

Attachment B: 2018/2019 Halifax Transit Q2 Performance Measures Report

2018/2019 – Q2 Performance Measures Report

HALIFAX
TRANSIT

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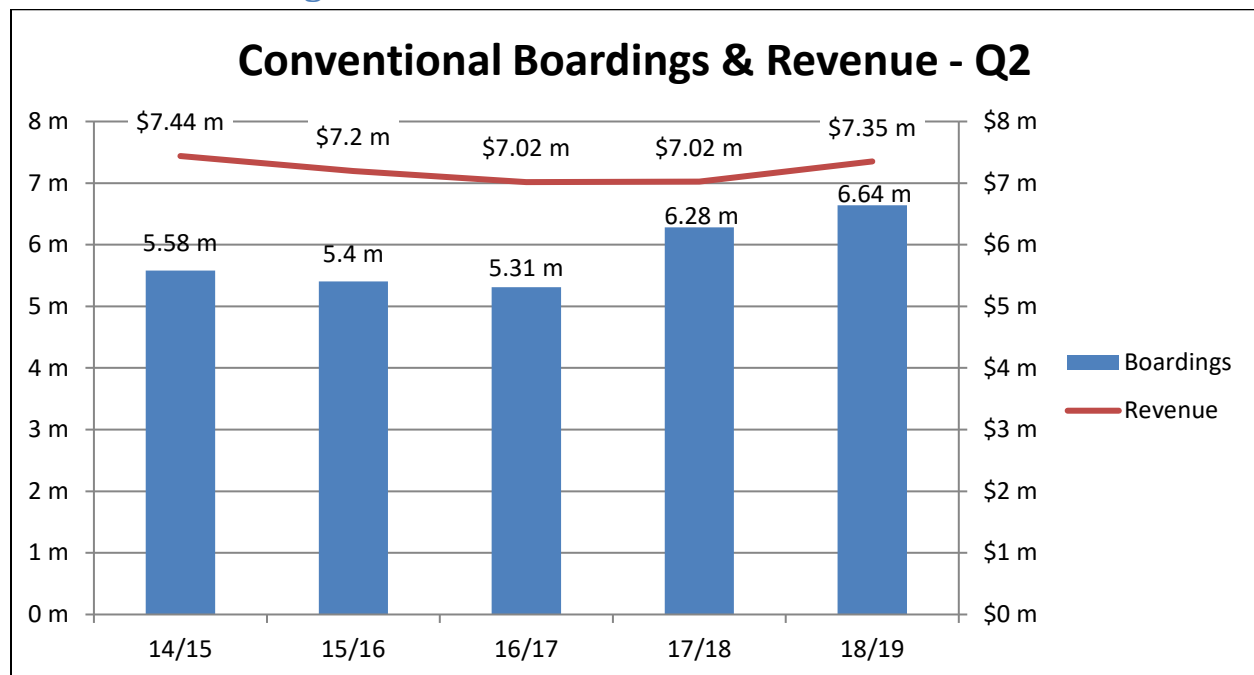
Boardings & Revenue

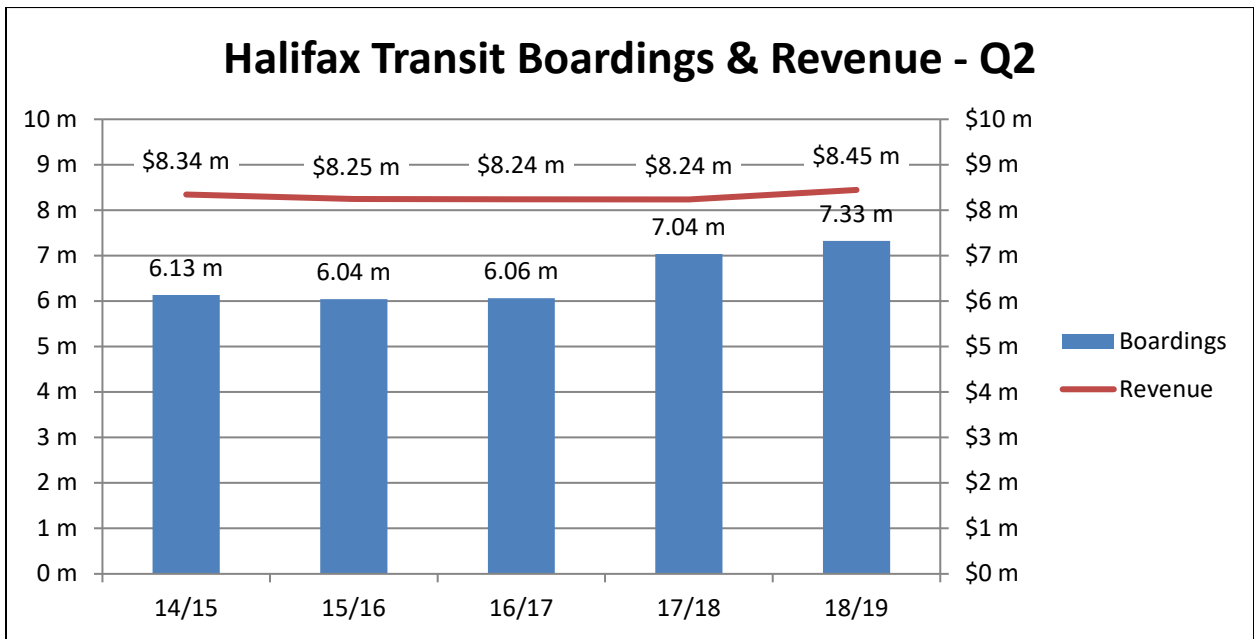
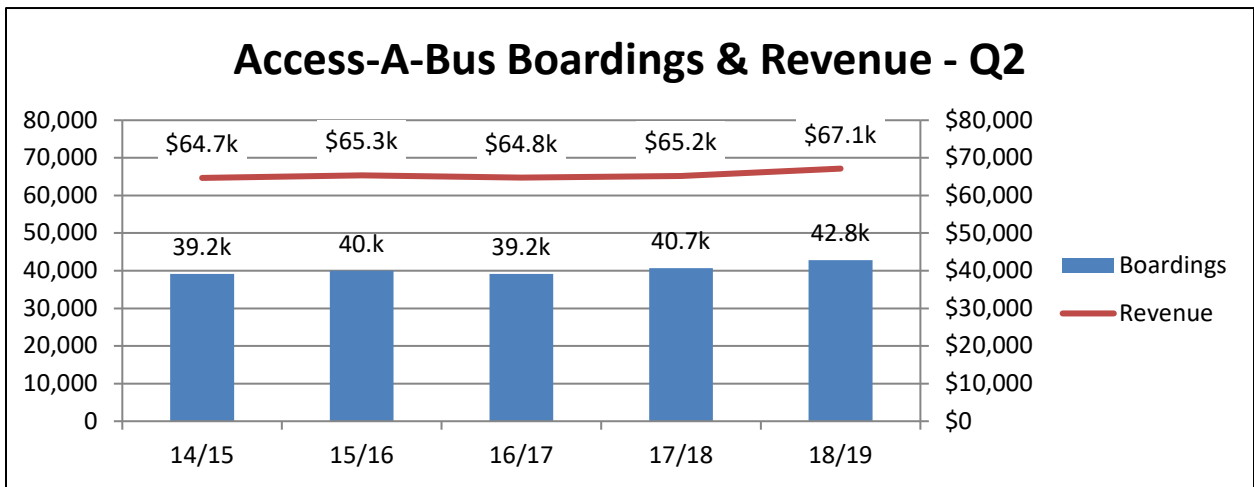
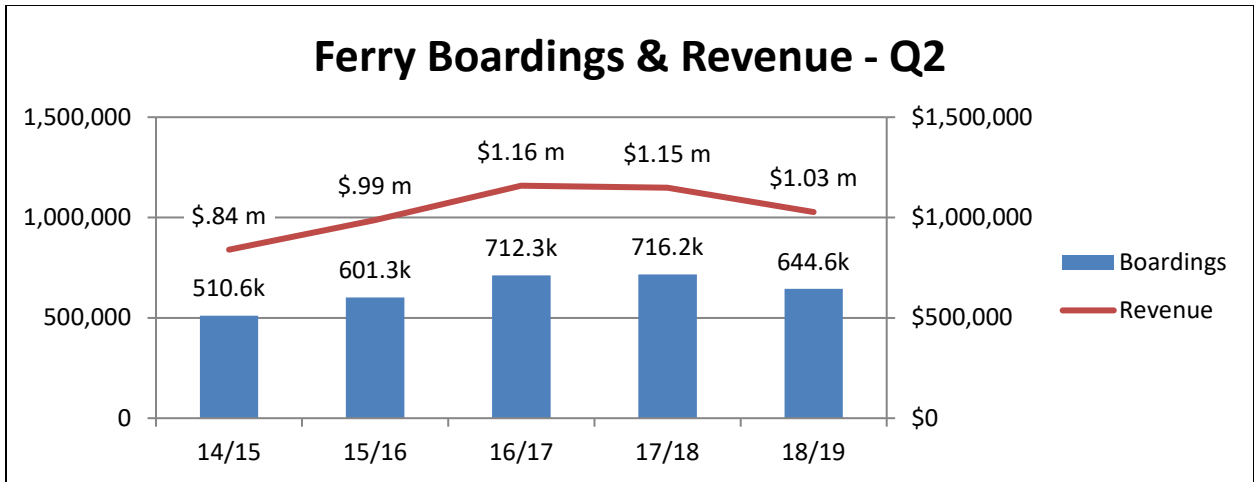
Revenue and boardings are reported to demonstrate how well transit services were used over the quarter, in comparison to the same quarter the previous year.

By installing Automatic Passenger Counter (APC) systems throughout the network in the 2017/18 fiscal year, Halifax Transit is now able to track the number of boardings by counting passengers entering the bus at each stop, regardless of revenue source instead of estimating boardings from revenue. Therefore, the data source for boardings in the chart below changed effective 2017/18. However, when a trip requires transfers, the boardings metric would count the same passenger each time they entered a new bus. This method of data collection provides a more accurate measure of how passengers are utilizing the system as assumptions related to multi-use revenue sources, such as tickets and passes, are removed, and replaced by physical counts.

In the second quarter, Conventional boardings increased 5.7% from last year, Ferry boardings decreased 10% and Access-A-Bus boardings increased 5.3%. Overall, system wide boardings increased this quarter by 4.1% compared to last year. Revenue this quarter increased 2.5% from last year. The route network changes implemented in August 2018 would have resulted in more passengers transferring at the Lacewood Terminal and Mumford terminal, which partly attributes to the increase in boardings in Q2 2018/19.

