

SERVICE EVALUATION

Service Performance Standards as adopted in the Transit Sustainability Policy are the primary criteria for the evaluation and recommendation process of the Annual Transit Service Plan. These standards apply to both existing and new services. In the case of existing services, the standards are used to identify under-performing lines and make recommendations for improvement. In the case of new service, the standards are used in the development of recommendations for service refinements, modal alterations, or implementation. These standards are outlined in Chapter 1.

Fiscal Year 2009 Bus Performance

The charts on the following pages show performance of each route by category and day of week against the performance standard. **Performance standards are calculated as the average number of boardings per revenue hour for each type of service.** Different standards are calculated for weekdays, Saturdays and Sundays. **The minimum standard for all lines is 15 boarding per revenue hour.** All data is from the first quarter of Fiscal Year 2009. Data for ridership during peak, midday and off peak hours is for weekdays only, with the exception of Lines 12 and 43, which operate only on weekends. Tables 6-1 and 6-2 show time ranges for each period of the day.

Table 6-1: Weekday Service Hour Definitions

Time of Day	Hours
Peak	5:00 am - 9:00 am & 3:00 pm - 7:00 pm
Midday	9:00 am - 3:00 pm
Off Peak	7:00 pm - 5:00 am

Table 6-2: Weekend Service Hour Definitions

Time of Day	Hours
Morning	5:00 am - 9:00 am
Base	9:00 am - 6:00 pm
Night	6:00 pm - 10:00 pm
Late Night	10:00 pm - 5:00 am

Core Routes

Of the 19 lines in the core network ten meet the performance standard during the weekdays. Below standard lines include the 58, 60, 61, 62, 64, 71, 72, 73 and 77. On the weekends under-performing lines are the 55, 57, 60, 61, 62, 64, 70, 71, 72 and 73. Proposals for service change are outlined in detail in the Recommendations Chapter. With the exception of the 22, 66, 68, 71, 72 and the 77, most routes have a lower number of boardings on the weekends. The 22, 23, 66 and 68 consistently perform well and raise the standard higher for the core network. The core network carries the most riders than any other type of service in the bus system. Many of those riders use the 22. Other popular lines include the 23, 25, 66, 68, 70 and 522. Many of the routes in the core system carry almost the same number of people in the midday as they do during peak hours. Some of the lines carry even more people midday than during peak times. This indicates that riders using this portion of the system are diverse in needs.

Table 6-3: Weekday Core Ridership by Time of Day

Route	Peak	Midday	Off Peak
22	7,075	6,490	3,245
23	3,696	3,770	1,067
25	3,356	3,501	749
26	2,313	1,881	511
55	1,645	905	348
57	760	950	267
58	758	74	69
60	1,362	1,204	329
61	979	895	182
62	873	1,022	181
64	1,627	1,747	385
66	2,967	2,749	753
68	2,805	1,979	799
70	2,765	2,834	675
71	1,073	977	282
72	1,220	1,145	324
73	1,179	1,175	239
77	1,232	1,217	236
522	3,444	2,798	499
Total Ridership	41,129	37,313	11,140

