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2020/21 – Year End Performance Measures Report

HALIFAX
TRANSIT

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COVID-19 Pandemic Data Impacts

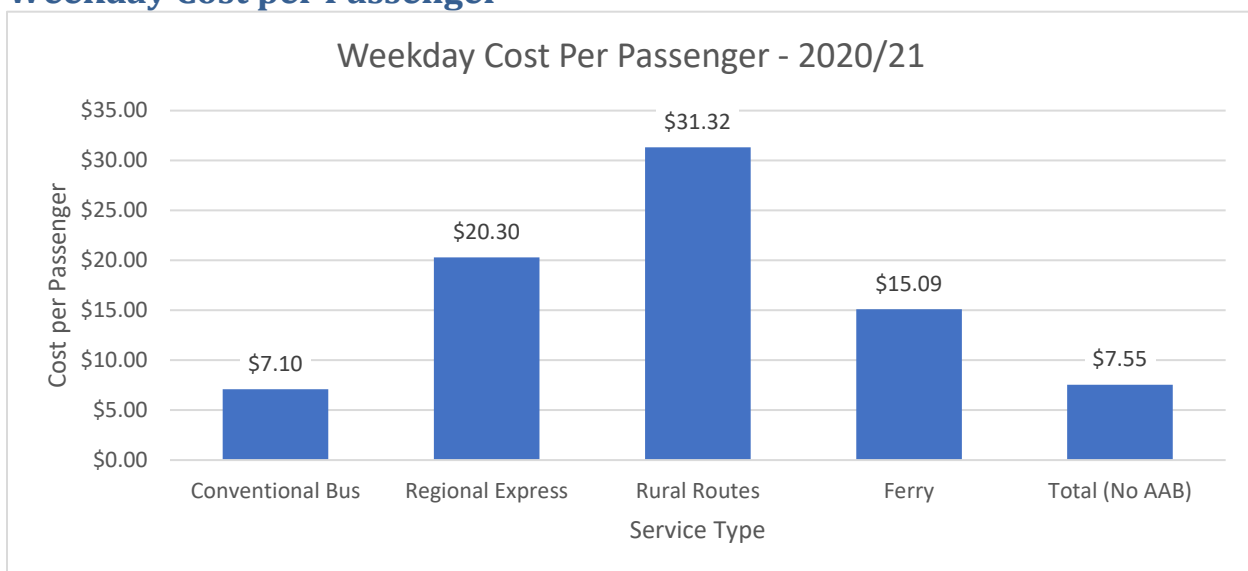
The onset of the COVID-19 pandemic in early 2020 resulted in the need to rapidly implement emergency service adjustments to the weekday schedules. Consequently, data reporting tied to the weekday schedules was impacted between March 23rd and May 4th. During this period boardings data was unavailable and was estimated, based on March 20th boarding data. Fare collection ceased on March 18th, tickets and passes were no longer required to board. Schedule adherence data for weekdays during this period was also unavailable and instead spans January through to March 20th.

Annual Key Performance Indicators (KPIs)

The following KPIs are measured on an annual basis to track changes and growth. Bus & Ferry figures do not include Access-A-Bus. Scheduled fixed route service hours decreased in 2020/21 due to service disruptions related to COVID-19. Halifax Transit ridership also decreased significantly from last year due to the COVID-19 global pandemic, resulting in negative per capita metrics. Customer service requests addressed within the target of 90% within service standard decreased to 88% this year.

KPI	Division	19/20	20/21	% Change
Service Utilization (Passengers per Capita)	Bus & Ferry	59.51	23.95	-59.8%
Service Utilization (Passengers per Service Hour)	Bus & Ferry	24.27	10.37	-57.3%
Amount of Service (Service Hours per Capita)	Bus & Ferry	2.45	2.31	-5.8%
Cost Effectiveness (Operating Expense per Passenger)	Bus & Ferry	\$5.11	\$12.35	-141.6%
Average Fare (Passenger Revenue per Passenger)	Bus & Ferry	\$1.84	\$2.10	+14.3%
Financial (Cost Recovery)	Bus & Ferry	36%	17%	-52.7%
Financial (Cost Recovery)	All	34%	16%	-52.7%
Customer Service (Requests addressed within standard)	All	93%	88%	-4.6%

