2021/22 – Q3
Performance Measures Report

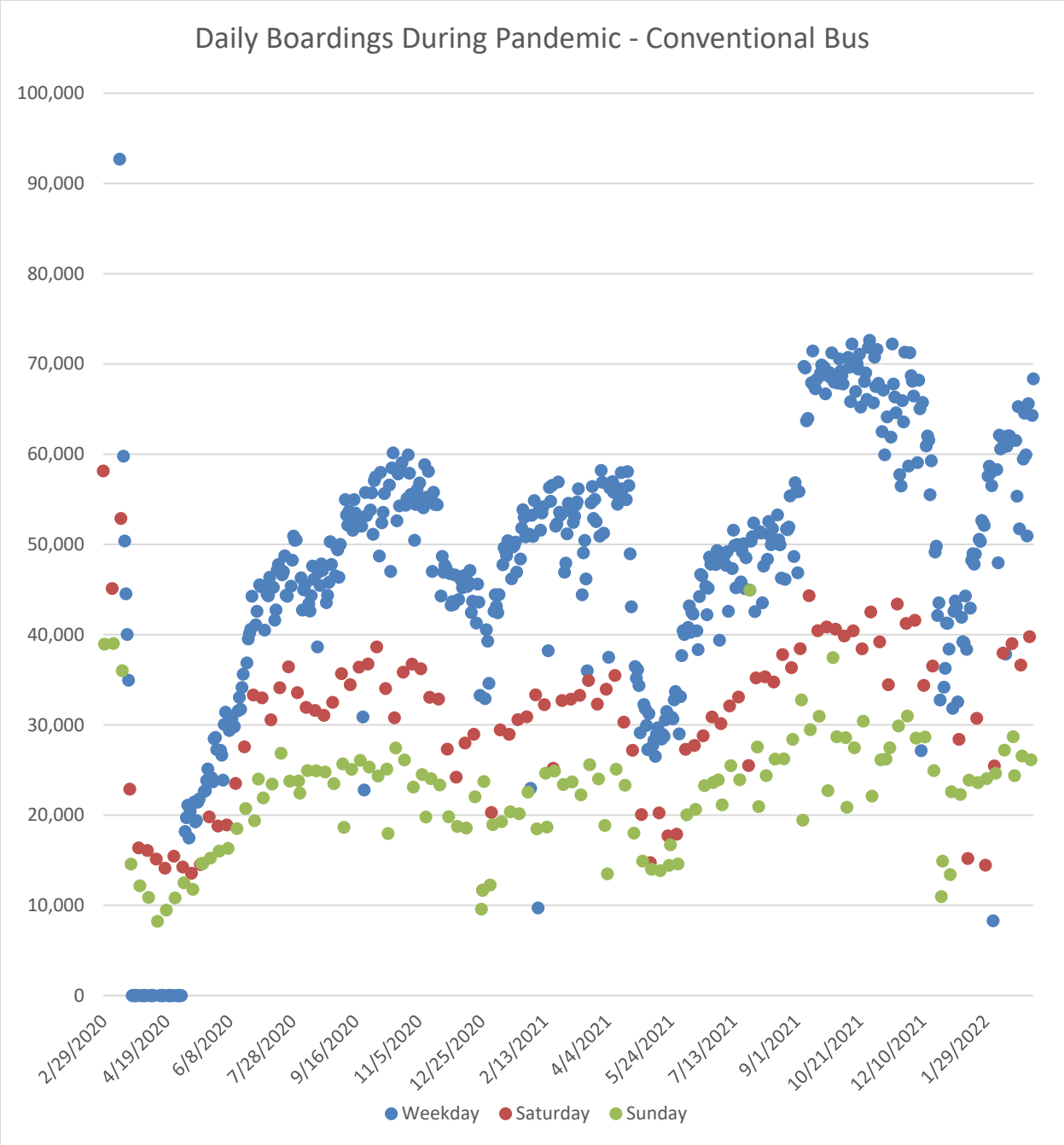
HALIFAX
TRANSIT

Contents

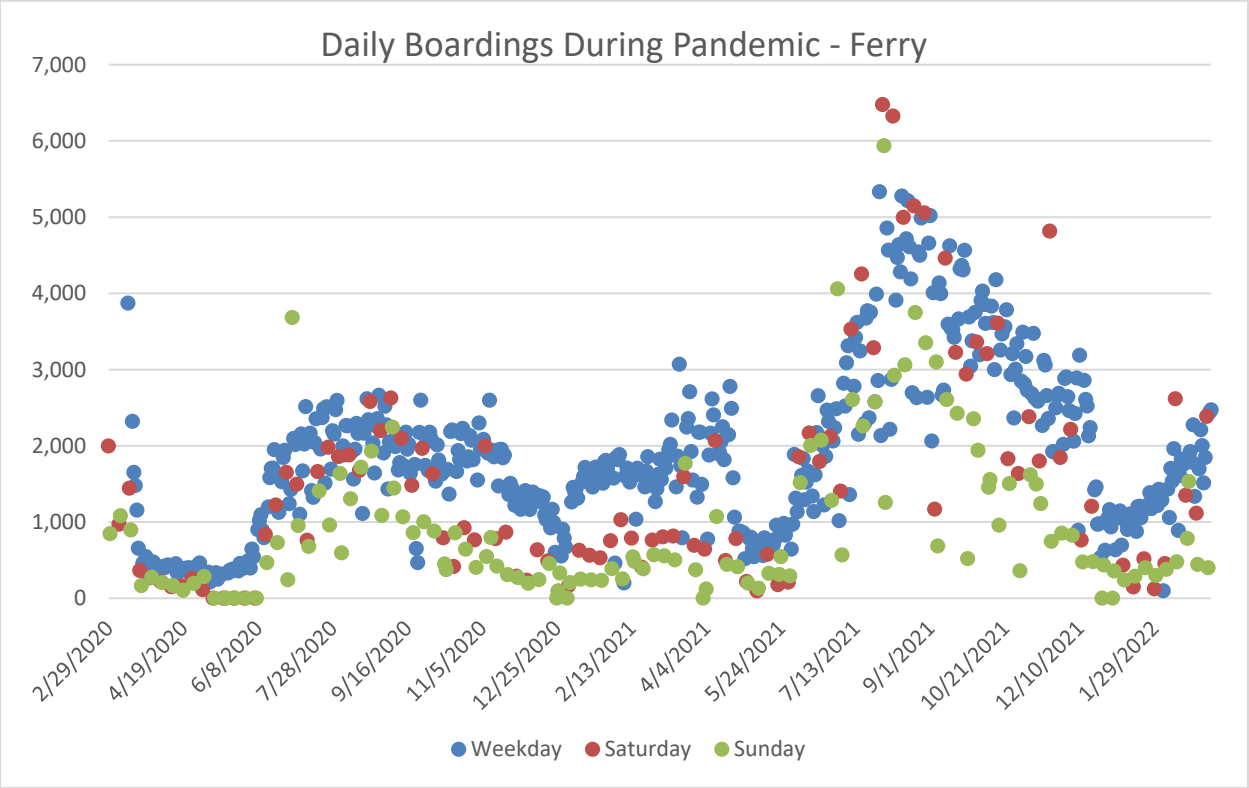
COVID-19 Pandemic Data Impacts

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.

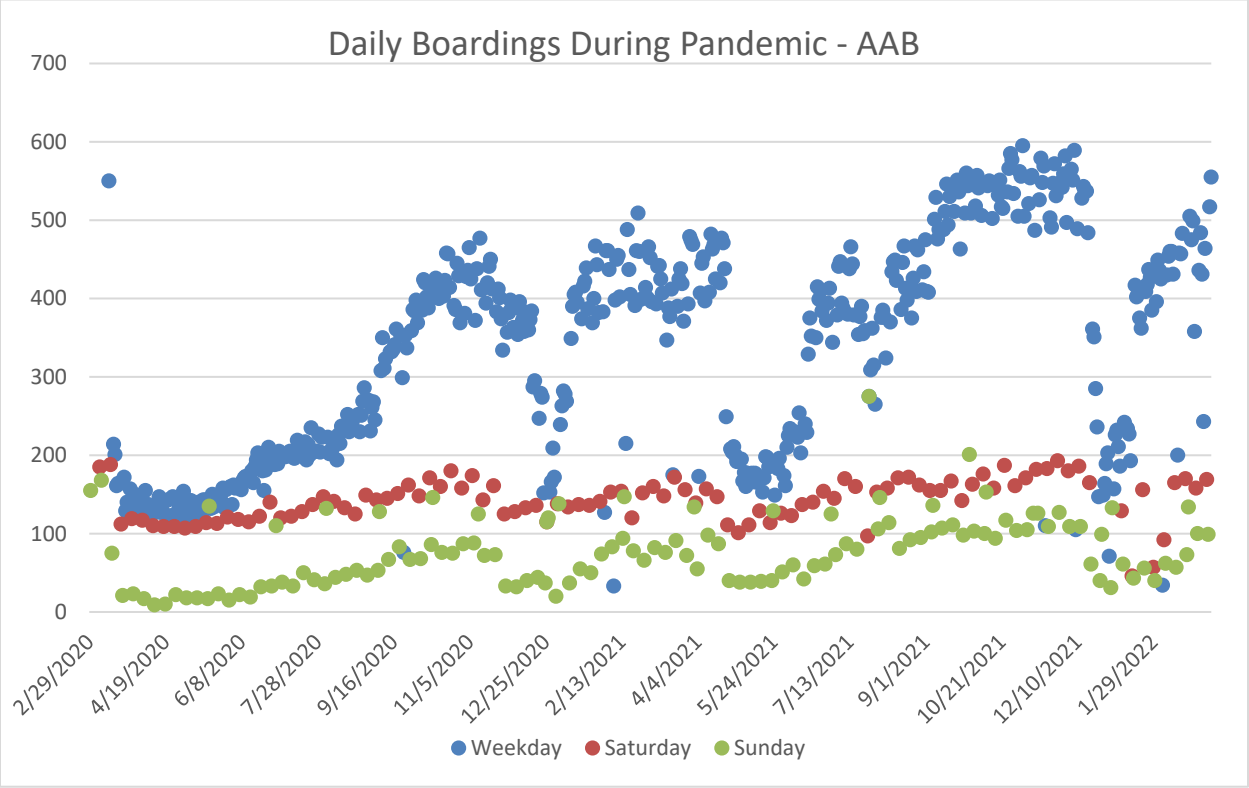
Conventional Bus Boardings During Pandemic



