2022/23 – Q1
Performance Measures Report

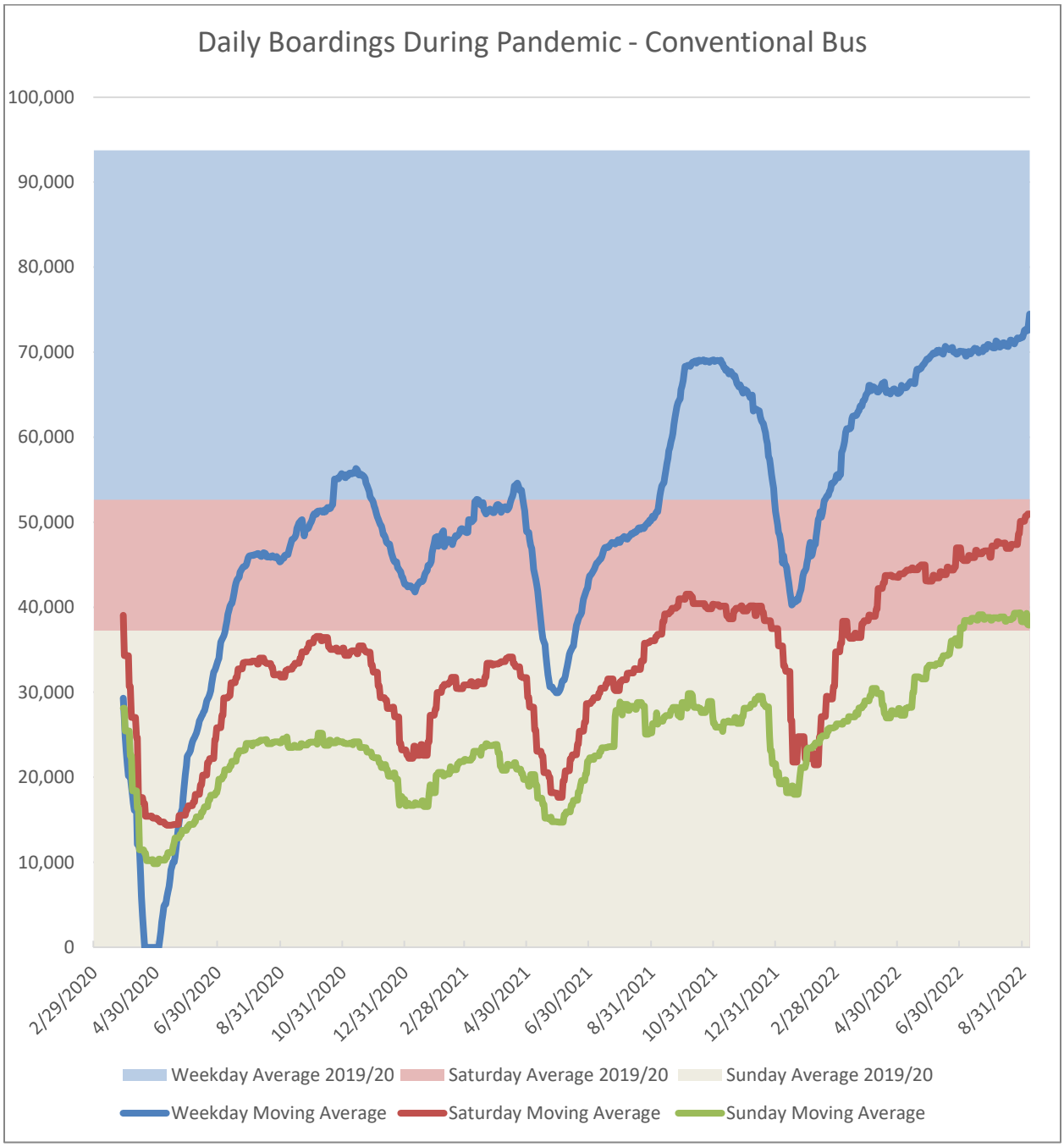
HALIFAX
TRANSIT

Contents

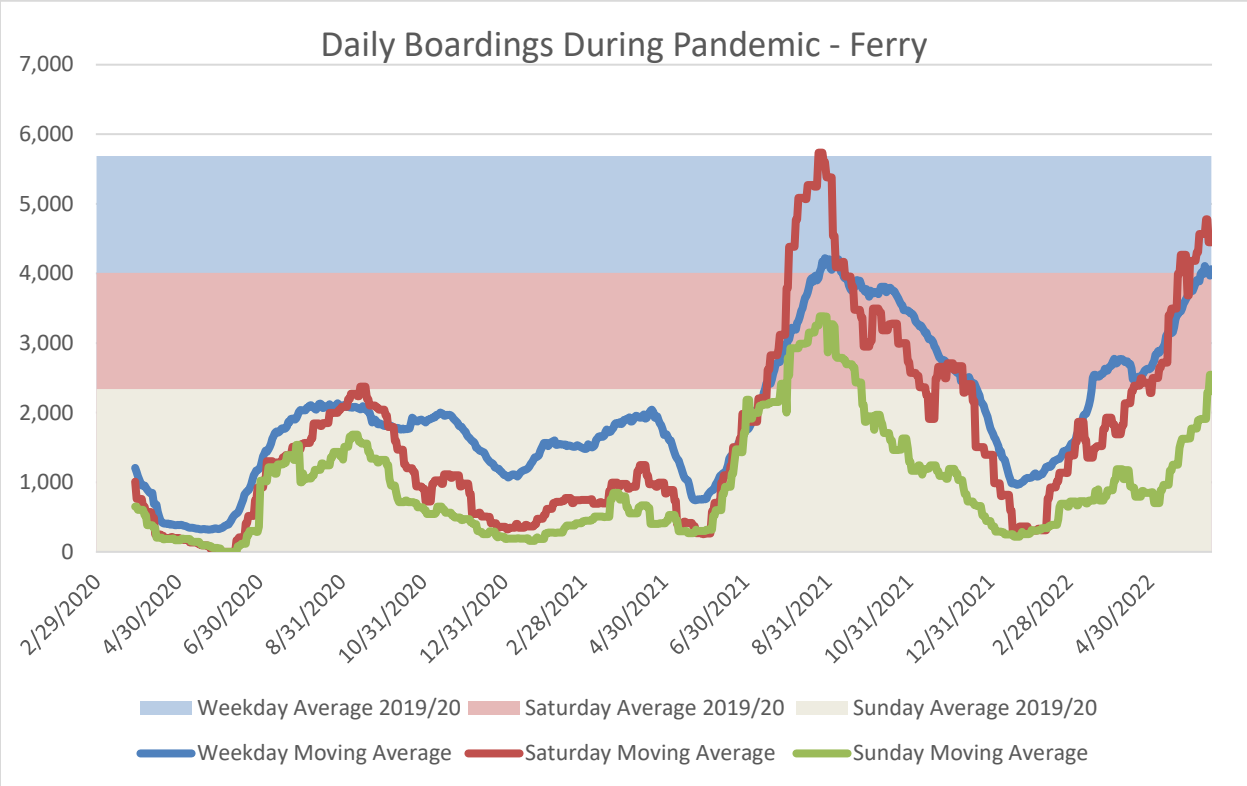
COVID-19 Pandemic Data Impacts

Ridership levels have continued to rebound from the impacts of the COVID-19 pandemic. The following graphs show the 30 day moving averages for boardings on the different service types, compared with the average daily boarding figures from before Covid impacts in 2019/20.

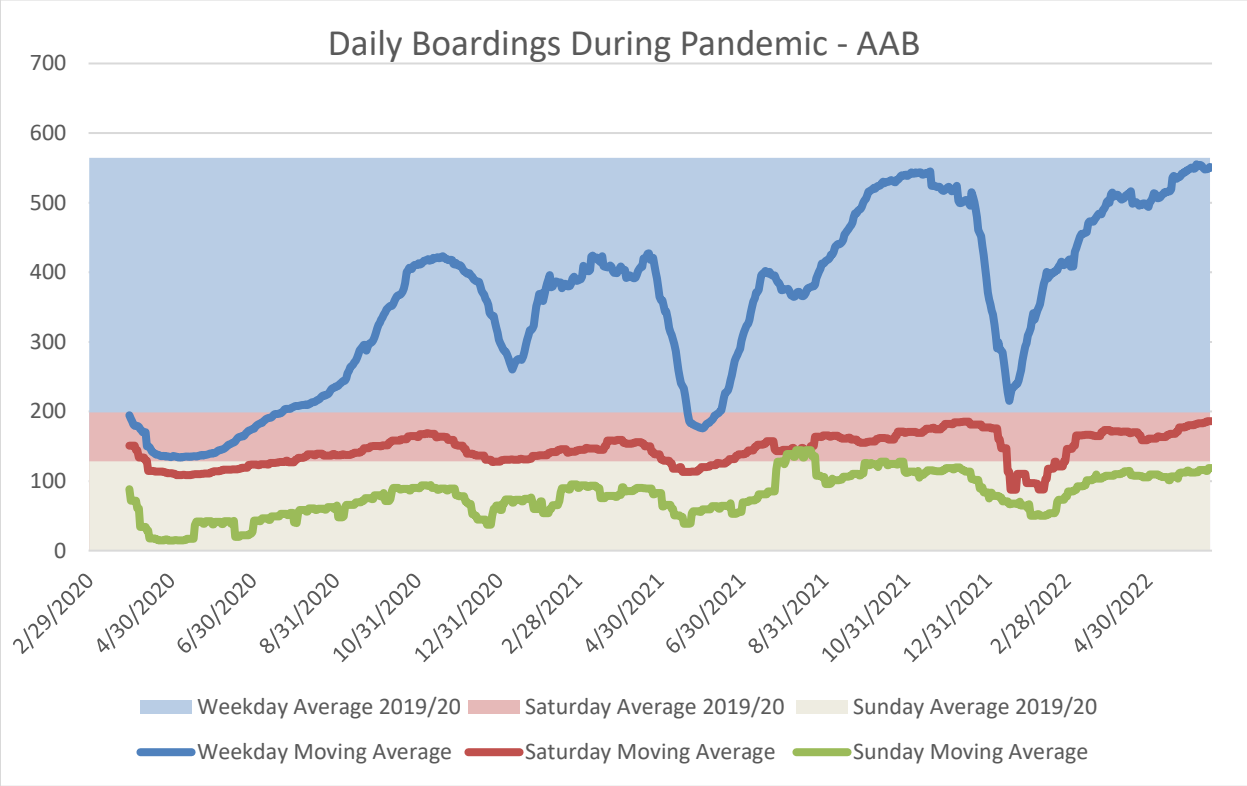
Conventional Bus Boardings During Pandemic



