



# Transportation Performance Management (TPM)

## 2020 Data Report



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## Acronyms

CFR	Code of Federal Regulations
CMAQ	Congestion Mitigation and Air Quality Improvement Program
CO	Carbon Monoxide
DOT	Department of Transportation
FARS	Fatality Analysis Reporting System
FAST Act	Fixing America's Surface Transportation Act
FHWA	Federal Highway Administration
FTA	Federal Transit Administration
FY	Fiscal Year
HPMS	Highway Performance Monitoring System
HSIP	Highway Safety Improvement Program
IRI	International Roughness Index
MAP-21	Moving Ahead for Progress in the 21st Century
MPO	Metropolitan Planning Organization
NBI	National Bridge Inventory
NHPP	National Highway Performance Program
NHS	National Highway System
NHTSA	National Highway Traffic Safety Administration
NOx	Nitrogen Oxides
NPMRDS	National Performance Management Research Data Set
PHED	Peak Hour Excessive Delay
PM2.5	Particulate Matter with diameter of less than or equal to 2.5 micrometers
PM10	Particulate Matter with diameter of less than or equal to 10 micrometers
PMF	Performance Management Form
PSR	Present Serviceability Rating
SOV	Single Occupancy Vehicle
TAMP	Transportation Asset Management Plan
TPM	Transportation Performance Management
TTTR	Truck Travel Time Reliability
UZA	Urbanized Area
VMT	Vehicle Miles Traveled
VOC	Volatile Organic Compounds



# Introduction

## Purpose of this Report

This 2020 Transportation Performance Management (TPM) Data Report provides a compilation of the mid-period performance data submitted to the Federal Highway Administration (FHWA) in 2020 and available online at [State Performance Dashboard and Reports](#).<sup>1</sup> There are 17 performance measures contained in 23 Code of Federal Regulations (CFR) part 490 that are shown in Table 1. All 52 State Departments of Transportation (DOTs) including the District of Columbia and Puerto Rico report safety performance measures information annually via the Highway Safety Improvement Program (HSIP) annual report.<sup>2</sup> For the other performance measure areas, State DOTs submit biennial reports through the FHWA's electronic reporting portal called the Performance Management Form (PMF).<sup>3</sup>

The first 4-year performance period began January 1, 2018 and ends on December 31, 2021, with the exception of the CMAQ emissions reduction measure. For that measure, the first performance period began on October 1, 2017, and ends on September 30, 2021.<sup>4</sup> While the Safety data was first reported by State DOTs in 2017, the 2018 reporting year was the first to include baseline and target data for all 17 performance measures.

This report provides a snapshot across the nation for each performance measure area, with information on the status of each performance area at the midpoint of this first period. The report includes State DOT condition/performance, targets, initial trends, and determinations of significant progress and adjustments that State DOTs made as a result of additional and improved performance data. This report documents mid performance period progress (MPP) on States' progress in managing system condition and performance. It shares performance data to help the transportation community learn and grow.

The FHWA expects to update this report regularly, corresponding to the national data reporting cycles as reflected in the [Performance Measures and Asset Management Plan - Key Implementation Dates](#)<sup>5</sup> timeline on the FHWA webpage.

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<sup>1</sup> <https://www.fhwa.dot.gov/tpm/reporting/state/index.cfm>

<sup>2</sup> Highway Safety Improvement Program Report Guidance <https://safety.fhwa.dot.gov/hsip/reports/>

<sup>3</sup> Performance Management Form (PMF) Input Fields <https://www.fhwa.dot.gov/tpm/guidance/>

<sup>4</sup> <https://www.fhwa.dot.gov/tpm/faq.cfm#perf>

<sup>5</sup> <https://www.fhwa.dot.gov/tpm/rule/timeline.pdf>

Table 1: Program Areas, Measures Areas, and Performance Measures

Program Area	Measure Area	Performance Measures	
Safety	Highway Safety Improvement Program (HSIP) [23 CFR 490.203]	Number of fatalities [23 CFR 490.207(a)(1)]	
		Rate of Fatalities per 100 million vehicle miles traveled [23 CFR 490.207(a)(2)]	
		Number of serious injuries [23 CFR 490.207(a)(3)]	
		Rate of Serious injuries per 100 million vehicle miles traveled [23 CFR 490.207(a)(4)]	
		Number of non-motorized fatalities and non-motorized serious injuries [23 CFR 490.207(a)(5)]	
National Highway Performance Program (NHPP)	Condition of pavements on the Interstate System [23 CFR 490.105(c)(1)]	Percentage of pavements on the Interstate System in good condition [23 CFR 490.307(a)(1)]	
		Percentage of pavements on the Interstate System in poor condition [23 CFR 490.307(a)(2)]	
	Condition of pavements on the non-Interstate National Highway System (NHS) [23 CFR 490.105(c)(2)]	Percentage of pavements on the non-Interstate NHS in good condition [23 CFR 490.307(a)(3)]	
		Percentage of pavements on the non-Interstate NHS in poor condition [23 CFR 490.307(a)(4)]	
	Condition of bridges on the NHS [23 CFR 490.105(c)(3)]	Percentage of NHS bridges classified as in Good condition [23 CFR 490.407(c)(1)]	
		Percentage of NHS bridges classified as in Poor condition [23 CFR 490.407(c)(2)]	
	NHS Travel Time Reliability [23 CFR 490.105(c)(4)]	Percentage of person-miles traveled on the Interstate that are reliable [23 CFR 490.507(a)(1)]	
		Percentage of person-miles traveled on the non-Interstate NHS that are reliable [23 CFR 490.507(a)(2)]	
	National Highway Freight Program (NHFP)	Freight movement on the Interstate System [23 CFR 490.105(c)(6)]	Truck Travel Time Reliability (TTTR) Index [23 CFR 490.607]
	Congestion Mitigation and Air Quality Improvement Program (CMAQ)	Traffic congestion [23 CFR 490.105(c)(7)]	Annual Hours of Peak-Hour Excessive Delay (PHED) Per Capita [23 CFR 490.707(a)]
Percent of non-Single Occupancy Vehicle (Non-SOV) Travel [23 CFR 490.707(b)]			
On-road mobile source emissions [23 CFR 490.105(c)(8)]		Total Emissions Reduction for applicable criteria pollutants [23 CFR 490.807]	

## Background

The FHWA defines TPM as a “strategic approach that uses system information to make investment and policy decisions to achieve national performance goals.”<sup>6</sup>

Under Section 1203 of Moving Ahead for Progress in the 21st Century (MAP-21), as amended by the Fixing America's Surface Transportation (FAST) Act, Congress established seven national goals and directed the FHWA to establish national performance measures for the Federal-Aid Highway Program in support of six of the seven goals established in MAP-21. To meet the new statutory requirements, FHWA pursued a number of significant rulemakings.

Collectively, the regulations establish performance management requirements that address safety, infrastructure condition, system performance, freight movement, traffic congestion, and on-road mobile source emissions. The requirements encourage effective investment of Federal transportation funds. Performance management increases the accountability and transparency of the Federal-Aid Highway Program and provides a framework to support improved investment decision making through a focus on performance outcomes for key national transportation goals.

Appendix 1 provides specific information about the performance measures as well as the related three published performance measure rulemakings, effective dates, and regulatory references.

## Scope of National Reporting

Beginning with the 2018 reporting year, all 52 State DOTs reported performance data and targets for each of the 17 performance measures. This was a significant effort for the State DOTs as well as FHWA. The FHWA Office of Infrastructure established a new reporting portal, and worked with State DOTs and FHWA Division Offices to improve data quality, and provide support and assistance. All 52 State DOTs met the reporting deadline. For some State DOTs, this involved collection of new data, new types of analysis, and development of new reporting systems. Combined with the success of the safety data collection over the past few years, State DOTs and FHWA are collectively on track to continue to report and collect this national level performance information.

In 2020, State DOTs were required to submit an MPP Progress Report.<sup>7</sup> This data report, which identifies some preliminary data trends, includes the following MPP elements:

- 2-year condition/performance
- 2-year progress in achieving performance targets
- Target adjustment (optional)

It is important to note that several reporting requirements are being phased in during this first four-year performance period. In developing the requirements for submitting metric data and targets, FHWA recognized that some State DOTs might not be able to meet all data requirements before the start of

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<sup>6</sup> <https://www.fhwa.dot.gov/tpm/about/tpm.cfm>

<sup>7</sup> 23 CFR § 490.107 (2)

the first performance period. Therefore, FHWA allowed a phase-in and transition period for some data elements and targets. The timeline<sup>8</sup> on the FHWA webpage provides detailed information on the reporting requirements.

## Target Setting

State DOTs and MPOs work together to set data-informed targets. They are accountable for managing performance to make progress toward those targets. States and MPOs are required to establish targets that anticipate performance expected to be achieved at the end of the respective time period.<sup>9</sup>

The FHWA facilitates the collaborative target-setting process, providing guidance, training, and technical assistance to State DOTs and MPOs. Because FHWA did not require any particular method for target setting, State DOTs used a variety of approaches including historical data and trends, projections based on anticipated revenues, projections based on existing and currently programmed projects, and scenario modeling. The FHWA anticipates that State DOTs will refine their target setting approaches as they gain experience with the processes and with more comprehensive and robust data sets.

For some performance measure areas, State DOTs are required to meet certain minimum conditions, and to make progress each year or every two years in achieving their targets.<sup>10,11,12,13</sup> [Appendix 2](#) provides an overview of the requirements and associated consequences of not meeting them.

## Target Adjustment

For the 2020 MPP, State DOTs could submit an adjusted 4-year target to replace a previously established 4-year target for the National Highway Performance Program (NHPP), National Highway Freight Program (NHFP), and Congestion Mitigation and Air Quality Improvement Program (CMAQ) performance measures (State DOTs set targets for the safety measures each year; therefore, there is not a corresponding target adjustment process for the safety measures). The FHWA intends that the process of establishing targets and assessing progress should encourage State DOTs to establish data-supported targets that consider anticipated resources and potential uncertainties and provide data-supported explanations of condition/performance changes.<sup>14</sup> By the time of the MPP report, State DOTs had three years (2017-19) of data available to begin identifying trends, and to inform any necessary adjustments to targets. Table 2 provides a summary of the number of States that adjusted their targets, and whether the adjustments reflect improving or declining performance relative to the original targets.

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<sup>8</sup> <https://www.fhwa.dot.gov/tpm/rule/timeline.pdf>

<sup>9</sup> 23 CFR 450.314(h)

<sup>10</sup> 23 CFR 490.315

<sup>11</sup> 23 CFR 490.411

<sup>12</sup> 23 CFR 490.211

<sup>13</sup> 23 CFR 490.109

<sup>14</sup> 23 CFR 490.105(e)(4)(iii) and (iv)

Table 2: Summary of Performance Measure Target Adjustment by Number of States

Measure Area	Measure	Adjusted Target Improves Performance from Original Target	Adjusted Target Declines Performance from Original Target	No Adjustment
Pavement	Percent of Interstate Pavements in Good Condition	2	9	41
	Percent of Interstate Pavements in Poor Condition	3	4	45
	Percent of Non-Interstate NHS Pavements in Good Condition	2	9	41
	Percent of Non-Interstate NHS Pavements in Poor Condition	3	4	45
Bridge	Percent of NHS Bridges in Good Condition	2	13	37
	Percent of NHS Bridges in Poor Condition	2	11	39
Travel Time Reliability	Percent of Person-Miles Traveled on the Interstate that are Reliable (LOTTR)	4	6	42
	Percent of Person-Miles Traveled on the Non-Interstate NHS that are Reliable	5	3	44
Freight	Freight: Truck Travel Time Reliability (TTTR) Index	4	12	36
Traffic Congestion <sup>15</sup>	Percent of Non-SOV Travel in Each Urbanized Area (UZA)	4	1	26
	Annual Hours of Peak-Hour Excessive Delay (PHED) Per Capita in each UZA	2	2	27
On-Road Mobile Source Emissions <sup>16</sup>	Cumulative Emission Reduction (Daily Kg): PM2.5	2	2	23
	Cumulative Emission Reduction (Daily Kg): NOx	7	6	23
	Cumulative Emission Reduction (Daily Kg): VOC	5	7	19
	Cumulative Emission Reduction (Daily Kg): PM10	3	2	19
	Cumulative Emission Reduction (Daily Kg): CO	1	7	15

<sup>15</sup> Table 4 for Applicable MPOs for Congestion Measures:

[https://www.fhwa.dot.gov/environment/air\\_quality/cmaq/measures/cmaq\\_applicability/october\\_2019/#toc494364640](https://www.fhwa.dot.gov/environment/air_quality/cmaq/measures/cmaq_applicability/october_2019/#toc494364640)

<sup>16</sup> State DOTs were required to establish targets for only those pollutants for which their State had a non-attainment or maintenance area as of the applicable date. See Table 10 below.

## Significant Progress Determination

The FHWA determines significant progress for certain NHPP and NHFP measures at the mid-point and the end of each performance period starting with the 2020 Mid Performance Period Progress Report, and biennially thereafter.<sup>17</sup> The FHWA completes a performance target assessment for the safety measures annually.

For the NHPP and NHFP measures—pavement, bridge, travel time reliability, and freight—the FHWA determines that significant progress was made if either (1) the actual condition/performance level is better than the baseline condition/performance or (2) the actual condition/performance level is equal to or better than the established target.<sup>18</sup> The FHWA has detailed the process it uses for computing the baseline and actual condition/performance in the Measure Computation Procedures at <https://www.fhwa.dot.gov/tpm/guidance/>.

For the safety performance measures, a State DOT has met or made significant progress toward meeting its targets when at least four of the five safety performance targets<sup>19</sup> have been met or the actual outcome is better than the baseline performance.<sup>20</sup> The baseline performance is the 5-year average ending with the year prior to the establishment of the target.

The FHWA does not use the significant progress determination process to be punitive or to discourage State DOTs from establishing meaningful targets. Rather, the FHWA encourages State DOTs to establish data-supported targets that consider anticipated resources and potential uncertainties, and to provide data-supported explanations of condition or performance changes.

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<sup>17</sup> 23 CFR 490.109(e)(1)

<sup>18</sup> 23 CFR 490.109(e)(2)

<sup>19</sup> 23 CFR 490.211(c)(2)

Table 3: Significant Progress Determinations by Performance Measure Area

Measure Area	Measure	Met or Made Significant Progress	Did Not Meet or Make Significant Progress
Safety	Safety Measures (combined, 2019 assessment)	22	30
Pavement	Percent of Interstate Pavements in Good Condition*	n/a	n/a
	% of Interstate Pavements in Poor Condition*	n/a	n/a
	% of Non-Interstate NHS Pavements in Good Condition	47	5
	% of Non-Interstate NHS Pavements in Poor Condition	45	7
Bridge	% of NHS Bridges in Good Condition	30	22
	% of NHS Bridges in Poor Condition	39	13
Travel Time Reliability	% Of Person-Miles Traveled on the Interstate that are Reliable (LOTTR)	41	11
Travel Time Reliability	% Of Person-Miles Traveled on the Non-Interstate NHS that are Reliable*	n/a	n/a
Freight	Freight: Truck Travel Time Reliability (TTTR) Index	37	15**

\* Will be assessed in 2022 at the end of the first full performance period

\*\* FHWA accepted the extenuating circumstances provided by a State DOT in assessing progress toward target achievement and classified it as “Progress Not Determined.”<sup>21</sup>

Figure 1 shows whether or how States adjusted 4-year targets for each relevant performance measures, categorized by their significant progress determination. For each measure there are two bars—one showing breakdown of target adjustment by States that made significant progress, and one by States that did not make significant progress.

<sup>21</sup> 23 CFR 490.107 (e)(5)(i), and FHWA Procedure for Determining Significant Progress toward the NHPP and NHFP Measures <https://www.fhwa.dot.gov/tpm/guidance/hif21030.pdf>

## 4-Year Target Adjustment by Measure and Significant Progress Determination

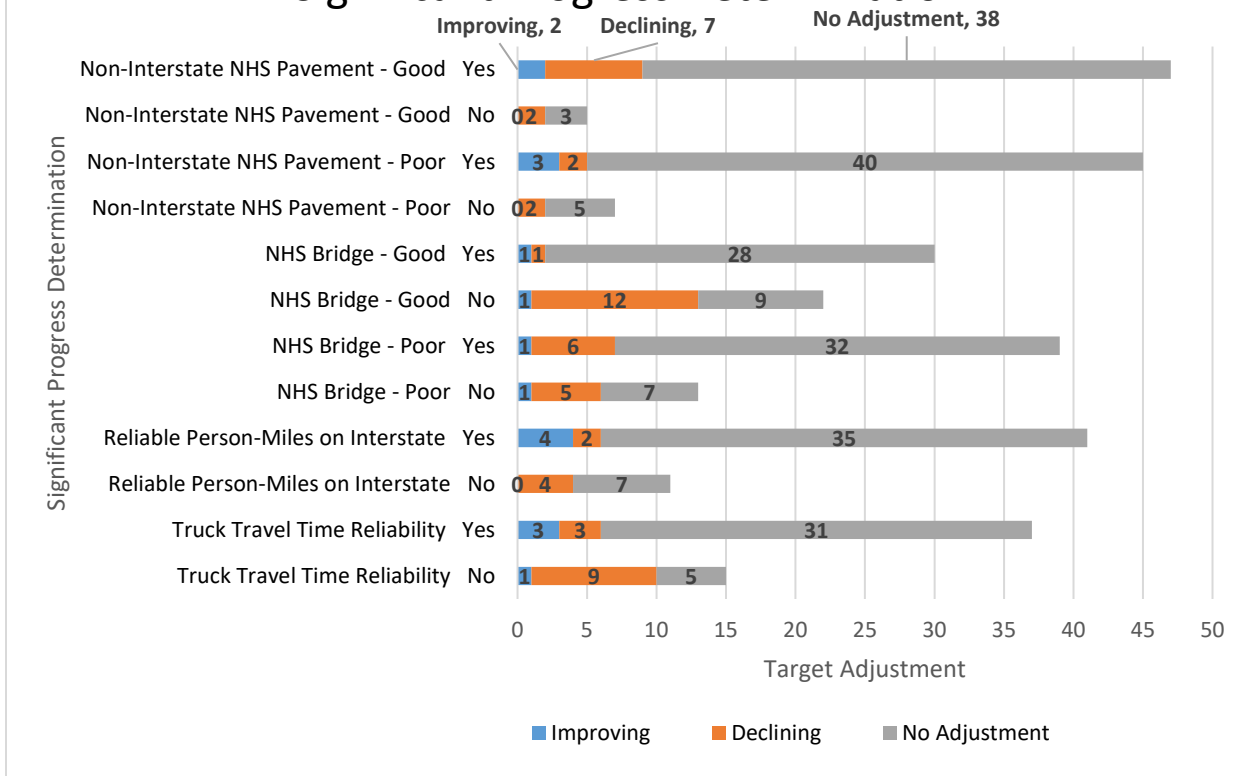


Figure 1: 4-Year Target Adjustment by Measure and Significant Progress Determination



## 2020 Compiled Results by Performance Measure Area

The following sections provide summary transportation system performance data and background information from all 52 State DOTs, with more detailed discussions for each performance area. The final section provides information on FHWA’s ongoing activities as it continues to support State DOTs and MPOs in tracking and improving transportation performance. The FHWA is committed to working with State DOTs and MPOs to integrate performance management into regular business practice for the Federal-Aid Highway Program.

For each performance area, State DOTs reported on the mid-period performance, and in some cases adjusted their targets for the full performance period, according to the requirements of each rule. For the safety performance measures, States DOTs used the most recent 5-year period (2015-2019), and set targets for the 2016-2020 performance period. The annual safety targets are set using a 5-year rolling average. For most other measures, States DOTs reported progress for 2019, which is the mid-point of the first 2017-2021 performance period. Most targets are set relative to the 2017 baseline value. A few of the measures—interstate pavement, non-interstate reliability, and peak hours of excessive delay—used 2019 as the baseline and will be included in the data report at the end of the first performance period.

### Comparison of Mid-Period Performance to Baseline

State DOTs reported performance for 2019. Figure 2 provides a comparison of the most recent 5-year rolling average (2015-2019) to the baseline (2013-2017) across the State DOTs for the safety performance measures. For the safety measures, improving performance indicates a reduction in the number or rate of fatalities or serious injuries, and declining performance indicates an increase.

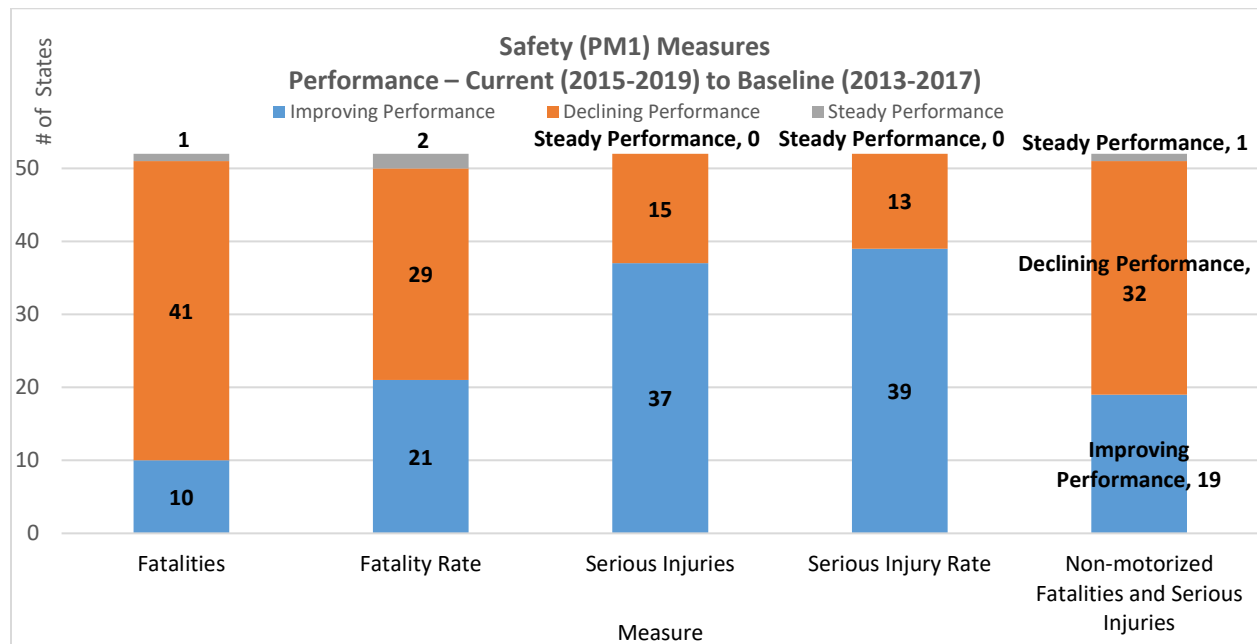


Figure 2: Comparison of 2019 to Baseline Performance for the Safety Performance Measures by Number of States

Figure 3 provides a comparison of the 2019 midpoint and 2017 baseline across the State DOTs for the NHPP and NHFP performance measures. It includes information only for the measures for which State DOTs reported both 2017 baseline and 2019 midpoint data, and not the measures with phased reporting.

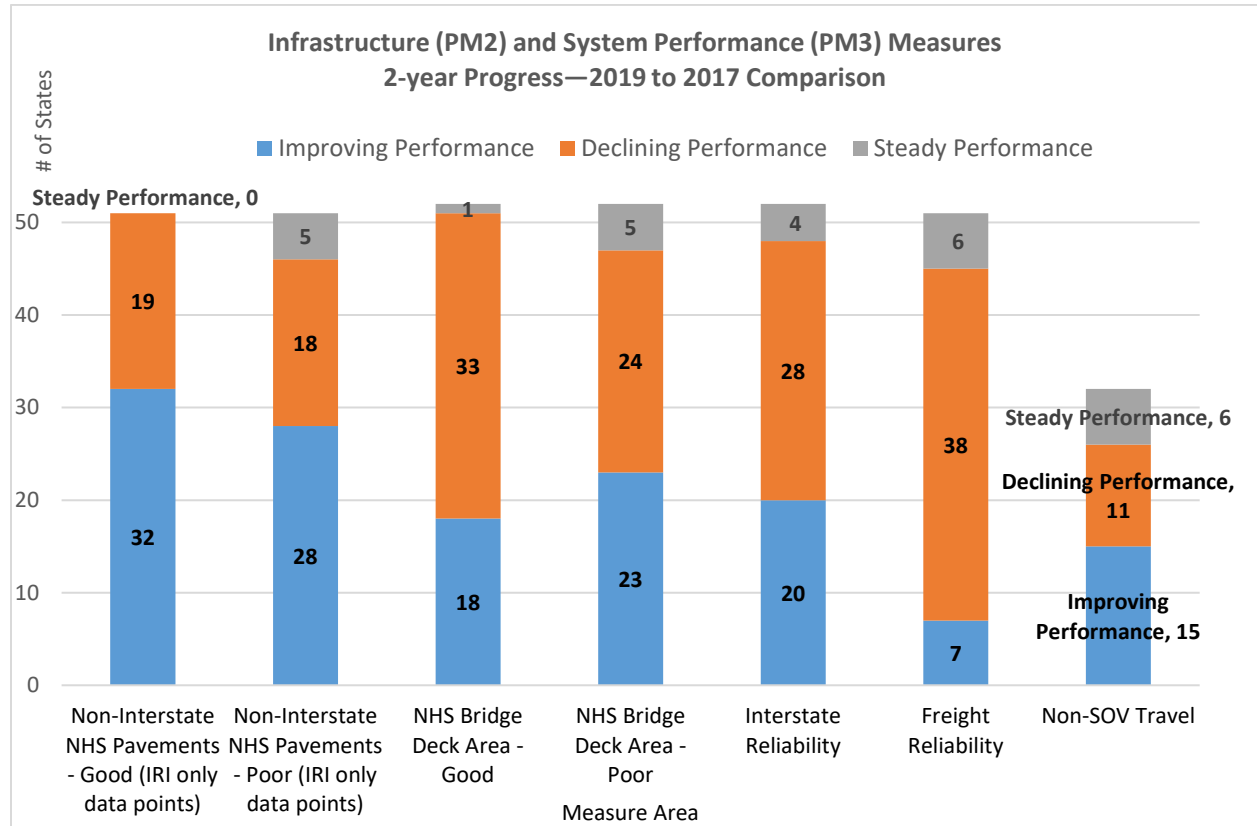


Figure 3: Comparison of Mid-Point to Baseline Performance for the NHPP and NHFP Performance Measures by Number of States

## Safety Measures

As previously shown in Table 1, five performance measures are associated with safety:

- Number of fatalities
- Rate of fatalities per 100 million vehicle miles traveled (VMT)
- Number of serious injuries
- Rate of serious injuries per 100 million vehicle miles traveled
- Number of non-motorized fatalities and non-motorized serious injuries

Table 4 provides additional background information on the safety performance measures.

