

Attachment B: 2021/22 Halifax Transit Q1 Performance Measures Report

2021/22 – Q1 Performance Measures Report

HALIFAX
TRANSIT

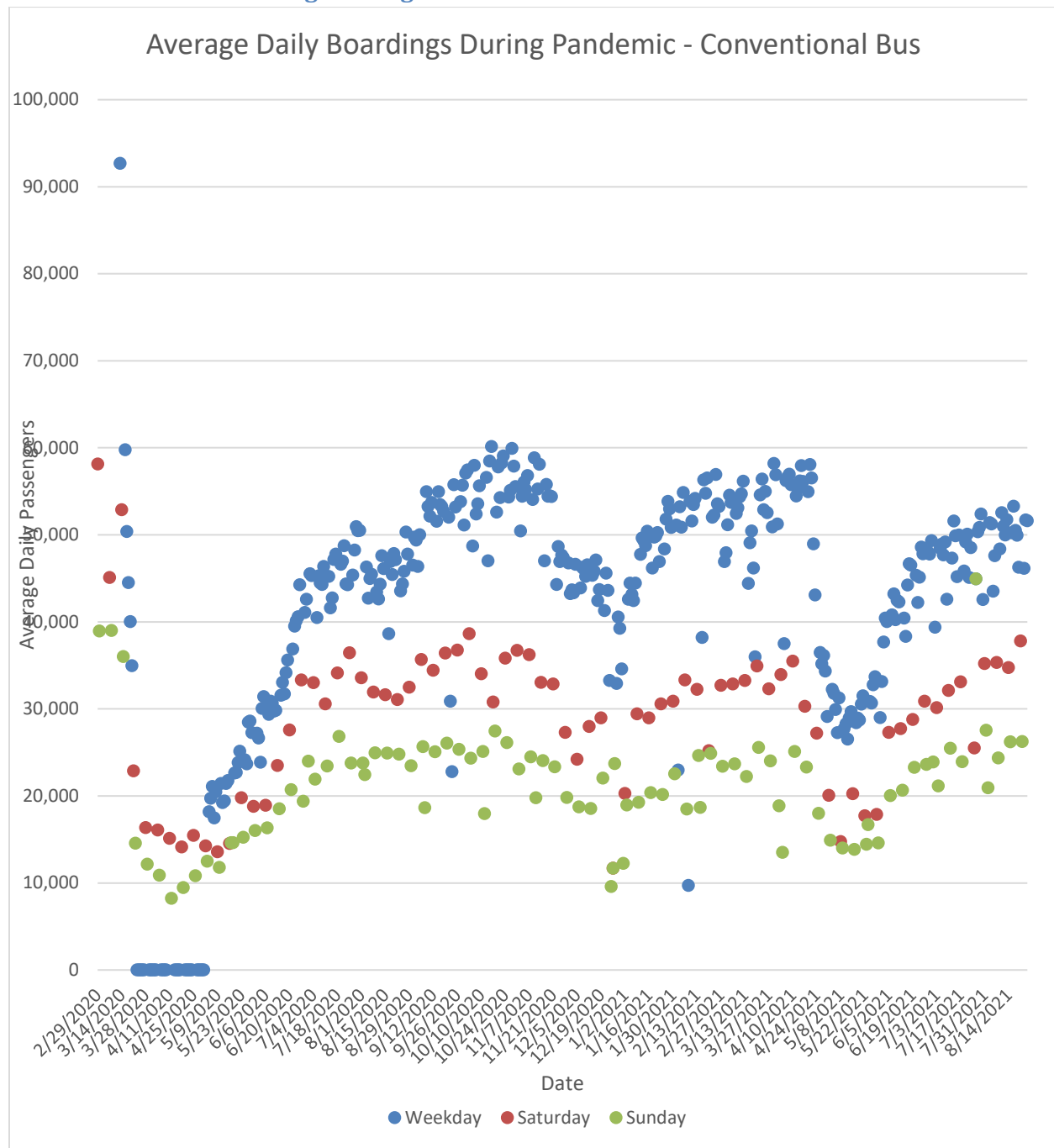
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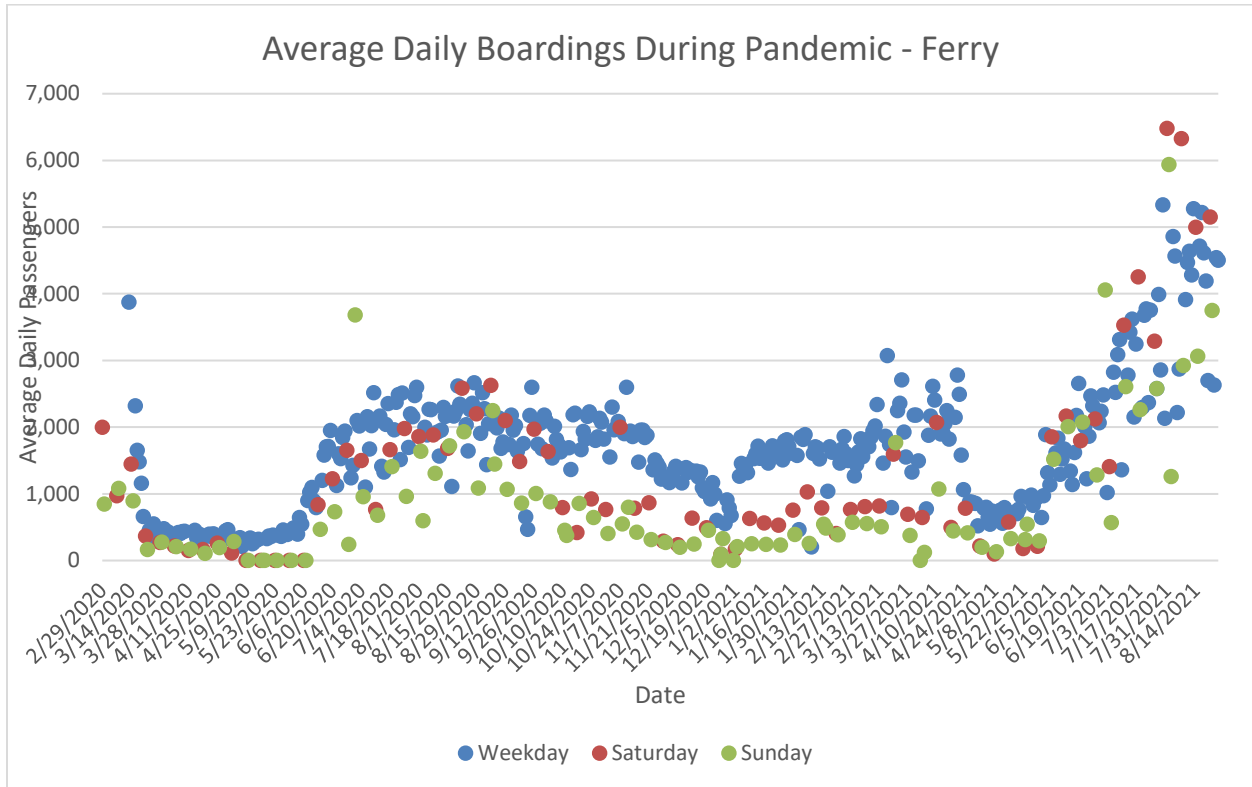
COVID-19 Pandemic Data Impacts

The onset of the COVID-19 pandemic in early 2020 resulted in the need to rapidly implement emergency service adjustments to the weekday schedules. 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, with full ferry service resuming July 19, 2021 with the last trip of the day being reinstated.

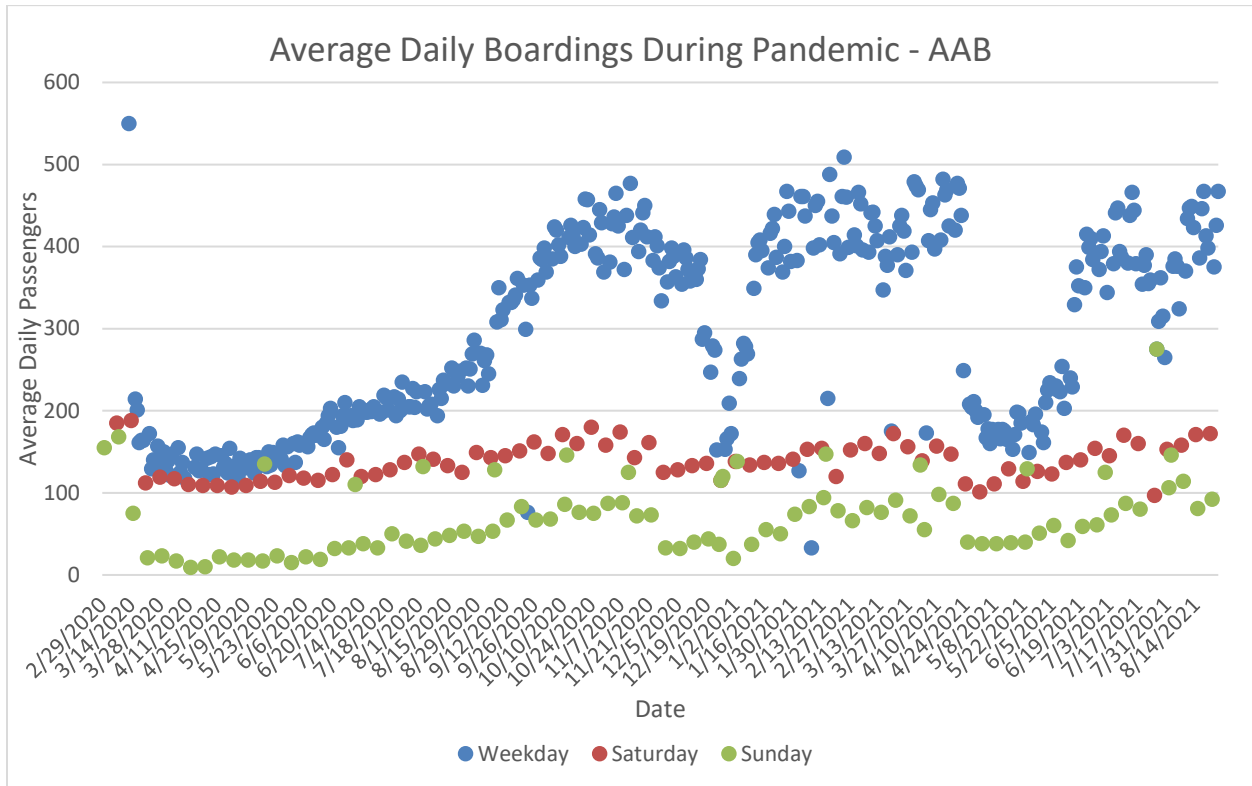
Conventional Bus Boardings During Pandemic



