

End of Calendar Year 2022 Performance Measures Annual Report -- Bridges

Lehigh Valley

MAP-21 Bridge Performance (Based on all NHS Bridge Owners Greater than or Equal to 20' in Length)

MAP-21 Bridge Performance Measure												
	Good				Fair				Poor			
	Count	Count %	Deck Area (Msf)	Deck Area %	Count	Count %	Deck Area (Msf)	Deck Area %	Count	Count %	Deck Area (Msf)	Deck Area %
Interstate (Including Ramps)	20	25.00%	0.267	22.12%	59	73.75%	0.937	77.57%	1	1.25%	0.004	0.31%
NHS, Non-Interstate	58	37.66%	0.737	37.66%	91	59.09%	1.159	59.23%	5	3.25%	0.061	3.11%
Total NHS	78	33.33%	1.004	31.73%	150	64.10%	2.096	66.23%	6	2.56%	0.065	2.04%

Total NHS Deck Area Poor %	Map-21 Goal	End of Year 2022 Value	2021 Target	2023 Target	2025 Target
	10.00%	2.04%	9.75%	9.75%	8.00%

	Count	Deck Area (Msf)
Interstate (Including Ramps)	80	1.208
NHS, Non-Interstate	154	1.956
Total NHS	234	3.164

- MAP-21 bridge data is assessed and analyzed by National Bridge Inventory Standards (Bridges 20' and greater), which differs from PennDOT's 8' and greater reporting.
- MAP-21 performance measures apply to all Interstate and NHS Non-Interstate bridges in PA, regardless of ownership. Therefore, PA Turnpike and local-owned bridges are included in totals.

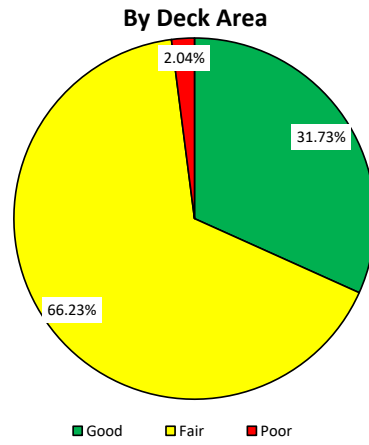
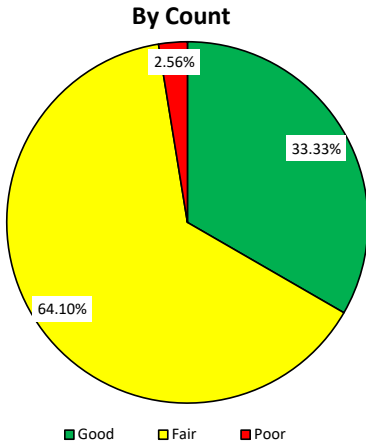
- MAP-21 bridge performance measures required for FHWA reporting include good, fair, or poor condition scores for each bridge. End of Calendar Year 2022 Status of Bridges in Region (Based on 8' and greater) fair if the minimum condition rating is 6 or 5, and poor if the minimum condition rating is 4 or less.
- FHWA requires that no more than 10 percent of a state's total NHS Bridge Deck Area be in poor condition. Additionally, state DOTs are required to establish biennial targets for poor deck area.
- FHWA has not established a minimum condition for Interstate only bridges or NHS non-Interstate bridges, but requires the state DOT to establish targets.
- FHWA requires that no more than 5 percent of a state's bridge data be unreported or missing.
- MAP-21 rulemaking requires that states develop and implement a risk-based asset management plan to achieve and sustain a state of good repair over the life cycle of the asset to improve or preserve the condition of the NHS. Asset Management encompasses two related means of doing so: making infrastructure last as long as reasonably possible through keeping up on preservation activities to minimize costlier major repairs, and utilizing a structure for its entire service life. These practices allow the department to operate to lowest life cycle cost (LLCC) on the network level.
- MAP-21 performance measures are not to explicitly drive planning and programming, but rather be an indication of performance achieved by states operating at the LLCC.

