

City of Manitowoc Maritime Metro Transit



2017 TRANSIT SYSTEM MANAGEMENT PERFORMANCE REVIEW

Prepared for the Wisconsin Department of Transportation
Final Report | February 2018

CONTENTS

Executive Summary	1
Part I: System Overview	5
Service Characteristics	5
Fleet	6
Facilities.....	7
Status of Prior Review Recommendations.....	8
Part II: Analysis of System Performance	10
Peer Groups	10
Performance Measures.....	11
Cost Effectiveness	13
Service Efficiency.....	14
Service Effectiveness.....	15
Market Penetration.....	16
Passenger Revenue Effectiveness.....	18
Performance Summary	21
Part III: Policy- and Decision-Making Processes	22
Organization and Staffing	22
Transit Commission.....	22
Policy-Making Process.....	23
Conclusions	23
Part IV: Functional Area Review	24
1. Transportation Operations	24
2. Vehicle and Facility Maintenance	28
3. Finance	29
4. Planning.....	29
5. Scheduling	31
6. Marketing.....	32
Conclusions	33
Part V: Recommendations.....	34

TABLES

Table 1: Fare Structure	6
Table 2: Fixed Route Revenue Fleet.....	6
Table 3: Recommendations from 2010 Management Performance Review	8
Table 4: 2015 Operating Statistics – National Peer Systems.....	10
Table 5: 2015 Operating Statistics – Wisconsin Peer Systems.....	11
Table 6: Operating Statistics – Five-Year Trend (Peer Analysis).....	12
Table 7: Performance Measures – Five-Year Trend	12
Table 8: Peer Analysis Summary	21
Table 9: Assessment of Policy- and Decision-Making Processes.....	23
Table 10: Summary Assessment of Functional Areas	33
Table 11: Summary of Recommendations	34

FIGURES

Figure 1: Performance Objectives and Performance Measures	11
Figure 2: Operating Expense per Passenger Trip, 2015 National Peers	13
Figure 3: Operating Expense per Passenger Trip, 2015 Wisconsin Peers	13
Figure 4: Operating Expense per Revenue Hour, 2015 National Peers	14
Figure 5: Operating Expense per Revenue Hour, 2015 Wisconsin Peers	14
Figure 6: Passenger Trips per Revenue Hour, 2015 National Peers	15
Figure 7: Passenger Trips per Revenue Hour, 2015 Wisconsin Peers	15
Figure 8: Passenger Trips per Capita, 2015 National Peers.....	16
Figure 9: Passenger Trips per Capita, 2015 Wisconsin Peers.....	16
Figure 10: Revenue Hours per Capita, 2015 National Peers	17
Figure 11: Revenue Hours per Capita, 2015 Wisconsin Peers	17
Figure 12: Average Fare per Passenger Trip, 2015 National Peers	18
Figure 13: Average Fare per Passenger Trip, 2015 Wisconsin Peers.....	18
Figure 14: Operating Ratio, 2015 National Peers.....	19
Figure 15: Operating Ratio, 2015 Wisconsin Peers	19
Figure 16: Subsidy per Passenger Trip, 2015 National Peers	20
Figure 17: Subsidy per Passenger Trip, 2015 Wisconsin Peers	20

EXECUTIVE SUMMARY

The Wisconsin Department of Transportation (WisDOT) is required by Wisconsin Statute to conduct a management performance review of all urban transit systems receiving state aid at least once every five years. This report summarizes the 2017 Management Performance Review (MPR) for the City of Manitowoc, Maritime Metro Transit (MMT).

The MPR process consisted of three main activities: performance analysis, written questionnaire completion, and an on-site interview and facility review. The review team conducted a performance analysis in July 2017 to inform the areas of focus for the questionnaire and on-site interview. An electronic questionnaire form was sent to the MMT Transit Manager in August 2017. The on-site interview and facility review was conducted on October 25, 2017.

This report consists of five sections: System Overview; Analysis of System Performance; Policy- and Decision-Making Processes; Functional Area Review; and Recommendations Summary. The Functional Area Review focuses on transportation operations, vehicle and facility maintenance, finance, planning, scheduling, and marketing aspects of the transit system. Below are summary tables that highlight the findings of this MPR Final Report.

I. System Overview

Status of Prior Review Recommendations

Table i: Summary of Recommendations from 2010 Review

Functional Area	Recommendation	Priority	Status
Accounting, Finance, and Purchasing	No recommendations	-	-
Personnel and Labor Relations	Explore ways to eliminate 30-minute paid driver lunch breaks.	High	Completed
Transportation Operations	Ensure that a supervisor is present for driver check-ins.	Medium	Not completed
	Explore potential for additional supervisory staff.	Low	Completed; Operations Manager added in 2017.
Specialized Service for Elderly and Disabled/General Public Demand Response	Include performance measures in the paratransit contract.	High	Not completed
	Institute a regular review of eligibility requirements.	High	Completed
Safety Management and Training	Revise manual to include fluid checking procedures.	Medium	Completed
	Develop a disaster recovery plan.	Medium	Completed
Service Planning and Scheduling	Establish a method for evaluating service changes.	Low	Completed
Marketing	Recruit a local transit spokesperson.	Low	Completed
Vehicle and Facility Maintenance	Add safety barriers around inspection pit.	Medium	Completed
	Replace bus washer.	Medium	Completed

	Install canopy over fuel lane.	Medium	Not completed
Information Technology	Consider maintaining system information in a spatial database.	Low	Not completed
Administration	No recommendations	-	-

II. Analysis of System Performance

Table ii: Peer Analysis Performance Summary

Performance Objective	Measure	National Peer Comparison (2015)	Wisconsin Peer Comparison (2015)	National Time Trend Performance (2011-2015)	Wisconsin Time Trend Performance (2011-2015)
Cost effectiveness	Operating expense per passenger trip				
Service efficiency	Operating expense per revenue hour				
Service efficiency	Passenger trips per revenue hour				
Market penetration	Passenger trips per capita				
Market penetration	Revenue hours per capita				
Passenger revenue effectiveness	Average fare per passenger trip				
Passenger revenue effectiveness	Operating Ratio				
Passenger revenue effectiveness	Subsidy per passenger trip				
Key to Symbols		Performs better than peer average			
		Performs worse than peer average but within satisfactory range (one standard deviation from mean)			
		Performs outside satisfactory range			










III. Policy- and Decision-Making Processes

Table iii: Assessment of Policy- and Decision-Making Processes

Criterion	Rating
The manager has sufficient authority and control to manage in an efficient manner.	
The lines of authority, responsibility and accountability are well defined and appropriate.	
The lines of communication provide for sufficient exchange of information to ensure decision makers are knowledgeable on issues.	
The current organizational structure is conducive to effective and efficient operation.	
Key to Symbols	Structures and procedures are conductive to effective operations Structures and procedures are adequate with room for improvement Structures and procedures are insufficient

IV. Functional Area Review

Table iv: Summary Assessment of Functional Areas

Functional Area	Rating
Transportation Operations	
Vehicle and Facility Maintenance	
Finance	
Planning	
Scheduling	
Marketing	
 Structures and procedures are conductive to effective operations	
Key to Symbols  Structures and procedures are adequate with room for improvement	
 Structures and procedures are insufficient	

V. Recommendations Summary

Table v: Summary of Recommendations

Functional Area	Recommendation	Priority
Policy- and Decision-Making Processes	Change the Transit Manager position from a part-time to full-time position.	High
Transportation Operations	Hire a second Transit Operations Supervisor to ensure supervision during all hours of bus operations.	High
	Train a driver as the Lead Driver to act as back-up for the Transit Operations Supervisor(s).	High
	Develop and enact procedures to ensure a driver's fitness for duty prior to starting her/his shift. This could include documented in-person contact with City staff at the Public Works facility, or utilization of new technology as part of dispatch/operations software implementation.	Medium
	Direct drivers to collect on-time performance at scheduled timepoints.	Medium
	Develop and document a comprehensive, step-by-step process to train a new employee to properly operate MMT's buses.	Medium
	Train several experienced drivers on how to conduct formal in-service driver training.	Low
Vehicle and Facility Maintenance	The City should allocate an additional half-time mechanic to work specifically on MMT vehicles.	Medium
Finance	No recommendations.	-
Planning	Examine costs and benefits of operating paratransit service directly, or in partnership with Manitowoc County ADRC, ahead of the next round on contract negotiations with the current private contractor.	High
	Develop an ADA Transition Plan to assess conditions and prioritize bus stop improvements. Establish a yearly budget allocation for continued improvement for ADA accessibility at all bus stops.	Medium
	Develop a process for systematically measuring on-time performance in comparison to the system's established goal.	Medium

	As staffing levels increase, regularly monitor quantitative performance measures as defined in the 2017-2021 Transit Development Plan goals, objectives, and standards (i.e., on-time performance, route productivity, etc.). Findings should be reported to the Transit Commission quarterly.	Medium
	Conduct a boarding and alighting survey once every two years to understand bus stop-level passenger activity.	Medium
	Catalog requests for service changes to inform future investments. Develop system for reviewing, and responding to public requests for transit service.	Medium
Scheduling	Evaluate driver work schedules with the goal of scheduling driver breaks closer to the midpoint of each shift.	Medium
Marketing	Establish database of customer contacts and resolutions. Develop and document policy for responding to customer contacts in a timely manner.	High

PART I: SYSTEM OVERVIEW

The City of Manitowoc began providing public transit service in 1978. Between 1934 and 1978, transit service was provided by the privately-owned Manitowoc Motor Coach Company. Today, MMT operates primarily fixed route service with six fixed routes serving the communities of Manitowoc and Two Rivers. Through a local contractor and in partnership with Manitowoc County, MMT provides several specialty transportation services, including its Americans with Disabilities Act (ADA) complementary paratransit.

MMT has experienced several significant changes over the last five or so years. An impressive, newly-constructed Transfer Center opened in 2012 replacing the former transit facility, a remodeled bank drive-thru. In this same year, the City dramatically cut most department budgets. While MMT was largely spared, transit span of service reductions were enacted in 2012. An 18-month Transit Development Plan (TDP) process, led by MMT and the Bay-Lake Regional Planning Commission (RPC), was completed in 2016. Several of the recommendations from the 2016 TDP – including system-wide route restructuring and service expansion – were completed in 2017.

Service Characteristics

MMT fixed route service is provided weekdays from 5:00 a.m. to 8:00 p.m., and Saturdays from 9:00 a.m. to 4:00 p.m. Five routes operate in Manitowoc, providing service every 30 minutes for most of the weekday service period. A sixth route, Route 1, originates in Manitowoc but operates primarily in Two Rivers to the northeast. MMT fixed routes operate on Saturdays at 60-minute intervals (except Route 5, which remains 30-minute service).

