APPENDIX B: NEW MOBILITY SURVEY RESULTS
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Introduction
Purpose

What is new mobility?

New mobility options are emerging elements of our transportation system that are enabled by digital technology, shared, driven by real-time data, and often providing curb-to-curb transportation. These options allow Seattleites to treat urban transportation as a customizable, on-demand service. They can book and pay for different transportation services as they go, based on what they need.

Deliver a high-quality transportation system for Seattle

As the transportation landscape shifts in Seattle, it is important for SDOT to understand how and why people use different mobility options. Getting a complete picture of who uses new mobility options such as Transportation Network Companies and shared cars, bikes, and scooters— and how, when, where, and why—is important. This information will enable planners to help us all move safely and efficiently throughout Seattle.

SDOT hired PRR, an independent research firm, to conduct an online survey both with residents of Seattle and the surrounding region and also with recent or potential tourists. Priority audiences included people with disabilities, people of color, low income households, and youth (13-17 years old).

Research Objectives

- Understand who uses new mobility options, and how, when, where, why, and how often they use these options.
- Understand incentives and barriers to using new mobility options.
- Explore attitudes towards new mobility options and how people see these options fitting in among the many modes they can choose from to travel in Seattle.
- Explore attitudes towards SDOT’s role in regulating new mobility options.
- Track behavior and attitudes over time.
- Measure program effectiveness.
Methods Overview

We surveyed people about their experiences with new mobility options and attitudes towards these emerging travel modes.

- PRR fielded an online survey in English November 9-24, 2019. The survey was available by call-in phone option through December 6. A total of 2,854 people took the survey.

- PRR mailed an invitation to take the survey, followed a week later by a reminder postcard. PRR used an online panel to recruit tourists and conducted direct outreach to recruit youth.
  - Seattle residents (n=2,176): An invitation went to 20,000 randomly selected addresses in Seattle city limits. Additionally, PRR recruited 28 youth December 3-6, 2019 through in-person outreach at Seattle-area high schools and community-based organizations: Nova High School, Garfield High School, Seattle World School, and the Garfield Teen Life Center.
  - Region residents (n=518): An invitation went to 10,000 randomly selected addresses outside Seattle but within the Sound Transit service area (see map to the right).
  - Tourists (n=160): Panel participants who had visited Seattle within the last 6 months or planned to visit within the next 6 months.

- The overall margin of error is +/- 2%.

- The final sample includes respondents from diverse locations and backgrounds. The recruitment methods were not intended to produce a representative sample, which often misses members of the priority audiences (see page 8) for this research.

- To improve the survey’s accessibility, PRR offered an accessible version of the online survey (14% of respondents took this version) and a phone survey (2% of respondents used this option).

- Participants who completed the survey were eligible to enter a sweepstakes.

1 PRR is conducting focus groups in all of Seattle’s Tier 1 languages to reach populations who speak languages other than English. This will improve language access more than a translated online survey.

2 1,274 mailed invitations were returned as non-deliverable.
Methods
Terminology

New Mobility Options

▪ **Ride hail** (also called Transportation Network Companies, TNCs, or “ridesharing”) allows customers to request a ride in real-time using an app or website, unlike a traditional taxi service. Examples: Lyft and Uber.

▪ **Car share** is a type of car rental. Customers must become members and typically pay based on how far they travel and/or how long they have the car. Members drive themselves. Cars are available 24/7 around town, though many have recently left the Seattle market. Examples: Zipcar, Car2Go/SHARENOW*, and GetAround.

▪ **Bike share** is a type of bike rental set up similar to car sharing. Customers pay based on how long they have the bike. Bikes are available for rental 24/7 around town. Examples: Lime* and Jump.

▪ **Scooter share** is a type of scooter rental set up similar to car sharing. Customers pay based on how long they have the scooter. Scooters are available for rental 24/7 around town. At the time this survey was conducted, Seattle did not have any scooter share services.

▪ **Carpool, vanpool, and taxi apps** allow customers to request a ride in real-time using an app or website. Examples: Scoop and Waze.

Types of New Mobility Users

▪ **User**: Have used at least one new mobility option to get around Seattle in the last 12 months.

▪ **Non-user**: Have not used new mobility option(s) to get around Seattle in the last 12 months (they may have used new mobility 13 months ago or in another city, or they may have never used new mobility.)

*Note: Car2go/SHARENOW and Lime stopped services in Seattle after this survey fielded.
Methods
Segmentation

PRR grouped respondents by residence and the new mobility mode(s) they used, and segmented the analysis to look at characteristics of these groups.

Throughout the report we use color-coded bar charts to report results specific to these groups unless the sample size is less than 30, in which case we summarize results in tables in Appendix C.

Residence

- **Seattle resident**: Invited through the mailing to 20,000 Seattle addresses. We also invited youth and persons with disabilities through direct outreach (see page 8). 95% of Seattle residents were 18 or older.

- **Region resident**: Invited through the mailing to 10,000 addresses outside Seattle and within the Sound Transit service area. 99% of region residents were 18 or older.

- **Tourist**: Invited through a professional online panel company. 99% of tourists were 18 or older. 72 had visited Seattle within the last 6 months (“Recent” Tourists), 88 planned to visit within the next 6 months (“Potential” Tourists).

New Mobility Mode

- **Ride hail**: Used ride hail services (e.g. Lyft or Uber) in Seattle in the last 12 months.

- **Car share**: Used car share services (e.g., Zipcar, Car2Go/SHARENOW, or GetAround) in Seattle in the last 12 months.

- **Bike share**: Used bike share services (e.g. Lime or Jump) in Seattle in the last 12 months.

Note: Results related to other new mobility modes (e.g., taxi app, scooter share) are available in the separate crosstabulation document.

Note: The survey used the term “ride share” for plain language purposes. Figures throughout this report use the technical term “ride hail.”
Methods
Priority Audiences

SDOT identified priority audiences for this research and PRR conducted analysis to understand characteristics of these groups. Here are the definitions for who counts in each priority audience.

Throughout the report we use the following icons to flag statistically significant relationships relevant to these groups. When a group does not appear on a page, there were no significant relationships to report.

- **People of color**
  Respondents who did not identify as White, Non-Hispanic.

- **Non-English Speakers**
  Respondents who said they speak a language other than English at home.

- **People with disabilities**
  Respondents who said they have a disability.

- **Youth:**
  Respondents who are 13 to 17 years old.

*Notes:* Many new mobility services require users to be at least 18 years of age. Additionally, given the small sample size of the youth segment, PRR conducted in-depth analysis using crosstabulations, which are reported separately.
Online Survey Methods

In-depth Analysis

01

PRR used logistic regression to estimate how likely a respondent’s characteristics (e.g., disability) influenced their survey responses (e.g., uses bike share vs. doesn’t use bike share).

We report odds ratios of at least 1.2 (20% more likely) or less than 0.8 (20% less likely), indicating a relatively strong relationship.

Odds ratios measure the strength of the relationship between characteristics and outcomes. Odds ratios of 1 mean that the influence on the outcome are equally likely across groups.

02

PRR used crosstabulations to understand differences between groups.

We used chi-square analysis to determine whether differences between groups were significant. Estimates must have a 0.05 significance level (a 95 percent confidence level) and a coefficient value > 0.15 or <-0.15 to be statistically significant. Together, these measures indicate a moderate effect size.

Regression controls for multiple factors at once.

PRR’s regression analysis accounted for the following characteristics of respondents: gender, age, income, whether they are a person of color, whether they have a disability, and whether they speak a language other than English at home.

This report only describes statistically significant relationships.

When something is statistically significant, it means it is highly unlikely to be the result of random chance. To achieve the cut-off for statistical significance, estimates must have a 0.05 significance level (a 95 percent confidence level).

This report summarizes survey results using charts. Note that the totals in some charts may add up to somewhat more or somewhat less than 100% due to rounding or where respondents may provide multiple responses. Additionally, the total number of respondents varies from chart to chart based on how many people answered the question. Sometimes people skipped a question or groups of respondents saw different questions based on their travel behavior.
Demographic Profile – Seattle Residents, Part 1
2,514 respondents

**Gender**
- Female: 51%
- Male: 47%
- Gender(s) not listed here: 2%

**Ethnicity**
- Hispanic or Latino: 6%

**Race**
- White: 84%
- Asian or Asian American: 13%
- Black or African American: 4%
- American Indian or Alaska Native: 2%
- Native Hawaiian or Pacific Islander: 0.6%
- Other: 1%

**Household Income**
- Less than $10,000: 3%
- $10,000 to $14,999: 2%
- $15,000 to $24,999: 3%
- $25,000 to $34,999: 5%
- $35,000 to $49,999: 8%
- $50,000 to $74,999: 15%
- $75,000 to $99,999: 15%
- $100,000 to $149,999: 23%
- $150,000 to $199,999: 10%
- $200,000 to $250,000: 6%
- More than $250,000: 6%
- Don’t know: 8%

**Age**
- 13-15: 0.3%
- 16-17: 0.6%
- 18-24: 5%
- 25-34: 23%
- 35-44: 21%
- 45-54: 15%
- 55-64: 16%
- 65-74: 14%
- 75+: 5%

Due to rounding, or options where participants could select multiple answers, percentages may not sum to 100%. Rounding occurs on all demographic slides.
Demographic Profile – Seattle Residents, Part 2
2,514 respondents

### Home Language(s)

<table>
<thead>
<tr>
<th>Language</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>English</td>
<td>98%</td>
</tr>
<tr>
<td>Spanish</td>
<td>4%</td>
</tr>
<tr>
<td>Chinese/Mandarin/Cantonese</td>
<td>3%</td>
</tr>
<tr>
<td>Other</td>
<td>9%</td>
</tr>
</tbody>
</table>

### Uses New Mobility Options

<table>
<thead>
<tr>
<th>Option</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ride hail</td>
<td>73%</td>
</tr>
<tr>
<td>Bike share</td>
<td>25%</td>
</tr>
<tr>
<td>Car share</td>
<td>19%</td>
</tr>
</tbody>
</table>

### Ability

<table>
<thead>
<tr>
<th>Condition</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Does not have a disability</td>
<td>88%</td>
</tr>
<tr>
<td>Condition that limits physical activities</td>
<td>8%</td>
</tr>
<tr>
<td>Disabilities not listed here</td>
<td>3%</td>
</tr>
<tr>
<td>Condition that limits learning or remembering</td>
<td>2%</td>
</tr>
<tr>
<td>Deafness or serious difficulty hearing</td>
<td>2%</td>
</tr>
<tr>
<td>Blindness or serious difficulty seeing</td>
<td>0.7%</td>
</tr>
<tr>
<td>Limited ability to care for yourself</td>
<td>0.5%</td>
</tr>
</tbody>
</table>

