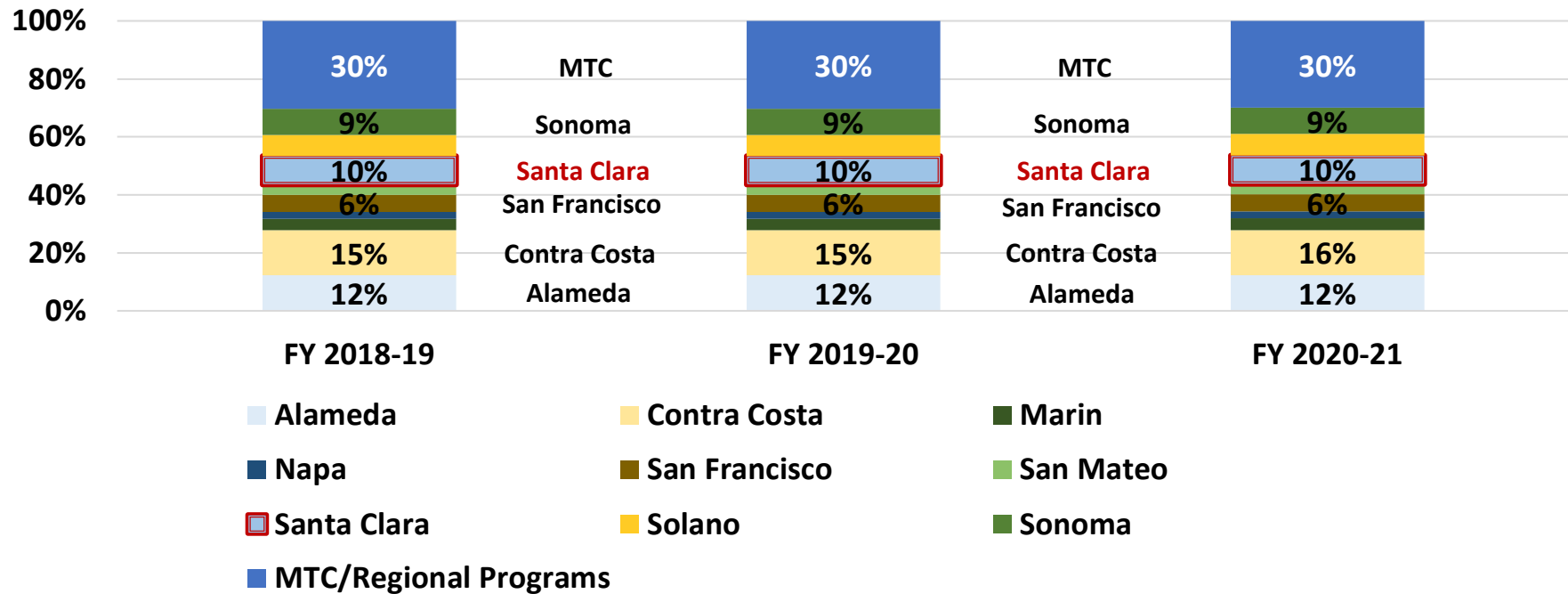


Figure 29. STA Population-Based Allocations Remain Steady After Resolution No. 4321 Implemented the Block Grant Allocation System in FY 2018-19<sup>55</sup>

## *Part 2: Federal Pandemic Relief Funding Programs: Alternative Approaches to Allocation*

The following metrics were identified and selected for use in hypothetical allocations by MTC of Pandemic Relief and TDA/STA funds to Bay Area transit operators and counties:

1. **Ridership:** Each operator's annual ridership as a share of the Bay Area's total annual ridership.
2. **Hours of Service:** Each operator's total annual service-hours as a share of the Bay Area's total annual service-hours provided.
3. **Miles of Service:** Each operator's total annual service-miles as a share of the Bay Area's total annual service-miles provided.
4. **Population:** Each county's population as a share of the Bay Area's total population.
5. **Low-Income Population:** Each county's low-income population as a share of the Bay Area's total low-income population.

### *Alternative Allocations: Pandemic Relief Funding*

The analysis findings from applying transit-operator-level and county-level allocation metrics to Pandemic Relief Funds are described below.

#### *What if Pandemic Relief Funds Were Allocated to Counties Based on Population?*

Instead of making allocations directly to operators, as MTC did in the case of Pandemic Relief Funds, Figure 30 shows hypothetical Pandemic Relief Funds allocations by MTC instead to each county based on population.

