#### SURTCOM 21-05

# TRIBAL TRANSIT STUDY: DEMOGRAPHIC NEEDS INDICATORS, FUNDING NEEDS AND LIVABILITY



#### **Prepared for:**

U.S. Department of Transportation

#### **Prepared by:**

Elvis Ndembe Ranjit Godavarthy Jeremy Mattson Jill Hough, Ph.D Small Urban and Rural Center on Mobility Upper Great Plains Transportation Institute North Dakota State University, Fargo, ND

April 2021

#### Acknowledgements

Funds for this study were provided by the Small Urban, Rural, Tribal Center on Mobility (SURTCOM), a partnership between the Western Transportation Institute at Montana State University and the Upper Great Plains Transportation Institute at North Dakota State University. The Center is funded through the U.S. Department of Transportation's Office of the Assistant Secretary of Research and Technology as a University Transportation Center. The Small Urban and Rural Center on Mobility (SURCOM) located within the Upper Great Plains Transportation Institute at North Dakota State University conducted the research.

#### Disclaimer

The contents presented in this report are the sole responsibility of the Small Urban and Rural Center on Mobility, the Upper Great Plains Transportation Institute, and the authors.

NDSU does not discriminate in its programs and activities on the basis of age, color, gender expression/identity, genetic information, marital status, national origin, participation in lawful off-campus activity, physical or mental disability, pregnancy, public assistance status, race, religion, sex, sexual orientation, spousal relationship to current employee, or veteran status, as applicable. Direct inquiries to: Canan Bilen-Green, Vice Provost, Title IX/ADA Coordinator, Old Main 201, 701-231-7708, ndsu.eoaa@ndsu.edu.

# TABLE OF CONTENTS

1.	INT	RODUCTION	9	
2.	LIV	ABILITY LITERATURE REVIEW	11	
	2.1	Livability General Context	11	
	2.2	Livability Rural Context	12	
		2.2.2 Transit and Rural Livability	13	
3.	POP	ULATION, LAND AREAS, AND POPULATION DENSITIES	16	
	3.1	Tribal Area Geographic Size	17	
	3.2	Tribal Area Population	19	
	3.3	Tribal Area Population Density	20	
4.	DEN	IOGRAPHIC NEEDS INDICATORS	25	
	4.1	Senior Citizen Population	27	
	4.2	Population with a Disability	29	
	4.3	Low-Income Populations	31	
	4.4	School-Age Youth Populations	33	
	4.5	Households with No Automobile	35	
	4.6	Aggregate Mobility Dependence	37	
	4.7	Summary Statistics	38	
5.	TRIBAL TRANSIT FUNDING, OPERATION, AND SERVICE4			
	5.1	Tribal Transit and Federal Funding	42	
	5.2	Tribal Transit Funding Sources and Structure	49	
	5.3	Tribal Transit Service Provision and Consumption	59	
	5.4	Tribal Transit Needs	67	
		5.4.1 Tribal Mobility Gaps	68	
		5.4.2 Cost Differences	70	
6.	TRI	BAL TRANSIT AND LIVABILITY – TRIBAL TRANSIT STAKEHOLDER		
	INP	UT	73	
7.	TRI	BAL TRANSIT AND LIVABILITY - CASE STUDY OF STANDING ROCK		
	RES	ERVATION, ND-SD	74	
	7.1	About Standing Rock Reservation	74	
	7.2	Existing Transit Service in Standing Rock Reservation	76	
	7.3	Case Study Procedure	77	
	7.4	Case Study Results		
		7.4.1 Factors Affecting Livability	80	
		7.4.2 Quality of Life and Life Satisfaction	87	
		7.4.3 Importance and Quality of Various Aspect of Transportation in Standing Rock	07	
		Keservation	/ 8	
		7.4.5 Transit Didar Survey Desponses	89	
		1.4.J ברבו לא האר האר האר האר האר האר האר האר האר הא		

8. TRIBAL TRANSIT AND LIVABILITY - CASE STUDY OF MAKAH INDIAN DESERVATION WA			05
	<b>NES</b>	About Malash Indian Decompetian	
	8.1	About Makan Indian Reservation	
	8.2	Existing Transit Service in Makah Tribe	97
	8.3	Case Study Procedure	97
	8.4	Case Study Results	98
		8.4.1 Factors Affecting Livability	100
		8.4.2 Quality of Life and Life Satisfaction	106
		8.4.3 Importance and Quality of Various Aspect of Transportation in Makah Tribe	107
		8.4.4 Public Transit Importance	109
		8.4.5 Transit Rider Survey Responses	110
9.	SUM	IMARY AND CONCLUSIONS	116
APP	ENDI	X A: TRIBAL RESERVATION DEMOGRAPHIC DATA	123
APP	ENDI	X B: TRIBAL TRANSIT DATA	177
APP	ENDI	X C: STAKEHOLDER INPUT QUESTIONNAIRE	181
APP	ENDI	X D: ONLINE SURVEY INSTRUMENT DISTRIBUTED TO RESIDENTS OF	
		STANDING ROCK RESERVATION	183
APP	ENDI	X E: PRINTED SURVEY INSTRUMENT DISTRIBUTED TO TRANSIT RIDER	S IN
		STANDING ROCK RESERVATION	187
A DD	FNDI	$\mathbf{X} \in \mathbf{ONI}$ INF SURVEV INSTRIMENT DISTRIBUTED TO DESIDENTS OF	107
	DINDI	MARAH TODE	101
			171

## LIST OF FIGURES

Figure 3.1	Tribal Lands Across the United States		
Figure 3.2	Tribal Area Population Sizes		
Figure 3.3	Tribal Reservation Population Density		
Figure 4.1	Tribal Area Senior Population		
Figure 4.2	Populations of People with Disabilities in Tribal Areas	30	
Figure 4.3	Tribal Area Low Income Population	32	
Figure 4.4	Tribal Area School-Age Youth Population		
Figure 4.5	Tribal Area No Vehicle Households	36	
Figure 4.6	Tribal Area Aggregate Mobility Dependence		
Figure 5.1	Tribal Areas With and Without Transit Systems		
Figure 5.2	Tribal Transit Funding Allocation, MAP-21	43	
Figure 5.3	Tribal Transit Funding Allocation, Under the Fast Act	44	
Figure 5.4	Tribal Reservation Total Formula Funding, 2013-2017	45	
Figure 5.5	Tribal Reservation Total Discretionary Funding, 2013-2017	47	
Figure 5.6	Tribal Reservation Total 5311(c) Funding, 2013-2017	49	
Figure 5.7	Tribal Transit Total Operation and Capital Funding, 2013-2017	50	
Figure 5.8	Tribal Transit Share by Funding Source, 2013-2017	50	
Figure 5.9	Tribal Transit Total Local Funding, 2013-2017		
Figure 5.10	Tribal Transit Total Other Funding, 2013-2017	53	
Figure 5.11	Tribal Transit Total State Funding, 2013-2017	55	
Figure 5.12	Tribal Transit Funding Structure, 2013-2017	56	
Figure 5.13	Tribal Transit Operating and Capital Expenditure, 2013-2017	56	
Figure 5.14	Tribal Transit Total Operating Expenditure, 2013-2017	57	
Figure 5.15	Tribal Transit Total Capital Expenditure, 2013-2017	59	
Figure 5.16	Tribal Transit Agencies, 2013-2017	60	
Figure 5.17	Tribal Transit Total Vehicle Revenue Miles, 2013-2017	60	
Figure 5.18	Total Vehicle Revenue Miles by Mode, 2013-2017	61	
Figure 5.19	Total Vehicle Revenue Hours, 2013-2017	61	
Figure 5.20	Total Vehicle Revenue Hours by Mode, 2013-2017	62	
Figure 5.21	Tribal Transit Total Trips by Mode, 2013-2017	62	
Figure 5.22	Tribal Transit Total Trips, 2013-2017	63	
Figure 5.23	Tribal Transit Total Vehicle Revenue Miles, 2013-2017	64	
Figure 5.24	Total Tribal Transit Vehicle Revenue Hours, 2013-2017	65	
Figure 5.25	Total Tribal Transit Unlinked Passenger Trips, 2013-2017	67	
Figure 5.26	Tribal and Rural Transit Cost per Vehicle Revenue Miles, 2013-2017	71	
Figure 5.27	Tribal and Rural Transit Cost per Vehicle Revenue Hour, 2013-2017	71	
Figure 5.28	Tribal and Rural Transit Cost per Unlinked Passenger Trip, 2013-2017	72	
Figure 7.1	Geography of Standing Rock Reservation	74	
Figure 7.2	Standing Rock Transit Map	77	
Figure 7.3	Demographic Characteristics of Standing Rock Survey Respondents	79	
Figure 7.4	Reason for Respondents Not Living on the Reservation		
Figure 7.5	Livability Importance – Comparison of Standing Rock Reservation with Non-Metro	<i></i>	
<b>D1 -</b> -	Communities in the U.S.	81	
Figure 7.6	Perceived Quality of Livability for the Community – Comparison of Standing Rock	00	
F	Reservation with Non-Metro Communities in the U.S.	83	
Figure 7.7	Importance of Livability Factors in a General Community vs. Quality of Livability	~ <b>~</b>	
	Factors in the Standing Rock Reservation	85	

Figure 7.8	Gaps Between Livability Factors' Importance and Perceived Quality in Current	
	Community – Comparison of Standing Rock Reservation with National Averages	
	for Metro and Non-Metro Communities	86
Figure 7.9	Importance of Various Transportation Aspects in a General Community vs. Quality of	
	Transportation Aspects in the Standing Rock Reservation	88
Figure 7.10	Gap Between Transportation Aspect's Importance in General Community and Quality	
	in Current Community – Comparison of Standing Rock Reservation with National	
	Averages for Metro and Non-Metro Communities	89
Figure 7.11	Importance of Public Transit to Standing Rock Community Residents	89
Figure 7.12	Reasons Given for Why it is Important to Have Transit Available	90
Figure 7.13	Demographic Characteristics of Survey Respondents Who Are Transit Riders	91
Figure 7.14	Frequency of Transit Use	92
Figure 7.15	Importance of Public Transit to Quality of Life	92
Figure 7.16	Quality of Public Transit Service in Standing Rock Reservation	93
Figure 7.17	Purpose of the Public Transit Trip	93
Figure 7.18	If Public Transit Were Not Available, Would You Make the Same Number of Trips?	94
Figure 7.19	Why Did You Start Riding Public Transit?	94
Figure 8.1	Location of Makah Indian Reservation	95
Figure 8.2	Demographic Characteristics of Makah Tribe Survey Respondents	99
Figure 8.3	Reason for Respondents Not Living on the Reservation	100
Figure 8.4	Livability Importance – Comparison of Makah Tribe with Non-Metro Communities	
	in the U.S	101
Figure 8.5	Perceived Quality of Livability for the Community – Comparison of Makah Tribe	
	with Non-Metro Communities in the United States	103
Figure 8.6	Importance of Livability Factors in a General Community vs. Quality of Livability	
	Factors in the Makah Tribe	105
Figure 8.7	Gap Between Livability Factors' Importance and Perceived Quality in Current	
	Community – Comparison of Makah Tribe with National Averages for Non-Metro	
	Communities Error! Bookmark not defin	ned.
Figure 8.8	Importance of Various Transportation Aspects in a General Community vs. Quality	
	of Transportation Aspects in the Makah Tribe	108
Figure 8.9	Gap Between Transportation Aspect's Importance in General Community and Quality	
	in Current Community – Comparison of Makah Tribe with National Averages for	
	Non-Metro Communities	108
Figure 8.10	Importance of Public Transit to Makah Community Residents	109
Figure 8.11	Reasons Given for Why it is Important to Have Transit Available	110
Figure 8.12	Demographic Characteristics of Survey Respondents Who Are Transit Riders	111
Figure 8.13	Frequency of Transit Use	112
Figure 8.14	Importance of Public Transit to Quality of Life	113
Figure 8.15	Quality of Public Transit Service in Makah Tribe	113
Figure 8.16	Purpose of the Public Transit Trip	114
Figure 8.17	If Public Transit Were Not Available, Would You Make the Same Number of Trips?	114
Figure 8.18	Why Did You Start Riding Public Transit?	115

## LIST OF TABLES

Table 3.1	Distribution of Tribal Area Sizes	17	
Table 3.2	Sizes of the Largest Tribal Areas		
Table 3.3	Distribution of Tribal Area Populations	20	
Table 3.4	Population Density, Largest Tribal Areas by Land Area	21	
Table 3.5	Population Density, Largest Tribal Areas by Population Size	21	
Table 3.6	Distribution of Tribal Area Population Densities	22	
Table 3.7	Density of U.S. Counties Categorized by RUCC Code, Excluding Alaska		
Table 3.8	Population Densities of Counties with High Concentrations of Native American		
	Populations	24	
Table 4.1	Tribal Areas with the Highest Proportion of Seniors	27	
Table 4.2	Tribal Areas with the Largest Senior Population		
Table 4.3	Tribal Areas with the Highest Proportion of People with a Disability	29	
Table 4.4	Tribal Areas with the Largest Population of People with Disabilities	30	
Table 4.5	Tribal Areas with the Highest Proportion of Low-Income Population	31	
Table 4.6	Tribal Areas with the Largest Low-Income Population	31	
Table 4.7	Tribal Areas with the Highest Proportion of School-Age Youth		
Table 4.8	Tribal Areas with the Largest School-Age Youth Population		
Table 4.9	Tribal Areas with the Highest Proportion of Households without a Vehicle	35	
Table 4.10	Tribal Areas with the Largest Number of Households without a Vehicle		
Table 4.11	Aggregate Mobility Dependence – Percentage-Based Rank		
Table 4.12	Summary of Demographic Data for Tribal Areas	39	
Table 4.13	Demographic Data for Tribal Areas, Compared to U.S. and Rural Data	39	
Table 4.14	Demographics by County RUCC Code and Native American Population	40	
Table 5.1	Tribal Reservation Total Formula Funding, 2013-2017	44	
Table 5.2	Tribal Reservation with Most Total Discretionary Funding, 2013-2017	46	
Table 5.3	Tribal Reservation Total 5311(c) Funding, 2013-2017		
Table 5.4	Tribal Transit Total Local Funding, 2013-2017	51	
Table 5.5	Tribal Transit Total Other Funding, 2013-2017	53	
Table 5.6	Tribal Transit Total State Funding, 2013-2017	54	
Table 5.7	Tribal Transit Total Operating Expenditure, 2013-2017	57	
Table 5.8	Tribal Reservation Total Capital Expenditure, 2013-2017		
Table 5.9	Tribal Reservations Most Total Vehicle Revenue Miles, 2013-2017	63	
Table 5.10	Tribal Reservations Most Total Vehicle Revenue Hours, 2013-2017	65	
Table 5.11	Tribal Transit Most Total Passenger Trips, 2013-2017	66	
Table 5.12	Median Estimates for Daily Household Travel Behavior for Native American and		
	Rural Census Tracts	68	
Table 5.13	Percentages of Tribal and Rural Populations Served by Transit	69	
Table 7.1	Standing Rock Reservation characteristics and U.S. national average	75	
Table 7.2	Satisfaction with the Quality of Life in the Community	87	
Table 8.1	Makah Indian Reservation Characteristics and U.S. National Average	96	
Table 8.2	Satisfaction with the Quality of Life in the Community	107	

## ABSTRACT

The objectives of this research are to study the demographic indicators of tribal communities that relate to transportation needs, describe and evaluate existing tribal transit operations and funding, and examine the role of transit in livability and quality of life in tribal communities in the United States. This study identified small urban and rural Indian tribes and reservations that have the most significant transit needs. The basis for this determination was an examination of traditional mobility need indicators such as population of older adults, people with disabilities, those with low income, school-age youth, and households with no vehicles. The study evaluated existing tribal transit operations and funding. Finally, this study conducted case studies in two selected Indian reservations to understand the role of transit and other factors in livability and improving quality of life in tribal communities. The case studies were conducted with Standing Rock Reservation in North Dakota and South Dakota and Makah Indian Reservation in Washington, and they involved surveys of community residents and transit riders. The study shows that tribal lands are mostly rural with lower population densities. Moreover, the share of the population often described as transit dependent, particularly those with low income, households with no vehicles, and youth, is often higher for tribal areas compared with the general U.S. population. Additionally, tribal areas often lack resources and are dependent on federal support to meet mobility challenges on reservations. The case studies identified several factors that could be improved to enhance quality of life in the communities, and they showed that transit can play a role.

## 1. INTRODUCTION

Public transportation plays a critical role and contributes to livability and quality of life in tribal communities by providing mobility options and connecting transit-dependent populations to a variety of services, including healthcare, education, employment, and other activities. The concept of livability describes peoples' views and expectations about the environmental and social quality of a community or region as it relates to the availability and provision of transportation alternatives, affordable housing, job access, quality of schools, health care, social involvement, and other amenities. Tribal lands are mostly rural in nature. They face mobility challenges and lack resources.

The threefold objectives of this study are to study the demographic indicators of tribal communities that relate to transportation needs, describe and evaluate existing tribal transit operations and funding, and examine the role of transit in livability and quality of life in tribal communities in the United States.

First, this study identifies non-metropolitan, small urban and rural Indian tribes and reservations that have the most significant transit needs. The basis for this determination is an examination of traditional mobility need indicators, such as population of older adults, people with disabilities, those with low income, school-age youth, and households with no vehicles. In doing this, other features of Indian reservations (e.g., land area, population density) that complicate the provision of transit in rural areas are described.

Second, the study evaluates existing tribal transit operations and funding to identify gaps in service provision and funding. The federal government recognizes 574 tribal entities that are eligible to receive funding and services from the Bureau of Indian Affairs by virtue of their status as Indian tribes (70 FR 71194). Of these 574 entities, 229 are in Alaska. Even though more than 80% of tribal transit funding (5311c) uses a formula based on transit operations (vehicles miles), it is important not to overlook mobility-related demographic information.

The 2005 Safe, Accountable, Flexible, and Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) created the tribal transit program generally referred to as 5311c. The tribal transit program provides operating assistance and capital project funding exclusively for use by Indian tribes in non-metropolitan, small urban and rural areas. In 2012, the Moving Ahead for Progress in the 21<sup>st</sup> Century Act (MAP-21) replaced SAFETEA-LU and brought changes to the tribal transit program. In addition to increasing funding to \$30 million from \$15 million per year, MAP-21 allocated \$25 million of tribal transit funding using a formula based on vehicle revenue miles traveled by a tribal transit system, while the remaining \$5 million is allotted on a discretionary basis (competitive grants). The 2015 Fixing America's Surface Transportation Act (FAST-Act) increased the formula-based funding starting in 2016 to \$30 million.

Third, this study conducted case studies in two selected Indian reservations to understand transit's role in livability and improving quality of life in tribal communities. The case studies, conducted with the Standing Rock Reservation in North Dakota and South Dakota and the Makah Indian Reservation in Washington, involved surveys of community residents and transit riders. The objectives of the case studies were to understand the factors that residents think are

important for livability, describe the quality of livability factors within these communities based on residents' perceptions, and explore how transit and other transportation factors contribute to livability. Results identify issues that need to be addressed to improve livability and how transit could play a role. Results were compared with those of similar recent studies conducted in different settings to identify challenges and findings unique to Native American populations. Similar case studies were previously conducted of two North Dakota communities by Godavarthy and Mattson (2016), and a national community livability survey was conducted by Godavarthy et al. (2018), but neither of these studies focused on tribal communities.

This study focuses on reservations that are, by definition, at least partially small urban and rural. As such, they are located, in whole or in part, in non-metropolitan areas that have fewer than 50,000 residents. As prescribed by federal law, these reservations are eligible to receive Federal Transit Administration (FTA) funding that is reserved for non-metropolitan, small urban and rural areas. It is worth noting that there are significant urban tribal populations. Because these populations are unique and distinct from rural tribal communities, they are not a focus of this study. No differentiation is made in this study between Oklahoma's tribal statistical areas and traditional Indian reservations. Even though there are some historic and technical differences, these differences are considered insignificant for the purposes of this study.

This study focuses on federally recognized tribes in the lower 48 states. Alaska's 263,917 native residents live in relatively small villages, both in terms of population and land area. The vastness of the state and the remoteness of many of these villages may make it inappropriate to categorize them along with Indian tribes in other portions of the United States. Their situations may warrant a separate study.

This report is divided into sections as follows:

- Review of livability, specifically in rural areas and tribal reservations
- Evaluation of tribal reservation populations, land areas, and population densities
- Assessment of demographic needs indicators (mobility-dependent populations)
- Evaluation of funding needs and gaps by comparing service indicators with level of funding over time
- Two case studies with Standing Rock (ND-SD) and Makah Indian Reservation (WA) on the contribution of transit to livability and quality of life in tribal communities using a survey instrument
- Summary and recommendations

By identifying needs, existing gaps, and the role of transit to livability, this study aims to provide information that will facilitate the effective expenditure of federal transit funding dedicated to tribal transit, especially in non-metropolitan areas. Although this study's findings should not be the final word on areas of greatest need, they will hopefully be a valuable tool in determining future transit funding that takes livability into account.

## 2. LIVABILITY LITERATURE REVIEW

The concept of livability emerged in the United States in the 1980s as policy makers sought to address issues in urban settings, such as deteriorating urban centers and the continuous spread of suburbs or urban sprawl (Shinstine, Denzer, and Ksaibati, 2015). The earliest reference of the term livability in the United States can be traced back to the 1971 International Conference on Cities in Indianapolis, IN, according to Kaal (2011). In closing the conference, U.S. Vice President Spiro Agnew pointed to the charm, human scale, and livability compared with U.S. cities that developed as transitory settlements on the way to someplace else (Leapman, 1971).

Since its emergence, the concept of livability—which in general describes the subjective perception and expectations about the environmental and social quality of a community or region—has evolved over time. There is increasing recognition of livability and importance of transit in improving livability or quality of life in nonurban and rural areas (Brooks, Edrington, Sharma, Vasishth, and Cherrington, 2014; Brooks, Sharma, Pappas, and Cherrington, 2015; Godavarthy and Mattson, 2016). Some research has studied livability across regions, including urban and rural comparisons (Godavarthy et al., 2018; Ripplinger, Ndembe, and Hough, 2012). Given the diversity of issues livability attempts to address, there is not a single widely accepted definition of the concept (Godschalk, 2004). Even among federal government agencies, there is no single agreed upon definition (Shinstine, Denzer, and Ksaibati, 2015). This section provides a general review of livability, including widely available definitions. This will facilitate the identification of common themes associated with livability. Then livability issues specific to rural and tribal areas will be addressed.

## 2.1 Livability General Context

Livability is affected by a set of interwoven social, economic, and environmental factors (Hart, 1999). Moreover, these three groups of factors potentially affecting livability may vary nationally and from one community to the other. Consequently, efforts have been made nationally and locally to define livability and develop guidelines and activities to enhance its applicability.

As the concept of livability grew in prominence, federal agencies and other organizations in the policy and planning domain developed definitions and guiding principles to incorporate livability into their mission. The U.S. Environmental Protection Agency (EPA) helps communities expand economic opportunity by protecting public health and the environment. The U.S. Department of Transportation (DOT) attempts to ensure a fast, safe, efficient, accessible, and convenient transportation system. The U.S. Department of Housing and Urban Development (HUD) aims to create strong, sustainable, inclusive communities and quality affordable homes. The intersecting theme from the missions of these three federal agencies led to the creation of the Interagency Partnership for Sustainable Communities in June 2009 to help foster access to affordable housing and transportation alternatives at lower cost. These agencies established livability principles as the foundation of their partnership (EPA, HUD, DOT, n.d.).

These principles include:

- Provide more transportation choices
- Promote equitable and affordable housing
- Enhance economic competitiveness
- Support existing communities
- Coordinate and leverage investment
- Value communities and neighborhoods

Communities often have different viewpoints and priorities in the formulation of programs to pursue livability (Hass and Fabish, 2013). In addition to these six principles put forth by the Interagency Partnership for Sustainable Communities, a variety of definitions have arisen for livability based on the context in which it is used (e.g., urban, rural, sustainability). Defining livability helps facilitate livability-related actions, research, and conversation that potentially strengthen planning and policy.

Some prominent definitions in terms of the availability of transportation and transportation options have arisen. In 2009, former U.S. DOT Secretary Ray LaHood said, "Livability means being able to take your kids to school, go to work, see a doctor, drop by the grocery or post office, go out to dinner and a movie, and play with your kids at the park—all without having to get in your car" (Texas Transportation Institute, 2013).

The U.S. DOT has also used the following definition of livability: "Livability is about tying the quality and location of transportation facilities to broader opportunities such as access to good jobs, affordable housing, quality schools, and safe streets. This includes addressing safety and capacity issues on all roads through better planning and design, maximizing and expanding new technologies such as ITS and the use of quiet pavements, using Travel Demand Management approaches to system planning and operations, etc." (U.S. DOT 2020).

Litman (2011) refers to livability as a set of sustainability impacts with direct impact to residents of a local community ranging from economic development, environmental quality, equity, affordability, public safety and health, and community interconnectivity. Litman further indicated that livability can be described as sustainable if it is able to satisfy present needs while maintaining the capability to satisfy future needs.

Two elements need to coexist for a place to be livable (Mathias and Franklin, 2013). The first element is recognizing and meeting community residents' needs and wants, including shelter, energy, water and food, education, entertainment, and transportation. Second, the built and natural environment of community embodied in its architecture, water bodies, green space, local climate, and air regulation, play a central role in determining livability of a place.

# 2.2 Livability Rural Context

In addition to the general definitions and principles of livability, attempts have been made to define rural livability, which is difficult due to the challenge of what to include in the definition (Brooks et al., 2014). Brooks et al. (2014) discussed whether rural livability means the following:

• Vibrant downtown with enhanced historical buildings or walkable Main Street with dense surrounding neighborhoods

- Housing options supporting access to education, health care, and job opportunities
- Preservation and enhancement of working and natural lands

Similarly, Toth and Twaddell (2010) pointed to the challenges of defining livability in a rural setting in their essay, *What is rural livability*. The main challenge centered on how to define rural life. Questions raised in the essay included, "Is rural life characterized by living in one of the 19 Native American Pueblos in New Mexico?" Given the perception by rural officials that livability initiatives might be emphasizing themes often used in urban setting (e.g., walkability) and placing less emphasis on automobile use, Toth and Twaddell (2010) suggested that transportation and land use be integrated to better understand the impact of different transportation and community investment programs on residents' lives. Moreover, transportation initiatives in rural areas need to be developed to meet specific community needs while being context driven (Toth and Twaddell, 2010). The Rural Work Group for the Partnership for Sustainable Communities (2011) noted that rural communities, given their distinctive characteristics, require customized performance measures.

Using 12 case studies on livability undertaken in rural and small towns, Transportation for America defined livability as about providing people, especially the elderly and those unable to drive, better alternative mobility choices (Barry, 2010). In addition to mobility choice, livability is about promoting growth in historic small town main streets and providing an environment fostering an elevated quality of life that includes green space, biking or walking paths, shopping, restaurants, and easily accessible health care (Barry, 2010).

While there are many different definitions for livability, they all tend to relate, in some way, to the six livability principles outlined by the interagency Partnership for Sustainable Communities. These principals can be applied to different contexts, including rural and tribal areas. The first principle is to provide more transportation choices. In rural and tribal areas, this means providing transportation options for those who cannot drive or do not have access to a vehicle. The second principle is promoting equitable, affordable housing. This is especially important in tribal areas that have higher rates of poverty. The third principle is to enhance economic competitiveness. In rural and tribal areas, this means quality jobs, educational opportunities, improved access to shopping, business opportunities, cost of living, and other factors that could enhance the economy. The last three principles, which are supporting existing communities, coordinating and leveraging federal policies and investments, and valuing communities and neighborhoods, can relate to a number of factors that could be important to rural and tribal areas, including crime, transportation safety, environmental cleanliness, parks and recreational facilities, shopping and entertainment options, cultural institutions, and others. This study uses these six principles as a guide for defining livability. Any issues related to these principles in a rural or tribal context are considered livability factors.

## 2.2.2 Transit and Rural Livability

Some recent studies on livability in rural areas have focused on the role and contribution of transit to livability. Although livability is affected by a myriad of factors, transit is an important determinant. Public transportation provides alternative mobility to transit-dependent people in rural areas enabling them to access healthcare services, educational institutions, employment, and other activities. Notable recent studies have been the joint collaborative effort of Texas

A&M Transportation Institute (TTI), National Center for Transit Research (NCTR), and the Small Urban and Rural Transit Center (SURTC). The joint research effort was done in two phases with phase 1 involving a literature review (Brooks, Edrington, Sharma, Vasishth, and Cherrington, 2014) and a pilot case study (Brooks, Sharma, Pappas, and Cherrington, 2015); case studies (Godavarthy and Mattson, 2016; Godavarthy and Mattson, 2018) were undertaken in phase 2.

Brooks, Sharma, Pappas, and Cherrington (2015) conducted a pilot case study to assess the linkage between transit and livability in West Columbia, TX. This was accomplished by eliciting views of three groups about transit and quality of life issues. These groups included residents, transit riders, and stakeholder organizations in the community. Resident and rider views were gathered through two surveys, and interviews were conducted with stakeholder organizations.

Although 22% of respondents considered transit as one of the top six factors affecting livability in any community, only 12% ranked transit as one of the top six factors specifically affecting livability in West Columbia, TX. This dichotomy in perception was attributed to respondents' lack of information about local transit provision. Close to 49% of respondents were unaware the city had a transit system. Overall, respondents pointed to alternative mobility options for seniors, people with disabilities, and those lacking access or choosing not to drive as a rationale to have transit in their community. The needs of the mobility impaired were also the main theme gathered from stakeholder interviews. The study framework from Brooks, Sharma, Pappas, and Cherrington (2015) was used for additional case studies in phase 2.

Godavarthy and Mattson (2016) conducted two case studies in North Dakota to assess the relationship between transit and livability in rural areas. Case studies in Valley City, ND, and Dickinson, ND, involved resident and transit rider surveys and interviews or surveys of stakeholders. Godavarthy and Mattson (2016) found that public transit was a contributing factor to livability in both communities. For the Valley City resident survey, 39% of respondents indicated that public transit is an important consideration for livability. Additionally, 27% of residents viewed transit as one of the top six determinants of livability. Most Valley City respondents (73%) indicated knowing about the local transit service because they had used it personally or knew someone that used it. Close to 89% of transit riders indicated that the public transportation service in Valley City is very important to their quality of life. A similar view was expressed by stakeholders, who noted that the local transit service is a critical lifeline for the community, especially to older adults and people with disabilities.

In the Dickinson study, a majority (55%) of respondents indicated they were satisfied with the quality of life in their community. Most respondents (90%) knew of the existing public transit system, and a significant majority (82%) of resident survey respondents supported the continuation and funding of existing public transit services. Dickinson transit rider respondents indicated that public transit played an important role their quality of life. More than half of transit riders in Dickinson indicated that they used the local public transit system at least twice a week. Public transit stakeholders in the community viewed the local public transit system as central to quality of life in the city.

Another collaborative effort between TTI and SURTC was the phase 3 study on transit and livability (Godavarthy et al., 2018). Whereas the previous efforts involved case studies of rural communities, Godavarthy et al. (2018) undertook a national community livability survey across all 50 states. Results were compared between metro and non-metro (rural) areas. The study showed a need for improving transportation alternatives in non-metro areas. Transportation options in rural communities in general are limited. Providing more options would increase livability.

The literature review presented above points to the role of transit to livability or quality of life in rural areas. However, public transportation provision is affected by the geographic and demographic characteristics of a given area. Rural areas in general are often sparsely populated with low population density. Tribal reservations often have even lower population densities, further complicating transit provision. Tribal reservation populations, land area, and population densities are explored next.

## 3. POPULATION, LAND AREAS, AND POPULATION DENSITIES

Transit provision in areas characterized by sparse population and low population density is a continuous challenge. The density of an area—number of residents per square mile—is one of several factors that reflect an area's transit needs and the ease or difficulty associated with providing mobility options for residents. For example, an area with low population density would mean that transit vehicles would have to travel comparatively longer distances between stops to pick and drop off transit riders. Longer distances between stops mean higher operational cost. Given these facts, knowledge of the populations and land areas of reservations is an important consideration in understanding the transit needs for tribal communities.

Tribal lands are as diverse as U.S states in terms of geographic size, population, and population density. Reservations range in land area from those with less than one square mile to those with land area of several thousand square miles. Similarly, population size of Indian reservations ranges from the smallest with fewer than 100 people to the largest reservations with population size in the tens of thousands. The large difference in land area and population sizes means population densities and ability to provide transit services vary broadly.

This section presents and analyzes population, land area, and density information on tribal lands in the lower 48 states. The U.S. Census Bureau collects detailed demographic and geographic information concerning Indian reservations. Demographic data are available through the American Community Survey (ACS). Whereas the U.S. Census takes place every 10 years, the ACS collects data on an ongoing annual basis. This study uses the ACS five-year estimates (2013-2017) in evaluating tribal transit needs. Even though ACS information is not available for some, it is the best source of changing demographic information between decennial censuses. Evaluation in this study is limited to federally recognized tribes with available census data. Appendix A provides summarized information for each reservation.

An important note is that some tribes listed in Appendix A share lands with other tribes. Consequently, in some cases, tribes are listed more than once because they span multiple reservations. The data on tribes with shared reservations are identified for each tribe located on that reservation. As such, the number of tribes listed in Appendix A might not correspond with the number of federally recognized tribes.

The definition of tribal lands in this paper is based on the classification used by the U.S. Census Bureau and the ACS. This includes Indian reservations, off-reservation trust lands, and Oklahoma Tribal Statistical Areas (OTSAs). Trust lands are areas held in trust by the federal government for the benefit of a tribe. OTSAs are identified by the U.S. Census as areas in Oklahoma that do not currently have a reservation but once had a reservation. They represent former reservations that existed prior to Oklahoma statehood in 1907. Many OTSAs also have Tribal Jurisdictional Areas, where tribes provide government services and assert some forms of government authority. Some of the analysis also includes State Designated Tribal Statistical Areas (SDTSAs). SDTSAs are areas identified for state recognized tribes that are not federally recognized and do not have a reservation or trust land.

## 3.1 Tribal Area Geographic Size

Reservations range in size from less than one square mile (e.g., Big Lagoon, CA) to those with thousands of square miles like Navajo Nation (AZ, NM, and UT). In fact, some reservations are larger than some states. Table 3.1 shows the distribution of tribal land area sizes across the lower 48 states. As the table indicates, several tribal areas are less than one square mile (27 %), while about 9% are larger than 1,000 square miles. Among the 35 tribal areas with land area greater than 1,000 square miles, nine are OTSAs.

Square Miles	# of Tribal Areas	% of Tribal Areas
Less than 1	107	27
1-9.99	89	22
10-49.99	68	17
50-99.99	26	7
100-499.99	53	13
500-999.99	20	5
1,000 or more	36	9

 Table 3.1
 Distribution of Tribal Area Sizes

To illustrate the size of the largest tribal areas, several reservations and OTSAs are as large as some of the smallest states. Each of the 25 largest reservations and OTSAs are larger in size than Rhode Island, and 18 are larger than Delaware. Navajo Nation, which spans three states (AZ, NM, and UT) and is the largest reservation in the lower 48 states, is larger than 10 states. The 25 largest reservations and OTSAs are shown in Table 3.2.

Reservation	State	Square Miles
Navajo Nation Reservation and Off-Reservation Trust Land	AZ, NM, UT	24,133
Choctaw OTSA	ОК	10,603
Cheyenne-Arapaho OTSA	ОК	8,117
Chickasaw OTSA	OK	7,271
Uintah and Ouray Reservation and Off-Reservation Trust Land	UT	6,773
Cherokee OTSA	OK	6,694
Kiowa-Comanche-Apache-Fort Sill Apache OTSA	OK	6,353
Creek OTSA	OK	4,629
Tohono O'odham Nation Reservation and Off-Reservation Trust Land	AZ	4,453
Pine Ridge Reservation	SD, NE	4,343
Cheyenne River Reservation and Off-Reservation Trust Land	SD	4,266
Crow Reservation and Off-Reservation Trust Land	MT	3,596
Standing Rock Reservation	SD, ND	3,568
Wind River Reservation and Off-Reservation Trust Land	WY	3,474
Fort Peck Indian Reservation and Off-Reservation Trust Land	MT	3,289
San Carlos Reservation	AZ	2,903
Fort Apache Reservation	AZ	2,625
Hopi Reservation and Off-Reservation Trust Land	AZ	2,532
Blackfeet Indian Reservation and Off-Reservation Trust Land	MT	2,372
Osage Reservation	OK	2,247
Yakama Nation Reservation and Off-Reservation Trust Land	WA	2,186
Colville Reservation and Off-Reservation Trust Land	WA	2,116
Rosebud Indian Reservation and Off-Reservation Trust Land	SD	1,972
Flathead Reservation	MT	1,936
Hualapai Indian Reservation and Off-Reservation Trust Land	AZ	1,601

 Table 3.2
 Sizes of the Largest Tribal Areas

In addition to differences in land area, Indian reservations are widely dispersed geographically, as shown in Figure 3.1. However, many reservations are in the Midwest and southwestern states, while very few are in the eastern region. Some reservations overlap state boundaries.



Figure 3.1 Tribal Lands Across the United States

## 3.2 Tribal Area Population

Population sizes vary widely among tribal areas. In general, though, reservations tend to have low population densities. Most reservation lands can be described as rural, with some small urban and urban areas. According to ACS data, 46 of the 399 tribal areas have populations of more than 10,000 and only 10 have more than 100,000 residents. Most of the tribal areas with populations over 50,000, and a majority of those with population over 20,000, are not reservations but OTSAs or SDTSAs. SDTSAs encompass a substantial concentration of tribal members.

Table 3.3 shows the distribution of tribal areas by population, and Figure 3.2 is a map showing the relative population sizes of all tribal areas in the lower 48 states. Because the OTSAs cover a majority of Oklahoma, including the city of Tulsa, they have large populations, and a significant percentage of the population consists of people who are not Native Americans. A few SDTSAs also cover areas with significant non-Native American populations. Among the reservations and off-reservation trust lands, the most populated is the Navajo Nation Reservation, with a population of 175,005, followed by Puyallup Reservation (WA) and Osage Reservation (OK), with populations of 50,786 and 47,350, respectively.

Table 3.3	Distribution of	Tribal Area	Populations
-----------	-----------------	-------------	-------------

Population Category	Number of Tribal Areas
100,000 or more	10
50,000 to 99,999	5
25,000 to 49,999	10
10,000 to 24,999	21
5,000 to 9,999	36
Less than 5,000	317



Figure 3.2 Tribal Area Population Sizes

## 3.3 Tribal Area Population Density

As indicated earlier, neither the geographic nor population size of a reservation independently can fully reflect residents' transit needs or determine the ease or difficulty of providing such services. Everything being equal, a large reservation might experience significant challenges in operating a transit system compared with a smaller reservation. However, the dispersion of transit riders within a reservation is an important determinant of the ease of transit service provision. This dispersion is reflected in population density. For example, a significantly larger reservation that has most riders located in a small portion of the reservation would mean a transit

vehicle would have to make fewer stops to pick up and drop off riders. This makes population density an important factor in determining the ease or difficulty involved with providing transit.

Indian reservations and corresponding off-reservation trust lands are often characterized by lower population and relatively larger land areas. The differences in population size and land area mean population density varies widely among tribal areas. Tables 3.4 and 3.5 present population density of the top 10 largest federally recognized tribal reservations and off-reservation trust lands by land area and population, respectively. OTSAs are included in these tables but SDTSAs are not.

Reservation	Area (sq. mi)	Pop/sq. mi
Navajo Nation (AZ, NM, & UT)	24,133	7
Choctaw Nation (OK)	10,603	22
Cherokee-Arapaho Nation (OK)	8,117	23
Chickasaw Nation (OK)	7,271	43
Ute Tribe (UT)	6,773	4
Cherokee Nation (OK)	6,694	77
Kiowa-Comanche-Apache-Fort Sill Apache OTSA (OK)	6,353	30
Creek Nation (OK)	4,629	170
Tohono O'odham Tribe (AZ)	4,453	2
Pine Ridge (SD & NE)	4,343	5

 Table 3.4 Population Density, Largest Tribal Areas by Land Area

 Table 3.5
 Population Density, Largest Tribal Areas by Population Size

Reservation	Population	Pop/sq. mi
Creek Nation (OK)	786,729	170
Cherokee Nation (OK)	515,412	77
Chickasaw Nation (OK)	311.009	43
Choctaw Nation (OK)	231,579	22
Kiowa-Comanche-Apache-Fort Sill Apache OTSA (OK)	193,659	30
Cheyenne-Arapaho (OK)	185,590	23
Navajo Nation (AZ, NM, UT)	175,005	7
Citizen Potawatomi Nation (OK)	122,875	110
Sac and Fox (OK)	58,129	79
Puyallup (WA)	50,786	1,779

Navajo Nation (AZ, NM, & UT) is the largest reservation in land area and the seventh most populated, but it has a population density of just seven residents per square mile. On the other hand, among the most populated tribal areas, Puyallup reservation has the highest population density (1,779 residents per sq. mi).

