Sumner closure

Fall 2023 travel behavior analysis

2023-10-12
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Sumner Tunnel closure

- Major highway artery closure
- 05 July – 31 August
- Primary impact on westbound/southbound travel
- Pre-shutdown daily travel through Sumner Tunnel of 40,000 cars

Image credit: Victorgrigas via Wikimedia commons. CC BY-SA 3.0.
Closure expectations

Travelers usually heed carmageddon warnings:

1. Well-publicized closure of a major artery usually causes more local congestion

2. Irregular, worsening car traffic increases the appeal of avoiding trips or shifting modes to something faster or more reliable

3. Expected some reduction in total trips taken and some shift to transit
Travel behavior change

• ~40,000 daily travelers primarily changed routes, not modes

• Mode shift to transit starkest where most competitive with driving

• Limited impact of parking mitigations

• Weekend growth outpaced weekdays; increase in social trip-taking on Blue Line
T behavior changes

• Largest increases on rail on weekends

BL  + 13%  (+5,000 pax)  OL  + 23%  (+5,600 pax)  SL  + 41%  (+3,700 pax)

• Ridership on transit serving Sumner-affected areas saw increases above the rest of the system

SL  + 72%  (+350 pax)  State and points north

Newburyport/Rockport

Weekday ridership changes

Across both directions of travel. Compared to ridership numbers we would expect to see if the Sumner had not closed this summer.
Findings

Significant T service improvements

Increased service

- **Blue Line** – **more trains** (6-minute headways at peak)
- **Orange Line** – **more trains** (10-, 11-minute headways at peak)
- **Ferry** – two additional ferry lines

Improved transit reliability

- **Blue Line** – reduction of dropped trips by 12.6 percentage points
- **Orange Line** – reduction of dropped trips by 1.8 percentage points
  
  (Red Line dropped trips increased 0.8 percentage points)
T more competitive with driving

Increase in congestion made driving more difficult

• Longer travel times to downtown
• More variable, less predictable travel times

From East Boston, AM peak to downtown on the Blue Line took half as long as driving – 14 minutes by Blue Line versus 28 by car.
Parking usage

- Some Blue Line parking went up where ridership went down: Orient Heights and Wonderland saw **ridership drop more than parking increased**
- Commuter Rail saw more parking at free lots, but **limited increase at reduced-price lots**
- Not all lots have data available
Findings

Post-reopening ridership

- Largest decreases on rail and ferry on **weekends**

<table>
<thead>
<tr>
<th>Location</th>
<th>Weekday ridership changes</th>
</tr>
</thead>
<tbody>
<tr>
<td>BL</td>
<td>- 3% (-1,700 pax)</td>
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<tr>
<td>OL</td>
<td>+ 14% (+5,000 pax)</td>
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<tr>
<td>Haymarket and points north</td>
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<tr>
<td>+ &lt;1% (+100 pax)</td>
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<tr>
<td>Newburyport/Rockport</td>
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<tr>
<td>- 2% (-200 pax)</td>
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<tr>
<td>- 74% (-900 pax)</td>
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<tr>
<td>East Boston, Lynn, and Winthrop ferries</td>
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<tr>
<td>- 58% (-800 pax)</td>
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Across both directions of travel. Compared to ridership numbers observed during July-August 2023 during the Summer closure.
Customer satisfaction

- Small sample size (Blue Line $n = \sim 100$)
- Slight increases across the system (except Commuter Rail)
- Largest percentage-point bump for Blue Line
Questions?