



NONDRIVERS: POPULATION, DEMOGRAPHICS & ANALYSIS

Washington State Legislature
Joint Transportation Committee

January 31st, 2023 | FINAL REPORT SUMMARY

In partnership with:

Cascadia Consulting Group, and
Strategic Research Associates



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EXECUTIVE SUMMARY



1. EXECUTIVE SUMMARY

PROJECT BACKGROUND

Nondrivers include people of all backgrounds and abilities such as aging adults, youth, students, recent immigrants, low-income individuals, those with physical, mental, intellectual, or developmental disabilities, and people who prefer not to drive.

The Washington (WA) State Legislature directed the Joint Transportation Committee (JTC) to conduct a study to estimate how many nondrivers are in Washington State and the demographics of this population, as well as identify the availability of transportation options for nondrivers and the impact those options have on access to daily life activities. The full study proviso, included at the bottom of this page, directed the JTC to:

- **Estimate the nondriver population:** Conduct research to quantify the nondriver population in Washington State.
- **Identify the demographics:** Utilizing a statewide survey, collect demographic information and people's reasons for not driving.
- **Analyze available transportation for nondrivers:** Identify how current transportation infrastructure and services serve nondrivers, and how that service meets people's needs for access to economic opportunity, recreation, education, and other aspects of community life.

The study has three main parts or steps:

1. Using available U.S. Census Bureau, Federal Highway Administration, and Department of Licensing data, identify the different population groups that make up the nondrivers in Washington State.
2. Identify the demographics and mobility needs of surveyed nondrivers in Washington State through a statistically significant market research survey.
3. Analyze the availability of transportation options, and the impact those options have on nondrivers' access to daily life activities.

Study Products:

- Summary Report and Appendices
- Publicly available interactive map and database

STUDY PROVISIO - Sec. 204 of the 2022 supplemental transportation budget (ESSB 5689).

(8) \$400,000 of the multimodal transportation account—state appropriation is for the joint transportation committee to conduct a study to determine how many nondrivers are in Washington state and the demographics of this population. The joint transportation committee is directed to conduct a survey, conduct research, develop a dataset, and conduct analysis on the nondriving population of Washington state. The analysis must include but is not limited to: (a) Reasons for not driving; (b) demographics of who is not driving to include age, disability status, rural or urban residence, and other available demographic information; and (c) availability of transportation options for nondrivers and the impact those options have on their access to services, economic opportunity, recreation, education, and other aspects of community life. A report must be provided to the transportation committees of the legislature by February 1, 2023.

KEY FINDINGS

NONDRIVER POPULATION ESTIMATE FOR WASHINGTON STATE (USING EXISTING DATA)

Through a combination of U.S. Census Bureau and FHWA Highway Statistics data, the project team was able to estimate rates of driver licensing and vehicle ownership for the Washington State population that is eligible to apply for driver’s licenses, as well as the population that is under age 16 and therefore not eligible for a driver license. Using this available data, nondrivers were estimated to fall into the following groups:

Table 1. Estimate of the Nondriver Population Groups in Washington State Utilizing Existing Data

Nondriver Population Groups		Estimated Nondriver Population	Percent of Total Population
Under age 16 (and not eligible for a driver’s license)		1,418,197	18.4%
Age 16 and over	Do not have a driver’s license	474,584	6.2%
	Do not have a car*	401,453	5.2%

* Estimate of age-eligible drivers that belong to zero-vehicle households, based on U.S. Census Bureau ACS 5-Year Estimates 2016-2020 data for zero-vehicle households, household size, and driving-age population.
 Source: Washington State Department of Licensing data from FHWA’s Highway Statistics Series for year 2020; American Community Survey Five-Year Estimates 2016-2020; and the U.S. Census 2020.

These groups cannot be added together to reach a total, as there is likely significant overlap between those that do not have a driver’s license and those that do not have a car. An estimate of those that do hold a driver’s license but do not own a vehicle (or have a vehicle registered under their name) could not be made with available data and within the timeframe of this study.¹

STATEWIDE MARKET RESEARCH SURVEY

Who are the nondriver survey respondents (18 and over) across Washington State?

- **Demographic characteristics:** A higher proportion of survey respondents are female, younger, lower income, rent a home, and have a larger household size compared to the overall Washington State population.
- **Race and ethnicity:** A higher proportion of survey respondents are African American and Native American compared to the overall Washington State population.
- **Driver licensing:** For survey respondents, males, younger people, and people with lower income levels are proportionally less likely to have a driver’s license than females, seniors, and nondrivers with higher income levels.
- **Vehicle ownership:** For survey respondents, younger, lower income, and physically able nondrivers with a valid driver’s license are less likely to have a vehicle in their household compared to seniors, higher income, and disabled nondriver survey respondents.

¹ It may be possible to estimate working with the Department of Licensing on a specific study that matches driver licensing and vehicle registration records.

- **Primary driver:** Of the nondriver survey respondents who have a driver's license and a vehicle in their household, women, those under 25, and those with annual income under \$56,000 are less likely to be the primary driver than males, those 25 years old and older, and those with income over \$56,000.
- **Choice and lifestyle:** Of the nondriver survey respondents who have a driver's license, a vehicle in their household, and are the primary driver but do not drive to meet most transportation needs, more than one half are female, and one half have annual income at or above \$56,000. The majority of nondriver survey respondents in the lifestyle group are 25-64 years old and 80 percent live in the 10 most populated counties in Washington.
- **Disability:** 19 percent of survey respondents indicated that they have a disability or condition that limits their driving.

What are the reasons nondriver survey respondents do not drive?

- **Cost:** Most often, they do not drive because of the high costs associated with owning and driving a car, and due to a disability. Reasons for not driving vary by demographic characteristics.
- **Income:** Male, younger, lower income, urban, and physically abled survey respondents were more likely than females, older, higher income, rural, and disabled survey respondents to identify cost reasons for not driving.
- **Lifestyle:** Male, younger, urban, and higher income survey respondents were more likely to select lifestyle preference than their female, older, rural, and lower income counterparts.

How do nondriver survey respondents get around and access daily life activities?

- More than one half travel to visit family and access food and groceries, medical and health care, recreation and social opportunities, and spiritual activities. Just under one half travel to access education and employment.
- Across all travel destinations, the three most common modes of transportation are receiving car rides from friends or family, a fixed route bus or train, and walking or rolling. These modes were also identified as transportation options that are the easiest to use.
- The ease of use of different transportation options varied by demographic characteristics. Male, younger, higher income, urban, and physically abled nondrivers said that many transportation modes are easier to use compared to their female, older, lower income, rural, and disabled peers. At the same time, older nondriver survey respondents said that they do not need to use transportation options more than younger nondriver survey respondents.
- Access to daily life activities varied by demographic characteristics of survey respondents, with most of the differences in categories relating to the need to access certain activities. Income had more impact on access to activities compared to other demographic categories. Those with lower income found it more difficult to access education and employment, medical and health care, and all other destinations compared to higher income nondriver survey respondents.

What, if any, are the impacts of transportation options on quality of life?

- At least once a week or more often, 23 percent of nondriver survey respondents will skip going somewhere because of transportation, 22 percent will be late when not driving, 34 percent worry about being able to get somewhere, and 39 percent worry about inconveniencing friends and family.

- Over 70 percent of nondriver survey respondents skipped going somewhere, were late, worried about being able to get somewhere, or worried about inconveniencing others at least one time in the past 30 days.
- Females, younger, and lower income nondriver survey respondents reported skipping a trip, being late getting somewhere, worrying about being able to get somewhere, and worrying about inconveniencing others more than their male, older, and higher income peers. Disabled nondriver survey respondents worried about inconveniencing others more than nondrivers without disabilities.
- Nondriver survey respondents described negative impacts to their quality of life far more often than positive impacts.
- Nondriver survey respondents most commonly described making cars and insurance more affordable and improving transit routes as ways to improve transportation.

FOCUS GROUPS FINDINGS

Universally, focus groups participants expressed that being a nondriver required some leniency and pre-planning to get to their destinations. Scheduling, and completing planned tasks like medical appointments and grocery shopping, as well as going to work and school, were not necessarily major challenges to focus group participants, but completing unscheduled tasks, and having to travel for unplanned events, were major challenges.

On-demand transportation options such as Ben Franklin Transit's Connect, King County Metro's Via to Transit, or other ADA paratransit service options were either not considered, outside of budget, or not available to focus group participants. Rural and urban participants mentioned walking as a reliable alternative to public transportation.

Leveraging relationships for rides, such as getting a ride from a friend or family member, except for some instances where individuals had strong community groups or friends, was a particular challenge to many focus group participants.

Another challenge highlighted by focus group participants across all segments was finding transportation services outside of key service hours. Rural and disabled focus group participants were particularly constrained on their travel times due to key services they utilize for transportation ending at 5:00 p.m. or 6:00 p.m. daily. Attending and going to evening social events or traveling to out-of-the-ordinary places was a particular challenge.

Many focus group participants suggested that while being a nondriver offered cost savings due to not having the direct costs associated with maintaining a vehicle, they also experienced specific losses of "independence" and "freedom."

TRANSPORTATION OPTIONS ANALYSIS

The analysis of transportation options was aimed at developing a high-level assessment of access and mobility throughout the state to understand level of access to daily life destinations by people around the state via available transportation options. Key findings of this analysis include:

- Driving a car provides almost universal access to daily life activities to everyone around the state. Even with a car, that access is diminished in rural counties for short trips of no more than 15 minutes. In contrast, urban areas concentrate many daily life opportunities within a 15-minute car trip.
- Riding public transit is generally restricted to the footprint or extent of the fixed-route network and the span of service (service start and end times). There are major differences in access and availability between rural and urban counties, which can be explained largely by a longer span of service hours in urban areas,

from early in the morning to late at night, and a shorter span of service in rural counties (ending typically at around 6:00 p.m. on weekdays and no service on Sunday).

- Walking has the potential to access many daily life activities on trips of 30 to 60 minutes. At least 50 percent of the population in urban areas could reach destinations by walking if there were safe and adequate facilities along all segments of the transportation network. A much lower reach is possible in rural counties due to more sparse destinations, especially health care, and less extensive transportation networks.
- Riding a bicycle also shows great potential to reach many daily life activities on trips of 15 to 30 minutes. At least 80 percent of the population in urban areas could reach destinations riding a bike if there were adequate safe and continuous facilities, including sufficient bike parking options. A much lower reach is possible in rural counties due to more sparse destinations and less extensive transportation networks.

STUDY OVERVIEW / RESEARCH APPROACH

The research approach relied on several research methods to better identify nondrivers in Washington State and assess their access to daily life activities and mobility options.

- **Nondriver Population Estimate:** The project team utilized publicly available information to estimate Washington's nondriver population. Using U.S. Census Bureau and Federal Highway Administration's (FHWA) Highway Statistics data, the project team estimated the nondriver population in Washington State by combining driver licensing information and vehicle ownership rates for the Washington State population that is eligible to apply for a driver's license. This information was then mapped by census tract to identify an estimate of the distribution of nondrivers across the state.
- **Statewide Market Research Survey:** The project team designed and conducted a statewide market research survey and series of focus groups to better understand the demographic characteristics of persons over the age of 18 who answered "no" to one of the following screening questions:
 1. Do you currently have a valid driver's license?
 2. Do you or someone in your household own a vehicle?
 3. Are you the primary driver of a vehicle in your household?
 4. Do you drive that vehicle to meet most of your transportation needs?

The project team researched their reasons for not driving, their mobility needs and preferences, and the impact that their nondriver status has on access to daily life activities and quality of life. The project team conducted the market research survey via phone and online and received a total of 2,786 responses from across the state. The survey included the screening questions above to ensure that only persons who had limited or no access to a vehicle provided behavior and preference data. Those under 18 years of age were not surveyed, as minors legally fall into a protected class of people in research.

The collection of survey responses was purposely balanced to include rural and urban counties and a geographical representation from across the state. The survey analysis includes descriptive statistics with comparison to the 2020 U.S. Census and the American Community Survey 2016-2020. Additionally, the project team conducted chi-square analysis looking at response distributions between demographic groups by gender, age, income, location (urban/rural) and disability status.

- **Focus Groups:** The project team conducted three online focus groups, mainly with survey respondents. The team focused on three key nondriver groups – people with disabilities, those from the least populated and rural counties, and those from the most populated and urban counties, to fill in knowledge gaps and

further explore survey results. Focus group participants were recruited from survey respondents to balance spatial and demographic characteristics. The focus group results were summarized for key themes in response to questions about mobility needs and access, transportation options opportunities and challenges, impacts on quality of life, and interwoven issues including how participants' different identities and life experiences intersect with their experience as a nondriver.

- **Transportation Options Analysis:** The project team mapped the availability of travel destinations and daily life activities around the state using GIS spatial analysis. Travel destination data included health and medical care sites, food and grocery stores, number of jobs and employment sites, educational establishments, parks and recreation sites, and other community life destinations (e.g., libraries and community centers). The team then estimated the proportion of the population that have access to these destinations, in terms of travel time, using four major transportation modes: driving a car, riding public transit, riding a bicycle, and walking.



