CONGESTION IN THE COMMONWEALTH: 2025 DATA UPDATE

Introduction

In 2019, MassDOT released the Congestion in the Commonwealth report, which reviewed calendar year 2018 travel time data about nearly 2,800 miles of roadways in the state, including all those that are part of the National Highway System (NHS). The analysis provided a wealth of information regarding regarding not only delays, but it also explored the causes of both recurring and non-recurring congestion. The report concluded with a series of recommendations for addressing the network elements and travel conditions that make travel frustrating and inconvenient.

This 2025 update uses calendar year 2024 data to understand how congestion in Massachusetts has changed since the last report. While the COVID-19 pandemic reduced overall trip-making, traffic volumes have markedly increased since 2021 (see the MassDOT VMT Viewer for more information).

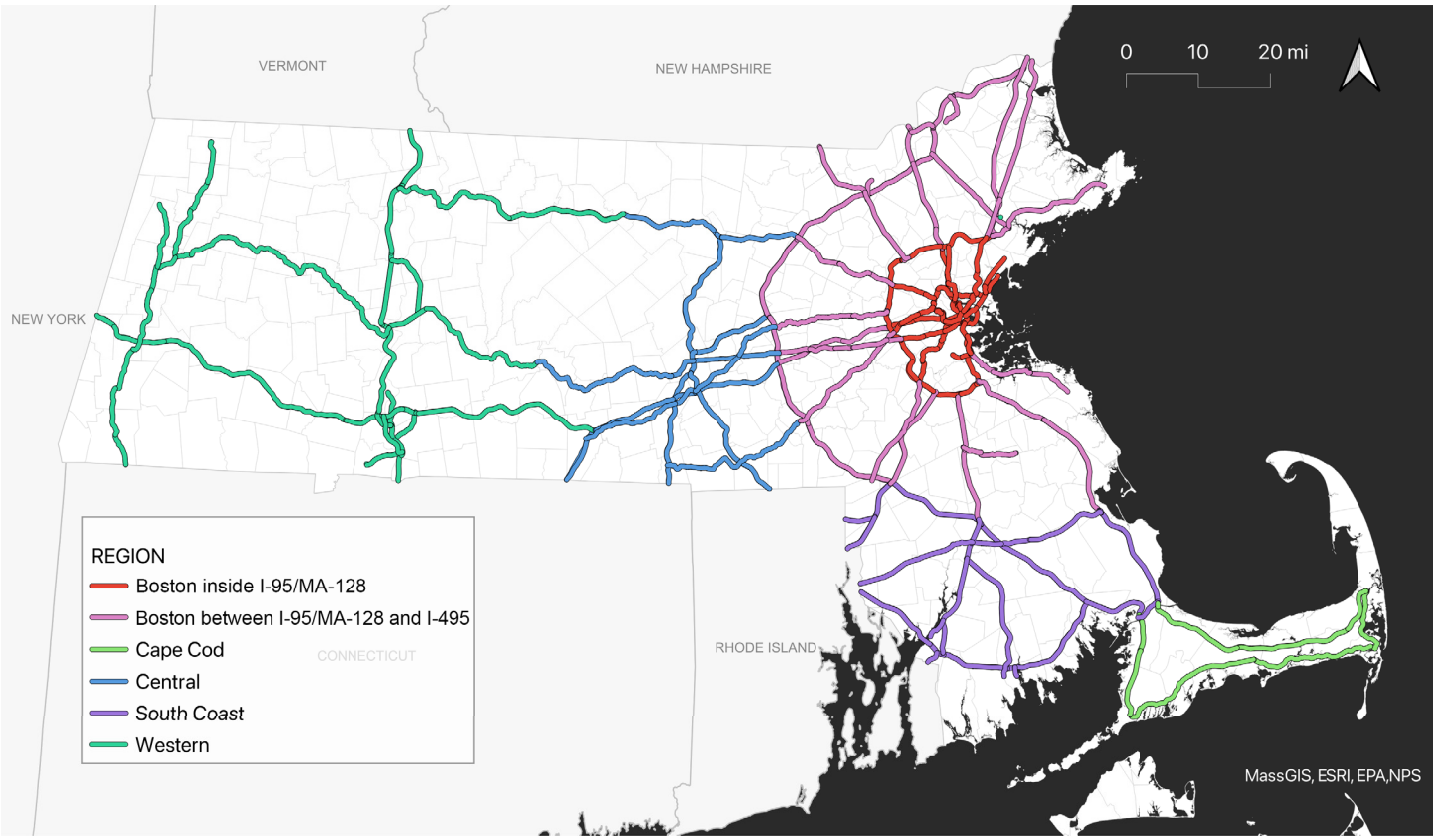
In short, as in 2018, the locations of the most severe recurring congestion are still primarily in Greater Boston. Congestion in the afternoon peak period continues to be more severe than in the morning, but we have observed some new patterns with respect to the occurrence of delay, including:

- **Peak period spreading.** Both the morning and afternoon 'peak period' windows are slightly larger than they used to be, with recurring congestion lasting longer in the morning, starting earlier in the afternoon, and stretching later into the evening. 9% of roadways inside I-95/MA-128 continue to be congested or highly congested through the 11am and noon hours, compared to 2% in 2018. At 1pm, 15% of roadway miles in this region are at least moderately congested compared to 4% in 2018, and the 2pm comparison is even worse – 45% of inner core roadways are moderately or highly congested, compared to 18% in 2018.

- **Increased severity of midday travel delays.** While there used to be a more pronounced 'drop' in congestion between 10am and 2pm, on an average weekday in Greater Boston, the 'low point' of daytime congestion is now earlier, around 11am, and the low point is not actually very 'low' on some roadways: even at this time, nearly 50% of roadways are still seeing some level of delay.

- **Changing patterns in day of week travel delay.** While there was variation in travel times by day of week in 2018, those patterns are sometimes far more pronounced. This is especially true in Greater Boston, where most corridors leading into the city see less delay on Mondays and Fridays than midweek. Travel times do appear longer on Tuesdays, Wednesdays, and Thursdays on many of these same corridors.

Map 1. Roadways by Region



As in 2018, this data update relies on travel times to indicate congested conditions. 2024 travel time data – pulled for each weekday of the year and averaged hourly – for all National Highway System (NHS) roadway segments in the state is provided by INRIX. These roadway segments are organized into logical 'corridors' that are familiar to most travelers (such as I-290 in Downtown Worcester, or 'I-90 between I-95/MA 128 and Allston') and matched to their respective region, as seen in Map 1. We developed a 'travel time index' for each hour of the day that compares the lowest observed average travel time (in minutes) along each corridor (called "free flow" time) to the hourly travel time average along each corridor. According to this metric, travel time ratios between 1.20 and 1.49 indicate 'lightly congested' conditions; ratios between 1.50 and 1.99 indicate 'moderately congested' conditions; and ratios over 2.00 indicate 'highly congested' conditions.

Congestion Level	**Travel Time Index** *(hourly average/free flow)*
Not congested	1.00-1.19
Lightly congested	1.20-1.49
Moderately congested	1.50-1.99
Highly congested	2.00+

This brief update includes several views on congestion trends across the state. The first section reviews where and when congested conditions occur by region of the state. The next section discusses the most significant sites of congestion by severity and duration, and other noteworthy sites of congestion on roadways outside of Greater Boston. To better understand updated travel patterns, we also review trends by day of week, , especially with respect to commute trips. Finally, this data update concludes by pointing out the key changes in where and when delays have happened since 2018.

Where and When: Regional Analysis

Unsurprisingly, the most significant sites of roadway congestion in Massachusetts are in the core of the Greater Boston region (**"Boston inside I-95/MA-128"**), which includes roadways inside of the I-95/MA 128 corridor, as well as I-95/MA-128 itself.

Although this 'inner core' region accounts for just 11.8% of total roadway miles in our statewide analysis, **92%** of them are under some sort of congestion (light, moderate, or high) at 5pm on the average weekday. This subset of roads includes those that are infamous for their congested conditions, such as I-93's Central Artery and Southeast Expressways; the Leverett Connector; US-1 and MA-1A; Alewife Brook and Fresh Pond Parkways; Storrow Drive; and significant sections of I-90, MA-9, and MA-2. If you are traveling on or near these stretches of roadways on any given weekday, it is likely that you will experience delays at some point on your trip.

Congested conditions decline as trips move away from Boston. **Between I-95/MA-128 and I-495,** congestion wanes, but does not completely disappear. During periods of peak delay during the 5pm hour, **57%** of roadways in this region are seeing some kind of congestion, which drops to 3% seeing only light congestion during the 8pm hour.

