



2022 Title VI Service Performance Monitoring Report

July 2023

Title VI Service Performance Monitoring Report

Table of Contents

- Executive Summary 2
- Title VI and Environmental Justice 2
- Service Standards and Transit Monitoring Overview 3
- Title VI Service Performance Measure Rating Scale Rubric 3
- Minority vs. Non-Minority Lines/Routes Performance Results 5
 - Summary Table: Distribution of Amenities 5
 - Summary Table: Service Standards 5
 - Distribution of Amenities 6
 - Vehicle Loads 6
 - Revenue Hours 6
 - On-Time Performance (OTP) 6
 - Vehicle Assignment 7
 - Service Availability 7
- Low-Income vs. Non-Low-Income Lines/Routes Performance Results 8
 - Summary Table: Distribution of Amenities 8
 - Summary Table: Service Standards 8
 - Distribution of Amenities 9
 - Vehicle Loads 9
 - Revenue Hours 9
 - On-Time Performance (OTP) 10
 - Vehicle Assignment 10
 - Service Availability 10
- Exhibit A: Stop Amenities 11
 - Stop Amenities: Minority and Non-Minority 11
 - Stop Amenities: Low-Income and Non-Low-Income 11
- Exhibit B: Vehicle Loads 12
 - Vehicle Loads Table: Minority and Non-Minority 12
 - Vehicle Loads Table: Low-Income and Non-Low-Income 12
- Exhibit C: Revenue Hours 13
 - Revenue Hours Table: Minority and Non-Minority 13
 - Revenue Hours Table: Low-Income and Non-Low-Income 13
- Exhibit D: On-Time Performance 14
 - On-Time Performance Table: Minority and Non-Minority 14
 - On-Time Performance Table: Low-Income and Non-Low-Income 15
- Exhibit E: Vehicle Assignment 16
 - Vehicle Assignment Table: Minority and Non-Minority 16
 - Vehicle Assignment Table: Low-Income and Non-Low-Income 17
- Exhibit F: Service Availability Table 18

Title VI Service Performance Monitoring Report

Executive Summary

RTD conducts ongoing performance monitoring across all service modes (bus, light rail and commuter rail) to comply with Title VI of the Civil Rights Act of 1964 and the Federal Transit Administration's accompanying Circular, 4702.1B "Title VI Requirements and Guidelines for Federal Transit Administration Recipients" (Title VI Circular) as well as to ensure equitable distribution across RTD's system. The analysis in this report compared minority access to that of low-income access as well as non-minority access to that of non-low-income access across six service performance metrics: stop amenities, vehicle loads, revenue hours, on-time performance, vehicle assignment and service availability.

The target for RTD's 2021-2026 Strategic Plan objective is for minority and low-income routes and lines to achieve within 10% or better per service performance metric. A metric above the 10% threshold but within 20% would result in a "marginal" score. A marginal score would flag that metric as a caution and area for improvement. Any composite score that exceeds 20% would indicate "adverse impact" and would result in a system-wide disparate impact¹/disproportionate burden² finding per the Federal Transit Administration (FTA).

This analysis found no adverse impacts across stop amenities, vehicle loads, revenue hours, on-time performance, vehicle assignment and service availability. In fact, the majority of the six service performance metrics performed as good or better on minority and low-income lines and routes than non-minority and non-low-income lines and routes. However, the revenue hours of service metric for minority bus routes received a marginal score and is thus flagged as an area for improvement, with 14.25% less revenue hours provided on minority local and regional bus routes than non-minority local and regional routes (43.88% vs. 57.12%, respectively). It is also important to note that, at the system level, a lower percentage of revenue hours of service are provided on all minority modes of service than all non-minority modes of service (45.23% vs. 54.77%, respectively), with a difference in revenue hours of service at 9.54%. Though this does not meet the 10% marginal score threshold, it is very close, and should be flagged for improvement accordingly.

Title VI and Environmental Justice

Equity is a core principle of the Regional Transportation District's (RTD) functional mission to provide public transit services within the Denver region. An equitable mass transit system fairly distributes the benefits and adverse effects of transit service without regard for race, color, national origin or low-income status. This principle is detailed and reinforced by Title VI of the Civil Rights Act of 1964 and Executive Order 12898 pertaining to environmental justice.

