

Chapter 4:

Existing Public Transit Systems

Greater Minnesota public transit is a vital piece of the overall transportation system serving Minnesota. In Greater Minnesota, public transit systems serve the mobility needs of the general public including the elderly, persons with disabilities, low-income persons, commuters, students, and recreational users.

Inherent in its definition, public transportation systems are comprised of transportation services that are available to the general public. Public transit in Greater Minnesota is typically bus transportation provided in rural areas, small towns, and urban centers. These services may include traditional fixed-route, deviated route, and demand response programs—all of which are administered and operated by the public transit agency. In 2009, there are 60 public transit systems serving Greater Minnesota, providing a range of service options to residents in 76 counties (Figure 4.1).

Transit System Peer Group Categorization

Greater Minnesota's transit systems were organized into peer groups beginning in the 2001 Greater Minnesota Public Transportation Plan because of the substantial difference in characteristics among the various transit services. The peer groups were developed based on system size, service area, and type of service provided. Since the 2001 plan, several of the Greater Minnesota transit systems have undergone changes that have resulted in the elimination of two of the original peer groups. Based on current conditions, the following six groups remain:

- Urban Fixed-Route
- Americans with Disabilities Act (ADA) Paratransit
- County
- Multi-County
- Small Urban (Population over 10,000)
- Small Urban (Population under 10,000)

Peer Group Trend Analysis

The Office of Transit uses several different approaches to assess transit service performance. They can be grouped into three types of performance indicators: cost-efficiency, service effectiveness, and cost-effectiveness. Cost-efficiency measures focus on the relationship between operating cost and services provided. Service effectiveness measures, also called productivity measures, relate the amount of service consumed per unit of service output. Cost-effectiveness measures, also called economic measures, indicate fiscal balance and health.