Puyallup reservation is one of the smallest in terms of land area (160<sup>th</sup> out of 399). This adds credence to the fact that land area and population size in isolation are not good reflections of challenges involved with transit provision. The relatively lower population density provides an initial insight into challenges involved with transit provision on tribal reservations and off-reservation trust lands. Table 3.6 categorizes tribal areas based on their population density.

Residents / Sq. Mile	# of Tribal Areas	
1,000 or more	28	
500 to 999	17	
100 to 499	103	
50 to 99	47	
25 to 49	42	
10 to 24	53	
5 to 9	39	
Less than 5	31	

**Table 3.6** Distribution of Tribal Area Population Densities

This classification is based on tribal areas in the lower 48 states with available population data from the ACS. Based on a total of 360 tribal areas, close to 8% (28) have a population density of 1,000 or more residents per square mile. These areas with the highest population density have the lowest land area in square miles. On the other hand, about 9% (31) of tribal areas have a population density of less than 5 residents per square miles. Figure 3.3 shows population density for tribal areas in the lower 48 states.



Figure 3.3 Tribal Reservation Population Density

For comparison purposes, the overall population density of the United States is about 93 people per square mile. Excluding Alaska, the states with the lowest population density are Wyoming (6 people per square mile), Montana (7.3), North Dakota (11), South Dakota (11.7), and New Mexico (17.3).

Differences in population density are further illustrated by calculating the population density of counties with high concentrations of Native American populations. First, Table 3.7 shows the density of counties categorized by geography. Counties were classified using the Rural-Urban Continuum Codes (RUCCs) created by the U.S. Department of Agriculture's Economic Research Service. The RUCC classifies counties on a 1-9 scale, with higher numbers indicating more rural counties. Data for Alaska were excluded from this analysis.

RUCC		Number of	Population per
Code	Description	counties	square mile <sup>1</sup>
1	Counties in metro areas of 1 million population or more	432	634.4
2	Counties in metro areas of 250,000 to 1 million population	376	207.1
3	Counties in metro areas of fewer than 250,000 population	355	87.5
4	Urban population of 20,000 or more, adjacent to a metro area	214	62.0
5	Urban population of 20,000 or more, not adjacent to a metro area	91	33.5
6	Urban population of 2,500 to 19,999, adjacent to a metro area	593	29.0
7	Urban population of 2,500 to 19,999, not adjacent to a metro area	425	14.5
8	Completely rural or less than 2,500 urban population, adjacent to a metro area	219	12.2
9	Completely rural or less than 2,500 urban population, not adjacent to a metro area	408	6.0

 Table 3.7
 Density of U.S. Counties Categorized by RUCC Code, Excluding Alaska

<sup>1</sup>Density is calculated by summing the total population of counties and dividing by the sum of total land area (measured in square miles) of counties in each category

These population densities can be compared with the densities of counties with higher concentrations of Native American populations, as shown in Table 3.8. In counties where at least 15% of the population is Native American, population density is 13.0 per square mile, which is most like the population density of counties with RUCC code 8. As the percentage of Native American population increases, population density is shown to decline. In the 24 counties where at least 45% of the population is Native American, the population density is 6.2, which compares to the population density of the most rural counties categorized with RUCC code 9. The data indicate that counties with high concentrations of Native American populations are mostly rural, with population densities that rank among the lowest densities in the country.

Concentrations of Native American Populations			
Percentage of population	Number of	Population	
Native American	counties	density	
> 15%	90	13.0	
> 25%	52	11.0	
> 35%	32	8.9	
> 45%	24	6.2	

## Table 3.8 Population Densities of Counties with High

The section that follows uses census data from the ACS to identify Indian reservations with high concentrations of subpopulations that are traditionally transit dependent (e.g., seniors, people with disabilities, those with low income, school-age youth, and those lacking automobile access). Calculating sizes of mobility-dependent populations helps determine the need for transit.

## 4. DEMOGRAPHIC NEEDS INDICATORS

Changes in population, demographics, housing, vehicle ownership, and other information are captured on an ongoing basis by the American Community Survey (ACS). Historically there have been concerns of American Indian and Alaska Native populations being undercounted, including in the ACS (Sackett 2015). Higher levels of poverty and housing insecurity, lower levels of educational attainment, and a higher percentage of children contribute to the undercounting of Native American populations (Leadership Conference Education Fund 2018). Efforts have been made in recent years to improve the accuracy of ACS counts by increasing sampling rates in low-population areas and following up with personal visits in areas with larger Native American populations (Sackett 2015).

The ACS five-year average (ACS 2013-2017) provides information on 399 Indian tribes. Some tribes recognized by states are not federally recognized. Although this study is focused on federally recognized tribes in the lower 48 states, summary information on all Indian tribes with available data in the ACS, including demographics, are provided in Appendix A. This chapter presents demographic information on reservations, primarily concerning factors that are traditionally associated with mobility-dependent segments of the population.

In general, reservations are synonymous with tribes. However, in some cases, tribes reside in multiple reservations; in other instances, two or more tribes share a single reservation. It should also be noted that the data in this study involve reservations and off-reservation tribal lands, as well as OTSAs. Each tribal area was ranked and compared with other tribal areas in each of the six population segments reflecting mobility dependence. An aggregate mobility dependent ranking was determined by combining each tribal area's ranking in each of the six categories.

Three caveats are associated with need indicator calculations. First, the need indicators discussed in this chapter do not fully reflect unmet needs or ridership that might result if transit services are provided. Concerning need indicators vs. unmet needs, this chapter's needs analysis looks strictly at ACS census data concerning population subgroups that traditionally require transit services. It does not, however, consider transit services that are in place. To the extent that some tribes are already providing transit services, the potential needs identified in this chapter may already have been satisfied.

Second, it should also be noted that the subgroup populations identified in this chapter cannot be combined to determine the actual size of each reservation's mobility-dependent population. This is the case because some residents may be part of multiple subgroups. Even though such occurrences are likely, tribe-to-tribe comparisons still produce valid comparisons of needs within tribal populations.

Lastly, identified needs do not necessarily translate into actual demand and ridership. Hence, the mobility-dependent populations identified in this chapter should not be automatically considered transit users. However, transit-dependent populations represent an important starting point in identifying mobility needs, demand for service, and eventual ridership.

Certain segments of the population cannot drive or lack access to an automobile and are therefore more likely to depend on public transportation for their mobility needs. The segments of the population generally described as mobility impaired include the following subgroups:

- Senior citizens (age 60 and over)
- People with disabilities
- Low-income persons
- School-age youth (ages 5-19)
- Households without automobiles

The ACS compiles population data on various geographic areas, including Indian reservations. As noted in the onset, the various subpopulations cannot be summarized to determine the total population of mobility-dependent residents on each reservation, particularly due to double counting (an individual could fall into multiple mobility-dependent subgroups).

However, using ACS population data, each reservation is ranked in each category relative to all other reservations. These individual rankings are then compiled to develop aggregate rankings that are summed to identify which reservations and related off-reservation trust lands have the largest populations of mobility-impaired residents. Comparisons of demographic needs presented in the remaining subsections of this chapter are compiled based on both actual mobility impaired population and percentage basis.

It is likely that tribal areas with the largest populations would have the most mobility-dependent population. Given that mobility-dependent populations likely translate to the need for transit services, and the fact that federal (FTA) funding for transit relies heavily on passenger revenue miles, the most populated tribal reservations would most likely receive most of the funding. However, some tribal reservations with comparatively smaller populations might have relatively higher concentrations of transit-dependent residents (e.g., low-income population) that would make them more suitable to receive transit funding from the FTA (e.g., Tier 3 tribal transit formula funding is based on low-income individuals).

It is, therefore, appropriate to identify transit-dependent populations based on both actual mobility-dependent population as well as percentage of the total population. The remaining sections of this chapter identify reservations that have the greatest concentrations, on a percentage basis, of transit-dependent subpopulations.

Tribal areas included in this ranking are federally recognized reservations, associated offreservation trust lands, and OTSAs in the lower 48 U.S. states with 500 or more residents. Those with fewer than 500 residents were excluded because the number of residents in some categories was so small that a change of only a very limited number of residents in any category would result in significant changes in related percentage rankings.

Reservations that receive relatively low rankings are not necessarily without needs. Additionally, a high ranking for a reservation does not mean the mobility needs of residents are going unmet. Some reservations may have transit services meeting residents' mobility needs. The following subsections rank reservations based on the percentage size of various transit-dependent subpopulations. In each case, the top 10 reservations in terms of percentage concentrations are listed. Each listing also includes the actual number of related residents on each reservation.

## 4.1 Senior Citizen Population

This section evaluates tribal area population described as seniors, which includes those aged 60 or older. Based on data from the ACS, 20.8% of the U.S population is seniors. Among all 399 tribal areas with available demographic data, 293 have a senior population greater than 20.8%. Specifically, 85 of the 213 tribal reservations with more than 500 residents have a senior population proportion greater than the national average (20.8%).

Table 4.1 ranks the top 10 federally recognized tribal areas according to the highest proportion of seniors, and Table 4.2 ranks tribal areas according to the number of seniors. Both are based on tribal areas with 500 or more residents. The proportion of seniors among reservations ranges from 51% for Agua Caliente Reservation and off-reservation trust lands to 7% for Mississippi Choctaw Reservation and off-reservation trust land. Some of the tribal areas with high concentrations of seniors could be explained less by aging and more by out-migration of younger tribal members to urban areas. Rural areas in general tend to have higher concentrations of older adults. The tribes shown in Table 4.1 are the exception, however, as the percentage of older adults in tribal areas overall is below the national average. Figure 4.1 illustrates the number of seniors for each tribal area.

0 1		
Tribal Area	% Seniors	Senior Population
Agua Caliente Tribe (CA)	51	13,111
Swinomish Tribe (WA)	45	1,326
Cocopah Tribe (AZ)	40	532
Samish Tribe (WA)	39	14,646
Fort Mojave Tribe (AZ-CA-NV)	37	626
Soboba Tribe (CA)	37	328
Washoe Tribe (NV-CA)	37	1,126
Seneca-Cayuga Tribe (OK)	36	1,610
Morongo Tribe (CA)	35	244
Yurok Tribe (CA)	34	295

Table 4.1 Tribal Areas with the Highest Proportion of Seniors

Tribal Area	% Seniors	Senior Population
Muscogee-Creek Nation (OK)	21	162,276
Cherokee Nation (OK)	22	114,410
Chickasaw Nation (OK)	23	71,164
Choctaw Nation (OK)	25	57,092
Kiowa Tribe (OK)	19	36,968
Cheyenne-Arapaho Tribe (OK)	20	36,296
Navajo Nation (AZ, NM, UT)	16	28,648
Citizen Potawatomi Nation (OK)	23	27,857
Samish Tribe (WA)	39	14,646
Sac and Fox (OK)	23	13,127

 Table 4.2
 Tribal Areas with the Largest Senior Population



Figure 4.1 Tribal Area Senior Population

## 4.2 Population with a Disability

According to data from the ACS, 12.6% of the U.S. population has a disability. In general, 262 of 399 tribal areas have more than 12.6% of their residents with at least one disability. The proportion of the population with a disability is greater than 12.6% in close to 78% (165 out of 213) of tribal reservations with 500 or more residents. Table 4.3 shows the top 10 reservations with the greatest proportion of residents with a disability, and Table 4.4 shows reservations with the largest population of people with a disability. The ranking is based on those with 500 or more residents. The percentage of population with a disability ranges from 30% to 7%, respectively, for Yurok Reservation (CA) and Toress-Martinez Reservation. The number of people with a disability ranges from 66 (Brighton Reservation, FL) to 110,463 (Creek Nation, OK). In general, the most populated tribal areas have the largest number of residents with a disability.

One of the most populated tribal areas, Choctaw Nation (4<sup>th</sup> most populous) has one of the largest proportions of seniors (22%), as well as one of the largest populations of people with a disability. Except for Osage Nation (OK) and Samish Tribe, the tribal areas with the most people with a disability have the most seniors as well. In terms of proportion of population with a disability, three tribal reservations, including Yurok, Seneca-Cayuga, and Soboba, rank highest among proportions of both seniors and people with a disability (common between Table 4.1 and Table 4.3). Figure 4.2 represents populations of people with a disability by reservation.

	% with a	Population with
Tribal Area	Disability	Disability
Yurok Tribe (CA)	30	255
Picuris Tribe (NM)	29	632
Seneca-Cayuga (OK)	25	1,125
Nez Perce Tribe (ID)	23	4,028
Salt River Tribe (AZ)	23	1,603
Fort Belknap Tribe (MT)	23	730
Soboba Tribe (CA)	23	202
Penobscot Tribe (ME)	23	186
Choctaw Nation (OK)*	22	49,783
Laguna Pueblo Tribe (NM)	22	840

Table 4.3 Tribal Areas with the Highest Proportion of People with a Disability

	% with a	Population with
Tribal Area	Disability	Disability
Muscogee-Creek Nation (OK)	14	110,463
Cherokee Nation (OK)	19	95,251
Chickasaw Nation (OK)	18	56,057
Choctaw Nation (OK)	22	49,783
Kiowa Tribe (OK)	19	33,049
Cheyenne-Arapaho Tribe (OK)	15	26,978
Navajo Nation (AZ, NM, UT)	15	26,323
Citizen Potawatomi Nation (OK)	17	19,603
Sac and Fox Nation (OK)	19	10,543
Osage Nation (OK)	19	8,572

 Table 4.4 Tribal Areas with the Largest Population of People with Disabilities



Figure 4.2 Populations of People with Disabilities in Tribal Areas

## 4.3 Low-Income Populations

The low-income population is defined as residents that have income below the poverty line. On average, 14.6% of the U.S. population is below the poverty line. About 293 of 399 tribal areas have more than 14.6% of their residents below the poverty line. In other words, 73% of tribal areas have above-average poverty rates. Table 4.5, Table 4.6, and Figure 4.3 rank reservations (500 or more residents) by low-income population.

	% Low Income	Low Income
Tribal Area	Population	Population
Rosebud Sioux Tribe (SD)	54	6,035
Sault Ste. Marie Tribe (MI)	52	1,095
Pine Ridge Tribe (SD-NE)	50	9,837
Karuk Tribe (CA)	50	273
Sokaogon Chippewa Tribe (WI)	49	264
Gila River Tribe (AZ)	49	5,719
Torres Martinez Tribe (CA)	48	1,453
Fort Belknap Tribe (MT)	48	1,516
Spirit Lake Tribe (ND)	46	2,009
San Carlos Apache Tribe (AZ)	46	4,788

 Table 4.5
 Tribal Areas with the Highest Proportion of Low-Income Population

Table 4.6	Tribal Areas	with the	Largest	Low-Income	Population
-----------	--------------	----------	---------	------------	------------

	% Low Income	Low Income
Tribal Area	Population	Population
Muscogee-Creek Nation (OK)	15	112,624
Cherokee Nation (OK)	19	96,369
Navajo Nation (AZ, NM, UT)	40	71,476
Choctaw Nation (OK)	21	46,922
Chickasaw Nation (OK)	15	45,129
Kiowa Tribe (OK)	17	31,002
Cheyenne-Arapaho Tribe (OK)	11	20,291
Citizen Potawatomi Nation (OK)	11	13,133
Pine Ridge Tribe (SD-NE)	50	9,837
Sac and Fox Nation (OK)	16	9,217



Figure 4.3 Tribal Area Low Income Population

Among the tribal reservations with 500 or more residents, the percentage of low-income populations ranges from 54% for Rosebud Tribe (SD) to 8% for Southern Ute Tribe (CO). The size of the low-income population ranges from 90 residents for Chitimacha Tribe (LA), to 112,624 residents under the poverty line for Creek Nation (OK). Tribal reservations with the largest percentages of low-income populations are some of the least populated. The most populated among those in Table 4.2 is Pine Ridge (SD-NE), with close to 20,000 residents.

Appearing in both Table 4.3 and Table 4.5, Fort Belknap Tribe has among the largest proportions of both people with a disability and low-income residents. Reservations with the highest number of low-income residents are the most populated, except for Pine Ridge (SD-NE), which appears in both Table 4.3 and Table 4.5.

The size of the low-income populations has become an important consideration in allocating federal funding for tribal transit (as discussed in a later section on funding). For example, tribal reservations with 1,000 or more low-income residents receive 25% of public transportation on Indian reservation federal formula funding (5311c). Based on ACS data, 95 reservations have 1,000 or more residents who are considered low-income.

## 4.4 School-Age Youth Populations

School-age youth includes residents between 5 and 19 years of age. Nationally, close to 19.5% of the U.S. population is between the ages of 5 and 19 according to data from the ACS. The proportion of school-age youth is greater than 19.5% for 256 of 399 tribal reservations. Table 4.7, Table 4.8, and Figure 4.4, respectively, show tribal areas (with 500 or more residents) with the largest proportion and population for residents aged 5 to 19 years old.

The percentage of school-age youth on tribal reservations ranges from 39% for the Squaxin Tribe to 8% for Agua Caliente Tribe, while the lowest youth population was 49 for Soboba Reservation with the highest of 157,570 school-age youth for Creek Nation (OK). The average proportion of school-age youth by reservation (those with 500 or more residents) is 23%. Close to 43% (91 out of 213) of the 213 reservations with 500 or more residents have a youth population above 23%. Two tribal reservations, Torres Martinez (CA) and Karuk (CA), have relatively high proportions of both poor residents and school-age youth. Reservations with the largest overall population have the highest number of school-age youth (Table 4.8)

	% School-age	School-age Youth
Tribal Area	Youth	Population
Squaxin Tribe (WA)	39	221
Ysleta del Sur Tribe (TX)	38	354
Santa Rosa Tribe (CA)	37	297
Seminole Tribe (FL)	36	239
Quechan Tribe (AZ-CA)	33	473
Mississippi Choctaw (MS)	33	2,607
Fort Gamble S'Klallam (WA)	33	197
Skokomish Tribe (WA)	33	287
Torres Martinez Tribe (CA)	33	989
Crow Creek Tribe (SD)	32	681

Table 4.7 Tribal Areas with the Highest Proportion of School-Age Youth

	% School Age	School Age Youth
Tribal Area	Youth	Population
Muscogee-Creek Nation (OK)	20	157,570
Cherokee Nation (OK)	21	108,119
Chickasaw Nation (OK)	21	64,176
Choctaw Nation (OK)	20	45,463
Navajo Nation (AZ, NM, UT)	25	44,398
Kiowa Tribe (OK)	20	39,062
Cheyenne-Arapaho Tribe (OK)	21	38,906
Citizen Potawatomi Nation (OK)	20	24,527
Sac and Fox Nation (OK)	20	11,505
Puyallup (WA)	21	10,522

 Table 4.8
 Tribal Areas with the Largest School-Age Youth Population



Figure 4.4 Tribal Area School-Age Youth Population

## 4.5 Households with No Automobile

Nationally, approximately 8.8% of households do not own an automobile, based on data from the ACS. In 51 of 143 tribal areas with 500 or more households, the percentage of households with no vehicle is greater than 8.8%. Rural areas across the country tend to have higher levels of automobile ownership. Only about 4% of households in rural areas do not have an automobile. Most tribal areas have higher carless rates than that. Tribal reservations with the highest proportion of no-vehicle households and those with the greater number of no-vehicle households are, respectively, shown in Table 4.9, Table 4.10, and Figure 4.5.

For reservations with 500 or more households, the percentage of households with no automobile ranges from 2% for Saint Regis Mohawk Reservation (NY) to 35% for Ak Chin Reservation (AZ). The reservation with the least number of households with no automobile was Pueblo of Nambe Reservation, NM (20), while Creek Nation, OK (18,880), had the most no-vehicle households. The average number of no-vehicle households for reservations with 500 or more households was 787, with an average proportion of no-vehicle household of 8%.

The most populated reservations have the largest number of no-vehicle households but have relatively lower proportions of households without an automobile, except for Navajo Nation, which has a noticeably high proportion of households without an automobile.

Tribal Area	% Households	No Vehicle Households
Ak Chin Tribe (AZ)	35	133
Gila River Tribe (AZ)	27	921
San Carlos Tribe (AZ)	23	534
White Mountain Apache Tribe (AZ)	23	810
Tohono O'odham Tribe (AZ)	22	638
Sault Ste. Marie Tribe (MI)	21	143
Rosebud Tribe (SD)	20	641
Zuni Tribe (NM-AZ)	19	371
Allegany Tribe (NY)	19	473
Pascua Yaqui Tribe (AZ)	19	171

Table 4.9 Tribal Areas with the Highest Proportion of Households without a Vehicle

Tribal Area	% Households	No Vehicle Households
Muscogee-Creek Nation (OK)	6	18,880
Cherokee Nation (OK)	6	11,283
Navajo Nation (AZ, NM, UT)	14	6,342
Choctaw Nation (OK)	6	5,792
Chickasaw Nation (OK)	5	5,496
Kiowa Tribe (OK)	7	5,055
Cheyenne-Arapaho Tribe (OK)	3	2,131
Sac and Fox Nation (OK)	6	1,420
Citizen Potawatomi Nation (OK)	3	1,330
Osage Tribe (OK)	5	929

 Table 4.10
 Tribal Areas with the Largest Number of Households without a Vehicle



Figure 4.5 Tribal Area No Vehicle Households
## 4.6 Aggregate Mobility Dependence

The preceding subsections of this chapter ranked tribal areas based on percentage of each of the five individual sub-mobility dependent categories. An average index is used to rank the mobility dependence for all reservations. This index is determined by summing the proportion of each of the five mobility-dependent subgroups and dividing by five.

The resulting percentage is a proxy reflecting the level of mobility dependence in each reservation. Moreover, the ensuing percentage provides an objective ranking of tribal reservations by aggregate level of mobility dependence. Using the actual population might lead to double counting because individuals could be in more than one mobility-dependent subgroup. Table 4.11 ranks the top 15 tribal areas based on percentage of mobility dependence, while Figure 4.6 is a map showing average aggregate mobility dependence proportions for all tribal areas. The highest ranked tribal areas in Table 4.11 are the least populated. In fact, Pine Ridge Reservation (SD-NE) with 19,779 is the most populated in Table 4.11.

As mentioned in the onset, mobility dependence or aggregate mobility dependence does not reflect unmet transit service needs because some of the reservations might already have transit needs being met by existing services. We cross check reservations in Table 4.11 with NTD data to verify reservations with existing transit systems. Eleven of the 15 reservations with the most aggregate mobility dependence are served by a tribal transit system.

Rank	Tribal Area	Aggregate Mobility Dependence (%)
1	Yurok Tribe (CA)*	27
2	Gila River Tribe (AZ)*	26
2	Sault Ste. Marie Tribe (MI)*	26
2	Tohono O'odham Tribe (AZ)	26
5	Cocopah Tribe (AZ)*	25
5	Fort Belknap Tribe (MT)*	25
5	Rosebud Tribe (SD)*	25
5	Sokaogon Tribe (WI)	25
6	White Mountain Apache Tribe (AZ)*	24
6	Karuk Tribe (CA)*	24
6	Ak Chin Tribe (AZ)	24
6	Pascua Yaqui Tribe (AZ)*	24
6	Pine Ridge Tribe (SD-NE)*	24
6	San Carlos Tribe (AZ)*	24
7	Crow Creek Tribe (SD)	23

 Table 4.11
 Aggregate Mobility Dependence – Percentage-Based Rank

\*existing tribal transit



Figure 4.6 Tribal Area Aggregate Mobility Dependence

Despite the predictive nature of the mobility-dependent approach, changes have been made to the tribal transit program. Funding apportionment for the tribal transit program at the federal level has evolved from competitive grants based on needs (e.g., proportion of mobility-dependent population) to a program heavily based on operations reflected in vehicle revenue miles (VRM). About 75% of federal funding is based on VRM, with the remainder apportioned based on low-income population. Reservations with 1,000 or more low-income residents are apportioned 25% of the funding. Section 5 discusses tribal transit funding, operations, and services.

### 4.7 Summary Statistics

Table 4.12 provides a summary of demographic data for all tribal areas with a population of 500 or more people, based on 2018 ACS five-year estimates. In the average tribal area, 19% of the population is aged 65 or older, 24% is aged 5 to 17, 16% has a disability, 27% has household income below the poverty level, and 9% are living in a household with no vehicle. The table also provides information about the distribution of demographic data. For example, in 10% of tribal areas, 42% or more of the population is below the poverty level and 18% or more of households do not have a vehicle.

	Aged 65 or		Population with	Below the	Households with
	Older	Aged 5-17	a Disability	Poverty Level	No Vehicles
		Pe	ercentage of total pop	oulation	
Mean	19	24	16	27	9
10th percentile	10	18	10	14	3
25th percentile	13	20	12	18	5
Median	19	23	16	26	7
75th percentile	23	28	18	35	12
90th percentile	29	31	21	42	18

**Table 4.12** Summary of Demographic Data for Tribal Areas

Tribal areas have a disproportionately higher percentage of some of these population groups. Table 4.13 compares demographic data of tribal areas with the same data for the entire United States and rural areas of the country. (The data are calculated differently for tribal areas in this table compared with Table 4.12, as the data represent a summation of population across all tribal areas rather than an average calculated for individual tribal areas). As shown in Table 4.13, tribal areas have a higher percentage of school-aged youth. The percentage of population aged 65 or older is similar to the U.S. average but below the rural average. The percentage of population with a disability in tribal areas is similar to what is found in rural areas of the country and is slightly higher than the U.S. average.

	United States	Rural Areas	American Indian Reservation and Trust Lands
	Perc	entage of total popula	ation
Age 5-17	17	17	21
Age 65+	15	19	14
Population with a Disability	13	15	15
Below the Poverty Level	14	12	28
Households with No Vehicles	9	4	9

 Table 4.13
 Demographic Data for Tribal Areas, Compared to U.S. and Rural Data

Source: American Community Survey, 2018 5-year estimates

The largest difference in demographics is found when calculating the percentage of population below the poverty level. Across tribal areas, 28% of the population is below the poverty level, which is twice the U.S. total of 14% and more than twice the rural average of 12%. Because of lower incomes, many people living in tribal areas cannot afford to own an automobile. This is especially important considering that most tribal areas are rural, low-density areas with longer travel distances, which makes it more difficult to live without a vehicle. Nine percent of households in tribal areas do not have a vehicle. This is similar to the U.S. average, but it is much higher than the rural average. As previously described, tribal areas are more similar to rural areas. High levels of poverty and lower levels of vehicle ownership, along with higher levels of school-aged youth and disability percentages like in other rural areas, indicate a need for transit services.

Differences in demographics can be further illustrated by examining the demographics of counties with high concentrations of Native American populations. Table 4.14 shows percentages of the population belonging to different demographic groups, categorized by county RUCC code and county Native American population. Counties with high concentrations of Native Americans have a higher percentage of school-aged youth, people living below the poverty level, and households with no vehicles. In counties where 45% or more of the population is Native American, 25% of the population is aged 5 to 19, 31% are living below the poverty level, and 16% of households do not have a vehicle. The percentage of households without a vehicle in these counties is greater than that for most urban counties, even though these are highly rural counties that are significantly more dependent on the automobile for travel.

County Category	Aged 5-19	Aged 65 or Older	Population with a Disability	Below the Poverty Level	Households with No Vehicles
County RUCC Code		Percent	age of total pop	ulation	
1	19	14	11	13	10
2	20	16	13	15	7
3	19	17	15	16	7
4	19	18	16	16	7
5	20	16	15	17	6
6	19	19	17	17	6
7	19	19	17	17	7
8	18	21	19	17	6
9	18	21	18	17	6
County Native					
American Population					
Greater than 25%	22	15	16	25	9
Greater than 45%	25	13	15	31	16

#### Table 4.14 Demographics by County RUCC Code and Native American Population

Source: American Community Survey, 2018 5-year estimates

# 5. TRIBAL TRANSIT FUNDING, OPERATION, AND SERVICE

As highlighted in the previous section, tribal areas have geographic and demographic features, such as low population densities and high concentrations of transportation-disadvantaged populations, which reflect both the challenges and the need for transit provision. Federal support for transit in rural areas began in 1978 with the Formula Grants for Rural Areas Program, or rural transit program (GAO, 2014). Figure 5.1 shows transit availability in tribal areas. Those served by transit are shown in green (1) and those without in red (0). As of 2017, there were 124 existing tribal transit systems in the lower 48 U.S. states. Appendix B shows summary operation data for individual tribal transit systems.



Figure 5.1 Tribal Areas With and Without Transit Systems

The rural transit program has been transformed over the years through passage of the 2005, 2012, and 2015 surface transportation funding policies. For example, federal funding for tribal transit increased from \$8 million in 2006 to \$35 million 2017. The number of tribal transit systems increased from 53 to 146 agencies from 2009 to 2017. Observed changes in funding, operation, and service have varied among the different reservations. An understanding of these changes would facilitate evaluation of funding and service gaps.

This chapter presents and analyzes tribal transit funding, operational, and service data on Indian reservations in the lower 48 states. The National Transit Database (NTD) from the Federal Transit Administration (FTA) collects data on transit system operations, including that for tribal transit agencies. Evaluation in this section is limited to federally recognized tribes (a tribe must be recognized by the federal government to receive funding) with available data from the NTD. Since the previous section on demographic needs is based on the five-year estimate (2013-2017) of the American Community Survey (ACS), evaluations in this section and subsequent sections are based on NTD data between 2013 and 2017.

# 5.1 Tribal Transit and Federal Funding

The Formula Grants for Rural Areas Program, or rural transit program, has undergone significant changes since its inception in 1978 with passage of the 2005, 2012, and 2015 federal surface transportation funding and authorization bills. These brought changes with direct impact on public transportation on tribal reservations. In 2005, Congress enacted the Safe, Accountable, Flexible, Efficient Transportation Equity Act – A Legacy for Users (SAFETEA-LU).

This transportation legislation created 5311(c)(2)(B), a new section of the rural transit program specifically tailored to providing funding for public transportation for Indian tribes. Funding under SAFETEA-LU began at \$8 million in 2006, rose to \$15 million in 2009, and remained at that level until 2012. Funding under the initial tribal transit program was allocated entirely on a discretionary basis (competitive grants).

In 2012, the Moving Ahead for Progress in the 21<sup>st</sup> Century Act (MAP-21), the surface transportation funding reauthorization legislation that replaced SAFETEA-LU, ushered in fundamental changes to the tribal transit program. In addition to doubling funding for tribal transit (\$15 million to \$30 million), MAP-21 changed funding allocation from entirely discretionary by including an additional process based on transit system operations (VRM) as well as consideration for one of the demographic needs indicators (number of low-income individuals).

VRM reflects mileage that transit vehicles travel while in revenue service. The idea of considering low-income population as funding criteria is likely because lower-income individuals are less likely to own a vehicle or be able to afford the costs of operating one, hence a greater reliance on public transit. Figure 5.2 reflects the funding allocation under MAP-21 for tribal transit.



Figure 5.2 Tribal Transit Funding Allocation, MAP-21

Changes brought by MAP-21 to the public transportation on Indian reservations program meant that 83% (\$25 of the \$30 million) of annual funding was allocated by formula (based on VRM) while the remaining 17% (\$5 million) was distributed on a discretionary basis (competitive grant). The formula process allocates funding by dividing tribes into three tiers. Tier 1 funding, which represents half (\$12.5 million) of the total formula funds, is allotted proportionately based on VRM (tribes with relatively higher VRM receive more funding).

Allotment of a quarter of the formula amount (\$6.25 million) is equally distributed to tribes with 200,000 or more VRM under Tier 2. The remaining \$6.25 million in Tier 3 funding is shared among tribes with 1,000 or more low-income residents. However, no tribe receives more than 5% (\$300,000) of the \$6.25 million in Tier 3 funding. In 2015, Fixing America's Surface Transportation Act (FAST Act) maintained all changes to the tribal transit program initiated in MAP-21, except for funding levels.

The FAST Act increased total funding for the tribal transit program from \$30 million to \$35 million beginning 2016. The level of discretionary funding was maintained at \$5 million (14% of total funding); whereas formula funding increased from \$25 million to \$30 million (86% total funding) annually. Figure 5.3 shows tribal transit funding allocation under the FAST Act.



**Figure 5.3** Tribal Transit Funding Allocation, Under the Fast Act \*increased funding

The change in funding allocation from an entirely discretionary process has meant more emphasis on tribal transit system operation. Between 2013 and 2017, close to 84% (\$135 million out of \$160 million) of 5311(c) public transportation on Indian reservations funds have been allocated by formula. Table 5.1 shows tribal reservations with the largest total formula funding between 2013 and 2017, and Figure 5.4 is a map with locations and relative sizes of funding amounts.

	Five-Year	Annual	
Tribal Reservation/Tribe	<b>Total</b> (\$000)	Average (\$000)	Population (Rank)
Menominee Tribe (WI)	5,776	1,155	3,559 (86 <sup>th</sup> )
Chickasaw Nation (OK)	5,341	1,068	311,009 (3 <sup>rd</sup> )
Navajo Nation (AZ, NM, UT)	5,180	1,036	175,005(7 <sup>th</sup> )
Muscogee-Creek Nation (OK)	5,021	1,004	786,729 (1 <sup>st</sup> )
Choctaw Nation (OK)	4,957	991	231,579 (4 <sup>th</sup> )
Flathead Tribe (MT)	4,716	943	29,218 (14 <sup>th</sup> )
Mississippi Choctaw Tribe (MS)	4,453	890	7,823 (48 <sup>th</sup> )
Cherokee Nation (OK)	4,293	859	515,412 (2 <sup>nd</sup> )
Pine Ridge Tribe (SD-NE)	3,879	776	19,779 (23 <sup>rd</sup> )
Kiowa Tribe (OK)	3,804	761	193,659 (5 <sup>th</sup> )

 Table 5.1
 Tribal Reservation Total Formula Funding, 2013-2017



Figure 5.4 Tribal Reservation Total Formula Funding, 2013-2017

Since allotment is based on VRM, it is likely that Indian reservations with the largest populations would receive the largest share of formula funding. This is potentially the case given the link between population size and size of the mobility-dependent sub-population. Between 2013 and 2017, 148 Indian reservations received at least one of two types of federal funding (formula and discretionary) or both.

Total formula funding received between 2013 and 2017 by reservations ranged from \$13,000 for Lower Elwha Tribe (WA) to \$5.8 million for Menominee Tribe (WI) for the five-year period. In the same time period, 121 reservations in the lower 48 states received 5311(c) formula funding. About half (59) of the 121 reservations received formula funding exclusively (did not receive discretionary funding during the five-year period). The top 10 reservations in terms of size of funding in Table 5.1 represent an estimated 35% (\$47 million) of the total \$135 million in formula from 2013 to 2017.

Six of the top 10 reservations in Table 5.1 are the most populated. On the other hand, the other four reservations in Table 5.1 are relatively less populated. For example, Menominee Tribe (WI) received the most in formula funds, yet it has a relatively low population. Menominee Tribe (WI) received close to \$755,000 more in total formula funds between 2013 and 2017. Menominee Regional Public Transit is a large rural transit system that serves areas outside the reservation and across Wisconsin.

The fact that four of the top 10 reservations include those with significantly smaller populations suggests that passenger trip distance rather than just the number of likely riders could be playing a larger role in determining VRM. Trip characteristics and other determinants of VRM are discussed in the section on tribal transit operation and service. Table 5.2 and Figure 5.5, respectively, show the top 10 reservations with the most discretionary funding and a map of the relative funding size by tribal area.

	Five-Year Total	Annual Average	
Tribal Reservation/Tribe	(\$000)	(\$000)	Population (Rank)
Bois Forte Tribe (MN)	885	221 (4 years)	1,087 (141 <sup>st</sup> )
Cherokee Nation (OK)	826	207 (4 years)	515,412 (2 <sup>nd</sup> )
Miami/Peoria Tribe (OK)	646	162 (4 years)	4,367 (74 <sup>th</sup> )
Choctaw Nation (OK)	630	210 (3 years)	231,579 (4 <sup>th</sup> )
Flathead Tribe (MT)	630	210 (3 years)	29,218 (14 <sup>th</sup> )
Muckleshoot Tribe (WA)	630	210 (3 years)	3,956 (79 <sup>th</sup> )
Cheyenne River Tribe (SD)	550	183 (3 years)	8,527(47 <sup>th</sup> )
Yakama Nation (WA)	515	129 (4 years)	31,145 (13 <sup>th</sup> )
Lac du Flambeau (WI)	500	167 (3 years)	3,406 (88 <sup>th</sup> )
Crow Tribe (MT)	494	165 (3 years)	7,096 (53 <sup>rd</sup> )

 Table 5.2
 Tribal Reservation with Most Total Discretionary Funding, 2013-2017



Figure 5.5 Tribal Reservation Total Discretionary Funding, 2013-2017

Close to 16% (\$25 million) of the total \$160 million of public transportation on Indian reservation funding between 2013 and 2017 was allocated through the grant funding (discretionary) process. Contrary to the formula funding process, which is based on operation (75% on VRM) and the number of low-income residents (25%), reservations or tribal transit systems must apply for discretionary funding (provide information to show funding need). From 2013 to 2017, 88 Indian reservations received discretionary funding from the public transportation on Indian reservation program. About 30% (26) received more in grant funding relative to formula funding between 2013 and 2017.

The top 10 reservations listed in Table 5.2 make up about a quarter (\$6.3 million) of the total \$25 million allocated for the discretionary program from 2013 to 2017. Only two of the most populated tribal areas, Cherokee and Choctaw Nations in Oklahoma, are ranked among those receiving the most discretionary funding (Table 5.2). A general observation in Table 5.2 is that reservations with relatively smaller population sizes have received the most in discretionary funding.

In general, two trends can be gleaned from the analysis on funding for public transportation on Indian reservations presented above. First, it appears that the most populated reservations tend to receive the most in 5311 (c) formula funding, with a few exceptions. Menominee Tribe (WI), a relatively less populated reservation, received the most in formula funding. However, six of the most populated tribal areas also rank in the top 10 in formula funding received.

Second, relatively less populated reservations are the dominant recipients of discretionary funding. In fact, four of the top 10 reservations receiving discretionary funding have populations below 5,000, and six are below 10,000. In looking at the top formula and discretionary funding recipients, only two reservations appear on both Table 5.1 and Table 5.2. This further adds credence to both trends discussed above. Table 5.3 shows reservations with most total 5311(c) funding, and Figure 5.6 is a map showing relative funding size.

	Five-Year	Annual Average	
Tribal Reservation/Tribe	<b>Total</b> (\$000)	(\$000)	Population (Rank)
Menominee Tribe (WI)	6,076	1,215	3,559 (86 <sup>th</sup> )
Choctaw Nation (OK)	5,587	1,117	231,579 (4 <sup>th</sup> )
Flathead Tribe (MT)	5,345	1,069	29,218 (14 <sup>th</sup> )
Muscogee-Creek Nation (OK)	5,345	1,069	786,729 (1 <sup>st</sup> )
Chickasaw Nation (OK)	5,341	1,068	311,009 (3 <sup>rd</sup> )
Navajo Nation (AZ, NM, UT)	5,180	1,036	175,005(7 <sup>th</sup> )
Cherokee Nation (OK)	5,119	1,024	515,412 (2 <sup>nd</sup> )
Mississippi Choctaw Tribe (MS)	4,749	950	7,823 (48 <sup>th</sup> )
Pine Ridge Tribe (SD-NE)	4,129	826	19,779 (23 <sup>rd</sup> )
Kiowa Tribe (OK)	3,804	761	193,659 (5 <sup>th</sup> )

Table 5.3 Tribal Reservation Total 5311(c) Funding, 2013-2017



Figure 5.6 Tribal Reservation Total 5311(c) Funding, 2013-2017

The reservations with the highest total funding from the 5311(c) program shown in Table 5.3 essentially reflect that for formula funding (Table 5.1). The difference in size of funding amount stems from reservations that received formula funding in addition to discretionary funding. That is, as mentioned previously, some reservations received formula funding exclusively; whereas others received both types of funding during the period of evaluation. All reservations with any form of transit receive proportional funding from Tier 1 formula funding. Reservations might receive discretionary funding exclusively for a couple of reasons, including failure to report VRM to the FTA (NTD database) or if low-income population is less than the 1,000 threshold to receive Tier 3 formula funding. Overall, total funding is similarly dominated by the most populous reservations as shown in Table 5.3.

### 5.2 Tribal Transit Funding Sources and Structure

Funding for tribal transit comes from federal, state, local, and other sources. In addition to the public transportation on Indian reservations, 5311(c) program described in the preceding section, several other federal programs targeting non-urbanized areas are available to Indian reservations. These include the Rural Formula program (5311) and Enhanced Mobility for Seniors and People with Disabilities Formula (5310). Revenues from state general funds, state-level taxes, local general funds, and transit-dedicated taxes are some of the main state and local government

sources of funding for tribal transit. The other funding category includes fares, other revenues (advertising, non-transportation, charter), and donations. Total tribal transit funding and percentage by funding source between 2013 and 2017 are respectively shown in Figure 5.7 and Figure 5.8.



