American Road & Transportation Builders Association

2020 Bridge Report

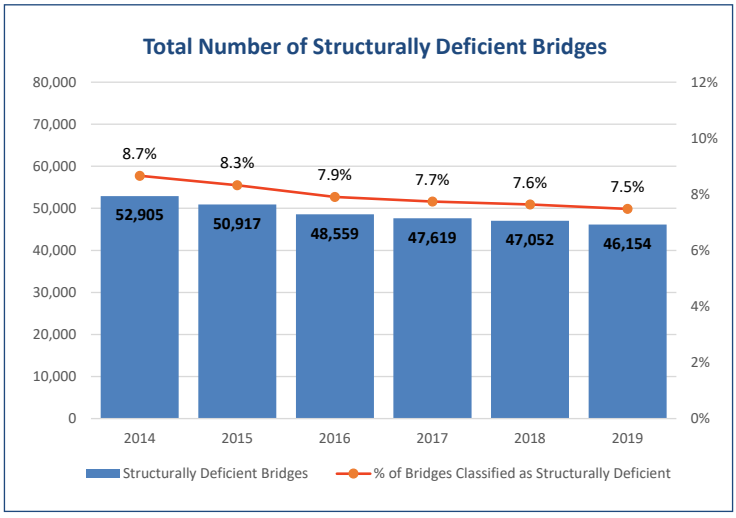
Highlights:

- More than one third (37 percent) of U.S. bridges—nearly 231,000 spans—need repair work. More than 46,000 bridges are rated in poor condition and classified as "structurally deficient." A total of 81,000 bridges should be replaced.
- While the number of structurally deficient (SD) bridges declined by 900 compared to 2018, it still would take more than 50 years to repair them all.
- Motorists drive cross these structurally deficient bridges 178 million times a day.
- Structurally deficient bridge, on average, are nearly 69 years old, compared to 44 years old for non-deficient bridges.
- One third of Interstate highway bridges (18,177 spans) have identified repair needs.
- State by state and Congressional District details: **www.artbabridgereport.org**

Over one-third of U.S. bridges need repair work or replacement, according to ARTBA's sixth annual analysis of the latest U.S. Department of Transportation's National Bridge Inventory (NBI) database (2019).

If placed end-to-end, these bridges would stretch over 6,300 miles—long enough to make a round trip across the country from New York City to Los Angeles and back again to Chicago.

ARTBA estimates the cost of identified repairs for all 231,000 bridges is nearly $164 billion, based on average cost data published by the Federal Highway Administration (FHWA).



This includes 46,154 bridges classified as structurally deficient and considered to be in poor condition. The length of these bridges alone, over 1,115 miles, spans the distance between Las Vegas and Seattle. Motorists cross these compromised structures 178 million times every day, the data shows.

Structurally deficient bridges were 7.5 percent of the 2019 U.S. bridge inventory—compared to 7.6 percent in 2018. With bridges being repaired and other structures deteriorating, the overall number of bridges classified as structurally deficient was down by 900 compared to the year before. At the current rate, it would take over 50 years to repair these structures.

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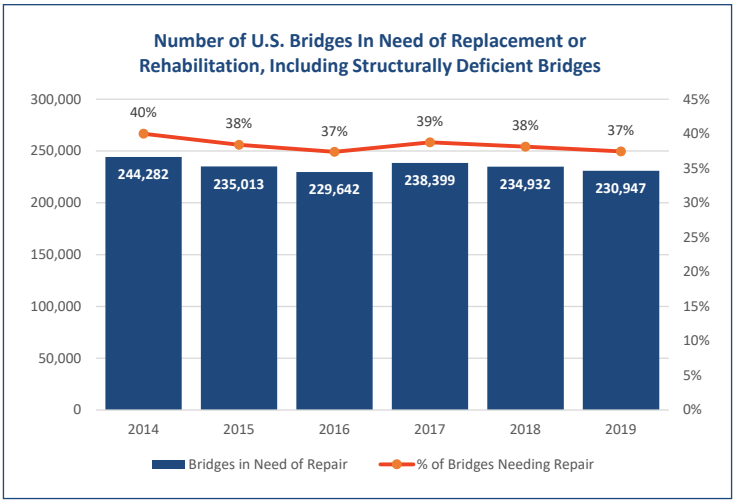
Nearly half of bridges—47 percent—are rated in fair condition. This means that the bridge shows some evidence of minor deterioration or minor cracks.

Including structurally deficient bridges, there are nearly 231,000 bridges across the country that need structural repair, rehabilitation or replacement, according to ARTBA's analysis of the NBI data, accounting for 37 percent of all bridges. This includes replacing nearly 81,000 structures. ARTBA estimates the cost to make the identified repairs for all 231,000 bridges is nearly $164 billion, based on average cost data published by FHWA.