Title VI of the Civil Rights Act of 1964 prohibits discrimination on the basis of race, color, or national origin in programs receiving federal financial assistance. Specifically, Title VI states, "No person in the United States shall, on the ground of race, color or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance."

In 1994, President Clinton issued Executive Order 12898, which states that each federal agency "shall make achieving environmental justice part of its mission by identifying and addressing disproportionately high and

¹ A facially neutral policy or practice that disproportionately affects members of a group identified by race, color or national origin.

² A facially neutral policy or practice that disproportionately affects low-income populations more than non-low-income populations.

Title VI Service Performance Monitoring Report

adverse human health or environmental effects of its programs, policies and activities on minority populations and low-income populations.”

The Federal Transit Administration’s (FTA) Circular 4702.1B provides its recipients of FTA financial assistance with instructions for achieving compliance with Title VI and Environmental Justice. In this circular, the FTA requires that RTD document measures taken to comply with DOT’s Title VI regulations by submitting a Title VI Program to the FTA every three years.

Service Standards and Transit Monitoring Overview

Part of RTD’s compliance with FTA Circular 4702.1B Title VI Requirements and Guidelines for Federal Transit Administration Recipients (Title VI Circular) is ongoing performance monitoring across all service modes (local and regional bus, light rail and commuter rail). The Title VI Circular does not require monitoring for demand response service. Aligned with RTD’s 2021-2026 Strategic Plan, staff will conduct an annual review of resource and service distribution. The objective is to ensure there is an equitable distribution across RTD’s system. The analysis in this report compared minority access to that of non-minority access as well as low-income access to that of non-low-income access across six service performance metrics for data compiled during calendar year 2022:

- **Stop amenities:** RTD analyzes the distribution of stop amenities in the RTD system (shelters, seating, lighting, waste receptacles, etc.) in order to identify any potential disparities.
- **Vehicle loads:** RTD evaluates whether local, regional, SkyRide, Bus Rapid Transit, light and commuter rail vehicles are overcrowded by comparing the load/seat factor for each vehicle type and time period (peak and midday). RTD used automated passenger counter data to calculate compliance with the maximum load standard. The maximum load factor is the ratio of the total number of passengers on a trip to the total number of vehicle seats on each individual trip. For each route, the count of the trips that exceeded the load factor are divided by the total number of sampled trips to determine the percentage of trips that exceeded the load factor. RTD requires that vehicle load standards be met 60% of the time.
- **Revenue hours:** RTD evaluates the amount and distribution of revenue hours of service provided. The hours while in service include trip start to finish.
- **On-time performance:** RTD defines “on-time” as no more than one minute early or five minutes late, measured at time points.
- **Vehicle assignment:** The FTA expects that the average age of vehicles on minority and/or low-income lines/routes should be no more than the average age of vehicles on non-minority and/or non-low-income lines/routes.
- **Service availability:** RTD considers persons residing within one-half mile of bus stops and/or rail stations as having service available. Service availability is expressed as number and percentage of District-wide population and is determined by vehicle mode.

Title VI Service Performance Measure Rating Scale Rubric

The target for RTD’s 2021-2026 Strategic Plan objective is for minority and low-income routes and lines to achieve within 10% or better per service performance metric. This range will guide RTD in establishing a baseline to set targets for subsequent years. A metric above the 10% threshold but within 20% would result in a “marginal” score. A marginal score would flag that metric as a caution and area for improvement. Any composite

Title VI Service Performance Monitoring Report

measure that exceeds 20% would indicate “adverse impact” and would result in a system-wide disparate impact³/disproportionate burden⁴ finding per the Federal Transit Administration. RTD will work to improve service and access on an on-going basis to ensure RTD’s equity targets are achieved and for compliance with RTD’s Board adopted Title VI Program.

