

Access to Rural Health Care

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Transportation Emissions and Health Equity: Research Perspectives

CARTEEH Webinar

October 12, 2023

Overview

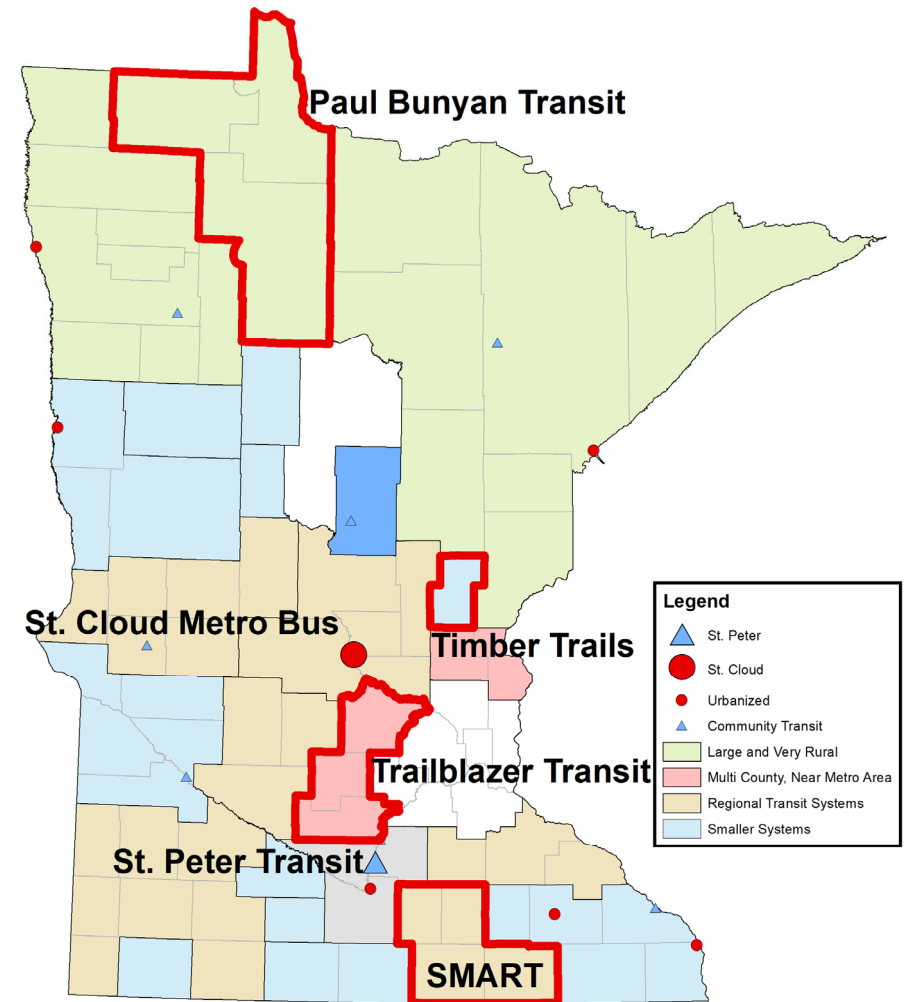
- Surveys of rural transit riders in Minnesota and North Dakota
- Impact of rural transit on improved access to health care
- Demographics of rural transit users
- Cost-benefit analysis



Six Case Studies

Case studies involved surveys of transit riders in 2019.

Transit Agency	Number of Survey Responses
Paul Bunyan Transit	136
SMART	103
St. Cloud Metro Bus	477
St. Peter Transit/MRVT	27
Timber Trails (Kanabec County)	31
Trailblazer Transit	156



Purpose of Trip

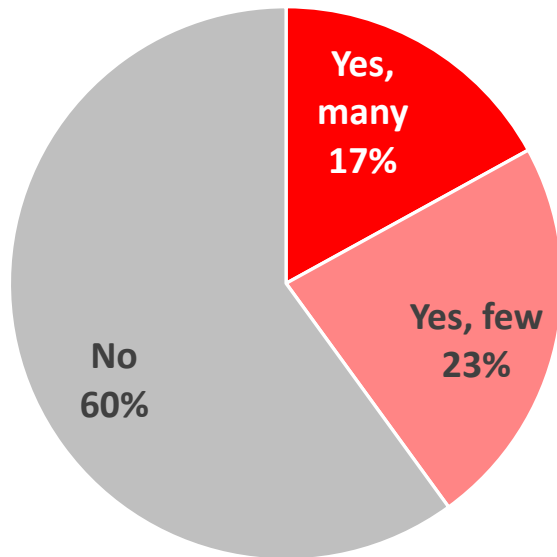
	Paul Bunyan Transit (n=136)	SMART (n=102)	St. Cloud Metro Bus (n=474)	St. Peter Transit (n=27)	Timber Trails (n=31)	Trailblazer Transit (n=156)
-----Percentage of responses-----						
Work	36	22	30	16	50	54
Shopping or eating out	16	28	19	29	16	13
Health care	17	14	15	18	34	9
Errands or personal business	14	20	13	18	0	5
Social or recreation	4	9	11	7	0	7
School or job training	5	3	6	2	0	2
Taking someone else somewhere	0	1	2	4	0	3
Other	8	4	4	7	0	8

