

SERVICE AND FARE CHANGES

Proposed Revisions, December 2020

SERVICE CHANGE EQUITY ANALYSIS

It is the policy of RIPTA to assess the potential for discriminatory impacts of service changes, to conduct equity analyses, and to mitigate negative impacts appropriately.

Determining When an Equity Analysis is Needed

Major Service Changes

Changes to bus service typically encompass one or more of the following four main components: 1) frequency, 2) span of service, 3) service coverage, and 4) travel time. Frequency is the time interval between two vehicles traveling in the same direction on the same route. Span of service is the number of hours each day that a route operates expressed as the time of the first trip to the time of the last trip. Service coverage is the geographic measure of the area within walking distance of a bus stop. Travel time is the time it takes to travel between two points on a route. These four metrics together have a major influence on transit accessibility, convenience and, ultimately, ridership.

Major service changes are evaluated to determine whether they will result in a disparate impact on minority riders or a disproportionate burden on low-income riders. RIPTA defines major service changes as the following:

- a. Within an 18-month period, a cumulative increase or decrease of more than 25% in the average peak frequency, weekday, Saturday, or Sunday.
Example: A route has proposed weekday peak frequency reduction from every 15 minutes to every 18 minutes.
Formula: $[(\text{New Frequency} - \text{Old Frequency}) / \text{Old Frequency}] * 100$
Result: $[(18 - 15) / 15] * 100 = -20\%$ This is not a major service change.
- b. Within an 18-month period, a cumulative increase or decrease of more than 25% in the average off-peak frequency, weekday, Saturday, or Sunday.
Example: A route has proposed Saturday frequency increase from every 25 minutes to every 20 minutes.
Formula: $[(\text{New Frequency} - \text{Old Frequency}) / \text{Old Frequency}] * 100$
Result: $[(20 - 25) / 25] * 100 = 25\%$ This is a major service change.
NOTE: Improved frequency results in a negative number, but we are looking at the absolute value.
- c. Within an 18-month period, a cumulative increase or decrease of more than 10% in the span of service, weekday, Saturday, or Sunday.
Example: A route has proposed span reduction from 18 hours to 16 hours.

Formula: $[(\text{New Span} - \text{Old Span}) / \text{Old Span}] * 100$

Result: $[(16 - 18) / 18] * 100 = -11\%$ This is a major service change.

- d. Removal of a bus stop that results in a walk of over 1/4-mile to the nearest bus stop from the former stop.
- e. Rerouting or route extensions that result in a travel time increase of five minutes or more.
- f. Route elimination.
- g. Establishment of a new route.

Rationale: In establishing this definition, RIPTA considered the nature of service provided throughout its statewide system, and the manner in which service changes are implemented. RIPTA conducts ongoing service monitoring and, pursuant to this monitoring, implements incremental service changes which tend to be relatively small rather than sweeping and bold. In order to protect riders from the incremental erosion of service over time – for instance on a low-performing route – it was decided that the cumulative impact of changes should be tracked over an 18-month period to ensure that a series of relatively small changes do not result in major changes over time.

A 10% threshold was selected for service span changes, and 25% for frequency changes based on a review of RIPTA routes in terms of span, frequency, and the number of vehicles being operated on each route. These thresholds allow for flexibility in implementing periodic minor service changes based on evolving passenger demands, demographics, and economic development opportunities, while ensuring RIPTA's accountability for changes resulting in greater impacts to passengers. The thresholds protect both equity and RIPTA's ability to make simple service adjustments designed to maximize route productivity.

Exceptions: major service changes exclude changes to service that are caused by:

1. Discontinuance of a temporary or demonstration service change that has been in effect for less than 180 days.
2. Routine seasonal service changes, such as modifications to accommodate student ridership.
3. An adjustment to service levels for new routes that have been in revenue service for less than one year (allowing RIPTA to respond to actual ridership levels observed on those new routes).
4. Discontinuation of a contracted service.
5. Forces of nature, such as, but not limited to, flooding and earthquakes.
6. Failures of infrastructure like bridges, tunnels, or highways.
7. A reduction in transit revenue vehicle miles on one route that is offset by an increase in revenue vehicle miles on the overlapping section of another route.

