

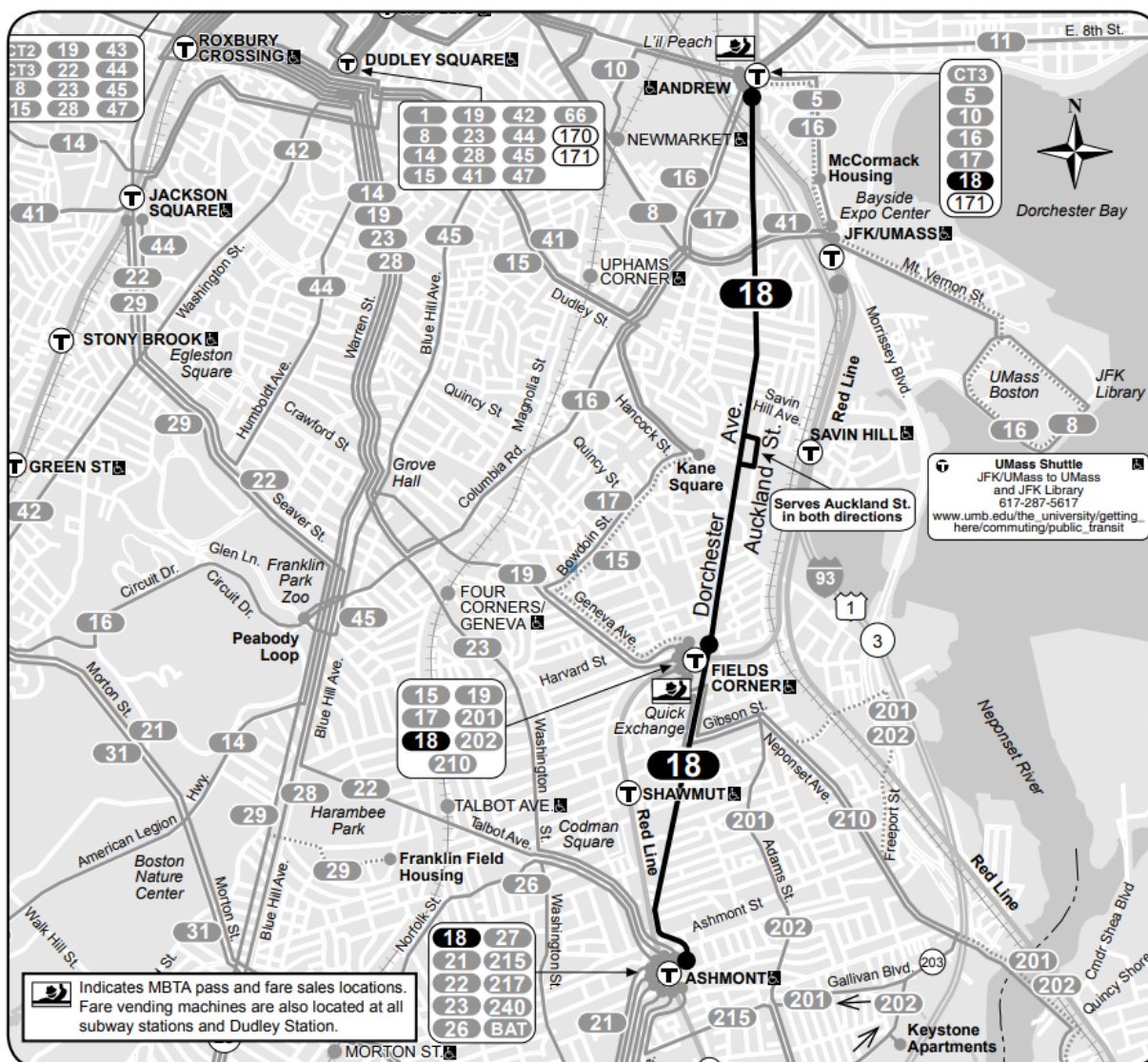
Route 18

Ashmont Station – Andrew Station

Route Overview

Route 18 Ashmont Station – Andrew Station is a Local route that operates between Ashmont Station and Andrew Station via Fields Corner Station, largely along Dorchester Avenue (see Figure 1).

