WA RUC

Appendix B-1:
Simulation Survey Results

December 2023

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1.0 PREFACE

Forward Drive was a research, development, demonstration, and public engagement effort of the Washington State Transportation Commission. The project sought to advance understanding of and implementation pathways for per-mile road usage charging (RUC) as an alternative to motor fuel taxes and alternative fuel vehicle registration surcharges. The project aimed to address several key issues for RUC including principally equity, user experience, and cost of collection. As reported in Volume 1, the project unfolded in several stages. A series of appendices contain more detailed results. These appendices are organized as explained and illustrated below.

Appendix A. Forward Drive began with research spanning several activities including financial analysis, equity outreach and analysis, user experience research, and cost of collection reduction workshops (Appendices A-1 through A-4, respectively). The purpose of the research was to explore the financial, equity, user experience, and cost impacts of RUC under a variety of deployment scenarios. This research informed the design of experience-based simulations and pilots of various elements of a RUC program.

Appendix B. The research stage led directly to the design and development of simulations and pilots of RUC program elements spanning several areas to reflect the multiple objectives and research findings. The centerpiece of the simulation and pilot testing stage was an interactive simulation of RUC enrollment, reporting, and payment. As described in Volume 1, the simulation offered over 1,100 Washingtonians an opportunity to experience RUC in as little as a few minutes, followed by a survey about their preferences and opinions. The detailed results of the simulation survey and the measurements of the simulation itself are presented as separate reports (B-1 and B-2, respectively).

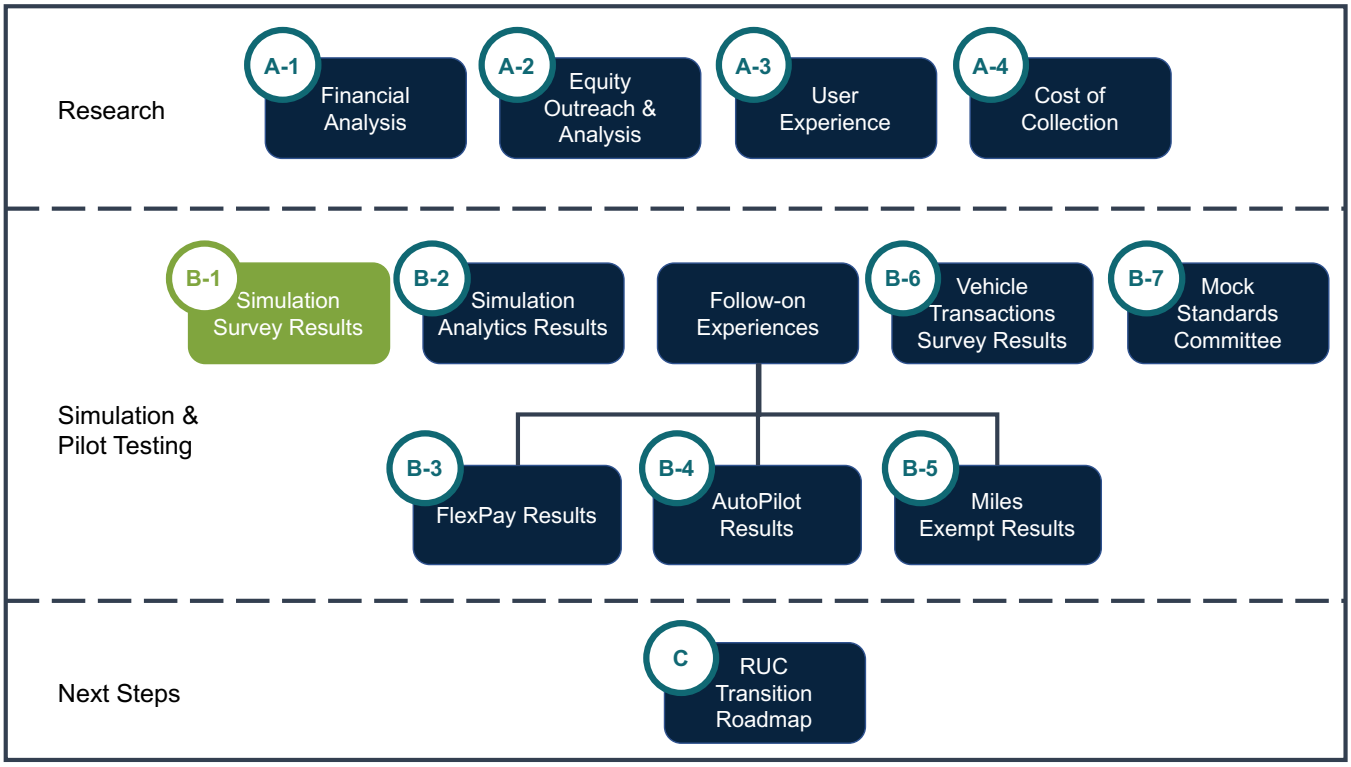
Within the simulation, participants could opt into one of three follow-on experiences, each designed to further test a specific feature of RUC of interest to Washington stakeholders and policymakers:

- FlexPay tested installment payments, allowing participants to pay their RUC over four payments instead of all at once (B-3).
- AutoPilot tested using native automaker telematics to report road usage as an alternative to self-reporting or other technology-based approaches to reporting (B-4).
- MilesExempt tested a self-reporting approach for claiming miles exempt from charges, such as off-road and out-of-state driving (B-5).

The simulation and pilot testing stage also included a statewide survey of Washingtonians' vehicle transactions designed to understand existing transactions and preferences and possibilities for how RUC reporting and payment could potentially be bundled with such transactions (B-6).

Lastly, the simulation and pilot testing stage included a mock standards committee of RUC experts from jurisdictions and industry. The committee simulated the process of creating standards for RUC to support cost reduction, enhanced user experiences, and multi-jurisdictional interoperability (B-7).

Appendix C. Appendix C details a transition roadmap for RUC in Washington drawing on the results of the research and simulation and pilot testing, as well as the updated recommendations regarding RUC implementation from the Commission to the Washington Legislature in 2022.



Appendix B-1 covers detailed results from the survey of participants who experienced the RUC simulation, the centerpiece of the simulation and pilot testing stage of the project.

2.0 WASHINGTON RUC SIMULATION OVERVIEW AND CONTEXT

Based on research conducted in the research stage of the *Forward Drive* project and described in Appendix A-3, an online tool was developed to simulate an individual's experience enrolling, reporting, and paying a road usage charge (RUC) for the prior 12 months. As described in Volume 1, the simulation featured a range of interactive questions and prompts for participants, as well as opportunities to opt into one of three additional research pilots called follow-on experiences.

A total of 1,145 participants were recruited from two user groups to experience the simulation as described below:

- 653 users in a statistically-valid statewide panel. Panel members were recruited through Ipsos, a global market research and public opinion research company. The recruitment relied on an Ipsos KnowledgePanel® of survey-takers designed to match statewide demographics such as age, gender, race, and rural/urban mix. This approach was taken to achieve a statistically-valid representation of the statewide population with participants who had an extremely small likelihood of prior exposure to WA RUC research. Although these participants formed a sample sufficiently large and diverse to serve as a statistically-valid representation of the statewide population, they were not eligible for any of the three follow-on experiences due to limitations in how Ipsos can deploy its KnowledgePanel®.
- 492 users in an organically recruited statewide panel aimed at follow-on experiences. The RUC simulation was advertised through direct outreach, Meta social media posts, and using past WA RUC mailing lists. The focus of this recruitment effort was to identify participants for the follow-on experiences: FlexPay, MilesExempt, and Autopilot.

Participants in both user groups received small incentives to complete the simulation and survey. All participants provided input through three platforms:

- **Recruitment screening survey**. Prior to receiving an invitation to participate in the simulation, participants provided information about their demographics, driving habits, household income, and vehicle attributes.
- **Simulation**. Screened participants were invited via email to experience the online RUC simulation, and their selections and behaviors were recorded anonymously.
- **Post-simulation survey**. Following completion of the simulation, and regardless of whether they opted in a follow-on experience or not, participants provided feedback on their experiences with the simulator and their opinions about a potential RUC in Washington through a survey. Participants also provided some additional demographics such as housing, educational attainment, and employment status.

This report details the methodology and results of the post-simulation survey.

3.0 ANALYSIS METHODOLOGY

3.1 Statistically-Valid and Organically-Recruited User Groups

This appendix focuses on responses from the Ipsos panel (hereinafter the statistically-valid panel), as the recruitment methods for this group minimized any potential bias or participants' prior exposure to RUC. Responses from the organically-recruited panel are presented in the section on Organically-Recruited Survey Results.

3.2 Closed-Ended Responses

Throughout this appendix, the analysis weights the closed-ended responses from the statistically-valid panel. Closed-ended responses are participant responses to multiple choice or forced-rank questions. The responses were weighted to approximate the population of the state of Washington, including, age, race, gender, and location. For some questions, the analysis also presents some crosstabulations ("crosstabs") with other questions to understand any connections between respondents' answers and their household income, location, political party and ideology, and total amount RUC owed. See Exhibit 1 for a description of each crosstab type. Throughout this appendix, the analysis notes all crosstabs calculated, including instances in which there is no notable pattern or difference between disaggregated groups.

3.3 Open-Ended (Comment) Responses

This appendix also presents thematic summaries of the open-ended (i.e., comment) responses from the statistically-valid statewide panel. Unlike the closed-ended responses, the qualitative open-ended responses are not weighted for demographic representation of the state. To analyze the open-ended responses from this user group for a given survey question, all responses were reviewed, and a thematic summary of input received was developed. These themes were then sorted into three levels of occurrence frequency: 1) many responses, 2) some responses, and 3) few responses. In some cases, the analysis also includes "other" responses that were not frequently mentioned but which offer notable ideas. For questions that received only a few comment responses, the analysis summarizes the themes without categorizing them by frequency.

Comment responses from the organically-recruited user group were also analyzed. In the few cases in which there were thematic differences between the two user groups, the analysis notes these differences alongside the description of the statistically-valid responses (see the discussion after Exhibit 15 and Exhibit 33).

Exhibit 1. Crosstab Types

CROSSTAB TYPE	DESCRIPTION	GROUPS
Household income	Respondents' self-reported total household income for the prior year.	Less than $10,000 USD $10,000 to $24,999 USD $25,000 to $49,999 USD $50,000 to $74,999 USD $75,000 to $99,999 USD $100,000 to $149,999 USD $150,000 USD or more
Location: county in east or west side of state	Whether a respondent's ZIP code of residence is in a county in eastern or western Washington. See the note below for this analysis's methodology for determining county assignments and Exhibit 42 for a classification of counties as East or West.	Eastern counties Western counties
Location: border or interior county	Whether a respondent's ZIP code of residence is located in what this analysis's analysis characterizes as an interior or border county. See the note below for county assignments and Exhibit 38 for a classification of counties as interior or border.	Interior counties Border counties
Location: rural or urban ZIP	Whether a respondent's ZIP code of residence is fully or mostly rural or urban. See Exhibit 40 for a classification of ZIP codes as fully or mostly urban or rural and an explanation of this classification.	Fully urban ZIP code Mostly urban ZIP code Mostly rural ZIP code Fully rural ZIP code
Political party	Respondents' self-identified political party affiliation.	Democrat Republican Undecided, Independent, or other
Political ideology	Respondents' self-identified political ideology (i.e., political views independent of party affiliation).	Liberal Conservative Moderate
RUC owed	The total amount the simulation calculated that a respondent would owe in RUC for the previous year after subtracting the estimated amount the respondent paid in gas taxes during the same timeframe. Respondents with partially or fully electric vehicles typically had higher amounts of RUC owed because they paid less or no gas taxes (note: EV fees were not shown in the simulation).	Less than $1 $1 - $24 $25 - $49 $50 - $99 $100 - $149 $150 or more
Vehicle MPG	Respondents' vehicle miles per gallon (MPG) as calculated by the simulation.	Below average (Less than 21 MPG) Average (21 - 27 MPG) Above average (28 - 34 MPG) Very good (35 - 59 MPG) Electric Vehicle (60 or more MPG)

Note: The sole geographic information each respondent provided was their ZIP code of residence. ZIP code boundaries do not always align with county boundaries. To translate ZIP codes into counties, BERK collected population at the Census block level and spatially assigned blocks to ZIP codes and counties. Using these assignments, BERK calculated the total ZIP code population, along with the share of the total ZIP code population that lives within the overlapping county. In most ZIP codes, all or nearly all of the population lives in a single overlapping county. The remainder of ZIP codes are split between two and three counties, with county assignment made to the county with the highest overlapping population.

Source: BERK, 2023.

4.0 TOPLINE FINDINGS

A majority of respondents (56%) support transitioning to RUC.

Respondents who oppose RUC expressed concern that RUC would add another tax, concerns about logistics, and concerns about the fairness of RUC.

Exhibit 2. Participant Support for RUC

Sources: Ipsos, 2023; BERK, 2023.

Most respondents (88%) opted to self-report their mileage for the next year.

Most respondents (86%) say that they would accurately report their miles driven. However, most respondents have a lower level of trust that others would accurately report their miles driven.

Exhibit 3. Participant Preferences for Self-Reporting Mileage

Sources: Ipsos, 2023; BERK, 2023.

Most participants (85%) opted to pay RUC in a single installment, though a higher rate of respondents with the lowest incomes opted into installments.

Nearly all respondents reported that options to pay in installments are important for others (91%) and more than half (56%) reported that options are important for themselves. Most respondents (76%) were willing to pay little or nothing for flexible payment options, with 42% unwilling to pay anything.

Exhibit 4. Participant Preference for Payment in a Single Installment

Sources: Ipsos, 2023; BERK, 2023.

5.0 DETAILED SUMMARY

This section summarizes key findings from the analysis of the statistically-valid panel.

A majority of respondents (56%) support transitioning to RUC. Respondents who oppose RUC expressed concern that RUC would add another tax, concerns about logistics, and concerns about the fairness of RUC.

- Greater proportions of respondents with higher incomes support RUC, ranging from 65% supportive for people with incomes of $150,000 or more to 49% supportive for people with household incomes below $50,000.
- Western Washington respondents, urban respondents, and liberal and moderate respondents are more supportive of transitioning to RUC than eastern Washington respondents, rural respondents, and conservative respondents.
- Support for RUC varies across political affiliations: Independents/Undecideds support transitioning to a RUC at a rate of 74%, Democrats at a rate of 68%, and Republicans at 30%.
- A majority (54%) of respondents reported that they would have data security concerns with a RUC program. Respondents with data security concerns expressed concerns about privacy, hacking, and data breaches. Respondents also expressed concern about the security of their banking and location information.

The average annual amount that respondents owed in RUC was $29.64. The median amount was $12 and almost two-thirds (65%) of respondents owed less than $25 in RUC.

- Forty-six percent of respondents with income below $50,000 owed less than $1 in RUC. In contrast, 29% of respondents with higher income levels owed less than $1 in RUC.
- Higher rates of respondents living in rural counties owed less than $1 in RUC than respondents living in urban counties (48% versus 31%).
- The average amount that respondents had paid in gas taxes in the previous 12 months was $146.40 and the median amount was $131. Approximately 7% of respondents had paid less than $1 in gas taxes in the previous 12 months.

Most respondents (88%) opted to self-report their mileage for the next year. Regardless of the mileage reporting they selected, most respondents (63%) reported that they selected their mileage reporting method because no device or app was needed. About one-third (36%) of respondents reported that they would need additional information to select a mileage reporting option.

- A smaller proportion of respondents who owed higher amounts in RUC selected self-reporting than respondents who owed lower amounts in RUC.
- Forty-nine percent of respondents are not willing to pay any money for technology-based mileage reporting options, and 45% are willing to pay between one and five dollars. Only 6% of respondents are willing to pay over $5.
- Two-thirds of respondents (66%) reported that they have privacy or data security concerns with one or more of the technology-based reporting options.
- Most respondents (86%) say that they would accurately report their miles driven. However, most respondents have a low level of trust that others would accurately report their miles driven (only 27% think that at least 60% of people would report their miles accurately), although this trust

increases if the RUC program were to require submission of an odometer photo (with this requirement, 62% of respondents think that at least 60% of people would report their miles accurately).

- More than half of respondents (55%) declined submission of an odometer photo at the time they participated in the simulation.

Most respondents (72%) believe that exemptions for miles driven on out-of-state and private roads are important. There is a positive correlation between a respondent's household income and their support for miles exemption – that is, a higher proportion of respondents with higher incomes support exemptions.

- Nearly half of respondents (44%) reported that they drove less than 200 miles on out-of-state or private roads in the past 12 months. About one-third (36%) of respondents reported that they drove no miles on out-of-state or private roads in the past 12 months, with greater proportions of respondents with the lowest incomes, living in interior counties, or owing more RUC responding with this answer. One in five (20%) respondents reported that they drove more than 200 miles on out-of-state or private roads in the past 12 months. Of these respondents, the largest proportion (40%) reported that they would like to claim less than 1,000 exempt miles for the past 12 months.
- Almost half of respondents (46%) reported that they would claim the standard exemption of 200 miles and about one-third (34%) reported that they would claim more than 200 miles through providing evidence to the state, and 20% reported that they would use advanced technology to claim more than 200 exempt miles driven. Respondents in border counties selected the standard exemption at a lower rate than respondents in interior counties (39% versus 48%). Higher proportions of respondents who owed $125 or more in RUC opted for advanced technology reporting to claim more than 200 exempt miles driven than respondents who owed less than $125 in RUC (48% versus 19%).

Half of respondents (50%) rate income-based discounts as important for themselves, while most respondents (86%) reported that income-based discounts would be important for others.

- Most respondents (88%) are not currently enrolled in state assistance service.
- Thirty-seven percent of respondents with household incomes below $50,000 are enrolled in a state assistance service.
- Twenty-eight percent of respondents who owed less than $1 in RUC are enrolled in a state assistance service, compared to 4% of respondents who owed RUC of $1 or more. The most common program that respondents reported being enrolled in was Washington Apple Health (Medicaid) (13%).

Nearly all respondents reported that options to pay in installments are important for others (91%) and more than half (56%) reported that options are important for themselves. However, most respondents (76%) were willing to pay little or nothing for flexible payment options, with 42% unwilling to pay anything.

- Most respondents (85%) opted to pay their RUC bill immediately. Thirty-two percent of respondents with incomes of less than $50,000 opted to make four equal payments.
- Of the respondents who opted to pay in four equal installments, slightly more than half (55%) reported that they could not afford to pay their entire payment, while slightly less than half (45%) reported that they preferred to spread out their payments. Respondents with incomes below

$50,000 and rural respondents reported an inability to afford the entire RUC payment at once at higher rates than respondents with higher incomes or urban respondents.

Over half (54%) of respondents opted to pay for their RUC using a credit or debit card, and the remainder opted to pay via bank account (22%), payment apps (13%), and cash or check (12%).

- Almost all respondents (99%) did not print a receipt.
- Most respondents (88%) reported that invoices had the right amount of information. Those who wanted more information suggested the invoice could explain the calculation method for estimated gas taxes paid, how to correct information like vehicle MPG, an explanation of the purpose of the transaction fee, and the total miles reported in prior years.

Most respondents (71%) reported that they were satisfied with the payment and reporting process presented in the simulation.

- Most respondents (85%) reported that none of the simulation steps were difficult to complete. For each component of the simulation, most respondents reported that they had enough information. The simulation component with the highest proportion of respondents (35%) who reported that they did not have enough information was “Mileage Exemptions.”
- The resource that was helpful to the highest proportion of respondents (44%) was the Intro and General FAQ.

6.0 IN-DEPTH FINDINGS

6.1 RUC Opinions

6.1.1 Level of Support for RUC

Exhibit 5 shows statistically-valid panel respondents' level of support or opposition for transitioning from a state gas tax to a RUC. More respondents support transitioning to RUC (56%) than oppose (44%), with the highest proportion of respondents (35%) being "somewhat supportive" of transitioning to a RUC.

The table below the chart shows an analysis of how responses differ by several crosstabs.

Exhibit 5. Statistically-Valid Simulation Participants: Support for Transitioning from State Gas Tax to a RUC (n = 647)

Survey Question: "How supportive are you of transitioning from funding roads through the state gas tax based on gallons purchased to a road usage charge based on miles driven?"

CROSSTAB (N = 647 FOR ALL)	FINDING
Household income	Greater proportions of respondents with higher incomes support RUC, ranging from 49% supportive for people with incomes below $50,000 to 65% supportive for people with incomes of $150k or more.
East or west county	Western Washington respondents are supportive at a higher rate than Eastern Washington respondents (60% versus 41%).
Rural or urban ZIP	Urban respondents are supportive at a higher rate than rural respondents (58% versus 41%).
Political party	There are significant differences in response by political party: Democrats are very or somewhat supportive at a rate of 68%, Independents/Undecideds are supportive at 74%, and Republicans are supportive at 30%.
Political ideology	There are significant differences in response by political ideology: Liberal respondents are very or somewhat supportive at a rate of 70%, Moderates at 62%, and Conservatives at 28%.

Note: Additional crosstabs by amount of RUC owed and residence in a border or interior county revealed no notable patterns or differences.

Sources: CDM Smith, 2023; Ipsos, 2023; BERK, 2023.

6.1.2 Reasons for Opposing RUC

For respondents who selected "somewhat opposed" or "very opposed" to the question shown in Exhibit 5, the survey asked: "Please provide an explanation for why you oppose a road usage charge." 245 respondents answered this question. The following bullets provide a thematic summary of comments:

Many responses

- **Concern that RUC would add another tax.** Respondents expressed that the gas tax is sufficient to fund transportation, that they already pay enough in taxes, that the money should come from another source, or that they prefer to "pay as you go" at the pump.
- Concerns about logistics. Many respondents noted a variety of logistical concerns with administering RUC, including the burden on individuals to manually report overall mileage and miles driven out-of-state, concerns about accuracy and cheating, observations that RUC administration would be much more complicated than the gas tax, concerns that out-of-state visitors would not pay, and other specific logistical concerns.
- Concerns about the fairness of RUC. Survey respondents reported concerns about the fairness of collecting RUC, including concerns about driving out-of-state, especially for those who live on the border or drive out-of-state frequently, and concerns that RUC does not address differences between vehicles' fuel efficiency or weight. Some respondents noted that RUC would unfairly impact businesses.

Some responses

- **Concerns about privacy.** Respondents noted a variety of privacy concerns, including discomfort with GPS tracking, concerns about having third-party companies access their data, or general opposition to increasing government regulation or oversight.
- Concerns about equity. In addition to some respondents' concern about the fairness of RUC, others noted the negative impact that RUC could have on others or that they themselves would struggle to afford it. Some noted that living in a rural area naturally requires more driving to reach basic services or that people required to drive for work wouldn't necessarily get reimbursed in this model.

Few responses

- **Concerns that RUC would remove an incentive for residents to transition from driving combustion-engine cars to hybrid or electric cars.** Several survey respondents recognized that moving to RUC could remove an incentive for individuals to choose an electric vehicle. They also noted that they should not be "punished" for reducing their environmental footprint, especially given that they already pay an additional vehicle registration fee for hybrid or electric vehicles.

6.1.3 Other Feedback about RUC

The survey also asked all respondents the following question: "Are there any other comments you would like to share about a road usage charge or this simulation experience?" 245 respondents answered this question. Many of the responses reiterated themes describe throughout the remainder of this report. The following is a high-level thematic summary:

- Opposition to RUC.
- Concerns about program logistics and design, including how information is collected.

- Interest in the topic and appreciation for the quality of the simulation.
- A need for assurance that RUC would replace rather than supplement the gas tax, or skepticism that the gas tax would be removed.
- A need for more information.

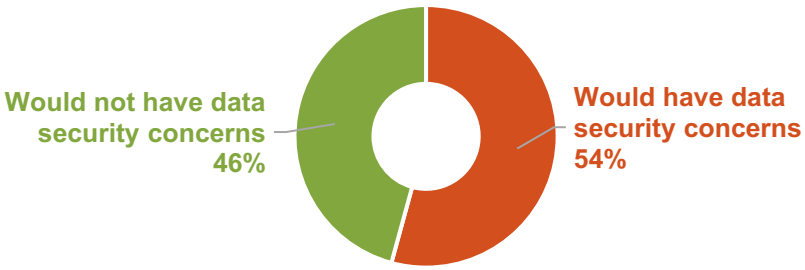
6.1.4 Data Security Concerns

Exhibit 6 shows the proportion of statistically-valid panel respondents who would or would not have data security concerns with RUC. In general, responses were somewhat evenly divided, with 54% of respondents reporting that they would have data security concerns, and 46% reporting that they would not have data security concerns.

The table below the chart shows an analysis of how responses differ by rural or urban ZIP.

Exhibit 6. Statistically-Valid Simulation Participants: Data Security Concerns with RUC (n = 647)

Survey Question: "Would you have any data security concerns if the state of Washington implemented a road usage charge reporting and payment system like the simulation you just completed?"



CROSSTAB	FINDING
Rural or urban ZIP	A higher proportion of rural respondents would have concerns than do urban respondents (68% versus 53%).

Note: Additional crosstabs by household income and amount of RUC owed revealed no notable patterns or differences.

Sources: CDM Smith, 2023; Ipsos, 2023; BERK, 2023.

6.1.5 Reasons for Data Security Concerns

For respondents who indicated they would have data security concerns, the survey asked:

"What aspects of the process raise data security concerns, and how would you address them?" 289 respondents answered this question. The following provide a thematic summary of comments:

Many responses

- **General concerns about privacy.** Most respondents felt uncomfortable with the State monitoring how much and where they drive, noting that it feels intrusive. Some referenced that it felt like "Big Brother."

- **Concerns about hacking and data breaches.** Many respondents noted the number of data breaches that have occurred with government agencies or private businesses. Some specifically called out that they do not trust the State to keep their information safe and others listed recent data breaches in Washington State, including with the Department of Licensing and Employment Security Department.

Some responses

- **Concerns about bank and payment information.** Some respondents specifically called out concerns about the security of their bank or credit card information.
- **Concerns about location sharing.** Some respondents described concerns about their location data being tracked.
- **Concerns about individuals' data accountability.** Several respondents described concerns about individuals' data accountability, including opportunities for people to "cheat the system," what an audit would entail, and how to prove out-of-state mileage.

Few responses

- **Opposition to RUC.** Some respondents used this question to note they oppose the program overall.