Ferry Boardings During Pandemic



Access-A-Bus Boardings During Pandemic

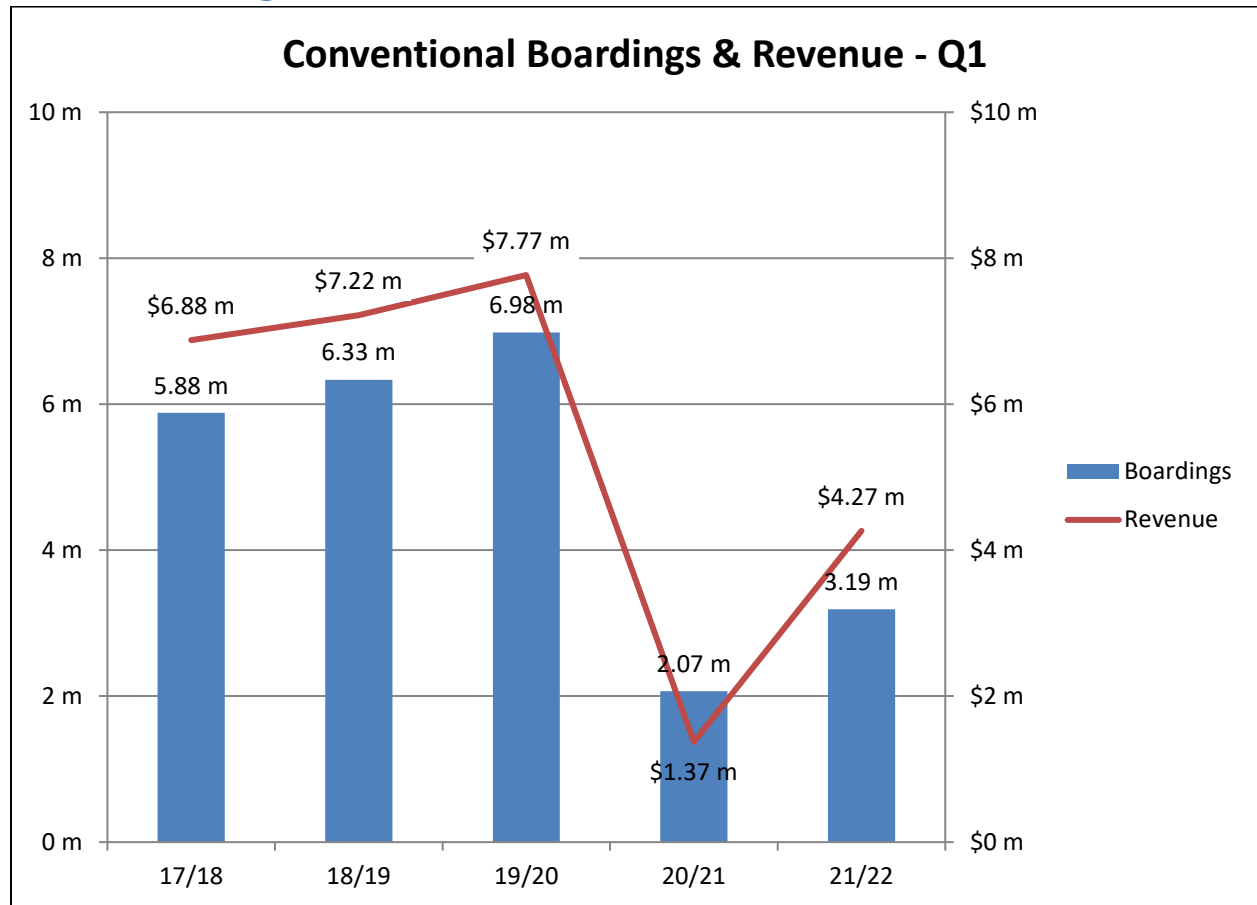


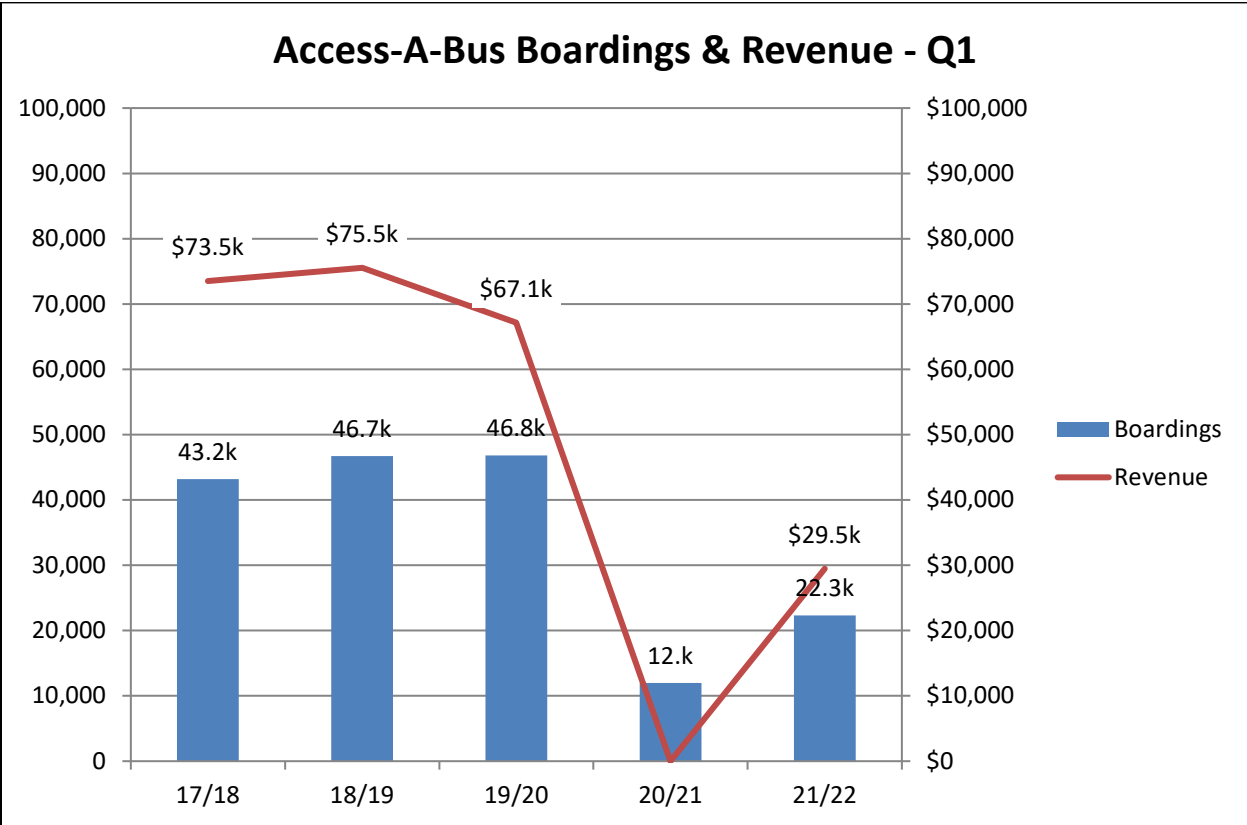
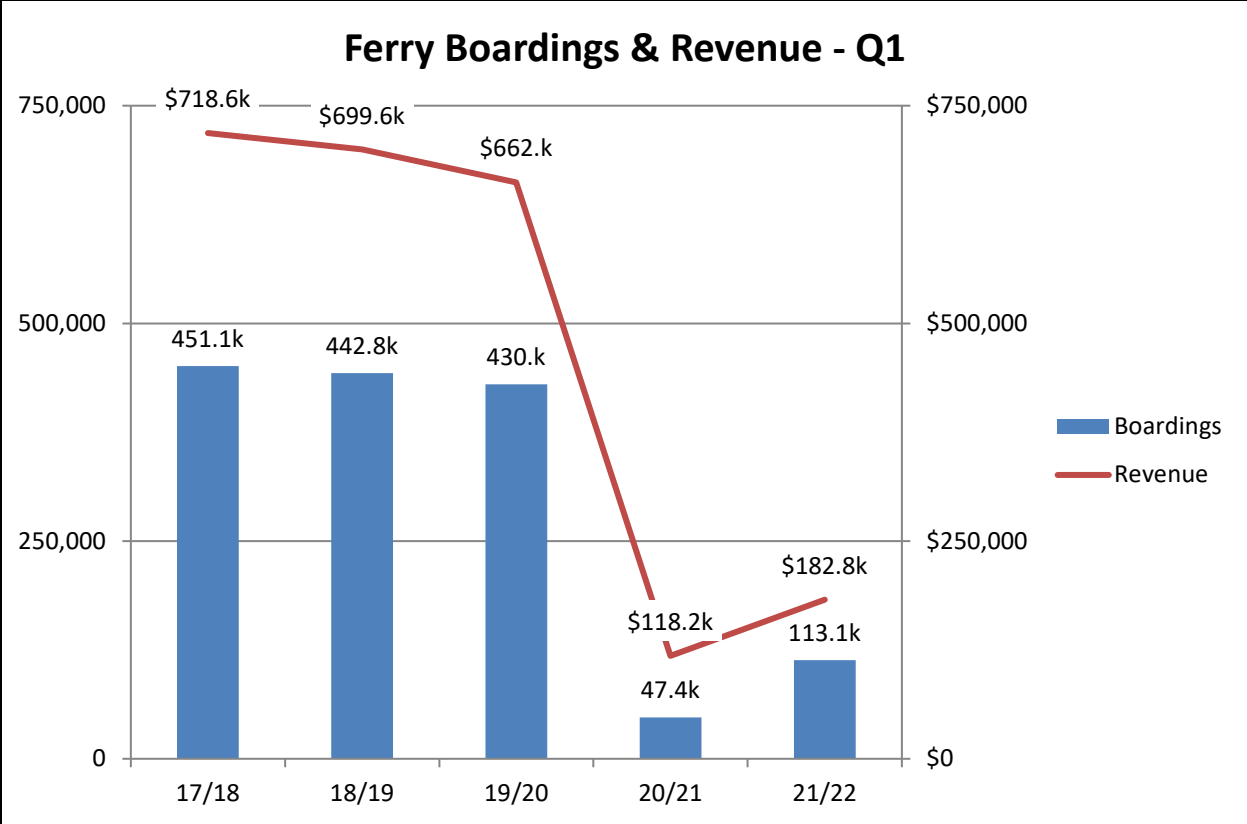
Boardings & Revenue

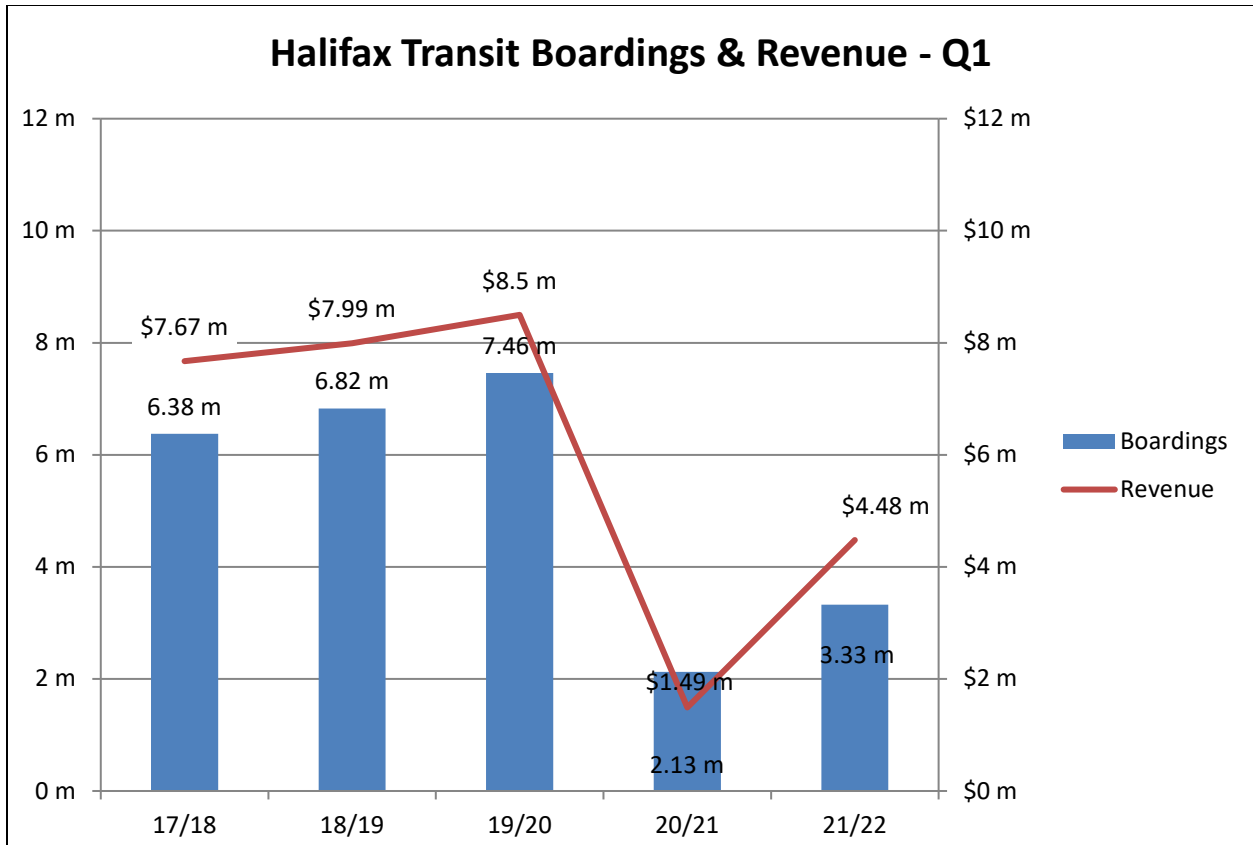
Revenue and boardings are reported to demonstrate how well transit services were used over the quarter, in comparison to the same quarter the previous year.

COVID-19 continued to have a significant impact during the first quarter of 2021/22. Conventional boardings increased 54.2% from this quarter last year, Ferry boardings increased 138.7% and Access-A-Bus boardings increased 86.2%. Overall, system wide boardings increased this quarter by 56.3% compared to last year. In the previous year, fare collection resumed mid second quarter, on August 1, 2020. Overall revenue this quarter increased 200.3% from last year. Despite the significant increases seen this quarter, overall boardings and revenue still remain significantly lower compared to 2019/20.

Historical Boardings & Revenue

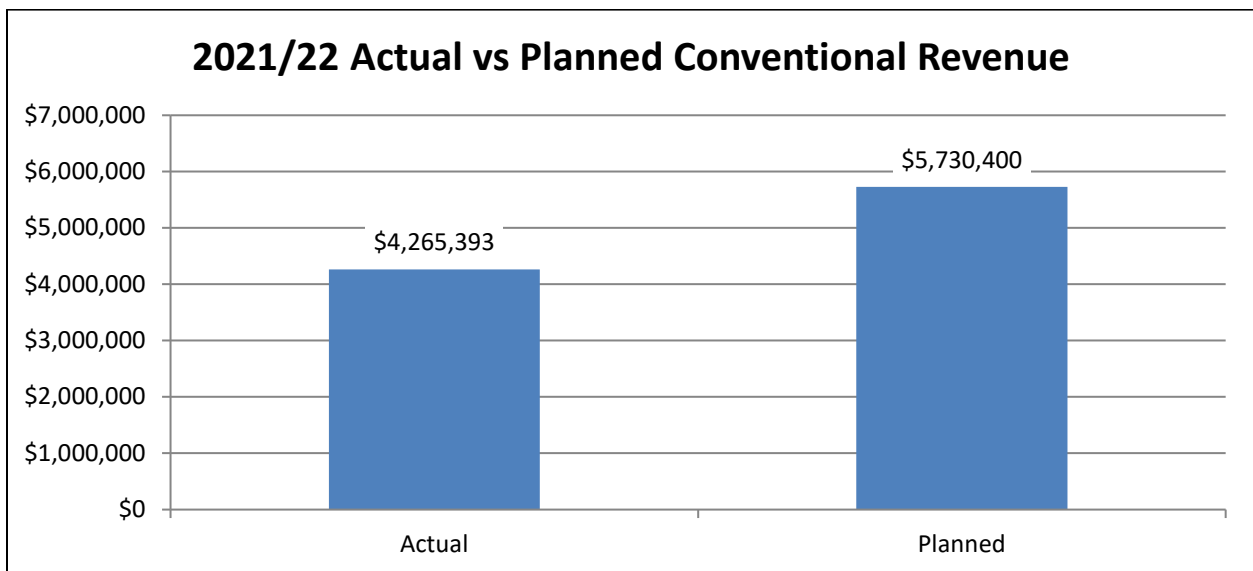




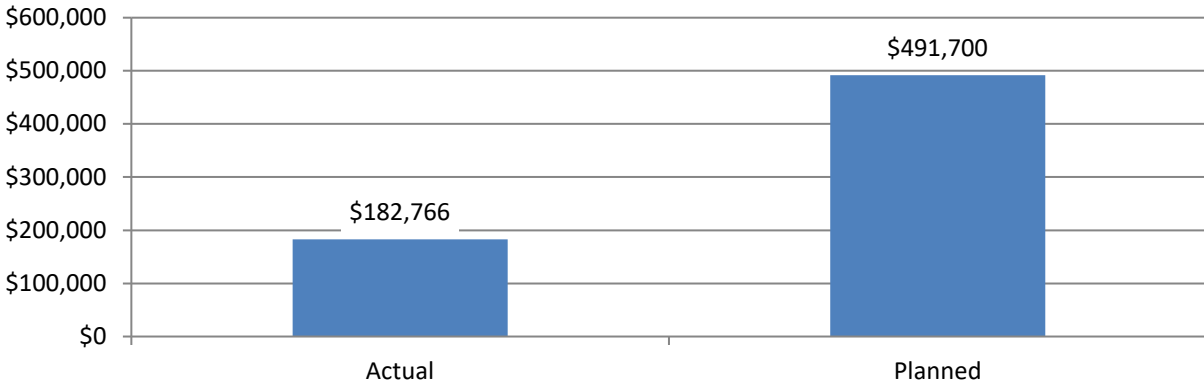


Revenue - Actual vs. Planned

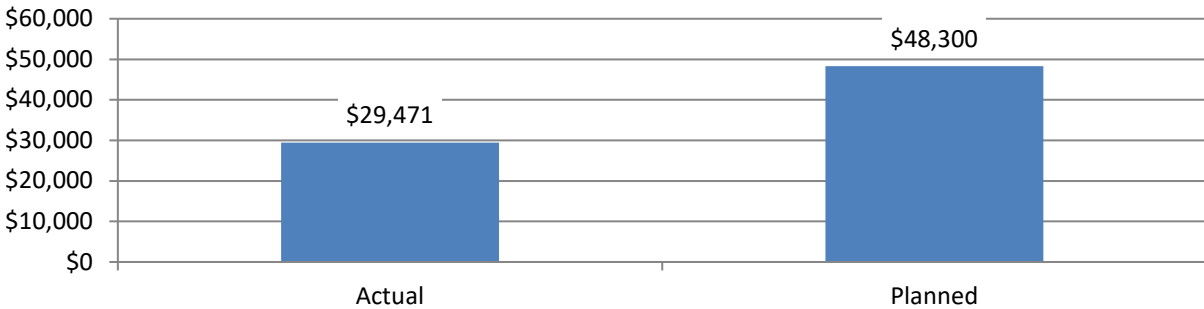
The following charts provide an indication of how much revenue has been generated by each service type and by Halifax Transit in comparison to the planned budget revenue. In the first quarter 2021/22 conventional revenue increased 210.7% over last year and was 25.6% below the planned amount. Ferry revenue this year increased 54.6% and was 62.8% below the planned amount. Access-A-Bus revenue was not reported for the first quarter last year; this years revenue was 39% below the planned amount.