*Table 4: Background on Safety Measures*

<b>Criteria</b>	<b>Safety</b>
Applicability	All public roads.
Measure Data Collection	Annual data collection. <sup>22</sup> Annual metric reporting in HSIP report by August 31. <sup>23</sup>
Metric(s)	Annual total fatalities from Fatality Analysis Reporting System (FARS). <sup>24</sup> Annual total serious injuries from each State’s HSIP report. <sup>25</sup> Total VMT from Highway Performance Monitoring System (HPMS). <sup>26</sup>
Measure Calculation	5-year rolling average of the annual totals for baseline performance, actual performance, and target. <sup>27</sup>
State DOT Target Requirements	State DOTs: annual target. <sup>28</sup> MPOs: annual target (option to set their own or support the State DOT target(s)). <sup>29</sup>
Target Phase-In	N/A

The Safety performance measures and targets are based on a 5-year rolling average, which is the average of five individual, consecutive years of data. The 5-year rolling average provides a better understanding of the overall data over time without eliminating years with significant increases or decreases, and provides a mechanism for accounting for regression to the mean. If a particularly high or low number of fatalities and/or serious injuries occur in one year, a return to a level consistent with the

<sup>22</sup> 23 CFR 490.209(a)

<sup>23</sup> 23 CFR 924.15(a)

<sup>24</sup> 23 CFR 490.207(b)(1),(2), and (5)

<sup>25</sup> 23 CFR 490.209(a)(5)

<sup>26</sup> 23 CFR 490.207(b)(2)

<sup>27</sup> 23 CFR 490.207(b). Guidance: FHWA Procedure for Safety Performance Measure Computation and State Target Achievement Assessment <https://www.fhwa.dot.gov/tpm/guidance/>

<sup>28</sup> 23 CF 490.209(a)

<sup>29</sup> 23 CF 490.209(c)(4)

average in the previous year may occur.

For this data report, the year shown in a figure represents the final year of a 5-year period. For example, 2017 would represent the average for the years 2013-2017.

## Number of Fatalities

Figure 4 shows the number of State DOTs reporting improving, steady, or declining performance between the 5-year rolling average performance periods. Each bar compares the 5-year rolling average number of fatalities in the period ending in that year with the 5-year rolling average ending in the previous year. For example, the first bar shows the 2013-2017 average compared with the 2012-2016 average. For this performance measure, improving performance indicates a reduction in fatalities, and declining performance indicates a rise in fatalities.

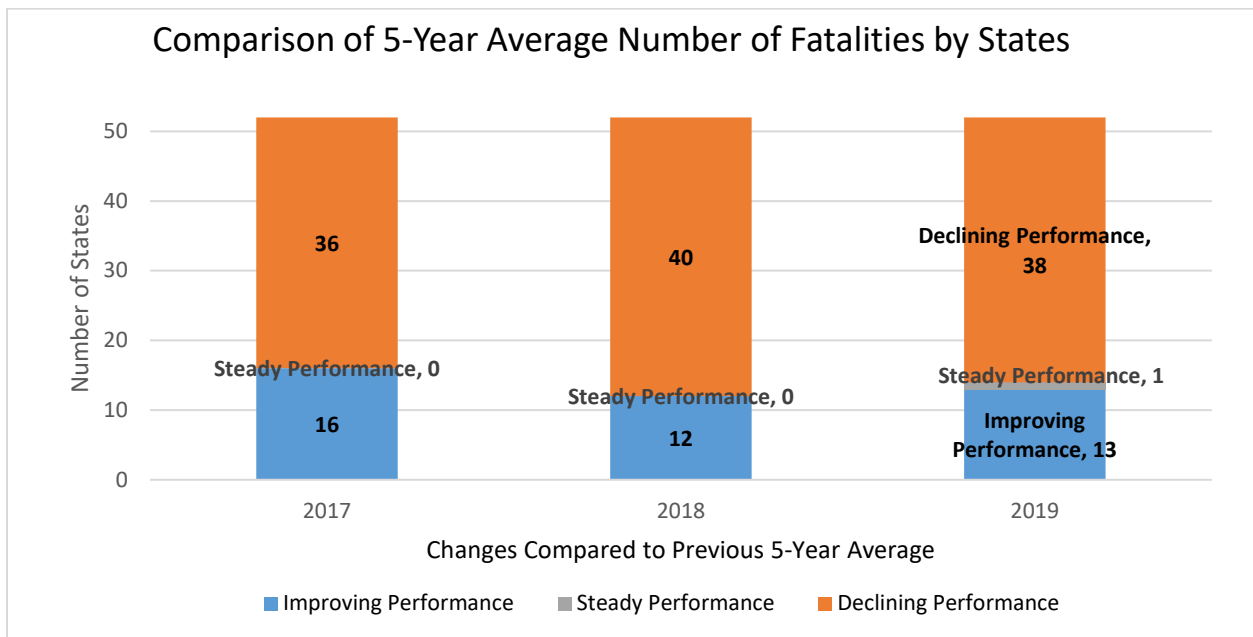


Figure 4: Comparison of 5-Year Average Number of Fatalities by States

## Rate of Fatalities Per 100 Million Vehicle Miles Traveled

This performance measure is commonly referred to as the fatality rate. Figure 5 shows the number of State DOTs reporting improving, steady, or declining performance between the 5-year rolling average performance periods. Each bar compares the 5-year rolling average fatality rate in the period ending in that year with the 5-year rolling average ending in the previous year. For example, the first bar shows the 2013-2017 average compared with the 2012-2016 average. For this performance measure, improving performance indicates a reduction in fatality rates, and declining performance indicates a rise in fatality rates.

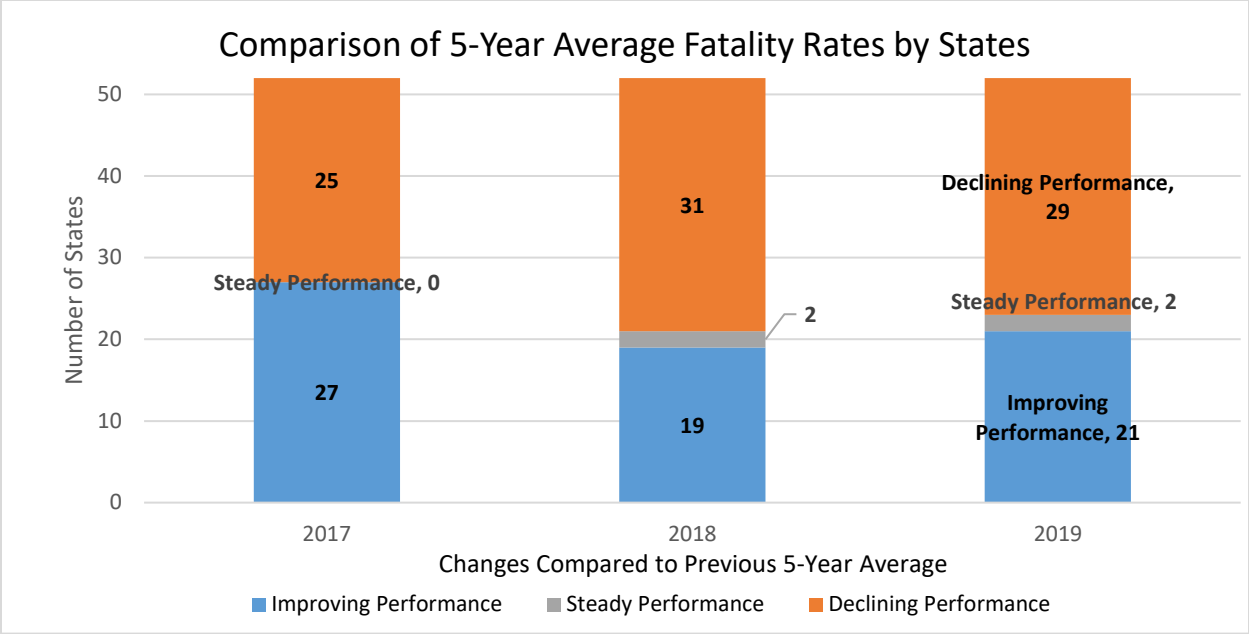


Figure 5: Comparison of 5-Year Average Fatality Rates by Number of States

Number of Serious Injuries

Figure 6 shows the number of State DOTs reporting improving, steady, or declining performance between the 5-year rolling average performance periods. Each bar compares the 5-year rolling average number of serious injuries in the period ending in that year with the 5-year rolling average ending in the previous year. For example, the first bar shows the 2013-2017 average compared with the 2012-2016 average. For this performance measure, improving performance indicates a reduction in serious injuries, and declining performance indicates a rise in serious injuries.

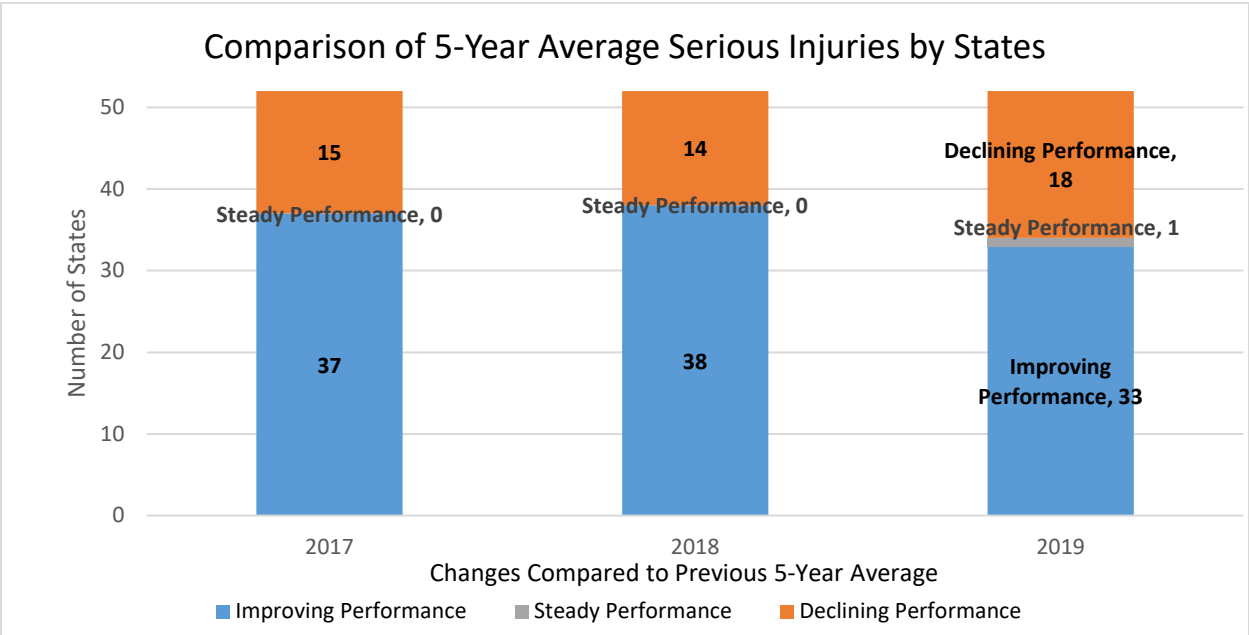


Figure 6: Comparison of 5-Year Average Number of Serious Injuries by States

## Rate of Serious Injuries Per 100 Million Vehicle Miles Traveled

This performance measure is commonly referred to as the serious injury rate. Figure 7 shows the number of State DOTs reporting improving, steady, or declining performance between the 5-year rolling average performance periods. Each bar compares the 5-year rolling average serious injury rate in the period ending in that year with the 5-year rolling average ending in the previous year. For example, the first bar shows the 2013-2017 average compared with the 2012-2016 average. For this performance measure, improving performance indicates a reduction in serious injury rates, and declining performance indicates a rise in serious injury rates.

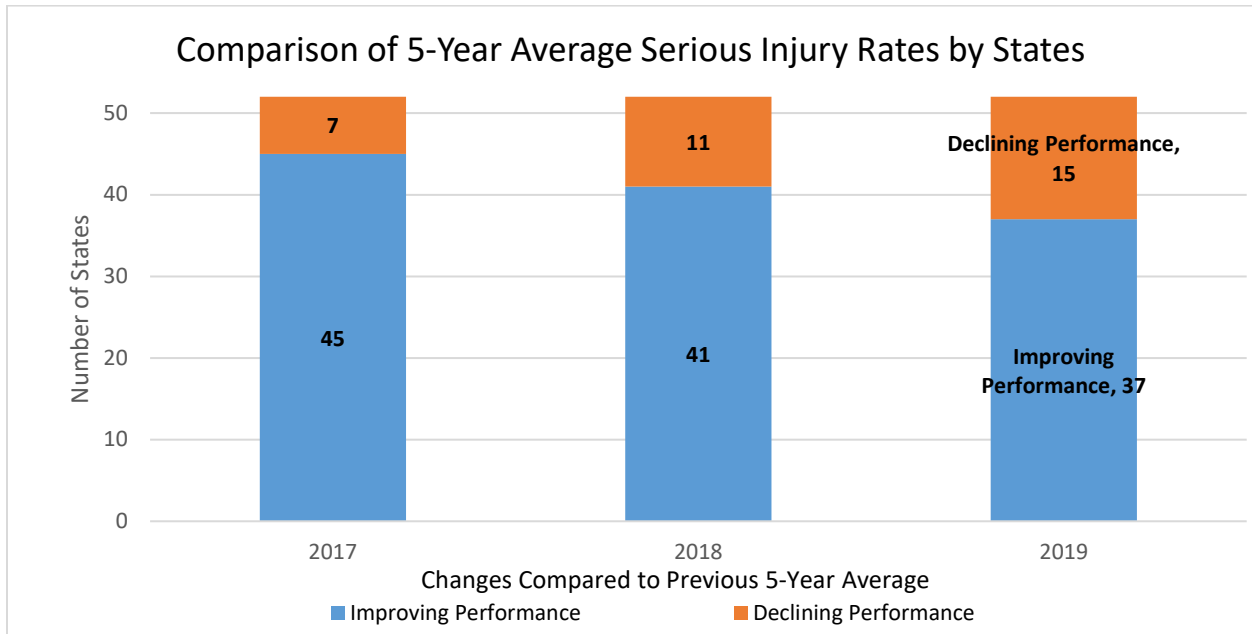


Figure 7: Comparison of 5-Year Average Serious Injury Rates by Number of States

## Number of Non-Motorized Fatalities and Non-Motorized Serious Injuries

Figure 8 shows the number of State DOTs reporting improving, steady, or declining performance between the 5-year rolling average performance periods. Each bar compares the 5-year rolling average number of non-motorized fatalities and serious injuries in the period ending in that year with the 5-year rolling average ending in the previous year. For example, the first bar shows the 2013-2017 average compared with the 2012-2016 average. For this performance measure, improving performance indicates a reduction in non-motorized fatalities and serious injuries, and declining performance indicates a rise in non-motorized fatalities and serious injuries.

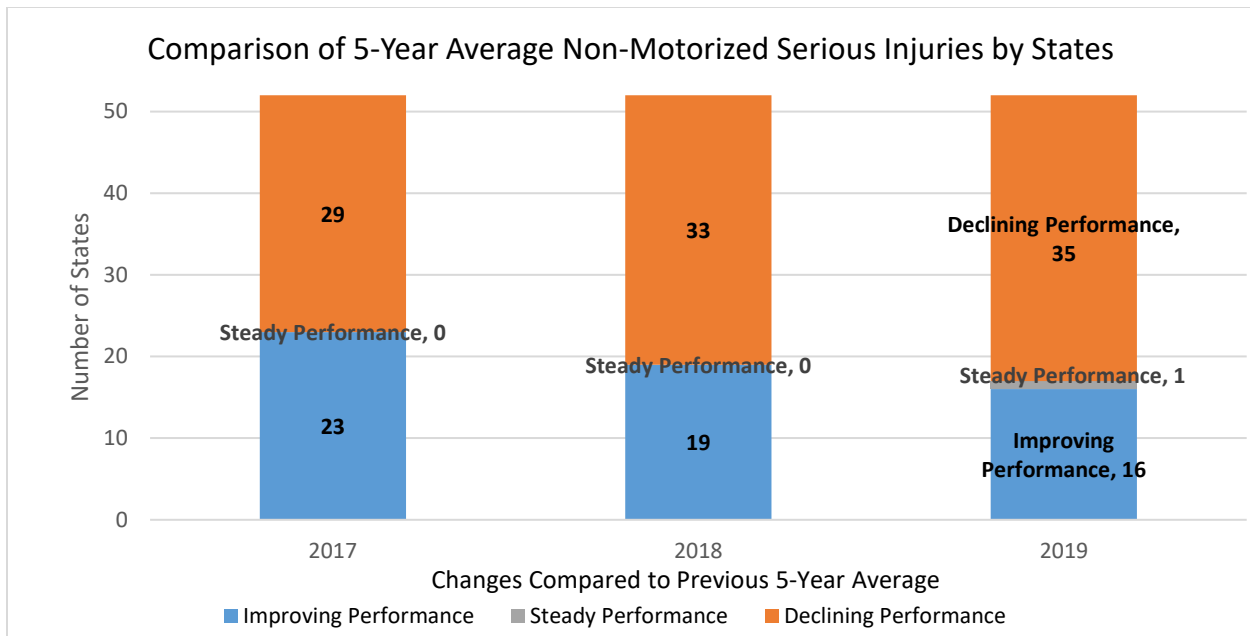


Figure 8: Comparison of 5-Year Average Non-Motorized Fatalities and Serious Injuries by Number of States

### Significant Progress Determination

A State DOT has met or made significant progress toward meeting its safety performance targets when at least four of the five safety performance targets have been met or the actual outcome is better than the baseline performance.<sup>30</sup> The baseline performance is the 5-year average ending with the year prior to the establishment of the target.

Figure 9 shows the number of States meeting or making significant progress toward the safety performance measures based on the 2018 and 2019 reported data.

<sup>30</sup> 23 CFR 490.209(a)

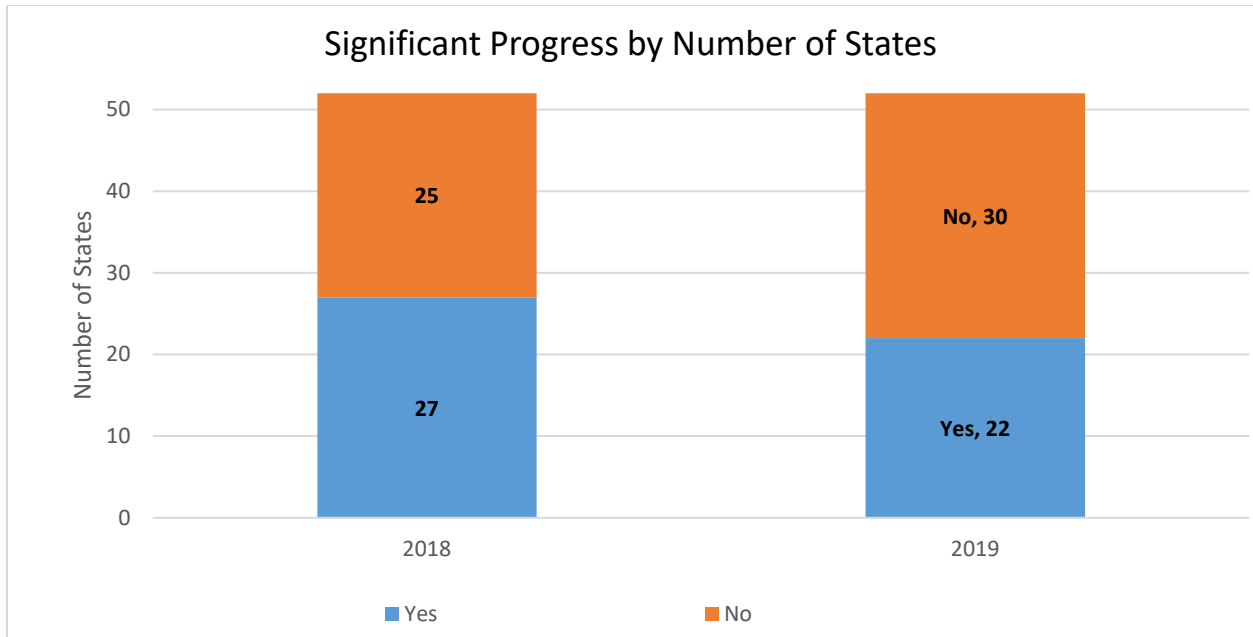


Figure 9: Number of States Meeting or Making Significant Progress Toward Safety Performance Targets

## Pavement Measures

As previously shown in Table 1, four performance measures are associated with pavement condition:

- Percentage of pavements of the Interstate System in Good condition
- Percentage of pavements of the Interstate System in Poor condition
- Percentage of pavements of the non-Interstate NHS in Good condition
- Percentage of pavements of the non-Interstate NHS in Poor condition

State DOTs report annually to the HPMS on pavement condition, and biennially submit their Biennial Performance Report that includes information on the performance measures to the PMF.



Table 5 provides additional background on the pavement performance measures.

*Table 5: Background on Pavement Measures*

<b>Criteria</b>	<b>Interstate System</b>	<b>Non-Interstate NHS</b>
Applicability	Mainline highways on the Interstate System.	Mainline highways on the non-Interstate NHS.
Measure Data Collection	Annual data collection. Annual metric reporting to HPMS by April 15. <sup>31</sup>	Biennial data collection. Annual metric reporting to HPMS by June 15. <sup>32</sup>
Data Transition	State DOTs to start collecting Interstate pavement data for the HPMS according to the requirements not later than January 1, 2018. <sup>33</sup> First reporting to HPMS not later than April 15, 2019. <sup>34</sup>	First performance period: State DOTs were only required to collect and report on the International Roughness Index (IRI). <sup>35</sup> States must meet all pavement data collection requirements by January 1, 2020. <sup>36</sup>
Metric(s)	IRI, Cracking Percent, rutting, faulting, and present serviceability rating (PSR)	
Measure Calculation	Percent of the lane-miles of Interstate mainline segments rated as in Good and Poor condition (weighted by lane-miles). <sup>37</sup>	Percent of the lane-miles of non-Interstate NHS mainline segments rated as in Good and Poor condition (weighted by lane-miles). <sup>38</sup>
State DOT Target Requirements	2-year and 4-year statewide targets. <sup>39</sup>	
Target Phase-In	No 2-year targets or baseline data reported for first performance period.	N/A—both 2-year and 4-year targets reported for first performance period.

### Percentage of Pavements of the Interstate System in Good Condition

For the October 2018 Report, State DOTs were required only to submit 4-year targets for the percent of pavements on the Interstate System in Good and Poor condition.<sup>40</sup> The 2019 data submission was the first time that State DOTs were required to submit performance measure data on Interstate pavements; the 2019 data is therefore treated as the baseline. Figure 10 displays the distribution of the percent of

<sup>31</sup> 23 CFR 490.319(a)

<sup>32</sup> 23 CFR 490.319(b)

<sup>33</sup> 23 CFR 490.309(a)

<sup>34</sup> 23 CFR 490.311(c)(4) and 23 CFR 490.311(d)(2)

<sup>35</sup> The “phase-in” requirements and the “transition” provision for the Pavement Condition Measures

[https://www.fhwa.dot.gov/tpm/guidance/ga\\_phasein.pdf](https://www.fhwa.dot.gov/tpm/guidance/ga_phasein.pdf)

<sup>36</sup> 23 CFR 490.309(a)

<sup>37</sup> FHWA Computation Procedure for the Bridge Condition Measures <https://www.fhwa.dot.gov/tpm/guidance/>

<sup>38</sup> FHWA Computation Procedure for the Bridge Condition Measures <https://www.fhwa.dot.gov/tpm/guidance/>

<sup>39</sup> 23 CFR 490.105(e)(4)(iii) and (iv)

<sup>40</sup> 23 CFR 490.105(e)(7)(i) and (ii)

Interstate pavement in Good condition based on the 2019 baseline data.

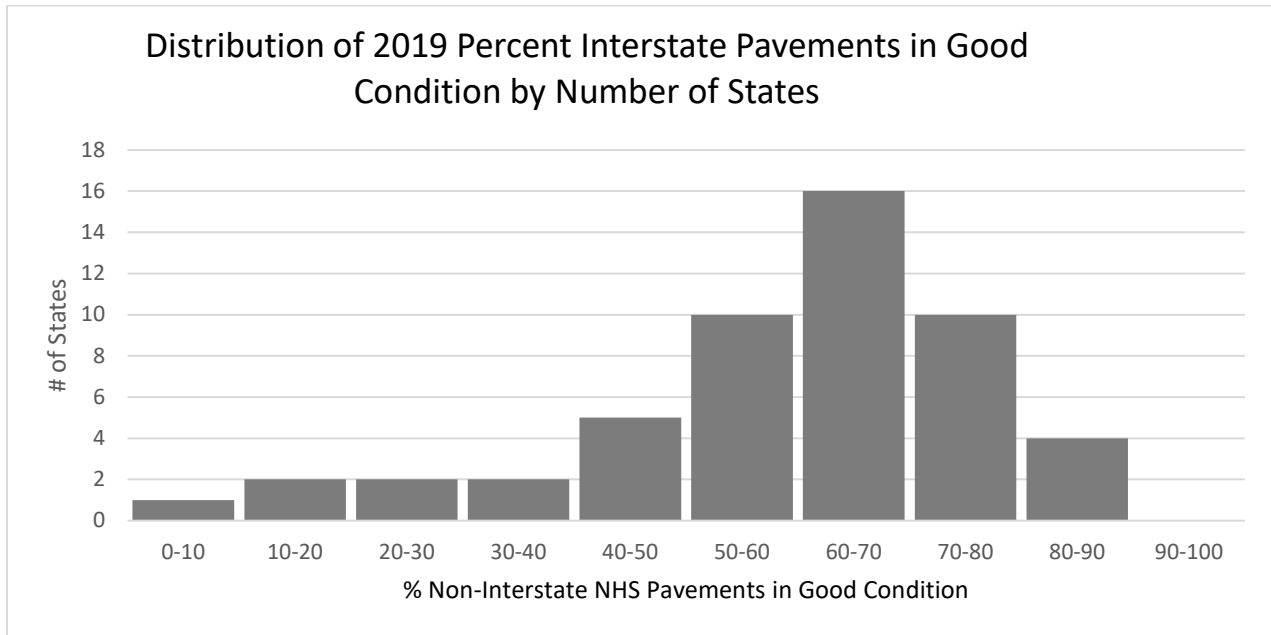


Figure 10: Distribution of 2019 Baseline performance for Interstate Pavement Miles in Good Condition by Number of States

#### Target Adjustment

As part of the 2020 Report, State DOTs could adjust their 4-year targets. Figure 11 provides the number of States that adjusted targets, and whether the adjustments reflect an improvement or decline from the original 4-year target.

