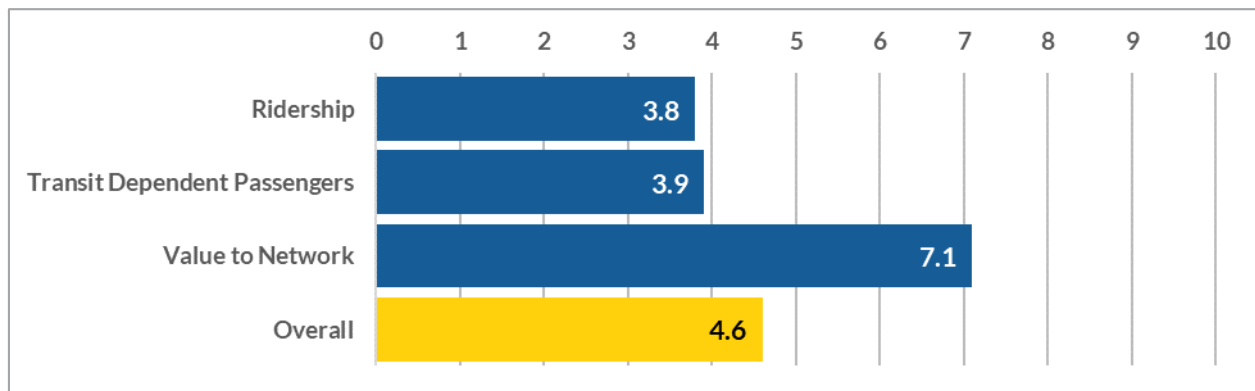


Network Importance

Route 426 is of moderate importance within the overall MBTA network (see Figure 2). On a relative scale of 0 to 10, the route ranks 3.8 in terms of ridership, 3.9 in terms of transit dependent ridership, and 7.1 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 4.6.

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



Service Patterns

Schedule

On weekdays, Route 426 provides moderately frequent service during peak periods and on the shoulders of the peaks, and infrequent service during other periods (see Table 1). On weekends, it provides infrequent service.

Weekday service operates from 5:15 AM to 1:12 AM with the following service frequencies:

- 30 minutes between the first trip and the next trip at 5:53 AM.
- Every seven to 33 minutes between 6:00 AM and 8:05 AM. There is no clear headway pattern during this period, but the average headway is 20 minutes.
- Every 28 to 39 minutes between 8:05 AM and 9:45 AM, but predominantly every 32 minutes.
- Every 50 to 64 minutes between 9:45 AM and 3:35 PM, but predominantly every 60 minutes.
- Every 25 to 30 minutes between 3:35 PM and 5:15 PM, with an equal number of 25 and 30 minutes headways.

- Every 45 to 55 minutes from 5:15 PM through the end of service, but predominantly every 50 minutes.

On Saturdays, Route 426 operates from 6:00 AM to 1:10 AM and runs every 60 to 70 minutes, although predominantly every 70 minutes. On Sundays, it operates from 7:00 AM to 1:10 AM and provides hourly service. Route 426 currently meets the MBTA’s span of service and frequency standards for Local bus service.

Table 1 | Schedule Statistics

SERVICEDAY	SPAN OF SERVICE	FREQUENCY (RANGE)	FREQUENCY (AVERAGE)	DAILY TRIPS (INBOUND/OUTBOUND)
Monday-Friday	5:20 AM to 1:12 PM			33/36
Sunrise	5:20 AM to 5:59 AM	15 – 33	24	2/0
Early AM	6:00 AM to 6:59 AM	15 – 45	30	4/1
AM Peak	7:00 AM to 8:59 AM	12 – 60	25	7/4
Midday Base	9:00 AM to 1:29 PM	30 – 60	56	5/4
Midday School	1:30 PM to 3:59 PM	05 – 70	34	3/9
PM Peak	4:00 PM to 6:29 PM	09 – 38	24	5/8
Evening	6:30 PM to 9:59 PM	15 – 60	37	5/6
Late Evening	10:00 PM to 11:59 PM	60 – 60	60	2/2
Night	12:00 AM to 1:12 AM	60 – 72	72	0/2
Saturday	6:00 AM to 1:10 AM	55 – 70	63	15/17
Sunday	7:00 AM to 1:10 AM	45 – 70	56	16/19

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

Service Patterns

Route 426’s primary service pattern operates between Central Square, Lynn and Haymarket Station (Pattern 426.0). Alternate weekday service operates on the following patterns:

- Four inbound trips and one outbound trip operate between Haymarket Station and the Lynn MBTA Garage (Pattern 426.1).
- Two outbound trips operate from O’Callaghan Way at Holyoke Street to Central Square, Lynn to serve Classical High School (Pattern 426.2).
- Two outbound trips operate from O’Callaghan Way at Osborne Street, one third of a mile north of Holyoke Street, to Central Square, Lynn to serve Breed Middle School and Julia F. Callahan School (Pattern 426.3).
- One outbound trip originates at Linden Square at 7:58 AM (Pattern 426.4), adding additional frequency on the route.
- The last outbound trip operates via Bell Circle to Silsbee Street and Central Square, Lynn (Pattern 426.5).

- Three inbound trips operate from Central Square, Lynn to Wonderland Station via Bell Circle (pattern 426.7).

