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

MAPSS

Performance Improvement Report

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

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

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

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

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

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## Wisconsin Department of Transportation MAPSS Performance Scorecard

### Mobility: Delivering transportation choices that result in efficient trips and no unexpected delays.

<table>
<thead>
<tr>
<th>Performance measure</th>
<th>How we measure it</th>
<th>Current report period</th>
<th>Goal</th>
<th>Goal met</th>
<th>Trend</th>
<th>Comments</th>
<th>Date Last Reported</th>
</tr>
</thead>
<tbody>
<tr>
<td>Delay (Hours of Vehicle Delay)</td>
<td>Extra time spent driving as compared to free-flowing traffic. Delay is reported on 13 of Wisconsin's Metropolitan Planning Areas.</td>
<td>7,676,333 hrs</td>
<td>Reduce from previous year</td>
<td>✔️</td>
<td>🔺</td>
<td>The department strives to optimize system use through programs to reduce the time that highway lanes are blocked or impassable. Decreased traffic volumes through the COVID-19 pandemic impacted the 2020 reporting (a lower number is better).</td>
<td>4/2021</td>
</tr>
<tr>
<td>Reliability (Planning Time Index)</td>
<td>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.</td>
<td>1.16</td>
<td>Improve on reliability from previous year</td>
<td>✔️</td>
<td>🔺</td>
<td>Drivers can better plan trips the more they can rely on consistent drive times and traffic flow. Decreased traffic volumes through the COVID-19 pandemic impacted the 2020 reporting (a lower number is better).</td>
<td>4/2021</td>
</tr>
<tr>
<td>Transit Availability</td>
<td>Percent of population served by transit</td>
<td>53.0</td>
<td>55.0</td>
<td>🔺</td>
<td>🔺</td>
<td>There was less than 1 percent change from 2019 to 2020.</td>
<td>1/2021</td>
</tr>
<tr>
<td>Bicycling Conditions on Rural Highways</td>
<td>Percent of rural highway miles with favorable bicycling conditions</td>
<td>State hwys: 57.9; County roads: 92.1</td>
<td>100 percent on roads where bicycles are not prohibited</td>
<td>🔺</td>
<td>🔺</td>
<td>Overall, the number of miles rated favorable is holding steady, as bicycling miles increased on county highways and decreased on state highways.</td>
<td>4/2021</td>
</tr>
<tr>
<td>Incident Response</td>
<td>Percent of incidents cleared within a specific timeframe</td>
<td>Intermediate incidents: 90.0; Major incidents: 80.0</td>
<td>🔺</td>
<td>🔺</td>
<td>Continued coordination, planning and review with agencies statewide aids response operations.</td>
<td>1/2021</td>
<td></td>
</tr>
<tr>
<td>Winter Response</td>
<td>Percent to bare-wet within a specific time period after a storm</td>
<td>74 for 24-hr roads</td>
<td>70.0 within specified time</td>
<td>✔️</td>
<td>🔺</td>
<td>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.</td>
<td>7/2021</td>
</tr>
</tbody>
</table>

### Accountability: The continuous effort to use public dollars in the most efficient and cost-effective way.

<table>
<thead>
<tr>
<th>Performance measure</th>
<th>How we measure it</th>
<th>Current report period</th>
<th>Goal</th>
<th>Goal met</th>
<th>Trend</th>
<th>Comments</th>
<th>Date Last Reported</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transportation Facilities Economic Assistance and Development (TEA) Grants Calendar year 2021</td>
<td>Capital investment dollars achieved per grant dollar awarded</td>
<td>$74.47</td>
<td>$50.00</td>
<td>✔️</td>
<td>🔺</td>
<td>The department awarded three grants totaling $1.6 million. The businesses involved in these three projects expect to make total capital investments of $119.9 million resulting in each grant dollar leveraging an average of $74.47 in capital investment.</td>
<td>7/2021</td>
</tr>
<tr>
<td>Timely Scheduling of Contracts State fiscal year 2021</td>
<td>Percent of highway program funding scheduled during the first six months of each fiscal year</td>
<td>53.3 percent</td>
<td>54.0</td>
<td>🔺</td>
<td>While 2020 brought challenges, it also created some important lessons and the department began trending back closer to the goal in 2021</td>
<td>10/2021</td>
<td></td>
</tr>
<tr>
<td>On-time Performance Calendar year 2020</td>
<td>Percent of highway projects completed on-time</td>
<td>93.3 percent</td>
<td>100.0</td>
<td>🔺</td>
<td>🔺</td>
<td>The pandemic brought challenges, but also opportunities as lower traffic volumes helped to speed up some project timelines.</td>
<td>10/2021</td>
</tr>
<tr>
<td>On-budget Performance State fiscal year 2020</td>
<td>Final highway project cost as percent of original contract amount</td>
<td>102.0</td>
<td>103.0</td>
<td>✔️</td>
<td>🔺</td>
<td>The department exceeded its goal while coming in 3 percentage points below industry average (a lower number is better).</td>
<td>1/2021</td>
</tr>
<tr>
<td>Surplus Property Management State fiscal year-to-date 2021</td>
<td>Dollar value of surplus land sold</td>
<td>$3.01 mil.</td>
<td>$2.75 mil.</td>
<td>✔️</td>
<td>🔺</td>
<td>WisDOT’s Real Estate staff kept processes and sales moving throughout the COVID-19 pandemic to set the stage for a strong showing in fiscal year 2021.</td>
<td>7/2021</td>
</tr>
</tbody>
</table>

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
### Goal

3. The department's focus on safe

### Trend

In 2020, 1.1 miles of track were improved to

Continuing the trend of increased email

The biggest impact of the new phone system

Recycled materials create quality, performance and

Beginning in May 2020, DMV began the Road Test

While Wisconsin's safety belt usage rate reached the

### Services

- **DMV Wait Times**
  - Calendar year 2021
  - Percent of DMV service center customers served within 20 minutes
  - Current report period: 92
  - Goal: 80.0
  - Trend: Met
  - Comments: Due to social distancing related to the pandemic, in-person customer traffic has significantly decreased. We have served over 90 percent of our customers within 20 minutes for each month of this quarter.
  - Date Last Reported: 10/2021

- **DMV Electronic Services**
  - Calendar year 2020
  - Number of self-serve electronic transactions
  - Current report period: 705,757
  - Goal: 225,661
  - Trend: Met
  - Comments: During the course of pandemic, the number of eNotify enrollees increased 214 percent over the previous year, and the number of emvPublic transactions has increased 277 percent.
  - Date Last Reported: 4/2021

