

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

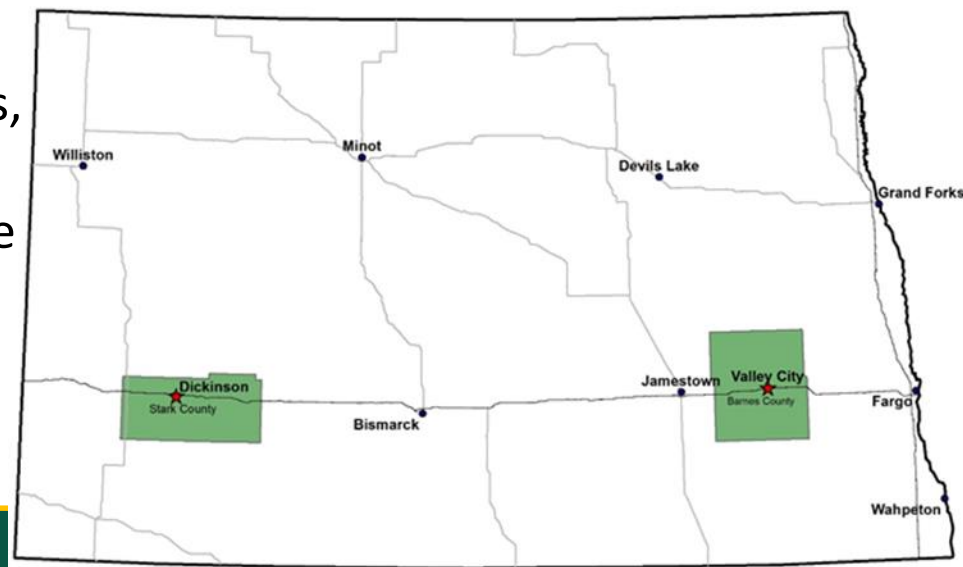
**Ranjit Godavarthy
Assistant Professor of
Transportation,
North Dakota State University,
Fargo, North Dakota**

Introduction

- In metropolitan areas, transit plays a powerful role in creating livable communities.
- In rural areas, public transportation provides critical lifeline services to transit dependent people.
- Many factors influence livability of rural community. Transit is an important contributor.

Investigate nexus of transit and livability at community level

- Jonathan Brooks et al. from Texas Transportation Institute (TTI) conducted a literature review study to explore the concept of livability in rural America; developed framework for pilot case study; conducted pilot case study in West Columbia, Texas. (Phase 1)
- Phase 2 of the study: Conduct rural transit case studies across United States.
- This study: Two North Dakota (ND) cities, Valley City and Dickinson, were selected as case study communities to investigate the nexus of transit and livability at the community level



