Maintaining High-Performing Core Assets
Goal Leaders

Stephanie Pollack, Deputy Administrator, Federal Highway Administration (FHWA)

Shannetta Griffin, Associate Administrator for Airports, Federal Aviation Administration (FAA)
Goal Overview

Goal statement
  o Improve the condition/performance of Federally funded portions of the Nation’s transportation systems. By September 30, 2023, the percentage of Interstate Pavement in either good or fair condition will be maintained at 95%; the percentage of deck area on National Highway System (NHS) bridges in either good or fair condition will be maintained at, or above 95%; the percentage of person-miles traveled on the interstate that are reliable will be at or above 82.8%; and the percentage of paved runways in the National Plan of Integrated Airport Systems in excellent, good, or fair condition will be maintained at 93%.
Problem to Be Solved

Transportation is the backbone of the American economy and shapes the daily lives of people across the country. From the earliest days of the Administration, President Biden promised the American people a transformational investment in infrastructure Congress responded to the President’s call with the Bipartisan Infrastructure Law (BIL), or the Infrastructure Investment and Jobs Act, which President Biden signed into law on November 15, 2021. This landmark legislation authorizes $660 billion for DOT for better bridges and roads, electrifying buses, installing electric vehicle chargers, laying track, and so much more. Since the passage of BIL, we are now in the early stages of a generational modernization of our infrastructure that will create jobs, boost our domestic manufacturing, and bolster our economic security and prosperity for decades to come.

To strengthen the Nation’s economy and global competitiveness, DOT is working to help grow inclusive and sustainable economy. Investing in our nation’s transportation system provides American workers and businesses reliable and efficient access to resources, markets, and good-paying jobs. DOT is providing resources to restore and modernize transportation core assets to improve the state of good repair, enhance resiliency, and expand beneficial new projects. DOT is also working to improve transportation system operations to increase travel time reliability, manage travel demand, and improve connectivity.

FHWA

The Bipartisan Infrastructure Law provides the basis for FHWA programs and activities through September 30, 2026. It makes a once-in-a-generation investment of $350 billion in highway programs. This includes the largest dedicated bridge investment since the construction of the Interstate Highway System.
Interstates and Bridges
  o FHWA focuses on maintaining Interstate pavement and bridges in at least good or fair condition. Highway pavement and bridges that are classified as being in poor condition\(^1\) directly impact people's lives by increasing the wear and tear on vehicles, driving up repair costs, inflating travel times, and potentially causing safety concerns.

Travel Time Reliability
  o Travel time reliability is a key indicator of transportation system performance. For this APG, FHWA measures the percentage of person-miles traveled on the Highway Interstate System that are considered reliable. A reliability measure represents the amount of time variability that would need to be added to a trip, for example, a typical commuter to make it on time to work 16 out of 20 workdays a month. For this reliability measure, the number of additional minutes needed for the commute would be more than 50% of the typical time (i.e., for a typical 20-minute commute, 10 minutes or more additional time would need). It also reflects the amount of travel that is unaffected by highly variable travel times. Typically, there is a two-year lag in data availability and of conflation to the National Performance Management Research Data Set (NPMRDS) location referencing network with the Highway Performance Monitoring System (HPMS) data. For example, the FY 2021 travel time data were conflated with FY 2019 Highway Performance Monitoring System (HPMS) data.

FAA
  o FAA ensures that runway pavements are maintained in a state of fair condition or better, as this is a critical component of a safe National Airspace System. Timely maintenance activities reduce life-cycle costs and extend pavement life, avoiding unnecessary costs for reconstruction and major rehabilitation, as well as delays due to long-term runway closures.

\(^1\) For more information on what constitutes poor condition please see: https://www.fhwa.dot.gov/tpm/faq.cfm#brid
What Success Looks Like

FHWA
Interstates and Bridges

- For FHWA, success in achieving this APG means that at least 95% of Interstate pavement are maintained in Good and Fair condition, and at least 95% of the deck area on NHS bridges are maintained in Good and Fair condition.
- Working with State and local stakeholder agencies, the Department has established a framework of National performance measures for NHS pavement conditions. As part of this approach, States are required to make significant progress towards achieving targets for these performance measures, with the State-by-State results reported nationally. States not meeting or making significant progress toward the national performance measures are required to document in the next State Biennial Performance Report the actions they will take to achieve targets for all measures in the measure area.\(^2\) The Department will support States in their efforts to maintain or improve the condition of NHS pavements and bridges.