- **DMV Driver License Road Test Scheduling**
  - Calendar year 2021
  - Available tests as a percent of estimated demand
  - Current report period: 100
  - Goal: 90.0
  - Trend: Met
  - Comments: Beginning in May 2020, DMV began the Road Test Waiver pilot program. This has reduced demand for road tests and DMV has modified its road test forecasting model to account for this decrease.
  - Date Last Reported: 10/2021

- **DMV Phone Service**
  - Calendar year 2021
  - Percent of DMV phone calls answered within three minutes
  - Current report period: 53.7
  - Goal: 80.0
  - Trend: Met
  - Comments: The biggest impact of the new phone system implemented in February 2021 was the ability to provide customers an estimated wait time, resulting in more customers choosing to remain on hold rather than opting for a call back. Because a call-back request ends the call, more people staying on hold has increased total wait time.
  - Date Last Reported: 10/2021

- **DMV Email Service**
  - Calendar year 2021
  - Percent of DMV emails answered within 24 hours
  - Current report period: 74.5
  - Goal: 80.0
  - Trend: Met
  - Comments: Continuing the trend of increased email contacts in 2020, quarter three of 2021 stayed at a high volume, resulting in a 74.5 percent measure for the year, sixteen percentage points higher than quarter two of 2021.
  - Date Last Reported: 10/2021
Wisconsin Department of Transportation
MAPSS Performance Improvement

**Mobility:** Delay (Hours of Vehicle Delay)

| Report Date: | October 2021 | 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. Please note that this report uses new federal data. The numbers are not comparable with hours of delay tracked in previous MAPSS reports.

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

<table>
<thead>
<tr>
<th>Year</th>
<th>Winter</th>
<th>Spring</th>
<th>Summer</th>
<th>Fall</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018</td>
<td>3.19</td>
<td>2.87</td>
<td>4.30</td>
<td>4.06</td>
</tr>
<tr>
<td>2019</td>
<td>3.45</td>
<td>1.27</td>
<td>1.87</td>
<td>3.92</td>
</tr>
<tr>
<td>2020</td>
<td>1.27</td>
<td>1.87</td>
<td>1.64</td>
<td></td>
</tr>
</tbody>
</table>

Note: Total Hours of Delay (December 2019 – November 2020) = 7,676,333

(See this measure on the MAPSS website for more information)

**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?** Statewide vehicle hours of delay measured at 7,676,333 during the daytime hours of 6 a.m. to 8 p.m. for the 2020 reporting period. This marked an extraordinary reduction in hours of daytime delay from 2019. The reduction coincided with traffic reductions experienced throughout the pandemic, as health and safety precautions encouraged more work and activity from home. However, some of the delay reductions, recorded in February, could be linked to more favorable winter driving conditions as the 2020 winter saw less snow than the previous year. As the pandemic continues into 2021, it is unclear how people’s driving habits may stabilize or change amid virtual options for school, work and social engagements.

**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?** The Wisconsin Department of Transportation continued to make improvements to the transportation system throughout 2020. The reduction in traffic allowed project work to be scheduled during times of the day that would have been more challenging under normal traffic demands. In some cases, this allowed highway workers to complete projects ahead of schedule and with fewer work zone conflicts. The Department is addressing recurring congestion on USH 12 in Dane County with plans to implement a part time shoulder lane between I-39/30 and Whitney Way in the eastbound and westbound direction. This project intends to modify the existing highway to allow travel on the left-hand shoulder when travel speeds are low because of congestion or incidents. The shoulder lane, called the Flex Lane, will be operational in early 2022.
Wisconsin Department of Transportation
MAPSS Performance Improvement

Mobility: Reliability (Planning Time Index)

Report Date: October 2021  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. Consumers should note that this report uses new federal data. The numbers are not comparable with reliability numbers tracked in previous MAPSS reports.

Figures: Statewide reliability index for Wisconsin Interstate highways by county

Below 1.3 means reliable; between 1.3 and 1.7 means moderately unreliable and over 1.7 means unreliable. (See this measure on the MAPSS website for more information)

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

How are we doing? The annual all-day (6 a.m. to 8 p.m.) planning time index for 2020 was 1.16. This is an improvement from 2019 and due to the reduced traffic seen throughout the pandemic. All the seasons had an improved Planning Time Index from 2019. The winter season in 2020 had less cumulative snow compared to 2019 and traffic started to decline in mid-February before the declaration of a global pandemic. The reduction in passenger vehicle traffic reduced congestion in urban areas and in work zones during the spring, summer and fall seasons in 2020. Dane, Racine, Waukesha and Milwaukee counties had the largest improvements since these counties have experienced recurring congestion and work zone impacts in 2019. Washington County experienced a slight drop in reliability due to lane reductions for work zones. The winter morning peak had the highest statewide planning time index. Dane, Milwaukee, Racine, Outagamie, Brown, Douglas and Waukesha counties had winter morning peak index higher than the statewide average while all other counties had an index below the average. As the pandemic continues into 2021, it is unclear how people's driving habits may stabilize or change amid virtual options for school, work and social engagements.

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? Reliability is just one element of the motorist experience that WisDOT looks to enhance through the annual improvement program. The I-41/94 improvement project in Kenosha and Racine Counties was completed on schedule in 2020. Upgrading the highways for safer travel creates more reliable conditions. Traffic monitoring devices were deployed as part of the I-41/94 and I-39/90 construction projects in 2020. Additionally, devices were installed on portions of I-41 near Oshkosh and Fond du Lac to monitor and detect potential hazards on the roadway. WisDOT is testing new mobile communications between State Patrol and freeway service teams to enhance response for distressed motorists. Advanced work zone technologies are being explored to improve safety and reduce delays. While travel decreased in 2020 due to the pandemic, WisDOT is monitoring the demands and continues to manage highway operations with an emphasis on safety, accessibility and reliability.
Mobility: Transit Availability

Report Date: October 2021  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 percent of Wisconsin transit riders travel to work, 14 percent to school, 20 percent to retail, tourism or recreational destinations, and 11 percent to health care services. Greater transit availability means greater mobility for Wisconsin citizens. Transit service is a key component of a comprehensive, multimodal transportation system and contributes to an enhanced quality of life in Wisconsin communities.

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

Figure: Percent of Wisconsin population served by transit

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 percent of the state’s population has access to public transit. This represents a decrease of one percentage point from 2019 to 2020. Nationally, it is estimated that 55 percent of the population has access to public transit. Source: American Society of Civil Engineers 2013 Infrastructure Report Card.