Legend

	Equity Rating Scale Rubric	Strategic Plan Rating Scale	
+10%			+10%
0	Outstanding	↑ On Target	0
-10%			-10%
-20%	Marginal	□ Caution	-20%
	Adverse Impact	↓ Off Target	

³ A facially neutral policy or practice that disproportionately affects members of a group identified by race, color or national origin.

⁴ A facially neutral policy or practice that disproportionately affects low-income populations more than non-low-income populations.

Title VI Service Performance Monitoring Report

Minority vs. Non-Minority Lines/Routes Performance Results⁵

Summary Table: Distribution of Amenities

Metric % of stops with amenity on minority vs. non-minority lines/routes	≥20% difference	10%-19.99% difference	As good or better on minority lines/routes
Seating	✓	✓	✓
Lighting	✓	✓	✓
Elevators	✓	✓	✗
Digital Displays	✓	✓	✓
Shelters	✓	✓	✗
Signs, Maps and/or Schedules	✓	✓	✗
Waste Receptacles	✓	✓	✗
Ticket Vending Machines	✓	✓	✓

Summary Table: Service Standards

Metric Minority and non-minority comparison by mode and for the system as a whole	≥20% difference					10%-19.99% difference					As good or better on minority lines/routes				
	Local	Regional	Light Rail	Commuter Rail	System	Local	Regional	Light Rail	Commuter Rail	System	Local	Regional	Light Rail	Commuter Rail	System
Vehicle Loads	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Revenue Hours	✓	✓	✓	✓	✓	✗	✗	✓	✓	✓	✗	✗	✓	✓	✗
On-Time Performance	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✗	✓	✗	✓	✓
Vehicle Assignment	✓	✓	N/A	✓	✓	✓	✓	✓	✓	✓	✓	✓	N/A	✓	✓
Service Availability	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✗	✓	✓	✓

⁵ A minority line/route is defined by the FTA as having at least one-third of its revenue vehicle hours in census block groups with above-average minority populations.

Title VI Service Performance Monitoring Report

Distribution of Amenities (See Exhibit A for full details)

- The percentage of stops containing each amenity on minority lines/routes exceeds the percentage for non-minority lines in all categories examined except elevators, shelters, signs/maps and/or schedules and waste receptacles (0.67%, 3.07%, 2.40% and 0.38% respectively).
- The percentage of minority stops containing seating is 1.32% higher than the percentage of non-minority stops containing seating.
- The percentage of minority stops containing lighting is 5.28% higher than the percentage of non-minority stops containing lighting.
- The percentage of minority stops containing digital displays is 1.03% higher than the percentage of non-minority stops containing digital displays.
- The percentage of minority stops containing ticket vending machines is 0.08% higher than the percentage of non-minority stops containing ticket vending machines.

Vehicle Loads (See Exhibit B for full details)

- Average load/seat percentages range from a low of 0.00% to a high of 7.45%.
- A slightly higher percentage of vehicle loads occurs on minority commuter rail during the midday time period than non-minority (0.05% vs. 0.00%, respectively) with a difference in vehicle loads at 0.05%.
- All average loads by mode are below the maximum load factor for every time period.

Revenue Hours (See Exhibit C for full details)

- A lower percentage of revenue hours of service are provided on minority local and regional bus routes than non-minority local and regional routes (43.88% vs. 57.12%, respectively) with a difference in revenue hours of service at 14.25%.
- A lower percentage of revenue hours of service are provided on minority light rail lines than non-minority lines (46.4% vs. 53.6%, respectively) with a difference in revenue hours of service at 7.2%.
- A greater percentage of revenue hours of service are provided on minority commuter rail lines than non-minority lines (81.04% vs. 18.96%, respectively) with a difference in revenue hours of service at 62.07%.
- A lower percentage of revenue hours of service are provided on all minority modes of service than all non-minority modes of service (45.23% vs. 54.77%, respectively) with a difference in revenue hours of service at 9.54%.

