

b. Fare Equity Analysis

(1) Fare Changes. The fare equity analysis requirement applies to all fare changes regardless of the amount of increase or decrease. As with the service equity analysis, FTA requires transit providers to evaluate the effects of fare changes on low-income populations in addition to Title VI-protected populations.

(a) Exceptions.

(i) “Spare the air days” or other instances when a local municipality or transit agency has declared that all passengers ride free.

(ii) Temporary fare reductions that are mitigating measures for other actions. For example, construction activities may close a segment of a rail system for a period of time and require passengers to alter their travel patterns. A reduced fare for these impacted passengers is a mitigating measure and does not require a fare equity analysis.

(iii) Promotional fare reductions. If a promotional or temporary fare reduction lasts longer than six months, then FTA considers the fare reduction permanent and the transit provider must conduct a fare equity analysis.

(2) Data Analysis. For proposed changes that would increase or decrease fares on the entire system, or on certain transit modes, or by fare payment type or fare media, the transit provider shall analyze any available information generated from ridership surveys indicating whether minority and/or low-income riders are disproportionately more likely to use the mode of service, payment type, or payment media that would be subject to the fare change. Notably, Census data will not be effective data for fare analyses, since it is impossible to know, based on Census data, what fare media people are using. The transit provider shall describe the dataset(s) the transit provider will use in the fare change analysis. This section shall also describe what techniques and/or technologies were used to collect the data. The transit provider shall—

(i) Determine the number and percent of users of each fare media being changed;

(ii) Review fares before the change and after the change;

(iii) Compare the differences for each particular fare media between minority users and overall users; and

(iv) Compare the differences for each particular fare media between low-income users and overall users.

Please see Appendix K for a sample analysis.

(3) Assessing Impacts. Transit providers shall evaluate the impacts of their proposed fare changes (either increases or decreases) on minority and low-income populations separately, using the following framework:

- (a) Minority Disparate Impact Policy. The transit provider shall develop a policy for measuring disparate impact to determine whether minority riders are bearing a disproportionate impact of the change between the existing cost and the proposed cost. The impact may be defined as a statistical percentage. The disparate impact threshold must be applied uniformly, regardless of fare media, and cannot be altered until the next Title VI Program submission.
- (b) Public Participation Process. The transit provider shall engage the public in the decision-making process to develop the disparate impact threshold.
- (c) Modification of Proposal. If the transit provider finds potential disparate impacts and then modifies the proposed changes in order to avoid, minimize or mitigate those impacts, the transit provider must reanalyze the proposed changes in order to determine whether the modifications actually removed the potential disparate impacts of the changes.
- (d) Finding a Disparate Impact on the Basis of Race, Color, or National Origin. If a transit provider chooses not to alter the proposed fare changes despite the disparate impact on minority ridership, or if the transit provider finds, even after the revisions, that minority riders will continue to bear a disproportionate share of the proposed fare change, the transit provider may implement the fare change only if:
- the transit provider has a substantial legitimate justification for the proposed fare change, **and**
 - the transit provider can show that there are no alternatives that would have a less disparate impact on minority riders but would still accomplish the transit provider's legitimate program goals.

It is important to understand that in order to make this showing, the transit provider must consider and analyze alternatives to determine whether those alternatives would have less of a disparate impact on the basis of race, color, or national origin, and then implement the least discriminatory alternative.

- (e) Examining Alternatives. If the transit provider determines that a proposed fare change will have a disparate impact, the transit provider shall analyze the alternatives (identified in the second bullet above) to determine whether alternatives exist that would serve the same legitimate objectives but with less of a disparate effect on the basis of race, color, or national origin. The existence of such an alternative method of accomplishing the transit provider's substantial and legitimate interests demonstrates that the disparate effects can be avoided by adoption of the alternative methods without harming such interests. In addition, if evidence undermines the legitimacy of the transit provider's asserted justification—that is, that the justification is not supported by demonstrable evidence—the disparate effects will violate Title VI, as the lack of factual support will indicate that there is not a substantial legitimate justification for the disparate effects. At that point, the transit provider must revisit the fare changes and make

adjustments that will eliminate unnecessary disparate effects on populations defined by race, color, or national origin. Where disparate impacts are identified, the transit provider shall provide a meaningful opportunity for public comment on any proposed mitigation measures, including any less discriminatory alternatives that may be available.

