



Title VI Fare Equity Analysis  
Causeway Connection Free Ride Program

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Draft

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## 1. Purpose of Analysis

Pursuant to SacRT's fare change policy and in accordance with Federal Title VI civil rights requirements, the purpose of this analysis is to identify and document any potential disparate impacts on minority populations or disproportionate burdens on low-income populations resulting from changes to SacRT's fare structure.

## 2. Project Description

On May 4, 2020, SacRT launched a new route, Route 138, the Causeway Connection, an intercity express bus between Sacramento and Davis. The Causeway Connection is operated jointly with the Yolo County Transportation District (Yolobus). Approximately half of operating costs are covered by the University of California – Davis (UCD). The remaining operating costs are primarily covered by a Congestion Mitigation and Air Quality (CMAQ) grant awarded for the multi-agency project. New electric buses were also provided to SacRT and Yolobus by Electrify America (EA) as part of the project. The agreement between the project partners included a pass program for UCD affiliates. The Title VI ramifications of the pass program are the subject of this report.

Original Plan - The new Causeway Connection service itself, including a Title VI service equity analysis, was approved by the SacRT Board of Directors on December 9, 2019, following a 30-day public review. At that time, a Title VI fare equity analysis was also approved for a fare change to allow UCD undergraduate students to ride for free. UCD was also expected at that time, to pay part of the out-of-pocket cost for UCD employees and graduate students to purchase ordinary SacRT fare media.

Revised Plan - On March 23, 2020, the SacRT Board approved a change to the original fare change. Under the new plan, free riding privileges on the Causeway Connection would be extended to all UC Davis ID holders, i.e., undergraduates, graduate students, and employees. This fare change took effect on May 4, 2020 with the beginning of the Causeway Connection service and has been treated as a six-month demonstration project. The project partners desire to continue the UC Davis ID fare program for the life of the three-year agreement for the Causeway Connection service. To do so requires passage of a Title VI fare change analysis which is the subject of this draft report.

## 3. Title VI Requirements

SacRT is required to conduct a Title VI fare equity analysis prior to implementing any fare change, with some exceptions, including promotional free-ride days and promotional fare reductions lasting up to six months.<sup>1</sup>

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<sup>1</sup> See FTA Circular 4702.1B, Chapter IV, Section 7 and RT Fare Change Policies (Resolution No. 15-11-0129).

Prior to any fare changes being approved permanently, the Board of Directors must approve the findings of a Title VI fare equity analysis. Prior to approving a Title VI fare equity analysis, SacRT policy requires that a draft analysis of the proposed changes (this report) be made available for a 30-day public review period, that members of the public be invited to comment, and that staff and the Board of Directors take public comments into consideration. In accordance with these requirements, SacRT is publishing this draft analysis and intends to present a final version, including the comments received, to the SacRT Board of Directors on October 26, 2020.

#### 4. Definitions

Minority Definition - FTA defines a minority person as anyone who is American Indian or Alaska Native, Asian, Black or African American, Hispanic or Latino, or Native Hawaiian or other Pacific Islander, or mixed race.

Low-Income Definition - FTA defines a low-income person as a person whose household income is at or below the U.S. Department of Health and Human Services (HHS) poverty guidelines. The HHS definition varies by year and household size. Survey participants were asked their household size and their household income from a list of ranges. For the purposes of this survey, the participant's income is assumed to be the midpoint of the range selected.<sup>2</sup>



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<sup>2</sup> For example, if a passenger selected a household income range of \$25,000 to \$35,000, that passenger's income was assumed to be \$30,000 for the purposes of this analysis.

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## 5. Baseline Data

Census Data – Based on Census data, the SacRT service area is 53.2 percent minority and 20.1 percent low-income. This data is used for the sake of context, but transit riders make up a small, non-representative fraction of the overall population, so it is not directly relevant to most Title VI service or fare equity analyses.

On-Board Survey – SacRT customers are estimated to be 72.3 percent minority and 55.8 percent low-income. This data comes from a statistically valid passenger survey conducted in April 2013 covering all bus and light rail routes. Although this data is somewhat outdated, it is still the best available data on actual customers. SacRT was in the process of updating this survey in March 2020; however, surveying had to be suspended due to the outbreak of COVID-19, so 2013 survey data continues to be the most recent data.