How Transit Riders Would Have Made Trip if Transit Was Not Available

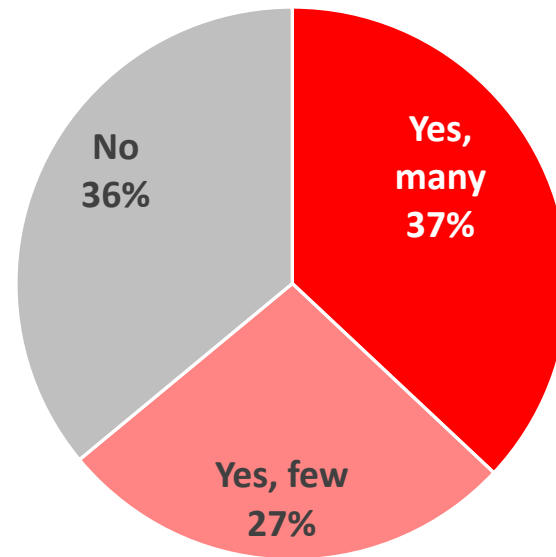
	Paul Bunyan Transit (n=112)	SMART (n=93)	St. Cloud Metro Bus (n=370)	St. Peter Transit (n=23)	Timber Trails (n=30)	Trailblazer Transit (n=135)
-----Percentage of respondents-----						
I would not have made this trip	32	32	30	35	23	41
Family member or friend	23	27	20	35	10	16
Used a taxi, Uber, or Lyft	5	16	23	9	0	3
Walked	9	14	14	13	10	8
Volunteer driver	5	2	3	4	3	5
Driven myself	3	2	4	0	0	4
Bicycled	2	3	3	0	3	3
Other	21	3	3	4	50	20