Ferry Boardings During Pandemic



Access-A-Bus Boardings During Pandemic

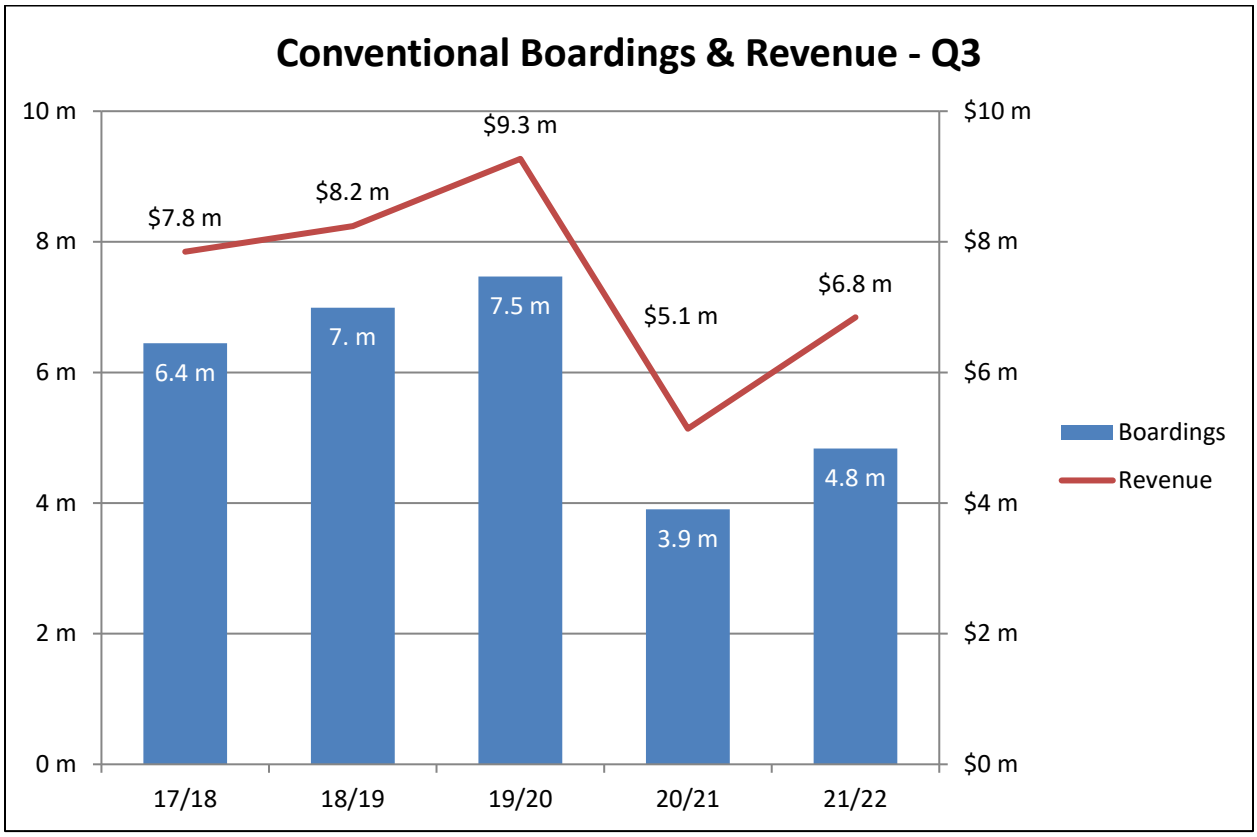


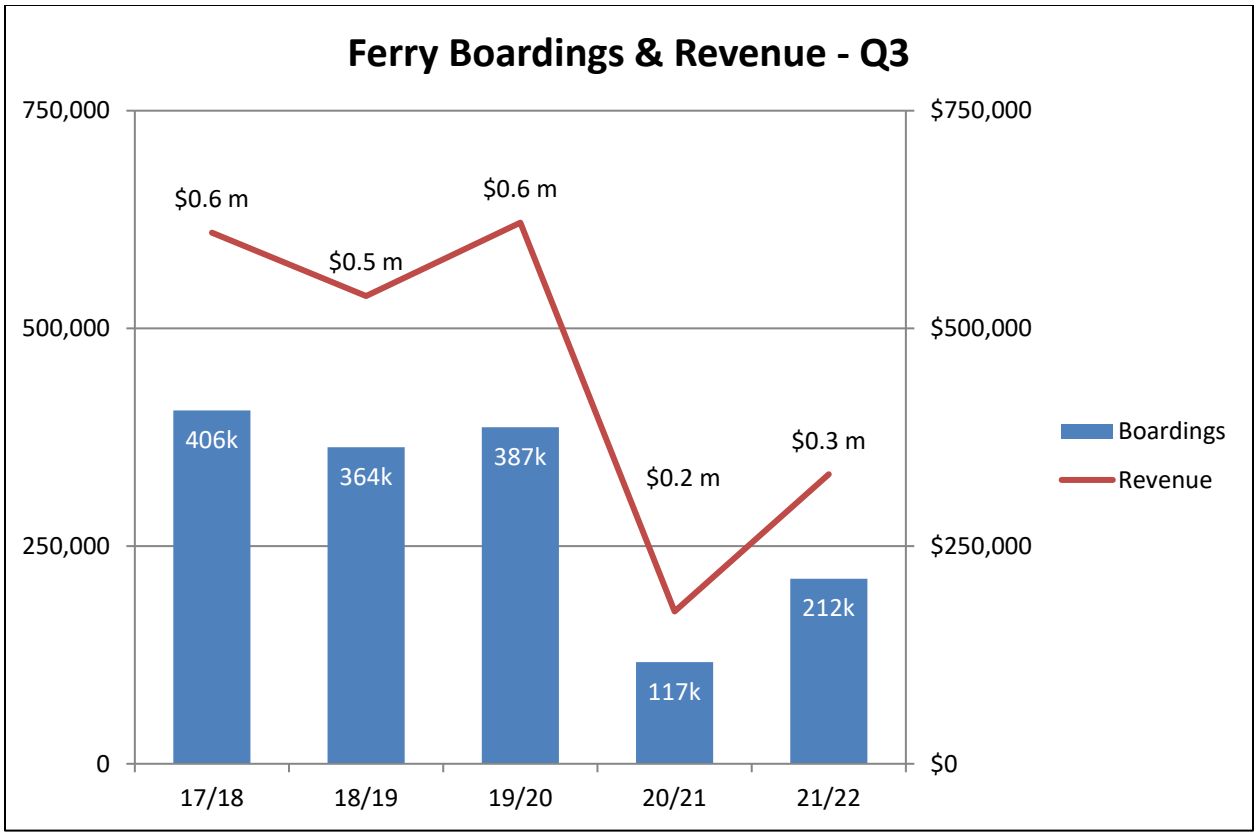
Boardings & Revenue

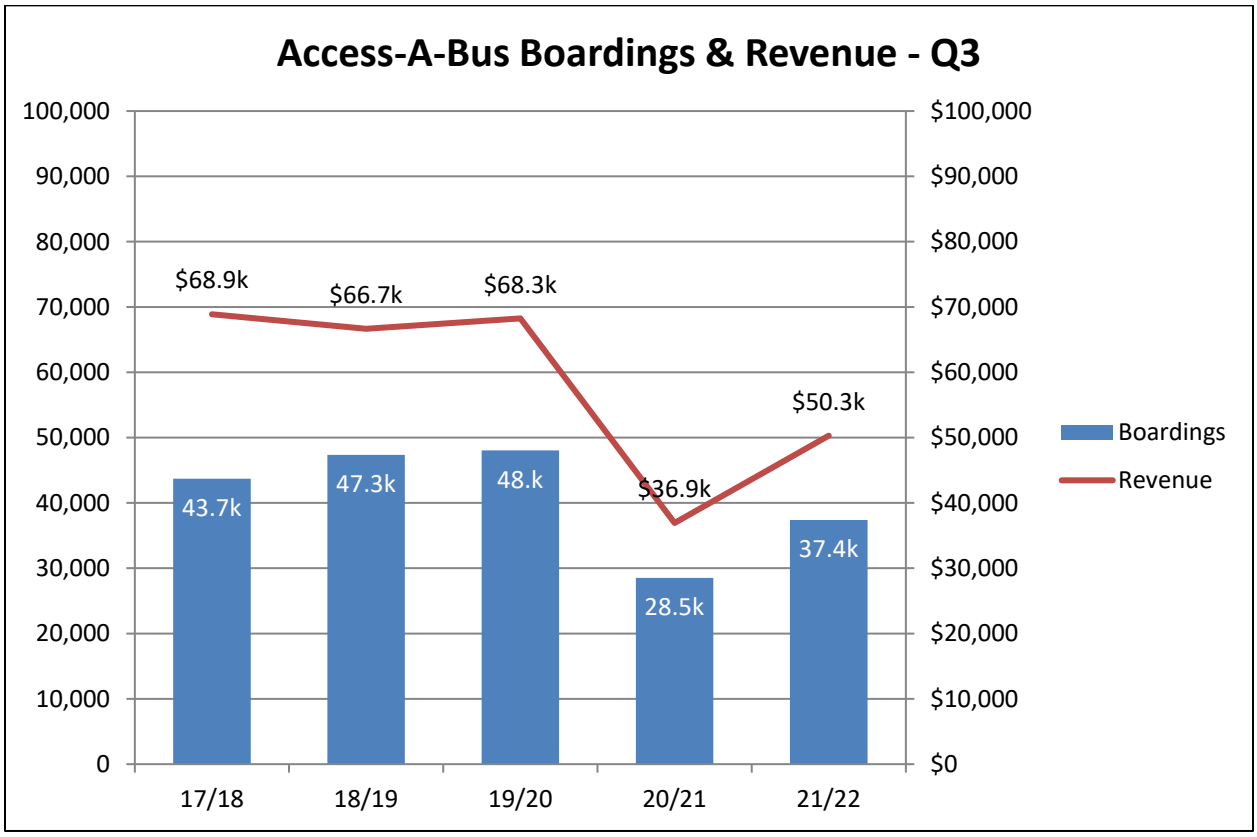
Revenue and boardings are reported to demonstrate how well transit services were used over the quarter, in comparison to the same quarter the previous year.

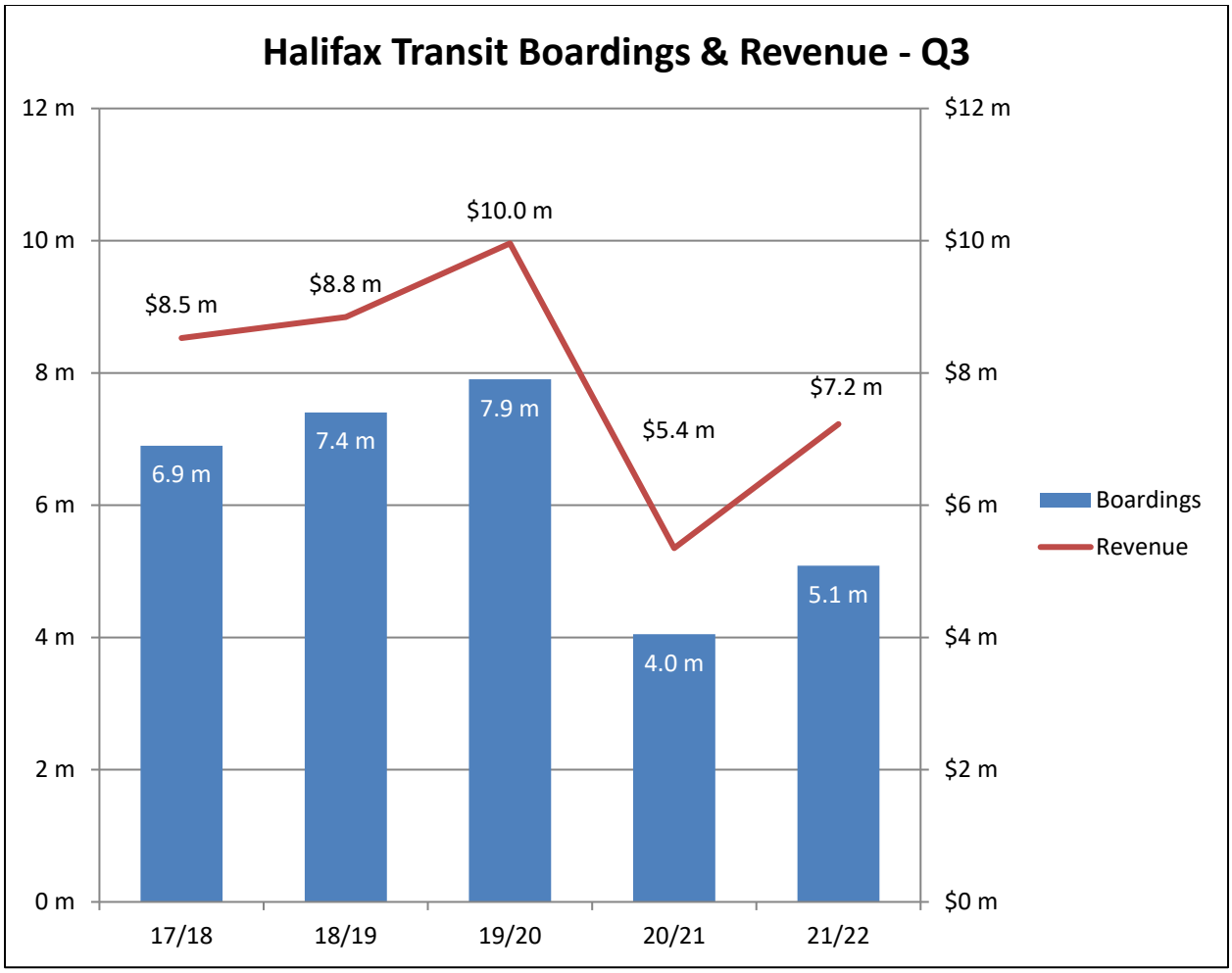
COVID-19 continued to have a significant impact during the third quarter of 2021/22. Conventional boardings increased 23.8% from this quarter last year, Ferry boardings increased 81.9% and Access-A-Bus boardings increased 31.1%. Overall, system wide boardings increased this quarter by 25.6% compared to last year, which is still 35.7% lower than third quarter 2019/20. Fare collection resumed mid second quarter on August 1, 2020. Overall revenue this quarter increased 35.1% from last year, but remains 27.4% lower than third quarter 2019/20.

Historical Boardings & Revenue



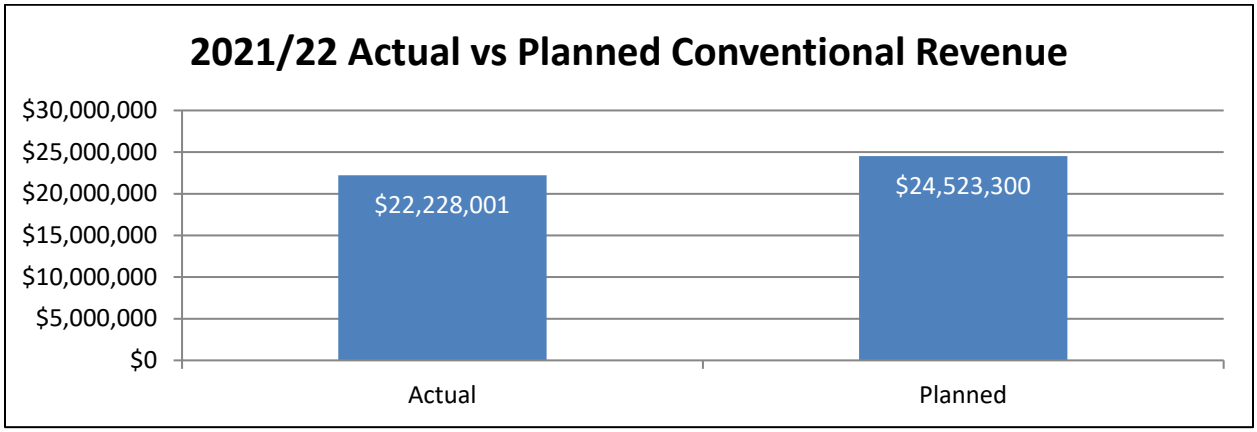

Ferry Boardings & Revenue - Q3
750,000
500,000
250,000
0
$750,000
$500,000
$250,000
$0
$0.6 m
$0.5 m
$0.6 m
$0.2 m
$0.3 m
406k
364k
387k
117k
212k
17/18
18/19
19/20
20/21
21/22
Boardings
Revenue

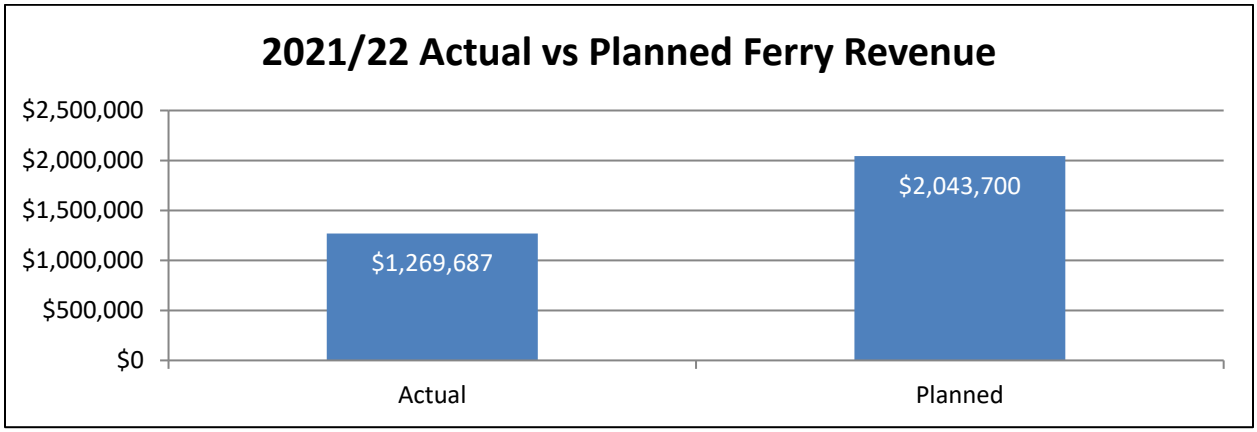

Access-A-Bus Boardings & Revenue - Q3
100,000
90,000
80,000
70,000
60,000
50,000
40,000
30,000
20,000
10,000
0
$100,000
$90,000
$80,000
$70,000
$60,000
$50,000
$40,000
$30,000
$20,000
$10,000
$0
$68.9k
$66.7k
$68.3k
$36.9k
$50.3k
43.7k
47.3k
48.k
28.5k
37.4k
17/18
18/19
19/20
20/21
21/22
Boardings
Revenue

