

Metro Bus Service Performance Monitoring Process FY2009 Third Quarter Results

Operations Committee
June 18, 2009



Metro

PERFORMANCE MONITORING

Route Performance Index

Measures line level productivity using index of:

- Boardings per Service Hour
- Passenger Miles per Seat Mile
- Subsidy per Passenger

New Performance Indicators

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

ROUTE PERFORMANCE INDEX

Route Performance Index for Third Quarter - Lowest 25 Lines

LINE	Service Type	Line Name	Index
127	Local	COMPTON STA-DOWNEY VIA COMPTON BL & SOMERSET BL	0.50
577	Express	Contract Metro Express (Long Beach - El Monte via 22 Fwy, I-605 Fwy & I-10 Fwy)	0.50
715	Rapid	LAX - ATLANTIC	0.48
201	Local	SILVERLAKE BL.	0.48
258	Local	GARFIELD AV - EASTERN AV - ARIZONA AV	0.48
290	Local	SYLMAR-SUNLAND VIA FOOTHILL BL	0.46
161	Local	THOUSAND OAKS-AGOURA HILLS-CALABASAS-WARNER CTR	0.46
256	Local	Contract Eastern Ave. - Ave. 64 - N. Hill Ave.	0.45
439	Express	LA - LAX - REDONDO BEACH EXPRESS	0.44
625	Shuttle	Contract Metro Green Line Shuttle	0.42
254	Local	Contract Boyle Heights - 103rd St. Station via Lorena St-Boyle Av	0.42
287	Local	SIERRA MADRE-EL MONTE-MONTBELLO MALL	0.42
222	Local	SUN VALLEY - HOLLYWOOD VIA HOLLYWOOD WAY/CAHUENGA	0.41
154	Local	TARZANA-BURBANK STA VIA OXNARD ST. BURBANK BL	0.40
156	Local	PANORAMA/VAN NUYS-HOLLYWOOD VIA CHANDLER/CAHUENGA	0.40
209	Local	VAN NESS-ARLINGTON AVES.	0.40
211	Local	PRAIRIE AVE. - INGLEWOOD AVE.	0.38
214	Local	Contract Broadway/Main Street Loop	0.34
168	Local	CHATSWORTH STA-SAN FERNANDO VIA LASSEN. PAXTON ST	0.33
220	Local	W HOLLYWOOD - CULVER CITY VIA ROBERTSON BL	0.29
607	Shuttle	Contract North Inglewood Community Shuttle circular (both directions)	0.28
608	Shuttle	Contract Crenshaw Connection: Crenshaw Bl. - 39th St. - Westside Av. - Normandie Av	0.25
202	Local	WILLOWBROOK-COMPTON-WILMINGTON	0.24
126	Local	YUKON AV - MANHATTAN BEACH BL	0.24
177	Local	Contract JPL - Pasadena - Sierra Madre Gold Line Station	0.23

- Calculation consists of three variables:
 - Boardings per Service Hour
 - Passenger Miles per Seat Mile
 - Subsidy per Passenger
- Lines scoring less than 0.60 are deemed poor performers
- Line level analysis
- Additional measures are necessary to provide a complete view of the contributions of individual routes

ROUTE PERFORMANCE INDEX

Route Performance Index for Third Quarter - Top 25 Lines

LINE	Service Type	Line Name	Index
204	Local	VERMONT AVENUE	1.91
605	Shuttle	Contract Grande Vista St - USC Hospital Shuttle	1.90
754	Rapid	VERMONT RAPID BUS	1.84
207	Local	WESTERN AVENUE	1.51
603	Shuttle	Contract Glendale - Grand Sta. via San Fernando - Rampart Bl	1.43
200	Local	ECHO PK-EXPOSITION PK VIA ALVARADO ST-HOOVER ST	1.39
18	Local	WILSHIRE CTR-MONTEBELLO VIA 6TH ST-WHITTIER BL	1.39
490	Express	LA - COVINA - POMONA	1.35
450	Express	SUPER EXPRESS	1.29
233	Local	LAKE VIEW TERR-SHERMAN OAKS VIA VAN NUYS BL	1.28
206	Local	NORMANDIE AVENUE	1.26
45	Local	MONTECITO HEIGHTS-EL SERENO-ROSECRANS VIA BROADWAY	1.26
484	Express	LA - VALLEY BL - POMONA	1.19
720	Rapid	SANTA MONICA-COMMERCE VIA WILSHIRE BL-WHITTIER BL	1.19
16	Local	DOWNTOWN LA - CENTURY CITY VIA WEST 3RD ST	1.18
26	Local	HOLLYWOOD-COMPTON-ARTESIA TRANS CTR via AVALON Bl	1.17
66	Local	WILSHIRE CTR.- MONTEBELLO VIA 8TH ST.- OLYMPIC BL	1.14
210	Local	VINE ST.-CRENSHAW BLVD.	1.13
757	Rapid	WESTERN RAPID BUS	1.13
105	Local	W HOLLYWOOD - VERNON via LA CIENEGA Bl - VERNON Av	1.11
212	Local	LA BREA AVE.	1.11
40	Local	HAWTHORNE - DOWNTOWN LA.	1.09
30	Local	PICO-RIMPAU- ELA COLL VIA PICO Bl-1ST ST-FLORAL DR	1.08
125	Local	Contract El Segundo - Norwalk/I-605 Station via Rosecrans Av	1.07
705	Rapid	W HOLLYWOOD - VERNON via LA CIENEGA Bl - VERNON Av	1.06

