

Draft Title VI Equity Analysis

Proposed Fare Policy Revisions

Draft

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Section I: Introduction

As Spokane Transit Authority (STA) advances *STA Moving Forward*, the 10-year plan for more and better transit services in the region, it is implementing a modernized fare collection system, which will provide new benefits and greater convenience for riders. These benefits are further described in the proposed fare policy revisions which introduces an account-based system with durable fare cards and a mobile ticketing application.

This report documents STA's Title VI equity analysis of the proposed fare policy revisions which will guide implementation of the fare collection system in 2022. Upon completion of this fare equity analysis, staff shall brief the Board of Directors prior to the Board's action(s). STA will keep this analysis on file and available for review by the Federal Transit Administration (FTA) and the general public.

The fare equity analysis was performed in accordance with the requirements specified in the Federal Transit Administration (FTA), Circular 4702.1B Title VI Requirements and Guidelines for Federal Transit Administration Recipients and STA's 2020 Title VI Program and the policies outlined in STA's Comprehensive Plan, *Connect Spokane, A Comprehensive Plan for Public Transportation*.

Fare Policy Revisions Objectives and Overview

The objectives of the revisions are to incorporate new fare types enabled by the new fare collection system and broaden discount programs to encourage ridership and to enhance access and equity. The fare policy revisions have three major components:

- **Fare Media:** Introduce an account-based fare collection system with a card and mobile ticketing application as the primary (non-cash) fare media
- **Fare Capping:** Provide daily and monthly fare caps enabled through the use of smart cards or mobile ticketing application (mobile app)
- **Discount Programs:** Provide more discount options to a broader population of riders

Spokane Transit Authority (STA)

Description of Fleet and Services

Spokane Transit Authority is a regional public transportation agency providing a variety of transportation services, including fixed-route, Paratransit, and Vanpool service. In 2019¹ Spokane Transit's fixed route system provided 9,971,798 unlinked passenger trips and traveled 6,118,526 revenue miles. Paratransit provided 441,097 passenger trips and traveled 2,393,647 revenue miles. Vanpool provided 155,262 passenger trips and traveled 929,850 revenue miles.

¹ Spokane Transit is providing 2019 NTD and fixed route service and maintenance data (unless otherwise noted) which is the last full year of reporting prior to COVID-19

STA's 2020 fleet includes 147 active fixed route coaches, 70 active Paratransit vans and 96 active vanpool vans. Fixed Route Bus Service operates 43 routes, 365 days a year. In accordance with the Americans with Disabilities Act (ADA), all vehicles are lift or ramp equipped.

Paratransit Service is operated by STA and its contractor for people who qualify under the eligibility requirements of the ADA. Paratransit service is provided within a defined service area, during the same hours and days as fixed route service and in compliance with applicable state and federal laws for service to people whose disability prevents them from using Fixed Route bus service. The directly operated Paratransit fleet is comprised of 70 vehicles, each with a capacity for up to 15 passengers. Contracted transportation supplements service during the early mornings, nights and weekends as well as augments capacity during weekdays.

Vanpool (Rideshare) Service augments STA's public transportation system through the assignment of passenger vans to vanpool groups. A vanpool group can be formed by a group of five to 15 people whose origin or destination is within the STA service area.

Areas Served

Areas served include cities of Airway Heights, Cheney, Liberty Lake, Medical Lake, Millwood, Spokane, and Spokane Valley and some unincorporated areas of Spokane County. Services include connections between downtown Spokane and the Spokane International Airport, major shopping malls, area colleges and universities, and Fairchild Air Force Base. Spokane Transit Authority (STA) operates within the designated Public Transportation Benefit Area (PTBA) which encompasses approximately 248 square miles of Spokane County which includes approximately 459,007 residents or 84.8 percent of the county population.

STA's Title VI Policy Development

Title VI of the Civil Rights Act of 1964 (Title VI) requires public transportation providers that receive federal funds to operate services and programs in a non-discriminatory manner. Race, color, and national origin are protected classes under Title VI. Low-income populations are not a protected class under Title VI; however, the FTA requires transit providers to evaluate the impacts of any fare changes on low-income populations as well.

STA's Fare Change Minority Disparate Impact Policy and Fare Change Low-Income Disproportionate Impact Policy were developed with an extensive public outreach effort. Letters were sent to a wide range of Limited English Proficiency (LEP) and nonprofit organizations as well as community centers and government agencies in early 2013 and early 2014. A public hearing was held to gather public comments. The 2014 Title VI update and policies were adopted by the Spokane Transit Board of Directors in early 2014. These policies continue to serve the agency and were incorporated into the 2019 *Connect Spokane* update and the 2020 Title VI Plan.

Section II. Proposed Fare Policy

STA periodically evaluates its fare policy and fare structure. The last major review of the fare structure was conducted in 2016 and led to a fare increase. These policy revisions are not proposing tariff revisions, rather they are being undertaken in anticipation of the implementation of STA's new fare collection system.

Spokane Transit is implementing a new account-based fare collection system that offers smart card and mobile ticketing capabilities to enhance rider access and experience across its network. Through the new system, customers will have increased convenience through electronic fare payment and self-service account management capabilities, while also improving transit system performance by enabling pre-payment of fares and all-door boarding to reduce dwell time.

