Wisconsin Department of Transportation

July 2020

MAPSS
Performance Improvement Report

Mobility
Accountability
Preservation
Safety
Service

Mission

Provide leadership in the development and operation of a safe and efficient transportation system

Welcome to the

MAPSS
Performance Improvement Report

The Wisconsin Department of Transportation's (WisDOT) Performance Improvement program focuses on the core goal areas of Mobility, Accountability, Preservation, Safety and Service (MAPSS). The Scorecard measures in this report have been deemed of highest importance to our customers to show the current state of Wisconsin's transportation system. The progress of these measures is reported on the two-page Scorecard and in the body of this report. The department also has interactive webpages within each core goal area for customers who are interested in "drilling down" into the data.

Some measures are important in demonstrating transparency and accountability, but do not rise to the level of the Scorecard. The progress of these measures is reported in the appendix of this report and on interactive webpages under Additional Measures.

In addition to the measures we report externally, we also track measures that are important for the smooth internal operations of the department or support other important performance outcomes; these are reported internally to department managers and staff. For example, we track several internal highway construction project measures that support our Scorecard measures and ensure we continue to deliver our programs and services efficiently to serve the needs of the public.

The maturation and progress within this program is a continual process. We are pleased to share that many of the critical Scorecard measures have seen improvements, and we continue to steadily approach our performance goals. For roadside highway maintenance, the department will continue to report 2017 data until a replacement is determined.

The latest MAPSS Quarterly Report and the interactive WisDOT web pages provide details of each performance metric. This information is located at: **www.mapss.wi.gov**.

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July 2020

Wisconsin Department of Transportation
MAPSS Performance Scorecard

✓ Goal has been met | ↑ Performance is trending in a favorable direction | ↔ Trend is holding | ↓ Performance is trending in an unfavorable direction

Performance measure	How we measure it	Current report period	Goal	Goal met	Trend	Comments	Date Last Reported
Mobility: Delivering transportation choices that result in efficient trips and no unexpected delays.							
Delay (Hours of Vehicle Delay) 2019 (Dec 2018–Nov 2019)	Extra time spent driving as compared to free-flowing traffic. Delay is reported on 13 of Wisconsin's Metropolitan Planning Areas.	**14,878,026 hrs**	Reduce from previous year	✓	↑	This is an updated measure from the previously reported Vehicle Delay. Pre-2017 numbers are not comparable. The current goal is to reduce vehicle delay from the previous year. (a lower number is better).	4/2020
Reliability (Planning Time Index) 2019 (Dec 2018–Nov 2019)	PTI is an index based on extreme (95th percentile) travel time and travel time at free flow speed. Reliability is reported on interstates in 32 counties.	**1.25**	Improve on reliability from previous year		↓	Reliability is an indicator of the probability of an on-time arrival. This an updated measure from the previously reported reliability. Pre-2017 results are not comparable. The current goal is to improve on reliability from the previous year (a lower number is better).	4/2020
Transit Availability Calendar year 2019	Percent of population served by transit	**54.0**	55.0		↔	There was no change from 2018 to 2019.	1/2020
Bicycling Conditions on Rural Highways Calendar year 2019	Percent of rural highway miles with favorable bicycling conditions	**State hwys: 58.5; County roads: 91.8**	100 percent on roads where bicycles are not prohibited		↓	Overall, the number of miles rated as favorable for bicycling increased on county highways and state highways decreased.	4/2020
Incident Response Calendar year 2018	Percent of incidents cleared within a specific timeframe	**Inter-mediate incidents: 89.5; Major incidents 83.3**	Intermediate incidents: 90.0; Major incidents: 80.0		↑	The department continues to coordinate with agencies to effectively manage and respond to incidents across the state.	1/2020
Winter Response State fiscal year 2020	Percent to bare-wet within a specific time period after a storm	**78 for 24-hr roads**	70.0 within specified time	✓	↑	The department continues to leverage meaningful working partnerships with Wisconsin's counties and the academic community to enhance safety of winter highways while also optimizing salt supplies and creating operational efficiency.	7/2020
Accountability: The continuous effort to use public dollars in the most efficient and cost-effective way.							
Transportation Facilities Economic Assistance and Development (TEA) Grants Calendar year 2020	Capital investment dollars achieved per grant dollar awarded	**$131.98**	$50.00	✓	↑	The department awarded four grants totaling $1.7 million to four Wisconsin communities. The businesses involved in these four projects expect to make total capital investments of $229.7 million resulting in each grant dollar leveraging an average of $131.98 in capital investment.	7/2020
Timely Scheduling of Contracts State fiscal year 2019	Percent of highway program funding scheduled during the first six months of each fiscal year	**58.7 percent**	54.0	✓	↑	The department achieved target with 58.7 percent of the improvement program funding contracted in the first half of the state fiscal year.	10/2019
On-time Performance Calendar year 2018	Percent of highway projects completed on-time	**93.4 percent**	100.0		↑	WisDOT continues to focus on improving communication between contractors and project management staff in order to resolve project issues in a timely manner.	10/2019
On-budget Performance State fiscal year 2019	Final highway project cost as percent of original contract amount	**104.1**	103.0		↔	The department recorded a value of 104.1 percent for SFY 2019 which is below the industry average of 105 percent. The department has an aspirational goal of 103 percent. A lower number is better.	1/2020
Surplus Property Management State fiscal year-to-date 2020	Dollar value of surplus land sold	**$2.75 mil.**	$2.75 mil.	✓	↓	The department met its sales target with sales of 113 of the 136 parcels in the marketing plan. It's unknown, at the time of this report, whether the COVID-19 pandemic is creating sales impacts.	7/2020

The Wisconsin Department of Transportation MAPSS Performance Scorecard reviews five key goals and over-arching performance measures that guide us in achieving our mission "to provide leadership in the development and operation of a safe and efficient transportation system." Establishing goals and measuring results is essential to running a successful organization and meeting public expectations.

For more information on MAPSS, visit www.mapss.wi.gov

✓ Goal has been met ↑ Performance is trending in a favorable direction ↔ Trend is holding ↓ Performance is trending in an unfavorable direction

Performance measure	How we measure it	Current report period	Goal	Goal met	Trend	Comments	Date Last Reported
Preservation: Protecting, maintaining and operating Wisconsin's transportation system efficiently by making sound investments that preserve and extend the life of our infrastructure, while protecting our natural environment.							
Program Effectiveness Calendar year 2019	Scheduled improvement projects compared to modeled roadway needs (as a percent)	**Location: 90; Scope: 88; Time: 61**	Location: 80; Scope: 65; Time: 65	✓	↔	Location, scoping and timing have improved as the department finalizes implementation of its new asset management program. These new policies will maintain or improve asset conditions at a lower cost than previous methodologies.	1/2020
State Highway Pavement Condition (PCI), backbone Calendar year 2018	Percent of state highway pavement rated fair or above	**99**	90 rated fair or above	✓	↔	The state's backbone highway system is comprised of priority corridors and carries 85 percent of the freight tonnage traversing Wisconsin's state trunk highways.	1/2020
State Highway Pavement Condition (PCI), non-backbone Calendar year 2018	Percent of state highway pavement rated fair or above	**81**	80 rated fair or above	✓	↔	The non-backbone system consists of the remaining state highway routes and carries over 50 percent of state highway traffic.	1/2020
State Bridge Condition Calendar year 2019	Percent of state bridges rated fair or above	**97.2**	95.0	✓	↔	State bridge conditions have consistently exceeded the goal. The department continues to improve on the bridge inspection and management program.	7/2020
State-owned Rail Line Condition Calendar year 2019	Percent of state-owned rail line meeting FRA Class 2 Standard (>10 mph)	**74.6**	95.0		↓	In 2019, there was a net decrease of 1 mile meeting FRA Class 2 standards through WisDOT funded projects. A total of 545.75 of the 731.96 miles of track (74.6 percent) met the department goal.	1/2020
Airport Pavement Condition Calendar year 2019	Percent of core airport pavement area rated fair or above for each functional type	**RWY 92.0; TXWY 85.0; Apron 76.0**	90.0 85.0 80.0	✓ ✓	↔	Primary runways, taxiways, aircraft parking and cargo aprons held relatively steady over 2018 data.	4/2020
State Highway Roadside Maintenance Calendar year 2017	Grade point average for the maintenance condition of state highways	**2.55**	3.0		↓	The department is working with Wisconsin's 72 counties to enhance statewide focus on the preservation of infrastructure.	4/2018
Material Recycling State fiscal year 2019	Percent of virgin materials replaced with recycled materials	**16.02**	10.0	✓	↑	The department is committed to the recycling effort. Almost all projects incorporate recycled materials. WisDOT is always looking for new ways to recycle that enhance infrastructure performance while saving money.	1/2020
Safety: Moving toward minimizing the number of deaths, injuries and crashes on our roadways.							
Traffic Fatalities Calendar year 2020 (Preliminary)	Number of traffic fatalities	**244**	Second Quarter five year average is 257 Annual target is 561	✓	↓	As of June 30th, there have been 244 fatalities in 2020. Our long-term goal is to reduce preventable deaths (a lower number is better). 2019 total for fatalities was 551.	7/2020
Serious Traffic Injuries Calendar year 2020 (Preliminary)	Number of serious traffic injuries	**1,264**	Second Quarter five year average is 1,435 Annual target is 3,016	✓	↑	As of June 30th, 1,264 persons have received serious injuries in 2020. In 2017, the crash report was updated to reflect national standards. 2019 total for serious traffic injuries was 3,133.	7/2020
Traffic Crashes Calendar year 2020 (Preliminary)	Number of traffic crashes	**52,204**	Second Quarter five year average is 64,834 Annual target is 129,207	✓	↑	As of June 30th, there were 52,204 traffic crashes in 2020. Our long-term goal is to reduce preventable deaths (a lower number is better). 2019 total for traffic crashes was 145,288.	7/2020
Safety Belt Use Calendar year 2019	Percent of vehicle occupants wearing a seat belt	**90.2**	92.0 by 2020		↑	While Wisconsin's safety belt usage reached an all time high in 2019, we still lag behind neighboring states, with use rates of more than 90 percent. We were better than the five year average of 87.5.	10/2019
Service: High quality and accurate products and services delivered in a timely fashion by a professional and proactive workforce.							
DMV Wait Times Calendar year 2020	Percent of DMV service center customers served within 20 minutes	**93**	80.0		↑	Customer traffic dropped significantly at the beginning of quarter two, and has since increased to approximately 60 percent of the average customer counts for June in the prior three years.	7/2020
DMV Electronic Services Calendar year 2019	Number of self-serve electronic transactions	**245,679**	225,661	✓	↑	Electronic services usage is trending in line with the ten percent increase goal.	4/2020
DMV Driver License Road Test Scheduling Calendar year 2020	Available tests as a percent of estimated demand	**96**	90.0	✓	↑	DMV has continued the annual trend of achieving 90 percent or higher service levels that began in 2014. Due to the pandemic, road test services were suspended in April.	7/2020
DMV Phone Service Calendar year 2020	Percent of DMV phone calls answered within three minutes	**60.42**	80.0		↓	The pandemic has resulted in new customer questions and concerns. The DMV callback feature use increased 475 percent. However, these callbacks are not included in this MAPSS measure. Thus, the number of customer calls appears lower than it actually is in terms of staff interacting with customers on phones.	7/2020
DMV Email Service Calendar year 2020	Percent of DMV emails answered within 24 hours	**76.9**	80.0	✓	↓	Quarter two of 2020 had an increase in emails of more than 30 percent over quarter one.	7/2020

Wisconsin Department of Transportation

MAPSS Performance Improvement

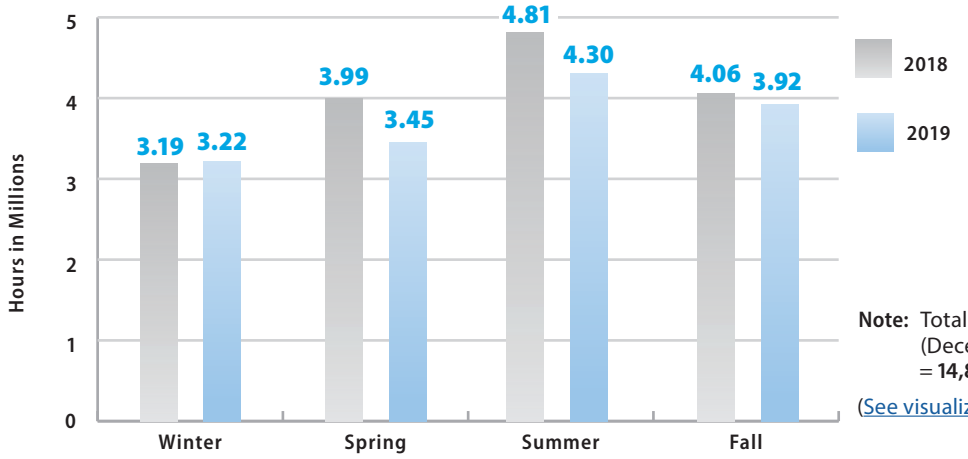
Mobility: Delay (Hours of Vehicle Delay)

Report Date: July 2020	**Data Frequency:** Annual (Dec – Nov)	**Division:** Transportation System Development

Why is it important? A smooth flow of traffic creates positive impacts for our economy, environment and quality of life. Conversely, traffic jams and congestion can waste fuel and compromise air quality. Highway congestion occurs when traffic demand exceeds available capacity. There are two categories: recurring congestion (where delays and "traffic jams" happen with regularity) and unexpected congestion (crashes, bad weather). A focus on vehicle delay helps the department gain insight into highway capacity needs to better serve the traveling public.

Performance measure target: WisDOT started reporting Vehicle Hours of Delay by metropolitan planning area (MPA) in October 2019. The current goal is to reduce vehicle delay from the previous year. Future reports will be weighed against the current numbers. Consumers should note that this report uses new federal data. The numbers are not comparable with hours of delay tracked in previous MAPSS reports.

Figure: Vehicle hours of delay on Interstates in 13 of Wisconsin's metropolitan planning areas



Note: Total Hours of Delay (December 2018 – November 2019) = **14,878,026**

(See visualization for corridor detail)

How do we measure it? Hours of delay are calculated by measuring the number of vehicles on a corridor and then comparing actual travel times for segments of a route to the amount of time it would take to travel that same corridor at the free flow speeds. For this report, delay is measured in 13 of Wisconsin's metropolitan planning areas. The 13 MPAs have Interstate highways and are urbanized areas with populations over 50,000 that actively perform transportation planning.

How are we doing? Statewide vehicle hours of delay measured at 14,878,026 during the daytime hours of 6 a.m. to 8 p.m. for the 2019 reporting period. There was a reduction in hours of delay comparing daytime 2019 with 2018. The spring and summer seasons had significant contributions to reduction of hours. Summer quarter (June–August 2019) had the highest delay of the four quarters during the year.

What factors affect results? Vehicle delay is comprised of recurrent and non-recurrent delay. Recurrent delay is caused by normal fluctuations in traffic demand such as morning and evening commuter traffic. Non-recurrent delay differs by seasons and areas of the state. Factors include: traffic surges from holidays and special events; weather related delays and incidents; and work zone impacts such as road closures, lane restrictions and traffic detours.

What are we doing to improve? Capacity issues are examined in long-term improvement planning and highways are examined for opportunities to improve mobility. WisDOT has also focused on Intelligent Traffic Systems (ITS) to manage traffic and inform drivers of real time traffic conditions. Traffic cameras and sensors at strategic locations in high-traffic areas help the statewide Traffic Management Center communicate traffic information to the newly redesigned 511 WI traveler information system and to Dynamic Message Signs to give drivers advance notice of the need to change lanes, alter speeds or consider different routes. The Traffic Incident Management Enhancement (TIME) program trained over 2300 emergency responders in 2019 on protocol and standard communications to safely clear roadside incidents, and Freeway Service Teams patrol high-volume areas to proactively clear debris and disabled vehicles from blocking lanes of traffic.