Saturday service operates on the following patterns:

- 15 inbound and 14 outbound trips operate from Central Square, Lynn to Wonderland Station via Bell Circle (Pattern 426.7).
- Three outbound trips operate the above pattern but do not operate the Silsbee Street loop to serve Greater Lynn Senior Services (Pattern 426.9)

Sunday service operates on the following patterns:

- 16 inbound and 16 outbound trips operate from Central Square, Lynn to Wonderland Station via Bell Circle (Pattern 426.7).
- Three outbound trips operate the above pattern but do not operate the Silsbee Street loop to serve Greater Lynn Senior Services (Pattern 426.9)

Table 2 | Service Patterns

PATTERN	ORIGIN	DESTINATION	UNIQUE FEATURE	TRIPS PER WKD	TRIPS PER SAT	TRIPS PER SUN
INBOUND				33	15	-
426.0	Market Street at Commuter Rail	Haymarket Station	Begins at Central Square, Lynn	26	-	-
426.1	Western Avenue at Lynn Garage	Haymarket Station	Begins at Lynn Garage	4	-	-
426.7	Market Street at Commuter Rail	Wonderland Station	Via Squire Road	3	15	16
OUTBOUND				36	17	-
426.0	Haymarket Station	Market Street at Commuter Rail	Via Lincoln Avenue	25	-	-
426.1	Haymarket Station	Western Avenue at Lynn Garage	Via Lincoln Avenue	5	-	-
426.2	O'Callaghan Way at Holyoke Street	Central Square, Lynn	Begins at O'Callaghan Way at Holyoke Street	2	-	-
426.3	O'Callaghan Way at Osborne Street	Central Square, Lynn	Begins at O'Callaghan Way at Osborne Street	2	-	-
426.4	Wesley Street at Lynn Street	Central Square, Lynn	Begins at Linden Square	1	-	-
426.5	Haymarket Station	Silsbee at Union Street	Via Silsbee Street at Union Street to Central Square, Lynn	1	-	-

PATTERN	ORIGIN	DESTINATION	UNIQUE FEATURE	TRIPS PER WKD	TRIPS PER SAT	TRIPS PER SUN
426.7	Wonderland Station	Market Street at Commuter Rail	Via Squire Road	-	14	16
426.9	Wonderland Station	Lynn at Commuter Rail Busway	Does not operate Silsbee Street loop	-	3	3

Ridership

Route 426 serves 1,809 riders on weekdays, 683 riders on Saturdays, and 666 riders on Sundays. These ridership numbers are relatively low for MBTA Local route service.