Fare Policy Revisions Overview

The fare policy revision has three major components:

- **Fare Media:** Introduce an account-based fare collection system with a card and mobile ticketing application as the primary, non-cash, fare media
- **Fare Capping:** Provide daily and monthly fare caps enabled through the use of smart cards or mobile ticketing application
- **Discount Programs:** Provide more discount options to a broader population of riders

Fare Media

Fare media smart cards and the mobile app, both of which will serve as front end devices for the account-based system, will become the primary fare media used to access the STA system beginning in Fall 2022. The account-based system and fare policies will eliminate the need for daily, 7-day rolling, and 31-day rolling passes. The account-based system will provide for daily and/or monthly fare capping. A description of each fare media type is shown in Table II-1 below.

Table II-1. Current and Proposed Fare Media Types

Fare Media	Description	Current	With Fare Collection System Implementation
Cash	Exact fare required in cash or coin – no change will be given and pennies are not accepted	✓	✓
Magnetic Stripe Card	Magnetic Stripe Cards are read by making the appropriate contact between the card and the farebox card reader. Paratransit van operators may record fare use of the card for the paratransit rider as needed.	✓	
Connect Card	Connect Cards are chip-embedded cards holding data that allows a vast array of potential fare opportunities. The first Connect Card for a customer will be provided free of charge. Replacement card fees will be based on STA’s cost to provide the cards. Connect Cards can also serve as an identity card (by adding a photo and other basic information). Connect Cards can be reloaded with additional value or time and reused indefinitely. The card is read by passing the card near or “within proximity” of the validator hardware.	✓	✓
Institutional Card	Combination ID/Smart Card issued to participants in current STA pass programs	✓	
Mobile App	Manage your fare account or pay with your virtual Connect Card through the STA mobile app.		✓
Limited Use Ticket	Paper RFID ticket that can be read by holding near the fare validator hardware. Available through Group sales only.		✓
Barcoded Paper Ticket	Paper barcoded ticket issued by a Ticket Vending Machine.	✓	✓
Contactless Credit Card	Discover, Mastercard and Visa contactless credit cards read by passing the card near or “within proximity” of the validator hardware.		✓
NFC-based Payments	NFC-based payments such as Apple Pay and GooglePay on a mobile phone can be read by passing the device near or “within proximity” of the validator hardware.		✓

Account-Based Fare Media

The proposed, modernized fare collection system will be account-based. Account-based systems store value in an individualized account; but the fare media only contains credentialing information that enables the fare system to draw from the appropriate account. While all fare media are linked to an account in the fare collection system, meeting STA’s data security policies, STA will categorize fare media as either “registered” or “unregistered”, with additional benefits available to registered media.

Accessing Smart Card Benefits

Customers will be able to reload funds onto their account at multiple locations, including partner retail locations. All funds added to an account will be available for use on all fare media tied to the customer’s account. Funds can be re-loaded onto customer accounts using a fare media smart card at the STA Plaza, partner retail locations, or online. The mobile app can also be used as a device to re-load customer accounts.

Fare Capping

STA is introducing fare capping. Fare capping limits the total amount of money users are charged for rides taken within a specific period; additional rides within that period are free of charge. This new fare policy is intended to promote transit ridership and enhance the customer experience.

Daily and monthly fare capping will be applied to unregistered and registered accounts. Only trips that reduce the amount of value in an account, not free transfers, will count towards the daily and monthly fare cap; these are also known as “charged trips”. Fare capping will apply across all STA services, except Vanpool which is a monthly program only.

For the purposes of the policy, a day is defined as the first run of the day to the last run of the day based on STA’s then in effect schedules by route. The daily fare cap triggers after \$4.00 of charged trips (2 paid trips). Trips taken during the free transfer window (within two hours after the charged trip) will not count towards the cap or deduct money from the account. The month will be defined as the calendar month. Table II-2 compares existing policy versus the proposed policy.

Table II-2. Fare Capping – Existing Policy versus Proposed Policy

	Fare Cap	Regular Service	Paratransit	Reduced Fare Discount Programs
Existing Fare Capping	Daily	None	None	None
	Monthly	None	None	None
Proposed Fare Capping	Daily	\$4.00	\$4.00	\$2.00
	Monthly	\$60.00	\$60.00	\$30.00

Reduced Fare Discount Programs

STA is proposing to expand the current discount programs that are offered by the agency. Table II-3 below identifies the current and proposed reduced fare discount programs (including an eligibility description for each).

Table II-3. Expanded Reduced Fare Discount Programs

Program Title	Program Description	Current	With Fare Collection System Implementation
Honored Rider	A Fixed Route reduced fare (50%) program available to customers who are: 1) 60 years of age or older; or 2) have a qualifying disability; or 3) have a valid Medicare card issued by the Social Security Administration. An STA-provided reduced fare or paratransit identification card must be shown to the bus operator each time the bus is boarded and the reduced fare paid.	✓ <i>(currently 65 years or older)</i>	✓
Stars and Stripes	A Fixed Route reduced fare (50%) program open to veterans, reserve, and active-duty military with proof of status <ul style="list-style-type: none"> o Active-duty military ID card o VA ID card o DD214 o Driver's license with Veteran designation 		✓
Rider's License	A Fixed Route reduced fare program (50%) available to youth customers (13-18 years of age) when presenting an STA issued pass.		✓
Rider-In-Training	A Fixed Route reduced fare program (100%) available to youth customers (6-12 years of age) when presenting an STA issued pass.		✓
Student	A Fixed Route reduced fare program available to students enrolled in post-secondary education at a technical or job/career training institution. Students who possess valid proof of enrollment in a registered institution are eligible for a discount of 20% off the standard monthly fare cap. Eligible educational and training institutions are either: qualified providers of federal financial aid and have obtained a Federal School Code; or have obtained a vocational school license issued by the Washington State Workforce Training and Education Coordinating Board.	✓ <i>(currently 31-day pass w/discount)</i>	✓

All other existing reduced fare discount programs (such as the Community Access Program) will continue to operate in the same form as previously.