Weekday Cost per Passenger



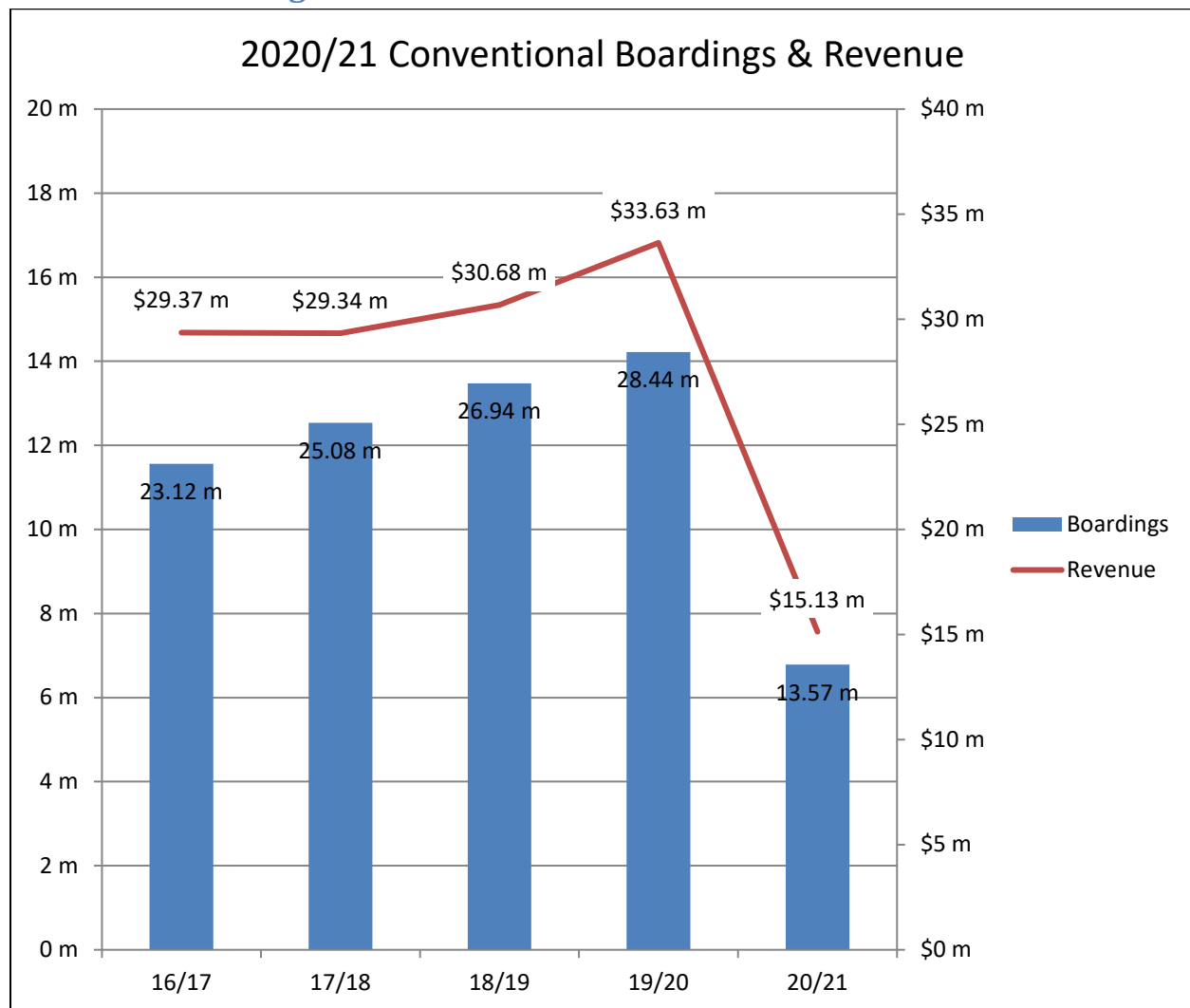
Boardings & Revenue

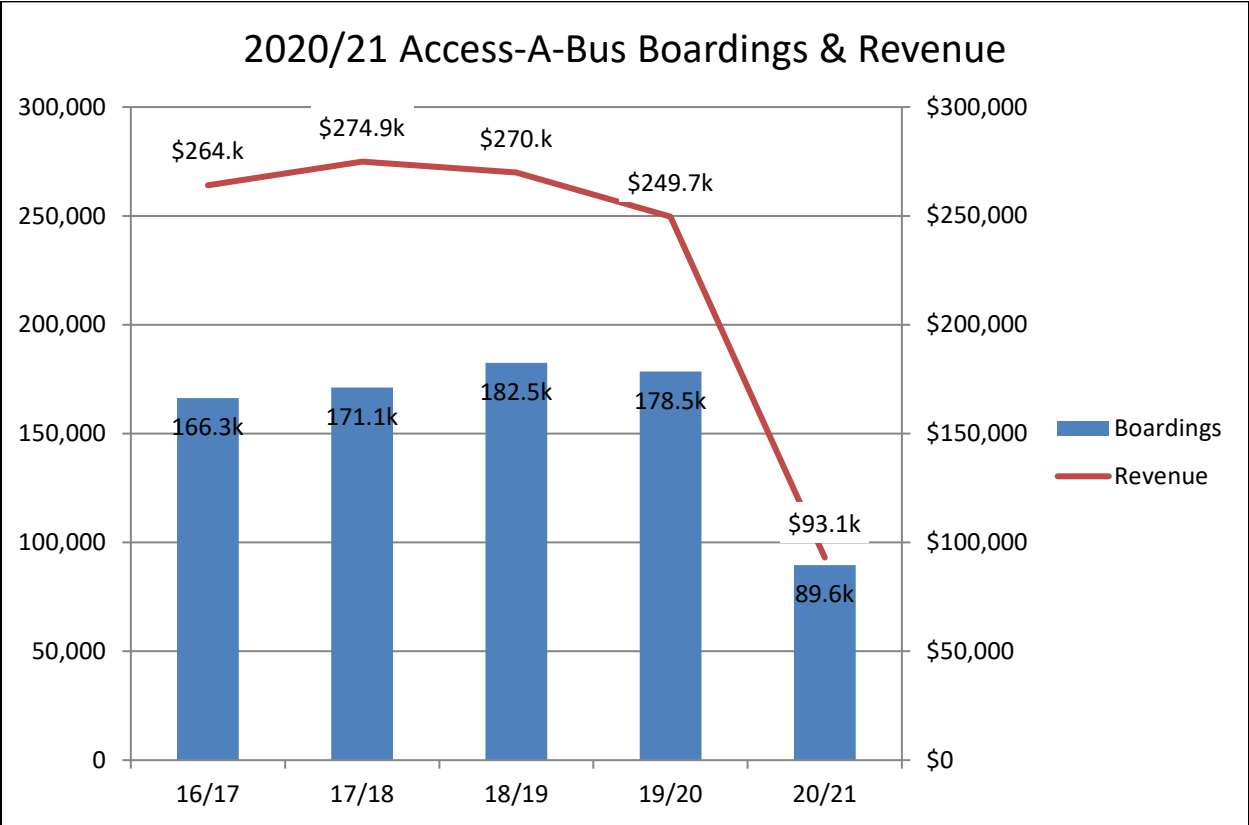
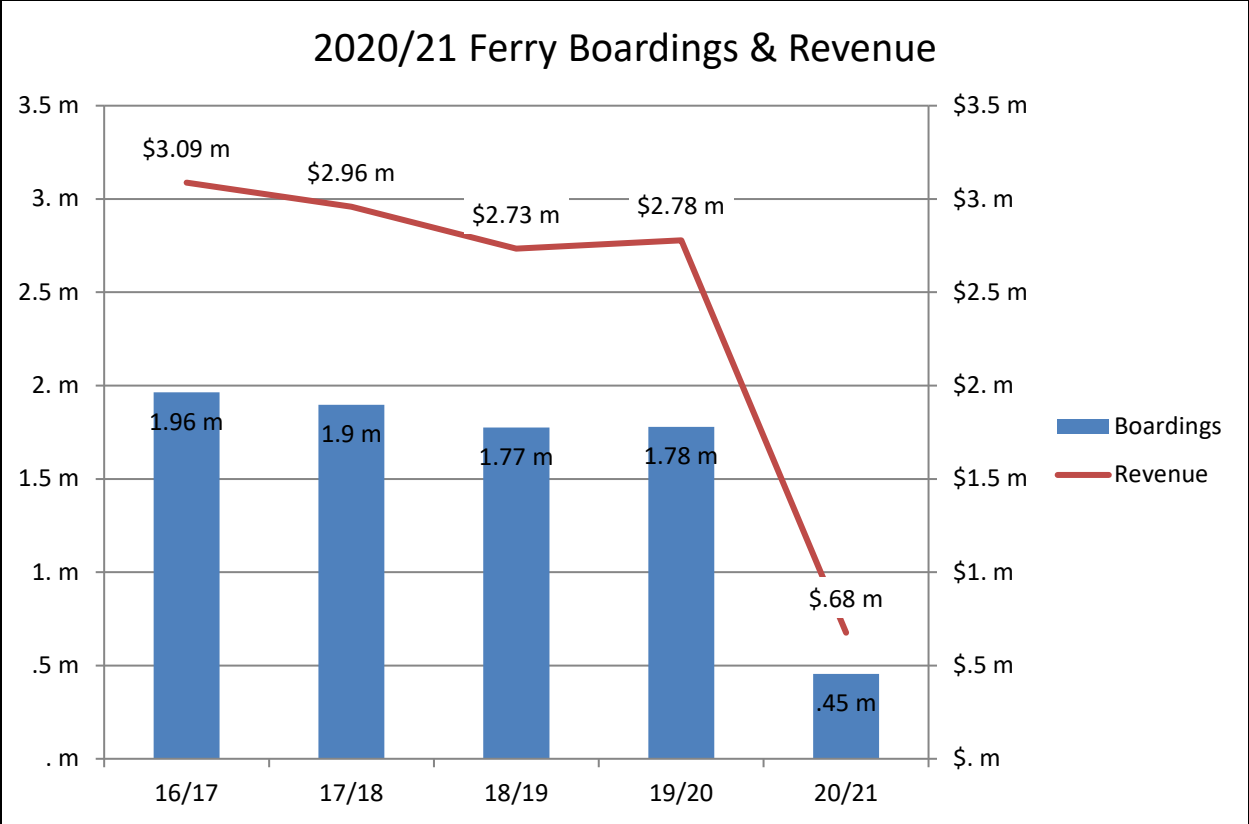
Revenue and boardings are reported to demonstrate how well transit services were used over the year, in comparison to the previous year.

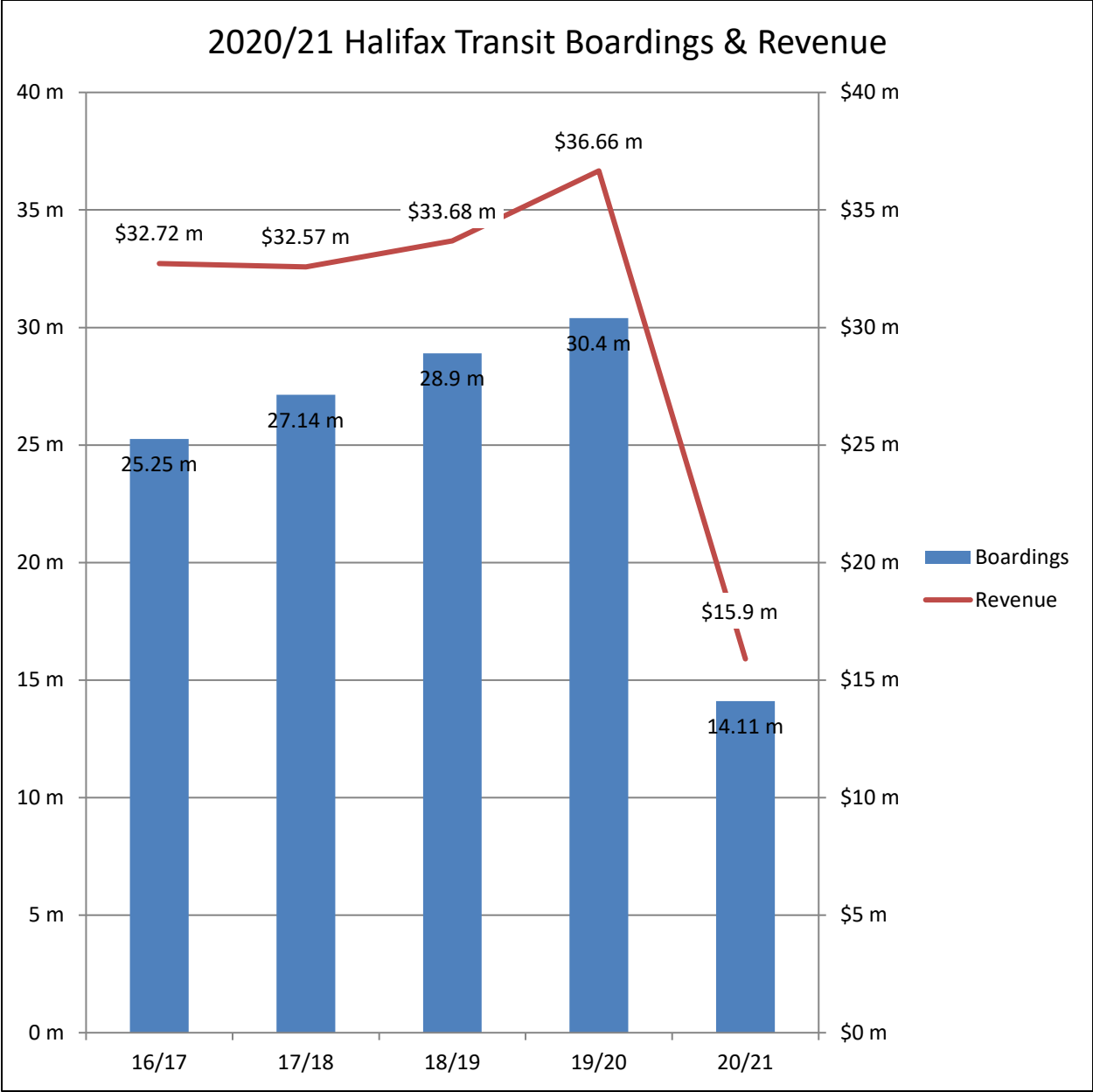
Automatic Passenger Counter (APC) systems installed throughout the network in 2017/18 enable Halifax Transit to track the number of boardings by counting passengers entering the bus at each stop, instead of estimating boardings from revenue. Therefore, the data source for boardings in the chart below changed effective 2017/18. When a trip requires a transfer, 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 2020/21 conventional boardings decreased 52.3% over 2019/20, ferry boardings decreased 74.5% and Access-A-Bus boardings decreased 49.8%. Overall, system wide boardings decreased 53.6% compared to last year. Overall revenue in 2020/21 decreased 56.6% from last year.

