Data on Demand: A Case Study in Los Angeles and Puget Sound Regions

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Mobility on demand (MOD) refers to transportation services that can be hailed in real-time for an impending trip.

$8 million from the FTA to 11 unique projects.

$1.3 million awarded to two-region partnership between Los Angeles and the Puget Sound Regions and a MOD provider.

Data sharing between transit agencies, MOD provider, and research institutions.
Project Data Sharing Purpose

To facilitate project management and research to help reach project goals

Data sharing agreements:

• Start with research and service goals for MOD projects, as well as the data needed to meet those goals
• Define accurate, granular data allow for assess of MOD projects and pilots and to measure progress towards identified goals and objectives
• Outline agreed-upon parameters for data ownership, access, storage, and usage.

Agreements to share data between private and public partners are the backbone of successful MOD projects
Combining existing data as well as new data sets—such as observed and survey data—can provide a robust project evaluation framework.
Case Study: Sources, Formats, Access, and Storage

• Transit Agencies allow research team access to transit data
  • Agency owned and stored, researchers ask for specific subsets
  • Raw data shared
• Via controls access and storage for Via data
  • Via servers
  • Portal for researchers and agencies to access
  • Raw data in multiple tables and visualized data
  • Updates every week
• Research team owns survey data
  • Downloadable for members of research team and agency teams only
Case Study: Overview of Actual MOD Data Shared

• **Trip level**: vehicle, rider ID; O-Ds; date/time; distance; speed; ADA accessibility; completions
• **Request data**: accounts created; request source; frequencies
• **Vehicle data (weekly)**: make; model; shift date/time; revenue miles; deadheading miles; miles with 1, 2, 3, ...8 booking on board per shift; PMT/VMT
• **Ridership (weekly)**: new, active, and repeat riders; passengers/vehicle hour
• **Pick-up/drop-off by week (trip level)**: location
• **Daily driver hours**
How was the data sharing agreement created?
Mobility Partnership Data Sources and Format Considerations

Data Sources
• Internal transit agency-collected data
• External data sets
• MOD provider-collected data
• Project user survey data

Data Format Considerations
• Standardized vs specific
• Case type (rider, trip, driver)
• Levels of aggregation
Legal Considerations

• Sunshine laws
• Personally-identifiable information
• Trade secret protection

Examples: General Data Protection Regulation (GDPR) in Europe, California Consumer Privacy Act
Case Study: Data Needs

Data Sharing Agreement Goals:

• To allow the transit agencies and Via to:
  • Evaluate and adjust service throughout the year-long pilot
  • Assess potential for extension
• For the research team to be able to assess access and equity impacts

Data sharing goals directly related to agreed upon project goals as approved by the funder (FTA)
Case Study: Data Agreement Process

- Negotiations with Lyft
- Dissolution of partnership with Lyft
- Competitive procurement for MOD
- MOD Provider Selection
- Negotiations with Via
  - Term sheet signed
  - Data agreement developed
  - Contracts signed

LA Metro, Lyft, Eno
LA Metro, multiple bidders
LA Metro
LA Metro, Sound Transit, KCM, Eno, UCLA, UO, UW
Each agency with Via
LA Metro, Sound Transit, KCM, Eno, UCLA, UO, UW
LA Metro, Sound Transit, KCM, Eno, UCLA, UO, UW
Lessons Learned

• Relate data requests directly measures in relation to a clear goal
• Set data ownership, access, and sharing policies up front
• Agree in writing to preliminary arrangements early in the process
• Engage with research experts
• Understand state, local, and agency legal constraints
• Examine all possible data sources
Questions?

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