MMT operates true fixed routes, adhering to public schedules and serving designated bus stops. However, there are small number of locations within the service area where service can be requested, triggering a small route deviation. Most of MMT's fixed routes – four of six – operate out of the downtown Manitowoc Transfer Center via a timed transfer or pulse system of schedules. The remaining two MMT fixed routes act as feeder service on the southwestern and northeastern edges of the service area.

ADA complementary paratransit – known as City ADA Paratransit – is offered by MMT through a contract with a local medical transportation provider Assist-to-Transport. In addition, MMT partners with Manitowoc County and the Aging and Disability Resource Center of the Lakeshore (ADRC) to offer/promote other specialized transportation services, including Elderly, Rural Disabled, and Rural Volunteer programs. The Mobility Manager, whose office is within the MMT Transfer Center, plays a key role in assisting MMT customers and the public in determining which service best fits their transportation needs. Formerly an employee of the ADRC, the Mobility Manager was brought on as staff of MMT in July 2016.

MMT offers several fare types to its customers (Table 1). Fares can be paid by cash, ticket, or pass; MMT drivers do not provide change.

Table 1: Fare Structure

Group	Type	Cost
Adults (18-64)	Cash Fare	\$1.50
	Transit Tickets (10)	\$12.00
	Day Pass	\$4.00
	Monthly Pass	\$26.00
Students (with valid ID)	Cash Fare	\$1.00
	Day Pass	\$4.00
	Monthly Pass	\$26.00
	Summer Freedom Pass	\$30.00
Seniors (65 and over) and Disabled	Cash Fare	\$0.75
	Day Pass	\$4.00
	Monthly Pass	\$26.00
Children (4 and under)		Free
Groups (8 or more)		\$0.50
Transfers		Free
City ADA Paratransit		\$3.00

To be eligible for a disabled reduced fare card, the customer must display for the driver a Medicare Card or a MMT Reduced Fare Card (by application). Students ages 18 and under are offered a Summer Freedom Pass, which allows unlimited rides from June through August.

Fleet

Summarized in Table 2, MMT's fixed route revenue fleet consists of nine Gillig buses. Six of the nine buses are operated in peak service – a spare ratio of 50 percent.

Table 2: Fixed Route Revenue Fleet

Number	Make	Length (Ft.)	Capacity	Year	Mileage	Over Age	Over Mileage
1009	Gillig	35	35	2005	451,908	X	
1010	Gillig	35	35	2005	434,595	X	
1011	Gillig	35	35	2005	480,243	X	
1012	Gillig	35	35	2005	460,801	X	
1013	Gillig	29	25	2004	646,965	X	X
1014	Gillig	29	25	2004	660,441	X	X
1015	Gillig	29	25	2004	644,129	X	X
1016	Gillig	29	25	2004	622,820	X	X
1017	Gillig	29	25	2004	579,407	X	X

Per Federal Transit Administration (FTA) rolling stock useful life policy guidelines¹, MMT's 35-foot buses have a minimum useful life of at least 12 years or 500,000 miles; MMT's 29-foot buses have a minimum useful life of at least 10 years or 350,000 miles. Based on this measure, all MMT fixed route vehicles have exceeded their useful life or will do so in short order. Five new Gillig 35-foot buses have been purchased and will be delivered within a year.

¹ Federal Transit Administration. Circular 5010.1E: Award Management Requirements. 2017. Page IV-25.
https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/Grant%20Management%20Requirements%20Circular_5010-1E_1.pdf



MMT passengers waiting to board Bus 1011, a 2005 35-foot Gillig, at the Transfer Center

In addition to its fixed route fleet, MMT owns a supervisor minivan (year 2011) and a minibus (year 2017) that it uses for mobile supervision and to assist revenue service fixed route buses that experience schedule adherence issues. MMT owns six accessible vans for paratransit service, which it leases to its contractor, Assist-to-Transport. The paratransit vehicle fleet is reported to be in good condition; MMT management indicated that replacement has not been an issue.

Facilities

The new MMT Transfer Center was constructed in 2012, primarily with American Recovery and Reinvestment Act of 2009 (ARRA) funds. Centrally located, the Transfer Center allows for efficient transfer activity and provides clear system information, customer service, and shelter for customers. MMT customers have access to a heated and air-conditioned lobby area with public restrooms and a drinking fountain.

MMT staff are based in offices within the Transfer Center in downtown Manitowoc. The Transfer Center offices consist of a public counter and reception area staffed by the Mobility Manager, offices, and a driver break room that doubles as meeting space. The facility is well-designed and meets the needs of both MMT staff and customers.

Buses are maintained and stored at the City Public Works garage three miles from the Transfer Center. Transit vehicles are separated from other City vehicles in their own wing of the large facility.



MMT Transfer Center in downtown Manitowoc and the minibus used for mobile supervision

Status of Prior Review Recommendations

An MPR of MMT was last completed in December 2010. Several of the recommendations from the MPR have since been completed, while several others remain unaddressed. Table 3 summarizes the status of recommendations included in the 2010 MPR.

Table 3: Recommendations from 2010 Management Performance Review

Functional Area	Recommendation	Priority	Status
Accounting, Finance, and Purchasing	No recommendations	-	-
Personnel and Labor Relations	Explore ways to eliminate 30-minute paid driver lunch breaks.	High	Completed
Transportation Operations	Ensure that a supervisor is present for driver check-ins.	Medium	Not completed
	Explore potential for additional supervisory staff.	Low	Completed; Operations Manager added in 2017.
Specialized Service for Elderly and Disabled/General Public Demand Response	Include performance measures in the paratransit contract.	High	Not completed
	Institute a regular review of eligibility requirements.	High	Completed
Safety Management and Training	Revise manual to include fluid checking procedures.	Medium	Completed
	Develop a disaster recovery plan.	Medium	Completed
Service Planning and Scheduling	Establish a method for evaluating service changes.	Low	Completed

Marketing	Recruit a local transit spokesperson.	Low	Completed
Vehicle and Facility Maintenance	Add safety barriers around inspection pit.	Medium	Completed
	Replace bus washer.	Medium	Completed
	Install canopy over fuel lane.	Medium	Not completed
Information Technology	Consider maintaining system information in a spatial database.	Low	Not completed
Administration	No recommendations	-	-

PART II: ANALYSIS OF SYSTEM PERFORMANCE

Part II of this report examines system performance data. A quantitative assessment of MMT's performance was conducted as one of the initial tasks in this review. Since there are no recognized industry standards for most measures of transit system performance, common practice is to compare the performance of a system to the average values of a peer group of systems.

Peer Groups

The selection of the peer group for MMT is based on a review of small urban and rural bus systems in the National Transit Database (NTD); this is used because its data are readily available and consistently reported. Two peer groups were selected for comparison: a national peer group and a Wisconsin peer group.

This review attempted to select peer systems in cold-weather states based on service area population and density, as well as on the mode of service operated. An effort was made to select Midwestern transit systems as well. Only systems that operate fixed route services were considered.

The national peer group includes systems in Connecticut, Iowa, Indiana, Michigan, Minnesota, and Ohio. Table 4 contains operating statistics for MMT and the selected national peer systems for 2015. These operating statistics are the basis for the performance measures included in this analysis.

Table 4: 2015 Operating Statistics – National Peer Systems

	Revenue Hours	Unlinked Passengers	Operating Expenses	Passenger Revenues
Anderson, IN	24,066	212,753	\$1,757,345	\$145,524
Benton Harbor, MI	12,836	85,429	\$563,374	\$63,522
Bettendorf, IA	19,579	200,390	\$1,657,268	\$124,523
Clinton, IA	26,081	327,662	\$1,640,013	\$234,460
Dubuque, IA	39,263	479,185	\$2,276,078	\$229,617
Middletown, OH	13,923	163,388	\$825,746	\$114,986
Milford, CT	21,494	376,174	\$1,552,895	\$259,971
Moorhead, MN	28,899	459,288	\$1,964,125	\$302,441
Winona, MN	17,285	254,494	\$625,529	\$129,945
Peer Average	22,603	284,307	\$1,429,153	\$178,332
Manitowoc	23,122	342,667	\$1,979,654	\$223,953
Percent of Average	102%	121%	139%	126%

This review recognizes the limitations of using other Wisconsin small bus systems for peer comparison. Each system operates in a vastly different environment, serves different markets, and has a unique management structure. However, Wisconsin peer systems also provide context for operating conditions within the state. Because it is customary in this review to compare each small bus system to others in Wisconsin, the Wisconsin peer comparison is included in this review. Table 5 contains operating statistics for MMT and the selected Wisconsin peer systems for 2015. These operating statistics are the basis for the performance measures included in this analysis.

Table 5: 2015 Operating Statistics – Wisconsin Peer Systems

	Revenue Hours	Unlinked Passengers	Operating Expenses	Passenger Revenues
BART/Bad River	7,439	46,076	\$344,123	\$27,861
Dunn Co.	9,719	153,606	\$566,594	\$69,456
Menominee Tribe	70,755	157,373	\$3,928,952	\$95,271
Merrill	7,426	69,768	\$504,620	\$79,709
Rusk Co.	11,491	60,293	\$1,071,610	\$123,255
Sawyer Co.	37,022	77,578	\$1,612,093	\$231,847
Stevens Point	19,958	260,159	\$1,657,656	\$110,542
Peer Average	23,367	145,940	1,458,163	120,237
Manitowoc	23,122	342,667	\$1,979,654	\$223,953
Percent of Average	99%	235%	136%	186%

Performance Measures

The peer analysis in this section compares MMT to its peers in five categories using eight specific measures, as organized in Figure 1.

