Impact of COVID-19 on Transportation in the Capital District

Andrew Tracy, CDTC

Freight Advisory Committee
May 19th, 2021

MAP-21 PM3 Measures

<table>
<thead>
<tr>
<th>Year</th>
<th>Capital District Transportation Committee</th>
<th>Interstate</th>
<th>NHS</th>
<th>LOTTR - Interstate</th>
<th>LOTTR - Non-Interstate</th>
<th>TTR</th>
<th>P-HED</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018</td>
<td>275.92 mi 277 TMCs 702.01 mi 830 TMCs</td>
<td>95.3 6.0%</td>
<td>85.8 6.5%</td>
<td>14.4 1.5%</td>
<td>7,115,990.2 8.1%</td>
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<tr>
<td>2019</td>
<td>253.72 mi 288 TMCs 659.25 mi 653 TMCs</td>
<td>93.8 3.6%</td>
<td>89.7 4.3%</td>
<td>1.42 1.4%</td>
<td>6,838,332.1 4.3%</td>
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<tr>
<td>2020</td>
<td>273.17 mi 261 TMCs 734.9 mi 671 TMCs</td>
<td>99.9 1.1%</td>
<td>93.9 4.5%</td>
<td>1.19 -19.3%</td>
<td>3,437,410.9 18.9%</td>
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</tbody>
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Source: AVAIL Labs NPMRDS tool
• Insights from Transportation Research Board Annual Meeting
• 60 sessions relating to impact of COVID on transportation
• Sessions covered all modes

Source: University of Illinois Chicago (National survey)
Perception of risk among survey respondents:

- Extremely low risk
- Low risk
- Medium risk
- High risk
- Extremely high risk

Riding public transportation (N=7601)
- 5% Extremely low risk
- 18% Low risk
- 39% Medium risk
- 35% High risk
- 3% Extremely high risk

Traveling in an airplane (N=7611)
- 5% Extremely low risk
- 20% Low risk
- 35% Medium risk
- 38% High risk
- 2% Extremely high risk

Taking a taxi or ride-hailing service (N=7606)
- 3% Extremely low risk
- 15% Low risk
- 36% Medium risk
- 28% High risk
- 17% Extremely high risk

Going to work (N=4628)
- 12% Extremely low risk
- 19% Low risk
- 31% Medium risk
- 23% High risk
- 15% Extremely high risk

Shopping at a grocery store (N=7610)
- 3% Extremely low risk
- 22% Low risk
- 44% Medium risk
- 21% High risk
- 9% Extremely high risk

Walking or bicycling (N=7609)
- 44% Extremely low risk
- 39% Low risk
- 12% Medium risk
- 8% High risk
- 1% Extremely high risk

Riding public transit and traveling in airplanes are the activities perceived as riskiest.

Source: University of Illinois Chicago (National survey)

Rise in e-commerce:

- E-commerce share of total retail sales peaked in April 2020 at 34%
- Over entire year of 2020, e-commerce share was 21%, far higher than any prior year
- 2019: $598 billion; 2020: $839 billion (up 40%)
- Amazon’s share of e-commerce fell from 49.4% in 2019 to 31.4% in 2020

Comparing growth: US e-commerce vs total retail sales

Source: Digital Commerce 360, U.S. Department of Commerce. Updated January 2021
*Total retail figures are inclusion of non-retail sales (Internet) and are not comparable to current sales at restaurants, bars, autom师 sales dealers, gas stations and fuel dealers.
Major adoption of tele-health services:

Source: UC Davis (National survey)

Greater opportunity for work-from-home among high income respondents:
Rise in crash rates:

Across the US...

- Traffic volumes: +17%
- Crashes: -13%

Across the US...

