

Metro Bus Service Performance Monitoring Process FY2009 Second Quarter Results

Gateway Service Sector
Council Meeting
March 12, 2009



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CURRENT MEASURE

Route Performance Index

Calculation

- Consists of three variables
 - Boardings per Service Hour
 - Passenger Miles per Seat Miles
 - Subsidy per Passenger
- Individual line performance measures are normalized by service type and then averaged together
- Lines scoring less than 0.6 are deemed poor performers

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

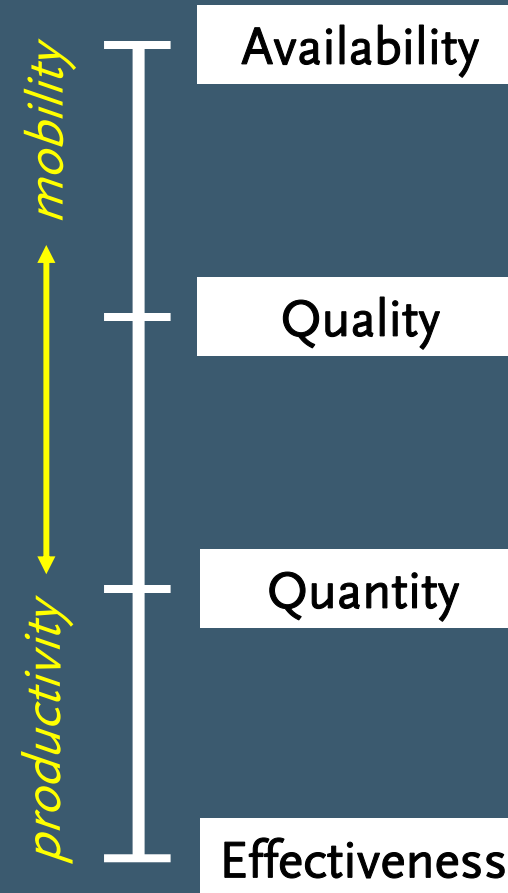
- In-Service On-Time Performance
- Headway Variability
- Customer Complaints

Quantity

- Frequency
- Load Factor

Effectiveness

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



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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

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- Meets the standard

System-Wide Service

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

Connectivity

Standard

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

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

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

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



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QUANTITY INDICATORS

Frequency

Standard

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

Load Factor

Standard

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

EFFECTIVENESS INDICATORS

Boardings Per Service Hour

Standard

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

Cost per Passenger Mile

Standard

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

Passenger Miles per Seat Mile

Standard

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

Service Viability by Time Period

Standard

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



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Comparison to Route Performance index

- Gateway Lines with below RPI target *127, 214, 254, 577, and 753*, did well in quality measures such as on time performance, customer complaint trend, and bus bunching
- High RPI lines, *18, 26, 45, and 66*, were below the threshold in one or more quality indicators (i.e. bus bunching and on time performance)
- New performance measures balance customers' mobility needs as well as need for efficiency.
- Performance of bus lines can be analyzed with broader perspectives

Gateway Sector Lines 2nd quarter performance

	AVAILABILITY		QUALITY			QUANTITY		EFFECTIVENESS			
	Providing Accessibility	Missing Connectivity	Not Meeting On-Time Performance	Bunching (Headway Variability)	Not Meeting Customer Complaints	Meeting Frequency	Not Meeting Load Factor	Not Meeting Boardings/ Service hr.	Not Meeting Cost/Pssngr Miles	Not Meeting Pssngr Miles/ Seat Mile	Not Meeting Service Viability
All periods	All Lines	705, 745, 753			254, 266, 270	All Lines					
Early Am								254, 266, 270, 753	254, 753	254, 266, 753	254, 266, 753
AM Peak				18, 26, 45, 53, 55, 60, 66, 745, 760				254, 577, 753	214, 254, 753	214, 254	214, 254, 753
Mid Day			460	45			26	127, 254, 577, 753	102, 127, 254, 745, 753	127, 254, 577, 745, 753, 760	127, 254, 577, 745, 753
PM Peak			62, 102, 105, 127, 460, 611, 612	18, 26, 45, 55, 60, 66, 200, 745, 760					214, 254, 753	214, 254, 753	214, 254, 753
Early Evening			62, 460	26, 45, 66					102, 753, 760	753, 760	753, 760
Late Evening			45, 105					121, 577, 753	66, 121, 200	121	121
Owl Period			45						18	18	18
Sat			60, 460	18, 26, 45, 60, 66, 200				18, 26, 45, 53, 62, 66, 102, 460	254, 270	102, 254	254, 270, 760
Sun			60, 460	18, 26, 45, 60, 66, 200				18, 26, 45, 53, 62, 66, 102, 460	121	102	760



Discussion