Study Objective

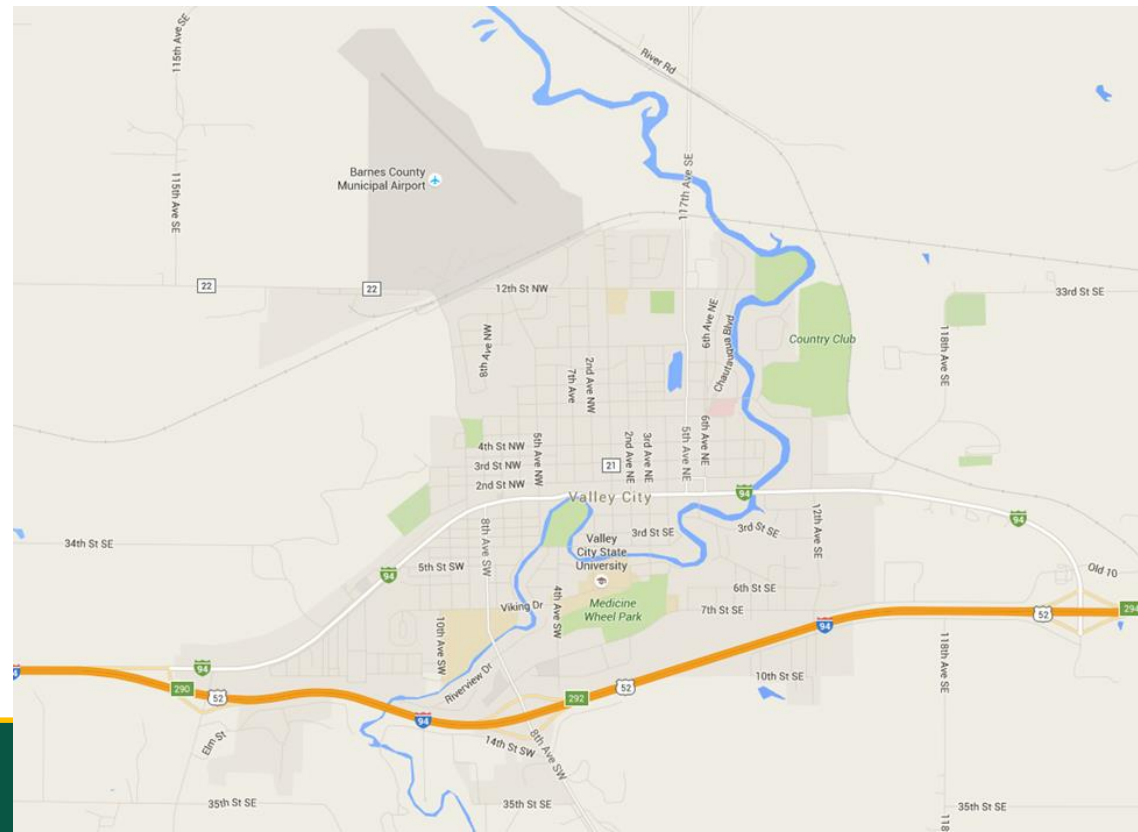
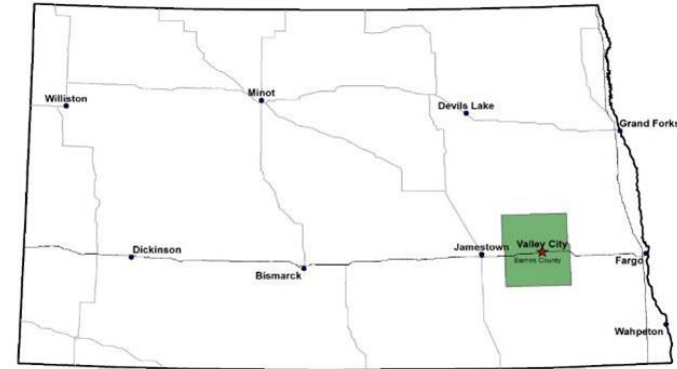
- Investigate the nexus of transit and livability in rural communities of Valley City and Dickinson by studying the opinions of community *residents, transit users, and transit stakeholders*.
- The study method included conducting a series of stakeholder interviews, a resident survey, and a transit rider survey in the two communities.

For each community:

- 1,500 resident surveys were distributed by mail to a random sample of residents.
- Transit rider surveys were conducted with coordination from the local transit manager.
- Transit stakeholder's interviews were conducted to understand their opinion of transit contribution towards community livability

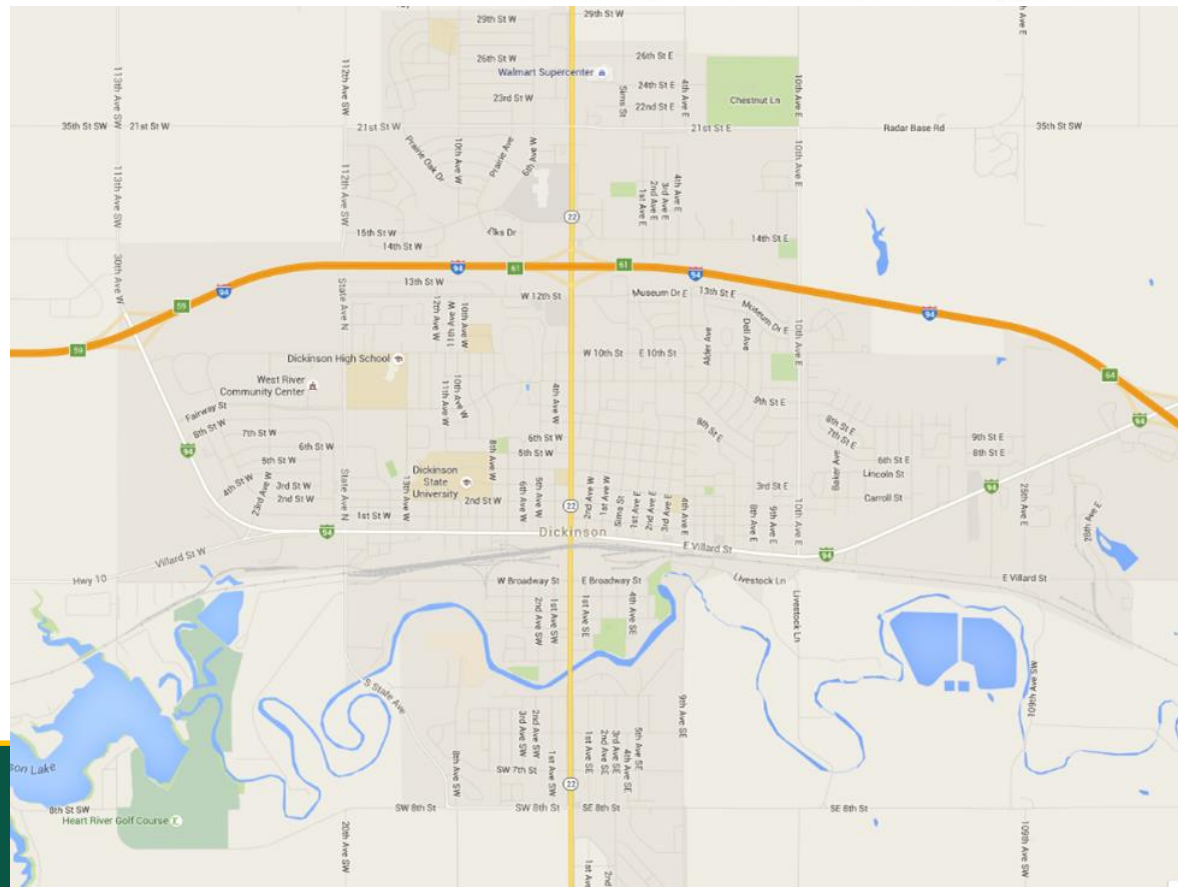
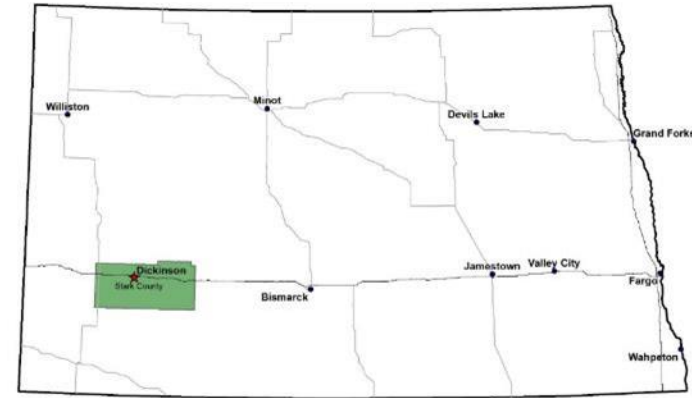
Case Study Community 1: Valley City, ND

