

**Ann Arbor Area Transportation Authority****Equity Analysis Policy****Draft – April 9, 2014**

The Ann Arbor Area Transportation Authority (AAATA) has been identified by the Federal Transit Administration (FTA) as a transit provider that operates 50 or more fixed-route vehicles in peak service and is located in an Urbanized Area of 200,000 or more in population. As a result the AAATA is subject to more rigorous requirements to evaluate the equity of proposed major service and fare changes as described in FTA Circular 4702.1B. In promulgating these requirements and guidelines, the FTA is acting under authority of federal law (Title VI of the Civil Rights Act of 1964 42 U.S.C §2000 et. seq.) and regulations (49 CFR part 21).

In the development of proposed service and fare changes in the past, the AAATA has reviewed the positive and negative effects, analyzed these effects on minority and low-income populations, and made modifications to reduce or eliminate the concentration of effects in one or more population groups. This has generally been done before any proposed change is announced for public input. The AAATA will continue this effort. In addition, AAATA will now undertake a more formal equity analysis of the proposed change, as required by FTA Circular 4702.1B. Using the following methodology, staff will:

- Measure the impact of proposed major service changes and proposed fare changes - positive and negative - on minority and low-income populations,
- Compare the impact with that on non-minority and non-low-income populations,
- Determine if a disparate impact on minority riders and/or disproportionate burden on low-income riders would result. If so, measures to avoid or mitigate the disparate impact and/or disproportionate burden will be identified and considered,
- This equity analysis will be made available to the public as part of the public input process carried out as described in the AAATA Public Input policy for Service and Fare Changes (2011).

**Definitions**

Definitions for the terms used in this document appear in Appendix 1, at the end.

**Equity Analysis**

FTA Circular 4702.1B does not specify a methodology for measuring disparate impacts. It requires that the AAATA Board adopt a policy to establish the methodology and a threshold for determining when adverse effects are borne disproportionately by minority or low-income

populations. This policy is required to be included as one element in a Title VI program submitted to FTA by October, 2014. After reviewing the program, the FTA will inform AAATA whether the policy and other elements of the program are in compliance or require revision.

In the interim, the AAATA is making a good-faith effort to comply with the revised requirements and guidelines in Circular 4702.1B. This is particularly important because the AAATA has just completed development of a 5-Year Transit Improvement Program which includes a substantial increase in service. In the development of this program to expand service, care has been taken to avoid adverse impacts. However, it is also important that AAATA analyze the program to determine if the benefits of the service improvement are unequally distributed which could result in disparate impact or disproportionate burden. The first phase of the 5-Year Transit Improvement Program is scheduled to be implemented in August, 2014 if a funding initiative is successful.

No other major service changes or fare changes are being considered during this period before submission of the Title VI Program.

## **Data Sources**

For each rider boarding a fixed-route bus, the AAATA records the method of fare payment. This information is used to calculate the cumulative effect of any proposed fare increase.

In October, 2013, CJI Research Inc. conducted a survey of riders on-board AAATA buses. The sample size is 3,522 riders and the survey has a sample error of plus or minus 1.6% for the sample as a whole. The survey included questions to identify the percentage of minority persons and household income for the system as a whole, and for routes, but not for route segments.

The 2010 Decennial Census includes basic information on population and race in relatively small geographic areas (block groups), but the census no longer includes information on income. Block groups will be used to determine which routes are minority transit routes, and for analysis of the effect on minority populations of changes to portions of routes. The American Community Survey (ACS) is an on-going statistical survey conducted by the Census Bureau which data on both race and income for census tracts, which are larger geographic units than block groups. ACS data will be used to determine low-income routes and the effect on low-income populations of proposed changes to portions of routes.

## **Determination of Disparate Impact/Disproportionate Burden**

### **Fare Change Analysis and Thresholds**

For any proposed change in fares, the effect on minority and non-minority riders will be calculated for each fare category by multiplying the amount of increase times the annual

riders using the fare category times the percentage of minority riders and non-minority riders. The additional payment for all fare categories will be totaled and compared for minority and non-minority riders. For illustration, the chart below shows a simplified version of the chart that will be used to perform this analysis.