Historical Boardings & Revenue

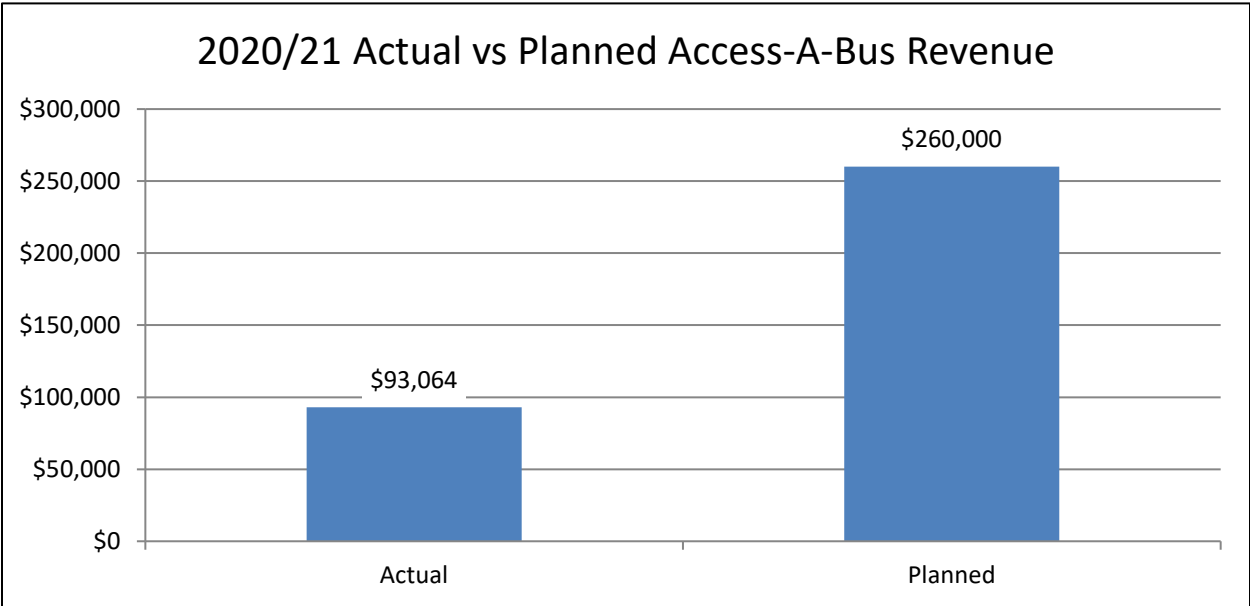
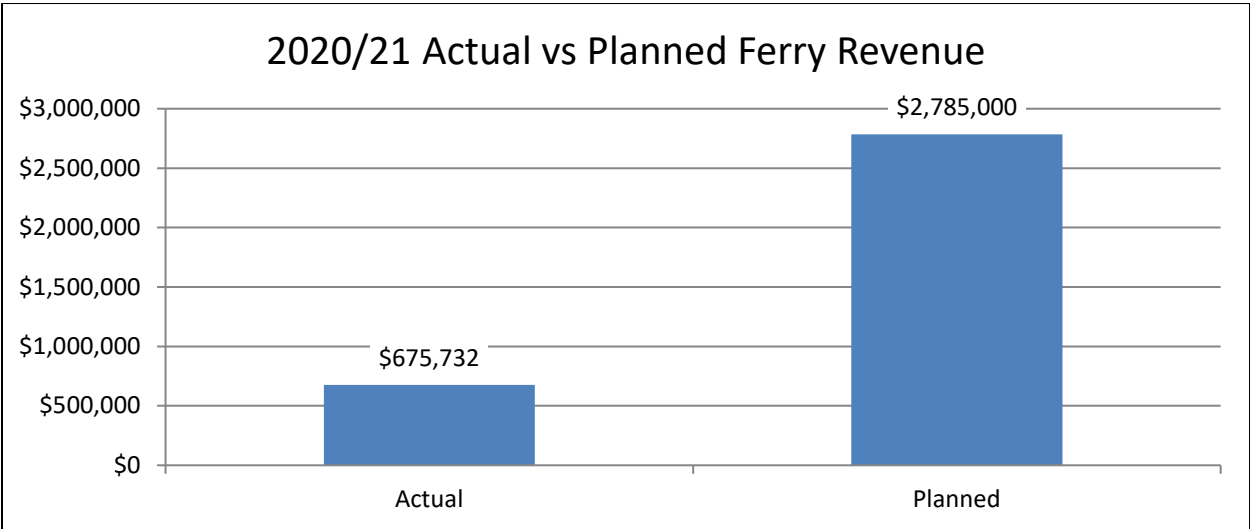
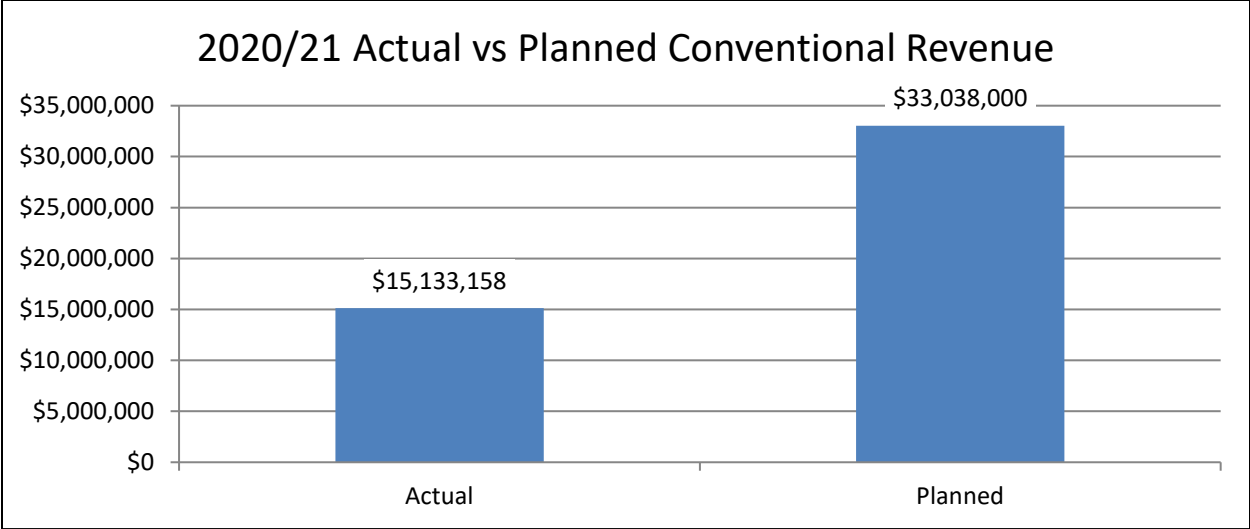


