

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

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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 there are many factors that influence the livability of a small community, transit is believed to be an important contributor. For each of the two North Dakota cities considered, resident surveys, local transit rider surveys, and stakeholder interviews were conducted to understand differing opinions on livability and how transit contributes to livability.

## Introduction

While there are many factors that influence the livability of a rural community, transit is an important contributor. Public transportation provides critical lifeline services to transit-dependent people in rural areas, connecting them to healthcare services, educational institutions, employment, and other important activities. This study investigates the nexus of transit and rural livability by conducting case studies in the North Dakota communities of Valley City and Dickinson.

The study method included conducting a series of stakeholder interviews, a resident survey, and a transit rider survey in the two communities. For each city, 1,500 resident surveys were distributed by mail in December 2015 to a random sample of residents. Transit rider surveys were conducted in each community with coordination from the local transit manager. Further, transit stakeholder

surveys were conducted to understand their opinions on transit's contribution towards community livability. The survey materials and study framework were adopted from a previous project by Brooks et al. (2015).

## Case Study Communities

Valley City has a population of 6,669, according to 2015 U.S. census estimates, and is located in eastern North Dakota, as shown in Figure 1. Data from the American Community Survey (ACS) show about 23% of its population is aged 65 or older, while 7% is 85 years or older. By comparison, 14% of the U.S. population is 65 or older, and just 2% is 85 or older nationally.

Dickinson is located in southwestern North Dakota and has a population of 23,765 according to 2015 U.S. Census estimates. Because of the growth of the oil industry in western North Dakota, its population grew by 34% from 2010 to 2015. The percentage of the population in Dickinson aged 65 or older is similar to the national average.

South Central Transit provides demand-response transit services to Valley City residents. Service is provided Monday-Friday 8:00 AM to 5:00 PM and Saturday and Sunday 8:00 AM to 2:00 PM to the general public for various trip purposes. Public Transit provides demand-response transit services to Dickinson residents Monday-Sunday 6:30 AM to 10:00 PM.

