

A Review of Reduced and Free Transit Fare Programs in California

A Research Report from the University of California Institute of Transportation Studies

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16. Abstract To gain a better understanding of the current use and performance of free and reduced-fare transit pass programs, researchers at UC Irvine surveyed California transit agencies with a focus on members of the California Transit Association (CTA) during November and December 2019. Fifty-nine agencies, representing a broad cross-section of California transit operators, responded. Three quarters of respondents offered one or more free or reduced-fare transit pass programs in fiscal year 2018-19. While most respondents stated that free or reduced-fare transit passes increase ridership, many had concerns about the effect on their agency's farebox recovery ratio, and to some extent on the fiscal health of their agency, though almost half of the respondents did not know the actual impacts. Those agencies offering student pass programs funded by student fees or employee programs funded by employers did not report any negative impact on ridership or on farebox recovery ratios. This confirms that free or reduced-fare transit pass programs structured like insurance programs (where a large group of potential transit riders—such as all students at a college or all employees in a large firm—periodically pays a lump sum to a transit agency while only a subset of that group actually uses transit) can be good for both riders and transit agencies. Free or reduced fare pass programs have an important role to play in transportation policy in California, but we should not ask too much from these programs. To achieve their full potential, they should be integrated into comprehensive policies to achieve California's social and environmental goals.			
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A Review of Reduced and Free Transit Fare Programs in California

UNIVERSITY OF CALIFORNIA INSTITUTE OF TRANSPORTATION STUDIES

January 2020

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Executive Summary

This report presents an overview of free or reduced-fare transit pass programs in California. Specifically, it reviews the transportation literature on such programs in the U.S. and abroad, summarizes results of a survey of California's transit operators regarding pass programs offered in fiscal year 2018-19, and provides suggestions regarding the use of these programs and implementation in the state.

Free or reduced-fare transit passes have the potential to increase transit ridership, enhance the mobility of disadvantaged groups, make it easier for children to go to school and participate in after-school activities, and reduce the environmental footprint of transportation. Under the right conditions, these programs can also reduce traffic congestion and motor vehicle use. Transit agencies all over the world have been experimenting with offering free or reduced-fare transit for decades, yet there are still substantial concerns about their impacts on ridership, and especially their cost and impact on the fiscal health of transit agencies. Some of these concerns linger partly because the number of rigorous academic studies on free and reduced-fare transit passes is still quite small.

To gain a better understanding of the current use and performance of free and reduced-fare transit pass programs, researchers at UC Irvine surveyed California transit agencies with a focus on members of the California Transit Association (CTA) during November and December 2019. Fifty-nine agencies, representing a broad cross-section of California transit agencies, responded. They represent agencies that provide approximately 55 percent of the state's unlinked passenger trips. Three quarters of respondents offered one or more free or reduced-fare transit pass programs in fiscal year 2018-19. The most common programs were for students, and for the elderly, with only 13 programs from eight agencies for low-income groups, and (surprisingly) just 11 employer-based programs from nine agencies. Most programs for the elderly also served people with disabilities. While most respondents stated that free or reduced-fare transit passes increased ridership, many had concerns about the effect on their agency's farebox recovery ratio, and to some extent on the fiscal health of their agency, though almost half of the respondents did not know the actual impacts. How these programs are funded can clearly affect an agency's bottom line. Those agencies offering student pass programs funded by student fees or employee programs funded by employers did not report any negative impact on ridership or on farebox recovery ratios. This confirms that free or reduced-fare transit pass programs structured like insurance programs (where a large group of potential transit riders—such as all students at a college or all employees in a large firm—periodically pays a lump sum to a transit agency while only a subset of that group actually uses transit) can be good for both riders and transit agencies. An alternative to the insurance model is to provide external funding to well-structured, well-monitored programs targeting groups with a limited ability to pay.

Based on the literature review and on the results of the survey, the report authors offer the following ten recommendations concerning free or reduced-fare transit pass programs in California:

1. Free or reduced-fare programs have an important role to play in transportation policy at a time when transit ridership remains well below its peak and keeps declining in many parts of California. In particular, the “insurance” model has the potential to enhance mobility and increase transit ridership, while improving the financial health of the participating transit agencies.
2. We should not, however, ask too much from these programs. While well-designed pass programs can increase transit ridership and enhance the mobility of selected groups, other goals may prove elusive if these programs are used in isolation. For example, pass programs designed to reduce motor vehicle use, will likely need to be coupled with measures that increase the generalized cost (the sum of the monetary and non-monetary costs, including the value of time) of driving, such as cordon pricing, road pricing, parking pricing, as well as increased fuel and vehicle taxation.
3. Current California farebox recovery requirements are hindering the creation of free or reduced-fare transit programs (with the exception of the “insurance model” type of program), which runs counter to California’s goals of increasing public transportation use to reduce California’s greenhouse gas emissions.
4. To achieve their full potential, free or reduced-fare pass programs should be integrated into comprehensive policies to achieve California’s transportation, social, and environmental goals. In particular, they should consider the full costs and the characteristics of all the transportation options available to recipients. If not, then transit ridership may increase at the expense of active modes such as biking or walking, which would have counter-productive health impacts.
5. To enhance the likelihood of program success, it is critically important to understand the transportation needs, travel preferences, and the characteristics of the intended recipients. Making transit more accessible via subsidized fare programs is not sufficient; transit should also be convenient, clean, and safe.
6. While programs based on the insurance model have the potential to be financially self-sustaining, additional and external funding should be considered for those addressing the special needs of low-income groups including students, unemployed people, veterans, the elderly, and people with disabilities.
7. To be successful, free or reduce fare pass programs should have eligibility requirements that are simple, so they do not deter intended recipients. Programs should also include a clear system for monitoring usage, so that cost, ridership and operational impacts can be ascertained. Transit agencies should have current data on the size of the population

eligible for a specific program, and on the number of trips taken by eligible program recipients. If transit is to survive competition from the growing availability of transportation network companies and (in the not-too-distant future) self-driving vehicles, let alone thrive, it needs to widely embrace technologies like mobile ticketing and smart cards.

8. Given the dearth of rigorous academic studies on the impact of free or reduced-fare transit programs, pilot studies should be funded to measure changes in the travel behavior of participants.
9. Guidelines for creating and managing free or reduced-fare transit programs should be made available to transit agencies and publicized through the CTA.
10. A clearing house of successful programs should be created so transit agencies can learn from the successes and the failures of their peers.

Section 1. Introduction

This report a) reviews the transportation literature on free or reduced-fare transit passes to provide insight on the potential benefits and limitations of these programs; b) presents results of a survey of California's transit operators regarding free or reduced-fare transit pass programs offered in fiscal year 2018-19; and c) makes recommendations about developing such programs in California. Researchers at the University of California, Irvine, Institute of Transportation Studies prepared this report at the request of the California State Legislature with the assistance of the California Transit Association (CTA).

Section 2 summarizes what is known about free or reduced-fare transit pass programs in the U.S. and abroad based on a comprehensive review of the academic literature and selected reports. The information collected includes the type and key features of each program and an evaluation of the program's usefulness. Appendix 1 provides a summary table of the documents reviewed.

Section 3 describes when and how the survey of California transit operators was conducted; the characteristics of the respondents and their agencies; and information collected about each type of free or reduced transit pass programs in six categories: 1) K-12 programs; 2) programs for post-secondary, college, and university students; 3) employer-based programs; 4) programs for the elderly; 5) programs for low income travelers; and 6) other programs. It also provides a summary of lessons learned from the information collected by the survey. Appendix 2 lists the broad cross-section of California transit agencies that responded to the survey. Appendix 3 provides a copy of the survey instrument.

Building on the findings of the literature review and of the survey of California transit operators, Section 4 makes recommendations about potential uses of, and possible limitations to implementing, free or reduced-fare transit pass programs in California.

Section 2. Literature Review

This section reviews selected studies of reduced-fare or free transit programs, organized in three categories: 1) programs for everyone; 2) programs for students, faculty, and/or staff; and 3) programs for seniors and people with disabilities. The focus is on post-2010 studies, although some older influential studies are also included. The primary source for selecting relevant papers or reports was Google Scholar. Information summarized below includes the type of program implemented, the time frame of the study, and reasons why a program succeeded or failed, when available.

Programs for everyone

Experience from the U.S.

Transit agencies in the U.S. and abroad have long experimented with free or discounted fares as a way to reduce automobile use, ease traffic congestion, boost transit ridership, improve air quality, or to promote transportation equity. There is, however, a dearth of published evaluations of these programs: a thorough 2018 review of worldwide studies dealing with free or discounted pass programs found only 27 published scientific papers, along with a few dozen non-academic reports [1]. Moreover, most of these publications discuss case studies in foreign countries, rather than the U.S.

In the U.S., some early studies focused on programs for universities [2][3][4]; they are discussed below. One early successful program for all riders was created in New York City (NYC). In the mid-1990s, to increase ridership the NYC transit authority implemented a series of fare incentives consisting of free intermodal transfers, discounts on bulk MetroCard purchases, and reduced fares for some services. Hirsch et al. [5] found that over a few years, bus ridership increased by 40 percent.

Nuworsoo [6] analyzed deep discount pass programs as tools for increasing both transit ridership and transit revenue. To address this conundrum, he advocated programs similar to insurance programs (where all members of a group contribute even though only a subset benefit) because they yield more marginal revenue than marginal cost. After analyzing three case studies, he found that employment-based programs tend to yield the highest net revenue to operators, and he proposed a methodology to design beneficial discount pass programs.

Understanding the impact of fare increases on ridership (the converse of discounting fares) is also valuable. A 2017 study examined how fare increases impacted ridership at individual stations on Chicago's mass transit rail system. Results were mixed (i.e., one fare increase was by a ridership decrease, another by a ridership increase) because while lower-income groups are more financially constrained, they also have fewer options to switch to other modes [7].

Other U.S. studies have analyzed fare-free programs for seniors [8] and for paratransit users [9] in Illinois, as well as the effect of transit benefits on employees' travel in New York and New Jersey [10]. These studies are considered below.

Experience from other countries

Case studies in Europe have typically reported substantial benefits from fare-free transit programs. For example, when the city of Templin, Germany, began offering free transit to all riders around 2002, ridership increased by 750 percent the first year alone, with continued growth in following years. However, only 10 to 20 percent of passengers had shifted to transit from cars, and up to 50 percent had shifted from walking [11]. The well-known fare-free program in Tallinn, Estonia, which started in 2013, increased ridership by 14 percent a year after its creation, with a 40 percent modal shift from walking to public transit, but only 5 percent from cars to transit [12][13]. A study of the free bus program in Bergen, Norway, confirmed that while fare-free programs may substantially increase transit ridership, they are not very effective for getting people out of their cars [14]. Furthermore, the bump in ridership following the introduction of free or reduced fares may be diminishing over time [15][16].

In Israel, a study explored various impacts of simplified and reduced transit rates instituted in January 2008 in Haifa, a port city in the north part of the country. The purpose of these changes was to boost ridership and relieve urban congestion. The study found that the rate changes reversed the decline in transit ridership observed over the past decade in that area, and increased passenger trips by 7.7 percent and boardings by 18.6 percent. Moreover, 16 percent of a sample of Haifa residents reported that they would have traveled by car or taxi instead of by bus if the new rates had not been put in place [17].

Canada has also experimented with fare-free transit. In 2006, the Canadian federal government instituted a public transit tax credit (PTTC) that covered 15 percent of the annual (eligible) cost of public transit. This subsidy was introduced to promote transit ridership and to reduce air pollution, road congestion, and greenhouse gas emissions. An analysis of the PTTC found that it increased ridership by only 0.25 to 1 percent, partly because many PTTC recipients would have used transit even without it. The authors concluded that the PTTC was an expensive approach to relieve congestion and decrease pollution [18].

Another Canadian experiment that was more successful, but also limited in duration, was the fare-free pilot program conducted in the town of Milton from June 2007 to the end of January 2008 [19]. Transit was free during off-peak hours (9 am to 3 pm). The city relied on corporate sponsorship to replace lost fare revenue. Average monthly ridership during the program increased 66 percent compared to the same period the previous year, surpassing expectations [19].

To make public transit more affordable to low-income people, Toronto adopted the Fair Pass (FP) Program in 2016, which provided subsidized transit service to those receiving assistance

under the Ontario Disability Support Program, Ontario Works, or a Toronto Child Care subsidy. An analysis of the efficiency of the FP Program [20] found that about 60 percent of low-income Toronto residents were using the discounted passes and riding transit more than before the program began. Along with promoting social equity, this program boosted access to a broad range of activities throughout the City. The main barrier to the success of this program was that some low-income households still could not afford discounted monthly passes.

Two studies from China are of particular interest. One analyzed a system-wide fare-free program demonstration in Gaoping, a small (72,100 people in 2014) but dense Chinese city in the Shanxi province. To relieve traffic congestion, promote transit, and discourage motorcycle taxis (which are illegal there), transit became free in April 2013. As a result, transit ridership increased by 320 percent, an unexpectedly large increase that resulted in over-crowded buses. Much of this increase came at the expense of walking, biking, and motorcycle taxis, but also conventional taxis to some extent. Traffic safety improved (mostly because of a decrease in motorcycle travel), but the impact on private car traffic was limited [21].

The second Chinese case study took place in Chengdu, a megacity that is the capital of Sichuan province in Western China. To decrease congestion and air pollution that came with its rapid growth but also to promote social equity, bus rides before 7:00 am have been free since 2013 as well as rides taken at any time on 116 short (1 to 2 km) local bus routes. These measures were cost efficient because they generated operational savings. Unfortunately, the impact on traffic of these two measures is not known, but a temporary third measure (abolishing fares between the 2nd and the 3rd ring roads combined with traffic restrictions based on the last digit of license plate numbers), did substantially reduce congestion but only during the few months while it was in place [22].

Programs for students, staff, and faculty

Free transit for students, particularly at universities, is a popular concept that has received much attention. These programs are often called “Universal Access” (UA) programs. They generally allow students and often faculty to ride transit for free, or for a low annual or per-semester fee. The potential benefits of these programs have been advertised for years.

The success of an early UA program called U-PASS, which was introduced in 1991 at the University of Washington, received some attention. It increased transit ridership among students, faculty, and staff at the university by 35 percent after the first year while the percentage of students driving alone to campus fell from 33 to 23 percent, increasing available parking on campus [2].

A study of 35 universities that offered UA to their students showed that ridership during the first year of each respective program brought substantial gains, ranging from 71 percent at Cal State Sacramento, to 200 percent at the University of Colorado, Boulder [3]. A follow up study of the UA program at UCLA, found that transit ridership during the first year of the program

grew 56 percent while the number of students driving to campus alone decreased 20 percent, easing parking congestion [4].

A number of studies have found that students are willing to pay annual or per-semester fees in exchange for unlimited free transit rides. For example, a majority of students at Western Washington University were willing to pay \$32 per quarter for a UA program, while the actual cost to the university was just \$20 per student per quarter [23]. Likewise, Weber State University students supported a \$15 annual fee for free transit [24]. And, an average of 15 to 20 percent of students at the University of Utah rode transit regularly over the ten years following the introduction of their UA program in 1991 [24].

In September 2003, the University of British Columbia (UBC) implemented its U-pass program to increase transit ridership and decrease single-occupant vehicles (SOV) use by 20 percent. For \$20 a month, a U-pass gave students unlimited access to Translink buses, Skytrain and Seabus services. Overall, transit ridership increased by 53 percent and SOV trips decreased by seven percent [25]. Even though transit ridership increased substantially, the expected decrease in SOV trips was not met because many students drove to classes and parked outside UBC, then took the bus to campus.

More lessons were learned from the “Dump the Pump” (DtP) program, which started in 2008 at UCLA. This program offered eligible employees a 12-week free transit pass, followed by a 50 percent discounted transit pass. Between June of 2008 (the baseline) and September 2008, the number of full-time UCLA employee transit riders grew 71 percent from 544 to 928 [26]. When DtP participants had to start paying half the cost of their transit pass, 114 people left the program, and one year later DtP had only 180 participants. Interviews showed that participants were sensitive to gas prices and transit flexibility and that people who remained in the program had more flexible commute schedules than other commuters [26].

One key to success is a partnership between a transit agency and participating municipalities. In 2015, the Massachusetts Bay Transportation Authority (MBTA) and local municipalities created a pilot program to provide monthly passes discounted by 65 percent for students and young people aged 19 to 21 (non-students) who did not have access to any other reduced fare programs. Between July 2015 and June 2016, 1,500 youths participated. A survey of participants showed that they used transit more often than before this program, and that their trips were dominated by commuting and school trips [27].