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

What are we doing to improve? The department actively provides technical assistance to local transit providers in the areas of planning and budgeting, and frequently sponsors transit development plans and feasibility studies to ensure that transit investments are data driven, sustainable and promote effective service. Department staff review transit system budgets and service profiles annually to ensure transit operations are consistent with state and federal regulations, as well as department goals and best practices. Management performance reviews of urban bus systems every five years along with annual cost efficiency report analyses for all systems helps ensure that Wisconsin transit systems function efficiently and effectively in meeting mobility needs. The Department also interacts directly with stakeholders and advocates through advisory groups such as the Wisconsin Non-Driver Advisory Committee.
Why is it important? Bicycle travel is an essential component of a multimodal transportation system. The option to travel by bicycle is important for people too young to drive, people who cannot drive or people who choose not to drive. Monitoring rural highway conditions for bicycling helps planners and designers identify potential facility improvements for all modes of travel. This is especially important in areas that are currently less suitable for bicycle travel and are experiencing growth or increased auto congestion. Generally, projects that create safety and operational improvements for all roadway users also result in improved conditions for bicyclists.

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

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

How are we doing? In 2020, the percent of rural county highways rated as ‘best’ or ‘moderate’ for bicycling increased slightly for the 8th consecutive year. This is primarily attributed to the addition of paved shoulders. The percentage of state highways rated as ‘best’ or ‘moderate’ for bicycling decreased from 58.5 percent to 57.9 percent. This is mostly attributed to 2019 traffic volume increases.

What factors affect results? Vehicles per day, travel lane width, and the presence or absence of paved shoulders are the primary determinants of rural bicycling conditions. As traffic on roadways increases, 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: October 2021  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 percent of all intermediate incidents in less than two hours and to clear 80 percent of all major incidents in less than four hours.

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

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 2020, the department continued to meet its major incident target by obtaining an 87.4 percent clearance rate. For intermediate incidents there was a slight drop in the clearance rate from 89.5 percent in 2019 to 89.0 percent in 2020. There were fewer intermediate and major incidents in 2020 as compared to both 2018 and 2019. The total number of intermediate and major incidents decreased by 953 from 2019 reported incidents. In the second quarter of 2020, Wisconsin paralleled all other states in the significant reduction of traffic volumes on all roads. Due to quarantines and travel restrictions related to the COVID-19 pandemic, traffic volumes decreased an average of 32 percent between mid-March and the end of June. Law enforcement reported that average speeds increased over this same time period. Higher speeds may increase crash severity and complexity which can result in longer clearance times.

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 emphasize the need for all responder disciplines to participate in a Traffic Incident Management (TIM) class sponsored by the department. Starting in January of 2021, the department is once again conducting in-person TIM trainings for responders. All training had been postponed in March of 2020 due to the COVID-19 pandemic. Virtual TIM classes had limited success. The department has already experienced increased requests for in-person TIM training since the restarting of in-person classes. The department has trained over 16,000 responders in traffic incident management since the program began. Wisconsin ranks 11th in the nation in the total number of responders trained. The department will continue with ongoing outreach efforts through TIM-related presentations and attendance at various TIM responder conferences throughout the state. The department will host over 20 regional TIM meetings statewide in 2021 with the goal to expose more responders to the Traffic Incident Management Enhancement (TIME) program and the importance of TIM training. The TIME Coalition, a group of 19 member organizations or associations that all have a nexus to TIM and represent over 39,000 responders in the state is advocating TIM training to all its members.
**Wisconsin Department of Transportation**

**MAPSS Performance Improvement**

**Mobility: Winter Response**

| Report Date: October 2021 | 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 achieve these targets 70 percent of the time.

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

![Graph showing performance measure targets and actual percentages from 2015-2021 for 24-hour and 18-hour roads.](image)

**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?** While the 24-hour category did meet its performance expectation, both categories in this measurement showed a decline from the previous winter. It’s important to note that a less severe winter overall can still contain numerous events requiring complex responses on an individual basis. Crews also navigated unique operational challenges related to the COVID-19 pandemic to ensure public safety on winter roads.

**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 a an especially significant role with to 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?** WisDOT continues to work on process improvements before, during and after each storm event. The state coordinates with county maintenance partners on level-of-service models to foster an increasingly consistent approach statewide. Education, best management practices and a focus on optimizing treatment strategies have all played significant roles in increasing efficiency statewide. The state continues to work with county and academic partners to develop methods and practices for liquid brine. Increased applications of brine help to preserve costly salt supplies while providing safe winter roads.
**Accountability:** Transportation Facilities Economic Assistance and Development (TEA) Grants

**Report Date:** October 2021  
**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

![Graph showing capital investment dollars per grant dollar awarded from 2016 to 2021.](image)

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

**How are we doing?** WisDOT has met the goal thus far for calendar year 2020. The department has awarded three grants totaling $1.6 million to three Wisconsin communities. The businesses involved in these four projects expect to make total capital investments of $119.9 million resulting in each grant dollar leveraging an average of $74.47 in capital investment. Another seven communities are considering applications which could request more than $3.9 million in TEA funding.

**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 2021, these three projects had a capital investment to grant dollar ratio that far exceeded 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. WisDOT has also submitted budget recommendations to increase the award amount per new job and include an award amount for retained jobs.
Accountability: Timely Scheduling of Contracts

Report Date: October 2021  
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 percent of the improvement program funding in the first half of the state fiscal year between the months of July and December.

Figure: Percent of annual road construction contract funds scheduled for bid letting during first six months of 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? WisDOT had a much stronger showing this period with 53.3 percent of annual road construction contract funds scheduled for bid letting during the first six months of the fiscal year. While 2020 presented challenges, it also created numerous learning opportunities for staff to refocus on the needs ahead. Although the performance measure was not met, WisDOT made great improvements from the previous year.

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) 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? The WisDOT Project Letting Process (PLP) committee is made up of individuals from all Region Planning areas, Bureau of Project Development, Bureau of State Highway Programs – Program Finance Section, and the Bureau of Transit, Local Roads, Railroad and Harbors. The committee meets quarterly to review current and future letting schedules. One area of emphasis is in the Local Road Program. Historically those projects were let in the second half of the fiscal year. The committee is reviewing the possibility of adding more local projects into the first half of the fiscal year to assist in meeting the measure. The team continues to make sure projects are being front loaded in the future program years and right sized as they get closer to the scheduled let year.
Wisconsin Department of Transportation
MAPSS Performance Improvement

**Accountability:** On-time Performance

| Report Date: | October 2021 | 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 percent of the time.

