



Road Conditions (Pavements & Bridges)

Legislative Finance Committee

June 24, 2021

Tamara P. Haas, P.E.

Capital Program and Investments Division Director

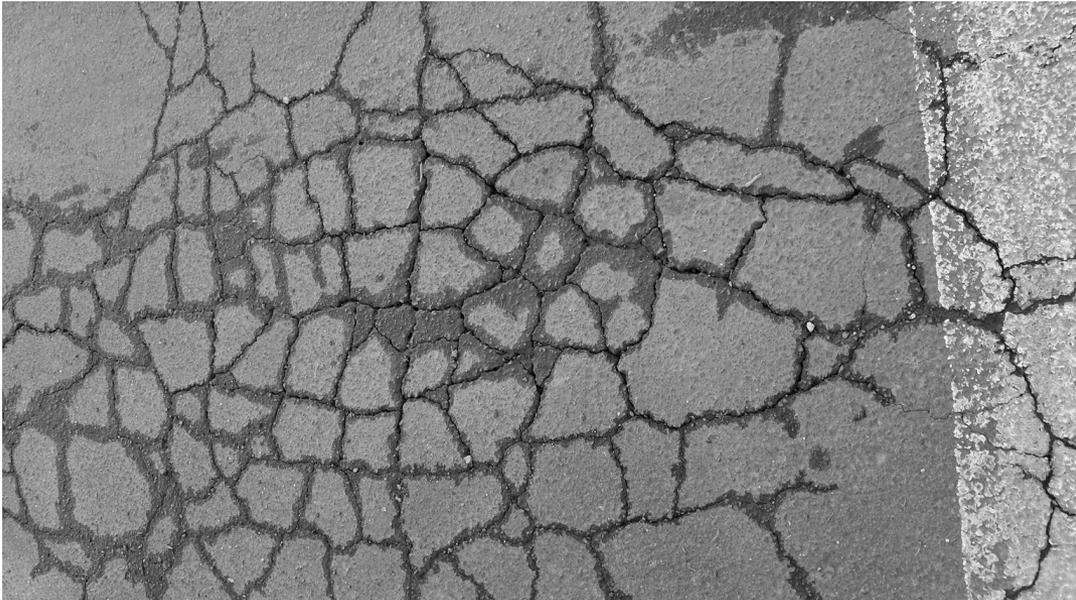
Pavement Condition Assessment

- Use Consultant to collect through Automated Methods
- Pavement Distresses
 - Rutting, Crack, IRI
- Collect Interstate and NHS annually
- Collect remainder of system on 2-year cycle
- Data used to report Federal Performance Measure, State Performance Measure and Project Evaluation

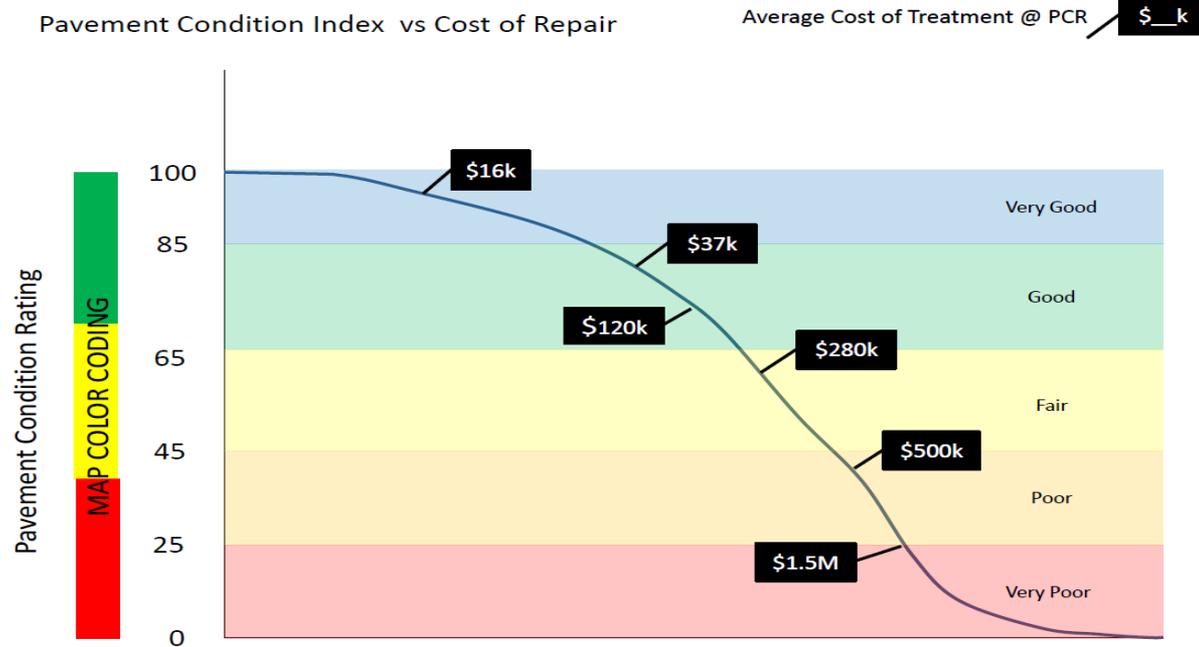
Pavement Condition Rating

As part of NMDOT's asset management efforts, pavement condition is monitored and maintained to ensure safe and efficient travel throughout the state.

Pavement condition is measured on a scale from 0 (worst) to 100 (best).



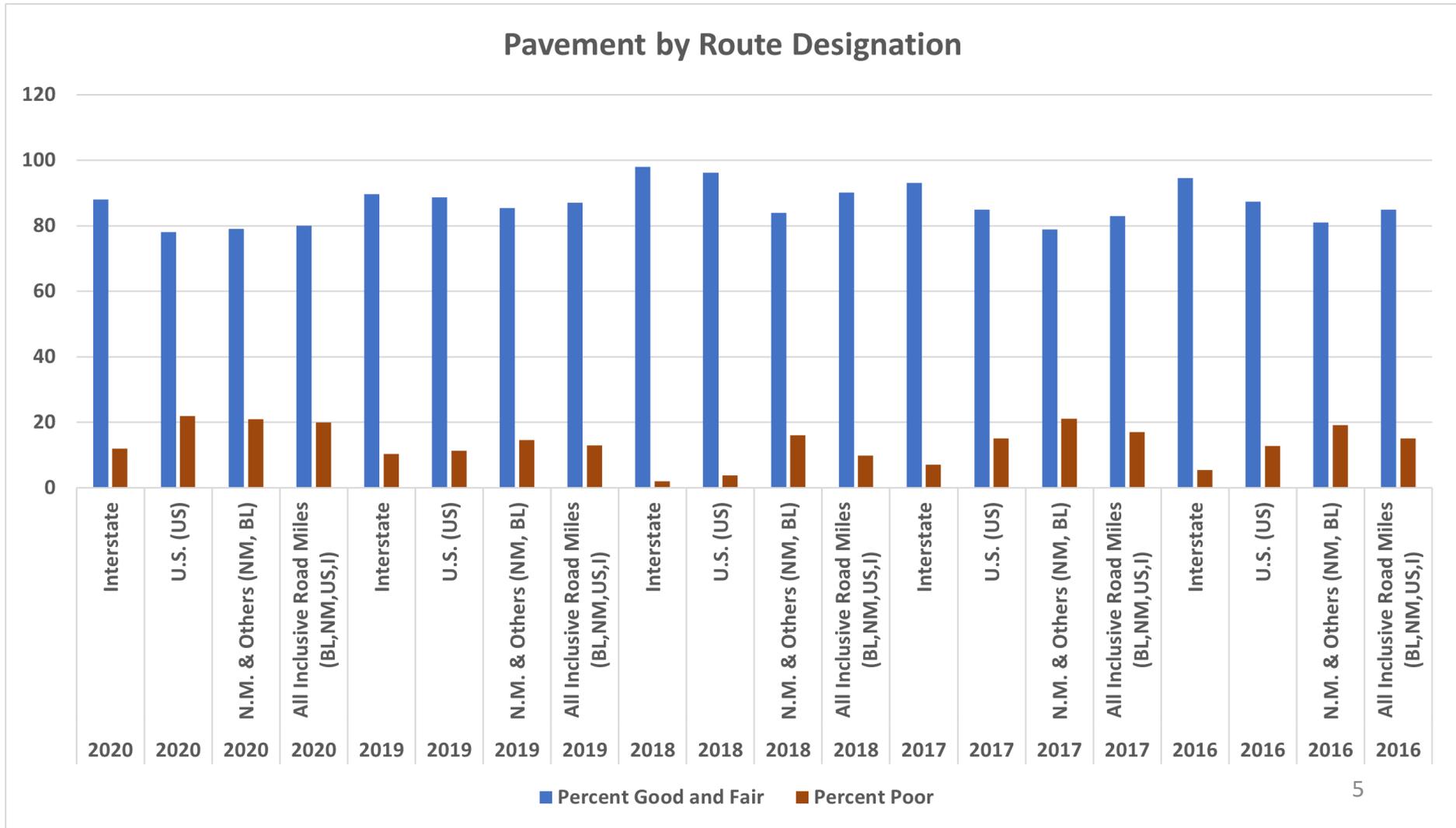
Pavement Condition Rating (PCR)



