



Considering Returning to Fare Collection: Title VI Fare Equity Analysis

March 2023

Executive Summary

In 2014, the GoTriangle Board of Trustees adopted Title VI Policies and Definitions aligned with Federal Transit Administration (FTA) Circular 4702.1B, Title VI Requirements and Guidelines for FTA Recipients. The circular is a federal guidance document issued by FTA that outlines requirements for ensuring nondiscrimination in transit programs and activities. The circular provides guidance to recipients of federal funding, such as transit agencies, on how to comply with Title VI of the Civil Rights Act of 1964, which prohibits discrimination based on race, color, or national origin. The circular includes information on how to conduct a Title VI analysis, develop a language assistance plan, and respond to discrimination complaints, among other topics.

GoTriangle's policy requires evaluation of impacts to Title VI and low-income populations for all proposed fare changes regardless of the amount of increase or decrease. GoTriangle is currently evaluating the potential to return to collecting fares after a multi-year period of fare suspension associated with the COVID-19.

This fare equity analysis outlines the Title VI process and requirements and describes the data and methodologies used to identify the impacts. This analysis evaluates the proposed change at GoTriangle from the current zero fare to the fare structure that the GoTriangle Board of Trustees adopted in May 2019 for implementation along with mobile ticketing and fare capping, technology that automatically applies multi-ride discounts for frequent riders rather than requiring riders to purchase multi-ride passes ahead of time.

This analysis uses data about the demographics of GoTriangle's ridership from the most recent on-board survey of GoTriangle customers conducted in 2019. More than half of GoTriangle's riders are minorities and between one-third and one-half of GoTriangle's riders are low-income.

This analysis considers all fare types, including the GoPass employer discount fare program. The average fare analysis uses the ridership demographics by fare type from the 2019 GoTriangle On-Board survey to calculate the expected average fare received by GoTriangle per boarding for each demographic group and fare type.

Key Findings

While there are differences in usage rates of discount programs by minority and low-income customers compared to non-minority and non-low-income customers, there is no disparate impact and no disproportionate burden identified according to GoTriangle's policy definitions.

Even though no disparate impacts or disproportionate burden were found, mitigation strategies are proposed in the addendum to maximize access to discount fare programs for minority and low-income customers.

Background

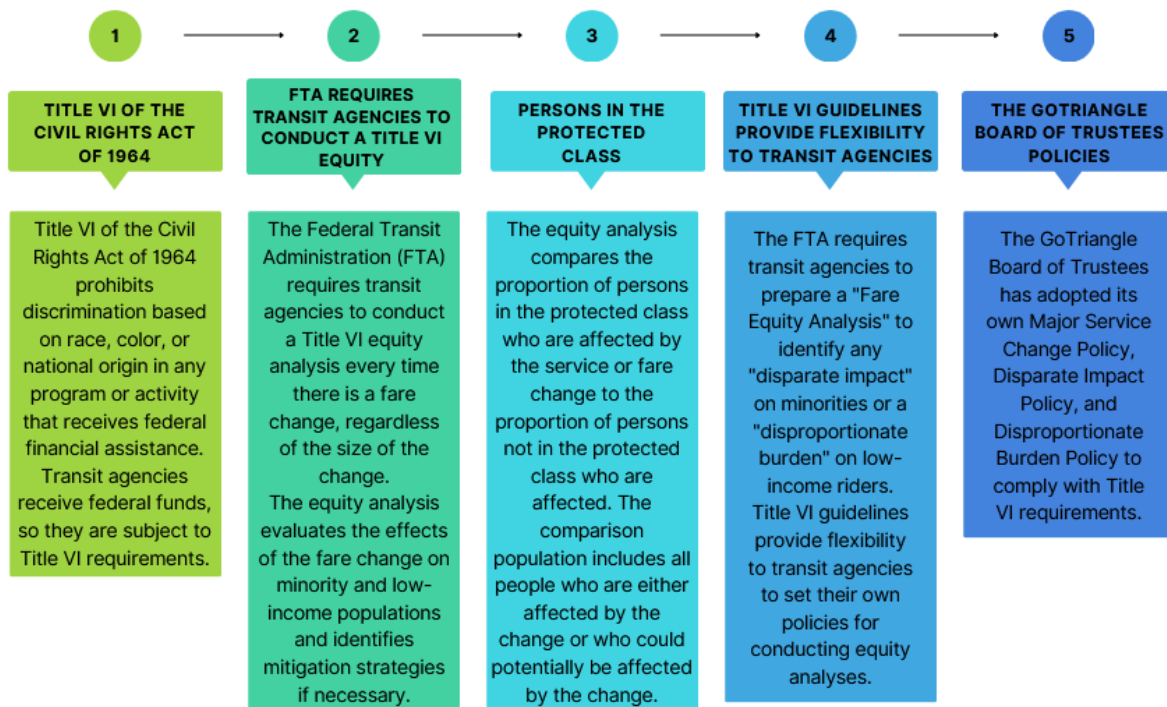
Title VI of the Civil Rights Act of 1964 prohibits discrimination on the grounds of race, color, or national origin in any program or activity that receives federal financial assistance. As transit agencies receive federal funds, they are subject to Title VI requirements. The Federal Transit Administration (FTA) requires transit agencies to conduct a Title VI equity analysis every time there is a fare change, regardless of the size of the change. The purpose of the equity analysis is to evaluate the effects of the fare change on minority and low-income populations and to identify mitigation strategies if necessary.