On-Time Performance (OTP) (See Exhibit D for full details)

- The average OTP for minority local bus routes is 1.67% lower than OTP for non-minority local bus routes on weekdays. The Saturday average OTP for minority local bus routes is 1.06% lower than OTP for non-minority bus routes. The Sunday average OTP for minority local bus routes is 3.12% lower than OTP for non-minority bus routes.
- The average OTP for minority regional bus routes is 10.38% greater than OTP for non-minority regional bus routes on weekdays. The Saturday average OTP for minority regional bus routes is 14.74% greater than OTP for non-minority local bus routes. The Sunday average OTP for minority regional bus routes is 13.28% greater than OTP for non-minority local bus routes.
- The average OTP for the four minority light rail lines is 1.05% lower than the OTP for the two non-minority light lines for Monday-Thursday. The Friday average OTP for minority light rail lines is 2.48%

Title VI Service Performance Monitoring Report

lower than the OTP for non-minority light rail lines. The Saturday average OTP for minority light rail lines is 1.03% lower than the OTP for non-minority light rail lines. The Sunday average OTP for minority light rail lines is 2.23% lower than the OTP for non-minority light rail lines.

- The average OTP for the three minority commuter rail lines is 0.06% greater than the OTP for the one non-minority commuter rail line for Monday-Thursday. The Friday average OTP for minority commuter rail lines is 1.37% lower than the OTP for non-minority commuter rail lines. The Saturday average OTP for minority commuter rail lines is 2.20% greater than the OTP for non-minority commuter rail lines. The Sunday average OTP for minority commuter rail lines is 0.30% greater than the OTP for non-minority commuter rail lines.

Vehicle Assignment (See Exhibit E for full details)

- The average age of vehicles on minority weekday bus routes (6.92 years) is about 18% less than the average age of vehicles on non-minority weekday bus routes (8.46 years).
- The average age of vehicles on minority weekend bus routes (6.87 years) is about 19% less than the average age of vehicles on non-minority weekend bus routes (8.47 years).
- Light rail vehicles are randomly assigned to all lines daily. Thus, there is no difference in the average age of light rail vehicles between minority lines and non-minority lines.
- All 66 RTD commuter rail vehicles were purchased in 2014. Thus, there is no difference in the average age of commuter rail vehicles between minority lines and non-minority lines.

Service Availability (See Exhibit F for full details)

- A higher percentage of the RTD district's minority population lives within ½ mile of local bus, light rail and commuter rail compared to the district's non-minority population.
- A slightly higher percentage of the RTD district's non-minority population lives within ½ mile of regional bus compared to the district's minority population (9.9% vs. 7.7%, respectively).

Title VI Service Performance Monitoring Report

Low-Income vs. Non-Low-Income Lines/Routes Performance Results

Summary Table: Distribution of Amenities

Summary Table: Distribution of Amenities			
Metric % of stops with amenity on minority vs. non-minority lines/routes	≥20% difference	10%-19.99% difference	As good or better on minority lines/routes
Seating	✓	✓	✓
Lighting	✓	✓	✓
Elevators	✓	✓	✗
Digital Displays	✓	✓	✗
Shelters	✓	✓	✓
Signs, Maps and/or Schedules	✓	✓	✓
Waste Receptacles	✓	✓	✓
Ticket Vending Machines	✓	✓	✓

Summary Table: Service Standards

Summary Table: Service Standards															
Metric Minority and non-minority comparison by mode and for the system as a whole	≥20% difference					10%-19.99% difference					As good or better on minority lines/routes				
	Local	Regional	Light Rail	Commuter Rail	System	Local	Regional	Light Rail	Commuter Rail	System	Local	Regional	Light Rail	Commuter Rail	System
Vehicle Loads	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Revenue Hours	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
On-Time Performance	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✗	✓	✓	✓	✓
Vehicle Assignment	✓	✓	N/A	✓	✓	✓	✓	✓	✓	✓	✓	✓	N/A	✓	✓
Service Availability	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

Title VI Service Performance Monitoring Report

Distribution of Amenities (See Exhibit A for full details)

