

SURLC 16-004

Exploring Transit's Contribution to Livability in Rural Communities: Case Study of Valley City, ND, and Dickinson, ND



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ABSTRACT

This study investigates the nexus of transit and rural livability by conducting case studies in the North Dakota communities of Valley City and Dickinson. While many factors influence the livability of a rural community, transit is an important contributor. For each of the two North Dakota communities considered, public/resident surveys, local transit rider surveys, and stakeholder interviews were conducted to understand differing opinions on livability and how transit contributes to livability.

In both Valley City and Dickinson, surveys of residents showed they believe affordable housing, low crime, quality healthcare, overall cost of living, quality public schools, and available jobs are the most important factors contributing the livability of a community. While transit was not among the top factors, survey respondents expressed considerable support for providing transit services and funding it through various sources. Residents in both cities expressed the opinion that transit should be provided in their community as a transportation option for seniors, people with disabilities, those who choose not to drive, and those who cannot afford to drive. Transit riders in both cities indicated that transit is very important to their quality of life, and stakeholders from both communities said transit is a critical lifeline for people who are elderly and/or have a disability, individuals with no vehicle, and those who cannot drive.

TABLE OF CONTENTS

1. INTRODUCTION	1
2. CASE STUDY 1: VALLEY CITY, ND.....	2
2.1 About Valley City	2
2.2 Location of Valley City, ND	4
2.3 Existing Transit Service in Valley City.....	6
2.4 Case Study Process and Summary of Data Collection.....	7
2.5 Valley City Resident Survey	7
2.5.1 Respondent Demographics	7
2.5.2 Describing Valley City	9
2.5.3 Livability.....	9
2.5.4 Role of Transit	12
2.6 Valley City Transit (South Central Transit Network) Rider Survey.....	15
2.7 South Central Transit Network Stakeholder Interviews	22
2.8 Conclusions from Case Study Community – Valley City, ND.....	24
3. CASE STUDY 2: DICKINSON, ND	26
3.1 About Dickinson	26
3.2 Existing Transit Service in Dickinson.....	29
3.3 Case Study Process and Summary of Data Collection.....	30
3.4 Dickinson Resident Survey	31
3.4.1 Respondent Demographics	31
3.4.2 Describing Dickinson.....	33
3.4.3 Livability.....	33
3.4.4 Role of Transit	36
3.5 Dickinson Public Transit Rider Survey.....	40
3.5.3 Public Transit Stakeholder Interviews	46
3.5 Conclusions from Case Study Community – Dickinson, ND.....	48
References	50
Appendix A: Survey Form Used for Valley City Resident Survey	51
Appendix B: Survey Form Used for Valley City Transit Rider Survey	54
Appendix C: Survey Form Used for Dickinson Resident Survey	57
Appendix D: Survey Form Used for Dickinson Transit Rider Survey	60

LIST OF FIGURES

Figure 2.1	Location of Valley City	4
Figure 2.2	Vicinity of Valley City and Barnes County	5
Figure 2.3	Detailed Map of Valley City.....	5
Figure 2.4	South Central Transit Vehicle Operator Assisting a Rider with Wheelchair	6
Figure 2.5	Demographic Characteristics of Valley City Resident Survey Respondents	8
Figure 2.6	Valley City Resident’s Opinion about Importance of Various Factors Towards Community Livability.....	10
Figure 2.7	Factors Contributing to Livability in Valley City.....	11
Figure 2.8	Comparison of Factors Affecting Livability.....	12
Figure 2.9	Awareness of Transit in Valley City.....	13
Figure 2.10	Importance of Transit Service in Valley City	13
Figure 2.11	Respondents Preferences for Use of City, County, State, and Federal Funds for Transit.....	14
Figure 2.12	Importance of Public Transit in Valley City.....	14
Figure 2.13	Future Use of Transit under Hypothetical Situations	15
Figure 2.14	Best Ways to Contact with Information about Transit Services.....	15
Figure 2.15	Demographic Characteristics of South Central Transit Rider Survey Respondents	17
Figure 2.16	Importance of South Central Transit to its Users.....	18
Figure 2.17	Reasons South Central Transit Users Began Using the Service	19
Figure 2.18	South Central Transit User Survey: How often to you ride South Central Transit?	20
Figure 2.19	South Central Transit User Survey: What are the purposes for your trips on South Central Transit?	20
Figure 2.20	South Central Transit User Survey: How likely is it that you would recommend South Central Transit to a friend or colleague?	21
Figure 3.1	Location of Dickinson.....	28
Figure 3.2	Detailed Map of Dickinson.....	29
Figure 3.3	Public Transit Vehicle Operator with Transit Vehicle	30
Figure 3.4	Demographic Characteristics of Dickinson Resident Survey Respondents	32
Figure 3.5	Dickinson Resident’s Opinion about Importance of Various Factors towards Community Livability.....	34
Figure 3.6	Factors Contributing to Livability in Dickinson.....	35
Figure 3.7	Comparison of Factors Affecting Livability.....	36
Figure 3.8	Awareness about Transit in Dickinson	37
Figure 3.9	Importance of Transit Service in Dickinson	37
Figure 3.10	Respondents Preferences for Use of City, County, State, and Federal Funds for Transit.....	38
Figure 3.11	Importance of Public Transit in Dickinson.....	38
Figure 3.12	Future Use of Transit under Hypothetical Situations	39
Figure 3.13	Best Ways to Contact with Information about Transit Services.....	39

Figure 3.14	Demographic Characteristics of Dickinson Public Transit Rider Survey	
	Respondents	41
Figure 3.15	Importance of Dickinson Public Transit to its Riders.....	42
Figure 3.16	Reason Dickinson Public Transit Users Began Using the Service	43
Figure 3.17	Dickinson Public Transit User Survey: How often do you ride Public Transit?	44
Figure 3.18	Dickinson Public Transit User Survey: What are the purposes for your trips on Public Transit?	44
Figure 3.19	Dickinson Public Transit User Survey: How likely is it that you would recommend Public Transit to a friend or colleague?	45

LIST OF TABLES

Table 2.1	Valley City Characteristics and U.S. National Averages	3
Table 2.2	Feedback of South Central Transit from their Riders	21
Table 3.1	Dickinson Characteristics and U.S. National Averages.....	27
Table 3.2	Feedback of Public Transit from their Riders.....	45

1. INTRODUCTION

Public transportation provides critical services to transit-dependent people in rural areas, connecting them to healthcare services, educational institutions, employment, and other important activities. While many factors influence livability of a rural community, transit is an important contributor. Some rural communities provide different kinds of public transit services, but others do not have any type of public transit.

To investigate the nexus of transit and livability at the community level, the Texas A&M Transportation Institute (TTI) conducted a study which reviewed literature to explore the concept of livability in rural America, developed a framework for a pilot case study, and finally conducted a case study in West Columbia, TX (Brooks et al. 2014, Brooks et al. 2015). In this study, which represented the first phase of their project, TTI developed a method for selecting potential case study communities and a plan for conducting more case studies. They used six criteria to rank transit agencies in terms of their suitability for a case study: rider diversity, trip purpose, transit utilization, transit patronage, service variety, and ease of outreach. The plan for conducting case studies included a series of stakeholder interviews, a public/resident survey, and a transit rider survey in a rural community.

The Small Urban and Rural Transit Center (SURTC) collaborated with TTI in the second phase of the project, which included conducting additional case studies in a variety of rural communities. This report documents the methods and findings for the two case studies conducted by SURTC. Based on the results of the pilot case study conducted by TTI, SURTC adopted a study framework similar to TTI's suggested plan with a few minor modifications which are detailed in the report.

Two North Dakota cities, Valley City and Dickinson, were selected as case study communities to investigate the nexus of transit and livability at the community level. Valley City, ND, was selected as a case study community as it fits well with the criteria established in phase 1 of the study for selecting a suitable pilot case study community (Brooks et al. 2015). While Dickinson, ND, also meets the criteria specified in phase 1 of the study, it was specifically selected because it is a rapidly growing community due to the recent oil boom. Therefore, the major objective of this study is to investigate the nexus of transit and livability in two different North Dakota cities by conducting public/resident surveys, transit rider surveys, and transit stakeholder interviews.

2. CASE STUDY 1: VALLEY CITY, ND

2.1 About Valley City

Valley City is the largest city and county seat of Barnes County, ND, and the 13th largest city in North Dakota. The population is 6,669, according to 2015 U.S. census estimates. Valley City is called the “city of bridges” for its numerous bridges over the Sheyenne River and is the home of Valley City State University.

Table 2.1 shows population, demographic, employment, and commute-to-work characteristics for Valley City, using data from the 2010-2014 American Community Survey (ACS) five-year estimates and the 2015 population estimates from the U.S. Census. Valley City has a relatively large population of older adults. About 23% of its population is aged 65 or older, and 6.8% is 85 years or older, according to ACS estimates. By comparison, 13.7% of the U.S. population is 65 or older, and just 1.9% is 85 or older nationally.

The median household income is close to the national average. The income distribution shows a smaller percentage of households earning more than \$100,000 per year (17%), compared to the national average (23%). On the other hand, poverty and unemployment are lower in Valley City. About 8% of the population is below the poverty line, compared to 15.6% nationally, and the unemployment rate is 1.8%. The city is predominantly white, with very small minority populations. About half of one percent uses public transportation to commute to work, while 70% drive alone and 17% carpool.

Table 2.1 Valley City Characteristics and U.S. National Averages

	Valley City	United States
Population (2015 estimate)	6,669	
Population change 2010-2015	+1.3%	
Number of households	3,248	
City size	3.46 square miles	
Demographics		
Gender	48% male/52% female	49% male/51% female
Median age	41.3	37.4
Population age 65 or older (%)	22.8	13.7
Population age 85 or older (%)	6.8	1.9
Median household income	\$50,000	\$53,482
Household income distribution (%)		
Less than \$15,000	10.8	12.5
\$15,000 - \$24,999	12.6	10.7
\$25,000 - \$34,999	12.3	10.2
\$35,000 - \$49,999	14.3	13.5
\$50,000 - \$74,999	20.0	17.8
\$75,000 - \$99,999	13.1	12.2
\$100,000 or more	16.9	23.0
Population below poverty level	8.3	15.6
Race (%)		
White	94.8	76.3
African American	1.6	13.7
American Indian and Alaska Native	1.4	1.7
Asian	2.7	5.9
Other	1.0	5.6
Hispanic or Latino (of any race)	1.5	16.9
Unemployment rate	1.8	4.9
Commuting to work		
Average travel time	13.9 minutes	25.7 minutes
Number of workers 16 years and older	3,407	
Means of transportation to work (%)		
Drive alone	70.1	76.4
Carpool	16.8	9.6
Public transportation	0.4	5.1
Walk	8.1	2.8
Bicycle	0.2	0.6
Taxi, motorcycle, or other	1.0	1.2
Work at home	3.3	4.4

Sources: U.S. Census 2015 Annual Population Estimates, American Community Survey 2010-2014 5-year Estimates, U.S. Bureau of Labor Statistics

Other city facts follow.

- **Industries:** The top five industries in Valley City, in terms of employment, are educational services, health care and social assistance, manufacturing, finance and insurance, and retail trade.
- **Climate type:** Humid continental climate (warm to hot, and often humid, summers and cold, sometimes severely cold, winters).
- **2015 City Budget:** The most recent financial records for Valley City indicated the city budget in 2015 was \$17.8 million (City of Valley City n.d.). The city spent most of the budget on electric, water, and sewer, \$11.7 million (66%) and public safety, \$2.1 million (12%) (City of Valley City n.d.).

2.2 Location of Valley City, ND

Valley City is located in eastern North Dakota, as shown in Figure 2.1. It is 62 miles west of Fargo, ND, the largest city in the state, and the closest city larger than Valley City is Jamestown, ND, which is 35 miles to the west. A more detailed map of Barnes County and the area surrounding Valley City is shown in Figure 2.2, and a map Valley City itself is provided in Figure 2.3.

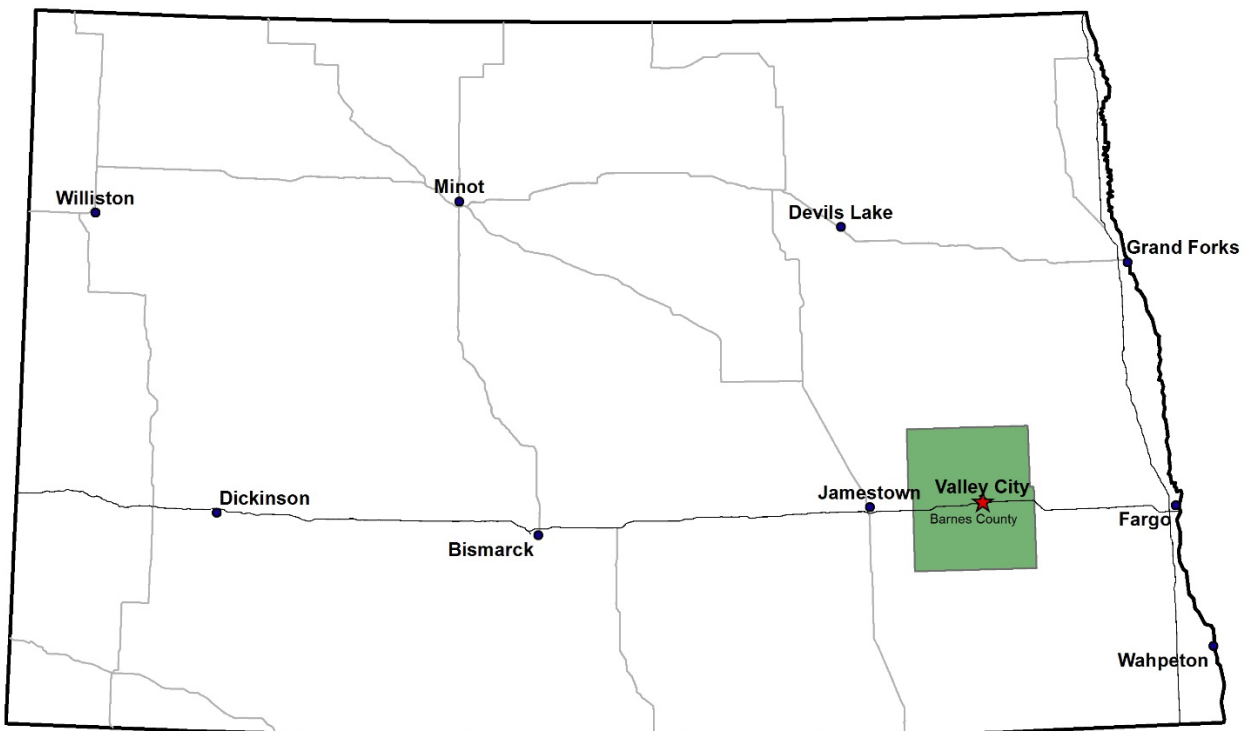


Figure 2.1 Location of Valley City

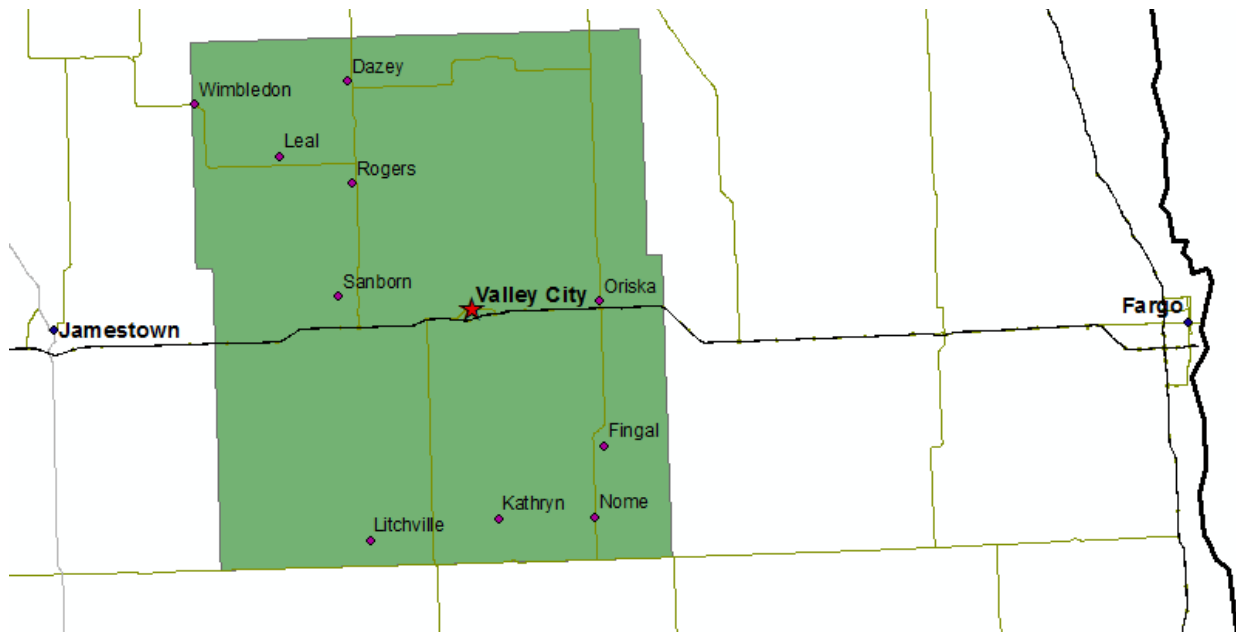


Figure 2.2 Vicinity of Valley City and Barnes County

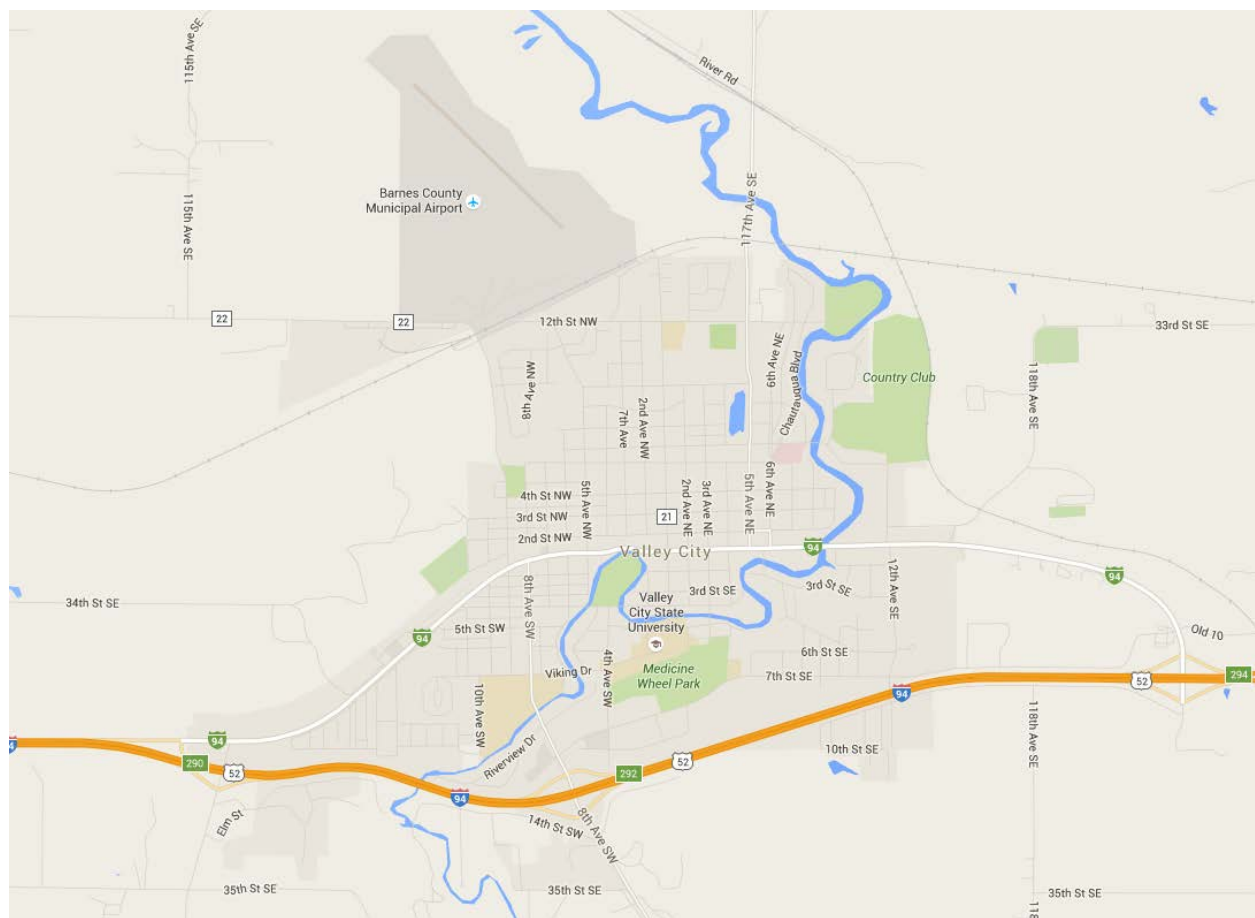


Figure 2.3 Detailed Map of Valley City
Source: Google Maps

2.3 Existing Transit Service in Valley City

South Central Adult Services, Inc. provides demand-response transit to Valley City residents through a service called the South Central Transit Network. Demand-response transit service is provided Monday-Friday 8 a.m. to 5 p.m. and Saturday and Sunday 8 a.m. to 2 p.m. to the general public for various trip purposes, such as to and from meal sites, medical appointments, shopping, recreation, schools, and personal needs. Demand-response services are offered to the general public at a cost of \$2 per person per trip in Valley City.