2. NONDRIVER POPULATION ESTIMATE FOR WASHINGTON STATE (UTILIZING EXISTING DATA)



2. NONDRIVER POPULATION ESTIMATE FOR WASHINGTON STATE

The nondriver population estimate methodology was modeled after the nondriver population analysis and estimate that was developed by the State of Wisconsin, which includes an interactive map and dataset. The Wisconsin Non-Drivers interactive map and dataset can be accessed at <https://wisconsin.gov/Pages/projects/multimodal/nd.aspx>.

REVIEW AND UTILIZATION OF EXISTING DATA

Table 2. Average Driver Licensing Rate of Age-Eligible Population in Washington State

Age Group	Census 2020 Total Population ¹	FHWA 2020 Licensed Drivers ²	% of Population with License
Under 5 years	466,280	-	-
5 to 9 years	478,231	-	-
10 to 14 years	473,685	-	-
15 to 19 years	459,615	201,289	44%
20 to 24 years	494,240	419,242	85%
25 to 29 years	595,447	528,176	89%
30 to 34 years	580,680	566,973	98%
35 to 39 years	543,274	564,847	104%
40 to 44 years	486,185	506,847	104%
45 to 49 years	482,256	469,882	97%
50 to 54 years	474,923	461,826	97%
55 to 59 years	493,534	475,125	96%
60 to 64 years	486,537	462,197	95%
65 to 69 years	411,442	409,535	100%
70 to 74 years	313,799	325,927	104%
75 to 79 years	196,404	209,719	107%
80 to 84 years	127,543	120,149	94%
85 years and over	141,204	90,766	64%
Total	7,705,281	5,812,500	

¹ U.S. Census Bureau Decennial Census 2020

² FHWA Transportation Statistics 2020

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The U.S. Department of Transportation's Federal Highway Administration (FHWA) compiles the Highway Statistics Series, which consists of annual reports containing analyzed statistical information on motor fuel, motor vehicle registrations, driver licenses, highway user taxation, highway mileage, travel, and highway finance. Most data are submitted directly to FHWA by each state. Each state's data is analyzed for completeness, reasonableness, consistency, and compliance with FHWA data reporting instructions.

The project team obtained driver licensing and vehicle registration information for Washington State from FHWA's Highway Statistics Series for year 2020 and compared the data with population demographics (age and gender) and household characteristics (household size, vehicle ownership, and income) from the American Community Survey Five-Year Estimates 2016-2020 and the U.S. Census 2020, to develop an estimate of the nondriver population in Washington State.

The first step of the analysis was to compare the number of driver licenses that are reported by DOL to FHWA with the total population of the state by age group (as defined by the U.S. Census). The table above shows the results of this analysis. Two issues stand out:

- The young adult population (18 to 35 years old) has a lower rate of licensing than older adults and seniors (those 35 years old and older).
- The senior population (especially those between 65 and 80 years old) with driver licenses exceeds the senior population estimates of the U.S. Census.

The main reason behind this discrepancy is that the U.S. Census Bureau estimates the total population based on samples and its estimate contains a margin of error. At the same time, the licensing data reported by DOL likely contains driver licenses for people that moved out of state and for deceased individuals. Although efforts are made to minimize these issues, the purging of outdated information is not done on a continual basis.

To counter the effect of specific age groups with licensed drivers exceeding the total population, the project team summarized the information in larger groups that represent key nondriver segments of the population. The results of this aggregation are presented below.

Table 3. Rate of Licensing by Age Group in Washington State

Age Group	Driving Age Population	Total Licensed Drivers	Eligible Population with a License
Minors* (15 to 19)	459,615	201,289	43.8%
Young Adults (20 to 34)	1,670,367	1,514,391	90.7%
Adults (35 to 64)	2,966,710	2,940,724	99.1%
Seniors (65 and over)	1,190,392	1,156,096	97.1%
Subtotal	6,287,084	5,812,500	92.5%

* Includes restricted and graduated licenses from minors 15-18 years old, as reported by DOL to FHWA

These projections show that Washington State has approximately:

- 7.7 million residents
- 6.3 million individuals of driving age, and
- 5.8 million licensed drivers

NONDRIVER POPULATION ESTIMATE

These figures also enable an estimate of the size and proportion of key nondriver groups. These are shown in the table below (which is also included in the Study Overview & Key Findings section).

Table 4. Estimate of the Nondriver Population Groups in Washington State Utilizing Existing Data

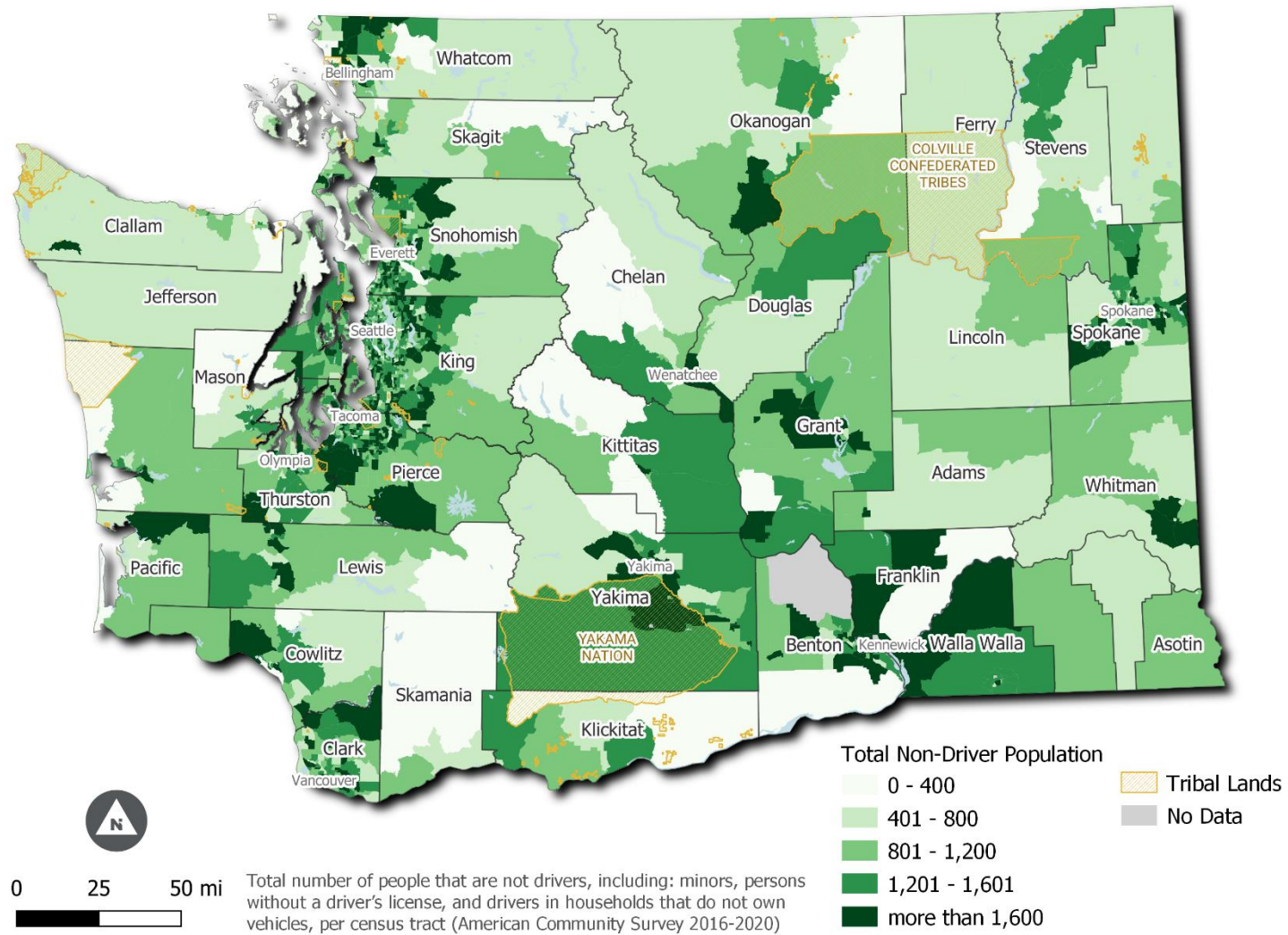
Nondriver Population Groups		Estimated Nondriver Population	Percent of Total Population
Under age 16 (and not eligible for a driver’s license)		1,418,197	18.4%
Age 16 and over	Do not have a driver’s license	474,584	6.2%
	Do not have a car*	401,453	5.2%

* Estimate of age-eligible drivers that belong to zero-vehicle households, based on U.S. Census Bureau ACS 5-Year Estimates 2016-2020 data for zero-vehicle households, household size, and driving-age population. Source: Washington State Department of Licensing data from FHWA’s Highway Statistics Series for year 2020; American Community Survey Five-Year Estimates 2016-2020; and the U.S. Census 2020.

The project team used this methodology to estimate the nondriver population for each county in the state and at the census tract level. The maps on the following pages show the Total Nondriver Population and the Percent of the Nondriver Population. [An interactive webmap is also available here.](#)

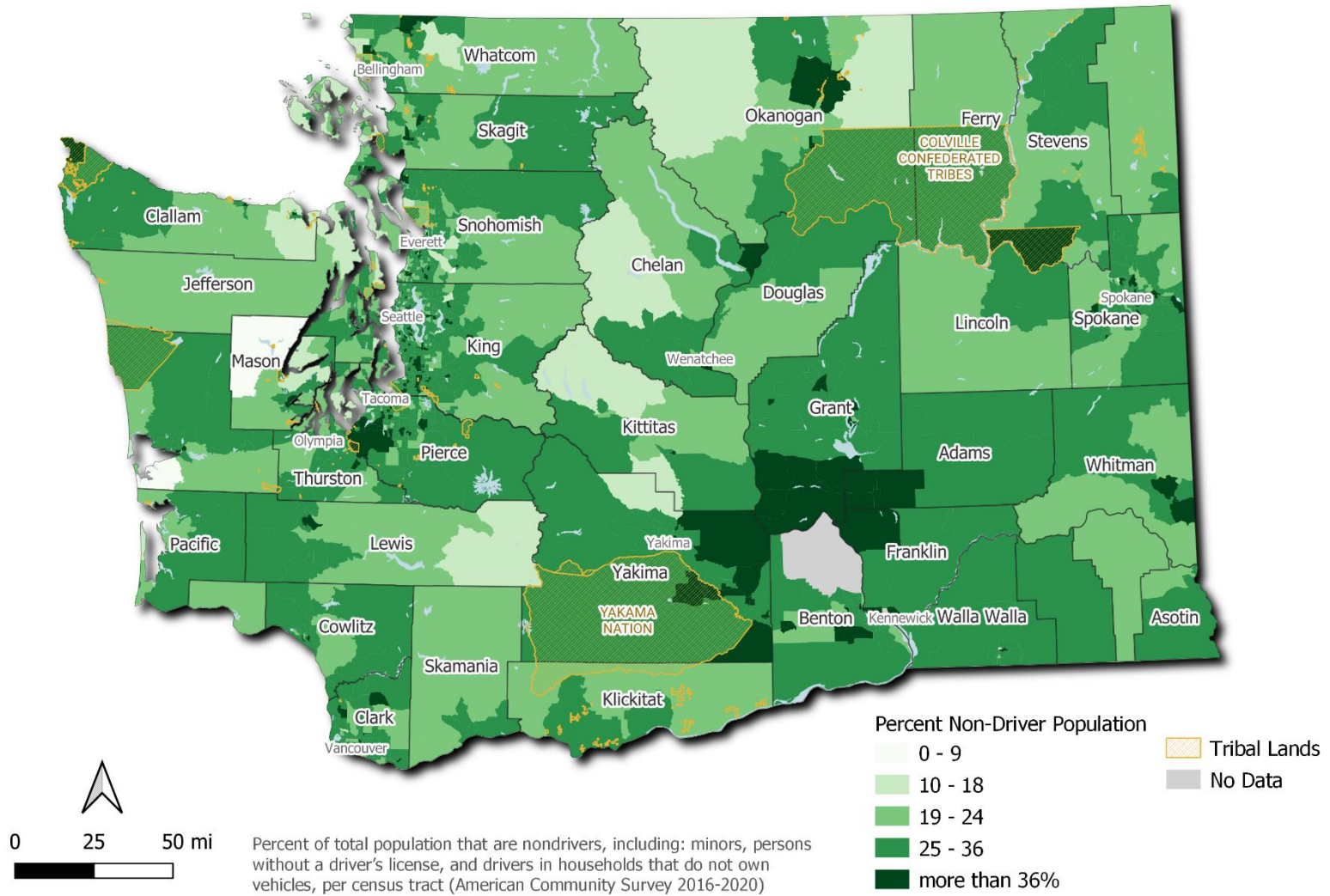
More details of this analysis can be found in the Appendices.

Figure 1. Total Nondriver Population in Washington State per Census Tract



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Figure 2. Percentage of Nondriver Population in Washington State per Census Tract.





