

Title VI Fare Equity Analysis

2023 Fare Free Pilot

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Prepared by:



Metropolitan Council

The Metropolitan Council is the regional policy-making body, metropolitan planning organization (MPO), and provider of essential services for the Twin Cities metropolitan region. The Council's mission is to foster efficient and economic growth for a prosperous region.

The 17-member Metropolitan Council is a policy board, which has guided and coordinated the strategic growth of the metro area and achieved regional goals for more than 50 years. Elected officials and residents share their expertise with the Council by serving on key advisory committees.

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Metro Transit

Metro Transit is the largest transportation resource for the Twin Cities, offering an integrated network of buses, light rail, and commuter trains, as well as resources for those who carpool, vanpool, walk, or bike. Metro Transit is an operating division of the Metropolitan Council.

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EXECUTIVE SUMMARY

Metro Transit and the Metropolitan Council, in cooperation with a legislative requirement, are proposing a fare-free pilot for two routes, Route 32 and Route 62. The proposed fare change will be in place for 18 months in accordance with Section 122 of the recently passed HF 2887.¹

The Federal Transit Administration (FTA) requires recipients of federal funding, including Metro Transit, to ensure communities of color and people with lower incomes do not experience discrimination in access to transit service. This FTA requirement stems from Title VI of the Civil Rights Act of 1964, which prohibits discrimination on the basis of race, color, or national origin in programs receiving federal financial assistance; and President Clinton’s *Executive Order 12898 - Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations* (1994), which directed federal agencies to consider impacts to low-income populations as well. As part of this effort, FTA requires transit providers such as Metro Transit to conduct a Title VI fare equity analysis, prior to implementation, for any proposed fare change lasting longer than six months, regardless of the amount of increase or decrease. This analysis fulfills this requirement as it relates to temporary fare changes required by the new bill.

Proposed Fare Change

The proposed fare change will be an extended pilot mandated by the State of Minnesota. Following completion of the 18-month period, Metro Transit and the Metropolitan Council will report the outcomes of the fare-free pilot to the Minnesota Legislature. Toward this effort, Metro Transit is analyzing the impact of eliminating fares on two local routes, Route 32 and Route 62. The existing fare structure for these routes is shown in Table i. Note that currently Metro Transit customers who pay a fare receive a 2.5-hour pass for transferring. The assumption of the fare free pilot is that Route 32 and Route 62 riders will not receive a pass and therefore would need to pay for transfers. Thus, only fares pertaining specifically to Route 32 and Route 62 are included in Table I, and not other fares collected in the system such as those for express bus and commuter rail services.

Table i. Existing and Proposed Fares, Routes 32 and 62

Fare Type	Service Type	Time of Day [^]	Existing Fare	Proposed Fare	Absolute Change	Percent Change
Adult*	Local Bus / METRO	Non-Rush Hour	\$2.00	\$0.00	-\$2.00	-100%
Adult*	Local Bus / METRO	Rush Hour	\$2.50	\$0.00	-\$2.50	-100%
Reduced Fare**	Local Bus / METRO	Non-Rush Hour	\$1.00	\$0.00	-\$1.00	-100%
Reduced Fare**	Local Bus / METRO	Rush Hour	\$2.50	\$0.00	-\$2.50	-100%
Mobility Fare	All	All	\$1.00	\$0.00	-\$1.00	-100%
Transit Assistance Program (TAP)	All	All	\$1.00	\$0.00	-\$1.00	-100%

*Ages 13-64; **Youth (ages 6-12), Seniors (ages 65+), and Medicare card holders; ^ Monday - Friday, 6-9 am and 3-6:30 pm

¹ <https://www.revisor.mn.gov/bills/bill.php?b=House&f=HF2887&ssn=0&y=2023>

Framework for Evaluating Impacts

The purpose of this report is to evaluate the potential fare changes to ensure the impacts of those changes would be made in a nondiscriminatory manner on the basis of race, color, national origin, and low-income status. Specifically, this analysis reviewed the extent to which the change in average fare differs between Black, Indigenous, or people of color (BIPOC) riders and white non-Hispanic riders, and between low-income riders and non-low-income riders. The results will help determine whether there would be disparate impact on the basis of race, color, national origin, or disproportionate burden on low-income riders.

For Title VI fare equity analyses, FTA requires that Metro Transit use its **disparate impact and disproportionate burden policies and thresholds as evidence of impacts severe enough to result in potential discrimination**. As outlined in the Metropolitan Council’s Title VI Program, Metro Transit has defined its disparate impact and disproportionate burden policies and thresholds using the “90% rule,” which states that there may be evidence of disparate impact if:

- Benefits are being provided to BIPOC populations at a rate less than 90% of the benefits being provided to white populations, or
- Adverse effects are being borne by white populations at a rate less than 90% of the adverse effects being borne by BIPOC populations.

Metro Transit uses the same framework when evaluating whether low-income populations would experience disproportionate burden relative to the impacts on non-low-income populations.

Summary of Results

Table ii summarizes the average percent change in fare for each population group as well as the comparison index used for determining disparate impact and disproportionate burden. All demographic rider groups will experience a 100% decrease in average fare paid, resulting in comparison indices of 1.0.

Table iii. Results by Rider Group

Measure	Minority Riders	Non-Minority Riders	Low-Income Riders	Non-Low-Income Riders
Percent Change in Average Fare	-100%	-100%	-100%	-100%
Comparison Index	1.00	--	1.00	--
Disparate Impact / Disproportionate Burden?	No	--	No	--

Conclusions

Upon conducting the technical analysis and applying Metro Transit’s Title VI policies in accordance with the Metropolitan Council’s Title VI Program, this review finds that proposed fare changes under **the fare free pilot do not result in disparate impact on BIPOC riders nor disproportionate burden on low-income riders**.