For Valley City residents, trips to Jamestown, ND, are provided three days a week (Monday, Wednesday, and Friday) at a cost of \$5 per person for a round trip. Trips to Oriska, Fingal, Nome, Kathryn, Litchville, and Hastings are provided on the first and third Friday each month at a cost of \$5 per person for a round trip. Trips to Sanborn, Rogers, Leal, Wimbledon, and Dazey are provided on the second and fourth Wednesday each month at a cost of \$5 per person for a round trip. Trips to Fargo are provided Monday-Friday as needed at a cost of \$10 per person for a round trip. Further, South Central Transit operates metered taxi service in Valley City 24 hours per day, 7 days per week. In addition to serving the residents of Valley City and Barnes County, South Central Transit also serves residents in six neighboring rural counties.

South Central Transit has wheelchair accessible vehicles. The dispatcher can be notified about the need for a wheel chair accessible vehicle while scheduling a ride. Rides are provided on a first-call-first-served basis; rides must be scheduled in advance as some trips are not made if there are no passengers. Reservations can be made as far in advance as clients would like.



Figure 2.4 South Central Transit Vehicle Operator Assisting a Rider with Wheelchair

2.4 Case Study Process and Summary of Data Collection

Surveys were conducted of Valley City residents and South Central Transit riders. South Central Transit stakeholder interviews were also conducted, which were also mostly conducted through online surveys. Stakeholders include agencies or organizations affected by the transit service or who have an interest or concern with the transit service. To boost the response rate, some stakeholder interviews were conducted via telephone.

Survey questions for resident surveys, transit rider surveys, and stakeholder interviews were developed from the materials used by TTI for its first case study in West Columbia, TX. In the resident survey, some open-ended questions were included to collect qualitative perceptions about livability and transit. All of the questions used for stakeholder surveys were open-ended questions. Appendices A and B show the materials used for the resident and rider surveys.

For TTI's first case study in West Columbia, TX, resident surveys and transit rider surveys were included in the same envelope and were distributed to all the households in the community. In the Valley City case study, however, resident and rider surveys were conducted separately to avoid transit rider's overrepresentation in resident survey responses.

2.5 Valley City Resident Survey

A total of 1,500 resident surveys were distributed by mail to a random sample of Valley City residents. The survey sample was generated from a list of names and addresses obtained from AccuData Integrated Marketing, a marketing firm that sells mailing lists. Resident survey mailings included the invitation/consent letter, the survey form, and a postage paid envelope for returning the completed survey form. The invitation letter for the resident survey also included a web-link (valleycity.livabilitysurvey.com) for interested respondents to take the survey online. A total of 241 responses (228 paper responses and 13 online responses) were received for the resident survey, for a response rate of 16%.

2.5.1 Respondent Demographics

Responses were closely split between male (52%) and female (48%) respondents. Most (67%) of the respondents had lived in Valley City for more than 20 years (Figure 2.5). The largest share of respondents was in the age group 55-64 years (28% of respondents), followed by 65 to 74 years (24% of respondents), and 45 to 54 years (19% of respondents). About half of the respondents lived in a two-person household. A large share of the respondents (40%) had three or more cars in their household, followed by two cars for 40% of the respondents, one car for 19%, and no cars in the household for 0.4% of respondents.

About one-quarter of respondents reported annual household incomes of \$100,000 or more. Compared to the household income distribution of city residents, as shown in Table 2.1, survey responses showed some overrepresentation of higher income households and an underrepresentation of households making less than \$15,000. A bachelor's degree was the highest level of education completed for 36 percent of respondents, the most common response. Most (97.9%) of the respondents identified as white and the rest were Native American (1.3%) and other (0.8%).

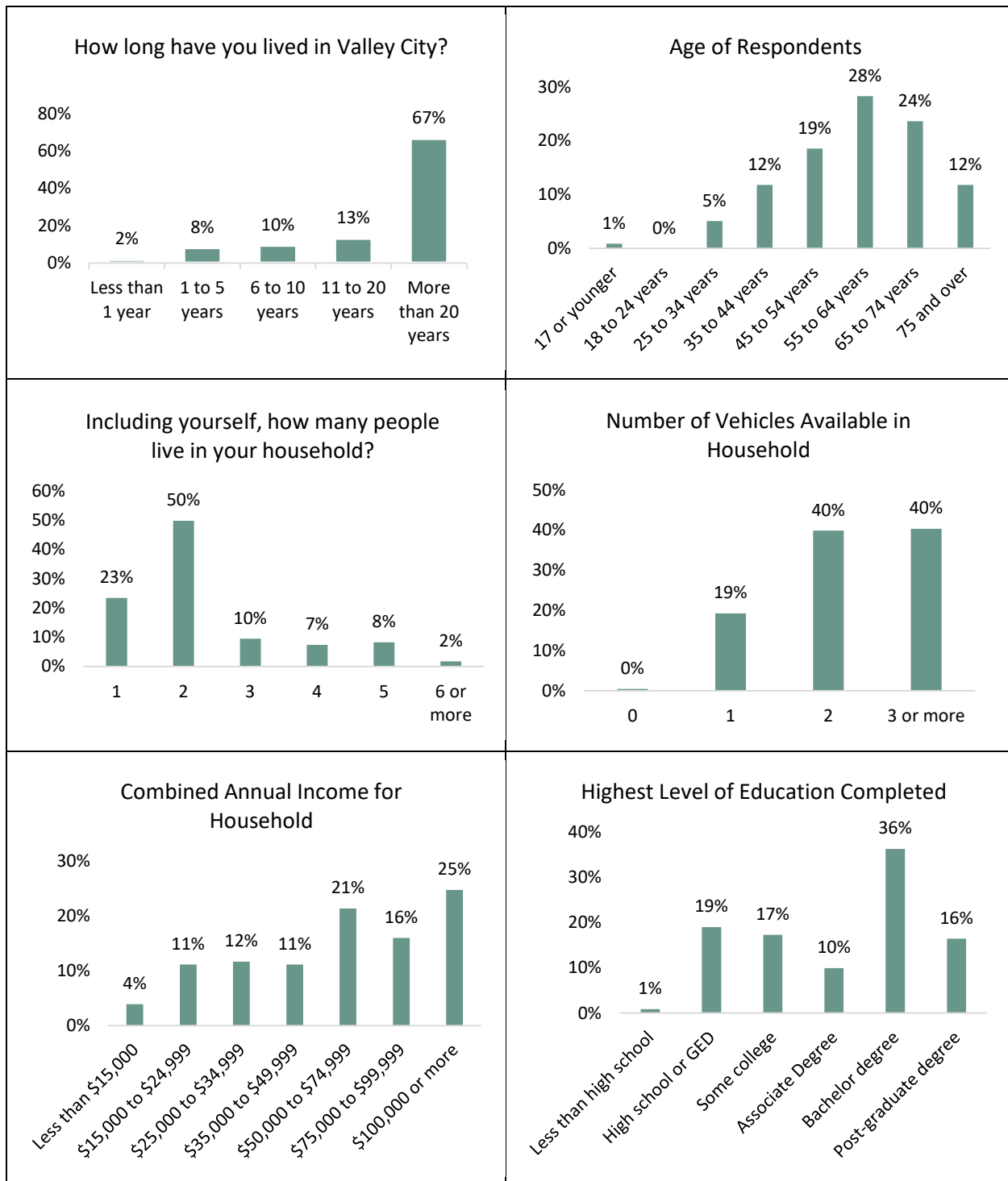


Figure 2.5 Demographic Characteristics of Valley City Resident Survey Respondents

2.5.2 Describing Valley City

Respondents were asked how they would describe Valley City to someone who had never been there and was thinking about moving there. Many answered that Valley City is a small-town community, a pretty city with nice scenery, very friendly people, excellent schools and college, and good healthcare services, and that it is a good place to raise family. A significant number of residents felt that it is a safe, quiet, great place to live, has a relaxed pace of living, is a retirement community, has everything needed, has lot of activities, and is just one hour from a larger city. While there were not many negative comments from the respondents, some of the commonly mentioned shortcomings of the community included having a high overall cost of living, a recent increase in the crime rate, a limited number of options for shopping and entertainment, limited housing, and low-paying jobs.

The following quotes were extracted from the resident responses and highlight the opinion of some respondents about Valley City:

“The appearance is pure Americana. The schools are great. There are many active faith communities. The schools are full of qualified and invested teachers. There are options available for healthcare. It is however, difficult to find a circle of friends if you do not work outside the home or you have children younger than school aged. I am happy here.”

“Small town with opportunities ~ jobs, college, great parks & recreation program, great schools, close to Fargo, great people.”

2.5.3 Livability

Most (67.8%) of the survey respondents either strongly agreed (15.9%) or agreed (51.9%) that they are completely satisfied with the quality of life in Valley City, while 18.4% had no opinion, 12.6% disagreed, and 1.7% strongly disagreed that they are completely satisfied with the quality for life in Valley City.

The survey asked about the importance of various factors with regard to the livability of any community. Low crime, affordable housing, overall cost of living, quality healthcare, available jobs, and quality public schools were the top six factors most often mentioned as being very important or important (Figure 2.6). Further, public parks and amenities, daily commute, walkability, and public transit were observed as additional factors which are important for community livability.

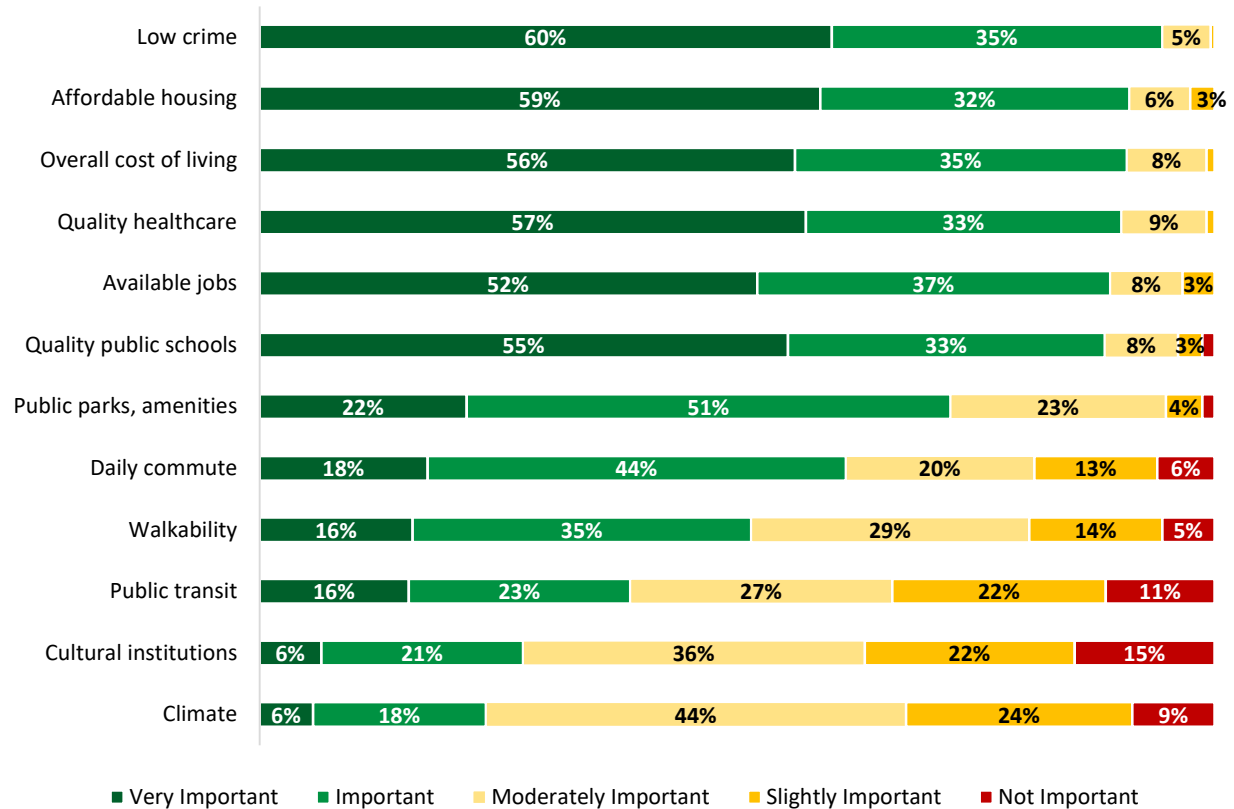


Figure 2.6 Valley City Resident's Opinion about Importance of Various Factors towards Community Livability

When residents were asked about the top six factors contributing towards the current livability of Valley City, quality public schools and low crime were the top two factors, selected by more than 70% of the respondents. Overall cost of living, quality healthcare, and walkability were also mentioned by more than 50% of the respondents (Figure 2.7).

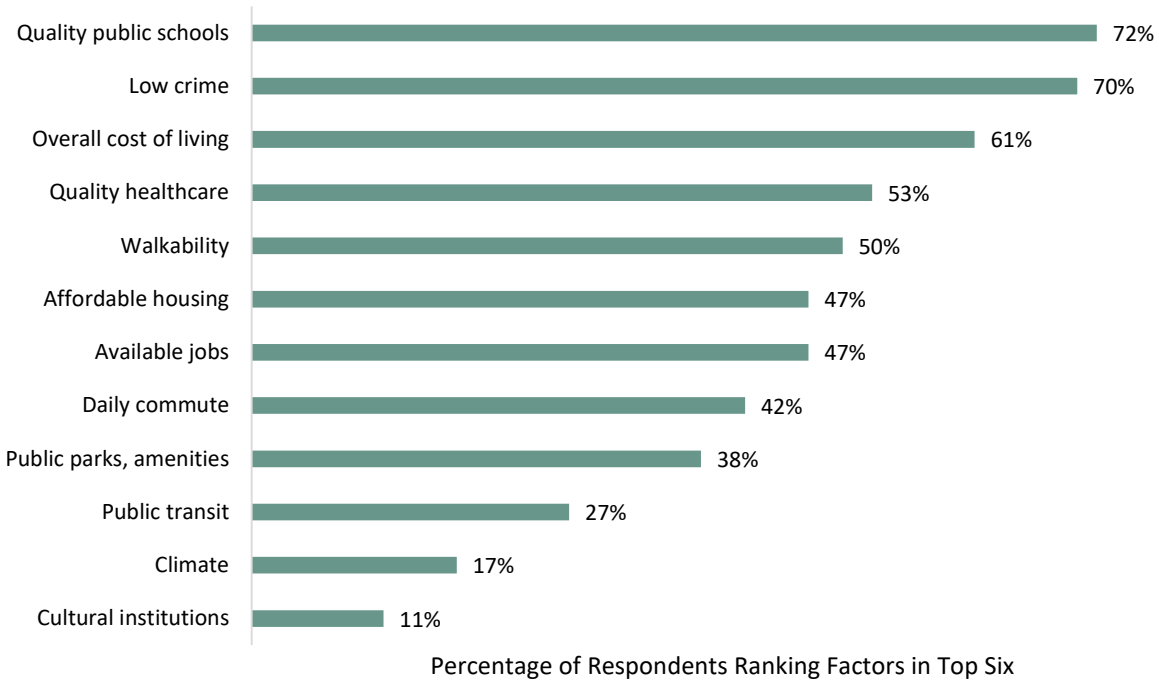


Figure 2.7 Factors Contributing to Livability in Valley City

A comparison of perceptions of livability in any community versus livability in Valley City is shown in Figure 2.8. Factors such as quality public schools, walkability, daily commute, and public transit were perceived to be contributing more towards livability of Valley City. Further, it can be observed that comparatively fewer respondents felt that affordable housing, quality healthcare, and available jobs contribute towards livability in Valley City, in comparison to what is perceived to be important for any community. This means that improvement of these factors in Valley City would make it more livable.

Survey respondents were also asked for qualitative responses in an open-ended question about how Valley City can become even more livable. A large share of respondents (28%) felt that providing affordable housing (low-cost housing for single families and low- and medium-income seniors, low-cost entry-level housing, etc.,) would make Valley City even more livable. Some other frequently mentioned improvements included, listed in order of frequency: better and more shopping options and restaurants through commercial development, better job opportunities and higher wages, more things/activities to do for both youth and adults, more quality healthcare services, lower taxes, more walking/bike paths, lower cost of living, and street improvements. Responses to the open-ended question on how to improve livability match the factors previously identified (affordable housing, quality healthcare, and available jobs), but responses also revealed additional factors or themes that Valley City residents may consider to be important in improving their livability.

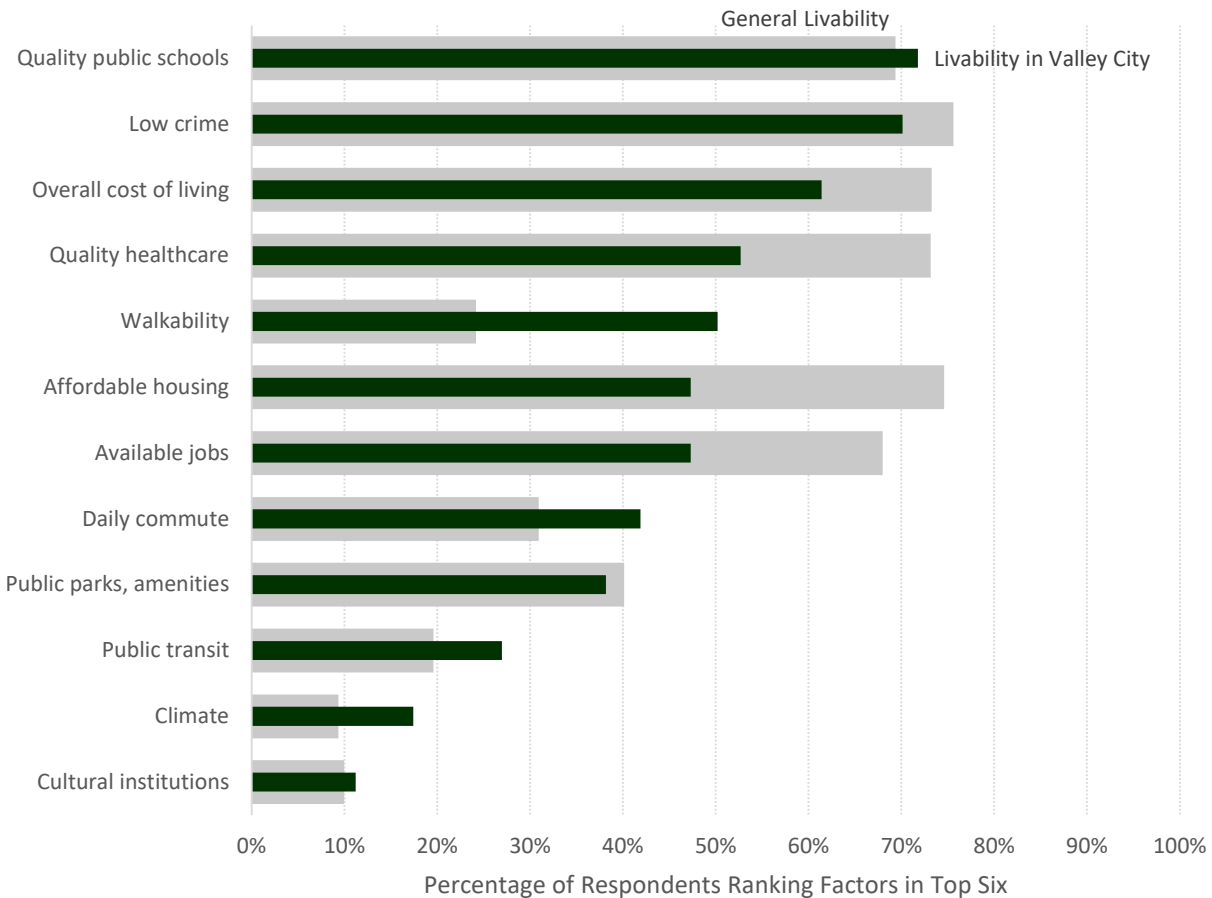


Figure 2.8 Comparison of Factors Affecting Livability

2.5.4 Role of Transit

About 39% of the survey respondents considered “public transit” as either very important (16%) or important (23%) for livability in any U.S. community, as shown previously in Figure 2.6. Further, 27% of the respondents felt that public transit is one of the top six factors contributing toward the currently livability of Valley City.

