



A Better City Traffic Analysis  
July 25, 2023  
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## **Sumner Tunnel Closure, Week 2: MassDOT's Ditch the Drive Campaign a Clear Success**

### **Introduction:**

It may not be the Big Dig<sup>1</sup>, but closing the Sumner Tunnel around the clock for two months of condensed reconstruction was sure to test the ability for state and city officials, business and other community leaders, residents, and commuters to plan and work together to successfully manage potential traffic impacts associated with large projects.

MassDOT began this closure on Wednesday, July 5, a smart choice given light traffic that holiday week. Like many, my focus was on the next week. Would Monday, July 10 bring significant traffic congestion and delays? What would each of the next four weekdays be like?

To track and evaluate traffic and congestion from July 10th to 14th, I studied commute times for motorists with origins northeast of Boston Harbor and destinations in downtown Boston. Trip travel times and traffic congestion data were compiled using Google Maps on an hourly basis between 7:00 AM and 7:00 PM. My analysis considered three sample journeys:

- Journey 1: Logan Airport to Boston City Hall via Ted Williams Tunnel
- Journey 2: MBTA Bus #111 Route, Everett to Haymarket via Tobin Bridge.
- Journey 3: Salem to Massachusetts State House via Tobin Bridge

### **Summary Traffic Analysis: Week 2**

Week 2 of the Sumner Tunnel Closure came and went without any extraordinary increase in traffic congestion on any of the three journeys. Looking back on this the first full (no holiday) work week of the tunnel's closure, the concern that Tuesday through Thursday would see horrendous roadway traffic was not realized. Based on this analysis of Week 2, it appears the Healey Administration's "Ditch the Drive" campaign has been a major success thus far.

Average trip times for each of the three journeys were generally the same on each of the five days. Compared to Monday July 10th, no significant spikes in inbound journey travel times on the Ted Williams Tunnel or Tobin Bridge were observed at any hour on any subsequent day. Please see details of the analysis for each of the three journeys on the pages that follow.

The peak (longest) trip times including duration and time of day are shown in the table below. The peak trip for Journey 1 typically occurred between 2:00 PM and 5:00 PM and took between 29 minutes and 35 minutes. The peak trip for Journey 2 happened early morning or mid-

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<sup>1</sup> The author served as the Commonwealth's lead Traffic Milestone Manager at the Central Artery/Tunnel Project (aka Big Dig) between 1993 and 2005

afternoon and ranged between 30 minutes and 38 minutes. The peak trip for Journey 3 occurred early morning on each day, except for Friday when it happened in mid-afternoon. The peak durations for Journey 3 ranged from 54 to 72 minutes.

As summarized in Table 1 below, the peak trip duration for each of the three Journeys:

- Increased from Monday to Tuesday
- Was highest on Tuesday
- Dropped from Wednesday through Friday
- Was lowest on Friday

**Table 1: Peak Trip Duration and Time of Day**

Journey		Monday	Tuesday	Wednesday	Thursday	Friday
1	Time	3:00 PM	3:00 PM	5:00 PM	5:00 PM	2:00 PM
	Minutes	33	35	34	33	29
2	Time	3:00 PM	8:00 AM	7:00 AM	3:00 PM	3:00 PM
	Minutes	35	38	35	34	30
3	Time	8:00 AM	7:00 AM	7:00 AM	8:00 AM	3:00 PM
	Minutes	63	72	71	64	54

### Journey 1: Logan Airport Terminal A to Boston City Hall via Ted Williams Tunnel/I-90/I-93

This route starts at Logan's Terminal A. Vehicles depart onto Airport Road and the Logan Loop Ramps to access I-90 westbound and the Ted Williams Tunnel. The route takes the first exit in South Boston and stay left to stay on I-90 westbound. At the I-90 westbound split with I-93, the route bears right onto I-93 northbound. The Government Center exit is used to access North Street and reach Boston City Hall.