Figure 6-1: Weekday Core Ridership by Time of Day

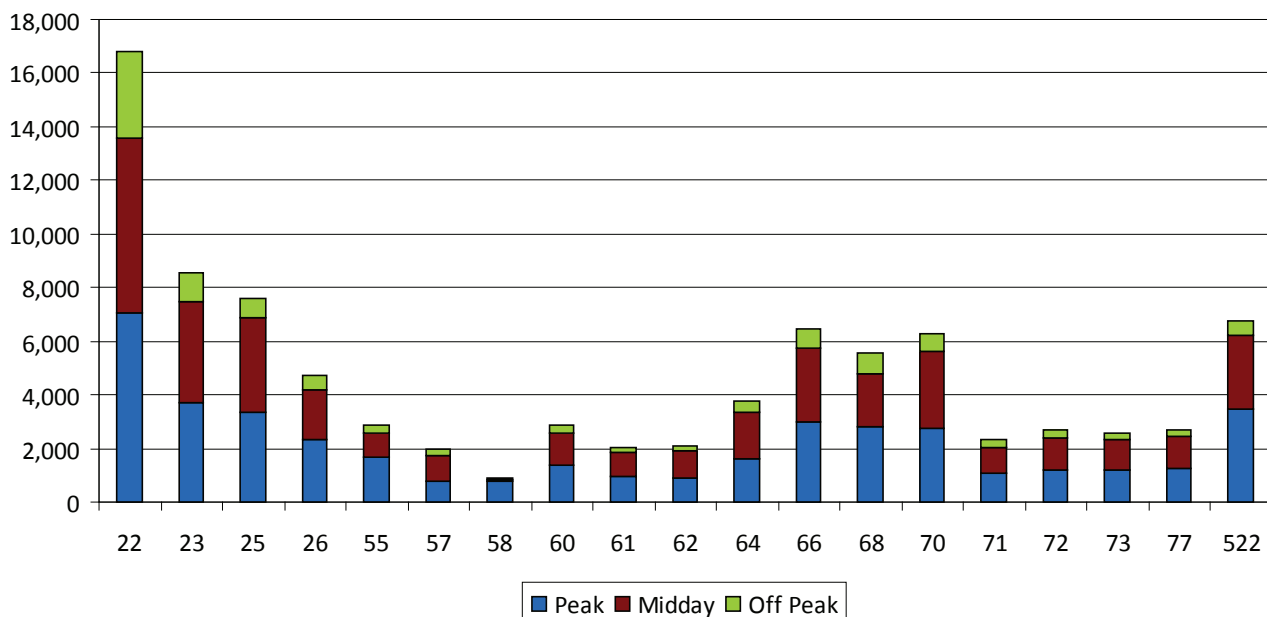
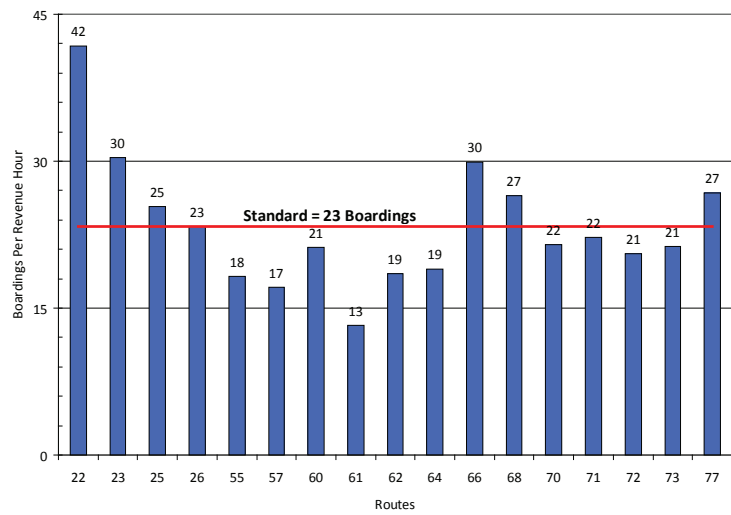
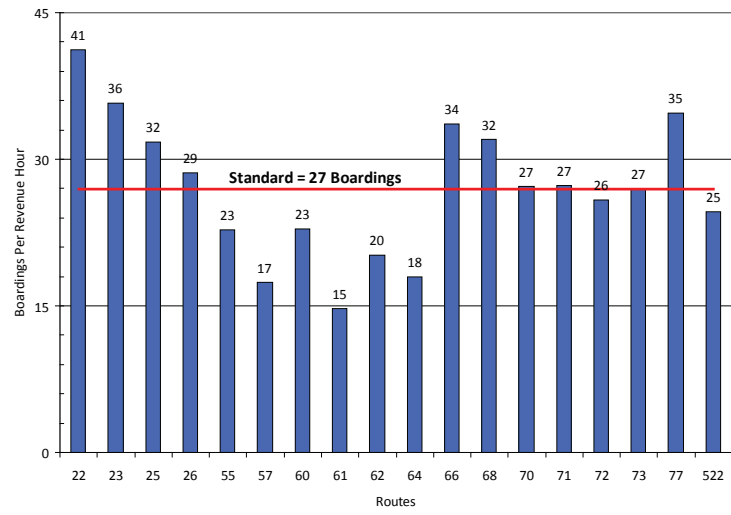
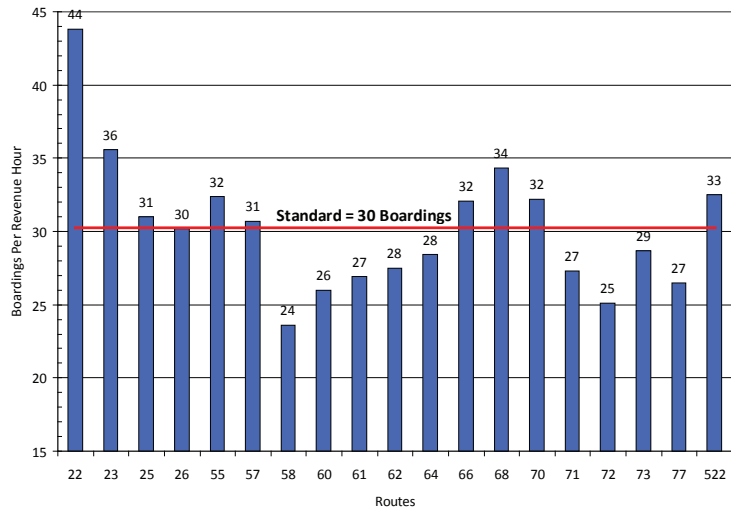


