2021/22 – Q2
Performance Measures Report

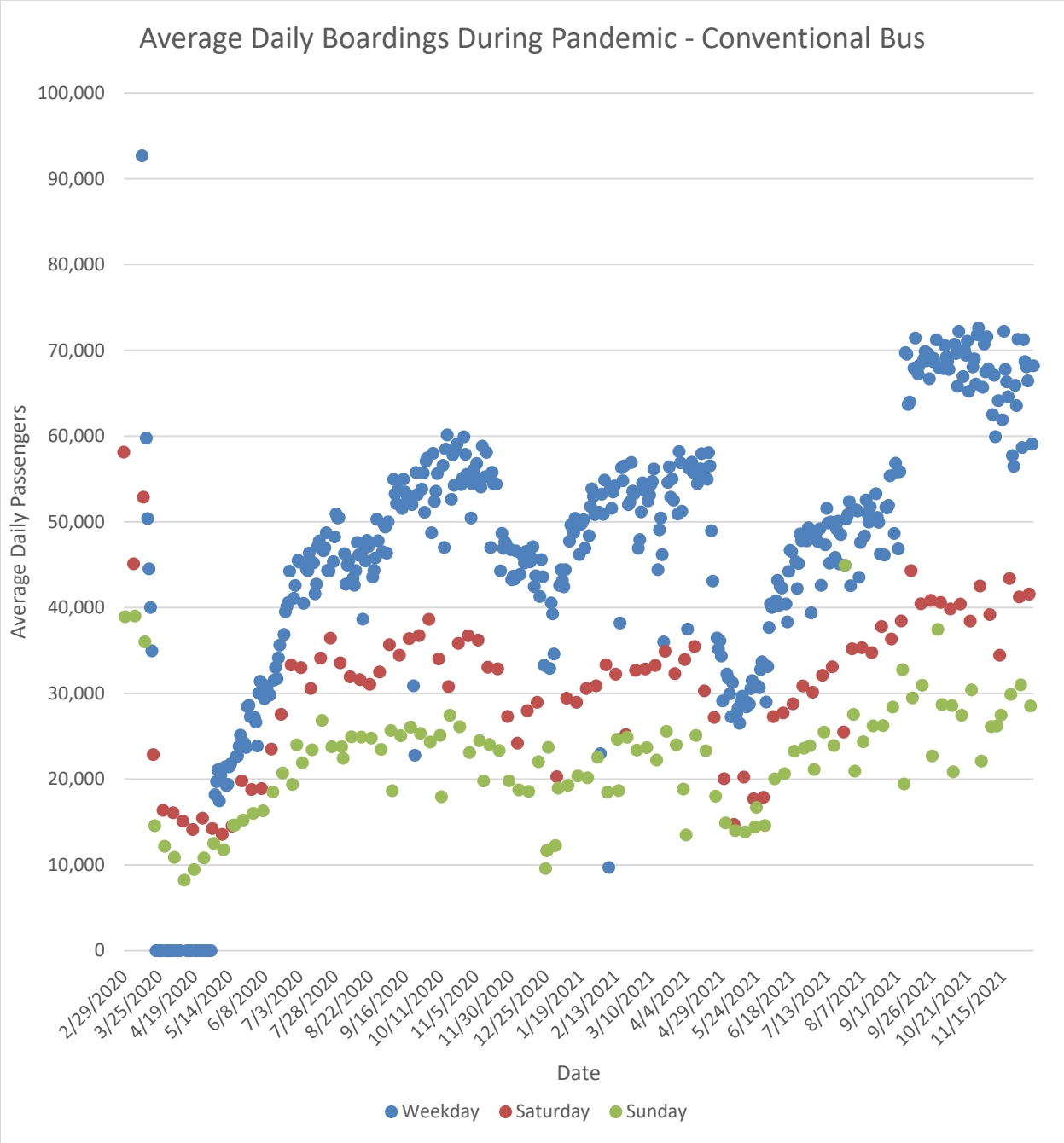
HALIFAX
TRANSIT

Contents

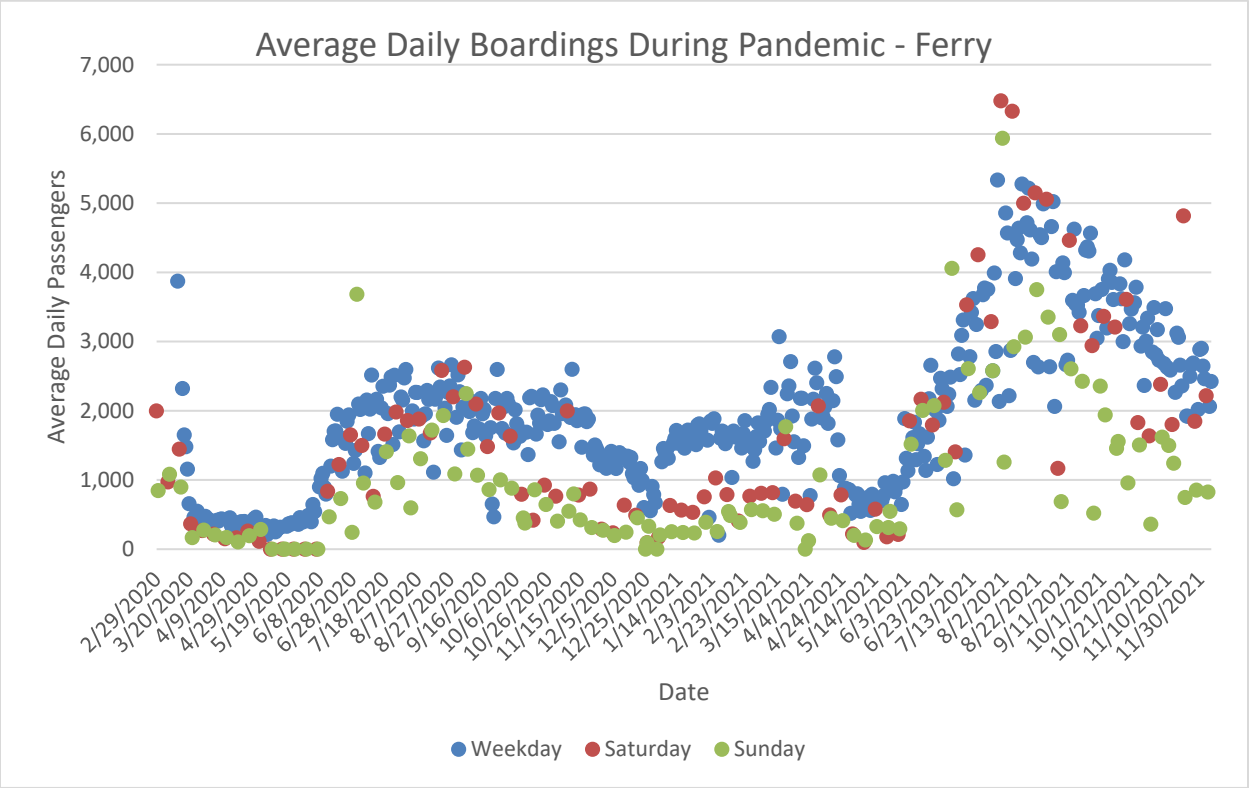
COVID-19 Pandemic Data Impacts

The onset of the COVID-19 pandemic in early 2020 resulted in the need to rapidly implement emergency service adjustments to the weekday schedules. Fare collection ceased on March 18, 2020 and resumed August 1, 2020. Full service bus schedules resumed August 31, 2020. Ferry service increased September 8, 2020, and again October 26, 2020, with full ferry service resuming July 19, 2021, with the last trip of the day being reinstated.

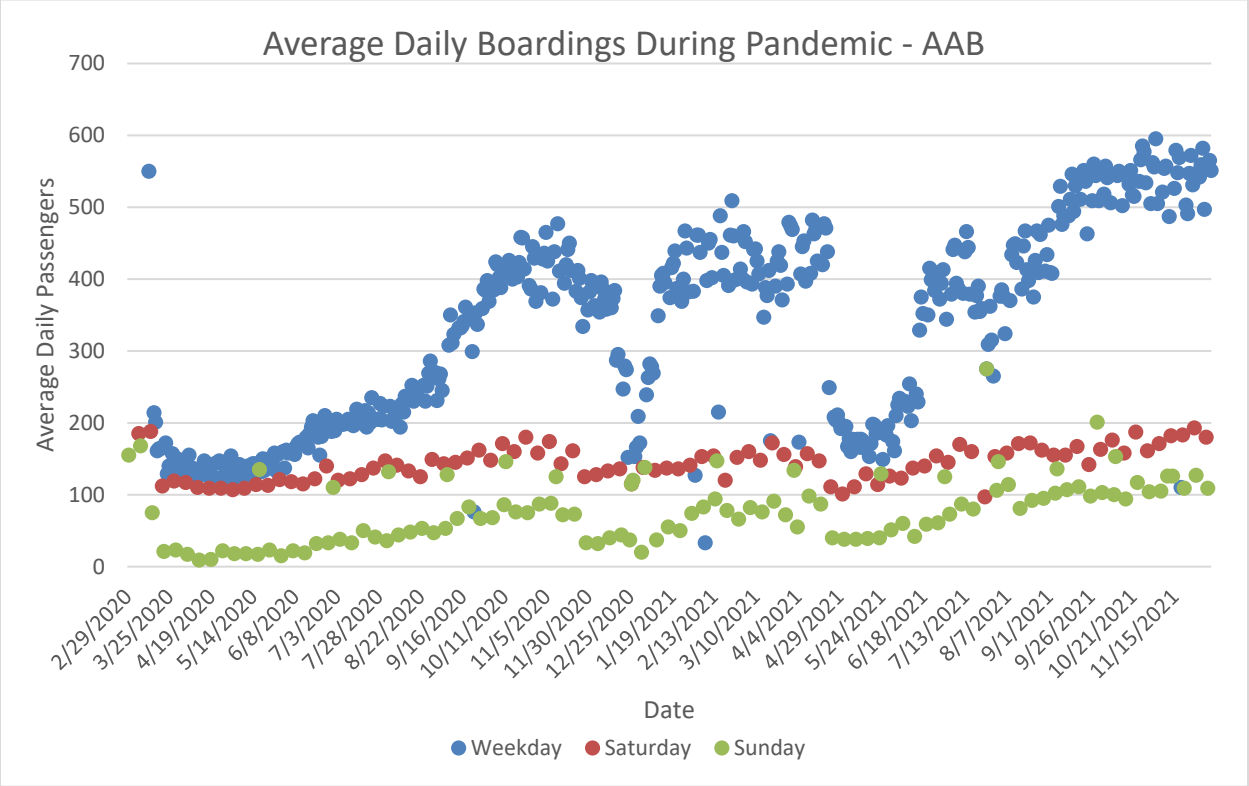
Conventional Bus Boardings During Pandemic



