



MAJOR SERVICE CHANGE AND SERVICE EQUITY POLICY

A. PURPOSE OF THE POLICY

The purpose of the Major Service Change and Service Equity Policy is to define thresholds for determining major service changes and whether potential changes to existing transit services will have a disparate impact based on race, color or national origin, or whether potential service changes will have a disproportionately high or adverse impact on minority and/or low-income populations or riders.

B. BASIS FOR POLICY STANDARDS

Federal law requires the City of Phoenix and Valley Metro to evaluate changes to transit services, as outlined in FTA Circular 4702.1B, effective October 1, 2012. To comply with 49 CFR Section 21.5(b)(a), 49 CFR Section 21.5(b)(7) and Appendix C to 49 CFR Part 21, recipients are required to develop procedures for analyzing all service changes (service equity analysis) that exceed the region's major service change threshold to determine whether the proposed service changes will have a discriminatory impact. The analysis of all service changes shall be done prior to implementation of these changes. The purpose of conducting service change analyses prior to their implementation is to determine whether the proposed changes will have a disparate impact on minority populations and/or a disproportionate burden on low-income populations. The standard method for measuring disparate and disproportionate impacts is the comparison between the proportion of persons in a protected class (minority and low-income—see definition below) and the proportion of persons not in these protected classes that are affected by the proposed service change.

Prior to analyzing service changes, all recipients must develop a major service change policy that identifies what constitutes a major service change because only major service changes are subjected to a service equity analysis. The policy sets a threshold of when a service change is considered a major change and subject to analysis. In addition, recipients are also required to define potential adverse effects of major service changes and develop a disparate impact policy and a disproportionate burden policy that establish thresholds for determining when adverse effects would result in a disparate impact to minority populations or riders and a disproportionate burden impact to low-income populations or riders.

Valley Metro and the City of Phoenix have jointly developed a Major Service Change Policy, Disparate Impact Policy, and Disproportionate Burden Policy. Each is discussed in the following sections. Valley Metro and the City of Phoenix have also jointly defined potential adverse effects pursuant to FTA Circular 4702.1B.

C. MAJOR SERVICE CHANGE POLICY

The following is considered a major service change (unless otherwise noted under Exemptions) and will be evaluated in accordance with the regulatory requirements set forth in FTA Circular 4702.1B:

Route-level Service Reduction or Elimination

- Reducing an existing route by more than 25 percent of weekday route revenue miles^{1, 2}; or
- Reducing an existing route by more than 25 percent of Saturday route revenue miles; or
- Reducing an existing route by more than 25 percent of Sunday route revenue miles; or
- Reducing the number of route directional miles more than 25 percent^{1,2}; or
- A change in a route alignment resulting in a 25 percent or greater variance from the existing route alignment^{1,2}.

Route-level Expansion or Addition of a New Route

- Adding a new route; or
- Expansion of an existing route that increases weekday route revenue miles by more than 25 percent; or
- Expansion of an existing route that increases Saturday route revenue miles by more than 25 percent; or
- Expansion of an existing route that increases Sunday route revenue miles by more than 25 percent; or
- Expanding the number of route directional miles more than 25 percent; or
- A change in a route alignment resulting in a 25 percent^{1,2} or greater variance from the existing route alignment.

D. ADVERSE EFFECT

An adverse effect is defined as a reduction or addition in service that includes but is not limited to: changes in span of service, changes to frequency of service, the addition of new routes, the elimination of routes or route segments, or the modification of routes or route segments.

E. DISPARATE IMPACT POLICY (SERVICE EQUITY ANALYSIS)

When conducting a service change equity analysis, the following threshold will be used to determine when adverse effects of a major service change would have a disparate impact on minority populations or riders:

¹ A change of 25 percent in weekly route revenue miles and/or route directional miles is the City of Phoenix threshold for determining whether a potential transit service change qualifies as a major service change (or “substantial” service change), according to the City of Phoenix resolution (1990). This percentage is generally an industry-wide percentage threshold used by peer transit systems throughout the United States. The City of Phoenix resolution also specifies that a public comment period will be initiated when a change in transit service of 25 percent or more is determined. Valley Metro has adopted the same thresholds.

² A change of 25 percent in Express/RAPID service route revenue miles and/or route directional miles does not apply to the portion of the routes that are on the freeway/highway because there are no stops or service. Only the portion of the routes that occurs on surface streets applies to the 25 percent threshold for a major service change.

Disparate Impact Policy

When the difference in adverse impacts between minority ridership³ and/or population⁴ and non-minority ridership and/or population on the affected service is equal to or greater than five percent compared to the transit system's minority and non-minority ridership⁵ and/or population, there would be a disparate impact.