Section III. Fare Equity Analysis

Title VI of the Civil Rights Act of 1964 requires public transportation providers that receive federal funds to operate services and programs in a non-discriminatory manner. Race, color, and national origin are protected classes under Title VI.

To fulfill the requirements of Executive Order 12898 and DOT Order 5610.2(a) on Environmental Justice, FTA requires that an impact analysis be conducted to identify any disproportionate burdens to low-income populations that would occur as a result of a major service or fare change. Low-income populations are not a protected class under Title VI. However, Chapter IV-18 of the Title VI Circular states that “transit providers should take steps to minimize or mitigate impacts (for this population) where practical. The provider should also describe alternatives available to low-income passengers affected by service changes.”

STA’s Title VI policy, adopted in early 2014, identifies how STA assesses disparate impact and disproportionate burden that could potentially result from changes to fare policy.

Minority Disparate Impact Policy

If a fare change affects fare categories or payment methods used disproportionately by minority populations (10% or greater than the overall population), a fare change disparate impact exists and the impacts will be assessed and evaluated for mitigation.

Low-Income Disproportionate Impact Policy

If a fare change affects fare categories or payment methods used disproportionately by low-income populations (10% or greater than the overall population), a fare change disproportionate burden exists and the impacts will be assessed and evaluated for mitigation.

The analysis methodology is contained in Appendix A: Fare Equity Methodology. An overview of the proposal, and the results of the analysis, follows.

Overview of Major Fare Policy Revisions

The fare policy revisions contains three major components:

- **Fare Media:** Introducing an account-based fare collection system with a card and mobile ticketing application as the primary, non-cash, fare media
- **Fare Capping:** Provides daily and monthly fare caps enabled through the use of smart cards or mobile ticketing application
- **Discount Programs:** Provides more discount options to a broader population of riders

Major Fare Policy Revisions Analysis

Fare Media

STA is introducing an account-based fare collection system with a smart card and mobile ticketing application as the primary, non-cash, fare media. Because use of the account-based system is a prerequisite to access some of the benefits offered by the new system, STA wanted to know the answers to two questions:

1. How does the use of various fare payment types compare among various populations? and
2. How does the access to existing and proposed vendor locations where the fare media will be available for purchase and reloading compare?

Fare Payment Types Analysis

Using data collected for the 2020 Title VI Rider Survey, Tables III-1 and III-2 list the fare payment use type by (a) minority households and (b) low-income households compared to the overall population use for those fare payment types. (Responses marked “prefer not to say” for self-identifying race were excluded from the analysis in Table III 1).

Table III-1: Fare Payment by Minority Households as Compared to Total Households

Fare Medium	Minority HHs % Use	Overall Population % Use	Title VI Threshold	Disparate Impact (DI)
CASH	36.7%	41.0%	45.1%	NO
PASS	36.7%	31.1%	34.2%	NO
SMART CARD	25.0%	22.3%	24.5%	NO
STUDENT ID	0%	0.8%	0.8%	NO
No Response	1.5%	4.9%	5.4%	NO
Total	100%	100%	-	-

Table III-2: Fare Payment Type Use by Low-Income Households as Compared to Total Households

Fare Medium	Low-Income HHs % Use	Overall Population % Use	Title VI Threshold	Disproportionate Burden (DB)
CASH	40.0%	41.1%	45.2%	NO
PASS	34.7%	31.6%	34.6%	NO
SMART CARD	21.3%	23.3%	25.6%	NO
STUDENT ID	0.8%	1.2%	1.3%	NO
No Response	3.1%	2.8%	3.0%	NO
Total	100%	100%	-	-

Fare Payment Type Analysis Results

Using survey data collected in the 2020 Title VI Rider survey, STA determined that minority riders use passes and smart cards at a slightly higher rate compared to the overall population, while low-income riders use passes at a slightly higher rate compared to the overall population.

Vendor Access Analysis

The next step for STA was to analyze vendor access to determine if there is a disparate impact or disproportionate burden on Title VI populations. Because use of the account-based system is a prerequisite to access some of the fare policy benefits, STA analyzed access to proposed locations where the fare media will be available for purchase and where cash may be used to load funds to riders’ smart cards.

Access to transit and transit amenities can be determined by measuring the estimated distance a rider would walk to the route or amenity. STA regularly uses ½ mile as the standard walking range for its users. For the purposes of this Title VI analysis, a buffer area of ½ mile will be applied around all STA routes (September 2021 network) for population analysis, as well as the existing and proposed vendor locations. See Appendix A for a full methodology.

The account-based fare media available at vendor locations requires different technologies than STA’s existing fare media. As such, STA is working with InComm, a global company with a network of partner retail locations providing smart card technology compatible with the new STA fare collection system, to identify potential vendor locations in the STA service area. STA is also intending to negotiate with the existing retail network to support the sale of smart cards and loading of funds.

Table III-3 shows the vendor access analysis results. STA intends to do additional vendor access analysis once the specific vendors have been identified to corroborate the results found in Table III-3.