The average Monday trip time for Journey 1 during the 12-hours studied was 27 minutes. This 12-hour daily average increased by just one minute to 28 minutes on Tuesday and then dropped to 26 minutes, 25 minutes, and 23 minutes on Wednesday, Thursday, and Friday, respectively. I was not surprised that Tuesday's average was the high for the week. However, I did not expect that the daily averages would drop for each of the next three weekdays and that Friday's daily average at 23 minutes would be the week's lowest.

Please see Figure 1 for the daily average trip time for each of the five weekdays. Figure 2 provides an overview of trip time associated with each hour studied over the course of five days. The full data set for Journey 1 is included in Attachment A.



Figure 1: Journey 1, Daily Average Trip Time between 7 AM and 7 PM

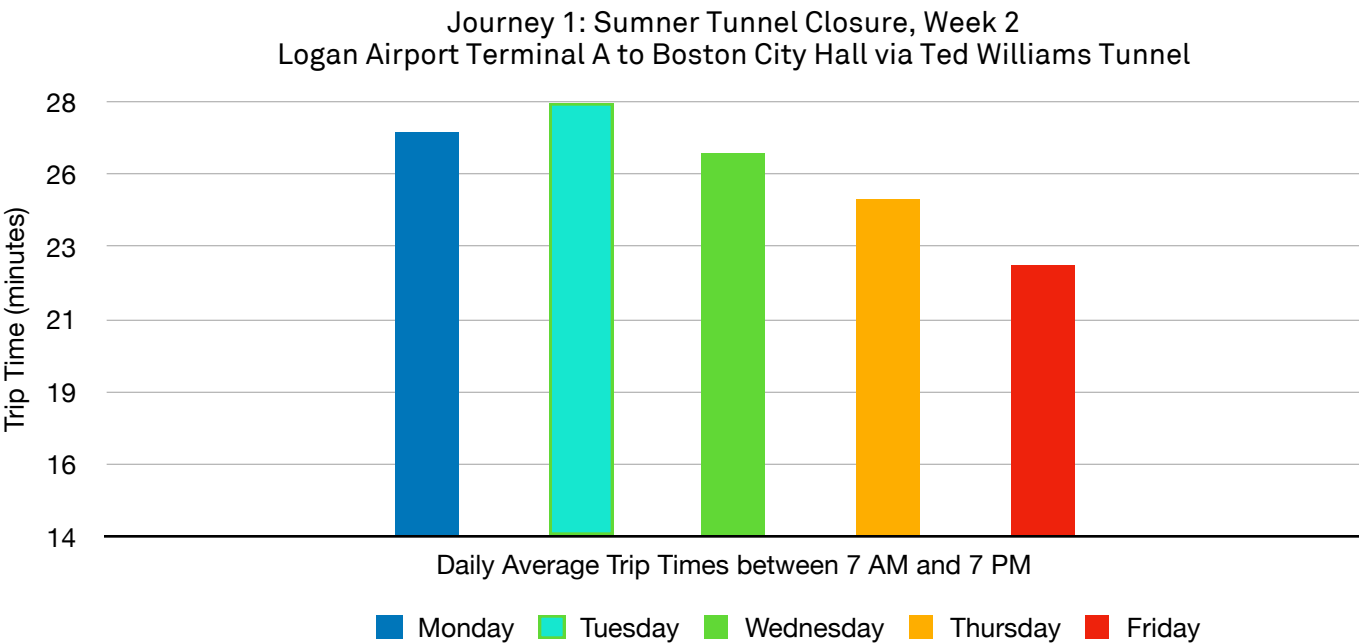
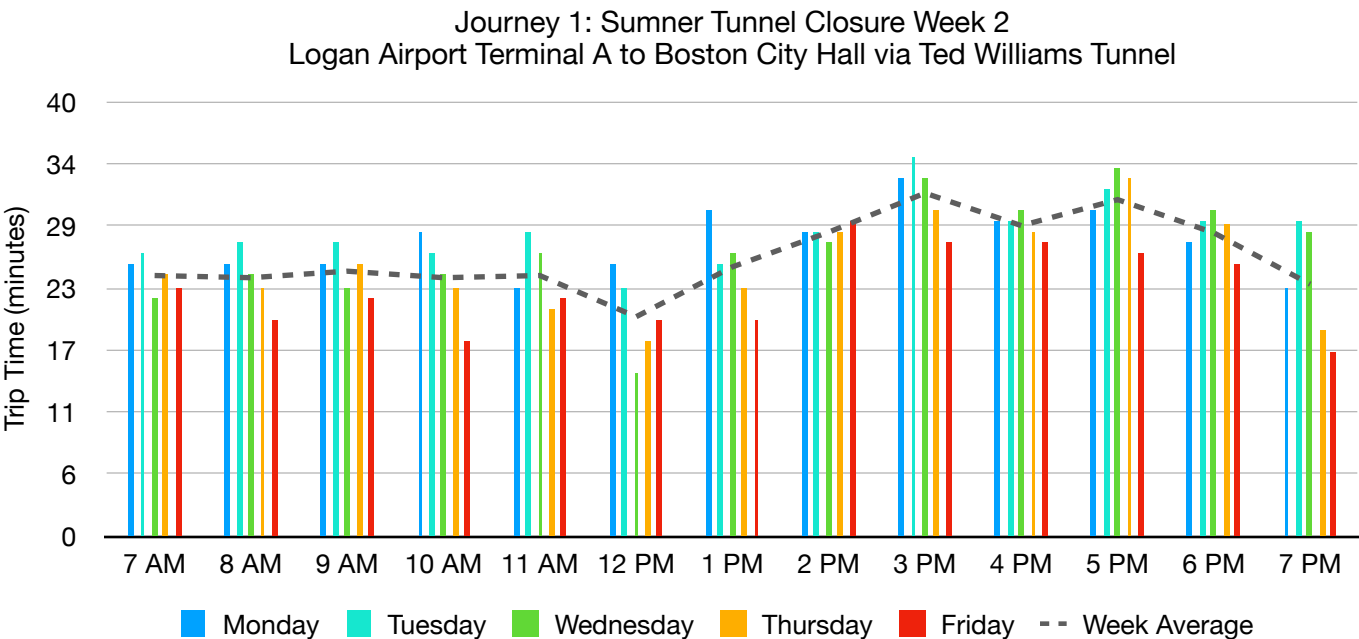