- (f) Low-Income Disproportionate Burden Policy. The transit provider shall develop a policy for measuring the burden of fare changes on low-income riders to determine when low-income riders are bearing a disproportionate burden of the change between the existing fare and the proposed fare. The impact may be defined as a statistical percentage. The disproportionate burden threshold must be applied uniformly, regardless of fare media, and cannot be altered until the next program submission.
 - (i) The transit provider shall engage the public in the decision-making process to develop the disproportionate burden threshold.
 - (ii) At the conclusion of the analysis, if the transit provider finds that low-income populations will bear a disproportionate burden of the proposed fare change, the transit provider should take steps to avoid, minimize or mitigate impacts where practicable. The transit provider should describe alternatives available to low-income populations affected by the fare changes.
- c. Service and Fare Equity Analysis for New Starts and Other New Fixed Guideway Systems. Transit providers that have implemented or will implement a New Start, Small Start, or other new fixed guideway capital project shall conduct a service and fare equity analysis. The service and fare equity analysis will be conducted six months prior to the beginning of revenue operations, whether or not the proposed changes to existing service rise to the level of “major service change” as defined by the transit provider. All proposed changes to parallel or connecting service will be examined. If the entity that builds the project is different from the transit provider that will operate the project, the transit provider operating the project shall conduct the analysis. The service equity analysis shall include a comparative analysis of service levels pre-and post- the New Starts/Small Starts/new fixed guideway capital project. The analysis shall be depicted in tabular format and shall determine whether the service changes proposed (including both reductions and increases) due to the capital project will result in a disparate impact on minority populations. The transit provider shall also conduct a fare equity analysis for any and all fares that will change as a result of the capital project.

Fare Changes: The FTA Circular 4702.1B, requires that recipients of Federal Transit Administration funding prepare and submit fare equity analyses for all proposed fare changes. The purpose of this policy is to identify when the adverse effects of a fare change are borne disproportionately by low income or minority populations.

Fare/ Equity Policy

Purpose of the Policy

The FTA Circular 4702.1B, requires that recipients of Federal Transit Administration funding prepare and submit fare equity analyses for all proposed fare changes. The purpose of this policy is to identify when the adverse effects of a fare change are borne disproportionately by low income or minority populations.

Basis for Policy Standards

Periodically, Metro Transit will make adjustments to transit fares in order to generate revenues to help sustain transit service operations. Federal law requires Metro Transit to prepare and submit fare equity analyses for all potential transit fare adjustments, as outlined in Federal Transit Administration (FTA) Circular 4702.1B, effective October 1, 2012.

Policy

The following is Metro Transit's policy for determining if a fare adjustment will result in a minority disparate impact or low-income disproportionate burden.

A. Minority Disparate Impact Policy (Fare Equity Analysis)

If a planned transit fare adjustment results in more than a 5% increase to a fare type that has been identified as being used by a minority population as compared to the lowest proposed percentage increase of a non-minority fare type, then it will be considered a minority disparate impact.

Example: If the lowest increase of a non-minority fare item is 10%, then Metro staff will strive to ensure that no non-minority fare type is raised by no more than 15%.

If an adjustment is considered to have a disparate impact, staff will look at alternative adjustments to minimize or eliminate it entirely. In the example above, pricing would be adjusted to ensure all minority fare types would be increased by no more than 15%.

B. Low-Income Disproportionate Burden Policy (Fare Equity Analysis)

If a planned transit fare adjustment results in more than a 5% increase to a fare type that has been identified as being used by a low income population, as compared to the lowest proposed percentage increase of a fare type that is considered non-low-income, then the resulting effect will be considered a low-income disproportionate burden.

Example: If the lowest increase of a non-low income fare item is 10%, then Metro staff will strive to ensure that any low-income fare type is raised by no more than 15%.

If an adjustment is considered to cause a disparate impact, staff will look at alternative adjustments to minimize or eliminate it entirely. In the example above, pricing would be adjusted to ensure all low-income fare types would be increased by no more than 15%.

