Saint Cloud Area Planning Organization Transportation Performance Measures Report

2017

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Common Acronyms

ADT: Average Daily Traffic.

APO: Saint Cloud Area Planning Organization.

AQI: Air Quality Index.

CNG: Compressed Natural Gas.

DOT: Department of Transportation.

CR: County Road.

CSAH: County State-Aid Highway.

D3: Minnesota Department of Transportation District 3.

DAR: Dial-a-Ride.

DEED: Minnesota Department of Employment and Economic Development.

DIV: Digital Inspection Vehicle.

EDR: Economic Development Region.

FAST Act: Fixing America's Surface Transportation Act.

FHWA: Federal Highway Administration.

FR: Fixed Route.

FTA: Federal Transit Administration.

GPS: Global Positioning System.

HPMS: Highway Performance Monitoring System.

HSIP: Highway Safety Improvement Program.

IRI: International Roughness Index.

MAP-21: Moving Ahead for Progress in the 21st Century Act.

MN: Minnesota.

MnDOT: Minnesota Department of Transportation.

MPCA: Minnesota Pollution Control Agency.

MPO: Metropolitan Planning Organization.

MTC: Saint Cloud Metropolitan Transit Commission (Saint Cloud Metro Bus).

MTP: Metropolitan Transportation Plan.

NCB: Northstar Commuter Bus.

NHS: National Highway System.

NHTSA: National Highway Traffic Safety Administration

NPMRDS : National Performance Management Research Data Set.

NTD: National Transit Database.

PBP: Performance-Based Planning.

SEP: Stakeholder Engagement Plan.

SGR: State of Good Repair.

SOV: Single-Occupancy Vehicle.

STC: Saint Cloud Regional Airport

STIP: Statewide Transportation Improvement Program.

TAC: Saint Cloud APO's Technical Advisory Committee.

TERM: Transit Economic Requirements Model.

TH: Trunk Highway.

TIP: Transportation Improvement Program.

TPM: Transportation Performance Management.

Tri-CAP: Tri-County Action Program.
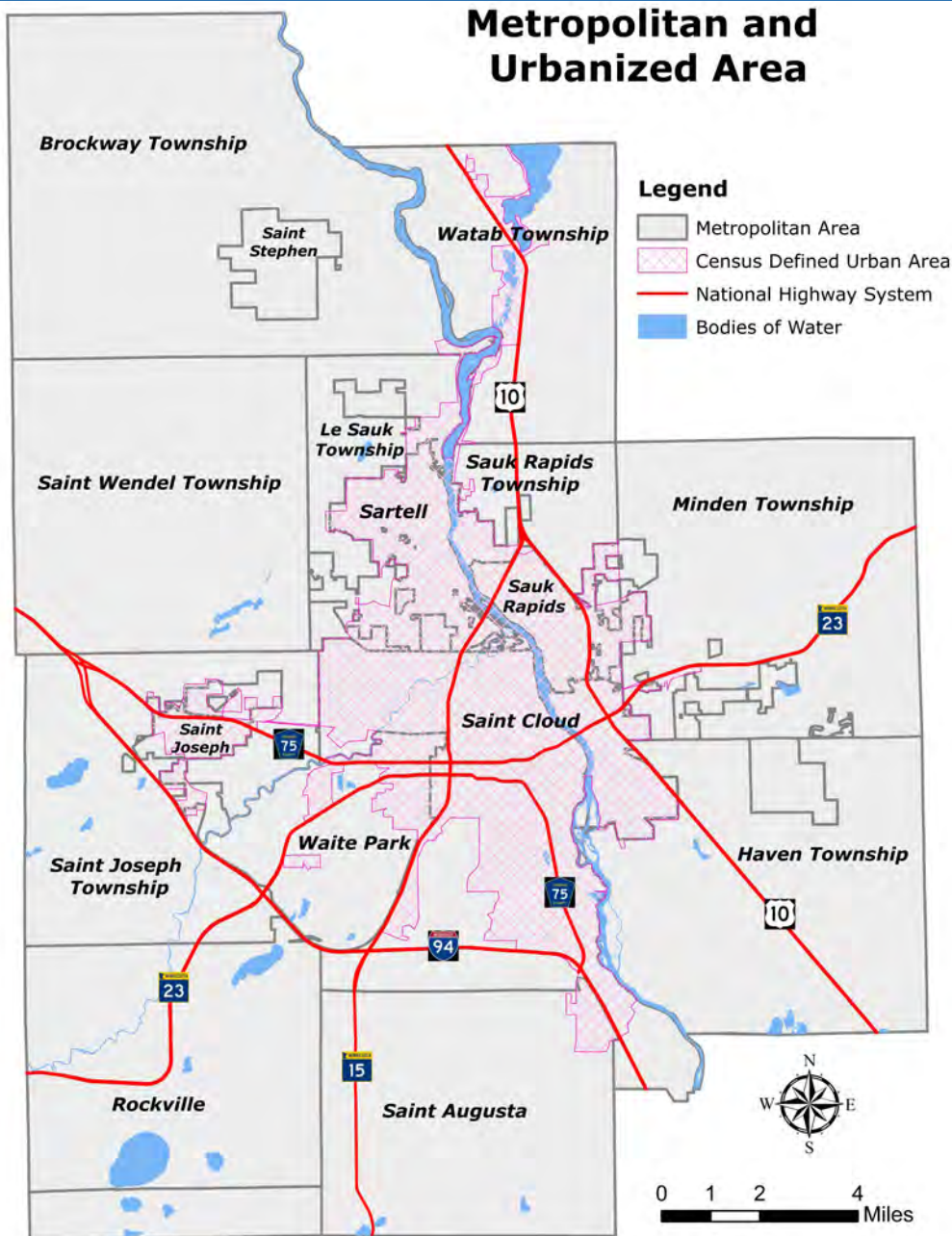
TSM: Transportation System Management.

TTTR: Truck Travel Time Reliability.

VMT: Vehicle Miles Traveled.

Metropolitan and Urbanized Area

Legend
- ☐ Metropolitan Area
- ▨ Census Defined Urban Area
- — National Highway System
- ■ Bodies of Water

The Saint Cloud Area Planning Organization (APO) is an independent, regional body responsible for transportation planning for the Saint Cloud metropolitan area. The APO serves as the region's Metropolitan Planning Organization (MPO) – an organizational body created under the Federal Aid Highway Acts of 1962 and 1973 designed in part to coordinate transportation planning efforts for urban areas with a population of at least 50,000. MPOs like the APO assist local officials in collaboratively deciding how federal transportation funds will be allocated within the planning area.

The APO Urbanized Area is designated by the U.S. Census Bureau every census year. Criteria for defining this area includes population density and density of development. The APO approves a twenty (20) year planning boundary that not only includes the Census-defined Urbanized Area, but also considers expected urbanized growth within that time period.

The APO is comprised of member jurisdictions: Stearns County, Benton County, Sherburne County, City of Saint Cloud, City of Sartell, City of Sauk Rapids, City of Waite Park, City of Saint Joseph, and Le Sauk Township. The cities of Rockville, Saint Stephen, and Saint Augusta along with Brockway Township, Haven Township, Minden Township, Sauk Rapids Township, Saint Wendel Township, Saint Joseph Township, and Watab Township are located within the designated APO planning boundary but are not formal member agencies. Instead they are represented through their respective counties.

1966	137,237
Year the APO was incorporated.	Estimated population in the Saint Cloud APO planning area in 2017.

Introduction

Performance Measures

This Transportation Performance Measures report includes a set of performance measures that will track the regions progress towards achievement of transportation goals. Performance measures are designed to serve as a benchmark to evaluate and quantify progress. This performance-based approach is meant to improve accountability of Federal transportation investments, assess risks related to different performance levels, and increase transparency. This progress report serves as an annual snapshot of the region to help the APO and its planning partners better understand current and anticipated performance of the transportation system and how well it is moving towards achieving the goals stated in the Metropolitan Transportation Plan (MTP).

APO staff are currently in the process of updating the MTP through 2045. During this process, staff have been incorporating Federally mandated performance measures into the MTP. In addition, APO staff have been working to develop a variety of other performance measures to assist in future planning and project implementation. It is the goal of the APO that these performance measures identified in the MTP will help further align current and future projects with the overall goals and objectives established in the MTP.

Based on the Transportation Performance Management (TPM) (www.fhwa.dot.gov/tpm/) assessment tool, the APO is currently working towards a maturity level 2, the developing phase. Work is underway to strengthen transportation performance management in the APO. A transportation performance management framework is being defined to provide alignment across the organization and across different planning and programming functions. Modifications to data collection and management processes and analysis tools are being planned in order to better support the performance framework. Organizational roles are being defined and a strategy for training and workforce development in support of transportation performance management is being developed.

Strategic Direction

- The APO is developing a collaborative process to set goals and objectives with linkages between agency functions and broader societal concerns still being clarified.

Target Setting

- The APO is collaboratively developing a methodology to understand baselines and set targets within agreed-upon performance areas.

Performance-Based Planning

- The APO is defining a data-driven process for understanding current and future performance to identify and develop strategies.

Performance-Based Programming

- The APO is developing a performance-based programming methodology and process that will: enable project selection to reflect agency goals; determine priorities in planning doucuments; and identify funding constraints, risk factors, and relative needs across performance areas.

Monitoring and Adjustment

- The APO is developing a plan for system and program/project monitoring tied to its strategic direction. This will include: a definition of output, outcome measures, frequency of data collection, external influencing factors and users.

Reporting and Communication

- The APO is defining requirements for internal reports to ensure consistency, alignment with strategic direction, and provision of actionable information.

What are performance measures?

Performance measures are indicators of progress toward attaining a goal, objective, or target (a desired level of future performance).

What is Transportation Performance Management?

Transportation Performance Management (TPM) is a strategic approach that uses system information such as performance measures to make policy decisions in order to achieve performance goals.

What is Performance-Based Planning?

Performance-Based Planning (PBP) is the use of agency goals, objectives and performance trends to drive the development of strategies and priorities in the MTP and other performance-based plans and processes such at the Transportation Improvement Program (TIP). The resulting documents become the blueprint for how an agency intends to achieve its desired performance outcomes.

How does the APO use performance measures?

Because the APO's transportation system improvement needs exceed available funding, resources are invested in the most strategic, effective, and efficient ways possible. Performance measures provide useful "feedback" and are integrated into the APO's planning practice on three (3) levels as indicated in the adjacent graphic.

Strategic Level
- Performance measures help to establish and inform goals, objectives, and strategies as well as to monitor the APO's mission attainment. Performance measures also communicate progress toward achieving goals in transportation plans and programs such as the MTP, SEP, and TIP.

Decision Making Level
- Performance measures are used to inform and assess the financial policies for allocating funds among programs such as highway preservation, system expansion, public transportation, multimodal trails, etc. These programs are defined in the TIP. Decision makers also consider various trends impacting transportation system performance.

Project Delivery Level
- After projects are selected, performance measures help to monitor the efficiency and effectiveness of projects and services. The measures also support organizational and operational improvements.

Introduction

Performance Measures

Why does the APO use Performance Measures?

♦ To assess how well the APO's multimodal transportation system is functioning—including feedback from and collaboration with key stakeholder organizations.

♦ To provide information to support and inform decision-making.

♦ To assess how effectively and efficiently transportation programs, projects, and services are being delivered.

♦ To demonstrate transparency and accountability to the APO's citizens and to foster collaboration with the jurisdictions transportation system stakeholders.

Why set targets?

Federal regulations require the APO to either 1) Support MnDOT's performance targets for each performance measure, or 2) Set its own regional target(s). The APO has decided to set its own targets for each of the performance measures.

Overall, the targets established by MnDOT have been determined to be of limited value to the APO, especially when compared with the existing conditions and priorities of the APO. Therefore, by adopting differing targets from the state, the APO can focus on localized issues within its region and target funding that will work toward the goals of the APO as established within the MTP.

Who sets the targets?

The APO along with planning partners, the APO's Technical Advisory Committee (TAC), the APO's Executive/Policy Board and Metropolitan Transit Commission (MTC) have collaborated to establish these targets.

What are the desired characteristics of performance measures?

♦ *Measureable with available tools/data*—May require or minimal additional cost for data collection.

♦ *Forecastable*—Enables data-driven target setting based on future conditions.

♦ *Clear to the public and policymakers*—Allows performance story-telling to citizens and policymakers.

♦ *Agency has influence over results*—Measure agency activities rather than impact of external factors.

INPUTS

Examples:
- Agency Staff
- Equipment
- Facilities
- Funding

ACTIVITIES

Examples:
- Maintenance
- Construction
- Planning
- Operations

PERFORMANCE MEASURES

OUTPUTS

Example:
- Mile of pavement resurfaced

OUTCOMES

Example:
- % pavement in good condition
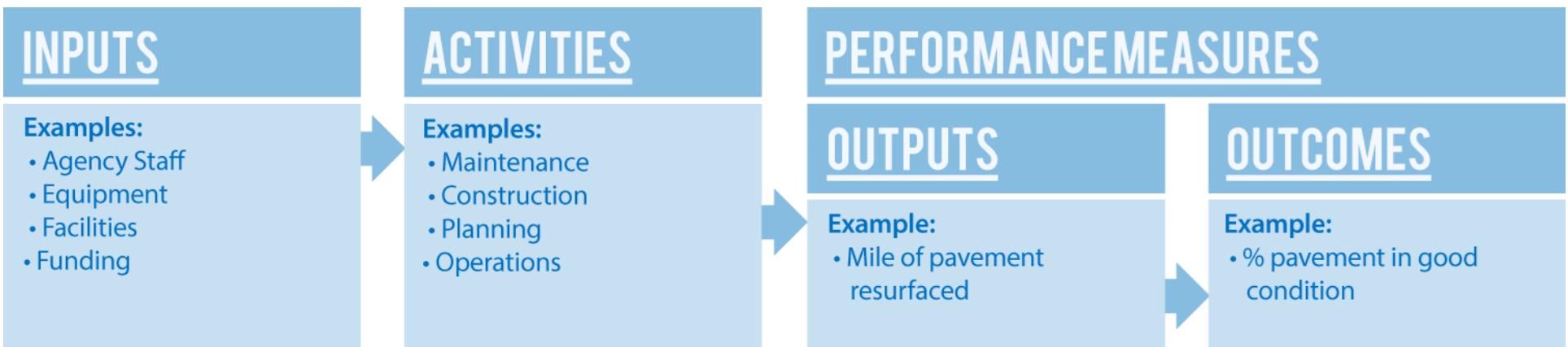
Introduction

Performance Measures

Federal Performance Measures.

The Moving Ahead for Progress in the 21st Century Act (MAP-21), signed into law in 2012, included several provisions that collectively are transforming the Federal surface transportation program to be focused on the achievement of performance outcomes.

The Fixing America's Surface Transportation (FAST) Act, signed in 2015, built on the MAP-21 changes and provided long-term funding certainty for surface transportation infrastructure planning and investment.

The graphic below contains the list of Federally required performance measures:

The first federally required performance period began Jan. 1 2018, and ends on Dec. 31, 2021. Exceptions to this timeframe include roadway safety, transit management, and state of good repair which have an annual calendar year reporting period.

Targets established should be reasonable and based on the analysis of trends and projections of future efforts. These efforts include projects identified in the TIP, MTP, and general maintenance of existing infrastructure completed by the counties, municipalities, and townships in the APO planning region. Targets established in accordance with Federal Highway Administrations (FHWA) performance measures rules should be considered as interim condition/performance levels that lead toward the accomplishment of longer-term performance expectations in state department of transportations (DOT) and MPOs' transportation plans.

Roadway Safety	Roadway Accessibility, Mobility, and Connectivity	Roadway Management and Preservation	Roadway Metropolitan Vitality and Economic Development
•Number of fatalities. •Rate of fatalities. •Number of serious injuries. •Rate of serious injuries. •Number of non-motorized fatalities and serious injuries. •Transit Safety.	•Annual percent of person-miles traveled on the Interstate that are reliable. •Annual percent of person-miles traveled on the non-Interstate National Highway System that are reliable. •State of Good Repair for equipment, facilities, and rolling stock. •Transit Economic Requirments Model (TERM) scale for transit.	•Interstate system pavement conditions. •Non-Interstate NHS pavement conditions. •Bridge conditions. •Transit Mechanical Failures	•Truck Travel Time Reliability Index.

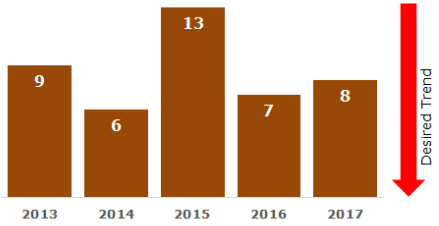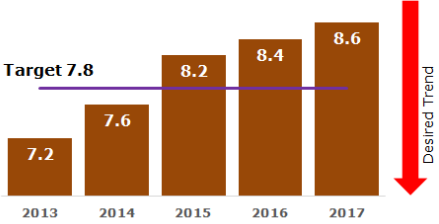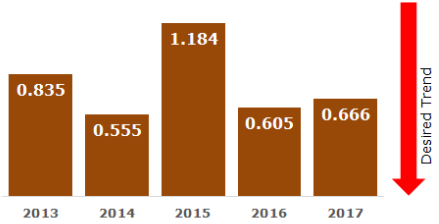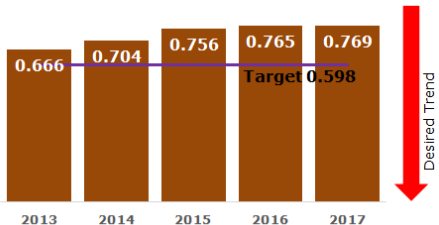Photo courtesy of Minnesota Department of Transportation (MnDOT).

Goal 1: Maintain and Enhance Transportation Safety

Saint Cloud APO Transportation Results Scorecard

Measure	2018 Target	2017 Result	Multi-Year Trend	Analysis
Total Crashes: Number of total traffic crashes.	Performance Indicator	2,773	2013: 2,311 · 2014: 2,472 · 2015: 2,209 · 2016: 3,064 · 2017: 2,773	The total number of crashes in 2017 was at 2,773. This is a 9.5 percent decrease from the five (5) year high of 3,064 in 2016. The APO desires the total number of crashes to decrease.
Total Crashes Five (5) Year Average: Average number of total traffic crashes in the last five (5) consecutive years.	Performance Indicator	2,565	2013: 2,213 · 2014: 2,233 · 2015: 2,252 · 2016: 2,417 · 2017: 2,566	The five (5) year average for total crashes in 2017 was 2,566. This is a 6.2 percent increase from 2016 and is a five (5) year high. The APO desires a decline in the five (5) year average total crashes.
Total Crash Rate: Average number of total traffic crashes per 100 million vehicle miles traveled (VMT).	Performance Indicator	230.844	2013: 214.376 · 2014: 228.513 · 2015: 201.186 · 2016: 264.745 · 2017: 230.844	The total crash rate in 2017 was at 230.844. This is a 12.8 percent decrease from the five (5) year high of 264.745 in 2016. The APO desires the total crash rate to decrease.
Total Crash Rate Five (5) Year Average: Average number of total traffic crash rate per 100 million VMT in the last five (5) consecutive years.	Performance Indicator	227.933	2013: 204.403 · 2014: 206.802 · 2015: 208.017 · 2016: 219.313 · 2017: 227.933	The five (5) year average total crash rate for 2017 was at 227.933. This is a 3.9 percent increase from 2016 and is a five (5) year high. The APO desires the total crash rate five (5) year average to decrease.