Percentage of Respondents that Would Miss Health Care Trips Without Transit

Overall Results

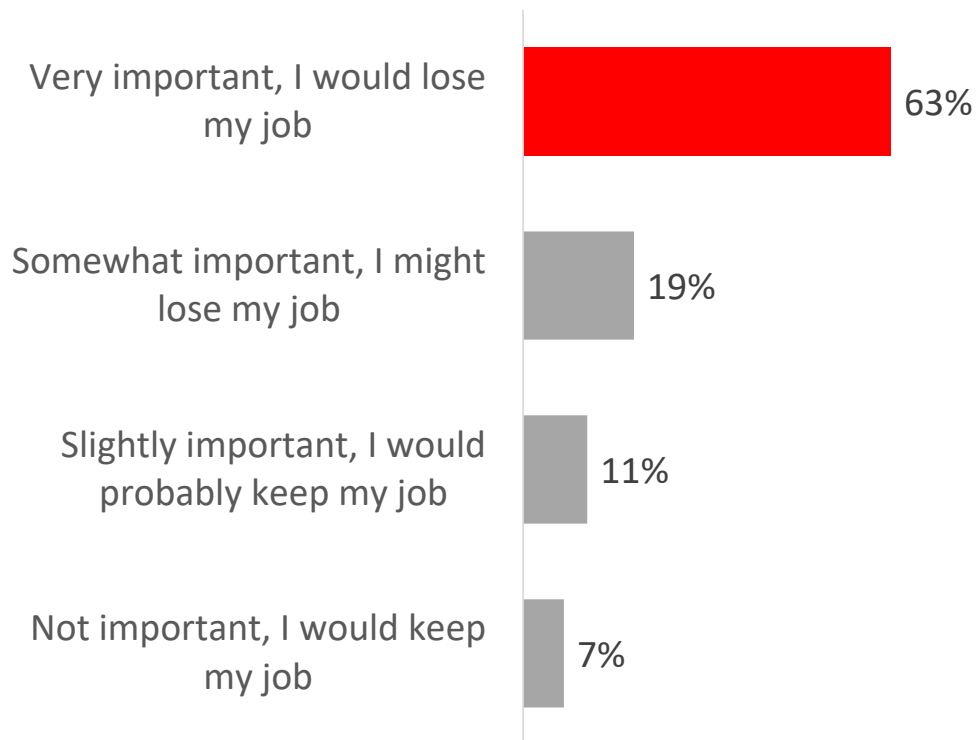


Frequent Transit Users

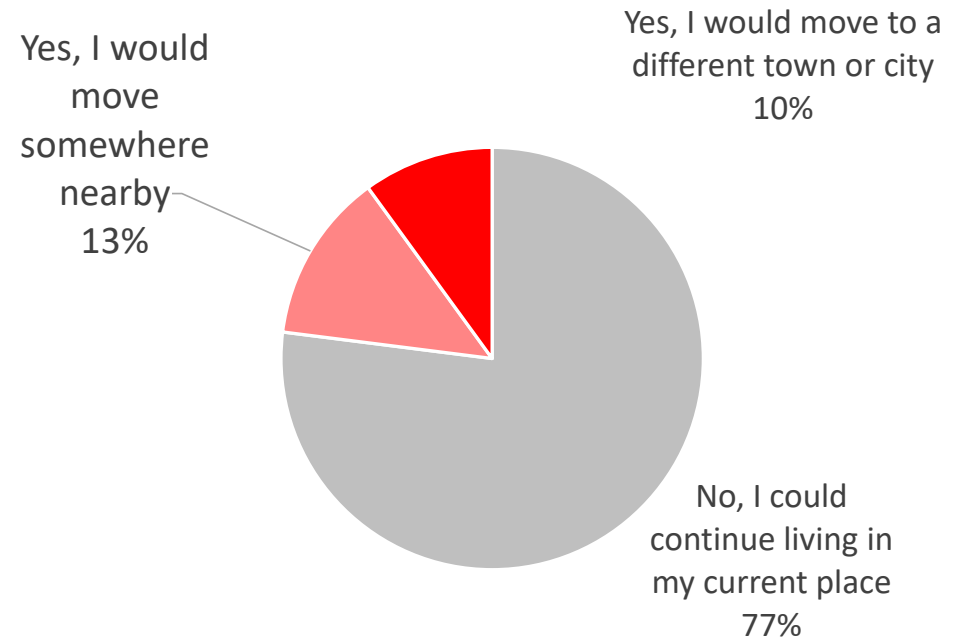


Rural MN Transit Rider Survey Responses

How important is transit for getting to work?



If transit was not available, would you move someplace else?



Access to Health Care Benefits

Difference between well-managed and poorly managed care

Reduced health care costs and improved quality of life



Safety Benefits

The value of the safety difference between transit and an alternative mode.

Difference in number of crashes between transit and alternative modes, for trips diverted to transit, multiplied by the cost of crashes.



Environmental Benefits

Environmental cost savings from riding transit instead of an alternative mode

Environmental cost of automobile travel, for trips diverted to transit, minus the environmental cost of transit, including costs of air pollution and GHG emissions.



Estimated Monetary Benefits

	Paul Bunyan Transit	SMART	St. Cloud Metro Bus	St. Peter Transit	Timber Trails	Trailblazer Transit
Mobility Benefits						
Low-cost mobility benefit (\$)	114,532	110,108	985,722	14,124	34,752	389,096
Access to healthcare benefit (\$)	3,520,587	5,514,718	29,466,106	980,629	2,180,975	4,623,828
Public assistance cost savings (\$)	282,661	295,324	2,203,861	25,902	109,474	1,144,721
Efficiency Benefits						
Vehicle operating cost savings (\$)	1,738	-1,944	-2,660	0	0	12,427
Chauffeuring cost savings (\$)	379,660	265,241	1,818,205	38,454	232,596	1,014,388
Travel time impacts (\$)	-93,121	-10,037	316,290	3,572	-32,568	-80,562
Safety benefits (\$)	6,255	6,578	65,750	470	6,651	838
Environmental benefits (\$)	-58,880	-109,169	-233,741	-7,429	-34,329	-215,350
Total (\$)	4,153,434	6,070,819	34,619,532	1,055,723	2,497,552	6,889,385

Comparison of Benefits to Costs, Per Trip

	Paul Bunyan Transit	SMART	St. Cloud Metro Bus	St. Peter Transit	Timber Trails	Trailblazer Transit
Benefits (\$)	34.76	25.14	18.31	36.05	47.58	27.49
Costs						
Operating (\$)	12.13	10.82	6.41	6.07	18.22	17.59
Capital (\$)	1.25	1.55	1.81	2.53	1.43	0.30
Total (\$)	13.37	12.36	8.21	8.59	19.65	17.89
Benefit-cost ratio	2.6	2.0	2.2	4.2	2.4	1.5

