Throttled: The Economic Costs of Freight Bottlenecks

By ARTBA Chief Economist Dr. Alison Premo Black

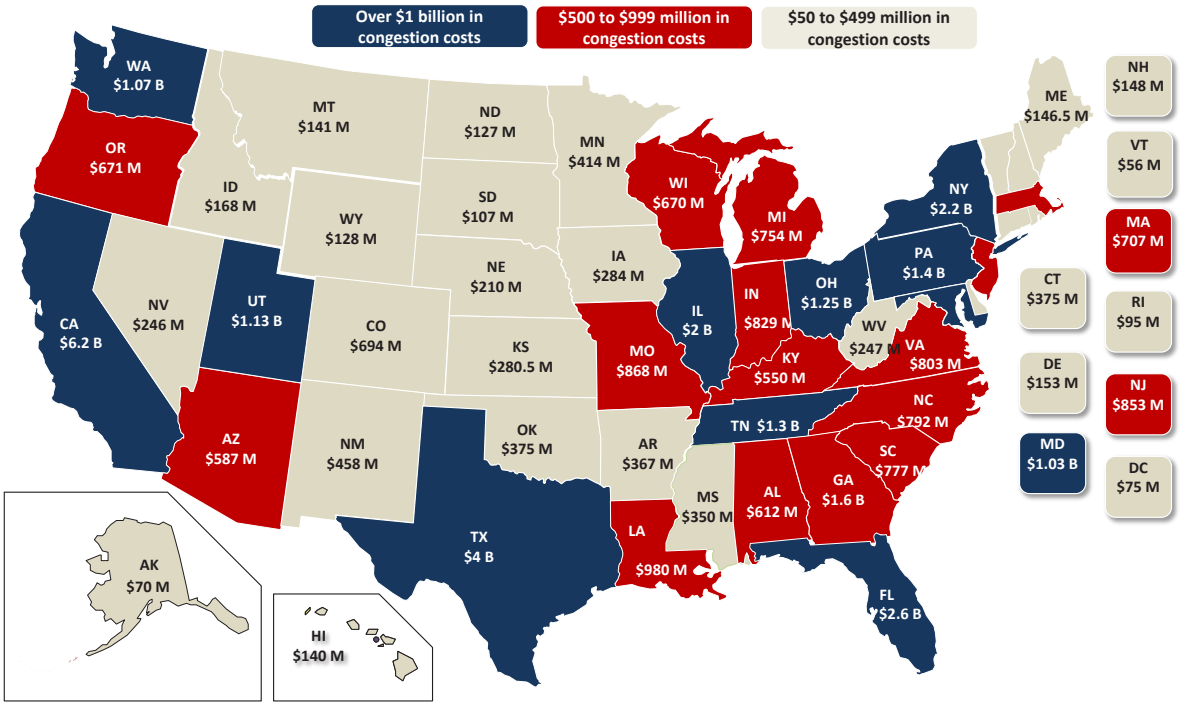
The U.S. economy lost over $42 billion in 2019 as trucks packed with goods and products got snarled in traffic, a cost borne throughout the entire economy. Data released in late 2020 by the Federal Highway Administration (FHWA) and analyzed by the American Road & Transportation Builders Association (ARTBA) shows:

- Congestion costs on the Interstate Highway System grew 25 percent over the last two years—from $12 billion in 2017 to over $15 billion in 2019.
- Major chokepoints include New York, Chicago, Los Angeles, Austin, Houston, Nashville, San Francisco, Seattle, Philadelphia, and Atlanta.
- Highway freight shipments collectively experienced over 27 million days of delay in 2019, the equivalent of nearly 75,000 years, with over one-third of the lost time occurring on the Interstates.

Nearly 73 percent of the value of domestic freight is shipped via truck and the value of truck shipments is expected to more than double by 2045, according to ARTBA's analysis of FHWA's data. The agency calculates the delay per mile to quantify the cost of bottlenecks across major corridors and compare performance from year to year.[1]

The following two pages break down the costs and lost hours by state and feature a list of the top 25 bottlenecks. The data reinforce that improving freight mobility should be a priority for any federal infrastructure measure or surface transportation reauthorization bill.

Congestion From Highway Freight Bottlenecks Cost Over $42 Billion in 2019



Source: Federal Highway Administration

[1]FHWA calculates delay for each 15-minute time period as the difference between actual travel time and "reference" travel time. According to FHWA, "the reference travel time is based on the 85th percentile speed during off-peak and overnight time periods."

ARTBA American Road & Transportation Builders Association

Cost of Highway Freight Bottlenecks, 2019		
State	Total Cost (in millions)	Hours of Delay (millions of hours)
Alabama	$611.9	9.6
Alaska	$69.6	1.1
Arizona	$587.1	9.1
Arkansas	$366.9	5.8
California	$6,200.7	96.5
Colorado	$694.2	10.8
Connecticut	$375.3	5.9
Delaware	$152.6	2.4
District of Columbia	$74.6	1.2
Florida	$2,600.5	40.4
Georgia	$1,668.9	25.9
Hawaii	$139.6	2.4
Idaho	$168.3	2.6
Illinois	$2,020.0	31.5
Indiana	$829.4	13.0
Iowa	$283.6	4.5
Kansas	$280.5	4.4
Kentucky	$550.0	8.6
Louisiana	$979.6	15.3
Maine	$146.5	2.3
Maryland	$1,032.7	16.1
Massachusetts	$706.8	11.1
Michigan	$754.4	11.8
Minnesota	$413.7	6.5
Mississippi	$350.0	5.5
Missouri	$868.3	13.6
Montana	$140.9	2.2
Nebraska	$209.7	3.3
Nevada	$245.8	3.9
New Hampshire	$148.2	2.3
New Jersey	$852.6	13.3
New Mexico	$457.5	7.2
New York	$2,207.1	34.5
North Carolina	$791.9	12.4
North Dakota	$126.8	2.0
Ohio	$1,250.5	19.7
Oklahoma	$375.2	5.9
Oregon	$671.3	10.5
Pennsylvania	$1,421.3	22.3
Rhode Island	$94.7	1.5
South Carolina	$776.6	12.1
South Dakota	$107.4	1.7
Tennessee	$1,290.0	20.1
Texas	$3,988.0	62.0
Utah	$1,128.4	17.6
Vermont	$56.4	0.9
Virginia	$803.5	12.5
Washington	$1,065.3	16.7
West Virginia	$247.1	3.9
Wisconsin	$669.8	10.6
Wyoming	$128.2	2.0
Total	**$42,179.7**	**658.9**