Ferry Boardings During Pandemic



Access-A-Bus Boardings During Pandemic

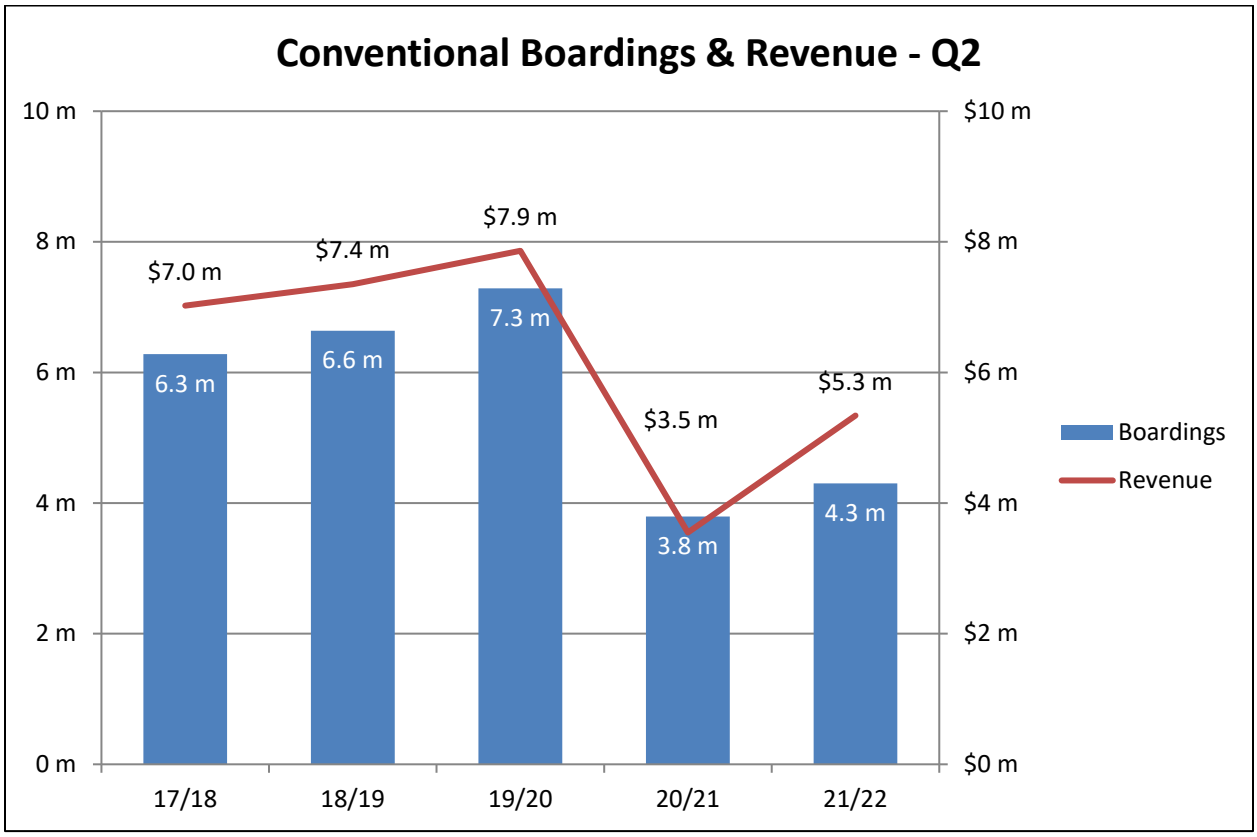


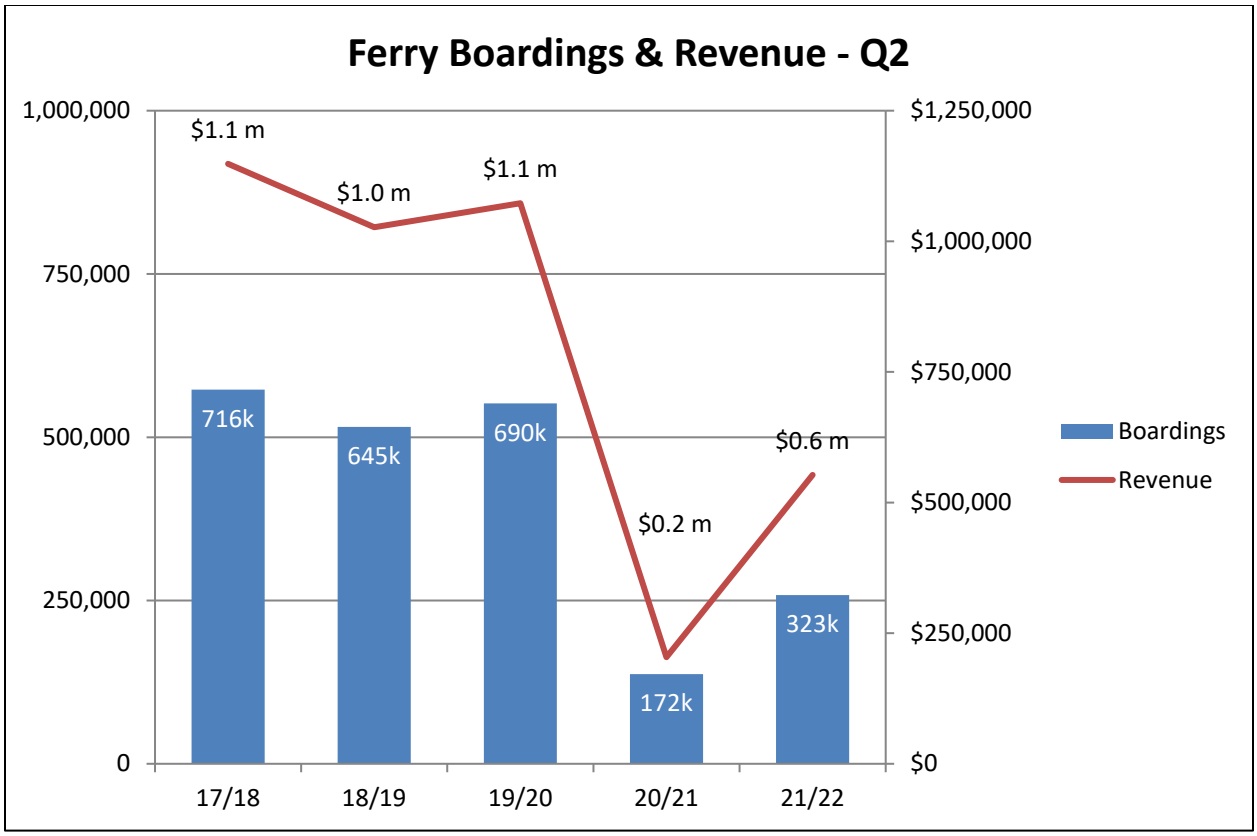
Boardings & Revenue

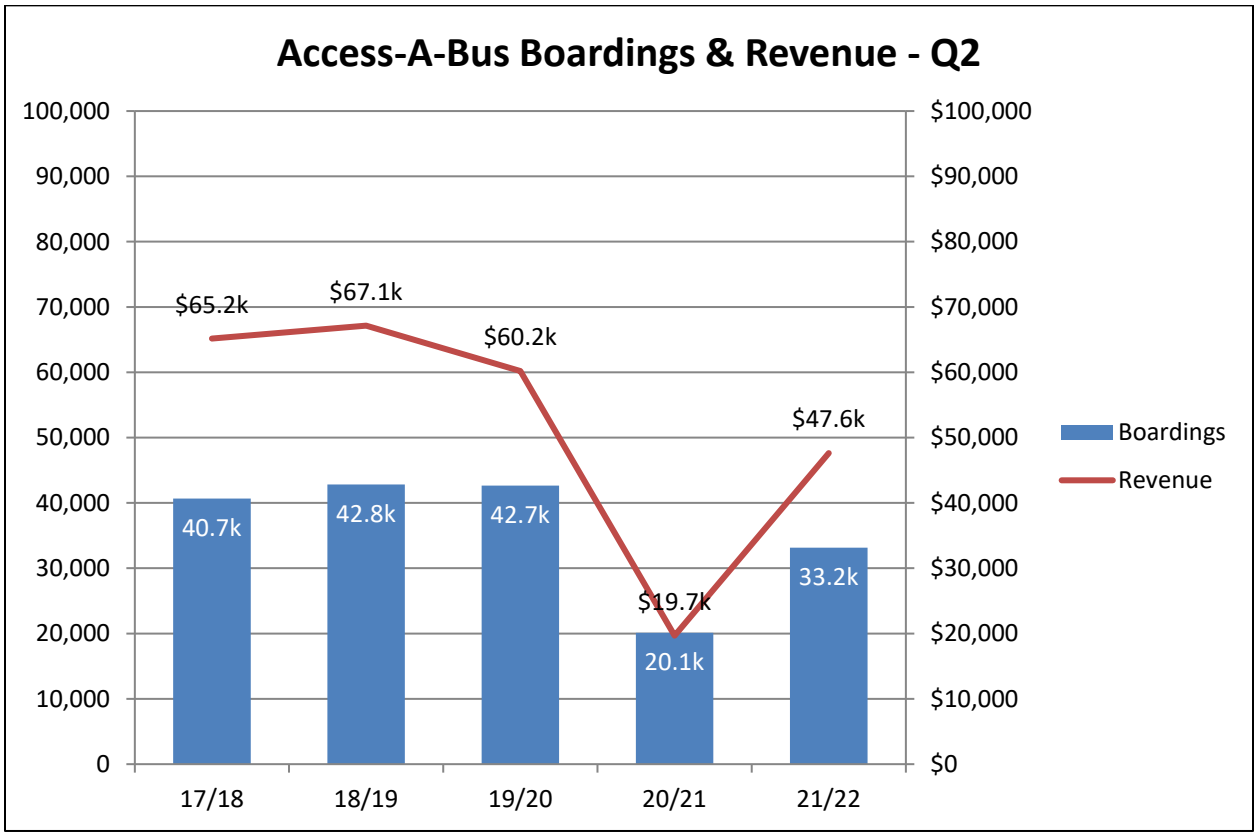
Revenue and boardings are reported to demonstrate how well transit services were used over the quarter, in comparison to the same quarter the previous year.

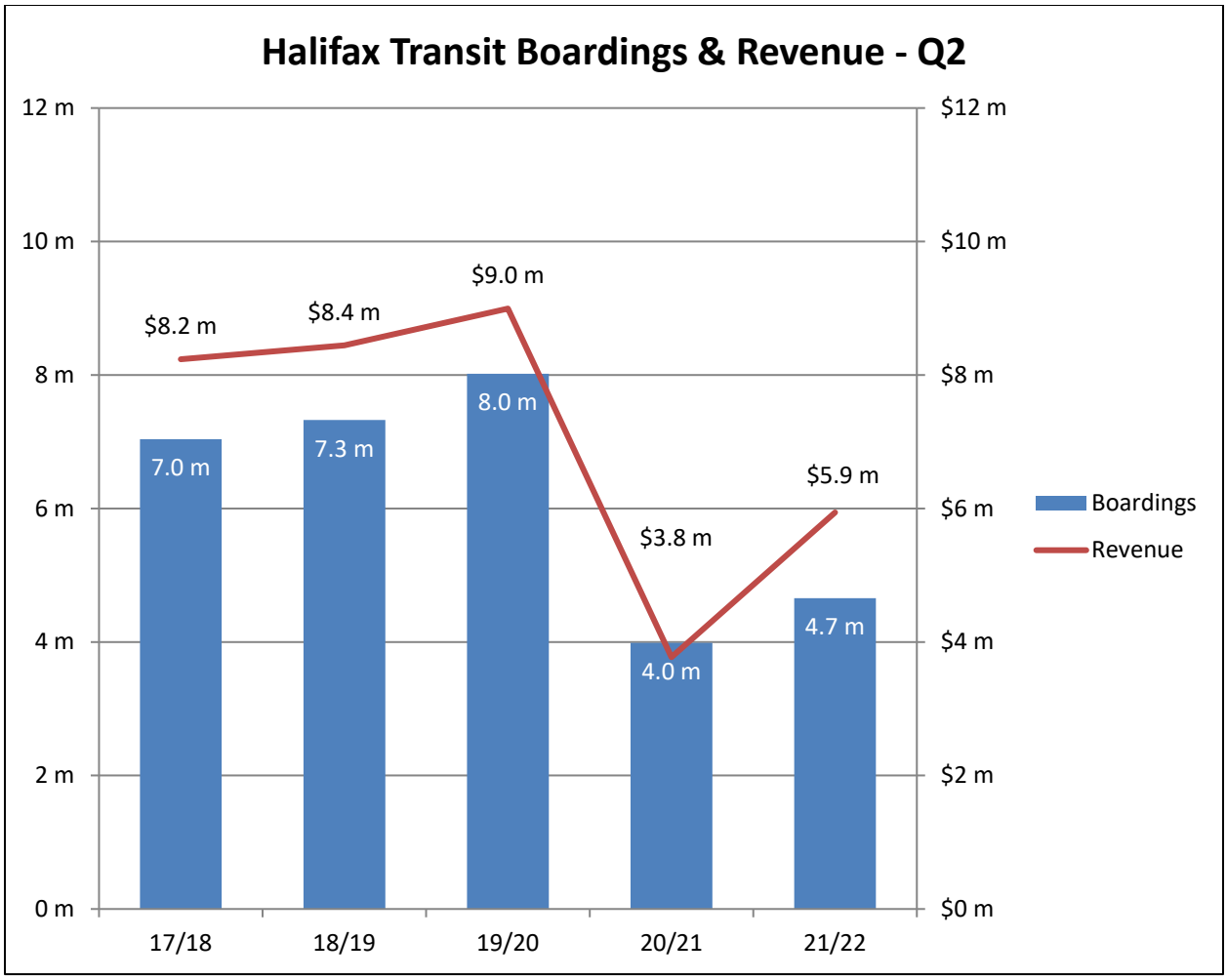
COVID-19 continued to have a significant impact during the second quarter of 2021/22. Conventional boardings increased 13.3% from this quarter last year, Ferry boardings increased 88% and Access-A-Bus boardings increased 64.8%. Overall, system wide boardings increased this quarter by 16.8% compared to last year, which is still 41.9% lower than second quarter 2019/20. Fare collection resumed mid second quarter on August 1, 2020. Overall revenue this quarter increased 57.5% from last year, but remains 34% lower than second quarter 2019/20.

Historical Boardings & Revenue



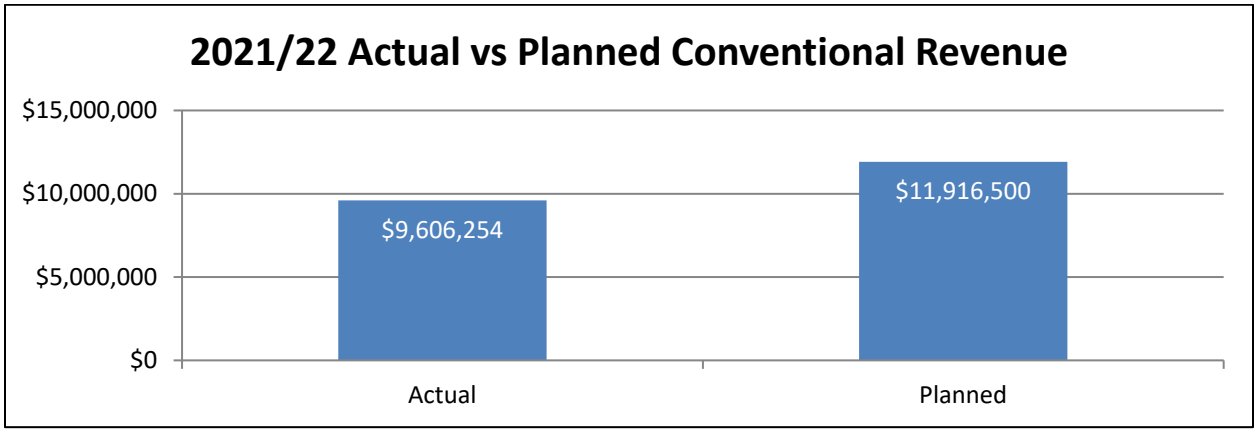

Ferry Boardings & Revenue - Q2
1,000,000
750,000
500,000
250,000
0
$1,250,000
$1,000,000
$750,000
$500,000
$250,000
$0
$1.1 m
$1.0 m
$1.1 m
$0.2 m
$0.6 m
716k
645k
690k
172k
323k
17/18
18/19
19/20
20/21
21/22
Boardings
Revenue

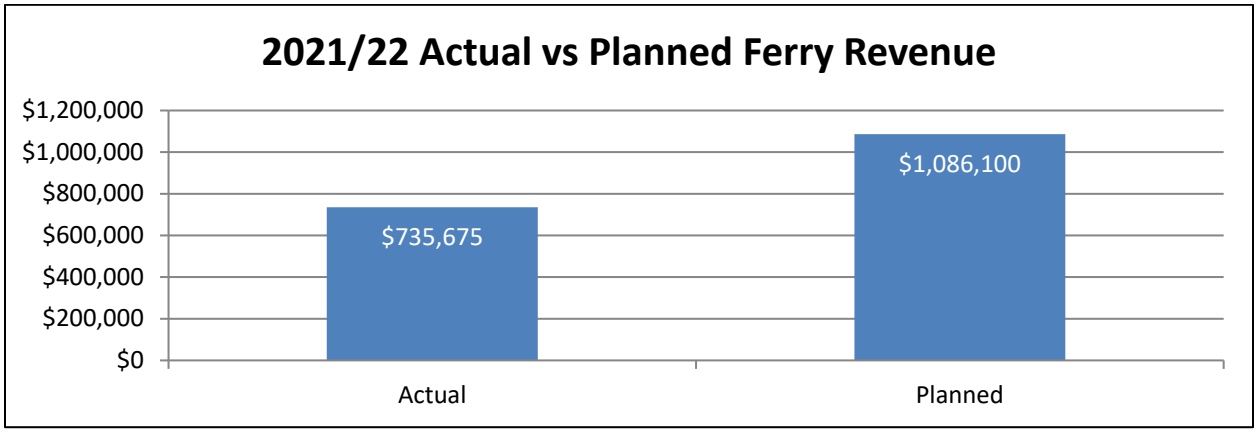

Access-A-Bus Boardings & Revenue - Q2
100,000
90,000
80,000
70,000
60,000
50,000
40,000
30,000
20,000
10,000
0
$100,000
$90,000
$80,000
$70,000
$60,000
$50,000
$40,000
$30,000
$20,000
$10,000
$0
$65.2k
$67.1k
$60.2k
$19.7k
$47.6k
40.7k
42.8k
42.7k
20.1k
33.2k
17/18
18/19
19/20
20/21
21/22
Boardings
Revenue