Figure 1: Performance Objectives and Performance Measures

Cost effectiveness	•Operating expense per passenger trip (WisDOT core measure)
Service efficiency	•Operating expense per revenue hour (WisDOT core measure)
Service effectiveness	•Passenger trips per revenue hour (WisDOT core measure)
Market penetration	•Passenger trips per capita (WisDOT core measure) •Revenue hours per capita (WisDOT core measure)
Passenger revenue effectiveness	•Average fare per passenger trip (Added measure) •Passenger revenue per operating expense (WisDOT core measure) •Subsidy per passenger trip (Added measure)

Each measure is used to assess MMT's performance in two ways:

- **Comparison to peer average for most current year.** Year 2015 NTD data is used. This is the most recent year for which NTD data is available for all peer systems (at the time of analysis, summer 2017). Consistent with the WisDOT approach to measuring performance, performance will be considered "satisfactory" within one standard deviation of the peer average (arithmetic mean). The system's performance is considered "outside the satisfactory range" if it falls more than one standard deviation outside the mean.
- **Comparison to peer average for annual rate of change.** The average annual rate of change from 2011 to 2015 is calculated as follows. NTD data from reporting years 2011 to 2015 is used.

$$\text{Annual rate of change} = (\text{Value}_{2015} / \text{Value}_{2011})^{1/4} - 1$$

For the trend analysis, the system's annual rate of change is compared to the national and Wisconsin peer average rates of change. The system's trend performance is considered

“satisfactory” within one standard deviation of the average rate of change. Beyond a standard deviation away from the average rate of change, the system’s trend performance is considered “outside the satisfactory range.”

Five-Year Trend Summary

Table 6 and Table 7 show MMT’s operating statistics and performance measures for 2011 through 2015. The average annual rate of change for the five-year period is calculated for each statistic and measure and shown alongside the national and Wisconsin peer average rates of change.

Table 6: Operating Statistics – Five-Year Trend (Peer Analysis)

Operating Statistic	2011	2012	2013	2014	2015	Average Annual Rate of Change (5 year)		
						Manitowoc	Wisconsin Peer Average	National Peer Average
Revenue hours	31,290	31,039	21,782	21,725	23,122	-7.3%	-3.1%	3.6%
Passenger trips	339,806	353,934	293,396	340,764	342,667	0.2%	2.8%	3.2%
Operating expense	\$2,114,064	\$2,086,126	\$1,843,536	\$1,912,478	\$1,979,654	-1.6%	2.2%	3.1%
Passenger revenue	\$165,840	\$188,226	\$179,470	\$184,601	\$223,953	7.8%	0.7%	6.5%

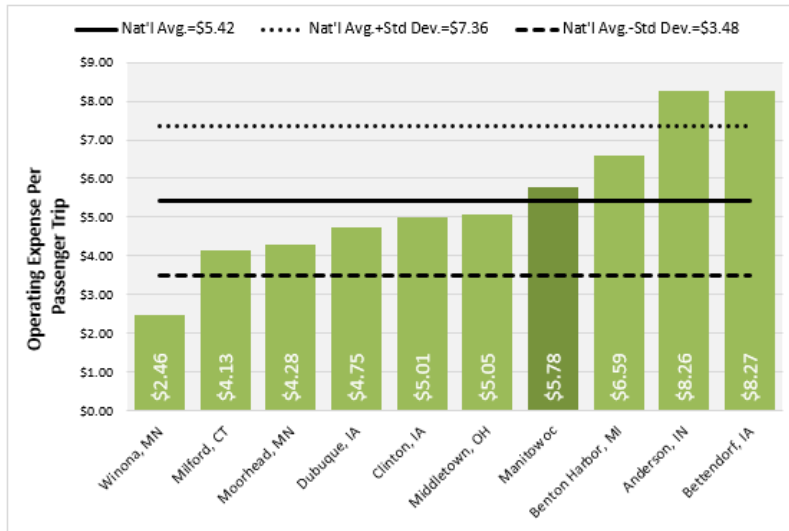
Table 7: Performance Measures – Five-Year Trend

Performance Measure	2011	2012	2013	2014	2015	Average Annual Rate of Change (5 year)		
						Manitowoc	Wisconsin Peer Average	National Peer Average
Operating expense per passenger	\$6.22	\$5.89	\$6.28	\$5.61	\$5.78	-1.8%	-0.2%	0.4%
Operating expense per revenue hour	\$67.56	\$67.21	\$84.64	\$88.03	\$85.62	6.1%	5.4%	-0.3%
Passengers per revenue hour	10.9	11.4	13.5	15.7	14.8	8.1%	6.4%	-0.5%
Passengers per capita	10.1	10.5	8.7	10.1	10.2	0.2%	0.5%	3.2%
Revenue hours per capita	0.9	0.9	0.6	0.6	0.7	-7.3%	-5.0%	3.6%
Average fare per passenger	\$0.49	\$0.53	\$0.61	\$0.54	\$0.65	7.6%	-1.0%	3.3%
Operating ratio	8%	9%	10%	10%	11%	9.6%	-1.8%	3.2%
Subsidy per passenger	\$5.73	\$5.36	\$5.67	\$5.07	\$5.12	-2.8%	1.3%	0.2%

Cost Effectiveness

Cost effectiveness addresses transit use in relation to the level of resources expended. The primary measure for comparison under this area is **operating expense per passenger trip**. The lower the cost per passenger trip, the more cost effective is the service.

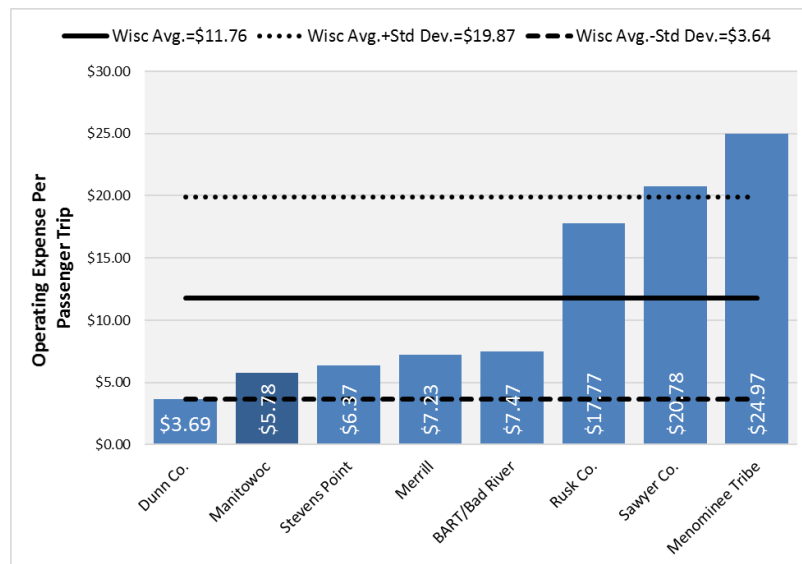
Figure 2: Operating Expense per Passenger Trip, 2015 National Peers



In fiscal year 2015, MMT spent an average of \$5.78 on each passenger trip. MMT's cost per passenger trip is slightly higher than the national peer average of \$5.42 (Figure 2). In terms of cost effectiveness, MMT performs slightly worse than the average of the national peer group, but within satisfactory range.

Among the Wisconsin peers, the average operating expense of providing a single passenger trip in 2015 was \$11.76 (Figure 3). When compared to the Wisconsin peers, MMT's cost per passenger trip is better than the average performance of the Wisconsin peer group.

Figure 3: Operating Expense per Passenger Trip, 2015 Wisconsin Peers

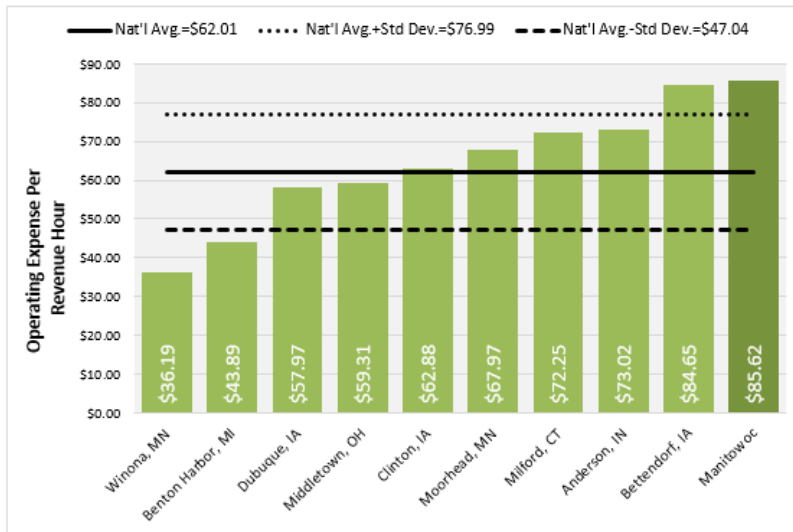


The trend analysis in Table 7 shows that MMT's operating expense per passenger trip decreased between 2011 and 2015 at an average annual rate of 1.8 percent. By comparison, the operating expense per passenger trip of national peers, on average, increased at an average annual rate of 0.4 percent; among Wisconsin peers, on average, the measure decreased by an annual average rate of 0.2 percent. Over the five-year period, MMT's cost effectiveness trend outperformed that of the Wisconsin and national peer group averages.

Service Efficiency

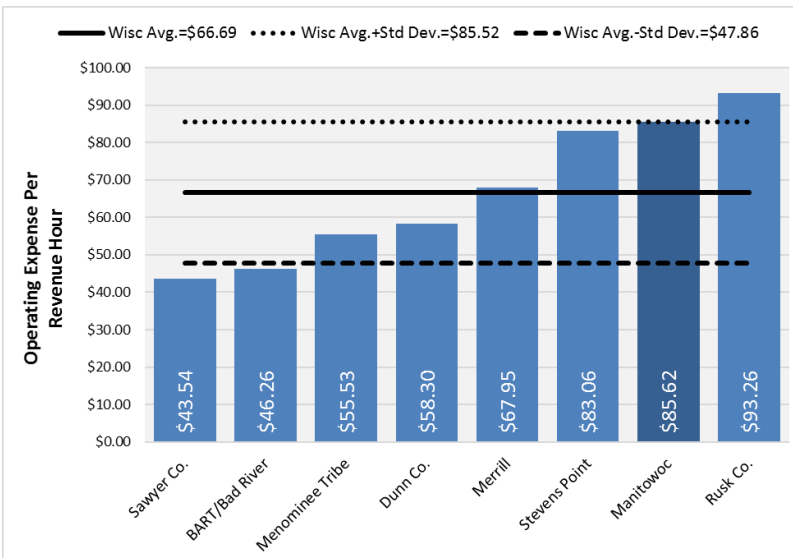
Service efficiency examines the amount of service produced in relation to the amount of resources expended. **Operating expense per revenue hour** is the measure used to assess service efficiency.

Figure 4: Operating Expense per Revenue Hour, 2015 National Peers



In 2015, MMT's hourly operating cost, \$85.62, was higher than the national peer average of \$62.01 (Figure 4). MMT's service efficiency is beyond one standard deviation from the national peer group average, placing it outside the satisfactory range. Similarly, MMT's operating expense per revenue hour is higher than the Wisconsin peer average of \$66.69 and is beyond one standard deviation of the average performance (Figure 5). MMT's service efficiency is outside of the satisfactory range relative to its Wisconsin peers.