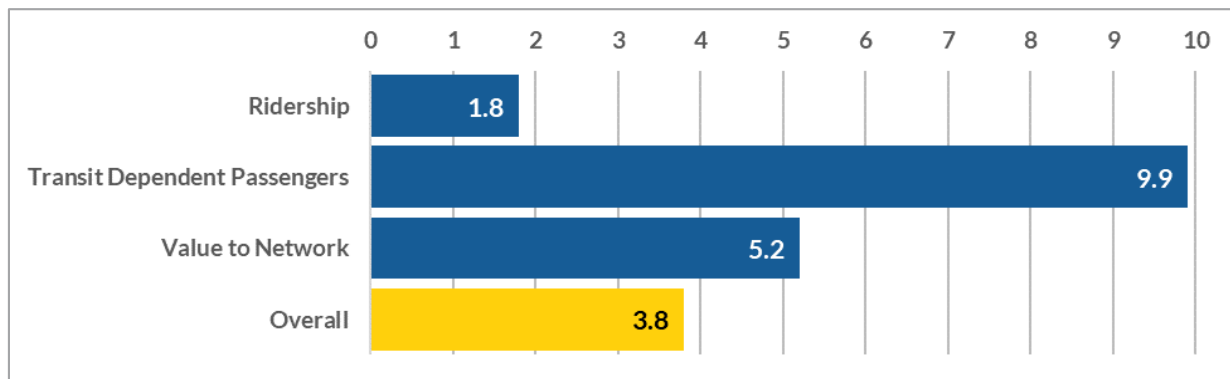
Figure 1 | Service Map



Network Importance

Route 18 is of moderate importance within the MBTA network (see Figure 2). On a relative scale of 0 to 10, the route rates 1.8 in terms of ridership, 9.9 in terms of transit dependent ridership, and 5.2 in terms of its value to the network (which reflects the number of people who are uniquely served, the number of jobs and other important destinations, and the number of transferring passengers). Its overall score, which gives a 70% weight to overall ridership and a 15% weight to both other measures, is 3.8.

Figure 2 | Relative Importance within MBTA Bus Network (on a scale of 0 to 10)



Service Patterns

Schedule

Route 18 operates on weekdays and Saturdays with infrequent service throughout the day on all days (see Table 1). Weekday service operates from 6:05 AM until 6:50 PM, with the following frequencies:

- Service operates every 30 minutes from 6:30 AM through 10:00 AM inbound, and from 6:30 AM through 9:30 AM outbound. Trips then operate hourly until about 4:00 PM in both directions.
- From 4:00 PM until the end of service, service operates every 35 to 40 minutes.

On Saturdays, service operates hourly from 9:00 AM to 6:46 PM. On both weekdays and Saturdays, a single early morning inbound trip (4:43 AM on weekdays, 4:34 AM on Saturdays) operates Route 18 from Ashmont Station to Fields Corner Station, and then provides through service to downtown Boston. This trip is included on the Route 18 schedule, but is not considered part of regular Route 18 service.

Route 18 fails to meet a number of Service Delivery Policy level of service standards:

- On weekdays, it fails to meet the span of service standard by ending service at 6:50 PM versus the standard of 7:00 PM.

- On Saturdays, it technically meets the span of service standard that service should start by 8:00 AM because of the single early morning trip at 4:34 AM. However, aside from that single trip, “regular” service starts at 9:00 AM.
- It also fails to meet the days of service standard by not providing Sunday service.

Since the completion of this document, Route 18 schedules have been adjusted slightly, although the route continues to fail SDP standards as described above.