### Mobility Access Factors

<table>
<thead>
<tr>
<th>Factor</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>A cell phone with Internet access</td>
<td>95%</td>
</tr>
<tr>
<td>A computer or tablet with Internet access</td>
<td>94%</td>
</tr>
<tr>
<td>A working car or motor vehicle that you or someone you know owns</td>
<td>88%</td>
</tr>
<tr>
<td>A working bike or e-bike</td>
<td>59%</td>
</tr>
<tr>
<td>A working scooter or e-scooter</td>
<td>20%</td>
</tr>
<tr>
<td>A working skateboard, hoverboard, or other similar device</td>
<td>7%</td>
</tr>
</tbody>
</table>

### Ability to Access New Mobility

<table>
<thead>
<tr>
<th>Ability to Access New Mobility</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>I have a drivers permit or license</td>
<td>93%</td>
</tr>
<tr>
<td>I can use the internet almost everywhere I go</td>
<td>93%</td>
</tr>
<tr>
<td>I can ride a bike</td>
<td>80%</td>
</tr>
<tr>
<td>None of these</td>
<td>1%</td>
</tr>
</tbody>
</table>

### Ever Worked for a Ride Hail Company

<table>
<thead>
<tr>
<th>Worked for a Ride Hail Company</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>3%</td>
</tr>
</tbody>
</table>
Demographic Profile – Region Residents, Part 1
602 respondents

Gender
- Female: 51%
- Male: 47%
- Gender(s) not listed here: 2%

Ethnicity
- Hispanic or Latino: 6%

Race
- White: 81%
- Asian or Asian American: 16%
- Black or African American: 3%
- American Indian or Alaska Native: 2%
- Native Hawaiian or Pacific Islander: 0.6%
- Other: 1%

Household Income
- Less than $10,000: 2%
- $10,000 to $14,999: 1%
- $15,000 to $24,999: 2%
- $25,000 to $34,999: 5%
- $35,000 to $49,999: 8%
- $50,000 to $74,999: 15%
- $75,000 to $99,999: 15%
- $100,000 to $149,999: 23%
- $150,000 to $199,999: 10%
- $200,000 to $250,000: 6%
- More than $250,000: 6%
- Don't know: 8%

Age
- 13-15: 0.5%
- 16-17: 0.7%
- 18-24: 3%
- 25-34: 14%
- 35-44: 17%
- 45-54: 18%
- 55-64: 20%
- 65-74: 19%
- 75+: 8%

Gender(s) not listed here: 0.6%
Demographic Profile – Region Residents, Part 2
602 respondents

### Home Language(s)

- **English**: 97%
- **Spanish**: 5%
- **Chinese/Mandarin/Cantonese**: 4%
- **Other**: 15%

### Ability

- Does not have a disability: 86%
- Condition that limits physical activities: 10%
- Disabilities not listed here: 3%
- Condition that limits learning or remembering: 3%
- Deafness or serious difficulty hearing: 2%
- Blindness or serious difficulty seeing: 1%
- Limited ability to care for yourself: 1%

### Reliable Access for New Mobility

- A working car or motor vehicle that you or someone you know owns: 93%
- A cell phone with Internet access: 92%
- A computer or tablet with Internet access: 90%
- A working bike or e-bike: 49%
- A working scooter or e-scooter: 24%
- A working skateboard, hoverboard, or other similar device: 7%

### Uses New Mobility Options

- Ride hail: 41%
- Bike share: 6%
- Car share: 3%

### Ability to Access New Mobility

- I have a drivers permit or license: 92%
- I can use the internet almost everywhere I go: 89%
- I can ride a bike: 66%
- None of these: 1%

### Ever Worked for a Ride Hail Company

- Yes: 4%
### Frequency Visit Seattle

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>At least 2 times per week</td>
<td>33%</td>
</tr>
<tr>
<td>1 to 7 times a month</td>
<td>35%</td>
</tr>
<tr>
<td>Less than monthly but at least 2 times a year</td>
<td>22%</td>
</tr>
<tr>
<td>Less than 2 times in the past year</td>
<td>7%</td>
</tr>
<tr>
<td>I have not visited Seattle in the past year</td>
<td>3%</td>
</tr>
</tbody>
</table>
### Demographic Profile – Tourists, Part 1

**160 respondents**

#### Gender

<table>
<thead>
<tr>
<th>Gender</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>64%</td>
</tr>
<tr>
<td>Male</td>
<td>36%</td>
</tr>
<tr>
<td>Gender(s) not listed here</td>
<td></td>
</tr>
</tbody>
</table>

#### Ethnicity

<table>
<thead>
<tr>
<th>Ethnicity</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hispanic or Latino</td>
<td>15%</td>
</tr>
</tbody>
</table>

#### Race

<table>
<thead>
<tr>
<th>Race</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>White</td>
<td>77%</td>
</tr>
<tr>
<td>Black or African American</td>
<td>17%</td>
</tr>
<tr>
<td>Asian or Asian American</td>
<td>7%</td>
</tr>
<tr>
<td>American Indian or Alaska Native</td>
<td>3%</td>
</tr>
<tr>
<td>Native Hawaiian or Pacific Islander</td>
<td>1%</td>
</tr>
<tr>
<td>Other</td>
<td>3%</td>
</tr>
</tbody>
</table>

#### Household Income

<table>
<thead>
<tr>
<th>Income</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than $10,000</td>
<td>4%</td>
</tr>
<tr>
<td>$10,000 to $14,999</td>
<td>5%</td>
</tr>
<tr>
<td>$15,000 to $24,999</td>
<td>6%</td>
</tr>
<tr>
<td>$25,000 to $34,999</td>
<td>9%</td>
</tr>
<tr>
<td>$35,000 to $49,999</td>
<td>10%</td>
</tr>
<tr>
<td>$50,000 to $74,999</td>
<td>24%</td>
</tr>
<tr>
<td>$75,000 to $99,999</td>
<td>15%</td>
</tr>
<tr>
<td>$100,000 to $149,999</td>
<td>12%</td>
</tr>
<tr>
<td>$150,000 to $199,999</td>
<td>6%</td>
</tr>
<tr>
<td>$200,000 to $250,000</td>
<td>3%</td>
</tr>
<tr>
<td>More than $250,000</td>
<td>6%</td>
</tr>
<tr>
<td>Don’t know</td>
<td></td>
</tr>
</tbody>
</table>

#### Age

<table>
<thead>
<tr>
<th>Age Range</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>13-15</td>
<td>0.6%</td>
</tr>
<tr>
<td>16-17</td>
<td>15%</td>
</tr>
<tr>
<td>18-24</td>
<td>15%</td>
</tr>
<tr>
<td>25-34</td>
<td>24%</td>
</tr>
<tr>
<td>35-44</td>
<td>20%</td>
</tr>
<tr>
<td>45-54</td>
<td>16%</td>
</tr>
<tr>
<td>55-64</td>
<td>9%</td>
</tr>
<tr>
<td>65-74</td>
<td>12%</td>
</tr>
<tr>
<td>75+</td>
<td>4%</td>
</tr>
</tbody>
</table>
### Demographic Profile – Tourists, Part 2
#### 160 respondents

#### Recent vs. Potential Tourists
<table>
<thead>
<tr>
<th>Category</th>
<th>Potential Tourists</th>
<th>Recent Tourists</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>55%</td>
<td>45%</td>
</tr>
</tbody>
</table>

#### Ability

<table>
<thead>
<tr>
<th>Condition</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Does not have a disability</td>
<td>63%</td>
</tr>
<tr>
<td>Condition that limits physical activities</td>
<td>26%</td>
</tr>
<tr>
<td>Condition that limits learning or remembering</td>
<td>15%</td>
</tr>
<tr>
<td>Blindness or serious difficulty seeing</td>
<td>8%</td>
</tr>
<tr>
<td>Deafness or serious difficulty hearing</td>
<td>8%</td>
</tr>
<tr>
<td>Limited ability to care for yourself</td>
<td>6%</td>
</tr>
<tr>
<td>Disabilities not listed here</td>
<td>4%</td>
</tr>
</tbody>
</table>

#### Home Language(s)

<table>
<thead>
<tr>
<th>Language</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>English</td>
<td>99%</td>
</tr>
<tr>
<td>Spanish</td>
<td>13%</td>
</tr>
<tr>
<td>Chinese/Mandarin/Cantonese</td>
<td>2%</td>
</tr>
<tr>
<td>Other</td>
<td>10%</td>
</tr>
</tbody>
</table>

#### Reliable Access for New Mobility

<table>
<thead>
<tr>
<th>Access</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>A cell phone with Internet access</td>
<td>87%</td>
</tr>
<tr>
<td>A computer or tablet with Internet access</td>
<td>86%</td>
</tr>
<tr>
<td>A working car or motor vehicle that you or someone you know owns</td>
<td>84%</td>
</tr>
<tr>
<td>A working bike or e-bike</td>
<td>62%</td>
</tr>
<tr>
<td>A working scooter or e-scooter</td>
<td>44%</td>
</tr>
<tr>
<td>A working skateboard, hoverboard, or other similar device</td>
<td>26%</td>
</tr>
</tbody>
</table>

#### Ability to Access New Mobility

<table>
<thead>
<tr>
<th>Access</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>I can use the internet almost everywhere I go</td>
<td>93%</td>
</tr>
<tr>
<td>I have a drivers permit or license</td>
<td>86%</td>
</tr>
<tr>
<td>I can ride a bike</td>
<td>82%</td>
</tr>
<tr>
<td>None of these</td>
<td></td>
</tr>
</tbody>
</table>

#### Ever Worked for a Ride Hail Company

<table>
<thead>
<tr>
<th>Worked for a Ride Hail Company</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>14%</td>
</tr>
</tbody>
</table>
A majority of respondents have used new mobility in the last 12 months, and they use it for a variety of reasons.

- Ride hail is the most well-known and most frequently used new mobility option.
- Seattle residents were more aware about new mobility options and used them at higher rates than region residents or tourists.
- Respondents often use new mobility options for recreational activities or to avoid a bad experience (e.g., heavy rain), but not everyone can use these options yet.
- Non-users said they do not use a particular new mobility option because they prefer to drive, think it’s too expensive, or have concerns about safety.

Time of day and public transit, not payment methods, are key factors when respondents choose a new mobility option.

- Bike share users often ride in the afternoon (3:00 P.M. – 7:00 P.M.), while ride hail users often hail rides at night (7:00 P.M. – 3:00 A.M.).
- Ride hail and car share users consider if public transit will get them to their destination on time when deciding if they will use a new mobility option.
  - More respondents use bike share to get to transit, compared to other new mobility options.
- Some people with disabilities consider public transportation services like Access Transportation a new mobility option.
- Credit cards are the preferred method of payment, yet many respondents would like to pay with an ORCA card or similar pass.
Key Findings

Most respondents can get around town even if new mobility isn’t an option.

- New mobility options are not interchangeable among users, who substitute options differently.
- Public transit is consistently a top-of-mind alternative across all groups, whereas personal vehicles are only a top of mind alternative for ride hail and car share users.
- Walking or using a mobility aid is the top alternative for bike share users. In general, more bike share users would take advantage of a wider range of mode substitutes if they could not use bike share.

