2018/2019 – Q1
Performance Measures Report

HALIFAX
TRANSIT

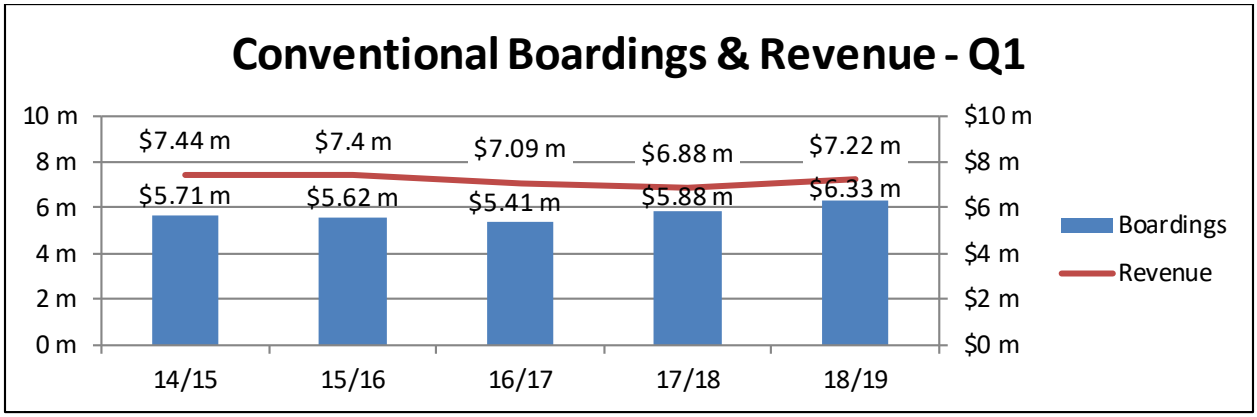
Contents

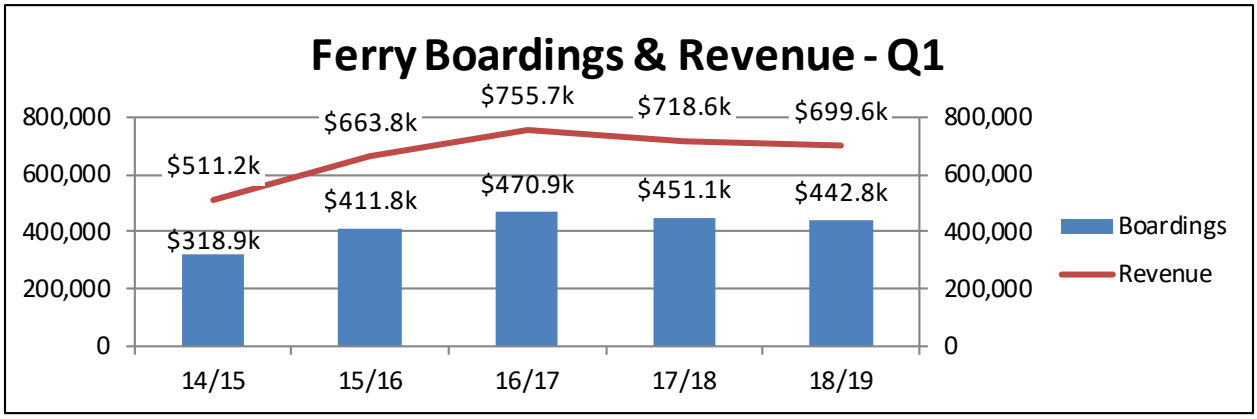
Boardings & Revenue

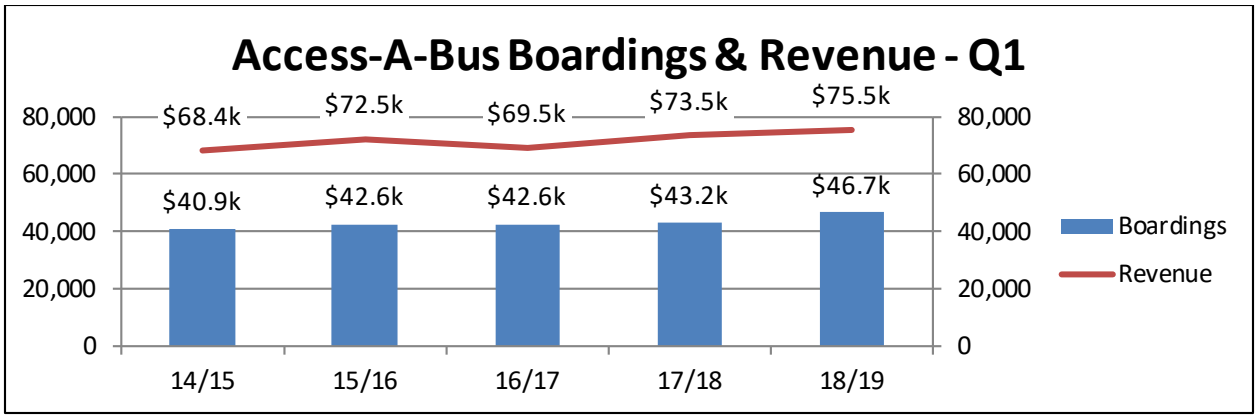
In previous quarters, ridership and revenue were reported to demonstrate how well transit services were used over the quarter, in comparison to the same quarter the previous year. Halifax Transit defines revenue ridership as a measure of how many revenue generating trips were completed, for example, if a trip requires a transfer to reach the final destination it is counted as one rider in the ridership metric, as it only generating revenue on the first boarding. 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. 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.

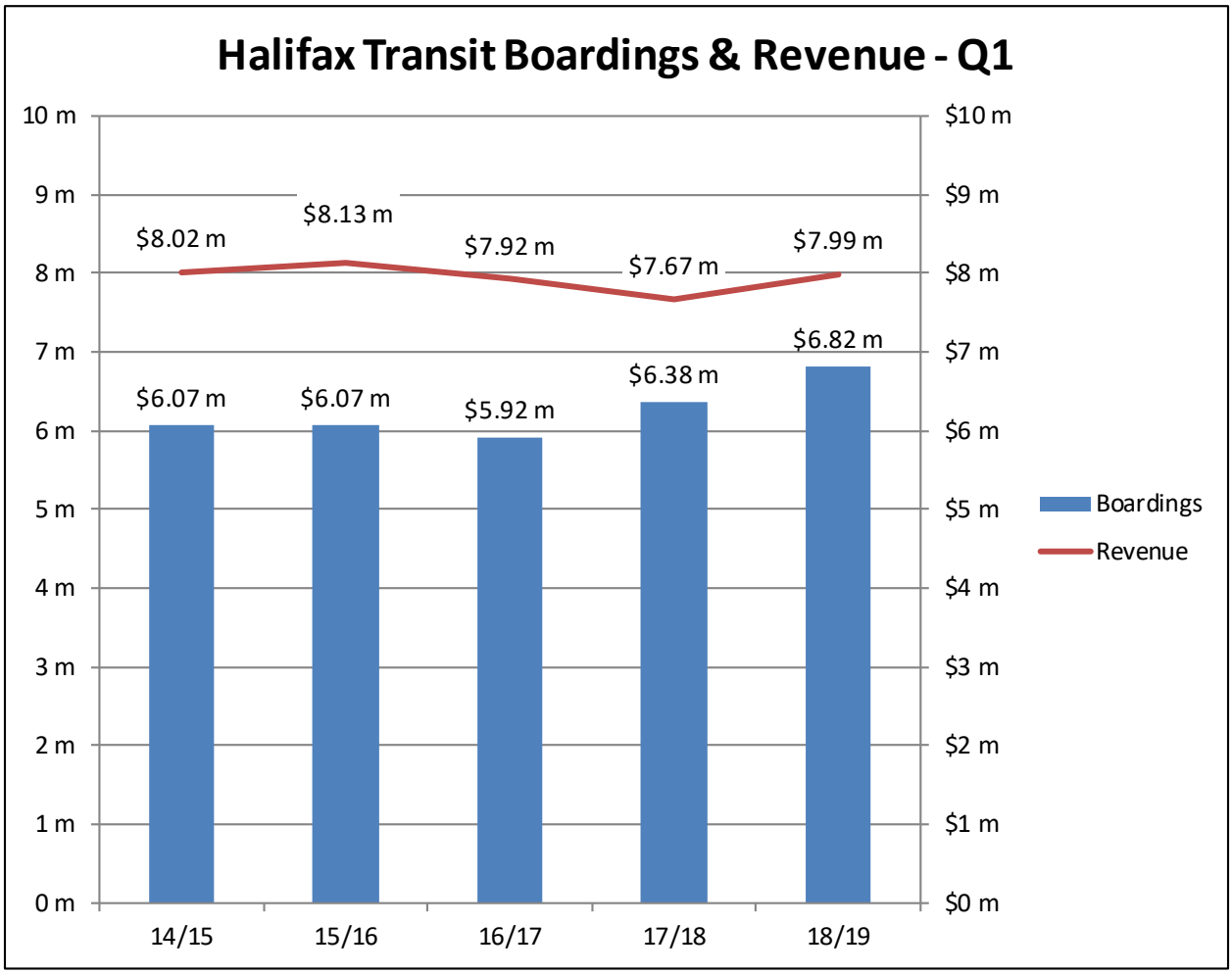
In the first quarter, Conventional boardings increased 7.7% from last year, Ferry boardings decreased 1.8% and Access-A-Bus boardings increased 8.1%. Overall, system wide boardings increased in the first quarter by 7.0% compared to last year. Revenue this quarter increased 4.2% from last year.