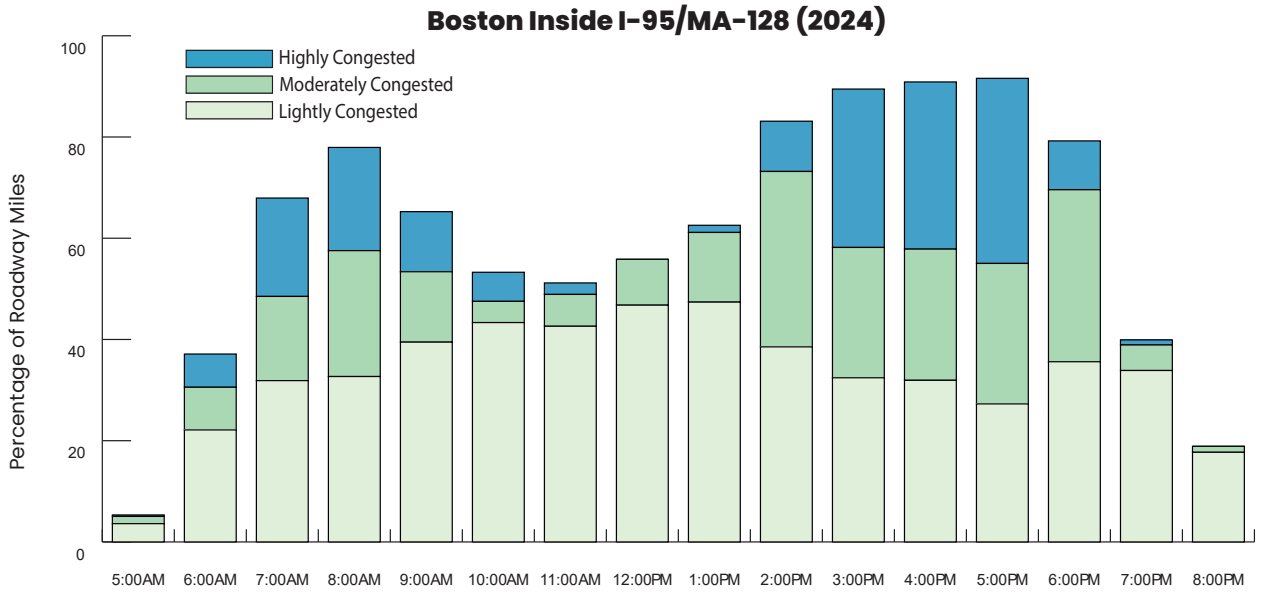
Congestion on the **South Coast, Cape Cod**, and in **Central** and **Western** Massachusetts is far less pronounced. Although congested conditions do exist, the majority of roadways facing delays are primarily subject to 'light' congestion, with instances of heavy congestion being limited to small segments of regional roadways, like MA 24 between US 44 and I-495, or on or near the Bourne Bridge.

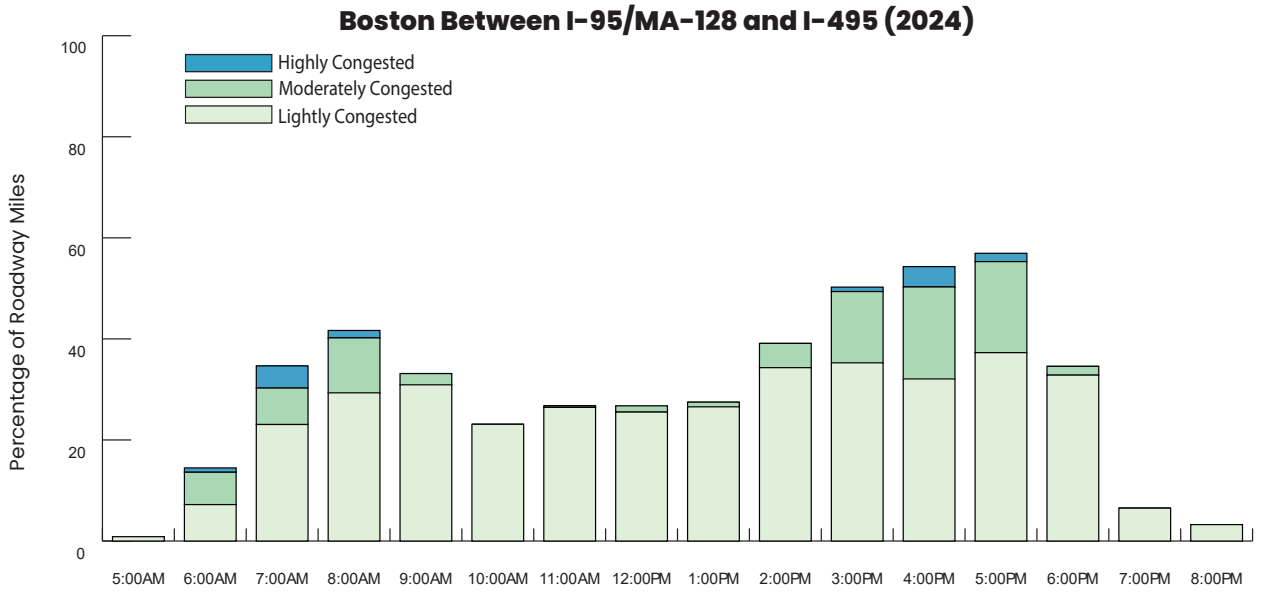
One note about data on Cape Cod is that our analysis shows that across calendar year 2024, the Bourne Bridge was the most significant site of congestion on Cape Cod. However, because our data represents weekday travel times averaged over an entire year, this annual analysis likely underestimates the severity and duration of congestion during seasonally high travel periods. As a result, other roadways such as the Sagamore Bridge and other roadways heavily used during the weekends and holidays may not be captured in this analysis. However, the fact that congestion on the Bourne Bridge is among the most severe in the state, even given the data limitations, underscores the degree to which congestion at the Bourne and Sagamore bridges is a significant issue for residents and visitors.

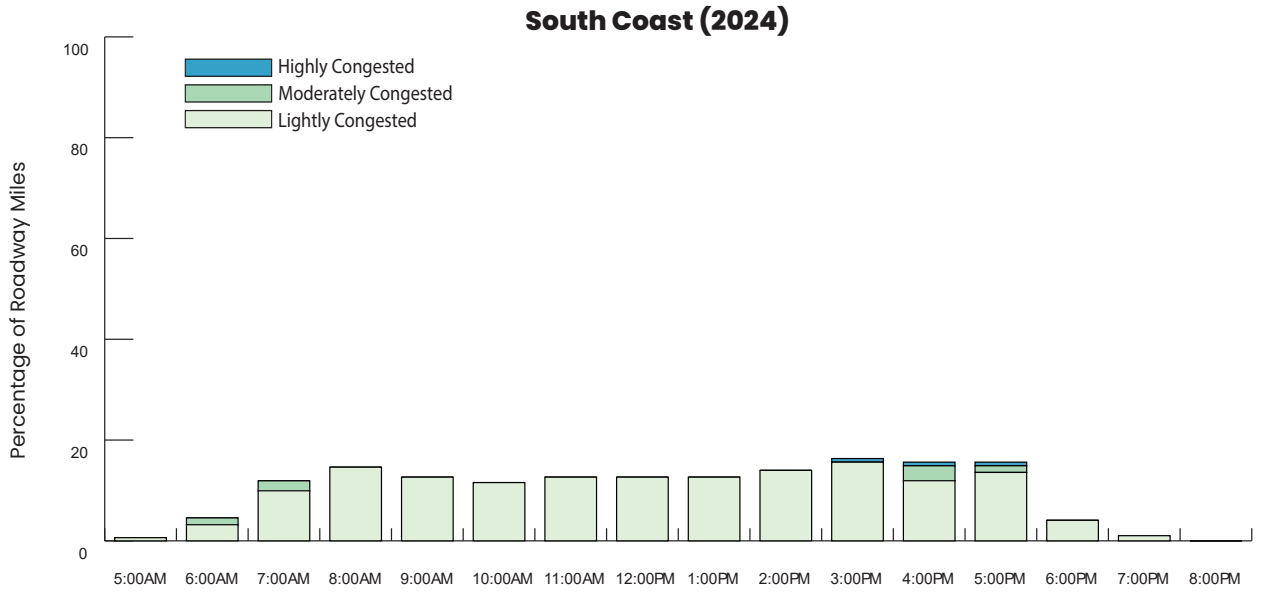
While not unheard of, congestion in Central and Western Massachusetts is not as widespread as it is nearer to Boston. As on Cape Cod, the heaviest occurrences of congestion appear in isolated segments of regional roadways. I-290 through Downtown Worcester, and I-91 near Springfield, are the most congested facilities in their respective regions. The charts on pages 4 and 5 display the total percentage of centerline miles under some degree of congestion between 4am and 8pm in each region of the state.