3. STATEWIDE MARKET RESEARCH SURVEY & FOCUS GROUPS



3. STATEWIDE MARKET RESEARCH SURVEY & FOCUS GROUPS

MARKET RESEARCH METHODOLOGY

This section provides a summary of the methodology, design, and findings for the Statewide Nondriver Population Market Research Survey.

RESEARCH QUESTIONS

For the purposes of this research, nondrivers include those who **are age eligible to get a driver's license, but:**

- Do not hold a driver's license
- Do hold a driver's license but do not have a vehicle in their household
- Do hold a driver's license and do have a vehicle in their household but do not drive it regularly or are not the primary driver of the vehicle

To fully understand nondrivers and their transportation needs the project team examined **four primary research questions:**

- Who are the nondrivers in Washington? – to identify their demographics.
- What are the reasons nondrivers do not drive? – to understand their reasons for not driving.
- How do nondrivers get around and access daily life activities? – to understand their mobility and access preferences.
- What, if any, are the impacts of available transportation options on access to daily life activities and quality of life? – to understand the impact that transportation options have on quality of life.

SURVEY DESIGN AND IMPLEMENTATION

The survey design documented reasons for not driving; demographics of nondrivers including age, disability status, and rural or urban residence; availability of transportation options for nondrivers, and the impact those options have on access to services, economic opportunity, recreation, education, and other aspects of community life. The project team collaborated with a project Working Group and key stakeholders from nondriver interest groups to refine the research goals and survey questions, discuss the preliminary survey results, and confirm the audiences for three focus group sessions. The Working Group met virtually four times at key milestones throughout the study². The project team met with stakeholder representatives from the Washington Association of Area Agencies on Aging, Transportation Choices Coalition, and Disability Rights Washington during the survey design development process. During survey development, the project team referenced other travel behavior and nondriver studies. Most notably, the team adapted questions from the Transportation Security Index (Murphy, Gould-Werth, and Griffin, 2021)³, which includes questions to understand and evaluate the impact that nondriver status has on quality of life and access to daily life activities.

² For a complete list of Working Group representatives please see the Acknowledgements section.

³ Murphy, A. K., Gould-Werth, A., & Griffin, J. (2021). Validating the Sixteen-Item Transportation Security Index in a Nationally Representative Sample: A Confirmatory Factor Analysis. *Survey Practice*, 14(1), 27185.

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The project team conducted the market research survey both via phone and online from September 19th through October 24th of 2022. The team dialed over 50,000 phone numbers and contacted over 100,000 people online to receive a total of 2,786 responses from across the state. The survey included screening questions to determine nondriver status and required that participants be 18 years of age or older to participate.

Table 5. Number of People Contacted and Survey Respondents by Outreach Method

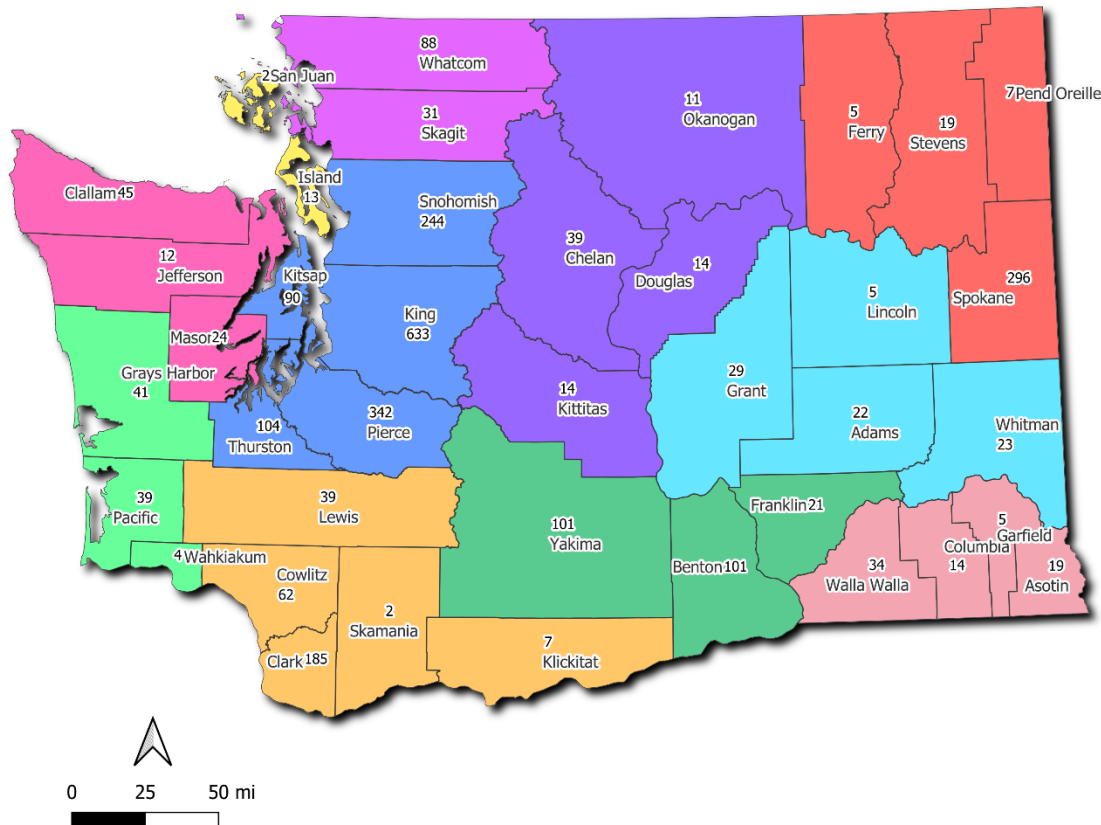
Method	People Contacted	Survey Respondents	Effective Response Ratio*
Phone	50,000+	76	1.5 per 1,000
Online	100,000+	2,710	27.1 per 1,000
Total	150,000+	2,786	18.6 per 1,000

* Note: these response ratios are significantly lower than is typical in surveying, the market research firm attributes this to the nondriver screening criteria in relationship to the number of people in the statewide population that meet one of those criteria.

A detailed description of the survey methodology and outreach effort is available in Appendix 1A.

SURVEY REPRESENTATION

Figure 3. Survey Responses by County and Region across Washington State.



The survey was geographically representative of Nondrivers in Washington. Nondriver survey respondents came from every county in Washington State. The highest number of survey responses for any single county — 633 total — came from King County, followed by Pierce, Snohomish, Spokane, Clark, Thurston, Kitsap, Yakima, Whatcom, and Benton counties. Garfield County had the fewest total responses (5 responses). This rate of response is correlated with county population. In the 10 most populous counties the project team heard from 3.4 out of every 10,000 people, in the least populous counties, we heard from 4.4 out of every 10,000 people.

Additional information about the proportion of responses by county and region is available in Appendix 1B.

The survey specifically screened for disability related to driving, rather than a more general disability status. Out of the 2,786 nondriver survey respondents, 19 percent indicated that they have a disability or condition that prevents or limits their driving. The 2020 American Community Survey (ACS) estimates that around 26 percent of the Washington State population has a disability, however, the ACS estimate is inclusive of the disabled population that are minors and adults, whereas the survey only accounts for adults (those 18 years old and older); and the ACS does not provide detail on the smaller subset of the overall disabled population that has a disability that prevents or limits their driving. The survey methodology and approach focused on the nondriver and not the caregiver of a disabled nondriver, which is a potential gap in representation of disabled nondrivers.

Additional information about disabled nondrivers and type of disability is available in Appendix 1B.

The market research survey may not have been able to capture a proportionate response from older adults that do not drive. While the screening criteria sought to capture the group of older adults that have a driver license and primary access to a vehicle, but do not drive most places, the low response rate for phone surveys (yet high rate of older adults that took the phone survey versus the online survey) indicates there may have been a difficulty in either reaching older adults that met the criteria or controlling for responses on this topic that can be one of frustration and anxiety for older adults.⁴

Additional information about screening questions and demographic response rates is available in Appendix 1B.

FOCUS GROUPS

The project team conducted three focus groups with key nondriver groups — people with disabilities, nondrivers from smaller and rural counties, and nondrivers from larger and urban counties, to fill in knowledge gaps and further explore survey results. Focus group participants were recruited from survey respondents to balance geographical and other demographic characteristics. The project team also recruited disabled participants through email listserv communications via Disability Rights Washington.

Questions posed to the focus group participants emphasized four primary themes:

- **Mobility needs and access:** Questions related to travel needs, frequency, and preferred mode for accessing daily life activities.
- **Transportation access opportunities and challenges:** Questions related to types of transportation options and mobility means that work for participants, do not work well, and why. This also included questions related to infrastructure, services, and technologies that participants would like to see incorporated into their mobility options.

⁴ Depressive Symptoms Among Older Adults Who Do Not Drive: Association With Mobility Resources and Perceived Transportation Barriers <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5007631/>

- **Impacts on quality of life:** Questions that aimed to understand how nondriver status affects access to daily life activities, travel behaviors, and quality of life.
- **Interwoven issues:** Questions that invited participants to expand upon and discuss how their previous responses about being a nondriver intersect with other types of experiences in their life.

The complete focus group script is available in Appendix 1J.

SURVEY FINDINGS

This section presents survey findings, which are organized by each of the study's four key categories of research questions:

- **Demographics:** Who are the nondrivers in Washington State?
- **Reasons:** What are the reasons nondrivers do not drive?
- **Mobility and Access:** How do nondrivers get around and access daily life activities?
- **Impact:** What, if any, are the impacts of available transportation options on access to daily life activities and quality of life?

The nondriver survey received a total of 2,786 responses — 76 by phone and 2,710 online. Nondriver survey respondents who completed the phone survey were more likely to have a valid driver's license, be 65 years or older, have a disability or condition that prevents them from driving or limits their driving, be Caucasian, own an apartment or house and have a smaller household compared to nondriver survey respondents who completed the online survey.

The project team analyzed survey results and extracted findings for all nondriver survey respondents, but also looked at differences across key demographic categories: gender, age, income, urban or rural county location, and disability status. Differences in responses between demographic categories (e.g., male and female) were measured using chi-squared tests and any noted differences included below were found to be statistically significant (at the 95% confidence level).

DEMOGRAPHICS: WHO ARE THE NONDRIVERS?

The project team collected demographic information from survey respondents — including location, gender, age, race and ethnicity, housing status, household size, responsibility for others' transportation, and household income to fully understand who makes up the population of nondrivers in the state, and ensure the study reached a representative population.

Over one half of nondriver survey respondents (51%) do not have a driver license, the other one half of survey respondents do have a driver's license but do not have a vehicle (10%), do have a vehicle but are not the primary driver of the vehicle (29%), or do have a vehicle but do not drive it to meet most transportation needs (10%). The breakdown of nondriver groups by number of respondents is captured in the table below.

Out of 2,786 survey respondents, 61 percent are nondrivers that either do not have a driver's license or a vehicle in the household. The other 39 percent are nondrivers by choice (or lifestyle).

Table 6. Nondriver Survey Respondents Groups

Number of Respondents	Respondent Group
1,428	Do not have a driver’s license.
282	Have a driver’s license but no vehicle in household.
810	Have a driver’s license and a vehicle in household but are not the primary driver of that vehicle.
266	Have a driver’s license, a vehicle in household, and are the primary driver but do not drive it to meet most transportation needs.

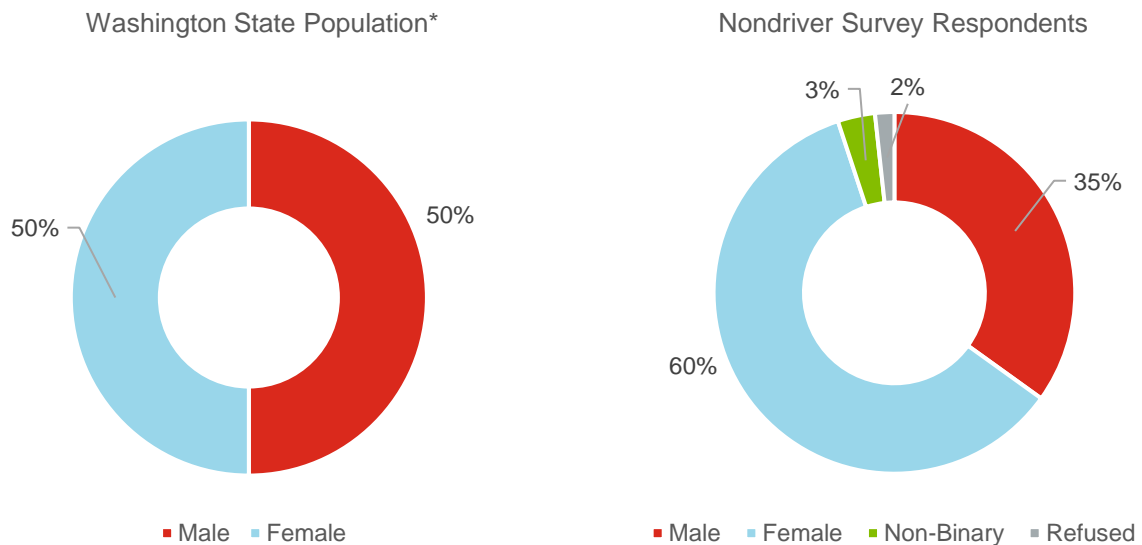
Detailed Findings

The survey asked those that qualified as nondrivers about their demographics to build a comprehensive picture of who they are and to compare demographics across nondriver groups: whether they hold a valid driver’s license, have access to a vehicle in their household, or are the primary driver of that vehicle. The following section breaks down who the nondrivers are by gender, age, race and ethnicity, household type and size, and income, identifying significant trends for each nondriver group.

