TRANSIT SYSTEM PERFORMANCE EVALUATION

Twin Cities Metropolitan Region

METROPOLITAN COUNCIL

April 2019

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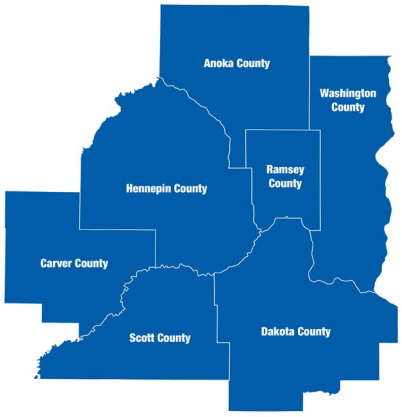

The Metropolitan Council is the regional planning organization for the seven-county Twin Cities area. The Council operates the regional bus and rail system, collects and treats wastewater, coordinates regional water resources, plans and helps fund regional parks, and administers federal funds that provide housing opportunities for low- and moderate-income individuals and families. The 17-member Council board is appointed by and serves at the pleasure of the governor.

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1. Purpose

This report is a comprehensive review of the Twin Cities transit system as prepared by the Metropolitan Council. The Minnesota State Legislature adopted statutes in 1996 requiring the Metropolitan Council to perform an evaluation of the Twin Cities transportation system prior to each update of the Transportation Policy Plan with an additional updated review of the regional transit system performed every two years. The relevant statute states:

> 473.1466 TRANSPORTATION SYSTEM PERFORMANCE EVALUATION
>
> 4. include an evaluation of the regional transit system, including a comparison with peer metropolitan regions *with regard to* key operating and investment measurements.
>   b. The council must update the evaluation of the regional transit system every two years.

The Metropolitan Council has previously performed Transit Performance Evaluations in 1999, 2003, and 2007, with the last dedicated evaluation in 2009. In addition, the council has performed transportation system evaluations in 1997, 2001, 2005, 2012 and 2016, all of which contained transit system evaluations. This Transit Performance Evaluation is an update to the transit evaluation found in the *2016 Transportation System Performance Evaluation*.

Scope of Report

This document evaluates the performance of the transit system in the Twin Cities region. The evaluation includes a description of the existing transit network, an analysis of select performance measures, an analysis of demographics relevant to transit performance, a comparison of the region's transit performance with select peer regions and a highlight of recent successes and opportunities on the regional transit network.

Transportation Policy Plan Goals and Objectives

Residents and businesses view a strong public transit system as an essential part of an overall transportation system for the Twin Cities region. *Thrive MSP 2040,* the Metropolitan Council's long-term development guide for the seven-county Twin Cities region, outlined a vision of our region defined by **prosperity**, **equity**, **livability**, **sustainability** and effective **stewardship**. The Metropolitan Council's *2040 Transportation Policy Plan (TPP)* identifies six goals for the regional transportation system, including the public transit system, to achieve the vision set forth in *Thrive MSP 2040*.

The *2019 Transit System Performance Evaluation* measures the transit system's progress in pursuing the goals and objectives found in the *2040 Transportation Policy Plan*. The following are the goals and objectives identified in the 2040 plan.

Goal: Transportation System Stewardship

Sustainable investments in the transportation system are protected by strategically preserving, maintaining, and operating system assets.

Objectives

A. Efficiently preserve and maintain the regional transportation system in a state of good repair.
B. Operate the regional transportation system to efficiently and cost-effectively connect people and freight to destinations.

Goal: Safety and Security

The regional transportation system is **safe and secure** for all users.

Objectives

A. Reduce crashes and improve safety and security for all modes of passenger travel and freight transport.
B. Reduce the transportation system's vulnerability to natural and man-made incidents and threats.

Goal: Access to Destinations

A reliable, affordable, and efficient multimodal transportation system supports the prosperity of people and businesses by connecting them to destinations throughout the region and beyond.

Objectives

A. Increase the availability of multimodal travel options, especially in congested highway corridors.
B. Increase travel time reliability and predictability for travel on highway and transit systems
C. Ensure access to freight terminals such as river ports, airports, and intermodal rail yards.
D. Increase transit ridership and the share of trips taken using transit, bicycling, and walking.
E. Improve multimodal travel options for people of all ages and abilities to connect to jobs and other opportunities, particularly for historically underrepresented populations.

Goal: Competitive Economy

The regional transportation system **supports the economic competitiveness, vitality, and prosperity of the region and state**.

Objectives

A. Improve multimodal access to regional jobs concentrations identified in Thrive MSP 2040.
B. Invest in a multimodal transportation system to attract and retain businesses and residents.
C. Support the region's economic competitiveness through the efficient movement of freight.

Goal: Healthy Environment

The regional transportation system **advances equity and contributes to communities' livability and sustainability** while protecting the natural, cultural, and developed environments.

Objectives

A. Reduce transportation-related air emissions.
B. Reduce impacts of transportation construction, operations, and use on the natural, cultural, and developed environments.
C. Increase the availability and attractiveness of transit, bicycling, and walking to encourage healthy communities and active car-free lifestyles.
D. Provide a transportation system that promotes community cohesion and connectivity for people of all ages and abilities, particularly for historically underrepresented populations.

Goal: Leveraging Transportation Investment to Guide Land Use

The region leverages transportation investments to **guide land use and development patterns** that advance the regional vision of stewardship, prosperity, livability, equity, and sustainability.

Objectives

A. Focus regional growth in areas that support the full range of multimodal travel.
B. Maintain adequate highway, riverfront, and rail accessible land to meet existing and future demand for freight movement.

C. Encourage local land use design that integrates highways, streets, transit, walking, and bicycling.
D. Encourage communities, businesses, and aviation interest to collaborate on limiting incompatible land uses that would limit the use of the region's airports.

2. The Region and Travel

Transit performance is impacted not only by the level of transit offered in the region, but also by overall travel behavior, regional demographics and local development patterns. This section will analyze the region's travel, demographics and development patterns and trends to provide background to interpreting transit performance in the region.

Key Takeaways

The population in the seven-county Twin Cities region has grown steadily

Population has grown 8% from 2,849,567 in 2010 to 3,075,563 in 2017.

Most of the region's population lives within transit market area III

Transit market area III does not have the density of transit demand to support frequent transit service efficiently, which limits transit's ability to efficiently serve the majority of the region's current transportation needs.

Transit Market Area I was the fastest growing market area in the region

Growth in transit market area I provides an opportunity for transit to more effectively meet the growth in transportation needs in the region.

Higher rates of transit use among low-income households

Although transit use is seen across all income groups, there are higher rates of transit use among low-income households; riders of commuter-focused services tend to have higher incomes than overall transit riders.

The majority of transit riders have full-time employment

Riders on commuter-focused services are the most likely transit riders to have full-time employment at 87% of the total.

Zero-vehicle households use transit at the highest rates in the region

Zero-vehicle households use transit at the highest rates in the region, making up 38% of overall transit riders. Riders of commuter-focused service tend to have vehicles available to them, suggesting that these services are substituting private automobile trips.

Barriers to private vehicle use have been decreasing

As barriers to driving decrease, transit ridership can experience negative impacts. The number and share of households with multiple vehicles have been on the rise while fuel prices are down and have been volatile since 2014.

Those between the ages of 15 and 34 have the highest rates of transit use

Age has several impacts on transit use; those between the ages of 15 and 34 have the highest rates of transit use overall while commuter riders skew to older age groups.

Twin Cities Metropolitan Council Planning Area Demographics

Population - County

The Metro region's population increased by 8% between 2010 and 2017, from 2,849,567 to 3,075,563 residents (Figure 2-1).

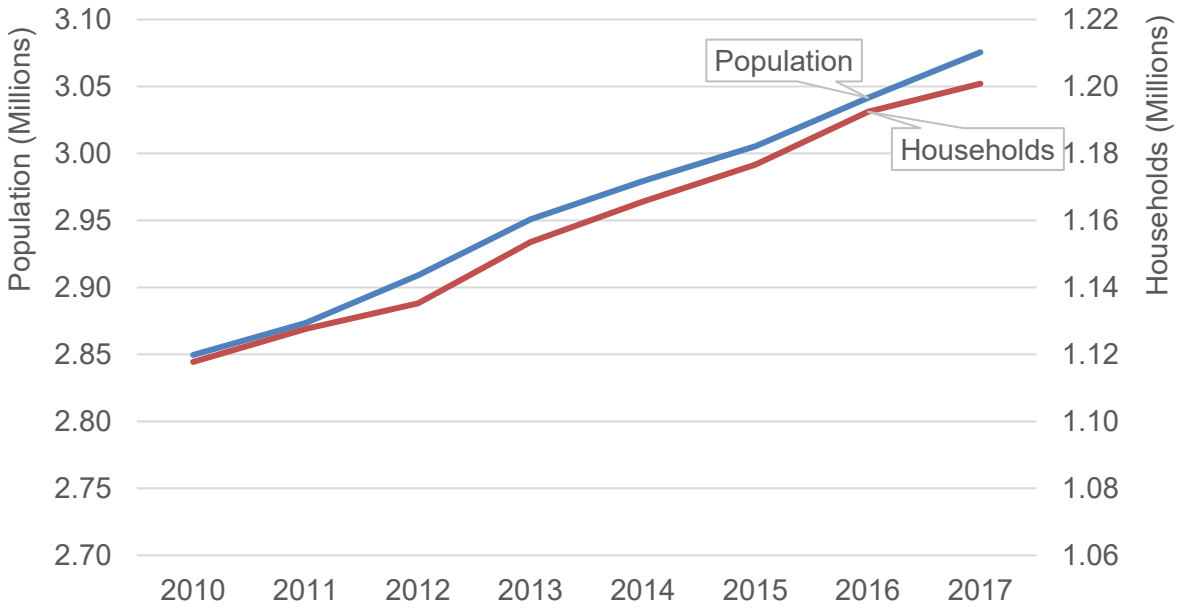


Figure 2-1 – Twin Cities Region Population and Households, 2010-2017

Hennepin County saw the greatest increase in residents, with its population increasing by 97,087 (8% increase) followed by Ramsey County, which increased by 37,677 (7%) (Figure 2-2).

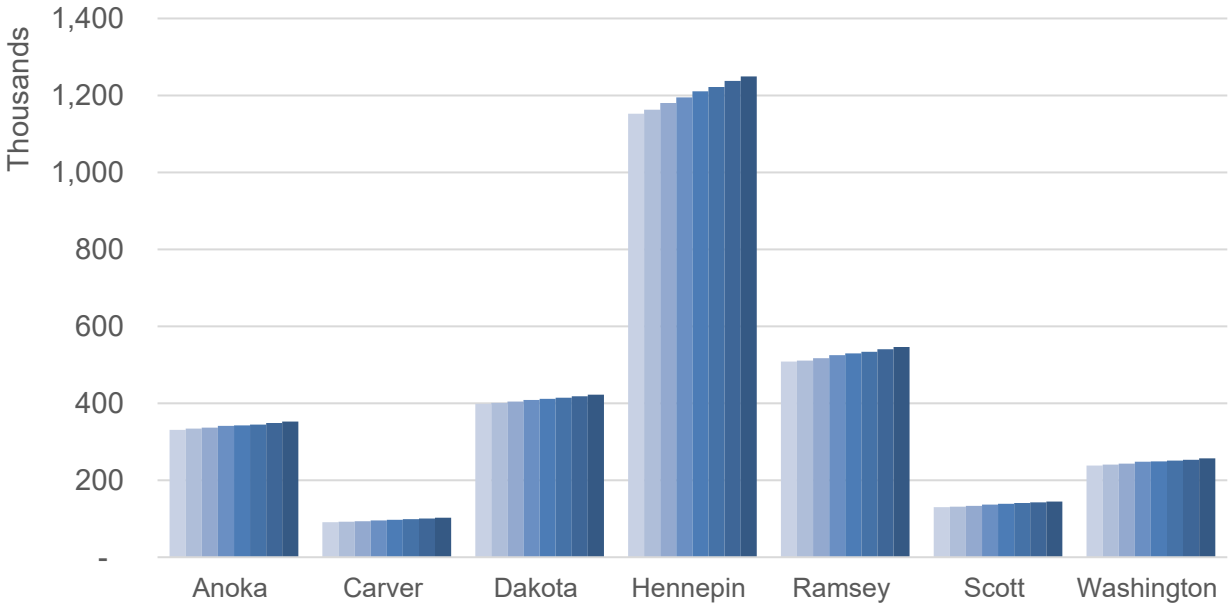


Figure 2-2 – Twin Cities Region Population by County, 2010-2017

Carver County was the fastest growing county with its population growing by 11,816 residents (13%) between 2010 and 2017, Scott County was the second fastest growing county, growing by 14,789 residents (11%) in the same time period (Figure 2-3).

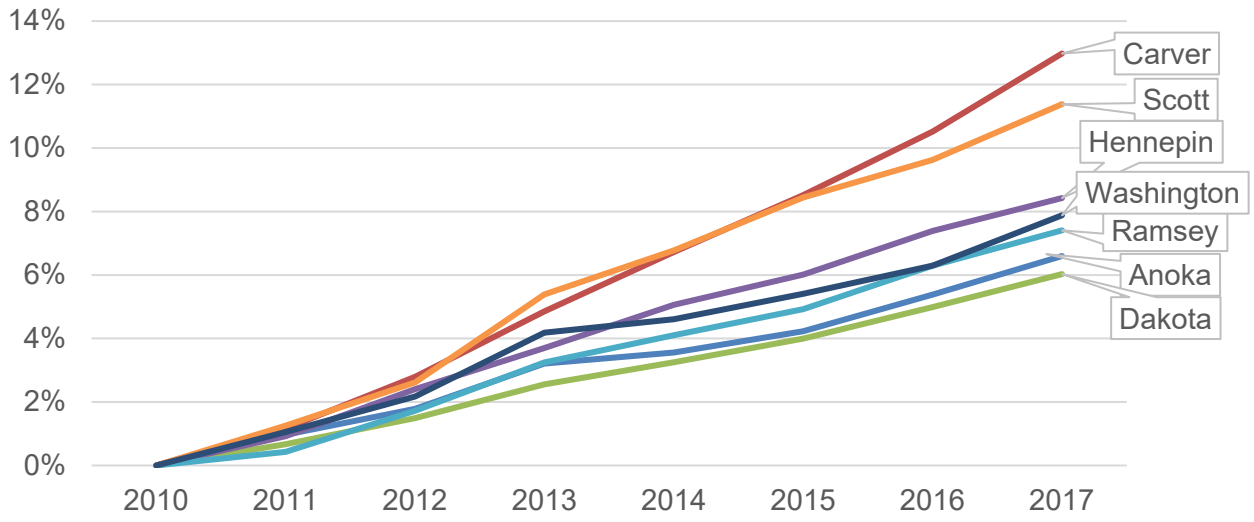


Figure 2-3 – Population Growth by County, by Percent of 2010 Population

Population – Transit Market Area

Demand for transit service varies across the region. This applies to the time of day that transit is used, the number of trips taken, and the purposes of transit trips. While this variation in demand is based on a variety of factors it is primarily driven by development density, urban form and demographics. To account for regional variation in transit demand, the seven-county metro region is divided into Transit Market Areas representing different levels of potential transit demand, with the highest level of transit demand in Transit Market Area I and the lowest demand in Transit Market Area V. Figure 2-4 shows the geographic boundaries of each Transit Market Area.

Figure 2-5 shows the percentage of the region's population, employment and land area found in each Transit Market Area (TMA). Transit Market Areas I and II have 33% of the region's population (TMA I: 13%, TMA II: 20%) and 41% of the region's jobs (TMA I: 23%, TMA II: 18%). These are communities where the urban form and density are most supportive of transit. These TMAs also have the largest concentrations of transit dependent residents in the region. By land size, TMA's I and II are the smallest in the Metro, making up 6% of the region's land area. Transit service in these areas focuses on providing a dense network of local routes with high levels of service to accommodate a wide variety of trip purposes. TMA II will typically have a similar route structure to TMA I, but at lower levels of service as demand warrants.

Transit Market Area III is the most populous in the region, with 39% of the population and 40% of the jobs, while making up only 16% of the metro's land area. Transit Market Area III is primarily characterized by overall lower density and less transit-supportive development patterns, though it includes some pockets of denser development. TMA III is primarily served by express and commuter service with some suburban local routes providing basic coverage.

Transit Market Area IV contains 15% of the population and 10% of the jobs while composed of 15% of the metro region's land area. TMA IV is generally characterized by consistently low-density development and an urban form that does not support frequent local transit service. Transit service in

TMA IV is primarily peak-period commuter service oriented around park and rides. Local trips are provided by Transit Link, the region's public dial-a-ride service.

Transit Market Area V contains 10% of the population and 6% of the region's jobs. Geographically, TMA V is the largest, making up 62% of the total metro region. Transit Market Area V is primarily rural and is generally characterized by low-density development or undeveloped land not well suited for regular-route transit service.

Emerging Market Areas II and III are areas in TMAs III and IV that have a higher potential for transit use than the rest of the market areas surrounding them. These areas make up a limited portion of the region's population, jobs and area. Emerging Market Area II contains 2% of the region's population and 2% of the region's jobs, while Emerging Market Area III contains 2% of the region's population and 1% of the region's jobs. These areas are currently too small or non-contiguous to support a higher level of transit service, but they represent opportunities for adding density to surrounding areas to better support transit service.

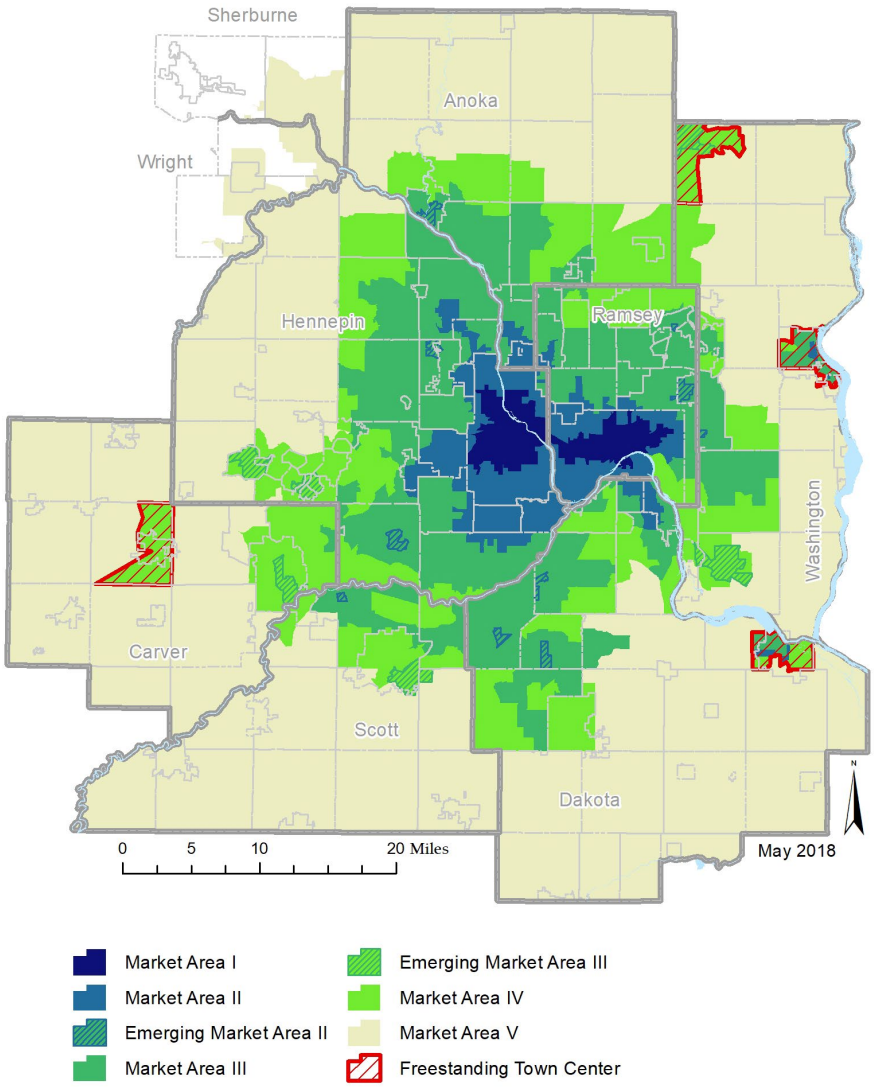
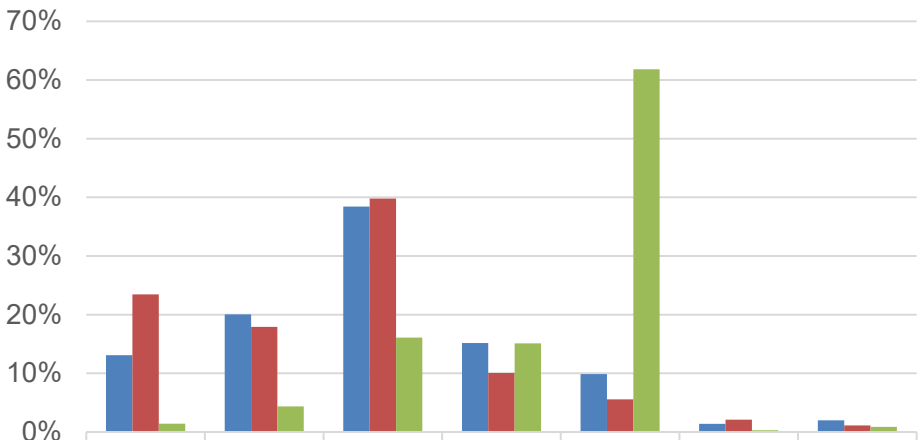


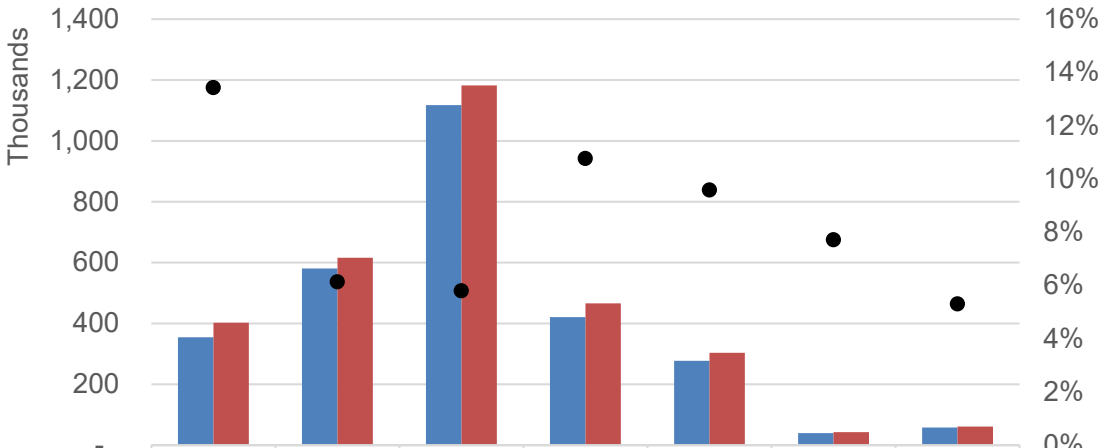
Figure 2-4 – Transit Market Areas



	I	II	III	IV	V	Emerging II	Emerging III
Regional Population %	13.1%	20.0%	38.4%	15.2%	9.9%	1.4%	2.0%
Regional Employment %	23.4%	17.9%	39.8%	10.1%	5.6%	2.1%	1.1%
Regional Geographic Area %	1.4%	4.4%	16.1%	15.1%	61.8%	0.3%	0.9%

Figure 2-5 – Metro Region Population and Land Area by Transit Market Area

Since 2010, the Transit Market Areas experiencing the fastest population growth are Transit Market Areas I and IV. Between 2010 and 2017, the population in TMA I grew by 13% (Figure 2-6). Transit is well positioned to serve the growing transportation demands of population increases in TMA I. TMA IV was the second fastest growing with its population growing by 11%. Population growth in this transit market area is difficult to serve efficiently with transit because of the low-density nature of the overall development pattern and lack of adjacent transit-supportive areas. The majority of trips efficiently serving this area are park-and-ride service to downtown Minneapolis and Saint Paul.



	I	II	III	IV	V	Emerging II	Emerging III
2010 Population	354,928	580,616	1,117,534	421,065	277,365	39,946	58,113
2017 Population	402,579	616,193	1,182,270	466,378	303,928	43,025	61,195
2010-2017 % Change	13.4%	6.1%	5.8%	10.8%	9.6%	7.7%	5.3%

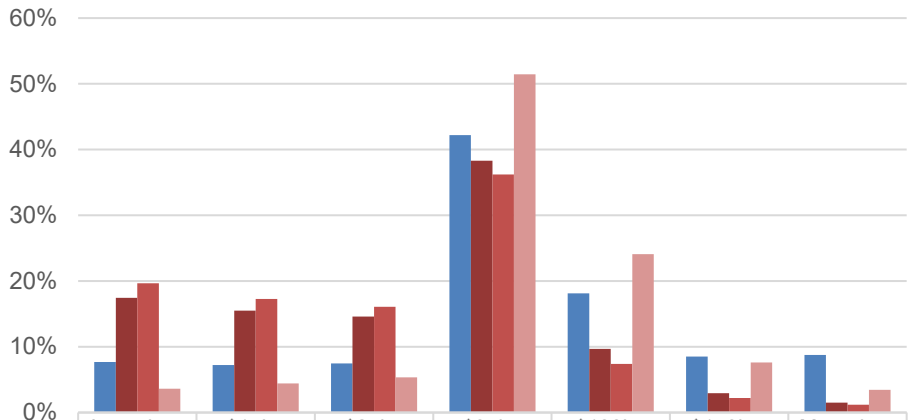
Figure 2-6 – Regional Population by Transit Market Area, 2010-2017

Regional Transit Ridership Profile and Travel Behavior

Though geography and development patterns have a large influence on transit demand, demographics also play a large part in shaping patterns of transit use. The following analysis explores the demographics of current transit riders in the metro area using data from the Metropolitan Council's 2016 Transit On-Board Survey.