Table 1 | Schedule Statistics

SERVICEDAY	SPAN OF SERVICE	FREQUENCY (RANGE)	FREQUENCY (AVERAGE)	DAILY TRIPS (INBOUND/OUTBOUND)
Monday-Friday	6:05 AM to 6:50 PM			17/17
Sunrise	-	-	-	-
Early AM	6:05 AM to 6:59 AM	30	30	1/2
AM Peak	7:00 AM to 8:59 AM	30	30	4/4
Midday Base	9:00 AM to 1:29 PM	30 - 60	54	5/5
Midday School	1:30 PM to 3:59 PM	35 - 60	52	3/2
PM Peak	4:00 PM to 6:50 PM	35 - 65	47	4/4
Evening	-	-	-	-
Late Evening	-	-	-	-
Night	-	-	-	-
Saturday	9:00 AM to 6:46 PM	55-60	60	10/10
Sunday	-	-	-	-

Note: Span of service reflects the time the first bus begins service until the time the last bus finishes service.

Service Patterns

Route 18 operates with a single service pattern on all trips on all days.

Table 2 | Service Patterns

PATTERN	ORIGIN	DESTINATION	UNIQUE FEATURE	TRIPS PER WKD	TRIPS PER SAT	TRIPS PER SUN
INBOUND				17	10	-
18.0	Ashmont Station	Andrew Station	-	17	10	-
OUTBOUND				17	10	-
18.0	Andrew Station	Ashmont Station	-	17	10	-

Ridership

Route 18 is one of the MBTA’s lowest ridership Local routes, carrying 420 passengers on weekdays and 180 passengers on Saturdays.

Ridership by Stop

Most riders use Route 18 to connect with the Red Line at Ashmont, Fields Corner, and Andrew Station. On weekday inbound trips (see Figure 3):

- 70 passengers, or 30% of all passengers, board at Ashmont Station.
- 90 passengers board and 60 alight at the 20 stops along Dorchester Avenue between Ashmont Station and Fields Corner Station. All but two stops have fewer than five boarding and alightings.
- Fewer than 15 passengers board and fewer than 15 alight at Fields Corner Station.
- 30 passengers board and 10 alight at on-street stops in Fields Corner.
- 40 passengers board and 60 alight along Dorchester Avenue between Fields Corner Station and Andrew Station. This segment also includes the deviation to Auckland Street, which is used by an average of less than one passenger.
- 90 passengers, or 39% of inbound riders, alight at Andrew Station.

Outbound patterns are essentially the reverse of inbound patterns. Saturday patterns are also similar.

Ridership by Trip

On weekdays, ridership per trip is low on all trips in both directions (see Figure 4 and Figure 5). Inbound, the highest ridership is 20 passengers on the first inbound trip at 6:30 AM, and all other trips carry fewer than 15 passengers. Outbound ridership per trip is below 15 passengers per trip through 2:00 PM. It then increases to around 15 to 20 between 3:00 PM and 5:15 PM, and the last trip at 5:55 PM has 12 passengers.

Ridership per trip is lower on Saturdays, with no trip in either direction carrying more than 12 passengers (see Figure 6 and Figure 7).