Title VI equity analysis compares the proportion of persons in the protected class (race, color, or national origin) who are affected by the service or fare change to the proportion of persons not in the protected class who are affected. The comparison population includes all people who are either affected by the change or who could potentially be affected by the change, such as potential passengers.

The FTA requires transit agencies to prepare a "Fare Equity Analysis" to identify any "disparate impact" on minorities or a "disproportionate burden" on low-income riders. Although low-income populations are not a protected class under Title VI, the FTA recognizes the overlap of environmental justice principles in this area and requires transit providers to evaluate the impacts of service and fare changes on passengers who are more likely to rely on public transit.

Title VI guidelines provide flexibility to transit agencies to set their own policies for conducting equity analyses. The GoTriangle Board of Trustees has adopted its own Major Service Change Policy, Disparate Impact Policy, and Disproportionate Burden Policy to comply with Title VI requirements.

Background



GoTriangle Title VI Policies

Title VI guidelines require transit agencies to set their own policies and provide flexibility to the transit agency for how these analyses are conducted. The GoTriangle Board of Trustees adopted two policies in June 2014 related to Title VI that guide this analysis:

- Disparate Impact Policy, and
- Disproportionate Burden Policy

The requirement for these policies comes from FTA Circular 4702.1B, "Title VI Requirements and Guidelines for Federal Transit Administration Recipients" which became effective October 1, 2012. The Circular requires any FTA recipient that operates 50 or more fixed route vehicles in peak service and serving a population of 200,000 persons or greater to evaluate any fare change and any major service change at the planning and programming stages to determine whether those changes have a discriminatory impact.

FTA guidelines require that impacts to Title VI and low-income populations be evaluated for all fare changes regardless of the amount of increase or decrease.

Disparate Impact Policy

Disparate Impact



The following disparate impact policies establish thresholds for determining when impacts of proposed fare changes by each respective agency disproportionately impact minority populations. The thresholds apply to the difference in the impacts of each proposed fare change on minority

populations compared to the impacts on non-minority populations. This is measured by analyzing ridership surveys as to whether minority riders are more likely to use each mode of service, payment type, or payment media that would be subject to the fare change.

For Fare Equity Analyses, a threshold of 10 percent shall be used by GoTriangle to determine if the effects of a proposed fare change are borne disproportionately by minority populations.

Disproportionate Burden Policy

Disproportionate Burden



The following disproportionate burden policies establish thresholds for determining when impacts of proposed fare changes by each respective agency disproportionately impact low-income populations. The thresholds apply to the difference in the impacts of each proposed fare change on low-income

populations compared to the impacts on other populations. This is measured by analyzing ridership

surveys as to whether low-income riders are more likely to use each mode of service, payment type, or payment media that would be subject to the fare change.