Travel Time Reliability

- APG achievement also means ensuring that travel time on the Interstate system remains as reliable as possible for drivers and passengers. Travel times are considered unreliable if they require greater than 50% more than the normal travel time during one or more of four time periods (6am-10am, 10am-4pm, 4pm-8pm weekdays and 6am-8pm weekends) over the course of a year.

\(^2\) For more information on the consequences of not making significant progress please see www.fhwa.dot.gov/tpm/guidance/hif21030.pdf
FAA

- Ensuring that at least 93% of runways in the National Plan of Integrated Airports (NPIAS) remain at fair or better condition allows the Department to advance toward its strategic objective of maintaining high-performing core assets. This is accomplished through properly investing in maintenance and rehabilitation at the appropriate points in the lifecycle of runway pavement.
# Goal Targets

<table>
<thead>
<tr>
<th>Achievement statement</th>
<th>Key indicator(s)</th>
<th>Quantify progress</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>By…</td>
<td>Name of indicator</td>
<td>Target value</td>
<td>Starting value*</td>
</tr>
<tr>
<td>09/30/23</td>
<td>Percentage of Interstate Pavement, in Lane Miles, in either Good or Fair Condition (FHWA)</td>
<td>95.0%</td>
<td>99.2%</td>
</tr>
<tr>
<td>09/30/23</td>
<td>Percentage of Deck area on NHS Bridges in either Good or Fair Condition (FHWA)</td>
<td>95.0%</td>
<td>95.8%</td>
</tr>
<tr>
<td>09/30/23</td>
<td>Percentage of person-miles traveled on the interstate that are reliable (FHWA)</td>
<td>82.8%</td>
<td>83.7% (CY 2018 baseline)</td>
</tr>
<tr>
<td>09/30/23</td>
<td>Percent of Paved Runways in the National Plan of Integrated Airport Systems in Excellent, Good, or Fair Condition (FAA)</td>
<td>93%</td>
<td>97.8% (FY 2021 actual)</td>
</tr>
</tbody>
</table>

1Starting value data as of October 1, 2021. Due to data collection and processing requirements, the October 1, 2021 data corresponds to CY 2020, unless otherwise indicated.

2The percentage of interstate pavement lane miles in good or fair condition represents CY 2020. CY 2021 data are currently under review and will be available for publication in Q4.

3The percentage of deck area on NHS bridges in good or fair condition represents CY 2021.

4The percentage of person-miles traveled on the interstate that are reliable represents CY 2020, which are the most recent available data. CY 2021 data will be available for publication in Q4.

5Actual as of June 30, 2022.
Goal Team

Pete Buttigieg
DOT Secretary

Billy Nolen
FAA Acting Administrator

Stephanie Pollack
FHWA Deputy Administrator

Senior Lead
Mayela Sosa
FHWA Acting Executive Director

Leads
Hari Kalla
FHWA Associate Administrator (AA) for Infrastructure

Martin Knopp
FHWA Associate Administrator (AA) for Operations

Senior Lead
Shannetta Griffin
FAA AA for Airports

Lead
Winsome Lenfert
FAA Deputy AA for Airports
Goal Strategies

FHWA

Pavement and Bridge Strategies
- FHWA supports asset-management planning to improve or preserve the condition and performance of NHS pavements and bridges. FHWA accomplishes this by encouraging preservation and resilience activities; promoting innovative maintenance strategies; engaging in research, development, and deployment activities related to lifecycle management and infrastructure preservation; and providing education, training, and technical assistance to help State and local stakeholders implement Transportation Performance Management and asset management principles and practices.