Figure 6-2: Core Routes Weekdays



Local Routes

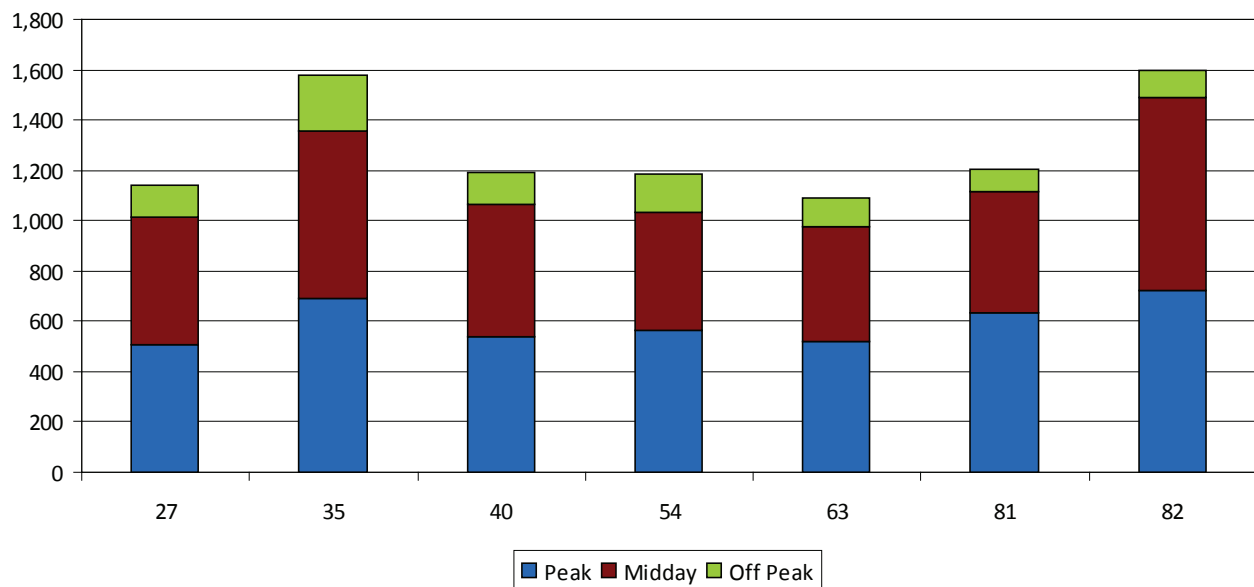
There are fewer routes in the local network and they have a lower standard than the core network. Local routes that perform poorly on the weekdays also do not meet the standard on the weekends. Routes 27 and 40 are the exception to this and meet the Sunday performance standards while not meeting the standards for weekdays and Saturdays.

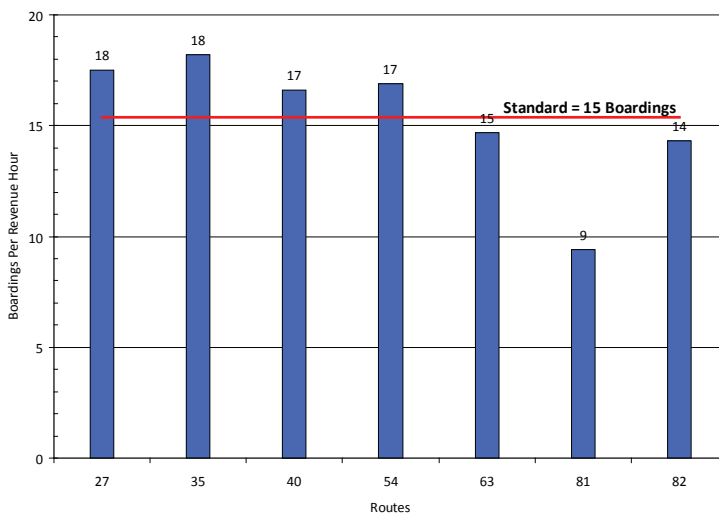
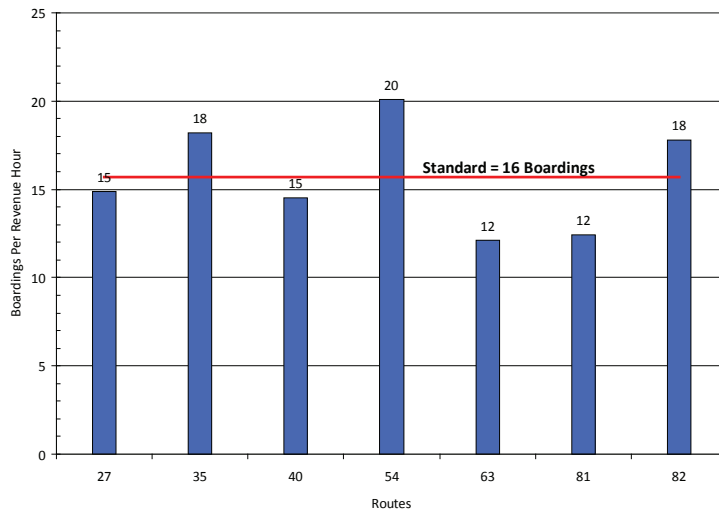
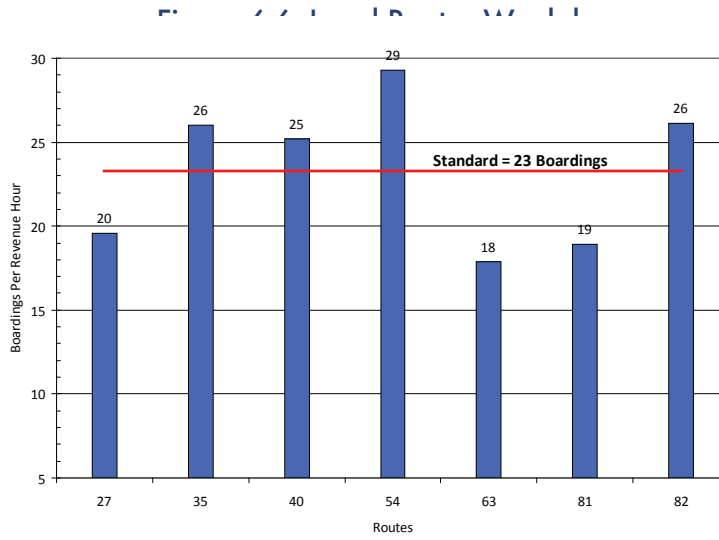
Table 6-4: Weekday Local Ridership by Time of Day