Another success story is American University’s 2016 pilot U-Pass program in partnership with the Washington Metropolitan Area Transit Authority (WMATA). U-Pass provided unlimited bus and rail rides for a flat fee of \$130 per semester to full-time undergraduate, graduate, and law students. Purchasing the pass was mandatory but its cost was covered by financial aid. This is an example of the “insurance” type of program recommended by Nuworsoo [6]. During the

2016-2017 school year, 90 percent of full time undergraduate and graduate students used these passes; WMATA earned \$2.7 million, and American University incurred no net cost [28].

However, not all such programs are successful. One notable UA failure occurred in Mansfield, Connecticut. In 1994, the University of Connecticut partnered with the City of Mansfield to allow both students and residents to ride one bus route for free. The program was terminated in the early 2000s due to inequities between the funding partners: the city was paying more per passenger (\$0.95) than the university (\$0.72), even though student users outnumbered Mansfield resident users by nearly eight to one. A lack of communication between the program partners led to its demise [29].

Programs for high school or younger students

Experience from the U.S.

A few studies have analyzed reduced transit fare programs for high school age or younger students, although these programs are not as common as those for post-secondary, college, and university students. For example, in 2002 AC Transit (the main bus operator serving eastern San Francisco Bay communities), distributed over 24,000 free bus passes to low income middle and high school students in areas where school bus services had almost disappeared, and lowered the cost of its youth passes. The main goals of this program were to make it easier for low income kids to attend after-school activities, and to improve school attendance. An analysis of this program [30] found that after one year it had not affected school attendance. It had, however, increased both bus ridership and after-school program attendance, although not uniformly because of various demographic, cultural, and safety factors.

Another study investigated the potential benefits to student health, school attendance, transit ridership, and participation in after-school programs of a proposal to make free unrestricted transit passes available to all local students from preschool to college in Los Angeles County (LAC). In April 2013, the Los Angeles County Education Coordinating Council (ECC) called for LAC school districts to work with the Metropolitan Transportation Authority (MTA) to provide the passes. Based on a review of the available literature and interviews with experts, the LAC Department of Public Health (DPH) and the ECC concluded that providing unrestricted passes to all LAC students could increase transit ridership by 6 to 14 percent in the first 2 years (63,200 to 158,000 extra riders daily), and by as much as 26 percent after 10 years (284,000 daily riders). It could also improve school attendance and have a number of health and other benefits, but it was not possible to reliably quantify these benefits because of data limitations. MTA's revenues could, however, decrease by more than one-fifth as a result (a loss of roughly \$71 million) [31]. Such a program has not yet been implemented.

Experience from other countries

Other countries have also adopted UA programs for students. For example, in the early 2000s, Brussels, Belgium, instituted a program to allow students from Flemish-speaking universities to ride transit for free. No fewer than 89 percent of students who enrolled in the program reported using transit regularly and 55 percent used transit more after the start of this program [32]. Another study analyzed four fare-free programs; three in Brussels and the other in the Netherlands. The latter increased the share of students using public transit from 11 percent before the program, to 21 percent after [33]. While it is encouraging to know that many UA programs around the world have been successful, it is difficult to say how well they would work in the U.S. because transit ridership depends on local service characteristics (e.g., route destinations, service frequency, and safety), as well as on alternative modes available to potential transit users, and is also influenced by the socio-cultural characteristics of riders, which may be quite different here than in other countries.

Programs for seniors and people with disabilities

Experience from the U.S.

Public transportation law requires public transportation agencies that receive federal funding under Section 5307 of the Urbanized Area Formula Program to offer half fare or reduced fare service to seniors and people with disabilities during off-peak hours on fixed-route services. A number of programs similar to student UA programs have been offered to seniors, allowing them to ride transit at highly discounted fares or for free. Only a few academic studies, however, have examined these programs.

For the U.S., only a couple of papers on reduced or free transit pass programs for seniors and people with disabilities were found. The first one examined the effects of a senior free-fare program in Chicago, Illinois. It concluded that senior ridership increased by nearly 75 percent during the first year of the program, and cost the transit agency between \$26 million and \$78 million per year [8].

A second study analyzed potential implications of creating a free Americans with Disabilities (ADA) paratransit service in Illinois. It estimated that the number of trips would likely increase between 121 and 171 percent, at an annual cost ranging between \$123.9 million and \$160.6 million [9]. The study concluded that, at this cost, such a program would not likely be implemented.

Experience from other countries

Discounted transit pass programs for seniors and people with disabilities are also available in several foreign countries [1]. For example, a fare-free program for seniors in Seoul, South Korea, resulted in 54,000 to 58,000 additional senior trips per day, of which approximately

21,000 would otherwise have been automobile trips. The social benefit resulting from this program was estimated to range between \$60 million and \$74 million per year [34].

In England, reduced fares have been provided to adults aged 60 and above in order to enhance access to bus service. In 2006, England introduced a free full-fare program in place of a free half-fare one, which resulted in a 8.3 percent increase in overall bus ridership [35].

Lessons learned

Several lessons can be learned from these studies of reduced fare transit programs:

1. Deeply discounted transit fare programs can increase ridership without degrading the financial health of transit agencies, particularly if they are designed similar to insurance programs, where all members of a large group pay for transit access, even though only a subset ends up using transit. Alternatively, transit agencies need to be subsidized or otherwise made whole for the cost of providing free or reduced fare transit passes.
2. The success of a reduced or free transit fare program depends not only on the cost and the quality of the transit service offered, but also on the characteristics of other available modes of travel as well as on the particular socio-economic characteristics and preferences of potential travelers. As a result, it is difficult to predict whether a successful reduced or free transit fare program can be replicated in a different environment.
3. While fare-free programs may substantially increase transit ridership, they are typically not very effective for getting people out of their automobiles unless they are combined with measures that increase the generalized cost of traveling by car, such as road pricing, parking pricing, or restrictions on travel.
4. Under the right circumstances, discounted fare transit programs can be successful in both small and large urban areas.

Section 3. Survey Results

Overview

This section describes the results of an online survey of transit professionals in California conducted from the end of October 2019 to the end of December 2019 with the assistance of the CTA. The purpose was to characterize free and reduced-fare transit programs, understand obstacles to the successful implementation of these programs, and collect the opinions of transit professionals about the impact these programs have on ridership, fare recovery ratios, and the fiscal health of transit agencies. Revisions to the original online survey were made to reflect comments from colleagues and from the CTA. A copy of the survey is available in Appendix 2. A Summary of characteristics of transit agencies that participated in the survey is presented in Appendix 3. CTA circulated the survey to its public transit agency members, and followed up by sending several reminders to its members to complete the survey.

Characteristics of Respondents

Fifty-nine agencies responded to the survey, representing a broad cross section of transit agencies in California, including 51 of the CTA's 79 rail and transit agencies (a response rate of approximately two thirds for this group). Twenty-seven respondents operate in urbanized counties with over 500,000 inhabitants, 16 in urbanized counties with under 500,000 inhabitants, four in non-urbanized counties with a population under 500,000, four in both urban and rural areas, two in rural areas, and five belong to a separate category. The latter are planning and funding agencies that do not operate transit or a joint powers authority.

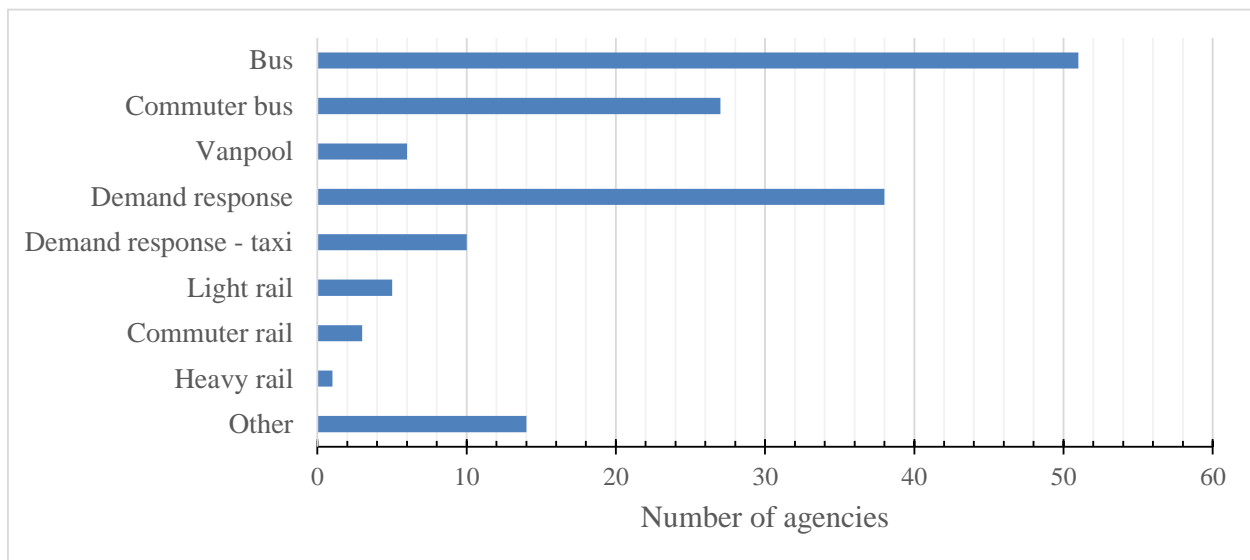


Figure 1. Modes operated by responding agencies

As shown in Figure 1, responding agencies operate a wide variety of modes, dominated by bus and commuter bus service, as well as demand response. The “other” category includes paratransit services (the most common response), cable car, local and intercity taxi programs, and ferries.

Forty-six of the respondents offered at least one free or reduced transit fare program during fiscal year 2018-19. This does not include programs required by federal rules, such as half fares during off peak hours for elderly persons, persons with disabilities, and Medicare cardholders.

A comparison (omitted for brevity) between survey respondents and California transit operators in the National Transit Database (NTD), shows a fairly good match with the exception of some rural and reduced reporters (which are generally smaller agencies that have lower reporting requirements than larger full reporters). However, these transit agencies are less likely to offer free or reduced fare programs.

Several questions were included in the survey to assess the professional knowledge and experience of the agency personnel completing the survey. Each was asked to provide her/his job title, the number of years she/he has been working in her/his current role, and the number of years she/he has been working in public transportation.

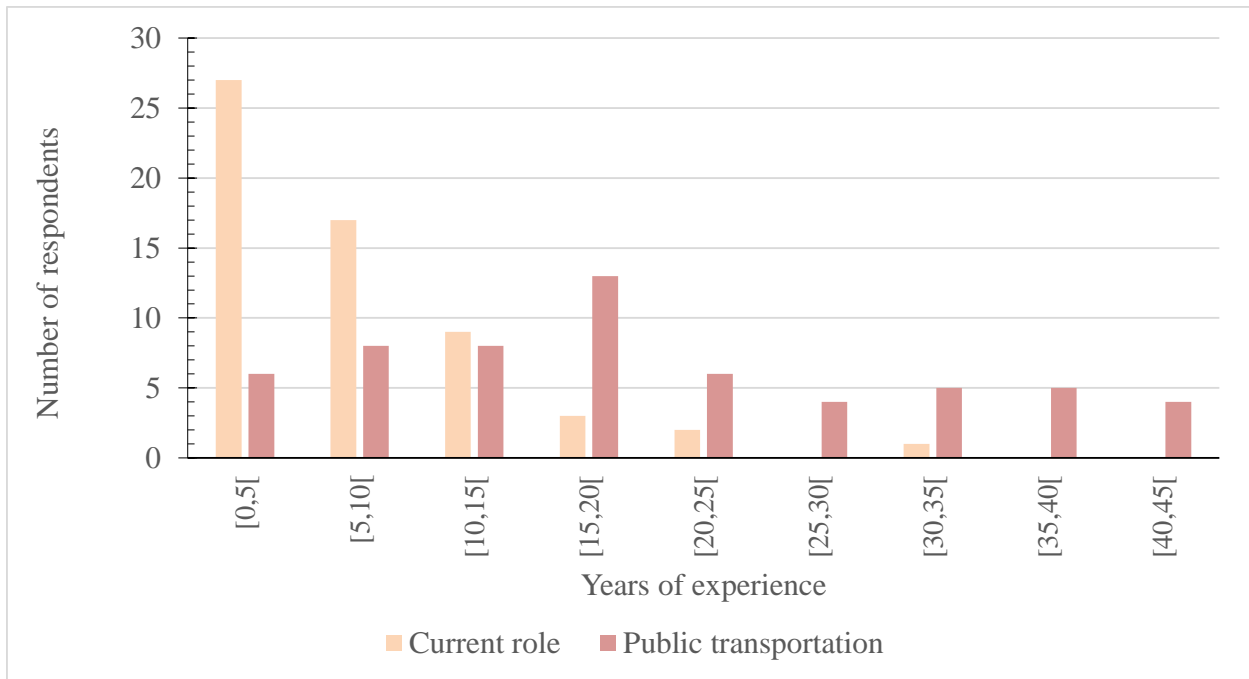


Figure 2. Professional experience of survey respondents

As shown in Figure 2, respondents have a significant amount of experience in public transportation, with a median value of 19 years. They also have substantial experience in their

current role, with a median of 5 years, although one quarter have less than 2 years of experience in their current position. Job titles range from transit planner to manager to CEO. On average, they were highly knowledgeable and qualified professionals.

Results

K-12 programs

Thirty-four agencies that responded to the survey offered reduced and/or free transit pass programs for K-12 students during fiscal year 2018-19, and seven agencies offered more than one, for a total of 42 programs.

The size of these programs (i.e., the number of students who used discounts) varies widely. The smallest is a summer pass program in Siskiyou County that provides discounts to kids aged 5 to 17; it was used by 79 kids. One of the largest programs offered all K-12 students in the Santa Barbara area discounted bus passes; 579,377 youth passes were sold.

Some of these programs were established very recently (2018) and some have existed for years (2005 for the oldest one). Several respondents did not know when their program was created.

Twelve of the 43 programs reported in the survey offer discounted (but not free) passes, 13 provide discounted fares, and six provide both discounted fares and passes. Discounts on fares and passes vary widely: some are on the order of 10 percent, while others are greater than 50 percent. The most heavily discounted passes or fares are typically available only for low-income students, which is determined by whether the student qualifies for free or discounted school lunches. In addition, seven programs give recipients free travel passes (specific cost information about four programs is missing).

As shown in Figure 3A, the majority of the K-12 programs (27 in total) do not receive any external funding. Two programs are funded from student fees and 11 receive funds from other sources, including from local sales tax measures, local air districts, and/or a city's general fund. None of the programs receive funding from a school district.

Partly because of the complexity of these programs, respondents were typically unable to quantify the impact of their programs on ridership (Figure 3B) or on farebox recovery ratios (Figure 3C). A total of 13 respondents agreed that they had a positive impact, five reported no impact, and only one indicated negative impacts. The remaining respondents stated they did not know the impact on ridership or did not answer the question. Impacts on fare recovery ratios were more negative, with eight agencies reporting a positive impact, 10 no impact, and three a negative impact. The remaining respondents did not answer the question or did not know.