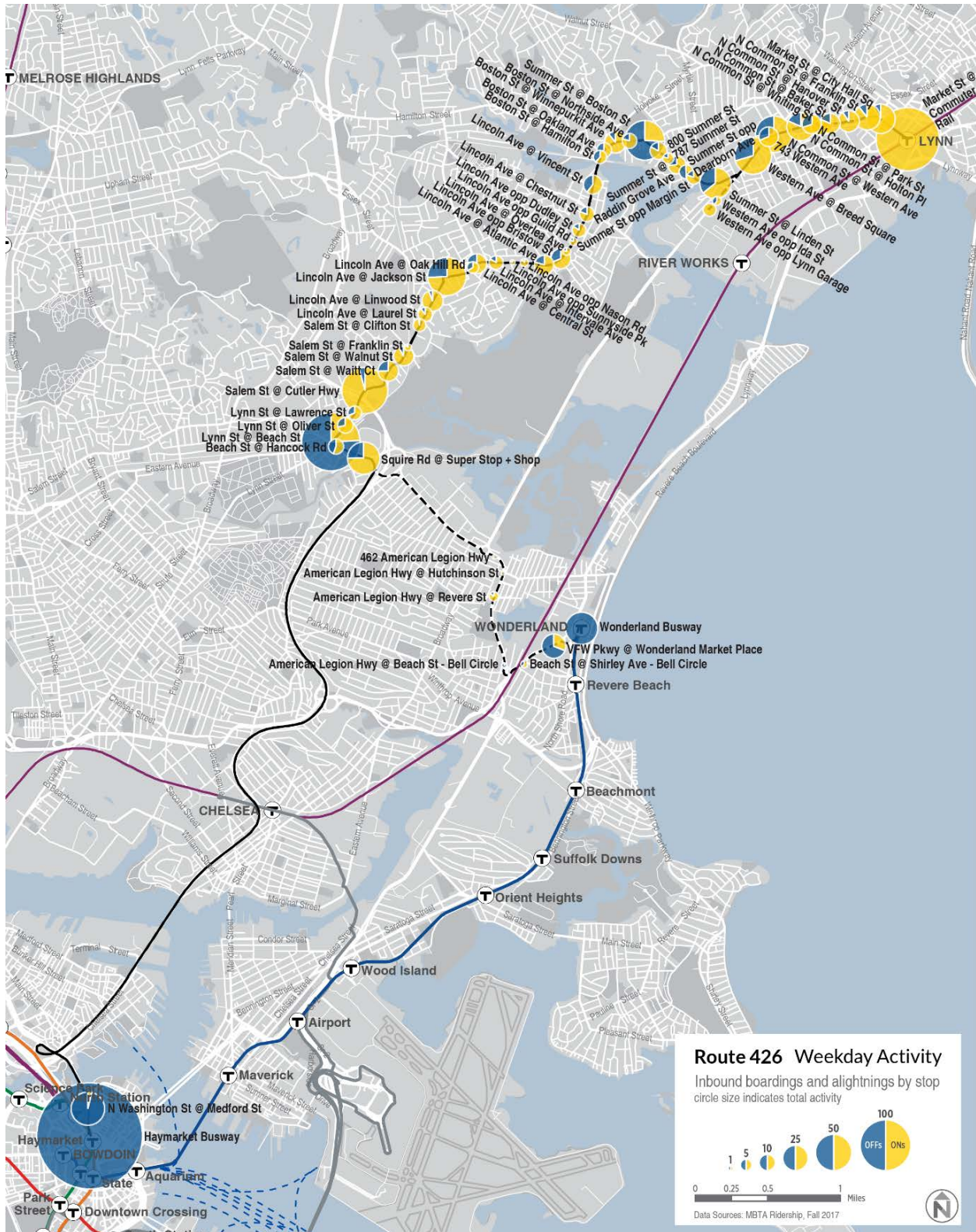
Ridership by Stop

Ridership on Route 426 is highest at major transfer stations and key intersections, although there is consistent ridership along the main Lincoln Avenue/Central Lynn corridor. On weekday inbound trips (see Figure 3):

- 159 riders board at Market Street at Central Square, Lynn.
- 236 riders board and 60 alight at the 12 stops on North Common Street and Western Avenue, most of which have high ridership.
- 25 riders board and 14 alight at Summer Street at Linden Street.
- 33 riders board and 12 alight at the five stops along Summer Street between Linden Street and Boston Street.
- 16 riders board and 46 alight at Summer Street at Boston Street.
- 116 riders board and 36 alight at the 17 stops between Summer Street at Boston Street and Lincoln Avenue at Jackson Street.
- 43 riders board and 15 alight at Lincoln Avenue at Jackson Street.
- 58 riders board and eight alight at the six stops between Lincoln Avenue at Jackson Street and Salem Street at Cutler Highway.
- 80 riders board and three alight at Salem Street at Cutler Highway.
- 12 riders board and five alight at the two stops between Salem Street at Cutler Highway and Lynn Street at Beach Street.
- 32 riders board and 102 alight at Lynn Street at Beach Street.
- 5 riders board and four alight at Beach Street at Hancock Road.
- 31 riders board and 10 alight at Squire Road at Super Stop and Shop.
- On the Haymarket service branch:

-
- Two riders board and 42 alight at North Washington Street at Medford Street.
 - 443 riders alight at Haymarket Station.
 - On the Wonderland service branch:
 - 13 riders board and 18 alight at the six stops on American Legion Highway before Wonderland Station.
 - 42 riders alight at Wonderland Station.

Figure 3 | Weekday Inbound Ridership by Stop Map



Ridership by Trip

On weekdays, Route 426 has moderate ridership throughout most of the day, except in the off-peak direction at early or later times. On weekday inbound trips (see Figure 4):

- The first trip of the day at 5:20 AM carries 59 passengers. This is the highest ridership trip of the day and is overcrowded by MBTA passenger comfort standards, indicating a demand for earlier service.