6.2 Net RUC Owed and Estimated Gas Tax Paid

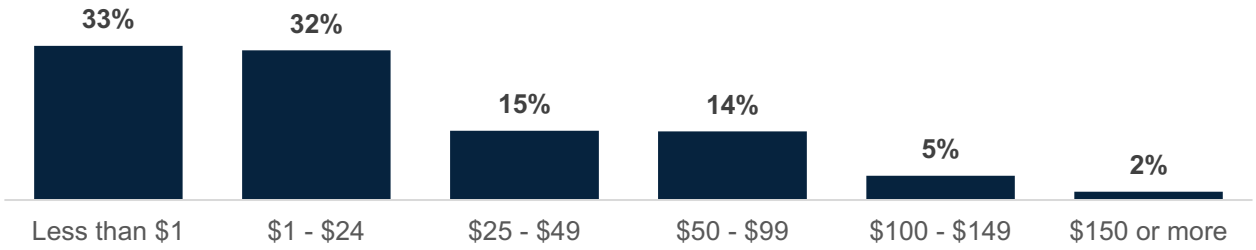
6.2.1 Net RUC Owed

The average amount that statistically-valid panel respondents owed in RUC, after a credit was given for gas taxes paid, was $29.64 and the median amount was $12.

Exhibit 7 shows the proportions of statistically-valid panel respondents that owed several ranges of RUC amounts for the past 12 months. One third (33%) of respondents owed less than $1 in RUC, about one third (32%) owed between $1 and $24, and slightly less than one-third (29%) owed between $25 and $99. Few respondents (7%) owed $100 or more.

The table below the chart shows an analysis of how responses differ by household income and rural or urban ZIP.

Exhibit 7. Statistically-Valid Simulation Participants: RUC Owed by Participants (n = 648)



CROSSTAB	FINDING
Household income	A greater proportion of respondents with incomes less than $50,000 owed less than $1 in RUC than respondents with all other incomes (46% versus 29%).
Rural or urban ZIP	Higher rates of respondents living in rural counties owed less than $1 in RUC than respondents living in urban counties (48% versus 31%).

Sources: CDM Smith, 2023; Ipsos, 2023; BERK, 2023.

6.2.2 Gas Taxes Paid

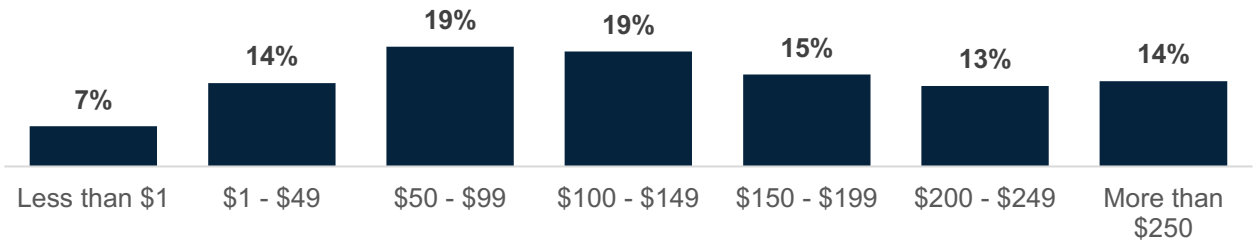
The average amount that statistically-valid panel respondents had paid in gas taxes in the prior year was $146.40 and the median amount was $131. Exhibit 8 shows the proportions of statistically-valid panel respondents that paid several ranges of gas taxes over the past 12 months. Respondents were fairly evenly distributed across $50 brackets between $1 and more than $250. Approximately 7% of respondents had paid an estimated less than $1 in gas taxes in the previous 12 months, corresponding with vehicles that do not consume motor fuel (i.e., electric vehicles). I

The average miles driven and gas tax paid are smaller than the statewide average of about 10,000 and $250, respectively. This difference is likely attributable to the fact that the number of high-mileage vehicles and high consumption fuel users (HCFUs) captured in the sample for the simulation is smaller than the actual proportion of such vehicles statewide. According to a Washington Joint Transportation Committee (JTC) study published in 2023, approximately 8% of Washington vehicles are driven more than 20,000 miles per year, and 0.7% are HCFUs (defined as consuming more than 1,500 gallons of

fuel per year).[1] Among simulation participants, only 1% reported driving more than 20,000 miles in the past year, and only one (representing about 0.1% of the sample) qualified as a HCFU. Since the sample was weighted based on demographics, not road usage characteristics, weighting cannot correct for this difference

The table below the chart shows an analysis of how responses differ by household income, rural or urban ZIP, and RUC owed.

Exhibit 8. Statistically-Valid Simulation Participants: Estimated Gas Taxes Paid over the Past 12 Months by Participants (n = 643)



CROSSTAB	FINDING
Household income	A greater proportion of respondents with the highest incomes of at least $150,000 paid less than $1 of gas tax than all other respondents (12% versus 4%). A greater proportion of respondents with the lowest incomes below $50,000 paid between $200 and $249 in gas taxes than all other respondents (20% versus 11%).
Rural or urban ZIP	A greater proportion of respondents living in rural counties paid less than $1 in gas tax than respondents living in urban counties (13% versus 6%).
RUC owed	In general, respondents who owed more RUC paid less in gas taxes.
Vehicle MPG	In general, respondents who drive vehicles with higher MPG paid less in gas taxes.

Sources: CDM Smith, 2023; Ipsos, 2023; BERK, 2023.

1 Washington State Joint Transportation Committee, "Encouraging High Consumption Fuel Users to Use Electric Vehicles," 2023. Available from: https://leg.wa.gov/JTC/Documents/Studies/2022%20studies/HCFUFinalReport.pdf

6.3 Mileage Reporting

6.3.1 Method of Odometer Photo Submission

Exhibit 9 shows the proportions of statistically-valid panel respondents that selected each of three odometer photo submission methods or that declined to submit a photo. More than half of respondents (55%) declined submission of an odometer photo. Of those who did select to submit an odometer photo, most (32% of all respondents) opted to upload immediately. This involved taking a digital photo and uploading it immediately to the simulation. Ten percent of respondents opted to send a photo via text. which involves receiving a text message with a link to click that opens a web application for capturing and submitting a photo. Only a few (3%) chose to scan a QR code, which follows the same process as receiving a link via text. No participants had to actually follow through with any of these steps; the simulation merely captured their preference.

The table below the chart shows an analysis of how responses differ by rural or urban ZIP.

Exhibit 9. Statistically-Valid Simulation Participants: Method of Odometer Photo Submission (n = 648)

Simulation Question: "Add a photo of your odometer for verification and reduce the chance of audit."

CROSSTAB	FINDING
Rural or urban ZIP	A greater proportion of rural respondents selected to upload verification now than urban respondents (42% versus 31%). Compared to rural respondents, greater proportions of urban respondents opted to send verification via text message (11% versus 4%) or scan a QR code (4% versus 1%).

Note: Additional crosstabs by household income and amount of RUC owed revealed no notable patterns or differences.

Sources: CDM Smith, 2023; Ipsos, 2023; BERK, 2023.

6.3.2 Preferred Mileage Reporting Method

Exhibit 10 shows the proportions of statistically-valid panel respondents that selected each of four options for mileage reporting methods for the next year. Limited information was provided to the participants about these options as illustrated in Exhibit 11.

Most respondents (88%) selected that they would self-report their mileage for the next year. Of the other options, "Mobile App" was the most common selection (9%). Few respondents opted for an installed device (2%) or vehicle telematics (1%).

The table below the chart shows an analysis of how responses differ by RUC owed.

Exhibit 10. Statistically-Valid Simulation Participants: Selected Mileage Reporting Method (n = 647)

Simulation Question: "How would you like to report your mileage for next year?"

CROSSTAB	FINDING
RUC owed	Respondents who owed higher amounts in RUC selected self-reporting at slightly lower rates than respondents who owed lower amounts in RUC. Those who owed higher amounts were more likely to select the mobile app, installed device, and vehicle telematics options.

Note: Additional crosstabs by household income and residence in a rural or urban ZIP revealed no notable patterns or differences.

Sources: CDM Smith, 2023; Ipsos, 2023; BERK, 2023.

Exhibit 11. Information the Simulation Provided to Participants About Mileage Reporting Methods

Self-Reporting	Vehicle Telematics	Installed Device	Mobile App
Check your odometer and manually enter your mileage.	Share mileage through your vehicle's manufacturer.	Install an OBD-II monitor to share your mileage.	Install a smartphone app to log and report mileage.
No device or app needed	Enrollment with automaker	Plug-in device provided	Smartphone app required
Manually report mileage	Automatically reports mileage	Automatically reports mileage	Automatically reports mileage
Location data not shared with the state	Location data not shared with the state	Location data not shared with the state	Location data not shared with the state
Exempt miles manually (receipts required)	Exempt miles automatically deducted	Exempt miles automatically deducted (optional)	Exempt miles automatically deducted
Free	**$3/month for enhanced option**	**$5/month for enhanced option**	**$1/month for enhanced option**

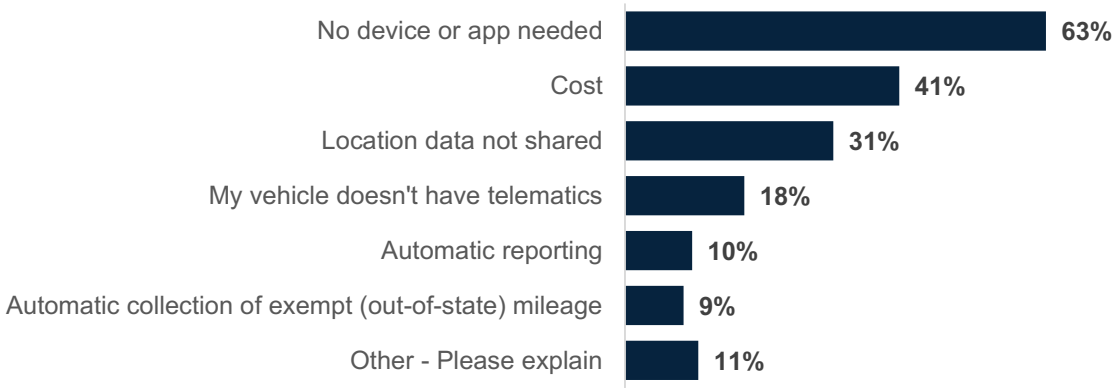
Source: CDM Smith, 2023.

6.3.3 Reasons for Mileage Reporting Preferences

Exhibit 12 shows the reasons that statistically-valid panel respondents selected their preferred mileage reporting methods. Most respondents (63%) reported that they selected their mileage reporting method because no device or app was needed. The other two most common responses were cost (41%) and location data not being shared (31%).

Exhibit 12. Statistically-Valid Simulation Participants: Reason for Selecting a Mileage Reporting Method (n = 637)

Survey Question: "Why did you choose your mileage reporting method? (check all that apply)"



Sources: CDM Smith, 2023; Ipsos, 2023; BERK, 2023.

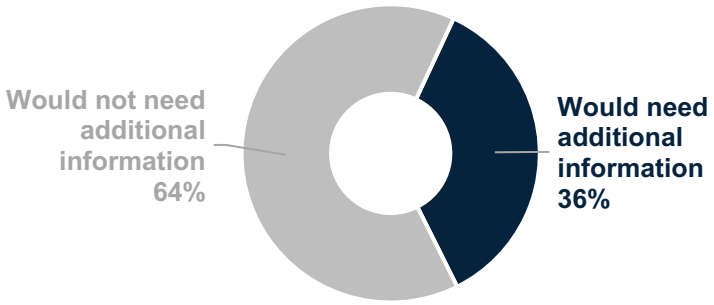
Seventy-two respondents provided comments related to the "Other – Please explain" option. Many commented that they wanted an easy option or had privacy or data concerns about other options. Some also selected their option for reasons related to accuracy. Notable other responses included technology issues, such as lack of a smart phone, a preference to not use apps, and a preference to not use paid apps.

6.3.4 Information Needs to Support Decision-Making

Exhibit 13 shows the proportions of statistically-valid panel respondents that would or would not need additional information to select a mileage reporting option. About two-thirds of respondents (64%) reported that they would not need additional information to select a mileage reporting option and about one-third (36%) reported that they would need additional information.

Exhibit 13. Statistically-Valid Simulation Participants: Participants' Need for Additional Information to Select Mileage Reporting Option (n = 636)

Survey Question: "Would you need additional information to select the best mileage reporting option for you?"



Sources: CDM Smith, 2023; Ipsos, 2023; BERK, 2023.

For respondents who indicated they would need additional information about the mileage reporting options, the survey asked: "What other information would you need to select a mileage reporting option?" 182 respondents answered this question. Many respondents reiterated a desire to have more information for all of the mileage reporting options, with specific requests to know more about the following:

- How each of the reporting options would work, including information about how to locate and use the mobile app, as well as the cost of each option.
- How to report and verify miles driven out-of-state.
- Information about privacy, included how data would be collected and used.

Other notable responses included an uncertainty about which vehicles have integrated telematic reporting options.

6.3.5 Willingness to Pay for Technology-Based Mileage Reporting Options

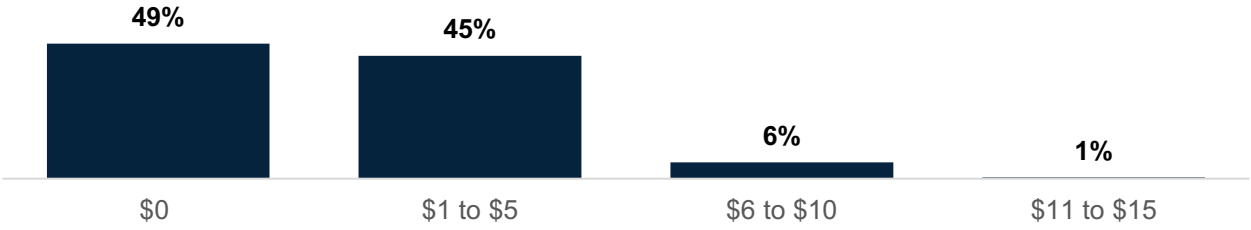
Exhibit 14 shows the maximum monthly charges that statistically-valid panel respondents would be willing to pay for technology-based mileage reporting options. Almost all respondents were willing to pay little to no money for technology-based mileage reporting options, with 49% of respondents not willing to pay any money, and 45% of respondents willing to pay between one and five dollars.

The table below the chart shows an analysis of how responses differ by rural or urban ZIP.

Exhibit 14. Statistically-Valid Simulation Participants: Maximum Monthly Charge Willing to Pay for Technology-Based Mileage Reporting Options (n = 384)

Survey Question: "Technology-based mileage reporting options (vehicle telematics, installed device, mobile app) have additional features that allow automatic reporting of mileage to the state. They can

also automatically record out-of-state mileage for exemptions, or potentially allow drivers to pay a road usage charge monthly, rather than all at once at the end of the year. However, these options are more costly to administer than the manual mileage (odometer photo) reporting option. How much would you be willing to pay per month for these services?"



CROSSTAB	FINDING
Rural or urban ZIP	A higher proportion of rural respondents are not willing to pay anything for technology-based mileage reporting option than urban respondents (62% versus 48%).

Note: Additional crosstabs by household income and amount of RUC owed revealed no notable patterns or differences.

Sources: CDM Smith, 2023; Ipsos, 2023; BERK, 2023.

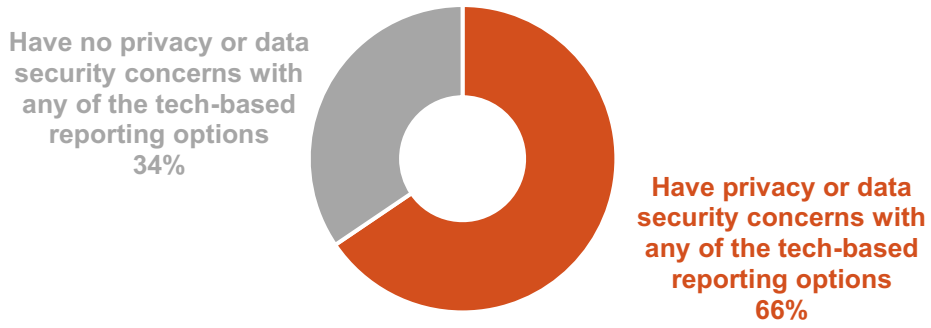
6.3.6 Concerns with Technology-Based Mileage Reporting Options

Exhibit 15 shows the proportions of statistically-valid panel respondents who have or do not have privacy or data security concerns with any of the technology-based mileage reporting options. Two-thirds of respondents (66%) report that they have privacy or data security concerns with any of the technology-based reporting options, while one-third (34%) reported no privacy or data security concerns.

The table below the chart shows an analysis of how responses differ by rural or urban ZIP.

Exhibit 15. Statistically-Valid Simulation Participants: Privacy or Data Security Concerns with Technology-Based Mileage Reporting Options (n = 644)

Survey Question: "Do you have privacy or data security concerns with any of the technology-based reporting options (vehicle telematics, plug-in device or mobile app)?"



CROSSTAB	FINDING
Rural or urban ZIP	Urban respondents report concerns at a lower rate than rural respondents (64% versus 77%).

Note: Additional crosstabs by household income and amount of RUC owed revealed no notable patterns or differences.

Sources: CDM Smith, 2023; Ipsos, 2023; BERK, 2023.

6.3.7 Privacy Concerns with Technology-Based Mileage Reporting Options

For respondents who indicated they would have privacy or data security concerns with technology-based mileage reporting options, the survey asked: **"**Please explain any privacy concerns." 356 respondents answered this question. Most responses aligned with the following themes:

- Concerns about data security, including hacking, identity theft, and app security.
- Concerns with government having too much information about people and concerns about being tracked.
- A need for more information about the systems and mobile app.

Responses from the organically-recruited user group generally reflected fewer concerns and less anger about government, and a more general concern with data exposure or discomfort with location tracking. This is likely because the organically-recruited participants were exposed to the project website and research materials prior to participation in the simulation, whereas the statistically-valid group was directed to the simulation without any prior knowledge of the topic or expectations as to the subject matter of the research.

6.3.8 Likelihood of Accurate Reporting

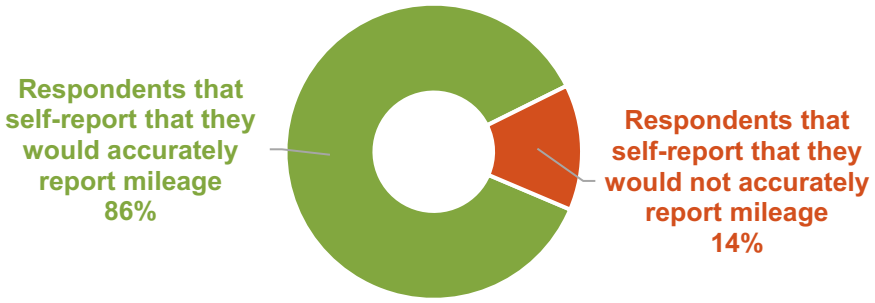
6.3.8.1 Self-Reported Likelihood of Accurate Mileage Reporting

Exhibit 16 shows the proportions of statistically-valid panel respondents who self-report that they would or would not accurately report their miles driven in the past year. Most respondents (86%) say that they would accurately report their miles driven.

The table below the chart shows an analysis of how responses differ by rural or urban ZIP.

Exhibit 16. Statistically-Valid Simulation Participants: Participants' Self-Reported Likelihood of Accurately Reporting Miles Driven in the Past Year (n = 646)

Survey Question: "Would you accurately report how many miles you drove for a real road usage charge?"



CROSSTAB	FINDING
Rural or urban ZIP	A higher proportion of rural respondents said they would not accurately report how many miles they drove than did urban respondents (22% versus 13%).

Note: Additional crosstabs by household income and amount of RUC owed revealed no notable patterns or differences.

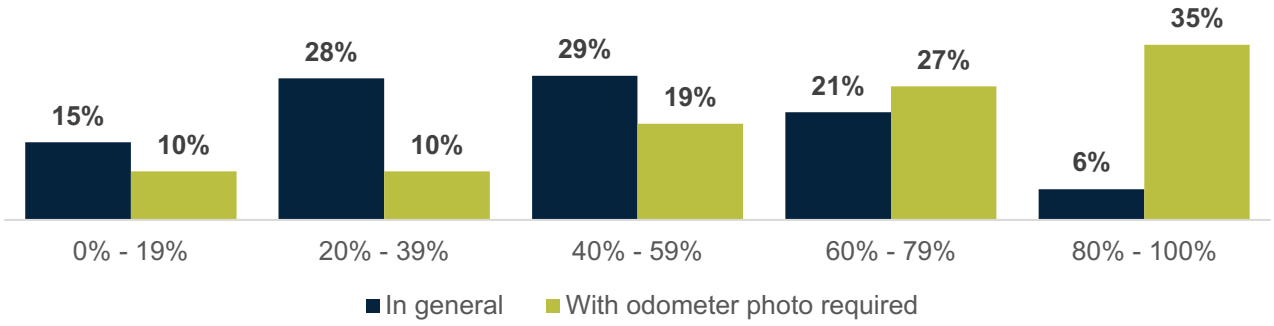
Sources: CDM Smith, 2023; Ipsos, 2023; BERK, 2023.

6.3.8.2 Perceived Likelihood of Accurate Mileage Reporting by Others

Exhibit 17 shows how statistically-valid panel respondents assess the percent of people who would accurately report their miles driven to a RUC program in general and if they were required to share an odometer photo. Respondents generally have stronger belief that people would accurately report their miles driven when they are required to submit an odometer photo, as opposed to when they are not required to submit an odometer photo. About one-quarter of respondents (27%) think that at least 60% of people would accurately report their mileage in general, whereas about two-thirds of respondents (62%) think that at least 60% of people would accurately report their mileage if the RUC program required submission of an odometer photo.

Exhibit 17. Statistically-Valid Simulation Participants: Participants' Assessment of the Percent of People who would Accurately Report Miles Driven to a RUC Program with and without a Requirement to Share an Odometer Photo (n = 620 and n = 631 respectively)

Survey Questions: "If the state of Washington implemented a road usage, what percentage of people do you believe would accurately report their miles driven in the past year?" and "If the state of Washington implemented a road usage charge and required drivers to share an odometer photo to verify mileage, what percentage of people do you believe would accurately report their miles driven in the past year?"



Note: Crosstabs by household income, residence in a rural or urban ZIP, and amount of RUC owed revealed no notable patterns or differences.

Sources: CDM Smith, 2023; Ipsos, 2023; BERK, 2023.

6.4 Exemptions for Out-of-State and Private/Off-road Miles

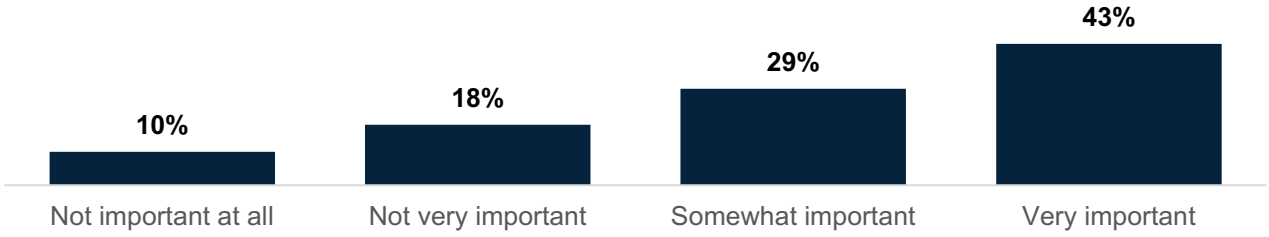
6.4.1 Importance of Mileage Exemptions

Exhibit 18 shows how statistically-valid panel respondents rate the importance of the ability to claim exemptions for miles driven out-of-state, off-road, or on private roads. Most respondents (72%) believe that exemptions for miles driven on out-of-state or private roads are important.

The table below the chart shows an analysis of how responses differ by household income.

Exhibit 18. Statistically-Valid Simulation Participants: Importance of Ability to Claim Exemptions for Out-of-State and Private/Off-Road Miles (n = 646)

Survey Question: "How important would it be for you to be able to claim exemptions for out-of-state and private/off-road miles?"



CROSSTAB	FINDING
Household income	As income increases, higher rates of respondents report that exemptions would be important.
Vehicle MPG	As vehicle MPG increases, lower rates of respondents report that exemptions would be "very important."

Note: Additional crosstabs by amount of RUC owed, residence in a rural or urban ZIP, and residence in a border or interior county revealed no notable patterns or differences.

Sources: CDM Smith, 2023; Ipsos, 2023; BERK, 2023.

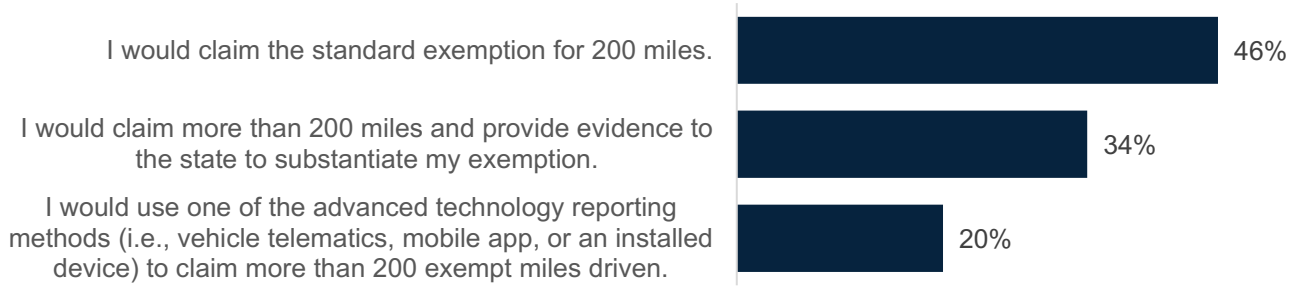
6.4.2 Preferred Methods for Claiming Exemptions

Exhibit 19 shows the proportions of statistically-valid panel respondents that would select each of the three methods of claiming exemptions for miles driven out-of-state, off-road, or on private roads. The purpose of offering a standard exemption is to assess how many participants would simply select that as opposed to requesting a more complex and costly method of reporting miles by jurisdiction. Almost half of respondents reported that they would claim the standard exemption for 200 miles (46%), about one-third reported that they would claim more than 200 miles (34%), and 20% reported that they would use advanced technology to claim more than 200 exempt miles driven.

The table below the chart shows an analysis of how responses differ by RUC owed and border or interior county.

Exhibit 19. Statistically-Valid Simulation Participants: Preferred Method to Claim Exemptions for Out-of-State and Private/Off-Road Miles (n = 634)

Survey Question: "How would you prefer to claim exemptions for out-of-state and private/off-road miles?"



CROSSTAB	FINDING
Border or interior county	Respondents in border counties selected the standard exemption at a lower rate than respondents in interior counties (39% versus 48%).
RUC owed	Compared to respondents who owed $125 or more in RUC, higher proportions of respondents who owed less than $125 in RUC opted for the standard exemption (47% versus 26%) or providing evidence (34% versus 26%). In contrast, higher proportions of respondents who owed $125 or more in RUC opted for advanced technology reporting than respondents who owed less than $125 in RUC (48% versus 19%).

Note: Additional crosstabs by household income revealed no notable patterns or differences.

Sources: CDM Smith, 2023; Ipsos, 2023; BERK, 2023.