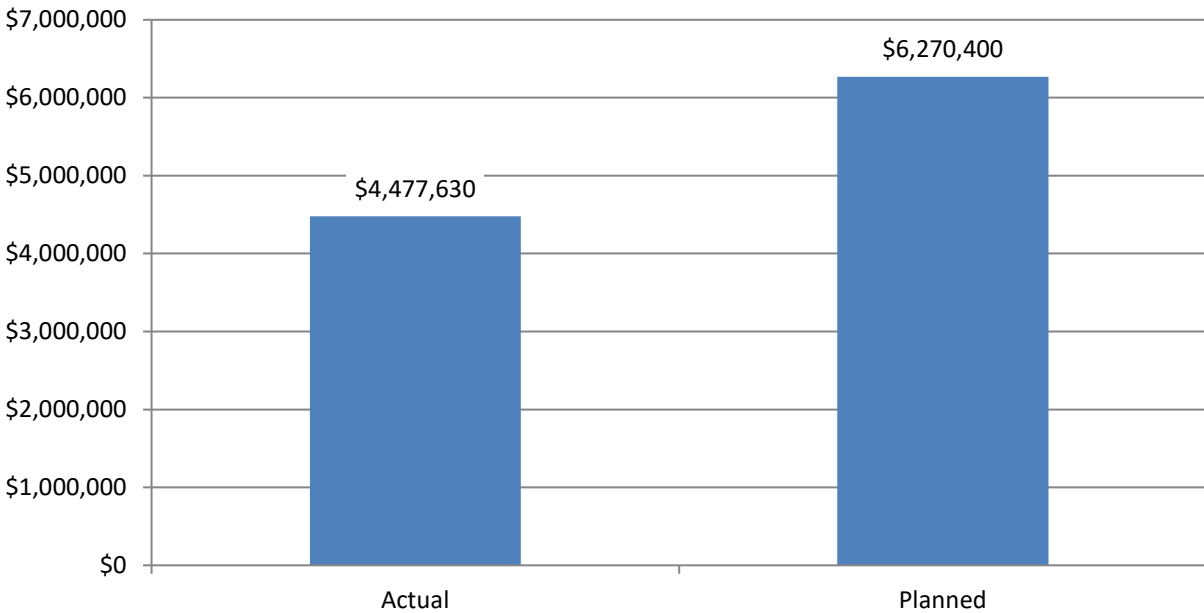
2021/22 Actual vs Planned Ferry Revenue



2021/22 Actual vs Planned Access-A-Bus Revenue



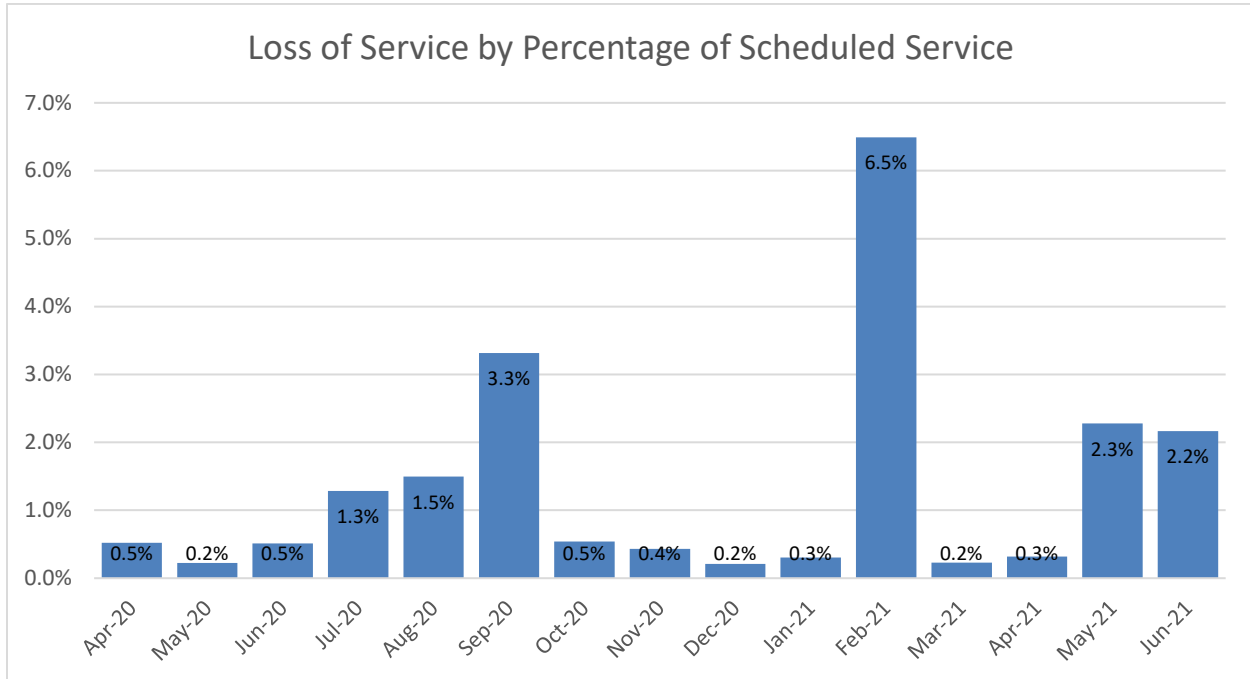
2021/22 Actual vs Planned Halifax Transit Revenue



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 3,352 hours and 8 minutes, which is 1.59% of the quarterly revenue hours. The table below shows the total loss of service for each month.

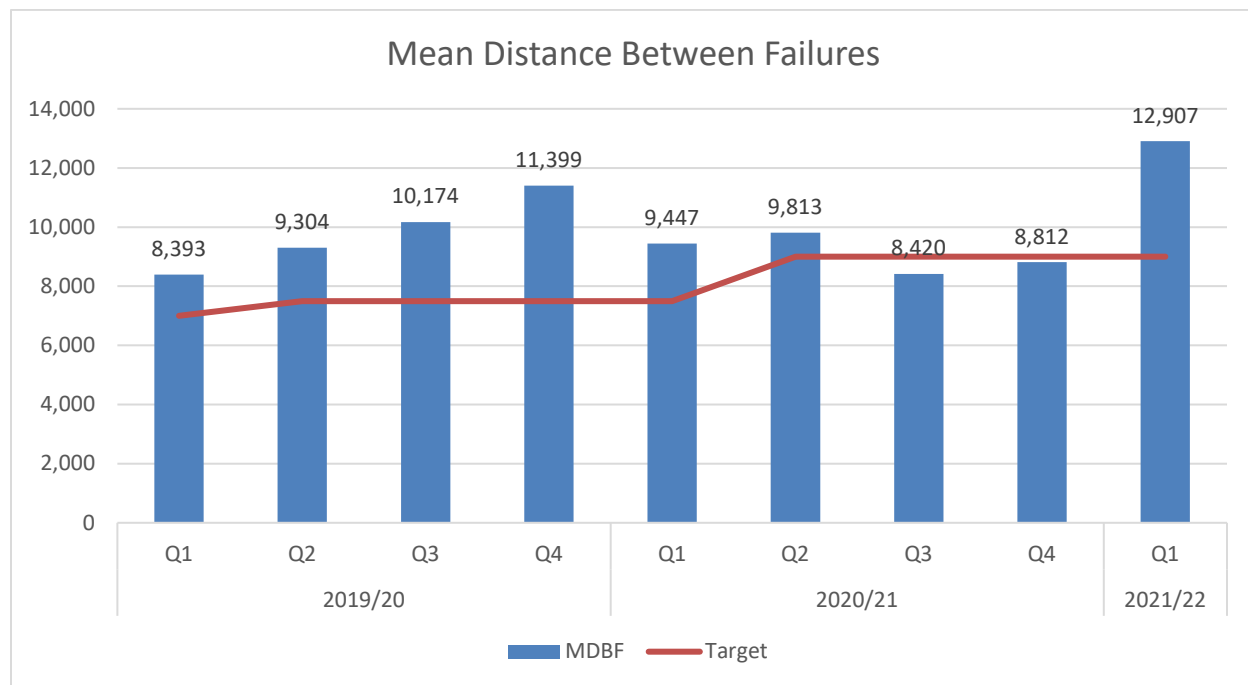


Mean Distance Between Failures

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.

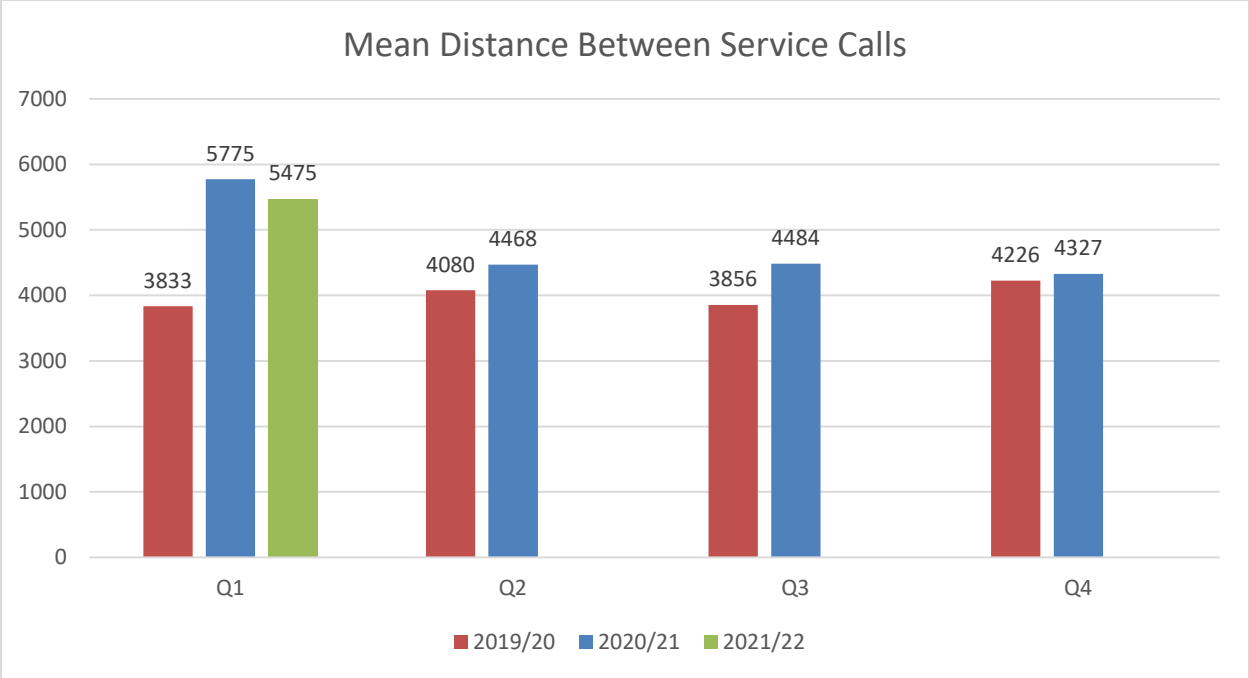
For the first quarter of 2021/22, the MDBF for conventional transit was 12,907 kms. This is equivalent to a 37% increase from the first quarter of the previous year (2020/21). In March 2021, 30 buses were replaced leading to a significant increase in reliability.



Mean Distance Between Service Calls

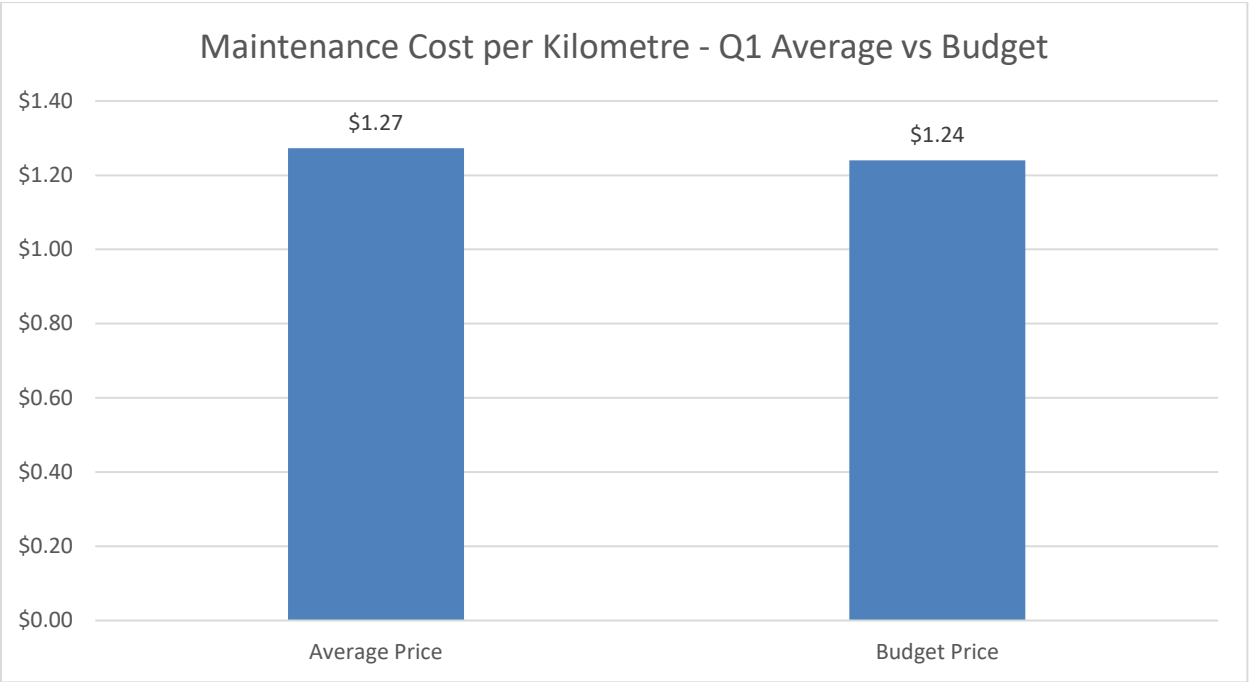
Mean Distance Between Service Calls (MDBS) reflects the average distance in kilometres covered between maintenance service calls. This metric includes all instances of service calls, including issues with secondary equipment, passenger-related events and damages to the bus resulting from minor accidents.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

For the first quarter of 2021/22, the MDBS for conventional transit was 5,475 kms. In comparison to the first quarter of 2020/21 (5,775), this is a decrease of 5%. The MDBS for Access-A-Bus service was 54,358 kms. Transit Fleet will continue to monitor this metric in order to reduce service calls.