Figure 5: Operating Expense per Revenue Hour, 2015 Wisconsin Peers

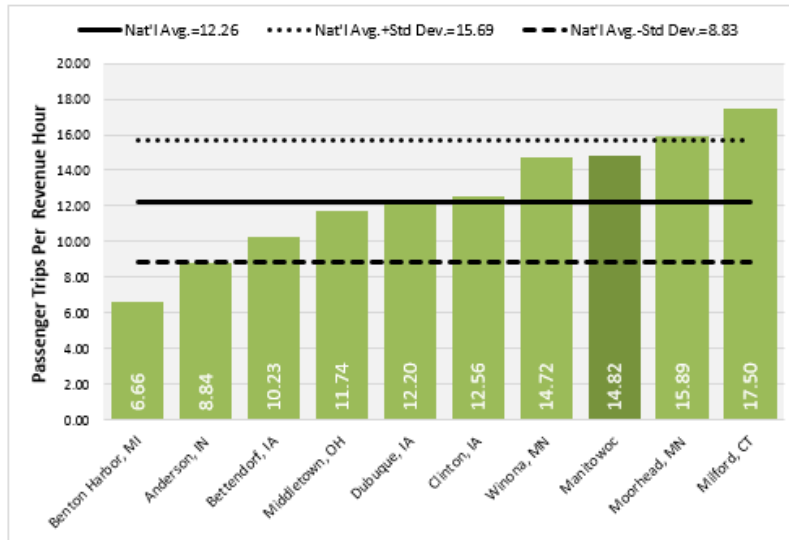


Between 2011 and 2015, MMT's operating expense per revenue hour increased at an average annual rate of 6.1 percent, with a large increase in 2013 (Table 7). Over this same five-year span, the national peer group average operating expense per revenue hour decreased at an average annual rate of 0.3 percent; the Wisconsin peer group average increased at an average annual rate of 5.4 percent. MMT's service efficiency trend performs beyond one standard deviation of the national peer average, placing it outside of the satisfactory range. Compared to the Wisconsin peer average, MMT's service efficiency trend performs worse than average but within the satisfactory range.

Service Effectiveness

Service effectiveness is a measure of the consumption of public transportation service in relation to the amount of service available. **Passenger trips per revenue hour** is the measure used to assess service effectiveness.

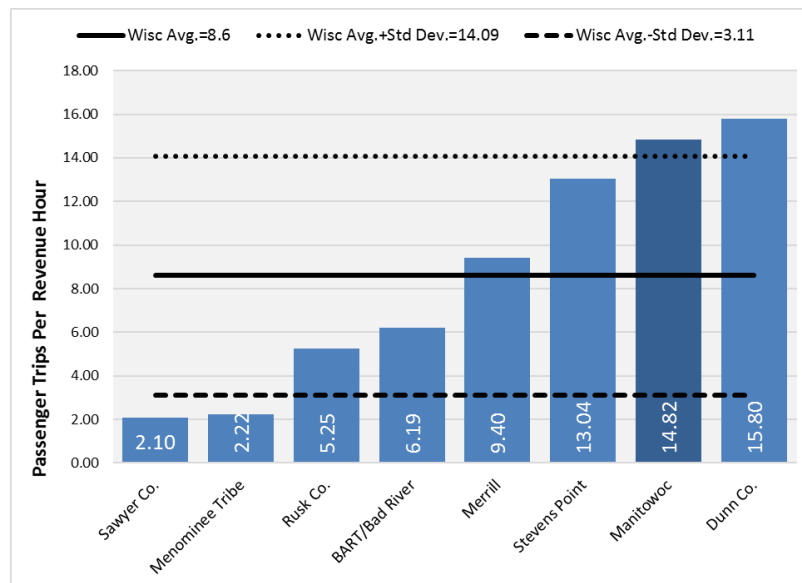
Figure 6: Passenger Trips per Revenue Hour, 2015 National Peers



MMT carried an average of 14.8 passenger trips per hour on its fixed route service in 2015. This value is in the upper half of the national peer group (Figure 6) and Wisconsin peer group (Figure 7). MMT service effectiveness is better than average compared to the national and Wisconsin peer groups.

Shown in Table 7, MMT's passenger trips per revenue hour increased between 2011 and 2015, at an average annual rate of 8.1 percent. In this same period, the national peer average decreased at an average rate of 0.5 percent annually, and the Wisconsin peer average increased at an average rate of 6.4 percent annually. MMT's service effectiveness growth is better than the national and Wisconsin peer groups.

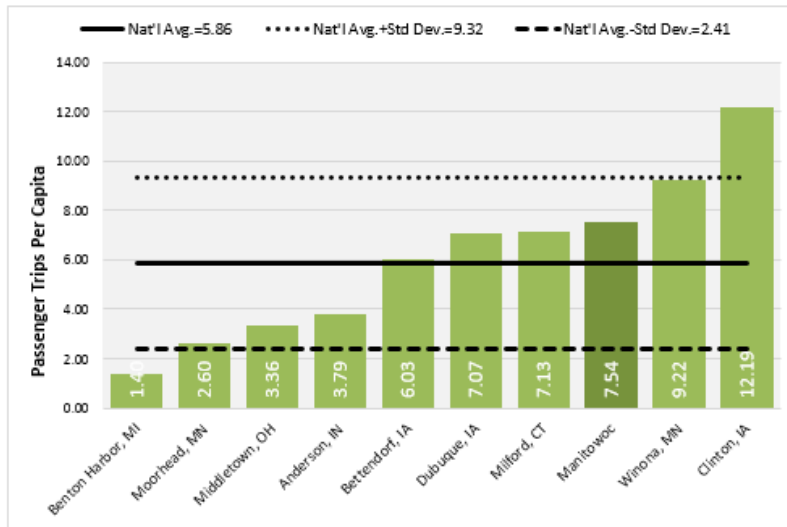
Figure 7: Passenger Trips per Revenue Hour, 2015 Wisconsin Peers



Market Penetration

Passenger trips per capita is an indicator of overall usage of the transit system in the MMT service area. This measure can be interpreted as the average number of times each service area resident uses MMT's service each year.

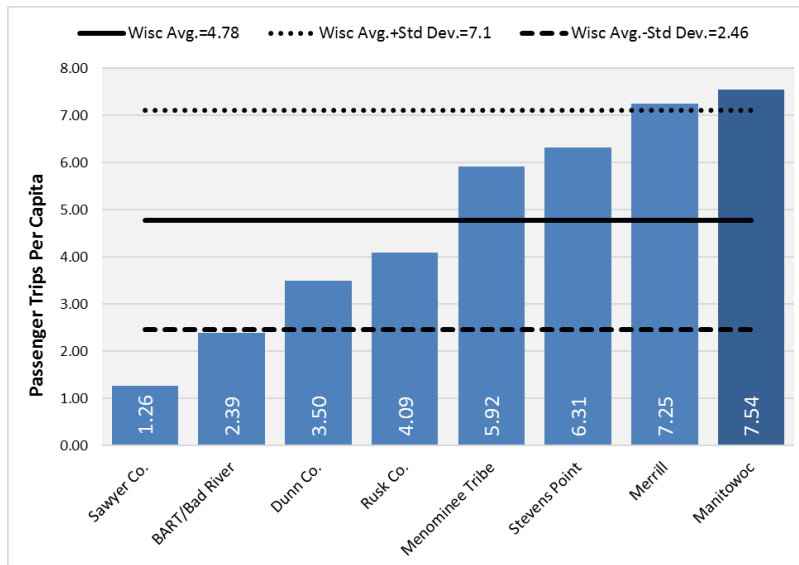
Figure 8: Passenger Trips per Capita, 2015 National Peers



In 2015, MMT carried 7.54 passenger trips per capita. In other words, the average resident of the MMT service area boarded the bus 7.54 times during 2015.

Passenger trips per capita carried by MMT is above the national and Wisconsin peer averages of 5.86 and 4.78, respectively (Figure 8, Figure 9). MMT's market penetration, as measured by passenger trips per capita, is better than average relative to the national and Wisconsin peer groups.

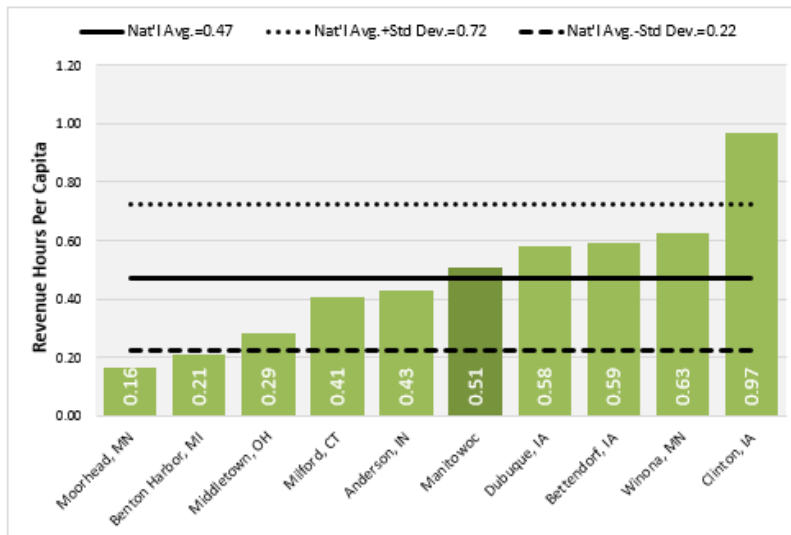
Figure 9: Passenger Trips per Capita, 2015 Wisconsin Peers



The trend analysis in Table 7 shows that, between 2011 and 2015, MMT's passenger trips per capita value fluctuated but, on average, increased by 0.2 percent annually. National and Wisconsin peer systems experienced average annual rate increases of 3.2 percent and 0.5 percent, respectively. MMT's passenger trips per capita trend is worse than average but within satisfactory range compared to the national and Wisconsin peer groups.