CHAPTER 1: INTRODUCTION

Metro Transit and the Metropolitan, in cooperation with a legislative requirement, are proposing a fare-free pilot for two routes, Route 32 and Route 62. The proposed fare change will be in place for 18 months.

The Metropolitan Council pledges that the public will have access to all its programs, services, and benefits without regard to race, color, or national origin, in accordance with Title VI of the Civil Rights Act of 1964. This pledge applies to Metro Transit, an operating division of the Metropolitan Council.

Report Purpose

The purpose of this report is to evaluate potential fare changes requested by the Minnesota Legislature to ensure the impacts of those changes would be made in a nondiscriminatory manner on the basis of race, color, national origin, and low-income status. Specifically, this analysis reviewed the extent to which the change in average fare differs between Black, Indigenous, or people of color (BIPOC) riders and white non-Hispanic riders, and between low-income riders and non-low-income riders. The results will help determine whether there would be disparate impact on the basis of race, color, national origin, or disproportionate burden on low-income riders.

Proposed Fare Simplification

Metro Transit is analyzing a fare free pilot on Route 32 and Route 62. While using these particular routes will be free of charge, transfers to other routes not included in the pilot will require a fare as is currently in place.

This pilot does not include proposed changes in the locations where fares are distributed or sold, nor would they introduce any new fare types or payment methods. Thus, this analysis does not include an evaluation of rider access to certain fare combinations.

Goals

The Metropolitan Council's fare policy goals include balancing equity, fare simplification, and revenue generation. The fare free pilot advances this goal by reducing barriers to transit use. Doing so may increase ridership by making the two routes included in the pilot more convenient to use for both existing and potential riders. Additionally, eliminating the fare on these routes may improve the on-time performance of the service by shortening dwell times and reduce driver-passenger conflict. These benefits will further make transit service more convenient for riders.

Federal Requirements

The Federal Transit Administration (FTA) requires recipients of federal funding, including Metro Transit, to ensure communities of color and people with lower incomes do not experience discrimination in access to transit service. This FTA requirement stems from Title VI of the Civil Rights Act of 1964, which prohibits discrimination on the basis of race, color, or national origin in programs receiving federal financial assistance; and President Clinton's *Executive Order 12898 - Federal Actions*

to Address Environmental Justice in Minority Populations and Low-Income Populations (1994), which directed federal agencies to consider impacts to low-income populations as well.

As part of this effort, FTA requires transit providers such as Metro Transit to conduct a Title VI fare equity analysis, prior to implementation, for any proposed fare change, regardless of the amount of increase or decrease. This analysis fulfills this requirement as it relates to potential fare changes proposed as part of simplification efforts.