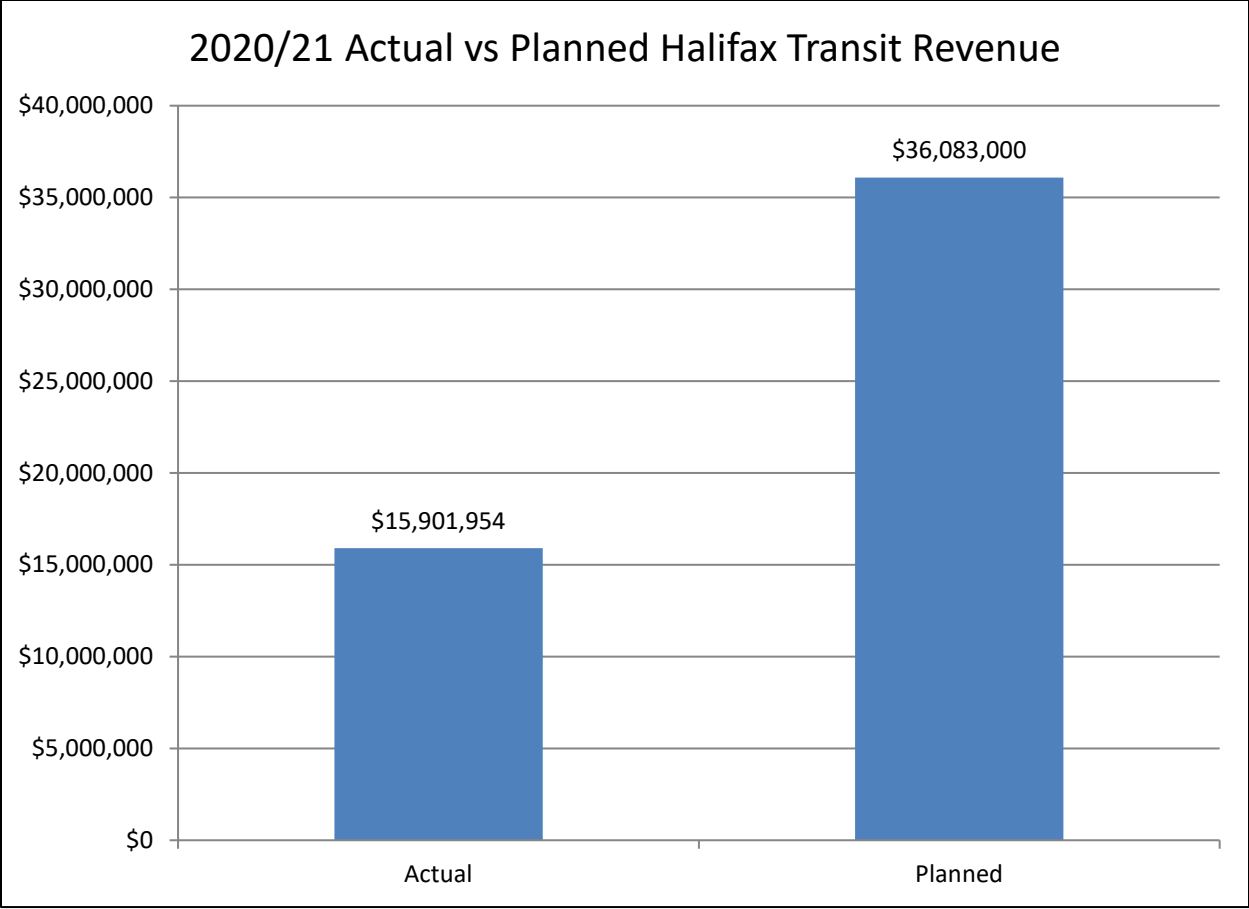




Revenue – Actual vs. Planned

The following charts provide an indication of how much revenue has been generated by each service type and by Halifax Transit in comparison to the planned budget revenue. In 2020/21 conventional revenue decreased 55% over last year and was 54.2% below the planned amount. Ferry revenue this year decreased 75.7% and was 75.7% below the planned amount. Access-A-Bus revenue decreased 62.7% over last year and was 64.2% below the planned amount. Overall revenue in 2020/21 has decreased 56.6% from the previous year, standing 55.9% below the planned amount.



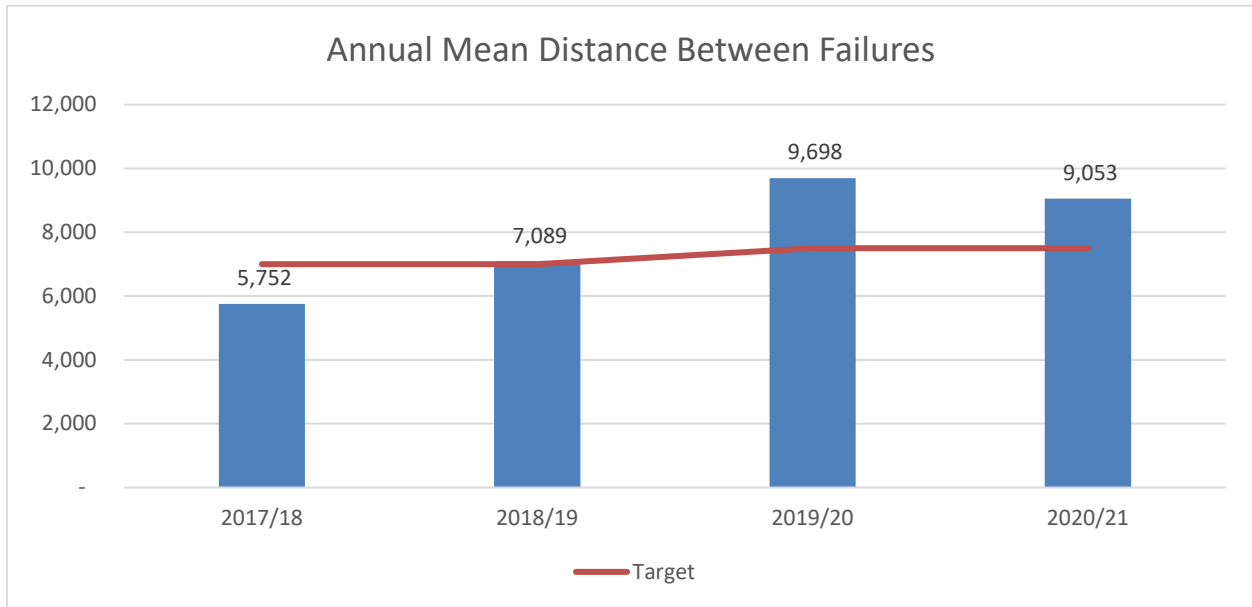


Mean Distance Between Failures

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.

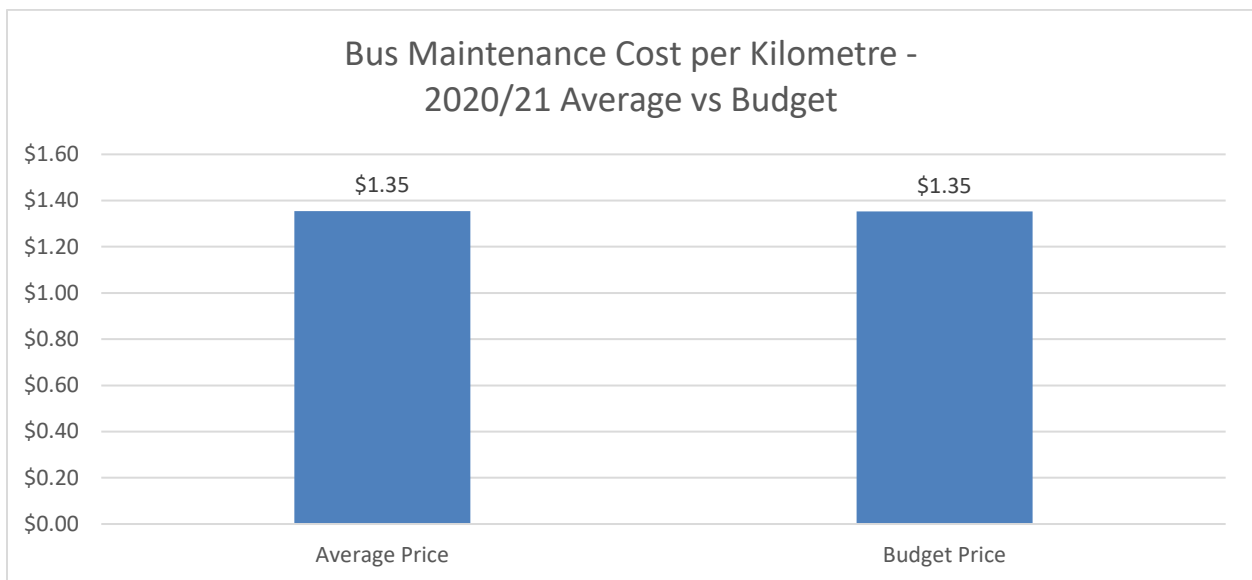
Transit Fleet had set a target of 9,000 kms for 2020/21. The target for this KPI shall be revisited on annual basis to promote continuous improvement, which may be achieved by implementation and support of quality and preventative maintenance initiatives.