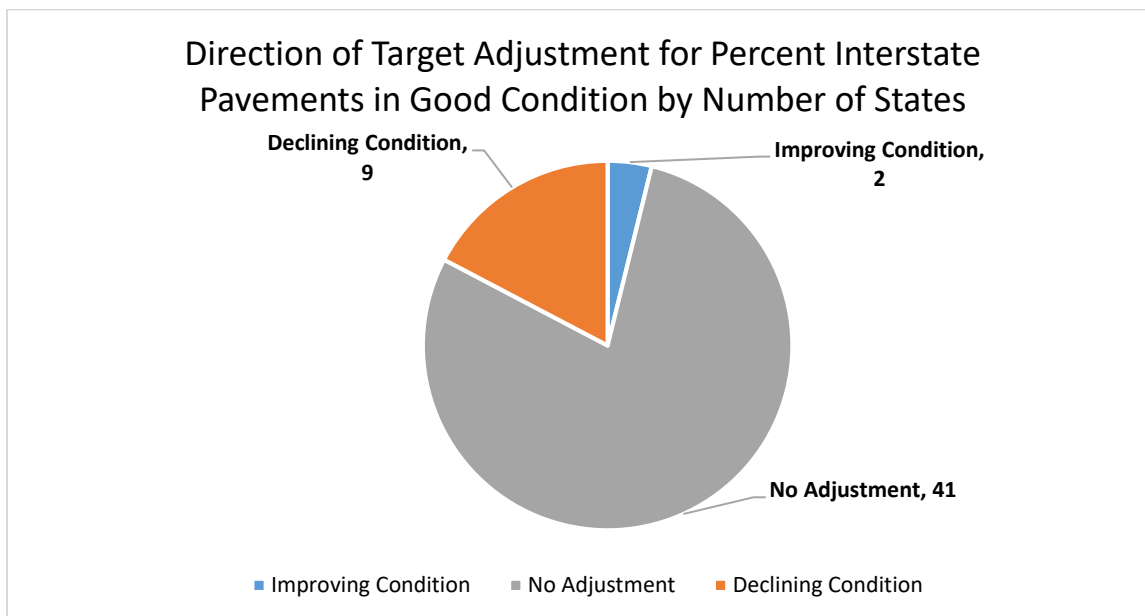


Figure 11: Direction of Target Adjustment for Percent Interstate Pavements in Good Condition by Number of States

Figure 12 shows the number of State DOTs that set targets reflecting improving, steady, or declining condition for percent of Interstate pavement in Good condition when the 2019 baseline and the 4-year target were compared. As a result of the adjustments, there are seven fewer States with targets showing improvement over the 4-year period: six States switched from improving to declining and one from improving to steady condition.

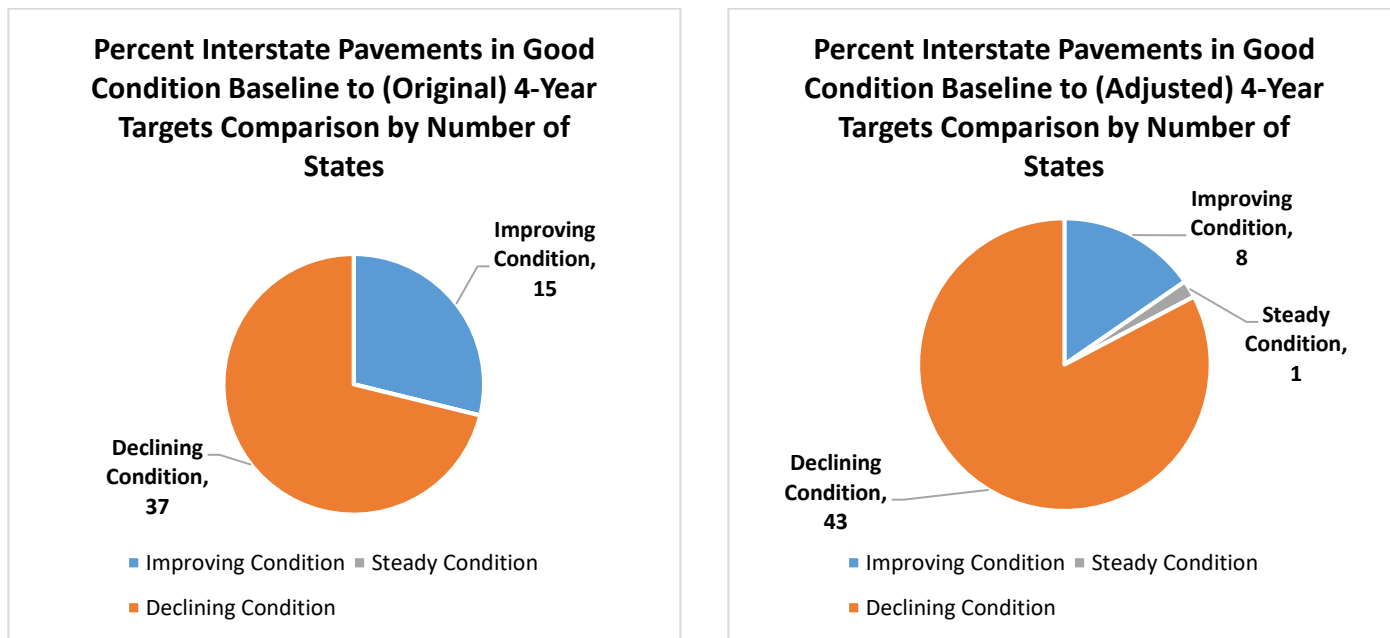


Figure 12: Percent Interstate Pavements in Good Condition Baseline to 4-Year Target Comparison by Number of States

### Percentage of Pavements of the Interstate System in Poor Condition

For the October 2018 Report, State DOTs were required only to submit 4-year targets for the percent of pavements on the Interstate System in Good and Poor condition.<sup>41</sup> The 2019 data submission was the first time that State DOTs were required to submit performance measure data on Interstate pavements; the 2019 data is therefore treated as the baseline. Figure 13 displays the distribution of the percent of Interstate pavement in Poor condition across the States based on the 2019 baseline data.

<sup>41</sup> 23 CFR 490.105(e)(7)(i) and (ii)

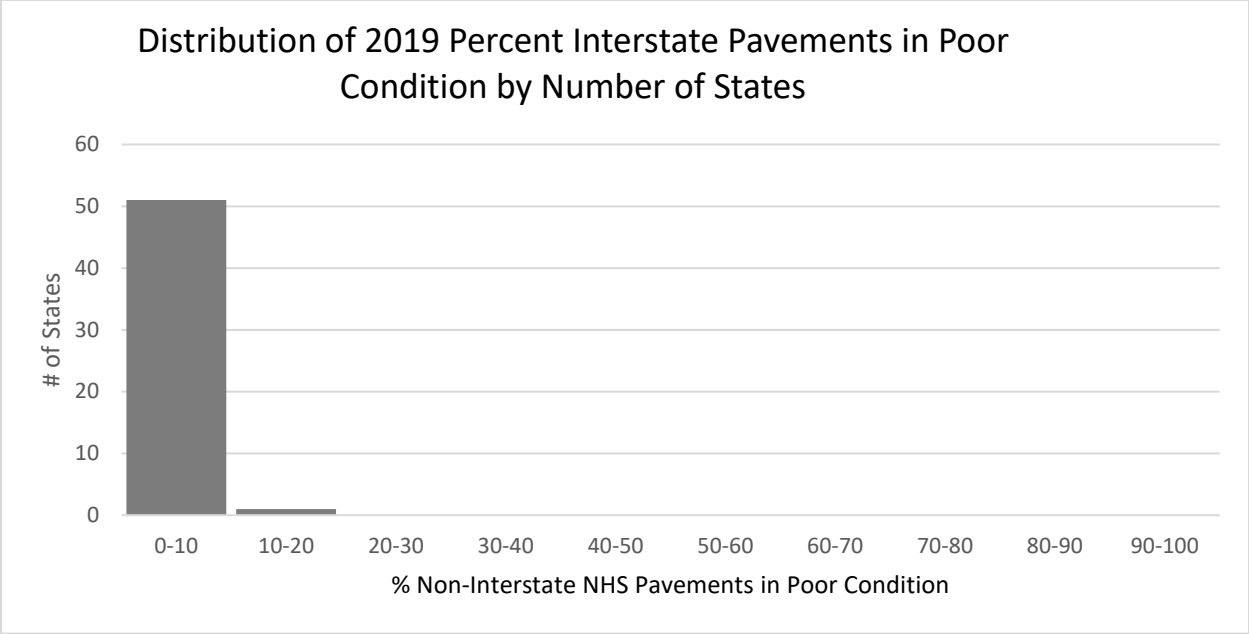


Figure 13: Distribution of 2019 Baseline Performance for Interstate Pavement Miles in Poor Condition by Number of States

**Target Adjustment**

As part of the 2020 mid performance period data submission, State DOTs could adjust their 4-year targets. Figure 14 provides the number of States that adjusted targets, and whether the adjustments reflect an improvement or decline compared to the original 4-year target.

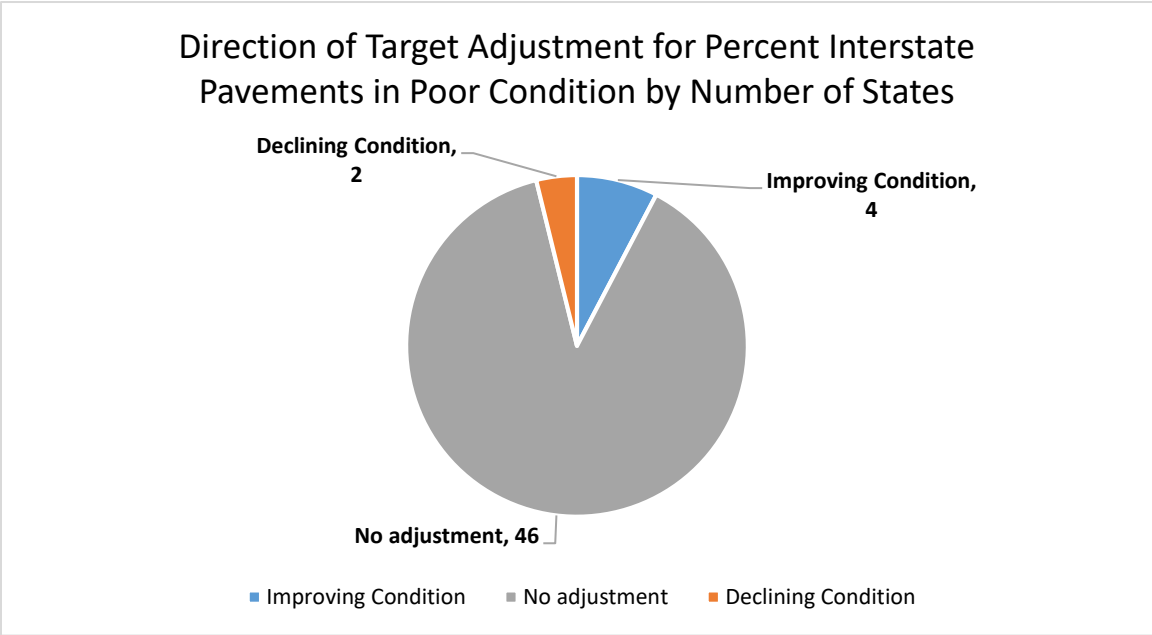


Figure 14: Direction of Target Adjustment for Percent Interstate Pavements in Poor Condition by Number of States

Figure 15 shows the number of State DOTs that set targets reflecting improving, steady, or declining condition for percent of Interstate pavement in Poor condition when comparing 2019 baseline with the 4-year target. As a result of the target adjustments, one State moved from improving to declining condition.

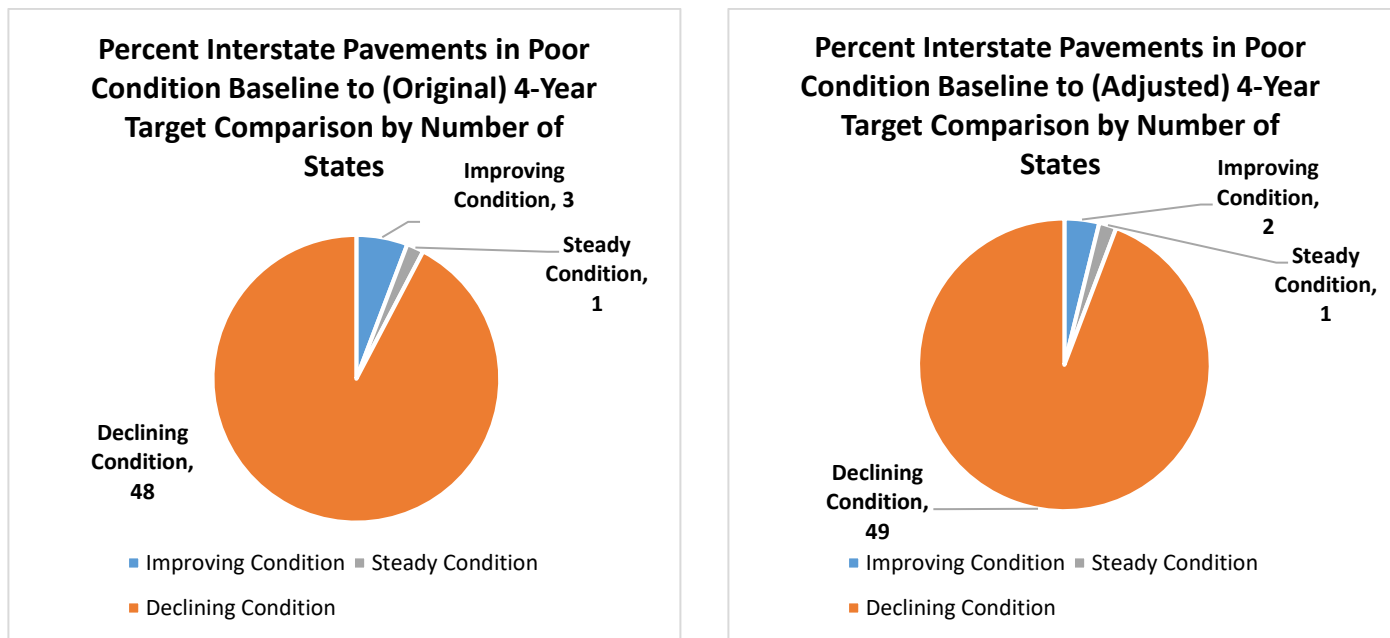


Figure 15: Percent Interstate Pavements in Poor Condition Baseline to 4-Year Target Comparison by Number of States

### Percentage of Pavements of the non-Interstate NHS in Good Condition

The national pavement condition measures require International Roughness Index (IRI), Cracking Percent, Rutting, and Faulting data<sup>42</sup> to rate the pavement condition as Good, Fair, or Poor for each pavement section on the non-Interstate NHS.<sup>43</sup> The State DOTs are required to report on the full-extent,<sup>44</sup> full-distress data for the non-Interstate NHS to the HPMS beginning in 2022<sup>45</sup>; however, until then, State DOTs are required to report only the full-extent IRI data. Accordingly, 23 CFR 490.313(e) requires non-Interstate NHS pavement measures to be based only on IRI data for the first performance period. To make the measures and targets comparable, State DOTs were expected to establish their targets reflecting the condition based only on IRI.

During the 2018 State baseline reporting, FHWA learned that most State DOTs established targets based on the “full-distress plus IRI” data and not solely on the IRI component (therefore expediting the transition period). In 2019, FHWA reached out to each State DOT to confirm what method (IRI only or

<sup>42</sup> For purposes of this document, the term Full-distress plus IRI data refers to full-extent Cracking Percent and IRI for all pavement sections; full-extent Rutting for all pavement sections with asphalt pavement Surface Types; full-extent Faulting for all pavement sections with jointed concrete pavement Surface Types; and full-extent inventory data in accordance with in 23 CFR 490.309 and 23 CFR 490.311.

<sup>43</sup> 23 CFR Part 490, Subpart C

<sup>44</sup> Full Extent Data is data reported for an entire roadway system or systems (page 1-3 [HPMS Field Manual, Dec 2016](#))

<sup>45</sup> Data collected in 2020 and 2021 to be reported to HPMS in 2022 [23 CFR 490.309(a), 23 CFR 490.311(c) and (d)]

“full-distress plus IRI” data) it used; nine set targets based on IRI only, 42 used “full-distress plus IRI” data, and one State DOT used IRI only data for its 2-year target and “full-distress plus IRI” for its 4-year target. Due to the difference in the data used for the States’ targets, the reported targets and baselines comparisons are not possible. As the data transition period ends and future State biennial reports are submitted, greater analysis can be made in future versions of this report.

For the Mid-Period Performance Report, States reported on pavement condition using IRI only. Therefore, FHWA compared the 2017 baseline with 2019 actual condition.

For State DOTs that established a 2-year target using IRI only, FHWA compared the baseline 2017 value, actual 2019 condition calculated with IRI only, and the 2-year target. For State DOTs that established a 2-year target using “Full Distress + IRI,” FHWA extrapolated a 2019 condition value using Full Distress + IRI, and compared the 2019 actual condition with the 2-year target.

Figure 16 displays the 2019 distribution of the percent of non-Interstate pavement in Good condition (IRI only), showing the number of States with condition in each category.

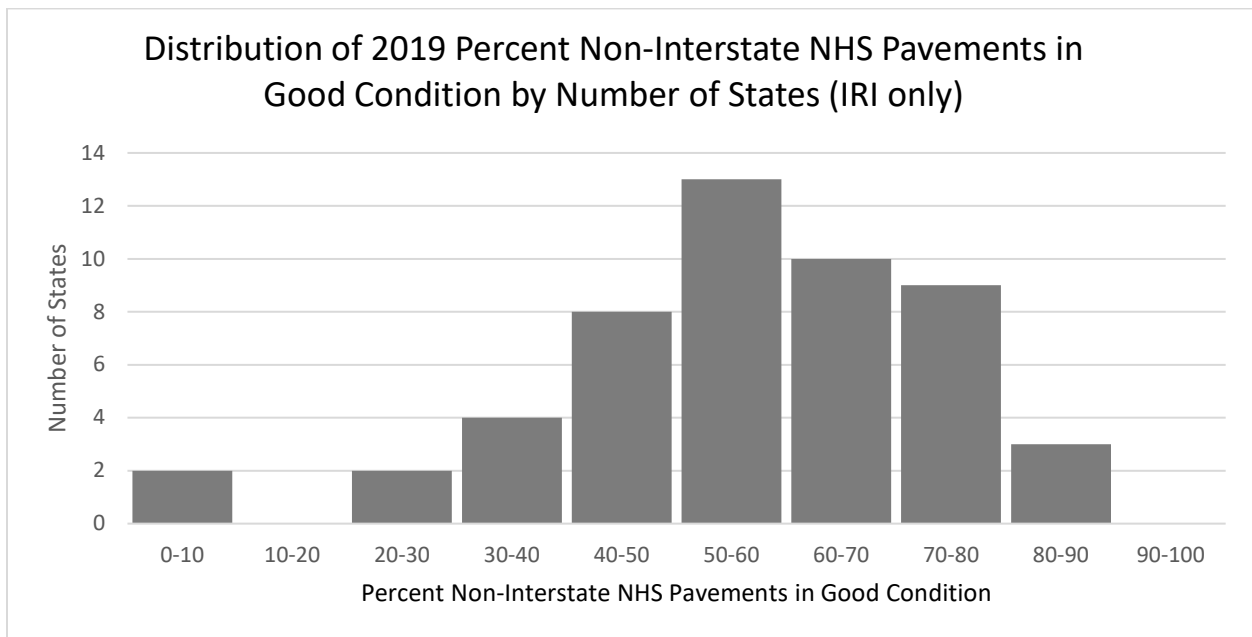


Figure 16: Distribution of 2019 Percent Non-Interstate NHS Pavements in Good Condition by Number of States (IRI only)

*Comparing 2019 and 2017 Condition and Significant Progress Determination*

Figure 17 shows the number of State DOTs with improving, steady, or declining condition for percent of non-Interstate pavement in Good condition (IRI only) when comparing the 2019 condition with the 2017 baseline.

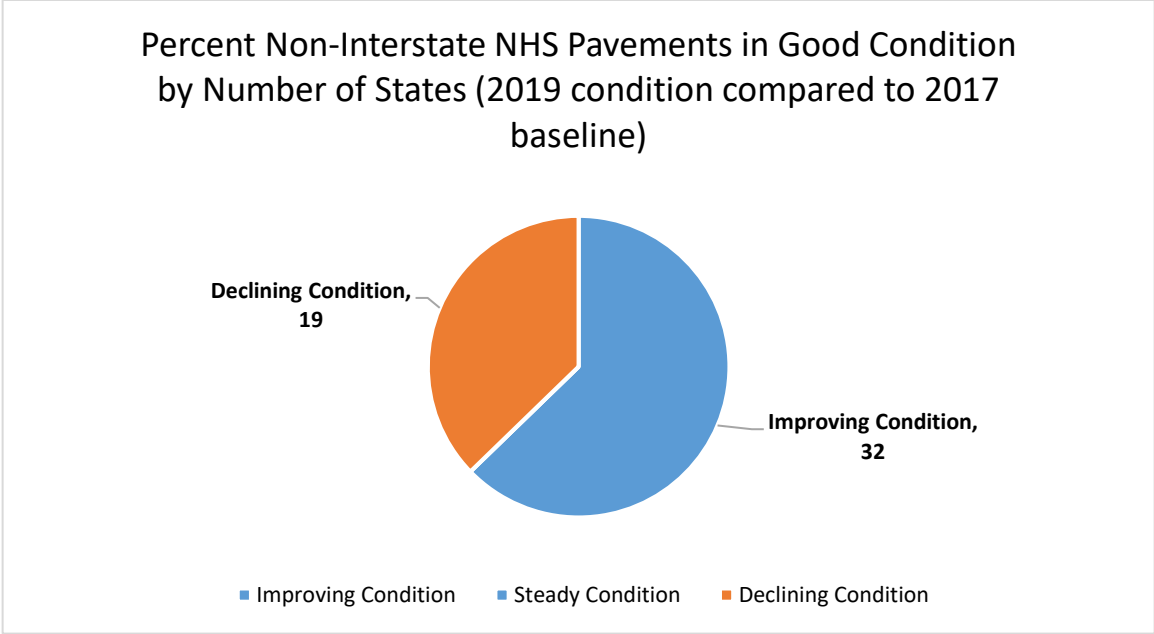


Figure 17: Percent Non-Interstate NHS Pavements in Good Condition by Number of States (2019 condition compared to 2017 baseline)

There are two ways to evaluate whether a State has made significant progress toward its performance target. If the actual outcome for a performance measure is equal to or better than the target, the target was met. If a State has not met a target, FHWA will determine if the actual outcome for the target is better than the baseline performance for that target. Figure 18 shows the 2020 Mid Performance Period significant progress determination for the percent Non-Interstate NHS pavements in Good condition by number of States.

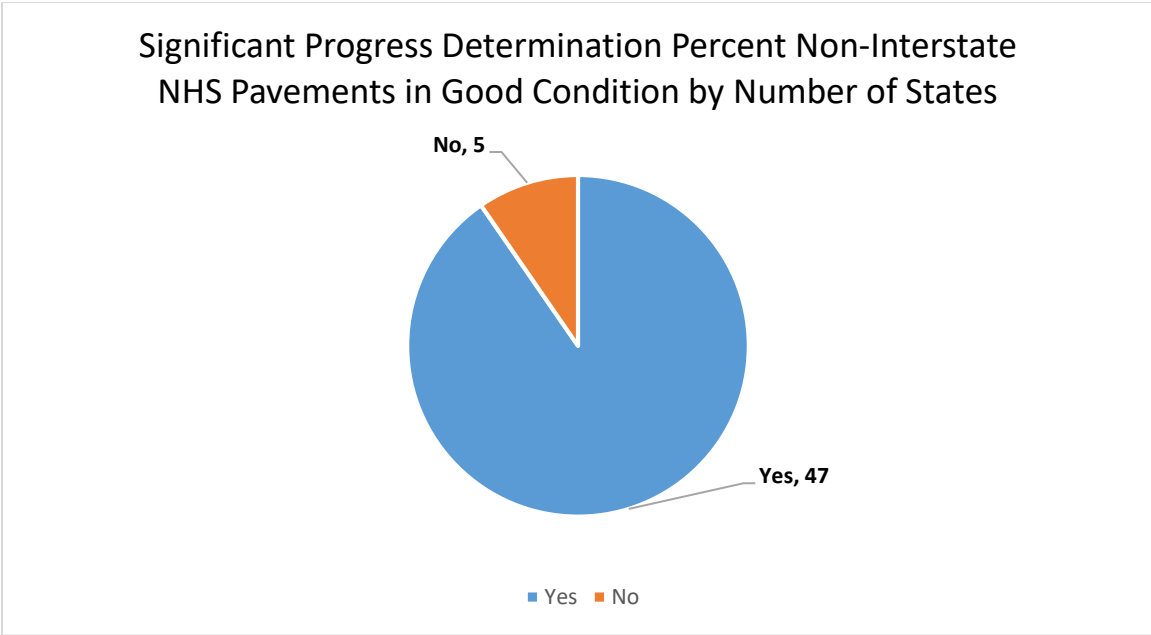
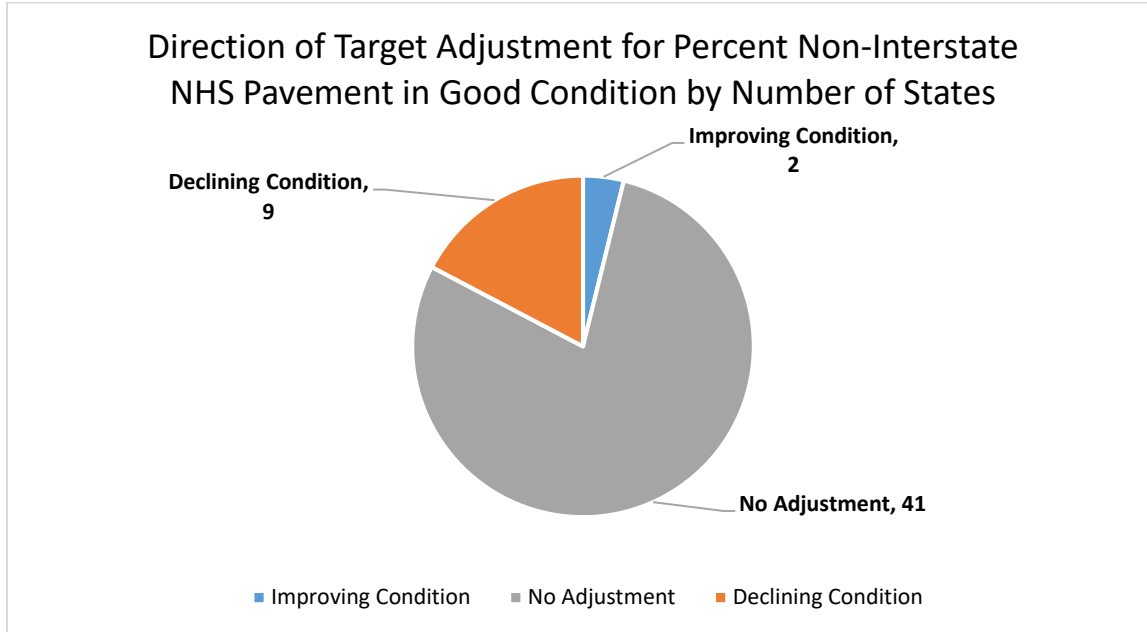


Figure 18: Significant Progress Determination for Non-Interstate NHS Pavements in Good Condition by Number of States

*Target Adjustment*

As part of the 2020 mid performance period data submission, State DOTs could adjust their 4-year targets. Figure 19 provides the number of States that adjusted targets, and whether the adjustments reflect an improvement or decline compared to the original 4-year target for the percent non-Interstate pavements in Good Condition.