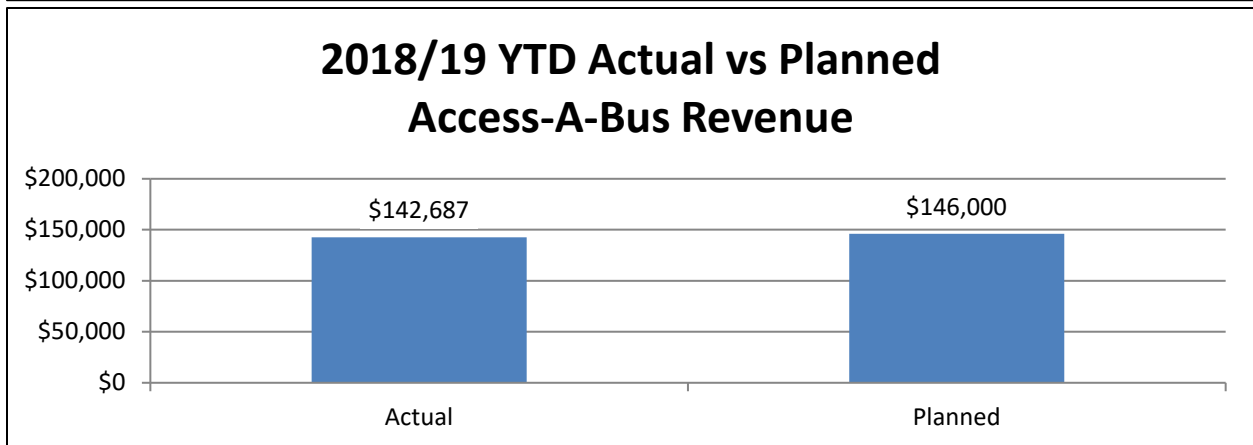
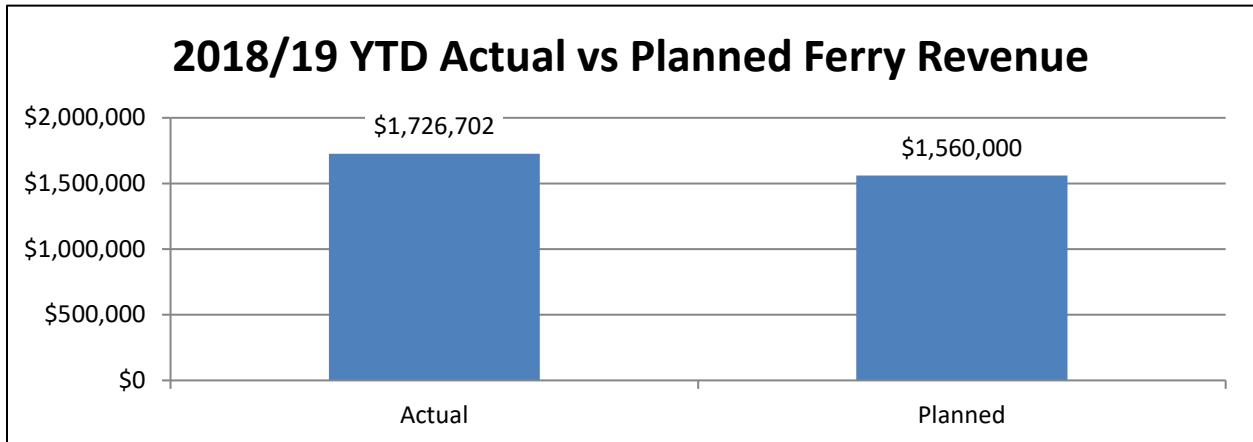
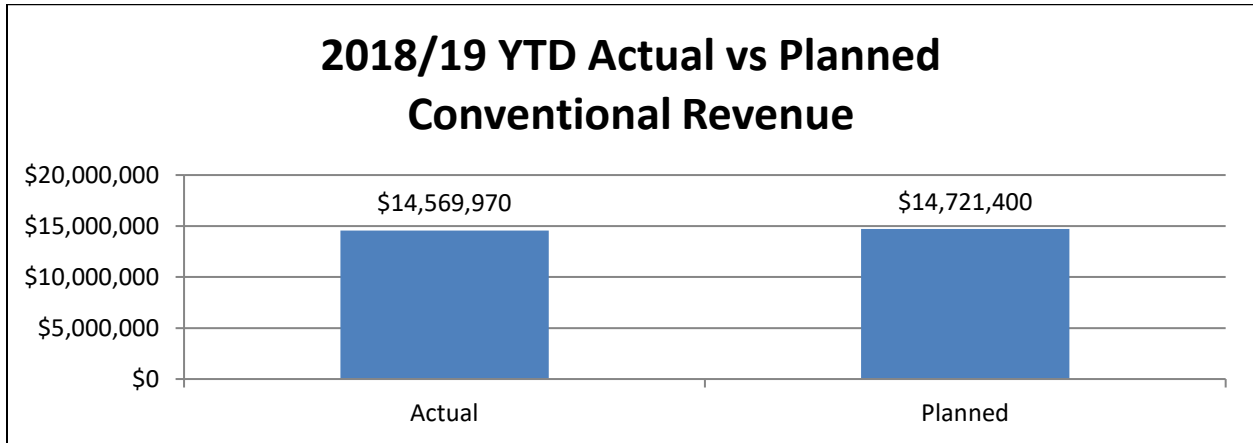
Historical Boardings & Revenue

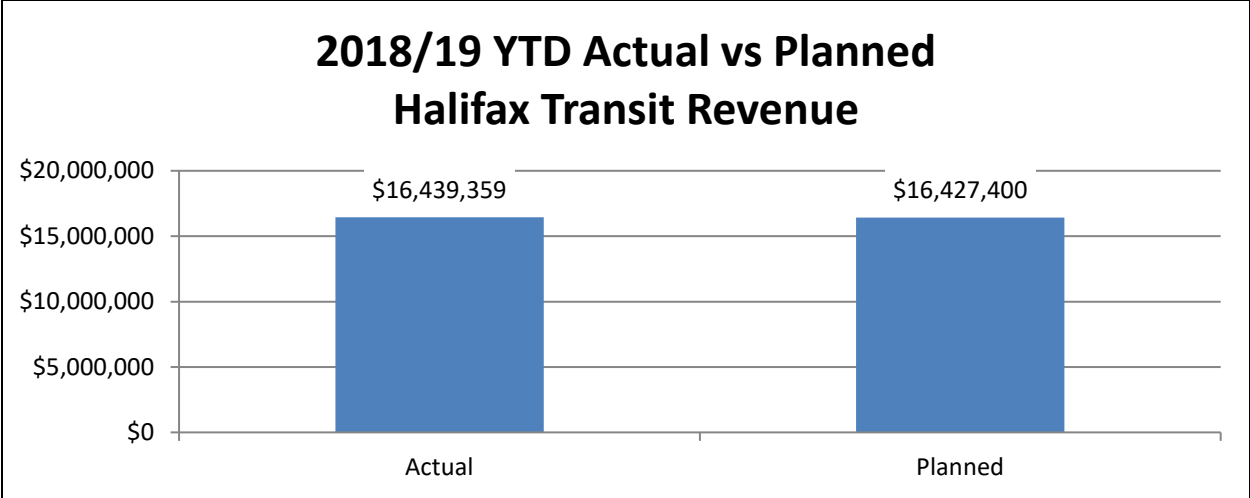




Revenue – Actual vs. Planned

The following charts provide an indication of how much revenue has been generated by each service type and by Halifax Transit in comparison to the planned budget revenue. Conventional revenue to date increased 4.8% from this time last year and is trending 1% below the planned amount. Ferry revenue to date decreased 7.5% from last year, however is trending 9.7% above the planned amount, as the planned amount did not account for the additional midday service that was retained for 2018/19. Access-A-Bus revenue to date has increased 2.9% and is trending 2.3% below the planned amount. Overall revenue to date has increased 3.4% from this time last year and stands at 0.1% higher than the planned amount.





Mean Distance Between Failures

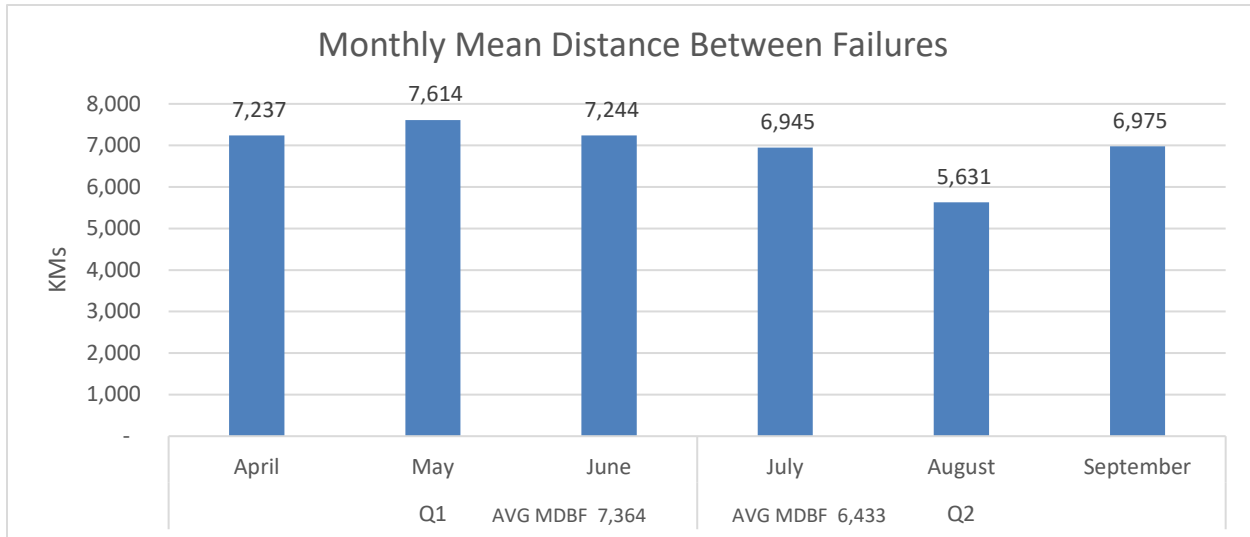
Introduction

Halifax Transit consulted with a number of transit authorities in Canada, and the Canadian Urban Transit Association (CUTA), to understand the difference between past maintenance performance indicators and the industry standard. As a consequence, it was determined that Halifax Transit had reported all maintenance service calls, while other jurisdictions removed service calls associated with auxiliary equipment such as AVL, communication equipment, fareboxes, alarms, lights, passenger-related issues, etc. Also, some jurisdictions reported the number of change-offs (buses discontinuing their scheduled service) to be reflected as failures instead of service calls. Halifax Transit has selected to continue reporting service calls but as a separate metric; Mean Distance Between Service Calls. In order to remain consistent with the industry standard, a new metric defined as Mean Distance Between Failures (MDBF) has been selected and defined below.

Mean Distance Between Failures

Halifax Transit's Mean Distance Between Failures (MDBF) is the distance in kms covered between failures. CUTA references the Federal Transit Administration's definition of failures which states that there are two classes of failures. The first being major mechanical system failures, which is the "failure of some mechanical element of the revenue vehicle that prevents the vehicle from completing a scheduled revenue trip or from starting the next scheduled revenue trip because actual movement is limited or because of safety concerns." The second type is other mechanical system failures which is the "failure of some other mechanical element of the revenue vehicle that, because of local agency policy, prevents the revenue vehicle from completing a scheduled revenue trip or from starting the next scheduled revenue trip even though the vehicle is physically able to continue in revenue service". Therefore, the MDBF is equal to the number of instances whereby a failure resulted in a change-off of the bus or service being lost. This metric does not consider failures resulting from passenger-related events (i.e. sickness on the bus), farebox defects or accident damages as they do not impede the scheduled revenue trips, which aligns with other transit authorities surveyed. Due to the nature of the data sources, Halifax Transit is looking to improve the accuracy of this number by removing failures that were logged, but resulted in "no fault found". Currently, the reported number does include these items.