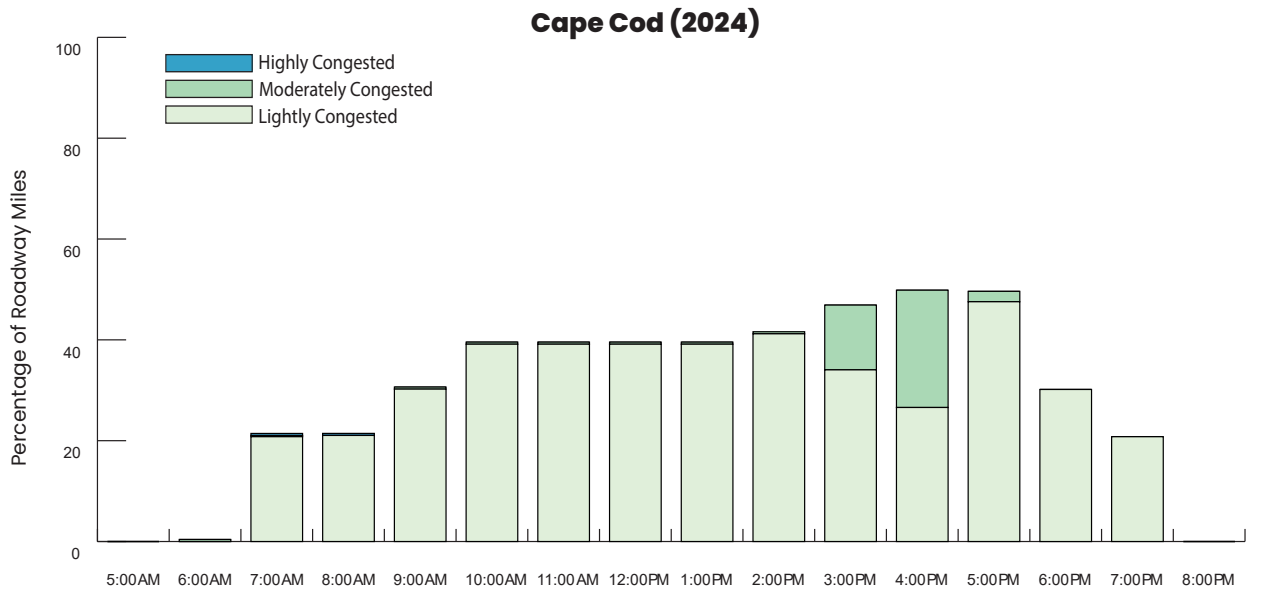
Severity and Duration: Specific Corridors

As noted, our analysis measures roadway delay by calculating travel time ratios that compare the lowest observed average travel time (in minutes) along each corridor ("free flow"), to the hourly average travel time recorded during each hour of the 24-hour periods. The travel time ratio at the observed "free flow" hour is 1.00, which indicates no delay. In 2024, observed travel time ratios on some corridors were as high as 5.00 and above, which means that travel time over the corridor during at that time is *five times as long as it is during free flow*. To understand the most problematic congestion 'hot spots' around the state, we ranked corridors according to the worst travel time ratio seen on each during an average weekday.


Boston Inside I-95/MA-128 (2024)
Highly Congested
Moderately Congested
Lightly Congested
Percentage of Roadway Miles
0
20
40
60
80
100
5:00AM
6:00AM
7:00AM
8:00AM
9:00AM
10:00AM
11:00AM
12:00PM
1:00PM
2:00PM
3:00PM
4:00PM
5:00PM
6:00PM
7:00PM
8:00PM


Boston Between I-95/MA-128 and I-495 (2024)
Highly Congested
Moderately Congested
Lightly Congested
Percentage of Roadway Miles
0
20
40
60
80
100
5:00AM
6:00AM
7:00AM
8:00AM
9:00AM
10:00AM
11:00AM
12:00PM
1:00PM
2:00PM
3:00PM
4:00PM
5:00PM
6:00PM
7:00PM
8:00PM


South Coast (2024)
Highly Congested
Moderately Congested
Lightly Congested
Percentage of Roadway Miles
0
20
40
60
80
100
5:00AM
6:00AM
7:00AM
8:00AM
9:00AM
10:00AM
11:00AM
12:00PM
1:00PM
2:00PM
3:00PM
4:00PM
5:00PM
6:00PM
7:00PM
8:00PM


Cape Cod (2024)
Highly Congested
Moderately Congested
Lightly Congested
Percentage of Roadway Miles
0
20
40
60
80
100
5:00AM
6:00AM
7:00AM
8:00AM
9:00AM
10:00AM
11:00AM
12:00PM
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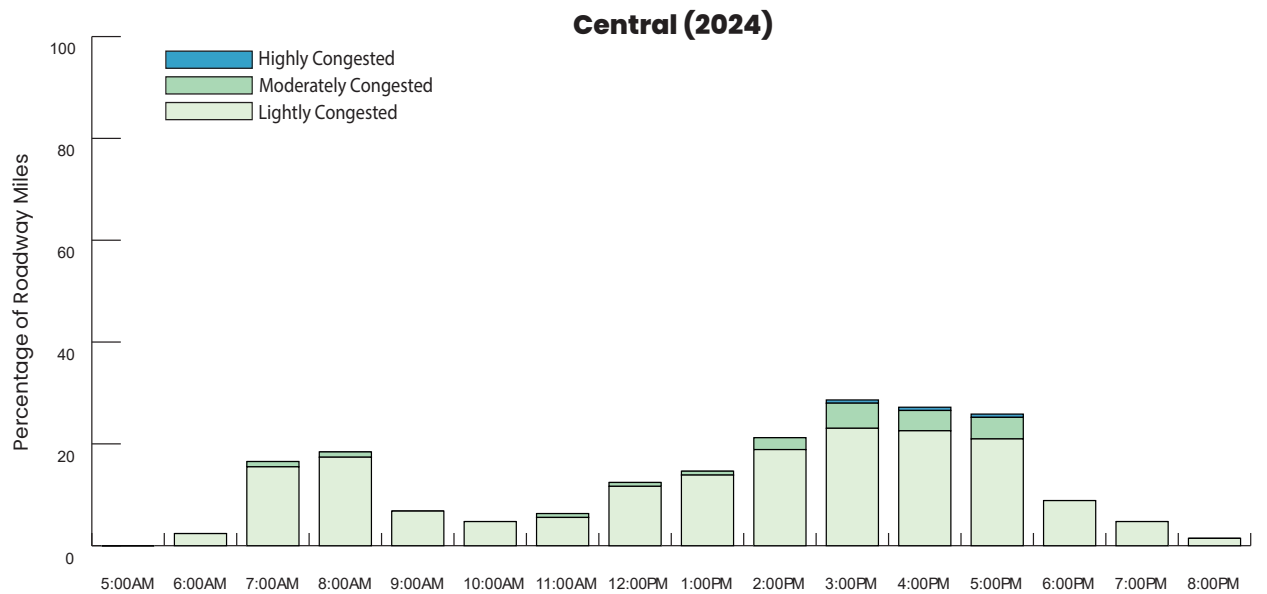
Central (2024)
Highly Congested
Moderately Congested
Lightly Congested
Percentage of Roadway Miles
0
20
40
60
80
100
5:00AM
6:00AM
7:00AM
8:00AM
9:00AM
10:00AM
11:00AM
12:00PM
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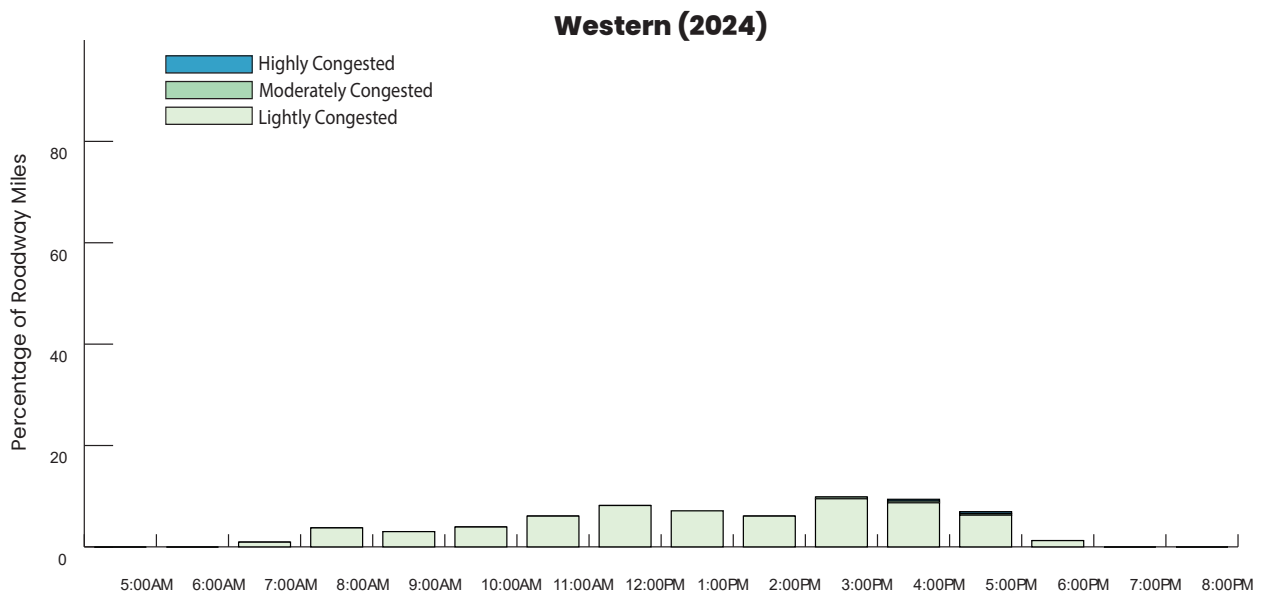