- Ridership ranges between 25 and 47 on the six trips from 5:20 AM to 7:28 AM, with most trips carrying close to 40 passengers.
- Ridership is steady over the course of the day, and ranges between 16 and 37 on trips from 7:28 AM to 4:10 PM, with most trips carrying roughly 30 passengers.
- Ridership declines sharply from 4:10 PM to 6:46 PM, from roughly 30 passengers per trip to seven passengers per trip.
- Ridership is low from 6:46 PM to the end of service, with trips carrying between six and nine passengers.

On weekday outbound trips (see Figure 5):

- From 6:40 AM to 11:35 AM, most trips carry about 20 passengers.
- Ridership increases to 33 passengers per trip from at 12:35 PM and 1:35 PM.
- Ridership is high through the early afternoon and PM peak, with most trips carrying between 30 and 40 passengers. The 2:35 PM trip carries 47 passengers, the highest of any outbound trip.
- Ridership declines from 5:36 PM to 5:45 PM but remains relatively stable thereafter, when trips carry between 17 and 28 passengers.
- Ridership drops to seven passengers on the last trip at 1:12 AM.

On Saturdays, inbound ridership is moderate from the beginning of service through mid-afternoon, with most trips carrying approximately 20 passengers (see Figure 6). Two trips between 2:00 PM and 4:00 PM carry 30 to 35 passengers. Ridership is lower, between 10 and 20 passengers, after 4:00 PM. Outbound ridership increases gradually over the day, from 12 at 7:25 AM to 46 at 11:20 PM (see Figure 7). Ridership declines but is still relatively strong in the evening, with 23 riders on the last trip at 1:10 AM. This indicates that there is potential demand for service on late Saturday nights.

On Sundays, inbound ridership declines gradually over the course of the day, from 44 riders on the first trip at 7:00 AM to seven on the last trip at 10:00 PM (see Figure 8). Notably, the 2:00 PM trip carries only one passenger. Ridership is highest between 7:00 AM and 9:00 AM, when two of three trips carry 40 or more passengers, and low or moderate during other periods. Outbound ridership is relatively low but stable throughout the day, with most trips carrying between 10 and 20 passengers (see Figure 9).