Wisconsin Department of Transportation

MAPSS Performance Improvement

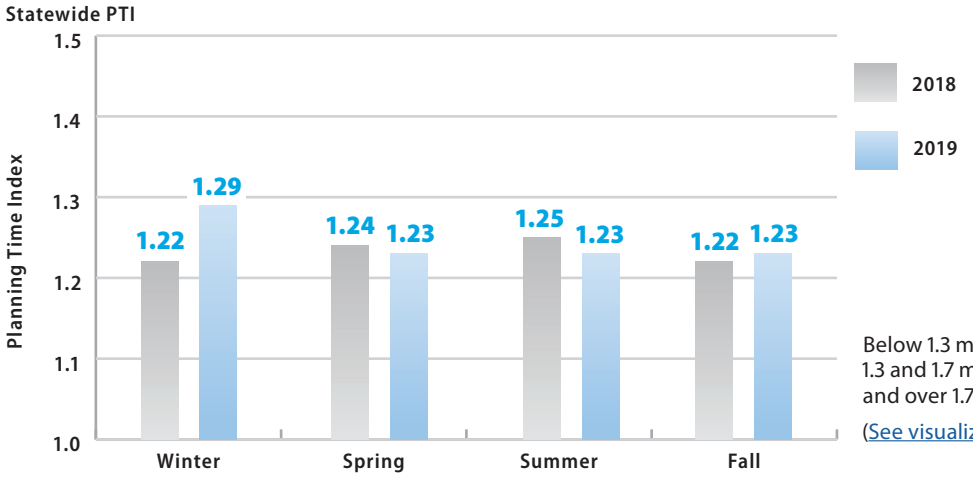
Mobility: Reliability (Planning Time Index)

Report Date: July 2020 | **Data Frequency:** Annual (Dec – Nov) | **Division:** Transportation System Development

Why is it important? Travelers expect to arrive safely and on time at their destination. Their confidence level and certainty of on-time arrival are intuitive measures of transportation system reliability. Planning Time Index (PTI) expresses that same value in a mathematical term that helps travelers more precisely budget travel time and transportation planners better measure system performance.

Performance measure target: WisDOT started reporting interstate reliability by county in October 2019. The current goal is to improve on reliability from the previous year. Future reports will be weighed against the current numbers. Consumers should note that this report uses new federal data. The numbers are not comparable with reliability numbers tracked in previous MAPSS reports.

Figures: Statewide reliability index for Wisconsin Interstate highways by county



Below 1.3 means reliable; between 1.3 and 1.7 means moderately unreliable and over 1.7 means unreliable.

(See visualization for corridor detail)

How do we measure it? Reliability is reported on Interstates in 32 counties and includes the Beltline in Dane county. The planning time index is calculated from two basic measures: travel time at the free flow speed and the 95th percentile travel time, marking the most extreme travel delay in a period. The ratio of these two measures constitutes the index. This measure includes morning and afternoon weekday peak periods and all-day hours of 6 a.m. to 8 p.m. Travel time information for this measure was acquired from an FHWA-sponsored national data set. Freight ton-mile data for counties is provided by the Freight Component of the Statewide Travel Demand Model: Version 67, February 2020.

How are we doing? The annual all-day (6 a.m. to 8 p.m.) planning time index for 2019 was 1.25 which is very close to drivers' statewide all-day experience in 2018. All the seasons except for the winter season had almost similar variation in travel time and in comparison, with 2018. The winter morning peak had the highest statewide planning time index. Dane, Milwaukee, Racine, Outagamie, Brown, Douglas and Waukesha counties had winter morning peak index higher than the statewide average while all other counties had an index below the average.

What factors affect results? Travel reliability measures variability of congestion. A wide variation in the recorded travel time indicates low reliability and a high planning time index. Traffic incidents, weather conditions, special events, holiday travel, sporadic demands and work zones are all dynamic components of traffic congestion that may adversely affect travel time reliability. Reducing or mitigating the impact of these factors serves to improve travel time reliability.

What are we doing to improve? WisDOT has been using dynamic freeway message signs and the newly redesigned 511WI traveler information system to provide information on incidents, construction information, winter road conditions and weather warnings to drivers on the Interstate. The department is exploring innovative strategies such as placing smart work zone devices on both construction and maintenance projects. These devices will provide more accurate, real time lane closure information. The University of Wisconsin's Traffic Operations and Safety (TOPS) Lab provides the interactive performance map allowing stakeholders to identify key Interstate segments with reduced performance. Identifying low performing highways provides insight for developing treatments to improve mobility.

Wisconsin Department of Transportation

MAPSS Performance Improvement

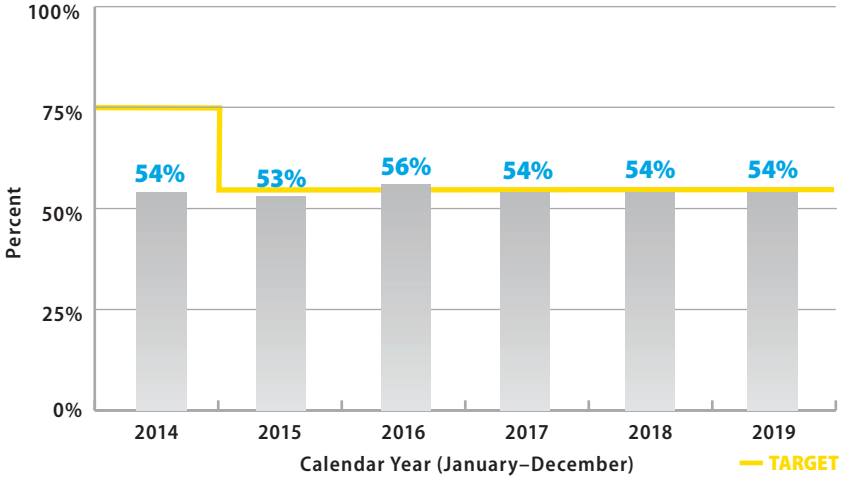
Mobility: Transit Availability

Report Date: July 2020	**Data Frequency:** Annual (Calendar Year)	**Division:** Transportation Investment Management

Why is it important? Transit provides a lifeline to those who depend on it to obtain medical care, make shopping trips, travel to school or work and to meet other basic needs. Approximately 55 percent of Wisconsin transit riders travel to work, 14 percent to school, 20 percent to retail, tourism or recreational destinations, and 11 percent to health care services. Greater transit availability means greater mobility for Wisconsin citizens. Transit service is a key component of a comprehensive, multimodal transportation system and contributes to an enhanced quality of life in Wisconsin communities.

Performance measure target: The department's goal is to increase the percent of the population with access to transit service to 55 percent.

Figure: Percent of Wisconsin population served by transit



Note: The target was revised from 75 percent to 55 percent in 2015 to align with the national average.

How do we measure it? The total population with access to transit is calculated by adding together the population that resides within one-quarter mile walking distance from a fixed bus route for Wisconsin's bus systems and the population within the service area for shared-ride taxi and other public transit systems (i.e., not fixed route). The total population with access is then divided by Wisconsin's total population to determine the percent of the population with access to public transit each calendar year. Only transit services that are supported with public resources are considered in this calculation. The department's methodology is consistent with industry standards for measuring access to transit.

How are we doing? Approximately 54 percent of the state's population has access to public transit. This represents no change from 2018 to 2019. There was a slight increase in population with access to transit but the increase was not large enough to change the statewide percentage. Nationally, it is estimated that 55 percent of the population has access to public transit. Source: American Society of Civil Engineers 2013 Infrastructure Report Card.

What factors affect results? Transit service availability is determined by local government decisions with planning assistance offered by WisDOT to help identify appropriate options. The degree of investment in transit from federal, state and local sources is a factor affecting this performance measure. For example, transit routes and service areas may differ year-to-year in response to budget levels. Efforts by communities to encourage commercial and residential land use decisions that increase population density in areas having transit access also have an effect. Transit service operated on a regional, as opposed to a community-by-community basis, also tends to increase the percent of the regional population with access to transit.

What are we doing to improve? The department actively provides technical assistance to local transit providers in the areas of planning and budgeting, and frequently sponsors transit development plans and feasibility studies to ensure that transit investments are data driven, sustainable and promote effective service. Department staff review transit system budgets and service profiles annually to ensure transit operations are consistent with state and federal regulations, as well as department goals and best practices. Management performance reviews of urban bus systems every five years along with annual cost efficiency report analyses for all systems helps ensure that Wisconsin transit systems function efficiently and effectively in meeting mobility needs.

Wisconsin Department of Transportation
MAPSS Performance Improvement

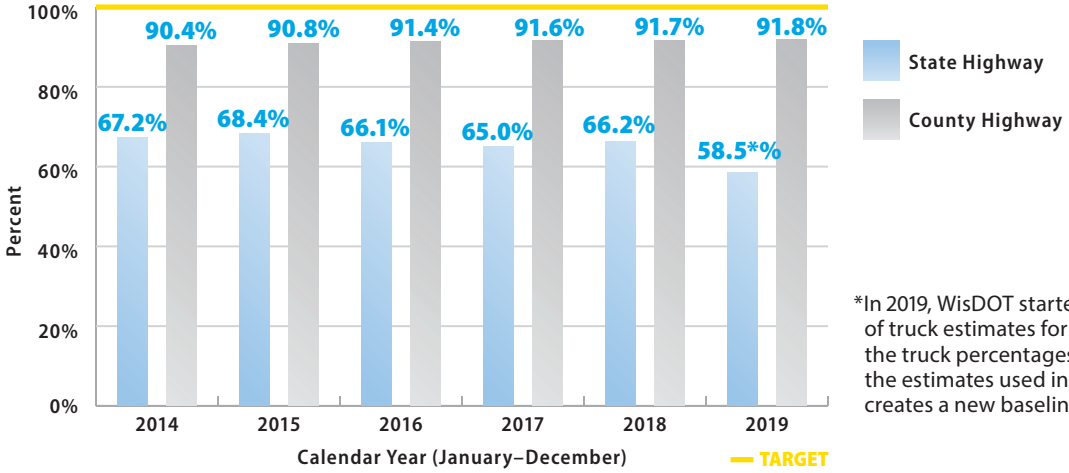
Mobility: Bicycling Conditions on Rural Highways

Report Date: July 2020 | **Data Frequency:** Annual (Calendar Year) | **Division:** Transportation Investment Management

Why is it important? Bicycle travel is an essential component of a multimodal transportation system. The option to travel by bicycle is important for people too young to drive, people who cannot drive or people who choose not to drive. Monitoring rural highway conditions for bicycling helps planners and designers identify potential facility improvements for all modes of travel. This is especially important in areas that are currently less suitable for bicycle travel and are experiencing growth or increased auto congestion. Generally, projects that create safety and operational improvements for all roadway users also result in improved conditions for bicyclists.

Performance measure target: The department's goal is to have favorable conditions for bicycling on all rural county and state highways on which bicycles are permitted to travel. Favorable is defined as having conditions rated as 'best' or 'moderate' for bicycling. Target: 100 percent for highways with traffic volumes at or below levels considered undesirable (independent of pavement width). See the "Wisconsin Rural Bicycle Planning Guide" for volume threshold details.

Figure: Percent of rural county/state highways rated best/moderate condition for bicycling



*In 2019, WisDOT started using a new source of truck estimates for this analysis. Thus, the truck percentages are higher than the estimates used in previous years; this creates a new baseline moving forward.

How do we measure it? Annually, the total number of rural miles of state and county highways with bicycling conditions rated as 'best' or 'moderate' is divided by the total number of non-freeway miles of state and county highways to arrive at the percentage. The department's ratings for bicycling conditions on rural highways is defined in the "Wisconsin Rural Bicycle Planning Guide," which describes the calculations for determining conditions as 'best,' 'moderate,' or 'undesirable'. The calculation includes two primary factors: traffic volume and pavement width. It also accounts for the percent of trucks and percent of solid yellow pavement markings along the roadway (which is an indicator of hills and curves). Traffic count data lags one year behind the date of the measure.

How are we doing? In 2019, the percent of rural county highways rated as 'best' or 'moderate' for bicycling increased slightly for the fifth consecutive year. This is primarily attributed to the addition of paved shoulders. The percentage of state highways that rated as 'best' or 'moderate' for bicycling changed to 58.5 percent. This is attributed to increasing traffic, as well as truck data with higher estimates that impact the conditions for bicycling.

What factors affect results? Vehicles per day, travel lane width, and the presence or absence of paved shoulders are the primary determinants of rural bicycling conditions. As traffic on roadways increases, the favorable conditions for bicycling can decrease. Inclusion of a wider travel lane or paved shoulder on a roadway can improve conditions for bicycling.

What are we doing to improve? WisDOT implemented the paved shoulder policy for pavement replacement, reconstruction, and new construction projects on rural state highways which provides safety and operational improvements and benefits for all roadway users, including bicyclists. This policy defines a standard shoulder width of five feet on asphalt roadways on the state highway system.

Wisconsin Department of Transportation
MAPSS Performance Improvement

Mobility: Incident Response

Report Date: July 2020	**Data Frequency:** Annual (Calendar Year)	**Division:** Transportation System Development

Why is it important? Incidents happen on the Interstate and state highway system every day, from minor property damage incidents to serious traffic crashes. This measure focuses on the amount of time it takes to clear intermediate and major traffic incidents on the Interstate and state highways. Intermediate traffic incidents typically affect travel lanes and usually require traffic control on the scene to divert road users past the blockage. Major traffic incidents usually involve hazardous material (HAZMAT) spills, overturned tractor-trailers, fatalities, multiple vehicles, and/or other natural or man-made disasters. Major incidents can result in closing all or part of a roadway. Restoring the roadway to full operation as quickly as possible helps reduce secondary incidents, minimize delay for people and freight, and decreases the associated economic impact of traffic delays.

Performance measure target: The department's goal is to reduce the length of time traffic flow is disrupted by long-term incidents on the Interstate and state highway system. The goal is to clear 90 percent of all intermediate incidents in less than two hours and to clear 80 percent of all major incidents in less than four hours.

Figure 1: Percent of the time that target clearance time is met

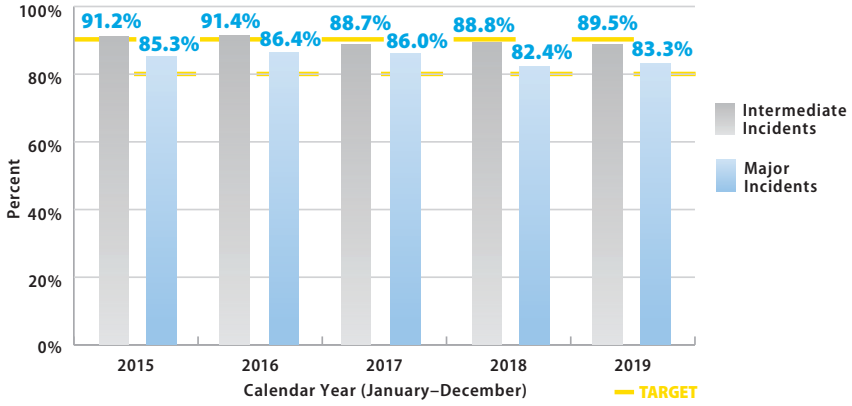
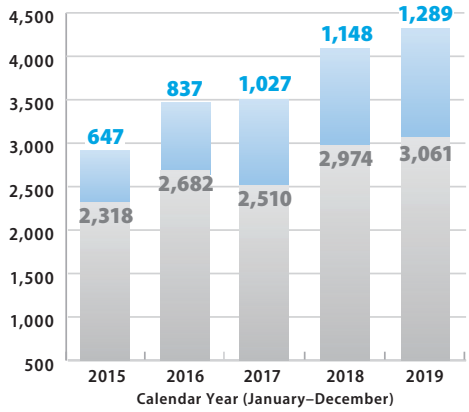


Figure 2: Number of traffic incidents



How do we measure it? The incident clearance time is defined as the time from when an agency with responsibility to respond first becomes aware of the incident and the time when the last responder leaves the scene. This measure tracks the percent of intermediate and major incidents cleared in less than two and four hours respectively. This measure does not include extended duration weather related emergency transportation events such as flooding.

How are we doing? In 2019, the department continued to meet its major incident target while improving on intermediate response. Clearance and reporting improvements are made possible through the coordination of emergency responders throughout the state. The department continues to emphasize the importance of communication and shared situational awareness among the Traffic Management Center (TMC) and local units, and technology continues to enhance dispatchers' capability to relay timely safety information to responders en route.