Time in Service, Traffic Loads, etc

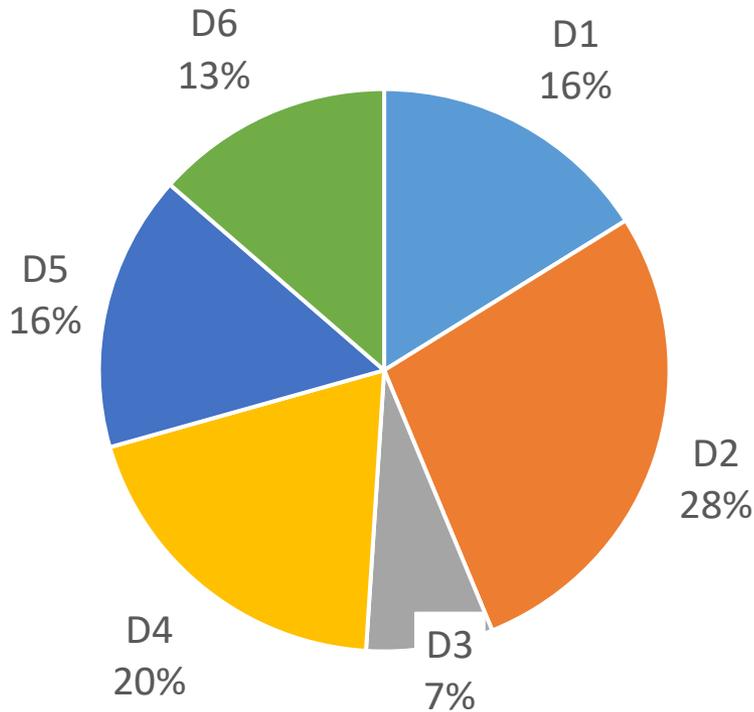
PCR Range	Condition	Suggested Treatment
100-86	Very Good	Monitor – Minor preservation: monitor, fog seals, surface coats, chip seal
85-66	Good	Major preservation: thin hot in-place recycling, thin mill and inlay
65-51	Fair	Minor – Major preservation: mill and inlay between, hot in-place recycling 2.5-4"
50-46	At Risk	Minor – Major rehabilitation
45-26	Poor	Major rehabilitation – 5 inches deep to PPC, FDR
25-0	Very Poor	Reconstruction