In thinking about changes to new mobility services, traffic, safety, and cost are top of mind for respondents.

- Respondents said the most important things to change about new mobility options were traffic impacts, cost to low-income users, and road safety by drivers.
- When asked what new mobility policies SDOT should focus on, respondents prioritized availability throughout the city, safety, and pricing.
  - Electric vehicles, protected bike lanes, and dedicated spots to lock bikes or park vehicles were more controversial.
How to Read this Report

Before taking this survey, which new mobility options had you heard about? Please select all that apply.

- **Figure Title:** Survey question, as it appears on the survey instrument.
- **Base:** All respondents.
- **N's:** Number of people who answered the question from each audience segment. This is used to calculate the overall percentages.
- **Color scheme:** Colors represent data from different segments (groups of respondents).
- **Items:** Answer choices to the survey question, as they appear on the survey instrument.

<table>
<thead>
<tr>
<th>Option</th>
<th>Base (N = 2,494)</th>
<th>Regional resident (N = 593)</th>
<th>Tourist (N = 155)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ride hail</td>
<td>96%</td>
<td>92%</td>
<td>87%</td>
</tr>
<tr>
<td>Bikeshare</td>
<td>62%</td>
<td>80%</td>
<td>93%</td>
</tr>
<tr>
<td>Carshare</td>
<td>63%</td>
<td>75%</td>
<td>92%</td>
</tr>
<tr>
<td>Carpool</td>
<td>69%</td>
<td>61%</td>
<td>72%</td>
</tr>
<tr>
<td>Taxi app</td>
<td>60%</td>
<td>56%</td>
<td>67%</td>
</tr>
<tr>
<td>Scootershare</td>
<td>55%</td>
<td>47%</td>
<td>54%</td>
</tr>
<tr>
<td>None</td>
<td>1%</td>
<td>4%</td>
<td>1%</td>
</tr>
</tbody>
</table>
Detailed Findings
Travel behavior

Which new mobility options respondents use.
When and how they use new mobility options.
Most respondents get around Seattle with personal vehicles, via public transit, or by walking.

- To travel around Seattle, many people use a vehicle they drive or walk.
  - Biking was more common among Seattle residents and tourists.
  - More Seattle residents said they use public transit than region residents or tourists.

People of color
More likely to use a mobility aid, scooter, or e-scooter.

People with disabilities
More likely to use carpool, vanpool, taxi, scooter, e-scooter, or mobility aids, or report that it doesn’t apply to them.

Non-English Speakers
More likely to use a mobility aid.

Note: “Vehicle someone you know drives” would be a vehicle owned by a friend, but perhaps the tourist drove alone. Carpool is driving with other people.
Most respondents have heard of several new mobility options, ride hail being the most well-known.

- Nearly all respondents had heard of at least one of the new mobility options.
  - People reported hearing about ride hail, bike share, and car share more than other types of new mobility.
  - More Seattle residents were familiar with new mobility.
  - More tourists were familiar with taxi apps.

Non-English Speakers
More likely to report they haven’t heard of these options.

Before taking this survey, which new mobility options had you heard about? Please select all that apply.

Base: all respondents.

- Seattle resident (N = 2,494)
- Regional resident (N = 593)
- Tourist (N = 155)
More respondents used ride hail or bike share than other new mobility options in the last 12 months when traveling around Seattle.

- Of all the new mobility options, more respondents use ride hail.
- Most respondents have used a new mobility option in the last year.
  - Seattle residents’ top new mobility modes: ride hail (75%) and bike share (25%).
  - Region residents’ top new mobility mode: ride hail (44%).
  - Tourists’ top new mobility modes: ride hail (59%), bike share (32%), and car share (31%).
- Of the 29 youth respondents (age 13 – 17), many had a new mobility account:
  - Ride hail: 14
  - Bike share: 10
  - Carpool: 2
  - Scooter share: 1

Statistically significant results reported on the next page.
Race, ability, and language are associated with which new mobility options respondents have recently used in Seattle.

- **People of color**: More likely
  - To have used carpool or vanpool.
  - To report they have never used any of the options.

- **People with disabilities**: More likely to have used a taxi app.

- **Non-English Speakers**: More likely to have used a carpool, vanpool or taxi app.
More respondents used ride hail than other new mobility options in the last 12 months when traveling around the region.

- Of all the new mobility options, more respondents use ride hail.
- Most respondents have used a new mobility option in the last year.
  - Seattle residents’ top new mobility modes: ride hail (67%) and bike share (13%).
  - Region residents’ top new mobility mode: ride hail (55%).
  - Tourists’ top new mobility modes in Seattle: ride hail (59%), bike share (32%), and car share (31%).
A majority of respondents use new mobility options in the afternoon.

- Respondents generally use new mobility options in the afternoon and evening.
  - 3:00 P.M. to 7:00 P.M. is the most common time respondents use bike share and car share.
  - 7:00 P.M. to 10:00 P.M. is the most common time for ride hail.
- Far fewer respondents use bike share in the evening, compared to other new mobility modes. The top times respondents use bike share are:
  - 9:00 A.M. to 12:00 P.M. (37%)
  - 12:00 P.M. to 3:00 P.M. (52%)
  - 3:00 P.M. to 7:00 P.M. (72%)

**Time of day that respondents use each new mobility option**

Base: Respondents randomly assigned to a mode group based on new mobility options they used.

- **Ride hail (N = 1,962)**
  - 3AM-5AM: 9% (2%), 5% (4%)
  - 5AM-9AM: 14% (32%), 27%
  - 9AM-12PM: 26% (37%), 40%
  - 12PM-3PM: 21% (52%), 43%
  - 3PM-7PM: 49% (49%), 66%
  - 7PM-10PM: 29% (70%), 46%
  - 10PM-3AM: 9% (49%), 18%
Race and ability are associated with when respondents use new mobility.

**People of color**
*More likely to use* **ride hail**
- 3:00 A.M. to 5:00 A.M.
- 9:00 A.M. to 12:00 P.M.
- 12:00 P.M. to 3:00 P.M.

*More likely to use* **carpool apps**
- 9:00 A.M. to 12:00 P.M.
- 3:00 P.M. to 7:00 P.M.

**People with disabilities**
*More likely to use* **ride hail**
- 9:00 A.M. to 12:00 P.M.
- 12:00 P.M. to 3:00 P.M.

*More likely to use* **bike share**
- 5:00 A.M. to 9:00 A.M.
- 10:00 P.M. to 3:00 A.M.

*More likely to use* **car share**
- 5:00 A.M. to 9:00 A.M.
- 7:00 P.M. to 10 P.M.
- 10 P.M. to 3:00 A.M.

*More likely to use* **carpool apps**
- 5:00 A.M. to 9:00 A.M.
- 3:00 P.M. to 7:00 P.M.
Tourists use new mobility options more regularly when compared to Seattle and region residents.

- Tourists used new mobility options more frequently than other segments, and Seattle residents used new mobility options more frequently than Region residents.
- Respondents used ride hail more frequently than other new mobility options.

### In the past 12 months, about how many times have you used each option to get around Seattle?

Base: new mobility users.

<table>
<thead>
<tr>
<th>Option</th>
<th>Seattle Resident (N = 1,588)</th>
<th>Region Resident (N = 217)</th>
<th>Tourist (N = 40)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ride hail</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I have not used it in the last 12 months, but I have used it before</td>
<td>1%</td>
<td>1%</td>
<td>1%</td>
</tr>
<tr>
<td>Less than once a month</td>
<td>47%</td>
<td>4%</td>
<td>3%</td>
</tr>
<tr>
<td>A couple of times a month</td>
<td>41%</td>
<td>72%</td>
<td>40%</td>
</tr>
<tr>
<td>Several times a week</td>
<td>9%</td>
<td>21%</td>
<td>57%</td>
</tr>
<tr>
<td>Almost every day</td>
<td>1%</td>
<td>3%</td>
<td>1%</td>
</tr>
<tr>
<td><strong>Bike share</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I have not used it in the last 12 months, but I have used it before</td>
<td>1%</td>
<td>1%</td>
<td>1%</td>
</tr>
<tr>
<td>Less than once a month</td>
<td>3%</td>
<td>3%</td>
<td>3%</td>
</tr>
<tr>
<td>A couple of times a month</td>
<td>65%</td>
<td>83%</td>
<td>59%</td>
</tr>
<tr>
<td>Several times a week</td>
<td>26%</td>
<td>11%</td>
<td>41%</td>
</tr>
<tr>
<td>Almost every day</td>
<td>5%</td>
<td>3%</td>
<td>0.2%</td>
</tr>
<tr>
<td><strong>Car share</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I have not used it in the last 12 months, but I have used it before</td>
<td>8%</td>
<td>20%</td>
<td>5%</td>
</tr>
<tr>
<td>Less than once a month</td>
<td>63%</td>
<td>67%</td>
<td>45%</td>
</tr>
<tr>
<td>A couple of times a month</td>
<td>24%</td>
<td>13%</td>
<td>50%</td>
</tr>
<tr>
<td>Several times a week</td>
<td>4%</td>
<td>13%</td>
<td>50%</td>
</tr>
<tr>
<td>Almost every day</td>
<td>4%</td>
<td>13%</td>
<td>0%</td>
</tr>
</tbody>
</table>
Motivations and Barriers

Why respondents do or do not use new mobility options.
Not having to find or pay for parking and getting to their destination more quickly than using public transit are top priorities.

- Time and parking logistics weigh heavily in respondents’ decision-making about using new mobility as opposed to other travel modes in Seattle.

- Top considerations for **ride hail**:
  - I don’t worry about finding parking
  - Trip takes too long by transit

- Top considerations for **bike share**:
  - Offers fun or exercise
  - Can quickly get to destination
  - Avoid locking or parking the bike

- Top considerations for **car share**:
  - Trip takes too long by transit
  - Can quickly get to destination
  - Avoid worry about paying for parking

Statistically significant relationships for priority audiences appear on the following page.

---

**Why do you use this option to get around Seattle instead of something else? Please select all that apply.**

Base: respondents randomly assigned to a group based on new mobility option(s) they use.