What factors affect results? The specific location, time of day, weather condition, incident complexity, and the number of simultaneous incidents all affect the amount of time required to clear the highway.

What are we doing to improve? The department will continue to emphasize the need for all responder disciplines to participate in a Traffic Incident Management (TIM) class sponsored by the department. As of the end of 2019, the department has trained over 15,000 responders in traffic incident management since the program began. Wisconsin ranks 11th in the nation in the total number of responders trained. The department will continue with ongoing outreach efforts through TIM-related presentations and attendance at various TIM responder conferences throughout the state. The department will host over 20 regional TIM meetings statewide in 2020 with the goal to expose responders to the TIME program and to further educate responders from all disciplines on the need to improve communication, enhance safety and clear incidents as efficiently as possible.

Wisconsin Department of Transportation
MAPSS Performance Improvement

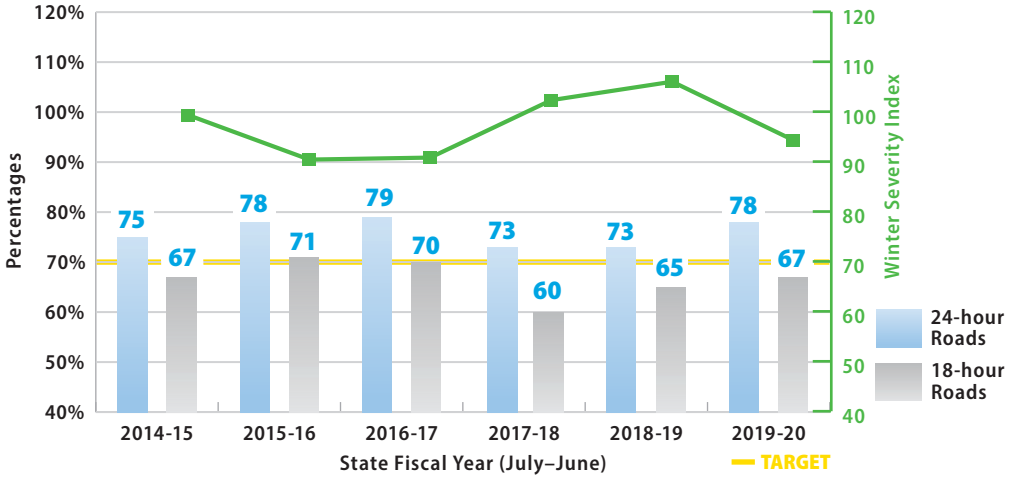
Mobility: Winter Response

Report Date: July 2020	**Data Frequency:** Annual (State Fiscal Year)	**Division:** Transportation System Development

Why is it important? Returning roads to the condition they were in before a winter storm restores the capacity of the system to move traffic. This allows safe travel to work, school and other destinations. Clear roads also meet the needs for emergency travel and restore travel time reliability, which is important to the movement of freight.

Performance measure target: Roads maintained 24 hours a day are to be cleared within four hours and roads that are maintained 18 hours a day are to be cleared in six hours of the end of the storm. Eighteen-hour roads have lower traffic counts, concentrated in peak travel time periods, and are not serviced between 10 p.m. and 4 a.m. The department's goal is achieve these targets 70 percent of the time.

Figure: Percent that bare-wet conditions are met after winter storm events



How do we measure it? Each county provides weekly reports which document when roads were restored to bare/wet pavement after a storm event. The performance measure is the average percent for all storm events that bare/wet pavement conditions are met for 18-hour roads (within six hours) and on 24-hour roads (within four hours). Winter severity is calculated each state fiscal year based on a set of weather factors including the number of snow and freezing rain events, total duration of all storms, total snow accumulation and number of incidents (blowing snow, drifting, ice and frost). The winter severity index is the gauge by which the department measures the impact of winter on our roads with a typical winter rating equal to 100.

How are we doing? Wisconsin state highways saw a systemwide service improvement through the 2019-20 winter, with higher percentage postings on 24-hour and 18-hour roads. The 24-hour roads once again surpassed the 70 percent goal. The 18-hour roads posted the best percentage in three years but fell short of the goal. It's important to note that the challenges shift from winter to winter. In 2019-20 winter came early and ended early in many parts of the state, but overall was rated as less severe than 2018-19

What factors affect results? Performance is largely impacted by severity of winter conditions, although winter storm timing does appear to impact the amount of time it takes to clear 18-hour roads. Simultaneous storms that happen less than 8 hours apart increase the time needed to clear the road. Controllable factors include the timing of the response, availability of resources, and the effectiveness of the response.

What are we doing to improve? WisDOT continues to work on process improvements before, during and after each storm event. National studies and pilot-testing in close coordination with multiple counties have helped to shape better practices to optimize plow routes, increase effectiveness of liquid treatments and reduce demand on salt supplies. University of Wisconsin's Traffic Operations and Safety (TOPS) Lab is also working on a ClearRoads (a pooled fund group consisting of 36 states) project to develop liquid salt brine rates and recipes for all departments to use. Additionally, the department continues to promote plow driver education, better salt management programs, and use of brines which resulted in a 19 percent salt reduction over the 5-year averages based on severity index.

Wisconsin Department of Transportation
MAPSS Performance Improvement

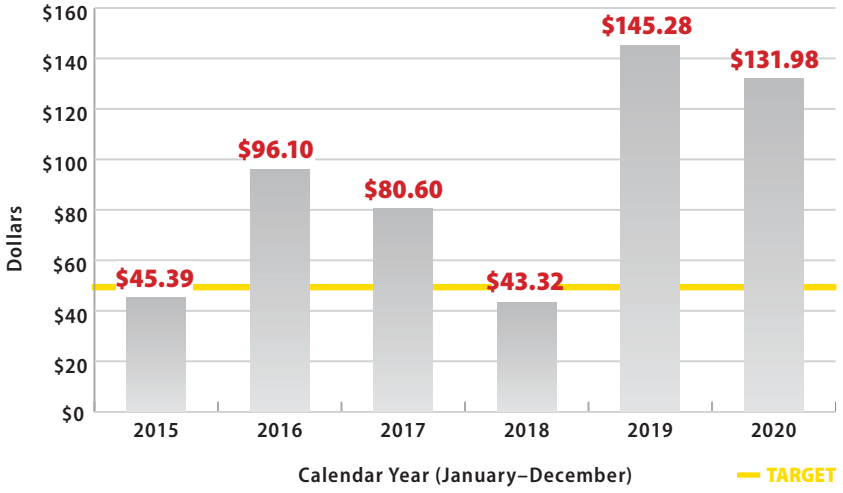
Accountability: Transportation Facilities Economic Assistance and Development (TEA) Grants

Report Date: July 2020 | **Data Frequency:** Semi-annually (Calendar Year) | **Division:** Transportation Investment Management

Why is this important? The Transportation Facilities Economic Assistance and Development (TEA) program provides state matching grants to local governments to complete road, rail, harbor, and airport improvement projects that help attract employers to Wisconsin, or that encourage businesses to remain and expand within Wisconsin. The program strives to increase the number of jobs statewide by responding to the transportation needs of an economic development project dependent upon improved transportation facilities. The goal is to attract and retain business in Wisconsin, which increases the number of local job opportunities, improves the local tax base, and boosts spending in the local economy.

Performance measure target: Achieve $50 of capital investment for every $1 of grant funds awarded.

Figure: Capital investment dollars per grant dollar awarded



How do we measure it? The year-end report reflects the calendar year. The ratio is calculated by dividing the total amount of capital the businesses expect to invest in their new or expanded facility (i.e., their "capital investment") by the total grant dollars awarded. A higher number is desired. The amount of the TEA grant is determined by evaluating and approving the cost estimates for the transportation improvement project and by how many jobs will be created.

How are we doing? WisDOT has met the goal for the first half of calendar year 2020. The department awarded four grants totaling $1.7 million to four Wisconsin communities. The businesses involved in these four projects expect to make total capital investments of $229.7 million resulting in each grant dollar leveraging an average of $131.98 in capital investment. Currently, three communities have submitted applications requesting $2.3 million and another four communities are discussing potentially submitting applications estimated at nearly $2 million in TEA program funding. All seven of these pending applications are expected to be processed before the end of the calendar year.

What factors affect results? The amount of private capital investment made in any economic development project can vary dramatically from project to project. In the past two years, there have been several economic development projects that received TEA funding that included significant private capital investment, as well as job creation. These projects tended to push this measure higher. However, there have been times in which economic development projects receiving TEA funding have had significant job creation but more modest amounts of private capital investment. In these cases, this measure will be lower even though the program goals of creating and retaining jobs are still being achieved.

What are we doing to improve? WisDOT continues to partner with other state agencies as well as regional and local economic development agencies to promote the availability of TEA program. Outreach is conducted at various business and industry functions including: Wisconsin Economic Development Association (WEDA) conferences, regional economic development conferences, and other region or state sponsored events.

Wisconsin Department of Transportation

MAPSS Performance Improvement

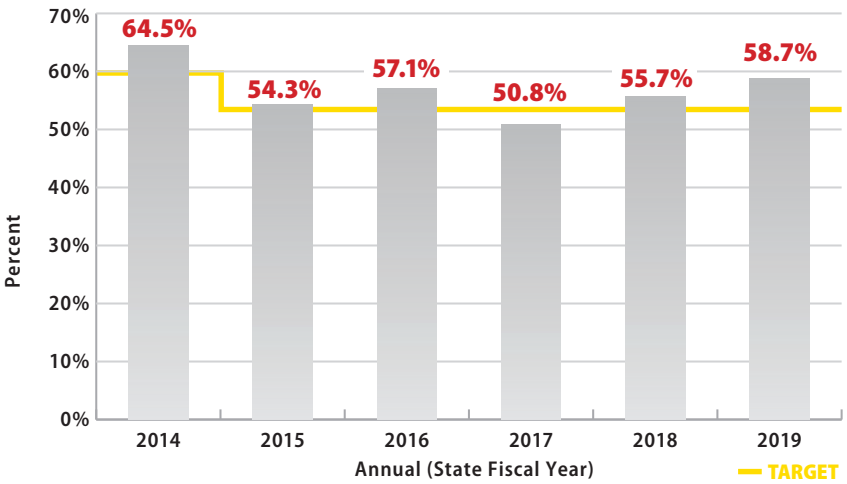
Accountability: Timely Scheduling of Contracts

Report Date: July 2020	**Data Frequency:** Annual (State Fiscal Year)	**Division:** Transportation System Development

Why is this important? The process for timely scheduling of contracts is important because it distributes improvement projects into monthly bid lettings over the course of the state fiscal year. This enhances program delivery by balancing the workload for the department and the road building industry. The department's ultimate objective is to maximize competitive bids, provide the department flexibility in adjusting lettings in the last half of the fiscal year for let contract savings or overages, and allow the department to spend additional federal funds if they are received late in the year.

Performance measure target: Contract for 54 percent of the improvement program funding in the first half of the state fiscal year between the months of July and December.

Figure: Percent of annual road construction contract funds scheduled for bid letting during first six months of fiscal year



How do we measure it? Monthly snapshots allow the department to compare the actual funding amounts programmed with predefined monthly targets.

How are we doing? The department is trending up with 58.7 percent of the improvement program funding contracted in the first half of the state fiscal year. This is up from 55.7 percent the previous year. Continued improvement in this area helps the department achieve its goal of having competitive bids and leveraging funding opportunities that may arise later in the year.

What factors affect results? A number of factors will affect the results. 1) The department will advance projects into the second half of the state fiscal year when let savings occur in the earlier lets. 2) Additional federal funds become available, which allows the department to let more projects in the second half of the state fiscal year. 3) Large projects being let in the second half of the fiscal year. Though this sometimes negatively impact the measure, it provides WisDOT the opportunity to address more miles of pavement earlier.

What are we doing to improve? WisDOT has placed an emphasis on project lettings in the first half of state fiscal years. All Major Program Projects, and projects valued at $100 million or greater, are now loaded for the bidding process in the July-to-December months. This allows contractors a more relaxed timeline to plan for the upcoming construction season, mobilize resources and reduce risk of projects being rushed. Internally, WisDOT' s Project Letting Process (PLP) committee is reviewing schedules on a quarterly basis. The PLP effort has enhanced accountability to ensure programs are following guidelines and are in position to schedule contracts in as timely a fashion as possible regardless of overall program size.

Wisconsin Department of Transportation
MAPSS Performance Improvement

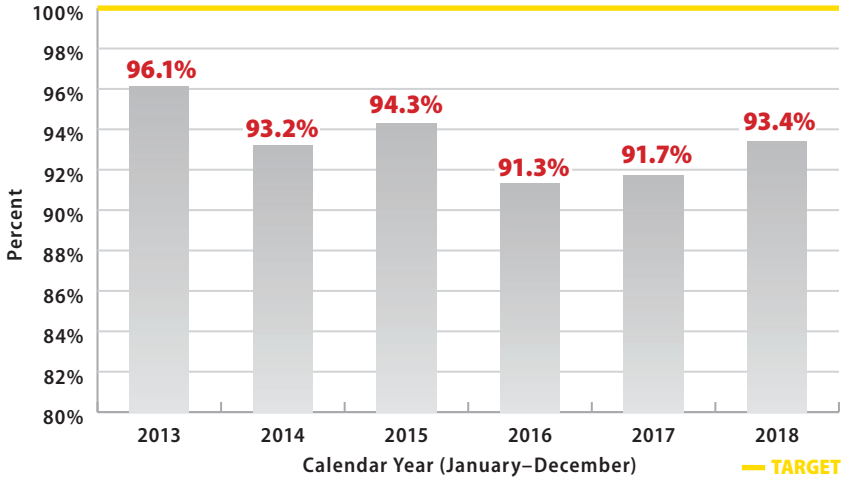
Accountability: On-time Performance

Report Date: July 2020	**Data Frequency:** Annual (Calendar Year)	**Division:** Transportation System Development

Why is this important? This measure indicates the department's ability to estimate and manage the amount of time it will take to complete a highway construction project. The better the department is at determining project time, the better able we are to schedule future projects to effectively utilize contractor resources. The general public and businesses are affected by construction projects. When the department adheres to a schedule, the better everyone can plan for the impact.

Performance measure target: The department's goal is to meet the project time frame specified in the construction contract 100 percent of the time.

Figure: Percent of highway projects completed on time



How do we measure it? This measure reports the percent of construction projects that were completed within the original project time frame specified and any agreed upon extensions. The numbers are calculated by identifying construction projects that had work completed during the calendar year and then comparing the actual date/days the project took to complete with the date/days that were specified in the contract.

How are we doing? For projects where the work was completed in calendar year 2018, the department completed 254 out of 272 projects within the time specified. The percentage of construction projects completed on time increased from 91.7 percent in 2017 to 93.4 percent in 2018.

What factors affect results? Several factors can affect the results of this measure. One key factor is the department's estimate of the time specified to complete the project. An adequate project schedule minimizes the risk to the contractor finishing on time. Other influencing factors during construction include utility work delays, material shortages or delays in delivery of materials, and adverse weather.

What are we doing to improve? The department has continued to focus effort on scheduling and setting realistic timelines for projects. There has been added emphasis on letting larger and more complex projects out for bid in fall and early winter to help contractors mobilize resources before the prime construction season. The department created a Timely Decision-Making Guide and continues to leverage the use of e-Construction technologies such as OnStation and Geo7x device for accuracy in the field and for file and data sharing between the office and the field. Communication remains a key focus, as department staff meet often with project staff and contractors to resolve issues that can impact schedules.