Pavement Condition by Route Designation 2016-2020

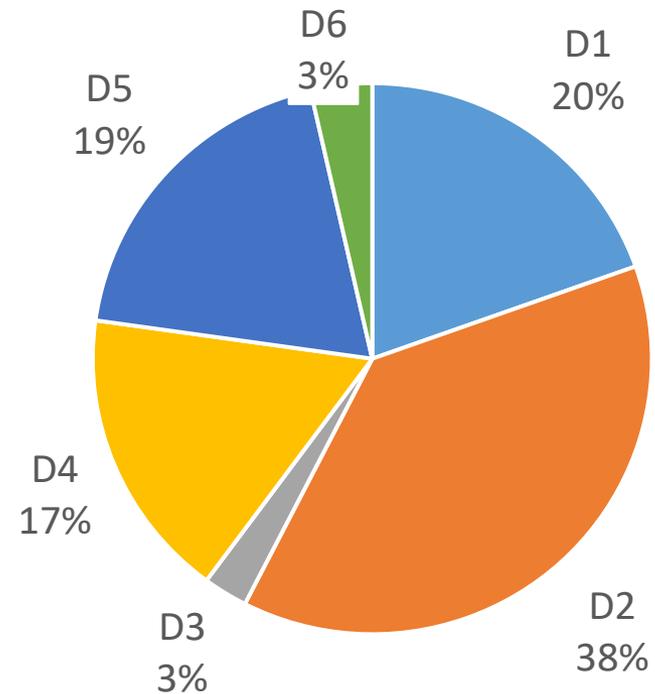


Pavement Condition Statewide All Routes

Statewide Pavement Good/Fair Condition

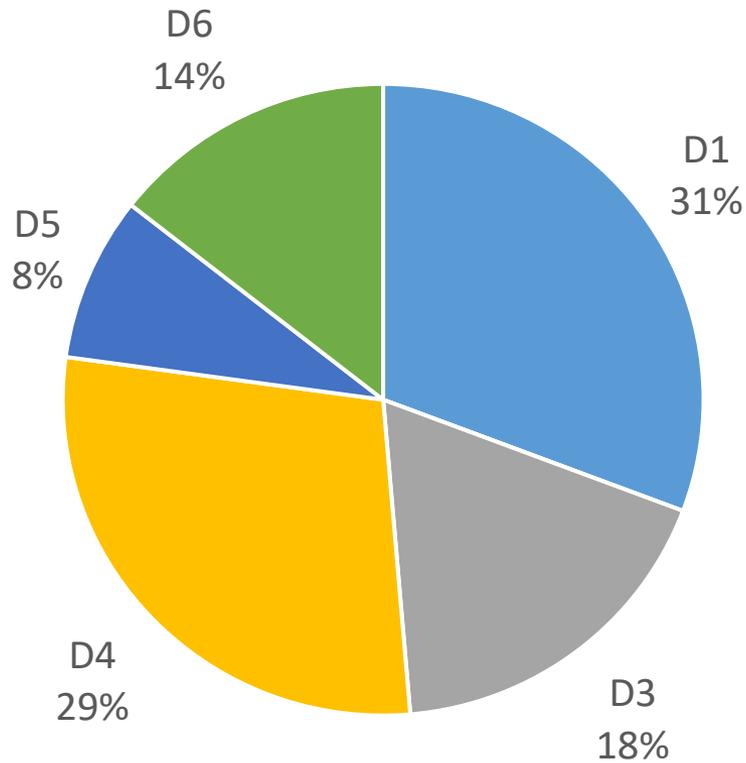


Statewide Pavement Poor Condition

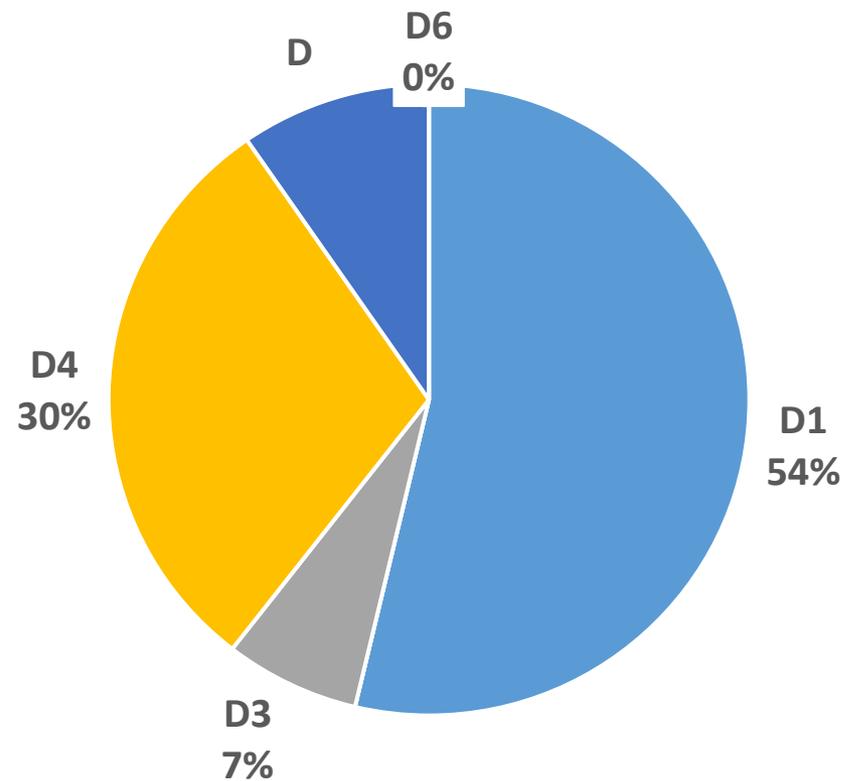


Pavement Condition Interstate by District

Interstate Percent Good/Fair

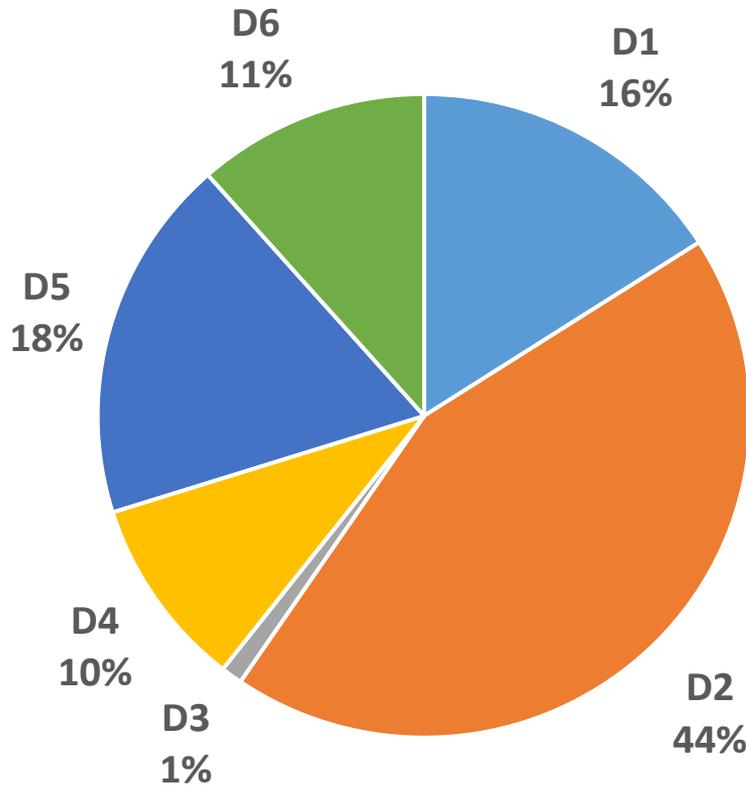


Interstate Percent Poor

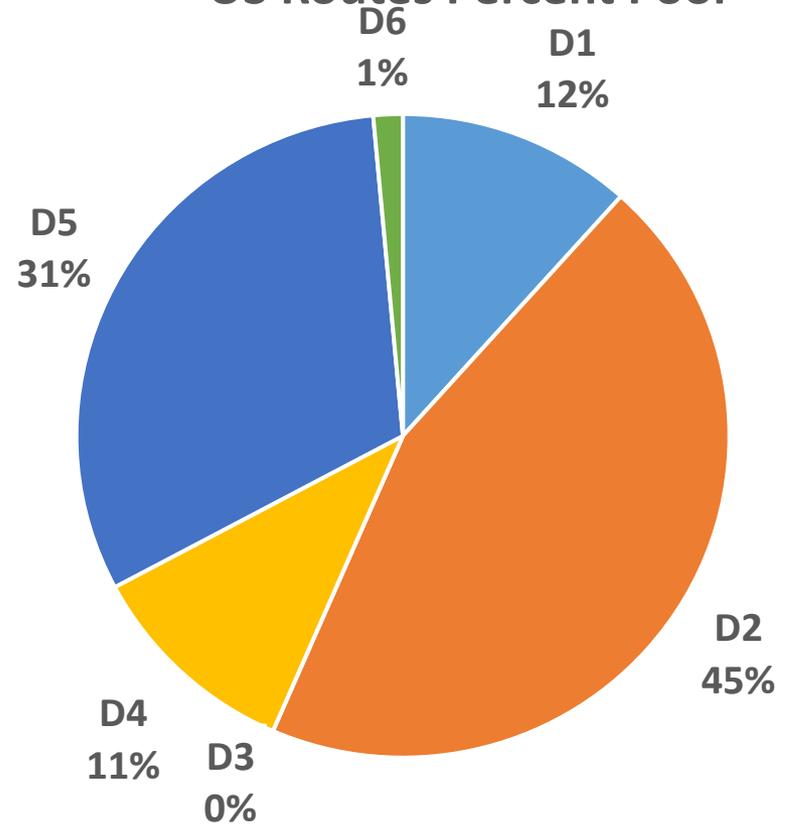