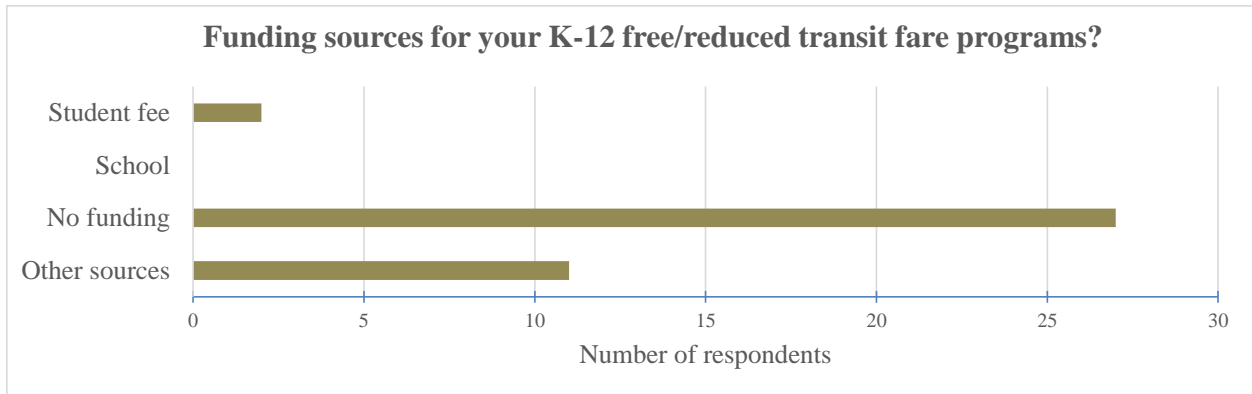


Figure 3A. Funding sources for K-12 free/reduced transit fare programs

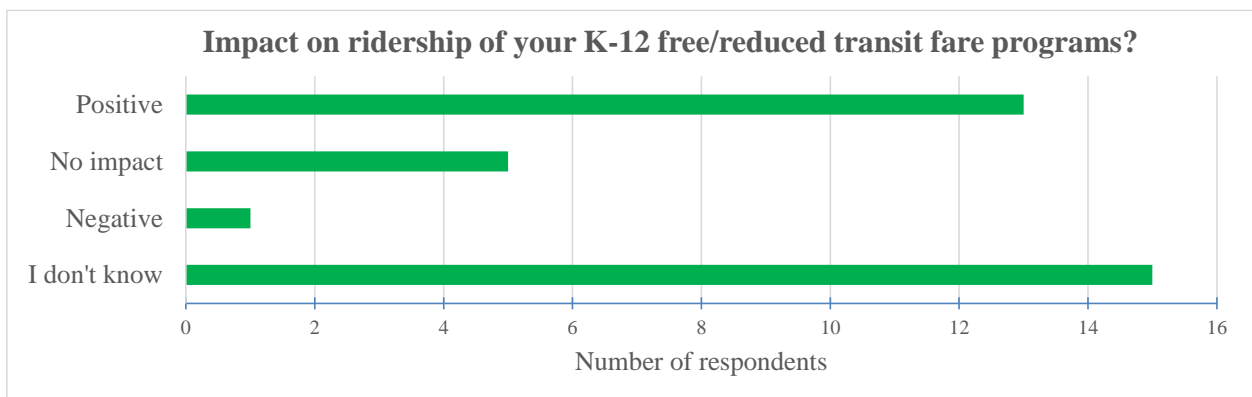


Figure 3B. Impact on ridership of K-12 free/reduced transit fare programs

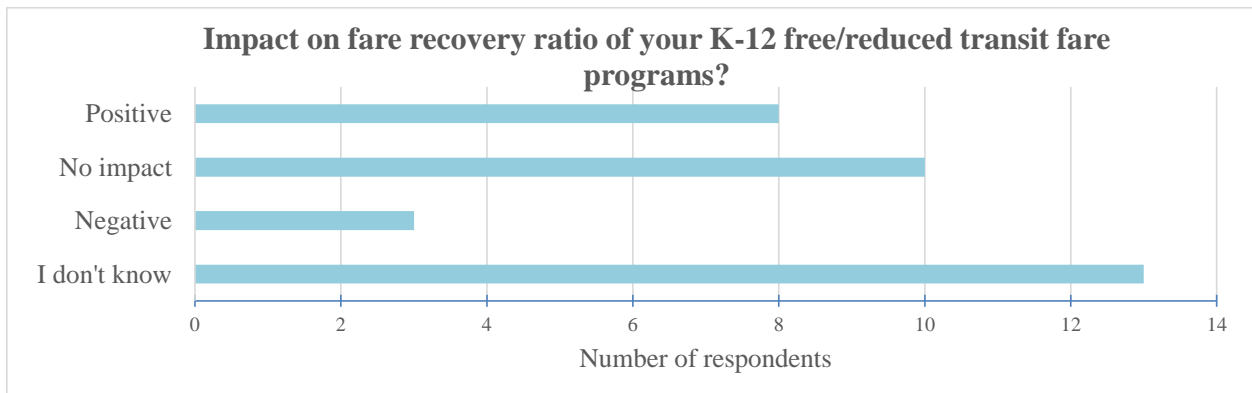


Figure 3C. Impact on fare recovery ratio of K-12 free/reduced transit fare programs

Post-secondary school programs

Thirty-two agencies offered a reduced or free transit pass program for post-secondary school, college and university students in fiscal year 2018-19, and five agencies offered more than one, for a total of 42 programs.

Similar to the K-12 programs, the pool of eligible recipients varies widely, from approximately 5,000 for a junior college program in Humboldt County to over 150,000 students for the Sacramento Regional Transit District (SacRT) college pass program. Many of the programs cover students from more than one institution, as for example the SacRT program, the College Student Subsidized Fare Program in Sonoma County, and the Orange County Transportation Authority University Pass Program.

Some of the programs for post-secondary school, college, and university students were established very recently (2018) while some have existed for years (1998 for the oldest one). Several respondents did not know when their programs were created.

Twenty-eight of the 42 programs offer recipients paid-for passes, 18 of which are at least partly paid by student fees. Six programs also offer discounted (but not free) passes, and four subsidize discounted fares. Information about 4 programs is missing.

Post-secondary, college, and university programs appear to be much better funded than K-12 programs (Figure 4A). The most common source of funding is student fees (18), but colleges and universities also contribute (14). Other sources of funding (13) include the Low Carbon Transit Operations Program, a local air management district, and the county. Only one program receives no funding.

Respondents thought that most post-secondary, college, and university fare programs had a positive impact on ridership (19) and to a lesser extent on farebox recovery ratios (Figure 4B-C), although they were often unsure about their impacts, especially for farebox recovery. The recency of many of these programs made it challenging for agencies to fully evaluate the effect on ridership especially those that do not have the technology to track customers. Reported increases in ridership range from a few hundred rides a week to 427,000 rides per year.

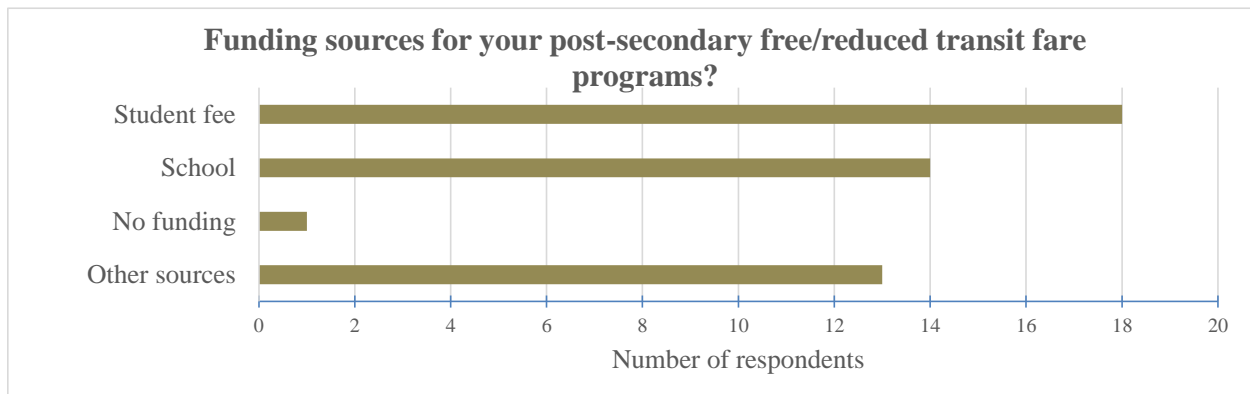


Figure 4A. Funding sources for post-secondary, college, and university free/reduced transit fare programs

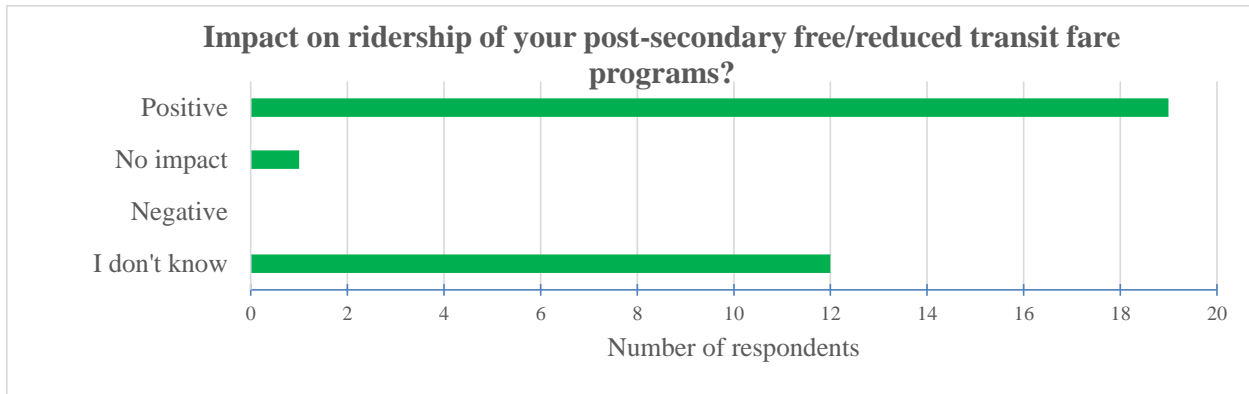


Figure 4B. Impact on ridership of post-secondary, college, and university free/reduced transit fare programs

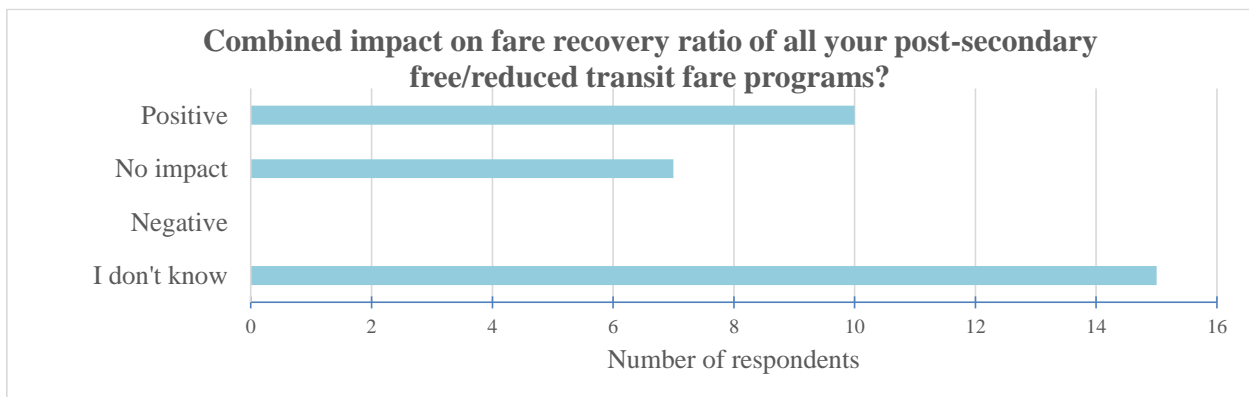


Figure 4C. Impact on farebox recovery ratio of post-secondary, college, and university free/reduced transit fare programs

Because post-secondary, college, and university programs appear relatively well-funded, respondents typically reported that these programs did not negatively impact farebox recovery ratios (Figure 4C): 10 respondents reported a positive impact, seven reported no impact, and none reported a negative impact. The remaining respondents did not know or did not answer.

Employer-based programs

Employer-based programs are not as common as programs for students. Only nine respondents stated that their agency offered one or more employer-based reduced and/or free transit pass programs during fiscal year 2018-19, for a total of 11 programs.

Some agencies offer bulk discounts for companies that buy a minimum number of monthly transit passes (for example Monterey-Salinas Transit and the Orange County Transportation Authority), while others target a large local employer, such as the San Francisco International Airport (SFO) airline employee discount offered by Bay Area Rapid Transit (BART) and discounts enjoyed by employees of Sutter hospital in Sonoma County. A third group of employer-based

programs focus on employers in a particular city (e.g., City of Santa Rosa, City of Anaheim), or in an agency’s service area.

Most of these programs are well-established, with a median creation date of 2008. The most recent one started in 2014.

Four of these programs offer recipients paid-for passes, four provide discounted fares, and three discounted (not free) passes. Six of these programs are subsidized by employers, two by employees, and one from a grant from a transportation fund for clean air. The other three programs (discounted fares) receive no external funding. They were created by BART to entice San Francisco Airport airline and airport employees and Oakland airport employees to ride BART.

Employee-based programs to promote transit use can have a large number of eligible recipients, however, having a large recipient pool is not sufficient for success. For example, the Sonoma County Transit program for the local Sutter hospital has approximately 4,000 eligible employees, yet under 100 have consistently used the program. Additionally, employer-based programs that offer discounts for bulk purchases of transit passes seem to have limited success compared to programs that give all employees of an organization a free transit pass.

Unlike K-12 programs, six respondents reported that their employer-based programs had a positive impact on ridership while two stated the impact was neutral. Three respondents agreed that their program had a positive effect on the farebox recovery ratio and two responded that it had no impact; four did not know (Figure 5B and 5C).

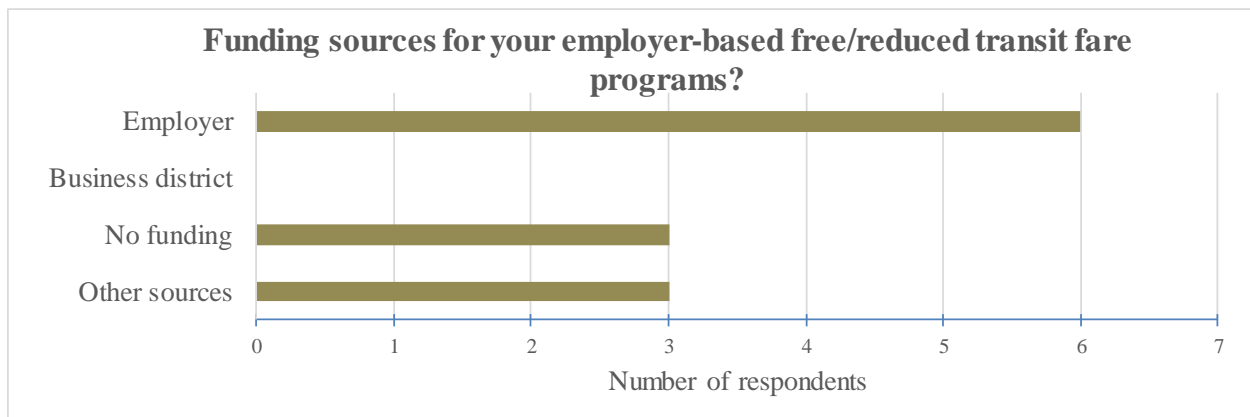


Figure 5A. Funding sources for employer-based free/reduced transit fare programs



Figure 5B. Impact on ridership of employer-based free/reduced transit fare programs

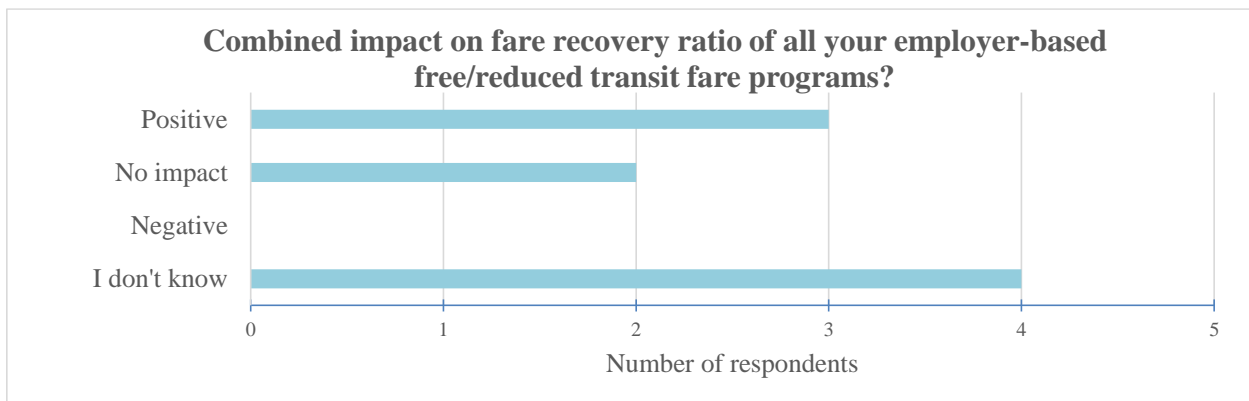


Figure 5C. Impact on fare recovery ratio of employer-based free/reduced transit fare programs

Programs for the elderly

Agencies from 31 respondents offered reduced and/or free transit pass programs for the elderly in fiscal year 2018-19, with four agencies offering more than one such program, for a total of 35 programs. Nineteen of these programs also applied to people with a disability, three also applied to veterans, while one focused on low-income seniors.

