



Wisconsin Department of Transportation

July 2023

# MAPSS

## Performance Improvement Report

Mobility  
Accountability  
Preservation  
Safety  
Service



### 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.

Welcome to the



## 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 that 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.

The latest MAPSS Quarterly Report and the interactive WisDOT web pages provide details of each performance metric. This information is located at: [mapss.wi.gov](http://mapss.wi.gov).
















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July 2023

# 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 |
|--|---|---|---|---|---|--|--------------------|
| <b>Mobility:</b> Delivering transportation choices that result in efficient trips and no unexpected delays.      |   |   |   |   |   |  |                    |
| <a href="#">Delay (Hours of Vehicle Delay)</a><br>2022 (Dec 2021–Nov 2022)                                       | Extra time spent driving as compared to free-flowing traffic. Delay is reported on 13 of Wisconsin's Metropolitan Planning Areas.                         | 10,251,146 hrs                                      | Reduce from previous year                           |   |    | Traffic numbers continue to rebound from the reductions observed in 2020. Still, the delay hours remain lower than those recorded in 2019 (a lower number is better). The department continues to focus on projects and strategies to help drivers reach destinations in a safe and timely fashion.  | 4/2023             |
| <a href="#">Reliability (Planning Time Index)</a><br>2022 (Dec 2021–Nov 2022)                                    | 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. | 1.19  | Improve on reliability from previous year           |   |    | Even with increased activity on roadways, travel times remained relatively consistent. The goal is for drivers to reach destination in as safe and timely fashion as possible. (A lower number is better).   | 4/2023             |
| <a href="#">Transit Availability</a><br>Calendar year 2022   | Percent of population served by transit   | 53.0  | 55.0  |   |    | Approximately 53% of the state's population has access to public transit. This represents no change from 2021 to 2022.   | 1/2023             |
| <a href="#">Bicycling Conditions on Rural Highways</a><br>Calendar year 2022                                     | Percent of rural highway miles with favorable bicycling conditions  | State hwy: 67.4; County roads: 92.6                 | 100% on roads where bicycles are not prohibited     |   |    | The number of miles rated favorably increased on both state and county highways.   | 4/2023             |
| <a href="#">Incident Response</a><br>Calendar year 2022  | Percent of incidents cleared within a specific timeframe  | Intermediate incidents: 91.7; Major incidents: 87.5 | Intermediate incidents: 90.0; Major incidents: 80.0 |  |  | Continued coordination, planning and review with agencies statewide aids response operations.  | 1/2023             |
| <a href="#">Winter Response</a><br>State fiscal year 2023  | Percent to bare-wet within a specific time period after a storm   | 82 for 24-hr roads                                  | 70.0 within specified time                          |  |  | Every winter, mild or severe, can create unique challenges to highway safety. Crews statewide continually review methods and strategies to provide the most effective service possible within resources.   | 7/2023             |
| <b>Accountability:</b> The continuous effort to use public dollars in the most efficient and cost-effective way. |   |   |   |   |   |  |                    |
| <a href="#">Transportation Facilities Economic Assistance and Development (TEA) Grants</a><br>Calendar year 2023 | Capital investment dollars achieved per grant dollar awarded  | \$17.28   | \$50.00   |   |  | So far this year, the department has awarded one grant totaling \$232,360 to one Wisconsin community. The business involved in this one project expects to make a total capital investment of \$4 million resulting in each grant dollar leveraging an average of \$17.28 in capital investment. Another community is currently under review which could result in an additional \$631,235 in TEA funding for public transportation infrastructure improvements. | 7/2023             |
| <a href="#">Timely Scheduling of Contracts</a><br>State fiscal year 2022   | Percent of highway program funding scheduled during the first six months of each fiscal year  | 37.7%   | 54.0  |   |  | Efforts fell off pace in the second half of the fiscal year, as staff managed shifting scheduling needs and welcomed additional program funding  | 10/2022            |
| <a href="#">On-time Performance</a><br>Calendar year 2021  | Percent of highway projects completed on-time   | 92.6%   | 100.0   |   |  | The department remains committed to working with contractors through any challenges in order to deliver projects on time.  | 10/2022            |
| <a href="#">On-budget Performance</a><br>State fiscal year 2022  | Final highway project cost as percent of original contract amount   | 100.3   | 103.0   |  |  | The department met its goal by holding change orders to well within the desired range of 3% (a lower number is better).  | 1/2023             |
| <a href="#">Surplus Property Management</a><br>State fiscal year-to-date 2023                                    | Dollar value of surplus land sold   | \$3.42 mil.   | \$2.75 mil.   |  |  | Despite initial challenges during the first half of the fiscal year, when only 35% of the target was achieved, the region property management remained determined and ultimately surpassed the end-of-year-target.   | 7/2023             |

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 [mapss.wi.gov](http://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 |
|---|--|--|--|----------|-------|---|--------------------|
| <b>Preservation:</b> 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. |  |  |  |          |       |   |                    |
| <b>Program Effectiveness</b><br>Calendar year 2022  | Scheduled improvement projects compared to modeled roadway needs (as a percent)    | <b>Location: 91;<br/>Scope: 94;<br/>Time: 76</b> | Location: 80;<br>Scope: 65;<br>Time: 65                                | ✓        | ↑     | 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. The statewide analysis shows all metrics meeting their targets, with project locations at a 91% match rate, scoping at a 94% match rate, and timing increasing to a 76% match rate.                | 1/2023             |
| <b>State Highway Pavement Condition (PCI), Backbone</b><br>Calendar year 2022   | Percent of state highway pavement rated fair or above                              | <b>99.1</b>                                      | 90 rated fair or above   | ✓        | ↑     | The 2023 reporting data shows 86.2% of the total system and 99.1% of the Backbone system in fair or better condition. The Backbone system has consistently maintained high levels of fair or better condition miles as it is Wisconsin's premier network for freight and tourism.   | 7/2023             |
| <b>State Highway Pavement Condition (PCI), Non-Backbone</b><br>Calendar year 2022   | Percent of state highway pavement rated fair or above                              | <b>82.7</b>                                      | 80 rated fair or above   | ✓        | ↑     | The 2023 reporting data shows 86.2% of the total system and 82.7% of the Non-Backbone system in fair or better condition. The Non-Backbone system represents the majority of the system and has seen recent trends of stabilization or slight improvements with the system in fair or better condition.   | 7/2023             |
| <b>State Bridge Condition</b><br>Calendar year 2022   | Percent of state bridges rated fair or above                                       | <b>98.1</b>                                      | 95.0   | ✓        | ↑     | The department continues to meet its goal. This is testament to the department's continued focus on safe infrastructure and system quality.   | 7/2023             |
| <b>State-owned Rail Line Condition</b><br>Calendar year 2022  | Percent of state-owned rail line meeting FRA Class 2 Standard (>10 mph)            | <b>77.5</b>                                      | 95.0   |          | ↑     | A total of 544.7 of the 702.5 miles of track (77.5%) met the department goal. This is a 7.0-mile increase from 2021 to 2022 in the number of miles that meet the standard.  | 1/2023             |
| <b>Airport Pavement Condition</b><br>Calendar year 2022   | Percent of core airport pavement area rated fair or above for each functional type | <b>RWY 90.0;<br/>TXWY 80.0;<br/>Apron 78.0</b>   | 90.0<br>85.0<br>80.0   |          | ↔     | Primary runways, aprons and taxiways all held steady in 2022 data.  | 4/2023             |
| <b>Material Recycling</b><br>State fiscal year 2022   | Percent of newly produced materials replaced with recycled materials               | <b>19.74</b>                                     | 10.0   | ✓        | ↑     | Recycled materials provide time and cost saving, performance and efficiency benefits on nearly all WisDOT project.  | 1/2023             |
| <b>Safety:</b> Moving toward minimizing the number of deaths, injuries and crashes on our roadways.   |  |  |  |          |       |   |                    |
| <b>Traffic Fatalities</b><br>Calendar year 2023 (Preliminary)   | Number of traffic fatalities   | <b>258</b>                                       | Second Quarter five-year average is 249<br>Annual target is 570        |          | ↑     | As of June 30, there have been 258 fatalities in 2023. Our long-term goal is to reduce preventable deaths (a lower number is better). Total fatalities for 2022: 595.   | 7/2023             |
| <b>Serious Traffic Injuries</b><br>Calendar year 2023 (Preliminary)   | Number of serious traffic injuries   | <b>1,443</b>                                     | Second Quarter five-year average is 1,433<br>Annual target is 3,179    |          | ↓     | As of June 30, 1,443 persons received serious injuries in 2023. In 2017, the crash report was updated to reflect national standards. Total serious traffic injuries for 2022: 3,213.  | 7/2023             |
| <b>Traffic Crashes</b><br>Calendar year 2023 (Preliminary)  | Number of traffic crashes  | <b>59,863</b>                                    | Second Quarter five-year average is 62,827<br>Annual target is 129,619 | ✓        | ↑     | As of June 30, there were 59,863 traffic crashes in 2023. Our long-term goal is to reduce preventable deaths (a lower number is better). Total traffic crashes for 2022: 128,830.   | 7/2023             |
| <b>Safety Belt Use</b><br>Calendar year 2022  | Percent of vehicle occupants wearing a seat belt                                   | <b>87.5</b>                                      | 91.0 for 2022  |          | ↓     | While Wisconsin's safety belt usage rate reached the seventh highest in 2022, we still lag neighboring states that have use rates of more than 90%. We were below the five-year average of 89.2.  | 10/2022            |
| <b>Service:</b> High quality and accurate products and services delivered in a timely fashion by a professional and proactive workforce.  |  |  |  |          |       |   |                    |
| <b>DMV Wait Times</b><br>Calendar year 2023   | Percent of DMV service center customers served within 20 minutes                   | <b>91.53</b>                                     | 80.0   | ✓        | ↔     | While customer traffic continues to remain slightly lower overall as a result of the COVID-19 pandemic, quarter two had a decrease of approximately 2%. The road test waiver and online driver license renewal pilots are also reducing demand for in-person service. With these lower in-person customer volumes, we have served over 80% of our customers within 20 minutes for each quarter this year. | 7/2023             |
| <b>DMV Electronic Services</b><br>Calendar year 2022  | Number of self-serve electronic transactions                                       | <b>1,101,173</b>                                 | 1,076,000  | ✓        | ↑     | 2022 usage was 12.4% higher than 2021, which in turn was 38.6% higher than 2020.  | 4/2023             |
| <b>DMV Driver License Road Test Scheduling</b><br>Calendar year 2023  | Available tests as a percent of estimated demand                                   | <b>100</b>                                       | 90.0   | ✓        | ↔     | The DMV has maintained the annual trend of achieving 90% or higher service levels. This is largely due to using improved projection models to better estimate our customers' needs.   | 7/2023             |
| <b>DMV Phone Service</b><br>Calendar year 2023  | Average wait time of DMV phone calls   | <b>1:55</b>                                      | 3:30   | ✓        | ↔     | DMV implemented a new phone system in 2021, which allows a more accurate measurement of wait time. DMV efforts have continued the overall reduction in wait times that began in quarter three of 2021, resulting in an average wait time of 1:55 for quarter two of 2023.   | 7/2023             |
| <b>DMV Email Service</b><br>Calendar year 2023  | Percent of DMV emails answered within 24 hours                                     | <b>91.4</b>                                      | 80.0   | ✓        | ↔     | Continuing the trend of increased email contacts in 2022, quarter two of 2023 stayed at a high volume, resulting in an 91.4% score for this measure for this quarter.   | 7/2023             |

# Wisconsin Department of Transportation MAPSS Performance Improvement



## Mobility: Delay (Hours of Vehicle Delay)

**Report Date:** July 2023

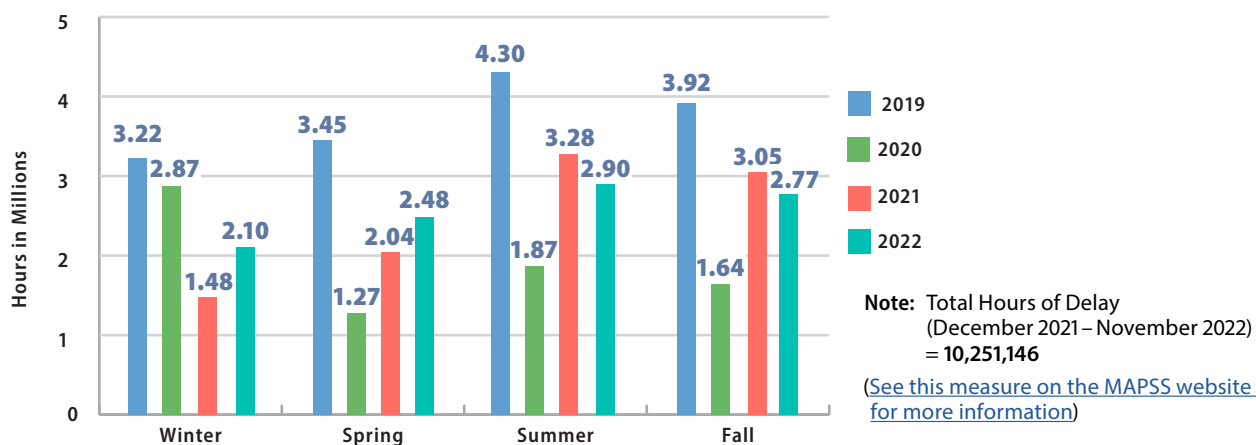
**Data Frequency:** Annual (Dec – Nov)

**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. The numbers are not comparable with hours of delay tracked in MAPSS reports prior to 2019.