Historical Boardings & Revenue



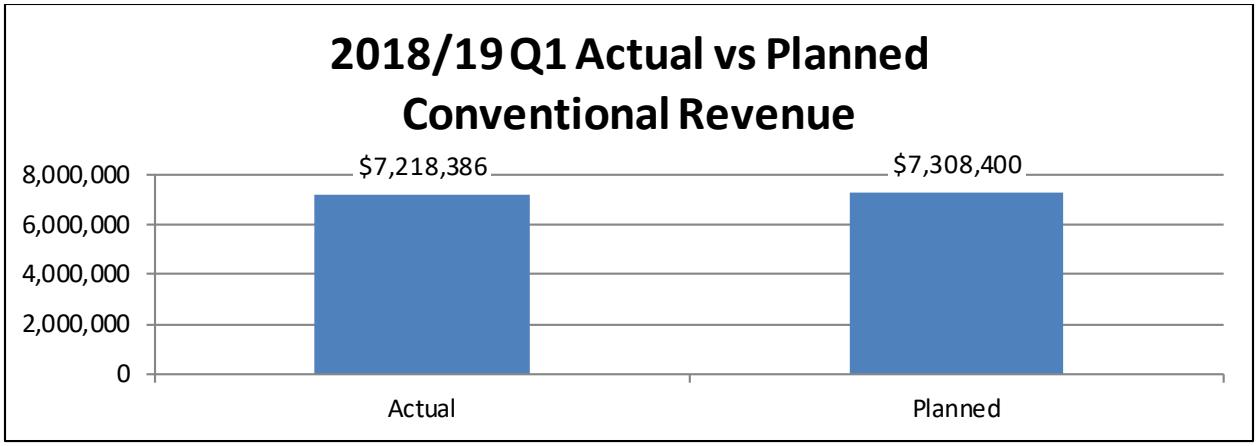


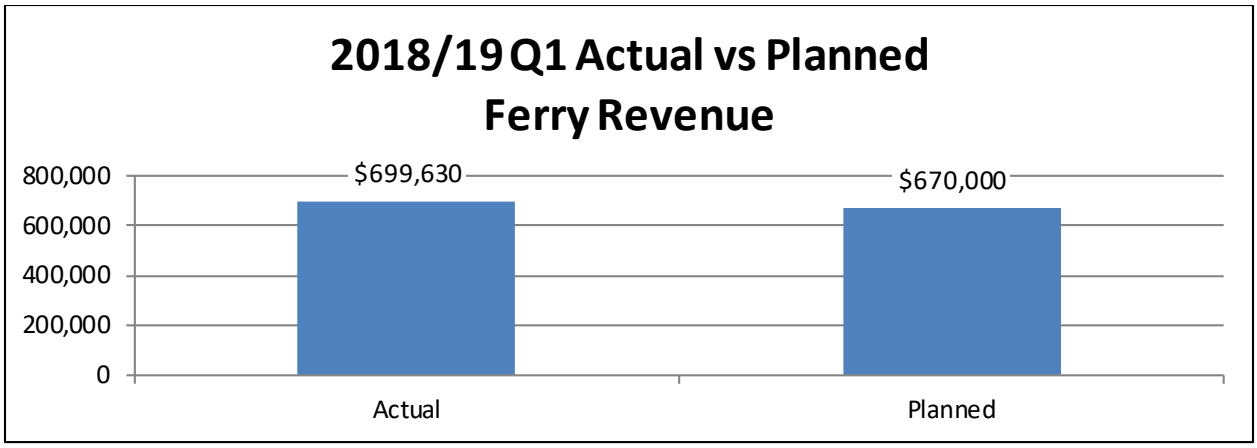

Access-A-Bus Boardings & Revenue - Q1
80,000
60,000
40,000
20,000
0
$68.4k
$72.5k
$69.5k
$73.5k
$75.5k
$40.9k
$42.6k
$42.6k
$43.2k
$46.7k
14/15
15/16
16/17
17/18
18/19
Boardings
Revenue

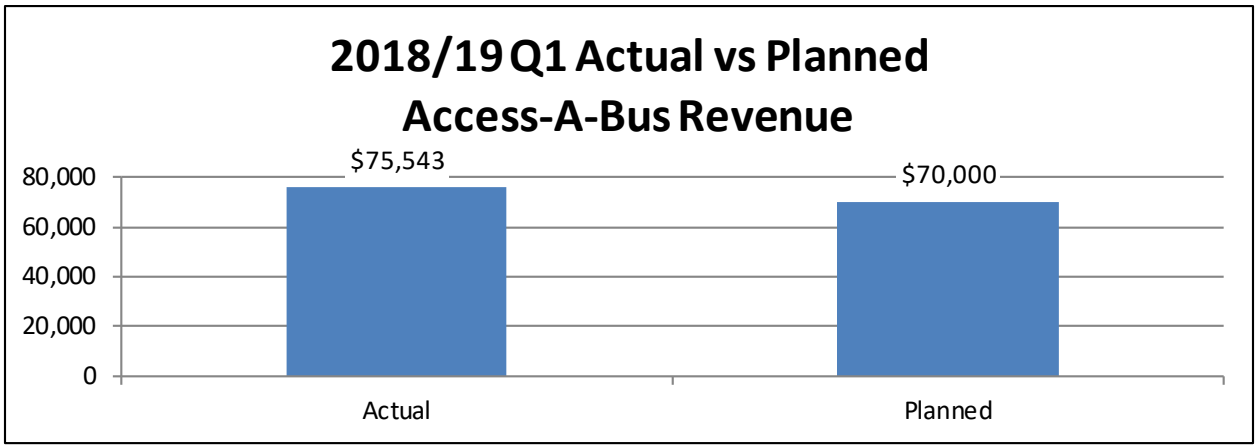

Halifax Transit Boardings & Revenue - Q1
10 m
9 m
8 m
7 m
6 m
5 m
4 m
3 m
2 m
1 m
0 m
$10 m
$9 m
$8 m
$7 m
$6 m
$5 m
$4 m
$3 m
$2 m
$1 m
$0 m
$8.02 m
$8.13 m
$7.92 m
$7.67 m
$7.99 m
$6.07 m
$6.07 m
$5.92 m
$6.38 m
$6.82 m
14/15
15/16
16/17
17/18
18/19
Boardings
Revenue

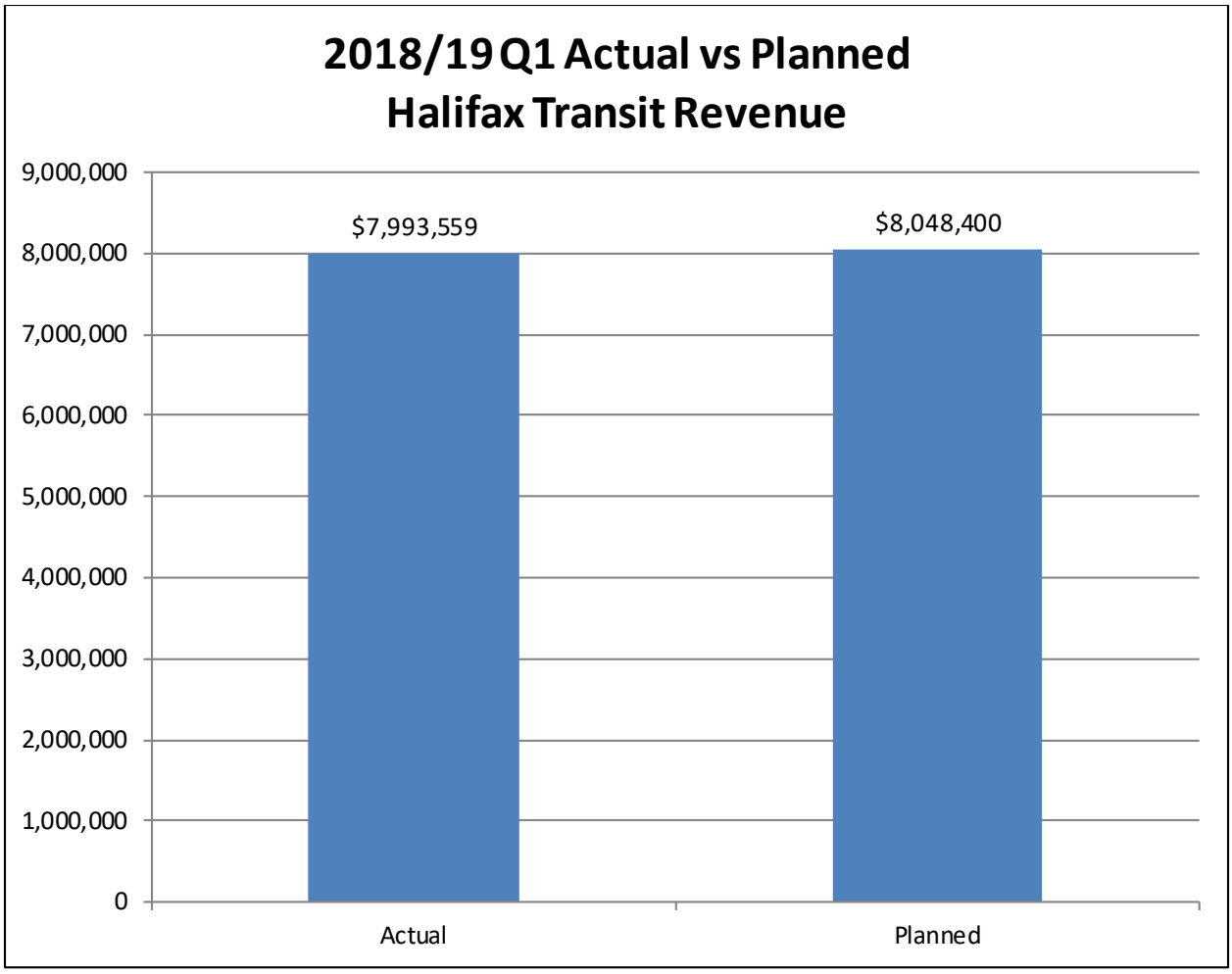
Revenue – Actual vs. Planned

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 4.9% from this time last year and is trending 1.2% below the planned amount. Ferry revenue to date decreased 2.6% from last year, however is trending 4.2% above the planned amount. Access-A-Bus revenue to date has increased 2.8% and is trending 7.3% above the planned amount. Overall revenue to date has increased 4.2% from this time last year and stands at 0.7% lower 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.

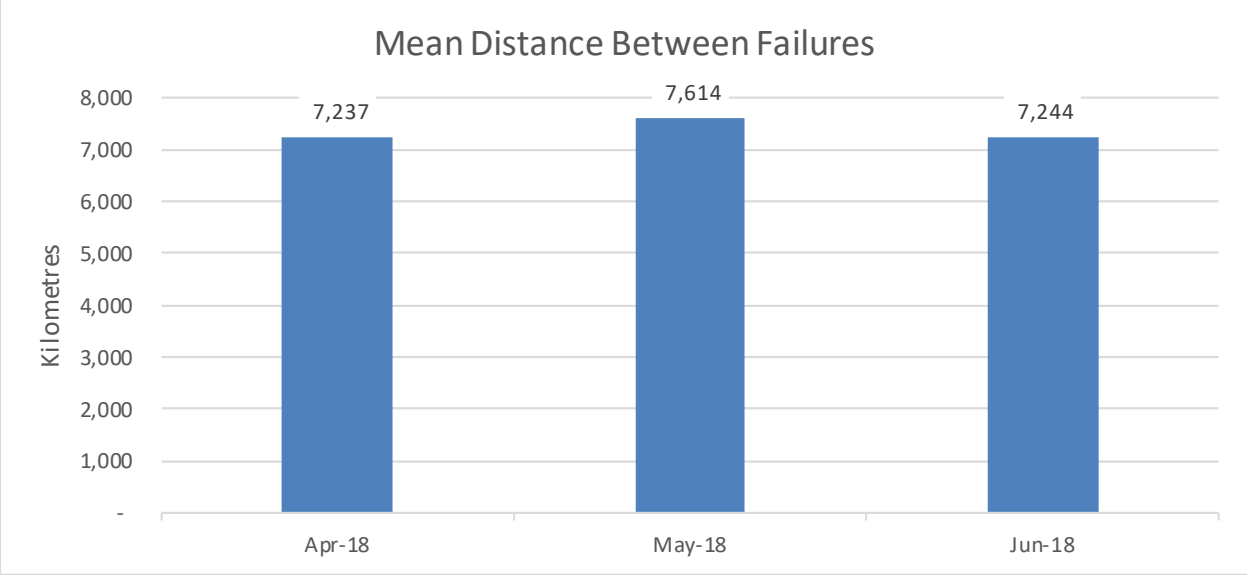
Mean Distance Between Failures

Halifax Transit's Mean Distance Between Failures 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 (ie. 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 first quarter of 2018, the MDBF for conventional transit is 7,364 kms. This Key Performance Indicator is under review and a target is to be established in Q3 2018. Due to the change in methodology, data is only available for the first quarter, over time the metric will be compared by quarter, year to year in order to determine the trend of MDBF.