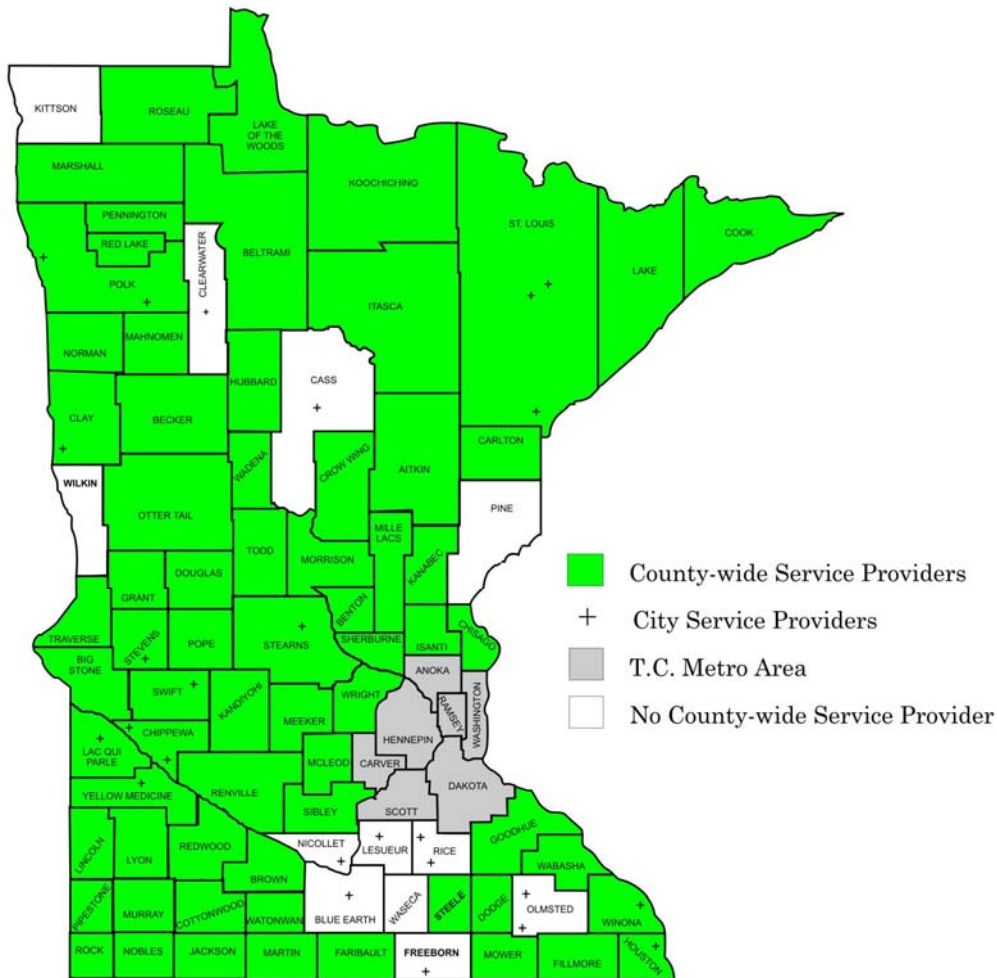


Figure 4.1 Greater Minnesota Public Transit Service Providers

Source: Mn/DOT Office of Transit

Cost-efficiency can be measured using cost per mile or cost per service hour. More cost-efficient transit services require lower costs to produce a unit of service. According to cost-efficiency indicators, County systems are the least costly to operate, while the Urban systems are most costly. In the Urban Fixed-Route systems, it costs twice as much to produce a unit of service as compared to the County systems due to higher personnel costs.

Service effectiveness can be measured using passengers per service mile and passengers per service hour. More effective transit systems serve larger numbers of people per unit of service output. According to service effectiveness measures, Urban Fixed-Route systems are three times more effective in carrying passengers as compared to the Small Urban systems and five times more effective than the County and Multi-County systems. Services are implemented based on the most appropriate and effective service type for each geographic area.

Cost-effectiveness typically evaluates a system's cost per passenger, revenue per passenger, revenue per service hour, and farebox recovery ratio. More cost-effective transit services generate larger revenues per service or consumptive unit. The farebox recovery ratio is the ratio of revenue earned by a transit agency through passenger fares compared to its operating expenses.

Examination of cost-effectiveness measures shows that one system category does not consistently lead or lag behind the others. Instead, the following trends can be observed:

- **Cost per passenger:** ADA Paratransit systems are two times more costly to operate than the other services. This trend is due to the complexities and challenges of providing the services.
- **Revenue per passenger:** Services that operate over larger distances, such as County, Multi-County, and ADA Paratransit systems, generate the highest revenue per passenger.
- **Revenue per hour:** Urban Fixed-Route systems generate two times the revenue per service hour compared to the other systems. This trend is due to larger passenger volumes.
- **Farebox recovery ratio:** Urban Fixed-Route systems lead in this measure, due to larger passenger volumes. The other systems are comparable to one another, with ADA Paratransit systems lagging due to limitations on fare collection coupled with extraordinarily high costs.

Types of Public Transit Services

In Greater Minnesota, public transit systems provide three main types of service. Service types are defined based on how buses are routed. The service routing directly determines the accessibility of the transit system to the potential customer. Many of the public transit systems in Greater Minnesota either supplement their fixed-route or route deviation service with demand response service. In more rural areas or for elderly users and/or persons with a disability, many communities have demand response as their primary transportation service. In this section, types of public transit services are described according to their peer group categorization.

Fixed-Route

With fixed-route services, the transit vehicle travels an established route. Passengers are picked up and dropped off at designated locations along the route. Printed timetables, designated bus stops, and use of large transit vehicles characterize fixed-route service. In Greater Minnesota, this type of service is operated by the Urban Fixed-Route systems in Duluth, St. Cloud, Rochester, Moorhead, East Grand Forks, and Mankato.