Metro uses the 2013 poverty guideline in determining which households/riders are considered to be low income.

Table 11

The 2013 Poverty Guidelines for the 48 Contiguous States and the District of Columbia calculated at 150%	
Persons in family	Poverty guideline
1	\$17,235
2	23,265
3	29,295
4	35,325
5	41,355
6	47,385
7	53,415
8	59,445
For families with more than 8 persons, add \$6,030 for each additional person.	

How will Metro staff determine if a fare increase causes a minority disparate impact or low income disproportionate burden?

Metro Transit conducted an On-Board Survey in 2008. Questions were asked about fare type, racial identity, and income level. Information gathered is limited with the only fare question being asked was whether a respondent had paid with cash, a pass, or a 10-ride ticket. Below are summary tables showing the results from the survey.

Table 12: Percentage of Fare Usage by Income Level

Income	Fare type		
	Cash	Pass	10-ride
1. Under \$9,999	16%	74%	9%
2. \$10,000 - \$24,999	14%	77%	9%
3. \$25,000 - \$49,999	12%	75%	13%
4. \$50,000 - \$74,999	10%	74%	16%
5. \$75,000 - \$99,999	7%	76%	17%
6. \$100,000 and more	9%	70%	21%
	11%	74%	14%

Table 13: Percentage of Fare Usage by Racial Identity

Racial Identity	Fare type		
	Cash	Pass	10-ride
1. African/American	14%	62%	24%
2. Native American	8%	65%	27%
3. White	5%	76%	19%
4. Hispanic	7%	83%	11%
5. Asian/Pacific Islander	3%	86%	12%

In order to provide a more complete and detailed analysis, Metro will need to conduct a new and much more in-depth customer survey which will include questions about fare payment use across income and racial categories.

Staff hope to use Transport 2020 to secure funding to administer this survey and gather detailed data on which riders are using each fare type.

Determining a Disparate Impact

Once this new data has been collected, staff will need to establish whether a particular fare category should be considered as “minority use” or “non-minority use”.

Staff will use the following definition to determine these categories.

If a fare category has a 5% greater minority than non-minority ridership staff will consider it to be a “minority use” fare type.

Sample data below demonstrates how Metro proposes to identify this “minority use” fare type.

Count Fare Type	Ethnicity		Total Riders	Percentage Minority	Percentage Non-Minority
	Minority	Non-Minority			
Cash	10,000	5,000	15,000	66	33.3
Youth Cash	8,000	3,000	11,000	73	27
Disabled/Senior Cash	6,000	2,000	8,000	75	25
Child (under 5)	100	50	150	66	33.3
31 Day Pass	20,000	8,000	28,000	28.6	71.42
31 Day Senior/Disabled Pass	4,000	6,000	10,000	40	60
31 Day Pass Low Income	2,000	2,200	4,200	47.6	52.538
One-Day Pass	1,000	1,500	2,500	40	60
EZ Rider Youth Pass	3,000	2,000	5,000	60	40
Summer Youth Pass	500	200	700	71.4	28.6
Day Tripper Pass	3,000	1,000	4,000	75	25
Adult 10-ride card	13,000	15,000	28,000	46.4	53.5
Youth 10-ride card	15,000	10,000	25,000	60	40
Senior/Disabled 10-ride card	500	200	700	71.4	28.6

Fare types shaded yellow indicate that minority ridership is 5% or more higher than non-minority ridership for that fare type. These fare types will be designated as “minority use” fare types.

Once staff have designated “minority use” fare categories, we will then compare the percentage increase of “minority use fares” versus “non-minority use fares”.

If a “minority use fare” increases more than 5%, compared to the lowest percentage increase of “non-minority fare”, then it will be considered a disparate impact.

Sample data below demonstrates how Metro proposes to identify a minority use fare that increases more than 5% compared to the lowest percentage increase of a non-minority fare.