Figure 4 | Weekday Ridership by Trip: Inbound

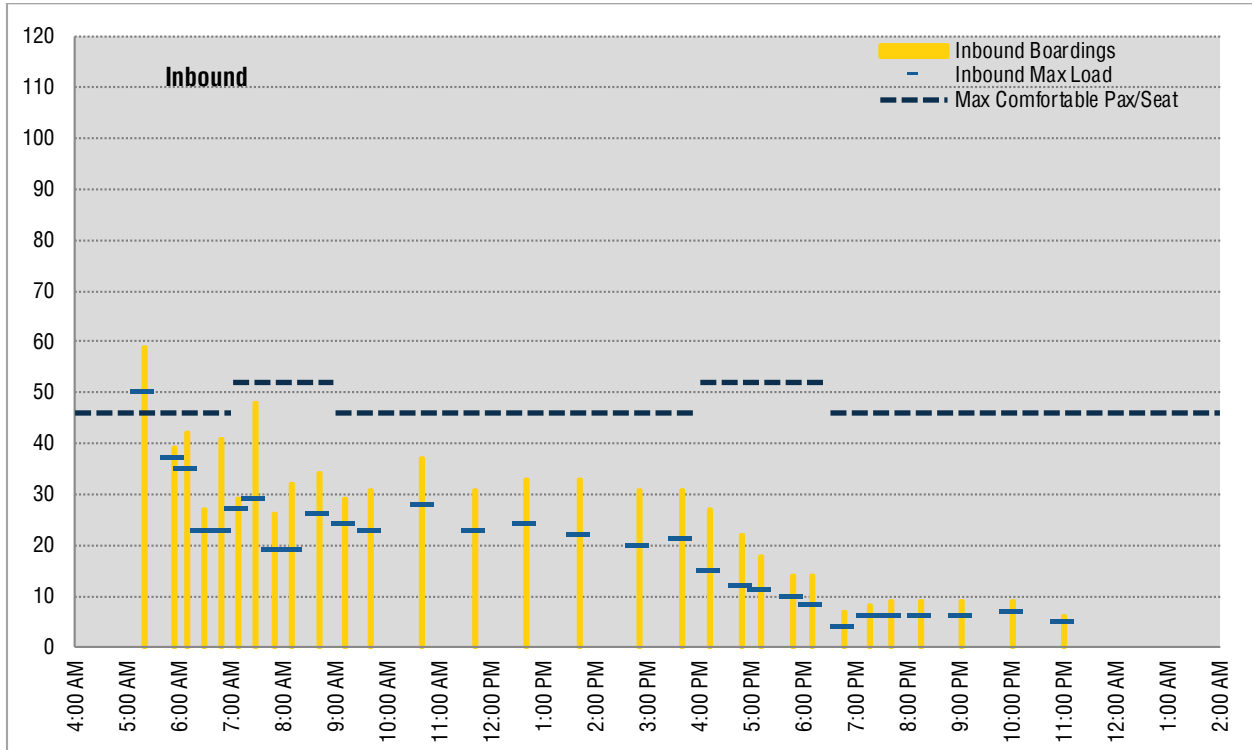


Figure 5 | Weekday Ridership by Trip: Outbound

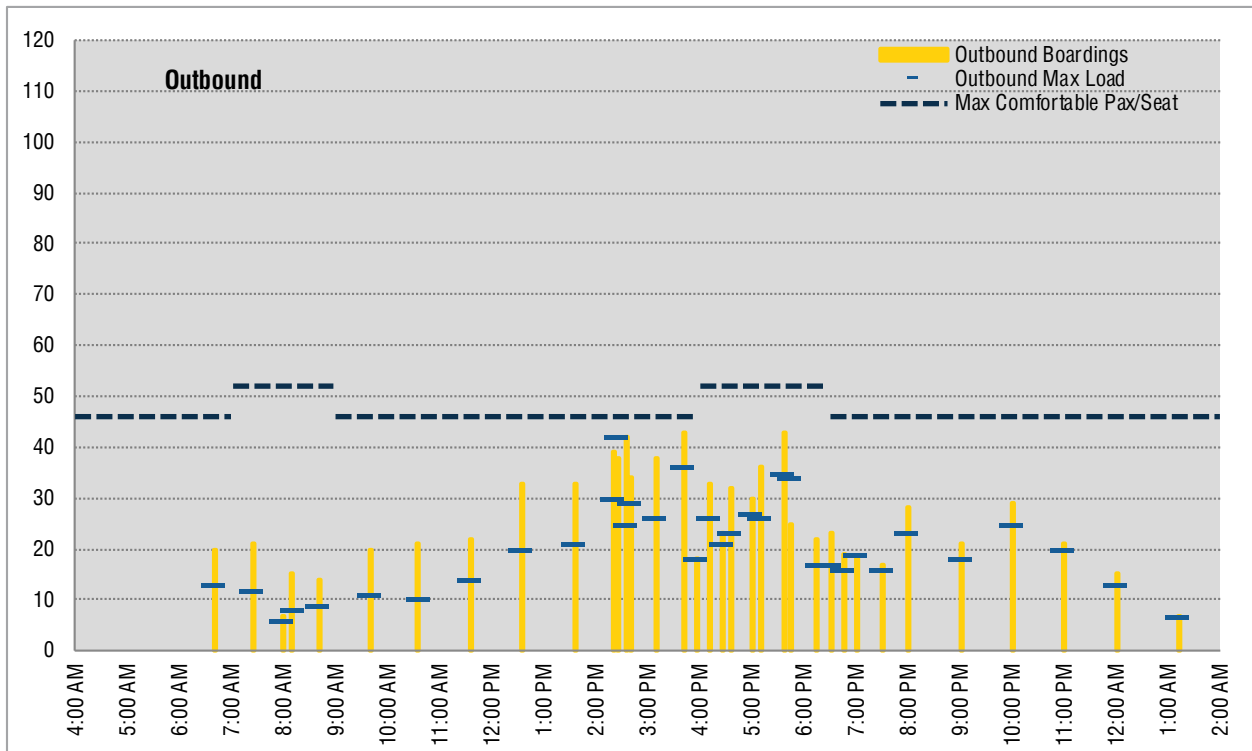