Western (2024)
Highly Congested
Moderately Congested
Lightly Congested
Percentage of Roadway Miles
0
20
40
60
80
5:00AM
6:00AM
7:00AM
8:00AM
9:00AM
10:00AM
11:00AM
12:00PM
1:00PM
2:00PM
3:00PM
4:00PM
5:00PM
6:00PM
7:00PM
8:00PM

Table 1. Percentage of Centerline Miles Congested by Hour and Region, 2024

		4:00 AM	5:00 AM	6:00 AM	7:00 AM	8:00 AM	9:00 AM	10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM	6:00 PM	7:00 PM	8:00 PM
Boston inside Route 128	**Highly Congested**	0%	0%	7%	19%	20%	12%	6%	2%	0%	1%	10%	31%	33%	37%	10%	1%	0%
	Moderately Congested	0%	1%	8%	17%	25%	14%	4%	6%	9%	14%	35%	26%	26%	28%	34%	5%	1%
	Lightly Congested	0%	4%	22%	32%	33%	39%	43%	43%	47%	47%	39%	32%	32%	27%	36%	34%	18%
	Not Congested	100%	95%	63%	32%	22%	35%	47%	49%	44%	37%	17%	11%	9%	8%	21%	60%	81%
Boston between Route 128 and I-495	**Highly Congested**	0%	0%	1%	4%	1%	0%	0%	0%	0%	0%	0%	1%	4%	2%	0%	0%	0%
	Moderately Congested	0%	0%	6%	7%	11%	2%	0%	0%	1%	1%	5%	14%	18%	18%	2%	0%	0%
	Lightly Congested	0%	1%	7%	23%	29%	31%	23%	26%	26%	27%	34%	35%	32%	37%	33%	7%	3%
	Not Congested	100%	99%	86%	65%	58%	67%	77%	73%	73%	73%	61%	50%	46%	43%	65%	93%	97%
South Coast	**Highly Congested**	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%	1%	1%	0%	0%	0%
	Moderately Congested	0%	0%	1%	2%	0%	0%	0%	0%	0%	0%	0%	0%	3%	1%	0%	0%	0%
	Lightly Congested	0%	1%	3%	10%	15%	13%	12%	13%	13%	13%	14%	16%	12%	14%	4%	1%	0%
	Not Congested	100%	99%	95%	88%	85%	87%	88%	87%	87%	87%	86%	84%	84%	84%	96%	99%	100%
Cape Cod	**Highly Congested**	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
	Moderately Congested	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	13%	23%	2%	0%	0%	0%
	Lightly Congested	0%	0%	0%	21%	21%	30%	39%	39%	39%	39%	41%	34%	27%	48%	30%	21%	0%
	Not Congested	100%	100%	100%	79%	79%	69%	60%	60%	60%	60%	58%	53%	50%	50%	70%	79%	100%
Central	**Highly Congested**	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%	1%	1%	0%	0%	0%
	Moderately Congested	0%	0%	0%	1%	1%	0%	0%	1%	1%	1%	2%	5%	4%	4%	0%	0%	0%
	Lightly Congested	0%	0%	2%	15%	17%	7%	5%	6%	12%	14%	19%	23%	23%	21%	9%	5%	1%
	Not Congested	100%	100%	98%	83%	82%	93%	95%	94%	88%	85%	79%	71%	73%	74%	91%	95%	99%
Western	**Highly Congested**	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
	Moderately Congested	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
	Lightly Congested	0%	0%	0%	1%	4%	3%	4%	6%	8%	7%	6%	9%	9%	6%	1%	0%	0%
	Not Congested	100%	100%	100%	99%	96%	97%	96%	94%	92%	93%	94%	90%	91%	93%	99%	100%	100%