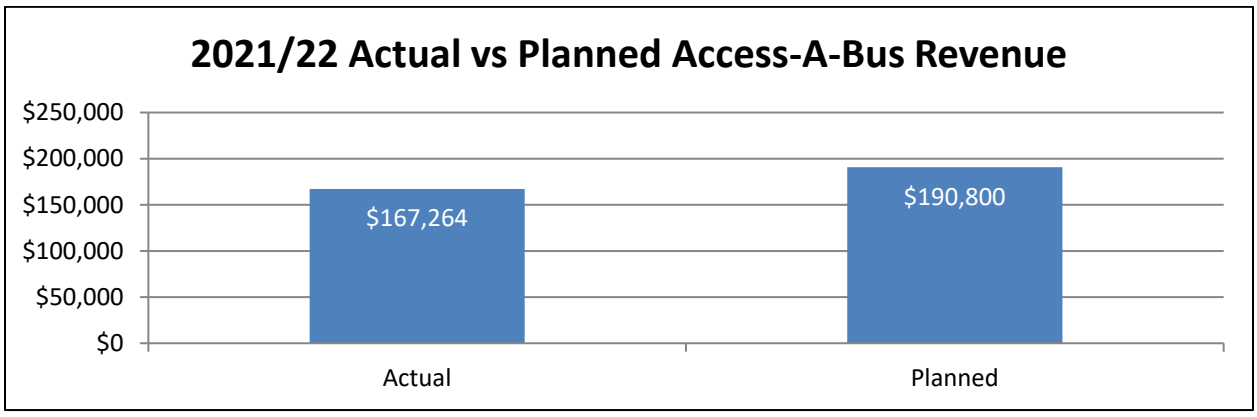

Halifax Transit Boardings & Revenue - Q3
12 m
10 m
8 m
6 m
4 m
2 m
0 m
$12 m
$10 m
$8 m
$6 m
$4 m
$2 m
$0 m
$8.5 m
$8.8 m
$10.0 m
$5.4 m
$7.2 m
6.9 m
7.4 m
7.9 m
4.0 m
5.1 m
17/18
18/19
19/20
20/21
21/22
Boardings
Revenue

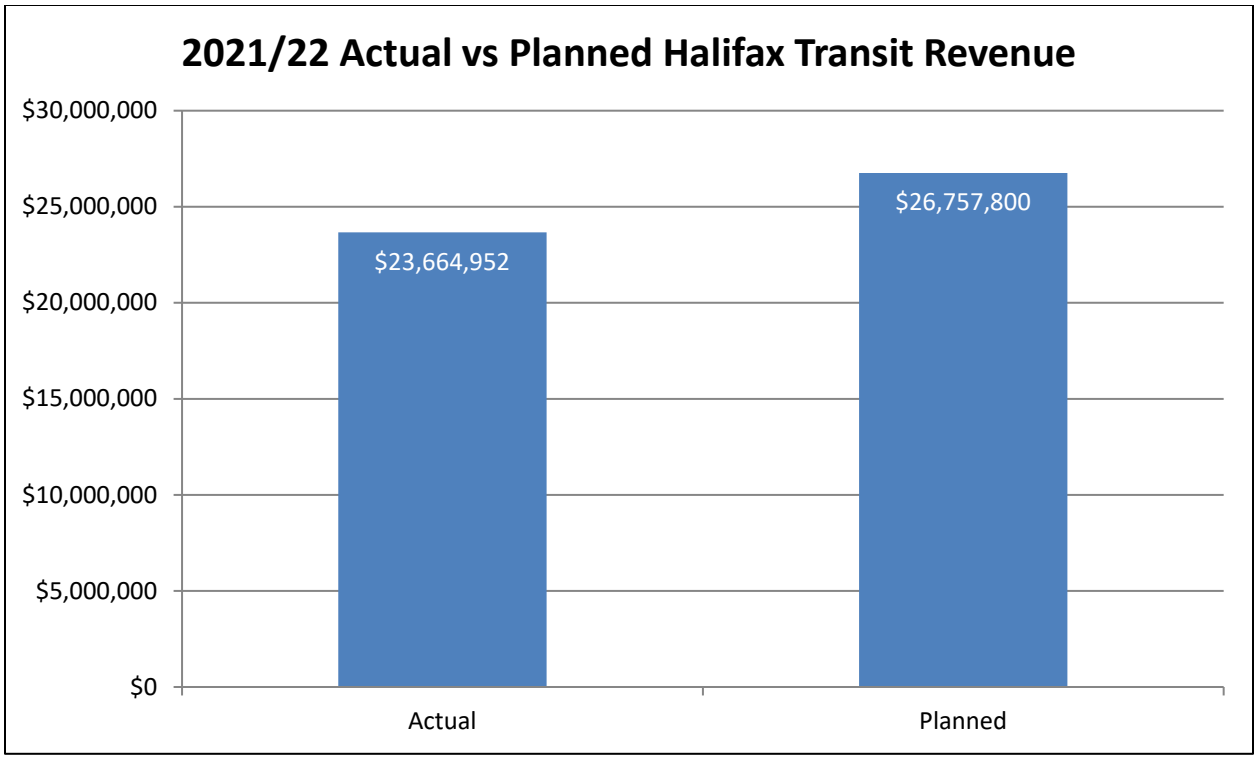
Revenue – Actual vs. Planned

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 third quarter 2021/22 conventional revenue has increased 63.5% over last year and is 10.6% below the planned amount. Ferry revenue has increased 114.9% and is 32.8% below the planned amount. Access-A-Bus revenue this year increased 125.1% over last year and is 11.9% below the planned amount. Overall revenue this year has increased 66.3% over last year, but remains 12.3% 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. Further waves of COVID cases in Spring/Summer 2021, and Winter 2021/22 have caused actual revenue to be lower than projected.





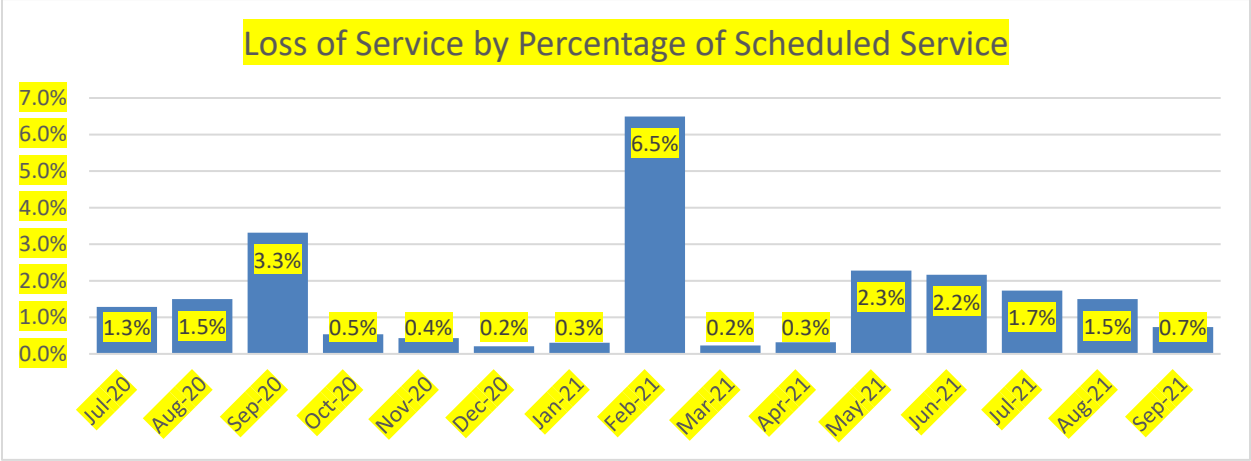




Loss of Service

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.

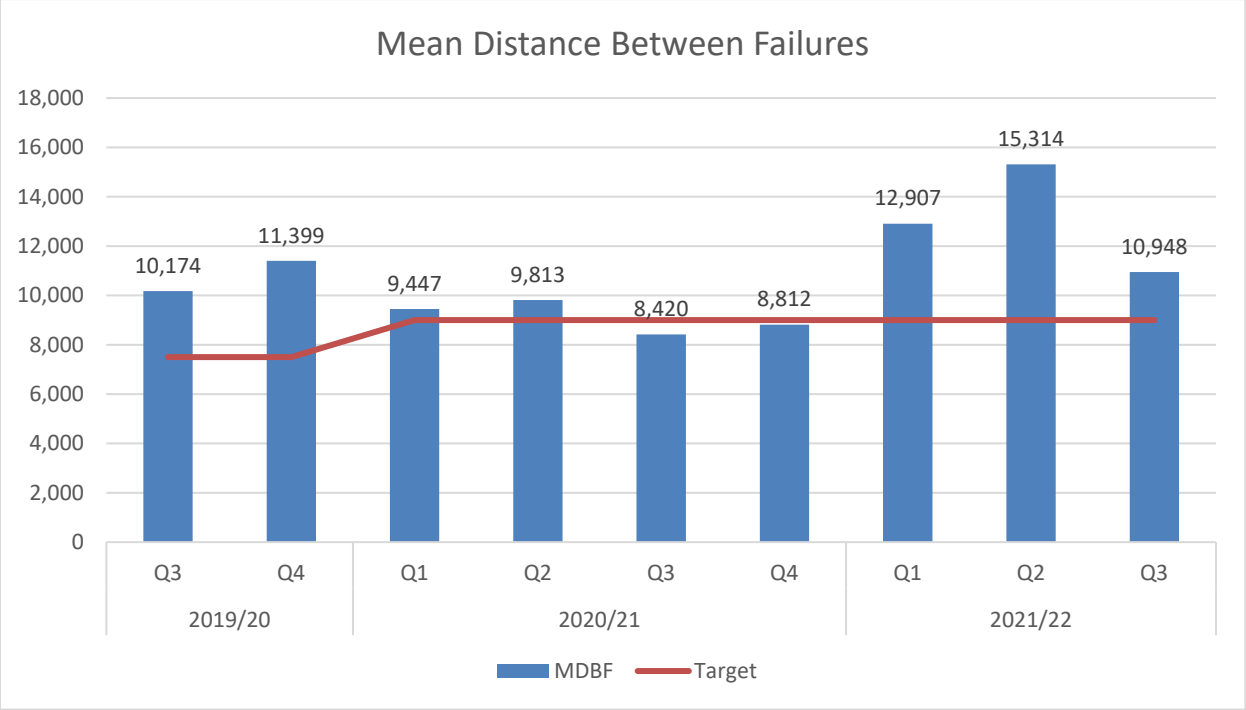


Mean Distance Between Failures

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.

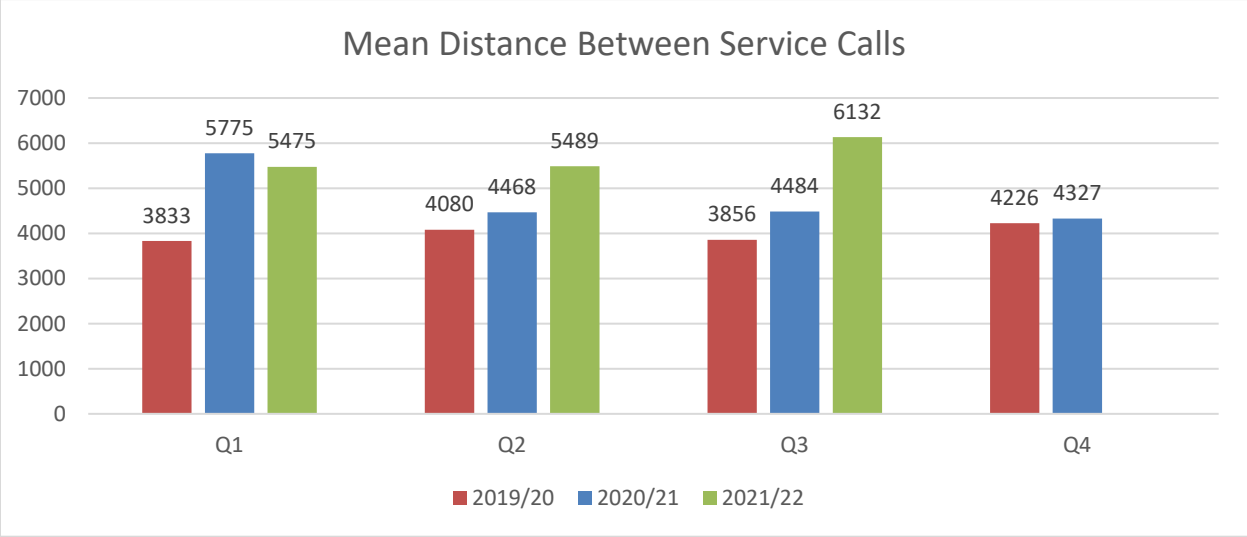
For the third quarter of 2021/22, the MDBF for conventional transit was 10,948 kms. This is a 30% increase from the third quarter of the previous year (2020/21). Transit Fleet will continue to monitor this KPI and has implemented new preventative maintenance measures to reduce aftertreatment and cooling system defects.



Mean Distance Between Service Calls

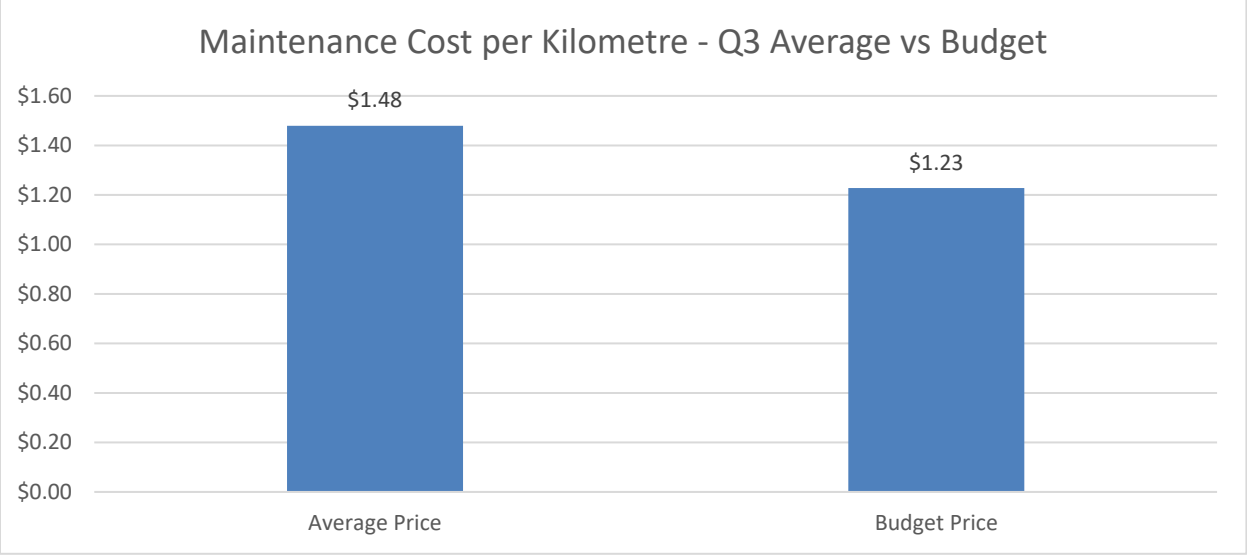
Mean Distance Between Service Calls (MDBS) reflects the average distance in kilometres covered between maintenance service calls. This metric includes all instances of service calls, including issues with secondary equipment, passenger-related events and damages to the bus resulting from minor accidents. Transit Fleet is continuing to benchmark this metric in order to provide a target.