- The percentage of stops containing each amenity on low-income lines/routes exceeds the percentage for non-low-income lines/routes in all categories examined except elevators and digital displays, which are higher for non-low-income lines/routes (by 0.53% and 0.09%, respectively).
- The percentage of low-income stops containing seating is 7.17% higher than the percentage of non-low-income stops containing seating.
- The percentage of low-income stops containing lighting is 4.43% higher than the percentage of non-low-income stops containing lighting.
- The percentage of low-income stops containing shelters is 1.75% higher than the percentage of non-low-income stops containing shelters.
- The percentage of low-income stops containing signs, maps and/or schedules is 0.99% higher than the percentage of non-low-income stops containing signs, maps and/or schedules.
- The percentage of low-income stops containing waste receptacles is 4.05% higher than the percentage of non-low-income stops containing waste receptacles.
- The percentage of low-income stops containing ticket vending machines is 0.02% higher than the percentage of non-low-income stops containing vending machines.

Vehicle Loads (See Exhibit B for full details)

- Average load/seat percentages range from a low of 0.00% to a high of 3.69%.
- A slightly higher percentage of vehicle loads occurs on minority local bus during the midday time period than non-minority (0.41% vs. 0.36%, respectively) with a difference in vehicle loads of 0.05%.
- All average loads by mode are below the maximum load factor for every time period.

Revenue Hours (See Exhibit C for full details)

- A greater percentage of revenue hours of service are provided on low-income bus routes than non-low-income routes (61.87% vs. 38.13%, respectively) with a difference in revenue hours of service at 23.75%.
- A greater percentage of revenue hours of service are provided on low-income light rail lines than non-low-income lines (57.26% vs. 42.74%, respectively) with a difference in revenue hours of service at 14.53%.
- A greater percentage of revenue hours of service are provided on low-income commuter rail lines than non-low-income lines (60.80% vs. 39.20%, respectively) with a difference in revenue hours of service at 21.6%.
- A greater percentage of revenue hours of service are provided on all low-income modes of service than all non-low-income modes of service (61.21% vs. 38.79%, respectively) with a difference in revenue hours of service at 22.42%.

Title VI Service Performance Monitoring Report

On-Time Performance (OTP) (See Exhibit D for full details)

- Average OTP for low-income local bus routes is 2.86% lower than OTP for non-low-income local bus routes on weekdays. The Saturday average OTP for low-income local bus routes is 3.23% lower than OTP for non-low-income local bus routes. The Sunday average OTP for low-income local bus routes is 3.35% lower than OTP for non-low-income local bus routes.
- Average OTP for low-income regional bus routes is 1.38% greater than OTP for non-low-income regional bus routes on weekdays. The Saturday average OTP for low-income regional bus routes is 3.8% greater than OTP for non-low-income local bus routes. The Sunday average OTP for low-income regional bus routes is 0.72% lower than OTP for non-low-income regional bus routes.
- The average OTP for the two low-income light rail lines is 1.5% greater than OTP for the four non-low-income light lines for Monday-Thursday. The average Friday OTP for low-income light rail lines is 0.90% greater than the OTP for the non-low-income light rail lines. The average Saturday OTP for low-income light rail lines is 2.67% greater than the OTP for the non-low-income light rail lines. The average Sunday OTP for low-income light rail lines is 0.20% greater than the OTP for the non-low-income light rail lines.
- The average OTP for the one low-income commuter rail line is 6.60% greater for Monday-Thursday compared to the three non-low-income commuter rail lines. The average Friday OTP for low-income commuter rail lines is 7.80% greater than the OTP for the non-low-income commuter rail lines. The average Saturday OTP for low-income light rail lines is 8.33% greater than the OTP for the non-low-income commuter rail lines. The average Sunday OTP for low-income commuter rail lines is 6.50% greater than the OTP for the non-low-income commuter rail lines.

Vehicle Assignment (See Exhibit E for full details)

- The average age of vehicles on low-income weekday bus routes (7.53 years) is about 1% less than the average age of vehicles on non-low-income weekday bus routes (7.48 years).
- The average age of vehicles on low-income weekend bus routes (7.49 years) is about 3% less than the average age of vehicles on non-low-income weekend bus routes (7.25 years).
- Light rail vehicles are randomly assigned to all lines daily. Thus, there is no difference in the average age of light rail vehicles between low-income lines and non-low-income lines.
- All 66 commuter rail vehicles were purchased in 2014. Thus, there is no difference in the average age of commuter rail vehicles between low-income lines and non-low-income lines.