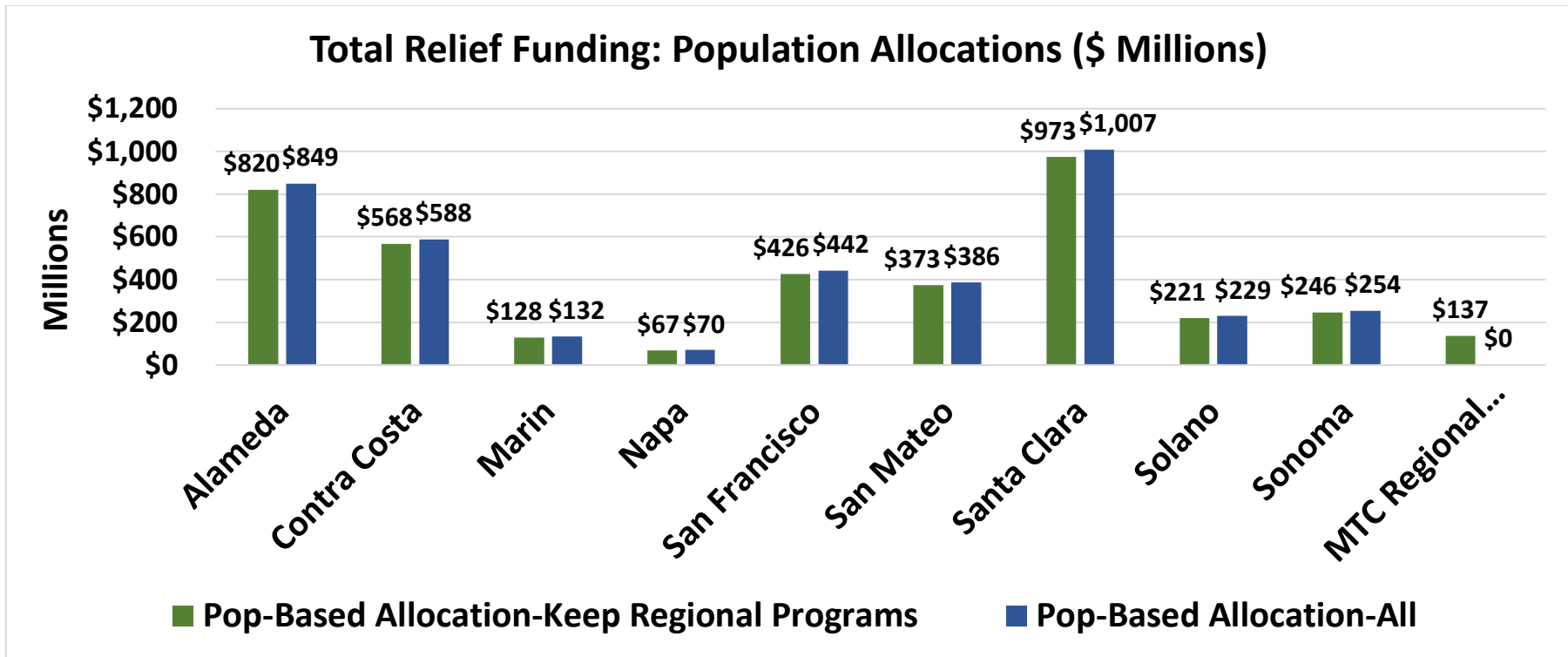


Figure 30. Population-Based Pandemic Relief Funds Allocations<sup>56</sup>



Analysis of Figure 30 suggests that population-based Pandemic Relief Funds would favor large counties with a greater share of funding than they received (through their operators) from MTC's actual allocations. To illustrate this point, VTA/Santa Clara County allocations would increase by roughly 221 percent, while SFMTA/San Francisco County's allocations would fall by 64 percent. However, since this hypothetical allocation was made to counties instead of to operators, it is important to note that comparisons between counties are difficult and can be misleading. For example, both San Francisco and SCC would need to agree on how much each would need to spend on regional operators serving their counties such as Caltrain and BART. However, since allocating by population would result in San Francisco losing approximately 64 percent of its funding compared to what they actually received in Pandemic Relief Funding, we can safely assume that unless population-based allocation beneficiary counties such as SCC agree to provide all the necessary funding for BART, Caltrain, and other regional operators, San Francisco's share for SFMTA operations would be even smaller than the \$426 million shown in Figure 30.

*What if Pandemic Relief Funds Were Allocated to Counties Based on Low-Income Population?*

Instead of making allocations directly to operators, as MTC did in the case of Pandemic Relief Funds, Figure 31 shows hypothetical Pandemic Relief Funds allocations by MTC instead to each county based on low-income population.

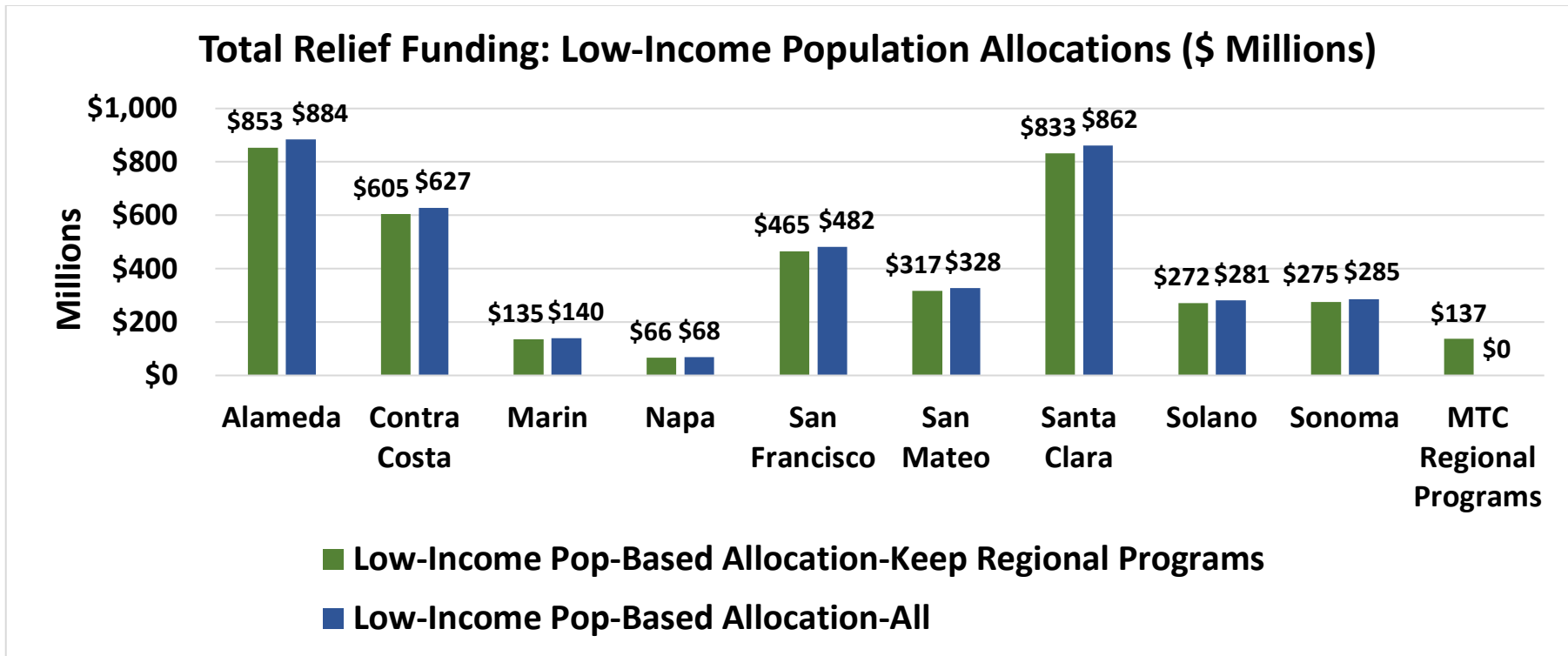


Figure 31. Low-Income Population-Based Pandemic Relief Funds Allocations<sup>57</sup>

Analysis of Figure 31 suggests that low-income population-based Pandemic Relief Funds would favor counties with large populations and/or a high proportion of low-income residents with a greater share of funding than they received (through their operators) from MTC's actual allocations. To illustrate this point, VTA/Santa Clara County allocations would increase by roughly 191 percent, while SFMTA/San Francisco County's allocations would fall by 61 percent. However, since this hypothetical allocation was made to counties instead of to operators, it is important to note that comparisons are difficult and can be misleading. For example, both San Francisco and SCC would need to agree on how much each would need to spend on regional operators serving their counties such as Caltrain and BART. However, since allocating by population would result in San Francisco losing approximately 61 percent of its funding compared to what they actually received in Pandemic Relief Funding, we can safely assume that unless low-population-based allocation beneficiary counties such as SCC agree to provide all the necessary funding for BART, Caltrain, and other regional operators, San Francisco's share for SFMTA operations would be even smaller than the \$465 million shown in Figure 31.

*What if Pandemic Relief Funds Were Allocated to Operators Based on Ridership?*

Figure 32 shows hypothetical Pandemic Relief Funds allocations by MTC to each operator based on ridership.

