

# 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



### NONDRIVERS: POPULATION, DEMOGRAPHICS & ANALYSIS | FINAL DRAFT

## CONTENTS

1. Executive Summary	4
Project Background	4
Key Findings	5
Study Overview / Research Approach	8
2. Nondriver Population Estimate for Washington State	11
3. Statewide Market Research Survey & Focus Groups	17
Market Research Methodology	17
Survey Findings	20
Focus Groups Findings	36
Market Research Conclusions	37
4. Transportation Options Analysis	40

#### **Acknowledgements**

#### Joint Transportation Committee (JTC) Staff Workgroup

Alyson Cummings, JTC staff project manager Paul Neal, JTC staff Jenna Forty, Senate Transportation Committee staff Michael Hirsch, House Transportation Committee staff Don Chartock, Deputy Director of Public Transportation Division, WSDOT (subject matter expert) Barb Chamberlain, Director of Active Transportation Division, WSDOT (subject matter expert)

#### **Consulting Team**

#### **Toole Design Group**

Manuel Soto, project manager Joanna Wang Anish Tailor Michael Hintze Stefanie Brodie

#### **Cascadia Consulting Group:**

Mary Ann Rozance, PhD Gretchen Muller Jay Carhart Sophia Chau Hannah Wheeler

#### **Strategic Research Associates**

Joanne Vega Nathan Darnell

# **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 PROVISO - 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.<sup>1</sup>

## 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.

<sup>&</sup>lt;sup>1</sup> 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

#### **TOOLE DESIGN | 8**

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 <a href="https://wisconsindot.gov/Pages/projects/multimodal/nd.aspx">https://wisconsindot.gov/Pages/projects/multimodal/nd.aspx</a>.

## **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 <sup>1</sup>	FHWA 2020 Licensed Drivers <sup>2</sup>	% 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	

<sup>1</sup> U.S. Census Bureau Decennial Census 2020

<sup>2</sup> FHWA Transportation Statistics 2020

#### NONDRIVERS: POPULATION, DEMOGRAPHICS & ANALYSIS | FINAL DRAFT

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.

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%

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

\* 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%
Ago 16 and over	Do not have a driver's license	474,584	6.2%
Age 16 and over	Do not have a car*	401,453	5.2%

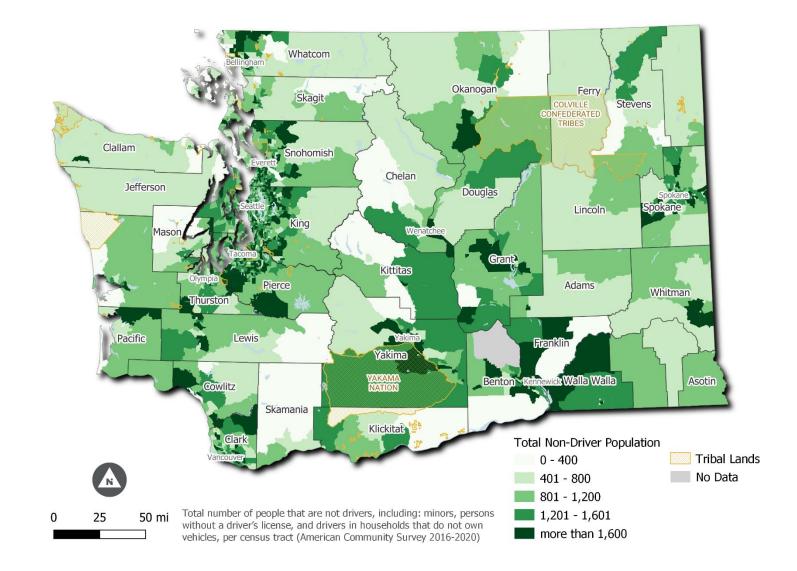
\* Estimate of age-eligible drivers that belong to zero-vehicle households, based on U.S. Census Bureau ACS 5-Year Estimates 2016-2020 data for zero-vehicle households, household size, and driving-age population. Source: Washington State Department of Licensing data from FHWA's Highway Statistics Series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

#### NONDRIVERS: POPULATION, DEMOGRAPHICS & ANALYSIS | FINAL DRAFT

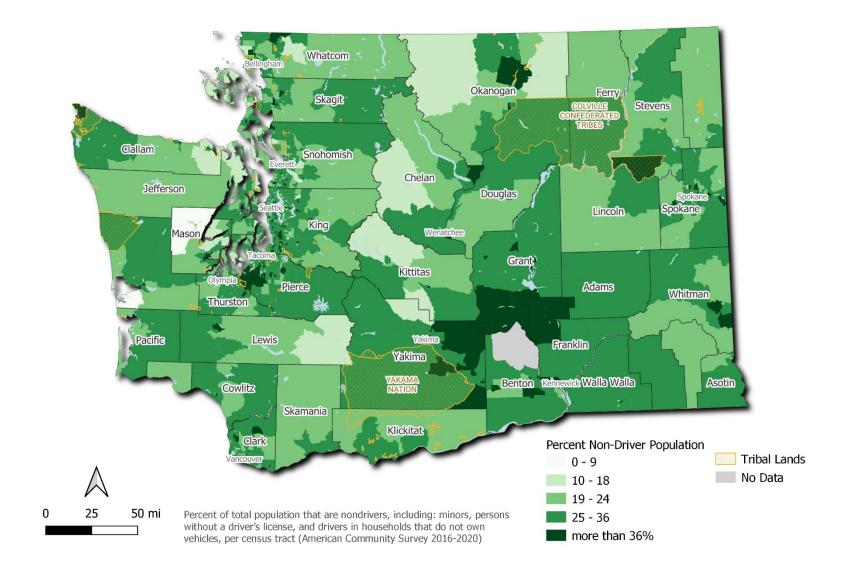
Figure 1. Total Nondriver Population in Washington State per Census Tract



TOOLE DESIGN | 14

#### NONDRIVERS: POPULATION, DEMOGRAPHICS & ANALYSIS | FINAL DRAFT

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



TOOLE DESIGN | 15

# 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 study<sup>2</sup>. 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 (Murphey, Gould-Werth, and Griffin, 2021)<sup>3</sup>, which includes questions to understand and evaluate the impact that nondriver status has on quality of life and access to daily life activities.

<sup>&</sup>lt;sup>2</sup> For a complete list of Working Group representatives please see the Acknowledgements section.

<sup>&</sup>lt;sup>3</sup> 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.

The project team conducted the market research survey both via phone and online from September 19<sup>th</sup> through October 24<sup>th</sup> 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.

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

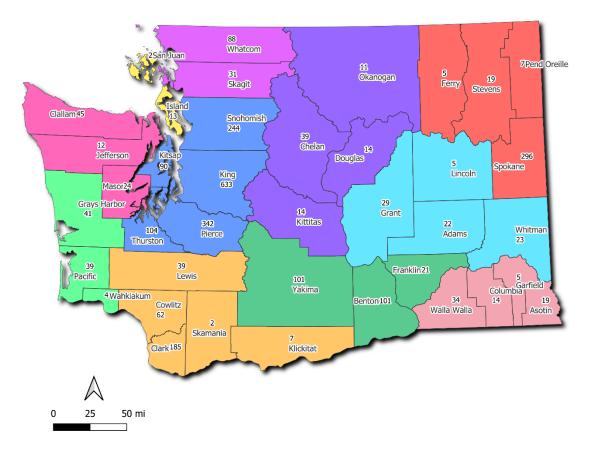
Table 5. Number of People Contacted and Survey Respondents by Outreach Method

\* 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.



#### NONDRIVERS: POPULATION, DEMOGRAPHICS & ANALYSIS | FINAL DRAFT

**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.<sup>4</sup>

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.

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

- 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.

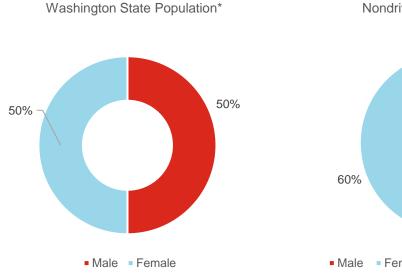
#### **Detailed Findings**

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.

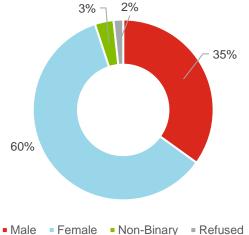
Additional demographic information is available in Appendix 1B.

#### Gender

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



Nondriver Survey Respondents



\* 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 household<sup>5</sup>.

#### 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.

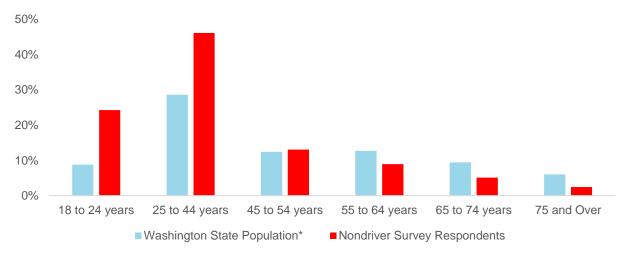


Figure 5. Age Distribution of Nondriver Survey Respondents (n=2,786)

\* 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

<sup>&</sup>lt;sup>5</sup> 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.

#### NONDRIVERS: POPULATION, DEMOGRAPHICS & ANALYSIS | FINAL DRAFT

Reasons: What are the reasons Nondriver survey repondents 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.

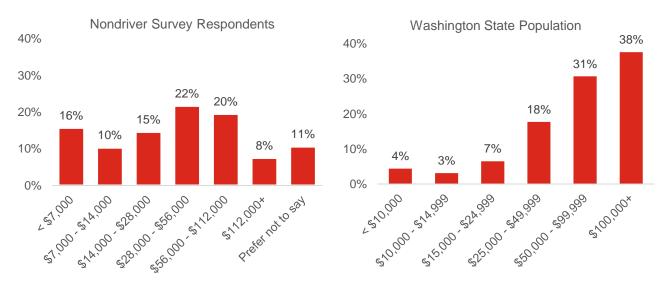
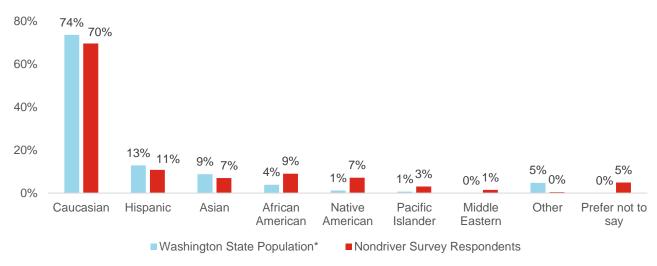


Figure 6. Household income distribution of survey respondents (n=2,786) versus state population\*

\* 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.



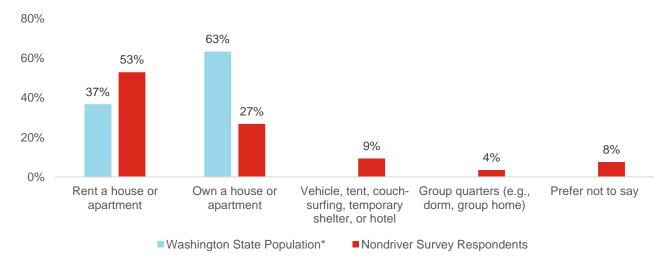
#### Figure 7. Race and Ethnicity of Nondriver Survey Respondents (n=2,786)

\* 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.





\* 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.

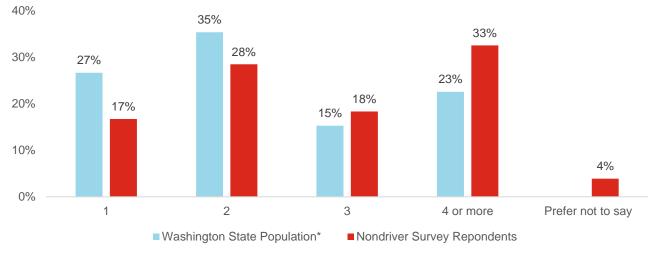


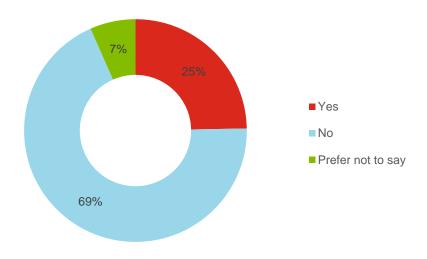
Figure 9. Household Size of Nondriver Survey Respondents (n=2,786)

\* 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 REPONDENTS 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.

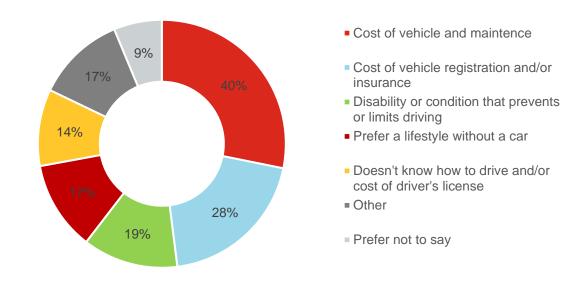


Figure 11. Nondriver Survey Respondents Primary Reasons for Not Driving (n=2,786).

#### 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

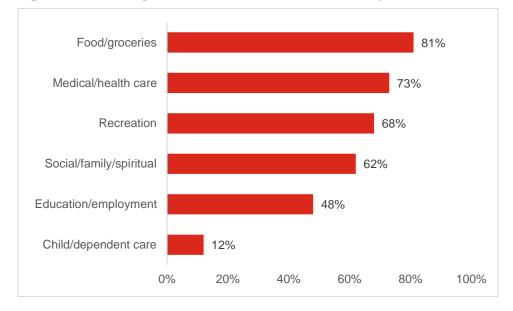
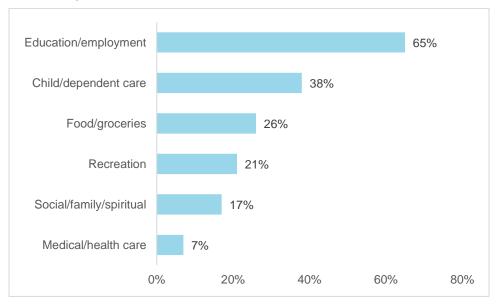


Figure 12. Percentage of Nondrivers that Traveled to Daily Life Activities at least once in the Last 30 Days

## 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).

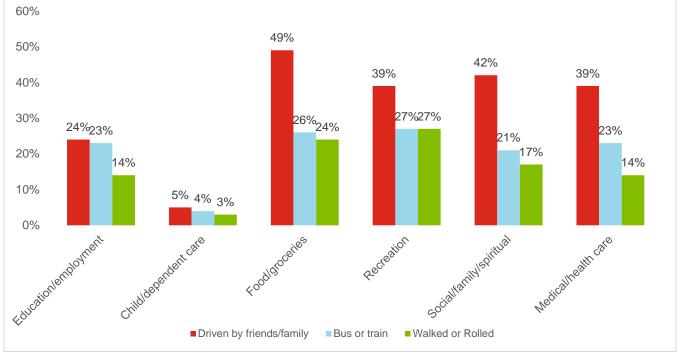


Figure 14. Percentage of Nondrivers that Traveled to Daily Life Activities by Most Common Travel Mode

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.

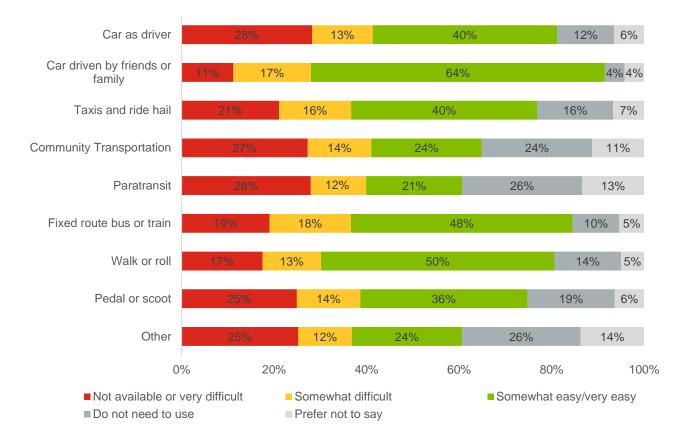


Figure 15. Ease of Use of Travel Options as rated by Nondriver Survey Respondents (n=2,786)

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

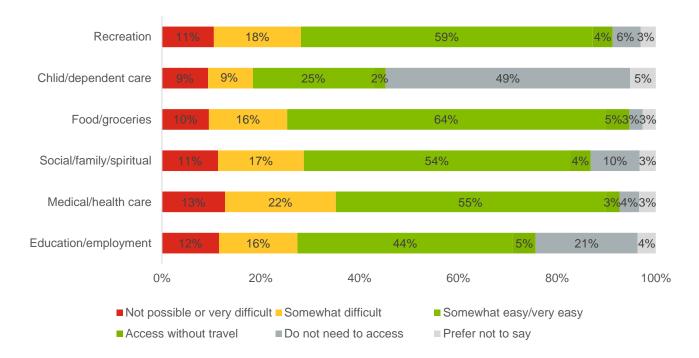
#### **Overall Access to Daily Life Activities**

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.

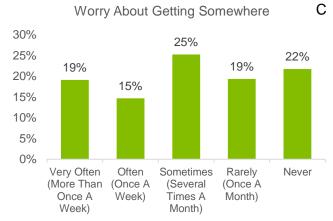
### **Detailed Findings**

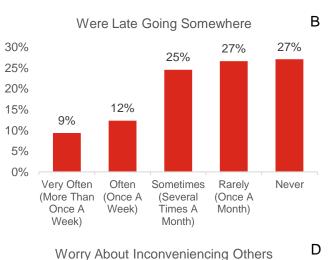
#### What is the impact of nondriver status on travel behavior?

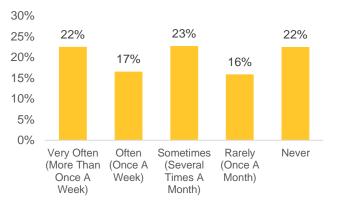
**Travel behavior of nondriver survey respondents is often or very often impacted by their nondriving status.** Nondriver survey respondents were asked a series of questions about the impact of problems with transportation on their travel behavior in the past 30 days. At least once a week if not more 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 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 nondisabled 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

## NONDRIVERS: POPULATION, DEMOGRAPHICS & ANALYSIS | FINAL DRAFT

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, 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				
Walking	15 min	30 min	60 min	
Healthcare	54.9%	76.4%	87.9%	
Food	65.4%	84.1%	94.1%	
Jobs	94.2%	97.8%	99.3%	
Schools	70.8%	85.7%	94.0%	
Parks	78.5%	88.1%	95.0%	
Other	51.9%	77.3%	91.4%	

#### YAKIMA COUNTY

Walking	15 min	30 min	60 min
Healthcare	41.1%	64.7%	78.4%
Food	63.1%	79.9%	90.9%
Jobs	93.4%	97.2%	99.1%
Schools	65.8%	82.8%	93.9%
Parks	66.7%	79.7%	91.2%
Other	40.3%	68.8%	83.2%

#### **SKAMANIA COUNTY**

Walking	15 min	30 min	60 min
Healthcare	3.7%	11.4%	32.2%
Food	12.2%	31.3%	57.3%
Jobs	57.9%	87.0%	97.6%
Schools	12.6%	39.0%	79.9%
Parks	15.2%	39.7%	76.5%
Other	11.5%	29.0%	49.1%

KING COUNTY				
Walking	15 min	30 min	60 min	
Healthcare	76.1%	94.5%	99.3%	
Food	82.8%	95.5%	99.4%	
Jobs	99.5%	99.8%	99.9%	
Schools	90.4%	98.3%	99.6%	
Parks	96.3%	99.0%	99.7%	
Other	75.9%	95.5%	99.4%	

#### WHATCOM COUNTY

Walking	15 min	30 min	60 min
Healthcare	36.6%	58.8%	78.8%
Food	51.4%	73.3%	91.6%
Jobs	93.0%	98.3%	99.6%
Schools	52.4%	72.7%	90.6%
Parks	57.4%	72.9%	91.3%
Other	36.9%	63.3%	85.2%

#### LINCOLN COUNTY

15 min	30 min	60 min	
16.9%	26.0%	32.4%	
20.7%	32.3%	48.4%	
39.6%	65.7%	92.7%	
19.4%	32.9%	46.9%	
22.4%	35.6%	49.0%	
20.0%	32.7%	45.8%	
	16.9% 20.7% 39.6% 19.4% 22.4%	16.9%         26.0%           20.7%         32.3%           39.6%         65.7%           19.4%         32.9%           22.4%         35.6%	



720 3RD AVENUE SUITE 2020 SEATTLE, WA 98104 206.297.1601 TOOLEDESIGN.COM

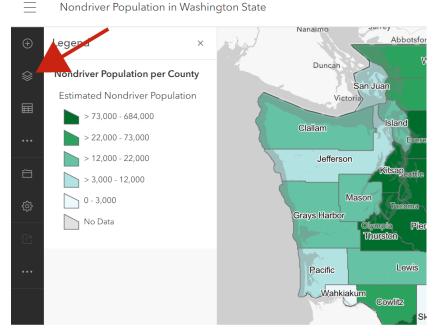
# HOW TO NAVIGATE THE GIS WEBMAPS?

The following pages provide tips for navigating through each of the three GIS webmaps created during this study.

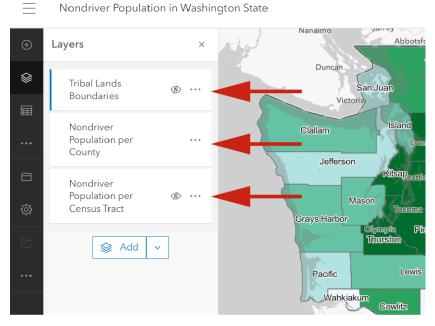
# Nondriver population in Washington State webmap

This map shows the estimated population of nondrivers by county and by census tract. The default view upon opening shows Nondriver Population per County, with the legend on the left.

• To change the layers and view by census tracts, click the Layers icon in the gray pane along the lefthand side of the screen.



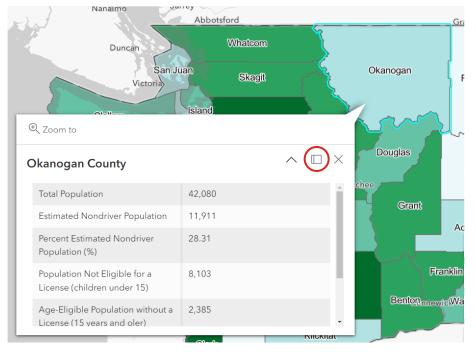
• Options for three layers will appear: Tribal Lands Boundaries, Nondriver Population per County, and Nondriver Population per Census Tract.



- Click the eyeball symbol to the right of the layer name to turn it on or off
- Data for the county and for the census tract can be viewed independently, or at the same time. It's recommended to view each layer separately, turning off one while viewing the other.

## To view data for just a county

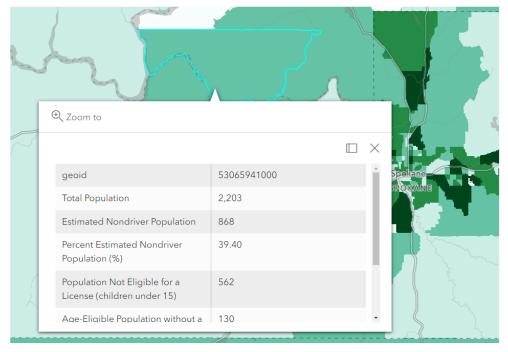
- Ensure the eyeball symbol next to Nondriver Population per County is opened, while the eyeball symbol is closed next to Nondriver Population per Census Tract.
- Then click a county of choice to see a pop-up with estimates of the nondriver population for each county.



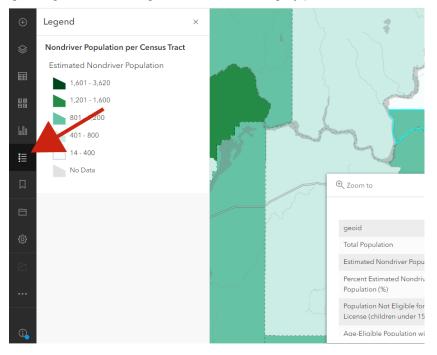
• To dock the pop-up, click the middle icon in the top-right corner of the pop-up window, next to the X. See red circle in the image above.

## To view data for just a census tract

- Ensure the eyeball symbol is closed next to Nondriver Population per County, while the eyeball symbol is opened next to Nondriver Population per Census Tract
- Then zoom in to an area of choice and click a census tract to view a pop-up of variables



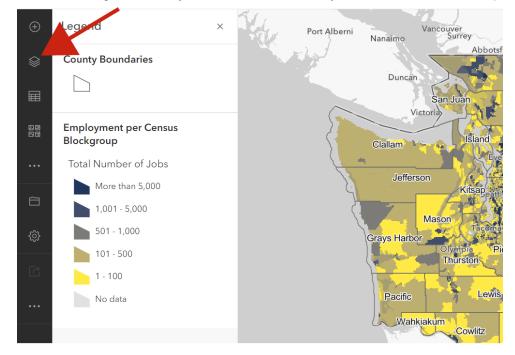
• To view the legend again, click the legend icon in the dark gray pane on the far-left side



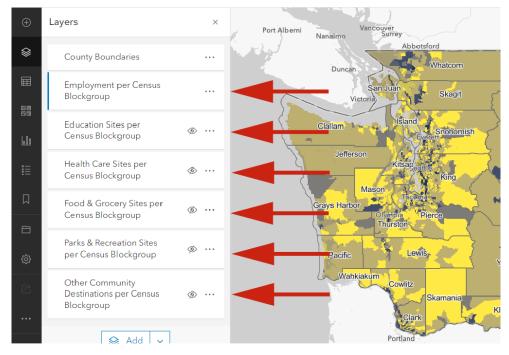
# Distribution of daily life activities in Washington State webmap

This map shows the number of destinations for where to conduct daily life activities per U.S. Census block group. There are six categories of daily life activities (as defined by the study). Each category has its own map. The default view upon opening this map shows the first category, Employment per Census Blockgroup.

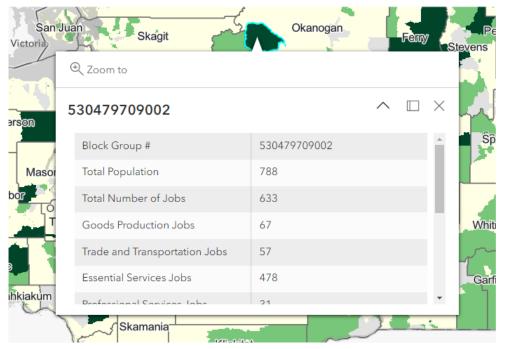
• To view the other categories of daily life activities, click the layers icon in the far left-side pane.



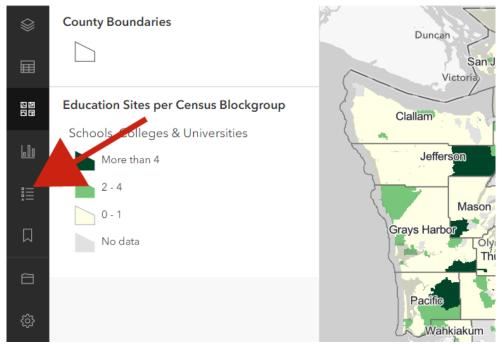
 Options for Education, Health Care, Food and Grocery, Parks and Recreation, and Other Community Destinations will appear.



- Click the eyeball symbol to the right of the desired layer name to turn it on or off. It's recommended to view one layer at a time.
- To view a different category of Daily Life Activities, for example Education Sites, ensure that it is turned on and the rest of the layers are turned off, by clicking the eyeball symbol.
- Then click a block group shape in the map.
- A pop-up with data for all the available variables will appear.



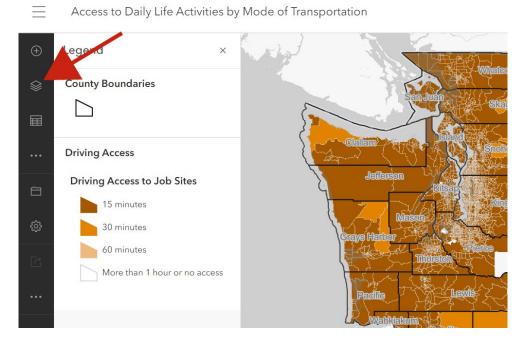
- The pop-up can be docked by clicking the middle symbol in the top-right corner, next to the X symbol.
- Repeat the steps for each desired Daily Life Category
- To view the legend again, click the legend icon in the dark gray pane on the far-left side



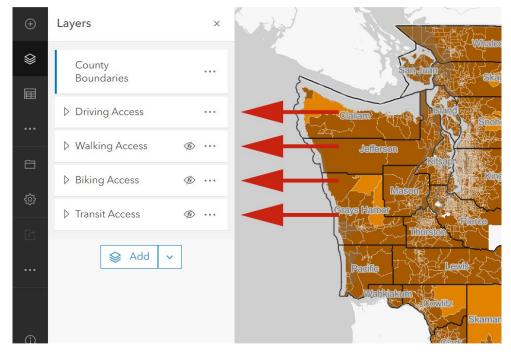
# Access to daily life activities by mode of transportation webmap

These maps show driving, walking, biking, and transit access to each of the six categories of Daily Life Activities. The default view is Driving Access to Job Sites.

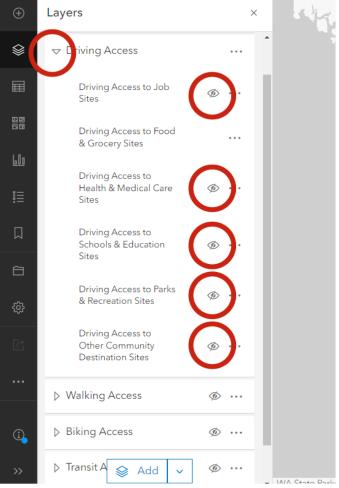
• To view other modes, click the layers icon in the dark gray pane on the left-hand side.



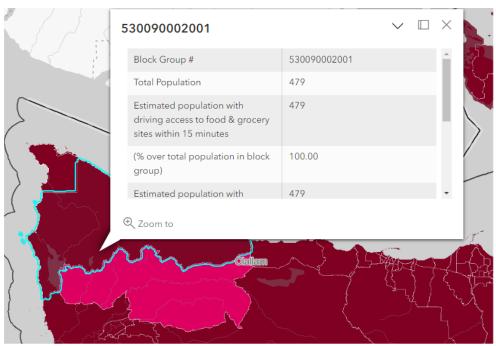
• This will reveal the other four modes of transportation grouped together (Driving Access, Walking Access, Biking Access, and Transit Access). Each one can be expanded by clicking the triangle to the left of the layer name.



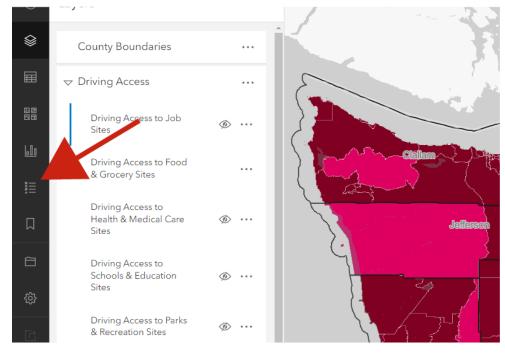
- To view driving access to another Daily Life Activity, click the triangle to the left of "Driving Access" to expand the menu, and reveal the rest of the activities.
- Click the eyeball icon to turn on the layer for the desired activity, for example "Driving Access to Food & Grocery Sites," ensuring all other layers are turned off.



- Then click a block group shape in the map.
- A pop-up with data for all the available variables will appear.



- The pop-up can be docked by clicking the middle symbol in the top-right corner, next to the X symbol
- Repeat the steps to view access by other modes of transportation and Daily Life Activity
- To view the legend again, click the legend icon in the dark gray pane on the left-hand side





# NON-DRIVERS: POPULATION, DEMOGRAPHICS & ANALYSIS

Washington State Legislature Joint Transportation Committee

January 31st, 2023 | FINAL REPORT APPENDICES

In partnership with:

Cascadia Consulting Group, and Strategic Research Associates





# CONTENTS

Appe	ndix 1. Market Research	5
Α.	Survey Outreach, Design, and Implementation	5
В.	Survey Responses by County	14
С.	Reasons for Not Driving (Q1)	30
D.	<b>Opportunity by Travel Frequency and Mode</b>	36
E.	Usability of Transportation Options	45
F.	Access to Daily Life Activities	69
G.	Transportation Impact	86
Н.	Open-Ended Questions	103
I.	Focus Groups Report	107
J.	Focus Group Script	115
Арре	ndix 2. Nondriver Population & Transportation Options	118
Α.	Nondriver Population Estimate	118
B.	Availability of Daily Life Activities	131
С.	Transportation Access Maps	141
D.	Transportation Access Tables	170

# **Acknowledgements**

### Joint Transportation Committee (JTC) Staff Workgroup

Alyson Cummings, JTC staff, project manager Paul Neal, JTC staff Jenna Forty, Senate Transportation Committee staff Michael Hirsch, House Transportation Committee staff Don Chartock, Deputy Director of Public Transportation Division, WSDOT (subject matter expert) Barb Chamberlain, Director of Active Transportation Division, WSDOT (subject matter expert)

# **Consulting Team**

## **Toole Design Group**

Manuel Soto, project manager Joanna Wang Anish Tailor Michael Hintze Stefanie Brodie

## **Cascadia Consulting Group:**

Mary Ann Rozance, PhD Gretchen Muller Jay Carhart Sophia Chau Hannah Wheeler

## **Strategic Research Associates**

Joanne Vega Nathan Darnell

# APPENDIX 1A: MARKET RESEARCH SURVEY RESEARCH DEVELOPMENT & METHODOLOGY

# **APPENDIX 1. MARKET RESEARCH**

# A. SURVEY OUTREACH, DESIGN, AND IMPLEMENTATION

# **OUTREACH EFFORTS**

The market research survey was fielded via phone and online from September 19<sup>th</sup>, 2022, to October 24<sup>th</sup>, 2022. We established regional targets to make sure we received sufficient responses from all counties. This was done to make sure that responses were inclusive of Washington State and not just the more populated Puget Sound region. We reviewed number of responses halfway through the data collection effort, to make sure we were getting close to targets and adjust. As expected, we were close to target on the most populated counties and well below target on the least populated ones. Therefore, we focused online and telephone survey efforts on the least populated regions to make sure we got adequate representation from them. The purpose of setting regional goals was to provide guidance on the data collection effort. The main goal was to not concentrate survey responses from the most populated counties and to balance responses from the Puget Sound region with the rest of the state. In that regard, we were successful at balancing out regions and getting responses from across the state.

Region	County	Survey Response Goal	Number of Responses
Region 1	Clallam, Jefferson, Mason	150	81
Region 2	Grays Harbor, Pacific, and Wahkiakum	110	84
Region 3	Clark, Lewis, Cowlitz, Skamania, and Klickitat	350	295
Region 4	Okanogan, Chelan, Douglas, and Kittitas	150	78
Region 5	Spokane, Ferry, Stevens, and Pend Oreille	250	327
Region 6	Lincoln, Adams, Whitman, and Grant	190	79
Region 7	Walla Walla, Columbia, Garfield, and Asotin	120	72
Region 8	San Juan and Island	40	15
Region 9	Yakima, Benton, and Franklin	350	223
Region 10	Whatcom and Skagit	200	119
Subtotals	Regions 1 – 10	1,910	1,373
Puget Sound	King, Snohomish, Pierce, Kitsap, and Thurston	1,300	1,413
Totals	Washington State	3,210	2,786

Table 1. Regional Goals for Survey Responses and Number of Responses Received

The survey was fielded online and over the phone. Over 50,000 phone numbers were dialed during this effort, which led to 76 completed nondriver surveys. This was an extraordinary effort compared to normal telephone efforts due to the screening requirements. We spent an average of 5.8 hours of calling to reach one potential nondriver. This ended up being about 699 numbers dialed per potential nondriver reached. A typical survey would have required an average of 1 to 1.5 labor hours per response; and we would have likely leveraged about 20,000 total numbers in a telephone sample for the same results. We did screen out 186 people who agreed to take the survey but failed the nondriver screening questions. This equates to screening out 2.3 – 2.5 people for each person who said agreed to participate. The introduction at the beginning of every phone call explained who we were looking for, so this number misrepresents the total screen outs as many people would listen to the intro and say, "I drive, so I don't qualify or don't want to participate."

For the internet surveys, four email invitations were sent to a research panel with a population of 10,000. We also utilized a third-party panel called CINT which reached over 100,000 people. The online response rate is more typical than the phone response rate. Although the nondriver screening questions increased the outreach effort. We would have likely collected 5,000+ survey responses for a typical survey with the same level of outreach.

# SURVEY DESIGN AND ANALYSIS

The market research survey included questions that emphasized access to transportation options and daily life activities as well as demographic questions. Specific assumptions about nondrivers were removed from the survey language. This included language that would assume nondrivers experience barriers to transportation modes and daily life activities access, or hardships based on their status as a nondriver. This allowed the option for those who chose to be nondrivers rather than those who have life events that resulted in their nondriver status. In addition, neutral language was used in the survey questions and options for responses to avoid "push" and "pull" responses to make sure participants were not led to respond a particular way. Questions included options such as "other" with a write-in choice and "prefer not to say" for those who did not want to answer a particular question but wanted to continue answering other questions in the survey. Two open-ended questions were included at the end of the survey to allow survey participants to share a broader range of experiences that may have not been included in the closed ended questions.

Survey data was reviewed for quality control. Survey responses were removed from duplicate IP addresses and anything that was generally a non-response (e.g., nonsensical answers to open-ended questions).

Demographic questions were evaluated with available comparison datasets against the Washington State Population. All survey questions were analyzed based on differences by demographic characteristics. The following categories were assigned to compare demographics by survey responses:

- Gender: Male and female
- Age: under 25, 25-34, 35-44, 45-64, and 65 years old and older
- Income: less than \$14,000, \$14,000-\$56,000, higher than \$56,000
- Location: Urban (top ten most populated counties) vs Rural (all other counties)
- Disability status: Yes/No response to question about having a disability or condition that limits ability to drive

Groups within demographic categories were compared using chi-squared independent T-Test for Means (unequal variances) and independent Z-Test for percentages (unpooled proportions). Any noted differences between demographic groupings (e.g., male and female) are significant at the 95 percent confidence level.

The following subsection includes the complete survey conducted to nondrivers in Washington State.

# SURVEY AND QUESTIONS

# **Section 1: Title and Screening Page**

Toole Design is conducting a statewide study on behalf of the Washington State Joint Transportation Committee to be able to provide policymakers with data identifying Washington's nondrivers and their available transportation options. This includes understanding people's reason(s) for not driving and if applicable, the impact(s) on their quality of life. As part of this study, we are conducting a survey.

Who should take this survey? You may take this survey if you meet any of the following criteria:

- You do not have a valid driver's license
- You do have a driver's license, but you do not have a car or motorcycle in your household
- You have a driver's license, and you have access to a car in your household, but you are not the primary driver of that car or motorcycle
- You have a driver's license, and you have access to a car in your household, but you do not drive to meet most of your transportation needs

**Why was I chosen for this survey?** You were identified through a review of population demographic characteristics in your area as someone who may fit into one of these categories. Your experiences are key for better understanding if you have access to transportation that meets your needs.

**How will my answers be used?** The results of this survey will be shared with Washington State transportation policymakers through the Joint Transportation Committee. The survey data will not be shared with the Joint Transportation Committee, your responses will be consolidated with others and only the consolidated results will be shared.

**How long will this survey take?** This survey will take up to 15 minutes to complete. Your participation in this survey is voluntary. Your responses will not be tied to you. Questions and concerns can be directed to: Joanne Vega, joannev@strategicresearch.net

## Initial screening question (QS):

- 1) Do you currently have a valid driver's license?
  - a) YES (Question 2)
  - b) NO (Skip to Demographic Screening)
- 2) Do you or someone in your household own a vehicle?
  - a) YES (Question 3)
  - b) NO (Skip to Demographic Screening)
- 3) Are you the primary driver of a vehicle in your household?
  - a) YES (Question 4)
  - b) NO (Skip to Demographic Screening)
- 4) Do you drive that vehicle to meet most of your transportation needs?
  - a) YES (End Survey)
  - b) NO (Skip to Demographic Screening)

## Target Demographic Screening (QD):

- 1) What county do you live in?
  - a) Dropdown list
  - b) What is your gender?