Service Availability (See Exhibit F for full details)

- A higher percentage of the RTD district's low-income population lives within ½ mile of local bus, regional bus, light rail and commuter rail compared to the district's non-low-income population.

Title VI Service Performance Monitoring Report

Exhibit A: Stop Amenities

Stop Amenities: Minority and Non-Minority

Category of Amenity	% of Stops on Minority Lines/Routes	% of Stops on Non-Minority Lines/Routes	Difference; Minority to Non-Minority +/- (-)
Seating	46.28%	44.96%	1.32%
Lighting	28.40%	23.12%	5.28%
Elevators	2.03%	2.70%	(0.67%)
Digital Displays	5.18%	4.15%	1.03%
Shelters	6.65%	9.72%	(3.07%)
Signs, Maps and/or Schedules	4.37%	6.77%	(2.40%)
Waste Receptacles	11.01%	11.39%	(0.38%)
Ticket Vending Machines	5.21%	5.13%	0.08

Stop Amenities: Low-Income and Non-Low-Income

Category of Amenity	% of Stops on Low-Income/Routes	% of Stops on Non-Low-Income Lines/Routes	Difference; Low-Income to Non-Low-Income +/- (-)
Seating	48.82%	41.65%	7.17%
Lighting	27.77%	23.34%	4.43%
Elevators	2.13%	2.66%	(0.53%)
Digital Displays	4.63%	4.72%	(0.09%)
Shelters	8.94%	7.19%	1.75%
Signs, Maps and/or Schedules	5.99%	5.00%	0.99%
Waste Receptacles	13.00%	8.95%	4.05%
Ticket Vending Machines	5.18%	5.16%	0.02%

Title VI Service Performance Monitoring Report

Exhibit B: Vehicle Loads

Vehicle Loads Table: Minority and Non-Minority

Mode of Service	Time Period	Minority	Non-Minority	Difference Minority to Non-Minority +/-(-)
Local	Peak (125%)	0.19%	0.43%	0.24%
	Midday (100%)	0.29%	0.69%	0.40%
Bus Rapid Transit	Peak (100%)	N/A	3.23%	N/A
	Midday (100%)	N/A	0.00%	N/A
Regional	Peak (100%)	0.19%	0.22%	0.03%
	Midday (100%)	0.00%	7.45%	0.10%
Skyride	Peak (100%)	0.00%	4.87%	4.87%
	Midday (100%)	0.77%	7.45%	6.68%
Commuter Rail	Peak (100%)	0.09%	0.28%	0.19%
	Midday (100%)	0.05%	0.00%	(0.5%)
Light Rail	Peak (100%)	2.03%	4.60%	2.57%
	Midday (100%)	0.18%	0.27%	0.90%

Vehicle Loads Table: Low-Income and Non-Low-Income

Mode of Service	Time Period	Low-Income	Non-Low-Income	Difference; Low-Income to Non-Low-Income +/-(-)
Local	Peak (125%)	0.25%	0.31%	0.06%
	Midday (100%)	0.41%	0.36%	(0.05%)
Bus Rapid Transit	Peak (100%)	N/A	3.23%	N/A
	Midday (100%)	N/A	0.00%	N/A
Regional	Peak (100%)	0.00%	0.27%	0.27%
	Midday (100%)	0.00%	0.08%	0.08%
Skyride	Peak (100%)	2.74%	N/A	N/A
	Midday (100%)	3.57%	N/A	N/A
Commuter Rail	Peak (100%)	0.00%	0.16%	0.16%
	Midday (100%)	0.00%	0.04%	0.04%
Light Rail	Peak (100%)	0.06%	3.69%	3.63%
	Midday (100%)	0.00%	0.26%	0.26%

Title VI Service Performance Monitoring Report

Exhibit C: Revenue Hours

Revenue Hours Table: Minority and Non-Minority

Mode of Service	Minority Hours	Non-Minority Hours	Difference; Minority to Non-Minority +/-
Bus	42.88%	57.10%	(14.25%)
Light Rail	46.40%	53.6%	(7.20%)
Commuter Rail	81.04%	18.96%	62.07%
System	45.23%	54.77%	(9.54%)

