

At least 3% of US Interstate Highway System bridges are in poor condition, study shows

By [John Worthen](#) - April 24, 2024



The ruins of the Francis Scott Key Bridge in Baltimore are shown. A study by national transportation research nonprofit TRIP highlights America's ailing and older bridges. (AP Photo)

WASHINGTON — After a massive barge struck and collapsed [Baltimore's Francis Scott Key Bridge](#) on March 26, many in the nation, especially those who work in the transportation and logistics industry, began wondering about the safety of other U.S. bridges.

The answer, according to a study by national transportation research nonprofit [TRIP](#), is that at least 3% of the nation's Interstate Highway System Bridges are rated as being in poor condition.

A total of 59% are rated in fair condition.

Bridges in poor condition have significant deterioration of the bridge deck, supports or other major components.

A fair rating indicates that a bridge's structural elements are sound but minor deterioration has occurred to the bridge's deck, substructure or superstructure.

During its latest federal inspection, the Key Bridge, which carried Interstate 65 across the Patapsco River, scored a six out of nine, which is considered "fair."

"In addition to the need to evaluate bridges to ensure adequate safety measures are in place to safeguard their sustainability despite increasing ship sizes and weights, increased vehicle travel on the bridge and changing environmental conditions, the collapse of the Francis Scott Key Bridge also spotlights the importance of the Interstate Highway System in supporting the

nation's supply chain and the continued growth in freight movement in the U.S.," according to a TRIP news release.

According to a 2023 TRIP report, in 2022 the U.S. freight system moved 19.7 billion tons of freight, valued at \$18.8 trillion, with trucks carrying 72% of freight by value and 64% by weight. From 2000 to 2022, vehicle miles of travel by large commercial trucks in the U.S. increased by 44%.

From 2022 to 2050, freight moved annually in the U.S. by trucks is expected to increase 93% in value (inflation-adjusted dollars) and 47% by weight.

U.S. business logistics costs reached \$2.3 trillion in 2022, representing 9.1% of U.S. GDP — the highest share ever.

"The tragic collapse of the Key Bridge in Baltimore has had a significant impact on businesses across Maryland, disrupting the movement of goods and people throughout the region," said Mary D. Kane, president and CEO of the Maryland Chamber of Commerce. "This event has underscored the crucial role that our nation's infrastructure plays in supporting the daily lives of our citizens and the smooth functioning of our economy. As the unified voice of the Maryland business community, we are committed to continuing to work with our Building Bridges to Recovery Coalition, state and federal partners, as well as businesses across the state to advocate for the resources and policies needed to address these infrastructure challenges and preserve the resilience of our supply chains."

A 2019 Transportation Research Board (TRB) report found that the U.S. Interstate Highway System has a persistent and growing backlog of physical and operational deficiencies as a result of age, heavy use and deferred reinvestment, and is in need of major reconstruction and modernization. The TRB report concludes that annual investment in the Interstate Highway System should be increased approximately two-and-a-half times, from \$23 billion in 2018 to \$57 billion annually over the next 20 years. In 2022, 13% of travel on Interstate highways and 22% of travel on rural Interstate highways was by combination trucks and 57% of large commercial truck vehicle miles of travel in 2022 was on Interstate highways.

While the amount and value of goods being shipped have risen to unprecedented levels, mounting traffic congestion is increasing the cost of moving freight and reducing the economic competitiveness and efficiency of businesses that require reliable, affordable freight transportation. Traffic congestion results in \$95 billion annually in the cost of commercial trucks being stuck in traffic for 1.3 billion hours.

"The interruption in the flow of freight and travel both on Baltimore's Key Bridge and in the channel below highlights the

importance of our nation’s transportation network in safely and reliably moving goods and people,” said David Kearby, executive director of TRIP. “A transportation system that is well-maintained, safe, efficient and adequately funded is critical to our nation’s economy and the quality of life and safety of those who rely on it.”

The chart below provides state-by-state data for freight movement by value and weight, the projected increase in freight movement by value and weight from 2022-2050, the share of vehicle miles of travel (VMT) by combination trucks on the Interstate and on Rural Interstates, and the share of Interstate bridges in poor and fair condition.