**Figure 1**  
**Existing SacRT Demographics**

	SacRT Service Area	SacRT Customers
Minority	53.2%	72.3%
Low-Income	20.1%	55.8%

Fare Survey – On an annual basis, SacRT conducts a passenger fare survey. This survey does not require questionnaires; SacRT surveyors merely inspect passenger fares at the time of boarding. This provides ridership volumes for each fare type. Combined with the 2013 survey data, this allows SacRT to estimate the average fare for minority and low-income populations, which is the key statistic for Title VI analyses.

$$\text{Average Fare Per Boarding} = \frac{\text{Fare Revenue}}{\text{Passenger Boardings}}$$

Because of the COVID-19 pandemic, the most recent fare survey data is from early 2019. Those survey responses have been projected over pre-COVID ridership totals to estimate what the average fare would have been without the major changes to ridership from COVID. The actual impacts to ridership from COVID cannot be known until it is safe to resume surveying, so SacRT believes this is the most reasonable analysis.

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**Figure 2**  
**Existing Minority Average Fare**

	Fare Revenue	Passenger Boardings	Average Fare
Minority	\$19,593,175	15,768,345	\$1.24
Non-Minority	\$8,995,491	6,741,462	\$1.33
Total	\$28,588,666	22,509,807	\$1.27

Minority riders currently pay an average of \$1.24 per boarding, compared to \$1.33 for non-minority riders.

**Figure 3**  
**Existing Low-Income Average Fare**

	Fare Revenue	Passenger Boardings	Average Fare
Low Income	\$13,854,614	11,295,467	\$1.23
Non-Low Income	\$14,734,052	11,214,340	\$1.31
Total	\$28,588,666	22,509,807	\$1.27

Low-income riders pay an average of \$1.23 per boarding compared to \$1.31 for non-low-income riders.

## 6. Demographics of New Fare Type

Prior Analysis – For the Title VI analysis of the Causeway Connection service, SacRT used data from UCD on its students and employees, which were 23.7 percent minority and 36.4 percent low-income. For the fare program, as envisioned at the time, data on the UCD undergraduate population was used indicating undergraduates were 72.0 percent minority and 58.7 percent low-income.

As discussed above, census data was not applicable to the analysis, because transit riders make up a small, non-representative fraction of the overall population. This is especially so for an intercity express route, such as the Causeway Connection, which is likely to attract riders from an unusually broad geographic area (e.g., Solano County residents driving to Davis to catch the bus the rest of the way into Sacramento).

Special Survey – Due to the shortcomings of the existing data, SacRT intended to conduct an in-person passenger survey on the Causeway Connection during the six-month promotional period for the new UC Davis ID fare type; however, the COVID pandemic prevented SacRT from conducting an in-person survey. As an alternative, SacRT conducted this survey electronically.

Many Causeway Connection riders (or likely future riders) were known to be former riders of a former UCD-operated intercampus shuttle. Multiple mailing lists were available to reach these customers, including a UCD-maintained mailing list of approximately 400-500 persons and a rider-maintained mailing list of similar size. Using these channels, an online survey was conducted in August 2020 which captured over 200 responses.

The online survey found that likely users<sup>3</sup> of the UC Davis ID free ride program are 39.1 percent minority and 5.7 percent low-income, both well below SacRT system averages of 72.3 percent and 55.8 percent.

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<sup>3</sup> Likely users of the UC Davis ID are considered to be respondents indicating they have already ridden or plan to ride the Causeway Connection when it ramps up to full service and that have identified that they are UC Davis affiliates with a UC Davis ID card. There were 174 such respondents.

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**Figure 6**  
**Change in Systemwide Average Fare**

<u>Minority</u>	<u>Fare Revenue</u>	<u>Boardings</u>	<u>Average Fare</u>
Existing	\$19,593,175	15,768,345	\$1.24
Additional	\$0	24,816	\$0.00
New	\$19,593,175	15,793,161	<b>\$1.24</b>

<u>Non-Minority</u>	<u>Fare Revenue</u>	<u>Boardings</u>	<u>Average Fare</u>
Existing	\$8,995,491	6,741,462	\$1.33
Additional	\$0	38,684	\$0.00
New	\$8,995,491	6,780,146	<b>\$1.33</b>

<u>Low Income</u>	<u>Fare Revenue</u>	<u>Boardings</u>	<u>Average Fare</u>
Existing	\$13,854,614	11,295,467	\$1.23
Additional	\$0	3,659	\$0.00
New	\$13,854,614	11,299,116	<b>\$1.23</b>

<u>Non-Low Income</u>	<u>Fare Revenue</u>	<u>Boardings</u>	<u>Average Fare</u>
Existing	\$14,734,052	11,214,340	\$1.31
Additional	\$0	59,851	\$0.00
New	\$14,734,052	11,274,191	<b>\$1.31</b>

## 7. Results of Changes

The UC Davis ID provides a significant discount (i.e., allowing the user to ride for free) to a group of riders that is very low in minority and low-income representation but that is overall a small part of SacRT ridership.

Because of the small number of users, the systemwide average fare would decrease by less than \$0.01 for each demographic group. However, there are notable differences in the percent change by demographic group. Title VI impacts are determined by comparing these percent changes.