Route Deviation

Route deviation service allows deviations from the general route path to provide direct transportation access to passengers who live in the vicinity of that basic route path. In a deviated route system, a vehicle travels a basic route, picking up and dropping off passengers anywhere along the route. On request, and perhaps with additional charge, the vehicle will deviate a few blocks from the route to pick up and deliver a passenger. Deviated route service allows a greater number of passengers more direct access to vehicles and provides for greater and more flexible coverage within the service area without significantly increasing trip times. In Greater Minnesota, both types of Small Urban, County, and Multi-County systems operate route deviation service.

Demand Response

Demand response service allows direct transportation access to passengers who live in a specified service area. Demand response service is characterized by flexible routing and scheduling of relatively small vehicles at the user's demand. A vehicle travels anywhere in a defined service area picking up and dropping off passengers at multiple origin and destination points. Demand response service allows a

greater degree of flexibility in responding to trip requests within the service area than deviated route service. In Greater Minnesota, both ADA Paratransit systems, Small Urban, County, and Multi-County systems operate demand response service. Examples of demand response service include general public dial-a-ride and ADA complementary paratransit.

General Public Dial-A-Ride

Dial-a-ride service allows passengers to be picked up within a very short time from when a trip is requested. Dial-a-ride service provides curb-to-curb transportation to patrons who request service by telephone, either on an ad hoc or subscription basis.

ADA Complementary Paratransit

The Americans with Disabilities Act (ADA) requires public transit agencies that provide fixed-route service to provide complementary paratransit services to people with disabilities who cannot use the fixed-route bus or rail service because of a disability. The ADA regulations specifically define a population of customers who are entitled to this service as a civil right. In general, ADA complementary paratransit service must be provided within 3/4 of a mile of a bus route or rail station, at the same hours and days, for no more than twice the regular fixed-route fare.

Transit Technology

Technology provides an opportunity for transit systems of all types to better manage data, identify potential areas for improvement, and enhance user experiences. The following examples illustrate the technological advancements in transit planning and operations management that are emerging across the country.

- **Automated vehicle location:** Computerized tools that track the real-time location of a transit vehicle, allowing for dispatching and schedule monitoring with reference to the roadway network and planned schedule.
- **Scheduling/dispatch software:** Software customized for transit that improves the efficiency in collecting and recalling client information, call taking, scheduling, vehicle routing, agency/client billing, and other functions supporting paratransit service.
- **Electronic fare payment:** Allows payment without a cash transaction and include bar-coded cards, magnetic strip cards, and smart cards similar to debit or credit cards.
- **Automated stop announcers:** These devices announce the next stop, stop requests, or other travel information for passengers in audible and visual formats.
- **Travel planning services:** Services allowing potential passengers to plan their trip. Travel planning services can be provided through automated telephone systems, the Internet, at high traffic locations such as malls, public buildings, or tourist attractions, or through individual customer service.

Table 4.3 on the following pages contains an inventory of Greater Minnesota transit systems by peer group category, and the types and availability of services provided in 2008.

Table 4.3 Greater Minnesota Transit Service Provider 2008 Inventory

Peer Group	System	Area Served	Population Served	Service Type			Availability			
				Fixed-route	Route Deviation	Demand Response	M-F ≥ 10 Hours	M-F < 10 Hours	Saturday	Sunday
Urban Fixed-Route Systems	Duluth	Cities of Duluth, Hermantown, and Proctor, MN; and service to Superior, WI	123,643	•			•		•	•
	E. Grand Forks	City of East Grand Forks	7,816	•			•		•	
	La Crescent	City of La Crescent, MN and La Crosse, WI	4,923		•		•			
	Mankato	City of Mankato	35,031	•		•	•		•	
	Moorhead	Cities of Dilworth and Moorhead	37,708	•			•		•	
	Rochester	City of Rochester	107,735	•			•		•	
	St. Cloud	Cities of St. Cloud, Sartell, Sauk Rapids, and Waite Park	96,702	•		•	•		•	•
ADA Paratransit Systems	Duluth DAR	Cities of Duluth, Hermantown, and Proctor, MN; and service to Superior, WI	123,643			•	•		•	•
	East Grand Forks DAR	City of East Grand Forks	7,816			•	•		•	
	Moorhead DAR	Cities of Dilworth and Moorhead	37,708			•	•		•	
	Rochester DAR	City of Rochester; Townships of Cascade, Haverhill, and Marion	107,735			•	•		•	
	St. Cloud DAR	Cities of St. Cloud, Sartell, Sauk Rapids, and Waite Park	96,702			•	•		•	•