During this quarter, there were no reports of changeoffs or service-impacting failures for the Access-A-Bus service.

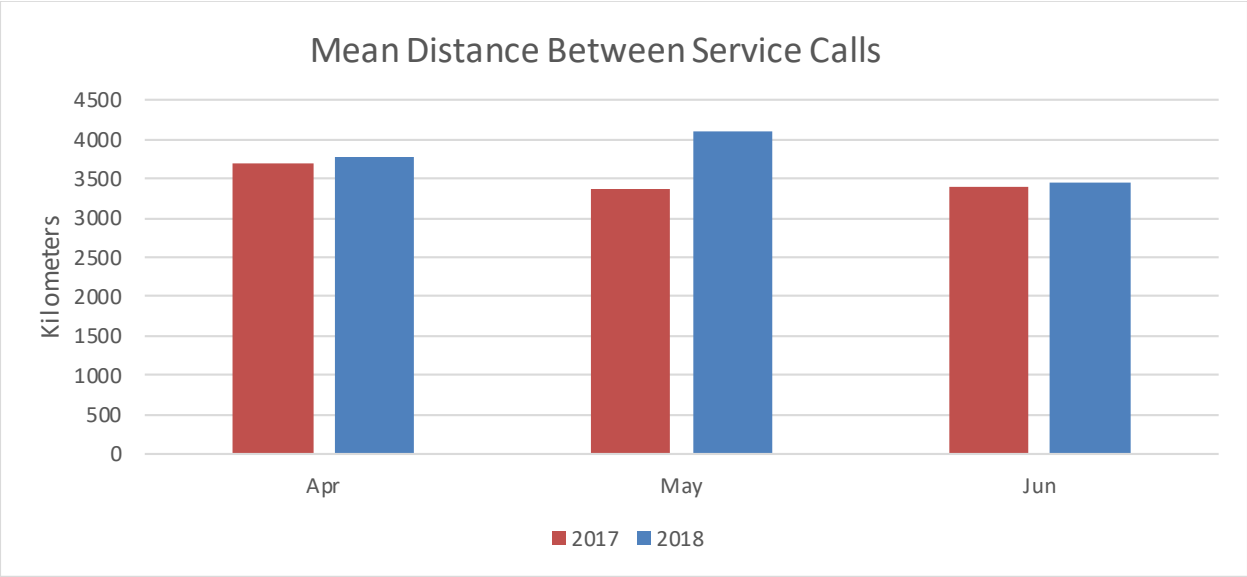


Mean Distance Between Service Calls

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.

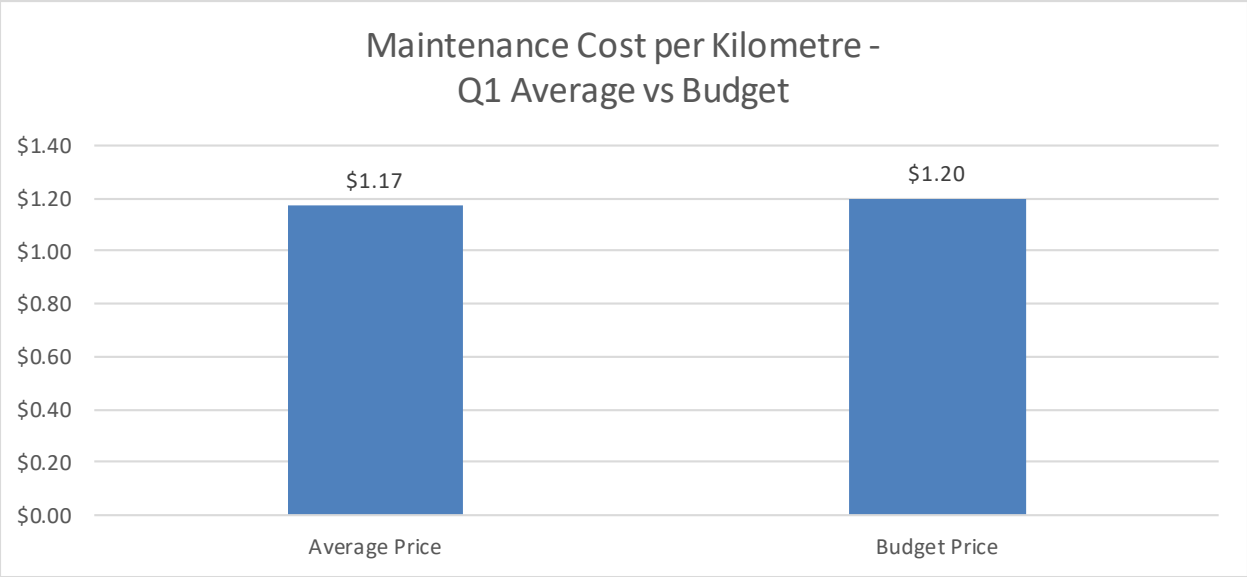
For the first quarter of 2018, the MDBS for conventional transit was 3,756 kms. In comparison to the first quarter of 2017 (3,475), this is an 8% improvement.

For the first quarter of 2018, the MDBS for Access-A-Bus service was 36,280 kms.


Mean Distance Between Service Calls
Kilometers
4500
4000
3500
3000
2500
2000
1500
1000
500
0
Apr
May
Jun
2017
2018

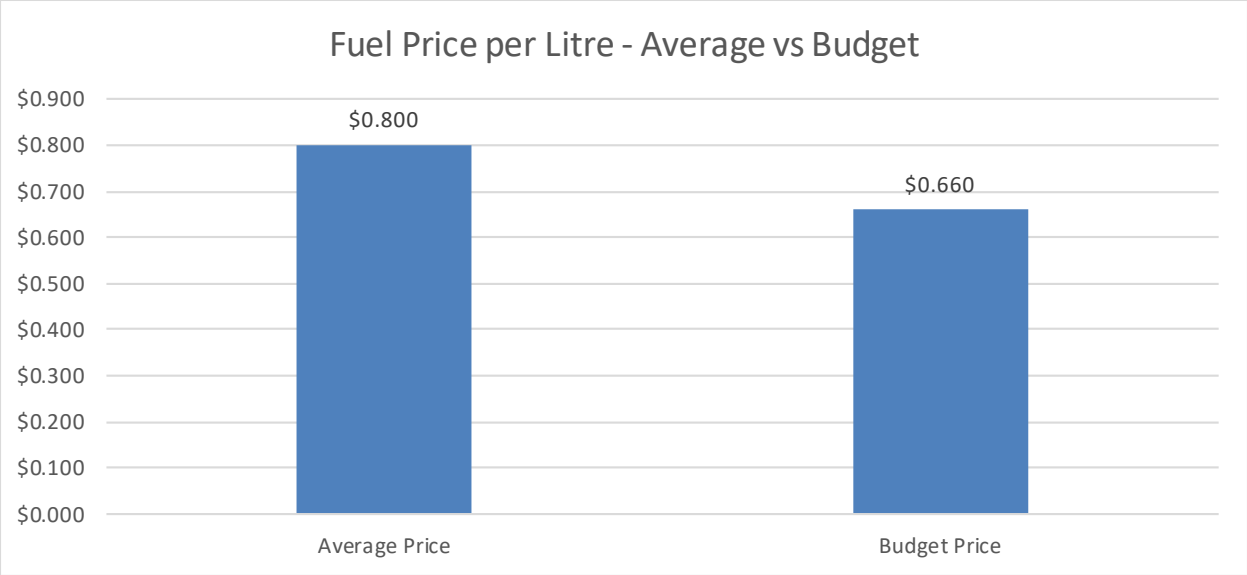
Bus Maintenance Cost – Quarter Average vs Budget

In the first quarter maintenance costs were $1.17/km, while the budgeted maintenance cost was $1.20/km. Therefore, in the first 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 continue to budget better through a more structured maintenance approach.



Fuel Price – Average vs Budget

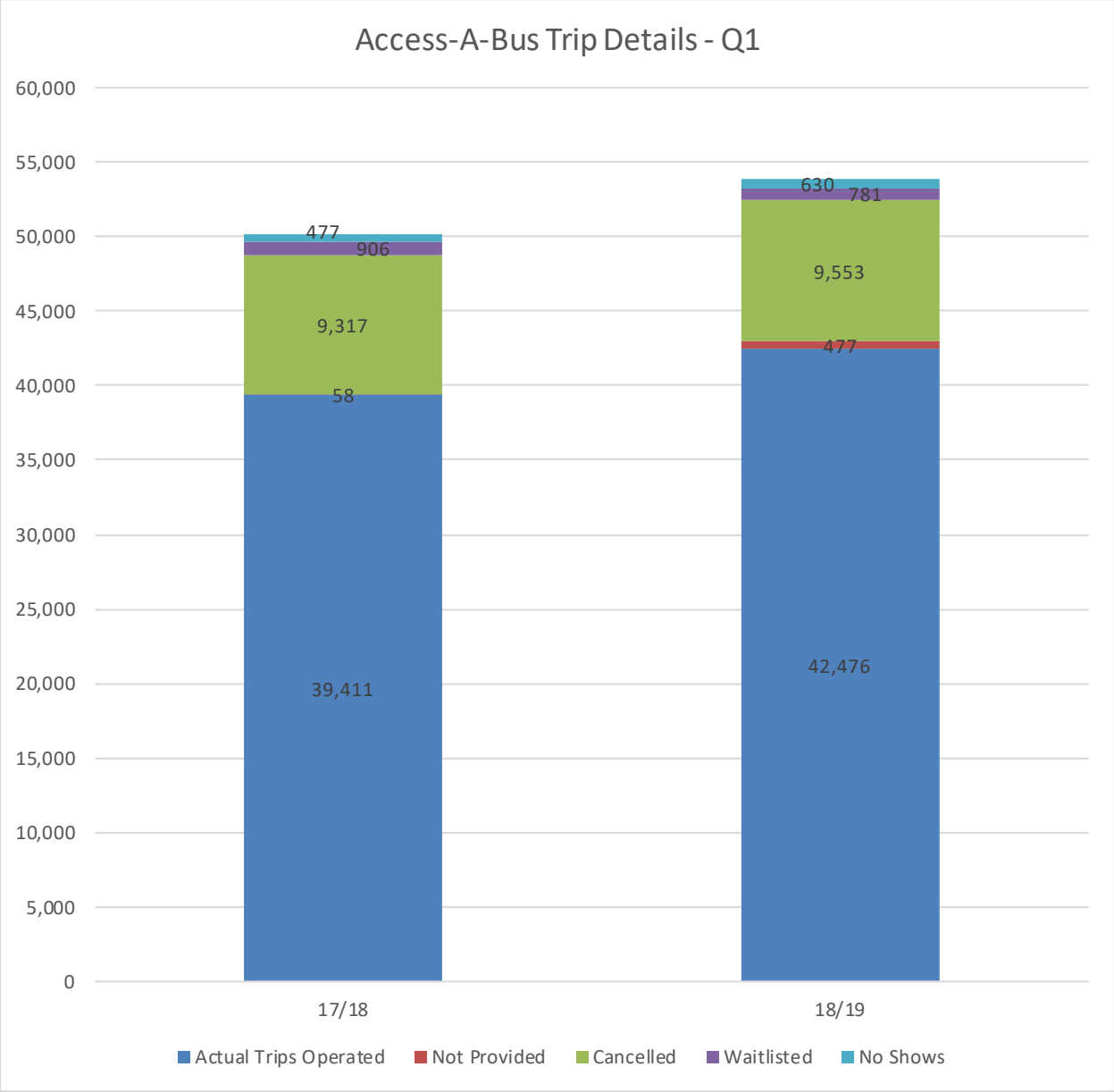
The budgeted fuel price for 2018/19 was set at 66 cents/litre. In the first quarter the average fuel price was $0.80, 14 cents per litre higher than the budgeted cost.