Survey respondents indicated a high level of awareness of South Central Transit, as well as support for the service. Most (95%) of the survey respondents were aware of the transit service, and 22% had used the service before (Figure 2.9). Further, most (90%) of the survey respondents either strongly agreed (56%) or agreed (34%) that transit services should continue to be available for Valley City residents (Figure 2.10), and most of the respondents either strongly agreed or agreed with using city, county, state, and federal funds for transit (Figure 2.11). According to Valley City residents, the most important reasons for having public transit in Valley City are to provide: 1) transportation options for seniors and persons with disabilities; 2) transportation options for those who choose not to drive; and 3) options for people that cannot afford to drive (Figure 2.12).

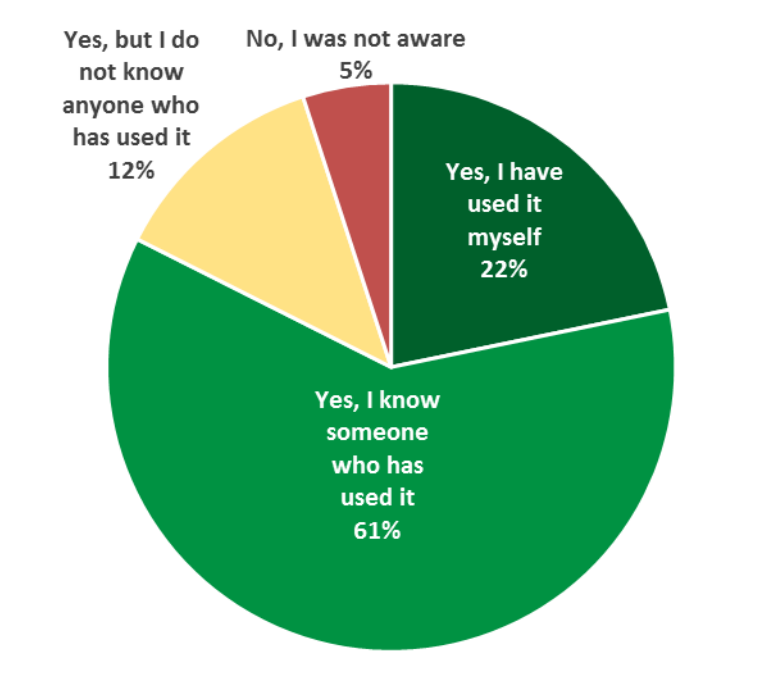


Figure 2.9 Awareness of Transit in Valley City

It is important for transit service to continue to be available to Valley City's Residents

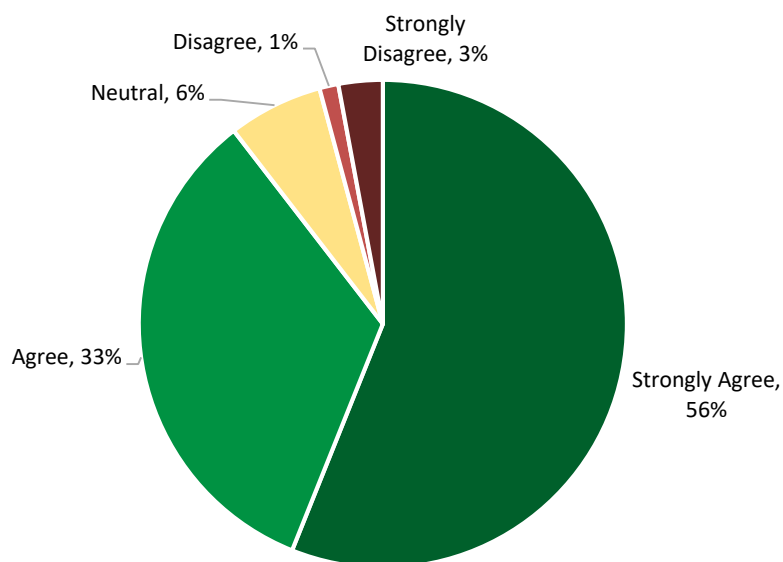


Figure 2.10 Importance of Transit Service in Valley City

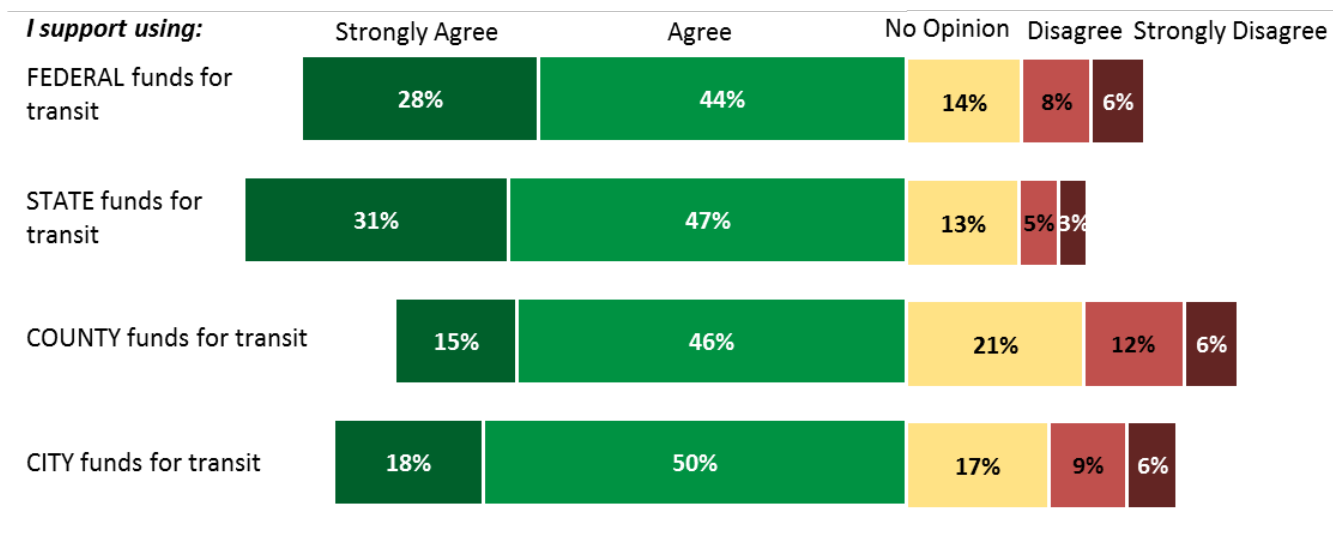


Figure 2.11 Respondents Preferences for Use of City, County, State, and Federal Funds for Transit

Why is it important to have public transit in Valley City? (Check up to three)

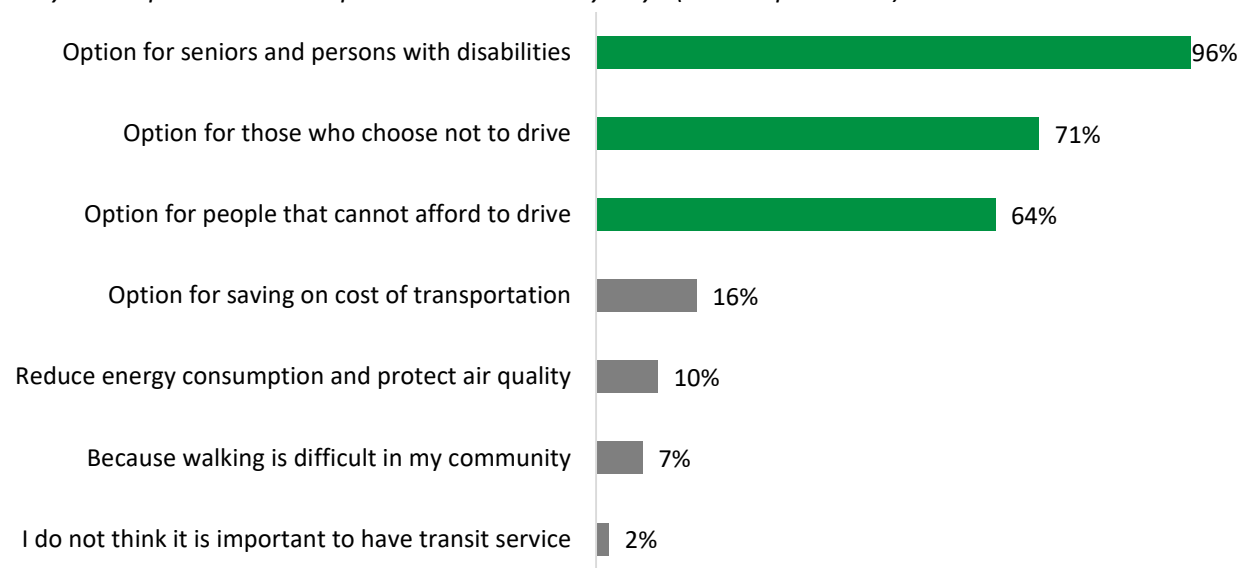


Figure 2.12 Importance of Public Transit in Valley City

Survey participants were asked if they would use transit in the future under different hypothetical situations (Figure 2.13). Most agreed that they would be likely to use transit if they were no longer able to drive well due to health or other reasons (86% of respondents either strongly agreed or agreed). On the other hand, a minority of the Valley City residents would use transit if gasoline prices increased to more than \$5 per gallon. Half of respondents agreed they would be likely to use transit if their car broke down or was needed by someone else, and slightly less would be likely to use transit if their household income decreased significantly.

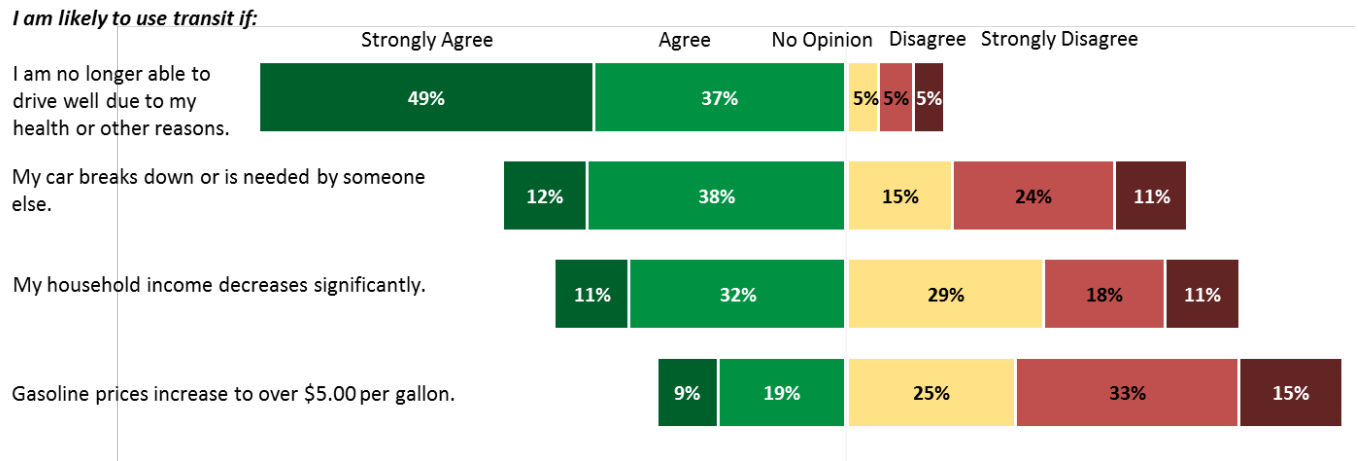


Figure 2.13 Future Use of Transit under Hypothetical Situations

Most residents in Valley City indicated that newspapers, radio stations, and mail are the three best ways to reach them with any information about transit services (Figure 2.14). However, other inexpensive outreach methods such as email, social media, and websites would also help reach many people with important transit-related service information.

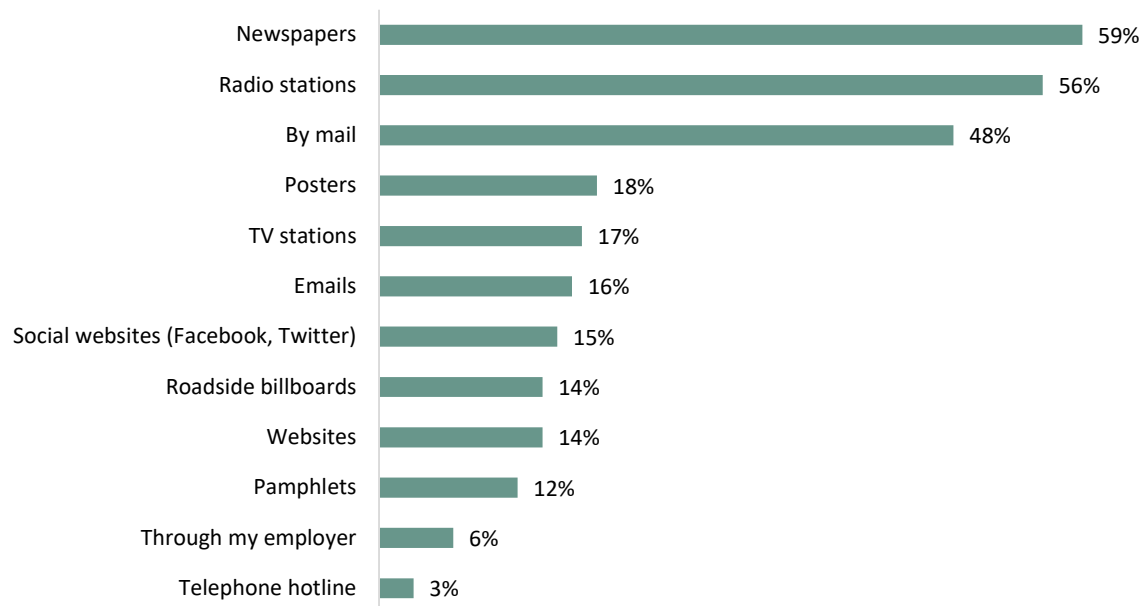


Figure 2.14 Best Ways to Contact with Information about Transit Services

2.6 Valley City Transit (South Central Transit Network) Rider Survey

Rider surveys were distributed onboard vehicles by the drivers. Mail surveys were not an option because South Central Transit did not have a database of rider addresses. With the assistance of the South Central Transit director and their team of vehicle operators, rider surveys were distributed to South Central Transit riders for 10 days during mid-December 2015. South Central Transit riders received a rider survey form (shown in Appendix B), and a postage paid envelope

for returning the completed survey form. Instructions were provided toward the end of the transit rider survey form for respondents to either return their completed survey to their transit vehicle driver or mail it using the postage paid envelope.

A total of 48 responses were received from the South Central Transit rider survey. The response rate is difficult to determine because it is not known exactly how many riders received a survey. Most (70%) of the South Central Transit rider survey respondents were female. Many of the respondents were either 75 years or older (26%) or 17 years or younger (26%), and a large share (45%) lived alone (Figure 2.15).

About a third of respondents reported having no vehicle available in their household, compared to less than 1% of resident survey respondents who reported the same, and 25% reported having one vehicle. Further, a large share (42%) of the transit riders reported having annual household income less than \$15,000, compared to 4% of resident survey respondents and the ACS estimate of 11% for the city.

Attending some college was mentioned as the most common response (31% of respondents) to education completed by the respondent. Most (96%) of the respondents identified themselves as white, and 6% identified themselves as Native American.

Compared to the resident survey respondents and the ACS's demographic estimates for the city, rider survey respondents tended to be from lower income households with less access to a vehicle. Rider survey respondents were more likely to be less educated and either an older adult or youth. However, users are certainly not limited to these demographics, as the system serves a wide range of riders. Most riders also find the service quite valuable. About 89% of the respondents either strongly agreed (51%) or agreed (38%) that South Central Transit is very important to their quality of life (Figure 2.16).



Figure 2.15 Demographic Characteristics of South Central Transit Rider Survey Respondents

South Central Transit Service is Very Important to my Quality of Life

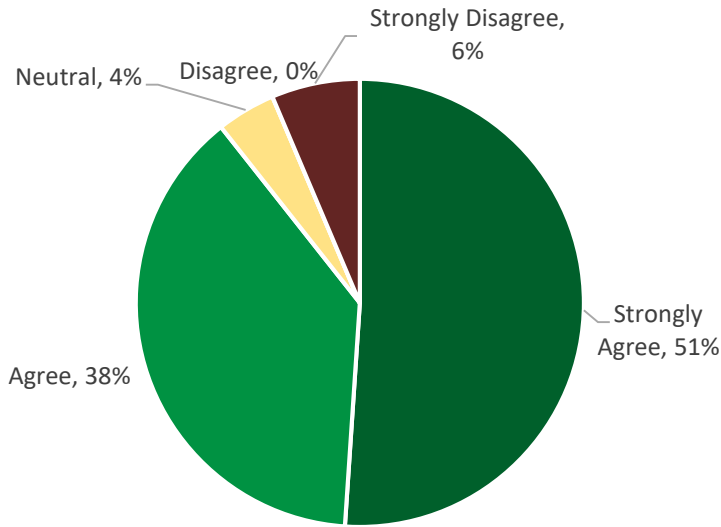


Figure 2.16 Importance of South Central Transit to its Users

Respondents were asked to identify why they started riding South Central Transit. They were given a number of potential options and were asked to check all that apply, while also given the opportunity to write in other reasons. Respondents most commonly answered (35%) that they started using South Central Transit because it was convenient, while other most-selected responses were that they could no longer drive or had difficulties driving, no longer had access to a vehicle, did not like to drive in poor weather, or had a disability (Figure 2.17). Other reasons respondents wrote in mainly included providing transportation for children to attend daycare, preschool, school, and other children activities.

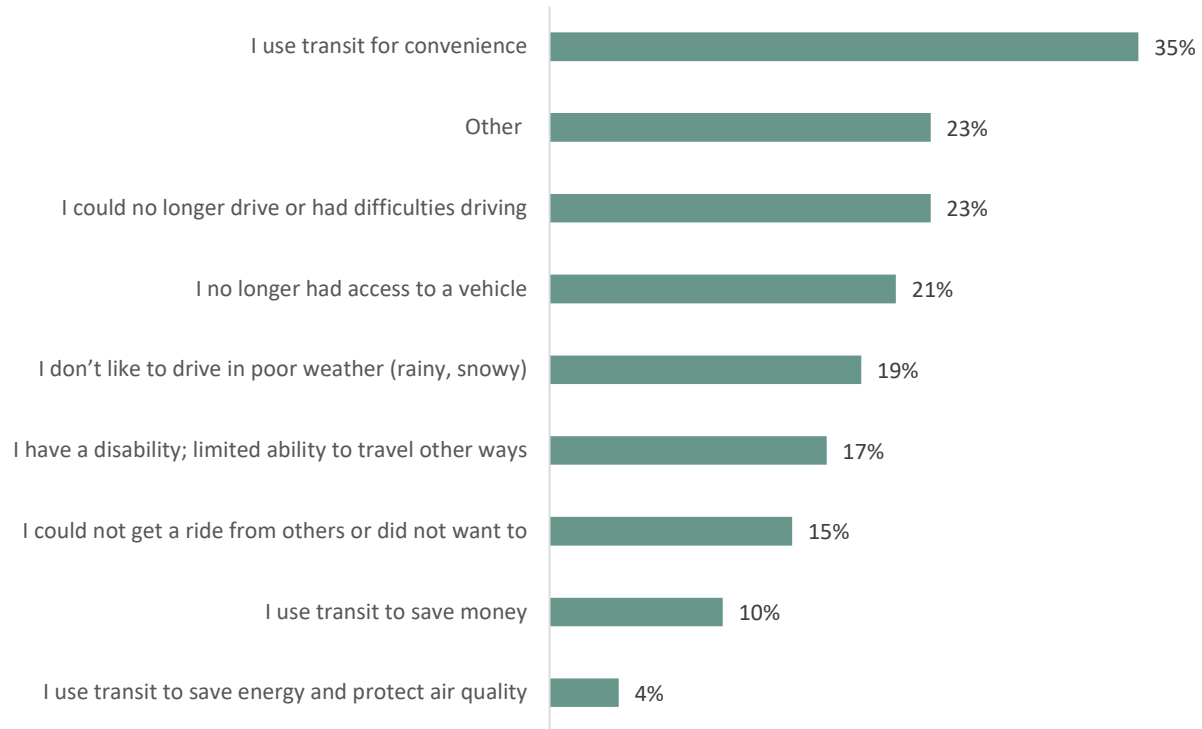


Figure 2.17 Reasons South Central Transit Users Began Using the Service

More than 80% of the survey respondents were regular transit riders (ride at least 2 days per week) (Figure 2.18). The top two trip purposes that were identified by respondents were 1) medical appointments, healthcare, dental services; and 2) school, college, job training. Some other trip purposes that were more prominent were “shopping, errands”, “family, personal business”, and “social, recreational” (Figure 2.19). About 81% of the respondents either strongly agreed (43%) or agreed (38%) that they can travel to places they need with their current travel options, whereas 8% of the respondents either strongly disagreed or disagreed.