Proposed Fare Increase	Ethnicity		Percentage Increase	Disparate Impact?
	Current	Proposed		
Cash	2.00	2.50	25	yes
Youth Cash	1.25	1.75	40	yes
Disabled/Senior Cash	1.00	1.25	25	yes
Child (under 5)	free	free	0	
31 Day Pass	58.00	60.00	3.4	
31 Day Senior/Disabled Pass	29.00	35.00	20.7	
31 Day Pass Low Income	27.50	30.00	9	
One-Day Pass	4.50	5.00	11.1	
EZ Rider Youth Pass	150.00	175.00	16.6	yes
Summer Youth Pass	30.00	40.00	33.3	yes
Day Tripper Pass	42.00	50.00	19	yes
Adult 10-ride card	15.00	18.00	20	
Youth 10-ride card	10.00	12.00	20	yes
Senior/Disabled 10-ride card	10.00	13.00	30	yes

Yellow shaded fare types are considered “minority fares”.
White shades are “non-minority fares”.

Established Threshold of Lowest Percentage Increase of a Non-Minority Fare

The sample proposal above shows that the 31 Day Low Income Pass increased 9%, the lowest percentage increase of all non-minority fares.

If a proposed fare increase results in more than a 5% increase in a minority fare type as compared to this 9% lowest percentage increase of the non-minority fare type (14% or higher), then Metro will consider this a disparate impact on minority fare users.

If a disparate impact is identified, staff will adjust the fare increase so that all minority fares are within 5% of the lowest percentage increase of non-minority fares.

Sample data below provides an example of how Metro would adjust its fare increase proposal so that all minority fare types would increase no more than 5% as compared to the lowest percentage increase of a non-minority fare type.

Proposed Fare Increase	Pricing		Percentage Increase	Disparate Impact?
	Current	Proposed		
Cash	2.00	2.25	12.5	no
Youth Cash	1.25	1.35	8	no
Disabled/Senior Cash	1.00	1.15	15	no
Child (under 5)	free	free	0	
31 Day Pass	58.00	63.50	9.4	
31 Day Senior/Disabled Pass	29.00	35.00	20.7	
<i>31 Day Pass Low Income</i>	<i>27.50</i>	<i>30.00</i>	9	
One-Day Pass	4.50	5.00	11.1	
EZ Rider Youth Pass	150.00	175.00	13.3	no
Summer Youth Pass	30.00	34.00	13.3	no
Day Tripper Pass	42.00	47.00	11.9	no
Adult 10-ride card	15.00	18.00	20	
Youth 10-ride card	10.00	11.00	10	no
Senior/Disabled 10-ride card	10.00	11.00	10	no

Yellow shaded fare types are considered “minority fares”.
White shades are “non-minority fares”.

If an adjustment to eliminate any potential disparate impacts can’t be made, Metro staff will bring their findings to the Madison Transit and Parking Commission for its review.

Determining a Disproportionate Burden

Once new data has been collected, staff will need to establish whether a particular fare category should be considered “low income use” or “non-low-income use”.

If a fare category has ridership identified as low income that is 5% or more greater than those identified as non-low income staff will consider it to be a “low income use” fare type.

Sample data below demonstrates how Metro proposes to identify this “low income use” fare type.

Metro Sample Income Status by Fare Type

Count	Income Status		Total Riders	Percentage Low Income	Percentage Not Low Income
	Low Income	Not low income			
Cash	12,000	3,000	15,000	80	20
Youth Cash	5,000	8,000	13,000	38.5	61.5
Disabled/Senior Cash	4,000	4,000	8,000	50	50
Child (under 5)	100	50	150		
31 Day Pass	10,000	18,000	28,000	35.7	64.3
31 Day Senior/Disabled Pass	5,000	5,000	10,000	50	50
31 Day Pass Low Income	4,200	0	4,200	100	0
One-Day Pass	1,500	1,000	2,500	60	40
EZ Rider Youth Pass	1,000	4,000	5,000	20	80
Summer Youth Pass	100	600	700	14.2	85.7
Day Tripper Pass	1,000	3,000	4,000	25	75
Adult 10-ride card	10,000	18,000	28,000	35.7	64.3
Youth 10-ride card	18,000	7,000	25,000	72	28
Senior/Disabled 10-ride card	600	100	700	85.7	14.3

Fare types shaded in light blue indicate that low income ridership is 5% or more higher than non-low income ridership for that fare type. Blue shaded fare types meet this threshold. These fare types will be designated as “low income use” fare types.