For the 2020/21 fiscal year, the MDBF for conventional transit was 9,053 kms, achieving the target set of 9000 kms. This is equivalent to a decrease of 7% from the previous year 2019/20 (9,698). Transit Fleet will continue to monitor this KPI and has implemented new preventative maintenance measures to reduce aftertreatment and cooling system defects.



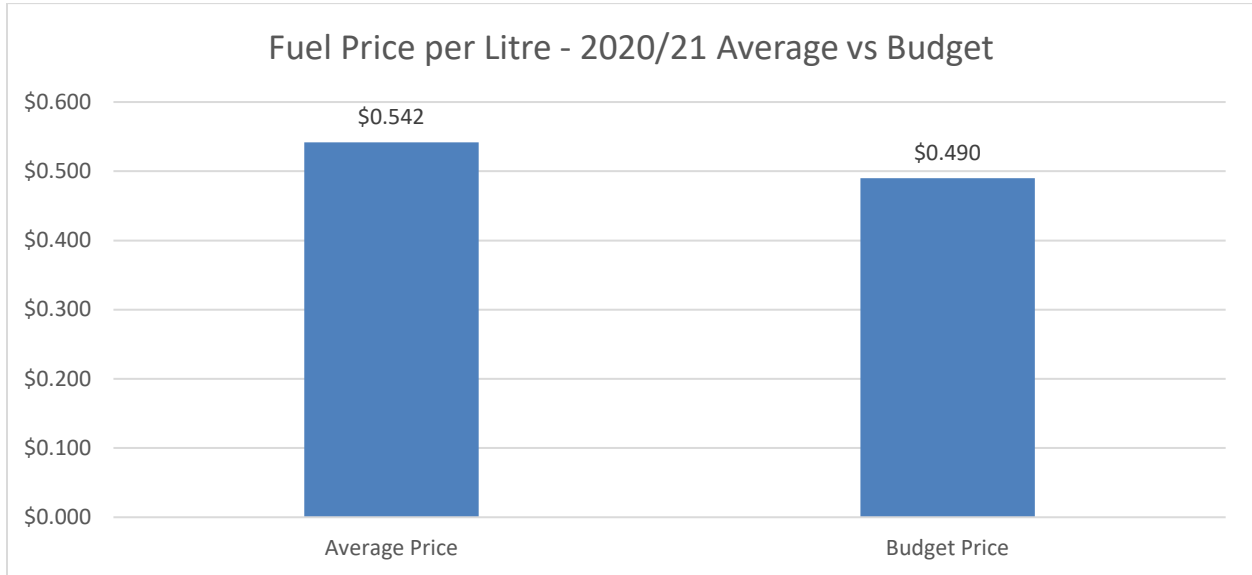
Bus Maintenance Cost – Annual Average vs Budget

For the 2020/21 fiscal year bus maintenance costs were consistent with the budget. The average cost was \$1.35/km, matching the budget maintenance costs of \$1.35. Transit Fleet will continue to strengthen budgeting processes to maintain accuracy of future budgets.



Fuel Price – Annual Average vs Budget

The budgeted fuel price for 2020/21 was set at 49 cents/litre. The average fuel price in 2020/21 was 54 cents/litre, five cents higher than the budgeted cost per litre.

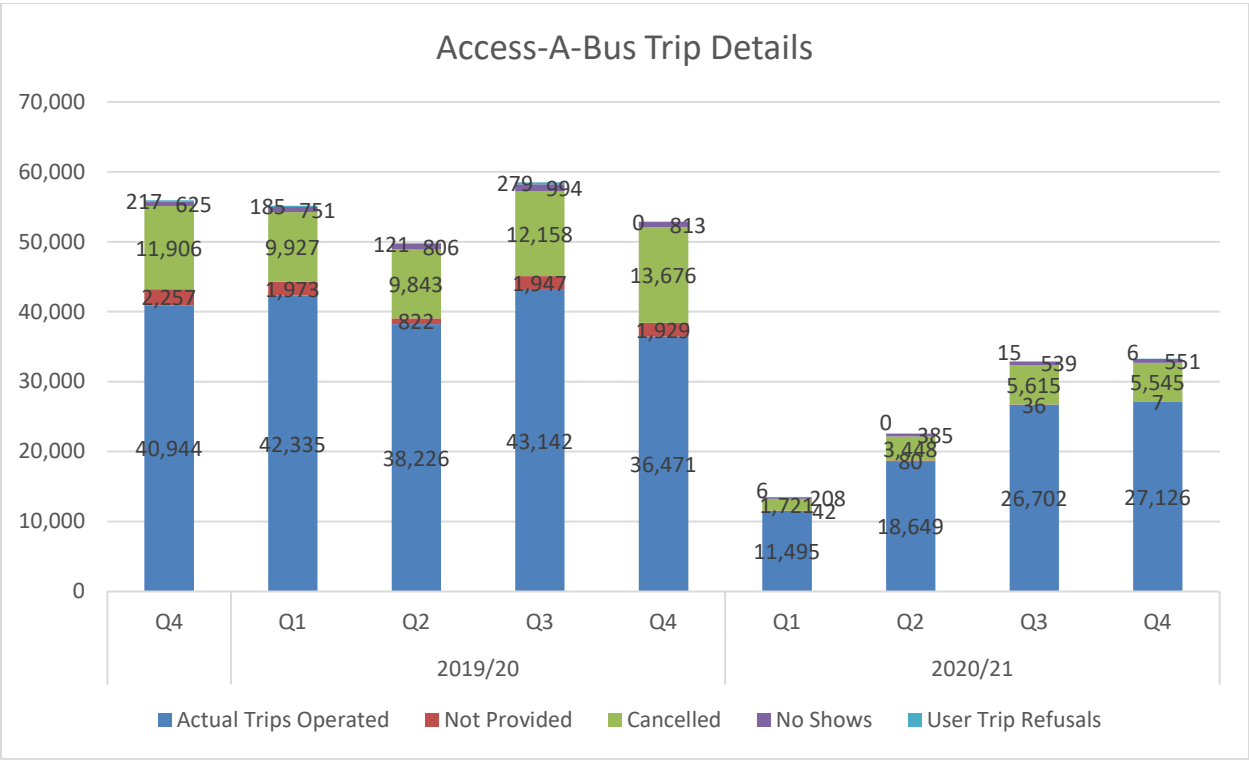
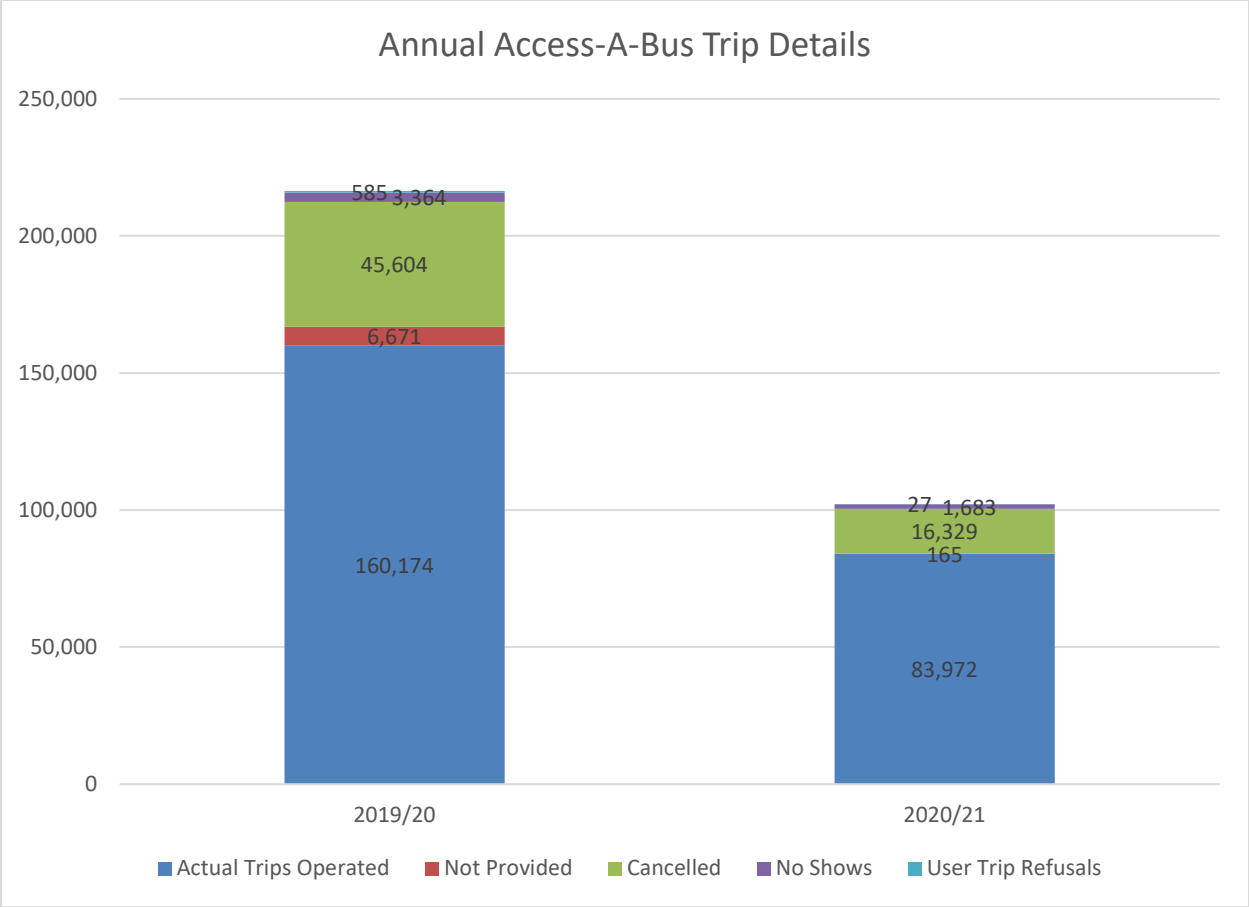