- Population: 6,669.
- South Central Transit provides demand-response transit services to Valley City residents. Demand response transit service is provided Monday-Friday 8AM to 5PM and Saturday and Sunday 8AM to 2PM.
- Demand-response services are offered to the general public at a cost of \$2.00 per person per trip in Valley City.



Case Study Community 2: Dickinson, ND

- Population: 23,765.
- Public Transit provides demand-response transit services to Dickinson residents. Monday-Sunday 6:30 AM to 10:00 PM.
- Services are offered to the general public at a cost of \$4.00 per person for a prescheduled trip within Dickinson city limits.



Resident Survey in Valley City and Dickinson

- 1,500 resident surveys were distributed in each community by mail to a random sample of residents.
- Resident survey mail included:
 - 1) invitation/consent letter,
 - 2) survey form, and
 - 3) postage paid envelope for returning the completed survey form.
- ***Resident survey questions were designed to gather information such as:***
 - Satisfaction with quality of life in their community.
 - Importance of various factors towards livability in any community vs. their community.
 - Importance and support for transit in their community.
 - Future use of transit under hypothetical situations.

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.

- | | |
|--|--------------------------------------|
| <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.

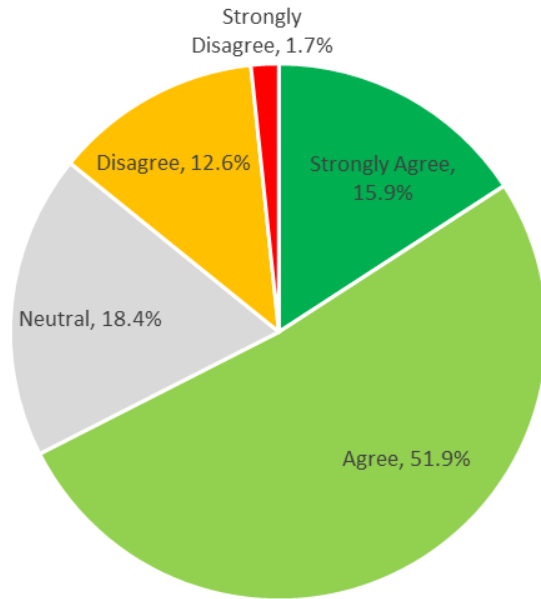
- Hispanic, Latino(a)
- Black, African American
- Native American
- White, Caucasian
- Asian, Pacific Islander
- Other: _____

