

# Summary of Statewide Societal Benefits

## Full Report: Measuring the Economic Benefits of Rural and Small Urban Transit Services in Greater Minnesota

This study developed a method for estimating benefits of transit in Greater Minnesota. The method was applied in six case studies conducted with Paul Bunyan Transit, Southern Minnesota Area Rural Transit (SMART), St. Cloud Metro Bus, St. Peter Transit, Timber Trails, and Trailblazer Transit. The case studies included a survey of transit riders and an estimation of the different types of benefits provided by each transit agency. Statewide benefits were then estimated for rural transit and small urban systems in Greater Minnesota.

## Transit Users

Transit in Greater Minnesota serves many riders with limited transportation options. Among riders surveyed for five rural systems, nearly three-quarters did not have a driver’s license, two-thirds did not have a vehicle in their household, 63% considered themselves as having a disability, and three-quarters had household incomes below \$25,000. Respondents in St. Cloud, the urban system studied, were also predominately low-income and a majority did not have a driver’s license or access to a vehicle. Most riders in Greater Minnesota were frequent riders, using the service multiple days per week. Many relied on it as a primary means of transportation. This was most notably the case for those who rode transit to work.

Because many riders have limited transportation options, they would be severely affected if transit services were not available. Very few can drive themselves, and most would need to rely on someone else to provide transportation, pay a higher cost for taxi or Uber or Lyft services where available, or simply not make the trip. About 35% of riders surveyed said they would not have made their current trip if transit had not been available. This response was similar across the six agencies studied.

## Estimated Monetary Benefits

Total annual benefits of transit were estimated at \$128 million for the rural systems statewide, \$143 million for urban providers in Greater Minnesota, and \$271 million overall (Table 1). Benefits were categorized as either mobility benefits or efficiency benefits. Mobility benefits are those resulting from providing trips to people who otherwise would not be able to make the trip. Efficiency benefits are those from individuals taking transit instead of driving, getting a ride from someone, walking or biking, or making the trip some other way.

**Table 1. Summary of Estimated Greater Minnesota Monetary Benefits**

	Rural	Urban	Total
<i>Mobility Benefits</i>			
Low-cost mobility benefit (\$)	3,750,469	3,857,064	7,607,533
Access to health care benefit (\$)	107,041,780	121,451,153	228,492,933
Public assistance cost savings (\$)	10,072,423	9,083,705	19,156,128

	Rural	Urban	Total
<i>Efficiency Benefits</i>			
Vehicle operating cost savings (\$)	27,821	-65,125	-37,305
Chauffeuring cost savings (\$)	11,144,524	7,151,127	18,295,650
Travel time benefits (\$)	-1,619,399	2,058,385	438,986
Safety benefits (\$)	152,708	271,003	423,711
Environmental benefits (\$)	-2,632,430	-708,102	-3,340,532
<b>Total (\$)</b>	<b>127,937,896</b>	<b>143,099,209</b>	<b>271,037,104</b>

Access to health care benefits comprises a large share of these benefits. These benefits result from providing trips to health care service for individuals who otherwise would not be able to make those trips. It results in reduced health care costs and improved quality of life. Public assistance cost savings, chauffeuring cost savings, and low-cost mobility benefits comprise most of the remainder of the benefits. Public assistance cost savings result when transit provides access to work for individuals who otherwise would not be able to travel to work. Transit allows more people to go to work and maintain a job, which reduces the need for government spending on assistance programs. Chauffeuring cost savings are benefits to family members and friends who would need to provide transportation to transit riders if transit was not available. These savings include the cost of operating the vehicle as well as the value of their time for providing the trip. Low-cost mobility benefits are benefits to transit riders who would not be able to afford to make the trip any other way if transit was not available.

A comparison of the benefits to total costs shows a benefit-to-cost ratio of 2.2 for rural transit, 2.9 for urban systems, and 2.5 overall (Table 2). This result means that every dollar invested in transit in Greater Minnesota provides \$2.50 in benefits. These estimates are based on 2017 data.

**Table 2. Comparison of Greater Minnesota Benefits to Costs, Per Trip**

	Rural	Urban	Total
<i>Benefits (\$)</i>	31.63	18.36	22.89
<i>Costs (\$)</i>	14.28	6.43	9.11
<b><i>Benefit-cost ratio</i></b>	<b>2.2</b>	<b>2.9</b>	<b>2.5</b>

Because there is uncertainty in many of parameters used to estimate these results, the study estimated how the results would change if underlying assumptions and input variables changed. With 90% confidence, benefit-cost ratios were estimated to range from 1.5 to 3.0 for rural transit and from 2.1 to 4.0 for urban transit in Greater Minnesota.

## Non-Monetary Benefits

Transit provides other benefits that were not quantified in dollar terms. These include relocation avoidance, intangible user benefits, increased productivity, and equity. It is estimated that 23% of rural transit riders and 45% of urban riders in Greater Minnesota would relocate if transit was not available, including many who would move to a different town or city and some who would need to move to an assisted living facility. The intangible benefits listed in Table 3 demonstrate the positive effect transit has by improving social connectedness, reducing stress, allowing for independent living, and improving overall quality of life. Increased productivity is a

result of the improved access to work and education, which is demonstrated by the high percentage of riders that rely on transit for those purposes.

**Table 3. Intangible Benefits for Rural Passengers**

	<b>Strongly Agree</b>	<b>Agree</b>	<b>Neutral</b>	<b>Disagree</b>	<b>Strongly Disagree</b>
<i>Allows me to make more trips</i>	53%	32%	10%	3%	2%
<i>Increases my social interaction with other people</i>	45%	28%	22%	3%	2%
<i>Reduces my stress level</i>	40%	32%	23%	3%	2%
<i>Allows me to live independently</i>	51%	30%	14%	3%	2%
<i>Improves my overall quality of life</i>	51%	31%	15%	1%	1%

Finally, another important benefit of transit is promoting equity by serving population groups not well served by other transportation options. Transit serves a disproportionately higher percentage of these populations. For example, among the Greater Minnesota population, 20% have household incomes below \$25,000, 6% do not have any vehicles in the household, and 12% have a disability. Among transit riders, however, 75% of rural riders and 66% of urban riders have household incomes below \$25,000, about two-thirds do not have a vehicle, and 63% of rural riders and 49% of urban riders have a disability. Transit also serves a disproportionately higher percentage of minorities and older adults.