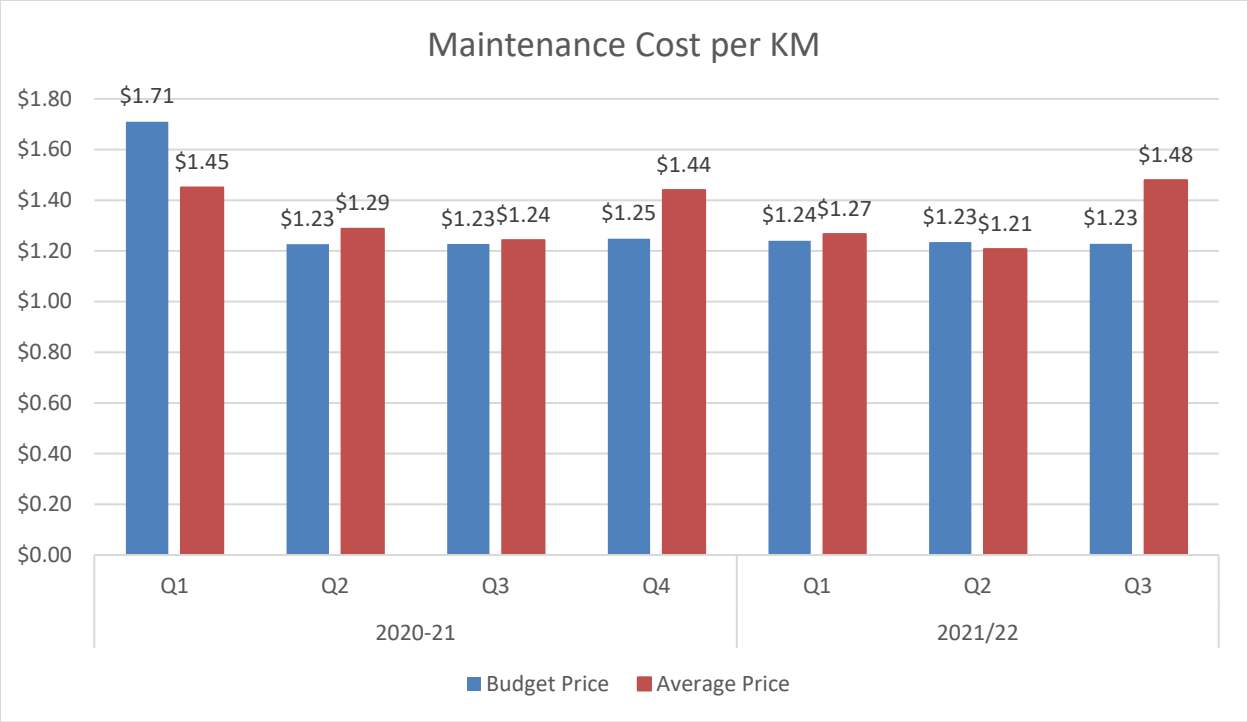
For the third quarter of 2021/22, the MDBS for conventional transit was 6,132 kms. In comparison to the third quarter of 2020/21 (4,484), this is an increase of 37%. The MDBS for Access-A-Bus service was 39,300 kms. Transit Fleet will continue to monitor this metric in order to reduce service calls.



Bus Maintenance Cost – Quarter Average vs Budget

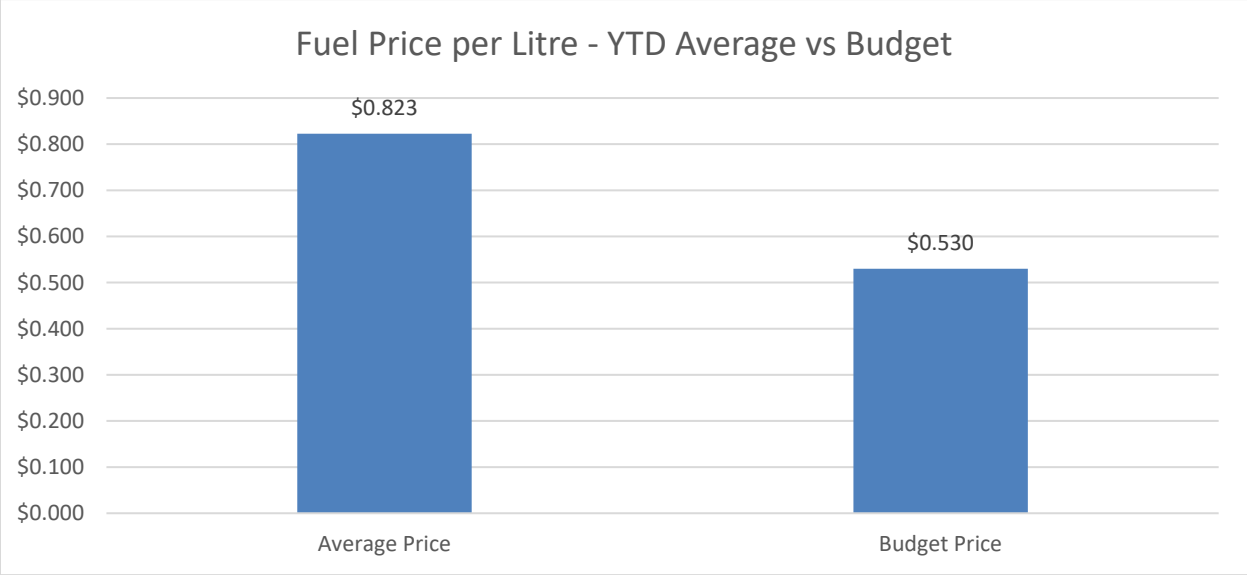
In the second quarter, bus maintenance costs were $1.48/km, while the budgeted maintenance cost was $1.23/km.




Maintenance Cost per KM
$1.80
$1.60
$1.40
$1.20
$1.00
$0.80
$0.60
$0.40
$0.20
$0.00
$1.71
$1.45
$1.23
$1.29
$1.23
$1.24
$1.25
$1.44
$1.24
$1.27
$1.23
$1.21
$1.23
$1.48
Q1
Q2
Q3
Q4
Q1
Q2
Q3
2020-21
2021/22
Budget Price
Average Price

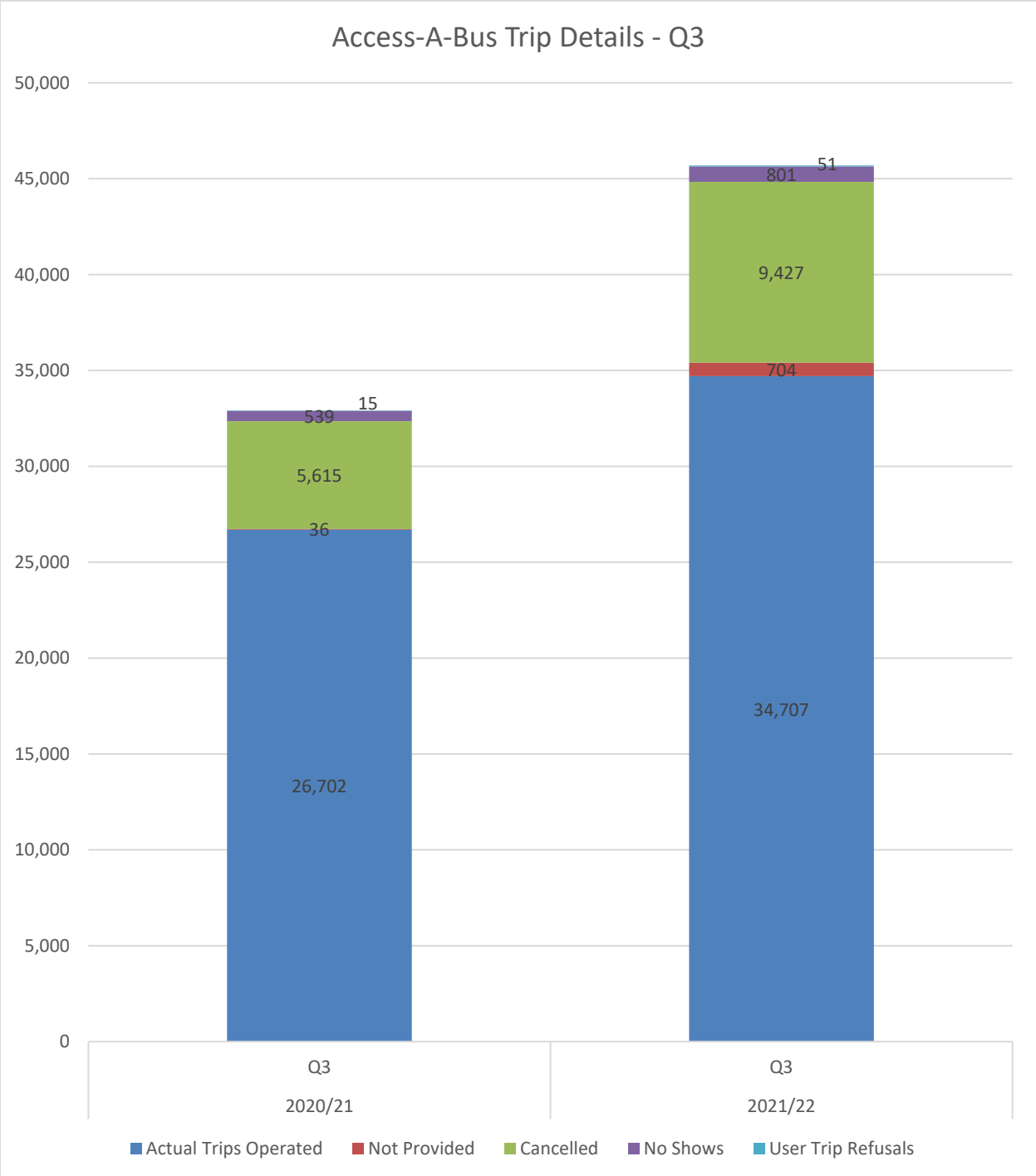
Fuel Price – Annual Average vs Budget

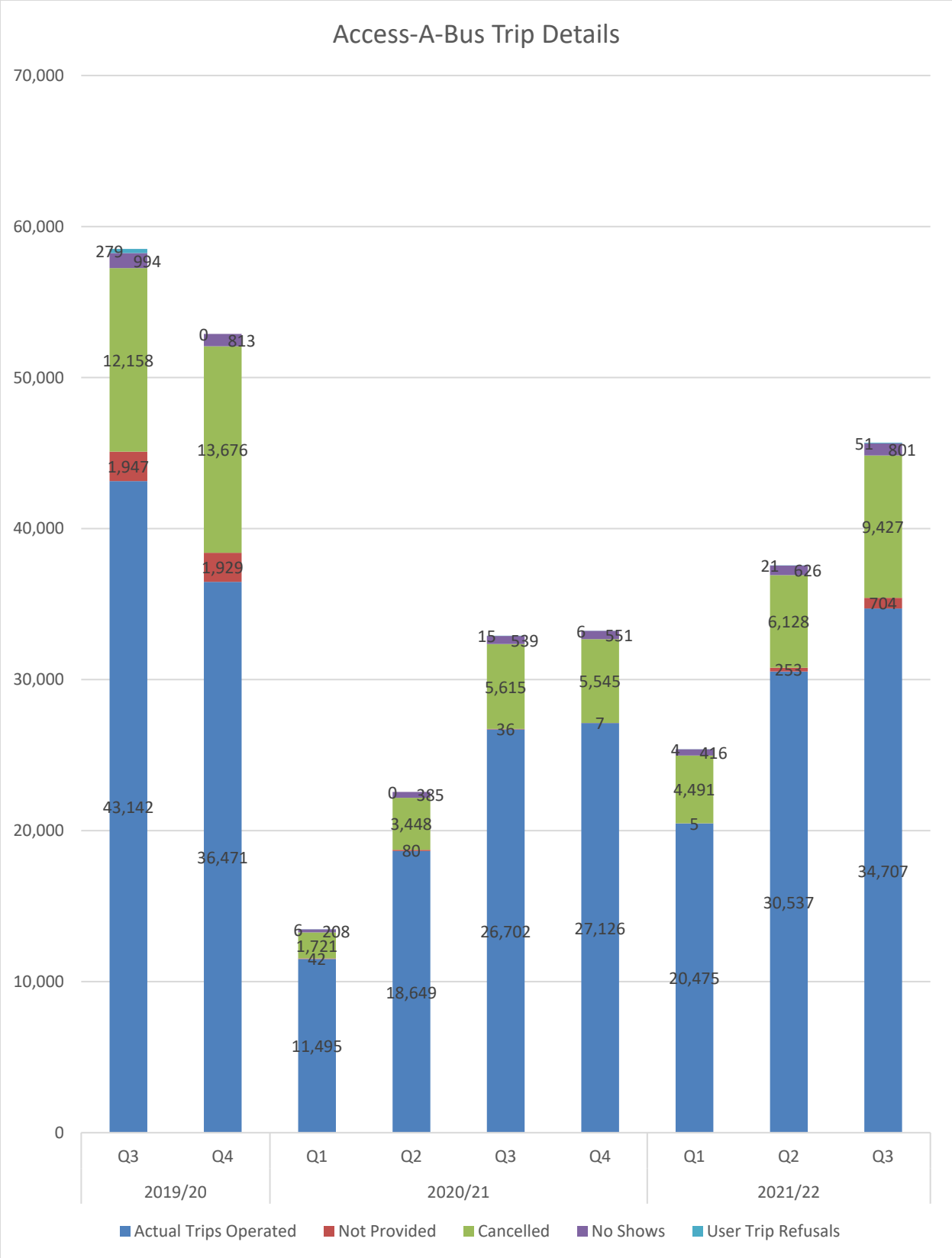
The budgeted fuel price for 2021/22 was set at 53 cents/litre. The average fuel price for 2021/22 as of the end of the third quarter of 2021/22 was 82 cents/litre, 39 cents higher than the budgeted price per litre.



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 third quarter of 2021/22 a total of 34,707 trips were operated, an increase of 30% compared to the third quarter last year.