The minimum age for eligibility was either 60 (6 programs), 62 (7 programs), or 65 (20 programs), although at least three programs had more complex requirements involving, for example, whether or not a person still drives.

Some discounted and/or free transit pass programs for the elderly were established very recently (2018) and some have existed for years (pre-1990 for the oldest program reported). Many agencies started these programs as a result of federal mandates. Several respondents did not know when their agency’s programs were created.

Eighteen of these programs offer discounted fares but do not offer discounted passes for the elderly, seven provide discounted passes only (5 of which offer free passes), and 10 have both discounted fares and passes. Discounts typically exceed 50 percent of the full fare price.

More than half (23) of these programs received no external funding in fiscal year 2018-19 (Figure 6A). Funding for the other programs came from local air districts, local sales tax measures, the Transportation Development Act (TDA), a city (3), or a county (4).

The size of the programs also varies. The smallest program (a paratransit program) was used by 140 elderly residents in fiscal year 2018-19, while the largest program served over 120,000 elderly residents. As expected, the largest programs typically include seniors, veterans, and passengers with disabilities. Several transit agencies did not know the number of people eligible for their programs or the number of rides supported by their programs.

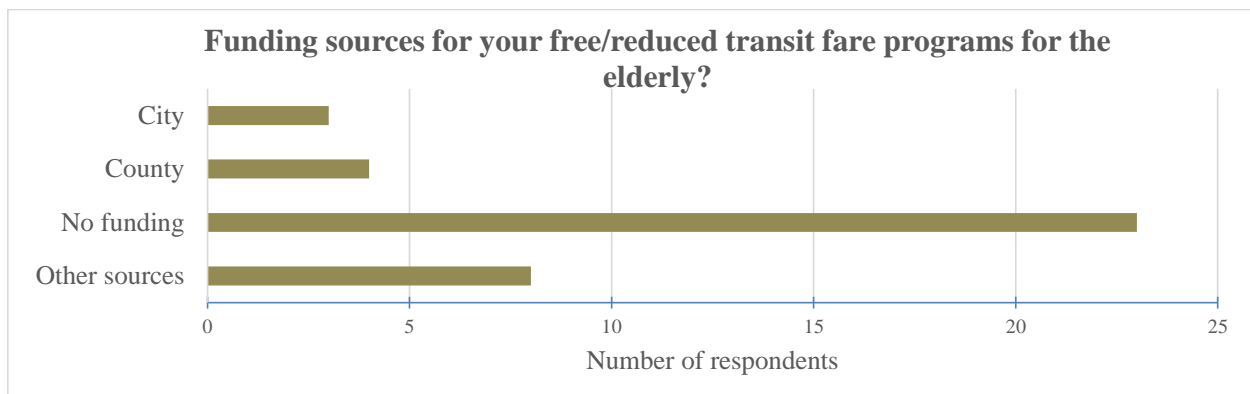


Figure 6A. Funding sources for free/reduced transit fare programs for the elderly

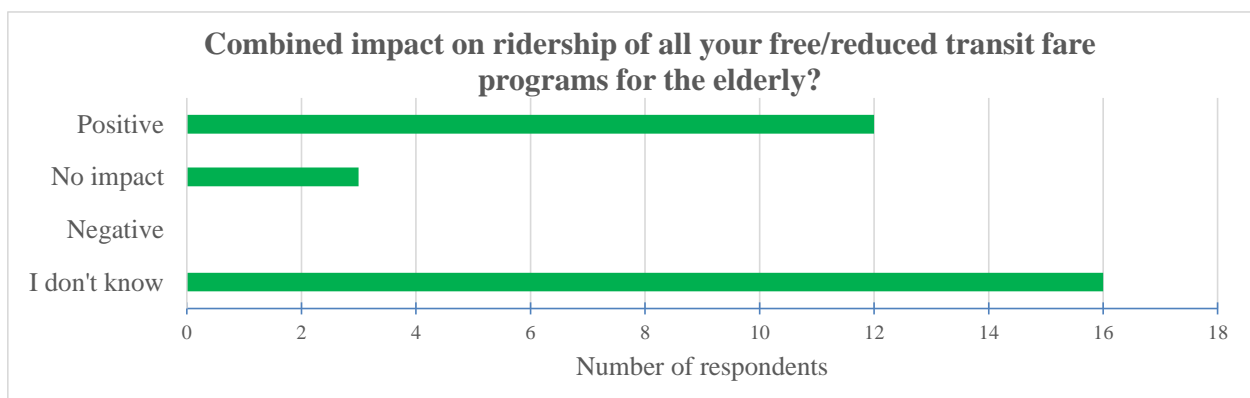


Figure 6B. Impact on ridership of free/reduced transit fare programs for the elderly

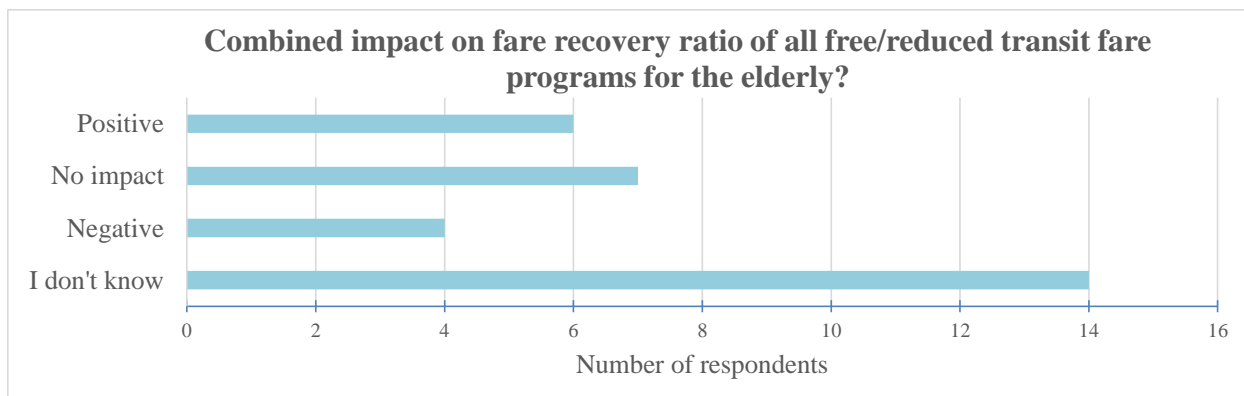


Figure 6C. Impact on fare recovery ratio of free/reduced transit fare programs for the elderly

Approximately half of respondents stated they did not know the impact of their agency’s programs on ridership (Figure 6B) or on their agency’s farebox recovery ratio (Figure 6C). Twelve respondents agreed that free or reduced transit fare programs for the elderly had a positive impact on ridership, and three reported no impact. No respondents reported negative impacts on ridership. As for impacts on fare recovery ratios, six reported a positive impact, seven indicated no impact, and four reported a negative impact.

Programs for low-income travelers

Eight of the 59 transit agencies that responded to the survey offered reduced and/or free transit pass programs to low-income riders in fiscal year 2018-19, for a total of 13 programs. Five of these programs also served people with a disability, seniors (two), veterans (one), or focused solely on low-income students (one). In turn, many of the programs offered to low-income individuals did not differ fundamentally from programs that also serve the elderly or people with disabilities. Of the 13 programs reported, five provided free passes, three provided discounted passes, four offered discounted fares, and one program provided both options (discounted fare and discounted or free passes).

The oldest program was established 15 years ago, and a few were established very recently (2017).

The impacts of these programs are difficult to quantify due to challenges in assessing the size of the eligible population. In order to receive benefits from these programs, participants must come forward and demonstrate that they qualify. Partly as a result, fewer than half of the respondents knew the number of people eligible for these benefits. Responses ranged from 12,000 rides for Santa Clara Valley Transportation Authority’s Transit Assistance Program to 211,600 rides for the City of Gardena’s Access Service.

Funding sources for these programs varies. Three of the programs are funded by a county, six receive no external funding (i.e., costs are covered by the agency), and four receive funds from

other sources, including a local sales tax measure, a local air district, a Federal Lands Access Program grant, and vehicle registration fees (Figure 7A).

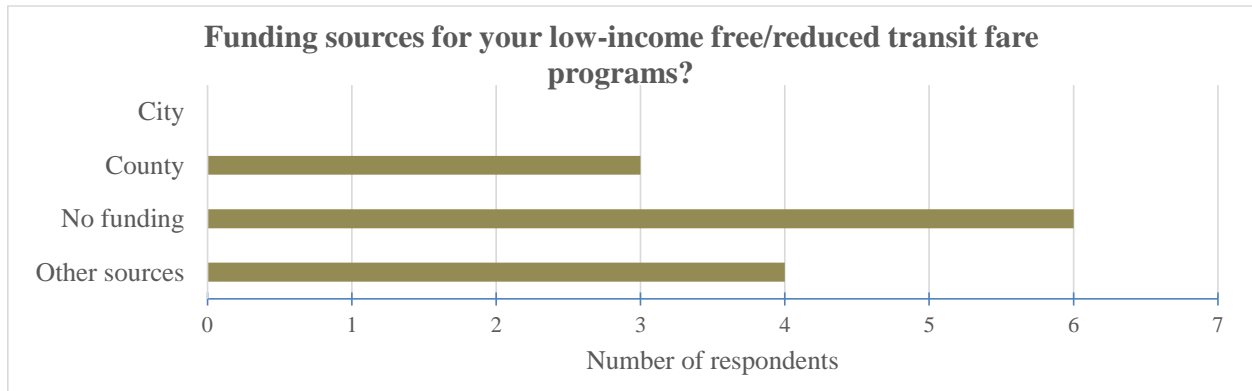


Figure 7A. Funding sources for low-income free/reduced transit fare programs

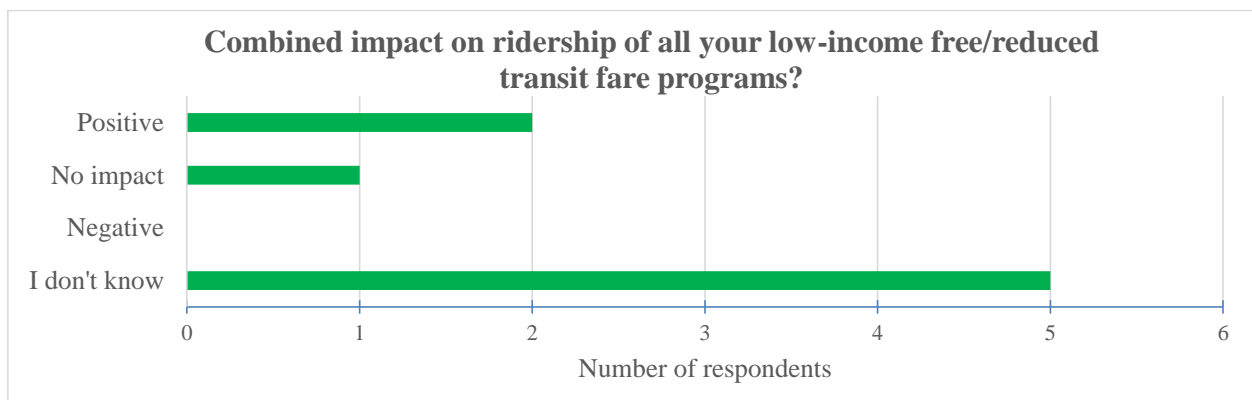


Figure 7B. Impact on ridership of low-income free/reduced transit fare programs

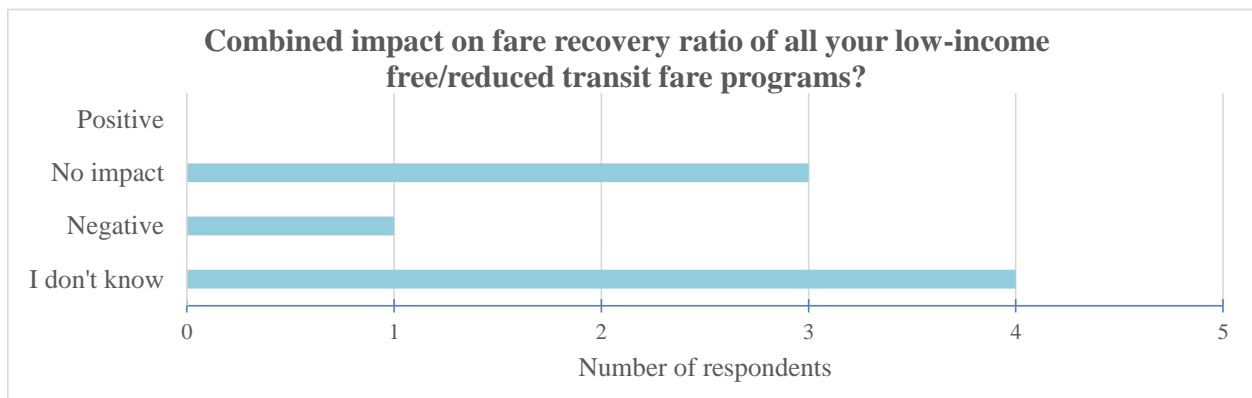


Figure 7C. Impact on fare recovery ratio of low-income free/reduced transit fare programs

It is not possible to assess the general impact of transit pass programs for low-income populations in California based on such a small sample, particularly when the eligible

population is not well known. Two respondents stated that their agency's low-income programs benefitted ridership, and one respondent reported no impact on ridership (Figure 7B). There was similar uncertainty about the impact on farebox recovery ratios (Figure 7C).

Other programs

Fifteen agencies in the sample also offered reduced and/or free transit pass programs for other categories of travelers in fiscal year 2018-19, with four agencies offering more than one program for a total of 20 programs. Beneficiaries of these programs included people on Medicare, individuals with disabilities, children under 45 inches in height, veterans, summer and weekend trolley riders, residents of specific counties, and the general public (for example, Sonoma County offers free rides on specific routes).

These programs offer discounts ranging from 50 to 100 percent (i.e., free transit) compared to standard fares. While the participation rates for many of these programs was unknown, the largest program, which was the "Ride the 40s with us" by Monterey-Salinas transit, provided approximately 260,000 rides in fiscal year 2018-19.

Some of these programs were established very recently (three were created in 2017) and two have existed for at least 20 years. Several respondents did not know when their agency's programs were created.

Funding sources for these programs vary (Figure 8A). Two programs are funded by a city, and three by a county (one was funded by both). Other sources include the Monterey Bay Aquarium (for the trolley between downtown and Cannery Row), the Low Carbon Transit Operations Program (three), and a local air district. Ten programs receive no external funding, but at least one (in the City of Santa Rosa) saves money on paratransit trips by providing free travel on fixed route buses to paratransit-eligible clients.

Six respondents reported their program had a positive effect on ridership and two reported no impact on ridership (Figure 8B). For example, in addition to its "Ride the 40s on us" program, Monterey-Salinas Transit's free trolley between downtown Monterey and Cannery Row generated approximately 220,000 rides during fiscal year 2018-19. However, the reported impact on farebox recovery ratio was mixed (Figure 8C). As for most other programs discussed in this report, almost half of the respondents could not assess the impacts of their agency's programs.