Map 2. Facilities by Congestion Severity, 2024

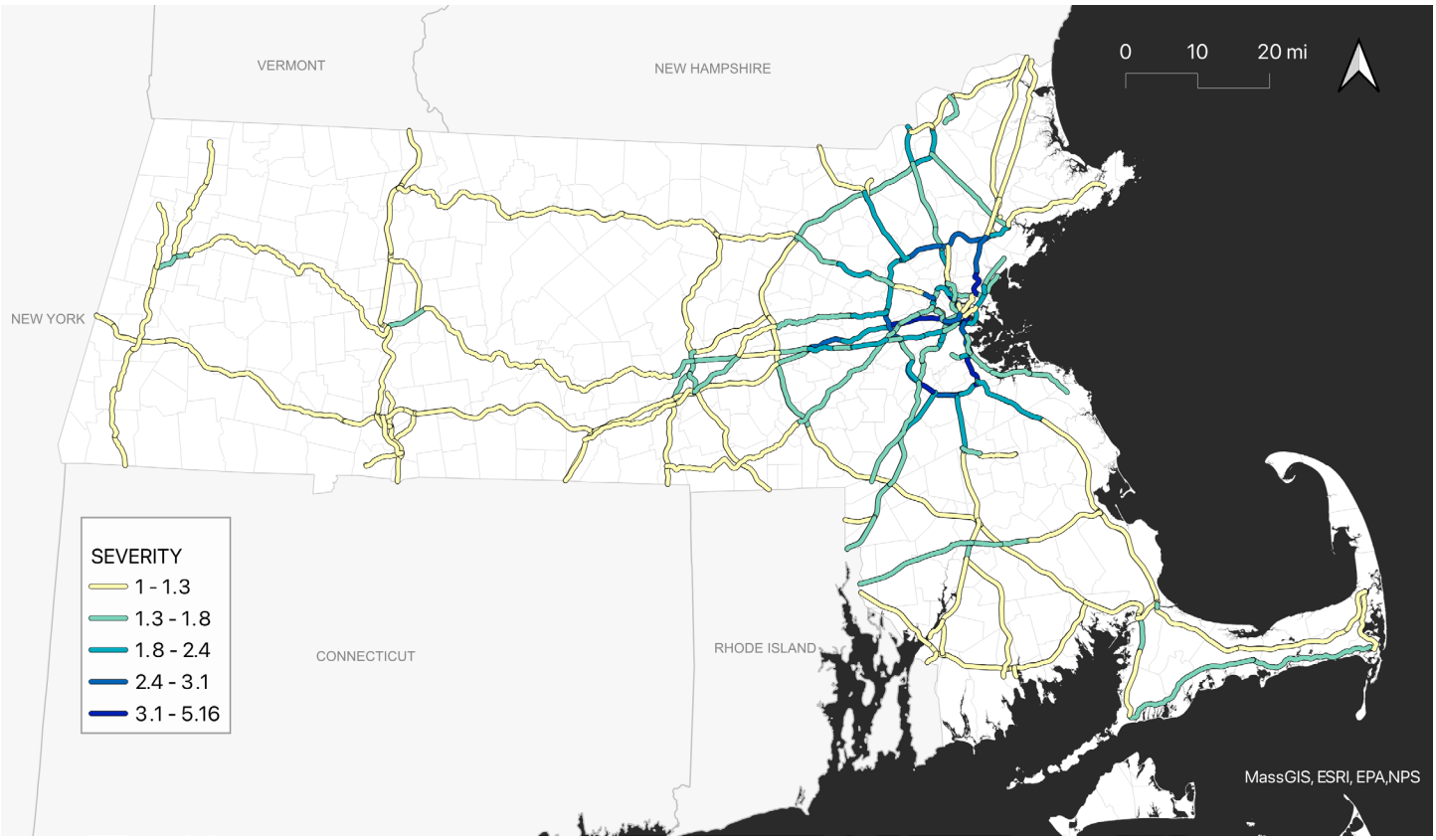


Table 2. Top Facilities by Congestion Severity, 2024

Facility Name	Region	Peak Severity (travel time ratio)	Time	Severity Rank
I-93 | US-1 to I-90 | Southbound	Boston inside I-95/MA-128	5.16	3pm	1
I-93 | MA-28 to MA-16 | Southbound	Boston inside I-95/MA-128	5.02	8am	2
US-1 | MA-16 to I-93 | Southbound	Boston inside I-95/MA-128	4.63	7am	3
I-93 | MA-3 to Neponset Circle | Northbound	Boston inside I-95/MA-128	4.53	7am	4
I-93 | Neponset Circle to Morrissey | Northbound	Boston inside I-95/MA-128	4.28	7am	5
I-93 | I-90 to Morrissey | Southbound	Boston inside I-95/MA-128	4.27	2pm	6
I-93 | US-1 to MA-16 | Northbound	Boston inside I-95/MA-128	3.86	3pm	7
MA-28 | Bourne Bridge | Southbound	Cape Cod	3.64	7am	8
I-90 | Newton Corner to Allston | Eastbound	Boston inside I-95/MA-128	3.63	8am	9
I-93 | MA-16 to US-1 | Southbound	Boston inside I-95/MA-128	3.51	8am	10

Of the top ten corridors facing the most severe instances of recurring congestion, seven of them are on I-93 alone. The first is on I-93 southbound between US 1 and I-90 at 3pm (which, from the Tobin, will take you over the Zakim and into the tunnel system); the second is I-93 southbound between MA 28 (the Fellsway) and MA 16 (Mystic Valley Parkway) (i.e., heading into Boston) at 8am; the fourth is I-93 northbound on the Southeast Expressway, the segment between the Braintree Split and Neponset Circle, at 7am, and the fifth is the segment of I-93 northbound just downstream of that, between Neponset Circle and Morrissey Boulevard, also during the 7am hour. See Table 2 for a list of the top 10 facilities by congestion severity.

Measured travel time ratios are also used to identify those facilities that suffer from prolonged durations of recurring congestion. Many facilities are under 'moderately congested' or 'highly congested' conditions for over 12 hours a day, including the segment of I-93 northbound between Neponset Circle and Morrissey Boulevard, which sees significant congestion for a full 15 hours between 5am and 10pm, as well as the upstream segment of I-93 northbound between the Braintree Split at MA-3 and Neponset Circle, which is at least moderately congested for 14 hours. See Table 2 for a list of the facilities facing persistent congestion (10 hours or more) on page 9, as well as a map indicating their location below.

Trends by Day of Week

Variations in travel times by day of week were certainly common pre-pandemic, but are now more pronounced on some corridors. On many Greater Boston highways such as I-93, US-1, I-90, and MA 2, Mondays and Fridays see less peak period delay in the dominant travel direction than in midweek. That being said, the same trends are

Map 3. Facilities by Congestion Duration, 2024

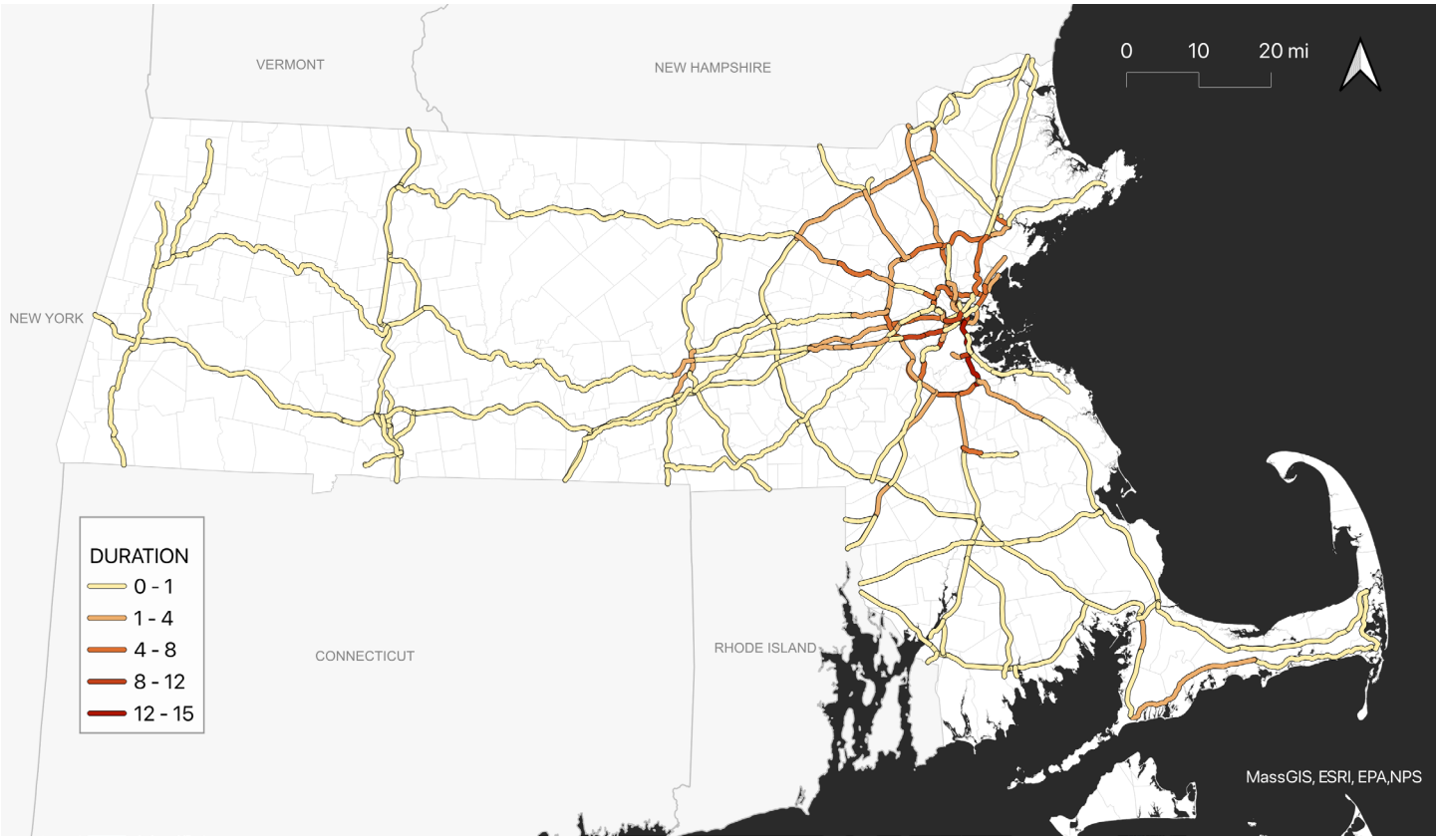
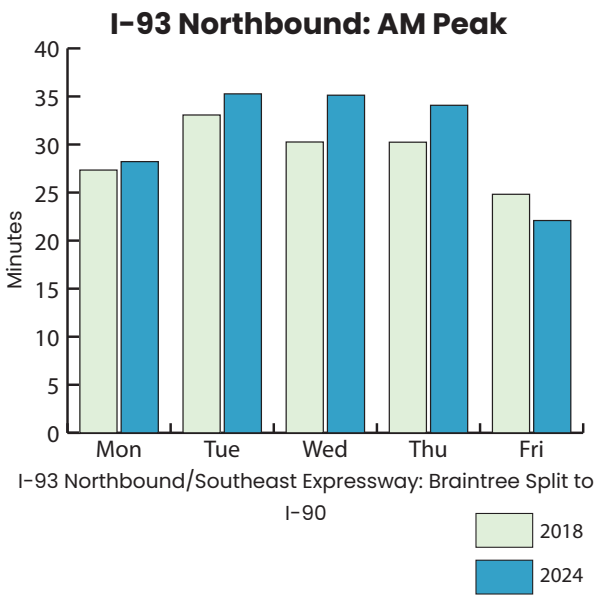
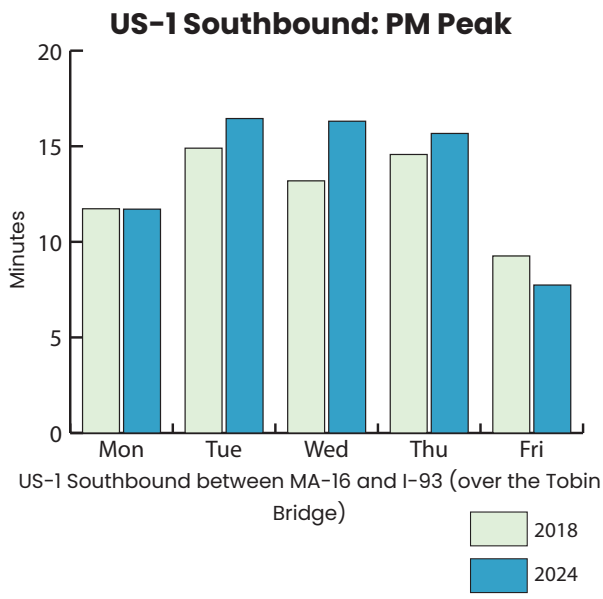