Ferry Boardings During Pandemic



Access-A-Bus Boardings During Pandemic

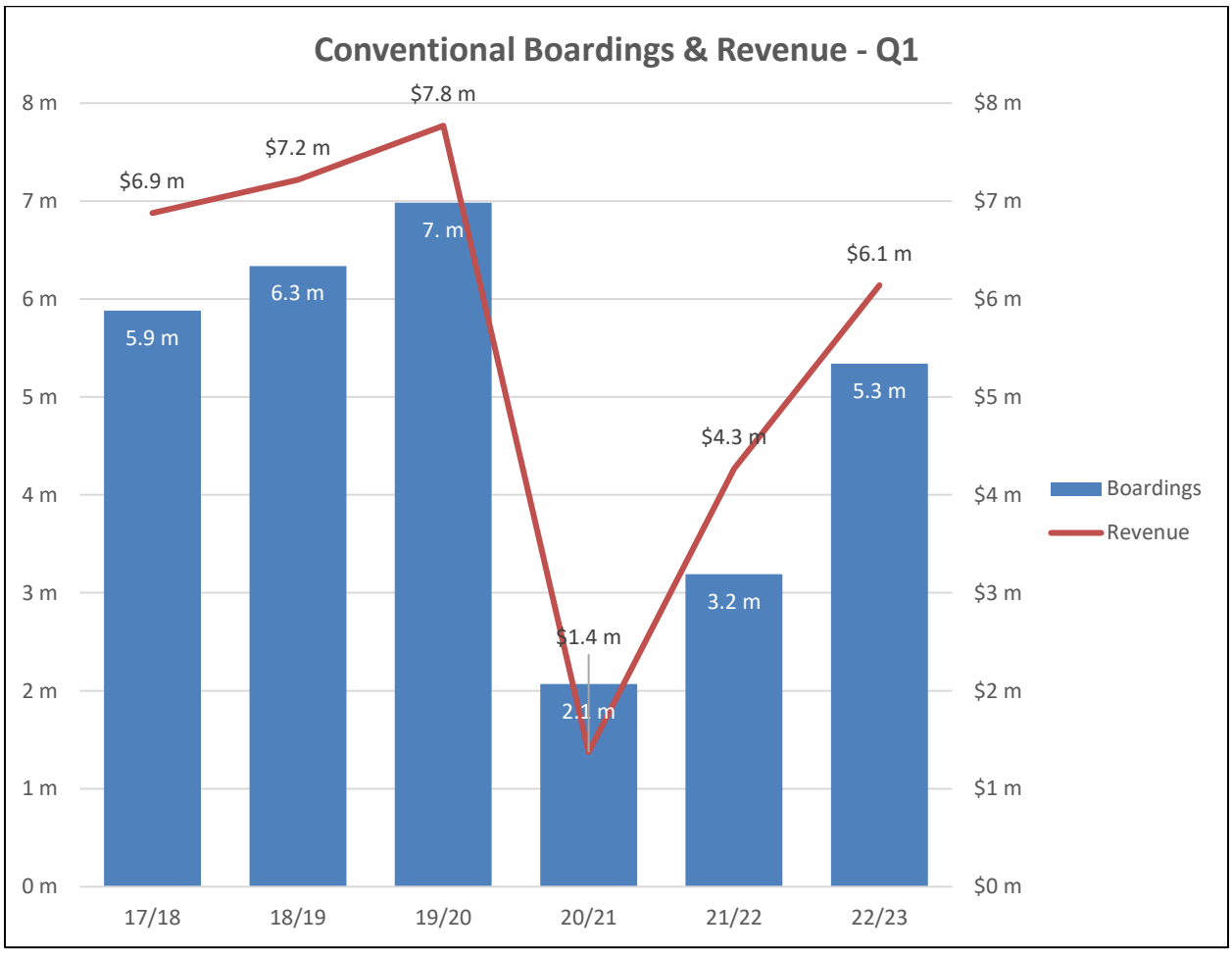


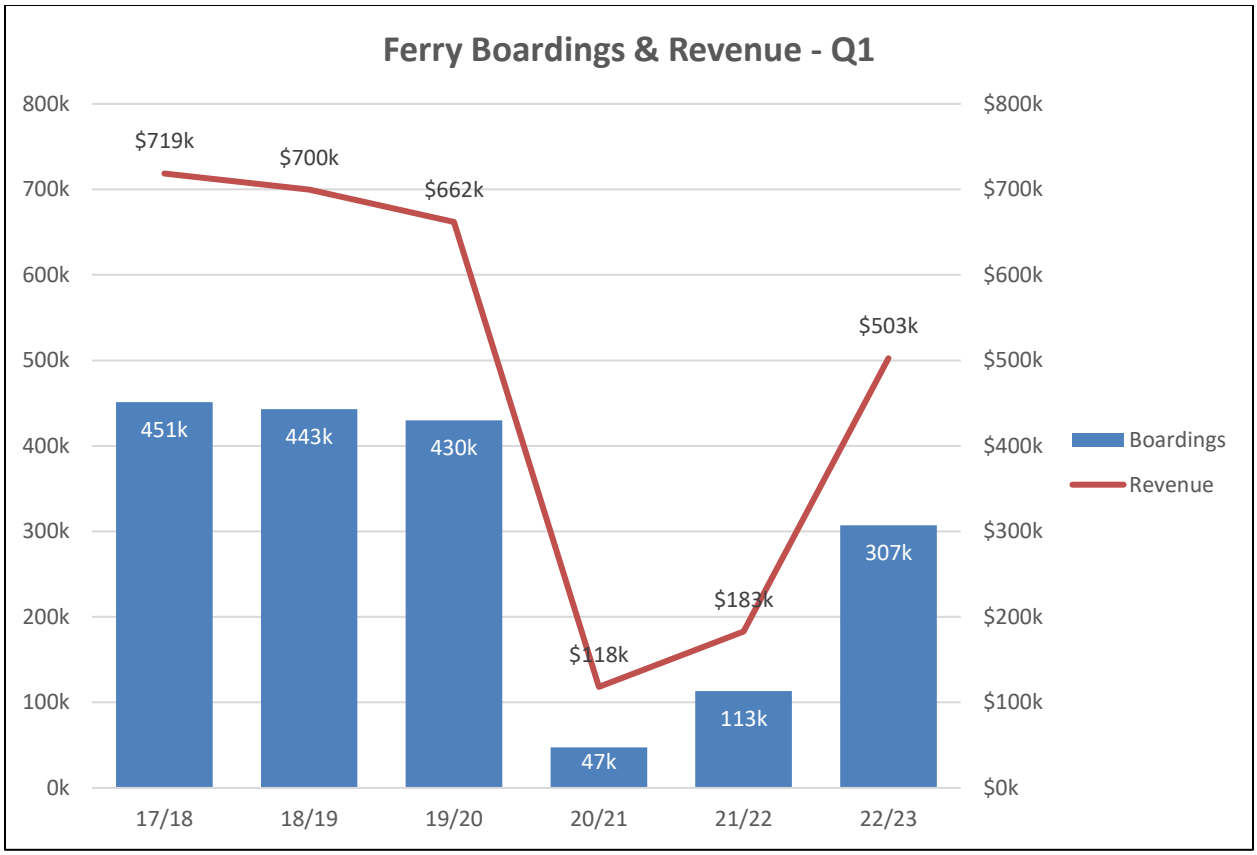
Boardings & Revenue

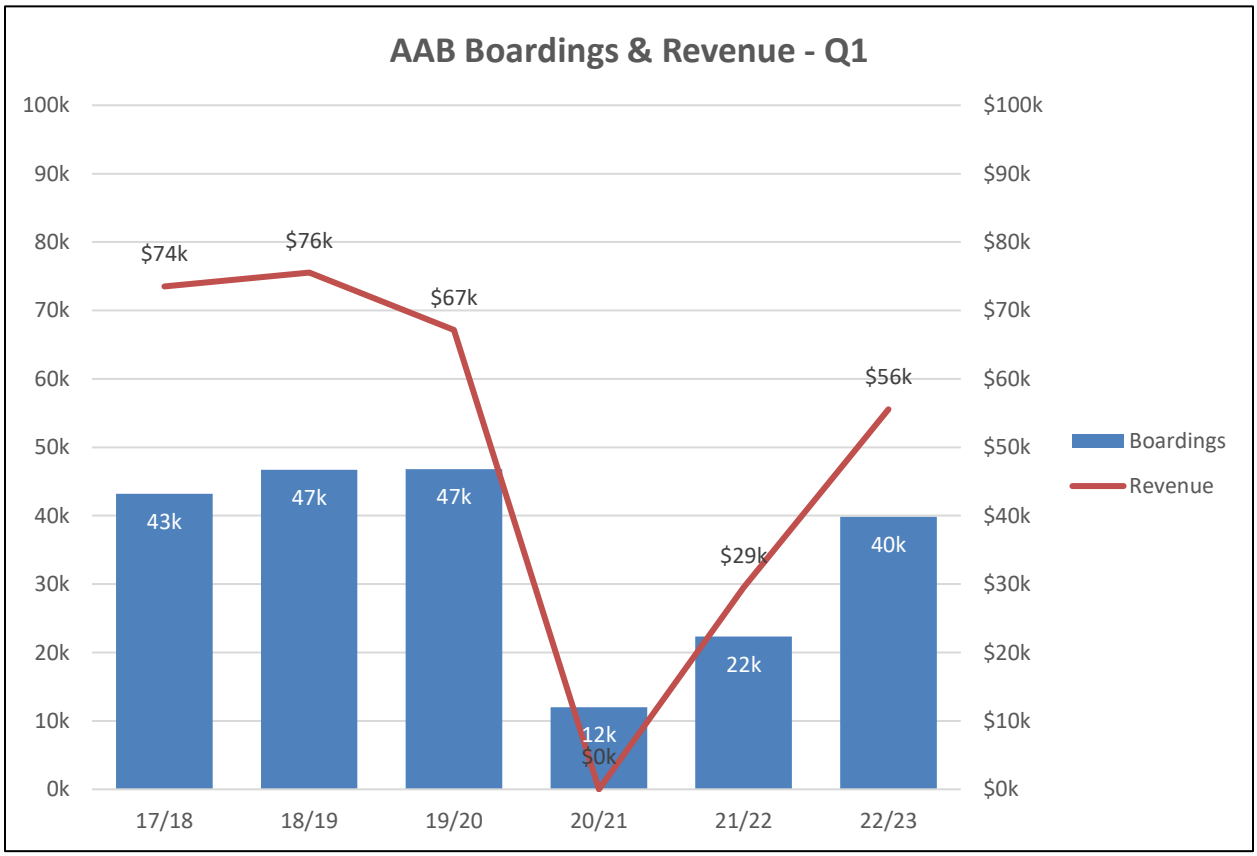
Revenue and boardings are reported to demonstrate how well transit services were used over the quarter, in comparison to the same quarter the previous year.

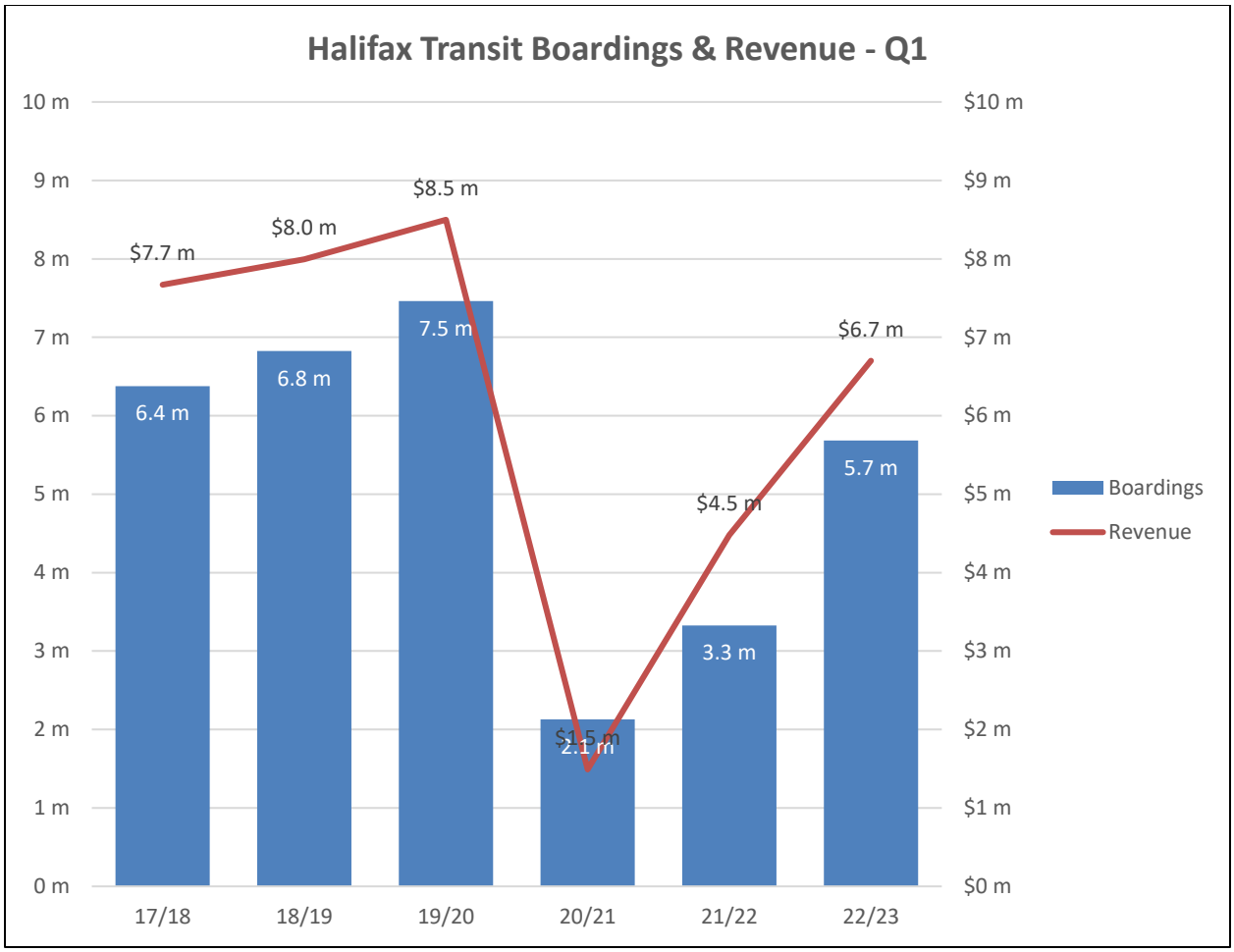
Recovery from the COVID-19 pandemic continued through the first quarter this year. Conventional boardings increased 67% from this quarter last year, Ferry boardings increased 172% and Access-A-Bus boardings increased 78.5%. Overall, system wide boardings increased this quarter by 71% compared to last year, which is still 24% lower than first quarter 2019/20. Overall revenue this quarter increased 50% from last year, but remains 21% lower than first quarter 2019/20.

Historical Boardings & Revenue



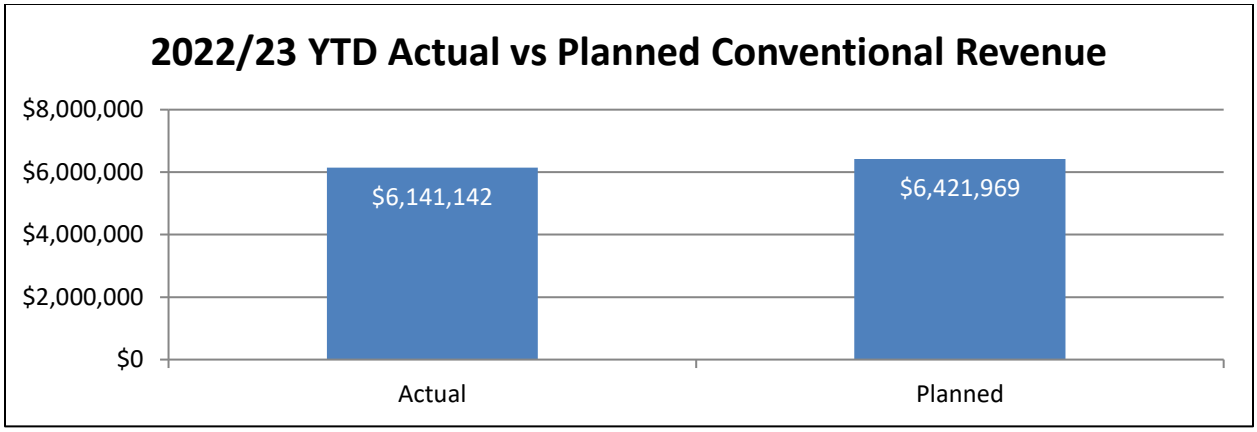

Ferry Boardings & Revenue - Q1
800k
700k
600k
500k
400k
300k
200k
100k
0k
$800k
$700k
$600k
$500k
$400k
$300k
$200k
$100k
$0k
$719k
$700k
$662k
$118k
$183k
$503k
451k
443k
430k
47k
113k
307k
17/18
18/19
19/20
20/21
21/22
22/23
Boardings
Revenue

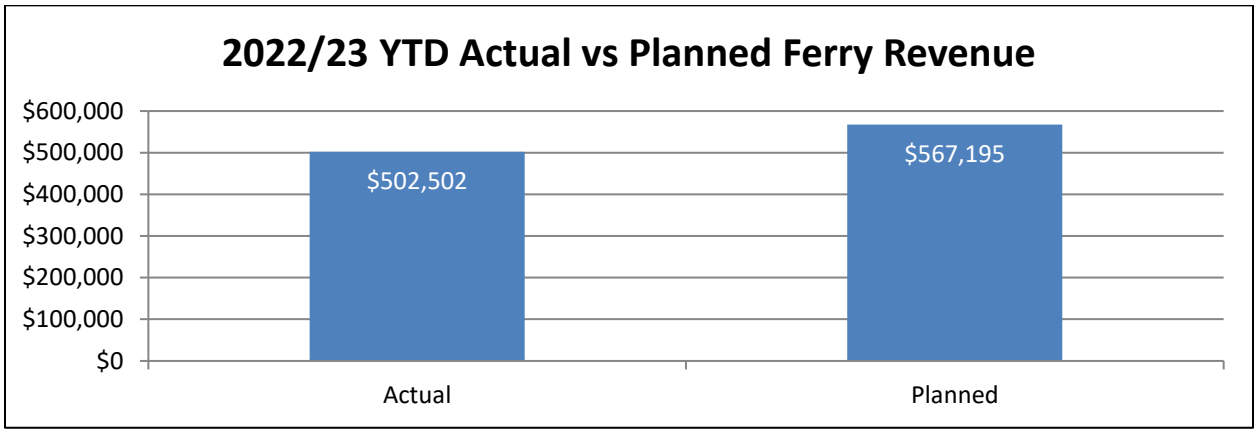

AAB Boardings & Revenue - Q1
100k
90k
80k
70k
60k
50k
40k
30k
20k
10k
0k
$100k
$90k
$80k
$70k
$60k
$50k
$40k
$30k
$20k
$10k
$0k
$74k
$76k
$67k
$0k
$29k
$56k
43k
47k
47k
12k
22k
40k
17/18
18/19
19/20
20/21
21/22
22/23
Boardings
Revenue