Finding a Disparate Impact

Should Valley Metro or the City of Phoenix find that minority populations or riders experience disparate impact(s) from the proposed service change(s), steps will be taken to avoid, minimize or mitigate the disparate impact(s). If the additional steps do not mitigate the potential disparate impact(s) on minority populations or riders, pursuant to FTA Circular 4702.1B, the proposed service change(s) may proceed with the proposed change(s) only if Valley Metro or the City of Phoenix can show that:

- *A substantial legitimate justification for the proposed major service change(s) exists, and*
- *There are no alternative(s) serving the same legitimate objectives that would have less disproportionate impact on minority populations or riders.*

F. DISPROPORTIONATE BURDEN POLICY (SERVICE EQUITY ANALYSIS)

When conducting a service change equity analysis, the following threshold will be used to determine when a service change would have a disproportionate burden on low-income populations or riders:

Disproportionate Burden Policy

When the difference in adverse impacts between low-income ridership³ and/or population⁴ and non-low-income ridership and/or population on an affected service is equal to or greater than five percent compared to the transit system's low-income and non-low-income ridership⁵ and/or population, there would be a disproportionate burden impact.

Finding a Disproportionate Burden Impact

Should Valley Metro or the City of Phoenix find that low-income populations or riders experience disproportionate burden impacts from the proposed service change(s), pursuant to FTA Circular 4701.1B, Valley Metro or the City of Phoenix should take steps to avoid, minimize or mitigate impacts where practicable. Valley Metro or the City of

³ The determination of the transit system and an affected route's minority and/or low-income ridership will be derived from the most recently completed, statistically valid regional on-board origin/destination survey.

⁴ The determination of the potential ridership for service expansion or the addition of a new service will be derived from the most recent American Community Survey data for the census tract or census block group surrounding the expanded route or new route.

⁵ The transit system's ridership is separated into Local Bus Service (local fixed bus routes, key local service, light rail, streetcar and circulator bus service) and Express/RAPID Service (commuter bus service). The affected service would be compared to the overall transit system's ridership by Local Bus Service or Express/RAPID Bus Service.

Phoenix will describe alternatives available to low-income populations affected by the proposed service change(s). However, since low-income populations are not a protected class under Title VI of the Civil Rights Act of 1964, failure to complete this analysis will not result in a finding of noncompliance under Title VI. Although low-income populations are not a protected class, the FTA requires that transit providers to evaluate proposed fare changes to determine whether they will bear a disproportionate burden of the changes.

G. EXAMPLE OF ANALYSIS FOR EXISTING ROUTES

The system’s overall ridership is 49 percent minority and 51 percent non-minority. If Route A ridership (based on the O&D survey) is 55 percent minority and 45 percent non-minority, then the minority group would bear 55 percent of the burden while the non-minority group would bear 45 percent of the burden. There would be a disparate impact to the minority group because it would bear 6 percent more than its expected share (55 percent of the burden compared to 49 percent of the overall ridership [$55 - 49 = 6$]); while the non-minority group bears 6 percent less than its expected share (45 percent burden compared to 51 percent of the overall ridership [$45 - 51 = -6$]). Applying the 5 percent disparate impact policy, there would be a disparate impact.

H. EXAMPLE OF ANALYSIS FOR EXPANSION OR ADDITION OF A NEW ROUTE

The analysis for the expansion of an existing route or the addition of a new route would be the same as the analysis for changes to an existing route, except census data around the route would be used because there would not be any O/D survey data for the area in which the route would be expanded or where a new route would be added.

I. EQUITY ANALYSIS DATA SOURCES

Category	Action	Sub Action	Evaluation Method
Service Level ^a Change	Reduction	Not Applicable	O/D ^b Data
	Expansion	Not Applicable	
Route Length	Reduction	Not Applicable	O/D Data
	Expansion	Not Applicable	Census Data
Route Alignment Change	Reduction	Not Applicable	O/D Data
	Expansion	Not Applicable	O/D Data and Census Data
	Modification	Eliminated Segment(s)	O/D Data and Census Data
		Segment(s) to New Areas	Census Data
	Elimination	Not Applicable	O/D Data
New Route	New Route	Not Applicable	Census Data



Category	Action	Sub Action	Evaluation Method
Fare Media Access	Modifications	Not Applicable	O/D Data Census Data

^a Service Level – Refers to the span of service (hours of operation), days of operation, trips and headways (service frequencies) for a transit route or the regional transit system.

