

APPENDIX A

Existing Service Standards



Xpress Service Standards & Policies

Overview

The Georgia Regional Transportation Authority (GRTA) has been established to provide its jurisdiction with transportation choices in order to reduce dependence on single occupant automobiles. GRTA provides *Xpress* commuter transit service which is provided from outlying suburban areas at designated locations, such as park and ride facilities, to the central downtown Atlanta business district, MARTA rail stations and/or other key activity centers within the Atlanta metro region. The service operates with limited stops utilizing interstate highways and a network of high occupancy vehicle and high occupancy toll/*Xpress* lanes. The operation of *Xpress* commuter transit service is typically limited to the commute travel times each weekday between 5:30 am and 9:30 am and between 3:00 pm and 7:00 pm.

The primary purpose for maintaining service standards is to guide GRTA staff as to when service changes are necessary and ensure compliance with applicable federal guidelines. This document 1) sets GRTA's service standards and policies, 2) establishes a timeframe for monitoring them, 3) defines major service changes, and 4) establishes policies necessary to ensure the *Xpress* service does not create disparate impacts on minority populations nor pose disproportionate burdens on low-income populations.

Definitions

- a) **Headway** – The amount of time between two vehicles traveling in the same direction on a given line or combination of lines.
- b) **Frequency** – Number of buses per hour on a specified route calculated by dividing 60 minutes by the route headway. Twenty minute headway translates into a frequency of three buses per hour ($60/20 = 3$).
- c) **Inbound/Outbound Service** – Indicates the direction of a route, usually from a centralized base location, such as a central business district, rail station, or transfer center. *Xpress* buses, for instance, operate inbound from suburban park and ride lots to a rail station or major employment center. Outbound service would indicate the opposite direction of service.
- d) **Vehicle Load Factor** – The ratio of customers on board a bus compared to the number of available seats. For example, if a bus offers 57 seats and there are 63 customers on board, the load factor would be 1.10. Load factors greater than 1.0 indicate that customers are standing.

- e) **Farebox Recovery Ratio** – Total revenue generated by the ridership on a specified route divided by the operating cost for that route.
- f) **GRTA Operated Xpress Routes** – The *Xpress* routes that are operated under contract directly for GRTA. GRTA operated *Xpress* routes do not include *Xpress* routes that are operated by other FTA direct grantees including Cobb Community Transit (CCT) and Gwinnett County Transit (GCT). As of March 2013, the routes operated by CCT and/or GCT include the 410, 412, 418, 470, 475, 477, 480 and 481. These routes are subject to change. When conducting monitoring activities GRTA only evaluates GRTA operated *Xpress* routes.
- g) **Route** – The scheduled path traced by an *Xpress* bus with a number of specific stops over a consistent time frame.
- h) **Trip** – A single course of travel within a route.
- i) **Minority Route** – GRTA operated *Xpress* routes that, according to the most recent on-board customer survey, have a percentage of minority riders that is at least 15 percentage points higher than the average concentration of minority riders on all GRTA operated *Xpress* routes.
- j) **Peak Service** – *Xpress* service generally operated between 5:30am and 9:30am and between 3pm and 7:00pm.
- k) **Off-Peak Service** – *Xpress* service generally operated between 9:30am and 3pm and after 7:00pm.
- l) **Customers Per Trip** – The number of passengers on a trip.

***Xpress* Service Standards and Policies**

This section sets service standards and policies pertaining to:

- Trip and Route Productivity (Fare Box Recovery Ratio, Customers per Trip, Vehicle Load)
- Vehicle Headway
- On-Time Performance
- Service Availability
- Distribution of Transit Amenities
- Vehicle Assignment

In order to ensure compliance with Title VI regulations, GRTA will monitor the performance of GRTA operated *Xpress* routes relative to the above standards and policies at least once every three years.

Trip and Route Productivity Standards

Xpress commuter transit service typically relies upon travel at a relatively high rate of speed. In order to maximize safety, standees should be avoided. While up to 15 standees are permitted on an *Xpress* coach, the maximum desired vehicle load factor for an *Xpress* bus is

1.0. The number of trips for each route where passenger loads are greater than available seats is reviewed each month. Should standing loads occur on average more often than once per week for any route or trip, service modifications will be considered.