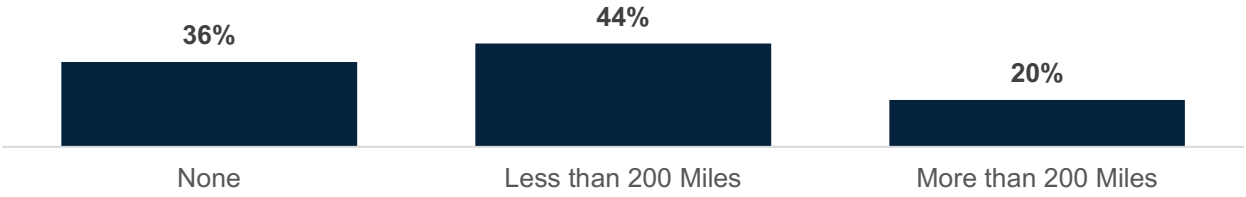
Total Exempt Miles Driven

Exhibit 20 shows the proportions of statistically-valid panel respondents that drove no miles, less than 200 miles, or more than 200 miles on out-of-state or private roads in the previous year. Almost half of respondents (44%) reported that they drove less than 200 miles out-of-state or on private roads, one-third (36%) reported that they drove no miles, and one in five (20%) reported that they drove more than 200 miles.

The table below the chart shows an analysis of how responses differ by household income and border or interior county.

Exhibit 20. Statistically-Valid Simulation Participants: Miles Driven on Out-of-State or Private Roads (n = 641)

Simulation Question: "To claim exemptions for last year, about how many miles did you drive out of state or on private roads?"



CROSSTAB	FINDING
Household income	A greater proportion of respondents with the lowest incomes (below $50,000) reported having driven no miles on out-of-state or private roads in the prior year than respondents with incomes of at least $50,000 (47% versus 34%). However, a greater proportion of respondents with the highest incomes (above $150k) reported having driven less than 200 miles on out-of-state or private roads in the prior year than respondents with incomes below $150k (54% versus 40%).
Border or interior county	A greater proportion of respondents living in interior counties reported driving no miles out-of-state or private roads in the prior year than respondents living in border counties (41% versus 24%). More respondents living in border counties reported driving more than 200 miles per year on out-of-state or private roads than respondents living in interior counties (29% versus 16%).
RUC owed	A greater proportion of respondents that owed RUC of $125 or more reported driving more than 200 miles on out-of-state or private roads in the prior year than respondents that owed less than $125 of RUC (48% versus 19%).

Sources: CDM Smith, 2023; Ipsos, 2023; BERK, 2023.

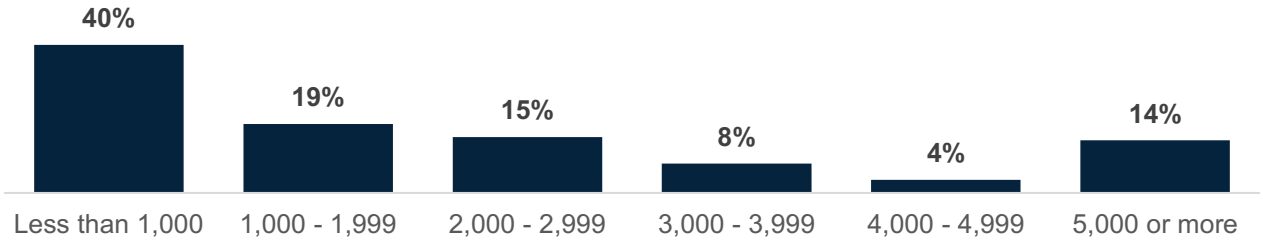
6.4.3 Number of Exempt Miles Claimed

Despite the fact that 54% of statistically-valid panel respondents said they would like the option of claiming exempt miles beyond the standard exemption of 200 miles per year, only 20% said they actually drove more than 200 exempt miles in the preceding year. Among those who said they drove more than 200 exempt miles, Exhibit 21 shows the proportions that would claim several ranges of exempt miles. The largest proportion of respondents (40%) reported that they would like to claim between 200 and 1,000 exempt miles for the past 12 months. One-third (34%) of respondents wanted to claim between 1,000 and 2,999 miles, and 14% of respondents wanted to claim 5,000 or more miles.

The table below the chart shows an analysis of how responses differ by border or interior county.

Exhibit 21. Statistically-Valid Simulation Participants: Exempt Miles Claimed (n = 112)

Simulation Question: "How many exempt miles would you like to claim for the past 12 months?"



CROSSTAB	FINDING
Border or interior county	A greater proportion of respondents living in border counties claimed 5,000 or more miles than respondents living in interior counties (20% versus 10%).

Note: Additional crosstabs by household income and amount of RUC owed revealed no notable patterns or differences.

Sources: CDM Smith, 2023; Ipsos, 2023; BERK, 2023.

6.5 Payment

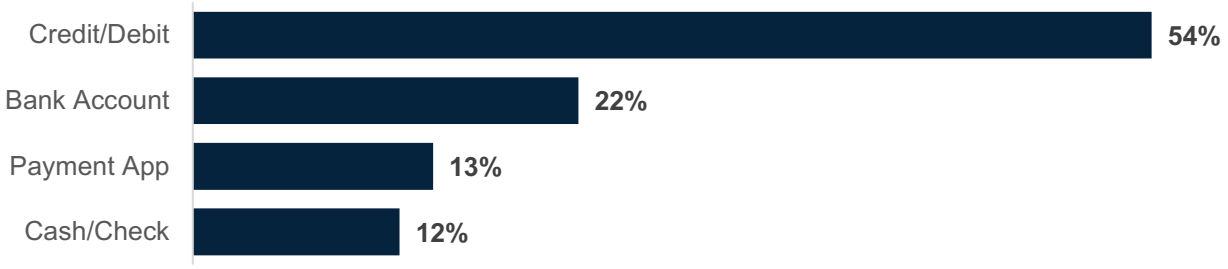
6.5.1 Payment Method

Exhibit 22 shows the proportions of statistically-valid panel respondents that selected each of four payment methods for RUC. Over half (54%) of respondents selected to pay their RUC using a credit or debit card. The next largest proportion of respondents (22%) selected payment via bank account and the remaining respondents were fairly evenly split among payments via payment apps (13%) and cash or check (12%).

The table below the chart shows an analysis of how responses differ by household income and rural or urban ZIP.

Exhibit 22. Statistically-Valid Simulation Participants: Selected Method of Payment for RUC (n = 641)

Simulation Question: "How would you like to pay for your road usage charge?"



CROSSTAB	FINDING
Household income	Greater proportions of respondents with lower incomes opted to pay by credit/debit card, while greater proportions of respondents with higher incomes opted to pay by bank account or payment app.
Rural or urban ZIP	A greater proportion of rural respondents opted to pay RUC by credit/debit than did urban respondents (71% versus 51%) and greater proportions of urban respondents opted to pay RUC by bank account (23% versus 9%) or payment app (14% versus 7%).

Note: Additional crosstabs by RUC owed revealed no notable patterns or differences.

Sources: CDM Smith, 2023; Ipsos, 2023; BERK, 2023.

6.5.2 Payment in Installments

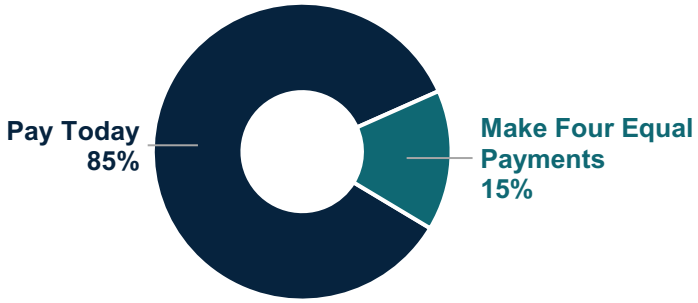
6.5.2.1 Selection of Single Payment or Quarterly Payments

Exhibit 23 shows the proportions of statistically-valid panel respondents that opted to make a single payment or four equal payments for their RUC owed. Most respondents (85%) selected that they would pay today, while 15% of respondents selected to make four equal payments.

The table below the chart shows an analysis of how responses differ by household income and RUC owed.

Exhibit 23. Statistically-Valid Simulation Participants: Selection of Single Payment or Quarterly Payment for RUC (n = 648)

Simulation Question: "How would you like to pay for your usage charge?"



CROSSTAB	FINDING
Household income	A greater proportion of respondents with incomes of less than $50,000 selected to make four equal payments than respondents with incomes of at least $50,000 (36% versus 11%).

Note: Additional crosstabs by rural or urban ZIP and amount of RUC owed revealed no notable patterns or differences.

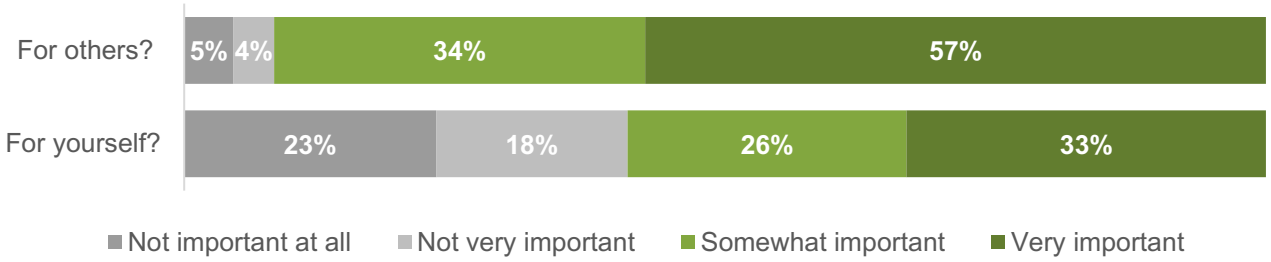
Sources: CDM Smith, 2023; Ipsos, 2023; BERK, 2023.

6.5.2.2 Importance of Option to Pay in Installments

Exhibit 24 shows how statistically-valid panel respondents rate the importance of having multiple options for payment frequency for themselves and for others. In a similar pattern as their responses regarding income-based discounts (see Exhibit 27), a higher proportion of respondents reported that payment options are important for others (91%) than the proportion that reported these options are important for themselves (59%). Participants with lower incomes were more likely to claim that installment payments are important for themselves (88%), compared to participants with the highest incomes (40%). However, most participants felt installment payments were important for "others," regardless of income, with a range of 87% of the lowest income respondents to 92% of the highest income respondents.

Exhibit 24. Statistically-Valid Simulation Participants: Importance of Option to Pay Immediately or in Four Installments (n = 644 for "yourself" and n = 636 for "others")

Survey Question: "During the simulation, two payment options were offered: pay today or four equal payments. How important is it to have payment options as a part of a road usage charge system:"



Note: Additional crosstabs by rural or urban ZIP revealed no notable patterns or differences.

Sources: CDM Smith, 2023; Ipsos, 2023; BERK, 2023.

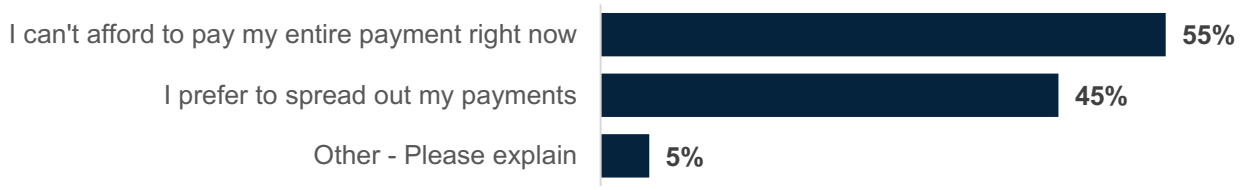
6.5.2.3 Reason Respondents Opted to Pay in Installments

Of the statistically-valid panel respondents who opted to pay in four equal installments, Exhibit 25 shows the reasons that respondents made this selection. Respondents could select more than one reason. Slightly more than half of respondents reported that they could not afford to pay their entire payment (55%), and slightly less than half of respondents reported that they preferred to spread out their payments (45%).

The table below the chart shows an analysis of how responses differ by household income and by rural or urban ZIP.

Exhibit 25. Statistically-Valid Simulation Participants: Reason for Selecting Four Installments (n = 100)

Survey Question: "Why did you choose four equal payments? (check all that apply)"



CROSSTAB	FINDING
Household income	More than twice the proportion of respondents with incomes below $50,000 reported an inability to afford the entire RUC payment at once compared to respondents with incomes of $50,000 or more (86% versus 34%).
Rural or urban ZIP	A greater proportion of rural respondents reported an inability to afford the entire RUC payment at once compared to urban respondents (89% versus 54%).

Note: Additional crosstabs by the amount of RUC owed revealed no notable patterns or differences.

Sources: CDM Smith, 2023; Ipsos, 2023; BERK, 2023.

Twelve respondents provided comments related to the "Other – Please explain" option.[2] Some respondents noted the importance of offering this option, and some selected this option because the survey did not show their total RUC owed before asking this question, so they were uncertain if they would be able to afford the full payment in a single installment.[3]

6.5.2.4 Willingness to Pay a Service Charge for Installment Payments

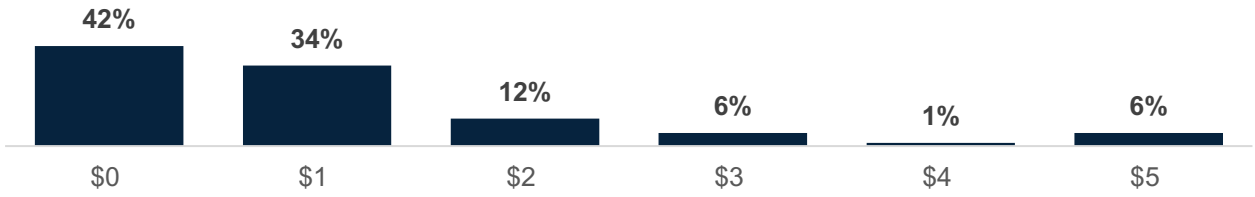
Exhibit 26 shows the proportions of statistically-valid panel respondents that would be willing to pay a service charge for an installment payment option (referred to as a "flexible payment"). Forty-two percent were unwilling to pay anything, and 34% were willing to pay $1 per payment.

2 The careful reader may note that 12 of the 105 respondents amounts to 11% of the respondents, rather than 5% shown in Exhibit 25. This discrepancy is due to the fact that this analysis weights the closed-ended responses but do not weight the analysis of the open-ended responses. On average, the 12 respondents who offered open-ended responses were weighted low compared to other respondents, which is why they amount to only 5% of the total response base for the closed-ended responses.

3 Prior to taking the survey, all survey participants had completed the RUC simulation, which showed their RUC owed. These individuals may have forgotten their RUC owed.

Exhibit 26. Statistically-Valid Simulation Participants: Service Charge that Participants are Willing to Pay for a Flexible Payment Option (n = 345)

Survey Question: "A flexible payment option could increase the administrative costs of a road usage charge. How much would you be willing to add to each of the 4 payments as a service charge to support this payment option?"



Sources: CDM Smith, 2023; Ipsos, 2023; BERK, 2023.

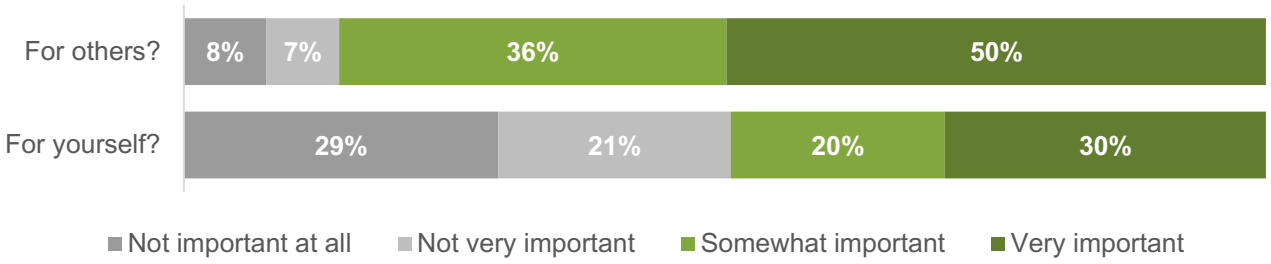
6.5.3 Income-Based Discounts

6.5.3.1 Importance of Income-Based Discounts

Exhibit 27 shows how statistically-valid panel respondents rate the importance of income-based discounts for themselves and for others. Half of respondents rated income-based discounts as important for themselves, and half rated them as not important. When asked about income-based discounts for others, most respondents (86%) reported that income-based discounts would be very or somewhat important.

Exhibit 27. Statistically-Valid Simulation Participants: Importance of Income-Based Discounts (n = 642 for others and n = 647 for yourself)

Survey Question: "How important would income-based discounts be in a road usage charge program:"



Sources: CDM Smith, 2023; Ipsos, 2023; BERK, 2023.

6.5.3.2 Reason for Importance of Installments

The survey asked all respondents the following questions about their responses to Exhibit 27: **"**Why (or why not) are income-based discounts important for yourself?" and "Why (or why not) are income-based discounts important for others?**"** 570 and 558 respondents, respectively, provided comments.

Regarding income-based discounts for themselves, most respondents offered comments that aligned with the following themes:

- **Need for discounts** due to a limited income, including due to retirement.
- **Uncertainty about thresholds for income-based discounts** and whether they would qualify.
- **No need for discounts** due to high income or their ability to afford RUC.

Regarding income-based discounts for others, many respondents noted that others may be unable to afford the RUC and gave the same reasons for why income-based discounts would be important for themselves. Some respondents noted that the RUC will disproportionately impact people with low incomes, especially given that people with low incomes are more likely to live in places with limited public transportation or depend on their vehicle for work, including driving for their jobs or living farther away from their places of employment.

Other notable responses to both questions included a suggestion that income should not impact RUC owed, and that RUC owed should simply be based on the number of miles that a resident drives.

6.5.3.3 Participant Enrollment in State Assistance Services

Exhibit 28 shows the proportions of statistically-valid panel respondents that report being currently enrolled in state assistance services. Most respondents (88%) are not currently enrolled in state assistance services.

The table below the chart shows an analysis of how responses differ by household income and RUC owed.

Exhibit 28. Statistically-Valid Simulation Participants: Participant Enrollment in State Assistance Services (n = 647)

Simulation Question: "To qualify for a discount, are you currently enrolled in any state assistance services such as Washington Supplemental Nutrition Assistance Program (SNAP), Apple Health (Medicaid), or Low-Income Home Energy Assistance Program (LIHEAP)?"

CROSSTAB	FINDING
Household income	More than one-third (37%) of respondents with household incomes below $50,000 are enrolled in a state assistance service and one in eight (12%) of respondents with household incomes between $50,000 and $99,999 are enrolled in state assistance services, compared to 3% of respondents with household incomes of $100,000 or more.
RUC owed	A greater proportion of respondents who owed less than $1 in RUC are enrolled in a state assistance service than respondents who owed RUC of $1 or more (28% versus 4%).

Note: Additional crosstabs by residence in a rural or urban ZIP revealed no notable patterns or differences.

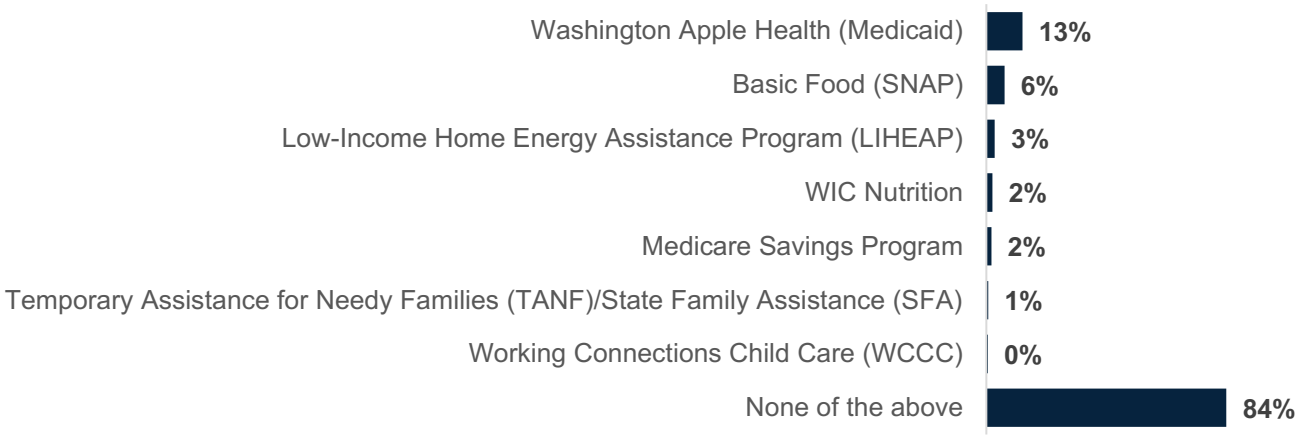
Sources: CDM Smith, 2023; Ipsos, 2023; BERK, 2023.

6.5.3.4 Specific State Assistance Programs Enrollment by Participants

Exhibit 29 shows the proportions of statistically-valid panel respondents enrolled in a range of state income-based programs. Most respondents reported that they are not enrolled in any income-based programs (84%), and the most common program that respondents reported they were enrolled in was Washington Apple Health (Medicaid) (13%).

Exhibit 29. Statistically-Valid Simulation Participants: Enrollment in State Income-Based Programs (n = 612)

Survey Question: "The simulation introduced the concept of a discount for vehicle owners who qualify for state services based on income. Please identify which, if any, programs you are enrolled in."



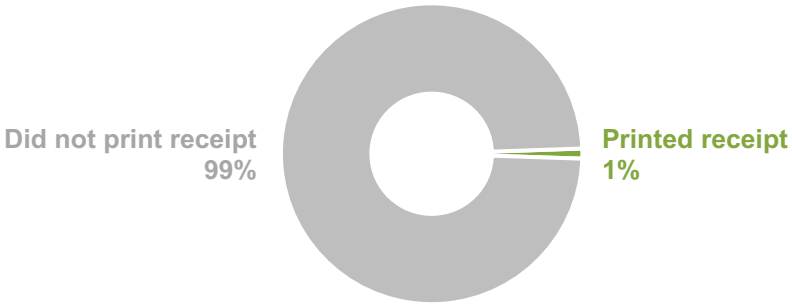
Sources: CDM Smith, 2023; Ipsos, 2023; BERK, 2023.

6.5.4 Invoice and Receipt

6.5.4.1 Printed Receipts

Exhibit 30 shows the proportions of statistically-valid panel respondents that printed or did not print a receipt for their RUC payment. Almost all respondents (99%) did not print a receipt.

Exhibit 30. Statistically-Valid Simulation Participants: Number of Participants who Printed a Receipt (n = 649)



Note: Crosstabs by household income, residence in a rural or urban ZIP, and amount of RUC owed revealed no notable patterns or differences.

Sources: CDM Smith, 2023; Ipsos, 2023; BERK, 2023.

6.5.4.2 Invoice Clarity

Exhibit 31 shows the proportions of statistically-valid panel respondents that identify that something should or should not be added to or removed from the invoice summary. Most respondents (88%) reported that nothing had to be added or removed from the invoice summary to make it easier to understand.

Exhibit 31. Statistically-Valid Simulation Participants: Suggestion to Make Additions to or Removals from Invoice Summary (n = 642)

Survey Question: "Is there anything that could be added to or removed from the invoice summary to make it easier to understand?"

Sources: CDM Smith, 2023; Ipsos, 2023; BERK, 2023.

For respondents who indicated something could be added or removed from the invoice summary, the survey asked: "What could be added or removed from the invoice summary to make it easier to understand?" 75 respondents answered this question. The following bullets provide summarize respondents' suggestions for more information:

- Explanation of the calculation method for estimated gas taxes paid.
- Information about how to correct information like vehicle MPG.
- Explanation of the purpose of the transaction fee.
- Total miles reported in prior years.

6.6 Simulation Experiences

The survey asked respondents to provide feedback on their experience participating in the RUC simulation. The following sections provide an overview of participant input.

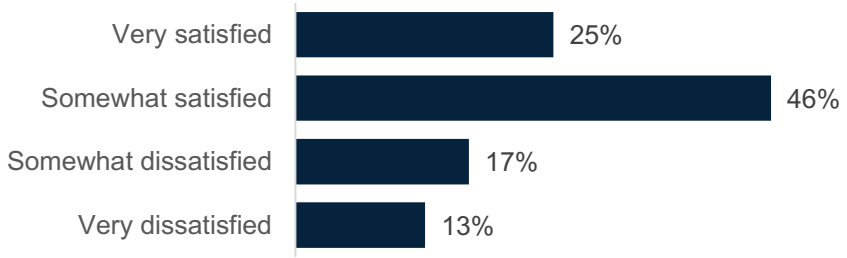
6.6.1 Overall Simulation Experience

6.6.1.1 General Satisfaction with Simulation Process

Exhibit 32 shows how statistically-valid panel respondents rate their general satisfaction with the RUC payment and reporting process presented in the simulation. Most respondents (71%) reported that they were very or somewhat satisfied with the payment and reporting process presented in the simulation, while 30% of respondents reported that they were somewhat or very dissatisfied with the process.

Exhibit 32. Statistically-Valid Simulation Participants: General Satisfaction with the RUC Payment and Reporting Process in the Simulation (n = 639)

Survey Question: "Rate your general satisfaction with the road usage charge payment and reporting process presented in the simulation."



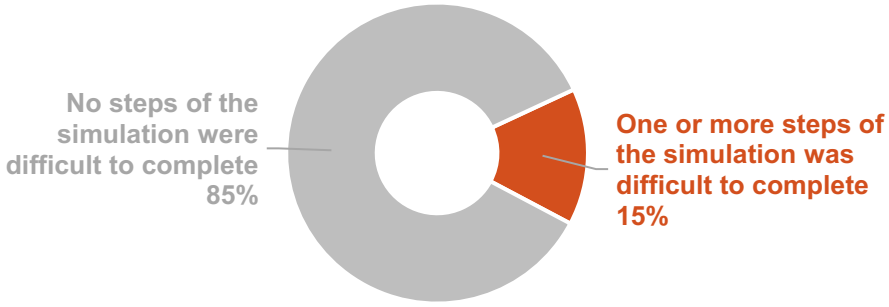
Sources: CDM Smith, 2023; Ipsos, 2023; BERK, 2023.

6.6.1.2 Ease of Use of the Simulation

Exhibit 33 shows the proportions of statistically-valid panel respondents who identify that no steps or at least one step of the simulation was difficult to complete. Most respondents (85%) reported that none of the simulation steps were difficult to complete.

Exhibit 33. Statistically-Valid Simulation Participants: Ease of Use of the Simulation (n = 646)

Survey Question: "Were any steps of the road usage charge reporting and payment simulation difficult to complete?"



Sources: CDM Smith, 2023; Ipsos, 2023; BERK, 2023.