- c) Write-in
- d) I prefer not to say
- 2) What is your exact age?
  - a) Write-in
    - i) Screen out people who are younger than 16

# Survey Questions (Q):

- 1) Which of the following best describes your reason for not driving? (Select all that apply)
  - a) I have a disability that prevents me from driving or limits my driving. Follow up if selected: If you have a disability that limits your ability to drive, what is that disability? Please check all that apply.
    - i) Blind, low vision, vision loss
    - ii) Developmental or intellectual disability
    - iii) Mental health condition or neurodivergent that makes driving difficult or unsafe (PTSD, anxiety, autism, dyslexia)
    - iv) Mobility disability or spinal cord injury (use a wheelchair, walker, cane, prosthetic)
    - v) Epilepsy
    - vi) Multiple sclerosis (MS)
    - vii) Other disability [Write-in]
    - viii) I prefer not to say
  - b) I don't know how to drive and/or the costs of obtaining a driver's license are too high
  - c) The cost of purchasing, operating, and maintaining a vehicle are too high
  - d) The cost of vehicle registration and/or insurance are too high
  - e) I prefer a lifestyle without a car
  - f) Other [Write-in]
  - g) I prefer not to say
- 2) Do you travel to access ...?
  - a) Education and/or Employment? (YES/NO/Prefer Not to Say)
    - i) If yes, how frequently do you travel there? Never; Rarely; Occasionally; A moderate amount; A great deal
      - (1) Follow-up: How did you travel to access education/employment? Select all that apply.
        - (a) Pedal or scoot (including bicycles, scooters, skateboards, one-wheels, trikes)
        - (b) Walk or Roll (e.g., mobility device, mobility scooter, wheelchair)
        - (c) Fixed route bus or train
        - (d) Paratransit
        - (e) Volunteer/community transportation service
        - (f) Taxis and ride hail (e.g., Uber)
        - (g) Car driven by friends or family
        - (h) Car as driver
        - (i) Other (e.g., rental car/car-share)
        - (j) N/A: I do not travel to access this opportunity
  - b) Medical/health care (including mental and dental health)? (YES/NO/Prefer Not to Say)
    - i) If yes, how frequently do you travel there? Never; Rarely; Occasionally; A moderate amount; A great deal
      - (1) Follow-up: How did you travel to access medical/health care (including mental health)? Select all that apply.
        - (a) Pedal or scoot (including bicycles, scooters, skateboards, one-wheels, trikes)

### TOOLE DESIGN | 8

- (b) Walk or Roll (e.g., mobility device, mobility scooter, wheelchair)
- (c) Fixed route bus or train
- (d) Paratransit
- (e) Volunteer/community transportation service
- (f) Taxis and ride hail (e.g., Uber)
- (g) Car driven by friends or family
- (h) Car as driver
- (i) Other (e.g., rental car/car-share)
- (j) N/A: I do not travel to access this opportunity
- c) Social/family/spiritual activities? (YES/NO/Prefer Not to Say)
  - If yes, how frequently do you travel there? Never; Rarely; Occasionally; A moderate amount; A great deal
    - (1) Follow-up: How did you travel to access social/family/spiritual? (Select all that apply)
      - (a) Pedal or scoot (including bicycles, scooters, skateboards, one-wheels, trikes)
      - (b) Walk or Roll (e.g., mobility device, mobility scooter, wheelchair)
      - (c) Fixed route bus or train
      - (d) Paratransit
      - (e) Volunteer/community transportation service
      - (f) Taxis and ride hail (e.g., Uber)
      - (g) Car driven by friends or family
      - (h) Car as driver
      - (i) Other (e.g., rental car/car-share)
      - (j) N/A: I do not travel to access this opportunity
- d) Food/groceries? (YES/NO/Prefer Not to Say)
  - i) If yes: In the past 30 days, how frequently do you travel there? Never; Rarely; Occasionally; A moderate amount; A great deal
    - (1) Follow-up: How did you travel to access food/groceries? (Select all that apply)
      - (a) Pedal or scoot (including bicycles, scooters, skateboards, one-wheels, trikes)
      - (b) Walk or Roll (e.g., mobility device, mobility scooter, wheelchair)
      - (c) Fixed route bus or train
      - (d) Paratransit
      - (e) Volunteer/community transportation service
      - (f) Taxis and ride hail (e.g., Uber)
      - (g) Car driven by friends or family
      - (h) Car as driver
      - (i) Other (e.g., rental car/car-share)
      - (j) N/A: I do not travel to access this opportunity
- e) Child/dependent care? (YES/NO/Prefer Not to Say)
  - i) If yes: In the past 30 days, how frequently do you travel there? Never; Rarely; Occasionally; A moderate amount; A great deal
    - (1) Follow-up: How did you travel to access child/dependent care? (Select all that apply)(a) Pedal or scoot (including bicycles, scooters, skateboards, one-wheels, trikes)
      - (b) Walk or Roll (e.g., mobility device, mobility scooter, wheelchair)
      - (c) Fixed route bus or train
      - (d) Paratransit
      - (e) Volunteer/community transportation service

- (f) Taxis and ride hail (e.g., Uber)
- (g) Car driven by friends or family
- (h) Car as driver
- (i) Other (e.g., rental car/car-share)
- (j) N/A: I do not travel to access this opportunity
- f) Recreation activities? (YES/NO/Prefer Not to Say)
  - i) If yes: In the past 30 days, how frequently do you travel there? Never; Rarely; Occasionally; A moderate amount; A great deal
    - (1) Follow-up: How did you travel to access recreation activities? (Select all that apply)
      - (a) Pedal or scoot (including bicycles, scooters, skateboards, one-wheels, trikes)
      - (b) Walk or Roll (e.g., mobility device, mobility scooter, wheelchair)
      - (c) Fixed route bus or train
      - (d) Paratransit
      - (e) Volunteer/community transportation service
      - (f) Taxis and ride hail (e.g., Uber)
      - (g) Car driven by friends or family
      - (h) Car as driver
      - (i) Other (e.g., rental car/car-share)
      - (j) N/A: I do not travel to access this opportunity
- 3) How easy or difficult is it to access the following activities? Not Possible to Access; Very difficult to access; Somewhat difficult to access; Somewhat easy to access; Very easy to access Not Applicable- I do not want to access; Not Applicable- I can access without traveling; I prefer not to say
  - a) Education/Employment
  - b) Medical/health care (including mental and dental health)
  - c) Social/family/spiritual
  - d) Food/groceries
  - e) Child/dependent care
  - f) Recreational
  - g) Other
    - i) Write-in and rank
- 4) How easy or difficult is it to access the following transportation options to you? Not Possible to access; Very difficult to access; Somewhat difficult to access; Somewhat easy to access; Very easy to access; Not Applicable- I do not want to access; I prefer not to say
  - a) Pedal or scoot (including bicycles, scooters, skateboards, one-wheels, trikes)
  - b) Walk or Roll (e.g., mobility device, mobility scooter, wheelchair)
  - c) Fixed route bus or train
  - d) Paratransit
  - e) Volunteer/community transportation service
  - f) Taxis and ride hail (e.g., Uber)
  - g) Car driven by friends or family
  - h) Car as driver
  - i) Other (e.g., rental car/car-share)
- 5) In the past 30 days, how often did you **skip** going somewhere because of a problem with transportation?
  - a) Very often (more than once a week)
  - b) Often (once a week)

- c) Sometimes (several times a month)
- d) Rarely (once a month)
- e) Never
- 6) In the past 30 days, how often were you **late** getting somewhere because of a problem with transportation when you were not driving?
  - a) Very often (more than once a week)
  - b) Often (once a week)
  - c) Sometimes (several times a month)
  - d) Rarely (once a month)
  - e) Never
- 7) In the past 30 days, how often did you **worry** about whether or not you would be able to get somewhere because of a problem with transportation?
  - a) Very often (more than once a week)
  - b) Often (once a week)
  - c) Sometimes (several times a month)
  - d) Rarely (once a month)
  - e) Never
- 8) In the past 30 days, how often did you **worry** about inconveniencing your friends, family, or neighbors because you needed help with transportation?
  - a) Very often (more than once a week)
  - b) Often (once a week)
  - c) Sometimes (several times a month)
  - d) Rarely (once a month)
  - e) Never
- 9) Are you responsible for the transportation needs of others? (e.g., children, dependents, other nondrivers in your household)
  - a) Yes
  - b) No
  - c) Prefer not to say
- 10) How, if at all, do your transportation options affect your quality of life?
  - a) Open-ended
  - b) I prefer not to say
- 11) What if anything would improve your options for transportation to better meet your transportation needs?
  - a) Open-ended
  - b) I prefer not to say

### Demographic Questions

- 12) What is your race and ethnicity?
  - a) Asian or Asian American
  - b) Black or African American
  - c) Hispanic, Latino, or Latina
  - d) Middle Eastern, North African, or Arab American
  - e) Native American, American Indian, or Alaska Native
  - f) Native Hawaiian or other Pacific Islander
  - g) White or Caucasian

- h) Other (please specify):
  - i) Write-in
- i) I prefer not to say
- 13) What is your housing status?
  - a) Rent a house or apartment
  - b) Group quarters like a dorm or group home
  - c) Own a house or apartment
  - d) Vehicle, tent, couch-surfing or temporary shelter or hotel
  - e) Other
    - i) Write-in
- 14) Including yourself, how many people live in your household?
  - a) Write-in
  - b) I prefer not to say
- 15) What is your household income?
  - a) Less than \$7,000
  - b) \$7,000-\$14,000
  - c) \$14,000-\$28,000
  - d) \$28,000-\$56,000
  - e) \$56,000-\$112,000
  - f) More than \$112,000
  - g) I prefer not to say
- 16) What zip code do you live in?
  - a) Write In
  - b) I prefer not to answer
- 17) What language was this survey taken in? [SURVEY FIELDER TO COMPLETE]
  - a) English
  - b) Spanish

Thank you for participating in this survey!

# APPENDIX 1B: MARKET RESEARCH SURVEY RESPONDENT DEMOGRAPHICS

# **B. SURVEY RESPONSES BY COUNTY**

This appendix includes survey responses by county population, the type of disability that disabled survey respondents indicated having with a comparison of the Washington State population, the survey screening questions about type of nondriver access by demographics, and a summary of survey respondent demographics compared to the Washington State population.

The highest number of responses were received from the 10 most populated counties. Responses by percentage of county population show that some of the less populated counties may be less represented in this market research report. Taken in the aggregate, the more rural and less populated counties have a slightly higher proportion of survey responses per population compared to the urban and 10 most populated counties.

County	County Population	Survey Responses	Percentage of Population
King	2,269,675	633	0.028%
Pierce	921,130	342	0.037%
Snohomish	827,957	244	0.029%
Spokane	539,339	296	0.055%
Clark	503,311	185	0.037%
Thurston	294,793	104	0.035%
Kitsap	275,611	90	0.033%
Yakima	256,728	101	0.039%
Whatcom	226,847	88	0.039%
Benton	206,873	101	0.049%

Table 2. Survey Responses by County in Washington State (10 largest counties)

County	County Population	Responses	Percentage of Population
Skagit	129,523	31	0.024%
Cowlitz	110,730	62	0.056%
Grant	99,123	29	0.029%
Franklin	96,749	21	0.022%
Island	86,857	13	0.015%
Lewis	82,149	39	0.047%
Chelan	79,074	39	0.049%
Clallam	77,155	45	0.058%
Grays Harbor	75,636	41	0.054%
Mason	65,726	24	0.037%
Walla Walla	62,584	34	0.054%
Whitman	47,973	23	0.048%
Stevens	46,445	19	0.041%
Kittitas	44,337	14	0.032%

County	County Population	Responses	Percentage of Population
Douglas	42,938	14	0.033%
Okanogan	42,104	11	0.026%
Jefferson	32,977	12	0.036%
Pacific	23,365	39	0.167%
Klickitat	22,735	7	0.031%
Asotin	22,285	19	0.085%
Adams	20,613	22	0.107%
San Juan	17,788	2	0.011%
Pend Oreille	13,401	7	0.052%
Skamania	12,036	2	0.017%
Lincoln	10,876	5	0.046%
Ferry	7,178	5	0.070%
Wahkiakum	4,422	4	0.090%
Columbia	3,952	14	0.354%
Garfield	2,286	5	0.219%
Total	7,705,281	2786	0.036%

# **DISABILITY STATUS**

Nineteen (19) percent of the 2,786 nondriver survey respondents indicated that they have a disability or condition that limits their driving (82 percent of nondriver survey respondents indicated they do not have a disability or condition that limits their driving). Of those who indicated that they have a disability or condition that limits their driving, 41 percent indicated that they have a mental health condition or are neurodivergent, 32 percent indicated they have a mobility or spinal cord disability, 22 percent indicated they are blind, have low vision, or vision loss, followed by other disability types on Table 10. There is no direct comparison between the nondriver survey respondents and an estimate of the number of Washington State residents with a disability. The 2020 American Community Survey estimates that 26 percent of Washington State residents have a disability. This estimate includes those under 18 years old, whereas the nondriver survey respondents represent those 18 years and older. Additionally, the ACS does not provide detail on the smaller subset of the disabled population that has a disability that prevents or limits their driving.

Table 4. Disability Type of Nondriver Survey Respondents with At Least One disability That Limits Their Ability to Drive

Disability Type	Percentage of Disabled Survey Respondents by Disability Type	Number of Disabled Survey Respondents with Disability Type
Mental Health Condition or Neurodivergent	41%	202
Mobility Disability or Spinal Cord Injury	32%	158
Blind, Low Vision, Vision Loss	22%	108
Developmental or Intellectual Disability	8%	38
Epilepsy	8%	37
Multiple Sclerosis	2%	11
Other Disability	19%	94
I Prefer Not to Say	5%	23

Table 5. Disability Type of Washington State Population \*

Disability Type	Percentage of Washington State Population with Disability Type
Hearing Difficulty	4%
Vision Difficulty	2%
Cognitive Difficulty	5%
Ambulatory Difficulty	6%
Self-care Difficulty	3%
Independent Living Difficulty	6%
Any Disability	26%

\* 2020 American Community Survey (U.S. Census Bureau 2020) 5-year estimate of the Washington State Population with a disability (out of population estimate of 7,397,932).

# **RESPONSE TO SCREENING QUESTIONS BY DEMOGRAPHIC**

Nondriver survey respondents were asked a series of screening questions to identify if they meet the nondriver criteria. The demographic breakdown of these screening questions is reported here.

Groups within demographic categories were compared using chi-squared independent T-Test for Means (unequal variances) and independent Z-Test for percentages (unpooled proportions). Any noted differences between demographic groupings (e.g., male and female) are significant at the 95 percent confidence level.

# **Driver's License**

Nondriver survey respondents were asked, "Do you currently have a valid driver's license?" Those who responded "no" were included in the survey and went on to be asked demographic screening questions.

1,428 nondriver survey respondents do not have a driver's license. Males, younger respondents, and people with lower income levels did not have driver's license more frequently than female, senior, and nondriver survey respondents with higher income levels.

### Gender

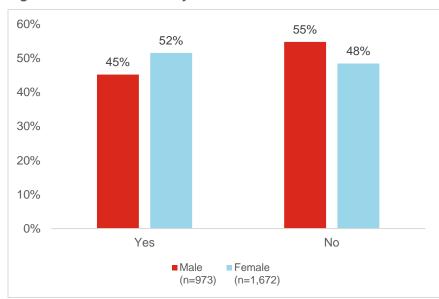


Figure 1. Driver's License by Gender

52 percent out of 1,672 female respondents to the first screening question indicated they do have a valid driver's license compared to 45 percent out of 973 male respondents. This difference in percentages is significant at the 95 percent confidence level and indicates that a higher proportion of female nondrivers have a driver's license compared to male nondrivers.

#### Age

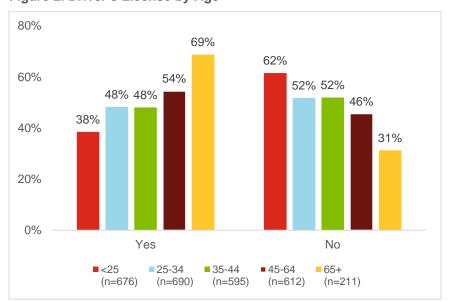


Figure 2. Driver's License by Age

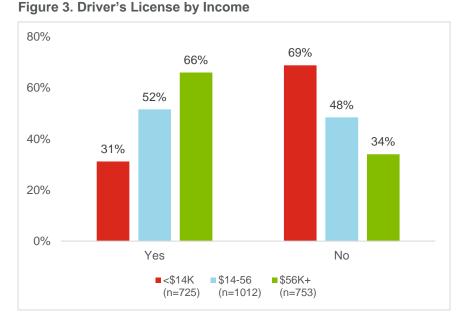
69 percent of the 211 respondents over 65 years old indicated that they do have a valid driver's license. This is statistically significantly higher than the other age categories. 61.5 percent of respondents under 25 years old said they do not have a driver's license. This is a statistically significant larger proportion than the other age categories.

### TOOLE DESIGN | 17

## NON-DRIVERS: POPULATION, DEMOGRAPHICS & ANALYSIS | FINAL DRAFT

Those between 45-64 years old have statistically significant larger proportion than those under 25, 25-34, and 35-44 years old. Those under 25-34 and 35-44 years old have statistically significant larger proportion than ages under 25 years old.

#### Income



66 percent of 753 respondents with income over \$56,000 indicated that they do have a valid driver's license. This was significantly higher than those with income levels under \$14,000 and between \$14,000-\$56,000. In addition, the proportion of drivers with income between \$14,000-\$56,000 who do have a driver's license is greater than those under \$14,000. Those with higher income indicated having a valid driver's license more often than those with lower income levels.

### Location

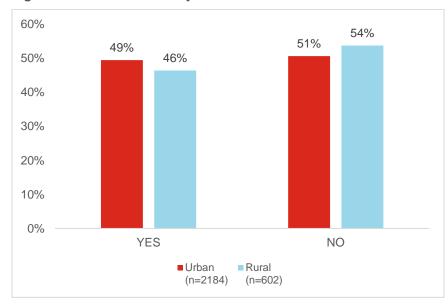


Figure 4. Driver's License by Location

### TOOLE DESIGN | 18

There were no statistically significant differences between urban and rural respondents related to their nondriver status and type of driving access.

## Disability

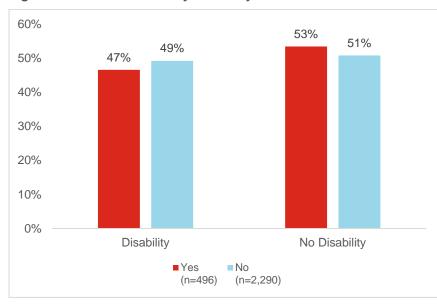


Figure 5. Driver's License by Disability Status

There was no statistically significant difference between those with a disability and those without a disability in terms of having a valid driver's license.

# **Vehicle in Household**

Nondriver survey respondents who do have a valid driver's license were asked, "Do you or someone in your household own a vehicle?" Those who responded "no" were included in the survey and went on to be asked demographic screening questions.

282 nondriver survey respondents have a driver's license but no vehicle in their household. A larger proportion of nondriver survey respondents with a valid driver's license but no vehicle in their household are younger, lower income, and without a disability compared to seniors, higher income, and disabled nondriver survey respondents.

## Gender

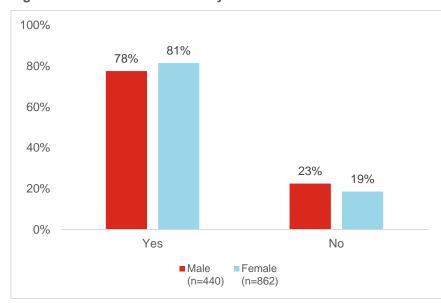
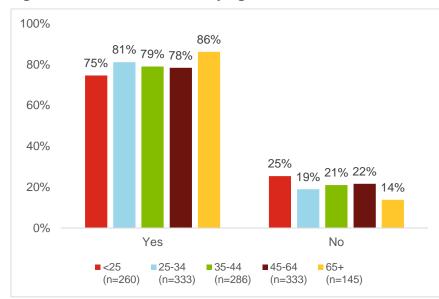


Figure 6. Vehicle in Household by Gender

No statistically significant difference between male and female nondriver respondents for if someone in household owns a vehicle.

## Age





86 percent of the 145 survey respondents over 65 years old indicated that they or someone in their household owns a vehicle. This was a statistically significant higher proportion than those under 25 years old and between 45-64 years old.

## Income

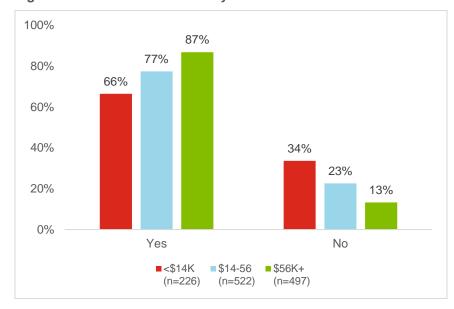


Figure 8. Vehicle in Household by Income

Respondents with higher income indicated that they or someone in their household own a vehicle more often than those with lower income, and this difference is significant. 87 percent of the 497 respondents with income over \$56,000 indicated they have a household vehicle, compared to 77 percent of the 522 respondents with incomes between \$14,000-\$56,000 and the 66 percent of the 226 respondents with less than \$14,000.

### Location

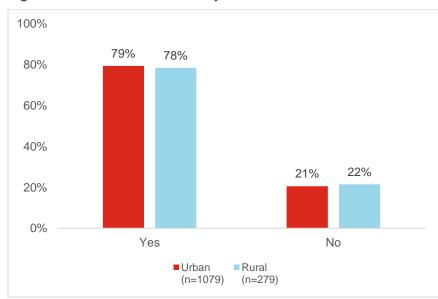


Figure 9. Vehicle in Household by Location

There were no statistically significant differences between urban and rural respondents related to their nondriver status and type of driving access.

### TOOLE DESIGN | 21

### Status

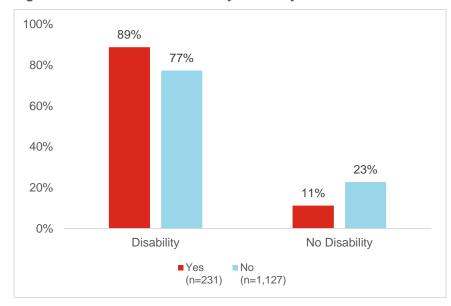


Figure 10. Vehicle in Household by Disability Status

89 percent of the 231 disabled nondrivers responded that they or someone in their household owns a vehicle, which is a statistically significant higher proportion than the proportion of nondrivers without a disability.

### **Primary Driver in Household**

Nondriver survey respondents who have a valid driver's license and a vehicle in their household were asked, "Are you the primary driver of the vehicle in your household?" Those who responded "no" were included in the survey and went on to be asked demographic screening questions.

810 nondriver survey respondents have a driver's license and a vehicle in their household but are not the primary driver of that vehicle. Women, those under 25 years old, and nondriver survey respondents with income under \$56,000 tended to not be the primary driver more than males, those 25 years old and older, and those with income over \$56,000.

### Gender

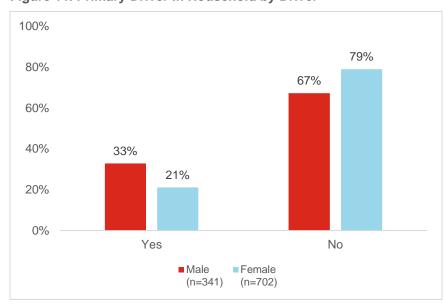
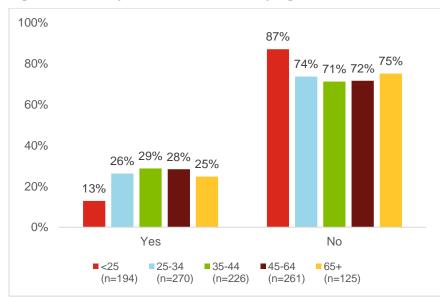


Figure 11. Primary Driver in Household by Driver

33 percent out of 341 males responded that they are the primary driver of a vehicle in their household compared to 21 percent of females. This difference in percentages is significant at the 95 percent confidence level and indicates that a higher proportion of male nondrivers are the primary driver of a vehicle in their household compared to female nondrivers.

### Age





Respondents under 25 years old were significantly less likely to indicate that they are the primary driver of a vehicle in their household compared to the other age categories over 25 years old (13 percent of the 194 respondents under 25 years old indicated they are not the primary driver of a vehicle in their household).

### TOOLE DESIGN | 23

### Income

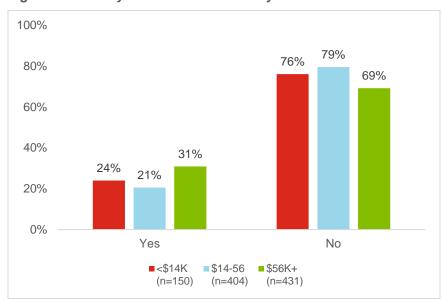
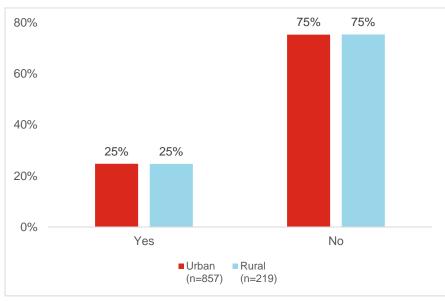


Figure 13. Primary Driver in Household by Income

31 percent of the 431 respondents with income over \$56,000 indicated they are the primary driver of a vehicle in their household which is a statistically significant higher proportion than those with income \$14,000-56,000.

### Location

Figure 14. Primary Driver in Household by Location



There were no statistically significant differences between urban and rural respondents related to whether they were the primary driver in a household.

### **Disability Status**

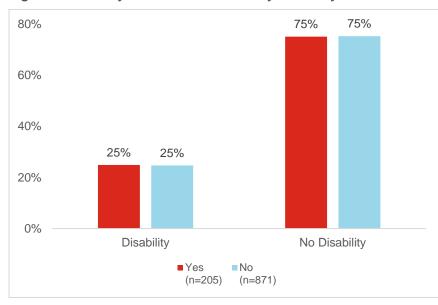


Figure 15. Primary Driver in Household by Disability Status

There is no statistically significant difference between those with a disability and those without a disability in terms of being the primary driver of a vehicle in the household.

### **Nondriver for Most Transportation Needs**

Nondriver survey respondents who had a driver's license, a vehicle in the household, and are the primary driver of that vehicle were then asked, "Do you drive that vehicle to meet most of your transportation needs?" Those who responded "no" were included in the survey and went on to be asked demographic screening questions. Those who responded "yes" were not included in the survey and received no further questions.

Because those who responded "yes" were not included in the survey, there is no statistical analysis for demographic comparison. The following charts summarize the distribution of those who have a driver's license, a vehicle, access to that vehicle, but do not use that vehicle for most of their transportation needs.

266 nondriver survey respondents have a driver's license, a vehicle in household, and are the primary driver but do not drive to meet most transportation needs. Of those, more than one half are female (56%) compared to male, and one half have income at or above \$56,000. 79 percent fall within 25-64 years old and 80 percent live in the 10 most populated counties in Washington. 19 percent indicated that they have a disability or condition that limits their driving.

### Gender

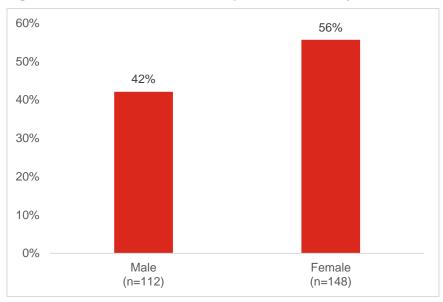
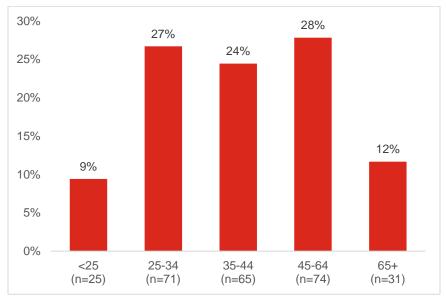


Figure 16. Nondriver for Most Transportation Needs by Gender

### Age Figure 17. Nondriver for Most Transportation Needs by Age



### Income

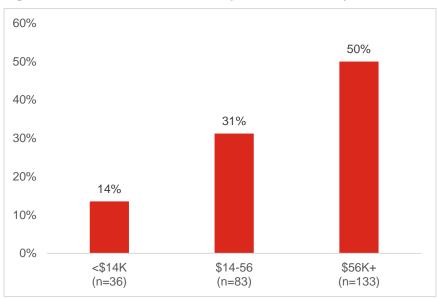
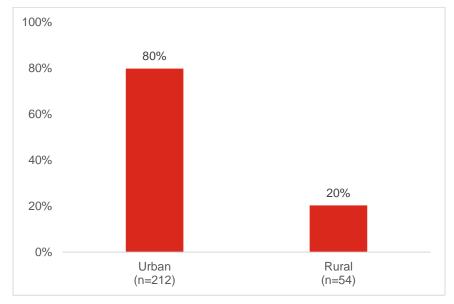


Figure 18. Nondriver for Most Transportation Needs by Income

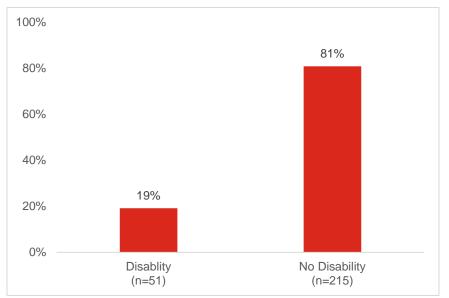
### Location





### **Disability Status**

Figure 20. Nondriver for Most Transportation Needs by Disability Status



## APPENDIX 1C: MARKET RESEARCH SURVEY REASONS FOR NOT DRIVING BY DEMOGRAPHIC

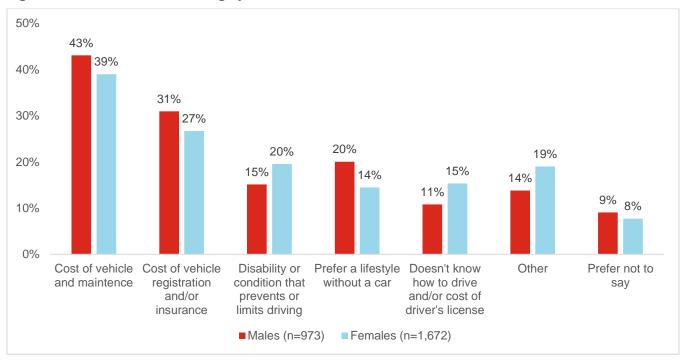
### C. REASONS FOR NOT DRIVING (Q1)

Nondriver survey respondents were asked, "Which of the following best describes your reason for not driving?" and were allowed to select multiple reasons. This appendix summarizes the reasons for not driving, organized by demographic characteristic.

Groups within demographic categories were compared using chi-squared independent T-Test for Means (unequal variances) and independent Z-Test for percentages (unpooled proportions). Any noted differences between demographic groupings (e.g., male and female) are significant at the 95 percent confidence level.

### **GENDER**

Across genders, the cost of purchasing and maintaining a vehicle and the cost of registration and insurance were the primary reasons identified for not driving, with proportionally more males stating this to be the reason. Following cost, females stated that disability status or other medical conditions were reasons for not driving, while 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 their male peers.



### Figure 21. Reasons for Not Driving by Gender

### AGE

When broken down by age, cost (vehicle and maintenance costs and insurance and registration) was the primary reason for not driving for those under 44 years old, while cost was less of a factor for those over 45 years old. As age increased, the cost of driving became less important and reasons for not driving shifted more to disability status or other medical conditions. For respondents over 65 years old, disability status or other medical conditions was the primary limiting factor to driving. Regarding lifestyle preferences, more respondents under 44 years old preferred a lifestyle without a car compared to those over 45 years old. Similarly, knowing how to drive and/or the cost to obtain a driver's license were limiting factors for those under 34 years old, whereas those over 45 years old did not claim this as a barrier to driving.

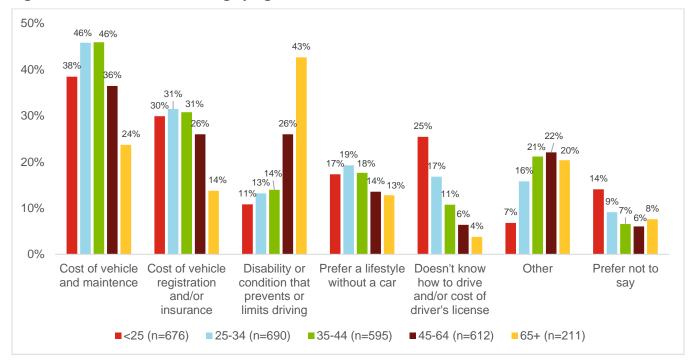


Figure 22. Reasons for Not Driving by Age

### INCOME

Respondents with income less than \$14,000 reported that vehicle cost and maintenance was the primary reason for not driving, followed by cost of registration and insurance and disability status, respectively. Respondents in this category 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 driver's license as a reason not to drive.

Respondents with income between \$14,000 and \$56,000 were impacted by cost at a higher proportional rate than other income groups—both vehicle and maintenance costs and the cost of registration and insurance were stated as the main reasons for not driving. This group also reported a higher proportional rate of not driving because of disability status or other medical conditions than other income groups.

Those with incomes above \$56,000, vehicle cost and maintenance was the primary reason for not driving, followed by an even split between preferring a car-free lifestyle and the cost of registering and insuring a vehicle. Disability status or other medical conditions were among the least reported reasons for not driving among this group.

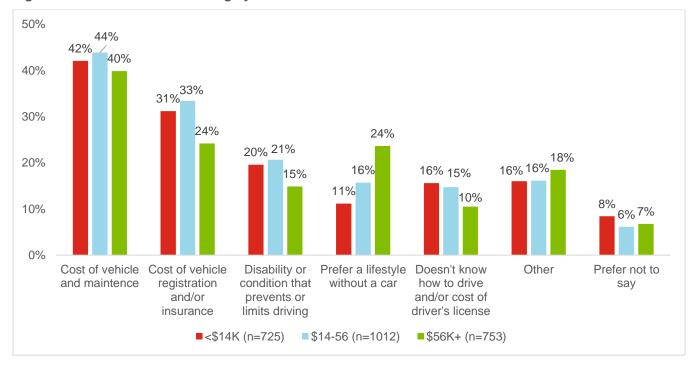


Figure 23. Reasons for Not Driving by Income

### LOCATION

Urban respondents identified vehicle cost and maintenance as the primary reason for not driving at a higher proportional rate than rural respondents, but both groups stated this as the main reason for not driving. Similarly, the cost of registering or insuring a vehicle was the second most identified reason not to drive by both groups, but with a smaller margin of difference (9-point and 3-point margin, respectively).

Rural respondents stated disability or other medical conditions as the third highest reason for not driving, and at a higher proportional rate than urban respondents. Compared to rural respondents, urban respondents reported higher proportional rates of preferring a car-free lifestyle and not knowing how to drive.

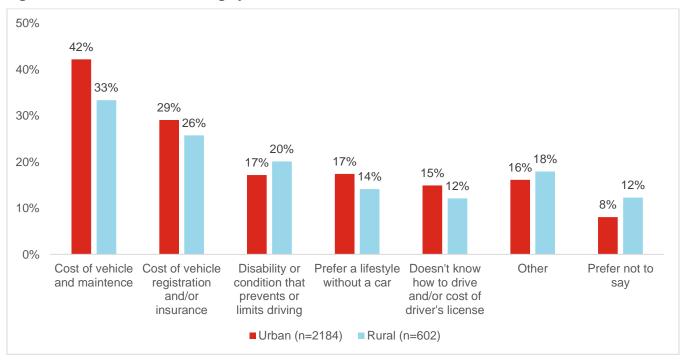


Figure 24. Reasons for Not Driving by Location

### **DISABILITY STATUS**

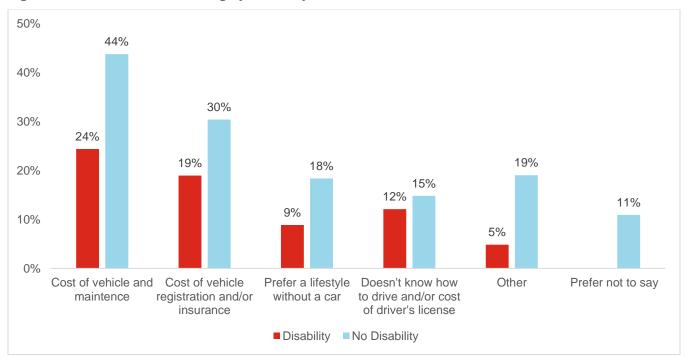


Figure 25. Reasons for Not Driving by Disability Status

Like other demographic groups, cost was the main reason respondents chose not to drive across disability statuses. However, those without a disability had a higher proportional rate of being affected by cost—namely, vehicle cost and maintenance and registration and insurance costs—than those with disabilities. Respondents without disabilities expressed a higher preference for a car-free lifestyle, while respondents with disabilities reported not knowing how to drive as a more significant barrier to driving than those without disabilities.

## APPENDIX 1D: MARKET RESEARCH SURVEY OPPORTUNITY TRAVEL FREQUENCY & MODE

# D. OPPORTUNITY BY TRAVEL FREQUENCY AND MODE

Nondriver survey respondents were asked to reveal their travel patterns for different daily life activities. These activities included traveling for education and employment, traveling for healthcare, traveling for social, family, and spiritual activities, traveling for food and groceries, traveling for child and dependent care, and traveling for recreational purposes.

For each type of daily life activity, the nondriver respondents were asked the same three questions:

- Do you travel to access education and/or employment?
- In the past 30 days, how frequently did you travel to access education and/or employment?
- How did you travel to access education and/or employment?

The following tables in this appendix reference the answers given by survey respondents for each daily life activity.

### **EDUCATION AND EMPLOYMENT (Q2A)**

The first question in the survey focused on whether respondents traveled for education and employment. The survey received 2,786 responses to this question. Of those, 48 percent responded "yes", 47 percent responded "no", and 5 percent responded "prefer not to say".

Survey participants who responded "yes" were then asked about their frequency of travel for that activity (Figure 1). The majority of the respondents (31%) stated that when they traveled for education or employment, they did so more than once per week, with a handful also stating that they traveled this way several times month (8%). Very few respondents stated that they traveled for this purpose once a month or less (5%).

Nondriver participants who engaged in this kind of travel were primarily driven by a family member or friend (24%) or took a bus or train (23%). Some respondents walked or rolled (14%) and interestingly, a small amount of people (2%) said they took paratransit (Figure 2).

### **Travel Frequency**

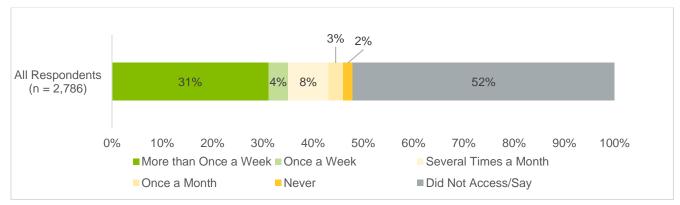


Figure 26. Travel Frequency to Education and Employment (n=2,876)

### **Travel Mode**

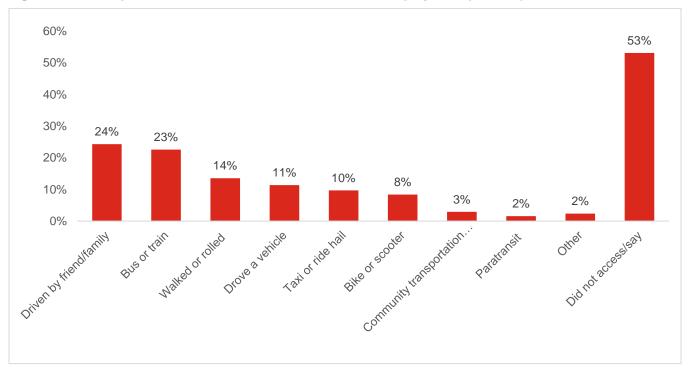


Figure 27. All Respondents Travel Mode for Education and Employment (n=2,731)

### MEDICAL AND HEALTH CARE (Q2B)

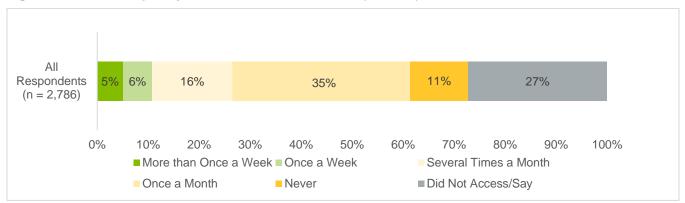
In this question, survey respondents were asked whether they traveled for medical and health care, including mental and dental health care. This survey question received 2,786 responses. Of those, 73 percent responded "yes", 23 percent responded "no", and 5 percent responded "prefer not to say".

Survey participants who responded "yes" were then asked about their frequency of travel for that activity (Figure 3). Respondents primarily stated that they traveled for medical and health care about once a month (35%) or up to several times a month (16%). A few respondents said they traveled more frequently than that (11%).

Similar to travel for education and employment, the mode of transportation that participants used most for medical and health care was being driven by a friend or family member (39%), followed by using the bus or train (23%).

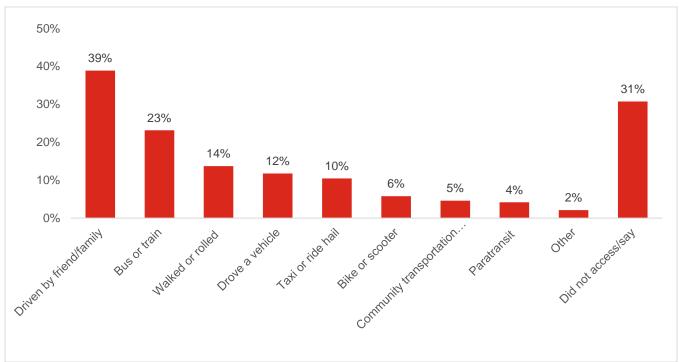
### **Travel Frequency**

Figure 28. Travel Frequency to Medical and Health Care (n=2,876)



### **Travel Mode**





### SOCIAL, FAMILY, AND SPIRITUAL ACTIVITIES (Q2C)

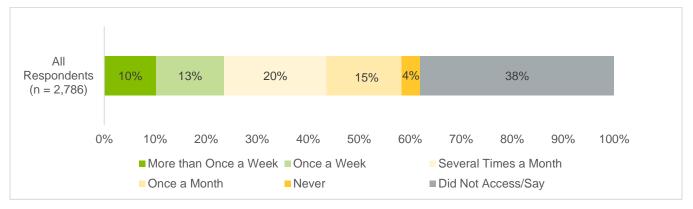
Next, survey participants were asked if they traveled for social, family, or spiritual reasons. This survey question received 2,786 responses. Of those, 62 percent responded "yes", 33 percent responded "no", and 5 percent responded "prefer not to say".

Survey participants who responded "yes" stated that they generally traveled for social, family, and spiritual activities several times per month (20%). In this daily life activity, the answers were more evenly split amongst the frequency options, with traveling once per month at 15 percent and traveling once per week at 13 percent.

In this daily life activity, the most common mode of transportation was to be driven by a friend or family member (42%) or to take the bus or train (21%).

### **Travel Frequency**

Figure 30. Travel Frequency to Social, Family, and Spiritual Activities (n=2,876)



### **Travel Mode**

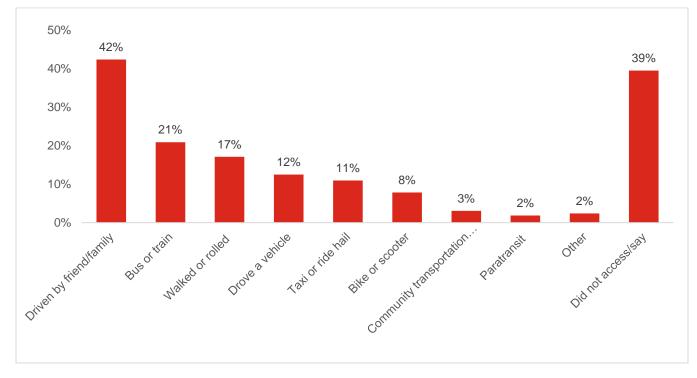


Figure 31. All Respondents Travel Mode for Social, Family, and Spiritual Activities (n=2,683)

### FOOD AND GROCERIES (Q2D)

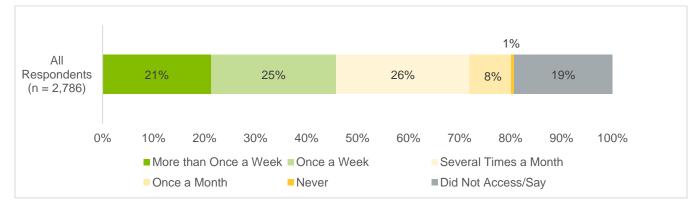
Traveling for food and groceries was the next daily life activity that participants answered. This survey question received 2,786 responses. Of those, 81 percent responded "yes", 16 percent responded "no", and 4 percent responded "prefer not to say".

Survey participants who responded "yes" stated that they generally traveled for food and groceries either several times per month (26%) or once per week (25%). Much fewer respondents claimed to travel for food and groceries only once per month (8%) (Figure 50).

The most frequent modes of travel for this daily life activity were that they were driven by a friend or family member (49%), they took a bus or a train (26%), or they walked or rolled (24%) (Figure 51).

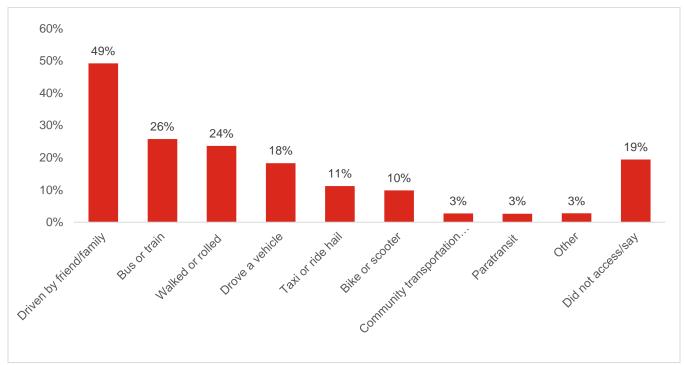
### **Travel Frequency**

Figure 32. Travel Frequency to Food and Groceries (n=2,876)



### **Travel Mode**





### CHILD AND DEPENDENT CARE (Q2E)

Very few of the survey respondents claimed that they traveled for child and dependent care. Out of 2,786 participants, 12 percent answered "yes", 81 percent said "no", and 7 percent said "prefer not to say" to this question.

Five percent of participants claimed that they traveled for child and dependent care more than once per week (Figure 9). Responses were minimal for all other frequencies, including traveling once per week (2%), several times per month (2%), or once a month (2%) (Figure 52).

The most frequent mode of travel for this was being driven by a friend or family member (5%), but respondents also utilized busses or trains (4%), walking or rolling (3%), and driving their own vehicle (3%) (Figure 53).