New routes take some time to attract ridership. General economic conditions, fuel costs, service design and the market for the service affect the time required for a new service to achieve acceptable ridership levels. Service standards have been established by year of operation so that new and existing services can be monitored for adequate progress in meeting service productivity standards. *Xpress* standards for trip and route productivity are as follows:

***Xpress* Trip and Route Productivity Standards**

Peak Service				
<i>Years of Operation</i>	<i>Year 1</i>	<i>Year 2</i>	<i>Year 3</i>	<i>Year 4 & Longer</i>
Minimum Fare Box Recovery Ratio	10%	15%	20%	25%
Minimum Customers per Trip	8	11	14	17
Maximum Vehicle Load Factor	1.00	1.00	1.00	1.00
Off-Peak Service				
<i>Years of Operation</i>	<i>Year 1</i>	<i>Year 2</i>	<i>Year 3</i>	<i>Year 4 & Longer</i>
Minimum Fare Box Recovery Ratio	5%	7.5%	10%	15%
Minimum Customers per Trip	5	7	9	10
Maximum Vehicle Load Factor	1.00	1.00	1.00	1.00

Trip and Route Productivity Improvement

The service standards above describe the minimum standards that GRTA will use to identify underperforming or unproductive service. Routes, route segments, or trips that are performing below at least one of the standards warrant comprehensive evaluation and corrective actions, and strategies that are intended to improve the productivity of specific service components may be pursued. Corrective measures may include the following:

- Increase marketing efforts or information dissemination

- Route redesign or segment rerouting
- Change the frequency of service
- Change the hours of service
- Change the days that the service is provided
- Eliminate unproductive service, which may include an entire route, route segment or specific trips operated on a route
- Alter fares or fare structure

Vehicle Headway

Vehicle headway is the amount of time between two vehicles traveling in the same direction on a given line or combination of lines. A shorter headway corresponds to more frequent service. GRTA's vehicle headway standard is related to vehicle load and trip productivity. To this end, GRTA will reduce headways first on trips and/or routes that with the highest vehicle load factors and/or customers per trip and increase headways first on trips and/or routes with the lowest customers per trip and/or farebox recovery ratios.

On-Time Performance

On-time performance is a measure of trips completed as scheduled. On-time is defined as a bus that departs a stop between zero and five minutes after the scheduled departure time from the first point of departure of a trip. *Xpress* service is expected to meet this standard for at least 80% of all trips.

Service Availability

Service availability is a general measure of the distribution of routes within GRTA's jurisdiction. GRTA's jurisdiction includes 13 counties in the metro Atlanta region, and it is GRTA's goal to provide service to all of these counties. Based on this goal, GRTA's service availability policy is to provide at least one route that originates in, or within 5 miles of each county in GRTA's jurisdiction.

Distribution of Transit Amenities

Transit amenities refer to items of comfort, convenience, and safety that are available to *Xpress* customers. *Xpress* park and ride lots consist of newly constructed *Xpress* stations, leased properties and interagency properties. GRTA's facility standard is that newly constructed *Xpress* stations shall have the same package of amenities with a fare pavilion, passenger pavilions, route and schedule displays, benches, waste receptacles, digital message signs, emergency call boxes, ADA parking spaces and security cameras. In cases where there is a high degree of public visibility the fare pavilion building and security systems may not be provided. As of December 2012, GRTA has not built any escalators or elevators. Therefore, there is no distribution policy for these amenities.

For leased lots, the investment in amenities is limited by the very short term nature of the lease agreements. Since GRTA is required to protect the federal interest for the useful

life of its assets, construction at leased lots is limited to passenger shelters and ADA parking spaces.

Interagency lots are owned and controlled by other transit systems or units of local government. The decision on the design and placement of amenities at these locations is controlled by the property owner; therefore GRTA has no transit amenities policy at these lots.

Vehicle Assignment

Vehicle assignment refers to the process by which transit vehicles are placed into service on routes throughout the *Xpress* system. GRTA has two policies related to vehicle assignment. First, as a cost saving measure, GRTA assigns buses with the lowest operating costs to the longest routes. Recognizing the need to ensure this policy does not result in disparate impacts on minorities or low-income riders, it is also GRTA's policy that *Xpress* vehicles at each operating location be rotated among routes so that no minority route in the *Xpress* system receives vehicles that on average are more than three years older than the system average for all GRTA operated *Xpress* routes. As a part of the service standards monitoring, GRTA staff will select one operating day per calendar quarter for the most recent year. For these four days, GRTA staff will pull the dispatch logs and calculate the average age for buses operating on each route for that year.