For respondents who indicated that "one or more steps of the simulation was difficult to complete," the survey asked: "Which parts were difficult?" 88 respondents answered this question. The most frequent response described difficulty with taking and uploading a photo to verify their odometer reading, including uncertainty with how to upload a photo without a smartphone or how to get a photo from a phone to the computer.[4] Some respondents expressed difficulty with calculating out-of-state mileage, including lack of clarity around exemption requirements. A few respondents also did not know how to calculate exemptions for miles driven on private roads.

Other notable responses that highlight design challenges include:

- **Unclear explanation of benefits related to each mileage reporting option.** One respondent expressed confusion with the choices for mileage reporting without explanation of the benefits of each option.
- **Learning curve in understanding program options.** One respondent noted that reading the FAQs was time-consuming and that it was not easy to decide which reporting and payment option would be least burdensome.
- **Lack of mileage reporting in kilometers.** One respondent noted that their car is from Canada and there wasn't an option to upload mileage in kilometers.

Respondents from the organically-recruited user group offered some additional points of difficulty. A few respondents said that they had purchased their vehicle within the past year and there was no way for them to report their miles driven with their previous vehicle. A few respondents noted that the MPG reported by the simulation was not consistent with what their car reports. A few sought clarity about why some of the reporting methods would come at a cost to users, observing that only the self-reported option was free. Two respondents with Teslas were unable to photograph their odometers because these cars do not have traditional odometers.

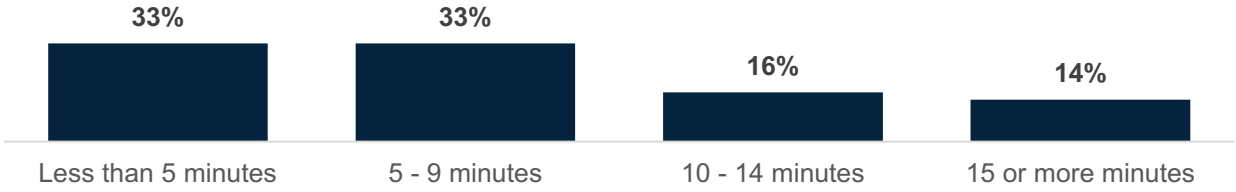
4 For participants who selected the option to immediately upload a photo to verify their odometer reading, the simulation provided a pop-up message that indicated that participants were not expected to actually upload their photo for the simulation, but that they could do so in a real RUC program.

6.6.1.3 Time to Complete the Simulation

Exhibit 34 shows the amount of time that statistically-valid panel respondents report having spent to complete the simulation. One third (33%) of respondents reported taking less than five minutes, one third (33%) of respondents reported taking five to nine minutes, and the remaining respondents (30%) reported taking 10 minutes or more.

Exhibit 34. Statistically-Valid Simulation Participants: Self-Reported Minutes to complete the Simulation (n = 649)

Survey Question: "Approximately how many minutes did it take for you to complete the road usage charge reporting and payment simulation?"



Sources: CDM Smith, 2023; Ipsos, 2023; BERK, 2023.

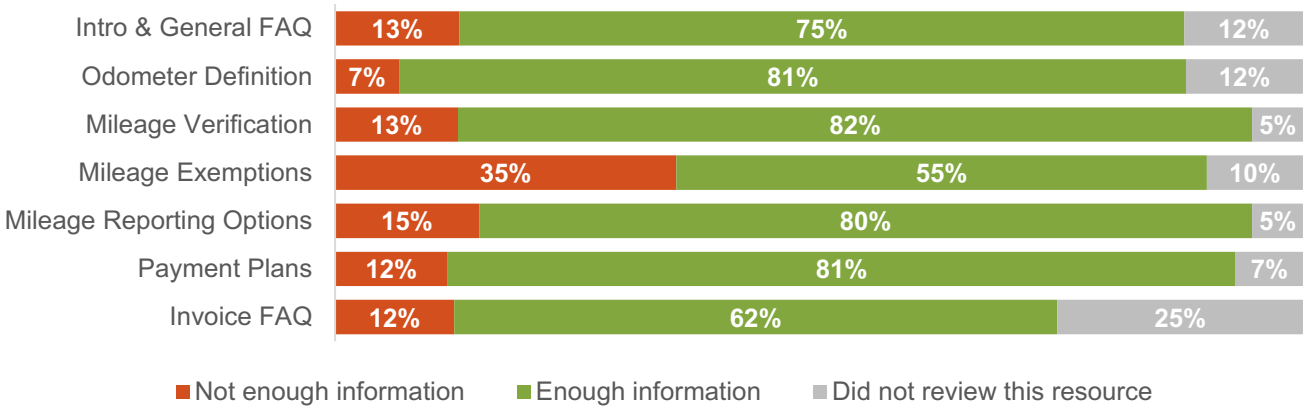
6.6.2 Usefulness of Information Provided

6.6.2.1 Adequacy of Information Provided in the Simulation

Exhibit 35 shows how statistically-valid panel respondents rate the adequacy of information provided regarding specific components of the simulation. For each component of the simulation, most respondents reported that they had enough information. The simulation component with the highest proportion of respondents (35%) who reported that they did not have enough information was "Mileage Exemptions." For all other components, no more than 15% of respondents did not have enough information.

Exhibit 35. Statistically-Valid Simulation Participants: Adequacy of Information Provided Regarding Specific Components of the Simulation (n = 642 to 645 per option)

Survey Question: "Listed below are some components of the simulation that you just completed. Please tell us whether each resource provided enough information or not enough information for you to understand road usage charge reporting and payment."



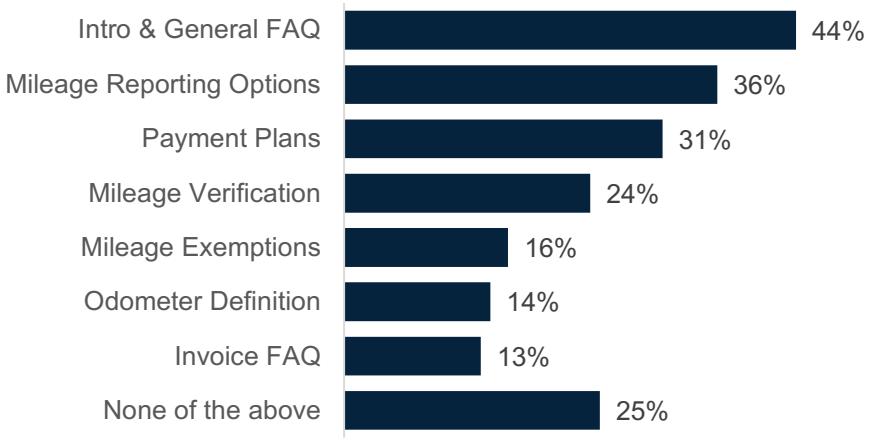
Sources: CDM Smith, 2023; Ipsos, 2023; BERK, 2023.

6.6.2.2 Most Helpful Resources in the Simulation

Exhibit 36 shows the proportions of statistically-valid panel respondents that found each of the simulation resources to be helpful. The resource that was helpful to the highest proportion of respondents (44%) was the Intro and General FAQ, and all other resources were seen as helpful by a maximum of approximately one-third of respondents. One quarter (25%) of respondents did not find any of the resources to be helpful.

Exhibit 36. Statistically-Valid Simulation Participants: Most Helpful Resources in the Simulation (n = 645)

Survey Question: “Which of the following resources from the simulation did you find to be most helpful? Select all that apply.”



Sources: CDM Smith, 2023; Ipsos, 2023; BERK, 2023.

6.7 Demographics

As in all of the previous sections of this report, this section presents findings from the weighted response group.

6.7.1 Residence Location

6.7.1.1 Interior or Border County

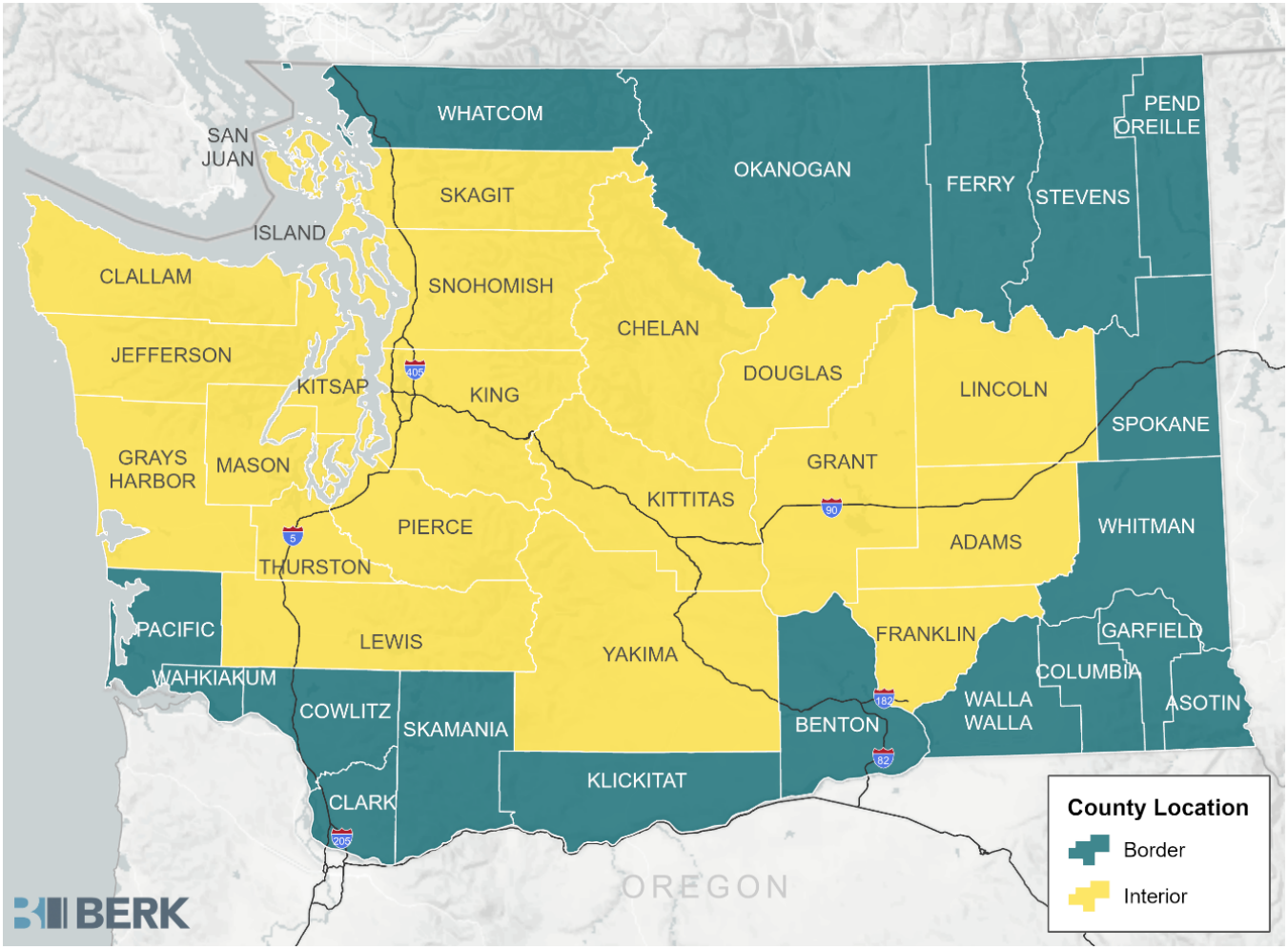
Exhibit 37 shows the proportions of statistically-valid panel respondents who live in counties in the interior or border of the state.

Exhibit 37. Statistically-Valid Simulation Participants: Interior or Border County (n = 648)

Sources: CDM Smith, 2023; Ipsos, 2023; BERK, 2023.

Exhibit 38 indicates the counties classified as “interior” or “border.” Over two-thirds (70%) of respondents live in interior counties and about one-third (30%) live in border counties.

Exhibit 38. Classification of Counties as Interior or Border

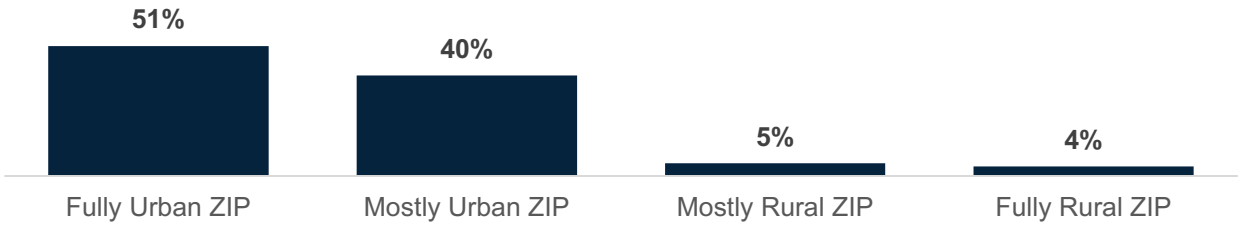


Sources: BERK, 2023.

6.7.1.2 Rural or Urban Location ZIP Code

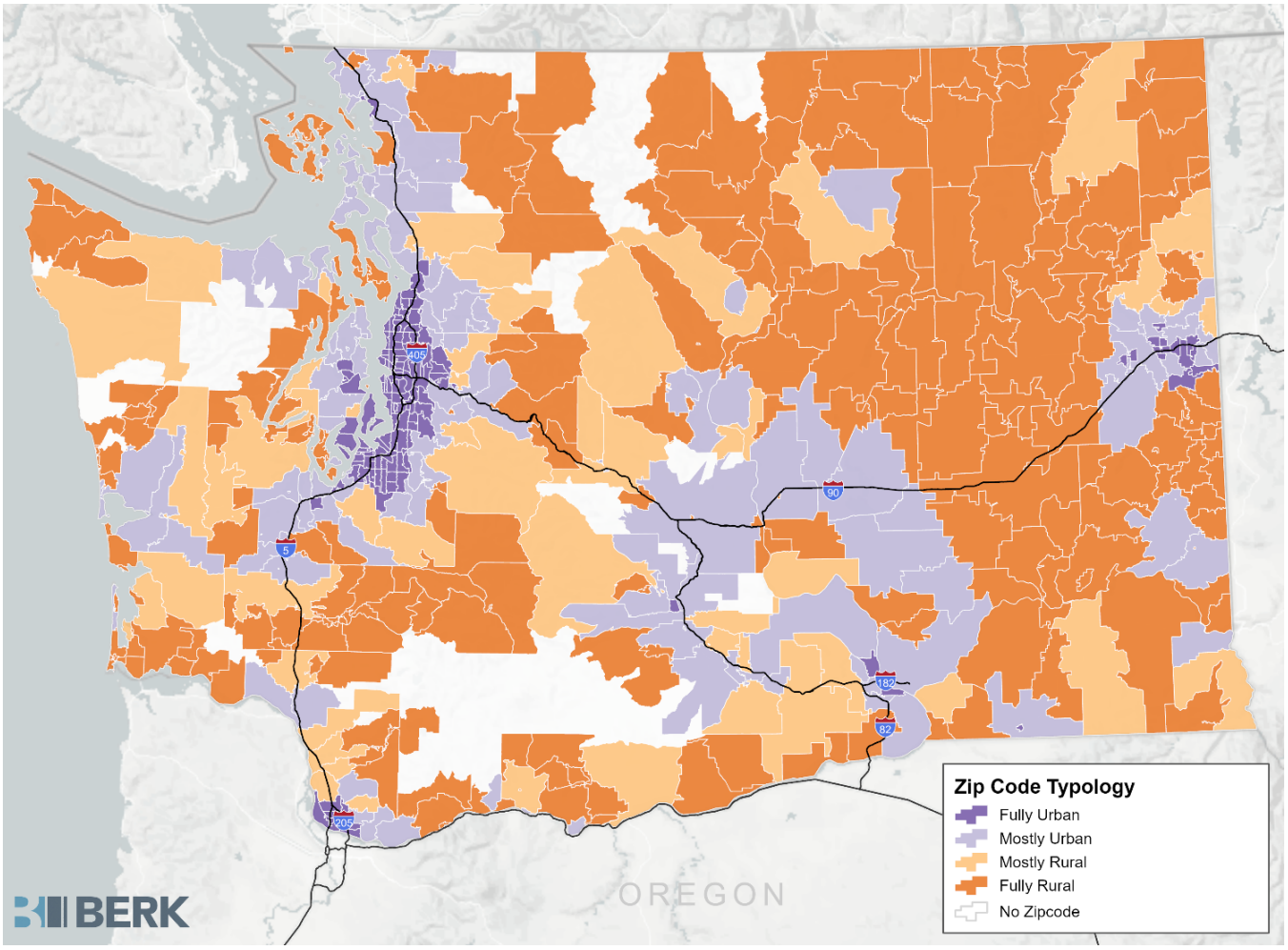
Exhibit 39 shows the proportions of statistically-valid panel respondents who live in ZIP codes that are fully urban, mostly urban, mostly rural, or fully rural.

Exhibit 39. Statistically-Valid Simulation Participants: Rural or Urban (n = 649)



Sources: CDM Smith, 2023; Ipsos, 2023; BERK, 2023.

Exhibit 40 shows the classification of each ZIP code into these categories. Most respondents (91%) live in fully or mostly urban zip codes. Exhibit 40. Classification of ZIP Codes as Fully Urban, Mostly Urban, Mostly Rural, or Fully Rural



Note: To classify respondents' ZIP codes in this way, the analysis considered the ZIP code's distance to the nearest city of at least 25,000 people; the population density of the ZIP code; and the proportion of each ZIP code's residents that live in a census-defined "urbanized area."

Sources: BERK, 2023.

6.7.1.3 Eastern or Western Washington County

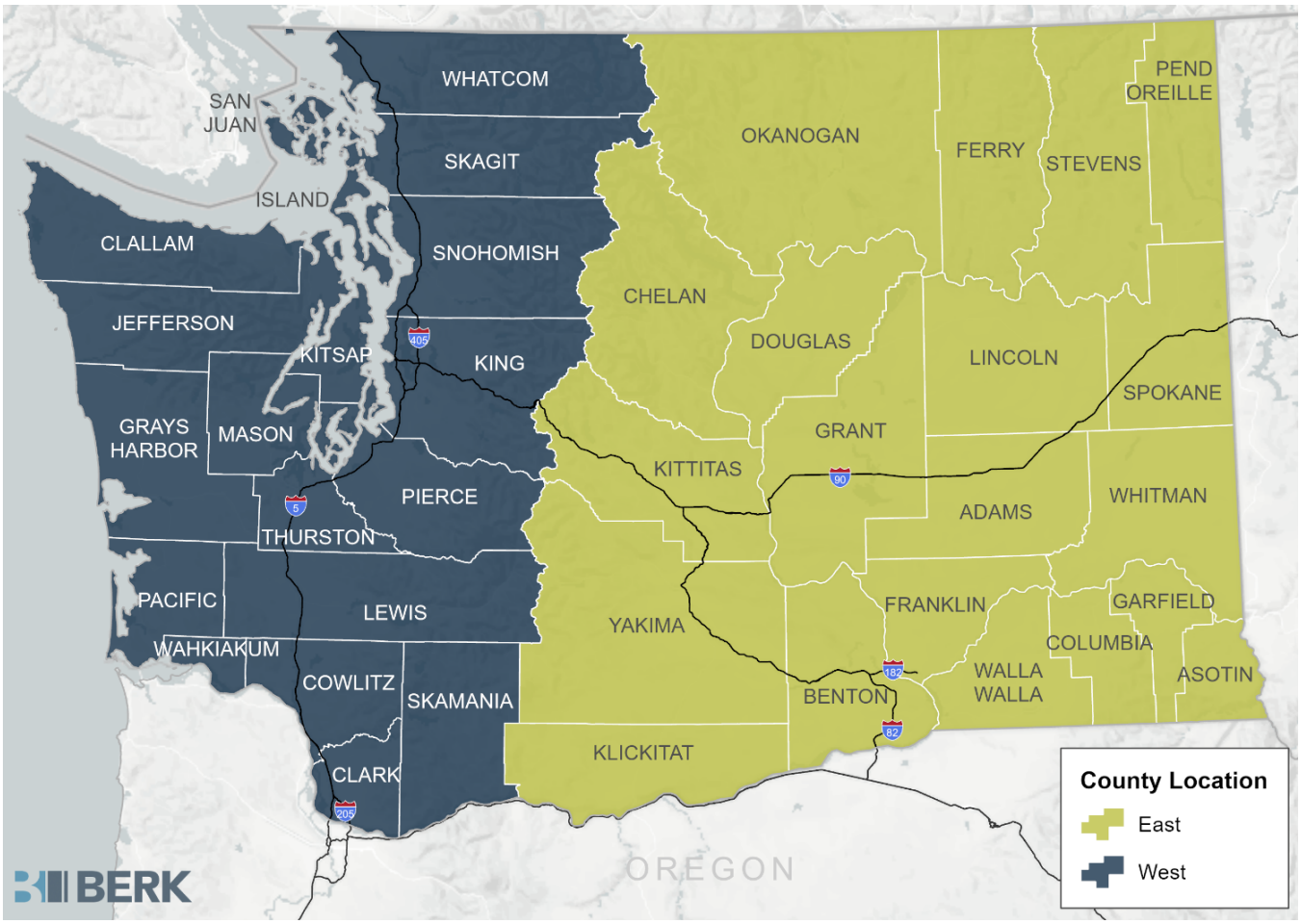
Exhibit 41 shows the proportions of statistically-valid panel respondents who live in a county in western or eastern Washington.

Exhibit 41. Statistically-Valid Simulation Participants: East or West County (n = 648)

Sources: CDM Smith, 2023; Ipsos, 2023; BERK, 2023.

Exhibit 42 shows the split between eastern and western Washington. Most respondents (80%) live in western counties and 20% live in eastern counties.

Exhibit 42. Classification of Counties as East or West



Sources: BERK, 2023.

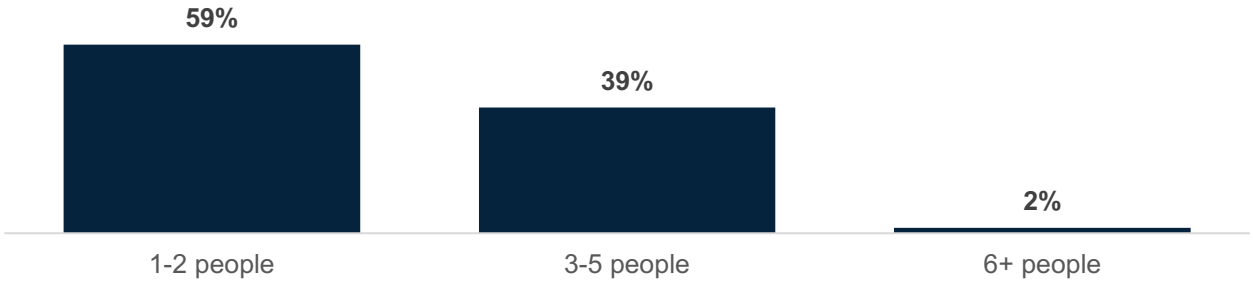
6.7.2 Household Characteristics

6.7.2.1 Household Size

Exhibit 43 shows the proportions of statistically-valid panel respondents living in households with 1-2 people, 3-5 people, or 6+ people. Over half of respondents live in households with one-to-two people (59%), 39% live in households with three-to-five people, and 2% of respondents live in households with six or more people.

Exhibit 43. Statistically-Valid Simulation Participants: Household Size (n = 649)

Recruitment Survey Question: "Including yourself, how many people currently live in your household?"



Sources: CDM Smith, 2023; Ipsos, 2023; BERK, 2023.

6.7.2.2 Households with Children

Exhibit 44 shows the proportions of statistically-valid panel respondents with 0, 1, 2, or 3+ people under the age of 18 in their households. Most respondents (71%) live in households with no people under the age of 18.

Exhibit 44. Statistically-Valid Simulation Participants: Number of Members of Household Under the Age of 18 (n = 648)

Survey Question: "Of the people in your household, how many are under the age of 18?"

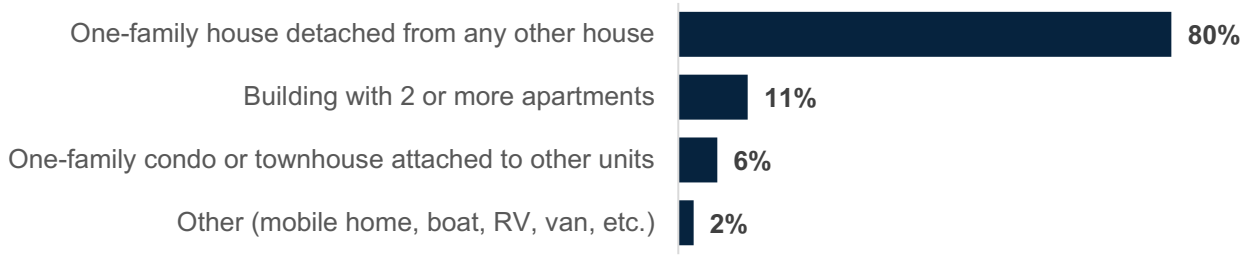
Sources: CDM Smith, 2023; Ipsos, 2023; BERK, 2023.

6.7.2.3 Housing Type

Exhibit 45 shows the proportions of statistically-valid panel respondents living in each of three types of housing or an "other" type of housing. Most respondents (80%) live in one-family houses detached from any other house.

Exhibit 45. Statistically-Valid Simulation Participants: Housing Type (n = 648)

Survey Question: "Which of the following best describes the type or style of housing where you live?"



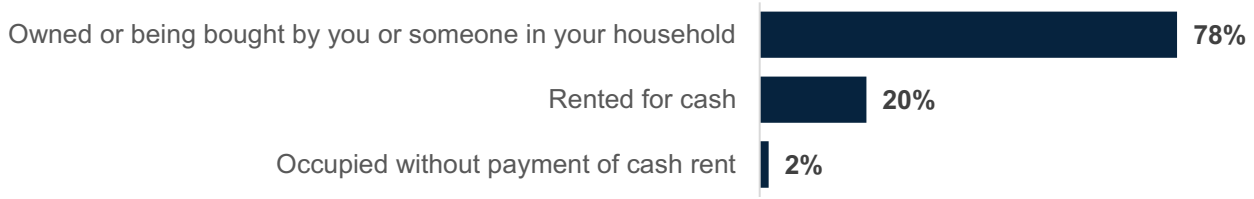
Sources: CDM Smith, 2023; Ipsos, 2023; BERK, 2023.

6.7.2.4 Housing Tenure

Exhibit 46 shows the proportions of statistically-valid panel respondents that pay for their housing in each of three different methods. Most respondents (78%) live in a household where they or someone in their household owns or is in the process of buying the housing unit.

Exhibit 46. Statistically-Valid Simulation Participants: Housing Tenure (n = 649)

Survey Question: "Which of the following best describes how you pay for housing?"