Figure 5.7 Tribal Transit Total Operation and Capital Funding, 2013-2017



Figure 5.8 Tribal Transit Share by Funding Source, 2013-2017

Based on data from the NTD between 2013 and 2017, federal, state, local, and other sources have contributed about \$304 million in funding toward transit in tribal reservations. Total funding from all sources increased by 24% from 2013 to 2017. Apart from federal funding that increased during the five-year period, funding from the remaining three sources have remained steady (Figure 5.7). Federal sources of funding rose by 30% between 2013 (\$33 million) and 2017 (\$47 million). In fact, on average, federal funding represents an estimated 64% of all operating and capital funding for tribal transit (Figure 5.8).

Local funds are the second largest funding source for tribal transit. Local funding represents an estimated 72% (\$78 million) of the total \$108 million from non-federal funding sources, while state (\$15 million) and other (\$14.7 million) sources each make up 14% of the total combined non-federal sources of tribal transit funding between 2013 and 2017. Since state, local, and other sources of funds are derived from levied taxes, among other sources, population size is likely an important determinant of the size of funds received by tribal reservations for transit. Reservations with the most local funds are shown in Table 5.4, while a map showing the relative size of local funding is shown in Figure 5.9.

	Five-Year Total	Annual Average	
Tribal Reservation/Tribe	(\$000)	(\$000)	Population (Rank)
Chickasaw Nation (OK)	9,012	1,802	311,009 (3 <sup>rd</sup> )
Mississippi Choctaw Tribe (MS)	4,790	958	7,823 (48 <sup>th</sup> )
Choctaw Nation (OK)	4,245	849	231,579 (4 <sup>th</sup> )
Navajo Nation (AZ, NM, UT)	4,017	803	175,005(7 <sup>th</sup> )
Kiowa Tribe (OK)	3,861	772	193,659 (5 <sup>th</sup> )
Chemehuevi Tribe (CA)	3,471	694	317 (210 <sup>th</sup> )
Cheyenne River Tribe (SD)	2,654	531	8,527(47 <sup>th</sup> )
Fond du Lac Tribe (MN-WI)	2,638	528	4,011 (77 <sup>th</sup> )
Menominee Tribe (WI)	2,500	500	3,559 (86 <sup>th</sup> )
Mashantucket Pequot Tribe (CT)	2,341	468	235 (228 <sup>th</sup> )

 Table 5.4
 Tribal Transit Total Local Funding, 2013-2017



Figure 5.9 Tribal Transit Total Local Funding, 2013-2017

Total local funding ranged from the lowest amount of \$19 (Pascua Yaqui Tribe, AZ) to a little over \$9 million received by Chickasaw Nation (OK). Four of the top 10 most populated reservations are ranked in the top five of those receiving the most in local funding (Table 5.4). The tribal area that received the most in local funding, Chickasaw Nation (OK), received almost twice as much in local funding as the second tribal area.

On the other hand, six of the tribal areas in Table 5.4 are comparatively less populated. The fact that less populated reservations received relatively large financial support locally suggests that the size of the population is not necessarily the main determinate in level of local funding. Table 5.5 shows reservations with the most funds from "other" sources, and Figure 5.10 is relative funding size from other sources for all tribal areas.

	Five-Year Total	Annual Average	
Tribal Reservation/Tribe	(\$000)	(\$000)	Population (Rank)
Menominee Tribe (WI)	3,955	791	3,559 (86 <sup>th</sup> )
Winnebago Tribe (NE)	1,298	260	2,893 (103 <sup>rd</sup> )
Chemehuevi Tribe (CA)	1,146	229	317 (210 <sup>th</sup> )
Navajo Nation (AZ, NM, UT)	972	194	175,005 (7 <sup>th</sup> )
Mississippi Choctaw Tribe (MS)	883	177	7,823 (48 <sup>th</sup> )
Eastern Band of Cherokee Tribe (NC)	732	146	9,534 (42 <sup>nd</sup> )
Rosebud Sioux Tribe (SD)	486	97	11,354 (33 <sup>rd</sup> )
Flathead Tribe (MT)	336	67	29,218 (14 <sup>th</sup> )
Standing Rock Tribe (ND)	287	57	8,616 (46 <sup>th</sup> )
San Carlos Apache Tribe (AZ)	277	55	10,611 (37 <sup>th</sup> )





Figure 5.10 Tribal Transit Total Other Funding, 2013-2017

Other funding ranged from \$964 (White Mountain Apache Tribe, AZ) to nearly \$4 million received by Menominee Tribe (WI) between 2013 and 2017. Only one of the most populated reservations, Navajo Nation (AZ-NM-UT), appears on the list of top 10 recipients of "other" funding (Table 5.5). Results in Table 5.5 provide additional support of the fact that population size does not determine the level of "other" funding.

Table 5.6 and Figure 5.11 provide information on total state funding for tribal transit between 2013 and 2017. State support ranged from \$1,533 received by Pueblo of Laguna (NM) to nearly \$3 million in state support for Menominee Tribe (WI). Reservations that received the most in state funding are some of the least populated (none of the top 10 most populated tribal areas appear on Table 5.6). Menominee Tribe (WI) received the most in "other" and state funding sources. Recall that Menominee Tribe also received the most in federal funding (due to largest total VRM from 2013 to 2017). Overall, the size of non-federal support (state, local, and other) does not relate to the relative population size of tribal reservations.

	Five-Year Total	Annual Average	Population
Tribal Reservation/Tribe	(\$000)	(\$000)	(Rank)
Menominee Tribe (WI)	2,960	592	3,559 (86 <sup>th</sup> )
Umatilla Tribe of the (OR)	1,735	347	2,922 (100 <sup>th</sup> )
Spokane Tribe (WA)	985	197	2,145 (107 <sup>th</sup> )
Seneca Nation (NY)	790	158	8,527 (tied, 47 <sup>th</sup> )
Lummi Nation (WA)	636	127	5,331 (63 <sup>rd</sup> )
Confederate Tribe of Grand Ronde (OR)	580	116	494 (189 <sup>th</sup> )
Klamath Tribe (OR)	578	116	36 (298 <sup>th</sup> )
Standing Rock Tribe (ND)	528	106	8,616 (46 <sup>th</sup> )
Salt River Pima Tribe (AZ)	491	98	7,087 (54)
Kalispel Tribe (WA)	471	94	215 (235 <sup>th</sup> )

 Table 5.6
 Tribal Transit Total State Funding, 2013-2017



Figure 5.11 Tribal Transit Total State Funding, 2013-2017

After discussing funding sources, we next evaluate the structure of funds received from all major sources for tribal transit. This will allow an examination of operational or capital spending. Operating expenses are those associated with the operation of the transit agency or consumable items with a useful life of less than one year. Capital expenditures in general are those related to the purchase of equipment or non-expendable tangible items with a useful life of more than one year. Figure 5.12 and Figure 5.13, respectively, show tribal transit expenditures by type and average from 2013 to 2017.



Figure 5.12 Tribal Transit Funding Structure, 2013-2017



Figure 5.13 Tribal Transit Operating and Capital Expenditure, 2013-2017

As Figure 5.12 shows, total tribal transit expenditures dedicated to operation has increased at a significantly higher rate compared with those for capital expenditures, which witnessed a slight decline during the 2013 to 2017 period. Operational expenditures rose by 30% while capital expenditures declined by 24% from 2013 to 2017. For the five-year period, operating expenditures represented an estimated 88% of total tribal transit cost. Table 5.7 and Figure 5.14, respectively, show tribal transit systems with the most in operating expenditures and relative size of these expenditures for all reservations.

	Five-Year Total	Annual Average	
Tribal Reservation/Tribe	(\$000)	(\$000)	Population (Rank)
Menominee Tribe (WI)	20,883	4,177	3,559 (86 <sup>th</sup> )
Mississippi Choctaw Tribe (MS)	14,650	2,930	7,823 (48 <sup>th</sup> )
Navajo Nation (AZ, NM, UT)	11,816	2,363	175,005 (7 <sup>th</sup> )
Chickasaw Nation (OK)	11,624	2,325	311,009 (3 <sup>rd</sup> )
Flathead Tribe (MT)	7,196	1,439	29,218 (14 <sup>th</sup> )
Muscogee-Creek Nation (OK)	6,745	1,349	786,729 (1 <sup>st</sup> )
Choctaw Nation (OK)	6,508	1,302	231,579 (4 <sup>th</sup> )
Cherokee Nation (OK)	5,928	1,186	515,412 (2 <sup>nd</sup> )
Umatilla Tribe (OR)	5,461	1,092	2,922 (100 <sup>th</sup> )
Oneida Tribe (WI)	5,336	1,067	24,460 (20 <sup>th</sup> )

 Table 5.7
 Tribal Transit Total Operating Expenditure, 2013-2017



Figure 5.14 Tribal Transit Total Operating Expenditure, 2013-2017

On average, tribal transit systems spent close to \$2.2 million in operational expenses on average between 2013 and 2017. Half of the reservations in Table 5.7 are among the most populated (ranked in top 10). Despite featuring some of the most populated reservations, other less populated reservations like Menominee Tribe, WI, spent the most in operation. In fact, Table 5.7 is similar to Table 5.3, which shows tribal reservations with the most in total federal funding from the public transportation on Indian reservation 5311 program. This is intuitive given that a larger share of federal funding for tribal transit is based in VRM. A tribal transit system with more vehicle miles is likely to spend more on operational expenses representing day-to-day usage of transit assets (e.g., vehicle maintenance, wages). Moreover, operational expenses are the larger proportion (88%) of expenditures.

Tribal transit systems with the most total capital expenses and capital expenses by reservation between 2013 and 2017 are shown, respectively, in Table 5.8 and Figure 5.15. Six of the tribal transit systems with the most operational expenditures are also ranked among those with the largest capital expenses. Capital expenses range from a few hundred dollars for Pueblo of San Ildefonso to about \$6 million for Menominee Tribe, WI.

An average of \$297,000 was spent on capital expenditures. This compares with close to \$2.2 million on average spent on operational expenses, showing the disparity between capital and operating expenditures and supporting the idea that tribal transit systems have witnessed a slower pace of expansion in the last five years (few new systems warranting relatively larger capital expenses like new buses and vans).

	Five-Year Total	Annual Average	Population
Tribal Reservation/Tribe	(\$000)	(\$000)	(Rank)
Menominee Tribe (WI)	5,618	1,124	3,559 (86 <sup>th</sup> )
Mississippi Choctaw Tribe (MS)	4,341	868	7,823 (48 <sup>th</sup> )
Navajo Nation (AZ, NM, UT)	2,208	442	175,005 (7 <sup>th</sup> )
Choctaw Nation (OK)	1,696	339	231,579 (4 <sup>th</sup> )
Bad River Tribe (WI)	1,355	271	1,545 (122 <sup>nd</sup> )
Fort Peck Tribe (MT)	1,154	231	10,374 (38 <sup>th</sup> )
Umatilla Tribe (OR)	1,074	215	2,922 (100 <sup>th</sup> )
Eastern Band of Cherokee Tribe (NC)	943	189	9,534 (42 <sup>nd</sup> )
Chemehuevi Tribe (CA)	707	141	317 (210 <sup>th</sup> )
Cherokee Nation (OK)	668	134	515,412 (2 <sup>nd</sup> )

 Table 5.8
 Tribal Reservation Total Capital Expenditure, 2013-2017



Figure 5.15 Tribal Transit Total Capital Expenditure, 2013-2017

# 5.3 Tribal Transit Service Provision and Consumption

Increased funding for tribal transit has spurred a growth in tribal transit systems. This growth is reflected in the number of systems and measures of service provided (e.g., VRM, vehicle revenue hours, [VRH]) and service consumed (e.g., unlinked passenger trips, [UPT], passenger miles traveled, [PMT]) over time. Figure 5.16 shows the number of tribal transit systems in the lower 48 states between 2013 and 2017.

The number of tribal transit agencies during this period increased about 36% from 91 (2013) to 124 (2017) agencies. Although the pace of growth in the number of tribal agencies has slowed, especially from 2016 to 2017, the observed increase in the number of agencies reflects expansion in service provided (e.g., VRM, VRH) and consumed (e.g., UPT). Recall that VRM is central to the federal transit funding allocation for the public transportation on Indian reservation program (5311c).



Figure 5.16 Tribal Transit Agencies, 2013-2017

Figure 5.17 and Figure 5.18, respectively, show total VRM and VRM by mode for tribal transit agencies from 2013 to 2017. In general, total VRM increased by close to 17% during this five-year period. The largest VRM was observed in 2015 (close to 21 million VRM). Tribal transit vehicles traveled an estimated 19.2 million miles annually, on average, between 2013 and 2017. Demand response transit dominated total VRM. Total VRM associated with demand response transit represented about 56% of all VRM for the five-year period. Fixed-route bus, commuter bus, and vanpool, respectively, represented 36%, 6.7%, and 1.3% of all VRM.



Figure 5.17 Tribal Transit Total Vehicle Revenue Miles, 2013-2017



Figure 5.18 Total Vehicle Revenue Miles by Mode, 2013-2017

VRH, the time in hours in which vehicles operate while in revenue service, is another variable reflecting service provision. Data for VRH for the five-year period and by mode are shown in Figure 5.19 and Figure 5.20. In general, VRH has witnessed a 10% increase between 2013 and 2017. The highest VRH was in 2015, with an estimated 7% decline observed in 2016. On average, tribal transit vehicles spent approximately 882,000 hours in revenue service per year. Two modes, demand response (57%) and fixed-route service (36%), made up almost the entirety (93%) of all VRH between 2013 and 2017; the other four modes, including commuter bus (4.5%), ferryboat (1.3%), vanpool (0.9%), and demand response taxi (0.2%), made up the remaining 7%.



Figure 5.19 Total Vehicle Revenue Hours, 2013-2017



Figure 5.20 Total Vehicle Revenue Hours by Mode, 2013-2017

The amount of tribal transit services consumed, reflected by unlinked passenger trips (UPT), also trended upwards from 2013 to 2017. Figure 5.21 and Figure 5.22 show trips by mode and total trips, respectively, from 2013 to 2017. Total UPT is the number of passengers boarding transit vehicles. Tribal transit trips for the five-year period ranged from close to 2.7 million trips in 2013 to 3.6 million trips in 2017. Tribal transit systems provided 3.2 million trips on average for the five-year period.

Total tribal transit trips declined from 2015 to 2016 (3.6 to 3.3 million trips), like the observed decline in service provision during the same period. Fixed-route service has the largest proportion (41%) of total trips. Demand response, ferryboat, and commuter bus, respectively, made up 34%, 17%, and 7% of all trips from 2013 to 2017.



Figure 5.21 Tribal Transit Total Trips by Mode, 2013-2017



Figure 5.22 Tribal Transit Total Trips, 2013-2017

Given the wide range in land area and population size, and consequently population density, it is expected that measures of tribal transit service provision (VRM, VRH) and consumption (UPT) would vary among tribal reservations. Table 5.9 shows the reservations with the largest total VRM and population density ranking for all 111 reservations with at least one transit agency with available data between 2013 and 2017. During the five-year period, total VRM ranged from 3,871 (Pueblo of San Ildefonso, NM) to nearly 7.8 million VRM (Menominee Tribe, WI).

	Five-Year Total	Annual Average	Pop/Sq. Miles
Tribal Reservation/Tribe	(000)	(000)	(Rank)
Menominee Tribe (WI)	7,753	1,551	10 (68 <sup>th</sup> )
Mississippi Choctaw Tribe (MS)	4,208	842	149 (22 <sup>nd</sup> )
Choctaw Nation (OK)	4,140	828	22 (46 <sup>th</sup> )
Chickasaw Nation (OK)	3,970	794	43 (35 <sup>th</sup> )
Navajo Nation (AZ, NM, UT)	3,731	746	7 (76 <sup>th</sup> )
Salish and Kootenai Tribe (MT)	3,676	735	15 (54 <sup>th</sup> )
Eastern Band of Cherokee Indian Tribe (NC)	2,368	474	117 (25 <sup>th</sup> )
Umatilla Tribe (OR)	2,315	463	11 (66 <sup>th</sup> )
San Carlos Apache Tribe (AZ)	2,138	428	4 (93 <sup>rd</sup> )
Pine Ridge Tribe (SD-NE)	2,078	416	5 (84 <sup>th</sup> )

 Table 5.9
 Tribal Reservations Most Total Vehicle Revenue Miles, 2013-2017

The average transit agency provided 891,173 VRM between 2013 and 2017 (178,235 miles per year). The reservations with the most VRM in Table 5.9 also tend to be those that received the most in federal funding (Table 5.9 and Table 5.3 have six reservations in common). Recall that 75% of federal funding is based on VRM (tier 1 and tier 2). Overall, the reservations with the highest VRM have comparatively lower population densities. The comparatively lower densities and higher VRM suggest that trip lengths are relatively longer on average (NTD does not provide trip length information for tribal transit). Figure 5.23 shows the relative size of VRM by tribal area. Tribal areas without transit services or VRM of zero are in red (0). Zero VRM could also be due to non-reporting.



Figure 5.23 Tribal Transit Total Vehicle Revenue Miles, 2013-2017

Given the potential for wide variability in distances that tribal transit vehicles travel while in service, the time that vehicles travel is also likely to vary. Table 5.10 shows reservations with the most total VRH and associated population density ranking, and Figure 5.24 shows the relative size of total VRH by reservation between 2013 and 2017 (reservations with zero VRH or with no transit services are shown in red).

	Five-Year Total	Annual Average	Pop/Sq. Miles
Tribal Reservation/Tribe	(000)	(000)	(Rank)
Menominee Tribe (WI)	339	68	10 (68 <sup>th</sup> )
Eastern Band of Cherokee Tribe (NC)	245	49	117 (25 <sup>th</sup> )
Salish and Kootenai Tribe (MT)	180	36	15 (54 <sup>th</sup> )
Chickasaw Nation (OK)	179	36	43 (35 <sup>th</sup> )
Mississippi Choctaw Tribe (MS)	157	31	149 (22 <sup>nd</sup> )
Colville Tribe (WA)	147	29	4 (96 <sup>th</sup> )
Oneida Tribe (WI)	112	22	239 (16 <sup>th</sup> )
Kiowa Tribe (OK)	104	21	31(41 <sup>st</sup> )
Navajo Nation (AZ, NM, UT)	103	21	7 (76 <sup>th</sup> )
Choctaw Nation (OK)	102	20	22 (46 <sup>th</sup> )

 Table 5.10
 Tribal Reservations Most Total Vehicle Revenue Hours, 2013-2017



Figure 5.24 Total Tribal Transit Vehicle Revenue Hours, 2013-2017

Between 2013 and 2017, total VRH ranged from 450 VRH for White Mountain Apache Tribe (AZ) to 338,479 VRH for Menominee Tribe (WI). The average transit agency total VRH during the five-year period was 40,869 (8,174 per year). Results suggest that total VRH and VRM are closely related. Although not in similar order, seven of the 10 tribal transit systems with the most VRM have the largest VRH as well.

Total UPT varied widely among reservations between 2013 and 2017. Table 5.11 shows reservations with the most total trips, while Figure 5.25 shows the relative size of total trips by reservation between 2013 and 2017. Since the consumption of transit service is closely tied to service availability or service provision, total passenger trips are likely to closely track VRM. Reservation transit systems with the highest VRM are likely to have the most trips.

	Five-Year Total	Annual Average	Pop/Sq. Miles
Tribal Reservation/Tribe	(000)	(000)	(Rank)
Chemehuevi Tribe (CA)	2,082	416	7(81 <sup>st</sup> )
Mashantucket Pequot Tribe (CT)	1,286	429 (3 years)	92(28 <sup>th</sup> )
Navajo Nation (AZ, NM, UT)	1,021	204	7 (76 <sup>th</sup> )
Menominee Tribe (WI)	851	170	10 (68 <sup>th</sup> )
Colville Tribe (WA)	668	134	4 (95 <sup>th</sup> )
Coeur d'Alene Tribe (ID)	662	220 (3 years)	14 (58 <sup>th</sup> )
Umatilla Tribe (OR)	445	89	11 (66 <sup>th</sup> )
Eastern Band of Cherokee Tribe (NC)	351	70	117 (25 <sup>th</sup> )
Rosebud Sioux Tribe (SD)	342	68	6 (83 <sup>rd</sup> )
Fort Peck Tribe (MT)	336	67	3 (98 <sup>th</sup> )

 Table 5.11
 Tribal Transit Most Total Passenger Trips, 2013-2017



Figure 5.25 Total Tribal Transit Unlinked Passenger Trips, 2013-2017

Total UPT made on tribal transit between 2013 and 2017 ranged from 54 trips (Pueblo of San Ildefonso, NM) to more than 2 million total trips for Chemehuevi Tribe (CA). Tribal transit systems provided 154,860 passenger trips on average for the five-year period (30,972 trips per year). A notable observation is that reservations with the highest VRM are not necessarily those with the most trips. Only four reservations are common between Tables 5.10 and 5.11 (Navajo Nation, Menominee Tribe, Umatilla Tribe, and Eastern Band of Cherokee Tribe). Systems with relatively higher VRM and comparatively lower trips are likely serving longer distance trips. On the other hand, systems with comparatively higher total trips and lower VRM suggest shorter passenger trip length.

### 5.4 Tribal Transit Needs

Rural areas are often characterized by comparatively lower population densities. As a result, local governments and transportation agencies face challenges in providing transit. Furthermore, most tribal reservations have significantly lower population densities comparted with other rural areas. Hence, challenges associated with the provision of mobility options in tribal areas are unique. These challenges are exacerbated by the lack of resources. This section points to likely services gaps and funding needs by comparing tribal transit provision, consumption, and funding with that of other rural areas in the United States.

#### 5.4.1 Tribal Mobility Gaps

As noted previously, tribal areas have unique demographic and geographic characteristics. They are characterized by higher concentrations of low-income households and low population densities. Compared with other rural areas, they have a higher percentage of households without a vehicle. These differences in demographic and geographic characteristics can result in different transportation characteristics, such as differences in the number of trips taken or miles traveled.

The National Household Travel Survey (NHTS) collects information on travel behavior of individuals and households across the country. While the NHTS does not collect enough responses to yield travel behavior data for smaller geographic areas, such as counties, census tracts, or Indian reservations, the Bureau of Transportation Statistics (BTS) developed a model that allows for estimation of data at the census tract level. (https://www.bts.gov/latch/latch-data) The model estimates household travel for six regions of the country, further differentiated as urban, suburban, and rural, based on household characteristics (such as income, number of vehicles, and household life cycle). The BTS used the results from the model and census-tract-level household data from the ACS to estimate travel data for each census tract. The resulting estimates are referred to as the Local Area Transportation Characteristics for Households (LATCH) data.

To study the differences in travel behavior for tribal areas, 2017 LATCH data were analyzed for census tracts with a high concentration of Native American population and were compared with other census tracts from rural areas. A census tract was identified as having a high Native American population if more than 25% of the population identified as Native American in the 2018 ACS five-year estimates. A total of 781 census tracts were identified as having a high Native American population. The results for these census tracts were compared with those for 22,175 census tracts identified as rural and having Native American population below 25%. The LATCH data contain estimates for average daily person miles, person trips, vehicle miles, and vehicle trips per household for each census tract. Table 5.12 shows the median values for each of these transportation characteristics for census tracts identified as Native American and for all other rural census tracts.

Census Tract Category	Person Miles	Person Trips	Vehicle Miles	Vehicle Trips
	n	nedian household	estimate per day	
Native American	64.1	7.7	40.4	4.8
Rural	72.0	7.9	50.8	5.3

Table 5.12Median Estimates for Daily Household Travel Behavior for Native American and<br/>Rural Census Tracts

As shown in Table 5.12, households in Native American census tracts are estimated to have fewer person miles, person trips, vehicle miles, and vehicle trips per day, in comparison with those in other rural census tracts. The difference is greater for vehicle miles and vehicle trips, which is consistent with the finding that a higher percentage of Native American households do not have access to a vehicle. The difference in vehicle travel could partly be made up for with trips by transit, walking, or other modes, but the results still suggest a mobility gap, as estimated person miles and trips per household are lower in Native American areas.

Given this mobility gap, the provision of transit is necessary to meet the needs of the transportation disadvantaged. This could include increasing services where systems are already in place or filling in the gaps where no tribal transit systems operate. While the number of tribal transit systems has increased over the previous decade, there are still many tribal areas that do not have a tribal transit system, as shown previously.

To examine the extent to which tribal transit systems serve Native American populations, the total population of reservations with tribal transit was compared with that of reservations without tribal transit. For this analysis, the OTSAs of Oklahoma were not included because they contain large non-Native American populations.

As shown in Table 5.13, about 66% of those living on a reservation have access to a tribal transit system within their reservation. This compares with an estimated 70% of the U.S. rural population that has access to a rural transit system, as calculated in the 2017 Rural Transit Fact Book (Mattson 2017). There are several caveats with these estimates. First, while some reservations do not have a tribal transit system, they could be served by other transit agencies. Similarly, some rural areas without a section 5311 rural transit system could be served by other providers not funded by the FTA rural transit program, who therefore do not report data to the NTD. On the other hand, the percentages shown in Table 5.13 could also overestimate the population served, because the actual service areas of all tribal and rural transit operators are not known, so some areas within reservations or within rural transit service areas may not actually be served or are served poorly. Furthermore, geographic coverage is just one measure of transit quality of service. The span of service, measured by the number of days and hours of service, is another important measure, and such data are not available at a national level for tribal or rural transit services.

	Estimated percentage served
Reservation population served by tribal transit	66%
U.S. rural population served by section 5311 rural transit	70%

 Table 5.13
 Percentages of Tribal and Rural Populations Served by Transit

#### 5.4.2 Cost Differences

Measured on a per-trip basis, rural transit is more expensive to provide than urban transit. The costs of operating tribal transit could be even higher because of the low population densities and long travel distances. Higher operating costs, therefore, create a need for greater public funding, especially given that many tribal transit users are low income and could not afford to pay higher fares. This section examines cost differences between tribal and rural transit.

Public transportation is a public good. As opposed to private goods, public goods are nonexcludable and non-rivalrous. That is, transit is open for consumption by the general population with an individual's use not excluding the ability for others to consume. Both features of public goods in general make it impossible to tailor transit to individual consumers or a specific user's taste. The price paid by public transportation users (i.e., fares) is not enough to cover the cost of operating a transit system. Hence public transportation systems rely heavily on public funding from state, local, tribal, and federal sources to support operations.

Total operating expenditures per unit of transit operation (VRM, VRH) and consumption (UPT) over time for tribal and rural transit are compared to determine funding needs. Since tribal areas are largely rural (e.g., low population density), unit costs for tribal and rural transit are expected to be similar. Figures 5.26 and 5.27 compare tribal and rural transit cost per VRM and VRH, respectively, from 2013 to 2017.

Tribal transit cost per VRM ranged from \$3.00 (2015) to \$3.46 (2017) while that for rural transit ranged from \$2.86 (2014) to \$3.15 (2017). Cost per VRM for tribal transit is higher than rural transit for all years between 2013 and 2017. Although cost per VRM is trending upwards for both groups, that for tribal transit increased at a faster rate relative to rural transit. Overall, for the five-year period ending in 2017, tribal transit systems spent \$0.20 per VRM more compared with rural transit. This translates to nearly \$4 million more in operating cost on average in terms of VRM for the period (tribal transit averaged 19 million VRM for the five years).



Figure 5.26 Tribal and Rural Transit Cost per Vehicle Revenue Miles, 2013-2017



Figure 5.27 Tribal and Rural Transit Cost per Vehicle Revenue Hour, 2013-2017

Cost per VRH for tribal transit ranged from \$62.30 (2014) to \$76.94 (2017) while the lowest (\$50.93) and highest (\$55.86) cost per VRH for rural transit was observed, respectively, in 2013 and 2017. Cost per VRH for tribal transit is noticeably higher than that for rural transit for all years between 2013 and 2017. The largest difference between tribal and rural cost per VRH was \$21.08 in 2017. Overall, tribal transit systems spend \$16.50 per VRH more than rural transit systems, which reflects close to \$15 million more in total operating cost on average taking VRH into consideration (VRH averaged 882,200 between 2013 and 2017).

Figure 5.28 shows the cost per unlinked passenger trip (UPT) for tribal transit compared with rural transit from 2013 to 2017. Cost per trip for tribal transit ranged from \$17.51 and \$19.83 during this period, while the cost per trip for rural transit ranged between \$11.03 and \$12.73. Tribal transit cost per trip was higher than that for rural transit for each of the five years ending in 2017. Overall, tribal transit systems spent \$8.26 more per trip for the five-year period. Considering that close to 3.2 million trips on average were made on tribal transit systems between 2013 and 2017, tribal transit systems spent an estimated \$26.4 million more than rural transit systems during this period.



Figure 5.28 Tribal and Rural Transit Cost per Unlinked Passenger Trip, 2013-2017

Results indicate that for the level of operation, tribal operating costs in general are higher than those for rural transit. Overall, tribal transit cost per VRM and cost per VRH were, respectively, 6% and 24% higher than those for rural transit systems between 2013 and 2017. Tribal transit cost per trip is 41% higher than rural transit. The higher unit cost per VRM, VRH, and cost per trip are, respectively, associated with \$4 million, \$15 million, and \$26.4 million more in tribal transit operational cost relative to rural transit. Higher cost for tribal transit relative to rural transit reflects the uniqueness of tribal transit operations, hence the need for more funding.
## 6. TRIBAL TRANSIT AND LIVABILITY – TRIBAL TRANSIT STAKEHOLDER INPUT

To gather input about the nexus of transportation and livability in tribal communities across the United States, the research team organized a workshop session at the 2019 National Transportation in Indian Country Conference in Big Sky, Montana, in September 2019. A total of 20 tribal transit stakeholders attended. Attendees were provided a questionnaire to answer multiple open-ended questions during the workshop. The questionnaire was geared toward understanding core components of tribal community livability, types of transportation services provided by attendees, stakeholder's organization contribution toward tribal community livability, and characteristics of their transportation services provided. A copy of the stakeholder survey questionnaire is provided in Appendix C. A total of 17 stakeholder responses were gathered from workshop participants – these stakeholders represented diverse tribal transit communities.

Most of the reservations represented at the workshop provided tribal transit services as well as private transit services. Tribal transit services primarily included on-demand/paratransit service and fixed-route service among many types of services provided. Other kinds of transportation services provided included public school buses, social services, meals-on-wheels, and others.

Tribal transit stakeholders mentioned that from their reservation's perspective, core components of community livability according to the order of importance are access to jobs, affordable housing, access to healthcare services, low cost of living, proper education, availability of transportation/transit services, low crime, broadband internet access, and cultural institutions. Stakeholders mentioned that livability could be improved in their communities by providing more affordable housing, increasing job opportunities, decreasing crime, reducing drug use, increasing the ease of travel by providing more transportation/transit services, providing assisted living facilities, and providing low cost of living opportunities.

Transit is especially important in tribal communities because it is important to provide mobility options to people who lack a driver's license or personal transportation options. Also, transit is especially important to provide mobility for people traveling longer distances in various weather conditions. Currently, public transit in tribal communities contributes to community livability by providing access to healthcare, jobs, grocery and other stores, educational institutions, and other destinations. To improve tribal community livability, stakeholders mentioned that public transit in tribal communities could expand transit routes, increase service frequency, increase transit staff (especially vehicle operators), and expand the vehicle fleet.

Most tribal transit stakeholders agreed that \$1 is a reasonable fare for a one-way trip. However, for longer trips, fares could be anywhere from \$2 to \$5 based on the trip length. Tribal transit stakeholders mentioned that some of the options tribal communities use to fund their public transit services include grants, FTA funds (5311, and 5310(c)), tribal funds, federal funds, state funds, and local funds.

# 7. TRIBAL TRANSIT AND LIVABILITY - CASE STUDY OF STANDING ROCK RESERVATION, ND-SD

# 7.1 About Standing Rock Reservation

Standing Rock Reservation straddles the North Dakota and South Dakota border, as shown in Figure 7.1. Standing Rock is the second and third largest, respectively, in terms of land area and population of the 10 tribal reservations wholly or partially located in the two states. According to estimates from the U.S Census, Standing Rock Reservation had a population of 8,616 and land area of 3,568 square miles with an estimated population density of two residents per square mile.



Figure 7.1 Geography of Standing Rock Reservation

Table 7.1 shows population, demographic, employment, and commute-to-work characteristics for Standing Rock Reservation using data from the 2013-2017 American Community Survey (ACS) five-year estimates from the U.S. Census. Standing Rock Reservation has a relatively large youth population. Close to 29% of its population is composed of those aged between 5 and 19 years old, while just 8.8% is 65 years and older. By comparison, 19.5% and 14.9%, respectively, of the of the U.S. population is aged 5 to 19 years and older.

<u> </u>	Standing Rock Reservation	United States
Population estimate (2017)	8,616	
Population change 2010-2017	+5%	
Number of Households	2,362	
Reservation size	3,568 square miles	
Demographics		
Gender (%)	50.5 male/49.5 female	49.2 male/50.8 Female
Median age	28.0	37.8
Population age 5 – 19 years (%)	29	19.5
Population age 65 or older (%)	8.8	14.9
Population age 85 or older (%)	0.8	1.9
Median household income	\$36,406	\$57,652
Household income distribution (%)		
Less than \$10,000	17.1	6.7
\$10,000 - \$14,999	8.5	4.9
\$15,000 - \$24,999	1.8	9.8
\$25,000 - \$34,999	9.1	9.5
\$35,000 - \$49,999	14.9	13.0
\$50,000 - \$74,999	15.5	17.7
\$75,000 - \$99,999	8.7	12.3
\$100,000 or more	12.4	26.2
Population below poverty level (%)	42.3	14.6
Unemployment rate (%)	24	6.6
Commuting to work		
Average travel time (minutes)	19.2	26.4
Number of workers 16 years and older	2,606	
Means of transportation to work (%)		
Drive alone	65.9	76.4
Carpool	10.2	9.2
Public transportation	0.5	5.1
Walk	5.5	2.7
Bicycle	0.0	0.6
Taxi, motorcycle, or other	1.1	1.2
Worked from home	16.8	4.7

 Table 7.1
 Standing Rock Reservation characteristics and U.S. national average

**Sources**: U.S. Census 2010 decennial survey estimates, American Community Survey 2013-2017 5-year Estimates, U.S. Census Bureau

The median household income for Standing Rock Reservation is about 37% lower than the national average. The income distribution shows a larger percentage (17%) of households in Standing Rock Reservation earning less than \$10,000 per year compared with the national average (6.7%). Moreover, a significantly higher share of the population is below the poverty level. As the table shows, 42.3% of the Standing Rock population is below the poverty line, compared with 14.6% nationally. The unemployment rate among those 16 years and older for Standing Rock (24%) was almost four times the national average (6.6%). About half of 1 percent of residents of Standing Rock Reservation use public transportation to commute to work, while close to 66% drive alone and 10.2% carpool.

# 7.2 Existing Transit Service in Standing Rock Reservation

Standing Rock Public Transit provides demand-response and intercity bus transit service to residents in communities in Sioux, Morton, and Burleigh counties in North Dakota and Corson and Walworth counties in South Dakota. The service involves 12 routes linking 12 communities and two casinos (Prairie Knights, ND, and Grand River, SD) to airports and charter bus services. Additionally, Standing Rock Public Transit also provides dial-a-ride service in Fort Yates.

For Standing Rock Reservation residents, eight routes (1, 2, 3, 4, 5, 7, 10, and 11) are provided five days a week from Monday through Friday; two operate Monday and Thursday (route 6 and 12). Routes 8 and 9 offer services, respectively, on the first and third Wednesday of the month and second and fourth Wednesday of the month. The latter provides trips to veteran's hospitals in Fargo, ND, and Sturgis, SD. Also notable is the fact that Sitting Bull College, located in Fort Yates, fully subsidizes the transit cost for all students attending the college. Schedule times in general range from 6 a.m. to 10 p.m. Figure 7.2 shows the route map for Standing Rock Public Transit with associated schedules.

For routes running Monday through Friday from one of the communities to Fort Yates and to Bismarck/Mandan, one-way trips range from \$4 to \$10. For example, a one-way trip on route 1 from Kenel, SD, to Fort Yates, ND, costs \$4, while a one-way trip from Mobridge, SD, to Bismarck/Mandan, ND, costs \$10. Trips often include several stops on the way to the route destinations. On some Monday through Friday routes, for example, route 7 involving trips within Fort Yates, ND, cost \$1 per one-way ride. In the case of routes operating Mondays and Thursdays, for example, route 6 (Bismarck, ND, to Pierre, SD) with connections to Sioux Falls and Rapid City, one-way ranges from \$3 for the Mobridge to Selby segment to \$37 for the entire trip (Bismarck, ND, to Pierre, SD). On the veterans' medical trip, for example, route 8 from Fort Yates, ND, to Sturgis, SD, costs \$28.50 for a one-way trip and \$57 for a round trip.



Figure 7.2 Standing Rock Transit Map

# 7.3 Case Study Procedure

Surveys were conducted with residents of Standing Rock Reservation as well as with transit riders on Standing Rock Public Transit. The survey instrument was similar to the questionnaire used in a previous TTI/SURCOM livability study conducted at the national level (Godavarthy et. al. 2018). The survey instrument was designed with 31 questions that focused on general community livability; local community livability; community characteristics; transportation; public transit awareness, availability, and interest; socio-demographic characteristics; and follow-up questions for respondents who use transit.

The research team worked with the Standing Rock Public Transit director and Sitting Bull College institutional review board (IRB) team to distribute the surveys to the residents of the reservation. Surveys were distributed by sending email invitations for online surveys directly to Standing Rock Sioux Tribe employees and to Sitting Bull College students, staff, and faculty. A copy of the online survey instrument is provided in Appendix D. A total of 131 online survey responses were received from the initial round of surveys conducted through email distribution. The research team also distributed a shorter version of the survey instrument to transit riders on the Standing Rock Public Transit vehicles. Appendix E provides the shorter version of the survey instrument used for collecting responses from transit riders. For this purpose, hard copy surveys were used to distribute to transit riders. Riders filled out the survey form during their trip and returned the responses to the vehicle operators. A total of 32 hard copy survey responses were received from transit riders. Including the online and hard copy survey responses, 163 responses were received for Standing Rock Reservation. Survey participants were entered into a drawing to receive one of four \$50 gift cards; this incentive was advertised to survey respondents to boost the survey participation and response rate.

# 7.4 Case Study Results

Respondents were more likely to be female (73%) than male (27%). More than half (61%) of the respondents live on the reservation (Figure 7.3). The top five reasons provided by the respondents for not living on the reservation included lack of affordable housing, lack of shopping and entertainment, crime, lack of available jobs, and the environment (Figure 7.4). The largest share of respondents was in the age group 55-64 years (21.9% of respondents), followed by 25 to 34 years (19.9%), and 35 to 44 years (17.2%). A large share of respondents had one vehicle available in the household (34.6%) and about one-third had household income of less than \$15,000. Compared with the household income distribution of Standing Rock residents, as shown in Table 7.1, survey responses showed some overrepresentation of lower income households and an underrepresentation of higher income households. Most respondents were employed full time; a significant percentage (38.8%) was students since the survey was also distributed with Sitting Bull College.



Figure 7.3 Demographic Characteristics of Standing Rock Survey Respondents



Figure 7.4 Reason for Respondents Not Living on the Reservation

## 7.4.1 Factors Affecting Livability

The survey listed several potential livability factors and asked respondents to rate the importance of each factor to the livability of any community. Respondents had to rate each factor as: 1 = not important, 2 = slightly important, 3 = moderately important, 4 = important, and 5 = very important. Results are shown in Figure 7.5. This figure shows average responses from Standing Rock respondents compared with average responses from residents of non-metro areas found in a national survey by Godavarthy et al. (2018). While all factors except for "weather" and "shopping and entertainment options" were considered as very important (>4) by Standing Rock respondents for community livability, the top four factors were affordable transportation options, quality healthcare, affordable housing, and quality public schools.

Results also illustrate how the opinions of Standing Rock residents on the importance of livability factors are similar in many ways and different in some ways from opinions of other rural residents across the country, as shown in Figure 7.5. Standing Rock respondents tended to rank the importance of each factor similarly, from most important to least important, with some differences. One notable difference is that Standing Rock respondents rated the importance of affordable transportation options as being much higher than did rural respondents from the national survey. This is an important finding as it is related to the need for transit services to improve livability. Standing Rock residents in general also tended to rate all factors as being more important, compared with rural respondents from the national survey.



Figure 7.5 Livability Importance – Comparison of Standing Rock Reservation with Non-Metro Communities in the U.S.

Later, respondents were asked to rate the quality of each livability factor in their community (Standing Rock Reservation) as very poor = 1, poor = 2, acceptable = 3, good = 4, or very good = 5. Average responses shown in Figure 7.6 are compared with average responses from non-metro residents in a national survey by Godavarthy et al. (2018).

Nearly all factors had an average rating from Standing Rock respondents between 2 (poor) and 3 (acceptable). The lowest average ratings were for shopping and entertainment options (1.9), affordable housing (2.1), parks and recreation facilities (2.2), and available jobs (2.2), and the highest rating was for affordable transportation options (3.0). Compared with responses from rural residents across the country, Standing Rock respondents rated the quality of almost all of these factors as being significantly lower. This shows that the quality of nearly all livability factors is perceived to be much lower in Standing Rock Reservation, in comparison with a typical non-metro community. Interestingly, the one exception is for affordable transportation options, which was rated as being of higher quality by Standing Rock respondents. This result suggests Standing Rock is providing a higher quality of transit service than many rural communities, but the results could also be influenced by the percentage of respondents that are transit users.



