

Highlights from FHWA's 2020 National Bridge Inventory Data

- Of the 26,848 bridges in the state, 2,374, or 8.8 percent, are classified as structurally deficient. This means one of the key elements is in poor or worse condition.
- This is up from 2,157 bridges classified as structurally deficient in 2016.
- The deck area of structurally deficient bridges accounts for 12.2 percent of total deck area on all structures.
- 179 of the structurally deficient bridges are on the Interstate Highway System. A total of 82.6 percent of the structurally deficient bridges are not on the National Highway System, which includes the Interstate and other key roads linking major airports, ports, rail and truck terminals.
- 1,198 bridges are posted for load, which may restrict the size and weight of vehicles crossing the structure.
- The state has identified needed repairs on 4,083 bridges at an estimated cost of \$5.6 billion.

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	879	791,717	10,011,662	69	95,556	652,675
Other principal arterial	858	548,017	4,096,450	59	49,118	295,550
Minor arterial	1,527	760,236	3,899,925	107	84,845	282,600
Major collector	3,232	1,049,047	3,156,785	265	101,645	243,110
Minor collector	1,436	382,750	730,065	132	31,842	80,635
Local	12,200	2,067,046	1,401,379	1,024	139,577	113,409
Urban Bridges						
Interstate	1,444	2,965,185	64,870,775	110	342,195	4,211,125
Freeway/expressway	216	298,250	6,074,450	25	62,226	1,675,050
Other principal arterial	1,362	2,092,966	30,053,625	139	337,946	3,530,825
Minor arterial	1,273	1,290,124	13,417,625	128	188,922	1,441,250
Collector	1,079	803,819	5,117,060	143	150,642	762,545
Local	1,342	498,881	1,553,952	173	55,778	183,535
Total	26,848	13,548,037	144,383,744	2,374	1,640,293	13,472,309

Proposed Bridge Work

Type of Work	Number	Cost (millions)	Daily Crossings	Area (sq. meters)
Bridge replacement	1,542	\$2,559,123.9	11,558,534	1,309,209
Widening & rehabilitation	280	\$472,757.1	4,177,195	354,804
Rehabilitation	2,048	\$2,040,121.2	14,908,792	1,533,049
Deck rehabilitation/replacement	66	\$208,913.6	3,704,625	156,451
Other work	147	\$324,971.9	1,986,810	244,278
Total	4,083	\$5,605,887.6	36,335,956	3,597,790

Top Most Traveled Structurally Deficient Bridges in Illinois

County	Year Built	Daily Crossings	Type of Bridge	Location
Cook	1962	214,100	Urban Interstate	I- 90,94 Elev Exp over Stewart Ave to 28 Pl
Cook	1962	188,500	Urban Interstate	I- 90,94 Ryan Elev over 18th to 22nd Sts
DuPage	1959	164,000	Urban Interstate	I- 55 over Madison St
Cook	1963	158,300	Urban freeway/expressway	IL 53 NB over Kirchoff Rd
Cook	1963	158,300	Urban freeway/expressway	IL 53 SB over Kirchoff Rd
Cook	1949	154,600	Urban Interstate	I- 94 Bishop Ford over RR - Ihb & CSXt
Cook	1949	148,500	Urban Interstate	I- 94, US 41 Edens over Skokie River
DuPage	1960	146,900	Urban Interstate	I- 55 over Lemont Rd
Cook	1964	145,800	Urban freeway/expressway	IL 53 NB Fap 342 over US 14 NW Hwy & UP RR
Cook	1963	145,800	Urban freeway/expressway	IL 53 SB over Industrial Ave

About the data: Data is from the Federal Highway Administration (FHWA) National Bridge Inventory (NBI), downloaded on March 11, 2021. 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 2019 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.

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