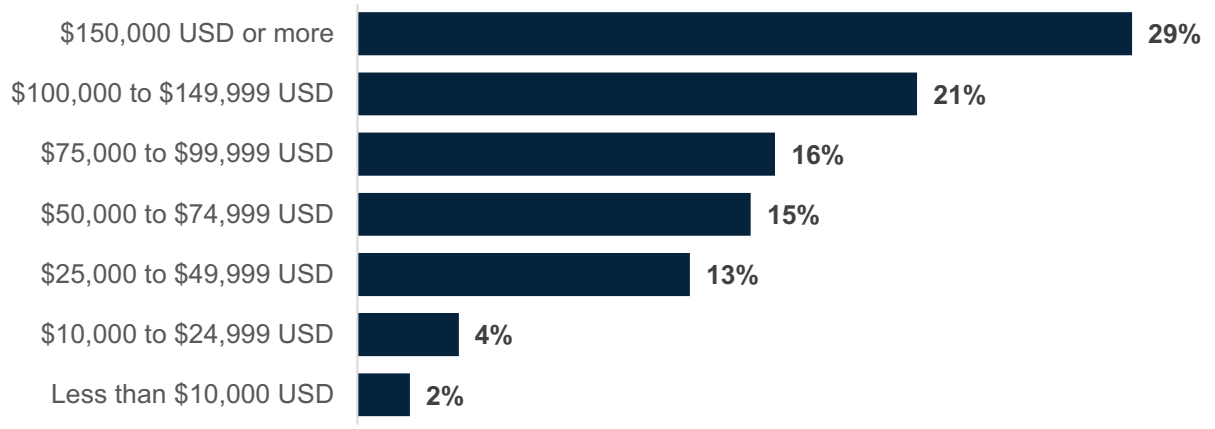
Sources: CDM Smith, 2023; Ipsos, 2023; BERK, 2023.

6.7.2.5 Household Income

Exhibit 47 shows the proportions of statistically-valid panel respondents with each of seven different household income ranges for 2021. Greater proportions of respondents have higher household incomes. Half of respondents (50%) have household incomes of $100,000 or more, with 29% of respondents having household incomes of $150,000 or more.

Exhibit 47. Statistically-Valid Simulation Participants: Total Household Income for 2021 (n = 649)

Recruitment Survey Question: “Which of the following represents your total household income for 2021?”



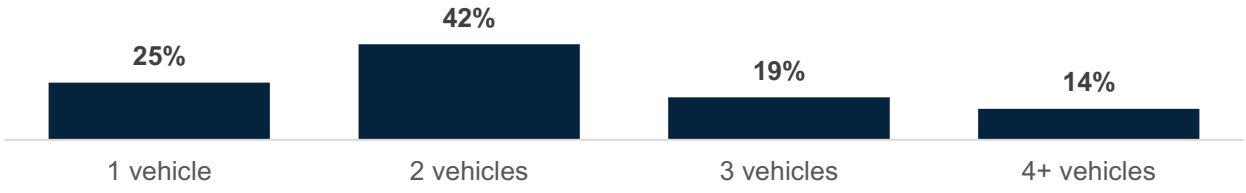
Sources: CDM Smith, 2023; Ipsos, 2023; BERK, 2023.

6.7.2.6 Number of Vehicles Owned

Exhibit 48 shows the proportions of statistically-valid panel respondents with 1, 2, 3, or 4+ vehicles owned or leased by members of their household. Two in five (42%) respondents reported having two vehicles in their household, one-third (33%) have three or more vehicles, and one-quarter (25%) have one vehicle.

Exhibit 48. Statistically-Valid Simulation Participants: Number of Vehicles Owned or Leased by Members of Household (n = 649)

Survey Question: “How many automobiles, vans, or trucks are kept at home for use by you and members of your household?”



Sources: CDM Smith, 2023; Ipsos, 2023; BERK, 2023.

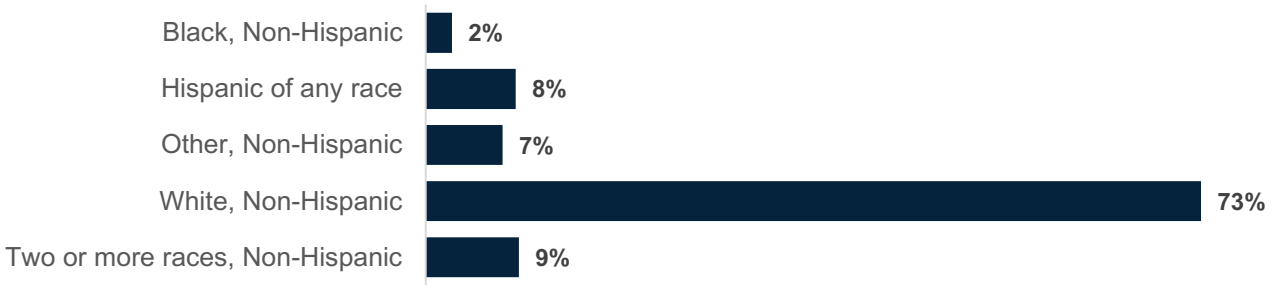
6.7.3 Personal

6.7.3.1 Race and Ethnicity

Exhibit 49 shows the proportions of statistically-valid panel respondents who identify with each of five different racial/ethnic categories. Most respondents (73%) selected “White, Non-Hispanic" as the racial or ethnic group they identify most with.

Exhibit 49. Statistically-Valid Simulation Participants: Race or Ethnicity of Participants (n = 649)

Recruitment Survey Question: “Which racial or ethnic group do you consider yourself a part of or feel closest to?”



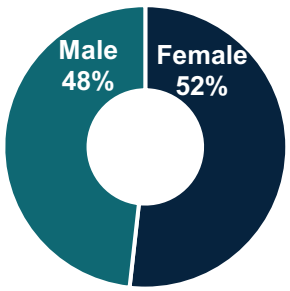
Sources: CDM Smith, 2023; Ipsos, 2023; BERK, 2023.

6.7.3.2 Gender Identity

Exhibit 50 shows the proportions of statistically-valid panel respondents who identify as male or female. Approximately half of respondents identify as male (48%) and half as female (52%).

Exhibit 50. Statistically-Valid Simulation Participants: Gender Identity of Participants (n = 649)

Recruitment Survey Question: “What is your gender identity?



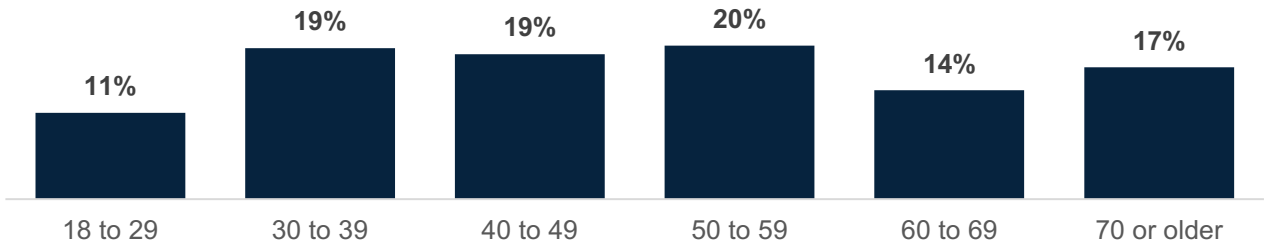
Sources: CDM Smith, 2023; Ipsos, 2023; BERK, 2023.

6.7.3.3 Age

Exhibit 51 shows the proportions of statistically-valid panel respondents in each of six different age ranges. Respondents were fairly evenly divided between age groups, with the most common age being 50 to 59 (20%).

Exhibit 51. Statistically-Valid Simulation Participants: Age of Participants (n = 648)

Recruitment Survey Question: "What is your age?"



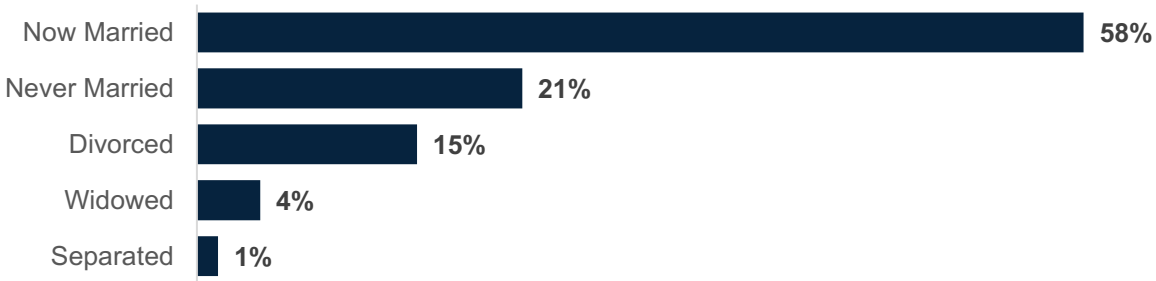
Sources: CDM Smith, 2023; Ipsos, 2023; BERK, 2023.

6.7.3.4 Marital Status

Exhibit 52 shows the proportions of statistically-valid panel respondents who identify with each of five different marital statuses. Over half of respondents reported that they are currently married (58%). Most of the remaining respondents reported that they were either never (21%) or divorced (15%).

Exhibit 52. Statistically-Valid Simulation Participants: Marital Status of Participants (n = 648)

Survey Question: "Which of the following best describes your marital status?"



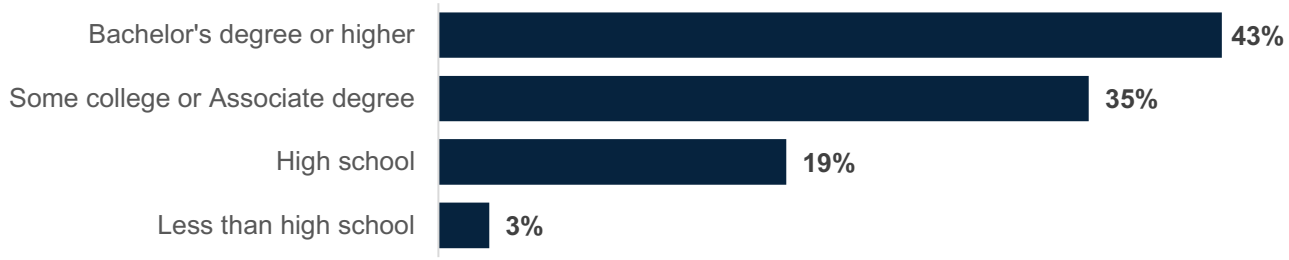
Sources: CDM Smith, 2023; Ipsos, 2023; BERK, 2023.

6.7.3.5 Education

Exhibit 53 shows the proportions of statistically-valid panel respondents with each of four levels of educational attainment. About two in five (43%) respondents reported having completed a bachelor's degree or higher, about one third (35%) of respondents reported having completed some college or an associate degree, and the remaining one-quarter (22%) respondents reported having completed a high school education or less.

Exhibit 53. Statistically-Valid Simulation Participants: Educational Attainment of Participants (n = 648)

Survey Question: "What is the highest degree or level of schooling that you have completed?"



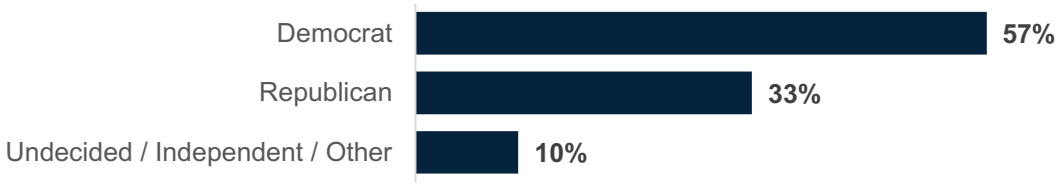
Sources: CDM Smith, 2023; Ipsos, 2023; BERK, 2023.

6.7.4 Politics

6.7.4.1 Political Party Affiliation

Exhibit 54 shows the proportions of statistically-valid panel respondents that identify with each of three political party affiliations. Over half of respondents identified as affiliated with the Democratic party (57%), one third identified as affiliated with the Republican party (33%), and only 10% identified as undecided, independent, or other.

Exhibit 54. Statistically-Valid Simulation Participants: Political Party Affiliation (n = 649)



Sources: CDM Smith, 2023; Ipsos, 2023; BERK, 2023.

6.7.4.2 Political Ideology

Exhibit 55 shows the proportions of statistically-valid panel respondents that identify with each of three different political ideologies. Almost half (46%) of respondents identified as liberal and about one-quarter identified as each of conservative (28%) or moderate (25%).

Exhibit 55. Statistically-Valid Simulation Participants: Political Ideology (n = 631)

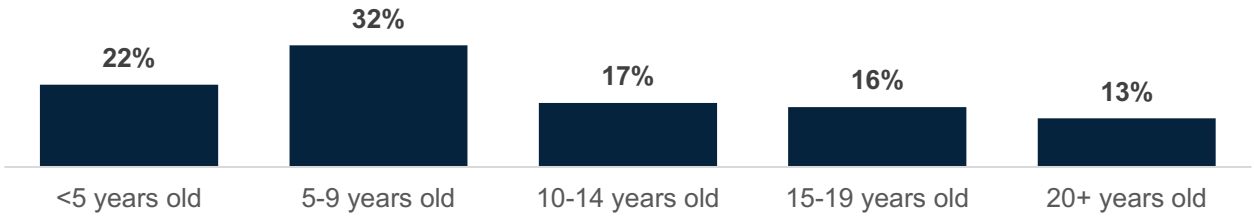
Sources: CDM Smith, 2023; Ipsos, 2023; BERK, 2023.

6.7.5 Vehicle Information

6.7.5.1 Vehicle Age

Exhibit 56 shows the proportions of statistically-valid panel respondents with vehicles in each of five different age ranges. The largest proportion of respondents (32%) reported their vehicle age as 5 to 9 years old, one-quarter (22%) reported their vehicle age as less than 5 years old, and the remaining one-half of respondents' vehicles were fairly evenly divided between the three brackets of 10-14, 15-19, and 20+ years old.

Exhibit 56. Statistically-Valid Simulation Participants: Age of Vehicles (n = 635)

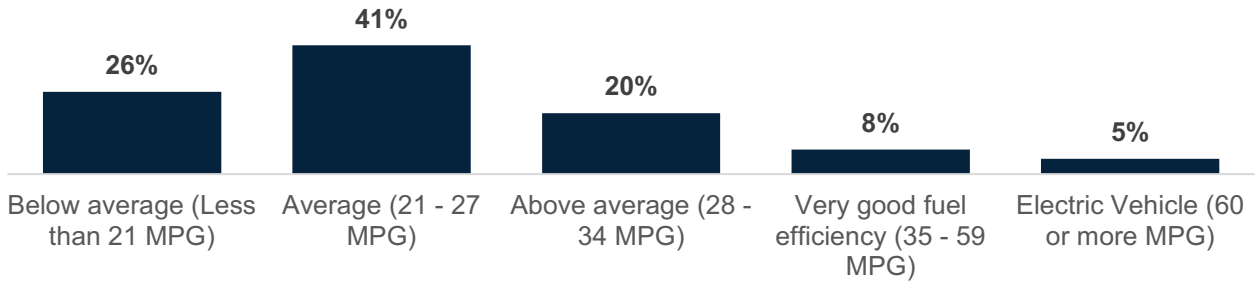


Sources: CDM Smith, 2023; Ipsos, 2023; BERK, 2023.

6.7.5.2 Vehicle MPG

Exhibit 57 shows the proportions of statistically-valid panel respondents with vehicles with five different ranges of MPG as calculated by the simulation. About two in five (41%) respondents drive vehicles with average gas mileage, one-quarter (26%) drive vehicles with below average gas mileage, and 20% drive vehicles with above average gas mileage. Few respondents (13%) drive vehicles with 35 or more MPG.

Exhibit 57. Statistically-Valid Simulation Participants: MPG of Vehicles (n = 649)



Note: Vehicle MPG calculated automatically, per fuel economy estimates from the US Environmental Protection Agency.

Sources: CDM Smith, 2023; Ipsos, 2023; BERK, 2023.

6.7.6 Vehicle Mileage

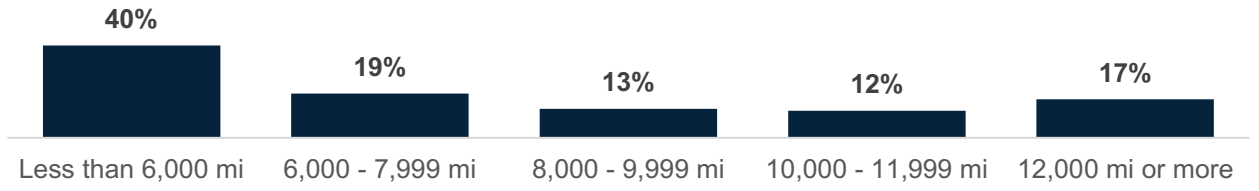
6.7.6.1 Miles Driven over Previous 12 Months

Exhibit 58 shows the proportions of statistically-valid panel respondents that drove different ranges of miles in the previous 12 months. The largest proportion of respondents (40%) drove less than 6,000 miles in the last 12 months. The remaining 60% of respondents were fairly evenly distributed among two-thousand-mile brackets from 6,000 to 12,000 or more miles.

The table below the chart shows an analysis of how responses differ by RUC owed.

Exhibit 58. Statistically-Valid Simulation Participants: Estimated Miles Driven over Previous 12 Months (n = 647)

Simulation Question: “Estimated miles driven over previous 12 months”



CROSSTAB	FINDING
RUC owed	In general, respondents who owed more in RUC reported having driven more miles in the past 12 months.

Note: Crosstabs by household income and rural or urban ZIP revealed no notable patterns or differences.

Sources: CDM Smith, 2023; Ipsos, 2023; BERK, 2023.

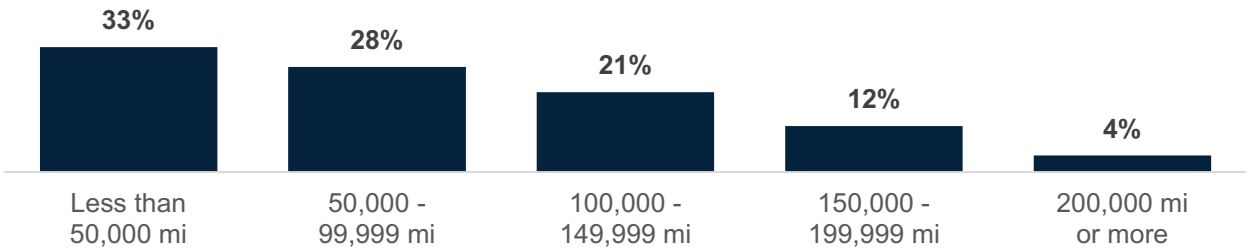
6.7.6.2 Current Mileage on Vehicle

Exhibit 59 shows the proportions of statistically-valid panel respondents with several ranges of current mileage on their vehicle odometers. More respondents had vehicles with lower odometer readings. The largest proportion of respondents (33%) had vehicles with less than 50,000 miles on their odometer.

The table below the chart shows an analysis of how responses differ by household income and rural or urban ZIP.

Exhibit 59. Statistically-Valid Simulation Participants: Current Mileage on Vehicle (n = 648)

Simulation Question: "What is the current mileage on your vehicle's odometer?"



CROSSTAB	FINDING
Household income	In general, higher proportions of respondents with lower incomes drive cars with higher mileage than do respondents with higher incomes.
Rural or urban ZIP	In general, higher proportions of urban respondents drive vehicles with lower mileage while higher proportions of rural respondents drive vehicles with higher mileage.

Note: Crosstabs by RUC owed revealed no notable patterns or differences.

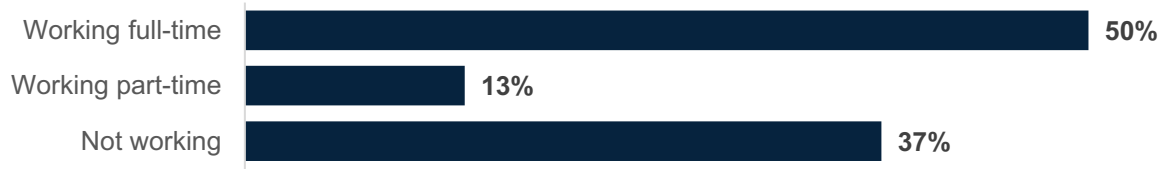
Sources: CDM Smith, 2023; Ipsos, 2023; BERK, 2023.

6.7.7 Employment

Exhibit 60 shows the proportions of statistically-valid panel respondents that work full-time, part-time, or do not work. Half of respondents (50%) report that they work full-time, more than one-third (37%) report that they are not working, and the remaining 13% report that they work part-time.

Exhibit 60. Statistically-Valid Simulation Participants: Current Employment Status (n = 649)

Survey Question: “What is your current employment status?”



Sources: CDM Smith, 2023; Ipsos, 2023; BERK, 2023.

7.0 ORGANICALLY-RECRUITED SURVEY RESULTS

This appendix presents unweighted findings from the organically-recruited user group. Given these respondents self-selected to engage in this RUC research, they may have had interest in or prior exposure to the concept of RUC in Washington, which may have impacted their responses.

A crosstab analysis was conducted of the same questions as was in the analysis of the statistically-valid user group presented in the prior section of this document. In many cases, this crosstab analysis revealed the same patterns as in with the statistically-valid user group. The information below addresses only the areas where there are differences between the statistically-valid user group and the organically-recruited user group.

Differences in the open-ended comments are included in the In-Depth Findings section of this report in the relevant topical subsections. Overall, the most themes from the two user groups aligned. However, there was one high-level difference in the tone of comments between the two groups: respondents from the statistically-valid user group were generally more wary of government and less favorable toward a RUC program than the organically-recruited respondents. This difference aligns with the nature of the two user groups, given that many of the organically-recruited respondents were from a previous WA RUC mailing list and have opted into a survey about RUC, and many have had prior education about transitioning to a RUC in Washington.

7.1 RUC Opinions

7.1.1 Level of Support for RUC

Exhibit 61 shows organically-recruited respondents' level of support or opposition for transitioning from a state gas tax to a RUC. Nearly twice as many organically-recruited respondents support transitioning to a RUC (86%) than do statistically-valid panel respondents (56%).

The following crosstabs for the organically-recruited respondents differed from the crosstabs for the statistically-valid panel respondents:

- **East or west county:** There was no notable pattern or difference in findings between respondents who reside in east or west counties.
- **RUC owed:** Perhaps counterintuitively, greater proportions of respondents who owe higher amounts of RUC support RUC, ranging from 82% supportive for respondents with RUC payments between $1 and $24 to 95% for respondents with RUC payments of $150 or more.

Exhibit 61. Organic-Recruit Simulation Participants: Support for Transitioning from State Gas Tax to a RUC (n = 464)

Survey Question: "How supportive are you of transitioning from funding roads through the state gas tax based on gallons purchased to a road usage charge based on miles driven?"

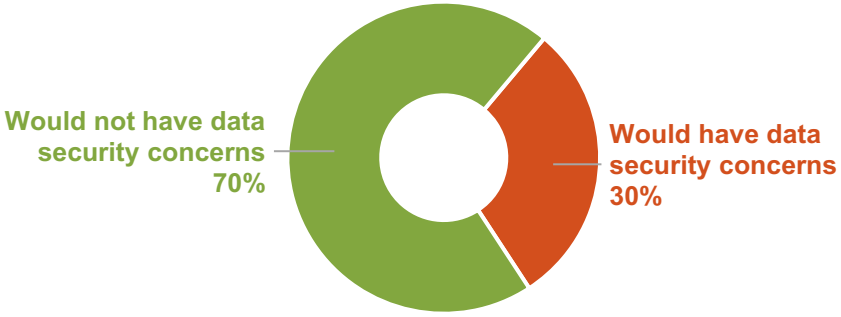
Sources: CDM Smith, 2023; BERK, 2023.

7.1.2 Data Security Concerns

Exhibit 62 shows the proportion of organically-recruited respondents who would and would not have data security concerns with RUC. Fewer organically-recruited respondents have concerns (30%) than do statistically-valid panel respondents (54%) (see Exhibit 6).

Exhibit 62. Organic-Recruit Simulation Participants: Data Security Concerns with RUC (n = 464)

Survey Question: “Would you have any data security concerns if the state of Washington implemented a road usage charge reporting and payment system like the simulation you just completed?”



Sources: CDM Smith, 2023; BERK, 2023.

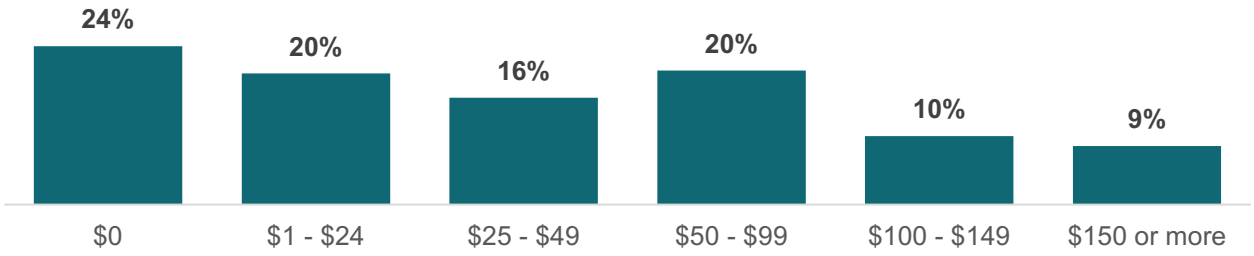
7.2 RUC Owed and Estimated Gas Tax Paid

7.2.1 Net RUC Owed

Exhibit 63 shows the proportions of organically-recruited respondents that owed several ranges of RUC amounts for the past 12 months, as calculated automatically by the simulation. A higher proportion of organically-recruited respondents paid higher amounts of RUC than do statistically-valid panel respondents: 66% of organically-recruited respondents owed $25 or more, compared to 35% of statistically-valid panel respondents (see Exhibit 7).

Crosstabs by household income for the organically-recruited respondents differed from the statistically-valid panel respondents: Higher rates of respondents with incomes below $100,000 owed less than $1 in RUC (32%) than respondents with incomes of $100,000 or more (19%), while higher rates of respondents with incomes of $100,000 or more owed $150 or more in RUC (14%) than respondents with incomes below $100,000 (4%).