Travel Time Reliability Strategies
- FHWA has numerous efforts, both planned and underway, to support the State Departments of Transportation and metropolitan planning organizations (MPO) calculation and target setting, which is the basis for this measure. FHWA also works to ensure the availability of data used to calculate the reliability measure via a new NPMRDS agreement awarded in May 2022 and has developed technical assistance papers on “Approaches to Target Setting” and “Forecasting for Target Setting” (to be published in FY 2022) in response to stakeholder needs regarding implementing Transportation Performance Management requirements. Additionally, FHWA plans to aggregate data in a monthly operations dashboard to provide simple-to-understand trends for average travel times and reliability on the Interstate System in Fall 2022.

---

3 For more information on Transportation Performance Management requirements: https://www.fhwa.dot.gov/tpm/policy/index.cfm
FAA

- FAA implements a variety of data collection and analysis strategies to maintain the percentage of paved runways in the NPIAS in excellent, good, or fair condition at 93 percent. It uses both scheduled and unscheduled surveillance safety inspections at Part 139 certificated airports to assess pavement conditions and collects safety and pavement condition data under a contract program to inspect non-certificated public use airports every three years.

- FAA also maintains a five-year, forward-looking analysis of airport capital improvement needs that includes runway pavement rehabilitation, which is published in the biennial NPIAS report. Federal Grant Assurances require airports to implement an effective pavement maintenance management program at Federally obligated airports.
Key Indicators (Interstate Pavement Condition)

Percentage of Interstate Pavement, in Lane Miles, in either Good or Fair Condition

NOTE: CY 2021 data is currently under review and will be available for publication in Q4.

<table>
<thead>
<tr>
<th>Year</th>
<th>Good</th>
<th>Fair</th>
<th>Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>CY 2018</td>
<td>61.4%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CY 2019</td>
<td>61.1%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CY 2020</td>
<td>61.8%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CY 2021</td>
<td>37.7%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CY 2022</td>
<td>38.0%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CY 2023</td>
<td>37.4%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Key Indicators (Deck Area Condition)

**Percentage of Deck Area on NHS Bridges in either Good or Fair Condition**

<table>
<thead>
<tr>
<th>Year</th>
<th>Good</th>
<th>Fair</th>
<th>Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>CY 2018</td>
<td>53.1%</td>
<td>42.3%</td>
<td>60.0%</td>
</tr>
<tr>
<td>CY 2019</td>
<td>53.8%</td>
<td>41.9%</td>
<td>60.0%</td>
</tr>
<tr>
<td>CY 2020</td>
<td>54.6%</td>
<td>41.2%</td>
<td>60.0%</td>
</tr>
<tr>
<td>CY 2021</td>
<td>55.1%</td>
<td>40.7%</td>
<td>60.0%</td>
</tr>
<tr>
<td>CY 2022</td>
<td>55.1%</td>
<td>40.7%</td>
<td>60.0%</td>
</tr>
<tr>
<td>CY 2023</td>
<td>55.1%</td>
<td>40.7%</td>
<td>60.0%</td>
</tr>
</tbody>
</table>

The chart above shows the percentage of deck area on NHS bridges in good or fair condition for the years 2018 to 2023. The target percentage for good or fair condition is 60.0%.
Key Indicators (Travel Time Reliability)

Interstate Travel Time Reliability, as the Percent of Person-Miles Traveled that are Reliable

Interstate Travel Time Reliability, as a Percentage of Person-Miles Traveled that are Reliable

<table>
<thead>
<tr>
<th>Percentage of Person-Miles Traveled</th>
<th>CY 2018</th>
<th>CY 2019</th>
<th>CY 2020</th>
<th>CY 2021</th>
<th>CY 2022</th>
<th>CY 2023</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.0%</td>
<td>100.0%</td>
<td>90.0%</td>
<td>90.0%</td>
<td>80.0%</td>
<td>80.0%</td>
<td>80.0%</td>
</tr>
</tbody>
</table>

Interstate Travel Time Reliability Target

Legend:
- Interstate Travel Time Reliability
- Target
Key Indicators (Runway Pavement Condition)

Percent of Paved Runways in the National Plan of Integrated Airport Systems in Excellent, Good, or Fair Condition