Pavement Condition US Routes by District

US Routes Percent Good/Fair

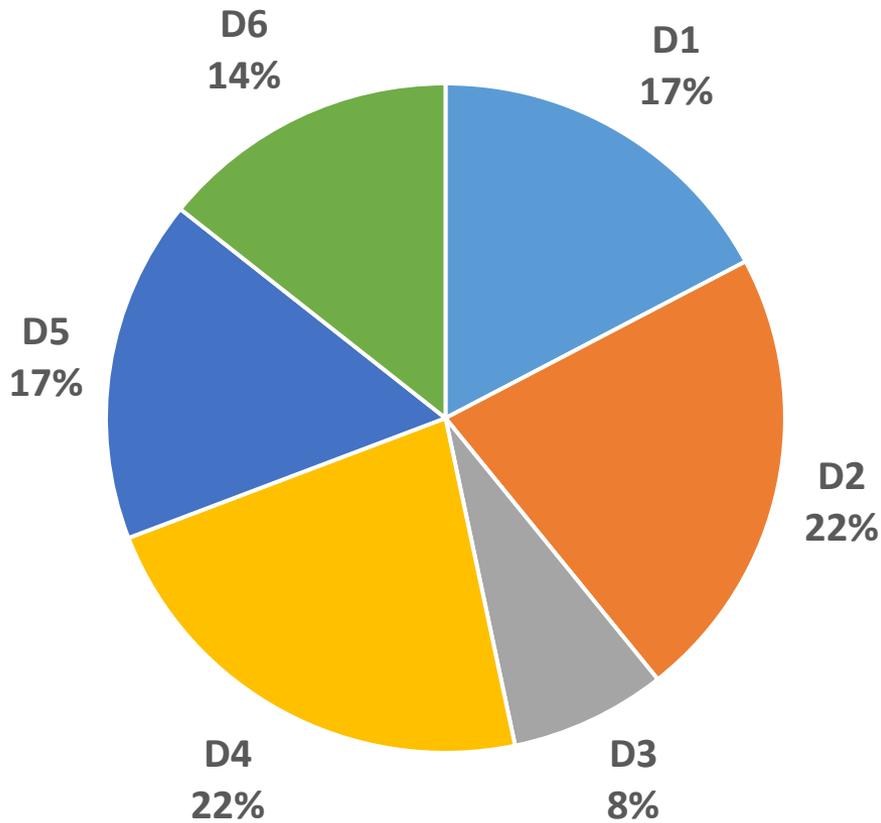


US Routes Percent Poor

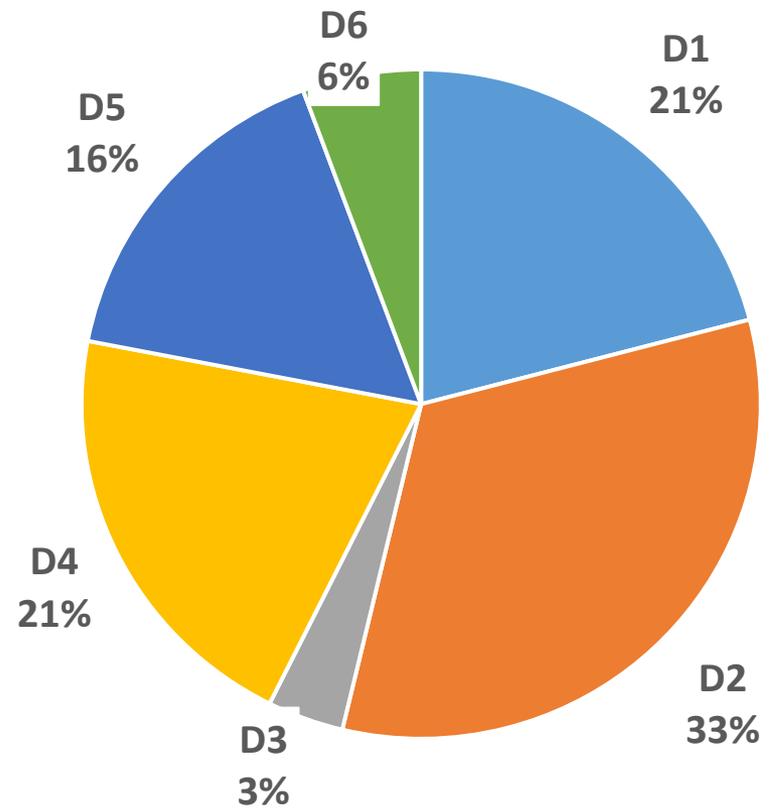


Pavement Condition NM Routes by District

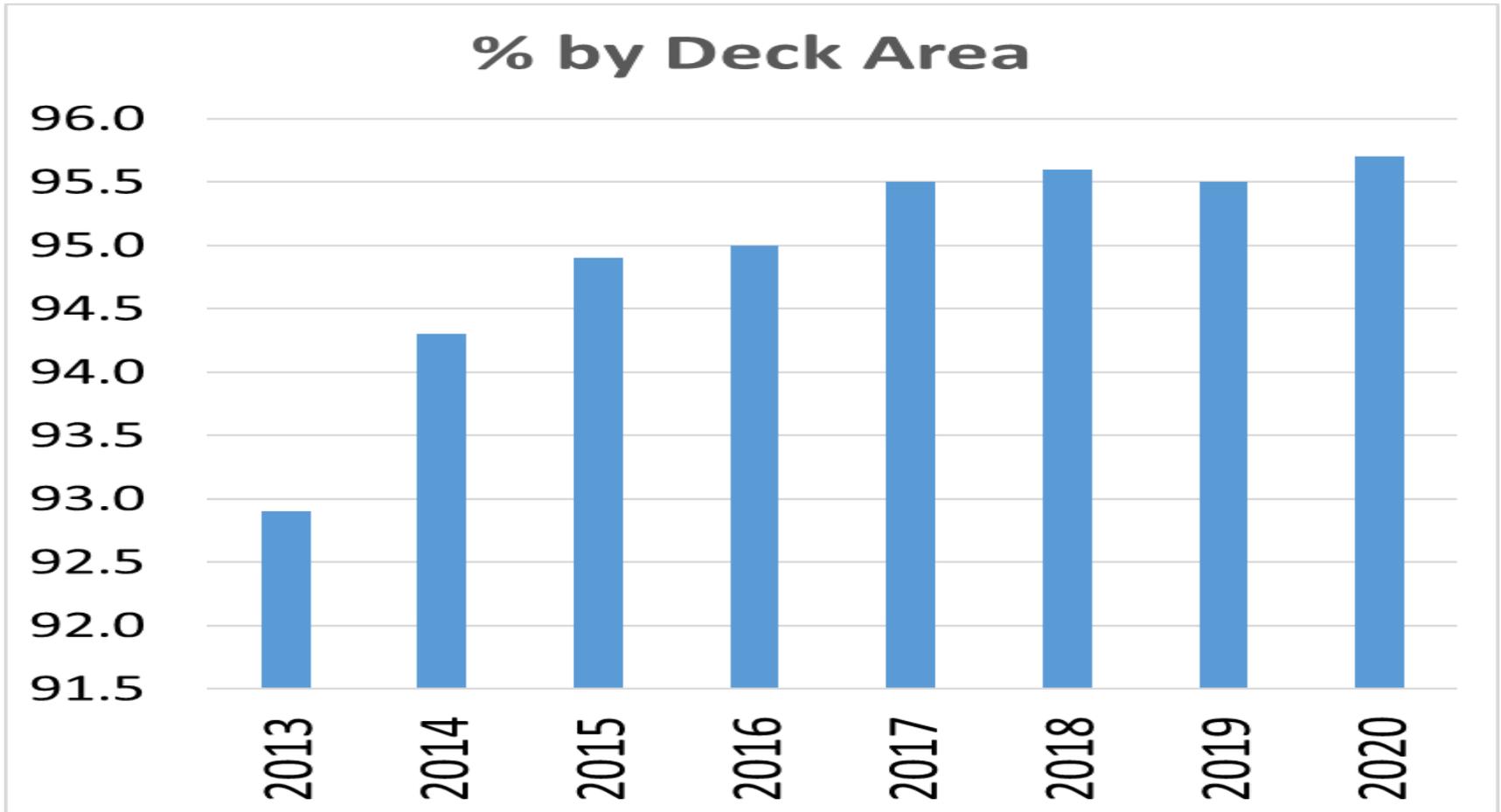
NM Routes Percent Good/Fair



NM Routes Percent Poor

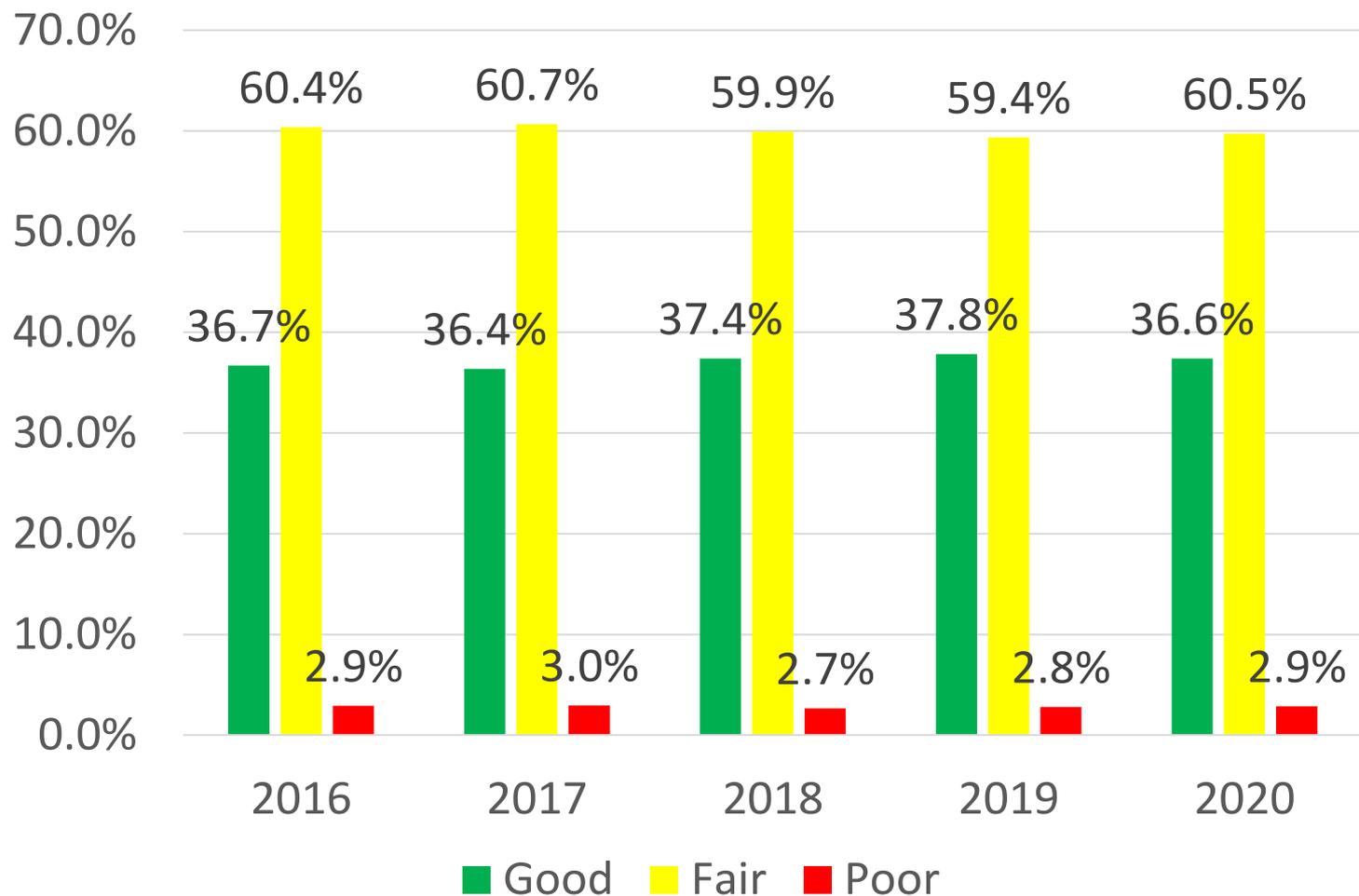


Bridge Condition – Fair or Better



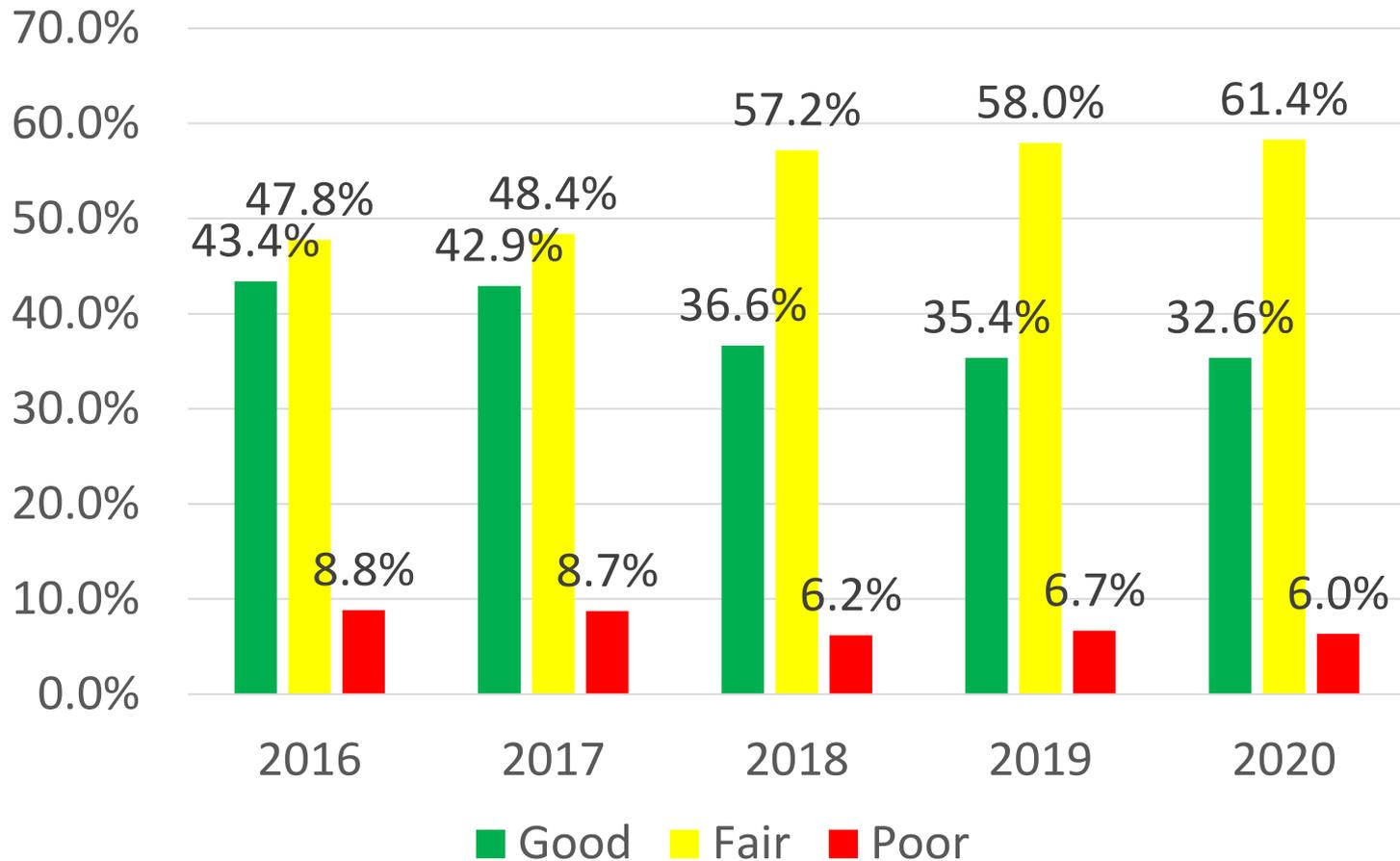
NHS Bridges 2016 – 2020

NHS Bridges Percent Good, Fair, Poor