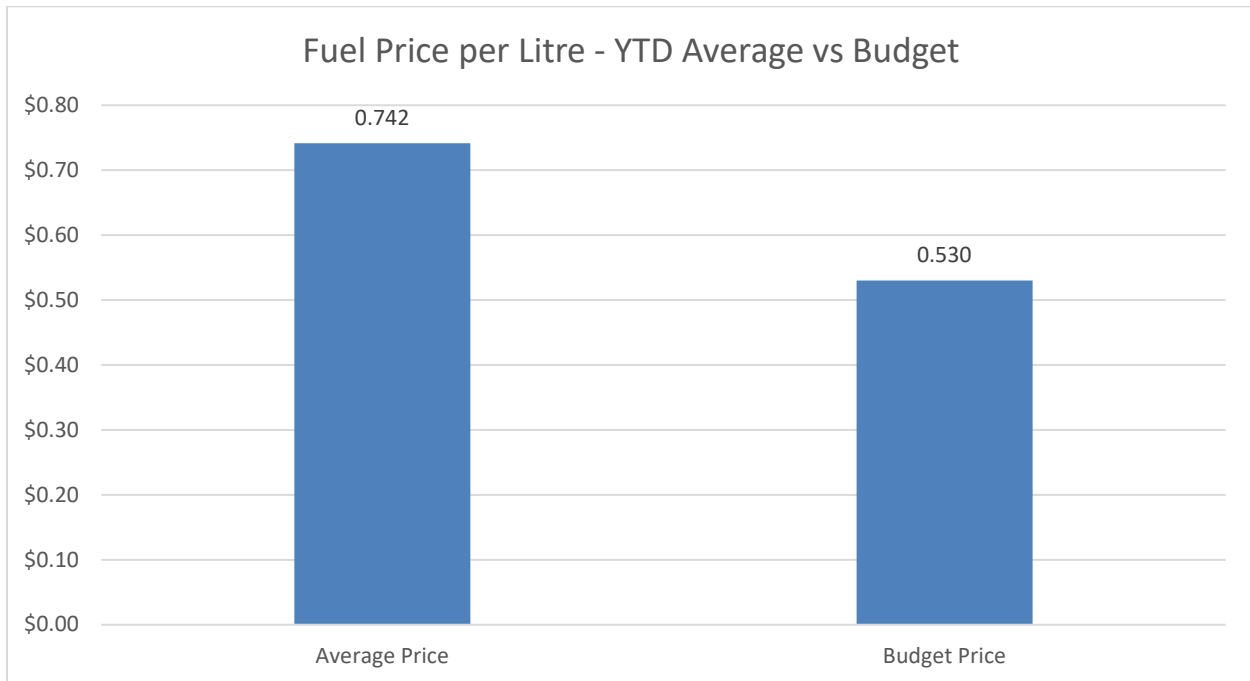
Bus Maintenance Cost – Quarter Average vs Budget

In the first quarter, bus maintenance costs were \$1.27/km, while the budgeted maintenance cost was \$1.24/km.



Fuel Price – Annual Average vs Budget

The budgeted fuel price for 2021/22 was set at 53 cents/litre. The average fuel price in the first quarter of 2021/22 was 74 cents/litre, 21 cents higher than the budgeted cost per litre.

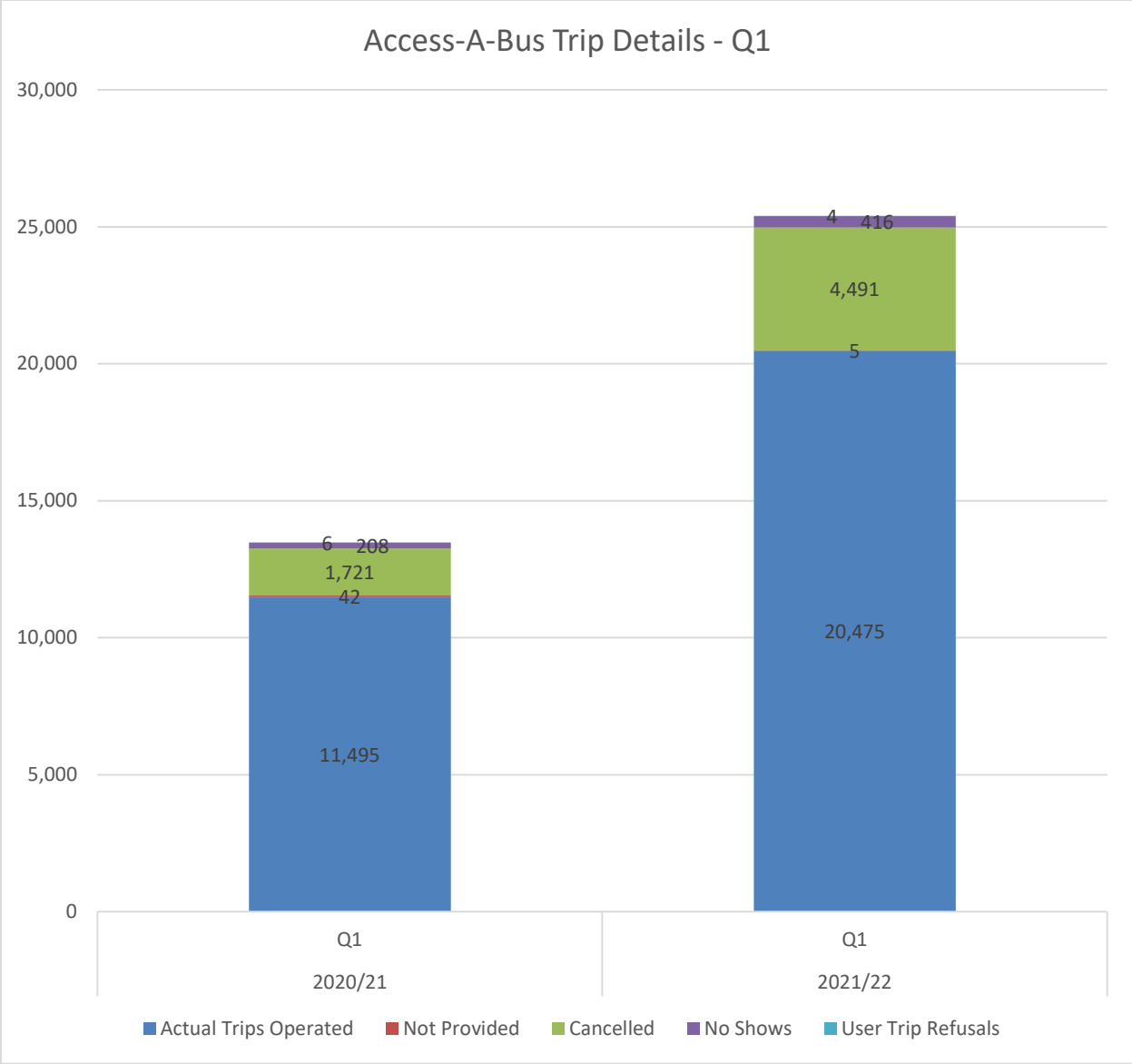


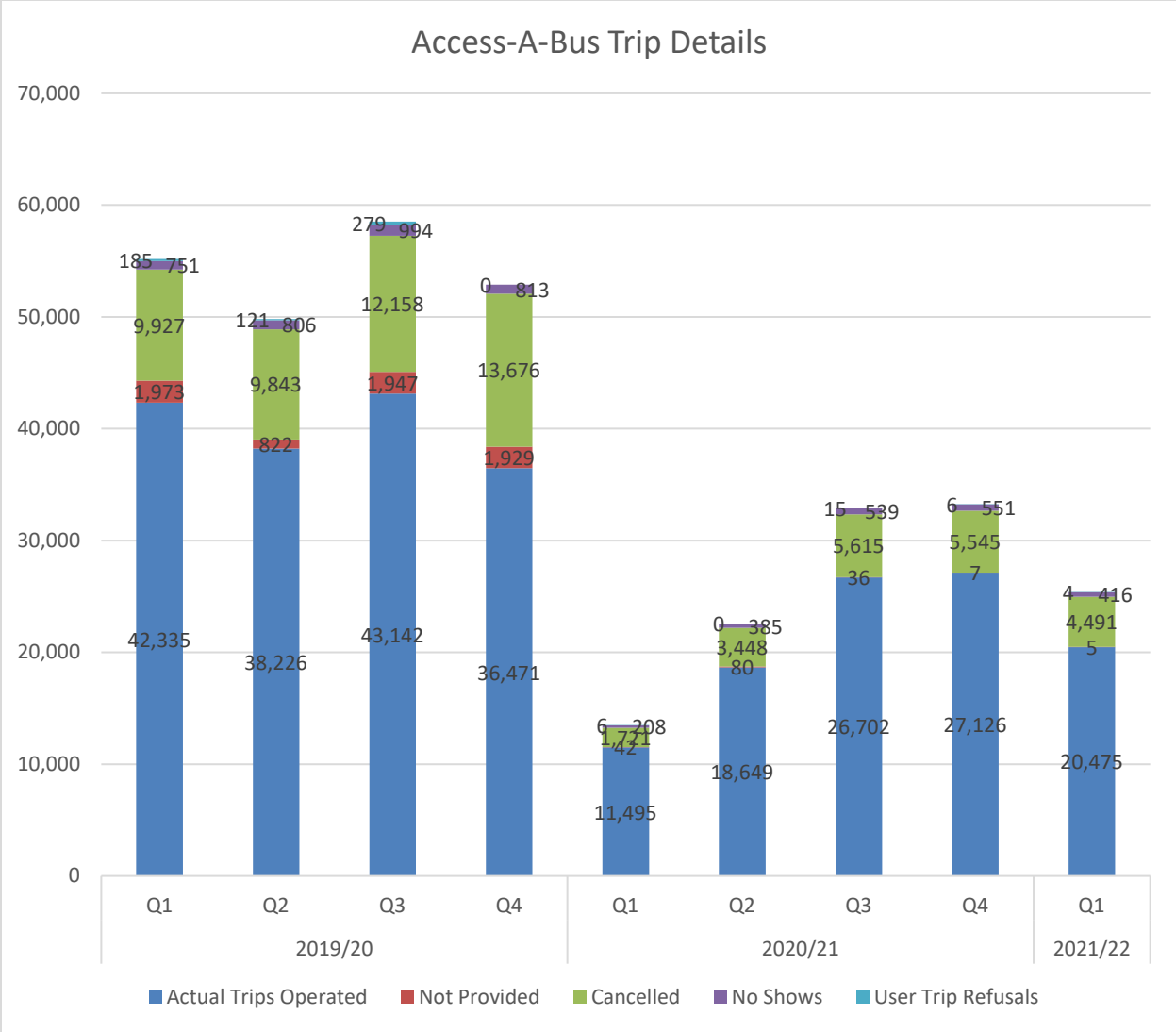
Access-A-Bus Trip Details

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 within the quarter. 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 the first quarter of 2021/22 20,475 trips were operated, an increase of 78% compared to the first quarter last year. The trips that were not provided decreased by 88%.





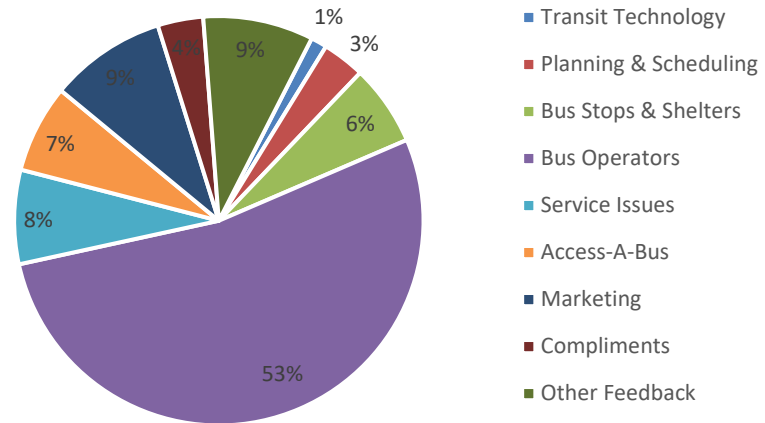
Customer Service – All Services

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, 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 98% of customer feedback was resolved within standard.

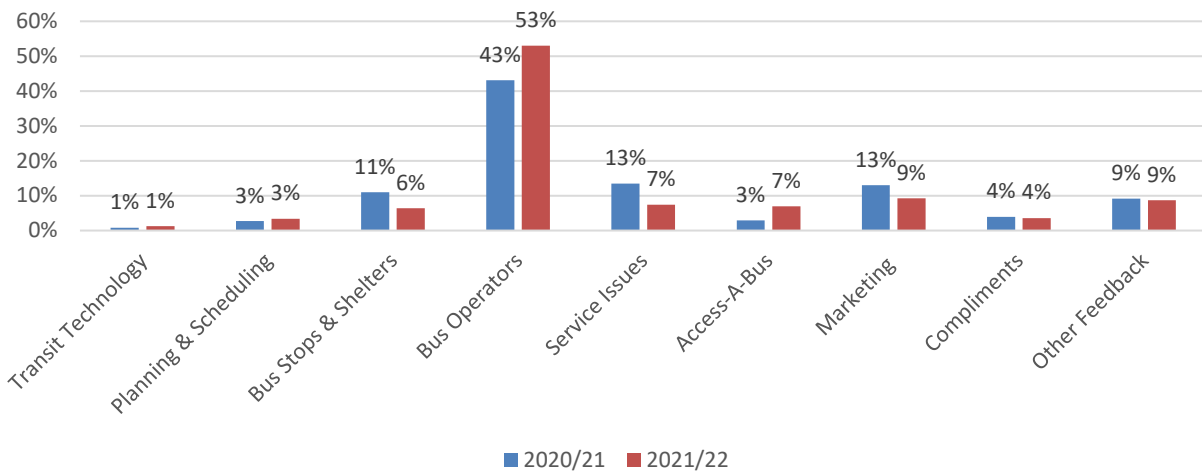
Call volumes to the Departures Line (902-480-8000) are displayed by day of the week. In the first quarter of 2021/22, average call volumes were slightly higher than this time last year for weekdays as well as for Saturdays and Sundays due to recovering ridership resulting from the COVID-19 pandemic.