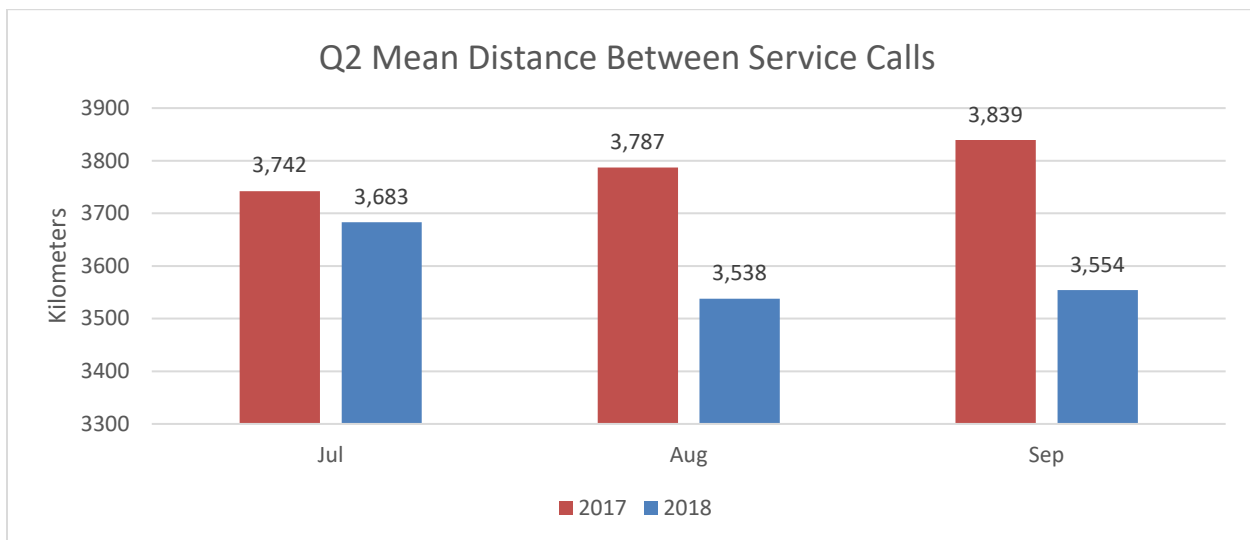
For the second quarter of 2018, the MDBF for conventional transit is 6,433 kms. This key performance indicator is under review and a target is to be established in Q3 of 2018/19. In comparison to the second quarter of 2017/18, this is a 13% decrease which is mostly due to defects related to hot weather and engine issues. The Halifax Transit bus maintenance department is currently working on a plan to increase the MDBF for conventional transit by targeting the engine aftertreatment systems and cooling systems.



Mean Distance Between Service Calls

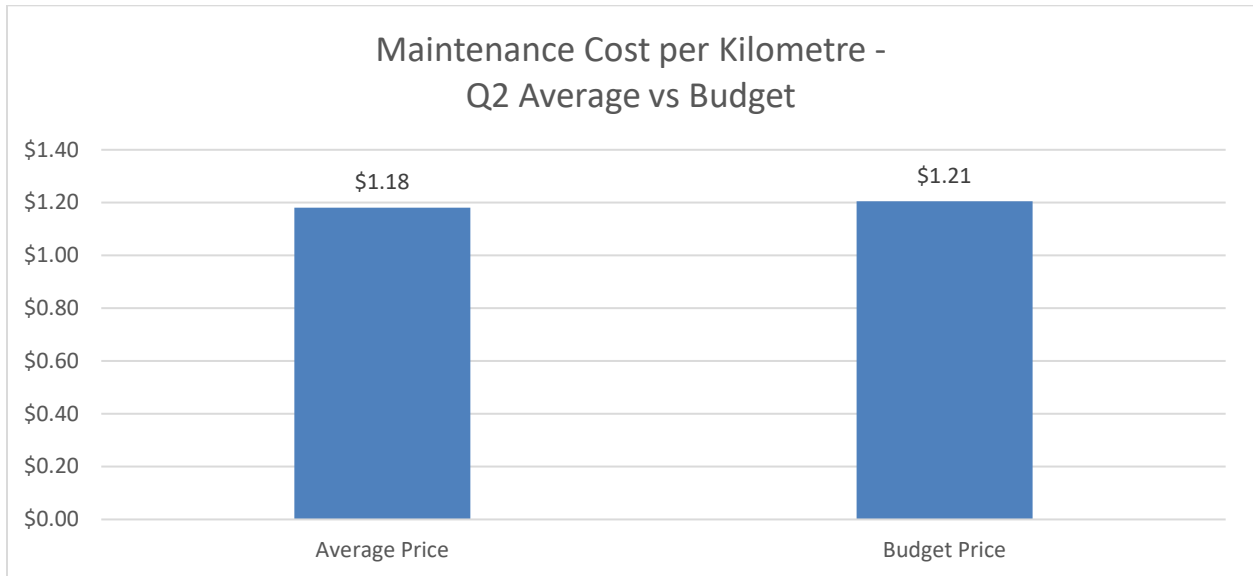
In order to continue monitoring the number of maintenance service calls, this will be reflected as a separate metric; Mean Distance Between Service Calls (MDBS). This number will reflect the distance in kilometres covered on average between maintenance service calls. This number includes all instances of service calls including issues with secondary equipment, passenger-related events and damages to the bus resulting from minor accidents.

For the second quarter of 2018, the MDBS for conventional transit was 3,591 kms. In comparison to the second quarter of 2017 (3,789), this is a decrease of 5%. For the second quarter of 2018, the MDBS for Access-A-Bus service was 81,857 kms.



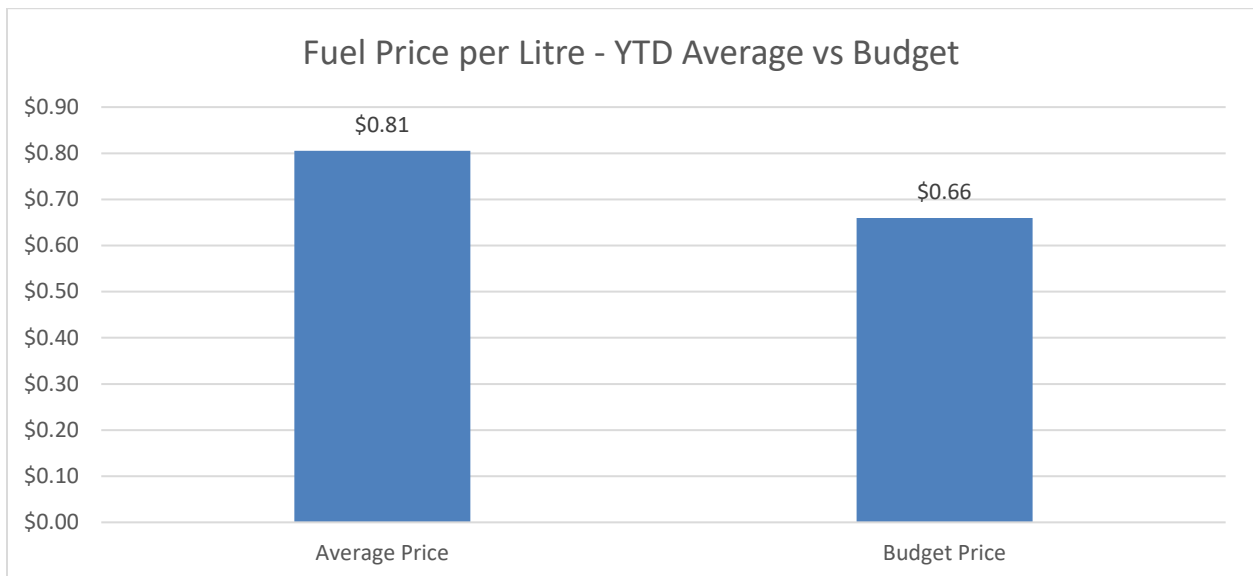
Bus Maintenance Cost – Quarter Average vs Budget

In the second quarter maintenance costs were \$1.18/km, while the budgeted maintenance cost was \$1.21/km. Therefore, in the second quarter the average cost was favorable to budget by \$0.03/km or 3%. Halifax Transit is looking to utilize more scheduled preventative maintenance work and use predictive maintenance measures in order to continue to budget better through a more structured maintenance approach.



Fuel Price – Year to Date Average vs Budget

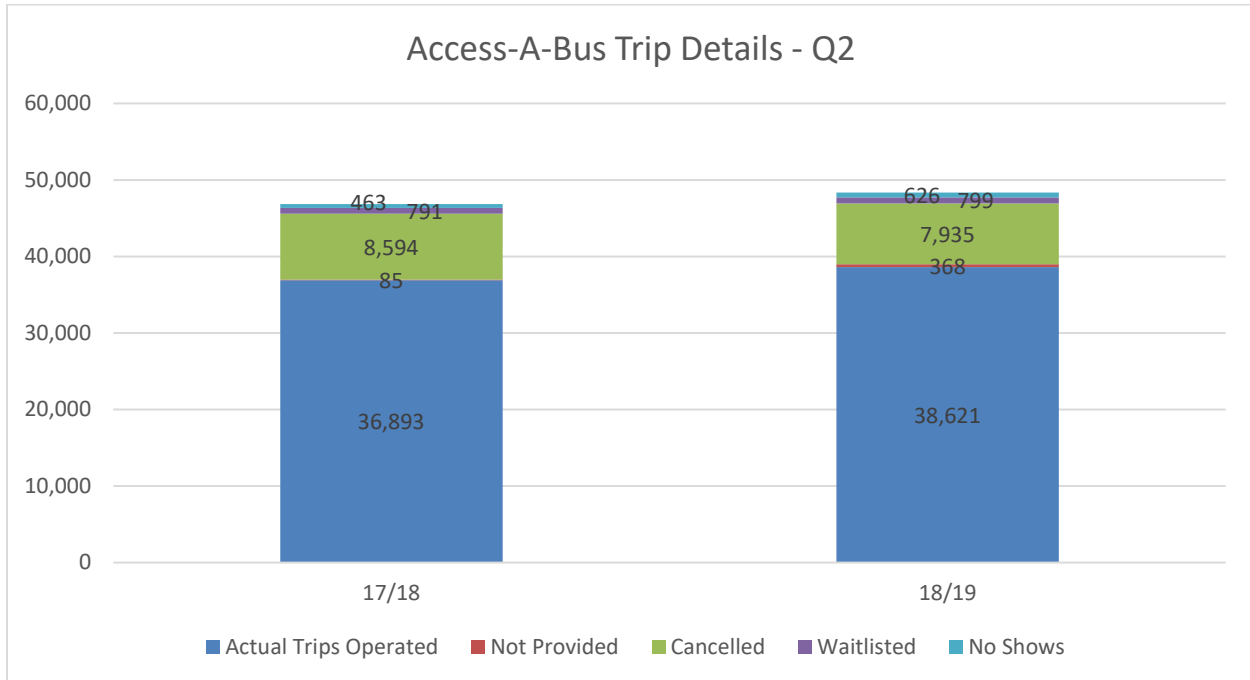
The budgeted fuel price for 2018/19 was set at 66 cents/litre. In the second quarter the average fuel price was \$0.81, 15 cents per litre higher than the budgeted cost.



Access-A-Bus Trip Details

Access-A-Bus trip details are tracked monthly to provide an indication of efficiency in Access-A-Bus usage and booking. In April 2018 Access-A-Bus completed a scheduling software upgrade and process improvement review. After introducing these new, standardized processes, scheduling effectiveness has improved. These changes have resulted in statistics, such as the number of trip cancellations, no shows and errors, being recategorized and therefore may not be comparable with prior years.

In the second quarter of 2018/19, 1,700 more trips were operated, compared to second quarter 2017/18, an increase of 4.7% and 8 more clients were waitlisted, an increase of 1% over last year.