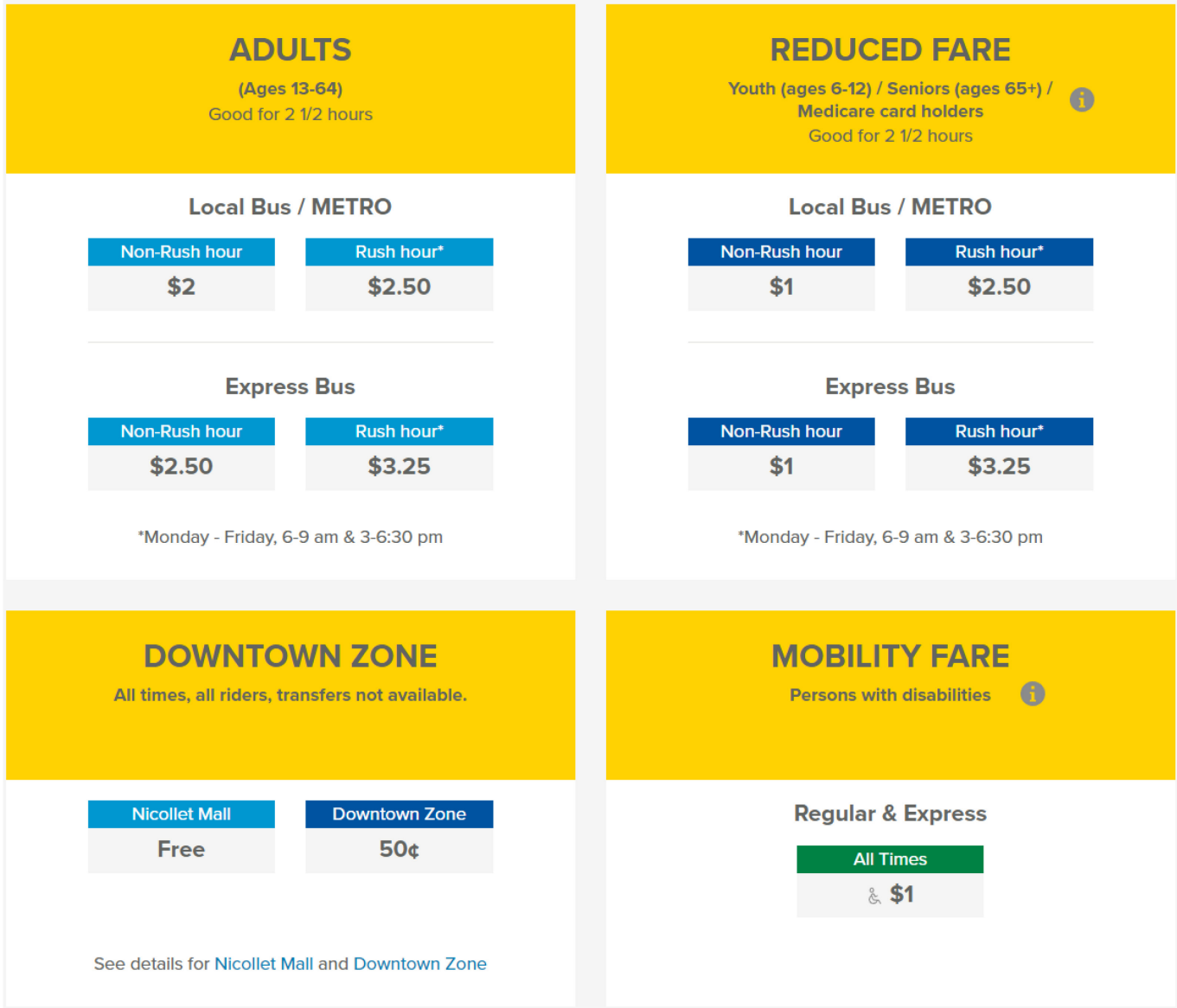
CHAPTER 2: EXISTING AND PROPOSED FARES

Factors Affecting Existing Fares

Figure 1 summarizes the current base fare structure for regular-route service in the region, except Northstar Commuter Rail. Further, special event service (i.e., State Fair, etc.) and public shared ride demand response services like Metro Mobility and Transit Link are not part of the fare structure for regular-route service.

Base fares vary depending on fare type, service type, and time of day. Beyond the base fare, how a rider pays their fare - their payment method (e.g., cash, pass, etc.) - may also affect the financial cost to ride. These factors that contribute to unique fare combinations are described below.

Figure 1. Existing Base Fare Structure



Fare Types

There are four primary fare types (as indicated in Figure 1) and a fifth supplemental fare type. About 90% of regional fixed-route riders use the **Adult** fare type, available to people ages 13 to 64. The **Reduced Fare** type is available to youth (ages 6-12), seniors (ages 65+), and Medicare card holders. Youth ages five and under ride free with a fare-paying customer. Currently, Reduced Fare riders receive \$1.00 discounted fares during non-rush-hours. The third fare type, **Mobility Fare**, is available to persons with disabilities; Mobility Fare riders pay \$1.00 fares per ride, regardless of service type or time of day. The **Downtown Zone** fare type is available to those riding entirely within [designated areas](#) of downtown Minneapolis and downtown Saint Paul. Rides on Nicollet Mall, which is within the Minneapolis Downtown Zone, are free. All fares (except Downtown Zone) include a free 2 ½ hour transfer. Note that Route 32 does not pass through either Downtown Zone while a portion of the Route 62 is within the Saint Paul Downtown Zone.

Lastly, qualified riders may participate in the **Transit Assistance Program (TAP)**, the fifth fare type. Launched in October 2017, TAP is designed to make public transit more affordable for lower income residents. [TAP allows customers to use local bus / METRO or express bus service for just \\$1.00 per ride - even during rush hour - with a free 2 ½ hour transfer.](#) To receive a TAP Card and become eligible for \$1.00 fares, residents must provide personal identification and documentation that they meet the program's income guidelines and re-certify annually.

Service Types & Time of Day

Currently, the fare for Adult and Reduced Fare types differs by service type and time of day. For purposes of fare policy, there are two fare types: **Local Bus / METRO** (e.g., light rail, rapid bus) and **Express Bus**. Both the Route 32 and Route 62 are Local Bus routes, so Express Bus fares will not be noted in this analysis.

The two times of day that affect fares are **Rush Hour** and **Non-Rush-Hour**, where Rush Hour is defined as Monday - Friday, 6-9 am and 3-6:30 pm, and Non-Rush-Hour is all other times during the week.

Payment Methods

Beyond the base fare (Figure 1), a rider's payment method (i.e., cash, pass, etc.) will also affect the financial cost to riders. Though not a formal distinction, fare payment methods can be grouped into two categories: 1) cash and cash-like products and 2) passes.

Fares validated with cash and cash-like payment methods include cash (i.e., bills and coins), debit / credit card (at ticket vending machines), through an authorized mobile app, or via Go-To stored value cards - a durable plastic smartcard loaded with stored value, which is deducted with each paid boarding. Passes include a variety of ride-limited or time-limited passes, which are administered through a smartcard similar to Go-To stored value card. Time-limited passes allow unlimited rides within a certain period of time, like a month or school semester, for a discounted up-front cost (e.g., Metro Pass costs \$83 per month). Thus, the per-paid ride (excluding transfers) cost of unlimited-ride passes depends on how often a pass is used within the allotted amount of time.

Recent Fare Changes

The Metropolitan Council's most recent regional transit fare change became effective October 1, 2017. The approved fare change increased by \$0.25 the fare for fixed-route local bus, express bus, and METRO service; the bonus on stored value purchases was also eliminated. Additionally, the Metropolitan Council introduced TAP in conjunction with the package of fare changes, setting the stage for other fare simplification initiatives.

Proposed Fare Change

The fare change scenario analyzed in this report is summarized in Table 1 alongside the absolute and percent change in fares.

The proposed fare changes remove all cost, no matter the time of day (Rush Hour and Non-Rush Hour) or fare type (Adult and Reduced Fare).

Table 1. Existing and Proposed Fares

Fare Type	Service Type	Time of Day [^]	Existing Fare	Proposed Fare	Absolute Change	Percent Change
Adult*	Local Bus / METRO	Non-Rush Hour	\$2.00	\$0.00	-\$2.00	-100.0%
Adult*	Local Bus / METRO	Rush Hour	\$2.50	\$0.00	-\$2.50	-100.0%
Reduced Fare**	Local Bus / METRO	Non-Rush Hour	\$1.00	\$0.00	-\$1.00	-100.0%
Reduced Fare**	Local Bus / METRO	Rush Hour	\$2.50	\$0.00	-\$2.50	-100.0%
Mobility Fare	All	All	\$1.00	\$0.00	-\$1.00	-100.0%
Downtown Zone	All	All	\$0.50	\$0.00	-\$0.50	-100.0%
Transit Assistance Program (TAP)	All	All	\$1.00	\$0.00	-\$1.00	-100.0%