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Goal 1: Maintain and Enhance Transportation Safety

Saint Cloud APO Transportation Results Scorecard

Measure	2018 Target	2017 Result	Multi-Year Trend	Analysis
Fatalities: Number of traffic fatalities.	Performance Indicator	8	2013: 9, 2014: 6, 2015: 13, 2016: 7, 2017: 8. Desired Trend ↓	Eight (8) fatalities were reported in 2017. This is a 38.5 percent decrease from the five (5) year high of thirteen (13) in 2015. The APO desires the number of fatalities to decrease.
Fatalities Five (5) Year Average: Average number of traffic fatalities in the last five (5) consecutive years.	7.8	8.6	Target 7.8; 2013: 7.2, 2014: 7.6, 2015: 8.2, 2016: 8.4, 2017: 8.6. Desired Trend ↓	The five (5) year average for fatalities in 2017 was 8.6. This is a 19.4 percent increase from 2013 and is a five (5) year high. The APO has set a 2018 target of less than 7.8 fatalities.
Fatality Rate: Average number of traffic fatalities per 100 million vehicle miles traveled (VMT).	Performance Indicator	0.666	2013: 0.835, 2014: 0.555, 2015: 1.184, 2016: 0.605, 2017: 0.666. Desired Trend ↓	The fatality rate in 2017 was at 0.666. This is a 43.8 percent decrease from the five (5) year high of 1.184 in 2015. The APO desires the fatality rate to decrease.
Fatality Rate Five (5) Year Average: Average number of traffic fatalities per 100 million VMT in the last five (5) consecutive years.	0.598	0.769	2013: 0.666, 2014: 0.704, 2015: 0.756, 2016: 0.765, 2017: 0.769; Target 0.598. Desired Trend ↓	The five (5) year average fatality rate for 2017 was at 0.769. This is a 15.5 percent increase from 2013 and is a five (5) year high. The APO has set a 2018 fatality rate target of less than 0.598.

Goal 1: Maintain and Enhance Transportation Safety

Saint Cloud APO Transportation Results Scorecard

Measure	2018 Target	2017 Result	Multi-Year Trend	Analysis
Serious Injuries: Number of traffic serious injuries.	Performance Indicator	25	2013: 23, 2014: 15, 2015: 19, 2016: 36, 2017: 25 — Desired Trend ↓	The number of serious injuries in 2017 was at twenty-five (25). This is a 30.6 percent decrease from the five (5) year high of thirty-six (36) in 2016. The APO desires the number of serious injuries to decrease.
Serious Injuries Five (5) Year Average: Average number of serious injuries in the last five (5) consecutive years.	13.9	23.6	2013: 23.4, 2014: 21.8, 2015: 21.6, 2016: 23.4, 2017: 23.6 — Target 13.9 — Desired Trend ↓	The five (5) year average for serious injuries in 2017 was 23.6. This is a 0.9 percent increase from 2016 and is a five (5) year high. The APO has set a 2018 target of less than 13.9 serious injuries.
Serious Injury Rate: Average number of serious injuries per 100 million VMT.	Performance Indicator	2.081	2013: 2.134, 2014: 1.387, 2015: 1.730, 2016: 3.111, 2017: 2.081 — Desired Trend ↓	The serious injury rate in 2017 was at 2.081. This is a 33.1 percent decrease from the five (5) year high of 3.111 in 2016. The APO desires the serious injury rate to decrease.
Serious Injury Rate Five (5) Year Average: Average number of serious injuries per 100 million VMT in the last five (5) consecutive years.	1.070	2.088	2013: 2.162, 2014: 2.019, 2015: 1.996, 2016: 2.117, 2017: 2.088 — Target 1.070 — Desired Trend ↓	The serious injury rate five (5) year average for 2017 was 2.088. This is a 3.4 percent decrease from the five (5) year high of 2.162 in 2013. The APO has set a serious injury rate 2018 target of 1.070.

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Goal 1: Maintain and Enhance Transportation Safety

Saint Cloud APO Transportation Results Scorecard

Measure	2018 Target	2017 Result	Multi-Year Trend	Analysis
Non-Motorized Fatalities and Serious Injuries: Number of fatalities and serious injuries.	Performance Indicator	7	2013: 7, 2014: 5, 2015: 12, 2016: 8, 2017: 7 (Desired Trend: decrease)	The number of non-motorized fatalities and serious injuries in 2017 was seven (7). This is a 41.7 percent decrease from the five (5) year high of twelve (12) in 2015. The APO desires the number of fatalities and serious injuries to decrease.
Non-Motorized Fatalities and Serious Injuries Five (5) Year Average: Number of fatalities and serious injuries in the last five (5) consecutive years.	7.0	7.8	Target 7.0. 2013: 5.8, 2014: 5.2, 2015: 7.0, 2016: 7.8, 2017: 7.8 (Desired Trend: decrease)	The five (5) year average for non-motorized fatalities and serious injuries in 2017 was at 7.8. This is a 34.5 percent increase from 2013 and is a five (5) year high. The APO has set a 2018 target of less than 7.00 fatalities and serious injuries.
Chemical Impairment Crashes: Number of crashes wherein the driver had been drinking or taking drugs.	Performance Indicator	90	2013: 106, 2014: 92, 2015: 92, 2016: 107, 2017: 90 (Desired Trend: decrease)	The number of chemical impairment crashes in 2017 was at ninety (90). This is a 15.9 percent decrease from the five (5) year high of 107 in 2016. The APO desires the number of chemical impairment crashes to decrease.
Chemical Impairment Crashes Five (5) Year Average: Number of crashes in the last five (5) consecutive years wherein the driver had been drinking or taking drugs.	Performance Indicator	97.4	2013: 101.0, 2014: 98.4, 2015: 98.8, 2016: 97.6, 2017: 97.4 (Desired Trend: decrease)	The five (5) year average for chemical impairment crashes in 2017 was at 97.4. This is a 3.6 percent decrease from 101 in 2013 and is a five (5) year low. The APO desires the five (5) year average of chemical impairment crashes to decrease.

Goal 1: Maintain and Enhance Transportation Safety

Saint Cloud APO Transportation Results Scorecard

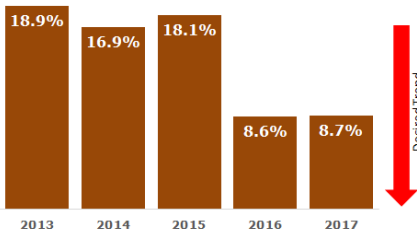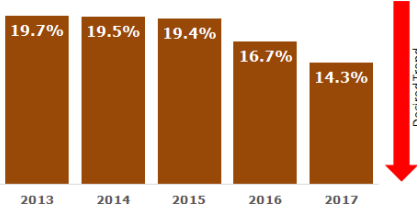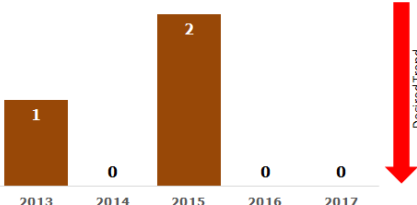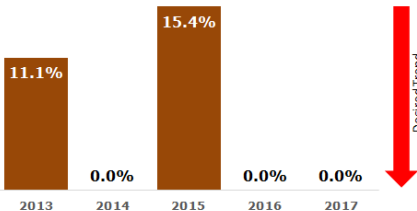| Measure	2018 Target	2017 Result	Multi-Year Trend	Analysis
Percent of Chemical Impairment Crashes: Percent of chemical impairment crashes.	Performance Indicator	3.2%	2013: 4.6% 2014: 3.7% 2015: 4.2% 2016: 3.5% 2017: 3.2% (Desired Trend ↓)	The percent of chemical impairment crashes in 2017 was 3.2 percent. This is a 1.4 percentage point decrease from the five (5) year high of 4.6 percent in 2013. The APO desires the percent of chemical impairment crashes to decrease.
Percent of Chemical Impairment Crashes Five (5) Year Average: Percent of chemical impairment crashes last five (5) consecutive years.	Performance Indicator	3.8%	2013: 4.6% 2014: 4.4% 2015: 4.4% 2016: 4.1% 2017: 3.8% (Desired Trend ↓)	The five (5) year average percent of chemical impairment crashes in 2017 was 3.8 percent. This is a 0.8 percentage point decrease from the five (5) year high of 4.6 percent in 2013. The APO desires the five (5) year average percent of chemical impairment crashes to decrease.
Fatal Chemical Impairment Crashes: Number of fatal crashes involving chemical impairment.	Performance Indicator	1	2013: 1 2014: 1 2015: 0 2016: 0 2017: 1 (Desired Trend ↓)	The number of fatal chemical impairment crashes in 2017 was one (1). In the past five (5) years the fatal distracted crashes have not rose above one (1). The APO desires fatal distracted crashes to decrease.
Percent of Fatal Chemical Impairment Crashes: Percent of fatal crashes involving chemical impairment.	Performance Indicator	12.5%	2013: 11.1% 2014: 16.7% 2015: 0.0% 2016: 0.0% 2017: 12.5% (Desired Trend ↓)	The percent of fatal chemical impairment crashes in 2017 was 12.5 percent. This is a 4.2 percentage point decrease from the five (5) year high of 16.7 percent in 2014. The APO desires the percent of fatal chemical impairment crashes to decrease.

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Goal 1: Maintain and Enhance Transportation Safety

Saint Cloud APO Transportation Results Scorecard

Measure	2018 Target	2017 Result	Multi-Year Trend	Analysis
Serious Injury Chemical Impairment Crashes: Number of serious injury crashes involving a chemically impaired driver.	Performance Indicator	5	2013: 7, 2014: 6, 2015: 3, 2016: 4, 2017: 5 (Desired Trend ↓)	The number of serious injury chemical impairment crashes in 2017 was five (5). This is a 28.6 percent decrease from the five (5) year high of seven (7) in 2013. The APO desires serious injury chemical impairment crashes to decrease.
Percent of Serious Injury Chemical Impairment Crashes: Percent of serious injury crashes involving chemical impaired driver.	Performance Indicator	20%	2013: 30.4%, 2014: 40%, 2015: 15.8%, 2016: 11.1%, 2017: 20% (Desired Trend ↓)	The percent of serious injury chemical impairment crashes in 2017 was 20 percent. This is a 20 percentage point decrease from the five (5) year high of 40 percent in 2014. The APO desires the percent of serious injury chemical impairment crashes to decrease.
Distracted Driving Crashes: Number of crashes involving distracted driving.	Performance Indicator	241	2013: 437, 2014: 419, 2015: 400, 2016: 265, 2017: 241 (Desired Trend ↓)	The number of distracted crashes in 2017 was 241. This is a 44.9 percent decrease from the five (5) year high of 437 in 2013. The APO desires the number of distracted driving crashes to decrease.
Distracted Driving Crashes Five (5) Year Average: Number of crashes involving distracted driving in the last five (5) consecutive years.	Performance Indicator	352.4	2013: 434.2, 2014: 434.8, 2015: 434.2, 2016: 389.4, 2017: 352.4 (Desired Trend ↓)	The five (5) year average for distracted crashes in 2017 was at 352.4. This is a 18.8 percent decrease from 2013 and a five (5) year low. The APO desires the five (5) year average of distracted driving crashes to decrease.

Goal 1: Maintain and Enhance Transportation Safety

Saint Cloud APO Transportation Results Scorecard

Measure	2018 Target	2017 Result	Multi-Year Trend	Analysis
Percent of Distracted Driving Crashes: Percent of distracted driving crashes.	Performance Indicator	8.7%	18.9% (2013), 16.9% (2014), 18.1% (2015), 8.6% (2016), 8.7% (2017) — Desired Trend ↓	The percent of distracted driving crashes in 2017 was 8.7 percent. This is a 10.2 percentage point decrease from the five (5) year high of 18.9 percent in 2013. The APO desires the percent of distracted driving crashes to decrease.
Percent of Distracted Driving Crashes Five (5) Year Average: Percent of distracted driving crashes five (5) year average.	Performance Indicator	14.3%	19.7% (2013), 19.5% (2014), 19.4% (2015), 16.7% (2016), 14.3% (2017) — Desired Trend ↓	The five (5) year average percent for distracted driving crashes in 2017 was at 14.3 percent. This is a 5.4 percent decrease from 2013 and a five (5) year low. The APO desires the five (5) year average percent of distracted driving crashes to decrease.
Fatal Distracted Driving Crashes: Number of fatal crashes involving distracted driving.	Performance Indicator	0	1 (2013), 0 (2014), 2 (2015), 0 (2016), 0 (2017) — Desired Trend ↓	The number of fatal distracted driving crashes in 2017 was zero. The five (5) year high is two (2). The APO desires the number of fatal distracted driving crashes to decrease.
Percent of Fatal Distracted Driving Crashes: Percent of fatal crashes involving distracted driving.	Performance Indicator	0%	11.1% (2013), 0.0% (2014), 15.4% (2015), 0.0% (2016), 0.0% (2017) — Desired Trend ↓	The percent of fatal distracted driving crashes in 2017 was 0 percent. This is a 15.4 percentage point decrease from the five (5) year high of 15.4 percent in 2015. The APO desires the percent of fatal distracted crashes to decrease.

Goal 1: Maintain and Enhance Transportation Safety

Saint Cloud APO Transportation Results Scorecard

Measure	Target	Result	Multi-Year Trend	Analysis
Distracted Driving Serious Injury Crashes: Number of serious injury crashes involving distracted driving.	Performance Indicator	3	2013: 2, 2014: 2, 2015: 4, 2016: 2, 2017: 3 (Desired Trend ↓)	The number of distracted driving serious injury crashes in 2017 was three (3). The five (5) year high is four (4). The APO desires the number of distracted driving serious injury crashes to decrease.
Percent of Distracted Driving Serious Injury Crashes: Percent of serious injury crashes involving distracted driving.	Performance Indicator	12%	2013: 8.7%, 2014: 13.3%, 2015: 21.1%, 2016: 5.6%, 2017: 12.0% (Desired Trend ↓)	The percent of distracted driving serious injury crashes in 2017 was 12 percent. This is a 6.4 percentage point jump from 5.6 percent in 2016. The APO desires percent of distracted serious injury crashes to decrease.
Number of Fixed Route (FR) Fatalities: Total number of reportable FR fatalities.	TBD in 2019	0	2012: 0, 2013: 0, 2014: 0, 2015: 0, 2016: 0 (Desired Trend ↓)	The total number of reportable FR fatalities has remained at zero since 2012. The APO desires the number of fatalities to stay at zero.
Fatality Rate (FR): Rate of FR fatalities per total vehicle revenue miles.	TBD in 2019	0	2012: 0, 2013: 0, 2014: 0, 2015: 0, 2016: 0 (Desired Trend ↓)	The rate of reportable FR fatalities per revenue mile has remained at zero since 2012. The APO desires the rate of fatalities to stay at zero.

Goal 1: Maintain and Enhance Transportation Safety

Saint Cloud APO Transportation Results Scorecard

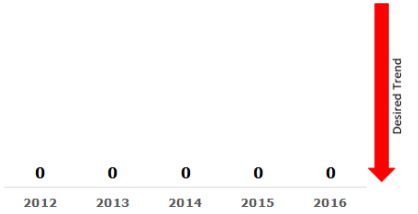| Measure	Target	Result	Multi-Year Trend	Analysis
Number of FR Injuries: Total number of reportable FR injuries.	TBD in 2019	1		The total number of reportable FR injuries was at one (1) in 2016. This is a 75 percent decrease from the five (5) year high of 4 (four) in 2014 and 2015. The APO desires the number of FR injuries to decrease.
Injury Rate (FR): Rate of FR injuries per total vehicle revenue miles.	TBD in 2019	0.0000008		The rate of reportable FR injuries was at 0.0000008 in 2016. This is a 75.8 percent decrease from the five (5) year high of 0.0000033 in 2014. The APO desires the rate of FR injuries to decrease.
Number of FR Safety Events: Total number of reportable FR safety events.	TBD in 2019	0		The total number of reportable FR safety events was at one (1) in 2016. This is a 80 percent decrease from the five (5) year high of 5 (five) in 2014. The APO desires the number of FR safety events to decrease.
Safety Event Rate (FR): Rate of FR safety events per total vehicle revenue miles.	TBD in 2019	0.0000008		The rate of reportable FR safety events was at 0.0000008 in 2016. This is a 80.1 percent decrease from the five (5) year high of 0.0000041 in 2014. The APO desires the rate of FR safety events to decrease.

Goal 1: Maintain and Enhance Transportation Safety

Saint Cloud APO Transportation Results Scorecard

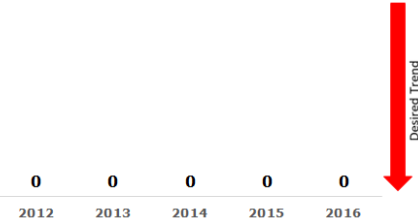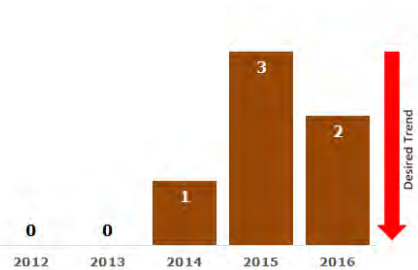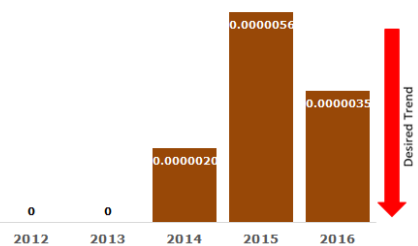| Measure	Target	Result	Multi-Year Trend	Analysis
Number of Dial-a-Ride (DAR) Fatalities: Total number of reportable DAR fatalities.	TBD in 2019	0	0 (2012), 0 (2013), 0 (2014), 0 (2015), 0 (2016) — Desired Trend	The total number of reportable DAR fatalities has remained at zero since 2012. The APO desires the number of fatalities to stay at zero.
Fatality Rate (DAR): Rate of DAR fatalities per total vehicle revenue miles.	TBD in 2019	0	0 (2012), 0 (2013), 0 (2014), 0 (2015), 0 (2016) — Desired Trend	The rate of reportable DAR fatalities per revenue mile has remained at zero since 2012. The APO desires the rate of fatalities to stay at zero.
Number of DAR Injuries: Total number of reportable DAR injuries.	TBD in 2019	2	0 (2012), 0 (2013), 1 (2014), 3 (2015), 2 (2016) — Desired Trend	There were two (2) reportable DAR injuries in 2016. This is a 33.3 percent decrease from the five (5) year high of 3 (three) in 2015. The APO desires the number of DAR injuries to decrease.
Injury Rate (DAR): Rate of DAR injuries per total vehicle revenue miles.	TBD in 2019	0.0000035	0 (2012), 0 (2013), 0.0000020 (2014), 0.0000056 (2015), 0.0000035 (2016) — Desired Trend	The rate of reportable DAR injuries was at 0.0000035 in 2016. This is a 37.5 percent decrease from the five (5) year high of 0.0000056 in 2015. The APO desires the rate of DAR injuries to decrease.
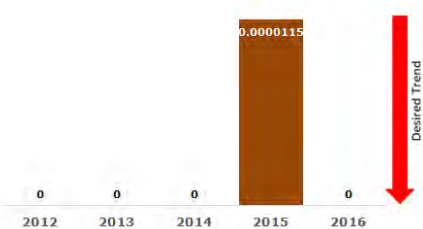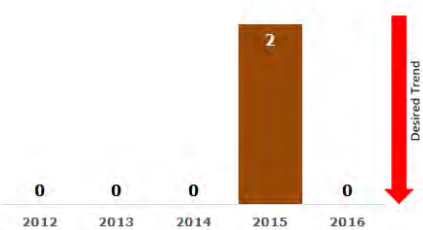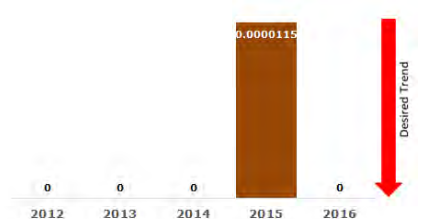
Goal 1: Maintain and Enhance Transportation Safety

Saint Cloud APO Transportation Results Scorecard

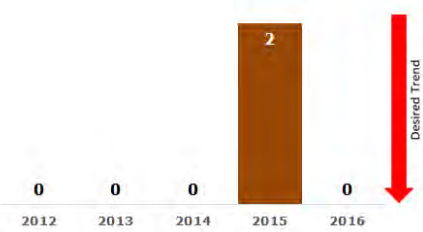| Measure	Target	Result	Multi-Year Trend	Analysis
Number of DAR Safety Events: Total number of reportable DAR safety events.	TBD in 2019	2	*(bar chart: 2012=0, 2013=0, 2014=1, 2015=4, 2016=2; Desired Trend ↓)*	The total number of reportable DAR safety events was at two (2) in 2016. This is a 50 percent decrease from the five (5) year high of 4 (four) in 2015. The APO desires the number of DAR safety events to decrease.
Safety Event Rate (DAR): Rate of DAR safety events per total vehicle revenue miles.	TBD in 2019	0.0000035	*(bar chart: 2012=0, 2013=0, 2014=0.0000020, 2015=0.0000074, 2016=0.0000035; Desired Trend ↓)*	The rate of reportable DAR safety events was at 0.0000035 in 2016. This is a 37.5 percent decrease from the five (5) year high of 0.0000056 in 2015. The APO desires the rate of DAR safety events to decrease.
Number of Northstar Commuter Bus (NCB) Fatalities: Total number of reportable NCB fatalities.	TBD in 2019	0	*(bar chart: 2012=0, 2013=0, 2014=0, 2015=0, 2016=0; Desired Trend ↓)*	The total number of reportable NCB fatalities has remained at zero since 2012. The APO desires the number of fatalities to stay at zero.
Fatality Rate (NCB): Rate of NCB fatalities per total vehicle revenue miles.	TBD in 2019	0	*(bar chart: 2012=0, 2013=0, 2014=0, 2015=0, 2016=0; Desired Trend ↓)*	The rate of reportable NCB fatalities per revenue mile has remained at zero since 2012. The APO desires the rate of fatalities to stay at zero.