Route	Peak	Midday	Off Peak
27	510	505	129
35	694	660	226
40	537	526	131
54	562	471	153
63	520	454	114
81	632	486	87
82	723	764	112
Total Ridership	4,178	3,866	952

The local routes are designed to serve minor trip generators and therefore carry a much smaller number of riders on an average weekday than the core network does. Lines 35 and 82 carry the most number of people, while all other local routes carry between 1,000 and 1,200 people. The number of people traveling during peak hours is not much larger than those using these routes during the midday.

Figure 4-5: Weekday Local Ridership by Time of Day





Feeder Routes

Feeder routes serve the purpose of connecting small scale trip generators to the core network and larger transit system. Unlike other types of routes more people ride these lines during the midday rather than during peak hours.

Half of the feeder routes meet the performance standards on the weekdays and three meet them on the weekends. The feeder network includes Line 12 which runs only on the weekend and consistently performs above the standard. The 51, 52, 53 and 76 run only on the weekdays. While the 51 and the 53 meet the standard, the 52 and the 76 are well below the standard of 23 boardings per revenue hour. The 10 and 31 are consistently below the standard, where as the 33 underperforms on the weekdays and barely meets the standard on the weekends. The 46 and 47 both do better on the weekdays than they do on the weekends, though the 47 maintains the standard throughout the week. Recommendations for all underperforming lines, with the exception of the 76 are proposed.

Line 12 operates only on the weekend and Line 43 operates only on Sundays. For this reason ridership activity for these two lines has been separated.

Table 6-5: Weekend Ridership by Time of Day

Route	Peak	Midday	Off Peak
12	906	31	
43	115	n/a	

Table 6-6: Weekday Ridership by Time of Day

Route	Peak	Midday	Off Peak
10	491	507	269
31	425	422	73
33	111	125	32
46	579	294	70
47	472	412	116
51	522	497	32
52	132	193	-
53	463	387	27
76	50	20	-
Total Ridership	3,245	2,857	619