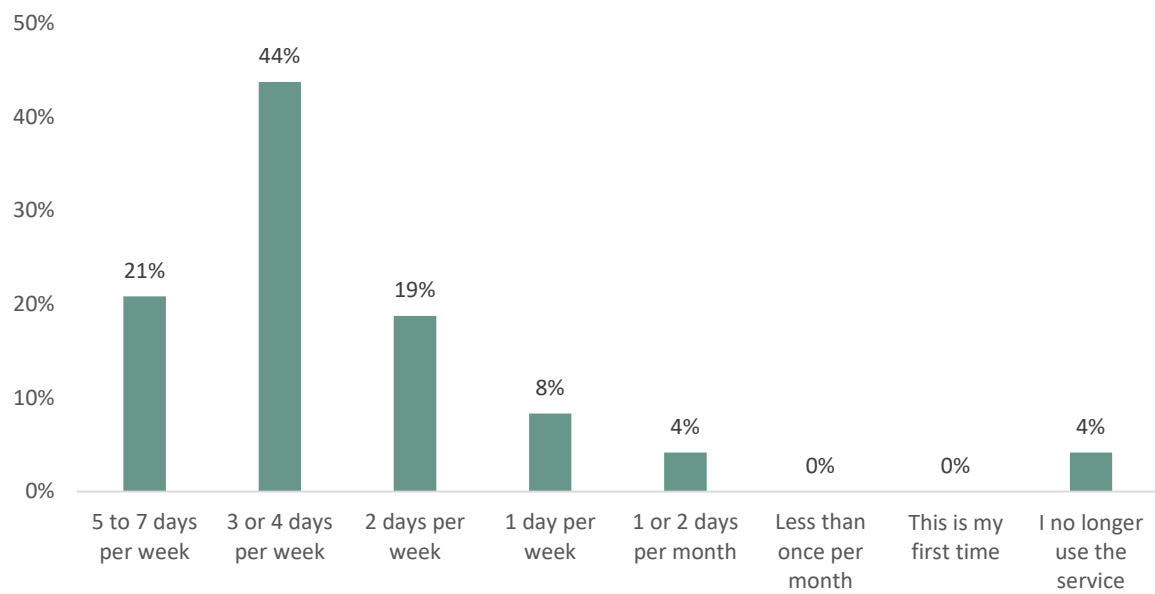


Figure 2.18 South Central Transit User Survey: How often to you ride South Central Transit?

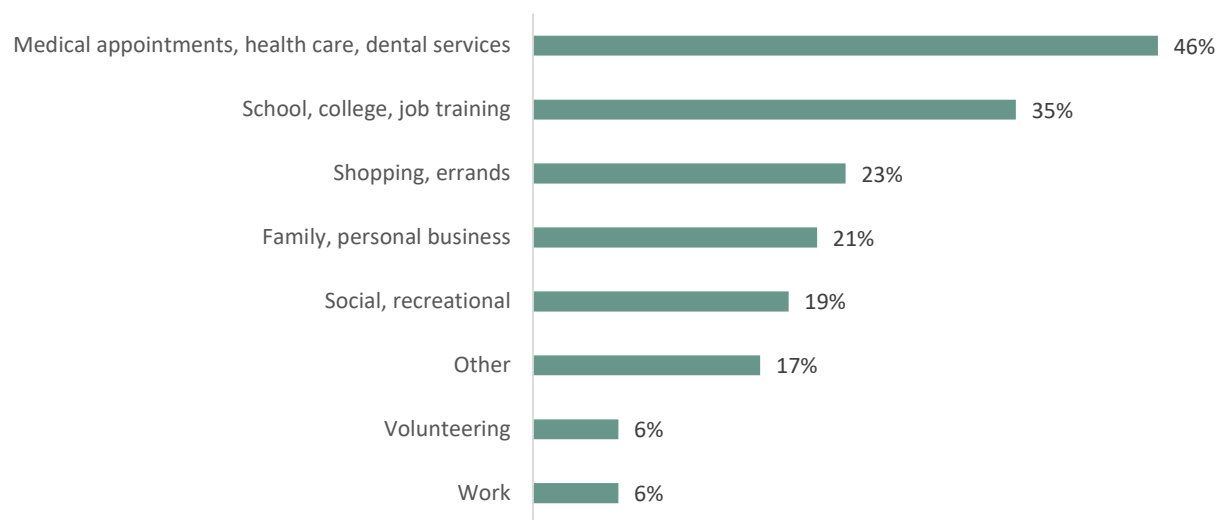


Figure 2.19 South Central Transit User Survey: What are the purposes for your trips on South Central Transit?

Table 2.2 provides the feedback from the responding transit riders about various aspects of South Central Transit service. The results were largely positive. More than 80% of the riders strongly agreed that South Central Transit drivers are helpful and friendly. More than 70% strongly agreed that they feel safe riding transit, that the transit vehicles are clean, and that they can go where they need to go. Overall, more than 90% of the respondents either strongly agreed or agreed that: 1) the bus arrives within the expected time; 2) drivers are helpful and friendly; 3) they feel safe riding; 4) transit vehicles are clean; 5) transit vehicles are comfortable; 6) they can go where they need to go; and 7) the fare they pay is appropriate. Eighty-nine percent of the respondents either strongly agreed or agreed that the reservation process with South Central

Transit is easy. Therefore, it can be concluded that most of the rider survey respondents are satisfied and happy with the transit service in Valley City.

Table 2.2 Feedback of South Central Transit from their Riders

	Strongly Agree	Agree	No Opinion	Disagree	Strongly Disagree
	-----percentage-----				
The reservation process is easy	55	34	4	4	2
The bus arrives within expected arrival window	56	35	2	4	2
Drivers are helpful and friendly	81	17	0	0	2
I feel safe riding the transit service	79	19	0	0	2
Transit vehicles are clean	72	23	2	0	2
Transit vehicles are comfortable	62	32	2	2	2
I can get to where I need to go	71	25	2	0	2
The fare I pay is an appropriate amount	66	30	2	0	2

Also, as shown in Figure 2.20, respondents were highly likely to recommend South Central Transit to a friend or colleague. Respondents were asked to identify on a scale of 1-10 how likely they would be to recommend South Central Transit, with 0=not at all likely and 10=extremely likely. The average response was 9.3, and 73% responded with a 10, indicating an extreme likeliness to recommend the service.

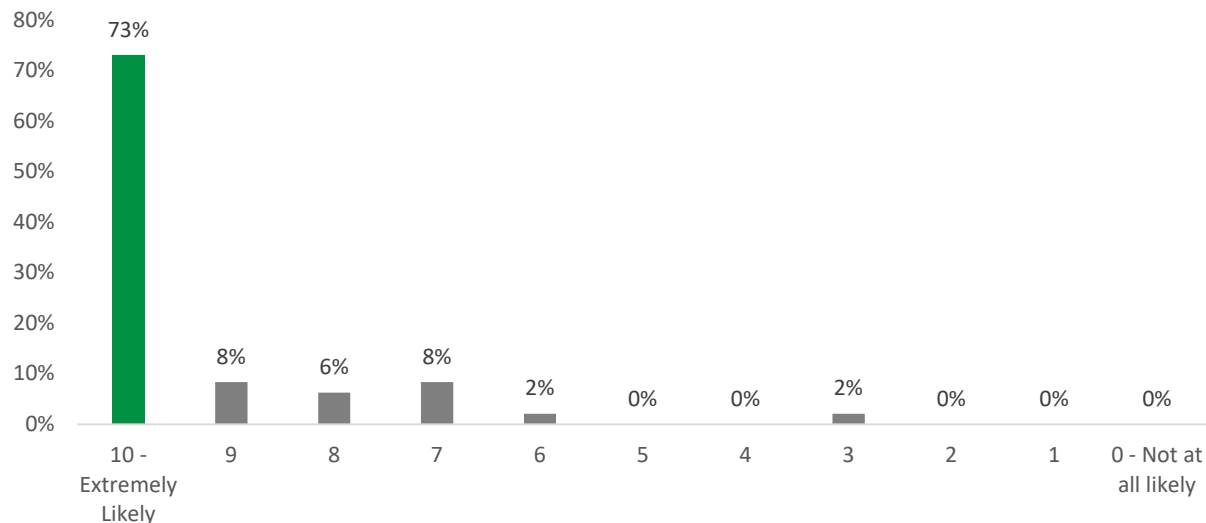


Figure 2.20 South Central Transit User Survey: How likely is it that you would recommend South Central Transit to a friend or colleague?

While some South Central Transit users would find other ways to make their trips if the service was not available, many users would not be able to make their trip. If South Central Transit was not available, 56% of the riders would make the same number of trips to the places they currently

travel using South Central Transit, and 7% of the riders would not be able to make those trips; the remaining 37% would make somewhat fewer trips (13%) or a lot fewer trips (24%) to the places that they currently travel using South Central Transit.

If the transit service was not available, 46% of respondents reported that they could ask a friend or family member for a ride, 33% could drive their personal car, 21% could use a taxi service, 15% could walk or bike, and 4% could use transportation services provided by a church or service organization. However, 19% of the riders reported having no other options to make the current transit trips in the absence of South Central Transit.

2.7 South Central Transit Network Stakeholder Interviews

For conducting the South Central Transit Network stakeholder interviews, the research team gathered a list of available stakeholders and their contacts from the South Central Transit director. The research team used a set of standard questions to acquire comparable subject-based responses from stakeholders. The questions that were used for South Central Transit stakeholder interviews are:

1. What types of services does your organization provide/pursue that relate to South Central Transit?
2. From your organization's perspective, what are the core components of community livability?
3. How does the vision and mission of your organization relate to livability?
4. What could change to make Valley City even more livable?
5. How does South Central Transit contribute to Valley City's livability?
6. How could/should South Central Transit adapt to improve community livability?
7. Are there circumstances in Valley City that make having transit especially important?
8. Does your organization operate any kind of transportation service? If so, please describe.
9. How does South Central Transit affect your organization's work?
10. What are options to fund the provision of transit in Valley City, ND? What fare should riders pay?

Stakeholder interviews were conducted using two different methods: 1) online survey format; 2) phone calls. Based on the list of stakeholder contacts received from South Central Transit, the research team initially prepared the interview questions in a survey format and distributed the online survey link to all available stakeholder email contacts by inviting them to take the survey. To boost the response rate, some stakeholder interviews were conducted by telephone.

Nine South Central Transit stakeholder interviews were conducted. Responses were received from individuals from Valley City State University, Valley City Public School, human service agencies, a non-profit organization, and the city commission. All of the responding stakeholders' organizational visions and missions link directly to improving the livability conditions for the community by providing public safety, healthcare services, employment opportunities, education, or services such as assistance for people with disabilities or special needs.

While two stakeholders provide some kind of transportation service, their clients and staff still rely on South Central Transit service. Five other stakeholders feel that South Central Transit plays an important role by providing travel options for their clients/customers/students/

employees to reach them, go home, attend important meetings, or travel anywhere they need to go.

All stakeholders said South Central Transit is a critical lifeline to the community for people who are elderly and/or have a disability. They also said South Central Transit is an important transportation option for children attending pre-school and schools, people who need to travel out-of-town (Fargo or Jamestown) for dialysis or special medical treatment, individuals with no vehicle, and those who cannot drive. Most stakeholders felt that having South Central Transit in Valley City is especially important because: 1) there are many seniors and people with disabilities who need transportation services for regular activities and medical appointments; 2) the lack of certain medical services in town creates a need for travel to Fargo or Jamestown for those medical services; and 3) there is a lack of private taxi services. The following quotes were extracted from the stakeholder interviews and highlight the significance of South Central Transit in the community and how its services contribute to Valley City's livability:

“South Central Transit services makes it possible to get patients to appointments. Valley City would be a much less desirable community to live in for seniors without South Central Transit services”

“I think they (South Central Transit services) are very good for a number of people. People do not have their own cars, transit is very useful. And also for people who wanted to go to medical appointments out of town (Fargo and James town), they are extremely helpful in assisting people with that.”

“Need to get senior citizens in town around, we have a large nursing facility and two assisted living centers. Out-of-town trips to Jamestown and Fargo are critical for people needing to get to dialysis or specialty appointments. I believe South Central Transit services was also providing rides for workers from out-of-town. I have worked as a physician without a transit service and it was hard to get people to specialty care on a timely basis.”

Core components of community livability that were frequently identified by stakeholders included safety, quality public schools, affordable housing, availability of accessible public transportation, availability of jobs with good wages, quality healthcare, and recreational activities. These livability components are similar to those identified in the Valley City resident surveys.

Some of the frequently suggested changes that could make Valley City even more livable included: developing new energy efficient and affordable housing, providing more affordable daycare services, providing quality healthcare, and increasing playgrounds and other recreational activities. Other comments included creating a stronger business district, increasing the amount of walking and bike paths, increasing social activities, and developing greenways and paths.

When asked about how South Central Transit could adapt to improve community livability, most stakeholders mentioned that there is no need for major improvements except for continuing the service. One stakeholder mentioned that providing service on Sundays would be useful. All of the stakeholders felt that South Central Transit does a great job providing transportation services and plays a key role towards community livability.

2.8 Conclusions from Case Study Community – Valley City, ND

Resident surveys, South Central Transit rider surveys, and stakeholder interviews were conducted in Valley City, ND, to understand different opinions about various factors affecting livability and the importance of transit towards community livability in small communities.

A total of 241 survey responses were received in response to the resident survey. The demographic characteristics of the survey respondents were similar to the demographic characteristics of Valley City residents indicating that the views of survey respondents could be implied, in general, to Valley City residents. Most residents were completely satisfied with the quality of life in Valley City. Low crime and affordable housing were identified by Valley City residents as the most important factors for rural community livability, along with quality healthcare, overall cost of living, quality public schools, and available jobs. In Valley City, quality public schools and low crime were identified by more than 70% of the survey respondents as the top two factors contributing to livability.

Results from the resident survey suggested a need to provide more affordable housing, quality healthcare, and available jobs to improve livability in the community. Most Valley City residents believed transit services should be continued and that they should be funded using city, county, state, and federal funds. Survey respondents said transit should be provided in their community as a transportation option for seniors, people with disabilities, those who choose not to drive, and those who cannot afford to drive. Also, most respondents to the resident survey who are not currently using transit indicated that they would be likely to use transit in the future if they were no longer able to drive because of health or other reasons.

A total of 48 responses were received to a survey of South Central Transit riders. Respondents to the rider survey were more likely to be female, either older (75 years or older) or younger (17 years or younger), living alone without access to a vehicle, and having lower income. Many were regular transit riders who used transit for convenience or because they could not drive or did not have a vehicle. Close to 90% of the transit riders felt that South Central Transit is very important to their quality of life. The most common trip purposes for transit riders were 1) medical appointments, healthcare, dental services; and 2) school, college, job training. Most of the South Central Transit riders believed that they can travel to places they need to using their current travel options, and they were very likely to recommend South Central Transit to a friend or colleague. They indicated they were very happy with various aspects of the service (helpful and friendly drivers, feel safe riding transit, clean transit vehicles, can get where they need to go, etc.). While about half of the riders could make the same number of trips in the absence of South Central Transit, the rest of the riders would either have to make fewer trips or not be able to make the trips at all.

Nine different interviews conducted with stakeholders resulted in similar findings. Most stakeholders felt that South Central Transit plays an important role by providing travel options for their clients/customers/students/employees to reach them, go home, attend important meetings, or travel anywhere they need to go. Further, all the stakeholders said South Central Transit is a critical lifeline to the community for people who are elderly and/or have a disability and is an important transportation option for children to attend pre-schools and schools, people who need to travel out-of-town for dialysis or special medical treatments, individuals with no vehicle, and those who cannot drive.

Overall, most residents and all stakeholders said transit plays a key role in their community, and South Central Transit riders were very satisfied with their current transit service.

3. CASE STUDY 2: DICKINSON, ND

3.1 About Dickinson

Dickinson is a city in Stark County, ND, and is centrally located in southwestern North Dakota, the midpoint between Fargo, ND, and Billings, MT. The population is 23,765 according to 2015 U.S. census estimates. In 2013, Dickinson was ranked as the America's second biggest boomtown after Williston, ND, with a yearly population growth rate of 6.5% because of the oil boom (Christie 2013). The population grew by 34% from 2010 to 2015, driven by the growth of the oil industry in western North Dakota.

Table 3.1 shows population, demographic, employment, and commute-to-work characteristics for Dickinson, using data from the 2010-2014 American Community Survey (ACS) five-year estimates and the 2015 population estimates from the U.S. Census. Because of the rapid growth in Dickinson, it is difficult to obtain up-to-date information regarding the city's population and demographics, and the ACS data, which rely on data collected over a five-year period, could be outdated.

With a median age of 34.7, Dickinson has a younger population than both Valley City and the national average, which could be due to the oil boom attracting a number of younger workers to the city. The city does have a significant older population as well, though it is smaller, in percentage terms, than Valley City's. The percentage of the population aged 65 or older is similar to the national average, while the percentage of population 85 or older is larger than the national average.

Median household income is much higher in Dickinson than the national average, while the poverty rate and unemployment rate are well below average. Workers in Dickinson predominately drive alone to work (83%), while public transportation is very rarely used to get to work (0.1% of workers). Similar to Valley City, the population in Dickinson is largely white.

Table 3.1 Dickinson Characteristics and U.S. National Averages

	Dickinson	United States
Population (2015 estimate)	23,765	
Population change 2010-2015	+34%	
Number of households	8,966	
City size	9.96 square miles	
Demographics		
Gender	50.4% male/49.6% female	49.2% male/50.8% female
Median age	34.7	37.4
Population age 65 or older (%)	13.6	13.7
Population age 85 or older (%)	3.3	1.9
Median household income	\$69,956	\$53,482
Household income distribution (%)		
Less than \$15,000	11.1	12.5
\$15,000 - \$24,999	7.1	10.7
\$25,000 - \$34,999	9.9	10.2
\$35,000 - \$49,999	9.7	13.5
\$50,000 - \$74,999	19.3	17.8
\$75,000 - \$99,999	15.7	12.2
\$100,000 or more	27.3	23.0
Population below poverty level (%)	8.1	15.6
Race (%)		
White	94.3	76.3
African American	1.3	13.7
American Indian and Alaska Native	1.2	1.7
Asian	2.1	5.9
Other	2.4	5.6
Hispanic or Latino	4.0	16.9
Unemployment rate	2.9	4.9
Commuting to work		
Average travel time	15.0 minutes	25.7 minutes
Number of workers 16 years and older	11,392	
Means of transportation to work		
Drive alone	82.6	76.4
Carpool	11.1	9.6
Public transportation	0.1	5.1
Walk	2.1	2.8
Bicycle	0.0	0.6
Taxi, motorcycle, or other	0.5	1.2
Work at home	3.6	4.4

Sources: U.S. Census 2015 Annual Population Estimates, American Community Survey
2010-2014 5-year Estimates, U.S. Bureau of Labor Statistics

Other city facts follow.