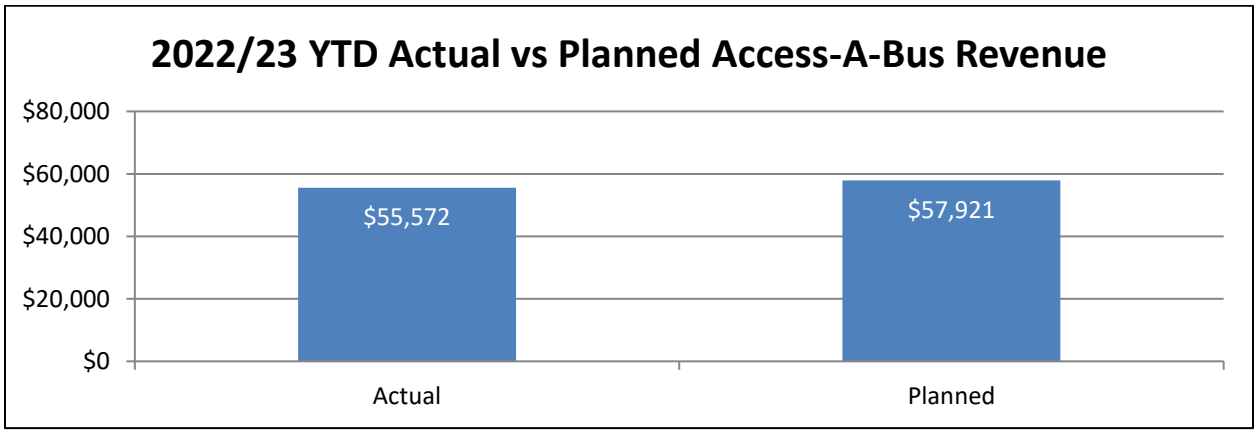

Halifax Transit Boardings & Revenue - Q1
10 m
9 m
8 m
7 m
6 m
5 m
4 m
3 m
2 m
1 m
0 m
$10 m
$9 m
$8 m
$7 m
$6 m
$5 m
$4 m
$3 m
$2 m
$1 m
$0 m
$7.7 m
$8.0 m
$8.5 m
$1.5 m
$4.5 m
$6.7 m
6.4 m
6.8 m
7.5 m
2.1 m
3.3 m
5.7 m
17/18
18/19
19/20
20/21
21/22
22/23
Boardings
Revenue

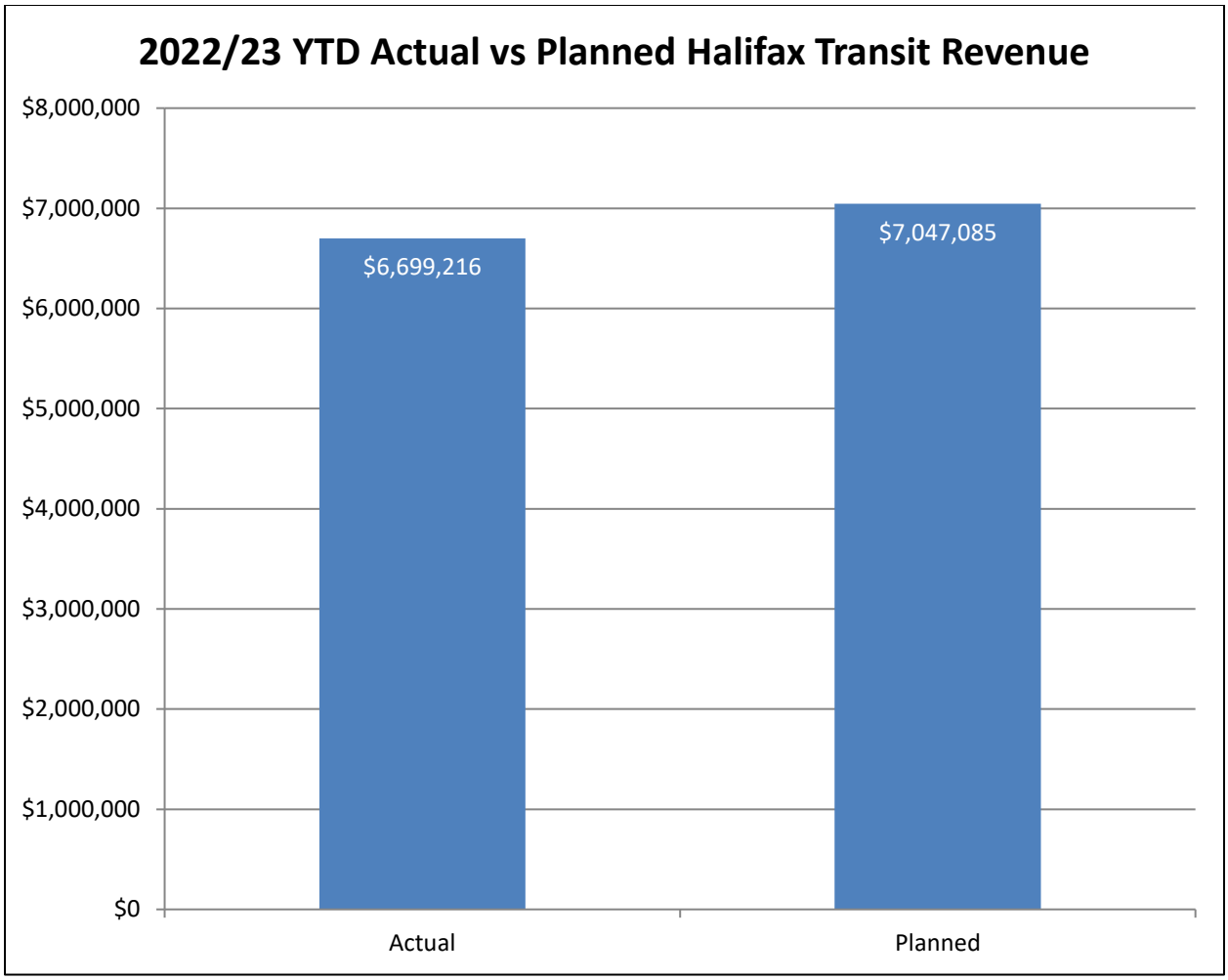
Revenue – Actual vs. Planned

The following charts provide an indication of how much revenue has been generated by each service type and by Halifax Transit overall in comparison to the planned budget revenue. As of the end of the first quarter conventional revenue has increased 44% over last year and is 4.4% below the planned amount. Ferry revenue has increased 175% and is 11.4% below the planned amount. Access-A-Bus revenue this year increased 89% over last year and is 4% below the planned amount. Overall revenue this year has increased 50% over last year, and is 4.9% below the planned amount.





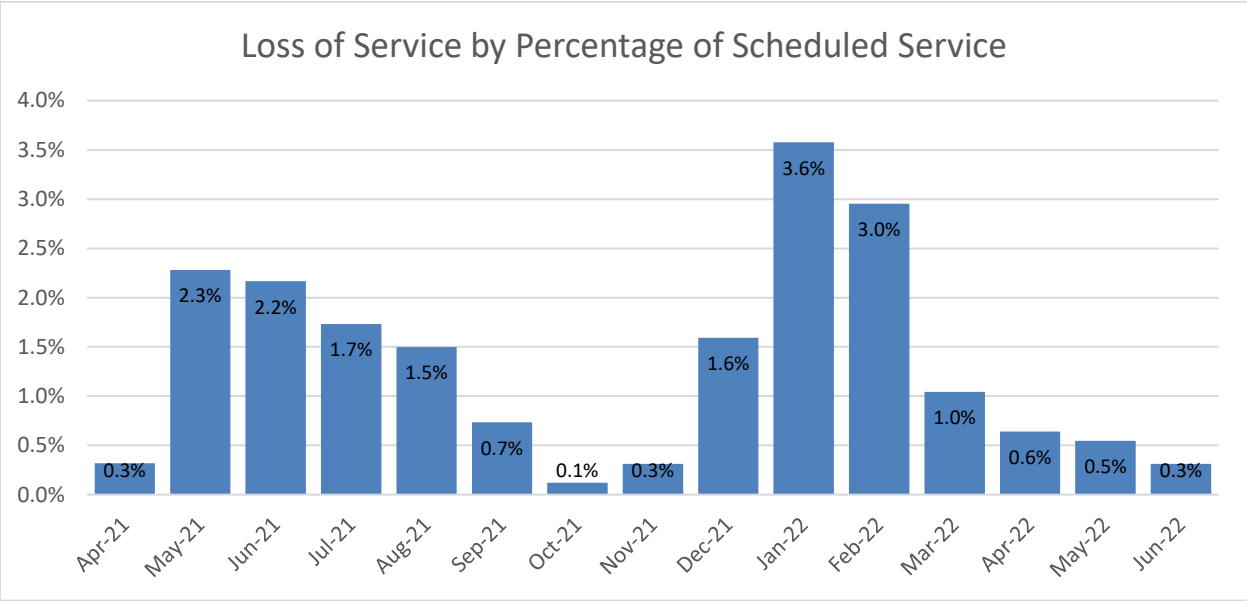



2022/23 YTD Actual vs Planned Halifax Transit Revenue
$8,000,000
$7,000,000
$6,000,000
$5,000,000
$4,000,000
$3,000,000
$2,000,000
$1,000,000
$0
$6,699,216
$7,047,085
Actual
Planned

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.

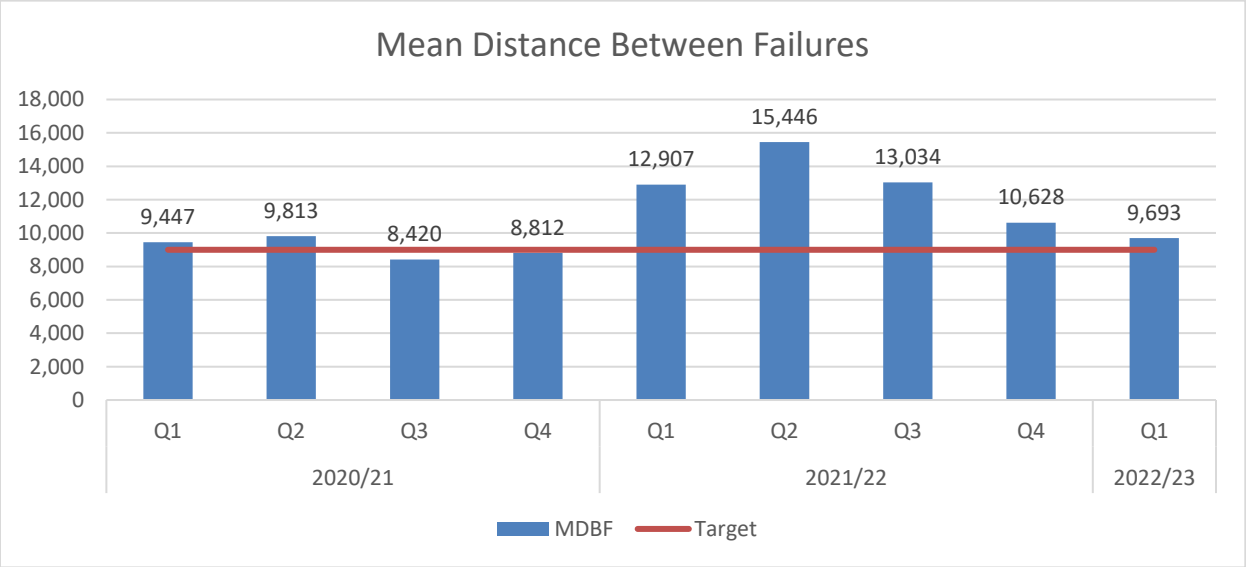
In the first quarter, the total loss of service was 1,067 hours, which is 0.5% of the quarterly revenue hours. The table below shows the total loss of service for each month.



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.

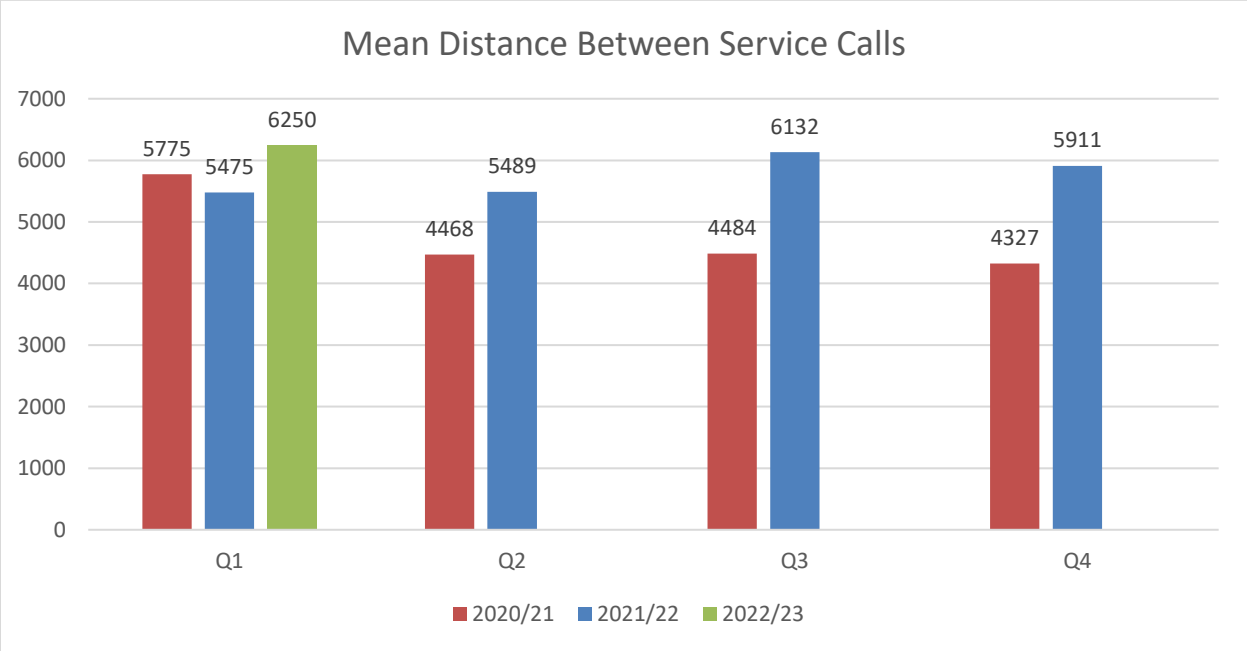
For the first quarter of 2022/23, the MDBF for conventional transit was 9,693 kms. This is a 25% decrease from the first quarter of the previous year.