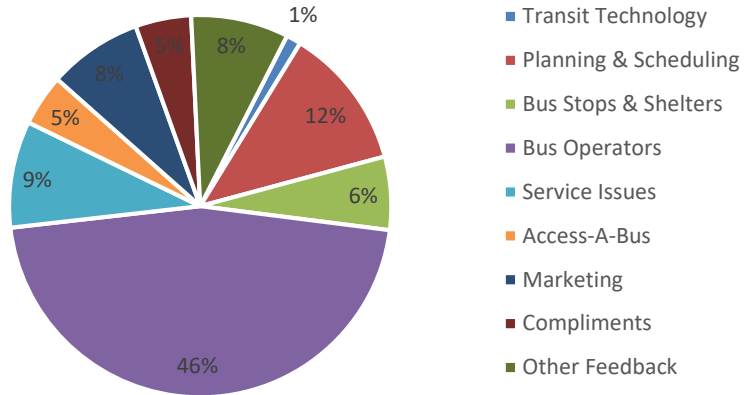
Customer Service – All Services

Customer service statistics are measured monthly using the Hansen Customer Relationship Management software along with Crystal Reports. Feedback is first categorized by subject matter and then divided into two categories: feedback resolved within service standard and feedback resolved outside service standard. The service standard varies depending on the subject matter.

This quarter, 46% of feedback received was related to bus operators and 9% regarding service issues. The remaining 37% is comprised of feedback regarding planning and scheduling, bus stops and shelters, marketing, compliments and other miscellaneous comments. Halifax Transit aims to address 90% of feedback within service standard. This quarter 95% of customer feedback was resolved within standard.

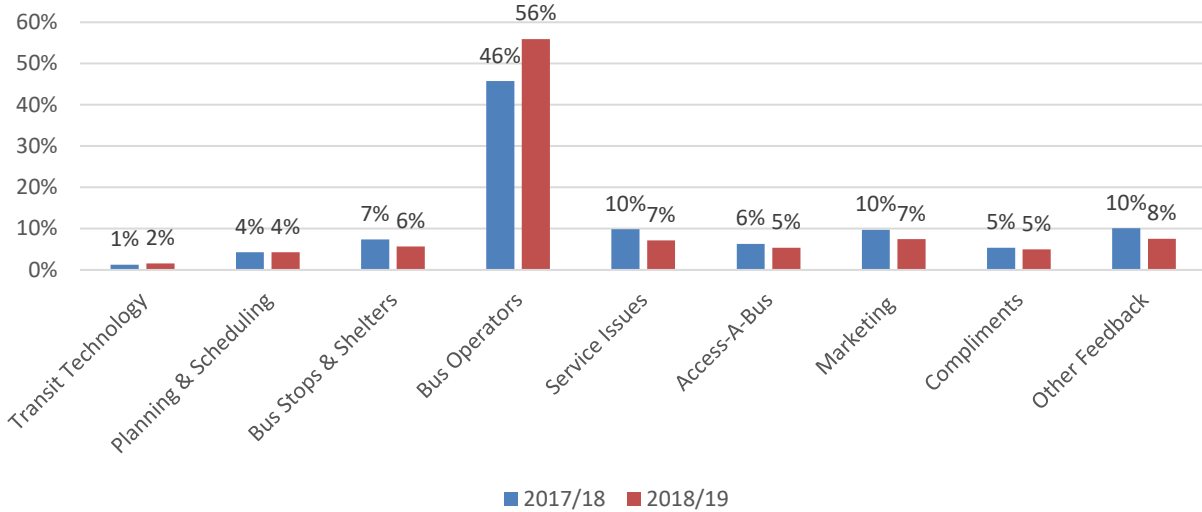
Call volumes to the Departures Line (902-480-8000) are displayed by day of the week. In the second quarter of 2018/19, average call volumes were lower than this time last year. Significant service adjustments implemented August 20, 2018 required passengers to learn new routes. In contrast, where Departures Line calls decreased, transit related inquiries to the HRM Citizen Contact Centres increased significantly, as passengers sought new route information and assistance in revising their trip plans using the new routes.

Summary of Customer Feedback - Q2

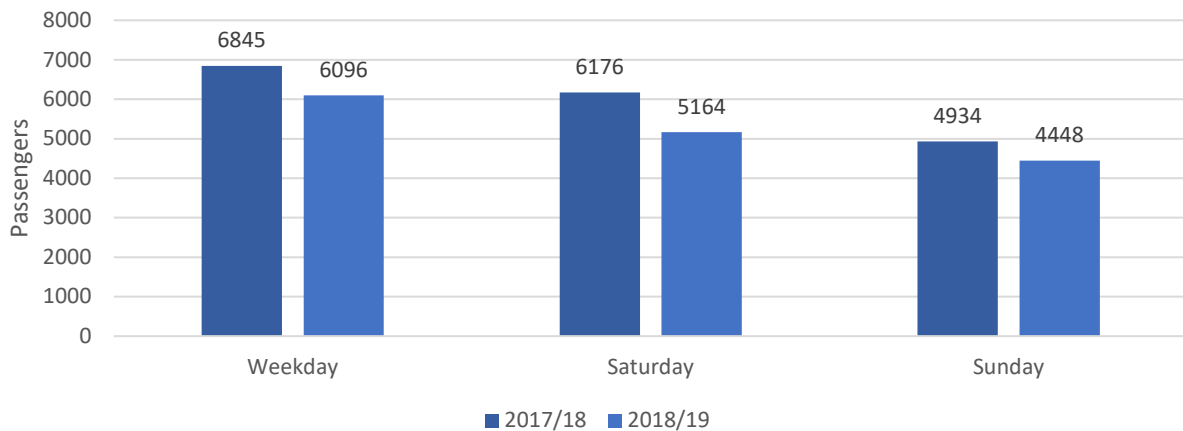


Feedback resolved within standard: 95%

Customer Feedback Comparison - Q2



Average Departures Line Call Volumes - Q2



Boardings & Passengers per Hour

Automatic Passenger Counter (APC) data is now being used to report bus ridership statistics. The APCs provide data within a 90% degree of accuracy. Boardings by Route demonstrate passenger usage during the past quarter. APC data has been collected since September 2016.

Service adjustments were implemented on August 20, 2018 as part of the *Moving Forward Together Plan* and affected routes did not run for the entire quarter. As such, boardings data for the following routes is not comparable and has not been shown.

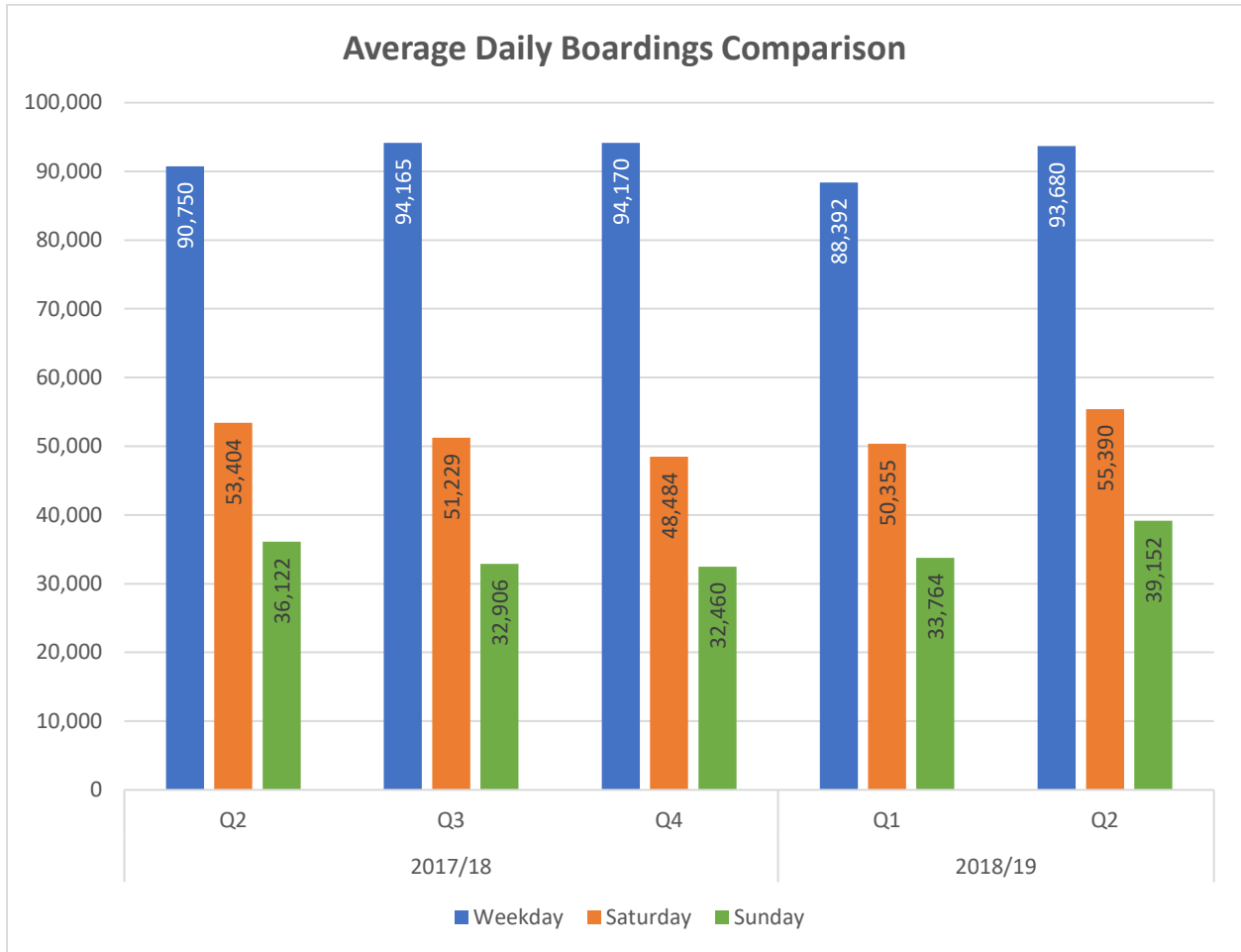
- Corridor Routes:
 - 2 Fairview
 - 3 Crosstown
 - 4 Universities
- Express Routes:
 - 123 Timberlea Express
 - 135 Flamingo Express
 - 136 Farnham Gate Express
 - 137 Clayton Park Express
 - 138 Parkland Express
- Local Routes:
 - 21 Timberlea
 - 28 Bayers Lake
 - 30 Clayton Park West
 - 39 Flamingo
- New Rural Route:
 - 433 Tantallon

Standard Deviation

The standard deviation in boardings is the degree of variance in data from the daily average passenger count.

Average weekday boardings in the second quarter were $93,680 \pm 11,444$ (12.2% variance). Average Saturday boardings this quarter were $55,390 \pm 6,821$ (12.3% variance). Average Sunday boardings this quarter were $39,152 \pm 4,309$ (11% variance).

Average Daily Boardings by Service Day



Passengers per Hour

Passengers per hour measures the volume of passengers carried per service hour by route. Due to differences in service model/design, Express Routes are measured instead by passengers per trip. Ridership fluctuates significantly by season and therefore figures are compared to the same quarter in the previous year. Conventional route targets vary by time of day and are not illustrated at this time as data is being presented over the entire service day only. Express routes have a ridership target of 20 passengers per trip, while Regional Express Routes have a target of 15 passengers per trip.