*Ages 13-64

**Youth (ages 6-12), Seniors (ages 65+), and Medicare card holders

[^]Rush hour defined as Monday - Friday, 6-9 am and 3-6:30 pm

CHAPTER 3: TITLE VI PRINCIPLES AND DEFINITIONS

Title VI and Environmental Justice

Title VI of the Civil Rights Act of 1964 prohibits discrimination on the basis of race, color, or national origin in programs receiving federal financial assistance. Title VI states:

no person in the United States shall, on the ground of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance.²

Moreover, FTA guidance recognizes the inherent overlap between Title VI and environmental justice principles, which extend protections to low-income populations. In 1994, President Clinton issued *Executive Order 12898 - Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, which states that each federal agency:

shall make achieving environmental justice part of its mission by identifying and addressing disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations.³

Title VI was identified as one of several Federal laws that should be applied “to prevent minority communities and low-income communities from being subject to disproportionately high and adverse environmental effects.”⁴

To provide direction to recipients of federal funding, FTA issued *Circular 4702.1B Title VI Requirements and Guidelines for Federal Transit Administration Recipients* in 2012.⁵ FTA Circular 4702.1B outlines Title VI evaluation procedures for recipients of FTA-administered transit program funds and includes guidance for a variety of equity evaluations, including fare equity analyses.

Title VI Program

The Metropolitan Council’s commitment to Title VI of the Civil Rights Act of 1964 is documented in the agency’s Title VI Program, which includes policies and procedures that:

- Ensure that the level and quality of public transportation service is provided in a nondiscriminatory manner;
- Promote full and fair participation in public transportation decision-making without regard to race, color, or national origin; and
- Ensure meaningful access to transit-related programs and activities by persons with limited English proficiency.

² U.S. Department of Labor, *Title VI, Civil Rights Act of 1964*, <https://www.dol.gov/agencies/oasam/regulatory/statutes/title-vi-civil-rights-act-of-1964>.

³ U.S. President, Proclamation, *Executive Order 12898: Federal Actions To Address Environmental Justice in Minority Populations and Low-Income Populations*, Feb. 11, 1994, <https://www.archives.gov/files/federal-register/executive-orders/pdf/12898.pdf>.

⁴ Federal Transit Administration, *Circular 4702.1B Title VI Requirements and Guidelines for Federal Transit Administration Recipients*, October 1, 2012, page I-6, https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/FTA_Title_VI_FINAL.pdf.

⁵ FTA, *Circular 4702.1B*.

The Title VI Program also applies to Metro Transit, is updated by the Metropolitan Council every three years, and is available online and upon request.⁶ This report references several elements from the current Title VI Program, approved by the Metropolitan Council in January 2020.

Requirement to Conduct Fare Equity Analyses

Transit providers that operate 50 or more fixed route vehicles in peak service and are located in an urbanized area of 200,000 or more in population, including Metro Transit, are required to prepare and submit a fare equity analysis, prior to implementation, for any proposed fare change lasting more than six months, regardless of the amount of increase or decrease. This analysis fulfills this requirement as it relates to potential fare changes proposed as part of simplification efforts.

In accordance with FTA Circular 4702.1B, completion of a fare equity analysis requires the incorporation of several Title VI policies, which are set by the transit provider. These include the and **“disparate impact” and “disproportionate burden” policies**, used to assess whether the effects of proposed fare changes rise to the level of disparate impact on racial/ethnic minority populations and disproportionate burden on low-income populations, respectively.

Discrimination, Disparate Impact, and Disproportionate Burden

In FTA Circular 4702.1B, discrimination is defined as referring to:

any action or inaction, whether intentional or unintentional, in any program or activity of a federal aid recipient, subrecipient, or contractor that results in disparate treatment, disparate impact, or perpetuating the effects of prior discrimination based on race, color, or national origin.⁷

Disparate impact, a key concept for understanding Title VI regulations, is defined in the Circular as:

a facially neutral policy or practice that disproportionately affects members of a group identified by race, color, or national origin, where the recipient’s policy or practice lacks a substantial legitimate justification and where there exists one or more alternatives that would serve the same legitimate objectives but with less disproportionate effect on the basis of race, color, or national origin.⁸

Similarly, FTA defines *disproportionate burden* as:

a neutral policy or practice that disproportionately affects low-income populations more than non-low-income populations.⁹

Per FTA guidance, Metro Transit uses its disparate impact and disproportionate burden policy thresholds as evidence of impacts severe enough to meet the definition of disparate impact or disproportionate burden.

⁶ Metropolitan Council, *Title VI Program*, January 2020, <https://www.metrotransit.org/Data/Sites/1/media/about/titlevi/2020%20Title%20VI%20Program%20Update.pdf>.

⁷ Federal Transit Administration, *Circular 4702.1B Title VI Requirements and Guidelines for Federal Transit Administration Recipients*, October 1, 2012, page 1-2, https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/FTA_Title_VI_FINAL.pdf.

⁸ FTA, *Circular 4702.1B*, page 1-2

⁹ FTA, *Circular 4702.1B*, page 1-2

Metro Transit has recently redefined its **disparate impact and disproportionate burden policies** and thresholds to a higher standard than the “80% rule” to state that there may be evidence of disparate impact if:

- *Benefits* are being provided to BIPOC populations at a rate less than 90% of the benefits being provided to white populations, or
- *Adverse effects* are being borne by white populations at a rate less than 90% of the adverse effects being borne by BIPOC populations.

Metro Transit uses the same framework when evaluating whether low-income populations would experience disproportionate burden relative to the impacts on non-low-income populations.

The 80% rule originates from employment law but is applied in this setting to compare the distribution of benefits and/or adverse impacts among various population groups.¹⁰ The 80% rule suggests that a selection rate for any racial, ethnic, or gender group that is less than 80% of the rate for the group with the highest selection rate will be regarded as evidence of adverse impact. Although it is a general principle and not a legal definition, it is a practical way for identifying adverse impacts that require mitigation or avoidance. Dozens of transit agencies, including some of the largest in the country, use a similar framework when defining their disparate impact and disproportionate burden policies.