Revenue Hours Table: Low-Income and Non-Low-Income

Mode of Service	Low-Income Hours	Non-Low-Income Hours	Difference; Low Income to Non-Low-Income +/-
Bus	61.87%	38.13%	23.75%
Light Rail	57.26%	42.74%	14.53%
Commuter Rail	60.80%	39.20%	21.60%
System	61.21%	38.79%	22.42%

Title VI Service Performance Monitoring Report

Exhibit D: On-Time Performance

On-Time Performance Table: Minority and Non-Minority

Mode of Service	Day	Avg. % On-Time (weighted)		Difference; Minority to Non-Minority +/-
		Minority Lines/Routes	Non-Minority Lines/Routes	
Local Bus	Weekday	84.69%	86.36%	(1.67%)
	Saturday	85.53%	86.59%	(1.06%)
	Sunday	86.03%	89.15%	(3.12%)
Regional Bus	Weekday	93.26%	82.88%	10.38%
	Saturday	97.50%	82.76%	14.74%
	Sunday	96.53%	83.25%	13.28%
Light Rail	Mon-Thurs	91.85%	92.90%	(1.05%)
	Friday	90.53%	93.00%	(2.48%)
	Saturday	92.28%	93.30%	(1.03%)
	Sunday	91.98%	94.20%	(2.23%)
Commuter Rail	Mon-Thurs	91.76%	91.70%	0.06%
	Friday	91.33%	92.70%	(1.37%)
	Saturday	92.50%	90.30%	2.20%
	Sunday	93.00%	92.70%	0.30%

Title VI Service Performance Monitoring Report

On-Time Performance Table: Low-Income and Non-Low-Income

Mode of Service	Day	Avg. % On-Time (weighted)		Difference; Low Income to Non-Low-Income +/-(-)
		Low Income Lines/Routes	Non-Low-Income Lines/Routes	
Local Bus	Weekday	84.36%	87.22%	(2.86%)
	Saturday	84.96%	88.19%	(3.23%)
	Sunday	85.96%	89.30%	(3.35%)
Regional Bus	Weekday	87.58%	86.20%	1.38%
	Saturday	90.20%	86.40%	3.80%
	Sunday	88.53%	89.25%	(0.72%)
Light Rail	Mon-Thurs	93.20%	91.70%	1.50%
	Friday	91.95%	91.05%	0.09%
	Saturday	94.40%	91.73%	2.67%
	Sunday	92.85%	92.65%	0.20%
Commuter Rail	Mon-Thurs	96.70%	90.10%	6.60%
	Friday	97.50%	89.70%	7.80%
	Saturday	98.20%	89.87%	8.33%
	Sunday	97.80%	91.30%	6.50%

Title VI Service Performance Monitoring Report

Exhibit E: Vehicle Assignment

In the past, RTD has been unable to examine vehicle assignments consistently or accurately. This is because bus vehicle assignments are put together in blocks that typically consist of operations on multiple routes (referred to as interlining or through lining), making it impossible to assign buses on a specific route and therefore rendering an analysis of vehicle assignment difficult.

However, in 2022, RTD produced a methodology to pursue the vehicle assignment analysis. The analysis utilizes service “recap” data and relies on making key assumptions. It includes *typical* vehicle type and garage assignments by route; service equity classification (i.e., low-income or non-low-income and minority or non-minority) of routes based on in-service hours as well as geographic demographic data; and vehicle age data, by vehicle type and assigned garage.

Equity and non-equity routes are first identified by their *typically*-assigned garage, then with known *typically*-assigned vehicles, the average age of vehicles is assigned. The overall average vehicle ages are then compared between equity and non-equity routes to ensure equity routes are within an acceptable threshold range of difference.

For light rail and commuter rail, there is no specific alignment for a certain model or year. Additionally, all 66 commuter rail vehicles were purchased in 2014, leaving no difference in the average age of commuter rail vehicles between equity and non-equity routes.