Fare Category	Annual Riders	Current Fare	Proposed Increase	Pct. Minority Riders	Minority Cost Increase	Pct. Non-Minority	Non-Min. Cost Increase	Total Cost Increase
Full Fare	100,000	\$1.25	\$0.25	20.0%	\$5,000	80.0%	\$20,000	\$25,000
Student Fare	15,000	\$0.25	\$0.75	50.0%	\$5,625	50.0%	\$5,625	\$11,250
<b>Total</b>	<b>115,000</b>			<b>23.9%</b>	<b>\$10,625</b>	<b>76.1%</b>	<b>\$25,625</b>	<b>\$36,250</b>
<b>Pct. Of Total</b>					<b>29.3%</b>		<b>70.7%</b>	

Disparate impact exists if the minority population will bear 5% or more of the cumulative increase in fares than would be expected based on the percentage of minority persons in the population of riders. The 5% threshold was chosen to allow for a small difference in impact, but yield a finding of disparate impact if there is a significant difference in impact. In the simplified example above, minority riders are a larger percentage of students, and the student fare is proposed for a larger increase. The result is that minorities constitute 23.9% of total riders, but would pay 29.3% of the total increase. Because this difference is greater than the 5% threshold, a finding of disparate impact would be made.

The method of analysis for determining the relative impact of a proposed fare increase on low-income and non-low-income persons will be the same as the method described above for minority and non-minority riders. However, for AAATA it is appropriate to set the threshold for disproportionate burden lower. For many years, the AAATA fare structure has included a discount fare for low-income persons. The cash fare for low-income persons is half the rate of the full cash fare for the general population (In 2014, \$0.75 for low-income persons and \$1.50 for the general population). This policy ameliorates the effect of any proposed fare increase. As a result, the cumulative effect of any proposed fare increase on low-income persons is expected to be less than the cumulative effect on the non-low-income population. A finding of disproportionate burden will be made if low-income population will bear -10% or more of the cumulative increase in fares than would be expected based on the percentage of low-income persons in the population of riders. That is, low income riders must bear at least 10% less of the impact than their proportion of riders to avoid a finding of disproportionate burden.

## **Route Change Analysis and Thresholds**

The most common type of service change is a change on a particular route such as changing the streets used on a portion of the route or adjusting the timepoints. Such changes may have adverse effects on riders in portions of the route, even if the overall effect is positive. While the AAATA may know the number of riders adversely affected, the AAATA does not have data on minority or low-income ridership for portions of routes. For this reason census block data from the ACS will be used to analyze the effect on minority populations adjacent to the route. A finding of disparate impact is made if the percentage of minority population in block groups adjacent to the portion of the route with adverse effect is higher than the minority population in block groups adjacent to the route as a whole. For low-income populations, census tract data must be used. Disproportionate burden exists if the percentage of low-income population in census tracts adjacent to the portion of the route with adverse effect is more than 10% higher than the low-income population in census tracts adjacent to the route as a whole. The higher threshold is applied for this analysis because the larger size of the census tracts makes the areas affected less precise.

### **Analysis and Thresholds for Improvements in Service Level (including new or expanded routes):**

For service improvements at the route level, the basis for comparison is between the route(s) to be improved and the non-minority and non-low-income routes in the system as a whole.

- Increase in the frequency of a route or routes: A finding of disparate impact is made if a) the service improvement is on non-minority route(s), and b) after the change, the route(s) with changed service have a greater frequency of service than the majority of minority routes. Similarly, disproportionate burden exists if a) the service improvement is on non-low income route(s), and b) after the change, the route(s) with improved service have greater frequency of service than the majority of low-income routes.
- Increase in the span of service of a route or routes: A finding of disparate impact is made if a) the service improvement is on non-minority route(s), and b) after the change, the route(s) with increased span of service have a longer span of service than the majority of minority routes. Similarly, disproportionate burden exists if a) the service improvement is on non-low income route(s), and b) after the change, the route(s) with improved service have a longer span of service than the majority of low-income routes.
- Increase in the days of operation of a route or routes: A finding of disparate impact is made if a) the service improvement is on non-minority route(s), and b) after the change, the route(s) with increased days of service operate on days on which the majority of minority routes do not operate. Similarly, disproportionate burden exists

if a) the service improvement is on non-low income route(s), and b) after the change, the route(s) with increased days of service operate on days on which the majority of low-income routes do not operate.