Income

Overall, the transit riding population has lower incomes than the overall regional population; while 22% of households in the region make less than $35,000 per year, 47% of transit riders come from households making less than $35,000 per year (Figure 2-7). Riders of local[1] and commuter[2] services tend to have different economic backgrounds; the majority of local service rider households make less than $60,000 a year while the majority of commuter service rider households makes over $60,000 per year. Transit ridership is least pronounced at higher end of incomes; while 17% of households in the region make more than $150,000 per year, they only make up 5% of the transit riding population.



	Less than $15k	$15k - 24.9k	$25k - 34.9k	$35k - $100k	$100k - $149.9k	$150k - $200k	More than $200k
Total Population	7.7%	7.2%	7.5%	42.2%	18.1%	8.5%	8.8%
Total Transit Riders	17.5%	15.5%	14.6%	38.3%	9.7%	3.0%	1.5%
Local Service Transit Riders	19.7%	17.3%	16.1%	36.2%	7.4%	2.2%	1.2%
Commuter Service Transit Riders	3.6%	4.4%	5.3%	51.4%	24.1%	7.6%	3.4%

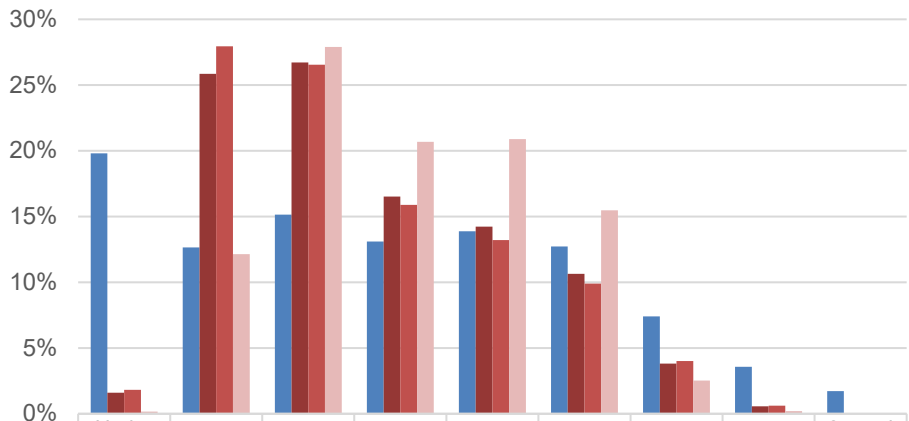
Figure 2-7 – Overall Regional Population and Transit Riders by Income

Age

Age has several impacts on how people use transit. Children under the age of 15 tend to use transit at very low rates. Children under 15 make up almost 20% of the regional population but they only make up 2% of transit ridership (Figure 2-8). Figure 2-8 shows that those between 15 and 34 have the highest rates of overall transit ridership; those between 15 and 34 make up 27% of the regional population and they make up 54% of transit ridership. Commuter service riders skew older than overall transit service.

[1] Core local bus, supporting local bus, suburban local bus, arterial BRT, highway BRT and light rail

[2] Commuter and express bus and commuter rail



	Under 15	15 to 24	25 to 34	35 to 44	45 to 54	55 to 64	65 to 74	75 to 84	85 and over
Total Population	19.8%	12.7%	15.1%	13.1%	13.9%	12.7%	7.4%	3.6%	1.7%
Total Transit Riders	1.6%	25.8%	26.7%	16.5%	14.2%	10.6%	3.8%	0.6%	0.1%
Local Service Transit Riders	1.8%	28.0%	26.5%	15.9%	13.2%	9.9%	4.0%	0.6%	0.1%
Commuter Service Transit Riders	0.2%	12.1%	27.9%	20.7%	20.9%	15.5%	2.5%	0.2%	0.0%

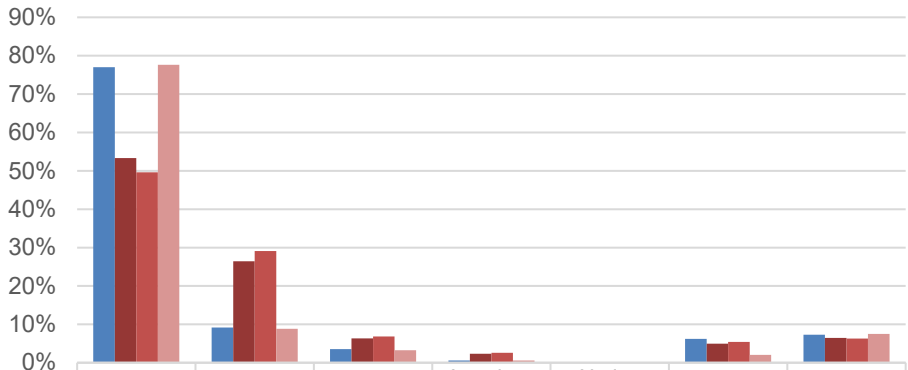
Figure 2-8 – Overall Regional Population and Transit Riders by Age Group

Ethnicity

The largest group of transit riders by ethnicity are White (55% of overall riders), followed by Black or African American riders (25% of overall riders), Asian riders (8%), riders identifying as mixed race (6%), Hispanic/Latino riders (5%), American Indian riders (2%), and Pacific Islander riders (less than 1%) (Figure 2-9).

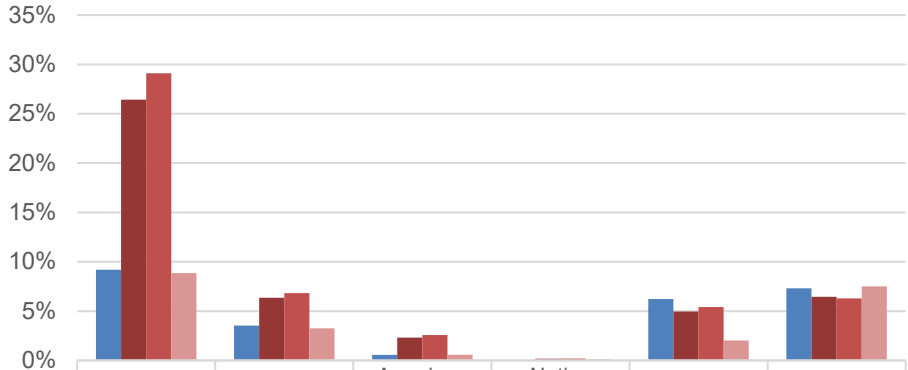
Commuter services have a higher proportion of White riders than other services, with 77% of commuter service riders identifying as White compared to 53.4% of overall riders and 49.7% of local service riders. Commuter services also have a lower proportion of Black or African American riders with 9.2% of commuter service riders identifying as Black or African American compared to 26.5% of overall riders and 29.2% of local service riders.

Riders identifying as White use transit at lower rates than other ethnic groups overall; 77% of the metro population identifies as White, while 55% of overall transit riders identified as White. Riders identifying as Black or African American, on the other hand, use transit at greater rates than the general region population; residents identifying as Black or African American make up 9% of the region's population but make up 25% of transit ridership. Riders on commuter services do not have as pronounced trends in the ethnic makeup of its riders; its riders tend to follow the same makeup of the overall region.



	White	Black/ African American	Two or More Races	American Indian/ Alaskan Native	Native Hawaiian/ Pacific Islander	Hispanic/ Latino	Asian
Total Population	77.0%	9.2%	3.5%	0.6%	0.0%	6.2%	7.3%
Total Transit Riders	53.3%	26.4%	6.4%	2.3%	0.2%	5.0%	6.4%
Local Service Transit Riders	49.6%	29.1%	6.8%	2.6%	0.2%	5.4%	6.3%
Commuter Service Transit Riders	77.6%	8.9%	3.3%	0.6%	0.1%	2.0%	7.5%

Figure 2-9 – Overall Population and Transit Riders by Ethnicity

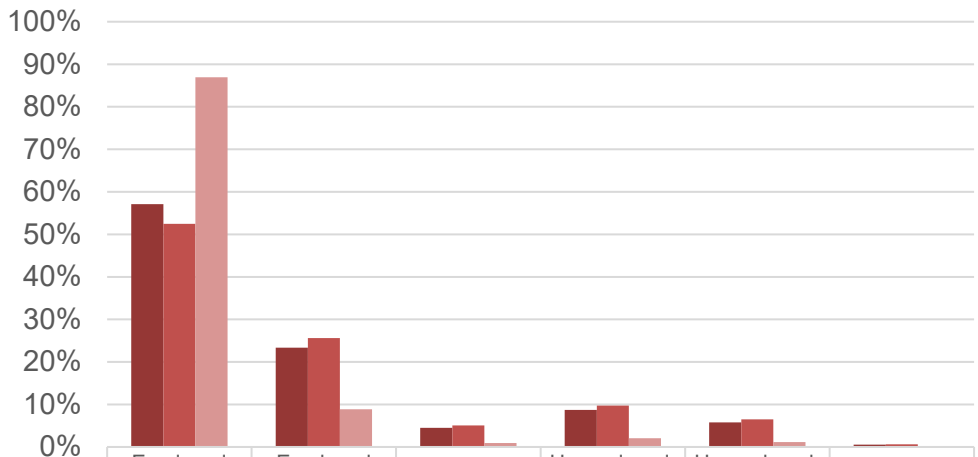


	Black/ African American	Two or More Races	American Indian/ Alaskan Native	Native Hawaiian/ Pacific Islander	Hispanic/ Latino	Asian
Total Population	9.2%	3.5%	0.6%	0.0%	6.2%	7.3%
Total Transit Riders	26.4%	6.4%	2.3%	0.2%	5.0%	6.4%
Local Service Transit Riders	29.1%	6.8%	2.6%	0.2%	5.4%	6.3%
Commuter Service Transit Riders	8.9%	3.3%	0.6%	0.1%	2.0%	7.5%

Figure 2-10 – Overall Population and Transit Riders by Ethnicity, Non-white Riders

Employment Status

The majority of transit riders have full-time employment. Overall, 56% of transit riders have full-time employment and 22% have part-time employment (Figure 2-11). A higher proportion of commuter service riders (89%) have full-time employment than overall transit riders. Overall 5% of riders are unemployed and seeking work, 4% are retired and 8% are unemployed and not seeking work. Commuter services have a lower amount of part-time and unemployed riders than other service types.



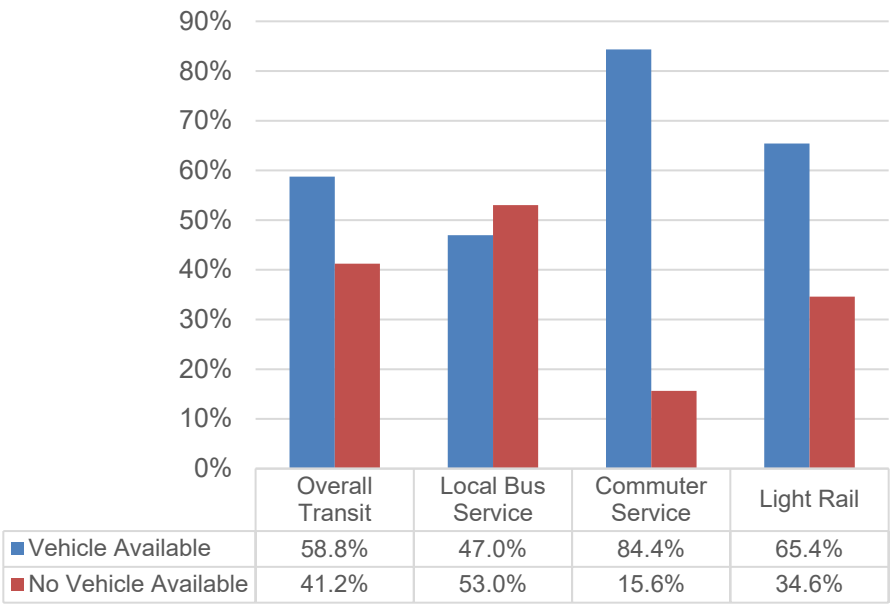
	Employed Full Time	Employed Part Time	Retired	Unemployed, Not seeking	Unemployed, Seeking	Homemaker
Total Transit Riders	57.1%	23.4%	4.5%	8.7%	5.8%	0.5%
Local Service Transit Riders	52.5%	25.6%	5.1%	9.7%	6.5%	0.6%
Commuter Service Transit Riders	86.9%	8.9%	0.9%	2.1%	1.2%	0.0%

Figure 2-11 – Transit Ridership by Employment Status

Vehicle Ownership

Access to a vehicle is an important factor in understanding transit use. There are different vehicle availability trends among the different types of transit service. Overall 59% of transit riders could use a private vehicle for a given trip (Figure 2-12). Local bus[1] service has the largest share of riders with no vehicle access, with only 46% of riders having access to a vehicle for a given trip. This is one of the areas in which local bus riders and light rail riders differ significantly, with 67% of riders having access to a vehicle. This discrepancy between local bus riders and light rail riders suggests that light rail may be a more attractive alternative to private vehicle use than local bus service. Commuter service riders have the highest rates of vehicle availability with 84% of riders having access to a private vehicle, this suggests that commuter services are the most likely type of service to replace private vehicle trips.

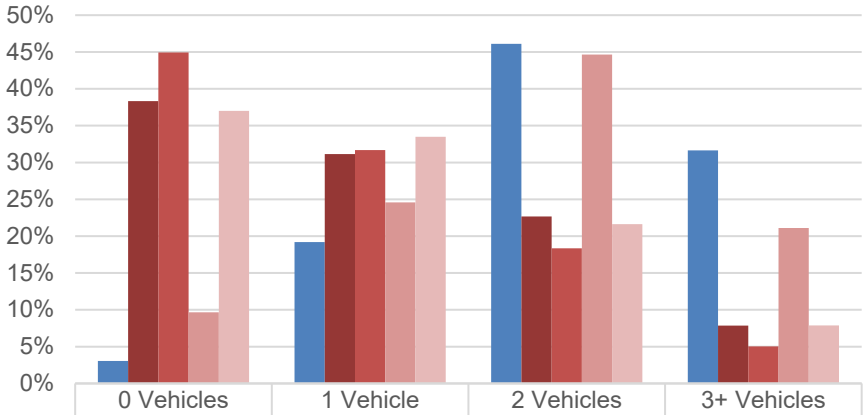
[1] Core local bus, supporting local bus, suburban local bus, arterial BRT and highway BRT



	Overall Transit	Local Bus Service	Commuter Service	Light Rail
Vehicle Available	58.8%	47.0%	84.4%	65.4%
No Vehicle Available	41.2%	53.0%	15.6%	34.6%

Figure 2-12 – Ridership by Vehicle Availability

Zero vehicle households have the highest rates of transit ridership in the region, zero vehicle households make up 3% of the metro population but make up 38% of transit ridership, making up an even higher percent of local bus riders at 45% of riders (Figure 2-13). Households with two or more vehicles had the lowest rates of transit ridership, excluding commuter services; 78% of the regional households have two or more vehicles while making up only 31% of riders. Commuter service are unique in that they have higher rates of ridership among households with access to vehicles, 66% of commuter service riders were from households with two or more vehicles.



	0 Vehicles	1 Vehicle	2 Vehicles	3+ Vehicles
Total Population	3.1%	19.2%	46.1%	31.6%
Total Transit Riders	38.3%	31.1%	22.7%	7.9%
Local Service Transit Riders	44.9%	31.7%	18.4%	5.0%
Commuter Service Transit Riders	9.7%	24.6%	44.7%	21.1%
Light Rail Riders	37.0%	33.5%	21.6%	7.9%

Figure 2-13 – Overall Population and Transit Ridership by Number of Vehicles Owned

Recent trends have an increased share in households with three or more vehicles (Figure 2-14). Out of all household types, households with three or more vehicles were the fastest growing; the number of regional households with three or more vehicles has increased by 15% since 2013, compared to increases of 11% of zero vehicle households, 3% of single vehicle households and 5% of two vehicle households. There has been a slight shift of increased vehicles per household in the region since 2013, the share of households in the region with three or more vehicles has increased by 2% since 2013 from 30% of regional households to 32%, while the share of single and two vehicle households saw a decrease of 1% each. Two vehicle households remain the most common household type in the region.

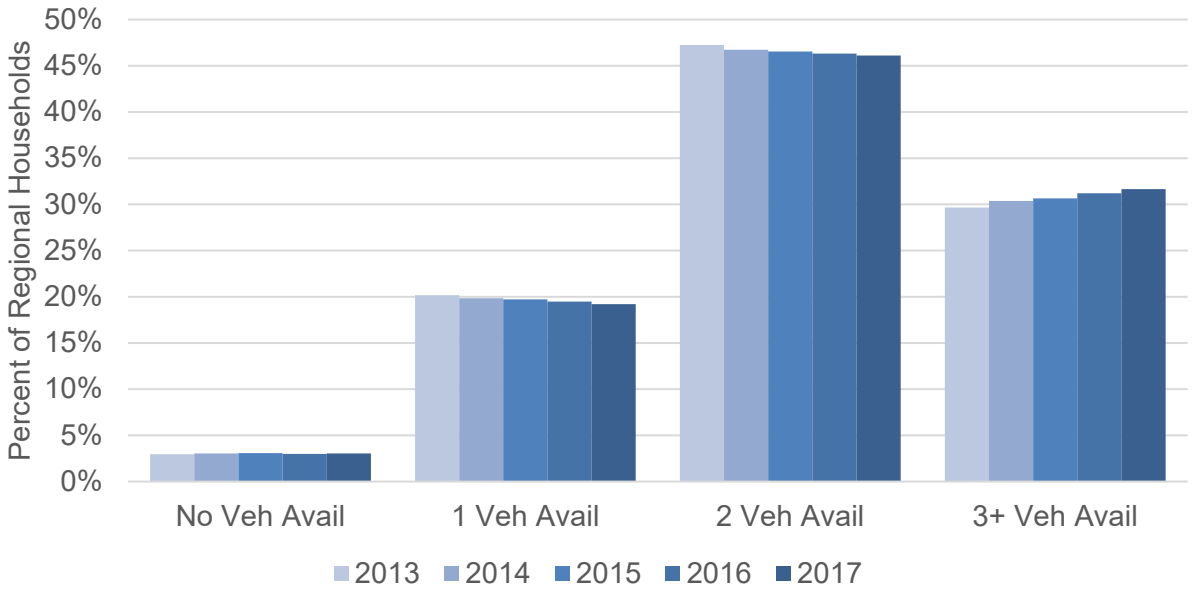


Figure 2-14 – Percent of Regional Households (by Worker) by Number of Vehicles Owned, 2013-2017

Gas Prices

In understanding transit's competitiveness with private automobile travel, it is important to not only look at the availability of private automobiles, but to also look at the cost to an individual of operating a private automobile. Research has shown that gasoline prices have a significant impact on transit ridership. There has been a decline in gas prices in Minnesota since the peak price $3.56 per gallon in 2012, with the lowest price seen at $2.09 in 2016 (Figure 2-15). Though prices have increased since 2016, they are still below recent peaks with the average 2018 price of $2.65 26% lower than 2013 prices. Gas prices have different impacts on transit depending on service type; in the short-term bus ridership is more sensitive to gas prices than rail ridership. There are significant threshold impacts at the $3.00 price point, with ridership increasing faster on bus modes when gasoline prices are over $3.00; since gasoline prices in Minnesota fell below $3.00 in 2015, this may have substantially affected regional bus ridership.

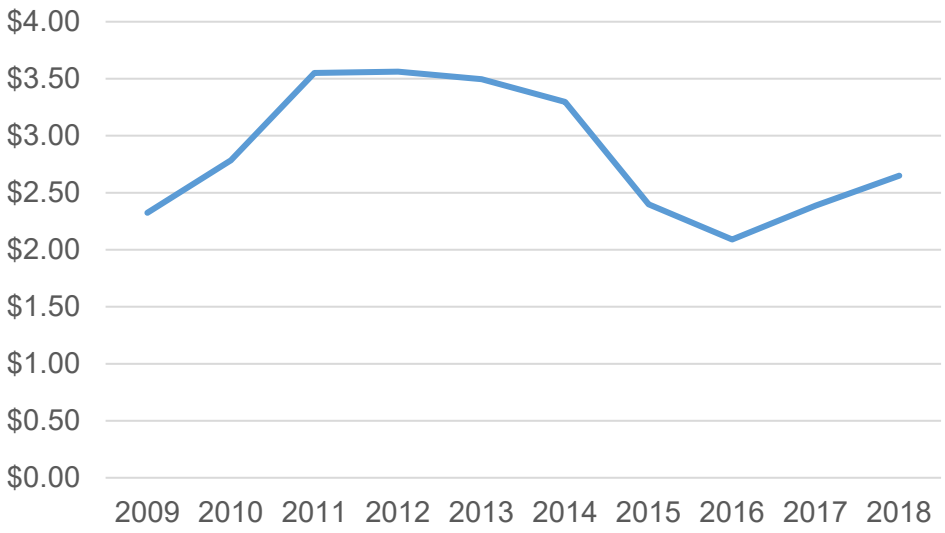
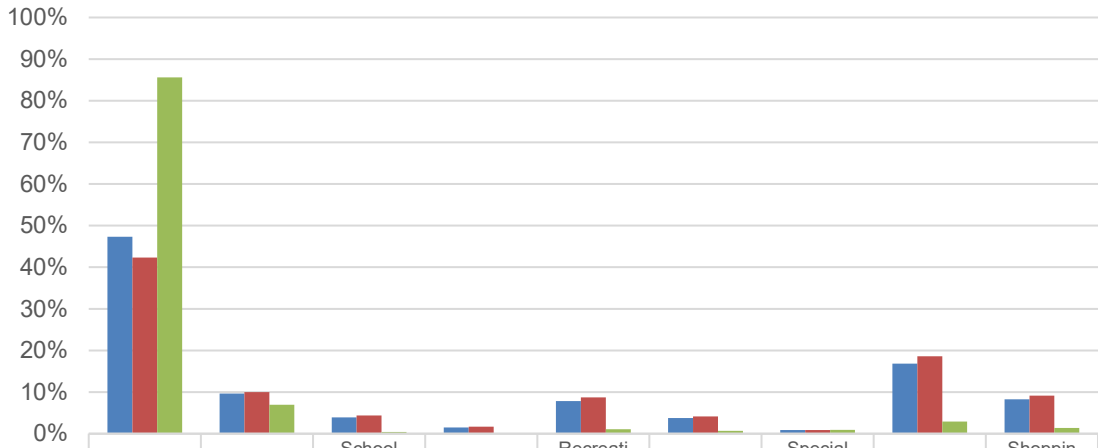


Figure 2-15 – Minnesota Average Gas Price 2009-2018

Trip Purpose

The most common trip purpose is work trips, they make up 47% of all nonhome-based transit trips, while making up 86% of nonhome-based commuter trips (Figure 2-16). Local services serve a greater variety of trip purposes than commuter services. Overall, after work trips, the most common trip destinations are social destinations (17%), colleges (10%), shopping (8%) and recreation destinations (8%).



	Work	College	School K-12	Airport	Recreation	Medical	Special Event	Social	Shopping
Total Transit Riders	47.3%	9.6%	3.9%	1.5%	7.8%	3.8%	0.9%	16.8%	8.3%
Local Service Transit Riders	42.3%	10.0%	4.4%	1.7%	8.7%	4.2%	0.9%	18.6%	9.1%
Commuter Service Transit Riders	85.6%	6.9%	0.4%	0.0%	1.1%	0.7%	0.9%	2.9%	1.4%

Figure 2-16 – Transit Ridership by Trip Destination

Transfer Activity

The majority of trips in region were one seat trips, with 77 percent of overall transit trips not requiring a transfer (Figure 2-17). Commuter service trips were slightly more likely than other service types to not require a transfer, 87% of commuter service trips did not involve a transfer compared to 75% of local service trips.

For trips that required a transfer, the majority only involve one transfer. Overall, 21% of trips involved one transfer and 2% of overall trips involve two or more transfers. The number of trips requiring three or more is negligible in the region.

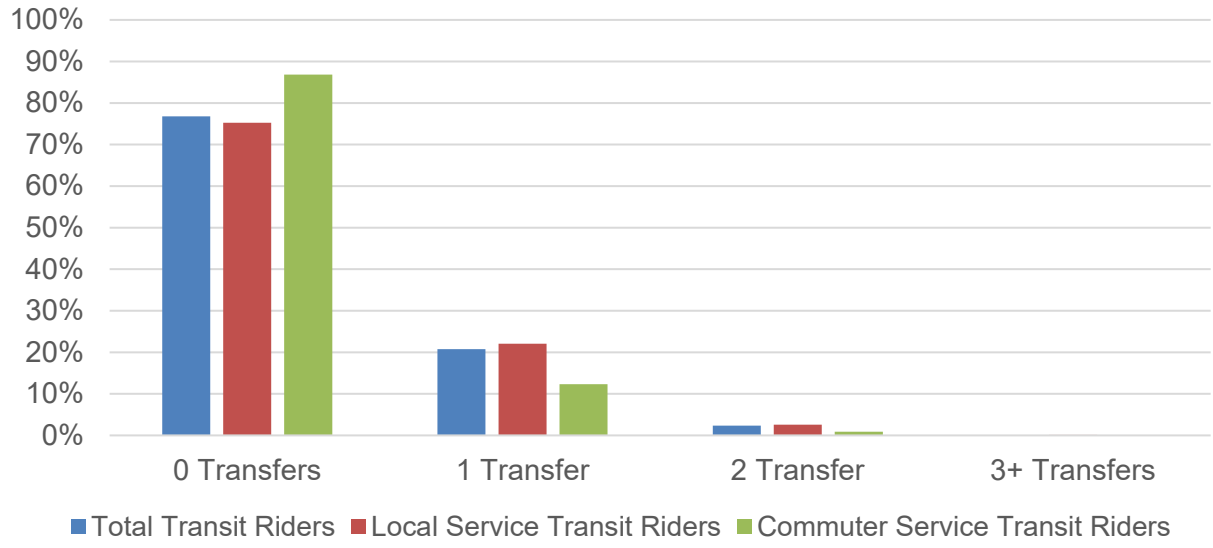


Figure 2-17 – Number of Transfers Before/After Trips

3. The Regional Transit System and Transit Performance

There are currently 11 mode/service types of public transit in the Twin Cities area: core local bus, supporting local bus, suburban local bus, commuter and express bus, arterial bus rapid transit (BRT), highway BRT, light rail, commuter rail, ADA dial-a-ride, general dial-a-ride, and vanpool. This chapter reports on transit service statistics for service types and different transit providers and evaluates transit services against trends and performance standards.