- Traffic deaths per 100 million miles driven: +34%

Fatalities from crashes that occur when speeds are high:
- Rollovers: +16%
- Ejected passengers: +21%
- Single-vehicles: +11%
- Speeding-related: +12%

Source: National Safety Council, Jan - June 2020

Truck travel declined in April, but recovered through November 2020:

Goods Movement - Truck Travel

- Changes from 2019
  - Long haul truck traffic
    - April 4, 2020 Nationwide: -10%
    - Nov. Interstate Truck VMT: +5%
  - Metro area fleets
    - April 4, 2020 Nationwide: -25%
    - Back to 2019 levels by August
- Hours of service exemptions
- Food and rest area issues

Credit: Flickr
Freight rail was down in April, but recovered by year’s end:

Through end of 2020, US air passenger travel down 57% compared to 2019:
...but air cargo demand increased:

Shift in VMT seen in metro areas across the US:

Source: Streetlight Data, Inc.
Streetlight Data reports “Surprising Changes to Traffic Congestion in Urban Areas”
Per November 2nd, 2020 ‘COVID Trends’ Report:

- Lesser AM peak travel, but greater mid-day VMT compared to pre-pandemic baseline
- Shift attributed to:
  - Mid-day errands
  - E-commerce deliveries
- PM peak travel remains roughly the same
- Decrease in metro area trips in city centers; increase in trips farther away from the traditional downtown/core urban areas.

Source: Google Mobility Reports

As of May 15, 2021

Source: Google Mobility Reports
As of March 7, 2021

**Mobility Trends Reports**

Learn about COVID-19 mobility trends. Reports are published daily and reflect requests for directions in Apple Maps. Privacy is one of our core values, so Maps doesn’t associate your data with your Apple ID, and Apple doesn’t keep a history of where you’ve been.

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**Monthly Performance Report**

**Period: March 2021**

**Meeting: April 2021**

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**Patronage/Mobility**

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<thead>
<tr>
<th>Total Riders</th>
<th>Fixed Riders</th>
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<tr>
<td>Previous: 1,011,789</td>
<td>Previous: 992,830</td>
</tr>
<tr>
<td>Current: 879,466</td>
<td>Current: 858,696</td>
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March 2019: 1,312,129

March 2020: 992,830

March 2021: 858,696
Peak decline: down 77% in Mar/Apr

Source: https://transitapp.com/coronavirus

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On-Street Parking

Transactions Thousands

- August 2019: 80
- September 2019: 85
- October 2019: 90
- November 2019: 80
- August 2020: 40
- September 2020: 45
- October 2020: 50
- November 2020: 40

Down 49%

Source: Albany Parking Authority

Off-Street Parking, All Garages

Transactions Thousands

- August 2019: 90
- September 2019: 95
- October 2019: 100
- November 2019: 90
- August 2020: 40
- September 2020: 45
- October 2020: 50
- November 2020: 40

Down 73%

Source: Albany Parking Authority
"NY on PAUSE" took effect on 3/22
Through November 16th: down 70% from baseline

Source: https://www.opentable.com/state-of-industry


"NY on PAUSE" took effect on 3/22
Recovery to pre-COVID baseline in August 2020

Source: NYSDOT Continuous Count Station 11_0137
Wolf Road in Colonie: Two-way Daily Traffic Volume (2020)

Pre-COVID: 30,000 ADT
Current: 23,000 ADT


Recovery to pre-COVID baseline in July 2020
https://www.bts.gov/covid-19/week-in-transportation

https://www.bts.gov/covid-19/daily-vehicle-travel
Upcoming task: COVID impact traffic monitoring

- Select locations on roadways with pre-COVID count data
- Conduct new counts to determine traffic impact
- Count at roadways serving:
  - Colleges/Universities
  - Office parks
  - Hospitals
  - Recreational facilities
  - ‘Essential’ businesses
- All-day counts: determine if traditional ‘peak-hours’ have shifted

Potential count locations:

- Colleges/Universities
  - Roadways serving: SUNY Albany, RPI, Union, HVCC, etc.
  - Shift to online classes may remain after COVID; will traffic shift?
- Office parks
  - Harriman Campus, Corporate Woods, Airport Park, etc.
  - Will partial work-from-home remain in certain economic sectors?
- Locations with pre-COVID counts:
  - GEIS reviews, Linkage studies, Technical Assistance Program studies, NYSDOT counts, etc.