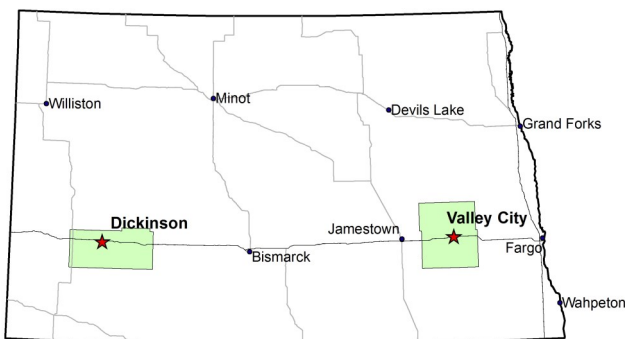


Figure 1. Location of Case Study Communities

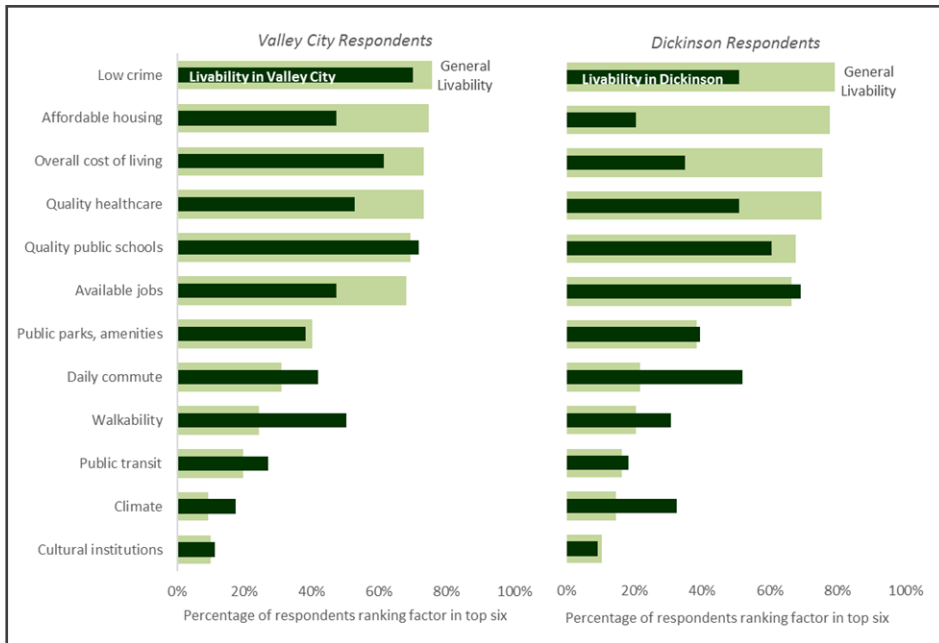


Figure 2 shows a comparison between what residents generally believe to be important for livability and what they believe is contributing to livability in their community. In Valley City, factors such as quality public schools, walkability, daily commute, and public transit were perceived to be contributing more towards livability, and 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. Therefore, improvements in these factors would make the city more livable. In Dickinson, comparatively fewer respondents felt that affordable housing, low crime, quality healthcare, and overall

**Figure 2. Comparison of Factors Affecting Livability**

**Resident Surveys**

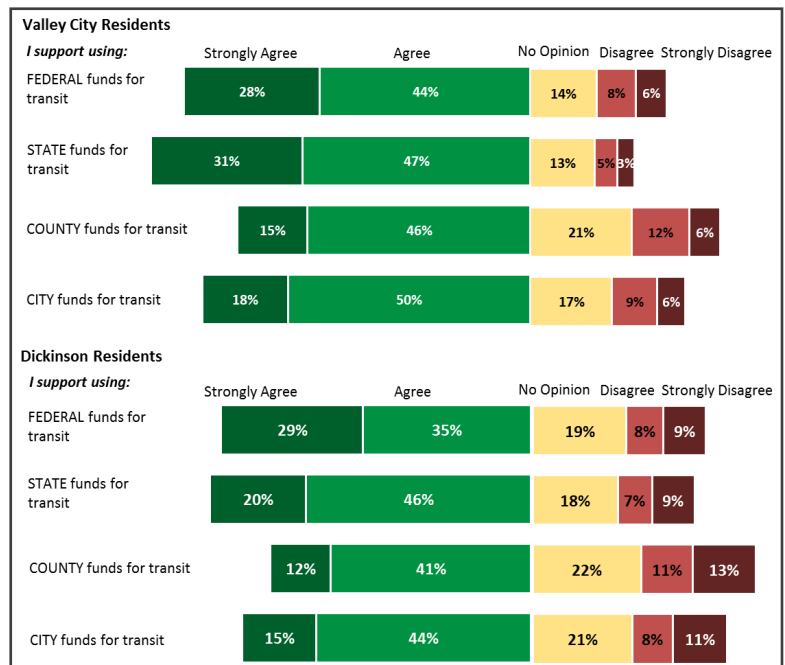
A total of 241 resident responses were received in Valley City, and 175 responses were received in Dickinson. In Valley City, most survey respondents either strongly agreed (16%) or agreed (52%) that they are completely satisfied with the quality of life; 15% disagreed. In Dickinson, 8% agreed and 48% strongly agreed that they are completely satisfied with the quality of life, while 25% disagreed.

The resident survey asked about the importance of various factors towards the livability of any community. Low crime, affordable housing, overall cost of living, quality healthcare, available jobs, and quality public schools were most often mentioned as being important to residents in both Valley City and Dickinson (Figure 2). While public transit was not identified among the top factors, 39% of respondents in Valley City and 30% of those in Dickinson considered transit important.