Wisconsin Department of Transportation

MAPSS Performance Improvement

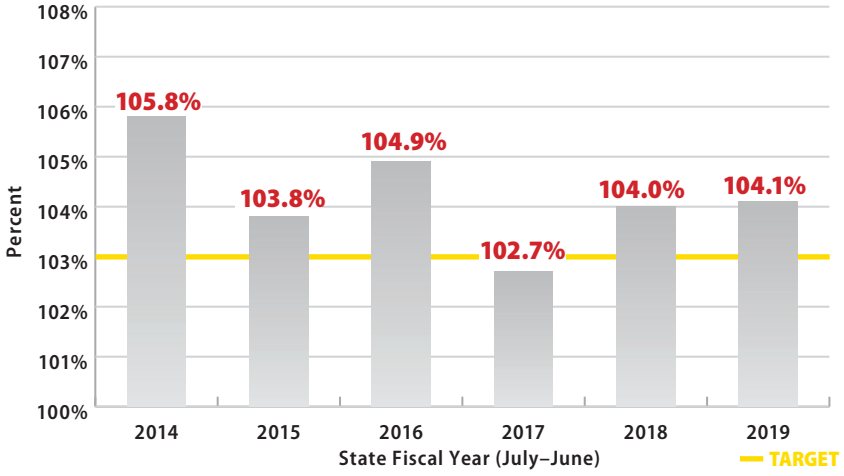
Accountability: On-budget Performance

Report Date: July 2020 | **Data Frequency:** Annual (State Fiscal Year) | **Division:** Transportation System Development

Why is it important? The department aims to have the final project cost as close as possible to the amount that was originally contracted when the project was let out for bid. While managing to our budget is important, WisDOT's top priority is delivering a quality project. Therefore, projects costs may increase due to an issue recognized in the field.

Performance measure target: The department's goal is to have the actual project costs not exceed the original contract amount by more than three percent. With an industry average of 105 percent, the department's aspirational goal is 103 percent.

Figure: Final highway project cost as a percent of the original contract amount



How do we measure it? This measure was updated in 2016 to compare the final construction cost (excluding engineering and project oversight) with the original contract amount of all projects that were completed during the fiscal year. Previously, this measure compared projects that were let during the fiscal year and had achieved 95 percent of their contract budget before the end of the state fiscal year. This new methodology ensures all projects, even those that take a number of years to complete are captured. This change aligns the On-budget and Engineering Construction Cost Index datasets and better demonstrates the final average cost of all construction projects regardless of when they are awarded.

How are we doing? In FY 2019, the department recorded a value of 104.1 percent, based on the budgetary performance of 312 projects. Some were multi-year projects with bid award dates as early as 2010. The evaluation found, generally, that the projects with longer lifespans carried greater potential for overrun, as the younger projects (awarded 2015-19) hit the 103 percent target when evaluated independently. These projects that hit the target represented 96 percent of the projects evaluated.

What factors affect results? Actual costs are affected by the quality and completeness of project designs, new findings or changes in field conditions, weather condition and contract oversight. Additional factors may be late additions to project scope due to safety condition, changes in customer expectations and local non-participating requests during construction.

What are we doing to improve? Regional and Central office project development chief engineers have reviewed and are individually coordinating implementation of the findings of a 2018 On-Budget Analysis team. The team identified common items with large variations in overrun quantities (Asphalt, Base Aggregate, Grading, Structures and Traffic Control). The report provides recommendations to help reduce the cost overruns on major project items that have a history of sizable overages. This information is now available like a cheat sheet to project delivery staff. The team also recommended each region to continue to review and identify lessons learned on construction costs.

Wisconsin Department of Transportation
MAPSS Performance Improvement

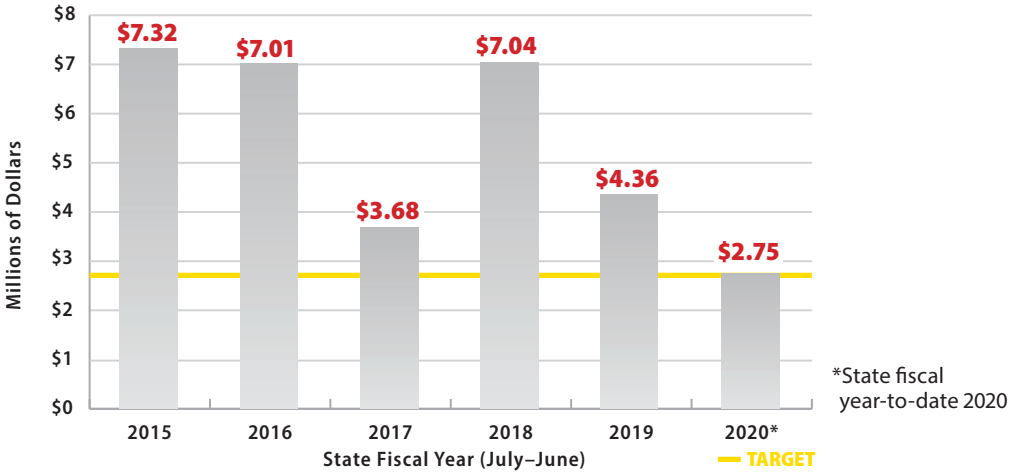
Accountability: Surplus Property Management

Report Date: July 2020 | **Data Frequency:** Quarterly (State Fiscal Year) | **Division:** Transportation System Development

Why is it important? The department purchases property for transportation improvement projects. Once the project design and construction is complete, land that is no longer needed by the state can be made available for private development. The revenue generated by surplus land sales is deposited into the Transportation Fund to be available for other transportation improvements. Surplus land that is sold spurs local economic development since the parcels often have good access and visibility. When land is returned to the tax rolls, local governments benefit because they can generate new property tax revenue from the property.

Performance measure target: The department's goal is to generate $2.75 million in revenue each state fiscal year through the sale or lease of surplus property in accordance with Wisconsin State Statute 85.15(2) and to return as much land as possible to the local tax rolls.

Figure: Value of surplus land sold



How do we measure it? The department's regional offices enter sale and lease data into a central system. This data is then broken down into four categories—sale of land, sale of buildings and personal property, rental income, and lease income. The total revenue from surplus land sales is compiled for each region; all regions are combined for the total state revenue each fiscal year.

How are we doing? WisDOT met its sales goal of $2.75m with total sales of $2,758,781. The department sold 113 of the 136 listed parcels in the 2020 marketing plan. It is not currently known how the COVID-19 health emergency may have impacted sales.

What factors affect results? Availability of surplus lands and interest from potential buyers are the most significant factors. Over the past five years (2015–2020) the overall inventory has shrunk from 2,002 parcels to 874. The reduction in availability is both a product of successful sales efforts as well as a reflection of the real estate needs of Wisconsin's highway improvement program. From the land inventory, 93 parcels or 11 percent of the parcels are available land with independent access from the roadways and are considered general marketable for the public. 77 percent or 668 parcels, have limited marketability because they lack access and can only be sold to one of the abutting property owners, and 12 percent or 113 parcels of the overall inventory are considered non-marketable with no access and can only be sold to the single abutting property owner.

What are we doing to improve? A focus on "paperless sales packets" has yielded savings on printing and courier expenses. There are additional time savings through electronic signature processes. We continue to have success with online auctions for general marketable parcels, saving WisDOT money because all auction fees are paid by the buyer. The department continues to build on the success of a recent Continuous Improvement initiative to avoid costly appraisals by using nearby assessments to formulate sales offers on certain lands with limited to no marketability. Assessed value was increased from up to $15,000 to $50,000 thereby further streamlining the overall workload. Staff prioritize parcels with high maintenance costs such as vegetation management or snow removal. Real estate brokers continue to assist with marketing and sale of large value properties.

Wisconsin Department of Transportation
MAPSS Performance Improvement

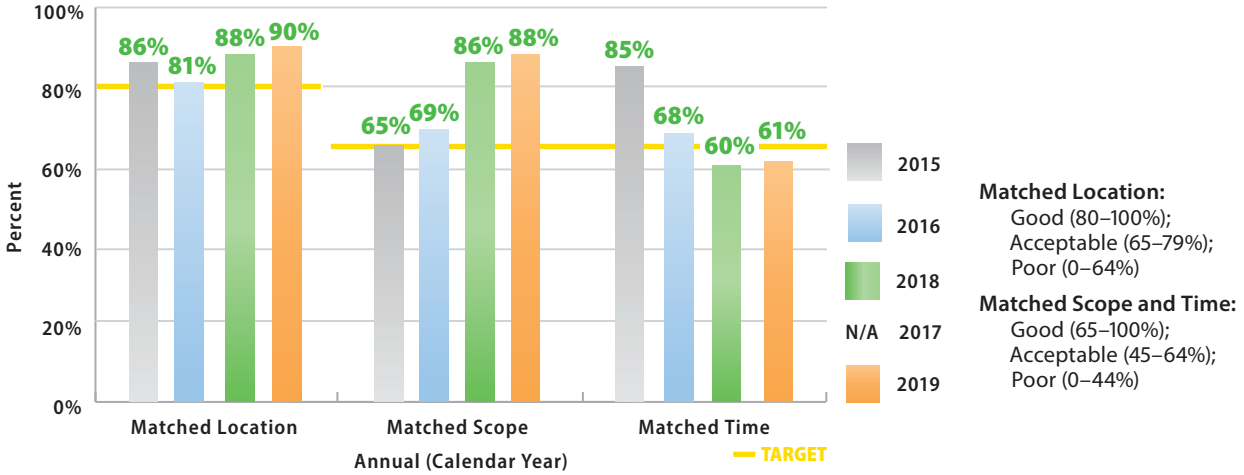
Preservation: Program Effectiveness

Report Date: July 2020 | **Data Frequency:** Annual (Calendar Year) | **Division:** Transportation Investment Management

Why is it important? The department uses the Program Effectiveness measure as a guide to ensure general conformity in the 3R improvement program with the asset management principles embodied in the department's scoping and prioritization themes. While the goal is to improve consistency in the use of asset management data and techniques, variation in performance across regions is expected. The asset management model provides "planning level" information that serves as a starting point for program planning. The department's planners and engineers then use this data to streamline the process of formulating "project level" decisions. It's important to recognize that the model cannot accommodate all of the competing variables that factor into project and program development. So while regions should keep measure outcomes in mind during the program development process, analysis of the outcomes should not be confused with project level development.

Performance measure target: To have 3R network (resurfacing, restoration and rehabilitation) scheduled projects align with the 3R asset management model at a level of "good" or above at both the statewide and regional levels (matched location 80 percent, matched scope 65 percent and matched time 65 percent).

Figure: 3R scheduled projects vs. 3R modeled projects



How do we measure it? Roadway segments from each region's approved schedule of 3R projects are compared to a set of "need-based modeled" projects. "Need" is based on safety (rate and severity) and pavement condition (when and how the Pavement Management Decision Support System recommends a treatment). "Modeled" project locations coincide with the termini of improvement program projects where possible. This coincidence allows for a one-to-one comparison of "programmed" versus "modeled" project location, scope (level of improvement), and timing (priority).

How are we doing? The department has completed the program-wide evaluation of its asset management program and has moved into the implementation phase. Scores have increased both at the statewide and regional levels. Project locations have a 90 percent match rate, and scoping and timing both increase relative to the previous year. Individual regions continue to improve, with most reporting in the "good" range for all metrics and all regions reporting in the "acceptable" range.

What factors affect results? Perfect conformity with the asset management model is not the desired outcome of this measure. Due to data limitations at the "planning" level, targets have been set at 80 percent, 65 percent, and 65 percent for Location, Scope, and Timing, respectively. Accepting less than 100 percent conformity recognizes that existing data and models cannot capture all the essential variables needed to determining project location, scope, and timing; however, they do provide a reasonable and responsible starting point. This measure facilitates improved investment decisions through effective use of data-driven asset management tools and techniques.

What are we doing to improve? The department's new asset management policies emphasize safety, preservation of good condition assets, and the rehabilitation of assets using performance-based practical design concepts. Taken together, these policies maintain or improve asset conditions at a lower cost than previous methodologies. Project-level processes have been implemented to review recommendations to ensure consistency with the asset management theme and vet deviations.

Wisconsin Department of Transportation
MAPSS Performance Improvement

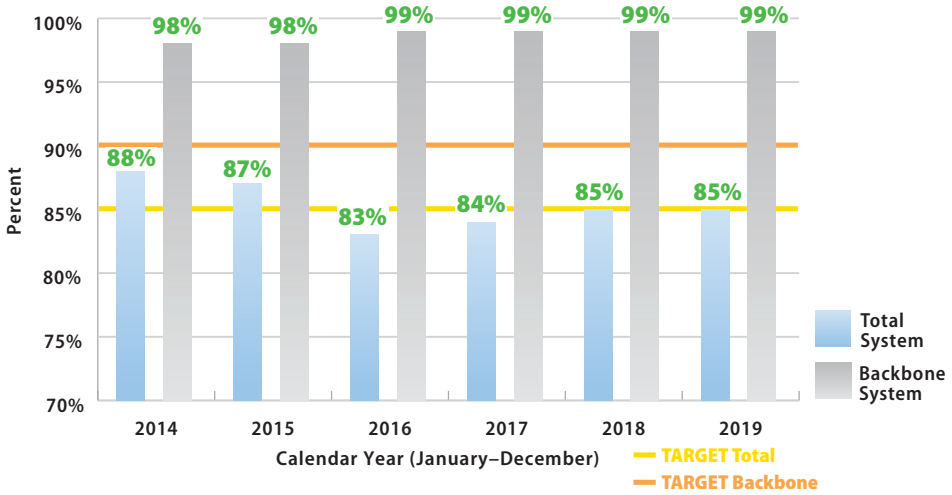
Preservation: State Highway Pavement Condition (PCI), backbone

Report Date: July 2020	**Data Frequency:** Annual (Calendar Year)	**Division:** Transportation Investment Management

Why is it important? Sixty percent of vehicle miles traveled in Wisconsin utilize the state's 12,000 miles of state-owned roadways. The state's backbone highway system is comprised of priority corridors and carries 85 percent of the freight tonnage traversing Wisconsin's state trunk highways. Preservation and improvement of these transportation facilities ensures a safe and efficient transportation system. Wise investment of taxpayer dollars involves a strategic application of asset management principles to maximize system health at the lowest cost practicable.

Performance measure target: The goal is to have 85 percent of the total system and 90 percent of backbone highway pavement rated fair or above using the most cost-effective pavement improvement methods available.

Figure: Percent of state highway pavements rated fair or better



How do we measure it? The Pavement Condition Index (PCI) method is used for rating pavement condition based on visual signs of pavement distress, such as cracks, ruts and potholes. PCI is a numerical rating that ranges from 0 to 100 – where 100 represents pavement in excellent condition and 55 represents a minimum rating for pavement in fair condition. Specialized pavement data collection vehicles gather data on the state trunk highway system on a two-year statewide collection cycle. The two collection cycles reported for the 2019 reporting period include the 2017 and 2018 collection seasons. Due to construction and other limiting factors, not all system miles may be collected and rated in a given year. This reporting cycle represents 14,348 rated miles.

How are we doing? The 2019 reporting data shows 85 percent of the total system, 99 percent of the backbone system, and 81 percent of the non-backbone system in fair or better condition. Historical trends demonstrate increasing levels of poor condition miles; though, a more recent trend suggests stabilization. The backbone system has consistently maintained high levels of fair or better condition miles due to its high priority.

What factors affect results? Pavement quality is impacted by material quality, adequacy of pavement design, traffic loading, improvement and maintenance history, age, and environmental factors such as temperature and moisture. The department considers all these factors when using asset management tools and strategies to determine investment levels and steward highway improvement funding.

What are we doing to improve? The department has adopted a new department-wide asset management program that brings efficiencies and implements new tools for assessing system health. The department's pavement condition program recently implemented a new state-of-the-art pavement condition survey system. This system has streamlined the collection process, which will allow the department to collect the entire state highway system each year. This increased frequency will allow the department's asset management program to refresh models and make data-driven decisions more quickly. The department has also enhanced its Pavement Management Decision Support System (PMDSS) to further incorporate a strategic combination of best value and viable low-cost fixes that optimize system pavement health. The department continues to research and test new materials and processes that maximize the long-term health of the highway system.