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.

In the first quarter of 2018/19, compared to first quarter 2017/18, 3,000 more trips were operated, an increase of 7.8% and 125 fewer clients were waitlisted, a decrease of 14% over last year.

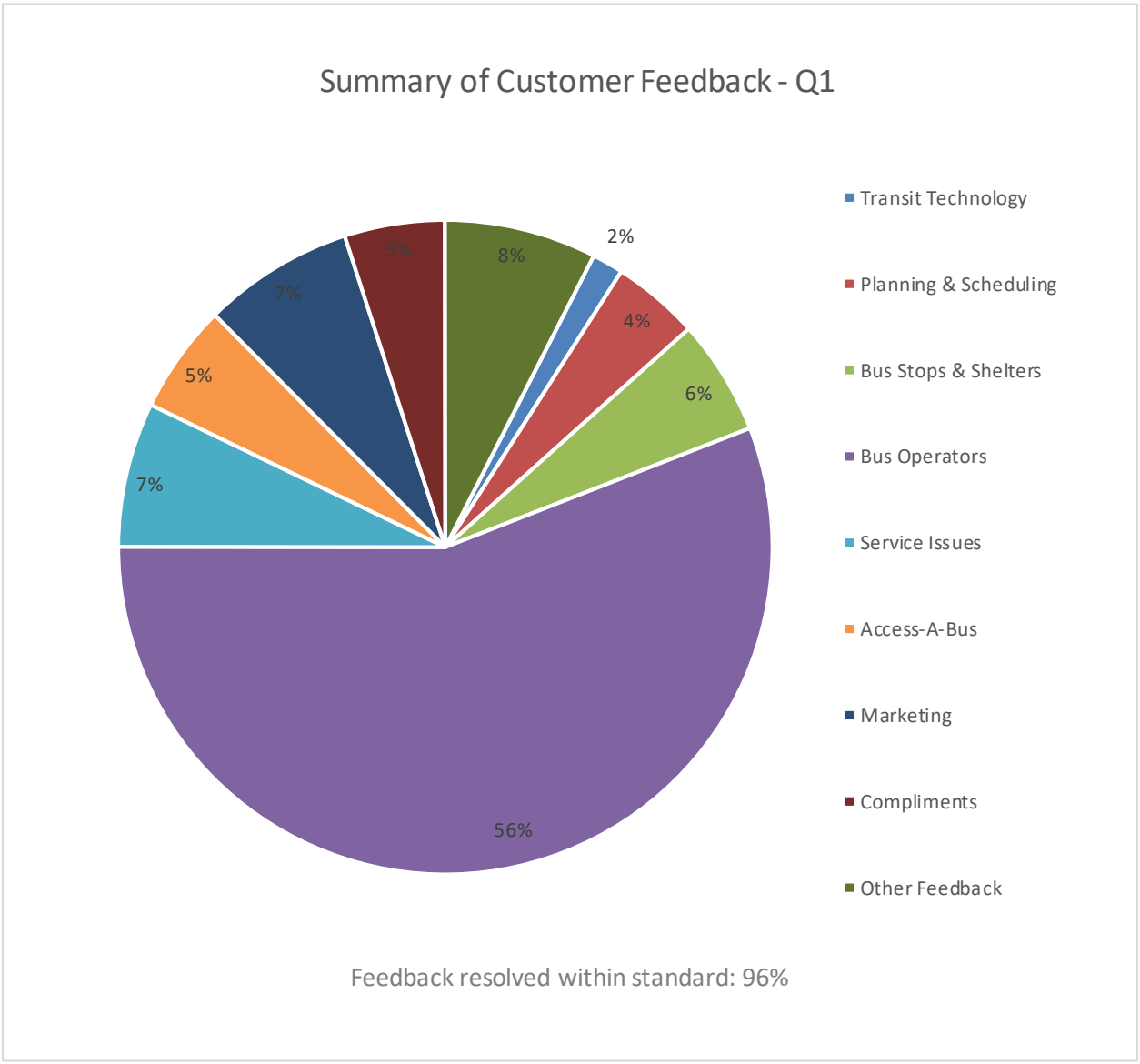


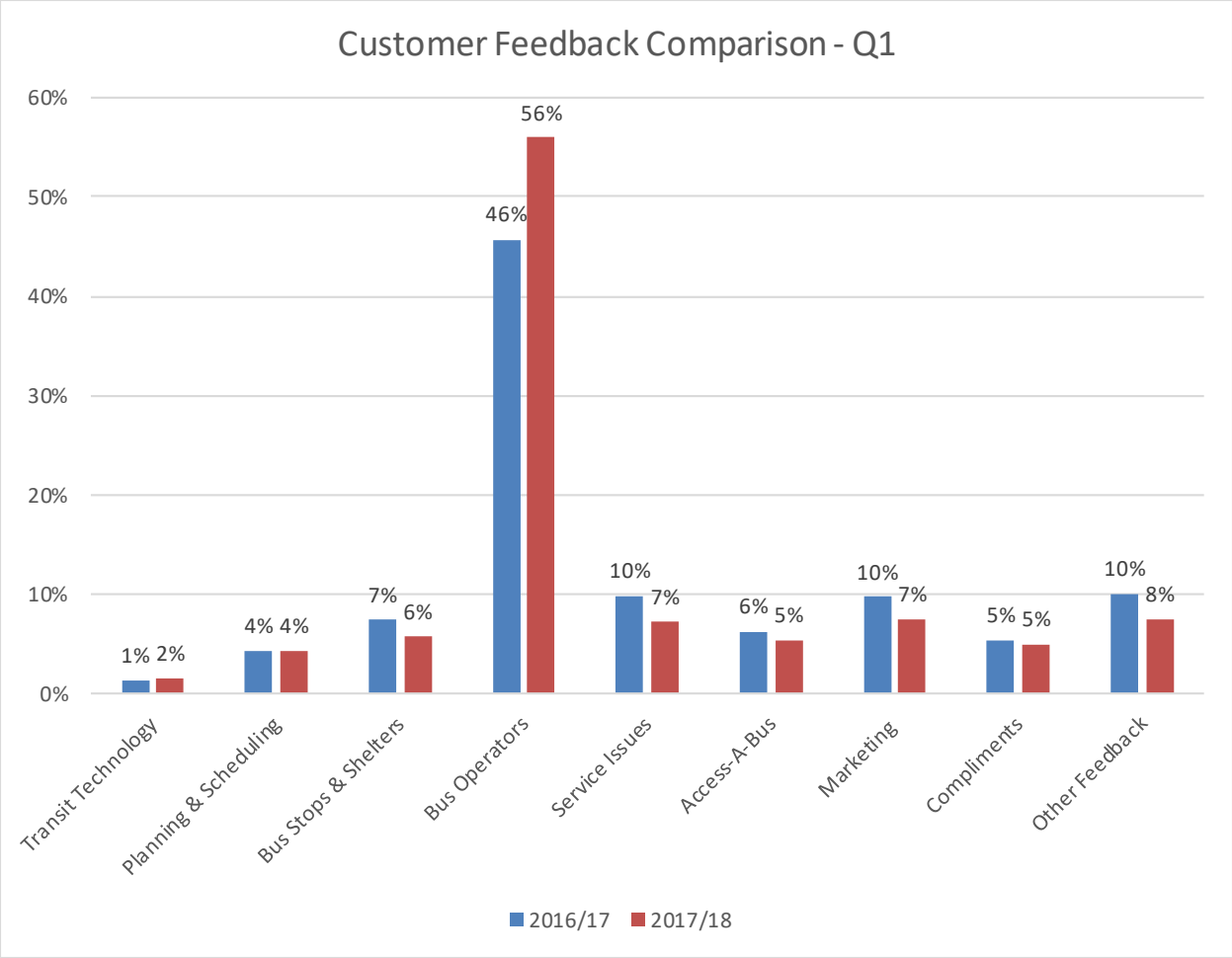
Customer Service – All Services

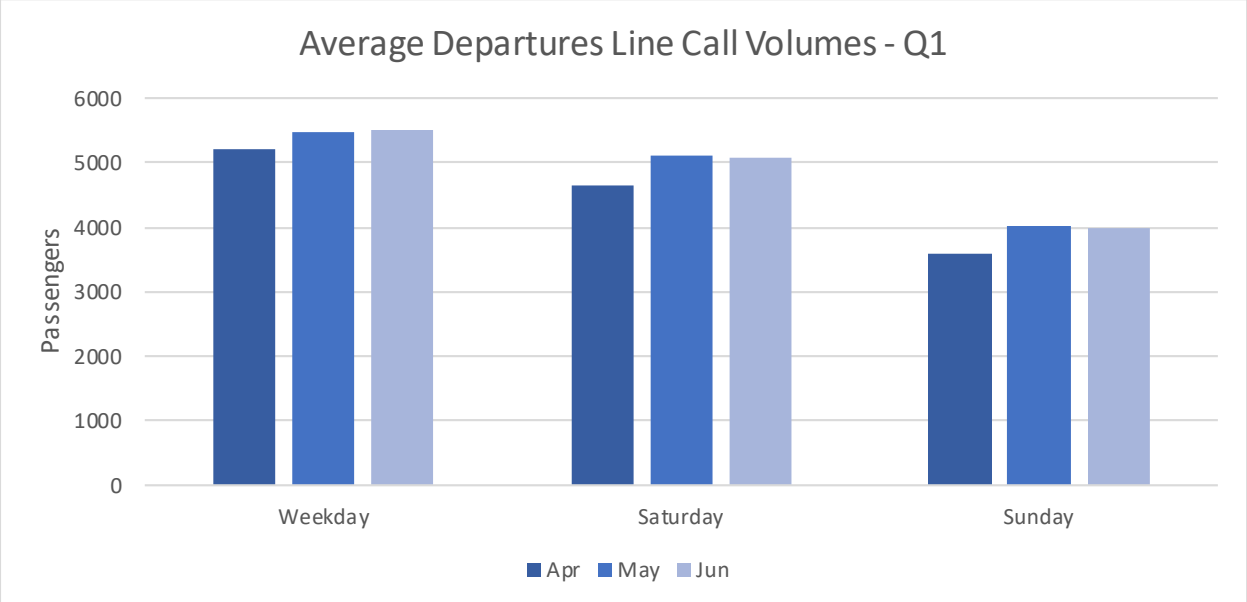
Customer service statistics are measured monthly using the Hansen Customer Relationship Management software along with Crystal Reports. Feedback is first categorized by subject matter and then divided into two categories: feedback resolved within service standard and feedback resolved outside service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

This quarter, 56% of feedback received was related to bus operators and 7% 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 96% of customer feedback was resolved within standard.