![Bar chart showing the percentage of runways in FAA's National Plan of Integrated Airport Systems in Excellent, Good, or Fair Condition from FY 2020 Q4 to FY 2023 Q4. The chart compares the actual percentage against the target.]
## Key Milestones (FHWA)

<table>
<thead>
<tr>
<th>Key Milestone</th>
<th>Milestone Due Date</th>
<th>Milestone Status</th>
<th>Change from last quarter</th>
<th>Owner</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>States, Federal agencies, and tribal governments submit their bridges’ Structure Inventory and Appraisal data to FHWA for inclusion into the National Bridge Inventory</td>
<td>Q2, FY 2022</td>
<td>Complete</td>
<td></td>
<td>FHWA AA for Infrastructure</td>
<td>All States, Federal agencies, and tribal governments met the March 15 deadline to submit their bridges’ Structure Inventory and Appraisal data to FHWA for inclusion into the National Bridge Inventory for determining the Condition of NHS Bridges penalty (23 U.S.C.119(f)(2)). FHWA has processed all submitted data and archived and published the dataset on June 15. To support highway bridge condition improvements, FHWA holds bridge preservation and bridge management workshops and peer exchanges, provides technical assistance to bridge owners, and promotes effective technologies and innovations that may be underutilized.</td>
</tr>
<tr>
<td>State DOTs must submit their pavement condition data to FHWA</td>
<td>Q3, FY 2022</td>
<td>Complete</td>
<td></td>
<td>FHWA AA for Infrastructure</td>
<td>All States DOTs met the April 15th deadline to submit pavement condition data for determining the Condition of Interstate Pavement penalty (23 U.S.C.119(f)(1)). FHWA has processed the data and will notify States of significant progress determinations after October 1, 2022.</td>
</tr>
</tbody>
</table>
To improve pavement condition, FHWA administers a pooled fund study, which leverages FHWA and State DOT contributions to implement innovative pavement technologies, provides education and technical support via the mobile technology pavement centers, and hosts webinars and peer exchanges to address pavement data collection, analysis, and management. FHWA is also finalizing a Notice of Proposed Rulemaking that will outline proposed changes to the requirements for pavement design.

<table>
<thead>
<tr>
<th>Program</th>
<th>Quarter, Fiscal Year</th>
<th>Status</th>
<th>Funding Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bridge Formula Program</td>
<td>Q2, FY 2022</td>
<td>Complete</td>
<td>Apportioned $5.3B of FY 2022 funds to States via statutory formula. Funding from advanced appropriations included in the Bipartisan Infrastructure Law.</td>
</tr>
<tr>
<td>Bridge Replacement and Rehabilitation Program</td>
<td>Q3, FY 2022</td>
<td>Complete</td>
<td>Apportioned $1.1B of FY 2022 funds to States via statutory formula. Funding from the FY 2022 Consolidated Appropriations Act.</td>
</tr>
<tr>
<td>Publish National Bridge Inspection Standards (NBIS) Final Rule</td>
<td>Q3, FY 2022</td>
<td>Complete</td>
<td>Published Final Rule in Federal Register (5/6/2022) FHWA AA for Infrastructure</td>
</tr>
<tr>
<td>FHWA is funding two projects to better link operational strategy evaluations with the Performance Measures 3 (PM3) measures for use by State DOTs</td>
<td>September 20, 2023</td>
<td>On-Track</td>
<td>FHWA AA for Operations State DOTs have a June 15 due date to submit their annual travel time metrics for the reliability and other third performance management rule travel-time based measures.</td>
</tr>
</tbody>
</table>
and MPOs in their investment decision making to be completed in FY 2023.