<table>
<thead>
<tr>
<th>Option</th>
<th>Ride hail (N = 1,830)</th>
<th>Bikeshare (N = 534)</th>
<th>Carshare (N = 437)</th>
</tr>
</thead>
<tbody>
<tr>
<td>I can quickly get to the places I need to go</td>
<td>56%</td>
<td>51%</td>
<td>60%</td>
</tr>
<tr>
<td>Public transit would take too long</td>
<td>38%</td>
<td>36%</td>
<td>59%</td>
</tr>
<tr>
<td>It’s easy to use the smartphone app</td>
<td>47%</td>
<td>47%</td>
<td>54%</td>
</tr>
<tr>
<td>It’s better for the environment</td>
<td>8%</td>
<td>8%</td>
<td>10%</td>
</tr>
<tr>
<td>I don’t worry about paying for parking</td>
<td></td>
<td>45%</td>
<td>45%</td>
</tr>
<tr>
<td>I don’t worry about finding parking</td>
<td></td>
<td>29%</td>
<td>21%</td>
</tr>
<tr>
<td>I avoid sitting in traffic</td>
<td>11%</td>
<td>11%</td>
<td>10%</td>
</tr>
<tr>
<td>It saves me money</td>
<td>10%</td>
<td>10%</td>
<td>15%</td>
</tr>
<tr>
<td>It’s fun or helps me exercise</td>
<td></td>
<td></td>
<td>19%</td>
</tr>
<tr>
<td>I don’t worry about finding a place to lock or park</td>
<td></td>
<td>19%</td>
<td>19%</td>
</tr>
<tr>
<td>I don’t worry about it being stolen or damaged</td>
<td></td>
<td>43%</td>
<td></td>
</tr>
<tr>
<td>I don’t worry about my vehicle being stolen or vandalized</td>
<td></td>
<td>43%</td>
<td></td>
</tr>
<tr>
<td>I don’t know how to drive or don’t like to drive</td>
<td></td>
<td>2%</td>
<td></td>
</tr>
<tr>
<td>Something else</td>
<td>11%</td>
<td>25%</td>
<td>27%</td>
</tr>
</tbody>
</table>

Note: Respondents only saw items relevant to them (e.g., only the bike share group saw the item “It’s fun or helps me exercise”)

Something else includes: avoid the rain, back-up car, convenience
Race, ability and language are associated with respondents’ reasons for using new mobility.

**People of color:**
*More likely to use* ride hail *because...*
- It saves me money
- I don’t drive or don’t like to drive
- I avoid sitting in traffic
- I don’t worry about finding or paying for parking

**Non-English Speakers:**
*More likely to use* ride hail *because...*
- I can quickly get places I need to go
- It’s better for the environment
- I avoid sitting in traffic
- Something else

*More likely to use* bike share *because...*
- I can quickly get places I need to go

*More likely to use* car share *because...*
- Public transit would take too long
- It’s better for the environment
- It saves me money
- I avoid sitting in traffic
- I don’t worry about finding parking

**Disability:**
*More likely to use* ride hail *because...*
- I don’t drive or don’t like to drive
- Something else

*More likely to use* bike share *because...*
- I don’t drive or don’t like to drive
- I don’t worry about finding a place to lock or park it
- Something else
- Public transit would take too long

*More likely to use* car share *because...*
- It’s better for the environment
- It’s easy to use the smartphone app
- I avoid sitting in traffic
- I don’t worry about paying for parking
- I don’t worry about my vehicle being stolen or vandalized
A majority of respondents use ride hail to have fun or go home.

- More tourists use ride hail for a wider range of trip purposes than Seattle or Region residents.
- Top trip purposes for ride hail:
  - Have fun
  - Go home
  - Go to school or work

See page 36 for statistically significant relationships.
Respondents use bike share for a variety of trips, including exercise, recreation, fun, or going home.

- Across segments, respondents use bike share for similar trips.
- Top trip purposes for bike share:
  - Exercise or recreation
  - Have fun
  - Go home

See page 36 for statistically significant relationships.
A majority of respondents use car share to have fun, go home or get to school or work.

- Top trip purposes for car share:
  - Have fun
  - Go home
  - Go to school or work

See page 36 for statistically significant relationships.

Which of the following describe why you use car share? Please select all that apply.
Base: car share users randomly assigned this question (did not see questions on p. 32 or 33).

- Have fun: 53%
- Go home: 48%
- Medical: 38%
- School or work: 33%
- Get to public transit: 13%
- Do something else: 11%
- Exercise or recreation: 3%
Race, ability, and language are associated with reasons why respondents use new mobility options.

**People with disabilities**  
*More likely to use* car share *to...*  
• Go have fun  
• Get to public transit

*More likely to use* carpool apps *to...*  
• Go out for errands or medical visits  
• Go have fun  
• Get to public transit

**People of color**  
*More likely to use* ride hail *to...*  
• Go home  
• Go to work or school  
• Go out for errands or medical visits  
• Get to public transit  
• Use it for other reasons not listed

**Non-English Speakers**  
*More likely to use* ride hail *to...*  
• Go to work or school  
• Use it for other reasons not listed

*More likely to use* car share *to...*  
• Get exercise or recreation  
• Use it for other reasons not listed

*More likely to use* carpool apps *to...*  
• Go to work or school  
• Go out for errands or medical visits
Top barriers to using ride hail in Seattle: respondents prefer to drive or find the service too expensive.

- Top reasons ride hail non-users don’t use this option in Seattle:
  - Prefer to drive
  - Think it’s expensive
  - Don’t feel safe using it
  - Don’t want to share personal information with service providers

- Youth respondents shared reasons for not using a specific new mobility option. However, those who shared reasons often said it was because they were too young.

See pages 40-41 for statistically significant relationships.
Top barriers to using bike share in Seattle: respondents prefer to drive or don’t feel safe using the service.

- Top reasons bike share non-users don’t use this option in Seattle:
  - Prefer to drive
  - Don’t feel safe using it
  - Find it physically hard to use

See pages 40-41 for statistically significant relationships.

Which of the following describes why you don’t use bike share in Seattle? Please select all that apply.

Base: bike share non-users.

- I prefer to drive
- I wouldn’t feel safe using it
- It is physically hard to go up or down hills
- I feel unsafe going up or down hills
- It’s hard to use with the people, animals, or things I travel with
- Trips take too long
- I don’t have a helmet, and there are no helmets available
- There aren’t enough protected bike lanes
- There are too few near me when I need one
- I don’t know how to use it
- The bikes don’t fit my size or physical needs
- I don’t want to share my personal information
- Something else

Note: Items selected by 10% of respondents or less not shown (e.g., I can’t use cash, the bikes aren’t well-maintained, etc.).

Something else includes: bad have own bike, don’t like biking, weather, bikes are low-quality, physically incapable, destination is too close or too far for a bike.
Top barriers to using car share in Seattle: respondents prefer to drive or do not want to get a membership.

- Top reasons car share non-users don’t use this option in Seattle:
  - Prefer to drive
  - Don’t want a membership
  - It’s too expensive

See pages 40-41 for statistically significant relationships.

Which of the following describes why you don’t use car share in Seattle? Please select all that apply.

<table>
<thead>
<tr>
<th>Reason</th>
<th>Seattle Resident (N = 1,767)</th>
<th>Region Resident (N = 419)</th>
</tr>
</thead>
<tbody>
<tr>
<td>I prefer to drive</td>
<td>39%</td>
<td>44%</td>
</tr>
<tr>
<td>I do not want to get a membership</td>
<td>32%</td>
<td>33%</td>
</tr>
<tr>
<td>It’s too expensive</td>
<td>24%</td>
<td>20%</td>
</tr>
<tr>
<td>There are too few near me when I need one</td>
<td>21%</td>
<td>21%</td>
</tr>
<tr>
<td>I don’t know how to use it</td>
<td>16%</td>
<td>19%</td>
</tr>
<tr>
<td>I want a more flexible option</td>
<td>15%</td>
<td>17%</td>
</tr>
<tr>
<td>It’s hard to use with the people, animals, or things I travel with</td>
<td>11%</td>
<td>13%</td>
</tr>
<tr>
<td>I don’t want to share my personal information</td>
<td>9%</td>
<td>11%</td>
</tr>
<tr>
<td>I wouldn’t feel safe using it</td>
<td>4%</td>
<td>6%</td>
</tr>
<tr>
<td>Something else includes: already own car, prefer public transit, too time-consuming, inconvenient.</td>
<td>26%</td>
<td>17%</td>
</tr>
</tbody>
</table>
Race is associated with respondents’ reasons for NOT using new mobility.

People of color:
More likely to say they don’t use ride hail because...
- I wouldn’t feel safe using it
- It’s not clean enough
- I prefer to drive

More likely to say they don’t use bike share because...
- I wouldn’t feel safe using it
- I don’t know how to use it
- It’s too expensive
- I don’t have a helmet, and there are no helmets available
- It is physically hard to go up or down hills
- I feel unsafe going up or down hills
- The bikes aren’t well-maintained

More likely to say they don’t use car share because...
- I didn’t know Car Share was an option
- I wouldn’t feel safe using it
- Arrival times are unreliable
- There are not enough near me when I need one
- I don’t want to share my personal information
- I don’t have a driver’s permit or license
- I do not want to or cannot get a membership
Ability and language are associated with respondents’ reasons for NOT using new mobility.

Respondents with disability:
More likely to say they don’t use ride hail because...
- Didn’t know it was an option
- Arrival times are unreliable
- There are not enough nearby
- Don’t want to share their personal information
- Can't use it because of a disability

More likely to say they don’t use bike share because...
- The bikes don’t fit their size or physical needs
- It is physically hard to go up or down hills
- Feel unsafe going up or down hills

More likely to say they don’t use car share because...
- It’s too expensive
- Don’t have a driver’s permit or license

Non-English Speakers:
More likely to say they don’t use ride hail because...
- Can’t use cash
- Trips take too long
- Can't use it because of a disability

More likely to say they don’t use car share because...
- Didn’t know it was an option
- It's hard to use with the people (including children), animals, or things they travel with
- Trips take too long
- It’s too expensive
- Don’t have a driver’s permit or license
Attitudes and Preferences

Payment preferences.
Decisions about mode substitution.
What should change about new mobility options.
What policies SDOT should prioritize.
Credit cards are a preferred method of payment, yet many residents would prefer to pay with an ORCA card or similar pass.

- Most people like card-based payment options, including:
  - Credit card
  - ORCA card (especially for Seattle and Region residents)
  - Debit cards (favored over Apply Pay, Google Wallet)

People with disabilities
More likely to prefer
- Cash
- Check
- Debit card
- Gift card or pre-paid card
- PayPal

Non-English Speakers
More likely to prefer
- Cash

How would you prefer to pay for any new mobility option? Please select all that apply.
Base: all respondents.