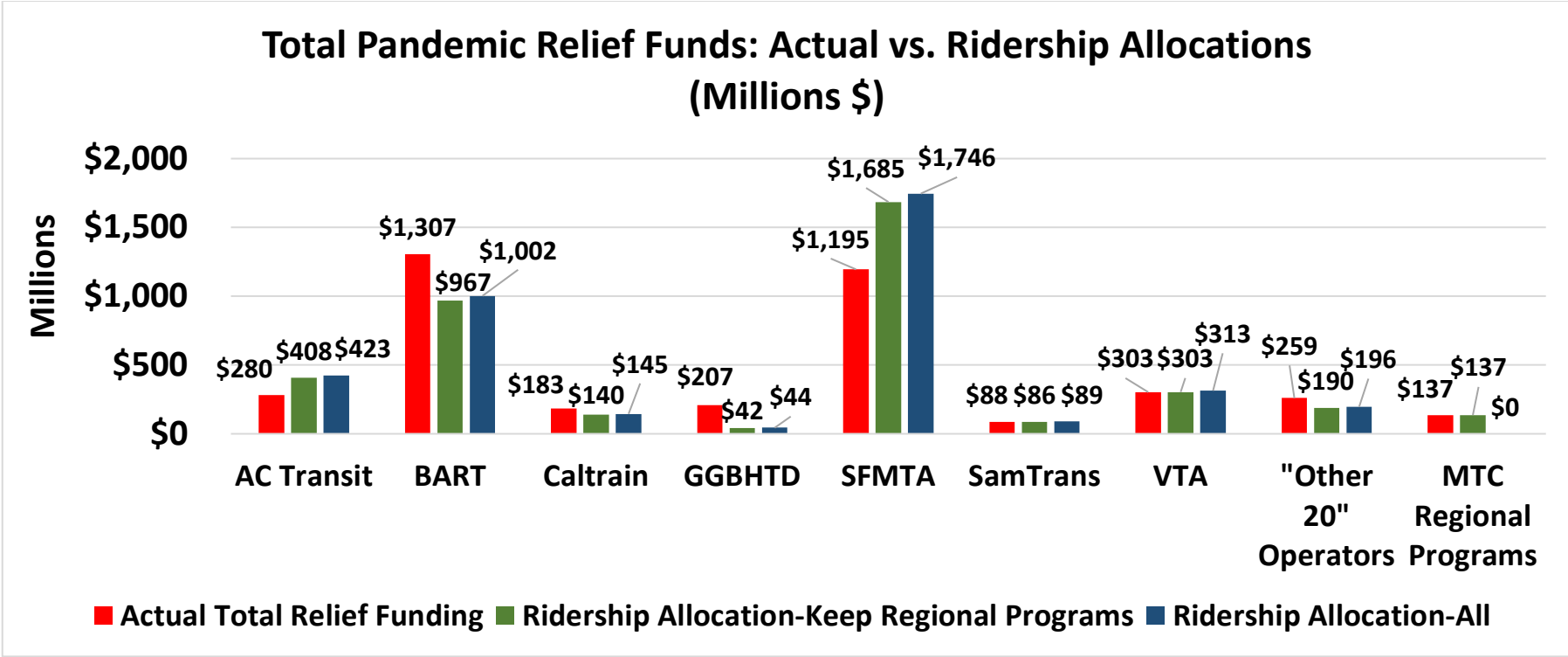


Figure 32. Pandemic Relief Funds Ridership-Based Allocations<sup>58</sup>

Analysis of Figure 32 suggests that ridership-based Pandemic Relief Funds would favor large operators with a greater share of funding than they received (through their operators) from MTC's actual allocations. To illustrate this point, SFMTA, the largest transit operator in the Bay Area, would receive 41 percent more Pandemic Relief Funds based on ridership than they received from MTC. On the other hand, large but still low-ridership operators such as VTA allocations would stay flat, while allocations for the "Other", smaller operators in the region would fall by 27 percent overall.

*What if Pandemic Relief Funds Were Allocated by Vehicle-Hours of Service Provided?*

Figure 33 shows hypothetical Pandemic Relief Funds allocations by MTC to each operator based on the total Vehicle Revenue-Hours (VRH) of Service they provided.

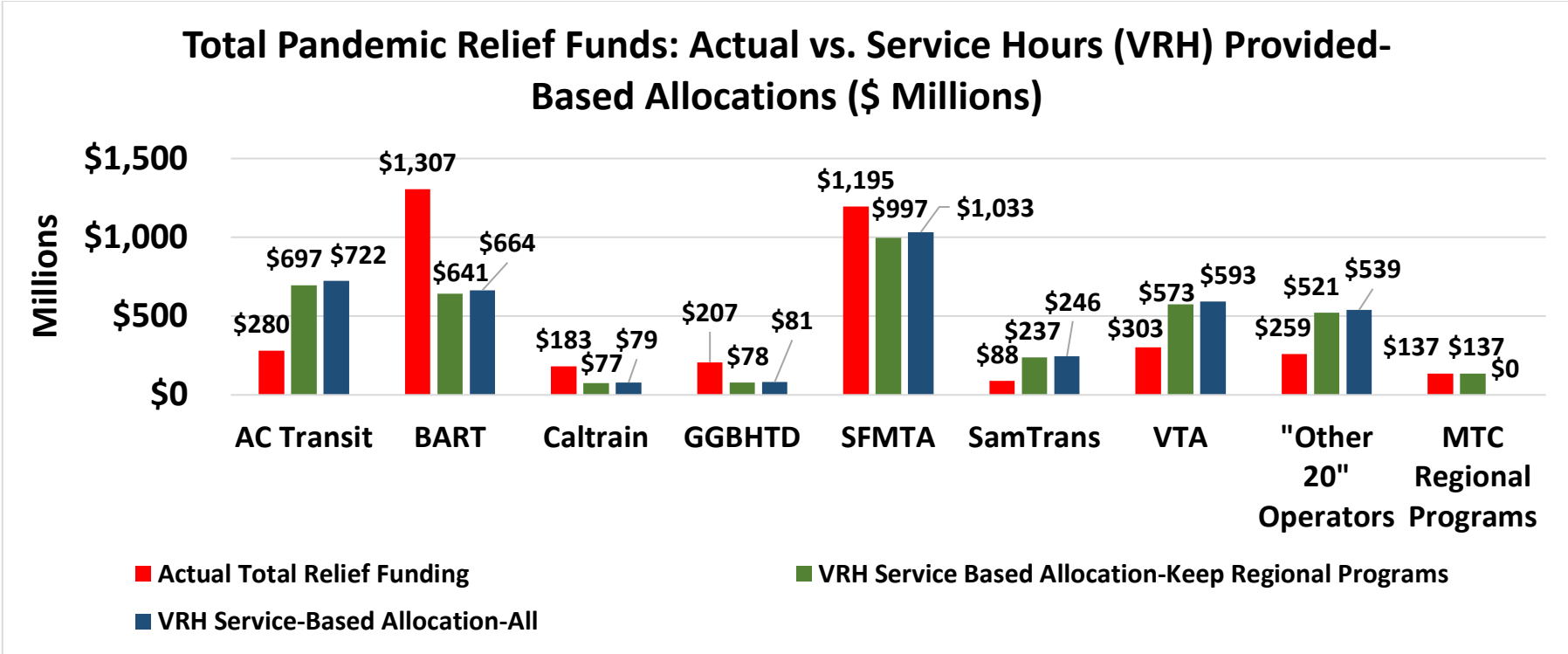


Figure 33. Pandemic Relief Funds Vehicle Revenue-Hours Allocations<sup>59</sup>

Analysis of Figure 33 suggests that VRH-based Pandemic Relief Funds allocations would favor bus and transit-dependent serving operators that have high service frequencies (short headways), operate in congested areas where traffic is slow, and have long hours of service. These operators tended to receive a greater share of funding than they received from MTC's actual allocations. To illustrate this point, mostly-bus operators such as VTA and SamTrans would receive substantially more funding than they did from MTC (89% and 169%, respectively). On the other hand, operators with more rail services such as SFMTA and BART would receive less money (-17% and -51%, respectively).

*What if Pandemic Relief Funds Were Allocated by Vehicle Revenue-Miles of Service Provided?*

Figure 34 shows hypothetical Pandemic Relief Funds allocations by MTC to each operator based on the total Vehicle Revenue-Miles (VRM) of Service they provided.