**Figure 7**  
**Percent Change in Systemwide Average Fare**

<u>Rider Type</u>	<u>Existing</u>	<u>Proposed</u>	<u>Change</u>	<u>% Change</u>
Minority	\$1.243	\$1.241	(\$0.002)	-0.16%
Non-Minority	\$1.334	\$1.327	(\$0.008)	-0.57%
Low-Income	\$1.227	\$1.226	(\$0.000)	-0.03%
Non-Low-Income	\$1.314	\$1.307	(\$0.007)	-0.53%

For a fare reduction, the goal is for the average fare to decrease as much or more for minority populations as for non-minority populations. This is not the case, as non-minority riders would pay 0.57 percent less, compared to only 0.16 percent less for minority populations.

The goal is also for the average fare for low-income populations to decrease as much or more as for non-low-income populations. This is also not the case, as non-low-income populations would pay 0.53 percent less, compared to only 0.03 percent less for low-income populations.

The statistical significance of these results is discussed in the next section.

## 8. Findings

SacRT uses 20 percent as a threshold for statistical significance. The difference in the percent change in the average fare for non-minority riders (0.57 percent) and minority riders (0.16 percent) is both adverse and exceeds 20 percent; therefore, *there may be potential disparate impacts (DI) to minority populations from the new fare.*

### Figure 8 Potential Disparate Impacts and/or Disproportionate Burdens

a. Percent decrease in non-minority avg fare	-0.57%
b. Threshold of statistical significance ( 80% * a )	-0.46%
c. Percent decrease in minority avg fare	-0.16%
d. Do fares decrease more for non-minority populations? ( a < c )	Yes
e. Is there evidence of a potential disparate impact ( c > b )	Yes
f. Percent decrease in non-low-income avg fare	-0.53%
g. Threshold of statistical significance ( 80% * f )	-0.42%
h. Percent decrease in low-income avg fare	-0.03%
i. Do fares decrease more for non-low-income populations? ( f < h )	Yes
j. Is there evidence of a potential disproportionate burden? ( h > g )	Yes

The difference in the percent change in the average fare for non-low income riders (0.53 percent) and low-income riders (0.03 percent) is also adverse and exceeds 20 percent; therefore, *there may be potential disproportionate burdens (DB) on low-income populations from the new fare.*

## 9. Justification, Alternatives, and Mitigation

The above findings of potential DI/DBs do not prohibit SacRT from implementing the proposed changes; however, before doing so, the SacRT Board must declare a *substantial legitimate justification* for the changes, show that there are no alternatives that would have a less disparate impact on minority riders, and take steps to avoid, minimize, or mitigate impacts to low-income riders, where practicable.

Alternatives – When the Causeway Connection service was being planned, the partners agreed that UCD would pay approximately half the operating cost of the service, net of fare revenue. The partners intended to allow free rides for undergraduate students only. Graduate students and employees would also have been required to pay the ordinary fare, with UCD paying for a portion of employee fare purchases.

The partners later realized that this obligated UCD to subsidize the purchase of an *unlimited* number of passes. Not all of the sales revenue from the passes could justifiably be credited back to UCD against their bill for operating support, because the passes would be valid on the entire SacRT system. The original plan therefore committed UCD to potentially have to overspend its total intended commitment of approximately half of net operating costs.

To protect UCD from cost overruns, the partners conceived a new approach, which is what this report analyzes. Under the new approach, SacRT simply honors the UC Davis ID as a valid fare on the Causeway Connection. This achieves the intended approximate 50 percent cost share for UCD. At the same time, it increases ridership, by reducing the cost for most employees from \$35 per month to zero. SacRT does not receive any less revenue than was intended, i.e., the service remains 100 percent funded by others, except for a small match that SacRT had committed separately.

Justification – If SacRT were to discontinue the UC Davis ID pass program and require a regular fare from UCD employees and graduate students, putting aside the likely ridership loss, SacRT would collect more fare revenue, but operating support from UCD would decrease commensurately. Therefore, there would be financial advantage to SacRT; however, assuming UCD fulfilled its pledge subsidize passes for employees and graduate students, this would likely result in a significant cost overrun for UCD. This could jeopardize UCD's willingness and ability to remain a funding partner.

The Title VI merits of the new fare therefore rest on the merits of the Causeway Connection service itself. The SacRT Board of Directors resolved on December 9, 2019 that there was a substantial legitimate justification for the service, because (1) the only alternative was to abort the entire project, which was fully-funded, and (2) that the Causeway Connection effectively migrated funding from a private, closed-door service exclusively for UCD affiliates to an open-door public transit service, providing benefits to the population at large that would not exist without the project.

On this basis, SacRT believes that there is a substantial legitimate justification for the new UC Davis ID fare type.