Boardings & Passengers per Hour

Q2 Comparison - Average Daily Boardings by Route												
Route	Weekday				Saturday				Sunday			
	17/18		18/19		17/18		18/19		17/18		18/19	
	Boardings	Pass/Hr	Boardings	Pass/Hr	Boardings	Pass/Hr	Boardings	Pass/Hr	Boardings	Pass/Hr	Boardings	Pass/Hr
1	8,741	60	9,419	60	6,327	49	7,475	66	4,316	51	4,807	55
2 (new)			4,379	41			4,130	41			2,070	28
2 (removed)	2,748	44	2,618	43	2,027	36	2,085	39	1,189	39	1,065	35
3 (new)			6,149	40			3,223	37			3,013	32
4 (new)			4,669	37			1,895	38			1,436	32
4 (removed)	2,497	40	2,271	38	2,092	35	1,882	33	1,228	40	1,172	37
5	105	26	110	29								
7	4,684	41	4,498	39	3,476	35	3,220	34	2,089	39	1,863	35
9			6,406	38			3,703	50			2,775	39
9A			4,311	39			1,748	49			1,206	35
9B			2,095	35			1,955	50			1,569	43
10	4,331	40	4,529	41	2,619	32	2,937	40	1,648	35	1,757	36
11	105	42	87	38								
14	2,498	39	2,501	39	1,278	37	1,278	38	1,015	35	1,011	34
15	237	16	237	16	121	14	116	11	131	17	159	13
16 (removed)	1,066	23	1,026	22	705	16	618	14				
17 (removed)	1,142	29	1,065	27								
18 (removed)	1,707	29	1,520	26	1,399	27	1,196	24	720	39	617	23
21	1,263	29	1,156	31	765	19	720	20	348	14	413	23
22	442	12	619	18	420	11	466	14	335	9	390	11
23 (removed)	342	18	333	19								
28 (new)			1,346	35			1,362	34			565	30
29			2,894	31			1,729	28			1,234	21

Q2 Comparison - Average Daily Boardings by Route												
Route	Weekday				Saturday				Sunday			
	17/18		18/19		17/18		18/19		17/18		18/19	
	Boardings	Pass/Hr	Boardings	Pass/Hr	Boardings	Pass/Hr	Boardings	Pass/Hr	Boardings	Pass/Hr	Boardings	Pass/Hr
30 (new)			824	22			599	17			336	17
30A (new)			454	24			316	18			158	14
30B (new)			370	21			284	16			179	20
39 (new)			1,279	28			882	17			360	17
41	1,098	38	1,240	39								
42 (removed)	1,142	31	996	27								
51	1,028	43	1,056	44	517	30	565	35	317	38	339	39
52	5,800	48	5,789	48	3,974	38	3,709	39	3,581	38	3,534	40
53	1,313	49	1,258	48	738	46	727	49	444	54	360	46
54	826	39	775	36	538	32	465	30	254	26	222	22
55	436	20	415	19	290	17	211	14	208	13	167	11
56	825	23	919	27	872	23	1,046	29	539	17	648	20
57	556	14	583	14	283	9	302	10	165	9	134	8
58	702	25	687	25	572	28	429	23	412	24	351	20
59	2,027	26	1,939	25	754	29	772	33	545	23	509	22
60	2,738	36	2,698	35	1,857	43	1,861	46	1,272	44	1,264	44
61	2,218	29	2,249	29	1,076	23	1,123	29	909	24	896	23
62	788	25	781	25	588	24	580	25	273	17	269	17
63	719	43	742	41								
64	320	30	438	30								
65	244	15	225	14	82	6	93	7	57	9	46	7
66	1,483	24	1,525	25	497	28	503	32	353	22	284	18
68	1,352	27	1,295	26	781	25	775	27	508	18	496	18
72	1,344	29	1,324	28	947	19	971	20	522	21	462	17
80	4,120	33	4,291	34	3,595	31	3,542	34	2,698	28	2,606	28

Q2 Comparison - Average Daily Boardings by Route												
Route	Weekday				Saturday				Sunday			
	17/18		18/19		17/18		18/19		17/18		18/19	
	Boardings	Pass/Hr	Boardings	Pass/Hr	Boardings	Pass/Hr	Boardings	Pass/Hr	Boardings	Pass/Hr	Boardings	Pass/Hr
81	1,271	24	1,350	26								
82	893	19	915	20	237	10	230	10	99	9	88	8
83	156	12	153	12	93	9	89	9	41	9	34	7
87	1,315	29	1,265	28	1,058	20	1,137	23	556	18	487	16
88	86	16	90	16	64	12	64	12	23	10	21	9
89	459	20	468	21								
90	1,223	26	1,290	27	834	17	833	18	505	20	459	18
400	204	16	194	15	58	8	82	12	56	8	64	9
401	168	13	165	13								
433 (new)			60	11								
Alderney	5,827	194	5,152	172	6,811	389	6,091	348	5,117	292	3,989	228
Woodside	2,654	126	2,388	114								

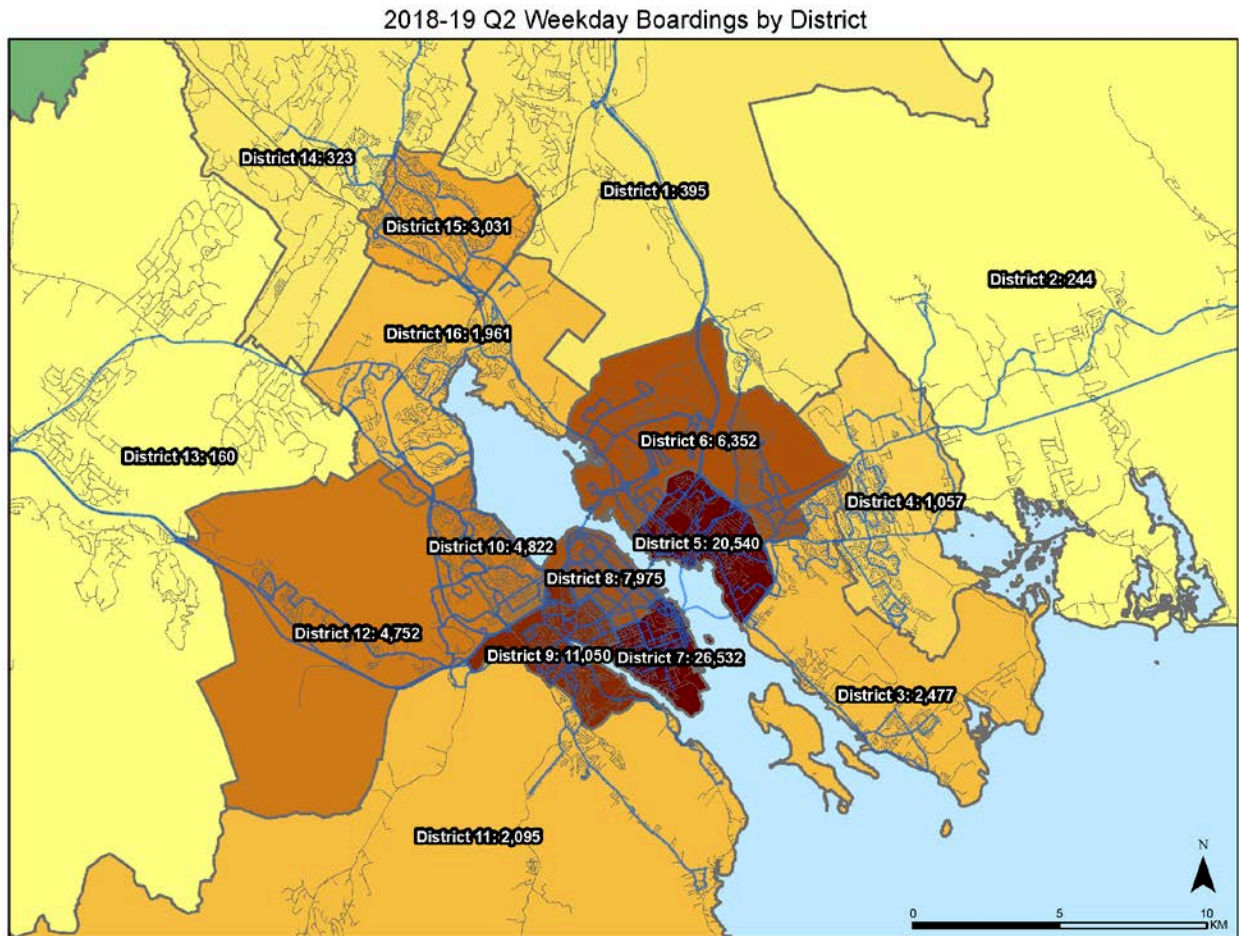
Express Service Peak Boardings and Passengers per Trip

Q2 Comparison - Average Daily Peak Boardings by Route				
Route	Weekday (Peak Only)			
	17/18		18/19	
	Boardings	Pass/Trip	Boardings	Pass/Trip
31 (removed)	255	28	250	28
32	450	25	436	24
33 (removed)	152	38	149	37
34 (removed)	646	38	618	36
35 (removed)	253	28	247	27
78	74	6	81	6
79	95	8	87	7
84	809	28	810	28
85	113	28	99	25
86	109	27	110	28
123 (new)			231	18
135 (new)			466	33
136 (new)			546	34
137 (new)			327	27
138 (new)			447	32
159	496	17	481	16
185	688	21	657	21
194 (new)			123	15
320	197	16	210	16
330	317	15	325	13
370	110	9	117	8

Boardings by District

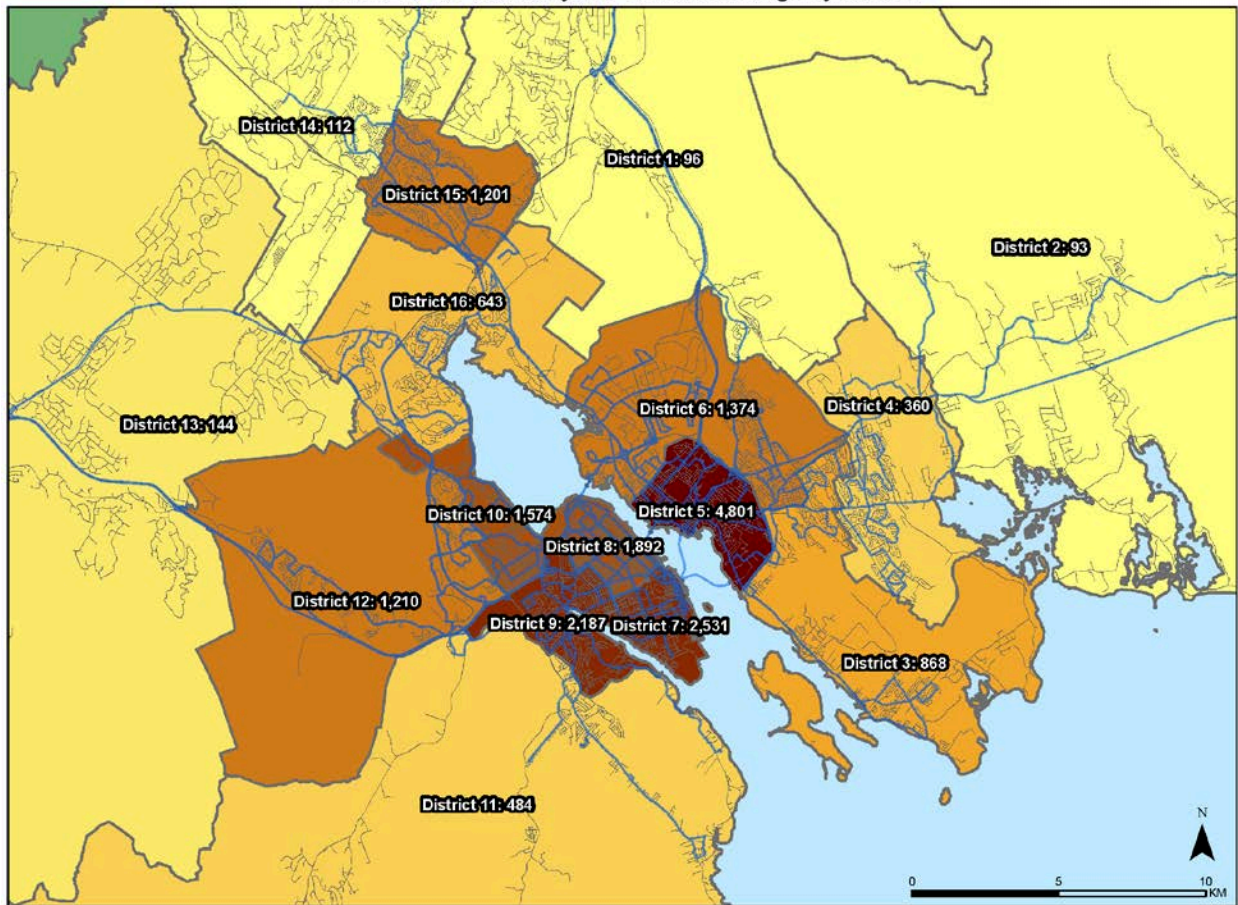
To assist in visualizing where ridership demands exist, boardings have been mapped by district. The all-day boardings map illustrates typical boardings over an entire service day, whereas the AM Peak Period map represents boardings during the morning peak period only and therefore generally illustrates passenger origins.