Goal 1: Maintain and Enhance Transportation Safety

Saint Cloud APO Transportation Results Scorecard

Measure	Target	Result	Multi-Year Trend	Analysis
Number of NCB Injuries: Total number of reportable NCB injuries.	TBD in 2019	0	0 (2012), 0 (2013), 0 (2014), 2 (2015), 0 (2016). Desired Trend ↓	The total number of reportable NCB injuries was at two (2) in 2015. The APO desires the number of NCB injuries to decrease.
Injury Rate (NCB): Rate of NCB injuries per total vehicle revenue miles.	TBD in 2019	0.0000115	0 (2012), 0 (2013), 0 (2014), 0.0000115 (2015), 0 (2016). Desired Trend ↓	The rate of reportable NCB injuries was at 0.0000115 in 2015. The APO desires the rate of NCB injury rate to decrease.
Number of NCB Safety Events: Total number of reportable NCB safety events.	TBD in 2019	0	0 (2012), 0 (2013), 0 (2014), 2 (2015), 0 (2016). Desired Trend ↓	The total number of reportable NCB safety events was at two (2) in 2015. The APO desires the number of NCB safety events to decrease.
Safety Event Rate (NCB): Rate of NCB safety events per total vehicle revenue miles.	TBD in 2019	0.0000115	0 (2012), 0 (2013), 0 (2014), 0.0000115 (2015), 0 (2016). Desired Trend ↓	The rate of reportable NCB safety events was at 0.0000115 in 2015. The APO desires the safety event rate of NCB safety events to decrease.

Goal 1: Maintain and Enhance Transportation Safety

Fatality and Rate of Fatalities

Fatalities are calculated for the most recent five (5) consecutive years and rate of fatalities is the number of fatalities per 100 million vehicles miles traveled (VMT) for each of the most recent five (5) consecutive years

Traffic Fatalities

Legend
- 2013
- 2014
- 2015
- 2016
- 2017
- National Highway System

Fatal Crashes

Displayed in Figure 1.1 are traffic fatalities and their locations within the APO planning area from 2013-2017. The majority of these crashes occurred on the National Highway System (NHS), which typically has a higher annual average daily traffic (AADT). There are no high concentrations of fatalities at any one intersection, but a couple of areas contain crashes within close proximity. Around the US 10 and MN 23 interchange there have been three (3) fatalities within a quarter mile within the last three (3) years and near the MN 15 bridge in Sartell/Sauk Rapids, there were four (4) fatalities in 2016.

Seriousness of Crash	
Fatal crash	Any crash in which a death has occurred as a result of the crash.
Incapacitating injury	Includes injuries serious enough to prevent normal activity for at least one day, such as massive blood loss, broken bones, etc.
Non-incapacitating injury	Injuries that are evident at the scene, but not serious enough to prevent normal activity, such as cuts, bruises, limping, etc.
Possible injury	Non-visible injuries but there are complaints of pain or momentary unconsciousness, such as headaches, etc.
Property Damage	No injuries as a result of the crash.

Figure 1.1   Data Source: MnDOT.   22

Goal 1: Maintain and Enhance Transportation Safety

Serious Injuries and Rate of Serious Injuries

Serious injuries are calculated for the most recent five (5) consecutive years and rate of serious injuries are the number of serious injuries per 100 million vehicles miles traveled (VMT) for each of the most recent five (5) consecutive years

Serious Injuries

Legend

- 2013
- 2014
- 2015
- 2016
- 2017
- National Highway System

Serious Injury Crashes

Figure 1.2 illustrates serious injury crashes and their locations within the APO planning area from 2013 to 2017. There is a higher concertation of crashes occurring near MN 23/Division Street in Saint Cloud and in the City of Saint Cloud in general. The four (4) highest crash types for the region are right angle, other, head-on, and run-off-road-right side. The four (4) highest crash locations are at intersections, four (4) legged intersections, T-intersections, and intersection-related.

The average cost per crash was developed in 2013 by MnDOT on a per crash basis for use in calculating benefit/cost comparisons. The costs include economic cost factors and a measure of the value of lost quality of life that society is willing to pay to prevent deaths and injuries associated with motor vehicle crashes. Costs reflect Minnesota's three (3)-year crash history and US DOT procedures contained in *Revised Department Guidance 2013: Treatment of the Value of Preventing Fatalities and Injuries in Preparing Economic Analyses.*

Average Cost Per Crash	(2017 Dollars)
Fatal	$1,160,000
Incapacitating	$580,000
Non-Incapacitating	$170,000
Possible Injury	$85,500
Property Damage	$7,800

Figure 1.2   *Data Source: MnDOT.*

Goal 1: Maintain and Enhance Transportation Safety

Non-Motorized Fatalities and Serious Injuries

The number of non-motorized fatalities and non-motorized serious injuries for each of the most recent five (5) consecutive years
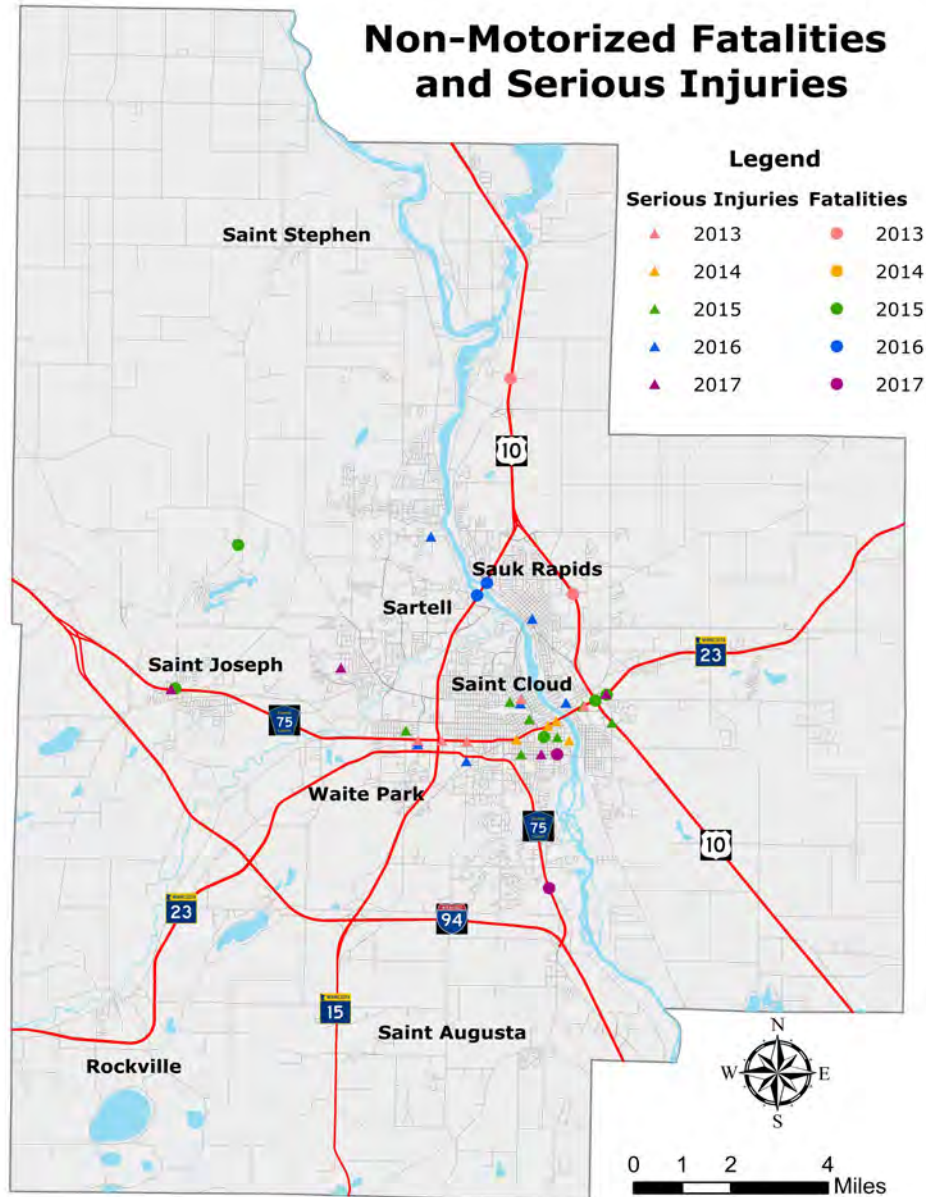
Non-Motorized Fatalities and Serious Injury Crashes

Figure 1.3 illustrates non-motorized fatalities and serious injury crashes and their locations within the APO planning area from 2013-2017. The majority of the crashes occurred within the City of Saint Cloud, in part because it the most populated and urban walkable area in the region.

Accident Type for All Non-Motorized Crashes

◊ **Right Angle: *48.63%*.**

◊ **Other: *17.92%*.**

◊ **Head-On: *9.14%*.**

◊ **Right Turn: *6.4%*.**

◊ **Left Turn: *5.85%*.**

Location of All Non-Motorized Crashes

◊ **Not at Intersection: *21.76%*.**

◊ **4-Legged Intersection: *41.32%*.**

◊ **T-Intersection: *19.2%*.**

◊ **Intersection-Related: *8.41%*.**

◊ **Alley or Driveway: *5.48%*.**

Figure 1.3   *Data Source: MnDOT.*

Goal 1: Maintain and Enhance Transportation Safety

Chemical Impairment Crashes

The number of crashes wherein the driver had been drinking or taking drugs

Chemical Impairment Crashes

Figure 1.4 displays the locations where chemical impairment crashes occurred in the Saint Cloud planning region from 2013 to 2017. In the five (5) year timeframe, there were 487 chemically impaired crashes which averages to 97.4 crashes per year. There were many outliers but the majority of crashes are clustered in Saint Cloud core metropolitan area. There are many factors which can help explain this, such as this area is where majority of the population in the planning area lives and there is a higher concentration of on sale liquor businesses.

Why Driving After Drinking is Dangerous.

Driving after drinking is deadly. Yet it still continues to happen across the United States. If you drive while impaired, you could get arrested, or worse—be involved in a traffic crash that causes serious injury or death.

Approximately one-third of all traffic crash fatalities in the United States involve drunk drivers (with blood alcohol concentrations [BACs] of .08 of higher). In 2016, there were 10,497 people killed in these preventable crashes. In fact, on average over the 10-year period from 2006-2016, more than 10,000 people died every year in drunk-driving crashes.

In every state, it is illegal to drive with a BAC of .08 or higher, yet one person was killed in a drunk-driving crash every 50 minutes in the United States in 2016.

Figure 1.4   *Data Source: MnDOT.*   *Data Source: National Highway Traffic Safety Administration (NHTSA).*   25

Goal 1: Maintain and Enhance Transportation Safety

Distracted Crashes

Number of crashes involving distracted driving

Distracted Driving Crashes

Shown in Figure 1.5 there were 1,762 distracted driving crashes between 2013 and 2017 with a five (5) year average of 352.4. The way they define distracted driving changed in 2016, which reflects why the data went down. The majority of crashes occurred in the Saint Cloud metropolitan area, which makes sense due to the fact that the majority of the planning regions population lives there and the ADT is higher which can cause more crashes.

What Is Distracted Driving?

Distracted driving is any activity that diverts attention from driving, including talking or texting on your phone, eating and drinking, talking to people in your vehicle, fiddling with the stereo, entertainment or navigation system—anything that takes your attention away from the task of safe driving.

Texting is the most alarming distraction. Sending or reading a text takes your eyes off the road for 5 seconds. At 55 mph, that's like driving the length of an entire football field with your eyes closed.

You cannot drive safely unless the task of driving has your full attention. Any non-driving activity you engage in is a potential distraction and increases your risk of crashing.

Figure 1.5

Data Source: MnDOT.

Data Source: NHTSA.

Goal 2: Increase System Accessibility, Mobility, and Connectivity

Increase the accessibility and mobility options for people and freight across and between all modes for all users

Photo courtesy of Saint Cloud Metropolitan Transit Commission (MTC) and the Minnesota Department of Transportation (MnDOT).
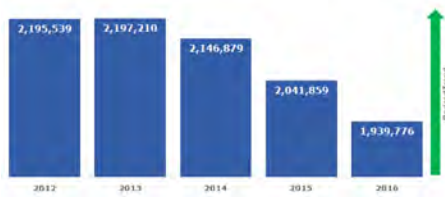
Goal 2: Increase System Accessibility, Mobility, and Connectivity

Saint Cloud APO Transportation Results Scorecard

Measure	2021 Target	2017 Result	Multi-Year Trend	Analysis
Non-Interstate NHS Reliability: Annual percent of person-miles traveled that are reliable.	90%	97%	Target 90% 83.2% (2013), 75.7% (2014), 78.4% (2015), 72.2% (2016), 97.0% (2017) — Desired Trend	Non-Interstate NHS reliability has increased by 13.8 percent, from 83.2 percent in 2013 to a five (5) year high of 97 percent in 2017. The APO has set a 2021 target of at least 90 percent reliability.
Interstate Reliability: Annual percent of person-miles traveled that are reliable.	100%	100%	Target 100% 100% (2013), 100% (2014), 100% (2015), 100% (2016), 100% (2017) — Desired Trend	The Interstate has maintained a 100 percent reliability rating since 2013. The APO has set a 2021 target of at least 100 percent reliability.
Vehicle Miles Traveled (VMT): Number of miles traveled by motor vehicle expressed in billions.	Performance Indicator	1.201 Billion	1.078 (2013), 1.081 (2014), 1.097 (2015), 1.157 (2016), 1.201 (2017)	VMT has increased 11.4 percent from 1.078 billion miles in 2013 to a five (5) year high of 1.201 billion miles in 2017. The APO does not have a set target.
VMT Per Capita: Number of miles traveled by motor vehicle divided by population.	Performance Indicator	8,753	8,175 (2013), 8,123 (2014), 8,181 (2015), 8,552 (2016), 8,753 (2017) — Desired Trend	VMT per capita has increased 7.1 percent from 8,175 in 2013 to a five (5) year high of 8,753 in 2017. The APO does not have a set target but desires VMT per capita to decrease.

Goal 2: Increase System Accessibility, Mobility, and Connectivity

Saint Cloud APO Transportation Results Scorecard

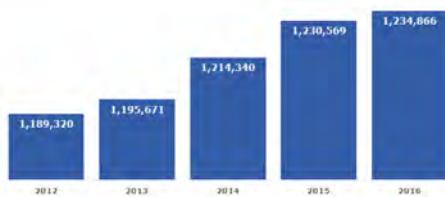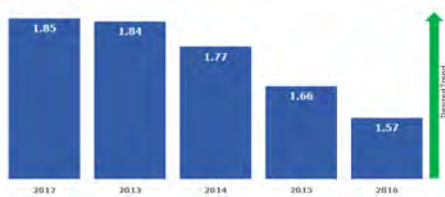| Measure	Target	2016 Result	Multi-Year Trend	Analysis
Number of Annual Fixed Route (FR) Transit Riders: Annual number of transit riders by fixed route.	Performance Indicator	1.9 Million	2,195,539; 2,197,210; 2,146,879; 2,041,859; 1,939,776 (2012–2016)	The number of annual transit riders have decreased by 11.7 percent since 2012 to a five (5) year low of 1.9 million riders in 2016. The APO desires the number of fixed route transit riders to increase.
Total Revenue Miles (FR): Annual number of revenue hours and miles served by fixed route.	Performance Indicator	1.2 Million	1,189,320; 1,195,671; 1,214,340; 1,230,569; 1,234,866 (2012–2016)	Total revenue miles have increased by 3.4 percent since 2012 to a five (5) year high of 1.2 million in 2016. The APO does not have a set target.
Passengers Per Revenue Mile (FR): The number of passengers divided by the number of miles traveled by fixed route bus.	Performance Indicator	1.57	1.85; 1.84; 1.77; 1.66; 1.57 (2012–2016)	Passengers per revenue mile has decreased 15.1 percent since 2012 with 2016 being a five (5) year low of 1.57. The APO desires fixed route passengers per revenue mile to increase.
Total Revenue Hours (FR): Annual number of revenue hours and miles served by fixed route.	Performance Indicator	88,011	84,583; 84,785; 86,129; 86,982; 88,011 (2012–2016)	Total revenue hours has increased by 4.1 percent since 2012 to a five (5) year high of 88,011 in 2016. The APO does not have a set target.
Passengers Per Revenue Hour (FR): The number of passengers divided by the number of hours traveled by fixed route.	Performance Indicator	22.04	25.96; 25.92; 24.93; 23.47; 22.04 (2012–2016)	Passengers per revenue hour has decreased by 15.10 percent since 2012 to a five (5) year low of 22.04 in 2016. The APO desires fixed route passengers per revenue hour to increase.