Key Takeaways

Bus ridership is declining

MTS Contracted services saw the biggest decline, with ridership dropping 21% between 2013 and 2017. Metro Transit bus services saw a decline of 19%; Suburban bus services saw a more modest decline of 0.3% but saw a 3% decline from the peak in ridership in 2015.

Metro Mobility ridership up 24% since 2013

Demand for paratransit continues to increase with Metro Mobility ridership up 24% since 2013; Metro Mobility requires the highest subsidy per passenger of any service type in the region at $25.92 per passenger; as a result, Metro Mobility accounts for 2% of regional transit ridership but accounts for 13% of operating costs.

Metro Transit bus service makes up majority of regional ridership

Despite declines in ridership, Metro Transit bus service makes up 57% of regional transit ridership.

First arterial BRT has been a ridership success

The introduction of arterial BRT has been successful; as the first arterial BRT line, the A Line carried 1.6 million passengers in its first full year of operation.

Green and Blue Lines accounted for 25% of regional ridership

Demand for light rail service has remained strong; 2017 saw the highest levels of light rail ridership the region has seen yet with 23.8 million rides, accounting for 25% of regional ridership.

Light rail subsidy per passenger has declined every year since 2013

Light rail remains the most cost-effective service; non-BRT bus services have seen increases in subsidies per passenger as inflation increased costs and ridership has declined.

Productivity up on transitways

Productivity (passengers per in service hour) has increased on light rail, commuter rail and BRT service; productivity on other bus services has declined with overall ridership declines.

Park-and-ride demand has leveled off

Park-and-ride demand has remained stable in recent years after a long-term trend of growth; 2017 use was 58% of overall regional park-and-ride capacity.

Twin Cities Transit Modes and Services

Core Local Bus – one of four types of regular-route bus service. Core local routes serve the denser parts of the region, form the backbone of the regular-route bus network, and are typically some of the most productive routes in the system.

Supporting Local Bus – Routes typically serve as important crosstown connections within the denser parts of the region, providing transit access for those not travelling downtown.

Suburban Local Bus – Routes provide local service to primarily suburban areas and serve an important role in providing a basic-level of transit coverage in parts of our region. However, these services are often less productive than core or supporting local routes.

Commuter and Express Bus – Routes primarily operate during peak periods to provide an affordable and reliable travel option for commuters travelling to downtown or a major employment center. They typically operate non-stop on highways for portions of the route between picking up passengers in residential areas or at park-and-ride facilities and dropping them off at a major destination. Although most commuter and express routes operate only during peak periods and in peak directions, there is a limited number of routes that offer off-peak and/or reverse-commute service.

Arterial BRT – Service was added to the system in 2016 with the A Line. Several more lines are currently under construction or in planning. Arterial BRT lines operate in high-demand urban arterial corridors with service, facility, and technology improvements that enable faster travel speeds, greater frequency, an improved passenger experience, and better reliability.

Highway BRT – Service was added to the system in 2013 with the METRO Red Line. The region's second Highway BRT line, the METRO Orange Line, is currently under construction. Highway BRT lines operate in high-demand highway corridors with service, facility, and technology improvements providing faster travel speeds than local bus, all-day service, greater frequency, and improved passenger experience, and better reliability.

Light Rail – Service was added to the system in 2004 with the METRO Blue Line (formerly called Hiawatha Line). The system was expanded in 2014 with the METRO Green Line. Extensions for both lines are currently under development. Light rail operates using electrically powered passenger rail cars operating on fixed rails in dedicated right-of-way. It provides high-capacity, frequent, all-day service stopping at stations with high levels of customer amenities and waiting facilities.

Commuter Rail – Service was added to the system in 2009 with the Northstar Line. Commuter rail operates using diesel-power locomotives and passenger coaches on traditional railroad track. These high-capacity trains typically operate during peak periods to serve work commuters and occasionally special events.

Metro Mobility – The region's door-to-door, dial-a-ride service for people who have a disability that prevent them from using the fixed-route bus and rail system. Metro Mobility meets the requirements of the Americans with Disabilities Act (ADA) by providing complementary paratransit service within ¾ of a mile of all local regular-route transit service during the same times that the service operates. Minnesota state law also requires that service be provided in areas beyond federal requirements.

General Purpose Dial-A-Ride – On-demand service that does not follow a fixed route, these services provide service to a broader population than ADA services. Passengers board and arrive a prearranged times and locations within designated service areas. Transit Link is the Metropolitan Council's general-purpose dial-a-ride service, serving areas of the metro that are not served by the regular-route transit

network. Although Transit Link is the main provider of this service in the region, Maple Grove, Plymouth, and SouthWest Transit also offer their own general dial-a-ride services.

Vanpool – service provides vehicles and financial incentives to groups, typically five to 15 people, sharing rides to a common destination or area not served by regular-route transit service.

Transit Performance (by Provider and Mode)

The Twin Cites is home to six public transit providers:

- Metropolitan Council (service provided through two operating divisions)
    - Metro Transit (directly operated bus and rail transit service)
    - Metropolitan Transportation Services (oversees transit services contracted to private transportation companies, as well as the commuter vanpool program)
- Minnesota Valley Transit Authority
- SouthWest Transit
- Maple Grove Transit
- Plymouth Metrolink
- University of Minnesota Twin Cities

Each provider is described below.

Metropolitan Council

The Metropolitan Council provides public transit service through two if its operating divisions: Metro Transit and Metropolitan Transportation Services. Figure 3-1 shows the routes as of February 2019.

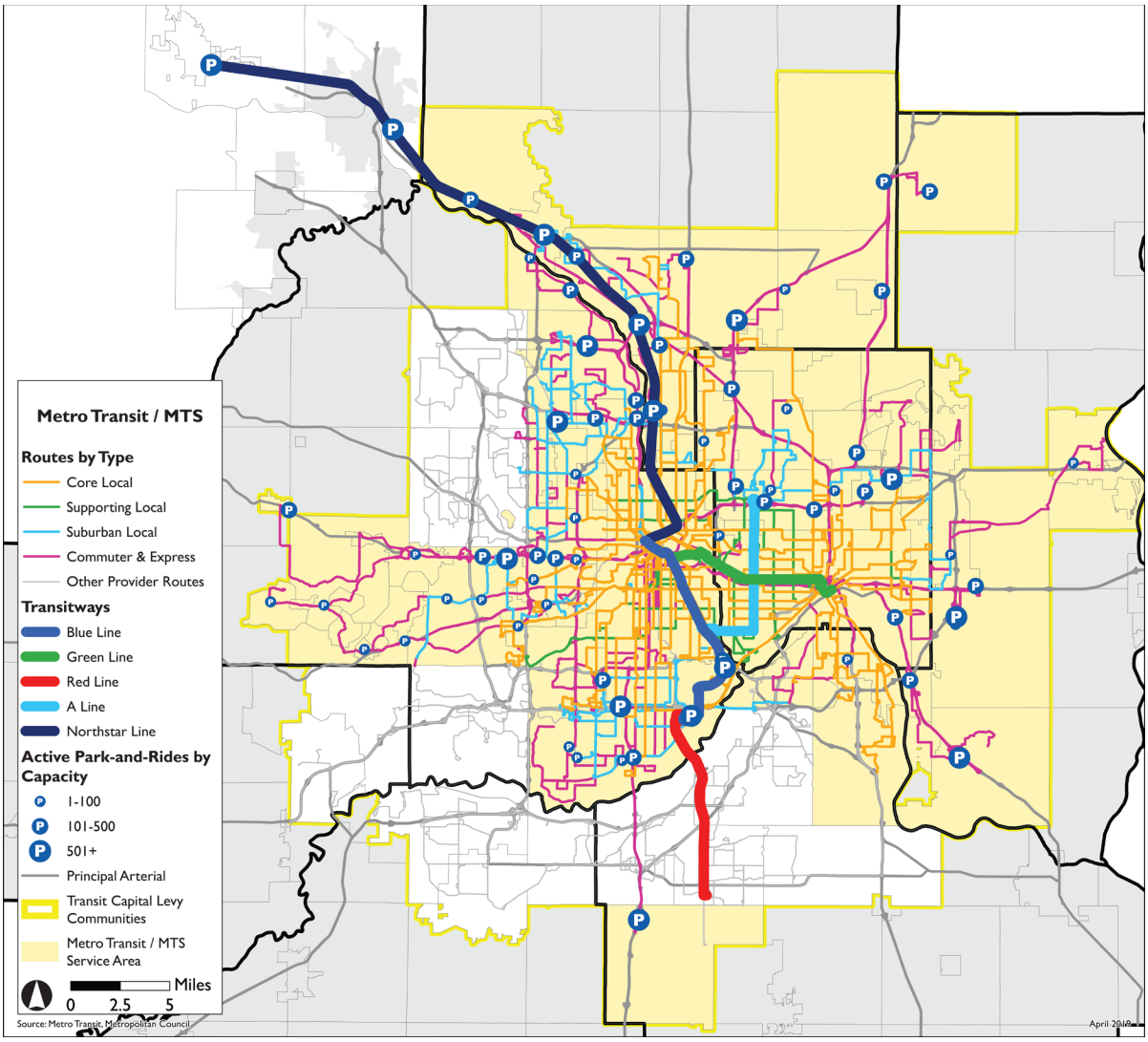


Figure 3-1 – Transit Service and Infrastructure in Metropolitan Region

Metro Transit

Metro Transit is the largest provider of regular-route transit service in the Twin Cities region and operates local bus, commuter and express bus, light rail, commuter rail, and arterial BRT.

Metro Transit Regular Route Bus

In 2017, Metro Transit provided direct service on 121 routes – 33 core local, 8 supporting local, 7 suburban local, and 73 commuter and express routes. Metro Transit provided regular-route bus service to 62 park-and-ride facilities in 2017.

Table 3-1 – 2017 Operating Statistics: Metro Transit Regular Route Bus[1]

Service	Operating Cost	Fare Revenue	Farebox Recovery	Ridership	In-Service Hours	Subsidy per Pass.	Pass. per In-Service Hour
Core Local Bus	$195,080,658	$35,996,182	18.5%	41,668,907	1,181,328	$3.82	35.3
Supporting Local Bus	$17,392,666	$1,758,364	10.1%	2,121,354	102,753	$7.37	20.6
Suburban Local Bus	$12,252,405	$1,767,059	14.4%	2,077,485	67,121	$5.05	31.0
Commuter & Express Bus	$52,237,760	$17,517,945	33.5%	8,450,383	243,394	$4.11	34.7
Metro Transit Bus Total	**$276,963,488**	**$57,039,550**	**20.6%**	**54,318,129**	**1,594,597**	**$4.05**	**34.1**

Metro Transit Light Rail

Metro Transit began operating the region's first light rail service in 2004, the 12-mile Hiawatha Line (subsequently renamed the METRO Blue Line). The line connects downtown Minneapolis to the Airport and Mall of America along Hiawatha Avenue and serves 19 stations and three park-and-ride facilities. Work to lengthen station platforms to allow for three-car trains was completed in 2010. Metro Transit opened the second light rail service, the METRO Green Line, in 2014. The line connects downtown Minneapolis and downtown Saint Paul along University Avenue and serves 18 new stations, five that are shared with the METRO Blue Line. Metro Transit is in the process of extending both lines.

Table 3-2 – 2017 Operating Statistics: Metro Transit Light Rail

Service	Operating Cost	Fare Revenue	Farebox Recovery	Ridership	In-Service Hours	Subsidy per Pass.	Pass. per In-Service Hour
Light Rail	$70,946,842	$24,144,349	34.0%	23,810,995	116,628	$1.97	204.2

Metro Transit Commuter Rail

Metro Transit began operating the region's fist commuter rail service, the 40-mile Northstar Line, in late 2009. The line connects downtown Minneapolis and Big Lake, serving seven stations and six park-and-ride facilities. The service is operated using six diesel engine locomotives and 18 bi-level passenger coaches that are maintained at a service facility in Big Lake.

Table 3-3 – 2017 Operating Statistics: Metro Transit Commuter Rail

Service	Operating Cost	Fare Revenue	Farebox Recovery	Ridership	In-Service Hours	Subsidy per Pass.	Pass. per In-Service Hour
Commuter Rail	$15,337,874	$2,516,899	16.4%	793,796	3,186	$16.15	249.2

[1] Two supporting local routes were operated by both Metro Transit and Metropolitan Transportation Services in 2017, and operating statistics for those routes are divided equally between both.

Arterial BRT

The region's first Arterial BRT line, the A Line, opened in 2016 along Snelling Avenue, Ford Parkway, and 46th Street. The service is operated using 13 specially branded, 40-foot low-floor diesel buses. The second Arterial BRT Line, the C Line, is currently under final stages of construction and is scheduled to open in June 2019. The C Line will operate with 14 60-foot low-floor buses, six of them standard diesel, and eight battery electrics. The 60-foot battery-electric buses will be the first built in America to enter service. An additional three lines, the B, D and E, are in various stages of development.

Table 3-4 – 2017 Operating Statistics: Arterial BRT

Service	Operating Cost	Fare Revenue	Farebox Recovery	Ridership	In-Service Hours	Subsidy per Pass.	Pass. per In-Service Hour
Arterial BRT	$7,564,075	$1,504,518	19.9%	1,631,686	37,711	$3.71	43.3

Metropolitan Transportation Services (MTS)

The Metropolitan Transportation Services (MTS) division of the Metropolitan Council oversees or operates several kinds of transit service, including local bus, commuter and express bus, highway BRT, dial-a-ride, and vanpool.

Metropolitan Council Contracted Regular-Route Bus

In 2017, the Metropolitan Council had contracts with several private transportation companies to provide regular-route bus service on 28 routes – four supporting local, 18 suburban local, and four commuter and express routes. The Metropolitan Council provided contracted regular-route bus service to 22 park-and-ride facilities in 2017. Contracted service is used primarily to provide service using buses smaller than a typical 40-foot bus.

Table 3-5 – 2017 Operating Statistics: Metropolitan Council Contracted Regular-Route Bus[1]

Service	Operating Cost	Fare Revenue	Farebox Recovery	Ridership	In-Service Hours	Subsidy per Pass.	Pass. per In-Service Hour
Supporting Local Bus	$4,780,761	$1,014,389	21.2%	852,084	56,288	$4.42	15.1
Suburban Local Bus	$7,801,696	$1,808,996	23.2%	1,292,939	104,256	$4.63	12.4
Commuter & Express Bus	$1,126,517	$247,471	22.0%	97,710	6,777	$9.00	14.4
MTS Contracted Bus Total	**$13,708,974**	**$3,070,856**	**22.4%**	**2,242,733**	**167,322**	**$4.74**	**13.4**

[1] Two supporting local routes were operated by both Metro Transit and Metropolitan Transportation Services in 2017, and operating statistics for those routes are divided equally between both.

Highway BRT

The METRO Red Line, the region's first highway BRT line, opened in 2013. The line operates between Mall of America and Apple Valley Transit Station along Cedar Avenue and serves five stations and two park-and-ride facilities. It is operated by the Minnesota Valley Transit Authority under contract to the Metropolitan Council.

Table 3-6 – 2017 Operating Statistics: Highway BRT

Service	Operating Cost	Fare Revenue	Farebox Recovery	Ridership	In-Service Hours	Subsidy per Pass.	Pass. per In-Service Hour
Highway BRT	$3,024,449	$197,528	6.5%	270,400	14,641	$10.45	18.5

Metro Mobility (ADA Dial-a-Ride)

The Metropolitan Council provides Metro Mobility service as required by the Americans with Disabilities Act (ADA) to people who have a disability that prevent them from using the regular-route transit system. This act requires transit agencies provide dial-a-ride service to people with disabilities within ¾ mile of fixed-route transit service that is a comparable level of service. Minnesota State Statute §473.386 requires service beyond the requirements of the Americans with Disabilities Act, the required service area within the Twin Cities is shown in Figure 3-2. Metro Mobility was restructured in 2015 to improve customer service, reduce duplication, and improve efficiency. Metro Mobility transitioned from three county contracts and two core contracts to three large service contracts through two private companies.

Table 3-7 – 2017 Operating Statistics: Metro Mobility

Service	Operating Cost	Fare Revenue	Farebox Recovery	Ridership	In-Service Hours	Subsidy per Pass.	Pass. per In-Service Hour
Metro Mobility	$64,200,843	$5,716,719	8.9%	2,256,154	1,153,352	$25.92	2.0

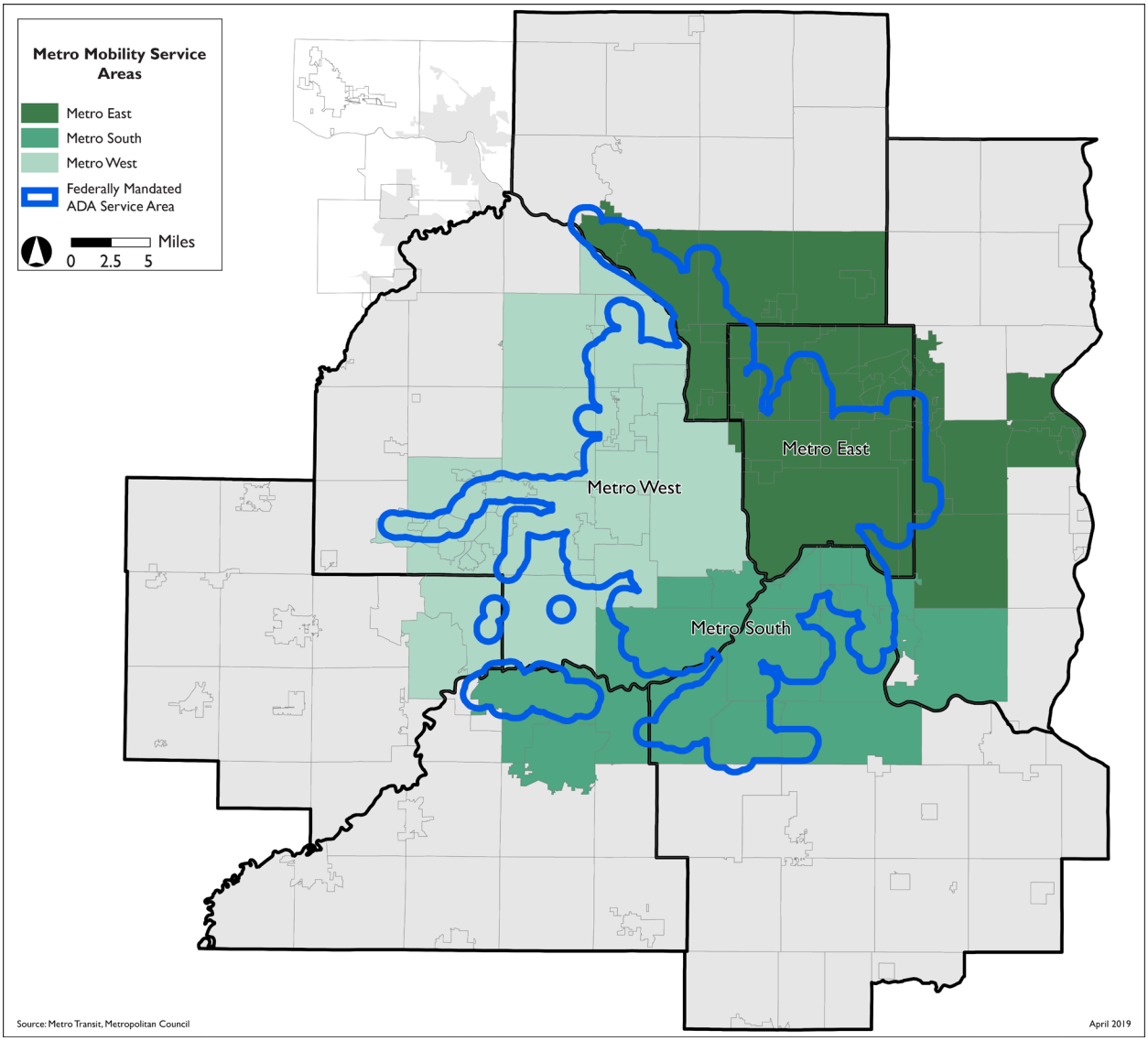


Figure 3-2 – Metro Mobility Service Areas

Transit Link (General Dial-a-Ride)

Transit Link is a region-wide contracted service that was started in 2010. With the introduction of Transit Link, the Council phased out annual subsidies to community-based dial-a-ride programs and replaced it with a coordinated and uniform program available regionwide (Figure 3-3). The Transit Link program provides rides in parts of the region not served by regular route transit and connects people to the closest regular route stop that will provide service to their destination.

Table 3-8 – 2017 Operating Statistics: Transit Link

Service	Operating Cost	Fare Revenue	Farebox Recovery	Ridership	In-Service Hours	Subsidy per Pass.	Pass. per In-Service Hour
Transit Link	$6,436,951	$859,413	13.4%	286,325	117,772	$19.48	2.4

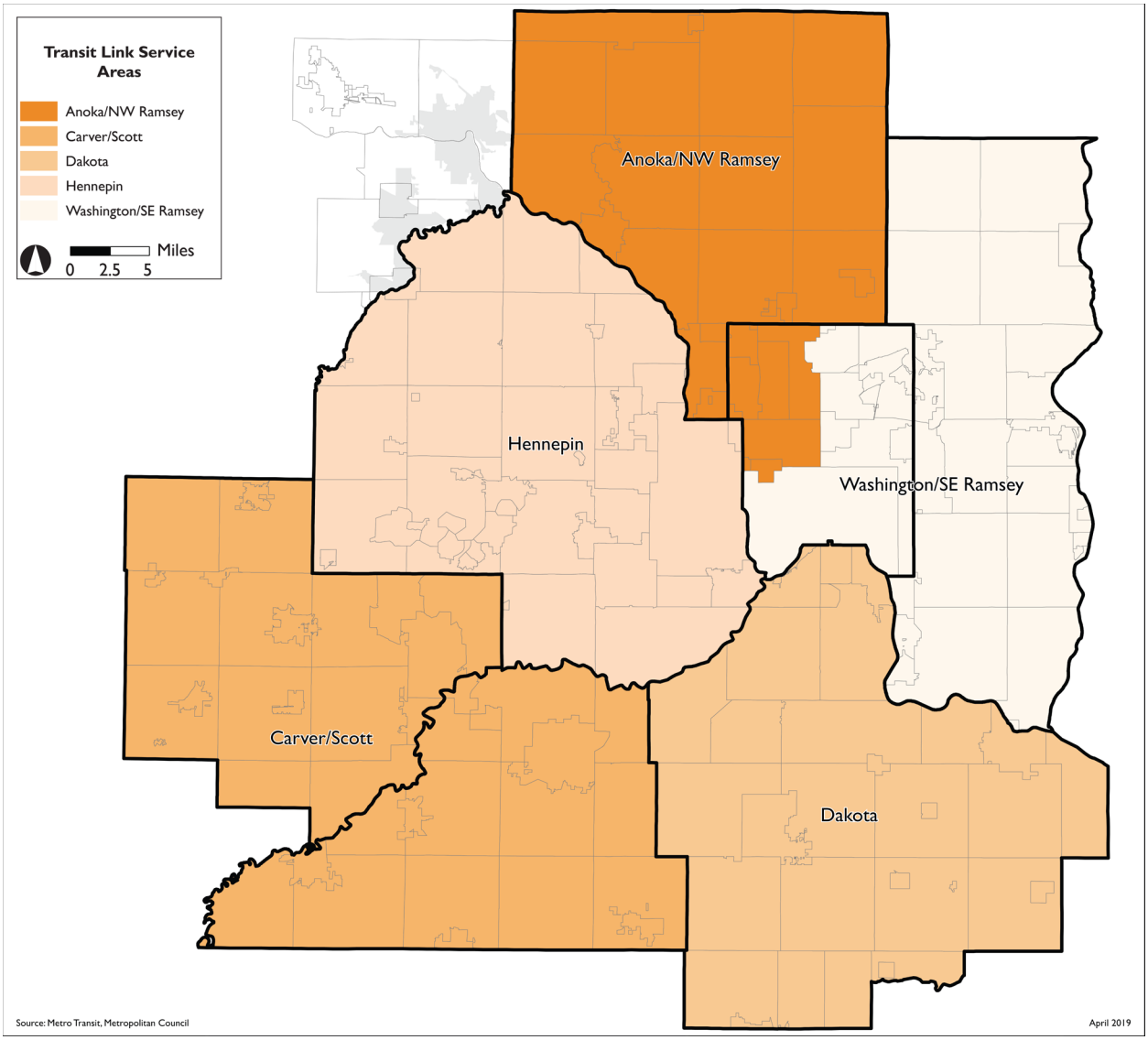


Figure 3-3 - Transit Link Service Areas

Metro Vanpool

Metro Vanpool is a commuter vanpool program subsidized and overseen by the Metropolitan Council. This program started in 2001 as a way of providing transit service for people living or working in areas not served by regular route bus service. People driving long distances from low-density areas add a disproportionate number of vehicle miles traveled (VMT), so removing or reducing these trips on the road network leads to significant benefits in terms of traffic congestion, air pollution, and greenhouse gas emissions.

Table 3-9 – 2017 Operating Statistics: Metro Vanpool

Service	Operating Cost	Fare Revenue	Farebox Recovery	Ridership	In-Service Hours	Subsidy per Pass.	Pass. per In-Service Hour
Metro Vanpool	$985,014	$646,139	65.6%	149,904	35,509	$2.26	4.2

Suburban Transit Providers

Prior to 1982, the Metropolitan Transportation Commission (the predecessor to Metro Transit) levied a property tax throughout the region to provide funding for transit operations. In 1982, the legislature authorized cities to retain up to 90 percent of the property tax levied in their communities to “opt out” of, and provide transit service independent of, Metro Transit service. Twelve cities chose to provide their own transit service through the legislation. Today, through agreements and consolidations, the region includes four suburban transit provides. Figure 3-4 shows the routes as of February 2019.