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



**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 to that same corridor at the free flow speeds. For this report, delay is measured in 13 of Wisconsin's metropolitan planning areas (MPA). The 13 MPAs have Interstate highways and are urbanized areas with populations over 50,000 that actively perform transportation planning.

**How are we doing?** While there was an uptick in delay in 2022 compared to the previous year, it's worth noting that the numbers were still 31% below what was recorded in 2019. This means the delay figures remain favorable to what was recorded before all the traffic pattern changes that stemmed from the COVID-19 pandemic. Four of the 13 Metropolitan Planning Agencies (MPAs) recorded a decrease in vehicle hours of delay while the majority did report an increase this past year. Hours of delay across the board tended to decrease in the summer and fall while spring and winter saw increases. The exact reason is unknown, but winter driving is a likely factor leading some to stay off the road entirely and work remotely when possible.

**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?** Throughout 2022 the Wisconsin Department of Transportation (WisDOT) made improvements to the transportation system. Construction was completed on the part-time shoulder lane on US 12/18 between I-39/90 and Whitney Way in Dane County resulting in decreased congestion and delay reduction. Other projects completed in 2022 include the Trego Interchange located in the Northwest Region and the I-43/I-94 resurfacing in the Southeast Region. WisDOT is planning multiple statewide projects to address deteriorating roadway conditions and improve safety.

# Wisconsin Department of Transportation

## MAPSS Performance Improvement



### Mobility: Reliability (Planning Time Index)

**Report Date:** July 2023

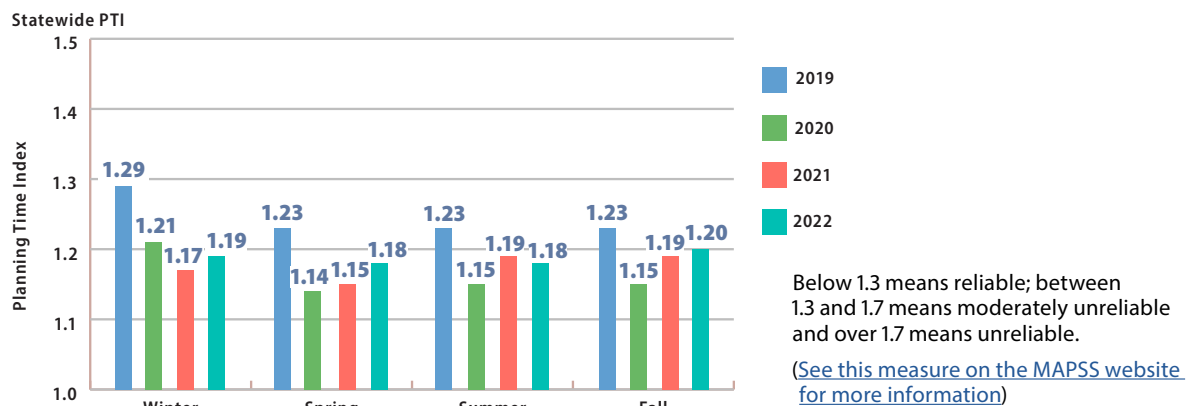
**Data Frequency:** Annual (Dec – Nov)

**Division:** Transportation System Development

**Why is it important?** Travelers expect to arrive safely and on time at their destination. Planning Time Index (PTI) expresses the predictability of on-time arrival 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. The numbers are not comparable with reliability numbers tracked in MAPSS reports prior to 2019.

#### Figures: Statewide reliability index for Wisconsin Interstate highways by county



**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.

**How are we doing?** The annual all-day (6 a.m. to 8 p.m.) planning time index for 2022 was 1.19 which is slightly worse than the 2021 planning time index of 1.17. The 2022 value is still below the pre-pandemic 1.25 value that Wisconsin realized in 2019. Winter, Spring and Fall all had an increase in PTI between 2021 and 2022 but Summer had a slight decrease. Twenty-three of the 32 counties saw no change or an increase in the PTI between 2021 and 2022 with Douglas seeing the largest increase of 12%. Dane, Rock, Jefferson, La Crosse, Brown, Sheboygan and Ozaukee, Walworth and Waukesha counties all saw a decrease in overall PTI in 2022. Dane County saw 6% decrease in PTI during Fall 2022 which may be partly attributed to the opening of the part-time shoulder lane between I-39/90 and Whitney Way on US 12/18 in Dane County in Summer 2022.

**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 makes travel time more reliable.

**What are we doing to improve?** Wisconsin continually looks to enhance reliability through their annual improvement program. During 2022, the department expanded the [511wi.gov](#) system to include live camera streams and improved winter road condition reporting. The live camera streams allow users to monitor live traffic and traffic incidents throughout the state in real time. The improved winter road condition reporting provides more accurate road conditions throughout the state which is particularly important during snow and ice events. In addition, the department continues to develop their Work Zone Data Exchange with the intent of making travel on public roads safer and more efficient through access to data on work zone activity. The department strives to implement technology in improve safety, accessibility, and reliability on the state's transportation network.



# Wisconsin Department of Transportation MAPSS Performance Improvement



## Mobility: Transit Availability

**Report Date:** July 2023

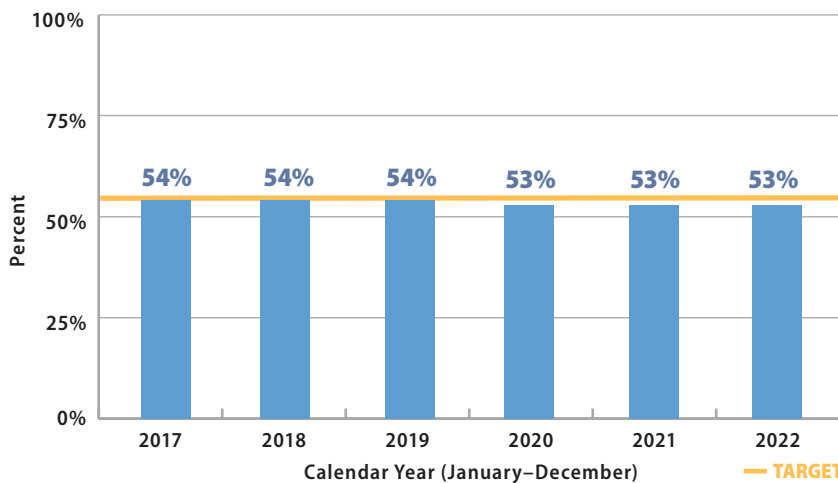
**Data Frequency:** Annual (Calendar Year)

**Division:** Transportation Investment Management

**Why is it important?** Transit provides a lifeline to those who depend on it to travel to work, school, medical services, shopping, and more. Approximately 55% of Wisconsin transit riders travel to work, 14% to school, 20% to retail, tourism or recreational destinations, and 11% 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%.

**Figure:** Percent of Wisconsin population served by transit



**How do we measure it?** The total population with access to transit is calculated by adding together the population that resides within a 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 53% of the state's population has access to public transit. This represents no change from 2021 to 2022. Nationally, it is estimated that 55% of the population has access to public transit. Source: *American Society of Civil Engineers 2021 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. The department also interacts directly with stakeholders and advocates through advisory groups such as the Wisconsin Non-Driver Advisory Committee.

# Wisconsin Department of Transportation MAPSS Performance Improvement



## Mobility: Bicycling Conditions on Rural Highways

**Report Date:** July 2023

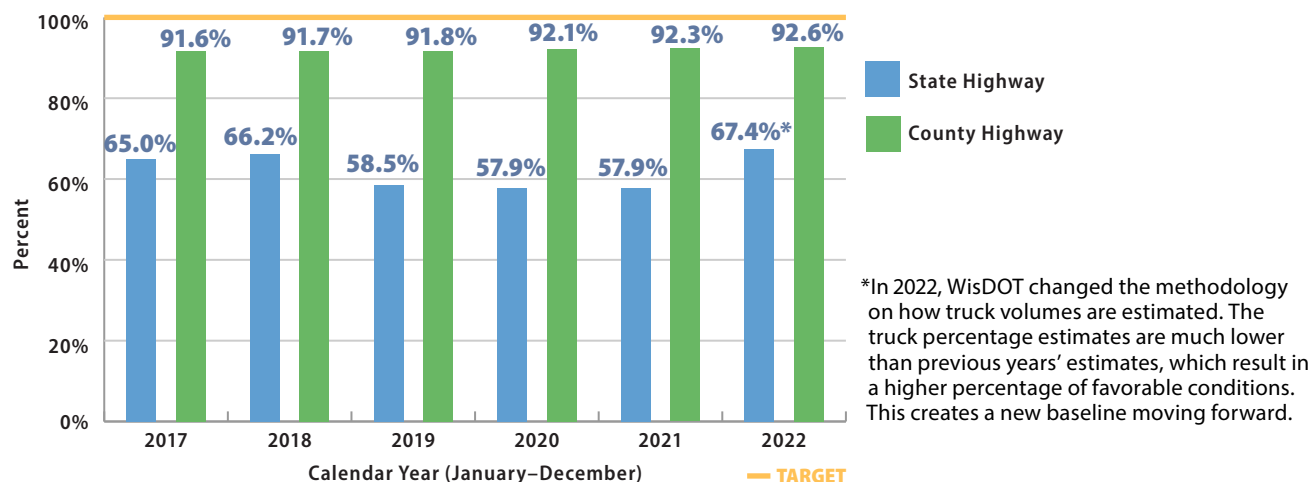
**Data Frequency:** Annual (Calendar Year)

**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" or "high volume, wider paved shoulder" for bicycling. Target: 100% 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



**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" or "high volume, wider paved shoulder" 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 are defined in the "Wisconsin Rural Bicycle Planning Guide," which describes the calculations for determining conditions as "best," "moderate," "high volume, wider paved shoulder" 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 2022, the percent of rural county highways rated as "best," "moderate," or "high volume, wider paved shoulder" for bicycling increased slightly for the 10th consecutive year. This is primarily attributed to the addition of paved shoulders. The percentage of rural state highways rated as "best," "moderate," or "high volume, wider paved shoulder" for bicycling increased significantly to 67.4%. This change is primarily because of the department now using lower truck percentage estimates.

