

ATTACHMENT A

**Service Equity Analysis
Methodology & Results**

**June 2016
Proposed Major Service Changes**

Service Planning and Scheduling
Civil Rights Programs Compliance

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1. PROPOSAL OVERVIEW

A proposed program of service changes for possible implementation in June 2016, or later, is scheduled for public comment in February 2016. The major service changes contained in that proposal are the subject of this equity evaluation.

2. METHODOLOGICAL APPROACH

A Service Equity Evaluation is presented herein in accordance with the requirements of Federal Transit Administration Circular 4702.1B. The evaluation assesses whether or not there are adverse disparate impacts on minority passengers and/or disproportionate burdens on low income riders arising from the proposed major service changes that will be considered at public hearings in February 2016.

The proposed changes have been grouped by type of change for this analysis. There are three groups consisting of routes or segments proposed for discontinuation, routes or segments that represent new services, and routes proposed for increased service frequency. Each group is evaluated separately using demographic data associated with the group's services.

Only the major service change proposals as defined in Metro's Administrative Code Section 2-50 are included in this analysis. There are additional proposals being presented for public comment that are not a part of this evaluation. A service change is considered major if it meets one or more of the following criteria:

A revision to an existing transit route that increases or decreases the route miles by 25% or the revenue service miles operated by the lesser of 25%, or by 250,000 annual revenue service miles at one time or cumulatively in any period within 36 consecutive months;

A revision to an existing transit service that increases or decreases the revenue hours operated by at least 25% or by 25,000 annual revenue service hours at one time or cumulatively in any period within 36 consecutive months;

A change of more than 25% at one time or cumulatively over any period within 36 consecutive months in the number of total revenue trips scheduled on routes serving a rail or BRT station, or an off-street bus terminal serving at least 4 bus routes;

A change of more than 20% of the total system revenue miles or revenue hours in any 12 month period;

The implementation of any new transit route that results in a net increase of more than 25,000 annual revenue hours or 250,000 annual revenue miles;

Six months prior to the opening of any new fixed guideway project (e.g. BRT line or rail line) regardless of whether or not the amount of service being changed meets the requirements in the new subsections 1 – 5 above.

Two proposals meeting the criteria for major changes have been excluded from this analysis as the Administrative Code provides an exception to the equity evaluation requirement when a service is replaced by a different mode or operator providing a service with the same headways, fare, transfer options, span of service and stops. The proposed discontinuation of Lines 190-194 and 270 is contingent on the assumption of service by Foothill Transit.

Data Sources

Data on the ethnicity of Metro's service area population is obtained from block group level data from the 2010 U. S. Census. Poverty income data is from the American Community Survey administered by the U. S. Census for the five year period from 2006-2010 and is provided at the census tract level.

Methodology

For any route or route segment included in this evaluation the population and minority population of each block group that is at least partially included in a buffer area around each stop served by the affected route or segment is accumulated. The buffer is generally a circle of one-quarter mile radius around each stop. For rail stations the buffer has a one-half mile radius, and for major park/ride facilities the buffer has a five mile radius. Similarly, census tract level data for population and poverty population is accumulated from all tracts at least partially included in each buffer.

The major changes are grouped by type of change (discontinuation, new service, or increased frequency), and the associated population, minority population, and poverty population is accumulated for each group. Each group's overall minority population share and poverty population share is compared with the corresponding Metro service area shares to determine whether or not a disparate impact, or disproportionate burden would result.

3. RESULTS

The Board of Directors has adopted thresholds for determining when disparate impacts and/or disproportionate burdens are imposed by a proposed service change action.

A disparate impact occurs when the absolute difference between the minority share of the impacted population and the minority share of Metro's service area population exceeds 5%, and/or the relative difference between the minority share of the impacted population and the minority share of Metro's service area population exceeds 20%.