Non-NHS Bridges 2016 – 2020

Non-NHS NMDOT Owned Bridges Percent
Good, Fair, Poor



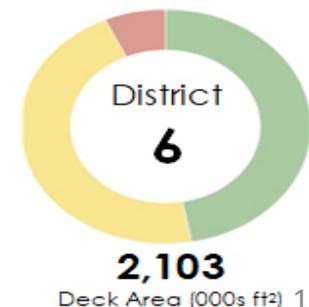
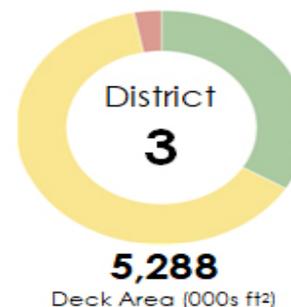
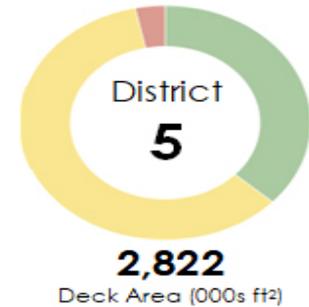
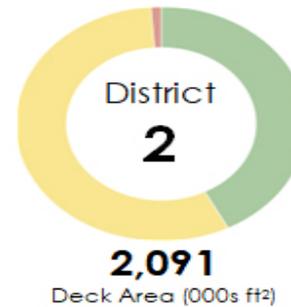
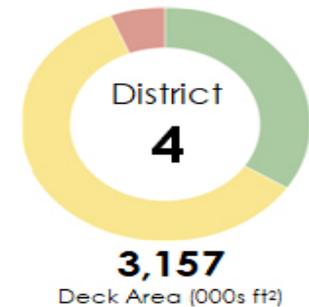
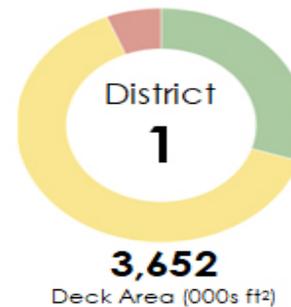
Bridge Inventory & Condition by District

square foot of deck
area
2020 Data



NMDOT BRIDGES

Condition and total NMDOT-owned
bridge deck area by district.