Metro Transit’s decision to use 90% for its disparate impact and disproportionate burden thresholds was subject to a formal public outreach process before being adopted by the Metropolitan Council in 2022. Additional information about the policies and their applications can be found in the Council’s current Title VI Program.¹¹

Policies Applied to Proposed Fare Simplification

The fare free pilot evaluated in this report would decrease fares for the average rider on Routes 32 and 62. As such, in this analysis, if the quantitative results indicate that the percent decrease in the average fare for BIPOC (minority) riders is less than 90 percent of the percent decrease in the average fare for white (non-minority) riders, this could be evidence of a disparate impact. In this case, additional analysis will be conducted, and potential mitigation measures will be identified if necessary.

A fare change that results in a disparate impact may only be implemented if:

- There is a substantial legitimate justification for the proposed fare change, and
- There are no alternatives that would have a less disparate impact while still accomplishing the transit provider’s legitimate program goals.

This same framework applies for determination of disproportionate burden on low-income riders.

¹⁰ Section 60-3.4(D), *Uniform Guidelines on Employee Selection Procedure* (1978); 43 FR 38295, August 25, 1978, <https://www.ecfr.gov/current/title-41/subtitle-B/chapter-60/part-60-3>.

¹¹ Metropolitan Council, *Title VI Program*, October 2022, <https://metro council.org/About-Us/Publications-And-Resources/EQUAL-OPPORTUNITY-DOCUMENTS/TITLE-VI-DOCUMENTS/Title-VI-Compliance-and-Implementation-Plan.aspx>.

Title VI Definitions of Minority and Low-Income Populations

Racial and Ethnic Minorities

FTA defines a “minority” person as one who self-identifies as American Indian/Alaska Native, Asian, Black or African American, Hispanic or Latino, and/or Native Hawaiian/Pacific Islander.¹² However, as part of efforts to use respectful and inclusive language, Metro Transit and the Metropolitan Council prefer to use the term BIPOC or communities of color, rather than “minority” when referring to people who identify as one or more of the above racial or ethnic groups. As such, references to BIPOC or communities of color in this report should be interpreted to mean the same thing as “minority”.

For the purposes of this evaluation, “non-minority” or “non-BIPOC” persons are defined as those who self-identify as non-Hispanic white (or simply “white”). All other persons, including those identifying as two or more races and/or ethnicities, are defined as BIPOC (equivalent to “minority”). FTA requires transit providers to evaluate fare changes using this dichotomy between “minority” and “non-minority” populations.

Low-Income Population

While low-income populations are not an explicitly protected class under Title VI of the Civil Rights Act of 1964, FTA recognizes the inherent overlap between the principles of Title VI and environmental justice more broadly. Consequently, FTA encourages required transit providers to conduct fare equity analyses with regard of low-income populations in addition to minority populations, and to identify any disproportionate burden placed on low-income populations.

FTA defines a low-income person as one whose household income is at or below the poverty guidelines set by the Department of Health and Human Services (HHS). HHS poverty guidelines are based on family/household size. However, FTA Circular 4702.1B also allows for low-income populations to be defined by transit providers using other established measures that are at least as inclusive as those developed by HHS.

Correspondingly, this Title VI fare equity analysis used 185% of the HHS poverty guidelines for year 2016 (matching the period represented by on-board survey data, explained in the following chapter). The Metropolitan Council uses 185% of poverty to define poverty in its place-based equity research, regional policies, and other initiatives, and this Title VI analysis mirrors that approach.¹³ Table 2 lists 185% of the 2016 HHS poverty guidelines that are used in this analysis.

¹² More specifically, FTA Circular 4702.1B (page I-4) defines minority persons as including the following identities: (1) American Indian and Alaska Native, which refers to people having origins in any of the original peoples of North and South America (including Central America), and who maintain tribal affiliation or community attachment; (2) Asian, which refers to people having origins in any of the original peoples of the Far East, Southeast Asia, or the Indian subcontinent, including, for example, Cambodia, China, India, Japan, Korea, Malaysia, Pakistan, the Philippine Islands, Thailand, and Vietnam; (3) Black or African American, which refers to people having origins in any of the Black racial groups of Africa; (4) Hispanic or Latino, which includes people of Cuban, Mexican, Puerto Rican, South or Central American, or other Spanish culture or origin, regardless of race; and (5) Native Hawaiian or Other Pacific Islander, which refers to people having origins in any of the original peoples of Hawaii, Guam, Samoa, or other Pacific Islands.

¹³ The use of 185% of poverty guidelines differs from some previous fare equity analyses, which used 100% of guidelines. The decision to use 185% of guidelines was a result of a recent internal review of Metro Transit and the Council’s Title VI equity analysis practices, and research on those used by other agencies nationwide. The review found that half of the 26 transit agencies reviewed used a definition of “low income” that was more inclusive than the standard definition (100%) suggested by FTA in Circular 4702.1B.

Table 2. 2016 Department of Health and Human Services Poverty Guidelines in Dollars

By Size of Family Unit and Number of Related Children Under 18 Years of Age

Size of Family Unit	100% Poverty Guideline (\$)	185% Poverty Guideline (\$)
1	\$11,880	\$21,978
2	\$16,020	\$29,637
3	\$20,160	\$37,296
4	\$24,300	\$44,955
5	\$28,440	\$52,614
6	\$32,580	\$60,273
7	\$36,730	\$67,951
8	\$40,890	\$75,647
For each additional person add	\$4,140	\$7,696

Source: <https://aspe.hhs.gov/topics/poverty-economic-mobility/poverty-guidelines>

CHAPTER 4: ANALYSIS METHODOLOGY

Process

This fare equity analysis was completed using the following four-step process:

1. Determine the number and percent of users of each unique fare combination, including user demographics;
2. Calculate average fare for each demographic group under existing conditions and under proposed fare changes;
3. Compare changes in average fare among the different demographic groups and apply Title VI policies to determine potential for disparate impact or disproportionate burden; and
4. Explore alternatives, as necessary, to avoid, minimize, or mitigate disparate impacts or disproportionate burdens.