Figure 6 | Saturday Ridership by Trip: Inbound

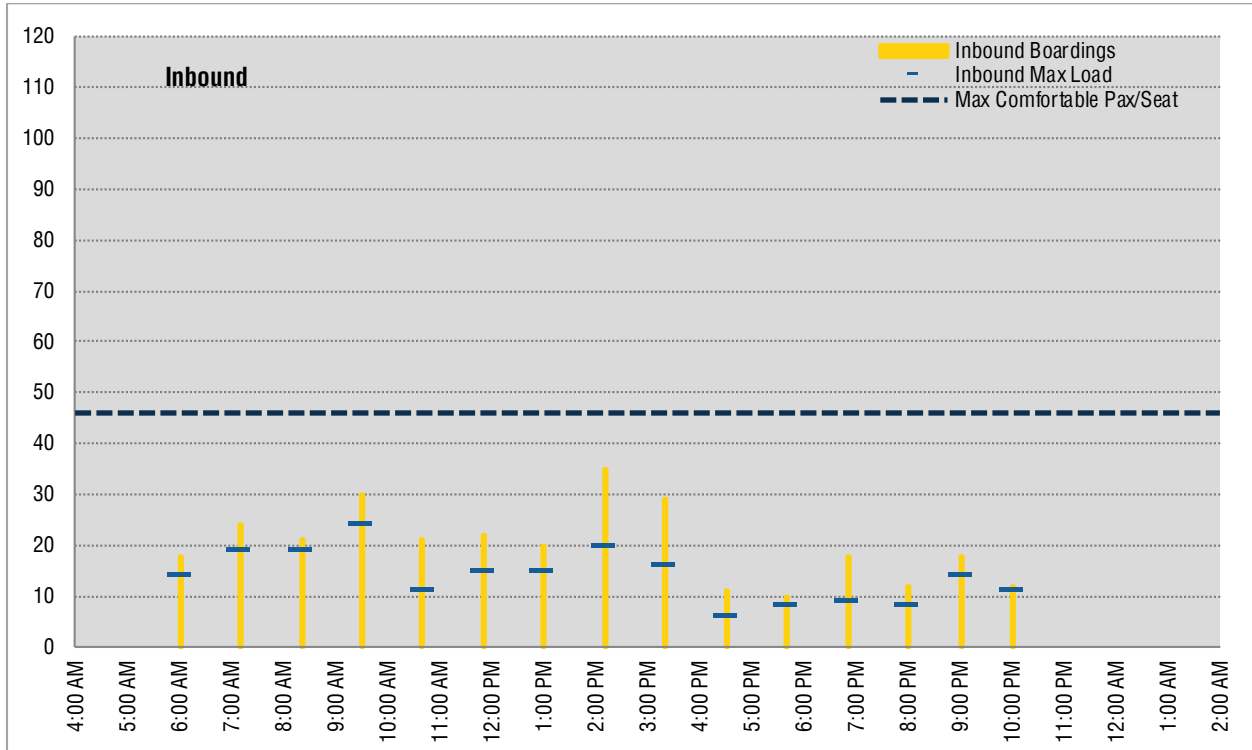


Figure 7 | Saturday Ridership by Trip: Outbound