- **Industries:** The top five industries in Dickinson in terms of employment are health care and social assistance; retail trade; mining, quarrying, and oil and gas extraction; manufacturing; and educational services.
- **Climate type:** Humid continental climate, near the borderline with a semi-arid climate.
- **2013 City Budget:** The most recent financial records for Dickinson indicated that the city budget in 2013 was \$13.5 million (City of Dickinson n.d.). The city spent most of its budget on public safety, \$5.8 million (43%), and public works (street maintenance, engineering, and community development), \$3.0 million (22%) (City of Dickinson n.d.).

Dickinson is located in southwestern North Dakota. Figure 3.1 illustrates the location of Dickinson in North Dakota. Figure 3.2 shows a more detailed map of Dickinson (Google Maps 2016).

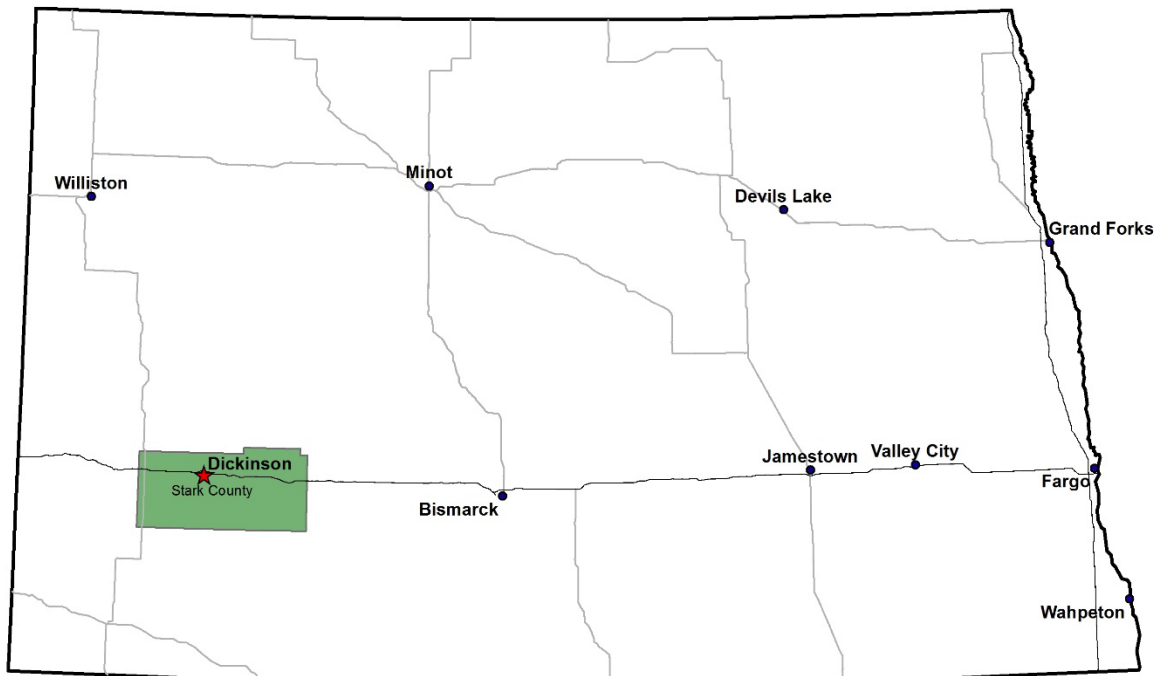


Figure 3.1 Location of Dickinson

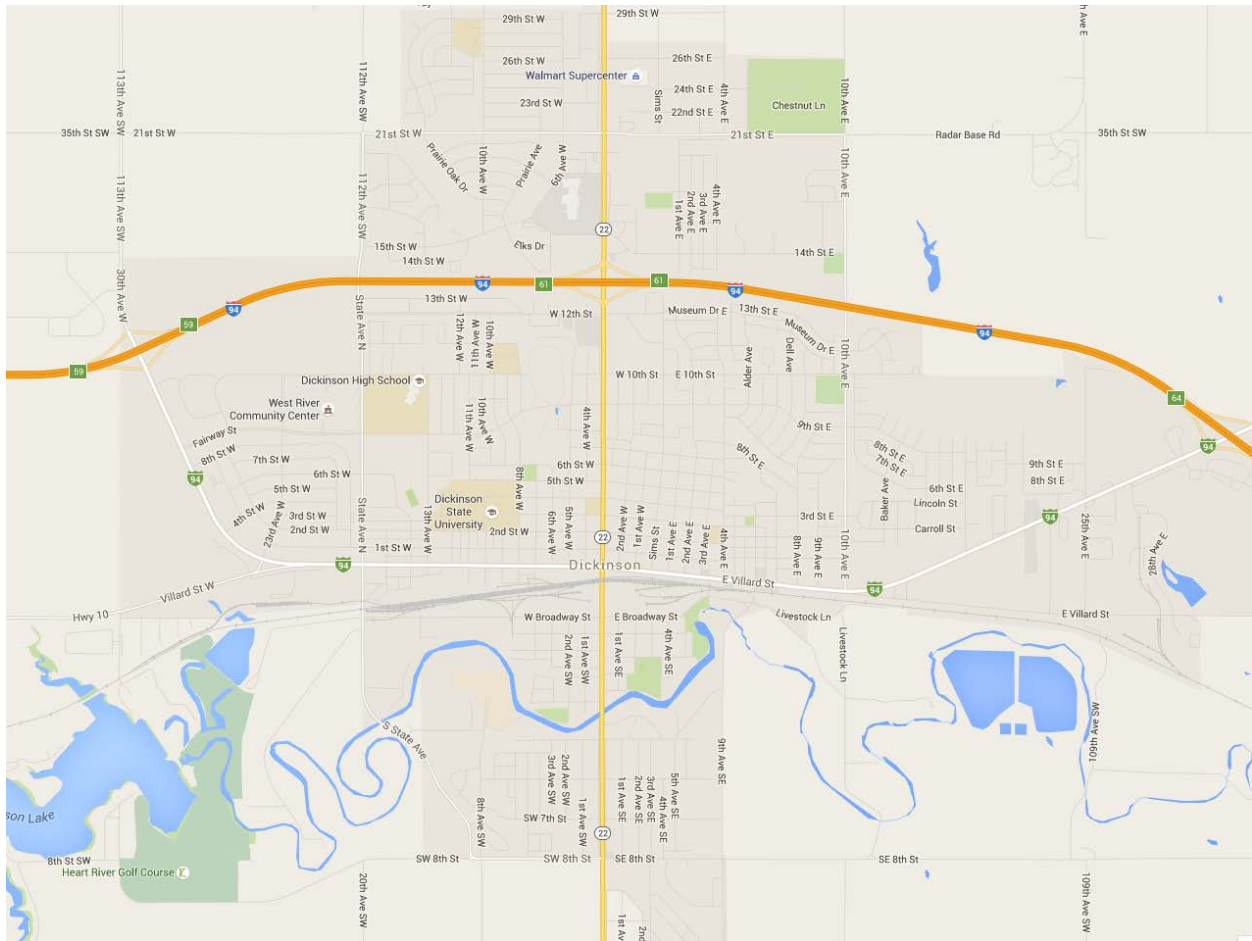


Figure 3.2 Detailed Map of Dickinson

Source: Google Maps

3.2 Existing Transit Service in Dickinson

Public Transit provides demand-response transit services to Dickinson residents. Demand-response transit service is provided Monday-Sunday from 6:30 a.m. to 10:00 p.m. Public Transit is not available on the first Thursday of every month from 5:00 p.m. to 7:00 p.m. to allow for employee training. Services are offered to the general public at a cost of \$4 per person for a prescheduled trip within Dickinson city limits (\$3 for each additional person with same pickup location and destination). Reservations must be made at least before noon on the previous day. Same-day service is also available at a cost of \$8 per person per trip (\$5 for each additional person with same pickup location and destination). Trips are also available beyond Dickinson city limits up to 5 miles at an additional cost of \$1 per mile per person. Public Transit has vehicles with wheelchair accessibility.

Public Transit provides transportation service to and from the airport (Roosevelt Regional Airport) at a cost of \$25 for the first passenger and \$20 for each additional passenger with the same pickup and destination. For Dickinson residents, trips to Bismarck, ND, are provided on Tuesdays at a cost of \$37.50 per person for a one-way trip, and \$75 per person round-trip. Travel to Bismarck on any other days is also possible at a cost of \$125 for a round trip and is subject to driver and vehicle availability. Public Transit also provides transportation service for any other

out-of-town trips Monday-Friday with a base fare of \$8 and a \$1 charge per mile per person, again subject to driver and vehicle availability.



Figure 3.3 Public Transit Vehicle Operator with Transit Vehicle

3.3 Case Study Process and Summary of Data Collection

Surveys were conducted with Dickinson residents and Public Transit riders. Public Transit stakeholder interviews were mostly conducted through online surveys. To boost the response rate, some stakeholder interviews were conducted using telephone calls. Stakeholders included agencies or organizations who are effected by the transit service or who have an interest or concern with the transit service.

Survey questions for resident surveys, transit rider surveys, and stakeholder interviews were similar to the materials that were used in Valley City. In the resident survey, a few open-ended questions were included to collect qualitative perceptions about livability and transit. All of the questions in the stakeholder surveys were open-ended questions. Appendix C and D shows the materials used for the Dickinson resident survey and the Public Transit rider survey. Similar to Valley City, resident surveys and Public Transit rider surveys in Dickinson were conducted separately.

3.4 Dickinson Resident Survey

A total of 1,500 resident surveys were distributed by mail to a random sample of Dickinson residents. The survey sample was generated from a list of names and addresses obtained from AccuData Integrated Marketing. Resident survey mailings included invitation/consent letter, survey form, and postage paid envelope for returning the completed survey form. The invitation letter for the resident survey also included a web link (dickinson.livabilitysurvey.com) for interested respondents to take the survey online.

3.4.1 Respondent Demographics

A total of 175 responses (169 paper responses, and 6 online responses) were received for the resident survey, making the response rate 11.6%. More than half of the responses (57%) were from men. Two-thirds of the respondents had lived in Dickinson for more than 20 years (Figure 3.4). The largest share of the respondents was in the 55-64 age group, followed by ages 45-54. Close to half of the respondents were from a two-person household. Half of the respondents had three or more cars in their household, and a third had two cars. Only 1.2% lived in a household without a car. Almost half of the respondents (45.3%) had a combined annual household income of \$100,000 or more, while 46% had either a bachelor's or post-graduate degree. Most (95.2%) of the respondents identified as white and the rest were Native American (3%) or other (1.8%).



Figure 3.4 Demographic Characteristics of Dickinson Resident Survey Respondents

3.4.2 Describing Dickinson

Respondents were asked how they would describe Dickinson to someone who had never been there and was thinking about moving there. Common responses were that Dickinson is a nice, safe place to live and a great place to raise a family, that it has a small community environment, good jobs, and friendly people. Many noted that it is a fast-growing community, and others commented that it has a high cost of living, with expensive housing costs, and that the climate is cold. A significant number of respondents felt that Dickinson has limited recreational, entertainment, and shopping options. While most of the respondents' comments were positive, there was a significant number of respondents who commented about an increase in crime, an increase in the overall cost of living, and a decrease in the quality of life in Dickinson as a result of the oil boom.

The following are quotes extracted from the resident responses which highlight the opinions of some respondents about Dickinson.

"A growing small town with very good schools and plenty of jobs available. Expensive housing and good weather."

"It is becoming more diverse and is growing. The cost of living is higher. Not many recreation options. Usually is cold and windy."

"The temperature is ~ 10-15 warmer in the winter than the eastern part of North Dakota; Dickinson has a good school system and also Dickinson State University is available for adults. Dickinson is a clean city and the crime rate has been low until the oil boom, so is relatively safe for children and the elderly."

"Dickinson used to be a great place to live in until the oil boom then people became hungry for money."

"Three years ago I would have said: 'Dickinson is great smaller community for raising a family, everyone here feels like a neighbor even if they live on the other side of town. We have a great school system including our university, very good medical care and jobs are available in most any career venue you're seeking.' Today my opinion is very biased and I look forward to retiring and moving."

3.4.3 Livability

More than half (55%) of survey respondents either strongly agreed (8%) or agreed (48%) that they are completely satisfied with the quality of life in Dickinson, while 20% of respondents were neutral, 21% disagreed and 4% strongly disagreed that they are completely satisfied with the quality of life in Dickinson.

The resident survey first asked about the importance of various factors with regard to the livability of any community. Most respondents identified overall cost of living, low crime, affordable housing, quality healthcare, available jobs, and quality public schools as being very important or important for community livability (Figure 3.5).

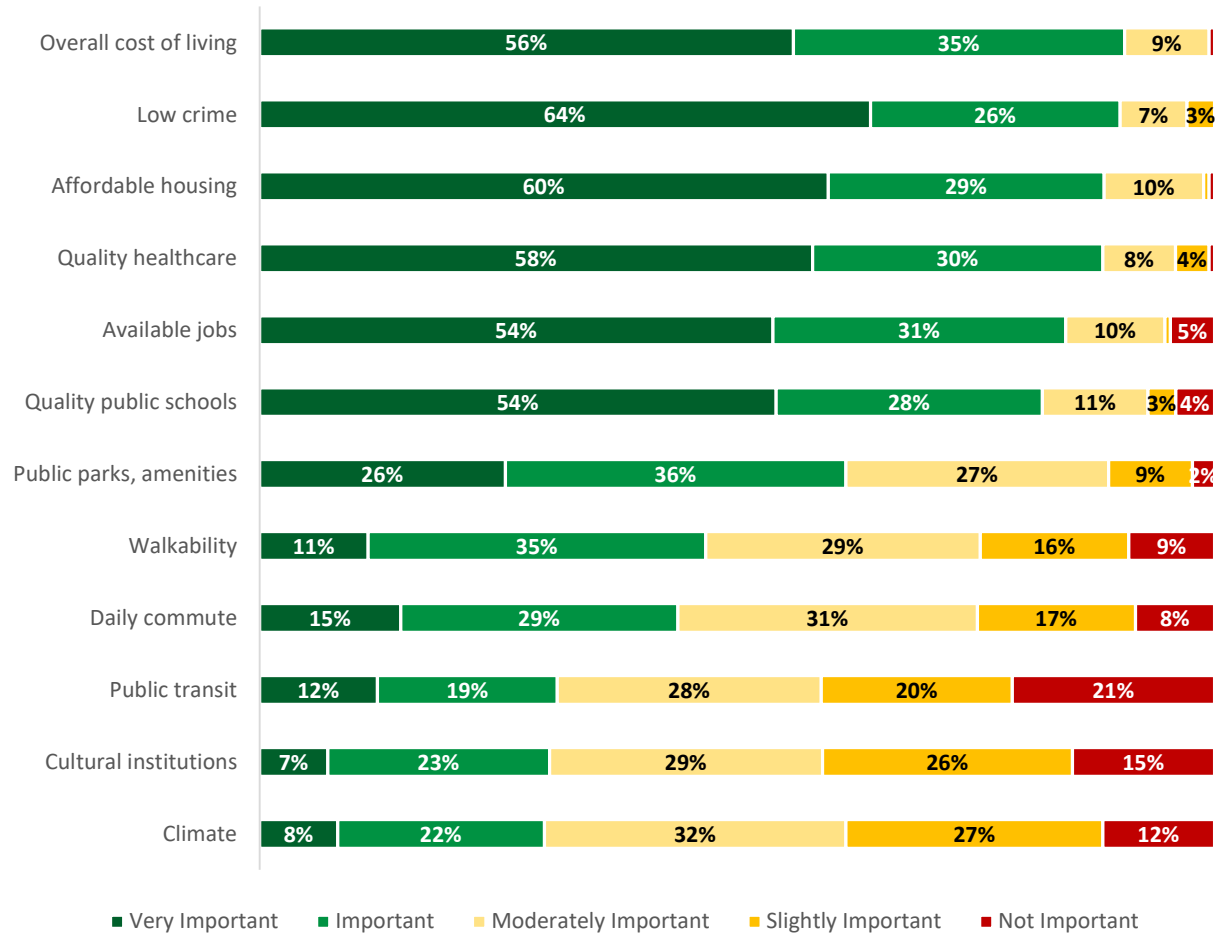


Figure 3.5 Dickinson Resident’s Opinion about Importance of Various Factors towards Community Livability

When the residents were asked about the top six factors contributing towards the current livability of Dickinson, “available jobs” was identified as the top factor, selected by almost 70% of the respondents; quality public schools, daily commute, low crime, and quality healthcare were four other main factors mentioned by more than half of the respondents (Figure 3.6).

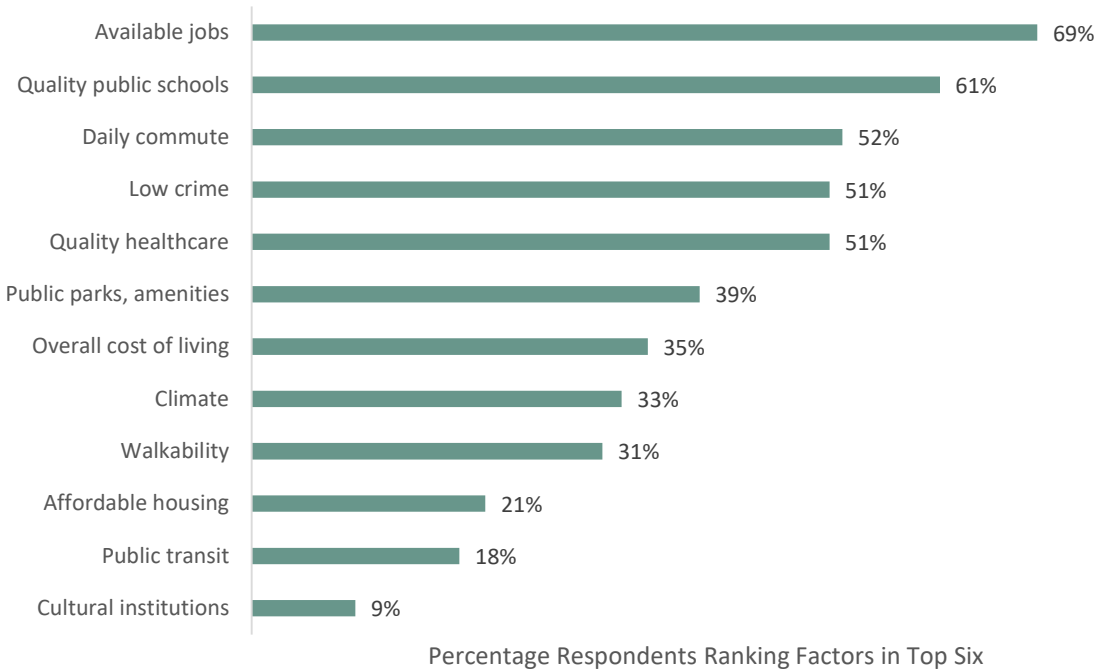


Figure 3.6 Factors Contributing to Livability in Dickinson

A comparison of perceptions of livability in any community versus livability in Dickinson is shown in Figure 3.7. Factors such as available jobs, quality public schools, and daily commute are perceived to contribute to the livability of Dickinson. Further, it can be observed that comparatively fewer respondents felt that affordable housing, low crime, quality healthcare, and overall cost of living contribute towards livability in Dickinson, compared to what is perceived to be important for any community. This means that improvement of these factors in Dickinson would make it more livable.

Survey respondents were also asked for qualitative responses in an open-ended question about how Dickinson could become even more livable. Many respondents (21%) felt that providing affordable housing would make Dickinson more livable. Some other frequently mentioned improvements include, listed in order of frequency: more things/activities to do, better and more shopping options, more walking/bike paths, more restaurants, lower cost of living, more street maintenance (especially during winters), more recreational activities (parks, grounds, movie theater, etc.), lower taxes, low crime, more cultural institutions, better/quality healthcare, and better/more transit service. Five residents also expressed unhappiness about impacts to Dickinson as a result of the oil boom.