Figure 2: Journey 1, Hourly Trip Times by Day of Week



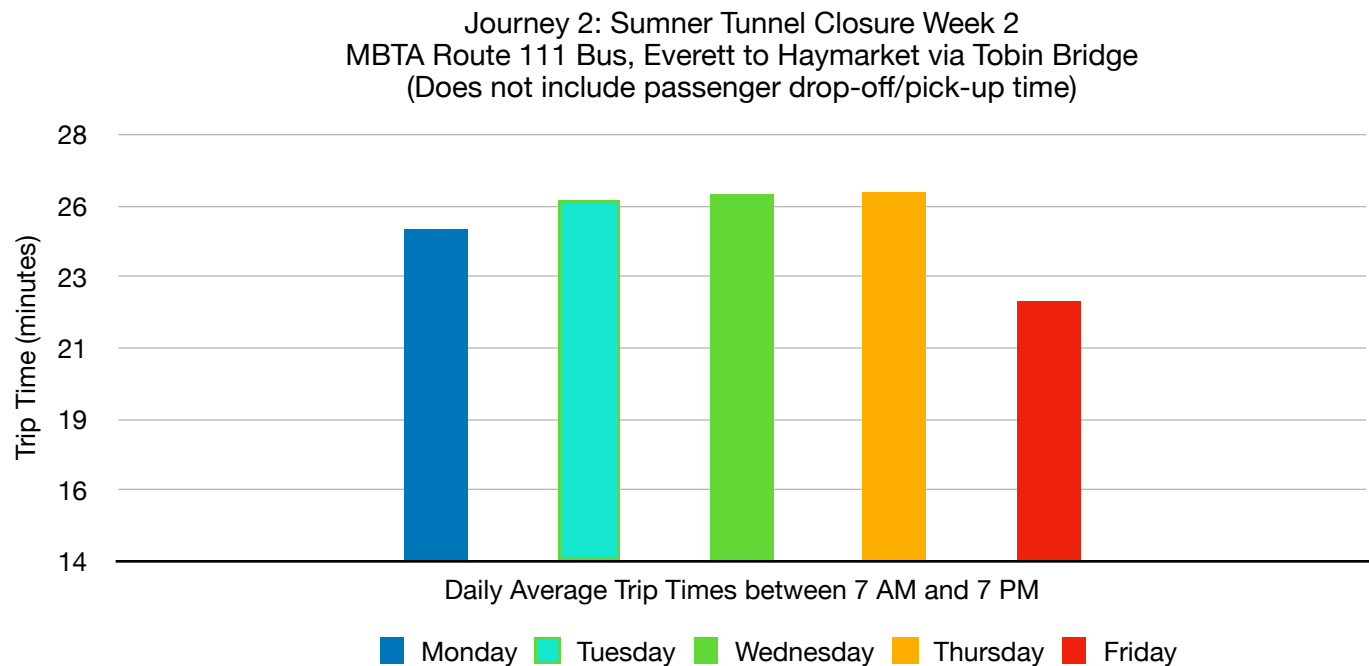


**Journey 2: MBTA Bus Route #111, Everett to Haymarket via Tobin Bridge**

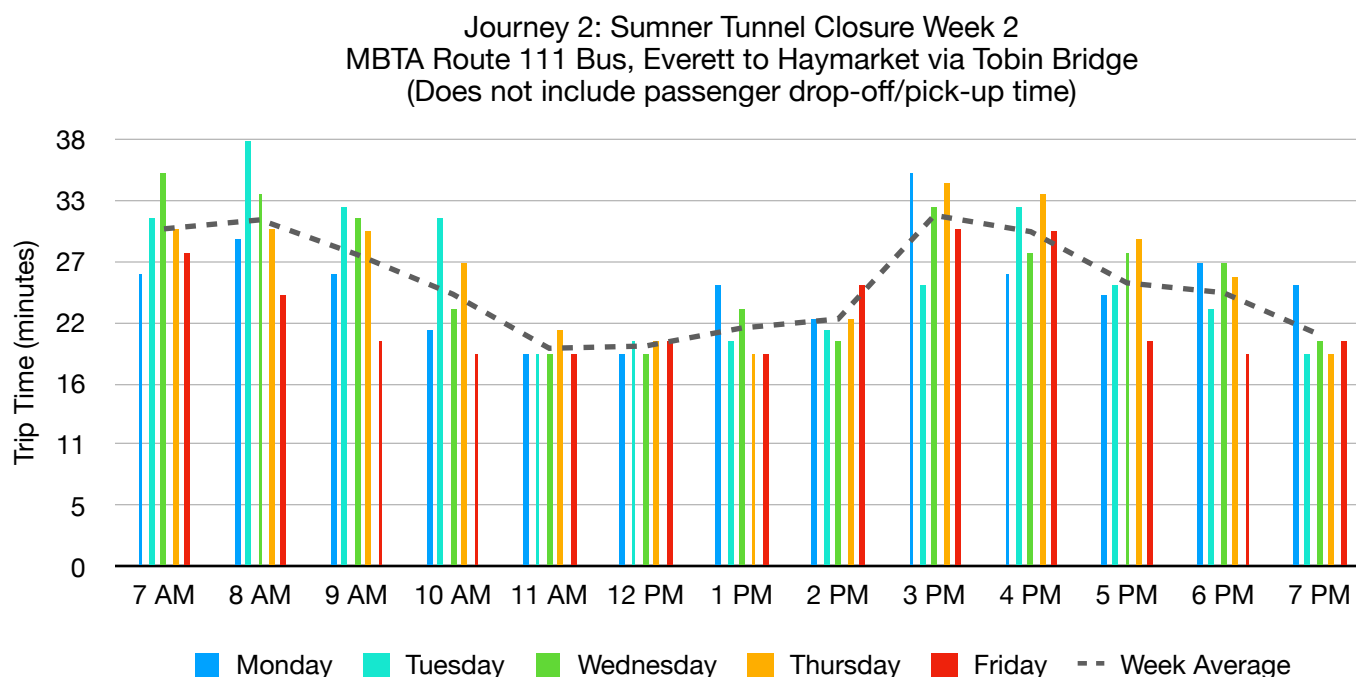
This route tracks the same journey that the MBTA’s bus route #111 takes from its northerly terminal in Everett inbound to the terminal stop at Haymarket Station in downtown Boston. The journey begins at the intersection of Elm Street opposite Haskell Avenue and Woodlawn Cemetary. The route stays on Washington Avenue, takes the Chelsea on-ramp onto Route 1/ Tobin Bridge, exits Route 1 onto New Rutherford Avenue in Charlestown, and continues straight on North Washington Street to the last stop at Haymarket. Please note: The trip travel time analysis for this route does not include the time associated with passenger pickup/drop-off. For that reason, riders on this bus experienced longer journey times than those depicted here.