**Figure:** Percent of highway projects completed on time

![Graph showing percent of highway projects completed on time from 2015 to 2020.](graph)

**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 year 2020 presented many challenges in relation to the pandemic. However, in spite of those challenges the department completed a record 328 construction contracts. The on-time performance trend also increased with 93.3 percent of contracts statewide being completed on-time. The department was letting more contracts out to bid and industry was meeting the challenge getting them complete. One factor that contributed to the increase in the on-time performance trend was due to the pandemic, which saw less overall traffic. This enabled some projects to be accelerated due to less disruption from traffic or where the road could be completely closed to traffic. As a result, 58 percent, or 191 projects were completed ahead of schedule.

**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?** The department and contractors continue to work on increased communication strategies that bring efficiencies to the project. The Timely Decision-Making Guide is at the core of offering those strategies to project staff and contractors. Communication is key to problem resolution which keeps projects on or even ahead of schedule. Designers 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 schedule delays. Overall, with the adoption of e-Construction technologies the department and contractors are working together to keep projects on-time.
**Wisconsin Department of Transportation**

**MAPSS Performance Improvement**

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**Accountability:** On-budget Performance

| Report Date: October 2021 | 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 percent of actual final costs, well under the industry average of 5 percent.

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

<table>
<thead>
<tr>
<th>Year</th>
<th>Percent</th>
<th>TARGET</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>103.8%</td>
<td></td>
</tr>
<tr>
<td>2016</td>
<td>104.9%</td>
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</tr>
<tr>
<td>2017</td>
<td>103.0%</td>
<td></td>
</tr>
<tr>
<td>2018</td>
<td>104.0%</td>
<td></td>
</tr>
<tr>
<td>2019</td>
<td>104.1%</td>
<td></td>
</tr>
<tr>
<td>2020</td>
<td>102.0%</td>
<td></td>
</tr>
</tbody>
</table>

**How do we measure it?** The current measuring methodology, updated in 2016, 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 SFY 2020 by recording 102 percent, meaning costs kept well within the 3 percent window for change orders. A variety of factors can come into play including thoughtful planning, fluctuating material costs, weather, staging needs, contractor readiness and overall competition for the work.

**What factors affect results?** Actual costs are affected by the quality and completeness of project designs, new findings or changes in field conditions, weather condition and contract oversight. Additional factors may be late additions to project scope due to safety condition, changes in customer expectations and local non-participating requests during construction. Not all factors 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?** Department staff routinely evaluate site conditions, the materials market and other emerging opportunities to develop cost savings and efficiencies as projects are executed in the field. A continued focus on Cost Reduction Incentives (CRI) encourages fresh, innovative thinking on materials, processes and methods to create value at WisDOT work sites. Additionally, department staff continue to leverage findings of a 2018 analysis to focus on best practices and continued improvement.
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

<table>
<thead>
<tr>
<th>State Fiscal Year (July–June)</th>
<th>Millions of Dollars</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>$7.01</td>
</tr>
<tr>
<td>2017</td>
<td>$3.68</td>
</tr>
<tr>
<td>2018</td>
<td>$7.04</td>
</tr>
<tr>
<td>2019</td>
<td>$4.36</td>
</tr>
<tr>
<td>2020</td>
<td>$2.75</td>
</tr>
<tr>
<td>2021*</td>
<td>$3.01</td>
</tr>
</tbody>
</table>

*State fiscal year-to-date

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

How are we doing? WisDOT has completed $3,012,823 of the $2.75 million sales goal for fiscal 2021 and sold 102 of the 136 parcels on the SFY 2021 marketing plan, exceeding the fiscal sale goal.

What factors affect results? Availability of surplus lands and interest from potential buyers are the most significant factors. Over the past six years (2015–2021) the department has sold down the inventory from 2,002 parcels to 981. The reduction in availability is both a product of successful sales efforts as well as a reflection of the real estate needs of Wisconsin’s highway improvement program. From the land inventory, 88 parcels or 8.9 percent of the parcels, are available land with independent access from the roadways and are considered general marketable for the public. 79.4 percent or 779 parcels, have limited marketability because they lack access and can only be sold to one of the abutting property owners, and 11.6 percent or 114 parcels of the overall inventory are considered non-marketable with no access and can only be sold to the single abutting property owner.

What are we doing to improve? Sales folders are 100 percent “paperless sales folders” and that has yielded savings on paper, printing and courier expenses. There are additional time savings through electronic signature processes for all approvals. WisDOT now transfers and records all deeds electronically with all counties in the State saving the department time and money eliminating hard copy deed transfer and recordings. WisDOT has implemented an electronic signature process on all deed transfers saving the department time and face to face contact. WisDOT continues to have success with online auctions for general marketable parcels, saving WisDOT money because all auction fees are paid by the buyer. The department continues to build on the success of a recent Continuous Improvement initiative to avoid costly appraisals by using nearby assessments to formulate sales offers on certain lands with limited-to-no marketability. Assessed valuation was increased from up to $15,000 to $50,000 thereby further streamlining the overall workload. Staff prioritize parcels with high maintenance costs such as vegetation management or snow removal. Real estate brokers continue to assist with marketing and sale of large value properties.
Why is it important? The department uses the Program Effectiveness measure to determine compliance with road improvement standards for the state's "3R" 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 percent, matched scope 65 percent and matched time 65 percent).

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

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

How are we doing? The department has completed the program-wide evaluation of its asset management program and has moved into the implementation phase. Scores have increased both at the statewide and regional levels. The statewide analysis shows all metrics meeting their targets, with project locations at a 90 percent match rate, scoping at an 88 percent match rate, and timing increasing to a 67 percent 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 percent, 65 percent, and 65 percent for Location, Scope, and Timing, respectively. Accepting less than 100 percent conformity recognizes that existing data and models cannot capture all the essential variables needed to determining project location, scope, and timing; however, they do provide a reasonable and responsible starting point. This measure facilitates improved investment decisions through effective use of data-driven asset management tools and techniques.