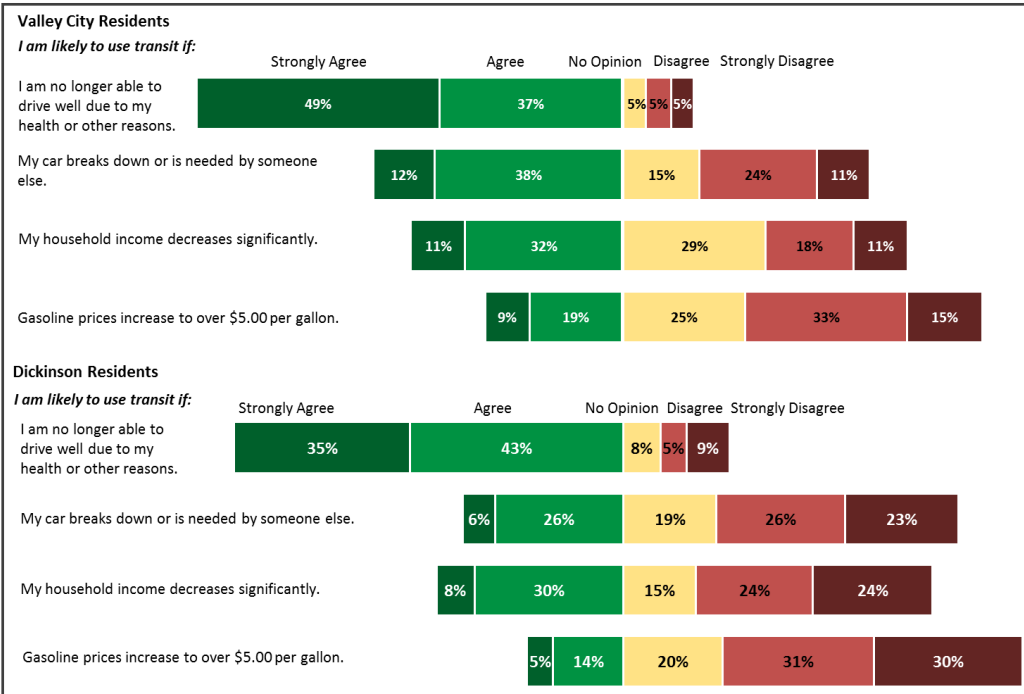
When the Valley City residents were asked about the top six factors contributing towards the livability of their city, quality public schools and low crime were the top two factors, selected by more than 70% of respondents. Overall cost of living, quality healthcare, and walkability were also mentioned by more than 50% of respondents. Twenty-seven percent felt transit is one of the top six factors contributing toward livability of Valley City. Factors such as available jobs, quality public schools, and easy daily commute were perceived to be contributing towards livability in Dickinson.

cost of living contribute towards livability, which means that improvement in these factors in Dickinson would make it more livable. Many respondents from both cities emphasized the need for affordable housing.

Survey respondents indicated a high level of awareness of transit in their community, as well as support for the service (Figure 3). According to residents in both cities, the most important reasons for having transit are to provide transportation options for 1) seniors and persons with



**Figure 3. Respondents Preferences for Use of Funds for Transit**



**Figure 4. Likelihood to Use Transit Under Hypothetical Situations**

disabilities; 2) those who choose not to drive; and 3) people who cannot afford to drive. Survey participants were asked if they would use transit in the future under different hypothetical situations (Figure 4). Most would be likely to use transit if they were no longer able to drive due to health or other reasons.

**Transit Rider Surveys**

In Valley City, rider surveys were distributed onboard vehicles by the vehicle operators, and in Dickinson, rider surveys were distributed by mail as well as onboard.

Surveys were distributed in December 2015. A total of 48 responses were received from South Central Transit riders, and 78 responses were received from Public Transit Riders in Dickinson.