State of Good Repair (SOGR) for TAMP

Bridges

- The NMDOT defines the State of Good Repair for bridges to be at or above a condition rating (CR) of 6, and the goal is to maintain at least 75% of the bridges on a statewide basis at or above a CR of 6.

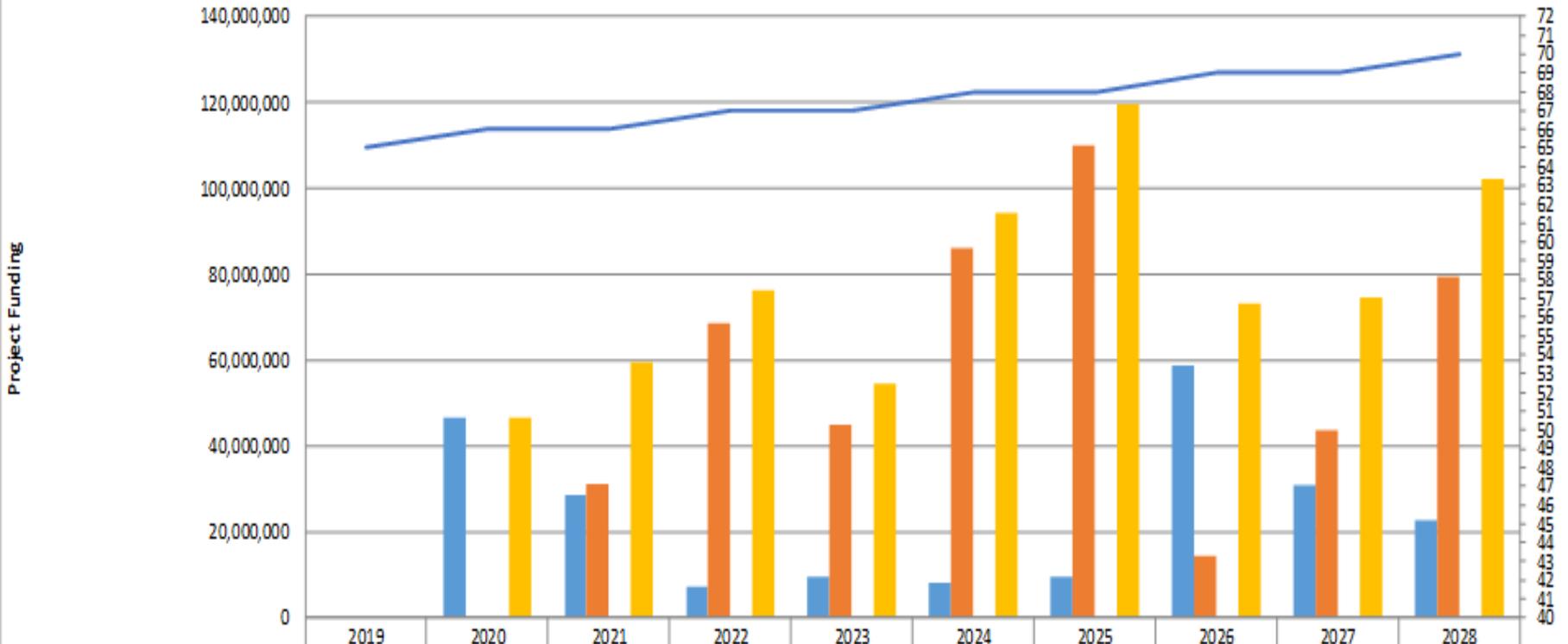
Pavements

- The NMDOT defines a State of Good Repair on **Interstate** pavements to be an Overall Condition Index (OCI) greater than or equal to a 70 and the goal is to maintain at least 65% of our **Interstate** Pavements at an OCI at or above 70.
- The NMDOT defines a State of Good Repair for **Non-Interstate National Highway System** (NHS) pavements to be an Overall Condition Index (OCI) of greater than or equal to 60 and the goal is to maintain at least 50% of our Non-Interstate NHS pavements at an OCI at or above 60.
- The NMDOT defines a State of Good Repair for **non-NHS** pavements to be an Overall Condition Index of greater than or equal to 50 and the goal is to maintain at least 35% of our **non-NHS** pavements at an OCI at or above 50

Pavement Funding Gap – Interstate

Historical Spending \$62M/yr need \$70M/yr

Interstate SOGR Current 65 to 70



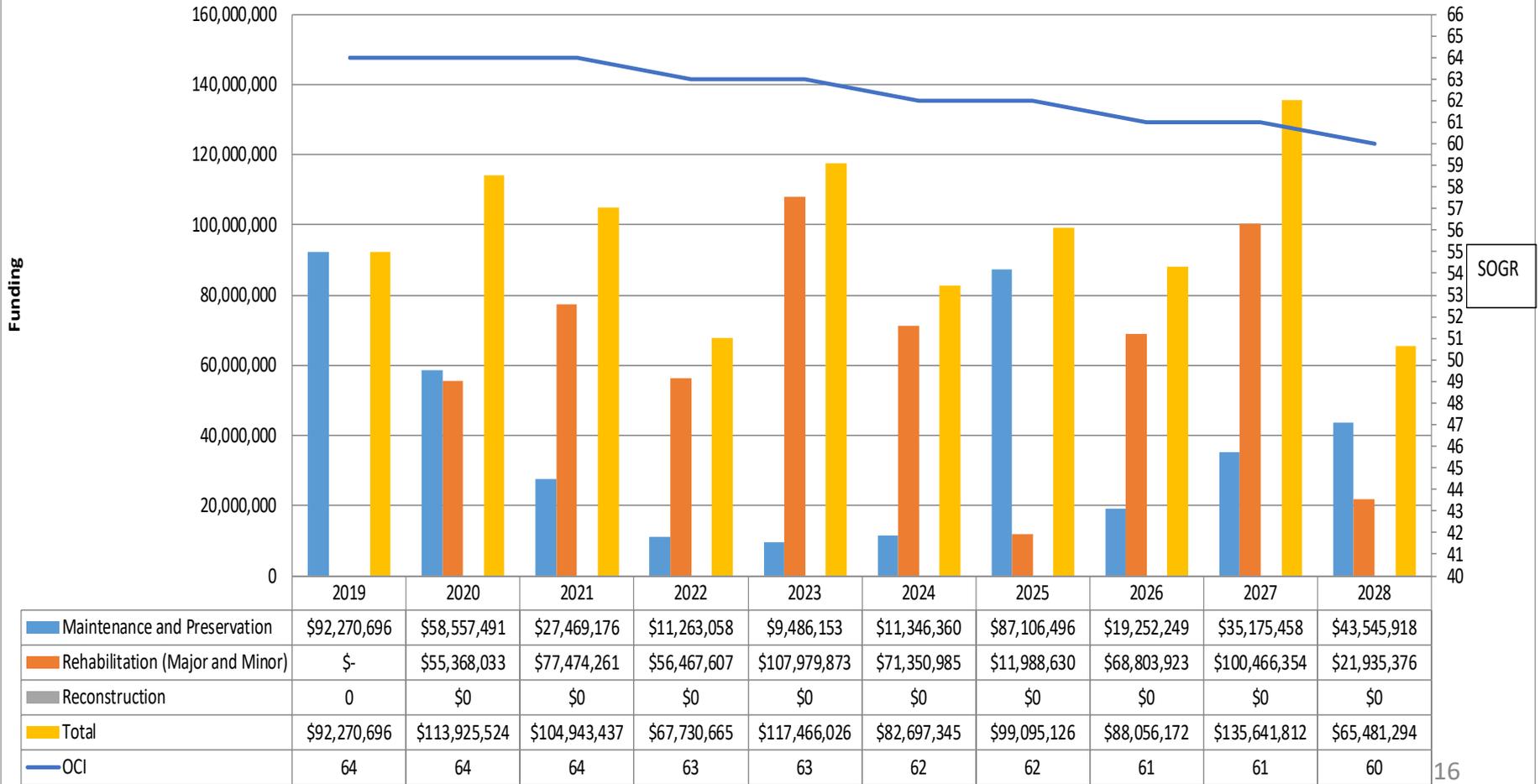
	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Maintenance and Preservation	\$0	\$46,739,863	\$28,510,448	\$7,352,921	\$9,587,104	\$8,228,167	\$9,546,580	\$58,886,147	\$30,927,471	\$22,791,957
Rehabilitation (Major and Minor)	\$0	\$0	\$31,048,951	\$68,734,812	\$44,822,495	\$86,163,160	\$110,038,740	\$14,386,356	\$43,681,256	\$79,496,762
Reconstruction	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total	\$0	\$46,739,863	\$59,559,399	\$76,087,733	\$54,409,599	\$94,391,327	\$119,585,320	\$73,272,503	\$74,608,727	\$102,288,719
OCI	65	66	66	67	67	68	68	69	69	70