**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 and/or volumes on roadways increase, 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 2023

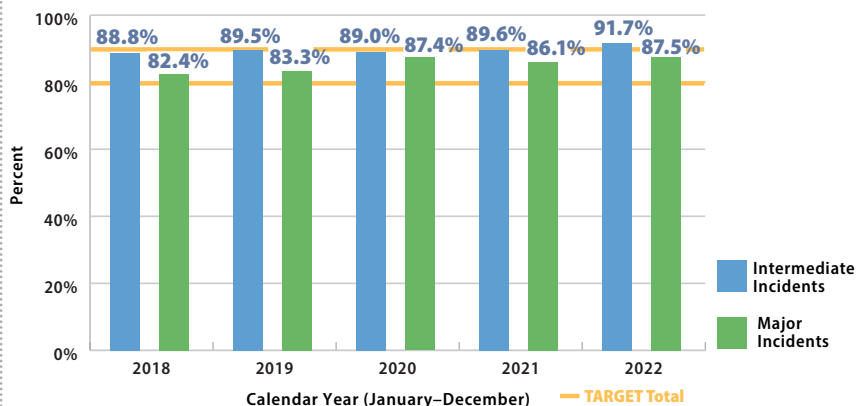
**Data Frequency:** Annual (Calendar Year)

**Division:** Transportation System Development

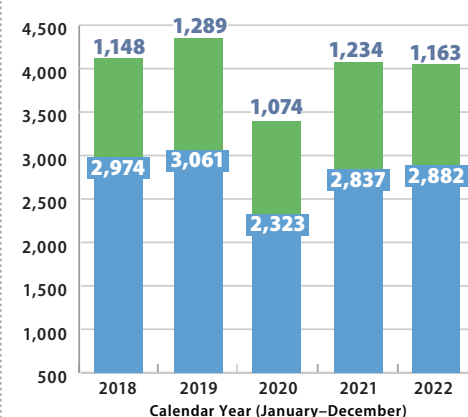
**Why is it important?** Incidents on the Interstate and state highway system can range from minor property damage to serious traffic crashes. This measure focuses on the amount of time it takes to clear such incidents to restore safe traffic flow. Intermediate traffic incidents typically affect travel 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% of all intermediate incidents in less than two hours and to clear 80% 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 2022, the department met both intermediate and major incident targets by obtaining 91.7% and 87.5% clearance rates respectively. The Statewide Average Clearance Time is the lowest, since 2015. The clearance rate for intermediate incidents increased from 89.6% in 2021 to 91.7% in 2022. The number of intermediate incidents increased while the number of major incidents decreased.

**What factors affect results?** Incident clearance times may be affected by: incident location, the time required to respond, limited access for emergency responders in construction zones, time of day, weather conditions and complexity of the incident.

**What are we doing to improve?** The department will continue to focus on training for all responder disciplines through the Traffic Incident Management Enhancement (TIME) program and Traffic Incident Management (TIM) classes sponsored by the department. Since 2012, there have been more than 19,000 responders trained, which is roughly half of all those operating in the state. Wisconsin is recognized as a national leader in TIM and the department anticipates surpassing a nationally set goal of 55% of responders trained statewide by 2025. To learn more about these efforts, visit [wisconsindot.gov/time](https://wisconsindot.gov/time).

# Wisconsin Department of Transportation MAPSS Performance Improvement



## Mobility: Winter Response

**Report Date:** July 2023

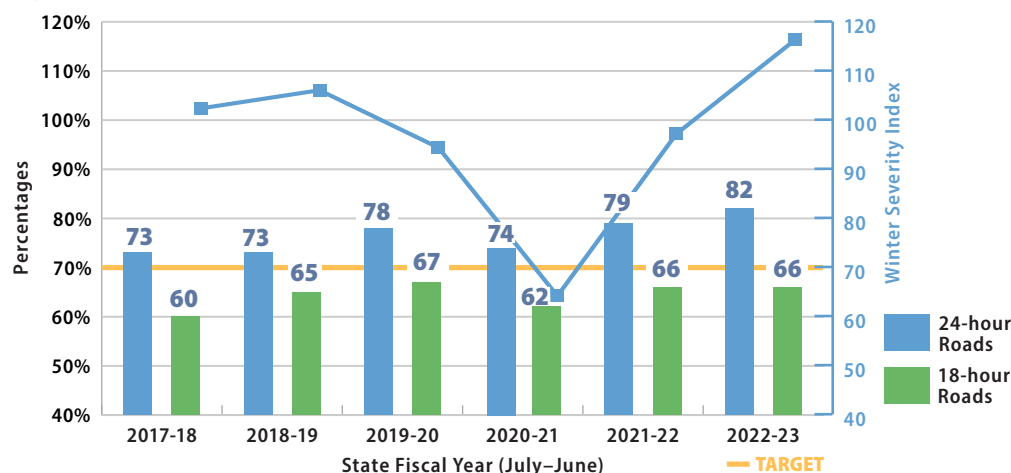
**Data Frequency:** Annual (State Fiscal Year)

**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 permit emergency travel, and they 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 within six hours of the end of a 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 to achieve these targets 70% 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?** Public safety remains the focal point for winter maintenance efforts among a longstanding partnership between WisDOT and Wisconsin's 72 counties. It's noteworthy that both the 24- and 18-hour categories improved or stayed steady over the previous winter despite the highest winter severity index the state has seen since 2013-2014. The 24-hour category continued a trend of meeting the performance goal. In the 18-hour category, crews continued to navigate operational challenges of aligning resources to manage storms while maintaining the six-hour daily service break. Winter crews throughout Wisconsin face unique challenges in every storm while balancing resources to deliver safe driving conditions in as timely a manner as possible.

**What factors affect results?** Performance is largely impacted by severity, number, and duration of winter events. Both severe and mild winters can present unique response challenges that feed into this performance measure. The fewer the number of storms, the more potential for each individual incident to create a significant impact on the full season's data. The timing of storms plays an especially significant role with 18-hour roads. While this model helps to conserve resources, it comes with an operational challenge most noticeable when storms hit in the six-hour "off" window, creating buildups that slow the initial passes on scheduled maintenance routes. Controllable factors include the timing of the response, availability of resources, and the effectiveness of the response.

**What are we doing to improve?** A continued focus on education, best management practices and optimizing treatment strategies have all played significant roles in increasing efficiency statewide. The department continues to coordinate with county maintenance partners and other key stakeholders, including the "Winter Tech Talk" conference that occurred in October 2022. Increased use of liquid brine also has been a key factor, helping to spread salt more effectively to treat roads and bridges. This past winter, Wisconsin set a record for brine use on the state highway system with more than 20 million gallons. While brine's cost-effectiveness may vary with storm conditions, typically brine mixtures can cover twice to nearly three times the surface area using the same amount of salt in a traditional rock salt distribution, and with no negative impacts to public safety. In fact, a recent study completed by the University of Wisconsin's Traffic Operations and Safety (TOPS) lab determined brine-treated roads are achieving bare/wet conditions faster than those treated with rock salt.

# Wisconsin Department of Transportation MAPSS Performance Improvement



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

**Report Date:** July 2023

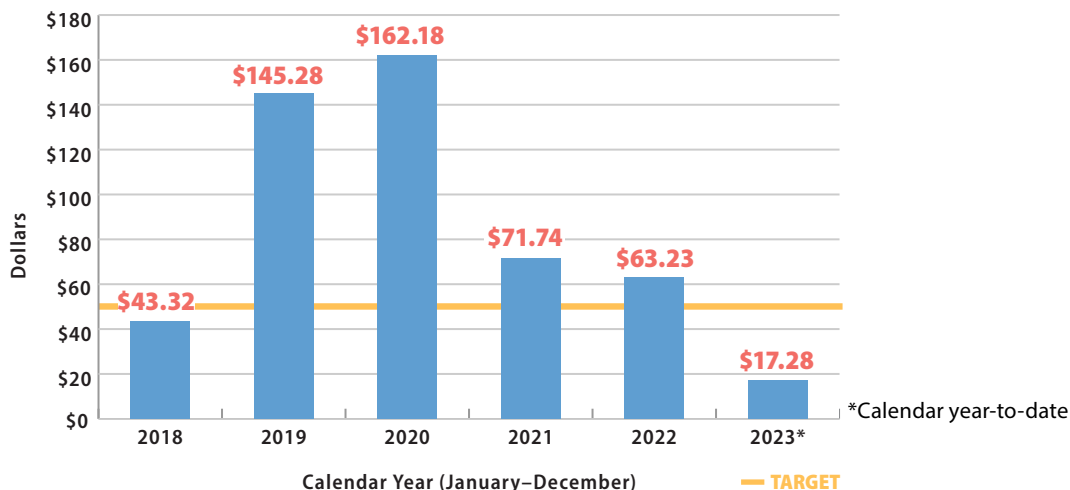
**Data Frequency:** Semi-annually (Calendar Year)

**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 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?** The department awarded one grant totaling \$232,360 to one Wisconsin community. The business involved in this one project expects to make a total capital investment of \$4 million resulting in each grant dollar leveraging an average of \$17.28 in capital investment. Another community is currently under review which could result in an additional \$631,235 in TEA funding for public transportation infrastructure improvements.

**What factors affect results?** The most significant factor affecting this measure is the lack of a direct relationship between job creation and the amount of funds awarded to the total capital investment made. Since the amount of funding awarded for a project is based on the number of jobs created rather than the amount of capital investment made, it is equally likely that a project may involve large private sector investments as it is to involve a relatively small amount of investment. In 2023, the one project had a capital investment to grant dollar ratio that did not meet the target of \$50.

**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 the 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 2023

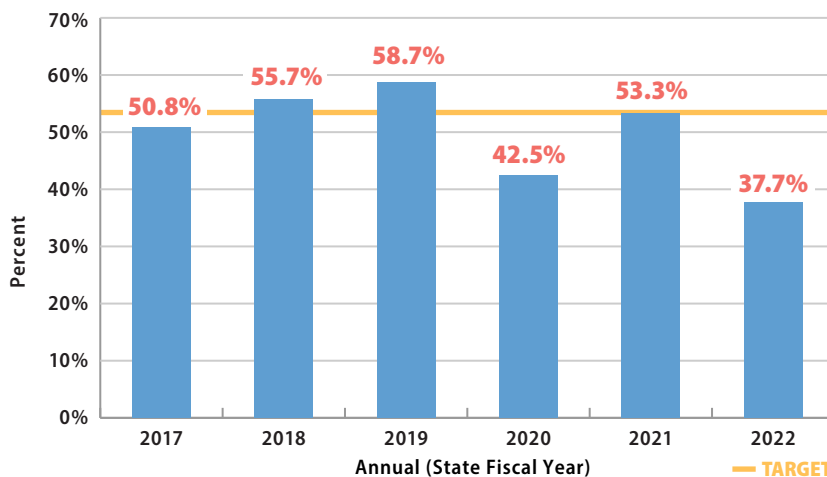
**Data Frequency:** Annual (State Fiscal Year)

**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. The department's ultimate objectives are to maximize competitive bids, to provide the department flexibility in adjusting lettings in the last half of the fiscal year for let contract savings or overages, and to allow the department to spend additional federal funds if they are received late in the year.

**Performance measure target:** Contract for 54% 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 state 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?** In the first part of the state fiscal year, WisDOT was on track to meet this goal but could not maintain the pace and ultimately finished out roughly 16 percentage points behind target. A mixture of factors, not all of them negative, were behind the decline. For example, savings recorded in the Majors Program in the first half of the year were reprogrammed into State Highway Rehabilitation in the second half. Projects that didn't work out in the first half of the year due to rejected bids also increased second-half workload. Meanwhile, State Fiscal Year 2022 marked the first year of program growth under the federal Bipartisan Infrastructure Law (BIL). WisDOT worked to adjust current programming to manage sudden growth as more than \$200 million became available for use in FY2022 alone. While this influx is highly welcome, time was needed for state staff, local governments and private industry to understand how to best take advantage of the funding opportunities. It is important to note that BIL-funded projects are now moving forward at a historic rate.

**What factors affect 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) When additional federal funds become available, the department can let more projects in the second half of the fiscal year. 3) Rejected and/or deferred bids in the first half of the year will mostly be rescheduled for let during the second half of the year. 4) Although letting large projects in the second half of the year may negatively impact the number, it provides WisDOT an opportunity to address more projects sooner.

**What are we doing to improve?** Since BIL funding in FY2022 came mid-year, future BIL years can be approached in a more planned and programmatic fashion. Staff learned lessons quickly in 2022 on best practices in working internally and externally to maximize opportunities through BIL. Additionally, the WisDOT Project Letting Process (PLP) committee continues to front-load projects and right-size as we get closer to the State Fiscal Year in which they are scheduled. The committee will review the potential to increase the percentage of projects programmed at the beginning of the fiscal year. This may assist in ensuring enough program dollars remain in the first half of the fiscal year as other factors impact the results. In addition, the committee will work closely with DTSD Office of Asset and Performance Management in scheduling the right type and number of projects per month. This relationship will help provide adjustments earlier during the fiscal year in those years where additional funds become available during the year.