Intangible Benefits

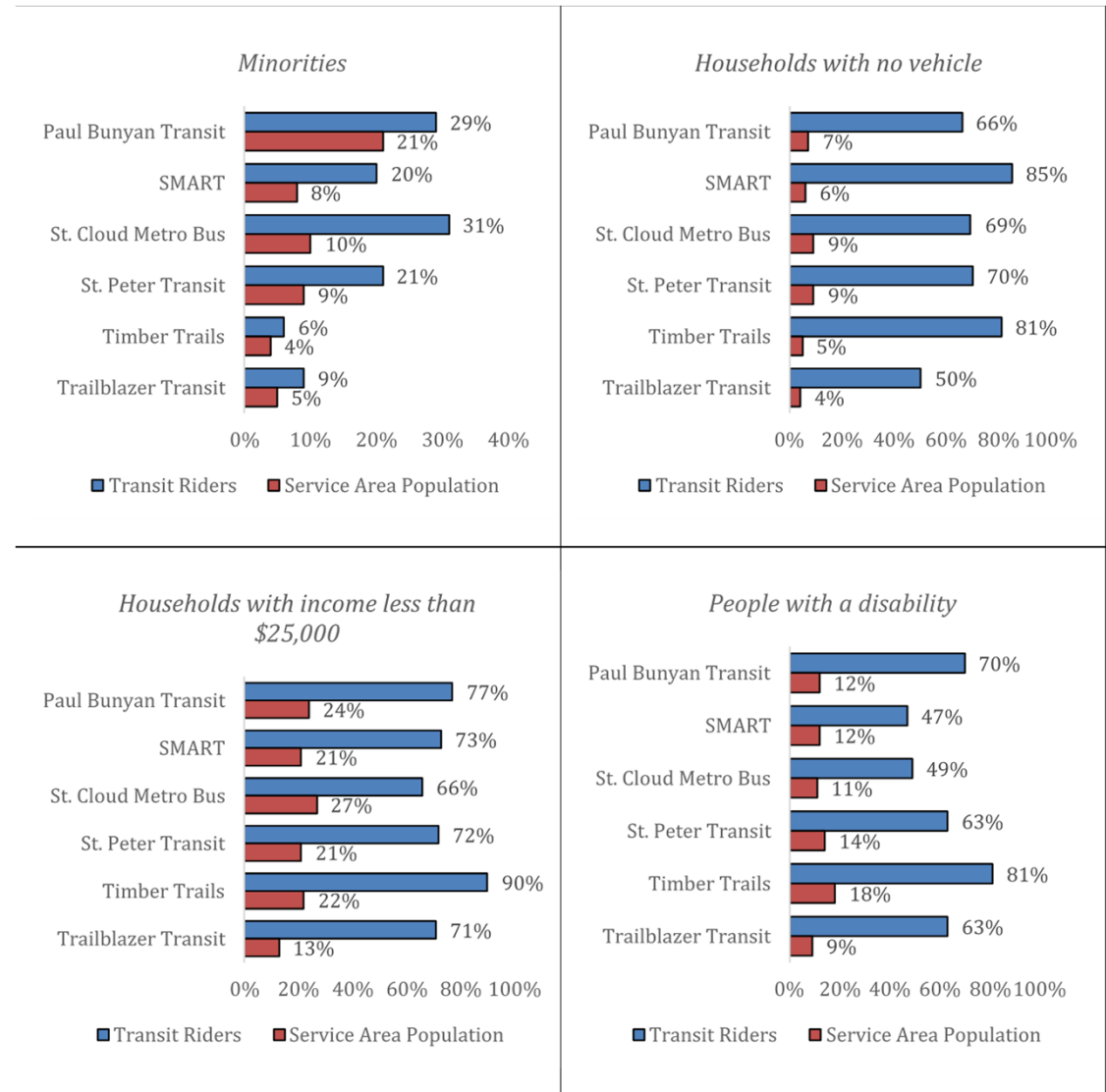
Most riders agree or strongly agree that transit:

- Allows riders to make more trips
- Increases social interaction with other people
- Reduces stress level
- Allows rider to live independently
- Improves overall quality of life
- Keeps rider connected to their town