Access-A-Bus Trip Details

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

During a more recent review of the reporting processes for Access-A-Bus it was determined that further revision to the reporting categories would more accurately reflect the service and passenger experience and would better align with the key performance indicators. The category previously reported as “Waitlisted” will be reported as “Not Provided” and includes requested trips that could not be provided over the year. Those trips that were previously reported as “Not Provided” were erroneous and are now removed from the requested trip totals. A new category has been included; “User Trip Refusals” and includes any trips where the customer declined a booking that was offered within a half hour of their desired trip time. Analysis and interpretation of the new data set resulting from the 2018 software upgrade is ongoing. Partnership with the vendor continues and may result in future reporting changes, all in an effort to convey the most accurate and meaningful performance statistics possible.

In 2020/21, 76,202 fewer trips were operated than in 2019/20, a decrease of 47.6%. The trips that were not provided decreased 97.5%, compared to the previous year.



Bus Stop Accessibility

During 2020/21, 126 bus stops underwent infrastructure changes or improvements. Seven shelters were replaced, four installed at new locations and one was relocated.

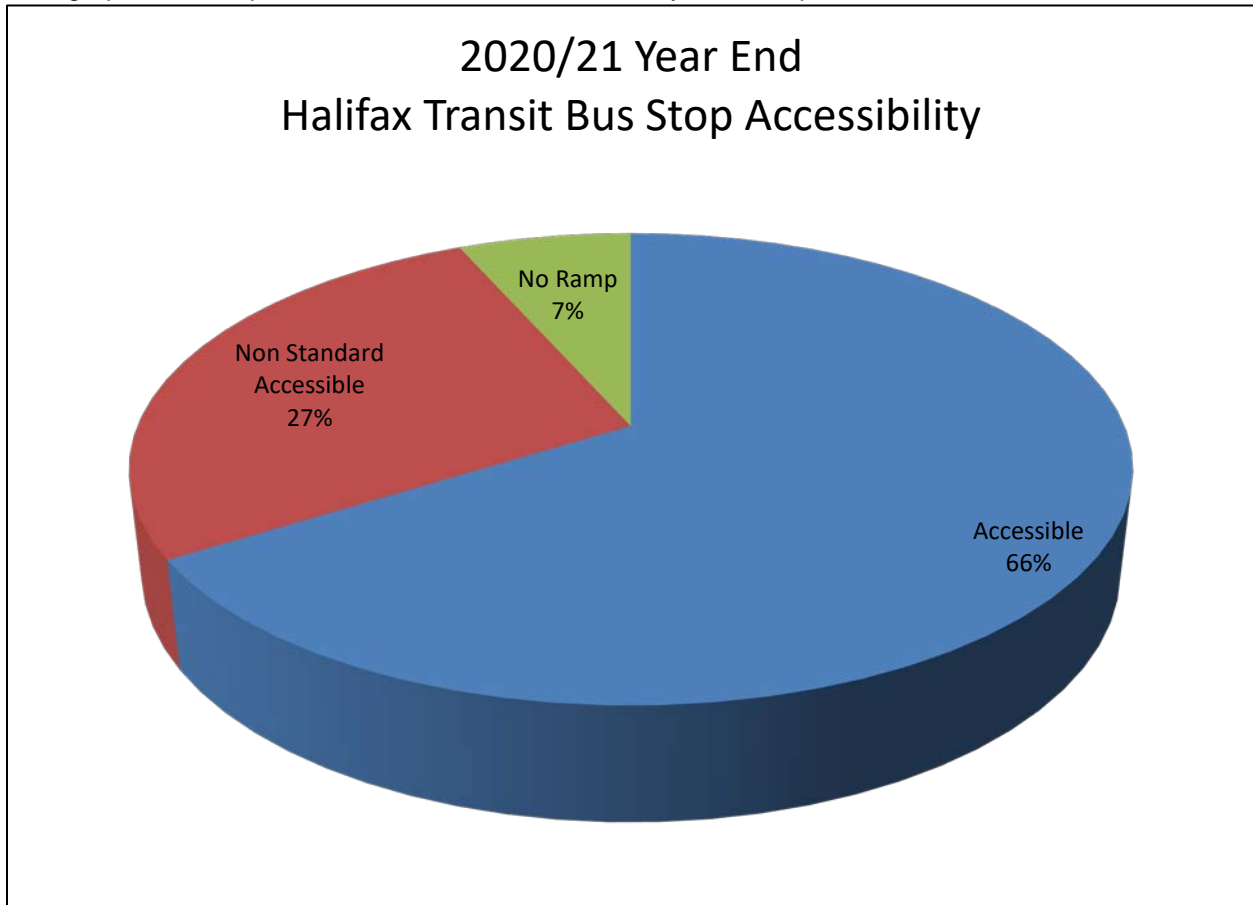
126 existing stops were upgraded or improved.

- 1 'no ramp' became 'accessible'.
- 2 'no ramp' stops became 'non standard accessible w/ramp'.
- 79 'non-standard' became 'accessible'
- 24 'non-standard' stops underwent improvements and remained 'non-standard' but were enhanced with a ramped concrete pad.
- 13 'non-standard' stops underwent improvements and remained 'non-standard'.
- 1 shelter pad.
- 6 'accessible' stops underwent improvements and remained 'accessible'.

1 new stop was installed (accessible).

2 existing stops were removed as a result of service changes.

The graph below depicts the current state of accessibility for all stops in the network.



Note: Non-Standard Accessible stops do not meet Halifax Transit's accessibility standard; the ramp can be deployed and used at the customer's risk. The majority of the No Ramp stops are located in areas without sidewalks and with narrow shoulders.

Service Utilization

Automatic Passenger Counter (APC) data is now being used to report bus passenger boardings. The APCs provide data within a 90% degree of accuracy. Boardings by Route demonstrate passenger usage over the past year. 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