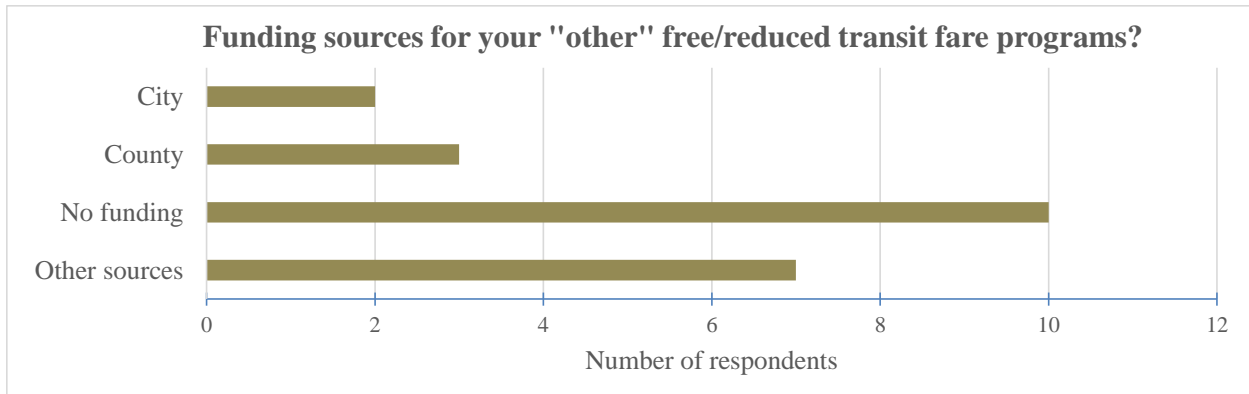


Figure 8A. Funding sources for “other” free/reduced transit fare programs

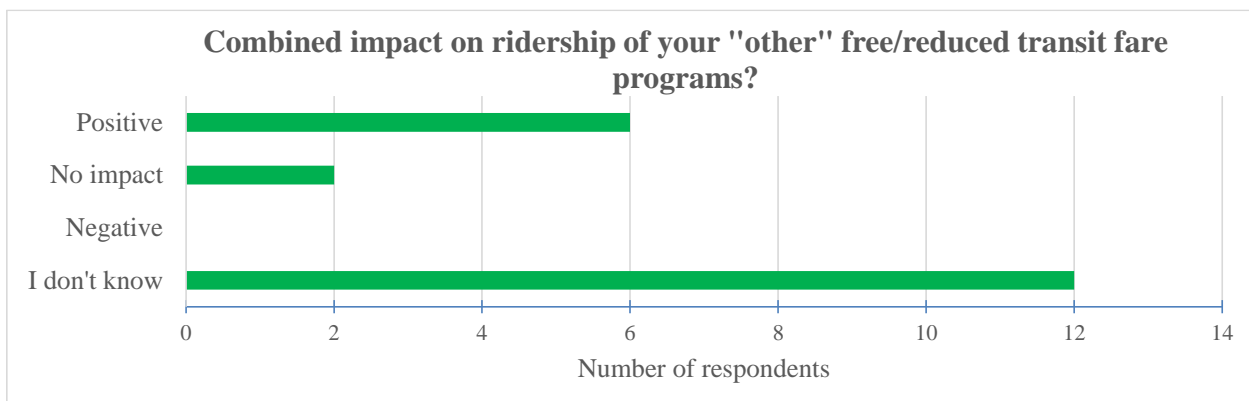


Figure 8B. Impact on ridership of “other” free/reduced transit fare programs

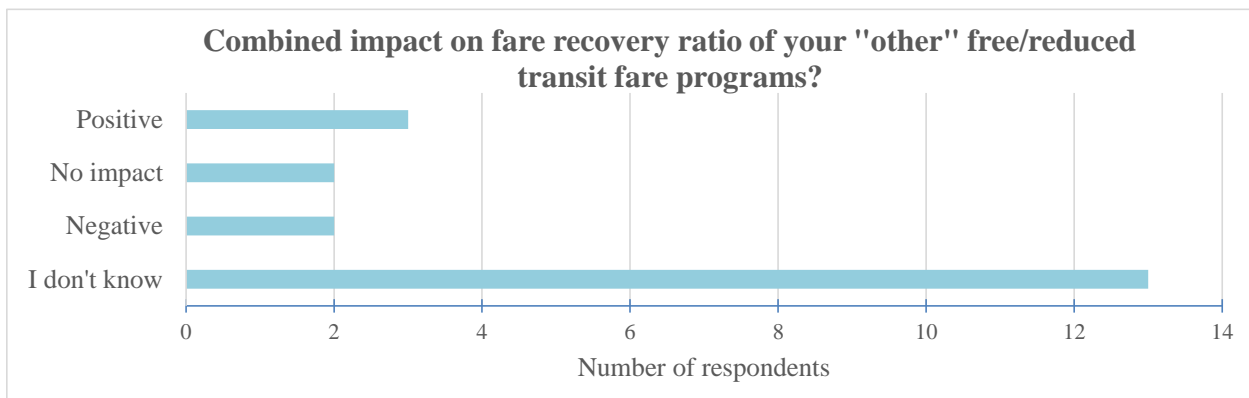


Figure 8C. Impact on fare recovery ratio of “other” free/reduced transit fare programs

Overall assessment of free and/or reduced transit fare programs

At the end of the survey, respondents were asked to provide an overall assessment of the free and/or reduced transit fare programs offered by their agency. In general, many stated that these programs are beneficial for ridership (Figure 9A), although most respondents could not

quantify their impacts on ridership, on their agency's farebox recovery ratio, or on their agency's fiscal health.

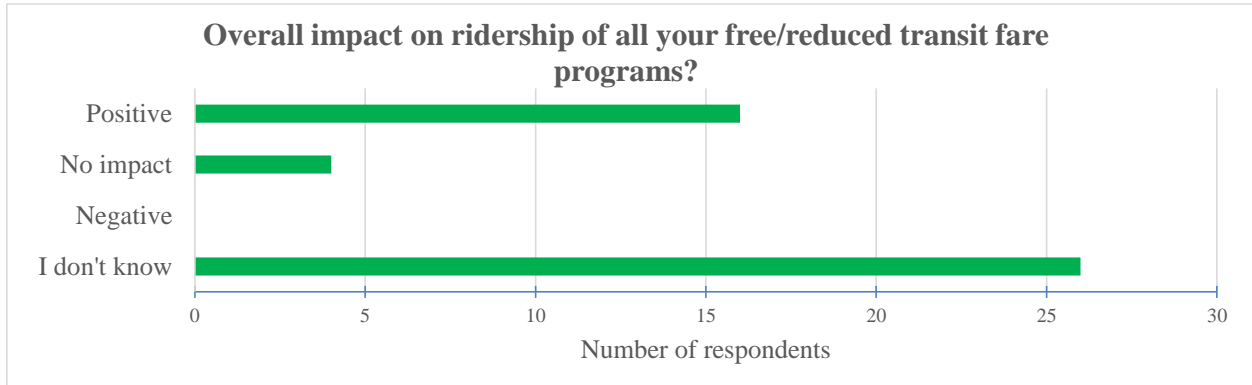


Figure 9A. Joint impact on ridership of all free/reduced transit fare programs

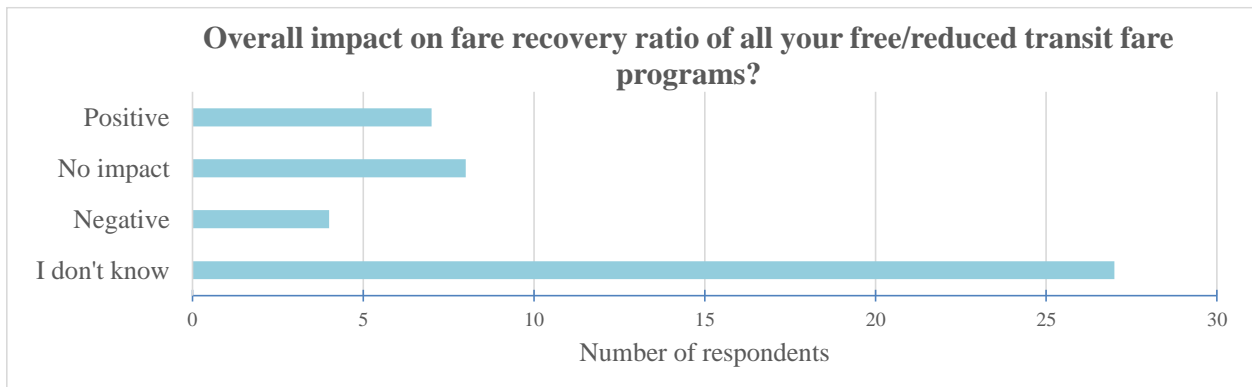


Figure 9B. Joint impact on farebox recovery of free/reduced transit fare programs

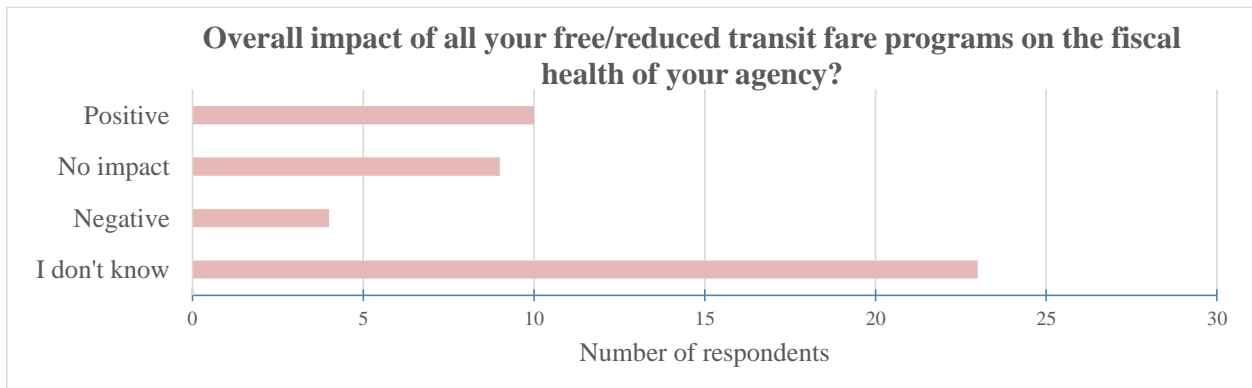


Figure 9C. Joint impact of all free/reduced transit fare programs on agency's fiscal health

A few respondents indicated that these programs made it more difficult to achieve their agency's target farebox recover ratio (Figure 9B) and likely affected the fiscal health of their agency.

Several respondents explained that assessing the impact of these programs is inherently difficult because it is unclear how many people would have taken transit without these programs. Moreover, the decision to travel is influenced by many factors, including the strength of the local economy, available modes, the price of gasoline, and even the weather.

Respondents also highlighted that the California farebox recovery requirements hinder the creation of free or reduced transit fare programs, which runs counter to the state's goals of increasing the use of public transportation to reduce California's greenhouse gas emissions.

In addition, neither the student programs funded by student fees nor the employee programs funded by employers had a negative impact on ridership or on farebox recovery ratios. This confirms that free or reduced fare transit pass programs structured like insurance programs (see [1] in the previous section) can be good for both riders and transit agencies.

Section 4. Lessons Learned and Proposed Policy Options

1. Free or reduced transit fare programs have an important role to play in transportation policy at a time when transit ridership remains well below its peak and keeps on declining in many parts of California. In particular, the “insurance” model, where a large group of potential transit riders (such as all students at a college or all employees in a large firm) periodically pays a lump sum to a transit agency while only a subset of that group actually uses transit, has the potential to enhance mobility and increase transit ridership, while improving the financial health of the participating transit agency.
2. We should not, however, ask too much from these programs. While well-designed programs can increase transit ridership and enhance the mobility of selected groups, other goals may prove elusive if these programs are used in isolation. For example, programs intended to reduce motor vehicle use will likely need to be coupled with measures to increase the overall cost of driving (such as cordon pricing, road pricing, parking pricing, as well as increased fuel and vehicle taxation).
3. Current California farebox recovery requirements are hindering the creation of free or reduced transit fare programs (with the exception of the insurance model type of program), which runs counter to California’s goals of increasing public transportation use to reduce California’s greenhouse gas emissions.
4. To achieve their full potential, free or reduced transit fare programs should be integrated in comprehensive policies designed to achieve California’s transportation, social, and environmental goals. In particular, they should consider the generalized costs and the characteristics of all the transportation options available to recipients. If not, transit ridership may increase at the expense of active modes such as biking or walking, which would have counter-productive health impacts.
5. To enhance the success of a free or reduced transit pass program, it is critically important to understand the transportation needs, travel preferences, and the socio-demographic characteristics of the intended recipients. Making transit more accessible via free or reduced transit fare programs is not sufficient; transit should also be convenient, clean, and safe.
6. While programs based on the insurance model have the potential to be financially self-sustaining, outside funding should be considered for those addressing the special needs of low-income groups including students, unemployed people, veterans, the elderly, and people with disabilities.
7. To be successful, eligibility requirements should be simple so they do not deter intended recipients and so program access can be easily monitored. Transit agencies should have

current data on the size of the population eligible for a specific program, and be able to estimate the number of trips taken by eligible program recipients. If transit is to survive competition from the growing availability of transportation network companies and self-driving vehicles, let alone thrive, it will need to embrace technologies like mobile ticketing and smart cards.

8. Given the dearth of rigorous academic studies on the impact of free or fare-reduced transit programs, pilot studies should be funded to measure changes in the travel behavior of participants.
9. Guidelines for creating and managing free or reduced-fare transit programs should be made available to transit agencies and publicized via the CTA.
10. Finally, a clearing house of successful programs should be created so transit agencies can learn from the successes and the failures of their peers.

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Appendix 1. Summary of Literature Reviewed

In this appendix, studies are discussed in the same order as in the text (Section 2).

Authors (year)	Area (Data year)	Method	Main Findings
Programs for everyone			
David, Del Fabbro, and Vertier, 2018	Worldwide	Meta-analysis	To understand the potential success of these programs, it is essential to know the generalized cost of competing modes. Most fare-free transit programs displace people who would otherwise walk and bike; impacts on car use are typically much smaller.
Hirsch et al. (2000)	New York City (1996-1999)	MetroCard ridership data	Following a series of fare incentives introduced on NYC transit in the mid-late 1990s, system ridership increased as much as 24%. Bus ridership increased over 40%.
Nuworsoo (2004)	Denver, CO, (1991-2002) and Berkeley, CA (1996-2000)	Statistical analyses	Deep discount group passes may be designed to increase transit ridership while also increasing transit operating revenues. A methodology for designing deep discount transit passes is presented.
Miller and Savage (2017)	Chicago, IL (2004-2013)	Statistical analysis (regression)	A station-level analysis of the impact of fare increases in 2004, 2006, 2009, and 2013 on Chicago's mass-transit rail system shows mixed results.
Storchmann (2003)	Templin, Germany (1997-2000)	Surveys and analysis of ridership data	In the first year of free transit in Templin, ridership rose 750%. Two years later, ridership was 13 times greater. Up to 50% of

passengers had shifted from walking. Only 10-20% shifted from cars.

Cats et al. (2014)	Tallinn, Estonia (2013)	Multiple linear regression	Following the introduction of free public transit, demand increased 3%, however, the lack of fare accounted for a 1.2% increase, while the rest was due to increase in transit supply
Cats et al. (2017)	Tallinn, Estonia (2013-2014) Sample Size: 1500	General Data Analysis	A year after fares were removed, transit usage increased 14%. It was accompanied by a 40% modal shift from walking to public transit. Car share decreased 5%, however VMT increased 31%, leading to more traffic. Transit market share increased 20% among low income groups.
Fearnley (2013)	Various locations in Europe	Cites data from various sources	Free fares can significantly increase ridership, but are not a good way to shift travel from cars to transit as most new riders shift from walking/biking. Free fare schemes should be accompanied by policies to reduce car usage directly, if that is the goal.
Zhang et al. (2018)	Beijing (2007-2012)	Multiple linear regression model	Fare reductions for buses and trains had a positive effect on ridership in the short-term, but it diminished over time.
Thogersen & Moller (2004)	Copenhagen (2002-2003) Sample Size: About 1000	Survey, multiple regression model	One thousand people were given free monthly transit passes. Participants showed much higher transit usage than a control group. After the free month, there was little difference between the two.

Sharaby & Shiftan (2012)	Haifa, Israel (2008)	Farebox data, survey, multinomial logit model	Fare simplification/reduction led to a 7.7% increase in bus ridership.
Rivers & Plumptre (2016)	Canada (2006-2011)	Surveys	The public transit tax credit (PTTC) increased ridership ~0.25% to 1% because most recipients of the PTTC would have taken transit anyway.
D'Alessandro (2008)	Milton, Canada (2007-2008)	Ridership data	Free fares were offered during off-peak hours from 9am – 3pm. Average monthly ridership increased 66% compared to the same time period in the previous year. This program was only offered for a few months.
Nortey (2017)	Toronto (2015-2016)	Surveys	About 60% of Toronto residents used the discounted passes and used transit services more than they had before the program.
Shen et al. (2015)	Gaoping, China (2013-2015)	General Data Analysis, Survey	320% increase in ridership after fares eliminated. Most new customers shifted from walking/biking; not many from cars.
Kebrowski (2018)	Chengdu, China (1964-2018)	Descriptive statistics	Abolishing fares between the 2 nd and the 3 rd ring roads combined with traffic restrictions based on the last digit of license plate numbers substantially reduced traffic congestion.