### **Analysis and Thresholds for Reductions in Service Level:**

For service reductions at the route level, the basis for comparison is between the route(s) to be reduced and the non-minority and non-low-income routes in the system as a whole.

- Decrease in the frequency of a route or routes: A finding of disparate impact is made if a) the service reduction is on minority route(s), and b) after the change, the route(s) with changed service have less frequent service than the majority of non-minority routes. Similarly, disproportionate burden exists if a) the service reduction is on low-income route(s), and b) after the change, the route(s) with reduced service have less frequent service than the majority of non-low-income routes.
- Decrease in the span of service of a route or routes: A finding of disparate impact is made if a) the service reduction is on minority route(s), and b) after the change, the route(s) with decreased span of service have a shorter span of service than the majority of non-minority routes. Similarly, disproportionate burden exists if a) the service reduction is on low-income route(s), and b) after the change, the route(s) with reduced service have a shorter span of service than the majority of non-low-income routes.
- Decrease in the days of operation of a route or routes: A finding of disparate impact is made if a) the service reduction is on minority route(s), and b) after the change, the route(s) with decreased days of service do not operate on days on which the majority of non-minority routes do operate. Similarly, disproportionate burden exists if a) the service reduction is on low-income route(s), and b) after the change, the route(s) with decreased days of service do not operate on days on which the majority of non-low income routes do operate

### **Response to Finding Disparate Impact or Disproportionate Burden**

If disparate impact or disproportionate burden is found to exist in a proposed major service change or proposed fare change, staff will:

1. Review the objectives of the proposed change to determine if the evidence supports the legitimacy of the objectives. A lack of factual support would indicate that there is not a substantial legitimate justification for the disparate effects. In that case, the AAATA will revisit the proposed changes and make adjustments that will eliminate disparate or disproportionate effects.

2. Analyze the proposed change to determine if there are modifications or alternatives that will still accomplish the legitimate objectives while minimizing or eliminating the disparate impact or disproportionate burden. If such modifications or alternatives exist, the AAATA will revise the proposed change to have no disparate impact or disproportionate burden, or the minimum level that will achieve the legitimate objectives.
3. Document the process above for review by the public and Board of Directors. Where disparate or disproportionate effects remain, the AAATA will provide a written description which includes the substantial legitimate justification for the proposed service change and the analysis which shows that no alternatives exist that would accomplish the legitimate objectives with less disparate or disproportionate effects. The AAATA will provide a meaningful opportunity for public comment on this written description. Any comments will be considered by staff and all comments will be provided to the AAATA Board of Directors before a decision is made on the service or fare change.

## **Public Input in Development of Equity Analysis Policy**

The AAATA provided a draft copy of the Equity Analysis Policy for review and comment in December, 2013 and January, 2014 as follows:

- Posted on AAATA Website with a link and notice on the front page
- Published in the Ann Arbor News on December 15, 2013
- Sent to the following people and organizations
  - Ann Arbor NAACP
  - Ypsilanti NAACP
  - Another Ann Arbor (Participatory community that reflects the culture and concerns of African- Americans in Washtenaw County)
  - Washtenaw Housing Alliance (The Washtenaw Housing Alliance (WHA) is an unique coalition of thirty-five community-based organizations that serve those experiencing homelessness or those at risk of homelessness)
  - Jewish Family Services (Designated refugee and immigrant resettlement agency)
  - Barrier Busters of Washtenaw (a group of over 50 social service provider agencies that are committed to increasing communication and coordination between its member agencies, and improving services for Washtenaw County residents in need)
  - Jim Mogensen (citizen who has expressed an interest in AAATA's Title VI compliance)

The draft policy was discussed at the public meeting of the Planning and Development Committee of the AAATA Board of Directors. The board members made comments and recommendations on the draft policy. Detailed written comments were received from Mr.

Mogensen, and oral comments from two other members of the public. The AAATA considered the comments, and made revisions which are included in this revised the draft policy.