Table III-3: Vendor Access Results

	Service Area Population	Current Access	% w/ Current Access	Future Access	% w/ Future Access	Change in Access	Title VI Threshold	DI/DB
Overall	323,953	63,354	19.6%	150,506	46.5%	137.6%	156.6%	NO
Minority	63,808	12,962	20.3%	31,411	49.2%	142.3%		
Low-Income	51,193	11,371	22.2%	26,654	52.1%	134.4%	147.8%	NO

Figures III-1 through Figure III-4 illustrate the distribution of the existing and proposed vendor locations as related to the density of impacted populations (persons/acre), as well as the access area (1/2-mile radius) for those vendor locations.

Figure III-1: Map of Existing Vendor Locations – Minority Density

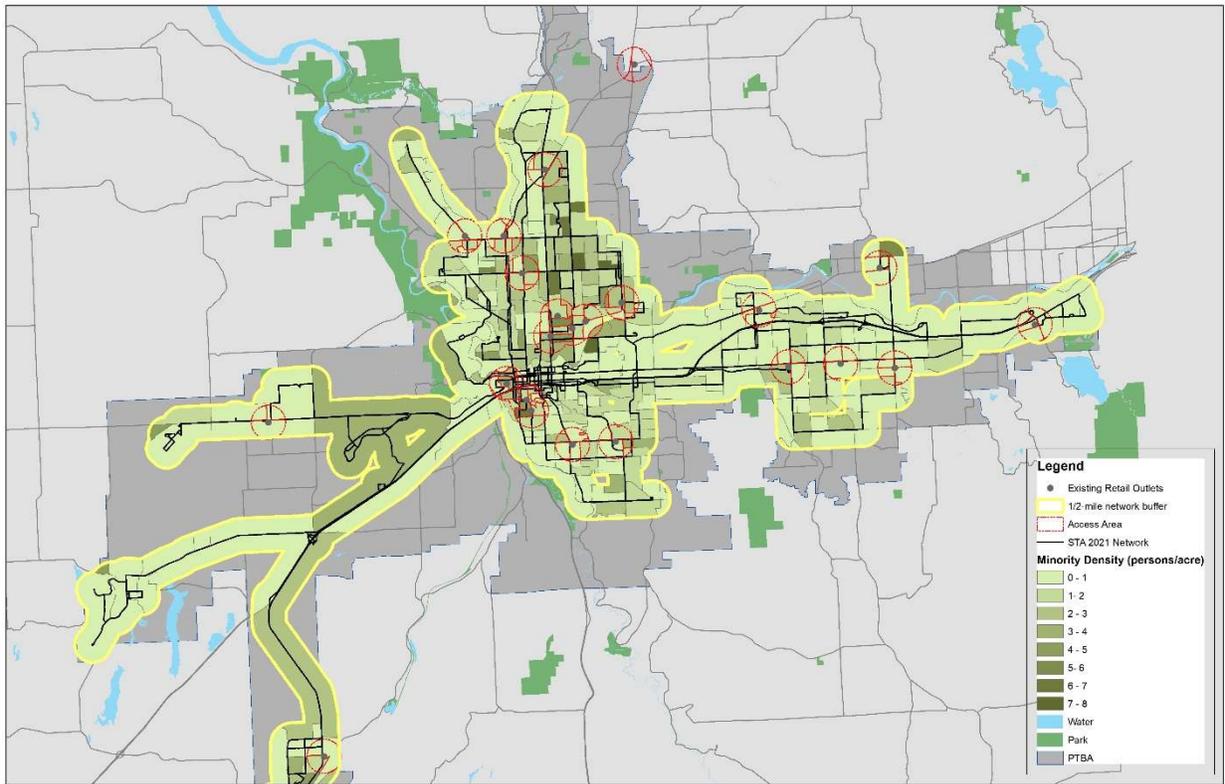


Figure III-2: Map of Existing Vendor Locations – Poverty Density

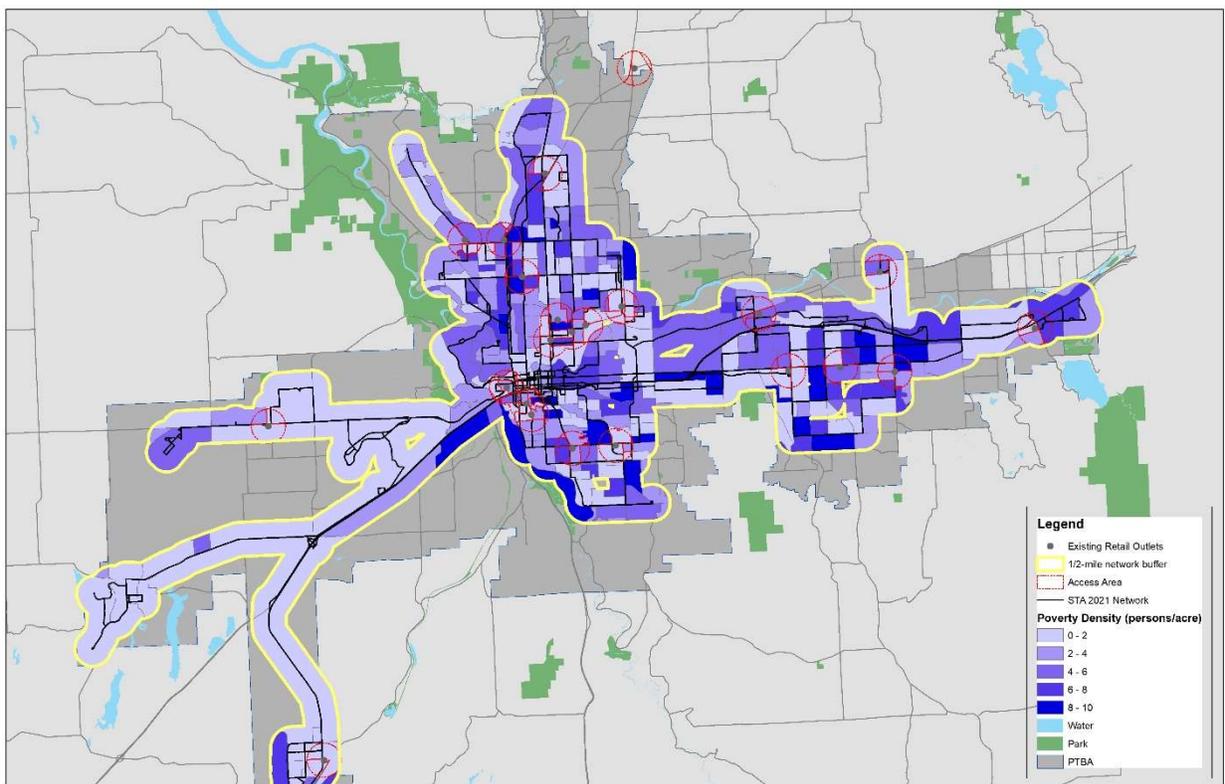


Figure III-3: Map of Proposed Vendor Locations – Minority Density

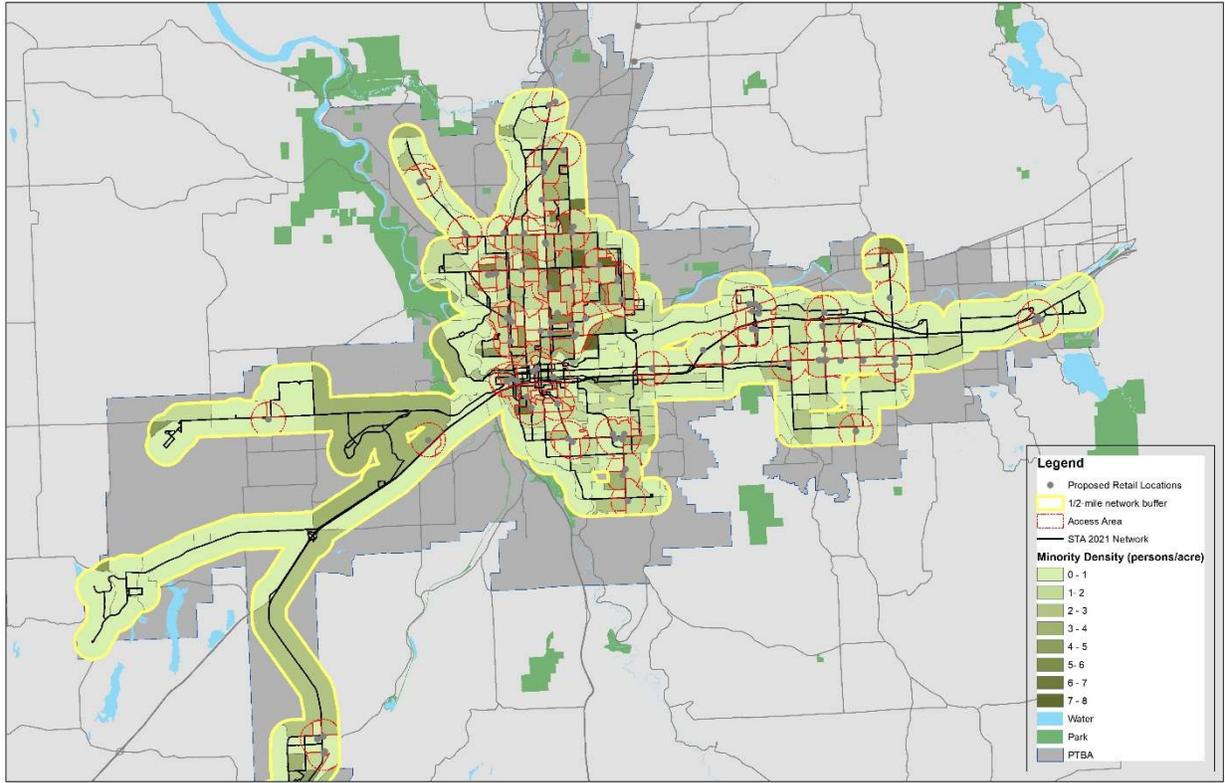
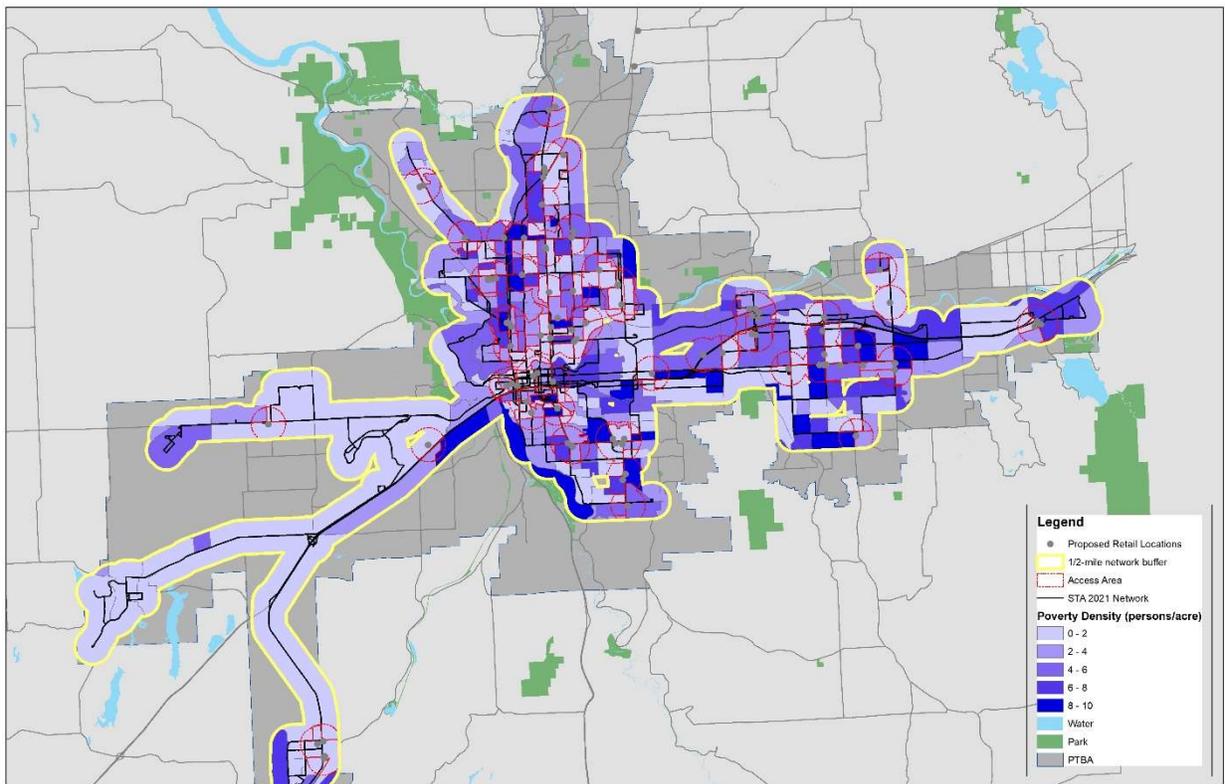