*Figure 19: Direction of Target Adjustment for Percent non-Interstate NHS Pavement in Good Condition by Number of States*

Figure 20 illustrates the number of States that made improving, declining, or no adjustments to their percent non-Interstate NHS pavement in Good condition 4-year targets categorized by their significant progress determination.



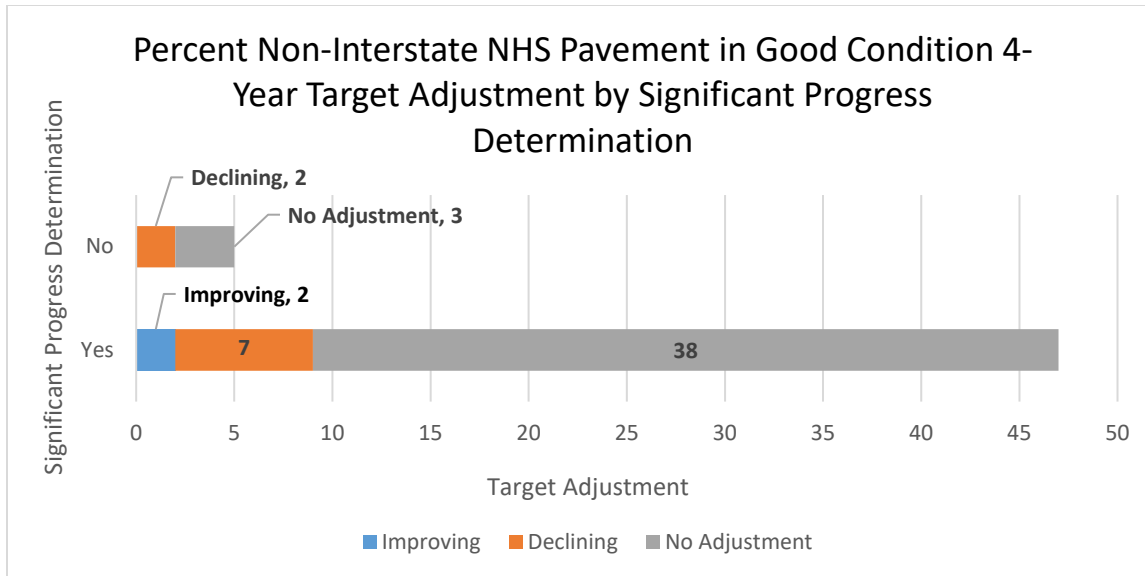


Figure 20: Percent non-Interstate NHS Pavement in Good Condition 4-Year Target Adjustment by Significant Progress Determination

### Percentage of Pavement of Non-Interstate NHS in Poor Condition

Figure 21 displays the 2019 distribution of the percent of non-Interstate NHS pavement in Poor condition across the States (IRI only), showing the number of States with condition in each category.

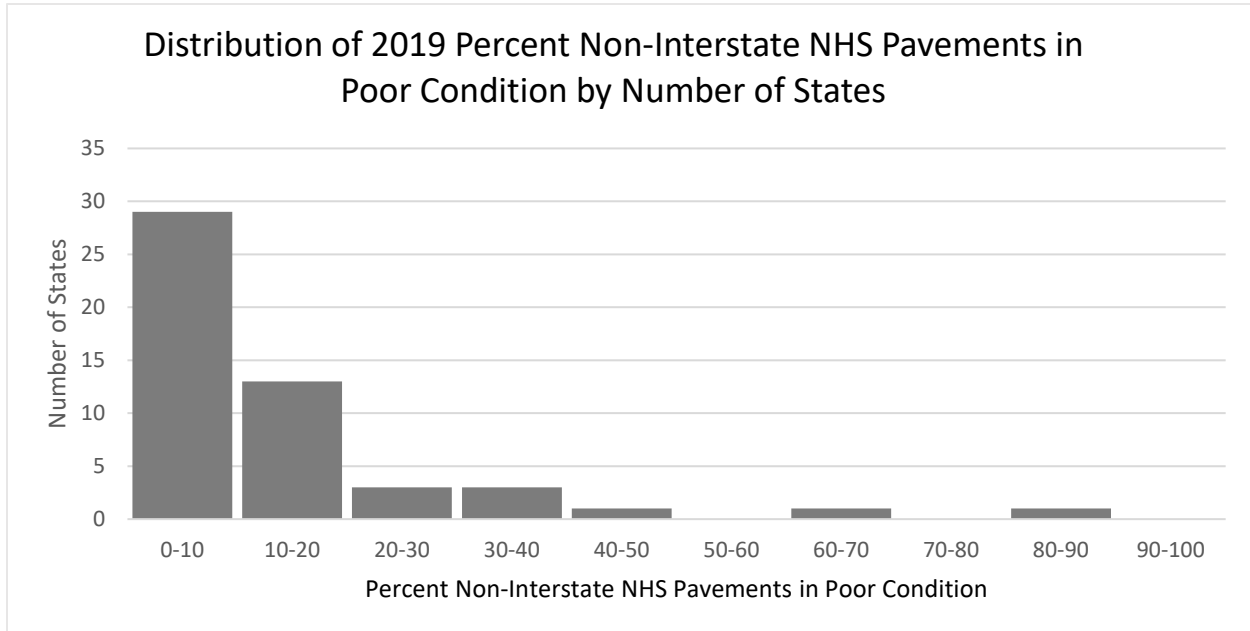
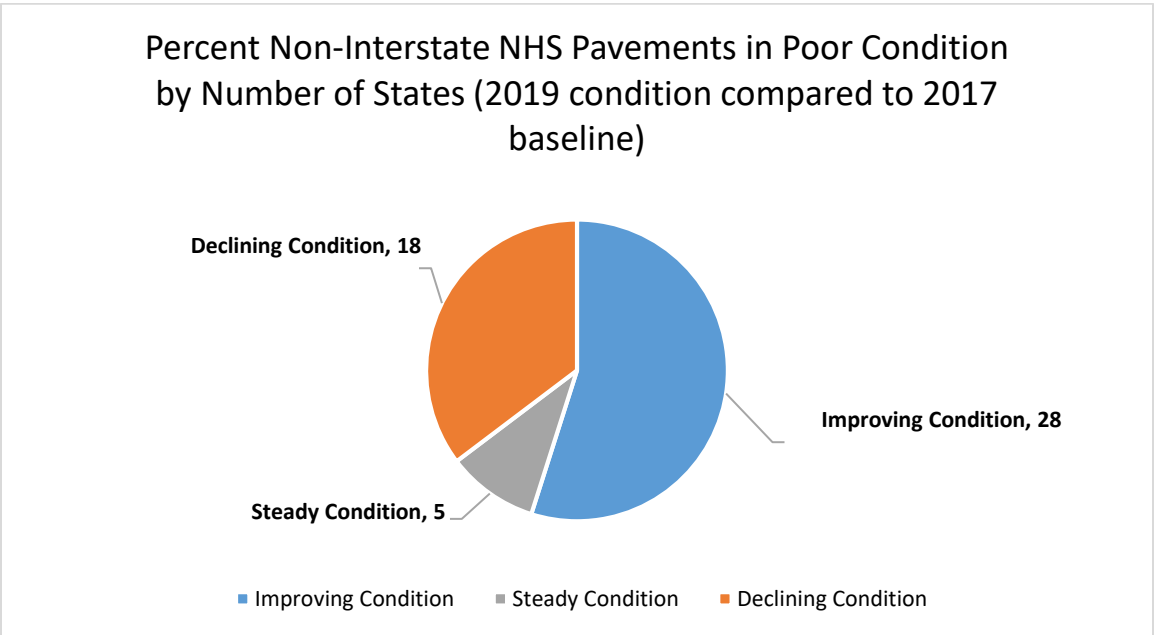


Figure 21: Distribution of 2019 Percent Non-Interstate NHS Pavements in Poor Condition by Number of States (IRI only)

*Comparing 2019 and 2017 Condition and Significant Progress Determination*

Figure 22 shows the number of State DOTs with improving, steady, or declining condition for percent of NHS bridges in Poor condition by deck area when comparing the 2019 condition with the 2017 baseline.



*Figure 22: Percent Non-Interstate NHS Pavements in Poor Condition by Number of States (2019 condition compared to 2017 baseline)*

There are two ways to evaluate whether a State has made significant progress toward its performance target. If the actual outcome for a performance measure is equal to or better than the target, the target was met. If a State has not met a target, FHWA will determine if the actual outcome for the target is better than the baseline performance for that target.

Figure 23 shows the 2020 Mid Performance Period significant progress determination for the percent Non-Interstate NHS Pavements in Poor condition by number of States.

### Significant Progress Percent Non-Interstate NHS Pavements in Poor Condition by Number of States

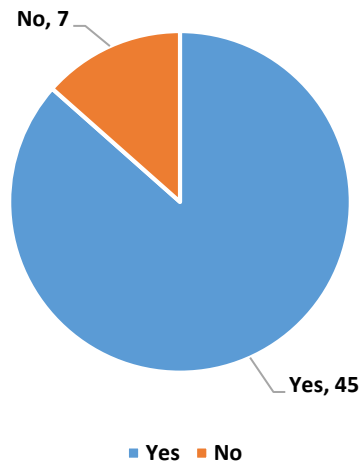


Figure 23: Significant Progress Determination for Non-Interstate NHS Pavements in Poor Condition by Number of States

#### Target Adjustment

As part of the 2020 mid performance period data submission, State DOTs could adjust their 4-year targets. Figure 24 provides the number of States that adjusted targets, and whether the adjustments reflect an improvement or decline compared to the original 4-year target.

### Direction of Target Adjustment for Percent Non-Interstate NHS Pavement in Poor Condition by Number of States

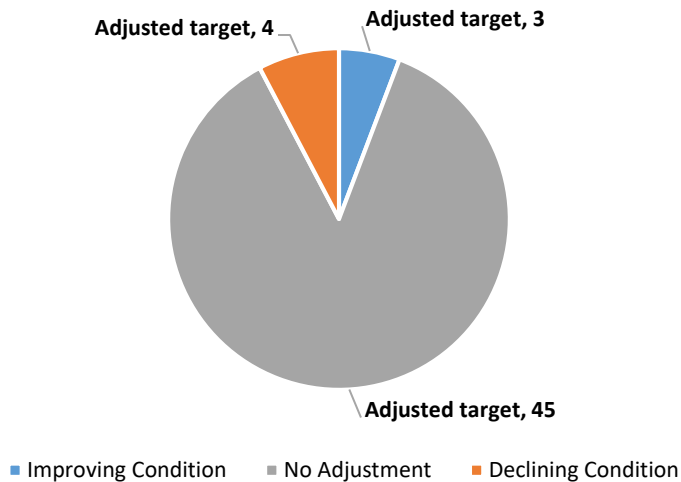


Figure 24: Direction of Target Adjustment for Percent non-Interstate NHS Pavement in Poor Condition by Number of States

Figure 25 illustrates the number of States that made improving, declining, or no adjustments to their percent non-Interstate NHS pavement in Poor condition 4-year targets categorized their significant progress determination.

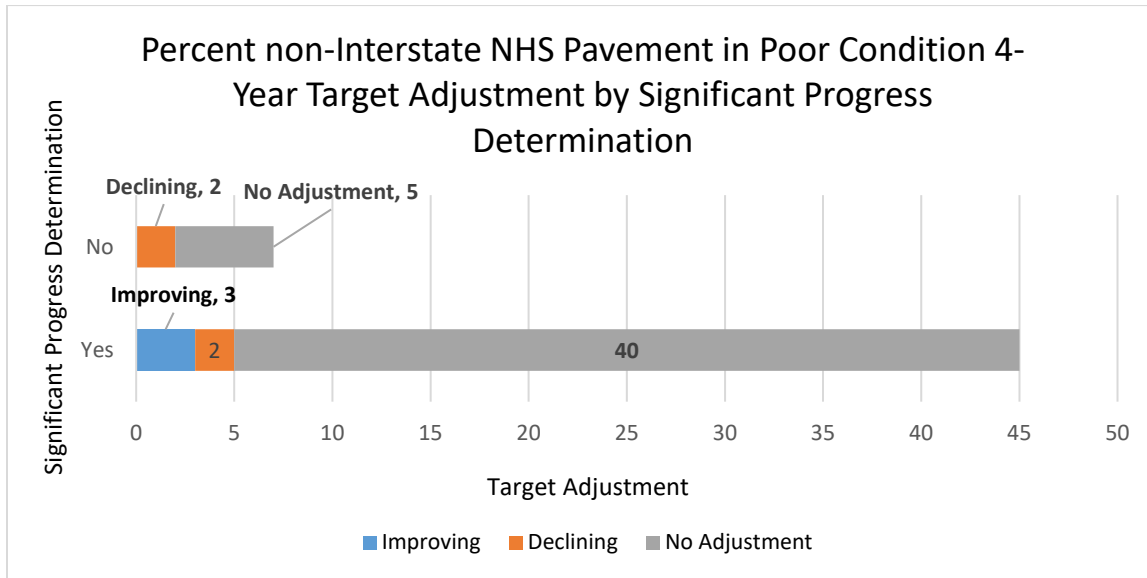


Figure 25: Percent non-Interstate NHS Pavement in Poor Condition 4-Year Target Adjustment by Significant Progress Determination

## Bridge Measures

As previously shown in Table 1, there are two performance measures associated with bridge condition:

- Percentage of NHS bridges classified as in Good condition
- Percentage of NHS bridges classified as in Poor condition

Table 6 provides additional background information on the bridge performance measures.

*Table 6: Background on Bridge Measures*

Criteria	NHS Bridges
Applicability	Bridges carrying the NHS, which includes on- and off-ramps connected to the NHS and State border bridges.
Measure Data Collection	Data collection varies. <sup>46</sup> Annual metric reporting to National Bridge Inventory (NBI) by March 15.
Metric(s)	Bridge condition ratings for Deck, Superstructure, Substructure, and Culvert. <sup>47</sup>
Measure Calculation	Percentage of bridges carrying NHS classified as in Good and Poor condition weighted by deck area.
State DOT Target Requirements	2-year and 4-year statewide targets.
Target Phase-In	N/A

### Percentage of NHS Bridges Classified as in Good Condition

Figure 26: displays the distribution of the percent of NHS bridges in Good condition by deck area across the States based on the 2019 data, showing the number of States with condition in each category.

<sup>46</sup> Data collection cycle varies; however, 24 months for most of bridges. Please see the Recording and Coding Guide for the Structure Inventory and Appraisal of the Nation's Bridges <https://www.fhwa.dot.gov/bridge/bripub.cfm>

<sup>47</sup>FHWA Computation Procedure for the Bridge Condition Measures <https://www.fhwa.dot.gov/tpm/guidance/>

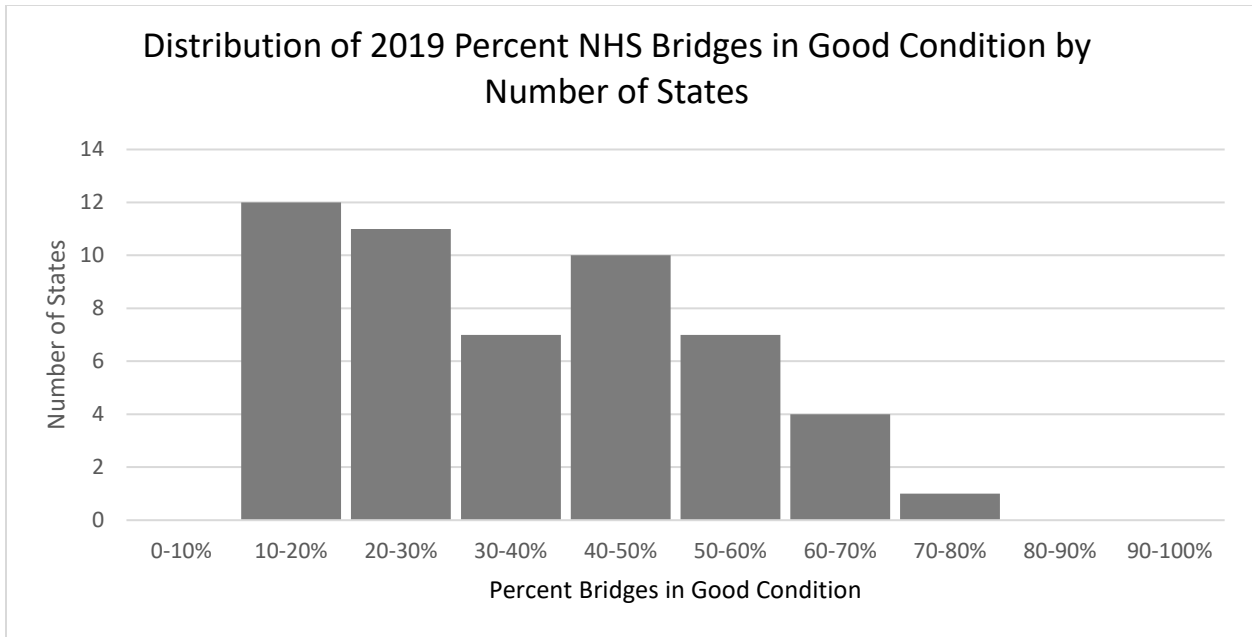


Figure 26: Distribution of 2019 performance for NHS Bridges in Good Condition by Number of States

*Comparing 2019 and 2017 Condition and Significant Progress Determination*

Figure 27 shows the number of State DOTs with improving, steady, or declining condition for percent of NHS bridges in Good condition by deck area when comparing the 2019 condition with the 2017 baseline.

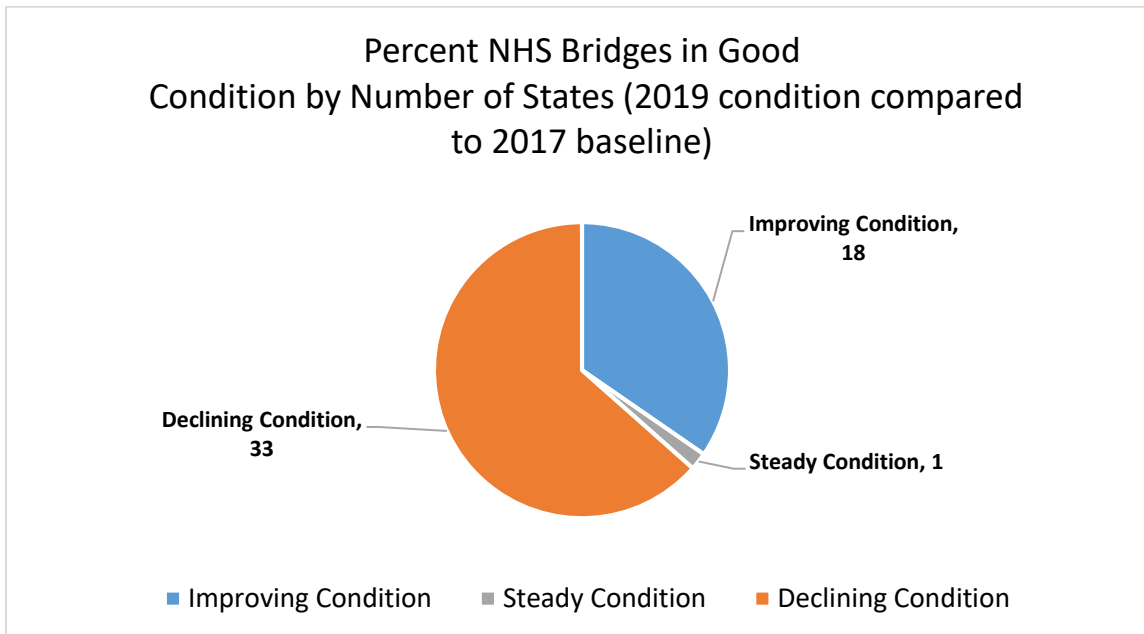


Figure 27: Percent NHS Bridges in Good Condition by Number of States (2019 condition compared to 2017 baseline)

There are two ways to evaluate whether a State has made significant progress toward its performance target. If the actual outcome for a performance measure is equal to or better than the target, the target was met. If a State has not met a target, FHWA will determine if the actual outcome for the measure is better than the baseline performance.

Figure 28 shows the 2020 Mid Performance Period significant progress determination for the Percent NHS bridges in Good condition by number of States.

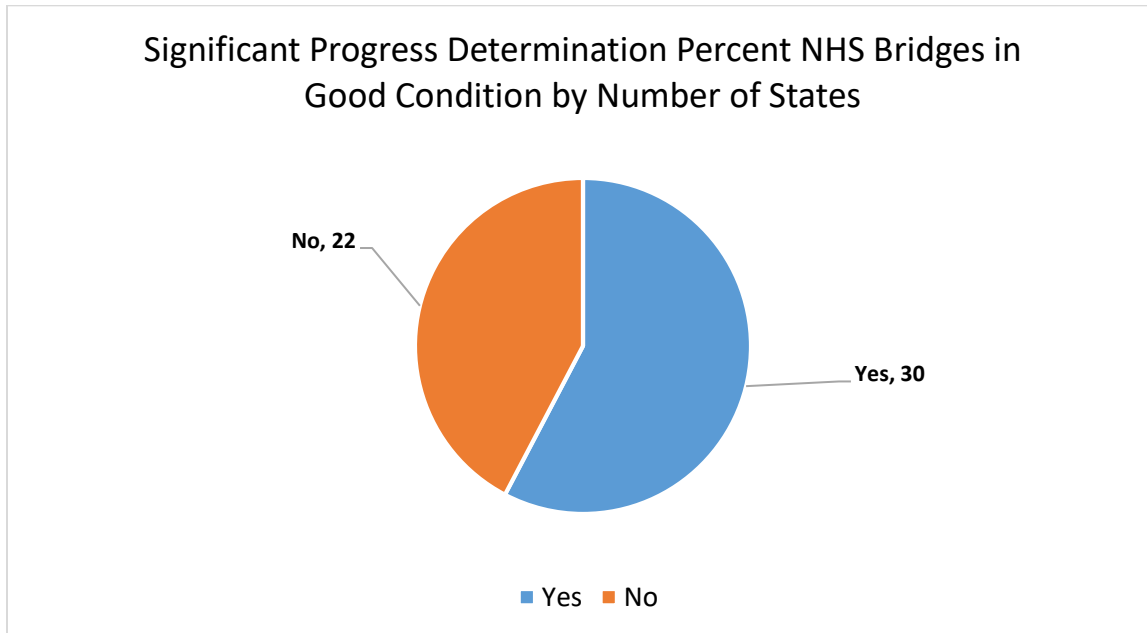


Figure 28: Significant Progress Determination for NHS Bridges in Good Condition by Number of States

#### *Target Adjustment*

As part of the 2020 Mid Performance Period progress report, State DOTs could adjust their 4-year targets.

Figure 29 provides the number of States that adjusted targets, and whether the adjustments reflect an improvement or decline compared to the original 4-year target.

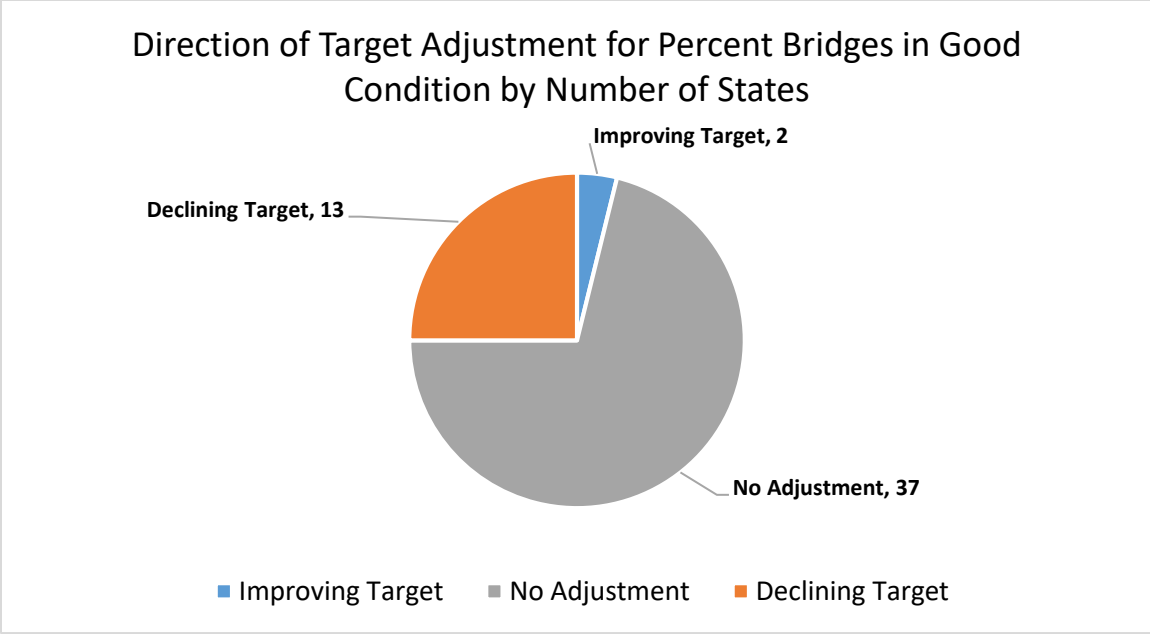


Figure 29: Direction of Target Adjustment for Percent NHS Bridges in Good Condition by Number of States

Figure 30 illustrates the number of States that made improving, declining, or no adjustments to their percent bridges in Good condition 4-year targets, categorized by their significant progress determination.