The average Monday trip time for Journey 2 during the 12-hours studied was 25 minutes. This 12-hour daily average increased by just one minute to 26 minutes on Tuesday and remained essentially unchanged on Wednesday and Thursday. Friday’s trip time of 23 minutes was the low for the week. Please see Figure 3 for the daily average trip time for each of the five weekdays. Figure 4 provides an overview of trip time associated with each hour studied over the course of five days. Attachment B contains the full data set for Journey 2.

**Figure 3: Journey 2, Daily Average Trip Time between 7 AM and 7 PM**



**Figure 4: Journey 2, Hourly Trip Times by Day of Week**



### Journey 3: Salem City Hall to Massachusetts State House via Tobin Bridge

Throughout the Sumner Tunnel extended closure, two primary alternative routes exist for motorists traveling from Salem to the State House via the Tobin Bridge. The first uses Route 114 to head northwest, takes the on-ramp to Route 128, the ramp to Route 1 in Peabody and continues over the Tobin Bridge, takes the ramp to Storrow Drive and the exit to Government Center/Kendall Square, and then uses Charles Street to Park Street to the front of the State House. A second route heads southwest from Salem City Hall and takes Route 107 to over to Route 1 and follows the Tobin Bridge inbound route to the State House detailed above. A third alternate version modifies the first route listed above and takes Route 128 to I-93 SB and takes the Storrow Drive exit from the so-called Leverett Circle Connector Bridge. The quickest route to the Tobin Bridge at any given study hour is used in this analysis.

The average Monday trip time for Journey 3 during the 12-hours studied was 49 minutes. This 12-hour daily average increased by just one minute to 50 minutes for Tuesday and Wednesday and then increased by one-minute to 51 minutes on Thursday, which was the high for the week. Friday's daily average trip time dropped to 45 minutes, which was the weekly low.

Please see Figure 5 for the daily average trip time for each of the five weekdays. Figure 6 provides an overview of trip time associated with each hour studied over the course of five days. The full data set for Journey 3 is included in Attachment C.