**Figure 7.6** Perceived Quality of Livability for the Community – Comparison of Standing Rock Reservation with Non-Metro Communities in the U.S.

Figure 7.7 combines the responses to the two questions for Standing Rock respondents. Responses to the first question (shown previously in Figure 7.5) are labeled "Livability Importance" and results to the second question (from Figure 7.6) are labeled "Perceived Quality in Standing Rock." This figure essentially maps the importance of various livability factors versus the perceived quality of these factors for Standing Rock Reservation in an effort to identify gaps. These gaps can help determine which factors were perceived to be important but are not good quality in their current communities. Livability factors with larger gaps between importance and perceived quality are identified as factors needing improvement to enhance livability. While the respondents thought most of the livability factors listed are very important, none of these factors are in good ( $\geq 4$ ) or closer to a good (>3) condition in the reservation. Further, livability factors, such as affordable housing, available jobs, low crime, and quality healthcare, have a huge gap. While all livability factors could be improved in Standing Rock Reservation, specifically increasing affordable housing and available jobs, improving quality healthcare, reducing crime, and maintaining a clean environment can most significantly improve livability.



Figure 7.7 Importance of Livability Factors in a General Community vs. Quality of Livability Factors in the Standing Rock Reservation

Figure 7.8 illustrates the gap of various livability factors in Standing Rock Reservation and further compares the gap for Standing Rock Reservation with non-metro averages in the United States that were found by Godavarthy et al. (2018). For all livability factors, the gaps between importance and perceived quality were much larger for Standing Rock Reservation.



Figure 7.8 Gaps Between Livability Factors' Importance and Perceived Quality in Current Community – Comparison of Standing Rock Reservation with National Averages for Metro and Non-Metro Communities

## 7.4.2 Quality of Life and Life Satisfaction

Community quality of life is one of the domains that determines an individual's overall quality of life, or life satisfaction. Other factors that may influence life satisfaction include health, financial status, employment status, living arrangements, and demographic characteristics such as age, gender, and marital status.

To assess the overall subjective quality of life in the community, respondents were asked the following question: "How satisfied are you with the quality of life in your community?" Respondents answered using a 5-point Likert scale, ranging from very dissatisfied to very satisfied. About 44% of the respondents said they are either very satisfied or satisfied; 37% of the respondents said they are either very dissatisfied (Table 7.2). Comparing these numbers to national averages, Standing Rock Reservation residents are less satisfied and more dissatisfied with their quality of life when compared with residents from non-metro areas across the country, as found by Godavarthy et al. (2018).

	Standing Rock Reservation	Non-Metro Areas
Very dissatisfied	13.0%	2.8%
Dissatisfied	23.6%	9.6%
Neither satisfied nor dissatisfied	19.3%	15.3%
Satisfied	30.4%	44.9%
Very satisfied	13.7%	27.5%

 Table 7.2
 Satisfaction with the Quality of Life in the Community

To determine overall quality of life, or life satisfaction, survey participants were asked the following question: "All things considered, how satisfied are you with your life as a whole these days?" Respondents answered using a 0-10 scale, with a higher number indicating greater satisfaction. An average response of 7.3 was observed for Standing Rock survey respondents, which is slightly lower than the average of 7.65 that Godavarthy et al. (2018) found for non-metro respondents across the country.

# 7.4.3 Importance and Quality of Various Aspect of Transportation in Standing Rock Reservation

Again, thinking of any community in America, respondents were asked to indicate the level of importance of various aspects of transportation, including public transit services, bikeability, low traffic congestion, walkability/accessibility, and road conditions toward community livability. Level of importance is numerically assigned 1-5 for not important, slightly important, moderately important, important, and very important for analysis purposes. Average responses for the level of importance of each aspect of transportation to community livability are summarized in Figure 7.9. Results are represented as "Importance of Various Aspects of Transportation" category in the figure. All aspects of transportation were observed as important or very important (average importance numeric >4) for community livability. The top three important aspects of transportation identified were roads in good condition, public transit services, and walkability/accessibility.

Later, respondents were asked to rate the quality of different transportation aspects in the community where they are currently living (Standing Rock Reservation) using the same scale: 1 = very poor, 2 = poor, 3 = acceptable, 4 = good, and 5 = very good. Average responses are also shown in Figure 7.9. Results are represented as "Perceived Quality in Standing Rock" category in the figure. Low traffic congestion (3.4) and public transit services (3.2) received the highest ratings and road conditions (2.5) and bikeability (2.8) the lowest.

Figure 7.9 essentially maps the quality of various aspects of transportation in Standing Rock Reservation with the importance of these transportation aspects to identify the gaps. Livability factors with larger gaps between importance and quality are identified as transportation aspects needing improvement to enhance livability for the Standing Rock Reservation. Improving the condition of roads, public transit services, and walkability/accessibility can contribute toward enhancing Standing Rock Reservation's community livability.

Figure 7.10 illustrates the gap for various aspects of transportation. The figure further compares the gap for Standing Rock Reservation with non-metro averages in the United States. Figure 7.10 clearly illustrates that Standing Rock Reservation has a greater gap for all transportation aspects, except congestion, when compared with non-metro areas within the United States.



Figure 7.9 Importance of Various Transportation Aspects in a General Community vs. Quality of Transportation Aspects in the Standing Rock Reservation





## 7.4.4 Public Transit Importance

Sixty-one percent of online survey respondents answered that they had used the public transit service. Most respondents agreed or strongly agreed that it is important for public transit to be available to their community residents (Figure 7.11). When asked for reasons why public transit service should be available to their community, the respondents' top three reasons were: transit is an option for saving on the cost of transportation; transit is an option for those who choose not to drive; and transit is an option for seniors or people with disabilities (Figure 7.12).



Figure 7.11 Importance of Public Transit to Standing Rock Community Residents



Figure 7.12 Reasons Given for Why it is Important to Have Transit Available

## 7.4.5 Transit Rider Survey Responses

The online survey instrument asked follow-up questions specifically for those who had used transit. Hard copy surveys were also distributed exclusively to transit riders. Among 163 total survey respondents, 100 completed the transit rider questions. Among these 100 respondents, 21 no longer use the transit service or have ridden transit only once. Therefore, a total of 79 transit rider responses were identified as regular or occasional riders, and responses from these riders are summarized in this section.

Figure 7.13 summarizes the transit riders' demographic characteristics. Close to two-thirds (65%) of the riders live on the reservation. Transit riders mostly had either one or no car in their household, and half of the riders had annual household income less than \$15,000. Most of the transit riders identified as either employed full-time or as students. Transit rider respondents were again primarily female (68%).



Figure 7.13 Demographic Characteristics of Survey Respondents Who Are Transit Riders

Transit rider respondents were distributed between regular transit riders (using transit one or more days per week) and occasional transit riders (using transit two days per month or less). A large share (24%) of the transit rider respondents used the service five to seven days per week (Figure 7.14).

Most transit riders either agreed (21%) or strongly agreed (58%) with the statement, "Public transit is very important to my quality-of-life" (Figure 7.15). Overall, 79% agreed or strongly agreed that public transit is important to their quality of life, which is significantly higher than the percentage of non-metro transit rider respondents (58%) who answered the same way in the previous national survey by Godavarthy et. al. (2018). This finding shows the importance of public transit services in Standing Rock Reservation and in a tribal community in general. Further, written feedback provided by transit rider respondents show that riders are very happy with transit options in Standing Rock Reservation and in neighboring communities as transit provides valuable services to the elderly, students, working individuals, and family members. Some of the suggestions from riders for improving transit services included availability of transit services in the evenings and weekends, increasing funding options for transit for expanding operations, providing transit options for casino workers, and posting bus schedules at multiple locations to better inform riders. Most of the respondents also mentioned they are extremely likely to recommend public transit service to a colleague or friend.



Figure 7.14 Frequency of Transit Use



Figure 7.15 Importance of Public Transit to Quality of Life

Transit riders were asked details about their transit usage to further understand satisfaction with the service, purpose of the transit trip, and reason for riding transit. When transit riders were asked about the specifics of service quality, such as timeliness, driver friendliness, safety, cleanliness, comfort, and affordability, most transit users gave positive responses (Figure 7.16). The most common trip purposes were: 1) work, 2) school, college, job training, and 3) medical appointments, healthcare, and dental (Figure 7.17).



Figure 7.16 Quality of Public Transit Service in Standing Rock Reservation



Figure 7.17 Purpose of the Public Transit Trip

Most transit riders were found to be very dependent on the service. When asked if they would make the same number of trips if transit were not available, most answered that they would not make the same number of trips (Figure 7.18). The top three reasons mentioned for transit riders to start using transit included: 1) I use transit for convenience, 2) I use transit to save money, and 3) I did not have access to a vehicle (Figure 7.19).



Figure 7.18 If Public Transit Were Not Available, Would You Make the Same Number of Trips?



Figure 7.19 Why Did You Start Riding Public Transit?

## 8. TRIBAL TRANSIT AND LIVABILITY - CASE STUDY OF MAKAH INDIAN RESERVATION, WA

## 8.1 About Makah Indian Reservation

Makah Indian reservation is in the northwest part of Washington state, as shown in Figure 8.1. In fact, the reservation and surrounding area is the most northwestern part of the lower 48 states. Makah reservation is the sixth and eleventh largest, respectively, in terms of land area and population of the 27 tribal reservations in Washington. Based on estimates from the U.S Census, Makah reservation had a population of 1,559 and land area of close to 47 square miles with an estimated population density of 33 people per square mile. This population density is one of the lowest (7<sup>th</sup> lowest) among all reservations in Washington.



Figure 8.1 Location of Makah Indian Reservation

Table 8.1 shows population, demographic, employment, and commute-to-work characteristics for Makah Indian Reservation based on data from the 2013-2017 American Community Survey (ACS) five-year estimates. Makah Reservation has a relatively large population of youth. Close to 24% of its population is between 5 and 19 years of age, while just 9% is 65 years or older. By comparison, 19.5% and 14.9% of the U.S. population is aged 5 to 19 years and 65 years or older, respectively.

	Makah Indian Reservation	United States
Population estimate (2017)	1,559	
Population change 2010-2017	+8%	
Number of Households	492	
Reservation size	47 square miles	
Demographics		
Gender (%)	50.6 male/49.4 female	49.2 male/50.8 Female
Median age	31.9	37.8
Population age 5 – 19 years (%)	24.0	19.5
Population age 65 or older (%)	9.0	14.9
Population age 85 or older (%)	0.0	1.9
Median household income	\$37,500	\$57,652
Household income distribution (%)		
Less than \$10,000	9.3	6.7
\$10,000 - \$14,999	7.1	4.9
\$15,000 - \$24,999	15.4	9.8
\$25,000 - \$34,999	14.4	9.5
\$35,000 - \$49,999	12.0	13.0
\$50,000 - \$74,999	18.1	17.7
\$75,000 - \$99,999	11.4	12.3
\$100,000 or more	12.1	26.2
Population below poverty level (%)	24.0	14.6
Unemployment rate (%)	20.6	6.6
Commuting to work		
Average travel time (minutes)	11.2	26.4
Number of workers 16 years and older	504	
Means of transportation to work (%)		
Drive alone	79.0	76.4
Carpool	6.5	9.2
Public transportation	1.8	5.1
Walk	6.0	2.7
Bicycle	2.2	0.6
Taxi, motorcycle, or other	1.4	1.2
Worked from home	3.2	4.7

 Table 8.1
 Makah Indian Reservation Characteristics and U.S. National Average

Source: American Community Survey 2013-2017 five-year Estimates, U.S. Census Bureau

The median household income for Makah Reservation is \$20,152 lower than the national average. Furthermore, the share of the population below the poverty line is higher for Makah Reservation (24%) relative to 14.6% nationally. The unemployment rate for Makah Reservation (20.6%) was about three times as that observed nationally (6.6%). Approximately 2% of Makah reservation residents use public transportation to commute to work while close to 79% drive alone and 6.5% carpool.

# 8.2 Existing Transit Service in Makah Tribe

Makah public transit offers demand-response transit to connect residents to Clallam transit System to access larger areas (including Forks, Port Angels, Sequim, and Olympic National Park) three times daily Monday through Friday. Makah transit operates from 7:00 a.m. to 9:35 p.m. The schedule for Makah transit is intended to accommodate Makah Tribe's employee Park and Ride. Specifically, the transit system has a two-hour block for special pickups for residents 62 and over as well as those with a disability. The special pickup service provides door-to-door service to meet the needs of seniors and passengers with disabilities.

For residents of Makah Reservation, a one-way trip per person costs \$0.25 while monthly and annual passes, respectively, cost \$2.50 and \$30. Youth (those six years and under), seniors, and people with disabilities ride the bus at no cost. Makah public transit has wheelchair accessible vehicles.

# 8.3 Case Study Procedure

Surveys were conducted with residents of Makah tribe during September and October of 2020. The survey instrument was like the one used for Standing Rock Reservation. However, the surveys of Makah tribe were conducted during the COVID-19 pandemic, several months after it had started; whereas, the Standing Rock surveys were conducted before the pandemic. Because the COVID-19 pandemic had drastically changed travel behavior and public transit usage across the country, respondents were asked to think of the pre-COVID-19 situation when describing their travel behavior. The survey instrument was designed with 31 questions that focused on general community livability, local community livability, community characteristics, transportation, public transit awareness, availability, and interest. It also asked about sociodemographic characteristics, and included follow-up questions for respondents who use transit.

The research team worked with the Makah Tribe's Transportation and Land Use Planner to distribute the surveys electronically to the residents of the reservation. Online surveys were advertised in platforms such as the Makah Community Internet Portal, the Makah Tribe Facebook page, and the Community Newsletter. Online surveys were also distributed via email to all Makah staff, participants of Makah education programs, and through the local Tribal Employment Rights Office (TERO) manager's mailing lists. A copy of the online survey instrument is provided in Appendix F. A total of 100 online survey responses were received. Among these 100 responses, 56 respondents completed the follow-up transit rider questions. An incentive of a \$10 Amazon e-gift card for every respondent was advertised and later provided to boost the survey response rate.

## 8.4 Case Study Results

Respondents were mostly female (83%). About three quarters of the respondents lived on the reservation (74%) (Figure 8.2). For those that did not live on the reservation, the top five reasons provided for not living there included lack of available jobs, lack of affordable housing, lack of shopping and entertainment, traffic safety, and cost of living (Figure 8.3). The largest share of respondents was in the age group 25 to 34 years (24.2% of respondents), followed by 35 to 44 years (22%), and 55 to 64 years (14.3%). A large share of respondents had one vehicle available in the household (39.1%). While income levels of the respondents were distributed across the spectrum, a large share of respondents had household income of less than \$15,000. Compared with the household income distribution of Makah residents, as shown in Table 8.1, survey responses showed some overrepresentation of lower income households and an underrepresentation of higher income households. About half (51%) of the respondents were employed full time, and the rest were employed part time (13%), not employed and looking for work (12%), homemaker (7.6%), retired (4.3%), students (2.2%), and others.







Figure 8.3 Reason for Respondents Not Living on the Reservation

## 8.4.1 Factors Affecting Livability

The survey listed several potential livability factors and asked respondents to rate the importance of each factor to the livability of any community. Respondents had to rate each factor as: 1 = not important, 2 = slightly important, 3 = moderately important, 4 = important, and 5 = very important. Results are shown in Figure 8.4. This figure shows average responses from Makah Tribe respondents compared with average responses from residents of non-metro areas found in a national survey by Godavarthy et al. (2018).



Figure 8.4 Livability Importance – Comparison of Makah Tribe with Non-Metro Communities in the U.S.

While all factors except for "weather," "parks and recreation facilities," and "shopping and entertainment options" are considered as very important (>4) for community livability, the top four factors that are identified include affordable housing, quality healthcare, quality public schools, and overall cost of living. Responses from Makah Tribe members are generally correlated with responses from non-metro residents who completed the national survey, with some differences. Makah Tribe respondents gave higher ratings most notably for the importance of cultural institutions and sense of community, as well as for traffic safety, affordable housing, affordable transportation, and a few other factors.

Later, respondents were asked to rate the quality of each livability factor in their community (Makah Tribe) as very poor = 1, poor = 2, acceptable = 3, good = 4, or very good = 5. Average responses are shown in Figure 8.5. Nearly all factors had an average rating between 2 (poor) and 4 (good). The lowest average ratings were for affordable housing (2.0), shopping and entertainment options (2.1), and available jobs (2.2), and the highest rating was for cultural institutions (3.8) and sense of community (3.8). Makah Tribe respondents tended to rate the quality of these factors lower than did rural and non-metro residents in the national survey conducted by Godavarthy et al. (2018), as shown in Figure 8.5. This indicates that the quality of many livability factors is perceived to be lower in the Makah Indian Reservation compared with other non-metro areas across the country. This is notably true for shopping and entertainment options, affordable housing, and available jobs, as well as many other factors. On the other hand, Makah Tribe respondents rated the quality of cultural institutions, affordable housing and entertainment options, and sense of community as being higher.



Figure 8.5 Perceived Quality of Livability for the Community – Comparison of Makah Tribe with Non-Metro Communities in the United States

Figure 8.6 combines the responses to the two questions for Makah Tribe respondents. Responses to the first question (shown previously in Figure 8.4) are labeled "Livability Importance" and results to the second question (from Figure 8.5) are labeled "Perceived Quality in Makah." This figure essentially maps the importance of various livability factors for community livability versus the perceived quality of these livability factors for Makah Tribe to identify gaps in quality. These gaps can help determine which factors were perceived to be important but are not in good quality. Livability factors with larger gaps between importance and perceived quality are identified as factors needing improvement to enhance livability for the Makah Tribe. While the respondents thought most of the livability factors listed are very important, none of these factors are in good ( $\geq$  4) condition in the Makah Tribe. Further, livability factors such as affordable housing, available jobs, overall cost of living, shopping and entertainment options, quality healthcare, and clean environment have a huge gap. Therefore, while all livability factors could be improved in Makah Tribe to improve livability, specifically increasing affordable housing and available jobs, reducing the cost of living, increasing shopping and entertainment options, improving quality healthcare, and maintaining a clean environment can most significantly improve livability.



Figure 8.6 Importance of Livability Factors in a General Community vs. Quality of Livability Factors in the Makah Tribe

Figure 8.7 illustrates the gap of various livability factors in Makah Tribe and further compares the gap with non-metro area averages in the United States that were studied in a similar prior study (Godavarthy et. al. 2018). This figure clearly illustrates that Makah Tribe has huge gaps within various livability factors when compared with general non-metro areas within the United States. The gaps for nearly all factors are larger for Makah Tribe compared with national



averages, with the largest differences being for affordable housing, environmental cleanliness, traffic safety, and shopping and entertainment options.

## 8.4.2 Quality of Life and Life Satisfaction

Community quality of life is one of the domains that determines an individual's overall quality of life, or life satisfaction. Other factors that may influence life satisfaction include health, financial status, employment status, living arrangements, and demographic characteristics, such as age, gender, and marital status.

To assess the overall subjective quality of life in the community, respondents were asked the following question: "How satisfied are you with the quality of life in your community?"

Respondents answered using a 5-point Likert scale, ranging from very dissatisfied to very satisfied. About 56% of the respondents said they are either very satisfied or satisfied; 11% said they are either very dissatisfied or dissatisfied (Table 8.2). Makah Tribe residents are less likely to be very satisfied with their quality of life when compared with residents in non-metro areas across the country, as found by Godavarthy et al. (2018).

	Makah	Non-Metro
	Reservation	Areas
Very dissatisfied	3.0%	2.8%
Dissatisfied	8.1%	9.6%
Neither satisfied nor dissatisfied	32.3%	15.3%
Satisfied	46.5%	44.9%
Very satisfied	10.1%	27.5%

**Table 8.2** Satisfaction with the Quality of Life in the Community

To determine overall quality of life, or life satisfaction, survey participants were asked the following question: "All things considered, how satisfied are you with your life as a whole these days?" Respondents answered using a 0-10 scale, with a higher number indicating greater satisfaction. An average response of 7.01 was observed for Makah survey respondents. Godavarthy et al. (2018) found an average response of 7.65 to this question for non-metro respondents across the country, showing that life satisfaction of individuals in Makah reservation is slightly lower.

#### 8.4.3 Importance and Quality of Various Aspect of Transportation in Makah Tribe

Again, thinking of any community in America, respondents were asked to indicate the level of importance of various aspects of transportation, including public transit services, bikeability, low traffic congestion, walkability/accessibility, and roads in good condition toward community livability. Level of importance is numerically assigned 1-5 for not important, slightly important, moderately important, important, and very important for analysis purposes. Average responses for the level of importance of each are summarized in Figure 8.8. Results are labeled "Importance of Various Aspects of Transportation" in the figure. Respondents identified road conditions, public transit services, and walkability/accessibility as being most important.

Respondents also were asked to rate the quality of different transportation aspects in the community where they are currently living (Makah t=Tribe) using the same scale: 1 = very poor, 2 = poor, 3 = acceptable, 4 = good, and 5 = very good. Average responses are also shown in Figure 8.8. Results are labeled "Perceived Quality in Makah" in the figure. Low traffic congestion (4.0), walkability/accessibility (3.6), public transit services (3.5), and bikeability (3.4) received the highest ratings and road conditions (2.4) the lowest.

Figure 8.8 essentially maps the quality of various aspects of transportation in Makah Tribe with their importance to identify gaps. Livability factors with larger gaps between importance and quality are identified as those needing the most improvement to enhance livability. Improving the condition of roads, public transit services, and walkability/accessibility can contribute toward enhancing Makah Tribe's community livability.



Figure 8.7 Importance of Various Transportation Aspects in a General Community vs. Quality of Transportation Aspects in the Makah Tribe

Figure 8.9 illustrates the gaps for various aspects of transportation and compares them with those for non-metro communities across the country, as found in the national survey by Godavarthy et al. (2018). Makah Tribe is shown to have larger gaps for road conditions, bikeability, and walkability, but smaller gaps for traffic congestion and transit services.



Figure 8.8 Gap Between Transportation Aspect's Importance in General Community and Quality in Current Community – Comparison of Makah Tribe with National Averages for Non-Metro Communities
#### 8.4.4 Public Transit Importance

Among a total of 100 survey responses, 58 respondents mentioned that they have used public transit in their community. Most of the survey respondents agreed or strongly agreed that it is important for public transit to be available to their community residents (Figure 8.10). When asked for reasons why public transit service should be available to their community, the top reasons included: transit is an option for seniors or people with disabilities; transit is an option for those who choose not to drive; walk access to destination is difficult in the community; and transit is an option for saving on the cost of transportation (Figure 8.11).



Figure 8.9 Importance of Public Transit to Makah Community Residents



Figure 8.10 Reasons Given for Why it is Important to Have Transit Available

#### 8.4.5 Transit Rider Survey Responses

The online survey instrument asked follow-up questions specifically for those who have used transit. Results from those follow-up questions are presented in this section. Among 100 total survey respondents, 56 completed the follow-up transit rider questions. While these 56 respondents were transit riders at some point, about 55% of the 56 respondents no longer use the transit service or have ridden transit only once. One possible reason for the overrepresentation of infrequent transit riders in the follow-up questions is the need for all respondents to provide complete survey responses for them to receive the \$10 incentive. However, overrepresentation of past and non-frequent transit riders in the transit-rider-specific questions can dilute and possibly capture an inaccurate understanding of Makah community's transit rider opinion. For this reason, responses from those who no longer use transit or rode only once were excluded. Therefore, a total of 25 transit rider responses were identified as regular or occasional riders, and responses from these riders are summarized in this section.

Figure 8.12 summarizes the transit riders' demographic characteristics. About two-thirds (68%) of the riders live on the reservation. Transit riders mostly had either one or two cars in their household, and most had lower annual household income. Transit rider respondents were again primarily female (76%).



Figure 8.11 Demographic Characteristics of Survey Respondents Who Are Transit Riders

Among the transit rider responses that were analyzed, most of the respondents were non-frequent riders and have used transit less than once per month. However, there are significant percentages of respondents who are frequent transit users. About 28% of respondents reported using transit at least one day per week (Figure 8.13).

When transit riders were asked if they agree or disagree with the statement, "Public transit is very important to my quality-of-life," 8% of riders agreed and 4% of riders strongly agreed (Figure 8.14). When compared with national averages, it can be summarized that a lower percentage of public transit riders in Makah Tribe agreed or strongly agreed (12%) that public transit is important to their quality of life when compared with average values in non-metro areas (58%) (Godavarthy et al. 2018). While transit riders in Makah Tribe felt grateful for having bus service in the community, some of the improvements they felt would make the transit service more optimal include: providing accessible transit service to elders and disabled persons in the community, having more than the one bus they currently have to provide service, increasing the service frequency in a week and within a day, building more bus shelters so passengers can wait during rainy weather, and having less wait times for the bus service. Most of the respondents also mentioned they are likely to recommend the public transit service to a colleague or friend.



Figure 8.12 Frequency of Transit Use



Figure 8.13 Importance of Public Transit to Quality of Life

Transit riders were asked details about their transit usage to further understand satisfaction with the service, purpose of transit trips, and reasons for riding transit. When transit riders were asked to give specifics about the quality of service, such as timeliness, driver friendliness, safety, cleanliness, comfort, and affordability, most transit users gave positive responses (Figure 8.15). The most common trip purposes were: 1) shopping, errands, 2) family, personal business, 3) medical appointments, healthcare, and dental services, and 4) work (Figure 8.16).



Figure 8.14 Quality of Public Transit Service in Makah Tribe



Figure 8.15 Purpose of the Public Transit Trip

Many riders are dependent on transit. When asked if they would make the same number of trips if transit were not available, a significant percentage of respondents answered they would not make the same number of trips (Figure 8.17). The top three reasons riders mentioned for using transit included: 1) I did not have access to a vehicle, 2) I use transit for convenience, and 3) I could not get a ride from others or did not want to (Figure 8.18).



Figure 8.16 If Public Transit Were Not Available, Would You Make the Same Number of Trips?



Figure 8.17 Why Did You Start Riding Public Transit?

### 9. SUMMARY AND CONCLUSIONS

By providing mobility options and connecting transit-dependent populations to healthcare, education, employment, shopping, recreation, and other activities, public transportation plays a critical role and contributes to livability and quality of life. However, the geographic and demographic characteristics of a given area directly affect transit. Tribal lands are mostly rural with low population densities. Moreover, the share of the population often described as transit dependent, which includes seniors, people with disabilities, those with low income, youth, and households without automobiles, is often higher for tribal areas compared with the general U.S. population or other rural areas. Additionally, tribal areas often lack resources and are dependent on federal support to meet mobility challenges on reservations. An analysis of geographic, demographic, and transit related data provide useful results and insights on demographic and funding needs facing tribal transit and reservations.

#### **Geographic Summary**

- Despite tribal area population making up less than 1% of the total U.S. population, reservation land area in square miles represents about 5.3% of U.S. land area. In terms of population density, there are 14 people per square mile on reservations compared with 85 residents per square mile for the United States.
- Navajo Nation (AZ, NM, UT), the largest reservation in terms of land area (24,133 square miles) is larger than some smaller states (e.g., MD, MA, VT, NH, NJ).
- A significant majority of tribal areas (79%) have populations of less than 5,000.
- Compared to smaller states and cities with comparable population, tribal reservations have noticeably lower population densities.

#### **Mobility Dependence Summary**

- Many tribal areas have a high proportion of the population traditionally viewed as mobility dependent.
  - Whereas 14.6% of the U.S. population is below the poverty line, 293 of the 399 tribal areas analyzed have a poverty rate greater than 14.6%. Across tribal areas, 28% of the population is below the poverty level.
  - About 150 of 399 reservations have more than 8.8% (the national average) of households with no vehicles. About 9% of households in tribal areas do not have a vehicle, which is similar to the U.S. average but more than twice as high as the rate in other rural areas across the country.
  - About 19.5% of the U.S. population is youth aged between 5 and 19 years, whereas 256 of 399 tribal reservations have more than 19.5% of their population considered youth. Across tribal areas, 21% of the population is aged 5 to 17, compared with 17% of the U.S. population.
  - Close to 12.6% of the U.S. population has a disability, while 262 out of 399 reservations have more than 12.6% of the population with a disability. Across tribal areas, about 15% of the population has a disability, which is similar to other rural areas across the country and higher than the U.S. average.
  - On the other hand, tribal areas tend to have lower percentages of older adults, compared with U.S. averages. While 20.8% of the U.S. population is 60 years and older, 133 out of 399 tribal areas have more than 20.8% of their residents

aged 60 and over. Across tribal areas, 14% of the population is 65 or older, compared with 15% nationally and 19% in rural areas across the country.

• Reservations with the largest populations also tend to have the largest mobilitydependent populations. However, some smaller, lower-population reservations have higher proportions of mobility dependence.

#### Tribal Transit, Funding, Operation, and Service Summary

- The number of tribal transit systems in the lower 48 states has increase 27% between 2013 (91) and 2017 (124).
- Passage of the 2005, 2012, and 2015 transportation authorization bills brought changes to the federal program funding public transportation on tribal reservations.
  - In 2005, SAFETEA-LU created 5311(c)(2)(B) to provide funding for public transportation for Indian tribes. Tribal transit funding was entirely discretionary based (competitive grants).
  - MAP-21 doubled funding from \$15 to \$30 million.
  - MAP-21 added a formula component into funding allocation. New funding relied on both a discretionary and formula approach. The formula relies heavily on transit operation (75% based on VRM).
  - A three-tier system was developed to allocate formula funding.
- In recent years, federal funding has represented approximately 64% of funds to operate tribal transit, with the remaining 36% coming from state, local, and other sources.
- A majority of tribal transit expenditure is used for day-to-day operation expenses.
- Measures reflecting transit operation (VRM, VRH) as well as service consumption (UPT) show an increasing trend between 2013 and 2017.
- Demand response service was the dominant mode for VRM while bus services had greater VRH.
- In terms of ridership, fixed-route bus was the mode most used by passengers.

#### **Tribal Transit Service Gap and Funding Needs**

- Results suggest a mobility gap in tribal areas, compared with other rural areas across the country, with lower estimated trip rates and miles traveled, and a slightly lower percentage of population served by transit.
- The cost of providing tribal transit is relatively higher than the cost of transit in other rural areas, measured in terms of cost per trip, VRM, or VRH. This indicates a need for greater funding for tribal transit.
- With respect to VRM, tribal transit spent \$4 million more in operation cost compared with other rural transit systems. Operation costs are \$15 million greater with respect to VRH and \$26.4 million more with respect to cost per trip, compared with other rural transit systems.

#### Tribal Transit and Livability – Tribal Transit Stakeholder Input

- Stakeholders mentioned that livability could be improved in their tribal communities by
  providing more affordable housing, increasing job opportunities, decreasing crime,
  reducing drug use, increasing the ease of travel by providing more transportation/transit
  services, providing assisted living facilities, and providing low cost of living
  opportunities.
- Currently, public transit in tribal communities contributes toward community livability by providing access to healthcare, jobs, grocery and other stores, education, and other activities. To improve tribal community livability, stakeholders mentioned that public transit in tribal communities could expand transit routes, increase service frequency, increase transit staff (especially vehicle operators), and expand the transit vehicle fleet.

#### Tribal Transit and Livability – Standing Rock Reservation Case Study

- While all livability factors studied could be improved in Standing Rock Reservation to improve livability, specifically, increasing affordable housing, available jobs, and quality healthcare, along with reducing crime and maintaining a clean environment can improve the livability of Standing Rock Reservation.
- Improving the condition of roads, public transit services, and walkability/accessibility can contribute toward enhancing Standing Rock Reservation's community livability.
- When asked for reasons why public transit service should be available to their community, the top three were: transit is an option for saving on the cost of transportation, transit is an option for those who choose not to drive, and transit is an option for seniors or people with disabilities.
- Standing Rock respondents rated all livability factors identified in the study as being more important than did non-metro respondents from communities across the country in a previous national survey. However, Standing Rock respondents perceived the quality of most of these livability factors in their communities as being lower than did non-metro respondents across the country. These observations have created a much higher gap between the livability factor's importance and perceived quality in Standing Rock Reservation when compared with non-metro areas in the United States. These observations clearly show the need to improve various livability factors in Standing Rock Reservation to improve community livability to at least bring them to levels similar to other non-metro communities in the country.
- Standing Rock resident respondents thought that affordable transportation options in their community are of much better quality; in fact, the quality was observed to be higher than the values observed for non-metro areas in the United States. Further, feedback provided by transit riders showed that they are very happy with their community's public transit system operations. Some possible improvements mentioned by transit rider respondents include availability of transit services in the evenings and weekends, increasing funding options for transit for expanding operations, providing transit options for casino workers, and posting bus schedules at multiple locations to better inform riders.
- When compared with national averages for non-metro areas, a significantly greater percentage of public transit riders in Standing Rock Reservation agree or strongly agree (79%) that public transit is important to their quality of life than the average values in

non-metro areas (58%). This finding shows the importance of public transit services in Standing Rock Reservation and in a tribal community in general.

#### Tribal Transit and Livability – Makah Tribe Case Study

- While all the livability factors studied could be improved in Makah Tribe to improve livability, specifically, increased affordable housing and available jobs, improved overall cost of living, and more quality healthcare, shopping, and entertainment can improve the livability of Makah Tribe.
- Improving the condition of roads, public transit services, walkability/accessibility, and bikeability can contribute to enhancing Makah Tribe's community livability.
- When asked why public transit service should be available to their community, the top three reasons mentioned were: transit is an option for seniors or people with disabilities, transit is an option for those who choose not to drive, and accessing destinations by walking is difficult in the community.
- Makah Tribe respondents perceived the quality of most of these livability factors as being lower in their communities than did non-metro respondents to a previous national survey. These observations have created a much higher gap between the livability factor's importance and perceived quality in Makah tribe when compared with non-metro areas in the United States. These findings clearly show the need to improve various livability factors in Makah Tribe to improve community livability to at least bring them to levels similar to other non-metro communities across the country.
- Makah resident respondents thought that they have better quality cultural institutions, greater sense of community, and better affordable transportation options when compared with opinions of respondents from non-metro areas in the United States.
- When compared with national averages, it can be summarized that a lower percentage of public transit riders in Makah Tribe agree or strongly agree (12%) that public transit is important to their quality of life when compared with average values in non-metro areas (58%). While transit riders in Makah Tribe are grateful for the available services, some of the improvements they felt would make the transit service more optimal for them include: providing accessible transit service to elders and disabled persons in the community, having more than the one bus they currently have to provide service, increasing the service frequency in a week and within a day, building more bus shelters so passengers can wait during rainy weather, and having less wait times for the bus service.

#### **Discussion and Conclusions**

Transit provision in tribal reservations is challenging due to geographic characteristics. Despite these challenges, there a need for mobility service in these areas. Tribal areas have higher concentrations of some transportation-disadvantaged populations, particularly low-income populations, people without access to a vehicle, and youth. The elderly population is commonly used as an indicator of need for transit in rural areas, and it may used for allocating funding. For example, a portion of North Dakota State Aid is distributed based on the number of older adults transported. This could be problematic in tribal areas as the demographics are different. Tribal areas are shown to have smaller populations of older adults. Some reservations, such as Standing Rock, do not have nursing homes, so older adults and people with disabilities may need to move away from the reservation. The need for transit in tribal areas is driven less by the elderly

population, compared to other rural areas, and more by the high levels of poverty. Funding formulas that include not just the elderly population but also poverty levels and the youth population would help ensure a more equitable allocation of funds for the tribes.

There has been progress in providing tribal transit services to meet these needs. The number of tribal transit systems and level of service has increased the past two decades as federal funding has increased, though the number of agencies and ridership levels have plateaued since 2015.

Transit is one of many factors that influence livability. Two case studies of tribal areas explored the quality of transit and other livability factors in these communities and how livability could be improved. Results showed many areas in which livability could be improved, most notably affordable housing, available jobs, and quality healthcare. Survey responses suggest that the perceived quality of many livability factors is lower in these reservations than in other rural or non-metro communities across the country.

Respondents from both case studies rated affordable transportation as being more important than did respondents from other non-metro areas across the country, indicating the importance of transit in a tribal community. Case study respondents indicated they were satisfied with the quality of transit service being provided but also suggested areas for improvement. Survey participants from both case studies agreed that it is important for transit services to be available in their communities.

The case studies were designed similarly to previous case studies conducted in non-tribal communities, with similar survey questions and the same livability factors as those used in the previous case studies as well as in a previous national survey. This allowed for a comparison of results between tribal and non-tribal areas. However, this design may have overlooked some livability factors that are specific to tribal communities. Future research could explore whether tribal members value additional livability factors that were not included in this study. Further, it should be noted that every tribal nation and tribal communities and cannot be used to make broad generalizations.

## REFERENCES

Barry, S (2010). Case studies on transit and livable communities in rural and small town America. Washington, DC. Transportation for America.

Brooks, J., Edrington, S., Sharma, S., Vasishth, S., & Cherrington, L. (2014). Exploring Transit's Contribution to Livability in Rural Communities: Guidebook and Exercises; Technical Memorandum 1 - Literature Review: Transit and Livability in Rural America. Texas A&M Transportation Institute.

Brooks, J., Sharma, S., Pappas, M., & Cherrington, L. (2015). Exploring Transit's Contribution to Livability in Rural Communities: Guidebook and Exercises; Technical Memorandum 3 - Pilot Case Study Findings and Phase 2 Case Study Outreach Plan. Texas A&M Transportation Institute.

Environmental Protection Agency, U.S. Department of Housing and Urban Development, U.S. Department of Transportation (n.d.). Partnership for Sustainable Communities. <u>https://obamawhitehouse.archives.gov/sites/default/files/uploads/SCP-Fact-Sheet.pdf</u> Accessed February 2021.

Godavarthy, R., & Mattson, J. (2016). Exploring transit's contribution to livability in rural communities: case study of Valley City, ND, and Dickinson, ND. Small Urban and Rural Transit Center, Upper Great Plains Transportation Institute.

Godavarthy, R., Mattson, J., Brooks, J., Jain, J., Quadrifoglio, L., Sener, I., and Simek, C. (2018). Transit and livability: Results from the National Community Livability Survey. Small Urban and Rural Transit Center, Upper Great Plains Transportation Institute and Texas A & M Transportation Institute.

Godschalk, D. (2004). Land use planning challenges: coping with conflicts in vision of sustainable development and livable communities. *Journal of the American Planning Association*, Vol 70, No. 1, 5-13.

Hass, P., and Fabish, L. (2013). Measuring the performance of livability programs. Mineta Transportation Institute (MTI).

Kaal, H. A conceptual history of livability, City: analysis of urban trends, culture, theory, policy, action, 15(15) (2011): 532 -547.

Leadership Conference Education Fund. "Will You Count? American Indians and Alaska Natives in the 2020 Census," Georgetown Law Center on Poverty and Inequality, Economic Security and Opportunity Initiative, April 17, 2018. <u>http://www.georgetownpoverty.org/wp-content/uploads/2018/06/Fact-Sheet-AIAN-HTC.pdf</u> Accessed April 2021.

Leapman, Michael. "Americans' Tendency to Vote with their Feet Alarms City Planners," The Times, 30 May 1971

Litman, Todd. (2011). Sustainability and Livability: Summary of Definitions, Goals, Objectives and Performance Indicators. Victoria Transport Policy Institute. March 11.

Matthias, R., and Franklin, R.S. "Livability for all? Conceptual limits and practical implications." Applied Geography 49, 2014, pp 18-23.

Mattson, Jeremy. (2017). Rural Transit Factbook, 2017. Small Urban and Rural Transit Center, Upper Great Plains Transportation Institute, North Dakota State University.

Partnership for Sustainable Communities. (2011). Supporting Sustainable Rural Communities. U.S. Department of Housing and Urban Development, U.S. Department of Transportation, U.S. Environmental Protection Agency, in collaboration with the U.S. Department of Agriculture.

Ripplinger, David, Ndembe, Elvis, and Hough, Jill. 2011 Transit and Community Livability Report, DP-262. North Dakota State University, Fargo: Upper Great Plains Transportation Institute, 2012.

Sackett, Chase. "Who Counts? Identifying Native American Populations," Evidence Matters. Office of Policy Development and Research, U.S. Department of Housing and Urban Development, Spring, 2015.

https://www.huduser.gov/portal/periodicals/em/spring15/highlight2.html

Shinstine, D., Denzer, A., and Ksaibati, K. Livability and transportation on Indian reservations. Journal of Rural and Community Development, Vol 10, No. 2 (2015).

Texas Transportation Institute. (2013). What is livability? https://transitmobility.tti.tamu.edu/files/2013/05/3-Definitions-of-livability-handout.pdf. Accessed February 2021.

Toth, Gary, and Twaddell, Hannah. (2010). What is 'Rural Livability'? Blueprint America: PBS reports on infrastructure. May 17. https://www.pbs.org/wnet/blueprintamerica/blogs/the-dig-oped-what-is-rural-livability/1021/ Accessed 2019.