Figure 3 | Weekday Inbound Ridership by Stop Map



Figure 4 | Weekday Ridership by Trip: Inbound

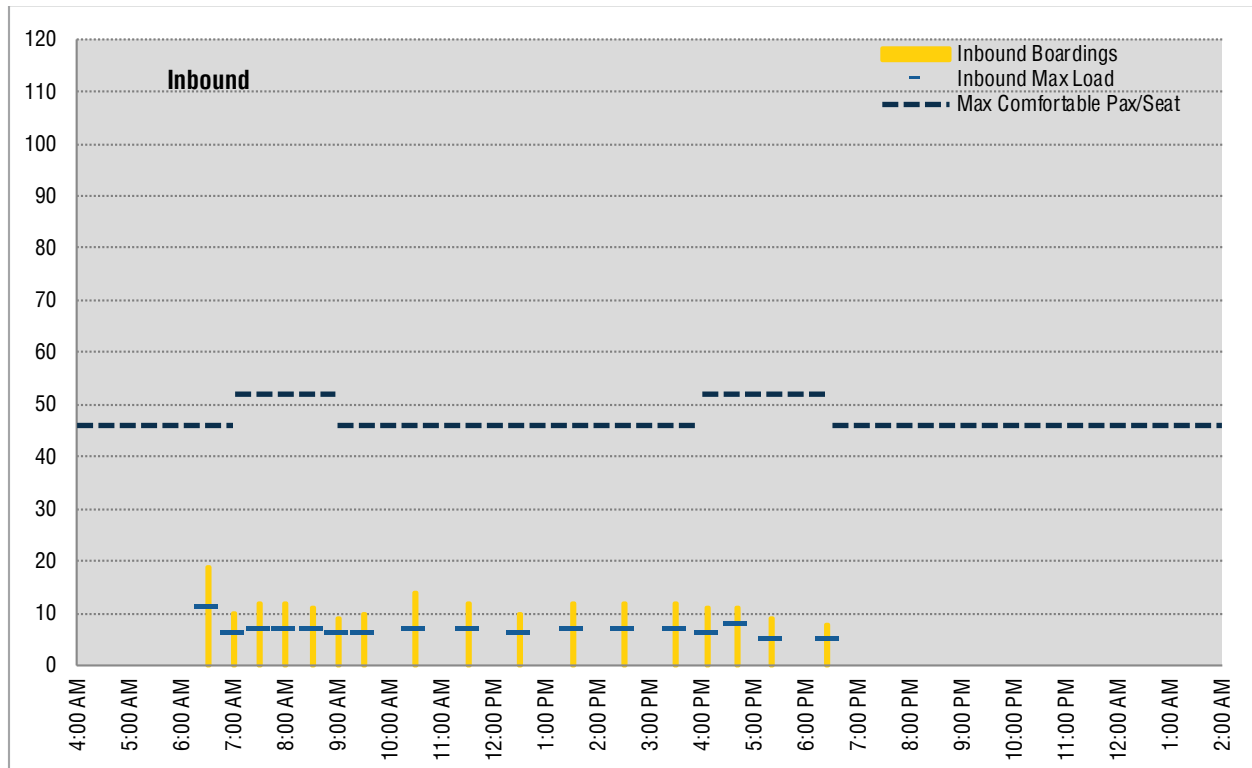


Figure 5 | Weekday Ridership by Trip: Outbound

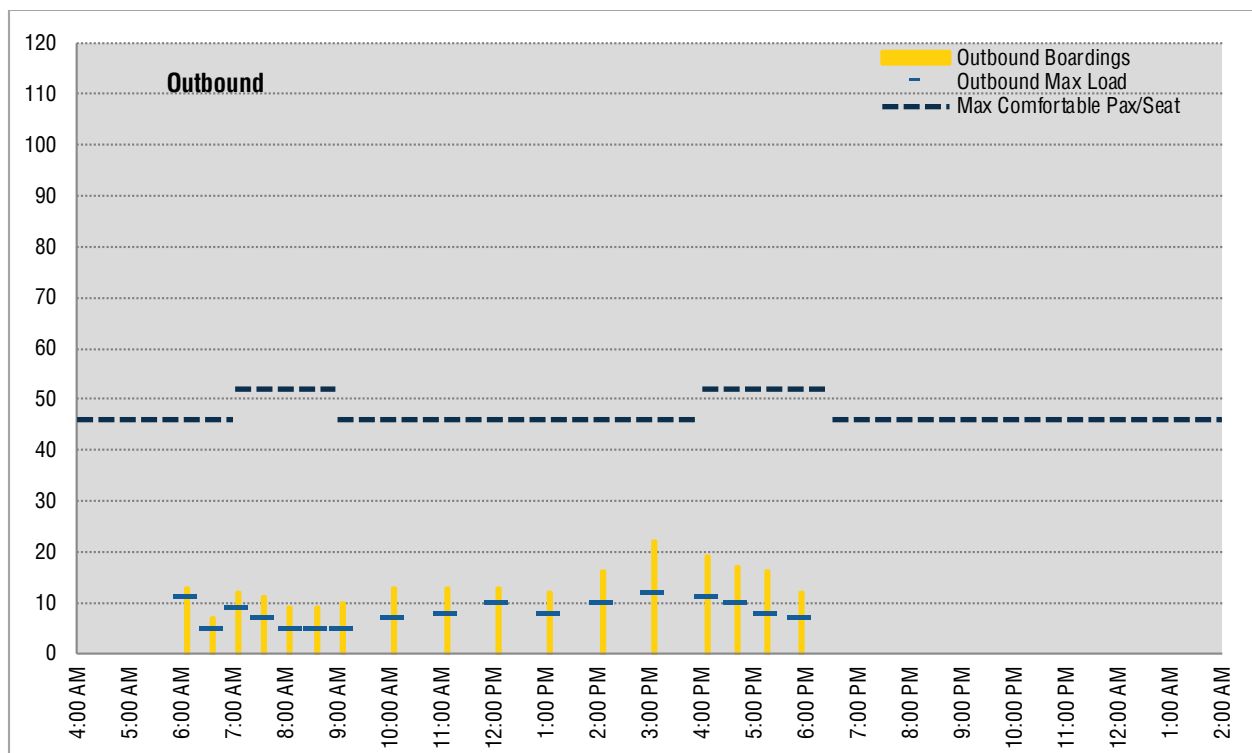


Figure 6 | Saturday Ridership by Trip: Inbound

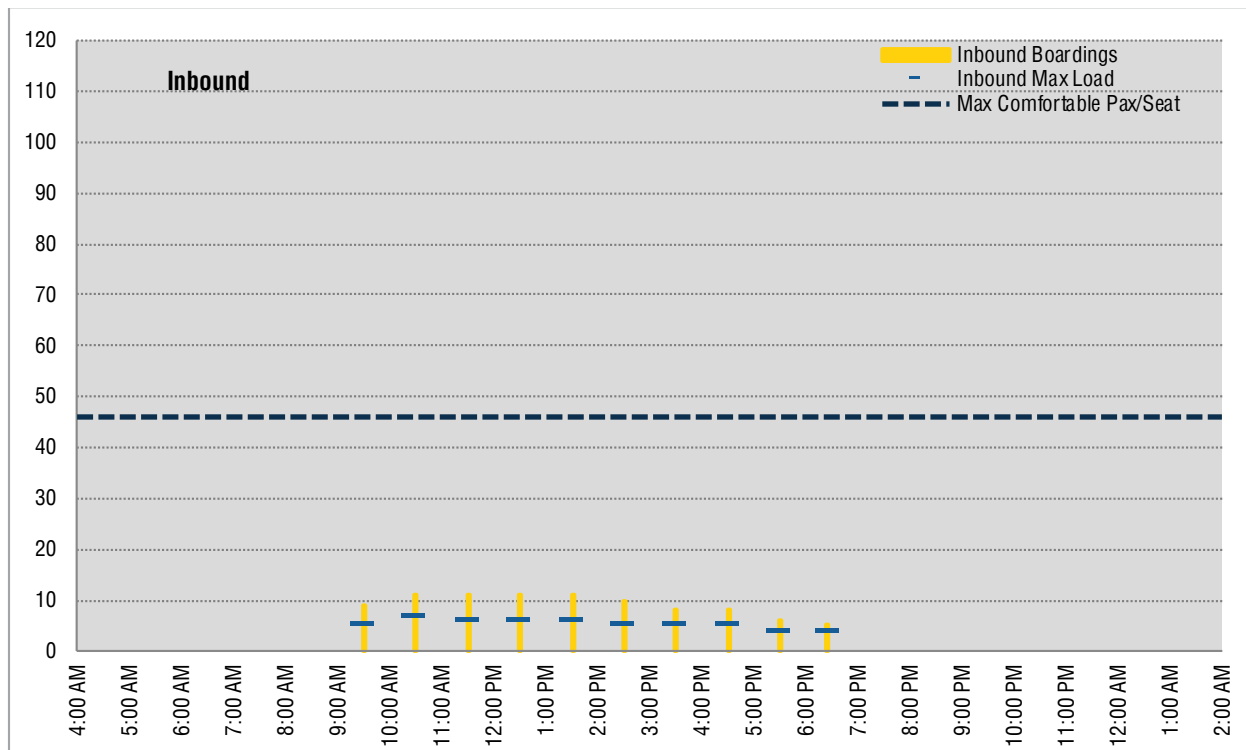