Wisconsin Department of Transportation

MAPSS Performance Improvement

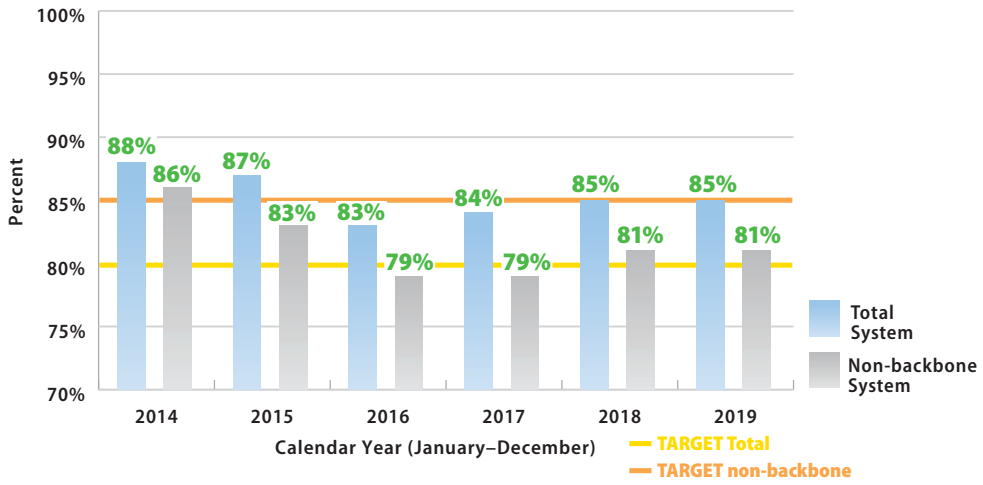
Preservation: State Highway Pavement Condition (PCI), non-backbone

Report Date: July 2020 | **Data Frequency:** Annual (Calendar Year) | **Division:** Transportation Investment Management

Why is it important? Sixty percent of vehicle miles traveled in Wisconsin utilize the state's 12,000 miles of state-owned roadways. The state's non-backbone system consists of the remaining state highway routes and carries over 50 percent of state highway traffic. Preservation and improvement of these transportation facilities ensures a safe and efficient transportation system. Wise investment of taxpayer dollars involves a strategic application of asset management principles to maximize system health at the lowest cost practicable.

Performance measure target: The goal is to have 85 percent of the total system and 80 percent of non-backbone highway pavements rated fair or above using the most cost-effective pavement improvement methods available.

Figure: Percent of state highway pavements rated fair or better



How do we measure it? The Pavement Condition Index (PCI) method is used for rating pavement condition based on visual signs of pavement distress, such as cracks, ruts and potholes. PCI is a numerical rating that ranges from 0 to 100—where 100 represents pavement in excellent condition and 55 represents a minimum rating for pavement in fair condition. Specialized pavement data collection vehicles gather data on the state trunk highway on a two-year statewide collection cycle. The two collection cycles reported for the 2019 reporting period include the 2017 and 2018 collection seasons. Due to construction and other limiting factors, not all system miles may be collected and rated in a given year. This reporting cycle represents 14,348 rated miles.

How are we doing? The 2019 reporting data shows 85 percent of the total system and 80 percent of the non-backbone system in fair or better condition. Historical trends demonstrate increasing levels of poor condition miles; though, a more recent trend suggests stabilization. The non-backbone system represents the majority of the system and has historically realized increasing levels of poor condition miles. A recent trend suggests stabilization around the 80 percent target.

What factors affect results? Pavement quality is impacted by material quality, adequacy of pavement design, traffic loading, improvement and maintenance history, age, and environmental factors such as temperature and moisture. The department considers all these factors when using asset management tools and strategies to determine investment levels and steward highway improvement funding.

What are we doing to improve? The department has adopted a new department-wide asset management program that brings efficiencies and implements new tools for assessing system health. The department's pavement condition program recently implemented a new state-of-the-art pavement condition survey system. This system has streamlined the collection process, which will allow the department to collect the entire state highway system each year. This increased frequency will allow the department's asset management program to refresh models and make data-driven decisions more quickly. The department has also enhanced its Pavement Management Decision Support System (PMDSS) to further incorporate a strategic combination of best value and viable low-cost fixes that optimize system pavement health. The department continues to research and test new materials and processes that maximize the long-term health of the highway system.

Wisconsin Department of Transportation
MAPSS Performance Improvement

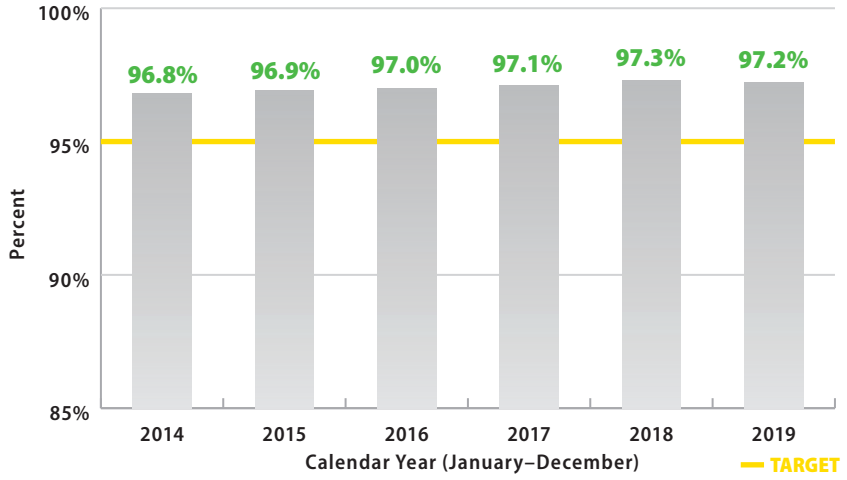
Preservation: State Bridge Condition

Report Date: July 2020 | **Data Frequency:** Annual (Calendar Year) | **Division:** Transportation System Development

Why is it important? Wisconsin bridges are critical infrastructure assets of the highway transportation network. Ensuring safety for the traveling public is a top priority for the department. Inspecting and evaluating bridges is a key component of meeting this objective. Bridges with a condition rating of poor are considered deficient and may need corrective action to ensure current and future operation of the transportation system. An accurate understanding of the condition of the inventory of bridges allows for planning and prioritizing limited resources to address operational needs.

Performance measure target: The department's goal is to have 95 percent of Wisconsin's state-owned or maintained bridges rated fair or above.

Figure: Percent of bridges rated fair or above



How do we measure it? The department performs bi-yearly safety inspections and condition assessments of bridges. This is the designated frequency in National Bridge Inspection Standards (NBIS). Through these inspections, condition rating data is collected for the culvert or deck, superstructure and substructure with an overall rating of good, fair or poor condition assigned each calendar year. Bridges with a poor condition rating and open to traffic are safe; however, these structures may need corrective action to ensure continued operation.

How are we doing? Wisconsin has been exceeding the goal of 95 percent in good/fair condition over the past six years. Currently, 97.2 percent of Wisconsin's 5,319 state-owned or maintained bridges have a good or fair rating, while roughly three percent of state bridges have a poor condition rating. There are 19 state-owned bridges with weight restrictions, an increase from 17 state-owned weight restricted bridges in 2019. The state highway system network accounts for 10.2 percent of the total mileage in Wisconsin yet handles 58.6 percent of vehicle miles traveled. Even when looking beyond the state system by factoring in Wisconsin's 8,889 local bridges, the good/fair rating remains above the national average (92.8 percent versus 92.5 percent).

What factors affect results? The increasing average age of the state bridge inventory (more than 35 years) is a significant factor. Wisconsin puts a high emphasis on maintaining and improving bridges through rehabilitation and replacement improvement programming. Bridges receive the highest priority in the project selection process. Wisconsin spends additional state money above the federal dollars it receives to maintain bridges.

What are we doing to improve? The department continues to improve inspection and management programs with new technology and innovative management practices. Over the past four years the department has introduced a bridge preservation policy for lower level treatments and action to extend long-term performance of bridges on state highways. This includes the Bureau of Structures working with FHWA to update the "Agreement for the Use of Federal Funds for Preventative Maintenance of Structures" which provides greater flexibility to the department in programming federally funded work actions for structures to achieve good and fair condition. The department has also developed the Wisconsin Structures Asset Management System (WISAMS) to identify and support programming of bridge projects. The Department continues to improve the implementation of the structures asset management program through the introduction of the Structures Certification Process. This process was implemented in 2019–2020 and it is meant to ensure the appropriate scope and timing of bridge improvement and rehabilitation projects throughout the state.

Wisconsin Department of Transportation
MAPSS Performance Improvement

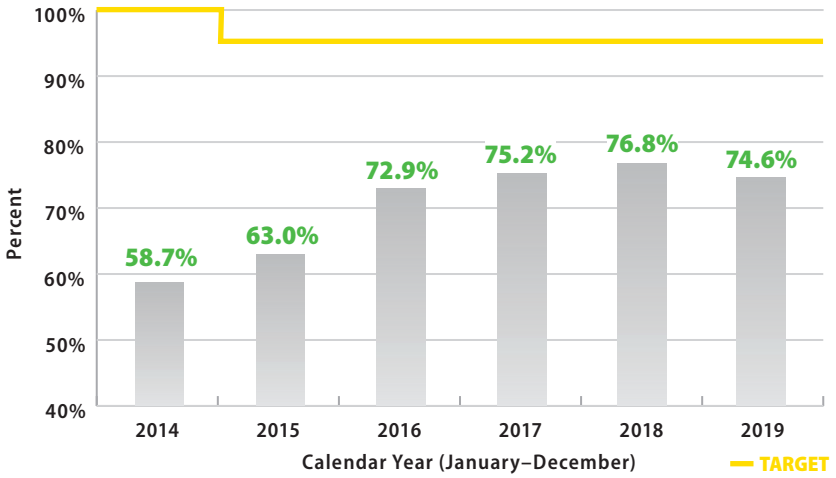
Preservation: State-owned Rail Line Condition

Report Date: July 2020	**Data Frequency:** Annual (Calendar Year)	**Division:** Transportation Investment Management

Why is it important? The efficient movement of freight throughout the state enhances Wisconsin's economic productivity and competitiveness. It is critical to maintain train operating speeds as high as possible to optimize the daily movement of freight in the state.

Performance measure target: The department's goal is to have 95 percent of state-owned rail line miles functioning at Federal Rail Administration (FRA) Class 2 operating speed standards. The FRA Class 2 standards include tracks capable of operating loaded 286,000-pound rail cars above 10 miles per hour and not exceeding 25 miles per hour.

Figure: Percent of miles of state-owned rail line meeting FRA Class 2 standard (10–25 mph)



How do we measure it? The track is evaluated based on the percent of track miles operating at speeds allowed by the FRA's Class 2 Track Safety Standards. The percent of miles of rail line meeting the standard is calculated by dividing the amount of track meeting or exceeding FRA Class 2 standards by the total amount of state-owned rail lines.

How are we doing? There are approximately 731.96 miles of active rail line owned by WisDOT. This includes approximately 19 miles of track from Trego to Hayward, that were actively used for freight service in 2019. In 2019, zero miles were improved to meet FRA Class 2 standards through WisDOT funded projects and one mile of rail line deteriorated to below FRA Class 2 standards due to poor tie conditions. A total of 545.75 of the 731.96 miles of track (74.6 percent) met the department goal. This is a one-mile decrease from 2018 to 2019 in the number of miles that meet the standard.

What factors affect results? Variability in railroad infrastructure program funding levels affects the amount of track improvement projects that can be initiated in a particular program cycle. In addition, rail projects sometimes require more than one year to complete, creating the appearance of little progress in one year and substantial progress in the next. Another factor is that railroad project funds can be spent on rail bridge projects that do not affect this measure, but do improve overall rail system safety, speed, efficiency, and reliability. Funds may also be used for the acquisition of new rail lines to the system. Acquisition of new rail lines is focused on the continued preservation of short-line rail service needs statewide. While this supports economic development, it increases the total miles system-wide and reduces the proportion of available rail improvement project funding. Last, the overall state of the economy impacts the volume of goods transported by the railroads, the revenue it produces, and the reinvestment in railroad structures by the railroad companies.

What are we doing to improve? The department reviews the annual maintenance plans of companies operating on state-owned railroad track and discusses opportunities to upgrade rail track and structure conditions. The department's rail grant and loan program funds railroad infrastructure rehabilitation projects to improve track structure and increase operating speeds each year. Annual compliance inspections are done to ensure that railroads are properly maintaining state-owned rail lines. Due to ongoing investment in rail lines and enforcement of maintenance standards, the department expects this upward trend in the percent of miles meeting FRA's Class 2 operating standards to continue.

Wisconsin Department of Transportation

MAPSS Performance Improvement

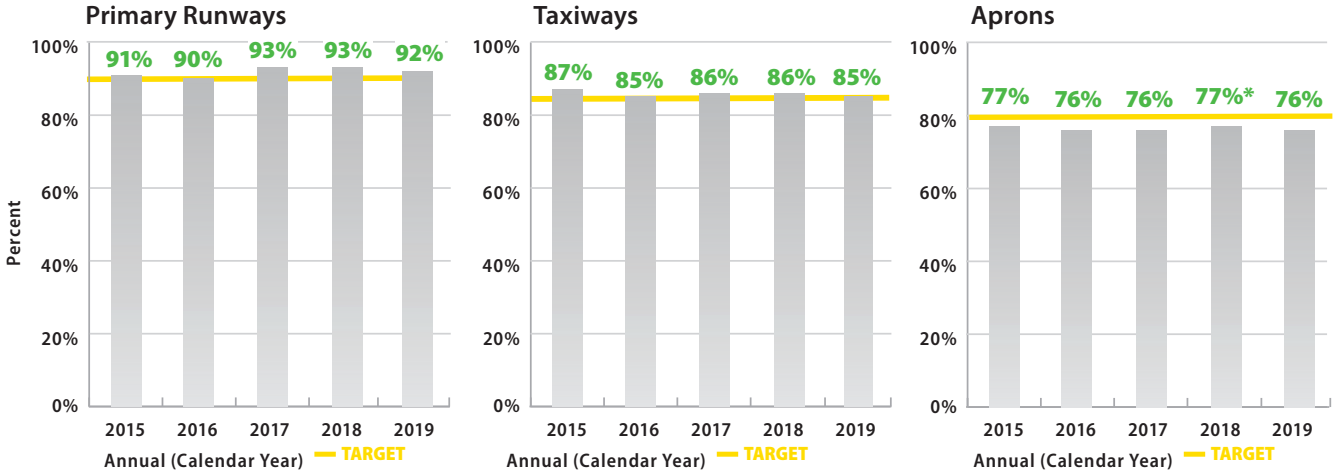
Preservation: Airport Pavement Condition

Report Date: July 2020 | **Data Frequency:** Annual (Calendar Year) | **Division:** Transportation Investment Management

Why is it important? Pavement condition ratings are a primary indicator of the long-term structural health of the state's airport system. The department evaluates the pavement condition on three pavement types (primary runways, taxiways and aircraft parking aprons) at each of the 97 publicly-owned airports identified in the State's Airport System Plan (SASP).

Performance measure target: The department's goal varies by pavement type. The target for primary runways is to have 90 percent of airport pavement rated fair or above, Taxiways 85 percent, and aprons 80 percent respectively.

Figure: Percent of airport pavement rated fair or above



Note: 2015 estimated PCI values back modeled. 2016 and 2017 actual PCI inspection data was used.
*2018 has been updated to incorporate additional data.

How do we measure it? In 2017, the emphasis was narrowed to focus on the highest priority pavement surfaces and establish individual targets based on the three different functional pavement types (primary runways, taxiways, aprons). The Pavement Condition Index (PCI) method is used for rating pavement condition based on visual inspection. The PCI is a numerical rating that ranges from 0 to 100, with 100 being a pavement in excellent condition. A PCI of 56 or higher is rated as "fair or above". The measure for each pavement type is calculated by taking the total area of pavement for each pavement type having a PCI of at least 56, divided by the total pavement area for each pavement type expressed as a percentage. Primary runways only include a single runway at each airport, except General Mitchell International Airport in Milwaukee (GMIA) which uses one runway for takeoff and one for landing therefore both runways were included. Taxiways generally include only the taxiway network used to travel between the primary runway and the main terminal aircraft parking apron. Aprons generally include only the main airport terminal aircraft parking aprons, and actively used cargo areas.

How are we doing? Primary runways: In 2019, 92 percent of the state's primary runways were rated fair or above remaining relatively steady from 2018 and two points above the goal of 90 percent. **Taxiways:** In 2019, 85 percent of the state's taxiways were rated fair or above remaining relatively steady from 2018 and meeting the goal of 85 percent. **Aprons:** In 2019, 76 percent of the state's aircraft parking aprons were rated fair or above. Remaining relatively steady from 2018 and four points below the goal of 80 percent.