Figure 4-9: Weekday Feeder Ridership by Time of Day

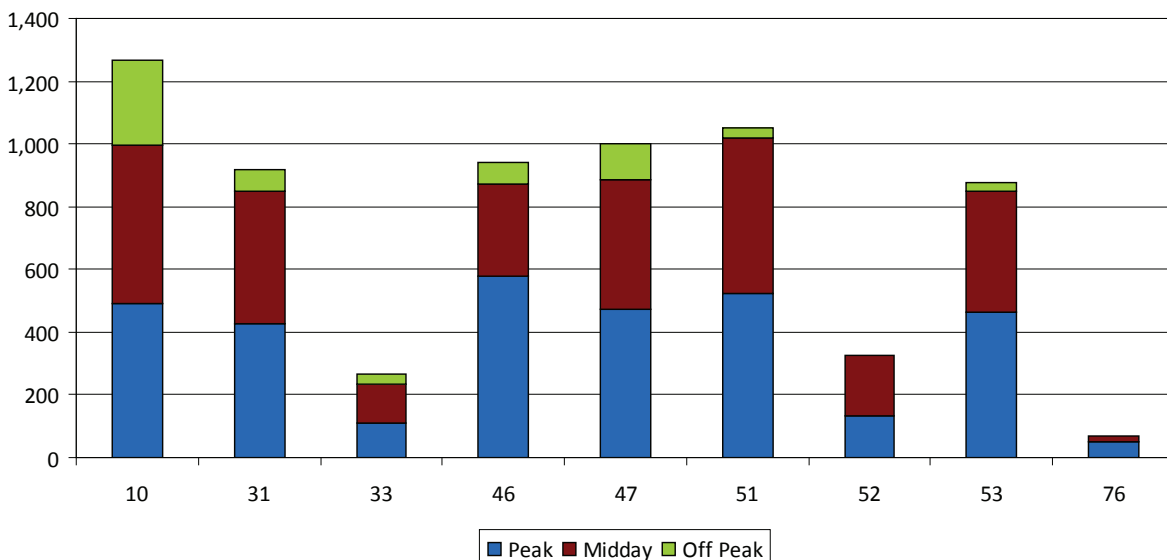
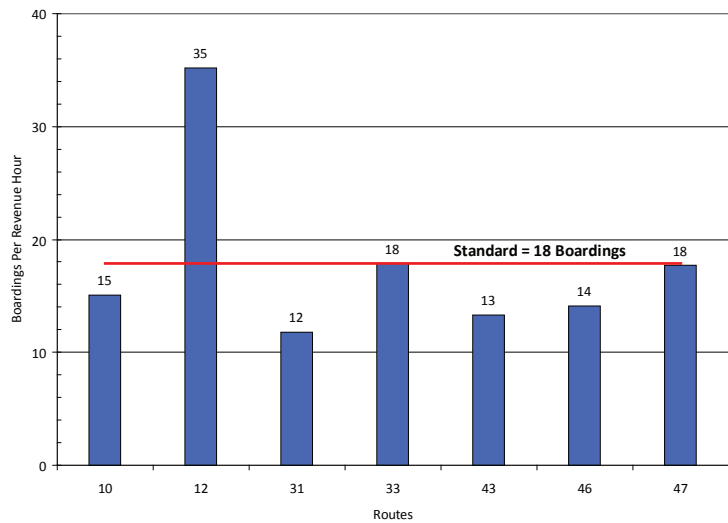
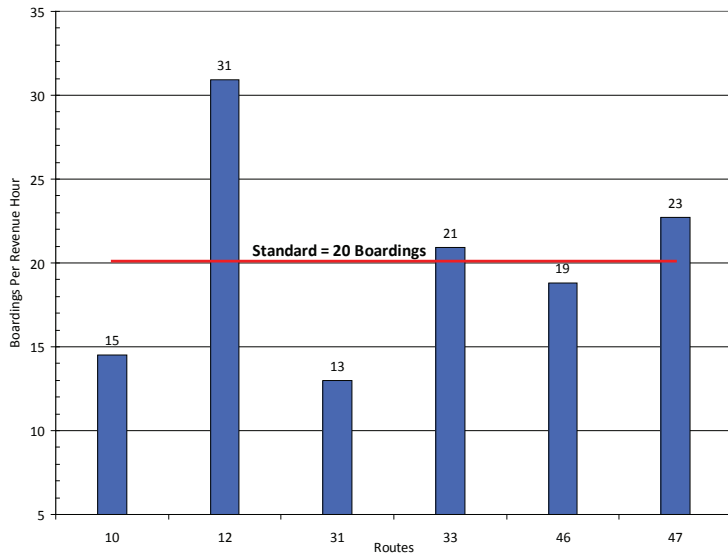
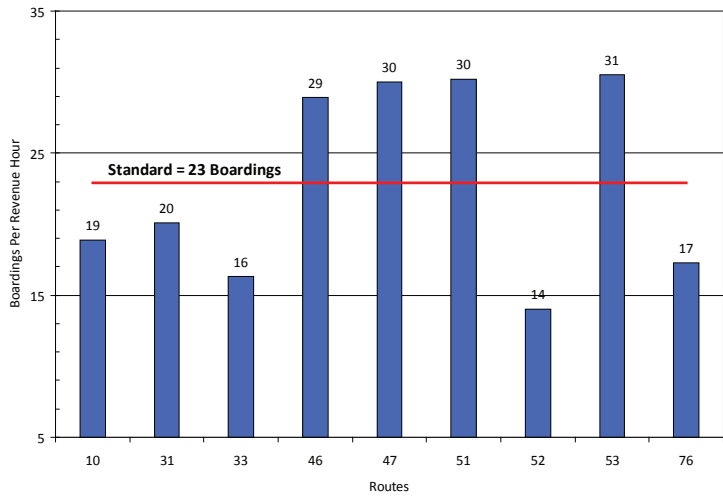