Goal 2: Increase System Accessibility, Mobility, and Connectivity

Saint Cloud APO Transportation Results Scorecard

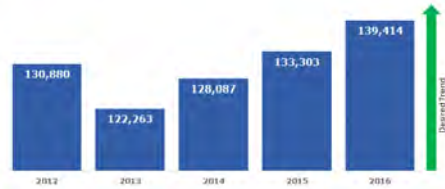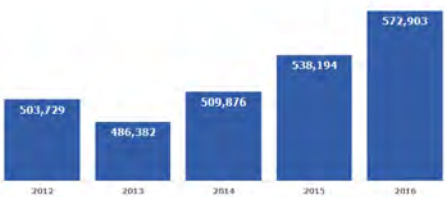| Measure	Target	2016 Result	Multi-Year Trend	Analysis
Number of Annual Dial-a-Ride (DAR) Transit Riders: Annual number of transit riders by DAR.	Performance Indicator	139,414	2012: 130,880; 2013: 122,263; 2014: 128,087; 2015: 133,303; 2016: 139,414	The number of annual DAR transit riders has increased 6.5 percent since 2012 to a five (5) year high of 139,414 in 2016. The APO desires the number of DAR transit riders to increase.
Total Revenue Miles (DAR): Annual number of revenue hours and miles served by DAR.	Performance Indicator	572,903	2012: 503,729; 2013: 486,382; 2014: 509,876; 2015: 538,194; 2016: 572,903	Total revenue DAR miles have increase 13.7 percent since 2012 to a five (5) year high of 572,903 in 2016. The APO does not have a set target.
Passengers Per Revenue Mile (DAR): The number of passengers divided by the number of miles traveled by DAR.	Performance Indicator	0.24	2012: 0.26; 2013: 0.25; 2014: 0.25; 2015: 0.25; 2016: 0.24	DAR passengers per revenue mile has decreased by 7.7 percent from 2012 to a five (5) year low of 0.24 in 2016. The APO desires DAR passengers per revenue mile to increase.
Total Revenue Hours (DAR): Annual number of revenue hours and miles served by DAR.	Performance Indicator	44,278	2012: 39,571; 2013: 38,865; 2014: 40,933; 2015: 43,469; 2016: 44,278	Total revenue DAR hours have increased by 11.9 percent from 39,571 in 2012 to a five (5) year high of 44,278 in 2016. The APO does not have a set target.
Passengers Per Revenue Hour (DAR): The number of passengers divided by the number of hours traveled by DAR.	Performance Indicator	3.15	2012: 3.31; 2013: 3.15; 2014: 3.13; 2015: 3.07; 2016: 3.15	DAR passengers per revenue hour overall has decreased by 4.8 percent from 3.31 in 2012 to 3.15 in 2016. The APO desires DAR passengers per revenue hour to increase.
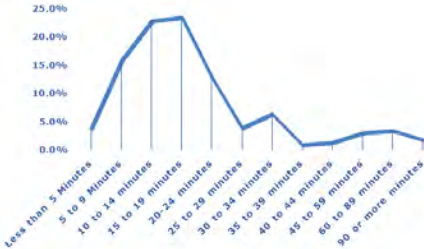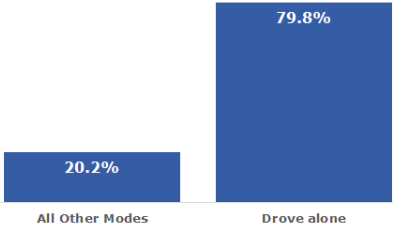
Goal 2: Increase System Accessibility, Mobility, and Connectivity

Saint Cloud APO Transportation Results Scorecard

Measure	Target	2016 Result	Multi-Year Trend	Analysis
Number of Annual Northstar Commuter Bus (NCB) Transit Riders: Annual number of transit riders on NCB.	Performance Indicator	51,569		Annual transit riders have increased overall by 2.5 percent since 2012. However ridership decreased by 12.9 percent from the five (5) year high in 2014 to 51,569 riders in 2016. The APO desires the NCB transit riders to increase.
Total Revenue Miles (NCB): Annual number of revenue hours and miles served by NCB.	Performance Indicator	174,828		Total revenue miles have increased by 26.2 percent since 2012 to a five (5) year high of 174,828 in 2016. The APO does not have a set target.
Passengers Per Revenue Mile (NCB): The number of passengers divided by the number of miles traveled by NCB.	Performance Indicator	0.29		Passengers per revenue mile have decreased by 25.6 percent from the five (5) year high of 0.39 in 2014. The APO desires NCB passengers per revenue mile to increase.
Total Revenue Hours (NCB): Annual number of revenue hours and miles served by NCB.	Performance Indicator	5,900		Total revenue hours have increased by 25.1 percent since 2012 to a five (5) year high of 5,900 in 2016. The APO does not have a set target.
Passengers Per Revenue Hour (NCB): The number of passengers divided by the number of hours traveled by NCB.	Performance Indicator	8.74		Passenger per revenue hour have decreased by 24.6 percent from the five (5) year high of 11.59 in 2014. The APO desires NCB passengers per revenue hour to increase.

Goal 2: Increase System Accessibility, Mobility, and Connectivity

Saint Cloud APO Transportation Results Scorecard

Measure	Target	Result	Multi-Year Trend	Analysis
Travel Time to Work: Time it takes to travel from residence to place of employment.	Performance Indicator	See Graph		The 15 to 19 minute time range of travel time to work had the largest percent at 23.4 percent in 2016. The APO does not have a set target.
Percent of Non-Single Occupancy Vehicle (SOV) Travel: Percent of travel alone in a motorized vehicle.	Performance Indicator	79.8%		The percent of non-SOV travel in 2016 was 79.8 percent. The APO does not have a set target.

Goal 2: Increase System Accessibility, Mobility, and Connectivity

Level of Travel Time Reliability

Annual percent of person-miles traveled on the Interstate and non-Interstate National Highway System (NHS) that are reliable

Time Travel Reliability

Legend

Reliability Rating

— <1.24
— 1.25-1.49
— >1.5

Level of Time Travel Reliability

Time travel reliability ratings consider the average amount of time it would take for a vehicle to travel at the 50th percentile speed or average on a stretch of roadway. For example, if a one-mile stretch of roadway with a 60 mph average speed has a time travel reliability rating of 1.5 it would take the average vehicle 1 minute 30 seconds to travel that roadway when normally it would take 1 minute. A time travel reliability rating above 1.5 is deemed unreliable by Federal Highway Administration (FHWA) standards.

The areas within the APO planning boundaries which experience unreliable travel time above 1.5 are MN 23/CSAH 75 from 10th Avenue South in Waite Park to 33rd Avenue South in Saint Cloud, MN 15 between the stoplights of HWY 23/Division Street and CSAH 75/ Second Street South in Saint Cloud and US 10 from the MN 23 exit North to the Benton Drive South exit.

⇒ **Level of Travel Time Reliability (LOTTR) is defined as the ratio of the 80th percentile travel time of a reporting segment to a "normal" travel time (50th percentile), using data from FHWA's National Performance Management Research Data Set (NPMRDS).**

⇒ **INRIX was selected by FHWA to collect Global Positioning System (GPS) probe data from a wide array of commercial vehicle fleets, connected cars and mobile apps to produce the NPMRDS travel time data.**

⇒ **Data is collected in 15-minute segments for the following time periods:**

◇ **6 - 10 a.m., weekdays**

◇ **10 a.m. - 4 p.m., weekdays**

◇ **4 - 8 p.m., weekdays**

◇ **6 a.m. - 8. p.m., weekends**

Figure 2.1   Data Source: NPMRDS.

Goal 2: Increase System Accessibility, Mobility, and Connectivity

Vehicle Miles Traveled

Vehicle Miles Traveled (VMT) is a measure of all the miles driven

Interstate 94 in Saint Cloud. Photo courtesy of the APO.

What is Vehicle Miles Traveled (VMT)?

VMT is a measure of all the miles driven within an area within a specified period. VMT can be influenced by a multitude of factors including population growth, the health of the economy, fuel and parking costs, accessibility of public transit and other transportation alternatives, weather, mix of land uses, and more.

Municipality	Annual Vehicle Miles Traveled (2017)
Saint Cloud	559,221,371
Waite Park	82,694,939
Sartell	76,303,468
Sauk Rapids	59,731,802
Rockville	58,280,880
Saint Augusta	64,821,651
Saint Joseph	31,619,640
Saint Stephen	3,789,187

Data Source: MnDOT.

What Do Changes in VMT Mean?

VMT reflects the extent of motor vehicle operation on roadways. Increase in VMT typically correlates to a region's growth in population and economic development, however, increases in VMT also contribute to traffic congestion and air pollution. Since regional population is growing and the APO cannot feasibly reduce absolute VMT, it is important to target per capita VMT. Reductions in VMT per capita will improve air quality and congestion on the transportation system.

Strategies to Lower VMT:

♦ **Complete Streets.**
♦ **Encourage and promote biking and walking.**
♦ **Expand public transportation.**
♦ **High-occupancy vehicle lanes.**
♦ **Promote connectivity.**
♦ **Ride sharing programs.**
♦ **Safe Routes to School.**
♦ **Traffic calming.**

Goal 2: Increase System Accessibility, Mobility, and Connectivity

Average Work Trip Travel Time

Average travel time it takes an employee to travel between their residence and place of employment

Travel Time to Work

Depicted in Figure 2.2, within the APO region in 2016, 83 percent of workers sixteen (16) years and older who did not work from home had a commute time of thirty (30) minutes or less. The travel time with the highest percent is the fifteen (15) to nineteen (19) minute range at 23.4 percent. The travel time to work percent experiences a sharp decline at the twenty-five (25) to twenty-nine (29) minute interval. Only 17.1 percent of workers have a travel time of thirty (30) minutes or longer. Comparing travel time to work from 2010 to 2016 shows little change.

Figure 2.2 Data Source: U.S. Census Bureau, 2011-2015 and 2012-2016 American Community Survey 5-Year Estimates

According to the Centers for Disease Control and Prevention (CDC), an estimated one in three adults and almost 17 percent of young people in this country are obese. Because the transportation system helps shape how communities are designed and operate, it can have a profound influence.

The benefits of physical activity are well known: Exercise, including "active transportation" activities like walking and bicycling, can help prevent weight gain and lower the risks of obesity, diabetes, and heart disease.

Transportation also is a source of pollution, generating air, soil, water, and noise pollutants. Pollutant's include particulate matter, carbon monoxide, nitrogen oxide, and carcinogens. Reports by the American Public Health Association and others have linked air pollution to negative health outcomes, including asthma, respiratory illness, heart disease, poor birth outcomes, cancer, and premature death.

Region's Top Employers and the Number of Employees

- Saint Cloud Hospital/CentraCare Health - *6,246*
- State of Minnesota* - *1,930*
- Saint Cloud Area School District 742 - *1,852*
- Saint Cloud VA Health Care System - *1,732*
- Pilgrim's - *1,000*

*Includes Saint Cloud State University, Saint Cloud Technical and Community College, and Saint Cloud Correctional Facility.

Data Source: Saint Cloud Area Chamber of Commence.

Goal 2: Increase System Accessibility, Mobility, and Connectivity

Means of Transportation to Work

Percent of non-single-occupancy vehicle (SOV) travel

MEANS OF TRANSPORTATION TO WORK

Mode	Count
WORKED AT HOME	3,193
OTHER MEANS	412
WALKED	2,818
BICYCLE	592
MOTORCYCLE	35
TAXICAB	133
PUBLIC TRANSPORTATION	1,443
CARPOOLED	5,500
DROVE ALONE	55,829
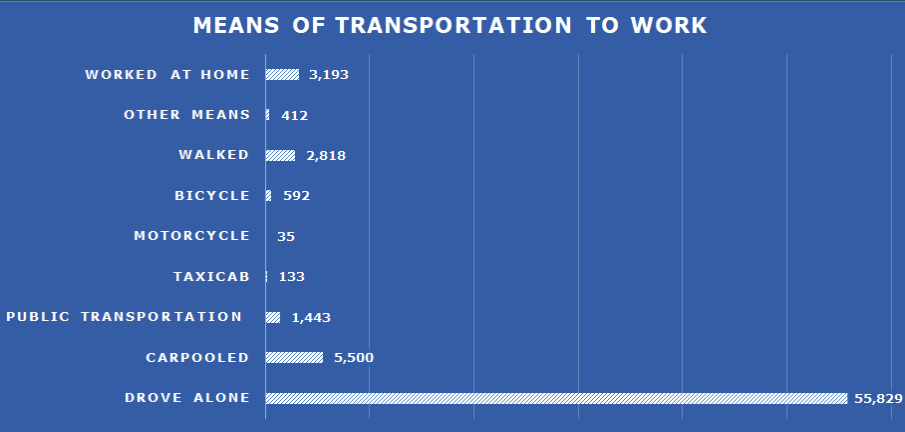
Figure 2.3   Data Source: U.S. Census Bureau, 2012-2016 American Community Survey 5-Year Estimates.

Figure 2.4   Data Source: U.S. Census Bureau, 2012-2016 American Community Survey 5-Year Estimates.

NON-SOV TRAVEL

All Other Modes 20.2%

Drove alone 79.8%
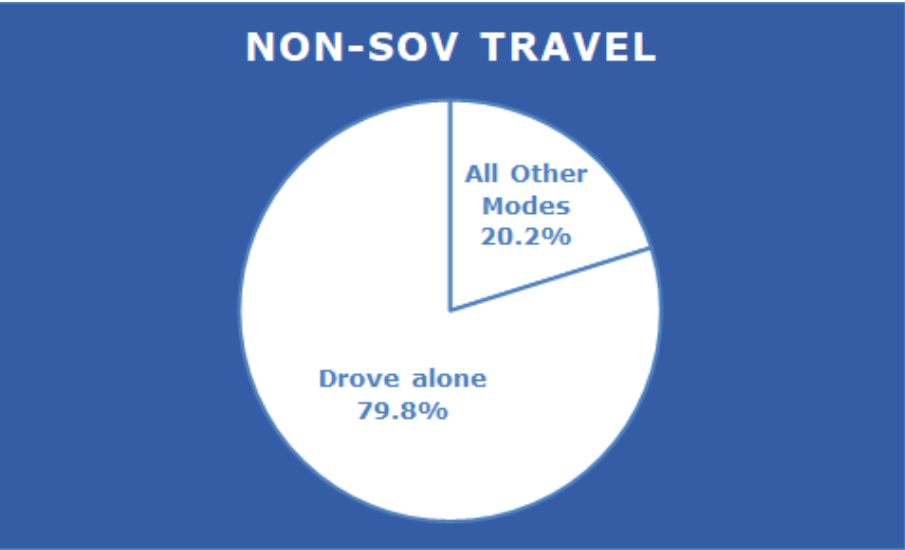
Means of Transportation to Work

Depicted in Figure 2.3, of workers sixteen (16) years and older, 87.7 percent or 61,307 used a car, truck or van as their means of transportation to work. Of those 87.7 percent only 7.9 percent or 5,500 carpooled.

The next most common forms of work commuting transportation include: working from home at 4.6 percent, walking at 4 percent, public transportation at 2.1 percent, bicycling at 0.9 percent, other means at 0.59 percent, taxicab at 0.2 percent, and motorcycle at 0.1 percent.

The largest gain in means of transportation from 2015 to 2016 is taxicab which increased from 0.1 percent in 2015 to 0.2 percent in 2016, a 638.9 percent increase. Walking notably increased from 3.6 percent in 2015 to 4 percent in 2016, a 13.6 percent increase. Means of transportation by car, truck or van; carpooling; public transportation; bicycling; and working from home all saw a decrease from 2015 to 2016.

Non-SOV Travel

Shown in Figure 2.4, 79.8 percent of commuters drove alone to their place of employment, while 20.2 percent used other modes. Encouraging alternative means of transportation will not only help the environment, by improving air quality, pollution, and congestion but could potentially be good for personal health by encouraging more walking and bicycling.

Non-SOV travel is defined as any travel mode other than driving alone in a motorized vehicle, such as single occupancy vehicle or SOV travel, including travel avoided by telecommuting.

Goal 2: Increase System Accessibility, Mobility, and Connectivity

Saint Cloud Metropolitan Transit Commission (MTC)

The Saint Cloud Metropolitan Transit Commission (MTC) was created by the Minnesota Legislature in 1969 to operate as a transit authority. The MTC – more commonly known as Saint Cloud Metro Bus or simply "Metro Bus" – is responsible for the daily management, operation, and maintenance of both Fixed Route (FR) and Dial-a-Ride (DAR) systems. The transit commission provides service for the communities of Saint Cloud, Sartell, Sauk Rapids, and Waite Park.

The Metro Bus fixed route service operates seven (7) days a week and includes seventeen (17) regular public routes as well as three (3) routes servicing Saint Cloud State University (SCSU). The system includes four (4) transit hubs: the Downtown Saint Cloud Transit Center, Crossroads Center mall, the Miller Learning Resources Center at SCSU and Epic Shopping Center in Sartell.

Passengers Per Revenue Mile

* The number of passengers divided by the number of miles traveled by commuter bus, demand response, and fixed route.

Passengers Per Revenue Hour

* The number of passengers divided by the number of hours traveled by commuter bus, demand response, and fixed route.

Number of Annual Transit Riders

* Annual number of transit riders by commuter bus, demand response, and fixed route.

Total Revenue Hours and Revenue Miles

* Annual number of revenue hours and miles served by commuter bus, demand response, and fixed route.

Metro Bus by the numbers:

⇒ *First in the nation* to have all fixed bus routes have 100 percent transit signal priority coverage since 2004.

⇒ *First in the state* to open a mobility training center in 2014.

⇒ *First in the state* to operate a fleet of compressed natural gas (CNG) fueled buses since 2014.

⇒ *First in the state* to operate a CNG fueling station with outside sales since 2014.

⇒ *First in the state* to partner with a state university to subsidize bus rides for students.

⇒ *Seventy-seven (77) percent* of daily bus riders five (5) or more days a week.

⇒ *Thirty-one (31) percent* of riders have been riding for six (6) or more years.

⇒ *Forty-five (45) percent* of riders did not have to make a transfer during their ride.

Goal 2: Increase System Accessibility, Mobility, and Connectivity

Fixed Route Commuter Buses

Photo courtesy of Saint Cloud MTC.

Fixed Route Commuter Buses

Fixed route passengers per revenue mile decrease 14.9 percent from 2012 to 2016, even though revenue miles went up 3.8 percent in that same time frame. Passenger per revenue hour decreased 15.1 percent from 2012 to 2016, while revenue hour increased 4.1 percent in that same time frame. Overall the fixed route has experienced a 11.7 percent or 255,763 trip decrease since 2012.

As Metro Bus has added and expanded routes within the metropolitan area, its revenue miles and hours have increased. But it has not been able to acquire additional ridership. In fact, Metro Bus has lost ridership since 2012. This could be due to many economic factors such as cheaper gas prices or the growth of on-demand shared transportation sources such as Uber and Lyft have entered the market.

39	$14,687,649	67
Fixed route buses	Asset value of fixed route buses	Bus shelters
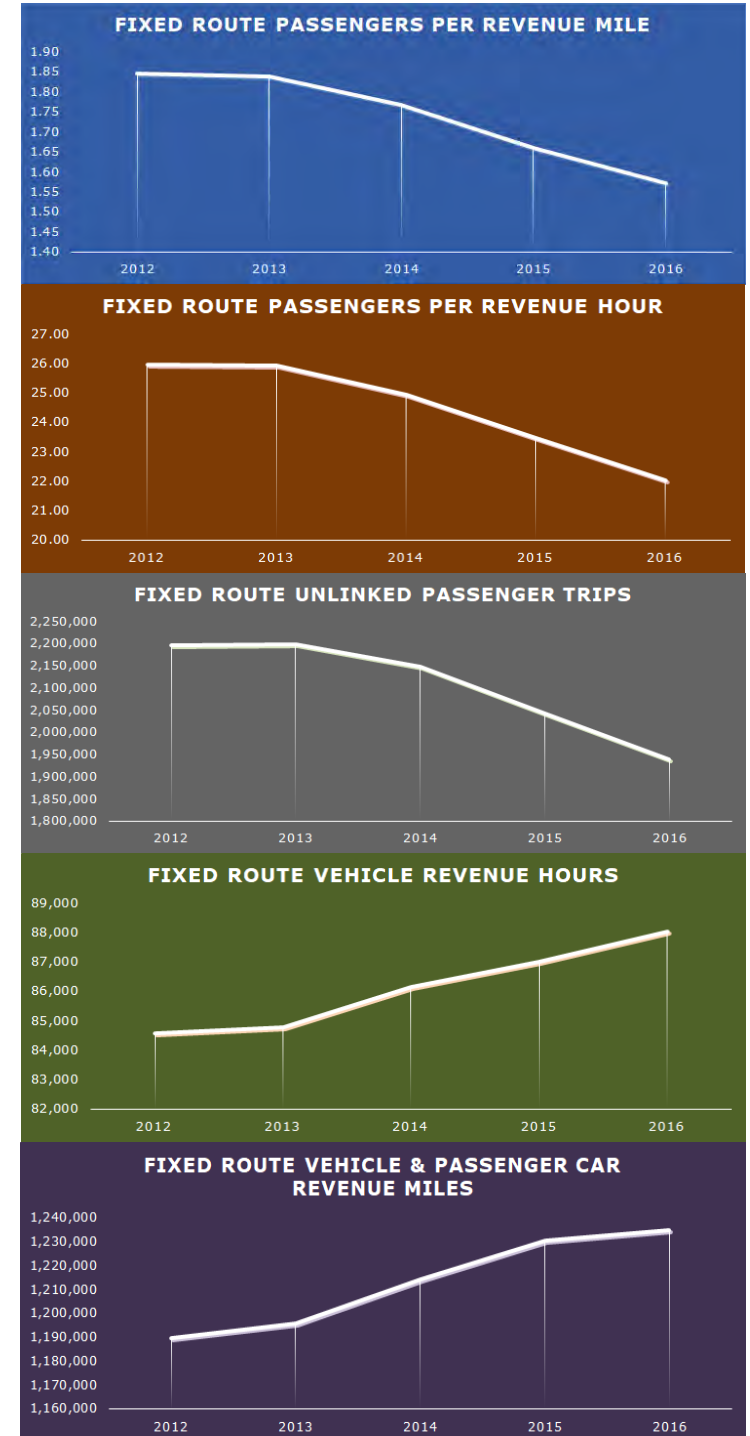
Data Source: National Transit Database (NTD).