What factors affect results? Airports are locally-owned and decisions regarding improvements are handled at the local level. Challenges occur when a pavement needs rehabilitation but the airport owner has prioritized other projects. The last several years, national federal high priority safety initiatives caused a shift in priority from pavement rehabilitation projects to these safety improvements. Federal discretionary dollars are focused on the national safety priority, limiting the funds available for pavement rehabilitation.

What are we doing to improve? At least annually, DOT meets with airports to discuss current and future projects in developing a six-year capital improvement program. A key component of this outreach relates to the priority system and the importance of preservation and rehabilitation of critical pavement infrastructure. The pavement needs are balanced and incorporated into the six-year plan in accordance with other high priority safety and airport operational needs.

Finally, we plan to investigate the use of software that will help more accurately identify candidate projects for various types of preventative maintenance surface treatments. The potential of this tool is to more precisely focus on the right pavements, with the right preservation treatment, at the right time to achieve maximum results.

Wisconsin Department of Transportation

MAPSS Performance Improvement

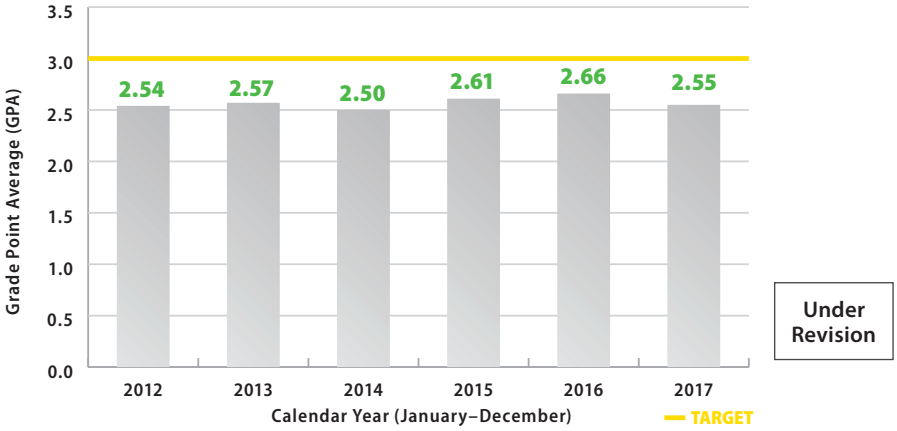
Preservation: State Highway Roadside Maintenance

Report Date: July 2020 | **Data Frequency:** Annual (Calendar Year) | **Division:** Transportation System Development

Why is this important? Many factors affect the safety, efficient operation and longevity of our highway system. Effective and consistent maintenance efforts preserve our investment in the highway system, enhance safety and economic productivity, and minimize the impact to the natural environment.

Performance measure target: The department's goal is to reach and maintain a 3.0 out of 4.0 grade point average (GPA) for 29 features evaluated each year.

Figure: Grade point average for the maintenance condition of state highway roadsides



How do we measure it? Twenty-nine features are evaluated under five contributing categories: Critical Safety, Safety/Mobility, Stewardship, Driver Comfort and Aesthetics. Condition data is collected each fall as part of a field review process. Rating teams composed of WisDOT region maintenance coordinators and county patrol superintendents evaluate a random sample of 1,200 one-tenth mile segments around the state. Conditions of the features are assessed, documented and used in creating grading curves. Pre-established grading curves help identify areas for improvement.

How are we doing? The statewide GPA shows a 0.11-point decrease from 2016 with the largest changes experienced in three areas: Routine replacement of other signs, protective barriers and storm sewers. Routine replacement of other signs marked a positive step forward to a B grade as the department focuses on infrastructure preservation and more efficient deployment of resources. However, the marks for storm sewer condition and protective barriers each declined to a C. In the case of protective barriers, the department intensified training to uncover previously undetected issues. The department is now working to prioritize and remedy these issues to enhance safety and foster greater longevity of the infrastructure.

What factors affect results? The annual GPA is affected by baseline conditions, maintenance budget levels and policies, winter maintenance costs and improvement program investments. The department's first maintenance priority is snow and ice removal, while the balance is spent on non-winter activities. Historically, about three-quarters of each maintenance dollar is programmed to winter, pavement and structure maintenance activities, with the balance used on system needs associated with the 29 Compass features. The highway maintenance condition largely depends on the balance of routine maintenance agreement funding remaining after winter operations, as well as improvement project programming levels.

What are we doing to improve? The department is focusing on preservation of infrastructure and is continuing to work with Wisconsin's 72 counties to create best practices. Over the past several years, the department has modernized the approach to winter maintenance, using technology to prescribe the most effective snow plow routes to reduce man-hours and equipment needs. Additionally, the department has been working with counties to collect data on non-winter activities in order to strategize for less costly, more efficient routine maintenance. By data-banking good construction practices and sharing these practices with other counties, it is reasonable to expect additional benefit in the quality and effectiveness of treatments to overall pavement service life.

Wisconsin Department of Transportation
MAPSS Performance Improvement

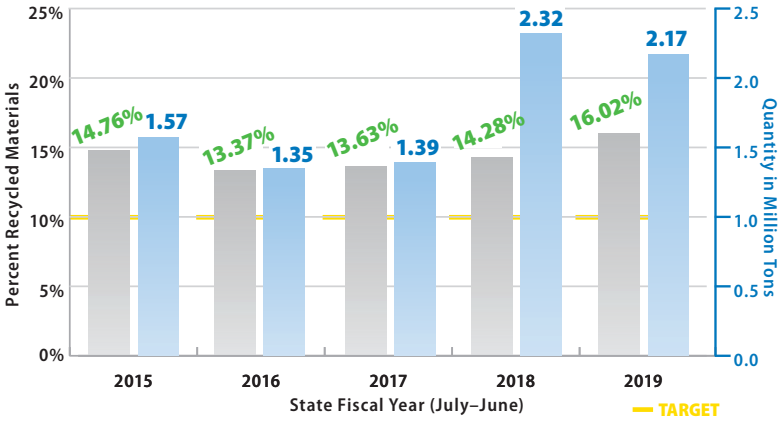
Preservation: Material Recycling

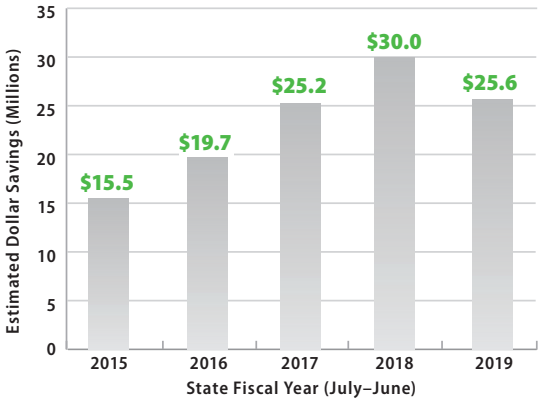
Report Date: July 2020 | **Data Frequency:** Annual (State Fiscal Year) | **Division:** Transportation System Development

Why is it important? The department strives to incorporate environmental sustainability or green initiatives in its vision for providing a safe and efficient transportation system. This includes incorporating the use of recycled materials in improvement projects to lessen the impact on Wisconsin's environment and to preserve resources for future generations. WisDOT's recycled materials efforts help to prevent waste and create opportunities for savings. Since 2012, WisDOT projects have reused more than 14 million tons of materials, creating a savings of over $150 million to benefit additional projects.

Performance measure target: The department's goal is to make sure recycled materials are incorporated into projects. The goal based on the new measuring methodology is to have 10 percent of virgin materials replaced with recycled materials in construction projects.

Figures: Recycled materials used in pavement and bridge construction





How do we measure it? Recycled material quantities are calculated based on total tonnage of construction bid items for the fiscal year where recycled material are commonly used. Steel that is extracted and recycled by the construction contractor is also included in the total tonnage. The use of recycled materials is measured by the percentage of virgin material replacement in some key construction materials. By reporting the use of recycled materials by percentage of the product being placed, we will be able to better track usage based on design and material policies.

How are we doing? There has been a large increase in the use of recycled material in WisDOT projects over the past two years, as contractors working on two of the department's largest projects have leveraged the benefits. Recycled concrete has been a large component of the I-39/90 expansion in Dane and Rock counties as well as the I-94 North project in southeastern Wisconsin. The department remains committed to the beneficial reuse of highway products such as concrete and reclaimed asphalt where the materials can gain new life in a quality finished product. Incorporating recycled materials helps to conserve resources, minimize waste and simplify work zone logistics, as fewer trucks are needed to haul material.

What factors affect results? The department wants to encourage the use of recycled materials and has written project specifications to allow recycled materials. Ultimately, the contractor makes the decision on the materials to use based on market conditions. The economy, fuel costs and landfill tipping fees affect the cost effectiveness and attractiveness of recycling.

What are we doing to improve? The department continues to work with other states at a national level and with universities to develop new technologies and methods to incorporate not only greater amounts of recycled material but also new recycled materials. These efforts have yielded significant results in the past in the form of new materials being recycled and greater amounts of the material currently being used. Updates by WisDOT and WisDNR on the NR 538 policy on beneficial reuse of industrial byproducts are nearing completion. Use of Cold In-Place Recycling continues to expand. The department has partnered with UW-Madison's Recycled Materials Resource Center on their web-based tool that identifies waste material supplies that are available and can be used by contractors.

Wisconsin Department of Transportation

MAPSS Performance Improvement

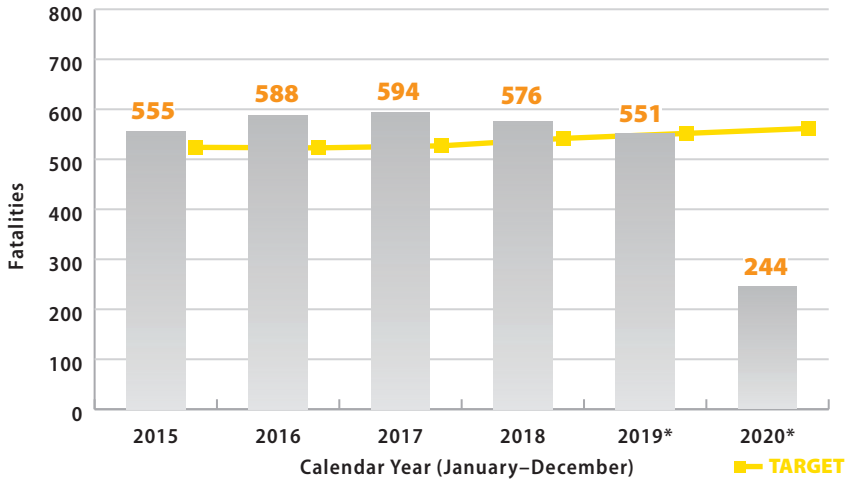
Safety: Traffic Fatalities

Report Date: July 2020	**Data Frequency:** Quarterly (Calendar Year)	**Division:** State Patrol

Why is this important? Any preventable traffic death on Wisconsin's roadways is one too many. Each fatality is a tragedy—a person who will not be returning home.

Performance measure target: For each calendar year, the department seeks to reduce traffic fatalities by two percent from the prior five-year rolling average. This supports the department's over-arching safety goal to reduce deaths on Wisconsin roads.

Figure: Number of traffic fatalities



*Preliminary calendar year-to-date

How do we measure it? The measure uses traffic fatality data collected by law enforcement agencies who use a standard crash report. The information is not considered final until approximately June of the following year as data is reported late or needs verification.

How are we doing? Wisconsin has experienced an increase in traffic fatalities on its roads from the previous year. As of June 30, 2020, Wisconsin has had 244 fatalities, which is 18 more than in 2019 and 5.0 percent less than the five-year rolling average for 2020. Even though Wisconsin has had 62 fatality-free days thus far in 2020 (the five-year average is 53.0), there are still far too many needless and preventable deaths on our roadways. In many instances, drivers and passengers have been ejected from the vehicle because they were not wearing safety belts. Wearing a safety belt is the single most effective way to prevent ejection or being violently thrown around inside the vehicle during a crash. Wisconsin's fatality rate for 2018 was 0.87 per 100 million vehicle miles traveled (VMT), which is the second lowest recorded. Wisconsin had 551 fatalities in 2019 which is 25 fewer than 2018, or a 4.3 percent reduction.

What factors affect results? Traffic crashes are avoidable events caused by such factors as human behavior, vehicle condition and environmental surroundings. Weather can also have a seasonal impact, especially on motorcycle or bicycle-related fatalities. The largest factor and most difficult to change is the risk-taking behavior of drivers and tolerance of the public toward risky behavior.

What are we doing to improve? The department uses a combined strategy of engineering, education, enforcement and emergency response to prevent traffic fatalities, including designing safer roads and maintaining the highway infrastructure. The department has expanded the use of multi-jurisdictional High Visibility Enforcement task forces around the state to address impaired driving, speed, pedestrian safety and safety belt use. Speed and aggressive driving are targeted through increased use of aerial enforcement in partnership with agencies across the state. The department provides ongoing educational outreach to high school students to promote safe driving, use of safety belts and eliminating driving distractions. Centerline and shoulder rumble strips have been installed along with other roadway improvements in corridors with safety concerns.

Wisconsin Department of Transportation
MAPSS Performance Improvement

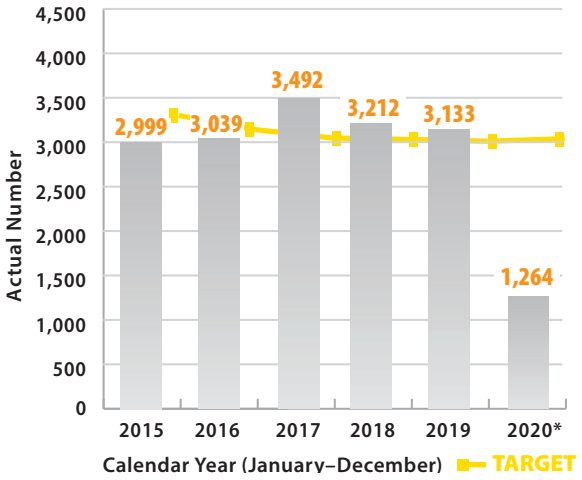
Safety: Serious Traffic Injuries

Report Date: July 2020 | **Data Frequency:** Annual (Calendar Year) | **Division:** State Patrol

Why is this important? Each traffic crash potentially creates loss of life, debilitating injuries or lost income and productivity for crash victims. Any preventable traffic death or serious injury is one too many.

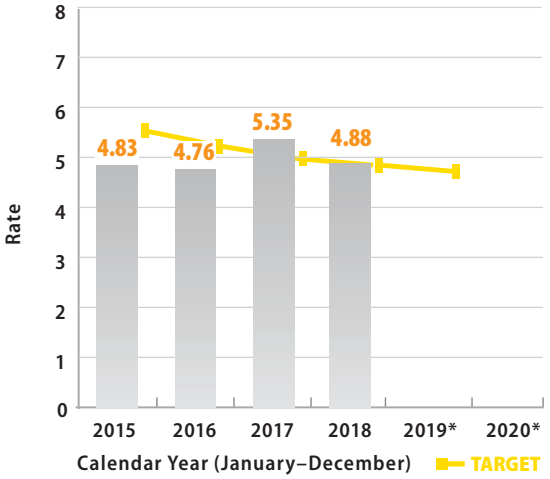
Performance measure target: The goal of this measure is to reduce the number of serious injuries from traffic crashes by five percent from the prior five-year rolling average.

Figure 1: Total number of serious injuries



*Preliminary. The final rate for 2019 will be available in October 2020.

Figure 2: Serious injury rate per 100 million vehicle miles traveled



How do we measure it? The measure uses serious injury data compiled from all traffic crash reports submitted by Wisconsin law enforcement agencies. Injuries related to vehicle crashes are calculated against vehicle miles traveled each calendar year to generate an injury rate per 100 million vehicle miles traveled. Prior year volume data used to calculate this rate is available by September of the subsequent year. Beginning in 2017, the crash report was changed to reflect current national standards. Injury severity had been assigned according to the officer's judgement of the consequences of the injury. Now it is assigned according to readily apparent symptoms.

