

Metro Bus Service Performance Monitoring Process FY2009 Second Quarter Results

San Fernando Valley Service Sector
Council Meeting
March 4, 2009



Metro

CURRENT MEASURE

Route Performance Index

Calculation

- Consists of three variables
 - Boardings per Service Hour
 - Passenger Miles per Seat Mile
 - Subsidy per Passenger
- Individual line performance measures are normalized by service type and then averaged together
- Lines scoring less than 0.60 are deemed poor performers

San Fernando Valley Service

- 13 lines of 38 fell below 0.6
 - Lines 96, 154, 155, 156, 161, 167, 168, 183, 222, 243, 290, 645, 794

System-Wide

- 38 lines of 160 fell below 0.6

PURPOSE OF THE NEW INDICATORS

- Provide a comprehensive set of measures to support decision making
- Systematic process for evaluating service from both the network and line perspective
- Balances customer's mobility needs with the need to be efficient
- Identifies specific line characteristics that need improvement

NEW INDICATORS

Availability

- Accessibility
- Connectivity

Quality

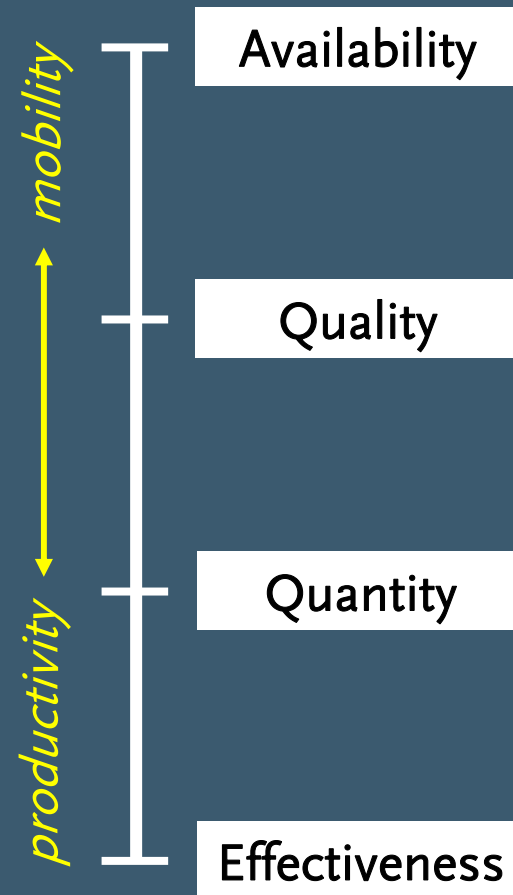
- In-Service On-Time Performance
- Headway Variability
- Customer Complaints

Quantity

- Frequency
- Load Factor

Effectiveness

- Boardings per Service Hour
- Cost per Passenger Mile
- Passenger Miles per Seat Mile
- Service Viability



AVAILABILITY INDICATORS

Accessibility

Standard

- Service to be provided to within a quarter mile of all census tracts having at least 3 households per acre and/or 4 jobs per acre

San Fernando Valley Service

- Meets the standard

System-Wide Service

- One census tract was not accessible
(#1894 in Beachwood Canyon area of Hollywood Hills)

AVAILABILITY INDICATORS

Connectivity

Standard

- Direct transfers should be available between all Rapid to Rapid and Tier-1 Local to Tier-1 Local connections

San Fernando Valley Service Not Meeting the Standard

- Missing Rapid to Rapid connections
 - None
- Missing Tier-1 Local to Tier-1 Local connections
 - None

System-Wide Service Not Meeting the Standard

- 12 Rapid to Rapid connections were missing
- 3 Tier-1 Local to Tier-1 Local connections were missing

QUALITY INDICATORS

In Service On Time Performance (ISOTP)

Standard

- At least 60% of trips in each time period should be no more than one minute early or five minutes late at all non-terminal time points

San Fernando Valley Service Not Meeting the Standard

- Weekday -
 - Early AM: None
 - AM Peak: None
 - Mid Day: None
 - PM Peak: Lines 90, 92, 94, 150, 152, 156, 163, 164, 165, 169, 230
 - Early Evening: Lines 156, 161, 169, 222, 224
 - Late Evening: Lines 92, 156, 163, 164, 222, 292
 - Owl Period: None
- Saturday: Lines 92, 156, 164, 165
- Sunday: Lines 156, 245

System-Wide Service Not Meeting the Standard

- Weekday: 73 of 111 measured bus lines
- Saturday: 33 of 93 measured bus lines
- Sunday: 19 of 90 measured bus lines



QUALITY INDICATORS

Headway Variability (Bus Bunching Indicator)

Standard

- For a time period where service operates every 12 minutes or better, there should be less than a 30% chance of seeing two or more buses together at a major stop location

San Fernando Valley Service Not Meeting the Standard

- Weekday -
 - Early AM: None
 - AM Peak: Lines 150, 152, 163, 233, 750, 761
 - Mid Day: Line 233
 - PM Peak: Lines 150, 152, 163, 166, 233, 750, 761
 - Early Evening: Lines 150, 761, 901
 - Late Evening: Lines 150, 222
 - Owl Period: None
- Saturday: Lines 150, 750, 901
- Sunday: Lines 150, 901