Summary of Customer Feedback - Q1

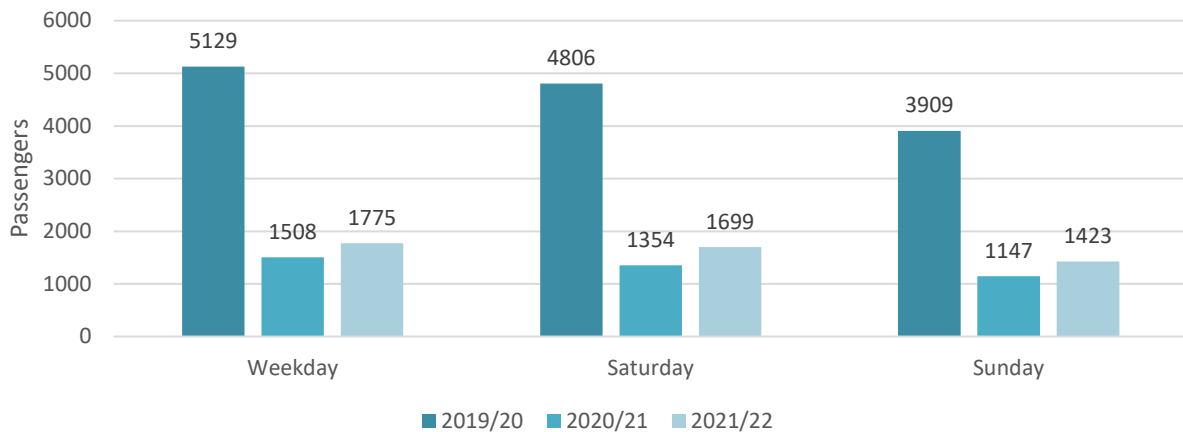


Feedback resolved within standard: 98%

Customer Feedback Comparison - Q1



Average Departures Line Call Volumes - Q1



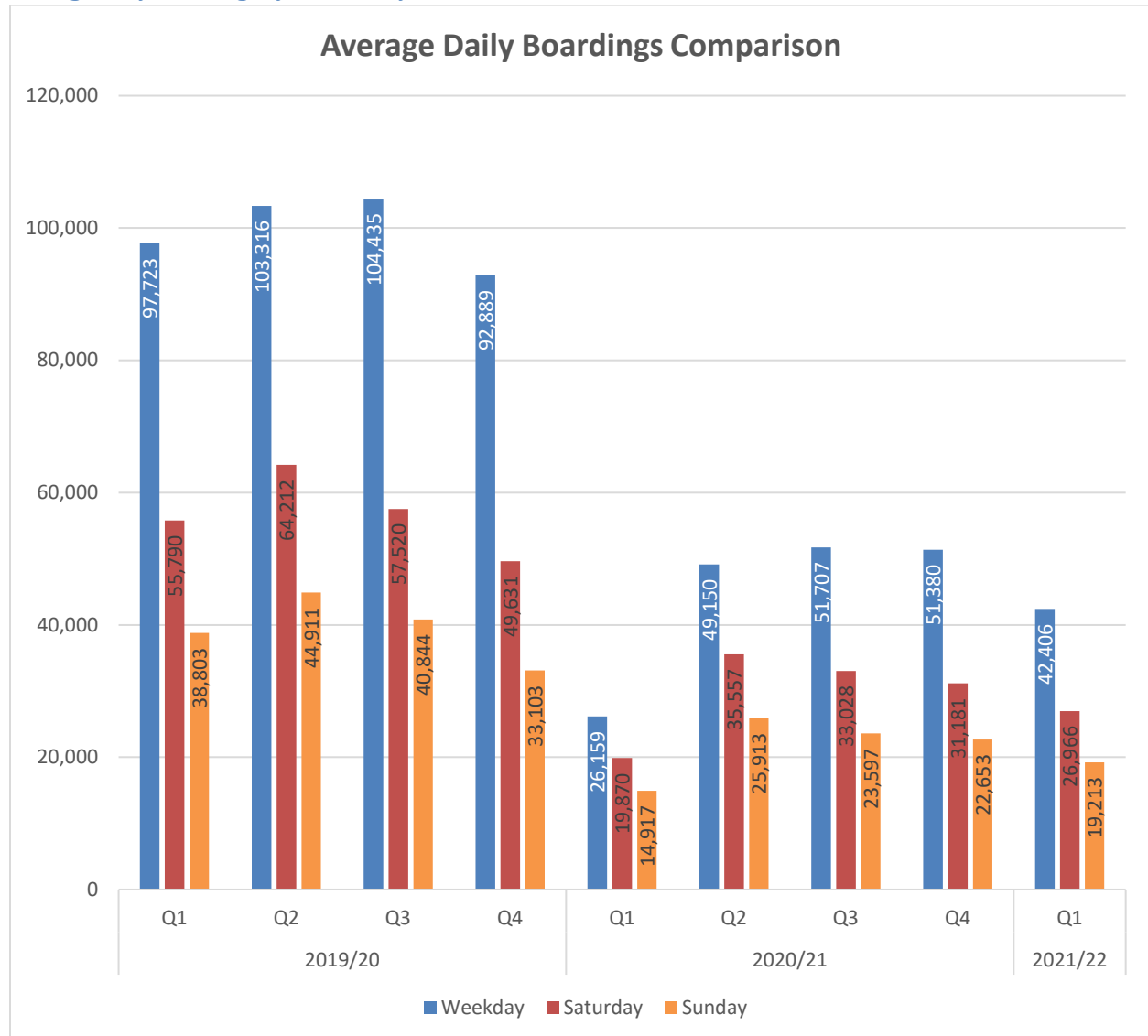
Service Utilization

Automatic Passenger Counter (APC) data is now being 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 42,406 ± 10,728 (25.3% variance). Average Saturday boardings this quarter were 26,966 ± 7,622 (28.3% variance). Average Sunday boardings this quarter were 19,213 ± 4,989 (26% variance).

Average Daily Boardings by Service Day

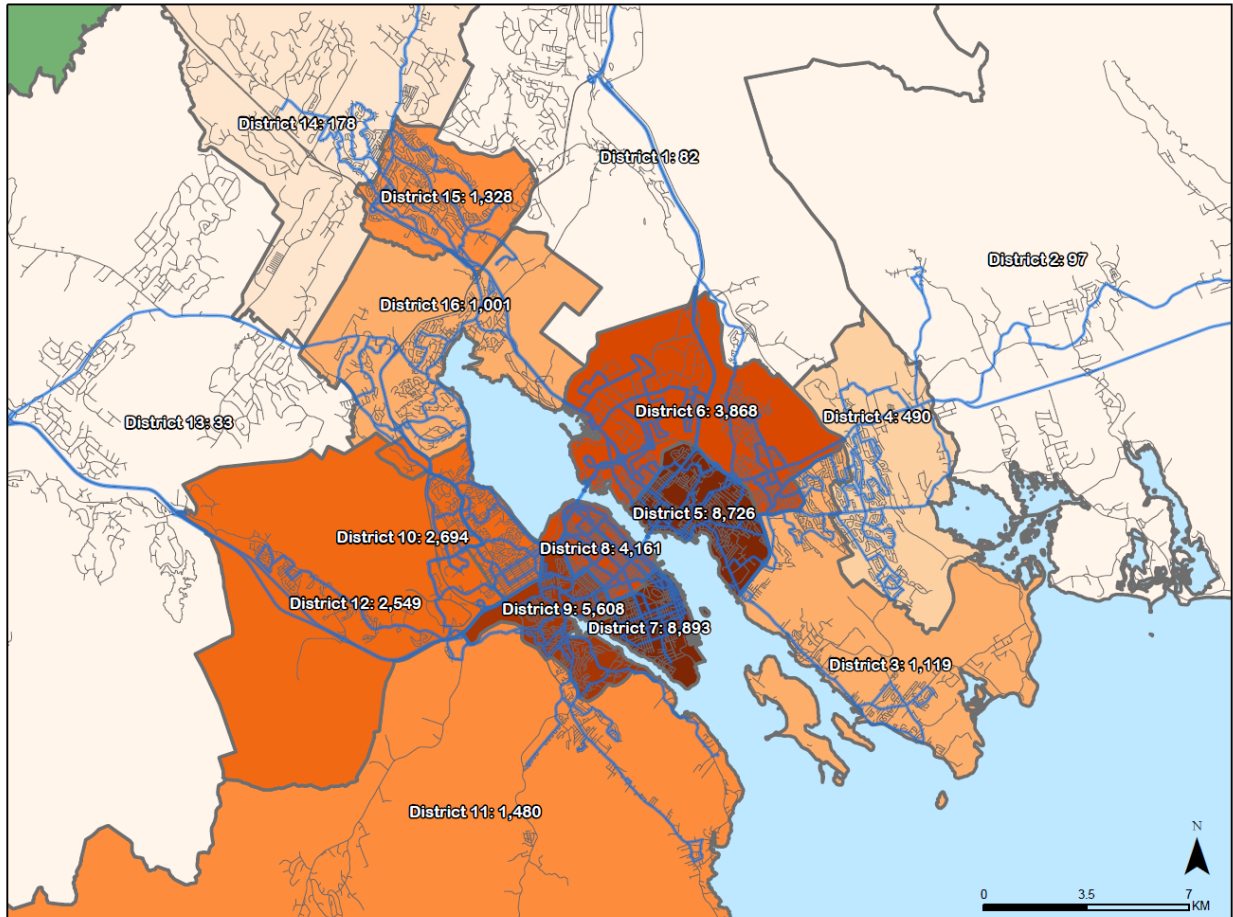


Boardings by District

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.