OTHER PERFORMANCE CRITERIA

Category	Threshold
Availability	<ul style="list-style-type: none"> • Maintain service within 1/4 mile of all census tracts having at least 3 persons/acre and/or 4 jobs/acre • Maintain direct transfers between Rapid-to-Rapid and Tier 1 Local-to-Tier 1 Local services (1/8 mile)
Quality	<ul style="list-style-type: none"> • ISOTP of 60% or better within each time period • Less than 30% chance of bus bunching on high frequency routes • Customer complaints better than bottom 15% of FY08 baseline by line type
Quantity	<ul style="list-style-type: none"> • Policy headway of 60 min (20 min for Rapids weekdays only) • Max load of 120% seat capacity during any hour at peak load point
Effectiveness	<ul style="list-style-type: none"> • Psgr/Rev Hour, Cost/Psgr Mile, Psgr Miles/Seat Mile better than bottom 15% of FY08 baseline by line type and time period • For each time period, service is viable if at least 2 effectiveness indicators are achieved

AVAILABILITY

LINE	AVAILABILITY	
	Accessibility	Connectivity
	System	Line
704		
705		
710		
711		
714		
715		
720		
724		
728		
730		
734		
740		
741		
745		
750		
751		
753		
754		
757		
760		
761		
762		
770		
780		
794		
901		
920		

ACCESSIBILITY

- All Census Tracts within Metro's service area are accessible to transit

CONNECTIVITY

- Instances not meeting the standard are in downtown L.A. among Rapid lines



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QUALITY

LINE	QUALITY																			
	On-Time Performance										Headway Variability									
	EA	AM	MID	PM	EE	LE	OW	SA	SU	EA	AM	MID	PM	EE	LE	OW	SA	SU		
2			+					+	+				+	+				+		
4																				
10						+			+	+										
14		+																		
16					+															
18																			+	
20					+															
26									+	-				+						
28			+							+										
30			+		+															
33		+								+										
35																			+	
38					-			+												
40			-							+				-						
42			+		-	-	+	+												
45						+					+			+						
53																				
55																				
60				+						+									+	
62																				
66																			+	
70																			+	
76										+										
78																				
81				+	+														+	
83								+											+	
84													+							
90																				
92				+				+												
94				+																
96*																				

ON-TIME PERFORMANCE

- Significant improvement from 2nd Qtr
- 97 line time periods improved
- 29 line time periods deteriorated

HEADWAY VARIABILITY

- Significant improvement from 2nd Qtr
- 72 line time periods improved
- 8 line time periods deteriorated

CUSTOMER COMPLAINTS

- Complaints declined from 2nd Qtr

Improvements "+"

Deterioration "-"

QUANTITY

LINE	QUANTITY																	
	Frequency									Load Factor								
	EA	AM	MID	PM	EE	LE	OW	SA	SU	EA	AM	MID	PM	EE	LE	OW	SA	SU
102																		
105																		+
108																		
110							-	-										
111																		
115																		+
117																		+
120																		
121																		
124																		
125*								-										
126																		
127																		
128*																		
130*							-	-										
150																		
152																		
154																		
155																		
156																		
158								-										
161								-										
163																		
164																		
165							-											+
166								-										+
167*																		
168																		
169							-	-										+
175																		
176																		+
177*																		
180																		
183								-										

FREQUENCY

- Only 4 lines do not meet standard on Weekdays, 16 on SA and 28 on SU
- Weekends for 2nd Qtr were not analyzed so 3rd Qtr is baseline

LOAD FACTOR

- Significant improvement from 2nd Qtr
- 36 line time periods improved
- 5 line time periods deteriorated

Improvements "+"

Deterioration "-"

SERVICE VIABILITY (EFFECTIVENESS)

LINE	EFFECTIVENESS								
	Service Viability								
	EA	AM	MID	PM	EE	LE	OW	SA	SU
200									
201		-	+	+					+
202									
204									
205*	+								
206									
207									
209				+					
210									
211					-				
212									
214*									
217									
218*									
220									
222						+			
224									
230									
232*	-								
233									
234									
236									+
243									
245								+	
251									
252	-	-	+		-				
254*									
256*									
258									
260									
265								-	
266*									
267									+
268									
270*	-								
287			+	-					
290					-				
292	-				+	-			

Improvements "+"
Deterioration "-"

- Calculations consist of three variables
 - Boardings per Service Hour
 - Cost per Passenger Mile
 - Passenger Miles per Seat Mile
- Productivity decreased slightly from 2nd Qtr in balance with lower boardings