Exhibit 63. Organic-Recruit Simulation Participants: RUC Paid by Participants (n = 461)



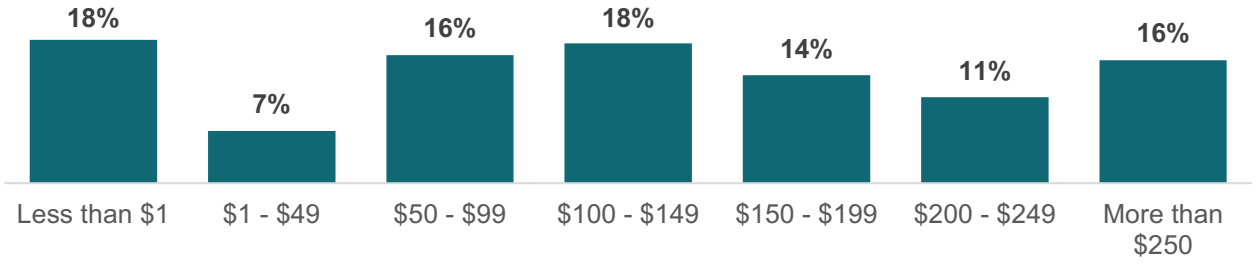
Sources: CDM Smith, 2023; BERK, 2023.

7.2.2 Gas Taxes Paid

Exhibit 64 shows the proportions of organically-recruited respondents that paid several ranges of gas taxes over the past 12 months, as calculated automatically by the simulation. A higher proportion of organically-recruited respondents had paid less than $1 (18%) than did statistically-valid panel respondents (7%).

Crosstabs by rural or urban ZIP code for the organically-recruited respondents differed from the statistically-valid panel respondents (see Exhibit 8): for organically-recruited respondents, there was no notable patterns or difference by rural or urban ZIP.

Exhibit 64. Organic-Recruit Simulation Participants: Estimated Gas Taxes Paid by Participants (n = 463)



Sources: CDM Smith, 2023; BERK, 2023.

7.3 Mileage Reporting

7.3.1 Method of Odometer Photo Submission

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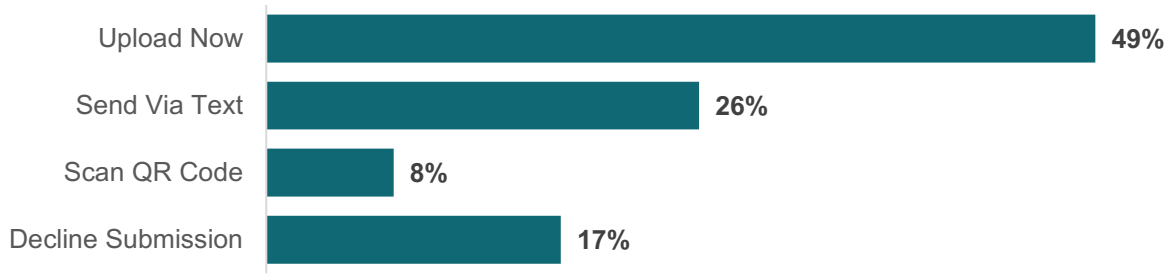
Exhibit 65 shows the proportions of organically-recruited respondents that selected each of three odometer photo submission methods or that declined to submit a photo. A lower proportion of organically-recruited respondents declined submission (17%) than do statistically-valid panel respondents (55%) (see Exhibit 9).

The following crosstabs for the organically-recruited respondents differed from the crosstabs for the statistically-valid panel respondents:

- **Household income:** Respondents with lower incomes opted to immediately upload an odometer photo or declined to submit at higher rates than respondents with higher incomes. Respondents with higher incomes opted to scan a QR code at higher rates than respondents with lower incomes.
- **RUC owed:** There was no notable pattern or difference in findings by RUC owed.

Exhibit 65. Organic-Recruit Simulation Participants: Method of Odometer Photo Submission (n = 463)

Simulation Question: "Add a photo of your odometer for verification and reduce the chance of audit."



Sources: CDM Smith, 2023; BERK, 2023.

7.3.2 Mileage Reporting Options

Exhibit 66 shows the proportions of organically-recruited respondents that selected each of four options for mileage reporting methods for the next year. Compared to statistically-valid panel respondents, a higher proportion of organically-recruited respondents selected all options other than self-reporting, and a smaller proportion selected self-reporting.

The following crosstabs for the organically-recruited respondents differed from the crosstabs for the statistically-valid panel respondents (see

Exhibit 10):

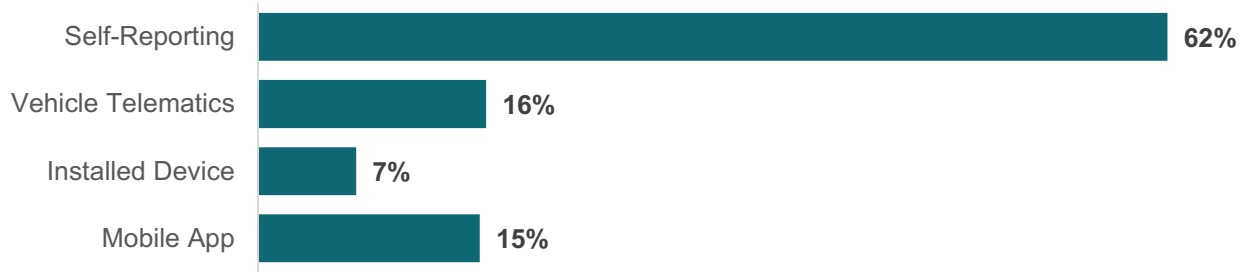
- **Household income:** A greater proportion of respondents with lower incomes selected self-reporting, while a greater proportion of respondents with higher incomes selected vehicle

telematics. Respondents of all incomes selected installed device and mobile apps at similar rates.

- **Rural or urban ZIP:** Respondents in mostly urban and mostly rural counties selected mobile app reporting at a higher rate (20%) than respondents in fully urban or fully rural counties (12%). Conversely, respondents in fully urban and fully rural counties selected self-reporting at a higher rate (66%) than respondents in mostly urban or mostly rural counties (58%).
- **RUC owed:** Respondents with higher amounts RUC owed select self-reporting at lower rates and vehicle telematics at higher rates.

Exhibit 66. Organic-Recruit Simulation Participants: Selected Mileage Reporting Method (n = 460)

Simulation Question: "How would you like to report your mileage for next year?"



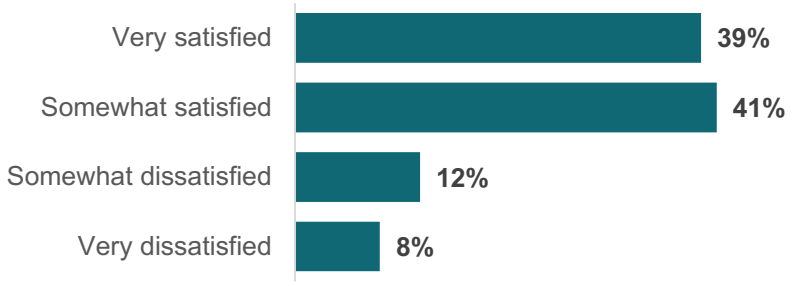
Sources: CDM Smith, 2023; BERK, 2023.

7.3.2.1 Satisfaction with Mileage Reporting Options

Exhibit 67 shows how organically-recruited respondents rate their levels of satisfaction with the range of technology-based mileage reporting options. This question was not asked of statistically-valid panel respondents.

Exhibit 67. Organic-Recruit Simulation Participants: Satisfaction with the Range of Technology-Based Mileage Reporting Options (n = 464)

Survey Question: “How satisfied are you with the range of available technology-based mileage reporting options (vehicle telematics, installed device, mobile app)?”



Note: This question was not asked of the statistically-valid simulation participants.

Sources: CDM Smith, 2023; BERK, 2023.

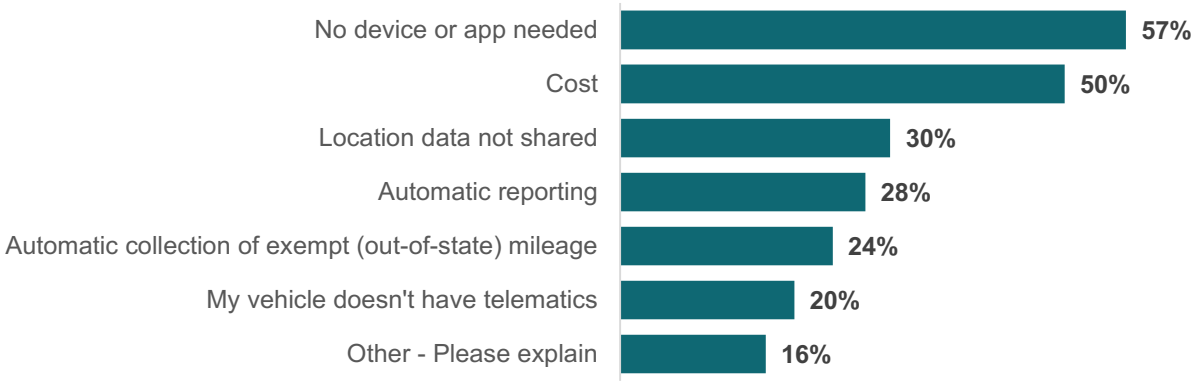
7.3.2.2 Preferred Mileage Reporting Method

Exhibit 68 shows the reasons that organically-recruited respondents selected their preferred mileage reporting methods. Compared to statistically-valid panel respondents (see

Exhibit 12), a higher proportion of organically-recruited respondents selected automatic reporting (28% versus 10%), automatic collection of exempt, out-of-state mileage (24% versus 9%), and cost (50% versus 41%).

Exhibit 68. Organic-Recruit Simulation Participants: Reason for Selecting a Mileage Reporting Method (n = 464)

Survey Question: “Why did you choose your mileage reporting method? (check all that apply)”



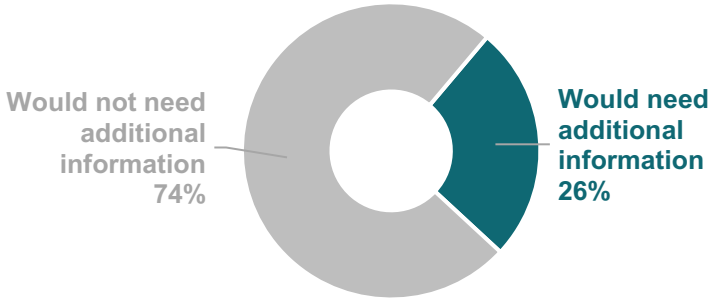
Sources: CDM Smith, 2023; BERK, 2023.

7.3.3 Information Needs to Support Decision-Making

Exhibit 69 shows the proportions of organically-recruited respondents that would and would not need additional information to select a mileage reporting option. Fewer organically-recruited respondents need additional information (26%) than do statistically-valid panel respondents (36%) (see Exhibit 13).

Exhibit 69. Organic-Recruit Simulation Participants: Participants' Need for Additional Information to Select Mileage Reporting Option (n = 464)

Survey Question: "Would you need additional information to select the best mileage reporting option for you?"



Sources: CDM Smith, 2023; BERK, 2023.

7.3.4 Willingness to Pay for Technology-Based Mileage Reporting Options

Exhibit 70 shows the maximum monthly charges that organically-recruited respondents would be willing to pay for technology-based mileage reporting options. A greater proportion of organically-recruited respondents are willing to pay $1 to $5 (55%) than do statistically-valid panel respondents (45%) (see Exhibit 14).

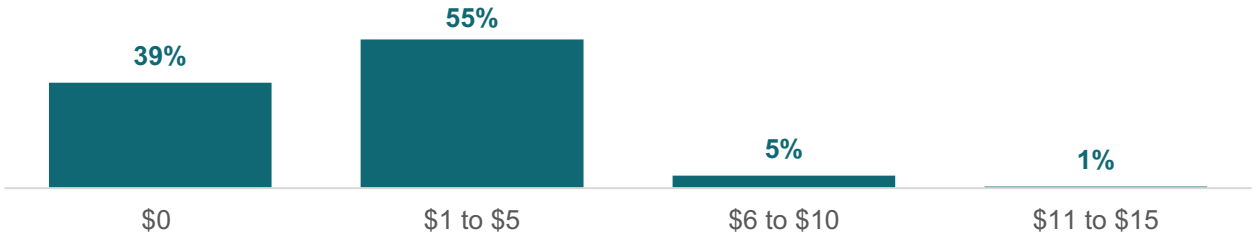
The following crosstabs for the organically-recruited respondents differed from the crosstabs for the statistically-valid panel respondents:

- **Household income:** No respondents with incomes at or above $150,000 or more were willing to pay more than $5 per month for technology-based mileage reporting options, while 8% of respondents with incomes below this threshold were willing to pay that amount.
- Rural or urban: There was no notable pattern or difference in findings between respondents who reside in rural or urban ZIP codes.
- RUC owed: 12% of respondents who owed less than $1 in RUC were willing to pay above $5 per month, compared to 4% of all other respondents.

Exhibit 70. Organic-Recruit Simulation Participants: Maximum Monthly Charge Willing to Pay for Technology-Based Mileage Reporting Options (n = 464)

Survey Question: "Technology-based mileage reporting options (vehicle telematics, installed device, mobile app) have additional features that allow automatic reporting of mileage to the state. They can also automatically record out-of-state mileage for exemptions, or potentially allow drivers to pay a road

usage charge monthly, rather than all at once at the end of the year. However, these options are more costly to administer than the manual mileage (odometer photo) reporting option. How much would you be willing to pay per month for these services?"



Sources: CDM Smith, 2023; BERK, 2023.

7.3.5 Concerns with Technology-Based Mileage Reporting Options

Exhibit 71 shows the proportions of organically-recruited respondents who have or do not have privacy or data security concerns with any of the technology-based mileage reporting options. Fewer organically-recruited respondents have privacy or data security concerns with technology-based mileage reporting options (46%) than do statistically-valid panel respondents (66%) (see Exhibit 15).

Crosstabs by household income for the organically-recruited respondents differed from the statistically-valid panel respondents: organically-recruited respondents with the highest incomes ($150,000 or above) reported concerns at a higher rate than respondents with all other incomes (52% versus 41%).

Exhibit 71. Organic-Recruit Simulation Participants: Privacy or Data Security Concerns with Technology-Based Mileage Reporting Options (n = 464)

Survey Question: "Do you have privacy or data security concerns with any of the technology-based reporting options (vehicle telematics, plug-in device or mobile app)?"

Sources: CDM Smith, 2023; BERK, 2023.

7.3.6 Likelihood of Accurate Reporting

7.3.6.1 Self-Reported Likelihood of Accurate Mileage Reporting

Exhibit 72 shows the proportions of organically-recruited respondents who self-report that they would or would not accurately report their miles driven in the past year. Fewer organically-recruited respondents

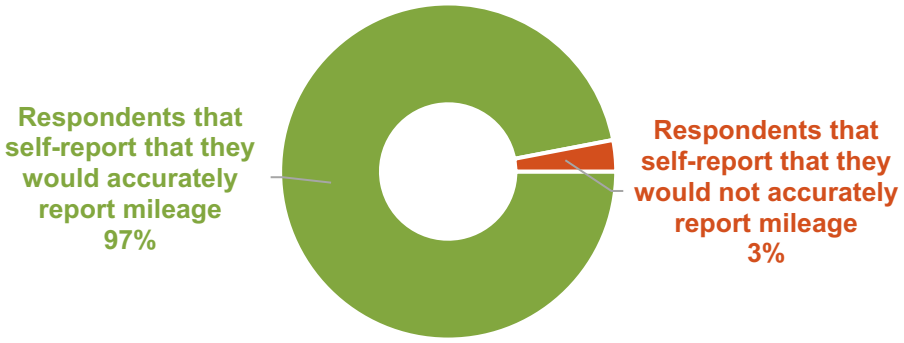
report that they would not accurately report their mileage (3%) than do statistically-valid panel respondents (14%) (see Exhibit 16).

The following crosstabs for the organically-recruited respondents differed from the crosstabs for the statistically-valid panel respondents:

- Household income: A higher rate of respondents with incomes at or above $100,000 reported that they would not accurately report their mileage than did respondents with incomes below $100,000 (4% versus under 1%).
- Rural or urban ZIP: There was no notable pattern or difference in findings between respondents who reside in rural or urban ZIP codes.
- RUC owed: Respondents who owed under $25 in RUC reported that they would not accurately report their mileage at higher rates than individuals who owed $25 or more in RUC (4% versus 1%).

Exhibit 72. Organic-Recruit Simulation Participants: Participants' Self-Reported Likelihood of Accurately Reporting Miles Driven in the Past Year (n = 464)

Survey Question: "If the state of Washington implemented a road usage charge, would you accurately report the number of miles you drove in the past year?"



Sources: CDM Smith, 2023; BERK, 2023.

7.3.6.2 Perceived Likelihood of Accurate Mileage Reporting by Others

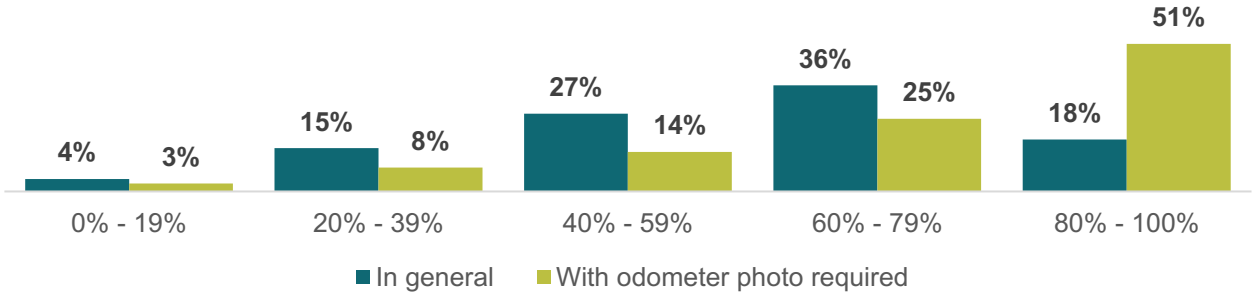
Exhibit 73 shows how organically-recruited respondents assess the percent of people who would accurately report their miles driven to a RUC program with and without a requirement to share an odometer photo. In general, organically-recruited respondents have a higher confidence in others to report accurately than do statistically-valid panel respondents (see

Exhibit 17).

Crosstabs by RUC owed for the organically-recruited respondents differed from the statistically-valid panel respondents: on average, organically-recruited respondents with larger amounts of RUC owed generally thought that more people would accurately report their miles driven than organically-recruited respondents with smaller amounts of RUC owed, especially with the requirement of an odometer photo.

Exhibit 73. Organic-Recruit Simulation Participants: Participants' Assessment of the Percent of People who would Accurately Report Miles Driven to a RUC Program with and without a Requirement to Share an Odometer Photo (n = 464)

Survey Questions: "If the state of Washington implemented a road usage charge, what percentage of people do you believe would accurately report their miles driven in the past year?" and "If the state of Washington implemented a road usage charge and required drivers to share an odometer photo to verify mileage, what percentage of people do you believe would accurately report their miles driven in the past year?"



Sources: CDM Smith, 2023; BERK, 2023.

7.4 Exemptions for Out-of-State and Private/Off-road Miles

7.4.1 Importance of Mileage Exemptions

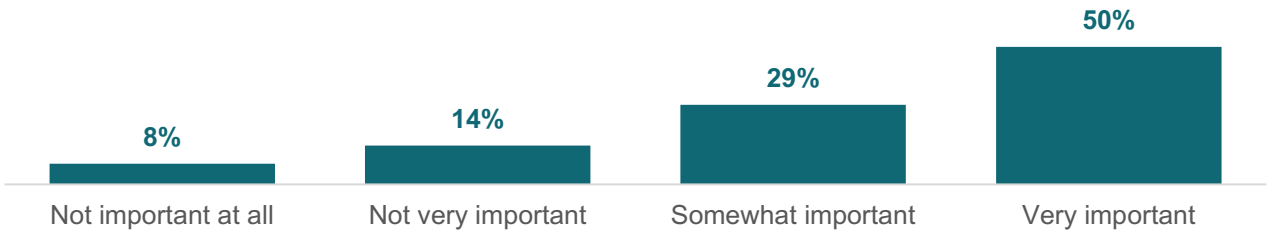
Exhibit 74 shows how organically-recruited respondents rate the importance of the ability to claim exemptions for miles driven out-of-state, off-road, or on private roads.

The following crosstabs for the organically-recruited respondents differed from the crosstabs for the statistically-valid panel respondents (see Exhibit 18):

- Household income: There was no notable pattern or difference in findings by household income.
- Border or interior: A higher proportion of respondents in border counties noted that the ability to claim exemptions would be important than respondents in interior counties (87% versus 76%).
- RUC owed: Respondents who owed the lowest amounts of RUC (under $25) noted that the ability to claim exemptions is "very important" at higher rates than respondents with RUC payments above $25 (62% versus 40%).

Exhibit 74. Organic-Recruit Simulation Participants: Importance of Ability to Claim Exemptions for Out-of-State and Private/Off-Road Miles (n = 464)

Survey Question: “How important would it be for you to be able to claim exemptions for out-of-state and private/off-road miles?”



Sources: CDM Smith, 2023; BERK, 2023.

7.4.2 Preferred Methods for Claiming Exemptions

Exhibit 75 shows the proportions of organically-recruited respondents that would select each of the three methods of claiming exemptions for miles driven out-of-state, off-road, or on private roads. A greater proportion of organically-recruited respondents would claim standard exemptions (30%) than do statistically-valid panel respondents (24%) (see Exhibit 19).

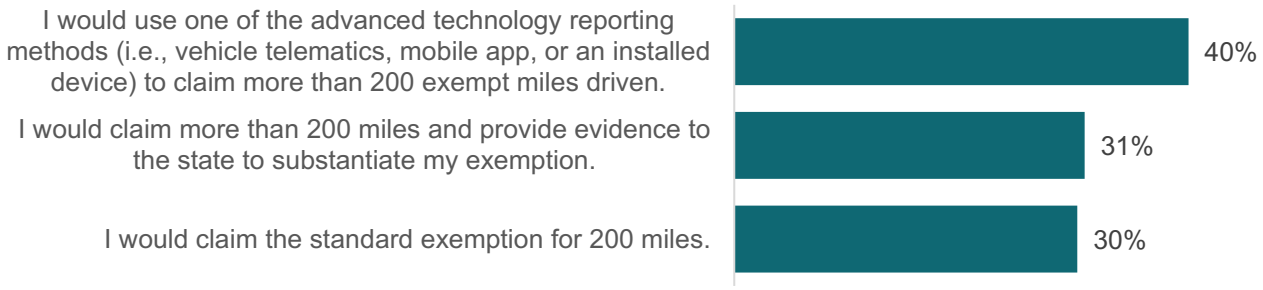
The following crosstabs for the organically-recruited respondents differed from the crosstabs for the statistically-valid panel respondents:

- Border or interior: Respondents in border counties opted for advanced technology reporting methods at slightly higher rates than respondents in interior counties (46% versus 38%). A similar proportion of both groups reported that they would claim above 200 miles and provide substantiating evidence to the State.

- RUC owed: Respondents with the highest RUC payments ($150 or more) reported that they would select an advanced reporting method at a higher rate than other all other respondents (61% versus 38%).

Exhibit 75. Organic-Recruit Simulation Participants: Preferred Method to Claim Exemptions for Out-of-State and Private/Off-Road Miles (n = 464)

Survey Question: "How would you prefer to claim exemptions for out-of-state and private/off-road miles?"



Sources: CDM Smith, 2023; BERK, 2023.

7.4.3 Total Exempt Miles Driven

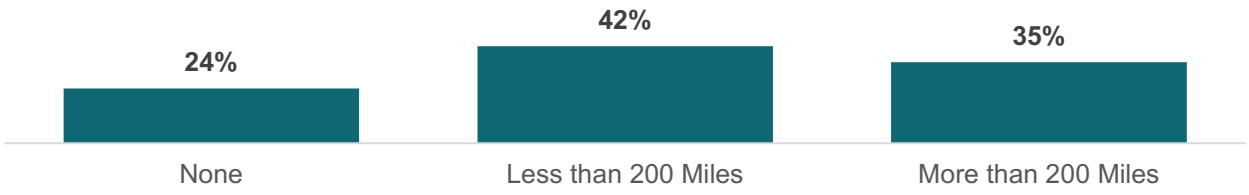
Exhibit 76 shows the proportions of organically-recruited respondents that drove no miles, less than 200 miles, or more than 200 miles on out-of-state or private roads in the previous year. Compared to statistically-valid panel respondents (see Exhibit 20), lower proportion of organically-recruited respondents reported no miles (24% versus 36%) and a higher proportion reported more than 200 miles (35% versus 20%).

The following crosstabs for the organically-recruited respondents differed from the crosstabs for the statistically-valid panel respondents:

- **Household income:** A greater proportion of respondents with lower incomes reported having driven no miles or less than 200 miles out-of-state or on private roads in the prior year. A greater proportion of respondents with higher incomes reported having driven more than 200 miles on out-of-state or private roads in the prior year.
- **RUC owed:** There was no notable pattern or difference in findings by RUC owed.

Exhibit 76. Organic-Recruit Simulation Participants: Miles Driven on Out-of-State or Private Roads (n = 463)

Simulation Question: “To claim exemptions for last year, about how many miles did you drive out of state or on private roads?”



Sources: CDM Smith, 2023; BERK, 2023.

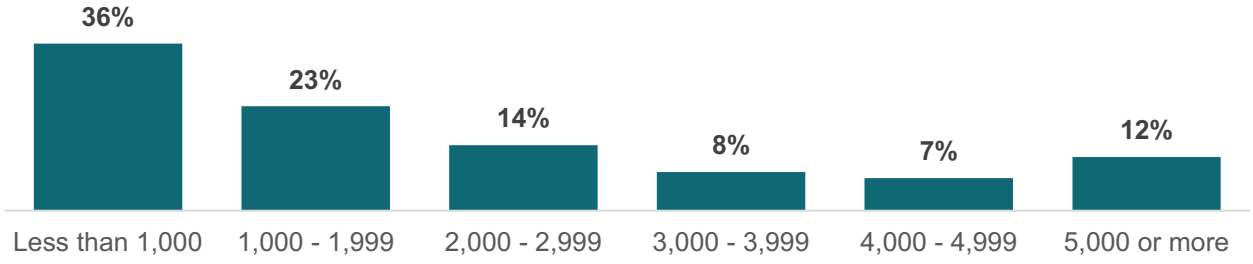
7.4.3.1 Number of Exempt Miles Claimed

Of the organically-recruited respondents who drove more than 200 miles on out-of-state or private roads in the previous year, Exhibit 77 shows the proportions that would claim several ranges of exempt miles for the past 12 months.

Crosstabs by RUC owed for the organically-recruited respondents differed from the statistically-valid panel respondents (see Exhibit 21): a higher proportion of organically-recruited respondents who owed $150 or more in RUC claimed higher numbers of miles than organically-recruited respondents who owed lower amounts of RUC. 55% of respondents who owed RUC of $150 or more claimed 4,000 or more miles, compared to 16% of all other respondents.

Exhibit 77. Organic-Recruit Simulation Participants: Exempt Miles Claimed (n = 155)

Simulation Question: “How many exempt miles would you like to claim for the past 12 months?”