Additional demographic information is available in Appendix 1B.

Gender

Figure 4. Gender Distribution of Nondriver Survey Respondents (n=2,786)



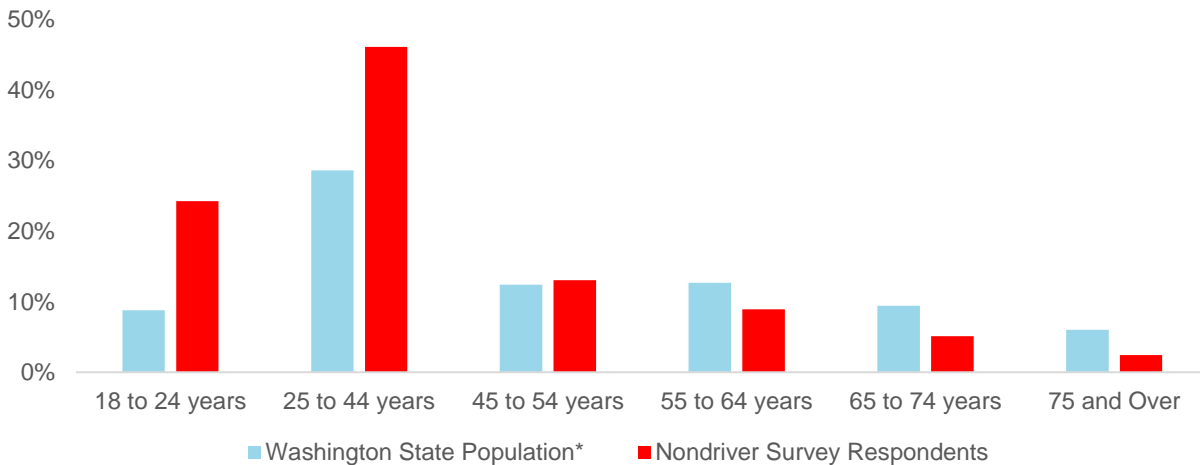
* U.S. Decennial Census 2020 (U.S. Census Bureau)

More women than men responded to the survey and proportionally more women than men have a valid driver's license. 60 percent of nondriver survey respondents were female, and 35 percent were male. Compared to the population of Washington State (U.S. Census Bureau 2020), female survey respondents represent a significantly larger share than males. Proportionally, more female nondriver respondents have a valid driver's license compared to male nondriver respondents, but more male nondriver respondents indicated that they are the primary driver of a vehicle in their household⁵.

Age

Nondriver survey respondents tend to be younger. Survey respondents were younger than the overall population of Washington when compared to the U.S. Census Bureau's American Community Survey (2016-2020 5-Year Estimates). 70 percent of survey respondents were under the age of 45 and 24 percent were younger than 25. Proportionally, fewer seniors met the nondriver screening questions and were selected to participate in the survey (compared to the Washington population), despite a conscious effort to reach this demographic group. Senior nondrivers were more likely to have a driver's license and more likely to have a vehicle in their household compared to the nondriver survey respondents under 64 years old. Also, respondents under the age of 25 were more likely to indicate that they are not the primary driver of a vehicle in their household compared to respondents over the age of 25.

Figure 5. Age Distribution of Nondriver Survey Respondents (n=2,786)



* U.S. Decennial Census 2020 (U.S. Census Bureau)

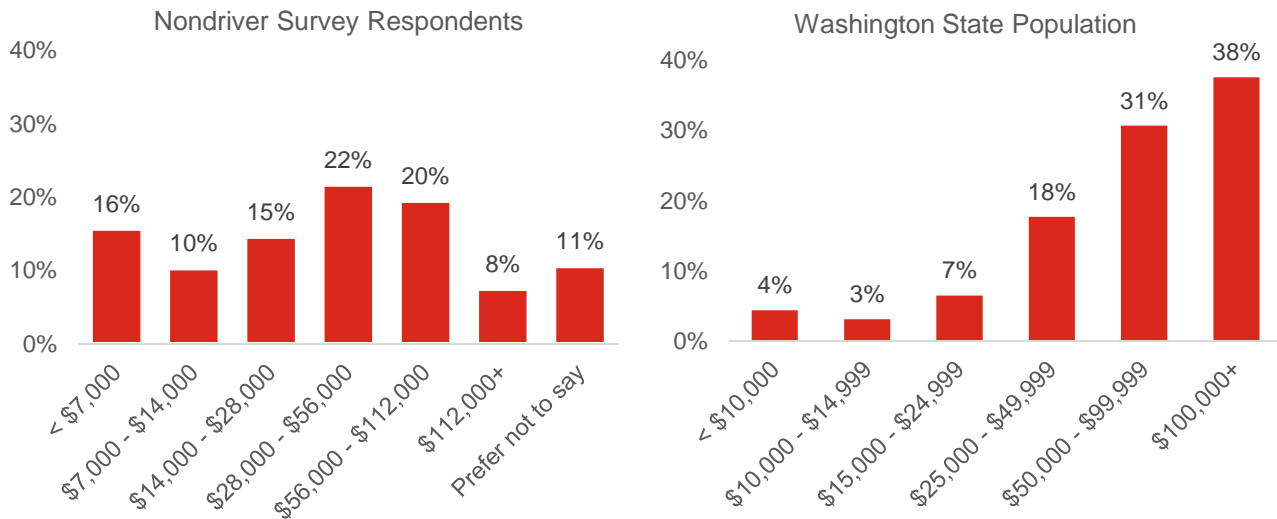
Income

Nondriver survey respondents tend to be lower income. The survey had a larger share of lower income nondriver respondents compared to the population of Washington, which supports other survey findings related to high car ownership costs and a common sentiment among nondriver survey respondents who felt owning a car was too expensive (see

⁵ A contemporary and thorough revision of the research literature and complexity of car access and use by gender in auto-deficit households is provided by Evelyn Blumenberg, Andrew Schouten, and Anne Brown (2022). Who's in the driver's seat? Gender and the division of car use in auto-deficit households. Transportation Research Part A: Policy and Practice. Volume 162, August 2022, pages 14-26.

Reasons: What are the reasons Nondriver survey respondents do not drive?). Close to 15 percent of the Washington population has an annual household income of less than \$25,000. In contrast, more than 40 percent of nondriver survey respondents have a household income of less than \$28,000. Survey respondents with higher income (more than \$56,000) indicated having a valid driver’s license, a vehicle in their household, and being the primary driver of a vehicle more often than those with lower income levels.

Figure 6. Household income distribution of survey respondents (n=2,786) versus state population*

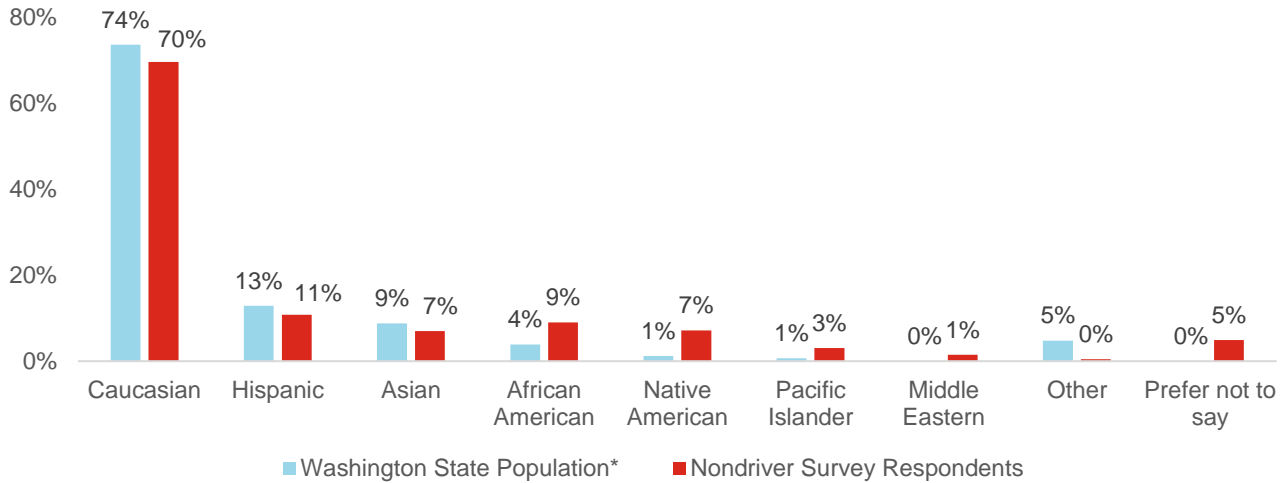


* The breakdowns of the charts above do not match, because the Nondriver Population Survey used a different income scale than the figures reported by the U.S. Census ACS. The survey breakdowns were chosen to better reflect levels of poverty according to federal standards, where \$14,000 is roughly equal to the federal poverty line of an individual and \$28,000 that of a family of four.

Race

More African American and Native Americans nondrivers responded to the survey compared to the overall Washington State population. Nine percent (9%) of nondriver respondents were African American and seven percent (7%) were Native American. These are significantly higher response rates compared to the population of Washington State. Response rates from other racial and ethnic groups closely matched overall population size.

Figure 7. Race and Ethnicity of Nondriver Survey Respondents (n=2,786)

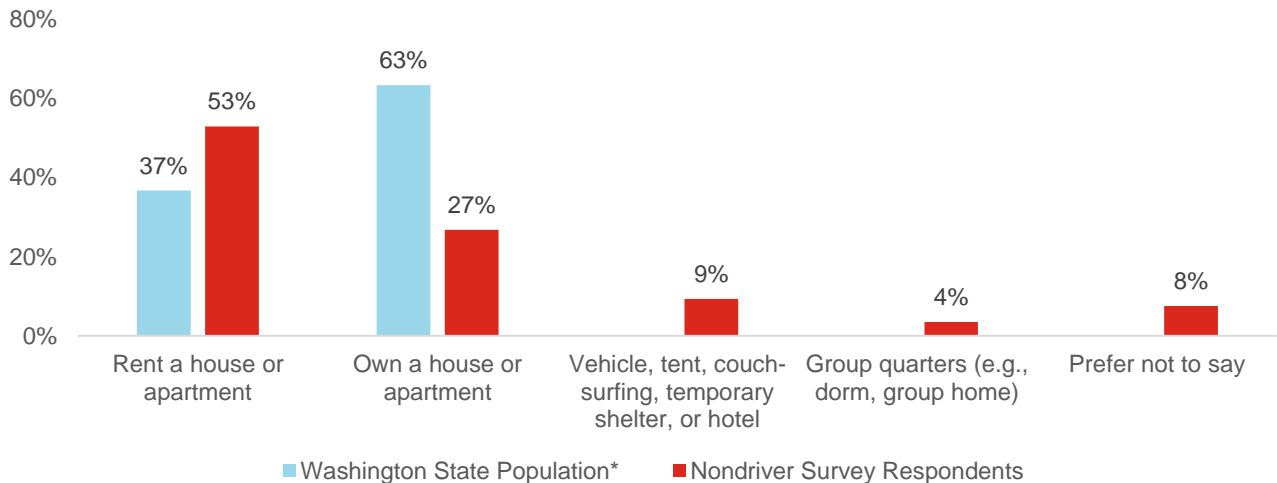


* 2020 American Community Survey (U.S. Census Bureau 2020)

Housing Status

Nondriver survey respondents tend to rent, rather than own a home. A majority of the nondriver survey respondents (53%) were individuals who rented instead of owned their homes. This contrasts the norm for Washington State where about two-thirds of residents own their home and about one-third rent. Survey results also show representation from those living in vehicles, temporary shelters, or group quarters for which comparable census data are not available.