Results from these steps are shown in *Chapter 5: Evaluation of Impacts*. Below are descriptions of the data sources, processing methods, and assumptions used to arrive at results. See also **Error! Reference source not found.**

Data Source

Fare use and transit rider demographics were gathered from the most recent Travel Behavior Inventory (TBI) 2016 Transit On Board Survey.¹⁴ The TBI is a comprehensive survey conducted every 5 years by the Metropolitan Council to assess how and how much people in the Twin Cities region travel, including what mode of transportation they use, where they go, and when. The Metropolitan Council is updating the TBI transit on board survey to represent conditions as of fall 2022, however, these data were not available at the time of analysis.¹⁵

The TBI on board survey is designed using robust sampling methods to achieve a representative random sample; it is considered the most detailed and accurate source of information on the demographics and travel patterns of the customers of Metro Transit and regional transit providers. As such, the TBI on board survey is the preferred data source for use in the Metropolitan Council's Title VI Program and applicable equity analyses.

Each record in the TBI on board survey is weighted to represent the number of transit boardings (unlinked trips) per day and the number of transit trips (linked trips) per day, for an average day. This analysis used unlinked transit trips to represent the trips when a passenger paid their fare; this approach thus excludes transfer trips, which are not eligible for a free fare in the pilot program.

¹⁴ Metropolitan Council, *Travel Behavior Inventory (TBI) 2016 On Board Survey*, <https://gisdata.mn.gov/dataset/us-mn-state-metc-society-tbi-transit-onboard2016>.

¹⁵ The Metropolitan Council had planned on updating the TBI transit on board survey in 2019 and 2020. However, in light of the COVID-19 pandemic and at the direction of FTA, the Council chose to delay making updates to the survey in hopes of capturing more "typical" travel patterns.

Cleaning Survey Data

The data comprising the TBI on board survey were collected in late 2016, using a weighted random sample by ridership by line. Survey documents were made available in multiple languages, including English, Spanish, Hmong, and Somali.¹⁶ The survey results include detailed transit trip (origin to destination) records for 30,605 transit trips across all providers and regional regular routes.

The TBI on board survey data include valuable demographic, service, and fare information that enable the creation of demographic rider profiles by unique fare combination. Table 3 lists variables from the survey that were used to inform this fare equity analysis.

Table 3. On Board Survey Variables Applicable to Analysis

Type	Variable	Response Options*
Demographic	Race/Ethnicity**	American Indian or Alaskan Native, Asian, Black or African American, Hispanic or Latino, Native Hawaiian or Pacific Islander, White, Other.
Demographic	Total Annual Household Income	Less than \$15,000, \$15,000-\$24,999, \$25,000-\$34,999, \$35,000-\$59,999, \$60,000-\$99,999, \$100,000-\$149,999, \$150,000-\$199,999, \$200,000 or more, Not provided
Demographic	Household Size	1, 2, 3, 4, 5, 6, 7, 8, 9, 10+
Demographic	Disability Status	Yes, No, Don't Know/Refuse
Service	Route Provider	Metro Transit, Metropolitan Council, Maple Grove, MVTA, Plymouth, SouthWest, U of M^
Service	Time Period	AM Peak, Evening, Midday, PM Peak
Fare	Fare Type	Regular (ages 13-64), Limited Mobility Pass, Senior (over 65), Student/Youth (ages 6-12)
Fare	Payment Method	Cash, Go-To Stored Value, Credit / Debit, Mobile Ticket, Metro Pass, Employee Pass, College Pass, U Pass, Student Pass, Qualified Free Ride (Service-Connected Veteran), Token, Day Pass^, Weekly / Monthly Pass^, Free Fare Zone^, Other^

*As reported in TBI results

**Respondents were allowed to select multiple race/ethnicity categories; those who chose to do so were considered BIPOC for the purposes of this analysis

^Excluded from analysis

Assigning Low-Income Status

The identification of low-income riders was based on a combination of self-reported household size and household income. The 2016 HHS poverty guidelines (185%) referenced in this evaluation are shown in Table 2.

TBI survey respondents were asked to report their total annual household income based on a series of income brackets, each with a range of at least \$10,000 (as shown in Table 3). These income brackets do not correspond to the HHS poverty guidelines (Table 2). Thus, for this fare equity analysis, the median value of each income bracket was used to represent a survey respondent's household income; this, in combination with reported household size, was then compared to the HHS poverty

¹⁶ Language assistance resources made available based on the Metropolitan Council's Language Assistance Plan at the time.

guidelines to determine whether or not the respondent would be assigned low-income or non-low-income status.

Table 4 shows whether or not survey respondents were considered low-income - as indicated by "LI" in the table - or non-low-income, based on their reported income bracket and household size, relative to 185% of the 2016 HHS poverty guidelines.