For Fare Equity Analyses, a threshold of 10 percent shall be used by GoTriangle to determine if the effects of a proposed fare change are borne disproportionately by low-income populations.

Description of the Fare Change Proposal

At the beginning of the COVID-19 outbreak in March 2020, GoTriangle suspended bus fares to minimize contact between operators and the public, and to eliminate crowding while boarding the bus. This policy also helped ease the financial burden associated with boarding a bus. GoTriangle has continued this fare suspension through at least this fiscal year ending June 30, 2023. At its January 2023 meeting, the GoTriangle Board of Trustees voted to direct staff to complete a fare equity analysis to inform their consideration of returning to fare collection in FY 2024.

This analysis identifies the impacts of:

1. Reinstating fare collection using the fare structure that was approved by the GoTriangle Board of Trustees in May 2019
2. Reinstating the GoPass program, which allows employees and students of participating institutions to board the bus without paying a fare

GoTriangle Ridership Demographics Overview

This section provides an overview of the demographic characteristics of GoTriangle’s systemwide ridership based on GoTriangle’s most recent onboard survey, conducted in 2019. These demographic statistics were considered in the development of the proposed fare change in order to determine the potential for changes to result in Disparate Impacts on minority customers and/or a Disproportionate Burden on low-income customers.

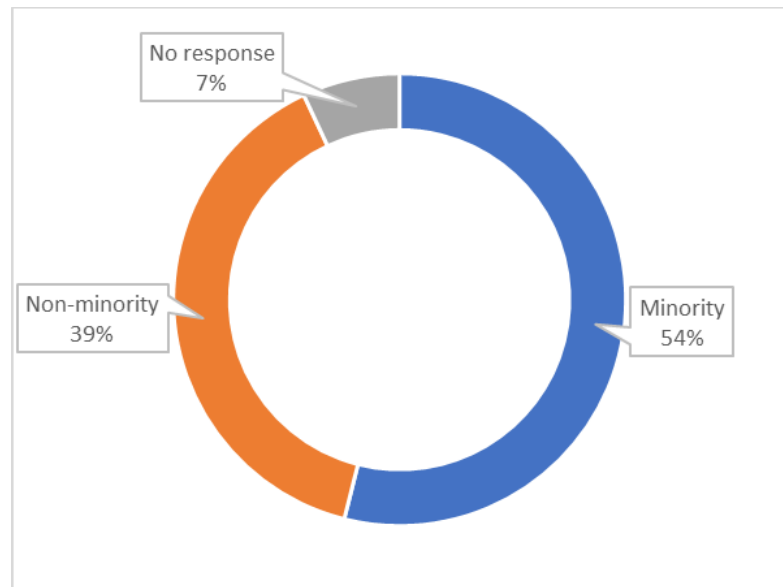
GoTriangle Ridership by Race/Ethnicity, 2019 Survey

Race/Ethnicity

The ethnicity categories in the 2019 survey were as follows:

1. African American/Black
2. Asian
3. Caucasian/White
4. Hispanic
5. Native American Indian
6. Other: _____

For purposes of this Fare Equity Analysis, minority populations are those who have not identified themselves as “White/Caucasian” in the survey.