Figure III-4: Map of Proposed Vendor Locations – Poverty Density



Fare Capping

Fare capping allows users to capture the benefit of an unlimited time-period pass (e.g., 31-day rolling pass) without facing the burden of the upfront cost of those passes. At present, purchasing a period pass may be cost-prohibitive to low-income riders who would benefit from having access to those passes.

Fare capping rewards frequent use of the system and limits the amount an individual spends on transit during the designated period. Fare capping serves as an equitable alternative to a period pass by enabling riders to “spend toward” a period pass. Under the fare capping proposal, 2 or more charged trips within the transit day will cap at, i.e., cost no more than, \$4.00; 30 or more charged trips within the transit month will cap at, i.e. cost no more than, \$60.00. Riders may load funds incrementally throughout the month while accruing toward the fare cap.

To analyze the costs and benefits of fare capping within this fare equity analysis, a robust analysis is dependent upon fare media, trip frequency, and trip characteristics. While STA did not collect sufficient trip information in the 2020 Title VI Rider Survey that was used to conduct the preliminary Title VI Fare Policy Analysis of disparate and disproportionate impact to conduct an in-depth analysis, a review of fare payment method (Tables III-4 and III-5) provides insight.

Table III-4: Pass & Smart Card Payment by Minority Households as Compared to Total Households

Fare Medium	Minority HHs % Use	Overall Population % Use	Title VI Threshold	DI
CASH	36.7%	41.0%	45.1%	NO
PASS	36.7%	31.1%	34.2%	NO
SMART CARD	25.0%	22.3%	24.5%	NO
STUDENT ID	0%	0.8%	0.8%	NO
No Response	1.5%	4.9%	5.4%	NO
Total	100%	100%	-	-

Table III-5: Pass & Smart Card Payment by Low-Income Households as Compared to Total Households

Fare Medium	Low-Income HHs % Use	Overall Population % Use	Title VI Threshold	DB
CASH	40.0%	41.1%	45.2%	NO
PASS	34.7%	31.6%	34.6%	NO
SMART CARD	21.3%	23.3%	25.6%	NO
STUDENT ID	0.78%	1.2%	1.3%	NO
No Response	3.1%	2.8%	3.0%	NO
Total	100%	100%	-	-

Tables III-4 and III-5 demonstrate that minority and low-income populations used passes at a higher rate than the general population in the 2020 Title VI Survey, while minority households also used smart cards at a higher rate, indicating the populations of concern are already using fare media that will provide the benefits of fare capping.

In addition, STA reviewed other agencies’ equity analyses where fare capping was included, and those reports found no disparate impact or disproportionate burden from the introduction of fare capping. The consulted reports included:

- IndyGO: Fare Policy Proposal and Equity Analysis (2019)
- TriMet (OR): Title VI Fare Equity Analysis for Migration to E-Fare (2016)
- Greater Dayton Regional Transit Authority (RTA): Title VI Fare Equity Analysis for New Payment System & Proposed Fare Changes (2021)
- NFTA Metro (Buffalo, NY): Fare Equity Title VI Analysis (2016)

Reduced Fare Discount Programs

STA is expanding access to its reduced fare discount programs by increasing eligibility for seniors through a reduction in the age limit and creating new reduced fare discount programs for:

- Retired and active-duty military
- Teenagers (13-18 old)
- Youth (6-12 years old)

STA is still exploring available data to expand the analysis and will update the analysis as appropriate. Table III-6 shows the results of increasing eligibility for seniors.