Figure 8. Housing Status of Nondriver Survey Respondents (n=2,786)



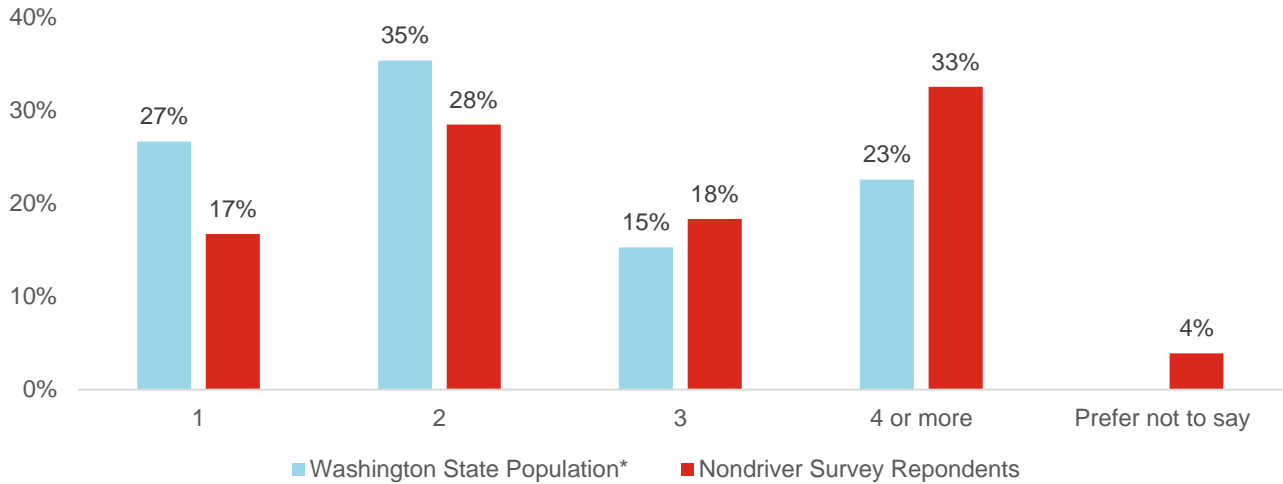
* 2020 American Community Survey (U.S. Census Bureau 2020)

Household Size

Nondriver survey respondents tend to belong to a larger household size. One-third of survey respondents live in a household with more than four people compared to about one-quarter (23%) of the Washington population. The difference is statistically significant and indicates that nondrivers live in larger household sizes.

This result correlates with the fact that nondriver survey respondents are younger, with about one-quarter being under the age of 25 and living with family.

Figure 9. Household Size of Nondriver Survey Respondents (n=2,786)

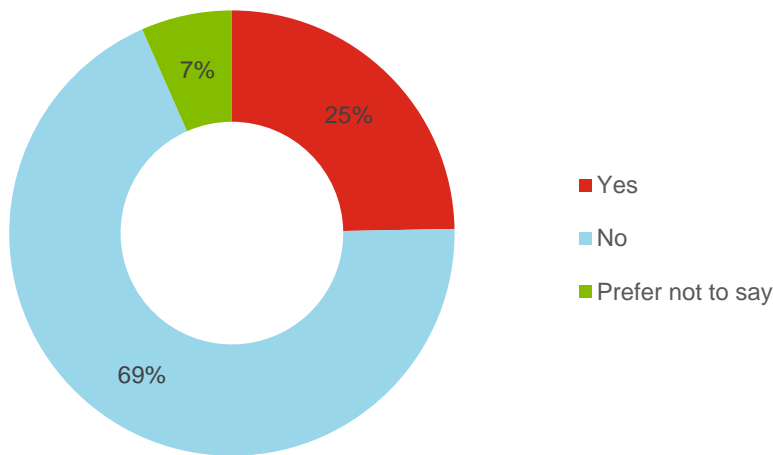


* 2020 American Community Survey (U.S. Census Bureau 2020)

Transportation Responsibility for Others

Most nondriver survey respondents are not responsible for the transportation needs of others. More than two-thirds (69%) of nondriver survey respondents indicated that they are not responsible for the mobility needs of others, whether a child, dependent, or other nondriver in the household.

Figure 10. Nondrivers Responsible for the Transportation Needs of Others (n=2,786)



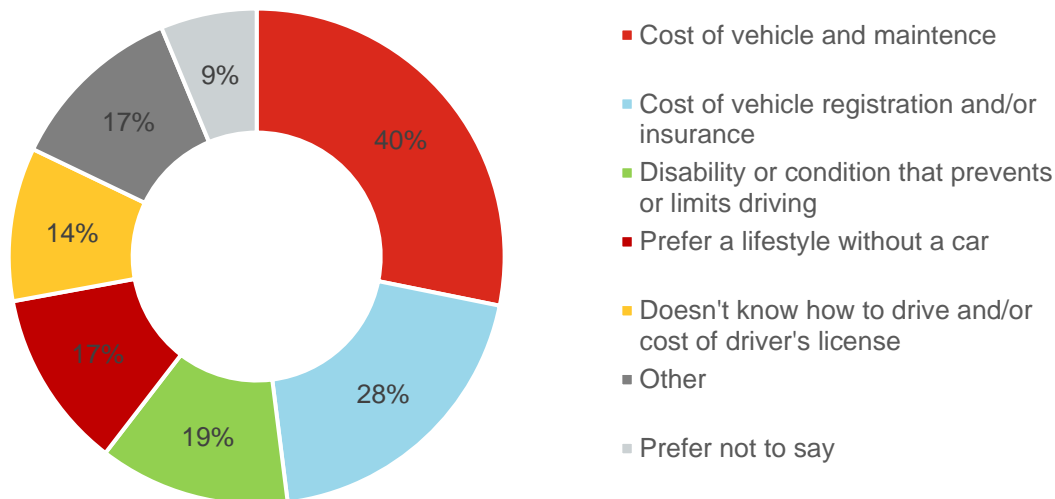
REASONS: WHAT ARE THE REASONS NONDRIVER SURVEY RESPONDENTS DO NOT DRIVE?

The survey prompted nondriver respondents to answer the following question: “Which of the following best describes your reason for not driving?” Respondents were allowed to select multiple reasons including “other” and “prefer not to say.” The responses were examined for comparison across demographic differences.

Detailed Findings

Nondriver survey respondents cited cost, above all else, as their reason for not driving. 40 percent said the costs of purchasing, operating, and maintaining a vehicle are too high, while another 28 percent stated that the costs of vehicle registration and insurance are too high. Additional reasons — including a disability that prevents them from driving, lifestyle preference, and lack of driver’s license — were also mentioned as reasons for not driving. About 1 in 6 survey respondents (17%) selected “other,” and those that wrote in an option mentioned a suspended license, partner uses the car, fear and/or anxiety, and other reasons for not driving.

Figure 11. Nondriver Survey Respondents Primary Reasons for Not Driving (n=2,786).



Additional information on barriers to driving by demographic are provided in Appendix 1C.

Reasons for not driving varied across demographic groups. More males than females selected the cost of purchasing and maintaining a vehicle, and the cost of registration and insurance, as the primary reasons for not driving. Besides cost, more females stated that disability status or other medical conditions were reasons for not driving, while more males stated a preference for a lifestyle without a car. Proportionally, more females stated that not knowing how to drive was a reason for not driving compared to males.

When broken down by age, cost (vehicle purchase and maintenance costs and insurance and registration) was the primary reason for not driving for those under 45 years old. For adults 45 years old and older, the primary reasons for not driving were disability status or other medical condition. When looking at lifestyle preferences, more nondriver survey respondents under 45 years old preferred a lifestyle without a car compared to those over 45. Similarly, knowing how to drive and/or the cost to obtain a license were limiting factors for younger nondriver survey respondents.

Respondents with lower income (under \$56,000) cited the cost of registration/insurance and disability status as a reason for not driving more often than respondents with higher income (above \$56,000). Lower income survey respondents also reported the lowest rate of preferring a car-free lifestyle while also citing a lack of driver's education and/or cost to obtain a license as a reason not to drive.

Survey respondents from the most populated and urban counties identified vehicle cost and maintenance as the primary reason for not driving at a higher proportional rate than respondents from the least populated and rural counties, although both groups stated vehicle cost and maintenance as the main reason for not driving.

Respondents from the least populated and rural counties stated that disability or other medical conditions were the third most common reason for not driving and this represented a higher proportional rate than urban respondents. Respondents from the most populated and urban counties reported higher rates of preferring a car-free lifestyle and not knowing how to drive, as reasons not to drive, as compared to their rural peers.

MOBILITY AND ACCESS: HOW DO NONDRIVER SURVEY RESPONDENTS GET AROUND AND ACCESS DAILY LIFE ACTIVITIES?

The survey asked respondents extensively about their available options for transportation – including cars, public transit, paratransit, taxis, ridesharing, bicycles, scooters, and walking – and their ability to access daily life activities. Nondriver survey respondents were also asked about their frequency of travel, ease of access, and preferred mode of travel when accessing different daily life activities. Daily life activities included access to employment, education, food and groceries, health care, childcare, recreation activities, social and family activities, and other aspects of community life such as places of faith.

Detailed Findings

Most nondriver survey respondents traveled in the last 30 days to access food and groceries (81%), followed by medical care (73%), recreation (68%), and social, family, and spiritual activities (62%). Just under one half of the nondriver survey respondents traveled to access education and employment (48%), and only 12 percent of them traveled to access child and dependent care.

Filtering survey results for nondriver survey respondents who traveled to daily life activities more than once a week in the last 30 days, the project team found that about two-thirds of these nondrivers (65%) traveled to education and employment, about 40 percent traveled to access child or dependent care, and just over one quarter (26%) traveled to access food and groceries. These nondriver survey respondents traveled less frequently to access recreation (21%), social, family, and spiritual activities (17%), and medical or health care (7%).

The analysis of survey results did not find significant differences in mode of access and frequency of travel between demographic groups. Additional information on travel frequency and transportation mode of nondrivers is available in Appendix 1D.

Travel Frequency and Mode

Figure 12. Percentage of Nondrivers that Traveled to Daily Life Activities at least once in the Last 30 Days

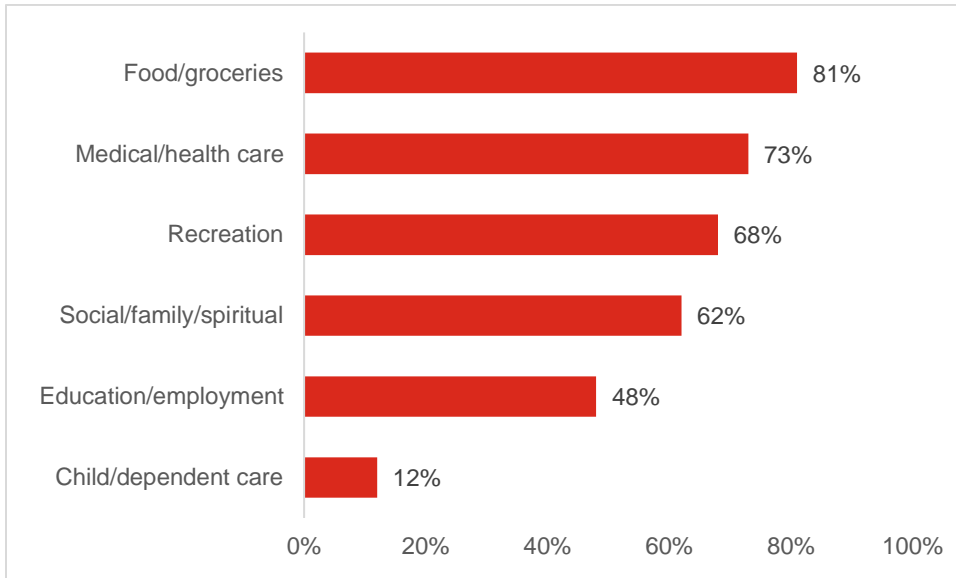
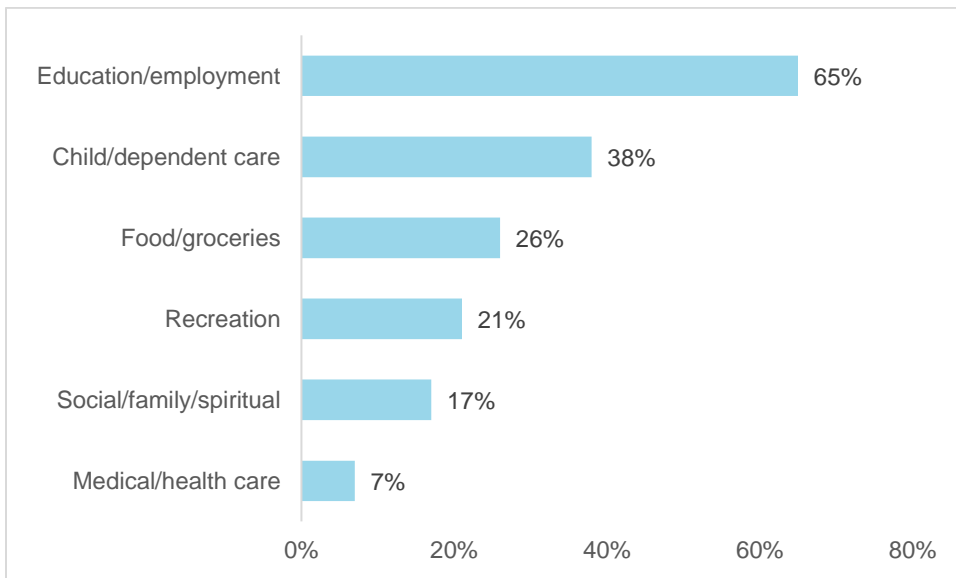
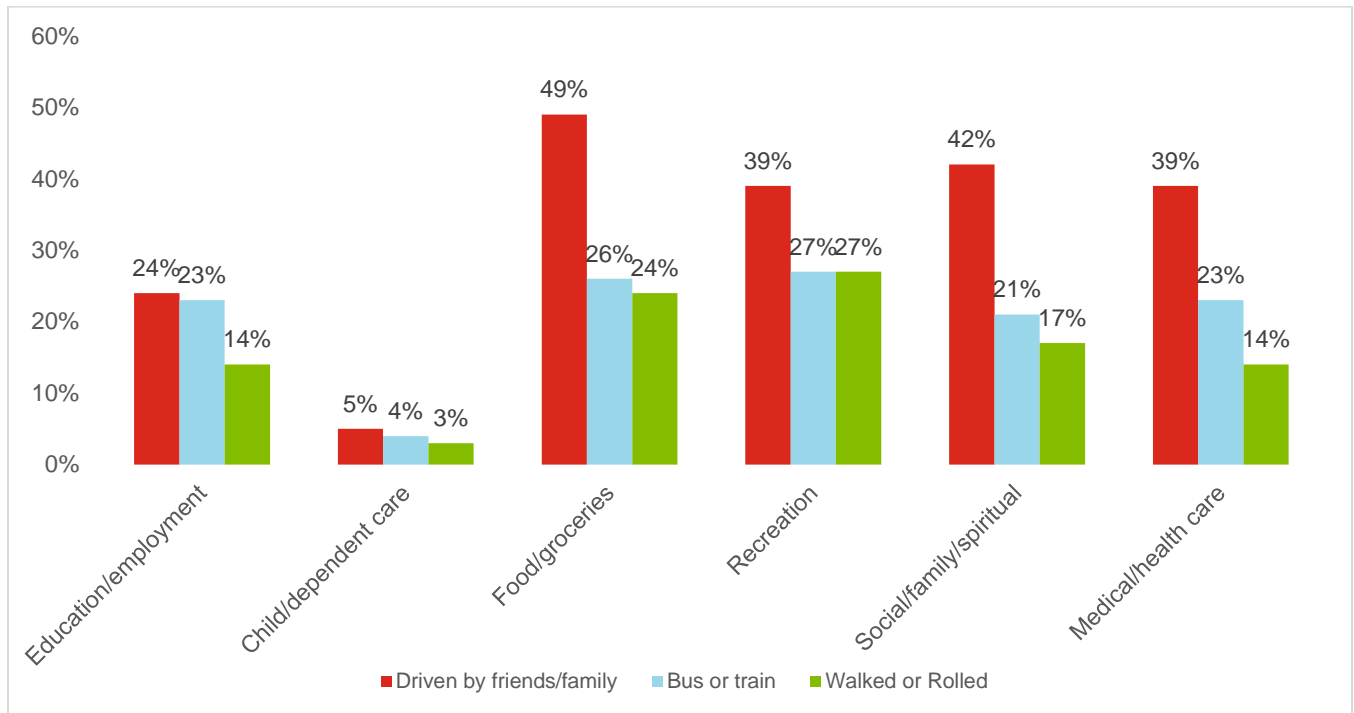