Two technical assistance papers on “Approaches to Target Setting” and “Forecasting for Target Setting” are expected to be published in FY 2022.
## Key Milestones (FAA)

<table>
<thead>
<tr>
<th>Key Milestone</th>
<th>Milestone Due Date</th>
<th>Milestone Status</th>
<th>Change from last quarter</th>
<th>Owner</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maintain the target of at least 93% of runway pavement in excellent, good, or fair condition for the paved runways in the NPIAS</td>
<td>Q4, FY 2022</td>
<td>On-Track</td>
<td>N/A</td>
<td>Shannetta Griffin, Associate Administrator for Airports</td>
<td>Evaluation of the network level of inspection of over 4,300 runways is reviewed and reported monthly. For Q3 FY 2022, the status condition of runways in excellent, good, or fair condition was 97.6%, which has not changed from the previous quarter.</td>
</tr>
</tbody>
</table>
FHWA

Pavement Condition
State DOTs are required to submit pavement condition data for determining the Condition of Interstate Pavement penalty (23 U.S.C. 119(f)(1)) by April 15 of each year. All State DOTs met the April 15th due date to submit their pavement condition data to FHWA. The 2021 data will be available in Q4 FY 2022. FHWA uses the data to determine the percentage of Interstate pavements in either Good or Fair condition. To improve pavement condition, FHWA administers a pooled fund study, which leverages FHWA and State DOTs contributions to implement innovative pavement technologies, provides education and technical support via the mobile technology pavement centers, and hosts webinars and peer exchanges to address pavement data collection, analysis, and management. FHWA is also finalizing a Notice of Proposed Rulemaking to receive public comment on proposed changes to the regulation that outlines requirements for pavement design.

Deck Area Condition
States, Federal agencies, and Tribal governments submit their bridges’ Structure Inventory and Appraisal data to FHWA for inclusion into the National Bridge Inventory by March 15 each year. From these submissions, FHWA uses the data to classify highway bridges as in Good or Fair condition. All States, Federal agencies, and Tribal governments met the March 15 due date to submit their Structure Inventory and Appraisal data to FHWA. FHWA has processed, finalized, archived the submitted data, and published the new data on June 15, 2022. From these data, FHWA has calculated the 2022 data point measuring the percentages of deck area on National Highway System (NHS) Bridges in Good and Fair condition and implemented the condition of
NHS bridges penalty (23 U.S.C.119(f)(2)). To support highway bridge condition improvements, FHWA holds bridge preservation and bridge management workshops and peer exchanges, provides technical assistance to bridge owners, and promotes effective technologies and innovations that may be underutilized.

FHWA published the final rule for the National Bridge Inspection Standards (23 CFR 650) on May 6, 2022. This rule and its incorporated references represent the most sweeping changes to the regulation since it was first enacted on April 27, 1971. As such, full implementation of the revised NBIS and updated National Bridge Inventory (NBI) is expected to take 4 to 6 years.

**Travel Time Reliability**
The NPMRDS data for CY 2021 were delivered on-time for State DOTs to send in their annual travel time metrics for the reliability and other third performance management rule, or PM3, travel-time based measures. The metrics were due June 15, 2022, after which FHWA will calculate the measures. A new NPMRDS agreement was awarded in May. FHWA plans to aggregate data in a monthly operations dashboard to provide simple-to-understand trends for average travel times and reliability on the Interstate System in Fall 2022.
FAA
The FAA implements a variety of data collection and analysis strategies to maintain the percentage of paved runways in the National Plan of Integrated Airport Systems (NPIAS) in excellent, good, or fair condition at 93 percent. The Airport Engineering Division of the Office of Airports Safety and Standards analyzes the condition of all runways in the NPIAS on a monthly basis. The Airport Engineering Division provides a monthly condition report to each Region summarizing the runway conditions. This report includes a recommendation to take necessary actions to ensure pavement conditions for eligible runways continue to be in Fair or better condition. As of FY 2022 Q3, 97.6% of all runways in the NPIAS were in excellent, good, or fair condition exceeding the goal.

The FAA also maintains a five-year, forward-looking analysis of Airport Capital Improvement Program (ACIP) needs that includes runway pavement rehabilitation, which is published in the biennial NPIAS report. Federal Grant Assurances require airports to implement an effective pavement maintenance management program at federally obligated airports. The FAA actively engages with airport sponsors to identify runways requiring rehabilitation or reconstruction to ensure they are addressed in the next ACIP.
The Performance Data Completeness and Reliability Report, which is appended to the FY 2021 Annual Performance Report, provides detailed information on the performance indicators contained within this APG Action Plan.