<table>
<thead>
<tr>
<th>Payment Method</th>
<th>Seattle Resident (N = 2,448)</th>
<th>Region Resident (N = 585)</th>
<th>Tourist (N = 160)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Credit Card</td>
<td>57%</td>
<td>49%</td>
<td>65%</td>
</tr>
<tr>
<td>ORCA card or similar pass</td>
<td>9%</td>
<td>27%</td>
<td>49%</td>
</tr>
<tr>
<td>Debit Card</td>
<td>27%</td>
<td>29%</td>
<td>29%</td>
</tr>
<tr>
<td>PayPal</td>
<td>19%</td>
<td>22%</td>
<td>39%</td>
</tr>
<tr>
<td>Cash</td>
<td>17%</td>
<td>24%</td>
<td>48%</td>
</tr>
<tr>
<td>Apple Pay or Google Wallet</td>
<td>18%</td>
<td>27%</td>
<td>28%</td>
</tr>
<tr>
<td>Venmo, Cash App</td>
<td>17%</td>
<td>25%</td>
<td>26%</td>
</tr>
<tr>
<td>Bank Auto-pay</td>
<td>15%</td>
<td>9%</td>
<td>19%</td>
</tr>
<tr>
<td>Gift card or other prepaid card</td>
<td>8%</td>
<td>8%</td>
<td>17%</td>
</tr>
<tr>
<td>Check</td>
<td>1%</td>
<td>1%</td>
<td>9%</td>
</tr>
<tr>
<td>Other</td>
<td>4%</td>
<td>2%</td>
<td>2%</td>
</tr>
<tr>
<td>PayNearMe</td>
<td>1%</td>
<td>1%</td>
<td>5%</td>
</tr>
<tr>
<td>I don't pay to use it someone else does</td>
<td>0.2%</td>
<td>0.2%</td>
<td>0.2%</td>
</tr>
</tbody>
</table>
Public transit is a strong alternative to new mobility options for most respondents.

- If Seattle or Region residents could not use ride hail for their last trip, they would have opted for one of the following (in order of priority):
  - Public transit
  - Personal vehicle
  - Taxi or taxi app

- Almost all of them would have found some way to make the trip. However, a few (4% Seattle residents, 7% of Region residents) would not have made the trip at all.

See page 48 for statistically significant relationships.

If you couldn't use ride hail for your last trip, which options would you use instead? Please select all that apply.

Base: Seattle or Region resident ride hail users who were randomly assigned this question.

<table>
<thead>
<tr>
<th>Option</th>
<th>Seattle resident (N = 1,510)</th>
<th>Regional resident (N = 231)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public transit</td>
<td>47%</td>
<td>60%</td>
</tr>
<tr>
<td>Vehicle you or someone you know owns</td>
<td>42%</td>
<td>54%</td>
</tr>
<tr>
<td>Taxi or taxi app</td>
<td>31%</td>
<td>29%</td>
</tr>
<tr>
<td>Vanpooling or carpooling</td>
<td>8%</td>
<td>15%</td>
</tr>
<tr>
<td>Walk or a mobility aid</td>
<td>8%</td>
<td>15%</td>
</tr>
<tr>
<td>Car share</td>
<td>10%</td>
<td>15%</td>
</tr>
<tr>
<td>I would not have made the trip</td>
<td>4%</td>
<td>7%</td>
</tr>
<tr>
<td>Bike or e-bike that you or someone you know owns</td>
<td>6%</td>
<td>2%</td>
</tr>
<tr>
<td>Bike share</td>
<td>3%</td>
<td>2%</td>
</tr>
<tr>
<td>Something else not listed here</td>
<td>2%</td>
<td>2%</td>
</tr>
</tbody>
</table>

Note: 4 tourists responded. They selected: bike share, taxi or taxi app, bike, car share, public transit, vanpool or carpool, walk or a mobility aid.
Walking is a strong alternative to bike share for most respondents.

- If Seattle or Region residents could not use bike share for their last trip, they would have opted for one of the following (in order of priority):
  - Walk or mobility aid
  - Public transit
  - Ride hail

- Almost all of them would have found some way to make the trip. However, 4% of Seattle residents would not have made the trip at all.

See page 48 for statistically significant relationships.
Ride hail and public transit are strong alternatives to car share for most respondents.

- If Seattle or Region residents could not use car share for their last trip, they would have opted for one of the following (in order of priority):
  - Ride hail
  - Public transit
  - Vehicle you or someone you know owns

- Almost all of them would have found some way to make the trip. However, a few (8% Seattle residents) would not have made the trip at all.

See page 48 for statistically significant relationships.
After public transportation, new mobility options and walking were the most common alternatives to driving alone.

- If Seattle or Region residents could not drive alone for their last trip, they would have opted for one of the following (in order of priority):
  - Public transit
  - Ride hail
  - Vanpool, carpool

- Almost all of them would have found some way to make the trip. However, a few (8% Seattle residents, 15% of Region residents) would not have made the trip at all.

If you couldn’t drive alone for your last trip, which options would you use instead? Please select all that apply.

- Base: all respondents
- Seattle resident (N = 2,133)
- Regional resident (N = 475)
- Tourists (N = 34)

- Public transit: 62% Seattle, 57% Region, 43% Tourists
- Ride hail: 47% Seattle, 43% Region, 74% Tourists
- Vanpooling or carpooling: 13% Seattle, 21% Region, 41% Tourists
- Walk or use a mobility aid: 5% Seattle, 22% Region, 41% Tourists
- Bike or e-bike that you or someone you know owns: 3% Seattle, 18% Region, 38% Tourists
- Taxi or taxi app: 5% Seattle, 7% Region, 44% Tourists
- Car share: 3% Seattle, 12% Region, 35% Tourists
- Bike share: 6% Seattle, 2% Region, 38% Tourists
- I would not have made the trip: 8% Seattle, 15% Region, 0% Tourists
- Something else not listed here: 4% Seattle, 3% Region, 0% Tourists
Race, ability, and language are associated with mode substitution choices.

People of color
If they could not use ride hail, would be more likely to use:
- Bike share
- Car share
- Personal vehicle
- Walk or use a mobility aid
- Vanpool, carpool
- Taxi or taxi app
- Used something else
- Not have made trip

If they could not use car share, would be more likely to use:
- Walk or use a mobility aid
- Public transit
- Not have made the trip

Non-English Speakers
If they could not use ride hail, would be more likely to use:
- Bike share
- Car share
- Bike or use an e-bike
- Public transit
- Vanpool, carpool
- Walk or use a mobility aid
- Vehicle they or someone they know owns
- Taxi or taxi app
- Not have made the trip

If they could not use bike share, would be more likely to use:
- Walk or use a mobility aid

If they could not use car share, would be more likely to use:
- Bike share

People with disabilities
If they could not use ride hail, would be more likely to use:
- Car share
- Vanpool, carpool
- Taxi or taxi app
- Vehicle they or someone they know owns
- Used something else

If they could not use bike share, would be more likely to use:
- Vanpool, carpool
- Vehicle they or someone they know owns

If they could not use car share, would be more likely to use:
- Taxi or taxi app
- Walk or use a mobility aid
- Public transit
- Vehicle they or someone they know owns

Race, ability, and language are associated with mode substitution choices.
Seattle residents most wanted to change the following for new mobility options: road safety by users, cost to low-income users, and traffic impacts.

- Seattle residents (new mobility users and non-users) had similar priorities for ways to change new mobility options. Road safety by users, cost for low-income users, and traffic were top priorities.

- Top of mind for Seattle Residents, by mode:
  - **Ride hail** and **car share**: high cost for low-income users, traffic gets worse
  - **Bike share**: Road safety by users

### Which of the following are the most important to change for this new mobility option?

*Base: Seattle residents (users and non-users) randomly assigned to a mode group. (Options are listed in descending order of averaged frequency of all new mobility services).

#### Ride hail (N = 755)

- Road safety by users: 18%
- High cost for low-income users: 45%
- Traffic gets worse: 49%
- Road safety by drivers: 38%
- Data privacy and security: 32%
- Pollution gets worse: 28%
- Transit ridership drops: 27%
- Hard for people with disabilities to use: 13%

#### Bike share (N = 766)

- Road safety by users: 80%
- High cost for low-income users: 32%
- Traffic gets worse: 23%
- Road safety by drivers: 23%
- Data privacy and security: 8%
- Pollution gets worse: 7%
- Transit ridership drops: 26%
- Hard for people with disabilities to use: 26%

#### Car share (N = 653)

- Road safety by users: 31%
- High cost for low-income users: 51%
- Traffic gets worse: 55%
- Road safety by drivers: 27%
- Data privacy and security: 33%
- Pollution gets worse: 28%
- Transit ridership drops: 13%

*Note: "Road safety by drivers" refers to road safety by ride hail drivers. "Road safety by users" refers to new mobility users (ride hail passengers, people operating bike or car share vehicles).
Region residents most wanted to change the following for new mobility options: road safety by users, traffic impacts and cost to low-income users.

- Region residents (new mobility users and non-users) had similar priorities for ways to change new mobility options. Road safety by users, traffic, and cost to low-income users.

- Top of mind for Region Residents, by mode:
  - **Ride hail**: high cost for low-income users, traffic gets worse, data privacy and security
  - **Bike share**: Road safety by users
  - **Car share**: high cost for low-income users, traffic gets worse

Which of the following are the most important to change for this new mobility option? Please choose up to three (3) items.

Base: Region residents (users and non-users) randomly assigned to a mode group. (Options are listed in descending order of averaged frequency of all new mobility services).

<table>
<thead>
<tr>
<th>Option</th>
<th>Ride share (N = 198)</th>
<th>Bike share (N = 159)</th>
<th>Car share (N = 153)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Road safety by users</td>
<td>19%</td>
<td>76%</td>
<td>35%</td>
</tr>
<tr>
<td>Traffic gets worse</td>
<td>42%</td>
<td>33%</td>
<td>54%</td>
</tr>
<tr>
<td>High cost for low-income users</td>
<td>49%</td>
<td>27%</td>
<td>48%</td>
</tr>
<tr>
<td>Road safety by drivers</td>
<td>34%</td>
<td>23%</td>
<td>Not asked for these segments</td>
</tr>
<tr>
<td>Data privacy and security</td>
<td>40%</td>
<td>30%</td>
<td>34%</td>
</tr>
<tr>
<td>Hard for people with disabilities to use</td>
<td>11%</td>
<td>16%</td>
<td>16%</td>
</tr>
<tr>
<td>Pollution gets worse</td>
<td>19%</td>
<td>11%</td>
<td>22%</td>
</tr>
<tr>
<td>Transit ridership drops</td>
<td>19%</td>
<td>7%</td>
<td>20%</td>
</tr>
</tbody>
</table>

Note: “Road safety by drivers” refers to road safety by ride hail drivers. “Road safety by users” refers to new mobility users (ride hail passengers, people operating bike or car share vehicles).
Tourists most wanted to change the traffic impacts of new mobility options, cost to low-income users, and road safety by drivers.

- Tourists (new mobility users and non-users) had similar priorities for ways to change new mobility options. Road safety by both drivers and users as well as transit ridership drops.

- Top of mind for Tourists, by mode:
  - **Ride hail**: road safety by drivers, transit ridership drops
  - **Bike share**: road safety by drivers, transit ridership drops
  - **Car share**: road safety by drivers, pollution gets worse

Which of the following are the most important to change for this new mobility option? Please choose up to three (3) items.