Figure 13. Percentage of Nondrivers that Traveled to Daily Life Activities More Than Once per Week in the Last 30 Days



Across all travel to daily life activities that was reported by nondriver survey respondents, the three most common travel modes that nondrivers used were being driven by friends or family, riding a fixed-route bus or train, and walking or rolling (e.g., mobility device, mobility scooter, or wheelchair).

Figure 14. Percentage of Nondrivers that Traveled to Daily Life Activities by Most Common Travel Mode



Note: percentages reflect preferred transportation mode and travel in the last 30 days for all nondriver survey respondents, regardless of frequency of travel, which is why access to child and dependent care is proportionally lower, because many survey respondents indicated not have traveled to that activity.

Overall Usability of Transportation Options

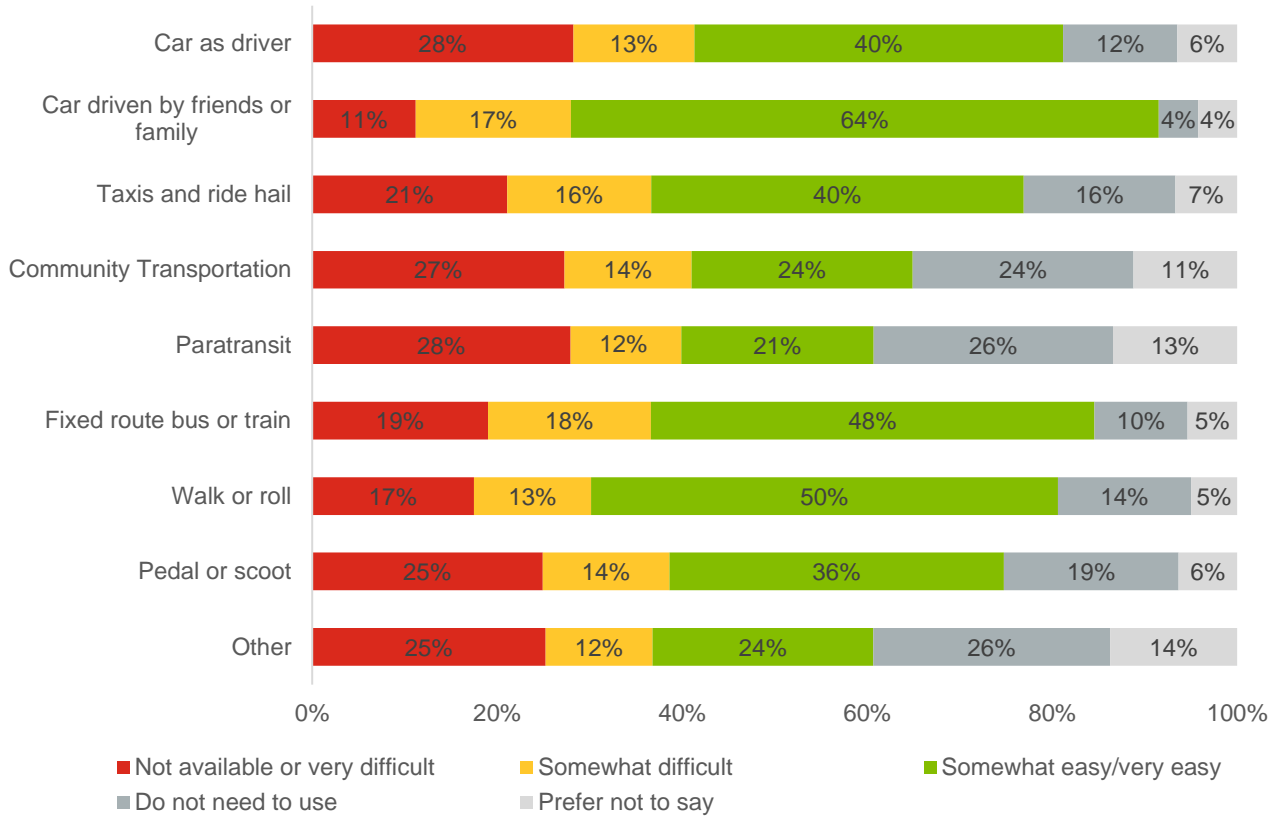
Nondriver survey respondents were asked about the usability of different transportation options, by rating the ease of use of different travel modes. Nondriver survey respondents stated that the easiest options included cars driven by friends or family, walking or rolling, riding fixed-route buses or trains, and riding a taxi or ride-hail service. The most difficult options included driving a car, using a community transportation or paratransit service, and pedaling or scooting (riding a bike or scooter).

Overall usability of different transportation options varied by demographic group as summarized below:

- **Gender:** Pedal or scoot, walk or roll, fixed route bus or train, volunteer/community transportation, and taxi and ride hail are easier for male nondriver survey respondents to use compared to their female counterparts.
- **Age:** Most transportation options are easier to use for younger nondriver survey respondents, but older nondriver survey respondents do not need to use transportation as often as younger nondriver survey respondents.
- **Income:** Pedal or scoot, taxi and ride hail, car driven by friends and family, and driving a car themselves is easier to use for nondriver survey respondents with higher income compared to those with lower income.
- **Location:** Pedal or scoot, fixed route bus or train, taxis or ride hail, and car driven by friends or family are easier for urban nondriver survey respondents to use than their rural counterparts. Urban nondriver survey respondents said they do not need to use paratransit and volunteer/community transportation more often than their rural counterparts.

- **Disability status:** Pedal or scoot, walk or roll, fixed route bus or train, taxis and ride hail, and driving a car themselves is easier for physically abled nondriver survey respondents to use compared to those with a disability.

Figure 15. Ease of Use of Travel Options as rated by Nondriver Survey Respondents (n=2,786)



Additional information on transportation usability by demographic is available in Appendix 1E.

Overall Access to Daily Life Activities

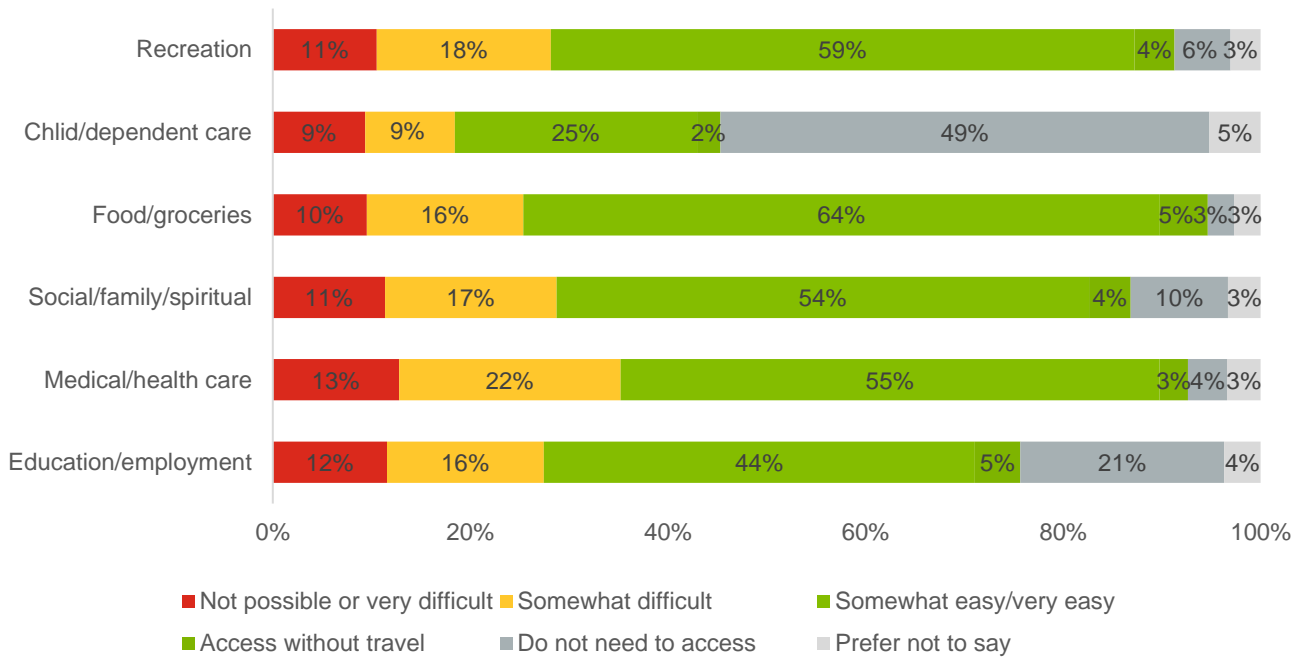
Nondriver survey respondents were asked about their ability to access different activities – including recreation opportunities, child or dependent care, food and groceries, social, family, or spiritual activities, medical and healthcare needs, and education and employment.

More than 50 percent of nondriver survey respondents stated that they can easily access food and groceries, recreation, social, family, or spiritual activities, and medical or healthcare needs. About one half of survey respondents stated that they do not need to access child or dependent care, and about one in five (21%) said that they do not need to access education or employment.

The most difficult activities for nondriver survey respondents to access are medical and health care with 35 percent saying that is somewhat difficult, very difficult or not possible. Access to education and employment, recreation, and social, family or spiritual activities is somewhat difficult, very difficult, or not possible for 28 percent of respondents.

Additional information on access to daily life activities by demographic is provided in Appendix 1F.

Figure 16. Ease of Access to Daily Life Activities as rated by Nondriver Survey Respondents



As mentioned above, some activities are easier for nondriver survey respondents to get to than others and some do not need to access activities compared to others.

- **Gender:** Female nondriver survey respondents report less need to access education and employment as opposed to males, and more males report that access to education and employment is easier more often than their female counterparts.
- **Age:** Older nondriver survey respondents report less need to access education and employment, social, family, or spiritual, child, or dependent care, and recreation activities, as opposed to younger age groups. Younger age groups report education and employment and recreation as being easier to access more often than older age groups.
- **Income:** Income has more impact on access to activities other than demographic characteristics. Those with lower income found it more difficult to access education and employment, medical and health care, all other activities compared to higher income nondriver survey respondents. Lower income nondriver survey respondents also reported that they do not need access to education and employment more often than those with higher income.
- **Location:** Rural nondriver survey respondents said that education and employment, medical and health care, and all other activities are harder to access than urban nondrivers. Urban nondriver survey respondents do not need to access child or dependent care as much as their rural counterparts.
- **Disability Status:** Disabled nondriver survey respondents said they do not need to access education and employment and child or dependent care more often than physically abled nondrivers. Disabled nondriver survey respondents said it was more difficult to access social, family, or spiritual and recreation activities compared to non-disabled nondriver survey respondents.