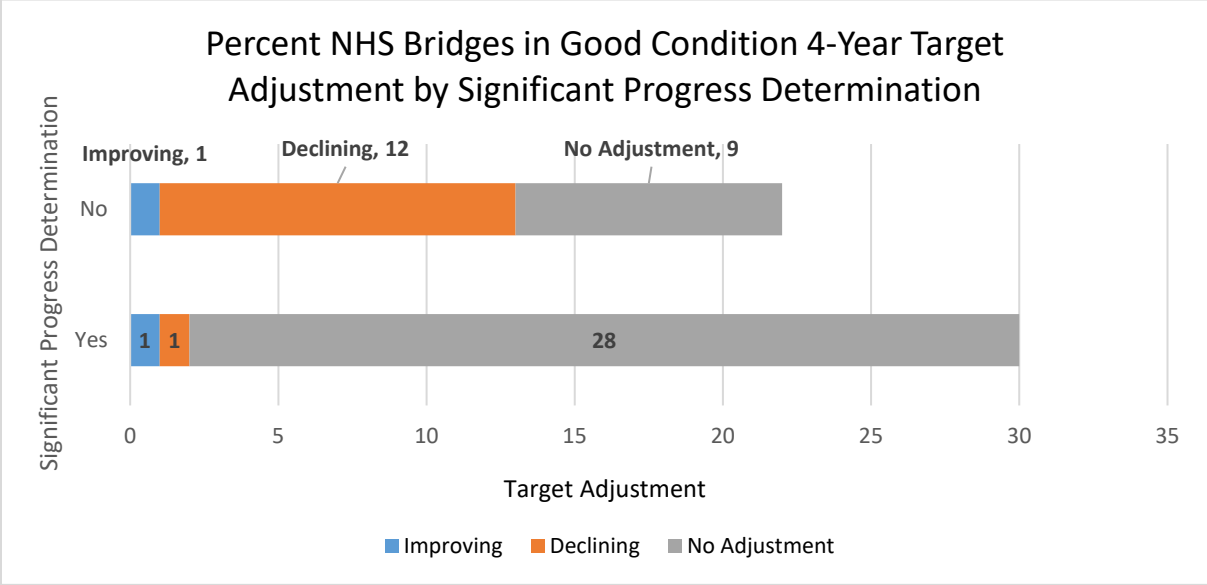


Figure 30: Percent NHS Bridges in Good Condition 4-Year Target Adjustment by Significant Progress Determination

Figure 31 shows the number of State DOTs with 4-year targets reflecting improving, steady, or declining condition for percent of NHS bridges in Good condition by deck area compared to the 2017 baseline. As a result of the target adjustments, four States moved from improving to declining condition.



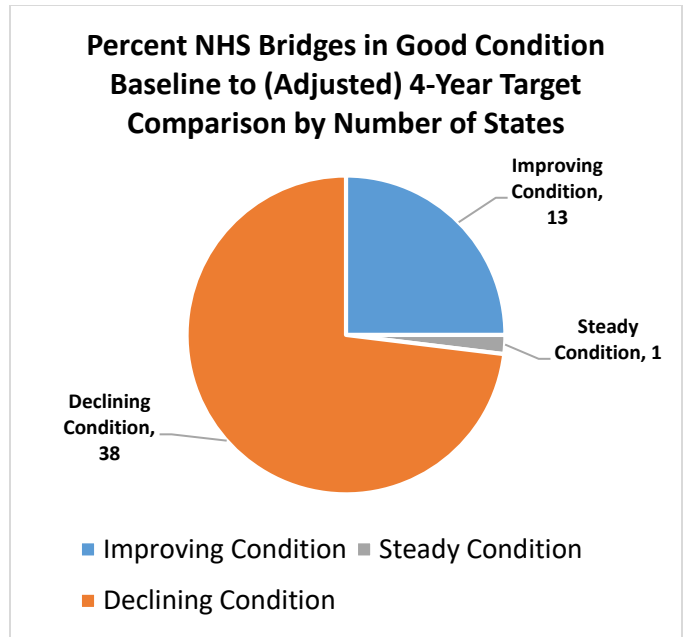
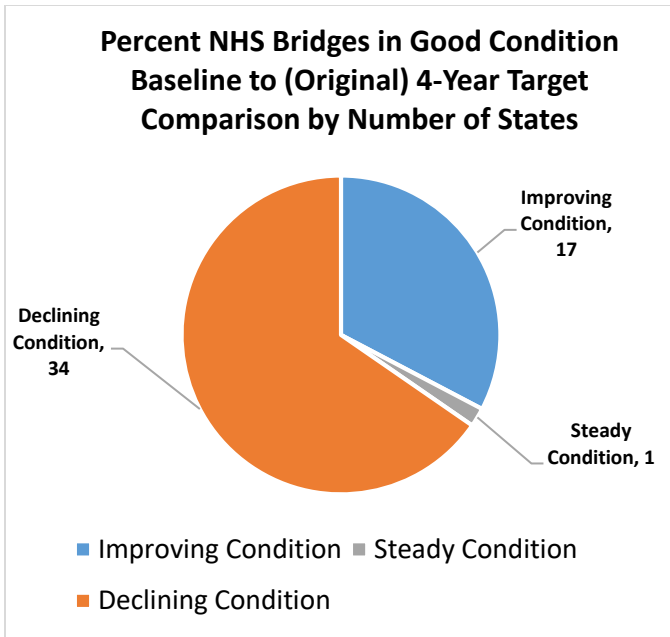


Figure 31: Percent NHS Bridges in Good Condition Baseline to 4-year Target Comparison by Number of States

### Percentage of NHS Bridges Classified as in Poor Condition

Figure 32 displays the 2019 distribution of the percent of NHS bridges in Poor condition by deck area across the States, showing the number of States with condition in each category.

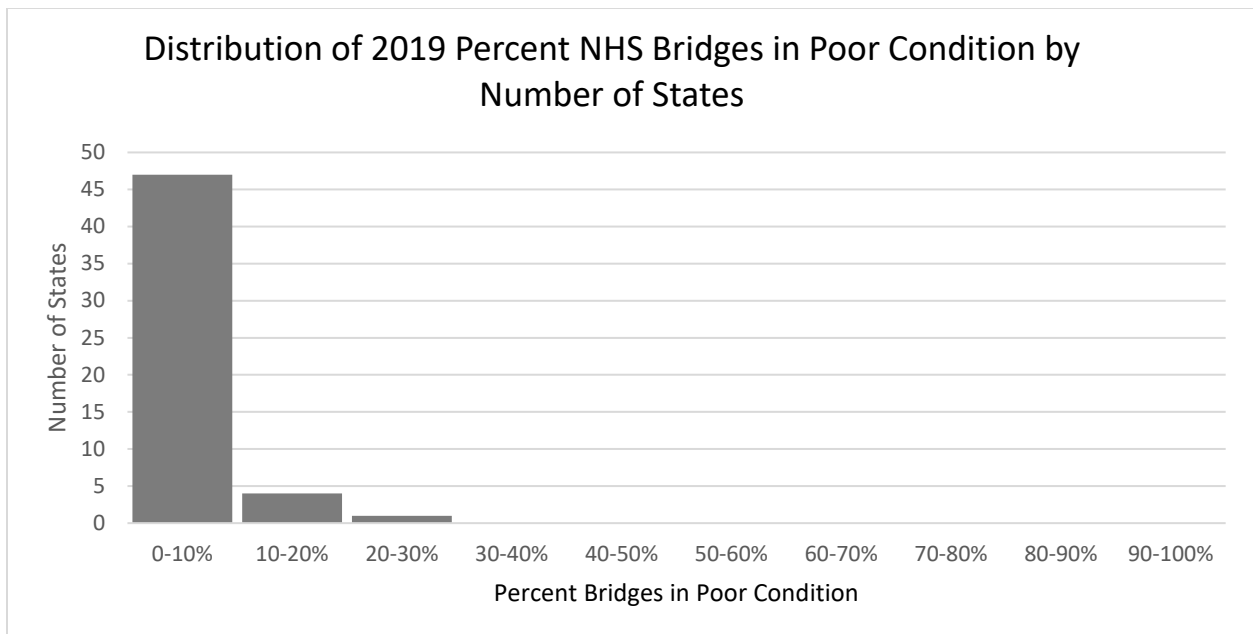
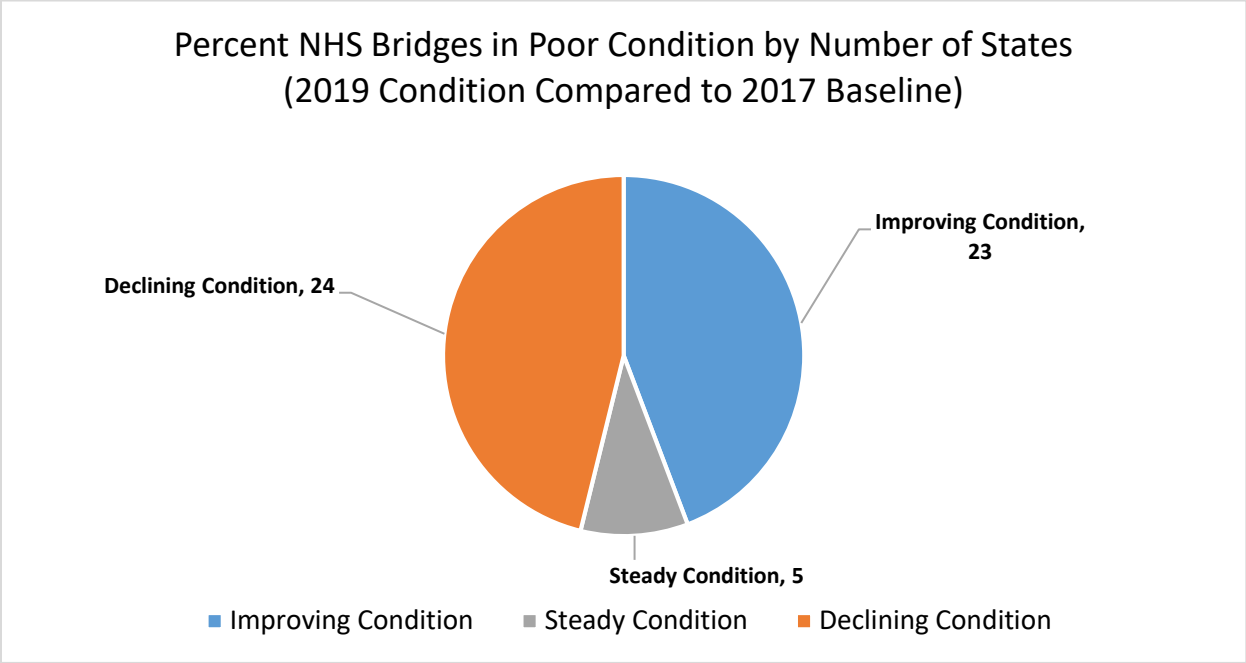


Figure 32: Distribution of 2019 Percent NHS Bridges in Poor Condition by Number of States

*Comparing 2019 and 2017 Condition and Significant Progress Determination*

Figure 33 shows the number of State DOTs that set targets reflecting improving, steady, or declining condition for percent of NHS bridges in Poor condition by deck area when comparing 2019 condition with the 2017 baseline.



*Figure 33: Percent NHS Bridges in Poor Condition by Number of States (2019 condition compared to 2017 baseline)*

There are two ways to evaluate whether a State has made significant progress toward its performance target. If the actual outcome for a performance measure is equal to or better than the target, the target was met. If a State has not met a target, FHWA will determine if the actual outcome for the measure is better than the baseline performance.

Figure 34 shows the 2020 Mid Performance Period significant progress determination for the Percent bridges in Poor condition by number of States.

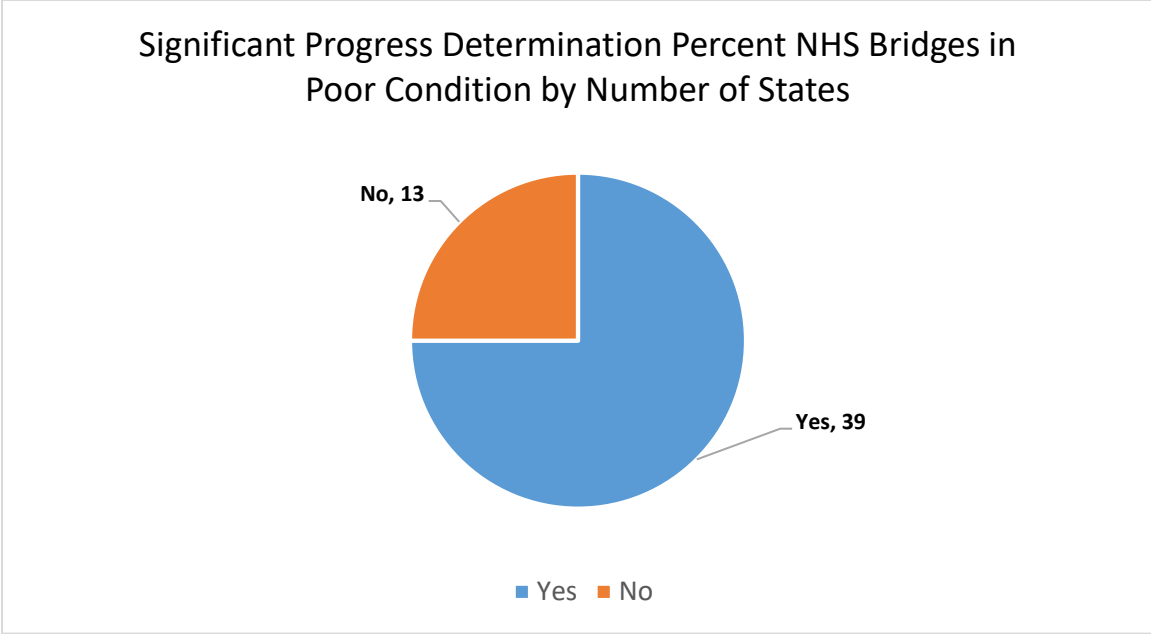


Figure 34: Significant Progress Determination for NHS Bridges in Poor Condition by Number of States

*Target Adjustment*

As part of the 2020 mid performance period data submission, State DOTs could adjust their 4-year targets. Figure 35 provides the number of States that adjusted targets, and whether the adjustments reflect an improvement or decline.

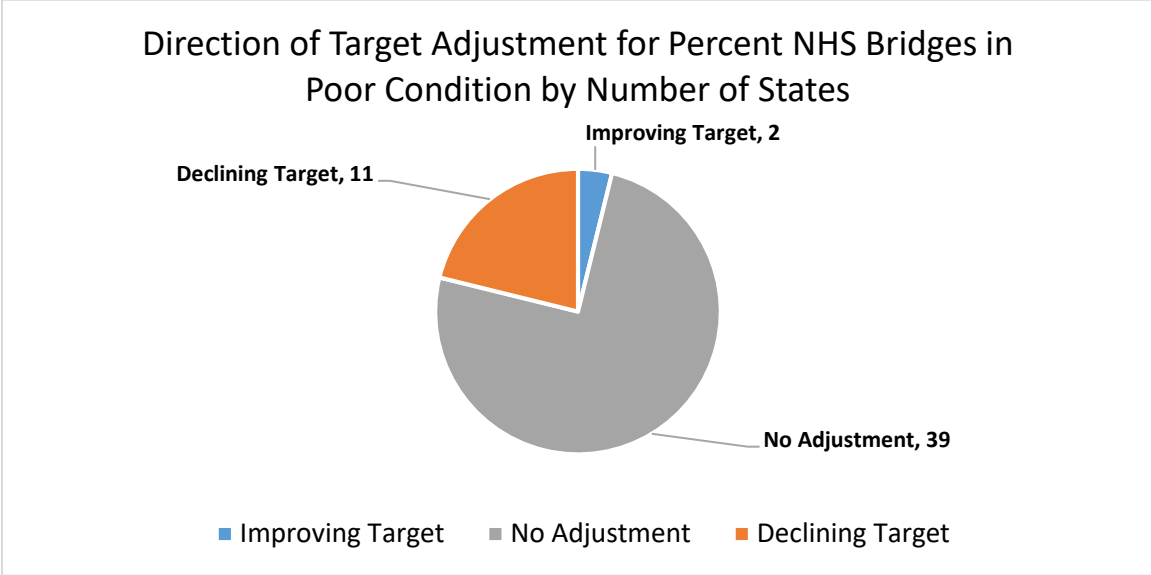


Figure 35: Direction of Target Adjustment for Percent NHS Bridges in Poor Condition by Number of States

Figure 36 illustrates the number of States that made improving, declining, or no adjustments to their percent NHS Bridges in Poor condition 4-year targets categorized by their significant progress determination.

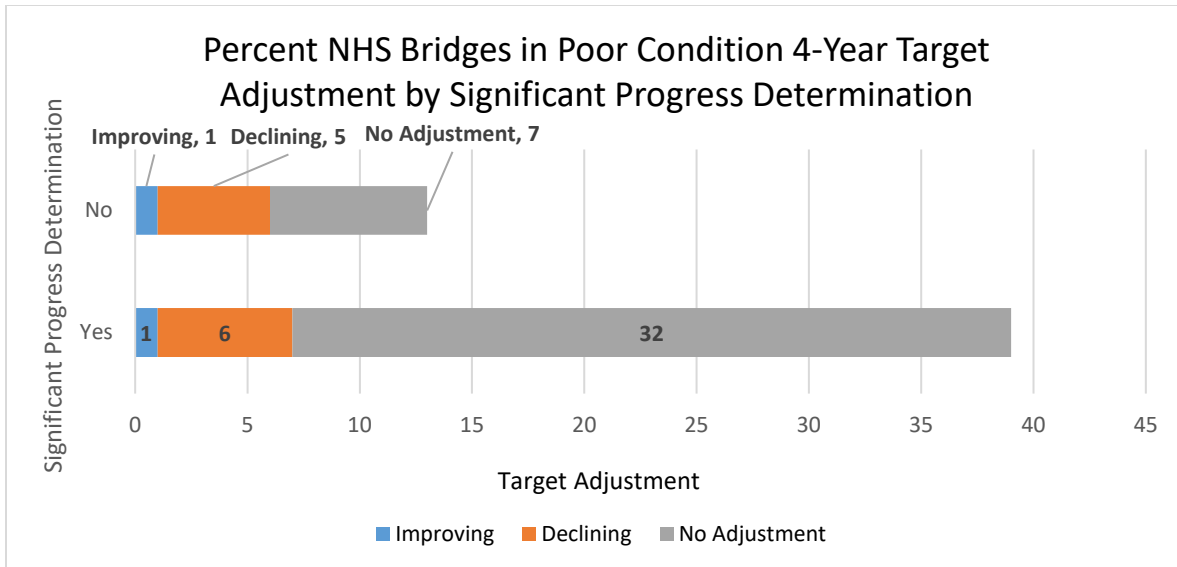


Figure 36: Percent NHS Bridges in Poor Condition 4-Year Target Adjustment by Significant Progress Determination

Figure 37 shows the number of State DOTs that set targets reflecting improving, steady, or declining condition for percent of NHS Bridges in Poor Condition by deck area when comparing 2017 baseline with the 4-year target. As a result of the target adjustments, three States moved from improving to declining condition and one State moved from steady to declining condition.

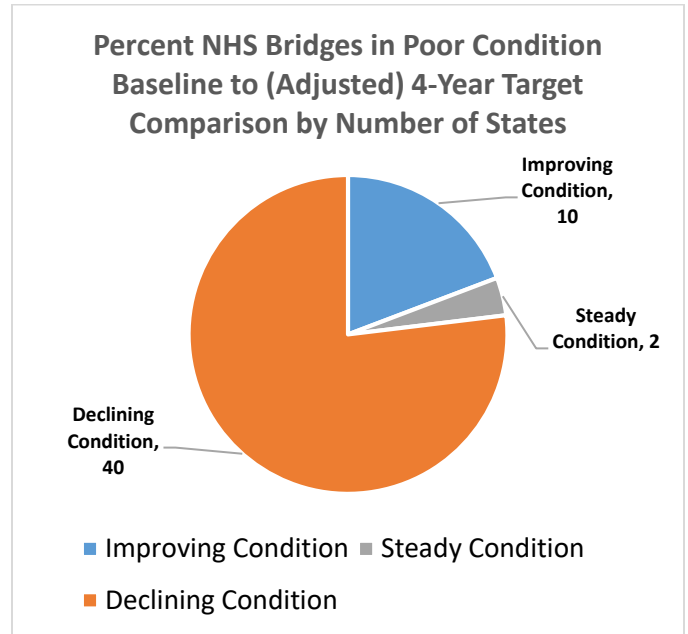
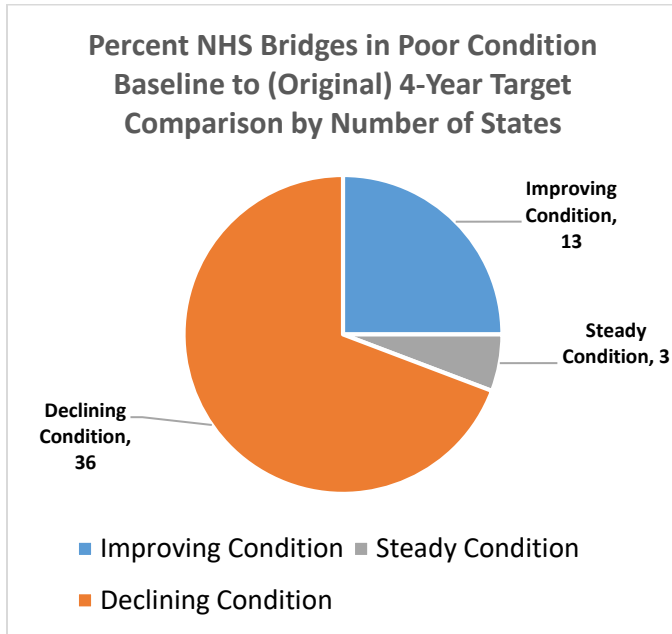


Figure 37: Percent NHS Bridges in Poor Condition Baseline to 4-Year Target Comparison by Number of States

## Travel Time Reliability

As previously shown in Table 1, there are two performance measures associated with travel time reliability:

- Percentage of person-miles traveled on the Interstate that are reliable
- Percentage of person-miles traveled on the non-Interstate NHS that are reliable

Table 7 provides additional background information on the travel time reliability performance measures.

*Table 7: Background on Travel Time Reliability Measures*

Criteria	Travel Time Reliability
Applicability	Mainline of the Interstate System or Non-Interstate NHS.
Measure Data Collection	All traffic/vehicle travel time data in National Performance Management Research Data Set (NPMRDS) or equivalent dataset. Annual metric reporting to HPMS by June 15. <sup>48</sup>
Metric(s)	Level of Travel Time Reliability (LOTTR) <sup>49</sup> - 80th percentile travel time divided by the 50th percentile travel time. Four LOTTR metrics are calculated for each reporting segment: <sup>50</sup> <ul style="list-style-type: none"> <li>• “AM Peak” (6am-10am) for every weekday;</li> <li>• “Midday” (10am-4pm) for every weekday;</li> <li>• “PM Peak” (4pm-8pm) for every weekday; and</li> <li>• “Weekend” (6am-8pm) for every weekend day.</li> </ul>
Measure Calculation	Percent of Interstate or non-Interstate NHS direction-miles of reporting segments (weighted by person miles traveled) with "LOTTR < 1.5" for all 4 time periods. <sup>51</sup>
State DOT Target Requirements	2-year and 4-year statewide targets. <sup>52</sup>
Target Phase-In	<i>For Non-Interstate NHS:</i> For the first performance period only, no 2-year targets or baseline data were reported; State DOTs only reported 4-year targets.

<sup>48</sup> 23 CFR 490.511(e)

<sup>49</sup> For each segment, the data is used to create a ranked list of all travel times within 15-minute periods for each day. This is then used to calculate the LOTTR metric for each reporting segment for each of the 4 time periods.

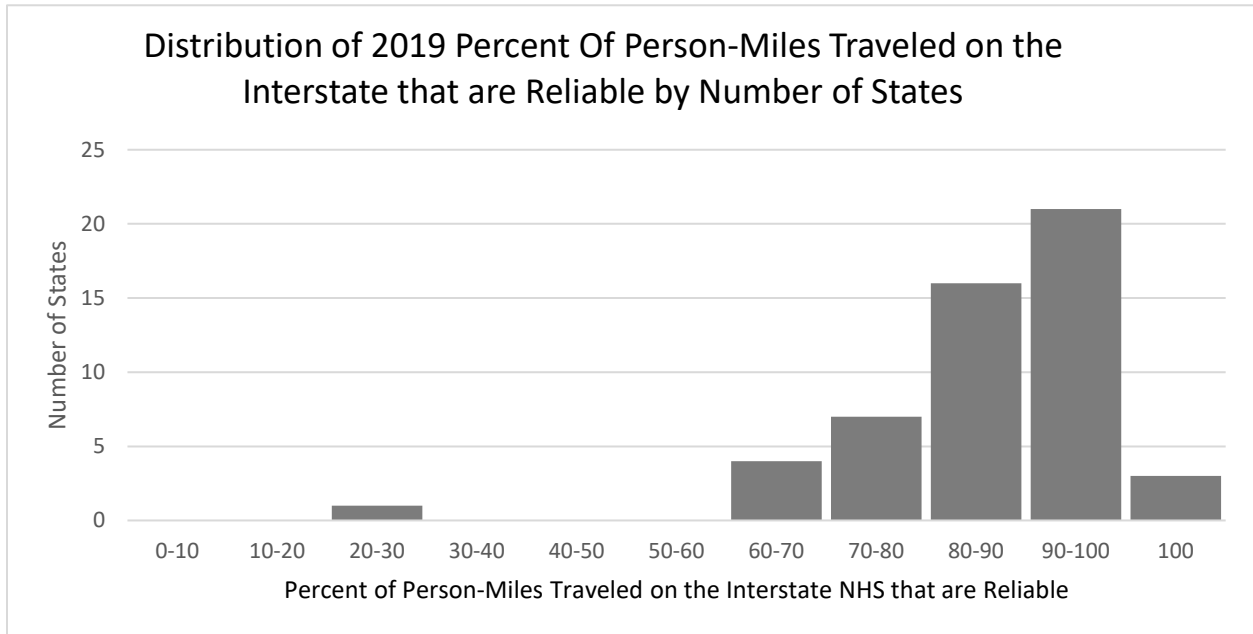
<sup>50</sup> 23 CFR 490.511(b)(1)

<sup>51</sup> FHWA Computation Procedure for the Bridge Condition Measures <https://www.fhwa.dot.gov/tpm/guidance/>

<sup>52</sup> 23 CFR 490.105(e)(4)(iii) and (iv) and 23 CFR 490.105(e)(7)(i) and (ii)

## Percentage of Person-Miles Traveled on the Interstate that are Reliable

Figure 38 displays the 2019 distribution of the percent of person-miles traveled on the Interstate that are reliable across the States. The improving trend for this measure is upward, to have more person-miles traveled as reliable. The improving trend for the distribution is rightward, with more States moving to a higher percentage of person-miles traveled that are reliable.