Goal 2: Increase System Accessibility, Mobility, and Connectivity

Dial-a-Ride Buses

Photo courtesy of Saint Cloud MTC.

Dial-a-Ride Buses

Metro Bus Dial-a-Ride (DAR) is a shared ride service for individuals with disabilities who are unable to ride fixed route buses and require door-to-door driver-assisted service.

DAR passengers per revenue mile decreased 6.3 percent from 2012 to 2016, even though revenue miles went up 13.7 percent in that same time frame. Passenger per revenue hour decreased 4.8 percent from 2012 to 2016, while vehicle revenue hour increased 11.9 percent in that same time frame. Overall, DAR has experienced a 6.5 percent increase in passengers trips since 2012 equivalent to an additional 5,534 trips.

One explanation of why revenue miles and hours are increasing while passenger per mile and hour is decreasing is based on the service type. As Metro Bus has expanded its service area to individuals living further out of the metropolitan area, passengers are traveling longer distances to get to their destinations. According to U.S. Census data, there is a large aging population in rural areas. This population is now relying on services such as DAR as their main source of transportation.

33	$3,248,236	24%
DAR buses	Asset value of DAR buses	DAR fueled by CNG

DIAL-A-RIDE PASSENGERS PER REVENUE MILE
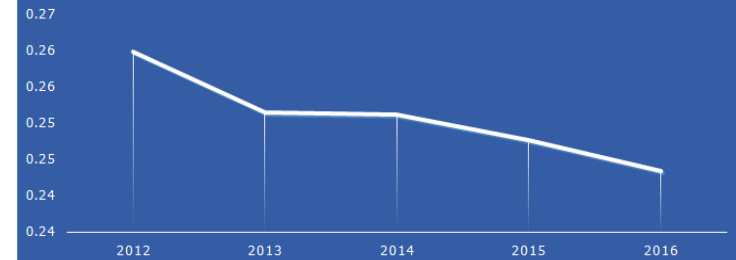
DIAL-A-RIDE PASSENGERS PER REVENUE HOUR
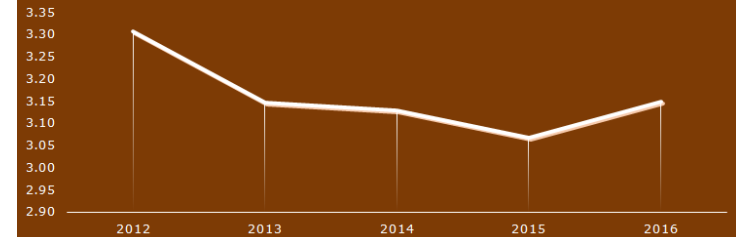
DIAL-A-RIDE UNLINKED PASSENGER TRIPS
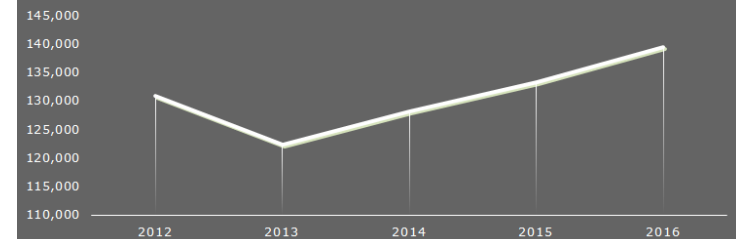
DIAL-A-RIDE VEHICLE REVENUE HOURS
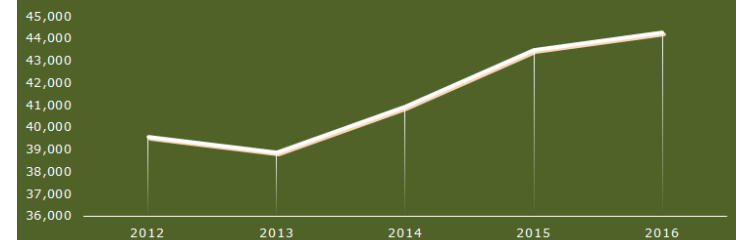
DIAL-A-RIDE VEHICLE & PASSENGER CAR REVENUE MILES
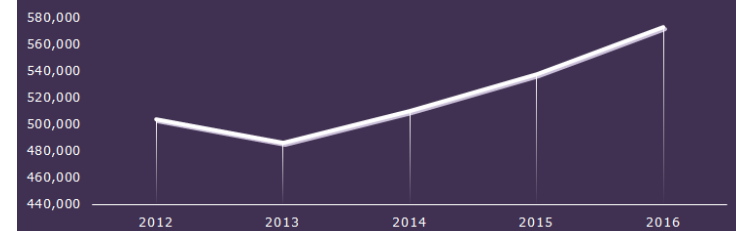
Data Source: NTD.

Goal 2: Increase System Accessibility, Mobility, and Connectivity

Northstar Commuter Buses

Photos courtesy of Saint Cloud MTC and MnDOT.

Northstar Commuter Bus

Northstar Commuter Link provides bus service from the Downtown Transit Center in Saint Cloud, SCSU's Miller Center and east Saint Cloud park and ride direct to the Northstar Commuter Rail line station in Big Lake. From there, commuters can ride the rail from Big Lake to downtown Minneapolis. As part of the state's first commuter rail line, the Northstar Link and the Northstar Commuter Rail line offer a fast, reliable, and safe alternative to workday commuters. Northstar Link is a service of the counties of Anoka, Hennepin, Sherburne, and Stearns in cooperation with the Metropolitan Council which operates Metro Transit. The bus service is operated by Saint Cloud MTC.

Northstar Commuter Bus (NCB) passengers per revenue mile decrease 18.8 percent from 2012 to 2016, even though revenue miles went up 26.2 percent in that same time frame. Passenger per revenue hour decreased 18.2 percent from 2012 to 2016, while revenue hour increased 25.3 percent in that same time frame. Overall NCB has experienced a 2.5 percent increase in passengers trips since 2012 or 1,256 passenger trips.

9	$99,943	793,796
Northstar commuter buses	Cost of Northstar commuter buses	Ridership on the Northstar Commuter Rail in 2017
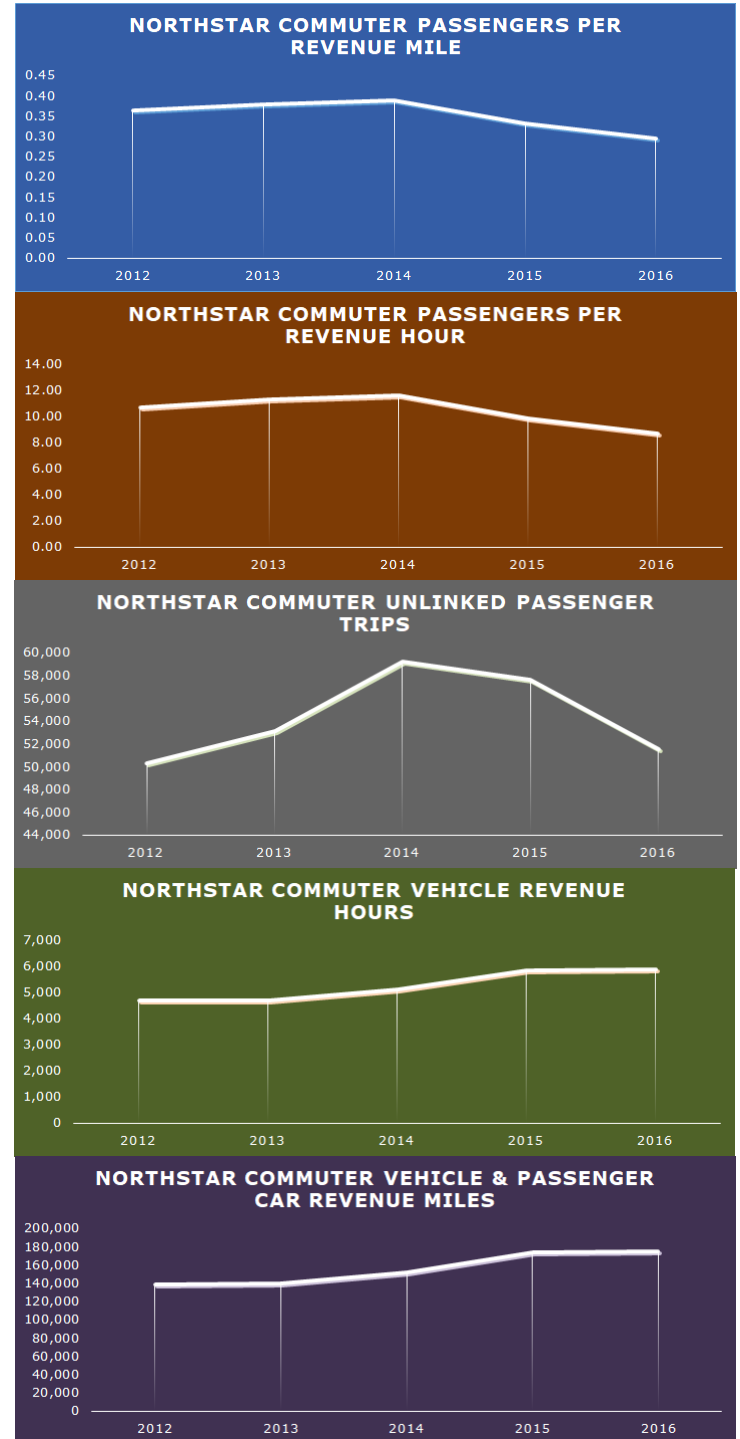
Data Source: NTD.

40

Goal 3: Efficiently Manage Operations and Cost-Effectively Preserve the System

Develop a transportation system that is cost-feasible, maintains a state of good repair, and satisfies public transportation priorities.

Photos courtesy of Minnesota Department of Transportation (MnDOT).
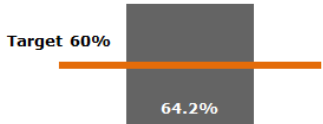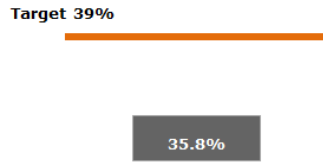
Goal 3: Efficiently Manage Operations and Cost-Effectively Preserve the System

Saint Cloud APO Transportation Results Scorecard

Measure	2021 Target	2017 Result	2017 Data	Analysis
Interstate Pavement Condition: Percent of total lane miles that are rated in good, fair, and poor condition.	Good > 85%	90.3%	Target 85% — 90.3%	Interstate pavement in 2017 was rated at 90.3 percent in good condition. The APO has set a 2021 target of at least 85 percent in good condition.
	Fair < 14%	9.7%	Target 14% — 9.7%	Interstate pavement in 2017 was rated at 9.7 percent in fair condition. The APO has set a 2021 target of less than 14 percent in fair condition.
	Poor < 1%	0%	Target 1% — 0%	No Interstate pavement in 2017 was rated in poor condition. The APO has set a 2021 target of less than 1 percent in poor condition.
Non-Interstate NHS Pavement Condition: Percent of total lane miles that are rated in good, fair, and poor condition.	Good > 60%	59%	Target 60% — 59%	Non-Interstate NHS pavement in 2017 was rated at 60 percent in good condition. The APO has set a 2021 target of at least 59 percent in good condition.
	Fair < 39%	40.8%	Target 39% — 40.8%	Non-Interstate NHS pavement in 2017 was rated at 40.8 percent in fair condition. The APO has set a 2021 target of less than 39 percent in fair condition.
	Poor < 1%	0.2%	Target 1% — 0.2%	Non-Interstate NHS pavement in 2017 was rated at 0.2 percent in poor condition. The APO has set a 2021 target of less than 1 percent in poor condition.

Goal 3: Efficiently Manage Operations and Cost-Effectively Preserve the System

Saint Cloud APO Transportation Results Scorecard

Measure	2021 Target	2017 Result	2017 Data	Analysis
National Highway System (NHS) Bridge Condition: Percent of bridges by deck area classified in good, fair, and poor condition.	Good > 60%	64.2%	Target 60% / 64.2%	NHS bridge condition in 2017 was rated at 64.2 percent in good condition. The APO has set a 2021 target of at least 60 percent in good condition.
	Fair < 39%	35.8%	Target 39% / 35.8%	NHS bridge condition in 2017 was rated at 35.8 percent in fair condition. The APO has set a 2021 target of less than 39 percent in fair condition.
	Poor < 1%	0%	Target 1% / 0%	There were no NHS bridges rated in poor condition in 2017. The APO has set a 2021 target of less than 1 percent in poor condition.
Condition of All Bridges: Percent of bridges, including NHS bridges by deck area classified in good, fair, and poor condition.	Good - Performance Indicator	73.8%	73.8%	Total bridge condition in 2017 was rated at 73.8 percent in good condition. The APO does not have a set target.
	Fair - Performance Indicator	25.5%	25.5%	Total bridge condition in 2017 was rated at 25.5 percent in fair condition. The APO does not have a set target.
	Poor - Performance Indicator	0.6%	0.6%	Total bridge condition in 2017 was rated at 0.6 percent in poor condition. The APO does not have a set target.

Goal 3: Efficiently Manage Operations and Cost-Effectively Preserve the System

Saint Cloud APO Transportation Results Scorecard
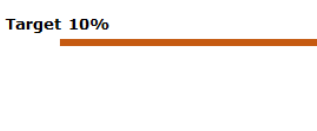
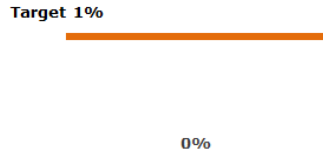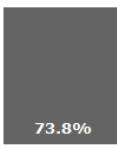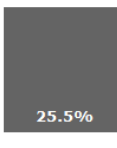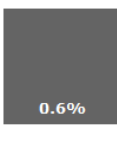| Asset	Target	Result	Data	Analysis
Bridge Weight Restrictions: Number and condition of bridges with a capacity rating posting.	Performance Indicator	7		There was a total of seven (7) bridges with weight restrictions in the APO planning area in 2017. One (1) was rated in good condition, four (4) in fair condition and two (2) in poor condition. The APO has not set target.
Major Mechanical Failures (FR): Mean distance between major mechanical failures by FR.	TBD in 2019	0.000010		The mean distance between major mechanical failures by FR was at 0.000010 in 2016. This is a 82.1 percent decrease from the five (5) year high of 0.000056 in 2012. The APO desires the number of FR mechanical failures to decrease.
Major Mechanical Failures (DAR): Mean distance between major mechanical failures by DAR.	TBD in 2019	0.000007		The mean distance between major mechanical failures by DAR was at 0.000007 in 2016. This is a 87.5 percent decrease from the five (5) year high of 0.000056 in 2012. The APO desires the number of DAR mechanical failures to decrease.
Major Mechanical Failures (NCB): Mean distance between major mechanical failures by NCB.	TBD in 2019	0.000074		The mean distance between major mechanical failures by NCB was at 0.000074 in 2016. This is a 1.3 percent decrease from the five (5) year high of 0.000075 in 2015. The APO desires the number of NCB mechanical failures to decrease.

Goal 3: Efficiently Manage Operations and Cost-Effectively Preserve the System

Saint Cloud APO Transportation Results Scorecard

Transit State of Good Repair (SGR)

Saint Cloud Metropolitan Transit Commission (MTC) State of Good Repair (SGR): is measured by calculating the percentage of assets that have met or exceeded the useful life benchmark

Asset	2018 Target	2017 Result	2017 Data	Analysis
Total Assets	< 45%	49%	Target 45% — 49%	Total assets that have exceeded their useful life in 2017 is 49 percent with a 2018 target of less than 45 percent.
Rolling Stock (Revenue Vehicles)	< 13%	16%	Target 13% — 16%	Rolling stock (revenue vehicles) that have exceeded its useful life in 2017 is 16 percent with a 2018 target of less than 13 percent.
Fixed Route Buses	< 10%	13%	Target 10% — 13%	A total of 13 percent of fixed route buses have exceeded its useful life in 2017. The 2018 target is set for less than 10 percent of fixed route buses exceeding useful life.
Dial-a-Ride Buses	< 10%	18%	Target 10% — 18%	A total of 18 percent of DAR buses have exceeded its useful life in 2017. The 2018 target is set for less than 10 percent of DAR buses exceeding useful life.
Northstar Commuter Buses	< 10%	0%	Target 10% — 0%	No Northstar Link Commuter buses have exceeded its useful life in 2017. The 2018 target is set for less than 10 percent of Northstar Commuter buses exceeding useful life.

Goal 3: Efficiently Manage Operations and Cost-Effectively Preserve the System

Saint Cloud APO Transportation Results Scorecard

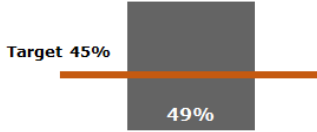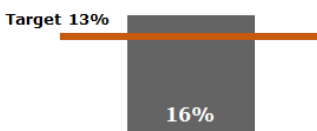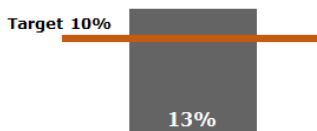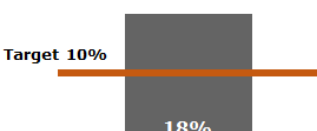**Transit State of Good Repair (SGR)**

Saint Cloud Metropolitan Transit Commission (MTC) State of Good Repair (SGR): is measured by calculating the percentage of assets that have met or exceeded the useful life benchmark

Asset	2018 Target	2017 Result	2017 Data	Analysis
Trolleys	< 50%	50%	Target 50% / 50% / Desired Trend	Fifty percent of MTC trolleys have exceeded its useful life in 2017. The 2018 target is set for less than 50 percent of trolleys exceeding useful life.
Equipment (Non-Revenue Service Vehicles)	< 65%	78%	Target 65% / 78% / Desired Trend	A total of 78 percent of Equipment (non-revenue service vehicles) have exceeded its useful life in 2017. The 2018 target is set for less than 65 percent of equipment exceeding useful life.
Transit Center	< 20%	17%	Target 20% / 17% / Desired Trend	Seventeen percent of the Transit Center has exceeded its useful life in 2017. The 2018 target is set for less than 20 percent of the Transit Center exceeding useful life.
Operations Facility	< 50%	52%	Target 50% / 52% / Desired Trend	The Operation Facility has exceeded 52 percent of its useful life in 2017. A 2018 target of less than 50 percent has been set for the Operations Facility.
Mobility Training Center	< 0%	0%	Target 0% / 0% / Desired Trend	The Mobility Training Center has exceeded 0 percent of its useful life in 2017. A 2018 target of less than 0 percent has ben set for the Mobility Training Center.
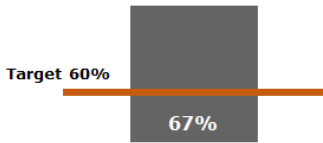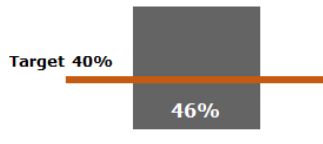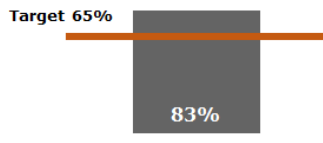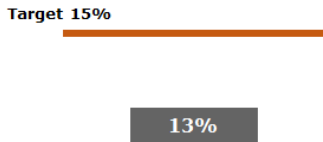
Goal 3: Efficiently Manage Operations and Cost-Effectively Preserve the System

Saint Cloud APO Transportation Results Scorecard

Transit State of Good Repair (SGR)

Saint Cloud Metropolitan Transit Commission (MTC) State of Good Repair (SGR): is measured by calculating the percentage of assets that have met or exceeded the useful life benchmark
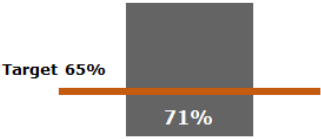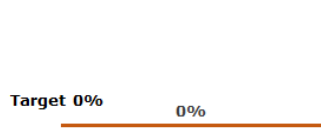
Asset	2018 Target	2017 Result	2017 Data	Analysis
Other Buildings	< 60%	67%	Target 60% — 67%	A total of 67 percent of other building have exceeded its useful life in 2017. The 2018 target is set for less than 60 percent other building exceeding useful life.
IT Equipment (Rolling Stock)	< 45%	49%	Target 45% — 49%	A total of 49 percent of IT equipment (rolling stock) have exceeded useful life in 2017. A 2018 target of less than 45 percent has been set.
IT Equipment (Non-Rolling Stock)	< 40%	46%	Target 40% — 46%	A total of 46 percent of IT equipment (non-rolling stock) have exceeded useful life in 2017. A 2018 target of less than 40 percent has been set.
Furnishings and Equipment	< 65%	83%	Target 65% — 83%	Fifty-six percent of furnishings and equipment have exceeded its useful life in 2017. A 2018 target of less than 40 percent has been set.
Shelters	< 15%	13%	Target 15% — 13%	Thirteen percent of shelters have exceeded its useful life in 2017. The 2018 target is set for less than 15 percent.