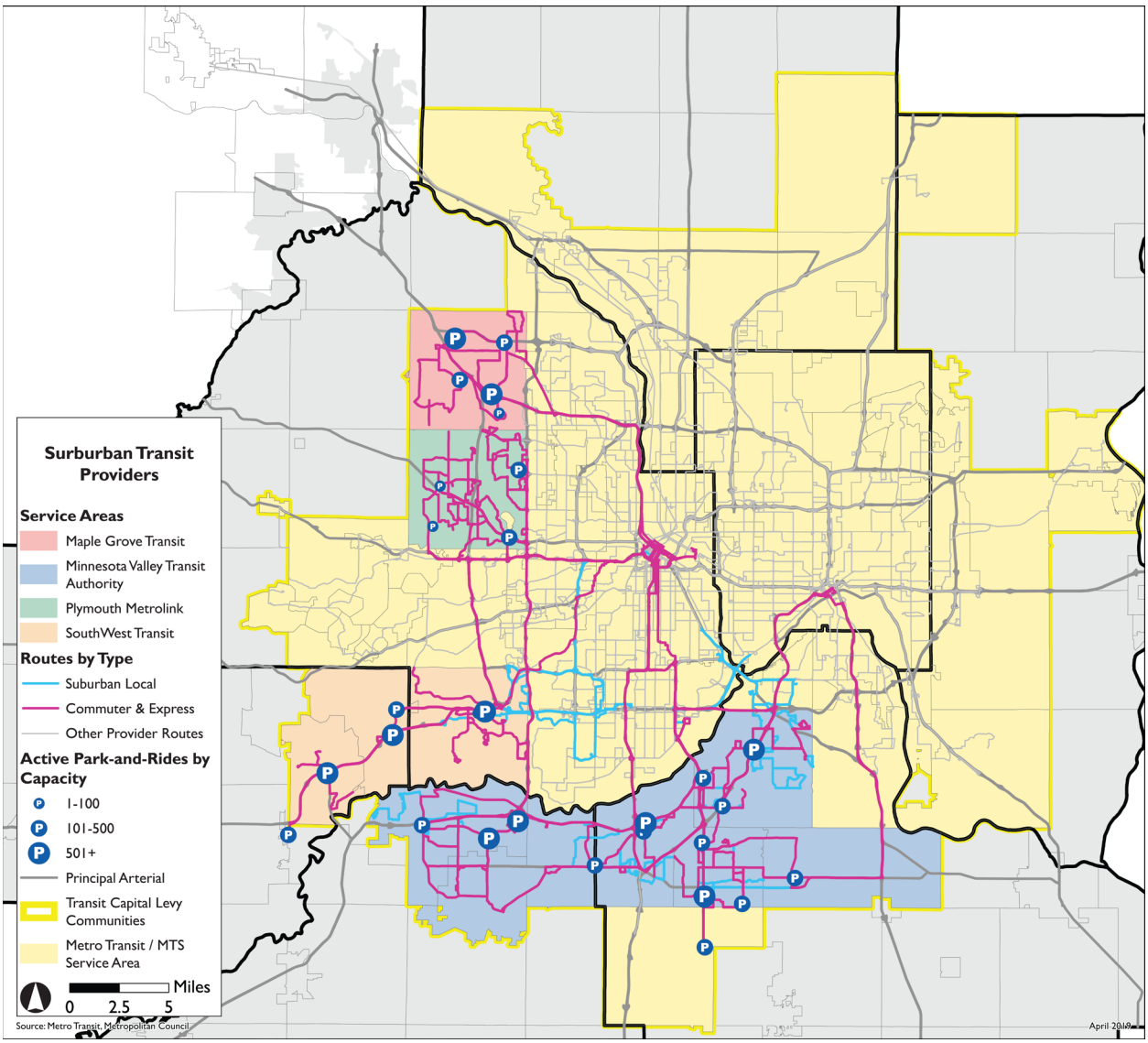


Figure 3-4 – Suburban Transit Provider Service Areas and Transit Service and Infrastructure

Minnesota Valley Transit Authority

The Minnesota Valley Transit Authority (MVTA) was established as part of a Joint Powers Board in 1990 and serves the residents of Apple Valley, Burnsville, Eagan, Prior Lake, Rosemount, Savage, and Shakopee. MVTA service in Prior Lake and Shakopee began in 2015 when Shakopee and Prior Lake requested that MVTA operate the Shakopee circulator and BlueXpress commuter service. In 2017,

MVTA operated a total of 33 routes: METRO Red Line BRT under contract to MTS, 15 suburban local bus routes, and 17 commuter and express bus routes. MVTA operated service to 15 park-and-ride facilities in 2017.

Table 3-10 – 2017 Operating Statistics: Minnesota Valley Transit Authority

Service	Operating Cost	Fare Revenue	Farebox Recovery	Ridership	In-Service Hours	Subsidy per Pass.	Pass. per In-Service Hour
Suburban Local Bus	$8,274,694	$632,725	7.6%	626,961	64,682	$12.19	9.7
Commuter & Express Bus	$17,197,626	$4,581,641	26.6%	1,939,554	87,959	$6.50	22.1
MVTA Total	**$25,472,319**	**$5,214,366**	**20.5%**	**2,566,515**	**152,641**	**$7.89**	**16.8**

SouthWest Transit

SouthWest Transit was established as part of a joint powers agreement in 1986 and serves the residents of Chaska, Chanhassen, and Eden Prairie. In 2017, SouthWest Transit operated a total of 15 routes: 10 commuter and express routes, one suburban local route, four flex routes. SouthWest Transit also provides dial-a-ride service through SW Prime. SouthWest operated transit service to seven park-and-ride facilities in 2017.

Table 3-11 – 2017 Operating Statistics: SouthWest Transit

Service	Operating Cost	Fare Revenue	Farebox Recovery	Ridership	In-Service Hours	Subsidy per Pass.	Pass. per In-Service Hour
Suburban Local Bus	$609,312	$45,249	7.4%	22,001	3,236	$25.64	6.8
Commuter & Express Bus	$8,658,773	$2,323,881	26.8%	931,812	40,528	$6.80	23.0
SW Prime (General Dial-a-Ride)	$829,977	$180,992	21.8%	74,531	24,300	$8.71	3.1
SouthWest Transit Total	**$10,098,063**	**$2,550,122**	**25.3%**	**1,028,344**	**68,064**	**$7.34**	**15.1**

Maple Grove Transit

Maple Grove Transit was formed in 1990 to serve the city of Maple Grove. In 2017, Maple Grove Transit provided service on eight commuter and express routes, as well as local dial-a-ride service. Maple Grove Transit's commuter and express service is operated by Metro Transit under contract. Service was provided from five park-and-ride facilities in 2017.

Table 3-12 – 2017 Operating Statistics: Maple Grove Transit

Service	Operating Cost	Fare Revenue	Farebox Recovery	Ridership	In-Service Hours	Subsidy per Pass.	Pass. per In-Service Hour
Commuter & Express Bus	$4,470,542	$2,021,975	45.2%	793,767	22,485	$3.08	35.3
General Dial-a-Ride	$757,688	$46,269	6.1%	39,741	11,548	$17.90	3.4
Maple Grove Transit Total	**$5,228,230**	**$2,068,244**	**39.6%**	**833,508**	**34,033**	**$3.79**	**24.5**

Plymouth Metrolink

Plymouth Metrolink began service in 1984 and serves the city of Plymouth. In 2017, Plymouth Metrolink provided service on 14 commuter and express routes, as well as a local dial-a-ride service. Service was provided from four park-and-ride facilities in 2017.

Table 3-13 – 2017 Operating Statistics: Plymouth Metrolink

Service	Operating Cost	Fare Revenue	Farebox Recovery	Ridership	In-Service Hours	Subsidy per Pass.	Pass. per In-Service Hour
Commuter & Express Bus	$3,270,319	$983,129	30.1%	486,905	26,423	$4.70	18.4
General Dial-a-Ride	$1,232,818	$71,544	5.8%	31,026	10,773	$37.43	2.9
Plymouth Metrolink Total	**$4,503,137**	**$1,054,673**	**23.4%**	**517,931**	**37,196**	**$6.66**	**13.9**

University of Minnesota

The University of Minnesota contracts with a private provider to operate and maintain a system of five core local routes on its Minneapolis and Saint Paul campuses. Free service is provided on four campus circulator routes and the high-frequency campus connector. Additionally, the University also provides a free door-to-door, dial-a-ride service on campus for people with either temporary or permanent physical disabilities.

Table 3-14 – 2017 Operating Statistics: University of Minnesota

Service	Operating Cost	Fare Revenue	Farebox Recovery	Ridership	In-Service Hours	Subsidy per Pass.	Pass. per In-Service Hour
Core Local	$5,722,612	$0	0.0%	4,037,575	50,430	$1.42	80.1
ADA Dial-a-Ride	$263,095	$0	0.0%	8,232	4,905	$31.96	1.7
University of Minnesota Total	**$5,985,707**	**$0**	**0.0%**	**4,045,807**	**55,335**	**$1.48**	**73.1**

Summary of Transit System Statistics

Ridership

Regional transit ridership has fluctuated over the past five years, reaching its peak in 2015, but decreasing since. Despite the downward trend in regional ridership overall, both Metro Mobility and University of Minnesota services have seen steady increases over the past five years. Metro Mobility ridership increased 24.1% from 2013-2017 with an average annual increase of 5.6%. University of Minnesota ridership increased 38.7% from 2013-2017 with an average annual increase of 8.7%. Metro Transit carried approximately 85% of regional ridership in 2017, with the METRO Blue and Green Lines carrying approximately 25% of all regional ridership.

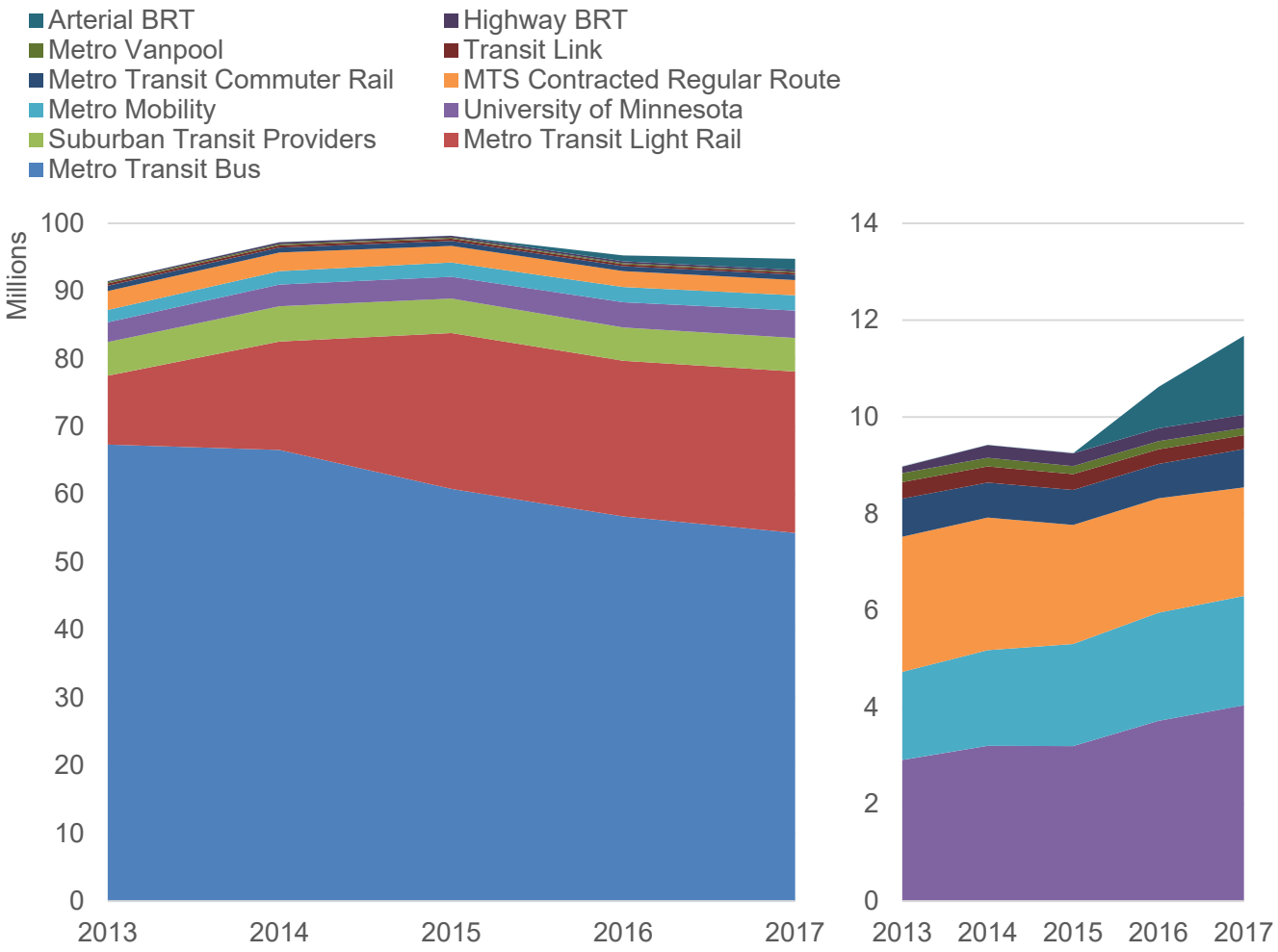


Figure 3-5 – Regional Ridership by Service Provider and Service Type, including inset

Table 3-15 – Regional Transit Ridership 2013-2017

Service	2013	2014	2015	2016	2017
Metro Transit Bus	67,358,060	66,556,981	60,810,940	56,750,724	54,318,129
Metro Transit Light Rail	10,162,919	15,999,994	23,003,457	22,963,629	23,810,995
Metro Transit Commuter Rail	787,239	721,215	722,637	711,167	793,796
Arterial BRT	-	-	-	854,567	1,631,686
MTS Contracted Regular Route	2,791,170	2,740,525	2,458,932	2,361,452	2,242,733
Highway BRT	130,733	265,515	265,410	266,811	270,400
Metro Mobility	1,817,561	1,975,625	2,109,391	2,233,229	2,256,154
Transit Link	341,018	336,039	326,081	302,667	286,325
Metro Vanpool	186,433	176,527	165,442	166,761	149,904
Suburban Transit Providers	4,960,699	5,212,112	5,096,498	4,922,463	4,946,298
Subtotal	88,535,832	93,984,532	94,958,788	91,533,471	90,706,420
University of Minnesota	2,916,536	3,206,582	3,201,892	3,724,133	4,045,807
Regional Total	**91,452,368**	**97,191,114**	**98,160,680**	**95,257,604**	**94,752,227**

Provider Summaries

Table 3-16 provides a summary of key metrics for all transit providers and their services for the year 2017. Subsidy per passenger and passengers per in-service hour are measures of cost-effectiveness and productivity, respectively, established in Appendix G of the 2040 Transportation Policy Plan. These metrics are used to evaluate how transit is performing and how efficient resources are in supporting transit goals.

Table 3-16 – 2017 Regional Transit Operating Statistics by Provider

Service	Operating Cost	Fare Revenue	Farebox Recovery	Ridership	In-Service Hours	Subsidy per Pass.	Pass. per In-Service Hour
Metropolitan Council - Directly Operated							
Metro Transit Bus	$276,963,488	$57,039,550	20.6%	54,318,129	1,594,597	$4.05	34.1
Metro Transit Light Rail	$70,946,842	$24,144,349	34.0%	23,810,995	116,628	$1.97	204.2
Metro Transit Commuter Rail	$15,337,874	$2,516,899	16.4%	793,796	3,186	$16.15	249.2
Arterial BRT	$7,564,075	$1,504,518	19.9%	1,631,686	37,711	$3.71	43.3
Metro Transit Subtotal	$370,812,279	$85,205,316	20.6%	80,554,606	1,752,122	$4.05	34.1
Metropolitan Council - MTS Contracted							
Contracted Regular Route	$13,708,974	$3,070,856	22.4%	2,242,733	167,322	$4.74	13.4
Highway BRT	$3,024,449	$197,528	6.5%	270,400	14,641	$10.45	18.5
Metro Mobility	$64,200,843	$5,716,719	8.9%	2,256,154	1,153,352	$25.92	2.0
Transit Link	$6,436,951	$859,413	13.4%	286,325	117,772	$19.48	2.4
Metro Vanpool	$985,014	$646,139	65.6%	149,904	35,509	$2.26	4.2
MTS Subtotal	$88,356,231	$10,490,655	11.9%	5,205,516	1,488,596	$14.96	3.5
Other Transit Providers							
MVTA	$25,472,319	$5,214,366	20.5%	2,566,515	152,641	$7.89	16.8
SouthWest Transit	$10,098,063	$2,550,122	25.3%	1,028,344	68,064	$7.34	15.1
Maple Grove Transit	$5,228,230	$2,068,244	39.6%	833,508	34,033	$3.79	24.5
Plymouth Metrolink	$4,503,137	$1,054,673	23.4%	517,931	37,196	$6.66	13.9
University of Minnesota	$4,503,137	$1,054,673	23.4%	4,045,807	55,335	$0.85	73.1
Non-Metropolitan Council Subtotal	$49,804,886	$11,942,079	24.0%	8,992,105	347,269	$4.21	25.9
Regional Total	**$508,973,397**	**$107,638,051**	**21.1%**	**94,752,227**	**3,587,987**	**$4.24**	**26.4**

Service Type Summaries

Table 3-17 provides a summary of key metrics for all transit service types and modes for the year 2017. Subsidy per passenger and passengers per in-service hour are measures of cost effectiveness and productivity, respectively, established in Appendix G of the 2040 Transportation Policy Plan. These metrics are used to evaluate the relative efficiency and productivity of the services provided.

Table 3-17 – 2017 Regional Transit Operating Statistics by Mode/Type

Service	Operating Cost	Fare Revenue	Farebox Recovery	Ridership	In-Service Hours	Subsidy per Pass.	Pass. per In-Service Hour
Core Local Bus	$200,803,270	$35,996,182	17.9%	45,706,482	1,231,758	$3.61	37.1
Supporting Local Bus	$22,173,427	$2,772,753	12.5%	2,973,438	159,042	$6.52	18.7
Suburban Local Bus	$28,938,107	$4,254,029	14.7%	4,019,386	239,295	$6.14	16.8
Commuter & Express Bus	$86,961,537	$27,676,043	31.8%	12,700,131	427,567	$4.67	29.7
Regular Route Bus Subtotal	$338,876,341	$70,699,008	20.9%	65,399,437	2,057,662	$4.10	31.8
Light Rail	$70,946,842	$24,144,349	34.0%	23,810,995	116,628	$1.97	204.2
Commuter Rail	$15,337,874	$2,516,899	16.4%	793,796	3,186	$16.15	249.2
Arterial BRT	$7,564,075	$1,504,518	19.9%	1,631,686	37,711	$3.71	43.3
Highway BRT	$3,024,449	$197,528	6.5%	270,400	14,641	$10.45	18.5
ADA Dial-a-Ride	$64,463,938	$5,716,719	8.9%	2,264,386	1,158,257	$25.94	2.0
General Dial-a-Ride	$9,257,434	$1,158,218	12.5%	431,623	164,393	$18.76	2.6
Vanpool	$985,014	$646,139	65.6%	149,904	35,509	$2.26	4.2
Regional Total	**$510,455,967**	**$106,583,377**	**20.9%**	**94,752,227**	**3,587,987**	**$4.26**	**26.4**

Transit Performance Measure Trends

Ridership

Overall fixed-route ridership has remained relatively stable, seeing an increase of 3% since 2013, but down 4% from its peak in 2015 (Figure 3-6). This trend is driven by an increase in transitway (light rail, commuter rail, bus rapid transit) ridership but a decrease in bus ridership excluding transitways. A substantial portion of the decline in bus ridership was a shift from bus to rail when the Green Line opened.

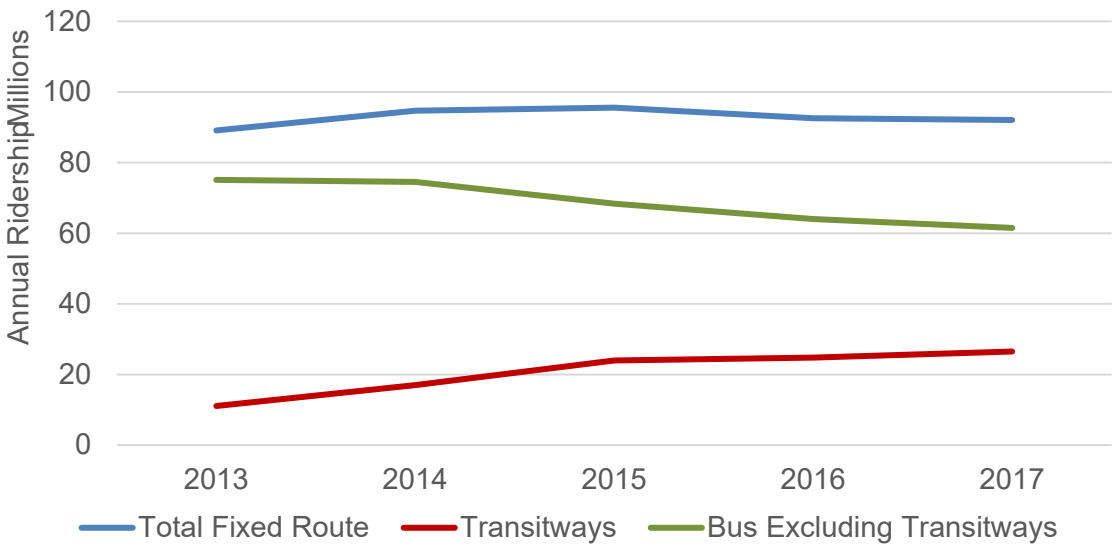


Figure 3-6 – Annual Fixed Route Ridership by Service Type

The transitway system continues to perform strongly, highlighting its vital role in the region's transportation network. Transitway ridership has increased from 11,080,091 in 2013 to 26,506,877 in 2017, now making up 28 percent of overall transit ridership (Figure 3-7). This has been driven by the expansion of the system to include METRO Green Line and A Line, but the system continues to see year-over-year growth even when new lines are not added.

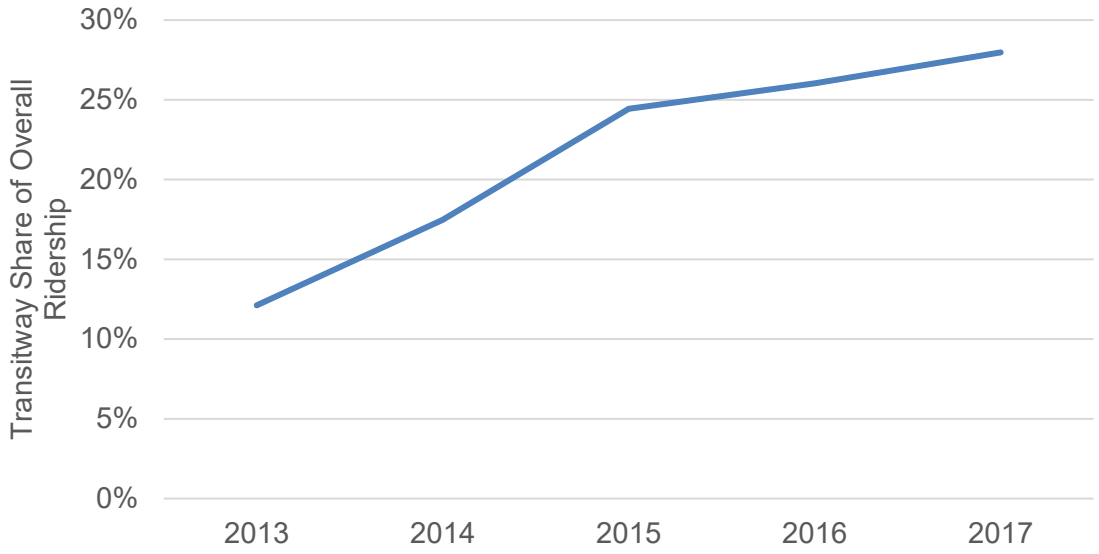


Figure 3-7 – Transitway Share of Overall Transit Ridership, 2013-2017

Reduction in bus ridership may be due in part to increased accessibility of automobiles. Gas prices in Minnesota have been declining for the past several years while the number of multiple vehicle households has been increasing in the region (Figure 3-8). Gas prices statewide have dropped 32% since 2013 while households with three or more vehicles are the fastest growing household type in the region, now making up 32% of households in the region.