Figure 5: Journey 3, Daily Average Trip Time between 7 AM and 7 PM

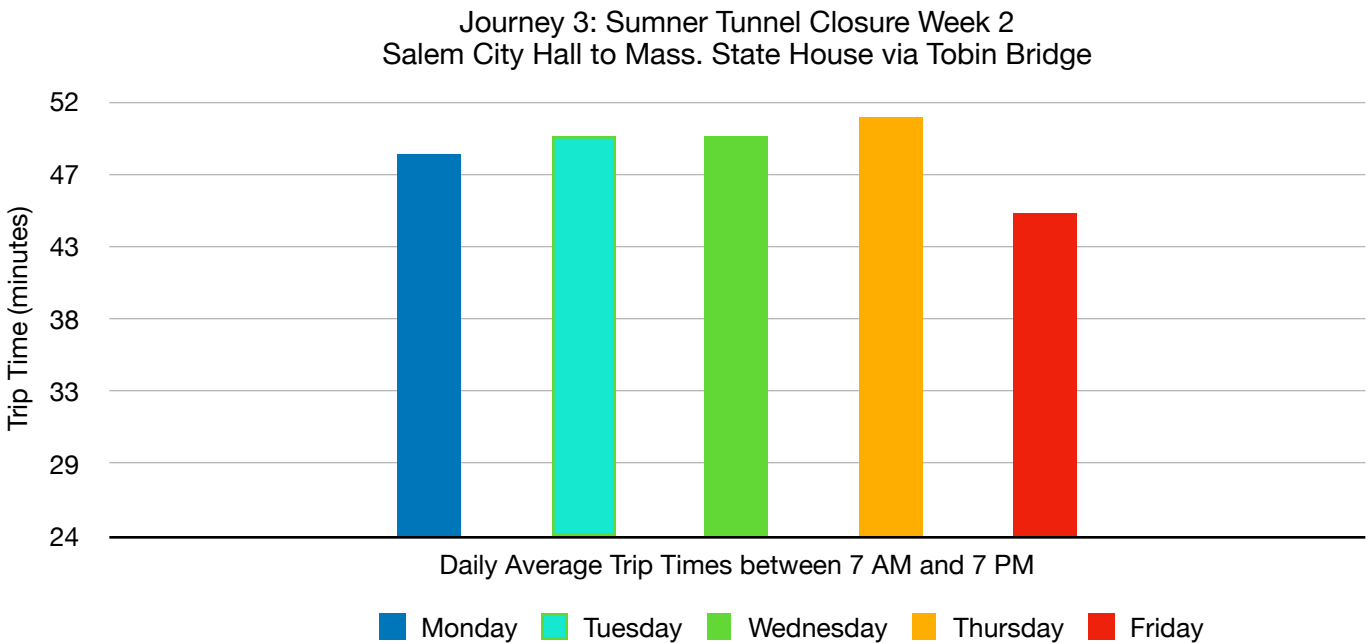
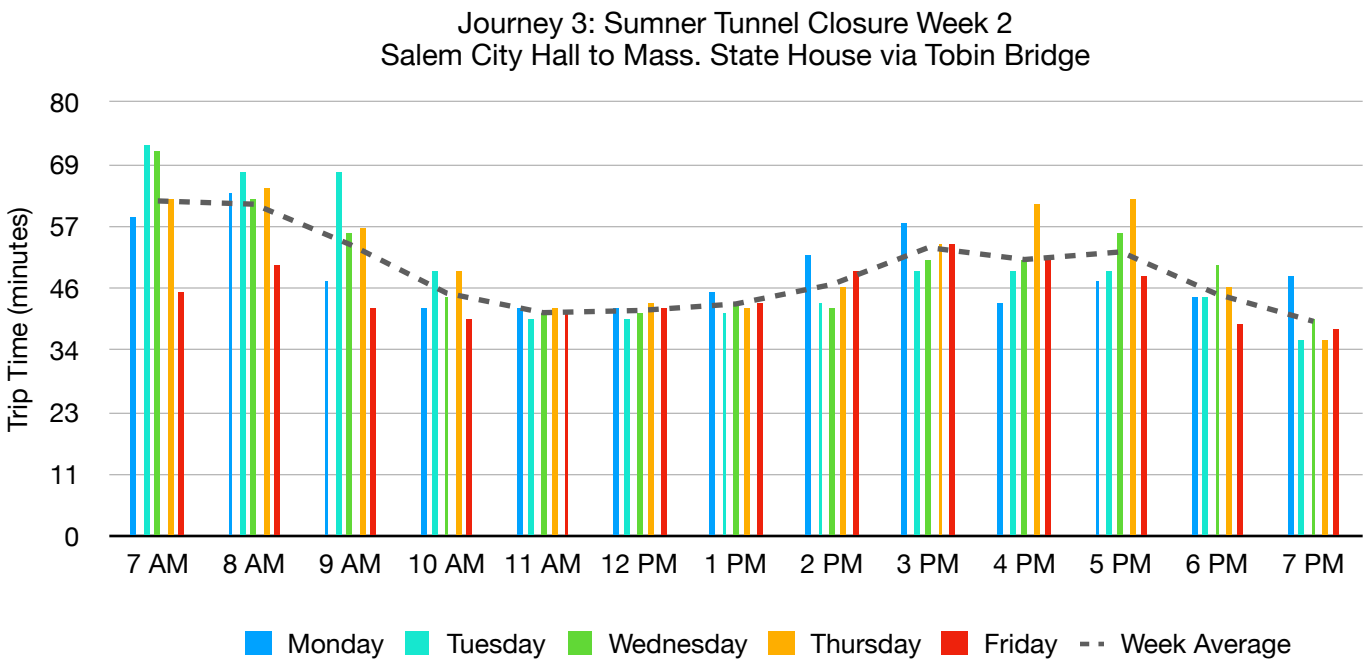