Goal 3: Efficiently Manage Operations and Cost-Effectively Preserve the System

Saint Cloud APO Transportation Results Scorecard

Transit State of Good Repair (SGR)

Saint Cloud Metropolitan Transit Commission (MTC) State of Good Repair (SGR): is measured by calculating the percentage of assets that have met or exceeded the useful life benchmark

Asset	2018 Target	2017 Result	2017 Data	Analysis
Transit Signal Priority	< 65%	71%	Target 65% / 71% / Desired Trend	A total of 71 percent of transit signal priorities have exceeded its useful life in 2017. A 2018 target of less than 65 percent has been set.
Land	<0%	<0%	Target 0% / 0% / Desired Trend	No land owed by MTC has exceeded its useful life in 2017. A 2018 target of less than zero (0) percent has been set.

Goal 3: Efficiently Manage Operations and Cost-Effectively Preserve the System

Interstate and Non-Interstate National Highway System (NHS) Pavement Conditions

Interstate and non-Interstate NHS pavement condition is based on the percent of total lane miles that are rated in good, fair, and poor condition

Photos courtesy of MnDOT

How is Pavement Condition Calculated?

* Pavement condition is calculated using the International Roughness Index (IRI). IRI is a statistic used to estimate the amount of roughness on a roadway.

* IRI uses three (3) types of pavement distress as measurements:

    1) Cracking.
    2) Rutting.
    3) Faulting.

Data Collection Method

Pavement data is collected by MnDOT using a Digital Inspection Vehicle (DIV). The vehicle is driven over every mile of NHS annually, in both directions. This vehicle is equipped with two cameras to collect images for the video log. For pavement distress and rutting measurements, a scanning laser and a 3D laser/camera system are used to produce images of the pavement surface, from which the type, severity, and amount of cracking can be determined. The vehicle is also equipped with laser height sensors that measure the longitudinal pavement profile from which pavement roughness is calculated.

Data Source: MnDOT.

Types of Distress	Example
Cracking – A visible line in the surface of the pavement due to a variety of environmental conditions and vehicle usage.	
Rutting - A surface depression located in the wheel path of the travel lane.	
Faulting – A difference in elevation between adjacent pavement due to environmental conditions and vehicle usage.	

Data and photos courtesy of MnDOT.

Equipment Used	Example
MnDOT currently collects pavement condition data using a Pathway Services, Inc. Digital Inspection Vehicle (DIV).	

Data and photo courtesy of MnDOT.
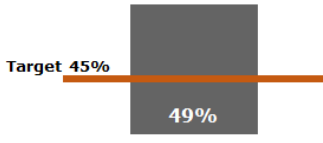
Goal 3: Efficiently Manage Operations and Cost-Effectively Preserve the System

Interstate and Non-Interstate National Highway System (NHS) Pavement Conditions

Interstate and non-Interstate NHS pavement condition is based on the percent of total lane miles that are rated in good, fair, and poor condition

Pavement Condition

A majority of the Interstate and non-Interstate NHS pavement within the APO planning area are in good to fair condition as displayed in Figure 3.1. Pavement condition data is used to monitor the performance of the system, to aid in project selection, and to identify future pavement maintenance or rehabilitation needs. An effective pavement preservation program will address pavements while they are still in good condition and before serious damage occurs. By applying a cost-effective treatment at the right time, the pavement is restored almost to its original condition. "The right treatment to the right road at the right time."

Routine Maintenance

Routine maintenance work that is planned and performed on a routine basis to maintain and preserve the condition of the roadway system and events that restore the roadway system to an adequate level of service.

Example of Routine Maintenance:

Seal Coat - A seal coat involves spraying asphalt cement on the surface of an existing pavement followed by the application of a cover aggregate.

Costs (2018 dollars) - $13,000 per lane mile.

Life of Seal Coat - five (5) to seven (7) years.

Data and photo courtesy of MnDOT.

Figure 3.1   Data Source: MnDOT.   50

Goal 3: Efficiently Manage Operations and Cost-Effectively Preserve the System

Interstate and Non-Interstate National Highway System (NHS) Pavement Conditions

The number of years since roadway constructed or reconstructed on a segment of roadway

Year Roadway Constructed or Reconstructed

According to MnDOT, reconstruction is the replacement of the existing pavement structure with an equivalent or increased structure. Figure 3.2 shows US 10, MN 15 south of MN 23, and Interstate 94 west of MN 23 have not had a major construction or reconstruction pavement project in over forty (40) years. Based on the limited data there is no information for CSAH 75 which is part of the NHS. A majority of these roadways are still in good condition and have had regular pavement preservation treatments.

Factors involved with a construction or reconstruction of roadway.

The cost to construct one mile of roadway varies from $2-50 million per mile depending on the number of lanes and interchanges constructed and whether the location is urban or rural. Factors that are considered while construction or reconstruction of a roadway are taking place are listed below.

⇒ **Community context.**
⇒ **Topography.**
⇒ **Road function.**
⇒ **Traffic speed.**
⇒ **Freight volumes.**
⇒ **Pedestrian and bicyclist demand.**
⇒ **Paved shoulders.**

⇒ **Sidewalks.**
⇒ **Bicycle lanes.**
⇒ **Pedestrian refuge medians.**
⇒ **Truck mountable curbs in roundabouts.**
⇒ **Signal retiming.**
⇒ **Updated striping.**
⇒ **Bus stop access.**

Figure 3.2   Data Source: Highway Performance Monitoring System (HPMS).

Data Source: MnDOT.

Goal 3: Efficiently Manage Operations and Cost-Effectively Preserve the System

Interstate and Non-Interstate National Highway System (NHS) Pavement Conditions

The number of years since last preservation treatment on a segment of roadway

Year Roadway Surface Last Improved

In order to be considered a surface improvement, a half-inch or more of compacted pavement material must be put in place. Preventive maintenance is a cost-effective means of extending the useful life of the roadway.

Figure 3.3 shows Interstate 94 within the last six (6) years has received preventative maintenance along with US 10 and part of MN 23. Sections which are due for maintenance are MN 15 south of MN 23 and the eastern section of MN 23.

Minor Rehabilitation

Major rehabilitation is described as enhancements made to existing pavement sections to eliminate age-related, surface cracking that develop in flexible pavements due to environmental exposure.

Example of Minor Rehabilitation:

Mill and Overlay - **New bituminous placed over existing bituminous. Existing bituminous may be ground off ("milled") prior to placement of the overlay.**

Costs (2018 dollars) - **Mill $6,125 per mile.**

Costs (2018 dollars) - **Overlay $35,200 to $42,240 per lane mile.**

Life of Overlay - **Eight (8) to ten (10) years.**

Data and photo courtesy of MnDOT.

Figure 3.3 Data Source: HPMS.

Goal 3: Efficiently Manage Operations and Cost-Effectively Preserve the System

Bridge Condition

Percent of bridges by deck area classified in good, fair, and poor condition

Photos courtesy of MnDOT.

How is a Condition of a Bridge Calculated?

Bridge condition is calculated using the National Bridge Inventory (NBI) ratings for deck, superstructure, substructure, and culvert that are in good, fair, and poor condition. The percentage of bridges in good or poor condition is based on the total deck area of the bridges, not the raw number of bridges in each category.

Routine inspection

Regularly scheduled inspections of bridges occur every 24 months and consist of: observations and/or measurements to determine the condition of the bridge, to identification of any changes from previously recorded conditions, and ensure that the structure continues to satisfy service requirements.

Bridge Components	Example
Deck - The deck is designed to provide a smooth and safe riding surface for traffic utilizing the bridge.	
Superstructure - The superstructure supports the deck or riding surface of the bridge, as well as the load applied to the deck.	
Substructure - The substructure includes all the elements which support the superstructure.	
Culverts - Culverts transport water flow efficiently. Any culvert twenty (20) feet or greater is defined as a bridge according to FHWA standards.	

Data Source: MnDOT.

Data and photos courtesy of MnDOT.

Goal 3: Efficiently Manage Operations and Cost-Effectively Preserve the System

Bridge Condition

Percent of bridges by deck area classified in good, fair, and poor condition
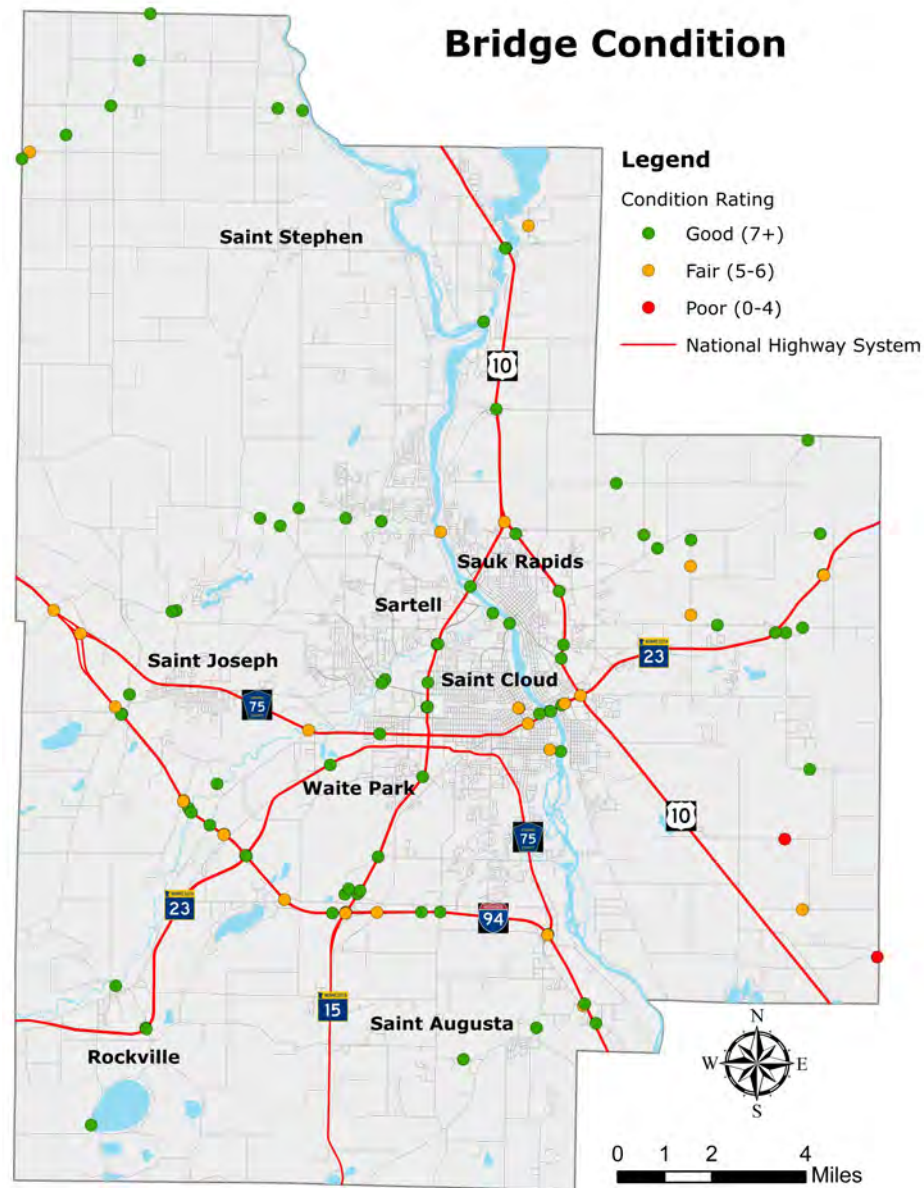
Figure 3.4   Data Source: MnDOT.

Condition of All Bridges

Of the 103 bridges in the APO planning area, seventy-four (74) are rated in good condition, twenty-seven (27) are in fair condition, and two (2) are in poor condition as illustrated in Figure 3.4. Both bridges in poor condition are located in Haven Township.

Bridge 71503 on CSAH 3 (a rural major collector) spanning the Elk River was built in 1966 and has a carrying capacity rating posted and is in poor condition. MnDOT estimates an improvement cost of $1,815,000. Bridge 71511 on CSAH 16 (a rural minor collector) also spanning the Elk River was built in 1972and is in poor condition. This bridge also has a carrying ca- pacity rating posted.

Sauk Rapids bridge rated in good condition. Photo courtesy of the APO.

Goal 3: Efficiently Manage Operations and Cost-Effectively Preserve the System

Saint Cloud Metropolitan Transit Commission (MTC) state of good repair (SGR)

Facilities are measured on the Transit Economic Requirements Model (TERM) Scale

TERM Rating	Condition	Description
Excellent	4.8-5.0	No visible defects, near-new condition.
Good	4.0-4.7	Some slightly defective or deteriorated components.
Adequate	3.0-3.9	Moderately defective or deteriorated components.
Marginal	2.0-2.9	Defective or deteriorated components in need of replacement.
Poor	1.0-1.9	Seriously damaged components in need of immediate repair.

Factors involved with TERM Scale rating:

- Substructure
- Shell
- Interiors
- Plumbing
- HVAC
- Fire Protection
- Electrical
- Equipment
- Fare Collection
- Site
- Conveyance (Elevators and Escalators)

METRO BUS FACILITY STATE OF GOOD REPAIR-TERM RATING
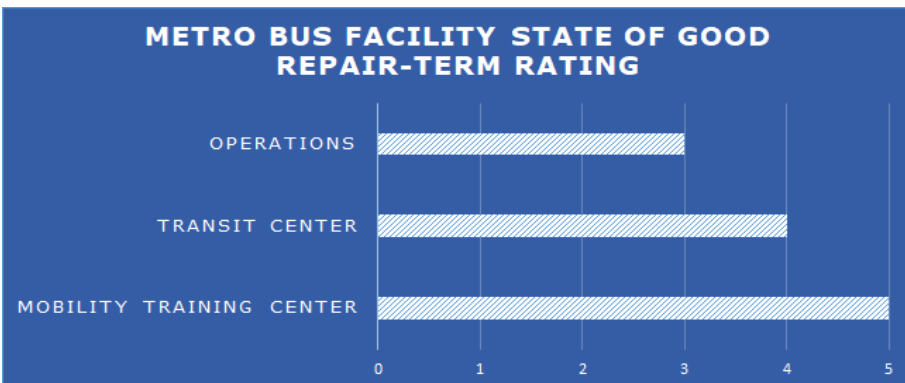
Figure 3.5   *Data Source: Saint Cloud MTC.*

Transit Economic Requirements Model (TERM) Rating

Operations Facility: Built in 1985, the MTC Operations Facility received a TERM three (3) rating. This facility is the headquarters of the Saint Cloud MTC and houses administrative offices, DAR call center, maintenance shop, and vehicle storage.

Transit Center: Located on the corner of Fifth Avenue South and First Street South in downtown Saint Cloud, the MTC Transit Center received a TERM rating of four (4). The Transit Center was opened in 1992 and has had renovation and expansion projects in 2010 and 2012

The Mobility Training Center: Located at 700 West Saint Germain Street in downtown Saint Cloud, the Mobility Training Center received a TERM rating of 5. It features a simulated street environment for training and assessing an individual's physical and cognitive abilities as they pertain to using public transportation. The Mobility Training Center is also home to the Community Outreach and Travel Training program.
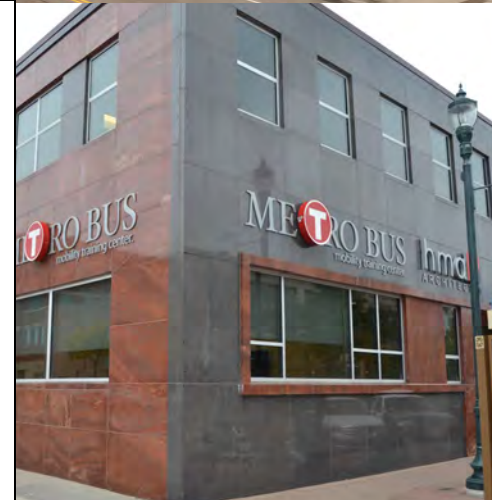
Photos courtesy of Saint Cloud MTC.

Goal 3: Efficiently Manage Operations and Cost-Effectively Preserve the System

Saint Cloud Metropolitan Transit Commission (MTC) State of Good Repair (SGR) for all assets

SGR is measured by calculating the percentage of assets that have met or exceeded the useful life benchmark

State of Good Repair (SGR)

A capital asset is in a State of Good Repair (SGR) if it meets the following objective standards:

- The capital asset is able to perform its designed function.
- The use of the asset in its current condition does not pose an identified, unacceptable safety risk.
- The life-cycle investment needs of the asset have been met or recovered, including all scheduled maintenance, rehabilitation, and replacements.

Overall in 2017, 51 percent of Saint Cloud MTC assets are in a SGR with a 2018 target of 55 percent in SGR. A total of 84 percent of rolling stock are in a SGR, which includes fix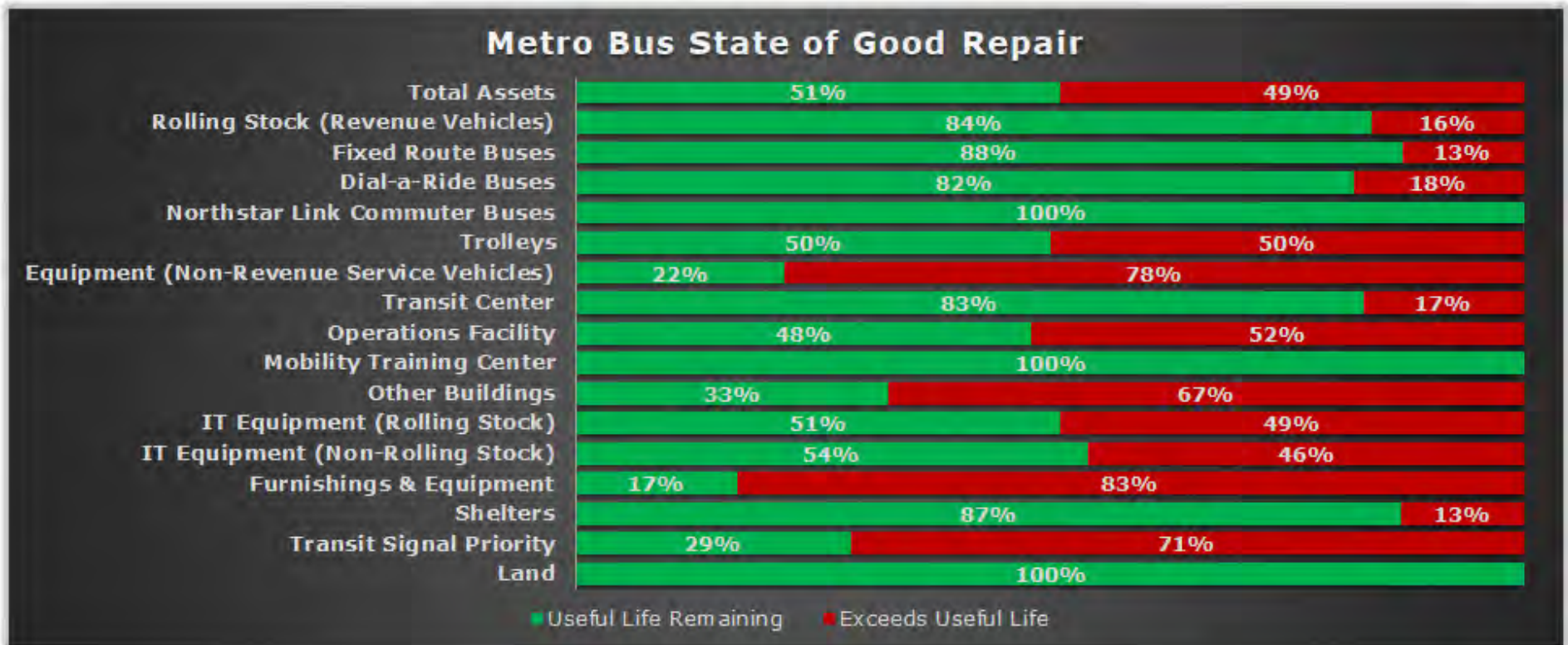ed route, Dial-a-Ride, trolleys, and Northstar Link Commuter buses with a target of 87 percent in SGR. Equipment or non-revenue service vehicles are at 22 percent in SGR with a target of 35 percent in SGR. The two lowest categories in SGR besides equipment are furnishing and equipment at 17 percent and Transit Signal Priority (TSP) at 29 percent with targets each at 35 percent.