**Base**: Tourists randomly assigned to a mode group.

*(Options are listed in descending order of averaged frequency of the all mobility services).*

<table>
<thead>
<tr>
<th>Mode</th>
<th>Option</th>
<th>Ride hail (N = 59)</th>
<th>Bike share (N = 56)</th>
<th>Car share (N = 45)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Road safety by drivers</td>
<td>51%</td>
<td>60%</td>
<td>59%</td>
</tr>
<tr>
<td></td>
<td>Road safety by users</td>
<td>29%</td>
<td>49%</td>
<td>34%</td>
</tr>
<tr>
<td></td>
<td>Transit ridership drops</td>
<td>51%</td>
<td>49%</td>
<td>57%</td>
</tr>
<tr>
<td></td>
<td>Pollution gets worse</td>
<td>27%</td>
<td>31%</td>
<td>23%</td>
</tr>
<tr>
<td></td>
<td>High cost for low-income users</td>
<td>42%</td>
<td>40%</td>
<td>23%</td>
</tr>
<tr>
<td></td>
<td>Hard for people with disabilities to use</td>
<td>29%</td>
<td>38%</td>
<td>36%</td>
</tr>
<tr>
<td></td>
<td>Data privacy and security</td>
<td>8%</td>
<td>29%</td>
<td>21%</td>
</tr>
<tr>
<td></td>
<td>Traffic gets worse</td>
<td>24%</td>
<td>16%</td>
<td>9%</td>
</tr>
</tbody>
</table>

*Note: “Road safety by drivers” refers to road safety by ride hail drivers. “Road safety by users” refers to new mobility users (ride hail passengers, people operating bike or car share vehicles).*
Race and ability are correlated with respondents’ priorities for changes to new mobility.

People of color
More likely to say the most important thing for ride hail to change
• Data privacy and security
• Traffic gets worse
• Transit ridership drops
• Hard for people with disabilities to use

More likely to say the most important thing for bike share to change
• Traffic gets worse
• Pollution gets worse
• High cost for low-income users
• Hard for people with disabilities to use

People with disabilities
More likely to say the most important thing for ride hail to change
• High cost for low-income users
• Hard for people with disabilities to use

More likely to say the most important thing for bike share to change
• Pollution gets worse
• High cost for low-income users
• Hard for people with disabilities to use
When asked what ride hail policies SDOT should focus on, respondents prioritized availability throughout the city, safety, and pricing.

- When asked what was most important to change about ride hail services, respondents prioritized geographic proximity, safety, and pricing. These responses align with views towards bike and car share services.
- They ranked other forms of access lower, including payment methods, translation, shared trips, and availability to people without smartphones.
- There is more support for encourage ride hail companies to use electric vehicles than car share companies.

**Top 5 MOST important thinks to change for ride hail:**
- Each part of town has this new mobility option
- More driver background checks
- Make prices clear and consistent (Ex. When you’re charged tolls, surge or peak-pricing)
- Encourage companies to use electric vehicles
- Offer programs to lower costs for low-income households

**Top 5 LEAST important things to change for ride hail:**
- Add more ways for people to pay (Ex. With cash)
- Make companies translate apps into more languages
- Encourage companies to offer more shared trips
- Make it easier for people without smartphones
- Companies offer better customer service, technical support, or training

*Note: We did not segment this analysis by residence.*
When asked what bike share policies SDOT should focus on, respondents prioritized availability, safety, and pricing. Protected bike lanes and dedicated spots to lock bikes were more controversial.

- When asked what was most important to change about bike share services, respondents had different priorities. Geographic proximity, safety, and pricing were top-rated features, similar to other new mobility modes. However, protected bike lanes and spots where users are required to lock bikes was polarizing. Some people thought these two things were very important, others did not.

- They ranked various forms of access lower, including payment methods, translation, shared trips, and availability to people without smartphones.

**Top 5 MOST important things to change for bike share:**

- Each part of town has this new mobility option
- Add more protected bike lanes
- Require companies and users to lock their bikes at dedicated spots
- Safety features of ride (Ex: helmets, lighting, etc.)
- Make prices clear and consistent (Ex. When you’re charged tolls, zone-based pricing)

**Top 5 LEAST important things to change for bike share:**

- Make companies translate apps into more languages
- Require companies and users to lock their bikes at dedicated spots
- Add more protected bike lanes
- Add more ways for people to pay (Ex. With cash)
- Make it easier for people without smartphones

*Note: We did not segment this analysis by residence.*
When asked what car share policies SDOT should focus on, respondents prioritized availability, pricing, and costs for low-income households. Electric vehicles and required parking spots were more controversial.

- When asked what was most important to change about car share services, respondents had different priorities. Geographic proximity, pricing, and costs for low-income households were top-rated features, similar to other new mobility modes. However, electric vehicles and required parking spots were polarizing. Some people thought these two things were very important, others did not.

- Respondents ranked various forms of access lower, including payment methods, translation, and availability to people without smartphones.

Top 5 MOST important things to change for car share:

- Each part of town has this new mobility option
- Make prices clear and consistent (Ex. When you’re charged tolls, surge or peak-pricing)
- Offer programs to encourage companies to use electric vehicles
- Offer programs to lower costs for low-income households
- Require companies park only in their reserved parking spots

Top 5 LEAST important things to change for car share:

- Require companies park only in their reserved parking spots
- Make companies translate apps into more languages
- Add more ways for people to pay (Ex. With cash)
- Make it easier for people without smartphones
- Offer programs to encourage companies to use electric vehicles

Note: We did not segment this analysis by residence.
Appendix A: Methods to Improve Survey Accessibility

Background

- The primary goal of SDOT’s New Mobility Survey was to better understand who uses new mobility services and when, where, and why they use these modes to get around Seattle. An important goal of this research was to reach populations that are underrepresented in data collection efforts, including people of color, people with disabilities, people who have low household incomes, or youth (13-17 years old).

- Survey mode (i.e. paper, online, phone) affects accessibility. For example, online survey accessibility depends on hardware and software, including which browser, operating system, and device people use to access the survey. To ensure the survey was accessible to populations with varying levels of resources and technology access, PRR administered a multi-mode survey that consisted of a standard online survey, a screen-reader optimized online survey, and a call-in by phone option. This memo focuses on the methods for the latter two options. The standard online survey methods are described in full in the accompanying report.

- 385 people took the accessible version of the survey: 340 online survey and 45 by phone.
Appendix A: Methods to Improve Survey Accessibility

Approach

PRR implemented the following best practices when designing our survey options.

1. Before launching the survey, we:
   - Used people-first language in all recruitment and survey materials.
   - Labelled “Next” and “Back” so screen readers could read navigation buttons aloud in the screen-reader optimized survey.
   - Pre-tested the screen-reader survey with screen reading software (JAWS).
   - Used the Qualtrics Survey Accessibility Tool to review the instrument and check for WCAG 2.0 AA (and Section 508) compliance.
   - Double-checked the contrast, color schemes, and font size would be accessible for people.

2. In the survey introduction, we:
   - Included descriptions about SDOT’s commitment to an accessible experience.
   - Invited respondents to learn more about the survey modes available for users seeking additional accessible versions of the survey.
     - Offered people multiple ways to participate in the survey, including a version of the online survey that was optimized for screen reader technology and a call-in phone option.

To ensure our surveys are accessible, we design survey instruments, the options for responding, and our recruitment with people of varying sight, hearing, mobility, and cognitive abilities in mind.
Appendix A: Methods to Improve Survey Accessibility

3. Throughout the survey, we minimized the use of:
   - Question types that are incompatible with screen readers or difficult to use for call-in options:
     - Matrix/Grid
     - Drag & Drop ranking (did not appear in standard online survey)
     - Max Diff
   - Questions that rely on memorizing information or comparing long lists of priorities.
   - Audio and video in questions.

4. Throughout the survey, we included additional supports:
   - Used an accessible formatting theme (color contrast is important for visually impaired users).
   - When a map appeared, we included detailed descriptions of the map boundaries, as well as alternative text for screen.
   - When a map appeared, we linked directly to a Google map to allow respondents the ability to zoom dynamically or use additional assistive technology.
   - Stated the number of required responses for any required questions (ex: “choose your top 3 options”).
   - Set the survey to pick up where respondents left off, to allow survey takers as much time as they needed to complete the survey.
Appendix A: Methods to Improve Survey Accessibility

Limitations

In order to meet specific needs for this survey, PRR’s approach had certain limitations that reduced accessibility.

Survey logic:

- The survey required logic in order to show respondents questions relevant to them and segment them for analysis. For example, the survey asked follow-up questions about new mobility modes based on options people told us they used. This also caused the following:
  - Survey logic sometimes prevented survey respondents from using the “Back” button for some parts of the survey.
  - Respondents who made a mistake earlier in the survey (e.g., said they use bike share but then later reported they did not use bike share) were not able to go back and change their earlier answer. PRR included answer choices and then cleaned the survey data, which allowed the us to make these changes on the respondents’ behalf in the data cleaning phase.
Appendix A: Methods to Improve Survey Accessibility

Lessons Learned

Recruitment

- Developing and administering an accessible survey takes significant time and care. People who participate this way find the experience very positive. They were deeply appreciative that SDOT made the survey available to them and felt like their voices were heard.
- The call-in phone option reached people we would not have heard from otherwise. They would not have been able to take an online survey and may not have participated by mail.

Fielding

- Inviting respondents to take the survey by phone in the invitation mailing (rather than only offering the option in the online survey introduction) significantly increases the response rate to the call-in phone option. Surveys intended to be widely accessible should include a phone number in the recruitment materials.
- It can take multiple tries to connect with respondents who request to take the survey by phone, which delays the fielding period and frustrates some respondents.

Survey design

- Simplify the design to minimize branching, segmentation, complex question types, and overall length.
- Surveys by phone typically take respondents 2-3 times as long to complete as the standard online survey (10 minutes in the standard online survey = 30 minutes by phone).
- Lists more than 5 items long are hard for people to manage in a phone survey.
- Trade-off questions (Max Diff) are hard for people to manage in a phone survey.
Appendix A: Methods to Improve Survey Accessibility

Recommendations

Many of the following recommendations will improve the user experience for respondents taking the standard or accessible-version surveys.

▪ Surveys intended to be widely accessible should be multi-mode: mail-in paper option, call-in phone option, accessible-format online survey, and standard online survey.

▪ Work with a survey call center vendor to administer phone surveys so that staff is available to administer the survey as soon as people call in (rather than needing to leave a voicemail).

▪ Ensure the standard online survey takes less than 10 minutes to complete
  • Include fewer questions
  • Limit complex question (Max Diff, Matrix/Grid)
  • Keep lists under 8 items

▪ Consider replacing complex question types with open-end responses for the accessible versions of the survey, and consider offering all respondents the option to complete Max Diff questions as an open-ended response.

▪ If you keep Max Diff questions, provide an open-ended response alternative that will work for screen readers and phone survey administration. However, the open-ends and Max Diff responses will not be directly comparable and it will take more time to clean and analyze the data.