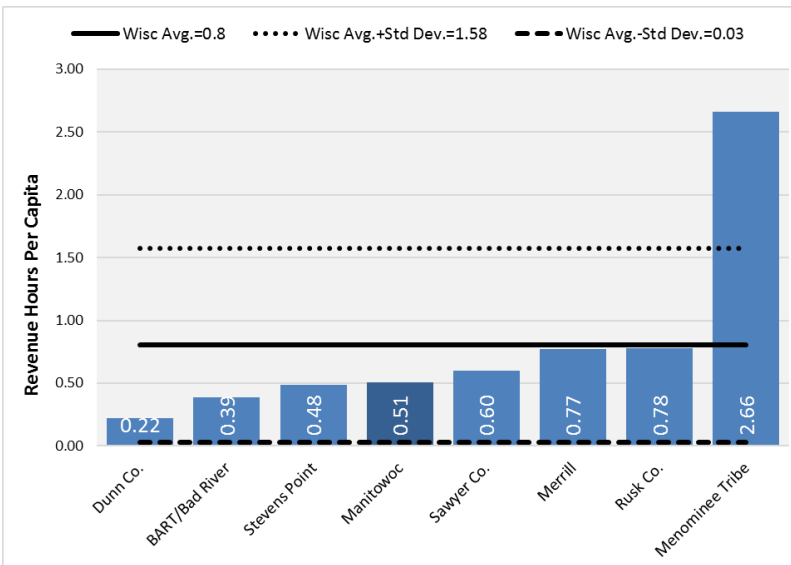
Revenue hours per capita is the performance measure used to assess service availability.

Figure 10: Revenue Hours per Capita, 2015 National Peers



In 2015, MMT provided 0.51 revenue hours annually for each person in its service area. This level of service availability is above the national peer average of 0.47 (Figure 10) and below the Wisconsin peer average of 0.80 (Figure 11). MMT's market penetration, as measured by revenue hours per capita, is better than the national peer average; conversely, it is worse than the Wisconsin peer average, but within satisfactory range.

Figure 11: Revenue Hours per Capita, 2015 Wisconsin Peers

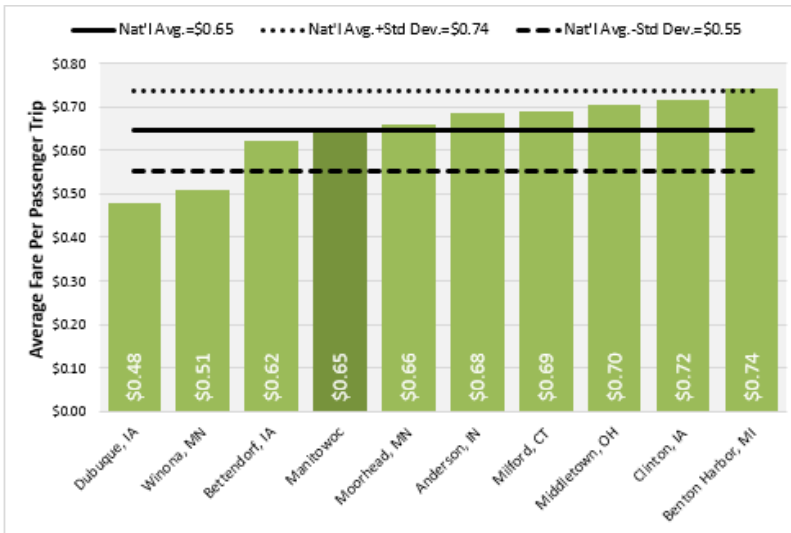


Between 2011 and 2015, MMT provided fewer revenue hours per capita, with an average annual decrease of 7.3 percent (Table 7). During the same period, the national peer group average revenue hours per capita increased at an average annual rate of 3.6 percent; conversely, the Wisconsin peer average decreased at an average annual rate of 5.0 percent (Table 4). MMT's performance is within a satisfactory range of the Wisconsin peer group but is outside the satisfactory range (beyond one standard deviation from the mean) of the national peer group.

Passenger Revenue Effectiveness

Passenger revenue per passenger trip, or **average fare per passenger trip**, measures the amount each passenger is paying to use the service. The higher the average fare, the more cost is being borne by the passenger.

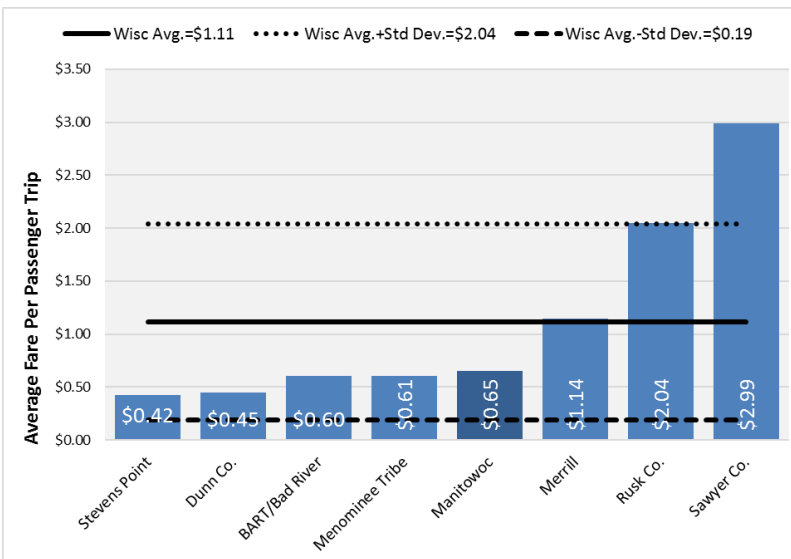
Figure 12: Average Fare per Passenger Trip, 2015 National Peers



In 2015, the average MMT fixed route passenger paid \$0.65 for a ride. This is equal to the national peer average of \$0.65 per passenger trip and below the Wisconsin peer average of \$1.14 per passenger trip (Figure 12, Figure 13). As measured by average fare per passenger trip, MMT's passenger revenue effectiveness is within satisfactory performance range relative to the national and Wisconsin peer averages.

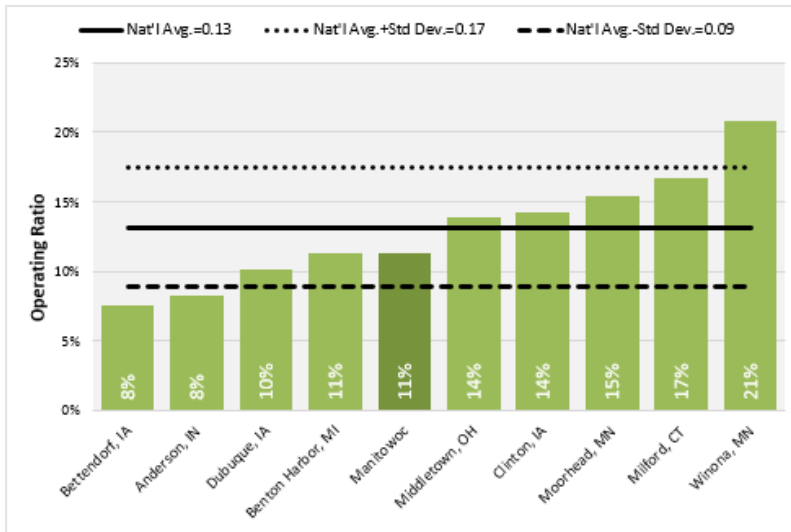
As shown in Table 7, MMT's average fare per passenger trip increased by an average annual rate of 7.6 percent between 2011 and 2015. During the same period, the national peer average fare climbed 3.3 percent annually, on average; and the Wisconsin peer average fare decreased 1.0 percent annually, on average. MMT's average fare increased at a rate better than the national and Wisconsin peer groups.

Figure 13: Average Fare per Passenger Trip, 2015 Wisconsin Peers



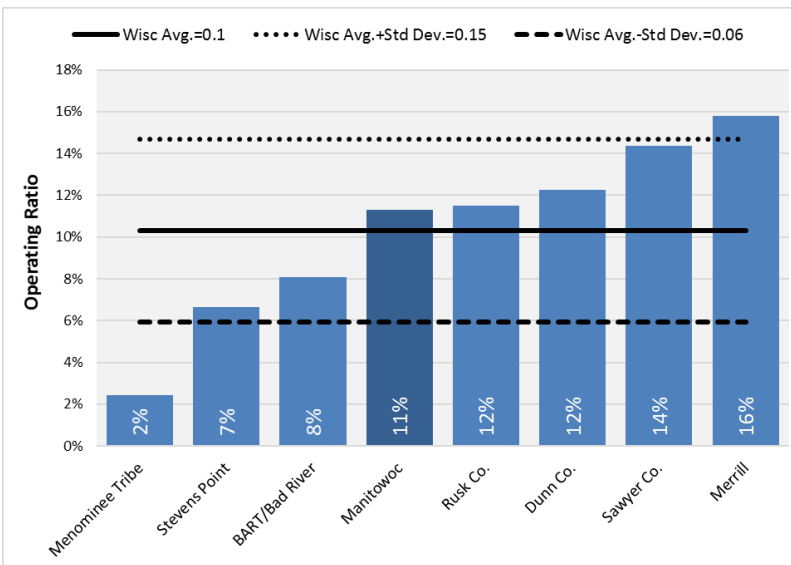
The **operating ratio of revenue to operating expenses** measures the level of operating expenses that are recovered through passenger fare payment. This measure is also simply referred to as the **operating ratio**.

Figure 14: Operating Ratio, 2015 National Peers



In 2015, MMT collected about \$0.11 in passenger revenue for every \$1.00 of operating expense; in other words, the system recovered 11 percent of its operating expense through the farebox. This operating ratio is below the national peer average of 13 percent, and marginally greater than the Wisconsin peer average of 10 percent (Figure 14, Figure 15). MMT's operating ratio is within satisfactory performance range relative to the national peer average, and better than the Wisconsin peer average.

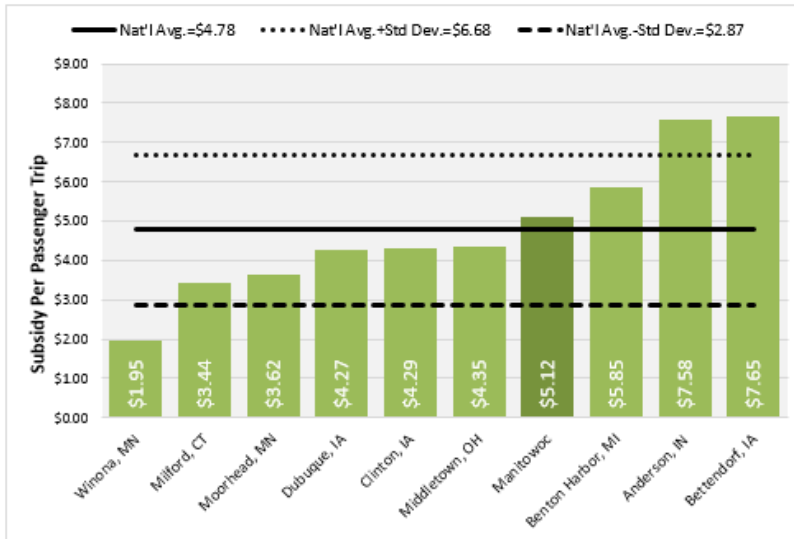
Figure 15: Operating Ratio, 2015 Wisconsin Peers



MMT's operating ratio increased at an average annual rate of 9.6 percent between 2011 and 2015 (Table 7). During the same period, the national peer average operating ratio increased at an average annual rate of 3.2 percent, and the Wisconsin peer average operating ratio decreased at an average annual rate of 1.8 percent. MMT's operating ratio trend is better than the national and Wisconsin peer groups.