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

**Preservation:** State Highway Pavement Condition (PCI), Backbone

**Report Date:** October 2021  |  **Data Frequency:** Annual (Calendar Year)  |  **Division:** Transportation Investment Management

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

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

**Figure:** Percent of state highway pavements rated fair or better

<table>
<thead>
<tr>
<th>Year</th>
<th>Total System</th>
<th>Backbone System</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>83%</td>
<td>99%</td>
</tr>
<tr>
<td>2017</td>
<td>84%</td>
<td>99%</td>
</tr>
<tr>
<td>2018</td>
<td>85%</td>
<td>99%</td>
</tr>
<tr>
<td>2019</td>
<td>85%</td>
<td>99%</td>
</tr>
<tr>
<td>2020</td>
<td>83%</td>
<td>99%</td>
</tr>
<tr>
<td>2021</td>
<td>84%</td>
<td>99%</td>
</tr>
</tbody>
</table>

**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 2021 reporting period include the 2019 and 2020 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 14,422 rated miles.

**How are we doing?** The 2021 reporting data shows 84 percent of the total system and 99 percent of the Backbone system in fair or better condition. The Backbone system has consistently maintained high levels of fair or better condition miles due to its high priority.

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

**What are we doing to improve?** The 2019 – 2021 biennial budget increased funding to the State Highway Rehabilitation program by over $320 million. System conditions represented in this reporting cycle reflect conditions in calendar years 2019 and 2020, which had a portion of the budget increase incorporated into it; this contributed to an increase in the Non-Backbone and Total System health. Future reports will better reflect the impact these additional funds have had on system health. 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**

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

- **Report Date:** October 2021
- **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 percent of state highway traffic. Preservation and improvement of these transportation facilities ensures a safe and efficient transportation system. Wise investment of taxpayer dollars involves a strategic application of asset management principles to maximize system health at the lowest cost practicable.

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

**Figure:** Percent of state highway pavements rated fair or better

<table>
<thead>
<tr>
<th>Year</th>
<th>Total System</th>
<th>Non-Backbone System</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>79%</td>
<td>79%</td>
</tr>
<tr>
<td>2017</td>
<td>81%</td>
<td>81%</td>
</tr>
<tr>
<td>2018</td>
<td>81%</td>
<td>83%</td>
</tr>
<tr>
<td>2019</td>
<td>83%</td>
<td>83%</td>
</tr>
<tr>
<td>2020</td>
<td>80%</td>
<td>84%</td>
</tr>
<tr>
<td>2021</td>
<td>84%</td>
<td>85%</td>
</tr>
</tbody>
</table>

**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 2021 reporting period include the 2019 and 2020 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 14,422 rated miles.

**How are we doing?** The 2021 reporting data shows 84 percent of the total system and 80 percent of the Non-Backbone system in fair or better condition. Historical trends demonstrate increasing levels of poor condition miles, although a more recent trend suggests stabilization. The Non-Backbone system represents the majority of the system and has historically seen increasing miles in poor 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 program by over $320 million. System conditions represented in this reporting cycle reflect conditions in calendar years 2019 and 2020, which had a portion of the budget increase incorporated into it; this contributed to an increase in the Non-Backbone and Total System health. Future reports will better reflect the impact these additional funds have had on system health. 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 use 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.
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 percent of Wisconsin’s state-owned or maintained 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 percent of bridges in good/fair condition over the past six years. Currently, 97.7 percent of Wisconsin’s 5,328 state-owned or maintained bridges have a good or fair rating, while roughly two percent of state bridges have a poor condition rating. There are 21 state-owned bridges with weight restrictions, an increase from 19 state-owned weight restricted bridges in 2020. 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 more than 10 percent of the total mileage in Wisconsin yet handles almost 60 percent of vehicle miles traveled. Even when looking beyond the state system by factoring in Wisconsin’s 8,925 local bridges, the good/fair rating remains above the national average (93.1 percent versus 92.7 percent).

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

What are we doing to improve? The department continues to improve inspection and management programs with new technology and innovative management practices. Over the past four years the department has introduced a bridge preservation policy for lower level treatments and action to extend long-term performance of bridges on state highways. The department has also developed the Wisconsin Structures Asset Management System (WISAMS) to identify and support programming of bridge projects. WisDOT is also implementing new inspection techniques that include the regularly scheduled use of infrared thermography imagery (IR) on all state system bridges. Use of IR imagery helps to remotely detect deterioration in bridge decks without disturbance to the traveling public. The department also uses Unmanned Aerial Vehicles (UAVs or drones), to better identify condition issues and implement corrective actions for our structures. The use of drones will also provide bridge inspectors the opportunity to more easily access difficult-to-reach bridge components, capture visual images, and provide a higher level of safety for inspectors and the traveling public during inspection operations.
**Preservation:** State-owned Rail Line Condition

**Report Date:** October 2021  
**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 percent of state-owned rail line miles functioning at Federal Rail Administration (FRA) Class 2 operating speed standards. The FRA Class 2 standards include tracks capable of operating loaded 286,000-pound rail cars above 10 miles per hour and not exceeding 25 miles per hour.

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

<table>
<thead>
<tr>
<th>Calendar Year (January–December)</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>63.0%</td>
</tr>
<tr>
<td>2016</td>
<td>72.9%</td>
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<tr>
<td>2017</td>
<td>75.2%</td>
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<tr>
<td>2018</td>
<td>76.8%</td>
</tr>
<tr>
<td>2019</td>
<td>74.6%</td>
</tr>
<tr>
<td>2020</td>
<td>74.7%</td>
</tr>
</tbody>
</table>

**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 732.06 miles of active rail line owned by WisDOT. In 2020, 1.1 miles of track were improved to meet FRA Class 2 standards. Zero miles of rail line deteriorated to below FRA Class 2 standards. A total of 546.85 of the 732.06 miles of track (74.7 percent) met the department goal. This is a 1.1-mile increase from 2019 to 2020 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:** October 2021
- **Data Frequency:** Annual (Calendar Year)
- **Division:** Transportation Investment Management

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

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

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

<table>
<thead>
<tr>
<th></th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary Runways</td>
<td>90%</td>
<td>93%</td>
<td>93%</td>
<td>92%</td>
<td>89%</td>
</tr>
<tr>
<td>Taxiways</td>
<td>85%</td>
<td>86%</td>
<td>86%</td>
<td>85%</td>
<td>84%</td>
</tr>
<tr>
<td>Aprons</td>
<td>76%</td>
<td>76%</td>
<td>77%</td>
<td>76%</td>
<td>77%</td>
</tr>
</tbody>
</table>

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

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

**How are we doing?** Primary runways: In 2020, 89 percent of the state’s primary runways were rated fair or above, which is a decline of three points from 2019 and one point below the goal of 90 percent. Taxiways: In 2020, 84 percent of the state’s taxiways were rated fair or above a small decline from 2019 and one point below the goal of 85 percent. Aprons: In 2020, 77 percent of the state’s aircraft parking aprons were rated fair or above, increasing one point from 2019 but remaining below the goal of 80 percent.