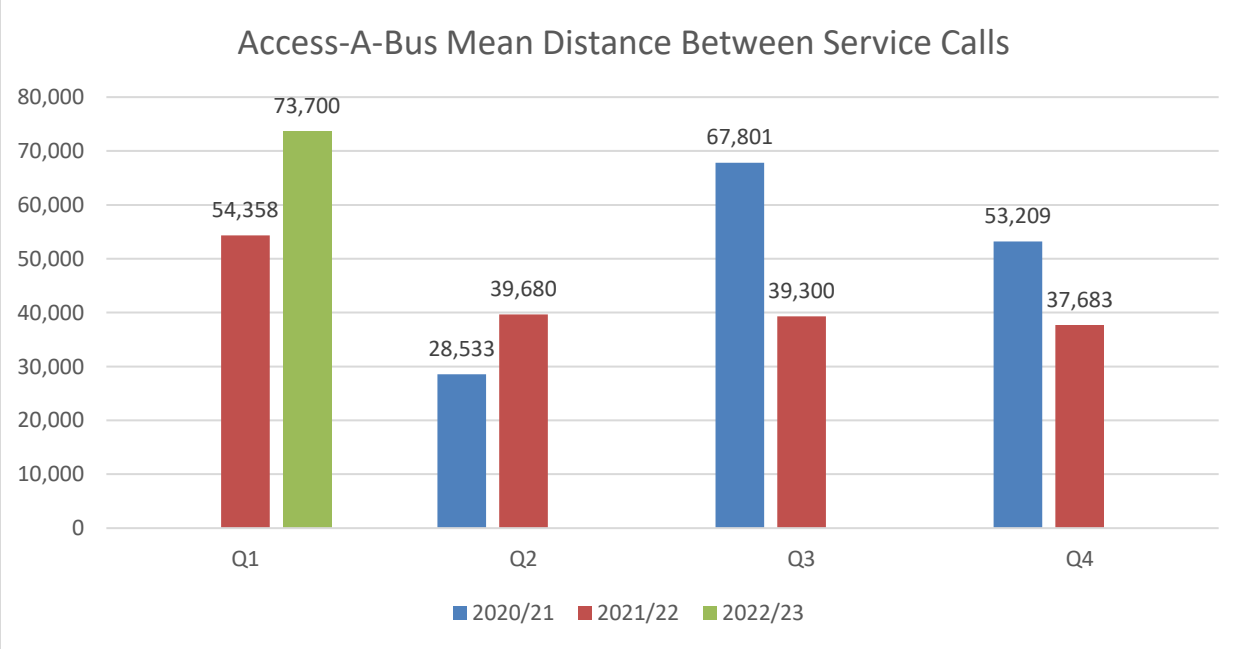


Mean Distance Between Service Calls

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.

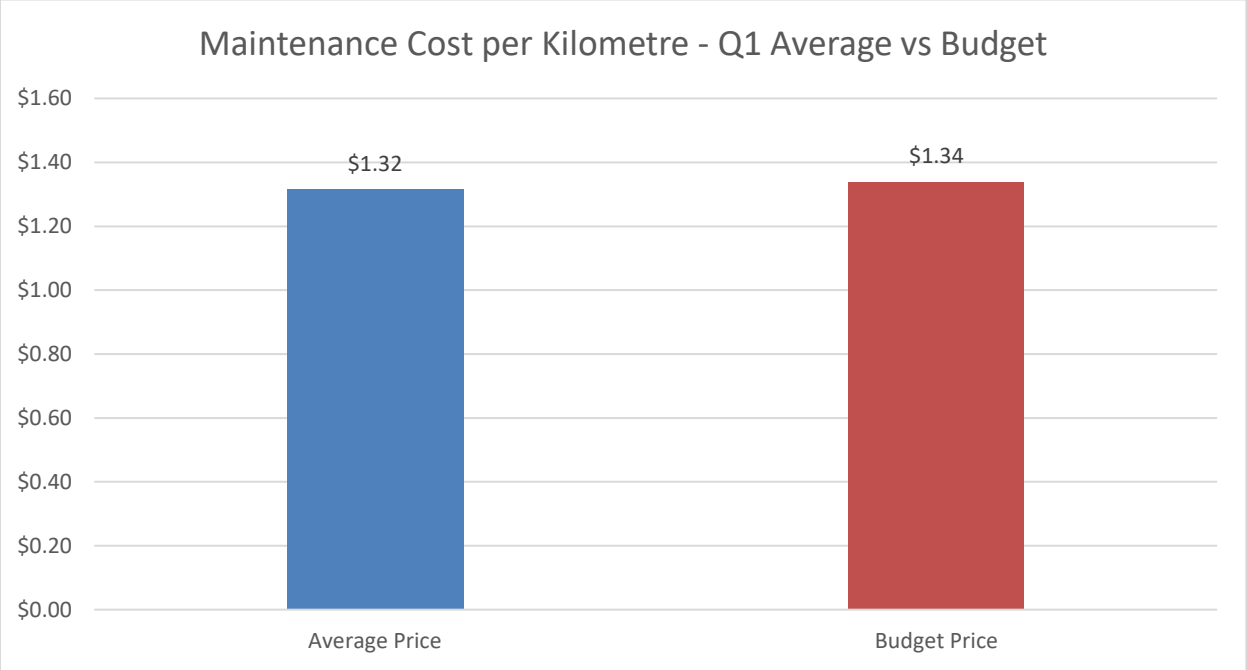
For the first quarter of 2022/23, the MDBS for conventional transit was 6,250 kms. In comparison to the first quarter of 2021/22 (5,475), this is an increase of 14%. The MDBS for Access-A-Bus service was 70,700 kms, a 36% increase from the previous year..

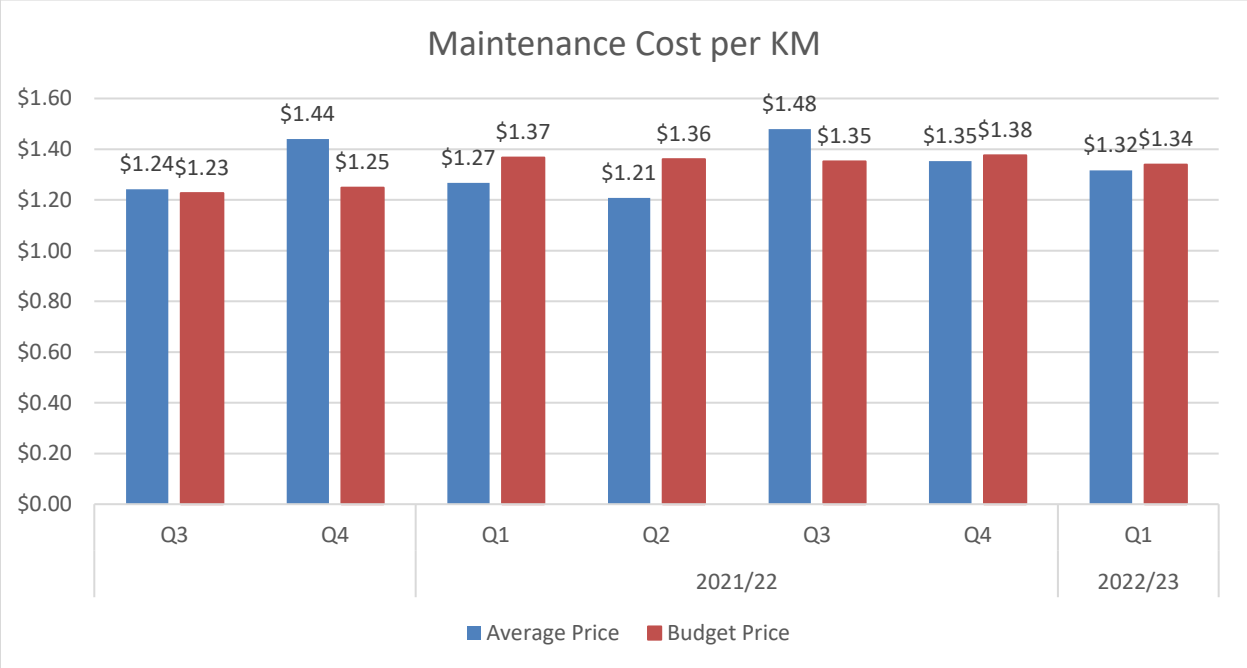




Bus Maintenance Cost – Quarter Average vs Budget

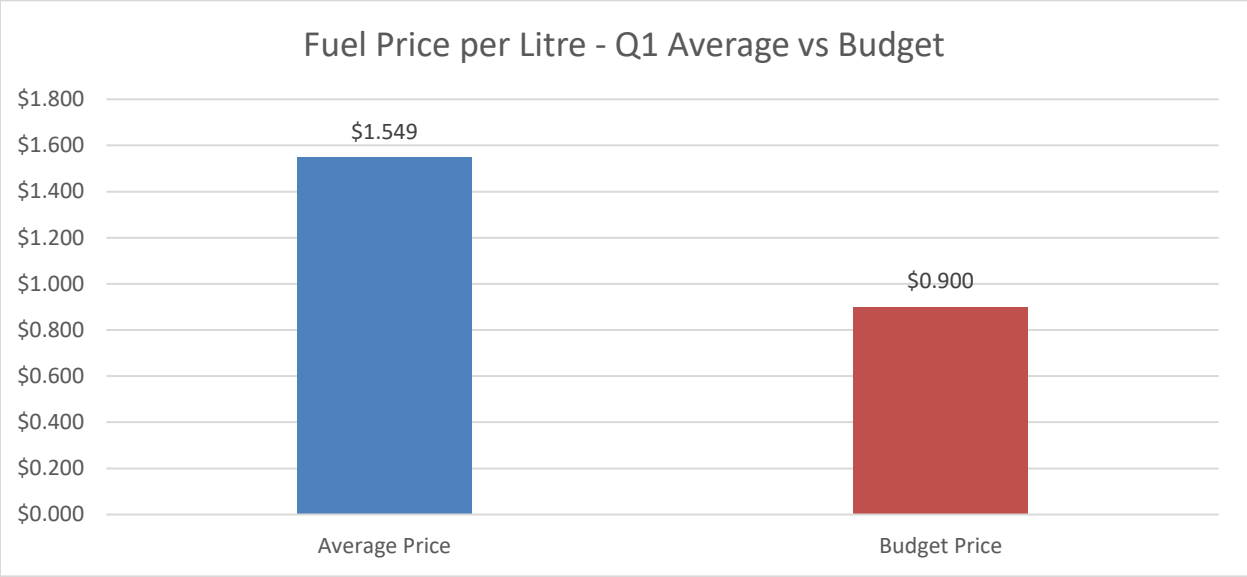
In the first quarter, bus maintenance costs were $1.32/km, while the budgeted maintenance cost was $1.34/km.





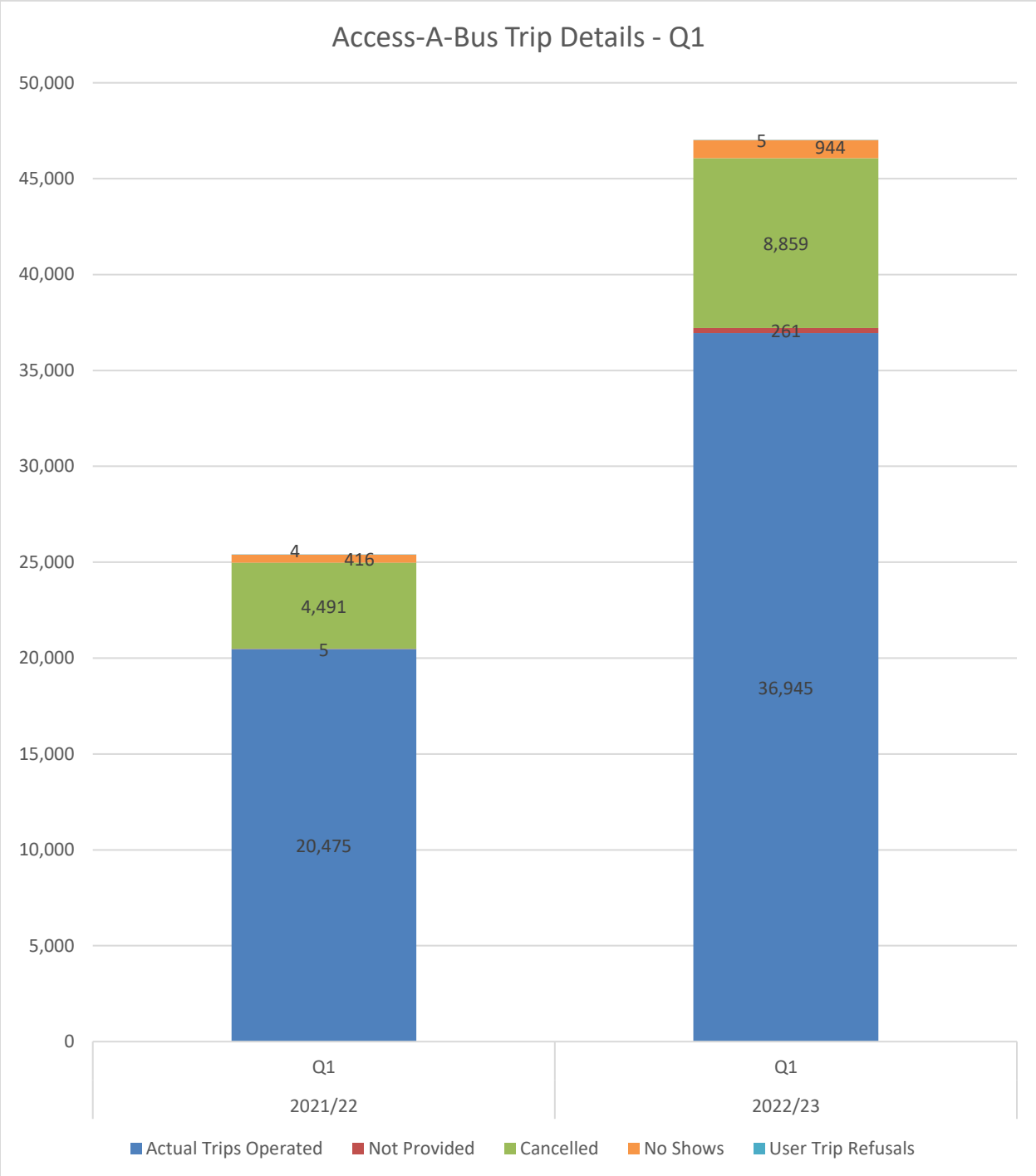
Diesel Fuel Price – Annual Average vs Budget