Prefer not to answer

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

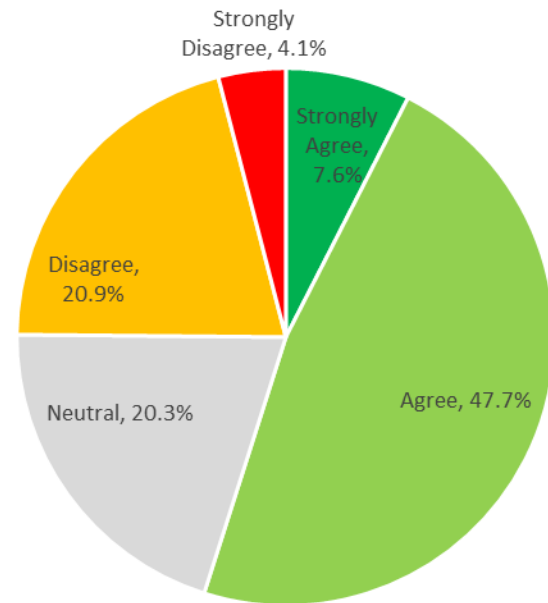
Satisfaction with Quality of Life

I am completely satisfied with the quality of life in Valley City



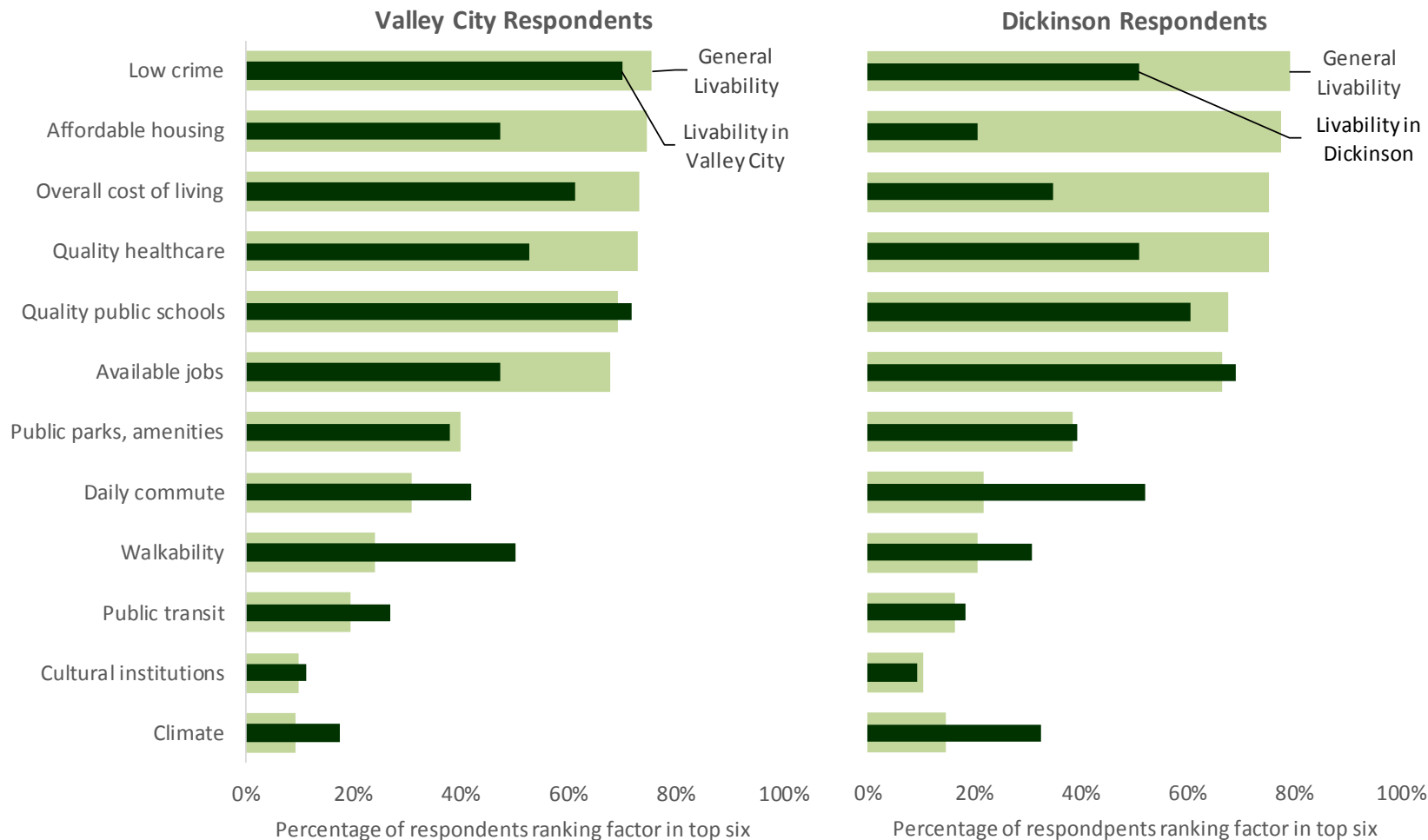
Valley City

I am completely satisfied with the quality of life in Dickinson



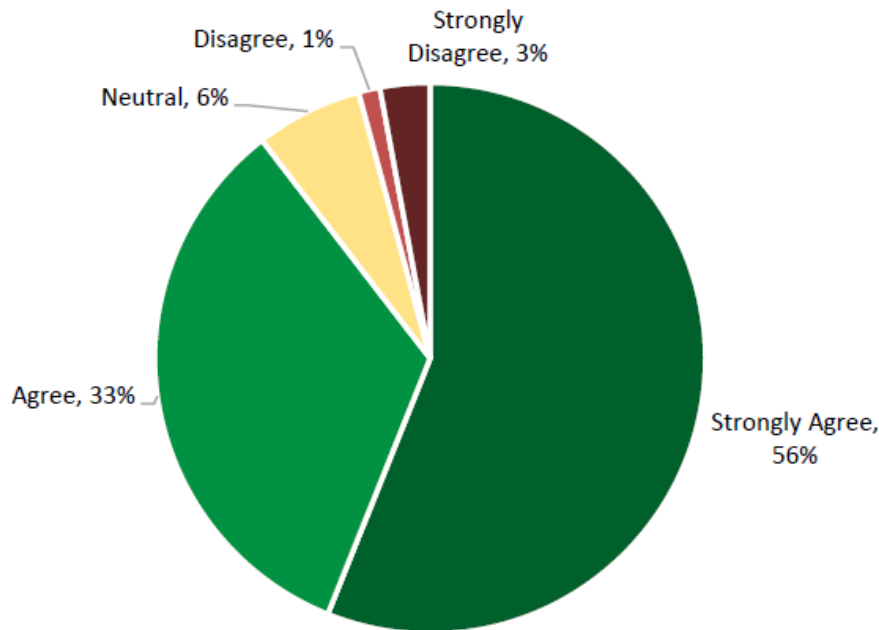
Dickinson

Factors Affecting Livability in any U.S. Community vs. their Community.