Figure 6: Journey 3, Hourly Trip Times by Day of Week





## Attachment A: Full Data Set

Journey 1: Logan Airport Terminal A to Boston City Hall via Ted Williams Tunnel/I-90/I93  
(in minutes)

	Monday July 10	Tuesday July 11	Wednesday July 12	Thursday July 13	Friday July 14	Week Average
<b>7 AM</b>	25	26	22	24	23	24
<b>8 AM</b>	25	27	24	23	20	24
<b>9 AM</b>	25	27	23	25	22	24
<b>10 AM</b>	28	26	24	23	18	24
<b>11 AM</b>	23	28	26	21	22	24
<b>12 PM</b>	25	23	15	18	20	20
<b>1 PM</b>	30	25	26	23	20	25
<b>2 PM</b>	28	28	27	28	29	28
<b>3 PM</b>	33	35	33	30	27	32
<b>4 PM</b>	29	29	30	28	27	29
<b>5 PM</b>	30	32	34	33	26	31
<b>6 PM</b>	27	29	30	29	25	28
<b>7 PM</b>	23	29	28	19	17	23
<b>Average</b>	27	28	26	25	23	26



## Attachment B: Full DataSet

Journey 2: MBTA Bus Route #111, Everett to Haymarket via Tobin Bridge (in minutes)

	Monday July 10	Tuesday July 11	Wednesday July 12	Thursday July 13	Friday July 14	Week Average
<b>7 AM</b>	26	31	35	30	28	30
<b>8 AM</b>	29	38	33	30	24	31
<b>9 AM</b>	26	32	31	30	20	28
<b>10 AM</b>	21	31	23	27	19	24
<b>11 AM</b>	19	19	19	21	19	19
<b>12 PM</b>	19	20	19	20	20	20
<b>1 PM</b>	25	20	23	19	19	21
<b>2 PM</b>	22	21	20	22	25	22
<b>3 PM</b>	35	25	32	34	30	31
<b>4 PM</b>	26	32	28	33	30	30
<b>5 PM</b>	24	25	28	29	20	25
<b>6 PM</b>	27	23	27	26	19	24
<b>7 PM</b>	25	19	20	19	20	21
<b>Average</b>	25	26	26	26	23	25





## Attachment C: Full Data Set

Journey 3: Salem City Hall to Massachusetts State House via Tobin Bridge (in minutes)

	Monday July 10	Tuesday July 11	Wednesday July 12	Thursday July 13	Friday July 14	Week Average
<b>7 AM</b>	59	72	71	62	45	62
<b>8 AM</b>	63	67	62	64	50	61
<b>9 AM</b>	47	67	56	57	42	54
<b>10 AM</b>	42	49	44	49	40	45
<b>11 AM</b>	42	40	41	42	41	41
<b>12 PM</b>	42	40	41	43	42	42
<b>1 PM</b>	45	41	43	42	43	43
<b>2 PM</b>	52	43	42	46	49	46
<b>3 PM</b>	58	49	51	54	54	53
<b>4 PM</b>	43	49	51	61	51	51
<b>5 PM</b>	47	49	56	62	48	52
<b>6 PM</b>	44	44	50	46	39	45
<b>7 PM</b>	48	36	40	36	38	40
<b>Average</b>	49	50	50	51	45	49