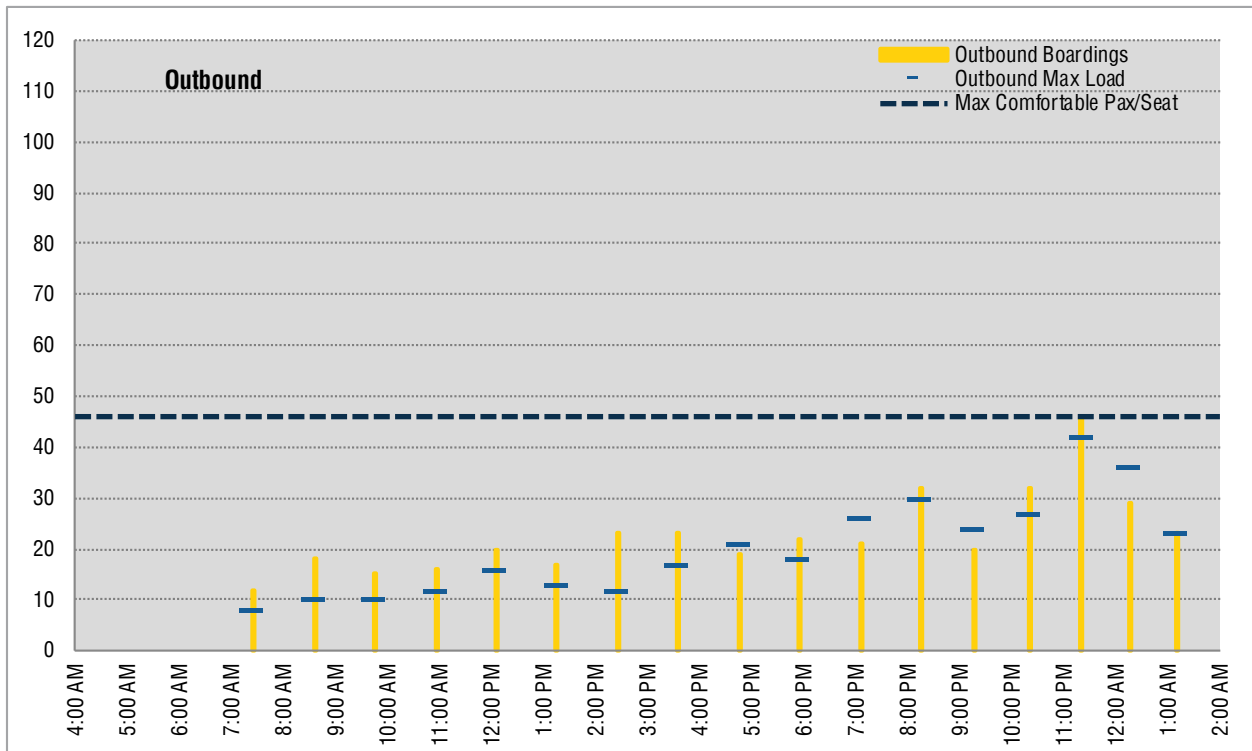


Figure 8 | Sunday Ridership by Trip: Inbound

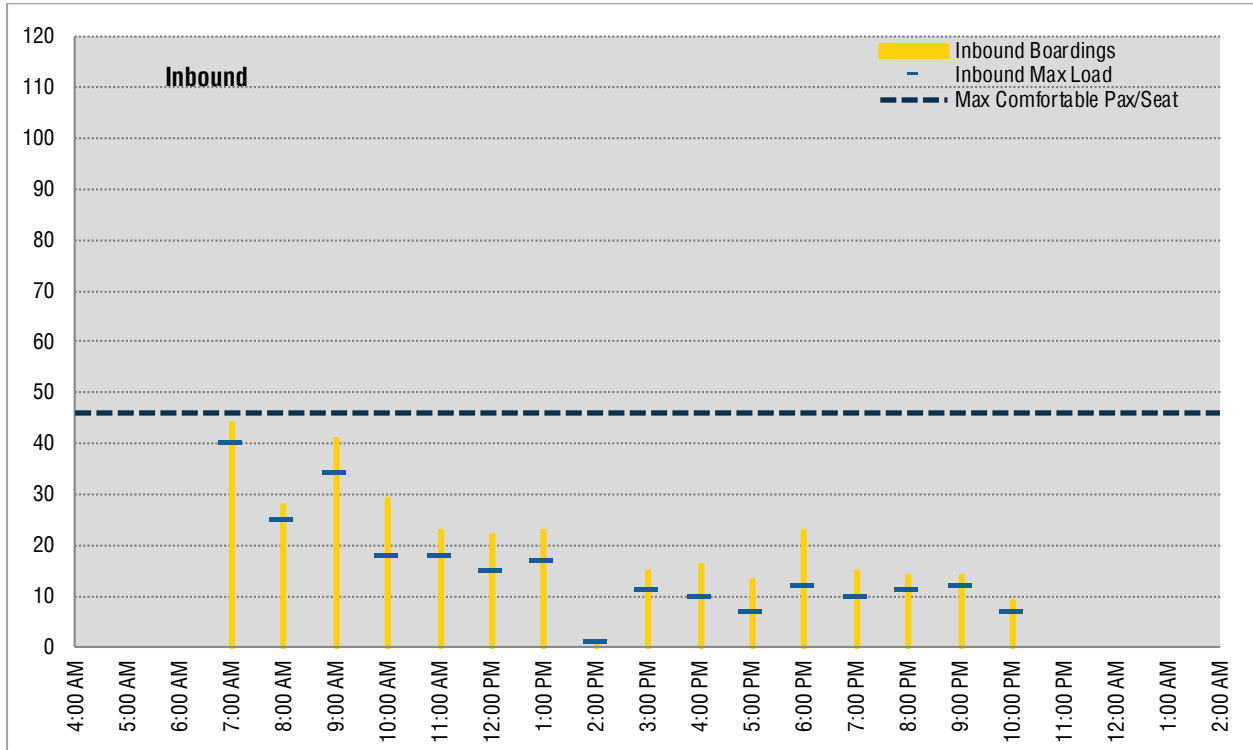
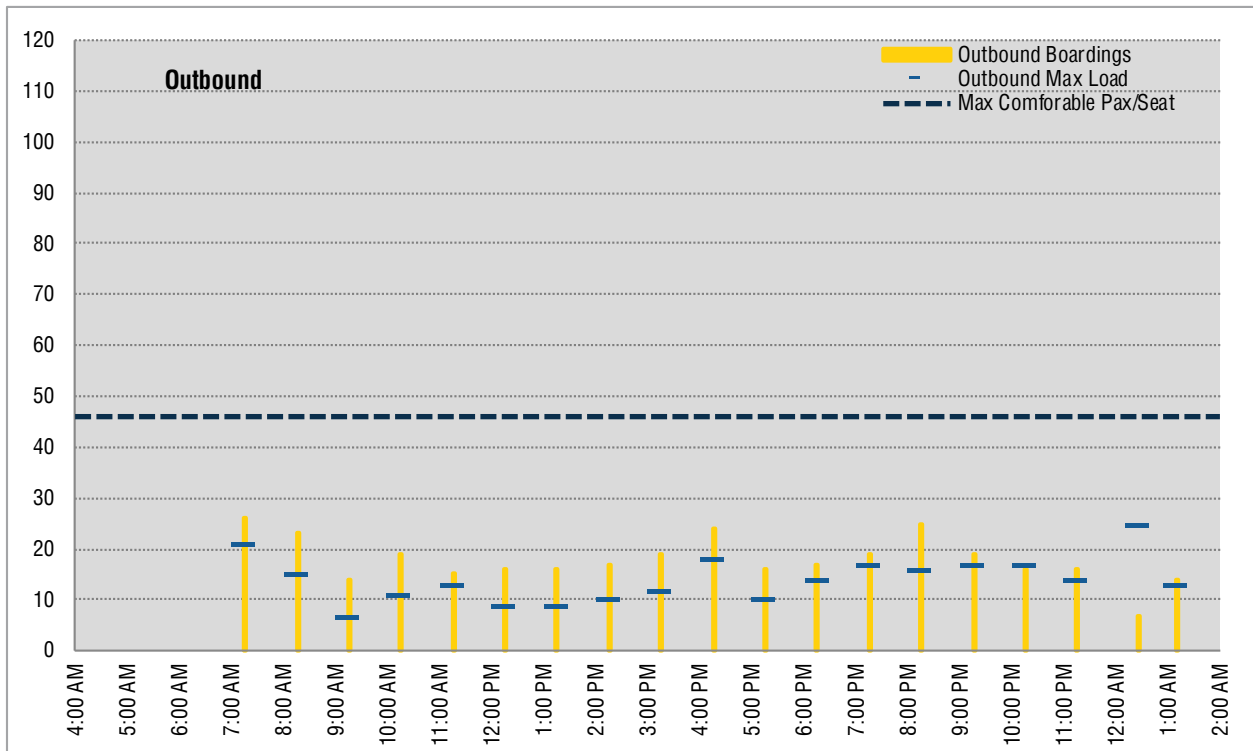