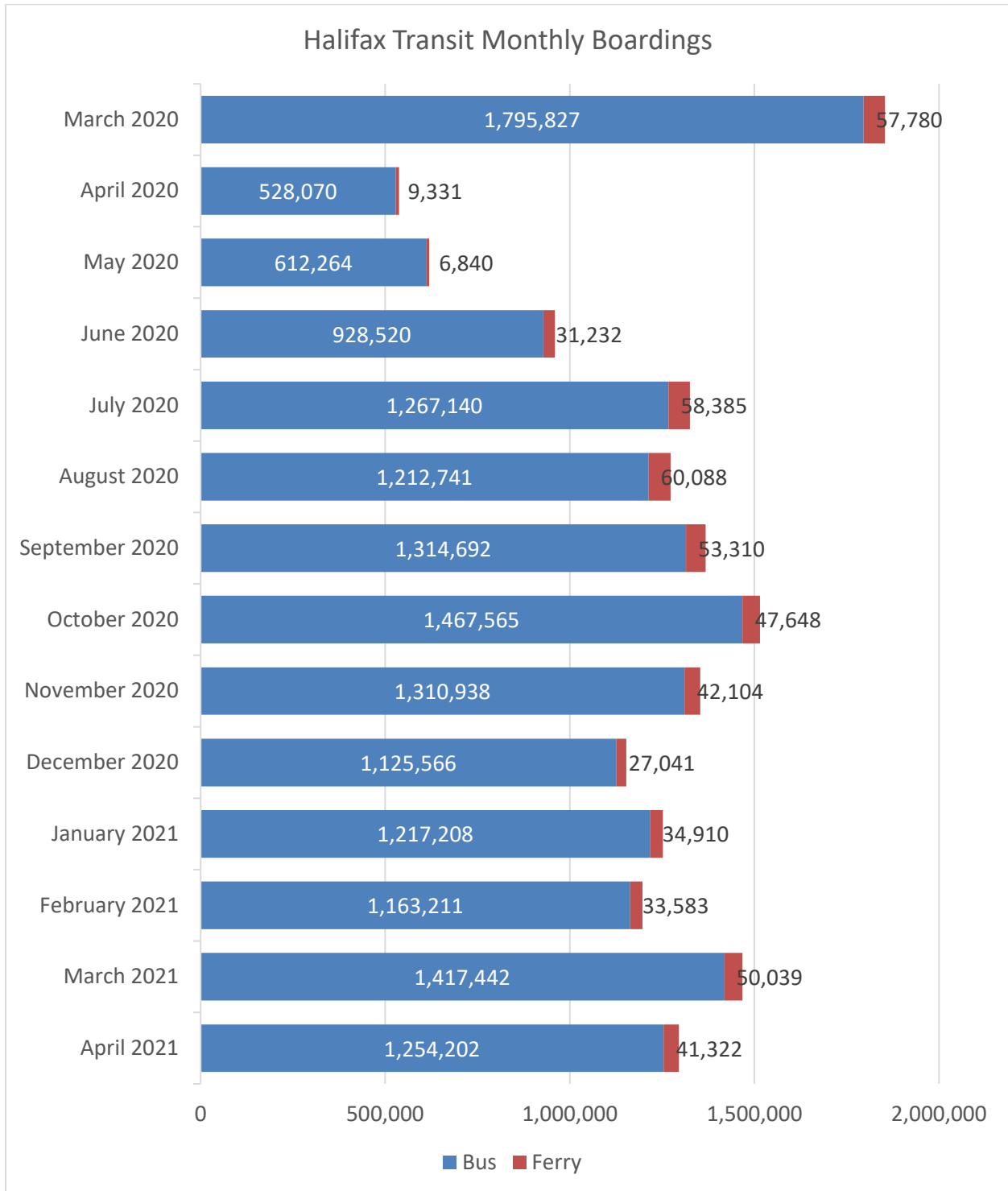
In 2020/21 average weekday boardings were 44,572 ± 12,914 (29% variance). Average Saturday boardings were 29,848 ± 7,776 (26.1% variance). Average Sunday boardings were 21,904 ± 4,939 (22.5% variance).

Average Daily Bus Terminal Activity

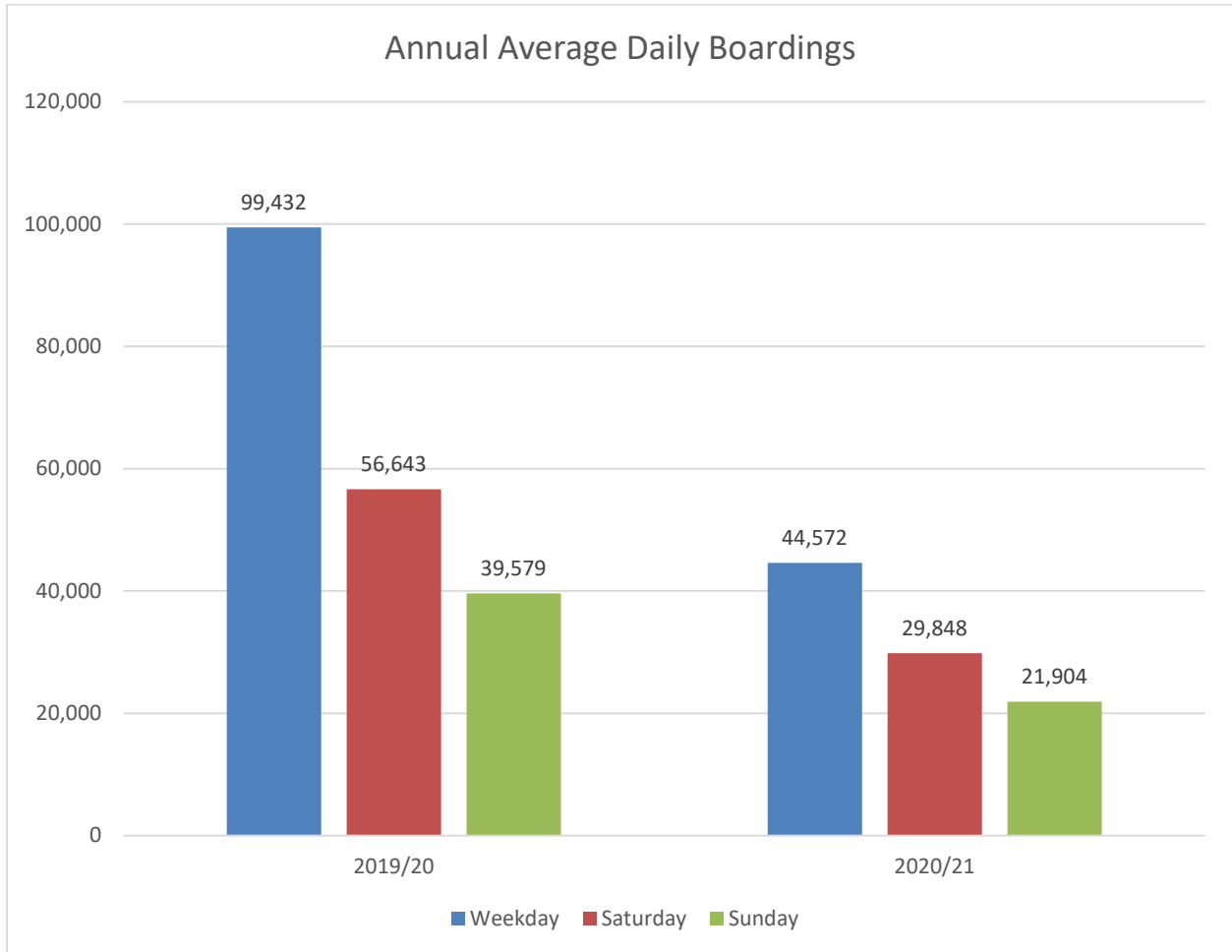
2020/21 Average Daily Bus Terminal Activity									
Terminal	Weekday			Saturday			Sunday		
	On	Off	Total	On	Off	Total	On	Off	Total
Bridge	4,927	3,247	8,174	3,398	3,399	6,797	2,507	2,473	4,980
Mumford	3,133	2,136	5,269	2,440	2,309	4,749	1,777	1,705	3,482
Scotia Square	2,262	1,359	3,621	1,312	1,180	2,492	939	839	1,778
Lacewood	1,568	1,052	2,620	1,112	1,092	2,205	793	795	1,588
Highfield	862	487	1,349	471	369	841	315	231	546
Halifax Ferry	753	323	1,076	449	495	944	296	305	600
Micmac	618	383	1,001	572	550	1,123	306	297	603
Portland Hills	570	306	876	251	265	516	177	183	359
Alderney Bus	601	253	854	385	275	660	216	147	363
Sackville	437	341	778	235	239	473	212	213	425
Alderney Ferry	455	233	688	495	449	944	305	296	600
Penhorn	400	235	635	231	229	460	150	144	294
Cobequid	316	202	518	181	177	358	125	124	249
Water St	320	180	500	266	197	463	175	125	299
Woodside Ferry	280	94	374	0	0	0	0	0	0
Woodside Bus	81	23	104	15	14	30	13	12	25

Monthly Boardings

In March 2020 rapid service reductions were implemented in response to the COVID-19 pandemic. Significant declines in ridership were observed as well as reduced Bus Operator availability. Passenger boarding data by route became unavailable after March 23rd, due to technological constraints and therefore boardings from this date, until the end of March have been estimated based on March 20 boarding data.



Annual Average Daily Boardings



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. 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.

Weekday boardings and hours data was not available between March 20th, 2019 and May 4th 2020. During this period hours, kilometres and boardings were estimated.