Business Plan Network	Total Bridge Count	Total Deck Area (Msf)	Aver. Bridge DA (sf)	Closed Bridges	Posted Bridges	Poor Count	% Poor by Count	Poor-Deck Area (Msf)	% Poor by Deck Area	Non-Poor Bridges with a "5" Condition Rating
State ≥8'; Interstate/Ramps	60	0.8209	13,682	0	0	0	0.00%	0.0000	0.00%	8
State ≥8'; NHS (non-Interstate)	199	1.8198	9,145	0	1	5	2.51%	0.0358	1.97%	58
State ≥8'; non-NHS > 2000 ADT	225	0.9668	4,297	0	3	23	10.22%	0.0449	4.65%	85
State ≥8'; non-NHS < 2000 ADT	175	0.2388	1,364	1	8	27	15.43%	0.0175	7.34%	52
Total - State Bridges (≥8')	659	3.8463	5,837	1	12	55	8.35%	0.0983	2.56%	203
Local ≥20'	261	0.8806	3,374	5	48	44	16.86%	0.1742	19.79%	73

Reducing Rate of Deterioration through Investment (Non-Replacement) (Based on 8' and greater)

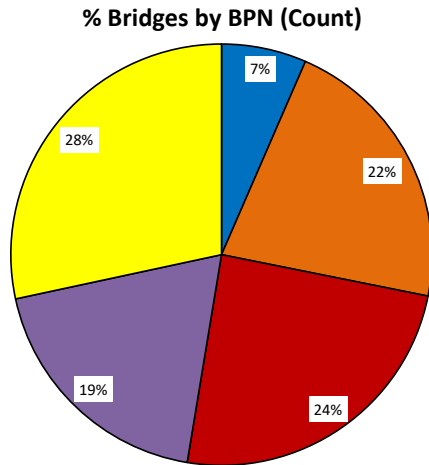
Business Plan Network	Annual New Poor Count (Poor "on")	Annual New Poor Count (Poor "off")	Annual New Poor DA (Poor "on")	Annual New Poor DA (Poor "off")	Preservation (million\$)	Preservation (#bridges)
State ≥8'; Interstate/Ramps	0	0	0.00%	0.00%	\$0.00	0
State ≥8'; NHS (non-Interstate)	1	2	0.03%	4.12%	\$4.02	7
State ≥8'; non-NHS > 2000 ADT	2	4	0.00%	1.54%	\$0.58	1
State ≥8'; non-NHS < 2000 ADT	0	6	0.00%	6.94%	\$0.00	0
Total - State Bridges (≥8')	3	12	0.01%	2.76%	\$4.60	8
Local ≥20'	4	3	1.50%	0.95%	\$0.00	0

MAP-21 Bridge Performance (Based on all NHS Bridge Owners Greater than or Equal to 20' in Length)

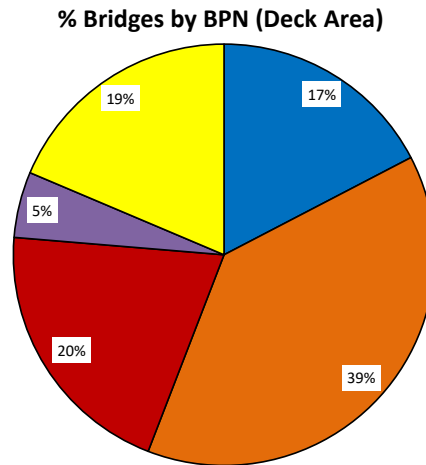


End of Calendar Year 2022 Status of Bridges in Region (Based on 8' and greater)

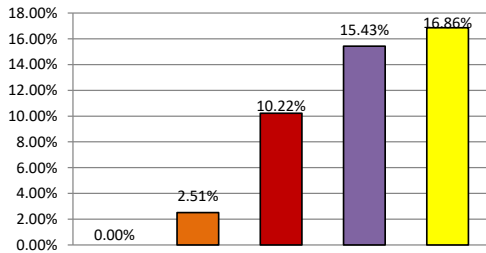
PennDOT Data 8' and Greater By Business Plan Network



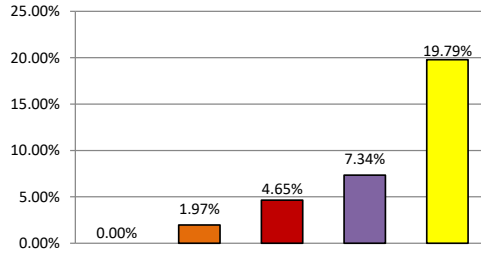
PennDOT Data 8' and Greater By Business Plan Network



Poor Bridge % by Business Plan Network (Count)



Poor Bridge % by Business Plan Network (Deck Area)



■ State >8'; Interstate
■ State >8'; NHS (non Interstate)
■ State >8'; non-NHS >2000 ADT
■ State >8'; non-NHS <2000 ADT
■ Local >20'

■ State >8'; Interstate
■ State >8'; NHS (non Interstate)
■ State >8'; non-NHS >2000 ADT
■ State >8'; non-NHS <2000 ADT
■ Local >20'