**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.

**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 is investigating the use of software that will help more accurately identify and prioritize pavement preservation opportunities. This information will allow airports to make better determinations about the best locations, scope, and timing of projects to achieve maximum results.
Preservation: State Highway Roadside Maintenance

Report Date: October 2021  |  Data Frequency: Annual (Calendar Year)  |  Division: Transportation System Development

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

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

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

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

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

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

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

Preservation: Material Recycling

Report Date: October 2021  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 eight years WisDOT has tracked performance with this measure, more than 15 million tons of materials were reused on projects, creating a savings of over $170 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 percent 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? Much of the positive upswing in 2018 and 2019 was driven by the pace, size and complexity of the I-94 North/South project in Southeastern Wisconsin. With that project now open to traffic, the department expected pavement replacement numbers to normalize, creating recycling opportunities more in line with previous years. The department remains committed to the beneficial reuse of highway products such as concrete and reclaimed asphalt where the materials can gain new life in a quality finished product. Incorporating recycled materials helps to conserve resources, minimize waste and simplify work zone logistics, as fewer trucks are needed to haul material.

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

What are we doing to improve? The department continues its focus on research by collaborating with other states and universities to explore technology, methods and materials aimed at reducing waste while creating high-quality, high-performing pavements. The Wisconsin Highway Research Program (WHRP) recently completed a pilot project using recycled rubber as a modifier of asphalt and will continue to monitor the performance of the test section of highway. WisDOT continues to work with the Recycled Materials Resource Center (RMRC) project to determine other ways to leverage recycling for transportation benefits. Additionally, policy revisions on Beneficial Reuse of Industrial Waste (NR 538) are creating potential opportunities. The department also is tracking national research on the feasibility of recycled plastic in roadways.
Safety: Traffic Fatalities

Report Date: October 2021  Data Frequency: Quarterly (Calendar Year)  Division: State Patrol

Why is this important? In 2020, 593 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: For each calendar year, the department seeks to reduce traffic fatalities by two percent from the prior five-year rolling average. This supports the department’s overarching safety goal to reduce deaths on Wisconsin roads.

Figure: Number of traffic fatalities

<table>
<thead>
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<td>551</td>
</tr>
<tr>
<td>2020</td>
<td>598</td>
</tr>
<tr>
<td>2021*</td>
<td>446</td>
</tr>
</tbody>
</table>

*Preliminary calendar year-to-date

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

How are we doing? Wisconsin has experienced a decrease in traffic fatalities on its roads from the previous year. As of September 30, 2021, Wisconsin has had 446 fatalities, which is 6 fewer than in 2020 and a 3.6 percent increase from the five-year rolling average for 2021. Even though Wisconsin has had 68 fatality-free days in 2021 (the five-year average is 71.8), there are still far too many needless and preventable deaths on our roadways. Wisconsin’s fatality rate for 2020 was 1.03 per 100 million vehicle miles traveled (VMT), which is the twelfth lowest ever recorded. Wisconsin had 593 fatalities in 2020 which is 42 more than in 2019, or a 7.6 percent increase.

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

What are we doing to improve? The department 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 has expanded the use of multi-jurisdictional High Visibility Enforcement task forces around the state to address impaired driving, speed, pedestrian safety and safety belt use. Speed and aggressive driving are targeted through increased use of aerial enforcement in partnership with law enforcement agencies across the state. The department provides ongoing educational outreach to high school students to promote safe driving, use of safety belts and eliminating driving distractions. Centerline and shoulder rumble strips have been installed along with other roadway improvements in corridors with safety concerns.
Wisconsin Department of Transportation
MAPSS Performance Improvement

Safety: Serious Traffic Injuries

Report Date: October 2021  Data Frequency: Annual (Calendar Year)  Division: State Patrol

Why is this important? In 2020, 3,186 persons were seriously injured in traffic crashes on Wisconsin roadways. By understanding where these serious injuries occurred can aid us in trying to prevent them.

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

Figure 1: Total number of serious injuries

![Graph showing total number of serious injuries from 2016 to 2021.]

How do we measure it? The measure uses serious injury data compiled from all traffic crash reports submitted by Wisconsin law enforcement agencies. Injuries related to vehicle crashes are calculated against vehicle miles traveled each calendar year to generate an injury rate per 100 million vehicle miles traveled. Prior year volume data used to calculate this rate is available by September of the subsequent year. Beginning in 2017, the crash report was changed to reflect readily apparent symptoms rather than the officer’s personal judgment, consistent with national trends.

How are we doing? The number of serious injuries in 2021 is 2,598, a 6.3 percent increase from last year and an 11.1 percent increase from the five-year average. When calculated against vehicle miles traveled, the serious injury rate in Wisconsin in 2020 was 5.55 serious injuries per 100 million vehicle miles traveled. This is a 13.0 percent increase from the prior five-year rolling average of 4.91. Serious injury crashes (those that result in serious injuries) have declined from 3,990 in 2007 to 2,651 in 2020. There have been 2,192 serious injury crashes on Wisconsin roads in 2021 as of September 30, 2021 (preliminary), which is an increase from 2,023 (8.35 percent) in 2020.

What factors affect results? Traffic crashes are avoidable events caused by such factors as human behavior, vehicle condition and environmental surroundings. Weather can also have a seasonal impact, especially on motorcycle or bicycle-related crashes. 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? The department uses a combined strategy of engineering, education, enforcement and emergency response to prevent traffic crashes and injuries, including designing safer roads and maintaining the highway infrastructure. In addition, the department has expanded the number of multi-jurisdictional High Visibility Enforcement task forces to address impaired driving, speed, pedestrian safety and safety belt use. The department is targeting speed and aggressive driving through increased use of aerial enforcement and in partnership with agencies across the state. The department provides ongoing educational outreach to high school students to promote safe driving, use of safety belts and eliminating driving distractions, such as texting. The department has installed center line and shoulder rumble strips and other roadway improvements in corridors with safety concerns.
Safety: Traffic Crashes

Why is this important? In 2020, 114,697 traffic crashes occurred on Wisconsin roadways. Understanding where these traffic crashes occurred can aid us in trying to prevent them.

