

ARIZONA STATE Georgia

Micro-mobility and ridehailing services: current use and perceptions

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CIR D-STOP

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TOMNET D-STOP Transformative Technologies in Transportation Survey (T4 Survey)

- Phoenix, Atlanta, Austin, and Tampa metro areas
- Summer and Fall 2019
- Random address-based sample with online instrument
- Comprehensive attitudinal survey on MaaS and AV
- Weighted to better represent Census distributions



| | Phoenix, AZ | Atlanta, GA | Austin, TX | Tampa, Fl | Total |
|-------------|-------------|-------------|------------|-----------|-------|
| Sample Size | 1,027 | 944 | 1,127 | 260 | 3,358 |
| % | 30.6% | 28.1% | 33.6% | 7.8% | 100% |





Survey Instrument





Attitudes and Preferences Vehicles You Have and Where You Live



Current Travel Patterns



Mobility on Demand and Shared Mobility Services



Autonomous

Vehicles

Background Information











How often do you use bikesharing? (weighted)



How often do you use e-scooter sharing? (weighted)







How often do you use bikesharing? (weighted)



How often do you use e-scooter sharing? (weighted)



Geor











How long was the trip?















How would you have traveled differently?





How would you have traveled differently?



Georo











How often do you use *private* ridehailing? (weighted)



How often do you use *shared* ridehailing? (weighted)





How often do you use *private* ridehailing? (weighted)



How often do you use *shared* ridehailing? (weighted)



Geor































How would you have traveled differently?





How would you have traveled differently?





Changes after ridehailing use (N=1,540)

| After beginning to use ridehailing services, how has your use of each of the following means of transportation changed? | | | | |
|---|----------------------------|--------------|----------------|-------------|
| | I have changed usage, but | I use it | I use it | I use it |
| | not because of ridehailing | less often | about the same | more often |
| Drive private vehicle, alone | O 253 | O 188 | ○ 1,032 | 67 |
| Drive private vehicle, with passengers | ○ 263 | O 202 | ○ 1,042 | ○ 33 |
| Ride in private vehicle, with others | O 250 | O 235 | ○ 1,010 | O 45 |
| Public transit: bus | O 330 | O 222 | O 933 | O 55 |
| Public transit: light rail, heavy rail, or subway | O 363 | O 191 | O 960 | O 26 |
| Taxi | O 345 | O 369 | O 816 | O 10 |
| Bicycle or e-scooter | O 382 | O 148 | O 977 | O 33 |
| Walk | O 313 | O 158 | O 977 | O 92 |





Changes after ridehailing use (N=1,540)







Changes after ridehailing use (N=1,540)



Attitudes on ridehailing

- 15 attitudinal statements
 - Asked to all respondents
 - 48 cases dropped for missing
- Exploratory factor analysis (EFA)
 - Four attitudinal factors are extracted
 - Factor scores are compared across various segments (e.g., use frequency, age, sex, education, income, access to cars, residential density)
 - Results are weighted

Please rate your level of agreement with each of the following statements about ridehailing services (e.g., Uber/ Lyft). Even if you do not currently use these services, your opinions about them are important to us.

| | | Strongly disagree | Somewhat disagree | Neutral | Somewhat agree | Strongly agree |
|----|--|----------------------|----------------------|---------|-------------------|-------------------|
| a. | Ridehailing services are too expensive to use on a frequent (e.g., daily or weekly) basis. | 0 | 0 | 0 | 0 | 0 |
| b. | I would use ridehailing services more often if the service was more reliable. | 0 | 0 | 0 | 0 | 0 |
| c. | Ridehailing services help me save time and money on parking. | 0 | 0 | 0 | 0 | 0 |
| d. | Ridehailing services help me avoid impaired driving (e.g., driving under the influence). | 0 | 0 | 0 | 0 | 0 |
| e. | Ridehailing services are good alternatives when my car is temporarily unavailable (e.g., when it is being repaired). | 0 | 0 | 0 | 0 | 0 |
| f. | Ridehailing services are good travel options for me when I am away from home. | 0 | 0 | 0 | 0 | 0 |
| g. | Ridehailing services help me get to/from public transit stops. | 0 | 0 | 0 | 0 | 0 |
| h. | Ridehailing services are good options for me when or where public transit is not available. | 0 | 0 | 0 | 0 | 0 |
| i. | Ridehailing services allow me to live with fewer or no cars. | 0 | 0 | 0 | 0 | 0 |
| j. | Traveling with a driver I don't know makes me feel uncomfortable. | 0 | 0 | 0 | 0 | 0 |
| k. | For shared ridehailing (e.g., uberPOOL, Lyft Share), traveling with unfamiliar passengers makes me uncomfortable. | 0 | 0 | 0 | 0 | 0 |
| 1. | The lower cost of shared ridehailing (e.g., uberPOOL, Lyft Share) is worth the additional time picking up and dropping off other passengers. | 0 | 0 | 0 | 0 | 0 |
| m. | The lack of a child safety seat prevents me from using ridehailing services. | 0 | 0 | 0 | 0 | 0 |
| n. | The lack of equipment to accommodate disabilities prevents me from using ridehailing services. | 0 | 0 | 0 | 0 | 0 |
| 0. | Ridehailing service availability affects where I choose to live, work, and/or go to school. | 0 | 0 | 0 | 0 | 0 |





Attitudes on ridehailing (N=3,310)

Teaching Old Models New Tricks

| Attitudinal statement | Factor 1 | Factor 4 |
|---|----------|----------|
| Ridehailing services are good travel options for me when I am away from home . | 0.846 | |
| Ridehailing services are good alternatives when <i>my car is temporarily unavailable</i> (e.g., when it is being repaired). | 0.738 | |
| Ridehailing services are good options for <mark>me</mark> when or where public transit is not available. | 0.690 | |
| Ridehailing services help me <i>avoid impaired driving</i> (e.g., driving under the influence). | 0.594 | |
| Ridehailing services help me save time and money on <i>parking</i> . | 0.562 | |
| Ridehailing services help me get to/from public transit stops. | 0.358 | 0.334 |
| TOMNET Transportation Center | | |

Attitudes on ridehailing (N=3,310)

| Attitudinal statement | Factor 1 | Factor 4 |
|---|----------|----------|
| Ridehailing services allow me to live with <i>fewer or no cars</i> . | | 0.668 |
| Ridehailing service availability affects <i>where</i> I choose to live, work, and/or go to school. | | 0.397 |
| The lower cost of <i>shared</i> ridehailing (e.g., UberPOOL, Lyft Share) is worth the additional time picking up and dropping off other passengers. | | 0.390 |

















Key findings

- Substitution patterns vary by user and trip characteristics.
 - Micromobility riders living in dense areas and making short trips substitute for transit or active modes.
 - Shares ridehailing service users with limited access to cars substitute for transit or active modes.
- After ridehailing use, 13% of users reported *more sustainable* travel behaviors.
- *High-income* people think ridehailing personally useful, but do not see its potential for less car-oriented lifestyles.







Thank you!

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