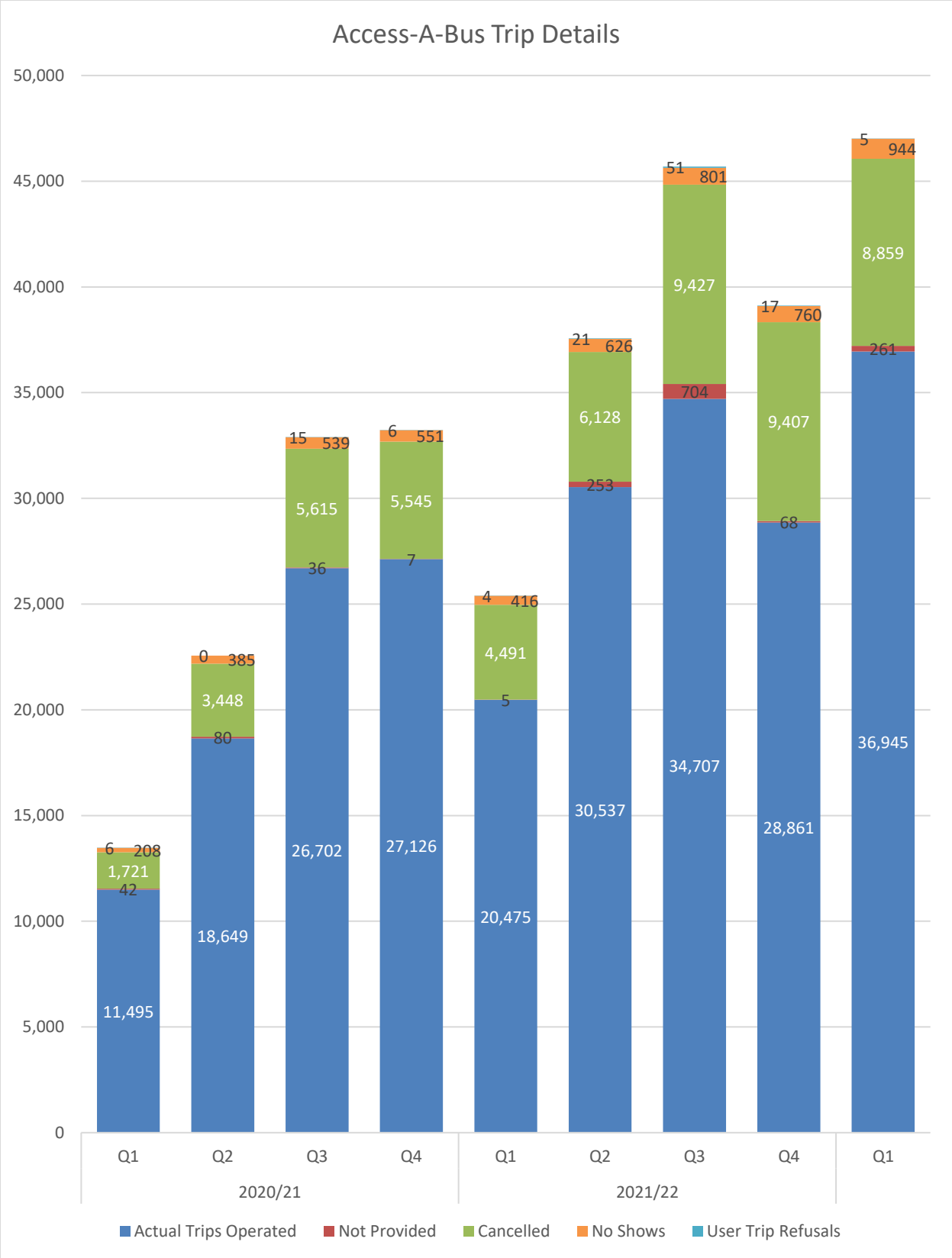
The budgeted diesel fuel price for 2022/23 was set at 90 cents/litre. The average diesel fuel price for 2022/23 as of the end the first quarter was $1.549 per litre, 65 cents higher than the budgeted price per litre.



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 first quarter of 2022/23 a total of 36,945 trips were operated, an increase of 80% compared to the first quarter last year.



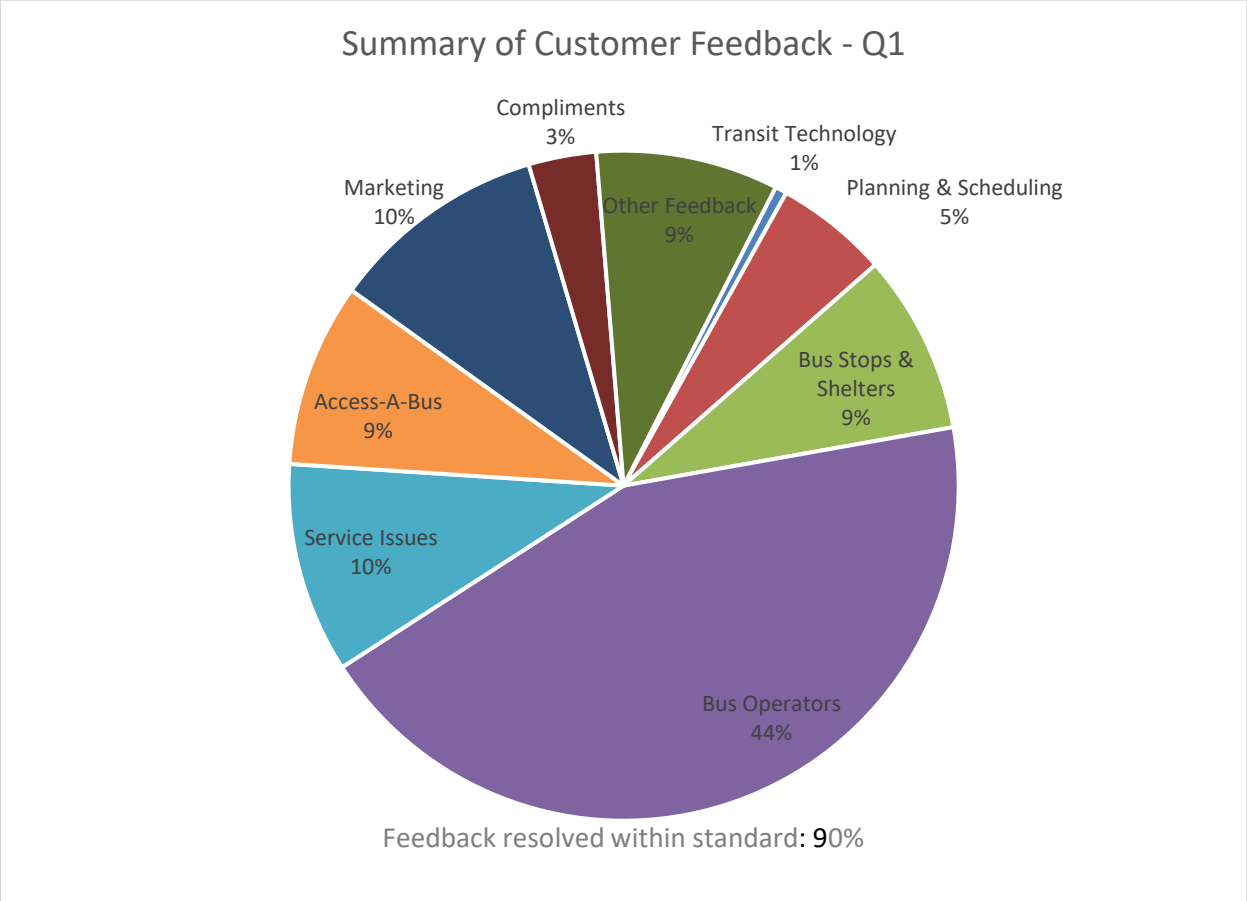

Access-A-Bus Trip Details
50,000
45,000
40,000
35,000
30,000
25,000
20,000
15,000
10,000
5,000
0
Q1
Q2
Q3
Q4
Q1
Q2
Q3
Q4
Q1
2020/21
2021/22
Actual Trips Operated
Not Provided
Cancelled
No Shows
User Trip Refusals
11,495
42
1,721
6
208
18,649
80
3,448
0
385
26,702
36
5,615
15
539
27,126
7
5,545
6
551
20,475
5
4,491
4
416
30,537
253
6,128
21
626
34,707
704
9,427
51
801
28,861
68
9,407
17
760
36,945
261
8,859
5
944

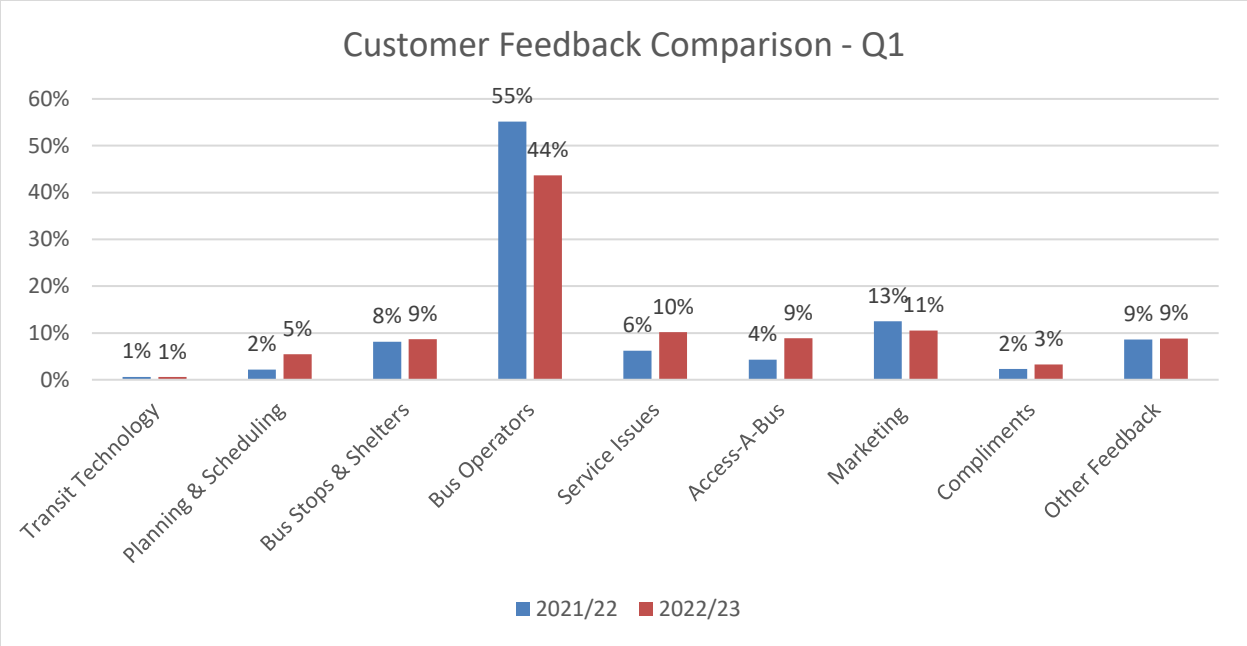
Customer Service – All Services

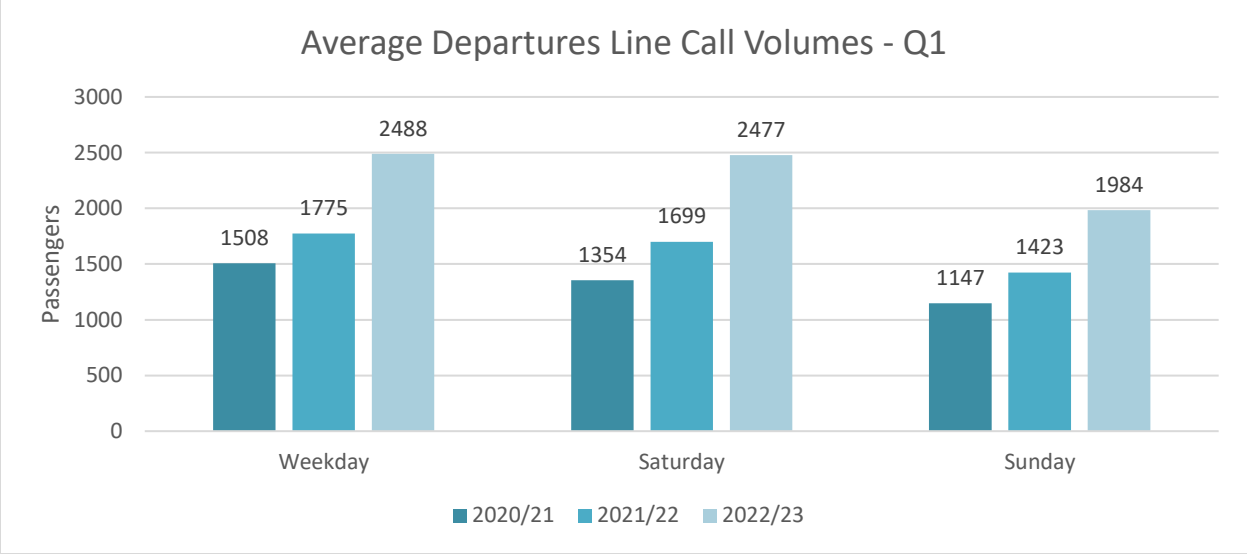
Customer service statistics are measured monthly using the Hansen Customer Relationship Management software along with Crystal Reports. Feedback is first categorized by subject matter and then divided into two categories: feedback resolved within service standard and feedback resolved outside service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

In the first 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 90% of customer feedback was resolved within standard.

Call volumes to the Departures Line (902-480-8000) are displayed by day of the week.