The Performance Data Completeness and Reliability Report provides detailed information regarding the general accuracy, reliability, validity, completeness, and scope of the performance indicators listed below. The table below lists the page numbers of where each supporting performance indicator can be found in the report.

<table>
<thead>
<tr>
<th>FY 2021 Performance Indicator</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percentage of Interstate Pavement, in Lane Miles, in either Good or Fair Condition</td>
<td>Pg. 67</td>
</tr>
<tr>
<td>Percentage of Deck area on NHS Bridges in either Good or Fair Condition</td>
<td>Pg. 66</td>
</tr>
<tr>
<td>Interstate Travel Time Reliability, as the Percent of Person-Miles Traveled that are Reliable</td>
<td>Pg. 72</td>
</tr>
<tr>
<td>Percent of Paved Runways in the National Plan of Integrated Airport Systems in Excellent, Good, or Fair condition</td>
<td>Pg. 68</td>
</tr>
</tbody>
</table>
Additional Information (FAA)

**Contributing Programs**
- Airport Improvement Program (AIP)
- Passenger Facility Charge (PFC)
- Bipartisan Infrastructure Law (BIL)

**Organizations**
- FAA Office of Airports: Federal assistance program: AIP and BIL
- Local Airport Authority, FAA: Passenger Facility Charge (PFC) programs
- State Authority: State Airport funding program
- Local governing body: Local Funding programs

**Regulations**
- Regulations: 14 CFR 139 (Airports with commercial service)
  - Policy: 49 USC Chapter 471
- Regulations: 14 CFR 139 (Airports with commercial service)
  - Policy: 49 USC Chapter 475

**Program Activities**
- The Office of Airport Planning and Programming (APP) provides policy and guidance supporting the execution of financial assistance programs for eligible airports.
- The Office of Airport Safety and Standards (AAS) provides guidance on analysis of runway conditions and technical support related to the design and construction of airport pavements.
Stakeholder / Congressional Consultations

- The FAA’s Office of Airports, at the headquarters level, considers views and suggestions for airport system-wide development from all its stakeholders, including individual airport owners, FAA’s Airports Regional and District Offices, the Air Traffic Organization, the Flight Standards Office, Congress, State aeronautical agencies, State and Local Governments, and other aeronautical user groups.
Additional Information (FHWA)

**Contributing Programs**
- National Highway Performance Program (23 USC 119)
- National Goals and Performance Management Measures (23 USC 150)
- National Freight Policy (23 USC167)
- National Bridge Inspection Program
- National Highway Performance Program
- Surface Transportation Block Grant Program
- Competitive Highway Bridge Program
- Bridge Replacement and Rehabilitation Program
- Bipartisan Infrastructure Law (BIL): Bridge Formula Program
- BIL: Bridge Investment Program
- Transportation Performance Management

**Organizations**
- FHWA Division Offices
- State Departments of Transportation
- Metropolitan Planning Organizations

**Regulations**
- Regulations: 23 CFR 650 Subpart C, National Bridge Inspection Program
- 23 CFR 490.300 Subpart C, 23 CFR 490.400 Subpart D, and 23 CFR 490.500 Subpart E—National Performance Management Measures to Assess Condition/Performance of the National Highway System
Program Activities

- The FHWA Office of Bridges and Structures conducts field reviews each year to ensure accurate and consistent condition data for highway bridges is being reported by the State Departments of Transportation.
- The Office of Preconstruction, Construction, and Pavements reviews pavement condition data and provides technical assistance to ensure accurate for highway pavements is being reported by the State DOTs.
- State DOTs send in their annual travel time metrics for the reliability and other third performance management rule travel-time based measures.
- The Office of Operations plans to develop a monthly operations dashboard to provide simple-to-understand trends for average travel times and reliability on the Interstate System.

Stakeholder / Congressional Consultations

- Stakeholder engagement is a critical part of what FHWA does every day to deliver the Federal Highway Program. It is performed via technical assistance, training and educational development and delivery, and serving on technical panels for research, development, and deployment. Programs and resources are developed and enhanced to meet stakeholder and customer needs informed by surveys, data collection and analysis, participation in national and regional conferences, responses to requests for technical assistance, and by the day-to-day conduct of our work.