Vehicle Assignment Table: Minority and Non-Minority

Mode of Service	Day	Avg. Vehicle Age (Years)		Difference; Minority to Non-Minority +/-(-)
		Minority Routes and Lines	Non-Minority Routes and Lines	
Bus (Local and Regional)	Weekday	6.92	8.46	18%
	Weekend	6.87	8.47	19%
Light Rail	Light rail vehicles are randomly assigned to all lines daily. Thus, there is no difference in the average age of light rail vehicles between minority lines and non-minority lines.			
Commuter Rail	All 66 commuter rail vehicles were purchased in 2014. Thus, there is no difference in the average age of commuter rail vehicles between minority lines and non-minority lines.			

Title VI Service Performance Monitoring Report

Vehicle Assignment Table: Low-Income and Non-Low-Income

Mode of Service	Day	Avg. Vehicle Age (Years)		Difference; Low-Income to Non-Low-Income +/-
		Low-Income Routes and Lines	Non-Low-Income Routes and Lines	
Bus (Local and Regional)	Weekday	7.53	7.48	1%
	Weekend	7.49	7.25	3%
Light Rail	Light rail vehicles are randomly assigned to all lines daily. Thus, there is no difference in the average age of light rail vehicles between low-income lines and non-low-income lines.			
Commuter Rail	All 66 commuter rail vehicles were purchased in 2014. Thus, there is no difference in the average age of commuter rail vehicles between low-income lines and non-low-income lines.			

Title VI Service Performance Monitoring Report

Exhibit F: Service Availability Table

Demographic Analysis of Proximity to RTD Service (Percent)		RTD District	RTD District	% within ½* Mile			% within ¼ Mile	% within 3 Miles	Frequent All Day Service within ½ Mile		Frequent Peak and/or Midday Service within ½ Mile	
		Totals	Merged Buffers	Limited	Regional	Rail	Local Bus	CRT	Bus	Bus & Rail	Bus	Bus & Rail
Population	Total (ACS 5-year estimate, 2017-2021)	3,044,872	59.3%	14.8%	9.1%	7.4%	48.5%	30.3%	26.7%	29.7%	28.7%	31.7%
Minority	All Minorities	1,126,338	68.0%	18.1%	7.7%	8.5%	57.1%	40.2%	32.1%	35.4%	35.1%	38.5%
Non-Minority	White (Non-Hispanic)	1,918,535	54.1%	12.9%	9.9%	6.7%	43.4%	24.5%	23.6%	26.3%	25.0%	27.7%
Population	Total population with known income (ACS 5-year estimate, 2017-2021)**	3,001,396	59.1%	14.9%	8.9%	7.3%	48.3%	30.4%	26.4%	29.3%	28.5%	31.4%
Low-Income	Below 150% of Poverty Level	429,348	72.9%	18.3%	11.6%	10.3%	63.1%	39.1%	37.2%	41.0%	39.0%	42.8%
Non-Low-Income	Above 150% of Poverty Level	2,572,048	56.8%	14.3%	8.5%	6.8%	45.9%	28.9%	24.6%	27.4%	26.7%	29.5%

Sources: RTD GTFS GIS, US Census American Community Survey Tables: 2017 - 2021 (5-Year Estimates), Table B03002. Hispanic or Latino Origin by Race, and Table C17002. Ratio Of Income to Poverty Level In The Past 12 Months (Block Group Level Data) USDOT National Address Database (NAD)

To adjust for the fact that some census block groups are only partially within the District, the fraction of each block group's population within the transit district was calculated by using the percentage of address points within the district and each block group. This address fraction was the factor used to proportion Census counts resulting in demographics within buffers for each service and PnR. Address points come from the USDOT National Address Database.

* All Minorities include Black (non-Hispanic), Hispanic, Asian (non-Hispanic), Native American (non-Hispanic), Hawaiian Native and Pacific Islander (non-Hispanic) and Other (including Mixed Race, non-Hispanic).

** Population totals for the RTD district vary between statistics for race and income/poverty in part since the Census is a full count, and the ACS is an extrapolation based on a sample, and in part because the ACS total excludes those whom poverty status is not determined.