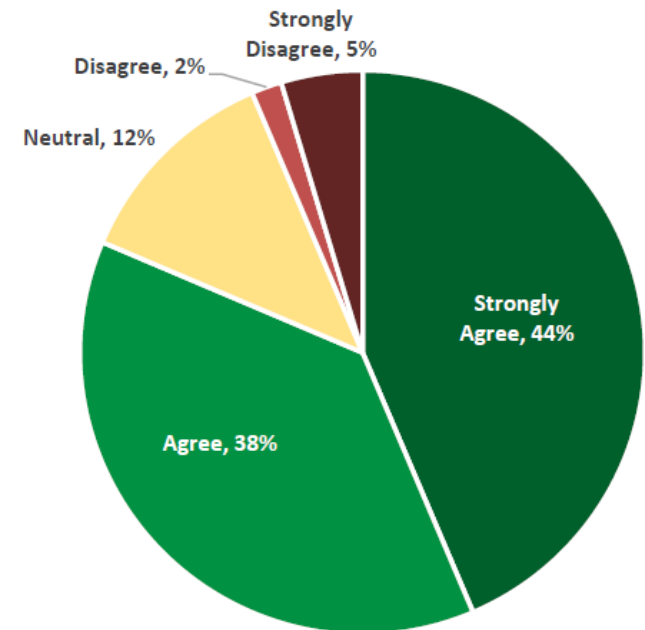
Importance of Transit Service

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



Valley City

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

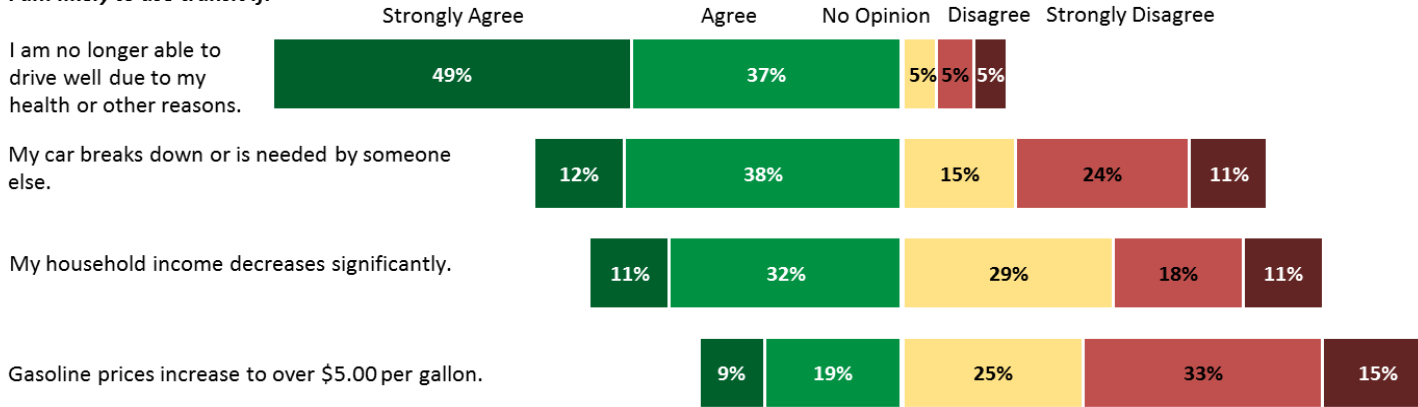


Dickinson