FIGURE 10: BOARDINGS PER REVENUE HOUR



Community Bus and Shuttle Routes

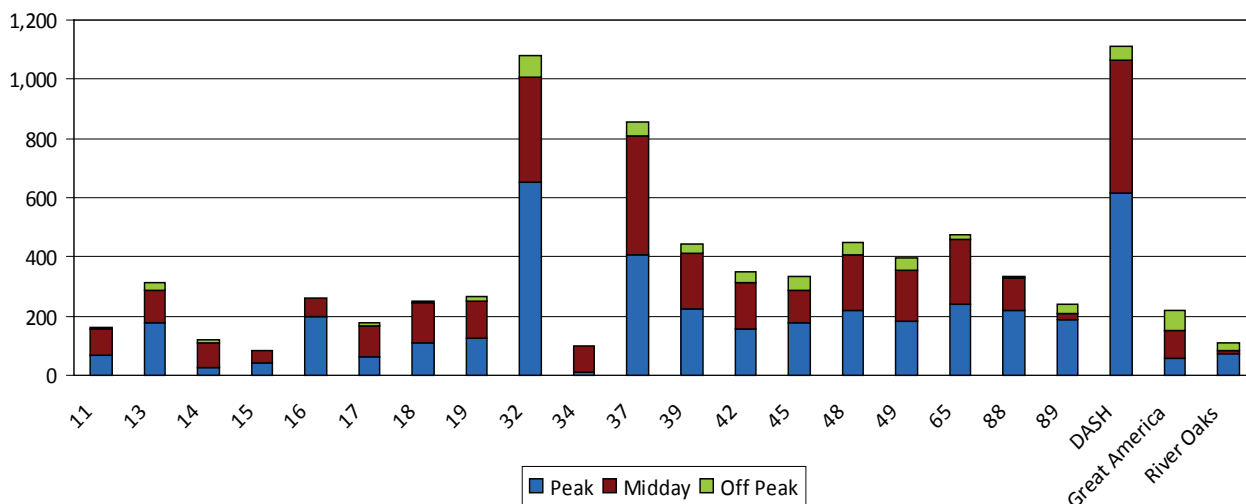
The majority of the community bus and shuttle routes meet or are close to meeting the absolute minimum of 15 boardings per revenue hour. The routes that fall short of this minimum or the standard of 18 boardings per revenue hour will undergo minor changes or marketing efforts to boost ridership. Line 15 has maintained extremely low ridership despite changes to service, marketing campaigns and public outreach. Due to this low ridership the route will be discontinued. The following chapter has more details on service change recommendations.

Community Bus routes and Shuttles utilize a smaller vehicle than the buses used on the other routes. These lines typically carry fewer riders than the average feeder or local bus. Lines 32, 37 and the DASH do exceptionally well, transporting almost twice as many people in a day as any of the other lines in the network. The ridership leans more towards peak hours, but many of the lines also have a healthy midday ridership base.

Table 6-7: Weekday Community Bus and Shuttle Ridership by Time of Day

11	69	90	5
13	177	112	25
14	28	83	8
15	41	41	4
16	196	64	-
17	61	108	9
18	110	134	7
19	123	128	15
32	651	355	76
34	-	99	-
37	408	402	45
39	223	187	36
42	158	154	35
45	175	114	45
48	217	190	41
49	185	169	41
65	239	221	14
88	228	108	-
89	190	21	28
DASH	614	449	50
Great America	58	92	68
River Oaks	73	10	26
Total Ridership	4,228	3,320	585