Pavement Funding Gap –

NHS –Non-Interstate

Historical Spending \$68 M/yr, need \$97M /yr

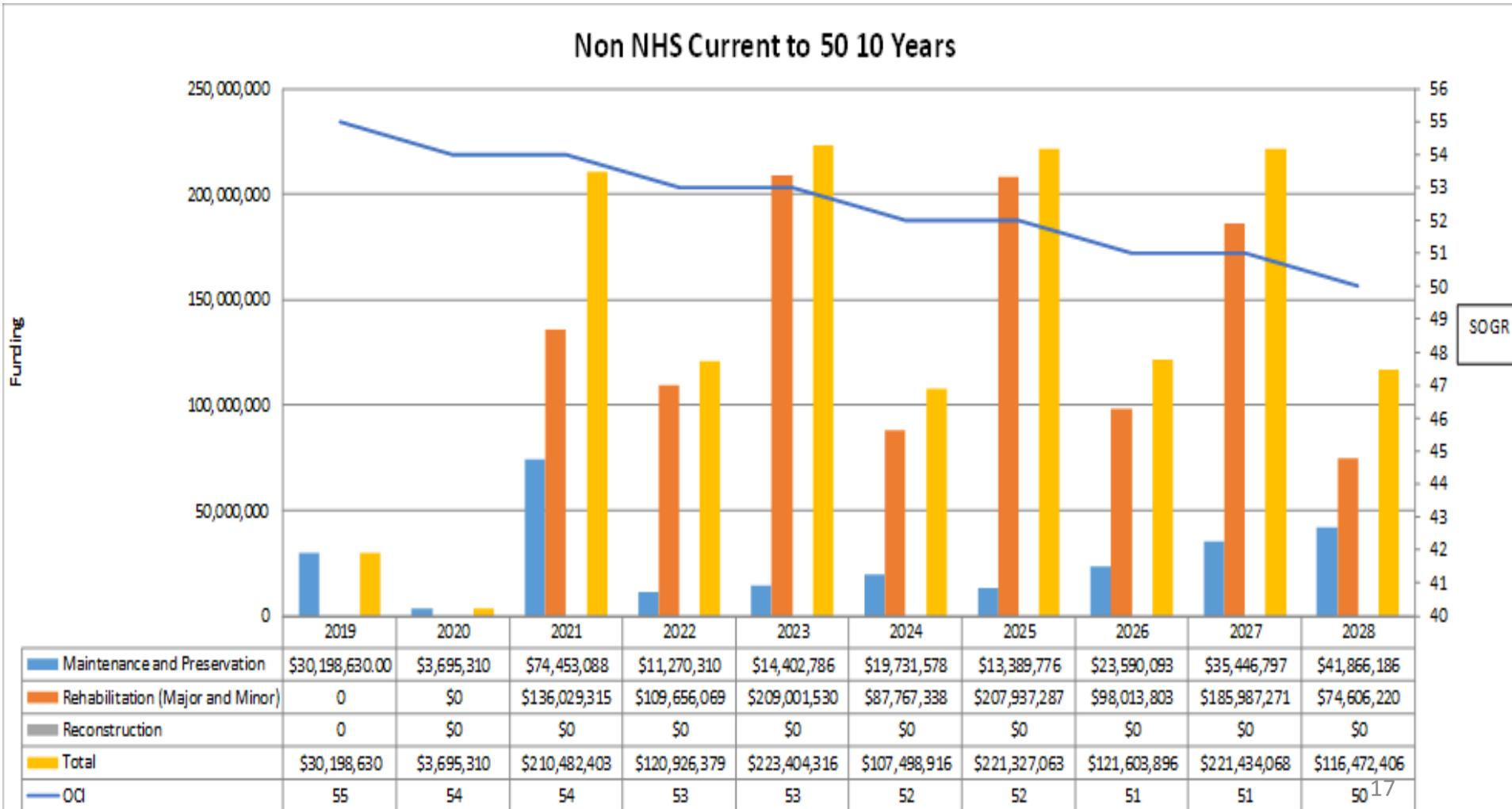
NHS NonInterstate to 60 10 Years



Pavement Funding Gap

Non-NHS

Historical Spending \$50 M/yr Need \$138M/yr



Maintenance Expenditures by Route Type

<u>District #</u>	<u>Route Class</u>	<u>Labor Cost (\$)</u>	<u>Equipment Cost (\$)</u>	<u>Commodity Cost (\$)</u>	<u>Other Cost (\$)</u>	<u>Total Cost</u>
1	Interstate	\$876,400.19	\$1,727,373.22	\$2,137,499.86	\$0.00	\$4,741,273.27
1	Other	\$169,681.69	\$313,114.03	\$223,065.91	\$0.00	\$705,861.63
1	State	\$1,002,056.96	\$2,326,778.49	\$2,528,587.74	\$0.00	\$5,857,423.19
1	US	\$351,936.56	\$802,908.11	\$480,224.11	\$0.00	\$1,635,068.78
		\$2,400,075.40	\$5,170,173.86	\$5,369,377.62	\$0.00	\$12,939,626.87
2	Other	\$1,742.04	\$4,361.84	\$199.67	\$0.00	\$6,303.55
2	State	\$1,355,362.04	\$2,966,375.67	\$2,962,878.52	\$0.00	\$7,284,616.21
2	US	\$1,179,313.75	\$2,197,989.42	\$2,044,882.14	\$0.00	\$5,422,185.29
		\$2,536,417.83	\$5,168,726.92	\$5,007,960.32	\$0.00	\$12,713,105.05
3	Interstate	\$819,970.56	\$1,402,783.50	\$996,270.82	\$0.00	\$3,219,024.88
3	Other	\$50,960.76	\$101,425.04	\$32,355.44	\$0.00	\$184,741.25
3	State	\$441,415.24	\$861,522.75	\$589,855.79	\$0.00	\$1,892,793.77
3	US	\$27,185.17	\$56,085.72	\$24,897.01	\$0.00	\$108,167.91
		\$1,339,531.73	\$2,421,817.01	\$1,643,379.07	\$0.00	\$5,404,727.80
4	Interstate	\$906,206.94	\$1,978,348.44	\$1,691,160.92	\$0.00	\$4,575,716.29
4	Other	\$130,165.26	\$240,494.54	\$118,179.26	\$0.00	\$488,839.06
4	State	\$1,341,869.08	\$3,026,986.93	\$1,838,064.12	\$0.00	\$6,206,920.11
4	US	\$469,189.81	\$1,032,430.50	\$1,725,498.89	\$0.00	\$3,227,119.20
		\$2,847,431.10	\$6,278,260.41	\$5,372,903.18	\$0.00	\$14,498,594.66
5	Interstate	\$293,569.58	\$591,384.50	\$392,810.14	\$0.00	\$1,277,764.22
5	Other	\$53,119.29	\$96,645.84	\$69,171.16	\$0.00	\$218,936.28
5	State	\$1,627,947.38	\$3,480,977.62	\$2,286,874.70	\$0.00	\$7,395,799.69
5	US	\$1,328,234.20	\$2,685,080.14	\$2,251,877.93	\$0.00	\$6,265,192.26
		\$3,302,870.45	\$6,854,088.10	\$5,000,733.93	\$0.00	\$15,157,692.44
6	Interstate	\$673,286.83	\$1,309,496.65	\$1,202,672.58	\$0.00	\$3,185,456.06
6	Other	\$5,555.82	\$8,184.90	\$1,258.16	\$0.00	\$14,998.88
6	State	\$947,906.72	\$2,174,731.25	\$2,699,758.49	\$0.00	\$5,822,396.45