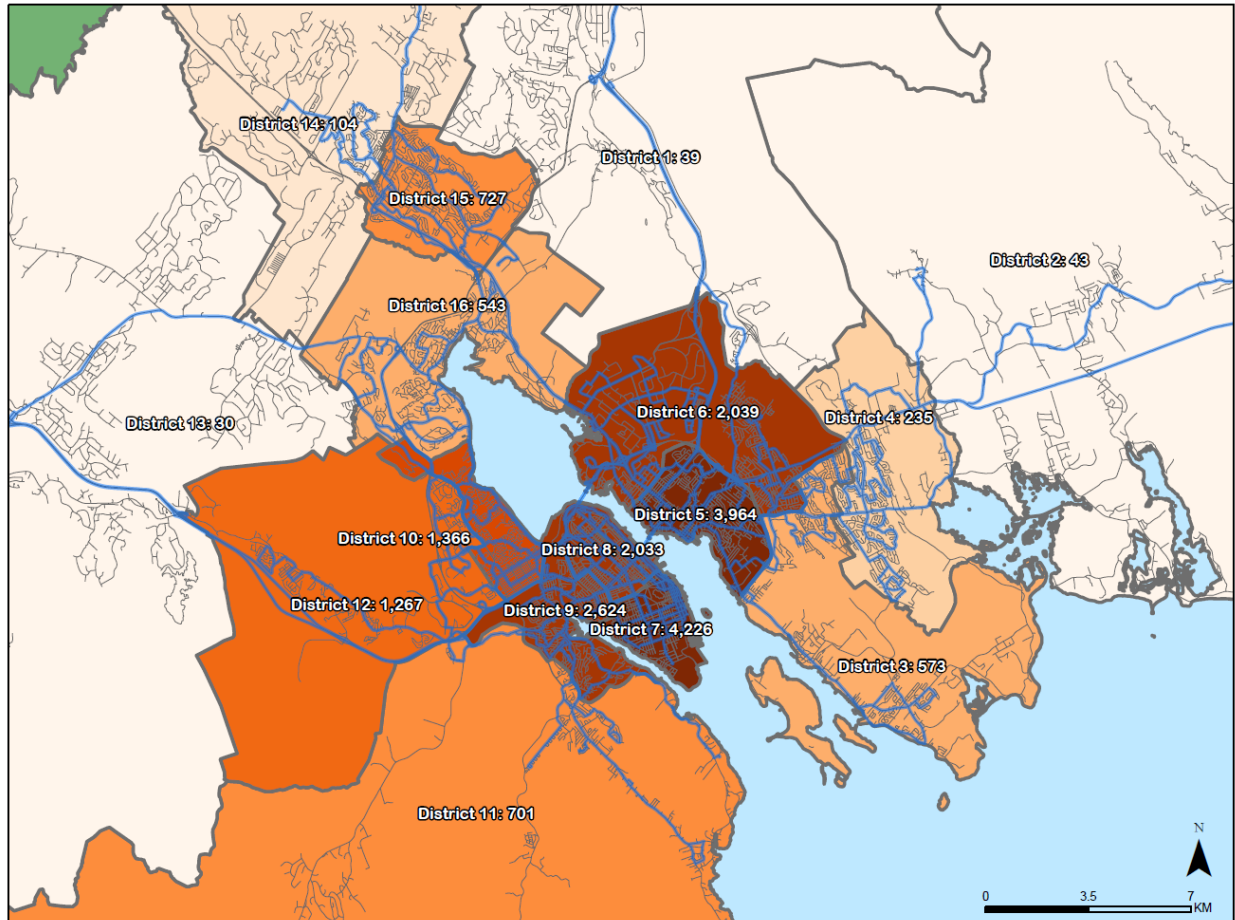
Weekday Boardings by District – All Day

2021-22 Q1 Weekday Boardings by District



Weekday Boardings by District – AM Peak Period

2021-22 Q1 Weekday AM Peak Boardings by District



Passengers per Hour

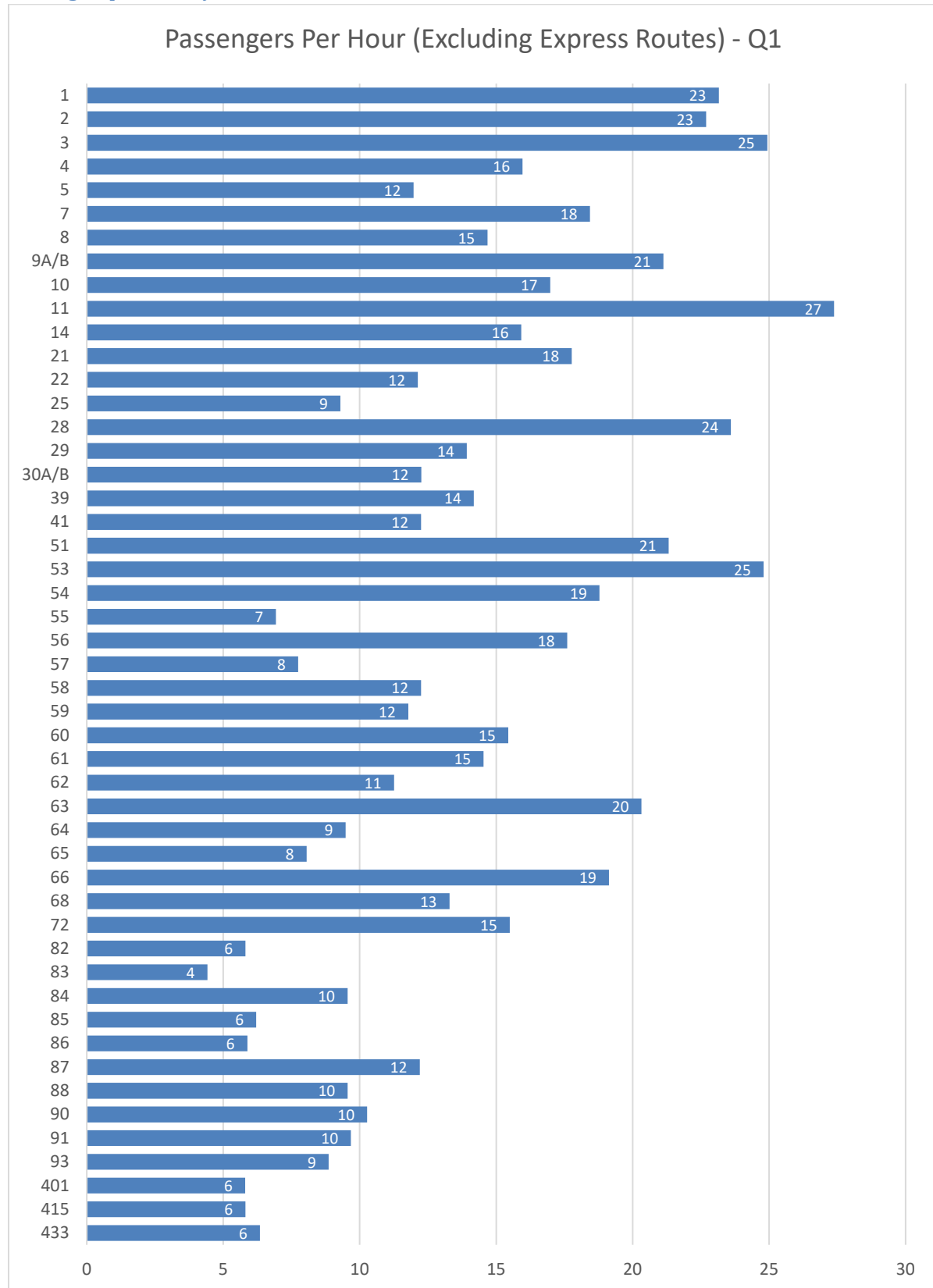
Passengers per hour measures the volume of passengers carried per service hour by route. Due to differences in service model/design, Express Routes are measured instead by passengers per trip. Ridership fluctuates significantly by season and therefore figures are compared to the same quarter in the previous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

| Q1 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 | 3,165 | 27 | 3,612 | 23 | 2,221 | 20 | 3,425 | 31 | 1,753 | 21 | 2,119 | 26 |
| 2 | 2,054 | 19 | 2,452 | 23 | 1,736 | 17 | 2,221 | 22 | 1,190 | 17 | 1,426 | 21 |
| 3 | 2,120 | 21 | 3,736 | 25 | 1,585 | 18 | 1,954 | 23 | 1,909 | 20 | 2,003 | 21 |
| 4 | 903 | 14 | 2,019 | 16 | 615 | 13 | 995 | 20 | 604 | 13 | 825 | 18 |
| 7 | 1,645 | 17 | 2,106 | 18 | 1,186 | 13 | 1,526 | 16 | 825 | 16 | 949 | 18 |
| 8 | 1,516 | 13 | 2,007 | 15 | 1,171 | 10 | 1,578 | 14 | 989 | 9 | 1,257 | 12 |
| 9A/B | 2,018 | 21 | 3,542 | 21 | 1,468 | 20 | 1,993 | 28 | 1,303 | 18 | 1,560 | 22 |
| 9A | 1,074 | 21 | 2,393 | 22 | 723 | 20 | 979 | 28 | 573 | 16 | 692 | 20 |
| 9B | 945 | 21 | 1,150 | 20 | 746 | 20 | 1,014 | 27 | 730 | 20 | 868 | 23 |
| 10 | 1,126 | 16 | 1,822 | 17 | 931 | 13 | 1,323 | 18 | 822 | 17 | 924 | 19 |
| 11 | | | 48 | 27 | | | | | | | | |
| 14 | 544 | 14 | 976 | 16 | 386 | 12 | 553 | 17 | 356 | 13 | 494 | 17 |
| 21 | 477 | 13 | 527 | 18 | 354 | 10 | 465 | 13 | 248 | 14 | 280 | 16 |
| 22 | 300 | 9 | 384 | 12 | 236 | 7 | 279 | 8 | 215 | 6 | 231 | 7 |
| 25 | 102 | 7 | 201 | 9 | 73 | 5 | 129 | 8 | 79 | 7 | 95 | 9 |
| 28 | 649 | 15 | 880 | 24 | 507 | 12 | 707 | 16 | 328 | 16 | 337 | 17 |
| 29 | 867 | 13 | 1,246 | 14 | 630 | 10 | 828 | 13 | 545 | 9 | 634 | 11 |
| 30A/B | 269 | 8 | 442 | 12 | 229 | 7 | 325 | 10 | 148 | 8 | 200 | 11 |
| 30A | 135 | 8 | 244 | 13 | 118 | 7 | 169 | 10 | 65 | 7 | 89 | 10 |
| 30B | 135 | 8 | 199 | 11 | 111 | 6 | 157 | 9 | 83 | 10 | 112 | 12 |
| 39 | 595 | 12 | 627 | 14 | 459 | 9 | 572 | 12 | 208 | 10 | 236 | 12 |
| 41 | | | 419 | 12 | | | | | | | | |
| 51 | 330 | 16 | 505 | 21 | 242 | 15 | 269 | 17 | 145 | 14 | 149 | 14 |
| 53 | 447 | 25 | 591 | 25 | 375 | 25 | 399 | 26 | 188 | 23 | 172 | 21 |
| 54 | 289 | 19 | 398 | 19 | 231 | 15 | 260 | 17 | 134 | 14 | 134 | 14 |
| 55 | 96 | 6 | 150 | 7 | 75 | 5 | 113 | 7 | 70 | 5 | 83 | 5 |
| 56 | 533 | 15 | 567 | 18 | 472 | 13 | 608 | 17 | 434 | 13 | 421 | 13 |
| 57 | 218 | 7 | 296 | 8 | 158 | 5 | 168 | 6 | 100 | 6 | 96 | 5 |
| 58 | 260 | 13 | 337 | 12 | 163 | 9 | 212 | 11 | 170 | 10 | 179 | 10 |

| Q1 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 | 360 | 16 | 891 | 12 | 310 | 13 | 407 | 17 | 277 | 11 | 296 | 12 |
| 60 | 775 | 18 | 1,169 | 15 | 619 | 15 | 796 | 20 | 542 | 19 | 649 | 23 |
| 61 | 675 | 14 | 1,126 | 15 | 451 | 11 | 580 | 15 | 449 | 12 | 506 | 13 |
| 62 | 242 | 12 | 349 | 11 | 203 | 9 | 235 | 11 | 111 | 7 | 135 | 8 |
| 63 | 300 | 14 | 350 | 20 | | | | | | | | |
| 64 | 238 | 5 | 366 | 9 | | | | | | | | |
| 65 | 53 | 4 | 133 | 8 | 43 | 3 | 45 | 3 | 29 | 5 | 27 | 4 |
| 66 | 351 | 19 | 566 | 19 | 222 | 15 | 281 | 18 | 184 | 12 | 195 | 12 |
| 68 | 408 | 12 | 627 | 13 | 299 | 10 | 406 | 13 | 245 | 8 | 272 | 9 |
| 72 | 588 | 13 | 703 | 15 | 474 | 11 | 561 | 12 | 276 | 10 | 279 | 10 |
| 82 | 93 | 6 | 113 | 6 | 69 | 4 | 84 | 5 | 60 | 4 | 65 | 4 |
| 83 | 48 | 4 | 56 | 4 | 39 | 4 | 47 | 5 | 29 | 3 | 40 | 4 |
| 84 | 341 | 6 | 525 | 10 | 151 | 4 | 195 | 6 | 126 | 4 | 170 | 6 |
| 85 | 64 | 4 | 82 | 6 | 45 | 5 | 51 | 6 | 43 | 6 | 44 | 6 |
| 86 | 89 | 6 | 86 | 6 | 63 | 4 | 69 | 4 | 55 | 4 | 55 | 4 |
| 87 | 541 | 10 | 674 | 12 | 384 | 7 | 454 | 9 | 241 | 8 | 266 | 9 |
| 88 | 92 | 7 | 134 | 10 | 70 | 5 | 109 | 7 | 61 | 5 | 70 | 5 |
| 90 | 524 | 8 | 711 | 10 | 334 | 5 | 514 | 8 | 194 | 6 | 259 | 7 |
| 91 | 186 | 7 | 347 | 10 | 126 | 6 | 178 | 8 | 146 | 5 | 167 | 6 |
| 93 | | | 85 | 9 | | | | | | | | |
| 401 | 58 | 5 | 76 | 6 | | | | | | | | |
| 415 | 29 | 4 | 36 | 6 | | | | | | | | |
| 433 | 27 | 5 | 35 | 6 | | | | | | | | |
| Alderney | 462 | 36 | 869 | 30 | 355 | 24 | 1,015 | 62 | 154 | 11 | 766 | 47 |
| Woodside | 188 | 20 | 548 | 27 | | | | | | | | |

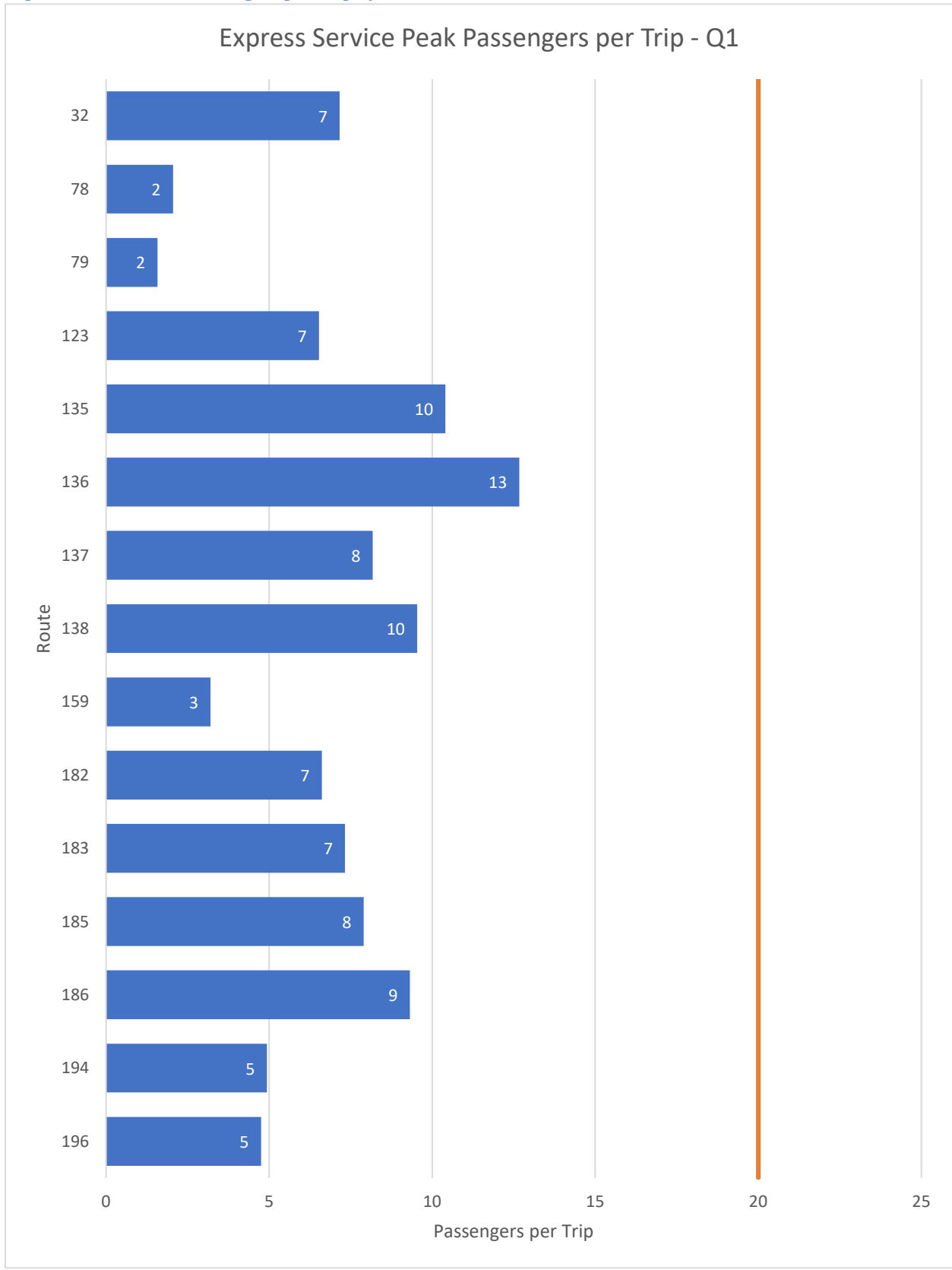
Passengers per Hour by Route



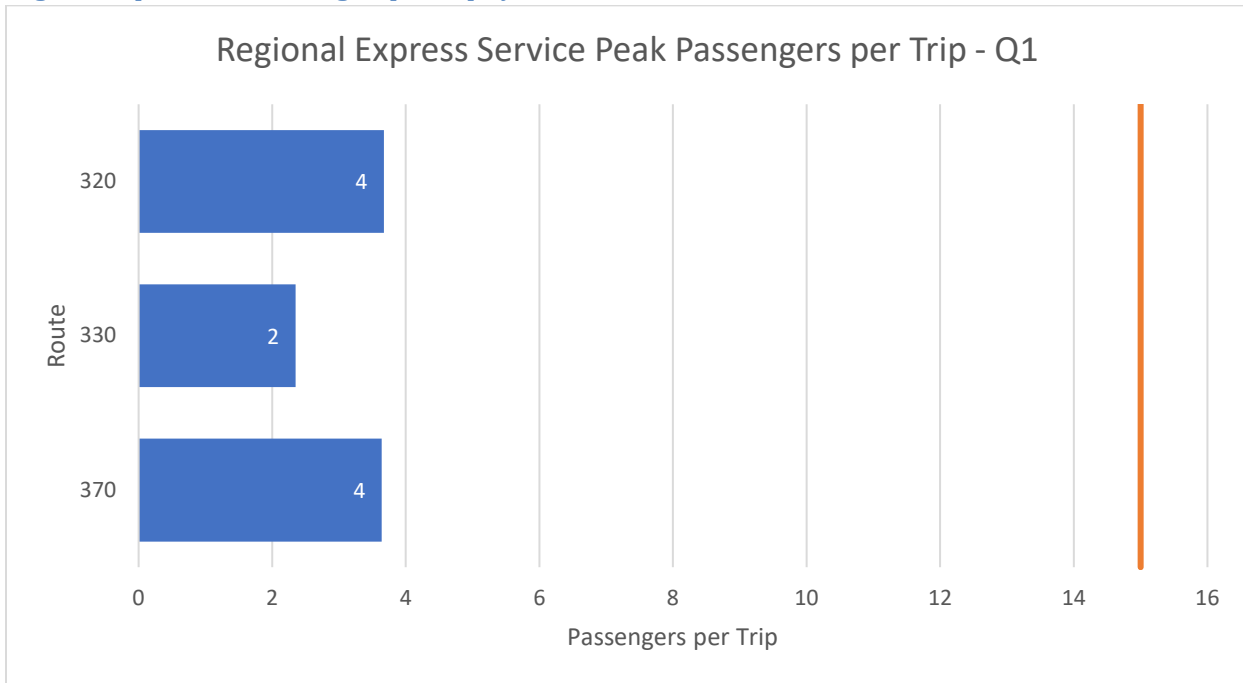
Express Service Peak Boardings and Passengers per Trip