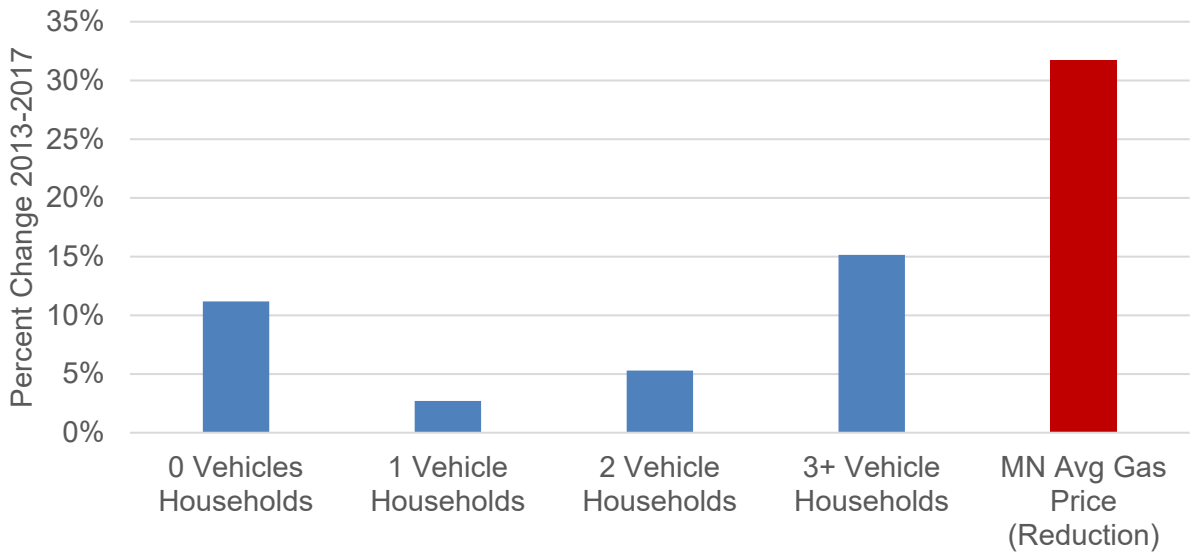
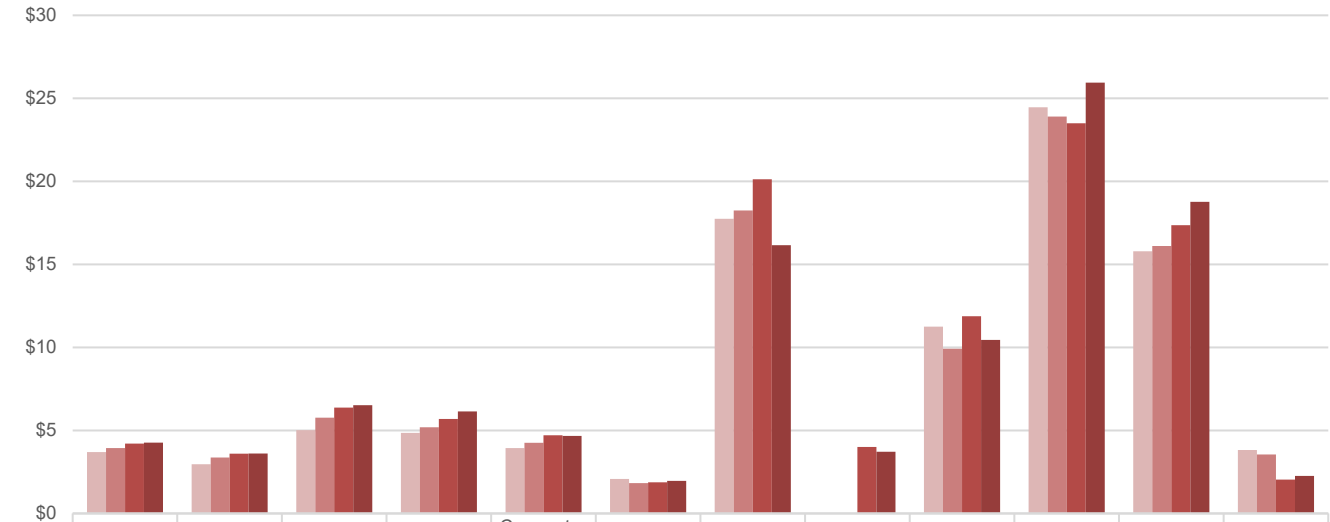


Figure 3-8 – Percent Change of Regional Households by Number of Vehicles Owned and Reduction in Average Gas Prices for the State of Minnesota, 2013-2017

Subsidy per Passenger[1]

Subsidy per passenger measures the cost-effectiveness of transit service as a ratio of operating subsidy required per passenger carried. Operating subsidy is the net cost of providing service, after accounting for fare revenue. In 2017, the regional total was $4.26, up from $3.70 in 2014 (Figure 3-9). Subsidy per passenger is generally expected to increase with inflation but other factors, such as fare revenue and ridership, can influence trends. Fares were increased in October 2017; the first fare increase in eight years. The full effect of this fare increase will take time to assess, but fare increases typically increase farebox recovery and decrease subsidy per passenger. Light rail is the most cost-effective service in the region with a subsidy per passenger of $1.97. ADA dial-a-ride, general dial-a-ride, and commuter rail are the least cost-effective services in the region, with subsidies per passenger of $25.94, $18.76, and $16.15, respectively.

[1] Regional route type classifications were updated in 2015. Current route types were retroactively applied to 2014 data for this analysis.

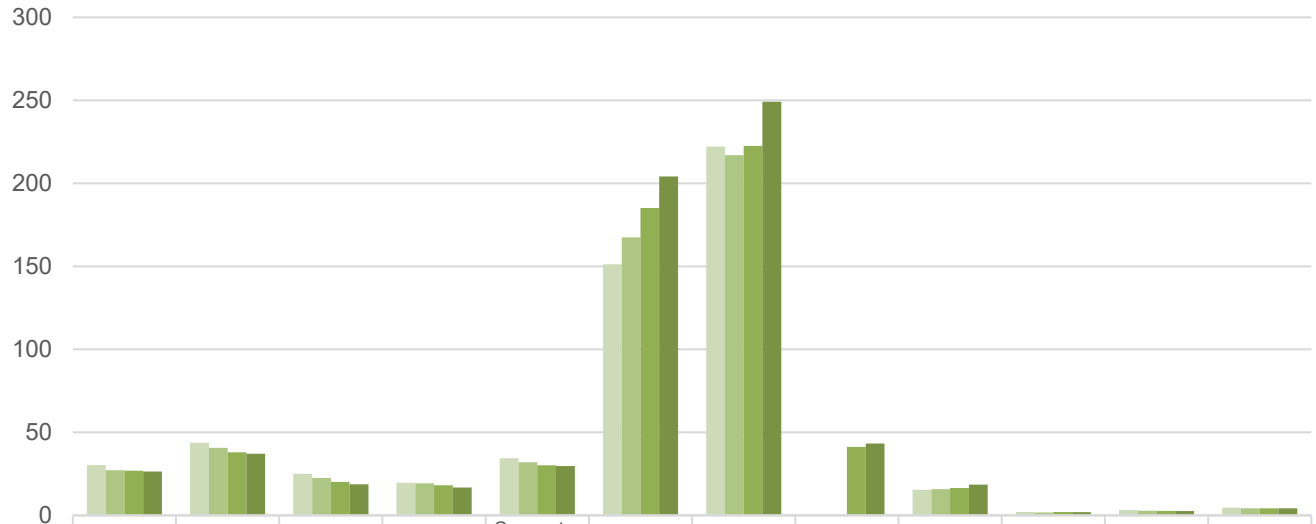


	System Total	Core Local Bus	Supporting Local Bus	Suburban Local Bus	Commuter & Express Bus	Light Rail	Commuter Rail	Arterial BRT	Highway BRT	ADA Dial-a-Ride	General Dial-a-Ride	Vanpool
2014	$3.70	$2.96	$5.02	$4.86	$3.93	$2.07	$17.75		$11.25	$24.46	$15.79	$3.82
2015	$3.94	$3.37	$5.77	$5.19	$4.25	$1.83	$18.25		$9.92	$23.90	$16.11	$3.55
2016	$4.20	$3.60	$6.37	$5.69	$4.71	$1.87	$20.12	$4.00	$11.88	$23.50	$17.36	$2.04
2017	$4.26	$3.61	$6.52	$6.14	$4.67	$1.97	$16.15	$3.71	$10.45	$25.94	$18.76	$2.26

Figure 3-9 - Subsidy per Passenger by Mode and Service Type, 2014 - 2017

Passengers per In-Service Hour[1]

Passengers per in-service hour measures the productivity of transit service as a ratio of total passengers carried per hour of service provided. The regional system carried 26.4 passengers per hour of service provided in 2017, down from 30.3 in 2014 (Figure 3-10). Commuter rail and light rail are the most productive services in the region, carrying 249.2 and 204.2 passengers per in-service hour, respectively. ADA dial-a-ride and general dial-a-ride are the least productive services, carrying 2.0 and 2.6 passengers per in-service hour, respectively.



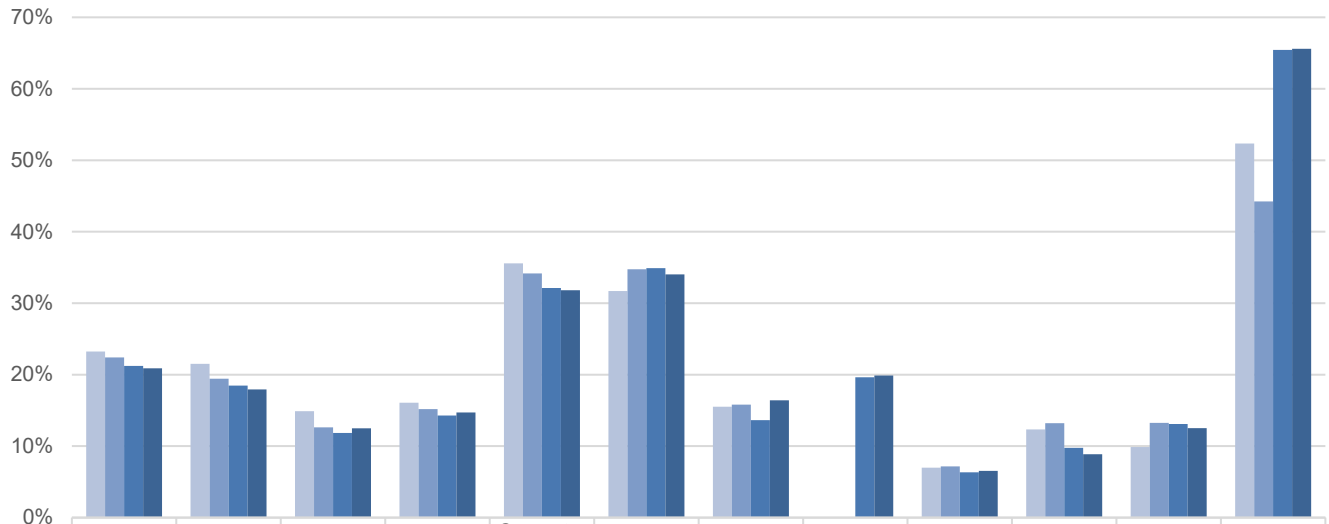
	System Total	Core Local Bus	Supporting Local Bus	Suburban Local Bus	Commuter & Express Bus	Light Rail	Commuter Rail	Arterial BRT	Highway BRT	ADA Dial-a-Ride	General Dial-a-Ride	Vanpool
2014	30.3	43.8	25.1	19.7	34.5	151.3	222.1		15.5	2.1	3.1	4.6
2015	27.1	40.7	22.6	19.2	32.0	167.4	216.9		15.8	1.7	2.8	4.2
2016	26.9	38.0	20.1	18.1	30.1	185.2	222.5	41.2	16.5	2.0	2.7	4.2
2017	26.4	37.1	18.7	16.8	29.7	204.2	249.2	43.3	18.5	2.0	2.6	4.2

Figure 3-10 - Passengers per In-Service Hour by Mode and Service Type, 2014-2017

Farebox Recovery[1]

Farebox recovery is the percent of operating costs recovered through fare revenues from passengers. In 2017, the regional farebox recovery was 20.9%, down from 23.2% in 2014 (Figure 3-11). Fares were increased in October 2017; the first fare increase in eight years. The full effect of this fare increase will take time to assess, but fare increases typically increase farebox recovery and decrease subsidy per passenger. Vanpool has the highest farebox recovery with 65.6%, but this service is unique in that users operate the vehicles instead of hired operators, eliminating the highest cost incurred in providing traditional service. Light rail and commuter & express bus have the second and third highest farebox recovery with 34.0 and 31.8%, respectively. Highway BRT has the lowest farebox recovery with 6.5%.

[1] Regional route type classifications were updated in 2015. Current route types were retroactively applied to 2014 data for this analysis.



	System Total	Core Local Bus	Supporting Local Bus	Suburban Local Bus	Commuter & Express Bus	Light Rail	Commuter Rail	Arterial BRT	Highway BRT	ADA Dial-a-Ride	General Dial-a-Ride	Vanpool
2014	23.2%	21.5%	14.9%	16.1%	35.6%	31.7%	15.5%		7.0%	12.3%	9.9%	52.3%
2015	22.4%	19.4%	12.6%	15.2%	34.2%	34.8%	15.8%		7.2%	13.2%	13.3%	44.2%
2016	21.2%	18.5%	11.8%	14.3%	32.1%	34.9%	13.6%	19.6%	6.3%	9.8%	13.1%	65.4%
2017	20.9%	17.9%	12.5%	14.7%	31.8%	34.0%	16.4%	19.9%	6.5%	8.9%	12.5%	65.6%

Figure 3-11 - Farebox Recovery by Mode and Service Type, 2014-2017

Route Performance for Subsidy per Passenger and Passengers per In-Service Hour

The Transportation Policy Plan specifies minimum performance measures for both productivity and cost effectiveness for all mode/service types with the exception of ADA dial-a-ride and vanpool.[1] Table 3-18 and Table 3-19 shows the number of routes by mode/service type and day of service that either meets or does not meet performance standards for both passengers per in-service hour and subsidy per passenger in 2017.[2,3]

Table 3-18 – Number of Routes Meeting Passengers per In-Service Hour Standards, by Service Type and Day of Service, 2017

	Weekday Meets	Weekday Below	Saturday Meets	Saturday Below	Sunday Meets	Sunday Below
Core Local Bus	31	2	22	5	20	5
Supporting Local Bus	12	2	5	5	2	8
Suburban Local Bus	25	14	17	7	9	4
Commuter & Express Bus	88	39	0	5	0	4
Arterial BRT	1	0	1	0	1	0
Highway BRT	0	1	1	0	0	1
Light Rail	2	0	2	0	2	0
Commuter Rail	1	0	1	0	1	0
General Dial-a-Ride	4	0	NA	NA	NA	NA

[1] For specific performance standards, see Appendix G of the Transportation Policy Plan
[2] For general dial-a-ride, data is aggregated and is not separated out by day of week
[3] For general dial-a-ride, each provider is considered a route for this purpose

Table 3-19 – Number of Routes Meeting Subsidy per Passenger Standards, by Service Type and Day of Service, 2017

	Weekday Meets	Weekday Below	Saturday Meets	Saturday Below	Sunday Meets	Sunday Below
Core Local Bus	26	7	22	5	19	6
Supporting Local Bus	9	5	5	5	6	4
Suburban Local Bus	30	7	14	5	11	2
Commuter & Express Bus	97	30	4	1	3	1
Arterial BRT	1	0	1	0	1	0
Highway BRT	1	0	1	0	1	0
Light Rail	2	0	2	0	2	0
Commuter Rail	1	0	1	0	1	0
General Dial-a-Ride	3	1	NA	NA	NA	NA

Infrastructure

Peak Vehicles Operated

The core of any transit system is its vehicles. In 2017, the maximum number of vehicles used on any given day in the Twin Cities was 1,835. Less than half of these vehicles were operated by Metro Transit bus and rail, with the remaining vehicles operated by the other programs and providers. Although light rail carried approximately 25% of all regional ridership in 2017, it only used approximately 4% of the total vehicles operated. Comparatively, although dial-a-ride (both ADA and general) only carried approximately 3% of all regional ridership in 2017, it used approximately 31% of the total vehicles operated.

Park-and-Rides

The capacity of the Twin Cities regional park-and-ride system is continuously in flux as new facilities are opened, underutilized facilities are closed, facilities are temporarily closed for expansions, and temporary facilities are used during expansion or until permanent facilities can be constructed. The Twin Cities had 106 active park-and-ride facilities as of 2017, with a total capacity of 34,008. This is up from a capacity of 23,352 spaces in 2007, an approximately 46% increase (Figure 3-12). In 2017, the capacity was about 58% utilized on an average weekday. This capacity is available for seasonal peaks and was built to serve the park-and-ride demand in the future, based on 2030 projections.

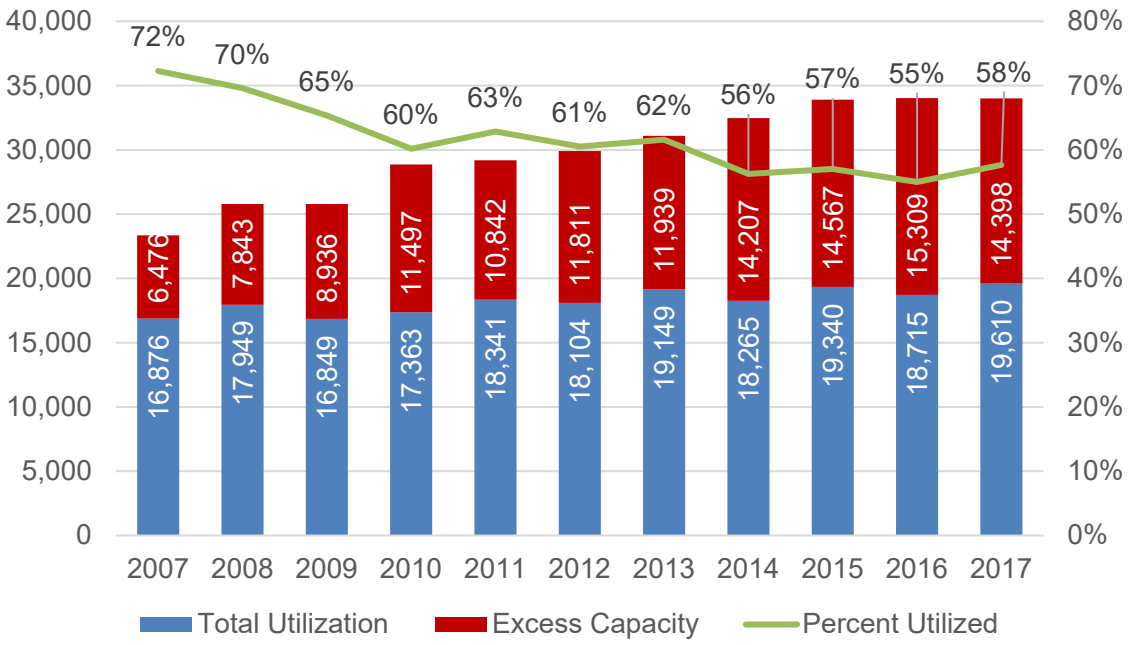
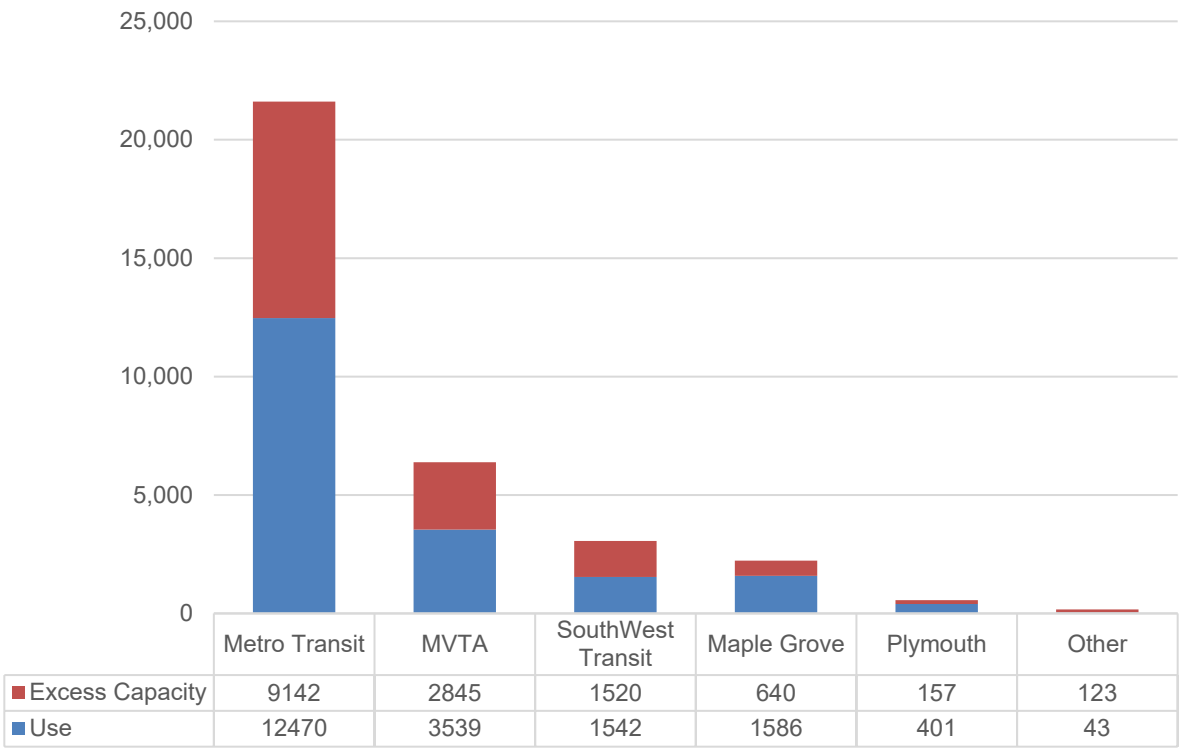


Figure 3-12 - Systemwide Park-and-Ride Utilization, 2007-2017

Spaces are provided through three types of arrangements:

- Park-and-rides are owned by transit agencies like Metro Transit or suburban transit providers;
- Park-and-rides are owned by the Minnesota Department of Transportation (MnDOT), typically on excess right-of-way and used under agreement between MnDOT and the transit provider;
- Park-and-rides are joint use with private entities like theatres, shopping centers, or churches.

Park-and-rides are served by Metro Transit and the region's suburban transit agencies (Figure 3-13). Metro Transit and the Metropolitan Council accounted for approximately 64% of the region's park-and-ride spaces in 2017. MVTA, the suburban provider with the most park-and-ride spaces, accounted for approximately 10% of all spaces in 2017.



	Metro Transit	MVTA	SouthWest Transit	Maple Grove	Plymouth	Other
Excess Capacity	9142	2845	1520	640	157	123
Use	12470	3539	1542	1586	401	43

Figure 3-13 – 2017 Park-and-Ride Utilization by Provider

Every other year, the region surveys park-and-ride facilities to determine the home location of Minnesota users. The Metropolitan Council has not been able to determine the home location of Wisconsin users since 2014. The most recent survey was conducted in fall 2018. Park-and-ride users come from throughout the region including 10% from outside the Transit Capital Levy Communities (communities within the transit taxing district and communities that have come to an agreement with the Metropolitan Council to levy in their community for transit capital) and even beyond the seven-county metropolitan boundary (Table 3-20, Figure 3-14)

Table 3-20 – 2018 Park-and-Ride User Origins

User Home Origins	Count	% of Total
Inside Transit Capital Levy Communities	13,754	79.2%
Outside Transit Capital Levy Communities	1,749	10.0%
Outside of the 7-County Metropolitan Area	1,873	10.8%
Total Park-and-Ride License Plates	17,376	100.0%
Wisconsin License Plates	332	N/A

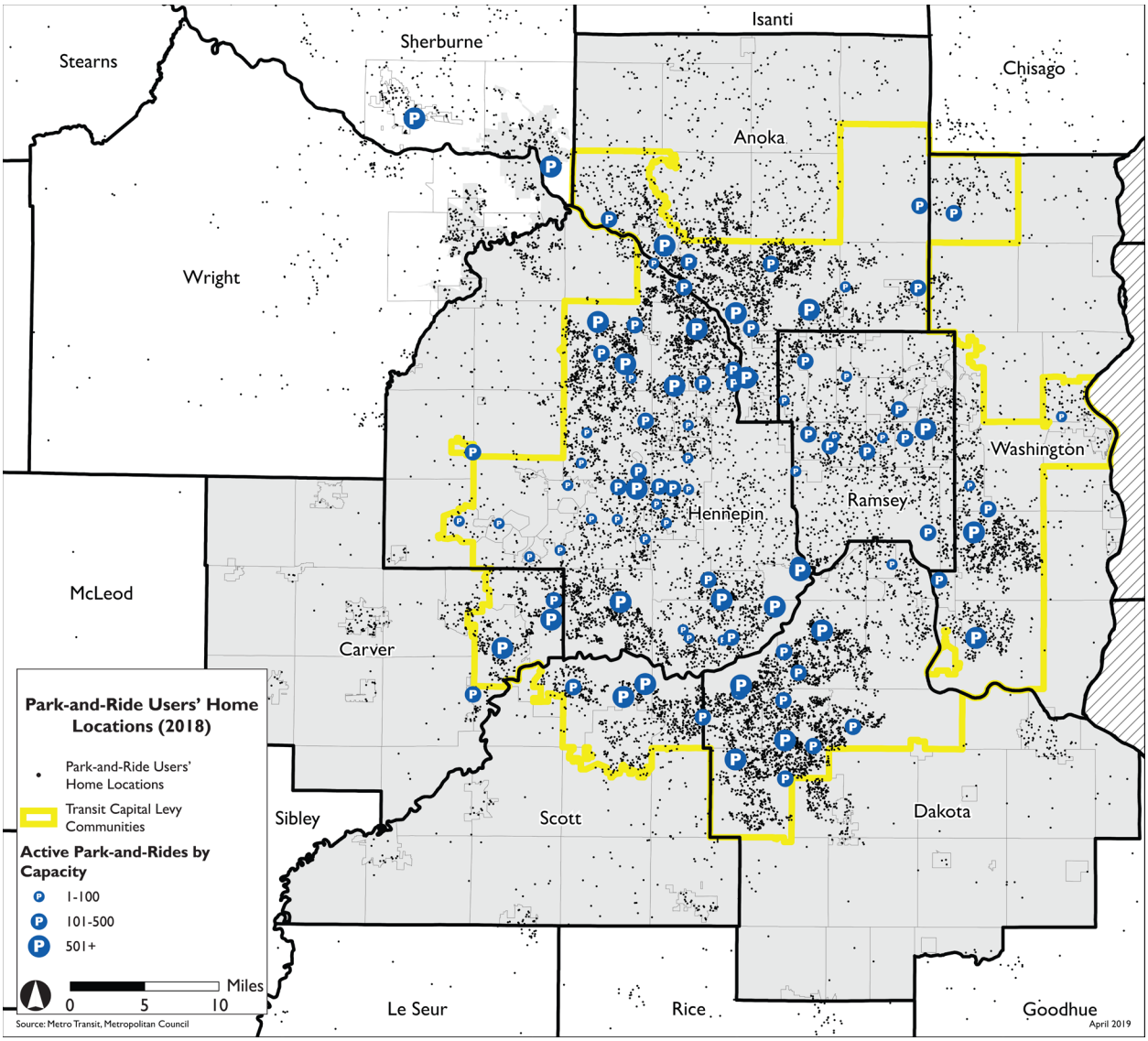


Figure 3-14 – Park-and-Ride User Home Locations

Accessibility to the Transit Network

Most of the metro region's population within the Transit Capital Levy District has access to fixed-route transit service; 25% of the region's population within the Transit Capital Levy District is not within ¼ mile of a stop receiving fixed-route service (Figure 3-15). The majority of the region's population within the Transit Capital Levy District does not live within a ¼-mile of the high-frequency network, the part of the network receiving at least 15-minute frequency service between the hours of 6 a.m. and 7 p.m. on weekdays and 9 a.m. to 6 p.m. service on Saturdays. 14% of the region's population lives within a ¼ mile of a stop receiving high-frequency service.