Net expense (subsidy) per passenger trip is used to measure the cost of each passenger trip that is paid for by public operating subsidy. Subsidy per passenger trip is calculated by subtracting passenger revenues from total operating expenses and dividing by total trips. The higher the operating subsidy, the more local, state, and federal resources are required to cover expenses.

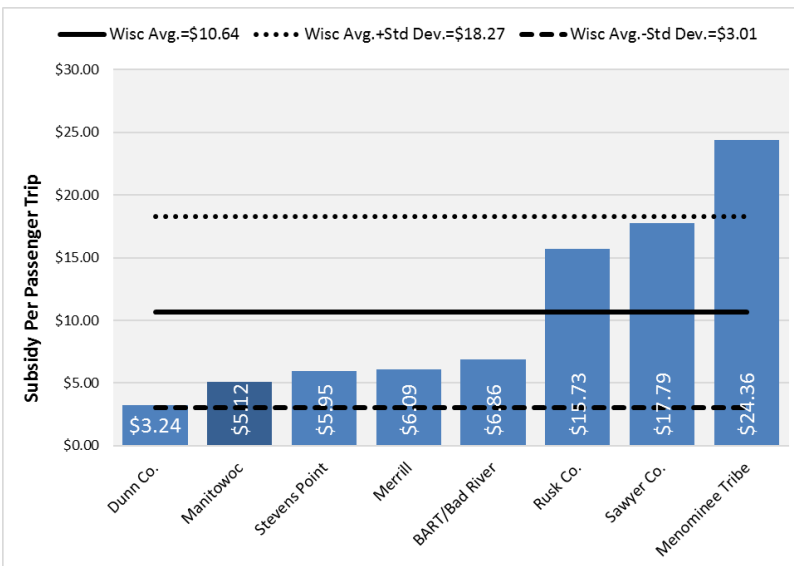
Figure 16: Subsidy per Passenger Trip, 2015 National Peers



In 2015, MMT had \$5.12 subsidized per passenger trip. MMT's level of subsidy is higher than the national peer average of \$4.78, but lower than the Wisconsin peer average of \$9.19 (Figure 16, Figure 17). MMT's performance is within the satisfactory range of the national peers and performs better than the Wisconsin peers.

The trend analysis in Table 7 shows that MMT's subsidy per passenger trip decreased between 2011 and 2015, at an average annual rate of 2.8 percent. During the same period, the national peer average subsidy per passenger trip increased at an average annual rate of 0.2 percent, and the Wisconsin peer average subsidy increased at an average annual rate of 1.3 percent. MMT's subsidy per passenger trip trend is better than both the national and Wisconsin peer groups.




































Figure 17: Subsidy per Passenger Trip, 2015 Wisconsin Peers



Performance Summary

The symbols in Table 8 indicate the measures for which MMT is better than average, satisfactory, or outside satisfactory range.

Table 8: Peer Analysis Summary

Performance Objective	Measure	National Peer Comparison (2015)	Wisconsin Peer Comparison (2015)	National Time Trend Performance (2011-2015)	Wisconsin Time Trend Performance (2011-2015)
Cost effectiveness	Operating expense per passenger trip				
Service efficiency	Operating expense per revenue hour				
Service efficiency	Passenger trips per revenue hour				
Market penetration	Passenger trips per capita				
Market penetration	Revenue hours per capita				
Passenger revenue effectiveness	Average fare per passenger trip				
Passenger revenue effectiveness	Operating Ratio				
Passenger revenue effectiveness	Subsidy per passenger trip				
Key to Symbols		Performs better than peer average			
		Performs worse than peer average but within satisfactory range (one standard deviation from mean)			
		Performs outside satisfactory range			

MMT performed at satisfactory levels in 2015 when compared to its peer systems except for its operating expense per revenue hour. In this measure, MMT performed poorly in comparison to both national and Wisconsin peer groups. However, MMT's operating expense per revenue hour has remained relatively unchanged over the last three years. MMT also operates heavy-duty buses, which is done by only three of the eight Wisconsin peers (MMT, Stevens Point, and Merrill).

MMT's operating ratio—a key financial measure—was within the satisfactory range for the national peer average and above the average for the Wisconsin peer groups in 2015. This good performance is an indication that MMT management has been working towards ensuring that passenger revenues cover a reasonable proportion of operating costs. This is supported by MMT's average fare per passenger trip trend, which has increased at a greater average annual rate than the national and Wisconsin peer groups.

MMT performed at satisfactory levels over most trend period performance measures from 2011 to 2015 when compared to its national and Wisconsin peer systems. Operating expense per revenue hour and revenue hours per capita performed poorly in comparison to the national peer group (however, as mentioned above, operating expense per revenue hour has remained steady the last few years). For all other measures, MMT changed at rates within a satisfactory range relative to the national and Wisconsin average peer transit systems.

PART III: POLICY- AND DECISION-MAKING PROCESSES

This section contains a description of the policy- and decision-making processes in place at MMT and the City as they relate to transit service.

Organization and Staffing

MMT is a division of the City of Manitowoc Department of Public Infrastructure. Unconventional for a transit system of this size, the MMT Transit Manager is a part-time position. The current MMT Transit Manager, Jim Muenzenmeyer, allocates 60 percent of his time to MMT and 40 percent to activities in the Buildings and Grounds division in the Public Works Department. In addition to general oversight of MMT operations, the Transit Manager plays a large role in preparing capital and operating budgets and procuring equipment and rolling stock. Jim has been in the Transit Manager position since 2012, and has a background in public works and planning.

Prior to 2012, the Transit Manager position spent 90 percent of his time on MMT, and the remaining 10 percent on the City's Cemetery Department. In 2012, the City of Manitowoc reduced the number of employees citywide by approximately 50 percent due to the condition of local finances. It was at this time that the Transit Manager position was changed to 60 percent MMT, and Jim Muenzenmeyer was assigned to the role. The City has gradually returned to satisfactory fiscal health and has begun replacing some, but not all, of the positions and programs that were reduced or eliminated.

A new Transit Operations Supervisor position was added in 2017. It was then that the Transit Manager was allowed to reduce a full-time clerical position to 0.2 full time equivalent (FTE) and create the Transit Operations Supervisor from the savings and a slight increase in budget. The full-time Transit Operations Supervisor, Marlo Kohlmann, was hired as an MMT driver in 2006 and promoted to her current position in 2017. The Transit Operations Supervisor is responsible for overseeing daily operations and training drivers. She is essential to the smooth daily functioning of MMT and provides excellent insight that improves strategic and operations planning.

Given the size and complexity of the transit system, and the increasingly rigorous regulatory demands placed on public transit agencies by FTA, it is imperative that MMT have a full-time Transit Manager. MMT's level of success despite a full-time Transit Manager is surprising. A full-time Transit Manager is, and has been, fully-warranted.

Recommendation: Change the Transit Manager position from part-time to full-time. *Priority: High.*

In addition to management staff, there are 17 drivers (11 full-time, six part-time), one full-time mechanic, and one part-time mechanic. The Manitowoc County Mobility Manager's office is within the MMT Transfer Center. The management staff is very lean, and is smaller than many systems of comparable size. Some administrative functions are provided by other City departments.

Transit Commission

The Transit Manager reports to a six-member Transit Commission that provides an advisory role overseeing system policies and major service changes; five members are appointed, and one is an elected official. The Transit Commission is overseen by the Public Infrastructure Committee, which

reports to the City Council. The Transit Commission holds quarterly public meetings that the Transit Manager contributes to.

Policy-Making Process

The policy-making process involves a collaborative effort between the Transit Manager, Transit Operations Supervisor, and the Transit Commission. The Transit Manager and Transit Operations Supervisor are given reasonable discretion to develop and implement local policy related to daily operations, service development, and employee management. These, as well as major policy changes related to fare structure and capital planning, go before the Transit Commission for its consideration.








MMT effectively communicates policy and service changes to its customers through on-bus notices, fliers posted at major bus stops and transfer points, social media, and other advertising means.

Annual transit performance goals are set by the Transit Manager. Goals are derived from staff feedback and strategic planning documents such as the TDP. The Transit Manager and Transit Commission evaluate policy and service changes based on feedback and engagement with drivers and customers.

Conclusions

In general, the policy- and decision-making processes in place at MMT appear to be functioning well. Table 9 contains the review team's assessment of MMT's performance on the four criteria used to measure the effectiveness of the system's policy- and decision-making processes.

Table 9: Assessment of Policy- and Decision-Making Processes

Criterion		Rating
The manager has sufficient authority and control to manage in an efficient manner.		
The lines of authority, responsibility and accountability are well defined and appropriate.		
The lines of communication provide for sufficient exchange of information to ensure decision makers are knowledgeable on issues.		
The current organizational structure is conducive to effective and efficient operation.		
Key to Symbols	 Structures and procedures are conducive to effective operations	
	 Structures and procedures are adequate with room for improvement	
	 Structures and procedures are insufficient	

Overall, the structures and processes in place at MMT and the City support the effective provision of transit services. MMT has a capable management team with a proven track record. However, with a Transit Manager who is not full-time, and who is supported by just one other managerial staff person, MMT's staffing levels are insufficient. Staffing levels must be addressed for MMT to continue operating successfully and grow ridership.

PART IV: FUNCTIONAL AREA REVIEW

Part IV of this report contains a review of the following functional areas:

1. Transportation Operations
2. Vehicle and Facility Maintenance
3. Finance
4. Planning
5. Scheduling
6. Marketing

These areas were chosen because they have an impact on long-term capital requirements as well as short-term financial resources needed for daily operations and short-term capital planning.

A detailed review questionnaire was completed by the MMT Transit Manager prior to the review team's on-site meeting in October 2017. In its response, MMT answered nearly all questions and provided requested supporting material for the review team. The on-site review was conducted on October 25, 2017. The process consisted of an informal discussion with the Transit Manager, Transit Operations Supervisor, and other appropriate staff members responsible for specific functional areas.