### **Travel Frequency**

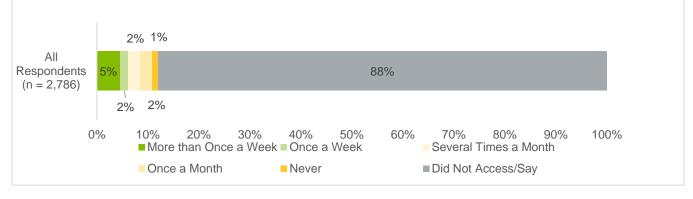
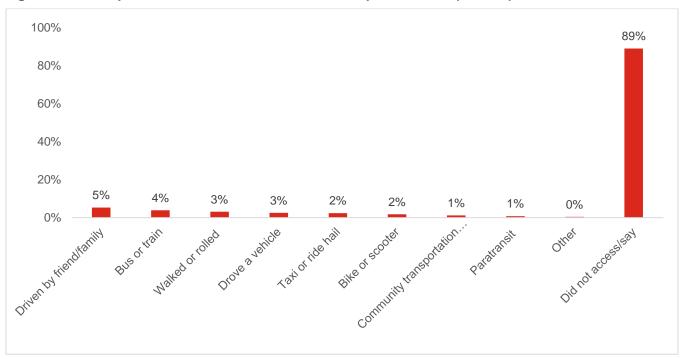


Figure 34. Travel Frequency to Child and Dependent Care (n=2,876)

### **Travel Mode**





### **RECREATION ACTIVITIES (Q2F)**

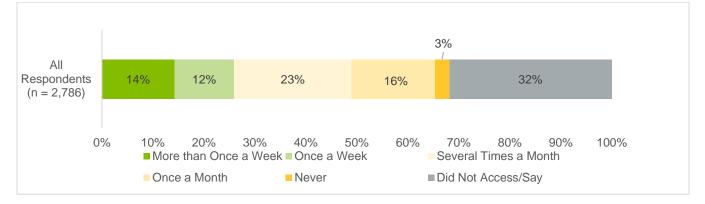
The final daily life activity that nondriver survey respondents were asked was whether they traveled for recreational purposes. This survey question received 2,786 responses. Of those, 68 percent responded "yes", 28 percent responded "no", and 4 percent responded "prefer not to say".

The majority of survey participants who travel for recreation stated that they traveled this way several times a month (23%). But some participants (14%) traveled for recreation as much as more than once per week (Figure 14).

Participants who traveled for recreation were mainly driven by a friend or family member (39%), took a bus or train (27%), or walked or rolled (27%) (Figure 55).

### **Travel Frequency**

Figure 36. Travel Frequency to Recreation (n=2,876)



### **Travel Mode**

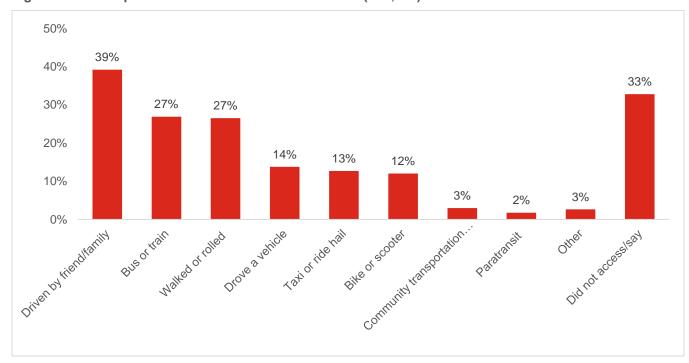


Figure 37. All Respondents Travel Mode for Recreation (n=2,708)

## APPENDIX 1E: MARKET RESEARCH SURVEY TRANSPORTATION UTILITY BY DEMOGRAPHIC

### E. USABILITY OF TRANSPORTATION OPTIONS

Nondriver survey respondents were asked, "How easy or difficult is it to use the following transportation options?" and then to respond on a scale of usability. They were also given the options "not available / do not qualify to use," "do not need to use," and "don't know / prefer not to say." This appendix summarizes the usability of transportation options, organized by demographic characteristics.

Groups within demographic categories were compared using chi-squared independent T-Test for Means (unequal variances) and independent Z-Test for percentages (unpooled proportions). Any noted differences between demographic groupings (e.g., male and female) are significant at the 95 percent confidence level.

### PEDAL OR SCOOT (Q4A)

### Gender

Male respondents noted pedal or scoot (including bicycles, scooters, skateboards, one-wheels, trikes) as more usable than female respondents, while female respondents more frequently indicated that they do not need to pedal or scoot. Compared to male respondents, female survey respondents more frequently indicated that pedal or scoot was 1) "not available", 2) "very difficult to use", and 3) that they "do not need to use" it. Male survey respondents were more likely to respond that pedal or scoot is 1) "somewhat easy to use" or 2) "very easy to use" compared to female respondents.

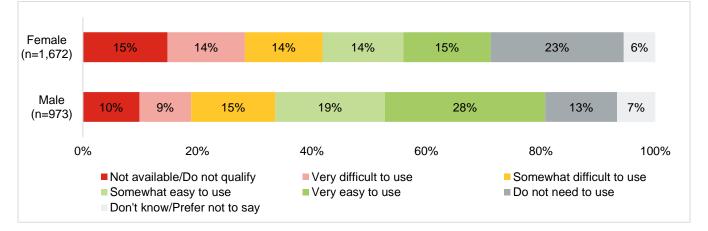
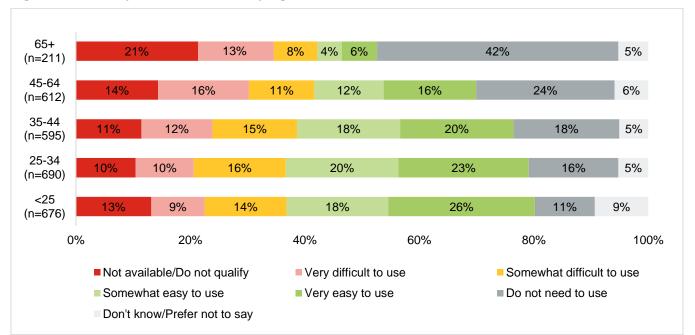


Figure 38. Usability of Pedal or Scoot by Gender

### Age

Younger respondents reported that pedal or scoot is easier to use compared to older survey respondents. Respondents over 65 years old reported that pedal or scoot is "not available" or that they "do not need to use" it more than other age groups, and respondents between 45-64 years old also reported this more than respondents between 25-34 years old.

Older respondents reported that they "do not need to use" pedal or scoot more than younger respondents, with 42 percent of those over 65 years old and 24 percent of those who are between 45-64 years old reporting they "do not need to use" pedal or scoot—which is a statistically significant higher proportion than their younger counterparts. A higher proportion of those under 25 years old reported that pedal or scoot is "very easy to use" compared to respondents over 34 years old. Also, a higher proportion of those between 25-34 years old reported that pedal or scoot is "very easy to use" compared to respondents over 34 years old. Also, a higher proportion of those between 25-34 years old reported that pedal or scoot is "very easy to use" compared those 45 years old and over.





### Income

Higher-income respondents reported pedal or scoot as more usable than lower-income respondents. Respondents with incomes less than \$56,000 reported that pedal or scoot is "very difficult to use" and "not available / do not qualify" more frequently than those with incomes over \$56,000. While respondents with incomes above \$56,000 selected reported that pedal or scoot is "very easy to use" more frequently than other income levels, they also reported that pedal or scoot is "somewhat difficult to use" more than those with income less than \$14,000.

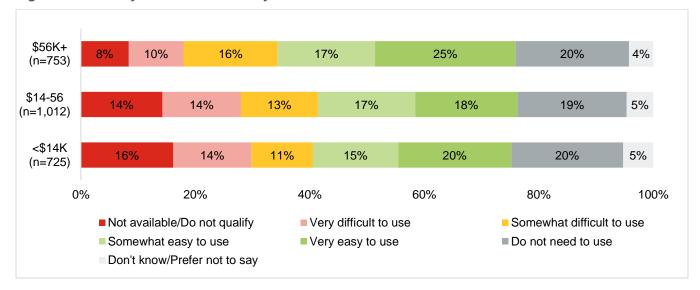


Figure 40. Usability of Pedal or Scoot by Income

### Location

Urban respondents indicated pedal or scoot to be more usable compared to rural respondents. Rural respondents selected "not available / do not qualify to use" more than their urban counterparts. Urban respondents selected "very easy to use" and "I do not need to use" more often than rural respondents.

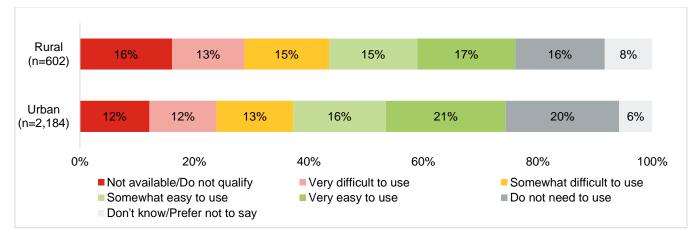


Figure 41. Usability of Pedal or Scoot by Location

### **Disability Status**

Respondents without disabilities reported pedal or scoot to be easier to use compared to disabled respondents. Disabled respondents selected "not available," "very difficult to use," and "I do not need to use" more than respondents without disabilities. Respondents without disabilities reported "somewhat difficult," "somewhat easy," and "very easy to use" more frequently than disabled respondents.

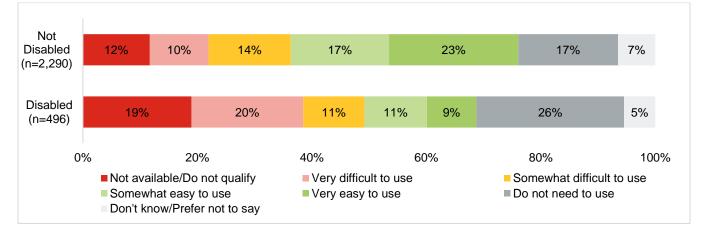
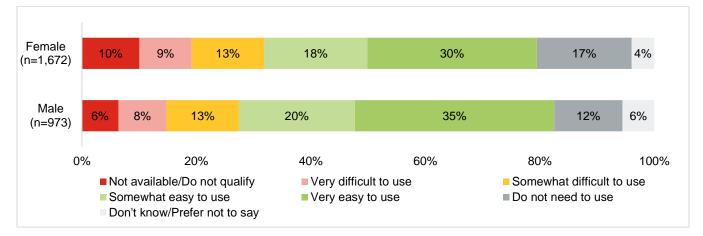


Figure 42. Usability of Pedal or Scoot by Disability Status

### WALK OR ROLL (Q4B)

### Gender

Male respondents reported walking or rolling (e.g., mobility device, mobility scooter, wheelchair) as easier than female respondents, but female respondents more frequently reported that they do not need to walk or roll. Female respondents were more likely to report that walking or rolling was not available, while male respondents were more likely to report that walking or rolling is very easy.



### Figure 43. Usability of Walk or Roll by Gender

### Age

Younger respondents reported walking or rolling as easier to use compared to older survey respondents, but older respondents were more likely to report that they do not need to walk or roll. Respondents over 65 years old selected walk or roll is "not available / do not qualify to use" more than respondents between 35-64 years old, while respondents under 25 years old reported that walking or rolling is "not available / do not qualify to use" more than those between 45-64 years old. Respondents between 25-44 years old reported walking or rolling as "somewhat easy to use" more than those over 65 years old. Respondents between 25-64 years old reported that walking or rolling is "very easy to use" more often than those over 65 years old. Respondents between 45-65 years old more frequently reported that they do not need to walk or roll compared to other age groups.

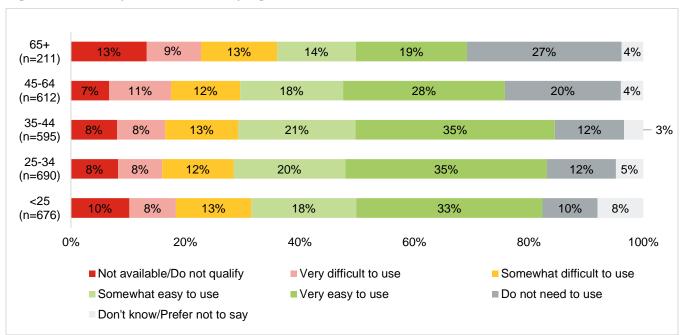


Figure 44. Usability of Walk or Roll by Age

### Income

While there are some statistically significant differences among incomes, the proportional differences are not that large and there is not a strong pattern across incomes. Lower-income respondents (income less than \$14,000) were more likely to report walking or rolling as "very difficult to use" compared to those with income more than \$56,000. Higher-income respondents (income more than \$56,000) were more likely to report that they do not need to walk, or roll compared to lower income respondents (income less than \$14,000). Those are the only two statistically significant differences and do not show a strong pattern.

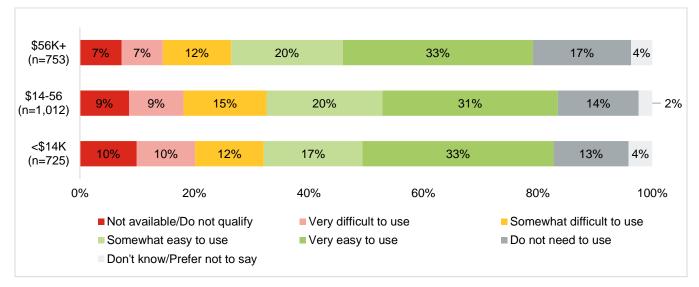


Figure 45. Usability of Walk or Roll by Income

### Location

Urban respondents reported walking and rolling to be slightly easier to use compared to rural respondents. Rural respondents were more likely than urban respondents to report walking or rolling as "not available / do not qualify." More urban respondents reported walking or rolling as "very easy" compared to rural respondents.

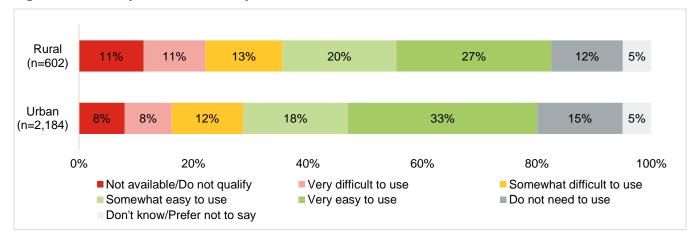
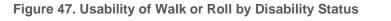
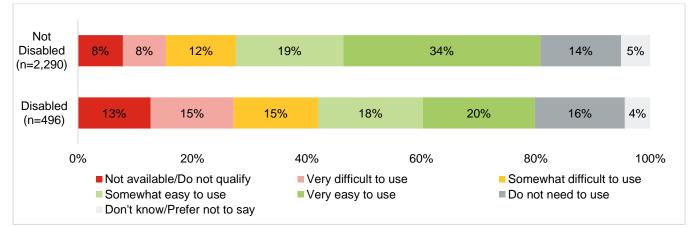


Figure 46. Usability of Walk or Roll by Location

### **Disability Status**

Respondents without disabilities were more likely than disabled respondents to indicate walking or rolling as easy to use. Disabled respondents more frequently reported walking or rolling as "not available" and "very difficult to use" compared to those without disabilities. More respondents without disabilities indicated walking or rolling as "very easy to use" than disabled respondents.





### FIXED ROUTE BUS OR TRAIN (Q4C)

### Gender

Male respondents reported fixed route bus or train as easier to use than female respondents. Female respondents reported that fixed route bus or train is "not available", "very difficult to use", and not needed for use more often than males. Males were also more likely than females to report fixed route bus or train as "somewhat easy to use" and "very easy to use".

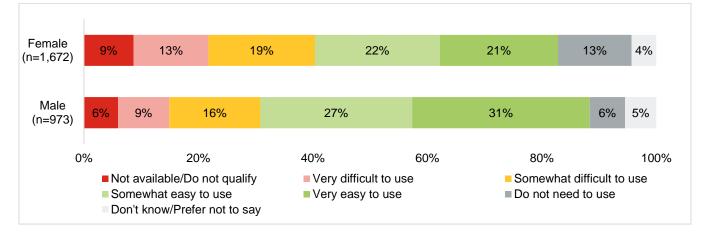


Figure 48. Usability of Fixed Route Bus or Train by Gender

### Age

Older respondents were more likely than younger respondents to report fixed route bus or train as "difficult to use" or not needed. Respondents 35 years old and over more frequently indicated fixed route bus or train as "very

difficult to use" compared to respondents under 35 years old. Respondents under 65 years old reported fixed route bus or train as "very easy to use" more frequently than those over 65 years old.

Respondents over 65 years old were more likely to indicate fixed route bus or train as "not available" compared to those between 45-64 years old. Respondents over 65 years old were also more likely to report that they "do not need to use" fixed route bus or train compared to those between 35-64 years old.

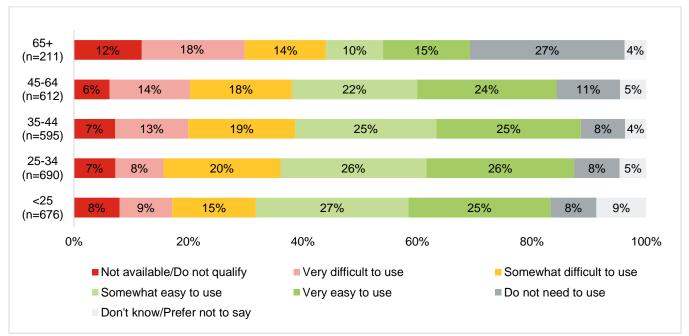
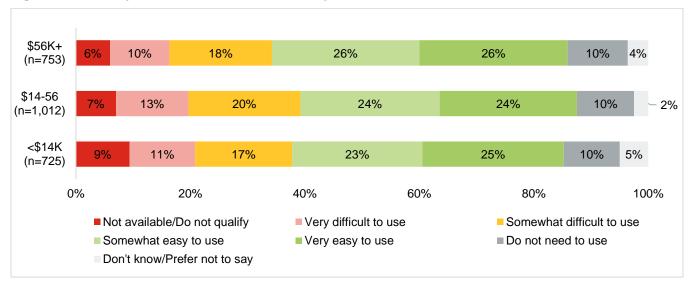


Figure 49. Usability of Fixed Route Bus or Train by Age

### Income

Indicated usability of fixed route bus or train did not vary significantly among respondent income levels. Respondents with income less than \$14,000 reported fixed route bus or train as "not available" more frequently than those with income over \$56,000.

### NON-DRIVERS: POPULATION, DEMOGRAPHICS & ANALYSIS | FINAL DRAFT



#### Figure 50. Usability of Fixed Route Bus or Train by Income

### Location

Urban respondents reported fixed route bus or train to be easier to use compared to rural respondents. More rural respondents reported fixed route bus or train as "difficult to use" and "not available / do not qualify to use". Urban nondriver survey respondents were also more likely to say that fixed route bus or train is "very easy to use" compared to their rural counterparts.

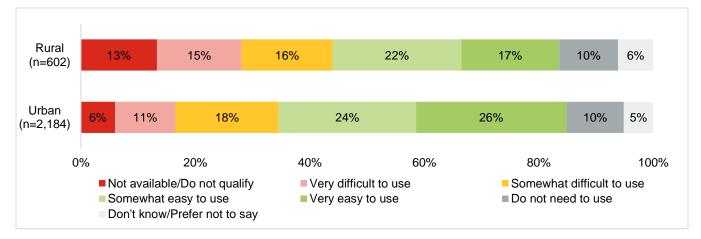
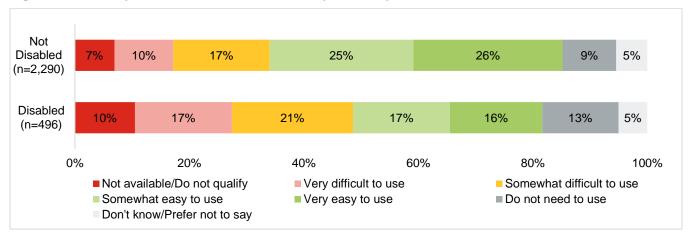


Figure 51. Usability of Fixed Route Bus or Train by Location

### **Disability Status**

Respondents without disabilities indicated fixed route bus or train as easier to use than disabled respondents. Disabled respondents were more likely than respondents without disabilities to report fixed route bus or train as "not available," "very difficult," "somewhat difficult", and "Do not need to use." Respondents without disabilities were more likely than disabled respondents to report fixed route bus or train was "somewhat easy to use" and "very easy to use."



### Figure 52. Usability of Fixed Route Bus or Train by Disability Status

### PARATRANSIT (Q4D)

### Gender

There may be a slight difference in gender in terms of usability of paratransit, with it being easier to use for male respondents compared to females, but female respondents are more likely to not need to use paratransit services. Female respondents were more likely than males to indicate paratransit as "not available" and "do not need to use". Male respondents were more likely to report paratransit as "somewhat easy to use" and "very easy to use" compared to females.

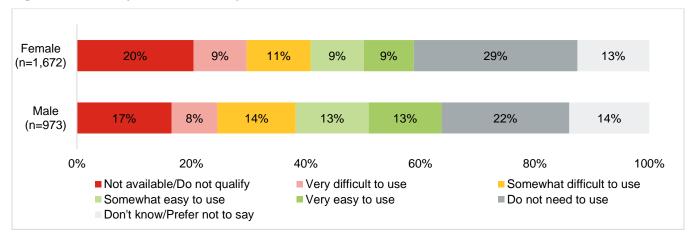
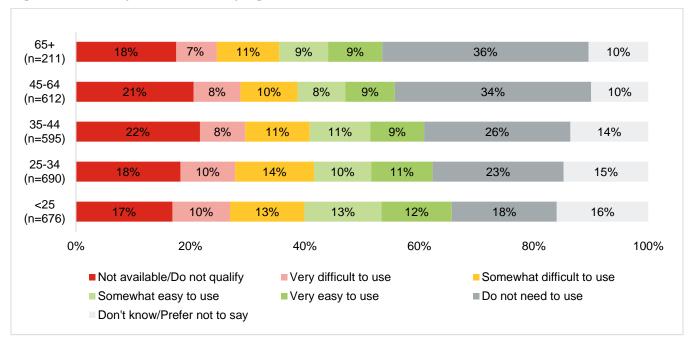


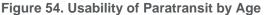
Figure 53. Usability of Paratransit by Gender

### Age

Older respondents were more likely than younger respondents to indicate that they "do not need to use" paratransit. Respondents over 45 years old were more likely than other age groups to indicate they "do not need to use" paratransit. Respondents over 25 years old were more likely than respondents under 25 years old to indicate that they "do not need to use" paratransit.

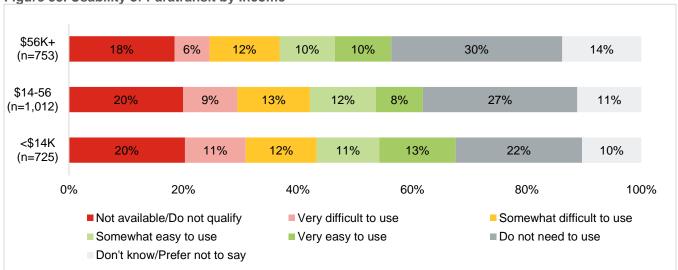
Respondents under 25 years old indicated paratransit as "somewhat easy to use" more frequently than older respondents (25-34 years old, 45-65 years old and over). Respondents between 25-34 years old were more likely to report paratransit as "somewhat difficult to use" compared to respondents between 45-64 years old.





### Income

Paratransit usability did not vary significantly among income levels, but respondents with incomes under \$14,000 indicated a higher need for paratransit use compared to respondents at higher income levels. Respondents with incomes over \$14,000 more frequently indicated they do not need to use paratransit compared to respondents with incomes below \$14,000. Respondents with incomes under \$56,000 were also more likely to report paratransit as "very difficult to use" compared to respondents with incomes over \$56,000. However, respondents with incomes less than \$14,000 were also more likely than other income levels to report paratransit as "very easy to use."

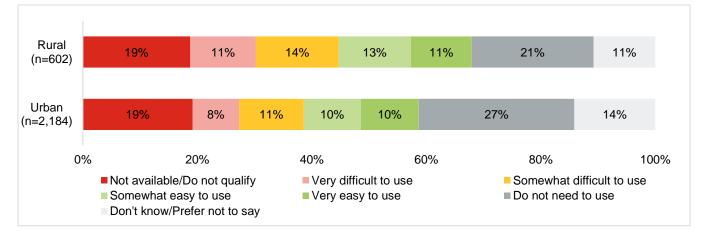


#### Figure 55. Usability of Paratransit by Income

### Location

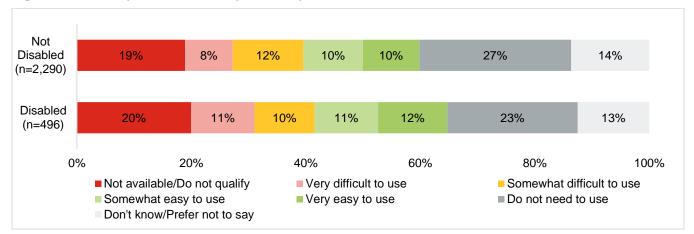
Urban respondents were more likely than rural respondents to report that they "do not need to use" paratransit, but rural respondents indicated paratransit as more difficult to use than urban respondents. Rural respondents indicated paratransit as "very difficult" and "somewhat difficult" to use more than urban respondents, and urban nondrivers said they "do not need to use" paratransit more than rural respondents.





### **Disability Status**

There were no significant differences across disability status and usability of paratransit.



### Figure 57. Usability of Paratransit by Disability Status

## VOLUNTEER AND COMMUNITY TRANSPORTATION SERVICE (Q4E)

### Gender

Female respondents reported that they "do not need to use" volunteer and community transportation services more often than males, but male respondents find volunteer and community transportation services easier to use compared to females. More female respondents indicated volunteer and community transportation services as "not available/do not qualify" and "do not need to use" compared to male respondents. Male respondents were more likely than females to report volunteer and community transportation service as "somewhat easy to use" and "very easy to use."

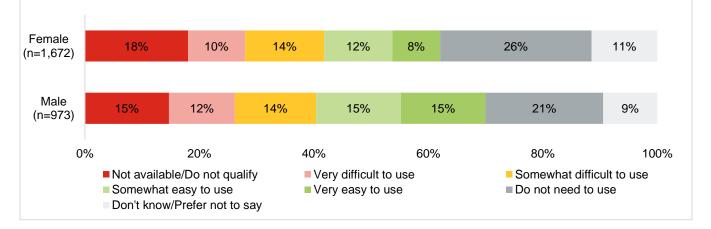


Figure 58. Usability of Volunteer and Community Transportation Service by Gender

### Age

Young respondents reported volunteer and community transportation services as easier to use compared to older respondents; however, older respondents indicated they "do not need to use" these services as much as younger respondents. Respondents over 65 years old were more likely than all other age groups to indicate they "do not need to use" these services; respondents between 45-64 years old were more likely than those under 45 years

old to indicate they "do not need to use" these services; and respondents between 25-44 years old were more likely than those under 25 years old to indicate they "do not need to use" these services.

Respondents under 25 years old were more likely than those over 45 years old to report volunteer and community transportation services as "very easy to use." Respondents between 25-44 years old were more likely than those over 65 years old to report these services as "very easy to use." However, respondents between 25-34 years old were more likely than those over 65 years old to report these services as "very easy to use." However, respondents between 25-34 years old were more likely than those over 65 years old to report these services as "very easy to use."

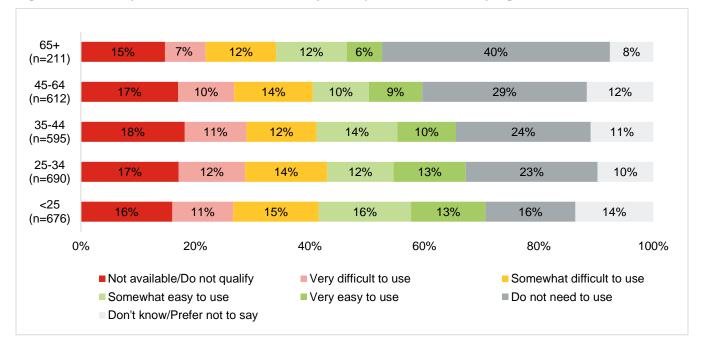
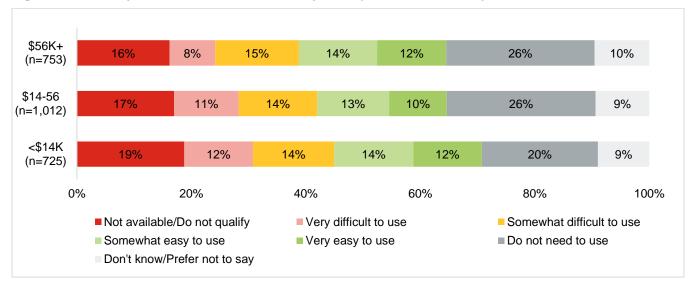


Figure 59. Usability of Volunteer and Community Transportation Service by Age

### Income

Lower income nondriver survey respondents indicated that volunteer and community transportation services are more difficult for them to use than did higher income respondents, but a greater proportion of higher income respondents indicated that they "do not need to use" such services. More respondents with an income of less than \$14,000 and \$14,000-\$56,000 indicated it was "very difficult to use" volunteer and community transportation services than those with an income over \$56,000. Those with an income of \$14,000-\$56,000 and over \$56,000 responded that they "do not need to use" volunteer and community transportation services more than those whose incomes are under \$14,000.

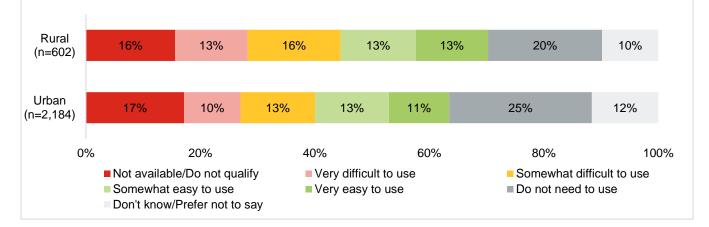




#### Location

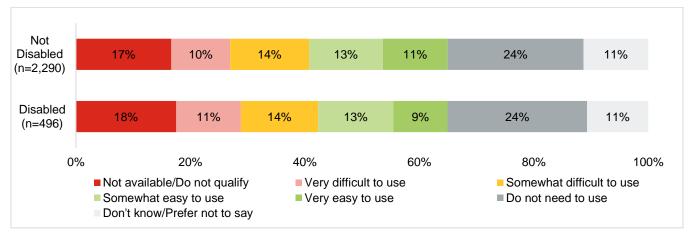
There is no statistically significant difference in usability of volunteer and community transportation services between urban and rural nondriver survey participants, except that a greater proportion of urban nondrivers (25%) indicated they "do not need to use" these services compared to their rural counterparts (20%).





# **Disability Status**

There were no significant differences across disability status and usability of volunteer and community transportation services.



#### Figure 62. Usability of Volunteer and Community Transportation Service by Disability Status

# TAXI AND RIDE HAIL (Q4F)

#### Gender

Taxi and ride hail (e.g., Uber) are easier to use for males compared to females, but females do not need to use these transportation methods as often as males. A greater proportion of females indicated that taxi and ride hail are "not available" (10%), "very difficult to use" (14%), and that they "do not need to use" (20%) them more than males. Males indicated that taxi and ride hail are "somewhat easy to use" (22%) and "very easy to use" (27%) more often than females

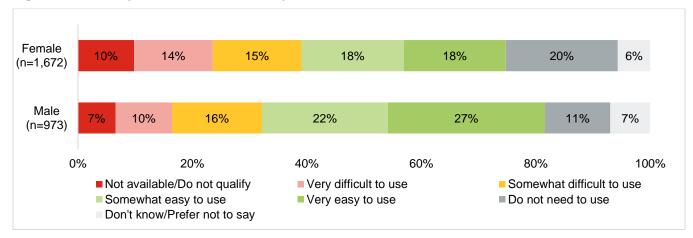
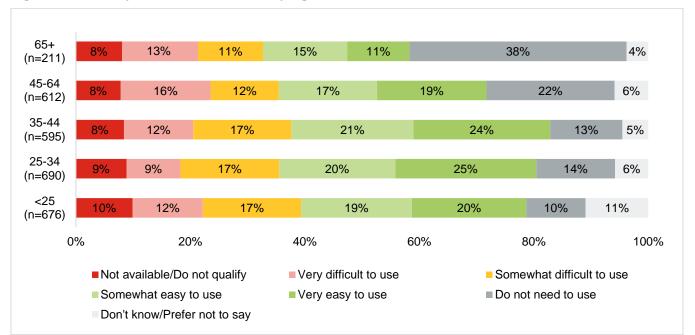


Figure 63. Usability of Taxi and Ride Hail by Gender

# Age

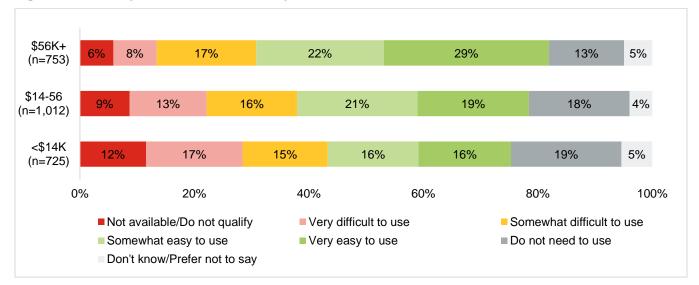
Older nondriver survey respondents reported that they "do not need to use" taxi and ride hail as frequently as younger respondents. Usability varied across demographics, and no distinct pattern was detected. Respondents between 45-64 years old and over 65 years old said they "do not need to use" taxi and ride hail more often (22% and 38%, respectively) than those under 45 years old (13%, 14%, and 10%, respectively). Nondrivers between 25-64 years old said that taxis and ride hail are "very easy to use" (22% on average) more often than nondrivers over 65 years old (11%).



#### Figure 64. Usability of Taxi and Ride Hail by Age

#### Income

Lower income nondriver survey respondents reported that taxi and ride hail are more difficult to use and that they "do not need to use" these services more often than higher income respondents. Nondrivers with incomes less than \$14,000 and incomes \$14,000-\$56,000 indicated that taxi and ride hail are "not available", they "do not need to use" taxi and ride hail, and that taxi and ride hail are "very difficult" to use more often than those whose incomes are \$56,000 and over. Nondrivers with incomes of \$14,000-\$56,000 and over \$56,000 indicated that taxi and ride hail are "somewhat easy to use" more often than nondrivers with incomes under \$14,000. Nondrivers whose incomes are greater than \$56,000 indicated that it is "very easy" for them to use taxi and ride hail more often than nondrivers with other income levels. Nondrivers with incomes under \$14,000 and \$14,000-\$56,000 indicated that they "do not need to use" taxis and ride hail more often than nondrivers with higher incomes.



#### Figure 65. Usability of Taxi and Ride Hail by Income

## Location

Taxi and ride hail are easier to use for urban nondriver survey participants than for rural nondriver survey participants. Rural nondrivers reported that taxi and ride hail are "not available" and "very difficult to use" (29%) more often than urban nondrivers (19%). Urban nondrivers reported that taxi and ride hail are "somewhat easy" and "very easy" to use (43%) more often than rural nondrivers (30%).

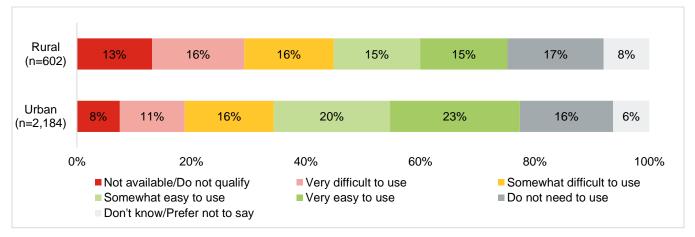
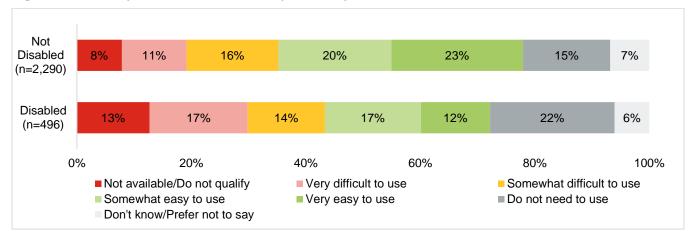


Figure 66. Usability of Taxi and Ride Hail by Location

# **Disability Status**

Taxi and ride hail are easier to use for nondriver survey participants without disabilities compared to disabled nondriver survey participants. Disabled survey participants indicated that taxi and ride hail are "not available" and "very difficult" to access, and that they "do not need to use" these services more often than survey participants without disabilities. A greater proportion of survey participants without disabilities indicated that taxi and ride hail are "very easy to use" (23%) compared to disabled survey participants (12%).



#### Figure 67. Usability of Taxi and Ride Hail by Disability Status

# CAR DRIVEN BY FRIENDS OR FAMILY (Q4G)

#### Gender

There were no significant differences across gender and usability of car driven by friends or family.

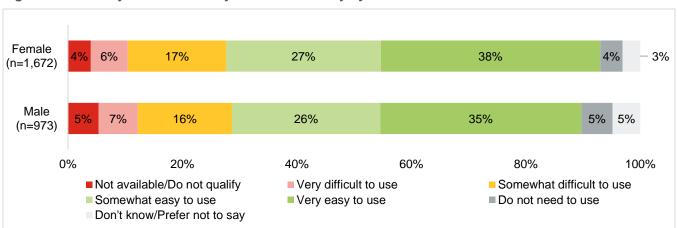
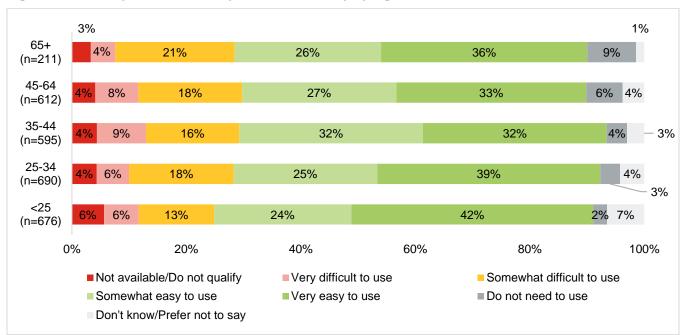


Figure 68. Usability of Car Driven by Friends or Family by Gender

# Age

Older nondriver survey respondents indicated that they do not depend on a car driven by friends or family to get around as much as younger respondents, and younger respondents indicated that getting driven by friends or family is easier to use compared to older respondents. Nondrivers who are 45 to 65 and older indicated they "do not need to use" a car driven by friends or family more than nondrivers who are under 25-44 years old. Nondrivers between 35-44 years old indicated that a car driven by friends or family is "very difficult to use" more often than nondrivers who are between 25-34 years old and over 65 years old.



#### Figure 69. Usability of Car Driven by Friends or Family by Age

#### Income

A car driven by friends or family is easier to use for higher income survey respondents compared to lower income survey respondents. For example, nondrivers with incomes less than \$14,000 responded that a car driven by friends or family is "not available" or "very difficult" to use more than often nondrivers with higher income levels. Nondrivers with incomes greater than \$56,000 indicated that it is "very easy to use" a car driven by friends or family (43%) more than nondrivers with lower incomes.

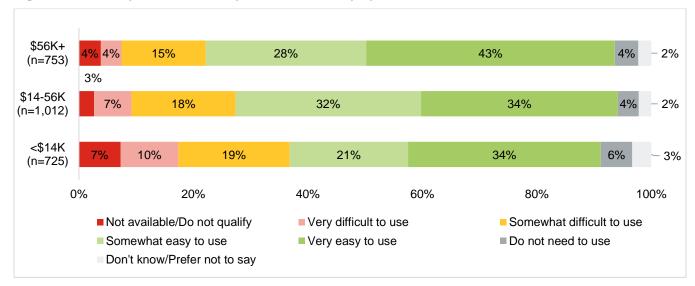


Figure 70. Usability of Car Driven by Friends or Family by Income

## Location

Urban nondriver survey respondents indicated that a car driven by friends or family is easier to use than their rural counterparts. A greater proportion of urban respondents indicated that a car driven by friends or family is "very easy to use" (38%) compared to rural respondents (33%).

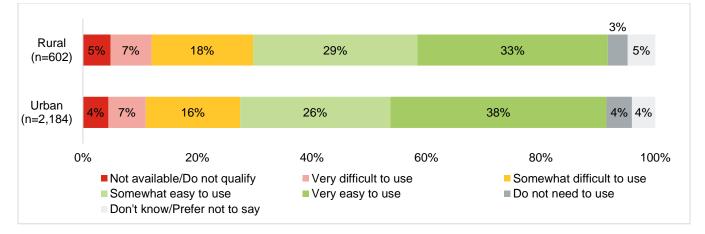


Figure 71. Usability of Car Driven by Friends or Family by Location

## **Disability Status**

There was no significant difference between disability status regarding usability of a car driven by friends or family. Although nondriver survey respondents without disabilities said that a car driven by friends or family is "not available" more often (5%) than disabled nondrivers (3%), this percentage represents a small proportion of overall nondrivers without disabilities.

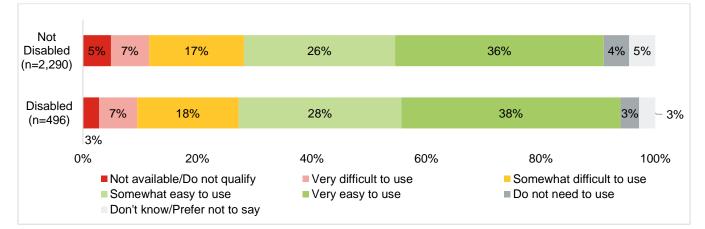
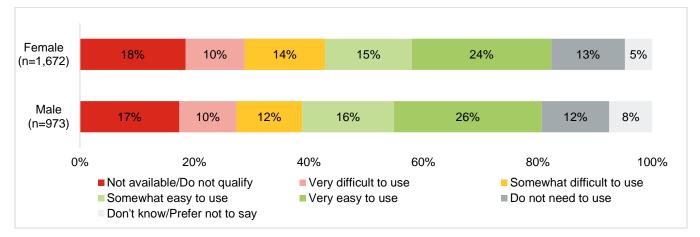


Figure 72. Usability of Car Driven by Friends or Family by Disability Status

# CAR AS DRIVER (Q4H)

#### Gender

There was no significant difference between genders regarding usability of a car as driver.



#### Figure 73. Usability of Car as Driver by Gender

# Age

Older nondriver survey respondents said they "do not need to use" a car driven by themselves more than younger respondents, and a higher proportion of younger respondents indicated that driving a car themselves is easier than older respondents. Nondrivers between 25-34 years old indicated it was "very easy to use" a car driven by themselves more than those under 25 years old and those between 45-64 years old and over 65 years old. Nondrivers between 35-44 years old indicated it was "very easy to use" a car driven by themselves more than those under 65 years old. Nondrivers over 65 years old indicated they "do not need to use" a car with themselves as the driver more than all other age groups. Nondrivers between 35-44 years old, 25-34 years old, and under 25 years old. Nondrivers between 35-44 years old, 25-34 years old, and under 25 years old. Nondrivers between 35-44 years old, 25-34 years old, and under 25 years old. Nondrivers between 35-44 years old, acar as the driver more than nondrivers between 35-44 years old, 25-34 years old, and under 25 years old. Nondrivers between 35-44 years old, 25-34 years old, and under 25 years old. Nondrivers between 35-44 years old, 25-34 years old, and under 25 years old. Nondrivers between 35-44 years old responded they "do not need to use" a car as the driver more than nondrivers between 35-44 years old, 25-34 years old, and under 25 years old. Nondrivers between 35-44 years old responded they "do not need to use" a car as the driver more than nondrivers between 35-44 years old, 25-34 years old, and under 25 years old. Nondrivers between 35-44 years old responded they "do not need to use" a car as the driver more than nondrivers between 35-44 years old, 25-34 years old, and under 25 years old.