| Q1 Comparison - Average Daily Peak Boardings by Express Route | | | | |
|--|------------------|------------------|------------------|------------------|
| Route | Weekday | | | |
| | 2020/21 | | 2021/22 | |
| | Boardings | Pass/Trip | Boardings | Pass/Trip |
| 32 | | | 129 | 7 |
| 78 | | | 32 | 2 |
| 79 | | | 19 | 2 |
| 123 | 72 | 5 | 93 | 7 |
| 135 | 114 | 8 | 146 | 10 |
| 136 | 202 | 13 | 203 | 13 |
| 137 | | | 98 | 8 |
| 138 | | | 134 | 10 |
| 159 | | | 115 | 3 |
| 182 | | | 185 | 7 |
| 183 | | | 95 | 7 |
| 185 | 188 | 7 | 205 | 8 |
| 186 | | | 112 | 9 |
| 194 | | | 39 | 5 |
| 196 | | | 19 | 5 |
| 320 | 19 | 3 | 48 | 4 |
| 330 | 40 | 4 | 52 | 2 |
| 370 | 37 | 4 | 44 | 4 |

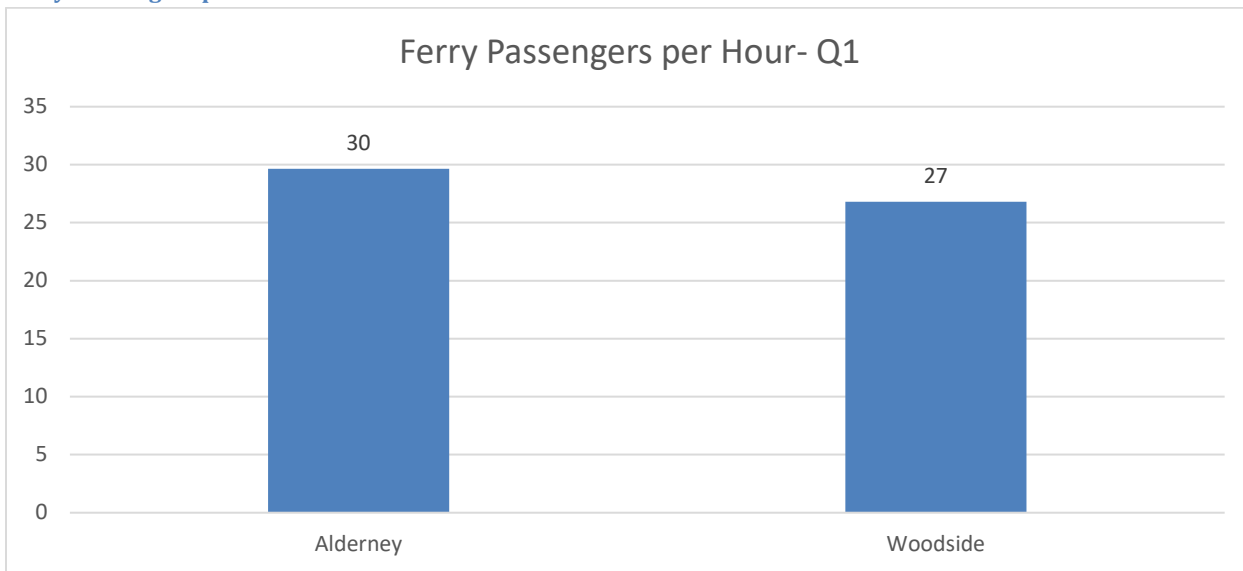
Express Service Peak Passengers per Trip by Route



Regional Express Peak Passengers per Trip by Route



Ferry Passengers per Hour

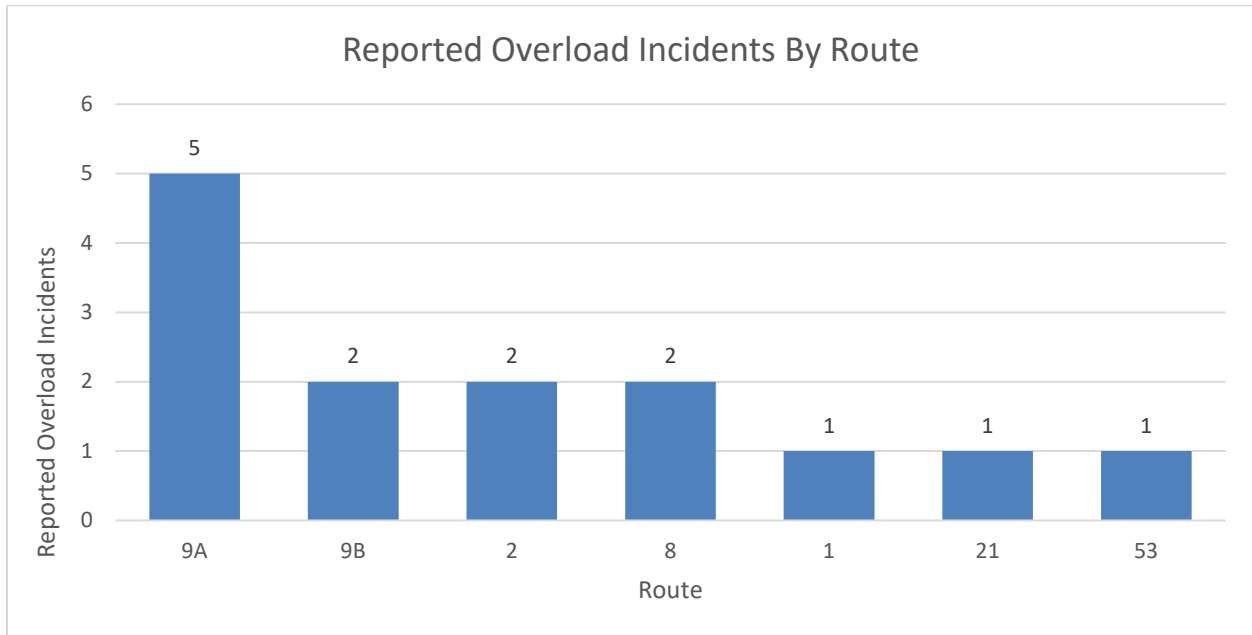


Passenger Overloads

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

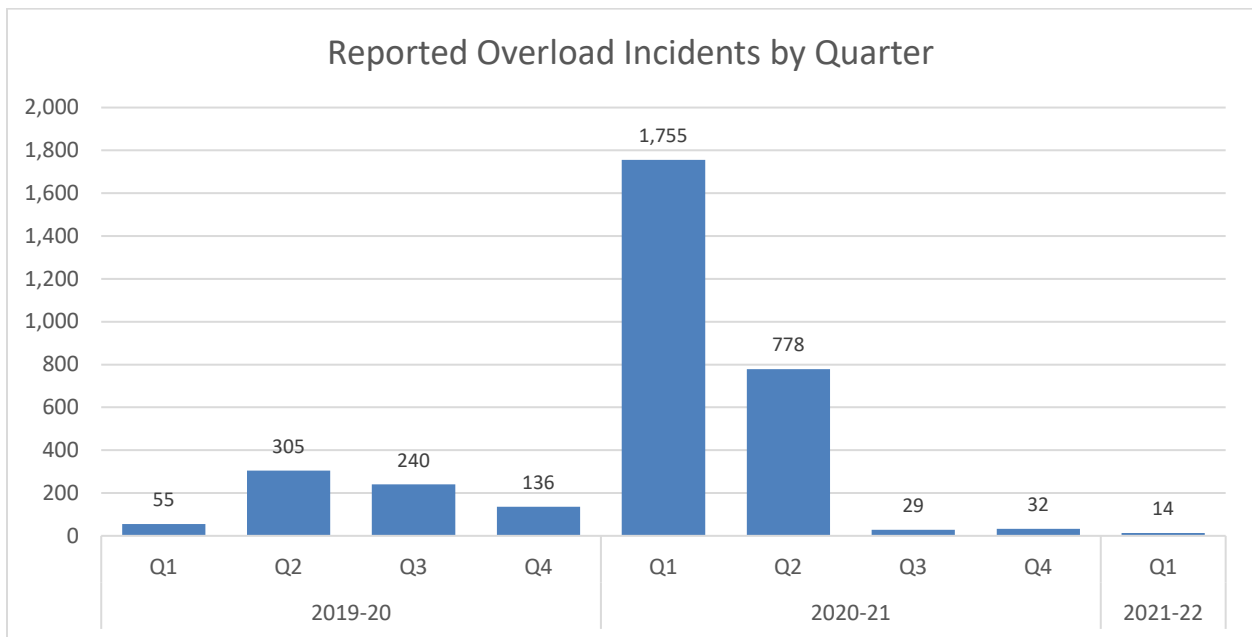
Passenger Overloads by Route

The following graph shows overloaded routes during the first quarter. 14 overload incidents were reported during the first quarter of 2021/22.