Once staff have designated “low income use” fares, they will then use adjusted pricing as determined above by its disparate impact analysis and compare the percentage increase of “low income use fares” versus “not low income use fares”.

If a “low income use” fare increases more than 5%, compared to the lowest percentage increase of “not low income” fare, then it will be considered a disproportionate burden.

Sample data below demonstrates how Metro proposes to identify a low income use fare that increases more than 5% of the lowest percentage increase of a non-low income fare.

Proposed Fare Increase	Pricing		Percentage Increase	Disparate Impact?
	Current	Proposed		
Cash	2.00	2.25	12.5	no
Youth Cash	1.25	1.35	8	
Disabled/Senior Cash	1.00	1.15	15	
Child (under 5)	free	free	0	
31 Day Pass	58.00	63.50	9.4	
31 Day Senior/Disabled Pass	29.00	35.00	20.7	
31 Day Pass Low Income	27.50	30.00	9	no
One-Day Pass	4.50	5.00	11.1	no
EZ Rider Youth Pass	150.00	175.00	13.3	
Summer Youth Pass	30.00	34.00	13.3	
Day Tripper Pass	42.00	47.00	11.9	
Adult 10-ride card	15.00	18.00	20	
Youth 10-ride card	10.00	11.00	10	no
Senior/Disabled 10-ride card	10.00	11.00	10	no

Blue shaded fare types are considered “low income fares”.
White shades are “non-low income fares”.

Established Threshold of Lowest Percentage Increase of a Non-Low Income Fare Type

The sample proposal above shows that the youth cash fare increased 8%, the lowest percentage increase of all non-low income fares.

If a proposed increase results in a 5% larger increase in low income use fares as compared to this 8% lowest percentage increase of non-minority fares (13% increase or higher), then Metro will consider this a disproportionate burden on low income riders.

Sample data above indicates none of the low income fares increased by more than 13%, and as a result, none are considered to place a disproportionate burden on low income riders.

If increases were identified that did cause a disproportionate burden, staff would adjust the fare increase so that all low income fares would not exceed an increase of 5% as compared to the lowest percentage increase of a non-low income fare.

If an adjustment to eliminate any potential disproportionate burdens can't be made, Metro staff will bring their findings to the Madison Transit and Parking Commission for its review.



Metro's Fare Equity Policy – Identifying Equity Sensitive Fares

Metro's Fare Equity Policy was established and approved by the Transit and Parking Commission on April 9, 2014 to ensure that adverse effects of a fare change are not borne disproportionately by low income riders or people of color.

This policy outlines how to:

- Identify which fares are considered a low income or people of color use fare
- Ensure that these fares identified as low income or people of color use are not increased by more than 5% compared to other fare items

Using this policy, staff have determined the following are considered low income and people of color use fares:

- Cash
- 31-day pass
- 31-day senior/disabled pass
- Low Income pass
- EZ Rider pass

HOW EQUITY SENSITIVE FARES ARE DETERMINED

According to Metro's Fare Equity Policy, a fare category that has a 5 percent greater use by people of color, compared to other categories, will be identified as a people of color use fare. If a fare category has a 5 percent greater use by low income individuals, compared to other categories, it will be considered a low income fare.

LOW INCOME USE FARES

Metro uses 150 percent of the national poverty guideline to determine eligibility for its low income pass. For a household of one that would be \$17,655. The lowest two salary categories tabulated in the onboard survey were "less than \$15,000" and "less than \$35,000". Staff used "less than \$35,000" data to determine low income use fares.

Cash

Data shows cash was used by 21 percent of people categorized as low income. This compares to nine percent used by non-low income riders.

Cash is considered a low income use fare.



31-Day Passes

Data shows 18 percent of people categorized as low income used 31-day passes. This compares to 13 percent of non-low income riders using these passes.

31-Day Passes are considered a low income fare.

Senior/Disabled 31-Day Passes

Data was not gathered on specific use of the 31-day senior/disabled pass. Since this specific data is not available, staff considers senior/disable 31-day passes as low income use as well.

Senior Disabled 31-Day passes are considered a low income fare.

Low Income 31-Day Passes

Data shows 11 percent of riders categorized as low income used 31-day low income passes. That compared to one percent of people using the pass that didn't identify themselves as a low income riders.