The Departures Line replaced the former GoTime system in May 2016. Passengers can now call this new phone number, (902-480-8000) to acquire real-time bus departure information. Call volumes to the Departures Line are displayed by day of the week and by month. In the first quarter, average call volumes were lowest in the month of April, while May and June were fairly consistant.




Customer Feedback Comparison - Q1
60%
50%
40%
30%
20%
10%
0%
1% 2%
4% 4%
7% 6%
46% 56%
10% 7%
6% 5%
10% 7%
5% 5%
10% 8%
Transit Technology
Planning & Scheduling
Bus Stops & Shelters
Bus Operators
Service Issues
Access-A-Bus
Marketing
Compliments
Other Feedback
2016/17
2017/18


Average Departures Line Call Volumes - Q1
6000
5000
4000
3000
2000
1000
0
Passengers
Weekday
Saturday
Sunday
Apr
May
Jun

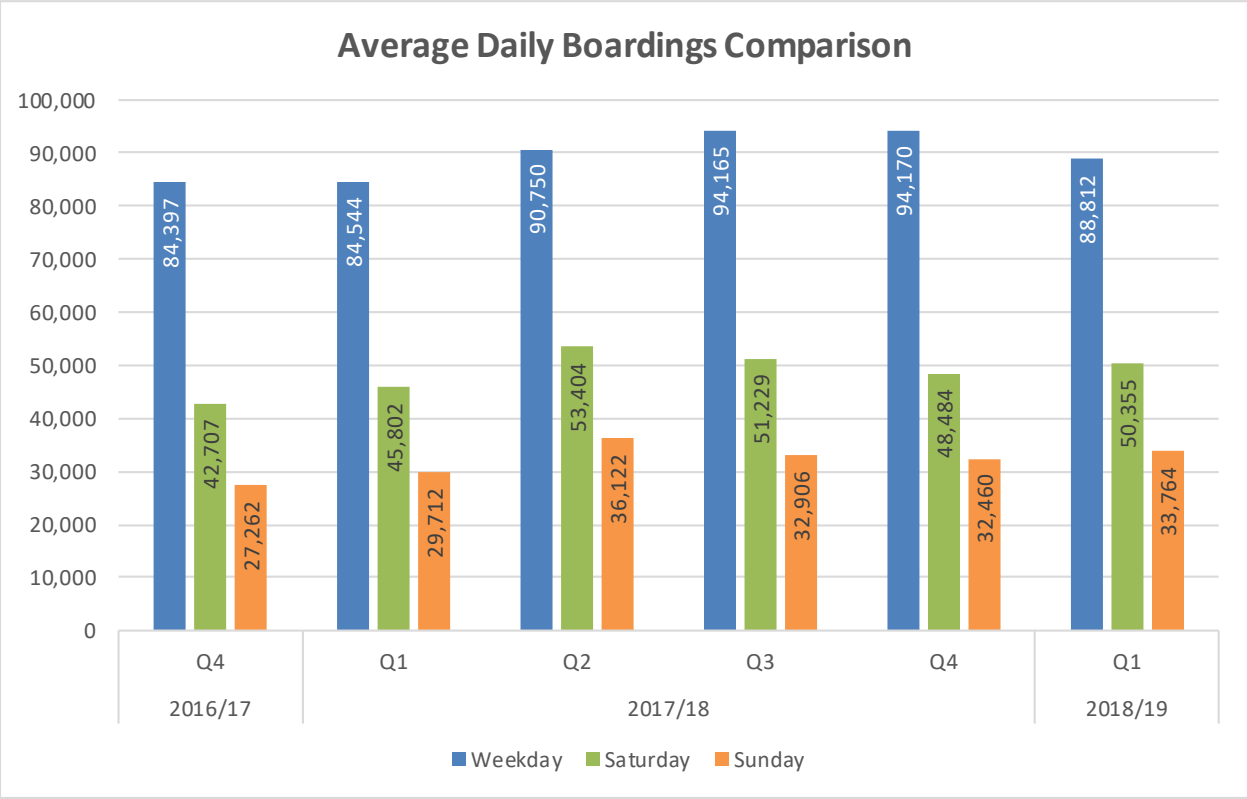
Boardings

Automatic Passenger Counter (APC) data is now being been 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.

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 first quarter were 88,392 ± 6,075 (6.9% variance). Average Saturday boardings this quarter were 50,355 ± 4,475 (8.9% variance). Average Sunday boardings this quarter were 33,764 ± 1,678 (5.0% variance).



Boardings by Route by Service Day

Q1 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	8,529	59	9,265	59	6,158	54	7,169	64	3,906	50	4,914	58
2	2,625	43	2,600	43	2,093	39	2,023	38	956	31	1,009	33
4	2,421	39	2,296	38	1,811	32	1,787	31	1,108	35	1,124	35
5	113	33	114	31								
6 *(removed)*	683	23			255	14			68	4		
7	4,235	37	4,569	40	2,795	30	3,205	34	1,588	30	1,845	36
9 *(removed)*	2,087	44			889	38			694	27		
9A/B *(new)*			5,882	34			3,335	45			2,521	35
9A *(new)*			3,946	36			1,643	46			1,119	32
9B *(new)*			1,936	31			1,692	44			1,402	38
10	4,249	40	4,467	41	2,564	35	2,739	37	1,606	34	1,799	37
11	123	49	93	40								
14	2,301	36	2,327	37	1,138	34	1,135	34	915	31	1,007	35
15	209	14	208	14	102	12	129	11	101	13	126	10
16	1,080	23	1,091	23	679	16	659	15				
17	1,124	29	1,139	29								
18	1,597	27	1,625	27	1,212	26	1,287	26	648	36	694	27
19 *(removed)*	962	32										
20 *(removed)*	3,156	38			2,838	36			2,072	36		
21	1,203	27	1,180	27	673	19	672	18	334	14	323	18
22	493	14	555	16	446	13	456	13	357	10	331	9
23	396	22	361	20								
29 *(new)*			2,608	28			1,488	24			1,224	20
41	1,001	35	1,128	38								

** Blanks in this table indicate the route runs weekdays only.*

Q1 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
42	1,050	29	1,136	31								
51	1,016	42	1,024	43	511	31	584	35	296	35	315	37
52	5,520	46	5,841	49	3,718	39	4,092	43	3,280	35	3,781	43
53	1,307	49	1,304	50	708	47	787	52	395	50	384	50
54	797	37	744	34	490	31	460	30	249	25	254	26
55	397	18	393	18	238	15	207	13	171	11	187	12
56	693	20	851	24	773	22	875	25	460	14	588	18
57	519	13	556	13	263	9	264	9	157	9	135	8
58	679	25	692	25	404	22	422	23	394	23	352	20
59	1,959	25	1,967	25	734	31	766	33	474	20	486	20
60	2,478	33	2,490	33	1,641	41	1,751	44	1,131	39	1,258	44
61	2,078	26	2,185	28	1,013	26	1,054	27	819	22	912	24
62	781	24	800	25	511	22	515	23	280	18	278	17
63	723	43	711	40								
64	318	30	323	30								
65	229	14	241	14	90	7	93	7	53	8	49	8
66	1,437	23	1,448	23	442	28	483	30	333	21	345	22
68	1,319	26	1,269	26	746	26	785	28	460	16	492	18
72	1,225	27	1,340	29	965	20	950	20	476	19	511	19
80	3,845	31	4,031	33	3,266	30	3,423	33	2,403	25	2,726	29
81	1,204	23	1,264	24								
82	932	21	962	21	214	10	228	10	83	7	101	9
83	156	11	154	12	81	9	85	9	37	8	45	10
87	1,254	28	1,324	30	1,005	20	1,034	21	459	15	543	18
88	77	14	80	14	64	12	57	11	18	8	20	9

** Blanks in this table indicate the route runs weekdays only.*

Q1 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
89	420	18	436	19								
90	1,108	24	1,148	24	679	15	746	17	417	17	473	19
320	583	16	601	12	410	11	411	11	332	9	379	10
400	187	11	234	18	58	8	82	12	54	8	62	9
401	144	12	139	11								
402 ***(removed)***	83	8										
Alderney Ferry	3,875	129	3,427	114	3,124	179	4,114	235	2,128	122	2,170	124
Woodside Ferry	2,249	107	2,207	105								