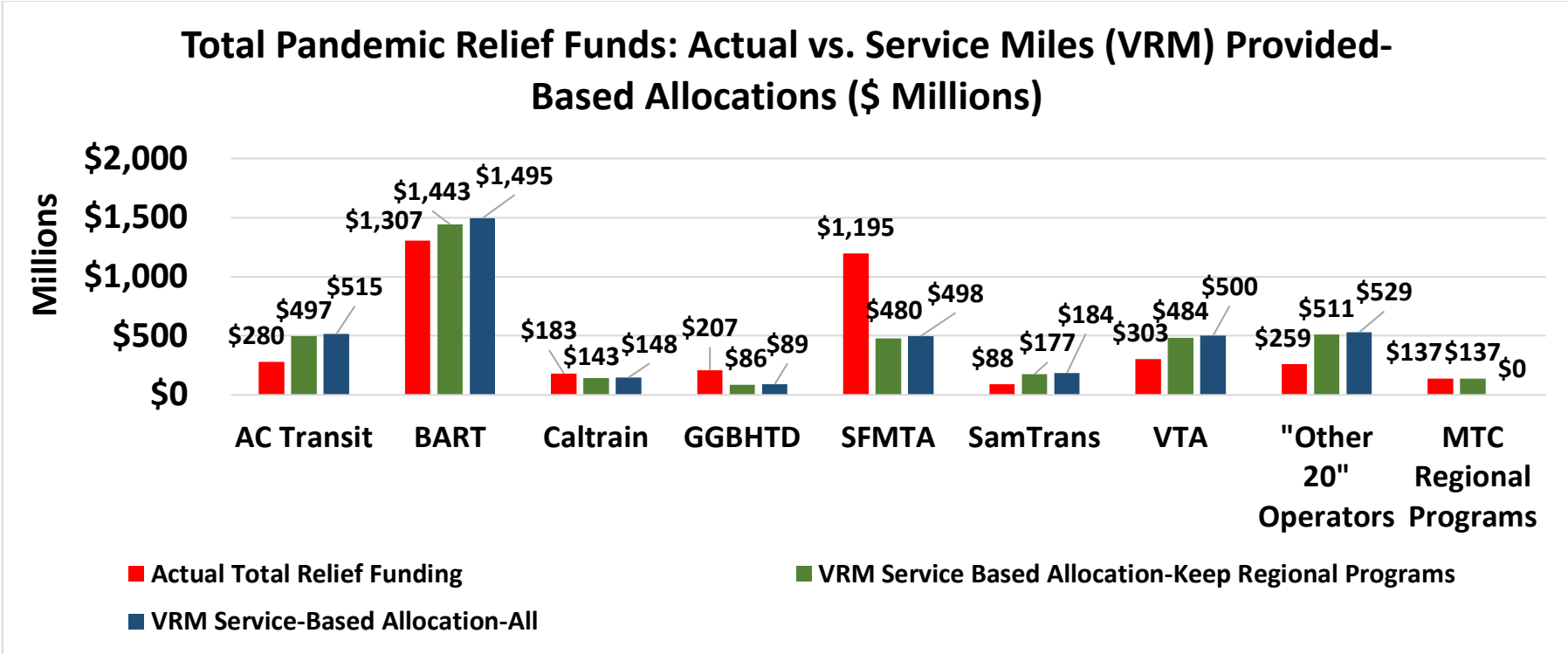


Figure 34. Pandemic Relief Funds Vehicle Revenue-Miles Allocations<sup>60</sup>



Analysis of Figure 34 suggests that VRM-based Pandemic Relief Funds allocations would favor large rail and bus and commuter-serving operators that have high speeds, long routes, and high service frequencies (short headways). These operators tended to receive a greater share of funding than they received from MTC's actual allocations. To illustrate this point, frequent operators such as VTA and AC Transit would receive substantially more funding than they did from MTC (60% and 78%, respectively). On the other hand, operators with slower or infrequent services such as GGBHTD and SFMTA would receive less money (-59% and -60%, respectively).

*Alternative Allocations: STA Population-Based ("Block Grant") Funding*

The analysis findings from applying transit-operator-level and county-level allocation metrics to STA Population-Based Funding are described below.

*What if STA Population-Based ("Block Grant") Funds Were Allocated to Counties Based on Population?*

Figure 35 shows hypothetical Pandemic Relief Fund allocations by MTC to each county based on population.

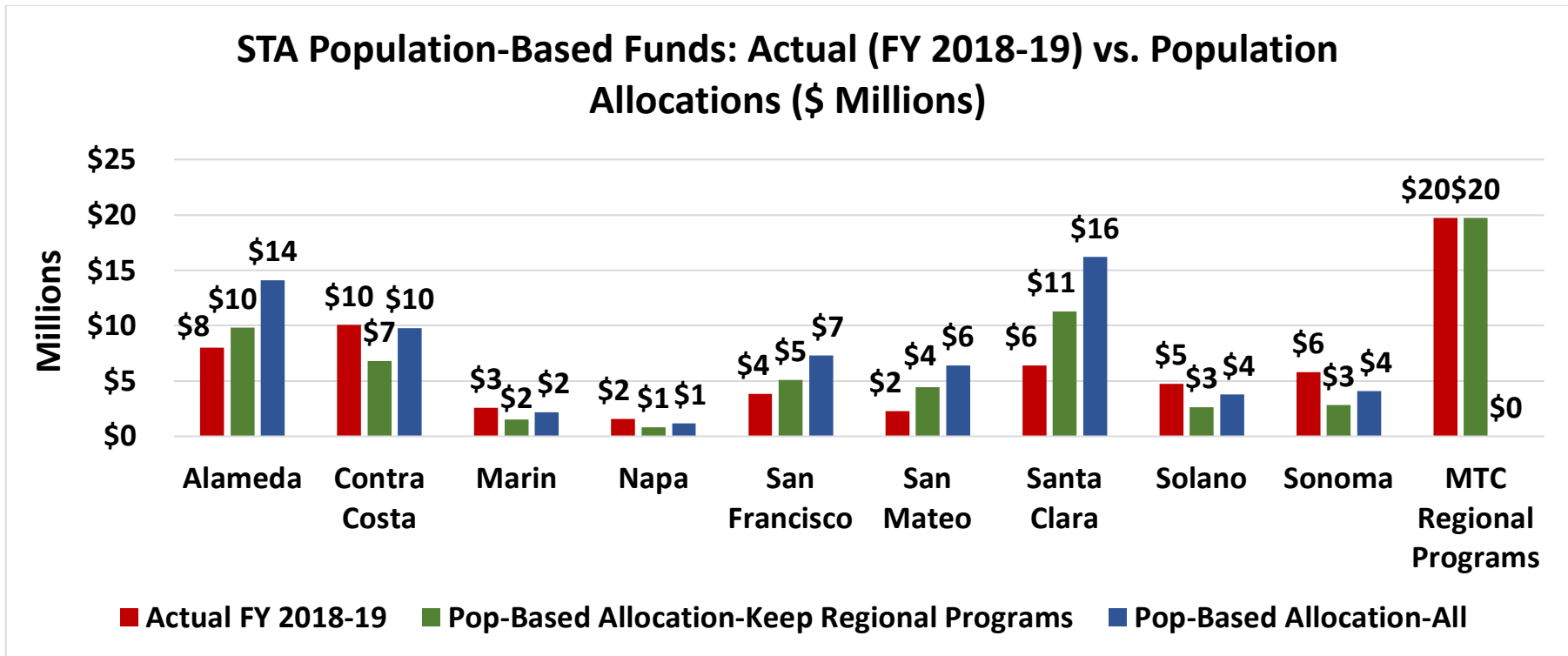


Figure 35. Population-Based STA Pandemic Relief Funds Allocations<sup>61</sup>

Analysis of Figure 35 suggests that population-based allocations of STA “Block Grant” Funds would favor large counties with a greater share of funding than they received from MTC’s actual allocations. To illustrate this point, VTA/Santa Clara County allocations would increase by roughly 83 percent, while smaller population North Bay Counties such as Napa and Sonoma would be reduced by roughly half.