Table III-6: Increase in Senior Eligibility Access Analysis

	Service Area Population	Current Access	% w/ Current Access	Future Access	% w/ Future Access	Change in Access
Overall	323,953	-	-	-	-	-
65 +	-	49,145	15.2%	-	-	-
60+	-	-	-	68,845	21.3%	40.1%

In analyzing the impacts on military veterans, STA isolated the impacts on those veterans between the ages of 18-64. Under STA’s existing programs, those customers would most likely not be eligible for a reduced fare. Creating the Stars and Stripes program would provide discounts for those customers. Table III-7 shows the results of increasing eligibility for veterans.

Table III-7: Increase in Veterans Eligibility Access Analysis

	Service Area Population	Current Access	% w/ Current Access	Future Access	% w/ Future Access
Overall	323,953	-	-	-	-
Veterans (18-64)	-	-	-	14,704	4.5%

Analyzing the impacts on teenagers and youth is more difficult, as census data does not exist that shares the same age range to allow for a 1:1 analysis. STA is continuing to explore available data and will update the analysis as appropriate.

In all analyses of the impacts of the reduced fare discount programs, no disparate impact or a disproportionate burden was found. However, additional analyses will be explored as data becomes available.

Summary

STA evaluated the major fare policy revisions and the access to fare media based on current implementation information available and determined there was no evidence of disparate impact on minority households or disproportionate burden on low-income households. *Table III-8: Summary of Fare Equity Analyses*

Policy	Fare Media Access	Fare Capping	Discount Programs
Disparate Impact	NO	NO	NO
Disproportionate Burden	NO	NO	NO

STA will return and update this analysis once additional implementation steps are developed, including:

- Specific vendor identification. The initial vendor access analysis assumed that all potential InComm retailers in the region agree to carry STA products; and that all retailers where STA currently sells passes agree to become partners and continue to carry STA products.
- Information access. How STA customers without internet access can easily add cash to their cards and can easily track their balances will be important to understanding any potential disparate impacts or disproportionate burden.

Section IV. Public Outreach

A full description of the public outreach process, as well as an analysis of the public input received, can be found in Appendix B: *Proposed Fare Policy Revisions Public Outreach Summary* report.

Appendix A: Fare Equity Analysis Methodology

STA's methodology for evaluating fare equity, in assessing any benefits or impacts associated with the proposed fare policy revisions, is outlined within this appendix. Due to the nature of the new fare media, a spatial analysis of vendor locations is required in addition to an analysis of the fare policy changes.

Federal Guidance

The Federal Transit Administration (FTA) provided guidance for conducting a Fare Equity Analysis in Federal Circular 4702.1B. This guidance describes subjects of analysis and procedures to be used if proposed fare changes result in disparate impacts or disproportionate burdens to riders. The Circular also requires that transit providers use ridership surveys for their analysis and specifies certain categories of information to be included in their final equity documentation.

General Methodology

Each policy will be assessed for the benefits or, if applicable, the burdens borne by minority, low-income, and all riders. If the percent of riders receiving benefits or burdens exceed a range of (+) ten percent between minority and overall population or low-income and the overall population, then a disparate impact or disproportionate burden may exist.

The primary source of data used for the analysis was derived from the 2020 Title VI Rider Survey conducted between November 11, 2020, and December 15, 2020. Due to social distancing requirements imposed during the COVID-19 pandemic, on-board rider surveys that had been conducted in previous years were suspended. A two-page self-administered survey was posted on Spokane Transit's website, distributed by email to interested parties (including community organizations and local jurisdictions), and sent by direct mail to 7,215 addresses (Reduced Fare Mailing List). A total of 524 surveys were returned to Spokane Transit. An analysis of the demographics showed that the survey respondents were representative of the overall population of the Spokane Transit service area. That survey allowed respondents to identify their race, ethnicity, household size, and household income. For the purposes of this analysis, minority riders will be considered those riders who identified as any of the following: American Indian/Alaska Native, Asian, Black/African American, Hispanic/Latino, Native Hawaiian/Pacific Islander, or "other" as applicable; non-minority riders will be those who identified as White, alone, in the survey. Survey respondents who refused to identify their race or ethnicity were not included in the analysis concerning disparate impact.

Low-income riders were considered riders who described their total annual household income in ranges that are within those thresholds set by the US Department of Health and Human Services (DHHS) poverty guidelines in 2020 (see Table A-1 for details). Survey respondents who refused to identify their income or household size were not included in the analysis concerning disproportionate burden.

Specific Methodologies

Fare Media

STA is introducing an account-based fare collection system with a smart card and mobile ticketing application as the primary, non-cash, fare media. Because use of the account-based system is a prerequisite to access some of the benefits offered by the new system, STA wanted to know the answers to two questions:

1. How does the use of various fare payment types compare among various populations? and
2. How does the access to existing and proposed vendor locations where the fare media will be available for purchase and reloading compare?

Fare Payment Type Analysis

For the Fare Payment Type Analysis, STA first needed to determine how the rider paid their fare, as well as the self-identified race and income status for that respondent. All the data came from the 2020 Title VI Rider Survey conducted between November 11, 2020, and December 15, 2020.