Customer Feedback Comparison - Q1
60%
50%
40%
30%
20%
10%
0%
1% 1%
2% 5%
8% 9%
55% 44%
6% 10%
4% 9%
13% 11%
2% 3%
9% 9%
Transit Technology
Planning & Scheduling
Bus Stops & Shelters
Bus Operators
Service Issues
Access-A-Bus
Marketing
Compliments
Other Feedback
2021/22
2022/23

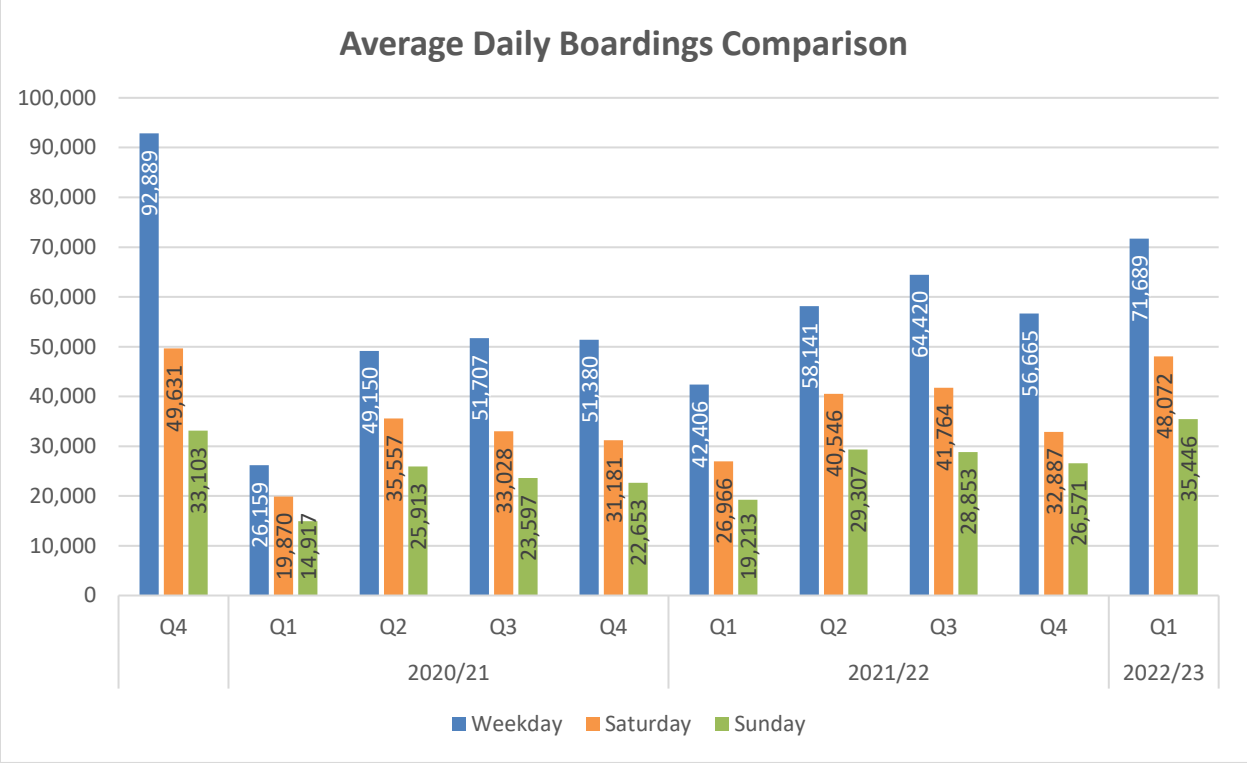

Average Departures Line Call Volumes - Q1
Passengers
3000
2500
2000
1500
1000
500
0
1508
1775
2488
1354
1699
2477
1147
1423
1984
Weekday
Saturday
Sunday
2020/21
2021/22
2022/23

Service Utilization

Boardings

Average weekday boardings in the first quarter were 71,689 ± 5,533 (7.7% variance). Average Saturday boardings this quarter were 48,072 ± 4,695 (9.8% variance). Average Sunday boardings this quarter were 35,446 ± 4,317 (12.2% variance).

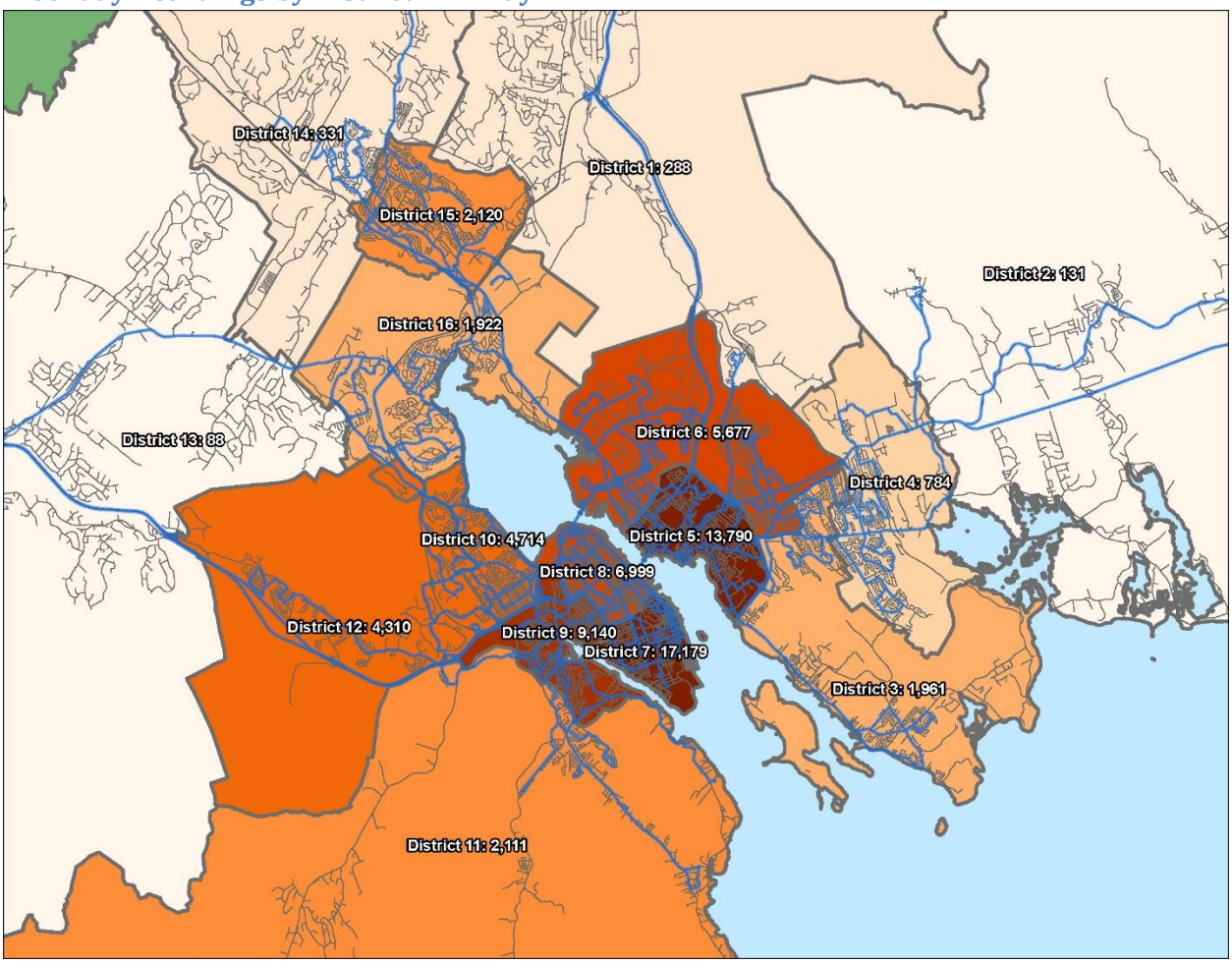
Average Daily Boardings by Service Day



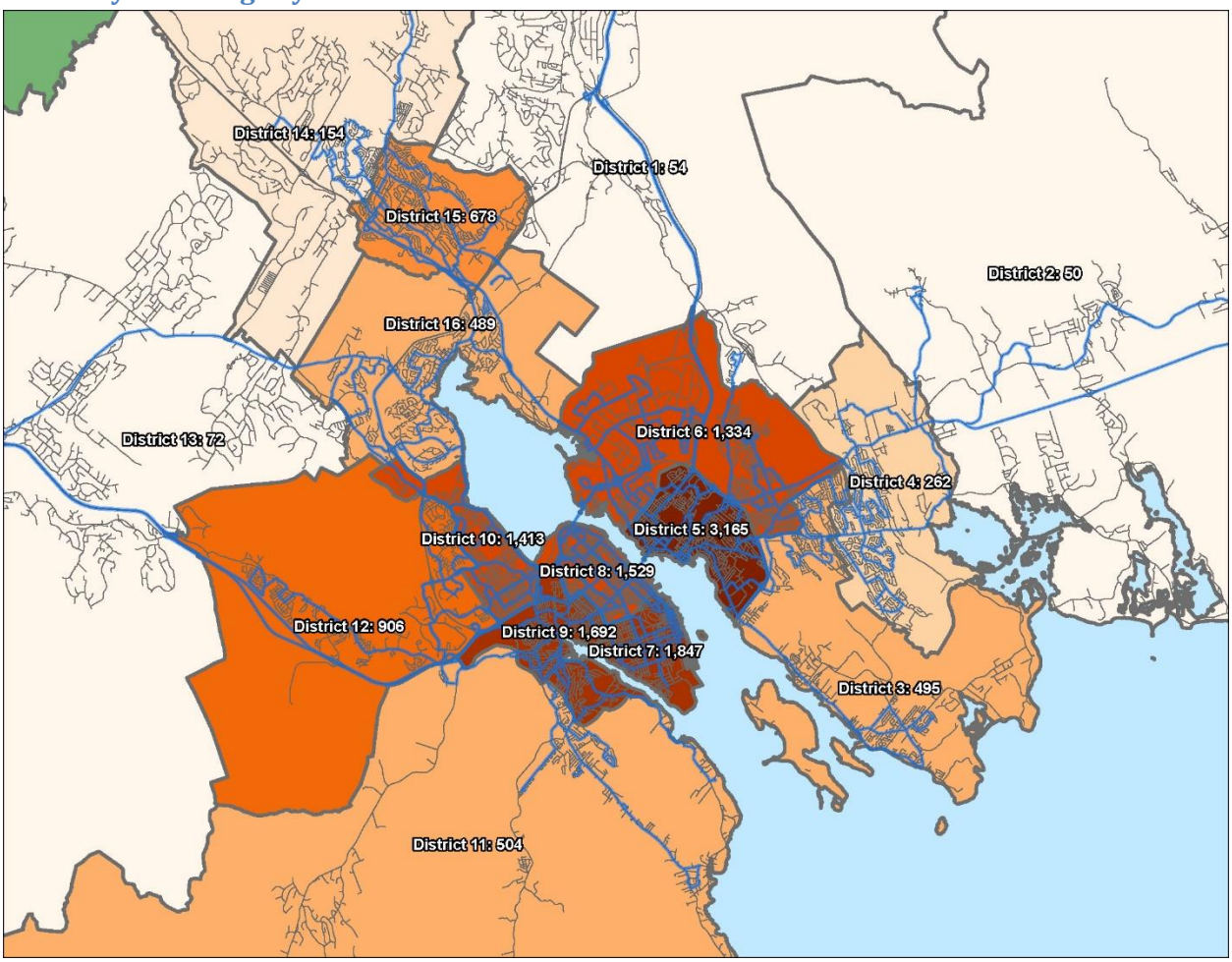
Boardings by District

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

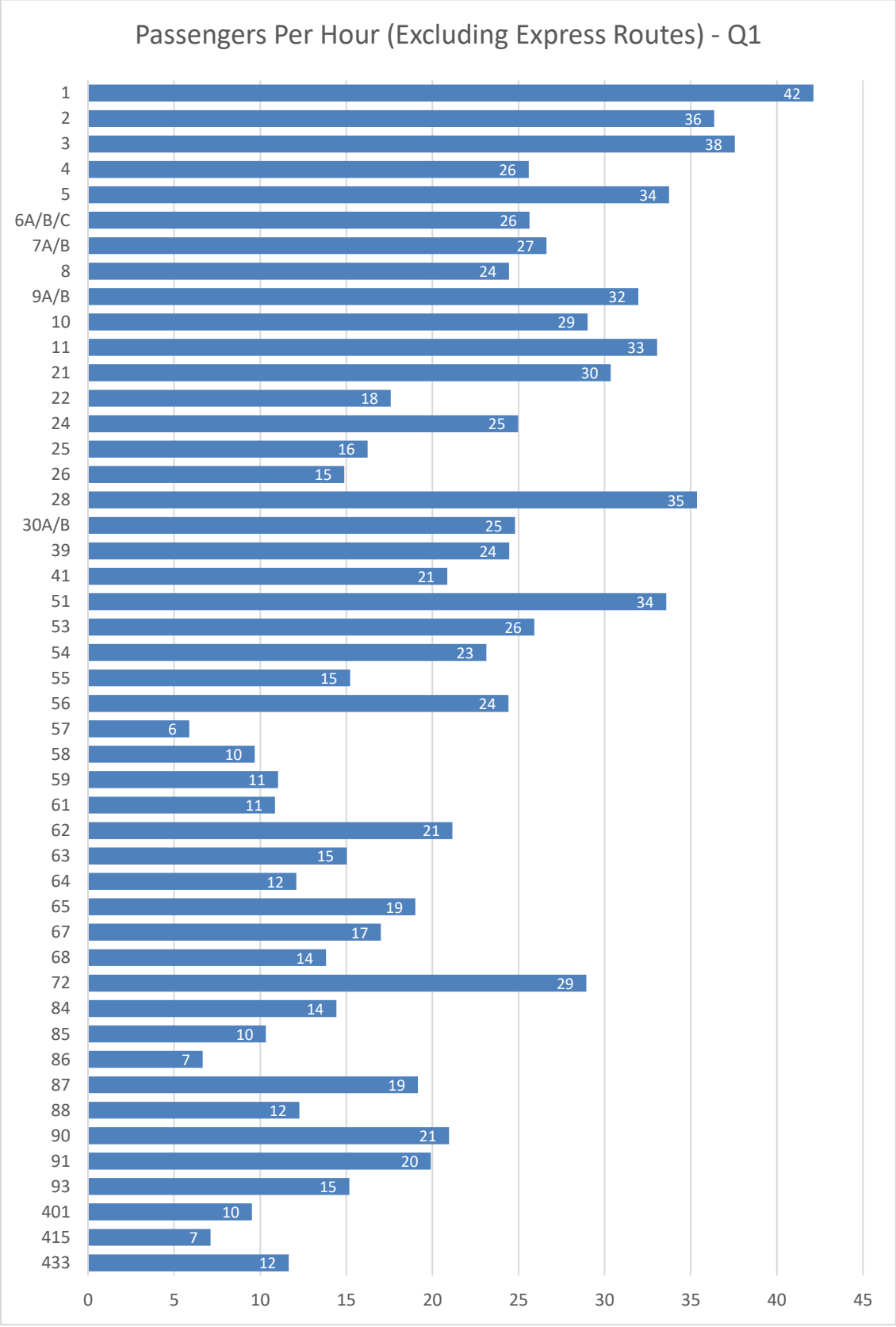
Passengers per hour measures the volume of passengers carried per service hour by route. Due to differences in service model/design, Express Routes are measured instead by passengers per trip. Ridership fluctuates significantly by season and therefore figures are compared to the same quarter in the previous 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. Significant service changes were implemented on November 22, 2021, former routes are listed for comparison from Q1 2020/21.