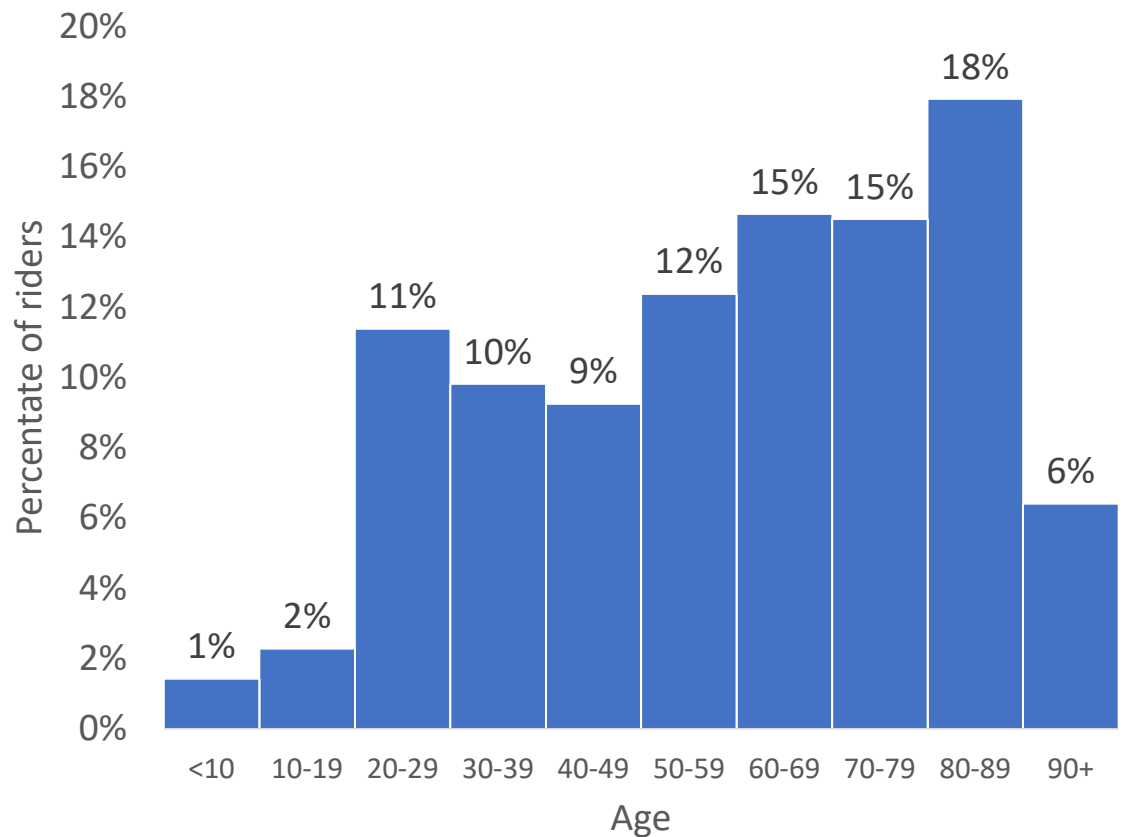
Transit Promotes Equity

Transit serves a disproportionately higher percentage of minorities, households with no vehicle, low-income individuals, people with a disability, and older adults.



North Dakota Rider Survey

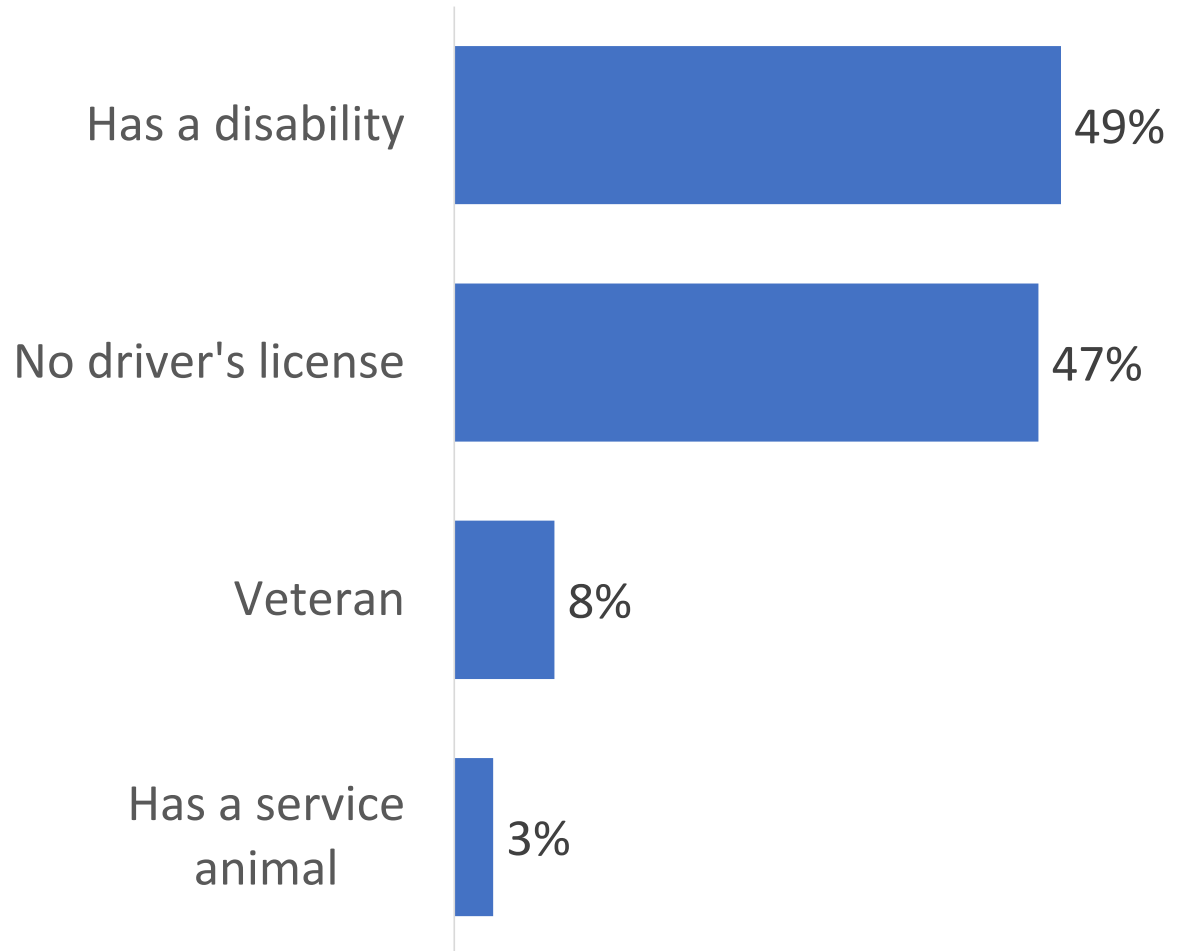
- Conducted late January – early March 2020
- 751 rural responses
 - Average age: 59
 - Median age: 62
 - 24% of riders are age 80 or older