Table 4. Identification of Low-Income Riders for Analysis

Based on median of reported total annual household income range and reported household size in on board survey
Table cells with "LI" indicate that that combination of household income and household size was designated low-income

Reported Total Annual Household Income Range from TBI	Median of Income Range	1	2	3	4	5	6	7	8	9	10
Less than \$15,000	\$7,500	LI	LI	LI	LI	LI	LI	LI	LI	LI	LI
\$15,000 - \$24,999	\$20,000	LI	LI	LI	LI	LI	LI	LI	LI	LI	LI
\$25,000 - \$34,999	\$30,000	--	--	LI	LI	LI	LI	LI	LI	LI	LI
\$35,000 - \$59,999	\$47,500	--	--	--	--	LI	LI	LI	LI	LI	LI
\$60,000 - \$99,999	\$80,000	--	--	--	--	--	--	--	--	LI	LI
\$100,000 - \$149,999	\$125,000	--	--	--	--	--	--	--	--	--	--
\$150,000 - \$199,999	\$175,000	--	--	--	--	--	--	--	--	--	--
\$200,000 or more	\$200,000	--	--	--	--	--	--	--	--	--	--

Excluded Survey Records

TBI on board survey records with one or more of following characteristics were excluded from the analysis:

- Respondents using routes beyond Route 32 or Route 62 including those who may have used Route 32 or Route 62 but transferred to or from another service, representing 99.7% of the total daily trips in the original dataset
- Respondents who did not report one or more racial or ethnic identities, representing 0.5% of total daily linked trips in the original dataset
- Respondents who did not report their total annual household income and/or household size, representing 14.9% of total daily linked trips in the original dataset¹⁷
- Payment method equal to "Day Pass", representing 0.3% of total daily linked trips in the original dataset; the day pass payment method is no longer offered
- Payment method equal to "Weekly / Monthly Pass" or "Other", representing 6.3% of total daily linked trips in the original dataset; these responses do not provide enough information to determine the fare value on a per-paid trip basis

¹⁷ This analysis evaluated disproportionate burden on low-income riders separate from disparate impact on BIPOC riders. Thus, if a survey record had insufficient household income and/or size data but did have sufficient race / ethnicity data, that record was excluded from the analysis of disproportionate burden on low-income riders but was included in the analysis of disparate impact on BIPOC riders.

After removing these excluded survey records, the final number of daily unlinked trips used in the analysis was 899, or 0.3% of those reported in the original dataset.

Developing Unique Fare Combinations

The methods used in determining unique fare combinations for this study were adapted from a 2022 fare change analysis report completed by Metro Transit using the same TBI on board survey dataset. For more information on the determination of unique fare combinations, see “Title VI Fare Equity Analysis: 2022 Fare Simplification Report.”

This analysis represents a simplification of those methods used in the 2022 analysis given this study’s limited extent. Unique fare combinations were developed using the relevant survey records. Assumptions used to calculate per-trip fare values for riders using multiple-ride passes (i.e., 10-Ride Pass, Metropass, Employee Pass, College Pass, U Pass, and Student Pass) remained the same apart from the U Pass. The University of Minnesota Twin Cities changed their U Pass program at the start of the 2022-23 academic year to include the cost of an unlimited transit pass in mandatory student fees. As such, the cost of the U Pass is assumed to be free making its per trip cost also \$0.00. A summary of the unique fare combinations for survey records associated with Route 32 and Route 62 can be found in **Table 5**.

Table 5. Unique Fare Combinations

Time of Day	Fare Type	Payment Method	Estimated Cost
Off-Peak	Limited Mobility Pass	Cash	\$1.00
Off-Peak	Limited Mobility Pass	Go-To Card	\$1.00
Off-Peak	Limited Mobility Pass	Free Ride Pass	\$0.00
Off-Peak	Regular Fare	10-Ride	\$1.60
Off-Peak	Regular Fare	Cash	\$2.00
Off-Peak	Regular Fare	Go-To Card	\$2.00
Off-Peak	Regular Fare	Metropass	\$3.22
Off-Peak	Regular Fare	Token	\$0.00
Off-Peak	Senior	Cash	\$1.00
Off-Peak	Senior	Go-To Card	\$1.00
Peak	Limited Mobility Pass	Go-To Card	\$1.00
Peak	Limited Mobility Pass	Metropass	\$3.22
Peak	Regular Fare	Cash	\$2.50
Peak	Regular Fare	Go-To Card	\$2.50
Peak	Regular Fare	Free Ride Pass	\$0.00
Peak	Regular Fare	U Pass	\$0.00
Peak	Senior	Cash	\$2.50

CHAPTER 5: EVALUATION OF IMPACTS

Proposed changes

The proposed changes for the fare free pilot are show in Table 6.

Table 6. Existing and Proposed Fares

Fare Type	Service Type	Time of Day [^]	Existing Fare	Proposed Fare	Absolute Change	Percent Change
Adult*	Local Bus / METRO	Non-Rush Hour	\$2.00	\$0.00	-\$2.00	-100.0%
Adult*	Local Bus / METRO	Rush Hour	\$2.50	\$0.00	-\$2.50	-100.0%
Reduced Fare**	Local Bus / METRO	Non-Rush Hour	\$1.00	\$0.00	-\$1.00	-100.0%
Reduced Fare**	Local Bus / METRO	Rush Hour	\$2.50	\$0.00	-\$2.50	-100.0%
Mobility Fare	All	All	\$1.00	\$0.00	-\$1.00	-100.0%
Downtown Zone	All	All	\$0.50	\$0.00	-\$0.50	-100.0%
Transit Assistance Program (TAP)	All	All	\$1.00	\$0.00	-\$1.00	-100.0%

*Ages 13-64

**Youth (ages 6-12), Seniors (ages 65+), and Medicare card holders

[^]Rush hour defined as Monday - Friday, 6-9 am and 3-6:30 pm

Step 1: Determine Fare Use

All impacted riders considered in this analysis would experience a decrease in fare. Table 7 lists the 13 unique fare combinations of fare type, time of day, and payment method that impact fare value. The fare combinations are presented alongside the current and proposed per-trip fare value, and the number and percent of users of each unique fare combination, including a breakdown by BIPOC riders, white riders, low-income riders, and non-low-income riders. The values from this table are used to calculate the average existing fare and average proposed fare for each rider group (Step 2).

Table 7. Existing and Proposed Unique Fare Combinations by Rider Group

Existing and proposed per-trip fares incorporate payment method and relevant per-trip assumptions for multiple-ride passes.

