

Highlights from FHWA's 2018 National Bridge Inventory Data

- Of the 24,123 bridges in the state, 4,675, or 19.4 percent, are classified as structurally deficient. This means one of the key elements is in poor or worse condition.
- This is down from 4,691 bridges classified as structurally deficient in 2014.
- 7 of the structurally deficient bridges are on the Interstate Highway System.
- 4,815 bridges are posted for load, which may restrict the size and weight of vehicles crossing the structure.
- The state has identified needed repairs on 15,350 bridges at an estimated cost of \$1.6 billion.
- This compares to 15,309 bridges that needed work in 2014.

Bridge Inventory

Type of Bridge ⁴	All Bridges			Structurally Deficient Bridges		
	Total Number	Area (sq. meters)	Daily Crossings	Total Number	Area (sq. meters)	Daily Crossings
Rural Bridges						
Interstate	371	287,290	4,724,725	1	648	13,650
Other principal arterial	1,266	1,076,285	5,643,660	10	3,141	37,100
Minor arterial	1,075	605,801	2,087,290	24	16,021	43,610
Major collector	3,446	1,251,672	2,540,923	566	180,260	368,080
Minor collector	3,912	991,734	556,375	725	130,899	87,830
Local	11,755	1,815,215	622,086	3,184	348,161	135,651
Urban Bridges						
Interstate	359	761,837	8,663,040	6	42,269	94,700
Freeway/expressway	0	0	0	0	0	0
Other principal arterial	601	1,045,903	5,580,650	7	23,832	97,010
Minor arterial	544	622,573	3,540,608	50	89,936	296,515
Collector	308	185,853	793,675	28	15,728	45,460
Local	486	162,745	441,657	74	38,068	39,211
Total	24,123	8,806,907	35,194,688	4,675	888,963	1,258,817

Proposed Bridge Work

Type of Work	Number	Cost (millions)	Daily Crossings	Area (sq. meters)
Bridge replacement	7,400	\$1,363,670	1,533,843	1,252,359
Widening & rehabilitation	76	\$2,608	125,474	38,224
Rehabilitation	1,417	\$96,055	987,831	472,938
Deck rehabilitation/replacement	52	\$4,372	61,150	27,030
Other work	6,405	\$136,896	2,717,266	1,649,950
Total	15,350	\$1,603,602	5,425,564	3,440,502



Top Most Traveled Structurally Deficient Bridges in Iowa

County	Year Built	Daily Crossings	Type of Bridge	Location
Scott	1940	33,400	Urban other principal arterial	Centennial Bridge
Scott	1970	25,900	Urban Interstate	I-280 over Mississippi River & Road
Polk	1942	25,700	Urban other principal arterial	IA 415 over NW 66th Ave
Woodbury	1959	23,700	Urban Interstate	I29 SB Old Divi over Floyd Blvd
Scott	1963	20,000	Urban minor arterial	N Division St over Duck Creek
Polk	1936	18,600	Urban minor arterial	2nd Ave over Birdland Dr
Woodbury	1962	14,550	Urban Interstate	I-29 over Channel Floyd River
Johnson	1972	14,500	Urban minor arterial	Gilbert St over Ralston Creek
Poweshiek	1963	13,650	Rural Interstate	I 80 WB over Iowa 21
Johnson	1915	13,500	Urban other principal arterial	Ia 1 NB over Iowa River

About the data: Data is from the Federal Highway Administration (FHWA) National Bridge Inventory (NBI), released March 15, 2019. Note that specific conditions on bridges may have changed as a result of recent work or updated inspections.

Effective January 1, 2018, FHWA changed the definition of structurally deficient as part of the final rule on highway and bridge performance measures, published May 20, 2017 pursuant to the 2012 federal aid highway bill Moving Ahead for Progress in the 21st Century Act (MAP-21). Two measures that were previously used to classify bridges as structurally deficient are no longer used. This includes bridges where the overall structural evaluation was rated in poor or worse condition, or where the adequacy of waterway openings was insufficient.

The new definition limits the classification to bridges where one of the key structural elements—the deck, superstructure, substructure or culverts, are rated in poor or worse condition. During inspection, the conditions of a variety of bridge elements are rated on a scale of 0 (failed condition) to 9 (excellent condition). A rating of 4 is considered “poor” condition.

Cost estimates have been derived by ARTBA, based on 2017 average bridge replacement costs for structures on and off the National Highway System, [published by FHWA](#). Bridge rehabilitation costs are estimated to be 68 percent of replacement costs. A bridge is considered to need repair if the structure has identified repairs as part of the NBI, a repair cost estimate is supplied by the bridge owner or the bridge is classified as structurally deficient. Please note that for a few states, the number of bridges needing to be repaired can vary significantly from year to year, and reflects the data entered by the state.

Bridges are classified by FHWA into types based on the functional classification of the roadway on the bridge. Interstates comprise routes officially designated by the Secretary of Transportation. Other principal arterials serve major centers of urban areas or provide mobility through rural areas. Freeways and expressways have directional lanes generally separated by a physical barrier, and access/egress points generally limited to on- and off-ramps. Minor arterials serve smaller areas and are used for trips of moderate length. Collectors funnel traffic from local roads to the arterial network; major collectors have higher speed limits and traffic volumes and are longer in length and spaced at greater intervals, while minor collectors are shorter and provide service to smaller communities. Local roads do not carry through traffic and are intended for short distance travel.