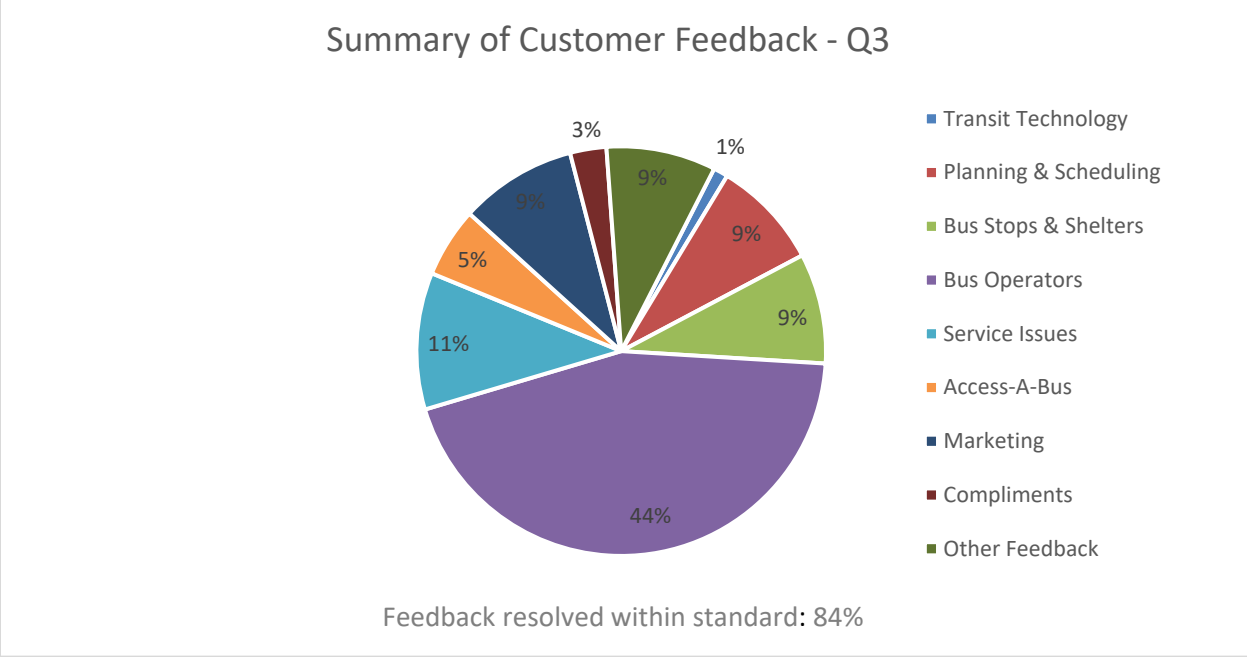

Access-A-Bus Trip Details
70,000
60,000
50,000
40,000
30,000
20,000
10,000
0
279
994
12,158
1,947
43,142
0
813
13,676
1,929
36,471
6
208
1,721
42
11,495
0
385
3,448
80
18,649
15
539
5,615
36
26,702
6
551
5,545
7
27,126
4
416
4,491
5
20,475
21
626
6,128
253
30,537
51
801
9,427
704
34,707
Q3
Q4
Q1
Q2
Q3
Q4
Q1
Q2
Q3
2019/20
2020/21
2021/22
Actual Trips Operated
Not Provided
Cancelled
No Shows
User Trip Refusals

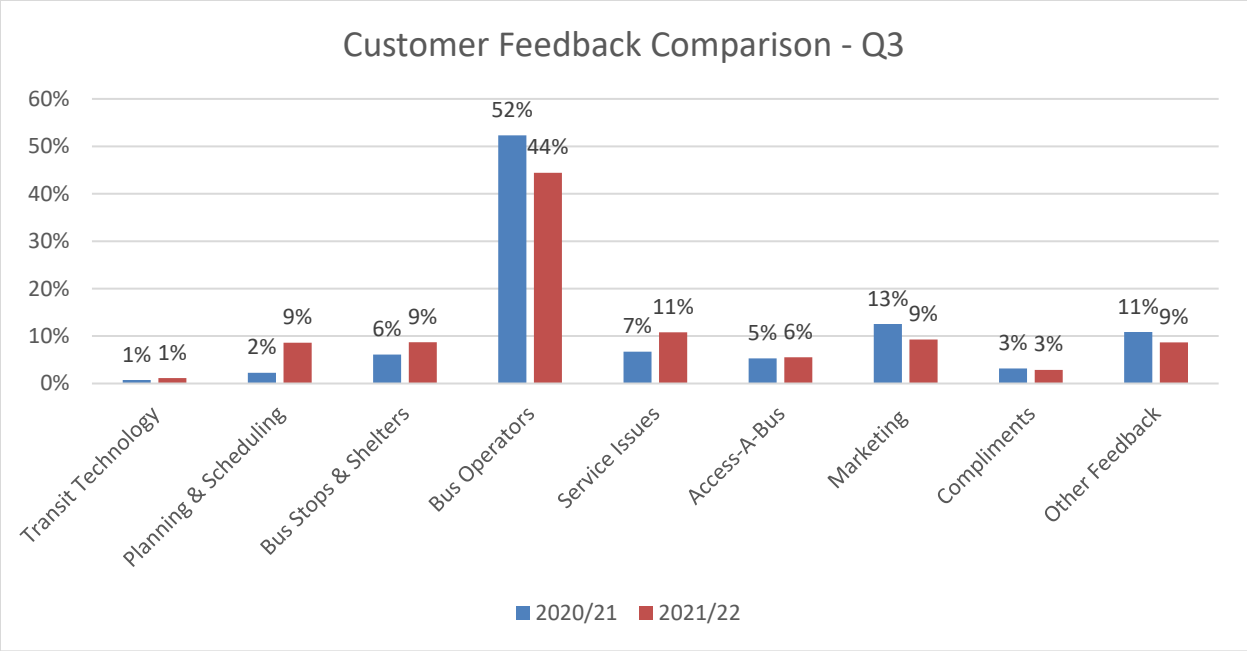
Customer Service – All Services

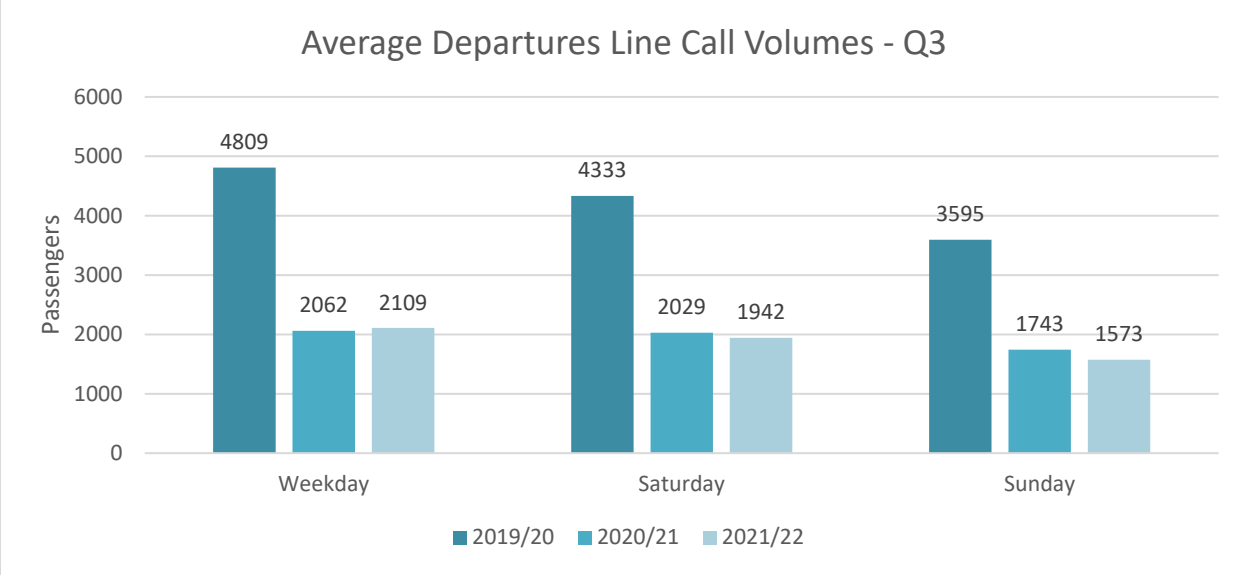
Customer service statistics are measured monthly using the Hansen Customer Relationship Management software along with Crystal Reports. Feedback is first categorized by subject matter and then divided into two categories: feedback resolved within service standard and feedback resolved outside service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

In the third quarter, 44% of feedback received was related to Bus Operators. The remaining 56% 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 84% 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.







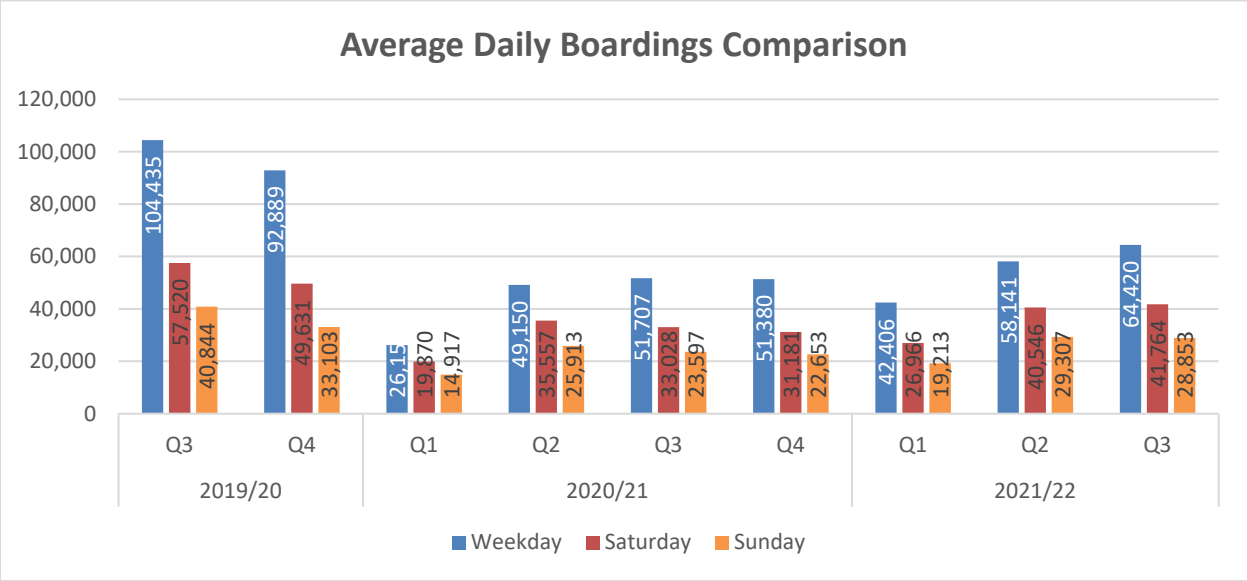
Service Utilization

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 64,420 ± 11,966 (18.6% variance). Average Saturday boardings this quarter were 41,764 ± 3,786 (9.1% variance). Average Sunday boardings this quarter were 28,853 ± 2,705 (9.5% variance).