Programs for students, faculty. staff

Williams et al. (1993)	Seattle, Washington (1991-1992)	Ridership data and surveys	The U-Pass (University of Washington), introduced in 1991, allowed students, faculty and staff to ride transit for free. After 1 year, transit ridership increased 35%. The percent of students who
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			drove to campus alone fell from 33% to 23%.
Brown et al. (2001)	Various Universities	Surveys	Report analyzed 35 university Unlimited Access programs for students. First year ridership increases ranged from 71% to 200%. Operating costs and subsidies per passenger decreased after the implementation of these programs.
Brown et al. (2003)	Los Angeles/UCLA (2001-2002)	Generic data analysis	With the free transit program at UCLA, transit use increased 56% during the first year and solo driving decreased 20%.
Myers et al. (2006)	Bellingham, WA (2005) Sample size: 2095	Logistic regression	A willingness-to-pay survey of students from Western Washington University showed that students would be willing to pay over \$32/quarter for free transit; it would only cost \$20/student per quarter.
Dorsey (2005)	Utah (2002-2003)	Surveys	Students from Weber State University were willing to pay \$15/year for a free transit pass; over 50% of students would support such a fee. The University of Utah offers such a program; 15-20% of students are riding transit.
Hafeez (2013)	University of British Columbia (UBC)	Surveys and economic analysis (1997-2003)	Overall, transit ridership at UBC increased by 53% and SOV trips decreased by 7%.
Zhou et al. (2011)	Los Angeles, California (2008)	Surveys and statistical analysis	Free 12-week transit passes were given to eligible UCLA employees, followed by discounted transit passes. Initially, the number of full-time UCLA employees who

			took transit increased 71%, but the number decreased over time.
Thistle & Paget-Seekins (2017)	The Massachusetts Bay Transportation Authority (MBTA)	Surveys and statistical analysis	Unlinked trips increased 29% during the school year and from 37% to 59% between July and August. Many trips were for school and work.
Fortunati (2018)	Washington Metropolitan Area Transit Authority (WMATA) (2016-17)	Summary statistics	During the 2016-2017 school year, 90% of full time undergraduate and graduate students used these passes.
Zolnik (2007)	Connecticut (1993-2002)	Case Study	A universal access program supported by UConn and the city of Mansfield that allowed students and residents to ride one bus route was established to increase transit ridership. It was terminated within 10 years due to inequities between the funding partners.
McDonald et al. (2004)	San Francisco, California (2001-2003)	Ridership data analysis, surveys	Distributing free transit passes to low-income middle- and high school students led to an increase in attendance at after-school activities, although it did not significantly increase school attendance.
Gase et al. (2014)	Los Angeles, California (2013)	Cost-benefit and health impacts analysis	If LA County were to provide all students with a free transit pass, fare revenues would decrease up to \$71 million. Long term ridership could increase as much as 26%. School attendance could increase leading to increased school funding.

De Witte et al. (2005)	Brussels (Belgium) (2003-2004)	Surveys	Students from Flemish-speaking universities in Brussels were allowed to ride public transit for free. Of students who enrolled 89% used transit frequently; 55% reported using transit more than the previous year.
van Goeverden et al. (2006)	Various European Locations: Leiden-The Hague Hasselt Netherlands Brussels	Results from previous studies	An analysis of four fare-free systems found that ridership increased in all cases. In two cases, the mode shift from car use was over 40%. Two cases allowed only students to ride for free; both saw ridership increases. In the Netherlands, student transit mode share increased from 11% to 21%.

Programs for seniors and people with disabilities

Metaxatos (2013)	Chicago, Illinois (2008-2009)	Summary statistics of survey data	Senior fare-free program increased senior ridership by up to 75% at a cost of \$26-78 million.
Metaxatos & Dirks (2012)	Illinois (200-2007)	Regression analysis + economic analysis	If ADA paratransit service were fare-free in Illinois, the number of trips would increase 121% to 171%. The cost per trip would be about \$32. Total statewide cost for such a program: \$123.9-\$160.6 million.
Myung-Jin et al. (2018)	Seoul (2014)	Multinomial logit model	Turned 21,000 auto trips to subway trips; 54-58,000 fare-free senior trips per day which results in \$60-74 million in net social welfare per year.
Baker & White (2010)	England	Surveys	By introducing full free-fare program for bus services for adults aged 60 and above, overall bus ridership rose by 8.3%.

Appendix 2. Survey of Free or Reduced Transit Fare Programs in California

Introduction

Thank you for participating in this study.

The California Transit Association is circulating this survey at the request of University of California Irvine - Institute of Transportation Studies, which is investigating free or reduced transit fare programs offered by transit agencies in California for the California Legislature. We greatly value your professional insight. The information you are providing will help inform public policy about reduced transit fare programs in California.

Use of survey data and privacy

Ø None of your answers will be presented in any way that identifies you or your agency without your explicit written authorization.

Ø Aggregate survey responses may be reported in publications or presentations in aggregate form.

Ø Your contact information will not be shared with anyone outside of the research team.

Ø Your responses will be stored only on a secure computer at the Institute of Transportation Studies at UCI.

Ø All survey data will be erased three years after the completion of this study.

What to expect

Ø This survey has 3 parts. Part I asks a few questions about you, the survey respondent. Part II collects basic information about your agency. Part III inquires about any free or reduced transit pass programs offered by your agency.

Ø Completing this survey may take between 5 and 20 minutes depending on the number of free or reduced transit pass programs offered by your agency.

Ø Questions are single-choice, multiple-choice, and open-ended.

Ø You do not need to finish this survey in one sitting; you can return to the survey from the same device anytime over the next 7 days.

Ø A pdf document with all the survey questions is available [here](#).

Ø Feel free to skip any question that you do not want to answer, but please answer questions as best you can.

Participation, withdrawal, and questions about this survey

- Ø Your participation in this survey is entirely voluntary, but we greatly value your professional opinion and appreciate your contributions to this research.
- Ø You may withdraw your participation at any time.
- Ø You are not waiving any legal rights because of your participation in this study.
- Ø If you have any questions or concerns about this research, please contact

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* 1. Do you agree to participate in this study?

- I agree to participate in this study
- I decline to participate in this study

PART I: ABOUT YOU

* 1. What is your name?

First:

Last:

* 2. What is your email address?

3. What is your current job title?

4. How many years have you been working in your current role?

5. How many years have you been working in public transportation?

PART II: ABOUT YOUR AGENCY

* 1. What is the name of the transit agency you are working for?

2. What best describes your agency's operating area?

- Urbanized** county with population **over** 500,000 habitants
- Urbanized** county with population **under** 500,000 habitants
- Non-urbanized** county with population **over** 500,000 habitants
- Non-urbanized** county with population **under** 500,000 habitants
- Other (please explain)

3. During fiscal year 2018-19, what modes did your agency operate (directly or via contracting)? Please check all that apply.

- | | |
|---|---|
| <input type="checkbox"/> Bus | <input type="checkbox"/> Demand response - taxi |
| <input type="checkbox"/> Commuter bus | <input type="checkbox"/> Light rail |
| <input type="checkbox"/> Vanpool | <input type="checkbox"/> Commuter rail |
| <input type="checkbox"/> Demand response | <input type="checkbox"/> Heavy rail |
| <input type="checkbox"/> Other (please specify) | |

4. For this study, we are stratifying transit agencies based on criteria used in the National Transit Database (NTD). What best characterizes the transit agency you are working for?

- A **Rural** NTD reporter (*does not operate in an urban area*)
- An **Full** NTD reporter (*operates an **urban** service with (1) more than 30 vehicles across all modes and types of service, and/or (2) operates fixed guideway/high intensity busway*)
- A **Reduced** NTD reporter (*operates an **urban** service with (1) 30 vehicles or less across all modes and types of service, and (ii) does not operate fixed guideway/high intensity busway*)
- A **separate service** NTD reporter (*(i) does not directly operate service, and (ii) contracts out modes that are reported by another transit agency*)
- A **build or plan** NTD reporter (*(i) neither directly operate nor contract out service, and (ii) builds a new mode of service or does planning activities*)
- Other (please specify)

PART III. FREE OR REDUCED TRANSIT FARE PROGRAMS

We would now like to collect information about the free or reduced transit fare programs offered by your agency during fiscal year 2018-19.

* 1. Did your agency offer *any free or reduced transit fare program(s)* during fiscal year 2018-19?

- Yes
- No

PART III: FREE OR REDUCED TRANSIT FARE PROGRAMS

The next sections will ask a set of questions about each of the different types of free or reduced fare transit programs that were offered by your agency during fiscal year 2018-19.

For the sake of simplicity, the possible free or reduced transit fare programs have been divided into 6 different types as below:

1. K-12 Students programs
2. Post secondary/college/university students programs
3. Employer-based programs
4. Elderly programs
5. Low-income group programs
6. Other programs

You will be prompted to answer details about each of them one by one, in the same order.

Example: your agency offers *two different types of post secondary/college/university students program and one elderly program.*

In this case, you are requested to answer similar questions three times:

- *Twice in the Post secondary/college/university students program section, and*
- *Once in the Elderly program section*

K-12 Students Free or Reduced Transit Fare Program

If your agency offered one/more of K-12 Students Free or Reduced Transit Fare program(s), please answer yes and provide details of each of this program *separately* in the next sections.

* 1. Did your agency offer any free or reduced transit fare program(s) during fiscal year 2018-19 for **K-12 Students?**

Yes

No

K-12 Students Free or Reduced Transit Fare Program Details: **Program 1**

1. What is the name of your K-12 students free or reduced transit fare program?

2. Briefly explain what discount this program offered eligible K-12 students:

(Please mention any time, route, or mode restrictions)

3. During fiscal year 2018-19, what were the conditions of eligibility for this program?

(Please also indicate if all children in specific grades or in a specific school are automatically enrolled or not)

4. During fiscal year 2018-19, how many K-12 students were eligible for this program?

5. During fiscal year 2018-19, approximately how many K-12 students used this program?*(feel free to add comments, or state 'Not known' if the answer is unknown)*

6. What were the sources of funding for this program during fiscal year 2018-19? Please check all that apply.

Payment from student fee (please indicate amount in the box below)

Payment from school district

No funding

Other source of funds (please specify in the box below)

7. What was the cost to a student?

(Please answer for one time period of your choice)

Per quarter (\$)

Per semester (\$)

Per year (\$)

Other (\$)

8. What year did your agency start offering this program?

(feel free to add comments, or state 'Not known' if the answer is unknown)

9. During fiscal year 2018-19, was this program at least partially operated by a private contractor?

Yes

No

* 10. Did your agency offer *another* K-12 Free or Reduced Transit Fare program during fiscal year 2018-19?

Yes

No

K-12 Students Free or Reduced Transit Fare Program Details: Program 2

1. What is the name of your K-12 students free or reduced transit fare program?

2. Briefly explain what discount this program offered eligible K-12 students:

(Please mention any time, route, or mode restrictions)

3. During fiscal year 2018-19, what were the conditions of eligibility for this program?

(Please also indicate if all children in specific grades or in a specific school are automatically enrolled or not)

4. During fiscal year 2018-19, how many K-12 students were eligible for this program?

5. During fiscal year 2018-19, approximately how many K-12 students used this program?*(feel free to add comments, or state 'Not known' if the answer is unknown)*

6. What were the sources of funding for this program during fiscal year 2018-19? Please check all that apply.

Payment from student fee (please indicate amount in the box below)

Payment from school district

No funding

Other source of funds (please specify in the box below)

7. What was the cost to a student?

(Please answer for one time period of your choice)

Per quarter (\$)	<input type="text"/>
Per semester (\$)	<input type="text"/>
Per year (\$)	<input type="text"/>
Other (\$)	<input type="text"/>

8. What year did your agency start offering this program?

(feel free to add comments, or state 'Not known' if the answer is unknown)

9. During fiscal year 2018-19, was this program at least partially operated by a private contractor?

Yes

No

* 10. Did your agency offer *another* K-12 Free or Reduced Transit Fare program during fiscal year 2018-19?

Yes

No

K-12 Students Free or Reduced Transit Fare Program Details: Program 3

1. What is the name of your K-12 students free or reduced transit fare program?

2. Briefly explain what discount this program offered to eligible K-12 students:

(Please mention any time, route, or mode restrictions)

3. During fiscal year 2018-19, what were the conditions of eligibility for this program?

(Please also indicate if all children in specific grades or in a specific school are automatically enrolled or not)

4. During fiscal year 2018-19, how many K-12 students were eligible for this program?

5. During fiscal year 2018-19, approximately how many K-12 students used this program?*(feel free to add comments, or state 'Not known' if the answer is unknown)*

6. What were the sources of funding for this program during fiscal year 2018-19? Please check all that apply.

Payment from student fee (please indicate amount in the box below)

Payment from school district

No funding

Other source of funds (please specify in the box below)

7. What was the cost to a student?

(Please answer for one time period of your choice)

Per quarter (\$)

Per semester (\$)

Per year (\$)

Other (\$)

8. What year did your agency start offering this program?

(feel free to add comments, or state 'Not known' if the answer is unknown)

9. During fiscal year 2018-19, was this program at least partially operated by a private contractor?

Yes

No

* 10. Did your agency offer *another* K-12 Free or Reduced Transit Fare program during fiscal year 2018-19?

No

Yes (please specify how many more K-12 programs)

K-12 Students Free or Reduced Transit Fare Program Details: **Impacts**

1. During fiscal year 2018-19, what was the **combined impact** of all K-12 students free or reduced transit fare program(s) on your **overall ridership**?

- No impact
- I don't know
- A positive impact
- A negative impact

If there was a positive/negative impact, by how much did the ridership increase/decrease?
(please mention the units - percentage/boardings/other)

2. During fiscal year 2018-19, what was the **combined impact** of all K-12 students free or reduced transit fare program(s) on your **farebox recovery ratios**?

- No impact
- I don't know
- A positive impact
- A negative impact

If there was a positive/negative impact, by how much did the ratio improve/worsen?
(please explain/quantify)

Post-secondary/College/University Students Free or Reduced Transit Fare Program

If your agency offered one/more of Post-secondary/College/University Students Free or Reduced Transit Fare program(s), please answer yes and provide details of each of this program *separately* in the next sections.

* 1. Did your agency offer any free or reduced transit fare programs during fiscal year 2018-19 for **post-secondary/college/university students**?

- Yes
- No

**Post-secondary/College/University Students Free or Reduced Transit Fare Program Details:
Program 1**

1. What is the name of this post-secondary/college/university students free or reduced transit fare program?

2. Briefly explain what discount this program offered eligible post-secondary/college/university students:
(Please mention any time, route, or mode restrictions)

3. During fiscal year 2018-19, what were the conditions of eligibility for this program?
(Please also indicate if all students in a specific year or in a specific school are automatically enrolled or not)

4. During fiscal year 2018-19, how many post-secondary/college/university students were eligible for this program?

5. During fiscal year 2018-19, approximately how many post-secondary/college/university students used this program? *(feel free to add comments, or state 'Not known' if the answer is unknown)*

6. What were the sources of funding for this program during fiscal year 2018-19? Please check all that apply.

Payment from student fee (please indicate amount in the box below)

Payment from college/university

No funding

Other source of funds (please specify in the box below)

7. What was the cost to a student?

(Please answer for one time period of your choice)

Per quarter (\$)	<input type="text"/>
Per semester (\$)	<input type="text"/>
Per year (\$)	<input type="text"/>
Other (\$)	<input type="text"/>

8. What year did your agency start offering this program?

(feel free to add comments, or state 'Not known' if the answer is unknown)

9. During fiscal year 2018-19, was this program at least partially operated by a private contractor?

Yes

No

* 10. Did your agency offer *another* post-secondary/college/university students Free or Reduced Transit Fare program during fiscal year 2018-19?

Yes

No

**Post-secondary/College/University Students Free or Reduced Transit Fare Program Details:
Program 2**

1. What is the name of this post-secondary/college/university students free or reduced transit fare program?

2. Briefly explain what discount this program offered eligible post-secondary/college/university students:

(Please mention any time, route, or mode restrictions)

3. During fiscal year 2018-19, what were the conditions of eligibility for this program?

(Please also indicate if all students in a specific year or in a specific school are automatically enrolled or not)

4. During fiscal year 2018-19, how many post-secondary/college/university students were eligible for this program?

5. During fiscal year 2018-19, approximately how many post-secondary/college/university students used this program? *(feel free to add comments, or state 'Not known' if the answer is unknown)*

6. What were the sources of funding for this program during fiscal year 2018-19? Please check all that apply.

Payment from student fee (please indicate amount in the box below)

Payment from college/university

No funding

Other source of funds (please specify in the box below)

7. What was the cost to a student?

(Please answer for one time period of your choice)

Per quarter (\$)

Per semester (\$)

Per year (\$)

Other (\$)

8. What year did your agency start offering this program?

(feel free to add comments, or state 'Not known' if the answer is unknown)

9. During fiscal year 2018-19, was this program at least partially operated by a private contractor?

Yes

No

* 10. Did your agency offer *another* post-secondary/college/university students Free or Reduced Transit Fare program during fiscal year 2018-19?