^b Origin/Destination Survey Data

J. EXEMPTIONS

The major service change thresholds exclude any changes to service that are caused by the following:

- Experimental, Pilot or Demonstration – These services may be instituted for up to 12 cumulative months without performing a Title VI equity analysis. If an Experimental, Pilot or Demonstration service will be operated for more than 12 cumulative months, a Title VI equity analysis must be completed before the end of the first 12 months that the service is in operation. Experimental, Pilot or Demonstration services that are modified and continue beyond 12 cumulative months are considered a continuation of the same service and are subject to a Title VI equity analysis. To be considered a new Experimental, Pilot or Demonstration service, a service must not have operated for 12 consecutive months.
- Minor Headway Adjustments – Headways for transit routes adjusted up to five minutes during the peak hour periods, and 15 minutes during non-peak hour periods.
- New Transit Service “Break-In” Period – Adjustments to service frequencies and/or span of service for new transit routes that have been in revenue service for less than 365 days.
- Other Service Providers or Agencies – Actions of other service providers or public agencies providing/administering transit services that are not the responsibility of Valley Metro or the City of Phoenix.
- Emergency Service and Service Responding to Natural or Catastrophic Disasters – Service changes implemented in response to forces of nature such as earthquakes, wildfires, pandemics or other natural disasters; human-caused catastrophic disasters; or other disruptions that may force the suspension or expansion of scheduled transit service for public safety, financial or technical reasons.
- Service Responding to Auxiliary Transportation Infrastructure Failures – Service changes implemented in response to failures of auxiliary transportation infrastructure such as vehicular bridges, highway bridge overpasses, tunnels or elevated highways that force the suspension of transit service.
- Overlapping Services – A reduction in revenue miles on one line that is offset by an increase in revenue miles on the overlapping section of an alternative transit route

(an overlapping section is where two or more bus routes or rail lines share the same alignment, stops or stations for a short distance).

- Seasonal and Special Event Service – Changes to bus service levels on routes which occur because of seasonal ridership changes, and temporary dedicated bus routes or increases in service frequencies put in place to serve event activities or mitigate traffic congestion caused by other activity such as road construction.
- Temporary Route Detours – Short-term changes to a route caused by road construction, routine road maintenance, road closures, emergency road conditions, fiscal crisis, civil demonstrations or any uncontrollable circumstance.

K. DEFINITIONS

Disparate Impact – A facially neutral policy or practice that has a disproportionately adverse effect on minority riders or population of the service area.

Disparate Treatment – An action that results in a circumstance in which minority riders or populations are treated differently than others because of their race, color and national origin.

Disproportionate Burden – A facially neutral policy or practice that has a disproportionately adverse effect on low-income riders or population of the service area.

Express Transit Service – Includes Valley Metro designated express bus and RAPID bus services.

High-Capacity Transit (HCT) – A transit facility or service that operates at a consistent, high frequency of service.

Local Transit Service – Includes light rail transit, streetcar, local fixed-route bus, local limited stop bus and circulator/shuttle bus services.

Low-income Person – A person whose median household income is at or below 150 percent of the U.S. Department of Health and Human Services poverty line.

Low-income Areas – A census tract or other geographically bound area that has a higher percentage of low-income persons (defined above) than the overall average percentage of low-income persons in the route service area.

Minority Person – A minority person includes American Indian and Alaska Native, Asian, Black or African American, Hispanic or Latino, Native Hawaiian or Other Pacific Islander, as defined in the FTA Title VI Circular.

Minority Populations – A readily identifiable group of minority persons who live in geographic proximity in residential land use areas within census tracts where the percentage of minority persons is higher than the Valley Metro service area average.

Minority Route – A route that has at least 1/3 of its total revenue miles 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, as defined in



the FTA Title VI Circular. 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.

Route-level – Refers to the geographic level of analysis at the route alignment level by which the performance of a transit route is measured for equity.

Route Service Area – A three-quarter-mile radial buffer on either side of a transit route’s alignment.

Service Level –The span of service (hours of operation), days of operation, trips, and headways (service frequencies) for a transit route or the regional transit system.

Service Span – The span of hours over which service is operated (e.g., 6 a.m. to 10 p.m.). The service span may vary by weekday, Saturday or Sunday.

System-wide – Reference to the geographic level of analysis by which the performance of the entire transit system is measured for equity.

Transit Service Area – Service area for local bus service is considered to be a three-quarter-mile buffer around the transit system and for express/RAPID service it is a three-mile-buffer around the park-and-ride and transit facilities.

Transit System – A coordinated urban network of scheduled public passenger modes including fixed-route local and express buses, light rail and streetcar transit, bus rapid transit and circulator bus services that provide mobility for people from one place to another.

Public Participatory Procedures

For all proposed service changes, Valley Metro and/or the City of Phoenix will conduct public outreach as outlined in the Public Participation Plan.