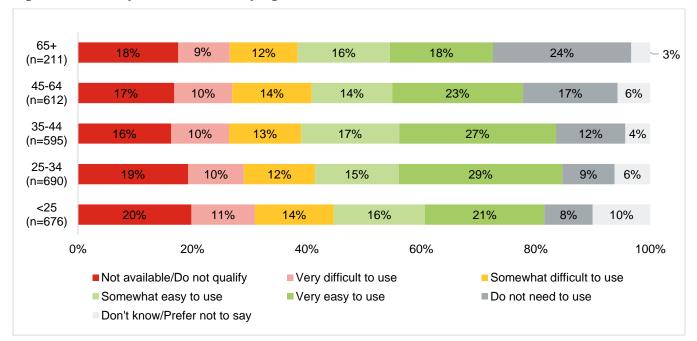


Figure 74. Usability of Car as Driver by Age

#### Income

Lower income nondriver survey respondents indicated that driving a car themselves is more difficult to use and that they "do not need to use" a car driven by themselves as much as their higher income counterparts. Nondrivers with income levels less than under \$14,000 and \$14,000-\$56,000 indicated that a car driven by themselves is "not available" more than nondrivers with income levels over \$56,000. Nondrivers in the highest income level indicated that a car driven by themselves is "somewhat easy to use" and "very easy to use" more often than nondrivers with an income level of \$14,000-\$56,000 indicated that it is "very easy to use" a car driven by themselves more often than those with the lowest income level of under \$14,000. Nondrivers with income level of \$14,000 and \$14,000-\$56,000 indicate that they "do not need to use" a car driven by themselves more often than those with the lowest income level of under \$14,000. Nondrivers with income level of \$14,000 and \$14,000-\$56,000 indicate that they "do not need to use" a car driven by themselves more often than those with the lowest income level of under \$14,000. Nondrivers with income level of \$14,000 and \$14,000-\$56,0000 indicate that they "do not need to use" a car driven by themselves more often than nondrivers in the highest income level of over \$56,000.

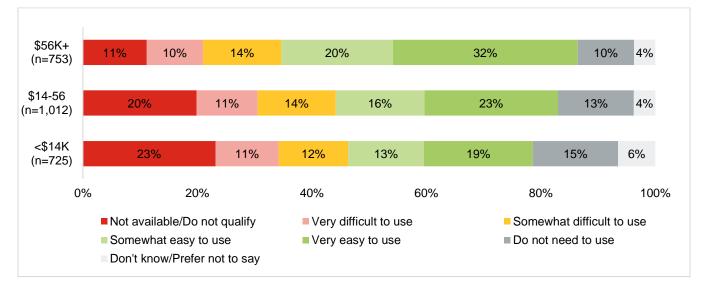


Figure 75. Usability of Car as Driver by Income

# Location

There was no significant difference across location regarding usability of car as driver.

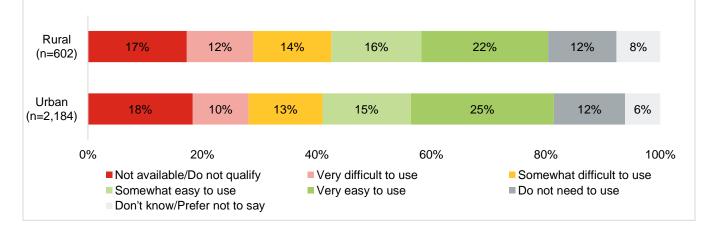


Figure 76. Usability of Car as Driver by Location

## **Disability Status**

Driving a car is more usable for nondriver survey respondents without disabilities compared to their disabled counterparts. Disabled nondrivers reported that driving a car is "not available", "very difficult", and "somewhat difficult", and that they "do not need to use" a car as the driver more than nondrivers without disabilities. Respondents without disabilities reported that driving a car is "somewhat easy" and "very easy to use" more than disabled nondrivers.

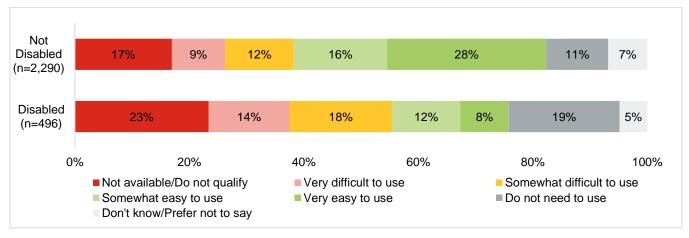


Figure 77. Usability of Car as Driver by Disability Status

# APPENDIX 1F: MARKET RESEARCH SURVEY ACCESS TO LIFE OPPORTUNITY BY DEMOGRAPHIC

# F. ACCESS TO DAILY LIFE ACTIVITIES

Nondriver survey respondents were asked, "How easy or difficult is it to access the following activities?" and then to respond on a scale of ability to access. They were also given the options access without traveling, don't need to access, and prefer not to say. This appendix summarizes the access to the different daily life activities by demographic information.

Groups within demographic categories were compared using chi-squared independent T-Test for Means (unequal variances) and independent Z-Test for percentages (unpooled proportions). Any noted differences between demographic groupings (e.g., male and female) are significant at the 95 percent confidence level.

# **EDUCATION AND EMPLOYMENT (Q3A)**

#### Gender

Females do not need to access education and employment as much as males, and more males report that access to education and employment is easier more than their female counterparts. More specifically, 63 percent of males who need access indicated that education and employment are "somewhat easy to access" and "very easy to access" compared to 56 percent of females who need access.

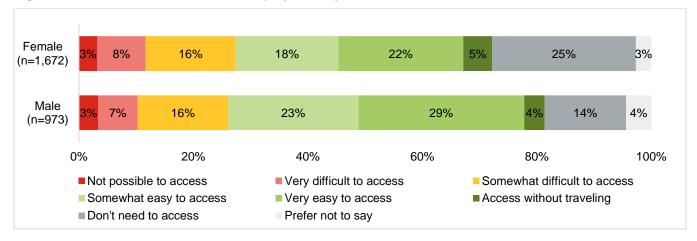
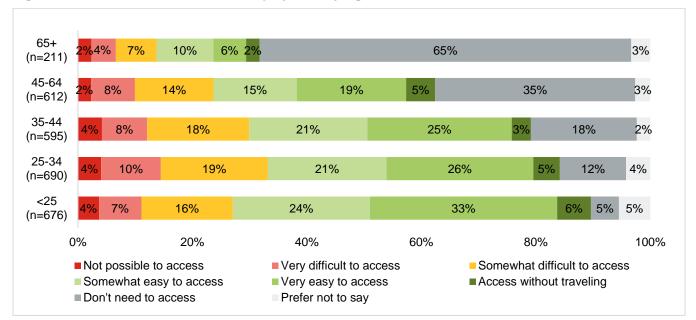


Figure 78. Access to Education and Employment by Gender

#### Age

Older age groups do not need to access education and employment as much as younger age groups. Younger age groups also report education and employment as being easier to access more often than older age groups. Respondents 65 years old and over indicated they "do not need to access" more than any other category, and, generally, each age group was statistically different from other age groups for "not needing to access", with the proportion of those "not needing to access" increasing with each age category.

Generally, younger age groups who "needed to access" found it "somewhat" and "very easy to access" more than they found it "very difficult" or "somewhat difficult to access".



#### Figure 79. Access to Education and Employment by Age

#### Income

Those with lower incomes found it more difficult to access education and employment and that they did not need to access education and employment more often than those with higher incomes. Of those who needed to access education and employment, those with higher incomes report being able to access these life activities more easily than those with lower incomes.

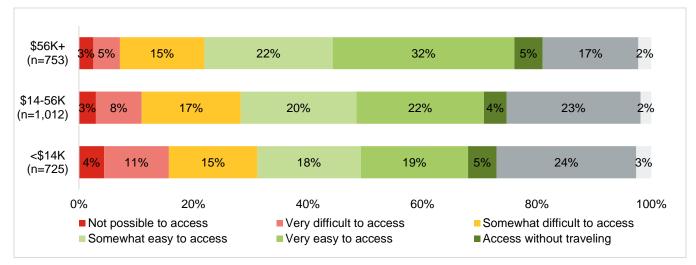


Figure 80. Access to Education and Employment by Income

#### Location

A greater percentage of rural nondriver survey respondents said that education and employment are not possible to access more often than urban respondents did, but overall, the proportion of all respondents who indicated this was relatively low for both rural and urban respondents. A greater percentage of urban nondriver respondents said that education and employment is very easy to access more than rural respondents did. Overall, however,

the proportions of respondents who answered "very easy to access" are relatively high for both rural and urban respondents.

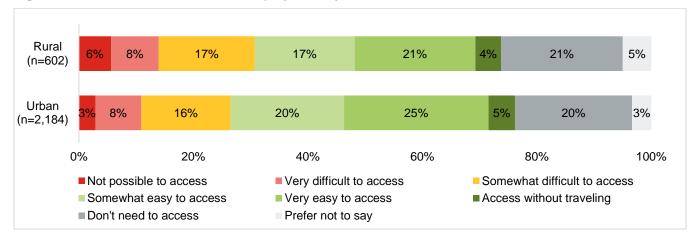
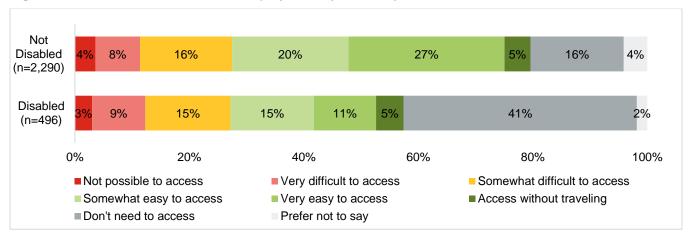


Figure 81. Access to Education and Employment by Location

## **Disability Status**

Disabled nondriver survey respondents have a more difficult time accessing education and employment than respondents without disabilities. Disable respondents said they do not need to access education and employment more often than survey respondents without disabilities. Of those who need to access education and employment, a greater percentage of respondents without disabilities find it "somewhat" and "very easy to access" education and employment compared to disabled respondents.

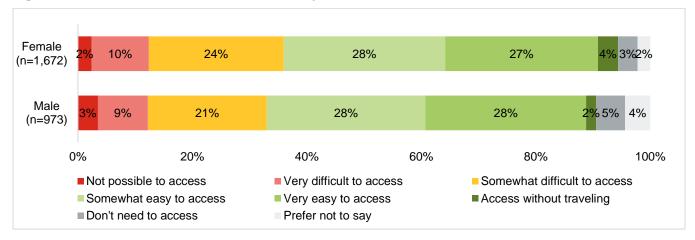
Figure 82. Access to Education and Employment by Disability Status



# MEDICAL AND HEALTH CARE (Q3B)

#### Gender

There are no significant differences in accessing medical and health care between females and males.

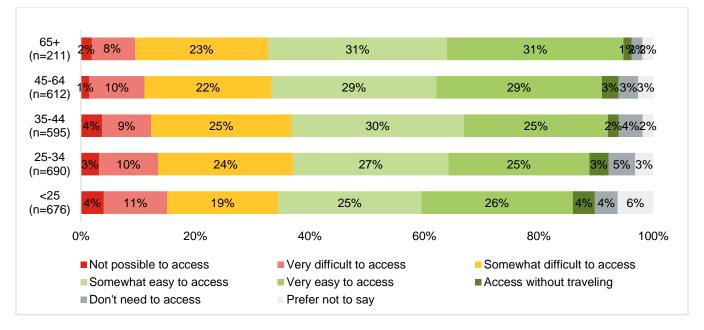


#### Figure 83. Access to Medical and Health Care by Gender

## Age

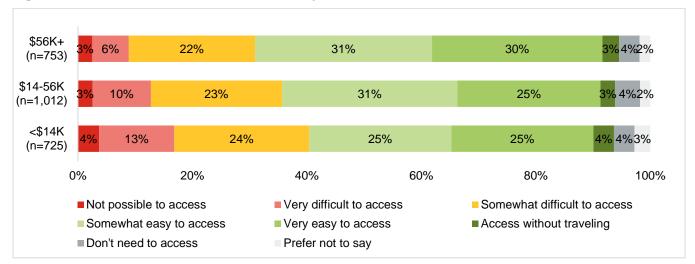
Among those who needed to access medical and health care, a greater percentage of those from younger age groups found it "not possible to access" or "very difficult to access" compared to older age groups. A greater percentage of respondents under 25 years old said that they can access medical and health care without traveling compared to 35-44 years old and 65 years old and over, but overall, those who indicated they can access medical and health care without traveling and health care without traveling made up a small percentage of respondents.





#### Income

Nondriver survey respondents with lower incomes find it more difficult to access medical and health care compared to their higher income counterparts. For example, among those who needed to access medical and health care, a greater percentage of respondents with incomes under \$14,000 said it was "very difficult to access" compared to those with incomes \$14,000-\$56,000. Further, those with incomes \$14,000-\$56,000 said it was "very difficult to access" difficult to access more than respondents with incomes over \$56,000.

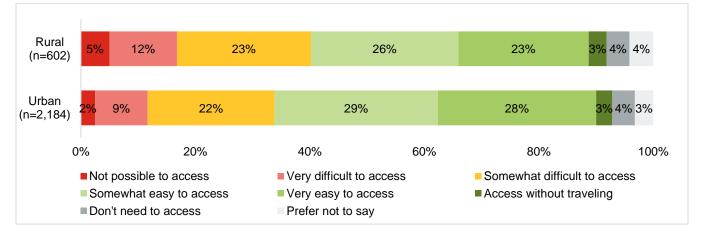


#### Figure 85. Access to Medical and Health Care by Income

#### Location

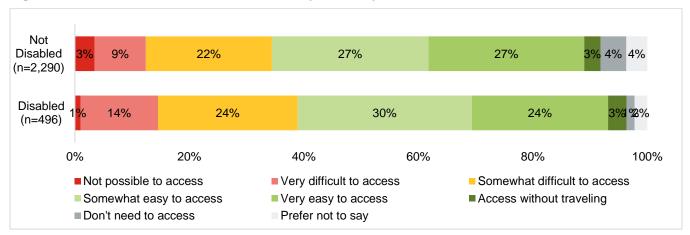
It is easier for urban nondriver survey respondents to access medical and health care than it is for rural respondents. A greater percentage of urban respondents indicated that it was "somewhat easy to access" or "very easy to access" compared to rural respondents.





# **Disability Status**

There are no significant differences in access to medical and health care between disability statuses.



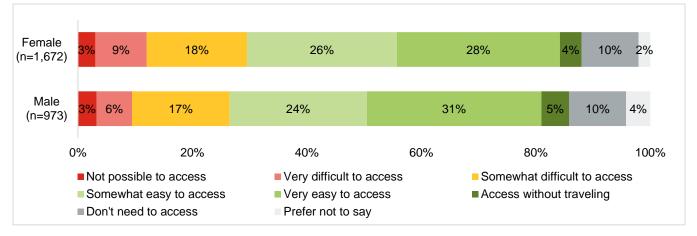
#### Figure 87. Access to Medical and Health Care by Disability Status

# SOCIAL, FAMILY, AND SPIRITUAL ACTIVITIES (Q3C)

#### Gender

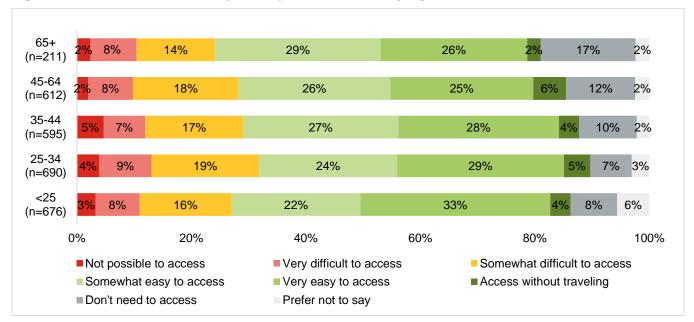
There are no significant differences in access to social, family, and spiritual activities between genders.





# Age

Older nondriver survey respondents reported not needing to access social, family, and spiritual activities as much as their younger counterparts. Among those who needed to access these life activities, a greater percentage of respondents 25-34 years old said it was "not possible to access" or "very difficult to access" compared to all other age groups; and a greater percentage of respondents under 25 years old indicated it was "very easy to access" compared to all other age groups.



#### Figure 89. Access to Social, Family, and Spiritual Activities by Age

#### Income

It is easier for higher income nondriver survey respondents to access social, family, and spiritual activities compared to their lower income counterparts. A greater percentage of respondents with incomes under \$14,000 said "not possible to access" and "very difficult to access" compared to respondents with higher incomes, and a greater percentage of respondents with incomes over \$56,000 said "very easy to access" compared to respondents with lower incomes.

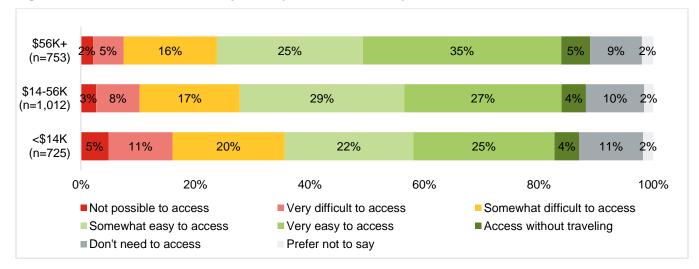
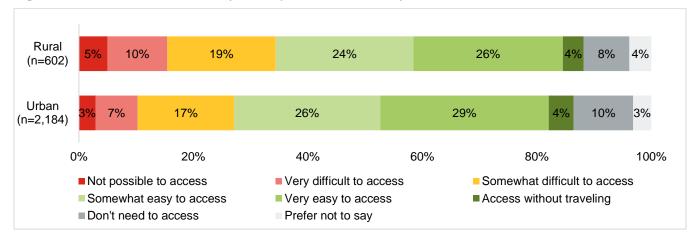


Figure 90. Access to Social, Family, and Spiritual Activities by Income

# Location

It is easier for urban nondriver survey respondents to access social, family, and spiritual activities than it is for rural respondents. A greater percentage of rural respondents said "not possible to access" and "very difficult to access" compared to urban respondents.



#### Figure 91. Access to Social, Family, and Spiritual Activities by Location

#### **Disability Status**

Nondriver survey respondents without disabilities find it easier to access social, family, and spiritual activities compared to disabled respondents. A greater percentage of respondents with disabilities indicated "don't need to access" compared to respondents without disabilities. Among those who needed to access social, family, and spiritual activities, a greater percentage of respondents with disabilities indicated it was "very difficult to access," and a greater percentage of respondents without disabilities indicated that it was "very easy to access".

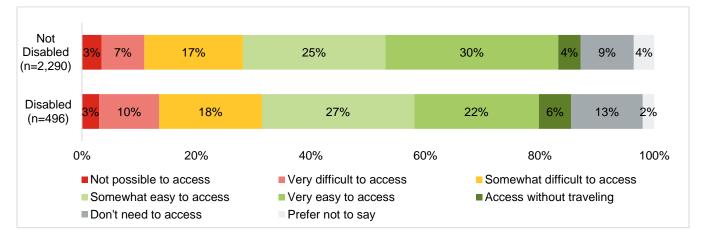
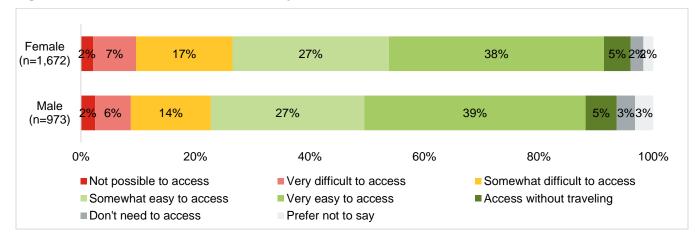


Figure 92. Access to Social, Family, and Spiritual Activities by Disability Status

# FOOD AND GROCERIES (Q3D)

#### Gender

There are no significant differences in accessing food and groceries between genders.



#### Figure 93. Access to Food and Groceries by Gender

## Age

There are no significant differences in accessing food and groceries between age groups.

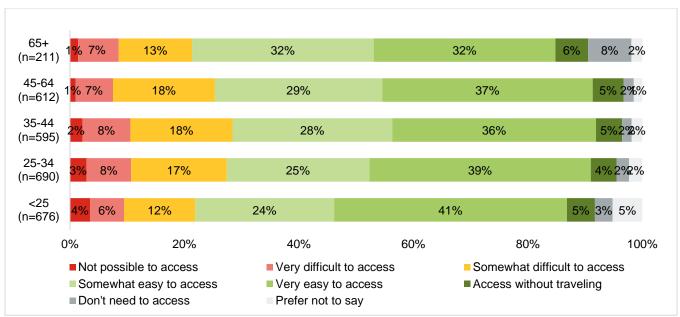
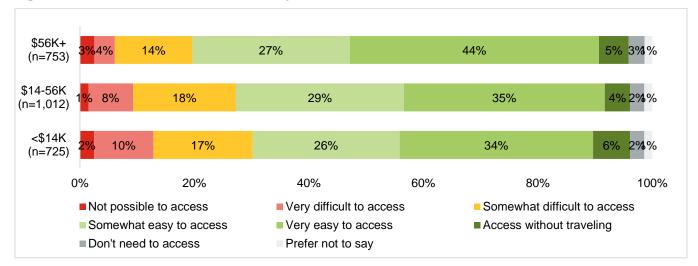


Figure 94. Access to Food and Groceries by Age

# Income

Higher income survey respondents find that access to food and groceries is easier than lower income respondents. A greater percentage of those with incomes under \$14,000 said "very difficult" and "somewhat difficult to access" compared to those with incomes \$14,000-\$56,000, while a greater percentage of those with incomes \$14,000-\$56,000 said "very difficult to access" and "somewhat difficult to access" compared to those with incomes over \$56,000.



#### Figure 95. Access to Food and Groceries by Income

#### Location

It is easier for urban nondriver survey respondents to access food and groceries than it is for rural respondents. A greater percentage of rural respondents said "not possible to access" compared to urban respondents, and a greater percentage of urban respondents said "very easy to access" compared to rural respondents.

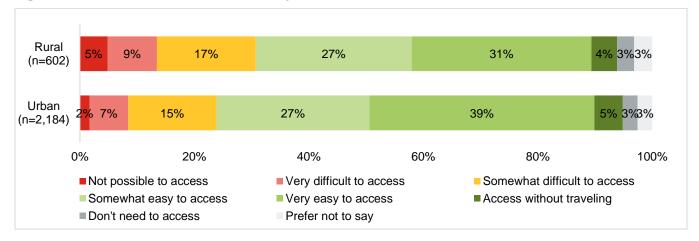
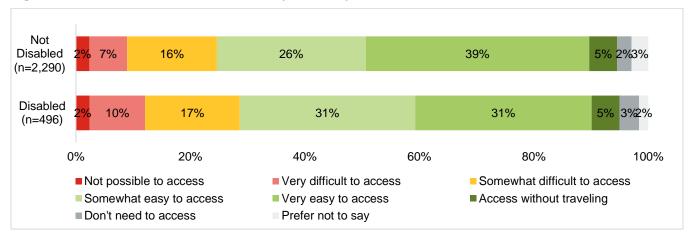


Figure 96. Access to Food and Groceries by Location

#### **Disability Status**

Disabled nondriver survey respondents find it more difficult to access food and groceries than respondents without disabilities. A greater percentage of disabled respondents reported "very difficult" and "somewhat easy to access" compared to respondents without disabilities, and a greater percentage of respondents without disabilities reported "very easy to access" compared to disabled respondents.



#### Figure 97. Access to Food and Groceries by Disability Status

# CHILD AND DEPENDENT CARE (Q3E)

#### Gender

A greater percentage of female nondriver survey respondents said they do not need to access child and dependent care compared to their male counterparts. Among those needing to access child and dependent care, a greater percentage of male respondents said "somewhat" and "very easy to access" compared to female respondents. A greater percentage of female respondents said "don't need to access" compared to male respondents.

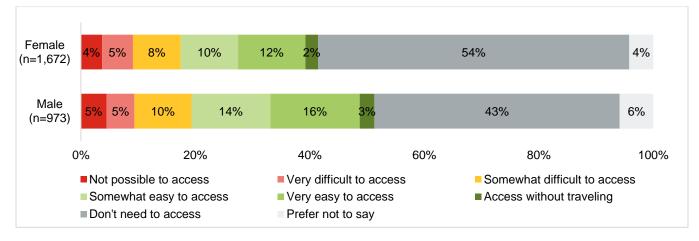
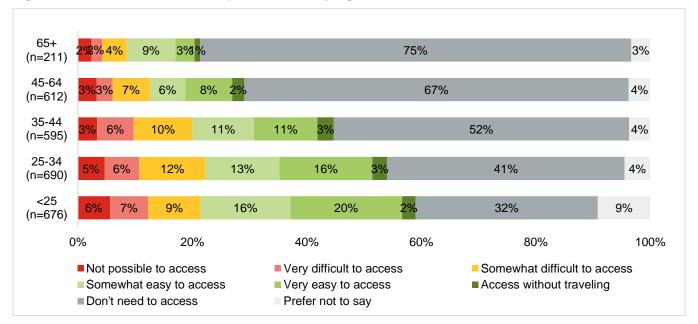


Figure 98. Access to Child and Dependent Care by Gender

# Age

There are no significant differences in ability to access child and dependent care among different age groups. Among nondriver survey respondents, the need to access child and dependent care decreases with age, with respondents under 25 years old needing access more than any other age group. The distribution of access to child and dependent care are primarily driven by the need to access such care.



#### Figure 99. Access to Child and Dependent Care by Age

#### Income

Lower income nondriver survey respondents have a more difficult time accessing child and dependent care compared to higher income respondents. A greater percentage of respondents with incomes under \$14,000 said "not possible to access" and "very difficult to access compared to those with incomes \$14,000-\$56,000 and over \$56,000.

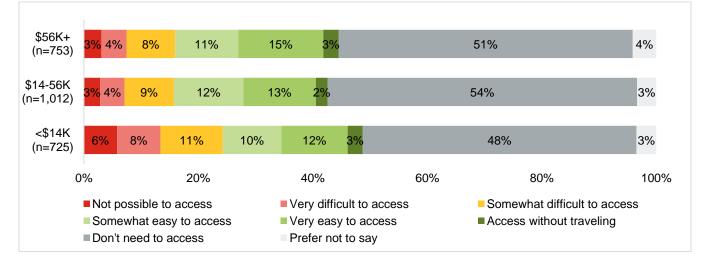
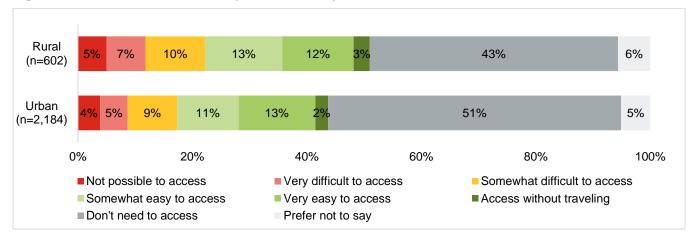


Figure 100. Access to Child and Dependent Care by Income

# Location

Urban nondriver survey respondents indicated they do not need to access child and dependent care as often as their rural counterparts. Among those who needed access, urban respondents have better access to child and dependent care compared to rural respondents. A greater percentage of rural respondents indicated "not possible to access" or "very difficult to access" compared to urban respondents, and a greater percentage of urban respondents indicated "somewhat easy to access" and "very easy to access" compared to rural respondents.

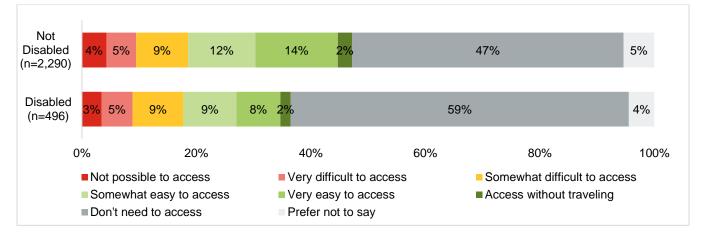


#### Figure 101. Access to Child and Dependent Care by Location

## **Disability Status**

Disabled respondents do not need to access child and dependent care as much as respondents without disabilities. Among those who need to access, a greater percentage of those disabled respondents reported "not possible to access" or "very difficult to access" compared to those without disabilities, and a greater percentage of those without disabilities reported "somewhat easy to access" or "very easy to access" compared to disabled respondents.

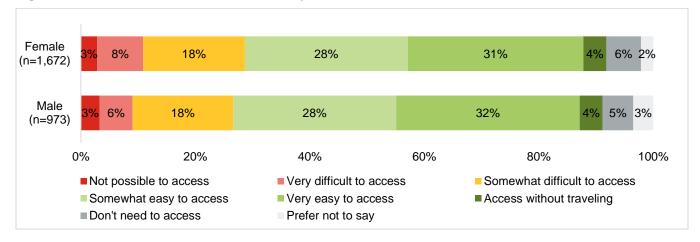




# **RECREATION ACTIVITIES (Q3F)**

# Gender

There are no significant differences in access to recreation activities between genders.



#### Figure 103. Access to Recreation Activities by Gender

## Age

Older nondriver survey respondents do not need to access recreation activities as much as young respondents. Among those needing access to recreation, there are no significant trends in access to recreation between age groups.

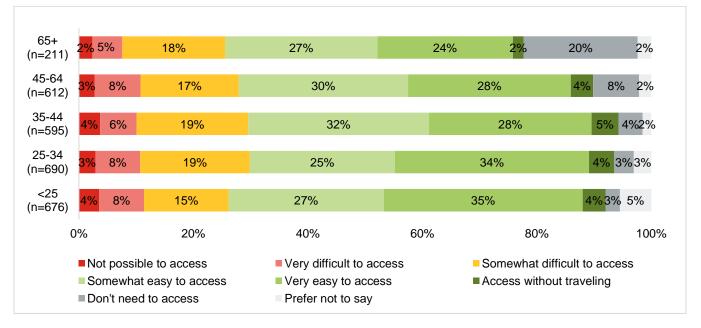
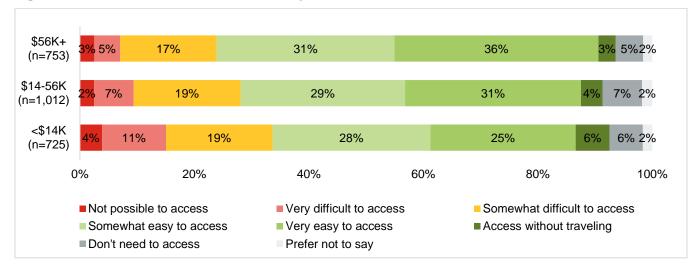


Figure 104. Access to Recreation Activities by Age

# Income

A greater percentage of lower income survey respondents said that it is difficult to access recreation activities compared to their higher income counterparts. Among those needing access, the percentage of respondents indicating that it was "not possible to access," "very difficult to access," and "somewhat difficult to access" recreation activities decreased with higher income, while the percentage of respondents indicating that it was "somewhat easy to access" and "very easy to access" increased with higher income.

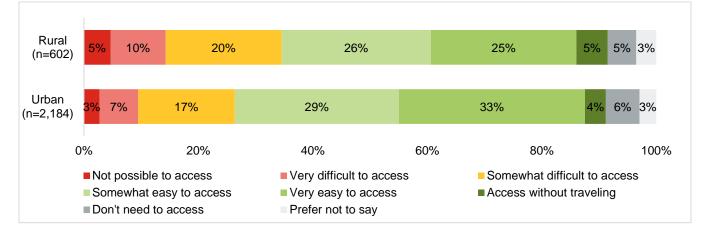


#### Figure 105. Access to Recreation Activities by Income

#### Location

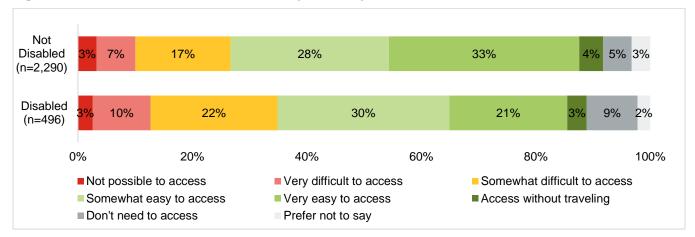
It is more difficult for rural nondriver survey respondents to access recreation activities compared to urban respondents. A greater percentage of rural respondents said "not possible to access" and "very difficult to access" compared to urban respondents, and a greater percentage of urban respondents said "somewhat easy to access" and "very easy to access" compared to rural respondents.





#### **Disability Status**

Disabled nondriver survey respondents have a more difficult time accessing recreation activities than respondents without disabilities. A greater percentage of disabled respondents said they "do not need to access" compared to respondents without disabilities. Among those who need access, a greater percentage of disabled respondents said "very difficult to access" and "somewhat difficult to access" compared to respondents without disabilities, and a greater percentage of respondents without disabilities said "very easy to access" compared to disabled respondents.



#### Figure 107. Access to Recreation Activities by Disability Status

# APPENDIX 1G: MARKET RESEARCH SURVEY TRANSPORTATION IMPACT BY DEMOGRAPHIC

# **G. TRANSPORTATION IMPACT**

This appendix includes the impact to transportation based on the distribution by demographic characteristics. The impacts include if a nondriver survey respondent skipped going somewhere, was late getting somewhere, worried about getting somewhere, or worried about inconveniencing a friend or family member due to a problem with transportation.

Groups within demographic categories were compared using chi-squared independent T-Test for Means (unequal variances) and independent Z-Test for percentages (unpooled proportions). Any noted differences between demographic groupings (e.g., male and female) are significant at the 95 percent confidence level.

# **SKIP GOING SOMEWHERE DUE TO TRANSPORTATION (Q5)**

Nondriver survey respondents were asked, "In the past 30 days, how often did you skip going somewhere because of a problem with transportation?"

#### Gender

Females said that they "very often" skipped going somewhere due to a problem with transportation (12%) more than males did (9%). There were no differences between genders in other frequency categories. Overall, most respondents (55% of males and 53% of females) indicated that they "sometimes" or "rarely" skipped going somewhere due to a problem with transportation.

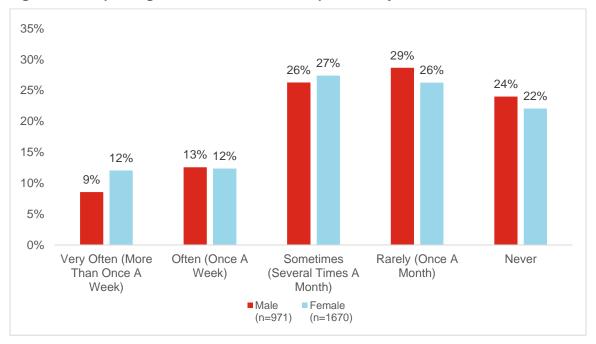


Figure 108. Skip Going Somewhere Due to Transportation by Gender

# Age

Younger nondriver survey respondents are more impacted in terms of skipping going somewhere because of a problem with transportation more than older nondrivers. For example, respondents between 25-34 years old and between 35-44 years old said that they "very often" skipped going somewhere due to transportation more than respondents 65 years old and over. 38 percent of respondents 65 years old and over said that they "never" skipped going somewhere, which is a higher proportion than all younger age groups.

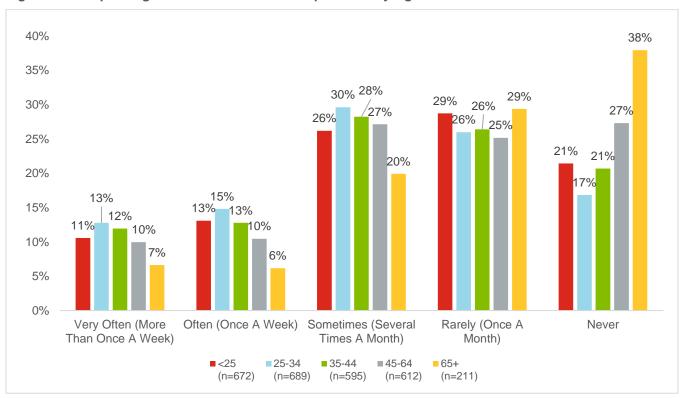
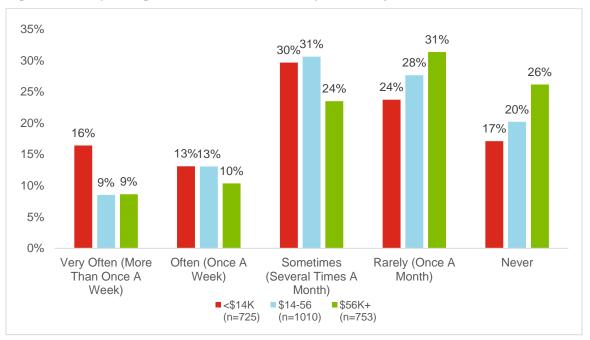


Figure 109. Skip Going Somewhere Due to Transportation by Age

#### Income

Lower income nondriver survey respondents said they skipped going somewhere due to transportation more often than higher income survey respondents. Respondents with incomes under \$14,000 said that they "very often" skip going somewhere more than other income levels, and respondents with incomes under \$14,000 and \$14,000-\$56,000 said they "sometimes" skip going somewhere more than people with incomes \$56,000 and over. People making \$56,000 and over said they "never" skip going somewhere more than those with lower income levels.



#### Figure 110. Skip Going Somewhere Due to Transportation by Income

## Location

Urban nondriver survey respondents said they rarely skipped going somewhere due to problems with transportation more than rural respondents. There are no differences between urban and rural respondents in other frequency categories of skipping going somewhere. Overall, most responded that they sometimes or rarely skipped going somewhere due to problems with transportation.

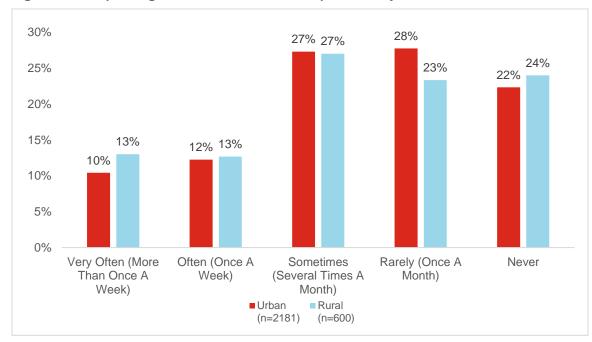


Figure 111. Skip Going Somewhere Due to Transportation by Location

## **Disability Status**

People without disabilities said they rarely skipped going somewhere due to problems with transportation more than people with disabilities. However, there are no differences between disability status in other frequency categories. Overall, most responded that they sometimes or rarely skipped going somewhere due to problems with transportation.

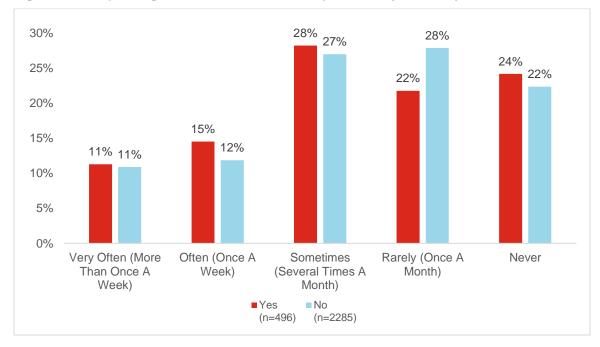


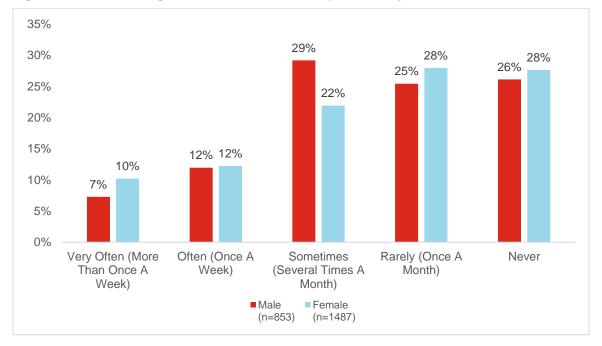
Figure 112. Skip Going Somewhere Due to Transportation by Disability Status

# LATE GETTING SOMEWHERE DUE TO TRANSPORTATION (Q6)

Nondriver survey respondents were asked, "In the past 30 days, how often were you late getting somewhere because of a problem with transportation when you were not driving?"

#### Gender

Females are "very often" late more than males, and males responded that they are "sometimes" late more than females. Overall, more than one half of both females and males are rarely or never late getting somewhere due to a problem with transportation.

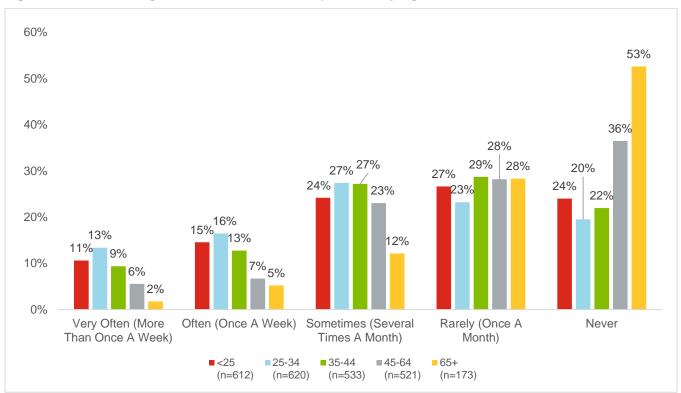




# Age

Younger respondents reported they were late getting somewhere due to transportation more often than older respondents. Over one half of drivers 65 years old and over said that in the past 30 days, they were never late getting somewhere due to transportation. Respondents under 25, 25-34, 35-44, and 45-64 years old said they were "very often" late getting somewhere more than those 65 years old and over. Respondents 65 years old and over and between 45-64 years old both said that they were "never" late getting somewhere more often than those younger than them.

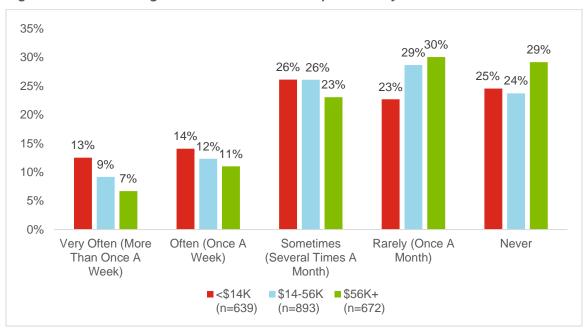
#### NON-DRIVERS: POPULATION, DEMOGRAPHICS & ANALYSIS | FINAL DRAFT



#### Figure 114. Late Getting Somewhere Due to Transportation by Age

#### Income

Lower income respondents said that they were late getting somewhere due to transportation "very often" and "often" more than those with higher incomes. People with income levels \$14,000 and higher said that they were "rarely" late getting somewhere more than those with incomes under \$14,000. For example, 29 percent and 30 percent of people making \$14,000-\$56,000 and \$56,000 and over, respectively, indicated they were rarely late, while only 23 percent of people making under \$14,000 indicated they were rarely late. People with incomes greater than \$56,000 said they were "never" late more than lower income levels.

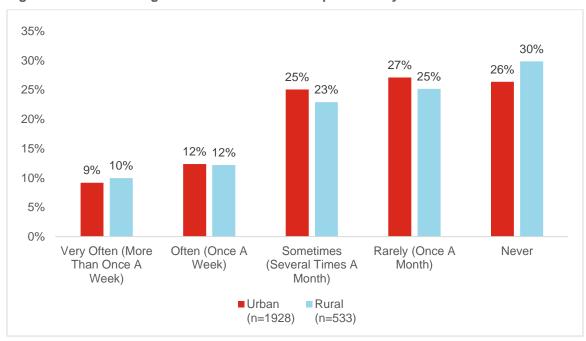




# Location

No significant differences were detected between urban and rural nondriver survey respondents about whether they were late getting somewhere due to transportation.

Figure 116. Late Getting Somewhere Due to Transportation by Location



# **Disability Status**

People without disabilities said they were "often" late getting somewhere more than people with disabilities. People with disabilities said they were "never" late getting somewhere more than people without disabilities.