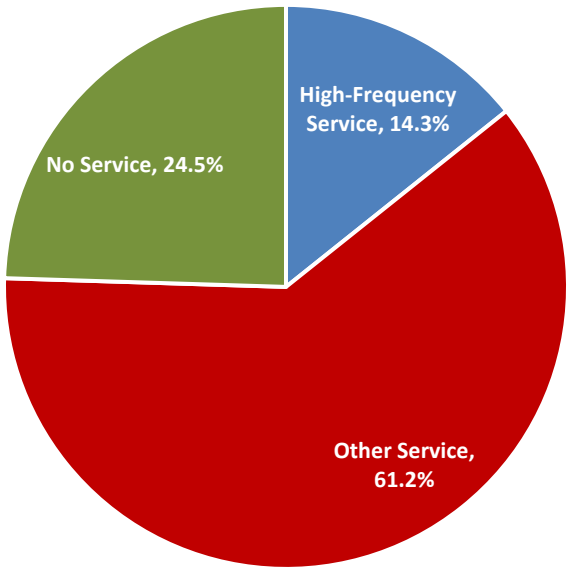


Figure 3-15 – Regional Population within ¼-Mile of Transit Service

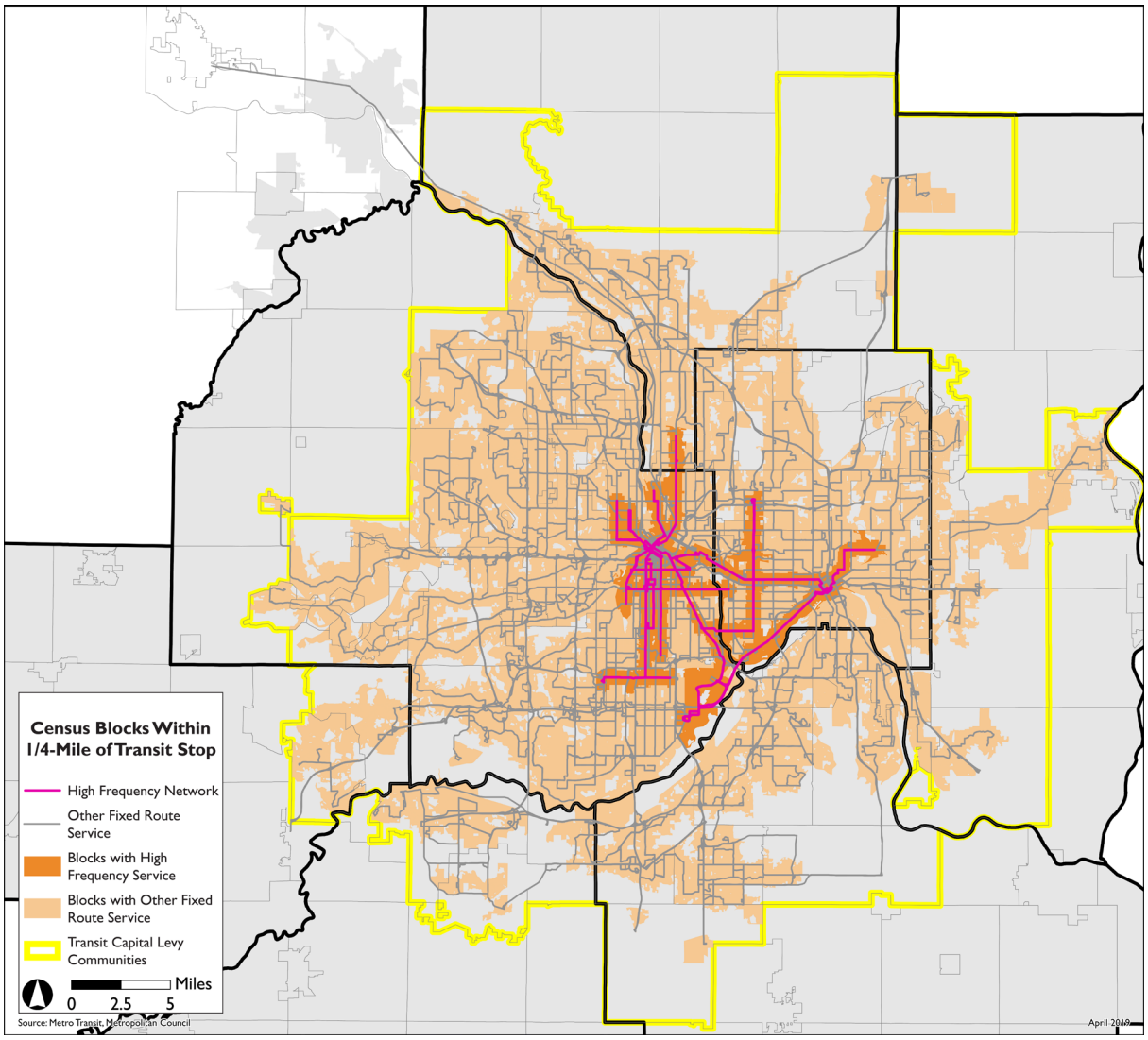


Figure 3-16 – Census Blocks Within ¼-Mile of Transit Stop

4. Peer Transit Performance Evaluation

The Twin Cities' transit system performance, for the purpose of peer region comparisons, is assessed using data from the federal National Transit Database (NTD). The region's performance is compared to the performance of a peer group of 12 urban area transit systems (Figure 4-1).

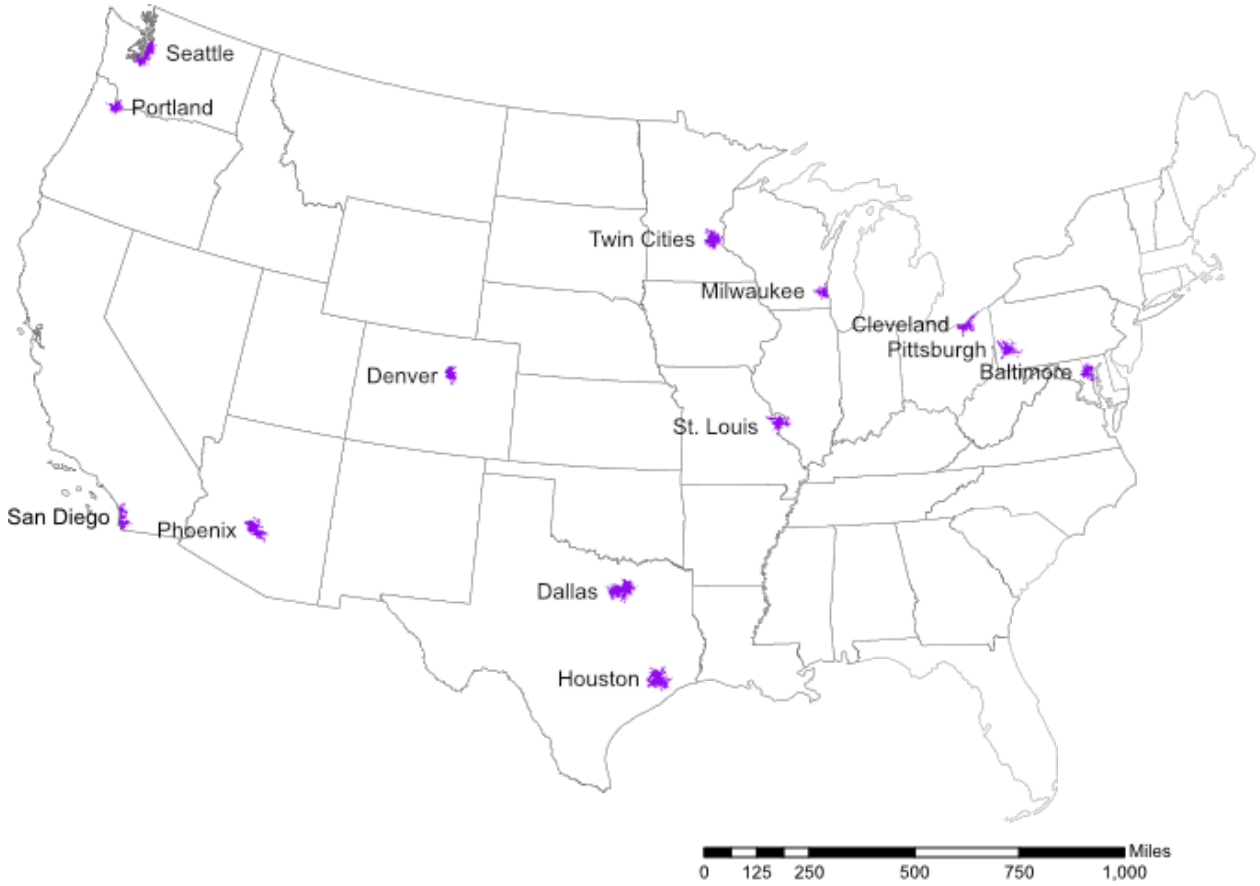


Figure 4-1 – Twin Cities Peer Regions

Key Takeaways

Investment in transit and ridership have a positive relationship

The top three regions in investment in transit are also the top three regions in transit ridership per capita. The Twin Cities region is about average among the 12 peer regions in both metrics.

Ridership is generally down among peer regions from 2013-2017

Among the 12 peer regions, ridership is up in only four of the regions from 2013-2017 and the Twin Cities makes the total five. Seattle is the only peer region to see ridership growth every year.

The Twin Cities region is close to the peer average in nearly all metrics of regional transit service

The Twin Cities region has historically (e.g. in past reports) been an above average performer in transit system metrics when compared to peer regions. Recent data suggests the region is now closer to the peer average.

High share of dial-a-ride service impacts performance in the Twin Cities

The Twin Cities region has a higher share of dial-a-ride service per capita than all but one of the peer regions (Pittsburgh). While dial-a-ride service in the region performs comparatively well, the higher share of service impacts regional performance, particularly the growth in Metro Mobility.

Peer Modes

Peer groups were originally established in 1997, and regions were selected that were similar in both size and in composition of transit service. Over the subsequent years, changes in transit agencies, services provided, and regional demographics have led the Council to reevaluate the peer regions. The current list of peer regions, along with modes operated as of the end of 2017, are listed in Table 4-1. All peer regions operate some form of bus service and dial-a-ride, and, as of 2017, all peers except for Milwaukee operated light rail service.

Table 4-1 – Peer Region Transit Modes (As of 2017)

Region	Bus	BRT	Heavy Rail	Light Rail	Street-car	Comm. Rail	Hybrid Rail	Dial-a-Ride	Van-pool	Other
Baltimore	▪		▪	▪		▪		▪		
Cleveland	▪	▪	▪	▪				▪	▪	
Dallas	▪			▪	▪	▪	▪	▪	▪	
Denver	▪			▪		▪		▪	▪	
Houston	▪			▪				▪	▪	
Milwaukee	▪							▪		
Phoenix	▪			▪				▪	▪	
Pittsburgh	▪			▪				▪	▪	Inclined Plane
Portland	▪			▪	▪		▪	▪	▪	Aerial Tram.
San Diego	▪			▪		▪	▪	▪	▪	
Seattle	▪	▪		▪	▪	▪		▪	▪	Monorail
St. Louis	▪			▪				▪	▪	
Twin Cities	▪	▪		▪		▪		▪	▪	

Peer Region Population

When looking at the performance of peer region transit systems, it is important to consider both population and density, particularly of the urbanized area (UZA), to determine which modes of transit service will be most effective.

The two largest peer regions are Dallas and Houston, Texas. However, the two regions with the highest population density are San Diego, Calif. and Denver, Colo. The varying level of densities contribute to the overall effectiveness of most intensive transit services, such as rail transit.

Table 4-2 – Peer Region Population and Employment[1]

Region	Population	Land Area: Urbanized Area (Sq. Mi)	Population Density	Density Rank
Baltimore	2,203,663	717	3,073	5
Cleveland	1,780,673	772	2,307	12
Dallas	5,121,892	1,779	2,879	8
Denver	2,374,203	668	3,554	2
Houston	4,944,332	1,660	2,979	7
Milwaukee	1,376,476	546	2,521	10
Phoenix	3,629,114	1,147	3,164	4
Pittsburgh	1,733,853	905	1,916	13
Portland	1,849,898	524	3,530	3
San Diego	2,956,746	732	4,039	1
Seattle	3,059,393	1,010	3,029	6
St. Louis	2,150,706	924	2,328	11
Peer Average	2,756,295	954	2,888	-
Twin Cities	2,650,890	1,022	2,594	9

Peer Region Transit Spending

Operating Spending per Capita

Operating spending for transit in the Twin Cities increased 21% from 2013-2017, compared to 17.3% across the peer regions. Adjusted for inflation, the real rate of increase in the Twin Cities was 15% from 2013-2017, or an average annual increase of 3.6%, compared to the peer region average of 11.5% and 2.8%, respectively (Table 4-3).

Table 4-3 - Twin Cities and Peer Region Operating Spending per Capita (2013-2017)

Year	Twin Cities Operating Expenses per Capita (Actual)	Peer Region Average Operating Expenses per Capita (Actual)	Twin Cities Operating Expenses per Capita (Adjusted 2017$)	Peer Region Average Operating Expenses per Capita (Adjusted 2017$)
2013	$159.63	$152.54	$167.92	$160.46
2014	$176.32	$174.54	$182.57	$180.73
2015	$187.97	$174.80	$194.39	$180.78
2016	$191.02	$184.54	$195.08	$188.46
2017	$193.14	$192.13	$193.14	$192.13
Percent Change 2013-2017				
Region	Actual		Adjusted 2017$	
Twin Cities	21.0%		15.0%	

[1] 2010 Census, Urbanized Area

Year	Twin Cities Operating Expenses per Capita (Actual)	Peer Region Average Operating Expenses per Capita (Actual)	Twin Cities Operating Expenses per Capita (Adjusted 2017$)	Peer Region Average Operating Expenses per Capita (Adjusted 2017$)
Peer Region Avg.	17.3%		11.5%	
Average Annual Percent Change 2013-2017				
Region	Actual		Adjusted 2017$	
Twin Cities	4.9%		3.6%	
Peer Region Avg.	4.1%		2.8%	

In 2017, the Twin Cities spent approximately $1 more per capita on transit operations than the peer average, with $193.14 and $192.13, respectively (Figure 4-2). Seattle spent the most per capita on transit operations, with $382.95.

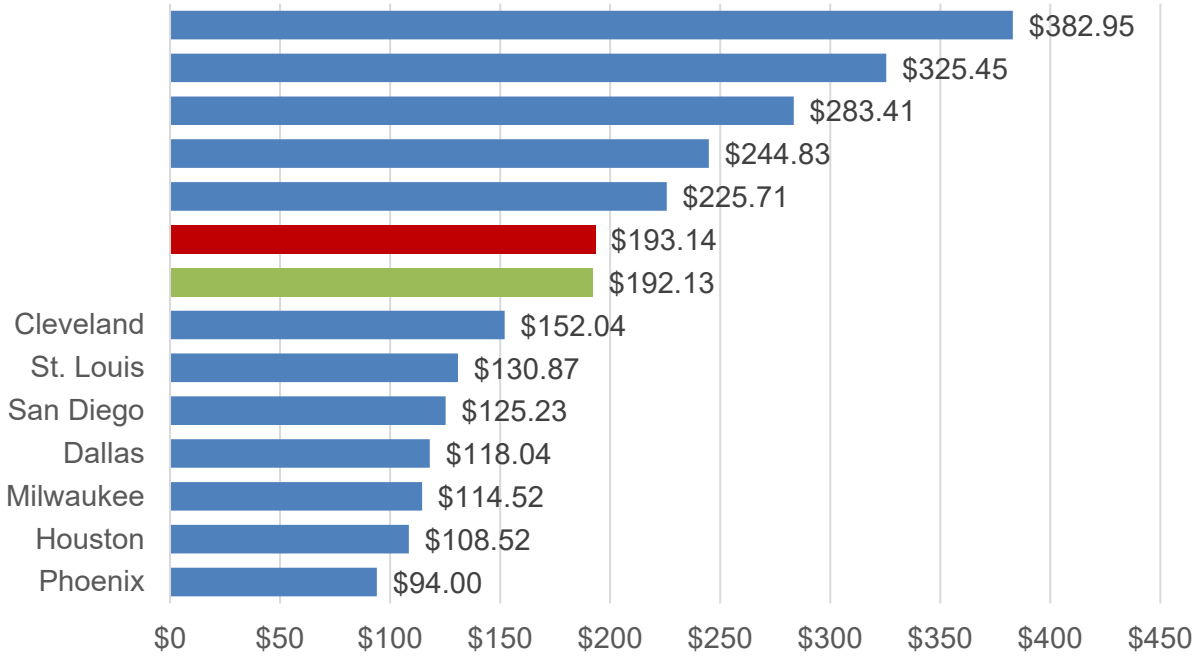


Figure 4-2 – Peer Total Operating Spending per Capita, 2017

Capital Spending per Capita

When looking at 2007-2017 average annual capital spending, the Twin Cities spends less money per capita than the peer average with approximately $110 and $112, respectively (Figure 4-3). Seattle and Denver spend the most per capita, with approximately $324 and $261, respectively, which is significantly higher than the rest of the peer regions. With Seattle and Denver removed, the range in capital spending per capita across peers would decrease from approximately $308 to $125, and the peer average would decrease to approximately $79.

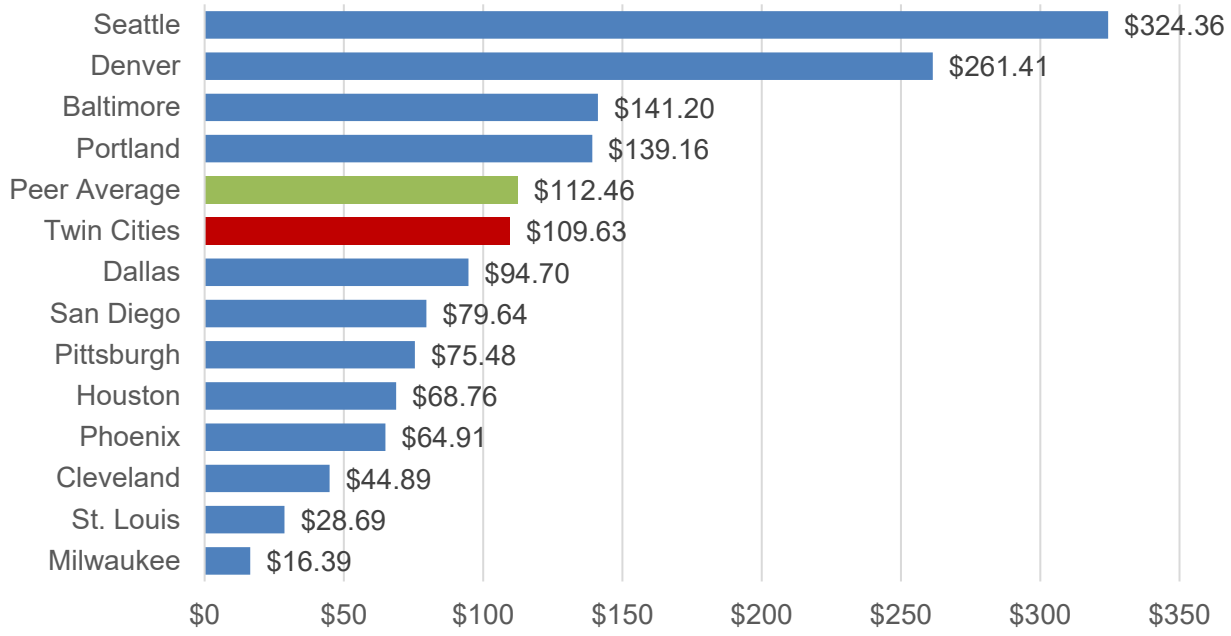


Figure 4-3 – Peer Average Annual Capital Spending per Capita, 2007-2017, 2017$

Peer Region Level of Service

The amount of transit service provided varies across the peer regions. Two common methods of looking at the amount of service provided are revenue miles and revenue hours.

Revenue miles refers to total transit vehicle mileage when the vehicles are available to carry riders. This would exclude mileage for vehicles when they are not in service, for example when they are traveling to or from an operating base/garage. For a fixed route that is 10 miles in length and operates 10 trips each direction per day, that route would provide 200 revenue miles of service a day.

Across peer regions, Seattle provides the highest amount of annual revenue miles per capita at 33.8. The Twin Cities provides 23.0, which is higher than the peer average of 19.2 (Figure 4-4).

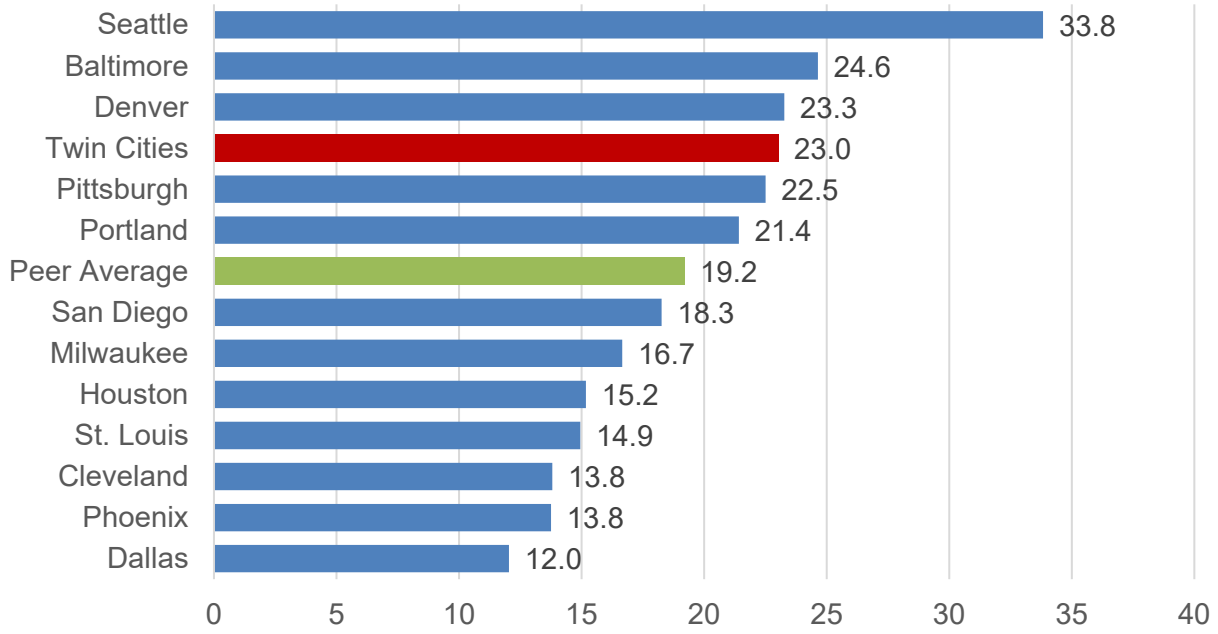


Figure 4-4 – Peer Revenue Miles per Capita, 2017

Different levels of service across modes can affect total regional revenue miles per capita. When modes are broken down into fixed route[1], dial-a-ride, and vanpool/other, Seattle provided the most fixed route service at 21.3 revenue miles per capita, Baltimore provided the most dial-a-ride service at 10.2, and Seattle provided the most vanpool/other service at 8.1 (Figure 4-5). Regarding dial-a-ride, while Seattle ranked first in total service per capita, it only ranked seventh in dial-a-ride service. Similarly, while the Twin Cities ranked fourth in total service per capita, it ranked second in dial-a-ride service.

[1] Fixed Route modes include: Bus, Light Rail, and Heavy Rail

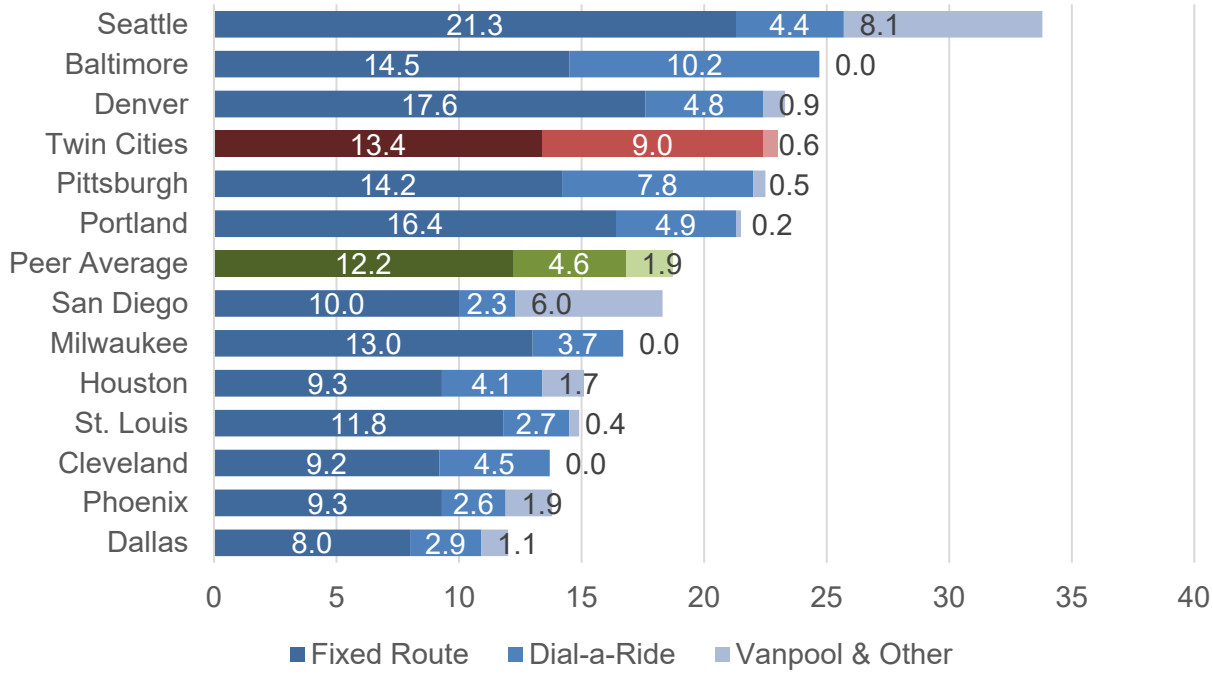


Figure 4-5 – Peer Revenue Miles per Capita by Mode, 2017

Revenue hours is similar to revenue miles but refers to total transit vehicle hours when the vehicles are available to carry riders and includes both running time and layover/recovery time. Peer region trends in revenue hours per capita are similar to revenue miles per capita but impacts of dial-a-ride on total service is more pronounced using revenue miles than revenue hours.