STATE	2022 Freight by Value - All Modes	2022 Freight by Weight - All Modes	2022-2050 Increase in Freight - All Modes		Share of Interstate VMT by Combination Trucks		Interstate Bridge Conditions	
	Millions of \$	Thousands of Tons	By Value	By Weight	All	Rural	Poor	Fair
Alabama	447,790	590,035	93%	49%	15%	20%	1%	81%
Alaska	78,298	52,539	55%	63%	4%	7%	5%	48%
Arizona	365,431	272,528	98%	55%	18%	28%	1%	38%
Arkansas	224,659	321,674	100%	57%	27%	33%	2%	55%
California	2,845,127	1,397,905	107%	63%	8%	19%	5%	44%
Colorado	325,558	343,633	105%	66%	8%	13%	4%	63%
Connecticut	294,226	172,556	94%	49%	9%	16%	2%	78%
Delaware	102,057	64,774	112%	69%	16%	0%	0%	83%
D.C.	40,139	12,408	89%	43%	0%	0%	1%	54%
Florida	1,064,559	838,912	101%	58%	8%	14%	0%	30%
Georgia	985,880	629,488	101%	61%	14%	24%	0%	21%
Hawaii	52,336	40,338	219%	49%	1%	0%	1%	72%
Idaho	114,427	180,297	91%	63%	18%	23%	4%	79%
Illinois	1,571,188	1,270,882	83%	44%	17%	30%	7%	70%
Indiana	812,224	814,538	89%	42%	28%	34%	2%	45%
Iowa	377,356	637,557	98%	58%	22%	27%	1%	61%
Kansas	332,466	400,078	92%	68%	14%	19%	1%	26%
Kentucky	604,849	502,058	84%	31%	18%	21%	3%	77%
Louisiana	581,048	1,383,421	76%	43%	16%	16%	2%	57%
Maine	87,093	91,101	91%	48%	11%	12%	8%	79%
Maryland	390,176	304,649	100%	40%	6%	13%	1%	74%
Massachusetts	491,645	244,272	102%	55%	5%	13%	7%	77%
Michigan	1,090,656	755,676	85%	57%	12%	17%	6%	70%
Minnesota	513,798	760,175	90%	37%	9%	22%	2%	66%
Mississippi	328,550	485,850	101%	49%	19%	24%	2%	47%
Missouri	489,345	454,744	100%	53%	18%	27%	4%	71%
Montana	87,934	189,956	73%	24%	18%	20%	2%	80%
Nebraska	216,965	384,041	108%	77%	24%	31%	1%	37%
Nevada	163,863	149,527	98%	53%	22%	24%	0%	41%
New Hampshire	117,112	82,107	86%	45%	2%	3%	3%	42%
New Jersey	996,118	513,579	101%	58%	7%	13%	3%	77%
New Mexico	143,455	234,067	53%	5%	14%	20%	3%	68%
New York	1,338,798	742,787	99%	61%	9%	18%	6%	64%
North Carolina	741,329	478,154	100%	59%	8%	12%	3%	55%
North Dakota	219,235	574,479	77%	44%	18%	22%	2%	59%
Ohio	1,085,222	980,297	98%	42%	12%	22%	1%	31%
Oklahoma	295,369	430,806	86%	47%	15%	23%	0%	57%
Oregon	303,482	310,063	91%	65%	14%	20%	0%	86%
Pennsylvania	1,137,664	896,629	99%	40%	14%	24%	3%	68%
Rhode Island	79,914	49,725	94%	61%	4%	10%	9%	63%
South Carolina	453,333	311,857	116%	75%	12%	16%	3%	68%
South Dakota	84,806	181,706	88%	48%	16%	19%	1%	74%
Tennessee	813,098	551,523	109%	46%	27%	28%	3%	60%
Texas	3,132,697	3,403,458	89%	46%	15%	31%	1%	56%
Utah	248,901	227,627	101%	45%	13%	24%	0%	80%
Vermont	54,056	40,600	97%	33%	6%	7%	2%	56%
Virginia	537,771	504,353	91%	40%	11%	18%	1%	81%
Washington	618,140	607,123	114%	44%	8%	15%	6%	52%
West Virginia	125,576	307,107	79%	-7%	19%	19%	13%	78%
Wisconsin	566,595	601,547	85%	47%	13%	19%	1%	51%
Wyoming	62,042	356,064	89%	-4%	28%	31%	4%	75%
U.S. Total	28,234,355	26,131,271	96%	44%	13%	22%	3%	59%

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