Passenger Overloads by Quarter

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

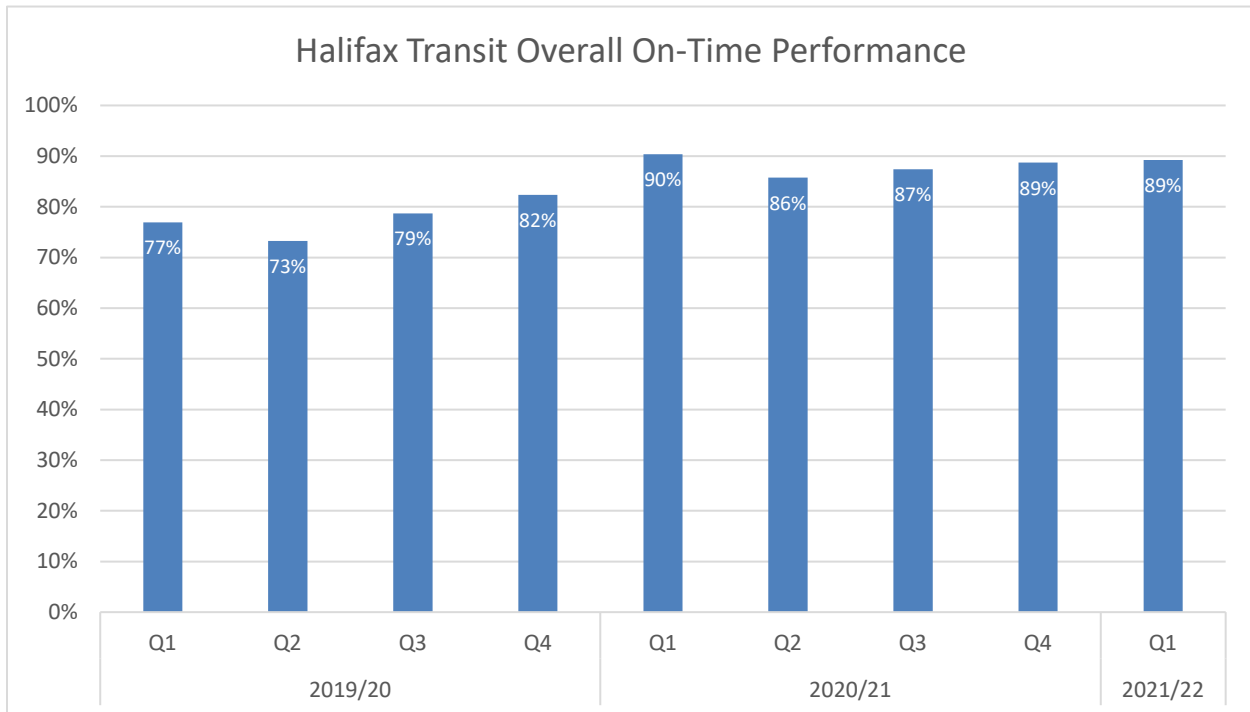


On-Time Performance

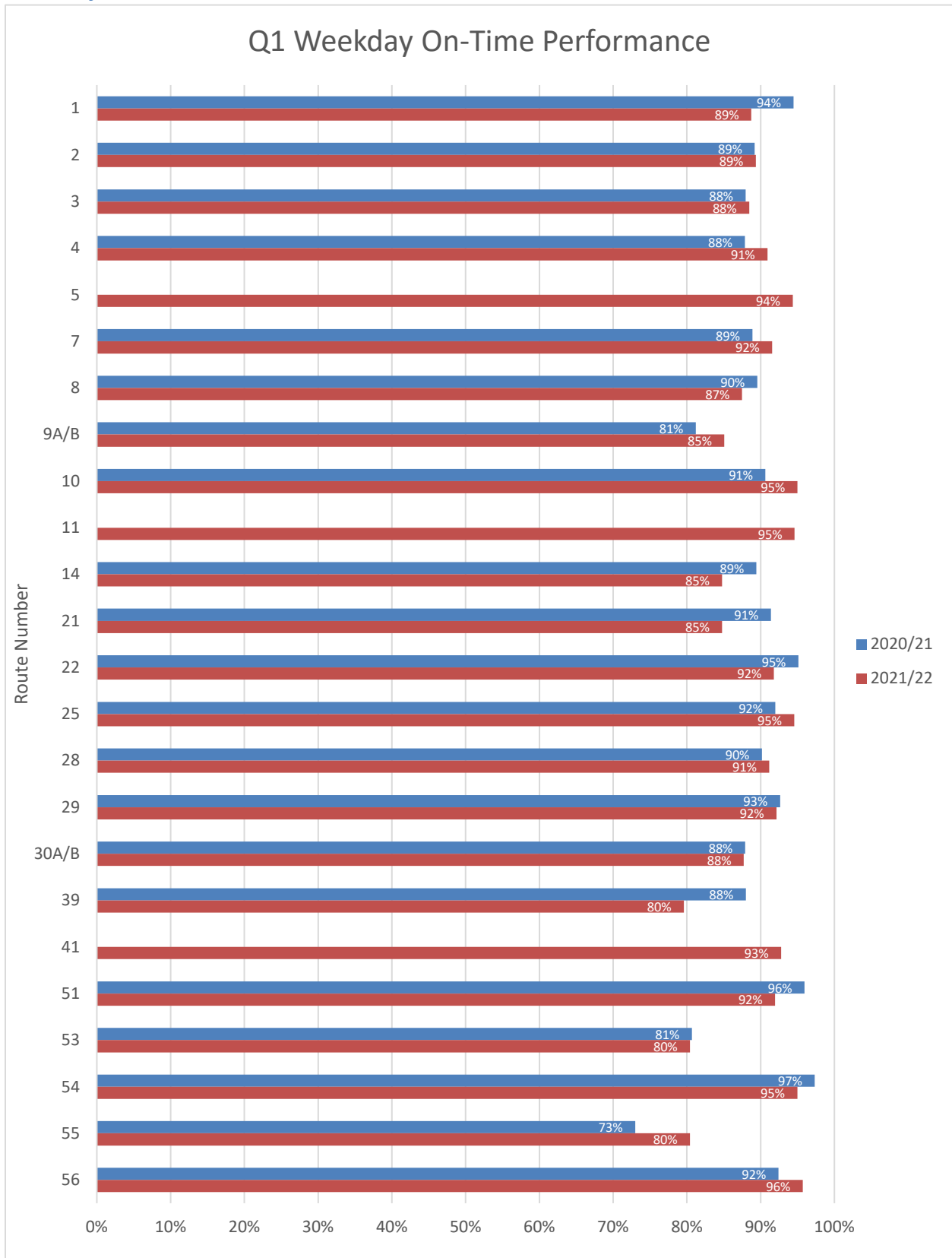
On-time performance is a measure of route reliability and is tracked monthly to demonstrate schedule adherence across the network of routes. Terminals and select bus stops along each route are classified as timepoints and have assigned and publicized scheduled arrival times. On-time performance demonstrates 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.

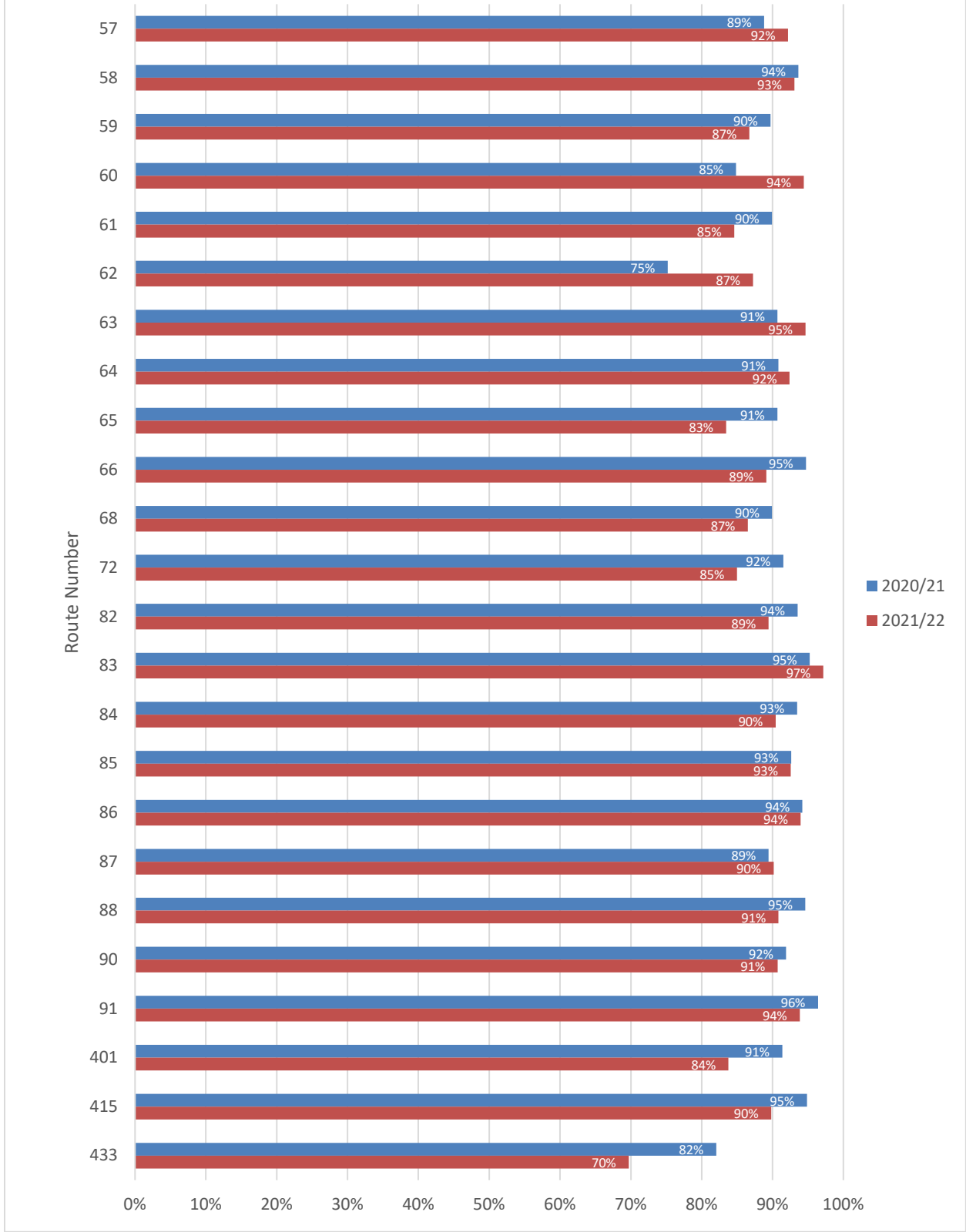
Overall Network On-Time Performance



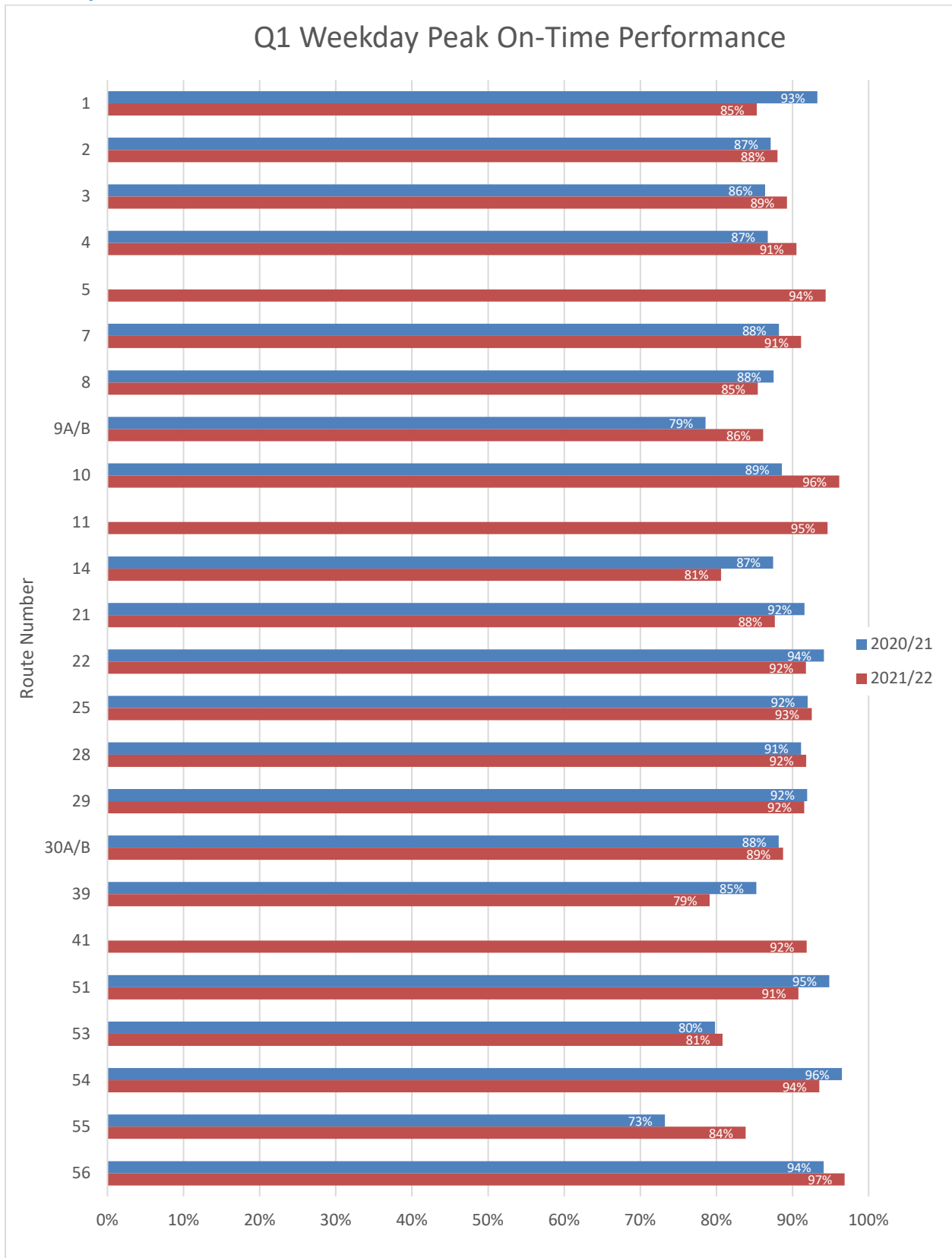
Weekday On-Time Performance



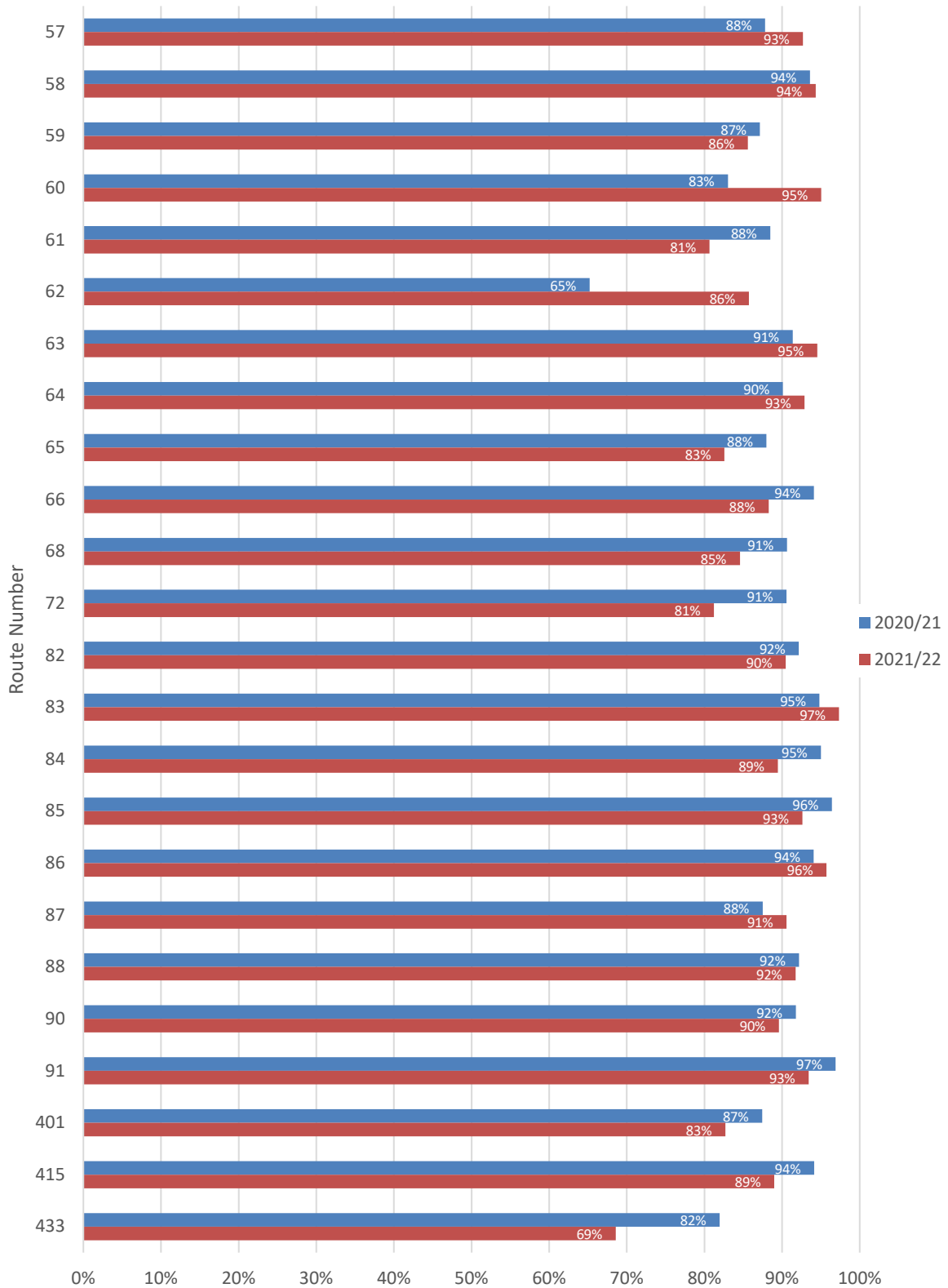
Q1 Weekday On-Time Performance



Weekday Peak Period On-Time Performance



Q1 Weekday Peak On-Time Performance



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.