*What if STA Population-Based (“Block Grant”) Funds Were Allocated to Counties Based on Low-Income Population?*

Figure 36 shows hypothetical Pandemic Relief Fund allocations by MTC to each county based on low-income population.

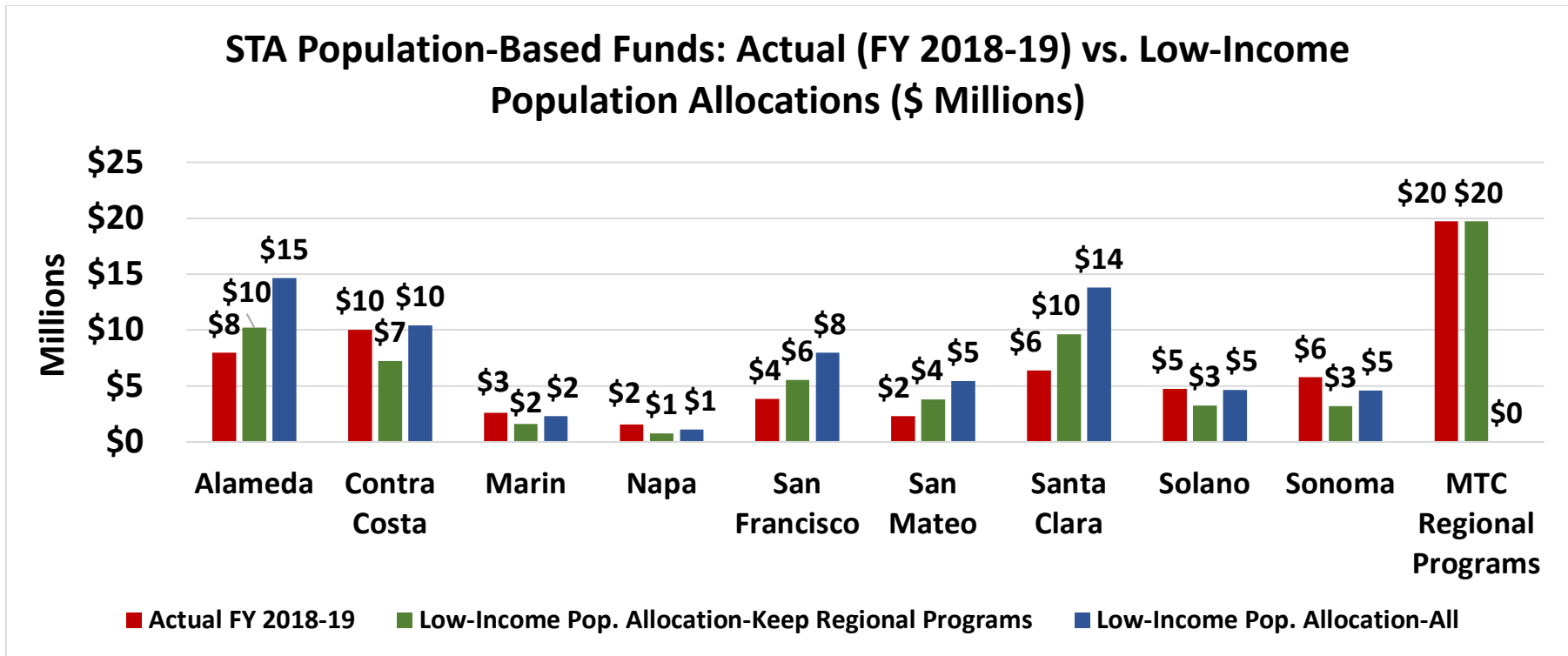


Figure 36. Low-Income Population-Based STA Pandemic Relief Funds Allocations<sup>62</sup>

Analysis of Figure 36 suggests that population-based allocations of STA “Block Grant” Funds would favor large population counties and counties with large low-income populations with a greater share of funding than they received from MTC’s actual allocations. To illustrate this point, VTA/Santa Clara County allocations would increase by roughly 67 percent, while smaller population North Bay Counties such as Napa and Sonoma would be reduced by roughly half.

*What if STA Block Grant Funds Were Allocated to Operators Based on Ridership?*

Instead of making allocations directly to counties, as MTC did in the case of STA Block Grants, Figure 37 shows hypothetical STA Block Grant allocations instead to each operator based on ridership.