Figure 4-13: Weekday Community Bus & Shuttle Ridership by Time of Day



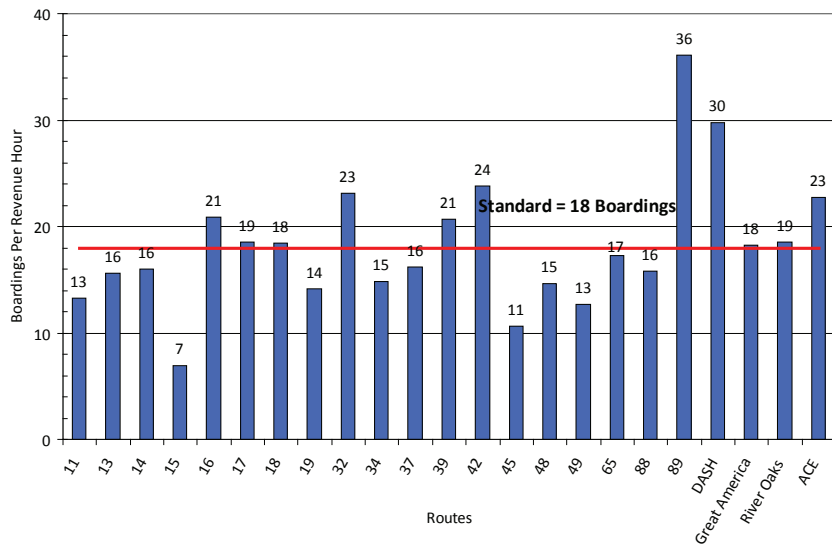


Fig 2.15 Comparison of Boardings Per Revenue Hour by Routes

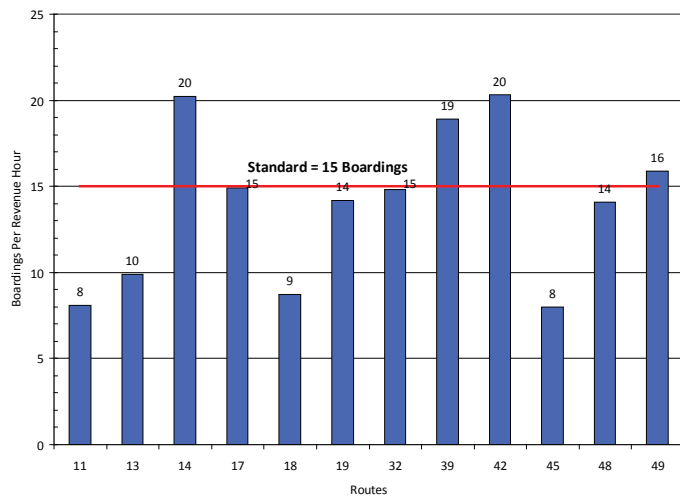
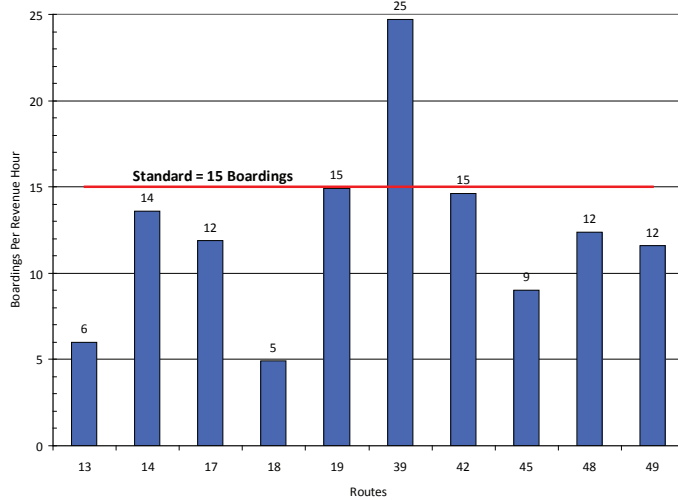


Fig 2.16 Comparison of Boardings Per Revenue Hour by Routes



Express Routes

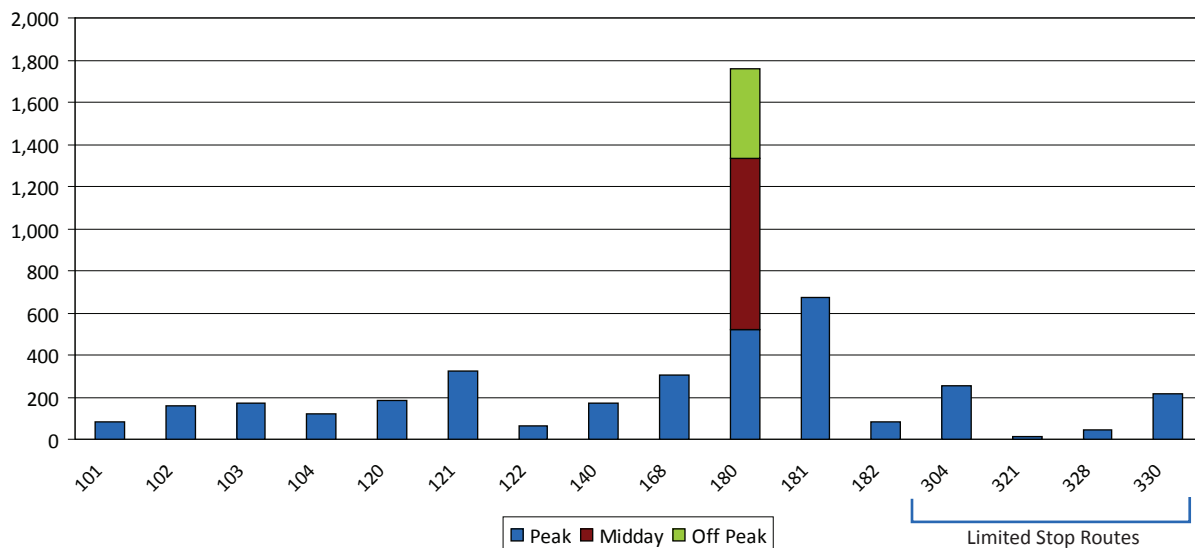
Many of the express routes do not meet the performance standard of 22 peak boardings per trip, but are close to meeting this standard. Express lines 102, 120, 121, 122 and 168 are performing well as are the Limited Stop Lines 304, 328 and 330. Marketing of other routes will be implemented to increase the ridership levels.