*Figure 38: Distribution of 2019 Percentage of Person-Miles Traveled on the Interstate that are Reliable by Number of States*

### *Comparing 2019 and 2017 Condition and Significant Progress Determination*

Figure 39 provides the number of State DOTs with improving, steady, or declining percent of reliable person-miles traveled on the Interstate when comparing the 2019 condition with the 2017 baseline.

Percent of Reliable Person-Miles Traveled on the Interstate  
by Number of States (2019 condition compared to 2017  
baseline)

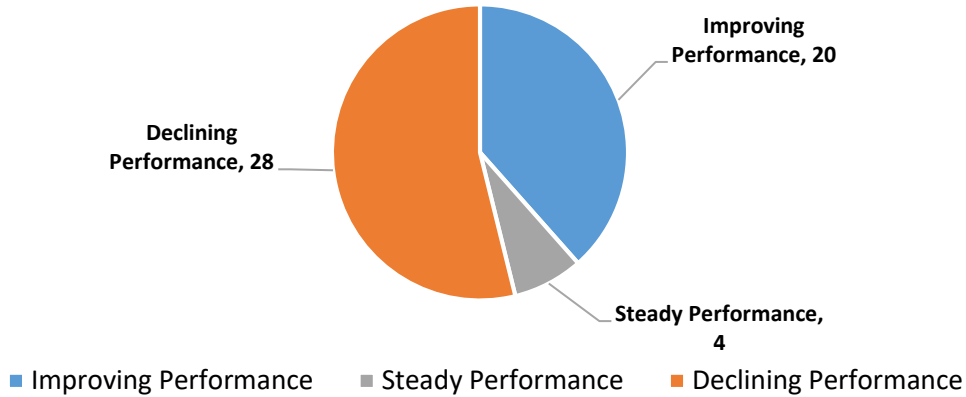


Figure 39: Percent of Reliable Person-Miles Traveled on the Interstate by Number of States (2019 condition compared to 2017 baseline)

There are two ways to evaluate whether a State has made significant progress toward its performance target. If the actual outcome for a performance measure is equal to or better than the target, the target was met. If a State has not met a target, FHWA will determine if the actual outcome for the measure is better than the baseline performance. Figure 40 shows the 2020 Mid Performance Period significant progress determination for the percent person-miles traveled on the Interstate that are reliable by number of States.

Significant Progress Determination Percent Person-Miles  
Traveled on the Interstate that are Reliable by Number of  
States

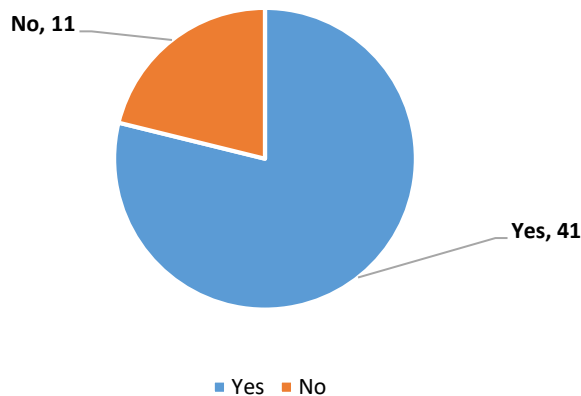


Figure 40: Significant Progress Determination for Percent Person-Miles Traveled on the Interstate that are Reliable by Number of States

### Target Adjustment

As part of the 2020 mid performance period data submission, State DOTs could adjust their 4-year targets.

Figure 41 provides the number of States that adjusted targets, and whether the adjustments reflect an improvement or decline compared to the original 4-year target.

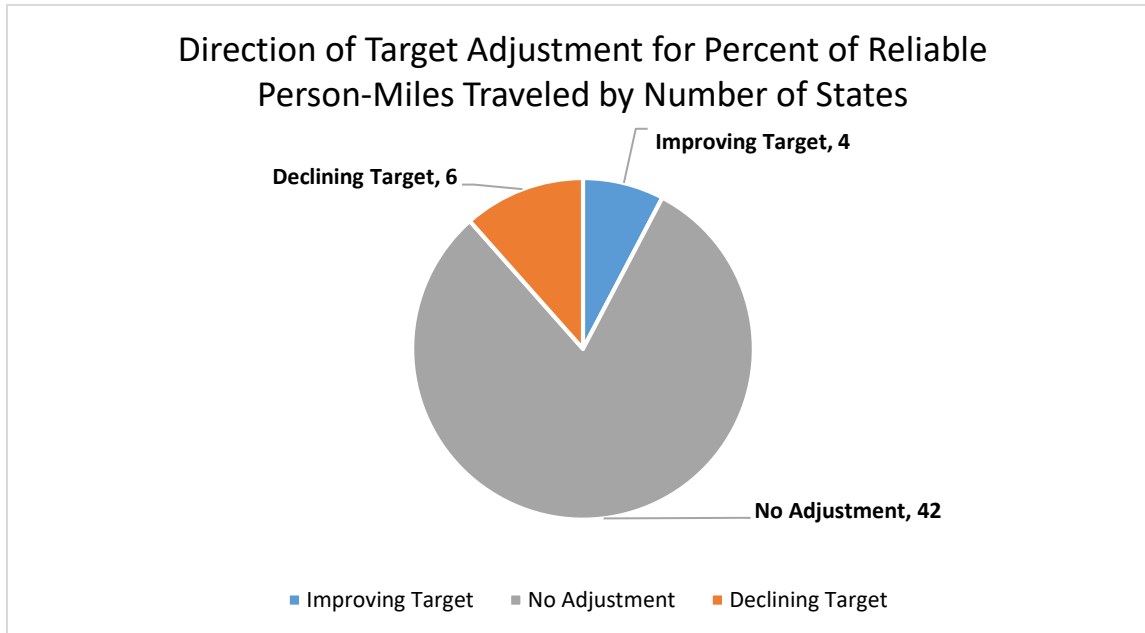


Figure 41: Direction of Target Adjustment for Percent of Reliable Person-Miles Traveled by Number of States

Figure 42 illustrates the number of States that made improving, declining, or no adjustments to their percent of reliable person-miles traveled 4-Year targets categorized by their significant progress determination.



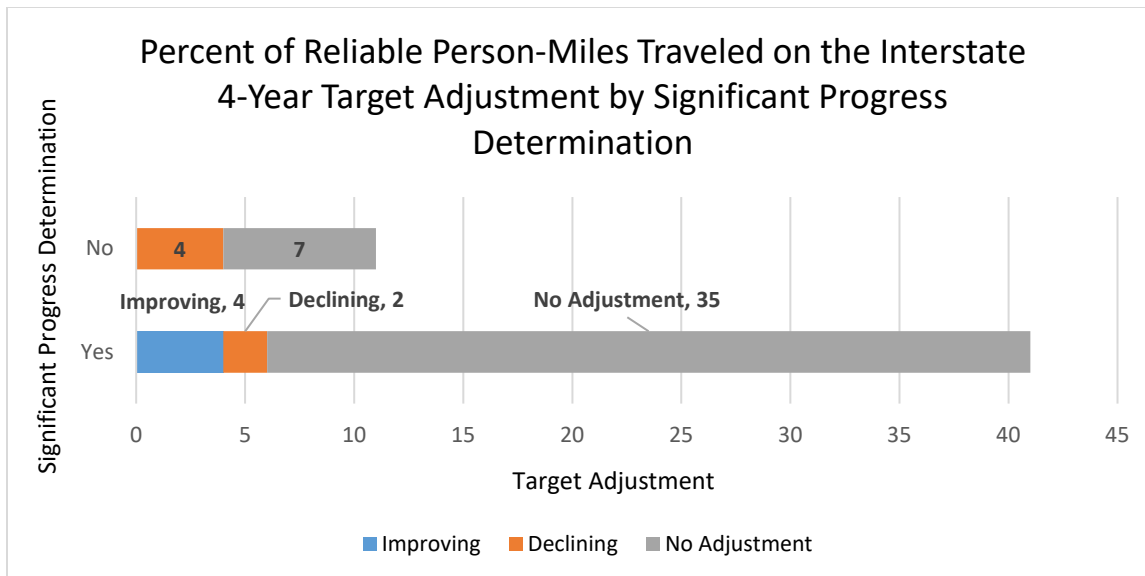


Figure 42: Percent of Reliable Person-Miles Traveled on the Interstate 4-Year Target Adjustment by Significant Progress Determination

Figure 43 shows the number of State DOTs that set targets reflecting improving, steady, or declining condition for percent of Reliable Person-Miles Traveled on the Interstate when comparing the 2017 baseline with the 4-Year target. As a result of the target adjustments, there are no overall changes in the comparison between baseline and 4-year target.

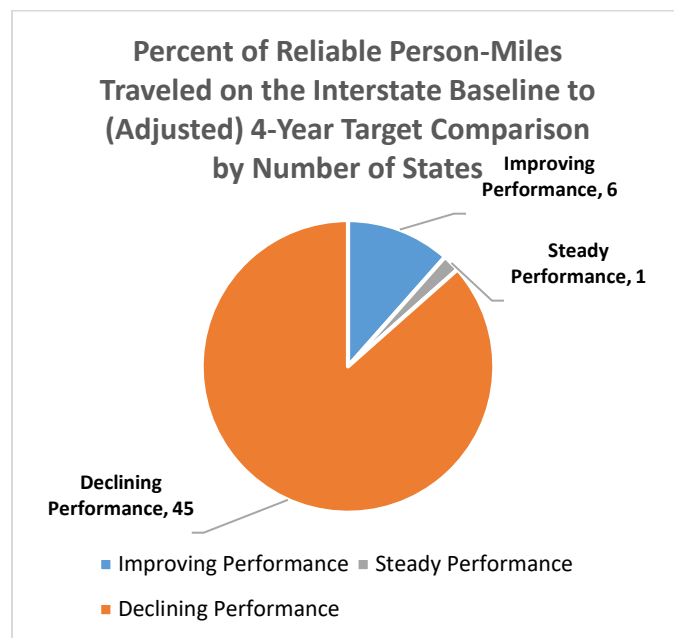
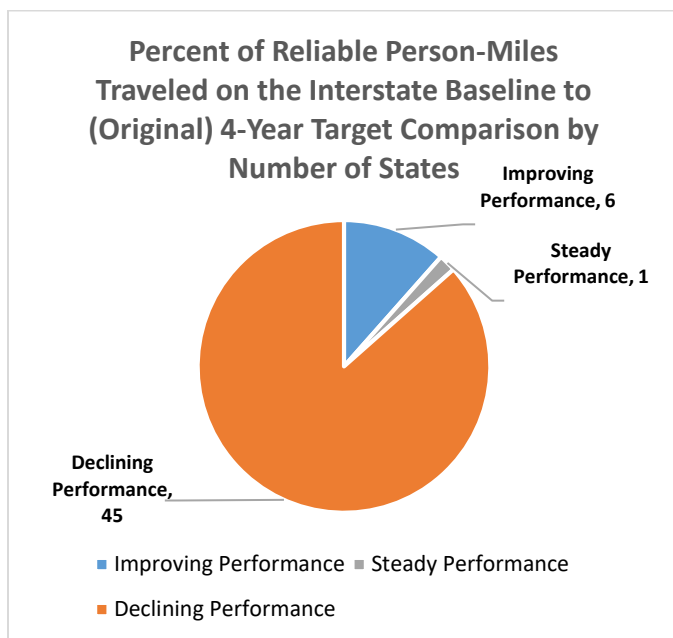


Figure 43: Percent of Reliable Person-Miles Traveled on the Interstate Baseline to 4-year Target Comparison by Number of States

Percentage of Person-Miles Traveled on the non-Interstate NHS that are Reliable  
 For the October 2018 Report, State DOTs were required only to submit 4-year targets for the percent of

person-miles traveled on the non-Interstate NHS that are reliable.<sup>53</sup> The 2019 data submission was the first time that State DOTs were required to submit performance measure data on non-Interstate NHS travel time reliability; the 2019 data is therefore treated as the baseline.

Figure 44 displays the 2019 baseline distribution of the percent of person-miles traveled on the non-Interstate NHS that are reliable, showing the number of States with performance in each category.

The improving trend for this measure is upward, to have more person-miles traveled on the non-Interstate NHS that are reliable. The improving trend for the distribution is rightward, with more States moving to a higher percentage of person-miles traveled that are reliable.

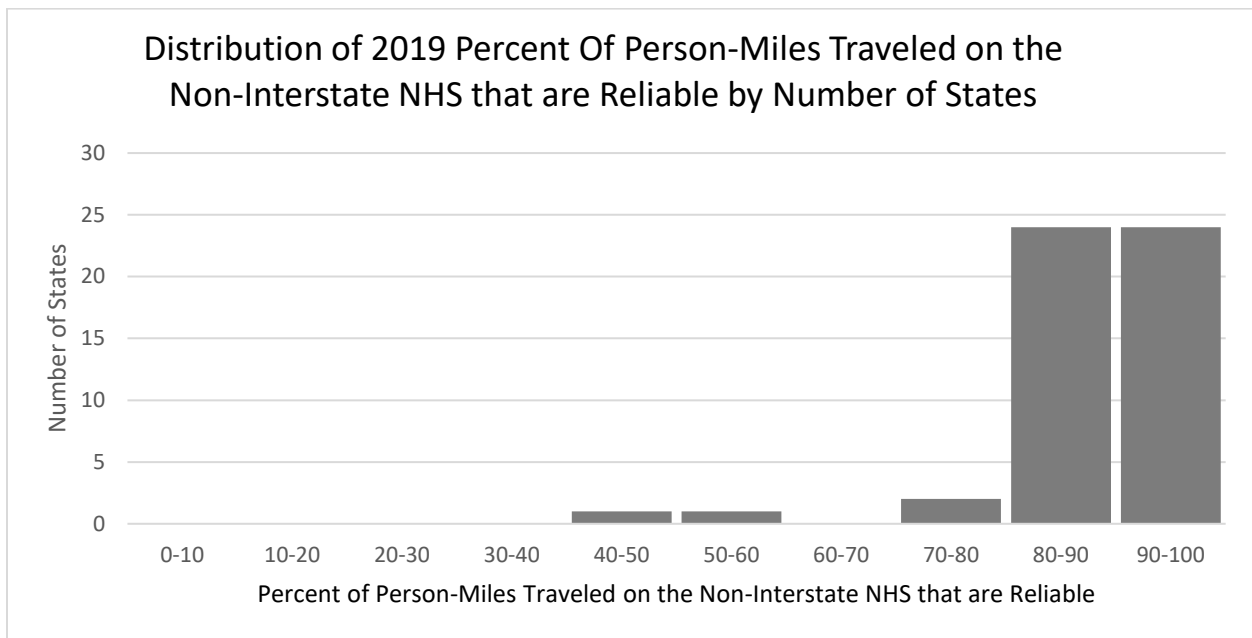


Figure 44: Distribution of 2019 Person-Miles Traveled on the non-Interstate NHS that are Reliable by Number of States

#### Target Adjustment

As part of the 2020 mid performance period data submission, State DOTs could adjust their 4-year targets.

Figure 45 provides the number of States that adjusted targets, and whether the adjustments reflect an improvement or decline compared to the original 4-year target.

<sup>53</sup> 23 CFR 490.105(e)(7)(i) and (ii)

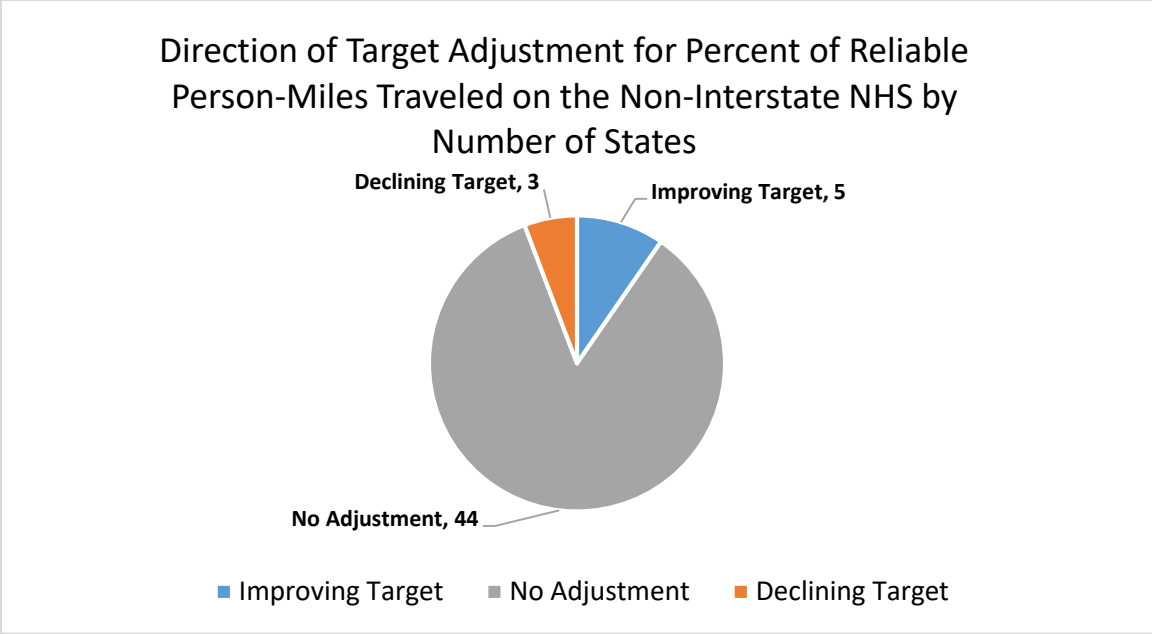


Figure 45: Direction of Target Adjustment for Percent of Reliable Person-Miles Traveled on the Non-Interstate NHS by Number of States

Figure 46 shows the number of State DOTs that set targets reflecting improving, steady, or declining condition for percent of Reliable Person-Miles Traveled on the Non-Interstate NHS when comparing 2019 baseline with the 4-Year target. As a result of the target adjustments, one State switched from improving to declining target.

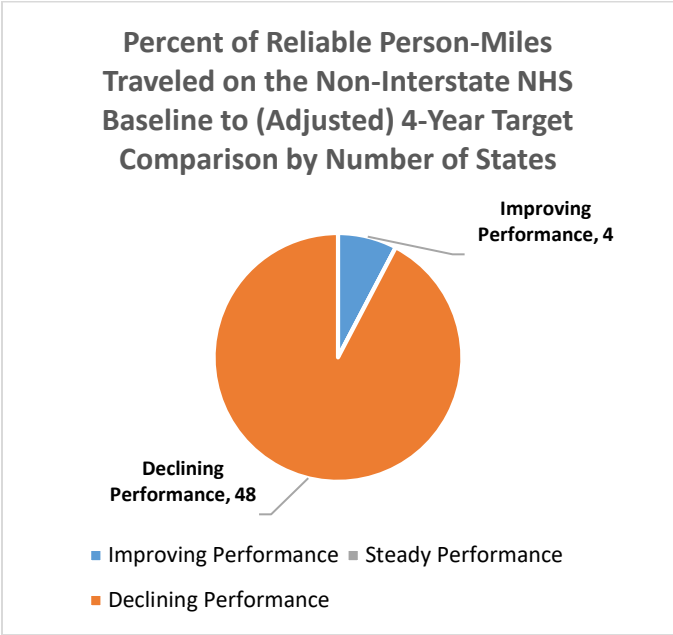
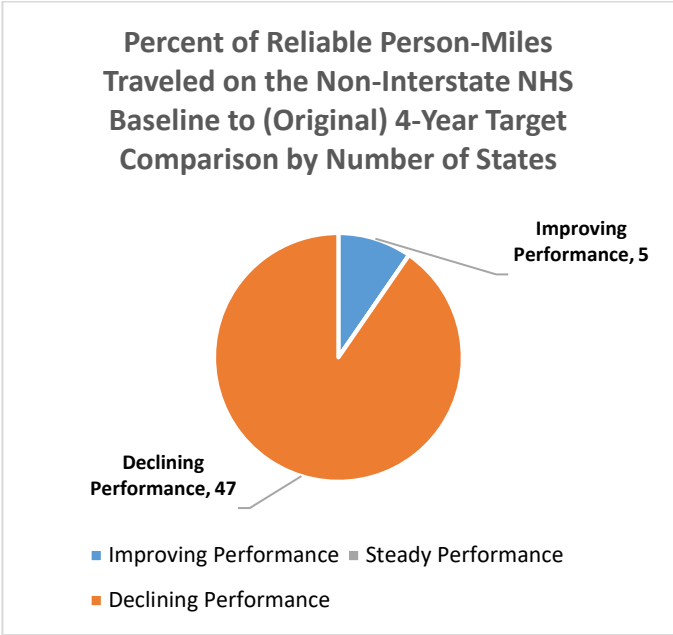


Figure 46: Percent of Reliable Person-Miles Traveled on the Non-Interstate NHS Baseline to 4-year Target Comparison by Number of States

## Freight

As previously shown in Table 1, there is one performance measure associated with freight reliability:

- Truck Travel Time Reliability (TTTR) Index

Table 8 provides additional background information on the freight reliability measure.

*Table 8: Background on Freight Reliability Measure*

Criteria	Truck Travel Time Reliability
Applicability	Mainline of the Interstate System.
Measure Data Collection	Truck travel times in the NPMRDS. States may request FHWA approval for use of an equivalent dataset. Annual metric reporting to HPMS by June 15. <sup>54</sup>
Metric(s)	Truck Travel Time Reliability (TTTR) ratio - 95th percentile travel time divided by the 50th (normal) percentile travel time. Five TTTR metrics are calculated for each reporting segment: <sup>55</sup> <ul style="list-style-type: none"> <li>• “AM Peak” (6am-10am) for every weekday;</li> <li>• “Midday” (10am-4pm) for every weekday;</li> <li>• “PM Peak” (4pm-8pm) for every weekday;</li> <li>• “Weekend” (6am-8pm) for every weekend day; and</li> <li>• “Overnights” (8pm-6am) for all days.</li> </ul>
Measure Calculation	The TTTR Index is generated by multiplying each segment’s largest ratio of the five periods by its length, then dividing the sum of all length-weighted segments by the total length of Interstate.
State DOT Target Requirements	2-year and 4-year statewide targets. <sup>56</sup>
Target Phase-In	N/A

### Truck Travel Time Reliability Index

Figure 47 displays the 2019 distribution of the Truck Travel Time Reliability (TTTR) index across the State DOTs, showing the number of States with performance in each category. The improving trend for this measure is downward, to have a lower difference between the 95<sup>th</sup> percentile and 50<sup>th</sup> percentile travel times. The improving trend for the distribution is leftward, to have more with a smaller difference between the 95<sup>th</sup> percentile and 50<sup>th</sup> percentile travel times.

<sup>54</sup> 23 CFR 490.611(b)

<sup>55</sup> 23 CFR 490.611(a)(1)

<sup>56</sup> 23 CFR 490.105(e)(4)(iii) and (iv)

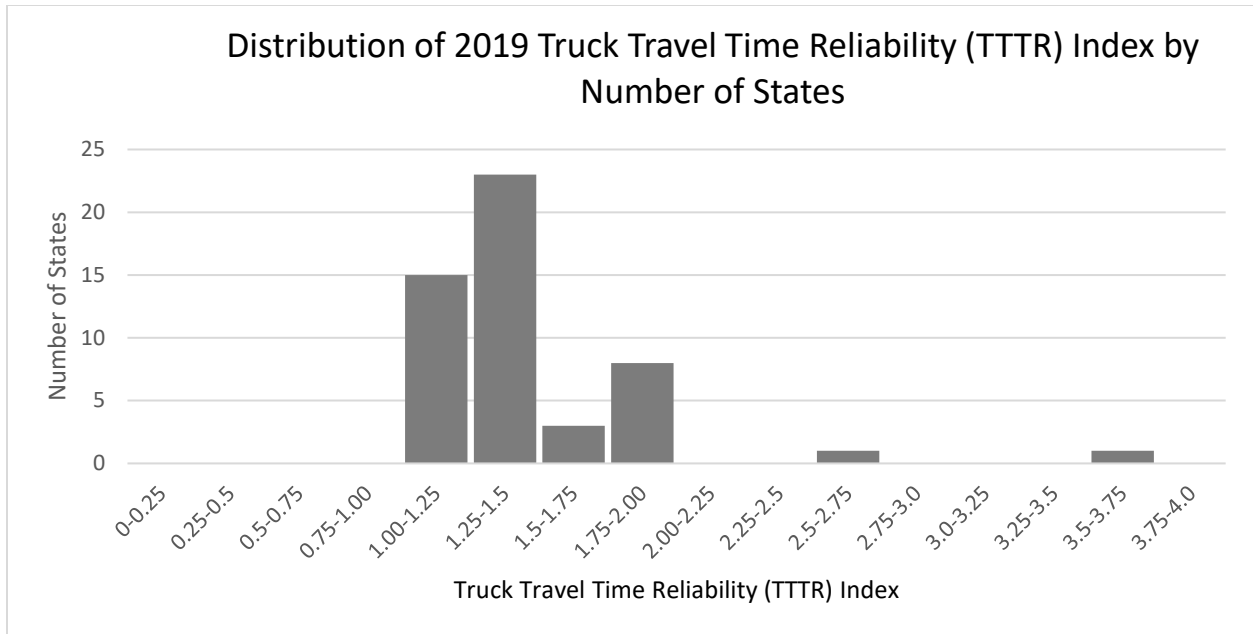


Figure 47: Distribution of 2019 Truck Travel Time Reliability Index by Number of States

*Comparing 2019 and 2017 Condition and Significant Progress Determination*

Figure 48 provides the number of State DOTs that reported improving, steady, or declining TTTR index when comparing 2019 performance to the 2017 baseline. For this chart, “improving” indicates that there would be a lower TTTR index value, and “declining” indicates that there would be a higher TTTR index value.