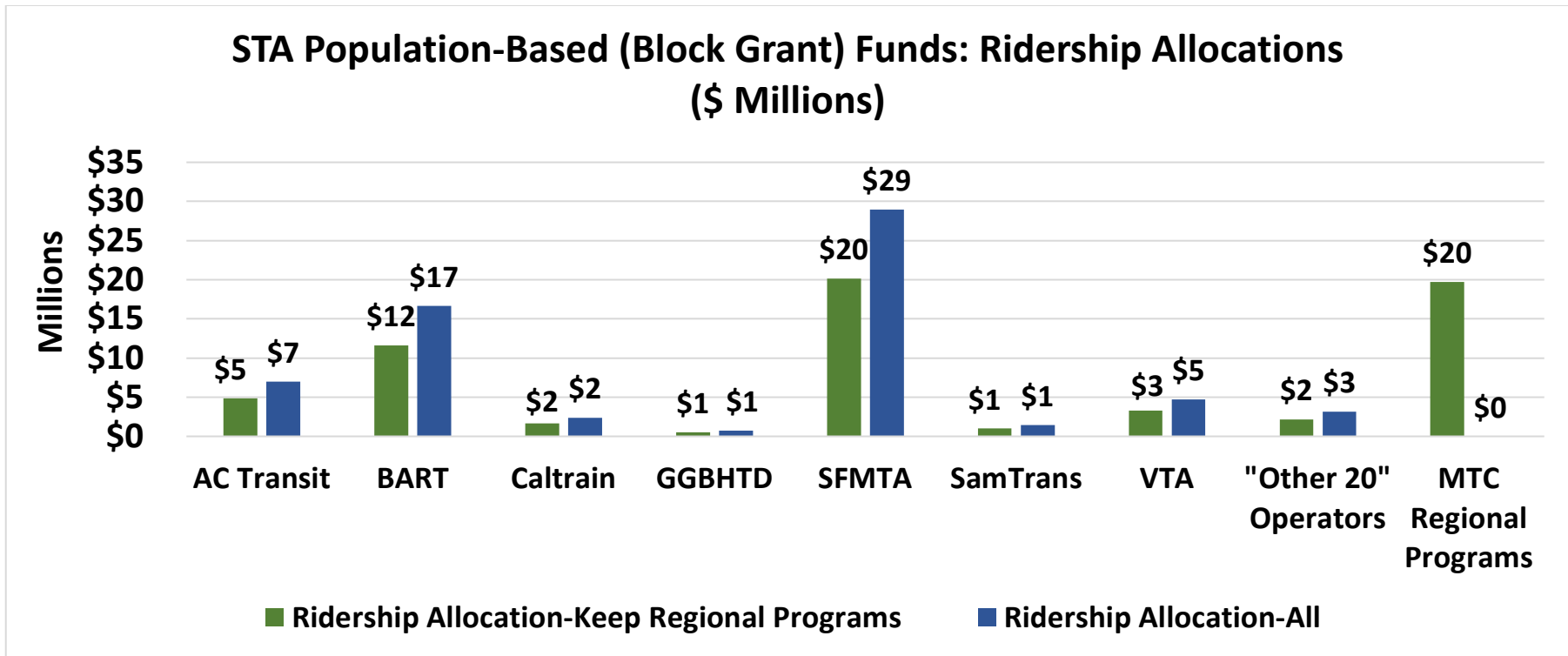


Figure 37. Ridership-Based STA Block Grant Allocations<sup>63</sup>

Analysis of Figure 37 suggests that ridership-based STA Block Grant funds would favor large operators. In fact, large ridership operators such as SFMTA/San Francisco County would increase their allocations by 400 percent. Meanwhile, VTA/Santa Clara County allocations would decrease by half (50%). However, since this hypothetical allocation was made to operators instead of counties, it is important to note that comparisons are difficult and can be misleading. Therefore, while regional operators received no funds in MTC's actual allocations of STA Block Grants, this allocation would take large funding amounts from low-ridership, high-cost operators/counties such as VTA/SCC and give much of it to regional operators such as BART and Caltrain.

*What if STA Block Grant Funds Were Allocated to Operators Based on Vehicle Revenue-Hours Provided?*

Instead of making allocations directly to counties, as MTC did in the case of STA Block Grants, Figure 38 shows hypothetical STA Block Grant allocations instead to each operator based on the total Vehicle Revenue-Hours (VRH) of Service they provided.

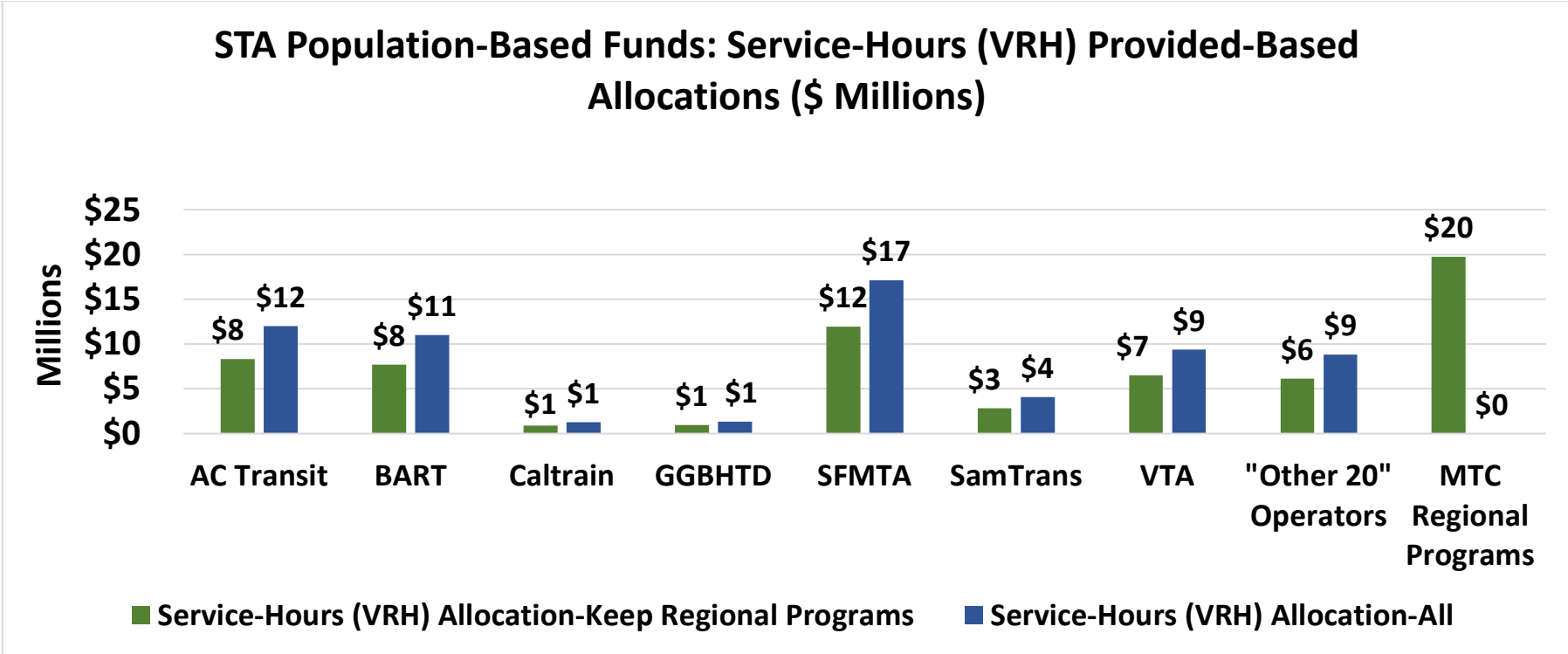


Figure 38. Vehicle Revenue-Hours-Based STA Block Grant Allocations<sup>64</sup>



Analysis of Figure 38 suggests that VRH-based STA Block Grant funds would favor large operators, and bus and transit-dependent serving operators that have high service frequencies (short headways), operate in congested areas where traffic is slow, and have long hours of service. These operators tended to receive a greater share of funding than they received from MTC's actual allocations. To illustrate this point, operators that provide services in congested and transit-dependent areas such as SFMTA would receive substantially more funding than they did from MTC (a 200% increase). On the other hand, operators in low-population counties such as Napa, Solano, Sonoma, and Marin would not only suffer a reduction in total funds received (together they received \$16 million in actual allocations) but would also have to share these funds with other small regional operators in other counties – now all small operators across the whole region would have to share \$6 million).

*What if STA Block Grant Funds Were Allocated to Operators Based on Vehicle Revenue-Miles Provided?*

Instead of making allocations directly to counties, as MTC did in the case of STA Block Grants, Figure 39 shows hypothetical STA Block Grant allocations instead to each operator based on the total Vehicle Revenue-Miles (VRM) of service they provided.