IMPACT: WHAT, IF ANY, ARE THE IMPACTS OF TRANSPORTATION OPTIONS ON ACCESS TO DAILY LIFE ACTIVITIES AND QUALITY OF LIFE?

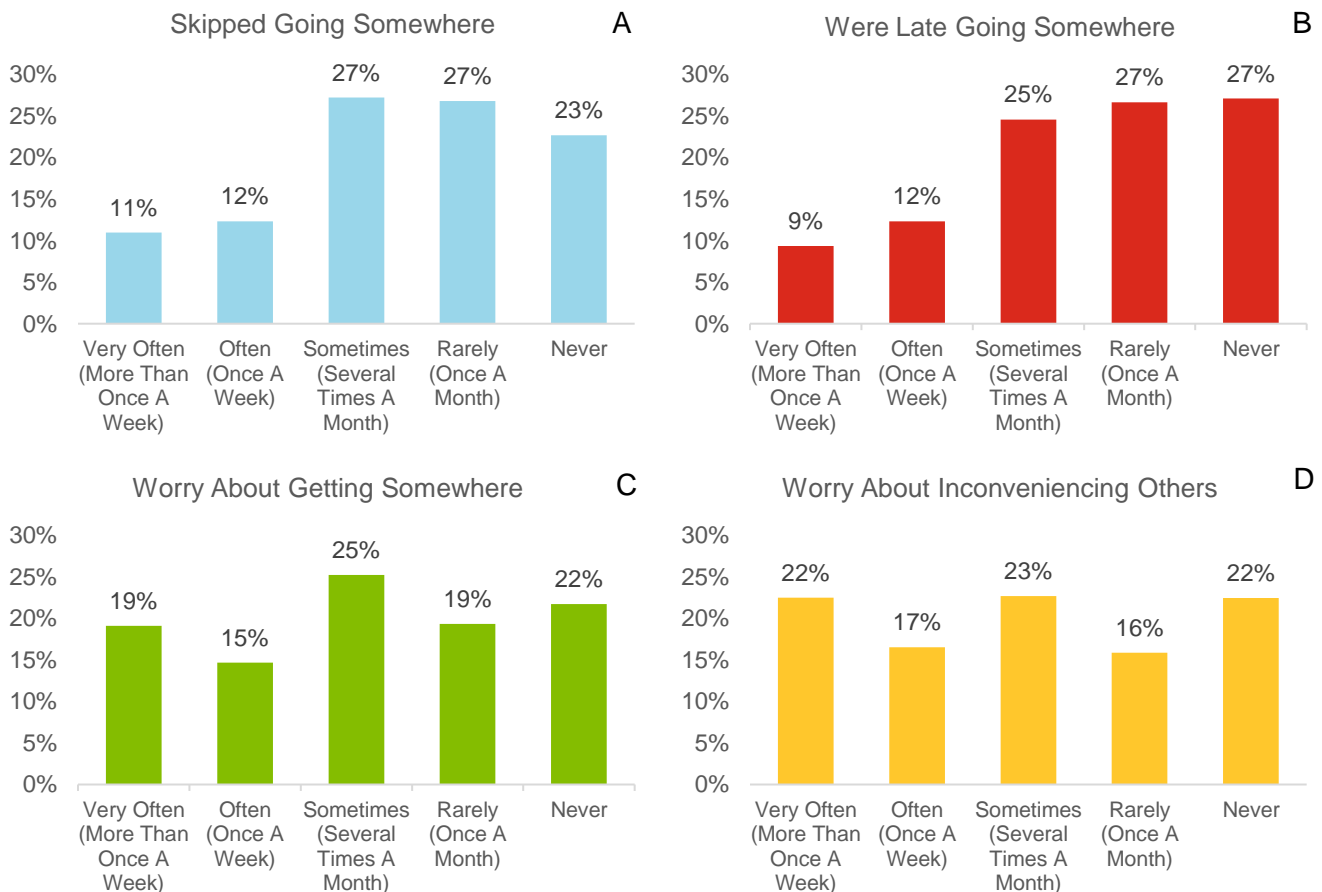
The survey asked nondriver respondents how often they skip going somewhere, are late getting somewhere, worry about getting somewhere, or worry about inconveniencing others due to transportation options. The survey included two open-ended questions that asked about the impact of the nondriver status on respondents' quality of life and suggestions to improve their transportation options. The project team assessed the impact that nondriver status and existing alternative transportation options have on nondriver survey respondents and found several key findings presented below.

Detailed Findings

What is the impact of nondriver status on travel behavior?

Travel behavior of nondriver survey respondents is often or very often impacted by their nondriving status. Nondriver survey respondents were asked a series of questions about the impact of problems with transportation on their travel behavior in the past 30 days. At least once a week if not more often, 23 percent of nondrivers will skip going somewhere because of a problem with transportation, 22 percent will be late when not driving, 34 percent worry about being able to get somewhere, and 39 percent worry about inconveniencing friends and family.

Figure 17. Frequency at which nondriver survey respondents indicated they...



The impact of travel behavior in response to the questions presented above varies by gender, age, and income, and to a lesser extent by location and disability status.

Females, younger, and lower income nondriver survey respondents skipped going somewhere due to their nondriver status more than their male, older, and higher income peers. While one half of nondriver survey respondents indicated they rarely or never skipped going somewhere because of transportation, 12 percent of females indicated that they skip going somewhere more than once a week while only 9 percent of males had the same response.

Younger nondriver survey respondents are more impacted by their transportation options, they said they skipped going somewhere due to transportation “very often” or “often” more frequently than older nondriver survey respondents. In addition, 38 percent of those 65 years old and older said they “never” skipped going somewhere, which is a statistically significant higher proportion than the other age groups.

Income is another contributing factor, with lower income nondriver survey participants indicating that they skipped going somewhere more than once per week more often than higher income levels. 57 percent of those with annual income of \$56,000 or higher indicated that they rarely or never skip going somewhere due to transportation, which is a statistically significant higher proportion than the lower income levels.

Females, younger, and lower income nondriver survey respondents were late getting somewhere due to their nondriver status more than their male, older, and higher income peers. When asked how often they were late getting somewhere because of a problem with transportation, 10 percent of female nondriver survey respondents said this occurs more than once per week which is a statistically significant higher proportion than the 7 percent of males who also said this occurs more than once a week.

Younger nondriver survey respondents were late getting somewhere more often than survey respondents 65 and older, with 53 percent of those 65 and older saying that they were never late getting somewhere (compared to a range of 20%-36% for the other age levels).

Nondriver survey respondents with annual income under \$14,000 said they were late getting somewhere more than once a week more often than those with income over \$25,000, and 29 percent of those with income \$56,000 and up said they were never late getting somewhere, which was a statistically significant higher proportion than the other income levels. One-third (33%) of nondriver survey respondents with a disability said they were never late getting somewhere, which was a statistically significant higher proportion than the 26 percent of nondriver survey respondents without a disability.

Females, younger, and lower income nondriver survey respondents worry about being able to get somewhere due to not driving more than their male, older, and higher income peers. 21 percent of female nondriver survey respondents worried about getting somewhere more than once per week, which was a statistically significant higher proportion than the 15 percent of males who worry more than once a week.

The differences between income and age levels were also significant. Generally, younger nondriver survey respondents worried about getting somewhere more frequently than their older counter parts (those 45 years old and older). 27 percent of nondriver survey respondents with annual income under \$14,000 worried about getting somewhere more than once a week, which is a statistically significant higher proportion than the 18 percent with income between \$14,000 and \$56,000 and the 14 percent with income over \$56,000. Most respondents (51%) with income over \$56,000 said that they either rarely (once a month) or never worry about being able to get somewhere.

Females, younger, lower income, and disabled nondriver survey respondents worry about inconveniencing others due to their nondriver status more than their male, older, higher income, and non-disabled peers. Female nondriver survey participants worry about inconveniencing others more than male nondriver survey respondents. 26 percent of female nondriver survey respondents said that they worry about inconveniencing others because they need help with transportation more than once per week, which is a statistically significant higher proportion compared to 16 percent of male nondriver survey respondents.

Younger nondriver survey respondents worry about inconveniencing others because they need help with transportation more than older nondriver survey respondents. For example, those under 65 years old said “very often” more than those 65 and older, and 39 percent of those 65 and older said they “never” worry about inconveniencing others which is a statistically significant higher proportion than those in age categories under 65.

Lower income nondriver survey participants worried more often about inconveniencing others because they need help with transportation more than higher income survey respondents. Nondriver survey respondents with a disability worry more about inconveniencing others because they need more help with transportation than nondriver survey respondents without a disability.

Additional information on transportation impact by demographic group is provided in Appendix 1G.

What is the impact of nondriver status on quality of life?

Nondrivers were asked about how their transportation options affected the quality of their lives in an open-ended question. The project team reviewed and coded responses as either positive, neutral, negative, or no response across a variety of themes, including everything from their daily life activities, employment opportunities, costs, independence or dependence, mood, and safety among others.

Additional information on open-ended questions, codes, and frequency of coded responses is available in Appendix 1H.

Overall, nondriver status negatively impacts nondriver survey respondents’ quality of life. Some survey respondents noted the benefits of not driving. Benefits such as increased efficiency in taking public transit and not having to park or look for parking, as well as improved mental and physical well-being with walking or biking were coded 93 times out of 3,071 total codes across responses. However, more often nondriver survey respondents cited daily negative impacts across almost all aspects of their lives. Negative impacts were coded 1,508 times across 15 different categories out of 3,071 total codes across responses.

“Without reliable transport options, everything in my life is negatively affected. I will not go to events, not shop in certain stores, and even reschedule medical appointments because of limited access (female, 43 years old, Kitsap County).”

Within the responses that identified a negative impact, 282 responses indicated that daily life is negatively impacted by non-driving, with an additional 97 responses indicating that quality of life is degraded as a nondriver. In addition, 168 responses indicated that nondrivers limit their number of trips, including essential trips such as commuting to work or medical appointments. Others feel their social and family life is negatively impacted with some respondents saying they are “excluded” from their social circles.

“I have three brothers. One lives close, one across state, one across the coast. Either way, it would cost me so much money to ever take the initiative to visit them, that I hardly ever see any of them (female, 27 years old, Clark County).”

The most prevalent challenge for nondriver survey respondents was trip-planning, with 194 responses citing a lack of reliable transportation options where they live. Many felt they “do not have transit options” citing “lengthy and cumbersome” bus rides during rush hour, difficult to understand schedules, and a lack of any public transit in some places as barriers to using transit. Others mentioned lacking friends or family who can provide transportation and the high cost of ride-share vehicles as barriers to transportation.

“Using the bus is very helpful but it’s got very exact times and sometimes I end up having to wait quite a while because it just didn’t fit with my schedule. Getting my friends and family to drive me around is difficult because it’s really up to them and sometimes they’re just not up for it. Which is totally not their fault. I often stay home because of transportation (female, 19 years old, Snohomish County).”

What do Nondrivers suggest for improving their transportation options?

Nondriver survey respondents overall suggested that improved transportation services would improve their quality of life. Most nondrivers see cars as the best option for increased freedom and mobility in their lives, with nearly a quarter of responses suggesting that more affordable cars, registration fees, and license fees would improve their quality of life.

“A personal vehicle certainly does open up options for just about everything and that would be very nice (male, 42 years old, Thurston County).”

The second most common suggestion was to improve transit routes, particularly bus service, would improve their quality of life. Additional routes and more reliable schedules, including extended services on Sundays and Holidays, as well as lower fares were most often cited as improvements that would make the most difference to them.

“More express buses operating from more locations and to more neighborhoods. I appreciate the expansion of the rail service but it's too little and too slow. The prices of bus fares are also too prohibitive for someone who just barely makes more than the cutoff for reduced fare and who also can't afford rising rental costs, food, etc. (non-binary, 43 years old, King County)”

Some respondents suggested that they would like to use public transit but cannot access it easily. Improved “last mile” mobility to and from transit would bridge gaps for many nondrivers between home and their destinations, Examples of improved “last mile” options include improved sidewalks, safe routes, additional bike lanes, scooters, paratransit, shuttle service or rideshare options, and accessibility at transit locations (ramps, elevators, etc.).

“Improvement of city layout would come to mind, so that areas are a lot more walkable. Better, more access to public transportation would be extremely beneficial. Having more affordable options than things like Uber, would also help (female, 19 years old, King County).”

Most respondents cited bus service as their priority for improved service, though some mentioned light rail expansion and sounder trains as well. All who mentioned transit recommended increased or more flexible service.