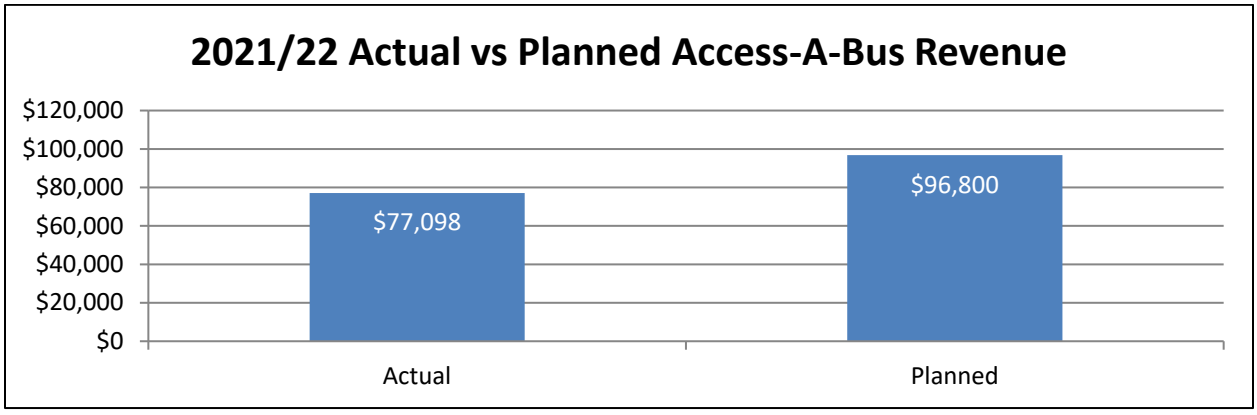

Halifax Transit Boardings & Revenue - Q2
12 m
10 m
8 m
6 m
4 m
2 m
0 m
$12 m
$10 m
$8 m
$6 m
$4 m
$2 m
$0 m
$8.2 m
$8.4 m
$9.0 m
$3.8 m
$5.9 m
7.0 m
7.3 m
8.0 m
4.0 m
4.7 m
17/18
18/19
19/20
20/21
21/22
Boardings
Revenue

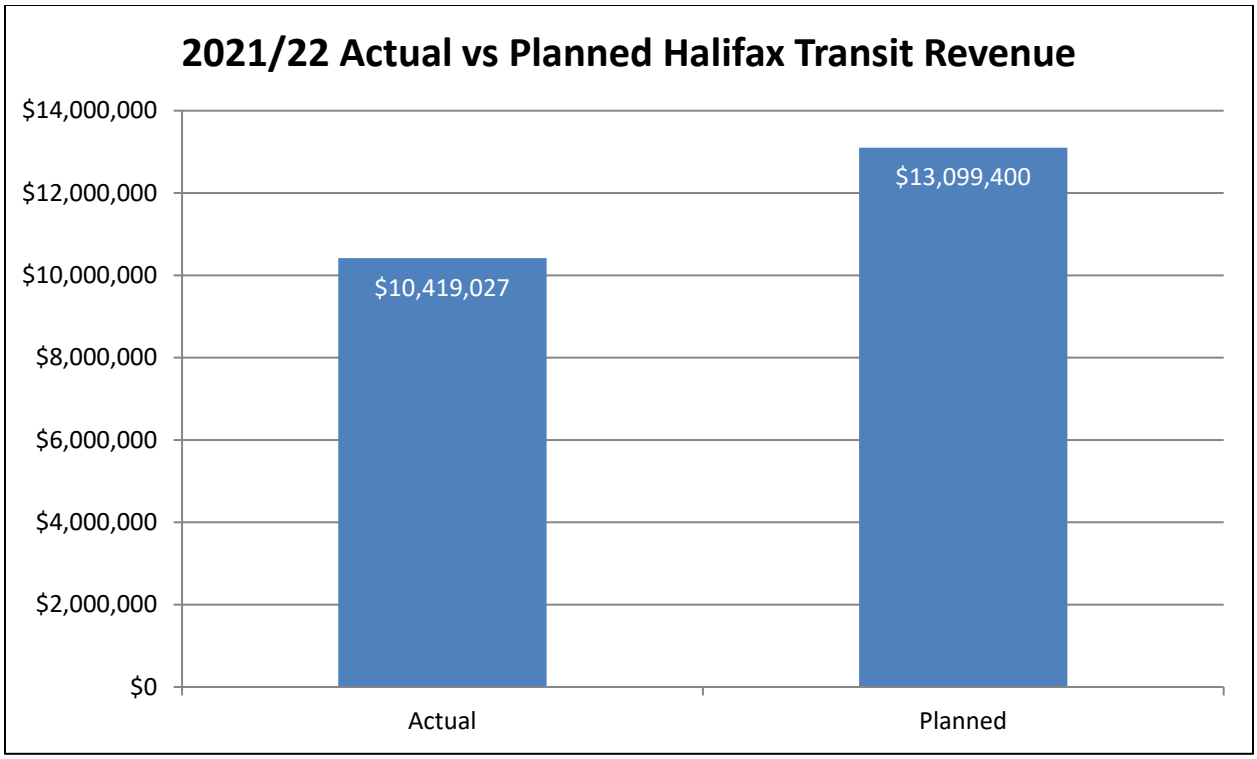
Revenue – Actual vs. Planned

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. As of the second quarter 2021/22 conventional revenue has increased 95.2% over last year and is 19.4% below the planned amount. Ferry revenue has increased 128.3% and is 32.3% below the planned amount. Access-A-Bus revenue this year increased 291.8% over last year and is 20.4% below the planned amount. Overall revenue this year has increased 97.9% over last year, but remains 20.5% below the planned amount. Revenue projections are made prior to the beginning of the fiscal year, prior to April 2021 COVID cases were relatively low in the province. Another wave of COVID cases began in April extending through May and June, causing actual revenue to be lower than projected.





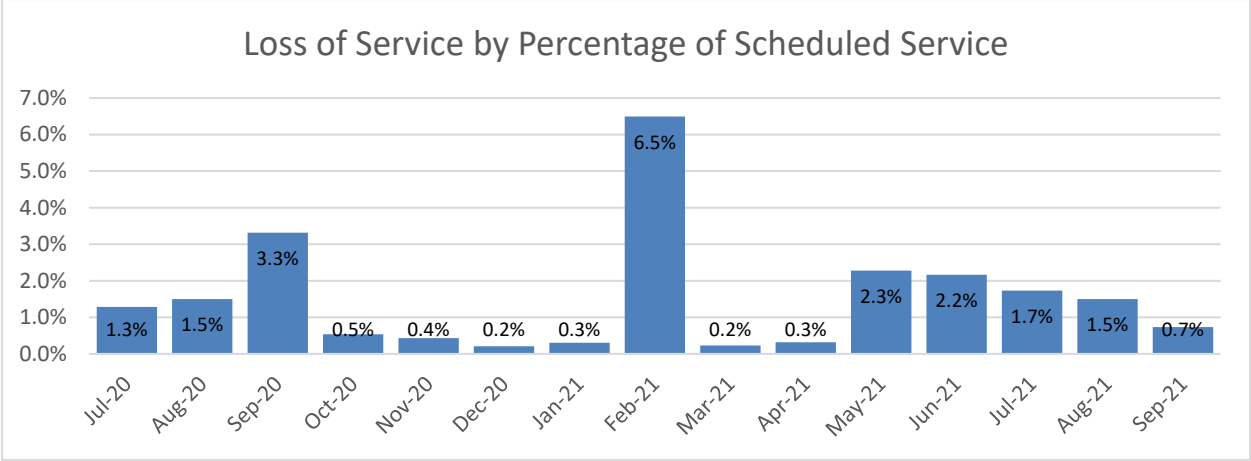




Loss of Service

Loss of service represents the total number of scheduled bus service hours that were not completed. If a trip was able to be filled or partially filled by a standby bus, that time would not be included in this figure.

In the second quarter, the total loss of service was 2,820 hours, which is 1.33% of the quarterly revenue hours. The table below shows the total loss of service for each month.

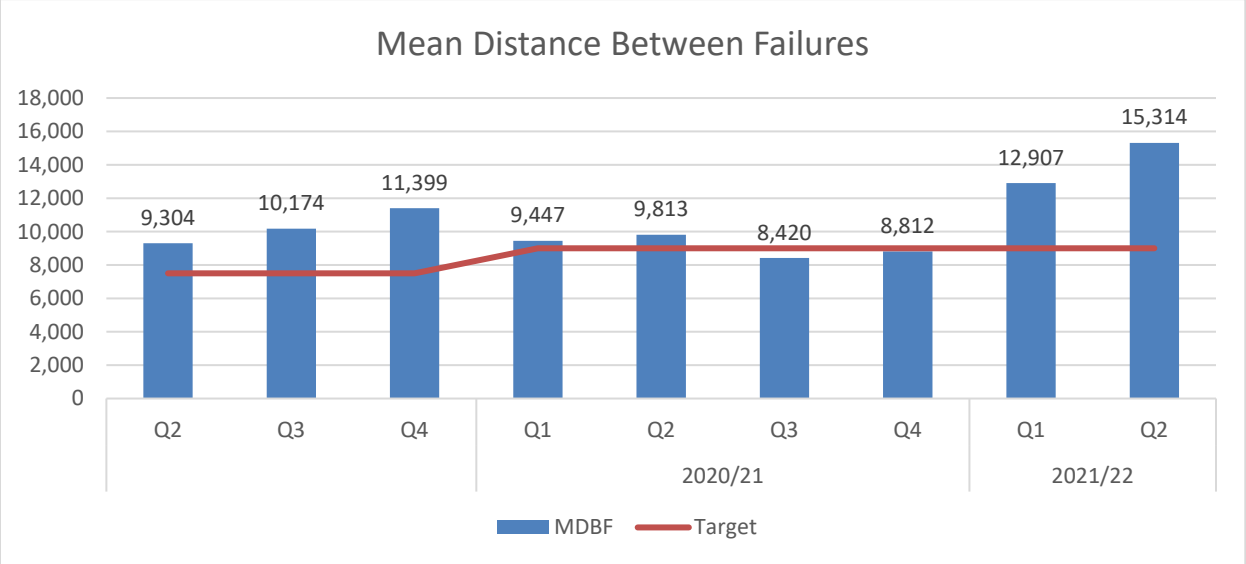


Mean Distance Between Failures

Halifax Transit's Mean Distance Between Failures (MDBF) is the distance in kilometres 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.

Transit Fleet has set a target of 9,000 kms for 2021/22. The target for this KPI shall be revisited on annual basis to promote continuous improvement, which may be achieved by implementation and support of quality and preventative maintenance initiatives.

For the second quarter of 2021/22, the MDBF for conventional transit was 15,314 kms. This is a 56% increase from the second quarter of the previous year (2020/21). Transit Fleet will continue to monitor this KPI and has implemented new preventative maintenance measures to reduce aftertreatment and cooling system defects.

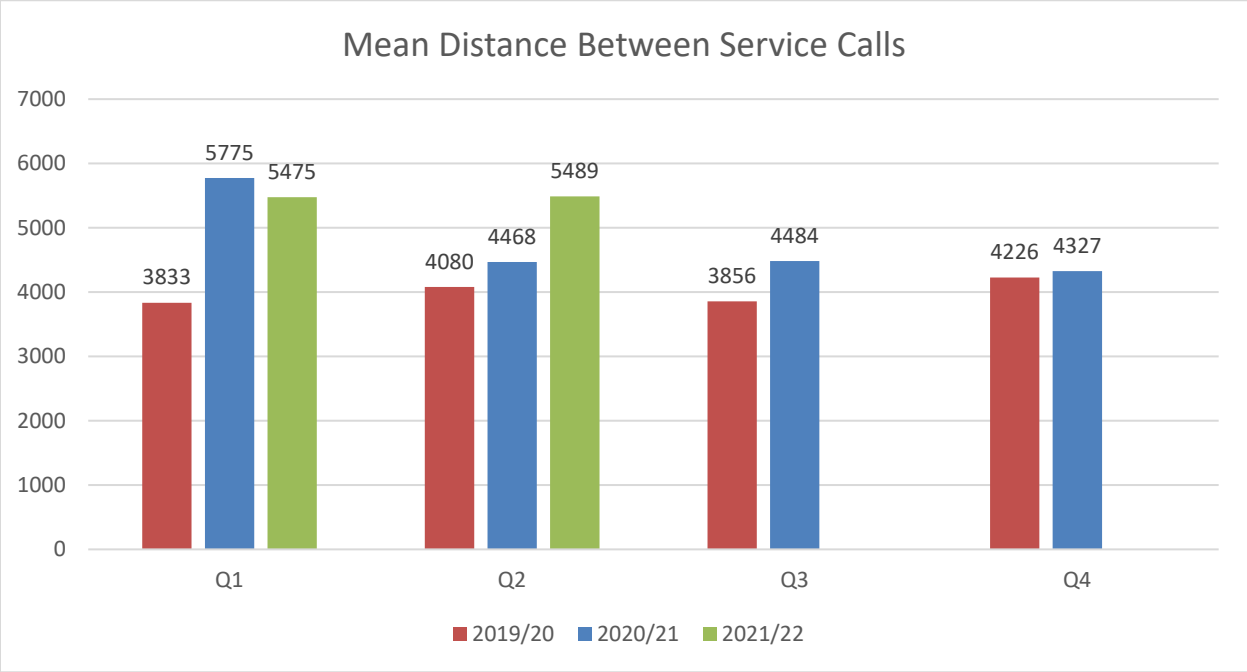


Mean Distance Between Service Calls

Mean Distance Between Service Calls (MDBS) reflects the average distance in kilometres covered between maintenance service calls. This metric includes all instances of service calls, including issues with

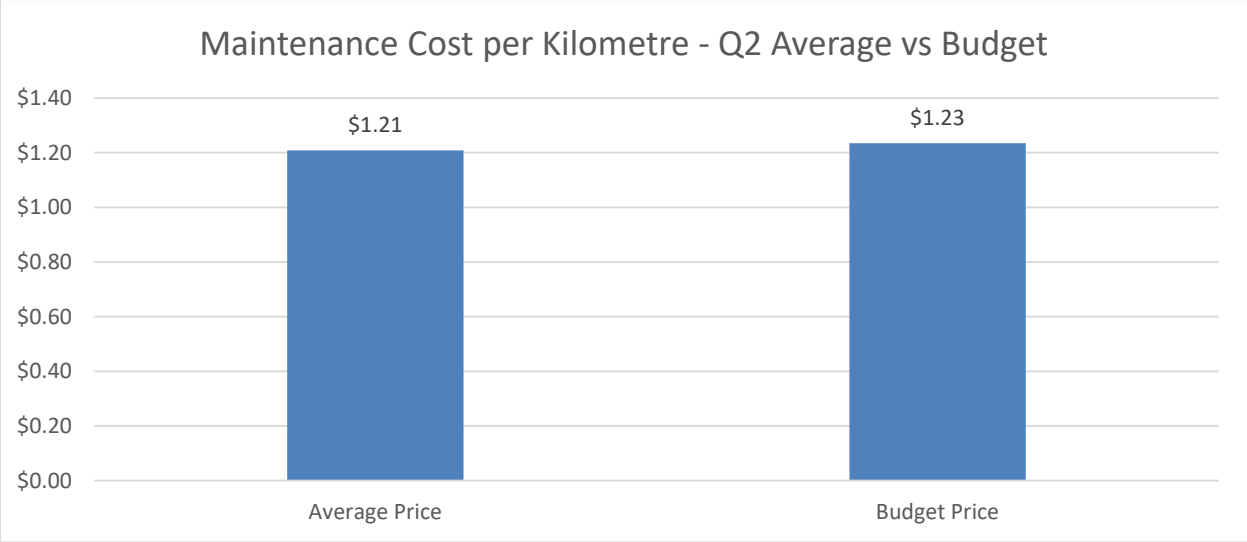
secondary equipment, passenger-related events and damages to the bus resulting from minor accidents. Transit Fleet is continuing to benchmark this metric in order to provide a target.