Yes

No

**Post-secondary/College/University Students Free or Reduced Transit Fare Program Details:
Program 3**

1. What is the name of this post-secondary/college/university students free or reduced transit fare program?

2. Briefly explain what discount this program offered to eligible post-secondary/college/university students:
(Please mention any time, route, or mode restrictions)

3. During fiscal year 2018-19, what were the conditions of eligibility for this program?

(Please also indicate if all students in a specific year or in a specific school are automatically enrolled or not)

4. During fiscal year 2018-19, how many post-secondary/college/university students were eligible for this program?

5. During fiscal year 2018-19, approximately how many post-secondary/college/university students used this program? *(feel free to add comments, or state 'Not known' if the answer is unknown)*

6. What were the sources of funding for this program during fiscal year 2018-19? Please check all that apply.

Payment from student fee (please indicate amount in the box below)

Payment from college/university

No funding

Other source of funds (please specify in the box below)

7. What was the cost to a student?

(Please answer for one time period of your choice)

Per quarter (\$)

Per semester (\$)

Per year (\$)

Other (\$)

8. What year did your agency start offering this program?

(feel free to add comments, or state 'Not known' if the answer is unknown)

9. During fiscal year 2018-19, was this program at least partially operated by a private contractor?

Yes

No

* 10. Did your agency offer *another* post-secondary/college/university students Free or Reduced Transit Fare program during fiscal year 2018-19?

No

Yes *(please specify how many more post-secondary/college students program)*

**Post-secondary/College/University Students Free or Reduced Transit Fare Program Details:
Impacts**

1. During fiscal year 2018-19, what was the **combined impact** of all post-secondary/college/university students free or reduced transit fare program(s) on your **overall ridership**?

- No impact
- I don't know
- A positive impact
- A negative impact

If there was a positive/negative impact, by how much did the ridership increase/decrease?
(please mention the units - percentage/boardings/other)

2. During fiscal year 2018-19, what was the **combined impact** of all post-secondary/college/university students free or reduced transit fare program(s) on your **farebox recovery ratios**?

- No impact
- I don't know
- A positive impact
- A negative impact

If there was a positive/negative impact, by how much did the ratio improve/worsen?
(please explain/quantify)

Employer-based Free or Reduced Transit Fare Program

If your agency offered one/more of Employer-based Free or Reduced Transit Fare program(s), please answer yes and provide details of each of this program *separately* in the next sections.

* 1. Did your agency offer any **Employer-based** free or reduced transit fare program during fiscal year 2018-19?

- Yes
- No

Employer-based Free or Reduced Transit Fare Program Details: Program 1

1. What is the name of this employer-based free or reduced transit fare program?

2. Briefly explain what discount this program offered to eligible employees:

(Please mention any time, route, or mode restrictions)

3. During fiscal year 2018-19, what were the conditions of eligibility for this program?

(Please also indicate if some/all employees are automatically enrolled or not)

4. During fiscal year 2018-19, how many employees were eligible for this program?

5. During fiscal year 2018-19, approximately how many employees used this program?*(feel free to add comments, or state 'Not known' if the answer is unknown)*

6. What were the sources of funding for this program during fiscal year 2018-19? Please check all that apply.

Subsidy payment from employer

Subsidy payment from business district

No funding

Other source of funds (please specify)

7. What was the annual cost (\$) to a participant?

8. What year did your agency start offering this program?

(feel free to add comments, or state 'Not known' if the answer is unknown)

9. During fiscal year 2018-19, was this program at least partially operated by a private contractor?

- Yes
- No

* 10. Did your agency offer *another* employer-based Free or Reduced Transit Fare program during fiscal year 2018-19?

- Yes
- No

Employer-based Free or Reduced Transit Fare Program Details: Program 2

1. What is the name of this employer-based free or reduced transit fare program?

2. Briefly explain what discount this program offered eligible employees:

(Please mention any time, route, or mode restrictions)

3. During fiscal year 2018-19, what were the conditions of eligibility for this program?

(Please also indicate if some/all employees are automatically enrolled or not)

4. During fiscal year 2018-19, how many employees were eligible for this program?

5. During fiscal year 2018-19, approximately how many employees used this program?*(feel free to add comments, or state 'Not known' if the answer is unknown)*

6. What were the sources of funding for this program during fiscal year 2018-19? Please check all that apply.

- Subsidy payment from employer
- Subsidy payment from business district
- No funding
- Other source of funds (please specify)

7. What was the annual cost (\$) to a participant?

8. What year did your agency start offering this program?

(feel free to add comments, or state 'Not known' if the answer is unknown)

9. During fiscal year 2018-19, was this program at least partially operated by a private contractor?

- Yes
- No

* 10. Did your agency offer *another* employer-based Free or Reduced Transit Fare program during fiscal year 2018-19?

- Yes
- No

Employer-based Free or Reduced Transit Fare Program Details: **Program 3**

1. What is the name of this employer-based free or reduced transit fare program?

2. Briefly explain what discount this program offered eligible employees:

(Please mention any time, route, or mode restrictions)

3. During fiscal year 2018-19, what were the conditions of eligibility for this program?

(Please also indicate if some/all employees are automatically enrolled or not)

4. During fiscal year 2018-19, how many employees were eligible for this program?

5. During fiscal year 2018-19, approximately how many employees used this program?*(feel free to add comments, or state 'Not known' if the answer is unknown)*

6. What were the sources of funding for this program during fiscal year 2018-19? Please check all that apply.

- Subsidy payment from employer
- Subsidy payment from the business district
- No funding
- Other source of funds (please specify)

7. What was the annual cost (\$) to a participant?

8. What year did your agency start offering this program?

(feel free to add comments, or state 'Not known' if the answer is unknown)

9. During fiscal year 2018-19, was this program at least partially operated by a private contractor?

- Yes
- No

* 10. Did your agency offer *another* employer-based Free or Reduced Transit Fare program during fiscal year 2018-19?

- No
- Yes *(please specify how many more employer based programs)*

Employer-based Free or Reduced Transit Fare Program Details: **Impacts**

1. During fiscal year 2018-19, what was the **combined impact** of all the employer-based free or reduced transit fare program(s) on your **overall ridership**?

- No impact
- I don't know
- A positive impact
- A negative impact

If there was a positive/negative impact, by how much did the ridership increase/decrease?
(please mention the units - percentage/boardings/other)

2. During fiscal year 2018-19, what was the **combined impact** of all the employer-based free or reduced transit fare program(s) on your **farebox recovery ratios**?

- No impact
- I don't know
- A positive impact
- A negative impact

If there was a positive/negative impact, by how much did the ratio improve/worsen?
(please explain/quantify)

Elderly Free or Reduced Transit Fare Program

If your agency offered one/more of Elderly Free or Reduced Transit Fare program(s), please answer yes and provide details of each of this program *separately* in the next sections.

* 1. Did your agency offer **any** free or reduced transit fare program **for the elderly** during fiscal year 2018-19?

- Yes
- No

Elderly Free or Reduced Transit Fare Program Details: **Program 1**

1. What is the name of this free or reduced transit fare program for the elderly?

2. Briefly explain what discount this program offered eligible elderly participants:

(Please mention any time, route, or mode restrictions)

3. During fiscal year 2018-19, what were the conditions of eligibility for this program?

(Please also indicate if some/all elderly people are automatically enrolled or not)

4. During fiscal year 2018-19, how many elderly people were eligible for this program?

5. During fiscal year 2018-19, approximately how many elderly people used this program?*(feel free to add comments, or state 'Not known' if the answer is unknown)*

6. What were the sources of funding for this program during fiscal year 2018-19? Please check all that apply.

- Subsidy/payment from the city
- Subsidy/payment from the county
- No funding
- Other source of funds (please specify)

7. What was the annual cost (\$) to a participant?

8. What year did your agency start offering this program?

(feel free to add comments, or state 'Not known' if the answer is unknown)

9. During fiscal year 2018-19, was this program at least partially operated by a private contractor?

Yes

No

* 10. Did your agency offer *another* Free or Reduced Transit Fare program for the elderly during fiscal year 2018-19?

Yes

No

Elderly Free or Reduced Transit Fare Program Details: **Program 2**

1. What is the name of this free or reduced transit fare program for the elderly?

2. Briefly explain what discount this program offered eligible elderly participants:

(Please mention any time, route, or mode restrictions)

3. During fiscal year 2018-19, what were the conditions of eligibility for this program?

(Please also indicate if some/all elderly people are automatically enrolled or not)

4. During fiscal year 2018-19, how many elderly people were eligible for this program?

5. During fiscal year 2018-19, approximately how many elderly people used this program?*(feel free to add comments, or state 'Not known' if the answer is unknown)*

6. What were the sources of funding for this program during fiscal year 2018-19? Please check all that apply.

- Subsidy/payment from the city
- Subsidy/payment from the county
- No funding
- Other source of funds (please specify)

7. What was the annual cost (\$) to a participant?

8. What year did your agency start offering this program?

(feel free to add comments, or state 'Not known' if the answer is unknown)

9. During fiscal year 2018-19, was this program at least partially operated by a private contractor?

- Yes
- No

* 10. Did your agency offer *another* Free or Reduced Transit Fare program for the elderly during fiscal year 2018-19?

- Yes
- No

Elderly Free or Reduced Transit Fare Program Details: Program 3

1. What is the name of this free or reduced transit fare program for the elderly?

2. Briefly explain what discount this program offered eligible elderly participants:

(Please mention any time, route, or mode restrictions)

3. During fiscal year 2018-19, what were the conditions of eligibility for this program?

(Please also indicate if some/all elderly people are automatically enrolled or not)

4. During fiscal year 2018-19, how many elderly people were eligible for this program?

5. During fiscal year 2018-19, approximately how many elderly people used this program?*(feel free to add comments, or state 'Not known' if the answer is unknown)*

6. What were the sources of funding for this program during fiscal year 2018-19? Please check all that apply.

- Subsidy/payment from the city
- Subsidy/payment from the county
- No funding
- Other source of funds (please specify)

7. What was the annual cost (\$) to a participant?

8. What year did your agency start offering this program?

(feel free to add comments, or state 'Not known' if the answer is unknown)

9. During fiscal year 2018-19, was this program at least partially operated by a private contractor?

- Yes
- No

* 10. Did your agency offer *another* Free or Reduced Transit Fare program for the elderly during fiscal year 2018-19?

- No
- Yes *(please specify how many more programs for the elderly)*

Elderly Free or Reduced Transit Fare Program Details: Impacts

1. During fiscal year 2018-19, what was the **combined impact** of all the free or reduced transit fare program(s) for the elderly, on your **overall ridership**?

- No impact
- I don't know
- A positive impact
- A negative impact

If there was a positive/negative impact, by how much did the ridership increase/decrease?
(please mention the units - percentage/boardings/other)

2. During fiscal year 2018-19, what was the **combined impact** of all the free or reduced transit fare program(s) for the elderly, on your **farebox recovery ratios**?

- No impact
- I don't know
- A positive impact
- A negative impact

If there was a positive/negative impact, by how much did the ratio improve/worsen?
(please explain/quantify)

Low-Income Reduced Fare Transit Program

If your agency offered one/more of Low-Income Free or Reduced Transit Fare program(s), please answer yes and provide details of each of this program *separately* in the next sections.

* 1. Did your agency offer **any** free or reduced transit fare program **for some low-income groups** during fiscal year 2018-19?

- Yes
- No

Low-Income Free or Reduced Transit Fare Program Details: Program 1

1. What is the name of this free or reduced transit fare program for some low-income groups?

2. Briefly explain what discount this program offered selected low-income groups:

(Please mention any time, route, or mode restrictions)

3. During fiscal year 2018-19, what were the conditions of eligibility for this program?

(Please also indicate if some/all people from selected low-income groups are automatically enrolled or not)

4. During fiscal year 2018-19, how many people from selected low-income groups were eligible for this program?

5. During fiscal year 2018-19, approximately how many people from selected low-income groups used this program? *(feel free to add comments, or state 'Not known' if the answer is unknown)*

6. What were the sources of funding for this program during fiscal year 2018-19? Please check all that apply.

- Subsidy/payment from the city
- Subsidy/payment from the county
- No funding
- Other source of funds (please specify)

7. What was the annual cost (\$) to a participant?

8. What year did your agency start offering this program?

(feel free to add comments, or state 'Not known' if the answer is unknown)

9. During fiscal year 2018-19, was this program at least partially operated by a private contractor?

Yes

No

* 10. Did your agency offer *another* Free or Reduced Transit Fare program for the some low-income groups during fiscal year 2018-19?

Yes

No

Low-Income Free or Reduced Transit Fare Program Details: **Program 2**

1. What is the name of this free or reduced transit fare program for some low-income groups?

2. Briefly explain what discount this program offered selected low-income groups:

(Please mention any time, route, or mode restrictions)

3. During fiscal year 2018-19, what were the conditions of eligibility for this program?

(Please also indicate if some/all people from selected low-income groups are automatically enrolled or not)

4. During fiscal year 2018-19, how many people from selected low-income groups were eligible for this program?

5. During fiscal year 2018-19, approximately how many people from selected low-income groups used this program? *(feel free to add comments, or state 'Not known' if the answer is unknown)*

6. What were the sources of funding for this program during fiscal year 2018-19? Please check all that apply.

- Subsidy/payment from the city
- Subsidy/payment from the county
- No funding
- Other source of funds (please specify)

7. What was the annual cost (\$) to a participant?

8. What year did your agency start offering this program?

(feel free to add comments, or state 'Not known' if the answer is unknown)

9. During fiscal year 2018-19, was this program at least partially operated by a private contractor?

- Yes
- No

* 10. Did your agency offer *another* Free or Reduced Transit Fare program for some low-income groups during fiscal year 2018-19?

- Yes
- No

Low-Income Free or Reduced Transit Fare Program Details: **Program 3**

1. What is the name of this free or reduced transit fare program for some low-income groups?

2. Briefly explain what discount this program offered eligible selected low-income groups:

(Please mention any time, route, or mode restrictions)

3. During fiscal year 2018-19, what were the conditions of eligibility for this program?

(Please also indicate if some/all people from selected low-income groups are automatically enrolled or not)

4. During fiscal year 2018-19, how many people from selected low-income groups were eligible for this program?

5. During fiscal year 2018-19, approximately how many people from selected low-income groups used this program? *(feel free to add comments, or state 'Not known' if the answer is unknown)*

6. What were the sources of funding for this program during fiscal year 2018-19? Please check all that applies.

- Subsidy/payment from the city
- Subsidy/payment from the county
- No funding
- Other source of funds (please specify)

7. What was the annual cost (\$) to a participant?

8. What year did your agency start offering this program?

(feel free to add comments, or state 'Not known' if the answer is unknown)

9. During fiscal year 2018-19, was this program at least partially operated by a private contractor?

- Yes
- No

* 10. Did your agency offer *another* Free or Reduced Transit Fare program for some some low-income groups during fiscal year 2018-19?

- No
- Yes (please specify how many more programs for the low-income groups)

Low-Income Free or Reduced Transit Fare Program Details: **Impacts**

1. During fiscal year 2018-19, what was the **combined impact** of all the free or reduced transit fare program(s) for some low-income groups, on your **overall ridership**?

- No impact
- I don't know
- A positive impact
- A negative impact

If there was a positive/negative impact, by how much did the ridership increase/decrease?
(please mention the units - percentage/boardings/other)

2. During fiscal year 2018-19, what was the **combined impact** of all the free or reduced transit fare program(s) for some low-income groups, on your **farebox recovery ratios**?

- No impact
- I don't know
- A positive impact
- A negative impact

If there was a positive/negative impact, by how much did the ratio improve/worsen?
(please explain/quantify)

Other Free or Reduced Transit Fare Program

If your agency offered one/more of Free or Reduced Transit Fare program(s) for 'other' selected groups, please answer yes and provide details of each of this program *separately* in the next

sections.

* 1. During fiscal year 2018-19, did your agency offer **any** free or reduced transit fare program **for 'other' selected groups**?