Low Income 31-Day passes are considered a low income fare.

PEOPLE OF COLOR USE FARES

EZ Rider Passes

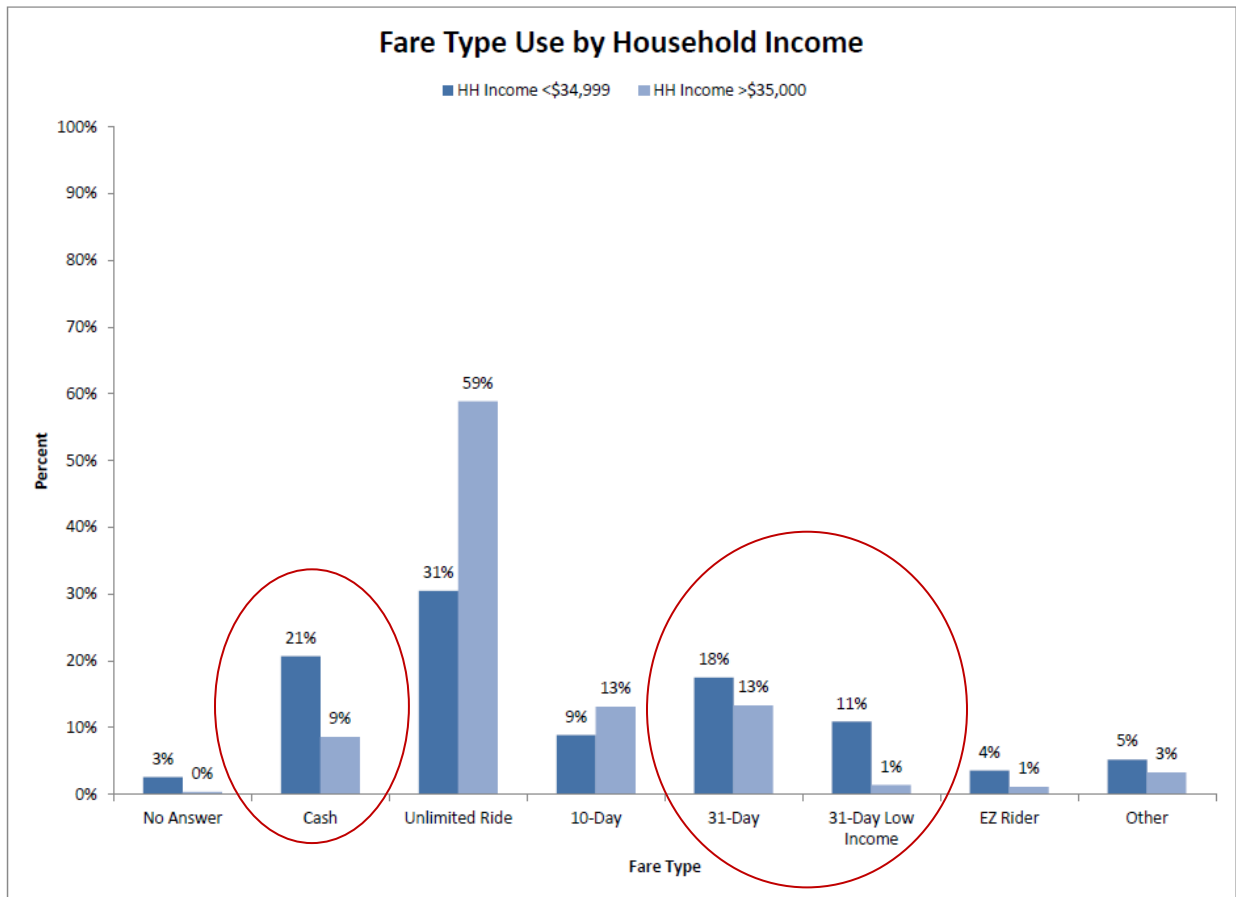
Data showed that 12.9 percent of people of color used EZ Rider passes compared to less than one percent of those not identified as people of color.

EZ Rider Passes are considered persons of color use fares.



