

# National Bridge Inventory: Puerto Rico

- Of the 2,385 bridges in the Commonwealth, 332, or 13.9 percent, are classified as structurally deficient. This means one of the key elements is in poor or worse condition.
- This is up from 282 bridges classified as structurally deficient in 2020.
- The deck area of structurally deficient bridges accounts for 11.8 percent of total deck area on all structures.
- 39 of the structurally deficient bridges are on the Interstate Highway System. A total of 76.5 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.
- 833 bridges are posted for load, which may restrict the size and weight of vehicles crossing the structure.
- The state has identified needed repairs on 1,722 bridges.
- This compares to 1,726 bridges that needed work in 2020.

**6**

Compared to 7 in 2023

in the nation in % of structurally deficient bridges

1. Iowa	19.0%
5. Rhode Island	15.0%
6. Puerto Rico	14.0%
7. Pennsylvania	13.0%

**36**

Compared to 36 in 2023

in the nation in # of structurally deficient bridges

1. Iowa	4,544
35. Montana	356
36. Puerto Rico	332
37. Maryland	250

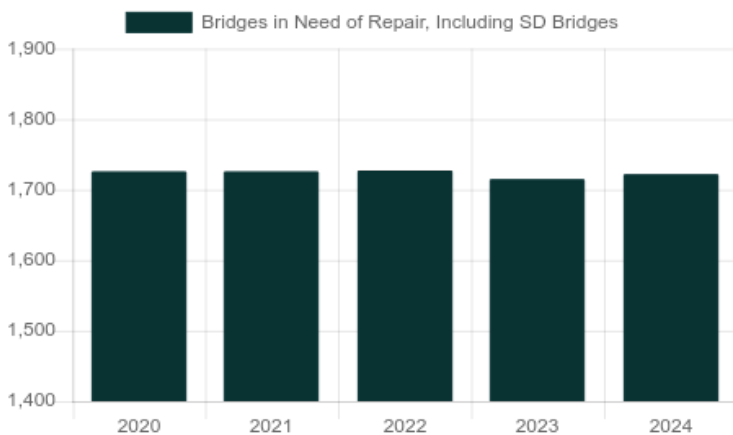
**4**

Compared to 8 in 2023

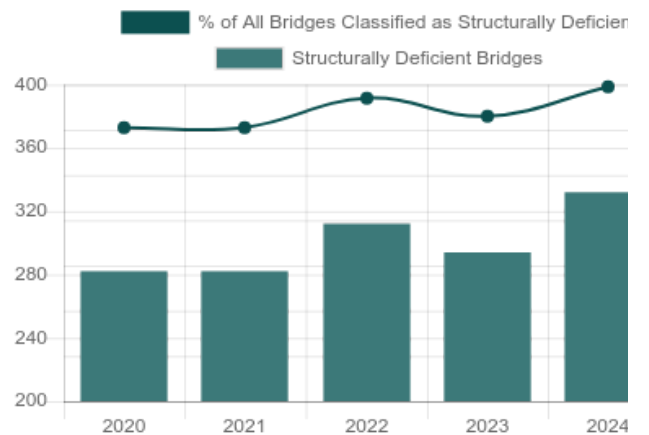
in the nation in % of structurally deficient bridge deck area