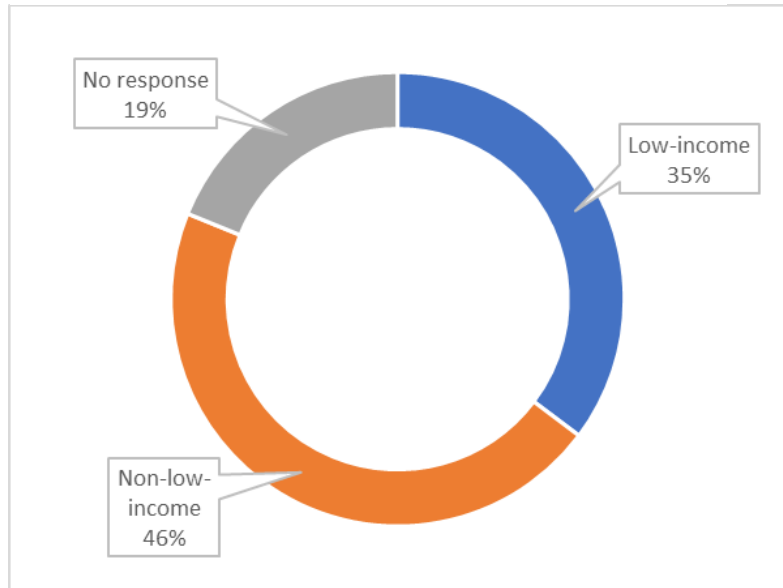
Income Definitions

The household income categories in the 2019 survey were as follows:

1. Less than 10,000
2. 10,000 to 14,999
3. 15,000 to 19,999
4. 20,000 to 24,999
5. 25,000 to 34,999
6. 35,000 to 49,999
7. 50,000 to 74,999
8. 75,000 to 99,999
9. More than 100,000

GoTriangle’s disproportionate burden policy defines low-income populations as “persons with household incomes below 150 percent of the poverty level for a regionally average household size.”

GoTriangle Ridership by Income, 2019 Survey



Federally defined poverty levels by household size and the corresponding 150 percent amount for each are included in the table below. The average household size in each of the three counties in GoTriangle’s service area is between two and three persons.¹ To provide a conservative analysis (including more people in the definition of low-income), the income level corresponding to a three-person household (\$31,995) was selected as the threshold for this analysis.

GoTriangle Ridership by Income, 2019 Survey

The threshold available in the 2019 survey data that corresponds most closely to the \$31,995 household income threshold is \$35,000. As such, responses indicating a household income less than \$35,000 were considered low-income.

Poverty Level Definitions

Household Size	Federally Defined Poverty Level	150% of Federally Defined Poverty Level
1	\$12,490	\$18,735
2	\$16,910	\$25,365
3	\$21,330	\$31,995
4	\$25,750	\$38,625
5	\$30,170	\$45,255
6	\$34,590	\$51,885
7	\$39,010	\$58,515
8	\$43,430	\$65,145

¹ According to data from the United States Census Bureau, the average size of households in the GoTriangle service area is as follows: 2.3 in Durham County, 2.47 in Orange County, and 2.59 in Wake County.

Household Size	Federally Defined Poverty Level	150% of Federally Defined Poverty Level
More than 8	For families/households with more than 8 persons, add \$4,420 for each additional person	For families/households with more than 8 persons, add \$6,630 for each additional person

***2019 Federal Poverty Level Definition²**

Ridership Demographics by Fare Payment Type

The tables below include a cross-tabulation of survey responses by fare type versus minority status, and fare type versus low-income status. Notable statistics include:

- Pre-pandemic, the GoPass was the most-used fare payment type across all customer categories
- Minority customers and low-income customers were more likely than non-minority and non-low-income customers to use cash fare, day-pass, and 7-day or 31-day pass

Fare Payment Type vs Minority Status

Fare Payment Type	Minority	Non-minority	No response	All Customers
Cash	23.2%	13.1%	9.7%	18.3%
Daypass	15.3%	7.0%	7.4%	11.5%
7-day or 31-day pass	9.9%	6.9%	8.0%	8.6%
Pre-covid GoPass	47.0%	68.9%	32.6%	54.6%
Free senior fare	2.8%	2.4%	1.1%	2.5%
No response	1.8%	1.5%	41.1%	4.4%
Grand Total	100.0%	100.0%	100.0%	100.0%

Fare Payment Type by Income Status

Fare Payment Type	Low-income	Non-low income	No response	All Customers
Cash	24.6%	13.4%	18.6%	18.3%
Daypass	17.6%	8.2%	8.2%	11.5%
7-day or 31-day pass	11.5%	6.7%	7.8%	8.6%
Pre-covid GoPass	40.6%	69.4%	44.6%	54.6%
Free senior fare	3.5%	1.4%	3.6%	2.5%
No response	2.1%	1.0%	17.1%	4.4%
Grand Total	100.0%	100.0%	100.0%	100.0%

² The federal poverty level (FPL), also known as the "poverty line," is the **amount of annualized income earned by a household**, below which they would be eligible to receive certain welfare benefits. While the U.S. Census Bureau computes the poverty threshold, the Dept. of Health and Human Services (HHS) publishes the FPL.