North Dakota Rural Transit Rider Demographics

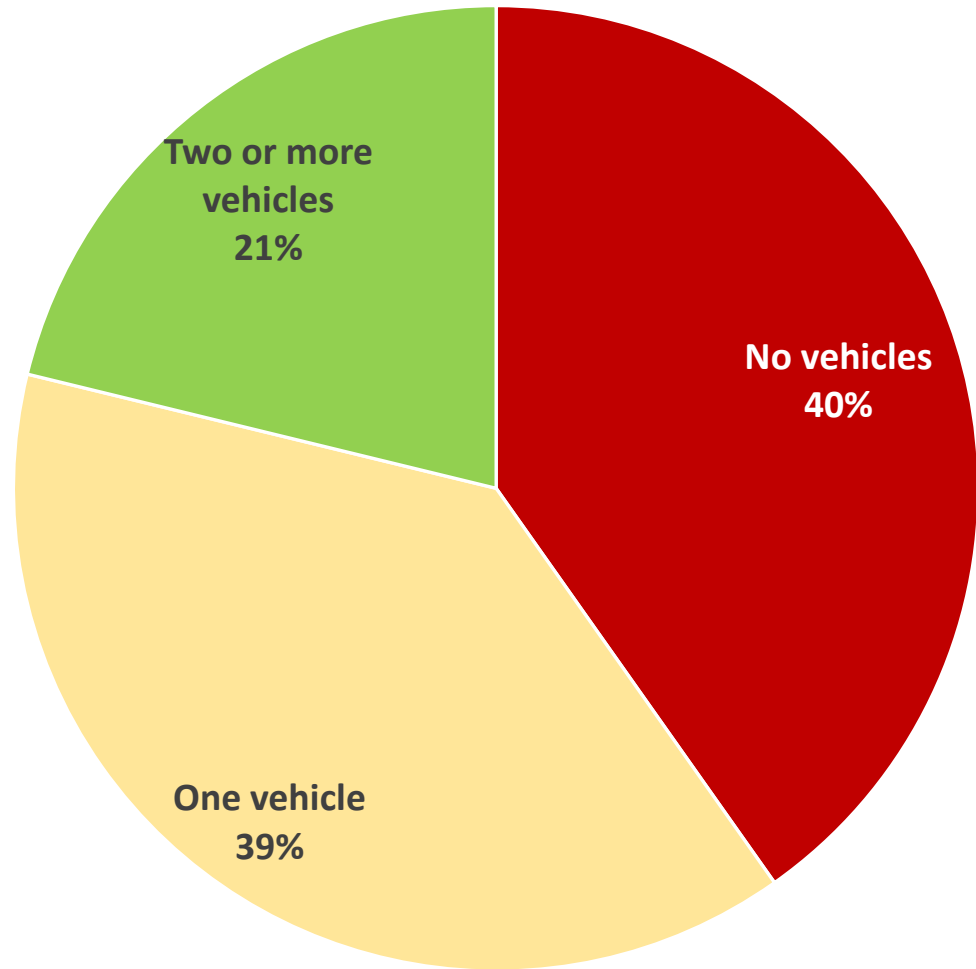
About half identify themselves as having a disability.

Close to half do not have a driver's license.