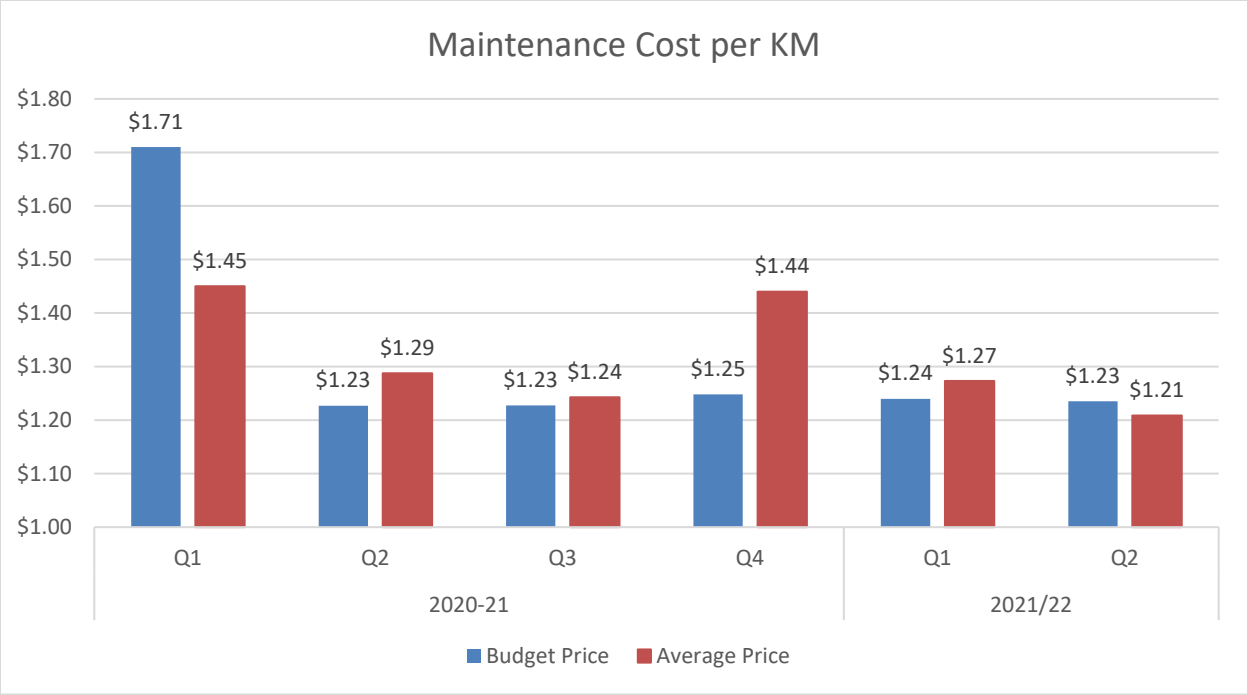
For the second quarter of 2021/22, the MDBS for conventional transit was 5,489 kms. In comparison to the second quarter of 2020/21 (4,468), this is an increase of 23%. The MDBS for Access-A-Bus service was 39,680 kms. Transit Fleet will continue to monitor this metric in order to reduce service calls.



Bus Maintenance Cost – Quarter Average vs Budget

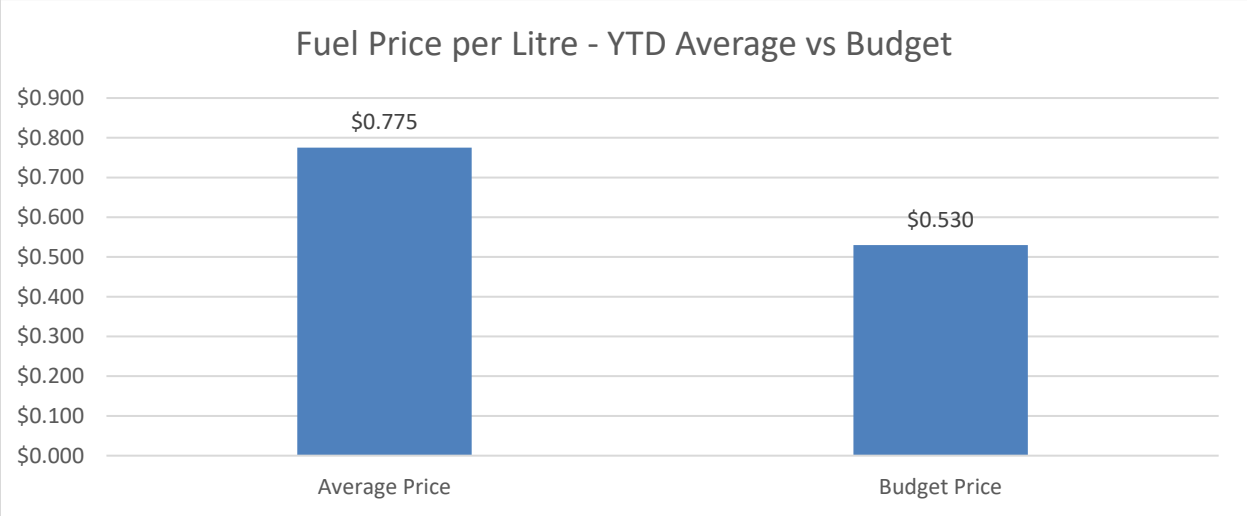
In the second quarter, bus maintenance costs were $1.21/km, while the budgeted maintenance cost was $1.23/km.




Maintenance Cost per KM
$1.80
$1.70
$1.60
$1.50
$1.40
$1.30
$1.20
$1.10
$1.00
$1.71
$1.45
$1.23
$1.29
$1.23
$1.24
$1.25
$1.44
$1.24
$1.27
$1.23
$1.21
Q1
Q2
Q3
Q4
Q1
Q2
2020-21
2021/22
Budget Price
Average Price

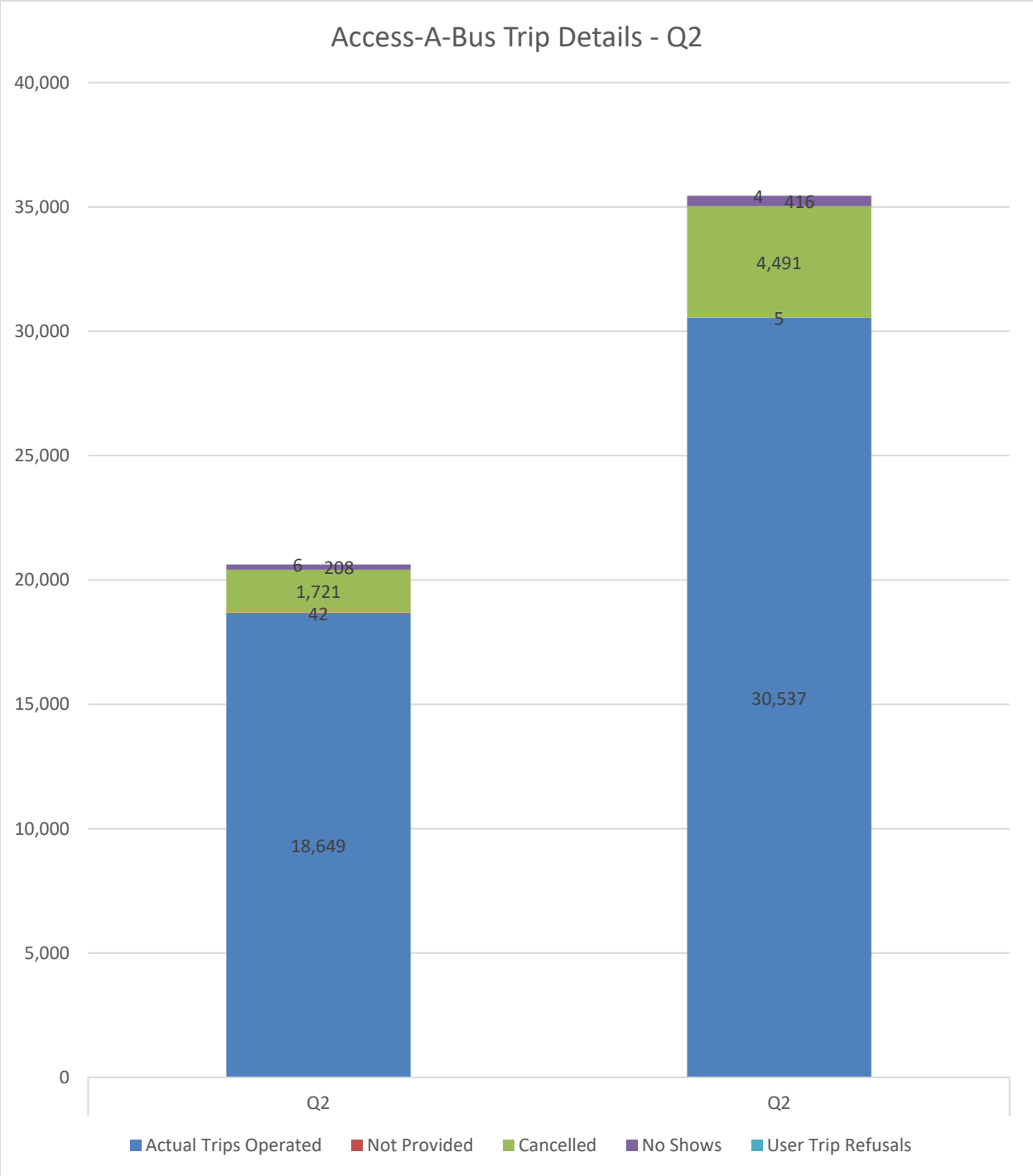
Fuel Price – Annual Average vs Budget

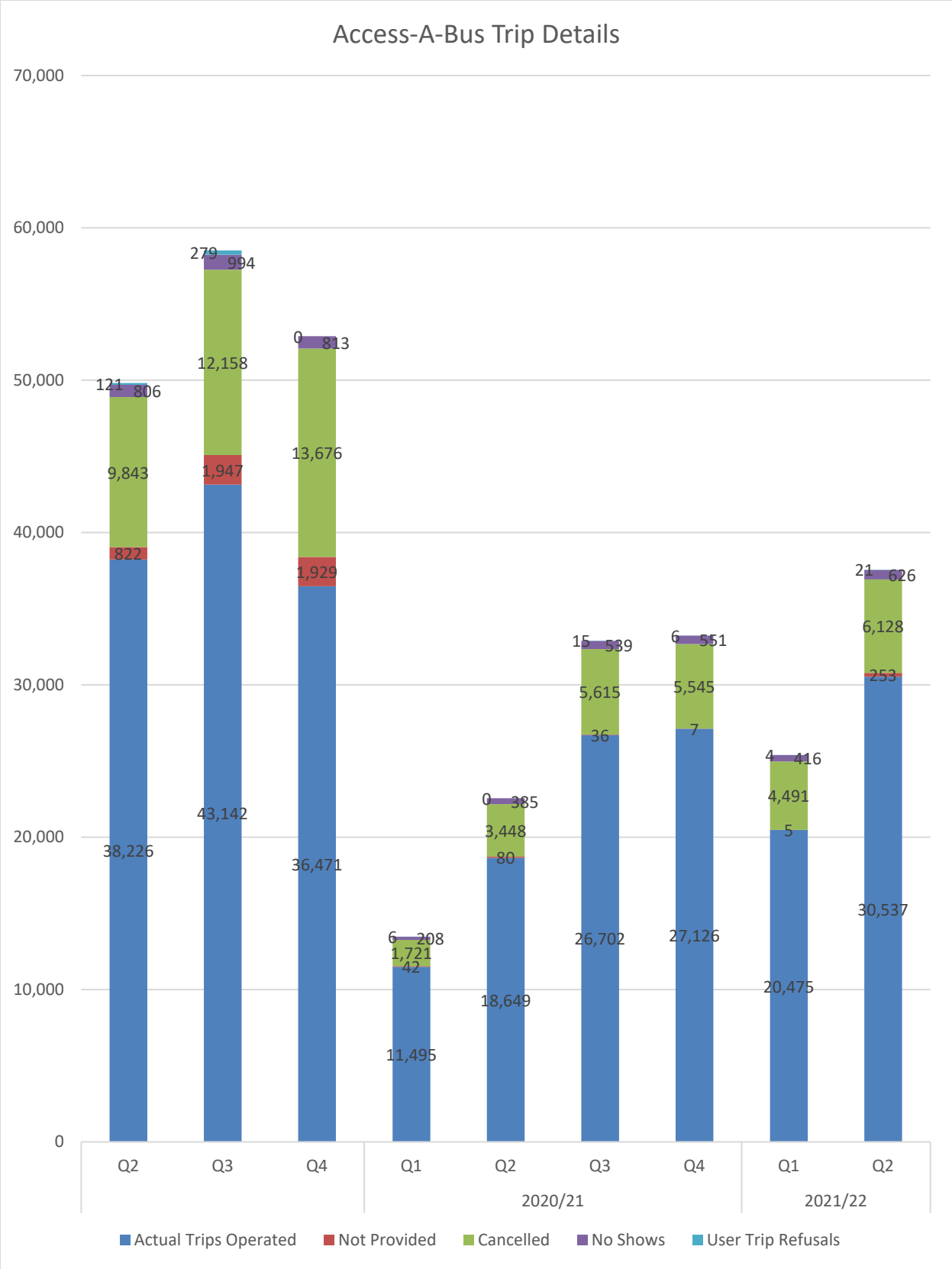
The budgeted fuel price for 2021/22 was set at 53 cents/litre. The average fuel price for 2021/22 as of the end of the second quarter of 2021/22 was 78 cents/litre, 25 cents higher than the budgeted price per litre.



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 the second quarter of 2021/22 30,537 trips were operated, an increase of 64% compared to the second quarter last year.