▪ At the end of the survey, ask respondents how accessible the survey was for them and if they have any additional feedback on survey accessibility.
## Appendix B: Census Comparison, Part 1

### Age

<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>18 to 24 years</td>
<td>5%</td>
<td>13%</td>
<td>-8%</td>
<td>3%</td>
<td>11%</td>
<td>-8%</td>
</tr>
<tr>
<td>25 to 44 years</td>
<td>45%</td>
<td>46%</td>
<td>-1%</td>
<td>31%</td>
<td>39%</td>
<td>-8%</td>
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<tr>
<td>45 to 54 years</td>
<td>15%</td>
<td>15%</td>
<td>0%</td>
<td>18%</td>
<td>18%</td>
<td>0%</td>
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<td>55 to 64 years</td>
<td>15%</td>
<td>13%</td>
<td>2%</td>
<td>20%</td>
<td>16%</td>
<td>4%</td>
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<tr>
<td>65 to 74 years</td>
<td>14%</td>
<td>9%</td>
<td>5%</td>
<td>20%</td>
<td>10%</td>
<td>10%</td>
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<tr>
<td>75 years and over</td>
<td>5%</td>
<td>6%</td>
<td>-1%</td>
<td>7%</td>
<td>7%</td>
<td>0%</td>
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</tbody>
</table>

### Income

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than $10,000</td>
<td>2%</td>
<td>6%</td>
<td>-4%</td>
<td>3%</td>
<td>4%</td>
<td>-2%</td>
</tr>
<tr>
<td>$10,000 to $14,999</td>
<td>1%</td>
<td>3%</td>
<td>-2%</td>
<td>1%</td>
<td>3%</td>
<td>-1%</td>
</tr>
<tr>
<td>$15,000 to $24,999</td>
<td>3%</td>
<td>6%</td>
<td>-2%</td>
<td>2%</td>
<td>6%</td>
<td>-4%</td>
</tr>
<tr>
<td>$25,000 to $34,999</td>
<td>5%</td>
<td>6%</td>
<td>-1%</td>
<td>6%</td>
<td>7%</td>
<td>-1%</td>
</tr>
<tr>
<td>$35,000 to $49,999</td>
<td>9%</td>
<td>9%</td>
<td>0%</td>
<td>9%</td>
<td>11%</td>
<td>-2%</td>
</tr>
<tr>
<td>$50,000 to $74,999</td>
<td>15%</td>
<td>14%</td>
<td>1%</td>
<td>18%</td>
<td>17%</td>
<td>1%</td>
</tr>
<tr>
<td>$75,000 to $99,999</td>
<td>13%</td>
<td>12%</td>
<td>1%</td>
<td>16%</td>
<td>14%</td>
<td>2%</td>
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<tr>
<td>$100,000 to $149,999</td>
<td>22%</td>
<td>18%</td>
<td>4%</td>
<td>24%</td>
<td>19%</td>
<td>5%</td>
</tr>
<tr>
<td>$150,000 to $199,999</td>
<td>11%</td>
<td>10%</td>
<td>1%</td>
<td>10%</td>
<td>9%</td>
<td>1%</td>
</tr>
<tr>
<td>$200,000 or more</td>
<td>20%</td>
<td>16%</td>
<td>4%</td>
<td>12%</td>
<td>11%</td>
<td>1%</td>
</tr>
</tbody>
</table>
## Appendix B: Census Comparison, Part 2

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Hispanic or Latino origin</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>6%</td>
<td>7%</td>
<td>-0.4%</td>
<td>6%</td>
<td>11%</td>
<td>-6%</td>
</tr>
<tr>
<td><strong>Race</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>American Indian and Alaska Native</td>
<td>0.31%</td>
<td>0.58%</td>
<td>0%</td>
<td>1%</td>
<td>1%</td>
<td>0%</td>
</tr>
<tr>
<td>Asian</td>
<td>11%</td>
<td>15%</td>
<td>-4%</td>
<td>14%</td>
<td>15%</td>
<td>-1%</td>
</tr>
<tr>
<td>Black or African American</td>
<td>3%</td>
<td>7%</td>
<td>-4%</td>
<td>3%</td>
<td>6%</td>
<td>-4%</td>
</tr>
<tr>
<td>Native Hawaiian and Other Pacific Islander</td>
<td>0.18%</td>
<td>0.29%</td>
<td>0%</td>
<td>0%</td>
<td>1%</td>
<td>-1%</td>
</tr>
<tr>
<td>White</td>
<td>80%</td>
<td>68%</td>
<td>12%</td>
<td>78%</td>
<td>66%</td>
<td>12%</td>
</tr>
<tr>
<td>Some other race</td>
<td>1%</td>
<td>2%</td>
<td>-1%</td>
<td>1%</td>
<td>4%</td>
<td>-3%</td>
</tr>
<tr>
<td>Two or more races</td>
<td>5%</td>
<td>7%</td>
<td>-2%</td>
<td>3%</td>
<td>7%</td>
<td>-4%</td>
</tr>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>47%</td>
<td>50%</td>
<td>-3%</td>
<td>48%</td>
<td>50%</td>
<td>-2%</td>
</tr>
<tr>
<td>Female</td>
<td>53%</td>
<td>50%</td>
<td>3%</td>
<td>52%</td>
<td>50%</td>
<td>2%</td>
</tr>
</tbody>
</table>
## Appendix C: Demographic Profile by User

<table>
<thead>
<tr>
<th></th>
<th>Ride hail (N = 2,121)</th>
<th>Bike share (N = 682)</th>
<th>Car share (N = 523)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>46%</td>
<td>52%</td>
<td>53%</td>
</tr>
<tr>
<td>Female</td>
<td>52%</td>
<td>47%</td>
<td>46%</td>
</tr>
<tr>
<td>Gender(s) not</td>
<td>1%</td>
<td>1%</td>
<td>1%</td>
</tr>
<tr>
<td>None of these</td>
<td>1%</td>
<td>0%</td>
<td>1%</td>
</tr>
<tr>
<td><strong>Household Income</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than $10,000</td>
<td>2%</td>
<td>1%</td>
<td>2%</td>
</tr>
<tr>
<td>$10,000 to $14,999</td>
<td>1%</td>
<td>1%</td>
<td>1%</td>
</tr>
<tr>
<td>$15,000 to $24,999</td>
<td>2%</td>
<td>2%</td>
<td>3%</td>
</tr>
<tr>
<td>$25,000 to $34,999</td>
<td>4%</td>
<td>4%</td>
<td>2%</td>
</tr>
<tr>
<td>$35,000 to $49,999</td>
<td>7%</td>
<td>7%</td>
<td>8%</td>
</tr>
<tr>
<td>$50,000 to $74,999</td>
<td>13%</td>
<td>13%</td>
<td>12%</td>
</tr>
<tr>
<td>$75,000 to $99,999</td>
<td>13%</td>
<td>13%</td>
<td>12%</td>
</tr>
<tr>
<td>$100,000 to $149,999</td>
<td>21%</td>
<td>22%</td>
<td>21%</td>
</tr>
<tr>
<td>$150,000 to $199,999</td>
<td>11%</td>
<td>10%</td>
<td>16%</td>
</tr>
<tr>
<td>$200,000 to $250,000</td>
<td>8%</td>
<td>8%</td>
<td>10%</td>
</tr>
<tr>
<td>More than $250,000</td>
<td>13%</td>
<td>13%</td>
<td>12%</td>
</tr>
<tr>
<td>Don't know</td>
<td>6%</td>
<td>5%</td>
<td>3%</td>
</tr>
<tr>
<td><strong>Ethnicity</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hispanic or Latino</td>
<td>7%</td>
<td>8%</td>
<td>8%</td>
</tr>
</tbody>
</table>
## Appendix C: Demographic Profile by User

<table>
<thead>
<tr>
<th>Race</th>
<th>Ride hail (N = 2,121)</th>
<th>Bike share (N = 682)</th>
<th>Car share (N = 523)</th>
</tr>
</thead>
<tbody>
<tr>
<td>American Indian or Alaska Native</td>
<td>2%</td>
<td>2%</td>
<td>1%</td>
</tr>
<tr>
<td>Asian or Asian American</td>
<td>14%</td>
<td>13%</td>
<td>12%</td>
</tr>
<tr>
<td>Black or African American</td>
<td>3%</td>
<td>3%</td>
<td>4%</td>
</tr>
<tr>
<td>Native Hawaiian or Pacific Islander</td>
<td>1%</td>
<td>1%</td>
<td>1%</td>
</tr>
<tr>
<td>White</td>
<td>84%</td>
<td>88%</td>
<td>85%</td>
</tr>
<tr>
<td>Race(s) not listed</td>
<td>1%</td>
<td>1%</td>
<td>1%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Age</th>
<th>Ride hail (N = 2,121)</th>
<th>Bike share (N = 682)</th>
<th>Car share (N = 523)</th>
</tr>
</thead>
<tbody>
<tr>
<td>13-15</td>
<td>0.4%</td>
<td>1%</td>
<td>0%</td>
</tr>
<tr>
<td>16-17</td>
<td>1%</td>
<td>1%</td>
<td>1%</td>
</tr>
<tr>
<td>18-24</td>
<td>6%</td>
<td>9%</td>
<td>6%</td>
</tr>
<tr>
<td>25-34</td>
<td>28%</td>
<td>36%</td>
<td>34%</td>
</tr>
<tr>
<td>35-44</td>
<td>24%</td>
<td>30%</td>
<td>28%</td>
</tr>
<tr>
<td>45-54</td>
<td>16%</td>
<td>14%</td>
<td>16%</td>
</tr>
<tr>
<td>55-64</td>
<td>13%</td>
<td>7%</td>
<td>11%</td>
</tr>
<tr>
<td>65-74</td>
<td>10%</td>
<td>2%</td>
<td>4%</td>
</tr>
<tr>
<td>75+</td>
<td>4%</td>
<td>1%</td>
<td>1%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Ability</th>
<th>Ride hail (N = 2,121)</th>
<th>Bike share (N = 682)</th>
<th>Car share (N = 523)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A condition that substantially limits physical activities such as walking, climbing stairs, reaching, lifting, or carrying</td>
<td>6%</td>
<td>3%</td>
<td>4%</td>
</tr>
<tr>
<td>Blindness or have serious difficulty seeing when wearing glasses</td>
<td>1%</td>
<td>0%</td>
<td>1%</td>
</tr>
<tr>
<td>Deafness or have serious difficulty hearing</td>
<td>1%</td>
<td>0%</td>
<td>1%</td>
</tr>
<tr>
<td>Limited ability to care for yourself</td>
<td>1%</td>
<td>1%</td>
<td>2%</td>
</tr>
<tr>
<td>Physical, mental, or emotional condition that limits learning, remembering, or concentrating</td>
<td>2%</td>
<td>8%</td>
<td>2%</td>
</tr>
<tr>
<td>Disability or disabilities not listed</td>
<td>2%</td>
<td>2%</td>
<td>3%</td>
</tr>
<tr>
<td>I do not have any of the conditions above</td>
<td>91%</td>
<td>94%</td>
<td>92%</td>
</tr>
</tbody>
</table>
Appendix C: Demographic Profile by User