** Blanks in this table indicate the route runs weekdays only.*

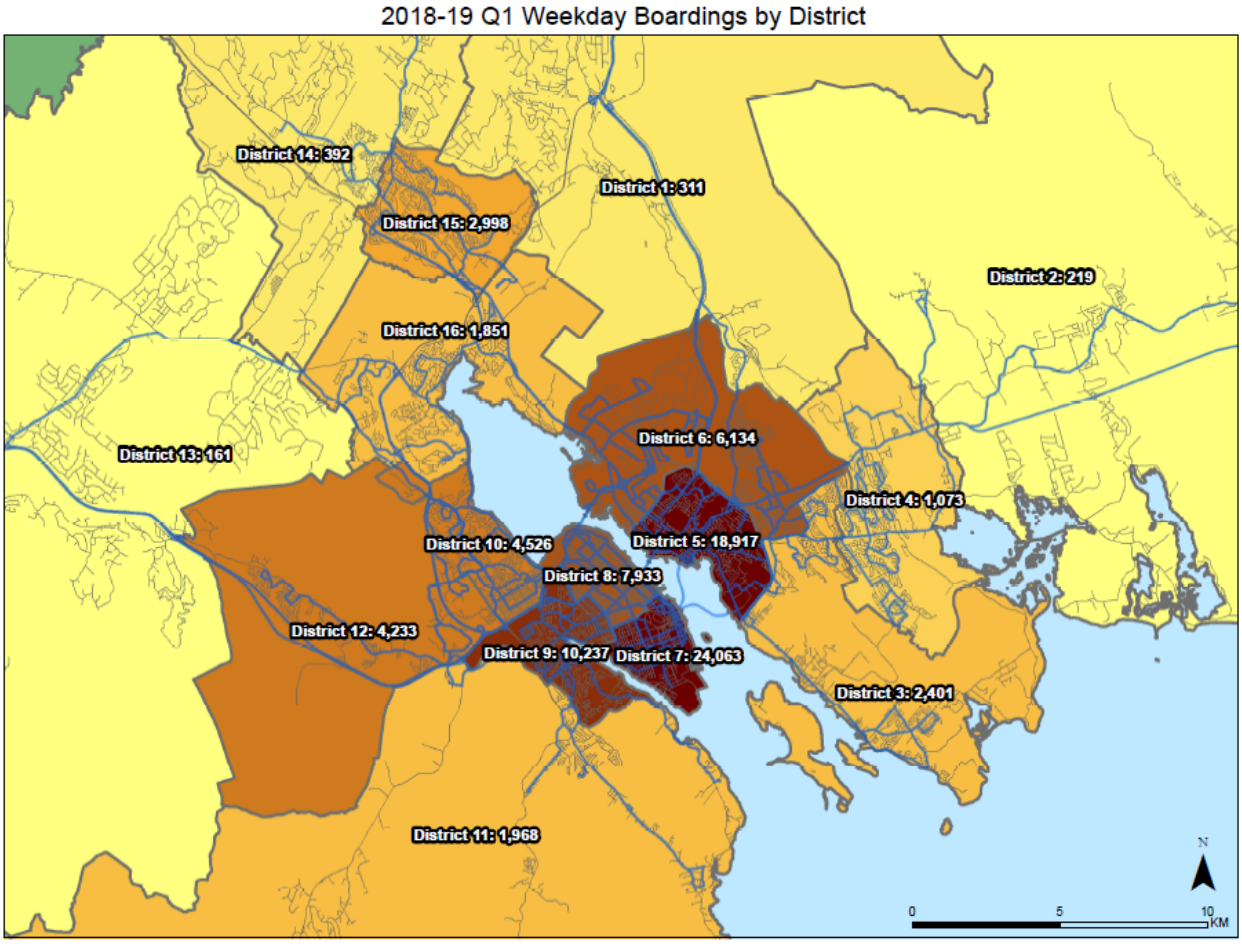
Express Service Peak Boardings by Route by Service Day

Q1 Comparison - Average Daily Peak Boardings by Route				
Route	Weekday (Peak Only)			
	17/18		18/19	
	Boardings	Pass/Trip	Boardings	Pass/Trip
31	256	28	275	31
32	453	25	451	25
33	166	42	153	38
34	643	38	680	40
35	256	28	260	29
78	93	7	82	6
79	101	8	94	8
84	897	33	892	33
85	127	32	115	29
86	112	28	116	29
159	540	18	519	17
185	706	22	729	23
194 *(new)*			126	16
320	194	16	188	16
330	312	15	309	14
370	109	9	116	10