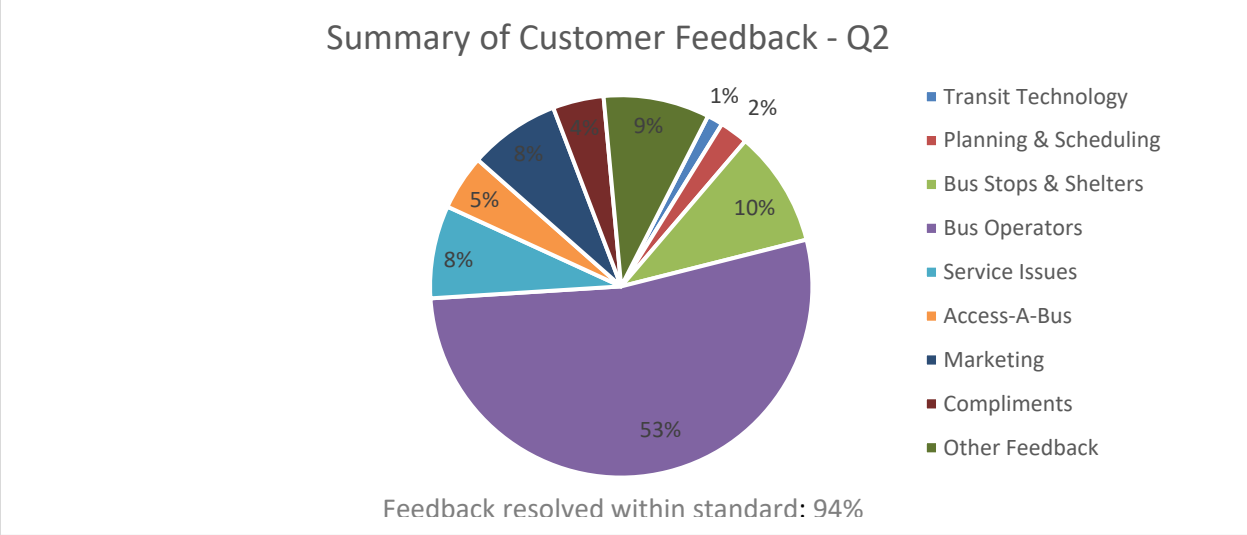

Access-A-Bus Trip Details
70,000
60,000
50,000
40,000
30,000
20,000
10,000
0
121
806
9,843
822
38,226
279
994
12,158
1,947
43,142
0
813
13,676
1,929
36,471
6
208
1,721
42
11,495
0
385
3,448
80
18,649
15
539
5,615
36
26,702
6
551
5,545
7
27,126
4
416
4,491
5
20,475
21
626
6,128
253
30,537
Q2
Q3
Q4
Q1
Q2
Q3
Q4
Q1
Q2
2020/21
2021/22
Actual Trips Operated
Not Provided
Cancelled
No Shows
User Trip Refusals

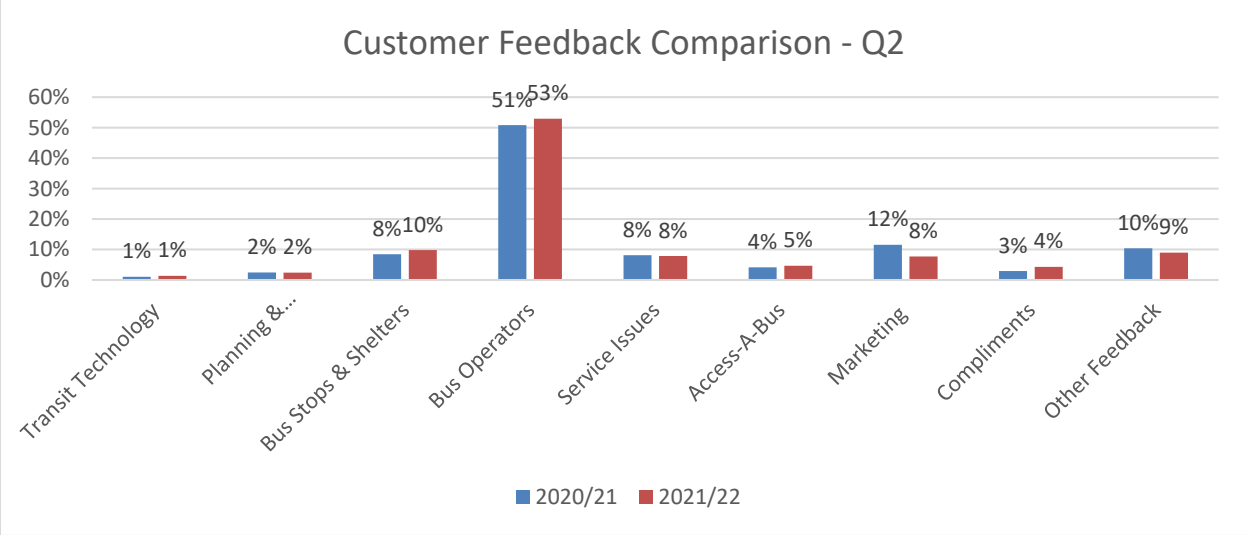
Customer Service – All Services

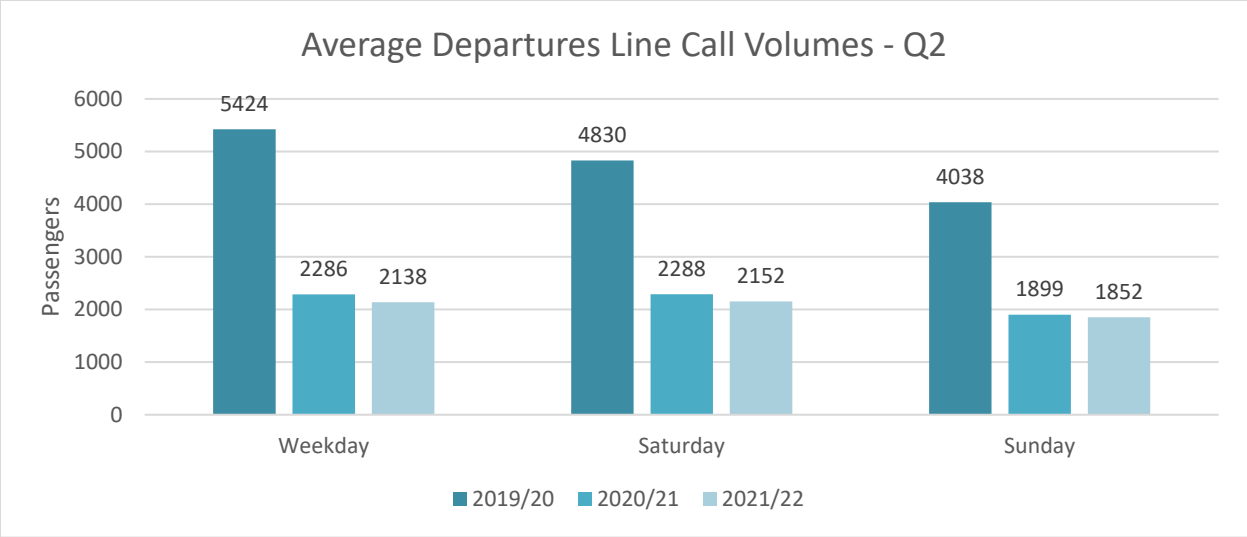
Customer service statistics are measured monthly using the Hansen Customer Relationship Management software along with Crystal Reports. Feedback is first categorized by subject matter and then divided into two categories: feedback resolved within service standard and feedback resolved outside service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

In the second quarter, 53% of feedback received was related to bus Operators. The remaining 47% is comprised of feedback regarding service issues, 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 94% 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 2021/22, average call volumes were slightly lower than this time last year for weekdays as well as for Saturdays and Sundays.







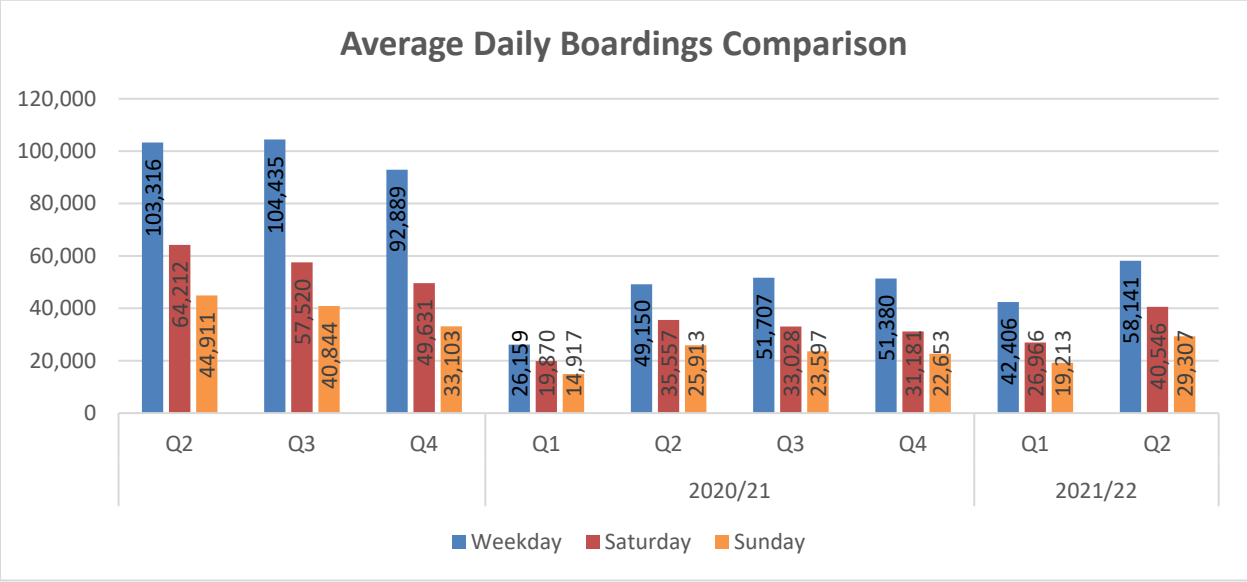
Service Utilization

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

Boardings

Average weekday boardings in the first quarter were 58,141 ± 9,606 (16.5% variance). Average Saturday boardings this quarter were 40,546 ± 4,227 (10.4% variance). Average Sunday boardings this quarter were 29,307 ± 4,100 (14% variance).

Average Daily Boardings by Service Day

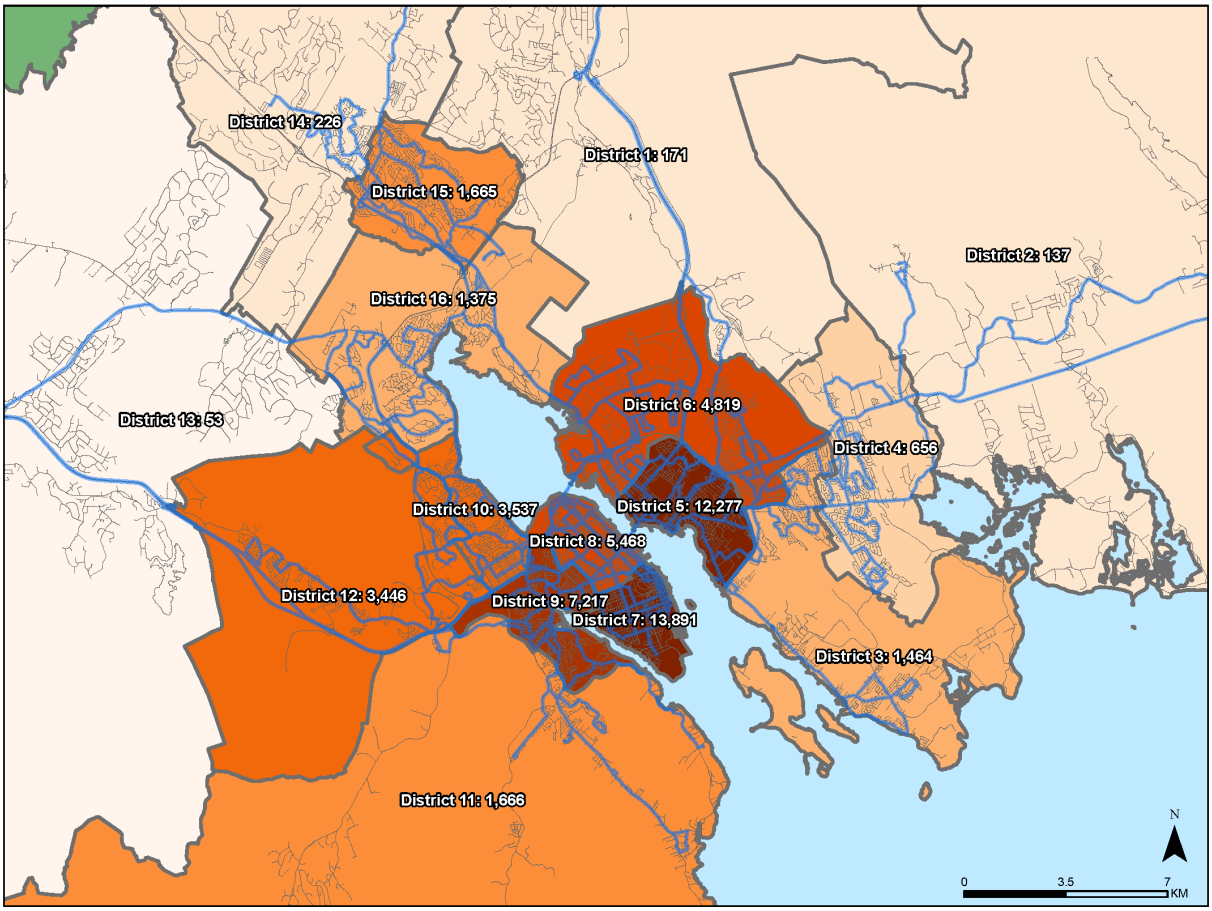


Boardings by District

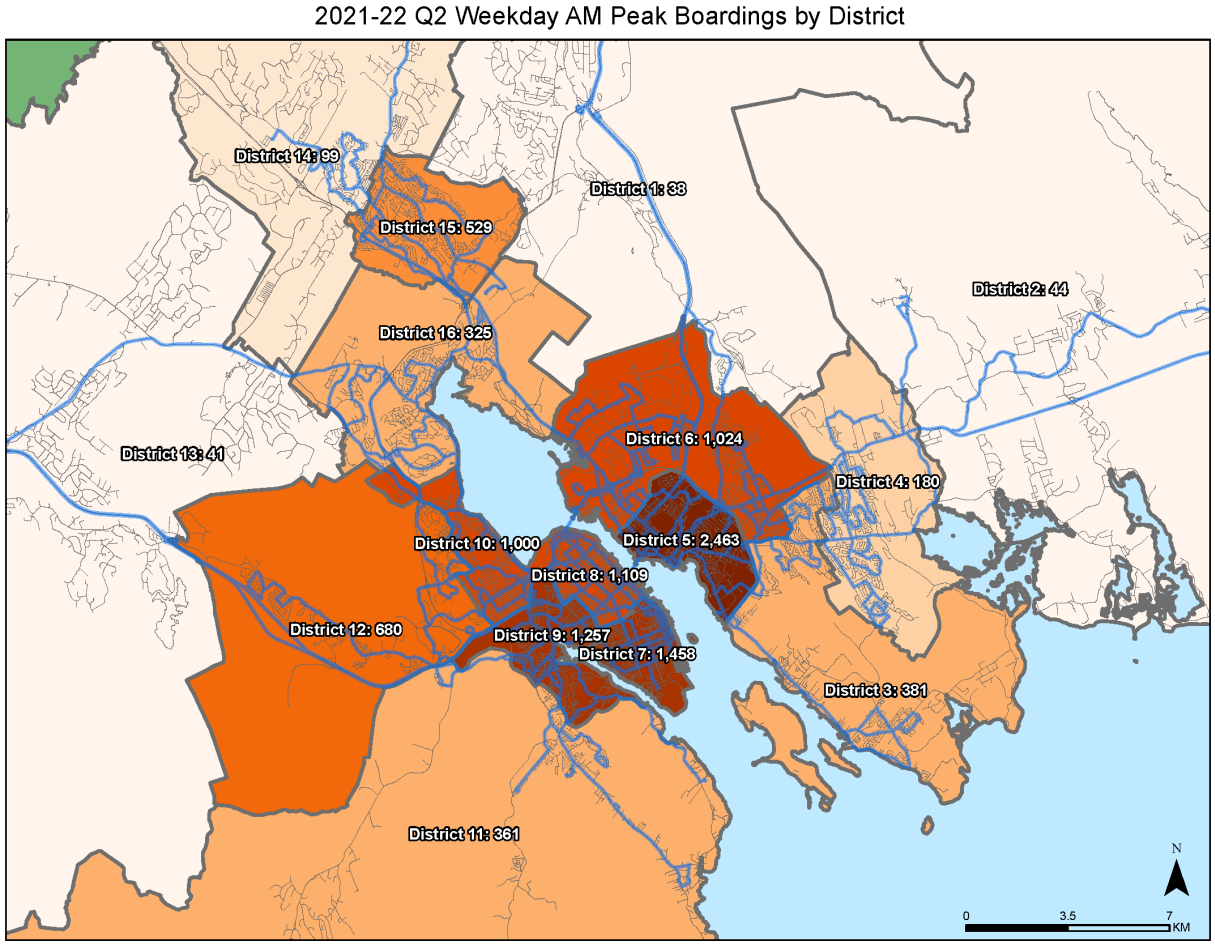
To assist in visualizing where ridership demands exist, boardings have been mapped by district. The all-day boardings map illustrates typical boardings over an entire service day, whereas the AM Peak Period map represents boardings during the morning peak period only and therefore generally illustrates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