# Wisconsin Department of Transportation MAPSS Performance Improvement



## Accountability: On-time Performance

**Report Date:** July 2023

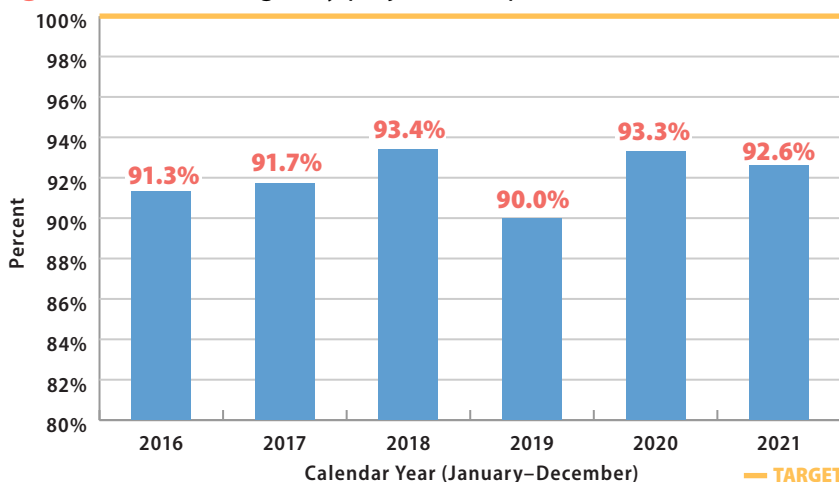
**Data Frequency:** Annual (Calendar Year)

**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 available 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% 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?** The vast majority of Wisconsin's 283 state highway improvement contracts were completed on time in 2021. On-time performance decreased slightly compared to 2020, but still posted one of the better results in recent years. Of the 262 contracts that were completed on time, 65% (or 184 contracts) were completed ahead of schedule. Weather can be a common issue for scheduling delays, as can the overall number of projects, as well as how those project timelines overlap. Some contractors also ran into issues finding enough qualified staff, and these issues became increasingly complex as the season went on and workload increased. The construction industry, by and large, worked very hard to keep work moving forward.

**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 increases the likelihood of 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?** Effective communication is key to problem resolution which keeps projects on or even ahead of schedule. Designers increasingly are using information from past projects to develop realistic project timelines. Contractors are working toward starting projects earlier in the year to avoid inclement weather in the fall that could lead to schedule delays. The Timely Decision-Making manual <https://wisconsindot.gov/Pages/doing-bus/eng-consultants/cnslt-rsrcs/rdwy/admin.aspx> presents those strategies to project staff and contractors. The department is also continuing to expand on e-construction technologies. One aspect of that is e-ticketing, especially as it relates to this measure, and streamlining the finals and finals checking process.

# Wisconsin Department of Transportation MAPSS Performance Improvement



## Accountability: On-budget Performance

**Report Date:** July 2023

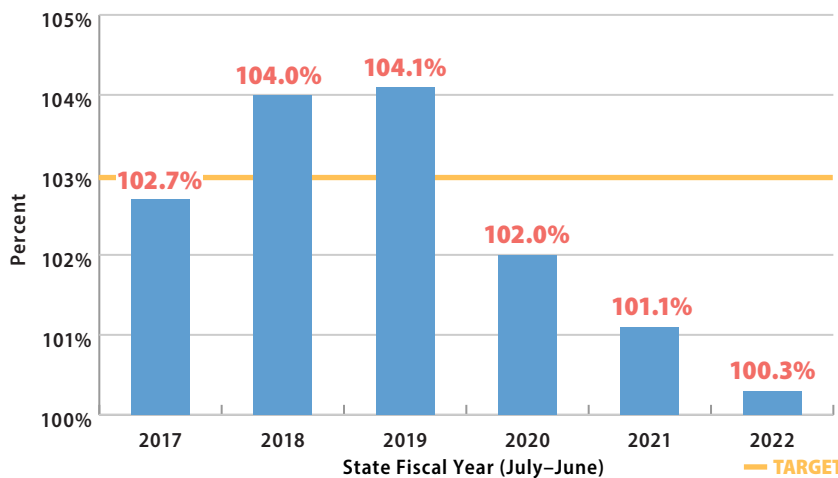
**Data Frequency:** Annual (State Fiscal Year)

**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, project costs may increase due to an issue recognized in the field.

**Performance measure target:** The department aspires to hold project change orders on average within 3% of actual final costs, well under the industry average of 5%.

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



**How do we measure it?** The current measuring methodology compares the final construction cost (excluding engineering and project oversight) with the original contract amount of all projects that were completed and finalized during the fiscal year. This ensures all projects are captured, even those that took several years to complete.

**How are we doing?** The department met this goal in SFY2022 by recording 100.3%, holding change orders well within the desired 3% threshold while also marking one of the best years in recent memory.

**What factors affect results?** A variety of factors can come into play including weather, staging needs, contractor readiness and competition for the work. 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. Not all changes identified in the field are negative. Cost Reduction Incentives (CRI) are a primary example of how contractors and department staff work together in the construction phase to identify efficiencies that create positive financial impacts.

**What are we doing to improve?** Project managers are committed to staying within original scope and are working diligently against allowing additional costs and time to creep into their projects. In cases where this happens, they are also working for a stronger understanding of why so they can prevent future instances. Managers have enhanced software tools to track costs throughout the project, allowing for better decision making. Additionally, a construction change management process has been established for change orders that exceed \$25,000. Together, these tools greatly assist staff statewide in staying aligned on reasoning and lessons learned to help reduce the volume and type of impacts in the future. Project delivery teams maintain detailed project issue logs to inform change management discussions based on dollar amount. Discussions can involve topics like site conditions, the materials market, and other emerging opportunities to develop cost savings and efficiencies as projects are executed in the field.



# Wisconsin Department of Transportation MAPSS Performance Improvement



## Accountability: Surplus Property Management

**Report Date:** July 2023

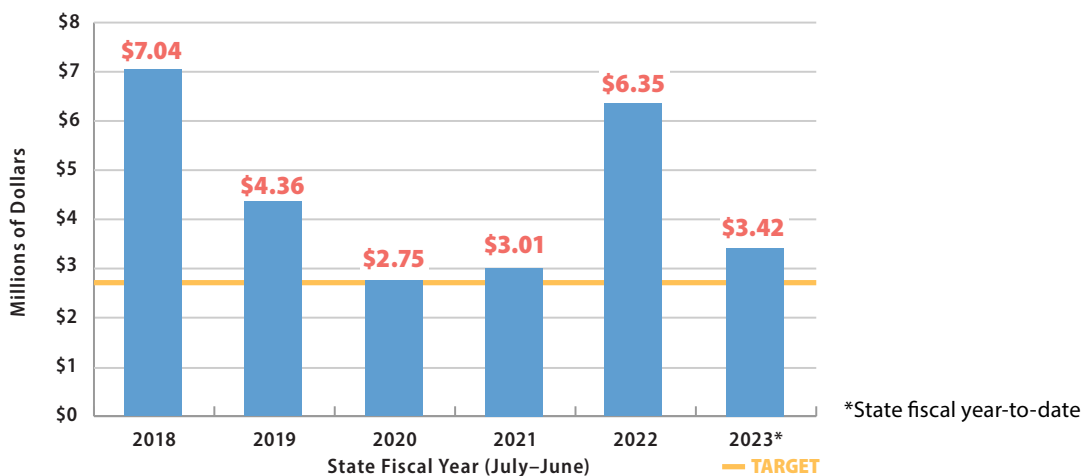
**Data Frequency:** Semi-annually (State Fiscal Year)

**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 roadway 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?** At the end of the 2023 fiscal year, WisDOT has achieved \$3,427,927 in real estate sales and leasing revenue. WisDOT has sold 51 of the 129 parcels on the FY2023 marketing plan.

**What factors affect results?** Availability of surplus lands and interest from potential buyers are the most significant factors. Over the previous 11 fiscal years (2011–2022) the department sold 1,218 parcels, returning the parcels back to the local tax rolls. The sales have generated more than \$39 million in parcel sales. WisDOT also generated in the past 11 years \$8.3 million in lease income from WisDOT-owned property and parcels being held for future transportation projects. The current surplus land inventory is 976 parcels. 86 parcels (8.8%) are available land with independent access from the roadways and are considered general marketable for the public. The department classifies 628 parcels (64.3%) as having limited marketability, as they lack access and can only be sold to one of the abutting property owners. Also, 208 parcels (21.3%) 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?** There is an ongoing effort recently started among multiple business areas to ensure central office and region staff stay aligned on sales and statutory compliance regarding the surplus land inventory. Completed projects are included within a monthly report and shared among staff. Previously, this information was available but not packaged and circulated proactively to staff. This new approach assists in helping all real estate staff who serve multiple geographies statewide gain a stronger sense of emerging best practices toward the ultimate goal of inventory reduction.

# Wisconsin Department of Transportation MAPSS Performance Improvement



## Preservation: Program Effectiveness

**Report Date:** July 2023

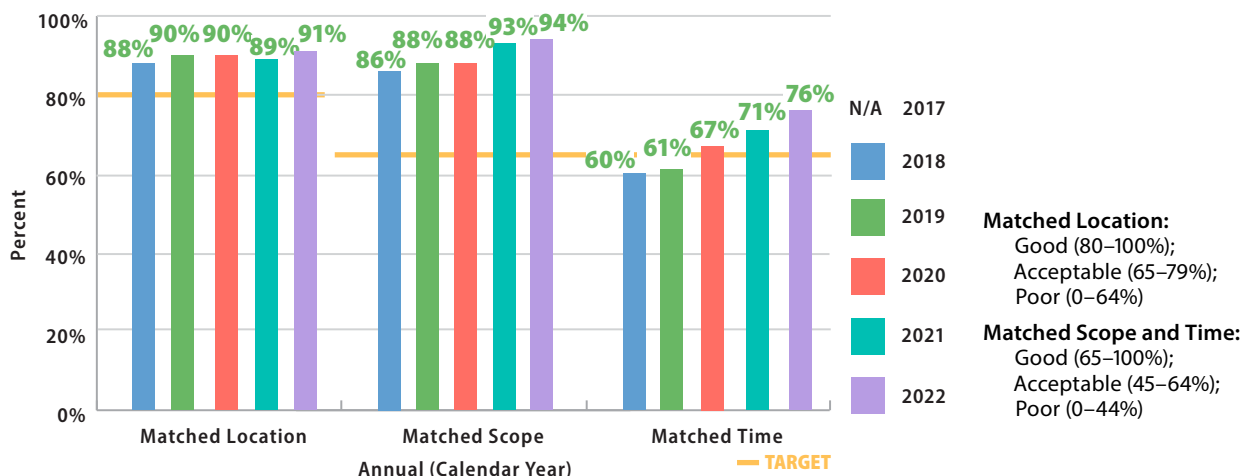
**Data Frequency:** Annual (Calendar Year)

**Division:** Transportation Investment Management

**Why is it important?** The department uses the Program Effectiveness measure to determine compliance with road improvement standards for the state's "3R" (resurfacing, restoration and rehabilitation) system, the portions of the state highway system that are not included among the Backbone system of major highways. The 3R 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. Compliance with Program Effectiveness standards indicates that the roads most in need of treatment are being improved on time and with the proper improvement methods.