Fare Type	Service Type	Time of Day	Payment Method	Existing Fare per Trip	Proposed Fare per Trip	Absolute Change	Percent Change	Total Riders	BIPOC Riders	White Riders	Low-Income Riders	Non-Low-Income Riders	Percent of Total Riders
Adult	Local Bus / METRO	Non-Rush Hour	Cash or Similar	\$2.00	\$0.00	-\$2.00	-100.0%	324	218	106	164	160	36.1%
Adult	Local Bus / METRO	Non-Rush Hour	Metropass	\$3.22	\$0.00	-\$3.22	-100.0%	27	16	11	0	27	2.9%
Adult	Local Bus / METRO	Non-Rush Hour	10-Ride Pass	\$1.60	\$0.00	-\$1.60	-100.0%	9	9	0	9	0	1.1%
Adult	Local Bus / METRO	Non-Rush Hour	Token	\$0.00	\$0.00	-\$0.00	-100.0%	32	32	0	32	0	3.5%
Adult	Local Bus / METRO	Rush Hour	Cash or Similar	\$2.50	\$0.00	-\$2.50	-100.0%	349	219	130	219	130	38.9%
Adult	Local Bus / METRO	Rush Hour	U-Pass	\$0.00	\$0.00	-\$0.00	-100.0%	13	0	13	0	13	1.5%
Adult	Local Bus / METRO	Rush Hour	Veteran	\$0.00	\$0.00	-\$0.00	-100.0%	8	8	0	8	0	0.9%
Reduced Fare	Local Bus / METRO	Non-Rush Hour	Cash or Similar	\$1.00	\$0.00	-\$1.00	-100.0%	31	0	31	15	16	3.5%
Reduced Fare	Local Bus / METRO	Rush Hour	Cash or Similar	\$2.50	\$0.00	-\$2.50	-100.0%	4	0	4	0	4	0.4%
Mobility Fare	Local Bus / METRO	Non-Rush Hour	Cash or Similar	\$1.00	\$0.00	-\$1.00	-100.0%	40	28	12	22	18	4.4%
Mobility Fare	Local Bus / METRO	Non-Rush Hour	Veteran	\$0.00	\$0.00	-\$0.00	-100.0%	1	1	0	0	1	0.1%
Mobility Fare	Local Bus / METRO	Rush Hour	Cash or Similar	\$1.00	\$0.00	-\$1.00	-100.0%	22	0	22	22	0	2.5%
Mobility Fare	Local Bus / METRO	Rush Hour	Metropass	\$3.22	\$0.00	-\$3.22	-100.0%	38	38	0	38	0	4.3%
Total								899	570	329	530	369	100.0%

Step 2: Calculate Average Fares

Table 8 shows the average fare per trip (regardless of fare combination) under the existing and proposed fare structures for all riders, BIPOC riders, white riders, low-income riders, and non-low-income riders under change Scenario 1. These represent rider-weighted averages based on fare values and the number of riders from Table 7. The percent changes in average fare per trip from Table 8 are then used in Step 3 to determine disparate impact and disproportionate burden.

Table 8. Average Fare per Trip by Rider Group

	All Riders	BIPOC Riders	White Riders	Low-Income Riders	Non-Low-Income Riders
Impacted Riders	--	--	--	--	--
Count	899	570	329	530	369
Percent makeup	--	63.4%	36.6%	59.0%	41.0%
Average Fare per Trip	--	--	--	--	--
Existing Fare	\$2.06	\$2.11	\$1.97	\$2.03	\$2.10
Proposed Fare	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Absolute Change	-\$2.06	-\$2.11	-\$1.97	-\$2.03	-\$2.10
Percent Change	-100.0%	-100.0%	-100.0%	-100.0%	-100.0%
Comparison Index*	--	1.00	--	1.00	--

*Example: $-100.0\% / -100.0\% = 1.00$

Note: Any apparent errors in the change or difference values are due to rounding.

Step 3: Compare Changes

Applying Metro Transit’s existing disparate impact policy (see page 12), the ratio between the percent decrease in average fare for BIPOC riders and the percent decrease in average fare for white riders must be greater than or equal to 0.90 to avoid disparate impact to BIPOC riders; this calculation is otherwise known as the **comparison index**. The same framework applies for the determination of disproportionate burden on low-income riders.

As shown in Table 8, on average, BIPOC riders would experience a 100.0% decrease in fare paid per trip under the proposed fare change compared to existing fares. This fare decrease is equal to that for the average white rider. The resulting comparison index is 1.00. Therefore, per Metro Transit Title VI policies, this analysis identified **no disparate impact on BIPOC riders** as a result of the fare-free pilot.

On average, low-income riders would experience a 100.0% decrease in fare paid per trip – the same decrease as that for the average non-low-income rider (Table 8). The resulting comparison index of 1.00 is greater than the 0.90 threshold for disproportionate burden. Therefore, per Metro Transit Title VI policies, this analysis identified **no disproportionate burden on low-income riders** as a result of the fare-free pilot.

Given the findings of no disparate impact on BIPOC riders and no disproportionate burden on low-income riders, there is no need to continue to Step 4 of the analysis: Explore alternatives to avoid, minimize, or mitigate disparate impacts or disproportionate burdens.

CHAPTER 6: CONCLUSIONS

Metro Transit and the Metropolitan, in cooperation with a legislative requirement, are proposing a fare-free pilot for two routes, Route 32 and Route 62. The proposed fare change will be in place for 18 months.

This analysis reviewed the extent to which the changes in average fare differ between BIPOC riders and white riders, and between low-income riders and non-low-income riders as a result of the proposed fare changes. This report meets the FTA requirement for transit providers such as Metro Transit to conduct a Title VI fare equity analysis, prior to implementation, for any proposed fare change, regardless of the amount of increase or decrease.

The evaluation found:

- **no disparate impact** on BIPOC riders a result of proposed fare changes, and
- **no disproportionate burden** on low-income riders as a result of proposed fare changes.

Metro Transit and Metropolitan Council leadership can proceed with the fare-free pilot for Route 32 and 62 as designed.