Average Fare Cost per Boarding Analysis

Current and Proposed Fares Overview and Inputs

In March 2020, GoTriangle suspended bus fares to minimize contact between bus operators and the public, and to eliminate crowding while boarding the bus. This policy also helped ease the financial burden associated with boarding a bus. GoTriangle has previously committed to continuing to suspend fares through at least June 30, 2023.

As part of the FY24 budget process, GoTriangle is considering ending the suspension and implementing the fare structure that the GoTriangle Board of Trustees had previously adopted in May 2019 for implementation along with mobile ticketing and fare capping, technology that automatically applies multi-ride discounts for frequent riders rather than requiring riders to purchase multi-ride passes ahead of time.

Fare Category	Fare Cost
Single-Ride Adult Fare - Regional	\$2.50
Single-Ride Adult Fare - Express	\$2.50
Single-Ride Disability Fare - Regional	\$1.25
Single-Ride Disability Fare - Express	\$1.25
Single-Ride Senior Fare - Regional	\$0.00
Single-Ride Senior Fare - Express	\$0.00
Stored Value Card - Regional	\$2.00
Stored Value Card - Express	\$2.00
Regional Day Pass	\$5.00
Regional 7-Day Pass	\$24.00
Regional 31-Day Pass	\$80.00
Express Day Pass	\$5.00
Express 7-Day Pass	\$24.00
Express 31-Day Pass	\$80.00
University or Employer Provided GoPass	\$0.00

May 2019 Adopted Fare Structure

Considering GoPass as Discount Program

This method considers fare revenue received by GoTriangle for each boarding; in other words, GoPass as a discount program rather than zero fare. For the pre-pandemic GoPass, GoTriangle generally received revenue from partner institutions equivalent to 55% of the cash fare for each GoPass boarding.

With this methodology the expected average fare received by GoTriangle is \$1.38 for each GoPass boarding.

2019 Average Fare per Boarding

This analysis calculates average fare per boarding for different groups using data from the 2019 survey to better understand transit costs. This was done by adding up the fare cost relative to the fare usage including all types of fares, and dividing it by the total number of fare usages, also including all fare types, for that group. An example calculation is included in the table below. This methodology provides a calculation of the average fare cost per boarding for each group, which can help provide insight into the financial burden of transit for different groups relative to the Board policy thresholds.

	Example Group A	Example Group B
Example Total Fare Cost	\$1,500	\$2,000
Example Total Fare Usage	460 Riders	560 Riders
Example Average Fare per Boarding	\$3.26	\$3.57

Disparate Impact Analysis

Typically, a disparate impact analysis compares the percentage increase in fares for minority customers with the percentage increase in fares for non-minority customers. In this case, because the current fare is zero, the absolute increase (rather than percentage increase) is used in the analysis, and the results are compared for minority and non-minority customers.

Without mitigation, the fare proposal to return to fares would expect to result in a fare increase for minority customers that is 8% higher for non-minority customers.

Based on the 2019 GoTriangle On-Board Survey data, minority riders had an average fare per boarding of \$1.62, while non-minority riders had an average fare per boarding of \$1.49, which included all fare types used to board the bus. The tables below include the detailed calculations for how each fare type cost affects the average for per boarding amount.