1. Transportation Operations

Operations Management

The Transit Manager and Transit Operations Supervisor share the role of supervising daily transit operations. They – as the system's two supervisors – play a significant role in ensuring a high level of service. For example, they supplement service with the MMT minibus when a regular fixed bus is running behind; the minibus is also used to respond to incidents and manage staff. A good transit management practice is to have a supervisor on duty during all hours of bus operations.



Left: MMT's minibus, with marketing wrap, used for mobile supervision. Right: MMT drivers at the Transfer Center.

Either the Transit Manager or Transit Operations Supervisor is on duty during most, but not all, weekday daily service hours: they are often available 6:00 a.m. to 6:00 p.m. As such, there is no supervisor on duty for the first bus pull-outs at 5:00 a.m., or for the last two hours of daily operations, from 6:00 p.m. to 8:00 p.m. Further, there is no scheduled supervision during Saturday service (9:00 a.m. to 4:00 p.m.).

With only one Transit Operations Supervisor and one part-time Transit Manager to oversee a weekly service span of more than 80 hours per week, it is impossible to have adequate supervision on duty when buses are operating. A second Transit Operations Supervisor is needed to ensure supervision on evenings and Saturdays. Because ridership is lighter during these times, other administrative tasks could be completed by an evening and Saturday supervisor, including: data collection and analysis, answering customer phone calls, providing a supervisory presence to prevent potential negative behaviors at the transfer facility, etc.

Recommendation: Hire a second Transit Operations Supervisor to ensure supervision during all hours of bus operations. *Priority: High.*

Saturday supervision can be accomplished by rotating the two Transit Operations Supervisor positions, or by training a driver as the Lead Driver on Saturdays to function as the Saturday supervisor. When the Transit Operations Supervisor(s) and Transit Manager are absent (e.g., vacation, training, illness), the Lead Driver can function as a supervisor.

Recommendation: Train a driver as the Lead Driver to act as back-up for the Transit Operations Supervisor(s) and Transit Manager. *Priority: High.*

These recommended staffing changes should be enacted in concert with the transition of the Transit Manager from part-time to full-time. A full-time Transit Manager, two Transit Operations Supervisors, and a trained Lead Driver are needed to provide effective, high-quality transit service at MMT.

Driver Communications

There are effective mechanisms in place for driver-management communication. MMT and City policies and procedures are documented in an extensive manual. Service changes and policies are communicated to drivers through meetings, memoranda, and bulletins posted in their breakroom at the Transfer Center. Further, the Transit Department has team meetings every six weeks to explain policy changes, discuss driver concerns, and keep all employees informed of internal and external events that could affect the transit department. The effectiveness of driver-management communication at MMT is evident from the high morale and good working relationships expressed by drivers and management staff alike while the review team was on site.

Formal evaluations of drivers are completed two times per year, consistent with City policy. The on-board evaluations review a driver's compliance with department policies, street rules, and traffic laws. Evaluation results are kept on file and used for training and monitoring purposes. The semi-annual ride checks by the Transit Operations Supervisor create many benefits for the transit system, the most obvious being that poor driving habits can be identified and corrected. Direct communication is much more effective than the "undercover" process, such as that conducted by Transit Mutual Insurance (TMI). The one-on-one communication that the ride checks creates is an important tool that allows both employees to communicate corrections, suggestions, and ideas.

The Transit Manager has used his experience in other management positions to establish a formal process where suggestions are written, analyzed, and posted on a "Continuous Improvement Board" prominently displayed near the driver's break area. This is a formal way to solicit, acknowledge, and schedule implementation of viable ideas, and a respectable way to acknowledge and explain why some ideas will not be implemented. This small initiative is reflective of the intentional and effective management style practiced at MMT.

Driver: Pre- and Post-Trip

Extensive pre-trip and post-trip procedures are in place at MMT. Drivers are required to complete a pre-trip inspection report prior to pullout, documenting starting mileage, fluid levels, exterior and interior conditions, and the driver area. Post-trip inspection report documents ending mileage, fluids added, and any damage or problems observed while in operation.

An adequate mechanism is not in place to ensure a driver's fitness for duty (i.e., sufficient rest, free from impairment). Unlike the Transit Manager and Transit Operations Supervisor, who begin their work days from the Transfer Center, first shift drivers report to the break room at the City Public Works garage before driving their bus to their first timepoint in the 5:00 a.m. hour. Bus drivers are unable or not required to check-in or interact with other City employees prior to beginning their shift. Face-to-face check-ins with a staff member who is trained in reasonable suspicion drug testing and fitness-for-duty protocols should be required.

Recommendation: Develop and enact procedures to ensure a driver's fitness for duty prior to starting her/his shift. This could include documented in-person contact with City staff at the Public Works facility, or utilization of new technology as part of dispatch/operations software implementation. *Priority: Medium.*

Driver: In-Service

MMT buses are not equipped with automatic passenger counters (APCs) or automatic vehicle locator (AVL) systems. As such, the driver plays a key role in collecting passenger data and managing her/his own schedule adherence and routing. Drivers track passengers by fare type and the number of passengers boarding with a wheelchair or mobility device. However, drivers do not track timepoint arrivals.



Left: Passenger counter used by drivers to document ridership mounted near the farebox. Right: Clean bus interior, post-trip.

An MMT trip is defined as on time zero minutes before and within five minutes of the scheduled time. However, since there is no documentation of timepoint arrivals, MMT does not have any data to track its percentage of trip that are made on time. MMT strives to make at least 95 percent of trips on time compared to established schedules. Drivers of late buses communicate via radio to the supervisor on duty (Transit Operations Supervisor or Transit Manager) who decides how to resolve the problem. MMT schedules are reasonable under normal conditions, and it is not believed that on-time performance is a major issue. Several departures from the central transfer point were observed, and all buses were

leaving within three minutes of the scheduled time. However, MMT should begin collecting and analyzing on-time performance data to measure the quality of its service.

AVL and next-stop enunciators are programmed in the five new buses scheduled to arrive in the next year. The AVL system will assist the Transit Operations Supervisor and Transit Manager in determining late bus strategies, but without late bus notification software, there will be continued reliance on the two-way communication between the drivers and the office.

Recommendation: Direct drivers to collect on-time performance at scheduled timepoints.
Priority: Medium.

No APCs are planned as part of future capital purchases. The new buses will be equipped with manual-drop locked fareboxes like those used in the current buses, which work well for the system. A small system such as MMT would have limited benefit from APCs and electronic fareboxes. However, absent APCs, MMT should periodically collect passenger data at the bus stop level to understand travel patterns below the bus route level. This can be performed in partnership with Bay-Lake RPC, or be a task that an intern can provide.

Training

MMT's effective driver training program is comprised of 10 classroom hours and 70 behind-the-wheel hours. As it stands, the driver training program is efficient and is based on the skills and experiences of the Transit Operations Supervisor. In addition to classroom time, out-of-service training for vehicle familiarization and in-service training with one experienced driver are included in the program. However, documentation of the driver training program is lacking and should be improved. Extensive personnel, policies, and procedures training material exist, but these do not adequately address the complexities of operating a heavy-duty bus.

MMT staff would benefit from training courses and materials offered by organizations such as Wisconsin Rural Transit Assistance Program (RTAP), the Transportation Safety Institute (TSI), or Community Transportation Association of America (CTAA). Such training will help guide development of improved documentation of MMT's driver training program.

Recommendation: Develop and document a comprehensive, step-by-step process to train a new employee to properly operate MMT's buses. *Priority: Medium.*

Moreover, the system would benefit from additional experienced drivers being formally trained to be in-service trainers. It would allow more people to be available to evaluate a trainee, and can reduce the possibility of personality conflicts in the training process.

Recommendation: Train several experienced drivers on how to conduct formal in-service driver training. *Priority: Low.*

The Transit Operations Supervisor hosts quarterly safety meetings with MMT drivers. This is an excellent practice that goes above and beyond the efforts of most systems of similar complexity in Wisconsin and regionally.

2. Vehicle and Facility Maintenance

The vehicle and facility maintenance procedures were briefly reviewed, and a tour was given of the Public Works garage during the on-site visit. Transit vehicle maintenance and storage are in their own area within the large City Public Works garage.

One City mechanic is assigned to work exclusively on buses; other assistance can be provided by other City mechanics when needed. Transit is budgeted 1.5 full-time equivalent mechanics. There are no mechanics available after 5:00 p.m. on weekdays or on Saturdays. Thus, there are no mechanics available during approximately 22 of 82 (27 percent) weekly hours of service.

Recommendation: The City should allocate an additional half-time mechanic to work specifically on MMT vehicles. *Priority: Medium.*

Daily Vehicle Servicing, Inspections, Preventive Maintenance, and Repairs

MMT has appropriate daily vehicle servicing, inspections, and preventative maintenance procedures in place to aid effective on-street service. Mechanics have received training specific to the type of buses MMT operates. MMT should ensure its mechanics are provided training on the five new buses it anticipates in 2018.

Maintenance and repair activities for each vehicle in the fleet are tracked using Faster asset management software, which is used for all Public Works vehicles. Procedures are in place to prioritize repairs and assign work to mechanics; ensure that unsafe buses aren't used; promptly notify maintenance staff of breakdowns; document scheduled and completed repairs; and effectively communicate vehicle availability.



Left: Public Works garage supervisor, MMT mechanic, Transit Manager, and Transit Operations Supervisor. Right: MMT bus in the transit wing of the City of Manitowoc Public Works garage.

Shop and Parts

Overall, the Public Works garage is well-maintained and clean. However, the transit portion within the aging building may need some rehabilitation in the next decade. Eye protection and safety shoes are required in the Public Works garage. The shop is cost conscious and functions well. The parts inventory is computerized, through Faster software, and methods are in place to confirm inventory, withdrawals, and anticipate reorders.

3. Finance

The finance function at MMT is adequately sophisticated. As part of a City department, normal City financial structures are in place. MMT management has shown a strong working relationship with other City departments and policy makers.

Revenue Control

MMT's fare collection and revenue handling processes are appropriate. Fares are collected aboard buses using non-registering locked fare boxes. Drivers do not make change for passengers. Revenue counting involves more than one person, and is done in a secure area. Daily passenger counts collected by the drivers are reconciled with the counted fares. Deposits are made daily by staff from the City Finance Department.

Budgeting, Grants, and Capital Planning

Annual operating budgets are developed on a calendar year basis consistent with the WisDOT funding calendar. The City of Manitowoc, City of Two Rivers, and Manitowoc County contribute to the local share of MMT operating budgets.