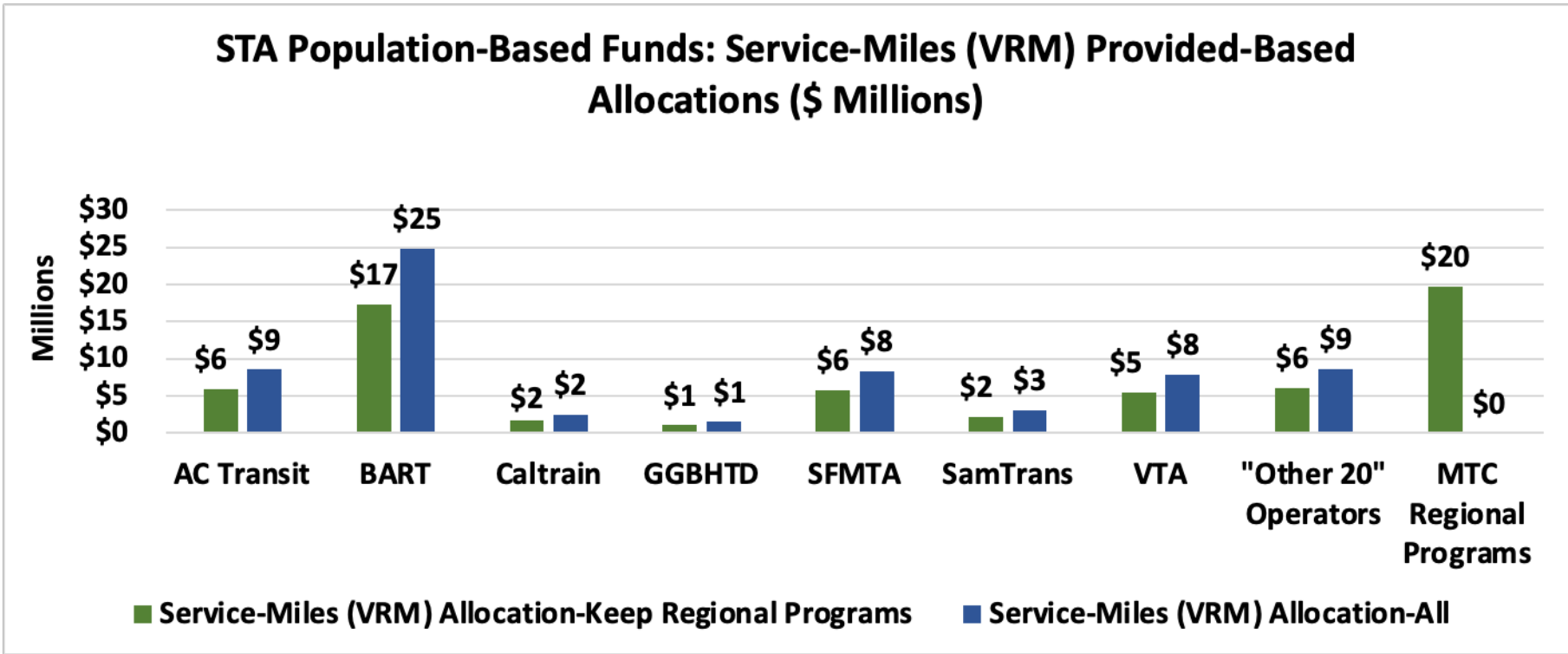


Figure 39. Vehicle Revenue-Miles-Based STA Block Grant Allocations<sup>65</sup>

Analysis of Figure 39 suggests that VRM-based STA Block Grant funds would favor large operators that have high service frequencies (short headways), operate in uncongested areas where traffic is fast, and/or have long service routes. These operators tended to receive a greater share of funding than they received from MTC's actual allocations. To illustrate this point, operators that provide services in transit-dependent areas such as SFMTA would receive substantially more funding than they did from MTC (a 50% increase). On the other hand, operators in more auto-dependent counties such as VTA/SCC would have a reduction of 17 percent.

## 4. Conclusions

Starting in 2021, VTA requested MTI to provide an objective research study in two phases. Phase 1 focused on evaluating MTC's discretionary transit funding allocation policies and methods, while Phase 2 would potentially evaluate VTA's partnerships with peer agencies, including MTC. This report presents the findings from the Phase 1 work, which began in September of 2021.

### 4.1 Approach

Phase 1 was done in two parts: (1) identification and investigation of MTC's discretionary transit funding programs and their methods of allocating these funds to the region; and (2) analysis of those programs to determine what the possible outcomes might be if MTC had employed alternative allocation methods.

#### *4.1.1. Part 1 Approach: Identification and Assessment of MTC Transit Funding Programs*

In cooperation with VTA staff, the MTI team identified five guiding principles for Phase 1 of this study:

1. Objectivity
2. Facts-Based Analysis
3. Refraining from Value Judgements
4. Considering MTC Discretionary Funds Only
5. Considering Transit Operating Funds Only

Applying these guiding principles, the MTI team identified the following discretionary operating transit funding programs for further analysis:

1. Federal Pandemic Relief Funding Programs (CARES, CRSSAA, and ARP).
2. California State Transportation Development Act/State Transit Assistance (TDA/STA) Funding Programs.

#### *4.1.2. Part 2 Approach: Analysis of Alternative Allocation Methods*

Part 2 of Phase 1 investigated alternative methods of allocating the funding sources identified in Part 1 using a series of five allocation metrics: three best suited to allocations to operators, and two best suited to allocations to counties.

The following metrics were identified and selected for use in hypothetical allocations by MTC of Pandemic Relief and TDA/STA funds to Bay Area transit operators and counties:

1. Ridership
2. Hours of Service
3. Miles of Service
4. Population
5. Low-Income Population

## 4.2. Key Findings and Discussion

Phase 1 key findings are presented in two parts: (1) MTC's historical and current goals, policies, and methods for allocating TDA/STA and pandemic relief transit funds; and (2) alternative allocation method analysis.

#### *4.2.1. Part 1 Key Findings: Identification and Assessment of MTC Transit Funding Programs*

Part 1 of Phase 1 of this study describes MTC's historical and current goals, policies, and methods for allocating pandemic relief and TDA/STA transit funds.

##### *Allocation Methods: Pandemic Relief Funding*

In 2020 the U.S. Congress began to formulate a series of financial relief programs to support state and local governments, including transit operators, through the crisis. Over the course of the next year-and-a-half, Congress funneled \$3.8 billion to Bay Area transit operators through MTC. These funds provided a critical lifeline to transit operators as the pandemic continued, covering roughly half of the costs of Bay Area transit operations over the first two years of the crisis.

While MTC had discretionary authority to allocate these funds, Congress provided certain priorities for MPOs, including the need to use these funds to avoid transit operator layoffs and to cover their pandemic revenue losses. These priorities resulted in an ongoing effort by MTC to hit a moving target where they needed to constantly forecast operator ridership and revenue

shortfalls and adjust their allocations accordingly. As a result, MTC's allocations did not always provide a perfect fit for the losses each operator actually incurred. For example, while BART received \$130 million less than their projected losses, VTA received \$80 million more.

#### *Allocation Methods: TDA/STA Funding*

In fiscal year (FY) 2018-19, the nine-county MTC Bay Area received a total of \$667 million from the TDA/STA program. However, most of these funds (90%) were not discretionary to MTC, and consequently this study did not investigate them further.

The remaining \$65 million (10% of the total TDA/STA program) that came from the STA's so-called "Population-Based" side of the program in FY 2018-19 was effectively discretionary to MTC. MTC allocated \$20 million (30%) of Population-Based STA funds that year to its own regional transit programs (such as the Clipper universal transit fare smart card administration and development) and divided up the remaining \$45 million using a set of policies and associated calculation methods that were formalized in 2008 and revised in 2018.

The Bay Area's remaining \$45 million of FY 2018-19 STA Population-Based funding was allocated by MTC to each of the nine counties in the Bay Area on each county's share of population, but with larger shares given to those counties with small transit operators. Therefore, while the county with the largest population but no small operators, Santa Clara, received roughly 10 percent of these funds, the largely rural and relatively low-population county of Sonoma with its two small operators received nine percent, almost as much money as Santa Clara.