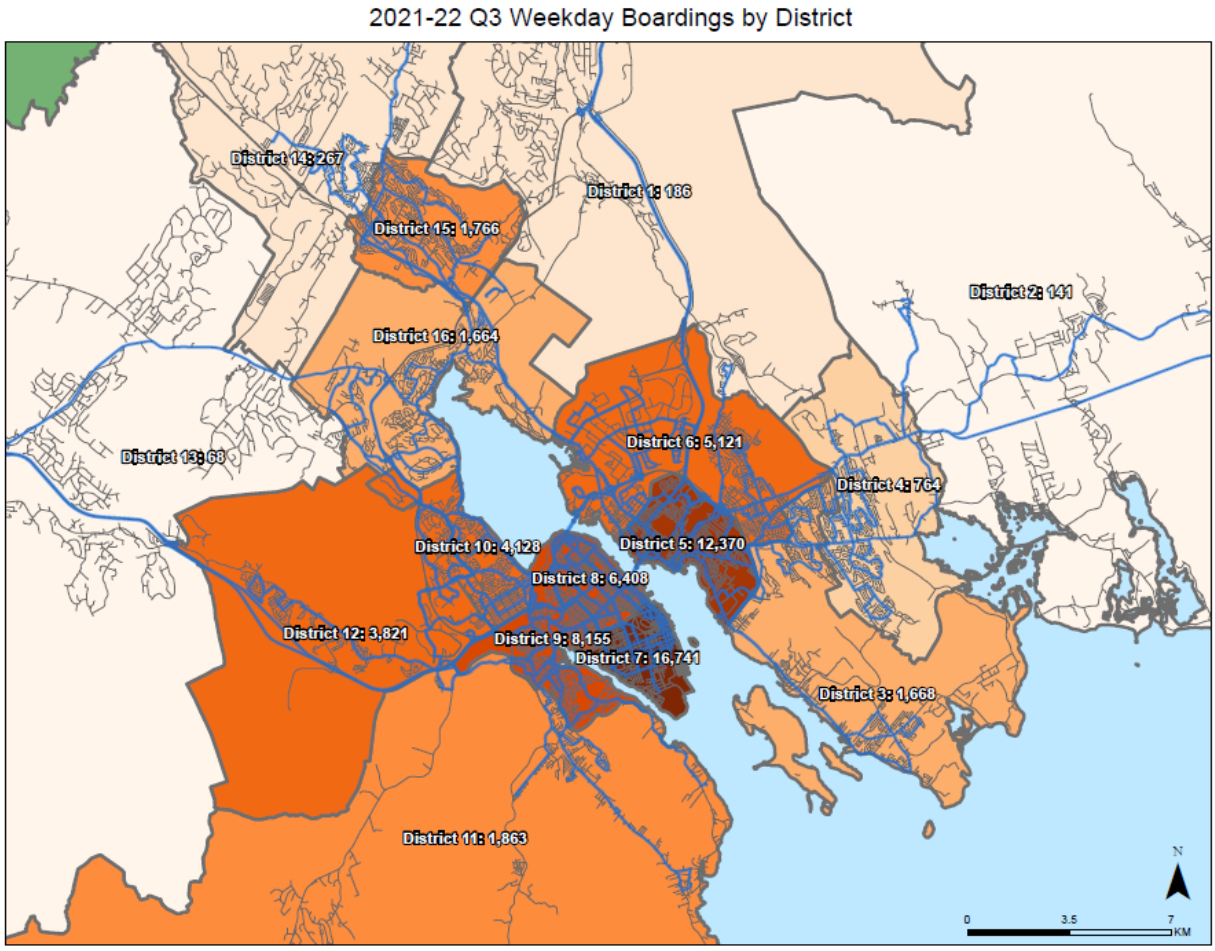
Average Daily Boardings by Service Day



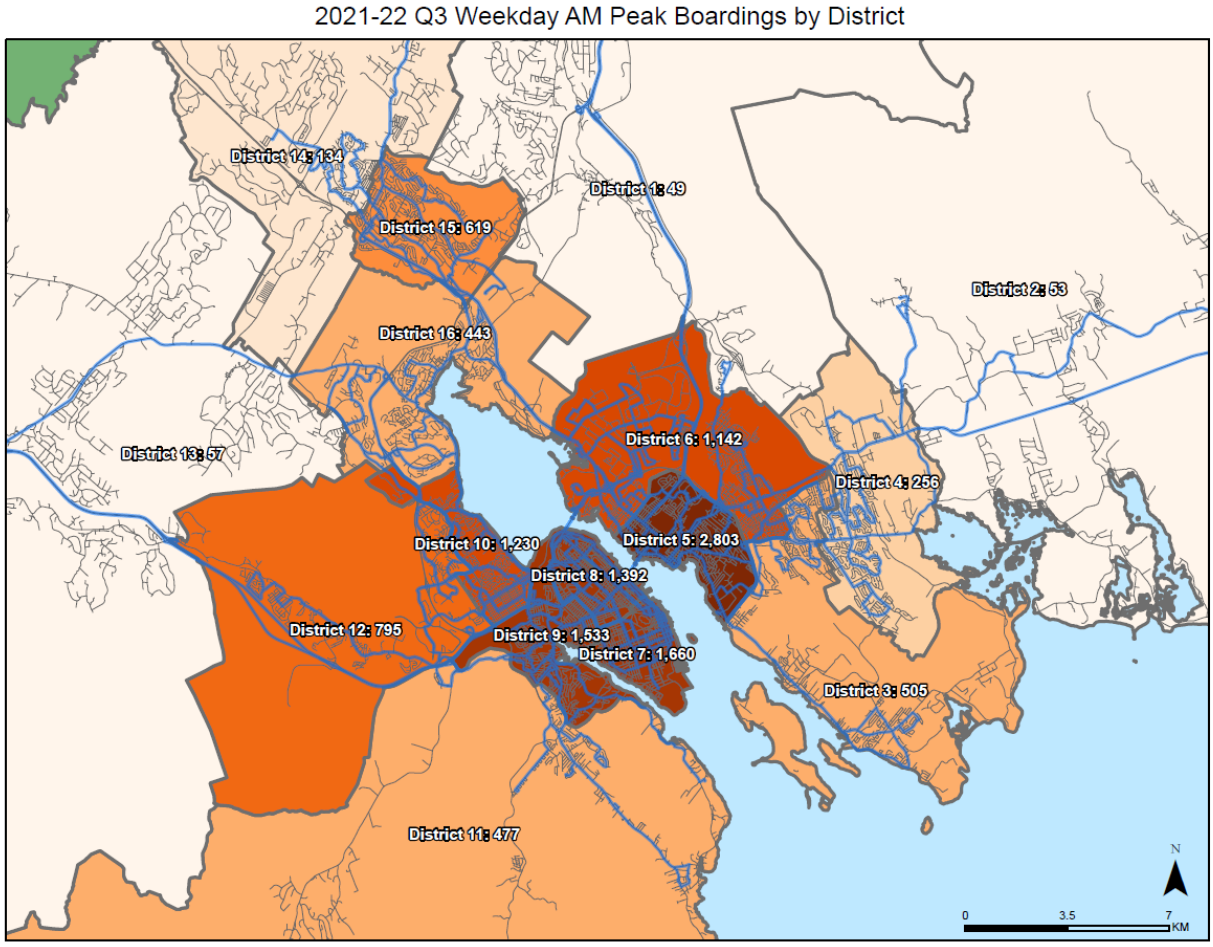
Boardings by District

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



Weekday Boardings by District – AM Peak Period



Passengers per Hour

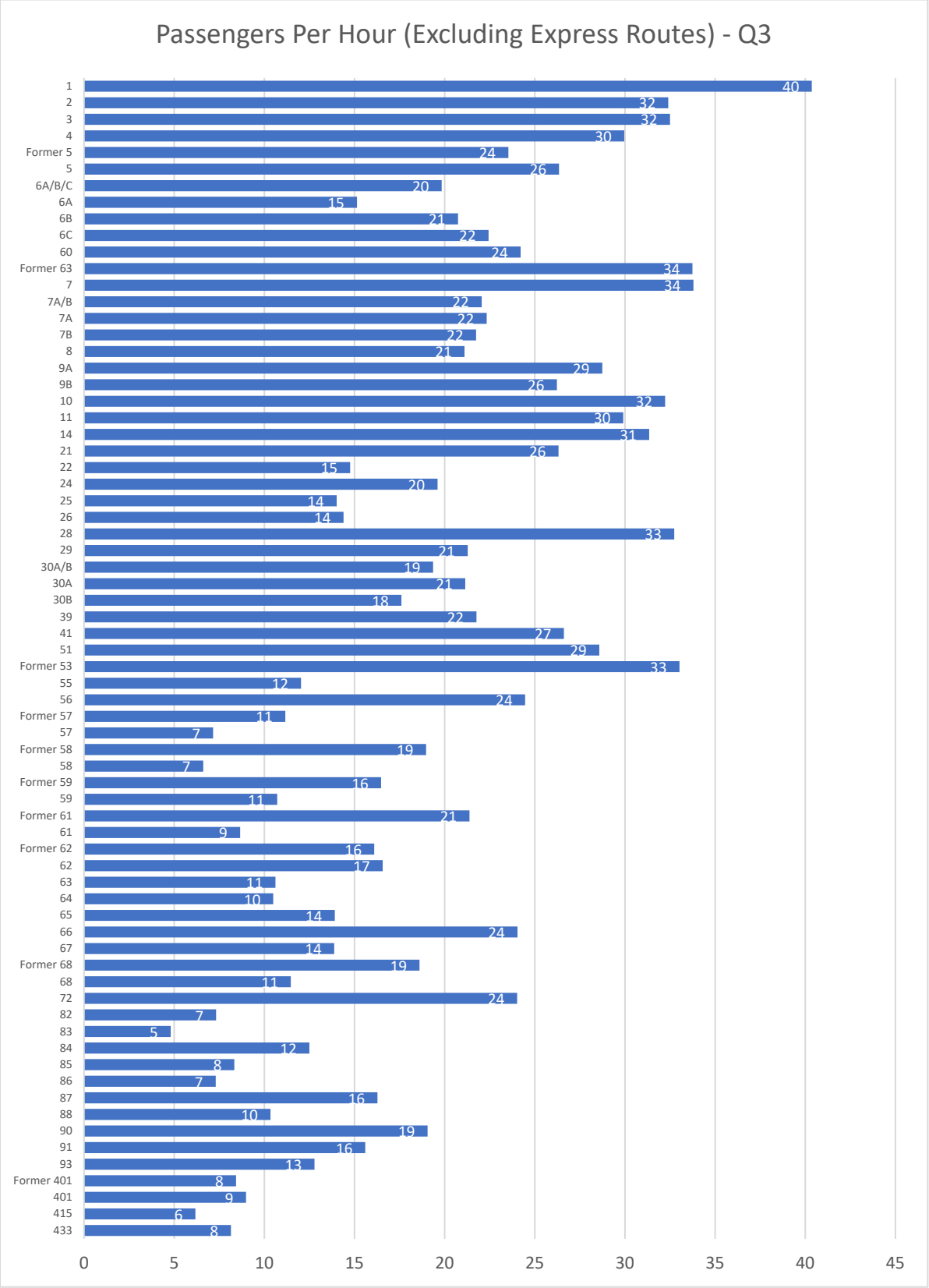
Passengers per hour measures the volume of passengers carried per service hour by route. Due to differences in service model/design, Express Routes are measured instead by passengers per trip. Ridership fluctuates significantly by season and therefore figures are compared to the same quarter in the previous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

Q3 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	4,600	29	6,305	40	4,267	38	5,025	44	2,598	31	3,130	37
2	2,856	26	3,511	32	2,622	26	3,287	33	1,596	23	1,879	27
3	4,388	29	4,881	32	2,355	27	2,673	32	2,321	25	2,641	28
4	2,299	18	3,852	30	1,123	23	1,704	34	928	20	1,384	30
5			2,436	26			1,981	29			1,025	25
6A/B/C			1,922	20			1,107	25			749	18
6A			400	15								
6B			726	21			535	25			374	18
6C			796	22			573	25			375	18
Former 60	1,509	20	1,849	24	1,127	28	1,305	32	714	25	919	33
Former 63	456	27	557	34								
7	2,578	22	3,866	34	1,875	20	2,553	27	982	18	1,395	26
7A/B			3,016	22			2,307	23			1,260	18
7A			1,610	22			1,198	24			656	19
7B			1,406	22			1,109	22			604	17
8	2,290	17	2,930	21	1,798	16	2,289	21	1,336	12	1,671	15
9A/B	4,273	26	4,734	28	2,265	31	2,675	37	1,768	25	1,960	27
9A	2,902	27	3,181	29	984	28	1,274	36	806	23	844	24
9B	1,371	24	1,553	26	1,281	34	1,402	37	962	26	1,116	30
10	2,304	21	3,447	32	1,807	25	2,386	33	1,126	23	1,435	29
11	54	22	68	30								
14	1,227	20	1,046	31	753	23	689	31	549	19	444	24
21	619	20	789	26	589	17	717	20	375	21	402	21
22	464	14	475	15	328	10	357	10	260	7	264	8
24			1,083	20			1,223	22			780	15
25	233	11	305	14	162	10	183	12	104	10	142	12
Former 5			87	24								
26			31	14								
28	1,083	29	1,250	33	985	22	1,120	26	468	23	553	27
29	1,587	17	1,954	21	1,094	17	1,311	21	749	12	904	15
30A/B	557	16	693	19	387	11	459	13	236	13	293	16
30A	318	18	376	21	208	12	218	13	107	12	135	14
30B	239	13	317	18	179	10	242	14	129	14	159	18
39	768	17	959	22	718	15	875	18	277	13	354	17
41	473	14	903	27								
51	628	26	694	29	366	23	406	26	183	18	206	17

Q3 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
Former 53	738	29	843	33	497	33	529	34	203	25	233	28
53			369	23			222	21			102	13
54	495	23	571	22	350	22	375	22	161	16	191	16
55	205	9	261	12	133	9	199	13	99	6	118	8
56	766	24	802	24	863	24	931	27	496	15	567	18
Former 57	336	8	441	11	218	7	227	8	120	7	117	7
57			34	7								
Former 58	400	14	524	19	258	14	327	17	195	11	238	14
58			103	7			89	6			63	4
Former 59	1,110	14	1,278	16	492	21	568	24	334	14	359	15
59	1,110	14	109	11	492	21	109	14	334	14	53	8
Former 61	1,347	17	1,664	21	761	19	850	21	521	14	625	16
61			138	9			147	9			84	6
Former 62	437	14	510	16	311	14	340	16	139	9	160	10
62			389	17			230	13			183	12
63			244	11			133	9			84	6
64	355	9	416	10								
65	176	11	367	14	59	4	201	5	32	5	114	6
66	729	24	748	24	382	24	406	25	232	15	255	16
67			402	14			194	12			122	8
Former 68	770	16	893	19	468	15	526	18	330	11	334	11
68			185	11			204	13			89	6
72	877	19	1,107	24	709	16	931	21	367	14	406	15
82	126	6	143	7	99	6	106	7	75	5	76	5
83	65	5	61	5	51	5	65	7	37	3	37	3
84	574	10	679	12	234	7	297	9	175	6	205	7
85	96	7	113	8	58	6	75	9	43	5	49	7
86	85	6	104	7	76	5	92	6	65	5	58	4
87	813	15	900	16	513	10	638	12	283	11	322	11
88	142	10	147	10	114	7	112	7	72	5	61	4
90	794	11	1,309	19	631	10	962	15	299	9	460	13
91	444	12	544	16	235	10	300	14	193	7	264	10
93	103	10	133	13								
Former 401	93	7	112	8								
401			43	9			9	6			10	5
415	40	7	38	6								
433	38	7	48	8								
Alderney	865	31	1,469	51	818	63	2,389	133	427	37	996	62
Woodside	744	36	1,153	57								

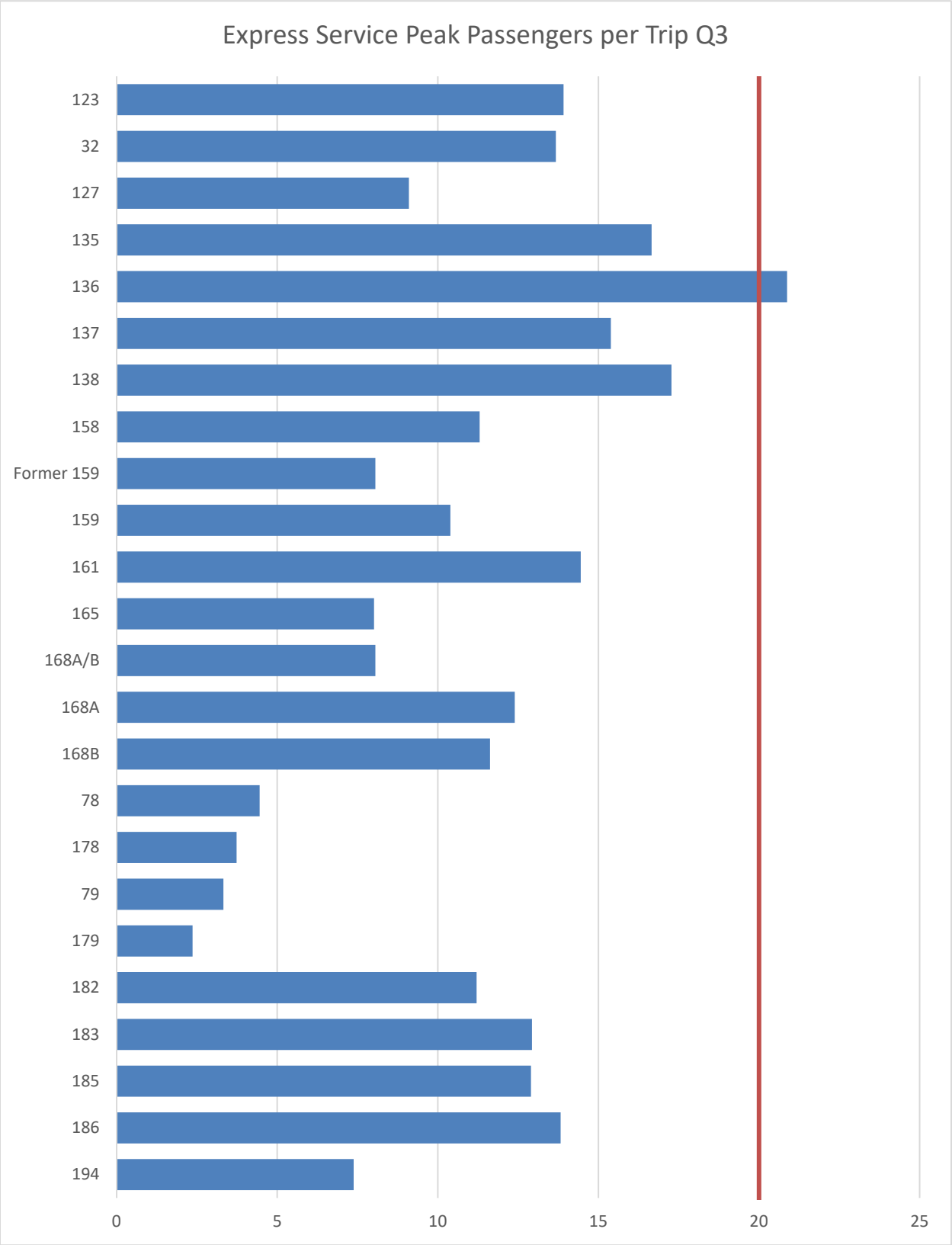
Passengers per Hour by Route



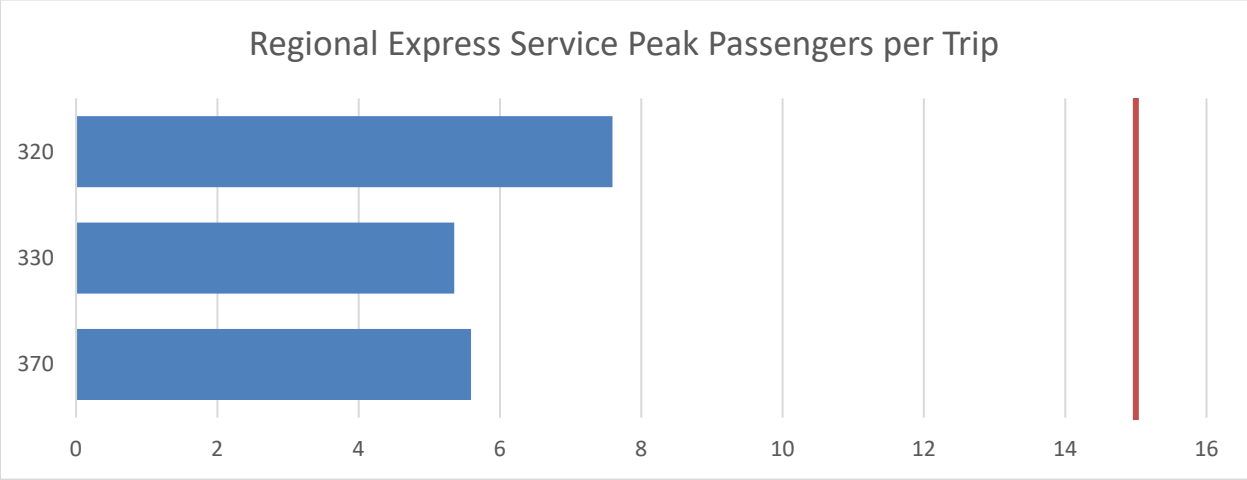
Express Service Peak Boardings and Passengers per Trip