Figure 9 | Sunday Ridership by Trip: Outbound



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 426, 96.2% of passenger minutes are in comfortable conditions, which is above the target (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	96.2%	99.1%	99.9%

Reliability and Speed

Reliability

Route 426’s overall reliability is poor on weekdays and Sundays, at only 63% and 62% respectively, and somewhat poor on Saturdays at 65%. This makes it the MBTA’s 124th most reliable route on weekdays. About 0.2% of weekday trips were dropped in Fall 2017.

Table 4 | Reliability

SERVICE DAY	ORIGIN/MID-ROUTE ON-TIME PERFORMANCE	DESTINATION ON-TIME PERFORMANCE	OVERALL RELIABILITY	DROPPED TRIPS
Monday-Friday	54%	52%	54%	0.2%
Saturday	65%	65%	65%	-
Sunday	45%	75%	48%	-

Running Times

Route 426’s observed running times routinely exceed scheduled running times through most of the day on weekdays. Morning peak trips can take almost 25 minutes (50%) longer than scheduled, and trips in the afternoon and evening can take between five and 10 minutes (10% to 25%) longer. Observed and scheduled trip times align only in the early morning and late evening periods.

Figure 10 | Scheduled & Median Travel Time by Trip: Route 426 Inbound

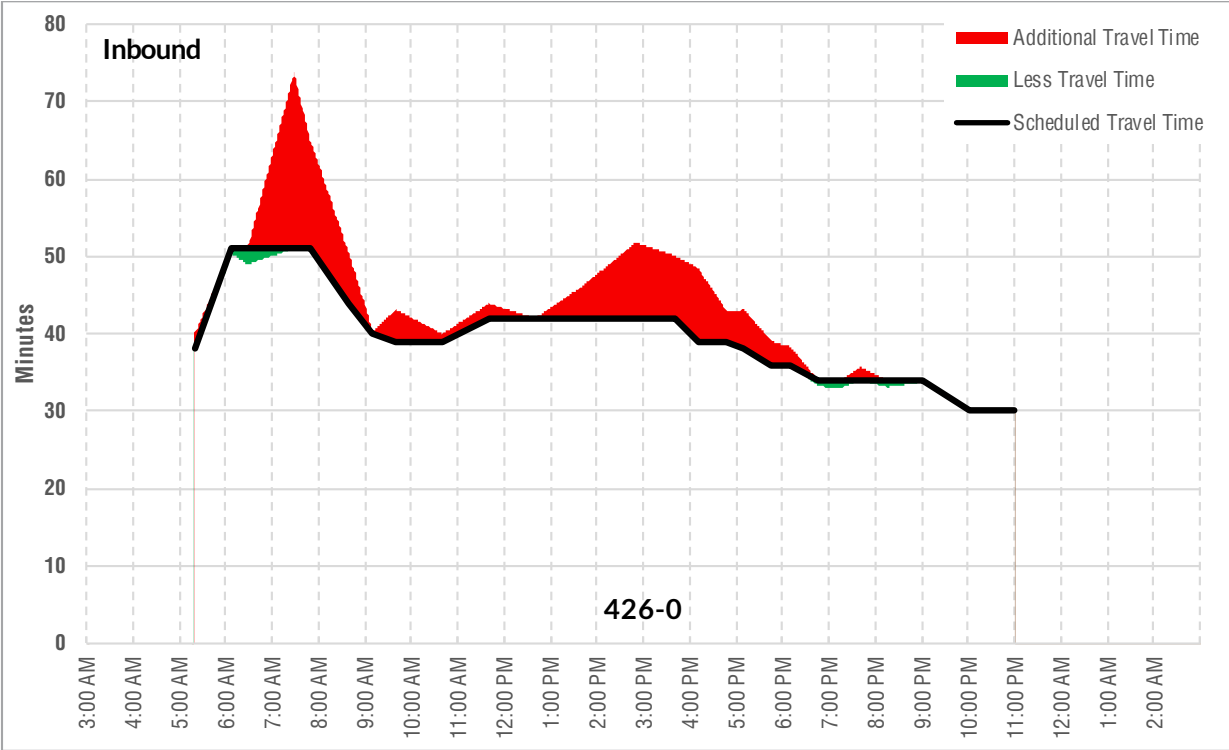
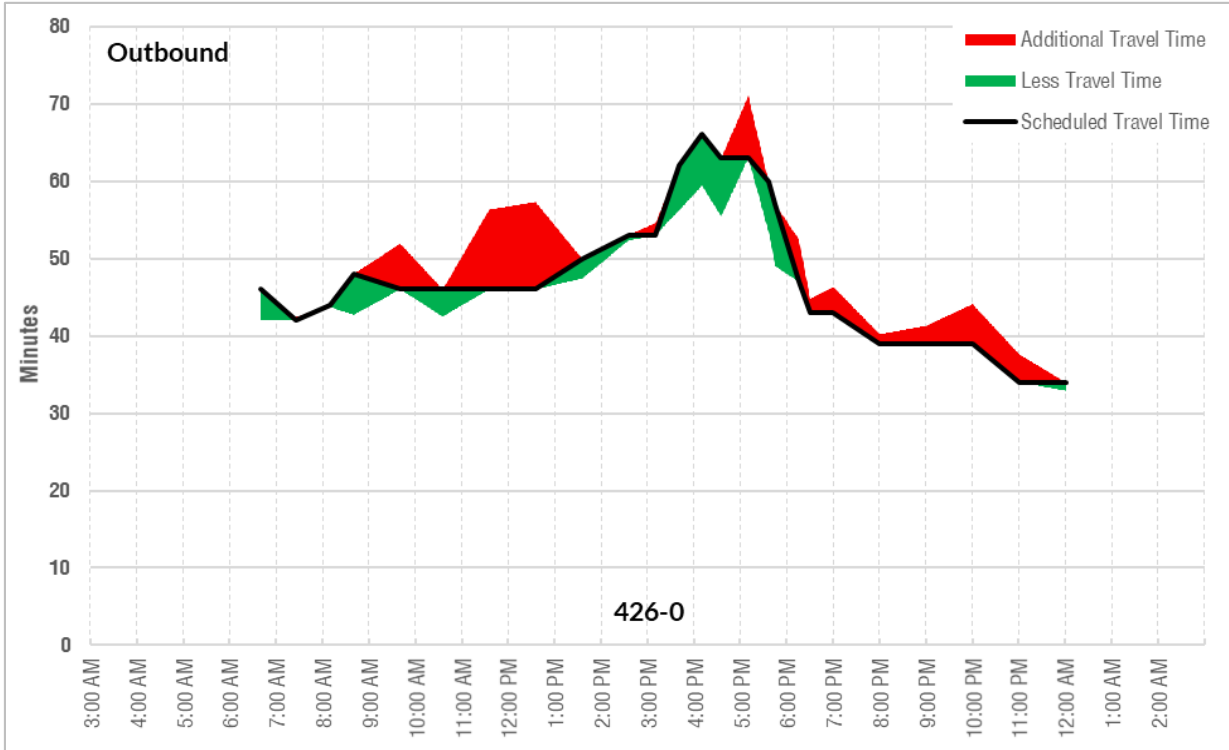


Figure 11 | Scheduled & Median Travel Time by Trip: Route 426 Outbound



Stop Spacing

Route 426 has an average of 8.6 stops per mile (excluding the Highway 1 express portion of the route), which is in excess of the four to seven stops per mile recommended for urban areas under MBTA guidelines. Stops are more widely spaced on the Wonderland Station service pattern of the route and in downtown Boston.

Summary

The primary strengths of Route 426 are its partial express service, its coverage of an area lacking rapid transit, its connection to important rail stations, and relatively strong ridership. The key challenges of Route 426 are its low reliability and on time performance, its excessive number of stops along its core service area, multiple service patterns, and its irregular service frequencies. Additionally, early morning and late night trips generate enough activity to indicate the route may need to start earlier and end later.