Annual Boardings & Passengers per Hour Comparison

Route	Weekday				Saturday				Sunday			
	19/20		20/21		19/20		20/21		19/20		20/21	
	Boardings	Pass/Hr	Boardings	Pass/Hr	Boardings	Pass/Hr	Boardings	Pass/Hr	Boardings	Pass/Hr	Boardings	Pass/Hr
1	10,306	66	4,502	30	7,900	155	3,720	33	5,405	93	2,493	29
2	4,814	45	2,711	25	4,113	81	2,390	24	2,621	45	1,536	21
3	6,787	45	3,871	27	3,518	69	2,145	25	3,843	66	2,274	23
4	4,922	39	2,060	18	2,039	40	985	20	1,797	31	894	19
7	5,165	45	2,387	22	3,490	68	1,769	19	2,150	37	1,030	19
8	4,396	31	2,221	16	2,616	145	1,675	15	2,219	106	1,351	12
9A/B	7,023	42	3,790	24	3,816	37	2,110	29	3,101	27	1,739	23
9A	4,755	43	2,509	25	1,810	35	1,011	29	1,337	23	775	22
9B	2,268	39	1,281	23	2,006	39	1,098	29	1,764	30	964	25
10	4,928	45	1,984	21	3,308	65	1,566	21	2,139	37	1,095	22
11	118	47	40	26								
14	2,716	42	1,116	19	1,353	27	652	20	1,176	20	545	18
21	976	32	591	19	792	16	507	14	560	10	352	19
22	640	20	419	13	469	9	305	9	406	7	254	7
25	375	16	199	10	178	10	129	8	182	9	110	10
28	1,512	40	988	25	1,377	27	824	19	697	12	432	21
29	3,221	35	1,451	17	1,864	37	950	15	1,455	25	739	12
30A/B	869	24	504	14	549	5	348	10	376	3	220	12
30A	469	26	274	16	288	6	180	11	167	3	101	11
30B	401	22	230	13	261	5	168	10	210	4	119	13
39	1,304	29	741	16	945	19	641	13	433	7	273	13
41	1,455	43	312	14								
51	1,094	46	571	25	553	11	318	20	329	6	180	17
53	1,281	49	690	28	754	15	451	30	372	6	214	25
54	853	40	436	23	512	10	307	20	282	5	160	16
55	410	19	180	9	260	5	120	8	201	3	98	6
56	1,010	31	699	21	1,045	20	731	21	675	12	493	15
57	581	14	321	9	267	5	198	7	163	3	121	7
58	721	25	392	15	464	9	231	12	390	7	205	12
59	1,967	25	844	15	768	15	457	19	555	10	340	14
60	2,842	37	1,383	20	1,846	36	984	24	1,396	24	723	25
61	2,254	29	1,254	17	1,178	23	665	17	1,033	18	548	14
62	809	26	392	14	526	10	289	13	290	5	147	9
63	827	48	424	23								
64	616	15	337	8								
65	268	16	138	9	94	2	58	4	58	1	33	5
66	1,367	27	650	23	482	9	345	22	349	6	214	13
68	1,347	28	707	16	776	15	433	14	567	10	322	10
72	1,366	30	806	18	1,029	20	648	14	517	9	336	12
82	220	11	127	7	139	8	93	6	102	5	74	5
83	81	6	62	5	62	3	48	5	45	2	39	3
84	936	16	533	10	310	17	208	6	233	11	166	6
85	123	9	88	7	88	5	56	6	58	3	45	6
86	162	11	96	6	109	22	73	5	80	13	64	4
87	1,252	22	749	14	712	40	483	9	385	18	294	10
88	140	10	128	9	110	6	98	6	68	3	68	5
90	1,697	24	777	12	953	53	553	9	437	21	298	8
91	664	17	366	11	257	14	203	9	244	12	192	7
93	271	25	65	10	0	0	0	0	0	0	0	0
401	146	12	81	6	0	0	0	0	0	0	0	0
415	59	10	39	6	0	0	0	0	0	0	0	0
433	58	11	35	7	0	0	0	0	0	0	0	0
Alderney	3,492	116	896	42	4,008	229	1,056	85	2,412	138	726	61
Woodside	2,260	108	556	38	0	0	0	0	0	0	0	0

Express Service Peak Boardings and Passengers per Trip Comparison

Average Weekday Daily Express Route Peak Boardings				
Route	2019/20		2020/21	
	Boardings	Peak Pass/Trip	Boardings	Peak Pass/Trip
32	478	27	149	10.5
78	105	7.0	24	2.4
79	90	7.3	30	3.3
123	306	21.1	96	8.7
135	540	38.8	142	12.0
136	606	38.2	225	14.1
137	383	32.1	94	10.4
138	522	37.6	130	11.8
159	570	19.1	131	5.5
182	523	22.0	171	7.9
183	302	24.4	94	9.2
185	691	23.5	261	10.1
186	260	22.5	98	10.4
194	164	20.7	43	6.9
196	120	30.2	25	7.8
320	198	18.0	56	4.9
330	366	17.6	73	4.1
370	105	9.7	55	4.4

Average Weekday Boardings Comparison by Quarter

Average Weekday Boardings Comparison by Quarter										
Route	Quarter 1		Quarter 2		Quarter 3		Quarter 4		Total	
	2019/20	2020/21	2019/20	2020/21	2019/20	2020/21	2019/20	2020/21	2019/20	2020/21
1	9,610	3,165	9,903	4,933	10,907	4,600	11,247	4,818	10,306	4,502
2	4,717	2,054	5,005	2,897	4,966	2,856	4,710	2,788	4,814	2,711
3	6,587	2,120	6,998	4,183	6,980	4,388	6,801	4,177	6,787	3,871
4	4,468	903	4,672	2,233	5,383	2,299	5,380	2,411	4,922	2,060
7	5,026	1,645	4,972	2,424	5,469	2,578	5,380	2,621	5,165	2,387
8	4,251	1,516	4,572	2,444	4,798	2,290	4,400	2,380	4,396	2,221
9A/B	6,864	2,018	7,097	4,097	7,391	4,273	6,962	4,148	7,023	3,790
9A	4,644	1,074	4,775	2,748	5,024	2,902	4,730	2,817	4,755	2,509
9B	2,220	945	2,322	1,349	2,367	1,371	2,232	1,331	2,268	1,281
10	4,681	1,126	4,728	1,897	5,340	2,304	5,152	2,302	4,928	1,984
11	128	0	113	50	115	54	117	75	118	40
14	2,484	544	2,609	1,223	2,988	1,227	2,890	1,271	2,716	1,116
21	1,002	477	1,087	664	958	619	876	561	976	591
22	648	300	638	412	649	464	647	457	640	419
25	0	102	0	206	343	233	389	220	375	199
28	1,429	649	1,606	1,125	1,589	1,083	1,470	978	1,512	988
29	3,154	867	3,340	1,599	3,346	1,587	3,139	1,540	3,221	1,451
30A/B	852	269	807	522	929	557	924	583	869	504
30A	469	135	429	266	501	318	495	329	469	274
30B	383	135	378	257	428	239	429	254	401	230
39	1,194	595	1,314	752	1,374	768	1,386	788	1,304	741
41	1,264	0	1,341	471	1,590	473	1,700	513	1,455	312
51	1,108	330	1,135	616	1,103	628	1,059	625	1,094	571
53	1,271	447	1,266	755	1,344	738	1,284	733	1,281	690
54	847	289	869	447	907	495	815	458	853	436
55	401	96	437	197	429	205	384	191	410	180
56	953	533	1,121	801	1,063	766	925	633	1,010	699
57	535	218	612	361	612	336	586	334	581	321
58	719	260	726	472	753	400	707	388	721	392
59	1,955	360	2,059	644	2,013	1,110	1,897	1,086	1,967	844
60	2,743	775	2,850	1,560	2,967	1,509	2,905	1,480	2,842	1,383
61	2,229	675	2,321	1,459	2,307	1,347	2,229	1,331	2,254	1,254
62	830	242	812	401	823	437	796	435	809	392
63	781	300	807	447	894	456	858	446	827	424
64	587	238	605	345	582	355	632	372	616	337
65	258	53	258	117	294	176	272	177	268	138
66	1,547	351	1,614	772	1,016	729	964	646	1,367	650
68	1,389	408	1,378	820	1,350	770	1,308	728	1,347	707
72	1,382	588	1,458	836	1,433	877	1,217	840	1,366	806
82	0	93	0	149	206	126	226	129	220	127
83	0	48	0	70	78	65	82	62	81	62
84	901	341	862	576	874	574	964	571	936	533
85	0	64	0	91	127	96	122	92	123	88
86	0	89	197	119	154	85	165	86	162	96
87	1,256	541	1,311	811	1,266	813	1,245	752	1,252	749
88	94	92	111	137	136	142	142	128	140	128
90	1,280	524	1,440	874	1,521	794	1,776	826	1,697	777
91	0	186	0	355	597	444	694	415	664	366
93	0	0	0	86	251	103	280	105	271	65
401	154	58	164	86	136	93	133	81	146	81
415	215	29	252	43	60	40	58	38	59	39
433	51	27	56	40	64	38	62	34	58	35
Alderney	3,350	462	5,423	1,489	2,935	865	2,097	866	3,492	896
Woodside	2,139	188	2,582	553	2,401	744	1,877	787	2,260	556

Annual 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.

Improvements to On-Time Performance have resulted from reduced traffic congestion due to COVID-19. The annual average for 2020/21 was 88% an improvement of 10% over last year.