U.S. Department of Transportation, Federal Highway Administration. (2020). FHWA Freight and Land Use Handbook. https://ops.fhwa.dot.gov/publications/fhwahop12006/sec 3.htm. Accessed February 2021.

# APPENDIX A: TRIBAL RESERVATION DEMOGRAPHIC DATA

Poarch Creek Reservation and Off-Reservation Trust Land					
	Population	Percent (%)	State	AL-FL	
Seniors	59	15	FTA Region	4	
School-Age	83	21	Land Area (sq. miles)	0.62	
Disabled	103	26	Total Population	389	
Poverty	156	40	Population Density (pop/sq miles)	627	
No Vehicle Households	3	2	Mobility Dependence Index (%)	21	
Pasc	ua Pueblo Yaq	ui Reservation	and Off-Reservation Trust Land		
	Population	Percent (%)	State	AZ	
Seniors	309	8	FTA Region	9	
School-Age	1,196	31	Land Area (sq. miles)	3.5	
Disabled	746	19	Total Population	3,888	
Poverty	1,662	43	Population Density (pop/sq miles)	1,111	
No Vehicle Households	171	19	Mobility Dependence Index (%)	24	
	Yava	apai-Apache Na	ition Reservation		
	Population	Percent (%)	State	AZ	
Seniors	196	22	FTA Region	9	
School-Age	199	22	Land Area (sq. miles)	1	
Disabled	164	18	Total Population	902	
Poverty	313	35	Population Density (pop/sq miles)	888	
No Vehicle Households	44	15	Mobility Dependence Index (%)	22	
7	onto Apache F	Reservation and	Off-Reservation Trust Land		
	Population	Percent (%)	State	AZ	
Seniors	29	21	FTA Region	9	
School-Age	35	25	Land Area (sq. miles)	0.6	
Disabled	41	29	Total Population	139	
Poverty	41	29	Population Density (pop/sq miles)	240	
No Vehicle Households	4	8	Mobility Dependence Index (%)	22	
	)	′avapai Prescot	t Reservation		
	Population	Percent (%)	State	AZ	
Seniors	27	7	FTA Region	9	
School-Age	99	26	Land Area (sq. miles)	2.2	
Disabled	20	5	Total Population	376	
Poverty	112	30	Population Density (pop/sq miles)	171	
No Vehicle Households	0	0	Mobility Dependence Index (%)	141	
		Cocopah Re.	servation		
	Population	Percent (%)	State	AZ	
Seniors	532	40	FTA Region	9	
School-Age	216	16	Land Area (sq. miles)	10	
Disabled	191	14	Total Population	1,341	
Poverty	536	40	Population Density (pop/sq miles)	134	
No Vehicle Households	82	15	Mobility Dependence Index (%)	25	

	Salt River Reservation					
	Population	Percent (%)	State	AZ		
Seniors	1,522	21	FTA Region	9		
School-Age	1,263	18	Land Area (sq. miles)	82.4		
Disabled	1,603	23	Total Population	7,087		
Poverty	1,990	28	Population Density (pop/sq miles)	86		
No Vehicle Households	214	9	Mobility Dependence Index (%)	20		
A	k Chin Indian I	Reservation and	l Off-Reservation Trust Land			
	Population	Percent (%)	State	AZ		
Seniors	96	7	FTA Region	9		
School-Age	318	25	Land Area (sq. miles)	33.3		
Disabled	135	11	Total Population	1,281		
Poverty	500	40	Population Density (pop/sq miles)	38		
No Vehicle Households	133	35	Mobility Dependence Index (%)	24		
	Fort Mc	Dowell Yavapa	i Nation Reservation			
	Population	Percent (%)	State	AZ		
Seniors	156	14	FTA Region	9		
School-Age	346	30	Land Area (sq. miles)	38.6		
Disabled	148	13	Total Population	1,141		
Poverty	358	32	Population Density (pop/sq miles)	30		
No Vehicle Households	17	5	Mobility Dependence Index (%)	19		
		Gila River India	n Reservation			
	Population	Percent (%)	State	AZ		
Seniors	1,522	12	FTA Region	9		
School-Age	3,372	28	Land Area (sq. miles)	583.4		
Disabled	1,493	13	Total Population	12,196		
Poverty	5,719	49	Population Density (pop/sq miles)	21		
No Vehicle Households	921	27	Mobility Dependence Index (%)	26		
		Fort Apache R	leservation			
	Population	Percent (%)	State	AZ		
Seniors	1,537	10	FTA Region	9		
School-Age	4,224	28	Land Area (sq. miles)	2,625.2		
Disabled	2,235	15	Total Population	15,313		
Poverty	6,716	45	Population Density (pop/sq miles)	6		
No Vehicle Households	810	23	Mobility Dependence Index (%)	24		
	•	San Carlos Re	eservation			
	Population	Percent (%)	State	AZ		
Seniors	1,059	10	FTA Region	9		
School-Age	3,032	29	Land Area (sq. miles)	2,902.8		
Disabled	1,421	13	Total Population	10,611		
Poverty	4,788	46	Population Density (pop/sq miles)	4		
No Vehicle Households	534	23	Mobility Dependence Index (%)	24		

Hopi Reservation and Off-Reservation Trust Land						
	Population	Percent (%)	State	AZ		
Seniors	1,546	17	FTA Region	9		
School-Age	2,254	24	Land Area (sq. miles)	2,532.2		
Disabled	686	7	Total Population	9,268		
Poverty	3,227	35	Population Density (pop/sq miles)	4		
No Vehicle Households	401	18	Mobility Dependence Index (%)	20		
Tohono O'odham Nation Reservation and Off-Reservation Trust Land						
	Population	Percent (%)	State	AZ		
Seniors	1,704	16	FTA Region	9		
School-Age	2,847	27	Land Area (sq. miles)	4,453.3		
Disabled	1,867	18	Total Population	10,703		
Poverty	4,745	45	Population Density (pop/sq miles)	2		
No Vehicle Households	638	22	Mobility Dependence Index (%)	26		
Hu	ualapai Indian	Reservation an	d Off-Reservation Trust Land			
	Population	Percent (%)	State	AZ		
Seniors	229	16	FTA Region	9		
School-Age	362	25	Land Area (sq. miles)	1,601.4		
Disabled	189	13	Total Population	1,441		
Poverty	511	36	Population Density (pop/sq miles)	1		
No Vehicle Households	76	20	Mobility Dependence Index (%)	22		
		Kaibab Indian	Reservation			
	Population	Percent (%)	State	AZ		
Seniors	48	17	FTA Region	9		
School-Age	57	20	Land Area (sq. miles)	189		
Disabled	52	19	Total Population	280		
Poverty	69	25	Population Density (pop/sq miles)	1		
No Vehicle Households	11	10	Mobility Dependence Index (%)	18		
		Havasupai R	eservation			
	Population	Percent (%)	State	AZ		
Seniors	0	0	FTA Region	9		
School-Age	0	0	Land Area (sq. miles)	276		
Disabled	0	0	Total Population	13		
Poverty	13	100	Population Density (pop/sq miles)	0		
No Vehicle Households	0	0	Mobility Dependence Index (%)	20		
	Col	orado River Ind	ian Reservation			
	Population	Percent (%)	State	AZ-CA		
Seniors	2,080	22	FTA Region	9		
School-Age	1,980	21	Land Area (sq. miles)	457.3		
Disabled	1,491	16	Total Population	9,652		
Poverty	2,558	27	Population Density (pop/sq miles)	21		
No Vehicle Households	194	6	Mobility Dependence Index (%)	18		

	Fort Mojave Reservation and Off-Reservation Trust Land					
	Population	Percent (%)	State	AZ-CA-NV		
Seniors	626	37	FTA Region	9		
School-Age	279	16	Land Area (sq. miles)	51.6		
Disabled	364	21	Total Population	1,707		
Poverty	415	24	Population Density (pop/sq miles)	33		
No Vehicle Households	44	7	Mobility Dependence Index (%)	21		
Λ	avajo Nation l	Reservation and	Off-Reservation Trust Land			
	Population	Percent (%)	State	AZ-NM-UT		
Seniors	28,648	16	FTA Region	9-6-8		
School-Age	44,398	25	Land Area (sq. miles)	24,133		
Disabled	26,323	15	Total Population	175,005		
Poverty	70,476	40	Population Density (pop/sq miles)	7		
No Vehicle Households	6,342	14	Mobility Dependence Index (%)	22		
	•	Mechoopa	la TDSA	·		
	Population	Percent (%)	State	CA		
Seniors	490	15	FTA Region	9		
School-Age	720	22	Land Area (sq. miles)	1.3		
Disabled	521	16	Total Population	3,327		
Poverty	675	20	Population Density (pop/sq miles)	2,538		
No Vehicle Households	84	7	Mobility Dependence Index (%)	16		
		Coyote Valley	Reservation			
	Population	Percent (%)	State	CA		
Seniors	24	9	FTA Region	9		
School-Age	86	32	Land Area (sq. miles)	0.1		
Disabled	41	15	Total Population	270		
Poverty	112	41	Population Density (pop/sq miles)	2,014		
No Vehicle Households	5	10	Mobility Dependence Index (%)	21		
		Grindstone Indi	an Rancheria			
	Population	Percent (%)	State	CA		
Seniors	11	5	FTA Region	9		
School-Age	62	25	Land Area (sq. miles)	0.1		
Disabled	53	22	Total Population	244		
Poverty	175	72	Population Density (pop/sq miles)	1,938		
No Vehicle Households	13	15	Mobility Dependence Index (%)	28		
	Blue Lake Ro	ncheria and Of	f-Reservation Trust Land			
	Population	Percent (%)	State	CA		
Seniors	15	18	FTA Region	9		
School-Age	9	11	Land Area (sq. miles)	0.1		
Disabled	17	21	Total Population	82		
Poverty	10	12	Population Density (pop/sq miles)	1,553		
No Vehicle Households	0	0	Mobility Dependence Index (%)	12		

Berry Creek Rancheria and Off-Reservation Trust Land					
	Population	Percent (%)	State	CA	
Seniors	28	11	FTA Region	9	
School-Age	111	43	Land Area (sq. miles)	0.2	
Disabled	23	9	Total Population	259	
Poverty	21	8	Population Density (pop/sq miles)	1,518	
No Vehicle Households	1	1	Mobility Dependence Index (%)	14	
		Pinoleville R	Rancheria		
	Population	Percent (%)	State	CA	
Seniors	43	19	FTA Region	9	
School-Age	56	25	Land Area (sq. miles)	0.2	
Disabled	27	12	Total Population	223	
Poverty	47	21	Population Density (pop/sq miles)	1,369	
No Vehicle Households	17	29	Mobility Dependence Index (%)	21	
	Trinidad Ra	ncheria and Off	f-Reservation Trust Land		
	Population	Percent (%)	State	CA	
Seniors	25	13	FTA Region	9	
School-Age	43	23	Land Area (sq. miles)	0.1	
Disabled	25	13	Total Population	186	
Poverty	42	23	Population Density (pop/sq miles)	1,300	
No Vehicle Households	4	8	Mobility Dependence Index (%)	16	
		Santa Rosa I	Rancheria		
	Population	Percent (%)	State	CA	
Seniors	80	10	FTA Region	9	
School-Age	297	37	Land Area (sq. miles)	0.6	
Disabled	96	12	Total Population	811	
Poverty	118	15	Population Density (pop/sq miles)	1,296	
No Vehicle Households	18	9	Mobility Dependence Index (%)	17	
	Bridgeport Re	servation and (	Off-Reservation Trust Land		
	Population	Percent (%)	State	CA	
Seniors	31	37	FTA Region	9	
School-Age	0	0	Land Area (sq. miles)	0.1	
Disabled	7	8	Total Population	83	
Poverty	1	1	Population Density (pop/sq miles)	1,226	
No Vehicle Households	0	0	Mobility Dependence Index (%)	9	
		Bishop Res	ervation		
	Population	Percent (%)	State	CA	
Seniors	240	14	FTA Region	9	
School-Age	412	25	Land Area (sq. miles)	1.4	
Disabled	178	11	Total Population	1,657	
Poverty	253	16	Population Density (pop/sq miles)	1,225	
No Vehicle Households	36	16	Mobility Dependence Index (%)	14	

		Big Valley R	lancheria	
	Population	Percent (%)	State	CA
Seniors	25	12	FTA Region	9
School-Age	69	33	Land Area (sq. miles)	0.2
Disabled	27	13	Total Population	212
Poverty	119	56	Population Density (pop/sq miles)	1,138
No Vehicle Households	11	21	Mobility Dependence Index (%)	27
	Big Pine Res	ervation and O	ff-Reservation Trust Land	
	Population	Percent (%)	State	CA
Seniors	110	22	FTA Region	9
School-Age	124	25	Land Area (sq. miles)	0.5
Disabled	80	16	Total Population	497
Poverty	104	21	Population Density (pop/sq miles)	1,090
No Vehicle Households	12	6	Mobility Dependence Index (%)	18
		Table Bluff R	eservation	
	Population	Percent (%)	State	CA
Seniors	17	13	FTA Region	9
School-Age	40	31	Land Area (sq. miles)	0.1
Disabled	31	24	Total Population	127
Poverty	38	31	Population Density (pop/sq miles)	1,077
No Vehicle Households	10	24	Mobility Dependence Index (%)	25
		Cold Springs	Rancheria	
	Population	Percent (%)	State	CA
Seniors	23	14	FTA Region	9
School-Age	59	36	Land Area (sq. miles)	0.2
Disabled	23	14	Total Population	166
Poverty	59	36	Population Density (pop/sq miles)	1,032
No Vehicle Households	11	24	Mobility Dependence Index (%)	25
	r	Santa Ynez R	eservation	
	Population	Percent (%)	State	CA
Seniors	38	15	FTA Region	9
School-Age	59	24	Land Area (sq. miles)	0.2
Disabled	25	10	Total Population	250
Poverty	63	25	Population Density (pop/sq miles)	1,029
No Vehicle Households	6	7	Mobility Dependence Index (%)	16
	-	Laytonville I	Rancheria	
	Population	Percent (%)	State	CA
Seniors	31	10	FTA Region	9
School-Age	58	19	Land Area (sq. miles)	0.3
Disabled	60	20	Total Population	307
Poverty	149	49	Population Density (pop/sq miles)	1,009
No Vehicle Households	8	11	Mobility Dependence Index (%)	22

	Guidiville Rancheria and Off-Reservation Trust Land					
	Population	Percent (%)	State	CA		
Seniors	1	2	FTA Region	9		
School-Age	33	51	Land Area (sq. miles)	0.1		
Disabled	7	11	Total Population	65		
Poverty	46	71	Population Density (pop/sq miles)	910		
No Vehicle Households	0	0	Mobility Dependence Index (%)	27		
	Robinson Ro	ncheria and Of	f-Reservation Trust Land			
	Population	Percent (%)	State	CA		
Seniors	32	11	FTA Region	9		
School-Age	99	35	Land Area (sq. miles)	0.3		
Disabled	42	15	Total Population	284		
Poverty	128	45	Population Density (pop/sq miles)	900		
No Vehicle Households	4	4	Mobility Dependence Index (%)	22		
	Mai	nchester-Point	Arena Rancheria			
	Population	Percent (%)	State	CA		
Seniors	71	16	FTA Region	9		
School-Age	95	21	Land Area (sq. miles)	0.6		
Disabled	69	15	Total Population	458		
Poverty	113	25	Population Density (pop/sq miles)	778		
No Vehicle Households	5	4	Mobility Dependence Index (%)	16		
		Redwood Valle	y Rancheria			
	Population	Percent (%)	State	CA		
Seniors	100	32	FTA Region	9		
School-Age	46	15	Land Area (sq. miles)	0.4		
Disabled	61	19	Total Population	317		
Poverty	98	31	Population Density (pop/sq miles)	750		
No Vehicle Households	16	13	Mobility Dependence Index (%)	22		
		Redding Ro	ancheria			
	Population	Percent (%)	State	CA		
Seniors	8	40	FTA Region	9		
School-Age	1	5	Land Area (sq. miles)	0.04		
Disabled	1	5	Total Population	20		
Poverty	0	0	Population Density (pop/sq miles)	487		
No Vehicle Households	0	0	Mobility Dependence Index (%)	10		
		Lone Pine Re	eservation			
	Population	Percent (%)	State	CA		
Seniors	50	28	FTA Region	9		
School-Age	51	29	Land Area (sq. miles)	0.4		
Disabled	34	19	Total Population	177		
Poverty	47	27	Population Density (pop/sq miles)	481		
No Vehicle Households	7	9	Mobility Dependence Index (%)	22		

Ague	a Caliente India	an Reservation	and Off-Reservation Trust Land	
	Population	Percent (%)	State	CA
Seniors	13,111	51	FTA Region	9
School-Age	2,041	8	Land Area (sq. miles)	54.5
Disabled	4,937	19	Total Population	25,595
Poverty	3,614	14	Population Density (pop/sq miles)	469
No Vehicle Households	851	6	Mobility Dependence Index (%)	20
	Cedarville Ro	ancheria and O	ff-Reservation Trust Land	
	Population	Percent (%)	State	CA
Seniors	1	4	FTA Region	9
School-Age	14	56	Land Area (sq. miles)	0.1
Disabled	1	4	Total Population	25
Poverty	5	21	Population Density (pop/sq miles)	463
No Vehicle Households	0	0	Mobility Dependence Index (%)	17
	Smith River R	ancheria and O	ff-Reservation Trust Land	
	Population	Percent (%)	State	CA
Seniors	48	33	FTA Region	9
School-Age	12	8	Land Area (sq. miles)	0.3
Disabled	52	36	Total Population	144
Poverty	37	26	Population Density (pop/sq miles)	461
No Vehicle Households	2	4	Mobility Dependence Index (%)	21
		San Pasqual R	Reservation	
	Population	Percent (%)	State	CA
Seniors	144	16	FTA Region	9
School-Age	215	25	Land Area (sq. miles)	2.2
Disabled	104	12	Total Population	847
Poverty	214	25	Population Density (pop/sq miles)	391
No Vehicle Households	18	7	Mobility Dependence Index (%)	17
	North Fork R	ancheria and O	ff-Reservation Trust Land	
	Population	Percent (%)	State	CA
Seniors	34	25	FTA Region	9
School-Age	39	29	Land Area (sq. miles)	0.4
Disabled	14	10	Total Population	135
Poverty	61	45	Population Density (pop/sq miles)	373
No Vehicle Households	10	27	Mobility Dependence Index (%)	27
	Karuk Rese	rvation and Off	-Reservation Trust Land	
	Population	Percent (%)	State	CA
Seniors	67	12	FTA Region	9
School-Age	174	32	Land Area (sq. miles)	1.5
Disabled	72	13	Total Population	550
Poverty	273	50	Population Density (pop/sq miles)	368
No Vehicle Households	23	12	Mobility Dependence Index (%)	24

Mooretown Rancheria and Off-Reservation Trust Land					
	Population	Percent (%)	State	CA	
Seniors	20	12	FTA Region	9	
School-Age	38	24	Land Area (sq. miles)	0.5	
Disabled	43	27	Total Population	161	
Poverty	31	19	Population Density (pop/sq miles)	348	
No Vehicle Households	11	19	Mobility Dependence Index (%)	20	
	Big Sandy Ro	ancheria and Oj	ff-Reservation Trust Land		
	Population	Percent (%)	State	CA	
Seniors	9	5	FTA Region	9	
School-Age	75	41	Land Area (sq. miles)	0.5	
Disabled	12	7	Total Population	182	
Poverty	67	37	Population Density (pop/sq miles)	343	
No Vehicle Households	10	26	Mobility Dependence Index (%)	23	
2	Shingle Springs	Rancheria and	Off-Reservation Trust Land		
	Population	Percent (%)	State	CA	
Seniors	17	14	FTA Region	9	
School-Age	35	28	Land Area (sq. miles)	0.4	
Disabled	11	9	Total Population	124	
Poverty	24	19	Population Density (pop/sq miles)	318	
No Vehicle Households	1	3	Mobility Dependence Index (%)	15	
		Greenville R	lancheria		
	Population	Percent (%)	State	CA	
Seniors	13	38	FTA Region	9	
School-Age	0	0	Land Area (sq. miles)	0.1	
Disabled	12	35	Total Population	34	
Poverty	6	18	Population Density (pop/sq miles)	309	
No Vehicle Households	4	18	Mobility Dependence Index (%)	22	
		Tuolumne R	ancheria		
	Population	Percent (%)	State	CA	
Seniors	38	21	FTA Region	9	
School-Age	37	20	Land Area (sq. miles)	0.6	
Disabled	33	18	Total Population	182	
Poverty	14	8	Population Density (pop/sq miles)	306	
No Vehicle Households	2	3	Mobility Dependence Index (%)	14	
		Rohnerville l	Rancheria		
	Population	Percent (%)	State	CA	
Seniors	8	40	FTA Region	9	
School-Age	1	5	Land Area (sq. miles)	0.1	
Disabled	5	25	Total Population	20	
Poverty	2	10	Population Density (pop/sq miles)	294	
No Vehicle Households	0	0	Mobility Dependence Index (%)	16	

	Picayune Rancheria and Off-Reservation Trust Land						
	Population	Percent (%)	State	CA			
Seniors	13	15	FTA Region	9			
School-Age	10	11	Land Area (sq. miles)	0.3			
Disabled	11	12	Total Population	89			
Poverty	28	31	Population Density (pop/sq miles)	293			
No Vehicle Households	0	0	Mobility Dependence Index (%)	14			
Lookout Rancheria							
	Population	Percent (%)	State	CA			
Seniors	3	18	FTA Region	9			
School-Age	0	0	Land Area (sq. miles)	0.1			
Disabled	2	12	Total Population	17			
Poverty	5	29	Population Density (pop/sq miles)	270			
No Vehicle Households	0	0	Mobility Dependence Index (%)	12			
Si	usanville India	n Rancheria an	d Off-Reservation Trust Land				
	Population	Percent (%)	State	CA			
Seniors	95	17	FTA Region	9			
School-Age	142	25	Land Area (sq. miles)	2.2			
Disabled	93	16	Total Population	569			
Poverty	146	26	Population Density (pop/sq miles)	261			
No Vehicle Households	19	8	Mobility Dependence Index (%)	18			
		Cabazon Re	servation				
	Population	Percent (%)	State	CA			
Seniors	98	13	FTA Region	9			
School-Age	137	18	Land Area (sq. miles)	3.0			
Disabled	86	11	Total Population	748			
Poverty	286	38	Population Density (pop/sq miles)	251			
No Vehicle Households	28	14	Mobility Dependence Index (%)	19			
		Big Lagoon l	Rancheria				
	Population	Percent (%)	State	CA			
Seniors	0	0	FTA Region	9			
School-Age	0	0	Land Area (sq. miles)	0.01			
Disabled	1	50	Total Population	2			
Poverty	1	50	Population Density (pop/sq miles)	246			
No Vehicle Households	0	0	Mobility Dependence Index (%)	20			
Si	herwood Valle	y Rancheria and	d Off-Reservation Trust Land				
	Population	Percent (%)	State	CA			
Seniors	17	10	FTA Region	9			
School-Age	39	24	Land Area (sq. miles)	0.8			
Disabled	38	23	Total Population	164			
Poverty	66	40	Population Density (pop/sq miles)	212			
No Vehicle Households	8	19	Mobility Dependence Index (%)	23			

Quartz Valley Reservation and Off-Reservation Trust Land				
	Population	Percent (%)	State	CA
Seniors	25	12	FTA Region	9
School-Age	73	34	Land Area (sq. miles)	1.1
Disabled	23	11	Total Population	217
Poverty	105	48	Population Density (pop/sq miles)	196
No Vehicle Households	4	7	Mobility Dependence Index (%)	22
		Colusa Ra	ncheria	
	Population	Percent (%)	State	CA
Seniors	7	9	FTA Region	9
School-Age	24	31	Land Area (sq. miles)	0.4
Disabled	9	13	Total Population	78
Poverty	2	3	Population Density (pop/sq miles)	196
No Vehicle Households	2	11	Mobility Dependence Index (%)	13
В	enton Paiute F	Reservation and	l Off-Reservation Trust Land	
	Population	Percent (%)	State	CA
Seniors	15	13	FTA Region	9
School-Age	20	18	Land Area (sq. miles)	0.6
Disabled	6	5	Total Population	113
Poverty	20	18	Population Density (pop/sq miles)	196
No Vehicle Households	1	4	Mobility Dependence Index (%)	12
	Viejas Rese	rvation and Off	-Reservation Trust Land	
	Population	Percent (%)	State	CA
Seniors	86	17	FTA Region	9
School-Age	62	13	Land Area (sq. miles)	2.7
Disabled	35	7	Total Population	496
Poverty	49	10	Population Density (pop/sq miles)	187
No Vehicle Households	9	5	Mobility Dependence Index (%)	10
	•	Roaring Creek	Rancheria	
	Population	Percent (%)	State	CA
Seniors	0	0	FTA Region	9
School-Age	10	45	Land Area (sq. miles)	0.1
Disabled	0	0	Total Population	22
Poverty	0	0	Population Density (pop/sq miles)	172
No Vehicle Households	0	0	Mobility Dependence Index (%)	9
		Table Mountai	n Rancheria	
	Population	Percent (%)	State	CA
Seniors	17	47	FTA Region	9
School-Age	0	0	Land Area (sq. miles)	0.2
Disabled	0	0	Total Population	36
Poverty	0	0	Population Density (pop/sq miles)	169
No Vehicle Households	0	0	Mobility Dependence Index (%)	9

		Upper Lake I	Rancheria		
	Population	Percent (%)	State	CA	
Seniors	14	11	FTA Region	9	
School-Age	24	19	Land Area (sq. miles)	0.7	
Disabled	8	7	Total Population	124	
Poverty	11	9	Population Density (pop/sq miles)	167	
No Vehicle Households	7	21	Mobility Dependence Index (%)	13	
	Rincon Rese	rvation and Of	f-Reservation Trust Land		
	Population	Percent (%)	State	CA	
Seniors	124	13	FTA Region	9	
School-Age	245	25	Land Area (sq. miles)	7.0	
Disabled	95	10	Total Population	981	
Poverty	246	25	Population Density (pop/sq miles)	140	
No Vehicle Households	13	5	Mobility Dependence Index (%)	16	
	Elk Valley Ro	ncheria and Of	f-Reservation Trust Land		
	Population	Percent (%)	State	CA	
Seniors	52	51	FTA Region	9	
School-Age	13	13	Land Area (sq. miles)	0.8	
Disabled	38	38	Total Population	101	
Poverty	21	21	Population Density (pop/sq miles)	134	
No Vehicle Households	14	27	Mobility Dependence Index (%)	30	
		Hopland Re	ancheria		
	Population	Percent (%)	State	CA	
Seniors	57	17	FTA Region	9	
School-Age	99	29	Land Area (sq. miles)	3.1	
Disabled	45	13	Total Population	339	
Poverty	118	35	Population Density (pop/sq miles)	108	
No Vehicle Households	24	31	Mobility Dependence Index (%)	25	
	Fo	ort Independen	ce Reservation		
	Population	Percent (%)	State	CA	
Seniors	33	37	FTA Region	9	
School-Age	18	20	Land Area (sq. miles)	0.9	
Disabled	14	16	Total Population	90	
Poverty	9	10	Population Density (pop/sq miles)	103	
No Vehicle Households	2	5	Mobility Dependence Index (%)	18	
San Manuel Reservation and Off-Reservation Trust Land					
	Population	Percent (%)	State	CA	
Seniors	7	5	FTA Region	9	
School-Age	49	36	Land Area (sq. miles)	1.5	
Disabled	5	4	Total Population	138	
Poverty	103	75	Population Density (pop/sq miles)	91	
No Vehicle Households	0	0	Mobility Dependence Index (%)	24	

	-	Torres-Martine	z Reservation	
	Population	Percent (%)	State	CA
Seniors	224	7	FTA Region	9
School-Age	989	33	Land Area (sq. miles)	34.2
Disabled	212	7	Total Population	3,015
Poverty	1,453	48	Population Density (pop/sq miles)	88
No Vehicle Households	24	3	Mobility Dependence Index (%)	20
	Stewarts Point	Rancheria and	Off-Reservation Trust Land	
	Population	Percent (%)	State	CA
Seniors	6	8	FTA Region	9
School-Age	35	48	Land Area (sq. miles)	0.9
Disabled	13	18	Total Population	73
Poverty	31	42	Population Density (pop/sq miles)	85
No Vehicle Households	3	30	Mobility Dependence Index (%)	29
	Soboba Rese	ervation and Of	f-Reservation Trust Land	
	Population	Percent (%)	State	CA
Seniors	328	37	FTA Region	9
School-Age	92	10	Land Area (sq. miles)	12.0
Disabled	202	23	Total Population	891
Poverty	134	15	Population Density (pop/sq miles)	74
No Vehicle Households	35	9	Mobility Dependence Index (%)	19
	Barona Rese	ervation and Of	f-Reservation Trust Land	
	Population	Percent (%)	State	CA
Seniors	57	8	FTA Region	9
School-Age	215	29	Land Area (sq. miles)	11.2
Disabled	75	10	Total Population	745
Poverty	112	15	Population Density (pop/sq miles)	67
No Vehicle Households	4	2	Mobility Dependence Index (%)	13
	Sycuan Rese	ervation and O <u>f</u>	f-Reservation Trust Land	
	Population	Percent (%)	State	CA
Seniors	17	8	FTA Region	9
School-Age	68	33	Land Area (sq. miles)	3.6
Disabled	15	7	Total Population	205
Poverty	41	20	Population Density (pop/sq miles)	58
No Vehicle Households	0	0	Mobility Dependence Index (%)	14
		Pala Rese	rvation	
	Population	Percent (%)	State	CA
Seniors	101	9	FTA Region	9
School-Age	302	28	Land Area (sq. miles)	20.4
Disabled	80	7	Total Population	1,090
Poverty	243	22	Population Density (pop/sq miles)	54
No Vehicle Households	21	7	Mobility Dependence Index (%)	15

		Pechanga Re	eservation		
	Population	Percent (%)	State	CA	
Seniors	59	19	FTA Region	9	
School-Age	81	26	Land Area (sq. miles)	7.0	
Disabled	34	11	Total Population	309	
Poverty	57	19	Population Density (pop/sq miles)	44	
No Vehicle Households	5	5	Mobility Dependence Index (%)	16	
		Mesa Grande	Reservation		
	Population	Percent (%)	State	CA	
Seniors	9	8	FTA Region	9	
School-Age	21	19	Land Area (sq. miles)	2.7	
Disabled	10	9	Total Population	113	
Poverty	51	45	Population Density (pop/sq miles)	41	
No Vehicle Households	7	20	Mobility Dependence Index (%)	20	
		La Jolla Res	ervation		
	Population	Percent (%)	State	CA	
Seniors	80	14	FTA Region	9	
School-Age	157	28	Land Area (sq. miles)	13.5	
Disabled	67	12	Total Population	556	
Poverty	126	23	Population Density (pop/sq miles)	41	
No Vehicle Households	15	10	Mobility Dependence Index (%)	17	
		Resighini R	ancheria		
Population Percent (%) State					
Seniors	5	38	FTA Region	9	
School-Age	2	15	Land Area (sq. miles)	0.4	
Disabled	5	38	Total Population	13	
Poverty	4	31	Population Density (pop/sq miles)	34	
No Vehicle Households	0	0	Mobility Dependence Index (%)	24	
	Fort Bidwell Re	eservation and	Off-Reservation Trust Land		
	Population	Percent (%)	State	CA	
Seniors	22	14	FTA Region	9	
School-Age	40	25	Land Area (sq. miles)	5.5	
Disabled	21	13	Total Population	162	
Poverty	79	50	Population Density (pop/sq miles)	30	
No Vehicle Households	3	6	Mobility Dependence Index (%)	22	
		Cortina Indian	n Rancheria		
	Population	Percent (%)	State	CA	
Seniors	5	14	FTA Region	9	
School-Age	5	14	Land Area (sq. miles)	1.2	
Disabled	11	31	Total Population	35	
Poverty	14	40	Population Density (pop/sq miles)	29	
No Vehicle Households	0	0	Mobility Dependence Index (%)	20	

		Hoopa Valley	Reservation	
	Population	Percent (%)	State	CA
Seniors	560	17	FTA Region	9
School-Age	824	24	Land Area (sq. miles)	140.1
Disabled	672	20	Total Population	3,393
Poverty	1,406	42	Population Density (pop/sq miles)	24
No Vehicle Households	57	5	Mobility Dependence Index (%)	22
	P	auma and Yuim	a Reservation	
	Population	Percent (%)	State	CA
Seniors	8	4	FTA Region	9
School-Age	67	30	Land Area (sq. miles)	6.4
Disabled	12	5	Total Population	220
Poverty	10	5	Population Density (pop/sq miles)	23
No Vehicle Households	0	0	Mobility Dependence Index (%)	9
		Middletown	Rancheria	
	Population	Percent (%)	State	CA
Seniors	0	0	FTA Region	9
School-Age	0	0	Land Area (sq. miles)	0.2
Disabled	0	0	Total Population	3
Poverty	0	0	Population Density (pop/sq miles)	16
No Vehicle Households	3	100	Mobility Dependence Index (%)	20
	Tule River Re	servation and C	Off-Reservation Trust Land	
	Population	Percent (%)	State	CA
Seniors	138	10	FTA Region	9
School-Age	395	30	Land Area (sq. miles)	84.3
Disabled	165	12	Total Population	1,338
Poverty	397	30	Population Density (pop/sq miles)	16
No Vehicle Households	21	6	Mobility Dependence Index (%)	18
		Campo Indian	Reservation	
	Population	Percent (%)	State	CA
Seniors	30	9	FTA Region	9
School-Age	81	23	Land Area (sq. miles)	25.8
Disabled	58	17	Total Population	348
Poverty	102	30	Population Density (pop/sq miles)	14
No Vehicle Households	21	18	Mobility Dependence Index (%)	19
	Morongo Res	servation and O	ff-Reservation Trust Land	
	Population	Percent (%)	State	CA
Seniors	244	35	FTA Region	9
School-Age	111	16	Land Area (sq. miles)	53.5
Disabled	102	15	Total Population	691
Poverty	224	32	Population Density (pop/sq miles)	13
No Vehicle Households	9	3	Mobility Dependence Index (%)	20

Santa Ysabel Reservation					
	Population	Percent (%)	State	CA	
Seniors	79	30	FTA Region	9	
School-Age	48	18	Land Area (sq. miles)	23.4	
Disabled	60	23	Total Population	226	
Poverty	99	37	Population Density (pop/sq miles)	11	
No Vehicle Households	20	18	Mobility Dependence Index (%)	25	
	Round Valley R	eservation and	Off-Reservation Trust Land		
	Population	Percent (%)	State	CA	
Seniors	83	21	FTA Region	9	
School-Age	81	21	Land Area (sq. miles)	36.2	
Disabled	91	23	Total Population	391	
Poverty	87	22	Population Density (pop/sq miles)	11	
No Vehicle Households	8	6	Mobility Dependence Index (%)	19	
	•	Yurok Rese	ervation		
	Population	Percent (%)	State	CA	
Seniors	295	34	FTA Region	9	
School-Age	142	17	Land Area (sq. miles)	84.1	
Disabled	255	30	Total Population	856	
Poverty	349	41	Population Density (pop/sq miles)	10	
No Vehicle Households	50	14	Mobility Dependence Index (%)	27	
Twe	enty-Nine Palm	is Reservation a	and Off-Reservation Trust Land		
	Population	Percent (%)	State	CA	
Seniors	7	100	FTA Region	9	
School-Age	0	0	Land Area (sq. miles)	0.7	
Disabled	1	14	Total Population	7	
Poverty	0	0	Population Density (pop/sq miles)	10	
No Vehicle Households	0	0	Mobility Dependence Index (%)	23	
	Manzanita Re	servation and (	Off-Reservation Trust Land		
	Population	Percent (%)	State	CA	
Seniors	4	6	FTA Region	9	
School-Age	25	36	Land Area (sq. miles)	7.2	
Disabled	7	10	Total Population	70	
Poverty	7	10	Population Density (pop/sq miles)	10	
No Vehicle Households	0	0	Mobility Dependence Index (%)	12	
		La Posta Indian	Reservation		
	Population	Percent (%)	State	CA	
Seniors	1	2	FTA Region	9	
School-Age	22	41	Land Area (sq. miles)	6.4	
Disabled	0	0	Total Population	54	
Poverty	25	46	Population Density (pop/sq miles)	8	
No Vehicle Households	0	0	Mobility Dependence Index (%)	18	

		Chemehuevi F	Reservation	
	Population	Percent (%)	State	CA
Seniors	65	21	FTA Region	9
School-Age	67	21	Land Area (sq. miles)	48.2
Disabled	50	16	Total Population	317
Poverty	137	44	Population Density (pop/sq miles)	7
No Vehicle Households	17	14	Mobility Dependence Index (%)	23
		Cahuilla Re	servation	
	Population	Percent (%)	State	CA
Seniors	6	5	FTA Region	9
School-Age	32	24	Land Area (sq. miles)	28.9
Disabled	11	8	Total Population	133
Poverty	11	8	Population Density (pop/sq miles)	5
No Vehicle Households	1	3	Mobility Dependence Index (%)	10
		Santa Rosa R	eservation	
	Population	Percent (%)	State	CA
Seniors	9	12	FTA Region	9
School-Age	22	30	Land Area (sq. miles)	17.1
Disabled	6	8	Total Population	74
Poverty	49	66	Population Density (pop/sq miles)	4
No Vehicle Households	1	4	Mobility Dependence Index (%)	24
		Los Coyotes R	Reservation	
	Population	Percent (%)	State	CA
Seniors	15	11	FTA Region	9
School-Age	40	30	Land Area (sq. miles)	39.2
Disabled	20	15	Total Population	134
Poverty	32	24	Population Density (pop/sq miles)	3
No Vehicle Households	9	21	Mobility Dependence Index (%)	20
		lone Band of N	Aiwok TDSA	
	Population	Percent (%)	State	CA
Seniors	5	100	FTA Region	9
School-Age	0	0	Land Area (sq. miles)	2.1
Disabled	0	0	Total Population	5
Poverty	0	0	Population Density (pop/sq miles)	2
No Vehicle Households	0	0	Mobility Dependence Index (%)	20
		Rumsey India	n Rancheria	
	Population	Percent (%)	State	CA
Seniors	0	0	FTA Region	9
School-Age	0	0	Land Area (sq. miles)	0.8
Disabled	0	0	Total Population	1
Poverty	0	0	Population Density (pop/sq miles)	1
No Vehicle Households	0	0	Mobility Dependence Index (%)	0

Fort Yuma Indian Reservation					
	Population	Percent (%)	State	CA-AZ	
Seniors	213	15	FTA Region	9	
School-Age	473	33	Land Area (sq. miles)	69	
Disabled	196	14	Total Population	1,442	
Poverty	481	34	Population Density (pop/sq miles)	21	
No Vehicle Households	59	15	Mobility Dependence Index (%)	22	
Timl	bi-Sha Shoshor	ne Reservation	and Off-Reservation Trust Land		
	Population	Percent (%)	State	CA-NV	
Seniors	9	33	FTA Region	9	
School-Age	6	22	Land Area (sq. miles)	12.8	
Disabled	7	26	Total Population	27	
Poverty	6	22	Population Density (pop/sq miles)	2	
No Vehicle Households	0	0	Mobility Dependence Index (%)	21	
		Southern Ute	Reservation		
	Population	Percent (%)	State	CO	
Seniors	3,508	27	FTA Region	8	
School-Age	2,145	17	Land Area (sq. miles)	1,059	
Disabled	1,539	12	Total Population	12,995	
Poverty	1,030	8	Population Density (pop/sq miles)	12	
No Vehicle Households	128	3	Mobility Dependence Index (%)	13	
L L	lte Mountain F	Reservation and	l Off-Reservation Trust Land		
Population Percent (%) State CO-N					
Seniors	196	14	FTA Region	8-6	
School-Age	342	24	Land Area (sq. miles)	901	
Disabled	166	12	Total Population	1,424	
Poverty	562	41	Population Density (pop/sq miles)	2	
No Vehicle Households	47	9	Mobility Dependence Index (%)	20	
	Mohegan Res	servation and C	ff-Reservation Trust Land		
	Population	Percent (%)	State	СТ	
Seniors	33	10	FTA Region	1	
School-Age	33	10	Land Area (sq. miles)	1.0	
Disabled	21	7	Total Population	318	
Poverty	4	1	Population Density (pop/sq miles)	335	
No Vehicle Households	0	0	Mobility Dependence Index (%)	6	
Mash	antucket Pequ	ot Reservation	and Off-Reservation Trust Land		
	Population	Percent (%)	State	СТ	
Seniors	55	23	FTA Region	1	
School-Age	53	23	Land Area (sq. miles)	2.6	
Disabled	35	15	Total Population	235	
Poverty	4	2	Population Density (pop/sq miles)	92	
No Vehicle Households	3	5	Mobility Dependence Index (%)	14	