Sources: CDM Smith, 2023; BERK, 2023.

7.5 Payment

7.5.1 Payment Method

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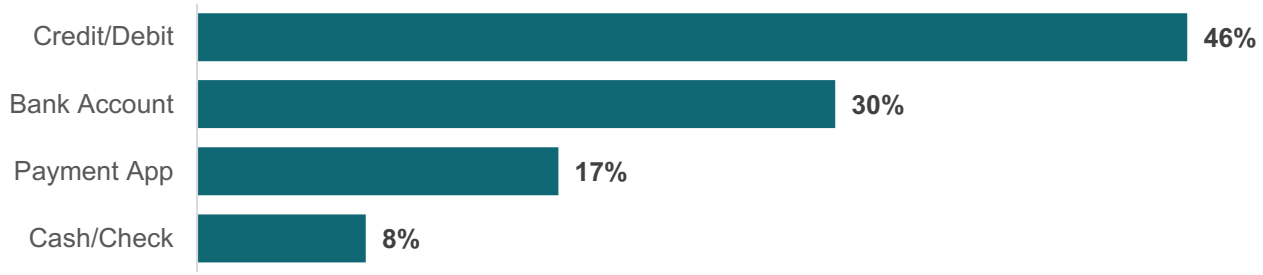
Exhibit 78 shows the proportions of organically-recruited respondents that selected each of four payment methods for RUC. Compared to statistically-valid panel respondents, lower proportion of organically-recruited respondents selected credit/debit (46% versus 54%) or cash/check (8% versus 12%) and a higher proportion selected bank account (30% versus 22%) or a payment app (17% versus 13%).

The following crosstabs for the organically-recruited respondents differed from the crosstabs for the statistically-valid panel respondents (see Exhibit 22):

- Rural or urban ZIP: A greater proportion of rural respondents opted to pay RUC by credit/debit than urban respondents and a greater proportion of urban respondents opted to pay RUC by bank account.
- RUC owed: A greater proportion of respondents with less RUC owed opted to pay RUC by credit/debit and a greater proportion of respondents with more RUC owed opted to pay RUC by bank account.

Exhibit 78. Organic-Recruit Simulation Participants: Selected Method of Payment for RUC (n = 460)

Simulation Question: “How would you like to pay for your road usage charge?”



Sources: CDM Smith, 2023; BERK, 2023.

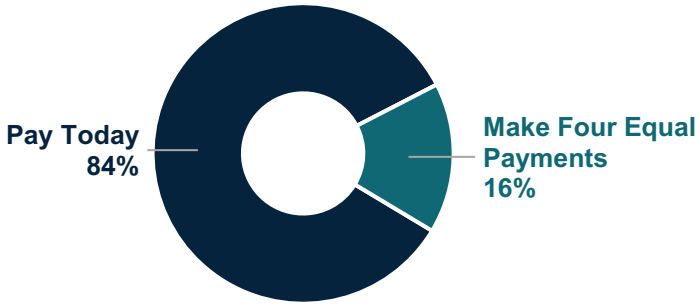
7.5.2 Payment in Installments

7.5.2.1 Selection of Single Payment or Quarterly Payments

Exhibit 79 shows the proportions of organically-recruited respondents that opted to make a single payment or four equal payments for their RUC owed.

Exhibit 79. Organic-Recruit Simulation Participants: Selection of Single Payment or Quarterly Payment for RUC (n = 463)

Simulation Question: “How would you like to pay for your usage charge?”



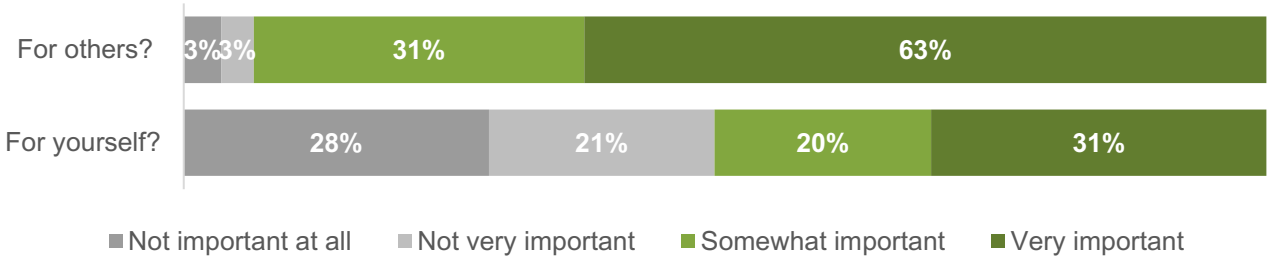
Sources: CDM Smith, 2023; BERK, 2023.

7.5.2.2 Importance of Option to Pay in Installments

Exhibit 80 shows how organically-recruited respondents rate the importance of having multiple options for payment frequency for themselves and for others.

Exhibit 80. Organic-Recruit Simulation Participants: Importance of Option to Pay Immediately or in Four Installments (n = 464)

Survey Question: “During the simulation, two payment options were offered: pay today or four equal payments. How important is it to have payment options as a part of a road usage charge system:”



Sources: CDM Smith, 2023; BERK, 2023.

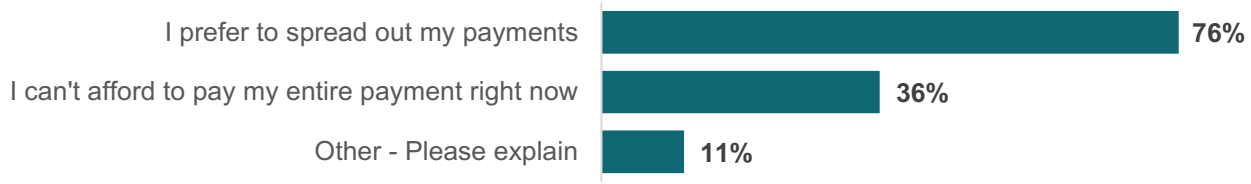
7.5.2.3 Reason Respondents Opted to Pay in Installments

Of the organically-recruited respondents who opted to pay in four equal installments, Exhibit 81 Exhibit 25shows the reasons that respondents made this selection. A higher proportion of organically-recruited respondents who opted to pay four equal payments did so for preference (76%) than do statistically-valid panel respondents (45%), and a lower proportion did so due to an inability to pay the full amount at the moment (36% versus 55%) (see Exhibit 25).

Unlike the crosstabs for the statistically-valid panel respondents, for organically-recruited respondents, there was no notable pattern or difference in findings between respondents who reside in rural or urban ZIP codes.

Exhibit 81. Organic-Recruit Simulation Participants: Reason for Selecting Four Installments (n = 74)

Survey Question: "Why did you choose four equal payments? (check all that apply)"



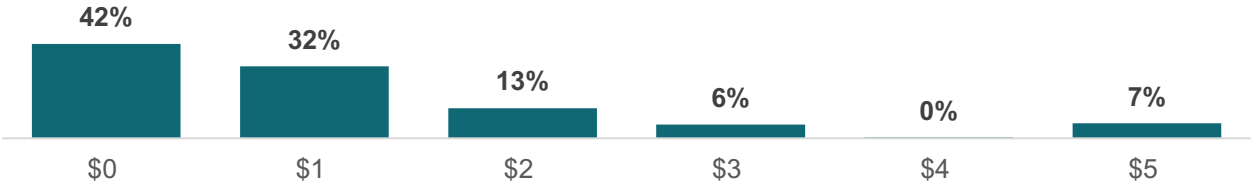
Sources: CDM Smith, 2023; BERK, 2023.

7.5.2.4 Willingness to Pay a Service Charge for Installment Payments

Exhibit 82 shows the proportions of organically-recruited respondents that would be willing to pay each of a $0 through $5 service charge for a flexible payment option.

Exhibit 82. Organic-Recruit Simulation Participants: Service Charge that Participants are Willing to Pay for a Flexible Payment Option (n = 464)

Question: "A flexible payment option could increase the administrative costs of a road usage charge. How much would you be willing to add to each of the 4 payments as a service charge to support this payment option?"



Sources: CDM Smith, 2023; BERK, 2023.

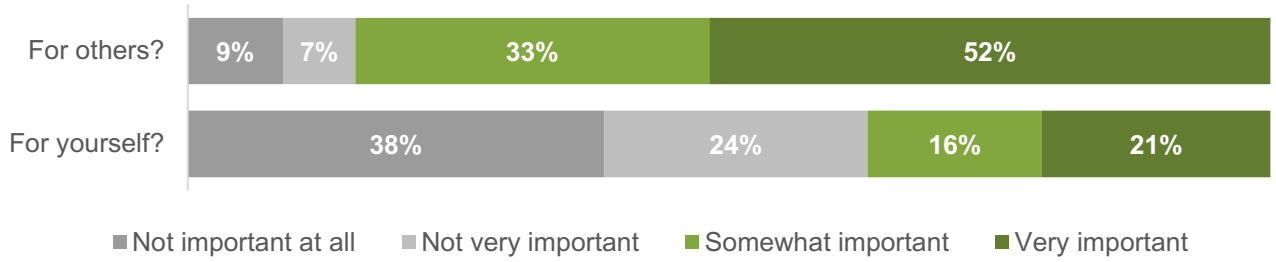
7.5.3 Income-Based Discounts

7.5.3.1 Importance of Income-Based Discounts

Exhibit 83 shows how organically-recruited respondents rate the importance of income-based discounts for themselves and for others. Fewer organically-recruited respondents think income-based discounts are important for themselves (37%) than do statistically-valid panel respondents (50%) (see Exhibit 27).

Exhibit 83. Organic-Recruit Simulation Participants: Importance of Income-Based Discounts (n = 464)

Survey Question: "How important would income-based discounts be in a road usage charge program:"



Sources: CDM Smith, 2023; BERK, 2023.

7.5.3.2 Participant Enrollment in State Assistance Services

Exhibit 84 shows the proportions of organically-recruited respondents that report being currently enrolled in state assistance services. A lower proportion of organically-recruited respondents reported enrollment in state assistance services (8%) than do statistically-valid panel respondents (12%) (see Exhibit 28).

Exhibit 84. Organic-Recruit Simulation Participants: Participant Enrollment in State Assistance Services (n = 462)

Simulation Question: "To qualify for a discount, are you currently enrolled in any state assistance services such as Washington Supplemental Nutrition Assistance Program (SNAP), Apple Health (Medicaid), or Low-Income Home Energy Assistance Program (LIHEAP)?"

Sources: CDM Smith, 2023; BERK, 2023.

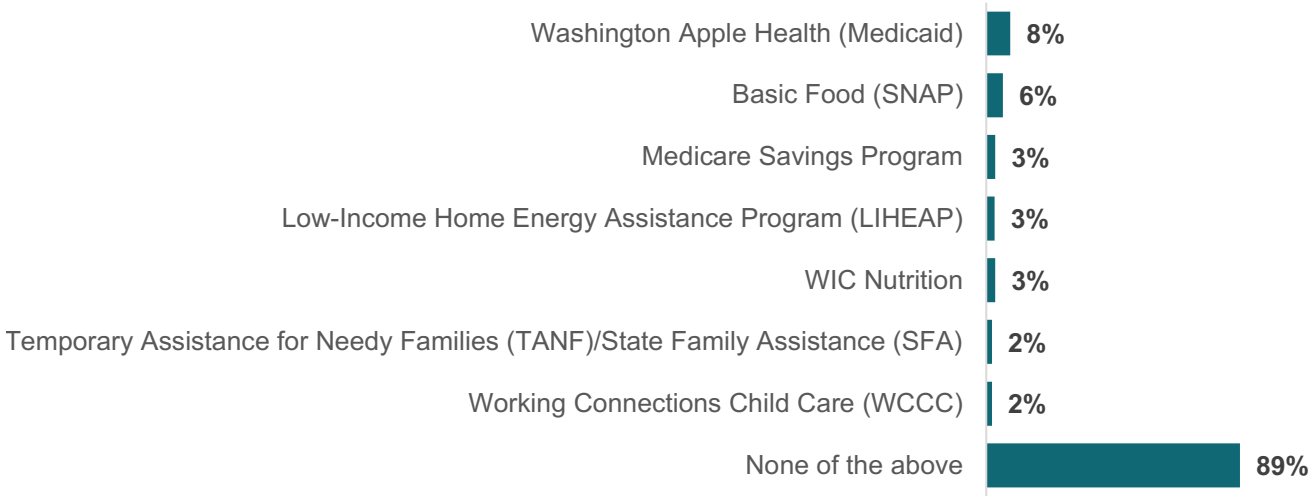
7.5.3.3 Specific State Assistance Programs Enrollment by Participants

Exhibit 85 shows the proportions of organically-recruited respondents enrolled in state income-based programs. Compared to statistically-valid panel respondents (see

Exhibit 29), a lower proportion of organically-recruited respondents are enrolled in Washington Apple Health (Medicaid) (8% versus 13%).

Exhibit 85. Organic-Recruit Simulation Participants: Enrollment in State Income-Based Programs (n = 451)

Survey Question: "The simulation introduced the concept of a discount for vehicle owners who qualify for state services based on income. Please identify which, if any, programs you are enrolled in. (check all that apply)"



Sources: CDM Smith, 2023; BERK, 2023.

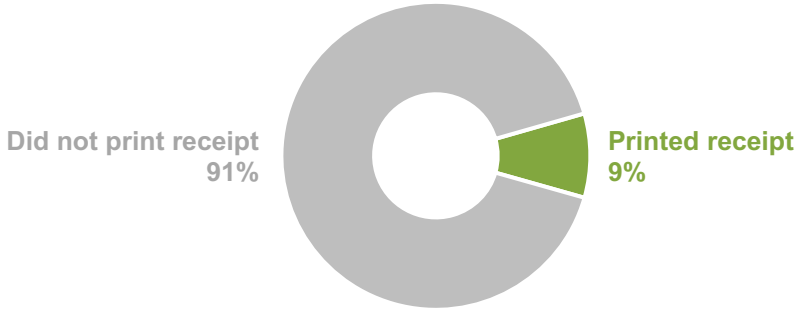
7.5.4 Invoice and Receipt

7.5.4.1 Printed Receipts

Exhibit 86 shows the proportions of organically-recruited respondents that printed or did not print a receipt for their RUC payment. A higher proportion of organically-recruited respondents printed receipts (9%) than do statistically-valid panel respondents (1%) (see Exhibit 30).

Crosstabs by rural or urban ZIP code for the organically-recruited respondents differed from the statistically-valid panel respondents: a smaller proportion of respondents living in fully rural counties opted to print receipts than all other respondents (3% versus 9%).

Exhibit 86. Organic-Recruit Simulation Participants: Participants who Printed a Receipt (n = 464)



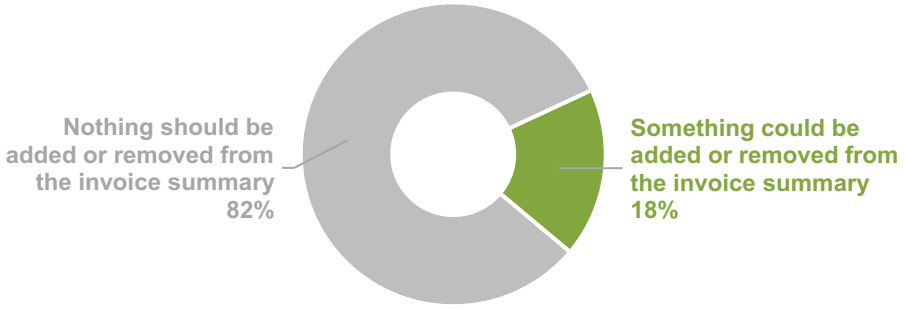
Sources: CDM Smith, 2023; BERK, 2023.

7.5.4.2 Invoice Clarity

Exhibit 87 shows the proportions of organically-recruited respondents that identify that something should or should not be added to or removed from the invoice summary.

Exhibit 87. Organic-Recruit Simulation Participants: Suggestion to Make Additions to or Removals from Invoice Summary (n = 464)

Survey Question: “Is there anything that could be added to or removed from the invoice summary to make it easier to understand?”



Sources: CDM Smith, 2023; BERK, 2023.

7.6 Simulation Experiences

7.6.1 Overall Simulation Experience

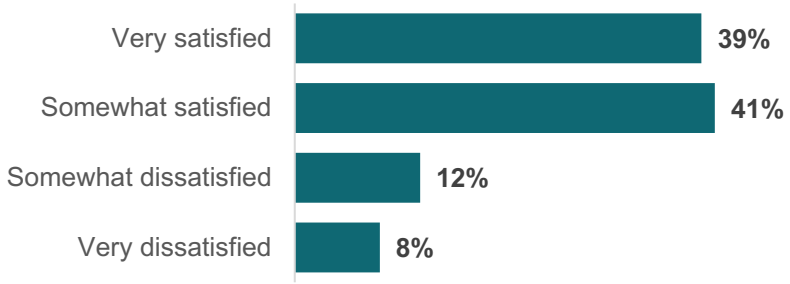
7.6.1.1 General Satisfaction with Simulation Process

Exhibit 88 shows how organically-recruited respondents rate their general satisfaction with the RUC payment and reporting process presented in the simulation. A higher proportion of organically-recruited respondents were satisfied (80%) than statistically-valid panel respondents (70%) (see

Exhibit 32).

Exhibit 88. Organic-Recruit Simulation Participants: General Satisfaction with the RUC Payment and Reporting Process in the Simulation (n = 464)

Survey Question: “Rate your general satisfaction with the road usage charge payment and reporting process presented in the simulation.”



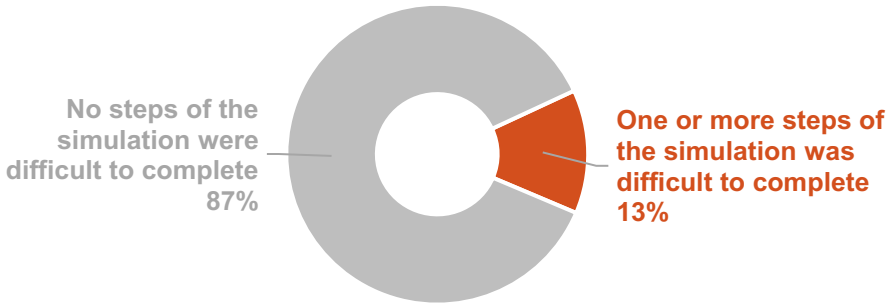
Sources: CDM Smith, 2023; BERK, 2023.

7.6.1.2 Ease of Use of the Simulation

Exhibit 89 shows the proportions of organically-recruited respondents who identify that no steps or at least one step of the simulation was difficult to complete.

Exhibit 89. Organic-Recruit Simulation Participants: Difficulty of Use of the Simulation (n = 464)

Survey Question: "Were any steps of the road usage charge reporting and payment simulation difficult to complete?"



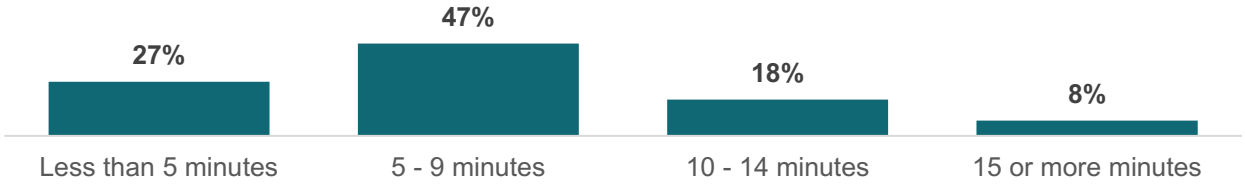
Sources: CDM Smith, 2023; BERK, 2023.

7.6.1.3 Time to Complete the Simulation

Exhibit 90 shows the amount of time that organically-recruited respondents report taking to complete the simulation.

Exhibit 90. Organic-Recruit Simulation Participants: Self-Reported Minutes to complete the Simulation (n = 464)

Survey Question: "Approximately how many minutes did it take for you to complete the road usage charge reporting and payment simulation?"



Sources: CDM Smith, 2023; BERK, 2023.

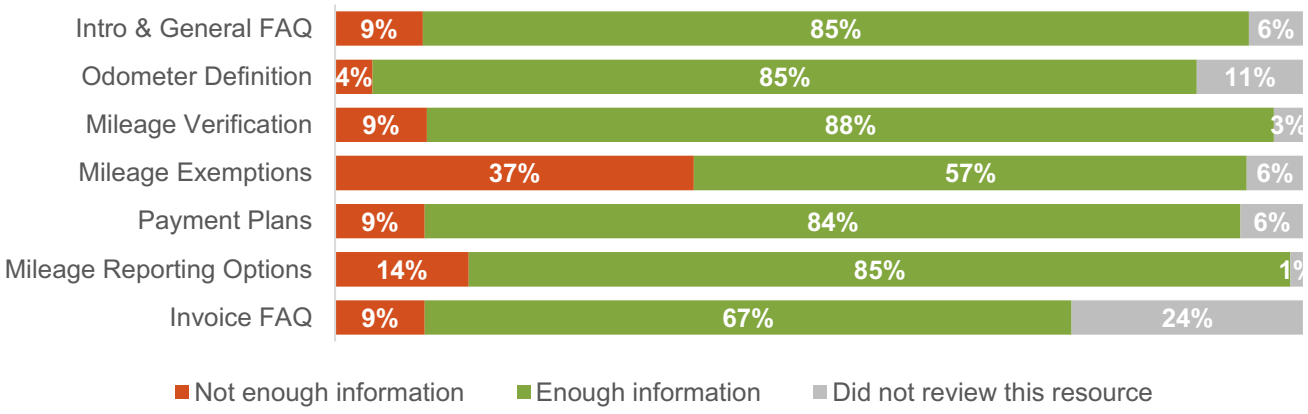
7.6.2 Usefulness of Information Provided

7.6.2.1 Adequacy of Information Provided in the Simulation

Exhibit 91 shows how organically-recruited respondents rate the adequacy of information provided regarding specific components of the simulation.

Exhibit 91. Organic-Recruit Simulation Participants: Adequacy of Information Provided Regarding Specific Components of the Simulation (n = 464)

Survey Question: "Listed below are some components of the simulation that you just completed. Please tell us whether each resource provided enough information or not enough information for you to understand road usage charge reporting and payment."



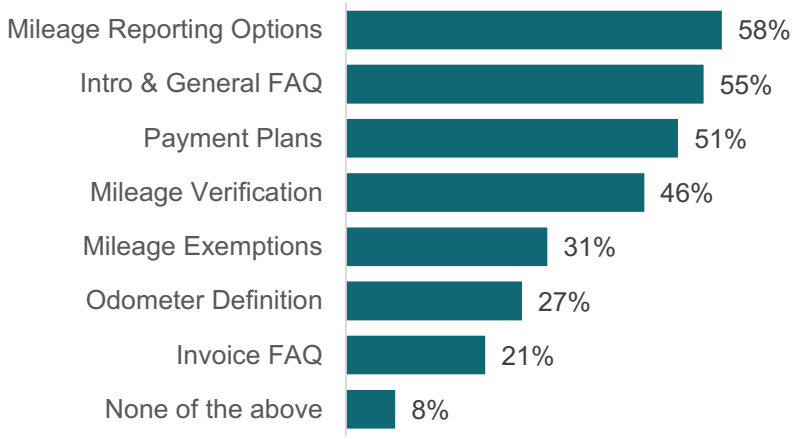
Sources: CDM Smith, 2023; BERK, 2023.

7.6.2.2 Most Helpful Resources in the Simulation

Exhibit 92 shows the proportions of organically-recruited respondents that found each of the simulation resources to be helpful. A higher proportion of organically-recruited respondents found all resources useful compared to statistically-valid panel respondents (see Exhibit 36), especially the mileage reporting options (58% versus 36%).

Exhibit 92. Organic-Recruit Simulation Participants: Most Helpful Resources in the Simulation (n = 464)

Survey Question: “Which of the following resources from the simulation did you find to be most helpful? Select all that apply.”



Sources: CDM Smith, 2023; BERK, 2023.

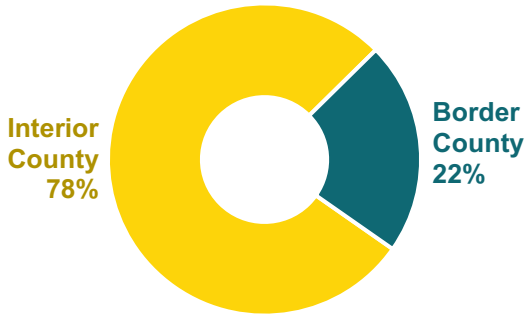
7.7 Demographics

7.7.1 Location

7.7.1.1 Interior or Border County

Exhibit 93 shows the proportions of organically-recruited respondents who live in counties in the interior or border of the state. See Exhibit 38 for this analysis's classification of each county as either "interior" or "border." A smaller proportion of organically-recruited respondents live in border counties (22%) than do statistically-valid panel respondents (30%) (see Exhibit 37).

Exhibit 93. Statistically-Valid Simulation Participants: Interior or Border Classification of County of Residence (n = 461)

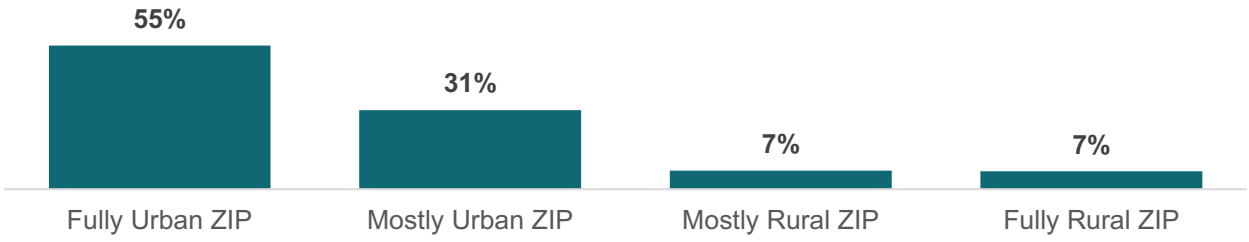


Sources: CDM Smith, 2023; BERK, 2023.

7.7.1.2 Rural or Urban Location ZIP Code

Exhibit 94 shows the proportions of organically-recruited respondents who live in ZIP codes that are fully urban, mostly urban, mostly rural, or fully rural. See Exhibit 40 for this analysis's classification of each ZIP code into these categories. A slightly higher proportion of organically-recruited respondents live in rural ZIP codes (14%) than do statistically-valid panel respondents (9%) (see Exhibit 39).

Exhibit 94. Statistically-Valid Simulation Participants: Rural or Urban Classification of ZIP Code of Residence (n = 461)



Sources: CDM Smith, 2023; BERK, 2023.

7.7.1.3 Eastern or Western Washington County

Exhibit 95 shows the proportions of organically-recruited respondents who live in a county in western or eastern Washington. See Exhibit 42 for this analysis's classification of each county as eastern or western. A lower proportion of organically-recruited respondents live in Eastern WA counties (13%) than do statistically-valid panel respondents (20%) (see Exhibit 41).