Yes

No

Other Free or Reduced Transit Fare Details: Program 1

1. What is the name of this free or reduced transit fare program for 'other' selected groups?

2. Briefly explain what discount this program offered eligible people:

(Please mention any time, route, or mode restrictions)

3. During fiscal year 2018-19, what were the conditions of eligibility for this program?

(Please also indicate if some/all 'other' selected groups are automatically enrolled or not)

4. During fiscal year 2018-19, how many people were eligible for this program?

5. During fiscal year 2018-19, approximately how many people used this program?*(feel free to add comments, or state 'Not known' if the answer is unknown)*

6. What were the sources of funding for this program during fiscal year 2018-19? Please check all that apply.

- Subsidy/payment from the city
- Subsidy/payment from the county
- No funding
- Other source of funds (please specify)

7. What was the annual cost (\$) to a participant?

8. What year did your agency start offering this program?

(feel free to add comments, or state 'Not known' if the answer is unknown)

9. During fiscal year 2018-19, was this program at least partially operated by a private contractor?

- Yes
- No

* 10. Did your agency offer *another* Free or Reduced Transit Fare program for 'other' selected groups during fiscal year 2018-19?

- Yes
- No

Other Free or Reduced Transit Fare Program Details: Program 2

1. What is the name of this free or reduced transit fare program for 'other' selected groups?

2. Briefly explain what discount this program offered eligible people:

(Please mention any time, route, or mode restrictions)

3. During fiscal year 2018-19, what were the conditions of eligibility for this program?
(Please also indicate if some/all 'other' selected groups are automatically enrolled or not)

4. During fiscal year 2018-19, how many people were eligible for this program?

5. During fiscal year 2018-19, approximately how many people used this program?(feel free to add comments, or state 'Not known' if the answer is unknown)

6. What were the sources of funding for this program during fiscal year 2018-19? Please check all that apply.

- Subsidy/payment from the city
- Subsidy/payment from the county
- No funding
- Other source of funds (please specify)

7. What was the annual cost (\$) to a participant?

8. What year did your agency start offering this program?
(feel free to add comments, or state 'Not known' if the answer is unknown)

9. During fiscal year 2018-19, was this program at least partially operated by a private contractor?

- Yes
- No

* 10. Did your agency offer *another* Free or Reduced Transit Fare program for 'other' selected groups during fiscal year 2018-19?

- Yes
- No

Other Free or Reduced Transit Fare Program Details: Program 3

1. What is the name of this free or reduced transit fare program for 'other' selected groups?

2. Briefly explain what discount this program offered eligible people:

(Please mention any time, route, or mode restrictions)

3. During fiscal year 2018-19, what were the conditions of eligibility for this program?

(Please also indicate if some/all 'other' selected groups are automatically enrolled or not)

4. During fiscal year 2018-19, how many people were eligible for this program?

5. During fiscal year 2018-19, approximately how many people used this program?*(feel free to add comments, or state 'Not known' if the answer is unknown)*

6. What were the sources of funding for this program during fiscal year 2018-19? Please check all that apply.

- Subsidy/payment from the city
- Subsidy/payment from the county
- No funding
- Other source of funds (please specify)

7. What was the annual cost (\$) to a participant?

8. What year did your agency start offering this program?

(feel free to add comments, or state 'Not known' if the answer is unknown)

9. During fiscal year 2018-19, was this program at least partially operated by a private contractor?

Yes

No

* 10. Did your agency offer *another* Free or Reduced Transit Fare program for 'other' selected groups during fiscal year 2018-19?

No

Yes *(please specify how many more 'other' programs)*

Other Reduced Fare Transit Program Details: **Impacts**

1. During fiscal year 2018-19, what was the **combined impact** of all the 'other' free or reduced transit fare program(s) on your **overall ridership**?

No impact

I don't know

A positive impact

A negative impact

If there was a positive/negative impact, by how much did the ridership increase/decrease?

(please mention the units - percentage/boardings/other)

2. During fiscal year 2018-19, what was the **combined impact** of all the 'other' free or reduced transit fare program(s) on your **farebox recovery ratios**?

- No impact
- I don't know
- A positive impact
- A negative impact

If there was a positive/negative impact, by how much did the ratio improve/worsen?
(please explain/quantify)

Summary questions for ALL TYPES of free or reduced fare-transit programs

Please skip Q1 and Q2 of this page if your agency offered only one type of free or reduced-transit fare program(s).

1. During fiscal year 2018-19, what was the **combined impact of all your free or reduced transit fare program(s)** on your **overall ridership**?

- No impact
- I don't know
- A positive impact
- A negative impact

If there was a positive/negative impact, by how much did the ridership increase/decrease?
(please mention the units - percentage/boardings/other)

2. During fiscal year 2018-19, what was the **combined impact of all your free or reduced transit fare program(s)** on your **farebox recovery ratios**?

- No impact
- I don't know
- A positive impact
- A negative impact

If there was a positive/negative impact, by how much did the ratio improve/worsen?
(please explain/quantify)

3. During fiscal year 2018-19, what farebox recovery ratio requirement (FRR) applied to your agency's Transit Development Act (TDA) funding eligibility as defined by PUC § 99268 - 99270.8?

- >20%
- 20%
- 15%
- Other (please specify)
- 10%
- I don't know

4. During fiscal year 2018-19, what was the **combined impact of all free or reduced transit fare program(s)** on the **fiscal health of your agency**?

- No impact
- I don't know
- A positive impact
- A negative impact

If there was a positive/negative impact, by how much did the fiscal health improve/worsen?
(please explain/quantify)

1. In the past five fiscal years, did your agency offer any free or reduced transit fare program(s) that have now been discontinued?

Yes

No

History of free or reduced transit fare programs: **Details**

1. What program types that were discontinued in the past five fiscal years by your agency? Check all that applies.

	Reduced transit fare program	Free transit fare program
Students (K to 12)	<input type="checkbox"/>	<input type="checkbox"/>
Post-secondary/college/university students	<input type="checkbox"/>	<input type="checkbox"/>
Employer-based program	<input type="checkbox"/>	<input type="checkbox"/>
Elderly	<input type="checkbox"/>	<input type="checkbox"/>
Low-income groups	<input type="checkbox"/>	<input type="checkbox"/>

Other (please specify)

2. What are the reasons why your agency's now discontinued free or reduced transit fare program(s) was(were) terminated? Check all that applies.

Insufficient funding

Insufficient demand

I don't know

Other (please specify)

CLOSING QUESTIONS

1. If you have any comments about this survey (and in particular about free or reduced transit fare programs), please enter them in the box below:

2. May we follow up with you on your responses?

- No
- Yes, please contact me at the email address I entered in Part I of this survey
- Yes, please contact me at a different email address or by phone (please include area code):

3. Would you like to receive an electronic copy of our findings?

- No
- Yes, please send it to the email address I entered in Part I of this survey
- Yes, please send it to a different email address:

Appendix 3. Summary of Characteristics of Transit Agencies that Participated in the Survey

Agency name	Agency offers any program?	K-12	Post-secondary, college, university	Employer-based	Elderly	Low income	Other	Bus	Commuter bus	Vanpool	Demand response	Demand response - taxi	Light rail	Commuter rail	Heavy rail	Other	Annual Unlinked Passenger Trips
Anaheim Transportation Network	<input checked="" type="checkbox"/>	0	1	1	1	0	0	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>						9,535,775
Antelope Valley Transit Authority	<input checked="" type="checkbox"/>	0	1	0	1	0	1	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>						2,576,521
City of Ceres		0	0	0	0	0	0		<input checked="" type="checkbox"/>								NA
City of Manteca- Manteca Transit		0	0	0	0	0	0	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>						64,106
City of San Luis Obispo	<input checked="" type="checkbox"/>	1	1	0	0	0	0	<input checked="" type="checkbox"/>									1,131,879
City of Santa Clarita Transit	<input checked="" type="checkbox"/>	0	1	0	2	1	0	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>						2,864,351

Agency name	Agency offers any program?	K-12	Post-secondary, college, university	Employer-based	Elderly	Low income	Other	Bus	Commuter bus	Vanpool	Demand response	Demand response - taxi	Light rail	Commuter rail	Heavy rail	Other	Annual Unlinked Passenger Trips
City of Santa Rosa CityBus	<input checked="" type="checkbox"/>	1	1	1	0	0	2	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>						2,063,097
City of Thousand Oaks / Thousand Oaks Transit	<input checked="" type="checkbox"/>	1	1	0	1	0	0	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>						240,328
City of Union City - Union City Transit	<input checked="" type="checkbox"/>	2	0	0	1	0	0	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>						298,577
E-tran (administered by the City of Elk Grove)		0	0	0	0	0	0	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>					860,773
Fairfield and Suisun Transit	<input checked="" type="checkbox"/>	1	1	0	1	0	0	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>					<input checked="" type="checkbox"/>	1,018,077
Foothill Transit	<input checked="" type="checkbox"/>	1	1	0	1	0	0	<input checked="" type="checkbox"/>									13,561,124
Fresno Area Express	<input checked="" type="checkbox"/>	0	1	0	1	0	1	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>						9,822,823

Agency name	Agency offers any program?	K-12	Post-secondary, college, university	Employer-based	Elderly	Low income	Other	Bus	Commuter bus	Vanpool	Demand response	Demand response - taxi	Light rail	Commuter rail	Heavy rail	Other	Annual Unlinked Passenger Trips
Fresno County Rural Transit Agency		0	0	0	0	0	0	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>						391,135
Gold Coast Transit District	<input checked="" type="checkbox"/>	0	1	0	1	0	1	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>						3,718,811
Golden Empire Transit District	<input checked="" type="checkbox"/>	1	0	0	1	0	0	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>						5,218,850
Golden Gate Bridge Highway and Transportation District	<input checked="" type="checkbox"/>	1	0	0	1	0	1	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>							<input checked="" type="checkbox"/>	5,698,961
GTrans/City of Gardena	<input checked="" type="checkbox"/>	1	1	0	2	2	0	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>						3,094,180
Humboldt Transit Authority	<input checked="" type="checkbox"/>	0	1	0	0	0	0	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>							<input checked="" type="checkbox"/>	595,981
Livermore Amador Valley Transit Authority	<input checked="" type="checkbox"/>	1	0	0	0	0	0	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>					1,590,205

Agency name	Agency offers any program?	K-12	Post-secondary, college, university	Employer-based	Elderly	Low income	Other	Bus	Commuter bus	Vanpool	Demand response	Demand response - taxi	Light rail	Commuter rail	Heavy rail	Other	Annual Unlinked Passenger Trips
Long Beach Transit		0	0	0	0	0	0	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>					<input checked="" type="checkbox"/>	25,263,321
Marin County Transit District	<input checked="" type="checkbox"/>	2	1	0	2	3	1	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>					3,018,932
Metropolitan Transportation Commission		0	0	0	0	0	0										0
Modesto Area Express	<input checked="" type="checkbox"/>	1	1	0	0	0	0	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>					2,878,789
Monterey - Salinas Transit	<input checked="" type="checkbox"/>	2	2	1	2	0	3	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>					<input checked="" type="checkbox"/>	4,356,591
Napa Valley Transportation Authority		0	0	0	0	0	0	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>						1,153,942
North County Transit District	<input checked="" type="checkbox"/>	0	1	0	0	0	0	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	10,958,725

Agency name	Agency offers any program?	K-12	Post-secondary, college, university	Employer-based	Elderly	Low income	Other	Bus	Commuter bus	Vanpool	Demand response	Demand response - taxi	Light rail	Commuter rail	Heavy rail	Other	Annual Unlinked Passenger Trips
Orange County Transportation Authority	<input checked="" type="checkbox"/>	0	5	1	1	0	0	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>						42,863,498
Petaluma Transit	<input checked="" type="checkbox"/>	1	1	0	1	0	0	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>						363,037
Placer County - Placer County Transit and Tahoe Truckee Area Regional Transit	<input checked="" type="checkbox"/>	1	0	0	1	0	0	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>						744,031
Riverside Transit Agency	<input checked="" type="checkbox"/>	3	2	1	1	0	0	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>					8,741,975
Sacramento Regional Transit District	<input checked="" type="checkbox"/>	1	1	0	1	0	1	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>				21,669,954
San Bernardino County Transportation Authority (SBCTA)		0	0	0	0	0	0							<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	NA

Agency name	Agency offers any program?	K-12	Post-secondary, college, university	Employer-based	Elderly	Low income	Other	Bus	Commuter bus	Vanpool	Demand response	Demand response - taxi	Light rail	Commuter rail	Heavy rail	Other	Annual Unlinked Passenger Trips
San Diego Association of Governments (SANDAG)		0	0	0	0	0	0										0
San Diego MTS	<input checked="" type="checkbox"/>	1	2	0	0	0	0	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>				88,194,806
San Francisco Bay Area Rapid Transit	<input checked="" type="checkbox"/>	1	1	3	1	0	1						<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		132,802,066
San Francisco Municipal Transportation Agency	<input checked="" type="checkbox"/>	1	0	0	1	1	1	<input checked="" type="checkbox"/>					<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>	226,261,960
San Joaquin Regional Rail Commission	<input checked="" type="checkbox"/>	1	0	0	0	0	0							<input checked="" type="checkbox"/>			3,566,367
San Joaquin RTD	<input checked="" type="checkbox"/>	1	0	0	0	0	0	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>	3,566,367
San Luis Obispo Regional Transit Authority	<input checked="" type="checkbox"/>	1	0	0	0	0	0	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>						1,174,768

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Santa Barbara County Association of Governments		0	0	0	0	0	0		<input checked="" type="checkbox"/>								6,425,839
Santa Barbara Metropolitan Transit District	<input checked="" type="checkbox"/>	1	1	0	0	0	0	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>						6,425,839
Santa Clara Valley Transportation Authority	<input checked="" type="checkbox"/>	2	1	1	1	2	0	<input checked="" type="checkbox"/>					<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>	39,137,607
Santa Cruz Metropolitan Transit District		0	0	0	0	0	0	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>								5,166,510
Santa Monica's Big Blue Bus	<input checked="" type="checkbox"/>	1	4	1	1	1	0	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>					13,356,740
Santa Rosa CityBus	<input checked="" type="checkbox"/>	1	1	0	0	0	0	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>						2,063,097

Agency name	Agency offers any program?	K-12	Post-secondary, college, university	Employer-based	Elderly	Low income	Other	Bus	Commuter bus	Vanpool	Demand response	Demand response - taxi	Light rail	Commuter rail	Heavy rail	Other	Annual Unlinked Passenger Trips
Siskiyou County Transit (STAGE)	<input checked="" type="checkbox"/>	1	1	0	0	0	0	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>							<input checked="" type="checkbox"/>	59,331
Solano County Transit - SolTrans	<input checked="" type="checkbox"/>	2	1	0	1	2	0	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>					1,437,192
Sonoma County Transit	<input checked="" type="checkbox"/>	0	1	1	0	0	2	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>						1,122,521
Tahoe Transportation District		0	0	0	0	0	0	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>						NA
Transit Joint Powers Authority for Merced County	<input checked="" type="checkbox"/>	0	0	0	1	0	0	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>						822,748
Tuolumne County Transit Agency	<input checked="" type="checkbox"/>	0	0	0	1	0	0	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>						115,422

Agency name	Agency offers any program?	K-12	Post-secondary, college, university	Employer-based	Elderly	Low income	Other	Bus	Commuter bus	Vanpool	Demand response	Demand response - taxi	Light rail	Commuter rail	Heavy rail	Other	Annual Unlinked Passenger Trips
Unitrans (UC Davis/City of Davis)	<input checked="" type="checkbox"/>	1	0	0	1	0	1	<input checked="" type="checkbox"/>									3,937,546
Ventura County Transportation Commission (VCTC)	<input checked="" type="checkbox"/>	0	1	0	1	0	0	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>					<input checked="" type="checkbox"/>	821,093
Victor Valley Transit Authority	<input checked="" type="checkbox"/>	2	1	0	1	0	1	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>						2,502,129
Vine	<input checked="" type="checkbox"/>	1	0	0	1	0	0	<input checked="" type="checkbox"/>									NA
Yolo County Transportation District		0	0	0	0	0	0										1,378,419
Yosemite Area Regional Transportation System	<input checked="" type="checkbox"/>	1	1	0	0	1	2	<input checked="" type="checkbox"/>									106,744
Yuba-Sutter Transit	<input checked="" type="checkbox"/>	1	0	0	1	0	1	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>					<input checked="" type="checkbox"/>	1,063,611

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Total number of programs		42	42	11	35	13	20										
Total number of participating agencies	46	34	32	9	31	8	15	51	28	5	38	9	5	3	1	13	

Note. Source: National Transportation Database