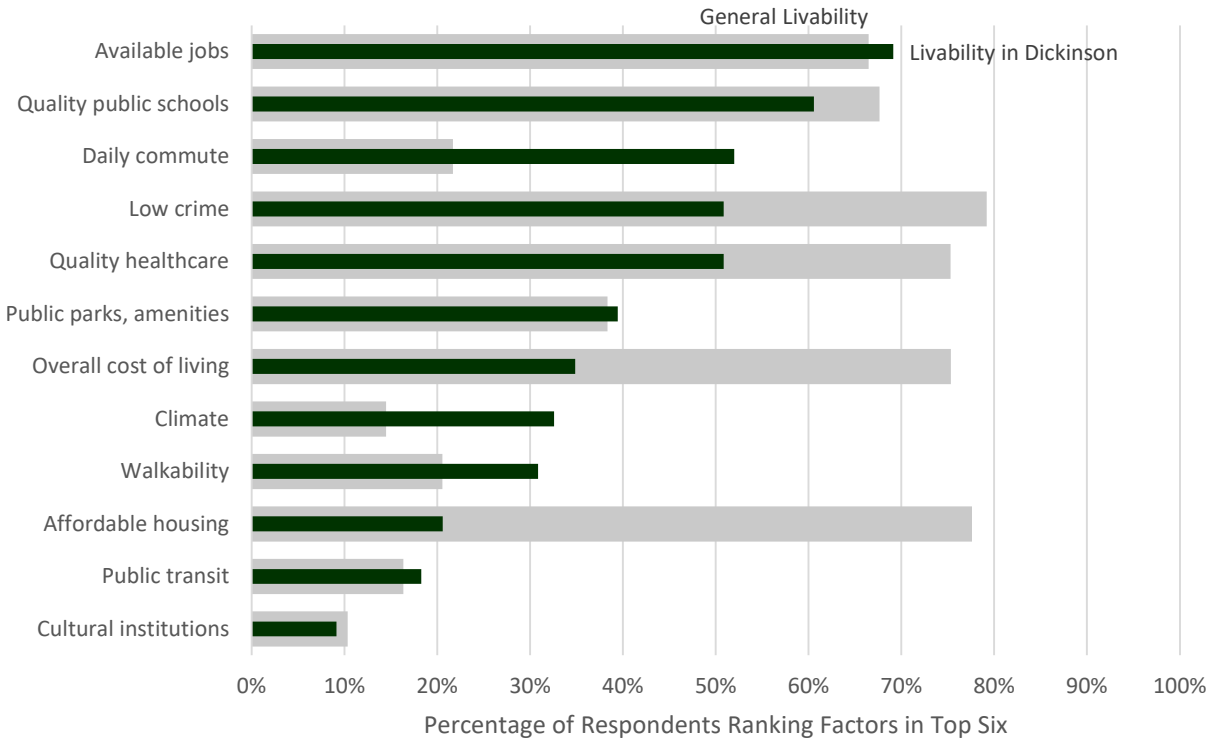


Figure 3.7 Comparison of Factors Affecting Livability

3.4.4 Role of Transit

About 30% of survey respondents considered public transit as either very important (12%) or important (18%) towards livability in any community (Figure 3.5). Further, 18% of respondents felt “public transit” contributes towards the current livability of Dickinson (Figure 3.6).

Survey respondents indicated a high level of awareness of Public Transit, as well as support for the service. Most (90%) survey respondents were aware of the Public Transit service in Dickinson, and 10% of survey respondents had used the Public Transit service before (Figure 3.8). Further, most respondents either strongly agreed (44%) or agreed (38%) that transit services should continue to be available for Dickinson residents (Figure 3.9), and a majority either strongly agreed or agreed with using city, county, state, and federal funds for transit (Figure 3.10). According to Dickinson residents, the top three important reasons for having Public Transit in Dickinson were to provide a transportation option for: 1) seniors and persons with disabilities; 2) people that cannot afford to drive; and 3) for those who choose not to drive and (Figure 3.11).

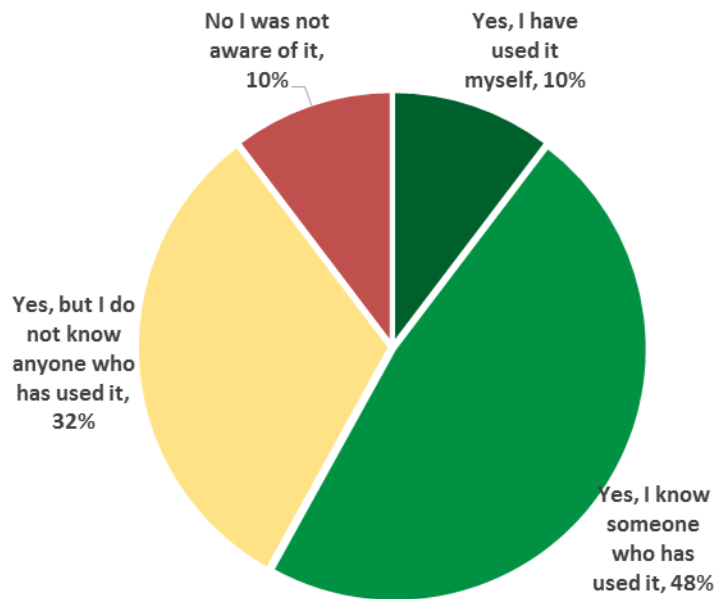


Figure 3.8 Awareness about Transit in Dickinson

It is important for transit service to continue to be available to Dickinson's Residents

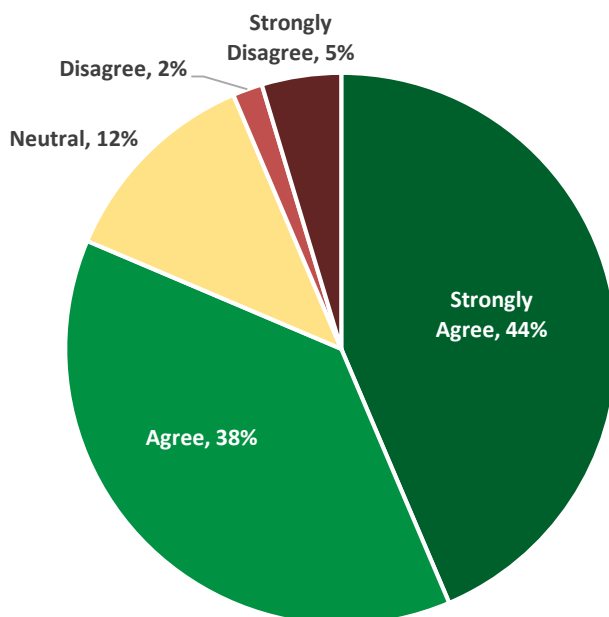


Figure 3.9 Importance of Transit Service in Dickinson

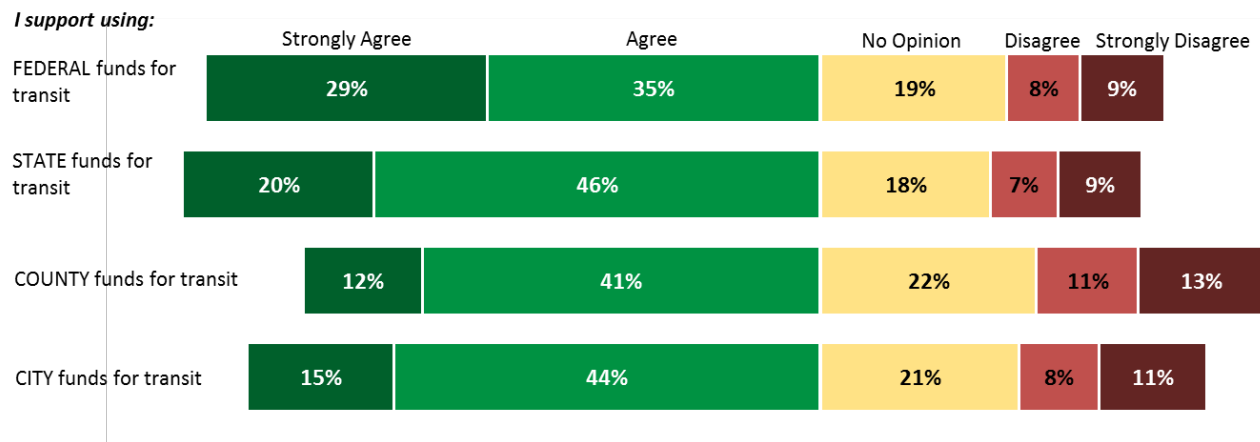


Figure 3.10 Respondents Preferences for Use of City, County, State, and Federal Funds for Transit

Why is it important to have public transit in Dickinson? (Check up to three)

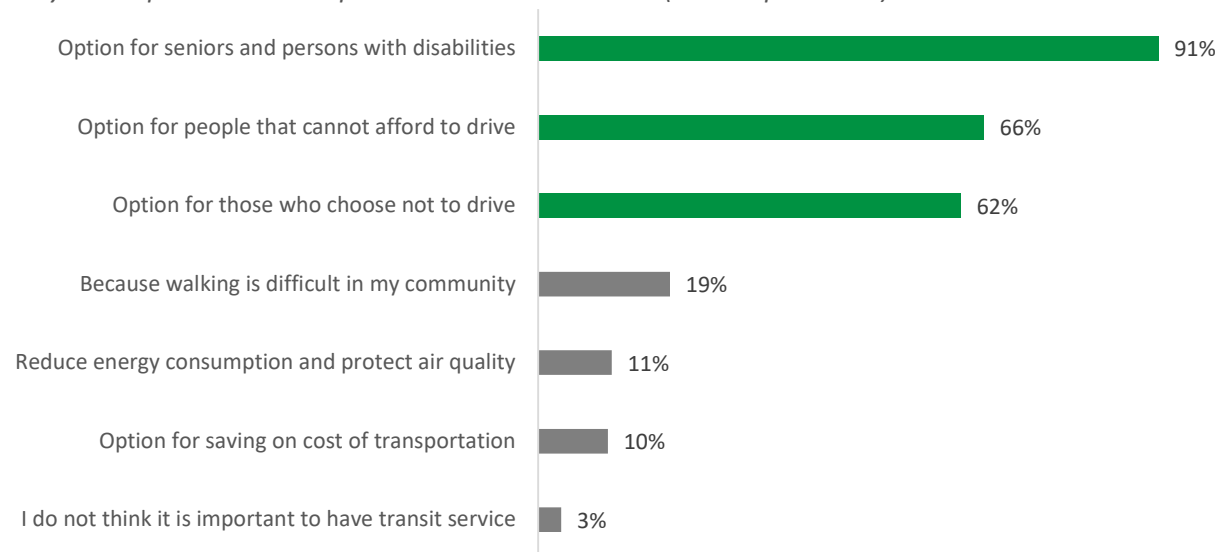


Figure 3.11 Importance of Public Transit in Dickinson

Survey participants were asked if they would use transit in the future under different hypothetical situations (Figure 3.12). Most agreed that they would use transit if they were no longer able to drive well due to health or other reasons (78% of respondents either strongly agreed or agreed that they are likely to use transit in this scenario). On the other hand, residents were less likely to use transit in other hypothetical situations.

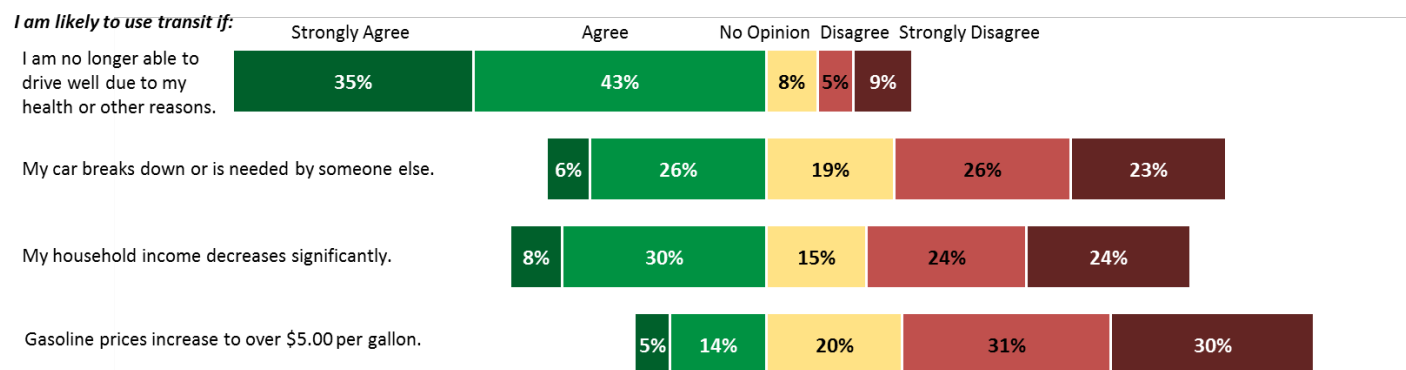


Figure 3.12 Future Use of Transit under Hypothetical Situations

Most Dickinson residents indicated that newspapers, TV stations, and radio stations were the three best ways to reach them with any information about transit services (Figure 3.13). However, other inexpensive outreach methods such as email, social media, and websites would also help reach people with important transit-related service information.

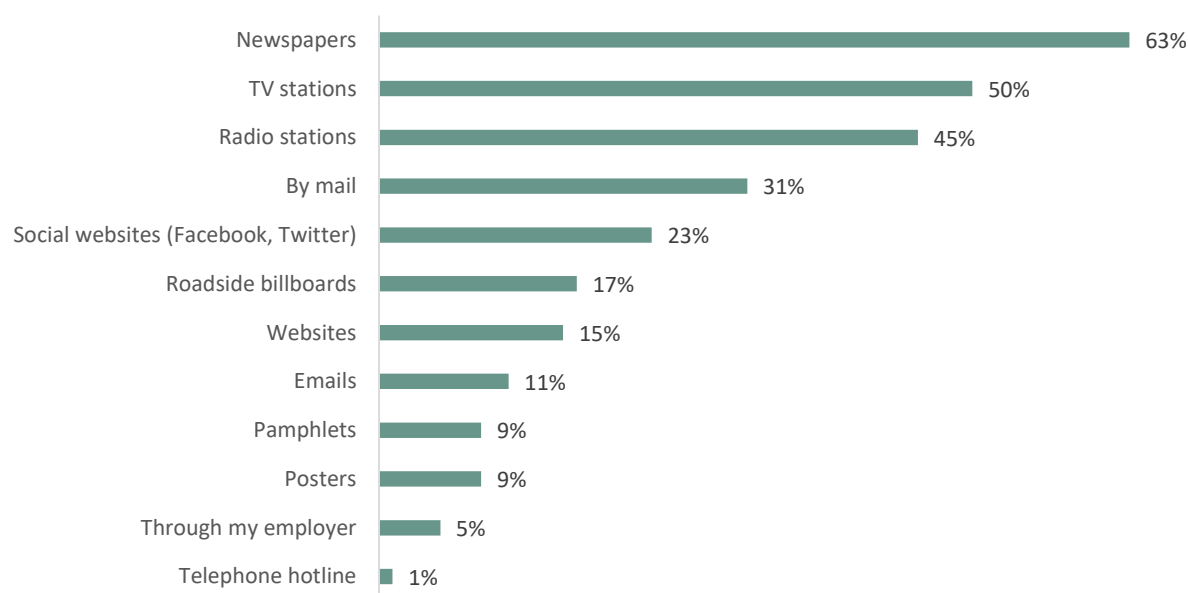


Figure 3.13 Best Ways to Contact with Information about Transit Services

3.5 Dickinson Public Transit Rider Survey

Transit rider surveys were distributed by mail. Mailing addresses were obtained from the Public Transit rider database. A total of 230 riders who had used Public Transit within the past year were identified. With the assistance of the Public Transit director and their team, transit rider surveys were mailed to the 230 riders. The mailing packet included the transit rider survey form (shown in Appendix D) and a postage-paid envelope for returning the completed survey. To increase survey coverage and boost the number of responses, an additional 100 surveys were handed out by vehicle operators to their riders. Instructions were provided near the end of the survey form for respondents to either return their completed survey to their transit vehicle driver or mail it using the postage-paid envelope.

A total of 78 responses were received, yielding a response rate of 24%. Compared to the general population, respondents to the transit rider survey were more likely to be female, older, from a lower-income household with one or no vehicle, and with less education. Of the respondents, 70% were female, more than 70% were 55 years or older, and two thirds lived alone (Figure 3.14). Most (65% of respondents) did not have a vehicle available in their household, and many (20%) had just one vehicle. Further, a large share (42%) of respondents to the transit rider survey had a household income annual less than \$15,000. When asked about highest level of education completed, the largest share of respondents mentioned “high school or GED” (45%) or “some college” (30%). Most (89%) of the respondents identified themselves as white, while 5% identified themselves as Native American, 3% as Hispanic or Latino, and 3% as black.



Figure 3.14 Demographic Characteristics of Dickinson Public Transit Rider Survey Respondents

Dickinson Public Transit is Very Important to my Quality of Life

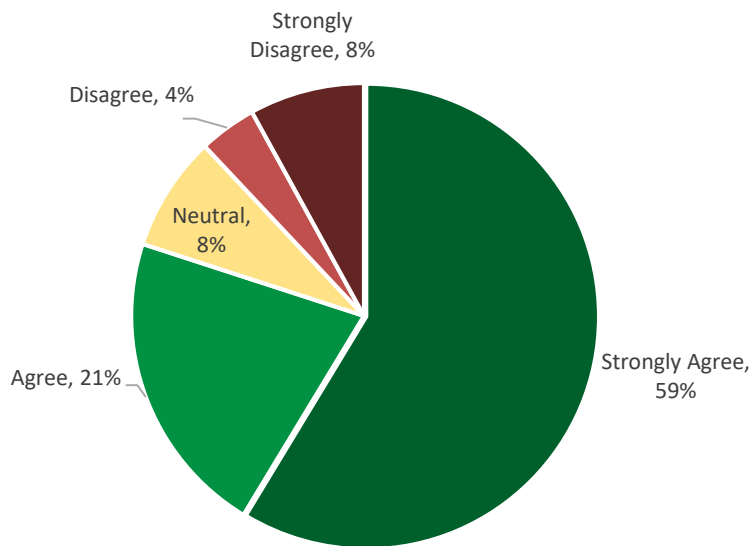


Figure 3.15 Importance of Dickinson Public Transit to its Riders

About 80% of respondents either strongly agreed (59%) or agreed (21%) that Public Transit service is very important to their quality of life (Figure 3.15). Respondents were asked to identify why they started riding Public Transit. They were given a number of potential options and were asked to check all that apply, while also given the opportunity to write in other reasons. The most commonly answered responses were that they had a disability, limiting their ability to travel in other ways (44%), they could no longer drive or had difficulties driving (38%), they no longer had access to a vehicle (32%), and they could not get a ride from others or did not want to (28%).

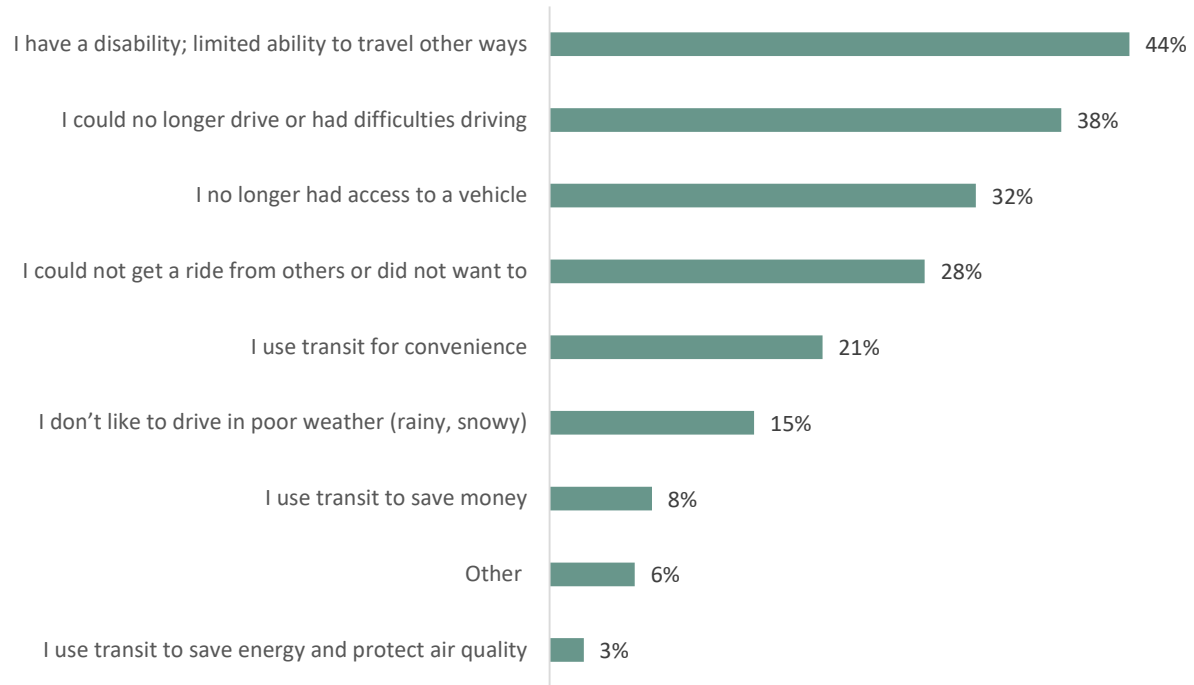


Figure 3.16 Reason Dickinson Public Transit Users Began Using the Service

About half (51%) of Public Transit riders were regular transit riders (ride at least two days per week) (Figure 3.17). Medical appointments/healthcare/dental services accounted for a large share of transit trips, as about two-thirds of respondents reported using the service for this purpose (Figure 3.18). The service, though, is also used for a variety of other purposes, including shopping, errands, work, personal business, social trips, and others. About 71% of the respondents either strongly agreed (24%) or agreed (47%) that they can travel to places they need with their current travel options, whereas 15% either strongly disagreed or disagreed.