Bridge ratings are updated as inspections are completed—each year some bridges are classified as structurally deficient and others are removed from that category as they undergo repair, rehabilitation or replacement. Nearly 88 percent of the bridges classified as structurally deficient in 2019 had the same rating in 2018. There were 5,332 bridges newly classified as structurally deficient in 2019. Another 6,232 bridges that were structurally deficient in 2018 were removed from that category in 2019, for an overall net decline of 900 bridges.

Notable Bridges

Some of the notable structurally deficient bridges in 2019 include:

- New York's Brooklyn Bridge;
- Teddy Roosevelt bridge in Washington, D.C.;
- San Mateo-Hayward bridge crossing California's San Francisco Bay – the longest bridge in California;
- Robert S. Maestri Bridge over Lake Pontchartrain in Louisiana;
- Albemarle Sound Bridge and the Lindsay C. Warren Bridge crossing the Alligator River in N.C.;
- Florida's Pensacola Bay Bridge;
- Vicksburg Bridge in Miss.; and
- Lacey V. Murrow Memorial Bridge in Washington state.

The most traveled structurally deficient bridges are on parts of Route 101, Interstate 405 and Interstate 5 in California, where daily crossings are as high as 289,000 per day.

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Rankings

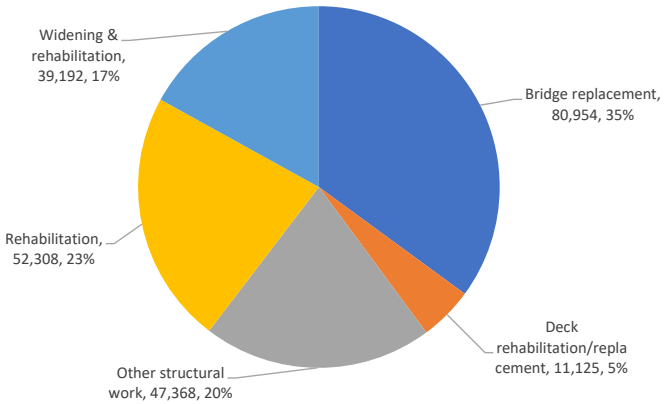
The states with the most structurally deficient bridges, as a percent of their total bridge inventory, are:

- Rhode Island (22.3 percent)
- West Virginia (21 percent)
- Iowa (19 percent)
- South Dakota (17 percent)
- Pennsylvania (15.3 percent)
- Louisiana (13.2 percent)
- Maine (12.8 percent)
- Puerto Rico (12.3 percent)
- Michigan (10.8 percent)
- North Dakota (10.7 percent).

States with the largest number of structurally deficient bridges are:

- Iowa (4,575 bridges)
- Pennsylvania (3,501)
- Illinois (2,407)
- Oklahoma (2,352)
- Missouri (2,147)
- California (1,797)
- New York (1,745)
- North Carolina (1,714)
- Louisiana (1,701)
- West Virginia (1,531).

Number of Bridges Needing Work By Type of Repair



While these bridges may not be imminently unsafe, they need attention. Over 69,500 bridges across the country are "posted for load," which means there are weight restrictions or other measures in place to reduce stress on the structure.

Over the last five years, Pennsylvania has reduced the number of its structurally deficient bridges by 1,200. Other states with large decreases: Oklahoma (753); Indiana (467); Ohio (412) and Virginia (391). In 12 states, the number of structurally deficient bridges increased over the five years, including: West Virginia (plus 472); Illinois (260); Florida (131); Missouri (80) and Montana (77).

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Deficient Bridge Area

For the first time this year, the ARTBA report includes information on the percent of bridge deck area that is classified as structurally deficient.

States that top this list include:

- Rhode Island (23 percent)
- West Virginia (16 percent)
- Illinois (12.3 percent)
- Massachusetts (11.5 percent)
- Connecticut (10.2 percent)
- New York (10 percent)
- Iowa (9.8 percent)
- Washington, D.C. (9.7 percent)
- Puerto Rico (9.6 percent)
- South Dakota (9.4 percent)

Nationwide, the area of structurally deficient is 21.4 million square meters, a total of 5.4 percent of the area of all bridges. That is enough to cover over 4,000 football fields. Half of the bridge deck area in the country— 50 percent – is rated in fair condition, with the remaining 44 percent considered to be in good condition.

State—and congressional district—specific information from the analysis—including rankings and the locations of the 250 most heavily travelled structurally deficient bridges in the nation and top 25 most heavily traveled in each state—is available at **www.artbabridgereport.org**.