Table 3. Top Facilities by Congestion Duration, 2024

Facility Name	Region	Duration (travel time ratio>1.5)	Time
I-93 | Neponset Circle to Morrissey | Northbound	BOS inside I-95/MA-128	15	5am-8pm
I-93 | Morrissey to I-90 | Southbound	BOS inside I-95/MA-128	15	7am-11pm, ex 10pm
I-93 | MA-3 to Neponset Circle | Northbound	BOS inside I-95/ MA-128	14	5am-8pm, ex 12pm
Leverett Connector	BOS inside I-95/MA-128	14	6am-8pm
Alewife Brook Parkway | MA-2 to Concord Ave | Eastbound	BOS inside I-95/ MA-128	14	7am-9pm
Alewife Brook Parkway | Concord Ave to MA-2 | Westbound	BOS inside I-95/ MA-128	14	6am-8pm
I-93 | Morrisey to Neponset Circle | Southbound	BOS inside I-95/ MA-128	14	7am-12am, ex 11am, 9-11pm
I-93 | Morrissey to I-90 | Northbound	BOS inside I-95/ MA-128	13	6am-7pm
MA-28 | Gilmore to Charles |Southbound	BOS inside I-95/MA-128	13	7am-8pm
I-93 | US-1 to I-90| Southbound	BOS inside I-95/MA-128	12	7am-8pm, ex 11am
I-93 | I-90 to US-1 | Northbound	BOS inside I-95/MA-128	12	8am-8pm
DCR | Centre Street | Northbound	BOS inside I-95/MA-128	12	7am-7pm
MA-9 | I-95/MA-128 to Hammond Pond Parkway | Eastbound	BOS inside I-95/MA-128	12	7am-7pm
MA-28 | Bourne Bridge | Southbound	Cape Cod	11	6am-5pm
I-93 | MA-16 to US-1 | Southbound	BOS inside I-95/MA-128	11	6am-7pm, ex 12pm-2pm
MA-9 | Hammond Pond Parkway to Riverway | Eastbound	BOS inside I-95/MA-128	11	7am-7pm, ex 11am
MA-203 | Dorchester to I-93 | Eastbound	BOS inside I-95/MA-128	10	7am-7pm, ex 10am-12pm

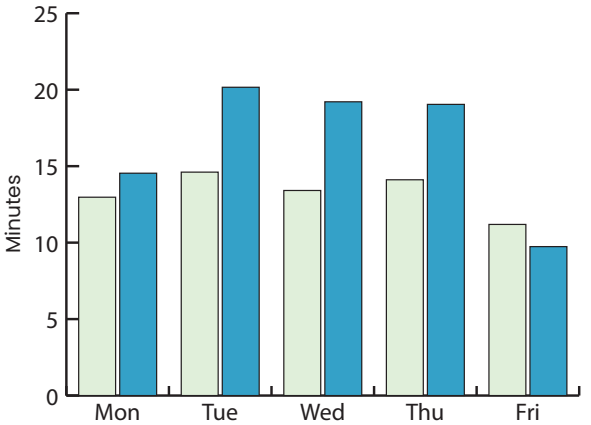


I-93 Northbound/Southeast Expressway: Braintree Split to I-90



US-1 Southbound between MA-16 and I-93 (over the Tobin Bridge)