Disparate Impact Analysis

	Minority	Non-minority	No response	System Average
Existing Fare Per Boarding	\$0.00	\$0.00	\$0.00	\$0.00
2019 Average Fare per Boarding	\$1.62	\$1.49	\$1.53	\$1.57
% of System Average Increase	103%	95%	98%	
Difference	+8%			

Race/Ethnic Group Fare Usage per the 2019 GoTriangle On-Board Survey

Row Labels	Minority		Non-minority		No response		All Customers	
Cash	314	68%	129	28%	17	3%	460	100
Day Pass	207	72%	69	24%	13	4%	289	100
7-day or 31-day pass	134	62%	68	31%	14	6%	216	100
Pre-covid GoPass	637	46%	676	49%	57	4%	1370	100
Free senior fare	38	59%	24	38%	2	3%	64	100
Grand Total	1330	55%	966	42%	103	4%	2399	100

Race/Ethnic Group Total Fare Cost relative to Fare Usage & Average Cost per Boarding per the 2019 GoTriangle On-Board Survey

Row Labels	Minority		Non-minority		No response		All Customers	
Cash	\$785.0	68%	\$322.50	28%	\$42.50	3%	\$1,150.0	%100
Daypass	\$345.0	72%	\$115.00	24%	\$21.67	4%	\$481.67	%100
7-day or 31-day pass	\$148.8	62%	\$75.56	31%	\$15.56	6%	\$240.00	%100
Pre-covid GoPass	\$875.8	46%	\$929.50	49%	\$78.38	4%	\$1,883.7	100%
Free senior fare	\$0.00	59%	\$0.00	38%	\$0.00	3%	\$0.00	100%
Grand Total	\$2,154.76	55%	\$1,442.5	42%	\$158.10	4%	\$3,755.4	100%

Disproportionate Burden Analysis

Typically, a disproportionate burden analysis compares the percentage increase in fares for low-income customers with the percentage increase in fares for non-low-income customers. In this case, because the current fare is zero, the absolute increase (rather than percentage increase) is used in the analysis, and the results are compared for low-income and non-low-income customers.

Without mitigation, the fare proposal would be expected to result in a fare increase for low-income customers that is 7% higher for non-low-income customers.

Based on the 2019 GoTriangle On-Board Survey data, low-income riders had an average fare per boarding of \$1.63, while non-low-income riders had an average fare per boarding of \$1.51, which included all fare types used to board the bus. The tables below include the detailed calculations for how each fare type cost affects the average for per boarding amount.

Disproportionate Burden Analysis

	Low income	Non-low income	No response	System Average
Existing Fare Per Boarding	\$0.00	\$0.00	\$0.00	\$0.00
2019 Average Fare per Boarding	\$1.63	\$1.51	\$1.57	\$1.57
% of System Average Increase	104%	97%	100%	
Difference	+7%			

Income Group Fare Usage per the 2019 GoTriangle On-Board Survey

	Low income		Non-low income		No response		All Customers	
Cash	218	47%	154	33%	88	19%	460	100%
Daypass	156	54%	94	33%	39	13%	289	100%
7-day or 31-day pass	102	47%	77	36%	37	17%	216	100%

	Low income		Non-low income		No response		All Customers	
Pre-covid GoPass	359	26%	800	58%	211	15%	1370	100%
Free senior fare	31	48%	16	25%	17	27%	64	100%
Grand Total	866	36%	1141	48%	392	16%	2399	100%

Income Group Total Fare Cost relative to Fare Usage & Average Cost per Boarding per the 2019 GoTriangle On-Board Survey

	Low income		Non-low income		No response		All Customers	
Cash	\$545.00	47%	\$385.00	33%	\$220.00	19%	\$1,150.00	100%
Daypass	\$260.00	54%	\$156.67	33%	\$65.00	13%	\$481.67	100%
7-day or 31-day pass	\$113.33	47%	\$85.56	36%	\$41.11	17%	\$240.00	100%
Pre-covid GoPass	\$493.63	26%	\$1,100.00	58%	\$290.13	15%	\$1,883.75	100%
Free senior fare	\$0.00	48%	\$0.00	25%	\$0.00	27%	\$0.00	100%
Grand Total	\$1,411.96	36%	\$1,727.22	48%	\$616.24	16%	\$3,755.42	100%

Conclusions

Returning to fares does not trigger disproportionate impact or disparate impact findings. However, GoTriangle staff is committed to exploring voluntary mitigation options to reduce the gap between the low-income and non-low-income groups and the minority and non-minority groups if GoTriangle returns to collecting fares. A description of recommended voluntary mitigation measures are included in the addendum to this report.