Top 25 Major Highway Freight Bottlenecks, Ranked by FHWA for Hours of Delay per Mile, 2019								
2019 Rank	Road	Location	Generalized Bottleneck Location/ Congested Corridor	Length (Miles)	Average Annual Daily Truck Traffic	Hours of Delay	Hours of Delay per Mile	Total Cost of Congestion on the Corridor
1	I-95/I-295	New York, NY/ NJ	I-278/I-678 to NJ side of GW Bridge/SR-4	8.2	19,110	336,775	263,116	$76,000,000
2	I-90/I-94	Chicago, IL	I-94N to I-55	10.5	16,006	257,845	140,942	$86,900,000
3	I-605	Los Angeles, CA	I-5 to SR-60	6.5	21,926	365,837	139,777	$62,500,000
4	I-35	Austin, TX	Airport Blvd to Stassney Ln	7.9	22,148	231,906	111,359	$109,900,000
5	I-610	Houston, TX	I-69 to I-10	3.8	14,758	104,501	104,009	$60,800,000
6	I-678	New York, NY	I-495 to Belt Parkway and I-295/I-95 to south end Bronx-Whitestone Bridge	5.8 2.9	13,020	134,371	100,237	$40,000,000
7	I-405	Los Angeles, CA	At SR-73 and I-105 to SR-42 Manchester Blvd	7.5	24,278	238,811	95,686	$147,800,000
8	I-290	Chicago, IL	I-90/I-94 to I-290	13.5	17,452	162,175	94,778	$59,700,000
9	I-69/US-59	Houston, TX	Buffalo Speedway to I-45	4.4	13,662	187,114	89,185	$57,800,000
10	I-278	New York, NY	I-95/I-678 to Grand Central Pkwy. and SR-27 Prospect Expy. to SR-29 Queens Blvd.	7.7 9.2	13,214	708,920	88,339	$147,000,000
11	I-24	Nashville, TN	US-41 to SR-155	5.8	25,550	122,135	86,920	$52,200,000
12	I-10	Los Angeles, CA	20th Street to I-5 and at I-605	15.3 6	14,072	217,248	86,745	$164,100,000
13	I-710	Los Angeles, CA	Cesar Chavez Ave. to Atlantic Blvd.	3	13,666	117,160	85,730	$47,500,000
14	I-45	Houston, TX	US-90 to I-69	3.5	14,368	137,629	84,471	$58,800,000
15	I-680	San Francisco, CA	SR-262 to SR-238	4.3	12,812	215,782	81,240	$14,000,000
16	I-495	New York, NY	Little Neck Parkway to Queens Midtown Tunnel	14.3	17,976	256,729	70,916	$112,400,000
17	I-5	Seattle, WA	SR-16 to SR-18 and I-90 to 85th St	9.6 7.1	13,752	139,061	69,732	$62,500,000
18	I-5	Los Angeles, CA	SR-134 Ventura Fwy. to I-605	19.8	14,194	164,580	68,560	$123,200,000
19	I-76	Philadelphia, PA	University Ave to US-1	6.2	9,210	82,470	67,019	$37,500,000
20	I-87	New York, NY	I-278 to 230th Street	5.9	9,800	166,565	64,891	$25,100,000
21	I-105	Los Angeles, CA	I-405 to SR-19	13.7	14,794	131,310	64,807	$56,800,000
22	I-75/I-85	Atlanta, GA	I-20 to I-75/I-85 split	4.2	14,710	43,279	63,432	$19,300,000
23	I-10	New Orleans, LA	I-610 to Pontchartrain Expy.	3.7	28,358	567,191	61,114	$73,000,000
24	I-10	Lake Charles, LA	At I-210	9.3	28,358	567,191	61,114	$31,500,000
25	I-210	Los Angeles, CA	SR-39/164 Azusa Ave to SR-19 Rosemead Blvd	10	20,014	155,249	60,414	$67,600,000

About the Author

Dr. Alison Premo Black, a certified association executive, has led the development of more than 100 studies examining national and state transportation funding and investment patterns, including ARTBA's landmark economic profile of the transportation construction industry, state bridge condition profiles and annual modal forecast. She is regularly featured as an industry expert for national and local print, television and radio, including the: NBC TODAY show, Washington Post, National Public Radio, USA Today, Wall Street Journal, Economist and construction industry publications. She has also testified before legislative committees in Illinois, Tennessee, Kansas, North Carolina and Pennsylvania.

Dr. Black completed her Ph.D. in economics at The George Washington University and has a master's in international economics and Latin American studies from the Johns Hopkins School of Advanced International Studies.