Future Use of Transit Under Hypothetical Situations

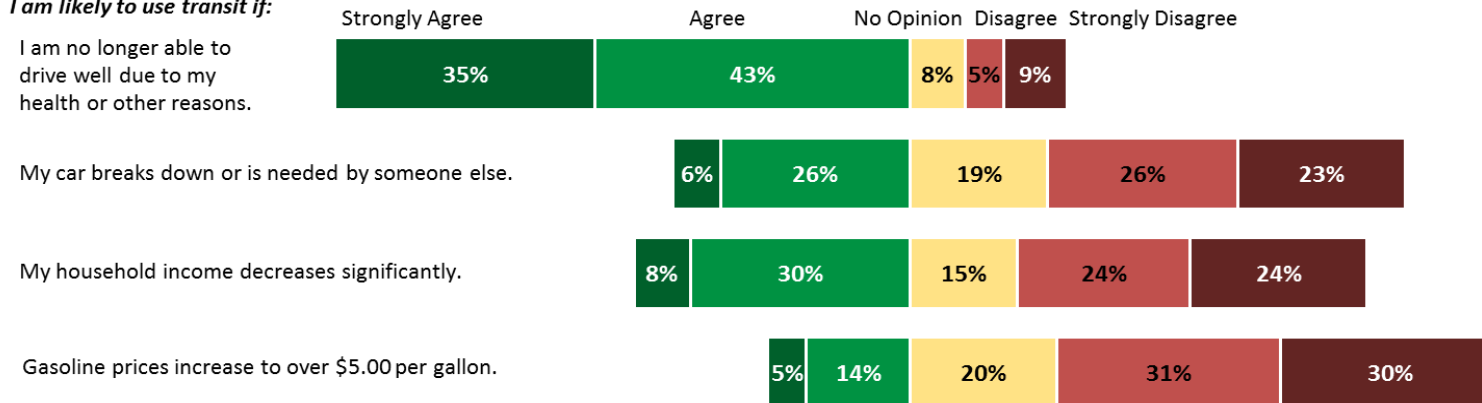
Valley City Residents

I am likely to use transit if:



Dickinson Residents

I am likely to use transit if:



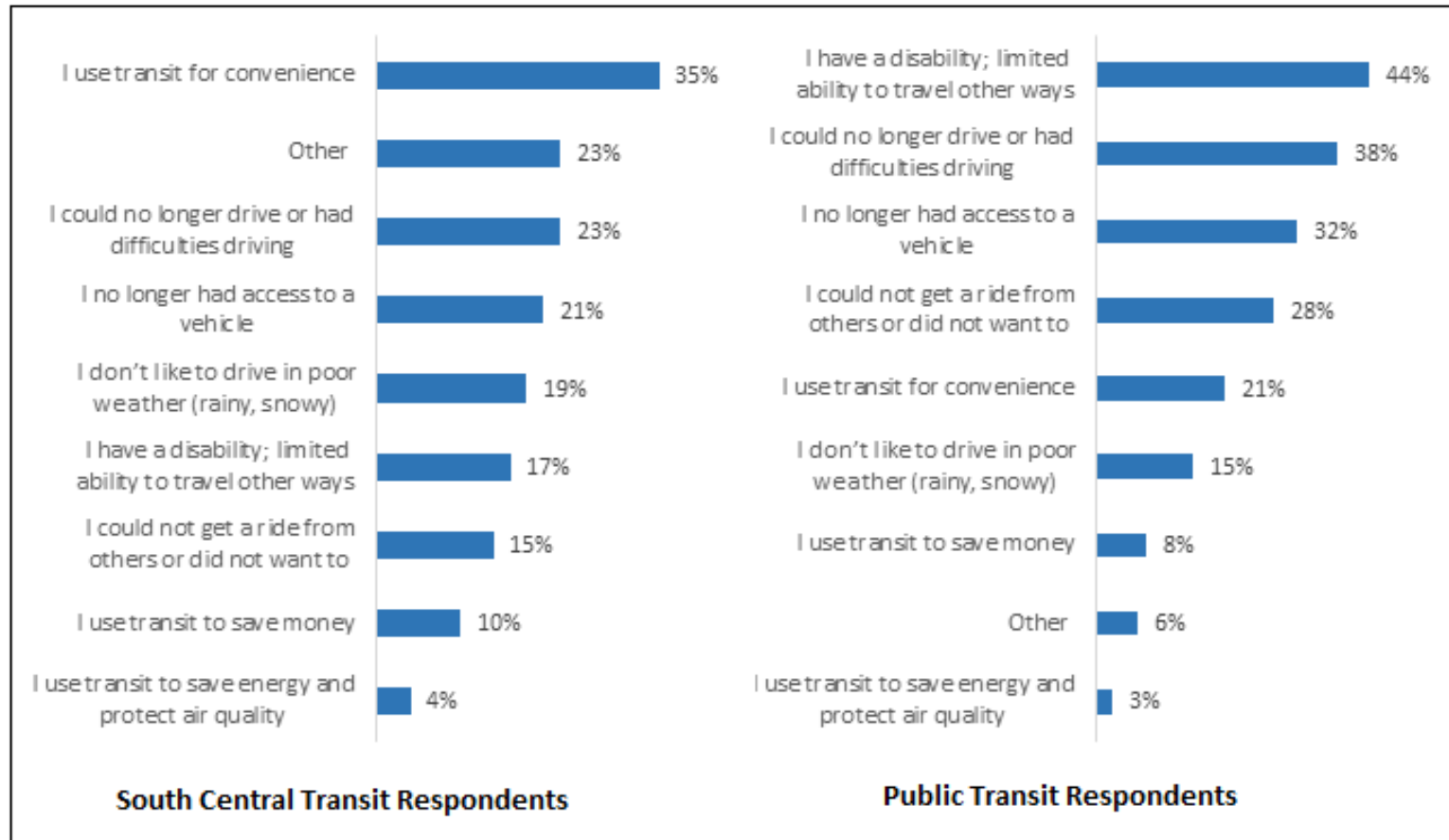
Transit Rider Survey in Valley City and Dickinson