	Hollywood Reservation					
	Population	Percent (%)	State	FL		
Seniors	252	27	FTA Region	4		
School-Age	206	22	Land Area (sq. miles)	0.8		
Disabled	97	10	Total Population	940		
Poverty	206	22	Population Density (pop/sq miles)	1,219		
No Vehicle Households	23	6	Mobility Dependence Index (%)	17		
		Fort Pierce R	eservation			
	Population	Percent (%)	State	FL		
Seniors	4	4	FTA Region	4		
School-Age	33	30	Land Area (sq. miles)	0.1		
Disabled	14	13	Total Population	110		
Poverty	53	48	Population Density (pop/sq miles)	1,163		
No Vehicle Households	0	0	Mobility Dependence Index (%)	19		
		Immokalee R	eservation			
	Population	Percent (%)	State	FL		
Seniors	19	5	FTA Region	4		
School-Age	97	25	Land Area (sq. miles)	1.0		
Disabled	3	1	Total Population	383		
Poverty	115	32	Population Density (pop/sq miles)	395		
No Vehicle Households	2	3	Mobility Dependence Index (%)	13		
		Brighton Re	servation			
	Population	Percent (%)	State	FL		
Seniors	77	11	FTA Region	4		
School-Age	218	32	Land Area (sq. miles)	57.1		
Disabled	66	10	Total Population	692		
Poverty	105	15	Population Density (pop/sq miles)	12		
No Vehicle Households	3	2	Mobility Dependence Index (%)	14		
	•	Big Cypress R	eservation			
	Population	Percent (%)	State	FL		
Seniors	53	8	FTA Region	4		
School-Age	239	36	Land Area (sq. miles)	82.3		
Disabled	74	11	Total Population	658		
Poverty	230	35	Population Density (pop/sq miles)	8		
No Vehicle Households	0	0	Mobility Dependence Index (%)	18		
	Miccosukee Re	eservation and	Off-Reservation Trust Land			
	Population	Percent (%)	State	FL		
Seniors	7	100	FTA Region	4		
School-Age	0	0	Land Area (sq. miles)	134.0		
Disabled	3	43	Total Population	7		
Poverty	0	0	Population Density (pop/sq miles)	0		
No Vehicle Households	0	0	Mobility Dependence Index (%)	29		

Sac a	Sac and Fox/Meskwaki Settlement and Off-Reservation Trust Land					
	Population	Percent (%)	State	IA		
Seniors	153	12	FTA Region	7		
School-Age	406	32	Land Area (sq. miles)	10.3		
Disabled	127	10	Total Population	1,282		
Poverty	202	16	Population Density (pop/sq miles)	124		
No Vehicle Households	20	6	Mobility Dependence Index (%)	15		
	Kootenai Res	ervation and O	ff-Reservation Trust Land			
	Population	Percent (%)	State	ID		
Seniors	16	22	FTA Region	10		
School-Age	25	35	Land Area (sq. miles)	4.5		
Disabled	7	10	Total Population	72		
Poverty	27	28	Population Density (pop/sq miles)	16		
No Vehicle Households	0	0	Mobility Dependence Index (%)	21		
		Nez Perce Re	eservation			
	Population	Percent (%)	State	ID		
Seniors	5,792	31	FTA Region	10		
School-Age	3,318	18	Land Area (sq. miles)	1,193.8		
Disabled	4,028	23	Total Population	18,790		
Poverty	2,864	16	Population Density (pop/sq miles)	16		
No Vehicle Households	328	4	Mobility Dependence Index (%)	18		
		Coeur d'Alene	Reservation			
	Population	Percent (%)	State	ID		
Seniors	2,420	33	FTA Region	10		
School-Age	1,322	18	Land Area (sq. miles)	523.8		
Disabled	1,403	19	Total Population	7,391		
Poverty	1,406	19	Population Density (pop/sq miles)	14		
No Vehicle Households	152	5	Mobility Dependence Index (%)	19		
	Fort Hall Res	ervation and O	ff-Reservation Trust Land			
	Population	Percent (%)	State	ID		
Seniors	1,218	20	FTA Region	10		
School-Age	1,516	25	Land Area (sq. miles)	814.2		
Disabled	1,282	22	Total Population	5,955		
Poverty	1,305	22	Population Density (pop/sq miles)	7		
No Vehicle Households	87	5	Mobility Dependence Index (%)	19		
		Kickapoo (KS)	Reservation			
	Population	Percent (%)	State	KS		
Seniors	1,087	26	FTA Region	7		
School-Age	866	21	Land Area (sq. miles)	236.3		
Disabled	671	16	Total Population	4,123		
Poverty	638	16	Population Density (pop/sq miles)	17		
No Vehicle Households	83	5	Mobility Dependence Index (%)	17		

	Prairie Band of Potawatomi Nation Reservation					
	Population	Percent (%)	State	KS		
Seniors	339	20	FTA Region	7		
School-Age	464	27	Land Area (sq. miles)	121.5		
Disabled	316	18	Total Population	1,728		
Poverty	253	15	Population Density (pop/sq miles)	14		
No Vehicle Households	37	6	Mobility Dependence Index (%)	17		
	lowa (KS-NE) R	eservation and	Off-Reservation Trust Land			
	Population	Percent (%)	State	KS-NE		
Seniors	27	17	FTA Region	7		
School-Age	29	18	Land Area (sq. miles)	19.9		
Disabled	20	12	Total Population	162		
Poverty	12	7	Population Density (pop/sq miles)	8		
No Vehicle Households	0	0	Mobility Dependence Index (%)	11		
		Chitimacha R	eservation			
	Population	Percent (%)	State	LA		
Seniors	88	15	FTA Region	6		
School-Age	145	25	Land Area (sq. miles)	0.7		
Disabled	94	16	Total Population	590		
Poverty	90	15	Population Density (pop/sq miles)	840		
No Vehicle Households	9	4	Mobility Dependence Index (%)	15		
	Tunica-Biloxi R	eservation and	Off-Reservation Trust Land			
	Population	Percent (%)	State	LA		
Seniors	14	9	FTA Region	6		
School-Age	37	25	Land Area (sq. miles)	1.2		
Disabled	12	8	Total Population	148		
Poverty	39	26	Population Density (pop/sq miles)	122		
No Vehicle Households	4	7	Mobility Dependence Index (%)	15		
	Coushatta Re	servation and C	Off-Reservation Trust Land			
	Population	Percent (%)	State	LA		
Seniors	4	4	FTA Region	6		
School-Age	41	42	Land Area (sq. miles)	1.8		
Disabled	9	9	Total Population	98		
Poverty	20	20	Population Density (pop/sq miles)	54		
No Vehicle Households	7	25	Mobility Dependence Index (%)	20		
	Wa	mpanoag-Aqui	nnah Trust Land			
	Population	Percent (%)	State	MA		
Seniors	6	3	FTA Region	1		
School-Age	74	35	Land Area (sq. miles)	0.7		
Disabled	20	9	Total Population	211		
Poverty	60	28	Population Density (pop/sq miles)	287		
No Vehicle Households	0	0	Mobility Dependence Index (%)	15		

	Pleasant Point Reservation						
	Population	Percent (%)	State	ME			
Seniors	109	15	FTA Region	1			
School-Age	173	23	Land Area (sq. miles)	0.6			
Disabled	131	18	Total Population	743			
Poverty	336	46	Population Density (pop/sq miles)	1,311			
No Vehicle Households	60	21	Mobility Dependence Index (%)	25			
Но	ulton Maliseet	Reservation a	nd Off-Reservation Trust Land				
	Population	Percent (%)	State	ME			
Seniors	26	8	FTA Region	1			
School-Age	93	29	Land Area (sq. miles)	1.9			
Disabled	109	34	Total Population	324			
Poverty	181	56	Population Density (pop/sq miles)	169			
No Vehicle Households	19	16	Mobility Dependence Index (%)	29			
	Aroos	stook Band of N	Aicmac Trust Land				
	Population	Percent (%)	State	ME			
Seniors	24	10	FTA Region	1			
School-Age	54	22	Land Area (sq. miles)	1.6			
Disabled	62	26	Total Population	241			
Poverty	139	58	Population Density (pop/sq miles)	147			
No Vehicle Households	24	25	Mobility Dependence Index (%)	28			
	I	ndian Townshi	o Reservation				
	Population	Percent (%)	State	ME			
Seniors	99	13	FTA Region	1			
School-Age	229	30	Land Area (sq. miles)	37.5			
Disabled	177	23	Total Population	769			
Poverty	344	45	Population Density (pop/sq miles)	20			
No Vehicle Households	90	29	Mobility Dependence Index (%)	28			
	Penobscot Re	servation and C	Off-Reservation Trust Land				
	Population	Percent (%)	State	ME			
Seniors	166	21	FTA Region	1			
School-Age	142	18	Land Area (sq. miles)	153.3			
Disabled	186	23	Total Population	807			
Poverty	275	35	Population Density (pop/sq miles)	5			
No Vehicle Households	63	19	Mobility Dependence Index (%)	23			
Sa	ult Ste. Marie	Reservation an	d Off-Reservation Trust Land				
	Population	Percent (%)	State	MI			
Seniors	180	8	FTA Region	5			
School-Age	606	28	Land Area (sq. miles)	2			
Disabled	425	20	Total Population	2,143			
Poverty	1,095	52	Population Density (pop/sq miles)	1,093			
No Vehicle Households	143	21	Mobility Dependence Index (%)	26			
Grand Traverse Reservation and Off-Reservation Trust Land							
---	------------------------------	------------------	-----------------------------------	--------	--	--	--
	Population	Percent (%)	State	MI			
Seniors	97	13	FTA Region	5			
School-Age	235	31	Land Area (sq. miles)	1.3			
Disabled	125	17	Total Population	759			
Poverty	193	27	Population Density (pop/sq miles)	585			
No Vehicle Households	38	16	Mobility Dependence Index (%)	21			
	Lac Vieux Desert Reservation						
	Population	Percent (%)	State	MI			
Seniors	11	5	FTA Region	5			
School-Age	111	49	Land Area (sq. miles)	0.4			
Disabled	13	6	Total Population	227			
Poverty	107	47	Population Density (pop/sq miles)	542			
No Vehicle Households	15	28	Mobility Dependence Index (%)	27			
Hur	on Potawaton	ni Reservation a	ind Off-Reservation Trust Land				
	Population	Percent (%)	State	MI			
Seniors	15	20	FTA Region	5			
School-Age	22	29	Land Area (sq. miles)	0.3			
Disabled	11	14	Total Population	76			
Poverty	21	29	Population Density (pop/sq miles)	223			
No Vehicle Households	6	26	Mobility Dependence Index (%)	24			
	Bay Mills Res	ervation and O	ff-Reservation Trust Land				
	Population	Percent (%)	State	MI			
Seniors	196	15	FTA Region	5			
School-Age	298	23	Land Area (sq. miles)	5.5			
Disabled	271	21	Total Population	1,281			
Poverty	221	18	Population Density (pop/sq miles)	233			
No Vehicle Households	45	11	Mobility Dependence Index (%)	18			
	Isabella Res	ervation and Of	f-Reservation Trust Land				
	Population	Percent (%)	State	MI			
Seniors	5,446	20	FTA Region	5			
School-Age	5,083	19	Land Area (sq. miles)	218.1			
Disabled	4,182	16	Total Population	27,225			
Poverty	4,309	16	Population Density (pop/sq miles)	125			
No Vehicle Households	658	6	Mobility Dependence Index (%)	15			
Har	nnahville India	n Community a	nd Off-Reservation Trust Land				
	Population	Percent (%)	State	MI			
Seniors	54	8	FTA Region	5			
School-Age	205	30	Land Area (sq. miles)	9.1			
Disabled	113	17	Total Population	679			
Poverty	245	36	Population Density (pop/sq miles)	74			
No Vehicle Households	25	14	Mobility Dependence Index (%)	21			

	Little River Reservation and Off-Reservation Trust Land					
	Population	Percent (%)	State	MI		
Seniors	17	14	FTA Region	5		
School-Age	35	29	Land Area (sq. miles)	1.8		
Disabled	26	21	Total Population	122		
Poverty	53	43	Population Density (pop/sq miles)	69		
No Vehicle Households	8	19	Mobility Dependence Index (%)	25		
L'Anse Reservation and Off-Reservation Trust Land						
	Population	Percent (%)	State	MI		
Seniors	953	31	FTA Region	5		
School-Age	665	22	Land Area (sq. miles)	92		
Disabled	550	18	Total Population	3,062		
Poverty	515	17	Population Density (pop/sq miles)	33		
No Vehicle Households	119	9	Mobility Dependence Index (%)	19		
Litt	le Traverse Ba	y Reservation a	nd Off-Reservation Trust Land			
	Population	Percent (%)	State	MI		
Seniors	9	15	FTA Region	5		
School-Age	9	15	Land Area (sq. miles)	1.9		
Disabled	13	22	Total Population	59		
Poverty	4	7	Population Density (pop/sq miles)	32		
No Vehicle Households	4	20	Mobility Dependence Index (%)	16		
	Pokagon Res	ervation and O	ff-Reservation Trust Land			
	Population	Percent (%)	State	MI		
Seniors	11	8	FTA Region	5		
School-Age	17	13	Land Area (sq. miles)	5.3		
Disabled	20	15	Total Population	130		
Poverty	10	8	Population Density (pop/sq miles)	24		
No Vehicle Households	0	0	Mobility Dependence Index (%)	9		
Shakopee	e Mdewakanto	n Sioux Commu	inity and Off-Reservation Trust Land			
	Population	Percent (%)	State	MN		
Seniors	124	18	FTA Region	5		
School-Age	176	25	Land Area (sq. miles)	3.3		
Disabled	104	15	Total Population	695		
Poverty	130	19	Population Density (pop/sq miles)	209		
No Vehicle Households	55	20	Mobility Dependence Index (%)	19		
	Lo	ower Sioux India	an Community			
	Population	Percent (%)	State	MN		
Seniors	66	14	FTA Region	5		
School-Age	161	35	Land Area (sq. miles)	2.6		
Disabled	48	10	Total Population	462		
Poverty	112	24	Population Density (pop/sq miles)	175		
No Vehicle Households	13	8	Mobility Dependence Index (%)	18		

Upper Sioux Community and Off-Reservation Trust Land							
	Population	Percent (%)	State	MN			
Seniors	22	12	FTA Region	5			
School-Age	68	37	Land Area (sq. miles)	2.3			
Disabled	17	9	Total Population	182			
Poverty	46	25	Population Density (pop/sq miles)	79			
No Vehicle Households	7	11	Mobility Dependence Index (%)	19			
Prai	Prairie Island Indian Community and Off-Reservation Trust Land						
	Population	Percent (%)	State	MN			
Seniors	30	16	FTA Region	5			
School-Age	28	15	Land Area (sq. miles)	3.6			
Disabled	18	10	Total Population	186			
Poverty	33	18	Population Density (pop/sq miles)	52			
No Vehicle Households	2	3	Mobility Dependence Index (%)	12			
	Mille Lacs Res	servation and C	Off-Reservation Trust Land				
	Population	Percent (%)	State	MN			
Seniors	1,387	31	FTA Region	5			
School-Age	853	19	Land Area (sq. miles)	98.7			
Disabled	913	21	Total Population	4,459			
Poverty	975	23	Population Density (pop/sq miles)	45			
No Vehicle Households	205	11	Mobility Dependence Index (%)	21			
	Leech Lake Re	servation and (	Off-Reservation Trust Land				
	Population	Percent (%)	State	MN			
Seniors	2,913	25	FTA Region	5			
School-Age	2,612	23	Land Area (sq. miles)	973.6			
Disabled	1,746	15	Total Population	11,456			
Poverty	2,849	25	Population Density (pop/sq miles)	12			
No Vehicle Households	505	11	Mobility Dependence Index (%)	20			
G	rand Portage I	Reservation and	d Off-Reservation Trust Land				
	Population	Percent (%)	State	MN			
Seniors	148	21	FTA Region	5			
School-Age	121	17	Land Area (sq. miles)	74.4			
Disabled	129	18	Total Population	718			
Poverty	102	14	Population Density (pop/sq miles)	10			
No Vehicle Households	22	6	Mobility Dependence Index (%)	15			
	White Earth Re	eservation and	Off-Reservation Trust Land				
	Population	Percent (%)	State	MN			
Seniors	2,262	23	FTA Region	5			
School-Age	2,466	25	Land Area (sq. miles)	1,097.6			
Disabled	1,361	14	Total Population	9,799			
Poverty	2,388	25	Population Density (pop/sq miles)	9			
No Vehicle Households	338	10	Mobility Dependence Index (%)	19			

Red Lake Reservation							
	Population	Percent (%)	State	MN			
Seniors	510	9	FTA Region	5			
School-Age	1,803	31	Land Area (sq. miles)	883.4			
Disabled	444	8	Total Population	5,873			
Poverty	2,077	36	Population Density (pop/sq miles)	7			
No Vehicle Households	227	15	Mobility Dependence Index (%)	20			
	Bois Forte Reservation and Off-Reservation Trust Land						
	Population	Percent (%)	State	MN			
Seniors	204	19	FTA Region	5			
School-Age	268	25	Land Area (sq. miles)	199.7			
Disabled	166	15	Total Population	1,087			
Poverty	284	26	Population Density (pop/sq miles)	5			
No Vehicle Households	36	10	Mobility Dependence Index (%)	19			
	Fond du Lac Re	eservation and	Off-Reservation Trust Land				
	Population	Percent (%)	State	MN-WI			
Seniors	781	19	FTA Region	5			
School-Age	810	20	Land Area (sq. miles)	154.5			
Disabled	573	14	Total Population	4,011			
Poverty	826	21	Population Density (pop/sq miles)	26			
No Vehicle Households	111	7	Mobility Dependence Index (%)	16			
Miss	sissippi Chocta	w Reservation	and Off-Reservation Trust Land				
	Population	Percent (%)	State	MS			
Seniors	524	7	FTA Region	4			
School-Age	2,607	33	Land Area (sq. miles)	52.4			
Disabled	1,295	17	Total Population	7,823			
Poverty	2,688	35	Population Density (pop/sq miles)	149			
No Vehicle Households	245	11	Mobility Dependence Index (%)	21			
	Rocky Boy's Re	eservation and	Off-Reservation Trust Land	1			
	Population	Percent (%)	State	MT			
Seniors	373	10	FTA Region	8			
School-Age	1,224	32	Land Area (sq. miles)	171.2			
Disabled	264	7	Total Population	3,794			
Poverty	1,457	39	Population Density (pop/sq miles)	22			
No Vehicle Households	114	12	Mobility Dependence Index (%)	20			
	Flathead Reservation						
	Population	Percent (%)	State	MT			
Seniors	7,796	27	FTA Region	8			
School-Age	6,082	21	Land Area (sq. miles)	1,935.7			
Disabled	4,334	15	Total Population	29,218			
Poverty	6,455	22	Population Density (pop/sq miles)	22			
No Vehicle Households	577	5	Mobility Dependence Index (%)	20			

Bl	ackfeet Indian	Reservation an	d Off-Reservation Trust Land			
	Population	Percent (%)	State	MT		
Seniors	1,617	15	FTA Region	8		
School-Age	2,891	26	Land Area (sq. miles)	2,371.7		
Disabled	1,244	11	Total Population	10,938		
Poverty	3,845	36	Population Density (pop/sq miles)	5		
No Vehicle Households	222	7	Mobility Dependence Index (%)	19		
Fort Belknap Reservation and Off-Reservation Trust Land						
	Population	Percent (%)	State	MT		
Seniors	391	12	FTA Region	8		
School-Age	962	30	Land Area (sq. miles)	1,014.8		
Disabled	730	23	Total Population	3,182		
Poverty	1,516	48	Population Density (pop/sq miles)	3		
No Vehicle Households	113	13	Mobility Dependence Index (%)	25		
Fo	ort Peck Indian	Reservation an	d Off-Reservation Trust Land			
	Population	Percent (%)	State	MT		
Seniors	1,624	16	FTA Region	8		
School-Age	2,772	27	Land Area (sq. miles)	3,288.7		
Disabled	1,374	14	Total Population	10,374		
Poverty	3,188	32	Population Density (pop/sq miles)	3		
No Vehicle Households	282	9	Mobility Dependence Index (%)	20		
	Crow Reser	vation and Off	Reservation Trust Land			
	Population	Percent (%)	State	MT		
Seniors	1,242	18	FTA Region	8		
School-Age	1,969	28	Land Area (sq. miles)	3,595.5		
Disabled	648	9	Total Population	7,096		
Poverty	2,307	33	Population Density (pop/sq miles)	2		
No Vehicle Households	33	2	Mobility Dependence Index (%)	18		
Tu	rtle Mountain	Reservation an	d Off-Reservation Trust Land			
	Population	Percent (%)	State	MT-ND-SD		
Seniors	1,035	11	FTA Region	8		
School-Age	2,637	29	Land Area (sq. miles)	227.5		
Disabled	1,408	15	Total Population	9,232		
Poverty	3,385	37	Population Density (pop/sq miles)	41		
No Vehicle Households	264	9	Mobility Dependence Index (%)	20		
Northe	rn Cheyenne In	dian Reservatio	on and Off-Reservation Trust Land			
	Population	Percent (%)	State	MT-SD		
Seniors	497	10	FTA Region	8		
School-Age	1,555	31	Land Area (sq. miles)	706.9		
Disabled	601	12	Total Population	4,951		
Poverty	1,791	37	Population Density (pop/sq miles)	7		
No Vehicle Households	72	6	Mobility Dependence Index (%)	19		

Eastern Cherokee Reservation						
	Population	Percent (%)	State	NC		
Seniors	1,726	18	FTA Region	4		
School-Age	2,199	23	Land Area (sq. miles)	81.7		
Disabled	1,274	13	Total Population	9,534		
Poverty	2,143	23	Population Density (pop/sq miles)	117		
No Vehicle Households	242	7	Mobility Dependence Index (%)	17		
Spirit Lake Reservation						
	Population	Percent (%)	State	ND		
Seniors	553	13	FTA Region	8		
School-Age	1,378	31	Land Area (sq. miles)	389.6		
Disabled	563	13	Total Population	4,403		
Poverty	2,009	46	Population Density (pop/sq miles)	11		
No Vehicle Households	116	10	Mobility Dependence Index (%)	23		
		Fort Berthold	Reservation			
	Population	Percent (%)	State	ND		
Seniors	932	13	FTA Region	8		
School-Age	1,996	27	Land Area (sq. miles)	1,319.1		
Disabled	776	11	Total Population	7,304		
Poverty	1,495	21	Population Density (pop/sq miles)	6		
No Vehicle Households	99	5	Mobility Dependence Index (%)	15		
L	ake Traverse R	Reservation and	Off-Reservation Trust Land			
	Population	Percent (%)	State	ND-SD		
Seniors	2,517	23	FTA Region	8		
School-Age	2,419	22	Land Area (sq. miles)	1,449.4		
Disabled	1,288	12	Total Population	10,967		
Poverty	2,076	19	Population Density (pop/sq miles)	8		
No Vehicle Households	195	5	Mobility Dependence Index (%)	16		
	•	Standing Rock	Reservation			
	Population	Percent (%)	State	ND-SD		
Seniors	1,212	14	FTA Region	8		
School-Age	2,502	29	Land Area (sq. miles)	3,568.4		
Disabled	1,000	12	Total Population	8,616		
Poverty	3,601	42	Population Density (pop/sq miles)	2		
No Vehicle Households	272	12	Mobility Dependence Index (%)	22		
		Santee Res	ervation			
	Population	Percent (%)	State	NE		
Seniors	179	17	FTA Region	7		
School-Age	283	27	Land Area (sq. miles)	172.9		
Disabled	150	14	Total Population	1,041		
Poverty	305	30	Population Density (pop/sq miles)	6		
No Vehicle Households	32	9	Mobility Dependence Index (%)	19		

	Omaha Reservation						
	Population	Percent (%)	State	NE-IA			
Seniors	948	20	FTA Region	7			
School-Age	1,376	29	Land Area (sq. miles)	307			
Disabled	585	12	Total Population	4,814			
Poverty	1,371	29	Population Density (pop/sq miles)	16			
No Vehicle Households	119	8	Mobility Dependence Index (%)	20			
	Winnebago Reservation and Off-Reservation Trust Land						
	Population	Percent (%)	State	NE-IA			
Seniors	331	11	FTA Region	7			
School-Age	879	30	Land Area (sq. miles)	177			
Disabled	309	11	Total Population	2,893			
Poverty	831	29	Population Density (pop/sq miles)	16			
No Vehicle Households	64	8	Mobility Dependence Index (%)	18			
		Ponca (NE) 1	Frust Land				
	Population	Percent (%)	State	NE-IA			
Seniors	0	0	FTA Region	7			
School-Age	0	0	Land Area (sq. miles)	0.3			
Disabled	1	33	Total Population	3			
Poverty	0	0	Population Density (pop/sq miles)	9			
No Vehicle Households	0	0	Mobility Dependence Index (%)	7			
Sac	and Fox Natio	n Reservation a	and Off-Reservation Trust Land				
	Population	Percent (%)	State	NE-KS			
Seniors	43	33	FTA Region	7			
School-Age	22	17	Land Area (sq. miles)	23.7			
Disabled	16	12	Total Population	130			
Poverty	21	16	Population Density (pop/sq miles)	5			
No Vehicle Households	1	2	Mobility Dependence Index (%)	16			
		Ohkay Ov	vingeh				
	Population	Percent (%)	State	NM			
Seniors	1,340	20	FTA Region	6			
School-Age	1,299	19	Land Area (sq. miles)	26.4			
Disabled	1,157	17	Total Population	6,690			
Poverty	1,875	28	Population Density (pop/sq miles)	253			
No Vehicle Households	144	8	Mobility Dependence Index (%)	18			
	Pueblo of Po	ojoaque and Of	f-Reservation Trust Land				
	Population	Percent (%)	State	NM			
Seniors	787	23	FTA Region	6			
School-Age	731	21	Land Area (sq. miles)	21.4			
Disabled	407	12	Total Population	3,495			
Poverty	556	16	Population Density (pop/sq miles)	163			
No Vehicle Households	27	2	Mobility Dependence Index (%)	15			

	Santa Clara Pueblo and Off-Reservation Trust Land					
	Population	Percent (%)	State	NM		
Seniors	3,183	27	FTA Region	6		
School-Age	2,128	18	Land Area (sq. miles)	78.7		
Disabled	2,060	18	Total Population	11,861		
Poverty	3,053	26	Population Density (pop/sq miles)	151		
No Vehicle Households	243	6	Mobility Dependence Index (%)	19		
Sandia Pueblo						
	Population	Percent (%)	State	NM		
Seniors	1,021	20	FTA Region	6		
School-Age	1,162	22	Land Area (sq. miles)	38.2		
Disabled	719	14	Total Population	5,228		
Poverty	1,405	27	Population Density (pop/sq miles)	137		
No Vehicle Households	69	4	Mobility Dependence Index (%)	17		
		Picuris P	ueblo			
	Population	Percent (%)	State	NM		
Seniors	621	29	FTA Region	6		
School-Age	307	14	Land Area (sq. miles)	27.4		
Disabled	632	29	Total Population	2,164		
Poverty	573	27	Population Density (pop/sq miles)	79		
No Vehicle Households	77	10	Mobility Dependence Index (%)	22		
		San Felipe	Pueblo			
	Population	Percent (%)	State	NM		
Seniors	685	17	FTA Region	6		
School-Age	1,161	29	Land Area (sq. miles)	79.6		
Disabled	402	10	Total Population	4,056		
Poverty	1,051	26	Population Density (pop/sq miles)	51		
No Vehicle Households	77	9	Mobility Dependence Index (%)	18		
	Nambe P	ueblo and Off-R	eservation Trust Land	1		
	Population	Percent (%)	State	NM		
Seniors	527	32	FTA Region	6		
School-Age	302	18	Land Area (sq. miles)	32.4		
Disabled	269	16	Total Population	1,637		
Poverty	308	19	Population Density (pop/sq miles)	51		
No Vehicle Households	20	3	Mobility Dependence Index (%)	18		
	San Ildefons	o Pueblo and O	ff-Reservation Trust Land			
	Population	Percent (%)	State	NM		
Seniors	462	24	FTA Region	6		
School-Age	408	21	Land Area (sq. miles)	47.1		
Disabled	240	12	Total Population	1,925		
Poverty	261	14	Population Density (pop/sq miles)	41		
No Vehicle Households	46	6	Mobility Dependence Index (%)	15		

	Tesuque P	ueblo and Off-l	Reservation Trust Land			
	Population	Percent (%)	State	NM		
Seniors	193	20	FTA Region	6		
School-Age	188	19	Land Area (sq. miles)	26.9		
Disabled	85	9	Total Population	973		
Poverty	256	27	Population Density (pop/sq miles)	36		
No Vehicle Households	24	7	Mobility Dependence Index (%)	16		
Taos Pueblo and Off-Reservation Trust Land						
	Population	Percent (%)	State	NM		
Seniors	1,538	30	FTA Region	6		
School-Age	935	18	Land Area (sq. miles)	156.1		
Disabled	918	18	Total Population	5,078		
Poverty	1,273	25	Population Density (pop/sq miles)	33		
No Vehicle Households	170	8	Mobility Dependence Index (%)	20		
		Santo Domin	go Pueblo			
	Population	Percent (%)	State	NM		
Seniors	506	15	FTA Region	6		
School-Age	781	23	Land Area (sq. miles)	106.1		
Disabled	307	9	Total Population	3,343		
Poverty	1,060	32	Population Density (pop/sq miles)	32		
No Vehicle Households	61	10	Mobility Dependence Index (%)	18		
		Pueblo de	Cochiti			
	Population	Percent (%)	State	NM		
Seniors	514	28	FTA Region	6		
School-Age	418	23	Land Area (sq. miles)	80.2		
Disabled	210	12	Total Population	1,824		
Poverty	295	16	Population Density (pop/sq miles)	23		
No Vehicle Households	22	3	Mobility Dependence Index (%)	16		
		Jemez P	ueblo			
	Population	Percent (%)	State	NM		
Seniors	333	16	FTA Region	6		
School-Age	460	23	Land Area (sq. miles)	139.7		
Disabled	237	12	Total Population	2,039		
Poverty	480	24	Population Density (pop/sq miles)	15		
No Vehicle Households	60	13	Mobility Dependence Index (%)	18		
		Isleta P	ueblo			
	Population	Percent (%)	State	NM		
Seniors	754	20	FTA Region	6		
School-Age	766	21	Land Area (sq. miles)	330.1		
Disabled	616	17	Total Population	3,730		
Poverty	1,043	28	Population Density (pop/sq miles)	15		
No Vehicle Households	65	5	Mobility Dependence Index (%)	18		

Santa Ana Pueblo					
	Population	Percent (%)	State	NM	
Seniors	128	18	FTA Region	6	
School-Age	168	24	Land Area (sq. miles)	101	
Disabled	69	10	Total Population	699	
Poverty	123	18	Population Density (pop/sq miles)	7	
No Vehicle Households	10	6	Mobility Dependence Index (%)	15	
	Laguna P	ueblo and Off-R	Reservation Trust Land		
	Population	Percent (%)	State	NM	
Seniors	880	23	FTA Region	6	
School-Age	777	20	Land Area (sq. miles)	780.4	
Disabled	840	22	Total Population	3,884	
Poverty	1,081	28	Population Density (pop/sq miles)	5	
No Vehicle Households	137	12	Mobility Dependence Index (%)	21	
	•	Mescalero Re	eservation		
	Population	Percent (%)	State	NM	
Seniors	394	11	FTA Region	6	
School-Age	968	26	Land Area (sq. miles)	719.2	
Disabled	363	10	Total Population	3704	
Poverty	1,186	32	Population Density (pop/sq miles)	5	
No Vehicle Households	148	15	Mobility Dependence Index (%)	19	
	Zia Pue	blo and Off-Res	ervation Trust Land		
	Population	Percent (%)	State	NM	
Seniors	116	12	FTA Region	6	
School-Age	264	27	Land Area (sq. miles)	191.1	
Disabled	107	11	Total Population	994	
Poverty	272	27	Population Density (pop/sq miles)	5	
No Vehicle Households	37	17	Mobility Dependence Index (%)	18	
	Acoma Pu	eblo and Off-R	eservation Trust Land		
	Population	Percent (%)	State	NM	
Seniors	521	18	FTA Region	6	
School-Age	691	23	Land Area (sq. miles)	595.5	
Disabled	485	16	Total Population	2,974	
Poverty	693	23	Population Density (pop/sq miles)	5	
No Vehicle Households	90	12	Mobility Dependence Index (%)	18	
Jicaril	la Apache Nat	ion Reservatior	and Off-Reservation Trust Land		
	Population	Percent (%)	State	NM	
Seniors	443	14	FTA Region	6	
School-Age	952	30	Land Area (sq. miles)	1,370	
Disabled	420	13	Total Population	3,217	
Poverty	952	30	Population Density (pop/sq miles)	2	
No Vehicle Households	95	12	Mobility Dependence Index (%)	20	

Zuni Reservation and Off-Reservation Trust Land							
	Population	Percent (%)	State	NM-AZ			
Seniors	1,308	14	FTA Region	9			
School-Age	2,216	23	Land Area (sq. miles)	724.4			
Disabled	1,435	15	Total Population	9,505			
Poverty	3,777	40	Population Density (pop/sq miles)	13			
No Vehicle Households	371	19	Mobility Dependence Index (%)	22			
Yerington Colony							
	Population	Percent (%)	State	NV			
Seniors	35	14	FTA Region	9			
School-Age	80	32	Land Area (sq. miles)	0.03			
Disabled	26	10	Total Population	252			
Poverty	122	48	Population Density (pop/sq miles)	8,035			
No Vehicle Households	15	15	Mobility Dependence Index (%)	24			
		Elko Co	lony				
	Population	Percent (%)	State	NV			
Seniors	226	22	FTA Region	9			
School-Age	203	20	Land Area (sq. miles)	0.3			
Disabled	220	22	Total Population	1006			
Poverty	277	28	Population Density (pop/sq miles)	3,336			
No Vehicle Households	31	9	Mobility Dependence Index (%)	20			
		Lovelock Ind	ian Colony				
	Population	Percent (%)	State	NV			
Seniors	13	24	FTA Region	9			
School-Age	10	19	Land Area (sq. miles)	0.03			
Disabled	9	17	Total Population	54			
Poverty	27	50	Population Density (pop/sq miles)	1,673			
No Vehicle Households	13	52	Mobility Dependence Index (%)	32			
		Wells Co	olony				
	Population	Percent (%)	State	NV			
Seniors	16	13	FTA Region	9			
School-Age	25	20	Land Area (sq. miles)	0.1			
Disabled	27	22	Total Population	124			
Poverty	15	12	Population Density (pop/sq miles)	978			
No Vehicle Households	1	3	Mobility Dependence Index (%)	14			
		Carson C	Colony				
	Population	Percent (%)	State	NV			
Seniors	38	14	FTA Region	9			
School-Age	53	19	Land Area (sq. miles)	0.3			
Disabled	72	26	Total Population	273			
Poverty	56	21	Population Density (pop/sq miles)	967			
No Vehicle Households	11	14	Mobility Dependence Index (%)	19			

Fallon Paiute-Shoshone Colony and Off-Reservation Trust Land						
	Population	Percent (%)	State	NV		
Seniors	14	17	FTA Region	9		
School-Age	15	18	Land Area (sq. miles)	0.2		
Disabled	12	15	Total Population	82		
Poverty	34	41	Population Density (pop/sq miles)	481		
No Vehicle Households	1	3	Mobility Dependence Index (%)	19		
Dresslerville Colony						
	Population	Percent (%)	State	NV		
Seniors	88	19	FTA Region	9		
School-Age	139	29	Land Area (sq. miles)	1.3		
Disabled	122	26	Total Population	472		
Poverty	213	45	Population Density (pop/sq miles)	379		
No Vehicle Households	20	14	Mobility Dependence Index (%)	27		
		Reno-Sparks In	dian Colony			
	Population	Percent (%)	State	NV		
Seniors	145	13	FTA Region	9		
School-Age	298	27	Land Area (sq. miles)	3.4		
Disabled	140	13	Total Population	1,108		
Poverty	437	40	Population Density (pop/sq miles)	330		
No Vehicle Households	60	21	Mobility Dependence Index (%)	23		
Ba	ttle Mountain	Reservation an	d Off-Reservation Trust Land			
	Population	Percent (%)	State	NV		
Seniors	65	20	FTA Region	9		
School-Age	57	18	Land Area (sq. miles)	1.1		
Disabled	52	16	Total Population	318		
Poverty	49	15	Population Density (pop/sq miles)	301		
No Vehicle Households	4	4	Mobility Dependence Index (%)			
		Duckwater R	eservation			
	Population	Percent (%)	State	NV		
Seniors	58	14	FTA Region	9		
School-Age	117	29	Land Area (sq. miles)	6.2		
Disabled	52	13	Total Population	409		
Poverty	107	26	Population Density (pop/sq miles)	66		
No Vehicle Households	5	4	Mobility Dependence Index (%)	17		
Fallon	Paiute-Shosh	one Reservatio	n and Off-Reservation Trust Land			
	Population	Percent (%)	State	NV		
Seniors	152	20	FTA Region	9		
School-Age	193	25	Land Area (sq. miles)	13		
Disabled	134	18	Total Population	767		
Poverty	269	36	Population Density (pop/sq miles)	59		
No Vehicle Households	13	4	Mobility Dependence Index (%)	21		

		Winnemucca Ir	ndian Colony			
	Population	Percent (%)	State	NV		
Seniors	13	43	FTA Region	9		
School-Age	1	3	Land Area (sq. miles)	0.6		
Disabled	16	53	Total Population	30		
Poverty	11	37	Population Density (pop/sq miles)	54		
No Vehicle Households	1	5	Mobility Dependence Index (%)	28		
Ely Reservation						
	Population	Percent (%)	State	NV		
Seniors	81	34	FTA Region	9		
School-Age	51	22	Land Area (sq. miles)	5.7		
Disabled	76	32	Total Population	235		
Poverty	80	34	Population Density (pop/sq miles)	42		
No Vehicle Households	2	2	Mobility Dependence Index (%)	25		
	•	Stewart Co	mmunity			
	Population	Percent (%)	State	NV		
Seniors	11	9	FTA Region	9		
School-Age	23	19	Land Area (sq. miles)	4.4		
Disabled	25	21	Total Population	119		
Poverty	51	43	Population Density (pop/sq miles)	27		
No Vehicle Households	0	0	Mobility Dependence Index (%)	18		
		Las Vegas Ind	lian Colony			
	Population	Percent (%)	State	NV		
Seniors	5	4	FTA Region	9		
School-Age	18	14	Land Area (sq. miles)	6.1		
Disabled	20	16	Total Population	128		
Poverty	9	7	Population Density (pop/sq miles)	21		
No Vehicle Households	2	7	Mobility Dependence Index (%)	10		
	•	Yomba Res	ervation			
	Population	Percent (%)	State	NV		
Seniors	23	22	FTA Region	9		
School-Age	12	11	Land Area (sq. miles)	7.3		
Disabled	8	8	Total Population	106		
Poverty	9	8	Population Density (pop/sq miles)	15		
No Vehicle Households	0	0	Mobility Dependence Index (%)	10		
	Py	ramid Lake Paiu	ite Reservation			
	Population	Percent (%)	State	NV		
Seniors	342	23	FTA Region	9		
School-Age	281	19	Land Area (sq. miles)	555.5		
Disabled	299	20	Total Population	1473		
Poverty	322	22	Population Density (pop/sq miles)	3		
No Vehicle Households	47	8	Mobility Dependence Index (%)	18		

South Fork Reservation and Off-Reservation Trust Land					
	Population	Percent (%)	State	NV	
Seniors	25	35	FTA Region	9	
School-Age	5	7	Land Area (sq. miles)	26.6	
Disabled	19	26	Total Population	72	
Poverty	16	22	Population Density (pop/sq miles)	3	
No Vehicle Households	0	0	Mobility Dependence Index (%)	18	
		Walker River I	Reservation		
	Population	Percent (%)	State	NV	
Seniors	190	17	FTA Region	9	
School-Age	277	25	Land Area (sq. miles)	528.1	
Disabled	194	17	Total Population	1,129	
Poverty	469	42	Population Density (pop/sq miles)	2	
No Vehicle Households	25	6	Mobility Dependence Index (%)	21	
	M	oapa River Indi	an Reservation		
	Population	Percent (%)	State	NV	
Seniors	28	11	FTA Region	9	
School-Age	66	26	Land Area (sq. miles)	111	
Disabled	57	22	Total Population	256	
Poverty	80	31	Population Density (pop/sq miles)	2	
No Vehicle Households	13	16	Mobility Dependence Index (%)	21	
		Washoe Ranche	es Trust Land		
	Population	Percent (%)	State	NV-CA	
Seniors	1,126	37	FTA Region	9	
School-Age	419	14	Land Area (sq. miles)	145	
Disabled	601	20	Total Population	3,080	
Poverty	395	13	Population Density (pop/sq miles)	21	
No Vehicle Households	33	2	Mobility Dependence Index (%)	17	
		Duck Valley R	eservation		
	Population	Percent (%)	State	NV-ID	
Seniors	234	17	FTA Region	9	
School-Age	310	23	Land Area (sq. miles)	451	
Disabled	236	18	Total Population	1,353	
Poverty	433	32	Population Density (pop/sq miles)	3	
No Vehicle Households	18	4	Mobility Dependence Index (%)	19	
	For	t McDermitt Ind	lian Reservation		
	Population	Percent (%)	State	NV-OR	
Seniors	94	20	FTA Region	9-10	
School-Age	122	26	Land Area (sq. miles)	54.4	
Disabled	61	13	Total Population	465	
Poverty	228	49	Population Density (pop/sq miles)	9	
No Vehicle Households	18	13	Mobility Dependence Index (%)	24	