Weekday Boardings by District - All Day

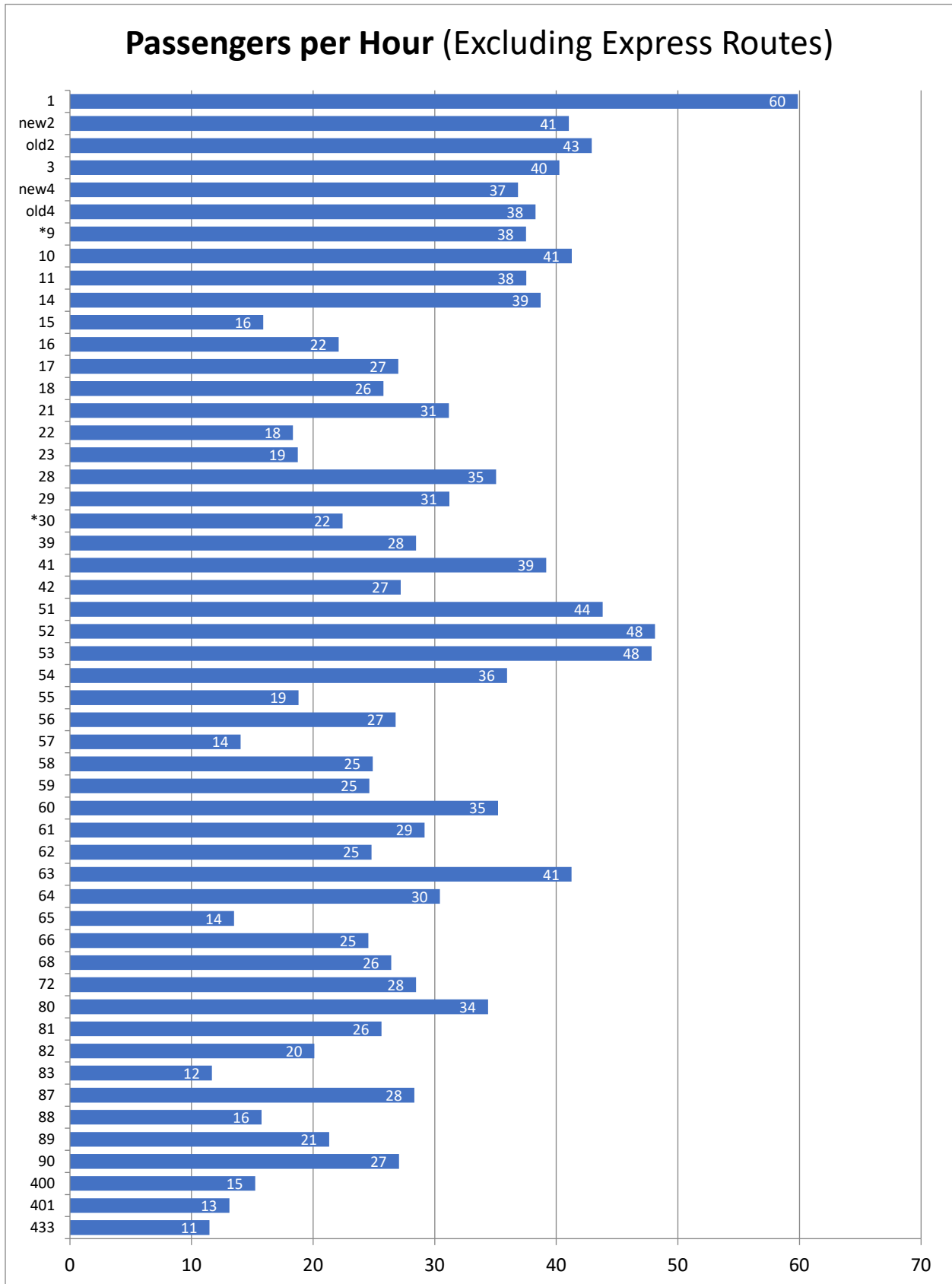


Weekday Boardings by District – AM Peak Period

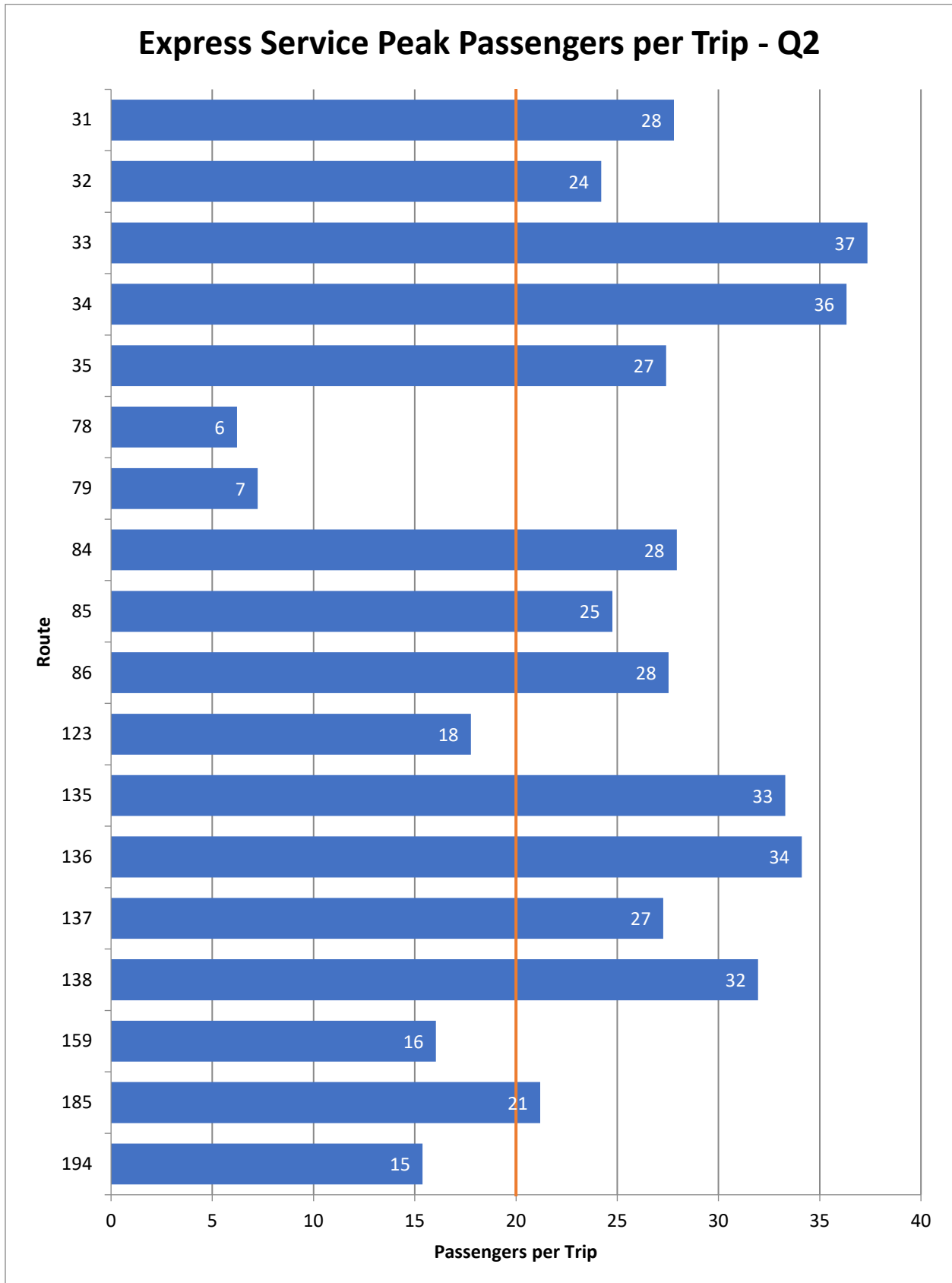
2018-19 Q2 Weekday AM Peak Boardings by District