- ***Valley City (South Central Transit):*** Rider surveys were distributed onboard vehicles by the vehicle operators. **48 Responses received.**
- ***Dickinson (Public Transit):*** transit rider surveys were distributed by mail, using addresses obtained from the Public Transit rider database. **78 Responses Received.**
- Transit rider survey included:
 - 1) rider survey form and
 - 2) postage paid envelope for returning the completed survey form.

Summary of Transit Rider Survey Demographics

Description	Valley City, ND	Dickinson, ND
Returned survey responses; Gender	48 30% male/ 70% female	78 30% male/ 70% female
Age of respondents	<17 years - 24%; 18-24 years - 2%; 25-34 years - 7%; 35-44 years - 7%; 45-54 years - 9%; 55-64 years - 15%; 65-74 years - 11%; ≥75 years - 26%;	18-24 years - 7%; 25-34 years - 7%; 35-44 years - 8%; 45-54 years - 7%; 55-64 years - 29%; 65-74 years - 17%; ≥75 years - 26%
Including yourself, how many people live in your household?	1 - 45%; 2 - 12%; 3 - 12%; 4 - 19%; 5 - 7%; 6 or more - 5%	1 - 67%; 2 - 21%; 3 - 8%; 4 - 3%; 5 - 1%
Number of vehicles available in household	0 - 34%; 1 - 25%; 2 - 32%; 3 or more - 9%	0 - 65%; 1 - 20%; 2 - 8%; 3 or more - 7%
Combined annual household income	<15K - 42%; 15K-24.9K - 6%; 25K-34.9K - 6%; 35K-49.9K - 8%; 50K-74.9K - 11%; 75K-99.9K - 17%; ≥100K - 11%	<15K - 42%; 15K-24.9K - 21%; 25K-34.9K - 8%; 35K-49.9K - 3%; 50K-74.9K - 3%; 75K-99.9K - 1%; ≥100K - 22%;