Mitigation Addendum

In Title VI, mitigation refers to actions taken by recipients of federal funding, such as transit agencies, to address any adverse impacts of their programs or activities on individuals or communities protected by Title VI (i.e., those who belong to a race, color, or national origin group). Mitigation measures can include steps to eliminate, reduce, or avoid any discriminatory effects of a program or activity, or to provide compensatory benefits to affected individuals or communities. For example, a transit agency may undertake a fare equity analysis to ensure that its fare policies do not disproportionately burden low-income and minority riders and may implement fare subsidy programs or other measures to address any such disparities. Even though no disproportionate burden or disparate impacts meeting GoTriangle's board-established thresholds were found in the Title VI Fare Equity Analysis, voluntary mitigation strategies are still suggested to minimize the impact of returning to fares on low-income customers and increase usage of the GoPass program by low-income and minority customers.

Mitigation Baseline – Implement Board Approved Fare Capping

In 2019, the Board approved a proposal that would introduce mobile ticketing and fare capping, technology that automatically applies multi-ride discounts for frequent riders rather than requiring riders to purchase multi-ride passes ahead of time. Fare capping sets a maximum limit on the amount each passenger pays for rides within a specific timeframe. This ensures that a rider paying fares incrementally each time they ride does not pay more relative to customers who purchase bulk daily, weekly, or monthly passes in advance. It promotes social equity, affordability, encourages public transportation over private vehicles, reduces traffic congestion and pollution, increases customer satisfaction, and helps to stabilize revenue for transportation agencies.

If GoTriangle returns to fare collection, staff is prepared to launch its mobile ticketing program with fare capping. Riders will have the option to use a smartphone app for payment, or obtain a physical card to access the program. Physical cards and in-app accounts can be pre-loaded with funds online using credit or debit cards, and can be loaded with cash at a network of retail partners including Walmart, Dollar General, and CVS.

Riders will continue to have the option of paying fares with cash without an account, but in that case would not benefit from fare capping discounts.

Mitigation #1 – Create low-income GoPass pilot program through partnerships with Health and Human Services, Housing Authorities, and/or Jobs Access Programs

Providing GoPasses to riders who qualify based on income verification is a key opportunity for GoTriangle to support low-income customers and ensure that public transportation remains accessible for everyone in the community without fare being barrier. These passes would ensure that riders maintain to access job opportunities, medical appointments, and other vital resources that may otherwise become difficult or impossible to reach without affordable, reliable transportation.

GoTriangle did not previously have GoPass partnerships with jobs access programs, low-income housing providers, or major health and human services agencies. Nationally, these agencies are often key purchasers of transit fares and passes to help remove transportation barriers to new job opportunities.

GoTriangle staff has already begun exploring the potential for partnerships with agencies serving low-income residents to identify opportunities for collaboration and develop strategies to include them as GoPass customers. If a decision is made to return to fare collection, staff will seek funding for a low-income GoPass pilot program through the county transit plans.

Mitigation #2 – Expand traditional GoPass program to include employers and institutions with higher proportions of minority and low-income employees.

The GoPass is a critical program for GoTriangle’s budget and has been successful in supporting ridership for major employers, particularly the region’s major institutions including UNC, Duke University, NCSU, and state government. However, historically, non-low-income and non-minorities were more likely to use the GoPass.

If a decision is made to return to fare collection, GoTriangle will broaden the traditional GoPass program to be accessible to more employers (not just large employers) and other types of groups (residential complexes, community groups, etc), and develop strategies to market the program more broadly. GoTriangle will also develop outreach strategies to market the program specifically to lower-wage employers and employees, institutions, and groups with higher ratios of minority populations.