**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%, matched scope 65% and matched time 65%).

**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. The statewide analysis shows all metrics meeting their targets, with project locations at a 91% match rate, scoping at a 94% match rate, and timing increasing to a 76% match rate. 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%, 65%, and 65% for Location, Scope, and Timing, respectively. Accepting less than 100% 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 2023

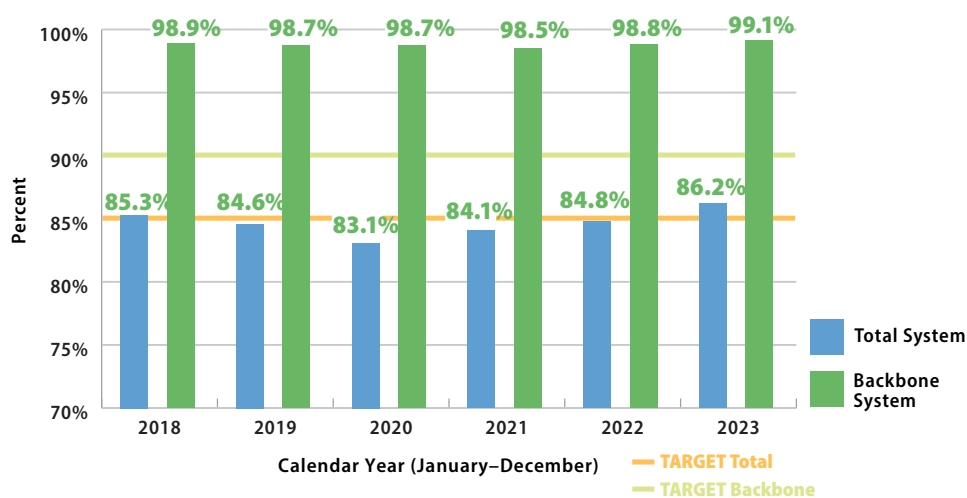
**Data Frequency:** Annual (Calendar Year)

**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% 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 to maintain the system in a state of good repair.

**Performance measure target:** The goal is to have 85% of the total system and 90% 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 perfect 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 2023 reporting period include the 2021 and 2022 collection seasons. Due to construction and other limiting factors, not all system miles may be collected and rated in a collection cycle. This reporting cycle represents 14,444 rated miles.

**How are we doing?** The 2023 reporting data shows 86.2% of the total system and 99.1% of the Backbone system in fair or better condition. The Backbone system has consistently maintained high levels of fair or better condition miles as it is Wisconsin's premier network for freight and tourism.

**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 2019–2021 biennial budget increased funding to the State Highway Rehabilitation (SHR) program by over \$320 million, and continued into the 2021–2023 biennial budget by maintaining purchasing power in the SHR Program. This commitment continues into the 2023–2025 budget with an additional \$164 million to the SHR Program. These actions will allow the department to continue to maintain system conditions and potentially improve overall system health in the future. WisDOT uses department-wide asset management strategies to guide investments. This includes a pavement management system that incorporates a strategic combination of best value and viable low-cost fixes that optimize system pavement health. The department's pavement condition program continues to utilize a state-of-the-art pavement condition survey system. These efforts, along with ongoing pavement research and materials testing, help to ensure the department continues to maximize the long-term health of the state highway system.

# Wisconsin Department of Transportation MAPSS Performance Improvement



## Preservation: State Highway Pavement Condition (PCI), Non-Backbone

**Report Date:** July 2023

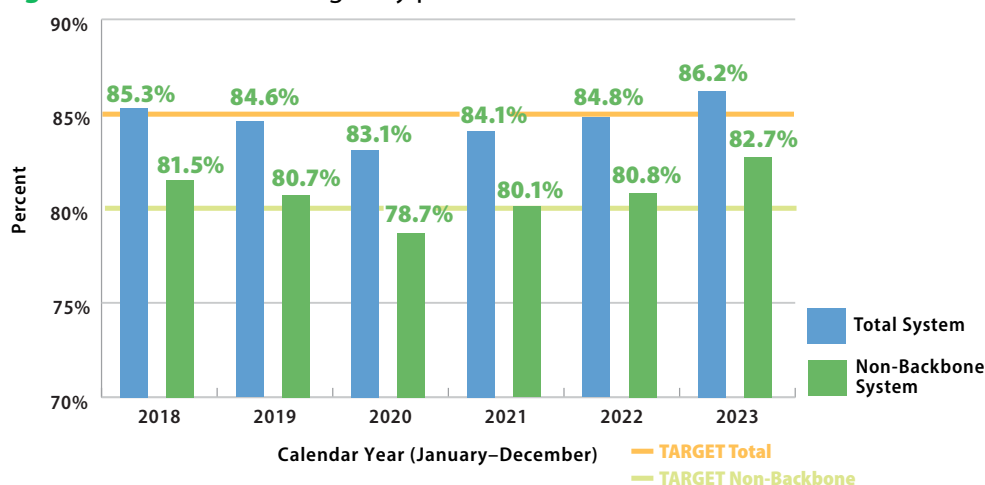
**Data Frequency:** Annual (Calendar Year)

**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 Wisconsin's priority corridors. The state's Non-Backbone system consists of the remaining state-owned system. The routes carry over 50% 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 to maintain the system in a state of good repair.

**Performance measure target:** The goal is to have 85% of the total system and 80% 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 rates pavement condition based on visual signs of distress, such as cracks, ruts and potholes. PCI is a numerical rating that ranges from 0 to 100, where 100 represents pavement in perfect 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 2023 reporting period include the 2021 and 2022 collection seasons. Due to construction and other limiting factors, not all system miles may be collected and rated in a collection cycle. This reporting cycle represents 14,444 rated miles.

**How are we doing?** The 2023 reporting data shows 86.2% of the total system and 82.7% of the Non-Backbone system in fair or better condition. The Non-Backbone system represents the majority of the system and has seen recent trends of stabilization or slight improvements with the system in fair or better condition.

**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 2019–2021 biennial budget increased funding to the State Highway Rehabilitation (SHR) program by over \$320 million, and continued into the 2021–2023 biennial budget by maintaining purchasing power in the SHR Program. This commitment continues into the 2023–2025 budget with an additional \$164 million to the SHR Program. These actions will allow the department to continue to maintain system conditions and potentially improve overall system health in the future.

WisDOT uses department-wide asset management strategies to guide investments. This includes a pavement management system that incorporates a strategic combination of best value and viable low-cost fixes that optimize system pavement health. The department's pavement condition program continues to utilize a state-of-the-art pavement condition survey system. These efforts, along with ongoing pavement research and materials testing, help to ensure the department continues to maximize the long-term health of the state highway system.

# Wisconsin Department of Transportation MAPSS Performance Improvement



## Preservation: State Bridge Condition

**Report Date:** July 2023

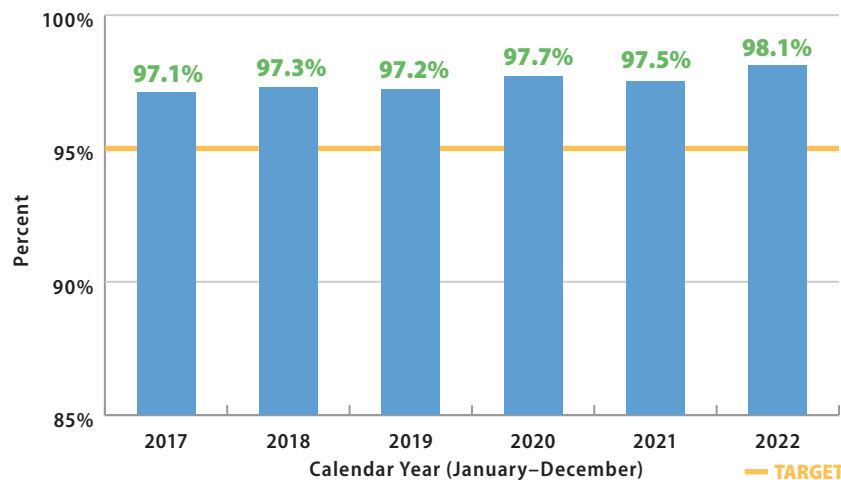
**Data Frequency:** Annual (Calendar Year)

**Division:** Transportation System Development

**Why is it important?** Wisconsin bridges are critical infrastructure assets of the highway transportation network. Inspecting and evaluating bridges is a key component of keeping bridges safe. 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% 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 exceeded the goal of 95% of bridges in good/fair condition over the past six years. Currently, 98.1% of Wisconsin's 5,328 state-owned or maintained bridges have a good or fair rating, while 1.9% of state bridges have a poor condition rating. There are 24 state-owned bridges with weight restrictions. Posting of bridges may not be related to condition. In some instances, it is a reflection of the increased size of loads traveling Wisconsin highways. The state highway system network accounts for more than 10% of the total mileage in Wisconsin yet handles almost 60% of vehicle miles traveled.

**What factors affect results?** WisDOT's commitment to funding bridge improvement work is reflected in low percentage of bridges in poor condition. Wisconsin puts a high emphasis on maintaining and improving bridges through rehabilitation and replacement. 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?** WisDOT uses advancements in technology to continue refining our inspection and maintenance of state system bridges. This includes evaluating different techniques of infrared thermography imagery (IR) on state system bridges to detect deterioration in bridge decks without disturbing traffic, and Unmanned Aerial Vehicles (UAVs or drones) to inspect difficult-to-reach bridge components, capture visual images, and provide a higher level of safety for inspectors and the traveling public during inspection operations. The department has also developed the Wisconsin Structures Asset Management System (WISAMS) to identify and support programming of bridge projects, and recently added an additional staff member dedicated to this work. Our team of asset management engineers led a research project with various other states to collect data and study bridge deterioration to better predict the remaining life of bridges and their components. The results of this work help WisDOT to complete the right work at the right time on the right bridges, to effectively monitor and maintain the health of our structures.

# Wisconsin Department of Transportation

## MAPSS Performance Improvement



### Preservation: State-owned Rail Line Condition

**Report Date:** July 2023

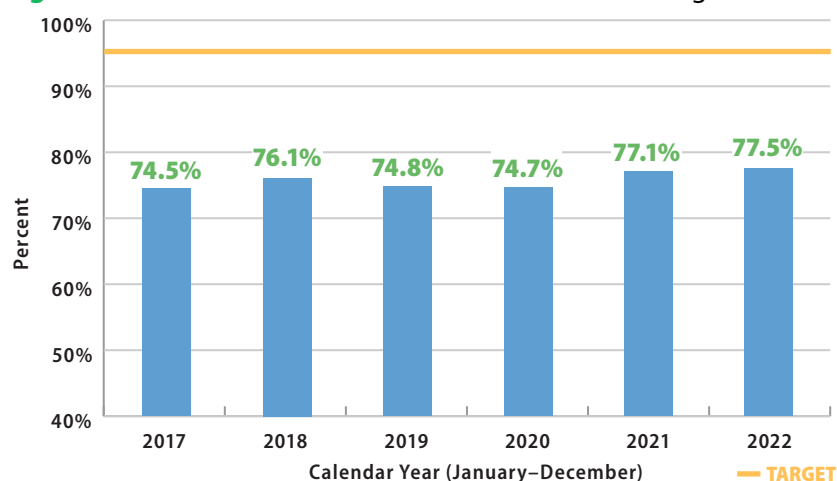
**Data Frequency:** Annual (Calendar Year)

**Division:** Transportation Investment Management

**Why is it important?** The efficient movement of freight throughout the state enhances Wisconsin's economic productivity and competitiveness. Optimizing daily train operating speeds ensures the safe and efficient movement of freight throughout the state.

**Performance measure target:** The department's goal is to have 95% 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 state-owned rail lines meeting or exceeding FRA Class 2 standards by the total amount of state-owned rail lines.

**How are we doing?** There are approximately 702.5 miles of railroad track that are included in this measure. In 2022, 7.0 miles of track were improved to meet FRA Class 2 standards through WisDOT funded projects, and zero miles of track deteriorated to below FRA Class 2 standards. A total of 544.7 of the 702.5 miles of track (77.5%) met the department goal. This is a 7.0-mile increase from 2021 to 2022 in the number of miles that meet the standard.

**What factors affect results?** Variability in railroad program funding levels affects the number of infrastructure improvement projects that can be initiated in a particular program cycle. Funding for track and structure projects is allocated out of the same program and needs are prioritized based on safety, transportation efficiency benefit/cost, carloads/mile, and comprehensive system considerations. In addition, railroad infrastructure projects sometimes require more than one year to complete, which can create the appearance of little progress in one year and substantial progress in the next. Moreover, acquisitions of new rail lines may increase the number of miles in the system and often include infrastructure that needs improvement to meet performance standards. Last, the overall state of the economy impacts the volume of goods transported by railroads, the revenue it produces, and reinvestment in the railroad system.