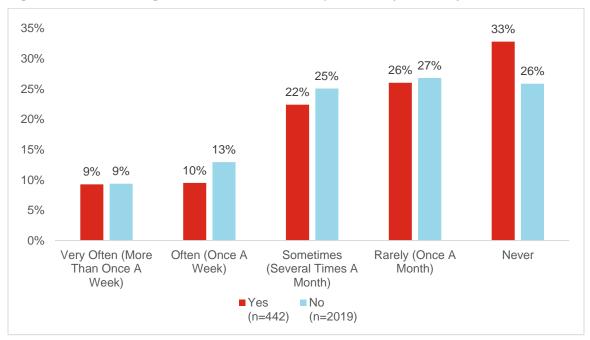


Figure 117. Late Getting Somewhere Due to Transportation by Disability Status

# WORRY ABOUT BEING ABLE TO GET SOMEWHERE DUE TO TRANSPORTATION (Q7)

Nondriver survey respondents were asked, "In the past 30 days, how often did you worry about whether or not you would be able to get somewhere because of a problem with transportation?"

#### Gender

Females said they "very often" worried about getting somewhere more than males, and males responded that they "sometimes" worried about getting somewhere more than females.

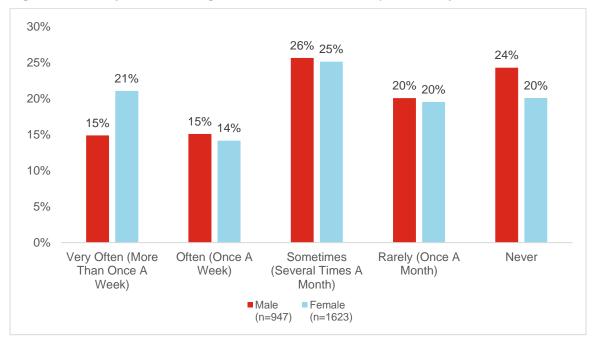
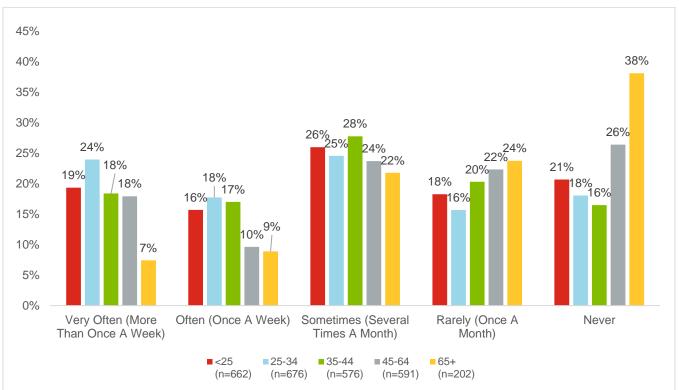


Figure 118. Worry About Getting Somewhere Due to Transportation by Gender

### Age

Younger nondriver survey respondents worry about getting somewhere more than older survey respondents. For example, younger nondriver survey respondents said they worry about getting somewhere "very often" and "often" more than respondents 65 years old and over. Survey respondents 65 years old and over said they "never" worry about getting somewhere more often than those younger than them.



#### Figure 119. Worry About Getting Somewhere Due to Transportation by Age

#### Income

Lower income survey respondents tended to worry about getting somewhere due to transportation more frequently than higher income survey respondents. For example, survey respondents with an income under \$14,000 said they worry "very often" more than those with an income over \$14,000, and those with an income between \$14,000-\$56,000 worry more than those with an income over \$56,000. 26 percent of nondriver survey respondents with an income of \$56,000 and over said they "never" worry, and 23 percent said they "rarely" worry, both of which are proportionally higher than those with an income under \$56,000.





### Location

There are no major differences between urban and rural nondriver survey respondents in terms of whether they worry about getting somewhere due to transportation. While urban nondriver survey respondents responded they "rarely" worry more often than rural nondriver survey respondents and rural nondriver survey respondents said they "never" worry more often than urban, there were no statistically significant differences in the other frequencies.

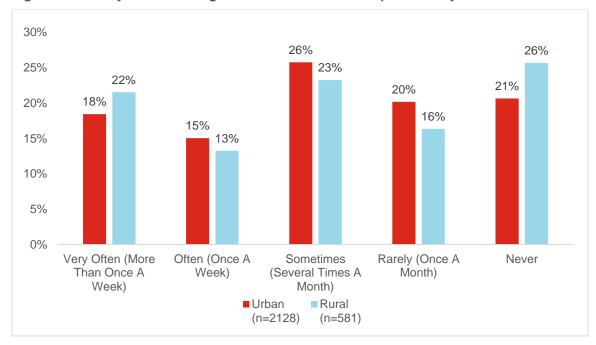
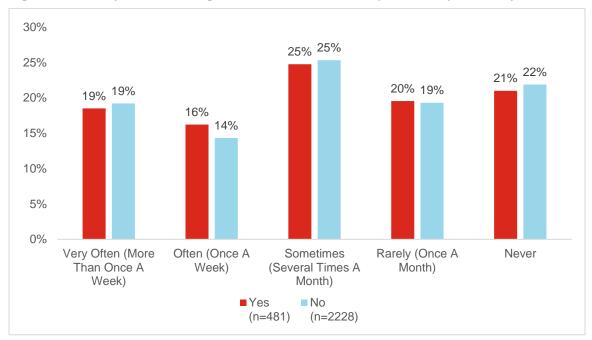


Figure 121. Worry About Getting Somewhere Due to Transportation by Location

#### TOOLE DESIGN | 96

#### **Disability Status**

There were no statistically significant differences in how often respondents worry about getting somewhere based on disability status.



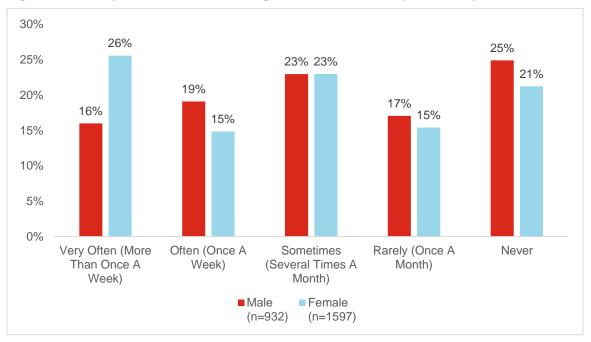


## WORRY ABOUT INCONVENIENCING OTHERS DUE TO TRANSPORTATION (Q8)

Nondriver survey respondents were asked, "In the past 30 days, how often did you worry about inconveniencing your friends, family, or neighbors because you needed help with transportation?"

#### Gender

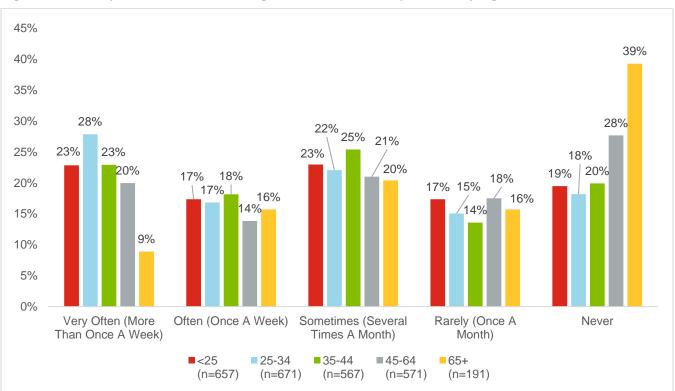
26 percent of female nondriver survey respondents said that they worry about inconveniencing others because they need help with transportation more than once per week, which is a statistically significant higher proportion compared to 16 percent of male nondriver survey respondents. Male nondriver survey respondents said that they "never" worry about inconveniencing others because they need help with transportation more than women.





### Age

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 years old and over, and those between 25-34 years old said "very often" more than those under 25 years old and those 34 years old and over. Nondriver survey respondents 65 years old and over said they "never" worry about inconveniencing others more than nondriver survey respondents in age categories under 65 years old. Survey respondents between 45-64 years old said they "never" worry about inconveniencing others more than nondriver survey respondents in age categories others more than age categories 44 years old and under.





#### Income

Lower income nondriver survey participants worried more often about inconveniencing others because they need help with transportation more than higher income survey respondents. For instance, more respondents making under \$14,000 a year said they "very often" worry about inconveniencing others than those making \$14,000-\$56,000 and \$56,000 and over. Respondents with incomes greater than \$56,000 said they "rarely" and "never" worry about inconveniencing others more than those with lower incomes.

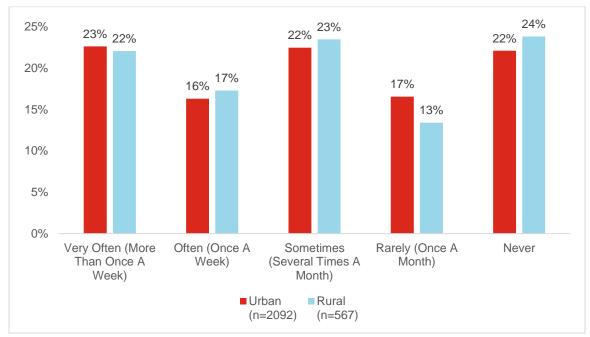




#### Location

There were no statistically significant differences in how often respondents worry about inconveniencing others due to problems with transportation based on location.





#### **Disability Status**

Nondriver survey respondents with disabilities worry more about inconveniencing others because they need help with transportation than those without disabilities. Nondriver survey respondents with disabilities said they "very often" and "often" worry about inconveniencing others than those without disabilities. People without disabilities said they "rarely" worry about inconveniencing others more than those without disabilities.

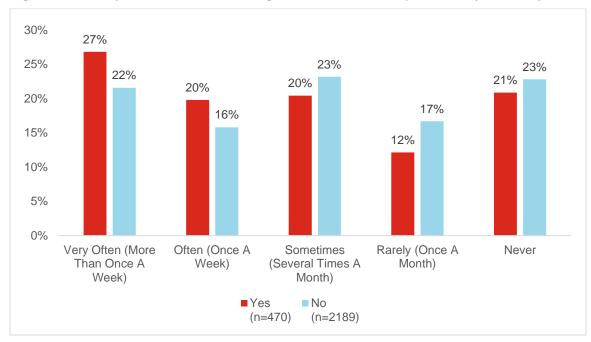


Figure 127. Worry About Inconveniencing Others Due to Transportation by Disability Status

# APPENDIX 1H: MARKET RESEARCH SURVEY OPEN-ENDED QUESTIONS & CODES

## H. OPEN-ENDED QUESTIONS

The survey included two open-ended questions to gather information on the impact nondriver status has on nondriver survey respondents:

- 1. How, if at all, do your transportation options affect your quality of life?
- 2. What if anything would improve your options for transportation to better meet your transportation needs?
- 3. Both questions included an option a) for an open-ended response as well as the option b) I prefer not to say. Open-ended responses were read and coded into categories, summarized below.

## **IMPACT ON QUALITY OF LIFE**

Open-ended responses to the question "How, if at all, do your transportation options affect your quality of life" were first coded as "positive," "neutral," or "negative," then categorized based on the content of the response. Table 1 lists the categories gleaned from open-ended responses, and their definitions. Individual survey responses could receive multiple codes based on the content of the response.

Negative impacts were coded 1,508 times in 15 different categories. The top negative impact categories included: "Daily Life," "Public Transit," "Limit Trips/Unable to do Activities," Dependence," and "Scheduling Transit." No response, neutral, or not sure, was coded 1,469 times.

In comparison, positive impacts were coded only 94 times in two categories: "Public Transit" and "Fresh air and Exercise."

This overwhelmingly negative response rate indicates that **overall, nondriver status negatively impacts nondrivers' quality of life**. The most prevalent challenge for nondrivers 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.

Type of Impact	Code	Code Definition	Number of Times Coded
Positive	Public transit	Prefers to use public transit, likes public transit options	53
	Fresh air and exercise	Getting more fresh air from walking instead of driving	41
Neutral	No effect	No effects due to being a nondriver, or response was more about travel mode	234
Negative	Daily life	Daily activities, employment, and normal business is disrupted	282
	Public transit	Infrequent public transit, hard to get to stations, and being unable to work within the scheduled public transit hours	194
	Limit trips or unable to do activities	Second-guessing the need to travel, or the importance of an activity or action. Unable to engage in certain activities or forgo seeing people due to inability to transport oneself	168

Table 6: Frequency of coded responses for impact on quality of life

Type of Impact Code		Code Definition	Number of Times Coded
	Dependence	Feelings of dependence on others for basic needs and transport	159
	Scheduling transit	Having to work around peoples' schedules, schedule a form of transport beforehand and being confined due to not having the ability to transport oneself	128
	Quality of life	Deteriorating quality of life due to confinement from being unable to transport oneself regularly	97
	Limited employment opportunities	Inability to work certain jobs, unable to get to jobs or turning down opportunities	94
	Worry	Constantly worried about whether you will be on time	90
	Cost of travel	Cost of rideshares, buying a car, using public transit and paying for different types of transit	88
	Safety	Lack of transportation options and available transportation options pose health and safety concerns	72
	Anxiety, depression, and hopelessness	Shame and anxiety induced from dependence on others and needing outside help for transportation. Feelings of depression brought about by an inability to transport oneself or feeling confined and foregoing certain activities. Feeling like you can't move anywhere, that nothing will change.	71
	Challenge walking	Having to walk for long distances, with discomfort or other issues to do with trying to walk instead of using transit	26
	Cost of car	Unable to afford a car in a car centric area	25
	Paratransit	Paratransit, dial a ride, or community transportation services are not accessible when needed, delay in service, cost of service.	9
	Challenge riding a bike	Cannot get around on a bike due to lack of facilities, hilly terrain, safety, and fear of traffic.	5
No Response	No response	No response, other or not sure	1,235

### **IMPROVE TRANSPORTATION**

Open-ended responses to the question "What, if anything, would improve your options for transportation to better meet your transportation needs?" were coded based on the content of the response. Table 2 outlines each code identified in the open-ended responses and its definition, as well as the frequency with which that code appeared in open-ended responses. Individual survey responses could receive multiple codes based on the content of the response.

687 responses, nearly a quarter of all responses, suggested that making cars, and car insurance, more affordable would be the best way to address their transportation needs. 473 responses suggested that more transit options would best address their transportation needs — with others, 197 and 102 responses respectively suggesting that increased transit services and free transit would best serve their needs. 1,338 respondents said they "Weren't sure" or "did not know" what changes would best serve their needs.

This suggests that most nondriver survey respondents feel that making cars and insurance more affordable and improving transit routes are the best ways to serve their transportation needs.

Code	Code Definition	Number of Times Coded	
Affordable cars and insurance	Make getting cars and insurance more affordable	678	
Transit routes	Add more transit options like buses and trains	473	
Bus schedule	Increase bus schedule and frequency of transit options	197	
Free or reduced fare	Offer free transportation or discounted fares	102	
Physical infrastructure	Ramps, bike lanes and other accessible infrastructure projects such as more walkable cities	56	
Increase transportation safety	Offer increased security at stops, buses and trains	46	
Health is an impediment	Not able to travel	30	
Other		24	
Not Sure	Left blank or said I don't know	1338	

Table 7: Recommendations of nondrivers on improving access to transportation

# APPENDIX 11: FOCUS GROUPS INTERVIEW GUIDE & TRANSCRIPTS

## I. FOCUS GROUPS REPORT

## **PROJECT SUMMARY**

In October 2022, the research teams at Cascadia Consulting Group and Toole Design Group LLC partnered with Strategic Research Associates to conduct a short series of focus groups in support of a larger quantitative research project fielded in September and October of 2022 to reaffirm assumptions garnered from a statewide study.

Our key focus of this research was to validate assumptions and findings from in-development survey research. Specifically, we wished to validate assumptions made across three distinct segments of Washington State's nondriver population, Rural Nondrivers, Urban Nondrivers, and Disabled Nondrivers.

Nondrivers, for the purposes of this study, are defined as individuals who either choose not to drive or do not drive personal vehicles as their main mode of transportation. Many can be traveling using public transit, walking, biking, rides with friends, rideshares, and other methods.

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

During recruiting, we ran into difficulty filling the nondriver segment among rural populations (an issue seen during fielding of the quantitative survey as well, due to lower incidences of nondrivers in rural populations), so some nondrivers from Benton and Yakima counties were included in the Rural focus groups as they are assumed from areas with less developed public transportation systems than the other more populated counties.

Disabled participants were asked during screening their reason for being a nondriver, and if they mentioned they had a disability, they were categorized as such. Disabled nondrivers included both physical and medical reasons for being nondrivers, and included a mix of lifelong nondrivers, as well as those who may have become nondrivers more recently due to illnesses or traumatic injuries.

Our qualitative research study methodology for this project involved inviting individuals to participate in a 90 to 120-minute online Zoom focus group, for which participants were encouraged to join via webcam and computer, but also allowed to join via telephone or by any means they had available to ensure inclusivity. Sessions were recorded for archival and reporting purposes.

Joanne Vega of Strategic Research Associates moderated the sessions. Each participant was asked to connect to the sessions from their homes using their phones or computers. Sessions were recorded for transcription, reporting, and reviewing purposes unless the individuals asked not to be recorded (faculty interviews were not recorded due to participant sensitivity).

Participants were screened before the study to ensure they were willing to share their experiences during the session and were among the prospective target populations for this project.

Total participation included 25 individuals from across Washington State and can be summarized as follows:

A <u>total of 11 individuals</u> participated in a focus group held on Monday, November 14<sup>th</sup>. Participants in this focus group were scheduled and invited to this session based on their classification as a nondriver due to disability. 5 resided in King County, 1 in Pierce, 2 in Skagit, and 1 each in Clark, Asotin, and Yakima Counties. Ages of participants ranged from 40 years old to 77 years old.

- A total of 6 individuals participated in a focus group held on Tuesday, November 15<sup>th</sup>. Participants in this focus group were scheduled and invited to this session based on their classification as a rural nondriver due to the county in which they lived. 4 resided in Benton County, 1 in Lewis, and 1 in Mason. Two were nondrivers due to disability, 3 due to a lack of obtaining a driver's license, and 1 by choice. Ages ranged from 19 years old to 65 years old.
- A total of 8 individuals participated in a focus group held on Thursday, November 17<sup>th</sup>. Participants in this focus group were scheduled and invited to this session based on their classification as an urban nondriver due to the county in which they lived. 5 resided in King County, 2 in Spokane, and 1 in Pierce. 6 indicated they are nondrivers due to a choice to minimize costs, and two indicated they do not drive due to personal preference. Ages ranged from 30 to 58 in this session.

Qualitative analysis, by nature, is designed to gain deep insights from a small group of people, unlike quantitative research (surveys), which often collect feedback from larger groups of people.

The findings within this report represent the feelings of those who participated in the study. While these opinions can be applied to many, they must also be used with care, given the total sample size.

## **EXECUTIVE SUMMARY**

The key focus of this research was to validate assumptions and findings from the market 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.

#### **Mobility Needs and Access**

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

Most use public transportation at least occasionally. Rural 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 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 necessary challenges to our study participants, but completing unscheduled tasks were.

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

#### **Transportation Access Opportunities and Challenges**

Nondrivers 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, i.e., getting a ride from a friend or family member, except in 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 participants were particularly constrained on their travel times due to key services they utilize for transportation ending at 5 pm or 6 pm 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 regular routine was also a key challenge to 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 technologies to suggest, 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 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" as a nondriver.

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, say 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, or an unplanned visit.

Impacts expressed by urban nondrivers 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 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 (some urban participants suggested this).

Additional safety concerns raised also include 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.

## **SEGMENT SUMMARIES, QUOTES, AND THEMES**

#### **Disabled Nondrivers Experiences**

For most of our disabled drivers, their needs for transportation revolve around meeting their day-to-day needs; they are traveling to get groceries, go to church, and go to medical care. Some are also mentioning travel to meet their social needs, while others suggest that social opportunities come to them.

Most mention relying on public transportation, the bus, community shuttles, as well as some paratransit to meet needs. Friends and family are also a transportation source, as well as walking short distances, but vehicular transportation is the main mode of transportation for this group of participants.

"You know, then I get on the bus to go meet up with somebody or go to a museum or go to outline for Coupeville and Whidbey Island and watch the jets. So, you know, it's, you know, the buses are really critical to get around because I don't drive." – Disabled Participant

"Are going to church or going to see our daughters who live in the area? We have one daughter who lives down in Tacoma, so that's definitely a fixed-ride bus system all the way down into Pierce County. Well, now they're in Thurston County. They just moved down there, so that's a trip. But basically, around here it's like church and shopping and visiting and anything else you want to do with your own schedule." – Disabled Participant

Scheduling, and having autonomy are shared as frustrations by many, due to their reliance on the schedules of others, and of transit, but many suggested that relying on transit and others was not much of an inconvenience for them. Some urban area participants expressed less frustration than those in rural areas, due to the higher frequency of transit, and more convenient routes.

"Yeah, well, my situation is a little bit challenging right now. Four years ago, when I retired, we moved to Clarkston. My husband and I are both blind. My family lives here. And I think we all thought that it was going to work out that they would help us with transportation until we made other connections. But we were never, never really made other connections. And my family hasn't wanted to help anymore, so we're it's really difficult." We live near a bus stop, but it's across a highway so I can't get to it. We do use the paratransit, but it does not run after 7:00 PM and doesn't run on Sunday, so it doesn't help with church or anything like that. We do use the paratransit for medical appointments in particular. That's been really, really great. And for a paratransit system, it's really, really good. But we don't have any ability to use the bus system because we can't get to it and there's nowhere to walk to from where we live and very few sidewalks. So, we actually have a transportation crisis most of the time. We also don't really have taxis here, so." – Disabled participant

A struggle many suggest when finding rides is the availability of ride hours. Finding rides, or transit into the evenings, or during times of emergency which are unplanned is difficult for these participants due to transit schedules, rules, or program limitations.

Suggested improvements include expanding service hours later into the evenings, as well as providing transit or pickup services for urgent needs on demand, without pre-scheduling requirements.

Disabled nondriver participants were well versed in what options they had available from government sources, but some learned during the sessions of community options, provided by non-profits, or private organizations that they could be utilizing, such as shuttles from senior centers for church visits, etc.

When evaluating the impacts on quality of life as a nondriver, participants share and discuss how their reliance on others limits their choices and suggest that there are instances when they choose not to do things they may want to do, or used to do, due to transportation limitations.

"It's like, just say for instance, I'm just going to give you a hypothetical, but just say for instance, my partner and I have an issue and one of us decides, oh, we're going to go out and do something. Where am I going to go? I'm my, my partner is the one that can go. I can't. I'm kind of limited to where I can do." – Disabled participant

Participants were also very aware of current pressures on the transportation system and appreciative of the support they do receive. While wishing more was available, they mention those driver shortages, and staffing shortages are also driving factors to the service limitations they experience.

#### **Rural Nondrivers Experiences**

Rural participants suggest that much of their transportation needs are met by finding rides, getting support from friends and family, walking, biking, and some public transportation.

Those rural participants who were also disabled relied more on public transportation than those who were nondrivers by choice or circumstance.

Reasons for trips are like other groups, including traveling for groceries, medical needs, as well as work, and school.

"Mine is either grocery shopping or doctor's appointments. I rely heavily on my daughter. But that doesn't always work very well because she's one of those put your fingernails in the dashboard and hope you make it there in one piece type driver. I cannot do public transportation because I have really bad anxiety. So, if I cannot get her to take me 9 times out of 10, I will just say it's not needed right now and try some other time." – Rural participant

Rural participants suggested that to improve their transportation options, they would like to see more access to qualify sidewalks, biking, and walking paths, as well as expanded public transit services. One struggle for them is traveling outside of their normal routines, visiting friends or family in another city, or traveling to events in other locations that they do not normally go to.

"But something that's always really bothered me is like my walk to the store. There's like this whole 25 percent of the, like, roadway on one of the roadways that just does not have sidewalks. So, you've got to walk for carelessly on the side of this road or like walking people's yards, both of which don't feel very comfy." – Rural participant

"Only roads, pretty much there's, I don't think I've ever seen a sidewalk out here. So, it's you're walking on the side of the road. And even sometimes in the kind of inner parts of the cities, there's a lot of areas that are quite unkept where it's either the concrete is extra, like extremely uneven and it just hasn't had a lot of upkeep throughout the years, so it's kind of degrading and whatnot." – Rural participant

"That I see a lot of people even walking in the road versus on the side of the road. Did you see that a lot or yeah, where they're kind of about maybe two or three feet into the road and whatnot, which I honestly don't blame him half the time because there's not really much of an option there is you either walk in the gravel pit or you walk on the road and even the roads have times, isn't?" – Rural participant

Rural participants' suggestions for improvement revolved more around better ways to provide personal vehicle transit and improvements to infrastructure. Peer-to-peer ride-share services that are lower cost, and more available were a suggestion that some supported.

"It'd be interesting to incorporate like more kind of a government like funded type of ride sharing type of thing because there's obviously Uber one, Uber, Lyft, etcetera, but that's all private companies and whatnot. But something where people can sign up for and then I can get matched with other people and then obviously get like pretty much voucher like vouchers or whatnot for the fuel that they use to expand it and whatnot. But then that's also how you probably have to deal with a lot of loopholes and want to get through that, be able to even." – Rural participant

# When speaking of impacts on quality of life, rural participants mention the lack of freedom and inability to do social activities they may want to do given transportation service limitations.

"Something to consider is your exposure to the elements and people and everything, stuff like that. So, you take a high risk too and at home you're not exposed to all that. You're a little bit more controlled environment and stuff, so there are plus sides and negative sides. But mainly, it's freedom. I used to say what one of the things that I

moved out on my own. I was never allowed to go to a concert. I was never allowed to do anything like that. So, I said, you know, when I get out of my own, that is when I'm moving somewhere with aspects. There are things to do, baseball, hockey, concerts, lectures. And that's where I used to live with in Erie, PA and I live within blocks of all those venues, as well as convenience store across the street. This was Starbucks across the street. But then I moved out here to Shelton and said "You sure there's something to do out here? I don't know that there is anything to do.?" My partner says. Oh yeah, yeah, there's stuff to do. We can go to the club; we can do this. We can do that. Well, we did some. Not near the activity issue. But if I had a car, or if I had a little more boldness to take more transit and get rides to go here and there and everywhere." – Rural participant.

#### **Urban Nondrivers Experiences**

Urban participants mention utilizing public transportation as their main choice for transportation. Some also bike, or "scoot", and enjoy walking to their favorite nearby places.

Their trips include trips to the store, work, and play. Those in smaller communities expressed some concerns with the frequency and availability of transit service, and those in larger metro areas suggested their needs were well met through current options.

"I'm pretty close. It's just right outside where I live and my apartment, and I could also like walk and stuff to um within like either direction, there's like a restaurant by my house. That I eat at which is walking distance. Or I there's like a couple stores nearby where I live, so walking it's accessible. If I want to go to downtown Seattle, usually don't want to pay for parking. I'll drive to the light rail station. I'll take the light rail and the downtown because of parking. And there's also a bus line that goes near my house." – Urban participant

Not all urban areas have the same level of service; and road conditions, as well as environmental conditions, are concerns for some urban nondrivers.

"I was going to say it's like if you live on the Seattle Tacoma side of 15, definitely transportation is the options are more available to you. But like we I live in Kent, and we don't have that kind of we do have it, but we don't have a lot of choices. And coming downhill we had, we had multiple. Like I said, when we leave the House, we make multiple appointments. So, we just go one day out of the week to leave the house. And on this particular day we were, we had medical appointments at the hospital, but the office headquarters was up the hill from there. Well, on our way down the hill the brakes gave out and we're like, oh my goodness, what do we do? So, you know, we pulled over and then we try to get an Uber. We tried to get everything and all the taxi. We couldn't get any kind of transportation. I'm like, well, what about the bus? And like, OK, and sure enough, the bus took us right to the hospital and right to our house. So, I'm like it was really great. We were. I was so grateful that that that was one of the options and we didn't even think of that first." – Urban participant

# Many, 6 of the 8 urban participants had regular access to a personal vehicle, they just prefer or choose not to utilize it for their trips and instead save it for special circumstances, using public transit for most trips.

"While that pandemic happened, you know, we just kind of dumbed down and just did everything, just started getting ordered and everything just started getting really local and everything. If I use the cars, it is to go far. Like I wanted to go check out a shop over here. I wanted to go shop. I wanted to go to the mall over there some somewhere that it just, you know. Out of my way, but every day it's just sitting there now. I'm right across the street from 2 grocery shops. You know on one end to one end of you know my where I live and there's so much shopping that. I literally just use the cars when I wanted to go out to go snowboarding or going out seriously just for that. But as far as everyday things, it's I I've minimized its use." – Urban participant

For many of our urban participants, we see them illustrate their choice to be a nondriver as a lifestyle choice. They have chosen their homes to be close to transit, they limit their work locations to be convenient and close to transit.

"I used to work in Seattle, and I live in Tacoma, and I was taking the bus every morning. I had to be out the door by 5 or 622 exactly in order to catch the first bus of the morning, in order to get downtown to catch the 590 in order to get to work by 8:00 o'clock. If I if that bus was running even a minute late, I would catch the wrong 590 and then I wouldn't get to work for another half an hour. Because of what traffic is like on I-5. Distance is a huge issue. I will never commute that far ever again if I'm going to get a job in Seattle, I will move to Seattle. If I'm getting a job in Spokane or New Zealand or Washington DC or wherever, I'm going to go there and I'm going to be. If not a walkable distance, at least a bikeable distance from where I live, from where I work and live like this is this is really important to me. And if those areas are too expensive or not safe or whatever, then rather than complain about it or not do anything about it, I will actually get involved. With the local jurisdiction to change that because it's what needs to happen. Rather than you know, let the thing exist. I need that closeness. I walk, I walk to work into at I'm 2 miles away from where I work now. So, I can walk that in 45 minutes if I'm if I really want to or I can bike it in 15 or the bus takes half an hour because of the route it takes so you know, like I've got options, but distance is is going to be one of the biggest factors for me."- Urban participant

"So, my husband and I, we have one car, and my husband actually works from home, and I am currently stay at home Mom. And so, we tried it in general not to use the car a lot, just wear and tear environment, gas, whatever. And fortunately, in Spokane we live in a pretty walkable area and so like the grocery store like we might drive there once a week, but for the most part well. Walk to the grocery store and we have a couple of local food shops and shops in general that will walk to and just like a pretty walkable neighborhood. We do have a bus that is like right on our block, which I've taken it a handful of times to go downtown. And we always reminisce, Spokane used to have like a like a cable car line that went up to where we live and we're like if this still existed it would be pretty cool. Basically, mostly walking and then some bus riding. Pre-pregnancy I did a lot of riding my bicycle too." – Urban participant

Some participants suggested safety concerns determine their transportation option of choice; for example, those with small children were choosing not to bicycle, but rather walk or use public transportation. There were some concerns expressed about safety while on bus lines, but most implied that issues were rare, and part of using public transportation. When urban participants are looking for rides to out-of-the-ordinary places or more urgent rides, they were likely to suggest the use of ride-sharing services, rather than finding rides from friends and family.

# APPENDIX 1J: FOCUS GROUPS INTERVIEW GUIDE & TRANSCRIPTS

## J. FOCUS GROUP SCRIPT

The following is the complete discussion guide used for the focus groups of nondrivers in Washington State. The focus groups lasted 90 minutes and were held the following times:

- Disabled: Monday, November 14<sup>th</sup> 1pm-3pm,
- Rural: Tuesday, November 15<sup>th</sup> 5:30pm-7:30pm
- Urban: Thursday, November 17<sup>th</sup> 3pm-5pm

## **DISCUSSION GUIDE**

#### Welcome and Introductions (10 mins)

Moderator and notetaker to introduce themselves.

Moderator explains purpose:

- A focus group is a group discussion where we can learn more in-depth information about your ideas and opinions (compared to telephone or written surveys).
- My job is to ask questions and make sure everyone has an opportunity to participate.
- Today's discussion focuses on helping the JTC better understand community experiences as nondrivers in Washington State.

Ground rules:

- There are no right or wrong answers; we want your honest and candid opinions and ideas.
- Your participation in this project is voluntary. You may stop participating at any time without penalty. If you
  feel uncomfortable in any way during the discussion, you have the right to decline to answer any question
  or end your participation.
- Our discussion today is confidential. We will use only your first name and last initial if necessary or a different name that you choose.
- We are recording this discussion and taking notes. The recording helps us ensure we accurately capture your comments for our discussion summary. We will not publish or share the recording except among the consulting team working on this project. We will not use it for any other purposes.
- The focus group will last approximately 1.5 hours.
- Finally, please make sure you raise your hand if you want to speak. You can use the "raise your hand" function in Zoom or just raise your physical hand. Let's practice that once to see if it is working for everyone. Finally, we appreciate you having your video on during the entire focus group.

Before we begin, are there any questions about what we have covered so far?

- a) Let's start with each of you introducing yourselves, just to get comfortable. Please tell us:
- b) Your first name (or name you wish to be addressed by)
- c) What city or region do you live in?
- d) What is your favorite fruit or vegetable?

#### Mobility Needs & Access (20 MINS)

The first set of questions asks you to speak about your mobility needs, and your ability to access transit for dayto-day tasks and travel. Please think about where you travel to, how you get there, and how often. This is a bit of a repeat of the survey that many of you answered. We are asking these questions again to better understand the experiences you go through as a nondriver, for instance when thinking about a trip you need or want to make, how do you plan for it, what goes through your mind in terms of the options you have available, what challenges do you encounter and need to solve for before making the trip, and how do you feel about the entire experience.

- 1. What are typical destinations for you in your day-to-day travel or in a typical week?
- 2. How do you travel to these destinations?
- 3. How have transit options or mobility means affected your ability to schedule and complete activities and day-to-day tasks?

#### Transportation Access Opportunities and Challenges (25 MINS)

The next few questions deal with opportunities and challenges you may encounter when trying to access different types of transportation.

- 4. What transit options or mobility means are working well for you and why? [Offer examples based on group below]
- 5. What transit options or mobility means are not working well for you and why? [Offer examples based on group below]
- 6. What technologies and services would you like to see incorporated into transit options?

#### Impacts on quality of life (15-20 MINS)

Moving along, the next question asks about how being a nondriver affects your quality of life, either positively or negatively.

7. How does being a nondriver affect your quality of life?

#### Interwoven Issues (15 mins)

Finally, we want to expand the scope of this discussion to issues that are interwoven with nondriver transit.

8. Do you have other intersecting experiences that have had any additional impact on your life as a nondriver that you would like to share?

#### Wrap-up (5 mins)

9. Are there any other comments you would like to make about anything we have discussed today?

Thank you for your time and participation today. Your comments will help the JTC better understand the experiences of nondrivers in Washington State. We appreciate you sharing your experiences and feelings on this important subject. Again, thank you for supporting this effort to better understand nondrivers across Washington State.

# APPENDIX 2A: NON-DRIVER POPULATION ESTIMATE

# APPENDIX 2. NONDRIVER POPULATION & TRANSPORTATION OPTIONS

## A. NONDRIVER POPULATION ESTIMATE

## **METHODOLOGY**

#### **Data Sources**

The project team used the following data sources to estimate the nondriver population in Washington State:

#### Decennial Census 2020

At the time of the analysis in September of 2022, the U.S. Census Bureau only had total population numbers for the state by gender and age group. The study used those numbers to determine the total state population by age group and compared those numbers against driver licensing data as reported by the Washington Department of Licensing (DOL) to the Federal Highway Administration for year 2020.

#### American Community Survey 2016-2020

The project team used census tract geometries and demographic data from the American Community Survey Five-year Estimates 2016-2020 (ACS 2016-2020) to compute the estimated nondriver population at the census tract level. Additionally, county-level demographic data and geographic boundaries were used to provide summaries of estimated nondriver population at the county level for Washington State.

#### Washington Department of Licensing

The study team relied on driver licensing data reported to the Federal Highway Administration by DOL for year 2020.

#### Federal Highway Administration Transportation Statistics

The study team used the FHWA Transportation Statistics 2020 Series to obtain number of individuals with a drivers license by age group, and the number of private vehicles registered in the state.

#### Assumptions

The project team was unable to cross-reference licensed drivers against registered vehicles to establish direct access to a motorized vehicle for each licensed driver in the state. Since this was one of the primary methods to establish the number of nondrivers – those that are licensed but do not have a vehicle registered to their name (and presumably no access to a vehicle), the study team relied on alternative methods to estimate the number of nondrivers.

#### Analysis

#### Definitions and Estimation Methods

The study team was able to determine the rate of licensing per age group for Washington State. The results of that analysis are shown in the table below.

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%

Table 8. Rate of Licensing by Age Group in Was	shington State
--	----------------

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

The following formula was used to determine the nondriver population for each census tract in the state. The multipliers or factors represent the percentage of age-eligible persons that are unlicensed within each age group.

#### Estimated Nondriver Population

- = all children (14 and younger) + 0.562 \* minors (15 to 19) + 0.093 \* young adults (20 to 34)
- + 0.009 \* adults (35 to 64) + 0.029 \* (senior population 65 and over)
- + ZeroVehicleIndividuals

The formula includes a factor that accounts for individuals that do not have access to a vehicle. Since, the project team was not able to cross-reference registered vehicles to licensed drivers. The study developed an approximation to estimate the number of adults that do not have access to a vehicle. ACS 2016-2020 data for zero-vehicle households per census tract was used to develop this estimate. Zero-vehicle households were multiplied by the average number of age-eligible drivers per household for each tract.

ZeroVehicleIndividuals = ZeroVehicleHouseholdFactor \* HouseholdsWithoutVehicles

#### ZeroVehicleHouseholdFactor

= (minors + youngAdults + adults + senior\_65\_74\_pop + senior\_75\_84\_pop)/totalHouseholds

The estimate of nondriver population for each census tract was then calculated as the number of children (14 years old and younger), the projected number of age-eligible individuals (15 and over) that do not have a driver's license, and the estimated number of age-eligible individuals that belong to a zero-vehicle household and do not have access to a vehicle. The results of this estimate are presented in the maps below, including maps of the demographic factors used in the analysis.

Note: the study data and maps reflect people with Washington State driver licenses and vehicles licensed in Washington State. Individuals that have a driver's license from another state or a vehicle registered in another state are counted as nondrivers. The project team was not able to determine the size of this group with available data.

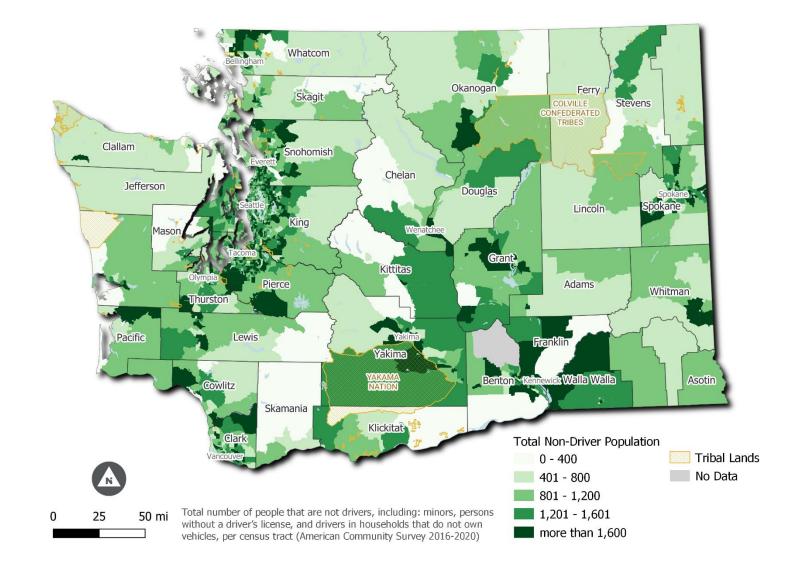
### **INTERACTIVE MAP**

An interactive version of the maps resulting from this analysis is available under this link.