A disproportionate burden occurs when the absolute difference between the impacted poverty population share and the Metro service area poverty population share exceeds 5% and/or the relative difference between the poverty population share of the impacted population and the poverty share of Metro's service area population exceeds 20%.

The results of this equity evaluation are shown in Table 1. There is no disparate impact or disproportionate burden resulting from the service discontinuation and new service actions. The increased frequency proposed for Line 704 would result in a disparate impact since the improvement occurs on a line that serves an area that has significantly fewer minority residents than the county average along its route, but would not result in a disproportionate burden.

When a disparate impact is found the proposed action may only be implemented if (1) there is a substantial legitimate justification for the proposed service change, and (2) there are no alternatives that would have a less disparate impact and still accomplish the goals of the action. In this instance, the action is proposed to conform passenger loading during the midday to recently revised passenger loading standards. There are no alternatives to adding service to reduce passenger loading, and not doing so would violate adopted Board policy resulting in crowding.

Table 1
Equity Evaluation of Major Service Change Proposals for June 2016

DISCONTINUATION OF ROUTE OR SEGMENT

Line	Description	Adverse Action	Beneficial Action	Title VI			EJ		
				Population	Minority	%	Population	Poverty	%
111	Discontinue Route 311 (reinvest in Line 111)	X		-244,310	-228,526	93.5%	-349,160	-69,406	19.9%
156	Discontinue Burbank/Kester/Oxnard Loop	X		-18,579	-10,684	57.5%	-28,901	-5,638	19.5%
220	Discontinue line (replace with new Route 17)	X		-53,401	-16,915	31.7%	-68,042	-7,522	11.1%
236	Discontinue branch line 237	X		-164,559	-92,194	56.0%	-204,516	-24,570	12.0%
258	Discontinue service east of Fremont/Commonwealth	X		-32,739	-29,082	88.8%	-38,056	-6,028	15.8%
460	Discontinue service west of Norwalk Station	X		-81,896	-65,143	79.5%	-85,549	-34,872	40.8%
485	Discontinue line (parts replaced by rerouted Line 258)	X		-120,667	-87,390	72.4%	-154,781	-22,285	14.4%
620	Discontinue service between Indiana Station State St via Chavez	X		-44,714	-43,893	98.2%	-59,995	-15,659	26.1%
Total				-760,865	-573,827	75.4%	-989,000	-185,980	18.8%

Metro Service Area **70.5%** **15.9%**
Absolute Difference **4.9%** **2.9%**
Relative Difference **7.0%** **18.3%**

NEW SERVICE

Line	Description	Adverse Action	Beneficial Action	Title VI			EJ		
				Population	Minority	%	Population	Poverty	%
156	Extend from Van Nuys/Burbank via Route 237 to Mission Hills		X	95,656	63,639	66.5%	111,257	15,776	14.2%
258	Add extension to CSULA		X	10,547	9,585	90.9%	16,006	1,889	11.8%
258	Add extension from Fremont/Commonwealth to Altadena		X	74,390	46,329	62.3%	113,333	11,858	10.5%
501	New service		X	44,623	20,922	46.9%	63,759	8,731	13.7%
620	Extend service from Indiana Station to E. LA College via 1st. St.		X	49,274	48,029	97.5%	66,030	12,143	18.4%
Total				274,490	188,504	68.7%	370,385	50,397	13.6%

Metro Service Area **70.5%** **15.9%**
Absolute Difference **-1.8%** **-2.3%**
Relative Difference **-2.6%** **-14.4%**

INCREASED FREQUENCY

Line	Description	Adverse Action	Beneficial Action	Title VI			EJ		
				Population	Minority	%	Population	Poverty	%
704	Add midday service (cumulative impact)		X	259,255	126,979	49.0%	313,798	57,176	18.2%
Total				259,255	126,979	49.0%	313,798	57,176	18.2%

Metro Service Area **70.5%** **15.9%**
Absolute Difference **-21.5%** **2.3%**
Relative Difference **-30.5%** **14.6%**