## Appendix 1 – Definitions

**Definitions (from FTA Circular 4702.1B)**

- a. Disparate impact refers to 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.
- b. Disproportionate burden refers to a neutral policy or practice that disproportionately affects low-income populations more than non-low-income populations. A finding of disproportionate burden requires the recipient to evaluate alternatives and mitigate burdens where practicable.
- c. Discrimination refers 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.
- d. Disparate treatment refers to actions that result in circumstances where similarly situated persons are intentionally treated differently (i.e., less favorably) than others because of their race, color, or national origin.
- e. Fixed route refers to public transportation service provided in vehicles operated along pre-determined routes according to a fixed schedule.
- f. Low-income person means a person whose median household income is at or below the U.S. Department of Health and Human Services (HHS) poverty guidelines.
- g. Low-income population refers to any readily identifiable group of low-income persons who live in geographic proximity, and, if circumstances warrant, geographically dispersed/transient persons (such as migrant workers or Native Americans) who will be similarly affected by a proposed FTA program, policy or activity.
- h. Minority persons include the following:
  - (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 persons of Cuban, Mexican, Puerto Rican, South or Central American, or other Spanish culture or origin, regardless of race.
- (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.
- i. Minority population means any readily identifiable group of minority persons who live in geographic proximity and, if circumstances warrant, geographically dispersed/transient populations (such as migrant workers or Native Americans) who will be similarly affected by a proposed DOT program, policy, or activity.
- j. Minority transit route means a route that has at least 1/3 of its total revenue mileage in a Census block or block group, or traffic analysis zone(s) with a percentage of minority population that exceeds the percentage of minority population in the transit service area. A recipient may supplement this service area data with route-specific ridership data in cases where ridership does not reflect the characteristics of the census block, block group, or traffic analysis zone.
- k. National origin means the particular nation in which a person was born, or where the person's parents or ancestors were born.
- l. Predominantly minority area means a geographic area, such as a neighborhood, Census tract, block or block group, or traffic analysis zone, where the proportion of minority persons residing in that area exceeds the average proportion of minority persons in the recipient's service area.
- m. Service standard/policy means an established service performance measure or policy used by a transit provider or other recipient as a means to plan or distribute services and benefits within its service area.

## Definitions (AAATA)

- n. Fare Change: Any change in fare level or fare eligibility except short-term promotional fares.
- o. Major Service Change:
- Change affecting more than 25% of riders on a fixed route, or
  - Change affecting more than 25% of the miles on a fixed route, or
  - Change on multiple routes affecting more than 10% of riders or route miles of overall fixed-route service.

- p. Types of Routes (The FTA definitions above includes a definition of ‘minority transit route.’ This definition includes various alternative ways to determine a minority route. The AAATA definition below is consistent with the FTA definition, but is more specific.)

Minority route - a fixed route with a higher percentage of minority riders or serving an area with a higher percentage of minority residents than the average for the fixed-route service as a whole.

Non-Minority route - a fixed route with an equal or lower percentage of minority riders or serving an area with a lower percentage of minority residents than the average for the fixed-route service as a whole.

Low income route - a fixed route with a higher percentage of low-income riders or serving an area with a higher percentage of low-income residents than the average for the fixed-route service as a whole.

Non-low income route - a fixed route with an equal or lower percentage of low-income riders or serving an area with a lower percentage of low-income residents than the average for the fixed-route service as a whole.

q. Service Periods and Days

The AAATA operates service on weekdays, Saturdays, and Sundays with different service levels on each. On weekdays, AATA operates different service levels during four periods:

- Morning peak (6 a.m. – 9 a.m.)
- Midday (9 a.m. – 3 p.m.)
- Afternoon peak (3 p.m. – 6 p.m.)
- Evening (6 p.m. – 12 a.m.).

In determining impacts from a service or fare change it is important to compare service during the appropriate service period.

r. Objectives

Objectives refer to the purposes which a major service change or fare change is proposed to accomplish. For a fare change, the objective may be to increase fare revenue by a specific amount or percentage, or to increase fare revenue from a category of users by a specific amount or percentage while keeping the loss of ridership less than a specific amount or percentage. For major service changes, the objective may be to increase the total population served, improve on-time performance by a specific percentage, or reduce service hours by a specific amount to reduce expenses.