Peer Region Transit Ridership

In the Twin Cities region, ridership peaked in 2015, with average ridership across all peer regions peaking in 2014 (Table 4-4). From 2013-2017, ridership in the Twin Cities region increased by 0.4%, while the peer regions, as a whole, saw an average decrease in ridership of 1.2%. Seattle was the only peer region to have ridership increases every year 2013-2017 (Figure 4-6). In 2017, the Twin Cities has higher ridership per capita than the peer region average, with 36.0 and 34.2, respectively (Figure 4-7). Seattle and Portland had the highest and second highest ridership per capita, with 64.8 and 60.7, respectively.

Table 4-4 – Twin Cities & Peer Region Annual Transit Ridership, 2013 - 2017

	Twin Cities Total Ridership	Peer Region Total Ridership (Avg.)	Twin Cities Ridership per Capita	Peer Region Ridership per Capita (Avg.)
2013	95,087,692	87,897,832	32.9	31.8
2014	97,602,886	90,067,702	36.8	35.8
2015	98,667,142	89,929,687	37.2	35.8
2016	96,023,499	89,280,722	36.2	35.5
2017	95,471,202	86,832,576	36.0	34.2
Twin Cities Ridership Change 2013-2017 (Actual)			383,510	
Twin Cities Ridership Change 2013-2017 (Percent)			0.4%	
Peer Region Average Ridership Change 2013-2017 (Actual)			-1,065,257	
Peer Region Average Ridership Change 2013-2017 (Percent)			-1.2%	

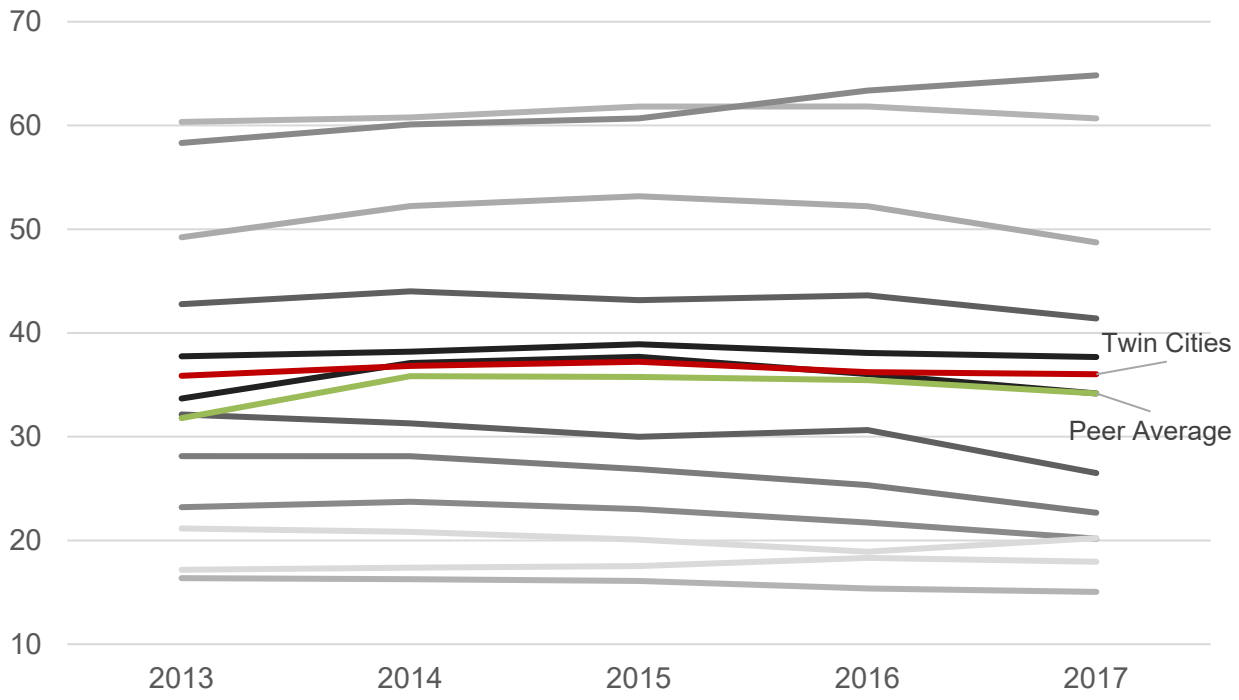


Figure 4-6 – Peer Ridership per Capita, 2013-2017

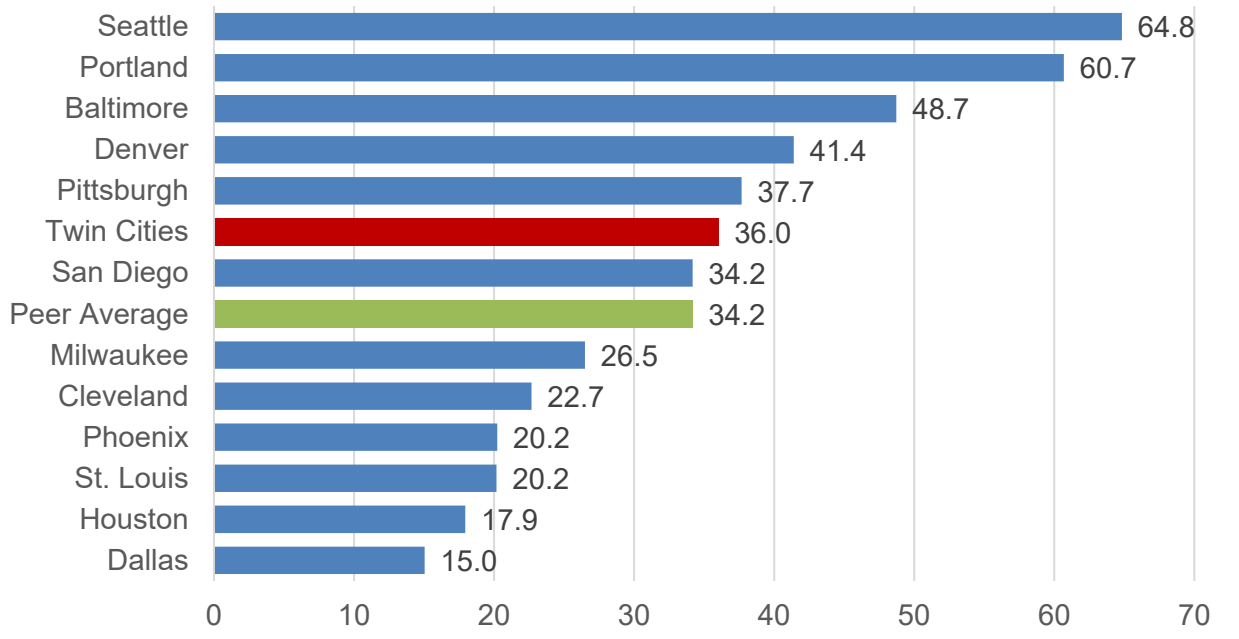


Figure 4-7 – Peer Ridership per Capita, 2017

Among peer regions, there is a connection between transit spending, level of service, and ridership. Seattle, Portland, Denver, and Baltimore are the top four regions in transit spending and level of service per capita (except specifically revenue miles per capita, where Portland ranked sixth). Those same regions are also the top four in ridership per capita. Seattle ranked first across all previous measures.

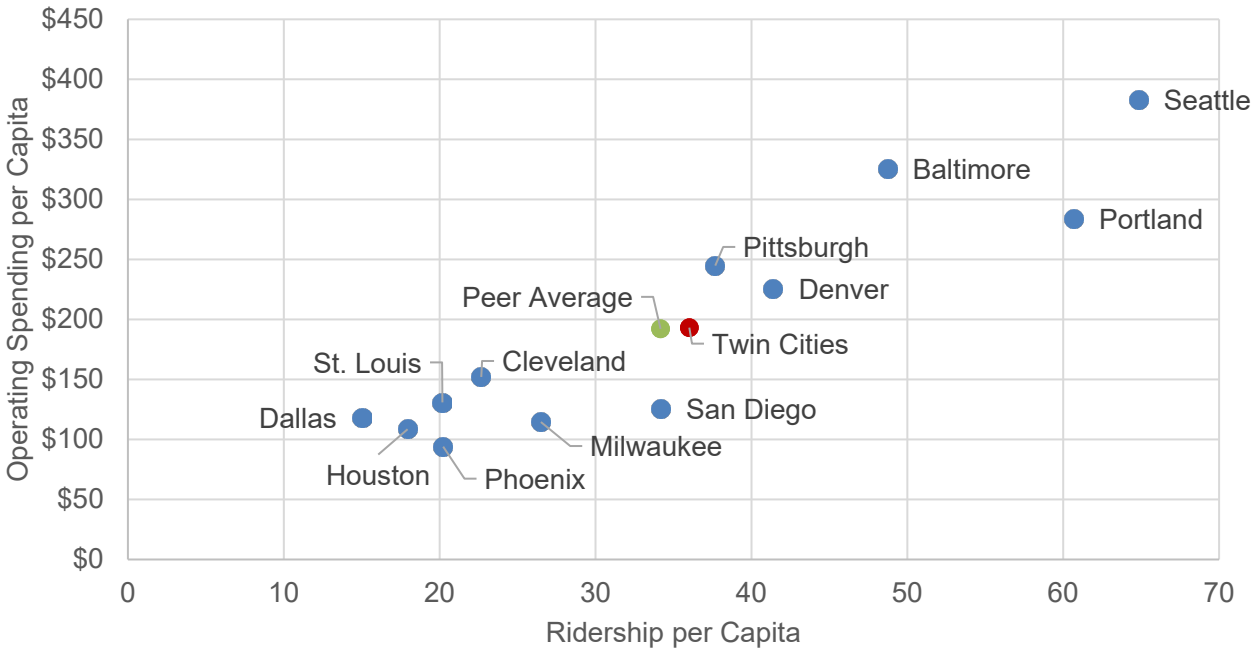


Figure 4-8 – Operating Spending per Capita vs Ridership per Capita, 2017

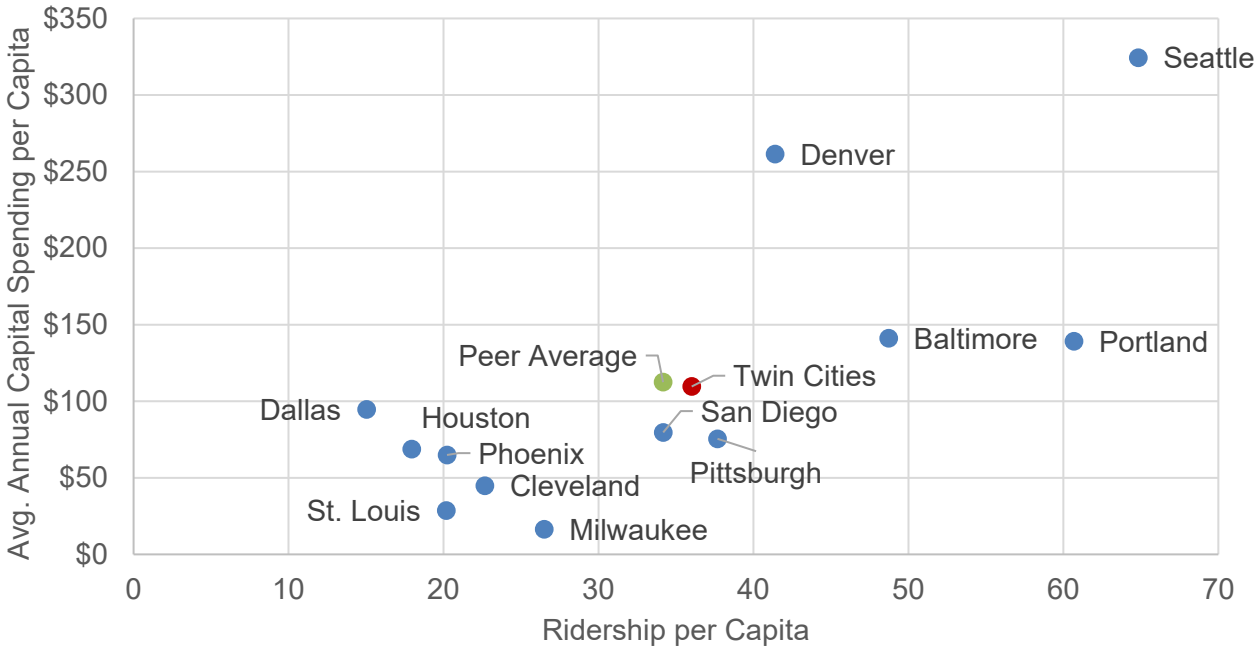


Figure 4-9 – Average Annual Capital Spending per Capita (2007-2017, 2017$) vs Ridership per Capita (2017)

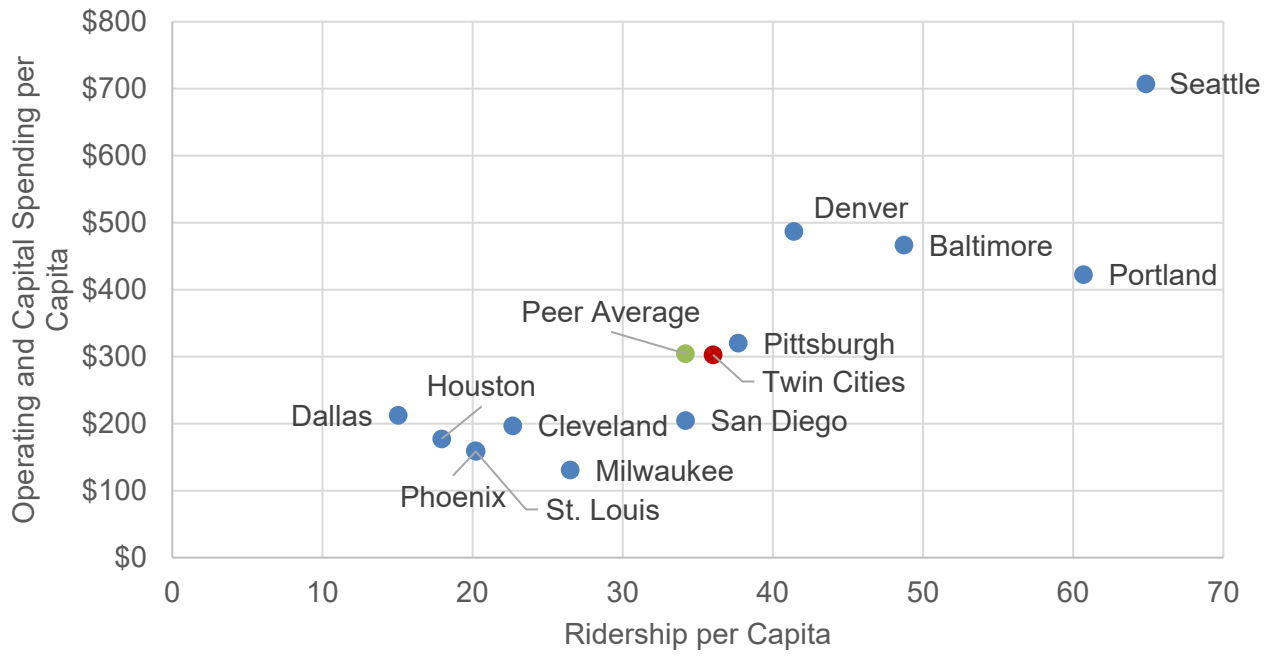


Figure 4-10 – Combined Operating & Capital Spending Per Capita vs Ridership per Capita, 2017[1]

Peer Region Transit Performance

Farebox Recovery

Farebox recovery is the percentage of operating costs recovered from passenger fares. Table 4-5 shows that farebox recovery for the both the Twin Cities and peer region average has been decreasing from 2013-2017. However, farebox recovery in the Twin Cities declined at a faster rate than the peer region average, with a total percentage change of -16.8% from 2013-2017 and an average annual percentage change of -4.5%, compared to the peer region average of -8.3% and -2.1%, respectively. In 2017, San Diego and Seattle had the highest and second highest farebox recovery of 31.1% and 30.9%, respectively (Figure 4-11)

Table 4-5 – Twin Cities and Peer Region Farebox Recovery, 2013-2017

	Twin Cities Farebox Recovery	Peer Region Average Farebox Recovery
2013	26.0%	24.8%
2014	24.1%	24.1%
2015	23.0%	23.9%
2016	22.0%	23.5%
2017	21.7%	22.8%
Percent Change 2013-2017		
Twin Cities	-16.8%	
Peer Region Average	-8.3%	
Average Annual Percent Change 2013-2017		
Twin Cities	-4.5%	
Peer Region Average	-2.1%	

[1] Capital Spending is Average Annual Capital Spending per Capita, 2007-2017, 2017$

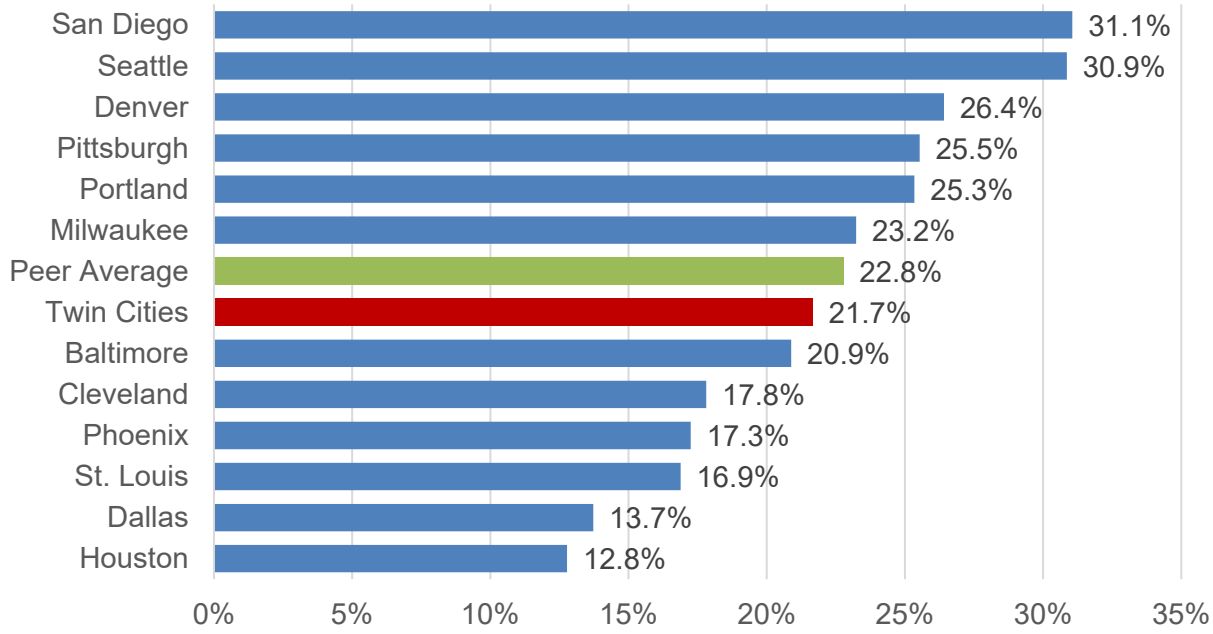


Figure 4-11 – Peer Farebox Recovery, 2017

Subsidy per Passenger

Subsidy per passenger is the net cost of providing transit service per passenger carried, after accounting for fare revenue. It is identified as a measure of cost effectiveness in the 2040 Transportation Policy Plan. Subsidy per passenger is generally expected to increase with inflation but other factors, such as fare revenue and ridership, can influence trends. Although the Twin Cities provided more cost-effective transit service than the peer regions as a whole in 2017, subsidy per passenger has been increasing in the Twin Cities at a faster rate than the peer region average, with an increase from 2013-2017 of 27.6% compared to 25.6% (Table 4-6) Adjusted for inflation, subsidy per passenger increased in the Twin Cities 21.3% 2013-2017 with an average annual increase of 5.0% 2013-2017, with the peer average being 19.4% and 4.6%, respectively. In 2017, Dallas provided the least cost-effective transit service, with a subsidy per passenger of $6.77 (Figure 4-12).

Table 4-6 – Twin Cities and Peer Region Subsidy per Passenger, 2013-2017

	Twin Cities Subsidy per Passenger (Actual)	Peer Region Average Subsidy per Passenger (Actual)	Twin Cities Subsidy per Passenger (Adjusted 2017$)	Peer Region Average Subsidy per Passenger (Adjusted 2017$)
2013	$3.29	$3.61	$3.46	$3.79
2014	$3.63	$3.78	$3.76	$3.91
2015	$3.89	$3.84	$4.02	$3.98
2016	$4.11	$4.16	$4.20	$4.25
2017	$4.20	$4.53	$4.20	$4.53
	Actual		Adjusted (2017$)	
Percent Change 2013-2017				
Twin Cities	27.6%		21.3%	
Peer Average	25.6%		19.4%	
Average Annual Percent Change 2013-2017				
Twin Cities	6.3%		5.0%	
Peer Average	5.9%		4.6%	

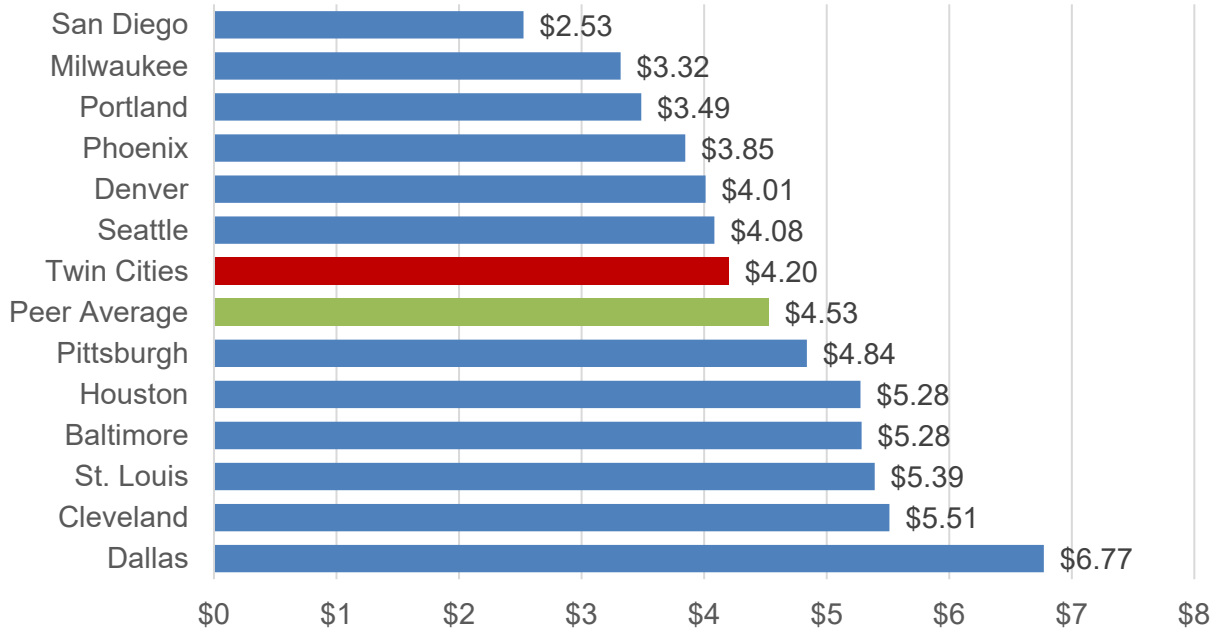


Figure 4-12 – Peer Subsidy per Passenger, 2017

Productivity

Productivity is identified as one of the 2040 Transportation Policy Plan's performance measures[1]. Although transit service in the Twin Cities was slightly less productive than the peer region average in 2017, productivity in the Twin Cities has been decreasing at a smaller rate than the peer average (Table 4-7) In the Twin Cities, productivity decreased 10.9% 2013-2017 with an average annual decrease of 2.8% 2013-2017, with peer average productivity decreasing 12.0% and 3.1%, respectively. In 2017, Portland's transit system was the most productive, with 35.0 passengers per in-service hour (Figure 4-13).

Table 4-7 – Twin Cities and Peer Region Passengers per Revenue Hour, 2013-2017

	Twin Cities Passengers per Revenue Hour	Peer Region Average Passengers per Revenue Hour
2013	26.4	27.5
2014	25.6	27.7
2015	25.2	27.1
2016	23.9	25.7
2017	23.5	24.2
Percent Change 2013-2017		
Twin Cities	-10.9%	
Peer Region Average	-12.0%	
Average Annual Percent Change 2013-2017		
Twin Cities	-2.8%	
Peer Region Average	-3.1%	

[1] The Transportation Policy Plan uses Passengers per In-Service Hour as its measure of productivity; this analysis is based on Passengers per Revenue Hour as that is the measure that peer agencies reported to the National Transit Database, the data source for this peer analysis.

