

Societal Benefits for the Regional Transit Systems

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. Transit agencies in Greater Minnesota were categorized into six peer groups. These included urbanized systems, community transit systems, large and very rural systems, multi-county systems near the metro area, regional transit systems, and small systems. One case study was selected for each peer group. The case studies included a survey of transit riders and an estimation of the different types of benefits provided by each transit agency. Results from the case studies were used to estimate benefits for the peer group.

Southern Minnesota Area Rural Transit (SMART) was chosen as the case study for the regional transit systems. The regional transit systems are multi-county systems that have fairly large service areas and operations. Compared to the large and very rural systems, they have smaller service areas but higher population densities, serving, on average, similar population sizes. SMART is a four-county system in southern Minnesota.

Use of Transit

An onboard rider survey conducted by SMART yielded 103 responses, providing information about who uses transit and how they use it. Almost all riders use the service multiple days per week, and 45% ride at least 5 days a week, indicating a reliance on the service. Riders use transit for a wide variety of purposes. Shopping trips, work trips, personal business trips, and health care trips are the most common.

Riders were shown to have limited transportation options. Among the SMART riders surveyed, 70% did not have a driver's license, 85% did not have a vehicle in their household, 47% considered themselves as having a disability, and 73% had household incomes below \$25,000. If transit was not available, 32% would not have made their current trip, while most of the remainder would have either had a family member or friend give them a ride, taken a more expensive taxi or ride hailing service, or walked.

Estimated Monetary Benefits

Total annual benefits of regional transit systems in Greater Minnesota was estimated at \$31 million (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 Monetary Benefits of Regional Transit Systems in Greater Minnesota

Benefit Category	Estimated Benefit (\$)
<i>Mobility Benefits</i>	
Low-cost mobility benefit (\$)	1,003,783
Access to health care benefit (\$)	27,434,147
Public assistance cost savings (\$)	1,469,155
<i>Efficiency Benefits</i>	
Vehicle operating cost savings (\$)	-4,007
Chauffeur cost savings (\$)	2,380,876
Travel time benefits (\$)	-1,053,218
Safety benefits (\$)	54,538
Environmental benefits (\$)	-649,269
Total (\$)	30,636,005

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. Fourteen percent of SMART riders said they would miss many health care trips if transit was not available, and an additional 23% reported they would miss at least some trips.

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 to 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. Among riders who use transit to get to work, 86% said the service is very important to them and they would not be able to keep their job without it.

Chauffeur 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. These are significant because many riders would need to rely on others for a ride if transit was not available. 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.

These benefits equal \$25.51 per trip provided. The cost of providing a trip averaged \$13.61 for regional transit systems in 2017. This results in a benefit-cost ratio of 1.9, meaning that each dollar invested in transit provides \$1.90 in benefits.

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. Twenty-six percent of SMART riders indicated they would relocate if transit was not available. Transit provides several intangible user benefits. Most riders agreed or strongly agreed that transit improves social connectedness, reduces stress, allows for independent living, and improves 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. Transit promotes equity by serving a disproportionately higher percentage of low-income households, the carless, people with a disability, minorities, and older adults.