		Goshute Re	servation				
	Population	Percent (%)	State	NV-UT			
Seniors	18	13	FTA Region	9-8			
School-Age	33	25	Land Area (sq. miles)	187.8			
Disabled	20	15	Total Population	134			
Poverty	58	43	Population Density (pop/sq miles)	1			
No Vehicle Households	4	9	Mobility Dependence Index (%)	21			
	St. Regis Mohawk Reservation						
	Population	Percent (%)	State	NY			
Seniors	916	28	FTA Region	2			
School-Age	660	20	Land Area (sq. miles)	18.9			
Disabled	608	19	Total Population	3,292			
Poverty	643	20	Population Density (pop/sq miles)	174			
No Vehicle Households	20	2	Mobility Dependence Index (%)	18			
		Allegany Re	servation				
	Population	Percent (%)	State	NY			
Seniors	1,198	19	FTA Region	2			
School-Age	1,459	23	Land Area (sq. miles)	40.9			
Disabled	998	16	Total Population	6,240			
Poverty	1,713	28	Population Density (pop/sq miles)	40.9			
No Vehicle Households	473	19	Mobility Dependence Index (%)	21			
	7	uscarora Natio	n Reservation				
	Population	Percent (%)	State	NY			
Seniors	242	23	FTA Region	2			
School-Age	213	20	Land Area (sq. miles)	9.1			
Disabled	157	15	Total Population	1,048			
Poverty	350	34	Population Density (pop/sq miles)	115			
No Vehicle Households	22	6	Mobility Dependence Index (%)	20			
		Cayuga Nat	ion TDSA				
	Population	Percent (%)	State	NY			
Seniors	724	25	FTA Region	2			
School-Age	521	18	Land Area (sq. miles)	37.8			
Disabled	422	14	Total Population	2924			
Poverty	368	13	Population Density (pop/sq miles)	77			
No Vehicle Households	69	6	Mobility Dependence Index (%)	15			
		Cattaraugus F	Reservation				
	Population	Percent (%)	State	NY			
Seniors	446	19	FTA Region	2			
School-Age	487	21	Land Area (sq. miles)	33.6			
Disabled	407	18	Total Population	2288			
Poverty	753	33	Population Density (pop/sq miles)	68			
No Vehicle Households	113	13	Mobility Dependence Index (%)	21			

		Tonawanda R	Reservation			
	Population	Percent (%)	State	NY		
Seniors	143	31	FTA Region	2		
School-Age	63	14	Land Area (sq. miles)	11.8		
Disabled	94	20	Total Population	464		
Poverty	125	27	Population Density (pop/sq miles)	39		
No Vehicle Households	60	23	Mobility Dependence Index (%)	23		
Onondaga Nation Reservation						
	Population	Percent (%)	State	NY		
Seniors	95	67	FTA Region	2		
School-Age	0	0	Land Area (sq. miles)	9.3		
Disabled	55	39	Total Population	141		
Poverty	0	0	Population Density (pop/sq miles)	15		
No Vehicle Households	0	0	Mobility Dependence Index (%)	21		
		Oil Springs R	eservation			
	Population	Percent (%)	State	NY		
Seniors	0	0	FTA Region	2		
School-Age	0	0	Land Area (sq. miles)	1		
Disabled	1	50	Total Population	2		
Poverty	0	0	Population Density (pop/sq miles)	2		
No Vehicle Households	0	0	Mobility Dependence Index (%)	10		
	1	Miami/Peoria jo	oint-use OTSA			
	Population	Percent (%)	State	OK		
Seniors	946	22	FTA Region	6		
School-Age	846	19	Land Area (sq. miles)	12.4		
Disabled	841	19	Total Population	4,367		
Poverty	976	22	Population Density (pop/sq miles)	351		
No Vehicle Households	139	8	Mobility Dependence Index (%)	18		
		Ottawa	OTSA	1		
	Population	Percent (%)	State	ОК		
Seniors	1,114	19	FTA Region	6		
School-Age	1,477	25	Land Area (sq. miles)	23.4		
Disabled	1,123	19	Total Population	5,945		
Poverty	1,525	29	Population Density (pop/sq miles)	254		
No Vehicle Households	222	11	Mobility Dependence Index (%)	21		
		Kaw/Ponca joi	nt-use OTSA			
	Population	Percent (%)	State	ОК		
Seniors	6,487	25	FTA Region	6		
School-Age	5,582	21	Land Area (sq. miles)	108.7		
Disabled	4,895	19	Total Population	26,437		
Poverty	4,230	16	Population Density (pop/sq miles)	243		
No Vehicle Households	746	7	Mobility Dependence Index (%)	18		

		Creek (	DTSA				
	Population	Percent (%)	State	ОК			
Seniors	162,276	21	FTA Region	6			
School-Age	157,570	20	Land Area (sq. miles)	4,628.73			
Disabled	110,463	14	Total Population	786,729			
Poverty	112,624	15	Population Density (pop/sq miles)	243			
No Vehicle Households	18,880	6	Mobility Dependence Index (%)	15			
Peoria OTSA							
	Population	Percent (%)	State	ОК			
Seniors	1,455	30	FTA Region	6			
School-Age	820	17	Land Area (sq. miles)	39.3			
Disabled	859	18	Total Population	4,906			
Poverty	876	19	Population Density (pop/sq miles)	125			
No Vehicle Households	115	6	Mobility Dependence Index (%)	18			
	Citizen Pota	vatomi Nation-	Absentee Shawnee OTSA				
	Population	Percent (%)	State	ОК			
Seniors	27,857	23	FTA Region	6			
School-Age	24,527	20	Land Area (sq. miles)	1,117			
Disabled	19,603	17	Total Population	122,875			
Poverty	13,133	11	Population Density (pop/sq miles)	110			
No Vehicle Households	1,330	3	Mobility Dependence Index (%)	15			
		Kickapod	OTSA				
	Population	Percent (%)	State	ОК			
Seniors	4,235	20	FTA Region	6			
School-Age	4,826	23	Land Area (sq. miles)	250			
Disabled	3,478	17	Total Population	21,086			
Poverty	3,961	20	Population Density (pop/sq miles)	84			
No Vehicle Households	351	5	Mobility Dependence Index (%)	17			
		Sac and Fo	ox OTSA				
	Population	Percent (%)	State	ОК			
Seniors	13,127	23	FTA Region	6			
School-Age	11,505	20	Land Area (sq. miles)	739			
Disabled	10,543	19	Total Population	58,129			
Poverty	9,217	16	Population Density (pop/sq miles)	79			
No Vehicle Households	1,420	6	Mobility Dependence Index (%)	17			
		Cherokee	e OTSA				
	Population	Percent (%)	State	ОК			
Seniors	114,410	22	FTA Region	6			
School-Age	108,119	21	Land Area (sq. miles)	6,694			
Disabled	95,251	19	Total Population	515,412			
Poverty	96,369	19	Population Density (pop/sq miles)	77			
No Vehicle Households	11,283	6	Mobility Dependence Index (%)	17			

		Seneca-Cayı	uga OTSA				
	Population	Percent (%)	State	ОК			
Seniors	1,610	36	FTA Region	6			
School-Age	739	17	Land Area (sq. miles)	72			
Disabled	1,125	25	Total Population	4,474			
Poverty	761	17	Population Density (pop/sq miles)	62			
No Vehicle Households	57	3	Mobility Dependence Index (%)	20			
Kiowa-Coma	Kiowa-Comanche-Apache-Ft Sill Apache/Caddo-Wichita-Delaware joint-use OTSA						
	Population	Percent (%)	State	ОК			
Seniors	2,370	20	FTA Region	6			
School-Age	2,573	22	Land Area (sq. miles)	193			
Disabled	2,290	20	Total Population	11,770			
Poverty	3,512	30	Population Density (pop/sq miles)	61			
No Vehicle Households	419	11	Mobility Dependence Index (%)	21			
		Quapaw	OTSA				
	Population	Percent (%)	State	ОК			
Seniors	1,300	25	FTA Region	6			
School-Age	1,111	21	Land Area (sq. miles)	86			
Disabled	1,000	20	Total Population	5,210			
Poverty	1,217	24	Population Density (pop/sq miles)	60			
No Vehicle Households	126	7	Mobility Dependence Index (%)	19			
		Wyandott	e OTSA				
	Population	Percent (%)	State	ОК			
Seniors	466	27	FTA Region	6			
School-Age	332	19	Land Area (sq. miles)	33			
Disabled	375	22	Total Population	1,707			
Poverty	277	16	Population Density (pop/sq miles)	52			
No Vehicle Households	30	5	Mobility Dependence Index (%)	18			
	•	Chickasav	v OTSA				
	Population	Percent (%)	State	ОК			
Seniors	71,164	23	FTA Region	6			
School-Age	64,176	21	Land Area (sq. miles)	7,271			
Disabled	56,057	18	Total Population	311,009			
Poverty	45,129	15	Population Density (pop/sq miles)	43			
1No Vehicle Households	5,496	5	Mobility Dependence Index (%)	16			
		Eastern Shaw	vnee OTSA				
	Population	Percent (%)	State	ОК			
Seniors	253	29	FTA Region	6			
School-Age	174	20	Land Area (sq. miles)	20			
Disabled	124	14	Total Population	869			
Poverty	104	12	Population Density (pop/sq miles)	43			
No Vehicle Households	13	4	Mobility Dependence Index (%)	16			

		Modoc	OTSA			
	Population	Percent (%)	State	ОК		
Seniors	50	20	FTA Region	6		
School-Age	61	24	Land Area (sq. miles)	6		
Disabled	60	24	Total Population	255		
Poverty	87	34	Population Density (pop/sq miles)	41		
No Vehicle Households	2	2	Mobility Dependence Index (%)	21		
Seminole OTSA						
	Population	Percent (%)	State	OK		
Seniors	5,413	23	FTA Region	6		
School-Age	5,019	22	Land Area (sq. miles)	568		
Disabled	4,866	21	Total Population	23,182		
Poverty	5,140	23	Population Density (pop/sq miles)	41		
No Vehicle Households	569	7	Mobility Dependence Index (%)	19		
	Ci	reek/Seminole j	ioint-use OTSA			
	Population	Percent (%)	State	ОК		
Seniors	530	26	FTA Region	6		
School-Age	469	23	Land Area (sq. miles)	65		
Disabled	429	22	Total Population	2,064		
Poverty	408	21	Population Density (pop/sq miles)	32		
No Vehicle Households	36	5	Mobility Dependence Index (%)	19		
		Pawnee	OTSA			
	Population	Percent (%)	State	ОК		
Seniors	4,128	25	FTA Region	6		
School-Age	3,312	20	Land Area (sq. miles)	515		
Disabled	2,815	18	Total Population	16,212		
Poverty	2,399	15	Population Density (pop/sq miles)	31		
No Vehicle Households	230	4	Mobility Dependence Index (%)	16		
	Kiowa-Coi	nanche-Apache	e-Fort Sill Apache OTSA	1		
	Population	Percent (%)	State	ОК		
Seniors	36,968	19	FTA Region	6		
School-Age	39,062	20	Land Area (sq. miles)	6,353		
Disabled	33,049	19	Total Population	193,659		
Poverty	31,002	17	Population Density (pop/sq miles)	30		
No Vehicle Households	5,055	7	Mobility Dependence Index (%)	16		
	-	Tonkawa	OTSA	1		
	Population	Percent (%)	State	ОК		
Seniors	814	21	FTA Region	6		
School-Age	905	23	Land Area (sq. miles)	143		
Disabled	670	17	Total Population	3,967		
Poverty	739	19	Population Density (pop/sq miles)	28		
No Vehicle Households	79	5	Mobility Dependence Index (%)	17		

		Cheyenne-Ara	paho OTSA			
	Population	Percent (%)	State	ОК		
Seniors	36,296	20	FTA Region	6		
School-Age	38,906	21	Land Area (sq. miles)	8,117		
Disabled	26,978	15	Total Population	185,590		
Poverty	20,291	11	Population Density (pop/sq miles)	23		
No Vehicle Households	2,131	3	Mobility Dependence Index (%)	14		
Choctaw OTSA						
	Population	Percent (%)	State	ОК		
Seniors	57,092	25	FTA Region	6		
School-Age	45,463	20	Land Area (sq. miles)	10,603		
Disabled	49,783	22	Total Population	231,579		
Poverty	46,922	21	Population Density (pop/sq miles)	22		
No Vehicle Households	5,792	6	Mobility Dependence Index (%)	19		
		Osage Res	ervation			
	Population	Percent (%)	State	ОК		
Seniors	1,772	25	FTA Region	6		
School-Age	9,390	20	Land Area (sq. miles)	2,247		
Disabled	8,572	19	Total Population	47,350		
Poverty	7,203	16	Population Density (pop/sq miles)	21		
No Vehicle Households	929	5	Mobility Dependence Index (%)	17		
		lowa C	DTSA			
	Population	Percent (%)	State	ОК		
Seniors	1,654	26	FTA Region	6		
School-Age	1,193	19	Land Area (sq. miles)	357		
Disabled	1,150	18	Total Population	6,321		
Poverty	747	12	Population Density (pop/sq miles)	18		
No Vehicle Households	80	3	Mobility Dependence Index (%)	16		
	Co	addo-Wichita-D	elaware OTSA			
	Population	Percent (%)	State	ОК		
Seniors	3,402	22	FTA Region	6		
School-Age	3,055	20	Land Area (sq. miles)	1,027		
Disabled	2,700	19	Total Population	15,229		
Poverty	1,843	13	Population Density (pop/sq miles)	15		
No Vehicle Households	137	3	Mobility Dependence Index (%)	15		
Ponca OTSA						
	Population	Percent (%)	State	ОК		
Seniors	378	19	FTA Region	6		
School-Age	543	27	Land Area (sq. miles)	2,037		
Disabled	401	20	Total Population	164		
Poverty	557	27	Population Density (pop/sq miles)	12		
No Vehicle Households	46	7	Mobility Dependence Index (%)	20		

Kaw OTSA						
	Population	Percent (%)	State	ОК		
Seniors	1,600	27	FTA Region	6		
School-Age	1,221	21	Land Area (sq. miles)	476		
Disabled	1,091	19	Total Population	5,907		
Poverty	813	14	Population Density (pop/sq miles)	12		
No Vehicle Households	80	3	Mobility Dependence Index (%)	17		
Miami OTSA						
	Population	Percent (%)	State	ОК		
Seniors	55	25	FTA Region	6		
School-Age	31	14	Land Area (sq. miles)	28		
Disabled	37	17	Total Population	223		
Poverty	22	10	Population Density (pop/sq miles)	8		
No Vehicle Households	1	1	Mobility Dependence Index (%)	13		
		Otoe-Misso	uria OTSA			
	Population	Percent (%)	State	ОК		
Seniors	146	16	FTA Region	6		
School-Age	219	24	Land Area (sq. miles)	192		
Disabled	155	17	Total Population	924		
Poverty	127	14	Population Density (pop/sq miles)	5		
No Vehicle Households	19	6	Mobility Dependence Index (%)	15		
Coos, Lowe	r Umpqua, and	d Siuslaw Reser	vation and Off-Reservation Trust Land			
	Population	Percent (%)	State	OR		
Seniors	11	12	FTA Region	10		
School-Age	26	27	Land Area (sq. miles)	0.2		
Disabled	22	23	Total Population	95		
Poverty	37	45	Population Density (pop/sq miles)	426		
No Vehicle Households	4	13	Mobility Dependence Index (%)	24		
	Siletz Resei	rvation and Off	-Reservation Trust Land			
	Population	Percent (%)	State	OR		
Seniors	107	16	FTA Region	10		
School-Age	191	29	Land Area (sq. miles)	7.4		
Disabled	139	21	Total Population	667		
Poverty	186	28	Population Density (pop/sq miles)	90		
No Vehicle Households	30	14	Mobility Dependence Index (%)	22		
		Klamath Re	servation			
	Population	Percent (%)	State	OR		
Seniors	11	31	FTA Region	10		
School-Age	3	8	Land Area (sq. miles)	0.5		
Disabled	20	56	Total Population	36		
Poverty	24	67	Population Density (pop/sq miles)	72		
No Vehicle Households	12	55	Mobility Dependence Index (%)	43		

		Coquille Res	servation	
	Population	Percent (%)	State	OR
Seniors	178	37	FTA Region	10
School-Age	81	17	Land Area (sq. miles)	10.1
Disabled	130	29	Total Population	480
Poverty	67	15	Population Density (pop/sq miles)	48
No Vehicle Households	80	38	Mobility Dependence Index (%)	27
	Grand Ronde C	ommunity and	Off-Reservation Trust Land	
	Population	Percent (%)	State	OR
Seniors	119	24	FTA Region	10
School-Age	80	16	Land Area (sq. miles)	18
Disabled	111	22	Total Population	494
Poverty	137	28	Population Density (pop/sq miles)	28
No Vehicle Households	23	11	Mobility Dependence Index (%)	20
	Cow Creek Re	servation and C	Off-Reservation Trust Land	
	Population	Percent (%)	State	OR
Seniors	32	19	FTA Region	10
School-Age	41	24	Land Area (sq. miles)	7.1
Disabled	28	18	Total Population	168
Poverty	60	39	Population Density (pop/sq miles)	24
No Vehicle Households	3	7	Mobility Dependence Index (%)	21
	Umatilla Res	ervation and O	ff-Reservation Trust Land	
	Population	Percent (%)	State	OR
Seniors	700	24	FTA Region	10
School-Age	578	20	Land Area (sq. miles)	270.5
Disabled	595	20	Total Population	2,922
Poverty	537	18	Population Density (pop/sq miles)	11
No Vehicle Households	90	9	Mobility Dependence Index (%)	18
В	urns Paiute Ind	dian Colony and	l Off-Reservation Trust Land	
	Population	Percent (%)	State	OR
Seniors	32	25	FTA Region	10
School-Age	10	8	Land Area (sq. miles)	19
Disabled	39	31	Total Population	127
Poverty	34	27	Population Density (pop/sq miles)	7
No Vehicle Households	12	20	Mobility Dependence Index (%)	22
V	Varm Springs H	Reservation and	l Off-Reservation Trust Land	
	Population	Percent (%)	State	OR
Seniors	628	14	FTA Region	10
School-Age	1,309	29	Land Area (sq. miles)	1,019
Disabled	611	13	Total Population	4,588
Poverty	1,622	36	Population Density (pop/sq miles)	5
No Vehicle Households	82	7	Mobility Dependence Index (%)	20

Catawba Reservation						
	Population	Percent (%)	State	SC		
Seniors	137	12	FTA Region	4		
School-Age	287	26	Land Area (sq. miles)	1.6		
Disabled	199	18	Total Population	1,125		
Poverty	359	32	Population Density (pop/sq miles)	714		
No Vehicle Households	69	17	Mobility Dependence Index (%)	21		
Flandreau Reservation						
	Population	Percent (%)	State	SD		
Seniors	76	17	FTA Region	8		
School-Age	110	25	Land Area (sq. miles)	3.5		
Disabled	65	15	Total Population	442		
Poverty	125	28	Population Density (pop/sq miles)	128		
No Vehicle Households	8	4	Mobility Dependence Index (%)	18		
	•	Yankton Re	servation			
	Population	Percent (%)	State	SD		
Seniors	1,371	21	FTA Region	8		
School-Age	1,673	25	Land Area (sq. miles)	665.5		
Disabled	992	15	Total Population	6,676		
Poverty	1,762	27	Population Density (pop/sq miles)	10		
No Vehicle Households	170	8	Mobility Dependence Index (%)	19		
R	osebud Indian	Reservation an	d Off-Reservation Trust Land			
	Population	Percent (%)	State	SD		
Seniors	1,240	11	FTA Region	8		
School-Age	3,446	30	Land Area (sq. miles)	1,972		
Disabled	1,372	12	Total Population	11,354		
Poverty	6,035	54	Population Density (pop/sq miles)	6		
No Vehicle Households	641	20	Mobility Dependence Index (%)	25		
	•	Crow Creek R	eservation			
	Population	Percent (%)	State	SD		
Seniors	240	11	FTA Region	8		
School-Age	681	32	Land Area (sq. miles)	422.5		
Disabled	360	17	Total Population	2,151		
Poverty	887	41	Population Density (pop/sq miles)	5		
No Vehicle Households	66	12	Mobility Dependence Index (%)	23		
	Lower Brule Re	eservation and	Off-Reservation Trust Land			
	Population	Percent (%)	State	SD		
Seniors	181	11	FTA Region	8		
School-Age	442	28	Land Area (sq. miles)	343.4		
Disabled	113	7	Total Population	1,594		
Poverty	666	43	Population Density (pop/sq miles)	5		
No Vehicle Households	65	16	Mobility Dependence Index (%)	21		

Cheyenne River Reservation and Off-Reservation Trust Land						
	Population	Percent (%)	State	SD		
Seniors	1,118	13	FTA Region	8		
School-Age	2,372	28	Land Area (sq. miles)	4,265.9		
Disabled	929	11	Total Population	8,527		
Poverty	2,992	35	Population Density (pop/sq miles)	2		
No Vehicle Households	269	11	Mobility Dependence Index (%)	20		
Pine Ridge Reservation						
	Population	Percent (%)	State	SD-NE		
Seniors	2,240	11	FTA Region	9		
School-Age	5 <i>,</i> 890	30	Land Area (sq. miles)	4,342.7		
Disabled	3,005	15	Total Population	19,779		
Poverty	9,837	50	Population Density (pop/sq miles)	5		
No Vehicle Households	528	12	Mobility Dependence Index (%)	24		
		Kickapoo (TX)	Reservation			
	Population	Percent (%)	State	ТΧ		
Seniors	39	9	FTA Region	6		
School-Age	139	33	Land Area (sq. miles)	0.2		
Disabled	71	17	Total Population	416		
Poverty	211	51	Population Density (pop/sq miles)	2,163		
No Vehicle Households	10	11	Mobility Dependence Index (%)	24		
	Ysleta del Su	r Pueblo and O	ff-Reservation Trust Land			
	Population	Percent (%)	State	ТХ		
Seniors	68	7	FTA Region	6		
School-Age	354	38	Land Area (sq. miles)	5		
Disabled	120	13	Total Population	926		
Poverty	196	21	Population Density (pop/sq miles)	184		
No Vehicle Households	9	4	Mobility Dependence Index (%)	17		
Alak	bama-Coushat	ta Reservation	and Off-Reservation Trust Land			
	Population	Percent (%)	State	ТΧ		
Seniors	138	23	FTA Region	6		
School-Age	184	30	Land Area (sq. miles)	12.5		
Disabled	109	18	Total Population	613		
Poverty	156	25	Population Density (pop/sq miles)	49		
No Vehicle Households	28	14	Mobility Dependence Index (%)	22		
Paiute (UT) Reservation						
	Population	Percent (%)	State	UT		
Seniors	48	11	FTA Region	8		
School-Age	100	24	Land Area (sq. miles)	50.6		
Disabled	76	18	Total Population	420		
Poverty	134	32	Population Density (pop/sq miles)	8		
No Vehicle Households	15	13	Mobility Dependence Index (%)	20		

Uintah and Ouray Reservation and Off-Reservation Trust Land					
	Population	Percent (%)	State	UT	
Seniors	3,931	15	FTA Region	8	
School-Age	6,942	27	Land Area (sq. miles)	6,773.1	
Disabled	3,075	12	Total Population	26,063	
Poverty	3,387	13	Population Density (pop/sq miles)	4	
No Vehicle Households	278	3	Mobility Dependence Index (%)	14	
		Skull Valley R	eservation		
	Population	Percent (%)	State	UT	
Seniors	3	8	FTA Region	8	
School-Age	8	20	Land Area (sq. miles)	28.2	
Disabled	0	0	Total Population	40	
Poverty	3	8	Population Density (pop/sq miles)	1	
No Vehicle Households	0	0	Mobility Dependence Index (%)	7	
	E	astern Chickah	ominy SDTSA		
	Population	Percent (%)	State	VA	
Seniors	43	17	FTA Region	3	
School-Age	52	20	Land Area (sq. miles)	2.2	
Disabled	21	8	Total Population	260	
Poverty	25	10	Population Density (pop/sq miles)	116	
No Vehicle Households	2	2	Mobility Dependence Index (%)	11	
	•	Chickahomi	ny SDTSA		
Population Percent (%) State VA					
Seniors	965	26	FTA Region	3	
School-Age	544	15	Land Area (sq. miles)	51.9	
Disabled	597	16	Total Population	3,649	
Poverty	439	12	Population Density (pop/sq miles)	70	
No Vehicle Households	61	4	Mobility Dependence Index (%)	15	
	Р	amunkey India	n Reservation		
	Population	Percent (%)	State	VA	
Seniors	43	42	FTA Region	3	
School-Age	6	6	Land Area (sq. miles)	1.7	
Disabled	33	32	Total Population	103	
Poverty	21	20	Population Density (pop/sq miles)	60	
No Vehicle Households	9	17	Mobility Dependence Index (%)	23	
		Sauk-Suiattle	Reservation		
	Population	Percent (%)	State	WA	
Seniors	7	10	FTA Region	10	
School-Age	23	34	Land Area (sq. miles)	0.1	
Disabled	9	13	Total Population	67	
Poverty	10	16	Population Density (pop/sq miles)	922	
No Vehicle Households	2	10	Mobility Dependence Index (%)	17	

Muckleshoot Reservation and Off-Reservation Trust Land						
	Population	Percent (%)	State	WA		
Seniors	860	22	FTA Region	10		
School-Age	780	20	Land Area (sq. miles)	5.9		
Disabled	698	18	Total Population	3,956		
Poverty	795	20	Population Density (pop/sq miles)	670		
No Vehicle Households	118	8	Mobility Dependence Index (%)	18		
Port Madison Reservation						
	Population	Percent (%)	State	WA		
Seniors	2,035	27	FTA Region	10		
School-Age	1,325	17	Land Area (sq. miles)	12.1		
Disabled	1,000	13	Total Population	7,628		
Poverty	833	11	Population Density (pop/sq miles)	631		
No Vehicle Households	96	3	Mobility Dependence Index (%)	14		
	Tulalip Rese	rvation and Of	f-Reservation Trust Land			
	Population	Percent (%)	State	WA		
Seniors	2,373	24	FTA Region	10		
School-Age	1,819	18	Land Area (sq. miles)	34.7		
Disabled	1,675	17	Total Population	9,974		
Poverty	1,102	11	Population Density (pop/sq miles)	287		
No Vehicle Households	162	4	Mobility Dependence Index (%)	15		
	Lower Elwha R	eservation and	Off-Reservation Trust Land			
	Population	Percent (%)	State	WA		
Seniors	74	10	FTA Region	10		
School-Age	213	29	Land Area (sq. miles)	2.7		
Disabled	131	18	Total Population	725		
Poverty	304	43	Population Density (pop/sq miles)	266		
No Vehicle Households	31	13	Mobility Dependence Index (%)	23		
		Quileute Re	servation			
	Population	Percent (%)	State	WA		
Seniors	40	10	FTA Region	10		
School-Age	101	24	Land Area (sq. miles)	1.6		
Disabled	74	18	Total Population	416		
Poverty	129	31	Population Density (pop/sq miles)	264		
No Vehicle Households	10	8	Mobility Dependence Index (%)	18		
	Nooksack Res	servation and C	Off-Reservation Trust Land			
	Population	Percent (%)	State	WA		
Seniors	125	11	FTA Region	10		
School-Age	255	23	Land Area (sq. miles)	4.4		
Disabled	196	17	Total Population	1,132		
Poverty	342	30	Population Density (pop/sq miles)	257		
No Vehicle Households	26	8	Mobility Dependence Index (%)	18		

Lummi Reservation					
	Population	Percent (%)	State	WA	
Seniors	1,038	19	FTA Region	10	
School-Age	1,048	20	Land Area (sq. miles)	20.9	
Disabled	984	18	Total Population	5,331	
Poverty	1,158	22	Population Density (pop/sq miles)	255	
No Vehicle Households	78	4	Mobility Dependence Index (%)	17	
	Swinomish Re	servation and (	Off-Reservation Trust Land		
	Population	Percent (%)	State	WA	
Seniors	1,326	45	FTA Region	10	
School-Age	437	15	Land Area (sq. miles)	11.9	
Disabled	463	16	Total Population	2,917	
Poverty	286	10	Population Density (pop/sq miles)	245	
No Vehicle Households	52	4	Mobility Dependence Index (%)	18	
	Port Gamble R	eservation and	Off-Reservation Trust Land		
	Population	Percent (%)	State	WA	
Seniors	76	13	FTA Region	10	
School-Age	197	33	Land Area (sq. miles)	2.6	
Disabled	92	16	Total Population	593	
Poverty	171	30	Population Density (pop/sq miles)	227	
No Vehicle Households	10	6	Mobility Dependence Index (%)	20	
Upper Skagit Reservation and Off-Reservation Trust Land					
Population Percent (%) State WA					
Seniors	35	12	FTA Region	10	
School-Age	74	24	Land Area (sq. miles)	1.4	
Disabled	64	21	Total Population	304	
Poverty	108	36	Population Density (pop/sq miles)	219	
No Vehicle Households	12	12	Mobility Dependence Index (%)	21	
S	quaxin Island I	Reservation and	d Off-Reservation Trust Land		
	Population	Percent (%)	State	WA	
Seniors	51	9	FTA Region	10	
School-Age	221	39	Land Area (sq. miles)	3.4	
Disabled	95	17	Total Population	573	
Poverty	168	30	Population Density (pop/sq miles)	171	
No Vehicle Households	8	6	Mobility Dependence Index (%)	20	
		Samish	TDSA		
	Population	Percent (%)	State	WA	
Seniors	14,646	39	FTA Region	10	
School-Age	4,903	13	Land Area (sq. miles)	224.5	
Disabled	4,979	13	Total Population	37,786	
Poverty	3,662	10	Population Density (pop/sq miles)	168	
No Vehicle Households	779	4	Mobility Dependence Index (%)	16	

Chehalis Reservation and Off-Reservation Trust Land						
	Population	Percent (%)	State	WA		
Seniors	105	10	FTA Region	10		
School-Age	234	23	Land Area (sq. miles)	8.6		
Disabled	171	17	Total Population	1,017		
Poverty	234	23	Population Density (pop/sq miles)	119		
No Vehicle Households	28	9	Mobility Dependence Index (%)	16		
Skokomish Reservation						
	Population	Percent (%)	State	WA		
Seniors	138	16	FTA Region	10		
School-Age	287	33	Land Area (sq. miles)	8.2		
Disabled	188	22	Total Population	857		
Poverty	227	27	Population Density (pop/sq miles)	104		
No Vehicle Households	13	6	Mobility Dependence Index (%)	21		
		Nisqually Re	servation			
	Population	Percent (%)	State	WA		
Seniors	153	22	FTA Region	10		
School-Age	166	24	Land Area (sq. miles)	7.9		
Disabled	68	10	Total Population	690		
Poverty	173	25	Population Density (pop/sq miles)	87		
No Vehicle Households	20	9	Mobility Dependence Index (%)	18		
	Hoh Indian Re	servation and (	Off-Reservation Trust Land			
Population Percent (%) State WA						
Seniors	13	11	FTA Region	10		
School-Age	24	21	Land Area (sq. miles)	1.4		
Disabled	18	16	Total Population	114		
Poverty	47	41	Population Density (pop/sq miles)	84		
No Vehicle Households	6	17	Mobility Dependence Index (%)	21		
Shoal	water Bay Ind	ian Reservation	and Off-Reservation Trust Land			
	Population	Percent (%)	State	WA		
Seniors	17	19	FTA Region	10		
School-Age	21	23	Land Area (sq. miles)	1.4		
Disabled	24	27	Total Population	90		
Poverty	19	21	Population Density (pop/sq miles)	64		
No Vehicle Households	4	10	Mobility Dependence Index (%)	20		
Jame	stown S'Klalla	m Reservation	and Off-Reservation Trust Land			
	Population	Percent (%)	State	WA		
Seniors	0	0	FTA Region	10		
School-Age	0	0	Land Area (sq. miles)	0.4		
Disabled	0	0	Total Population	27		
Poverty	3	11	Population Density (pop/sq miles)	61		
No Vehicle Households	3	33	Mobility Dependence Index (%)	9		

Makah Indian Reservation					
	Population	Percent (%)	State	WA	
Seniors	231	15	FTA Region	10	
School-Age	381	24	Land Area (sq. miles)	46.8	
Disabled	229	15	Total Population	1,559	
Poverty	364	24	Population Density (pop/sq miles)	33	
No Vehicle Households	42	9	Mobility Dependence Index (%)	17	
	Kalispel Res	ervation and Of	ff-Reservation Trust Land		
	Population	Percent (%)	State	WA	
Seniors	37	17	FTA Region	10	
School-Age	62	29	Land Area (sq. miles)	11	
Disabled	35	17	Total Population	215	
Poverty	27	13	Population Density (pop/sq miles)	20	
No Vehicle Households	2	2	Mobility Dependence Index (%)	16	
د	Stillaguamish R	Reservation and	Off-Reservation Trust Land		
	Population	Percent (%)	State	WA	
Seniors	2	18	FTA Region	10	
School-Age	0	0	Land Area (sq. miles)	0.7	
Disabled	2	18	Total Population	11	
Poverty	0	0	Population Density (pop/sq miles)	16	
No Vehicle Households	0	0	Mobility Dependence Index (%)	7	
Ye	akama Nation	Reservation an	d Off-Reservation Trust Land		
Population Percent (%) State W.				WA	
Seniors	4,280	14	FTA Region	10	
School-Age	8,431	27	Land Area (sq. miles)	2186.4	
Disabled	3,029	10	Total Population	31,145	
Poverty	8,442	28	Population Density (pop/sq miles)	14	
No Vehicle Households	393	5	Mobility Dependence Index (%)	17	
	Spokane Res	ervation and O	ff-Reservation Trust Land		
	Population	Percent (%)	State	WA	
Seniors	412	19	FTA Region	10	
School-Age	529	25	Land Area (sq. miles)	238.1	
Disabled	403	19	Total Population	2,145	
Poverty	693	33	Population Density (pop/sq miles)	9	
No Vehicle Households	55	7	Mobility Dependence Index (%)	21	
		Quinault Re	servation		
	Population	Percent (%)	State	WA	
Seniors	237	20	FTA Region	10	
School-Age	287	24	Land Area (sq. miles)	312.6	
Disabled	216	19	Total Population	1,172	
Poverty	350	30	Population Density (pop/sq miles)	4	
No Vehicle Households	48	13	Mobility Dependence Index (%)	21	

Colville Reservation and Off-Reservation Trust Land					
	Population	Percent (%)	State	WA	
Seniors	1,652	21	FTA Region	10	
School-Age	1,737	22	Land Area (sq. miles)	2,116	
Disabled	1,387	18	Total Population	7,738	
Poverty	2,121	28	Population Density (pop/sq miles)	4	
No Vehicle Households	157	5	Mobility Dependence Index (%)	19	
	Oneida (WI) Re	eservation and	Off-Reservation Trust Land		
	Population	Percent (%)	State	WI	
Seniors	5,004	20	FTA Region	5	
School-Age	5,550	23	Land Area (sq. miles)	102.2	
Disabled	2,342	10	Total Population	24,460	
Poverty	2,348	10	Population Density (pop/sq miles)	239	
No Vehicle Households	244	3	Mobility Dependence Index (%)	13	
	St. Croix Res	ervation and O	ff-Reservation Trust Land		
	Population	Percent (%)	State	WI	
Seniors	77	13	FTA Region	5	
School-Age	175	28	Land Area (sq. miles)	3.7	
Disabled	104	17	Total Population	616	
Poverty	218	36	Population Density (pop/sq miles)	166	
No Vehicle Households	45	18	Mobility Dependence Index (%)	22	
Soka	aogon Chippew	va Community o	and Off-Reservation Trust Land		
	Population	Percent (%)	State	WI	
Seniors	68	12	FTA Region	5	
School-Age	119	22	Land Area (sq. miles)	5.1	
Disabled	119	22	Total Population	546	
Poverty	264	49	Population Density (pop/sq miles)	107	
No Vehicle Households	41	18	Mobility Dependence Index (%)	25	
	Red Cliff Res	ervation and O	ff-Reservation Trust Land		
	Population	Percent (%)	State	WI	
Seniors	211	17	FTA Region	5	
School-Age	305	24	Land Area (sq. miles)	22.8	
Disabled	228	18	Total Population	1,271	
Poverty	340	27	Population Density (pop/sq miles)	56	
No Vehicle Households	44	10	Mobility Dependence Index (%)	19	
Forest 0	County Potawa	ntomi Communi	ity and Off-Reservation Trust Land		
	Population	Percent (%)	State	WI	
Seniors	63	9	FTA Region	5	
School-Age	183	25	Land Area (sq. miles)	20.8	
Disabled	88	12	Total Population	720	
Poverty	168	23	Population Density (pop/sq miles)	35	
No Vehicle Households	12	4	Mobility Dependence Index (%)	15	

Lac du Flambeau Reservation					
	Population	Percent (%)	State	WI	
Seniors	1,130	33	FTA Region	5	
School-Age	477	14	Land Area (sq. miles)	107.1	
Disabled	592	18	Total Population	3,406	
Poverty	1,017	30	Population Density (pop/sq miles)	32	
No Vehicle Households	182	11	Mobility Dependence Index (%)	21	
Stockbridge Munsee Community and Off-Reservation Trust Land					
	Population	Percent (%)	State	WI	
Seniors	190	25	FTA Region	5	
School-Age	172	23	Land Area (sq. miles)	25.8	
Disabled	120	16	Total Population	756	
Poverty	179	24	Population Density (pop/sq miles)	29	
No Vehicle Households	43	15	Mobility Dependence Index (%)	21	
Lac	Courte Oreille	s Reservation a	nd Off-Reservation Trust Land		
	Population	Percent (%)	State	WI	
Seniors	587	20	FTA Region	5	
School-Age	751	26	Land Area (sq. miles)	108.3	
Disabled	433	15	Total Population	2,903	
Poverty	1,054	37	Population Density (pop/sq miles)	27	
No Vehicle Households	176	14	Mobility Dependence Index (%)	22	
	Menominee R	eservation and	Off-Reservation Trust Land		
Population Percent (%) State WI					
Seniors	394	11	FTA Region	5	
School-Age	1,037	29	Land Area (sq. miles)	355.4	
Disabled	459	13	Total Population	3,559	
Poverty	1,306	37	Population Density (pop/sq miles)	10	
No Vehicle Households	115	12	Mobility Dependence Index (%)	20	
		Bad River Re	servation		
	Population	Percent (%)	State	WI	
Seniors	252	16	FTA Region	5	
School-Age	423	27	Land Area (sq. miles)	192.8	
Disabled	289	19	Total Population	1,545	
Poverty	506	33	Population Density (pop/sq miles)	8	
No Vehicle Households	88	16	Mobility Dependence Index (%)	22	
Но	-Chunk Nation	Reservation ar	nd Off-Reservation Trust Land		
	Population	Percent (%)	State	WI-MN	
Seniors	280	17	FTA Region	5	
School-Age	404	25	Land Area (sq. miles)	15.2	
Disabled	248	16	Total Population	1,639	
Poverty	300	20	Population Density (pop/sq miles)	108	
No Vehicle Households	58	11	Mobility Dependence Index (%)	18	

Wind River Reservation and Off-Reservation Trust Land						
Population Percent (%) State WY						
Seniors	5,542	20	20 FTA Region			
School-Age	6,220	23	23 Land Area (sq. miles)			
Disabled	3,801	14	27,088			
Poverty	4,054 15 Population Density (pop/sq miles) 8					
No Vehicle Households	502	5	Mobility Dependence Index (%)	15		

## **APPENDIX B: TRIBAL TRANSIT DATA**

This appendix includes data for all tribal transit systems that reported data to the National Transit Database (NTD) between 2013 and 2017. It includes those receiving Section 5311c funding during that period. Additional services may exist on some reservations that were not reported to the NTD or are provided by non-tribal operators. This appendix may not include some services that were funded through another source and were not reported to the NTD, and it may not include tribes that contracted out service.