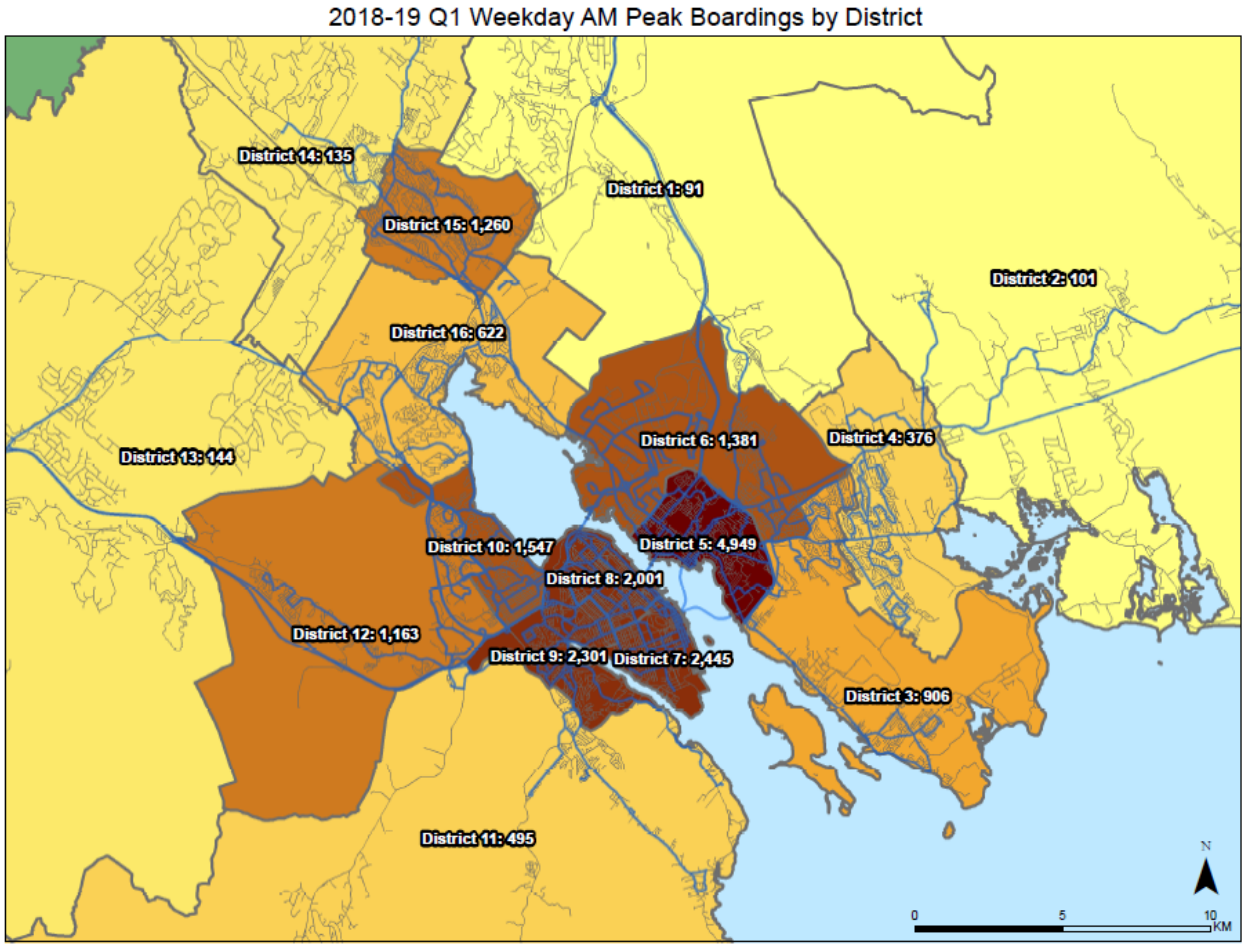
Boardings by District

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

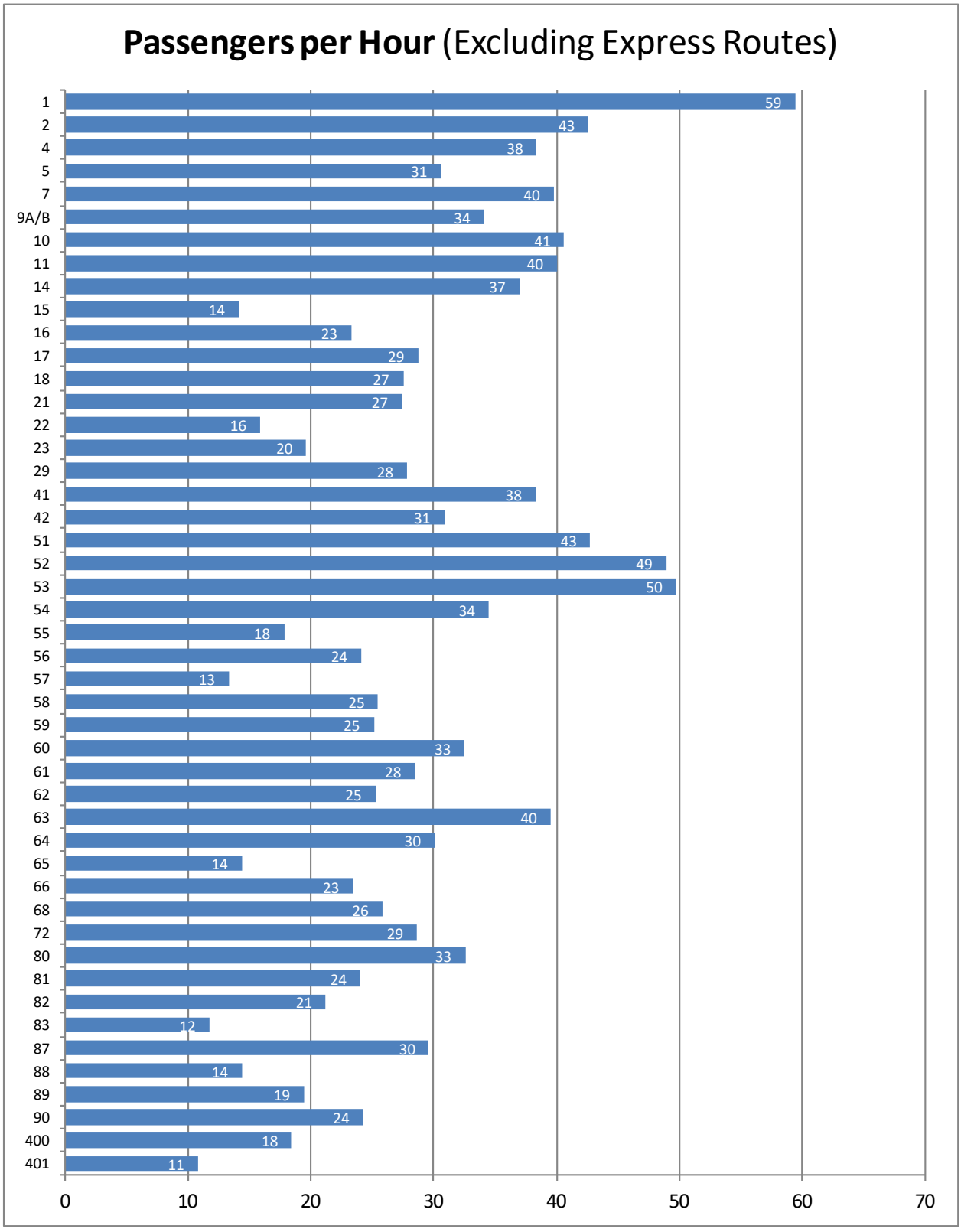


Passengers per Hour

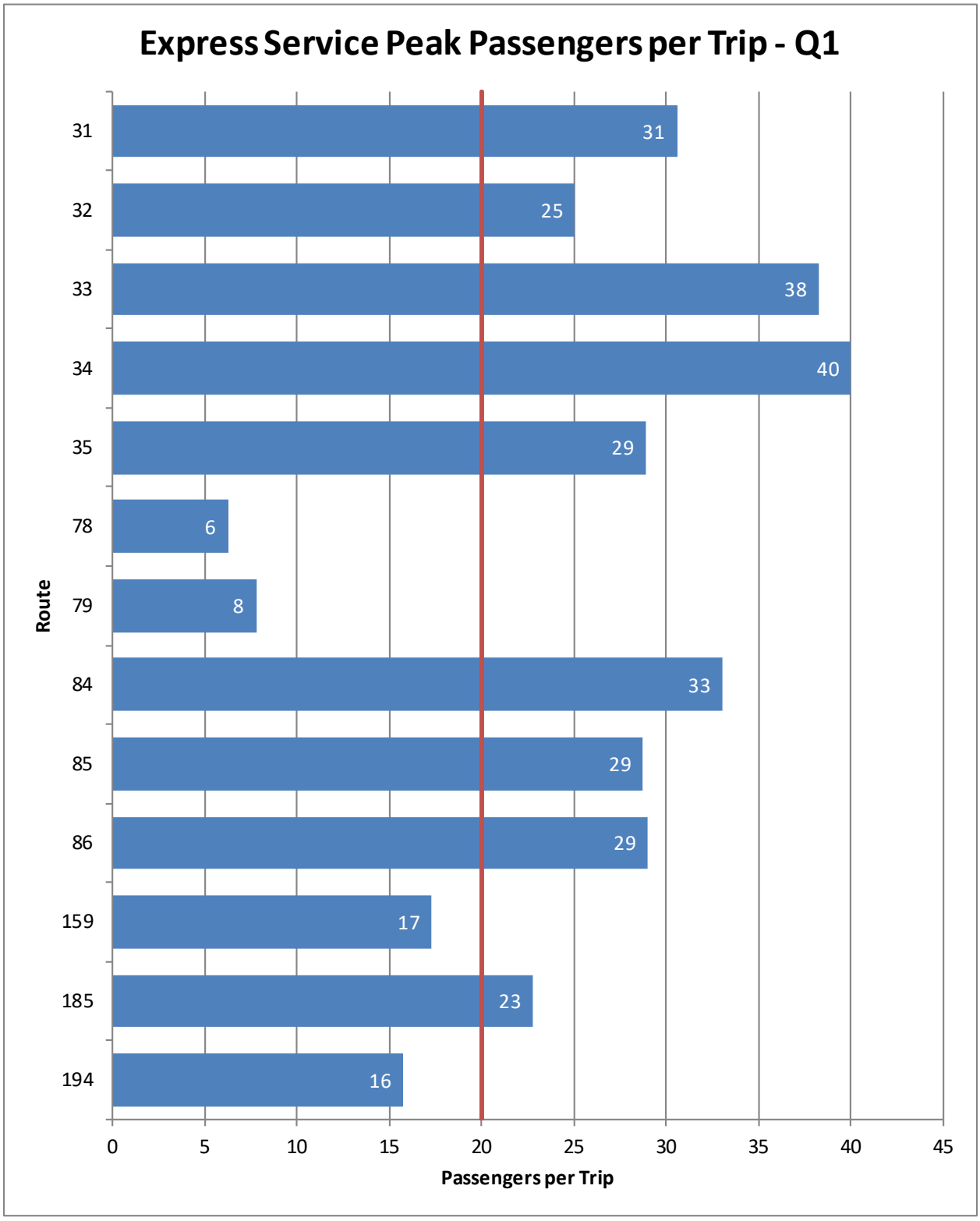
Passengers per hour measures the volume of passengers carried per service hour by route. Due to differences in service model/design, Express Routes are measured instead by passengers per trip. Ridership fluctuates significantly by season and therefore figures will be compared to the same quarter in the previous year once data becomes available. 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.

Due to the importance of the ferry to the regional transportation network and its historic and cultural heritage value, ferry routes are not held to a minimum ridership standard. In much the same way, due to the regional significance of the Route 320 Airport from a tourism and economic development perspective, service to the Halifax International Airport is also exempt from minimum ridership guidelines.

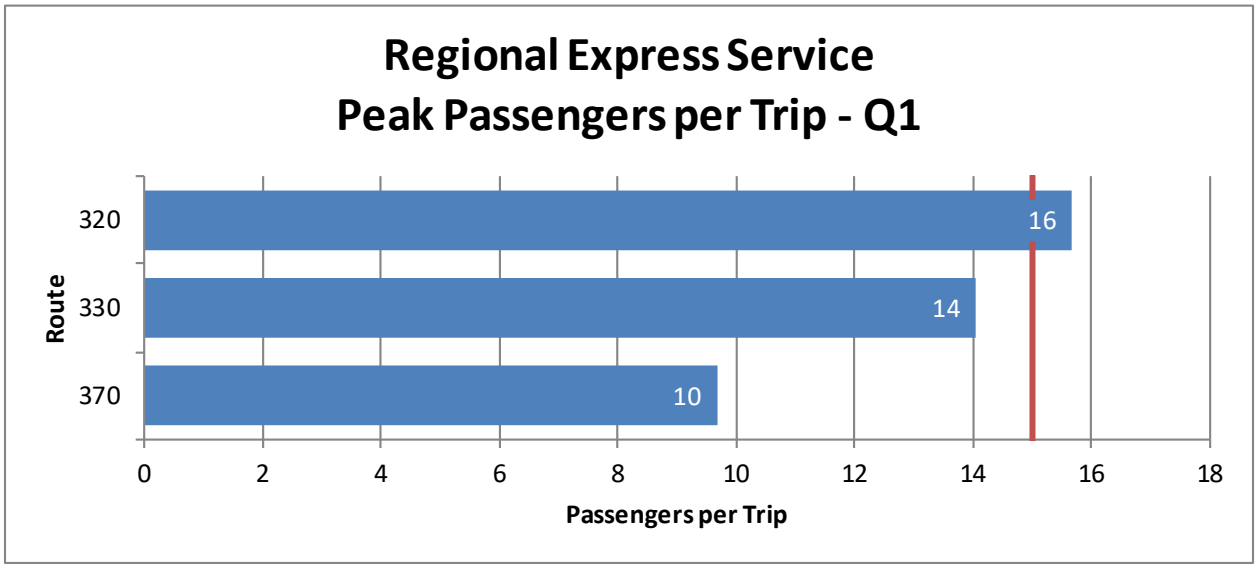
Passengers per Hour by Route



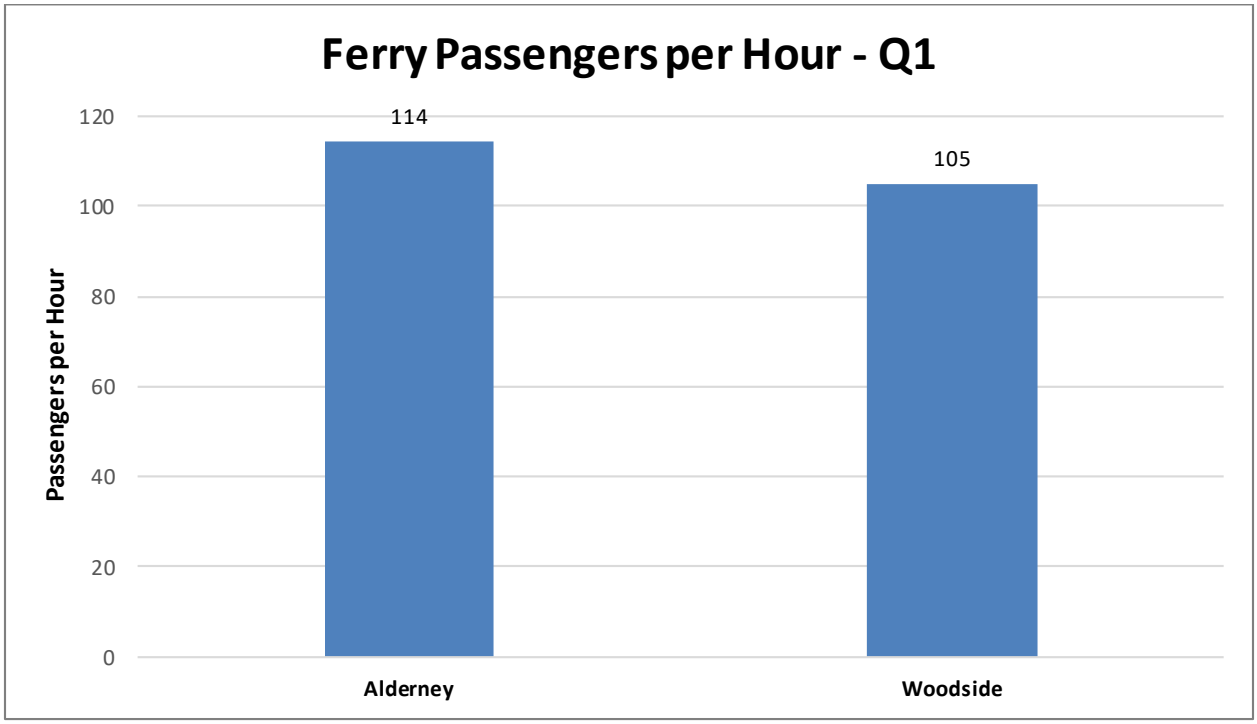
Express Service Peak Passengers per Trip