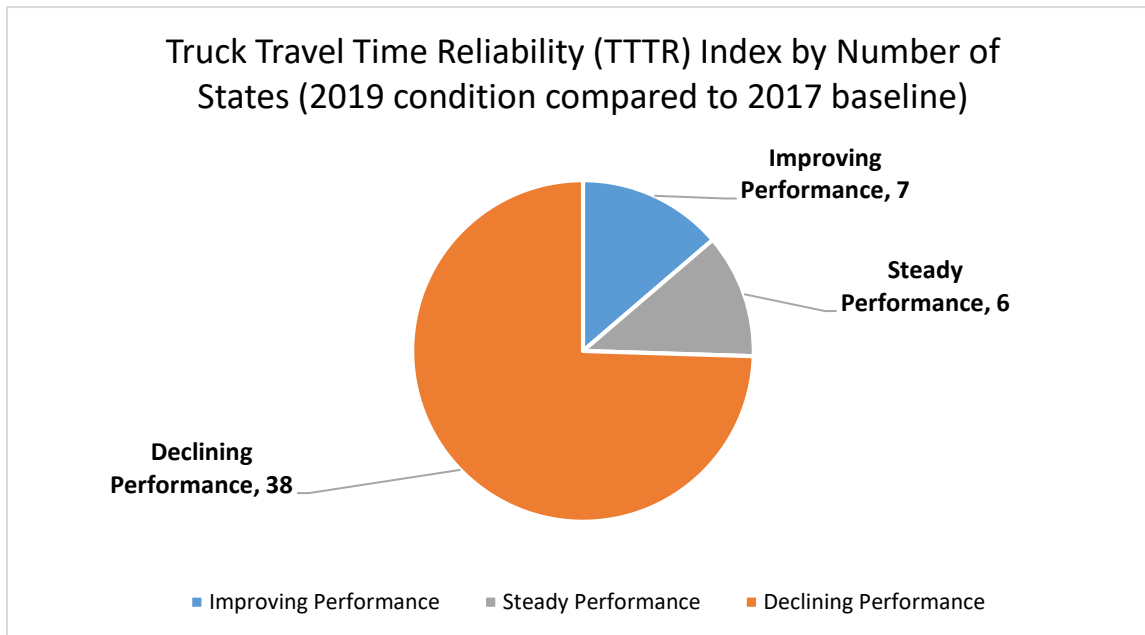


Figure 48: Truck Travel Time Reliability Index by Number of States (2019 performance compared to 2017 baseline)

There are two ways to evaluate whether a State has made significant progress toward its performance target. If the actual outcome for a performance measure is equal to or better than the target, the target was met. If a State has not met a target, FHWA will determine if the actual outcome for the measure is better than the baseline performance.

Figure 49 shows the 2020 Mid Performance Period significant progress determination for the freight TTR index performance measure by number of States.

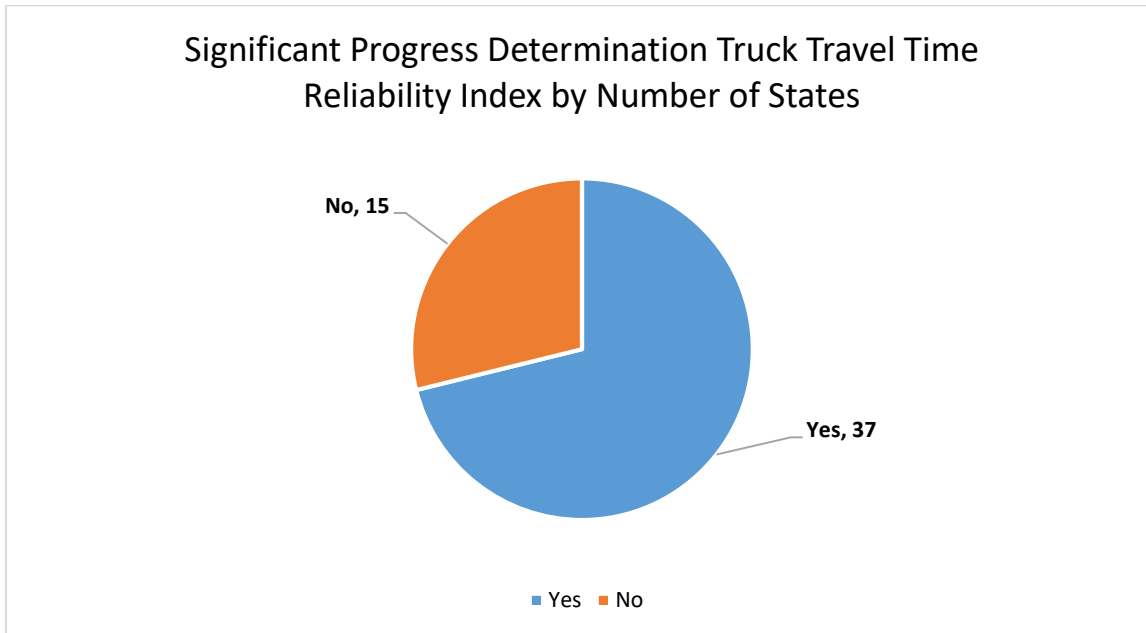


Figure 49: Significant Progress Determination for Truck Travel Time Reliability Index by Number of States

#### *Target Adjustment*

As part of the 2020 mid performance period data submission, State DOTs could adjust their 4-year targets.

Figure 50 provides the number of States that adjusted targets, and whether the adjustments reflect an improvement or decline compared to the original 4-year target.

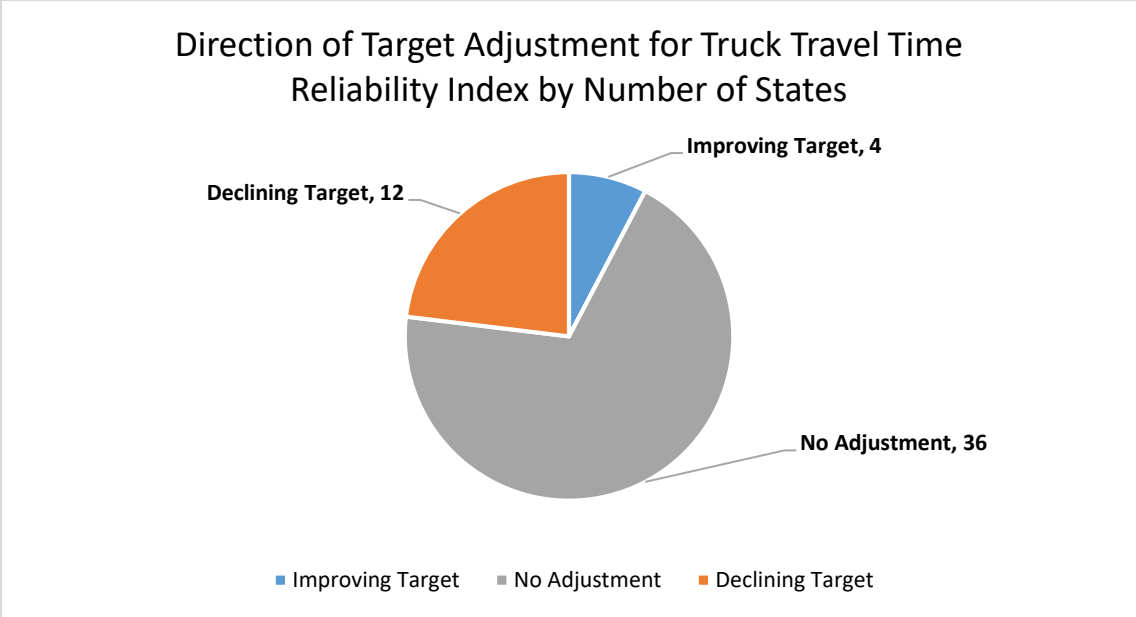


Figure 50: Direction of Target Adjustment for Truck Travel Time Reliability Index by Number of States

Figure 51 illustrates the number of States that made improving, declining, or no adjustments, categorized by their significant progress determination.

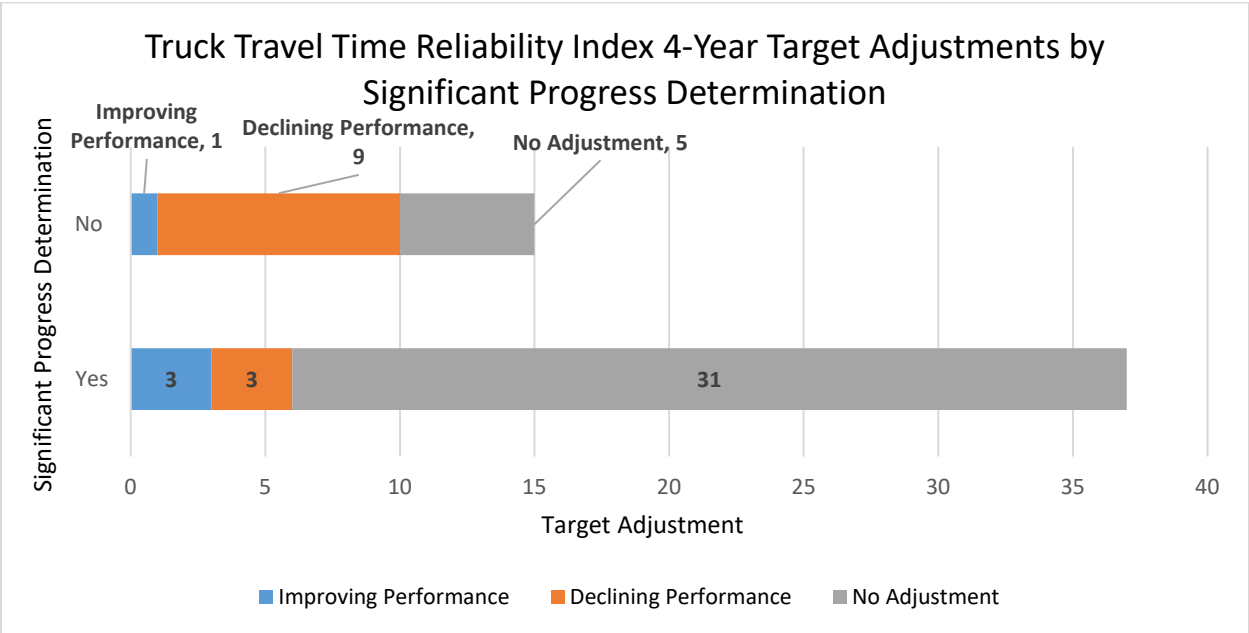


Figure 51: Truck Travel Time Reliability Index 4-Year Target Adjustment by Significant Progress Determination

Figure 52 shows the number of State DOTs that set targets reflecting improving, steady, or declining performance for Freight TTTR Index when comparing the 2017 Baseline with the 4-year target. As a result of the target adjustments, three States switched from improving to declining and one from steady to declining.

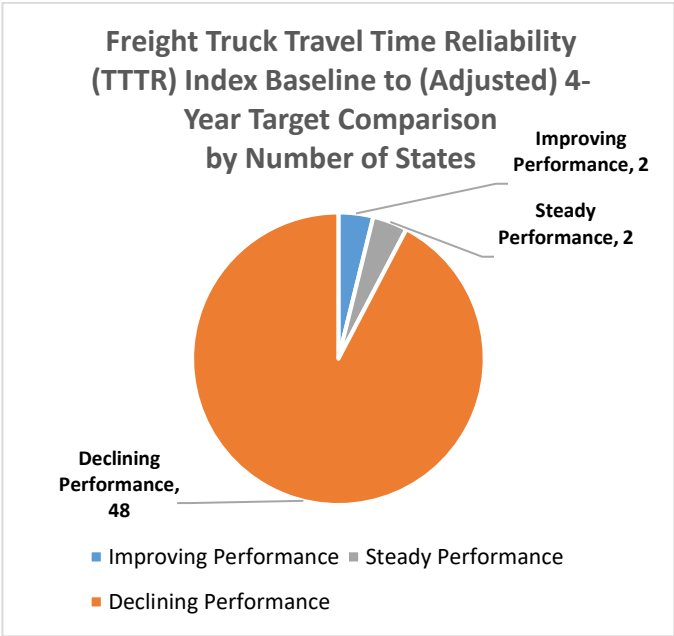
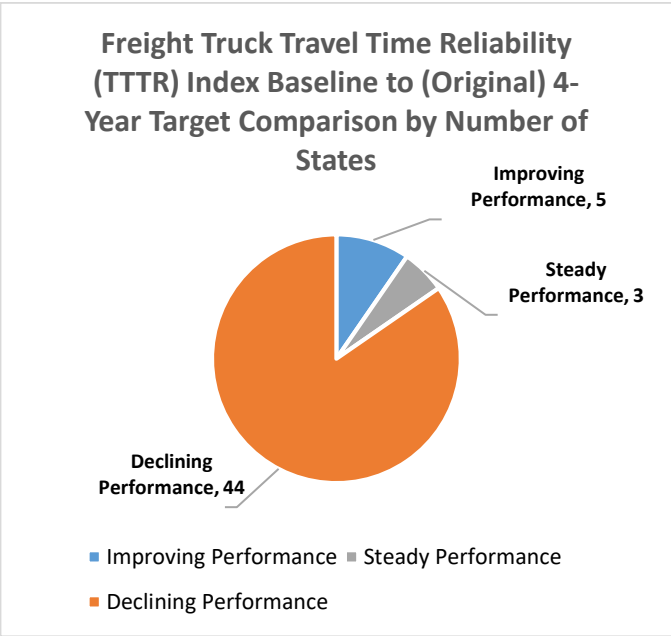


Figure 52: Freight Truck Travel Time Reliability Index Baseline to 4-year Target Comparison by Number of States



## Traffic Congestion

As previously shown in Table 1, two performance measures are associated with traffic congestion:

- Annual Hours of Peak-Hour Excessive Delay (PHED)
- Percent of non-Single Occupancy Vehicle Travel (Non-SOV)

Table 9 provides additional background information on the measures.

*Table 9: Background on Traffic Congestion Measures*

Criteria	Annual Hours of Peak-Hour Excessive Delay	Percent of non-Single Occupancy Vehicle travel
Applicability	<p><i>Applicability Transition:</i> For the first performance period only, the requirements apply to mainline NHS in urbanized areas with a population more than 1 million that are also in nonattainment or maintenance areas for any of the criteria pollutants under the CMAQ program (ozone, carbon monoxide or particulate matter).<sup>57</sup></p> <p>In all subsequent performance periods, the population threshold changes to urbanized areas with populations more than 200,000.<sup>58</sup></p>	
Measure Data Collection	<p>All traffic/vehicle data in the NPMRDS. States may request FHWA approval for use of an equivalent dataset.</p> <p>Annual percent share of traffic volume by vehicle class developed using data from HPMS, or State DOT collected data.</p> <p>Annual vehicle occupancy factors for urbanized areas provided by FHWA, or the State may use more specific alternative estimates for a specific reporting segment(s).</p> <p>Annual metric reporting to HPMS by June 15.<sup>59</sup></p>	<p>The data to determine the percent of non-Single Occupancy Vehicle (Non-SOV) travel measure can come from one of three methods:</p> <ul style="list-style-type: none"> <li>• American Community Survey (ACS) Commuting (Journey to Work) data from the U.S. Census Bureau.</li> <li>• Localized surveys of work or household travel.</li> <li>• System use measurements of the actual use of each transportation mode as sample or continuous measurements.</li> </ul> <p>State DOTs will report the method used for each urbanized area in their Baseline Performance Period Report, and that method shall be used for the full performance period.<sup>60</sup></p>

<sup>57</sup> 23 CFR 490.105(e)(8)(i)

<sup>58</sup> 23 CFR 490.105(e)(8)(ii)

<sup>59</sup> 23 CFR 490.711(f)

<sup>60</sup> 23 CFR 490.709(f)(2)

Criteria	Annual Hours of Peak-Hour Excessive Delay	Percent of non-Single Occupancy Vehicle travel
Metric(s)	Total Peak-Hour Excessive Delay in person hours (accounting for the delay of all people travelling). Excessive delay is the additional amount of time it takes to traverse a travel time segment compared to the time needed to traverse the same segment at either 20 mph or 60 percent of the posted speed limit, whichever is greater. Excessive delay is calculated for each reporting segment in 15 minute intervals for the peak travel hours across the full reporting year. Peak hour travel times are defined as 6-10 a.m. local time on weekday mornings and either 3-7 p.m. or 4-8 p.m. local time on weekday afternoons. The excessive delay is then multiplied by the traffic volumes and average vehicle occupancy to determine the total person hours of excessive delay for each reporting segment.	This measure does not include a metric.
Measure Calculation	Annual Hours of Peak-Hour Excessive Delay per Capita (PHED) is the sum of the peak-hour excessive delay metrics for all reporting segments in the urbanized area divided by the population of that urbanized area. <sup>61</sup>	Percent non-SOV travel for each urbanized area calculated from one of the three allowable methods. <sup>62</sup>
State DOT Target Requirements	All States and MPOs with NHS mileage within an applicable urbanized area must coordinate on a single, unified 2-year and 4-year target for each applicable urbanized area. <sup>63</sup>	
Target Phase-In	For the first performance period only, no 2-year targets or baseline data were reported. State DOTs were to report 4-year targets only. <sup>64</sup>	

The two traffic congestion measures apply to certain urbanized areas (UZA) and require State DOTs and MPOs to establish unified targets for each of these UZAs.<sup>65</sup> For the first performance period, these measures are applicable to larger urbanized areas with a population of more than 1,000,000; in 2020, 32 UZAs reported progress on these measures.<sup>66</sup> In all subsequent performance periods, the population threshold changes to urbanized areas with populations more than 200,000.<sup>67</sup>

<sup>61</sup> 23 CFR 490.713(b)

<sup>62</sup> 23 CFR 490.713(d)

<sup>63</sup> 23 CFR 490.105(d)(2) and (e)(8)(iii)(B)

<sup>64</sup> 23 CFR 490.105(e)(7)(i) and (ii)

<sup>65</sup> 23 CFR 490.105(d)(2) and (e)(8)(iii)(B)

<sup>66</sup> See Table 4 for Applicable MPOs for Congestion Measures:

[https://www.fhwa.dot.gov/environment/air\\_quality/cmaq/measures/cmaq\\_applicability/october\\_2019/#toc494364640](https://www.fhwa.dot.gov/environment/air_quality/cmaq/measures/cmaq_applicability/october_2019/#toc494364640)

<sup>67</sup> 23 CFR 490.105(e)(8)(i) and (ii)

## Annual Hours of Peak-Hour Excessive Delay (PHED)

For the October 2018 PMF Report, State DOTs were required only to submit 4-year targets for the annual hours of PHED. <sup>68</sup> The 2019 annual hours of PHED reported is used as the baseline.

Figure 53 displays the distribution of the annual hours of PHED across the UZAs based on the 2019 performance, showing the number of UZAs in each category. The improving trend for this measure is downward, to have fewer hours of peak-hour excessive delay. The improving trend of the distribution is leftward, to have more UZAs in the categories of fewer hours of peak-hour excessive delay.

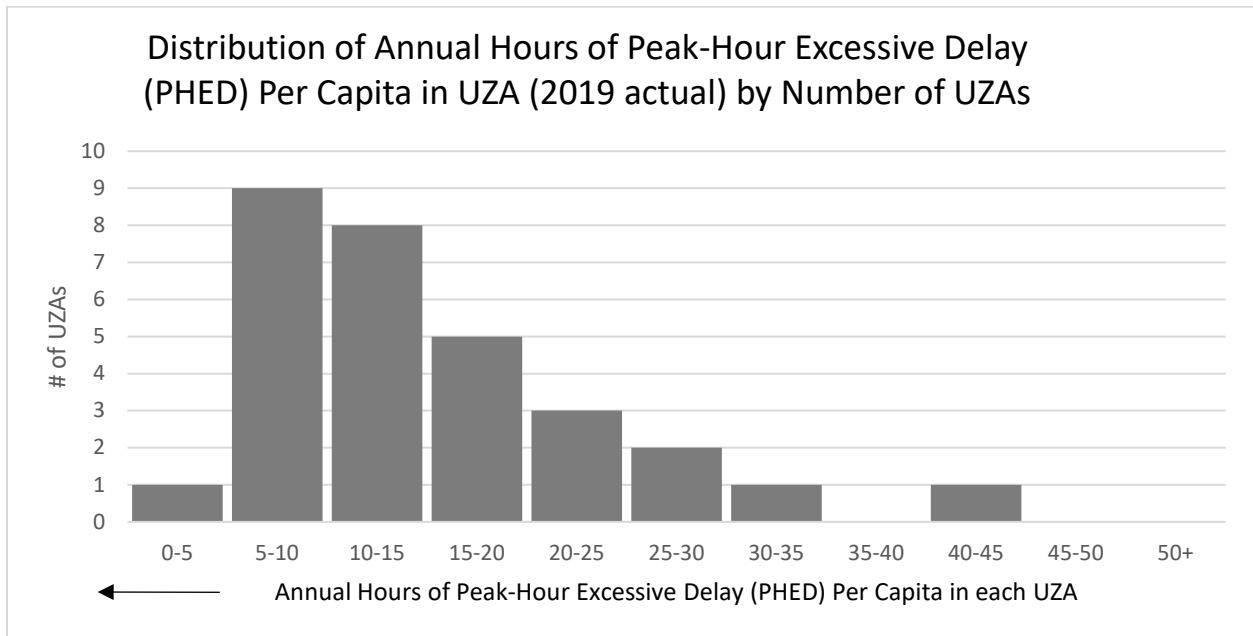


Figure 53: 4-year Target Distribution of Annual Hours of Peak-Hour Excessive Delay by Number of UZAs

### Target Adjustment

As part of the 2020 mid performance period data submission, State DOTs could adjust the 4-year targets.

Figure 54 provides the number of UZAs with adjusted targets, and whether the adjustments reflect an improvement or decline compared to the original 4-year target.

<sup>68</sup> 23 CFR 490.105(e)(8)(vi)

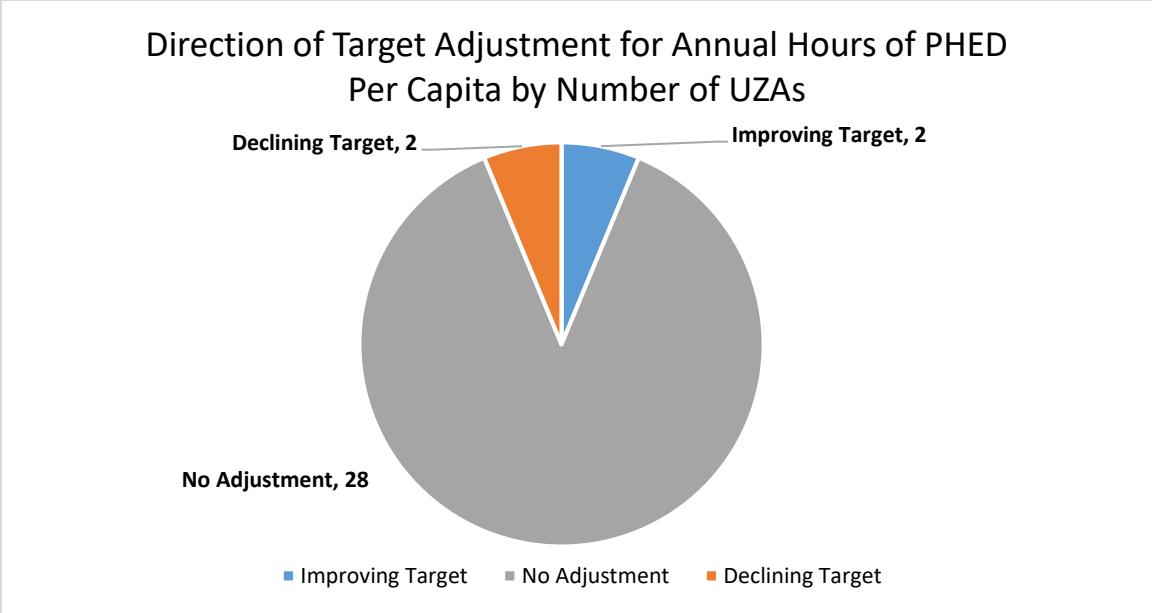


Figure 54: Direction of Target Adjustment for Annual Hours of PHED by Number of UZAs

Figure 55 shows the number of UZAs that set targets reflecting improving, steady, or declining condition for Annual Hours of PHED per Capita when comparing 2019 baseline with the 4-year target. As a result of the target adjustments, one UZA moved from steady to declining performance.

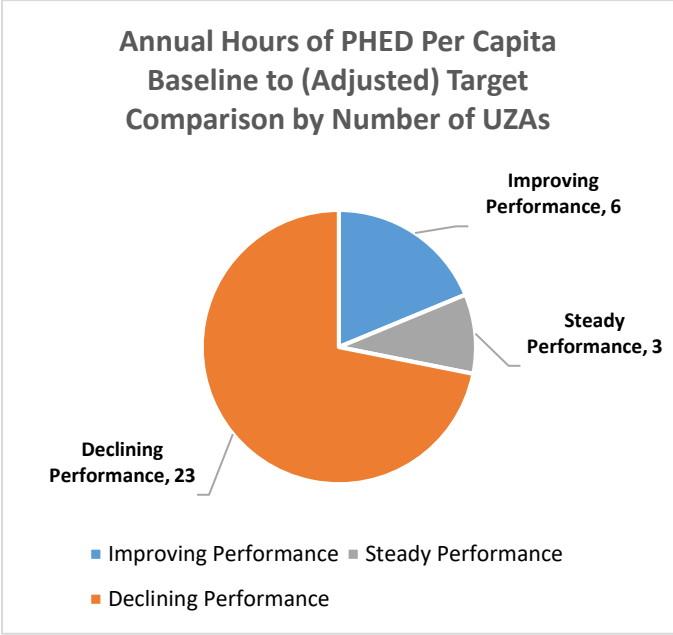
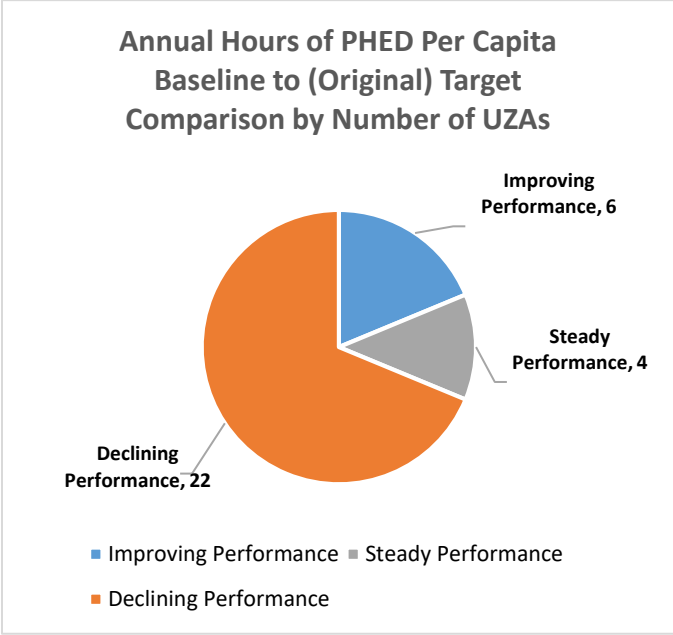


Figure 55: Annual Hours of PHED Baseline to 4-Year Target Comparison by Number of UZAs

## Percent of Non-Single Occupancy Vehicle (SOV) Travel

For UZAs in multiple States, each State DOT must establish a single unified target for the UZA.<sup>69</sup> For reporting this measure, the information from all States should be consistent. This measure is also unique in that three data methods that may be used for any given applicable urbanized area.<sup>70</sup> State DOTs were required to report the data method used to establish each target, and all reported using the ACS Commuting Data from the U.S. Census Bureau.<sup>71</sup>

Figure 56 displays the distribution of non-SOV travel, showing the number of UZAs with values in each category. The improving trend for this measure is upward, to have a higher percentage of non-SOV travel. The improving trend for the distribution is rightward, to have more UZAs in the categories with a higher percentage of non-SOV travel.