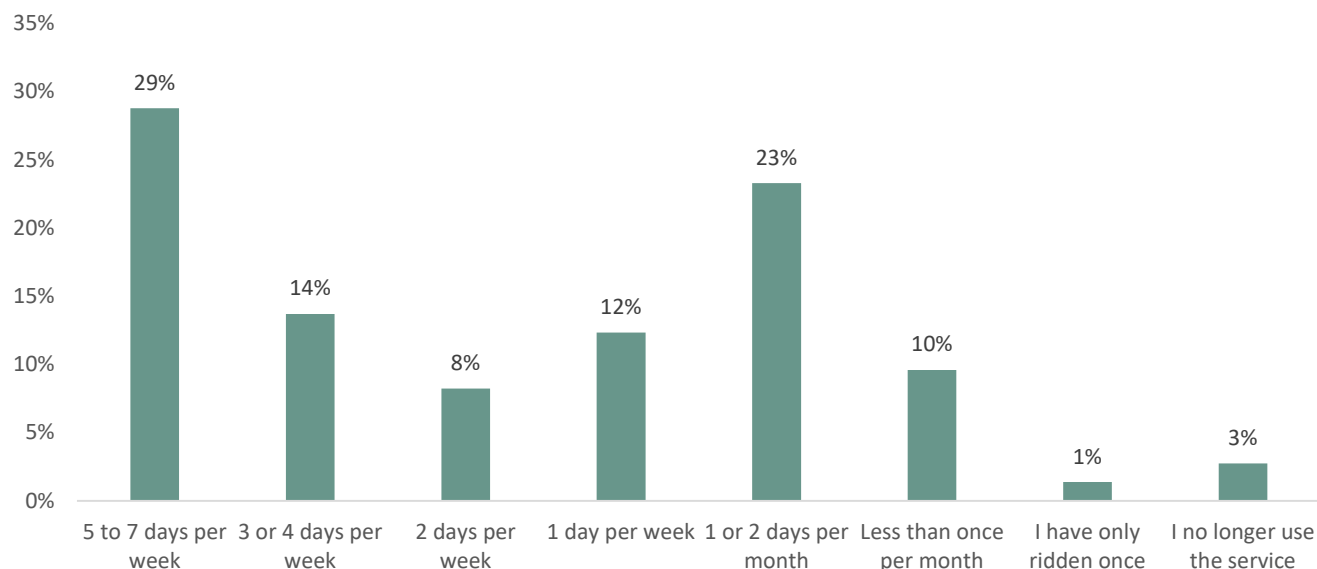


Figure 3.17 Dickinson Public Transit User Survey: How often do you ride Public Transit?

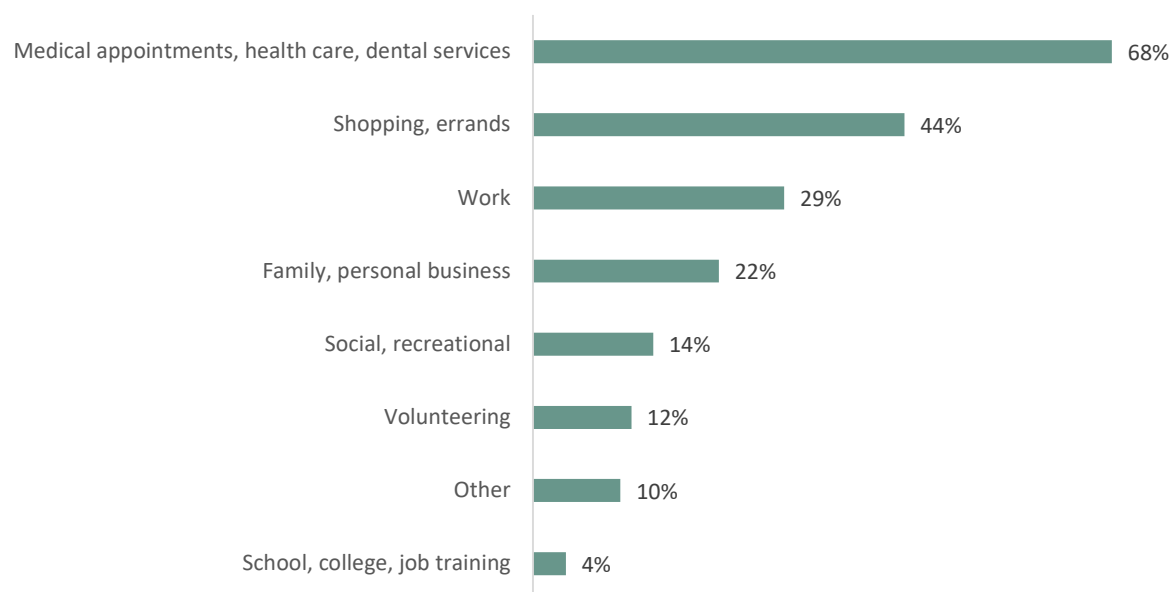


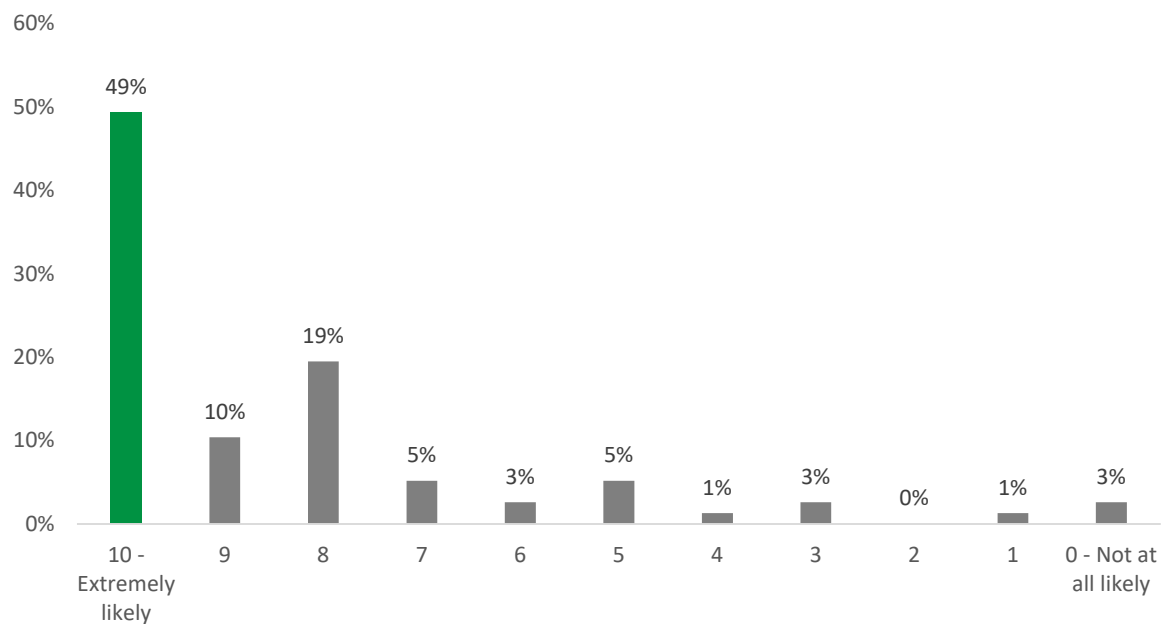
Figure 3.18 Dickinson Public Transit User Survey: What are the purposes for your trips on Public Transit?

Table 3.2 provides the feedback from the responding transit riders about various aspects of Public Transit service. More than 90% of the Public Transit riders who completed the survey either strongly agreed (51%) or agreed (40%) that they feel safe riding transit. More than 80% either strongly agreed or agreed that: 1) they can get where they need to go; 2) transit vehicles are clean; 3) drivers are helpful and friendly; 4) transit vehicles are comfortable; and 5) the reservation process is easy. More than 10% of the respondents either strongly disagreed or disagreed that 1) the bus arrives within expected arrival window; 2) the fare they pay is an appropriate amount; 3) the reservation process is easy; and 4) transit vehicles are comfortable.

Table 3.2 Feedback of Public Transit from their Riders

	Strongly Agree	Agree	No Opinion	Disagree	Strongly Disagree
	-----percentage-----				
The reservation process is easy	37	45	7	7	4
The bus arrives within expected arrival window	32	42	11	9	7
Drivers are helpful and friendly	47	37	8	3	5
I feel safe riding the transit service	51	40	4	0	5
Transit vehicles are clean	49	40	4	4	4
Transit vehicles are comfortable	41	43	5	7	4
I can get to where I need to go	50	40	5	3	3
The fare I pay is an appropriate amount	31	39	14	7	9

Respondents were highly likely to recommend Dickinson Public Transit to a friend or colleague, as shown in Figure 3.19. Respondents were asked to identify on a scale of 1-10 how likely they would be to recommend Public Transit, with 0=not at all likely and 10=extremely likely. The average response was 8.6, and 49% responded with a 10, indicating an extreme likeliness to recommend the service. While the satisfaction ratings given by Public Transit riders in Dickinson were not as high as those given by South Central Transit riders in Valley City, the results are still positive.

**Figure 3.19** Dickinson Public Transit User Survey: How likely is it that you would recommend Public Transit to a friend or colleague?

While some Dickinson Public Transit users would find other ways to make their trips if the service was not available, many users would not be able to make their trips. If Public Transit was not available, 50% of the riders responding to the survey would make the same number of trips to the places they currently travel using Public Transit, while 17% would make somewhat fewer trips, 22% would make a lot fewer trips, and 11% would not be able to make any of those trips.

If the transit service was not available, 67% of respondents reported that they could ask a friend or family member for a ride, 36% could use a taxi service, 22% could walk or bike, 8% could drive their personal car, and 4% could use transportation services provided by church or service organization. However, 19% reported having no other options to make these trips in the absence of Public Transit.

3.5.3 Public Transit Stakeholder Interviews

For conducting the Public Transit stakeholder interviews, the research team gathered a list of available stakeholders and their contacts from the Public Transit director and their team. The research team used a set of standard questions to acquire comparable subject-based responses from stakeholders. The questions that were used for Public Transit stakeholder interviews are:

1. What types of services does your organization provide/pursue that relate to Public Transit?
2. From your organization's perspective, what are the core components of community livability?
3. How does the vision and mission of your organization relate to livability?
4. What could change to make Dickinson even more livable?
5. How does Public Transit contribute to Dickinson's livability?
6. How could/should Public Transit adapt to improve community livability?
7. Are there circumstances in Dickinson that make having transit especially important?
8. Does your organization operate any kind of transportation service? If so, please describe.
9. How does Public Transit affect your organization's work?
10. What are options to fund the provision of transit in Dickinson, ND? What fare should riders pay?

Stakeholder interviews were conducted using two different methods: 1) online survey format 2) telephone calls. Based on the list of stakeholder contacts received from Public Transit, the research team initially prepared the interview questions in a survey format and distributed the online survey link to all the available stakeholder email contacts by inviting them to take the survey. To boost the response rate, some stakeholder interviews were conducted via telephone.

A total of eight Public Transit stakeholder interviews were conducted. Responses were received from individuals from the City of Dickinson, the North Dakota Division of Vocational Rehabilitation, human service agencies, charitable organizations, the Dickinson Municipal Airport, and a major employer. Most of the responding stakeholders' organizational visions and missions are aimed at improving the livability for people and/or the community by providing services such as assistance for people with disabilities, residential assistance for children and adults with disabilities, assisted living facilities, and enhanced housing, employment, and social opportunities.

Two stakeholders provide their own transportation service, however one of these two stakeholder's clients depends on Public Transit service for its out-of-city transportation needs and when the stakeholder's transportation service is not sufficient or available. Four other stakeholders felt that Public Transit plays an important role by providing travel options for their clients/customers/public to reach them, go home, or travel anywhere they need to go. Among these four stakeholders, one stakeholder purchases Public Transit punch cards to give to their customers.

All the stakeholders said Public Transit is a critical lifeline in the community for people who are elderly and/or have a disability, individuals with no vehicle, and those who cannot drive. Most stakeholders felt that having Public Transit in Dickinson is especially important because the city is spread out and it is hard to travel between any two locations without some form of motorized transport, especially during the winter.

Core components of community livability that were frequently identified by stakeholders included quality healthcare, education, and affordable housing. These livability components are similar to those in the survey of Dickinson residents.

Suggested improvements for making Dickinson more livable included creating a walkable community/downtown, developing more downtown housing, providing more affordable housing, diversifying the economy to be less dependent on the energy industry, and bringing in a six-plex theater. Some frequently mentioned changes that could be made to Public Transit service in Dickinson to improve community livability included increasing the number of transit vehicles, providing affordable transportation service to nearby cities/communities, introducing a fixed-route service using buses (or vans) between major facilities such as medical, education, and retail centers, and extending bus routes to public and private schools. The following selection of quotes from the stakeholder interviews highlight the significance of Public Transit in the community and how it can be improved.

"It (Public Transit) gives people the ability to get around town/surrounding areas and not have to be homebound if they are not able to drive. It allows people to have additional freedom to do things on their own without feeling like they are imposing on family, and it gives families the security of knowing their loved one is safe on public transportation."

"It is important to keep Public Transit affordable. I don't think that it is yet within the community for the people with the lowest income. I think it is very expensive for those people who are traveling to Bismarck! The transit system could use more dollars to help... it is an expensive system to support but is extremely important. It would be great to have a [fixed-route] bus system but I don't think it would be very viable. Maybe somehow use a van with an established route would be a better use of dollars, rather than a bus.... a 12 passenger van established around the times that the community needs such as in the morning for jobs and school."

"The city of Dickinson is providing substantial subsidies to the organization - direct and indirect. I believe a system should be worked out with the university so students can ride for free when they show their student ID but pay a quarterly fee that is wrapped into their other student fees."

Most stakeholders understood the importance of Public Transit towards Dickinson's livability and were generally satisfied with the current public transportation service and fares. There was some desire for service improvements.

3.5 Conclusions from Case Study Community – Dickinson, ND

Resident surveys, Public Transit rider surveys, and stakeholder interviews were conducted in Dickinson, ND, to understand different opinions about various factors affecting livability and the importance of transit towards community livability in small communities.

A total of 175 survey responses were received in response to the resident survey. A little over half (55%) of the residents were completely satisfied with the quality of life in Dickinson. However, 21% of the residents disagreed or strongly disagreed that they were completely satisfied with the quality of life in Dickinson.

Low crime was identified by Dickinson residents as being the most important factor for rural community livability, while other important factors identified in the survey included affordable housing, quality healthcare, overall cost of living, quality public schools, and available jobs. These six factors were same top factors identified in the first case study community of Valley City.

In Dickinson, available jobs and quality public schools were most often identified among the top factors contributing to livability in the city. Results from the resident survey suggest a need to provide additional affordable housing, reduce crime, improve quality healthcare, and reduce the overall cost of living to improve livability in the city. Many of these livability factors were likely affected by the rapid growth of population in the community due to the oil boom.

Most Dickinson residents believe that transit services should continue to be available for Dickinson residents and that transit should be funded using city, county, state, and federal funds. Similar to survey respondents in Valley City, Dickinson respondents said transit should be provided in their community as a transportation option for seniors and people with disabilities, those who choose not to drive, and those who cannot afford to drive. Also, most Dickinson residents who are currently not using transit indicated that they are likely to use transit in the future if they are no longer able to drive due to health or other reasons.

A total of 78 transit rider survey responses were received. Compared to the general population, respondents to the transit rider survey were more likely to be female, older, from a lower-income household with one or no vehicle, and with less education. About half of the Public Transit riders responding to the survey were regular riders, and 80% felt that Public Transit is very important to their quality of life. The most common reasons given for why they began using the transit service was that they had a disability, could no longer drive or had difficulties driving, no longer had access to a vehicle, or could not get a ride from others. Respondents most frequently answered that they use the service for medical trips, but they also use it for a variety of other trip purposes.

Most Public Transit riders believe that they can travel to places they need to go using their current travel options, and they were likely to recommend Public Transit to a friend or colleague, as they are happy with various aspects of Public Transit service. In the absence of Public Transit,

about half of the riders could make same number of trips, while the rest of the riders would either have to make fewer trips or not be able to make the trips at all.

Eight different interviews conducted with stakeholders resulted in similar findings. Most of the stakeholders felt that Public Transit plays an important role by providing travel options for their clients/customers/public to reach them, go home, or travel anywhere they need to go. Further, all the stakeholders said Public Transit is a critical lifeline in the community for people who are elderly and/or have a disability, individuals with no vehicle, and those who cannot drive. Further, most stakeholders felt that having Public Transit in Dickinson is especially important because the city is spread out and it is hard to travel between any two locations without some form of motorized transport, especially during winter. Further, while the current Public Transit service is very useful, some stakeholders suggested possible service improvements, such as increasing the number of transit vehicles; providing affordable transportation service to nearby cities; introducing a fixed-route service using buses (or vans) between major facilities such as medical, education, and retail centers; and bus routes to public and private school students

Overall, most residents and all stakeholders said transit plays a key role in their community. Public Transit riders were satisfied with their current transit service and wanted Public Transit to continue offering the transit services.

References

- Brooks, Jonathan, Smita Sharma, Marea Pappas, and Linda Cherrington. 2015. *Pilot Case Study Findings and Phase 2 Case Study Outreach Plan*. Technical Memorandum 3, Texas A&M Transportation Institute.
- Brooks, Jonathan, Suzie Edrington, Smita Sharma, Sarang Vasishth, and Linda Cherrington. 2014. *Literature Review: Transit and Livability in Rural America*. Technical Memorandum 1, Texas A&M Transportation Institute.
- Christie, Les. 2013. *CNNMoney*. Accessed 06 15, 2016.
<http://money.cnn.com/gallery/pf/2013/03/19/oil-boomtowns/2.html>.
- City of Dickinson. n.d. Accessed 06 15, 2016.
<http://dickinsongov.com/Documents/Information%20Documents/Finance/Budget%20Book%202014.pdf>.
- City of Valley City. n.d. Accessed 06 15, 2016.
https://valleycitynd.opengov.com/transparency#/1379/accountType=expenses&breakdown=f7fa5064-fb85-436b-8003-bd3c5ceaca3b¤tYearAmount=cumulative¤tYearPeriod=years&graph=stacked&legendSort=coa&proration=true&saved_view=null&selection=EF904A85627B.
2016. *Google Maps*.

Appendix A: Survey Form Used for Valley City Resident Survey

START HERE

VALLEY CITY RESIDENT SURVEY, PAGE 1

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

In your opinion, how important are each of these factors to the livability of a community?

Check one per row.

	Not important ↓	Slightly important ↓	Moderately important ↓	Important ↓	Very important ↓
Climate	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Available jobs	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Daily commute	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Public transit	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Cultural institutions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Walkability	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Quality healthcare	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Affordable housing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Overall cost of living	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Low crime	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Public parks, amenities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Quality public schools	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

How long have you lived in Valley City? Check one.

- ☐ Less than 1 year ☐ 11 to 20 years
☐ 1 to 5 years ☐ More than 20 years
☐ 6 to 10 years

How much do you agree with the statement below?
"I am completely satisfied with the quality of life in Valley City." Check one.