Boardings & Passengers per Hour

Q1 Comparison - Average Daily Boardings by Route												
Route	Weekday				Saturday				Sunday			
	2021/22		2022/23		2021/22		2022/23		2021/22		2022/23	
	Boardings	Pass/Hr	Boardings	Pass/Hr	Boardings	Pass/Hr	Boardings	Pass/Hr	Boardings	Pass/Hr	Boardings	Pass/Hr
1	3,612	23	6,584	42	3,425	31	5,286	47	2,119	26	4,482	45
2	2,452	23	3,994	36	2,221	22	3,753	38	1,426	21	2,678	34
3	3,736	25	5,670	38	1,954	23	3,105	37	2,003	21	3,672	33
4	2,019	16	3,363	26	995	20	1,598	33	825	18	1,482	28
5			3,101	34			2,350	34			1,813	38
6A/B/C			2,426	26			1,408	31			1,216	25
Former 60	1,169	15			796	20			649	23		
Former 63	350	20										
Former 7	2,106	18			1,526	16			949	18		
7A/B			3,649	27			2,485	25			1,877	23
8	2,007	15	3,433	24	1,578	14	2,695	25	1,257	12	2,595	21
9A/B	3,542	21	5,483	32	1,993	28	3,045	42	1,560	22	2,871	34
10	1,822	17	3,140	29	1,323	18	2,260	31	924	19	1,740	31
11	48	27	75	33								
Former 14	976	16			553	17			494	17		
21	527	18	897	30	465	13	841	24	280	16	651	30
22	384	12	581	18	279	8	400	12	231	7	426	11
24			1,386	25			1,449	26			1,301	21
25	201	9	344	16	129	8	221	15	95	9	181	12
Former 5	42	12										
26			38	15								
28	880	24	1,419	35	707	16	1,314	32	337	17	769	32
29	1,246	14	2,322	25	828	13	1,581	25	634	11	1,332	19
30A/B	442	12	883	25	325	10	606	18	200	11	459	19
30A	244	13	468	26	169	10	309	18	89	10	198	14
30B	199	11	415	23	157	9	297	17	112	12	261	26
39	627	14	1,082	24	572	12	991	20	236	12	503	20
41	419	12	732	21								
51	505	21	849	34	269	17	492	31	149	14	275	16

Q1 Comparison - Average Daily Boardings by Route												
Route	Weekday				Saturday				Sunday			
	2021/22		2022/23		2021/22		2022/23		2021/22		2022/23	
	Boardings	Pass/Hr	Boardings	Pass/Hr	Boardings	Pass/Hr	Boardings	Pass/Hr	Boardings	Pass/Hr	Boardings	Pass/Hr
Former 53	591	25			399	26			172	21		
53			895	26			762	23			430	18
54	398	19	723	23	260	17	472	23	134	14	335	18
55	150	7	324	15	113	7	322	21	83	5	245	15
56	567	18	836	24	608	17	917	29	421	13	684	19
Former 57	296	8			168	6			96	5		
57			32	6								
Former 58	337	12			212	11			179	10		
58			153	10			102	7			83	5
Former 59	891	12			407	17			296	12		
59			127	11			112	15			98	13
Former 61	1,126	15			580	15			506	13		
61			179	11			179	11			149	8
Former 62	349	11			235	11			135	8		
62			499	21			291	18			308	17
63			346	15			223	15			157	10
64	366	9	506	12								
65	133	8	150	19	45	3	92	9	27	4	89	8
Former 66	566	19			281	18			195	12		
67			505	17			224	14			172	9
Former 68	627	13			406	13			272	9		
68			226	14			195	11			146	8
72	703	15	1,369	29	561	12	1,066	24	279	10	650	21
82	113	6	188	9	84	5	152	10	65	4	143	7
83	56	4	79	6	47	5	70	7	40	4	62	5
84	525	10	798	14	195	6	342	11	170	6	300	8
85	82	6	154	10	51	6	103	13	44	6	93	9
86	86	6	106	7	69	4	105	7	55	4	91	6
87	674	12	1,065	19	454	9	739	14	266	9	452	15
88	134	10	168	12	109	7	142	10	70	5	100	6
90	711	10	1,429	21	514	8	1,132	18	259	7	679	17
91	347	10	640	20	178	8	369	17	167	6	366	15
93	85	9	161	15								
401	76	6	100	10			43	10			30	4
415	36	6	45	7								
433	35	6	75	12								
Alderney	869	30	2,318	76	1,015	62	3,727	213	766	47	1,958	126
Woodside	548	27	1,324	63								

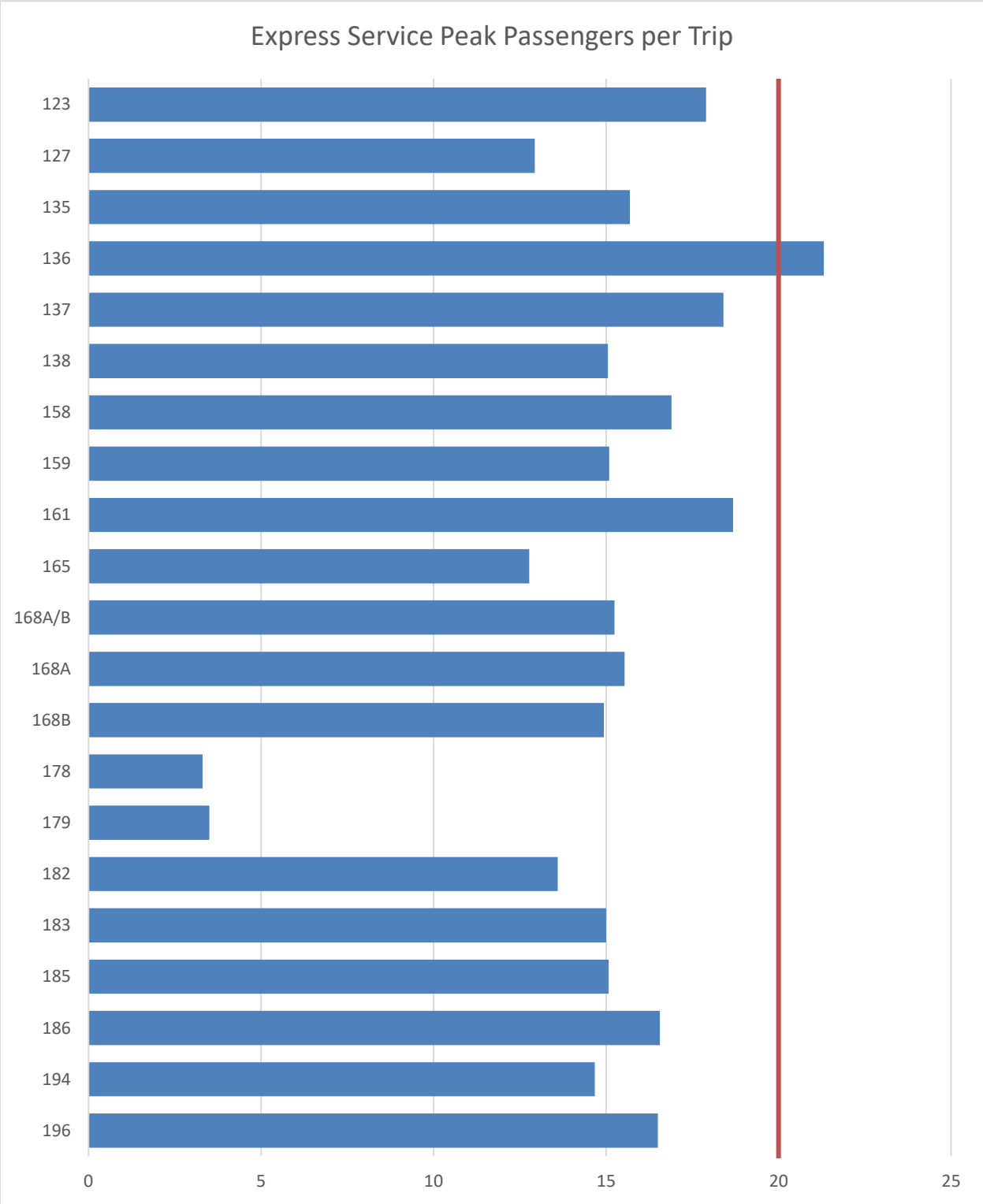
Passengers per Hour by Route



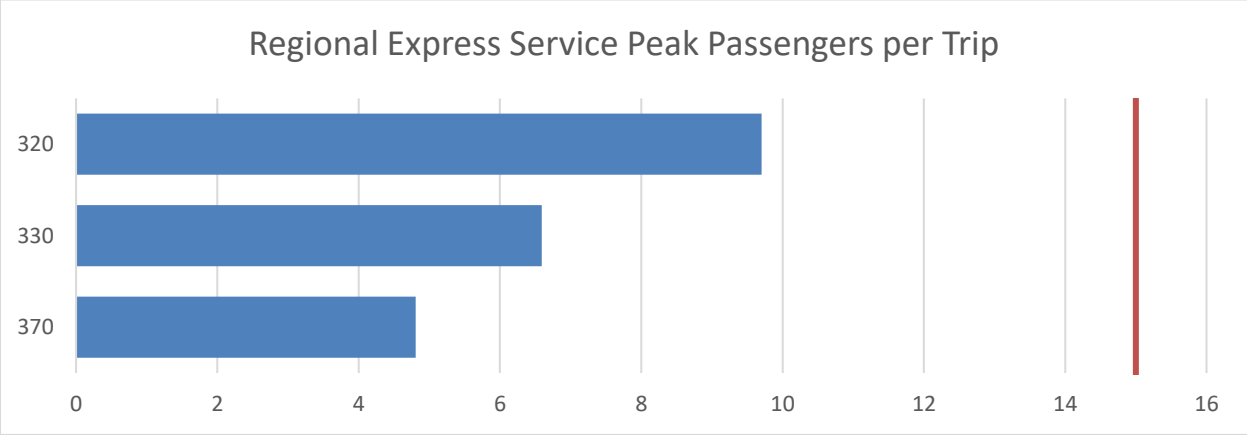
Express Service Peak Boardings and Passengers per Trip

Q1 Comparison - Average Daily Peak Boardings by Express Route				
Route	Weekday			
	2020/21		2021/22	
	Boardings	Pass/Trip	Boardings	Pass/Trip
123	93	7	233	18
127	129	7	233	13
135	146	10	220	16
136	203	13	341	21
137	98	8	221	18
138	134	10	211	15
158			135	17
Former 159	115	3		
159			272	15
161			224	19
165			153	13
168A/B			381	15
178	32	2	30	3
179	19	2	28	4
182	185	7	381	14
183	95	7	195	15
185	205	8	392	15
186	112	9	199	17
194	39	5	117	15
196	19	5	66	17
320	48	4	252	10
330	52	2	178	7
370	44	4	67	5

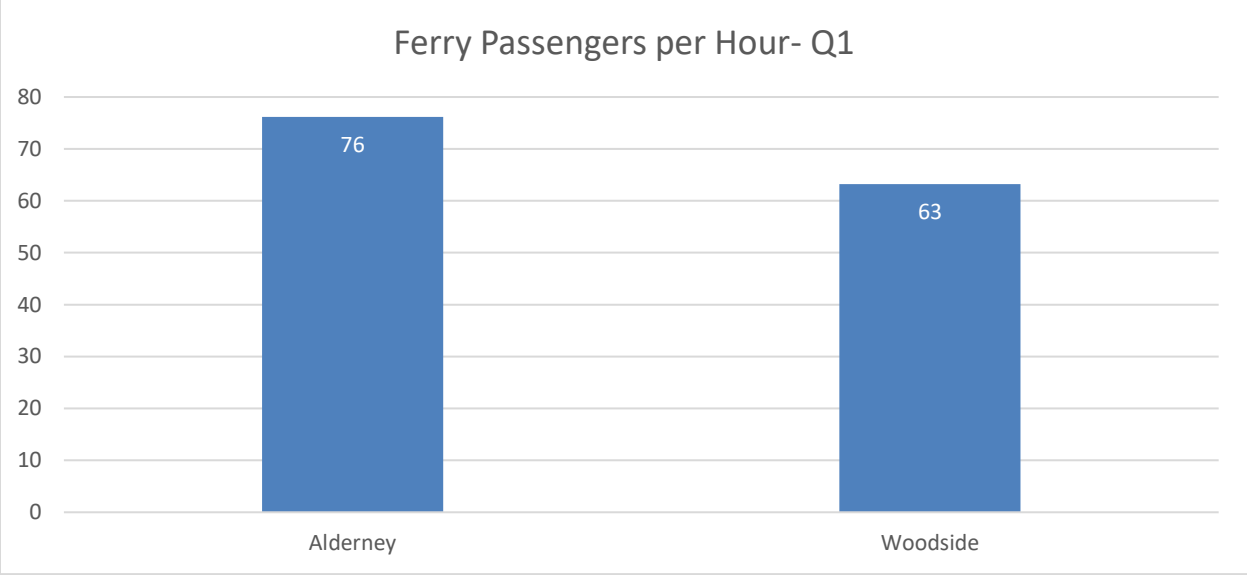
Express Service Peak Passengers per Trip by Route