**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 2023

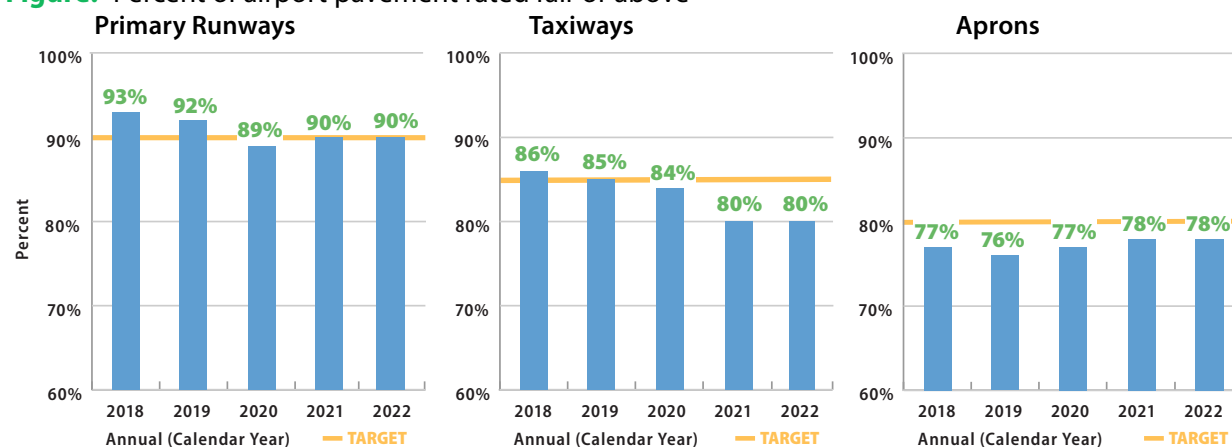
**Data Frequency:** Annual (Calendar Year)

**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% of airport pavement rated fair or above, taxiways 85%, and aprons 80% respectively.

**Figure:** Percent of airport pavement rated fair or above



**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 2022, 90% of the state's primary runways were rated fair or above, which is equal to the rating from 2021 and meets the goal of 90%. **Taxiways:** In 2022, 80% of the state's taxiways were rated fair, or above which is equal to the rating in 2021 and is five points below the goal of 85%. **Aprons:** In 2022, 78% of the state's aircraft parking aprons were rated fair or above, remaining the same as from 2021 but below the goal of 80% by 2 points.

**What factors affect results?** Airports are locally owned and decisions regarding improvements are handled at the local level. Airports developing improvement programs are faced with many challenges ranging from competing priorities to funding constraints. During the last several years, federal funding opportunities have favored safety and planning initiatives over other priorities such as pavement rehabilitation projects. While these initiatives have helped to increase safety across Wisconsin's airports, they can have the unintended consequence of limiting an airport's ability to fully fund pavement preservation and rehabilitation projects. There was also a decrease in the total area of evaluated taxiways of 0.5%. This coupled with the effort to rehabilitate the higher priority runways first may be the cause for the decrease in taxiway ratings and increase in runway ratings.

**What are we doing to improve?** WisDOT conducts annual meetings with airports to discuss their six-year capital improvement program and identify opportunities for future projects. A key component of this outreach is stressing the importance of strong asset management principles that emphasize safety and preservation of critical pavement infrastructure. To maintain long-term infrastructure health, pavement needs must be incorporated into the six-year plan in a way that balances them with high-priority safety needs and other activities such as airport operational needs. WisDOT has recently been utilizing website software that helps more accurately identify and prioritize pavement preservation opportunities. This information allows airports to make better determinations about the best locations, scope, and timing of projects to achieve maximum results. Furthermore, an ongoing emphasis on planning efforts will allow WisDOT to move forward with paving projects more efficiently in the coming years.

# Wisconsin Department of Transportation MAPSS Performance Improvement



## Preservation: Material Recycling

**Report Date:** July 2023

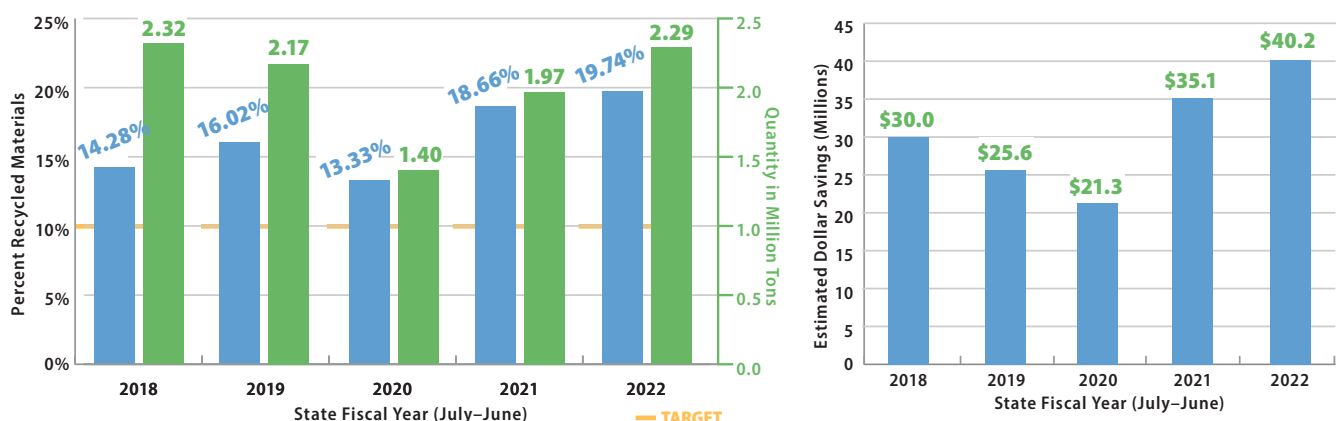
**Data Frequency:** Annual (State Fiscal Year)

**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. In the ten years WisDOT has tracked performance with this measure, more than 17 million tons of materials were reused on projects, creating a savings of over \$245 million to benefit additional projects.

**Performance measure target:** The department's goal is to make sure recycled materials are incorporated into projects. The goal is to have 10% of newly produced materials replaced with recycled materials in construction projects.

### Figures: Recycled materials used in pavement and bridge construction



**How do we measure it?** The department calculates the tonnage of recycled materials through a standard review of common bid items each fiscal year. 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 newly produced 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?** WisDOT increased quantities of recycled materials used in 2022, which in turn created the highest estimated dollar savings since this measure has been tracked. Recycled materials are used on every construction project. Materials generated from the removal of existing roads or structures are prioritized as contractors see fit. Asphalt pavement is commonly recycled into new asphalt layers at an average content of approximately 20% by weight of the material. Recycled concrete is typically used as subbase or base materials for new construction or rehabilitation projects. In addition to the sustainability benefits, recycling on the project can help minimize material cost due to the reduced need for trucking and material production/processing.

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

**What are we doing to improve?** WisDOT continues to embrace opportunities to work with neighboring states, industry partners, and universities to improve the performance of materials being used on construction projects while finding more ways to recycle. The department continues efforts in concert with the National Asphalt Pavement Association (NAPA) and American Concrete Pavement Association (ACPA), which are exploring ways to incorporate sustainability best practices into highway construction. Part of this effort is partnering with state agencies to increase use of recycled materials which helps minimize the construction carbon footprint. Improving sustainability of highway construction projects creates benefits for state highway agencies, industry, and taxpayers.

# Wisconsin Department of Transportation MAPSS Performance Improvement



## Safety: Traffic Fatalities

**Report Date:** July 2023

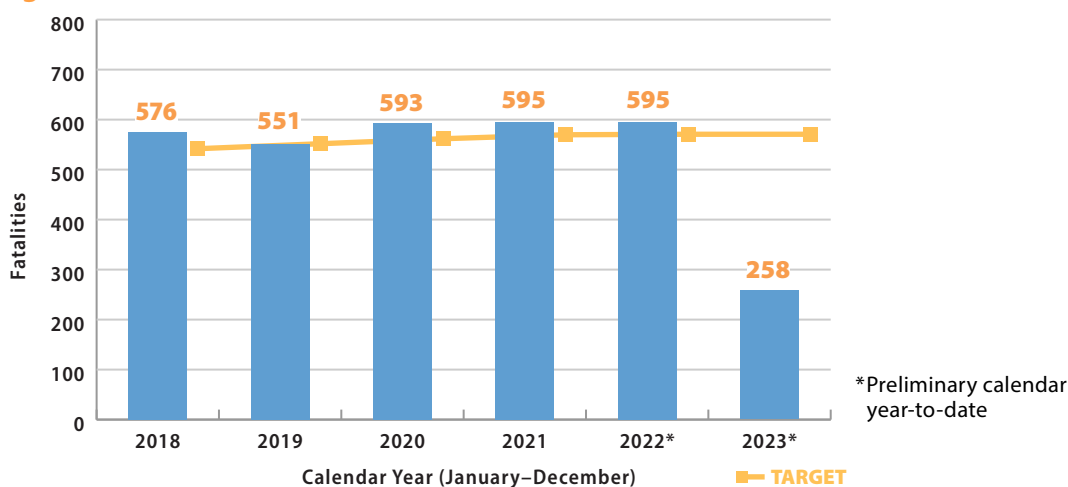
**Data Frequency:** Quarterly (Calendar Year)

**Division:** State Patrol

**Why is this important?** In 2022, 595 persons were killed in traffic crashes on Wisconsin roadways. Understanding where these fatalities occurred can aid us in trying to prevent them.

**Performance measure target:** Annually, the department seeks to reduce traffic fatalities by 2% from the prior five-year rolling average. This aligns with the department's overarching safety goal to reduce deaths on Wisconsin roads.

**Figure:** Number of traffic fatalities



**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 May of the following year as data is reported late or needs verification.

**How are we doing?** Wisconsin experienced a decrease in traffic fatalities on its roads from the previous second quarter year. As of June 30, 2023, Wisconsin has had 258 fatalities, which is 12 fewer than the same period in 2022 but a 3.5% increase from the prior five-year rolling average for 2023. Even though Wisconsin has had 47 fatality-free days in 2023 (the previous five-year average is 56.2), there are still far too many needless and preventable deaths on our roadways. Wisconsin's fatality rate for 2021 was 0.92 per 100 million vehicle miles traveled (VMT), which is tied for the seventh lowest ever recorded. Wisconsin had 595 fatalities in calendar year 2022, which is the same amount as in 2021.

**What factors affect results?** Traffic crashes are avoidable events caused by factors such 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 the tolerance of the public toward risky behavior.

**What are we doing to improve?** WisDOT uses a combined strategy of road design, education, enforcement and emergency response to prevent traffic fatalities, including designing safer roads and maintaining highway infrastructure. The department 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 law enforcement agencies across the state. WisDOT 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 2023

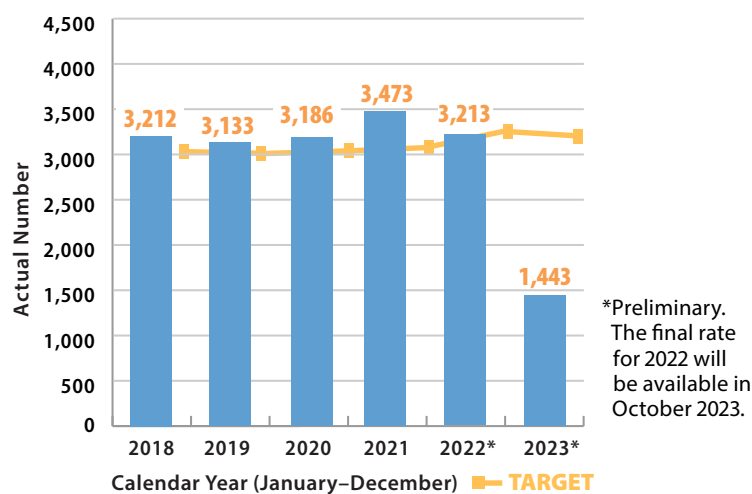
**Data Frequency:** Quarterly (Calendar Year)

**Division:** State Patrol

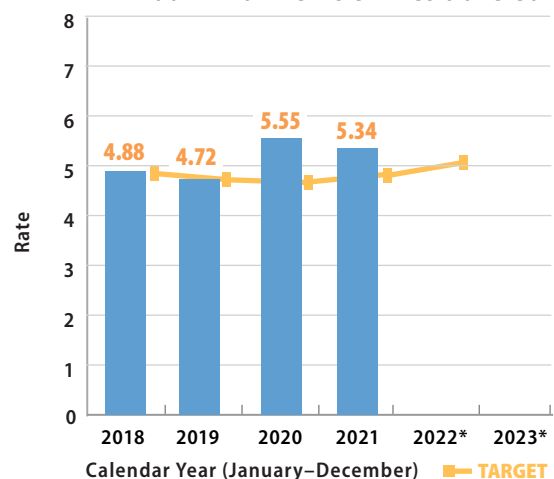
**Why is this important?** In 2022, 3,213 persons were seriously injured in traffic crashes on Wisconsin roadways. Understanding where these serious injuries occurred can aid us in trying to prevent them.