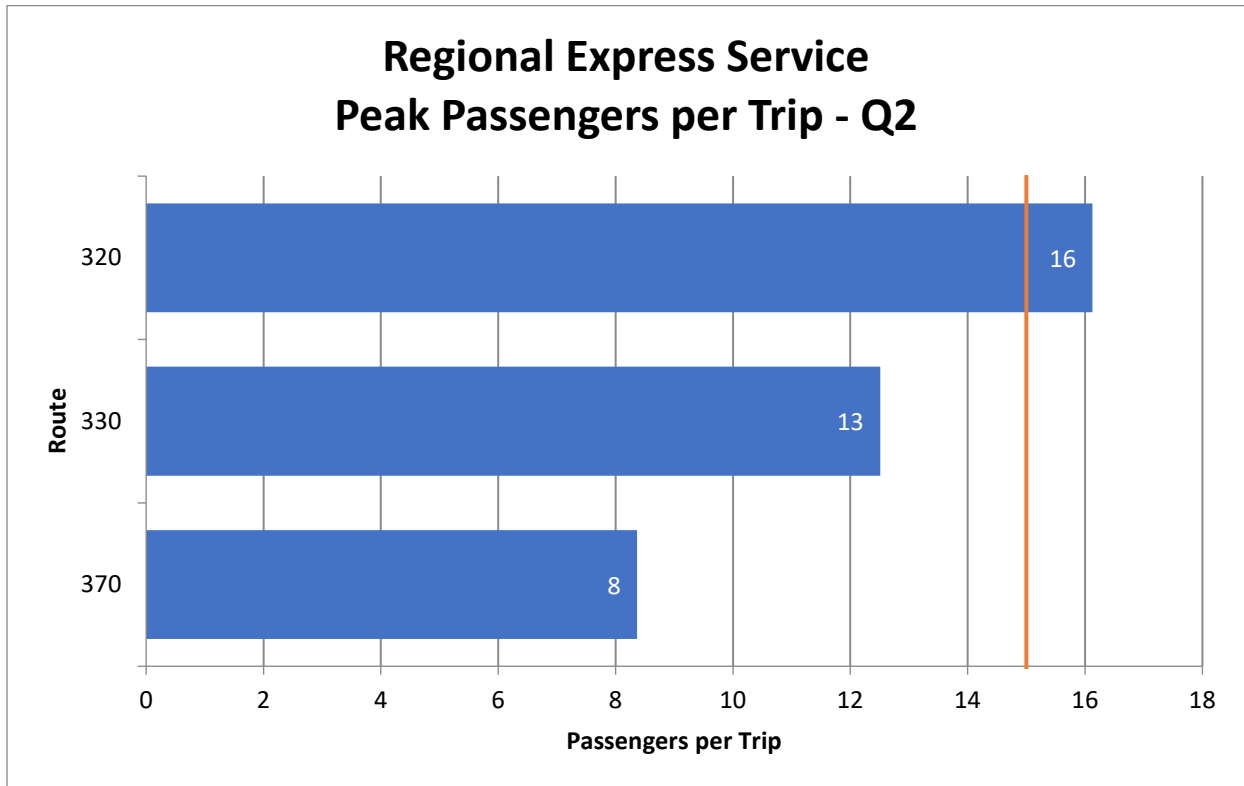
Passengers per Hour by Route



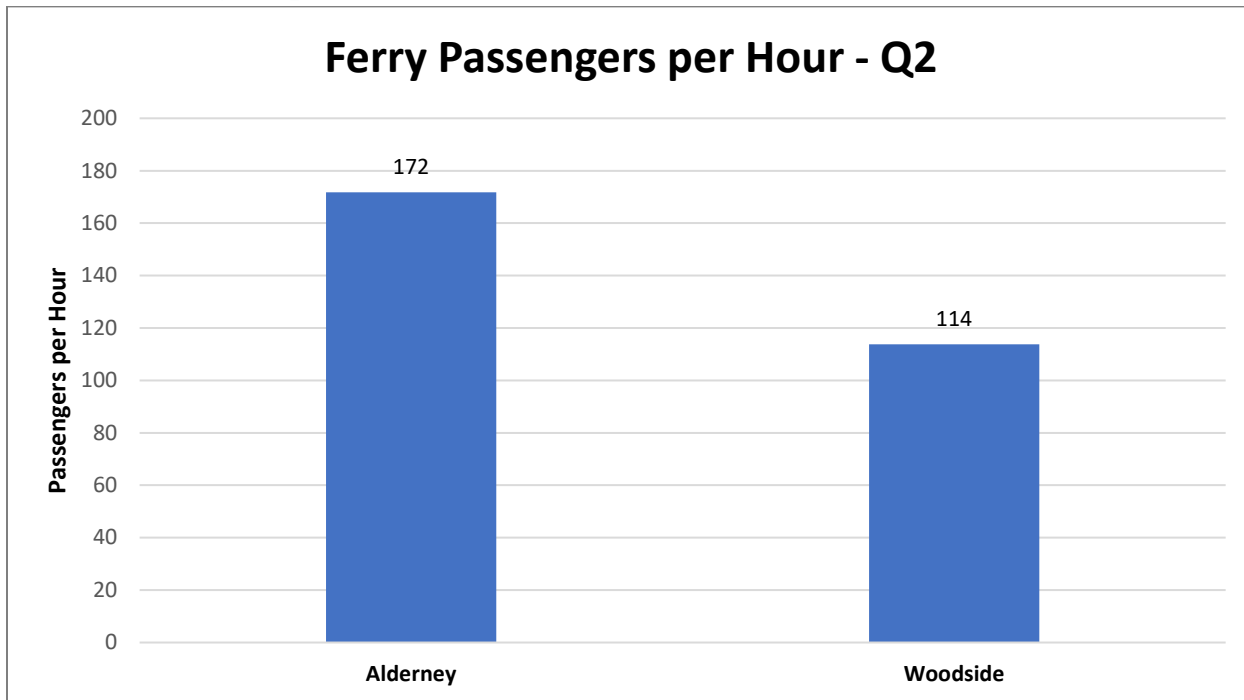
Express Service Peak Passengers per Trip by Route



Regional Express Peak Passengers per Trip by Route



Ferry Passengers per Hour



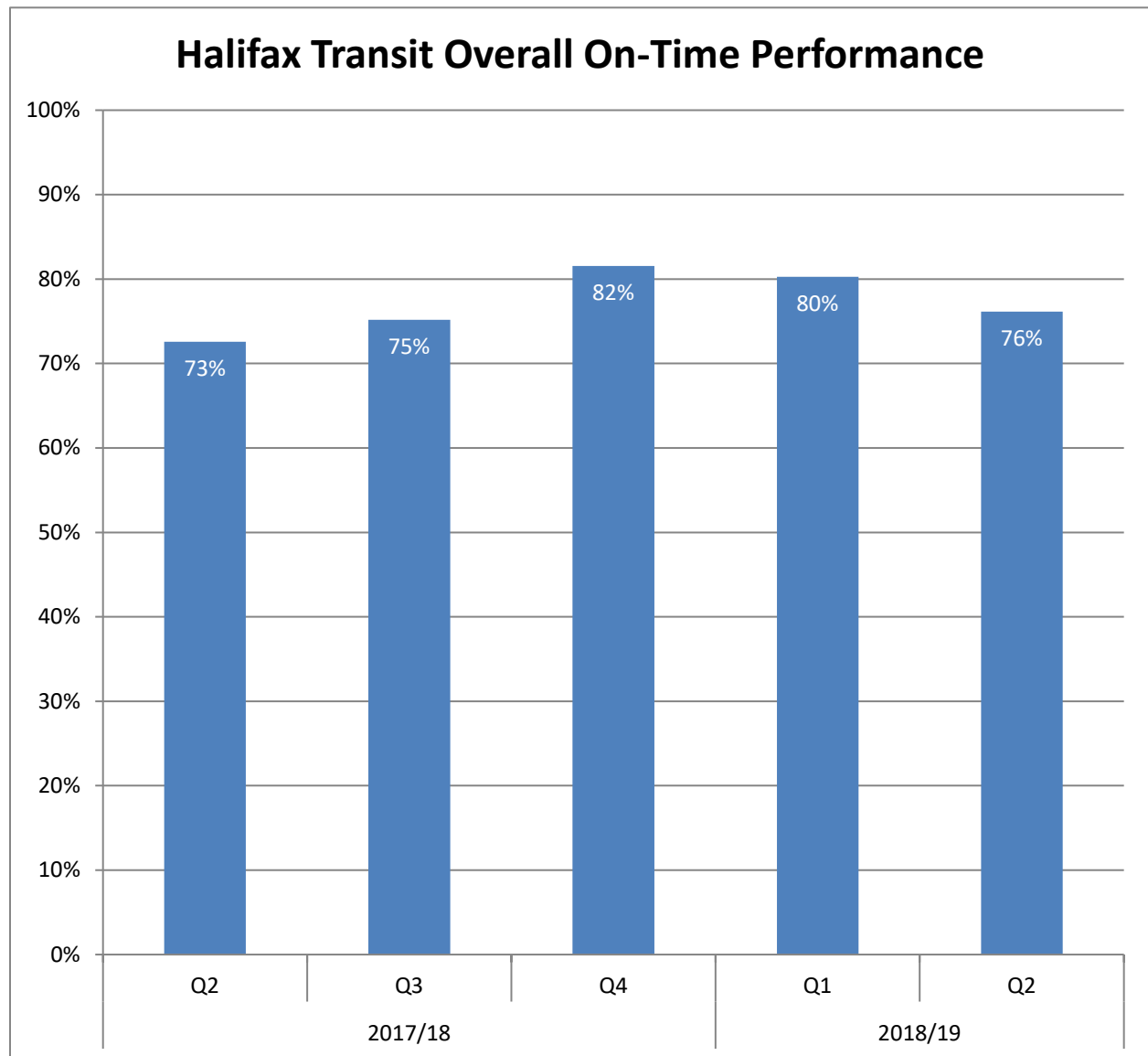
On-Time Performance

On-time performance is a measure of route reliability and is tracked monthly to demonstrate schedule adherence across the network of routes. Terminals and select bus stops along each route are classified as time-points and have assigned and publicized scheduled arrival times. On-time performance demonstrates the percentage of observed time-point arrivals that are between one minute early and three minutes late.

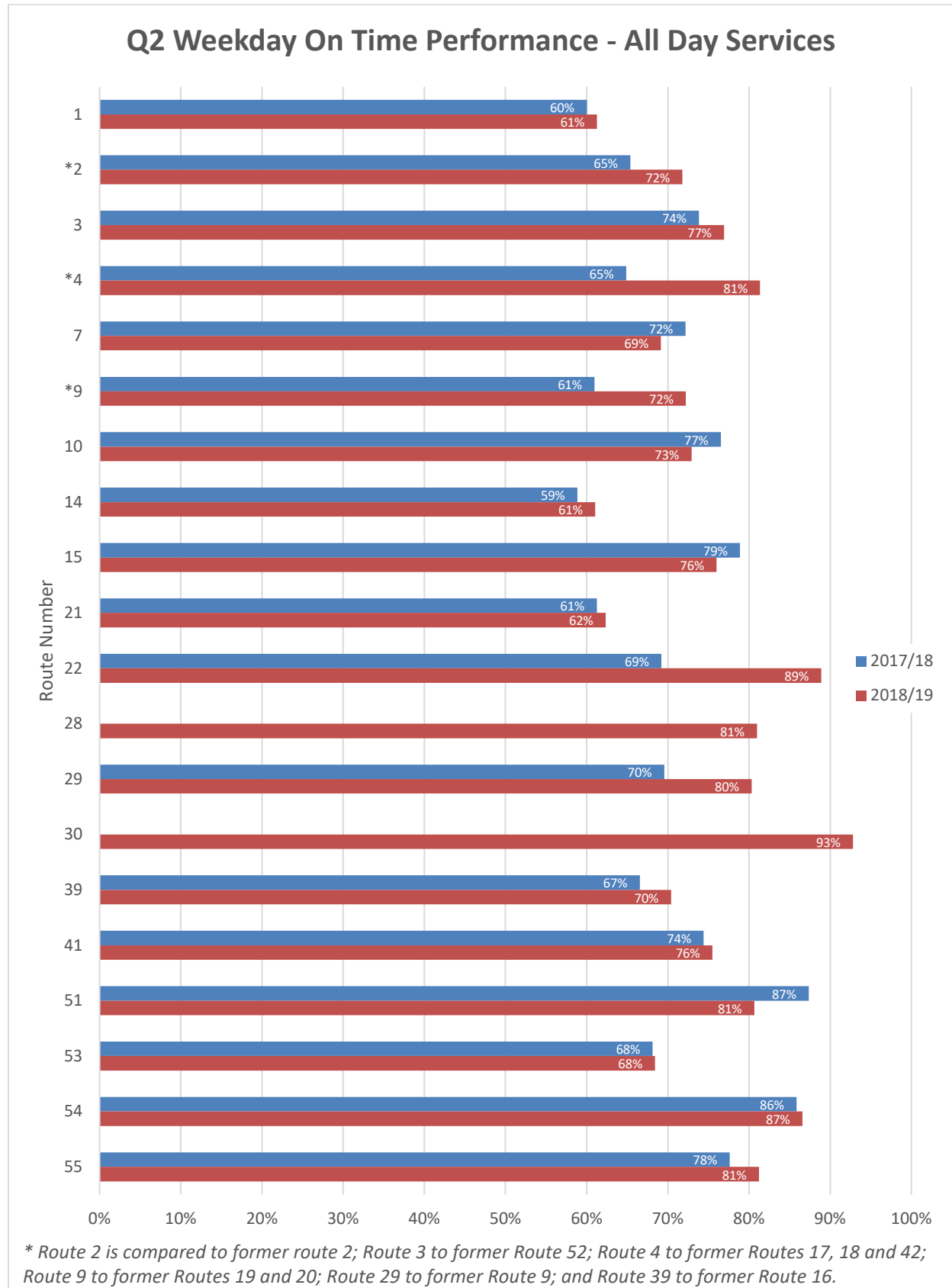
Transit Industry standard targets for on-time performance tend to range between 85% and 90%, although service types are not always comparably grouped, nor are schedule adherence definitions consistent between agencies. Halifax Transit will analyze on-time performance across the network in order to establish a benchmark and target for the minimum percentage of trips to depart on time.

Compared to second quarter last year, on-time performance improved 3%.