Weekday Boardings by District – All Day

2021-22 Q2 Weekday Boardings by District



Weekday Boardings by District – AM Peak Period



Passengers per Hour

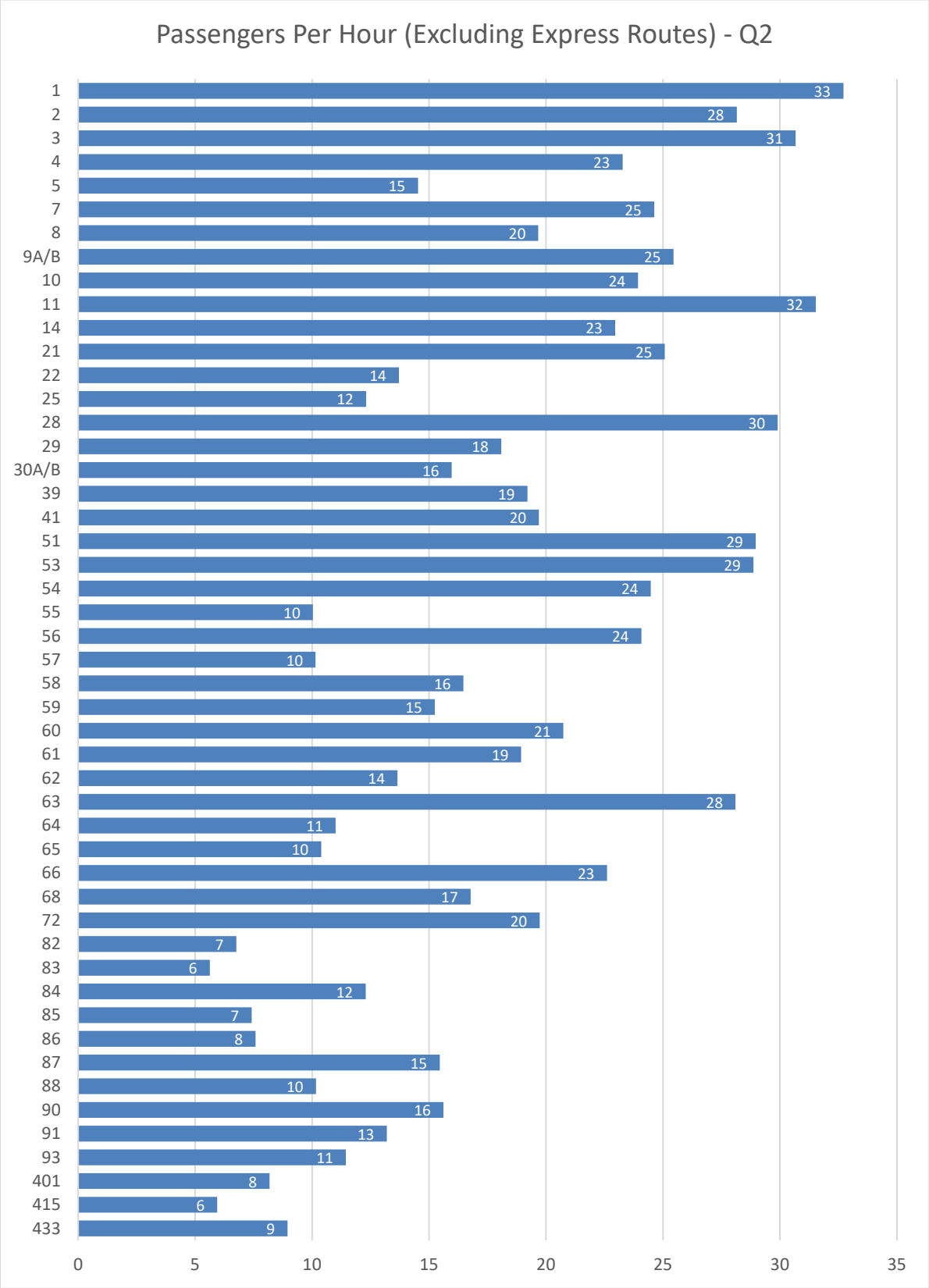
Passengers per hour measures the volume of passengers carried per service hour by route. Due to differences in service model/design, Express Routes are measured instead by passengers per trip. Ridership fluctuates significantly by season and therefore figures are compared to the same quarter in the previous 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			
	2020/21		2021/22		2020/21		2021/22		2020/21		2021/22	
	Boardings	Pass/Hr	Boardings	Pass/Hr	Boardings	Pass/Hr	Boardings	Pass/Hr	Boardings	Pass/Hr	Boardings	Pass/Hr
1	4,933	31	5,119	33	4,268	37	925	40	2,726	31	882	38
2	2,897	26	3,060	28	2,827	28	660	31	1,770	25	534	28
3	4,183	28	4,638	31	2,408	27	530	29	2,530	26	746	29
4	2,233	17	2,978	23	1,077	22	315	30	1,017	22	348	28
7	2,424	23	2,807	25	2,032	22	472	24	1,207	22	360	25
8	2,444	17	2,694	20	1,942	17	462	20	1,594	15	472	16
9A/B	4,097	24	4,284	25	2,459	34	564	37	2,063	28	605	31
9A	2,748	25	2,870	26	1,237	35	263	36	872	25	264	27
9B	1,349	23	1,414	24	1,222	33	301	38	1,191	32	341	34
10	1,897	22	2,611	24	1,722	23	404	26	1,211	25	364	27
11	50	19	63	32								
14	1,223	20	1,430	23	744	23	170	25	641	22	193	24
21	664	21	747	25	612	18	127	18	422	23	114	23
22	412	12	431	14	363	11	76	11	288	8	81	8
25	206	12	266	12	174	11	36	11	146	13	41	13
28	1,125	26	1,141	30	1,006	23	224	24	493	24	153	28
29	1,599	17	1,618	18	1,094	17	254	19	886	15	256	16
30A/B	522	15	583	16	422	12	102	14	262	15	73	15
30A	266	15	330	18	215	13	54	15	123	14	33	13
30B	257	15	253	14	206	12	48	13	139	15	40	16
39	752	17	845	19	717	14	159	14	306	14	89	15
41	471	14	686	20								
51	616	26	681	29	362	23	87	26	198	19	60	21
53	755	29	703	29	520	34	108	34	261	31	61	27
54	447	26	519	24	389	25	67	20	185	19	53	20
55	197	11	218	10	160	10	36	11	130	8	32	8
56	801	23	762	24	865	24	179	24	564	17	167	19
57	361	11	392	10	234	8	48	8	150	8	33	7
58	472	17	452	16	278	15	67	17	254	15	69	15

Q2 Comparison - Average Daily Boardings by Route												
Route	Weekday				Saturday				Sunday			
	2020/21		2021/22		2020/21		2021/22		2020/21		2021/22	
	Boardings	Pass/Hr	Boardings	Pass/Hr	Boardings	Pass/Hr	Boardings	Pass/Hr	Boardings	Pass/Hr	Boardings	Pass/Hr
59	644	16	1,154	15	541	23	119	24	390	16	112	17
60	1,560	20	1,576	21	1,250	31	271	32	905	31	258	34
61	1,459	19	1,470	19	773	19	172	21	673	17	197	19
62	401	16	428	14	369	16	71	15	183	11	47	11
63	447	23	476	28								
64	345	8	427	11								
65	117	8	174	10	72	5	14	5	39	6	13	7
66	772	25	704	23	417	26	82	24	253	16	74	17
68	820	17	786	17	499	17	112	18	379	12	104	13
72	836	18	907	20	807	18	179	19	376	14	114	15
82	149	8	130	7	104	7	24	7	86	5	24	6
83	70	5	70	6	56	6	13	6	45	4	13	4
84	576	10	682	12	226	6	57	8	181	6	66	8
85	91	7	96	7	68	7	16	9	49	6	14	8
86	119	8	106	8	86	5	20	6	71	5	19	5
87	811	14	863	15	562	11	129	12	355	12	98	12
88	137	10	145	10	111	7	25	8	67	5	19	5
90	874	13	1,091	16	677	11	171	13	363	10	121	13
91	355	11	469	13	239	11	57	12	220	8	67	9
93	86	8	107	11								
401	86	7	110	8								
415	43	7	37	6								
433	40	7	48	9								
Alderney	1,489	87	2,463	82	1,866	179	4,156	255	1,289	115	2,649	153
Woodside	553	56	1,129	54								

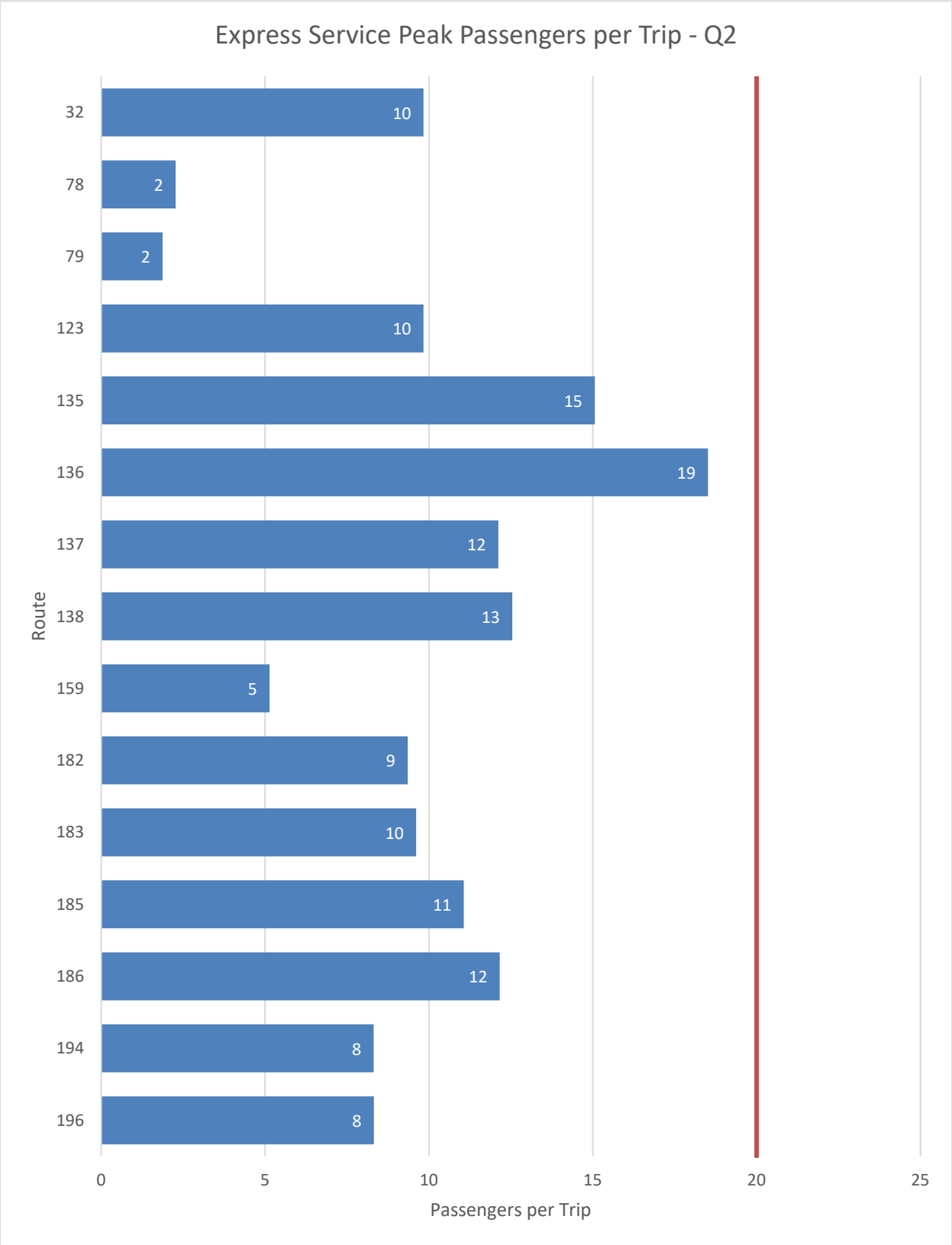
Passengers per Hour by Route



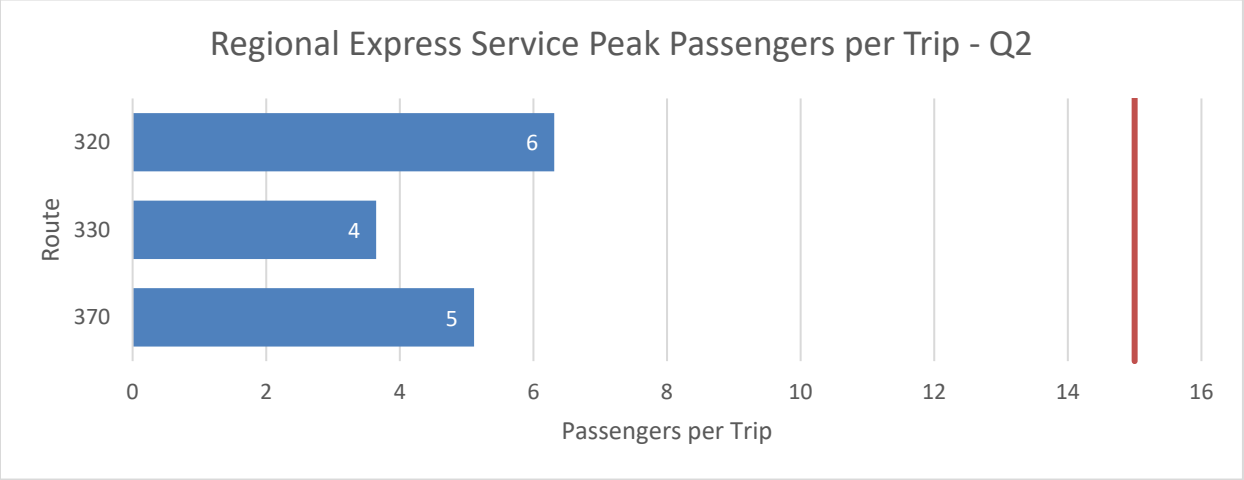
Express Service Peak Boardings and Passengers per Trip