Fare Payment

For Fare payment, there were 6 options available:

- Smart card
- Cash
- Paper bus pass
- Student ID
- Monthly Pass (includes: adult 31 day pass, youth 31 day pass, reduced fare 31 day pass, paratransit monthly pass, shuttle park monthly pass)
- Other Pass (includes: 2-hour adult/youth pass, 2 hour reduced fare pass, day pass, seven-day pass, paratransit one ride pass)

These were combined into four categories for analysis purposes:

- Smart Card
- Cash
- Pass
- Student ID

Race Identity

The survey asked respondents to self-identify by race, with the option of checking all that apply. The options presented were based on the US Census categories:

- American Indian or Alaska Native
- Asian
- Black or African American
- Native Hawaiian or Pacific Islander
- White
- Two or more races

- Other (please specify)
- Prefer Not to Say

Respondents were also asked about whether they identified as Hispanic or Latino/Latina.

Low-Income

To calculate the income status of a respondent, STA reviewed the responses to two demographic questions – how many people in your household, and what is your annual household income? Low-income riders were considered riders who described their total annual household income in ranges that are within those thresholds set by Department of Health and Human Services (DHHS) poverty guidelines in 2020 (see Table A-1 for details). Survey respondents who refused to identify their income or household size were not included in the analysis concerning disproportionate burden.

Table A-1: Low-Income Thresholds

Number of People in Household	DHHS 2020 Poverty Limit
1	\$12,760
2	\$17,240
3	\$21,720
4	\$26,200
5	\$30,680
6	\$35,160
7	\$39,640
8	\$44,120

Fare Payment Type Analysis

To complete the fare payment type analysis, the fare payment identified was cross tabulated with (a) the self-identified race and (b) the low-income status, and those responses compared to the overall population for those fare payment types.

Vendor Access Analysis

Following the fare payment type analysis, the next step for STA was to look at vendor access for various populations to identify if there is a disparate impact or disproportionate burden. Because use of the account-based system is a prerequisite to access some of the fare policy benefits, STA analyzed access to proposed locations where the fare media will be available for purchase and where cash may be used to load funds to riders' smart cards.

Datasets Used

The American Community Survey (ACS) surveys a sample of the population, gathering valuable information on characteristics including income and race. The ACS is provided in 1-year and 5-year ranges. The 5-year datasets are averages of the years and is the most comprehensive and precise dataset with all the information needed for this examination. The most recent version of the dataset is the ACS 2015-2019: 5-year estimates; these datasets were used for this analysis. All datasets are at the block group level, unless otherwise noted.

- Table B01003 Total Population
- Table B02001 Minority Population
- Table B17021 Poverty Status of Individuals in Past 12 Months by Living Arrangement

Vendor Location

The account-based fare media available at vendor locations requires different technologies than STA's existing fare media. As such, STA is working with InComm, a global company with a network of partner retail locations providing smart card technology compatible with the new STA fare collection system, to identify potential vendor locations in the STA service area. STA is also intending to negotiate with the existing retail network to support the sale of smart cards and loading of funds.

The initial vendor access analysis assumed the following for vendor locations for the new fare technology system:

- All potential InComm retailers in the region agree to carry STA products
- All retailers where STA currently sells passes agree to become partners and continue to carry STA products

Determining Accessible Population

Access to transit and transit amenities can be determined by measuring the estimated distance a rider would walk to the route or amenity. STA regularly uses ½ mile as the standard walking range for its users. For the purposes of this Title VI analysis, a buffer area of ½ mile will be applied. Overlapping buffers will be dissolved.

Population data are attributed to Census block groups evenly, which are represented by polygons in the spatial software. When overlaying a buffer onto a polygon, a portion of the polygon may fall outside the buffer. STA staff will determine a population's access to a vendor by assuming that only the area of a polygon that falls within the ½ mile buffer has access. Therefore, the proportion of the polygon within the buffer and the proportion of the Census block group population will be the same. For example, if 1/3 of a block group falls within a vendors ½-mile buffer, then only 1/3 of that block group's population will be considered to have access to that vendor.

Spatial Methodology

The following methodology was applied to determine if the locations of proposed vending locations will have a disparate impact or disproportionate burden.

Analysis Steps

1. Plot all current and proposed vendor locations. Merge and buffer them by ½ mile.
2. Calculate percentage of total population, low-income population, and minority population within the buffers for current vendor locations and proposed vendor locations.
3. Compare current access to proposed access for all populations.
4. Determine if there is a disproportionate burden and/or disparate impact. If the change in protected populations (i.e., low-income and minority populations) is in the acceptable range, then there is a determination of no impact. Table A-2 provides a detailed explanation for every column within the table.

Table A-2 provides a detailed explanation for each column in Table III-3, which is utilized in the Fare Equity Analysis section to explain the results of the analysis.

Column	Explanation
Service Area Population	The population of the service area. The service area is all persons living within a ½ mile radius of an STA route (September 2021 network). The population information is expressed in several groups – overall, minority, and low-income.
Current Access	Those in the service area and within ½ mile of a current STA vendor
% w/Current Access	Population with current access divided by total service area population of the group
Future Access	Those in the service area and within ½ mile of a proposed STA vendor
% w/Future Access	Population with future access divided by total service area population of the group
Change in Access	The percent difference in access Current Access by Group and Proposed Access by Group
Title VI Acceptable Range	The policy is applied as a (+) 10 percent of impact (or change) on total population
DI/DB	Determination of disproportionate burden (low-income) and/or disparate impact (minority). If the changes in access for the protected population is outside the applied acceptable range, it is determined there is an impact.

Appendix B: Fare Policy Revision Public Outreach Summary

See accompanying “Public Outreach Summary” report.