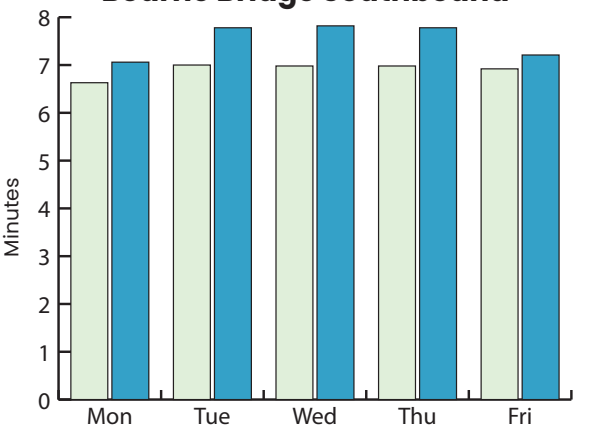
I-90 Eastbound: AM Peak



I-90 Eastbound between I-95/MA-128 and Allston/ Cambridge exit

2018
2024

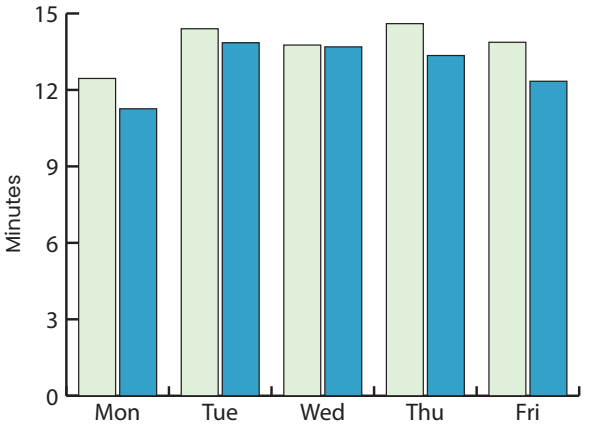
Bourne Bridge Southbound



MA-28 Southbound from the Bourne Bridge to the Otis Rotary

2018
2024

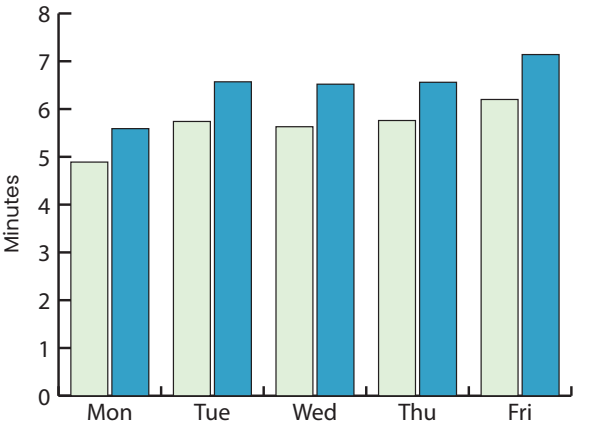
MA-2 Westbound: PM Peak



MA-2 West between MA-2A (Crosby Corner) and the Concord Rotary

2018
2024

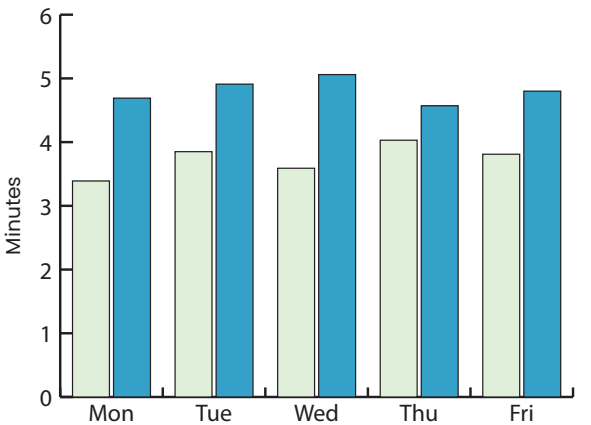
I-290 Westbound: PM Peak



I-290 Westbound from MA-146 to I-190

2018
2024

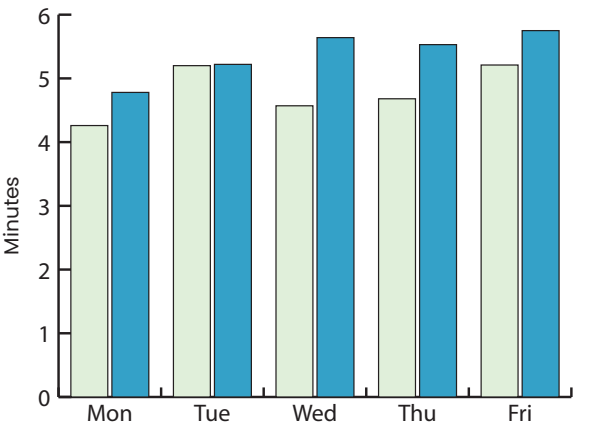
I-91 Southbound: PM Peak



I-91 Southbound from I-291 to US-5

2018
2024

MA-24 Southbound: PM Peak



MA-24 Southbound between I-495 and US-44

2018
2024

not uniform throughout the state: variations are highly dependent on the region and even the specific corridor in question.

The charts on pages 9 and 10 show the average weekday travel times across selected corridors in 2024 during the official morning (6am to 10am) or afternoon (3pm to 7pm) peak periods (morning and afternoon peak periods were selected based on periods of most severe delay) in the dominant travel direction. The charts include 2018 data for comparison. The corridors that were selected represent some of the most congested roadways in each region, respectively.

Changes since 2018

For a time, the covid-19 pandemic upended commute patterns and shifted a majority of traffic off of NHS roadways. For example, in June 2019, the average morning peak period travel time for northbound vehicles on the Southeast Expresway was about 25 minutes; following the onset of the covid pandemic in June of 2020, average travel time had fallen to about 8 minutes. However, just one year later in June of 2021, travel time was back up to 21 minutes, and by June of 2023, travel times began to even slightly *exceed* pre-covid travel times[1].

Data comparing the percent of roadway miles that are either **'moderately congested'** or **'highly congested'** in 2018[2] and 2024 by region are presented in the charts on the following pages. Key observations about changes in roadway congestion include:

Across the state and especially on roadways closest to Boston, more roadway miles are more congested throughout the day. Simply put, recurring roadway congestion and associated delay is more common and often more severe in 2024 than it was in 2018, with a greater share of roadways across the state seeing some sort of significant congestion more persistently throughout the day. Unfortunately, our data confirms the public's first-hand experiences and observations about the worsened state of congestion post-covid.

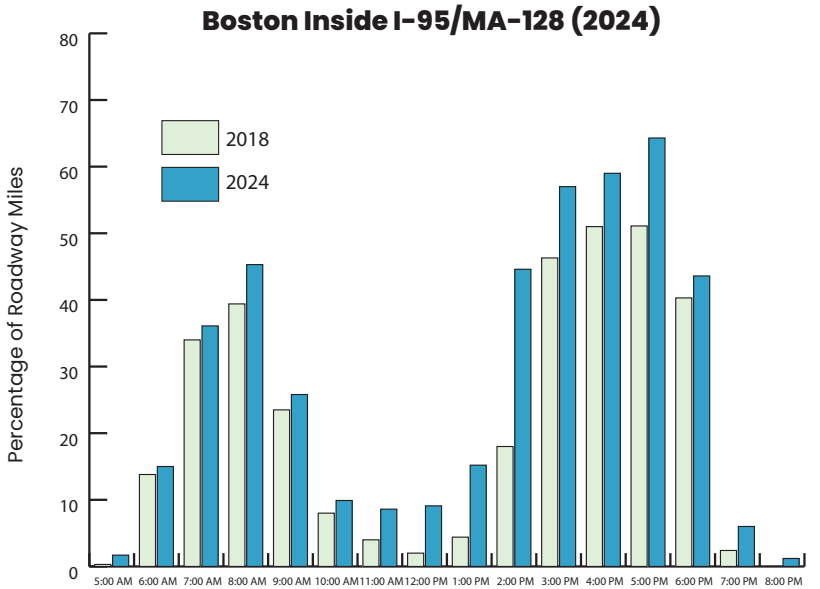
Peak spreading is more pronounced – meaning that the morning and afternoon peak periods last longer than they used to, and the 'shoulders' around the peak feature heavier congestion than prior to the pandemic. For example, in the 'Boston Inside I-95/MA-128' region, almost 20% of roadway miles are still lightly congested at 8pm (seen in Table 1), as compared to just 5% in 2018. There is also significantly more congestion at 11am, and especially at 2pm. Regional patterns, albeit different from Boston, are also seeing evidence of this trend, such as on Cape Cod.

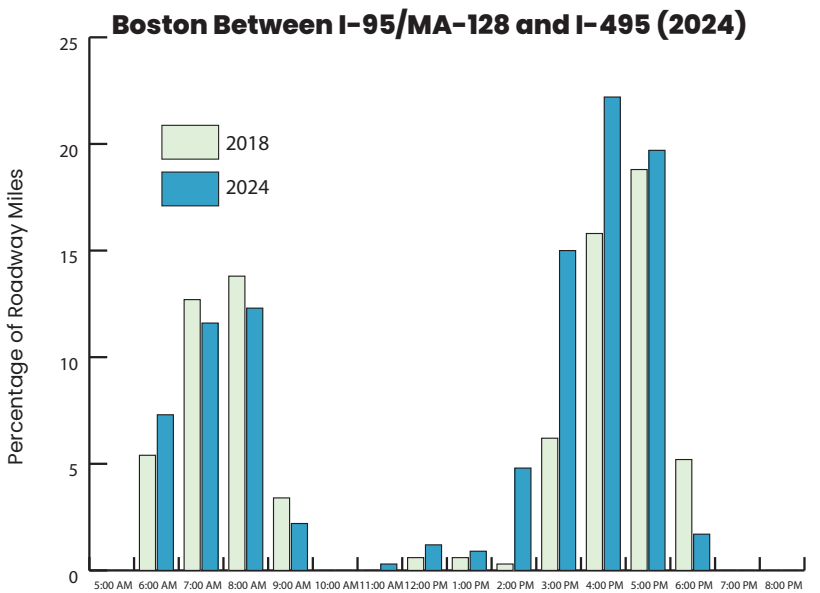
The midday 'off-peak' period sees more congestion statewide, and especially in regions closest to Boston. Roadways across the state are more congested than they used to be in the middle of the average weekday. While in 2018, Boston-area travelers felt some relief between 11:00am and 1:00pm, congestion in 2024 sees almost 49% of roadways still congested even at 11:00am. South Coast, Central, and Cape Cod are also seeing more midday delay.

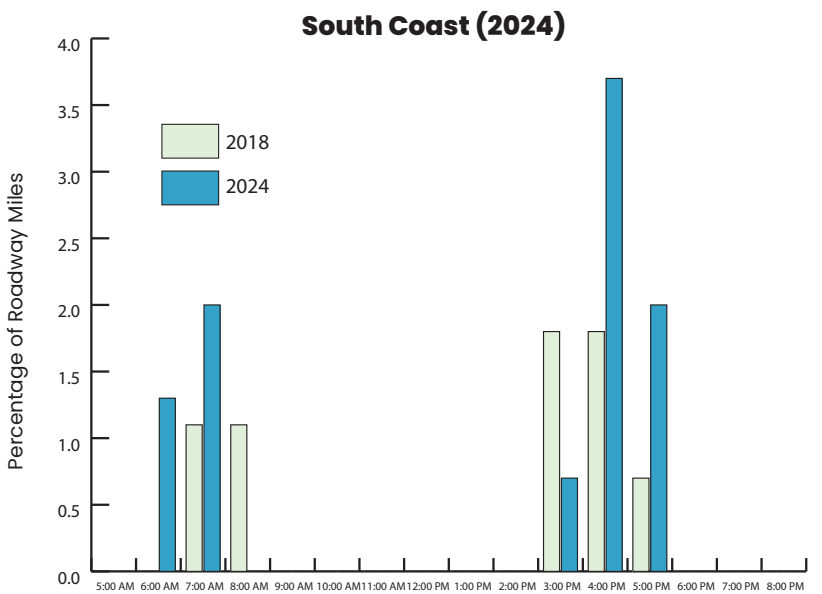
The afternoon peak period remains more significant for delay than the morning peak period, but in some regions, travel times during the morning commute have increased significantly as well. As shown in Table 1 and the charts below, there are also variations in the severity of congested conditions as well: the South Coast has seen some drop-off in brief pockets of significant congestion in favor of more persistent light congestion throughout the daytime.