Q2 Comparison - Average Daily Peak Boardings by Express Route				
Route	Weekday			
	2020/21		2021/22	
	Boardings	Pass/Trip	Boardings	Pass/Trip
32	185	10	177	10
78	31	1	35	2
79	65	5	23	2
123	119	7	141	10
135	111	8	211	15
136	205	13	296	19
137	20	2	145	12
138	98	7	176	13
159	239	8	185	5
182	41	2	262	9
183	25	2	125	10
185	246	9	288	11
186	92	8	146	12
194	64	8	67	8
196	20	5	33	8
320	108	6	82	6
330	114	5	80	4
370	65	4	61	5

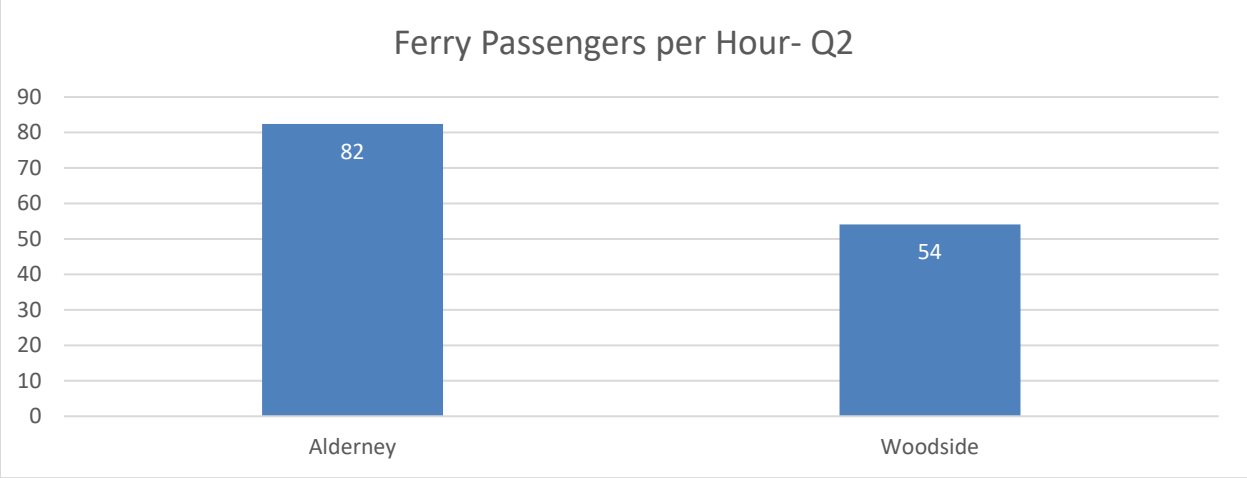
Express Service Peak Passengers per Trip by Route



Regional Express Peak Passengers per Trip by Route



Ferry Passengers per Hour

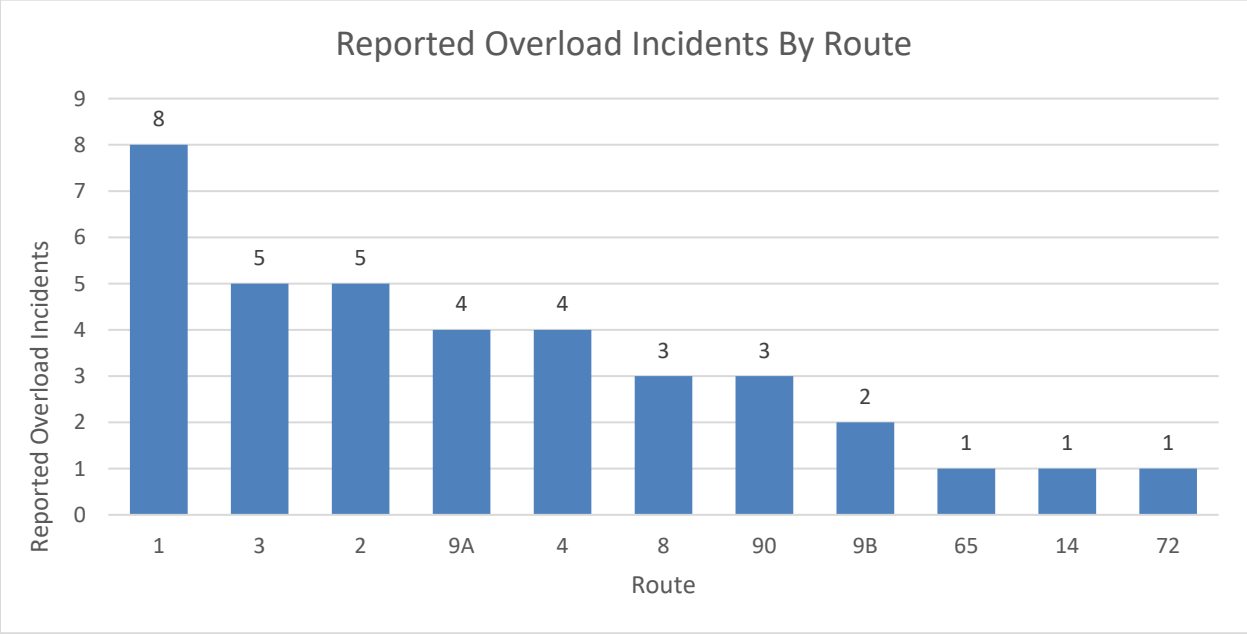


Passenger Overloads

Halifax Transit tracks overloads that are reported to help match scheduling requirements to passenger demands.

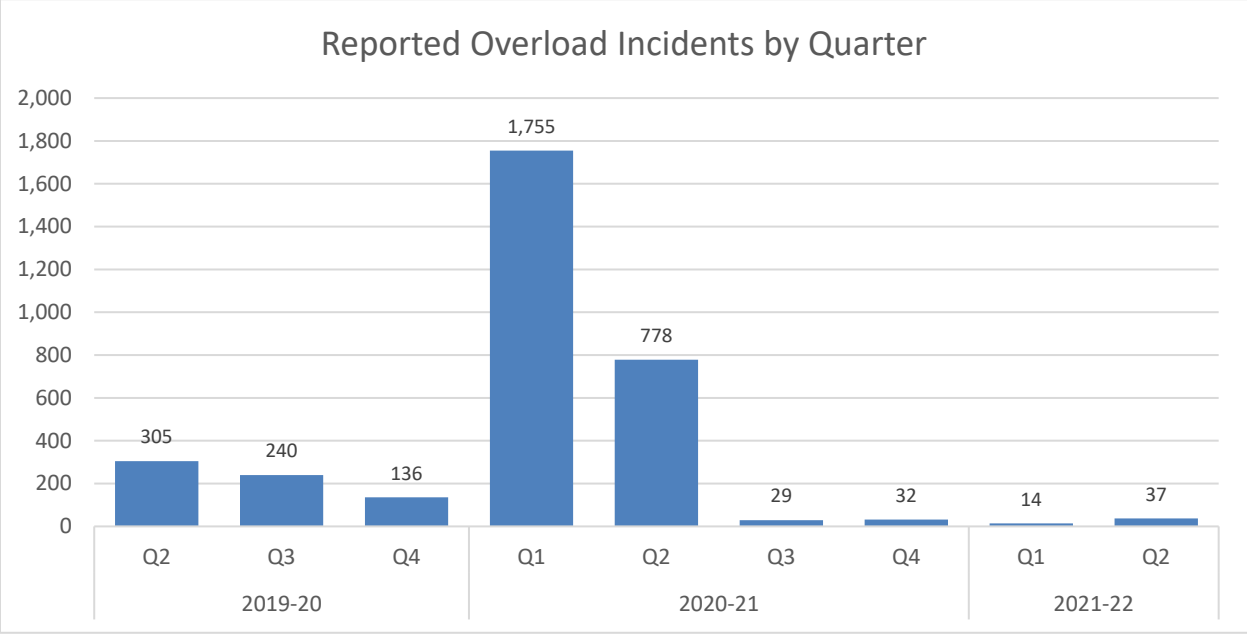
Passenger Overloads by Route

The following graph shows overloaded routes during the second quarter. 37 overload incidents were reported during the second quarter of 2021/22.



Passenger Overloads by Quarter

The following graph shows reported overload incidents over the past two years.

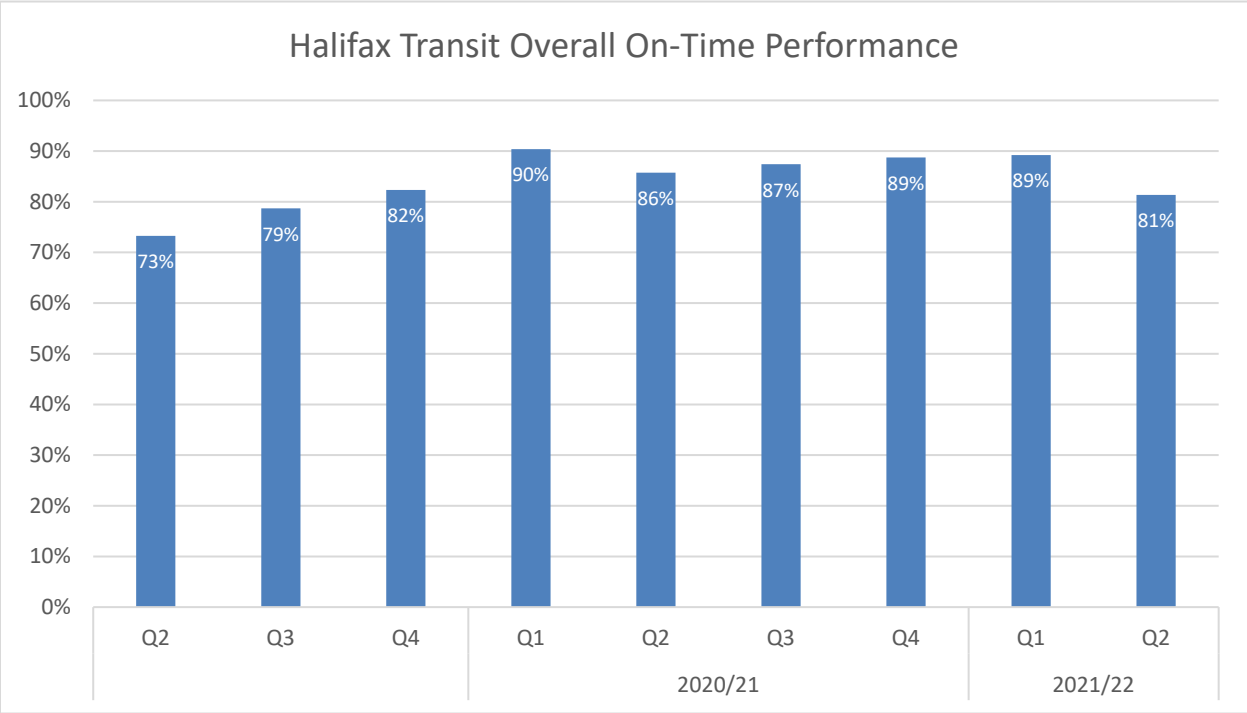


On-Time Performance

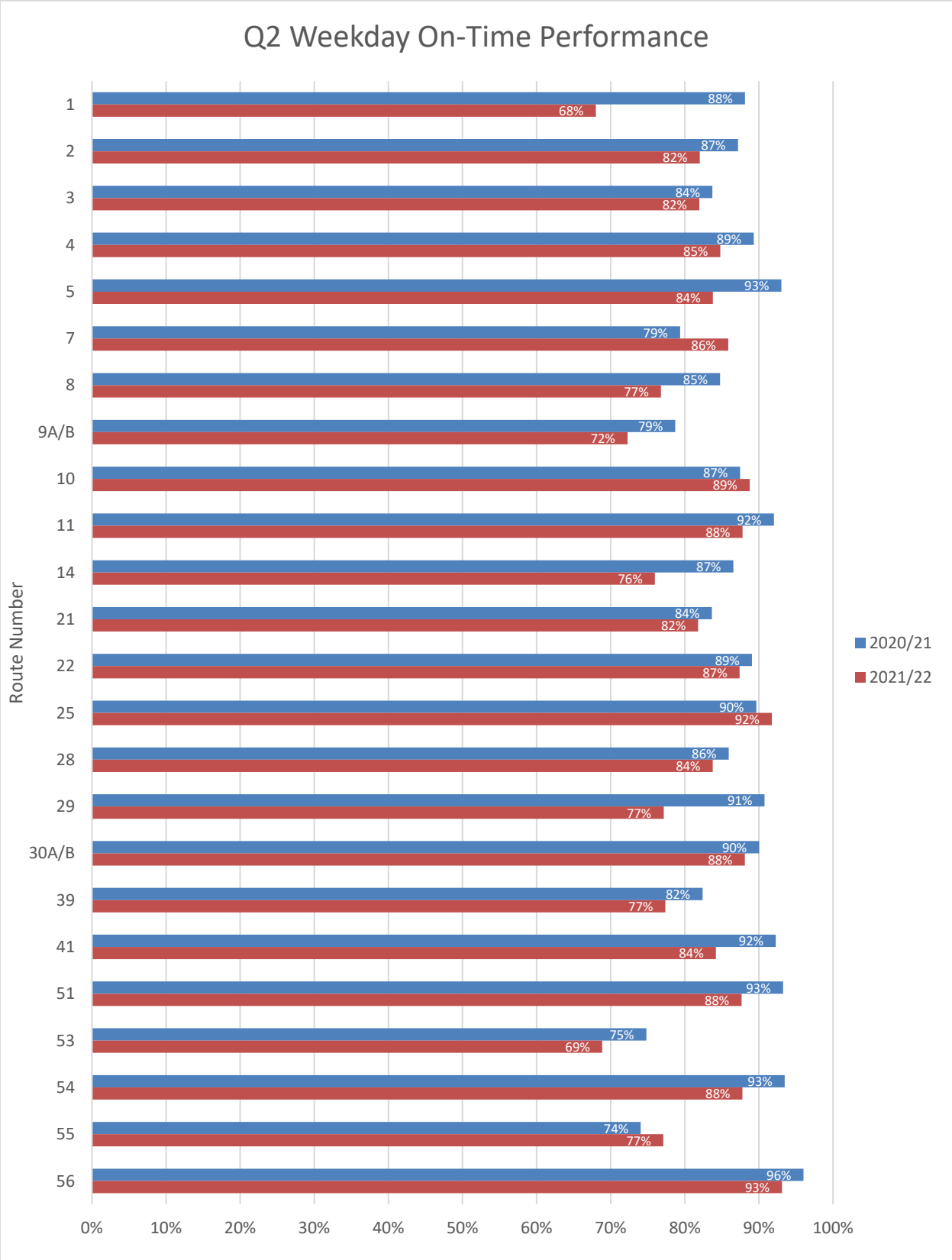
On-time performance is a measure of route reliability and is tracked monthly to demonstrate schedule adherence across the network of routes. Terminals and select bus stops along each route are classified as timepoints and have assigned and publicized scheduled arrival times. On-time performance demonstrates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