## LIST OF MAPS

- Figure 128. Total Nondriver Population in Washington State per Census Tract
- Figure 129. Percent of Nondriver Population in Washington State per Census Tract
- Figure 130. Total Population of Children (0-14 years old) in Washington State per Census Tract
- Figure 131. Total Population of Minors and Adults (15 years old and older) in Washington State
- Figure 132. Total Number of Zero-Vehicle Households in Washington State
- Figure 133. Total Number of Zero- and One-Vehicle Households in Washington State
- Figure 134. Estimated Number of Personal Motor Vehicles versus Licensed Drivers in Washington State
- Figure 135. Total Number of Households Under the Federal Poverty Level in Washington State
- Figure 136. Estimated Number of Low-Income Households in Washington State

Figure 128. Total Nondriver Population in Washington State per Census Tract



TOOLE DESIGN | 121

Figure 129. Percent of Nondriver Population in Washington State per Census Tract

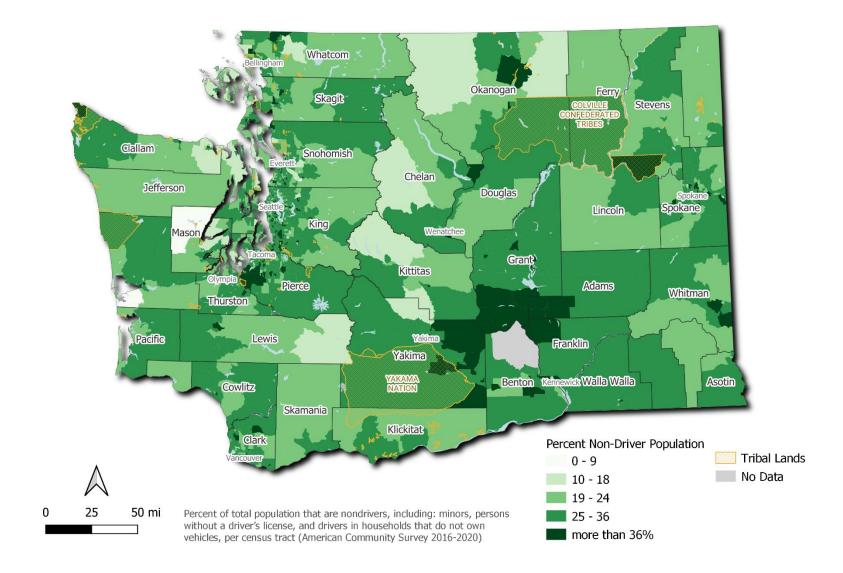


Figure 130. Total Population of Children (0-14 years old) in Washington State per Census Tract

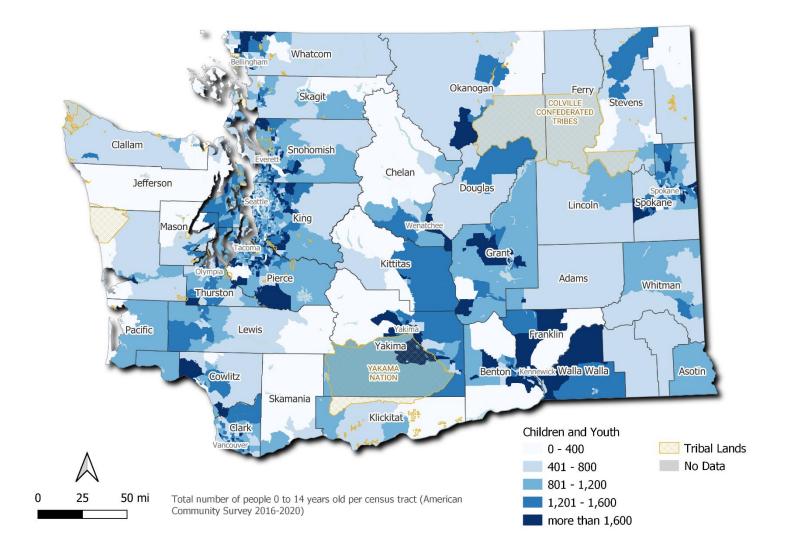


Figure 131. Total Population of Minors and Adults (15 years old and older) in Washington State

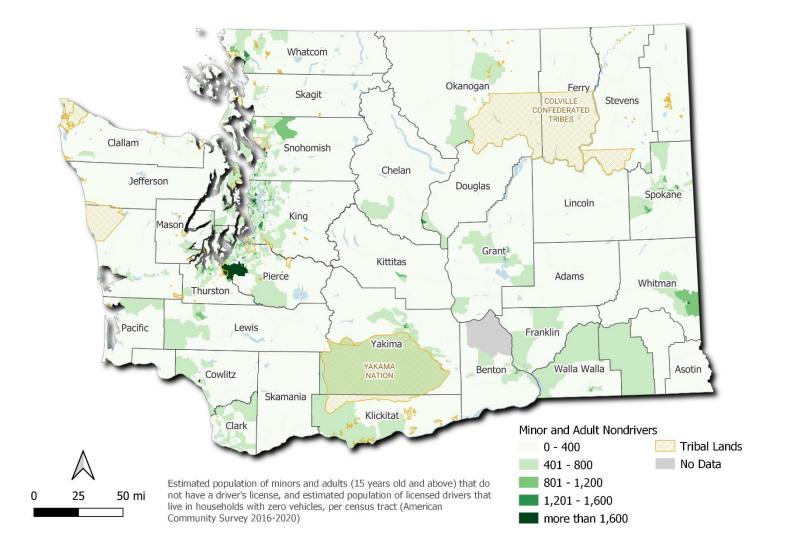


Figure 132. Total Number of Zero-Vehicle Households in Washington State

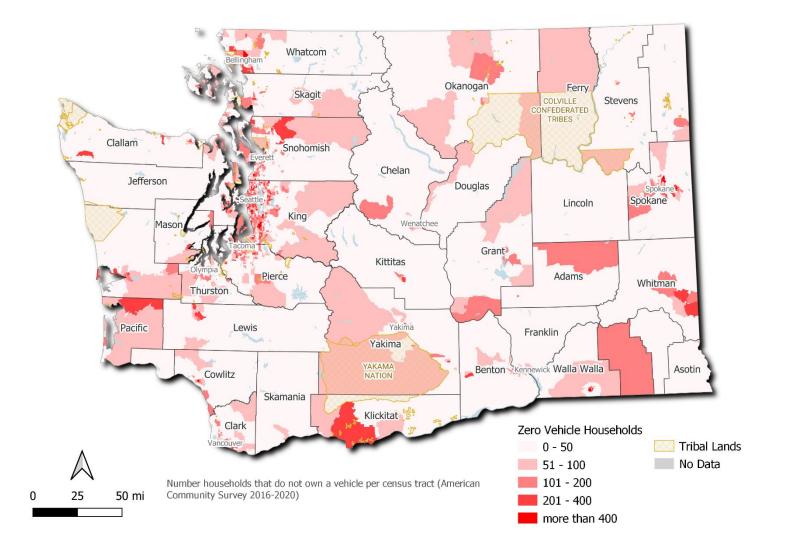


Figure 133. Total Number of Zero- and One-Vehicle Households in Washington State

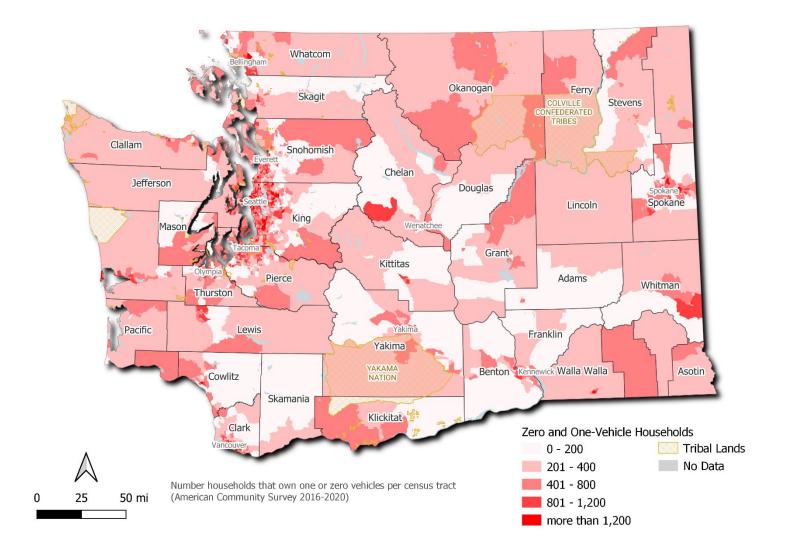


Figure 134. Estimated Number of Personal Motor Vehicles versus Licensed Drivers in Washington State

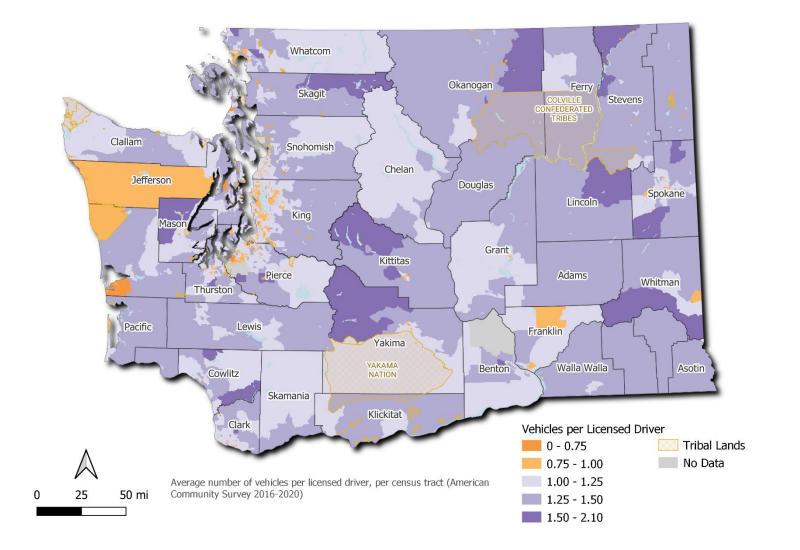


Figure 135. Total Number of Households Under the Federal Poverty Level in Washington State

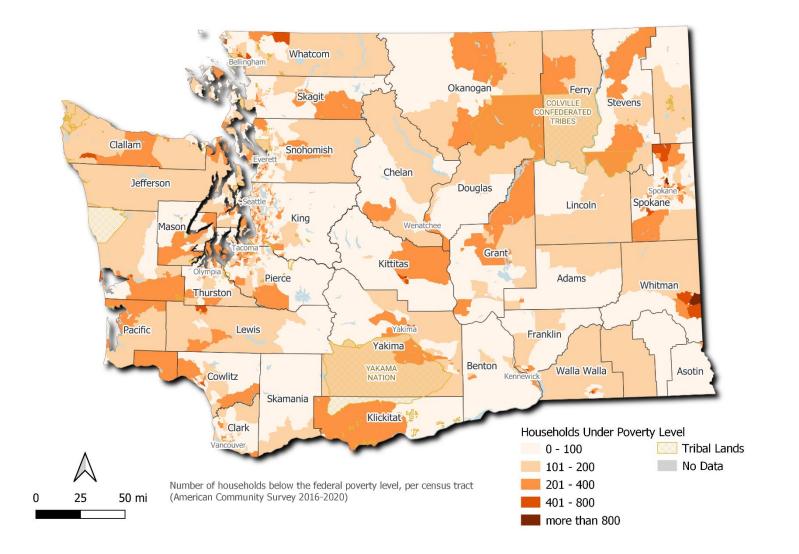
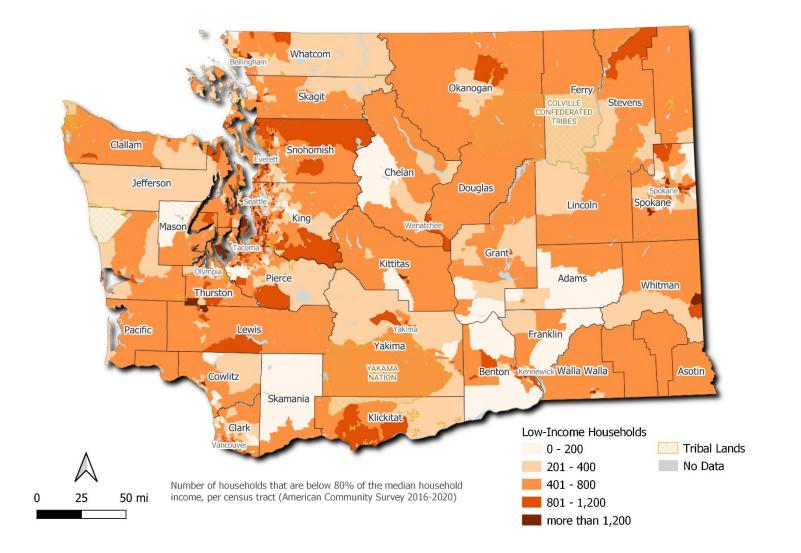


Figure 136. Estimated Number of Low-Income Households in Washington State



# APPENDIX 2B: AVAILABILITY OF DAILY LIFE ACTIVITIES

# **B. AVAILABILITY OF DAILY LIFE ACTIVITIES**

# METHODOLOGY

# **Data Sources**

The project team used the following data sources for this analysis.

# U.S. Census Longitudinal Employment Household Dynamic (LEHD) and Origin-Destination Employment Statistics (LODES)

The U.S. Census Longitudinal Employment Household Dynamic (LEHD) and Origin-Destination Employment Statistics (LODES) database were used to obtain the number of jobs per each census block group in the state. The file name wa\_od\_main\_JT00\_2019.csv.gz was downloaded from the LEHD website at <a href="https://lehd.ces.census.gov/data/">https://lehd.ces.census.gov/data/</a>. In this dataset, each record is a census block. The number of jobs in the census block is given in the field S000.

# Open Street Map

OpenStreetMap (OSM) data was used to map food, education, parks, healthcare, and other destination categories. OSM categorizes features into different geo-spatial layers depending on their type, and it assigns each layer a use code. The associated OSM codes for the daily life destination categories are explained below. Further explanation of the OSM database is provided online at <a href="http://download.geofabrik.de/osm-data-in-gis-formats-free.pdf">http://download.geofabrik.de/osm-data-in-gis-formats-free.pdf</a>.

# Analysis

Six categories of daily life destinations were identified and mapped:

- 1. Employment (jobs)
- 2. Food and grocery sites
- 3. Educational sites
- 4. Parks and recreational sites
- 5. Healthcare (medical and dental) sites
- 6. Other aspects of community life

These six groups of destinations were chosen in order to understand the number of opportunities available to communities. Each destination category was separately mapped. The maps below depict the number of destinations per census block group. This section will explain the data sources and symbology style for each of the six destination maps. Precise definitions for each destination category are given in the tables below.

## Jobs

LODES data was brought into GIS and mapped with a shapefile for Census block groups in Washington State. The map colorizes block groups using five levels. For example, block groups with 1 to 100 jobs, as given by the LODES database, are depicted as pale yellow. Block groups with 101 to 500 jobs are colorized a darker yellow. The subsequent three levels that are colorized are: block groups with 501 to 1,000 jobs, block groups with 1,001 to 5,000 jobs, and block groups with more than 5,000 jobs.

## Food

Table 9 lists all the food related OSM codes, the field name given by OSM and its definition that were mapped. The count of points listed with each of these codes was summed to provide a value for the number of food destinations per block group. Block groups were colorized into three levels. Block groups with 0 or 1 of the food-

related destinations below were colored yellow. Block groups with 2 to 4 food destinations were colored orange. And block groups with more than 4 food destinations were colored red.

Code	field_name	Description
2016	market_place	A place where markets are held.
2501	supermarket	A supermarket.
2502	bakery	A bakery.
2503	kiosk	A very small shop usually selling cigarettes, newspapers, sweets, snacks, and beverages.
2510	general	A general store, offering a broad range of products on a small area. Exists usually in rural and remote areas.
2511	convenience	A convenience store is a small shop selling a subset of items you might find at a supermarket
2518	beverages	A place where you can buy alcoholic and non-alcoholic beverages.
2528	greengrocer	A shop selling fruits and vegetables.

Table 9: OpenStreetMap Codes Mapped in the Food Destinations Map

#### Education

Table 10 lists the education related OSM point features that were brought in and mapped. The count of points listed with each of these codes was summed to provide a value for number of educational destinations per block group. Block groups with 0 or 1 of the educational destinations listed below were colored yellow. Block groups with 2 to 4 educational destinations were colored light green. And block groups with more than 4 educational destinations were colored dark green.

Table 10: OpenStreetMap Codes Mapped in the Education Destinations Map

Code	field_name	Description
2081	university	A university.
2082	school	A school.
2084	college	A college.

## Parks

Table 11 lists the park related OSM point features that were brought in and mapped. The count of points listed with each of these codes was summed to provide a value for number of parks per block group. Block groups with 0 to 2 park destinations listed below were colored pale green. Block groups with 3 to 10 parks were colored light green. And block groups with more than 10 parks were colored dark green.

Table 11: OpenStreetMap Codes Mapped in the Parks Destinations Map

Code	field_name	Description
2204	park	A park.
2205	playground	A playground for children.
2206	dog_park	An area where dogs are allowed to run free without a leash.

# Health

Table 12 lists the health related OSM point features that were brought in and mapped. The count of points listed with each of these codes was summed to provide a value for number of health destinations per block group. Block groups with 0 or 1 of the health destinations listed below were colored pale blue. Block groups with 2 to 15 health destinations were colored blue gray. And block groups with more than 15 health destinations were colored purple.

Table 12: OpenStreetMap Codes Mapped in the Health Destinations Map

Code	field_name	Description
2101	pharmacy	A pharmacy.
2110	hospital	A hospital.
2111	clinic	A medical center that does not admit inpatients.
2120	doctors	A medical practice.
2121	dentist	A dentist's practice.

#### Other aspects of community life

Table 13 lists the other OSM point features that were brought in and mapped. The count of points listed with each of these codes was summed to provide a value for number of other destinations per block group. Block groups with 0 or 1 of the destinations listed below were colored pale pink. Block groups with 2 to 3 other destinations were colored bright pink. And block groups with more than 3 other destinations were colored purple.

Table 13: OpenStreetMap	Codes	Manned	in tha	Other	Destinations Man
Table 15. OpenSileelinap	Coues	Mappeu	in the	Other	Destinations map

Code	field_name	Description
2005	post_office	A post office.
2007	library	A library.
2012	community_centre	A public facility which is mostly used by local associations for events and festivities.
2013	nursing_home	A home for disabled or elderly persons who need permanent care.
2014	arts_centre	A venue at which a variety of arts are preformed or conducted and may well be involved with the creation of those works, and run occasional courses.
2083	kindergarten	A kindergarten (nursery).
2722	museum	A museum.

# **INTERACTIVE MAP**

An interactive version of the maps resulting from this analysis is available under this link.

# LIST OF MAPS

- Figure 137. Total Number of Jobs in Washington State per Census Block Group
- Figure 138. Total Number of Schools and Colleges in Washington State per Census Block Group
- Figure 139. Total Number of Hospitals and Medical Centers in Washington State per Census Block Group
- Figure 140. Total Number of Food and Grocery Stores in Washington State per Census Block Group
- Figure 141. Total Number of Parks and Recreational Sites in Washington State per Census Block Group
- Figure 142. Total Number of Community Life Destinations in Washington State per Census Block Group

Figure 137. Total Number of Jobs in Washington State per Census Block Group

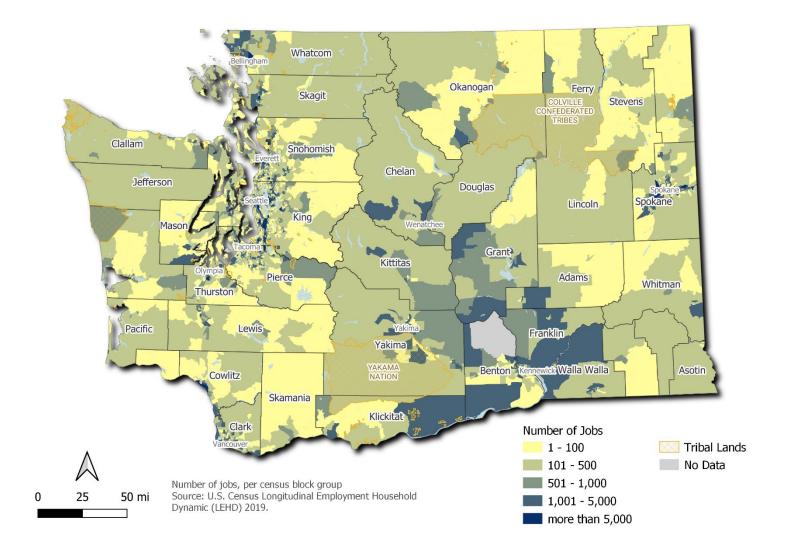


Figure 138. Total Number of Schools and Colleges in Washington State per Census Block Group

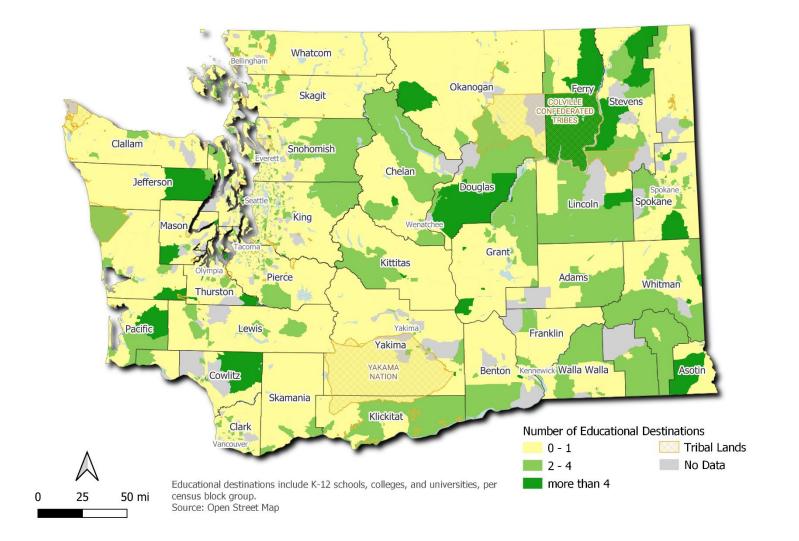


Figure 139. Total Number of Hospitals and Medical Centers in Washington State per Census Block Group

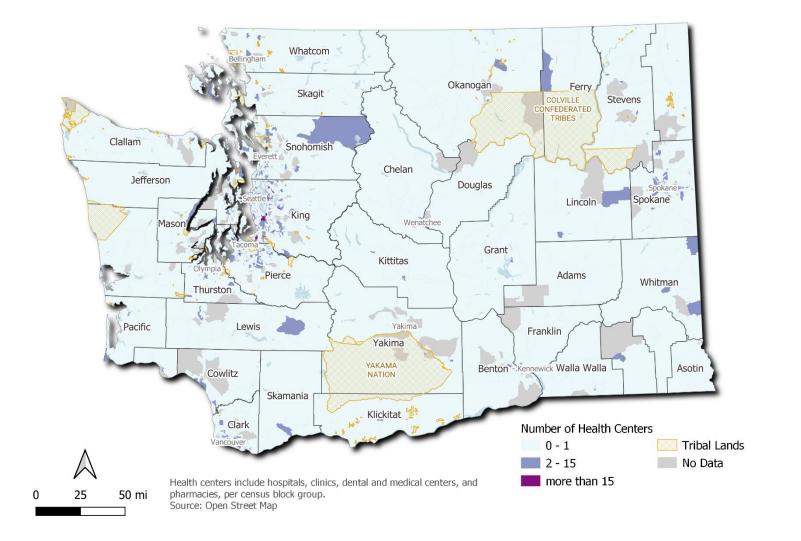


Figure 140. Total Number of Food and Grocery Stores in Washington State per Census Block Group

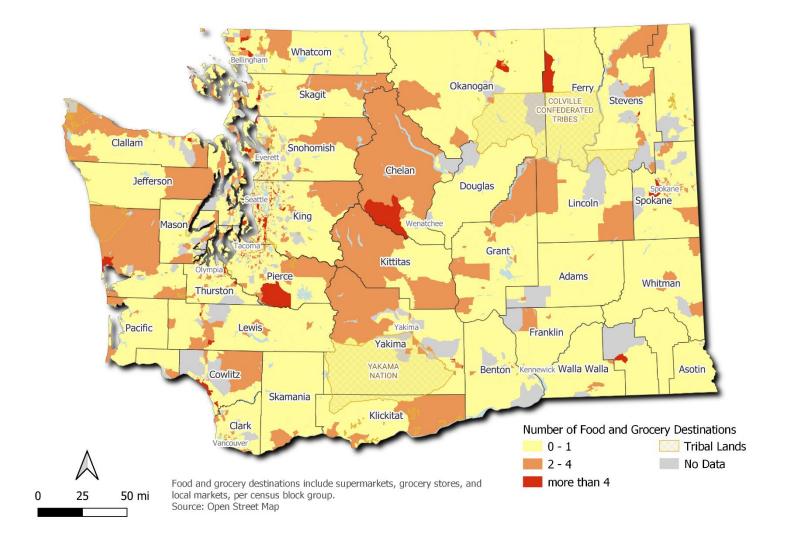


Figure 141. Total Number of Parks and Recreational Sites in Washington State per Census Block Group

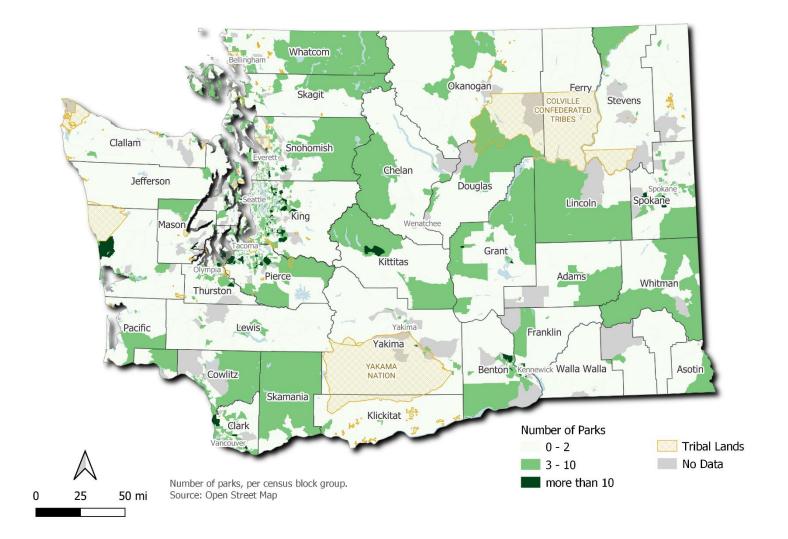
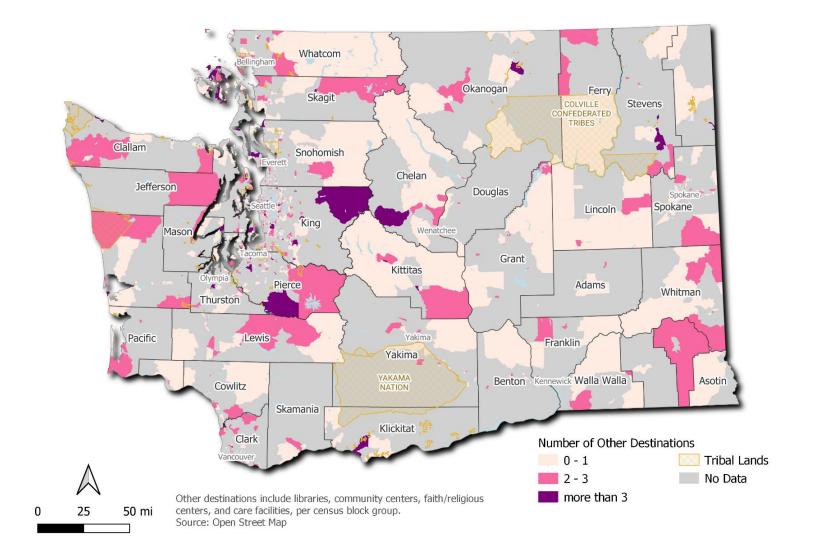


Figure 142. Total Number of Community Life Destinations in Washington State per Census Block Group



# APPENDIX 2C: ACCESS TO DAILY LIFE ACTIVITIES BY MODE OF TRAVEL (MAPS)

# C. TRANSPORTATION ACCESS MAPS

# **METHODOLOGY**

# **Data Sources**

## U.S. Census Bureau

The project team used block groups as defined by the 2010 Census because LODES data was aligned with that geometry. The total population from the American Community Survey Five-Year Estimate 2016-2020 was used to count the population in each block group that has access to destinations.

# **Open Street Map**

Number of destinations was provided by OpenStreetMap (OSM).

# Washington Geospatial Open Data Portal

#### State Land Use 2010

The state of Washington compiled a parcel-based, land use GIS dataset to locate, identify and analyze statewide land use areas and overlay them with other spatial information. Data can be viewed online here <a href="https://geo.wa.gov/datasets/wa-geoservices::washington-state-land-use-2010/explore">https://geo.wa.gov/datasets/wa-geoservices::washington-state-land-use-2010/explore</a>. This map was used to approximate *inhabited areas* of Washington State. Any land that is not in the following land use categories are considered inhabited areas:

- Highway and street right of way,
- Governmental services,
- Public timberland/non-designated forest,
- Agriculture classified under current use chapter 84.34 RCW,
- Designated forest land under chapter 84.33 RCW,
- Open space land classified under chapter 84.34 RCW,
- Undeveloped land,
- Agriculture (not classified under current use law),
- Parks,
- Noncommercial forest,
- Timberland classified under chapter 84.34 RCW,
- Water areas

The Inhabited Land polygon geometries were spatially joined with population by block group, so the block group population is only assigned to areas overlapped with inhabited areas.

#### **Tribal Lands**

The state of Washington provides GIS shapefiles for the borders of all tribal territory within the state. The map is viewable online here <u>https://geo.wa.gov/datasets/waecy::tribal-lands/explore?location=46.683106%2C-119.590550%2C7.00</u>.

## General Transit Feed Specification

GIS shapefiles for transit routes and stops for every transit agency in Washington State were obtained from Washington State Department of Transportation. Any agencies not found in this dataset were individually obtained online. Each bus route shape file was combined into one master shapefile for all fixed bus routes in Washington state.

# **Assumptions**

The following assumptions were used to calculate the potential accessibility to destinations by mode.

#### Travel Speed

Various travel speeds were assumed for each mode of travel.

WALKING – average speed assumed at 3.5 mph.

Travel Time:	Travel Distance:
60 minutes	3.5 miles (3.5 ÷ 1)
30 minutes	1.75 miles (3.5 ÷ 2)
15 minutes	0.875 miles (3.5 ÷ 4)

BIKING – average speed assumed at 12 mph.

Travel Time:	Travel Distance:
60 minutes	12 miles (12 ÷ 1)
30 minutes	6 miles (12 ÷ 2)
15 minutes	3 miles (12 ÷ 4)

DRIVING – urban average speed assumed at 30 mph; rural average speed assumed at 55 mph.

Travel Time:	Urban Travel Distance:	Rural Travel Distance:
60 minutes	30 miles (30 ÷ 1)	55 miles (55 ÷ 1)
30 minutes	15 miles (30 ÷ 2)	22.5 miles (55 ÷ 2)
15 minutes	7.5 miles (30 ÷ 4)	11.25 miles (55 ÷ 4)

TRANSIT – urban routes (those up to 15 miles long) were assumed an average operating speed of 13 mph; rural and suburban routes (those longer than 15 miles) were assumed an average operating speed of 26 miles.

Travel Time:	Urban Travel Distance:	Rural Travel Distance:
60 minutes	13.0 miles	26.0 miles
30 minutes	6.50 miles	13.0 miles
15 minutes	3.25 miles	6.50 miles

# Analysis

Accessibility by mode is mapped for each of the six destination categories. There are maps depicting four different primary travel modes (walk, bike, drive, and transit) for each of the six destination categories, for a total of 24 maps. Each map shows the access to destinations in minutes of travel time within 15, 30, 60 minutes.

The underlying dataset for these maps contains one record per U.S. Census 2010 block group. There is a column for number of destinations by category, by mode, by travel time (e.g., one column for number of educational destinations within 15 minutes biking distance).

## Estimating Driving, Walking, and Biking Accessibility

We used a buffer approach to intersect the destination buffer with where the population inhabit to estimate the size of population that are within the travel distance to a destination. Using the speed assumptions in the travel speed section above, 12 buffers were created for each destination point by mode and travel time. For example, the buffer size for a 30-minute driving range from an urban destination point would be 15 miles in radius. These buffers were then intersected with the Inhabited Land polygon geometry at the block group level, to calculate the percentage of inhabited land belonging to a destination buffer. The resulted overlapping area percentage was

multiplied by population in the inhabited area, to get the final number of people that can access the destination within a given travel distance by mode and by time.

#### Estimating Transit Accessibility

To identify the travel distance on a transit route, given the destination point, transit route, travel time and speed, we first spatially joined destination points within ¼ mile of a transit route to the transit route using shortest distance from a point (destination) to a line (transit route). The intersecting point between the transit route and the shortest distance path to the destination is the transit access point for the given destination. We then identified the travel extent, known as the extent, someone can travel on the transit route less than 15 miles long, one can travel 6.5 miles from the transit access point in both directions along the route in 30 minutes; if the transit access point is less than 6.5 miles from one end of the route, the travel extent ends at the end of the route.

To estimate the population size that can access destinations using transit, we created buffers of the travel extent along the transit routes using the following parameters:

Travel Time	Buffer Size
15 minutes	0.25 mile
30 minutes	0.50 mile
60 minutes	0.75 mile

Each transit travel buffer is associated with one destination point. These buffers were intersected with the inhabited area geometries to estimate the size of population within transit travel distance to the destination. For each block group, we then calculated the percentage of overlapping area with the transit travel buffer of a given travel time and given destination category and multiplied this percentage with population to get the estimated population size of a block group that has transit access to a given type of destination.

# **Accessibility Threshold**

While the block group data tables have detailed estimated populations that have access to destinations by travel mode, travel time, and destination categories, we simplified the map visualizations by assigning a travel access category to each block group. Each accessibility map uses three colors on the same gradient to indicate travel times, 15, 30, and 60 minutes. We used the following logic to color-code the block groups in Washington State:

#### **60 MINUTE ACCESS**

*Walking, Biking, Driving* - When the estimated population that has access to a given destination category by these modes within 60 minutes is **equal to** the total population in the block group, the block group has a 60-minute access.

*Transit* - When the estimated population that has access to a given destination category by transit within 60 minutes is **equal to 25%** of the total population in the block group, the block group has a 60-minute access.

#### **30 MINUTE ACCESS**

*Walking, Biking, Driving* - When the estimated population that has access to a given destination category by these modes within 30 minutes is **equal to** the total population in the block group, the block group has a 30-minute access.

*Transit* - When the estimated population that has access to a given destination category by transit within 30 minutes is **<u>equal to 50%</u>** of the total population in the block group, the block group has a 30-minute access.

#### **15 MINUTE ACCESS**

*Walking, Biking, Driving* - When the estimated population that has access to a given destination category by these modes within 15 minutes is **equal to** the total population in the block group, the block group has a 15-minute access.

*Transit* - When the estimated population that has access to a given destination category by transit within 15 minutes is **<u>equal to</u>** the total population in the block group, the block group has a 15-minute access.

#### NO ACCESS

Not shown on map; labeled as lack of data, no access, or more than 60 minutes.

# **INTERACTIVE MAP**

An interactive version of the maps resulting from this analysis is available under this link.

# LIST OF MAPS

- Figure 143. Census Block Groups within Distance of Job Sites by Driving a Car
- Figure 144. Census Block Groups within Distance of Job Sites by Walking
- Figure 145. Census Block Groups within Distance of Job Sites by Riding a Bike
- Figure 146. Census Block Groups within Distance of Job Sites by Riding Public Transit
- Figure 147. Census Block Groups within Distance of Schools and Colleges by Driving a Car
- Figure 148. Census Block Groups within Distance of Schools and Colleges by Walking
- Figure 149. Census Block Groups within Distance of Schools and Colleges by Riding a Bike
- Figure 150. Census Block Groups within Distance of Schools and Colleges by Riding Public Transit
- Figure 151. Census Block Groups within Distance of Health and Medical Care Sites by Driving a Car
- Figure 152. Census Block Groups within Distance of Health and Medical Care Sites by Walking
- Figure 153. Census Block Groups within Distance of Health and Medical Care Sites by Riding a Bike
- Figure 154. Census Block Groups within Distance of Health and Medical Care Sites by Riding Transit
- Figure 155. Census Block Groups within Distance of Food and Grocery Sites by Driving a Car
- Figure 156. Census Block Groups within Distance of Food and Grocery Sites by Walking
- Figure 157. Census Block Groups within Distance of Food and Grocery Sites by Riding a Bike
- Figure 158. Census Block Groups within Distance of Food and Grocery Sites by Riding Public Transit
- Figure 159. Census Block Groups within Distance of Parks and Recreation Sites by Driving a Car
- Figure 160. Census Block Groups within Distance of Parks and Recreation Sites by Walking
- Figure 161. Census Block Groups within Distance of Parks and Recreation Sites by Riding a Bike
- Figure 162. Census Block Groups within Distance of Parks and Recreation Sites by Riding Transit
- Figure 163. Census Block Groups within Distance of Other Community Sites by Driving a Car
- Figure 164. Census Block Groups within Distance of Other Community Sites by Walking
- Figure 165. Census Block Groups within Distance of Other Community Sites by Riding a Bike
- Figure 166. Census Block Groups within Distance of Other Community Sites by Riding Public Transit

Figure 143. Census Block Groups within Distance of Job Sites by Driving a Car

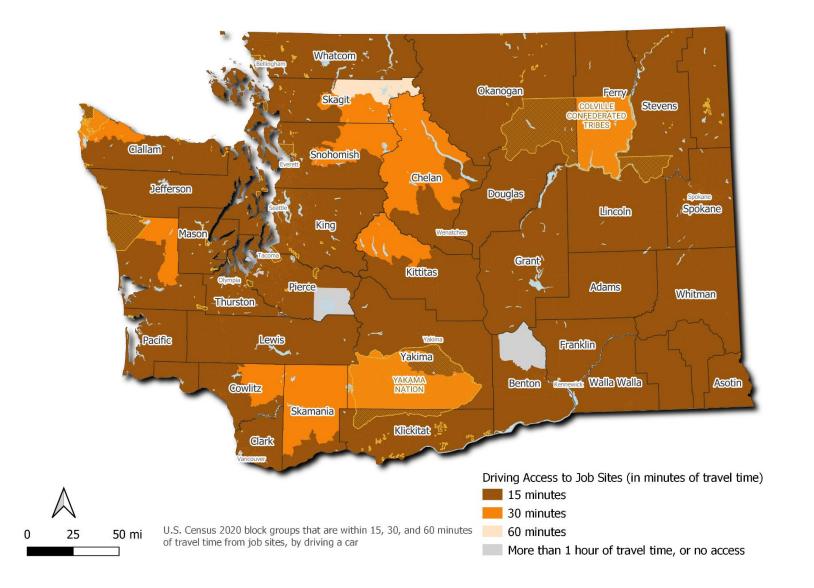


Figure 144. Census Block Groups within Distance of Job Sites by Walking

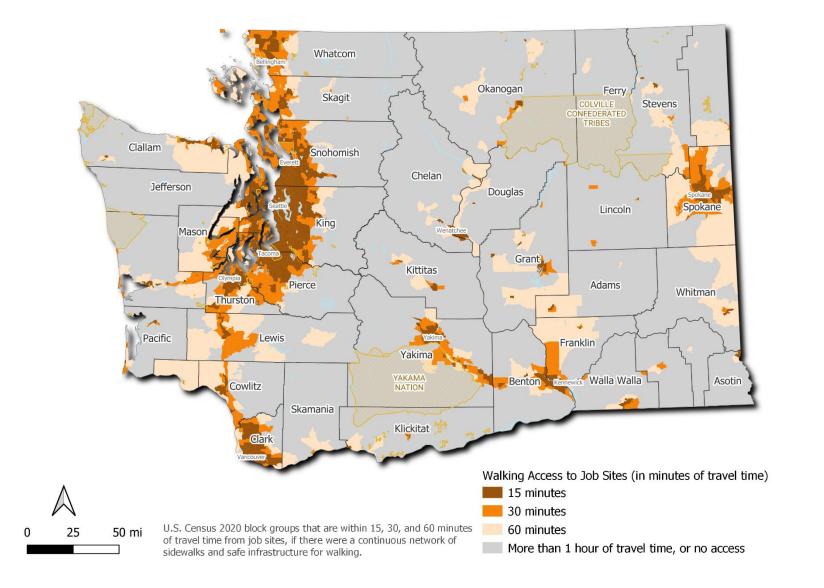


Figure 145. Census Block Groups within Distance of Job Sites by Riding a Bike

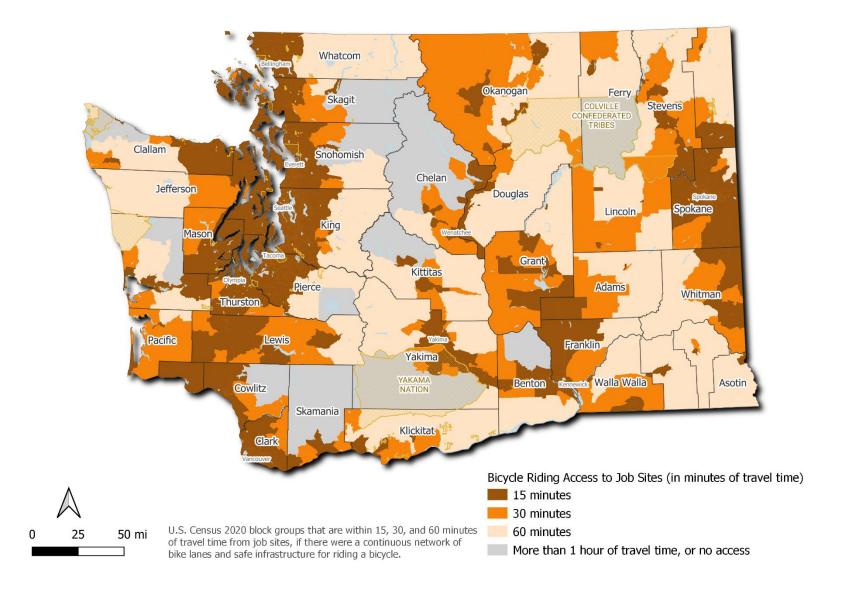


Figure 146. Census Block Groups within Distance of Job Sites by Riding Public Transit

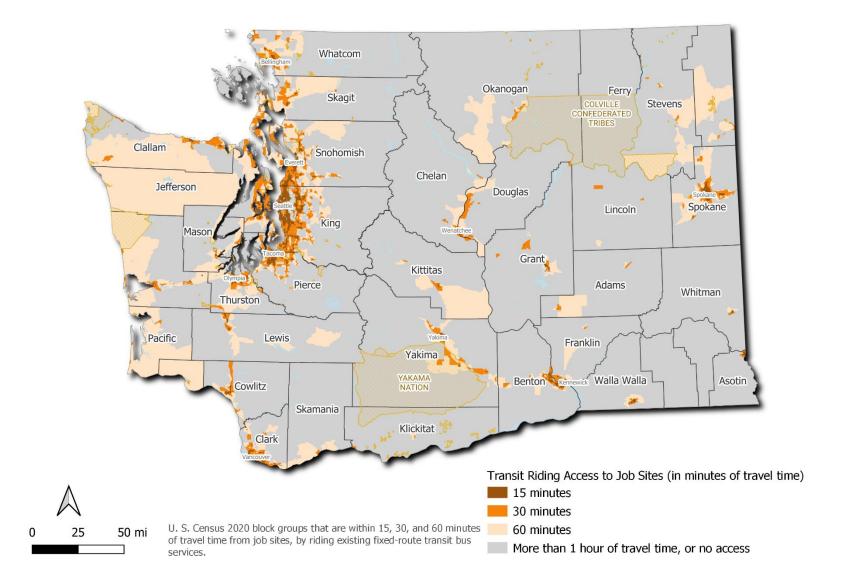


Figure 147. Census Block Groups within Distance of Schools and Colleges by Driving a Car

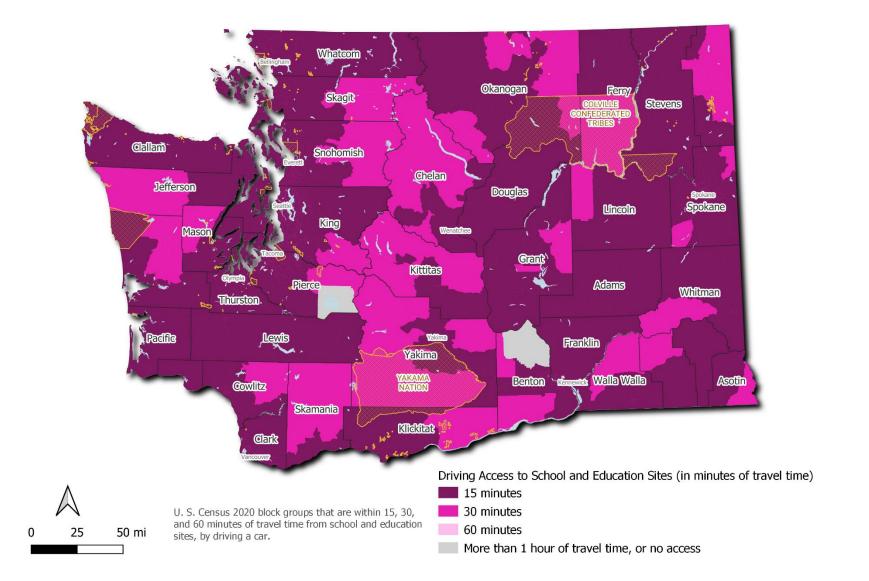


Figure 148. Census Block Groups within Distance of Schools and Colleges by Walking

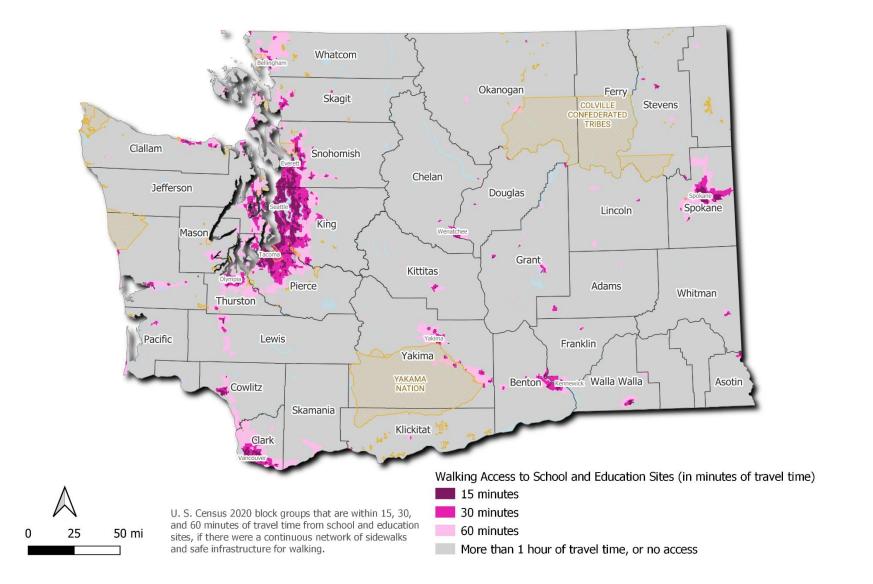


Figure 149. Census Block Groups within Distance of Schools and Colleges by Riding a Bike