MMT and the City of Manitowoc have shown strong budgeting and capital planning processes. Fleet and other capital replacement funds are established and supported by the City. The local share for capital funding is provided through the City bonding process. The local share for the five new buses set to arrive in 2018, and another four large buses in subsequent years, will be through local bonding. This is done in a manner like the purchase of other municipal vehicles.

4. Planning

Planning Functions

Strategic and service planning functions at MMT are completed by the Transit Manager and Transit Operations Supervisor, with oversight from the Transit Commission. Additionally, drivers play an integral role in minor service planning at MMT.

An extensive five-year TDP was completed in late 2016 by MMT and Bay-Lake RPC. The TDP thoroughly analyzed existing conditions and included several useful recommendations and an implementation plan. The most significant recommendation of the TDP was a system redesign, which sought to reduced route overlap, improve boarding and alighting conditions, adjust schedules to improve on-time performance, and add transit service southwest of Interstate Highway 43. The MMT system redesign was successfully implemented in January 2017, a notable accomplishment. MMT continues to address the recommendations and implementation plan of the TDP.

Performance Evaluation

The recent TDP established a large set of goals, objectives, and standards for MMT service. Included in them are standards for, among other things, on-time performance and route productivity levels (passengers per hour and passengers per mile). However, as stated earlier in this report, timepoint arrival data are not regularly collected by drivers, and MMT buses are not yet equipped with AVL technology.

Recommendation: Develop a process for systematically measuring on-time performance in comparison to the system’s established goal. *Priority: Medium.*

MMT management have an excellent grasp, qualitatively, of system performance through effective communication with drivers and customers. However, it is unclear to what extent system performance is being measured quantitatively on a regular basis. This is likely largely due to the inadequacy of current MMT management staffing levels.

Recommendation: As staffing levels increase, regularly monitor quantitative performance measures as defined in the 2017-2021 Transit Development Plan goals, objectives, and standards (i.e., on-time performance, route productivity, etc.). Findings should be reported to the Transit Commission quarterly. *Priority: Medium.*

Ridership by fare type is collected at the route level for all trips. However, this does not provide insight into areas with high or low passenger activity.

Recommendation: As recommended in the TDP implementation plan, conduct a boarding and alighting survey once every two years to understand bus stop-level passenger activity. *Priority: Medium.*

Service Changes and Public Input

Proposals for service changes are reviewed by the Transit Manager. Changes deemed by the Transit Manager to be major are brought before the Transit Commission prior to approval by the City Council. Major service changes are subject to public meeting and notice. Public meetings are held as needed.

Requests for additional service are not catalogued; they are reviewed and responded to, but not in a systematic manner. Similarly, phone inquiries for service that cannot be accommodated (either service area coverage or span of service) are not documented.

Recommendation: Catalog requests for service changes to inform future investments. Develop system for reviewing and responding to public requests for transit service. *Priority: Medium.*

Coordination

MMT staff demonstrated an understanding of transportation and its connection to land use and development. The Transit Manager is a member of the City’s Plan Commission, and the County’s Transportation Coordinating Committee. MMT management regularly coordinate with staff from other City departments and are active in the site planning process to ensure accommodation for transit vehicles and effective operations.

Coordination between the City and County/ADRC, in terms of transportation services, is extensive and seems to be working well. The Mobility Manager – whose position was formerly with ADRC but recently transition to MMT – is an excellent resource for MMT customers and the public seeking a variety of transportation services throughout the Manitowoc, Two Rivers, and the county. The Mobility Manager effectively matches customers with the appropriate transportation service, whether it be fixed route, City ADA Paratransit, or the ADRC’s county-wide programs. These programs include medical transportation, volunteer driver programs, and access to services for older adults as well as transportation services for people with disabilities. The ADRC also provides connections to State of Wisconsin Non-Emergency Medical Transportation programs.

In addition to other City departments and Manitowoc County/ADRC, MMT regularly coordinates with Manitowoc Public School District, higher education institutions (University of Wisconsin-Manitowoc, Silver Lake College, and Lakeshore Technical College), and businesses.

Purchased Transportation

MMT's City ADA Paratransit service is provided by Assist-to-Transport, a private contractor. MMT staff discussed its oversight practices related to Assist-to-Transport and the general operations policies of City ADA Paratransit with the review team. Per the recent TDP, the Transit Manager is examining the costs and benefits of MMT operating the City ADA Paratransit service directly. Analysis will include the direct cost of service, space requirements at the administrative office for a dispatcher, staffing requirements, and impact on the maintenance facility for storage and repairs. There are often synergistic benefits of operating a combined fixed route and paratransit service.

Recommendation: Examine costs and benefits of operating paratransit service directly, or in partnership with Manitowoc County ADRC, ahead of the next round on contract negotiations with the current private contractor. *Priority: High.*

Capital Planning

Reviewing ADA accessibility at bus stops is a priority for MMT management. An ADA transition plan that includes a prioritization of bus stop improvements should be established. The City should then allocate funding for continued ADA improvements at all bus stops.

Recommendation: Develop an ADA Transition Plan to assess conditions and prioritize bus stop improvements. Establish a yearly budget allocation for continued improvement for ADA accessibility at all bus stops. *Priority: Medium.*

MMT is in the process of replacing five of its nine heavy-duty buses. Plans are in place – including earmarked local funding – to gradually replace the heavy-duty fleet. The recent TDP clearly identifies fleet needs over the next several years.

5. Scheduling

Relative to its size and complexity, scheduling practices at MMT are conducive to efficient operations. However, driver work schedules should be reevaluated to provide a more useful scheduled driver lunch break. The current lunch schedule was implemented to reduce operating cost by eliminating a driver relief position. However, lunch periods are often scheduled within the first hour of on-duty time, after which the driver may work up to seven hours without a scheduled break. This type of scheduling can cause fatigue, especially in difficult driving conditions during inclement weather, increasing the risk of accidents.

Recommendation: Evaluate driver work schedules with the goal of scheduling driver breaks closer to the midpoint of each shift. *Priority: Medium.*

6. Marketing

Marketing Functions, Materials, and Web Presence

Marketing initiatives at MMT have consisted primarily of outreach via traditional outlets, which is appropriate given minimal staffing. The recent hiring of the Transit Operations Supervisor and Mobility Manager have allowed for a renewed focus on marketing activities. Each are excellent advocates for and representatives of transit in the community. There has been increased effort at MMT to tailor approaches to reach out to new potential riders. “Think Transit” and “One Stop Shop [for transportation]” are marketing themes that MMT have initiated and should continue expanding.

The recent TDP recommended several useful marketing strategies for MMT to explore, many of which have been completed or are in progress. The MMT website is part of the City’s, but can also be found at maritimemetro.com. The website provides a great deal of useful information for customers – much more than most systems of its size. The website can be read in several languages using Google Translation. Staff indicated that they are working toward integrating MMT route and schedule data with Google Transit. Additionally, MMT uses its own Facebook page as an information and marketing tool.

MMT has consistent branding across its online content, print materials, and vehicles. Advertisements and customer information are hosted in local newspapers and magazines; brochures of are available at major ridership generators, public institutions, and from community partners. MMT staff maintain strong relationships with other educational, medical, housing, and other agency partners.



Left: Mobility Manager at the public counter. Right: Transit Operations Supervisor displaying a lawn sign used as part of a recent marketing initiative.

The most notable area for improvement in terms of the marketing function at MMT is market research. MMT should build upon the information gathered as part of the recent TDP to develop strategies that are targeted at new riders.

Customer Contacts and Complaints










The Transit Administrator handles any significant customer contacts and all customer complaints. All relevant customer contacts – customer complaints, as well as comments and suggestions – should be documented and progress tracked in an electronic database.

Recommendation: Establish database of customer contacts and resolutions. Develop and document policy for responding to customer contacts in a timely manner. *Priority: High.*

Conclusions

This review’s assessment of each functional area is presented in Table 10. Ratings are based on the degree to which the function’s structures and procedures are conducive to continued effective operations of the system. Specific recommendations for each of the functional areas are contained in the following section.

Table 10: Summary Assessment of Functional Areas

Functional Area	Rating
Transportation Operations	
Vehicle and Facility Maintenance	
Finance	
Planning	
Scheduling	
Marketing	
Key to Symbols	 Structures and procedures are conductive to effective operations
	 Structures and procedures are adequate with room for improvement
	 Structures and procedures are insufficient

PART V: RECOMMENDATIONS

This review's recommendations are summarized in Table 11.

Table 11: Summary of Recommendations

Functional Area	Recommendation	Priority
Policy- and Decision-Making Processes	Change the Transit Manager position from a part-time to full-time position.	High
Transportation Operations	Hire a second Transit Operations Supervisor to ensure supervision during all hours of bus operations.	High
	Train a driver as the Lead Driver to act as back-up for the Transit Operations Supervisor(s).	High
	Develop and enact procedures to ensure a driver's fitness for duty prior to starting her/his shift. This could include documented in-person contact with City staff at the Public Works facility, or utilization of new technology as part of dispatch/operations software implementation.	Medium
	Direct drivers to collect on-time performance at scheduled timepoints.	Medium
	Develop and document a comprehensive, step-by-step process to train a new employee to properly operate MMT's buses.	Medium
	Train several experienced drivers on how to conduct formal in-service driver training.	Low
Vehicle and Facility Maintenance	The City should allocate an additional half-time mechanic to work specifically on MMT vehicles.	Medium
Finance	No recommendations.	-
Planning	Examine costs and benefits of operating paratransit service directly, or in partnership with Manitowoc County ADRC, ahead of the next round on contract negotiations with the current private contractor.	High
	Develop an ADA Transition Plan to assess conditions and prioritize bus stop improvements. Establish a yearly budget allocation for continued improvement for ADA accessibility at all bus stops.	Medium
	Develop a process for systematically measuring on-time performance in comparison to the system's established goal.	Medium
	As staffing levels increase, regularly monitor quantitative performance measures as defined in the 2017-2021 Transit Development Plan goals, objectives, and standards (i.e., on-time performance, route productivity, etc.). Findings should be reported to the Transit Commission quarterly.	Medium
	Conduct a boarding and alighting survey once every two years to understand bus stop-level passenger activity.	Medium
	Catalog requests for service changes to inform future investments. Develop system for reviewing and responding to public requests for transit service.	Medium
Scheduling	Evaluate driver work schedules with the goal of scheduling driver breaks closer to the midpoint of each shift.	Medium
Marketing	Establish database of customer contacts and resolutions. Develop and document policy for responding to customer contacts in a timely manner.	High