System-Wide Service Not Meeting the Standard

- Weekday: 57 of 68 measured bus lines
- Saturday: 25 of 27 measured bus lines
- Sunday: 15 of 17 measured bus lines



QUALITY INDICATORS

Customer Complaints Per 100,000 Boardings

Standard

- Complaints per 100,000 boardings should be less than the ratio achieved by the poorest 15% of bus lines in each service type in FY2008

San Fernando Valley Service Not Meeting the Standard

- 7 of 38 bus lines
 - Lines *96, 156, 158, 167, 183, 222, 290*

System-Wide Service Not Meeting the Standard

- 25 of 159 bus lines

QUANTITY INDICATORS

Frequency

Standard

- Service is operated at least every 60 minutes. Rapid service is operated at least every 20 minutes between 6am – 6pm

San Fernando Valley Service Not Meeting the Standard

- Line 290 for the Late Evening period

System-Wide Service Not Meeting the Standard

- 3 of 159 bus lines

QUANTITY INDICATORS

Load Factor

Standard

- The ratio of passengers to seats is below 1.20 during any hour at the peak load point

San Fernando Valley Service Not Meeting the Standard

- Weekday -
 - Early AM: None
 - AM Peak: Line 169
 - Mid Day: Line 166
 - PM Peak: Line 245
 - Early Evening: None
 - Late Evening: None
 - Owl Period: None
- Saturday: Lines 90, 92, 165, 224, 761
- Sunday: Lines 90, 224

System-Wide Service Not Meeting the Standard

- 12 of 159 Weekday bus lines
- 26 of 122 Saturday bus lines
- 8 of 112 Sunday bus lines

EFFECTIVENESS INDICATORS

Boardings Per Service Hour

Standard

- At or above the lowest 15% of bus lines in each service period during FY2008

San Fernando Valley Service Not Meeting the Standard

- Weekday -
 - Early AM: Lines 96, 290, 794
 - AM Peak: Lines 154, 767, 168, 794
 - Mid Day: Lines 96, 154, 156, 161, 222, 750, 794
 - PM Peak: Lines 154, 161, 724, 794
 - Early Evening: Lines 243, 741, 750, 794
 - Late Evening: Lines 222, 245, 290
 - Owl Period: Line 150
- Saturday: Lines 156, 161, 767, 169, 222, 290
- Sunday: Lines 156, 161, 767, 169, 222, 750

System-Wide Service Not Meeting the Standard

- 56 of 159 Weekday bus lines
- 14 of 122 Saturday bus lines
- 14 of 112 Sunday bus lines

EFFECTIVENESS INDICATORS

Cost per Passenger Mile

Standard

- At or below the 15% of highest cost bus lines in each service period during FY2008

San Fernando Valley Service Not Meeting the Standard

- Weekday -
 - Early AM: Lines 290, 794
 - AM Peak: Lines 767, 741
 - Mid Day: Lines 154, 156
 - PM Peak: Line 741
 - Early Evening: Lines 169, 243, 292, 741, 794
 - Late Evening: Lines 156, 222, 245, 290
 - Owl Period: Line 150
- Saturday: Lines 156, 158, 169, 183, 222, 243, 245, 290
- Sunday: Lines 156, 158, 183, 222, 236, 245

System-Wide Service Not Meeting the Standard

- 61 of 159 Weekday bus lines
- 21 of 122 Saturday bus lines
- 16 of 112 Sunday bus lines

EFFECTIVENESS INDICATORS

Passenger Miles per Seat Mile

Standard

- At or above the lowest 15% of bus lines in each service type during FY2008

San Fernando Valley Service Not Meeting the Standard

- Weekday -
 - Early AM: Line 290
 - AM Peak: Lines 154, 155, 168
 - Mid Day: Lines 154, 156, 243
 - PM Peak: Lines 154, 168, 243
 - Early Evening: Lines 169, 243, 290, 292, 741, 750, 794
 - Late Evening: Lines 222, 245, 290, 292
 - Owl Period: Line 150
- Saturday: Lines 156, 158, 767, 169, 236, 243, 245, 290
- Sunday: Lines 96, 156, 158, 161, 767, 169, 183, 222, 236, 245, 750

System-Wide Service Not Meeting the Standard

- 56 of 159 Weekday bus lines
- 23 of 122 Saturday bus lines
- 23 of 112 Sunday bus lines

EFFECTIVENESS INDICATORS

Service Viability by Time Period

Standard

- Achieve at least 2 of the 3 previously described Effectiveness indicators

San Fernando Valley Service Not Meeting the Standard

- Weekday -
 - Early AM: Lines 290, 794
 - AM Peak: Lines 154, 168
 - Mid Day: Lines 154, 156
 - PM Peak: Line 154
 - Early Evening: Lines 169, 243, 292, 741, 750, 794
 - Late Evening: Lines 222, 245, 290
 - Owl Period: Line 150
- Saturday: Lines 156, 158, 767, 169, 222, 243, 245, 290
- Sunday: Lines 156, 158, 161, 767, 169, 183, 222, 236, 245, 750

System-Wide Service Not Meeting the Standard

- 53 of 159 Weekday bus lines
- 20 of 122 Saturday bus lines
- 19 of 112 Sunday bus lines

Discussion