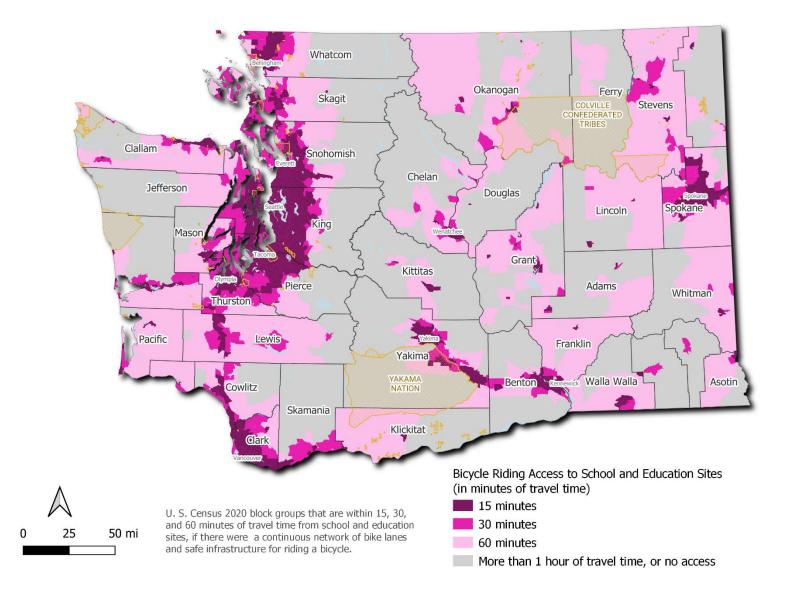
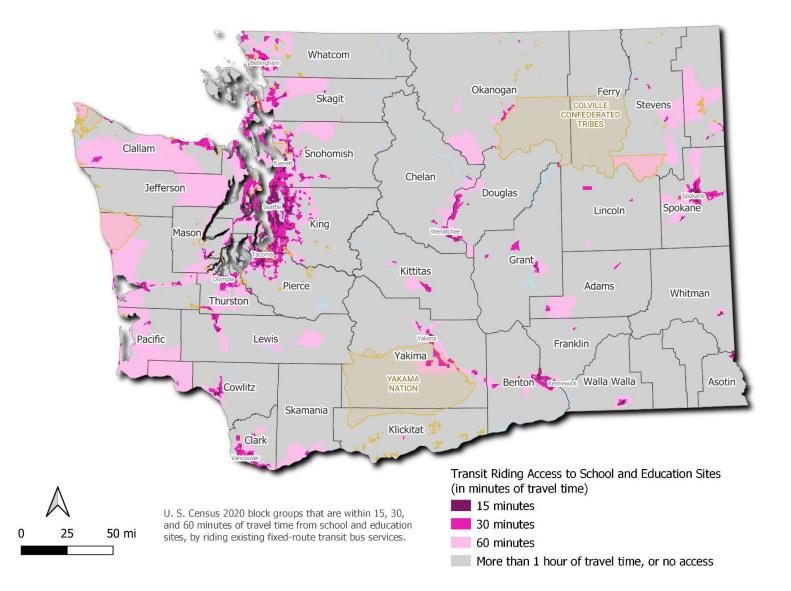


Figure 150. Census Block Groups within Distance of Schools and Colleges by Riding Public Transit



TOOLE DESIGN | 152

Figure 151. Census Block Groups within Distance of Health and Medical Care Sites by Driving a Car

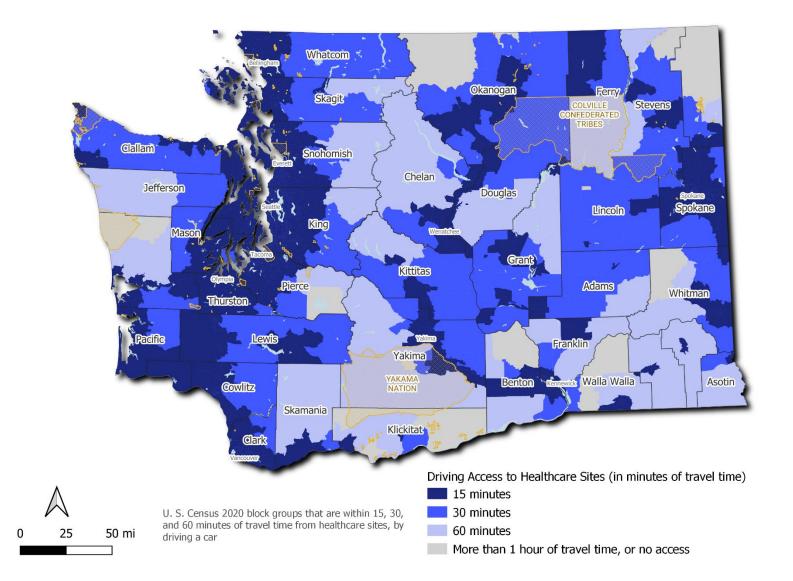


Figure 152. Census Block Groups within Distance of Health and Medical Care Sites by Walking

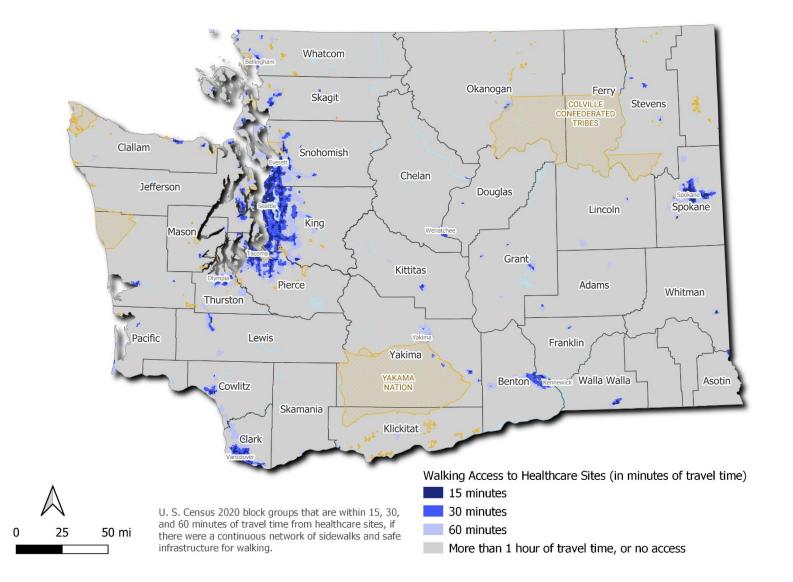


Figure 153. Census Block Groups within Distance of Health and Medical Care Sites by Riding a Bike

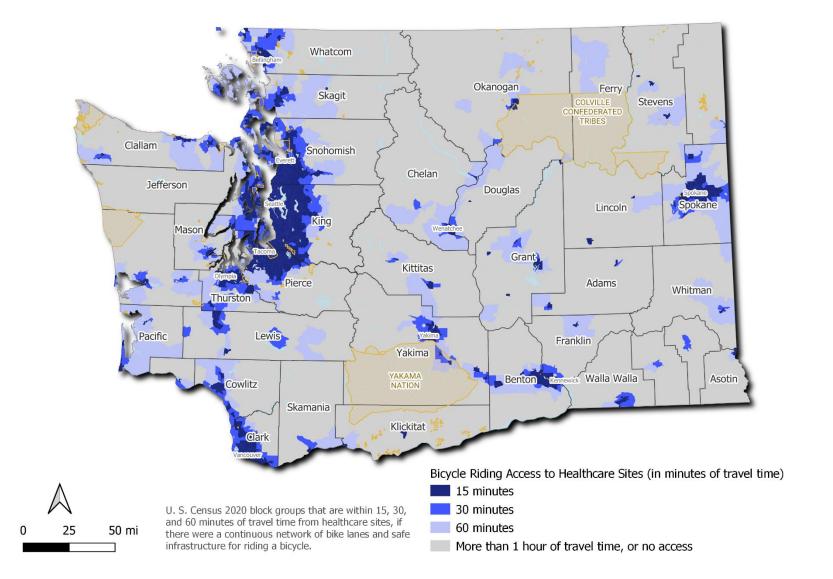


Figure 154. Census Block Groups within Distance of Health and Medical Care Sites by Riding Transit

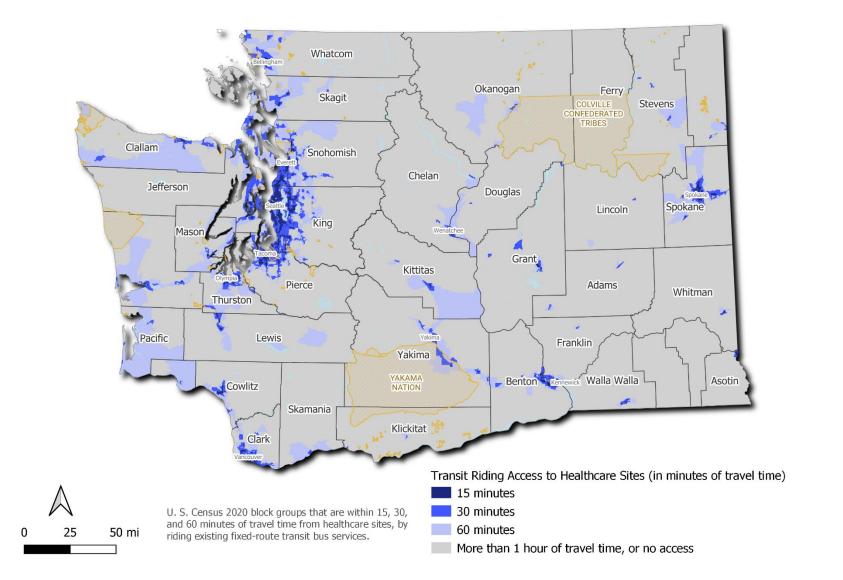


Figure 155. Census Block Groups within Distance of Food and Grocery Sites by Driving a Car

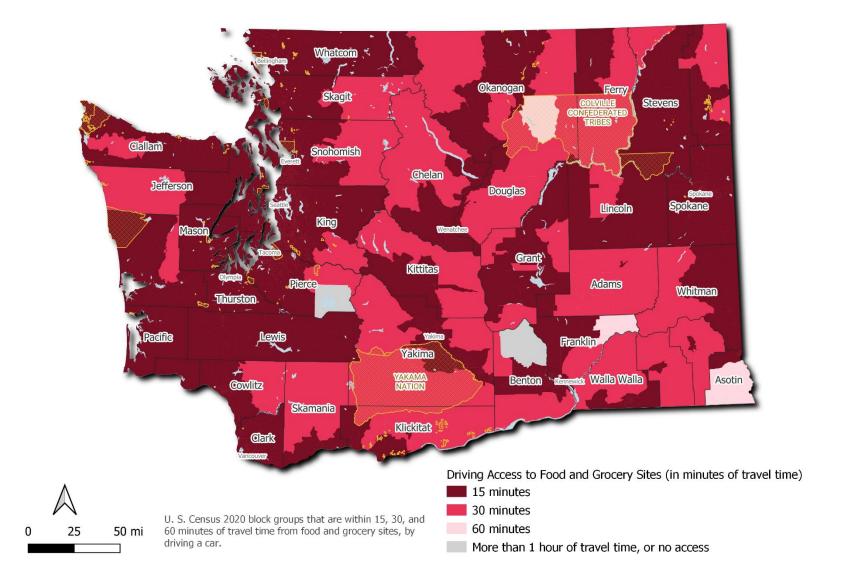
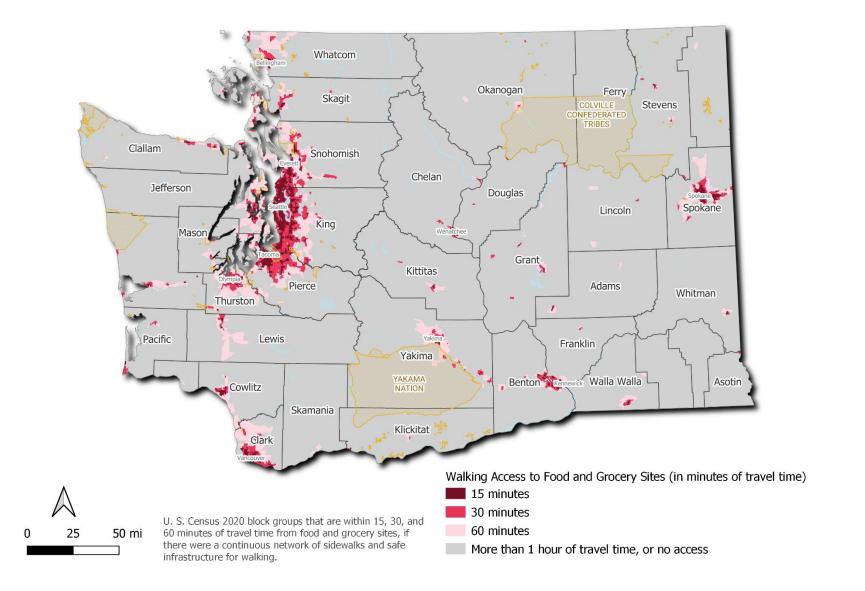


Figure 156. Census Block Groups within Distance of Food and Grocery Sites by Walking



TOOLE DESIGN | 158

Figure 157. Census Block Groups within Distance of Food and Grocery Sites by Riding a Bike

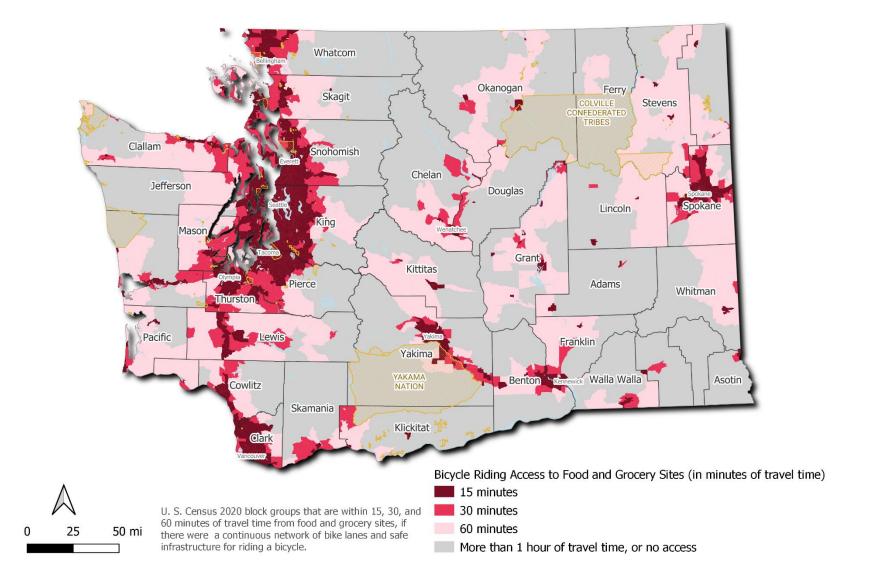


Figure 158. Census Block Groups within Distance of Food and Grocery Sites by Riding Public Transit

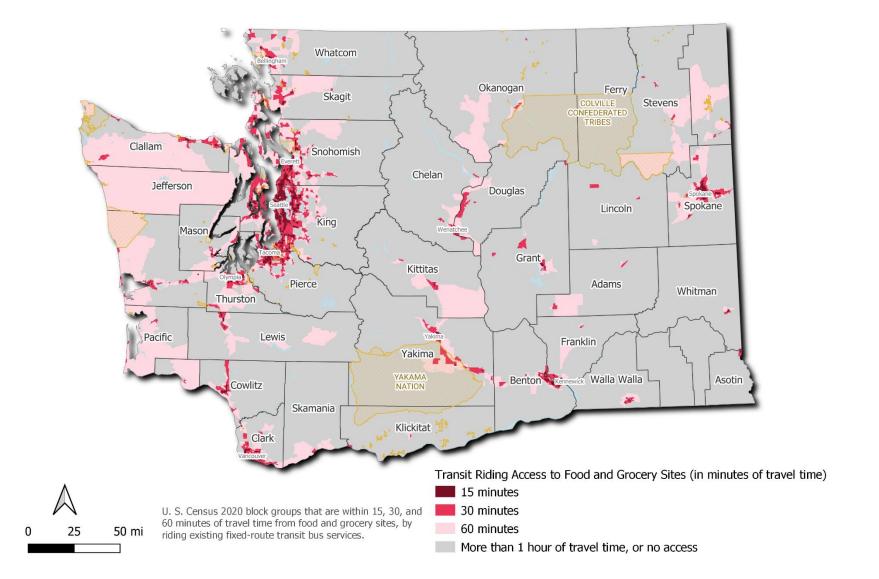


Figure 159. Census Block Groups within Distance of Parks and Recreation Sites by Driving a Car

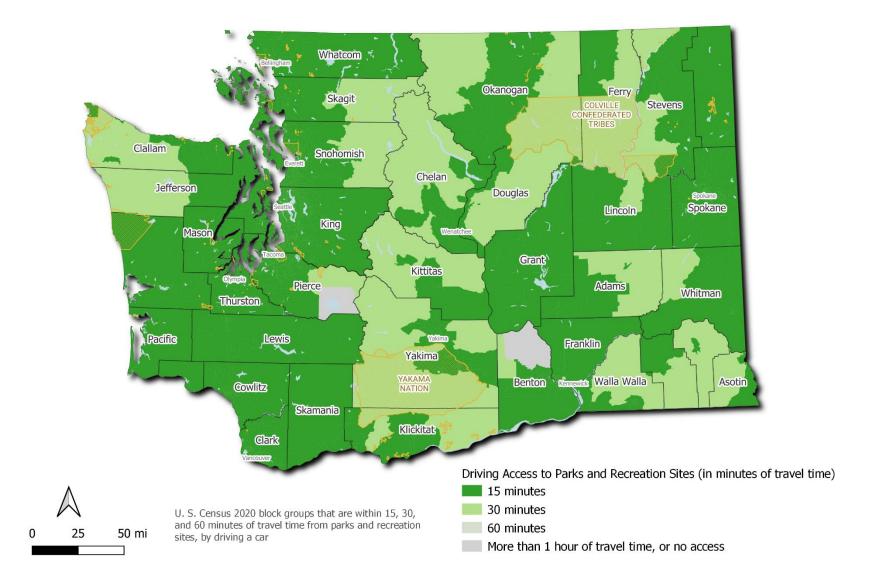


Figure 160. Census Block Groups within Distance of Parks and Recreation Sites by Walking

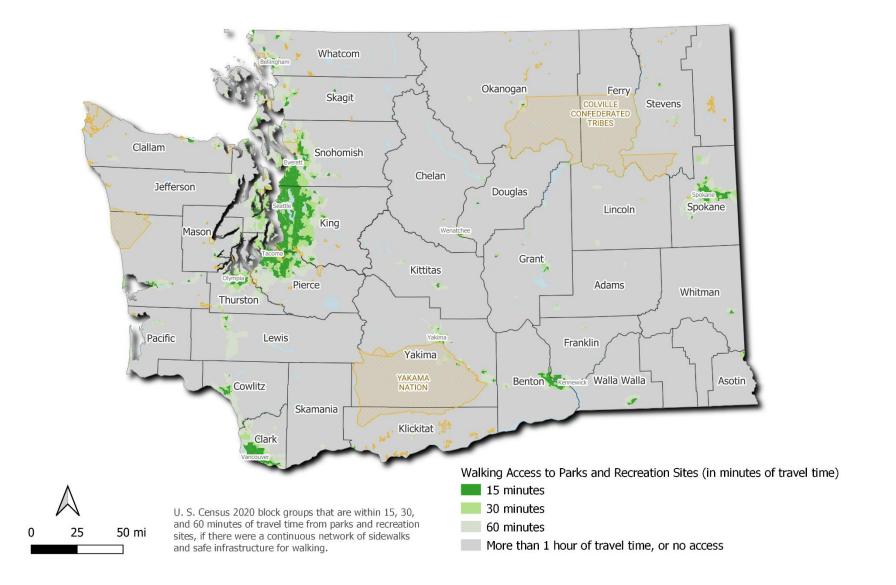


Figure 161. Census Block Groups within Distance of Parks and Recreation Sites by Riding a Bike

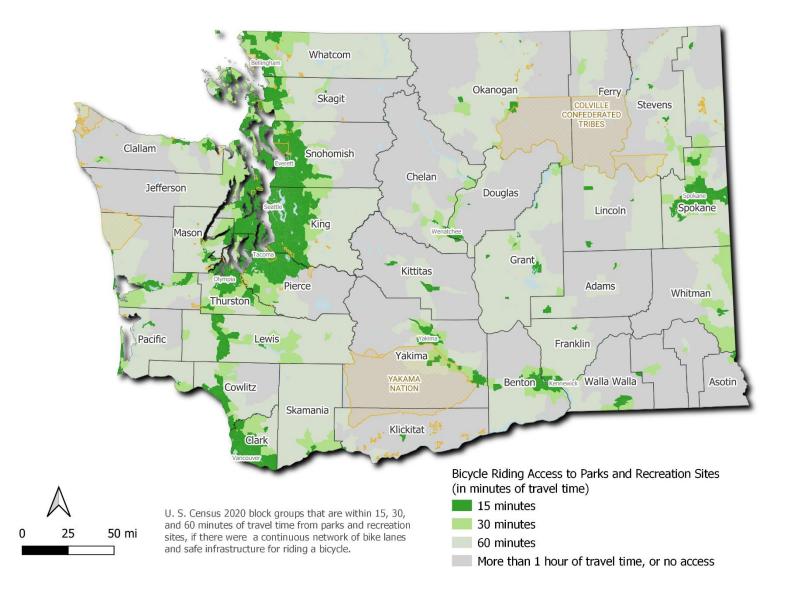
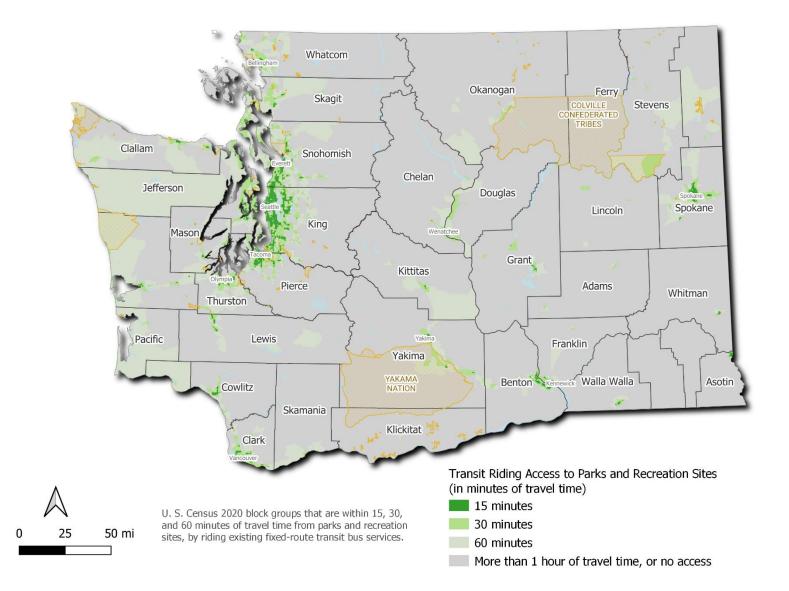
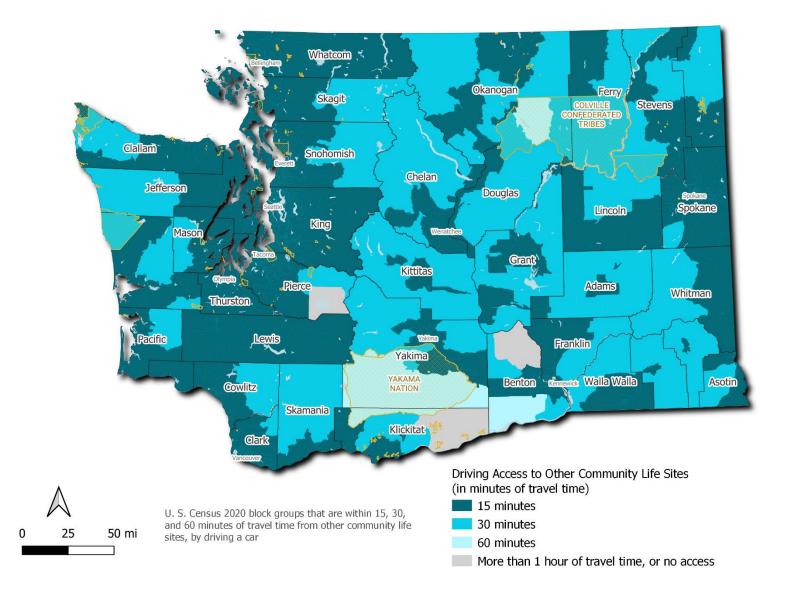


Figure 162. Census Block Groups within Distance of Parks and Recreation Sites by Riding Transit



TOOLE DESIGN | 164

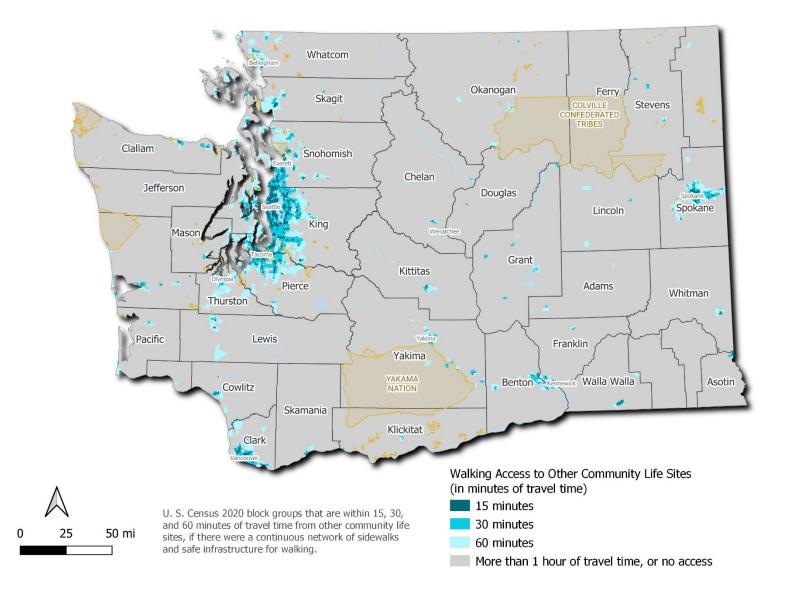
Figure 163. Census Block Groups within Distance of Other Community Sites by Driving a Car



TOOLE DESIGN | 165

# NON-DRIVERS: POPULATION, DEMOGRAPHICS & ANALYSIS | FINAL DRAFT

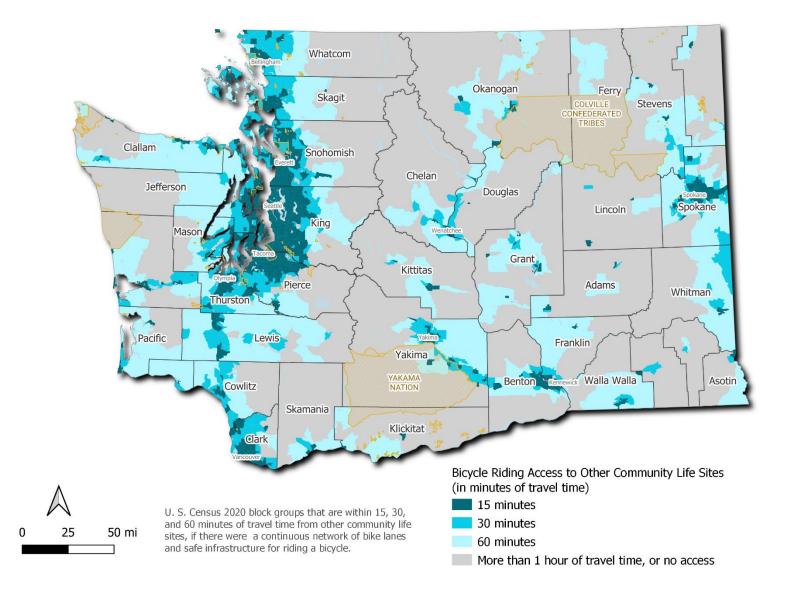
Figure 164. Census Block Groups within Distance of Other Community Sites by Walking



TOOLE DESIGN | 166

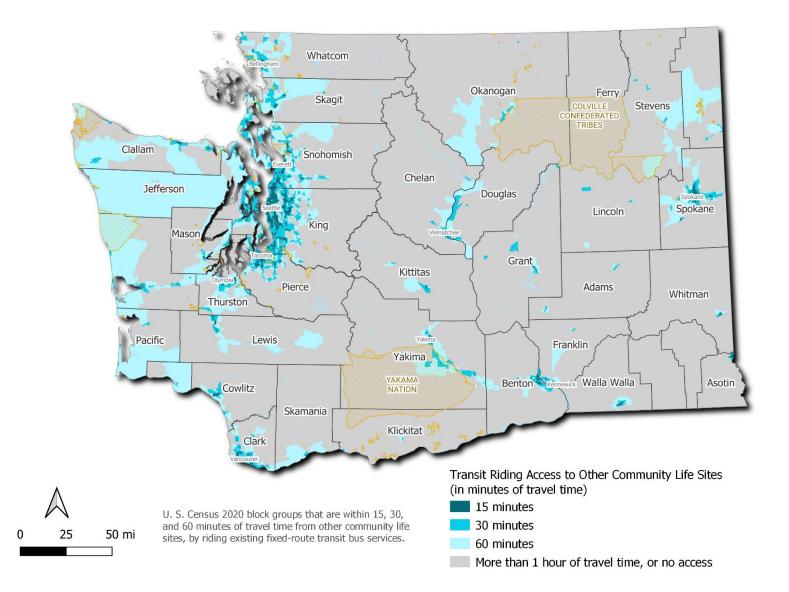
# NON-DRIVERS: POPULATION, DEMOGRAPHICS & ANALYSIS | FINAL DRAFT

Figure 165. Census Block Groups within Distance of Other Community Sites by Riding a Bike



# NON-DRIVERS: POPULATION, DEMOGRAPHICS & ANALYSIS | FINAL DRAFT

Figure 166. Census Block Groups within Distance of Other Community Sites by Riding Public Transit



TOOLE DESIGN | 168

# APPENDIX 2D: ACCESS TO DAILY LIFE ACTIVITIES BY MODE OF TRAVEL (TABLES)

# **D. TRANSPORTATION ACCESS TABLES**

# LIST OF TABLES

- Table 14. Percentage of Population per County with Access to Daily Life Activities by Driving a Car
- Table 15. Percentage of Population per County with Access to Daily Life Activities by Driving a Car (Cont.)
- Table 16. Percentage of Population per County with Access to Daily Life Activities by Walking
- Table 17. Percentage of Population per County with Access to Daily Life Activities by Walking (Cont.)
- Table 18. Percentage of Population per County with Access to Daily Life Activities by Riding a Bike
- Table 19. Percentage of Population per County with Access to Daily Life Activities by Riding a Bike (Cont.)
- Table 20. Percentage of Population per County with Access to Daily Life Activities by Riding Transit
- Table 21. Percentage of Population per County with Access to Daily Life Activities by Riding Transit (Cont.)

Table 14. Percentage of Population per County with Access to Daily Life Activities by Driving a Car

S

WASHINGTON STATE				
Driving	15 min	30 min	60 min	
Healthcare	98.1%	99.8%	100.0%	
Food	99.8%	100.0%	100.0%	
Jobs	99.8%	99.8%	99.8%	
Schools	99.9%	100.0%	100.0%	
Parks	99.9%	100.0%	100.0%	
Other	99.6%	100.0%	100.0%	

# SPOKANE COUNTY

Driving	15 min	30 min	60 min
Healthcare	99.4%	100.0%	100.0%
Food	100.0%	100.0%	100.0%
Jobs	100.0%	100.0%	100.0%
Schools	100.0%	100.0%	100.0%
Parks	100.0%	100.0%	100.0%
Other	100.0%	100.0%	100.0%

# YAKIMA COUNTY

Driving	15 min	30 min	60 min
Healthcare	96.1%	99.2%	100.0%
Food	99.6%	100.0%	100.0%
Jobs	100.0%	100.0%	100.0%
Schools	99.6%	100.0%	100.0%
Parks	99.7%	100.0%	100.0%
Other	99.3%	100.0%	100.0%

# COWLITZ COUNTY

Driving	15 min	30 min	60 min
Healthcare	98.2%	100.0%	100.0%
Food	99.8%	100.0%	100.0%
Jobs	99.8%	100.0%	100.0%
Schools	99.7%	100.0%	100.0%
Parks	100.0%	100.0%	100.0%
Other	99.6%	100.0%	100.0%

LEWIS	COUN	ТΥ
Dutation		10

Driving	15 min	30 min	60 min
Healthcare	96.7%	100.0%	100.0%
Food	100.0%	100.0%	100.0%
Jobs	100.0%	100.0%	100.0%
Schools	100.0%	100.0%	100.0%
Parks	100.0%	100.0%	100.0%
Other	100.0%	100.0%	100.0%

Driving	15 min	30 min	60 min
Healthcare	99.9%	100.0%	100.0%
ood	100.0%	100.0%	100.0%
obs	100.0%	100.0%	100.0%
Schools	100.0%	100.0%	100.0%
Parks	100.0%	100.0%	100.0%
Other	100.0%	100.0%	100.0%

# 

Driving	15 min	30 min	60 min
Healthcare	99.1%	100.0%	100.0%
Food	100.0%	100.0%	100.0%
Jobs	100.0%	100.0%	100.0%
Schools	100.0%	100.0%	100.0%
Parks	100.0%	100.0%	100.0%
Other	100.0%	100.0%	100.0%

# WHATCOM COUNTY

Driving	15 min	30 min	60 min
Healthcare	98.7%	100.0%	100.0%
Food	100.0%	100.0%	100.0%
Jobs	100.0%	100.0%	100.0%
Schools	100.0%	100.0%	100.0%
Parks	100.0%	100.0%	100.0%
Other	100.0%	100.0%	100.0%

#### **GRANT COUNTY**

Driving	15 min	30 min	60 min
Healthcare	87.5%	99.9%	100.0%
Food	99.3%	100.0%	100.0%
Jobs	100.0%	100.0%	100.0%
Schools	99.4%	100.0%	100.0%
Parks	100.0%	100.0%	100.0%
Other	93.7%	100.0%	100.0%

CHELAN COUNTY			
Driving	15 min	30 min	60 min
Healthcare	90.6%	98.7%	100.0%
Food	99.8%	100.0%	100.0%
Jobs	99.8%	100.0%	100.0%
Schools	99.4%	100.0%	100.0%
Parks	99.7%	100.0%	100.0%
Other	97.6%	100.0%	100.0%

PIERCE COUNTY				
Driving	15 min	30 min	60 min	
Healthcare	99.7%	100.0%	100.0%	
Food	100.0%	100.0%	100.0%	
Jobs	98.6%	98.6%	98.6%	
Schools	100.0%	100.0%	100.0%	
Parks	100.0%	100.0%	100.0%	
Other	100.0%	100.0%	100.0%	

# THURSTON COUNTY

Driving	15 min	30 min	60 min
Healthcare	99.9%	100.0%	100.0%
Food	100.0%	100.0%	100.0%
Jobs	100.0%	100.0%	100.0%
Schools	100.0%	100.0%	100.0%
Parks	100.0%	100.0%	100.0%
Other	100.0%	100.0%	100.0%

# **BENTON COUNTY**

Driving	15 min	30 min	60 min
Healthcare	99.3%	99.9%	100.0%
Food	99.3%	100.0%	100.0%
Jobs	100.0%	100.0%	100.0%
Schools	100.0%	100.0%	100.0%
Parks	100.0%	100.0%	100.0%
Other	99.4%	99.9%	100.0%

# FRANKLIN COUNTY

Driving	15 min	30 min	60 min
Healthcare	91.2%	99.4%	100.0%
Food	99.4%	100.0%	100.0%
Jobs	100.0%	100.0%	100.0%
Schools	100.0%	100.0%	100.0%
Parks	100.0%	100.0%	100.0%
Other	99.6%	100.0%	100.0%

# Driving 15 min 30 min Healthcare 97.0% 100.0% Food 100.0% 100.0%

Food	100.0%	100.0%	100.0%	
Jobs	99.8%	100.0%	100.0%	
Schools	100.0%	100.0%	100.0%	
Parks	99.6%	100.0%	100.0%	
Other	99.9%	100.0%	100.0%	

60 min

100.0%

# SNOHOMISH COUNTYDriving15 minHealthcare99.6%Food99.9%Jobs99.9%Schools99.9%Parks99.9%Other99.9%

# KITSAP COUNTY

Driving	15 min
Healthcare	99.9%
Food	100.0%
Jobs	100.0%
Schools	100.0%
Parks	100.0%
Other	100.0%

# SKAGIT COUNTY

Driving	15 min
Healthcare	98.0%
Food	100.0%
Jobs	99.8%
Schools	99.4%
Parks	100.0%
Other	100.0%

# ISLAND COUNTY

Driving	15 min
Healthcare	100.0%
Food	100.0%
Jobs	100.0%
Schools	100.0%
Parks	100.0%
Other	100.0%

Driving	15 min	30 min	60 min	
Healthcare	89.2%	96.6%	100.0%	
Food	100.0%	100.0%	100.0%	
Jobs	99.3%	100.0%	100.0%	
Schools	99.6%	100.0%	100.0%	
Parks	100.0%	100.0%	100.0%	
Other	97.9%	100.0%	100.0%	

30 min	60 min
100.0%	100.0%
100.0%	100.0%
100.0%	100.0%
100.0%	100.0%
100.0%	100.0%
100.0%	100.0%

30 min	60 min
100.0%	100.0%
100.0%	100.0%
100.0%	100.0%
100.0%	100.0%
100.0%	100.0%
100.0%	100.0%

60 min
100.0%
100.0%
100.0%
100.0%
100.0%
100.0%

30 min	60 min
100.0%	100.0%
100.0%	100.0%
100.0%	100.0%
100.0%	100.0%
100.0%	100.0%
100.0%	100.0%

Table 15. Percentage of Population per County with Access to Daily Life Activities by Driving a Car (Cont.)