Fare Use By Income

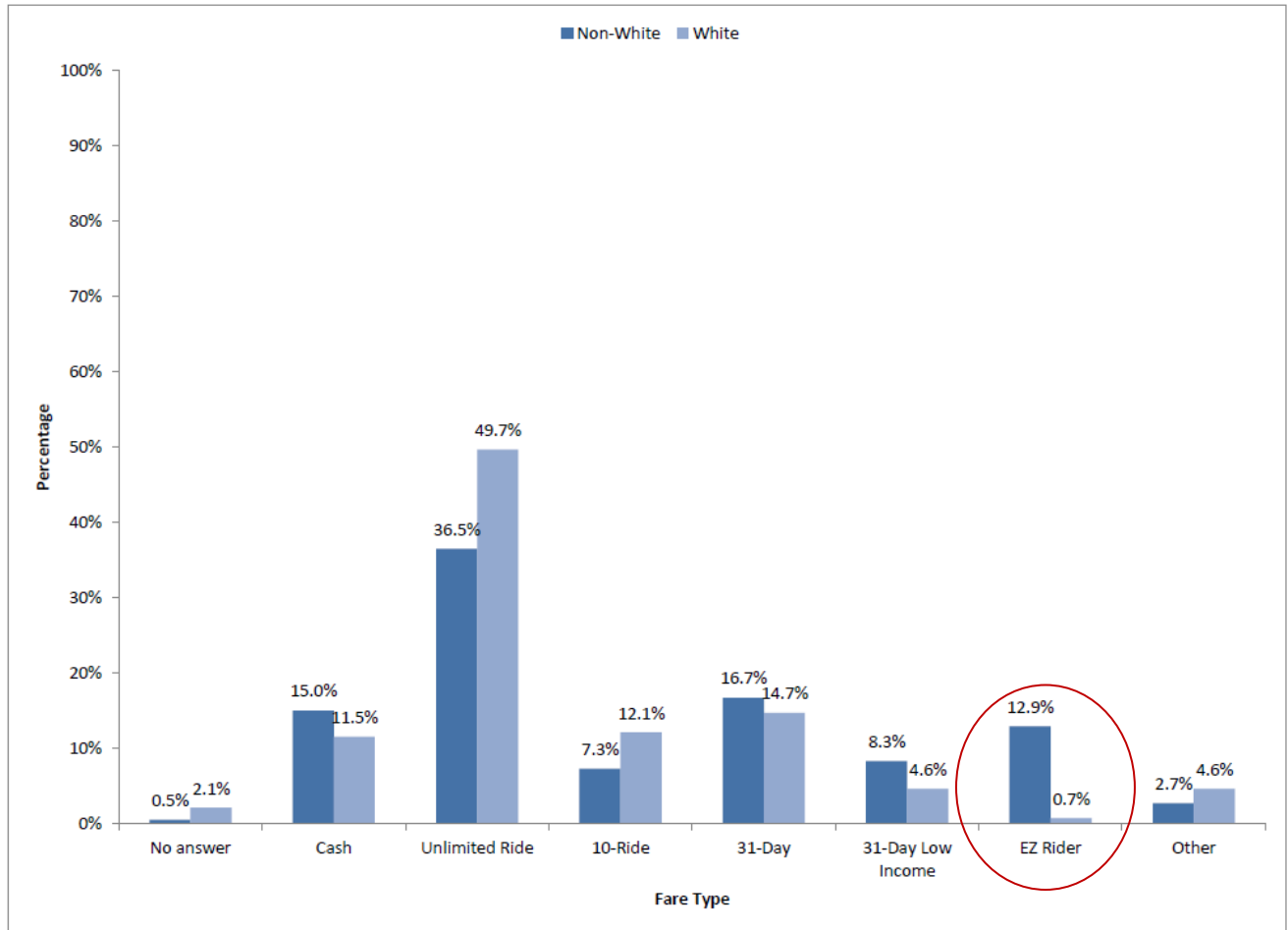
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Metro Transit On-Board Survey 2015 # of Respondents with Income <\$34,999: 6,315 # of Respondents with Income >\$35,000: 10,642
University Students not included in analysis.



Fare Use By Race



Metro Transit On-Board Survey 2015 Non-White Respondents: 5,934 White Respondents: 15,600 University students not included in analysis.