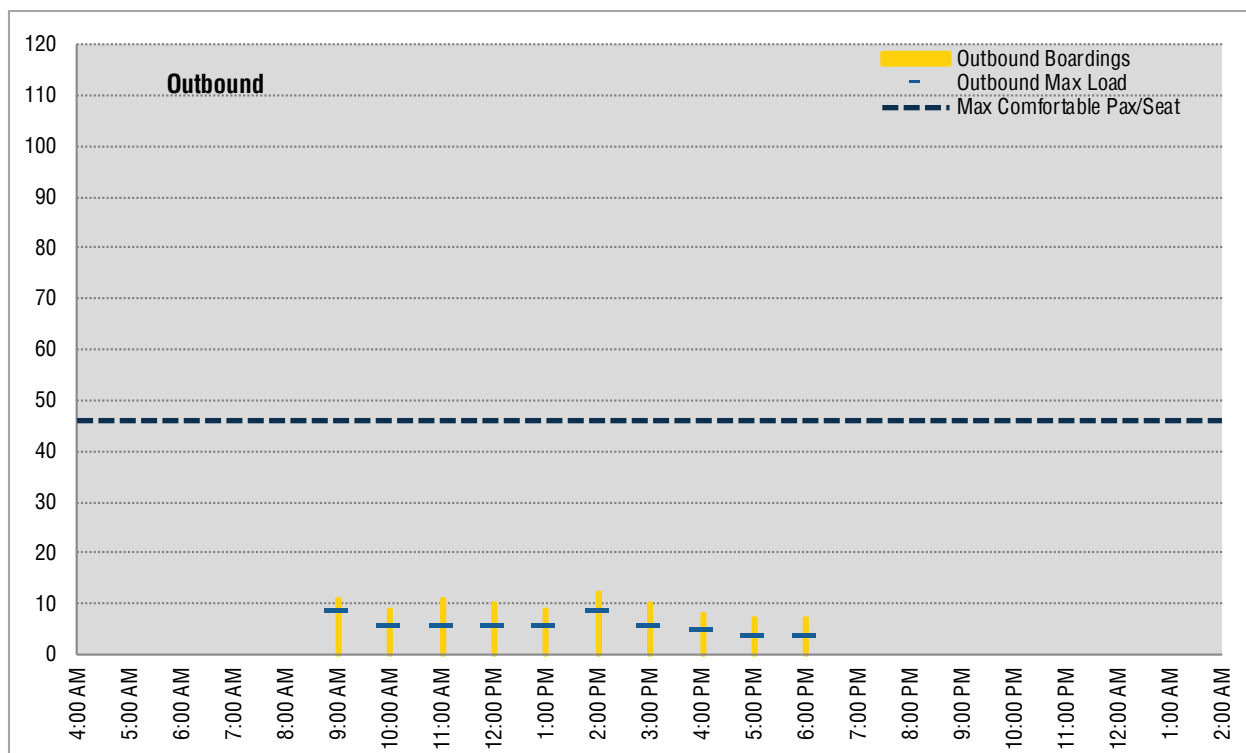


Figure 7 | Saturday Ridership by Trip: Outbound



Passenger Comfort

The MBTA desires that passengers travel in relatively comfortable conditions. At the same time, the MBTA's definition of comfort reflects the very high volume environment in which the MBTA operates, and that some passengers may have to stand for a portion of their trip. More specifically, at least 92% of passengers' travel times should be in comfortable conditions, and ideally, at least 96% of travel times should be in comfortable conditions. Comfortable conditions are considered to be 140% or less of seated capacity during high volume periods and 125% or less during other periods.