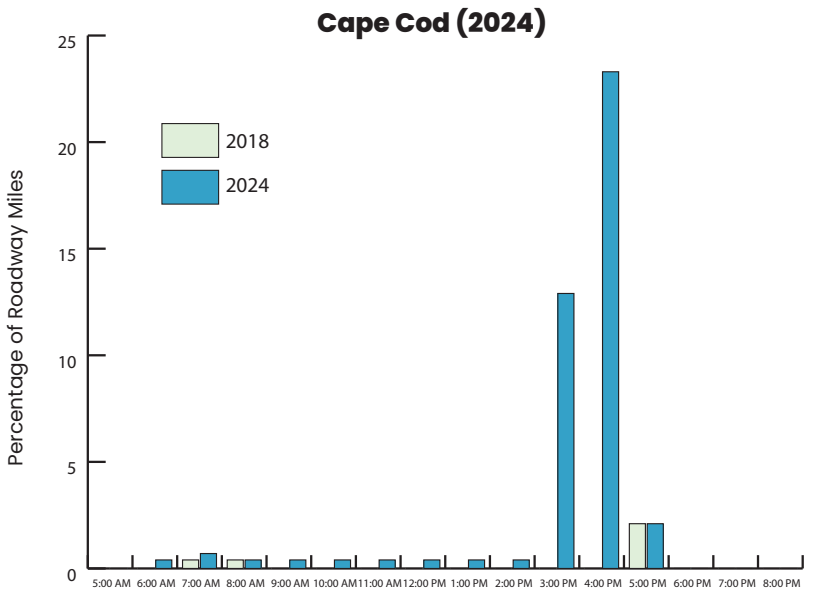
[1] https://mobility-massdot.hub.arcgis.com/

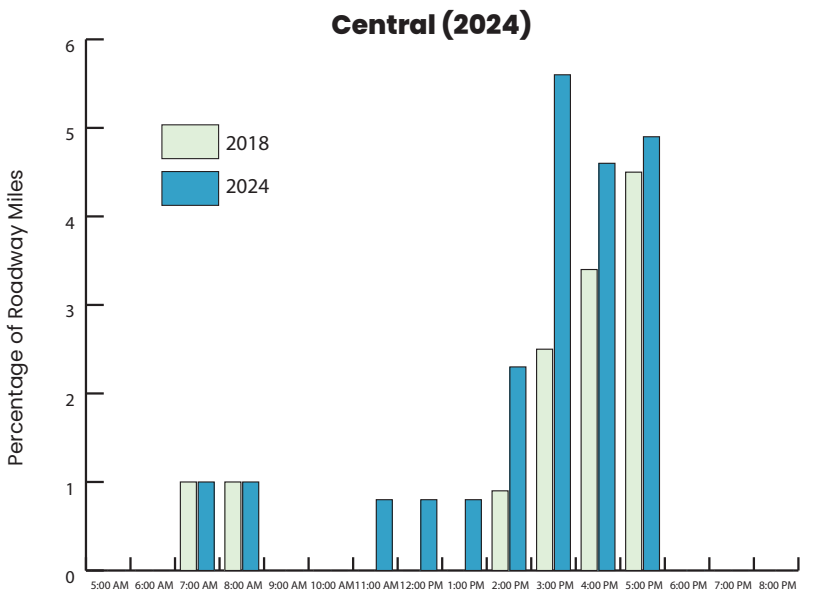
[2] Data from 2018 is not the same as presented in the 2019 Congestion in the Commonwealth report. The data used in the previous report was NPMRDS data accessed directly from FHWA; since the publication of the report, MassDOT has procured INRIX data that is more granular, reliable, and consistent with MassDOT's performance reporting. INRIX is now the authoritative data used by the MassDOT Highway Division for the purposes of analysis and reporting. authoritative data used by the MassDOT Highway Division for the purposes of analysis and reporting.

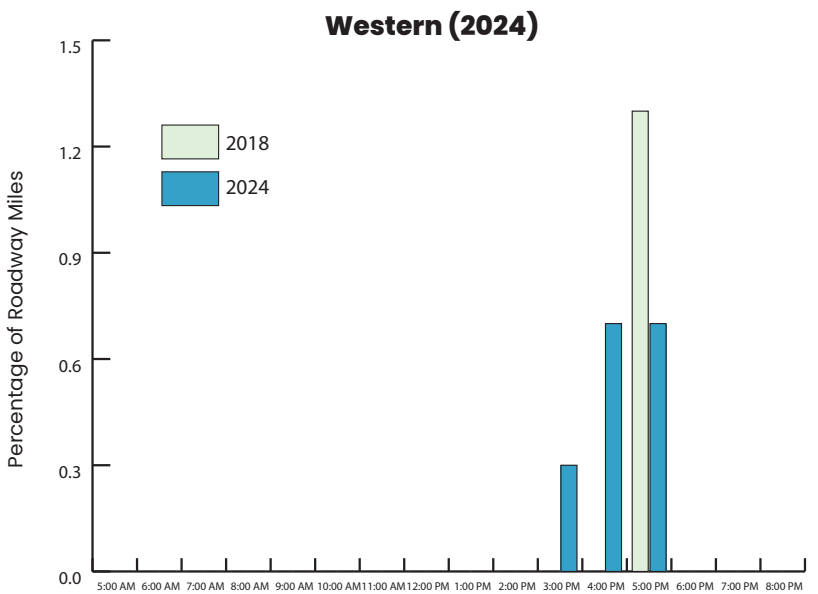

Boston Inside I-95/MA-128 (2024)
Percentage of Roadway Miles
2018
2024
0
10
20
30
40
50
60
70
80
5:00 AM
6:00 AM
7:00 AM
8:00 AM
9:00 AM
10:00 AM
11:00 AM
12:00 PM
1:00 PM
2:00 PM
3:00 PM
4:00 PM
5:00 PM
6:00 PM
7:00 PM
8:00 PM


Boston Between I-95/MA-128 and I-495 (2024)
Percentage of Roadway Miles
2018
2024
0
5
10
15
20
25
5:00 AM
6:00 AM
7:00 AM
8:00 AM
9:00 AM
10:00 AM
11:00 AM
12:00 PM
1:00 PM
2:00 PM
3:00 PM
4:00 PM
5:00 PM
6:00 PM
7:00 PM
8:00 PM


South Coast (2024)
Percentage of Roadway Miles
2018
2024
0.0
0.5
1.0
1.5
2.0
2.5
3.0
3.5
4.0
5:00 AM
6:00 AM
7:00 AM
8:00 AM
9:00 AM
10:00 AM
11:00 AM
12:00 PM
1:00 PM
2:00 PM
3:00 PM
4:00 PM
5:00 PM
6:00 PM
7:00 PM
8:00 PM


Cape Cod (2024)
Percentage of Roadway Miles
25
20
15
10
5
0
2018
2024
5:00 AM 6:00 AM 7:00 AM 8:00 AM 9:00 AM 10:00 AM 11:00 AM 12:00 PM 1:00 PM 2:00 PM 3:00 PM 4:00 PM 5:00 PM 6:00 PM 7:00 PM 8:00 PM


Central (2024)
Percentage of Roadway Miles
6
5
4
3
2
1
0
2018
2024
5:00 AM 6:00 AM 7:00 AM 8:00 AM 9:00 AM 10:00 AM 11:00 AM 12:00 PM 1:00 PM 2:00 PM 3:00 PM 4:00 PM 5:00 PM 6:00 PM 7:00 PM 8:00 PM


Western (2024)
Percentage of Roadway Miles
1.5
1.2
0.9
0.6
0.3
0.0
2018
2024
5:00 AM 6:00 AM 7:00 AM 8:00 AM 9:00 AM 10:00 AM 11:00 AM 12:00 PM 1:00 PM 2:00 PM 3:00 PM 4:00 PM 5:00 PM 6:00 PM 7:00 PM 8:00 PM