- Strongly Disagree Disagree Neutral Agree Strongly Agree
☐ ☐ ☐ ☐ ☐

How would you describe Valley City to someone who had never been here and was thinking of moving here?

Public transit in Valley City is called South Central Transit.



South Central Transit provides pre-scheduled ride service to the general public in a seven-county region.

Think about Valley City...

Which six factors contribute the most to how livable Valley City is right now?

Check up to six.

- | | |
|--|--|
| <input type="checkbox"/> Climate | <input type="checkbox"/> Quality healthcare |
| <input type="checkbox"/> Available Jobs | <input type="checkbox"/> Affordable housing |
| <input type="checkbox"/> Daily commute | <input type="checkbox"/> Overall cost of living |
| <input type="checkbox"/> Public transit | <input type="checkbox"/> Low crime |
| <input type="checkbox"/> Cultural institutions | <input type="checkbox"/> Public parks, amenities |
| <input type="checkbox"/> Walkability | <input type="checkbox"/> Quality public schools |

How can Valley City become even more livable?

Were you aware Valley City residents have access to public transit? Check one.

- ☐ Yes, I have used South Central Transit myself
☐ Yes, I know someone who has used it
☐ Yes, but I do not know anyone who has used it
☐ No, I was not aware of the transit service

How much do you agree with the statement below?
"It is important for transit service to continue to be available to Valley City's residents." Check one.

- Strongly Disagree Disagree Neutral Agree Strongly Agree
☐ ☐ ☐ ☐ ☐

Why is it important to have public transit in Valley City? Check up to three.

- ☐ Reduce energy consumption and protect air quality
☐ Because walking is difficult in my community
☐ Option for those who choose not to drive
☐ Option for seniors and persons with disabilities
☐ Option for people that cannot afford to drive
☐ Option for saving on cost of transportation
☐ I do not think it is important to have transit service

CONTINUE ON BACK ➔

VALLEY CITY RESIDENT SURVEY, PAGE 2

How much do you agree with the following statements about funding transit?

Check one per row.

	Strongly Disagree	Disagree	No Opinion	Agree	Strongly Agree
"I support using city funds for transit."	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
"I support using county funds for transit."	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
"I support using state funds for transit."	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
"I support using federal funds for transit."	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

How much do you agree with the following statements about your future use of transit?

Check one per row.

	Strongly Disagree	Disagree	No Opinion	Agree	Strongly Agree
"I am likely to use transit if fuel prices increase to over \$5.00 per gallon. "	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
"I am likely to use transit if my car breaks down or is needed by someone else. "	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
"I am likely to use transit if my household's income decreases significantly. "	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
"I am likely to use transit if am no longer able to drive well due to my health or other reasons. "	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

What are the three best ways to reach you with information about transit services in Valley City?

Check up to three.

- | | |
|--|--|
| <input type="checkbox"/> Posters | <input type="checkbox"/> Radio stations |
| <input type="checkbox"/> Pamphlets | <input type="checkbox"/> TV stations |
| <input type="checkbox"/> Websites | <input type="checkbox"/> Emails |
| <input type="checkbox"/> Newspapers | <input type="checkbox"/> Through my employer |
| <input type="checkbox"/> By mail | <input type="checkbox"/> Roadside billboards |
| <input type="checkbox"/> Telephone hotline | <input type="checkbox"/> Social websites (Facebook, Twitter) |

Are you? Check one.

- ☐ Female ☐ Male ☐ Prefer not to answer

What is your age? Check one.

- ☐ 17 or younger ☐ 45 to 54 years
☐ 18 to 24 years ☐ 55 to 64 years
☐ 25 to 34 years ☐ 65 to 74 years
☐ 35 to 44 years ☐ 75 or over
☐ Prefer not to answer

Including yourself, how many people live in your household? Check one.

- ☐ 1 ☐ 4
☐ 2 ☐ 5
☐ 3 ☐ 6 or more
☐ Prefer not to answer

How many working vehicles (autos, trucks, and motorcycles) are available in your household? Check one.

- ☐ 0 ☐ 3 or more
☐ 1 ☐ Prefer not to answer
☐ 2

What is the combined annual income for your household? Check one.

- ☐ Less than \$15,000 ☐ \$50,000 to \$74,999
☐ \$15,000 to \$24,999 ☐ \$75,000 to \$99,999
☐ \$25,000 to \$34,999 ☐ \$100,000 or more
☐ \$35,000 to \$49,999 ☐ Prefer not to answer

What is the highest level of education you have completed? Check one.

- ☐ Less than high school ☐ Bachelor degree
☐ High school or GED ☐ Post-graduate degree
☐ Some college ☐ Prefer not to answer
☐ Associate degree

Are you?

Check all that apply.

- ☐ Hispanic, Latino(a)
☐ Black, African American
☐ Native American
☐ White, Caucasian
☐ Asian, Pacific Islander
☐ Other:

- ☐ Prefer not to answer

RETURN YOUR SURVEY USING THE POSTAGE PAID ENVELOPE. THANK YOU!

Appendix B: Survey Form Used for Valley City Transit Rider Survey

SURVEY OF SOUTH CENTRAL TRANSIT RIDERS

South Central Transit Rider:

We would like to know about your experience riding South Central Public Transit. The Upper Great Plains Transportation Institute at North Dakota State University is conducting research about what makes a rural community a great place to live and how public transit plays a role.

Please take about 5-10 minutes to share your opinion by completing the survey. Once you finish, mail the survey back to us using the postage paid envelope or return the survey to the driver.

Your participation is voluntary and your responses are confidential. We will combine your responses with those of other South Central Public Transit riders. If you have any questions or need assistance taking the survey, please contact Ranjit Godavarthy by phone at (701) 231-6436 or by email at ranjit.godavarthy@ndsu.edu. If you have any questions about your rights as a research participant, you may call North Dakota State University's IRB Office at (701) 231-8995 or ndsu.irb@ndsu.edu.

How much do you agree with the statement below?
"South Central Transit service is very important to my quality of life." Check one.

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

How long ago was your first ride on South Central Transit? Check one.

- ☐ In the last year ☐ More than 5 years ago
☐ 1 to 2 years ago ☐ Not sure
☐ 3 to 5 years ago

Why did you start riding South Central 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:

How often do you ride South Central 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
☐ 2 days per week ☐ This is my first time
☐ 1 day per week ☐ I no longer use the service

What are the purposes for your trips on South Central 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:

How likely is it that you would recommend South Central Transit to a friend or colleague? Check one.

Not at all likely	Extremely Likely
0 1 2 3 4 5 6 7 8 9 10	
<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>	

How much do you agree with the statement below?
"I can easily travel to places I need to go using my current travel options." Check one.

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

If South Central 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 South Central Transit for
☐ **No**, I would make **somewhat fewer** trips to the places I currently use South Central Transit for
☐ **No**, I would make a **lot fewer** trips to the places I currently use South Central Transit for
☐ **No**, I would make **no trips** to the places I currently use South Central Transit for

CONTINUE ON BACK

If South Central Transit was not available, how would you make the same trips? Check all that apply.

- ☐ Drive my car
- ☐ Ask friend/family to give me a ride
- ☐ Walk or bike
- ☐ Use taxi-cab service
- ☐ Use church or service organization service
- ☐ Other:

☐ I have no other options

Do you agree or disagree with the following statements about South Central Transit? Check one per row.

	Strongly Disagree	Disagree	No Opinion	Agree	Strongly Agree
The reservation process is easy.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The vehicle arrives within expected arrival window.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Drivers are helpful and friendly.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel safe riding the transit service.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Transit vehicles are clean.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Transit vehicles are comfortable.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I can get to where I need to go.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The fare I pay is an appropriate amount for my trips.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Are you? Check one.

- ☐ Female ☐ Male ☐ Prefer not to answer

What is your age? Check one.

- ☐ 17 or younger ☐ 45 to 54 years
☐ 18 to 24 years ☐ 55 to 64 years
☐ 25 to 34 years ☐ 65 to 74 years
☐ 35 to 44 years ☐ 75 or over
☐ Prefer not to answer

Including yourself, how many people live in your household? Check one.

- ☐ 1 ☐ 4
☐ 2 ☐ 5
☐ 3 ☐ 6 or more
☐ Prefer not to answer

How many working vehicles (autos, trucks, and motorcycles) are available in your household? Check one.

- ☐ 0 ☐ 3 or more
☐ 1 ☐ Prefer not to answer
☐ 2

What is the combined annual income for your household? Check one.

- ☐ Less than \$15,000 ☐ \$50,000 to \$74,999
☐ \$15,000 to \$24,999 ☐ \$75,000 to \$99,999
☐ \$25,000 to \$34,999 ☐ \$100,000 or more
☐ \$35,000 to \$49,999 ☐ Prefer not to answer

What is the highest level of education you have completed? Check one.

- ☐ Less than high school ☐ Bachelor degree
☐ High school or GED ☐ Post-graduate degree
☐ Some college ☐ Prefer not to answer
☐ Associate degree

Are you? Check all that apply.

☐ Hispanic, Latino(a)

☐ Black, African American

☐ Native American

☐ White, Caucasian

☐ Asian, Pacific Islander

☐ Other:

☐ Prefer not to answer

**RETURN YOUR SURVEY TO THE DRIVER
OR MAIL IT USING THE POSTAGE PAID
ENVELOPE. THANK YOU!**

Appendix C: Survey Form Used for Dickinson Resident Survey

START HERE

DICKINSON RESIDENT SURVEY, PAGE 1

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

In your opinion, how important are each of these factors to the livability of a community?

Check one per row.

	Not important	Slightly important	Moderately important	Important	Very important
Climate	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Available jobs	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Daily commute	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Public transit	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Cultural institutions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Walkability	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Quality healthcare	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Affordable housing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Overall cost of living	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Low crime	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Public parks, amenities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Quality public schools	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

How long have you lived in Dickinson? Check one.

- ☐ Less than 1 year ☐ 11 to 20 years
☐ 1 to 5 years ☐ More than 20 years
☐ 6 to 10 years

How much do you agree with the statement below?

"I am completely satisfied with the quality of life in Dickinson." Check one.

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

How would you describe Dickinson to someone who had never been here and was thinking of moving here?

Dickinson Public Transit provides pre-scheduled ride service and on-demand taxi service to the general public in Dickinson and the surrounding area.



Think about Dickinson...

Which six factors contribute the most to how livable Dickinson is right now?

Check up to six.

- | | |
|--|--|
| <input type="checkbox"/> Climate | <input type="checkbox"/> Quality healthcare |
| <input type="checkbox"/> Available Jobs | <input type="checkbox"/> Affordable housing |
| <input type="checkbox"/> Daily commute | <input type="checkbox"/> Overall cost of living |
| <input type="checkbox"/> Public transit | <input type="checkbox"/> Low crime |
| <input type="checkbox"/> Cultural institutions | <input type="checkbox"/> Public parks, amenities |
| <input type="checkbox"/> Walkability | <input type="checkbox"/> Quality public schools |

How can Dickinson become even more livable?

Were you aware Dickinson residents have access to public transit? Check one.

- ☐ Yes, I have used Public Transit myself
☐ Yes, I know someone who has used it
☐ Yes, but I do not know anyone who has used it
☐ No, I was not aware of the transit service

How much do you agree with the statement below?
"It is important for transit service to continue to be available to Dickinson's residents." Check one.

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Why is it important to have public transit in Dickinson? Check up to three.

- ☐ Reduce energy consumption and protect air quality
☐ Because walking is difficult in my community
☐ Option for those who choose not to drive
☐ Option for seniors and persons with disabilities
☐ Option for people that cannot afford to drive
☐ Option for saving on cost of transportation
☐ I do not think it is important to have transit service

CONTINUE ON BACK ➔

DICKINSON RESIDENT SURVEY, PAGE 2

How much do you agree with the following statements about funding transit?

Check one per row.

	Strongly Disagree	Disagree	No Opinion	Agree	Strongly Agree
"I support using city funds for transit."	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
"I support using county funds for transit."	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
"I support using state funds for transit."	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
"I support using federal funds for transit."	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

How much do you agree with the following statements about your future use of transit?

Check one per row.

	Strongly Disagree	Disagree	No Opinion	Agree	Strongly Agree
"I am likely to use transit if fuel prices increase to over \$5.00 per gallon. "	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
"I am likely to use transit if my car breaks down or is needed by someone else. "	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
"I am likely to use transit if my household's income decreases significantly. "	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
"I am likely to use transit if am no longer able to drive well due to my health or other reasons. "	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

What are the three best ways to reach you with information about transit services in Dickinson?

Check up to three.

- | | |
|--|--|
| <input type="checkbox"/> Posters | <input type="checkbox"/> Radio stations |
| <input type="checkbox"/> Pamphlets | <input type="checkbox"/> TV stations |
| <input type="checkbox"/> Websites | <input type="checkbox"/> Emails |
| <input type="checkbox"/> Newspapers | <input type="checkbox"/> Through my employer |
| <input type="checkbox"/> By mail | <input type="checkbox"/> Roadside billboards |
| <input type="checkbox"/> Telephone hotline | <input type="checkbox"/> Social websites (Facebook, Twitter) |

Are you? Check one.

- ☐ Female ☐ Male ☐ Prefer not to answer

What is your age? Check one.

- | | |
|--|--------------------------------------|
| <input type="radio"/> 17 or younger | <input type="radio"/> 45 to 54 years |
| <input type="radio"/> 18 to 24 years | <input type="radio"/> 55 to 64 years |
| <input type="radio"/> 25 to 34 years | <input type="radio"/> 65 to 74 years |
| <input type="radio"/> 35 to 44 years | <input type="radio"/> 75 or over |
| <input type="radio"/> Prefer not to answer | |

Including yourself, how many people live in your household? Check one.

- | | |
|--|---------------------------------|
| <input type="radio"/> 1 | <input type="radio"/> 4 |
| <input type="radio"/> 2 | <input type="radio"/> 5 |
| <input type="radio"/> 3 | <input type="radio"/> 6 or more |
| <input type="radio"/> Prefer not to answer | |

How many working vehicles (autos, trucks, and motorcycles) are available in your household? Check one.

- | | |
|-------------------------|--|
| <input type="radio"/> 0 | <input type="radio"/> 3 or more |
| <input type="radio"/> 1 | <input type="radio"/> Prefer not to answer |
| <input type="radio"/> 2 | |

What is the combined annual income for your household? Check one.

- | | |
|--|--|
| <input type="radio"/> Less than \$15,000 | <input type="radio"/> \$50,000 to \$74,999 |
| <input type="radio"/> \$15,000 to \$24,999 | <input type="radio"/> \$75,000 to \$99,999 |
| <input type="radio"/> \$25,000 to \$34,999 | <input type="radio"/> \$100,000 or more |
| <input type="radio"/> \$35,000 to \$49,999 | <input type="radio"/> Prefer not to answer |

What is the highest level of education you have completed? Check one.

- | | |
|---|--|
| <input type="radio"/> Less than high school | <input type="radio"/> Bachelor degree |
| <input type="radio"/> High school or GED | <input type="radio"/> Post-graduate degree |
| <input type="radio"/> Some college | <input type="radio"/> Prefer not to answer |
| <input type="radio"/> Associate degree | |

Are you? Check all that apply.

- ☐ Hispanic, Latino(a)
- ☐ Black, African American
- ☐ Native American
- ☐ White, Caucasian
- ☐ Asian, Pacific Islander
- ☐ Other:

- ☐ Prefer not to answer

RETURN YOUR SURVEY USING THE POSTAGE PAID ENVELOPE. THANK YOU!

Appendix D: Survey Form Used for Dickinson Transit Rider Survey

SURVEY OF CURRENT OR FORMER DICKINSON PUBLIC TRANSIT RIDERS

Dickinson Public Transit Rider:

We would like to know about your experience riding Dickinson Public Transit. The Upper Great Plains Transportation Institute at North Dakota State University is conducting research about what makes a rural community a great place to live and how public transit plays a role.

Please take about 5-10 minutes to share your opinion by completing the survey. Once you finish, mail the survey back to us using the postage paid envelope.

Your participation is voluntary and your responses are confidential. We will combine your responses with those of other Dickinson Public Transit riders.

If you have any questions or need assistance taking the survey, please contact Ranjit Godavorthy by phone at (701) 231-6436 or by email at ranjit.godavorthy@ndsu.edu. If you have any questions about your rights as a research participant, you may call North Dakota State University's IRB Office at (701) 231-8995 or ndsu.irb@ndsu.edu.

How much do you agree with the statement below?
"Dickinson Public Transit service is very important to my quality of life." Check one.

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

When was your last trip on Public Transit?

- | | |
|---|--|
| <input type="radio"/> Today | <input type="radio"/> Last month |
| <input type="radio"/> Another day this week | <input type="radio"/> 2 to 6 months ago |
| <input type="radio"/> Last week | <input type="radio"/> More than 6 months ago |
| <input type="radio"/> 2 to 4 weeks ago | <input type="radio"/> Not sure |

How long ago was your first ride on Public Transit?
Check one.

- | | |
|--|---|
| <input type="radio"/> In the last year | <input type="radio"/> More than 5 years ago |
| <input type="radio"/> 1 to 2 years ago | <input type="radio"/> Not sure |
| <input type="radio"/> 3 to 5 years ago | |

How often do you ride Public Transit? Check one.

- | | |
|--|--|
| <input type="radio"/> 5 to 7 days per week | <input type="radio"/> 1 or 2 days per <u>month</u> |
| <input type="radio"/> 3 or 4 days per week | <input type="radio"/> Less than once per month |
| <input type="radio"/> 2 days per week | <input type="radio"/> I have only ridden once |
| <input type="radio"/> 1 day per week | <input type="radio"/> I no longer use the service |

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:

How likely is it that you would recommend Public Transit to a friend or colleague? Check one.

Not at all likely	Extremely Likely
0 1 2 3 4 5 6 7 8 9 10	
<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>	

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:

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
- ☐ **No**, I would make **no trips** to the places I currently use Public Transit for

CONTINUE ON BACK 

How much do you agree with the statement below?
"I can easily travel to places I need to go using my current travel options." Check one.

Strongly Disagree Disagree Neutral Agree Strongly Agree
☐ ☐ ☐ ☐ ☐

If Public Transit was not available, how would you make the same trips? Check all that apply.

- ☐ Drive my car
- ☐ Ask friend/family to give me a ride
- ☐ Walk or bike
- ☐ Use taxi-cab service
- ☐ Use church or service organization service
- ☐ Other:

☐ I have no other options

Do you agree or disagree with the following statements about Public Transit?

Check one per row.

	Strongly Disagree	Disagree	No Opinion	Agree	Strongly Agree
The reservation process is easy.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The vehicle arrives within expected arrival window.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Drivers are helpful and friendly.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel safe riding the transit service.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Transit vehicles are clean.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Transit vehicles are comfortable.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I can get to where I need to go.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The fare I pay is an appropriate amount for my trips.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Are you? Check one.

☐ Female ☐ Male ☐ Prefer not to answer

What is your age? Check one.

- ☐ 17 or younger ☐ 45 to 54 years
- ☐ 18 to 24 years ☐ 55 to 64 years
- ☐ 25 to 34 years ☐ 65 to 74 years
- ☐ 35 to 44 years ☐ 75 or over
- ☐ Prefer not to answer

Including yourself, how many people live in your household? Check one.

- ☐ 1 ☐ 4
- ☐ 2 ☐ 5
- ☐ 3 ☐ 6 or more
- ☐ Prefer not to answer

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

Check one.

- ☐ 0 ☐ 3 or more
- ☐ 1 ☐ Prefer not to answer
- ☐ 2

What is the combined annual income for your household? Check one.

- ☐ Less than \$15,000 ☐ \$50,000 to \$74,999
- ☐ \$15,000 to \$24,999 ☐ \$75,000 to \$99,999
- ☐ \$25,000 to \$34,999 ☐ \$100,000 or more
- ☐ \$35,000 to \$49,999 ☐ Prefer not to answer

What is the highest level of education you have completed? Check one.

- ☐ Less than high school ☐ Bachelor degree
- ☐ High school or GED ☐ Post-graduate degree
- ☐ Some college ☐ Prefer not to answer
- ☐ Associate degree

Are you? ☐ Hispanic, Latino(a)

Check all

that apply.

- ☐ Black, African American
- ☐ Native American
- ☐ White, Caucasian
- ☐ Asian, Pacific Islander

☐ Other:

☐ Prefer not to answer

RETURN YOUR SURVEY BY MAIL USING THE POSTAGE PAID ENVELOPE. THANK YOU!