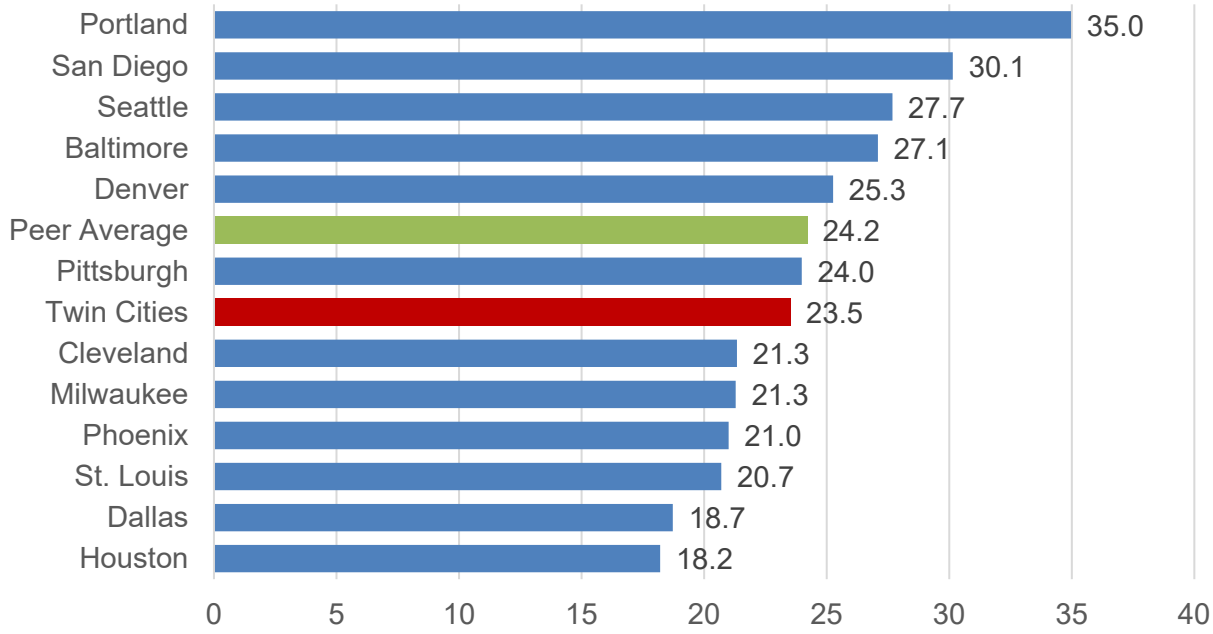


Figure 4-13 – Peer Passengers per Revenue Hour, 2017

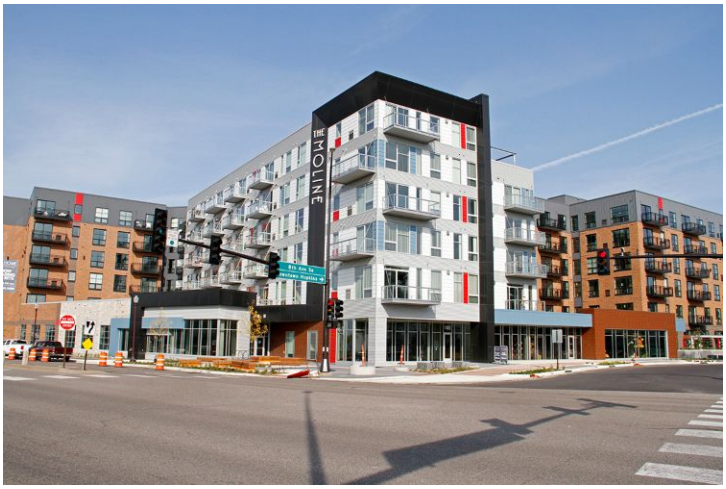
5. Successes and Opportunities

Transit serves a variety of roles in the Twin Cities region; some of those roles are reflected in the goals and objectives found in the Metropolitan Council's *Transportation Policy Plan* (relevant goals and objectives can be found in Chapter 1 of this document). The following highlights some of the successes and opportunities that the regional transit system has had in making progress on the TPP's transit goals and objectives, such as attracting and retaining residents and businesses, supporting development near multimodal options, reducing greenhouse gas emissions, and providing new and attractive transit options to Twin Cities travelers.

Investing in Transit to Attract and Maintain Residents and Businesses

The impacts of investing in transit are not limited to improving mobility, transit investments also have impacts on development and land use decisions made in the region.

Over 15,000 multifamily residential units were permitted within 1/2 mile of transitway stations between 2009 and 2017. This represents 30% of regional multifamily developments on just 2% of the region's land. Transitway station areas also saw $3.7 billion in commercial development between 2003 and 2017, representing 33% of commercial development on just 2% of the region's land. Transitway station areas also saw public and institutional development of $850 million between 2003 and 2017, representing 16% of regional public development on just 2% of the region's land. In addition to permitted units, there are also 15,000 additional planned multifamily units along transitways, representing $5 billion in development value.



Planned transitways are also attracting development. As of February 2018, developers have proposed, completed or started more than $1 billion worth of projects along the future Southwest light rail corridor, an increase from $515 million worth of development a year prior.

Along with development, transit investments have also attracted residents. Transitway station areas have seen population growth at almost double the rate of the overall metropolitan area (Figure 5-1). Population growth within transitway station areas grew by 15% between 2010 and 2017 while the metropolitan area in general grew by 8%.

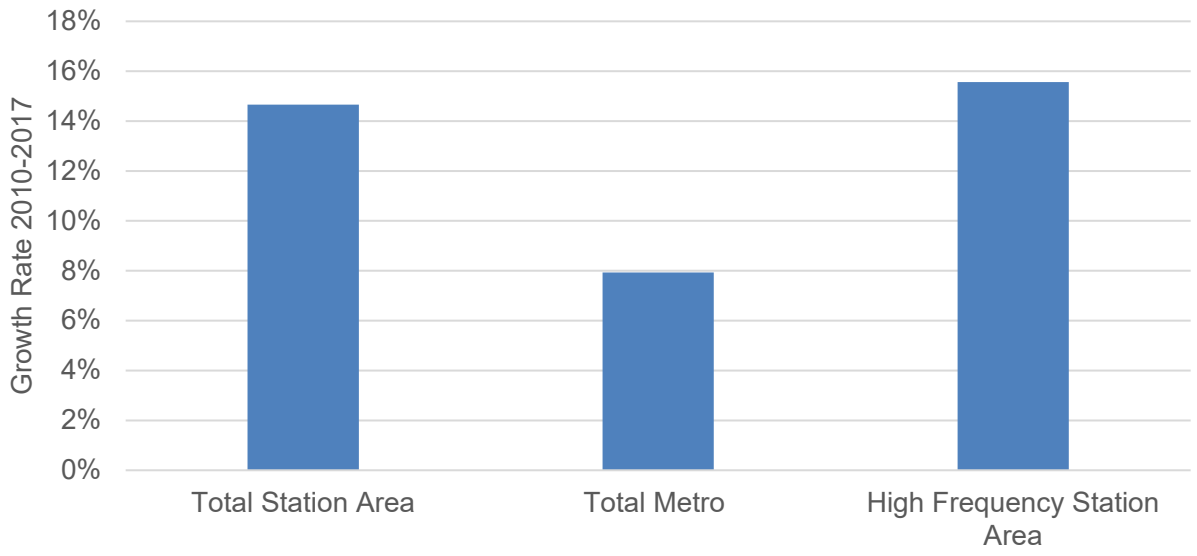


Figure 5-1 – Station Area and Metro Area Population Growth, 2010-2017

Transit's Impacts on Reducing Transportation-Related Emissions

The Intergovernmental Panel on Climate Change states that greenhouse gas emissions must be reduced by 50 to 85 percent by 2050 to limit global warming to four degrees Fahrenheit. The state of Minnesota has their own goals for reducing greenhouse gas emissions set by the Minnesota Legislature in the Next Generation Energy Act. The Next Generation Energy Act aims to reduce greenhouse gas emissions in Minnesota 80 percent (compared to 2005 levels) by 2050. Between 2005 and 2016, total greenhouse gas emissions in Minnesota fell by 12%, missing the 15% emissions reduction goal set for 2015 under the Next Generation Energy Act.

Transportation is the largest source of greenhouse gas emissions in Minnesota with more than 70% of emissions from the transportation sector coming from on-road vehicles including passenger vehicles. Public transportation plays a key role in reducing greenhouse gas emissions associated with travel. National studies have shown that traveling on public transportation produces significantly less greenhouse gas emissions per passenger mile than private vehicles (Figure 5-2). On average, travel in private vehicle produces 0.96 pounds of CO2 per passenger mile, while transit averages 0.45 pounds of CO2 per passenger mile. Emissions rates for transit vary by mode from 0.22 pounds of CO2 per passenger mile for heavy rail to 0.64 pounds per passenger mile for bus[1].

[1] The average 40-person diesel bus needs to carry 7 passengers on average to be more fuel efficient than a single occupant vehicle

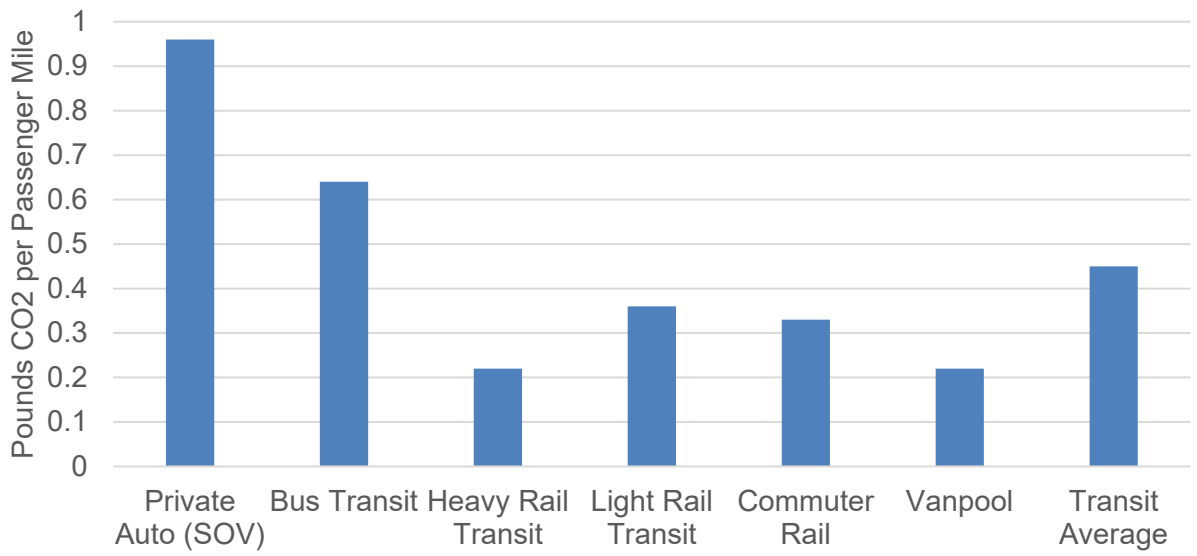


Figure 5-2 – Estimated CO_2 Emissions per Passenger Mile for Transit and Private Automobiles (SOV)[1]

Increasing Transit Attractiveness to Grow Ridership - Success of the A Line

The A Line is the first of several arterial bus rapid transit lines planned for the Twin Cities region. The initial performance of the A Line has proven to be a success in providing fast and reliable service that is attractive to travelers.

The benefits of improved customer experience, frequency, speed and reliability have led to significant ridership growth along the Snelling and Ford Parkway corridors. At the end of the A Line's first full year of operations, corridor ridership (A Line and Route 84) grew by 32% from 4,200 average weekday trips in 2015 to 5,500 in 2017 (Figure 5-3). The A Line alone carried over 1.5 million riders in 2017. Ridership has also benefited from its strong connections to the light rail system, which saw record high ridership in 2017.

[1] US Department of Transportation, Federal Transit Administration, *Public Transportation's Role in Responding to Climate Change,* January 2010

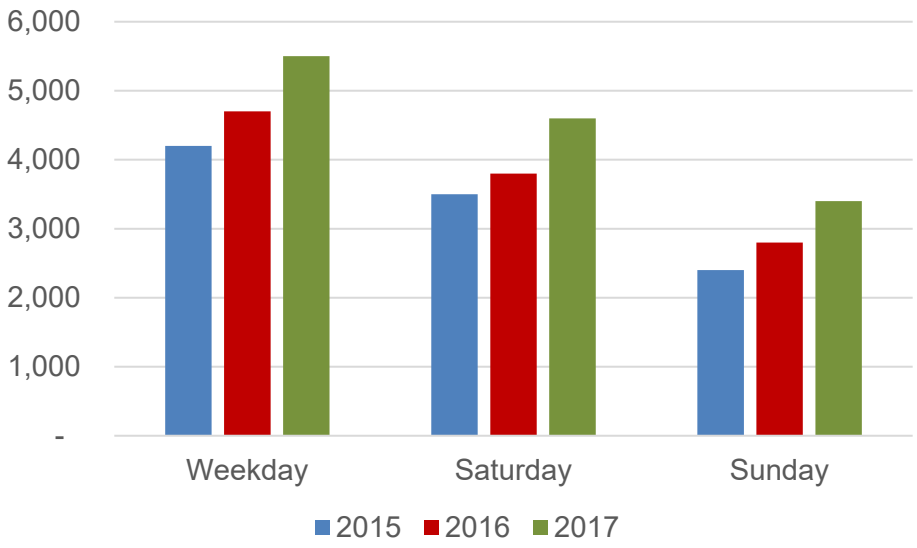


Figure 5-3 – A Line Corridor Ridership by Day of Week, 2015-2017

Riders have also benefitted from the improved speeds and reliability. The A Line is 32% faster than the average local bus route. It's average in-service speed is 19.7 miles per hour compared to 13.4 miles per hour on average for local bus routes. The A Line is also 20 to 25% faster than Route 84, the local route serving the corridor. The A Line has also proven to be a reliable service with 94% of trips on time[1].

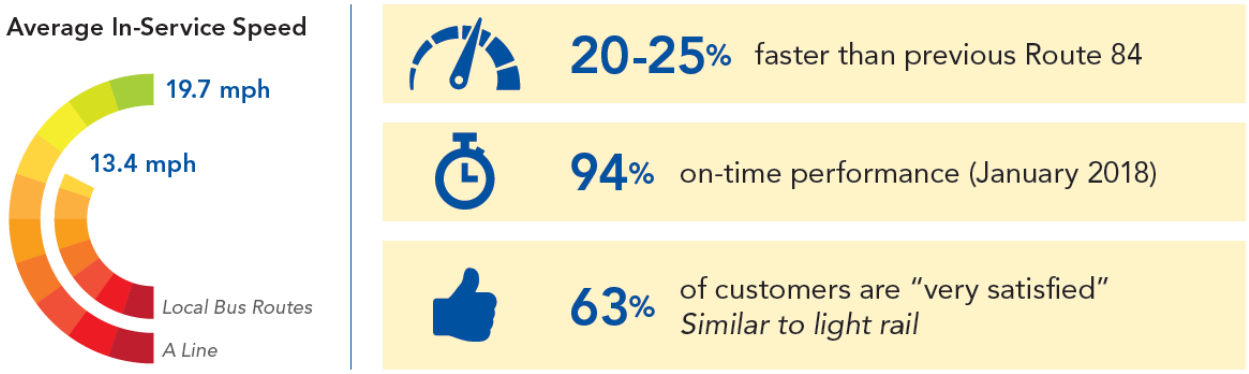


Figure 5-4 – A Line Performance, 2017[2]

Increasing the Attractiveness of Transit – Better Bus Stops

The Better Bus Stops program was created by Metro Transit in 2014 to provide customers with a safe, secure and comfortable experience at the bus stop. One of the highlights of the program is the commitment to add up to 150 shelters and improve an additional 75 existing shelters with light and/or heat, focusing on neighborhoods in areas of concentrated poverty. As of November 2018, sufficient

[1] January 2018
[2] Source: *Metro Transit A Line 2017 Snapshot,* Metro Transit

progress had been made toward the goal, with a total of 125 shelters added and 64 existing shelters improved (Table 5-1, Figure 5-5).

A portion of the grant funding for the program was directed toward community engagement in communities traditionally underrepresented in the decision-making process. The community engagement process was successful in fostering greater transparency in Metro Transit's bus stop improvement decisions and gathering information about transit customer and community priorities useful for Metro Transit's shelter placement guidelines.

Table 5-1 – Better Bus Stops Progress, November 2018

Improvement	Improved Shelters to Date	Project Goal
Shelters Added	125	150
w/ Light	24	
w/ Heat and Light	11	
Existing Shelters Improved	64	75
w/ Light	28	
w/ Heat and Light	36	

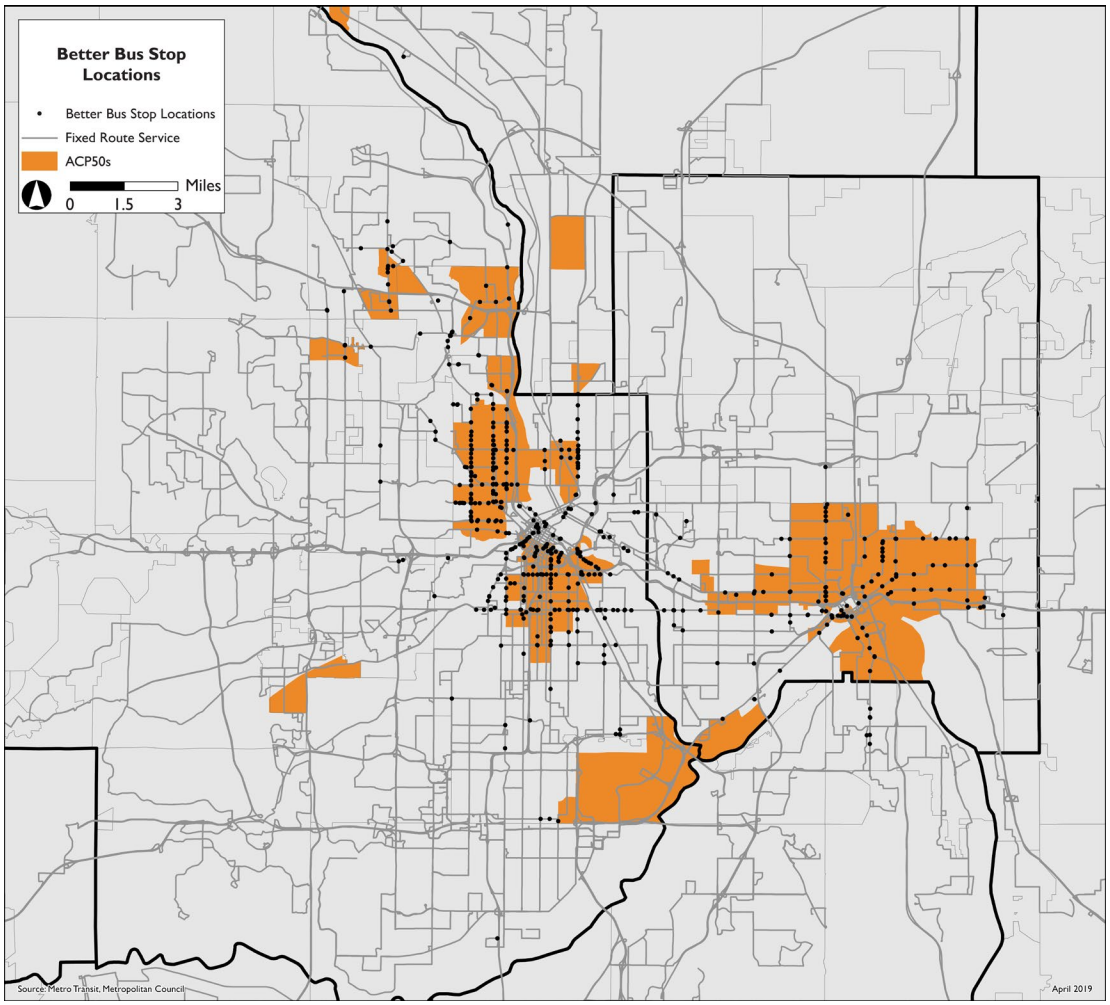


Figure 5-5 – Better Bus Stop Improvement Locations

Improve the Availability of Transit through Affordability – Transit Assistance Program

The Transit Assistance Program (TAP) is a transit fare card that allows qualified low-income residents to ride for just $1 per ride with a two-and-a-half-hour transfer. Residents are eligible if they hold a certifying document from an approved community partner organization. In 2018, TAP riders saved approximately $1 million in fare payments.

Since the TAP card was introduced in October 2017, the total number of TAP rides, as well as unique TAP riders, increased every month, as of October 2018 (Figure 5-6).

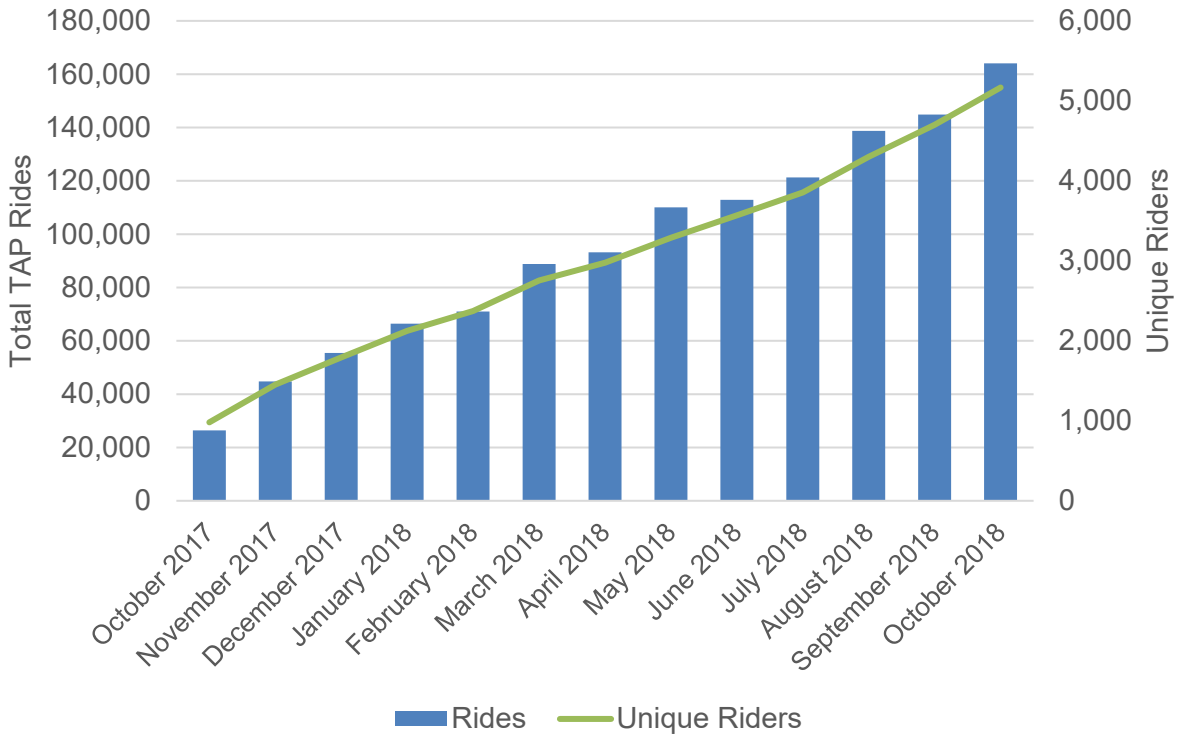


Figure 5-6 – Monthly TAP Rides and Unique TAP Riders

Increasing Speed and Reliability for Local Bus

The Speed and Reliability Initiative is a Metro Transit initiative intended to make substantial improvements to speed and reliability on high ridership local bus routes not planned for future Arterial BRT upgrades. The desired outcomes of the initiative are to increase reliability, operating speed, ridership, customer satisfaction, and operator satisfaction. Some of the possible strategies to improve speed and reliability identified in the initiative include bus stop consolidation, implementation of transit signal priority (TSP) and relocation of bus stops to take advantage of TSP, improving fare collection, installing curb extensions, increasing parking enforcement, and adding transit-only lanes and parking restrictions.

Route 2 was the pilot for speed and reliability improvements as part of the initiative. In fall 2018, some bus stops were consolidated, and the routing was adjusted, while additional schedule refinements were made in early 2019. Travel time savings vary by time of day and direction of travel. Off-peak times improved by almost 4 percent, with select trips improving by up to 9.5 percent. Transit signal priority will be implemented at several delay-prone intersections in 2019, saving additional time. Metro Transit will continue monitoring the progress of these improvements to inform speed and reliability strategies for other routes.

Maintaining Speed and Reliability for Buses during I-35W Construction Impacts

A major highway construction project on Interstate 35W, a major commuter and express bus corridor, from downtown Minneapolis to Highway 62, has an estimated project timeline of summer 2017 to fall of 2021. Some of the transit improvements included as part of the project include extended MnPASS lanes (high occupancy toll lanes available to buses); a new Lake Street Station as part of the METRO Orange Line highway BRT project; and a new transit ramp at 12th Street allowing a seamless bus connection between bus only lanes on Marquette/2nd Avenues and the I-35W MnPASS lanes.

One of the major impacts of the 2018 construction season was the closure of the highway access ramp to downtown, requiring all express bus routes on the corridor to be detoured to either 1st/Blaisdell Avenues or Park/Portland Avenues in south Minneapolis. Metro Transit invested heavily in reliability to mitigate construction impacts on transit service, including adding additional running and recovery time built into the schedules, additional trips, and extra standby buses. Speed enhancements were also made on Park/Portland Avenues, adding peak direction transit-only lanes and a queue jump at Lake Street. Overall, construction impact mitigation efforts have been positive, especially on routes detoured on Park/Portland Avenues. Additional street capacity and added transit advantages on Park/Portland have led to increased reliability and ridership increases for those routes compared to 1st/Blaisdell Avenues.

Increasing the Availability of Transit through Innovations in Technology – SW Prime

SouthWest Transit's SW Prime service is the first microtransit service in the Twin Cities region. SW Prime has now been operating for over three years and has seen an 800% increase in ridership since it started operation in 2015. SW Prime is now serving over 400 rides a day while using only one dispatcher/reservationist to manage the entire system. SouthWest Transit is currently pursuing an expansion of SW Prime's role in its service network.

In 2019, SouthWest Transit will be launching a non-emergency medical trip service, SW Prime MD, using its microtransit infrastructure. Future SW Prime service plans include service along the I-494 corridor to the Mall of America and the Minneapolis-St. Paul International Airport, as well as increased first-mile and last-mile services with the coming of METRO Green Line Extension. As they continue to expand, SouthWest Transit's ultimate vision for SW Prime is to have a fully autonomous electric fleet meeting both the first-mile and last-mile and local trip needs of SouthWest Transit's communities.

390 Robert Street North
Saint Paul, MN 55101-1805

651.602.1000
TTY 651.291.0904
public.info@metc.state.mn.us
metrocouncil.org

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