Q3 Comparison - Average Daily Peak Boardings by Express Route				
Route	Weekday			
	2020/21		2021/22	
	Boardings	Pass/Trip	Boardings	Pass/Trip
123	141	10	181	14
32			246	14
127			164	9
135	192	14	233	17
136	239	15	334	21
137	135	11	185	15
138	167	12	225	17
158			90	11
Former 159	143	5	282	8
159			177	10
161			159	14
165			96	8
168A/B			336	8
168A			161	12
168B			140	12
78	36	2	53	4
178			30	4
79	40	3	40	3
179			19	2
182	235	8	280	11
183	134	10	168	13
185	289	11	323	13
186	130	11	152	14
194	49	6	87	7
196	29	7	53	13
320	67	5	99	8
330	83	4	128	5
370	69	4	67	6

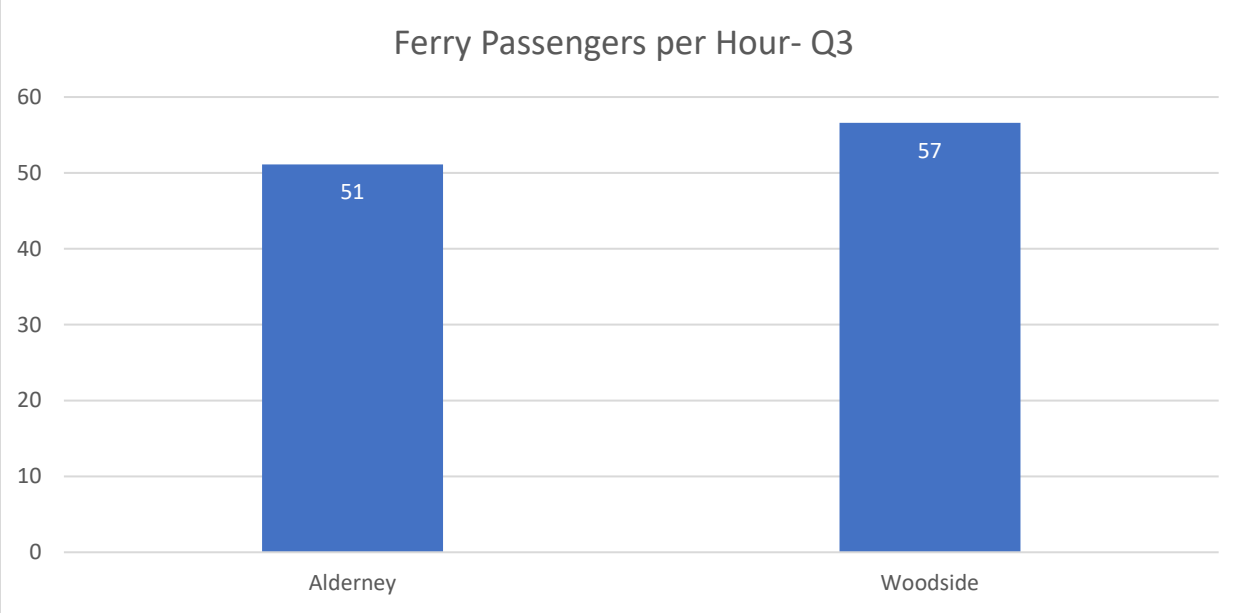
Express Service Peak Passengers per Trip by Route



Regional Express Peak Passengers per Trip by Route



Ferry Passengers per Hour

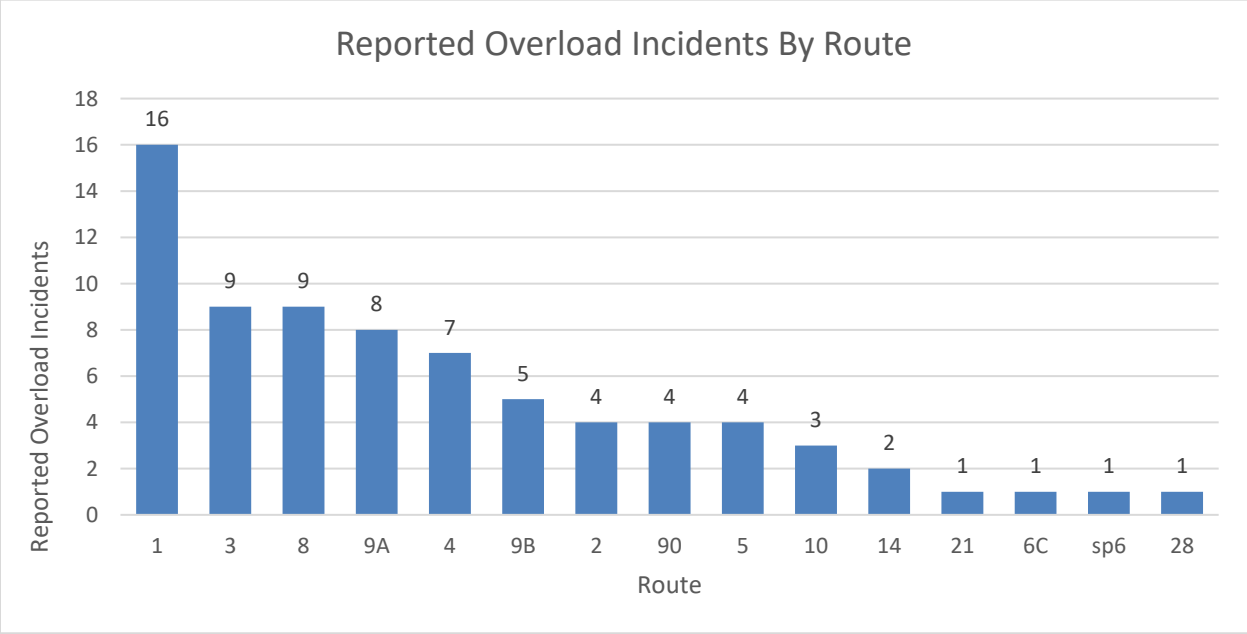


Passenger Overloads

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

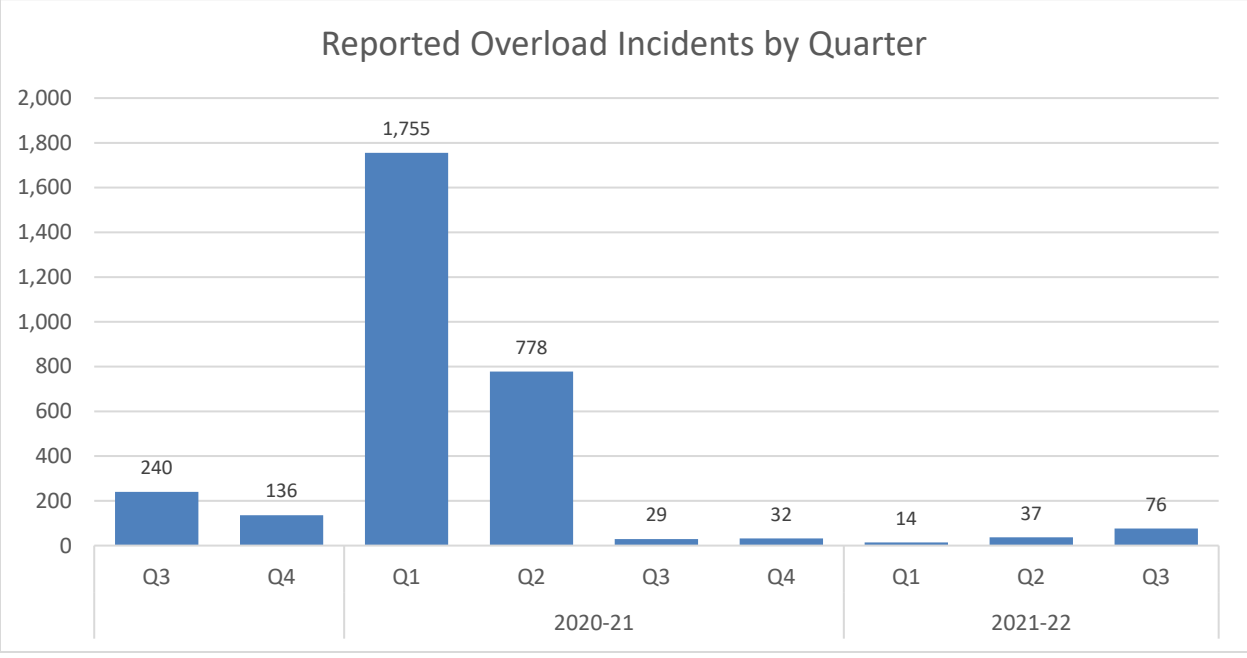
Passenger Overloads by Route

The following graph shows overloaded routes during the third quarter. 76 overload incidents were reported during the third quarter of 2021/22.



Passenger Overloads by Quarter

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

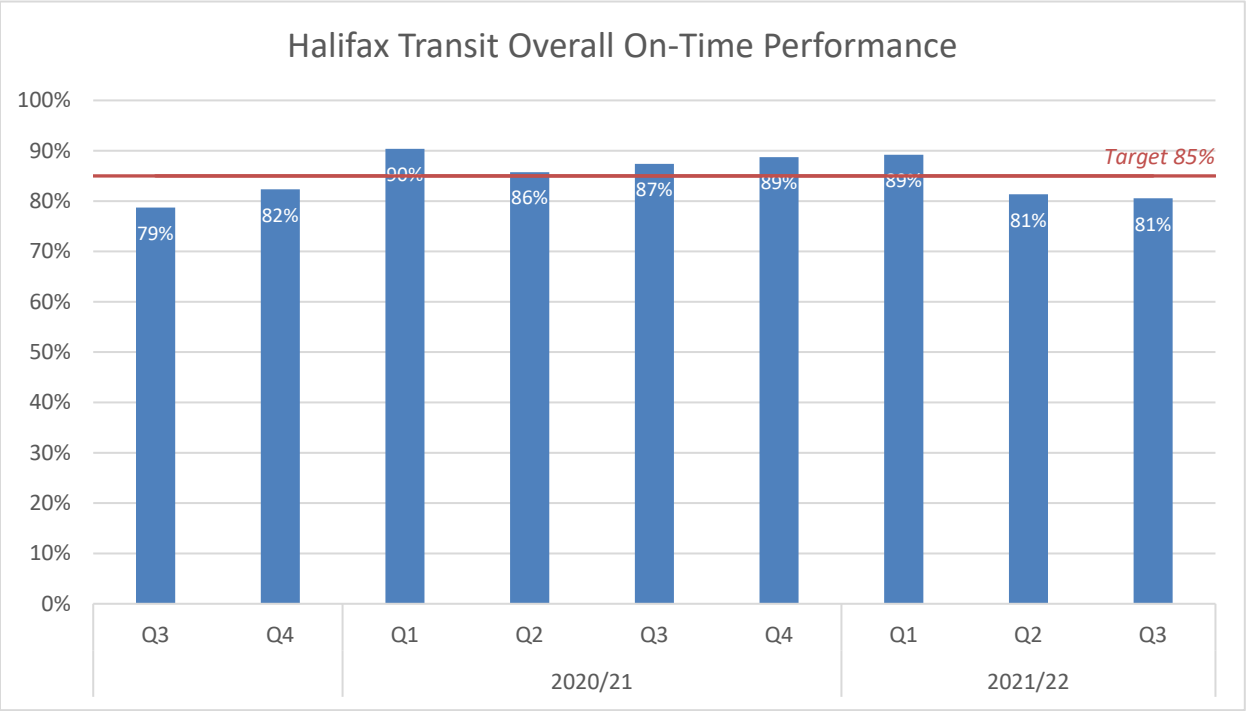


On-Time Performance

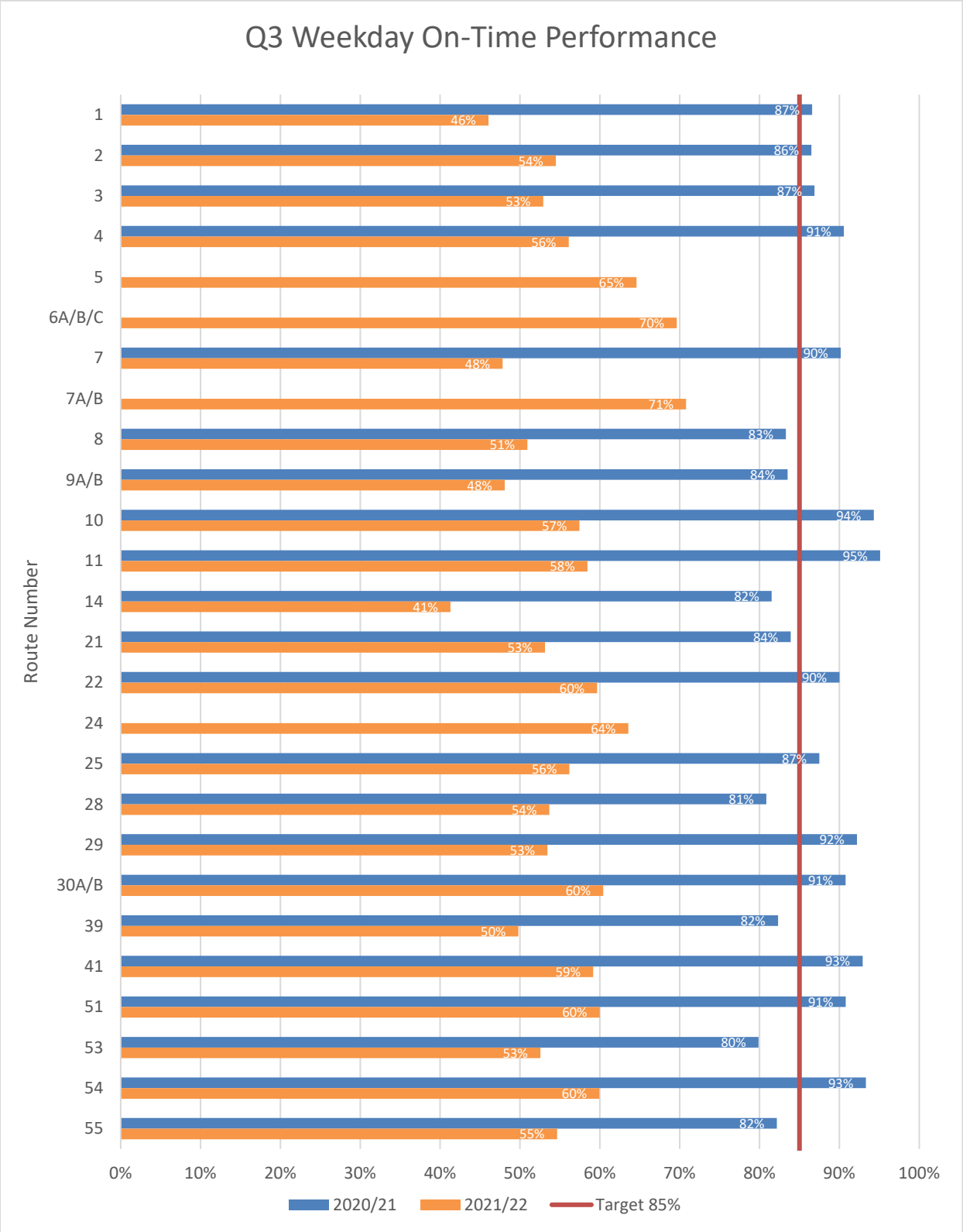
On-time performance is a measure of route reliability and is tracked monthly to demonstrate schedule adherence across the network of routes. Terminals and select bus stops along each route are classified as timepoints and have assigned and publicized scheduled arrival times. On-time performance demonstrates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