Metro Bus State of Good Repair

Asset	Useful Life Remaining	Exceeds Useful Life
Total Assets	51%	49%
Rolling Stock (Revenue Vehicles)	84%	16%
Fixed Route Buses	88%	13%
Dial-a-Ride Buses	82%	18%
Northstar Link Commuter Buses	100%	
Trolleys	50%	50%
Equipment (Non-Revenue Service Vehicles)	22%	78%
Transit Center	83%	17%
Operations Facility	48%	52%
Mobility Training Center	100%	
Other Buildings	33%	67%
IT Equipment (Rolling Stock)	51%	49%
IT Equipment (Non-Rolling Stock)	54%	46%
Furnishings & Equipment	17%	83%
Shelters	87%	13%
Transit Signal Priority	29%	71%
Land	100%	

Data Source: Saint Cloud MTC.

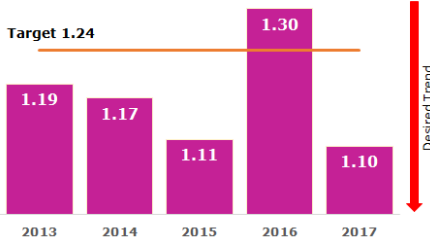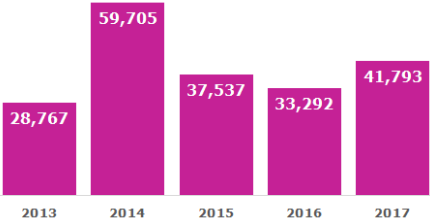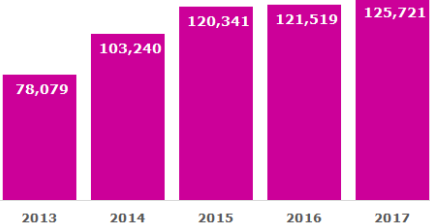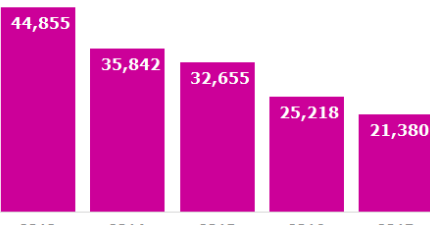# Goal 4: Support Metropolitan Vitality and Economic Development

Support the economic vitality of the APO area by enabling global competitiveness, productivity, and efficiency while enhancing travel and tourism.

Photos courtesy of McGhiever, Wikimedia Commons and APO.

Goal 4: Support Metropolitan Vitality and Economic Development

Saint Cloud APO Transportation Results Scorecard

Measure	2021 Target	2017 Result	Multi-Year Trend	Analysis
Truck Travel Time Reliability (TTR) - Calculated by dividing the ratio of the 95th percentile time by the normal time (50th percentile).	1.24	1.10	Target 1.24; 2013: 1.19, 2014: 1.17, 2015: 1.11, 2016: 1.30, 2017: 1.10	Truck Travel Time Reliability (TTR) index has decreased by 15.4 percent in 2017, from the five (5) year high at 1.30. The APO has set a 2021 target of less than 1.24.
Air Passengers at Saint Cloud Regional Airport (STC) - Annual number of customers served.	Performance Indicator	41,793	2013: 28,767, 2014: 59,705, 2015: 37,537, 2016: 33,292, 2017: 41,793	Air passengers at the STC have increased 25.5 percent from 33,292 in 2016 to 41,793 in 2017. But the 2017 passenger count has decreased 30 percent from the five (5) year high of 59,705 in 2014. The APO does not have a set target.
Tri-CAP One-Way Public Transit Trips-Annual number of transit trips.	Performance Indicator	125,721	2013: 78,079, 2014: 103,240, 2015: 120,341, 2016: 121,519, 2017: 125,721	Tri-CAP one-way public transit trips increased by 61 percent since 2013 from 78,079 to 125,721 reported in 2017 the five (5) year high. The APO does not have a set target.
Tri-CAP One-Way Volunteer Driver Trips- Annual number of transit trips.	Performance Indicator	21,380	2013: 44,855, 2014: 35,842, 2015: 32,655, 2016: 25,218, 2017: 21,380	Tri-CAP one way volunteer driver trips decreased by 52.3 percent since 2013 from 44,855 to 21,380 in 2017, a five (5) year low. The APO does not have a set target.

Goal 4: Support Metropolitan Vitality and Economic Development

Saint Cloud APO Transportation Results Scorecard

Measure	Target	2017 Result	Multi-Year Trend	Analysis
Amtrak Ridership: Annual passengers using the Saint Cloud Amtrak station.	Performance Indicator	10,325		Amtrak annual ridership has decreased 24.9 percent from 13,740 in 2012 to 10,325 in 2017. The APO does not have a set target.
Percent of Monthly Household Budgets Spent on Transportation (1 Adult, No Children): Average percent of monthly budget spent on transportation.	Performance Indicator	See Graph		In 2017, the percent of monthly household budgets spent on transportation for one (1) adult and no children is highest in Benton County at 29.3 percent followed by Central Minnesota at 29.1 percent, Sherburne County at 28.3 percent, EDR-7W Central at 27.9 percent, Stearns County at 27.7 percent and Minnesota at 26.4 percent.
Percent of Monthly Household Budgets Spent on Transportation (1 Adult, 1 Child): Average percent of monthly budget spent on transportation.	Performance Indicator	See Graph		In 2017, the percent of monthly household budgets spent on transportation for one (1) adult and one (1) child is highest in Benton County at 20.8 percent, followed by Central Minnesota at 19.8 percent, Stearns County at 19.3 percent, EDR-7W Central at 19.1 percent, Sherburne County at 19 percent and Minnesota at 16.1 percent.

Goal 4: Support Metropolitan Vitality and Economic Development

Saint Cloud APO Transportation Results Scorecard

Measure	Target	Result	Multi-Year Trend	Analysis
Percent of Monthly Household Budgets Spent on Transportation (2 Adults, 1 Child): Average percent of monthly budget spent on transportation.	Performance Indicator	See Graph		In 2017, the percent of monthly household budgets spent on transportation for two (2) adult and one (1) child is highest in Benton County at 19.9 percent, followed by Central Minnesota at 19.4 percent, Sherburne County at 18.8 percent, EDR-7W Central at 18.6 percent, Stearns County at 18.5 percent, and Minnesota at 15.9 percent.
Percent of Monthly Household Budgets Spent on Transportation (2 Adults, 2 Children): Average percent of monthly budget spent on transportation.	Performance Indicator	See Graph		In 2017, the percent of monthly household budgets spent on transportation for two (2) adults and two (2) children is highest in Benton County at 16.6 percent, followed by Central Minnesota at 15.6 percent, Sherburne and Stearns County at 15 percent, EDR-7W Central at 14.8 percent and Minnesota at 12.6 percent.

Goal 4: Support Metropolitan Vitality and Economic Development

Truck Travel Time Reliability (TTTR) Index

The TTTR Index is generated by dividing the ratio of the 95th percentile time by the normal time (50th percentile)

Truck Travel Time Reliability

Legend

Reliability Rating

—— <1.24

—— >1.25

Interstate Truck Travel Time Reliability

Truck travel time reliability ratings consider the average amount of time it would take for a truck to travel at the 50th percentile speed or average on a stretch of roadway. For example, if a one-mile stretch of roadway with a 60 mph average speed has a time travel reliability rating of 1.5 it would take the average vehicle 1 minute 30 seconds to travel that roadway when normally it would take 1 minute. A time travel reliability rating above 1.5 is deemed unreliable by Federal Highway Administration (FHWA) standards.

Interstate 94 corridor that passes through the APO boundaries is below the 1.5 threshold. This means the system is operating within normal capacity as shown in Figure 4.1. Currently only data consisting of truck travel time reliability is available for the Interstate.

How is TTTR Measured?

⇒ **Reporting of freight movement is divided into five periods:**
  ◊ *Morning peak (6-10 a.m.),* **Weekdays**
  ◊ *Midday (10 a.m.-4 p.m.),* **Weekdays**
  ◊ *Afternoon peak (4-8 p.m.),* **Weekdays**
  ◊ *(6 a.m.-8 p.m.),* **Weekends**
  ◊ *(8 p.m.-6 a.m.),* **Overnights for all days**

• **The TTTR ratio will be generated by dividing the 95th percentile time by the normal time (50th percentile) for each segment. Then, the TTTR Index will be generated by multiplying each segment's largest ratio of the five periods by its length, then dividing the sum of all length-weighted segments by the total length of Interstate.**

Figure 4.1   *Data Source: NPMRDS.*

Goal 4: Support Metropolitan Vitality and Economic Development

Saint Cloud Regional Airport and Tri-County Action Program (Tri-CAP)

Annual number of customers served at the Saint Cloud Regional Airport and number of trips Tri-CAP provides annually

Saint Cloud Regional Airport

The Saint Cloud Regional Airport (STC) was officially opened in 1970 at it current location at 1550-45th Ave. SE in Saint Cloud. It is the only publicly operated air facility within the APO planning region. The City of Saint Cloud owns and operates the airport.

About 100 general aviation planes are based at STC. The airport owns fifty-five (55) airplane hangars and contracts directly with plane owners.

Allegiant Airlines has a schedule of two (2) destinations – Phoenix Mesa Gateway International Airport (IWA or AZA) and Punta Gorda, Florida (PGD) – which the airline files to twice a week.

Sun Country Airlines charters two (2) destinations - Laughlin, Nevada/Bullhead City, Arizona International Airport; and Don Laughlin's Riverside Resort Hotel and Casino in Nevada.

What is the Tri-County Action Program?

The Tri-County Action Program (Tri-CAP) is a non-profit organization based in Waite Park that provides a variety of services to "expand opportunities for the economic and social well-being of our residents and the development of our communities." Tri-CAP provides services under three (3) different umbrellas: Basic Needs, Self-Sufficiency, and Building Stability. Tri-CAP also provides transportation services.

Tri-CAP Transit Connection hubs out of four (4) locations within its service area: Little Falls, Elk River, Sauk Centre and Waite Park. The majority of service provided by Tri-CAP for the Saint Cloud MA is done out of the Waite Park hub. From this hub, residents living within a 15-mile radius of the Waite Park facility can receive transportation access to and from areas outside of the Saint Cloud Metro Bus service area.

Tri-CAP also provides a volunteer drivers program where drivers provide rides in their own vehicles to residents of Benton, Morrison, Sherburne and Stearns counties. This service is externally funded and primarily used by health insurance providers to transport people to and from medical appointments.

Several of the Tri-CAP service counties will also utilize the volunteer driver service for Department of Human Services work primarily centered on foster care. That work is also funded externally. Drivers with this service are reimbursed the federal mileage rate and are provided a stipend for meals. They are initially given a $4 startup fee as well. As of November 2017, Tri-CAP estimated it has thirty-six (36) volunteer drivers available.

1,400	$20 Million
Number of acres the airport resides on.	Estimated annual impact on the local economy.

Goal 4: Support Metropolitan Vitality and Economic Development

Transportation Costs

Percent of monthly household budgets spent on transportation

Percent of monthly household budgets spent on transportation

The percent of monthly household budgets spent on transportation in each chart assumes that the adult(s) are working full time. Average yearly costs of transportation is calculated as part of the Cost of Living data gathered by the Minnesota Department of Employment and Economic Development (DEED). The data is broken down by county, economic development region (EDR) 7W Central (Stearns County, Benton County, Sherburne County, and Wright County), Central Minnesota (Stearns County, Sherburne County, Benton County, Wright County, Kanddiyohi County, Meeker County, Renville County, Mcleod County, Millie Lacs County, Kanadec County, Isanti County, Chisago County, and Pine County), and the State.

Based on the four graphs of the left, the state as a whole has a lower percent of monthly household budgets spent on transportation than Central Minnesota, EDR 7W Central, Benton County, Sherburne County and Stearns County. In all the household sizes, the difference between Minnesota and the highest percent of monthly household budgets spent on transportation are within 4 percent of each other.
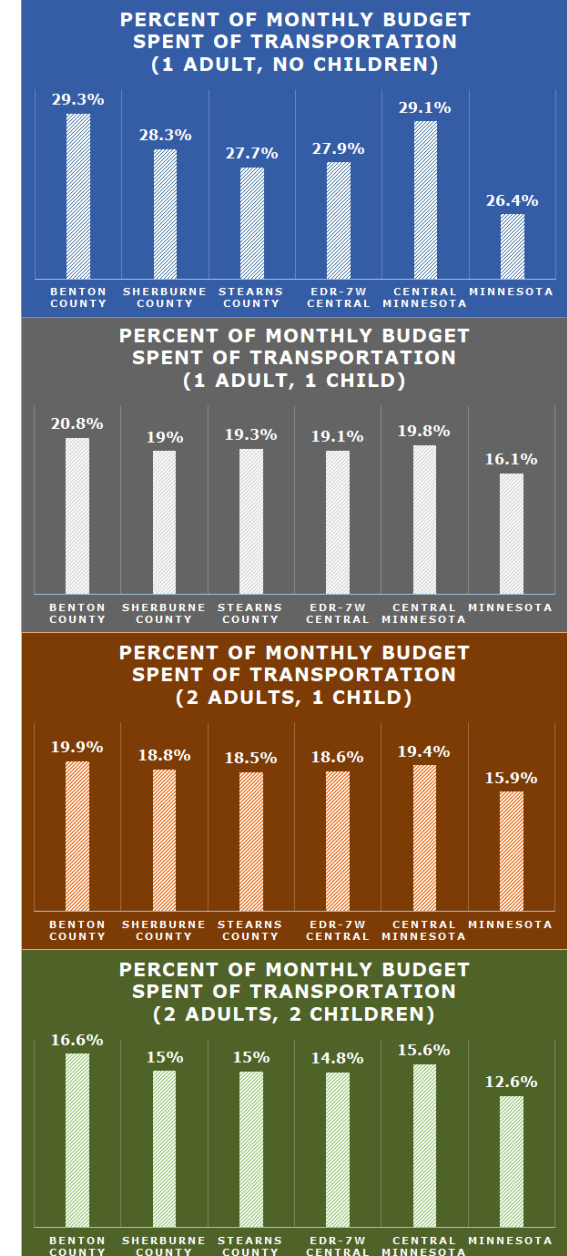
Methodology

The cost of living study provides a yearly estimate of the basic needs cost of living in Minnesota for both individuals and families. Results are broken down by county, region, and statewide. The study examines monthly living costs in seven (7) cost categories: food, housing, health care, transportation, child care, other necessities, and net taxes. Total costs are presented as yearly and hourly dollar amounts.

Rather than describing what families are spending as the Consumer Expenditure Survey does, the study estimates the cost of living. The Cost of Living represents neither a poverty-level living nor a middle-class living but rather a living that meets basic needs for health and safety.

Transportation figures are derived from the basic costs of owning and operating a car. These basic costs include those for commuting to work, conducting necessary family and personal business, and getting to and from school and place of worship. Costs for social and recreational uses are not included. Public transportation cost estimates are not used in our computations.

Data Source: Minnesota Department Employment and Economic Development.

PERCENT OF MONTHLY BUDGET SPENT OF TRANSPORTATION (1 ADULT, NO CHILDREN)

BENTON COUNTY	SHERBURNE COUNTY	STEARNS COUNTY	EDR-7W CENTRAL	CENTRAL MINNESOTA	MINNESOTA
29.3%	28.3%	27.7%	27.9%	29.1%	26.4%

PERCENT OF MONTHLY BUDGET SPENT OF TRANSPORTATION (1 ADULT, 1 CHILD)

BENTON COUNTY	SHERBURNE COUNTY	STEARNS COUNTY	EDR-7W CENTRAL	CENTRAL MINNESOTA	MINNESOTA
20.8%	19%	19.3%	19.1%	19.8%	16.1%

PERCENT OF MONTHLY BUDGET SPENT OF TRANSPORTATION (2 ADULTS, 1 CHILD)

BENTON COUNTY	SHERBURNE COUNTY	STEARNS COUNTY	EDR-7W CENTRAL	CENTRAL MINNESOTA	MINNESOTA
19.9%	18.8%	18.5%	18.6%	19.4%	15.9%

PERCENT OF MONTHLY BUDGET SPENT OF TRANSPORTATION (2 ADULTS, 2 CHILDREN)

BENTON COUNTY	SHERBURNE COUNTY	STEARNS COUNTY	EDR-7W CENTRAL	CENTRAL MINNESOTA	MINNESOTA
16.6%	15%	15%	14.8%	15.6%	12.6%

Goal 5: Promote Energy and Environmental Conservation

Support transportation improvements that promote energy conservation and improve public health and quality of life, while sustaining and improving the resiliency and reliability of the transportation system.
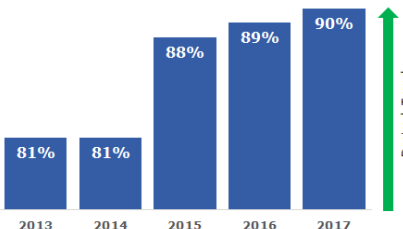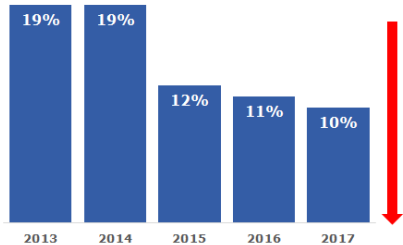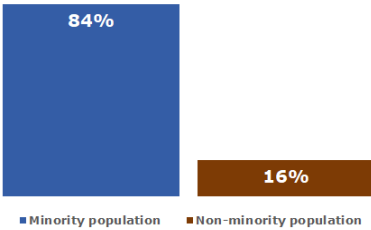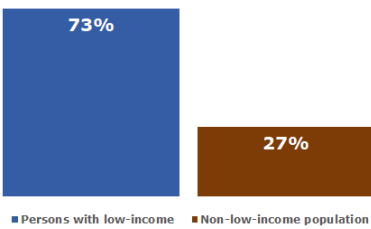
Photos courtesy of Daveswagon, Andrew Ciscel, Wikimedia Commons, and APO.