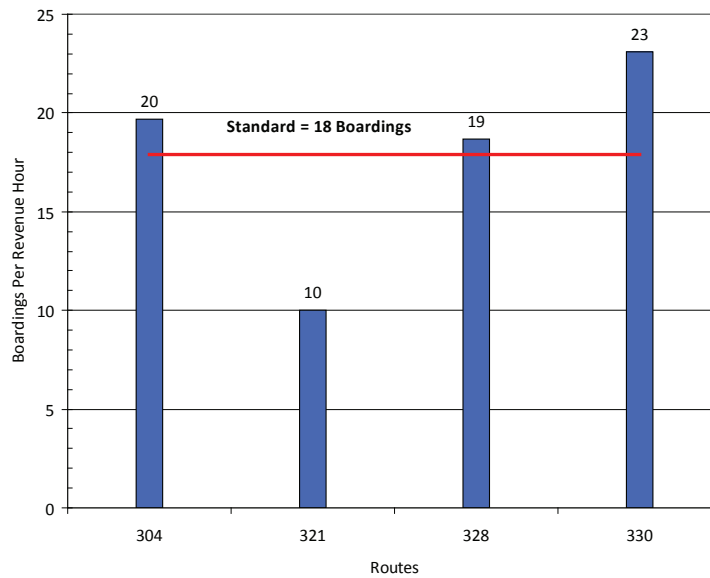
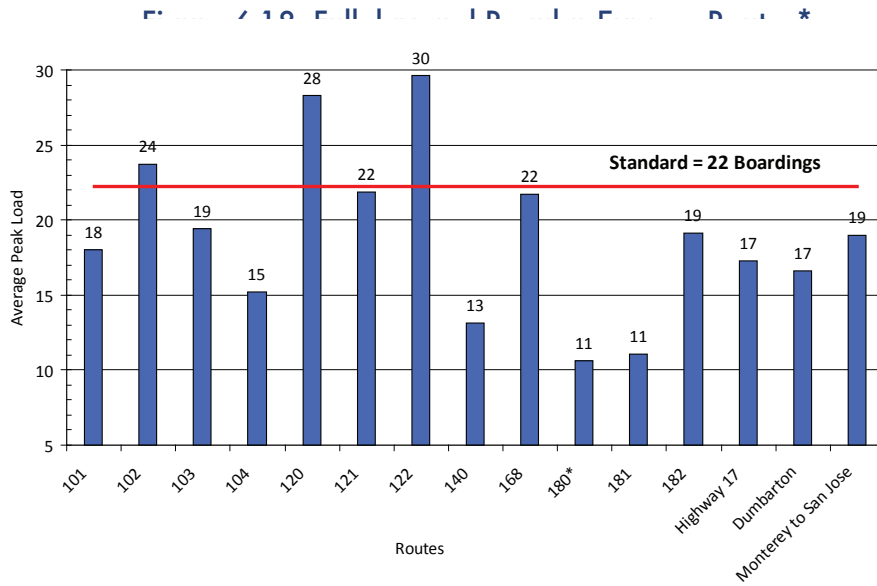
The express routes are intended for people who travel great distances and want to do so in a shorter period of time. To achieve this aim the express routes have fewer stops and operate at peak hours primarily on expressways. The majority of riders are commuting during peak hours and the schedules of these routes reflect this travel demand. The 180 is an exception to this trend; it operates as an all-day express and has a steady ridership base throughout the day.

Table 6-8: Weekday Express Ridership by Time of Day

Route	Peak	Midday	Off Peak
101	84	-	-
102	158	-	-
103	174	-	-
104	119	-	-
120	184	-	-
121	322	-	-
122	66	-	-
140	156	-	-
168	306	-	-
180	523	812	424
181	673	-	-
182	84	-	-
304	256	-	-
321	14	-	-
328	42	-	-
330	213	-	-
Total Ridership	3,387	812	424

Figure 6.17: Weekday Express Ridership by Time of Day





*Note: Standard for express routes is 60% of seating capacity. The seating capacity for a 40-foot VTA bus is 37. 60% of 37 equals 22.2. The standard for Limited Express routes is calculated as boardings per revenue hour.

Light Rail

Light rail consistently performs well and carries the greatest number of riders during the peak hours. No changes are recommended as a part of this plan as light rail service will be studied separately. (See Rail System Overview Chapter for details.)

Table 6-9: Weekday Light Rail Ridership by Time of Day

Route	Peak	Midday	Off Peak	Total
Alum Rock - Santa Teresa	11,414	6,043	4,980	22,437
Mountain View - Winchester	8,238	3,269	3,646	15,153
Total Ridership	19,652	9,312	8,626	37,590

Figure 6-20: Weekday Light Rail