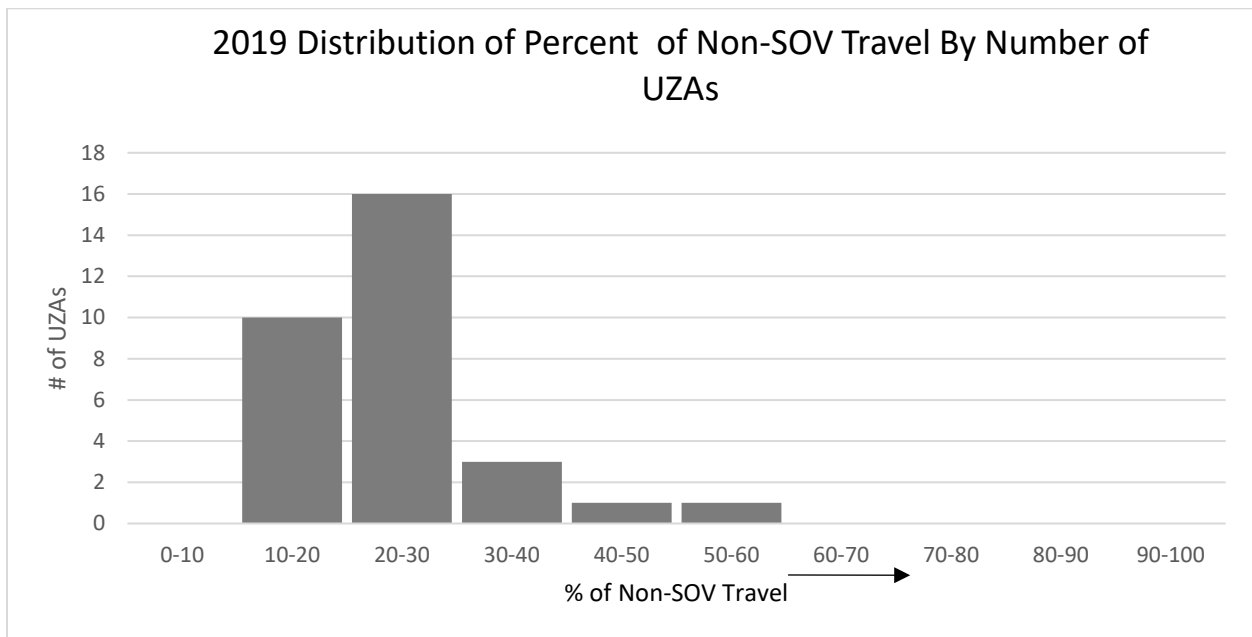


Figure 56: 2019 Distribution of Percentage of non-SOV Travel by Number of UZAs

### Comparing 2019 and 2017 Performance

Figure 57 shows the number of State DOTs with improving, steady, or declining non-SOV travel when comparing 2019 performance with the 2017 baseline.

<sup>69</sup> 23 CFR 490.105(f)(5)(iii)

<sup>70</sup> 23 CFR 490.709(f)(1)

<sup>71</sup> 23 CFR 490.709(f)(2)

Percent Non-SOV Travel by Number of UZAs (2019 compared to 2017 baseline)

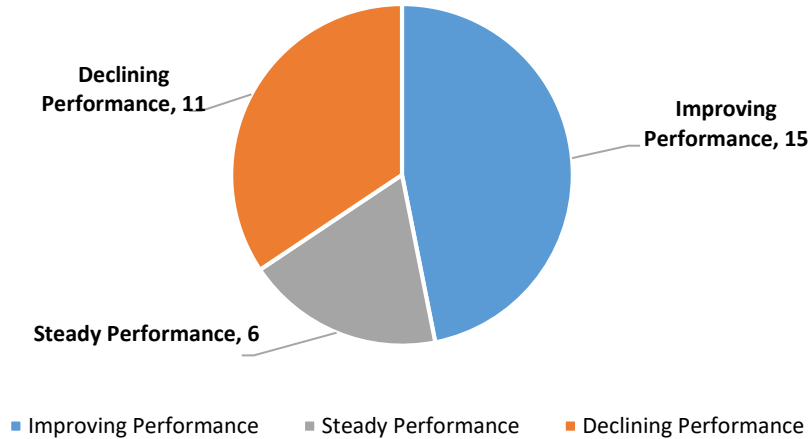


Figure 57: Percent Non-SOV Travel by Number of UZAs, 2019 to 2017 comparison

*Target Adjustment*

As part of the 2020 mid performance period data submission, State DOTs could adjust their 4-year targets. Figure 58 provides the number of States that adjusted targets, and whether the adjustments reflect an improvement or decline compared to the original 4-year targets.

Direction of Target Adjustment for Percent Non-SOV Travel by Number of UZAs

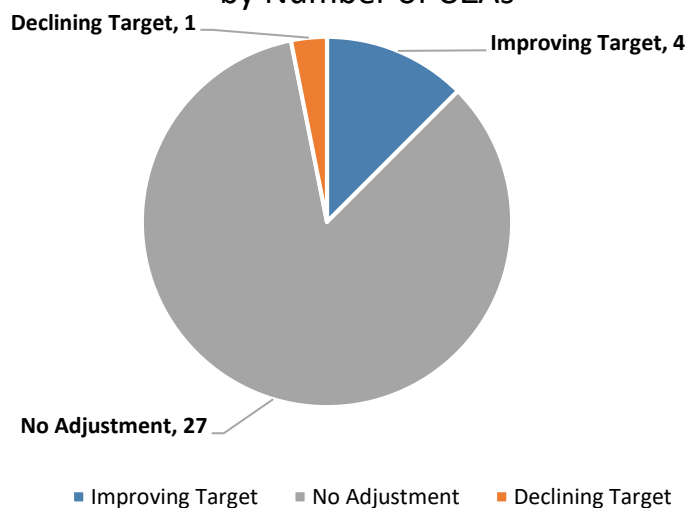


Figure 58: Direction of Target Adjustment for Percent Non-SOV Travel by Number of UZAs

Figure 59 shows the number of State DOTs that set targets reflecting improving, steady, or declining condition for percent of non-SOV travel when comparing 2017 baseline with the 4-year target. As a

result of the target adjustments, there is no net change number of UZAs showing improving, declining, or steady condition .

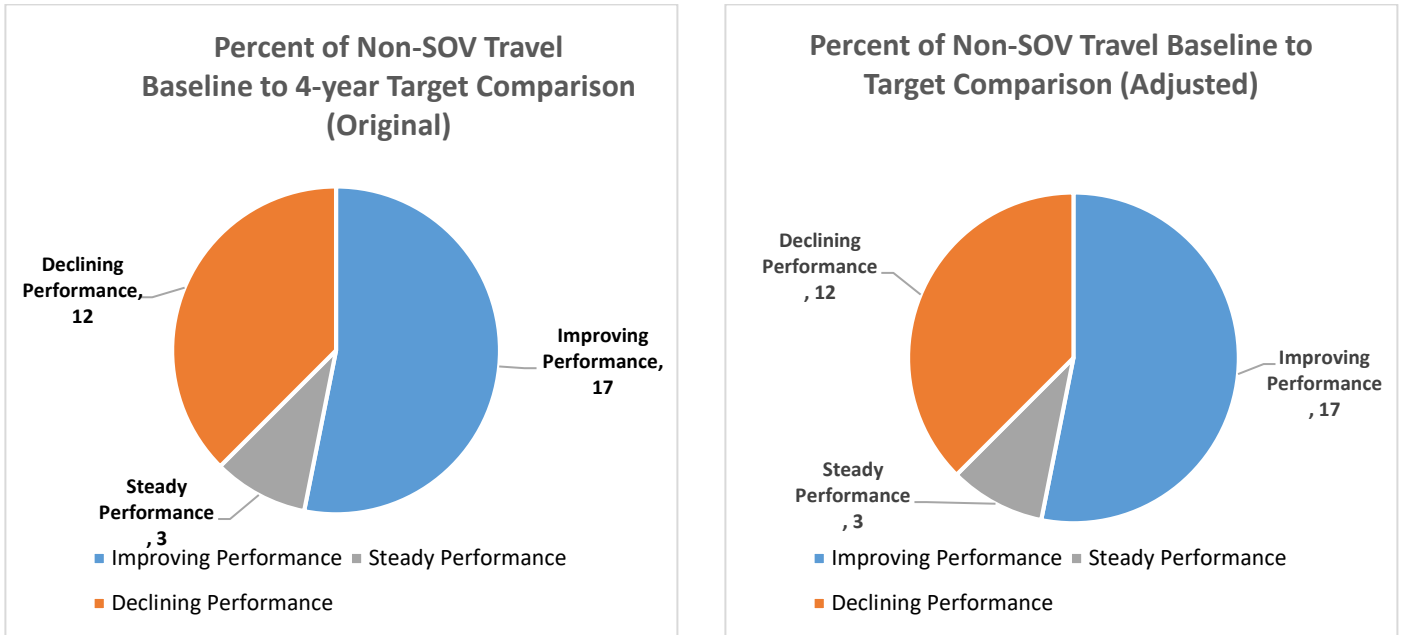


Figure 59: Percent non-SOV Travel 2017 Baseline to 4-year Target Comparison by Number of UZAs

## On-Road Mobile Source Emissions

As previously shown in Table 1, one performance measure is associated with on-road mobile source emissions:

- Total emissions reduction for applicable criteria pollutants and precursors—
  - Particulate matter that have a diameter less than or equal to 2.5 micrometers (PM<sub>2.5</sub>),
  - Particulate matter that have a diameter less than or equal to 10 micrometers (PM<sub>10</sub>),
  - Carbon monoxide (CO),
  - Volatile organic compounds (VOC), and
  - Nitrogen oxides (NO<sub>x</sub>).



Table 10 provides additional background information.

Table 10: Background on Emissions Reduction Measure

Criteria	Emissions Reduction for Applicable Criteria Pollutants
Applicability	State DOTs whose geographic boundaries include any part of a nonattainment or maintenance area for ozone, carbon monoxide, or particulate matter.
Measure Data Collection	State DOTs enter the estimated emission reductions (kilograms per day) for all projects funded by CMAQ into the CMAQ project tracking system in the first year the project is obligated by March 1, annually. <sup>72</sup>
Metric(s)	None
Measure Calculation	<p>Cumulative emissions reductions (kilograms per day) from all CMAQ funded projects in nonattainment or maintenance areas for each of the criteria pollutants or precursors (PM2.5, PM10, CO, VOC and NOx). The measure is calculated individually for each applicable criteria pollutant or precursor.</p> <p>The calculation is a summation of emissions reductions associated with applicable projects as provided in the CMAQ Public Access System<sup>73</sup> for the relevant Federal fiscal years (FFY). The baseline considers the four years of data prior to the start of the performance period (projects obligated for funding in FFY 2014, 2015, 2016, 2017). The 2-year target considers projects funded in FFY 2018 and 2019. The 4-year target considers projects funded in FFY 2018, 2019, 2020, 2021.<sup>74</sup></p> <p><i>Baseline Calculation:</i> For the 2018 reporting, the State DOTs calculated the baseline value for each applicable criteria pollutant or precursor and reported it to FHWA their 2018 Biennial Performance Report in the PMF. This is the only measure for which State DOTs calculated the baseline value.</p>
State DOT Target Requirements	State DOTs establish separate 2 and 4-year targets for each of the CMAQ criteria pollutants and precursors applicable to the nonattainment or maintenance area(s) in their State as of October 1 in the year previous to the year the baseline report is due.
Target Phase-In	N/A

## Total Emissions Reduction for Applicable Criteria Pollutants

State DOTs were required to establish targets for only those pollutants for which their State had a non-attainment or maintenance area as of the applicable date.<sup>75</sup> Table 11 provides the number of States

<sup>72</sup> 23 CFR 490.809(b)(1)

<sup>73</sup> CMAQ Public Access System [https://fhwaapps.fhwa.dot.gov/cmaq\\_pub/Reports/Criteria](https://fhwaapps.fhwa.dot.gov/cmaq_pub/Reports/Criteria)

<sup>74</sup> Computation Guidance for Congestion Mitigation and Air Quality Improvement (CMAQ) Program Total Emissions Reduction Measure [https://www.fhwa.dot.gov/tpm/guidance/emission\\_reduction\\_guide.pdf](https://www.fhwa.dot.gov/tpm/guidance/emission_reduction_guide.pdf)

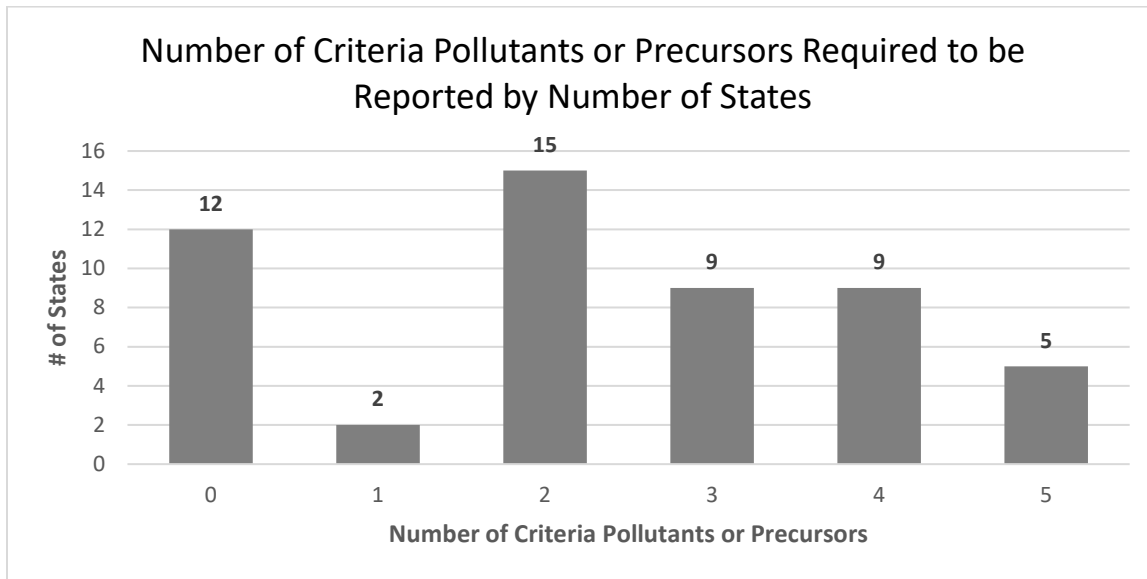
<sup>75</sup> 23 CFR 490.809(c)(1)

that were required to report progress for the 2020 data report.

*Table 11: Number of State DOTs that were Required to Report Progress for Each Criteria Pollutant*

Pollutant	Number of State DOTs Required to Report
NOx	33
VOC	29
CO	18
PM10	19
PM2.5	19

Some States set targets for only one pollutant, while others were required to set targets for up to all five; a total of 34 States set targets under this performance measure area in 2020. Figure 60 shows the distribution of number of criteria pollutants and precursors submitted by number of States.



*Figure 60: Number of Criteria Pollutants or Precursors data submitted by Number of States*

## Next Steps

State DOTs continue to report on safety performance in their annual HSIP report, and State DOTs and MPOs continue to report on infrastructure condition and system performance with the final report for the first performance period and baseline report for the next performance period due October 1, 2022.

FHWA will continue to review the quantitative data submissions, as well as the qualitative narrative reporting from State DOTs, to better understand emerging practices and ongoing needs. In order to improve the consistency and completeness of narrative reporting, FHWA is updating the online form used by State DOTs to submit their biennial performance reports. FHWA will use this information to help tailor ongoing guidance, outreach, and technical assistance activities.

The FHWA is committed to ongoing communication and transparency with stakeholders regarding TPM implementation activities, and to continuing to gather feedback on challenges and needs. The FHWA will continue to work with State DOTs, MPOs, the Federal Transit Administration (FTA), and the National Highway Traffic Safety Administration (NHTSA) to review and adapt activities based on feedback mechanisms such as:

- Evaluations of events and workshops,
- Training evaluations,
- National TPM surveys,
- Reviews of targets and reports and progress determinations,
- Discussions with national transportation stakeholder organizations,
- Transportation Management Area Planning Certification Reviews, and
- Results of national meetings.

## Appendix 1: Performance Measure Rules

Table 12: Performance Measure Rules

Measure Area	Performance Measures
<p><b>National Performance Management Measures for the Highway Safety Improvement Program (Safety)</b>  <i>Rule Effective Date: April 14, 2016</i>  <i>Regulatory Chapter: 23 CFR 924; 23 CFR 490 (Subpart A and B)</i></p>	<ul style="list-style-type: none"> <li>• Number of fatalities</li> <li>• Rate of fatalities per 100 million vehicle miles traveled</li> <li>• Number of serious injuries</li> <li>• Rate of serious injuries per 100 million vehicle miles traveled</li> <li>• Number of non-motorized fatalities and non-motorized serious injuries</li> </ul>
<p>National Performance Management Measures to Assess <b>Pavement Condition</b> <i>Rule Effective Date: May 20, 2017</i>  <i>Regulatory Chapter: 23 CFR 490 (Subpart A and C)</i></p>	<ul style="list-style-type: none"> <li>• Percentage of pavements of the Interstate System in Good condition</li> <li>• Percentage of pavements of the Interstate System in Poor condition</li> <li>• Percentage of pavements of the non-Interstate NHS in Good condition</li> <li>• Percentage of pavements of the non-Interstate NHS in Poor condition</li> </ul>
<p>National Performance Management Measures to Assess <b>Bridge Condition</b>  <i>Rule Effective Date: May 20, 2017</i>  <i>Regulatory Chapter: 23 CFR 490 (Subpart A and D)</i></p>	<ul style="list-style-type: none"> <li>• Percentage of NHS bridges classified as in Good condition</li> <li>• Percentage of NHS bridges classified as in Poor condition</li> </ul>
<p>Performance of the National Highway System (<b>System Performance</b>)  <i>Rule Effective Date: May 20, 2017</i>  <i>Regulatory Chapter: 23 CFR 490 (Sub. A and E)</i></p>	<ul style="list-style-type: none"> <li>• <b>Interstate Travel Time Reliability Measure:</b> Percent of person-miles traveled on the Interstate that are reliable</li> <li>• <b>Non-Interstate Travel Time Reliability Measure:</b> Percent of person-miles traveled on the non-Interstate NHS that are reliable</li> </ul>
<p><b>Freight Movement</b> on the Interstate System  <i>Rule Effective Date: May 20, 2017</i>  <i>Regulatory Chapter: 23 CFR 490 (Sub. A and F)</i></p>	<ul style="list-style-type: none"> <li>• <b>Freight Reliability Measure:</b> Truck Travel Time Reliability (TTTR) Index</li> </ul>
<p>Measures to Assess the CMAQ Program: <b>Traffic Congestion</b>  <i>Rule Effective Date: May 20, 2017</i>  <i>Regulatory Chapter: 23 CFR 490 (Sub. A and G)</i></p>	<ul style="list-style-type: none"> <li>• <b>Peak Hour Excessive Delay (PHED) Measure:</b> Annual Hours of Peak Hour Excessive Delay (PHED) Per Capita</li> <li>• <b>Non-Single Occupancy Vehicle (non-SOV) Travel Measure:</b> Percent of Non-Single Occupancy Vehicle (SOV) Travel</li> </ul>
<p>Measure to Assess the CMAQ Program: <b>On-Road Mobile Source Emissions</b>  <i>Rule Effective Date: May 20, 2017</i>  <i>Regulatory Chapter: 23 CFR 490 (Sub. A and H)</i></p>	<ul style="list-style-type: none"> <li>• <b>Emissions Measure:</b> Total Emission Reductions for applicable criteria pollutants</li> </ul>

## Appendix 2: Requirements Associated with Meeting Targets and Minimum Condition as per CFR part 490

Table 13: Significant Progress Determinations and Consequences (Peak Hour Excessive Delay, Non-Single Occupancy Vehicle Travel, and On-Road Mobile Source measures are not subject to the FHWA significant progress determination)

Performance Measure Area	Significant Progress Determination	Consequence if State Has Not Met or Made Significant Progress
Safety	<p>FHWA will assess State safety performance target achievement to determine whether States have met or made significant progress toward meeting their performance targets, per 23 U.S.C. 148(i). At least four out of the five safety performance targets must be either met or the actual outcome for the target is better than baseline performance to make significant progress.</p> <p>States have the option to establish any number of urbanized area targets and one non-urbanized area target, in addition to the required statewide targets, for any or all of the Safety Performance Measures. The urbanized and non-urbanized targets are not included in the determination of whether a State has met or made significant progress toward meeting its targets.</p>	<p>If a State has not met or made significant progress toward meeting its targets, the State must comply with the provisions set forth in 23 U.S.C. 148(i) for the subsequent fiscal year. The State shall:</p> <ol style="list-style-type: none"> <li>1. Use obligation authority equal to the HSIP apportionment for the year prior to the target year, only for HSIP projects.</li> <li>2. Submit an HSIP Implementation Plan that describes actions the State will take to meet or make significant progress toward meeting its targets. The HSIP Implementation Plan should guide the State's project decisions so that the combined 23 U.S.C. 148(i) provisions lead to the State meeting or making significant progress toward meeting its safety performance targets in subsequent years.</li> </ol>
Pavements on the Interstate System	<p>State DOTs subject to determination every two years. The FHWA will use data extracted from HPMS on June 15<sup>th</sup> of the year the biennial report is due.</p> <p><i>Phase-in:</i> For the first performance period only, since the States did not establish 2-year targets they will not be assessed for significant progress after the Mid Performance Period Progress Report is submitted in 2020. The actual condition reported in the Mid Performance Period Progress Report will be used as the baseline against which the 4-year target will be assessed for significant progress in 2022.</p>	<p>If significant progress is not made for either target established for the Interstate System pavement condition measures, § 490.307(a)(1) and (2), then the State DOT shall document the actions it will take to achieve the Interstate Pavement condition targets.</p>

Performance Measure Area	Significant Progress Determination	Consequence if State Has Not Met or Made Significant Progress
Condition of Pavements on the non-Interstate NHS	<p>State DOTs are subject to determination every two years based on data extracted from HPMS on August 15 of the year of biennial reporting.</p> <p><i>Significant Progress Determination During Data Transition:</i> FHWA calculated the baseline for the measures using IRI data alone, and State DOTs were instructed to establish targets using IRI data. However, of the States that had full distress and IRI data, many chose to establish targets using all four metrics. To ensure these State's aren't penalized for using the most complete data available, FHWA agreed to modify the significant progress determination for 2020 and 2022 to account for the different datasets used. This process is documented in the FHWA Procedure for Determining Significant Progress for the NHPP and NHFP [PENDING].<sup>76</sup></p>	<p>If significant progress is not made for either target established for the non-Interstate NHS pavement condition measures, §490.307(a)(3) and (4), then the State DOT shall document the actions it will take to achieve non-Interstate Pavement condition target.</p>
NHS Bridges	<p>State DOTs are subject to determination every two years based on data extracted from NBI annually on June 15.</p>	<p>If significant progress is not made for either target established for the NHS bridge condition measures, § 490.407(c)(1) and (2), then the State DOT shall document the actions it will take to achieve NHS bridge condition target.</p>
Travel Time Reliability	<p>State DOTs are subject to the determination every two years based on data extracted from HPMS on August 15 of the year of biennial reporting.</p> <p><i>Phase-in for Non-Interstate NHS:</i> For the first performance period only, since the States did not establish 2-year targets they will not be assessed for significant progress after the Mid Performance Period Progress Report is submitted. The actual condition reported in the Mid Performance Period Progress Report in 2020 will be used as the baseline against which the 4-year target will be assessed for significant progress in 2022.</p>	<p>If significant progress is not made for either target established for the Travel Time Reliability measures, § 490.507(a)(1) and(2), then the State DOT shall document the actions it will take to achieve the NHS travel time targets.</p>

<sup>76</sup> TPM Guidance website <https://www.fhwa.dot.gov/tpm/guidance/>

Performance Measure Area	Significant Progress Determination	Consequence if State Has Not Met or Made Significant Progress
Freight	State DOTs are subject to the determination every two years based on data extracted from HPMS on August 15 of the year of biennial reporting.	<p>If FHWA determines that a State DOT has not made significant progress toward achieving the target established for the Freight Reliability measure in § 490.607, then the State DOT shall include as part of the next performance target report under 23 U.S.C. 150(e) [the Biennial Performance Report] the following:</p> <ol style="list-style-type: none"> <li>1. An identification of significant freight system trends, needs, and issues within the State.</li> <li>2. A description of the freight policies and strategies that will guide the freight-related transportation investments of the State.</li> <li>3. An inventory of truck freight bottlenecks within the State and a description of the ways in which the State DOT is allocating funding under title 23 U.S.C. to improve those bottlenecks. <ol style="list-style-type: none"> <li>A. The inventory of truck freight bottlenecks shall include the route and milepost location for each identified bottleneck, roadway section inventory data reported in HPMS, Average Annual Daily Traffic (AADT), Average Annual Daily Truck Traffic (AADTT), Travel-time data and measure of delay, such as travel time reliability, or Average Truck Speeds, capacity feature causing the bottleneck or any other constraints applicable to trucks, such as geometric constraints, weight limits or steep grades.</li> <li>B. For those facilities that are State-owned or operated, the description of the ways in which the State DOT is improving those bottlenecks shall include an identification of methods to address each bottleneck and improvement efforts planned or programmed through the State Freight Plan or MPO freight plans; the Statewide Transportation Improvement Program and Transportation Improvement Program; regional or corridor level efforts; other related planning efforts; and</li> </ol> </li> </ol>

Performance Measure Area	Significant Progress Determination	Consequence if State Has Not Met or Made Significant Progress
		<p>operational and capital activities.</p> <p>4. A description of the actions the State DOT will undertake to achieve the target established for the Freight Reliability measure in § 490.607.</p>



Table 14: Minimum Conditions and Associated Penalties for Pavement and Bridge Performance Measures

Performance Measure	Minimum Condition	Penalty
Percent of pavements of the Interstate System in Poor condition	<p>Percentage of pavements in poor condition is not to exceed 5.0 percent.<sup>77</sup></p> <p>Annual determination based on data extracted from HPMS June 15. First data extraction was in 2019.</p>	<p>If the percentage of Interstate System pavement in poor condition exceeds the minimum level for the most recent year, the State DOT must obligate a portion of NHPP funds and transfer a portion of Surface Transportation Program (STP) funds to address Interstate pavement condition.</p>
Percent NHS bridge deck area in Poor condition	<p>Percentage of the deck area of bridges categorized as structurally deficient is not to exceed 10.0 percent.</p> <p>Annual determination based on data extracted from NBI on June 15th. First data extraction was in 2017.</p>	<p>If more than 10 percent of the total deck area of a State DOT's NHS bridges is classified as structurally deficient for three consecutive years, the State DOT must obligate and set aside NHPP funds for eligible projects on the NHS.</p>

<sup>77</sup> Alaska not to exceed 10 percent poor condition