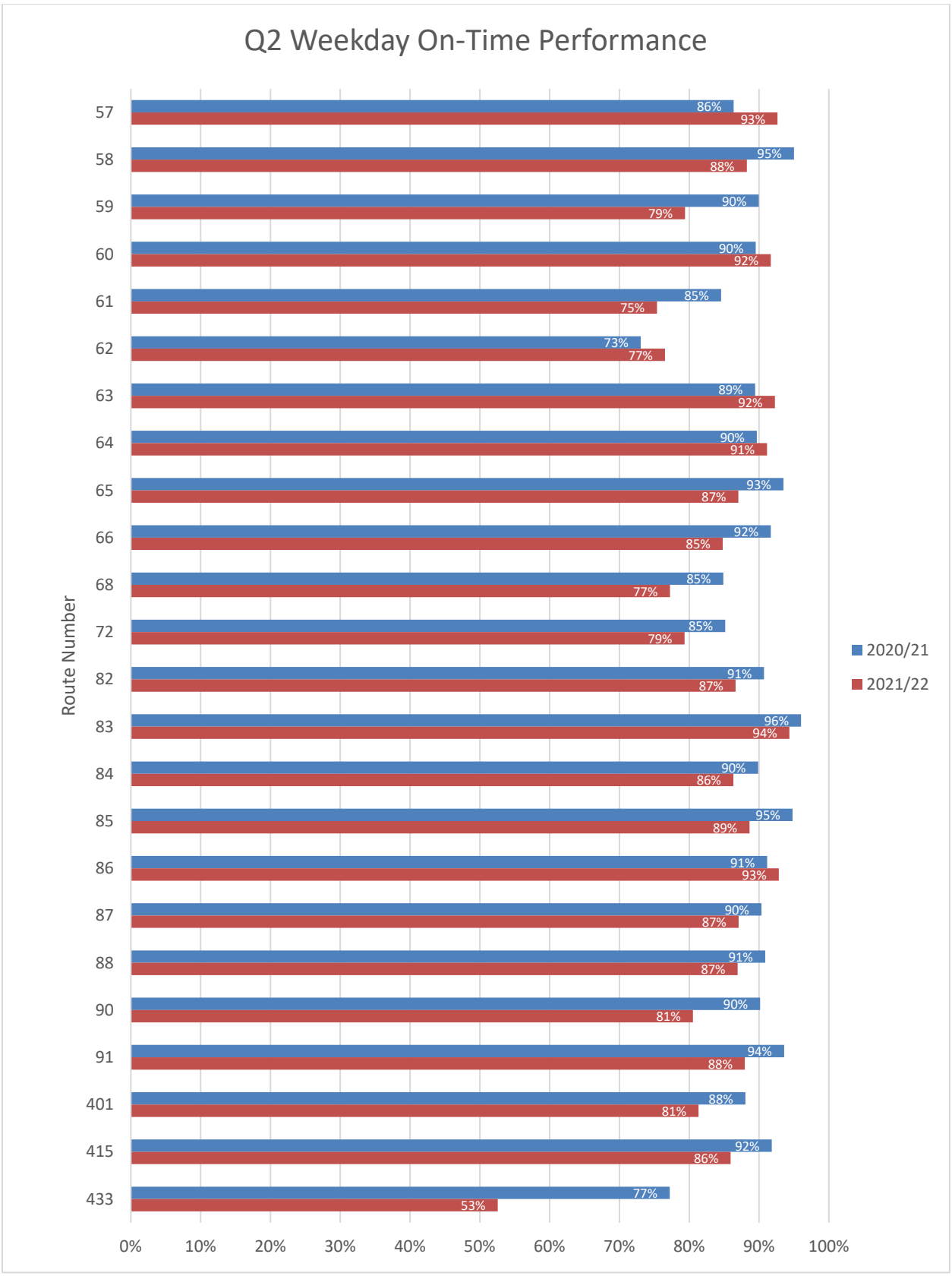
Transit industry standard targets for on-time performance tend to range between 85% and 90%, although service types are not always comparably grouped, nor are schedule adherence definitions consistent between agencies. Halifax Transit will analyze on-time performance across the network in order to establish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

Overall Network On-Time Performance

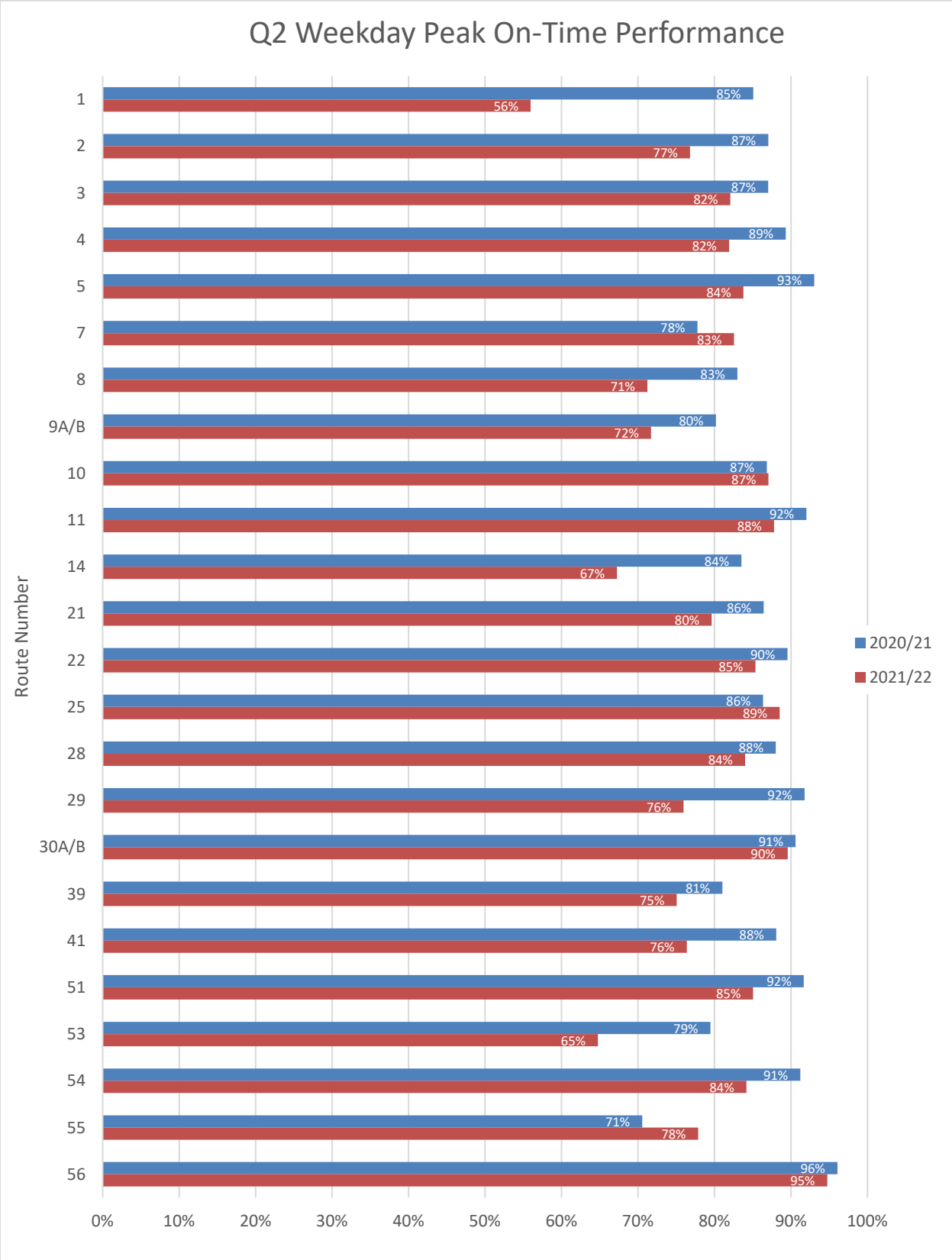


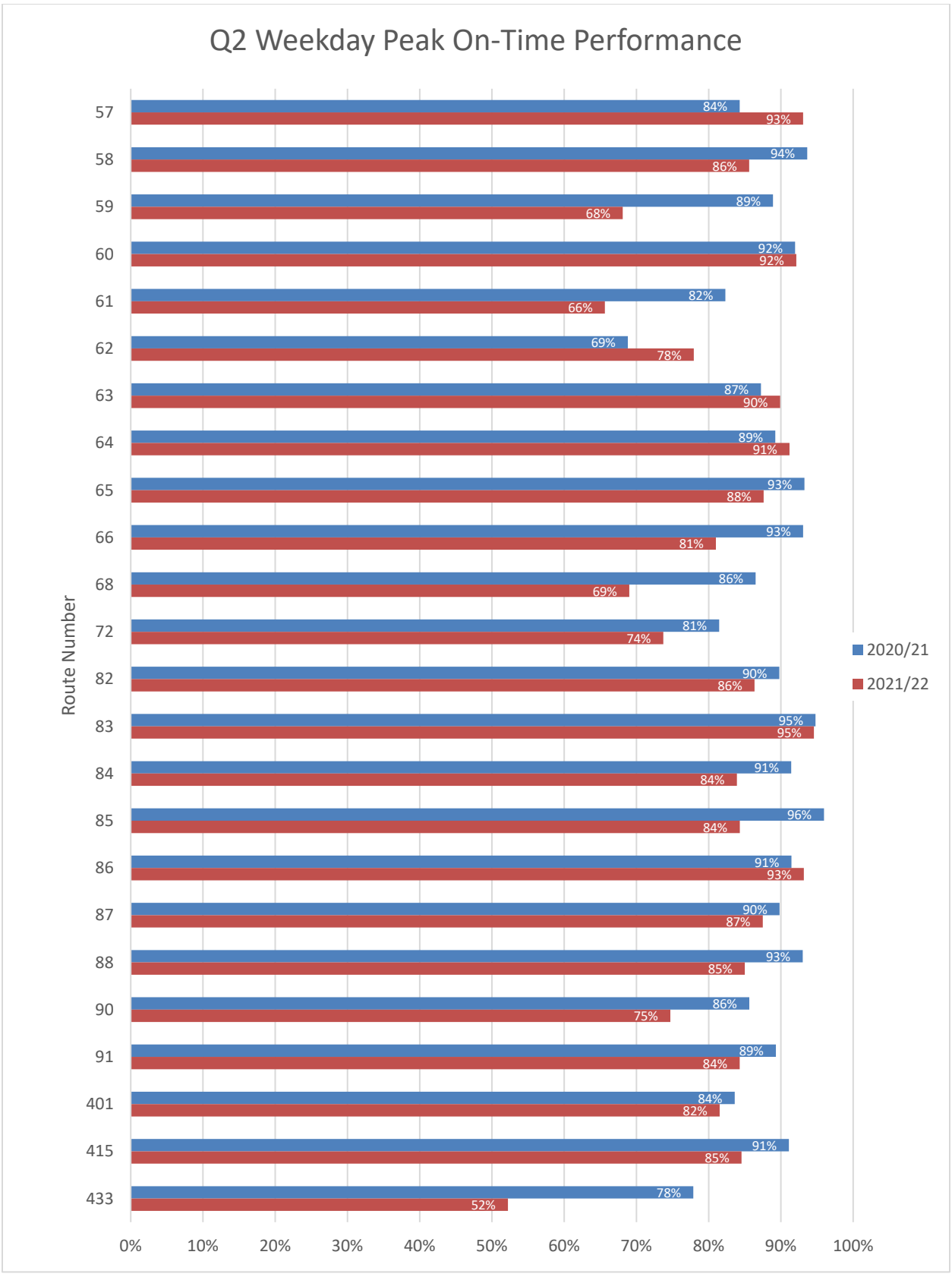
Weekday On-Time Performance




Q2 Weekday On-Time Performance
Route Number
57
58
59
60
61
62
63
64
65
66
68
72
82
83
84
85
86
87
88
90
91
401
415
433
86%
93%
95%
88%
90%
79%
90%
92%
85%
75%
73%
77%
89%
92%
90%
91%
93%
87%
92%
85%
85%
77%
85%
79%
91%
87%
96%
94%
90%
86%
95%
89%
91%
93%
90%
87%
91%
87%
90%
81%
94%
88%
88%
81%
92%
86%
77%
53%
0%
10%
20%
30%
40%
50%
60%
70%
80%
90%
100%
2020/21
2021/22

Weekday Peak Period On-Time Performance




Q2 Weekday Peak On-Time Performance
Route Number
57
58
59
60
61
62
63
64
65
66
68
72
82
83
84
85
86
87
88
90
91
401
415
433
84%
93%
94%
86%
89%
68%
92%
92%
82%
66%
69%
78%
87%
90%
89%
91%
93%
88%
93%
81%
86%
69%
81%
74%
90%
86%
95%
95%
91%
84%
96%
84%
91%
93%
90%
87%
93%
85%
86%
75%
89%
84%
84%
82%
91%
85%
78%
52%
0%
10%
20%
30%
40%
50%
60%
70%
80%
90%
100%
2020/21
2021/22

Express Service On-Time Performance

On-time performance demonstrates the percentage of timepoint arrivals that are between one minute early and three minutes late. When route schedules are created, the variability of travel times between timepoints is taken into account. Generally, routes are scheduled at the higher end of observed travel times in order to be on time. This means that on some trips, buses will layover at timepoints to avoid departing early. Schedules for express routes were created based on shorter travel times to keep buses moving toward destinations and prevent them from laying over.

The graph below demonstrates on-time performance for express routes based on timepoints at the beginning and end of the routes, as well as any terminals and park and rides. This includes Scotia Square, Summer Street, and the future Wrights Cove Terminal location on Marketplace Drive, but does not include other on-street timepoints.