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

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 September 30, 2021, the number of traffic crashes on Wisconsin roads was 90,126. This is a 9.9 percent increase from last year and a 0.4 percent decrease from the five-year average. The crash rate in 2020 decreased from the rate in 2019 by 8.8 percent. In calendar year 2020, there were 114,697 total crashes (fatal crashes, injury crashes and property damage crashes) on Wisconsin roads. When calculated against vehicle miles traveled in 2020, the crash rate was 199.77 crashes per 100 million vehicle miles traveled. This is a 4.8 percent decrease from the prior five-year rolling average of 209.95.

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

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

Report Date: October 2021  Data Frequency: Annual (Calendar Year)  Division: State Patrol

Why is this important? Wearing safety belts saves lives. In Wisconsin, a 10 percent increase in safety belt use would save about 44 lives and prevent 650 injuries each year. About 50 percent of all passenger vehicle occupant fatalities in Wisconsin are unbelted. Motorists who do not use safety equipment are 12.3 times more likely to be killed than someone wearing a shoulder and lap belt at the time of a crash.

Performance measure target: Starting with calendar year 2021, the annual goal of this measure is to increase safety belt use by 2 percent from the previous five-year rolling average for all passenger vehicle occupants.

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 88.1 percent in 2021, which is the sixth highest on record. That means that approximately one in ten motorists are still not buckling up—putting themselves and others at risk of serious injury or death in the event of a crash. For 2020, Wisconsin was just below the 90.3 percent national average for safety belt use but still lags behind the safety belt use of neighboring states like Illinois and Michigan, which estimate safety belt use rates of more than 90 percent. The previous five-year average was 89.3 percent.

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, utilizes paid advertising and enforcement to promote public awareness. Much of the educational efforts are targeted at younger drivers whose safety belt use is much lower than other age groups. The department also supports car seat fitting stations to ensure that parents and providers are instructed on how to properly install child car seats and booster seats to keep small children safe in vehicles, and trains instructors on safety seat installment.
Wisconsin Department of Transportation
MAPSS Performance Improvement

Service: DMV Wait Times

Report Date: October 2021  |  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 percent of customers within 20 minutes of their arrival at a DMV customer service center.

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

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

How are we doing? Customer traffic continues to remain low with the COVID-19 pandemic persisting and social distancing practices continuing. 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 90 percent of our customers within 20 minutes for each month of this quarter.

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 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 and making social distancing in our stations more effective during the pandemic.
Wisconsin Department of Transportation

MAPSS Performance Improvement

Service: DMV Electronic Services

Report Date: October 2021  Data Frequency: Annual (Calendar Year)  Division: Motor Vehicles

Why is it important? The goal of this measure is to increase the number of self-serve electronic transactions by ten percent each calendar year. This will further DMV’s efforts 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 ten percent 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. 2020 saw a significant increase due to the pandemic and the growth in eNotify enrollments.
Service: DMV Driver License Road Test Scheduling

Report Date: October 2021  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 percent 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 percent 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. With the change to allow instructional permits to be issued beginning at age 15, DMV recently modified its demand forecasting model to more accurately account for testing demand based upon a customer’s permit issuance date and birth date.
Service: DMV Phone Service

Report Date: October 2021  Data Frequency: Quarterly (Calendar Year)  Division: Motor Vehicles

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

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

Figure: Percent of DMV phone wait times within service goal

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

How are we doing? 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 instead of the wait time continuing if they choose to stay on hold. Thus, the new phone system allows a more accurate measurement of wait time. Additionally, the significant increase in call volume due to the pandemic continued unabated this quarter. DMV efforts have resulted in a 22 percent improvement over quarters one and two of 2021.

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.
**Service:** DMV Email Service

**Report Date:** October 2021  
**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 percent of email contacts within 24 hours.

**Figure:** Percent of DMV email within 24 hours

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

- **How are we doing?** Continuing the trend of increased email contacts in 2020, quarter three of 2021 stayed at a high volume, resulting in a 74.5 percent measure for the year, sixteen percentage points higher than quarter two of 2021.

- **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.
Appendix A: Additional Performance Measures

Mobility

**Accountability**

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**Preservation**

**Safety**

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**Service**
Wisconsin Department of Transportation
MAPSS Performance Improvement

Accountability: Design Quality

Report Date: October 2021  Data Frequency: Annual (Calendar Year)  Division: Transportation System Development

Why is it important? Design quality combines a construction project leader and contractor’s evaluation of the completeness (quality) of their project plan. This measure reinforces the need to thoroughly scope projects, provides feedback to improve future plan design, and ensures accurate plans for bid lettings. The results help improve future design processes and guidance, and should ultimately reduce project costs.

Performance measure target: The current goal is 80 percent.

Figure: Percent of project design readiness

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<td>88.1%</td>
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<tr>
<td>2020</td>
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How do we measure it? The measure is an index based on multiple design elements. The elements are rated on a scale of 1-lowest to 7-highest. Scores are converted to a 100 percent scale. At or near project completion, the construction engineer and prime contractor meet to fill out the Design Quality Index (DQI) form.

How are we doing? Design Quality Index ratings are essentially the same in 2020 as they were in 2019. The department, for the past five years, has consistently exceeded the 80 percent goal in this area and continues to refine strategies to enhance performance related to quality. WisDOT project development staff participate in both design and construction phases to cross train and improve designs based on experience. Bureau oversight and statewide sharing of issues and best practices help improve quality.

What factors affect results? The level of quality control, comprehensive design manuals and constructability reviews during the design process can greatly affect this measure. The quality of the design can also be influenced by effectively managing the determined scope, schedule and budget.

What are we doing to improve? WisDOT continues to conduct after-action reviews on individual design elements that fall below the 80 percent goal. There is an emphasis on technology to help share files, streamline planning and delivery, and improve the consistency and quality of communication among project stakeholders. Internally, working groups provide staff a productive venue for WisDOT staff to discuss best practices on specifications and procedures. The department has a new workgroup looking into plan quality and consistency which is intended to have a positive impact on this measure. A second team is looking at this measure specifically to make improvements by using focusing on quantitative data available to the department.
**Wisconsin Department of Transportation**

**MAPSS Performance Improvement**

**Accountability:** Engineering Estimate Accuracy

| Report Date: | October 2021 | Data Frequency: | Annual (State Fiscal Year) | Division: | Transportation System Development |

**Why is it important?** Accurate engineer’s estimates provide the department and project stakeholders with a realistic cost for budgeting, reduce funding and scheduling uncertainty within the highway program, and provide a benchmark for comparing bid prices.