MASON COUNTY					
Driving	15 min	30 min	60 min		
Healthcare	96.2%	100.0%	100.0%		
Food	100.0%	100.0%	100.0%		
Jobs	100.0%	100.0%	100.0%		
Schools	100.0%	100.0%	100.0%		
Parks	100.0%	100.0%	100.0%		
Other	99.7%	100.0%	100.0%		

#### **KITTITAS COUNTY**

Driving	15 min	30 min	60 min
Healthcare	88.5%	99.6%	100.0%
Food	99.1%	100.0%	100.0%
Jobs	99.9%	100.0%	100.0%
Schools	98.9%	100.0%	100.0%
Parks	99.4%	100.0%	100.0%
Other	97.9%	100.0%	100.0%

# PACIFIC COUNTY

Driving	15 min	30 min	60 min
Healthcare	92.7%	100.0%	100.0%
Food	100.0%	100.0%	100.0%
Jobs	100.0%	100.0%	100.0%
Schools	100.0%	100.0%	100.0%
Parks	100.0%	100.0%	100.0%
Other	97.4%	100.0%	100.0%

# SAN JUAN COUNTY

Driving	15 min	30 min	60 min
Healthcare	99.7%	100.0%	100.0%
Food	100.0%	100.0%	100.0%
Jobs	100.0%	100.0%	100.0%
Schools	100.0%	100.0%	100.0%
Parks	100.0%	100.0%	100.0%
Other	100.0%	100.0%	100.0%

# FERRY COUNTY

Driving	15 min	30 min	60 min
Healthcare	75.9%	98.9%	100.0%
Food	91.9%	100.0%	100.0%
Jobs	98.1%	100.0%	100.0%
Schools	99.3%	100.0%	100.0%
Parks	89.0%	100.0%	100.0%
Other	86.9%	100.0%	100.0%

WALLA WALLA COUNTY				
Driving	15 min	30 min	60 min	
Healthcare	91.7%	98.1%	100.0%	
Food	97.3%	100.0%	100.0%	
Jobs	100.0%	100.0%	100.0%	
Schools	99.9%	100.0%	100.0%	
Parks	99.6%	100.0%	100.0%	
Other	98.0%	100.0%	100.0%	

# DOUGLAS COUNTY

Driving	15 min	30 min	60 min	_
Healthcare	97.1%	99.9%	100.0%	
Food	99.0%	100.0%	100.0%	
Jobs	100.0%	100.0%	100.0%	
Schools	100.0%	100.0%	100.0%	
Parks	99.9%	100.0%	100.0%	
Other	97.9%	100.0%	100.0%	

# **KLICKITAT COUNTY**

Driving	15 min	30 min	60 min
Healthcare	55.4%	84.3%	99.9%
Food	94.9%	100.0%	100.0%
Jobs	100.0%	100.0%	100.0%
Schools	99.5%	100.0%	100.0%
Parks	98.6%	100.0%	100.0%
Other	88.5%	97.3%	100.0%

#### PEND OREILLE COUNTY

Driving	15 min	30 min	60 min
Healthcare	60.7%	85.4%	100.0%
Food	100.0%	100.0%	100.0%
Jobs	100.0%	100.0%	100.0%
Schools	99.4%	100.0%	100.0%
Parks	100.0%	100.0%	100.0%
Other	99.5%	100.0%	100.0%

WAHKIAKUM COUNTY				
Driving	15 min	30 min	60 min	
Healthcare	100.0%	100.0%	100.0%	
Food	100.0%	100.0%	100.0%	
Jobs	100.0%	100.0%	100.0%	
Schools	100.0%	100.0%	100.0%	
Parks	100.0%	100.0%	100.0%	
Other	100.0%	100.0%	100.0%	

WHITMAN COUNTY				
Driving	15 min	30 min	60 min	
Healthcare	88.7%	98.8%	100.0%	
Food	99.4%	100.0%	100.0%	
Jobs	100.0%	100.0%	100.0%	
Schools	100.0%	100.0%	100.0%	
Parks	99.9%	100.0%	100.0%	
Other	99.6%	100.0%	100.0%	

# **OKANOGAN COUNTY**

Driving	15 min	30 min	60 min
Healthcare	82.7%	99.9%	100.0%
Food	92.8%	100.0%	100.0%
Jobs	100.0%	100.0%	100.0%
Schools	98.7%	100.0%	100.0%
Parks	95.4%	100.0%	100.0%
Other	92.6%	100.0%	100.0%

# ASOTIN COUNTY

Driving	15 min	30 min	60 min	
Healthcare	87.0%	94.6%	100.0%	
Food	93.2%	99.2%	100.0%	
Jobs	100.0%	100.0%	100.0%	
Schools	99.9%	100.0%	100.0%	
Parks	99.7%	100.0%	100.0%	
Other	99.5%	100.0%	100.0%	

# **SKAMANIA COUNTY**

Driving	15 min	30 min	60 min	
Healthcare	97.7%	99.7%	100.0%	
Food	99.9%	100.0%	100.0%	
Jobs	99.5%	100.0%	100.0%	
Schools	99.7%	100.0%	100.0%	
Parks	100.0%	100.0%	100.0%	
Other	99.3%	100.0%	100.0%	

#### **COLUMBIA COUNTY** Driving 15 min 30 min Healthcare 89.0% 99.0% Food 96.1% 100.0% 100.0% 100.0% Jobs Schools 98.7% 100.0% Parks 99.6% 100.0%

91.9%

Other

100.0%

#### Driving 15 min Healthcare 72.1% 99.3% Food Jobs 100.0% Schools 100.0% Parks 96.3% Other 94.2%

# JEFFERSON COUNTY

**STEVENS COUNTY** 

Driving	15 min	30 min	60 min
Healthcare	93.5%	99.2%	100.0%
Food	99.3%	100.0%	100.0%
Jobs	100.0%	100.0%	100.0%
Schools	99.6%	100.0%	100.0%
Parks	98.4%	100.0%	100.0%
Other	97.8%	100.0%	100.0%

# ADAMS COUNTY

Driving	15 min	30 min	60 min
Healthcare	91.4%	100.0%	100.0%
Food	94.9%	100.0%	100.0%
Jobs	100.0%	100.0%	100.0%
Schools	100.0%	100.0%	100.0%
Parks	99.9%	100.0%	100.0%
Other	96.2%	100.0%	100.0%

# LINCOLN COUNTY

Driving	15 min	30 min	60 min
Healthcare	66.3%	100.0%	100.0%
Food	99.8%	100.0%	100.0%
Jobs	100.0%	100.0%	100.0%
Schools	99.9%	100.0%	100.0%
Parks	99.8%	100.0%	100.0%
Other	95.3%	100.0%	100.0%

# GARFIELD COUNTY

60 min

100.0%

100.0%

100.0%

100.0%

100.0%

100.0%

Driving	15 min	30 min	60 min
Healthcare	95.1%	99.2%	100.0%
Food	86.8%	100.0%	100.0%
Jobs	100.0%	100.0%	100.0%
Schools	100.0%	100.0%	100.0%
Parks	99.2%	100.0%	100.0%
Other	97.4%	100.0%	100.0%

30 min	60 min
98.8%	100.0%
100.0%	100.0%
100.0%	100.0%
100.0%	100.0%
100.0%	100.0%
100.0%	100.0%

Table 16. Percentage of Population per County with Access to Daily Life Activities by Walking

WASHINGTON STATE			
Walking	15 min	30 min	60 min
Healthcare	54.9%	76.4%	87.9%
Food	65.4%	84.1%	94.1%
Jobs	94.2%	97.8%	99.3%
Schools	70.8%	85.7%	94.0%
Parks	78.5%	88.1%	95.0%
Other	51.9%	77.3%	91.4%

# SPOKANE COUNTY

Walking	15 min	30 min	60 min
Healthcare	57.1%	77.6%	89.5%
Food	68.8%	84.5%	93.7%
Jobs	94.8%	99.0%	99.9%
Schools	69.7%	85.6%	94.1%
Parks	76.0%	87.7%	94.5%
Other	51.3%	77.7%	90.1%

# YAKIMA COUNTY

Walking	15 min	30 min	60 min
Healthcare	41.1%	64.7%	78.4%
Food	63.1%	79.9%	90.9%
Jobs	93.4%	97.2%	99.1%
Schools	65.8%	82.8%	93.9%
Parks	66.7%	79.7%	91.2%
Other	40.3%	68.8%	83.2%

# COWLITZ COUNTY

Other

Walking	15 min	30 min	60 min
Healthcare	45.7%	67.4%	82.7%
Food	59.0%	72.7%	88.2%
Jobs	88.2%	96.5%	99.3%
Schools	61.6%	74.7%	88.5%
Parks	65.8%	79.0%	91.4%
Other	29.7%	48.8%	80.7%

LEWIS COUNTY				
Walking	15 min	30 min	60 min	
Healthcare	24.4%	38.1%	53.6%	
Food	33.2%	58.8%	84.5%	
Jobs	78.0%	93.9%	99.2%	
Schools	30.1%	51.7%	77.1%	
Parks	34.5%	57.0%	85.2%	

20.0%

44.7%

72.5%

KING COUNTY				
Walking	15 min	30 min	60 min	
Healthcare	76.1%	94.5%	99.3%	
Food	82.8%	95.5%	99.4%	
Jobs	99.5%	99.8%	99.9%	
Schools	90.4%	98.3%	99.6%	
Parks	96.3%	99.0%	99.7%	
Other	75.9%	95.5%	99.4%	

# **CLARK COUNTY**

Walking	15 min	30 min	60 min	
Healthcare	66.8%	84.5%	93.5%	
Food	68.9%	89.5%	97.8%	
Jobs	98.2%	99.6%	100.0%	
Schools	77.5%	91.8%	98.8%	
Parks	88.1%	94.9%	99.2%	
Other	59.6%	83.6%	95.3%	

# WHATCOM COUNTY

Walking	15 min	30 min	60 min
Healthcare	36.6%	58.8%	78.8%
Food	51.4%	73.3%	91.6%
Jobs	93.0%	98.3%	99.6%
Schools	52.4%	72.7%	90.6%
Parks	57.4%	72.9%	91.3%
Other	36.9%	63.3%	85.2%

#### **GRANT COUNTY**

Walking	15 min	30 min	60 min
Healthcare	24.5%	44.5%	61.6%
Food	35.3%	55.5%	69.6%
Jobs	74.7%	91.3%	98.4%
Schools	42.6%	57.8%	72.1%
Parks	45.4%	59.5%	75.7%
Other	21.5%	40.6%	60.8%

CHELAN COUNTY				
Walking	15 min	30 min	60 min	
Healthcare	38.9%	49.6%	59.4%	
Food	52.7%	64.5%	79.9%	
Jobs	76.5%	88.8%	96.9%	
Schools	49.6%	61.5%	79.8%	
Parks	50.6%	62.7%	80.1%	
Other	38.4%	58.3%	75.7%	

PIERCE COUNTY					
Walking	15 min	30 min	60 min		
Healthcare	50.2%	81.1%	94.0%		
Food	66.6%	89.8%	98.1%		
Jobs	96.7%	98.3%	98.5%		
Schools	74.9%	92.7%	98.5%		
Parks	84.5%	94.5%	98.3%		
Other	49.6%	82.6%	97.0%		

# THURSTON COUNTY

Walking	15 min	30 min	60 min	
Healthcare	35.2%	63.1%	82.3%	
Food	56.3%	83.9%	97.3%	
Jobs	96.0%	99.1%	99.9%	
Schools	53.0%	77.5%	93.4%	
Parks	71.6%	86.7%	97.1%	
Other	29.7%	58.2%	87.1%	

# **BENTON COUNTY**

Walking	15 min	30 min	60 min	
Healthcare	50.1%	76.7%	90.6%	
Food	60.3%	82.8%	94.0%	
Jobs	95.5%	98.7%	99.9%	
Schools	67.1%	85.9%	95.5%	
Parks	80.5%	88.8%	96.2%	
Other	28.7%	70.8%	91.9%	

# FRANKLIN COUNTY

Walking	15 min	30 min	60 min		
Healthcare	51.6%	80.4%	87.2%		
Food	66.9%	85.5%	92.1%		
Jobs	92.9%	98.1%	99.8%		
Schools	64.9%	86.1%	90.5%		
Parks	83.1%	87.4%	93.7%		
Other	41.8%	78.6%	90.7%		

#### CLALLAM COUNTY Walking 15 min 30 min 31.3% Healthcare Food

Healthcare	31.3%	52.7%	73.5%
Food	44.0%	69.5%	90.6%
Jobs	87.2%	96.1%	99.1%
Schools	37.3%	64.2%	86.1%
Parks	38.7%	56.4%	80.4%
Other	33.9%	53.9%	80.8%

#### SNOHOMISH COUNTY 15 min Walking Healthcare 58.6% 69.7% Food Jobs 98.5% Schools 78.5% Parks 86.6% 47.4% Other

# KITSAP COUNTY

Walking	15 min	30 min	60 min
Healthcare	35.2%	63.1%	82.3%
Food	56.3%	83.9%	97.3%
Jobs	96.0%	99.1%	99.9%
Schools	53.0%	77.5%	93.4%
Parks	71.6%	86.7%	97.1%
Other	29.7%	58.2%	87.1%

# SKAGIT COUNTY

Walking	15 min	30 min	60 min
Healthcare	39.0%	59.3%	76.8%
Food	52.0%	78.0%	91.5%
Jobs	91.0%	97.0%	99.1%
Schools	50.8%	75.3%	90.5%
Parks	61.0%	81.1%	94.0%
Other	46.1%	71.0%	89.5%

# ISLAND COUNTY

60 min

Walking	15 min	30 min	60 min
Healthcare	17.3%	35.9%	72.4%
Food	24.3%	50.9%	86.8%
Jobs	95.0%	100.0%	100.0%
Schools	24.4%	43.9%	79.1%
Parks	45.7%	74.6%	97.4%
Other	21.0%	40.4%	74.3%

Walking	15 min	30 min	60 min
Healthcare	28.2%	38.8%	51.1%
Food	41.5%	59.2%	81.3%
Jobs	72.5%	88.5%	96.5%
Schools	41.6%	59.6%	79.5%
Parks	50.7%	67.6%	83.2%
Other	34.7%	58.0%	78.7%

30 min	60 min
82.9%	93.8%
90.3%	97.6%
99.4%	99.7%
91.0%	96.8%
94.4%	99.2%
78.3%	96.1%

Table 17. Percentage of Population per County with Access to Daily Life Activities by Walking (Cont.)

MASON COUNTY				
Walking	15 min	30 min	60 min	
Healthcare	11.3%	24.7%	42.5%	
Food	21.0%	43.9%	80.7%	
Jobs	81.9%	97.9%	100.0%	
Schools	22.5%	39.8%	74.2%	
Parks	26.7%	46.4%	76.0%	
Other	14.0%	35.2%	62.1%	

#### **KITTITAS COUNTY**

Walking	15 min	30 min	60 min
Healthcare	28.6%	51.7%	63.0%
Food	45.3%	60.3%	74.6%
Jobs	76.2%	86.3%	94.2%
Schools	33.2%	61.7%	74.6%
Parks	48.1%	62.1%	75.5%
Other	34.7%	55.2%	71.7%

# PACIFIC COUNTY

Walking	15 min	30 min	60 min
Healthcare	13.3%	28.6%	47.0%
Food	25.0%	42.9%	63.1%
Jobs	57.7%	79.1%	95.7%
Schools	24.3%	45.1%	63.4%
Parks	24.2%	45.9%	75.0%
Other	18.4%	35.3%	63.6%

# SAN JUAN COUNTY

Walking	15 min	30 min	60 min
Healthcare	11.2%	24.8%	46.1%
Food	14.9%	37.1%	74.9%
Jobs	72.6%	94.3%	98.7%
Schools	9.0%	25.8%	55.6%
Parks	22.7%	56.7%	91.6%
Other	20.1%	48.1%	74.2%

FERRY COUNTY				
Walking	15 min	30 min	60 min	
Healthcare	1.4%	4.6%	15.4%	
Food	1.7%	6.1%	18.9%	
Jobs	20.4%	51.0%	86.5%	
Schools	2.2%	7.8%	23.3%	
Parks	2.9%	10.8%	36.0%	
Other	1.5%	5.2%	17.1%	

WALLA WALLA COUNTY				
Walking	15 min	30 min	60 min	
Healthcare	47.2%	66.8%	78.9%	
Food	42.4%	71.3%	84.7%	
Jobs	88.8%	96.5%	99.1%	
Schools	61.3%	78.6%	89.2%	
Parks	61.4%	77.0%	90.7%	
Other	42.1%	65.9%	82.2%	

# DOUGLAS COUNTY

Walking	15 min	30 min	60 min
Healthcare	37.6%	66.6%	78.6%
Food	49.9%	72.6%	84.1%
Jobs	86.0%	92.5%	97.6%
Schools	62.4%	78.3%	85.9%
Parks	69.2%	80.8%	90.2%
Other	30.0%	65.7%	85.8%

# **KLICKITAT COUNTY**

Walking	15 min	30 min	60 min
Healthcare	12.6%	24.6%	37.8%
Food	19.2%	34.2%	51.7%
Jobs	51.9%	76.8%	95.4%
Schools	14.4%	34.5%	55.4%
Parks	25.0%	35.0%	50.0%
Other	16.2%	33.0%	48.9%

#### PEND OREILLE COUNTY

Walking	15 min	30 min	60 min
Healthcare	7.9%	10.6%	16.5%
Food	11.9%	20.6%	42.2%
Jobs	39.1%	73.0%	92.6%
Schools	10.1%	16.0%	28.2%
Parks	11.5%	19.4%	38.9%
Other	9.2%	14.8%	28.4%

WAHKIAKUN	1 COUNTY	

Walking	15 min	30 min	60 min
Healthcare	8.9%	26.2%	48.4%
Food	9.6%	29.7%	59.3%
Jobs	58.0%	92.8%	100.0%
Schools	9.3%	30.3%	66.4%
Parks	8.2%	30.4%	63.5%
Other	10.5%	31.2%	58.7%

WHITMAN C	OUNTY			STEVENS CO	UNTY
Walking	15 min	30 min	60 min	Walking	15 m
Healthcare	43.0%	55.3%	68.0%	Healthcare	14.0
Food	48.6%	59.6%	72.2%	Food	18.6
Jobs	72.9%	89.2%	98.9%	Jobs	51.5
Schools	37.4%	60.7%	75.4%	Schools	23.1
Parks	53.7%	65.5%	81.0%	Parks	18.0
Other	47.1%	59.7%	77.2%	Other	17.5

# **OKANOGAN COUNTY**

Walking	15 min	30 min	60 min
Healthcare	10.5%	22.6%	36.7%
Food	16.1%	27.3%	47.4%
Jobs	51.1%	71.6%	91.6%
Schools	17.2%	32.7%	56.6%
Parks	21.6%	36.3%	52.2%
Other	14.1%	28.4%	49.8%

# ASOTIN COUNTY

Walking	15 min	30 min	60 min
Healthcare	39.1%	59.9%	74.4%
Food	21.4%	49.5%	83.3%
Jobs	79.8%	88.1%	95.6%
Schools	59.9%	76.6%	85.9%
Parks	64.4%	77.3%	85.3%
Other	53.4%	74.4%	84.8%

# **SKAMANIA COUNTY**

Walking	15 min	30 min	60 min
Healthcare	3.7%	11.4%	32.2%
Food	12.2%	31.3%	57.3%
Jobs	57.9%	87.0%	97.6%
Schools	12.6%	39.0%	79.9%
Parks	15.2%	39.7%	76.5%
Other	11.5%	29.0%	49.1%

COLUMBIA COUNTY			
Walking	15 min	30 min	60 min
Healthcare	10.6%	31.7%	67.5%
Food	10.4%	32.5%	72.9%
Jobs	45.2%	81.8%	94.1%
Schools	9.4%	35.4%	77.2%
Parks	9.4%	30.7%	70.4%
Other	7.8%	28.3%	67.5%

# 17.5% her

JEFFERSON COUNTY			
Walking	15 min	30 min	60 min
Healthcare	20.1%	34.0%	56.0%
Food	26.1%	50.2%	85.1%
Jobs	76.1%	94.9%	98.7%
Schools	25.3%	48.8%	76.3%
Parks	39.7%	58.3%	78.7%
Other	21.3%	45.6%	77.0%

15 min

14.0%

18.6%

51.5% 23.1%

18.0%

# ADAMS COUNTY

15 min	30 min	60 min
18.7%	39.6%	68.5%
47.0%	63.9%	74.8%
75.3%	87.8%	97.4%
41.1%	58.8%	76.9%
29.7%	57.7%	76.6%
24.0%	46.5%	73.9%
	18.7% 47.0% 75.3% 41.1% 29.7%	18.7%         39.6%           47.0%         63.9%           75.3%         87.8%           41.1%         58.8%           29.7%         57.7%

#### LINCOLN COUNTY Walking 15 min Healthcare 16.9% Food 20.7% Jobs 39.6% Schools 19.4% Parks 22.4%

20.0%

# GARFIELD COUNTY

Other

Walking	15 min	30 min	60 min
Healthcare	7.2%	23.8%	53.1%
Food	0.0%	0.3%	1.1%
Jobs	29.9%	56.1%	84.8%
Schools	10.6%	29.9%	58.4%
Parks	6.5%	23.7%	58.4%
Other	1.1%	5.4%	35.7%
Jobs Schools Parks	29.9% 10.6% 6.5%	56.1% 29.9% 23.7%	84.8% 58.4% 58.4%

30 min	60 min
21.3%	26.5%
32.9%	47.3%
78.0%	95.3%
39.3%	64.0%
26.2%	42.8%
31.9%	48.7%

30 min	60 min
26.0%	32.4%
32.3%	48.4%
65.7%	92.7%
32.9%	46.9%
35.6%	49.0%
32.7%	45.8%

Table 18. Percentage of Population per County with Access to Daily Life Activities by Riding a Bike

WASHINGTON STATE				
Biking	15 min	30 min	60 min	
Healthcare	86.0%	94.1%	98.6%	
Food	92.6%	97.7%	99.7%	
Jobs	99.1%	99.7%	99.8%	
Schools	92.6%	98.0%	99.8%	
Parks	93.8%	98.3%	99.8%	
Other	89.3%	97.2%	99.7%	

<b>SPOKA</b>	NE	CO	UNTY
0.0.0			

Biking	15 min	30 min	60 min
Healthcare	87.5%	96.3%	99.7%
Food	92.2%	98.5%	100.0%
Jobs	99.8%	100.0%	100.0%
Schools	92.6%	98.3%	99.9%
Parks	93.1%	98.5%	100.0%
Other	87.9%	97.0%	100.0%

YAKIMA	COUNTY

Biking	15 min	30 min	60 min
Healthcare	75.3%	91.8%	98.1%
Food	89.2%	96.3%	99.5%
Jobs	98.7%	99.8%	100.0%
Schools	92.5%	97.7%	99.4%
Parks	89.0%	96.6%	99.4%
Other	79.9%	95.0%	99.2%

# COWLITZ COUNTY

Biking	15 min	30 min	60 min
Healthcare	79.1%	92.0%	98.3%
Food	85.3%	95.6%	99.5%
Jobs	99.1%	99.8%	99.9%
Schools	85.5%	96.1%	99.7%
Parks	88.8%	98.6%	99.9%
Other	72.8%	96.9%	99.4%

LEWIS COUNTY			
Biking	15 min	30 min	60 min
Healthcare	50.0%	71.7%	95.1%
Food	80.3%	96.6%	100.0%
Jobs	98.7%	100.0%	100.0%
Schools	72.1%	93.4%	100.0%
Parks	80.9%	96.8%	100.0%
Other	66.8%	91.9%	100.0%

KING COUNTY				
Biking	15 min	30 min	60 min	
Healthcare	99.0%	99.8%	99.9%	
Food	99.1%	99.8%	100.0%	
Jobs	99.9%	100.0%	100.0%	
Schools	99.4%	99.8%	100.0%	
Parks	99.7%	99.9%	100.0%	
Other	99.1%	99.9%	100.0%	

CLARK COUNTY				
Biking	15 min	30 min	60 min	
Healthcare	91.7%	97.1%	99.6%	
Food	97.1%	99.6%	100.0%	
Jobs	99.9%	100.0%	100.0%	
Schools	98.0%	99.8%	100.0%	
Parks	98.6%	99.9%	100.0%	
Other	93.5%	99.2%	100.0%	

# WHATCOM COUNTY

Biking	15 min	30 min	60 min
Healthcare	74.4%	93.2%	98.8%
Food	88.4%	98.7%	100.0%
Jobs	99.5%	99.9%	100.0%
Schools	87.0%	99.1%	100.0%
Parks	87.1%	99.2%	100.0%
Other	80.5%	99.1%	100.0%

#### **GRANT COUNTY**

Biking	15 min	30 min	60 min
Healthcare	57.7%	74.3%	95.9%
Food	66.3%	84.4%	99.7%
Jobs	97.6%	100.0%	100.0%
Schools	68.9%	84.8%	99.5%
Parks	71.5%	91.5%	100.0%
Other	56.0%	76.3%	98.5%

CHELAN COUNTY			
Biking	15 min	30 min	60 min
Healthcare	56.6%	72.3%	96.3%
Food	76.0%	93.8%	99.7%
Jobs	95.7%	99.4%	99.9%
Schools	75.3%	92.7%	99.2%
Parks	76.2%	93.0%	99.5%
Other	71.7%	88.5%	98.6%

PIERCE COUNTY			
Biking	15 min	30 min	60 min
Healthcare	93.6%	98.0%	99.8%
Food	97.7%	99.5%	100.0%
Jobs	98.5%	98.5%	98.6%
Schools	98.1%	99.7%	100.0%
Parks	97.7%	99.8%	100.0%
Other	96.8%	99.7%	100.0%

# THURSTON COUNTY

Biking	15 min	30 min	60 min
Healthcare	79.4%	94.0%	100.0%
Food	95.7%	99.9%	100.0%
Jobs	99.8%	100.0%	100.0%
Schools	90.2%	99.6%	100.0%
Parks	95.6%	99.9%	100.0%
Other	82.9%	97.8%	100.0%

# BENTON COUNTY

Biking	15 min	30 min	60 min
Healthcare	88.2%	97.3%	99.6%
Food	92.0%	97.9%	99.6%
Jobs	99.6%	100.0%	100.0%
Schools	93.8%	99.1%	99.9%
Parks	94.9%	99.0%	100.0%
Other	89.0%	97.9%	99.6%

# FRANKLIN COUNTY

Biking	15 min	30 min	60 min
Healthcare	86.3%	89.4%	95.5%
Food	90.6%	96.5%	99.4%
Jobs	99.8%	100.0%	100.0%
Schools	89.5%	95.2%	100.0%
Parks	92.0%	98.4%	100.0%
Other	89.2%	95.9%	99.7%

# CLALLAM COUNTYBiking15 min30 minHealthcare68.8%90.7%

Healthcare	68.8%	90.7%	97.2%
Food	86.1%	98.4%	99.9%
Jobs	98.9%	99.6%	100.0%
Schools	83.0%	96.5%	100.0%
Parks	76.8%	93.9%	99.7%
Other	75.6%	95.8%	99.8%

60 min

# KITSAP COUNTY

*Biking* Healthcare

Food Jobs

Schools

Parks

Other

15 min
79.4%
95.7%
99.8%
90.2%
95.6%
82.9%

SNOHOMISH COUNTY

15 min

92.1% 96.4%

99.6%

95.9%

98.9%

93.7%

# SKAGIT COUNTY

Biking	15 min
Healthcare	72.8%
Food	89.0%
Jobs	98.9%
Schools	88.0%
Parks	91.6%
Other	85.9%

# ISLAND COUNTY

Biking	15 min	
Healthcare	64.7%	
Food	79.1%	
Jobs	100.0%	
Schools	71.7%	
Parks	95.0%	
Other	66.3%	

min
.8%
.4%
).0%
1%
.8%
.7%

30 min	60 min
98.6%	99.7%
99.4%	99.9%
99.8%	100.0%
99.3%	99.8%
99.6%	99.9%
99.0%	99.8%

30 min	60 min
94.0%	100.0%
99.9%	100.0%
100.0%	100.0%
99.6%	100.0%
99.9%	100.0%
97.8%	100.0%

30 min	60 min
88.5%	99.2%
96.7%	99.9%
99.7%	99.9%
96.1%	99.2%
98.5%	99.9%
97.9%	99.9%

30 min	60 min
96.6%	100.0%
100.0%	100.0%
100.0%	100.0%
94.7%	100.0%
100.0%	100.0%
97.9%	100.0%

Table 19. Percentage of Population per County with Access to Daily Life Activities by Riding a Bike (Cont.)

MASON COUNTY			
Biking	15 min	30 min	60 min
Healthcare	37.7%	66.9%	98.9%
Food	72.3%	97.9%	100.0%
Jobs	99.9%	100.0%	100.0%
Schools	66.1%	97.0%	99.9%
Parks	68.9%	97.5%	100.0%
Other	55.1%	92.1%	99.3%

# **KITTITAS COUNTY**

Biking	15 min	30 min	60 min
Healthcare	60.7%	73.3%	90.9%
Food	71.7%	86.0%	99.4%
Jobs	92.4%	98.8%	100.0%
Schools	71.9%	85.2%	97.6%
Parks	72.9%	86.9%	99.1%
Other	67.6%	85.7%	98.5%

# **PACIFIC COUNTY**

Biking	15 min	30 min	60 min
Healthcare	41.0%	76.6%	97.0%
Food	58.1%	85.0%	99.1%
Jobs	93.6%	98.4%	100.0%
Schools	58.7%	83.3%	100.0%
Parks	69.4%	89.4%	99.2%
Other	56.5%	85.9%	98.9%

# SAN JUAN COUNTY

Biking	15 min	30 min	60 min
Healthcare	40.3%	81.8%	98.7%
Food	65.7%	98.6%	100.0%
Jobs	98.0%	100.0%	100.0%
Schools	47.5%	88.0%	100.0%
Parks	85.7%	99.9%	100.0%
Other	68.5%	96.6%	100.0%

FERRY	COUNTY	1

Biking	15 min	30 min	60 min
Healthcare	11.8%	38.3%	73.5%
Food	14.6%	43.2%	85.2%
Jobs	80.0%	95.6%	99.7%
Schools	18.3%	54.3%	98.0%
Parks	28.1%	64.8%	85.2%
Other	13.1%	42.3%	83.8%

WALLA WALLA COUNTY				
Biking	15 min	30 min	60 min	
Healthcare	77.2%	85.7%	94.2%	
Food	82.0%	92.5%	97.7%	
Jobs	98.5%	99.9%	100.0%	
Schools	86.7%	95.0%	99.6%	
Parks	87.5%	96.6%	99.4%	
Other	79.0%	93.3%	98.7%	

# DOUGLAS COUNTY

Biking	15 min	30 min	60 min
Healthcare	76.8%	87.3%	96.9%
Food	81.8%	90.9%	98.3%
Jobs	96.9%	99.6%	100.0%
Schools	84.6%	92.1%	99.9%
Parks	88.8%	95.5%	99.5%
Other	83.0%	91.3%	97.4%

# **KLICKITAT COUNTY**

Biking	15 min	30 min	60 min
Healthcare	36.0%	48.2%	70.9%
Food	47.4%	71.8%	94.0%
Jobs	93.0%	99.6%	100.0%
Schools	50.7%	77.0%	99.2%
Parks	46.1%	68.5%	95.9%
Other	45.4%	67.6%	91.2%

#### PEND OREILLE COUNTY

Biking	15 min	30 min	60 min
Healthcare	14.4%	27.4%	67.0%
Food	35.2%	74.6%	98.9%
Jobs	91.1%	98.8%	100.0%
Schools	24.3%	48.1%	96.4%
Parks	32.8%	72.6%	99.3%
Other	24.1%	53.6%	97.4%

# WAHKIAKUM COUNTY

Biking	15 min	30 min	60 min
Healthcare	43.7%	68.0%	98.9%
Food	52.7%	76.7%	100.0%
Jobs	100.0%	100.0%	100.0%
Schools	58.5%	88.2%	100.0%
Parks	58.0%	82.5%	100.0%
Other	53.1%	80.0%	100.0%

WHITMAN COUNTY				STEVENS CO	UNTY
Biking	15 min	30 min	60 min	Biking	15 m
Healthcare	65.0%	78.4%	90.1%	Healthcare	24.9
Food	69.7%	86.7%	98.8%	Food	42.9
Jobs	98.2%	99.9%	100.0%	Jobs	92.7
Schools	70.9%	92.2%	99.8%	Schools	57.2
Parks	77.0%	94.2%	99.7%	Parks	37.1
Other	73.6%	93.2%	99.2%	Other	44.3

# **OKANOGAN COUNTY**

Biking	15 min	30 min	60 min	
Healthcare	32.7%	50.2%	78.3%	
Food	42.9%	67.2%	91.7%	
Jobs	88.5%	98.6%	100.0%	
Schools	51.2%	76.2%	96.6%	
Parks	48.8%	67.5%	93.6%	
Other	45.5%	66.1%	92.4%	

# ASOTIN COUNTY

Biking	15 min	30 min	60 min	
Healthcare	72.5%	84.6%	89.4%	
Food	79.7%	88.7%	94.1%	
Jobs	94.3%	98.6%	100.0%	
Schools	83.8%	91.5%	99.7%	
Parks	83.3%	90.0%	98.4%	
Other	82.1%	90.8%	99.2%	

# **SKAMANIA COUNTY**

Biking	15 min	30 min	60 min	
Healthcare	26.5%	51.9%	99.2%	
Food	53.0%	77.3%	99.8%	
Jobs	96.2%	99.4%	99.9%	
Schools	72.7%	94.8%	99.5%	
Parks	69.4%	90.2%	100.0%	
Other	45.3%	65.7%	99.2%	

#### COLUMBIA COUNTY Biking 15 min 30 min Healthcare 59.1% 81.4% Food 63.4% 86.1% 92.2% 98.6% Jobs Schools 67.6% 86.6% Parks 60.2% 87.4%

57.6%

83.2%

# JEFFERSON COUNTY

Biking	15 min	30 min	60 min
Healthcare	49.9%	80.7%	94.5%
Food	78.2%	97.2%	99.4%
Jobs	98.3%	99.7%	100.0%
Schools	69.9%	97.4%	99.3%
Parks	73.4%	96.4%	98.9%
Other	71.4%	93.9%	97.8%

15 min

24.9%

42.9%

92.7%

57.2%

37.1%

44.3%

# ADAMS COUNTY

15 min	30 min	60 min
62.4%	80.2%	93.0%
73.3%	82.0%	93.7%
95.6%	99.8%	100.0%
74.2%	86.8%	99.9%
74.6%	88.3%	99.5%
68.6%	82.7%	97.3%
	62.4% 73.3% 95.6% 74.2% 74.6%	62.4%80.2%73.3%82.0%95.6%99.8%74.2%86.8%74.6%88.3%

# LINCOLN COUNTY

Biking	15 min	30 min	60 min
Healthcare	31.2%	40.7%	61.4%
Food	44.9%	68.3%	98.7%
Jobs	88.0%	99.8%	100.0%
Schools	43.9%	66.9%	99.3%
Parks	46.0%	69.0%	98.1%
Other	43.4%	60.6%	91.1%

# GARFIELD COUNTY

60 min

95.3%

96.7%

100.0%

98.0% 98.9%

96.1%

Biking	15 min	30 min	60 min
Healthcare	48.0%	67.8%	88.2%
Food	0.8%	4.6%	73.2%
Jobs	79.1%	97.7%	100.0%
Schools	53.4%	78.3%	99.4%
Parks	50.4%	80.8%	98.8%
Other	24.8%	70.0%	94.0%

Other

30 min	60 min
37.3%	73.5%
68.7%	98.5%
99.3%	100.0%
86.1%	100.0%
69.0%	95.1%
66.3%	93.6%

Table 20. Percentage of Population per County with Access to Daily Life Activities by Riding Transit

WASHINGTON STATE			
Transit	15 min	30 min	60 min
Healthcare	53.9%	67.1%	75.0%
Food	55.5%	68.0%	75.4%
Jobs	56.3%	68.2%	75.5%
Schools	54.2%	67.5%	75.2%
Parks	55.4%	67.9%	75.3%
Other	53.4%	67.6%	75.2%

KING COUNTY			
Transit	15 min	30 min	60 min
Healthcare	73.5%	84.4%	90.2%
Food	73.8%	84.4%	90.2%
Jobs	74.0%	84.4%	90.2%
Schools	73.5%	84.4%	90.1%
Parks	73.9%	84.4%	90.2%
Other	73.4%	84.4%	90.2%

CDOVANE	COLINITY
SPOKANE	

Transit	15 min	30 min	60 min
Healthcare	55.7%	67.1%	74.3%
Food	56.8%	67.7%	74.4%
Jobs	57.2%	67.7%	74.4%
Schools	56.0%	67.4%	74.4%
Parks	56.5%	67.5%	74.4%
Other	53.5%	67.2%	74.4%

#### YAKIMA COUNTY

Transit	15 min	30 min	60 min
Healthcare	47.2%	61.2%	70.5%
Food	52.2%	62.8%	70.6%
Jobs	52.2%	62.8%	70.6%
Schools	49.6%	61.2%	70.5%
Parks	51.2%	62.5%	70.6%
Other	48.3%	60.3%	69.0%

# COWLITZ COUNTY

Other

Transit	15 min	30 min	60 min
Healthcare	47.8%	58.0%	64.7%
Food	49.1%	59.0%	66.0%
Jobs	49.1%	59.0%	66.0%
Schools	45.4%	56.2%	64.8%
Parks	48.4%	58.0%	64.8%
Other	44.7%	58.0%	64.7%

LEWIS COUNTY					
Transit	15 min	30 min	60 min		
Healthcare	25.8%	35.5%	44.8%		
Food	29.4%	38.7%	45.4%		
Jobs	29.6%	38.7%	45.4%		
Schools	26.5%	36.5%	45.0%		
Parks	27.4%	36.8%	45.0%		

26.3%

36.4%

45.0%

CLARK COUNTY						
Transit	15 min	30 min	60 min			
Healthcare	48.5%	67.0%	76.2%			
Food	48.2%	67.0%	76.2%			
Jobs	49.3%	67.0%	76.2%			
Schools	44.8%	65.2%	75.3%			

49.0%

49.0%

# WHATCOM COUNTY

Parks

Other

Transit	15 min	30 min	60 min
Healthcare	46.8%	62.5%	72.2%
Food	49.0%	63.2%	71.4%
Jobs	51.6%	64.7%	72.3%
Schools	48.7%	64.6%	72.3%
Parks	47.4%	63.4%	71.3%
Other	45.7%	62.9%	72.3%

67.0%

66.9%

76.2%

76.2%

#### **GRANT COUNTY**

Parks

Other

Transit	15 min	30 min	60 min
Healthcare	28.9%	40.3%	49.3%
Food	32.5%	42.7%	50.1%
Jobs	33.4%	42.8%	50.1%
Schools	32.6%	42.6%	50.1%
Parks	33.0%	42.7%	50.1%
Other	30.9%	40.6%	49.6%

56.2%

54.6%

61.0%

61.0%

CHELAN COUNTY						
Transit	15 min	30 min	60 min			
Healthcare	42.0%	54.5%	60.8%			
Food	47.0%	55.8%	61.0%			
Jobs	48.7%	56.6%	61.0%			
Schools	45.8%	55.8%	61.0%			

47.0%

45.4%

PIERCE COUN	ITY	SNOHOMISH COUNTY			
Transit	15 min	30 min	60 min	Transit	15 min
Healthcare	42.9%	56.1%	64.3%	Healthcare	57.3%
Food	44.0%	56.2%	64.3%	Food	57.9%
Jobs	44.3%	56.2%	64.3%	Jobs	58.7%
Schools	43.3%	56.2%	64.3%	Schools	55.6%
Parks	43.8%	56.2%	64.3%	Parks	58.3%
Other	42.3%	56.1%	64.3%	Other	55.5%

# THURSTON COUNTY

Transit	15 min	30 min	60 min
Healthcare	46.6%	60.9%	69.3%
Food	50.1%	62.7%	70.7%
Jobs	50.8%	62.7%	70.7%
Schools	46.5%	62.1%	70.3%
Parks	50.2%	62.7%	70.7%
Other	43.3%	61.6%	69.5%

# **BENTON COUNTY**

	-		
Transit	15 min	30 min	60 min
Healthcare	56.4%	69.6%	75.6%
Food	58.8%	69.9%	75.6%
Jobs	59.3%	69.9%	75.6%
Schools	57.6%	69.9%	75.6%
Parks	58.9%	69.9%	75.6%
Other	48.1%	69.7%	75.5%

# FRANKLIN COUNTY

Transit	15 min	30 min	60 min
Healthcare	52.4%	67.3%	75.1%
Food	60.6%	75.1%	81.5%
Jobs	62.0%	75.1%	81.5%
Schools	61.2%	74.8%	81.5%
Parks	61.6%	75.1%	81.5%
Other	52.8%	73.4%	81.2%

#### **CLALLAM COUNTY** Transit 15 min

Transit	15 min	30 min	60 min
Healthcare	38.6%	54.3%	69.6%
Food	47.6%	64.1%	75.6%
Jobs	51.2%	66.3%	76.6%
Schools	45.4%	63.3%	74.7%
Parks	42.0%	56.2%	67.3%
Other	40.4%	56.4%	67.2%

# KITSAP COUNTY

Transit	15 min	30 min	60 min
Healthcare	46.6%	60.9%	69.3%
Food	50.1%	62.7%	70.7%
Jobs	50.8%	62.7%	70.7%
Schools	46.5%	62.1%	70.3%
Parks	50.2%	62.7%	70.7%
Other	43.3%	61.6%	69.5%

# SKAGIT COUNTY

Transit	15 min	30 min	60 min
Healthcare	39.9%	56.4%	66.9%
Food	43.7%	58.8%	68.5%
Jobs	45.0%	58.9%	68.5%
Schools	42.0%	58.2%	68.5%
Parks	44.1%	58.9%	68.5%
Other	42.8%	58.3%	68.5%

# ISLAND COUNTY T H

Transit	15 min	30 min	60 min
Healthcare	28.5%	49.8%	68.2%
Food	30.3%	52.4%	67.1%
Jobs	40.6%	57.9%	70.7%
Schools	28.4%	50.2%	67.2%
Parks	37.6%	57.5%	70.7%
Other	30.0%	54.7%	70.7%

Transit	15 min	30 min	60 min
Healthcare	33.8%	50.9%	63.7%
Food	40.4%	54.5%	64.2%
Jobs	41.0%	54.5%	64.2%
Schools	40.0%	54.3%	64.2%
Parks	40.4%	54.5%	64.2%
Other	40.4%	54.5%	64.2%

30 min	60 min
73.2%	81.5%
73.2%	81.5%
73.3%	81.6%
73.2%	81.6%
73.3%	81.6%
73.2%	81.5%

Table 21. Percentage of Population per County with Access to Daily Life Activities by Riding Transit (Cont.)

MASON COUNTY				
Transit	15 min	30 min	60 min	
Healthcare	18.4%	30.8%	39.9%	
Food	21.6%	31.5%	39.9%	
Jobs	21.8%	31.5%	39.9%	
Schools	19.1%	31.4%	39.9%	
Parks	20.3%	31.2%	39.9%	
Other	20.6%	31.4%	39.9%	

WALLA WALLA COUNTY				
Transit	15 min	30 min	60 min	
Healthcare	49.5%	59.2%	62.3%	
Food	52.0%	64.1%	67.4%	
Jobs	56.3%	64.1%	67.4%	
Schools	56.1%	64.1%	67.4%	
Parks	48.8%	61.1%	66.7%	
Other	52.2%	64.1%	67.4%	

# **KITTITAS COUNTY**

Transit	15 min	30 min	60 min
Healthcare	40.4%	51.8%	58.5%
Food	42.6%	52.6%	58.6%
Jobs	42.8%	52.5%	58.6%
Schools	27.5%	40.3%	48.6%
Parks	41.2%	51.8%	58.6%
Other	38.9%	49.5%	55.3%

# PACIFIC COUNTY

Transit	15 min	30 min	60 min
Healthcare	15.6%	31.9%	42.2%
Food	19.7%	34.2%	44.1%
Jobs	21.0%	36.3%	46.2%
Schools	19.3%	34.1%	45.3%
Parks	20.4%	36.4%	46.2%
Other	17.7%	33.1%	43.1%

# SAN JUAN COUNTY

Transit	15 min	30 min	60 min
Healthcare	0.0%	0.0%	0.0%
Food	0.0%	0.0%	0.0%
Jobs	0.0%	0.0%	0.0%
Schools	0.0%	0.0%	0.0%
Parks	0.0%	0.0%	0.0%
Other	0.0%	0.0%	0.0%

FERRY COUNTY				
Transit	15 min	30 min	60 min	
Healthcare	0.0%	0.0%	0.0%	
Food	0.0%	0.0%	0.0%	
Jobs	0.0%	0.0%	0.0%	
Schools	0.0%	0.0%	0.0%	
Parks	0.0%	0.0%	0.0%	
Other	0.0%	0.0%	0.0%	

# DOUGLAS COUNTY

Transit	15 min	30 min	60 min	
Healthcare	47.7%	61.3%	68.6%	
Food	48.8%	62.2%	69.2%	
Jobs	50.3%	62.7%	69.2%	
Schools	46.7%	61.2%	69.0%	
Parks	48.6%	62.7%	69.2%	
Other	41.9%	62.3%	69.2%	

# **KLICKITAT COUNTY**

Transit	15 min	30 min	60 min
Healthcare	12.3%	18.5%	27.1%
Food	15.8%	23.2%	28.3%
Jobs	15.8%	23.2%	28.3%
Schools	6.3%	10.5%	25.3%
Parks	14.9%	21.8%	27.1%
Other	10.5%	19.0%	28.3%

# PEND OREILLE COUNTY

Transit	15 min	30 min	60 min
Healthcare	10.2%	21.0%	30.8%
Food	14.0%	26.2%	34.6%
Jobs	16.2%	26.6%	34.6%
Schools	11.1%	23.8%	33.8%
Parks	11.2%	24.3%	34.6%
Other	11.3%	24.5%	34.6%

# WAHKIAKUM COUNTY

Transit	15 min	30 min	60 min
Healthcare	18.8%	35.8%	52.8%
Food	16.9%	37.5%	53.0%
Jobs	22.2%	39.9%	53.0%
Schools	18.1%	39.8%	53.0%
Parks	16.5%	39.9%	53.0%
Other	17.9%	37.5%	53.0%

WHITMAN COUNTY				STEVENS CO	UNTY
Transit	15 min	30 min	60 min	Transit	15 min
Healthcare	45.8%	51.5%	54.7%	Healthcare	9.1%
Food	45.9%	51.5%	54.7%	Food	11.3%
Jobs	45.9%	51.5%	54.7%	Jobs	12.0%
Schools	45.7%	51.5%	54.7%	Schools	10.7%
Parks	45.9%	51.5%	54.7%	Parks	9.8%
Other	45.9%	51.5%	54.7%	Other	10.7%

# **OKANOGAN COUNTY**

Transit	15 min	30 min	60 min
Healthcare	15.0%	23.0%	33.8%
Food	17.3%	26.2%	34.2%
Jobs	19.4%	27.6%	34.3%
Schools	18.0%	26.0%	33.8%
Parks	17.0%	26.5%	33.9%
Other	15.5%	27.4%	34.3%

# ASOTIN COUNTY

Transit	15 min	30 min	60 min
Healthcare	59.3%	70.8%	73.5%
Food	49.4%	70.3%	73.5%
Jobs	65.3%	70.8%	73.5%
Schools	64.4%	70.8%	73.5%
Parks	64.1%	70.8%	73.5%
Other	63.6%	70.8%	73.5%

# SKAMANIA COUNTY

Transit	15 min	30 min	60 min
Healthcare	8.7%	23.3%	35.2%
Food	13.1%	26.5%	35.2%
Jobs	14.2%	26.5%	35.2%
Schools	12.3%	24.2%	35.2%
Parks	12.9%	26.5%	35.2%
Other	10.9%	25.6%	35.2%

COLUMBIA COUNTY					
Transit	15 min	30 min	60 min		
Healthcare	0.0%	0.0%	0.0%		
Food	0.0%	0.0%	0.0%		
Jobs	0.0%	0.0%	0.0%		
Schools	0.0%	0.0%	0.0%		
Parks	0.0%	0.0%	0.0%		
Other	0.0%	0.0%	0.0%		

# JEFFERSON COUNTY

Transit	15 min	30 min	60 min
Healthcare	21.5%	45.3%	59.9%
Food	32.0%	51.4%	62.9%
Jobs	35.4%	51.5%	62.9%
Schools	31.8%	50.4%	62.7%
Parks	28.4%	50.1%	62.9%
Other	26.2%	44.0%	56.7%

# ADAMS COUNTY

Transit	15 min	30 min	60 min
Healthcare	24.7%	37.1%	51.3%
Food	26.7%	39.6%	52.2%
Jobs	29.0%	42.2%	52.2%
Schools	28.0%	41.3%	51.8%
Parks	24.0%	36.6%	50.9%
Other	24.6%	37.1%	51.3%

#### LINCOLN COUNTY Transit 15 min Healthcare 10.8% 13.7% Food Jobs 14.1% Sch

Schools	11.2%	
Parks	13.9%	
Other	13.3%	

# GARFIELD COUNTY

Transit	15 min	30 min	60 min
Healthcare	0.0%	0.0%	0.0%
Food	0.0%	0.0%	0.0%
Jobs	3.0%	6.3%	10.4%
Schools	3.0%	6.3%	10.4%
Parks	3.0%	6.3%	10.4%
Other	3.0%	6.3%	10.4%

30 min	60 min
16.3%	22.6%
20.2%	26.9%
20.2%	26.9%
19.0%	26.9%
18.1%	27.1%
18.9%	25.7%

30 min	60 min
20.3%	34.7%
26.5%	36.0%
26.5%	35.9%
25.5%	35.6%
26.5%	35.9%
25.7%	35.9%