Major Service Change Policy, Fare Change Policy and Adverse Effects

GRTA's policy is to conduct a Title VI service equity analysis for all fare changes and major service changes. Prior to implementation of a fare or major service change, GRTA will evaluate such changes to determine whether they will have a discriminatory impact based on race, color, or national origin. Although low-income populations are not a protected class under Title VI, GRTA will also evaluate changes to determine whether fare or major service changes create a disproportionate burden on low-income populations.

A major service change is defined as any addition or elimination of a route, or any service change that increases or decreases more than 25 percent of the total revenue service hours of a route. Temporary changes in service lasting twelve months or less are exempt.

For major service changes, federal Title VI guidance also requires that GRTA define adverse effects. Adverse effects are defined as reductions in service, including the elimination of a route or a reduction in revenue service hours of greater than 25 percent of the total revenue service hours of a route. When evaluating service changes, GRTA recognizes that the elimination or addition of a route, rather than a change in headways, presents a greater degree of impact, and will consider such differences in degrees when planning and evaluating service changes.

Service Equity Analysis for Major Service Changes

Title VI guidance requires that GRTA develop a policy for measuring disparate impacts (where minority populations are the protected class) and disproportionate burden impacts (where low-income populations are the protected class). These policies must establish a threshold for determining when adverse effects of a major service change are borne disproportionately by minority and/or low-income populations. Both policies set a statistically significant disparate impact threshold. These statistically significant thresholds are as follows:

Disparate Impact Threshold for Major Service Changes: For a major service change effecting existing service, anytime the expected distribution of adverse impacts to minority and non-minority passengers is plus or minus 15 percentage points different from the GRTA-operated *Xpress* average distribution of minority and non-minority passengers, this is statistically significant and such differences in adverse impacts are considered disparate. Impacts shall be calculated on a cumulative basis over all trips and/or routes affected. The impact on passengers will be measured using system ridership from the most recent on-board customer survey. For a major service change that results in entirely new service, Census data will be used.

Disproportionate Burden Impact Threshold for Major Service Changes: For a major service change effecting existing service, anytime the expected distribution of adverse impacts to low-income and non-low-income passengers is plus or minus 3 percentage points different from the GRTA-operated *Xpress* average distribution of low-income and non-low-income passengers, this is statistically significant and such differences in adverse impacts pose a disproportionate burden. Impacts shall be calculated on a cumulative basis over all trips and/or routes affected. The impact on passengers will be measured using system ridership from the most recent on-board customer survey. For a major service change that results in entirely new service, Census data will be used.

Service Equity Analysis for Fare Changes

For fare changes, GRTA will determine whether there are disparate impacts on minority riders and/or disproportionate burdens posed on low-income riders by:

- Determining the number and percent of users of each fare media being changed
- Reviewing fares before the change and after the change
- Comparing the differences for each particular fare media between minority users and overall users
- Comparing the differences for each particular fare media between low-income users and overall users

- Determining both the percentage increase or decrease for each fare media being changed and the increase or decrease in cost per trip for each fare media being changed

Data used in the above analysis will come from the most recent on-board customer survey. GRTA will use the results of the above analysis to avoid, minimize or mitigate the impact of fare media changes on minority and low-income populations. In conducting this analysis, GRTA will bear in mind that it is desired to have riders buy passes in bulk (e.g., 10 ride pass or 31 day pass). Recognizing this, GRTA will seek to maintain an overall cost per trip discount for bulk passes as compared to single or round trip passes.

Service Equity Analysis for Fare Changes

If GRTA finds that a fare or major service change results in a disparate impact on minorities or a disproportionate burden on low-income individuals, GRTA will seek to avoid, minimize or mitigate such impact and reanalyze the impacts of the newly proposed changes. If GRTA does not alter the proposed changes, or, after revisions finds that minority and/or low-income populations continue to bear disproportionate adverse affects, GRTA will implement the changes only if:

- There is a substantial legitimate justification for the proposed service change, and
- There are no alternatives that would have a less disparate/disproportionate impact on minority/low-income riders but would still accomplish GRTA's legitimate program goals.