Regional Express Peak Passengers per Trip by Route



Ferry Passengers per Hour

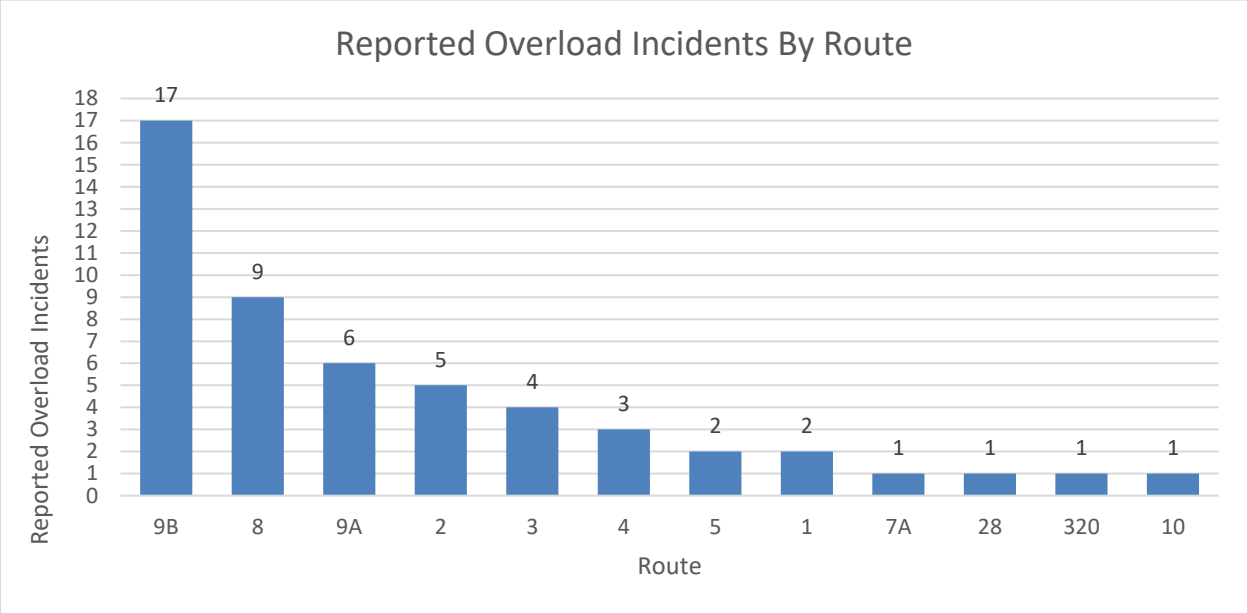


Passenger Overloads

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

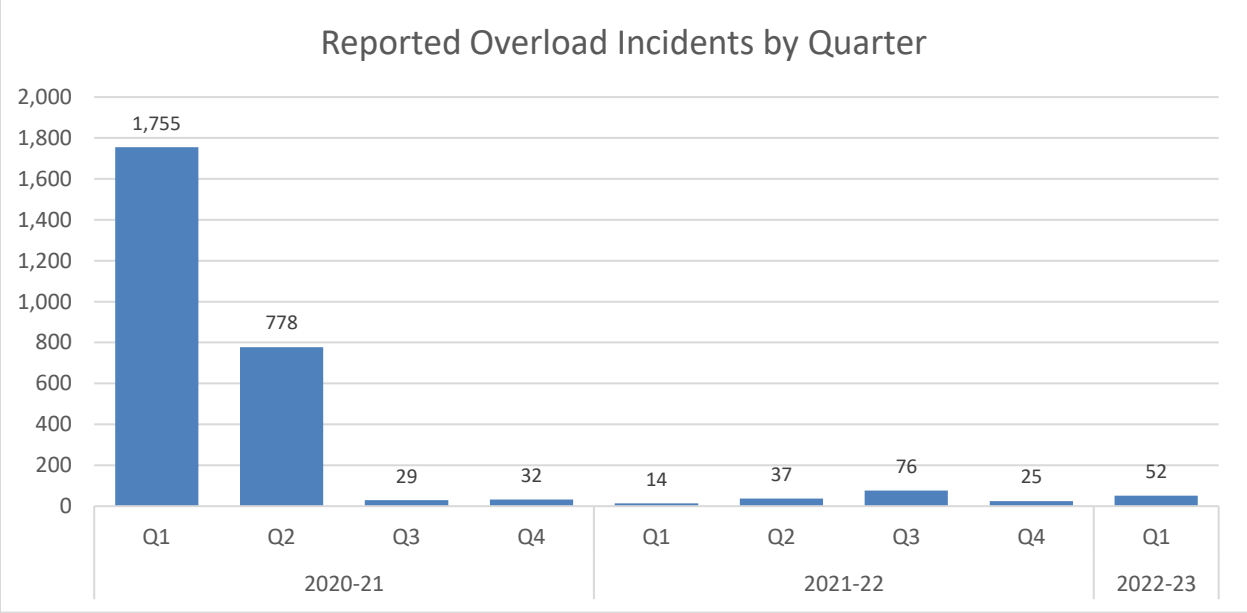
Passenger Overloads by Route

The following graph shows overloaded routes during the first quarter. 52 overload incidents were reported during the first quarter of 2022/23.



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.

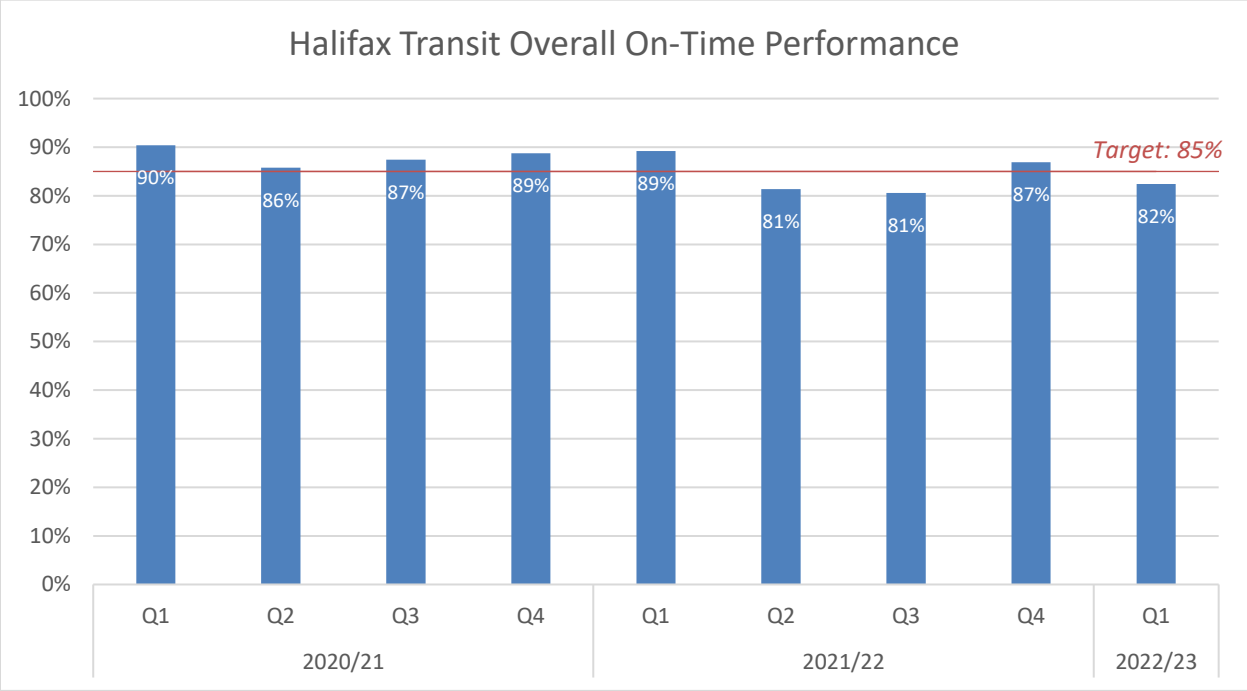
Halifax Transit has established a target for on-time performance of 85%, which is in line with Transit industry standards. While this target has been exceeded in recent periods throughout the pandemic, this is largely due to reduced traffic demands, these conditions have mostly subsided. During these times when on time performance has exceeded 90% issues with excessive layovers and buses arriving early have been problematic for on street operations and customer experience, indicating that too high of a target for on time performance may cause unintended side effects. A target of 85% encourages improvement on many services, adjustments will be made as part of future service changes in order to bring poor performing routes to this target.

Overall most routes performed above or close to the target during the fourth quarter, in part due to the wave of COVID coinciding with this quarter resulting in reduced traffic conditions and transit demand.

Route 433 Tantallon again performed well below the target over this period, this route, along with Route 72 Portland Hills which also performed poorly this quarter, is having running time adjustments made alongside major service changes to complete the Moving Forward Together Plan, now scheduled for 2023.

Several of the new Dartmouth express routes introduced in November 2021 have continued to perform well below the target. These routes will undergo running time adjustments in the future to improve on time performance

Overall Network On-Time Performance



Weekday On-Time Performance


Q1 Weekday On-Time Performance
Route Number
56
57
58
59
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61
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63
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65
66
67
68
72
82
83
84
85
86
87
88
90
91
93
401
415
433
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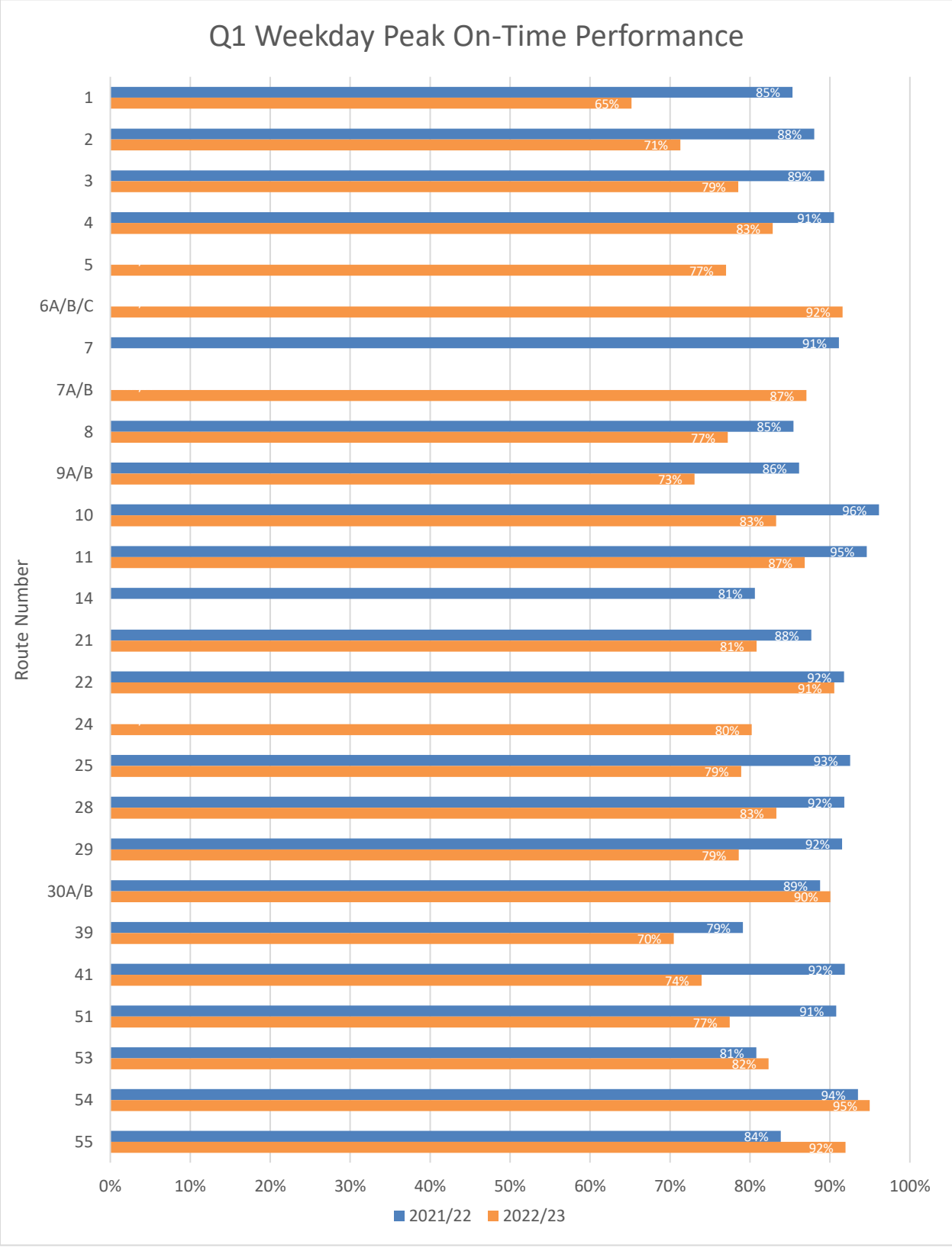
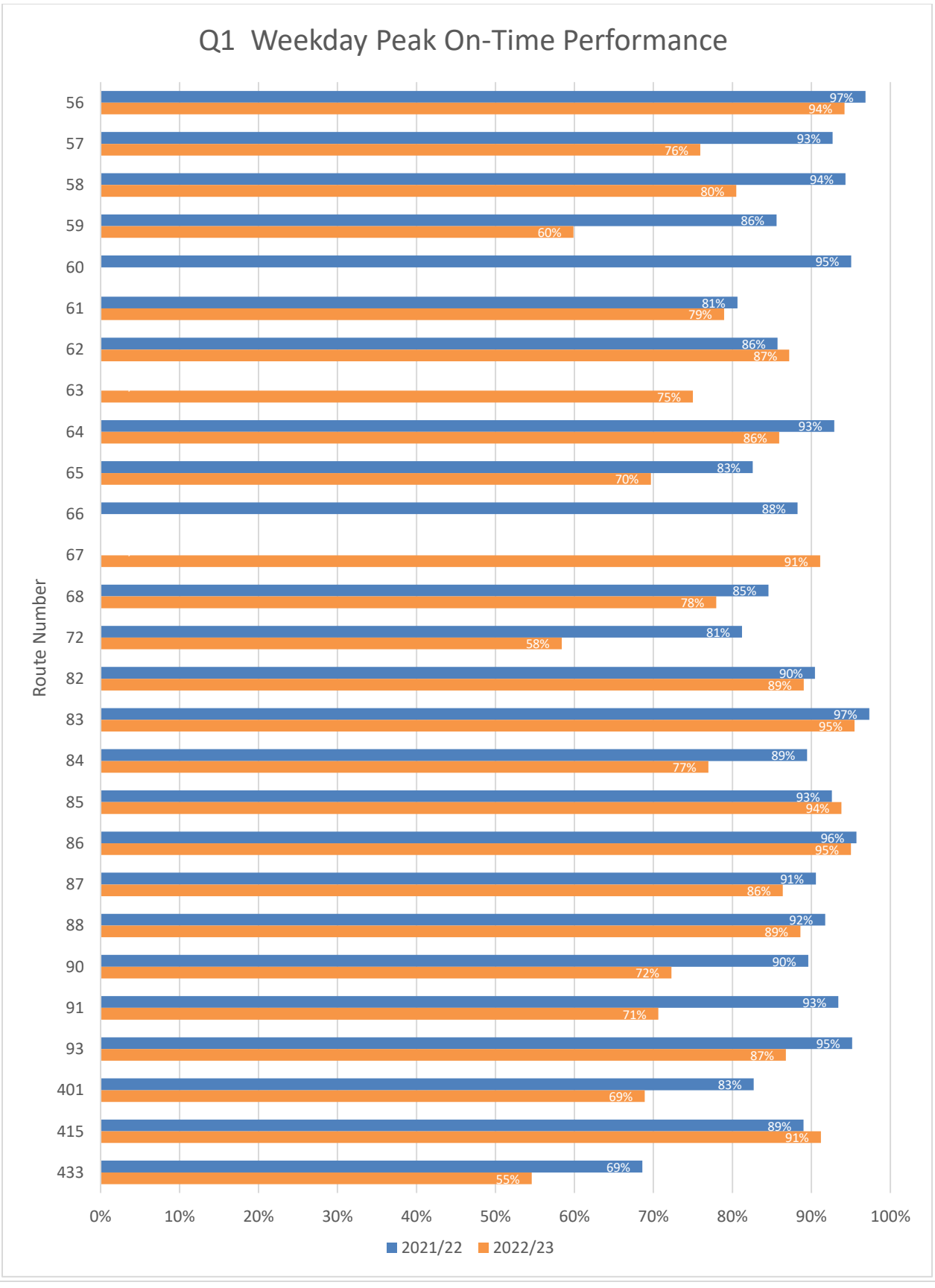
74%
90%
91%
70%
59%
0%
10%
20%
30%
40%
50%
60%
70%
80%
90%
100%
2021/22
2022/23
Target 85%

Weekday Peak Period On-Time Performance




Q1 Weekday Peak On-Time Performance
Route Number
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50%
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80%
90%
100%
2021/22
2022/23

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.