**Performance measure target:** At least 60 percent of engineering estimates should be within 10 percent, over or under the low bid.

**Figure:** Percent of contracts within 10 percent of low bid

<table>
<thead>
<tr>
<th>Fiscal Year</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>42%</td>
</tr>
<tr>
<td>2017</td>
<td>37%</td>
</tr>
<tr>
<td>2018</td>
<td>53%</td>
</tr>
<tr>
<td>2019</td>
<td>52%</td>
</tr>
<tr>
<td>2020</td>
<td>49%</td>
</tr>
<tr>
<td>2021</td>
<td>49%</td>
</tr>
</tbody>
</table>

**How do we measure it?** The department compares the engineer’s estimate to the actual low bid price for each contract and calculates the percent of contracts that are within 10 percent of the construction cost estimate.

**How are we doing?** The department’s 2021 results held closely to the three previous years. WisDOT’s current trend aligns with federal performance standards. The department aspires to continue improving above the federal standard (50 percent) with a state target of 60 percent. The accuracy remained stable despite a difficult estimating environment with oil and fuel prices fluctuating and bid prices during the pandemic allowing contractors to bid lower than was anticipated by the estimators.

**What factors affect results?** Estimating accuracy is affected by the knowledge and skill of the estimator, how relative historical bid data is applied to the specific project, volatility in construction commodities pricing and the degree of competition during bidding. Estimating accuracy is also dependent upon the ability of the estimator to appropriately apply risk to the projects overall cost.

**What are we doing to improve?** Continuous improvement in this area is a priority, as evidenced by the recent update of the Estimates section of the Facilities Development Manual (FDM 19-5) as well as an updated template, guidance document and training. The department also launched two digital tools (Quantities to Plans and Estimating Webpages) to help align real-time costs to the gradual shifts of the project planning environment. Additionally, Wisconsin recently hosted a Midwest Cost Estimate Peer Exchange which allowed staff to learn about other states’ estimating processes. Recommendations from the exchange will be reviewed by leadership for future improvements. We anticipate all these factors will make a positive impact, and department engineers are evaluating how to make continued refinements.
Wisconsin Department of Transportation

MAPSS Performance Improvement

**Accountability:** Statutory Chapter 16
Minority Business Enterprise Spending

| Report Date: | October 2021 | Data Frequency: | Annual (State Fiscal Year) | Division: | Business Management |

**Why is it important?** Chapter 16 of the Wisconsin statutes requires state agencies attempt to ensure that five percent of the total amount expended in state purchasing during each fiscal year is paid to state certified Minority Business Enterprises (MBE). The overall department MBE percent spending and MBE percent spending by business areas provide information to the agency and the public that the department is meeting this goal. This measure does not include intergovernmental spending and the Chapter 84 spending for highway projects.

**Performance measure target:** The department’s annual target is to meet or exceed the statutory goal of five percent spending under Chapter 16 with state certified MBEs.

**Figure:** Percent of WisDOT MBE Spending by State Fiscal Year

<table>
<thead>
<tr>
<th>Year</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>6.47%</td>
</tr>
<tr>
<td>2017</td>
<td>7.98%</td>
</tr>
<tr>
<td>2018</td>
<td>4.60%</td>
</tr>
<tr>
<td>2019</td>
<td>13.25%</td>
</tr>
<tr>
<td>2020</td>
<td>13.14%</td>
</tr>
<tr>
<td>2021</td>
<td>13.91%</td>
</tr>
</tbody>
</table>

**How do we measure it?** The measure is calculated as the total state certified MBE spending divided by total agency spending with interagency, intergovernmental and Chapter 84 transactions not in scope. Total MBE spending is extracted from STAR and purchasing card expenditure reports received from the State Bureau of Procurement and from second tier data provided to the department by suppliers. The department monitors this data monthly and reports it to the Wisconsin Department of Administration (DOA) State Bureau of Procurement.

**How are we doing?** The department has consistently exceeded five percent on an annual basis.

**What factors affect results?** Actual results are affected by the number of State of Wisconsin-certified MBEs who participate in our bidding processes. More firms certified as MBEs means more opportunities for department spending with MBEs. Certified MBE vendors must be able to provide the desired goods and services and win competitive solicitations by submitting bids within five percent of the lowest bid. MBE vendors must be certified by the Department of Administration (DOA). Some vendors choose to not go through the certification process; many win bids without preference. Budgetary constraints may reduce MBE spending since department program areas may be less capable in utilizing the five percent pricing preference.

**What are we doing to improve?** The Purchasing Section will continue to work with the Department of Administration’s Supplier Diversity program and State Bureau of Procurement to comply and continue to meet and exceed statutory MBE goals and participate in efforts to support the department’s pursuit of these goals.
### Safety: Air Support Unit Deployments for Traffic Enforcement

<table>
<thead>
<tr>
<th>Report Date:</th>
<th>October 2021</th>
<th>Data Frequency:</th>
<th>Quarterly (Calendar Year)</th>
<th>Division:</th>
<th>State Patrol</th>
</tr>
</thead>
</table>

**Why is this important?** Speed continues to be a contributing factor in approximately 30 percent of traffic fatalities in Wisconsin. Speed is also believed to be under reported in crash reports. Using a consistent air enforcement presence through the Division of State Patrol’s (DSP) Air Support Unit (ASU), along with dedicated law enforcement vehicles, is an effective method of enforcing speed 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 2021, 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 2021. 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

![Deployment Chart](chart.png)

*Preliminary calendar year-to-date

**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 September 30th, the DSP has flown a total of 69 missions. The third quarter saw 28 flights flown out of 38 scheduled. Ten flights were cancelled, but because of a reporting mechanism change we don’t know if they continued as ground-only operations. A high level of 7.79 quarterly stops per hour was achieved bringing the yearly stops per hour to 7.83. From the 1,028 traffic stops, there were a total of 723 total citations (598 speeding, 5 OWI) and 688 total warnings (416 speeding). Other notable aspect of these 28 missions include 11 drug arrests, 6 warrant arrests, and 8 non-traffic citations issued. There were 16 drivers clocked at over 100 mph with the highest for this quarter being 115 mph. The highest speed for year to date is 117 mph. There were zero pursuits facilitated by ASU pilots during the third quarter.

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

**What are we doing to improve?** DSP has begun the resumption of normal flight operations. 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.
Our WisDOT IDEA values

**Integrity**
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.

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