<table>
<thead>
<tr>
<th>Reliable Access for New Mobility</th>
<th>Ride hail (N = 2,121)</th>
<th>Bike share (N = 682)</th>
<th>Car share (N = 523)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Computer or tablet with Internet access</td>
<td>95%</td>
<td>98%</td>
<td>95%</td>
</tr>
<tr>
<td>Cell phone with Internet access</td>
<td>98%</td>
<td>100%</td>
<td>99%</td>
</tr>
<tr>
<td>Working scooter or e-scooter</td>
<td>24%</td>
<td>34%</td>
<td>31%</td>
</tr>
<tr>
<td>Working bike or e-bike</td>
<td>62%</td>
<td>82%</td>
<td>75%</td>
</tr>
<tr>
<td>Working skateboard, hoverboard, or other similar device</td>
<td>8%</td>
<td>16%</td>
<td>12%</td>
</tr>
<tr>
<td>Working car or motor vehicle that you or someone you know owns</td>
<td>89%</td>
<td>89%</td>
<td>84%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Home Language(s)</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Cantonese</td>
<td>1%</td>
<td>1%</td>
<td>1%</td>
</tr>
<tr>
<td>English</td>
<td>99%</td>
<td>99%</td>
<td>98%</td>
</tr>
<tr>
<td>Korean</td>
<td>1%</td>
<td>1%</td>
<td>1%</td>
</tr>
<tr>
<td>Mandarin</td>
<td>2%</td>
<td>2%</td>
<td>2%</td>
</tr>
<tr>
<td>Somali</td>
<td>0.3%</td>
<td>0%</td>
<td>0.4%</td>
</tr>
<tr>
<td>Spanish</td>
<td>5%</td>
<td>6%</td>
<td>6%</td>
</tr>
<tr>
<td>Tagalog</td>
<td>1%</td>
<td>1%</td>
<td>1%</td>
</tr>
<tr>
<td>Vietnamese</td>
<td>0.4%</td>
<td>1%</td>
<td>0%</td>
</tr>
<tr>
<td>Other</td>
<td>7%</td>
<td>6%</td>
<td>6%</td>
</tr>
</tbody>
</table>
### Appendix C: Tables for Low Response Data, Part 1

#### Top Trip Purposes

<table>
<thead>
<tr>
<th>Bike share</th>
<th>Car share</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Recent Tourists (N = 12)</strong></td>
<td><strong>Region Residents (N = 11)</strong></td>
</tr>
<tr>
<td>1. Go home</td>
<td>1. Errands or medical visits</td>
</tr>
<tr>
<td>2. Errands or medical visits</td>
<td>2. Get to public transit</td>
</tr>
<tr>
<td>3. Exercise or recreation</td>
<td>3. Other</td>
</tr>
<tr>
<td>4. Work or school related</td>
<td>4. Exercise or recreation</td>
</tr>
<tr>
<td>5. Get to public transit</td>
<td></td>
</tr>
</tbody>
</table>
## Appendix C: Tables for Low Response Data, Part 2

### Top Reasons Recent Tourists Didn’t Use New Mobility in Seattle

<table>
<thead>
<tr>
<th>Ride hail (N = 19)</th>
<th>Bike share (N = 25)</th>
<th>Car share (N = 27)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I wouldn’t feel safe using it</td>
<td>1. I prefer to drive</td>
<td>1. I want a more flexible option</td>
</tr>
<tr>
<td>2. Arrival times are unreliable</td>
<td>2. I don’t want to ride in bad weather</td>
<td>2. I do not want to get a membership</td>
</tr>
<tr>
<td>3. I prefer to drive</td>
<td>3. I wouldn’t feel safe using it</td>
<td>3. Trips take too long</td>
</tr>
<tr>
<td>4. It’s too expensive</td>
<td>4. I feel unsafe going up or down hills</td>
<td>4. I don’t know how to use it</td>
</tr>
<tr>
<td>5. Something else</td>
<td>5. I don’t have a helmet, and there are no helmets available</td>
<td>5. Arrival times are unreliable</td>
</tr>
</tbody>
</table>
### Appendix C: Tables for Low Response Data, Part 3

#### Using New Mobility to Access Transit

<table>
<thead>
<tr>
<th></th>
<th>Seattle Resident (N = 37)</th>
<th>Region Resident (N = 8)</th>
<th>Tourist (N = 11)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ride hail</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Never</td>
<td>18</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Occasionally</td>
<td>16</td>
<td>6</td>
<td>8</td>
</tr>
<tr>
<td>Often</td>
<td>3</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td><strong>Bike share</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Never</td>
<td>2</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Occasionally</td>
<td>7</td>
<td></td>
<td>5</td>
</tr>
<tr>
<td>Often</td>
<td></td>
<td></td>
<td>3</td>
</tr>
<tr>
<td><strong>Car share</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Never</td>
<td>5</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Occasionally</td>
<td>3</td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>Often</td>
<td>1</td>
<td></td>
<td>4</td>
</tr>
</tbody>
</table>
Appendix C: Tables for Low Response Data, Part 4
Top Alternatives to New Mobility

If not ride hail...

<table>
<thead>
<tr>
<th>Tourist (N = 4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Bike share</td>
</tr>
<tr>
<td>1. Taxi or taxi app</td>
</tr>
<tr>
<td>2. Bike or e-bike</td>
</tr>
<tr>
<td>2. Car share</td>
</tr>
<tr>
<td>2. Public transit</td>
</tr>
<tr>
<td>2. Vanpool or carpool</td>
</tr>
</tbody>
</table>

If not bike share...

<table>
<thead>
<tr>
<th>Region (N = 22)</th>
<th>Tourist (N = 2)</th>
<th>Region (N = 12)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Public transit</td>
<td>1. Bike or e-bike</td>
<td>1. Vehicle you or someone you know owns</td>
</tr>
<tr>
<td>2. Ride hail</td>
<td>2. Public transit</td>
<td>2. Ride hail</td>
</tr>
<tr>
<td>2. Walk or mobility aid</td>
<td>2. Ride hail</td>
<td>3. Public Transit</td>
</tr>
<tr>
<td>3. Bike or e-bike</td>
<td>2. Walk or mobility aid</td>
<td>4. Vanpooling or carpooling</td>
</tr>
</tbody>
</table>
Appendix D: Summary of responses from accessible version

**Time of day that respondents use each new mobility option**

### Ride hail...

| Seattle  
| (N = 40) | Region  
| (N = 8) | Tourist  
| (N = 11) |
|----------|--------|--------|
| 1. Late afternoon | 1. Late afternoon | 1. Early morning |
| 2. Night | 2. Early morning | 2. Late morning |
| 2. Early morning | | |

### Bike share...

| Seattle  
| (N = 10) | Tourist  
| (N = 8) |
|----------|--------|
| 1. Late afternoon | 1. Afternoon |
| 2. Morning | 2. Late morning |

### Car share...

| Seattle  
| (N = 12) | Tourist  
| (N = 8) |
|----------|--------|
| 1. Late afternoon | 1. Late afternoon |
| 2. Night | 2. Night |
### Appendix D: Summary of responses from accessible version

**Trip purpose for each new mobility option**

#### Ride hail...

<table>
<thead>
<tr>
<th>Seattle (N = 10)</th>
<th>Region (N = 8)</th>
<th>Seattle (N = 10)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Work</td>
<td>1. Errand</td>
<td>1. Site seeing</td>
</tr>
<tr>
<td>2. Errands</td>
<td>2. Fun or recreational</td>
<td>2. Errands</td>
</tr>
<tr>
<td>2. Special event</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Bike share...

<table>
<thead>
<tr>
<th>Seattle (N = 10)</th>
<th>Tourist (N = 8)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Work/school</td>
<td>1. Site seeing</td>
</tr>
<tr>
<td>2. Errands</td>
<td></td>
</tr>
</tbody>
</table>

#### Car share...

<table>
<thead>
<tr>
<th>Seattle (N = 10)</th>
<th>Tourist (N = 8)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Special/long trips</td>
<td>1. Site seeing</td>
</tr>
<tr>
<td>2. Multi-destination trips</td>
<td></td>
</tr>
</tbody>
</table>
Appendix E: Charts of potential tourists

Which of the following are the most important to change for this new mobility option? Please choose up to three (3) items.

Base: Potential tourists (users and non-users) randomly assigned to a mode group.

- Ride hail (N = 36)
- Bike share (N = 31)
- Carshare (N = 21)

- Road safety by drivers:
  - Ride hail: 61%
  - Bike share: 62%
  - Carshare: 17%

- Road safety by users:
  - Ride hail: 33%
  - Bike share: 33%
  - Carshare: 33%

- High cost for low-income users:
  - Ride hail: 56%
  - Bike share: 44%
  - Carshare: 10%

- Data privacy and security:
  - Ride hail: 62%
  - Bike share: 43%
  - Carshare: 6%

- Hard for people with disabilities to use:
  - Ride hail: 33%
  - Bike share: 100%
  - Carshare: 8%

- Traffic gets worse:
  - Ride hail: 43%
  - Bike share: 38%
  - Carshare: 18%

- Transit ridership drops:
  - Ride hail: 44%
  - Bike share: 24%
  - Carshare: 6%

- Pollution gets worse:
  - Ride hail: 19%
  - Bike share: 10%
  - Carshare: 2%
Appendix E: Charts of potential tourists

Which of the following describes why you don't use new mobility services?

Base: non-users.

- Ride hail (N = 25)
- Bike share (N = 52)
- Car share (N = 44)

- I prefer to drive
- I wouldn’t feel safe using it
- I don’t want to share my personal information
- I don’t want to ride in bad weather
- It’s hard to use with the people, animals, or things I travel with
- It’s too expensive
- It is physically hard to go up or down hills
- Trips take too long
- I want a more flexible option
- Arrival times are unreliable
- I do not want to get a membership
- It’s not clean enough
- There are too few near me when I need one
- I don’t know how to use it
- I can’t use it because of a disability
- I can’t use cash
- I feel unsafe going up or down hills
- I don’t have a helmet, and there are no helmets available
- The bikes don’t fit my size or physical needs
- There aren’t enough protected bike lanes
- The bikes aren’t well maintained
- Something else
Appendix E: Charts of potential tourists

Which of the following would you like to use to get around Seattle? Please select all that apply.

Base: potential tourists (N = 88).

- Walk: 72%
- Vehicle that you drove yourself: 66%
- Public transit: 52%
- Carpool or Vanpool, or riding with someone else you know: 41%
- Taxi: 40%
- Rental cars: 40%
- Biking: 33%
- Scooter: 21%
- Mobility aid: 7%
- Something else not listed here: 6%
- Does not apply to me: 1%
Appendix E: Charts of potential tourists

Which new mobility options have you used somewhere outside of Seattle (beyond the city limits) in the last 12 months? Please select all that apply.

Base: potential tourists (N = 87).

- Bike share: 64%
- Scooter share: 32%
- Ride hail: 22%
- Car share: 22%
- Taxi app: 22%
- I have never used these: 18%
- Carpool: 0%