Ride-hailing in the Boston Metropolitan Region

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Presentation Outline

• Why do Public Agencies Need Ride-hailing Data?
• Data Collection Efforts
• MAPC Rider Intercept Survey
• Main Findings and Policy Implications
• Next Steps

Image source: AAA
Regional planning agency serving the 101 cities and towns of Metro Boston
Our mission is to promote smart growth and regional collaboration
Why Do Public Agencies Need TNC Data?

Manage Congestion

Integrate with Public Transportation

Balance Curb Use Demands

Land Use Planning

Plan for Autonomous Vehicles

Sources: Bing, Boston Herald, Curbed Boston
Why Do Public Agencies Need TNC Data Today?

- Regional Travel Demand Modeling and Forecasting
- Understand Impacts to the Transportation System
- Understand Impacts on Regional Equity Goals
- Improving Traffic Management and Operations
• **Research challenge**
  o Public agencies are unable to collect meaningful data from these private services.
  o Without these data, it’s difficult to provide meaningful insight on the impacts of ride-hailing services.
  o Consequently, public agencies cannot effectively manage new mobility industries and technologies.
Data Collection Efforts

- Strategy 1: Inquire ride-hailing companies directly

- Strategy 2: Inquire ride-hailing drivers directly

- Strategy 3: Utilize other apps that record driver trips

- Strategy 4: Utilize API data source

- Strategy 5: Collect ride-hailing passenger survey

- Strategy 6: Utilize legislatively-mandated data reporting
In Fall 2017, MAPC recruited and trained 10 drivers to ask passengers if they would take a tablet-based survey during their ride-hailing trip.

The survey instrument recorded passenger responses pertaining to:

- Passenger socioeconomic and economic characteristics.
- General travel patterns and mobility options.
- Specific ride-hailing trip context.

Nearly 1,000 responses collected over a four-week period.
Fare Choices Report

www.mapc.org/farechoices

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For this trip, how would you have traveled if Lyft/Uber wasn’t an option?

If ride-hailing weren’t an option, 42% of survey respondents said they would have taken public transit instead. 12% would have walked or biked.
For this trip, what are the main reasons that you chose Lyft/Uber over other options?

- Multitasking option: 85
- Cannot drive: 114
- No available transit: 163
- Weather: 175
- Parking difficult/expensive: 217
- No available car: 326
- Quicker than transit: 561

73% of passengers who substituted transit use for ride-hailing stated “quicker than transit” as a main reason.
80% of surveyed trips were single-customer services rather than pooled options such as Lyft Line or Uber POOL.

Substitution is exacerbating regional roadway congestion. Overall, 15% of ride-hailing trips are adding cars to the region’s roadways during the morning or afternoon rush hours.

Ride-hailing is minimally used to connect to public transit. 9% for trips originating from home and 4% for home-bound trips.

66% of ride-hailing passengers reported using ride-hailing services on a weekly basis.
State Ride-Hailing Data

- In 2017, approximately 64.8 million ride-hailing trips started in Massachusetts.

- Of this total, nearly 35 million trips started in Boston — an average of about 96,000 daily trips.

Source: Department of Public Utilities, 2017 Data Report — Rideshare in Massachusetts
Main Findings

• Demographics suggest quick adoption and raise concerns of habit development.

• Substitution of more sustainable modes is exacerbating regional roadway congestion.

• Substantial premium paid for convenience, reliability, and speed.

Policy Implications

• Adjustments to increase the legislatively-mandated $0.20 ride assessment are needed.

  $0.20 per ride surcharge through 2027, with $0.10 provided to muni where trip originates.

  Our report estimated a revenue loss of $0.35 per ride-hailing trip for MBTA.

• Improved provisions and protocols for data sharing agreements with public agencies are needed.

• DPU collecting annual data on muni-level trip counts, aggregated trip route/length, and crash sites.
Next Steps

- Greater insight needed into ride-hailing trip distribution, travel patterns, and routes.
  - Available data sets do not track trips from origin to destination.
  - Data valuable for understanding impact on transportation system and traffic operations.

- Build evidence base on ride-hailing adoption to plan for automated vehicle fleet introduction.
Thank you!

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