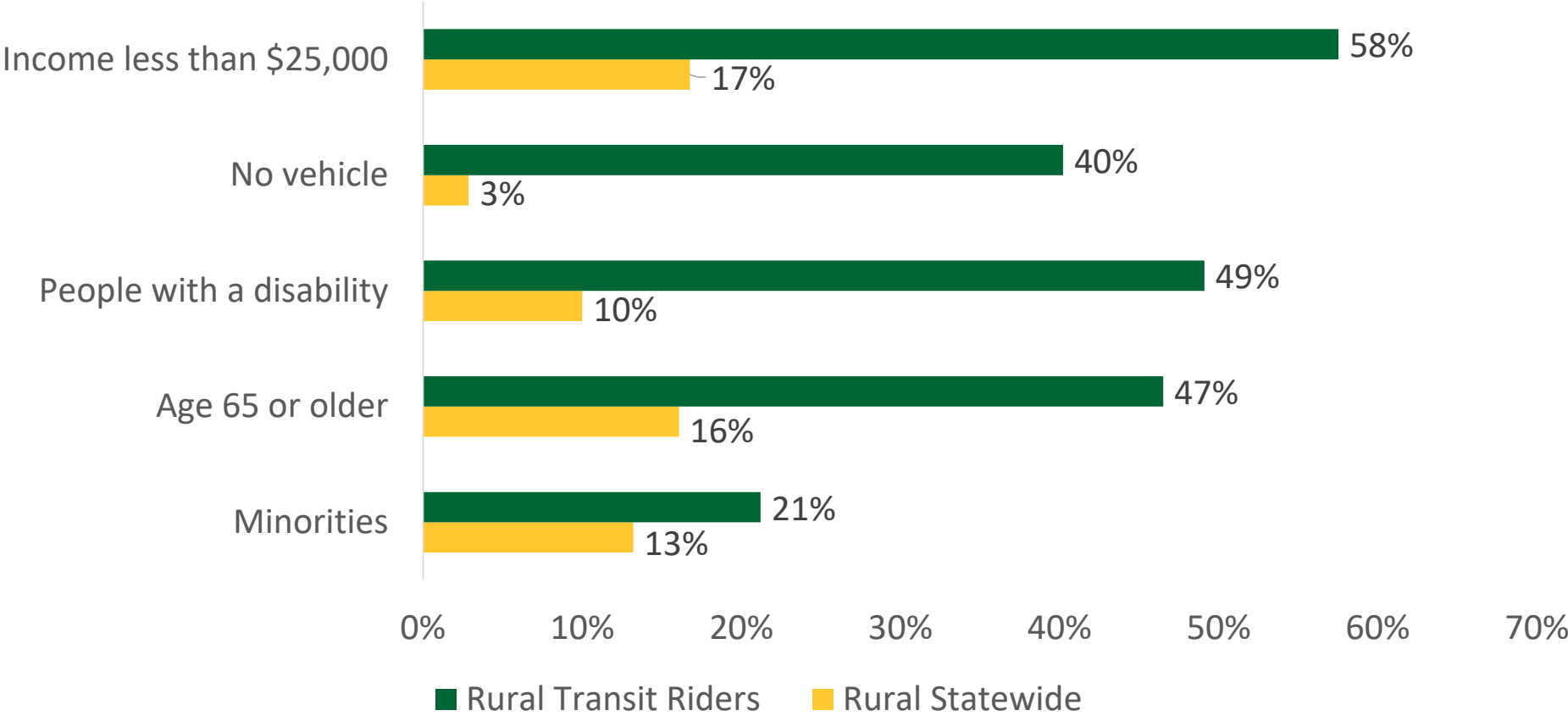


Rural Transit Rider Demographics: Number of Vehicles in Household

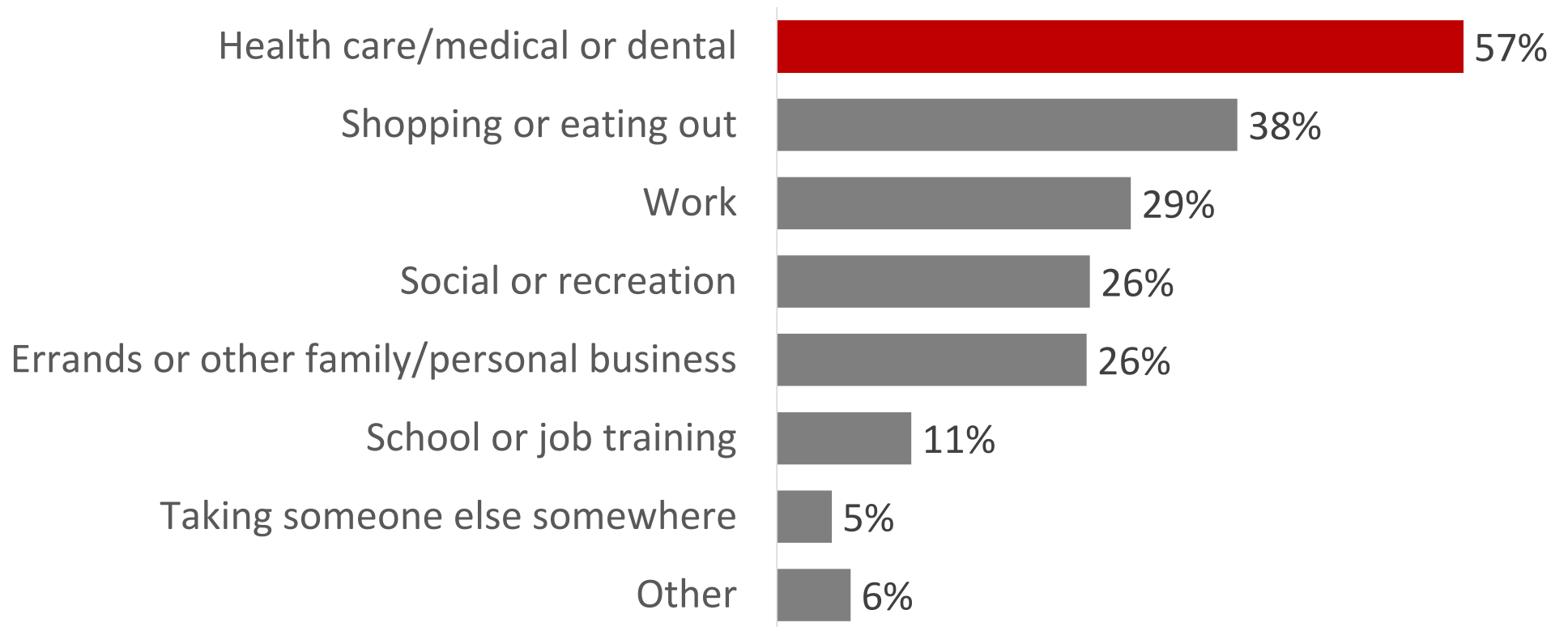
Many riders do not have access to a vehicle.



