



Mobility on Demand Survey – Update

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MOD Survey | General Description

Survey Participation

- The survey was distributed in December 2020 and data collection is ongoing
- Participants represent a variety of stakeholders in the transportation industry, geographies, and built environments

Things to Note

- **Data collection is ongoing and findings are subject to change**
- Survey responses were aggregated
- Respondents could skip questions so key findings may not represent the nuance of every participant's feedback
- For many of the questions respondents could select multiple responses, so the number of responses may not match the total number of survey takers
- The percentages of responses may not total 100% due to rounding

Participant Information | Sector and Role

Organization Sector

Sector	Percentage of Responses N=119
Academic/research institution	9.2%
Consulting firm	18.5%
Mobility service provider	9.2%
Non-government organization, non-profit organization	5.9%
Public transit agency	6.7%
Local public agency	5%
Regional public agency	2.5%
State public agency	3.4%
State transportation agency	35.3%
Federal public agency	1.7%
Technology and data vendors	2.5%

Organizational Role

Role	Percentage of Responses N=100
Agency Staff	2%
C-Suite	11%
Department Director	13%
Elected Official	1%
Engineer	20%
Planner	6%
Practitioner	3%
Program Manager	20%
Researcher	16%
Technology/Developer	1%
Other	7%

Participant Information | Operational Area

Geographic Location and Built Environment Type

Location	Urban n=142	Suburban n=130	Edge City n=137	Exurban n=101	Rural n=77	Total N=587
Entire U.S.	22.5%	20%	19%	11.9%	15.6%	18.4%
Continental U.S.	9.2%	10%	9.5%	8.9%	5.2%	8.9%
Northeast/New England	6.3%	7.7%	9.5%	7.9%	6.5%	7.7%
Mid Atlantic	6.3%	6.2%	7.3%	6.9%	6.5%	6.6%
Midwest	13.4%	16.2%	15.3%	18.8%	19.5%	16.2%
Southeast	9.2%	10.8%	8.8%	9.9%	13%	10.1%
Great Plains	4.9%	3.8%	4.4%	5%	3.9%	4.4%
Rocky Mountains	0.7%	6.9%	7.3%	8.9%	9.1%	7.7%
Southwest	7.7%	6.9%	6.6%	7.9%	7.8%	7.3%
Pacific Coast/Western US	13.4%	11.5%	12.4%	13.9%	13%	12.8%

MOD and MaaS | Concept Familiarity and Available Services

Concept Familiarity

- Most respondents were relatively familiar with MOD and MaaS
 - Over half of the participants ranked their familiarity with MOD a score of at least seven out of 10.
 - Over half of the participants ranked their familiarity with MaaS a score of at least six out of 10.

Available Services

- Most widely available MOD modes, from most to least widely available:



1. Paratransit
2. Taxis
3. Courier Network Services (CNS)
4. Bikesharing – most places with a dockless model also had a docked model
5. Transportation Network Companies (TNCs)
6. Ridesharing (i.e., carpooling and vanpooling)

Opportunities

1. Environmental Benefits

- Transportation criteria pollutant emissions
- Transportation greenhouse gas emissions (GHG)
- Vehicle miles traveled (VMT) decrease

2. Accessibility and Mobility

- Congestion management
- Employment access
- Goods access
- Residential mobility

3. Supplemental Services

- Availability of transportation options during off-peak hours
- Complements to public transit
- User health

Challenges

1. Traveler Protections

- Compliance with health protocols
- Cybersecurity
- Device/vehicle sanitation
- Physical distancing
- Privacy protection for travelers
- Security
- Traveler safety

2. Equity

3. Environmental - vehicle miles traveled/GHG emissions

4. Enforcement

5. Protecting Proprietary Information

6. Supportive Infrastructure

Opportunities and Challenges

1. Cost and Pricing

- Affordability for users
- Pricing stability
- Revenue for public agencies
- Affordability/cost for public agencies

2. Accessibility

- Accessibility for un- and under-banked households
- Accessibility for people with disabilities
- Device location
- Reliability
- Ease of use for travelers
- Equity and inclusion
- Reliability