**Performance measure target:** Annually, the department seeks to reduce serious traffic injuries by 2% from the prior five-year rolling average. This aligns with the department's overarching safety goal to reduce serious injuries on Wisconsin roads.

**Figure 1:** Total number of serious injuries



**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. In order to calculate the annual serious injury rate, the total number of serious injuries 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?** The number of serious injuries in 2023 is 1,443, a 1.9% increase from last year and a 0.7% increase from the prior five-year average. When calculated against vehicle miles traveled, the serious injury rate in Wisconsin in 2021 was 5.34 serious injuries per 100 million vehicle miles traveled. This is a 5.7% increase from the prior five-year rolling average of 5.05. Serious injury crashes (those that result in serious injuries) declined from 3,990 in 2007 to 2,740 in 2022. There have been 1,187 serious injury crashes on Wisconsin roads in 2023 as of June 30, 2023 (preliminary), which is a decrease from 1,243 (4.5%) in 2022.

**What factors affect results?** Traffic crashes are avoidable events caused by factors such as human behavior, vehicle condition and environmental surroundings. Weather can also have a seasonal impact, especially on motorcycle or bicycle-related crashes. Driver behavior, such as motorcyclists wearing helmets and motorists using seatbelts, has the most significant impact on injury rates. 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?** WisDOT uses a combined strategy of engineering, education, enforcement and emergency response to prevent traffic injuries, including designing safer roads and maintaining the highway infrastructure. In addition, the department 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. WisDOT 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 2023

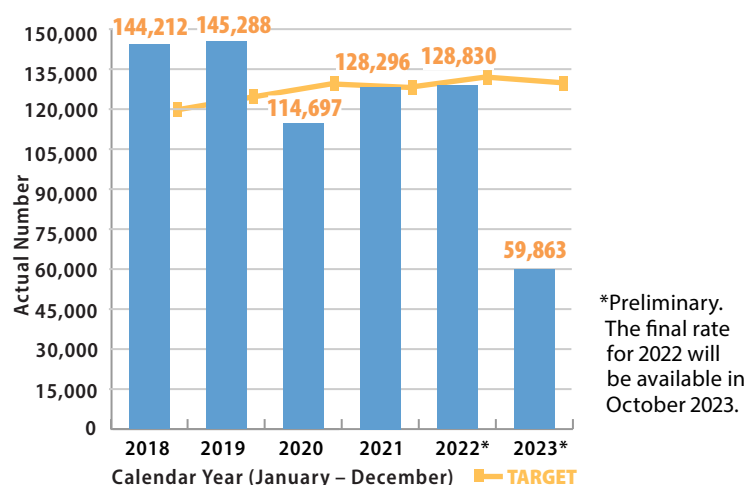
**Data Frequency:** Quarterly (Calendar Year)

**Division:** State Patrol

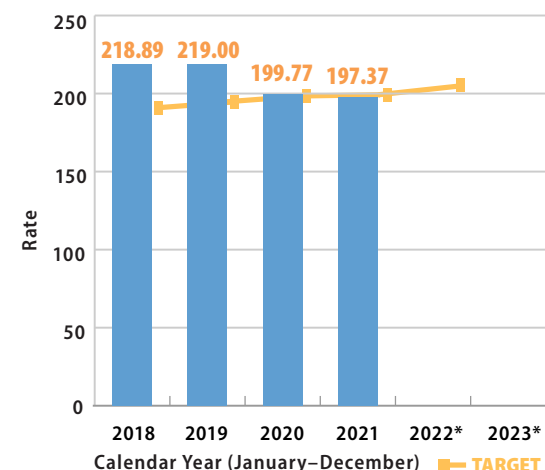
**Why is this important?** In 2022, 128,830 traffic crashes occurred on Wisconsin roadways. Understanding where these traffic crashes occurred can aid us in trying to prevent them.

**Performance measure target:** Annually, the department seeks to reduce traffic crashes by 2% from the prior five-year rolling average. This aligns with the department's overarching safety goal to reduce traffic crashes on Wisconsin roads.

**Figure 1: Total number of crashes**



**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, 2023, the number of traffic crashes on Wisconsin roads was 59,863. This is a 0.6% decrease from last year and a 4.7% decrease from the prior five-year average. The crash rate in 2021 decreased from the rate in 2020 by 1.2%. In calendar year 2022, there were 128,830 total crashes (fatal crashes, injury crashes and property damage crashes) on Wisconsin roads. When calculated against vehicle miles traveled in 2021, the crash rate was 197.37 crashes per 100 million vehicle miles traveled. This is a 6.4% decrease from the prior five-year rolling average of 210.77.

**What factors affect results?** Traffic crashes are avoidable events caused by factors such 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. 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 2023

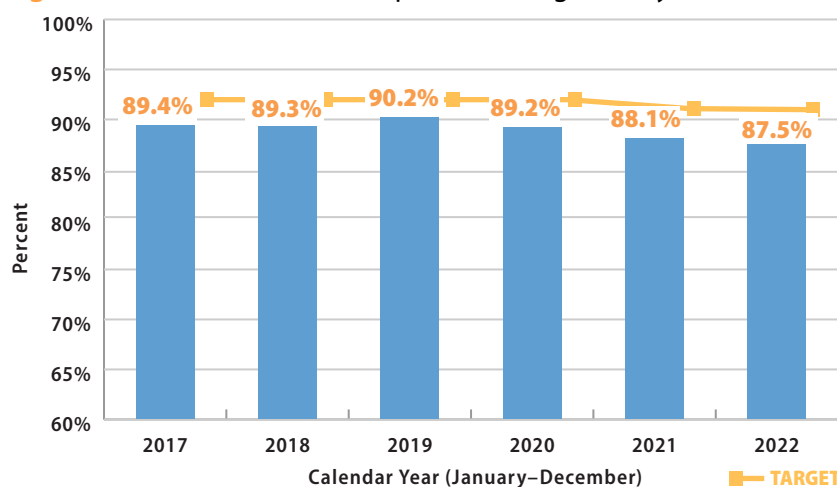
**Data Frequency:** Annual (Calendar Year)

**Division:** State Patrol

**Why is this important?** Wearing safety belts saves lives. About 50% 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.

**Performance measure target:** Annually, the department seeks to increase safety belt use by 2% from the prior five-year rolling average. This aligns with the department's overarching safety goal to increase belted occupants of vehicles on Wisconsin roads.

**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 87.5% in 2022, which is the seventh highest on record. That means that 12.5% of motorists are still not buckling up—putting themselves and others at risk of serious injury or death in the event of a crash. For 2021, Wisconsin was just below the 90.4% 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%. The previous five-year average was 89.2%.

**What factors affect 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, uses 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 trains instructors on safety seat installment.



# Wisconsin Department of Transportation MAPSS Performance Improvement



## Service: DMV Wait Times

**Report Date:** July 2023

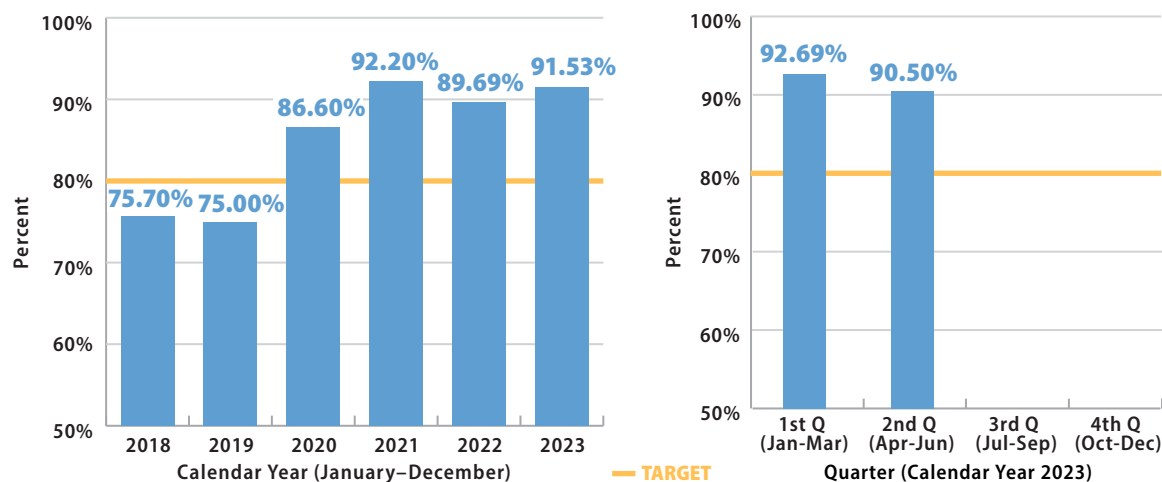
**Data Frequency:** Quarterly (Calendar Year)

**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 more than two million transactions 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% 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. Wait times can be calculated only at the 30 five-day stations, which serve approximately 85% of all customers.

**How are we doing?** While customer traffic continues to remain slightly lower overall as a result of the COVID-19 pandemic, quarter two of 2023 had a decrease of approximately 2%. The road test waiver and online driver license renewal pilots are also reducing demand for in-person service. With these lower in-person customer volumes, we have served over 80% of our customers within 20 minutes for each quarter this year.

**What factors affect results?** Factors impacting this measure are staff vacancies/absences and the ebbs and flows of in-person demand since DMV cannot staff for peak demand periods. The increasing availability of self-service options by mail, third-party service providers and the Internet also affects the demand for counter service as the more customers that use self-serve options, the shorter the wait times will be for those who must make an in-person visit.

**What are we doing to improve?** DMV continues to develop and promote online self-service options, so customers do not need to conduct business at a DMV service center. DMV also continues to provide customers an online scheduling system that offers the ability to make appointments for Driver License/ID services, as well as to 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 is also continuing to offer two pilot programs: 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, reducing in-person customer demand.

# Wisconsin Department of Transportation MAPSS Performance Improvement



## Service: DMV Electronic Services

**Report Date:** July 2023

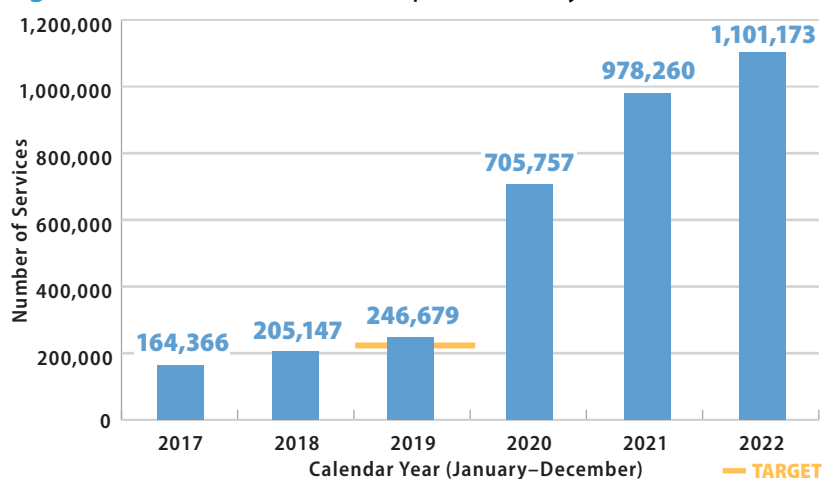
**Data Frequency:** Annual (Calendar Year)

**Division:** Motor Vehicles

**Why is it important?** The goal of this measure is to increase the number of self-serve electronic transactions by 10% each calendar year. This will further DMV's efforts to provide self-service options, increasing customer convenience and easing the staffing demand for in-person services. 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 10% each calendar year.