1. Rhode Island	14.0%
3. New York	12.0%
4. Puerto Rico	12.0%
5. Illinois	11.0%

Number of Bridges in Need of Repair, Including Structurally Deficient Bridges



Number of Structurally Deficient Bridges



## Top Most Traveled Structurally Deficient Bridges in Puerto Rico

County	Year Built	Daily Crossings	Type of Bridge	Location
San Juan	1967	261,400	Urban Interstate	Pr 18 over Pr 23 (Roosevelt Av.)
San Juan	1972	183,900	Urban Interstate	Pr 18 over Chardon Street
San Juan	1967	183,800	Urban Interstate	Pr 18 over Pr 17 (Pi&#165;Ero Avenu
San Juan	1979	153,300	Urban Interstate	Pr 52 Southbound over Pr 177
Guaynabo	1971	104,500	Urban Interstate	Pr 22 over Pr 28
Carolina	1965	100,800	Urban Interstate	Pr 26 Westbound over Suarez Channel & ; Pr
Catano	1976	100,600	Urban Interstate	Pr 22 Westbound over Bayamon & ; Hondo Rive
Caguas	1964	98,538	Urban Interstate	Pr 52 over Caguaitas River
Vega Baja	1995	89,500	Urban Interstate	Pr 22 over Local Road
Caguas	1968	78,200	Urban freeway/expressway	Pr 30 Eastbound over Pr 796
Las Piedras	1964	60,700	Rural arterial	Pr 30 Eastbound over Humacao River
Barceloneta	1992	51,500	Urban Interstate	Pr 22 over Pajuil Street
Guaynabo	1972	51,200	Urban freeway/expressway	Pr 165 over Pr 24
Ponce	1995	50,800	Urban Interstate	Pr 52 over Dirt Road
Ponce	1995	50,800	Urban Interstate	Pr 52 over Dirt Road
Bayamon	2000	48,500	Urban collector	Pr 5 over Sofia Street
Mayaguez	1961	45,800	Urban Interstate	Pr 2 over Yaguez River & ; Urban
San Juan	1967	45,500	Urban other principal arterial	Pr 1 Southbound over San Roberto Street
San Juan	1976	45,500	Urban other principal arterial	Pr 1 over Pr 52
San Juan	1977	45,500	Urban other principal arterial	Pr 1 over Pr 18 (Las Americas Exp)
Juana Díaz	1970	45,400	Rural Interstate	Pr 52 Southbound over Jacaguas River
Juana Díaz	1970	45,400	Rural Interstate	Pr 52 Northbound over Jacaguas River
Trujillo Alto	1985	42,600	Urban minor arterial	Pr 181 over Grande De Loiza River
Carolina	1960	41,500	Urban other principal arterial	Campo Rico Avenue over Creek
Humacao	1995	41,100	Urban freeway/expressway	Pr 30 over Dirt Road & ; Waterway

## Bridge Inventory: Puerto Rico

Type of Bridge	Number of Bridges	Area of All Bridges (sq. meters)	Daily Crossings on All Bridges	Number of Structurally Deficient Bridges	Area of Structurally Deficient Bridges (sq. meters)	Daily Crossings on Structurally Deficient Bridges
Rural Interstate	214	281,881	5,940,016	14	16,976	352,450
Rural arterial	79	210,497	1,188,474	9	23,350	157,950
Rural minor arterial	155	90,766	1,359,551	22	8,104	168,300
Rural major collector	194	72,473	868,486	31	16,992	128,000
Rural minor collector	146	35,888	414,567	30	6,164	88,950
Rural local road	452	139,173	936,210	89	13,832	65,575
Urban Interstate	251	537,019	15,190,990	25	89,651	1,790,188
Urban freeway/expressway	115	278,407	4,758,998	9	18,032	374,818
Urban other principal arterial	208	297,780	6,289,153	25	37,053	582,899
Urban minor arterial	174	112,496	2,277,964	28	20,682	336,400
Urban collector	171	94,430	1,432,265	23	6,407	211,300
Urban local road	226	96,741	968,595	27	7,937	172,350
<b>Total</b>	<b>2,385</b>	<b>2,247,552</b>	<b>41,625,269</b>	<b>332</b>	<b>265,179</b>	<b>4,429,180</b>

## Proposed Bridge Work

Type of Work	Number of Bridges	Cost to Repair (in millions)	Daily Crossings	Area of Bridges (sq. meters)
Bridge replacement	240	\$139	1,347,297	45,513
Widening & rehabilitation	252	\$133	2,153,976	63,946
Rehabilitation	1,195	\$2,674	25,967,661	1,192,162
Deck rehabilitation/replacement	25	\$170	550,796	73,308
Other structural work	10	\$5	93,550	2,179
<b>Total</b>	<b>1,722</b>	<b>\$3,121</b>	<b>30,113,280</b>	<b>1,377,108</b>

#### About the data:

Data and cost estimates are from the Federal Highway Administration (FHWA) National Bridge Inventory (NBI), downloaded on August 20, 2024. 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 2023 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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