3. Liability for Agencies and Users

4. Institutional, Political, and Public Support

5. Data Sharing

Policy Supports | Support by Government Level

Policy Support by Government Level





















Sector	Local	Regional	State	Federal
Legislation			X	
Policy Guidance	X	X		
Regulation				X

Desired areas of policy support:

- **Legislation:** Privacy and cybersecurity (including personal and proprietary information protection); accessibility; environmental impacts; ease use for travelers; and physical distancing;
- **Policy Guidance:** Data sharing policies and privacy protections; curbspace and rights-of-way management; and accessibility; and
- **Regulation:** Environmental impacts; revenue and subsidies for public agencies; insurance and liability; pricing stability, affordability, and consumer protections; and expanding technology access

MOD and MaaS | Use Cases and Partnerships

Transportation Services

	First- and Last-Mile	Low-Density Service	Medical Transportation	Off-Peak Service	Paratransit
Local Agencies					
State Agencies					
Federal Agencies					
Non-Profit Organizations					

Key



In-house



Partnership



Vendor

The COVID-19 pandemic is changing MOD by:

- Changing partnerships, terms, and/or conditions;
- Creating new partnerships with new providers; and/or
- Suspending partnerships.

Data Sharing | Data Management, Sharing, and Use

In order of greatest to least importance shared data is used for:

**Greatest
Importance**



1. Managing assets and rights-of-way in real-time
2. Altering fleet management
3. Informing planning decision and public transit schedules
4. Measuring performance
5. Modeling demand management
6. Informing policy decisions
7. Informing real-time traffic operations
8. Informing public transit schedules
9. Managing mobility availability in real-time
10. Altering regulations

**Least
Importance**

Most survey respondents stated that shared data is not in real-time, but they would like to receive real-time data.

Public Agencies | Pricing Strategies

Public Agency Pricing Strategies

Sector	Currently Have n = 24	Planning For n = 17	Interested In n = 25	Total N* = 66
Congestion	16.7%	-	16%	12.1%
Cordon	-	11.8%	12%	7.8%
Curbspace Usage	8.3%	17.6%	16%	13.6%
Loading Zone	4.2%	17.6%	8%	9.1%
Parking Permit	16.7%	-	8%	9.1%
Road Toll	29.2%	5.9%	4%	13.6%
Road Use Charge	8.3%	5.9%	16%	10.6%
Vehicle Characteristics	-	11.8%	8%	6.1%
Vehicle Occupancy	12.5%	11.8%	4%	9.1%
Zone	4.2%	17.6%	8%	9.1%

COVID-19 Impacts | Transportation Concerns

**High Level
of Concern**



1. Public health and safety (i.e., COVID-19 containment)
2. Revenue generation
3. Ridership/use rates
4. Service availability for users
5. Employee/contractor availability
6. Affordability for users
7. Availability for users
8. Communication of new policies
9. Goods delivery

**Lower Level
of Concern**

COVID-19 Impacts | Transportation Industry Workplace Changes

Common Workplace Changes



1. Allowing staff to work from home
2. Changing the physical workplace
3. Identifying alternative funding sources
4. Requiring operators and staff to wear personal protective equipment (PPE)
5. Enhancing cleaning requirements/cleaning more frequently
6. Changing roles and responsibilities
7. Requiring passengers to wear PPE
8. Providing PPE to staff and operators
9. Modifying operations to support enhanced cleaning
10. Expanding sick leave policies

Less Common Workplace Changes



COVID-19 Impacts | Modal Impacts

Anticipated Modal Impacts

Mode	High Decrease	Moderate Decrease	Slight Decrease	No Change	Slight Increase	Moderate Increase	High Increase
Active Transportation						→	
Bikesharing			←		→		
Carsharing	←						
Courier Network Services						→	
Microtransit		←					
Paratransit		←					
Personal Vehicles		←			→		
Public Transit	←						
Ridesharing			←				
Scooter Sharing		←					
Taxi	←						
TNCs		←					
TNCs – pooled rides		←					

Thank You | Questions and Contact Information

We would like to thank the MOD Alliance, American Association of State and Highway Transportation Officials (AASHTO), Institute of Transportation Engineers (ITE), Intelligent Transportation Systems of America (ITS America), and PTV Group for supporting this effort.

Please remember ... findings are preliminary ... data collection is still ongoing.



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