	Five-Year Total (2013-2017)			
	Vehicle	Vehicle	Unlinked	
	<b>Revenue Miles</b>	<b>Revenue Hours</b>	Passenger Trips	
Reservation/Transit System	(VRM)	(VRH)	(UPT)	
Poarch Creek Reservation and Off-Reservation Trust				
Land (AZ)	96,673	5,051	12,200	
Gila River Indian Reservation (AZ)	67,950	4,509	26,545	
San Carlos Reservation (AZ)	2,137,490	90,329	334,232	
Fort Apache Reservation (AZ)	16,462	450	678	
Hopi Reservation and Off-Reservation Trust Land (AZ)	1,009,970	21,464	137,721	
Salt River Reservation (AZ)	833,162	50,498	117,672	
Hualapai Indian Reservation and Off-Reservation Trust				
Land (AZ)	571,837	21,390	51,849	
Cocopah Reservation (AZ)	73,741	3,965	27,915	
Yavapai Regional Transit (AZ)	236,438	11,380	12,172	
Kaibab Indian Reservation (AZ)	478,559	28,498	23,365	
Havasupai Reservation (AZ)	142,294	3,094	3,157	
Navajo Nation Reservation and Off-Reservation Trust				
Land (AZ-NM-UT)	3,731,114	102,611	1,020,520	
Yurok Reservation (CA)	534,491	29,830	37,591	
Morongo Reservation and Off-Reservation Trust Land				
(CA)	280,230	7,157	16,127	
Susanville Indian Rancheria (CA)	598,699	19,058	9,164	
Chemehuevi Reservation (CA)	210,031	35,592	2,081,855	
North Fork Rancheria and Off-Reservation Trust Land				
(CA)	275,545	14,745	13,895	
Blue Lake Rancheria and Off-Reservation Trust Land				
(CA)	219,714	10,344	78,022	
Southern Ute Reservation (CO)	117,127	6,584	5,423	
Ute Mountain Reservation and Off-Reservation Trust				
Land (CO-NM-UT)	71,500	4,775	32,616	
Mashantucket Pequot Reservation and Off-Reservation				
Trust Land (CT)	668,393	79 <i>,</i> 865	1,286,076	
Nez Perce Reservation (ID)	1,506,067	44,695	87,840	
Coeur d'Alene Reservation (ID)	1,759,087	55,006	661,507	
Fort Hall Reservation and Off-Reservation Trust Land				
(ID)	613,057	44,983	78,181	
Prairie Band of Potawatomi Nation Reservation (KS)	923,302	30,152	63,694	

Houlton Maliseet Reservation and Off-Reservation			
Trust Land (ME)	282,585	30,646	9,000
Aroostook Band of Micmac Trust Land (ME)	22,736	1,123	4,068
Bay Mills Reservation and Off-Reservation Trust Land			
(MI)	303,194	6,556	33,446
Leech Lake Reservation and Off-Reservation Trust Land			
(MN)	340,141	16,291	52,525
White Earth Reservation and Off-Reservation Trust			
Land (MN)	2,031,219	76,126	214,447
Red Lake Reservation (MN)	1,257,600	51,733	182,223
Bois Forte Reservation and Off-Reservation Trust Land			
(MN)	930,530	36,968	74,308
Grand Portage Reservation and Off-Reservation Trust			
Land (MN)	984,413	30,857	12,845
Fond du Lac Reservation and Off-Reservation Trust			
Land (MN-WI)	1,624,293	89,860	218,502
Mississippi Choctaw Reservation and Off-Reservation			
Trust Land (MS)	4,207,467	157,358	304,918
Flathead Reservation (MT)	3,675,672	179,947	210,996
Blackfeet Indian Reservation and Off-Reservation Trust			
Land (MT)	240,046	26,186	113,471
Fort Peck Indian Reservation and Off-Reservation Trust			
Land (MT)	950,558	61,741	335,721
Crow Reservation and Off-Reservation Trust Land (MT)	1,213,017	32,682	67,506
Rocky Boy's Reservation and Off-Reservation Trust Land			
(MT)	921,297	34,666	119,705
Fort Belknap Reservation and Off-Reservation Trust			
Land (MT)	504,356	15,950	59,303
Turtle Mountain Reservation and Off-Reservation Trust			
Land (MT-ND-SD)	573,311	27,867	53,463
Northern Cheyenne Indian Reservation and Off-			
Reservation Trust Land (MT-SD)	320,119	17,530	31,504
Eastern Cherokee Reservation (NC)	2,368,038	245,191	350,509
Spirit Lake Reservation (ND)	503,502	25,612	31,226
Santee Reservation (NE)	278,733	16,846	80,558
Omaha Tribe Public Transit (NE-IA)	727,404	16,220	21,658
Winnebago Reservation and Off-Reservation Trust Land			
(NE-IA)	1,296,535	31,228	202,457
Ponca (NE) Trust Land (NE-IA_	973,381	42,283	37,052
Sac and Fox Nation Reservation and Off-Reservation			
Trust Land (NE-KS)	17,902	504	522
Ohkay Owingeh (NM)	266,327	27,097	73,730
Pueblo of Laguna (NM)	434,755	23,281	35,078
Jemez Pueblo (NM)	32,212	784	3,448
San Ildefonso Pueblo and Off-Reservation Trust Land			
(NM)	3,871	558	54
Santa Ana Pueblo (NM)	373,342	32,778	160,762

Zuni Reservation and Off-Reservation Trust Land (NM-			
AZ)	127,369	4,707	50,118
Pyramid Lake Paiute Reservation (NV)	442,011	13,233	13,281
Walker River Reservation (NV)	24,975	2,791	1,848
Reno-Sparks Indian Colony (NV)	596,895	24,902	71,892
Elko Colony (NV)	43,320	2,757	14,613
Fallon Paiute-Shoshone Colony and Off-Reservation			
Trust Land (NV)	52,914	1,227	2,144
Seneca Nation (NY)*	1,578,484	51,582	84,420
Creek OTSA (OK)	1,711,313	80,617	251,149
Cherokee OTSA (OK)	1,180,431	60,880	184,598
Chickasaw OTSA (OK)	3,970,192	178,735	223,444
Choctaw OTSA (OK)	4,139,969	101,714	172,006
Comanche Nation & Kiowa Tribe (OK)*	1,806,659	104,041	176,090
Cheyenne-Arapaho OTSA (OK)	1,195,595	39,079	39,566
Citizen Potawatomi Nation-Absentee Shawnee OTSA			
(ОК)	1,070,112	63,444	131,653
Ponca OTSA (OK)*	606,322	35,119	298,564
Seminole OTSA (OK)	1,537,280	58,491	368,827
Warm Springs Reservation and Off-Reservation Trust			
Land (OR)	125,251	6,541	11,459
Umatilla Reservation and Off-Reservation Trust Land			
(OR)	2,314,471	87,280	444,696
Klamath Reservation (OR)	855,773	35,760	55,251
Catawba Reservation (SC)	1,404,804	75,044	/1,4/3
Rosebud Indian Reservation and Off-Reservation Trust	1 152 445	EE 106	241 662
Chovenne Piver Peservation and Off Peservation Trust	1,155,445	55,100	541,002
Land (SD)	882 244	36 246	121 657
Yankton Reservation (SD)	864 367	25 936	85 434
Lower Brule Reservation and Off-Reservation Trust	004,507	23,330	00,404
Land (SD)	1.387.131	60.711	80.076
Standing Rock Public Transportation (SD-ND)	1.086.878	39.127	80.196
Pine Ridge Reservation (SD-NE)	2.077.760	66,999	102,101
Uintah and Ouray Reservation and Off-Reservation		,	,
Trust Land (UT)	267,878	8,956	14,563
Yakama Nation Reservation and Off-Reservation Trust			
Land (WA)	440,568	18,031	87,908
Tulalip Reservation and Off-Reservation Trust Land			
(WA)	90,371	8,413	19,315
Colville Reservation and Off-Reservation Trust Land			
(WA)	731,070	146,700	667,471
Lummi Reservation (WA)	479,985	33,886	264,771
Muckleshoot Reservation and Off-Reservation Trust			
Land (WA)	167,954	4,181	27,052
Spokane Reservation and Off-Reservation Trust Land			
(WA)	1,405,654	54,239	124,333
Makah Indian Reservation (WA)	211,476	12,837	32,548
Quinault Reservation (WA	161,588	7,933	20,209

Skokomish Reservation (WA)	151,644	6,731	18,516
Lower Elwha Reservation and Off-Reservation Trust			
Land (WA)	47,591	2,280	3,458
Squaxin Island Reservation and Off-Reservation Trust			
Land (WA)	212,340	13,469	112,706
Quileute Reservation (WA)	131,712	3,430	4,116
Kalispel Reservation and Off-Reservation Trust Land			
(WA)	736,753	30,534	46,203
Stillaguamish Reservation and Off-Reservation Trust			
Land (WA)	1,148,445	33,785	134,638
Oneida (WI) Reservation and Off-Reservation Trust			
Land (WI)	1,816,115	111,503	270,491
Menominee Reservation and Off-Reservation Trust			
Land (WI)	7,753,091	338,479	850,670
Lac du Flambeau Reservation (WI)	626,921	35,819	100,860
Lac Courte Oreilles Reservation and Off-Reservation			
Trust Land (WI)	170,537	8,421	19,936
Bad River Reservation (WI)	1,008,069	41,856	240,093
Red Cliff Reservation and Off-Reservation Trust Land			
(WI)	295,382	18,057	75 <i>,</i> 384
Wind River Reservation and Off-Reservation Trust Land	151,793	17,844	7,126
# **APPENDIX C: STAKEHOLDER INPUT QUESTIONNAIRE**

# NDSU

UPPER GREAT PLAINS TRANSPORTATION INSTITUTE SMALL URBAN AND RURAL TRANSIT CENTER

# **Tribal Transit Stakeholder Interview- Please Provide Your Input** for NDSU Tribal Transit Research Study

Please think about your reservation and answer the following questions.

- 1. What types of public transportation services are available on your reservation, if any?
- 2. From your reservation's perspective, what are the core components of community livability?

3. What could change to make your tribal community more livable?

4. How does public transit contribute to your tribal community's livability?

5. How could/should public transit adapt to improve tribal community livability?

6. Are there circumstances in your community that make having transit especially important? Explain how:

7. What fare should riders pay for transit?

8. How does public transportation affect your tribal work environment?

9. What are options to fund the provision of transit in your community?

Please return the completed interview to Upper Great Plains Transportation Institute booth at NTICC conference. You can also scan the document and email it to <u>ranjit.godavarthy@ndsu.edu</u>

# APPENDIX D: ONLINE SURVEY INSTRUMENT DISTRIBUTED TO RESIDENTS OF STANDING ROCK RESERVATION

## PAGE 1 OF 4

# START HERE

Think about the 1,000s of communities in America...

In your opinion, how important is	each facto	r to commur	nity livability?	Check one pe	er row.
	Not important	Slightly important	Moderately important	Important	Very important
Available jobs	0	0	0	0	0
Affordable transportation options	0	0	0	0	0
Cultural institutions	0	0	0	0	0
Quality healthcare	0	0	0	0	0
Affordable housing	0	0	0	0	0
Quality public schools	0	0	0	0	0
Overall cost of living	0	0	0	0	0
Shopping and entertainment options	. 0	0	0	0	0
Parks and recreation facilities	0	0	0	0	0
Weather	. 0	0	0	0	0
Clean environment	0	0	0	0	0
Low crime	0	0	0	0	0
Sense of community	0	0	0	0	0
Traffic Safety	0	0	0	0	0

#### 2. How important is each aspect of transportation to community livability? Check one per row.

	Not important	Slightly important	Moderately important	Important	Very important
Public transit services	. 0	0	0	0	0
Bikeability	0	0	0	0	0
Low traffic congestion	0	0	0	0	0
Walkability / accessibility	0	0	0	0	0
Roads in good condition	. 0	0	0	0	0

#### 3. How satisfied are you with the quality-of-life in your community?

Very	Dissatisfied	Neither satisfied nor	Coticfied	Very
dissatistied	Dissaustieu	dissaustied	Saustied	satisfied
0	0	0	0	0

#### 4. How much do you agree or disagree with the following statement?

"I can easily travel to places I need to go in my community using my current travel options."

disagreé Disagree Neutral Agree a	agree
-----------------------------------	-------

#### 

# CONTINUE ON PAGE 2

# PAGE 2 OF 4

Rate the quality of each livab	Very	your cor	nmunity rig	ht now:	Check one p Verv	per row.
	poor	Poor	Acceptable	Good	good	
Available jobs	0	0	0	0	0	
Affordable transportation options	s O	0	0	0	0	
Cultural institutions		0	0	0	0	
Quality healthcare	0	0	0	0	0	
Affordable housing	0	0	0	0	0	
Quality public schools	0	0	0	0	0	
Overall cost of living	0	0	0	0	0	
Shopping and entertainment opti	ions O	0	0	0	0	
Parks and recreation facilities		0	0	0	0	
Weather		0	0	0	0	
Clean environment	0	0	0	0	0	
Low crime		0	0	0	0	
Sense of community	0	0	0	0	0	
Traffic safety		0	0	0	0	
Rate the quality of each aspe	ct of transpor	tation in	vour comn	nunity r	i <mark>ght now</mark> : (	heck one per
	Very poor	Poor	Acceptable	Good	Very good	,
Public transit services	Very poor 	Poor	Acceptable	Good	Very good	,
Public transit services Bikeability	Very poor 	Poor O O	Acceptable	Good O	Very good	,
Public transit services Bikeability Low traffic congestion	Verý poor 	Poor O O	Acceptable O O	Good O O	Very good O	,
Public transit services Bikeability Low traffic congestion Walkability / accessibility	Very poor 	Poor 0 0 0 0	Acceptable O O O O	Good O O O	Very good O O	,
Public transit services Bikeability Low traffic congestion Walkability / accessibility Roads in good condition	Very poor 0 0 0	Poor 0 0 0 0 0	Acceptable O O O O O O O O O O O O O O O O O O O	Good O O O O	Very good O O O	
Public transit services Bikeability Low traffic congestion Walkability / accessibility Roads in good condition If you do not live on the rese	Very poor 	Poor O O O O	Acceptable O O O following ar	Good O O O O e reaso	Very good O O O ns for why	you do not
Public transit services Bikeability Low traffic congestion Walkability / accessibility Roads in good condition If you do not live on the rese here. Choose your top three re	Very poor     	Poor O O O O	Acceptable	Good O O O O e reaso	Very good 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	you do not
Public transit services Bikeability Low traffic congestion Walkability / accessibility Roads in good condition If you do not live on the resent rere. Choose your top three resent Lack of available jobs O Lack of quality healthcare O Cost of living O The environment O Traffic safety O	Very poor O Vervation, which easons. Lack of transport Lack of afforda Lack of shoppi Crime Other:	Poor O O O o o o o o o o o o o o o o	Acceptable	Good O O O O C O C C C C C C C C C C C C C	Very good 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	you do not institutions recreation fac ommunity
Public transit services Bikeability Low traffic congestion Walkability / accessibility Roads in good condition If you do not live on the reservere. Choose your top three reservere. Lack of available jobs O Lack of quality healthcare O Cost of living O The environment O Traffic safety O	Very poor O Very poor O Very Poor O Very Poor O Very Poor O Very Poor O Very Poor O Very Very O Ver Very O Ver O Very O Very O Very O Very O Very O Very O Ver O Very O Very O Ver Very O Ver Very O Ver Very O Ver O Ver Ver Ver Ver V V V O V V V V V V V V V V V V V V V	Poor O O O ortation of ble housin ng & ente	Acceptable	Good O O O O e reaso O D ac O Poo O Lac O Pool	Very good 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	you do not institutions recreation fac ommunity
Public transit services Bikeability Low traffic congestion Walkability / accessibility Roads in good condition If you do not live on the reserver. Choose your top three reserver. Lack of available jobs O Lack of quality healthcare O Cost of living O The environment O Traffic safety O Is public transit currently ava	Very poor O Vervation, which easons. Lack of transpo Lack of afforda Lack of shoppi Crime Other:	Poor O O O O o o o o o o o o o o o o o	Acceptable	Good O O O O Pool O Lac O Pool O Lac O Pool O Lac	Very good 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	you do no institutions recreation fa ommunity

10b. If transit were available, how ≽ 10a. Have you used public transit in your community? likely are you to use public transit for some of your trips? O Yes ○ No Not likely Somewhat likely Very likely 11. Do you know someone else who has used public 0 0 0 transit in your community? SKIP TO QUESTION #12 O Yes ⊖ No CONTINUE ON PAGE 3

### PAGE 3 OF 4

#### 12. Why is it important to have public transit service in your community? Check all that apply.

- Because walk access to destinations is difficult in my community
- Because bike access to destinations is difficult in my community
- Transit is an option for seniors or people with disabilities
- Transit is an option for those who choose not to drive
- Transit is an option for saving on the cost of transportation
- Transit complements other travel modes, such as walking or biking
- Transit reduces energy consumption or protect air quality
- Transit eliminates the need to park or for destinations to provide parking
- Transit reduces traffic congestion
- □ I do not think it is important to have transit service.

#### Please answer all questions. Responses are confidential.

13. All things considered, how satisfied are you	20. Which of the following best describes your				
with your life as a whole these days? Completely dissatisfied $\longrightarrow$ Completely satisfied $\longrightarrow$ satisfied 0 1 2 3 4 5 6 7 8 9 10 $\bigcirc \bigcirc \bigcirc$ 14. In general, how would you rate your overall health? $\bigcirc$ Poor $\bigcirc$ Fair $\bigcirc$ Good 15. Are you? $\bigcirc$ Female $\bigcirc$ Male	current employment status? Check all that apply.  Employed full-time Employed part-time Student Homemaker Retired Unable to work due to a disability Not employed, looking for work Other:				
O Not listed:	21. Do you have serious difficulty walking or				
<ul> <li>18 to 24 years</li> <li>18 to 24 years</li> <li>25 to 34 years</li> <li>35 to 44 years</li> <li>45 to 54 years</li> <li>85 or more years</li> </ul>	climbing stairs?       O Yes       O No         22. Do you use a wheelchair or other mobility assistive device to travel outside your residence?       O Yes       O No				
17. Do you have a driver's license? O Yes O No	23. What ZIP code do you live in?				
18. How many working vehicles (cars, trucks, and motorcycles) are available in your household? 0 1 2 3 or more 0 0 0 0	24. Please share any final comments you have regarding community livability or public transit:				
19. What is the combined annual income for all people living in your household?         O       Less than \$15,000       O       \$15,000 to \$24,999         O       \$25,000 to \$34,999       O       \$35,000 to \$49,999         O       \$50,000 to \$74,999       O       \$75,000 to \$99,999         O       \$100,000 or more       O       \$15,000 to \$99,999					
	CONTINUE ON BACK				

## PAGE 4 OF 4

#### Are you a current or former rider of public transit?

If NO... you are finished. Return all pages using the provided envelope.

If YES... please take 3 more minutes to answer a few questions about your use of transit...

# A Few Questions for Transit Riders

25. How often do you ride public transit? Check one.
○ 5 to 7 days per week ○ 1 or 2 days per month

- 3 or 4 days per week Less than once per month
- O 2 days per week O I have only ridden once
- O 1 day per week O I no longer use the service
  - y per week O Tho tonger use

# 26. How much do you agree with the statement below?

# "Public transit is very important to my quality of life." Check one.

Strongly	<b>D</b> .			Strongly
Disagree	Disagree	Neutral	Agree	Agree
0	0	0	0	0

#### 27. How likely is it that you would recommend the public transit service you ride to a friend? Check one.

Not at	all	like	ly						1	Extr	emely Likely
	0	1	2	3	4	5	6	7	8	9	10
	0	0	0	0	0	0	0	Ο	0	0	0

# 28. How much do you agree or disagree with the following statements? *Check one per row.*

14

	Stron	eree Disi	ABIEC Neu	tral per	strong	De apply
The vehicles arrive on-time.	0	ò	•	•	• O	o
Drivers are helpful and friendly.	0	0	0	0	0	0
I feel safe riding transit.	0	0	0	0	0	0
The vehicles are clean.	0	0	0	$^{\circ}$	0	0
The vehicles are comfortable.	0	0	0	0	0	0
The fare I pay is reasonable for my trip.	0	0	0	0	0	0

29. What are the purposes for your trips on public transit? Check all that apply.

- Medical appointments, health care, dental services
- Work
- School, college, job training
- Volunteering
- Family, personal business
- Social, recreational
- Shopping, errands
- Other:

# 30. If public transit was not available, would you make the same number of trips? *Check one*.

- O Yes, I would make the same number of trips to the places I currently use Public Transit for
- O No, I would make somewhat fewer trips to the places I currently use Public Transit for
- O No, I would make a lot fewer trips to the places I currently use Public Transit for
- No, I would make no trips to the places I currently use Public Transit for

#### 31. Why did you start riding public transit? Check all that apply.

- I could no longer drive or had difficulties driving
- I don't like to drive in poor weather (rainy, snowy)
- I did not have access to a vehicle
- I could not get a ride from others or did not want to
- I have a disability; limited ability to travel other ways
- I use transit to save money
- I use transit for convenience
- I use transit to save energy and protect air quality
- Other:

# FINISHED!

# APPENDIX E: PRINTED SURVEY INSTRUMENT DISTRIBUTED TO TRANSIT RIDERS IN STANDING ROCK RESERVATION

# START HERE

#### PAGE 1 OF 4

Think about the 1,000s of communities in America...

. In your opinion, how important is each factor to community livability? Check one per row.						
	Not important	Slightly important	Moderately important	Important	Very important	
Available jobs	0	0	0	0	0	
Affordable transportation options	0	0	0	0	0	
Cultural institutions	0	0	0	0	0	
Quality healthcare	0	0	0	0	0	
Affordable housing	0	0	0	0	0	
Quality public schools	0	0	0	0	0	
Overall cost of living	0	0	0	0	0	
Shopping and entertainment options	. 0	0	0	0	0	
Parks and recreation facilities	0	0	0	0	0	
Weather	. 0	0	0	0	0	
Clean environment	0	0	0	0	0	
Low crime	0	0	0	0	0	
Sense of community	0	0	0	0	0	
Traffic Safety	0	0	0	0	0	

#### 2. How important is each aspect of transportation to community livability? Check one per row.

	Not important	Slightly important	Moderately important	Important	Very important
Public transit services	. 0	0	0	0	0
Bikeability	0	0	0	0	0
Low traffic congestion	0	0	0	0	0
Walkability / accessibility	. 0	0	0	0	0
Roads in good condition	. 0	0	0	0	0

3. How satisfied are	you with the quality	v-of-life in v	our community?

Verv		Neither satisfied nor	-	Verv
dissatisfied	Dissatisfied	dissatisfied	Satisfied	satisfied
0	0	0	0	0

4. How much do you agree or disagree with the following statement? "I can easily travel to places I need to go in my community using my current travel options." Strongly disagree Disagree Neutral Agree agree O O O O O O

# CONTINUE ON PAGE 2

Think about where you live now...

#### PAGE 2 OF 4

6. Rate the quality of each livability factor in your community right now: Check one per row. Very							
	poor	Poor	Acceptable	Good	good		
Available jobs	0	0	0	0	0		
Affordable transportation options	0	0	0	0	0		
Cultural institutions	0	0	0	0	0		
Quality healthcare	0	0	0	0	0		
Affordable housing	0	0	0	0	0		
Quality public schools	0	0	0	0	0		
Overall cost of living	0	0	0	0	0		
Shopping and entertainment options	0	0	0	0	0		
Parks and recreation facilities	0	0	0	0	0		
Weather	0	0	0	0	0		
Clean environment	0	0	0	0	0		
Low crime	0	0	0	0	0		
Sense of community	0	0	0	0	0		
Traffic safety	0	0	0	0	0		

#### 7. Rate the quality of each aspect of transportation in your community right now: Check one per row.

	Very poor	Poor	Acceptable	Good	Very good
Public transit services	0	0	0	0	õ
Bikeability	0	0	0	0	0
Low traffic congestion	0	0	0	0	0
Walkability / accessibility	0	0	0	0	0
Roads in good condition	0	0	0	0	0

#### 8. If you do not live on the reservation, which of the following are reasons for why you do not live there. Choose your top three reasons.

Ο	Lack of available jobs	
Ο	Lack of quality healthcare	

- O Lack of transportation options O Lack of cultural institutions
- Lack of affordable housing
- O Lack of shopping & entertainment O Crime
- O The environment Traffic safety

O Cost of living

O Other:

- O Poor schools
- O Lack of parks & recreation facilities
- Poor sense of community

#### Why is it important to have public transit service in your community? Check all that apply.

- Because walk access to destinations is difficult in my community
- Because bike access to destinations is difficult in my community
- Transit is an option for seniors or people with disabilities
- Transit is an option for those who choose not to drive
- Transit is an option for saving on the cost of transportation
- Transit complements other travel modes, such as walking or biking
- Transit reduces energy consumption or protect air quality
- Transit eliminates the need to park or for destinations to provide parking
- Transit reduces traffic congestion
- I do not think it is important to have transit service.

# PAGE 3 OF 4

#### Please answer the following questions about transit.

**10. Why did you start riding public transit?** *Check all that apply.* 

- I could no longer drive or had difficulties driving
- I don't like to drive in poor weather (rainy, snowy)
- I did not have access to a vehicle
- I could not get a ride from others or did not want to
- I have a disability; limited ability to travel other ways
- I use transit to save money
- I use transit for convenience
- I use transit to save energy and protect air quality
- It is important to be independent
- I enjoy the social interaction
- Other:

11. How often do you ride public transit? Check one.

- O 5 to 7 days per week O 1 or 2 days per month
- O 3 or 4 days per week O Less than once per month
- O 2 days per week O I have only ridden once
- O 1 day per week

12. What are the purposes for your trips on public transit? Check all that apply.

- Medical appointments, health care, dental services
- Work
- School, college, job training
- Volunteering
- Family, personal business, errands
- Social, recreational
- □ Shopping or eating out
- Other:

#### 13. How much do you agree with this statement?

#### "Public transit is very important to my quality of life." Check one.

Strongly				Strongly
Disagree	Disagree	Neutral	Agree	Agree
0	0	0	0	0

14. How likely is it that you would recommend the public transit service you ride to a friend? *Check one.* 

 Not at all likely
 Extremely Likely

 0
 1
 2
 3
 4
 5
 6
 7
 8
 9
 10

 O
 O
 O
 O
 O
 O
 O
 O
 O
 O

15. If public transit was not available, how would you have made this trip? *Choose one option.* 

I would not have made this trip

- Driven myself
- Ride from family, friend, other
- Used a taxi, Uber or Lyft
- Walked or bicycled
- □ Other:

# 16. If public transit was not available, would you make the same number of trips? *Check one.*

- O Yes, I would make the same number of trips to the places I currently use public transit for
- O No, I would make somewhat fewer trips to the places I currently use public transit for
- O No, I would make a lot fewer trips to the places I currently use public transit for
- O No, I would make no trips to the places I currently use public transit for

# 17. How much do you agree or disagree with the following statements? Check one per row.

	Strong	alee olisi	ABIER NEU	LID AST	strong	Poesppiv
The vehicles arrive on-time.	0	0	0	ò	0	•
Drivers are helpful and friendly.	0	0	0	0	0	0
I feel safe riding transit.	0	0	0	0	0	0
The vehicles are clean.	0	0	0	0	0	0
The vehicles are comfortable.	0	0	0	0	0	0
The fare I pay is reasonable for my trip.	0	0	0	0	0	0

# PAGE 4 OF 4

18. Please rate your level of satisfaction with this transportation service.										
	Very	Somewhat		Somewhat	Very					
	Satisfied	Satisfied	Neutral	Dissatisfied	Dissatisfied					
Cost affordability										
Hours of service										
Days of service										
Goes where you want to go										
Ease of use										

Please answer all questions. Responses are confidential.

19. Are you? OFemale O Male ONot listed:	26. Do you consider yourself to have a disability? O Yes O No
20. What is your age?	27. Do you have serious difficulty walking or climbing stairs? O Yes O No
21. How would you describe yourself? Select one or more responses	28. Do you use a wheelchair or other mobility assistive device to travel outside your residence? O Yes O No
American Indian or Alaska Native	29. Do you use a service animal? O Yes O No
<ul> <li>Black of African American</li> <li>Hispanic or Latino</li> <li>Native Hawaiian or Pacific Islander</li> <li>White</li> </ul>	30. All things considered, how satisfied are you with your life as a whole these days? Completely dissatisfied ← Completely satisfied 0 1 2 3 4 5 6 7 8 9 10
22. Do you have a driver's license? O Yes O No	31. In general, how would you rate your overall health? O Poor O Fair O Good
23. How many working vehicles (cars, trucks, and motorcycles) are available in your household? 0 1 2 3 or more 0 0 0 0	32. What ZIP code do you live in?
24. Have you served on active duty in the U.S. Armed Forces Reserves or National Guard?	FINISHED!
○ Yes         ○ No           25. What is the combined annual income for all people living in your household?         ○ Less than \$15,000         ○ \$15,000 to \$24,999           ○ \$25,000 to \$34,999         ○ \$35,000 to \$49,999         ○ \$35,000 to \$49,999           ○ \$50,000 to \$74,999         ○ \$75,000 to \$99,999           ○ \$100,000 or more         ○	Thank you for your response! Completing the survey means you are eligible to <b>win one of four</b> <b>\$50 visa gift cards</b> . To enter the drawing, provide your name and either your phone number or email address below. Your information will not be shared. Name: Phone number: Email:

# APPENDIX F: ONLINE SURVEY INSTRUMENT DISTRIBUTED TO RESIDENTS OF MAKAH TRIBE

Dear Respondent,

Thank you for your willingness to take the survey online. This research is funded by the U.S. Department of Transportation: University Transportation Centers Program about what makes a community a great place to live and if/how public transit plays a role in livability or quality-of-life. Our study includes surveying the public and transit riders about their community.

We invite you to participate in our study. Participation is voluntary and your responses are strictly confidential. If you are age 18 or over, please take about 10 minutes to share your opinion by completing the survey. As a show of appreciation, **providing a complete survey response** (all questions are answered) means you will receive one **\$10 Amazon gift card code**.

Thank you for your participation in this research.

<u>Note:</u> Please think about pre-COVID-19 situation when to try to answer all the questions in this survey.

Think about the 1,000s of communities in America...

In your opinion, how important are various factors towards community livability?

Please provide your responses in the below questions a - n.

a) Available jobs:

Not important

- Slightly important
- O Moderately important
- Important
- Very important

# b) Affordable transportation options:

- Not important
- Slightly important
- O Moderately important
- Important
- Very important

c) Cultural institutions (museums, heritage centers, churches etc.) :

- Not important
- Slightly important
- Moderately important
- Important
- Very important

# d) Quality healthcare:

- Not important
- Slightly important
- Moderately important
- Important
- Very important
- e) Affordable housing:

- Not important
- Slightly important
- Moderately important
- Important
- Very important

f) Quality public schools:

- Not important
- Slightly important
- O Moderately important
- Important
- Very important

g) Overall cost of living:

- Not important
- Slightly important
- O Moderately important
- Important
- Very important

h) Shopping and entertainment options:

- Not important
- Slightly important
- O Moderately important
- Important
- Very important

i) Parks and recreation facilities:

- Not important
- Slightly important
- O Moderately important
- $\bigcirc$  Important
- Very important

# j) Weather:

- Not important
- Slightly important
- O Moderately important
- Important
- Very important

k) Clean environment:

- Not important
- Slightly important
- Moderately important
- Important
- O Very important

I) Low crime:

- Not important
- Slightly important
- O Moderately important
- Important
- Very important

# m) Sense of community:

- Not important
- Slightly important
- Moderately important
- Important
- Very important

# n) Traffic safety:

- Not important
- Slightly important
- O Moderately important
- Important
- O Very important

**How important is each aspect of transportation to community livability?** *Please provide your responses in the below questions a - e.* 

#### a) Public transit services:

- Not important
- Slightly important
- O Moderately important
- Important
- Very important

#### b) Bikeability:

- Not important
- Slightly important

- O Moderately important
- Important
- O Very important

# c) Low traffic congestion:

- Not important
- Slightly important
- O Moderately important
- Important
- Very important

# d) Walkability / accessibility:

- Not important
- Slightly important
- O Moderately important
- Important
- Very important

## e) Roads in good condition:

- Not important
- Slightly important
- O Moderately important
- Important
- Very important

# How satisfied are you with the quality-of-life in your community?

O Very dissatisfied

- O Dissatisfied
- O Neither satisfied nor dissatisfied
- O Satisfied
- O Very satisfied

How much do you agree or disagree with the following statement?

"I can easily travel to places I need to go in my community using my current travel options."

- O Strongly disagree
- O Disagree
- O Neutral
- O Agree
- Strongly agree

How much do you agree or disagree with the following statement?

"It is important for public transit to be available to my community's residents."

- Strongly disagree
- O Disagree
- O Neutral
- O Agree
- O Strongly agree

Think about where you live now...

Rate the quality of each livability factor in your community right now: *Please provide your responses in the below questions a - n.* 

# a) Available jobs:

- Very poor
- Poor
- Acceptable
- $\bigcirc$  Good
- $\bigcirc$  Very good

b) Affordable transportation options:

- Very poor
- Poor
- Acceptable
- Good
- $\bigcirc$  Very good

c) Cultural institutions (museums, heritage centers, churches etc.):

- Very poor
- Poor
- Acceptable
- ⊖ Good
- Very good

# d) Quality healthcare:

- Very poor
- Poor
- O Acceptable
- ⊖ Good

 $\bigcirc$ 

Very good

# e) Affordable housing:

- Very poor
- Poor
- Acceptable
- Good
- $\bigcirc$  Very good

f) Quality public schools:

- Very poor
- Poor
- Acceptable
- Good
- Very good

# g) Overall cost of living:

- Very poor
- Poor
- Acceptable
- Good
- Very good

# h) Shopping and entertainment options:

- Very poor
- Poor
- Acceptable

○ Good

○ Very good

# i) Parks and recreation facilities:

- Very poor
- Poor
- O Acceptable
- ⊖ Good
- $\bigcirc$  Very good

# j) Weather:

- Very poor
- Poor
- Acceptable
- $\bigcirc$  Good
- $\bigcirc$  Very good

k) Clean environment:

- Very poor
- Poor
- Acceptable
- Good
- $\bigcirc$  Very good

I) Low crime:

 $\bigcirc$  Very poor

○ Poor

- Acceptable
- Good
- $\bigcirc$  Very good

m) Sense of community:

- Very poor
- Poor
- Acceptable
- ⊖ Good
- $\bigcirc$  Very good

) Traffic safety:	
○ Very poor	
O Poor	
Acceptable	
○ Good	
○ Very good	

**Rate the quality of each aspect of transportation in your community right now:** *Please provide your responses in the below questions a - e.* 

a)	Pub	lic	transit	services:
----	-----	-----	---------	-----------

- Very poor
- Poor
- Acceptable
- Good
- Very good

# b) Bikeability:

- Very poor
- Poor
- Acceptable
- ⊖ Good
- $\bigcirc$  Very good

c) Low traffic congestion:

- Very poor
- $\bigcirc$  Poor
- Acceptable
- ⊖ Good
- $\bigcirc$  Very good

# d) Walkability / accessibility:

- Very poor
- Poor
- Acceptable
- ⊖ Good
- $\bigcirc$  Very good

# e) Roads in good condition:

- Very poor
- Poor
- Acceptable
- ⊖ Good
- $\bigcirc$  Very good

If you do not live on the reservation, w why you do not live there. Choose your top three reasons.	hich of the following are reasons for
□ Lack of available jobs	Lack of parks & recreation facilities
Lack of transportation options	□ The environment
Lack of cultural institutions	
Lack of quality healthcare	Poor sense of community
Lack of affordable housing	□ Traffic safety
Poor schools	Other
Cost of living	□ Not Applicable; I live on the reservation
Lack of shopping & entertainment	

Is public transit currently available to residents of your community?

- Yes
- No
- Not sure

Have	you used	public	transit in	your	community	/?
------	----------	--------	------------	------	-----------	----

 $\odot$  No

If transit were available, how likely are you to use public transit for some of your trips?

- O Not likely
- O Somewhat likely

<sup>○</sup> Yes

○ Very likely

Do you know someone else who has used public transit in your community?					
⊖ Yes					
$^{\circ}$ No					
Why is it important to have public transit service in your community? Check all that apply.					
Because walk access to destinations is difficult in my community					
Because bike access to destinations is difficult in my community					
Transit is an option for seniors or people with disabilities					
Transit is an option for those who choose not to drive					
Transit is an option for saving on the cost of transportation					
Transit complements other travel modes, such as walking or biking					
Transit reduces energy consumption or protect air quality					
Transit eliminates the need to park or for destinations to provide parking					
Transit reduces traffic congestion					
I do not think it is important to have transit service.					

Please answer all questions. Responses are confidential.

All things considered, how satisfied are you with your life as a whole these days?

Completely dissatisfied Completely satisfied								satisfied		
0	1	2	3	4	5	6	7	8	9	10
$\circ$	$\circ$	0	0	0	0	0	0	0	0	$\circ$

○ Poor		
○ Fair		
$\bigcirc$ Good		
Are you?		
○ Male		
○ Female		
O Not listed:		
What is your age?		
⊖ 18 to 24 years	⊖ 55 to 64 years	
$\bigcirc$ 25 to 34 years	$\bigcirc$ 65 to 74 years	
$_{\odot}$ 35 to 44 years	○75 to 84 years	
$\bigcirc$ 45 to 54 years	$\bigcirc$ 85 or more years	

0	Yes

 $\odot$  No

How many working vehicles (cars, trucks, and motorcycles) are available in your household?

- 0 0
- O 1
- O 2

○ 3 or more

What is the combined annual income for all people living in your household?						
<ul> <li>Less than \$15,000</li> <li>\$15,000 to \$24,999</li> <li>\$25,000 to \$34,999</li> <li>\$35,000 to \$49,999</li> </ul>	<ul> <li>\$50,000 to \$74,999</li> <li>\$75,000 to \$99,999</li> <li>\$100,000 or more</li> </ul>					
Which of the following be Check all that apply.	st describes your current employment status?					
<ul> <li>Employed full-time</li> <li>Employed part-time</li> <li>Student</li> <li>Homemaker</li> <li>Retired</li> <li>Unable to work due to a dial</li> <li>Not employed, looking for a dial</li> <li>Other:</li> </ul>	sability work					
Do you have serious diffic	culty walking or climbing stairs?					

○ Yes

 $\bigcirc$  No

# Do you use a wheelchair or other mobility assistive device to travel outside your residence?

○ Yes

 $\odot$  No

# What ZIP code do you live in?

Please share any final comments you have regarding community livability or public transit:

A Few Questions for Transit Riders

How often do you ride public transit? *Check one.* 

$\odot 5$ to 7 days per week	○1 or 2 days per month
○ 3 or 4 days per week	$\bigcirc$ Less than once per month
O 2 days per week	$\bigcirc$ I have only ridden once
○1 day per week	○ I no longer use the service

How much do you agree with the statement below?

"Public transit is very important to my quality of life." Check one.

- O Strongly disagree
- Disagree
- O Neutral

O Agree

O Strongly agree

How likely is it that you would recommend the public transit service you ride to a friend? Check one.										
Not at al	l likely								Extreme	ely likely
<b>0</b> 〇	1 〇	<b>2</b> 〇	3 〇	<b>4</b> 〇	5 〇	6 〇	7 〇	8 〇	9 〇	<b>10</b> 〇

How much do you agree or disagree with the following statements? *Please provide your responses in the below questions a - f.* 

- a) The vehicles arrive on-time.
  - O Strongly disagree
  - Disagree
  - O Neutral
  - Agree
  - O Strongly agree
  - O Does not apply
- b) Drivers are helpful and friendly.
  - O Strongly disagree
  - O Disagree
  - O Neutral
  - Agree
  - O Strongly agree
  - Does not apply

# c) I feel safe riding transit.

- O Strongly disagree
- Disagree
- O Neutral
- O Agree
- Strongly agree
- Does not apply

## d) The vehicles are clean.

- O Strongly disagree
- Disagree
- O Neutral
- O Agree
- O Strongly agree
- Does not apply

### e) The vehicles are comfortable.

- O Strongly disagree
- Disagree
- O Neutral
- O Agree
- O Strongly agree
- Does not apply

f) The fare I pay is reasonable for my trip.

- O Strongly disagree
- O Disagree

- O Neutral
- O Agree
- O Strongly agree
- O Does not apply

What are the purposes f	or your trips	on public	transit?
Check all that apply.		-	

- Medical appointments, health care, dental services
- Work
- □ School, college, job training
- Volunteering
- Family, personal business
- □ Social, recreational
- Shopping, errands
- Other:

If public transit was not available, would you make the same number of trips? *Check one.* 

- Yes, I would make the same number of trips to the places I currently use Public Transit for
- No, I would make somewhat fewer trips to the places I currently use Public Transit for
- No, I would make a lot fewer trips to the places I currently use Public Transit for
- O No, I would make no trips to the places I currently use Public Transit for

# Why did you start riding public transit? Check all that apply.

- □ I could no longer drive or had difficulties driving
- □ I don't like to drive in poor weather (rainy, snowy)
- □ I did not have access to a vehicle
- □ I could not get a ride from others or did not want to
- □ I have a disability; limited ability to travel other ways
- □ I use transit to save money
- □ I use transit for convenience
- □ I use transit to save energy and protect air quality
- Other:

Thank you for your response!

Completing the survey means you are eligible to receive one \$10 Amazon gift card code. Please provide your phone number or email address below, so we could send you the gift card code.

Text-capable phone number:

Email address:

Survey Powered By Qualtrics