Regional Express Peak Passengers per Trip



Ferry Passengers per Hour



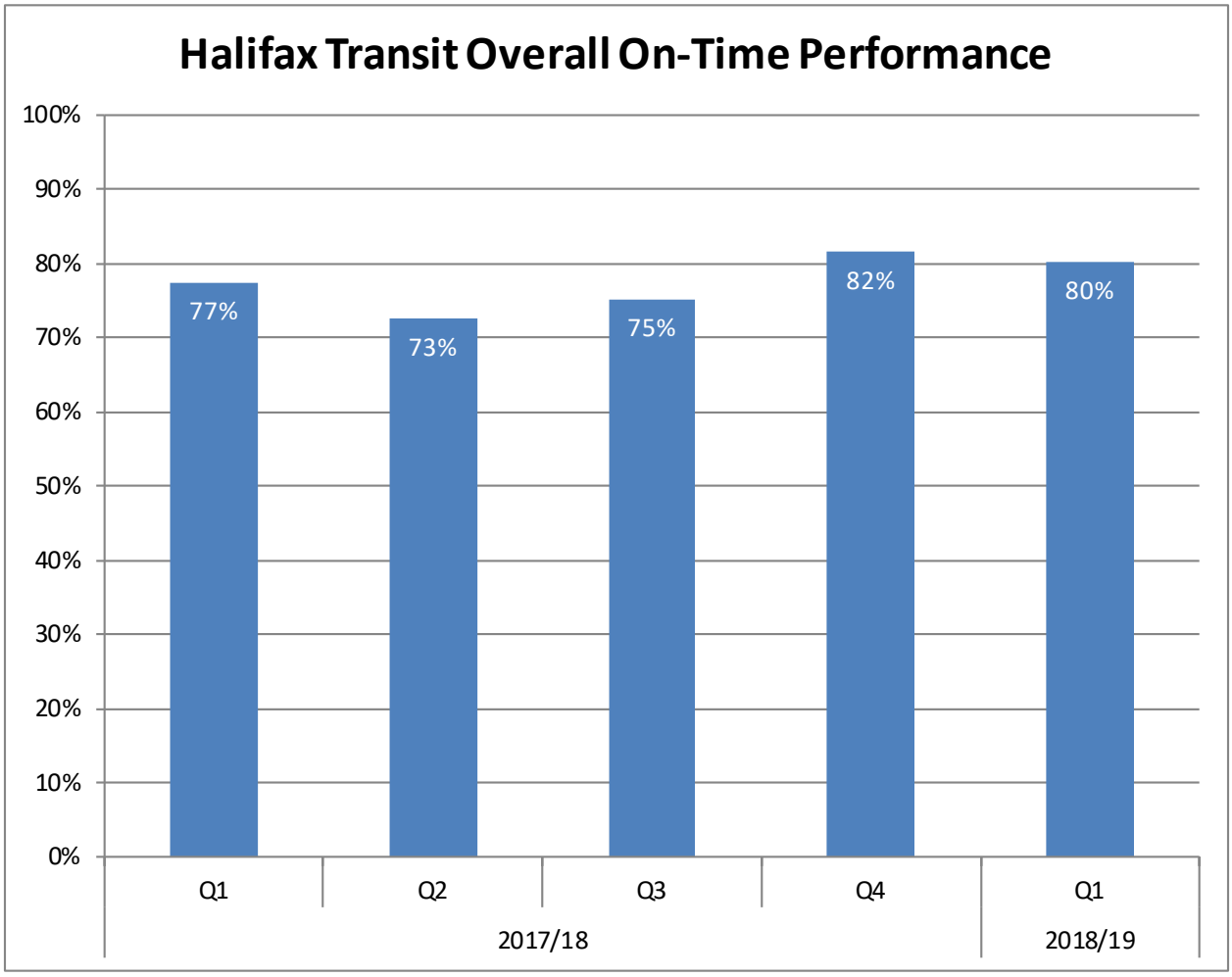
On-Time Performance

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.

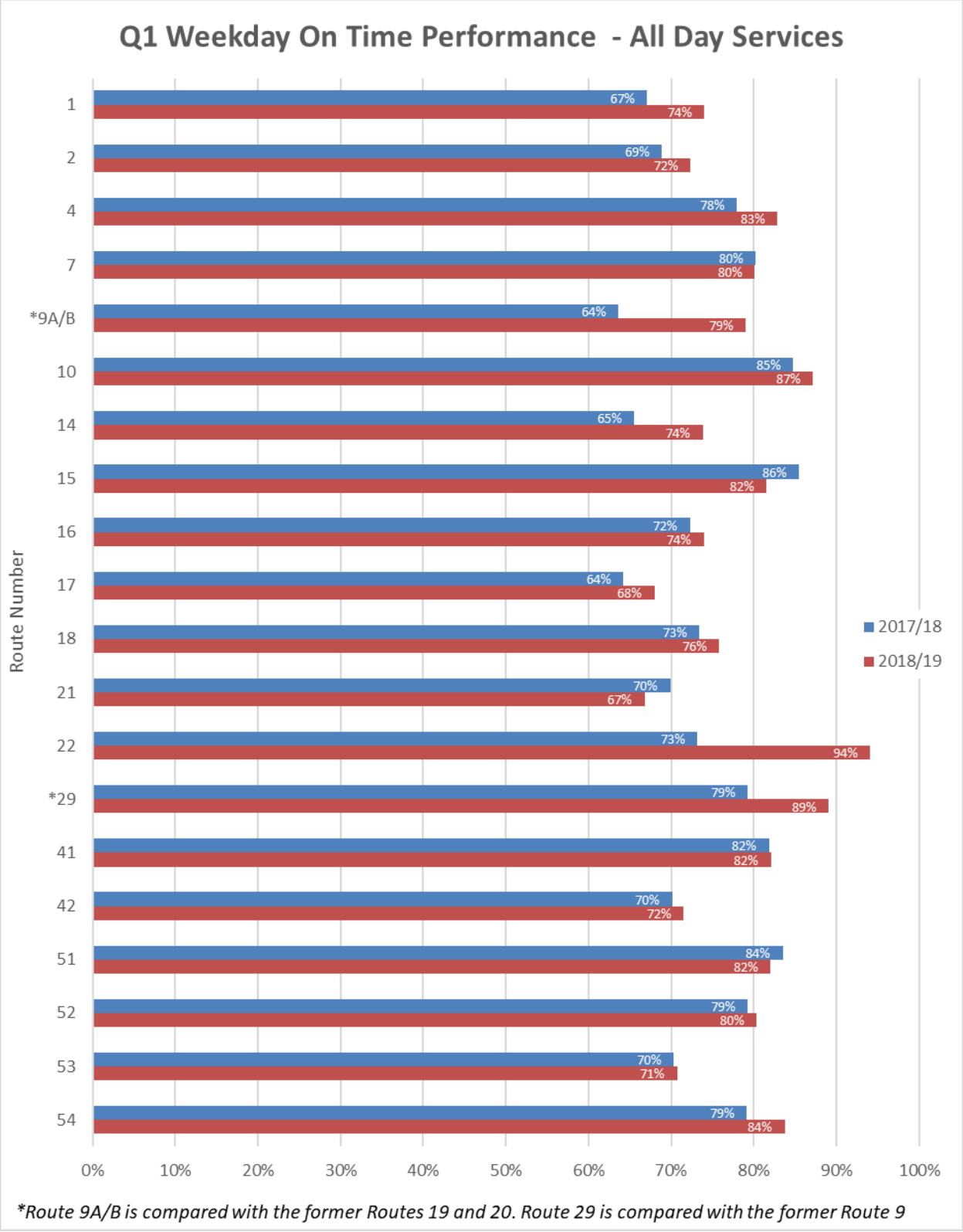
Transit Industry standard targets for on-time performance tend to range between 85% and 90%, although service types are not always comparably grouped, nor are schedule adherence definitions consistent between agencies. Halifax Transit will analyze on-time performance across the network in order to establish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

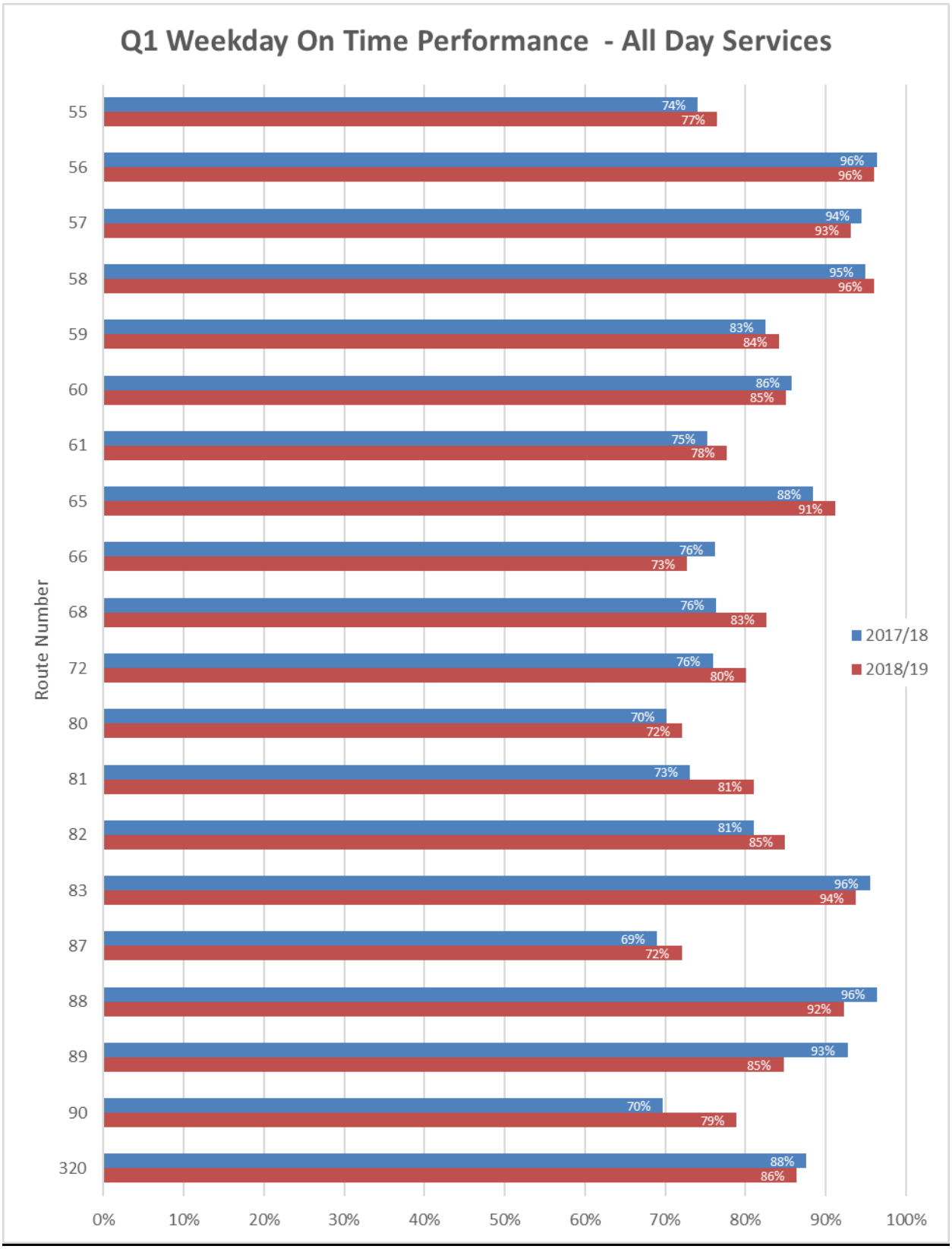
Compared to first quarter last year, on-time performance increased 3%.

Overall Network On-Time Performance



Weekday On-Time Performance – All Day Services




Q1 Weekday On Time Performance - All Day Services
Route Number
55
56
57
58
59
60
61
65
66
68
72
80
81
82
83
87
88
89
90
320
74%
77%
96%
96%
94%
93%
95%
96%
83%
84%
86%
85%
75%
78%
88%
91%
76%
73%
76%
83%
76%
80%
70%
72%
73%
81%
81%
85%
96%
94%
69%
72%
96%
92%
93%
85%
70%
79%
88%
86%
2017/18
2018/19
0%
10%
20%
30%
40%
50%
60%
70%
80%
90%
100%

Weekday Peak Period On-Time Performance – All Day Services

*Route 9A/B is compared with the former Routes 19 and 20. Route 29 is compared with the former Route 9


Q1 Weekday Peak On-Time Performance - All Day Services
55
56
57
58
59
60
61
65
66
68
72
80
81
82
83
87
88
89
90
320
75%
79%
97%
96%
97%
93%
94%
95%
75%
75%
84%
83%
66%
68%
86%
88%
59%
52%
68%
72%
68%
66%
67%
67%
68%
75%
75%
77%
95%
95%
60%
64%
96%
90%
93%
84%
61%
73%
84%
82%
2017/18
2018/19
0%
10%
20%
30%
40%
50%
60%
70%
80%
90%
100%

Weekday Peak Period On-Time Performance – Peak Only Services