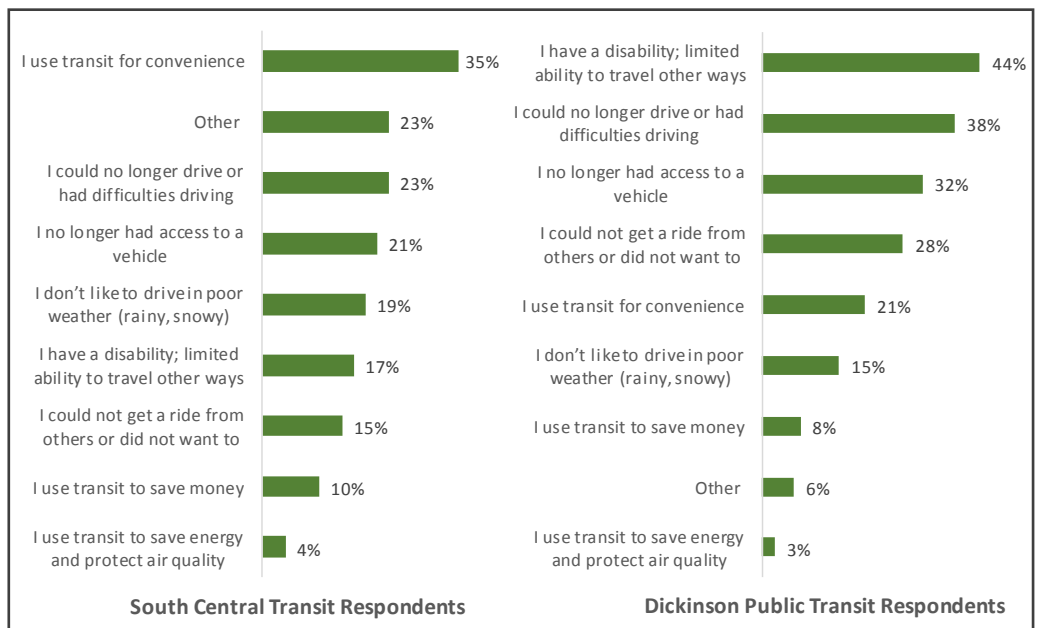
Most riders agreed that transit is very important to their quality of life, and they indicated a high level of satisfaction with the quality of service being provided. Respondents were asked to identify why they started riding transit (Figure 5). South Central Transit respondents most commonly answered that they

started using 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. Other reasons respondents wrote-in mainly included providing transportation for children to attend daycare, preschool, school, and other children activities. Dickinson Public Transit respondents most commonly answered that they have a disability limiting their ability to travel in other ways, they could no longer drive or had difficulties driving, they no longer had access to a vehicle, and they

could not get a ride from others or did not want to.

In both cities, the most common transit trip purpose is for health care. However, the services are used for a range of purposes, including school, shopping, work, personal business, and social or recreational trips.

Most of the South Central Transit survey respondents either strongly agreed (43%) or agreed (38%) that they can travel to places they need with their current travel options. In Dickinson, 24% strongly agreed and 47% agreed. If the transit service was not available, about half of the riders



**Figure 5. Reasons Transit Users Began Using the Service**

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indicated they would either not be able to make any of the trips they currently use transit for or would make fewer of these trips. In both communities, 19% of riders indicated they have no other transportation options.

### **Stakeholder Surveys**

Stakeholders include agencies or organizations affected by the transit service or who have an interest or concern with the transit service. Nine South Central Transit stakeholder surveys and eight Dickinson Public Transit Stakeholder surveys were conducted.

Most stakeholders felt that the local transit agency plays an important role by providing travel options for their clients, customers, students, or employees to reach them, go home, attend important meetings, or travel anywhere they need to go. All of the stakeholders expressed the sentiment that the local transit agency is a critical lifeline to their community for people who are elderly and/or have a disability and an important transportation option for children to attend pre-school and schools, people who need to travel out of town for dialysis or special medical treatment, individuals with no vehicle, and those who cannot drive.

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

In Valley City, most stakeholders felt that having South Central Transit is especially important because: 1) there are many seniors and people with disabilities, and they need transportation services for

regular activities and medical appointments; 2) the lack of proper medical services in town creates a need to travel out of town for special medical services; and 3) there is a lack of private taxi services. Similarly, in Dickinson, most stakeholders felt that having Public Transit 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 cold winters.

### **Conclusion**

This study aimed at better understanding rural livability factors and transit's contribution towards livability in two North Dakota communities. In both Valley City and Dickinson, surveys of residents showed that they believe that affordable housing, low crime, quality healthcare, overall cost of living, quality public schools, and available jobs are the most important factors contributing to the livability of a small community.

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 expressed the sentiment that transit is a critical lifeline for people who are elderly and/or have a disability, individuals with no vehicle, and those who cannot drive.

### **References**

Brooks J., S. Sharma, M. Pappas, and L. Cherrington. "Pilot Case Study Findings and Phase 2 Case Study Outreach Plan." Texas A&M Transportation Institute, July 2015.