How are we doing? The number of serious injuries in 2020 is 1,264, an 8.0 percent decrease from last year and a 7.3 percent decrease from the five-year average. When calculated against vehicle miles traveled, the serious injury rate in Wisconsin in 2018 was 4.88 serious injuries per 100 million vehicle miles traveled. This is a 4.1 percent decrease from the prior five-year rolling average of 5.09. Serious injury crashes (those that result in serious injuries) have declined from 3,990 in 2007 to 2,621 in 2019. There have been 1,038 serious injury crashes on Wisconsin roads in 2020 as of June 30, 2020 (preliminary), which is a decrease from 1,130 (8.1 percent) in 2019.

What factors affect results? Traffic crashes are avoidable events caused by such factors as human behavior, vehicle condition and environmental surroundings. Weather can also have a seasonal impact, especially on motorcycle or bicycle-related crashes. For motorcyclists and bicyclists, the use of proper safety gear can reduce severity of personal injuries. Wearing a seat belt while in a car or truck is the single most effective way to reduce or eliminate injury in a crash. Safety and road design improvements and tougher laws can have a positive impact on crash frequency. In addition, the severity of injuries in crashes can be lessened through rapid and high-quality emergency medical response.

What are we doing to improve? The department uses a combined strategy of engineering, education, enforcement and emergency response to prevent traffic crashes and injuries, including designing safer roads and maintaining the highway infrastructure. In addition, the department has expanded the number of multi-jurisdictional High Visibility Enforcement task forces to address impaired driving, speed, pedestrian safety and safety belt use. The department is targeting speed and aggressive driving through increased use of aerial enforcement and in partnership with agencies across the state. The department provides ongoing educational outreach to high school students to promote safe driving, use of safety belts and eliminating driving distractions, such as texting. The department has installed center line and shoulder rumble strips and other roadway improvements in corridors with safety concerns.

Wisconsin Department of Transportation
MAPSS Performance Improvement

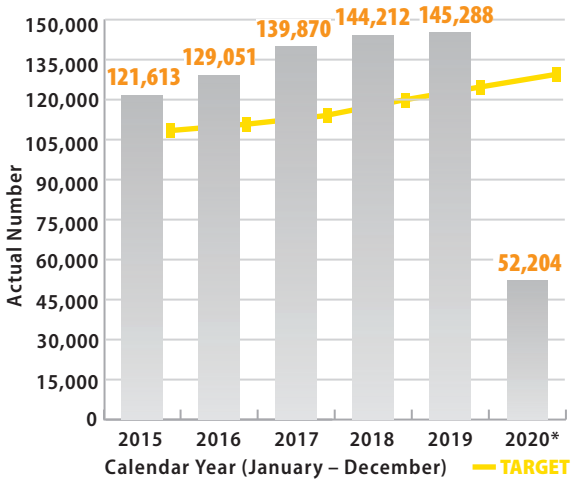
Safety: Traffic Crashes

Report Date: July 2020 | **Data Frequency:** Annual (Calendar Year) | **Division:** State Patrol

Why is this important? Each crash potentially creates loss of life, debilitating injuries or lost income and productivity for crash victims. Crashes on the road system also impact traffic flow and the timely movement of goods and people to their destinations.

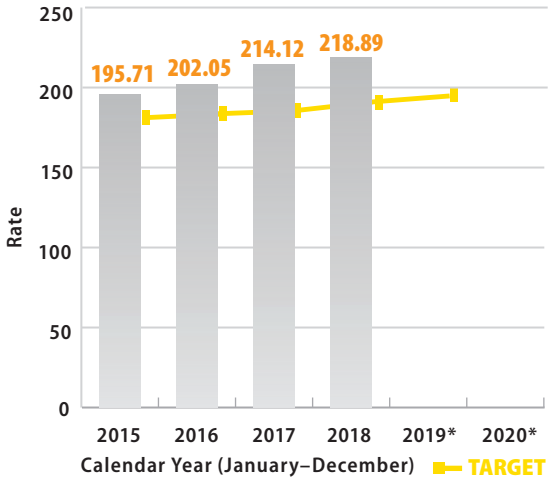
Performance measure target: The goal of this measure is to reduce traffic crashes on Wisconsin roads by five percent from the prior five-year rolling average.

Figure 1: Total number of crashes



*Preliminary. The final rate for 2019 will be available in October 2020.

Figure 2: Crash rate per 100 million vehicle miles traveled



How do we measure it? The measure uses traffic crash data compiled from all traffic crash reports submitted by Wisconsin law enforcement agencies. In order to calculate the annual crash rate, the total number of crashes is divided by the number of vehicle miles traveled (in hundreds of millions). Prior year volume data used to calculate this rate is available by September of the subsequent year.

How are we doing? As of June 30, 2020, the number of traffic crashes on Wisconsin roads was 52,204. This is a 26.1 percent decrease from last year and a 19.5 percent decrease from the five-year average. The crash rate in 2018 increased from the rate in 2017 by 2.2 percent. In calendar year 2018, there were 144,212 total crashes (fatal crashes, injury crashes and property damage crashes) on Wisconsin roads. When calculated against vehicle miles traveled in 2018, the crash rate was 218.89 crashes per 100 million vehicle miles traveled. This is a 8.4 percent increase from the prior five-year rolling average of 202.02.

What factors affect results? Traffic crashes are avoidable events caused by such factors as human behavior, vehicle condition and environmental surroundings. Weather can also have a seasonal impact, especially on motorcycle or bicycle-related crashes.

What are we doing to improve? The department uses a combined strategy of engineering, education, enforcement and emergency response to prevent traffic crashes and injuries. This includes designing safer roads, maintaining the highway infrastructure, educational efforts targeted on prevention, and expanding enforcement campaigns in partnership with law enforcement agencies across the state. The department works to encourage drivers to stay within the speed limit, drive sober, buckle their safety belts and eliminate driving distractions.

Wisconsin Department of Transportation

MAPSS Performance Improvement

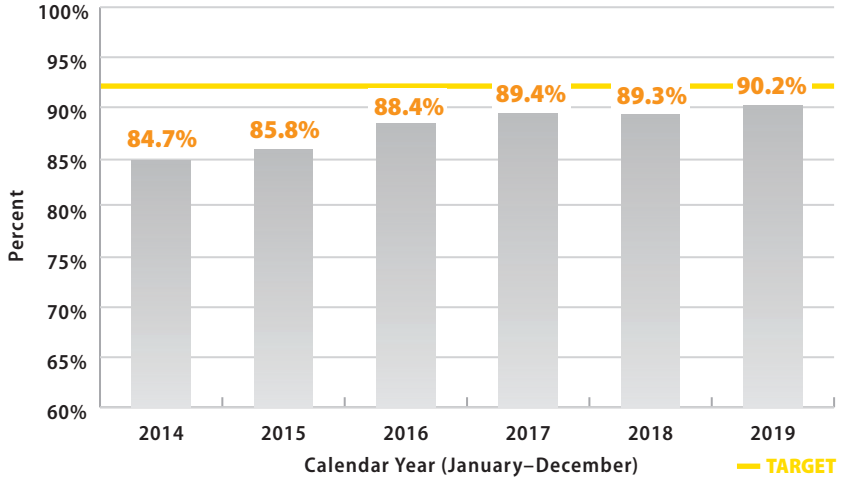
Safety: Safety Belt Use

Report Date: July 2020	**Data Frequency:** Annual (Calendar Year)	**Division:** State Patrol

Why is this important? Wearing safety belts saves lives. Buckling a safety belt every time, on every trip, decreases the risk of being ejected or thrown about the vehicle in the event of a crash. In Wisconsin, a 10 percent increase in safety belt use would save about 44 lives and prevent 650 injuries each year. About 50 percent of all passenger vehicle occupant fatalities in Wisconsin are unbelted. Motorists who do not use safety equipment are 12.3 times more likely to be killed than someone wearing a shoulder and lap belt at the time of a crash. The likelihood of surviving a crash, and possibly avoiding debilitating injuries, can be increased by the simple task of buckling a safety belt.

Performance measure target: The goal of this measure is to increase safety belt use to 92 percent for all passenger vehicle occupants by 2020.

Figure: Percent of vehicle occupants wearing a safety belt



How do we measure it? Using guidelines developed by the National Highway Traffic Safety Administration (NHTSA), the department conducts an annual seat belt use survey in conjunction with the annual Click It or Ticket seat belt enforcement mobilization conducted each spring. The survey data presents a statistically representative sample of the percentage of safety belt use in Wisconsin.

How are we doing? Safety belt use in Wisconsin reached 90.2 percent in 2019, which is an all time high. That means that approximately one in ten motorists are still not buckling up—putting themselves and others at risk of serious injury or death in the event of a crash. Wisconsin is above the 89.6 percent 2018 national average for safety belt use but still lags behind the safety belt use of neighboring states like Illinois and Michigan, which estimate safety belt use rates of more than 90 percent. The previous five year average was 87.5 percent.

What factors affect results? Human behavior is the most important factor that affects safety belt use results. Consistent safety belt use saves lives and motorists need to be proactive in buckling their safety belts every time, on every trip, to promote their safety and the safety of others. Safety belt use is a law in the state of Wisconsin. Since 2009, it is a primary enforcement law, which means law enforcement officers can pull over and cite a motorist for not wearing a safety belt.

What are we doing to improve? The department promotes safety belt use through education and enforcement. The nationwide Click It or Ticket effort, in conjunction with NHTSA, utilizes paid advertising and enforcement to promote public awareness. Much of the educational efforts are targeted at younger drivers whose safety belt use is much lower than other age groups. The department also supports car seat fitting stations to ensure that parents and providers are instructed on how to properly install child car seats and booster seats to keep small children safe in vehicles and training instructors on safety seat installment. By buckling their safety belt every time they get in a vehicle, motorists ensure their own personal safety, as well as the safety of passengers.

Wisconsin Department of Transportation

MAPSS Performance Improvement

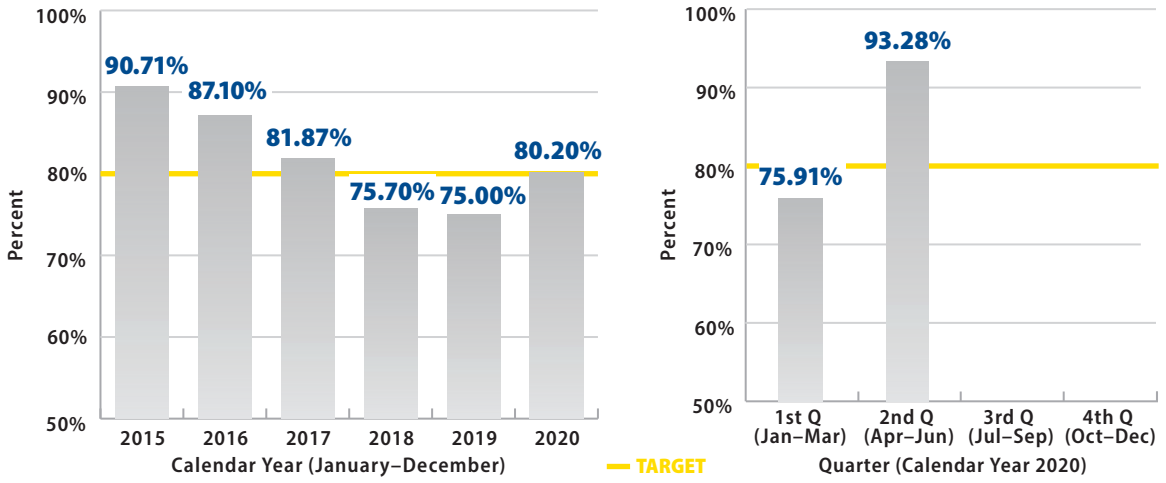
Service: DMV Wait Times

Report Date: July 2020	**Data Frequency:** Quarterly (Calendar Year)	**Division:** Motor Vehicles

Why is it important? For many customers, their primary contact with the department is through the Division of Motor Vehicles (DMV). While most DMV services do not require an in-person visit to a customer service center, the DMV service centers still experience large volumes of customers (more than two million transactions occur at offices each year). The DMV's goal is that customers receive quality service within a reasonable amount of time.

Performance measure target: The goal of this measure is to serve 80 percent of customers within 20 minutes of their arrival at a DMV customer service center.

Figure: Percent of DMV service center customers served within 20 minutes



How do we measure it? The measure counts all recorded wait times and calculates the percent of customers who waited 20 minutes or less. This includes all customers who visit our 30 five-day stations, which serve approximately 85 percent of our customers.

How are we doing? Customer traffic dropped significantly at the beginning of quarter two, and has since increased to approximately 60 percent of the average customer counts for June in the prior three years. With these lower levels, we have served over 90 percent of our customers within 20 minutes for each month of quarter two.

What factors affect results? Factors affecting this measure are staff vacancies and absences, computer system reliability and the day of the week/month (demand for services varies). The availability of self-service options, by phone and on-line, also affect the demand for counter service.

What are we doing to improve? DMV has implemented an online scheduling system that provides customers the ability to make appointments as well as complete and submit applications electronically prior to arriving at a service center. This allows DMV to better allocate resources to meet demand and decrease transaction time. As more customers choose to take advantage of scheduling appointments and electronically submitting their applications in advance, service times will continue to improve. DMV has also begun two pilot programs in quarter two; online driver license renewals and road test waivers. These pilots have helped individuals obtain the products they need without having to visit a DMV field station, making social distancing in our stations more effective.

Wisconsin Department of Transportation
MAPSS Performance Improvement

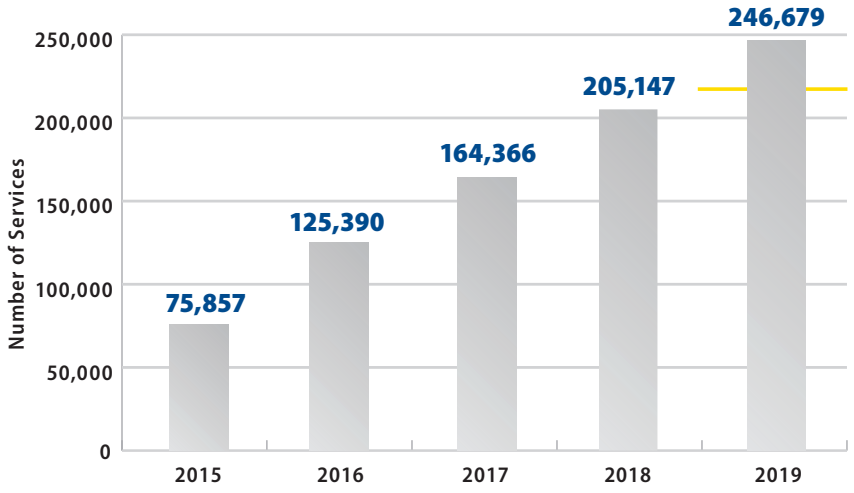
Service: DMV Electronic Services

Report Date: July 2020 | **Data Frequency:** Annual (Calendar Year) | **Division:** Motor Vehicles

Why is it important? The goal of this measure is to increase the number of self-serve electronic transactions by ten percent each calendar year. This will further DMV's efforts of shifting from manual work by DMV staff to providing customer self-service options through automation. Using technology to improve the quality and decrease the cost of services has and will continue to be a priority for DMV.

Performance measure target: The goal of this measure is to increase the number of transactions performed electronically by ten percent each calendar year. Our goal is also to represent a shift from manual work by DMV staff to self-serve through automation.

Figure: Total electronic services performed by customers



How do we measure it? This measure is a count of new eNotify sign-ups, electronic application submissions, and online duplicate driver license and identification card transactions performed annually.

How are we doing? Electronic services usage is trending in line with the ten percent increase goal.

What factors affect results? An increasing number of our customers prefer to receive notifications and engage with the division via electronic means. As awareness of these options increases, we expect these numbers to continue to grow.

What are we doing to improve? The department continues to create new electronic services and encourages users to complete transactions online. Public awareness campaigns and expanded use of social media have helped to publicize the availability of DMV's electronic service options.