6	US	\$299,358.95	\$632,753.46	\$369,540.02	\$0.00	\$1,301,652.42
		\$1,926,108.33	\$4,125,166.25	\$4,273,229.24	\$0.00	\$10,324,503.81
Total:		\$14,352,434.85	\$30,018,232.56	\$26,667,583.37	\$0.00	\$71,038,250.63

Disclaimer: Numbers are subject to change due to Maintenance Management System (MMS) system being a live database.

State of Good Repair (SOGR)

Bridges

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Pavements

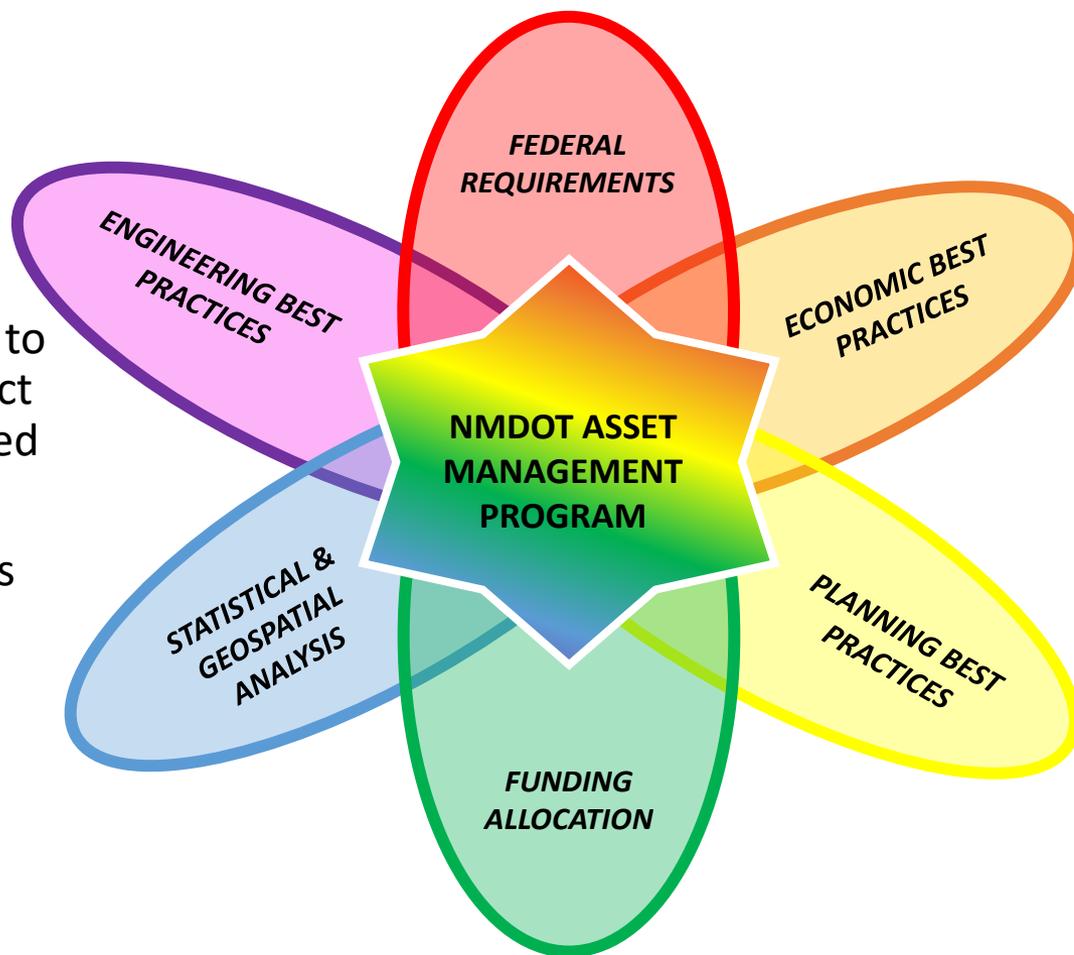
- The NMDOT defines a State of Good Repair on Interstate pavements to be an Overall Condition Index (OCI) greater than or equal to a 70 and the goal is to maintain at least 65% of our **Interstate** Pavements at an OCI at or above 70.
- The NMDOT defines a State of Good Repair on **US routes** to be an OCI greater than or equal to a 55 and the goal is to maintain at least 40% of our US Routes at an OCI at or above 55.
- The NMDOT defines a State of Good Repair on **NM routes** to be an OCI greater than or equal to a 50 and the goal is to maintain at least 40% of our NM Routes at an OCI at or above 50.

State of Good Repair Bridge Costs

- Average Condition Rating (CR) ≥ 7 After 10 Years
- Bridge Needs
 - NHS: \$50,316,142/Year for Next 10 Years
 - Non-NHS: \$40,093,320/Year for Next 10 Years
- To address Interchanges, avg \$41 million per year
- TAMP determined average spending on bridges was approximately \$60 million per year
- To replace all poor bridges within next 10 years, need is \$150 million per year

Transportation Asset Management Program

- Make calculated decisions as to what specific projects to select and where to distribute limited funds
- Support data-driven decisions for resource allocation
- Support NMDOT goal to preserve and maintain infrastructure
- Focuses on pavement conditions and bridge conditions.



Project Evaluation Process

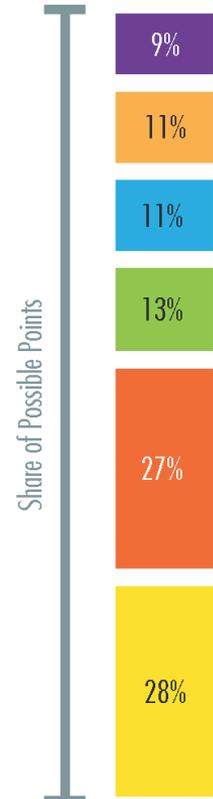
Evaluation criteria

Criteria are based on a review of state DOT selection processes,.

Data is averaged over the course of the project area.

Evaluation criteria are grouped into six categories based on NMDOT's overall goals:

- Safety
- Pavement Conditions
- General Mobility
- Freight Mobility
- Multi-Modal
- Economic Development.



Questions?

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