Adverse Effect

Once a major service change has been identified, that change is evaluated to determine if the change is positive or adverse in nature. If a change is determined to be adverse, RIPTA will then complete an equity analysis.

For the purposes of this policy, RIPTA considers an adverse effect to be a geographical or time-based reduction in service impacting more than 20 passengers that includes (calculations for the changes below are the same as calculations for identifying a major service change):

- a. **Span of service decrease of more than 10%, weekday, Saturday, or Sunday.**
- b. **A 25% decrease in the average peak frequency on a route, weekday, Saturday, or Sunday.**
- c. **A 25% decrease in the average off-peak frequency on a route, weekday, Saturday, or Sunday.**
- d. **Removal of a bus stop that results in a walk of over 1/4-mile to the nearest bus stop from the former stop.**
- e. **Rerouting or route extensions that result in a travel time increase of five minutes or more.**
- f. **Route elimination.**

Based on input from affected communities, RIPTA may conduct an equity analysis on a service change anticipated to generate adverse effects below the thresholds noted above.

Disparate Impact Policy

This policy establishes a threshold for determining whether a given action has a disparate impact on minority populations.

A disparate impact for a major service change occurs when more than 62.2% of the population bearing adverse effects belongs to minority groups. This policy is designed to reflect populations that meaningfully exceed RIPTA's system-wide average of 52.2% minority ridership, based on 2016 rider survey data. Minority routes are as follows:

MINORITY ROUTES	
Route	Minority Percent
6	73.9%
11 / R Line	64.4%
17	64.7%
18	78.7%
34	65.0%

In the course of performing a Title VI Equity Analysis, RIPTA analyzes how a proposed action would impact minority as compared to non-minority populations. In the event a proposed action has a negative impact that affects minorities more than non-minorities, with a disparity that exceeds the above disparate impact thresholds, RIPTA evaluates whether there is an alternative that has a more equitable impact. Otherwise, RIPTA will take measures to mitigate the impact of the proposed action on the affected minority population and demonstrate that a legitimate business purpose cannot otherwise be accomplished by a less burdensome alternative.

When service to multiple routes is being changed, RIPTA will either (a) evaluate the proposed changes in the aggregate, if the routes are geographically proximate or otherwise interconnected; or (b) conduct a separate equity analysis for each route, if service changes to one will not generate adverse impacts to the other(s).

Disproportionate Burden Policy

This policy establishes a threshold for determining whether a given action has a disproportionate burden on low-income populations versus non-low-income populations. The Disproportionate Burden Policy applies only to low-income populations that are not also minority populations.

RIPTA defines a disproportionate burden as occurring when more than 79.2% of the population bearing adverse effects belongs to low-income groups. This policy is designed to reflect populations that meaningfully exceed RIPTA's system-wide average of 69.2% low-income individuals, based on 2016 rider survey data.

LOW-INCOME ROUTES	
Routes	Low-Income Percent
29	80%
31	84%
76	84%
87	81%
203	79%

Finding of Disparate Impact or Disproportionate Burden

If the equity analysis determines that proposed service changes will create a disparate impact on minority populations or a disproportionate burden on low-income populations, RIPTA will consider modifications to the changes and analyze the modified proposals to determine whether a non-discriminatory or less discriminatory option exists.

To keep affected populations and the general public informed of and engaged in this process, RIPTA will provide public notice of any finding of disparate impact or disproportionate burden, and will solicit suggestions and feedback regarding (1)

modifications and alternatives under consideration; and (2) measures that may be implemented to mitigate against the negative impacts for the changes.

RIPTA's board of directors may elect to approve service changes even when these changes will create disparate impacts or disproportionate burdens. In approving a change that creates a disparate impact, RIPTA must clearly demonstrate that (a) there is a substantial legitimate justification for the proposed service change; AND (b) no alternatives are available that would have a less disparate impact on minority riders while also accomplishing RIPTA's legitimate program goals. RIPTA must adopt the least discriminatory alternative available.

Implementing Service Changes

In implementing service changes that will have a disparate impact or disproportionate burden, RIPTA will seek to mitigate the negative impacts of these changes on minorities and low-income individuals to the maximum extent possible, incorporating into its mitigation efforts the input received during the above-referenced public engagement process.