Peer Group	System	Area Served	Population Served	Service Type			Availability				
				Fixed-route	Route Deviation	Demand Response	M-F ≥ 10 Hours	M-F < 10 Hours	Saturday	Sunday	
County Systems	Austin-Mower	City of Austin in Mower County	39,210		•	•	•			•	•
	Becker Co.	Cities of Audubon, Callaway, Detroit Lakes, Frazee, Lake Park, Ogema, and Osage in Becker County	32,203		•	•	•				
	Brown Co.	Cities of Comfrey, Essig, Evan, Hanska, New Ulm, Sleepy Eye, and Springfield in Brown County	26,794		•	•		•			•
	Clay Co.	Cities of Auburn, Barnesville, Detroit Lakes, Dilworth, Felton, Hawley, Hitterdahl, Moorhead, Sabin, and Ulen in Clay County and portions of Becker County	54,385		•	•		•			
	Cottonwood Co.	Cities of Mountain Lake, North Jackson County, Westbrook, Windom, and Worthington in Cottonwood County	11,950		•	•		•			
	Crow Wing	Cities of Baxter and Brainerd in Crow Wing County	60,556		•	•		•			
	Faribault Co.	Cities of Blue Earth, Bricelyn, Huntley, Kiester, Minnesota Lake, Walters, Wells, and Winnebago in Faribault County	15,650			•		•			
	Grant Co.	Grant County	6,171		•	•		•			
	Hubbard Co.	City of Park Rapids and Hubbard County	22,469		•	•	•				
	Kandiyohi Co.	Cities of Atwater, Blomkest, Kandiyohi, Lake Lillian, Pennock, Prinsburg, Raymond, Regal and Sunburg in Kandiyohi County	41,639		•	•	•			•	
	Lincoln Co.	Cities of Canby, Marshall, and Pipestone in Lincoln County; and Brookings and Watertown, SD	57,867			•	•				
	Mahnomen	Mahnomen County; to and from Detroit Lakes, Ogema, and White Earth	117,771			•		•			
	Martin Co.	Cities of Dunnell, Fairmont, Granada, Sherburn, Trimont, Truman, and Welcome in Martin County	21,206			•	•			•	
	Meeker Co.	Meeker County	23,621		•	•	•				
	Murray Co.	Murray County	8,935			•		•			
	Paul Bunyan	Beltrami County	43,334		•	•	•			•	
Pipestone Co.	Pipestone County	9,513			•	•			•	•	
Prairieland	Cities of Adrian, Bigelow, Brewster, Dundee, Ellsworth, Kinbrae, Leota, Lismore, Reading, Round Lake, Rushmore, St. Kilian, Wilmont, and Worthington in Nobles County	20,730		•	•	•					