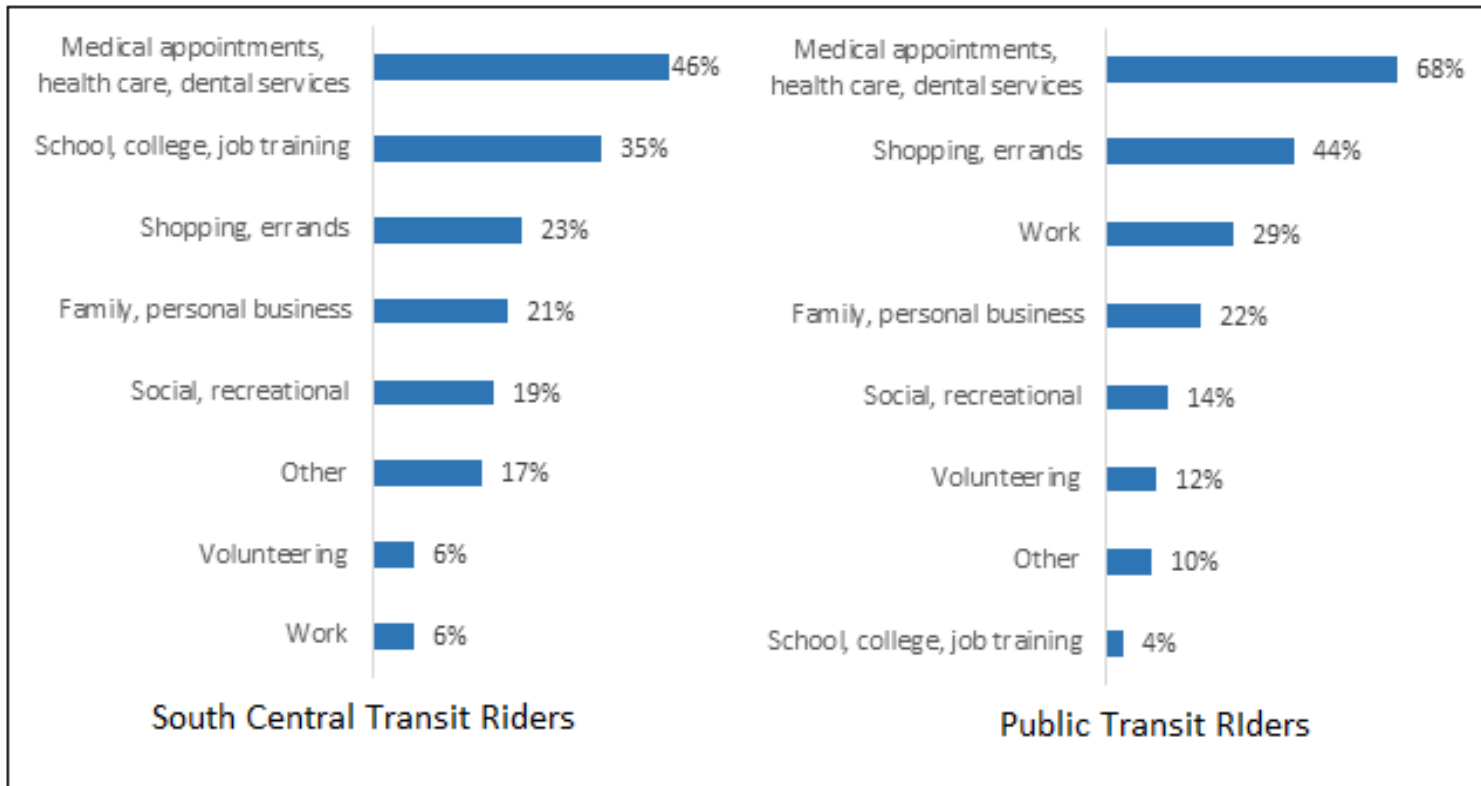
Reasons South Central Transit Users and Public Transit Users Began Using the Service



Valley City

Dickinson

Purpose of Transit Trips



Valley City

Dickinson

Transit Stakeholder Interviews

- All 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
 - 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.

South Central Transit: 9 Stakeholders Interviewed

Most of the stakeholders felt that having South Central Transit in Valley City is especially important because:

- 1) There are a lot of 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 to Fargo or Jamestown for any special medical services; and
- 3) There is a lack of private taxi services.

Public Transit: 8 Stakeholders Interviewed

Most of the stakeholders felt that having Public Transit in Dickinson is especially important because:

- 1) The city is spread out and it is hard to travel between any two locations without some form of motorized transport, especially during extreme winters..

Transit Stakeholder Interviews: Public Transit

Public Transit: 8 Stakeholders Interviewed

- All 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
 - 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.

Most of the stakeholders felt that having South Central Transit in Valley City is especially important because:

- 1) there are a lot of 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 to Fargo or Jamestown for any special medical services; and
- 3) there is a lack of private taxi services.

Conclusions and Recommendations

- Study aimed at better understanding rural livability factors, and transit's contribution towards rural livability in two North Dakota communities.
- Resident surveys, transit rider surveys, and stakeholder interviews were conducted.
- Most of the residents in both the case study communities and stakeholders believe that transit services should be continued to be available as transportation option for seniors and people with disabilities, those who choose not to drive, and those who cannot afford to drive.
- Respondents to the rider survey were more likely to be **female**, both **older or younger**, **living alone** without access to a vehicle, and having **lower income**.
- Overall, most of the residents and all stakeholders acknowledged that transit plays a key role for their community livability, and transit riders were very satisfied with their current transit service and strongly agreed that transit is very important for their quality of life.



Thank you!
Questions?

Ranjit Godavarthy:
ranjit.godavarthy@ndsu.edu

Full Report:
<http://www.ugpti.org/resources/reports/details.php?id=860>