Goal 5: Promote Energy and Environmental Conservation

Saint Cloud APO Transportation Results Scorecard

Measure	Target	2017 Result	Multi-Year Trend	Analysis
Air Quality - Annual count of days in each Air Quality Index (AQI) category; good, moderate, unhealthy for sensitive groups and unhealthy.	Good - Performance Indicator	90%	81% (2013), 81% (2014), 88% (2015), 89% (2016), 90% (2017) — Desired Trend ↑	The percent of days with good air quality increased 9 percent since 2013, from 81 percent to a five (5) year high of 90 percent in 2017. The APO desires the air quality of improve.
	Moderate - Performance Indicator	10%	19% (2013), 19% (2014), 12% (2015), 11% (2016), 10% (2017) — Desired Trend ↓	The percent of days with moderate air quality decreased 9 percent since 2013, from 19 percent to a five (5) year low of 10 percent in 2017. The APO desires the air quality of improve.
Annual Percentage of Transportation Investments in Minority Environmental Justice Census Blocks: The percentage of transportation investments in high minority population census blocks.	Performance Indicator	84%	84% Minority population, 16% Non-minority population	Identified in the 2019-2023 Transportation Improvement Program (TIP), 84 percent of programmed projects intersect with census blocks with a high minority population.
Annual Percentage of Transportation Investments in low-income Environmental Justice Census Blocks: The percentage of transportation investments in census blocks with persons with low-income.	Performance Indicator	73%	73% Persons with low-income, 27% Non-low-income population	Identified in the 2019-2023 Transportation Improvement Program (TIP), 73 percent of programmed projects intersect with census blocks with a low-income population.

Goal 5: Promote Energy and Environmental Conservation

Saint Cloud APO Transportation Results Scorecard

Measure	Target	2017 Result	Analysis
Transit Vehicles Using Alternative Fuels: Number of public transit vehicles using alternative fuels.	Performance Indicator	*(bar chart)* Northstar Commuter Bus — Diesel 9, CNG 0; Dial-a-Ride — Diesel 25, CNG 8; Fixed Route — Diesel 16, CNG 23. Legend: Diesel, CNG	In 2017, there was a total of nine (9) Northstar Commuter Buses and none used Compressed Natural Gas (CNG). Also in 2017 twenty-five (25) DAR buses and sixteen (16) FR buses were using diesel. Eight (8) DAR buses and twenty-three (23) FR buses were equipped for CNG.
Transit Vehicles Using Alternative Fuels: Percent of public transit vehicles using alternative fuels.	Performance Indicator	*(bar chart)* Northstar Commuter Bus 0.0%; Dial-a-Ride 24.2%; Fixed Route 59.0%	In 2017, there were zero percent of Northstar Commuter Buses using CNG, 24.2 percent of Dial-a-Ride buses using CNG, and 59 percent of fixed route buses using CNG.
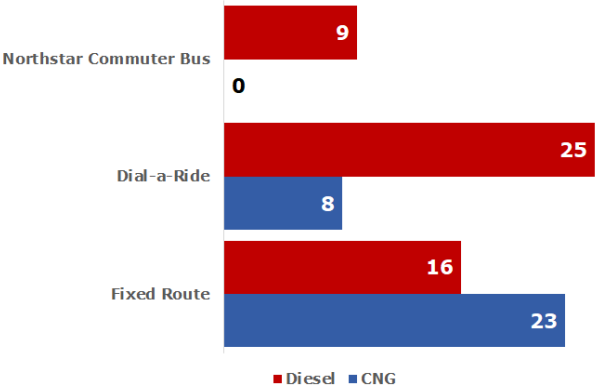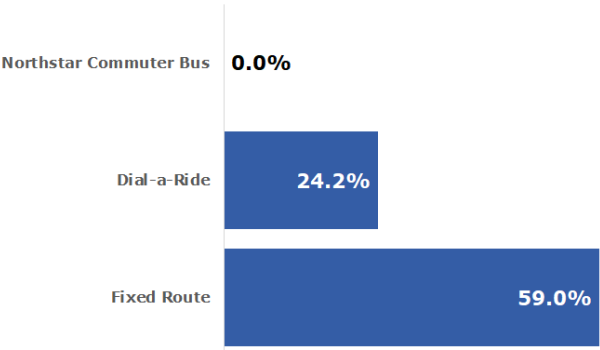
Goal 5: Promote Energy and Environmental Conservation

Air Quality

Annual count of days in each Air Quality Index (AQI) category; good, moderate, unhealthy for sensitive groups and unhealthy

Photos courtesy of the Saint Cloud APO.

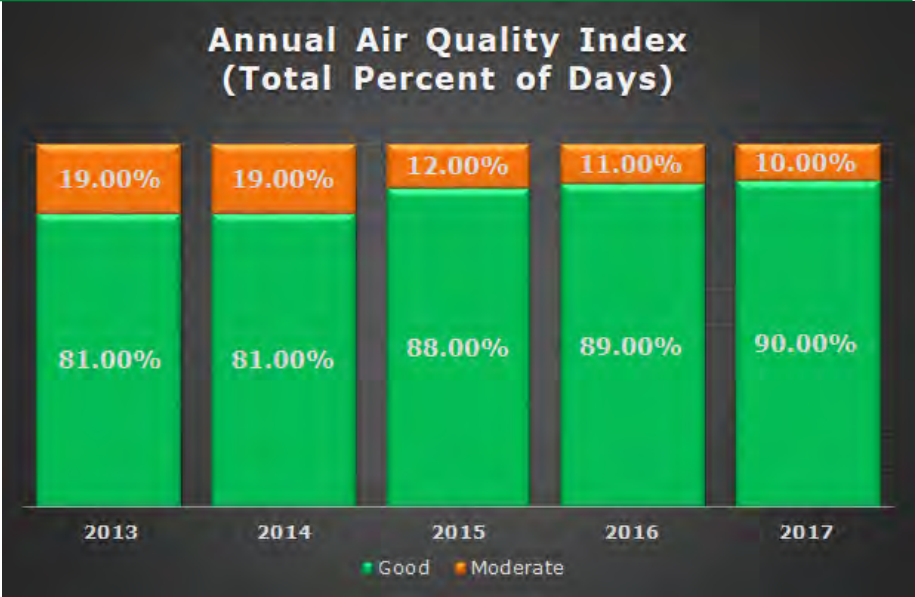| Air Quality	
Good	Current air quality is considered satisfactory and poses little or no health risk.
Moderate	Air quality is acceptable; however individuals who are very sensitive to air pollution may experience adverse health effects.
Unhealthy for Sensitive Groups	People with lung or heart disease, older adults, children and people participating in activities that require heavy or extended exertion may experience adverse health effects.
Unhealthy	Everyone may begin to experience adverse health effects and members of sensitive groups may experience more serious health effects.

Figure 5.1   *Data Source: Minnesota Pollution Control Agency (MPCA)*

Annual Air Quality Index (AQI)

The AQI has seen the share of good air quality days increase 9 percentage points from 2013 to 2017 as shown in Figure 5.1. In 2017, 90 percent of days had good air quality and 10 percent had moderate quality. There were no days with an AQI that was unhealthy for sensitive groups or unhealthy in general. Changes in technology such as fuel efficient vehicles and manufacturing innovations have helped keep air quality in good condition.

24%	**21%**
Air pollution caused by on-road vehicles.	Air pollution caused by off-road vehicles (construction and agricultural).

Data Source: MPCA.

Goal 5: Promote Energy and Environmental Conservation

Water Quality

Number of bodies of water that have not meet water quality standards
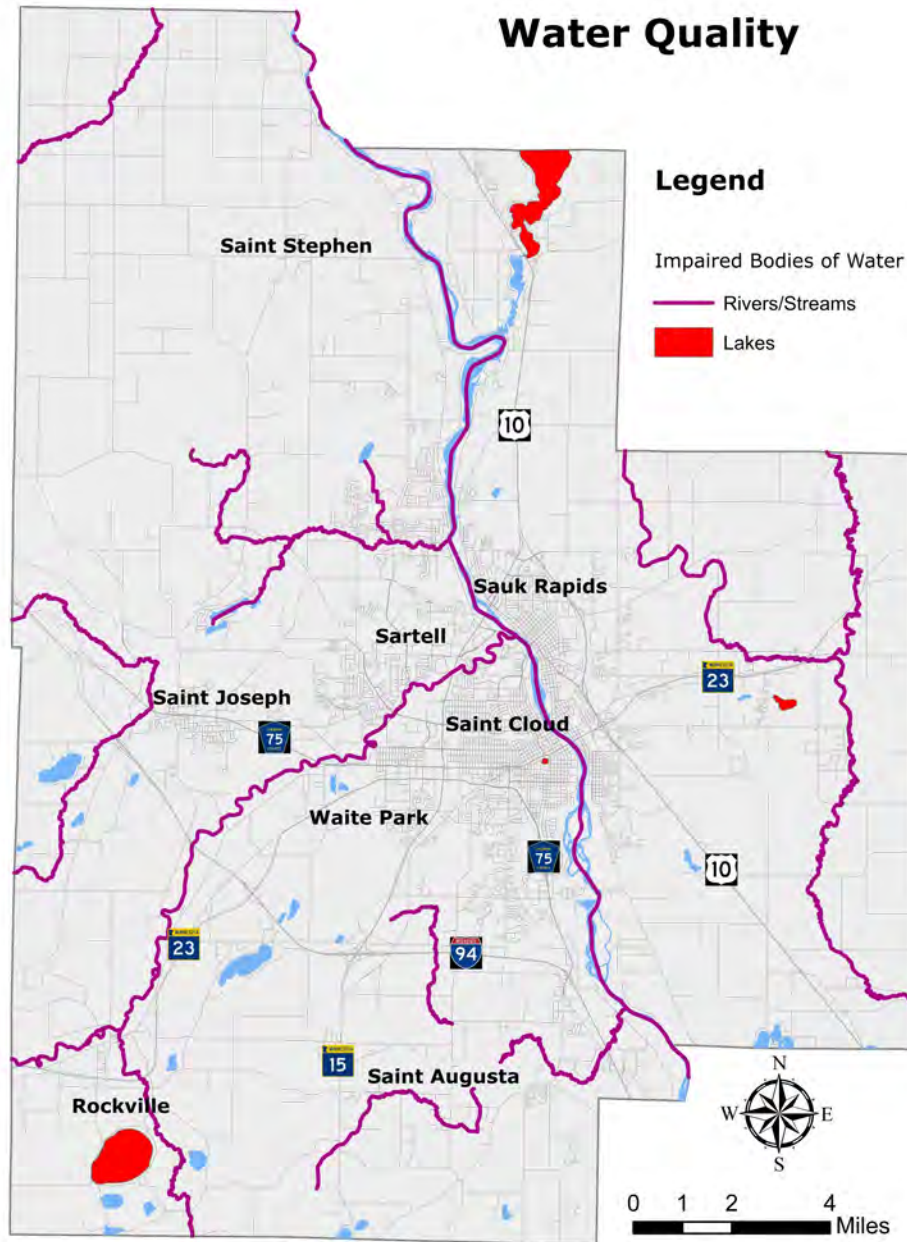

Figure 5.2   Data Source: MPCA.

Water Quality

As displayed in Figure 5.2, there are a total of five (5) lakes that are being monitored for pollution in the APO planning area: Donovan, Little Rock, Grand, Sagatagan, and George Lake.

There are a total of fifteen (15) rivers or streams being monitored for pollution within the APO planning area: Elk River, Mill Creek, Spunk Creek, Watab River (North and South Fork), County ditch 12 & 13, Mississippi River, Sauk River, Elk River, Mayhew Creek, Luxemburg Creek, Johnson Creek (Meyer Creek), and Robinson Hill Creek.

The most common pollutant in the APO planning area are as follows; Escherichia Coli (E. Coli), mercury in fish tissue (Hg-F), and Fecal Coliform (FC).

Photo courtesy of the Saint Cloud APO.

Goal 5: Promote Energy and Environmental Conservation

Vehicles Registered and Sold

Percent of vehicles sold and registered within Minnesota and Minnesota 6th congressional District by powertrain

Vehicles Registered by Powertrain

In 2016, as depicted in Figure 5.3, the highest percent of vehicles registered by powertrain for both Minnesota Congressional District 6 and Minnesota as a whole were cars at 40 percent and 40.7 percent respectively. SUVs for both geographic areas came in second, pickups in third and vans/minivans in fourth. The only powertrain which Minnesota Congressional District 6 exceeded registration compared to Minnesota is pickups.
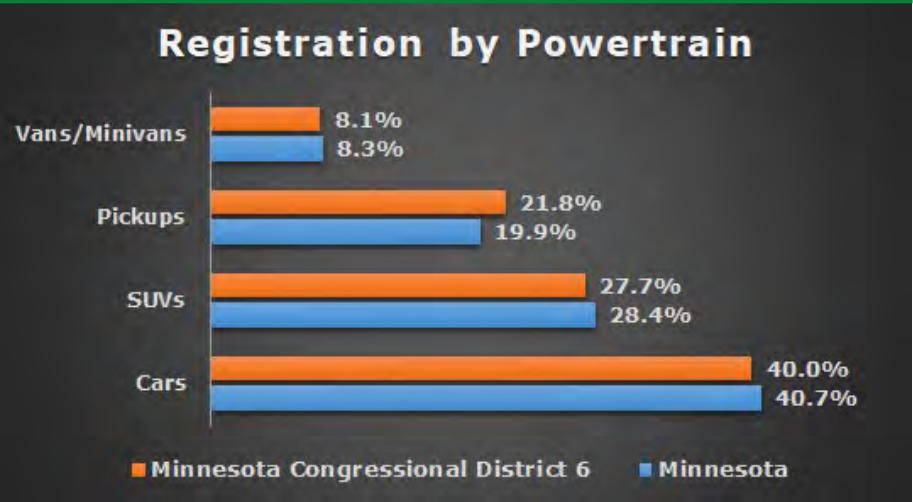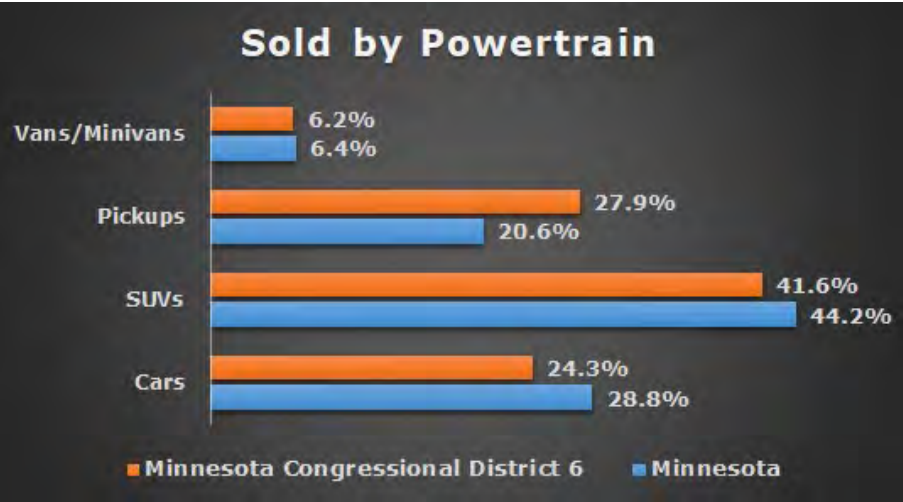

Registration by Powertrain

Figure 5.3   Data Source: Alliance of Automobile Manufacturers.

Figure 5.4   Data Source: Alliance of Automobile Manufacturers.

Sold by Powertrain

Vehicles Sold by Powertrain

In 2016, as depicted in Figure 5.4, the highest percent of vehicles sold by powertrain for both Minnesota Congressional District 6 and Minnesota as a whole were SUVs at 41.6 percent and 44.2 percent respectively. In Minnesota Congressional District 6, pickups came in second, cars in third and vans/minivans in fourth. In Minnesota, cars came in second, pickups in third and vans/minivans in fourth. Vehicles sold by powertrain indicate the type of vehicles that are becoming popular and will likely be seen on the roads in future years. There is a cultural shift from cars to SUVs and pickups.

$590	**$32,422**	**273**	**25**
Median monthly new car payment in Minnesota Congressional District 6.	Average MSRP per new car in Minnesota Congressional District 6.	Gasoline stations in Minnesota Congressional District 6.	Electric charging stations in Minnesota Congressional District 6

Goal 5: Promote Energy and Environmental Conservation

Vehicles Registered and Sold

Percent of vehicles registered and sold within Minnesota and Minnesota 6th congressional District by fuel type

Vehicles Registered by Fuel Type

In 2016, as depicted in Figure 5.5, the highest percent of vehicles registered by fuel type for both Minnesota Congressional District 6 and Minnesota as a whole was gas at 95.5 percent and 95.8 percent respectively. Diesel for both geographic areas came in second, followed by hybrid in third, electric in fourth, and plug-in hybrid in fifth.

Figure 5.5   *Data Source: Alliance of Automobile Manufacturers.*

Figure 5.6   *Data Source: Alliance of Automobile Manufacturers.*

Vehicles Sold by Fuel Type

In 2016, as depicted in Figure 5.6, the highest percent of vehicles sold by fuel type for both Minnesota Congressional District 6 and Minnesota as a whole were gas at 94.2 percent and 95 percent respectively. Diesel for both geographic areas came in second, followed by hybri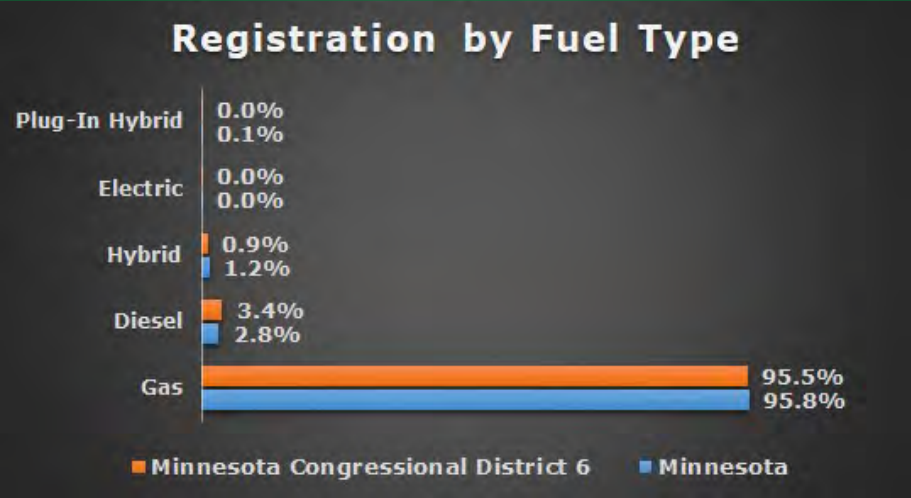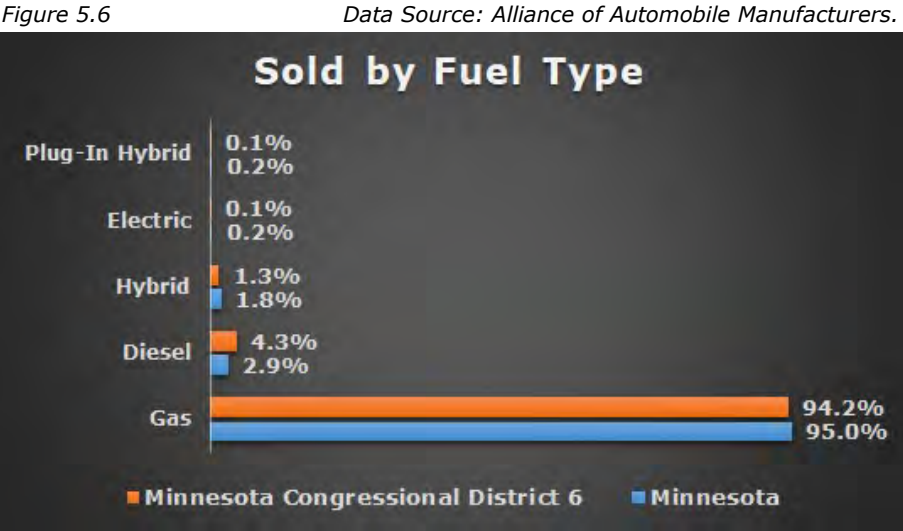d in third, electric in fourth, and plug-in hybrid in fifth. Alternative fuel types such as plug-in hybrid, electric and hybrids have been slow to gain traction in Minnesota Congressional District 6 and Minnesota as a whole. The percent sold and currently registered is about equal.

11.4	30,534	$989.98 Million	30,539
Average age of vehicles in Minnesota Congressional District 6.	New car sales in Minnesota Congressional District 6.	Car sales in Minnesota Congressional District 6.	Total auto-related employers in Minnesota Congressional District 6.