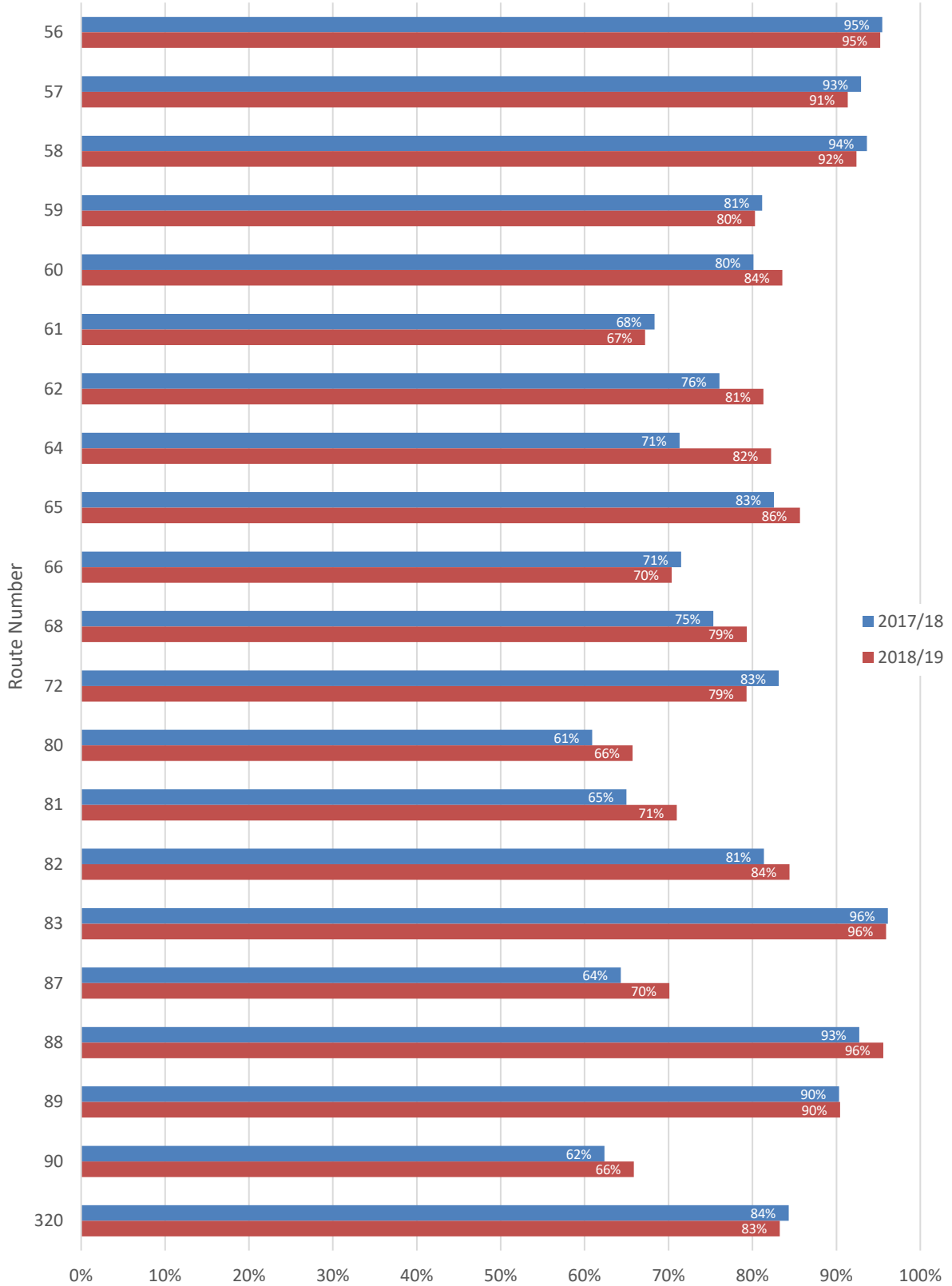
Overall Network On-Time Performance



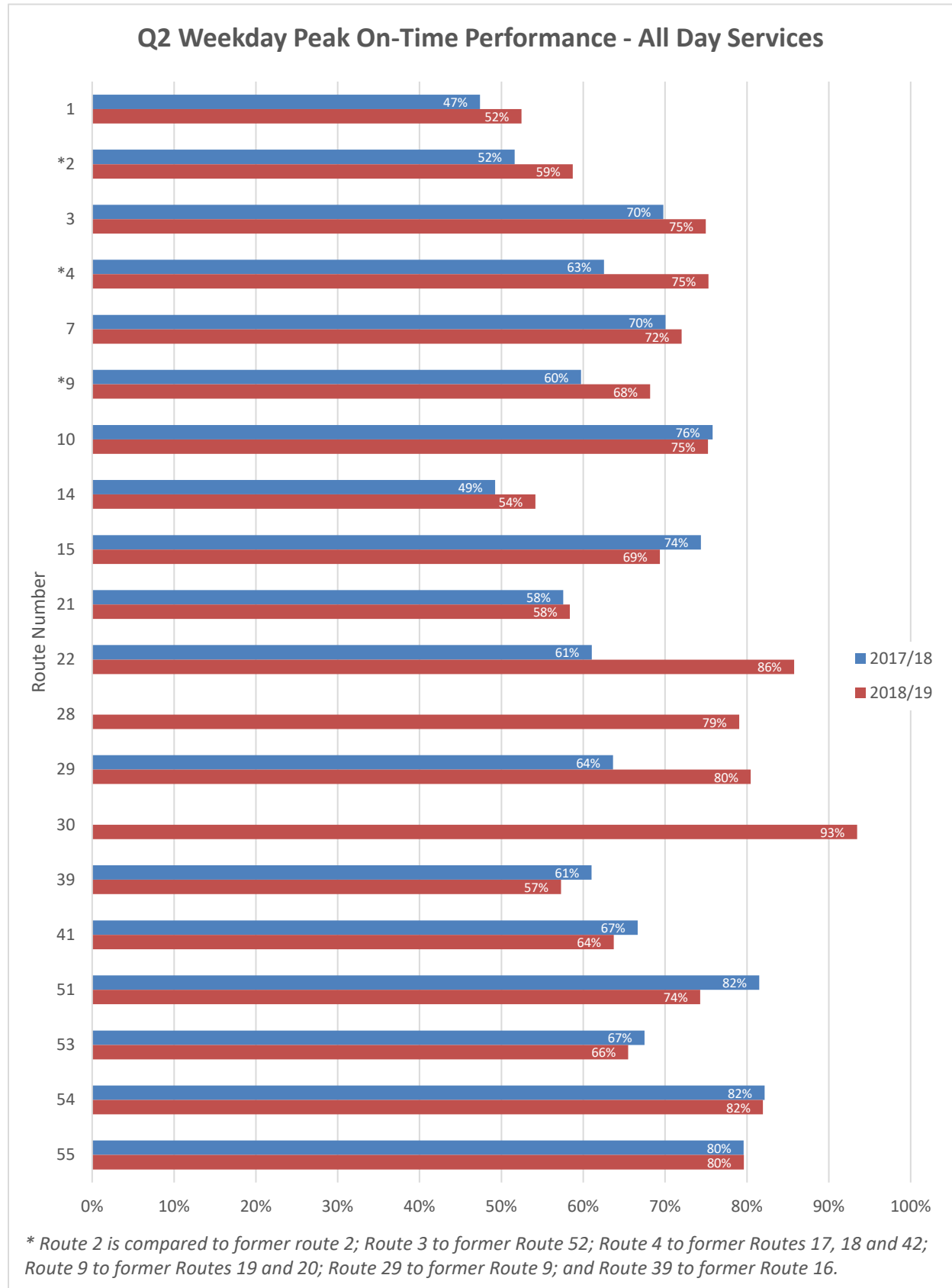
Weekday On-Time Performance - All Day Services



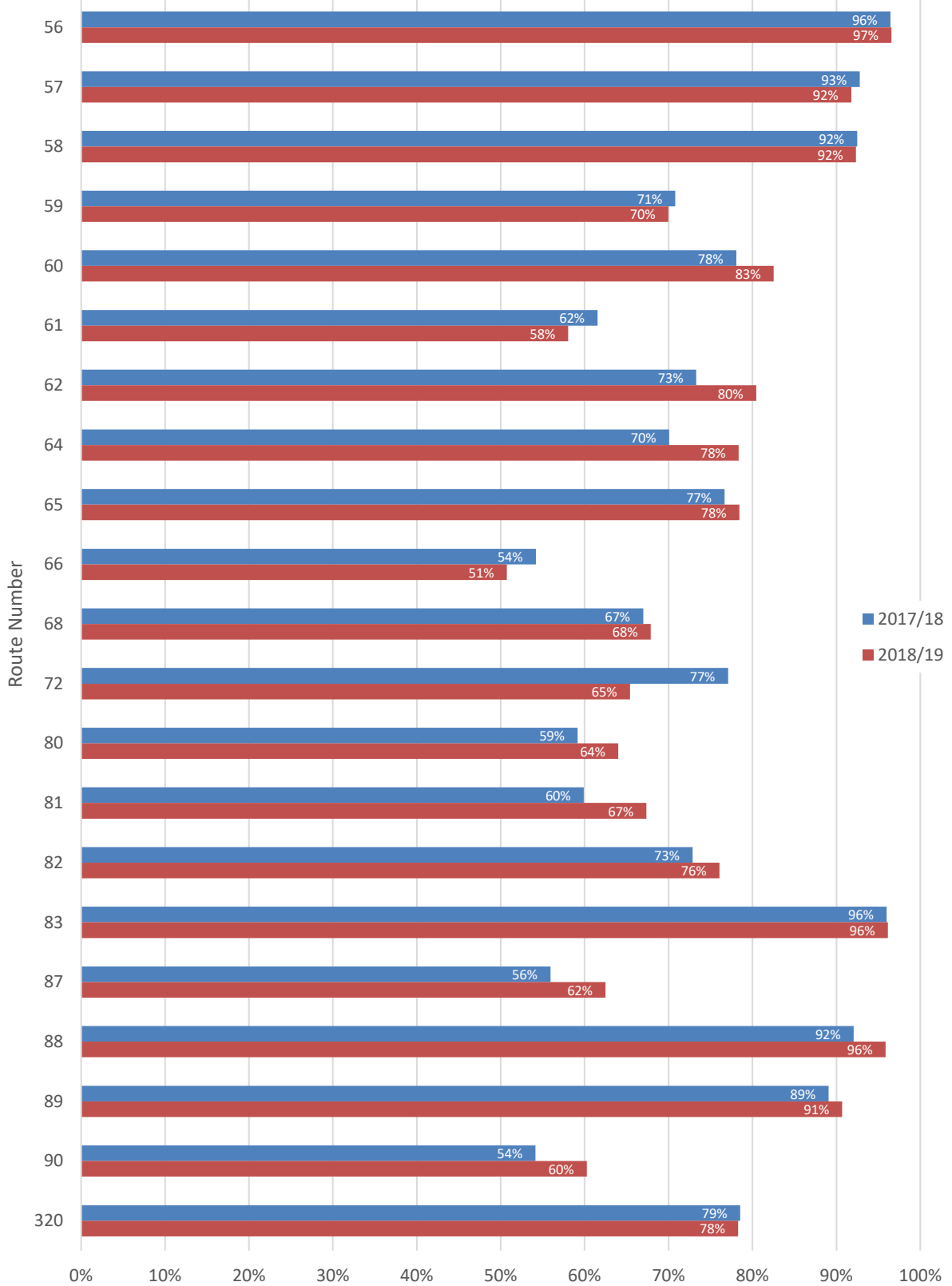
Q2 Weekday On Time Performance - All Day Services



Weekday Peak Period On-Time Performance – All Day Services



Q2 Weekday Peak On-Time Performance - All Day Services



Weekday Peak Period On-Time Performance – Peak Only Services