Wisconsin Department of Transportation
MAPSS Performance Improvement

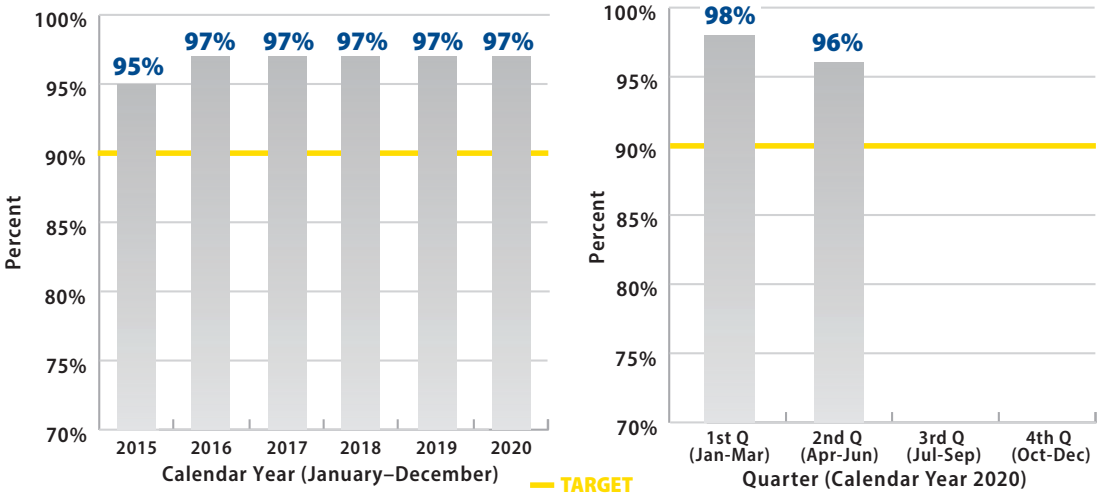
Service: DMV Driver License Road Test Scheduling

Report Date: July 2020	**Data Frequency:** Quarterly (Calendar Year)	**Division:** Motor Vehicles

Why is it important? Customers who are eligible to schedule a Class D skills test should be able to find adequate appointment slots available at the same location the instruction permit was processed. A lack of local availability upon eligibility creates an inconvenience for customers who must travel great distances to take a road test or delay scheduling.

Performance measure target: To have enough Class D skills tests available to meet 90 percent of the estimated demand four weeks before the customer's eligibility date.

Figure: Percent of DMV road test demand met four weeks in advance



How do we measure it? Applicants under the age of 18 must hold their instruction permit for six months before they are eligible to take a road skills test. By looking at the number of Class D Instruction Permits issued to customers under the age of 18 each week at each DMV office, and applying a multiplier to account for adult permits as well as a statewide fail rate, the DMV is able to estimate the demand for road skills tests needed at each office six months into the future. Four weeks before the actual testing week, the DMV compares the number of scheduled and available tests to the estimated demand, and calculates the demand that is not served at each DMV office and the total statewide demand not being met. The weekly data is then combined for the monthly report. If a DMV office offers more tests than the estimated demand, this is not counted toward meeting another office's demand.

How are we doing? The DMV has maintained the annual trend of achieving 90 percent or higher service levels. This is largely due to using improved projection models to better estimate our customers' needs. Due to the pandemic, road test services were suspended in late March.

What factors affect results? While there are prerequisites for scheduling a Class D skills test, it is ultimately up to the customer to schedule their test at the location and date that best meet their needs. Some customers hold a permit beyond the minimum requirement, and some customers feel more comfortable taking a test in one location over another. These personal preferences cannot be accounted for in the established goals.

What are we doing to improve? Used as a leading indicator to allocate staff resources, DMV continues to explore ways to use this measure to make informed resourcing decisions. With projections available six months in advance, DMV ties this information to the availability of time off and adjusts resources as needed (temporarily or permanently) to respond to weekly fluctuations in estimated demand levels. Management follows up with offices not meeting the goals to ensure the estimated demand levels are understood and to identify circumstances that influence performance. Beginning in May, we also began the Road Test Waiver pilot program, allowing some under-18 applicants to waive their road test with their parent or guardian's approval. This has reduced demand for road tests and DMV has modified its road test forecasting model to account for this decrease.

Wisconsin Department of Transportation
MAPSS Performance Improvement

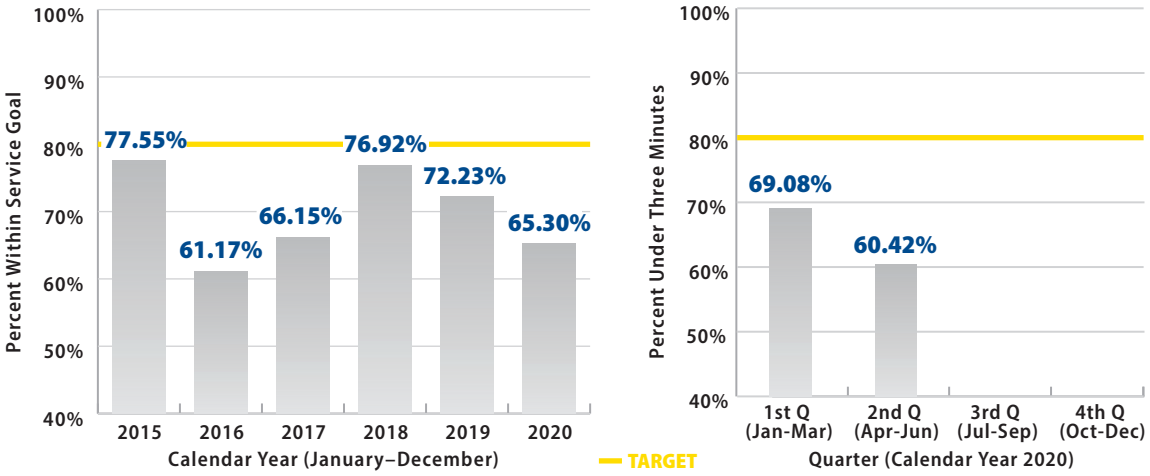
Service: DMV Phone Service

Report Date: July 2020 | **Data Frequency:** Quarterly (Calendar Year) | **Division:** Motor Vehicles

Why is it important? In addition to approximately two million customers served in person each year at our service centers, the department's Division of Motor Vehicles (DMV) also receives an average of 1.11 million phone calls each year from individuals, business partners and other governmental entities. These calls range in complexity from a simple request for a service center location to questions about Commercial Driver License (CDL) eligibility requirements. Although phone customers are not physically waiting in line, they deserve timely service.

Performance measure target: The DMV's performance target is to answer 80 percent of all the calls offered within three minutes wait time.

Figure: Percent of DMV phone wait times within service goal



How do we measure it? Each week, the DMV counts the total number of calls offered to representatives and calculate the percent that waited three minutes or less before speaking with a representative. Calls abandoned or blocked due to a busy signal are considered to have waited longer than three minutes.

How are we doing? The pandemic has resulted in a new set of additional customer questions and concerns, and a large number of customers took advantage of the DMV "callback" feature to get their answers. This feature allows the customer to enter a callback number, hang up, and wait for the next available agent to call them back. There were over 4.75-times as many callbacks in quarter two of 2020 as in quarter two of 2019, none of which are documented in this measure. With phone staff addressing this increased number of customer requests for callbacks, while also answering regular incoming calls, customer calls measured for MAPSS tracked much lower than normal.

What factors affect results? These include the number of representatives answering phones, the number of calls, the length of time a representative is on the phone with a customer (a product of the complexity of the call), and the representative's knowledge and skills.

What are we doing to improve? By expanding online services and improving the information available on the department's website, DMV can reduce the number of calls. The DMV continues to evaluate data to help identify best practices across the division's phone units and make informed decisions regarding staffing, performance management and unit structures. The DMV has expanded basic phone training to include more complex topics to reduce the number of calls needed to be escalated to more seasoned staff. Additionally, the two primary contact centers, which handle general driver and vehicle questions, have been consolidated producing exceptional results. Consolidation has allowed for better use of resources and improved cross training opportunities.

Wisconsin Department of Transportation

MAPSS Performance Improvement

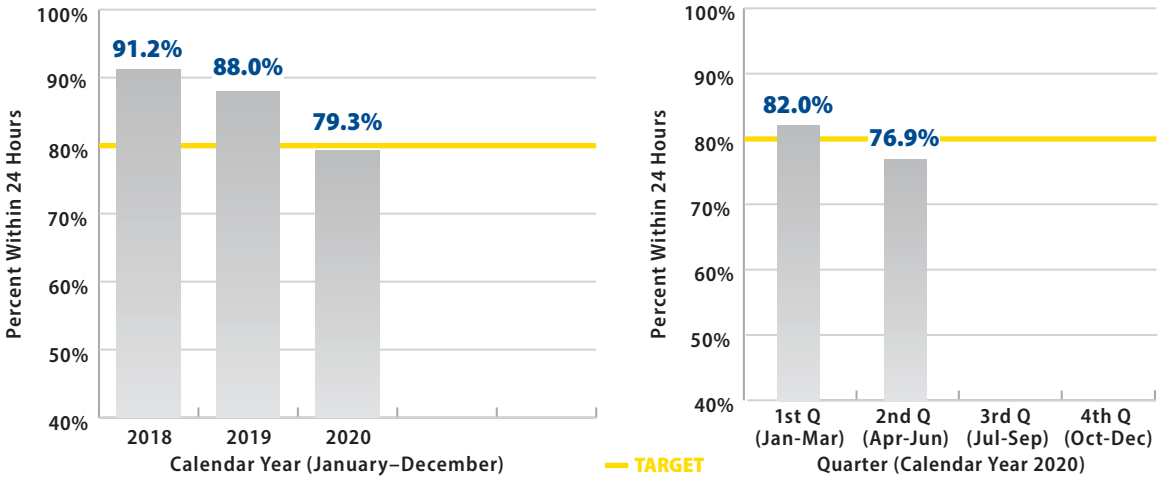
Service: DMV Email Service

Report Date: July 2020	**Data Frequency:** Quarterly (Calendar Year)	**Division:** Motor Vehicles

Why is it important? DMV email service provides an efficient alternative to phone requests for information. Increased utilization of the email option for less complicated topics allow our phone staff to provide in-depth service to customers with more complex requests. It is important for emails to be answered in a timely manner so that customers do not telephone, resulting in a duplicative contact.

Performance measure target: The DMV's performance target is to respond to 80 percent of email contacts within 24 hours.

Figure: Percent of DMV email within 24 hours



How do we measure it? Each week, the DMV counts the total number of emails received by the various official inboxes linked to on the WisconsinDOT.gov site and calculates the percent that were responded to within 24 hours.

How are we doing? Quarter two of 2020 had an increase in emails of more than 30 percent over quarter one. Combined with a challenging transition period in April, for pandemic quarantines, this increase resulted in a 76.9 percent measure for quarter two.

What factors affect results? The DMV devotes customer service resources to answering email requests during all regular business hours. Some emails include multiple questions and may require additional review.

What are we doing to improve? The DMV utilizes routing technology to assign email contacts to the appropriate personnel. Improved cross training in the phone units has provided the additional benefit of an improvement in the rate and accuracy of responses.

Wisconsin Department of Transportation

MAPSS Performance Improvement

Appendix A:

Additional Performance Measures

Mobility

Accountability

Preservation

Safety

Air Support Unit Deployments for Traffic Enforcement 32

Service

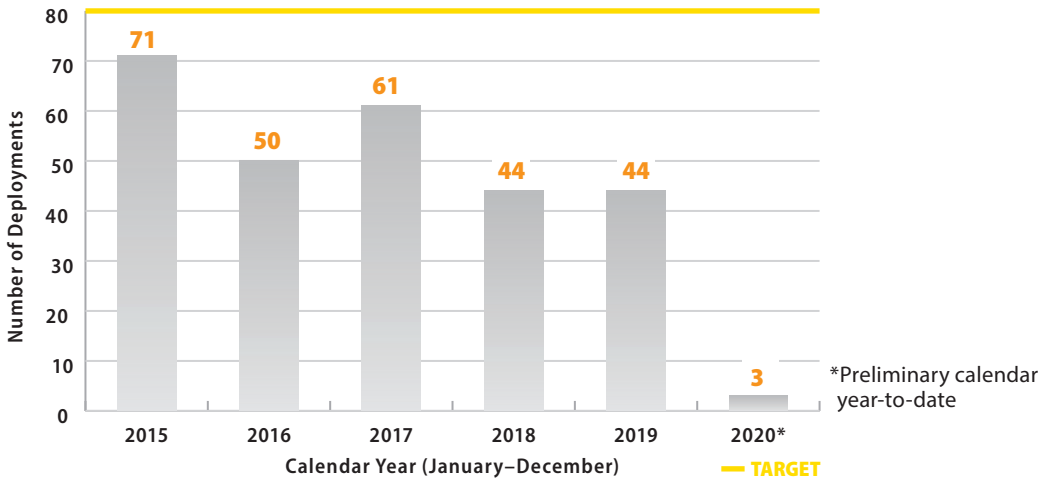
Safety: Air Support Unit Deployments for Traffic Enforcement

Report Date: July 2020	**Data Frequency:** Quarterly (Calendar Year)	**Division:** State Patrol

Why is this important? Speed continues to be a contributing factor in approximately 30 percent of traffic fatalities in Wisconsin. Speed is also believed to be under reported in crash reports. Using a consistent air enforcement presence through the Division of State Patrol's (DSP) Air Support Unit (ASU), along with dedicated law enforcement vehicles, is an effective method of enforcing speed and aggressive driving. Ensuring ASU is used periodically on traffic corridors helps law enforcement agencies conduct high visibility enforcement efforts and provides a deterrent effect even when air support is not present. In 2020, WisDOT will evaluate and report out on results of research into the impact of aerial speed enforcement on selected corridors.

Performance measure target: The goal of this measure is to increase the number of ASU traffic enforcement deployments to 80 in 2020. DSP anticipates the number of ASU deployments to eventually level off into maintenance of effort mode. Depending upon the number of law enforcement cars participating in deployments, DSP considers six to eight traffic stops per hour as optimal performance. Each traffic stop does not necessarily lead to a citation.

Figure: Air support unit deployments for traffic enforcement



How do we measure it? The ASU will document the number of deployments to assist law enforcement agencies with enforcing speed and aggressive driving laws. As part of each deployment, law enforcement agencies will also report the number of contacts they have with motorists.

How are we doing? DSP typically increases its speed/aggressive driving missions in the second quarter of April through June. Even with fewer missions flown, the State Patrol was able to maintain a high level of stops per hour at 8.32. The advent of the COVID pandemic emergency in March and continuing to the present time curtailed traditional speed enforcement both for DSP and its law enforcement partners. However, third quarter missions are currently at 24 missions as of August 11th.

What factors affect results? There are multiple mission options in WisDOT and DNR that may limit the number of flights made for traffic enforcement. Weather is an unpredictable factor that can scuttle deployments. The availability of a trained flight crew can be a limiting factor.

What are we doing to improve? As Wisconsin cycles through the phases of Badger Bounce Back, DSP expects conventional enforcement flight missions to resume, though we are already half way into the 2020 enforcement flying season. As always, weather, the availability of pilots, aircraft maintenance and competition for aircraft with those with whom we share airplanes are always factors impacting the number of missions.

Mission

Provide leadership in the development and operation of a safe and efficient transportation system.

Vision

Dedicated people creating transportation solutions through innovation and exceptional service.

Wisconsin Department of Transportation

Values

Accountability
Being individually and collectively responsible for the impact of our actions on resources, the people we serve, and each other.

Attitude
Being positive, supportive and proactive in our words and actions.

Communication
Creating a culture in which people listen and information is shared openly, clearly, and timely—both internally and externally.

Excellence
Providing quality products and services that exceed our customers' expectations by being professional and the best in all we do.

Improvement
Finding innovative and visionary ways to provide better products and services and measure our success.

Integrity
Building trust and confidence in all our relationships through honesty, commitment and the courage to do what is right.

Respect
Creating a culture where we recognize and value the uniqueness of all our customers and each member of our diverse organization through tolerance, compassion, care and courtesy to all.

Teamwork
Creating lasting partnerships and working together to achieve mutual goals.

MAPSS Performance Dashboard

Mobility
Accountability
Preservation
Safety
Service

WISCONSIN DEPARTMENT OF TRANSPORTATION

For more information on MAPSS, visit www.mapss.wi.gov