#### *4.2.2. Part 2 Key Findings: Analysis of Alternative Allocation Methods*

Key findings from the application of the five alternative allocation metrics to the federal pandemic relief and TDA/STA funds were analyzed and reported. The most significant findings for VTA/SCC and other operators/counties were presented and discussed.

#### *Alternative Allocations: Pandemic Relief Funding*

Hypothetical allocations from the \$3.8 billion Congress gave to MTC for pandemic relief funding to Bay Area transit operators found that the population- and ridership-based metrics yielded the largest gains and losses for VTA compared to actuals in the five allocation scenarios.

The population-based metric produced the largest increase in VTA's pandemic relief funding with VTA receiving roughly 221 percent more funding than MTC actually allocated to them in 2020 and 2021. However, this large increase would come at the expense of other Bay Area operators, with the San Francisco Municipal Transportation Agency (SFMTA) receiving 64 percent less funding when the region's allocations are calculated according to population.

The ridership-based metric yielded the smallest amount of VTA funding of the five methods tested, but there would effectively be little or no loss of funding under this scenario since allocation by ridership would not change VTA's pandemic relief funding. Operators with high ridership levels, such as SFMTA, however would see a roughly 41 percent increase over actual if ridership determined allocations.

#### *Alternative Allocations: TDA/STA Funds*

Hypothetical allocations from MTC's discretionary STA Block Grants program of \$65 million to Bay Area counties for transit operations found that the population- and ridership-based metrics yielded the largest gains and losses for VTA compared to actuals in the five allocation scenarios.

The population-based metric produced the largest increase in VTA's funding for pandemic relief to transit operators, with Santa Clara County (VTA) receiving roughly 83 percent more funding than MTC actually allocated to them in 2018/19. However, this large increase would come at the expense of other Bay Area counties and their transit operators, with Sonoma County receiving 51 percent less funding when the region's allocations are calculated according to population.

The ridership-based metric yielded the smallest amount of VTA funding of the five methods tested. They would receive 50 percent less funding than they actually did in 2018/19. Also as seen above, operators with high ridership levels, such as SFMTA, would see a roughly 400 percent increase over actual funding in 2018/19 if ridership determined allocations.

#### *Key Findings and Discussion*

The evaluation of alternative transit discretionary funds allocation methods found that MTC's allocation metrics used for distributing pandemic relief and TDA/STA funds are primarily focused on maintaining financially struggling transit operators in the Bay Area—whether for those affected by fare revenue losses from the pandemic, or for those in more suburban and rural parts of the region where fare revenues and local self-help sales taxes are in perennially short supply. Employing allocation metrics (such as population) that are more favorable to large operators like VTA, SFMTA, and AC Transit could result in dire consequences for struggling transit providers, with significant negative outcomes for transit-dependent riders who rely on them for basic services.

# About the Authors

## **Christopher Ferrell, PhD, MUP**

Dr. Ferrell began his career in 1995 as a planner for the Metropolitan Transportation Commission (MTC). He completed his doctoral studies in City and Regional Planning at the University of California at Berkeley in 2005 and worked as a consultant with Dowling Associates, Inc. for 10 years before leaving to help form CFA Consultants in 2010. He is currently a principal, board member, and the executive director of the Transportation Choices for Sustainable Communities Research and Policy Institute, a 501c3 nonprofit. He has been the principal investigator for eight research projects for the Mineta Transportation Institute, where he has been a Research Associate since 2005. His research focuses on the relationships between transportation and land use, livability, travel behavior, transportation policy, and planning-related institutional structures. His research experience includes the study of multimodal transit and freeway corridors, best practices for building successful transit-oriented development, the effects of transit-oriented development on surrounding property values, the effects of neighborhood crimes on transportation mode choice, and a set of methods, metrics and strategies for evaluating transit corridor livability. As a practitioner, he has planned mixed-use, infill and transit-oriented development projects, analyzed the impacts of specific and general plans, planned and implemented intelligent transportation systems, and developed bicycle and pedestrian plans. He has taught several quantitative methods classes in the San José State University Urban Planning Department and a course in transportation and land use in the City and Regional Planning Department at the University of California at Berkeley.

## **John M. Eells, MCP**

Mr. Eells is a Mineta Institute Research Associate with 44 years of experience preparing comprehensive transportation plans and developing sustainable transportation projects at the local and regional level. John's experience includes 2 years in the Legislative Analyst Office in the California State Legislature, 5 years with the California Department of Transportation (Caltrans), 7 years as the Transportation Planning Coordinator for Marin County, and 30 years as a consultant.

He holds a bachelor's degree in Architecture and a master's degree in City Planning from the University of California at Berkeley. John has assisted in preparing Regional Transportation Plans for Sacramento and Lake Tahoe and reviewed Regional Transportation Plans throughout California for conformance with State greenhouse gas reduction requirements for the California Attorney General's Office. He participated in a joint effort by Caltrans and the California Council on Science and Technology to develop a proposal for a new California Center for Transportation Innovation to coordinate transportation research activities in California. John has also managed major multi-modal transportation studies, evaluated the feasibility of proposed



ferry services, and worked on the implementation of several rail transit projects including the Sacramento Light Rail project, the ACE Commuter Rail Service from Stockton to San José, the SMART Commuter Rail Service from Cloverdale to Larkspur, the proposed AMTRAK service from Oakland to Reno, and the proposed high speed Maglev Service from Los Angeles to Las Vegas.

### **David Reinke, MS, MRP**

Mr. Reinke is a transportation engineer/economist with over 40 years of experience in travel-demand modeling, transportation economics, survey design and management, database management, and software engineering. He has worked on a number of leading-edge projects in travel demand and economics, including development of activity-based travel-demand models, development of discrete-choice travel forecasting models, development of microsimulation-based models for analysis of congestion pricing alternatives, and applications of economic methods to transportation policy analysis. His areas of expertise include policy analysis, advanced statistical methods, machine learning methods, economic analysis, survey design and management, and applications of advanced computational techniques to transportation. He is currently a Research Associate with the Mineta Transportation Institute, where he has worked on studies of transit equity and transportation economics. David currently co-chairs the Education and Outreach Subcommittee for the Committee on Artificial Intelligence and Advanced Computing Applications (AED50) at the Transportation Research Board (TRB) and is a past member of TRB committees on Statistics, Economics, and Travel Behavior and Values. He is also a member of the IEEE Intelligent Transportation Systems Society.

### **Richard Lee, PhD, MCP**

Dr. Lee, a Mineta Institute Research Associate since 1995, has over 30 years of experience as a transportation researcher, academic, and consultant. His work focuses on innovation in the delivery of transportation services and on bringing the results of academic research into practice. Much of his research examines the transportation effects of land use factors, including their efficacy in promoting transit and other alternative modes. Richard works extensively with local, regional, and state agencies as well as private firms to analyze the effects of infrastructure and land development projects and to develop feasible alternatives that promote sustainable transportation choices and meet larger community goals. Richard currently teaches transportation planning at San José State University and has also taught and led transportation research projects at Massey University (New Zealand), UC-Berkeley, UC-Davis, and Cal Poly San Luis Obispo.

# Endnotes

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