FOCUS GROUPS FINDINGS

The researchers worked with focus groups to validate possible trends and findings from the market research statewide survey. Specifically, to better understand differences across three distinct segments of Washington State's nondriver population, nondrivers from the most populated and urban counties, nondrivers from the least populated and rural counties, and nondrivers with disabilities.

Urban nondrivers were identified as those who live within one of the 10 most populated counties in the State – King, Pierce, Snohomish, Spokane, Clark, Thurston, Kitsap, Yakima, Whatcom, and Benton Counties. Rural nondrivers were identified as residents of all other counties.

While each group had their own unique experiences, needs, and reasoning behind why they define themselves as nondrivers, ranging from disability, to income, to lack of access to vehicles, and to lifestyle choices, the project team also found that they have similar needs and experiences.

MOBILITY NEEDS AND ACCESS

Across all nondriver focus groups we found that needs for transportation are relatively similar, though some groups may have a need more often than others. Urban nondrivers in the focus groups are more likely to be traveling for work or school needs, while disabled and older drivers are traveling for medical needs.

Most focus group nondrivers use public transportation at least occasionally. Rural focus group participants were more likely to rely on friends and family for their transportation needs, while urban participants were much more self-reliant. Disabled participants often found themselves using a combination of public and medical transport services to travel both short and long distances.

Universally, focus groups participants expressed that being a nondriver required some leniency and pre-planning to get to their destinations. Many expressed experiences with longer commutes or travel times due to using alternative transportation options other than driving a personal vehicle.

Scheduling, and completing planned tasks like medical appointments and grocery shopping, as well as going to work and school, were not necessarily major challenges to our focus group participants, but completing unscheduled tasks, having to travel for unplanned events, were major challenges.

Examples include going to social events, visiting friends, and even addressing urgent needs can be difficult as most available transportation options required some scheduling and planning to be accomplished. On-demand transportation options were either not considered, outside of budget, or not available to our focus group participants.

TRANSPORTATION ACCESS OPPORTUNITIES AND CHALLENGES

Focus group participants expressed general acceptance, and happiness with the options they have available. A few participants had their own unique challenges, and most were due to a lack of public services, coupled with a lack of friends or other individuals they could rely upon to assist. Those that felt they were in a place of “transportation independence” were satisfied with their transportation options and happy to share the modes they use, and why.

Rural and urban participants mentioned walking as a reliable alternative to public transportation. Leveraging relationships for rides, such as getting a ride from a friend or family member, except for some instances where individuals had strong community groups or friends, was a particular challenge to many.

Another challenge across all segments is finding transportation services outside of key service hours. Rural and disabled focus group participants were particularly constrained on their travel times due to key services they utilize for transportation ending at 5:00 p.m. or 6:00 p.m. daily. Attending and going to evening social events or traveling to out-of-the-ordinary places was a particular challenge to these segments.

Traveling outside of close proximity of one's home, or outside of one's regular routine was also a key challenge to focus group participants. Urban participants were more likely to have a personal vehicle in their household that they would use for these "one-off" types of trips, while rural and disabled participants mentioned "missing out" or "skipping" these types of trips due to the challenges posed by finding transportation during a non-normal period or via non-normal means.

When thinking of improvements to transportation options, focus group participants suggested better sidewalks and walking or biking paths, improved or increased service routes, as well as better notifications, signage, and alerts about public transportation pickups. An example used was more accurate, or more accessible "where is my bus now" apps, as well as notification reader boards for those who may not have smart devices available to track their ride status.

IMPACTS ON QUALITY OF LIFE

Many focus group participants suggested that while being a nondriver offered cost savings due to not having the direct costs associated with maintaining a vehicle, they also experienced specific losses of "independence" and "freedom." Specific examples include not traveling to a specific event or location due to lack of accessibility. Or not being able to solve an urgent matter; for example, they feel ill enough to want to go to urgent care for a visit but are unable to find transportation to the urgent care facility due to it being a Sunday.

Impacts expressed by urban nondriver focus group participants also include additional time spent commuting and choosing specific workplaces or housing locations that are near transit.

Rural participants relayed concerns about a lack of freedom and a feeling of being "homebound" due to limited transportation options.

Safety concerns also came up as a discussion topic when discussing impacts on quality of life during this study. Some focus group participants shared they chose to be a nondriver to be healthier, they shared that they enjoy walking and biking and find the health benefits to outweigh the costs (mostly urban participants suggested this).

Additional safety concerns raised included worries about safety while waiting for transportation at bus stops, issues with crossing streets, issues with the reliability and existence of sidewalks in areas they are traveling, and issues with other passengers on shared transportation.

Additional information on the Focus Groups is provided in Appendix 11.

MARKET RESEARCH CONCLUSIONS

STUDY LIMITATIONS

As with any market research survey, there is the potential for sampling bias and non-response bias. Sampling bias occurs when there is reason to believe that some members of the public had a lower or higher chance of being sampled. This can lead to results that lean towards demographics and/or characteristics based on ability to access the survey. The project team utilized a market research firm to ensure minimal sampling bias. The market research firm conducted a large phone survey effort to increase survey accessibility to older members of the

population who may be less computer savvy. The market research team intentionally sampled at higher rates in rural counties to account for lower populations, which required more effort to reach a representative sample of nondrivers. The phone survey was offered in English and Spanish, and the online survey was available in multiple languages. At the same time, the research design required the nondriver to be the individual taking the survey. This leaves out people with disabilities who were unable to either cognitively or physically take the survey and are under the care of others.

The other concern is non-response bias, which occurs when individuals from a particular demographic category or nondriver characteristic agree to participate in a survey at a greater rate than other demographics. This survey effort had more substantial screening requirements than typical market research efforts (see Appendix A). While in more typical market research efforts females tend to respond at higher rates than males, the response ratios within this study were greater than those of more typical market research efforts without screening questions. Similarly, the nondriver survey respondents skewed younger in this study than they do in typical market research efforts. Because the lower response of males and older individuals skewed far greater than what the project team expects from typical market research, the project team believes it is more likely (than not) that the demographic information presented in this analysis is more representative of the nondriver population in Washington state than it reflects response bias.

The analysis of survey questions by demographic characteristics represents comparisons between groups within demographic categories. It does not provide information about primary differences by demographic characteristics when controlling for other demographic characteristics. For example, we noticed differences in responses by gender and income levels, but this analysis does not look within a particular gender category (e.g., women) to further identify patterns about income levels within the female subgroup.

POSSIBLE FURTHER ANALYSIS & FUTURE RESEARCH

Further analysis could be conducted on subgroups of this dataset, including those without a driver's license and those without a vehicle in their household. These segments may be less oriented towards choosing to be a nondriver and may be a nondriver determined by circumstance (i.e., disability that prevents them from obtaining a license, income that will not support a vehicle and insurance, etc.). The crosstabs segmentation could also be done to look more closely at relationships within different demographic characteristics (e.g., female nondrivers). In addition to expanding the use of crosstabs to segment groups of nondrivers, regression modeling and factor analysis could be used to identify relationships between nondriver characteristics and particular impacts associated with being a nondriver (e.g., missed trips more than once per week because of issues with transportation).

This study used a market research approach and utilized a panel of random phone numbers and email addresses to identify nondrivers across the State. In doing so, we may have missed information from target audiences. In addition, this study only included nondrivers 18 years and older. Additional and different research approaches could be utilized to conduct further study of disabled nondrivers, senior nondrivers, and youth, who may have limited representation in this study.



4. TRANSPORTATION OPTIONS ANALYSIS



4. TRANSPORTATION OPTIONS ANALYSIS

The interactive map and dataset include a compilation of geospatial information from the U.S. Census Bureau's American Community Survey Five-Year Estimates (2016-2020) and Decennial Census (2020), the Washington State Department of Licensing, the 2020 Federal Highway Administration's Highway Statistics Series, Open Street Map data, and GIS data from the Washington State Department of Transportation Public Transportation Division. This information was used to estimate the vehicle ownership and licensing data of the driving-age population around the state, to analyze the demographic characteristics that make up the nondriver population, and ultimately to estimate the size of the nondriver population around the state at the census tract and county level. A geospatial analysis was used to identify categories of travel destinations and daily life activities around the state, and to measure level of access to these destinations, via available transportation options, in increments of 15, 30, and 60 minutes.

DAILY LIFE ACTIVITIES

Travel destinations (daily life activities) were grouped into five distinctive categories: services, economic opportunity, recreation, education, and other aspects of community life. For the purpose of the analysis, these categories were assumed to include the following destinations:

Services

- **Healthcare Services:** Including regional hospitals and medical districts, outpatient clinics and dental centers, community hospitals and clinics, and pharmacies.
- **Food Services:** Including big box retailers such as Walmart, Costco, Target, and Fred Meyer's, supermarkets and grocery stores, local markets, minimarkets, and bodegas.

Economic Opportunity

- **Jobs and Employment:** Includes jobs from goods producing industries, trade and transportation industries, essential service industries, and professional service industries.

Education

- **Educational Establishments:** Including colleges, universities, high schools, elementary and middle schools.

Recreation

- **Parks and Recreation:** Including parks, recreational facilities, and beaches and lakefront parks.

Other Aspects of Community Life

- **Community Life Destinations:** Including libraries, community centers, faith and spiritual centers, and senior housing and care facilities.

TRANSPORTATION OPTIONS

The analysis of transportation options was also grouped into four major modes of transportation – driving a car, riding public transit, riding a bicycle, and walking. Public transit options included a review of fixed-route and on-

demand services from all public transit agencies in the state, and a review of tribal, community-based, and social service agency transportation services.

ACCESS TO DAILY LIFE ACTIVITIES

For the purpose of assessing the impact that available transportation options have on the ability of nondrivers to access daily life activities, the project team conducted a simplified access analysis by mode of travel that measured 15, 30, and 60 minutes of travel time in each mode, away from each destination or daily life activity, and calculated the number and proportion of the population that is served by the market shed of each mode of travel and for each destination type (or daily life activity).

This analysis approach, although simplified, had the advantage of developing a high-level assessment of access that accounts for the travel time limitations and geographic coverage of each mode, and also the geospatial distribution of daily life activities throughout the state. In other words, the results of the analysis are determined not only by transportation options but also by the availability and geographic dispersion of daily life activities throughout the state, between large and small counties, and between urban and rural areas.

ANALYSIS RESULTS

A small sample of the analysis results is provided below, showing the proportion of the population within the walking market shed of each daily life activity for Washington State and selected counties. *Similar tables were produced for each of the 39 counties in the state, and for each mode of travel. More details of this analysis can be found in the Appendices.*

Figure 18. Percent of the population within a 15-, 30-, and 60-minute walk of daily life activities

WASHINGTON STATE				KING COUNTY			
<i>Walking</i>	<i>15 min</i>	<i>30 min</i>	<i>60 min</i>	<i>Walking</i>	<i>15 min</i>	<i>30 min</i>	<i>60 min</i>
Healthcare	54.9%	76.4%	87.9%	Healthcare	76.1%	94.5%	99.3%
Food	65.4%	84.1%	94.1%	Food	82.8%	95.5%	99.4%
Jobs	94.2%	97.8%	99.3%	Jobs	99.5%	99.8%	99.9%
Schools	70.8%	85.7%	94.0%	Schools	90.4%	98.3%	99.6%
Parks	78.5%	88.1%	95.0%	Parks	96.3%	99.0%	99.7%
Other	51.9%	77.3%	91.4%	Other	75.9%	95.5%	99.4%

YAKIMA COUNTY				WHATCOM COUNTY			
<i>Walking</i>	<i>15 min</i>	<i>30 min</i>	<i>60 min</i>	<i>Walking</i>	<i>15 min</i>	<i>30 min</i>	<i>60 min</i>
Healthcare	41.1%	64.7%	78.4%	Healthcare	36.6%	58.8%	78.8%
Food	63.1%	79.9%	90.9%	Food	51.4%	73.3%	91.6%
Jobs	93.4%	97.2%	99.1%	Jobs	93.0%	98.3%	99.6%
Schools	65.8%	82.8%	93.9%	Schools	52.4%	72.7%	90.6%
Parks	66.7%	79.7%	91.2%	Parks	57.4%	72.9%	91.3%
Other	40.3%	68.8%	83.2%	Other	36.9%	63.3%	85.2%

SKAMANIA COUNTY				LINCOLN COUNTY			
<i>Walking</i>	<i>15 min</i>	<i>30 min</i>	<i>60 min</i>	<i>Walking</i>	<i>15 min</i>	<i>30 min</i>	<i>60 min</i>
Healthcare	3.7%	11.4%	32.2%	Healthcare	16.9%	26.0%	32.4%
Food	12.2%	31.3%	57.3%	Food	20.7%	32.3%	48.4%
Jobs	57.9%	87.0%	97.6%	Jobs	39.6%	65.7%	92.7%
Schools	12.6%	39.0%	79.9%	Schools	19.4%	32.9%	46.9%
Parks	15.2%	39.7%	76.5%	Parks	22.4%	35.6%	49.0%
Other	11.5%	29.0%	49.1%	Other	20.0%	32.7%	45.8%