Exhibit 95. Statistically-Valid Simulation Participants: Eastern WA or Western WA Classification of County of Residence (n = 461)

Sources: CDM Smith, 2023; BERK, 2023.

7.7.2 Household

7.7.2.1 Household Size

Exhibit 96 shows the proportions of organically-recruited respondents living in households with 1, 2, 3, 4, or 5+ people.

Exhibit 96. Organic-Recruit Simulation Participants: Household Size (n = 463)

Recruitment Survey Question: "Including yourself, how many people currently live in your household?"

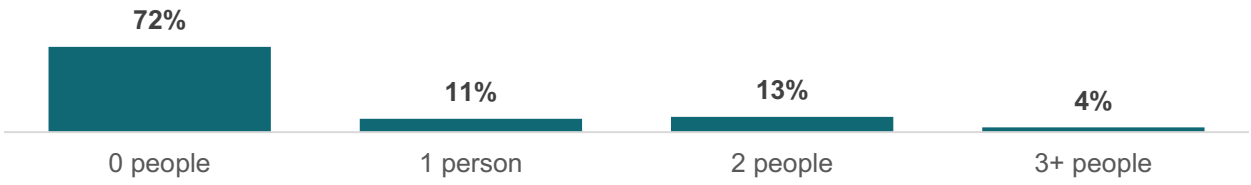
Sources: CDM Smith, 2023; BERK, 2023.

7.7.2.2 Households with Children

Exhibit 97 shows the proportions of organically-recruited respondents with 0, 1, 2, or 3+ people under the age of 18 in their households.

Exhibit 97. Organic-Recruit Simulation Participants: Number of Members of Household Under the Age of 18 (n = 464)

Survey Question: “Of the people in your household, how many are under the age of 18?”



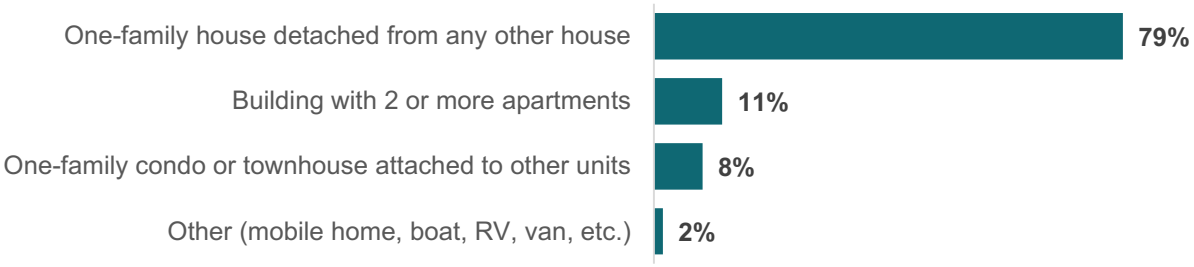
Sources: CDM Smith, 2023; BERK, 2023.

7.7.2.3 Housing Type

Exhibit 98 shows the proportions of organically-recruited respondents living in each of three types of housing or an “other” type of housing.

Exhibit 98. Organic-Recruit Simulation Participants: Housing Type (n = 453)

Survey Question: “Which of the following best describes the type or style of housing where you live?”



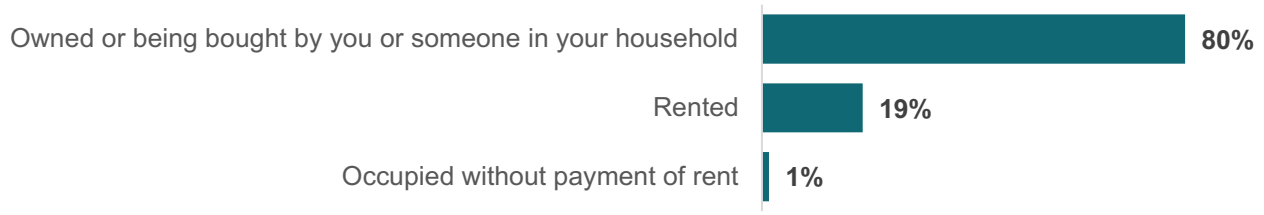
Sources: CDM Smith, 2023; BERK, 2023.

7.7.2.4 Housing Tenure

Exhibit 99 shows the proportions of organically-recruited respondents that pay for their housing in each of three different methods.

Exhibit 99. Organic-Recruit Simulation Participants: Housing Tenure (n = 453)

Survey Question: “Which of the following best describes how you pay for housing?”



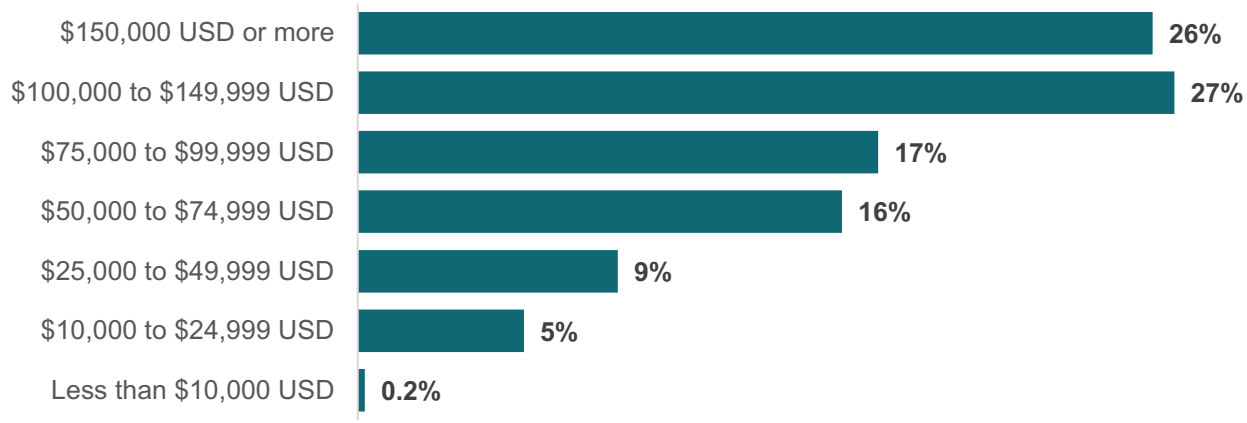
Sources: CDM Smith, 2023; BERK, 2023.

7.7.2.5 Household Income

Exhibit 100 shows the proportions of organically-recruited respondents with each of seven different household income ranges for 2021.

Exhibit 100. Organic-Recruit Simulation Participants: Total Household Income for 2021 (n = 422)

Recruitment Survey Question: “Which of the following represents your total household income for 2021?”



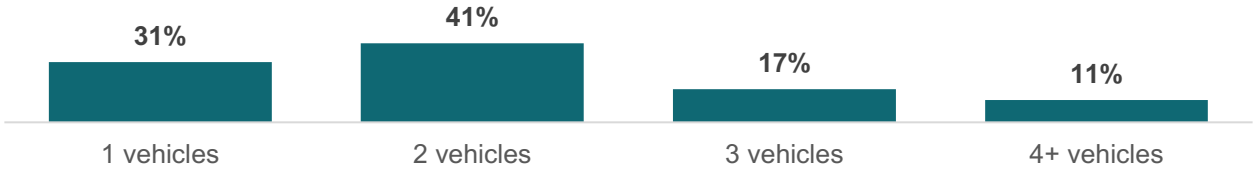
Sources: CDM Smith, 2023; BERK, 2023.

7.7.2.6 Number of Vehicles Owned

Exhibit 101 shows the proportions of organically-recruited respondents with 1, 2, 3, or 4+ vehicles owned or leased by members of their household.

Exhibit 101. Organic-Recruit Simulation Participants: Number of Vehicles Owned or Leased by Members of Household (n = 463)

Survey Question: “In total, how many vehicles are owned or leased by members of your household? (excluding motorcycles, RVs, and golf carts)”



Sources: CDM Smith, 2023; BERK, 2023.

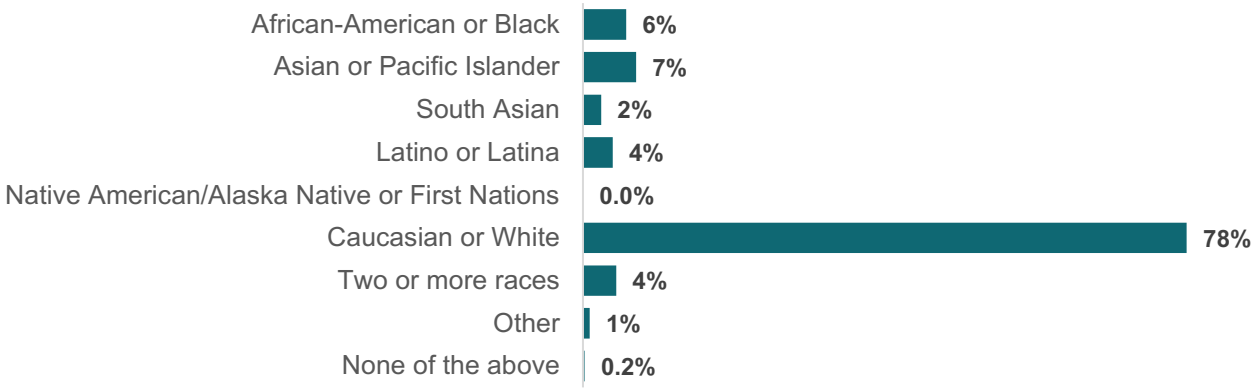
7.7.3 Personal

7.7.3.1 Race and Ethnicity

Exhibit 102 shows the proportions of organically-recruited respondents who identify with each of five different racial/ethnic categories.

Exhibit 102. Organic-Recruit Simulation Participants: Race or Ethnicity of Participants (n = 464)

Recruitment Survey Question: “Which racial or ethnic group do you consider yourself a part of or feel closest to? Select all that apply”



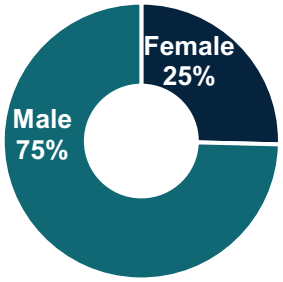
Sources: CDM Smith, 2023; BERK, 2023.

7.7.3.2 Gender Identity

Exhibit 103 shows the proportions of organically-recruited respondents who identify as male or female. A higher proportion of organically-recruited respondents identify as male (75%) than do statistically-valid panel respondents (48%) (see Exhibit 50).

Exhibit 103. Organic-Recruit Simulation Participants: Gender Identity of Participants (n = 453)

Recruitment Survey Question: “What is your gender identity? (X * means a gender that is not exclusively male or female)”



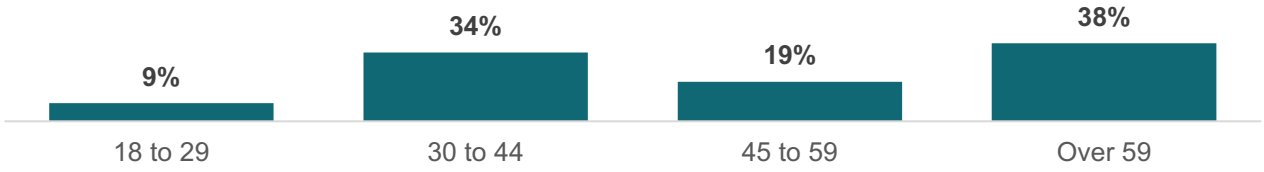
Sources: CDM Smith, 2023; BERK, 2023.

7.7.3.3 Age

Exhibit 104 shows the proportions of organically-recruited respondents in each of six different age ranges.

Exhibit 104. Organic-Recruit Simulation Participants: Age of Participants (n = 461)

Recruitment Survey Question: “What is your age?”



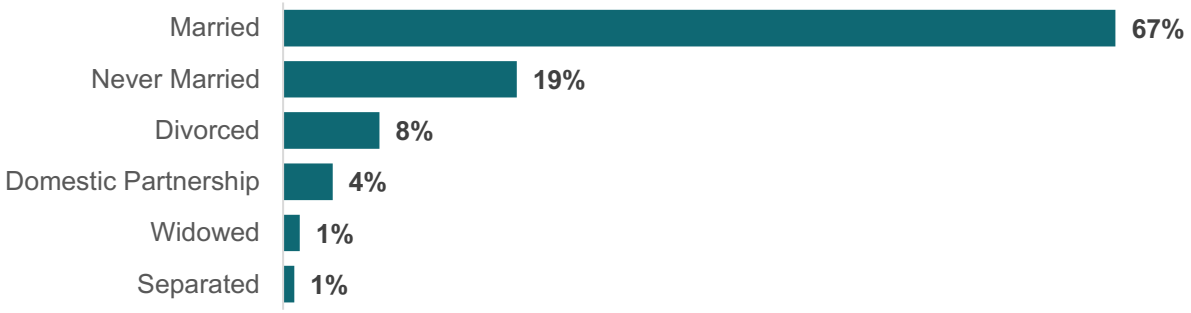
Sources: CDM Smith, 2023; BERK, 2023.

7.7.3.4 Marital Status

Exhibit 105 shows the proportions of organically-recruited respondents who identify with each of five different marital statuses. A higher proportion of organically-recruited respondents are married (67%) than are statistically-valid panel respondents (58%) (see Exhibit 52).

Exhibit 105. Organic-Recruit Simulation Participants: Marital Status of Participants (n = 451)

Survey Question: “Which of the following best describes your marital status?”



Sources: CDM Smith, 2023; BERK, 2023.

7.7.3.5 Education

Exhibit 106 shows the proportions of organically-recruited respondents with each of three levels of educational attainment. A higher proportion of organically-recruited respondents have a bachelor’s degree or higher (66%) than do statistically-valid panel respondents (43%) and have more than a high school diploma or GED (94%) than do statistically-valid panel respondents (78%) (see

Exhibit 53).

Exhibit 106. Organic-Recruit Simulation Participants: Educational Attainment of Participants (n = 454)

Survey Question: “What is the highest degree or level of schooling that you have completed?”

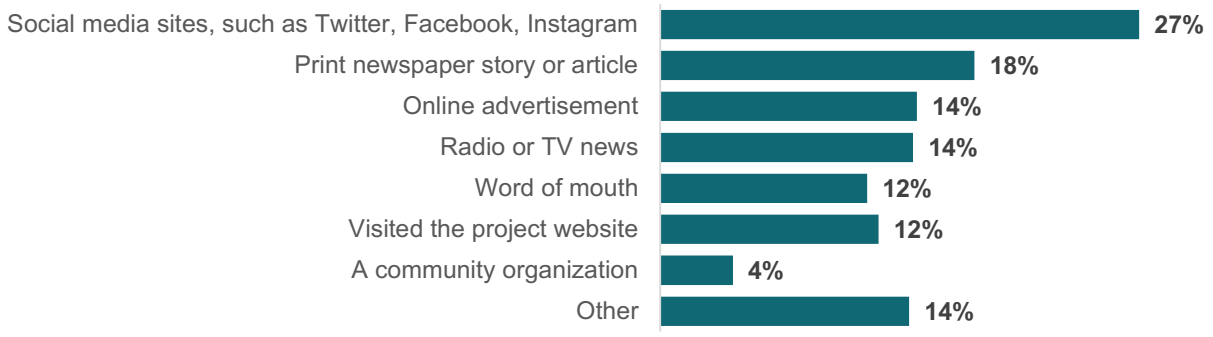
Sources: CDM Smith, 2023; BERK, 2023.

7.7.3.6 Source of RUC Awareness

Exhibit 107 shows the proportions of organically-recruited respondents that heard about the RUC pilot project through each of 7 different channels or an “other” channel. This question was not asked of statistically-valid panel respondents.

Exhibit 107. Organic-Recruit Simulation Participants: How Participants Heard about the RUC Pilot Project (n = 464)

Recruitment Survey Question: “How did you hear about the Washington Road Usage Charge pilot project? Please select all that apply”



Note: This question was not asked of the statistically-valid simulation participants.

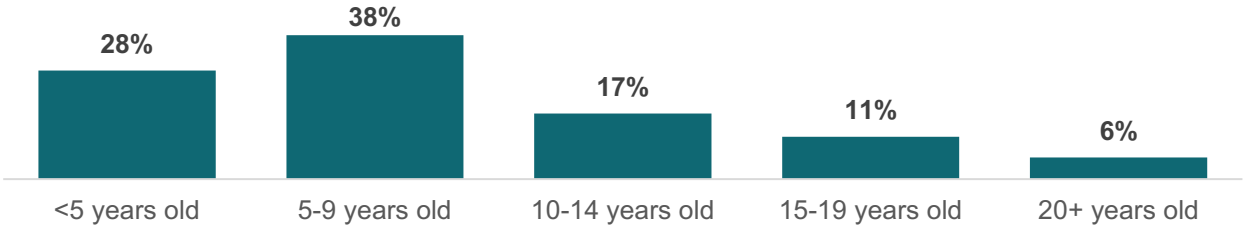
Sources: CDM Smith, 2023; BERK, 2023.

7.7.4 Vehicle Info

7.7.4.1 Vehicle Age

Exhibit 108 shows the proportions of organically-recruited respondents with vehicles in each of five different age ranges. A higher proportion of organically-recruited respondents have vehicles that are less than 10 years old (66%) than do statistically-valid panel respondents (54%) (see Exhibit 56).

Exhibit 108. Organic-Recruit Simulation Participants: Age of Vehicles (n = 443)



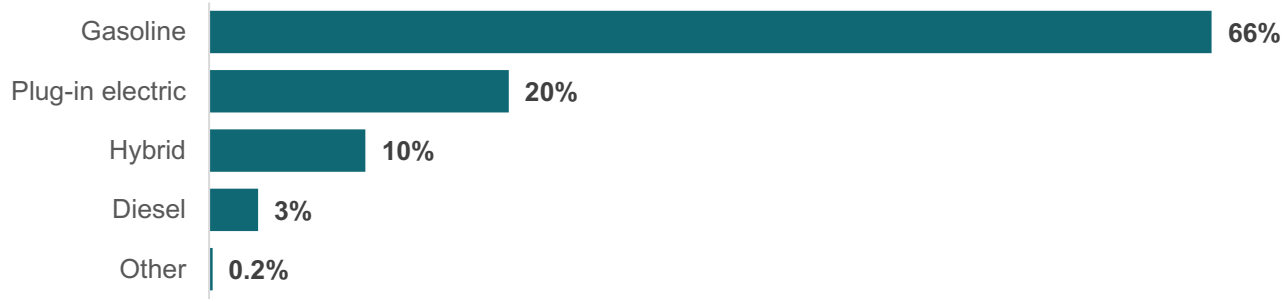
Sources: CDM Smith, 2023; BERK, 2023.

7.7.4.2 Vehicle Type

Exhibit 109 shows the proportions of organically-recruited respondents with vehicles with each of four types of powertrains.

Exhibit 109. Organic-Recruit Simulation Participants: Powertrain Type of Vehicles (n = 464)

Survey Question: “Please select the type of fuel or powertrain used by your primary vehicle.”

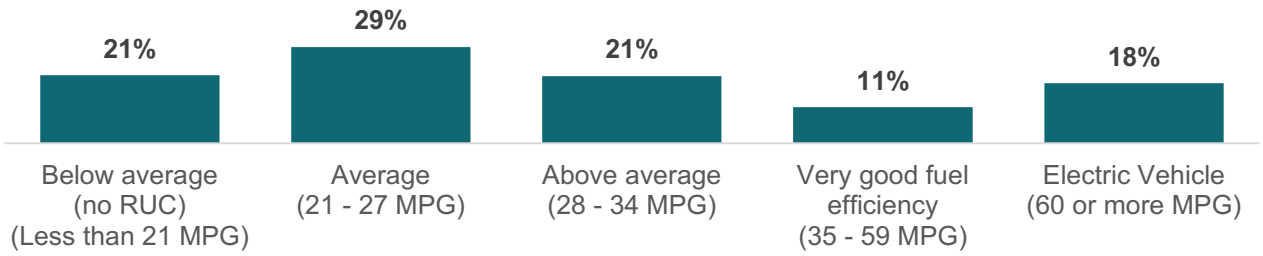


Sources: CDM Smith, 2023; BERK, 2023.

7.7.4.3 Vehicle MPG

Exhibit 110 shows the proportions of organically-recruited respondents with vehicles with five different ranges of MPG as calculated by the simulation. A lower proportion of organically-recruited respondents have vehicles with MPGs below 28 MPG (50%) than do statistically-valid panel respondents (67%) (see Exhibit 57).

Exhibit 110. Organic-Recruit Simulation Participants: MPG of Vehicles (n = 463)



Sources: CDM Smith, 2023; BERK, 2023.

7.7.5 Vehicle Mileage

7.7.5.1 Miles Driven over Previous 12 Months

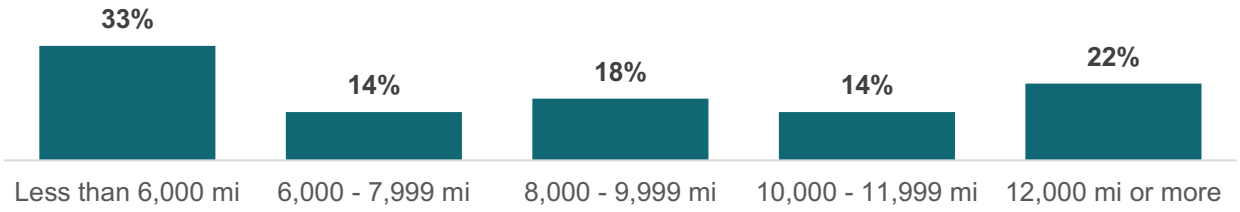
Exhibit 111 shows the proportions of organically-recruited respondents that drove different ranges of miles in the previous 12 months. In general, organically-recruited respondents drove more than do statistically-valid panel respondents (see Exhibit 58).

Crosstabs by RUC owed for the organically-recruited respondents differed from the statistically-valid panel respondents: with the exception of respondents who owed less than $1 in RUC, in general, respondents who report having driven more miles in the previous 12 months owed more in RUC. Miles

driven over the previous 12 months for respondents who owed less than $1 in RUC most closely matched miles driven by respondents who owed $50-$99 in RUC.

Exhibit 111. Organic-Recruit Simulation Participants: Estimated Miles Driven over Previous 12 Months (n = 464)

Simulation Question: “Estimated miles driven over previous 12 months”



Sources: CDM Smith, 2023; BERK, 2023.

7.7.5.2 Current Mileage on Vehicle

-

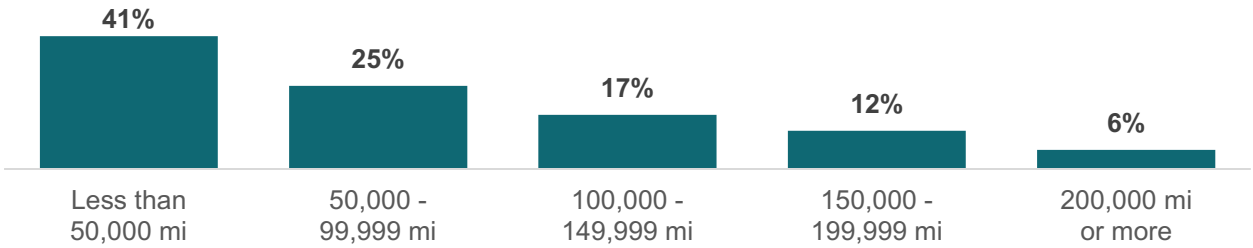
Exhibit 112 shows the proportions of organically-recruited respondents with several ranges of current mileage on their vehicle odometers. A higher proportion of organically-recruited respondents reported less than 50,000 miles on their odometer (41%) than do statistically-valid panel respondents (33%) (see Exhibit 59).

The following crosstabs for the organically-recruited respondents differed from the crosstabs for the statistically-valid panel respondents:

- **Rural or urban ZIP:** There was no notable pattern or difference in findings between respondents who reside in rural or urban ZIPs.
- **RUC owed:** A higher proportion of respondents with less than $1 RUC owed drive cars with 200,000 miles or more than respondents with at least $1 RUC owed (14% versus 3%).

Exhibit 112. Organic-Recruit Simulation Participants: Current Mileage on Vehicle (n = 464)

Simulation Question: “What is the current mileage on your vehicle's odometer?”



Sources: CDM Smith, 2023; BERK, 2023.

7.7.6 Employment

7.7.6.1 Employment Status

Exhibit 113 shows the proportions of organically-recruited respondents that work full-time, part-time, or do not work.

Exhibit 113. Organic-Recruit Simulation Participants: Current Employment Status (n = 456)

Survey Question: "What is your current employment status?"

Sources: CDM Smith, 2023; BERK, 2023.

7.7.6.2 Employment in the Transportation Sector

Exhibit 114 shows the proportions of organically-recruited respondents that work or do not work in the transportation sector. This question was not asked of statistically-valid panel respondents.

Exhibit 114. Organic-Recruit Simulation Participants: Employment in the Transportation Sector (n = 464)

Recruitment Survey Question: "Do you work in the transportation field as an engineer, planner, analyst, or consultant?"

Note: This question was not asked of the statistically-valid simulation participants.

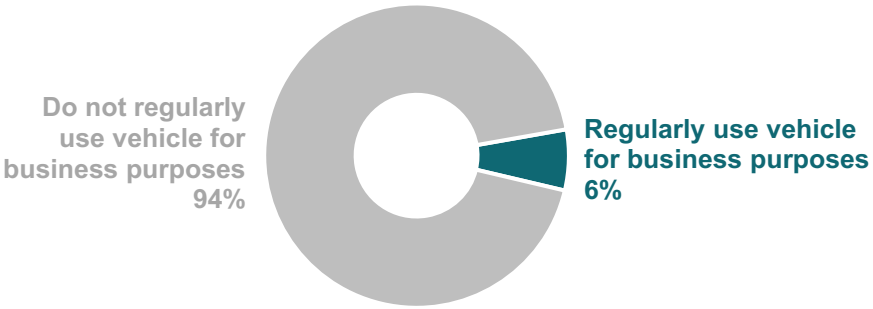
Sources: CDM Smith, 2023; BERK, 2023.

7.7.6.3 Use of Vehicle for Commercial or Business Purposes

Exhibit 115 shows the proportions of organically-recruited respondents that do or do not regularly use their vehicles for business purposes. This question was not asked of statistically-valid panel respondents.

Exhibit 115. Organic-Recruit Simulation Participants: Use of Vehicle for Commercial or Business Purposes (n = 464)

Recruitment Survey Question: "Other than your regular commute to work, do you use your vehicle regularly for commercial or business purposes (e.g., to make deliveries or drive to customers' residences)?"



Note: This question was not asked of the statistically-valid simulation participants.

Sources: CDM Smith, 2023; BERK, 2023.