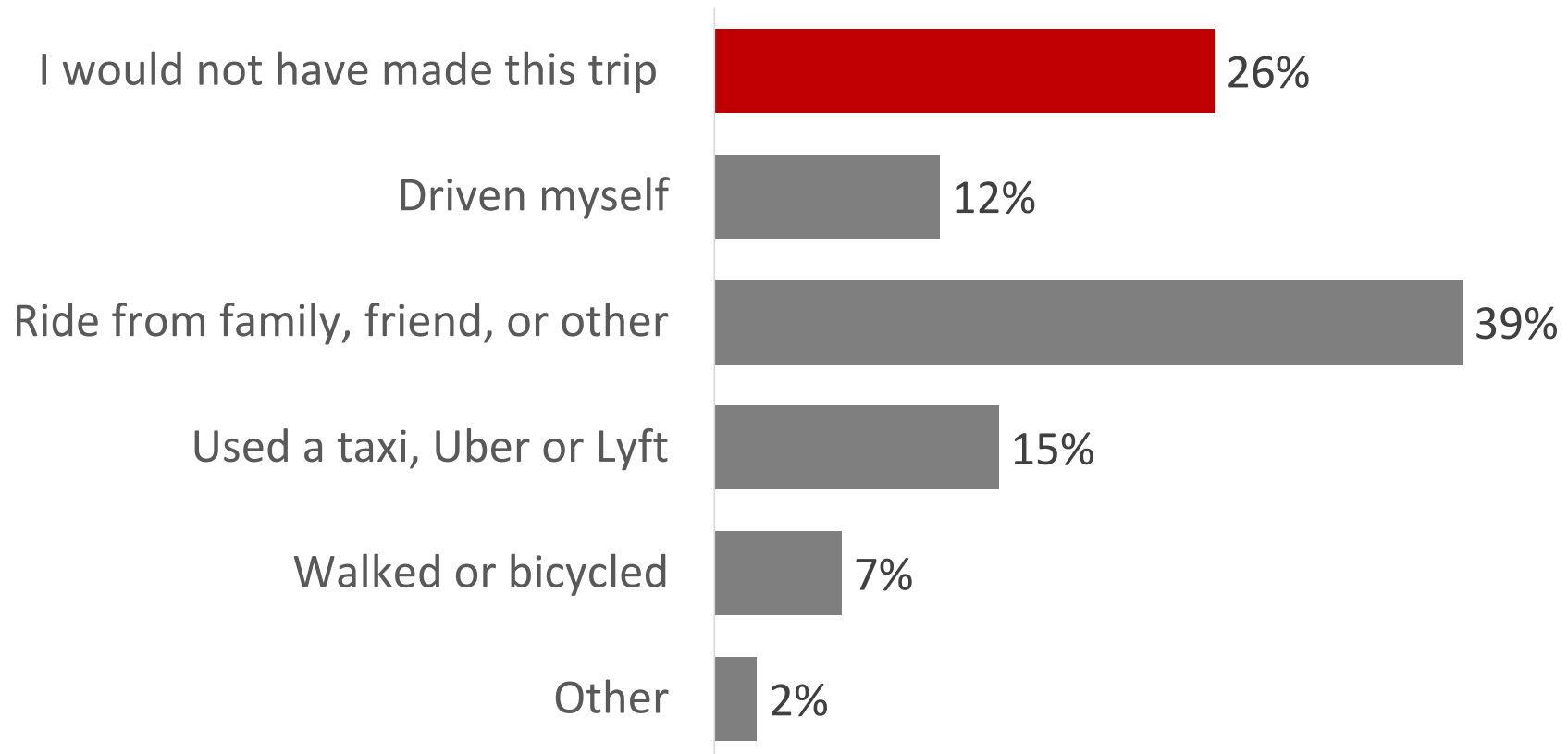
Comparison of Demographics: ND Rural Transit Riders and Rural General Population



North Dakota Rural Rider Survey: Trip Purposes



How Trip Would Have Been Made Without Transit



Conclusions

- Large share of transit trips are for health care
- Many riders are transit dependent and would miss health care trips
- Access to health care benefits surpass the costs of providing service
- Intangible benefits have quality of life implications
- Transit promotes more equitable access to health care

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Thank you!

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