**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 increased significantly due to the pandemic and the growth in eNotify enrollments.

**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, these numbers should continue to grow.

**What are we doing to improve?** WisDOT/DMV 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. 2022 usage was 12.4% higher than 2021 which in turn was 38.6% higher than 2020.

# Wisconsin Department of Transportation MAPSS Performance Improvement



## Service: DMV Driver License Road Test Scheduling

**Report Date:** July 2023

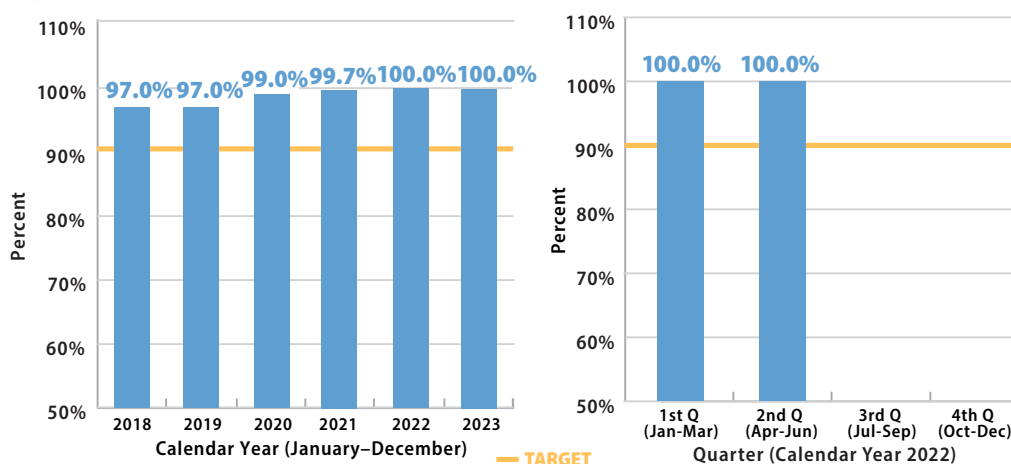
**Data Frequency:** Quarterly (Calendar Year)

**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 where 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 capacity to provide Class D skills tests to meet 90% of the estimated demand four weeks before customer eligibility.

**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% or higher service levels. This is largely due to using improved projection models to better estimate our customers' needs.

**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. The road test waiver pilot program has also reduced the demand for road tests, allowing DMV to meet demand goals at almost all stations every week.

**What are we doing to improve?** With projections available six months in advance, DMV 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 2020, DMV 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 2023

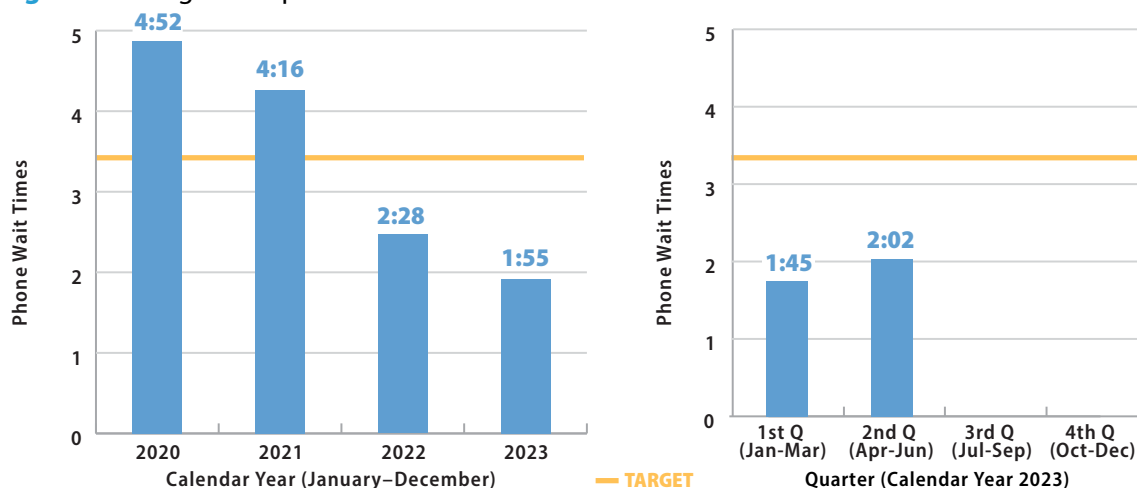
**Data Frequency:** Quarterly (Calendar Year)

**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:** DMV's performance target is to have the average wait time be less than 3½ minutes.

**Figure:** Average DMV phone wait times



**How do we measure it?** Each week, the DMV counts the total number of calls answered by representatives and calculates the average wait time for those calls.

**How are we doing?** DMV implemented a new phone system in early February 2021 which allowed customers to hear the approximate hold time, which allows them to make an informed decision to hold rather than requesting a callback or just hanging up. More customers are opting to hold on since they find the wait times acceptable. However, this means the average wait time increases because customers selecting a callback option have their wait time end at that point since they are not choosing to stay on hold. Thus, the new phone system allows a more accurate measurement of wait time. DMV efforts have continued the overall reduction in wait times that began in quarter three of 2021, resulting in an average wait time of 2:02 for quarter two of 2023.

**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, including online instructional videos and improving the information available on the department's website, DMV can reduce the number of service calls it receives. 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 that need to be referred to more seasoned staff. The new phone system implemented in February 2021 includes Customer Relationship Management (CRM) software, which allows staff to enter notes regarding the call. This information assists the customer in not needing to repeat their question upon callback, and helps the DMV better determine why people are calling so we can proactively adjust messaging for better assistance.

# Wisconsin Department of Transportation MAPSS Performance Improvement



## Service: DMV Email Service

**Report Date:** July 2023

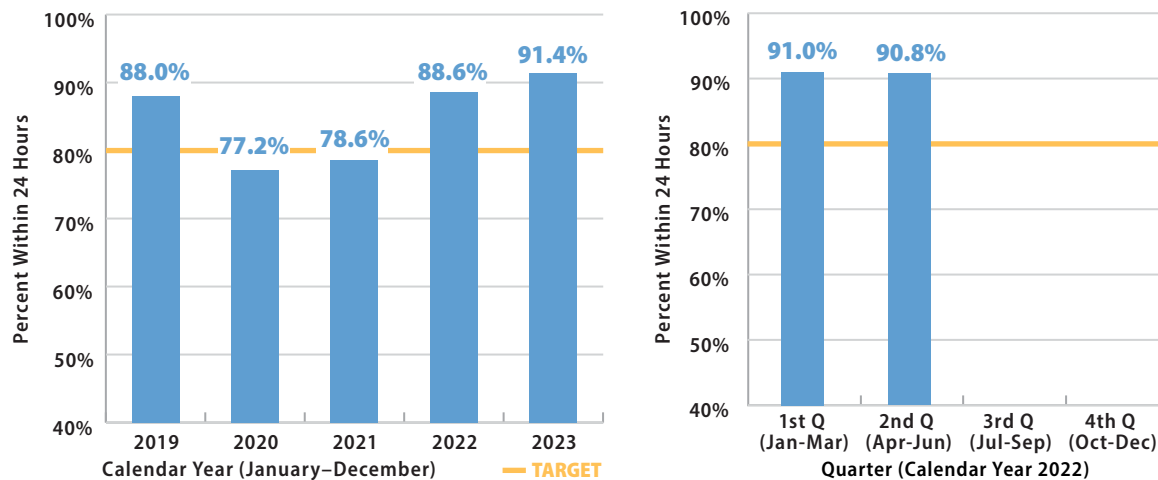
**Data Frequency:** Quarterly (Calendar Year)

**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 allows 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% 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?** Continuing the trend of increased email contacts in 2022, quarter two of 2023 stayed at a high volume, resulting in an 90.8% score for this measure for this quarter.

**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 uses 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. By expanding online services, including online instructional videos, and improving the information available on the department's website, DMV can reduce the number of service emails it receives.



# Wisconsin Department of Transportation

## MAPSS Performance Improvement

### Appendix A:

#### Additional Performance Measures

|   |           |
|---|-----------|
| <b>Mobility</b>   |           |
| <b>Accountability</b>                                   |           |
| <b>Preservation</b>                                     |           |
| <b>Safety</b>   |           |
| Air Support Unit Deployments<br>for Traffic Enforcement | <b>31</b> |
| <b>Service</b>  |           |



# Wisconsin Department of Transportation MAPSS Performance Improvement



## Safety: Air Support Unit Deployments for Traffic Enforcement

**Report Date:** July 2023

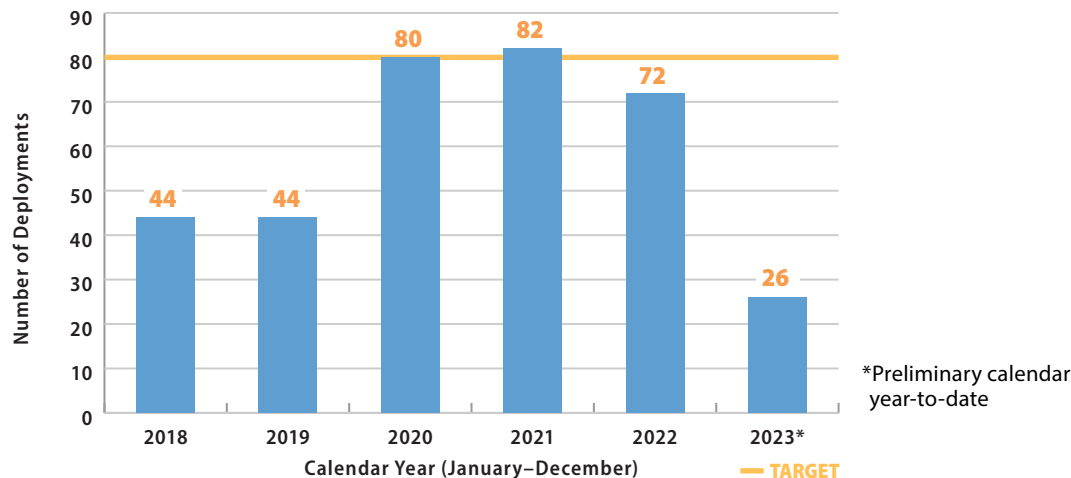
**Data Frequency:** Quarterly (Calendar Year)

**Division:** State Patrol

**Why is this important?** Speed continues to be a contributing factor in approximately 30% 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 limits and discouraging aggressive driving. Using ASU 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 2023, WisDOT will evaluate and report results of research into the impact of aerial speed enforcement on selected corridors.

**Performance measure target:** The goal of this measure is to have 80 ASU traffic enforcement deployments in 2023. 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?** As of June 30th, the DSP has flown a total of 26 missions. There have been 26 flights flown out of 47 scheduled. Twenty-one flights were cancelled but 13 continued as ground-only operations. Eight deployments were outright cancelled. A level of 5.50 stops per hour was achieved in the second quarter, bringing the yearly stops per hour to 5.76. From the 818 traffic stops, there were a total of 668 total citations (524 speeding, 2 OWI) and 849 total warnings (429 speeding). Other notable aspects of these 26 missions include 33 drug citations/arrests, five warrant arrests, and 27 non-traffic citations issued. There were 11 drivers clocked at over 100 mph with the highest for this quarter being 120 mph. The highest speed for the year to date is 120 mph. There was one pursuit facilitated by ASU pilots for the calendar year to date.

**What factors affect results?** Other flight activities in WisDOT and Department of Natural Resources (DNR) 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 always, weather, the availability of pilots, aircraft maintenance and competition for aircraft with those with whom we share airplanes are factors impacting the number of missions.

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Accountability

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

### Diversity

Creating an environment that's inclusive of all people and opinions, and which cultivates opportunities to bring varied perspectives to our work and decision making.

### Excellence

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

### Accountability

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

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