On Route 18, 100% of passenger minutes are in comfortable conditions (see Table 3).

Table 3 | Passenger Time Spent Traveling in Comfortable Conditions

	WEEKDAYS	SATURDAYS	SUNDAYS
Minimum Standard	92%	92%	92%
Target	96%	96%	96%
Actual	100%	100%	-

Reliability and Speed

Reliability

Route 18's overall reliability is poor, at 59% on weekdays and 68% on Saturdays (see Table 4). As described in the next section, this is due in large part to actual running times that are longer than scheduled running times.

Table 4 | Reliability

SERVICE DAY	ORIGIN/MID-ROUTE ON-TIME PERFORMANCE	DESTINATION ON-TIME PERFORMANCE	OVERALL RELIABILITY	DROPPED TRIPS
Monday-Friday	56%	68%	59%	0.2%
Saturday	70%	63%	68%	-
Sunday	-	-	-	-

Running Times

Route 18's observed inbound and outbound running times exceed scheduled running times throughout the service day. Many inbound trips run up to five minutes late and many outbound trips run five to 15 minutes late. The most significant delays are during the midday and PM peak (see Figure 8 and Figure 9). Since the development of this document, the MBTA has adjusted Route 18 schedules to better reflect actual running times.

Figure 8 | Scheduled & Median Travel Time by Trip: Route 18 Inbound

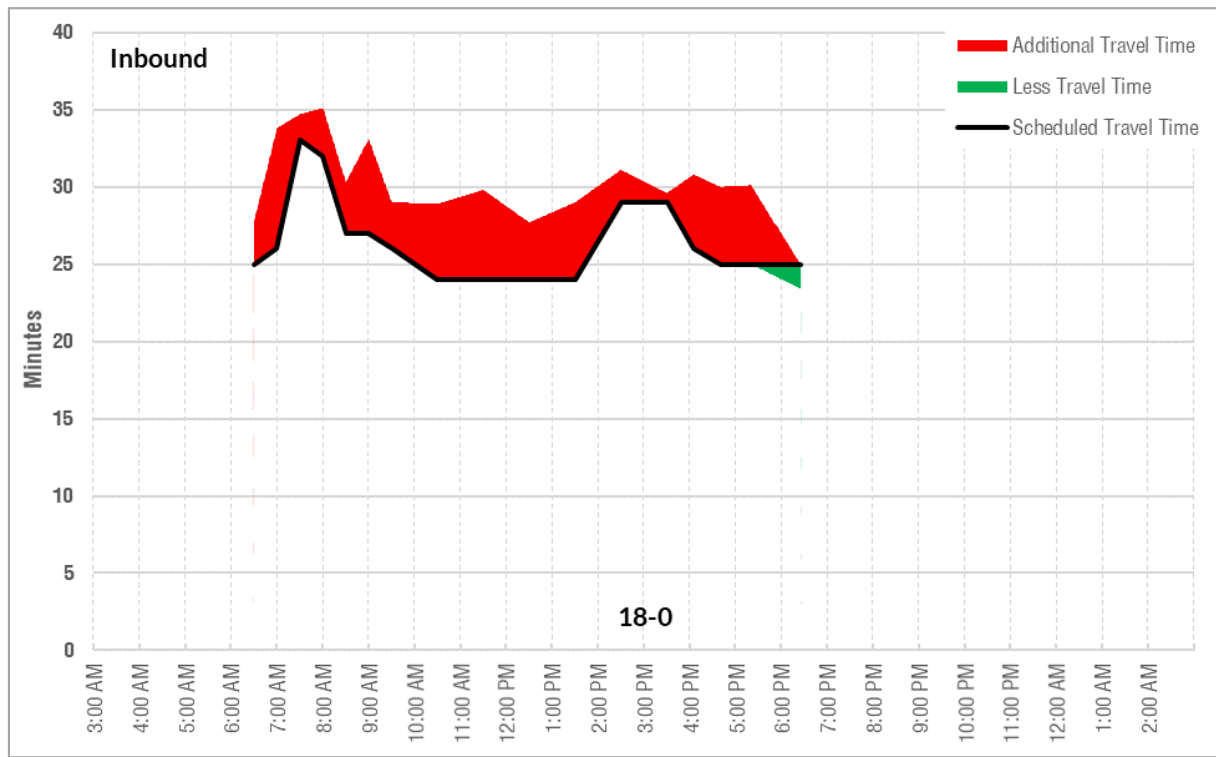
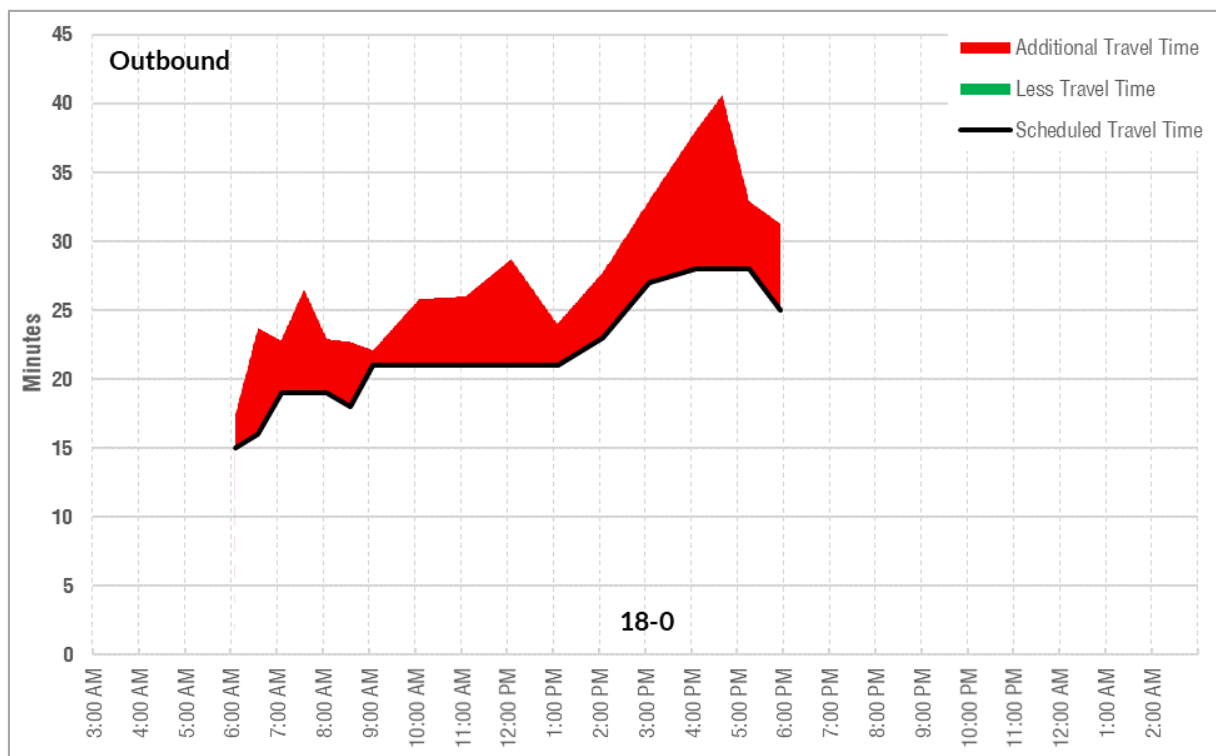


Figure 9 | Scheduled & Median Travel Time by Trip: Route 18 Outbound



Stop Spacing

Route 18 has an average of 7.5 stops per mile, which is more than the four to seven stops per mile specified by MBTA guidelines. Stop consolidation would make service faster and improve on-time performance.

Summary

Route 18 provides infrequent service along Dorchester Avenue through neighborhoods that are within walking distance of three Red Line stations and other high frequency bus routes. As a result, Route 18 carries fewer riders than almost any other MBTA Local bus route. A high proportion of Route 18 passengers are considered transit dependent.