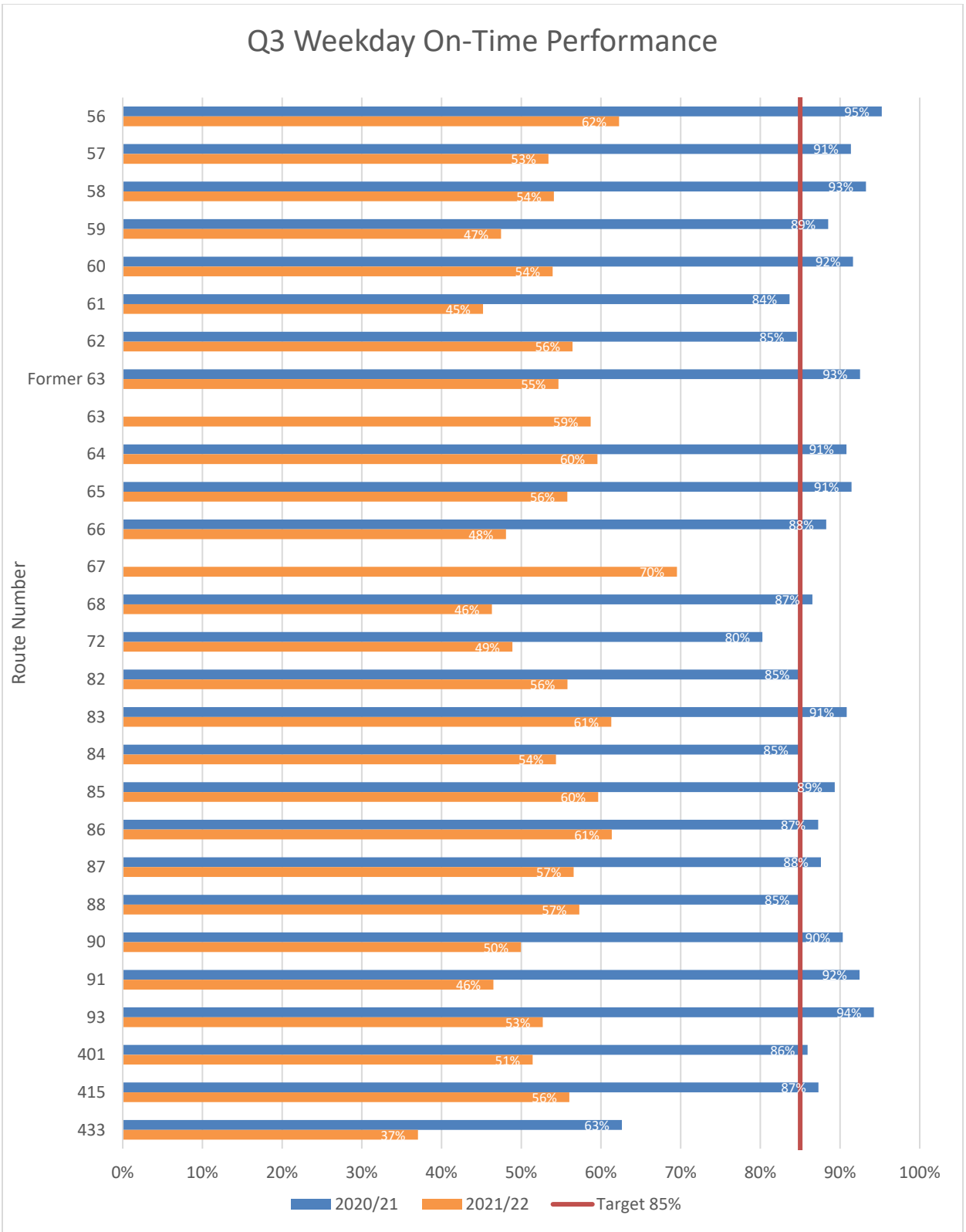
Transit industry standard targets for on-time performance tend to range between 85% and 90%, although service types are not always comparably grouped, nor are schedule adherence definitions consistent between agencies. Halifax Transit will analyze on-time performance across the network in order to establish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

Overall Network On-Time Performance



Weekday On-Time Performance




Q3 Weekday On-Time Performance
Route Number
56
57
58
59
60
61
62
Former 63
63
64
65
66
67
68
72
82
83
84
85
86
87
88
90
91
93
401
415
433
95%
62%
91%
53%
93%
54%
89%
47%
92%
54%
84%
45%
85%
56%
93%
55%
59%
91%
60%
91%
56%
88%
48%
70%
87%
46%
80%
49%
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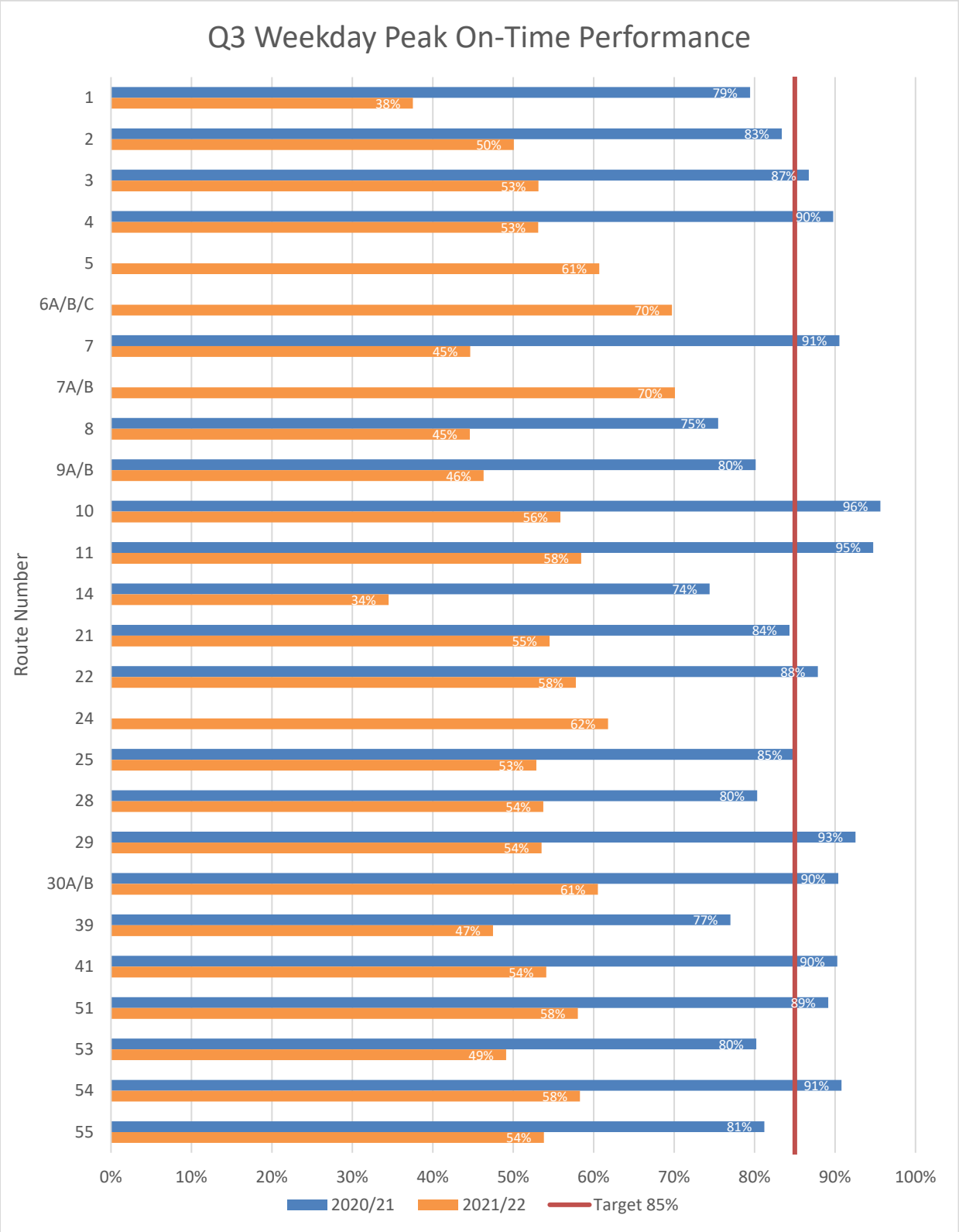
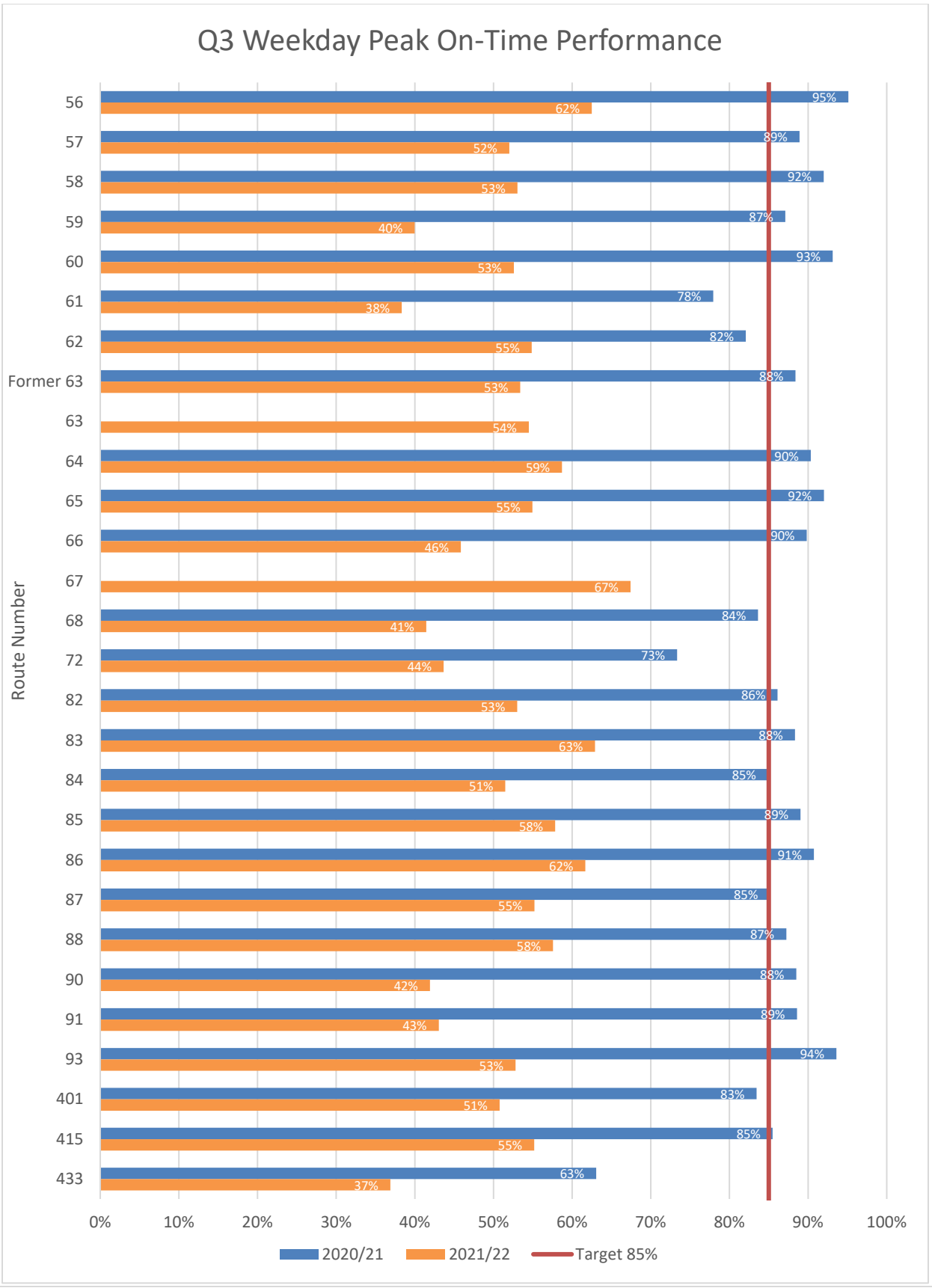
87%
61%
88%
57%
85%
57%
90%
50%
92%
46%
94%
53%
86%
51%
87%
56%
63%
37%
0%
10%
20%
30%
40%
50%
60%
70%
80%
90%
100%
2020/21
2021/22
Target 85%

Weekday Peak Period On-Time Performance




Q3 Weekday Peak On-Time Performance
Route Number
56
57
58
59
60
61
62
Former 63
63
64
65
66
67
68
72
82
83
84
85
86
87
88
90
91
93
401
415
433
95%
62%
89%
52%
92%
53%
87%
40%
93%
53%
78%
38%
82%
55%
88%
53%
54%
90%
59%
92%
55%
90%
46%
67%
84%
41%
73%
44%
86%
53%
88%
63%
85%
51%
89%
58%
91%
62%
85%
55%
87%
58%
88%
42%
89%
43%
94%
53%
83%
51%
85%
55%
63%
37%
0%
10%
20%
30%
40%
50%
60%
70%
80%
90%
100%
2020/21
2021/22
Target 85%

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.