Peer Group	System	Area Served	Population Served	Service Type			Availability				
				Fixed-route	Route Deviation	Demand Response	M-F ≥ 10 Hours	M-F < 10 Hours	Saturday	Sunday	
County Systems (continued)	Red Lake	Cities of Bemidji, Little Rock, Ponemah, Red lake, and Redby in Beltrami County	13,059			•	•				
	Renville Co.	Renville County	16,937		•	•	•				
	Rock Co.	Cities of Ash Creek, Beaver Creek, Hardwick, Hills, Kanaranzi, Kenneth, Luverne, Magnolia, and Steen in Rock County	9,616			•		•			•
	Steele Co.	Steele County	36,165		•	•	•			•	•
	Transit Alts.	Cities of Fergus Falls, Parker Prairie, Pelican Rapids, and Perham in Otter Tail County	57,159		•	•	•				
	Wadena Co.	Cities of Menahga, Sebeka, Verndale, and Wadena in Wadena County; City of Bluffton in Otter Tail County; and the City of Staples in Todd and Wadena Counties	13,787		•	•		•			•
	Watonwan Co.	Cities of Fairmont, Lake Crystal, Mankato, Mountain Lake, New Ulm, Sleepy Eye, Trimont, and Windom in Watonwan County	65,420			•	•				
Multi-County Systems	Arrowhead	Aitkin, Carlton, Cook, Itasca, Koochiching, Lake, and St. Louis Counties	201,713		•	•	•			•	•
	Far N. Transit	Lake of the Woods and Roseau Counties	21,152			•	•				
	Isanti - Chisago	Cities of Braham, Cambridge, Center City, Chisago City, Isanti, Lindstrom, North Branch, Rush City, Taylor Falls, and Wyoming in Chisago and Isanti Counties	42,477		•		•				
	Prairie Five	Big Stone, Chippewa, Lac Qui Parle, Swift, and Yellow Medicine Counties	48,135			•	•				
	Rainbow Ride	Douglas, Pope, Stevens, Traverse, and Southern Todd Counties	63,657			•	•			•	
	RiverRider	Sherburne and Wright Counties	194,968		•	•		•			
	SEMCAC	City of Blooming Prairie; Dodge, Fillmore, Houston, and Winona Counties	82,690		•	•	•				
	Three Rivers	Cities of Cannon Falls, Elgin, Frontenac, Kellogg, Lake City, Mazeppa, Plainview, Red Wing, Wabasha, and Zumbrota in Goodhue and Wabasha Counties	34,999		•	•	•			•	
	Timber Trails	Mille Lacs and Kanabec Counties	41,513		•	•		•			
	Trailblazer	McLeod and Sibley Counties	53,463			•	•				
	Tri-CAP	Benton, Morrison, and Stearns Counties	119,630		•	•	•				
	Tri-Valley	City of Bagley; Marshall, Norman, Pennington, Polk, and Red Lake Counties	75,265		•	•	•				
	Western Comm Action	Cities of Willmar, and Worthington; Jackson, Lyon, and Redwood Counties; limited service in Cottonwood and Lincoln Counties; and service to Sioux Falls, SD	52,242		•	•	•			•	•

Peer Group	System	Area Served	Population Served	Service Type			Availability			
				Fixed-route	Route Deviation	Demand Response	M-F ≥ 10 Hours	M-F < 10 Hours	Saturday	Sunday
Small Urban Systems (Population over 10,000)	Albert Lea	City of Albert Lea	18,153		•	•		•		
	Faribault	City of Faribault	22,605		•		•		•	•
	Hibbing	City of Hibbing	16,582		•	•	•		•	•
	Northfield	City of Northfield	18,961		•	•	•		•	
	St. Peter	Cities of Kasota and St. Peter	11,368			•	•		•	
	Virginia	Cities of Virginia and Mountain Iron	11,794		•	•	•			
	Winona	Cities of Goodview and Winona	30,592		•		•			
Small Urban Systems (Population under 10,000)	Benson	City of Benson	3,346			•	•		•	•
	Dawson	City of Dawson	1,478			•			•	
	Fosston	City of Fosston	1,531			•	•			•
	Granite Falls	City of Granite Falls	3,088			•	•			
	Le Sueur	City of Le Sueur	4,305		•	•		•		
	Montevideo	City of Montevideo	5,474			•	•			
	Morris	City of Morris	5,085			•	•		•	•
	Pine River	City of Pine River	954			•		•		
	Stewartville	City of Stewartville; Townships of High Forest, Pleasant Grove, and Racine	7,973			•		•		